



Lexmark™

CX825, CX860, XC8155, XC8160, XC8163 MFPs

7564-336, -337, -536, -537, -596, -598

Service Manual

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Product information

Product name:

Lexmark CX825, CX860, XC8155, XC8160, XC8163 MFPs

Machine type:

7564

Model(s):

336, 337, 536, 537, 596, 598

Edition notice

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Notices, conventions, and safety information

Laser notice

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, Chapter I, Subchapter J for Class I (1) laser products, and elsewhere is certified as a Class I laser product conforming to the requirements of IEC 60825-1: 2014.

Class I laser products are not considered to be hazardous. The printer contains a Class IIIb (3b) AlGaAs laser that is nominally 20 milliwatts operating in the wavelength region of 755–800 nanometers and enclosed in a non-serviceable printhead assembly. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service conditions.

Avis relatif à l'utilisation du laser

Cette imprimante est certifiée conforme aux exigences de la réglementation des Etats-Unis relative aux produits laser de classe I (1) (DHHS 21 CFR, Chapitre I, Sous-chapitre J). Pour les autres pays, elle est certifiée conforme aux exigences des normes CEI 60825-1: 2014 relatives aux produits laser de classe I.

Les produits laser de Classe I ne sont pas considérés comme dangereux. L'imprimante contient un dispositif laser AlGaAs (arséniure de gallium-aluminium) de classe IIIb (3b) d'une puissance nominale de 20 milliwatts fonctionnant dans la plage de longueurs d'onde allant de 755 à 800 nanomètres et scellé dans un compartiment de têtes d'impression non réparable. Le système laser ainsi que l'imprimante ont été conçus de manière à ce que personne ne soit jamais exposé à des radiations laser dépassant le niveau de classe I dans le cadre d'un fonctionnement normal, de l'entretien par l'utilisateur ou de la maintenance.

Notificació del làser

La impressora està certificada als EUA per complir els requeriments de DHHS 21 CFR, capítol I, subcapítol J per a productes de làser Classe I (1), i a la resta del món s'ha certificat com productes de làser Classe I segons els requeriments de la norma IEC 60825-1: 2014.

Els productes de làser Classe I no es consideren perillosos. La impressora conté un làser intern Classe IIIb (3b) AlGaAs que normalment és de 20 miliwatts, que funciona a la regió de longitud d'ona de 755 a 800 nanòmetres i es troba dins d'una unitat de capçals d'impressió no substituïbles. El sistema làser i la impressora estan dissenyats de manera que les persones no estiguin exposades a una radiació del làser superior al nivell de Classe I durant el funcionament normal, el manteniment de l'usuari o les condicions de servei prescrites.

Aviso de láser

Esta impresora se ha certificado en EE.UU. cumpliendo con los requisitos de DHHS 21 CFR, capítulo I, subcapítulo J para los productos láser de Clase I (1) y en otros países está certificada como un producto láser de Clase I de acuerdo con los requisitos de IEC 60825-1: 2014.

Los productos láser de Clase I no se consideran peligrosos. Este producto contiene un láser interno de Clase IIIb (3b) AlGaAs que opera nominalmente a 20 milivatios en una longitud de onda de 755-800 nanómetros cerrado en un conjunto de cabezal de impresión que no se puede reparar. El sistema láser y la impresora se han diseñado para que el ser humano no acceda nunca a las radiaciones láser por encima del nivel de Clase I durante su uso normal, ni en tareas de mantenimiento o intervenciones de servicio técnico prescritas.

Aviso sobre laser

Esta impressora foi certificada nos EUA por estar em conformidade com os requisitos do DHHS 21 CFR capítulo I, subcapítulo J, para produtos a laser de Classe I (1) e, nos demais países, foi certificada como um produto a laser de Classe I em conformidade com os requisitos da IEC 60825-1: 2014.

Os produtos a laser de Classe I não são considerados prejudiciais. A impressora contém, internamente, um laser de Classe IIIb (3b) AlGaAs que funciona nominalmente a 20 miliwatts no comprimento de onda de 755-800 nanômetros, incluso em um conjunto do cabeçote de impressão sem possibilidade de manutenção. O sistema do laser e a impressora foram projetados para que jamais haja acesso humano à radiação do laser acima do nível da Classe I durante a operação normal ou a manutenção pelo usuário ou sob as condições de manutenção prescritas.

Avvertenze sui prodotti laser

La stampante è certificata negli Stati Uniti come prodotto conforme ai requisiti DHHS 21 CFR Capitolo I, Sottocapitolo J per i prodotti laser di Classe I (1), mentre in altri paesi è certificata come prodotto laser di Classe I conforme ai requisiti IEC 60825-1: 2014.

I prodotti laser di Classe I non sono considerati pericolosi. La stampante contiene internamente un laser AlGaAs di Classe IIIb (3b) con valore nominale di 20 milliwatt, funzionante nella regione della lunghezza d'onda dei 755-800 nanometri e contenuto in un gruppo testina di stampa non riparabile. Il sistema laser e la stampante sono stati progettati in modo da impedire l'esposizione a radiazioni laser superiori al livello previsto dalla Classe I durante le normali operazioni di stampa, manutenzione o assistenza.

Laserinformatie

De printer is in de Verenigde Staten gecertificeerd als een product dat voldoet aan de vereisten van DHHS 21 CFR hoofdstuk 1, paragraaf J voor laserproducten van klasse I (1). Elders is de printer gecertificeerd als een laserproduct van klasse I dat voldoet aan de vereisten van IEC 60825-1: 2014.

Laserproducten van klasse I worden geacht geen gevaar op te leveren. De printer bevat intern een laser van klasse IIIb (3b) AlGaAs met een nominaal vermogen van 20 milliwatt in een golflengtebereik van 755-800 nanometer in een niet-buikbare printkopenheid. Het lasersysteem en de printer zijn zodanig ontworpen dat gebruikers nooit blootstaan aan laserstraling die hoger is dan het toegestane niveau voor klasse I-apparaten, tijdens normaal gebruik, onderhoudswerkzaamheden door de gebruiker of voorgeschreven servicewerkzaamheden.

Lasererklæring

Printeren er certificeret i USA i henhold til kravene i DHHS 21 CFR kapitel I, underafsnit J for klasse I (1) laserprodukter og er andre steder certificeret som et klasse I-laserprodukt i henhold til kravene i IEC 60825-1: 2014.

Klasse I-laserprodukter er ikke anset som farlige. Printeren indeholder internt en Klasse IIIb (3b) AlGaAs-laser, der nominelt er en 20 milliwatt laser, som fungerer i bølglængdeområdet 755–800 nanometer og indbygget i en printhovedenhed, der ikke er servicérbar. Lasersystemet og printeren er designet på en sådan måde, at der ikke er en direkte laserstråling, der overskrider Klasse I-niveauet under normal brug, brugers vedligeholdelse eller de foreskrevne servicebetingelser.

Laser-Hinweis

Der Drucker wurde in den USA zertifiziert und entspricht den Anforderungen der Vorschriften DHHS 21 CFR Kapitel I für Laserprodukte der Klasse I (1), andernorts ist er als Laserprodukt der Klasse I zertifiziert, das den Anforderungen von IEC 60825-1: 2014 entspricht.

Laserprodukte der Klasse I werden nicht als gefährlich betrachtet. Der Drucker enthält im Inneren einen Laser der Klasse IIIb (3b) AlGaAs mit 20 Milliwatt, im Wellenlängenbereich von 755 bis 800 Nanometern arbeitet. Dieser befindet sich in einer Druckkopfeinheit, die nicht gewartet werden kann. Das Lasersystem und der Drucker sind so konstruiert, dass unter normalen Betriebsbedingungen, bei der Wartung durch den Benutzer oder bei den vorgeschriebenen Wartungsbedingungen Menschen keiner Laserstrahlung ausgesetzt sind, die die Werte für Klasse I überschreitet.

Laserilmoitus

Tämä tulostin on sertifioitu Yhdysvalloissa DHHS 21 CFR, Chapter I, Subchapter J -standardin mukaiseksi luokan I (1) -lasertuotteeksi ja muualla IEC 60825-1: 2014 -standardin mukaiseksi luokan I lasertuotteeksi.

Luokan I lasertuotteita ei pidetä haitallisina. Tulostimen sisällä on luokan IIIb (3b) AlGaAs -laser, jonka nimellisteho on 20 mW milliwatts, joka toimii 755–800 nanometrinen aallonpituuksilla ja joka on suljettu tulostuspäähän, jota käyttäjä ei voi huoltaa. Laserjärjestelmä ja tulostin ovat rakenteeltaan sellaisia, että käyttäjä ei joudu alttiiksi luokkaa 1 suuremmalle säteilylle normaalin käytön, ylläpidon tai huollon aikana.

Lasermerknad

Skriveren er sertifisert i USA for samsvar med kravene i DHHS 21 CFR, kapittel I, underkapittel J for laserprodukter av klasse I (1) og er andre steder sertifisert som et laserprodukt av klasse I som samsvarer med kravene i IEC 60825-1: 2014.

Laserprodukter av klasse I anses ikke som helseskadelige. Skriveren inneholder en intern AlGaAs-laser av klasse IIIb (3b) på nominelt 20 milliwatt, som opererer i bølgelengder på 755–800 nanometer, inne i en skrivhodeenhet som ikke kan vedlikeholdes. Lasersystemet og skriveren er utformet slik at mennesker ikke utsettes for laserstråling utover nivået i klasse I under normal drift, vedlikehold eller foreskrevet service.

Meddelande om laser

Skrivaren är certifierad i USA i enlighet med kraven i DHHS 21 CFR kapitel I, underkapitel J för klass I (1)-laserprodukter, och på andra platser certifierad som en klass I-laserprodukt i enlighet med kraven i IEC 60825-1: 2014.

Laserprodukter av klass I anses inte vara skadliga. Skrivaren innehåller en klass IIIb (3b) AlGaAs-laser på nominellt 20 mW som arbetar inom en våglängd på 755-800 nm och är innesluten i en icke-servicebar skrivhuvudenhet. Lasersystemet och skrivaren är utformade så att människor aldrig utsätts för laserstrålning över klass I-nivå under normala förhållanden vid användning, underhåll eller service.

レーザーについて

本機は、米国においてクラス I (1) レーザー製品に対する DHHS 21 CFR、Chapter I、Subchapter J の要件に準拠し、その他の国では IEC 60825-1: 2014 の要件に準拠するクラス I レーザー製品として認可されています。

クラス I レーザー製品は、危険性がないとみなされています。本機には、クラス IIIb (3b) AlGaAs レーザーが内蔵されています。これは、755 ~ 800 ナノメートルの波長で、定格 20 ミリワットで動作するレーザーであり、整備不可のプリントヘッドアセンブリに収容されています。レーザーシステムとプリンタは、

通常の操作、ユーザーによるメンテナンス、または所定のサービス条件の下で、ユーザーがクラス I レベルを超えるレーザー放射に絶対にさらされないように設計されています。

레이저 고지사항

프린터는 미국에서 레이저 제품용 DHHS 21 CFR Chapter I, Subchapter J의 요구 사항을 준수하며 이외 지역에서 IEC 60825-1: 2014의 요구 사항을 준수하는 클래스 I(1) 레이저 제품으로 승인되었습니다.

Class I 레이저 제품은 위험한 제품으로 간주되지 않습니다. 프린터에는 755~800 나노미터 범위의 파장 영역에서 공칭 작동하는 20밀리와트 AlGaAs 레이저인 클래스 IIIb(3b) 레이저가 내부에 포함되어 있으며 서비스 불가 프린트 헤드 어셈블리가 포함되어 있습니다. 레이저 시스템과 프린터는 정상적인 작동, 사용자 유지 관리 또는 사전 설명된 서비스 조건에는 사람에게 클래스 I 수준 이상의 레이저 방사가 노출되지 않도록 설계되었습니다.

激光注意事项

本打印机在美国认证合乎 DHHS 21 CFR Chapter I, Subchapter J 对分类 I (1) 激光产品的标准, 而在其他地区则被认证是合乎 IEC 60825-1: 2014 的分类 I 激光产品。

一般认为分类 I 激光产品不具有危险性。本打印机内部含有分类 IIIb (3b) 的砷化铝镓激光, 标称值为 20 毫瓦, 其工作波长范围在 755-800nm 之间, 并被封闭在不可维修的打印头配件中。本激光系统及打印机的设计, 在一般操作、使用者维护或规定内的维修情况下, 不会使人体接触分类 I 以上等级的辐射。

雷射聲明

本印表機係經過美國核可, 符合 DHHS 21 CFR, Chapter I, Subchapter J 規定的 I (1) 級雷射產品; 在美國以外的地區, 為符合 IEC 60825-1: 2014 規定的 I 級雷射產品。

根據 I 級雷射產品的規定, 這類產品不會對人體造成傷害。本印表機所採用之 IIIb (3b) 級 AlGaAs 雷射在 755 至 800 奈米 (nanometer) 波長範圍內運作時通常為 20 毫瓦特 (milliwatt), 且含括在不可修復列印頭組件中。使用者只要以正確的方法操作及維護保養, 並依照先前所述之維修方式進行修護, 此印表機與其雷射系統絕不會產生 I 級以上的放射線, 而對人體造成傷害。






Conventions

Note: A *note* identifies information that could help you.

Warning: A *warning* identifies something that could damage the product hardware or software.

CAUTION: A *caution* indicates a potentially hazardous situation that could injure you.

Different types of caution statements include:

-  **CAUTION—POTENTIAL INJURY:** Indicates a risk of injury.
-  **CAUTION—SHOCK HAZARD:** Indicates a risk of electrical shock.
-  **CAUTION—HOT SURFACE:** Indicates a risk of burn if touched.
-  **CAUTION—TIPPING HAZARD:** Indicates a crush hazard.
-  **CAUTION—PINCH HAZARD:** Indicates a risk of being caught between moving parts.



CAUTION—ROTATING FAN BLADES: Indicates a risk of laceration from moving fan blades.

Safety information

- The safety of this product is based on testing and approvals of the original design and specific components. The manufacturer is not responsible for safety in the event of use of unauthorized replacement parts.
- The maintenance information for this product has been prepared for use by a professional service person and is not intended to be used by others.
- There may be an increased risk of electrical shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this risk and take necessary precautions.



CAUTION—SHOCK HAZARD: When you see this symbol, there is a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you begin, or use caution if the product must receive power in order to perform the task.



CAUTION—POTENTIAL INJURY: The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

Consignes de sécurité

- La sécurité de ce produit est basée sur des tests et certifications de sa conception d'origine et de ses composants spécifiques. Le fabricant décline toute responsabilité en cas d'utilisation de pièces de rechange non autorisées.
- Les informations de maintenance de ce produit sont destinées à des professionnels qualifiés et ne sont pas conçues pour être utilisées par d'autres personnes.
- Il existe un risque potentiel de choc électrique et de blessures lors du démontage et de la maintenance de ce produit. Le personnel professionnel de maintenance doit comprendre les risques et prendre les précautions nécessaires.





ATTENTION—RISQUE D'ELECTROCUTION : Ce symbole indique un danger lié à des niveaux de tension dangereux dans la zone du produit à manipuler. Débranchez le produit avant de commencer, ou agissez avec prudence si le produit doit être alimenté pour effectuer l'opération.



ATTENTION—RISQUE DE BLESSURE : La batterie lithium de ce produit n'est pas destinée à être remplacée. Si vous ne respectez pas les instructions de remplacement de la batterie, vous risquez de provoquer une explosion. Ne rechargez pas, ne désassemblez pas et ne brûlez pas la batterie au lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.


Informació de seguretat


- La seguretat d'aquest producte es basa en les proves i les homologacions del disseny original i dels components específics. El fabricant no és responsable de la seguretat en el cas d'ús de peces de recanvi no autoritzades.
- La informació de manteniment d'aquest producte s'ha preparat per a l'ús d'un professional tècnic i no per a l'ús d'altres persones.
- És possible que el risc de descàrrega elèctrica i lesions personals augmenti durant el desmuntatge i les tasques de manteniment d'aquest producte. El professional tècnic ha de comprendre aquest risc i prendre les precaucions necessàries.

-  **PRECAUCIÓ. PERILL DE DESCÀRREGA ELÈCTRICA:** Quan vegeu aquest símbol, indica que hi ha un perill de voltatge elevat en l'àrea del producte on esteu treballant. Desconnecteu el producte abans de començar o tingueu precaució si el producte ha de rebre alimentació per realitzar la tasca.
-  **PRECAUCIÓ. POSSIBLES DANYS:** La bateria de liti d'aquest producte no ha estat dissenyada perquè se substitueixi. Hi ha perill d'explosió si no es substitueix correctament la bateria de liti. No recarregueu, desmunteu o incinereu una bateria de liti. Desfeu-vos de les bateries de liti usades d'acord amb les instruccions del fabricant i les regulacions locals.

Información de seguridad


- La seguridad de este producto se basa en las pruebas y comprobaciones del diseño original y los componentes específicos. El fabricante no se hace responsable de la seguridad en caso de uso de piezas de repuesto no autorizadas.
- La información de mantenimiento de este producto se ha preparado para su uso por parte de un profesional de asistencia técnica y no está diseñada para su uso por parte de otros usuarios.
- Es posible que haya un mayor riesgo de descarga eléctrica y daños personales durante el desmontaje y el mantenimiento de este producto. El personal de asistencia profesional debe conocer este riesgo y tomar las precauciones necesarias.


 **PRECAUCIÓN: PELIGRO DE DESCARGAS ELÉCTRICAS:** Cuando vea este símbolo, existe peligro de tensiones peligrosas en el área del producto en la que está trabajando. Desconecte el producto antes de empezar o tenga cuidado si el producto debe recibir alimentación a fin de realizar la tarea.

 **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio usadas según las instrucciones del fabricante y las normativas locales.

Informações sobre segurança

- A segurança deste produto é baseada em testes e aprovações do design original e de componentes específicos. O fabricante não é responsável por segurança em caso de uso não autorizado de peças de substituição.
- As informações sobre manutenção deste produto foram preparadas para utilização por um técnico profissional experiente e não se destinam ao uso por outros.
- Pode haver maior risco de choque elétrico e danos pessoais durante a desmontagem e manutenção deste produto. Os técnicos profissionais experientes devem entender esses riscos e tomar as precauções necessárias.


 **ATENÇÃO—RISCO DE CHOQUE:** Se você vir este símbolo, existe perigo de tensão elétrica na área do produto onde está trabalhando. Desligue o produto antes de começar ou tenha cuidado se o produto precisar receber energia para executar a tarefa.


 **ATENÇÃO—RISCO DE FERIMENTO:** A bateria de lítio neste produto não deve ser substituída. Existe o risco de explosão se uma bateria de lítio for substituída incorretamente. Não recarregue, desmonte nem incinere uma bateria de lítio. Descarte as baterias de lítio usadas de acordo com as instruções do fabricante e regulamentos locais.

Informazioni sulla sicurezza

- La sicurezza di questo prodotto è basata sui test e sulle approvazioni del design originale e dei componenti specifici. Il produttore non è responsabile della sicurezza in caso di utilizzo di parti di ricambio non autorizzate.

- Le informazioni di manutenzione per questo prodotto sono state predisposte per essere utilizzate da un tecnico dell'assistenza professionale e non sono state previste per l'uso da parte di altre persone.
- È possibile che vi sia un maggior rischio di scosse elettriche e lesioni personali durante lo smontaggio e la manutenzione di questo prodotto. Il personale dell'assistenza deve comprendere questo rischio e prendere le precauzioni necessarie.


 **ATTENZIONE - PERICOLO DI SCOSSE ELETTRICHE:** Questo simbolo indica la presenza di un rischio per tensioni pericolose nell'area del prodotto in cui si lavora. Scollegare l'alimentazione prima di iniziare, o prestare la massima attenzione se per effettuare l'operazione il prodotto deve ricevere l'alimentazione.

 **ATTENZIONE - PERICOLO DI LESIONI:** La batteria al litio contenuto nel prodotto non deve essere sostituita: in caso di sostituzione errata della batteria al litio, potrebbe verificarsi un'esplosione. Non ricaricare, smontare o bruciare batterie al litio. Smaltire le batterie al litio usate seguendo le istruzioni del produttore e le norme locali.

Informatie over veiligheid


- De veiligheid van dit product is gebaseerd op testen en goedkeuringen van het oorspronkelijke ontwerp en specifieke onderdelen. De fabrikant is niet verantwoordelijk voor de veiligheid bij gebruik van ongeautoriseerde vervangende onderdelen.
- De informatie over het onderhoud van dit product is opgesteld voor gebruik door een professionele onderhoudsmonteur en is niet bedoeld voor gebruik door anderen.
- Tijdens demontage en onderhoud van dit product bestaat mogelijk een hoger risico op elektrische schokken en lichamelijk letsel. Professionele onderhoudsmonteurs dienen op de hoogte te zijn van dit risico en de noodzakelijke voorzorgsmaatregelen te nemen.


 **LET OP: GEVAAR VOOR ELEKTRISCHE SCHOKKEN:** Wanneer u dit symbool ziet, bestaat er een gevaar voor gevaarlijke spanning in het gebied van het product waaraan u werkt. Haal de stekker van het product uit het stopcontact voordat u begint, of let extra goed op als het product stroom nodig heeft om een taak te kunnen uitvoeren.

 **LET OP: RISICO OP LETSEL:** De lithiumbatterij in dit product moet niet worden vervangen. Wanneer de lithiumbatterij niet juist wordt vervangen, bestaat er explosiegevaar. Probeer nooit lithiumbatterijen op te laden, open te maken of te verbranden. Gooi gebruikte lithiumbatterijen weg volgens de aanwijzingen van de fabrikant en houd hierbij de plaatselijke regelgeving in acht.

Sikkerhedsoplysninger


- Sikkerheden for dette produkt er baseret på afprøvning og godkendelser af det oprindelige design og specifikke komponenter. Producenten er ikke ansvarlig for sikkerhed i tilfælde af brug af uautoriserede dele til udskiftning.
- Vedligeholdelsesoplysninger om dette produkt er udarbejdet til brug af en kvalificeret servicetekniker og er ikke beregnet til at blive brugt af andre.
- Der kan være en forøget risiko for elektrisk stød eller personskade ved afmontering og service af dette produkt. Professionelt servicepersonale bør forstå denne risiko og tage nødvendige forholdsregler.


 **FORSIGTIG - ELEKTRISK STØD:** Når du ser dette symbol, er der risiko for elektrisk spænding i nærheden af produktet, hvor du arbejder. Tag strømskikket ud inden du begynder, eller udvis forsigtighed, hvis produktet skal modtage strøm for at udføre opgaven.

-  **FORSIGTIG - RISIKO FOR SKADE:** Litium-batteriet i dette produkt er ikke beregnet til at blive udskiftet. Der er fare for eksplosion, hvis et litium-batteri udskiftes forkert. Du må ikke genoplade, demontere eller afbrænde et litium-batteri. Brugte litium-batterier skal bortskaffes i overensstemmelse med producentens instruktioner og lokale retningslinjer.

Sikkerheitshinweise


- Die Sicherheit dieses Produkts basiert auf Tests und Zulassungen des Originaldesigns und der spezifischen Komponenten. Sofern nicht autorisierte Ersatzteile eingesetzt werden, übernimmt der Hersteller keinerlei Verantwortung in Bezug auf die Sicherheit dieses Produkts.
- Die Wartungsinformationen für dieses Produkt wurden für ausgebildete Servicemitarbeiter zusammengestellt und dürfen nicht von anderen verwendet werden.
- Möglicherweise besteht bei der Demontage und Wartung dieses Produkts eine erhöhte Stromschlag- und Verletzungsgefahr. Ausgebildete Servicemitarbeiter sollten sich dieser Gefahr bewusst sein und die notwendigen Vorsichtsmaßnahmen ergreifen.


 **VORSICHT – STROMSCHLAGGEFAHR:** Wenn Sie dieses Symbol sehen, besteht eine Gefahr durch gefährliche Spannungen in dem Produktbereich, in dem Sie arbeiten. Trennen Sie das Produkt von seiner Stromverbindung, bevor Sie beginnen, oder gehen Sie vorsichtig vor, wenn das Produkt für die Durchführung der Aufgabe mit Strom versorgt werden muss.

 **VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR** Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Turvallisuusohjeet



- Tämän laitteen turvallisuus perustuu alkuperäisen rakenteen ja tiettyjen osien testaukseen ja hyväksymiseen. Valmistaja ei vastaa turvallisuudessa, jos laitteessa on käytetty luvattomia vaihto-osia.
- Tämän tuotteen huoltoa koskevat tiedot on tarkoitettu vain ammattitaitoisen huoltohenkilön käyttöön.
- Tämän tuotteen purkamiseen ja huoltoon voi liittyä kasvanut sähköiskun tai henkilövahingon vaara. Ammattitaitoisen huoltohenkilön on ymmärrettävä tämä vaara ja toimittava sen edellyttämällä tavalla.

 **HUOMIO – SÄHKÖISKUN VAARA:** Tämä symboli ilmaisee, että tuotteen työskentelyalueella on olemassa vaarallinen jännite. Irrota laite verkkovirrasta ennen kuin aloitat tai toimi erittäin varovasti, jos laitteessa on oltava virta työn aikana.



 **HUOMIO – TAPATURMAN MAHDOLLISUUS:** Tuotteessa olevaa litiumakkua ei ole tarkoitettu vaihdettavaksi. Litiumakun poistaminen väärin aiheuttaa räjähdysvaaran. Älä lataa, pura tai polta litiumakkua. Hävitä käytetyt litiumakut valmistajan ohjeiden ja paikallisten säädösten mukaisesti.

Sikkerhetsinformasjon



- Sikkerheten til dette produktet er basert på testing og godkjenning av originaldesignet og bestemte komponenter. Produsenten er ikke ansvarlig for sikkerheten ved bruk av uautoriserte reservedeler.
- Vedlikeholdsinformasjonen for dette produktet er tilrettelagt for bruk av profesjonelt servicepersonale, og er ikke ment for bruk av andre.
- Det kan være en økt risiko for elektrisk støt og personskade under demontering og vedlikehold av produktet. Profesjonelt servicepersonell må være innforstått med denne risikoen og ta nødvendige forholdsregler.

-  **FORSIKTIG – FARE FOR STØT:** Dette symbolet betyr at det er fare for farlig spenning i det området av produktet der du arbeider. Koble fra produktet før du begynner, eller vær forsiktig hvis produktet må ha strøm for å kunne utføre oppgaven.
-  **FORSIKTIG – POTENSIELLE SKADER:** Litiumbatteriet i dette produktet er ikke beregnet for å byttes. Det er fare for eksplosjon hvis litiumbatteriet skiftes ut på feil måte. Ikke lad opp, demonter eller destruer et litiumbatteri. Kast brukte litiumbatterier i henhold til produsentens instruksjoner og lokale regelverk.

Säkerhetsinformation



- Säkerheten för denna produkt baseras på tester och godkännanden av ursprungsdesignen och av specifika komponenter. Tillverkaren har inget ansvar vid användning av oauktorerade reservdelar.
- Underhållsinformationen för produkten är avsedd att användas av utbildade servicetekniker och inte avsedd att användas av andra.
- Risken för elektriska stötar och personskador kan vara förhöjd vid isärtagning och service av produkten. Professionell servicepersonal bör vara medvetna om denna risk och vidta nödvändiga försiktighetsåtgärder.
-  **VAR FÖRSIKTIG– RISK FÖR ELEKTRISK STÖT:** När du ser denna symbol är det risk att det finns farlig spänning i den del av produkten du arbetar med. Koppla från strömmen innan du börjar, eller var försiktig om produkten måste vara strömförsörjd för att uppgiften ska kunna utföras.
-  **VAR FÖRSIKTIG – RISK FÖR SKADA:** Litiumbatteriet i produkten är inte utbytbart. Om ett litiumbatteri byts ut på fel sätt finns det risk att det exploderar. Du får inte ladda om, ta isär eller elda upp ett litiumbatteri. Gör dig av med använda litiumbatterier enligt tillverkarens instruktioner och lokala föreskrifter.

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安全信息

- 本产品的安全性以原始设计和特定组件的测试和审批为基础。如果使用未经授权的替换部件，制造商不对安全性负责。
- 本产品的维护信息仅供专业服务人员使用，并不打算由其他人使用。
- 本产品在拆卸和维修时，遭受电击和人员受伤的危险性会增高。专业服务人员对这点必须有所了解，并采取必要的预防措施。
-  **小心—电击危险:** 当您看到此符号时，在您工作的产品区域内存在危险电压的威胁。在您开始操作之前请拔掉产品电源，如果产品必须接收功率才能执行任务，请务必谨慎操作。
-  **小心—可能的伤害:** 本产品中的锂电池不可更换。如果不正确更换锂电池，可能会有爆炸危险。不要再充电、拆解或焚烧锂电池。丢弃旧的锂电池时应按照制造商的指导及当地法规进行处理。

安全資訊

- 本產品安全性係以原始設計及特定元件之測試與核准為依據。如有使用未獲授權替換組件之情形者，製造商對安全性概不負責。
- 本產品之維護資訊僅供專業維修人員使用，而非預定由他人使用。
- 拆裝及維修本產品時，有可能造成電擊與人員損傷之危險。專業維修人員應瞭解前項危險並採取必要措施。
-  **請當心—觸電危險:** 當您看到此符號時，表示您所在產品工作區有危險電壓。開始工作之前，請先拔掉產品電源線，若產品必須接上電源方能執行作業，用電時請務必小心。
-  **請當心—潛在受傷危險性:** 本產品中的鋰電池原本並不需要予以更換。若未正確更換鋰電池，可能會有爆炸的危險。請勿將鋰電池充電、拆裝或焚燒。請遵照製造商的指示及當地法規，丟棄用過的電池。

General caution statements

-  **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.
-  **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.
-  **CAUTION—POTENTIAL INJURY:** Do not use this product with extension cords, multioutlet power strips, multioutlet extenders, or UPS devices. The power capacity of these types of accessories can be easily overloaded by a laser printer and may result in a risk of fire, property damage, or poor printer performance.
-  **CAUTION—POTENTIAL INJURY:** Only a Lexmark Inline Surge Protector that is properly connected between the printer and the power cord provided with the printer may be used with this product. The use of non-Lexmark surge protection devices may result in a risk of fire, property damage, or poor printer performance.

Change history

Change history

October 13, 2021

- Added an installation note in the Fuser removal topic in the Parts removal chapter. See [“Fuser removal” on page 692](#).
- Updated the description of the following parts in the Control panel assembly in the Parts catalog chapter:
 - Bezel, 10.1-inch control panel to 10.1-inch control panel front cover (41X0224).
 - Model plate (CX825) to Bezel (CX825) (41X0902).
 - Model plate (CX860) to Bezel (CX860) (41X0903).
 - Model plate (XC8155) to Bezel (XC8155) (41X0904).
 - Model plate (XC8160) to Bezel (XC8160) (41X0905).
 - Model plate (XC8163) to Bezel (XC8163) (41X2859).
 See [“Control panel” on page 1411](#).
- Added Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020 notice in the Printer specifications chapter.

June 24, 2021

- Added the following parts in the ADF 3 assembly in the Parts catalog chapter:
 - PN 41X2701 Separator roller cover. See [“ADF 3” on page 1445](#)
- Updated the graphics in the ADF 3 assembly in the Parts catalog chapter. See [“ADF 3” on page 1445](#).

June 14, 2021

- Updated the Back side scan CCDM failure service check topic in the Diagnostics and troubleshooting chapter. See [“Back side scan CCDM failure service check” on page 529](#).
- Updated the Hard disk failure service check topic in the Diagnostics and troubleshooting chapter. See [“Hard disk failure service check” on page 435](#).
- Added the 900 error service check topic in the Diagnostics and troubleshooting chapter. See [“900 error service check” on page 532](#).
- Replaced the System software error service check with the 900 error service check topic in the Diagnostics and troubleshooting chapter.

April 5, 2021

- Updated Hard disk service check topic in the Diagnostics and troubleshooting chapter ([“Hard disk failure service check” on page 435](#)).
- Added video demonstration links for the following topics:
 - Toner cartridge contact (CMY) removal ([“Toner cartridge contact removal” on page 805](#))
 - ADF 1 removal ([“ADF removal” on page 819](#))
 - Developer/PC unit CMY wiper rail removal ([“Developer/PC unit CMY wiper rail removal” on page 765](#))
 - Motor (deskew) removal ([“Motor \(deskew\) removal” on page 698](#))

- Deskeew roller sensor guide removal ([“Deskeew roller sensor guide removal” on page 696](#))
- Deskeew roller removal ([“Registration” on page 1427](#))
- Smart chip interface board removal ([“Smart chip interface board removal” on page 804](#))
- Motor (duplex) removal ([“Duplex” on page 1413](#))
- Toner add gearbox removal ([“EP, developer, toner add gearbox removal” on page 796](#))
- Fuser/transfer belt motor gearbox removal ([“Fuser/transfer belt motor gearbox removal” on page 799](#))
- HVPS fan removal ([“HVPS fan removal” on page 750](#))
- Main HVPS removal ([“Main HVPS removal” on page 753](#))
- Sensor (input) removal ([“Sensor \(input\) removal” on page 711](#))
- Isolation roller shaft removal ([“Registration” on page 1427](#))
- Developer/PC unit K wiper rail removal ([“Developer/PC unit K wiper rail removal” on page 766](#))
- Printhead removal ([“Printhead removal” on page 725](#))
- Left door, duplex and MPF tray removal ([“Left door, duplex, and MPF removal” on page 701](#))
- LVPS removal ([“LVPS removal” on page 781](#))
- Printhead fan removal ([“Printhead fan removal” on page 723](#))
- PC unit/developer door removal ([“Developer unit and photoconductor unit removal” on page 739](#))
- Main fan removal ([“Main fan removal” on page 778](#))
- Motor (redrive) removal ([“Redrive” on page 1435](#))
- Redrive removal ([“Redrive removal” on page 709](#))
- Reference edge motor gearbox removal ([“Reference edge motor gearbox removal” on page 712](#))
- Toner add tube removal ([“Toner add tube removal” on page 807](#))
- Paper feeder removal ([“Paper feeder removal” on page 762](#))
- Sensor (media size) removal ([“Feeder” on page 1417](#))
- 550-sheet tray right rail removal ([“550-sheet tray right rail removal” on page 865](#))
- 500-sheet tray left rail removal ([“550-sheet tray left rail removal” on page 872](#))
- Waste toner gear removal ([“Waste toner gear removal” on page 801](#))

January 19, 2021

- Part number 41X0688 was changed to 41X0951.
 - Sensor (HPT transport) of HPT 5 parts catalog
 - Sensor (HPU entrance) of HPT 5 parts catalog
 - Sensor (MSHPF standard bin exit) of MSHPF mid-transport paper path parts catalog

October 6, 2020

- Added the XC8163 model in the Printer model configurations topic in the General information chapter.
- Added the following parts in the Control panel topic in the Parts catalog chapter:
 - PN 41X2859 - Model plate (XC8163)
- Added the XC8163 model in the Wiring diagrams.

August 14, 2020

- Updated the Motor (black only retract) failure service check topic in the Diagnostics and troubleshooting chapter.
- Black only retract coupling (41X2905) was added to the Motors parts catalog.
- Updated the Critical information for controller board or control panel replacement topic in the Parts removal chapter.
- Added the 950-953 error messages topic in the Diagnostics and troubleshooting chapter.
- Added the NVRAM mismatch failure service check topic in the Diagnostics and troubleshooting chapter.

August 3, 2020

- A note has been added in the Restoring the printer configuration after replacing the controller board topic in the Parts removal chapter.
- A note that the FRUs are obsolete has been added to the Traditional Chinese font card (41X1014) and Japanese font card (41X1016) FRUs in the Miscellaneous parts catalog.

June 4, 2020

- Obsoleted the following PNs in the Parts catalog chapter:
 - 41X1029
 - 41X0037
 - 41X0047

May 11, 2020

- Update the 912 error messages topic in the Diagnostics and troubleshooting chapter.
- Added links for video demonstration on the following topics in the Parts removal chapter:
 - MSHPF tampers removal
 - Stapler bin assembly removal
 - MSHPF Staple unit carriage removal
 - Staple unit cable removal
 - MSHPF standard bin removal
 - Staple finisher bin clamp assembly removal

March 31, 2020

- Updated the art for MSHPF mid-transport paper path assembly in the Parts catalog chapter.
- Added the Mid-transport guide sensors removal in the Parts removal chapter.

March 9, 2020

- Added the Entering recovery mode topic in the Service menus chapter.

March 4, 2020

- Added the Staple finisher removal in the Parts removal chapter.
- Updated the Staple finisher right cover removal in the Parts removal chapter.

February 21, 2020

- Updated the description for PN 41X0274 from “CCDM” to “CCDM cable, flatbed” in Flatbed scanner 1 parts catalog.
- Updated the description for PN 41X0296 from “CCDM” to “CCDM cable, ADF” in ADF 1 parts catalog.

January 29, 2020

- FRU PN 41X0311 was changed to 41X2216 on the ADF 3 parts catalog.

January 17, 2020

- Updated the Updating the printer firmware topic to include using a USB cable connection option.
- Art for MSHPF offset drive parts catalog was updated.

August 19, 2019

- Marknet 8360 Wireless NFC (41X0023) was removed from the Miscellaneous parts catalog.
- Marknet N8370 Wireless Print Server Interface card (41X1372) was added to the Miscellaneous parts catalog.
- ADF maintenance kit (41X0931) was added to the ADF 3 parts catalog.
- ADF separator roller (41X0360) was removed from the ADF 3 parts catalog.
- ADF pick roller (41X0358) and ADF feed belt (41X0359) were removed from the ADF 5 parts catalog. Callouts have been renumbered.

May 31, 2019

- Step for replacing the controller board was added to the Persistent “tray (x) empty” prompt service check.
- The sensor (ADF pick roller position) was renamed to sensor (ADF pick roller index).
- A note was added to show that the sensor (ADF pick roller index) consists of two sensors.
- System software error service check was updated.

May 10, 2019

- The 912 errors section was added.

March 27, 2019

- Resetting the maintenance counter was updated.
- Left upper cover removal was updated.
- Descriptions for 145 error codes were updated.
- Critical information for controller board or control panel replacement was added.
 - Control panel board removal was updated.
 - Control panel removal was updated.
 - Controller board removal was updated.

February 21, 2019

- Updated the Assembly 14: Motors illustration in the Parts catalog chapter:

January 30, 2019

- Added the following PNs in the Parts catalog chapter:
 - 41X2503
 - 41X2506
 - 41X2213
 - 41X2505
 - 41X2504
 - 41X2539
- Added the HEPA filter removal in the Parts removal chapter.
- Added the Resetting the HEPA filter counter in the Maintenance chapter.

November 4, 2018

- Updated the description for one of the cables included in PN 41X0894 from “Distribution card cable” to “Smartchip interface board cable.”

October 9, 2018

- Updated Assembly 36: Maintenance kits in the parts catalog chapter to add the filter in the 300K Combo fuser and transfer module maintenance kit, 220 (PN 41X0929).
- Updated the Maintenance kits topic under the Maintenance chapter to add PN 41X2213 (filter) in the 300K Combo fuser and transfer module maintenance kit, 220 (PN 41X0929).

September 7, 2018

- FRU 41X2278 (Sensor aperture) was added to the Registration Parts catalog.
- Units quantity information was revised for FRU 41X0505 on the Staple finisher—Rear Parts catalog.

August 24, 2018

- FRU PN 41X0052 was changed to 41X2276 on the Control panel parts catalog.

July 27, 2018

- Information for 41X0343 FRU were revised on the 2200-sheet tray—Front Parts catalog.

July 6, 2018

- FRU 41X0015 (Adapter, N8360 ISP + NFC/BLE DualBand) was deleted from the Miscellaneous Parts catalog.
- FRU 41X0023 (MarkNet 8360 Wireless, NFC) was added to the Miscellaneous Parts catalog.
- Sensor (proximity) removal was added to the Parts removal.
- Image for the Control panel Parts catalog was updated.

May 2, 2018

- Hinge roller image was updated for the Flatbed scanner 2 parts catalog.

April 4, 2018

- Updated the Resetting the maintenance counter topic under the Maintenance chapter with the following information:
 - Updated the menu path for the Separator pad and pick roller counter reset.
 - Added instructions on how to reset the ADF maintenance kit counter.
- Updated the printer wiring diagram to indicate that JPS1 is a connector for the CX825, CX860, XC8155, and XC8160 models only.

January 23, 2018

- Added 666.84 in the printer hardware errors.

December 15, 2017

- Updated the cable name included in the motor cables parts pack (41X0891) from “Waste toner motor cable” to “Toner add motor cable,” in the Parts catalog chapter.
- Updated all instances of “sensor (ADF registration)” to “sensor (ADF deskew).”

October 17, 2017

- Sensor (deskew roller exit) was added to the Repair information chapter.
- Envelope tray CRU (41X2093) was added to the Miscellaneous Parts catalog assembly.

September 29, 2017

- Added the Developer roll power contact removal topic in the Parts removal chapter.

September 8, 2017

- Revised the “Flatbed scanner removal” topic of the group “ADF and flatbed removals” of the “Parts removal” chapter.
- Revised the following topics in the “Parts catalog” chapter:
 - HPT 1
 - HPT 3
 - HPT 4

August 7, 2017

- Revised the “Motor (isolation) failure service check” topic of the subgroup “15y errors” of the group “Printer hardware errors” of the “Diagnostics and troubleshooting” chapter.
- Revised the art of the topic “Transfer—Front” of the “Parts catalog” chapter.
- Added the CCDM cables to the topics “ADF 1” and “Flatbed scanner 1” of the “Parts catalog” chapter.
- Revised the “240 paper jam messages” topic of the “240 paper jams” subgroup of the “Paper jams” group of the “Parts catalog” chapter.

July 11, 2017

- Revised the following topics in the subgroup “Supported paper sizes, types, and weights” of the group “Paper and specialty media guide” of the chapter “General information”:
 - Supported paper weights
 - Supported card stock

- Supported labels
- Revised the topic “Motor (tray 1 pick) failure service check” of the subgroup “160–161 errors” of the group “Printer hardware errors” of the chapter “Diagnostics and troubleshooting.”

May 23, 2017

- Revised the “Cleaning the scanner” topic of the “Cleaning the printer parts” group of the “Maintenance” chapter.
- Revised the following topics in the “Fixing scan quality issues” group of the “Diagnostic information” chapter.
 - Dark image quality (using the ADF or scanner) check
 - Vertical lines (process direction using the ADF) check
 - Spots (using the flatbed scanner) check
- Added the toner cartridge drive coupling, 41X1976, to the “Motors” topic of the “Parts catalog” chapter.

March 30, 2017

- Added the “Configuration menu” topic in the chapter “Service menus.”
- Updated the topics of the group “Supported paper sizes, types, and weights” of the chapter “General information.”
- Added the note right after the description to the topic “Enable edge-to-edge printing” of the group “Printer Setup” of the group “Diagnostics menu” of the chapter “Service menus.”
- Added the grounding plate, 41X1975, to the topic “Frame” of the “Parts catalog” chapter.

March 8, 2017

- Changed 41X0993 to 41X0956 in the topic “Left door” in the chapter “Parts catalog.”

March 1, 2017

- Changed the description for **33.50z** to “Non-Lexmark black developer”.
- Added a warning statement to the following removals (regarding possible damage to the MPF/pass-through sensor cable if not routed away from the moving rollers).
 - [“Sensor \(MPF/pass-through\) with deflector removal” on page 711](#)
 - [“Reference edge motor gearbox removal” on page 712](#)
- Created the following removals:
 - [“Motor \(duplex\) removal” on page 785](#)
 - [“Motor \(deskew\) removal” on page 698](#)
 - [“Motor \(redrive\) removal” on page 794](#)
- Revised [“Main fan duct removal” on page 792](#) and [“EP, developer, toner add gearbox removal” on page 796](#).

February 7, 2017

- Added the topic “Non-Lexmark supply” in the “Diagnostic information” chapter.
- Revised the following topics in the “Diagnostic information” chapter:
 - Motor (deskew) failure service check
 - Motor (duplex) failure service check
 - Motor (isolation) failure service check
 - Motor (MPF pick) failure service check

- 31–39 user attendance messages
- Procedure before starting the 9yy service checks
- Revised the following topics in the “Repair information” chapter:
 - Control panel removal
 - Controller board removal
- Revised the following topics in the “Parts catalog” chapter:
 - Control panel
 - Electronics 2—Rear

January 16, 2017

- ADF maintenance kit removal was added combining the ADF pick roller, ADF feed belt, and ADF separator roller removals.
- A warning for replacing the ADF pick roller, ADF feed belt, and ADF separator roller as a kit was added to the parts catalog.
 - ADF 3 parts catalog
 - ADF 5 parts catalog
- Revisions were made to replace the ADF maintenance kit instead of the ADF pick roller, ADF feed belt, or ADF separator roller
 - ADF skew check
 - Media damage (using ADF) check
 - Sensor (ADF 1st scan): Paper failed to arrive service check
 - Sensor (ADF pick): ADF failed to pick service check
 - Sensor (ADF exit): Paper failed to arrive service check
 - Sensor (ADF deskew): Paper failed to arrive service check
 - Sensor (ADF 2nd scan): Paper failed to arrive service check
 - Sensor (ADF multi-feed detect) jam service check
 - Motor (ADF tray lift) stalled service check
 - ADF pick position failure service check
 - Input guide removal
 - Sensor (ADF 2nd scan) removal
- A warning for replacing the ADF pick roller, ADF feed belt, and ADF separator roller as a kit was added to the Maintenance kits.
- Fuser connect cable (41X0078) was deleted from the Fuser parts catalog.
- Updated the Entering the diagnostics menu topic in the Service menus chapter.

January 4, 2017

- New symptom added to Base printer symptoms.
- New service check was added to address the control panel flashing LED symptom.
- Art for Disconnecting ribbon cables was revised.
- Printer fan locations topic was added to the Component locations.

November 28, 2016

- 17y errors were revised.
 - EP fan renamed to Printhead fan
 - Main HVPS fan renamed to HVPS fan
- Main HVPS fan removal retitled to HVPS fan removal.

October 21, 2016

- 6yy errors were revised.
 - New errors were added (602–658).
 - New errors were added (660–680).
 - Source tray error service check was added.

October 5, 2016

- Updated the Restoring solutions, licenses, and configuration settings topic in the Repair information chapter.

October 3, 2016

- Paper jams error codes (2YY) were revised.
 - 200 paper jam messages
 - 202 paper jam messages
 - 212 paper jam messages
 - 213 paper jam messages
 - 231 paper jam messages
 - 232 paper jam messages
 - 240 paper jam messages
 - 241 paper jam messages
 - 242 paper jam messages
 - 243 paper jam messages
 - 244 paper jam messages
 - 245 paper jam messages
- The 621.42 error code was added to the 6YY errors.
- Fuser contamination service check (new) was added.
- MSHPF cable locations was added to the Component locations.
- More details were added to the 41X0657 parts pack.
- Bin full actuator (41X1737) was added to the Covers 1 parts catalog.

September 4, 2016

- ADF 6 parts catalog was revised.
 - 40X7592—Sensor (ADF media exit) was added.
 - Part numbers of sensor (ADF top door interlock) and sensor (ADF bottom door interlock) were changed from 41X0570 to 40X7592.
- New FRU 41X0570—Sensor (bin full) was added to the Covers 1 parts catalog.

- Cables parts catalog was revised.
 - 41X1630—Control panel cables kit was added.
 - 41X0895 description was revised from Control panel cables kit to Miscellaneous control panel cables kit.
- New error codes (680.10 and 680.20) were added to the 6yy errors.

August 11, 2016

- The 320–326 error messages table on the Output option hardware errors section was revised.
- The Output option paper jams section was revised.
 - 415–419 paper jam messages
 - 430–439 paper jam messages
 - 460–469 paper jam messages
 - 470–479 paper jam messages
 - 480–489 paper jam messages
 - Staple unit head jam service check (new)

August 2, 2016

- Note for updating firmware and step for checking the sensor (ADF deskew) was added to the 281 paper jams diagnostic information.
 - Sensor (ADF pick) static jam service check
 - Sensor (ADF pick): Paper failed to clear service check
 - Sensor (ADF pick): Paper failed to pick service check
- Revisions were made on the Base printer symptoms section.
 - Base printer symptoms table was updated.
 - Printer thumping noise service check was added.
 - Unresponsive control panel service check was added.
- New removals were added to the Repair information.
 - Waste toner bottle removal
 - Sensor (waste toner bottle present) and bracket removal
- Installation note for aligning the motor was added to the Motor (printhead wiper) removal.
- Updated [“Motor \(MPF pick\) jam service check” on page 213](#) to include the checking of the sensor actuator (MPF media present) for possible misalignment or damage.
- Updated [“Scanner disabled \(automatic\) service check” on page 517](#) to detail the “Configuration Menu” method of resolving the error.
- Updated [“Maintenance kits” on page 1395](#) to assign this PN to the ADF separator roller: 41X0360.
- Updated [“ADF 3” on page 1445](#) to change the description for 41X0360 from “ADF separator roller and cover” to “ADF separator roller”.

July 21, 2016

- User attendance messages (0YY) were revised.
 - 31–39 user attendance messages
 - 42–59 user attendance messages
 - Supplies smart chip error service check (new)

- Unsupported third party supply service check (new)
- Toner cartridge paddle error service check (new)
- Gritty print check was added to the Fixing print quality issues section.
- FRUs were added to the Electronics—Front parts catalog assembly.
 - 41X1620—Waste toner bottle present sensor bracket
 - 41X0570—Sensor (waste toner bottle present)
- Base printer symptoms table was added to the Other symptoms section.
- MSHPF cabinet height conversion was added to the Adjustments section.

June 28, 2016

- Video links were added.
 - Staple finisher bin clamp assembly removal
 - MSHPF standard bin assembly removal
 - Staple unit cable removal
 - MSHPF staple unit carriage removal
 - Stapler bin assembly removal
 - MSHPF tampers removal
- Printer hardware errors (1YY) were revised.
 - 100–101 error messages
 - 121 error messages
 - 126 error messages
 - 127–128 error messages
 - 168 error messages
 - 169 error messages
 - 171–179 error messages
 - Main HVPS undetected service check (new topic)
 - Charge roller HVPS undetected service check (new topic)
- Cabinet height conversion kit FRU (41X1034) was added to the parts catalog.
- Sensor (ADF multifeed) calibration was added to the Adjustments section. Cross-references pointing to the calibration topic have also been added to the sensor (ADF multifeed) removals.
- Updated the left door assembly to change the descriptions and PNs for callouts 2 and 12.
- Added PN 40X9934 in the Parts catalog chapter.

June 9, 2016

- Removals for Doors J4, J6, J3, and J5 were added to the MSHPF removals.
- Cross-references sequences were revised.
 - MSHPF inner top cover removal
 - MSHPF top frame covers removal
 - Sensor (standard bin stack upper limit) removal
 - Sensor (offset roller) removal
 - MSHPF top frame removal
 - Offset assembly removal

- Motor (mid-transport diverter) removal
- Sensor (mid-transport diverter 1) removal
- Mid-transport diverter cams and gear removal
- Mid-transport mailbox entrance frame removal
- Mid-transport diverter 1 removal
- Mid-transport guide removal
- Door J1 removal
- Mid-transport diverter 2 removal
- Sensor (MSHPPF standard bin exit) removal
- Sensor (door N interlock) removal
- Sensor (mid-transport) removal
- Sensor (staging outer transport 1) removal
- Sensor (staging entrance) removal
- Mid-transport and staging assembly removal
- Multiposition stapler assembly removal

May 23, 2016

- Step for checking in-line connector was added to the Motor (duplex diverter) failure service check.

May 3, 2016

- Added the Enabling the security reset jumper topic in appendix A.
- Updated the Entering the Service Engineer (SE) menu topic.
- References to Fuser temperature and Weather station were removed from the Service menus.
- Ghost images check has been revised.
- Sensor (FB paper length) information has been added to the Flatbed scanner drive theory.
- References to the sensor (media type) were removed from MPF/pass-through and isolation drive theory and Registration drive theory.

April 18, 2016

- Arts were added to the Motor ([K, M, C, and Y] toner add) failure service checks.
- Miscellaneous parts catalog was revised.

March 31, 2016

- Paper overfill stop FRU part number was changed from 41X0133 to 41X1033.
- On the Control panel parts catalog, FRU 41X0903 description was renamed from Model plate (CX825) to Model plate (CX860). A new FRU number 41X0902 was assigned to the Model plate (CX825).
- Right hinge FRU number was changed from 41X7762 to 40X7762.
- FRU 41X0930—300K Roller Maintenance kit was removed from the Maintenance kits parts catalog.
- FRU 41X0930—300K Roller Maintenance kit was removed from the Maintenance kits on the Maintenance chapter.

March 17, 2016

- Steps were rearranged on the ADF calibration strip failure service check.
- Updated the Covers 1 assembly to change the part number for the connector access cover from 41X0565 to 41X0717.

March 11, 2016

- 8yy Diagnostic information topics were added.
- FRU 41X1032—Lift plate shim was added to the ADF 3 parts catalog.
- FRU 41X1033—Paper overfill stop was added to the Feeder parts catalog.
- Placed a trademark symbol on the first mention of Lexmark in the body of the manual.
- Changed “Sensor (flatbed scanner home position) removal” to “Sensor (FB CCD home) removal”.
- Updated “288-289 paper jam messages” to change the code from 289.10 to 289.01.
- Added “Remove the door” as the last step for “ADF top door with hinge removal.” Also deleted “with hinge” from the title.

February 22, 2016

- Title was changed for the Toner easily rubs off check topic on the Diagnostic information.
- FRU 41X0140—Motor (duplex) was added to the Duplex Parts catalog.
- FRU 41X0140—Motor (pick) was added to the Feeder Parts catalog.
- FRU 41X0140—Motor (deskew) was added to the Registration Parts catalog.
- FRU part number 41X0140—Motor (redrive) was replaced with 41X0451.
- Added a removal for the flatbed scanner.

February 9, 2016

- FRU part number 41X0975—Main fan was replaced with 41X0954 on the Electronics—Rear Parts catalog.
- Electronics—Front Parts catalog was revised.
 - FRU part number 41X0954—Printhead fan was replaced with 41X0975.
 - FRU part number 41X0162—Sensor (door interlock) was replaced with 41X0684.
 - FRU part name Switch (left door interlock) was replaced with Door interlock actuator.

General information

Printer model configurations

The Lexmark™ CX825, CX860, XC8155, XC8160, and XC8163 printers are network-capable, multifunction laser printers that print color print jobs. The operator panel is touch-sensitive and lets the user adjust the viewing angle. All information in this service manual pertains to all models unless explicitly noted.

The printer is available in the following models:

Model name	Configuration / description	Machine type / model number
CX825de	Network, duplex, 10" e-Task touch screen	7564-336
CX825dte	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base	7564-336
CX825dtfe	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base, staple finisher	7564-337
CX860de	Network, duplex, 10" e-Task touch screen	7564-536
CX860dte	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base	7564-536
CX860dtfe	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base, staple finisher	7564-5367
XC8155de	Network, duplex, 10" e-Task touch screen	7564-596
XC8155dte	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base	7564-596
XC8155dtfe	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base, staple finisher	7564-596
XC8160de	Network, duplex, 10" e-Task touch screen	7564-598
XC8160dte	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base	7564-598
XC8163		
XC8160dtfe	Network, duplex, 10" e-Task touch screen, two optional 550-sheet trays, caster base, staple finisher	7564-598
N/A	2200-sheet tray	0563-HCI
N/A	550-sheet tray	0563-550
N/A	Staple finisher (CX826 and CX860 models)	0563-ILS
N/A	Multiposition staple, hole punch finisher short configurations	0563-FNS
N/A	Multiposition staple, hole punch finisher tall configurations	0563-FNT
N/A	Caster base	9045-076

MFP/MSHPF height configuration

The MSHPF (multiposition staple, hole punch finisher) can be installed with the CX825 or CX860 model. It has two mailbox bins that can hold 125 sheets each.

Make sure to observe either of the two device/finisher height configurations:

- **Short configuration**—MFP + two 550-sheet trays + caster base
- **Tall configuration**—MFP + three 550-sheet trays or one 2200-sheet tray + caster base

Note: The finisher comes with its own integrated stand for support.

Finding the serial number

Pull out tray 1, and then find the serial number at the left side of the printer.



Paper and specialty media guide

Notes:

- Make sure that the paper size, type, and weight are set correctly on the computer or control panel.
- Flex, fan, and straighten specialty media before loading them.
- The printer may print at a reduced speed to prevent damage to the fuser.
- For more information on card stock and labels, see the *Card Stock & Label Guide* at <http://support.lexmark.com>.

Supported paper sizes, types, and weights

The following tables provide information on standard and optional paper sources and the sizes, types, and weights of paper they support.

Note: For an unlisted paper size, select the closest *larger* listed size.

Supported paper sizes

Supported input sizes

Paper size	Dimensions	550-sheet tray	2200-sheet tray	Multipurpose feeder*	Two-sided printing	ADF
3 x 5	76.2 x 127 mm (3 x 5 in.)	X	X	✓	X	X
4 x 6	101.6 x 152.4 mm (4 x 6 in.)	X	X	✓	X	X
A4	210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓	✓
A5 long edge fed	210 x 148 mm (5.8 x 8.3 in.)	✓	✓	✓	✓	X
A5 short edge fed	148 x 210 mm (8.3 x 5.8 in.)	✓	X	✓	✓	✓
A6	105 x 148 mm (4.1 x 5.8 in.)	X	X	✓	✓	✓
Banner	Max width: 215.9 mm (8.5 in.) Max length: 1320.8 mm (52 in.)	X	X	✓	X	X
Executive	184.2 x 266.7 mm (7.3 x 10.5 in.)	✓	X	✓	✓	✓
Folio	215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓	✓

* The paper source supports paper size *without size sensing*.

Paper size	Dimensions	550-sheet tray	2200-sheet tray	Multipurpose feeder*	Two-sided printing	ADF
JIS B5	182 x 257 mm (7.2 x 10.1 in.)	✓	✗	✓	✓	✓
Legal	215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓
Letter	215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓
Oficio	216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓
Statement	139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	✗	✓	✓	✓
Universal	139.7 x 148 mm to 215.9 x 355.6 mm (5.5 x 5.8 in. to 8.5 x 14 in.)	✓	✗	✓	✓	✗
Universal	76.2 x 127 mm to 229 x 359.9 mm (3 x 5 in. to 9 x 14.2 in.)	✗	✗	✓	✗	✗
Universal	210 x 215.9 mm to 210 x 1321 mm (8.27 x 8.5 in. to 8.27 x 52 in.)	✗	✗	✓	✗	✗
7 3/4 Envelope	98 x 190.5 mm (3.9 x 7.5 in.)	✗	✗	✓	✗	✗
9 Envelope	98.4 x 225.4 mm (3.86 x 8.9 in.)	✗	✗	✓	✗	✗
10 Envelope	104.8 x 241.3 mm (4.1 x 9.5 in.)	✗	✗	✓	✗	✗
B5 Envelope	176 x 250 mm (6.9 x 9.8 in.)	✗	✗	✓	✗	✗
C4 Envelope	229 x 324 mm (9 x 13 in.)	✗	✗	✓	✗	✗
C5 Envelope	162 x 229 mm (6.4 x 9 in.)	✗	✗	✓	✗	✗
DL Envelope	110 x 220 mm (4.3 x 8.7 in.)	✗	✗	✓	✗	✗

* The paper source supports paper size *without size sensing*.

Paper size	Dimensions	550-sheet tray	2200-sheet tray	Multipurpose feeder*	Two-sided printing	ADF
Other Envelope	98.4 x 162 mm to 229 x 359.9 mm (3.9 x 6.4 in. to 9 x 14.2 in.)	X	X	✓	X	X

* The paper source supports paper size *without size sensing*.

Supported output sizes

Paper size	Dimensions	Standard bin	Staple finisher		Multiposition staple, hole punch finisher*			
			Offset	Staple	Offset	Staple	Hole punch	2-bin mailbox
3 x 5	76.2 x 127 mm (3 x 5 in.)	✓	X	X	✓	X	X	✓
4 x 6	101.6 x 152.4 mm (4 x 6 in.)	✓	X	X	✓	X	X	✓
A4	210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓	✓	✓	✓
A5 long edge fed	210 x 148 mm (5.8 x 8.3 in.)	✓	✓	X	✓	✓	X	✓
A5 short edge fed	148 x 210 mm (8.3 x 5.8 in.)	✓	X	X	✓	X	✓	✓
A6	105 x 148 mm (4.1 x 5.8 in.)	✓	X	X	✓	X	X	X
Executive	184.2 x 266.7 mm (7.3 x 10.5 in.)	✓	✓	X	✓	✓	✓	✓
Folio	215.9 x 330.2 mm (8.5 x 13 in.)	✓	✓	✓	✓	✓	✓	✓
JIS B5	182 x 257 mm (7.2 x 10.1 in.)	✓	✓	X	✓	✓	✓	✓
Legal	215.9 x 355.6 mm (8.5 x 14 in.)	✓	✓	✓	✓	✓	X	✓
Letter	215.9 x 279.4 mm (8.5 x 11 in.)	✓	✓	✓	✓	✓	✓	✓
Oficio	216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	✓	✓	✓	✓
Statement	139.7 x 215.9 mm (5.5 x 8.5 in.)	✓	X	X	✓	X	✓	✓

* This option supports only CX825, CX860, and XC8100 Series models.

Paper size	Dimensions	Standard bin	Staple finisher		Multiposition staple, hole punch finisher*			
			Offset	Staple	Offset	Staple	Hole punch	2-bin mailbox
Universal	139.7 x 148 mm to 215.9 x 359.9 mm (5.5 x 5.8 in. to 8.5 x 14.2 in.)	✓	X	X	✓	X	X	X
Universal	76.2 x 127 mm to 229 x 359.9 mm (3 x 5 in. to 9 x 14.2 in.)	✓	X	X	✓	X	X	X
Universal	210 x 215.9 mm to 210 x 1321 mm (8.27 x 8.5 in. to (8.27 x 52 in.)	✓	X	X	X	X	X	X
7 3/4 Envelope	98 x 190.5 mm (3.9 x 7.5 in.)	✓	X	X	X	X	X	X
9 Envelope	98.4 x 225.4 mm (3.86 x 8.9 in.)	✓	X	X	X	X	X	X
10 Envelope	104.8 x 241.3 mm (4.1 x 9.5 in.)	✓	X	X	X	X	X	X
B5 Envelope	176 x 250 mm (6.9 x 9.8 in.)	✓	X	X	X	X	X	X
C4 Envelope	229 x 324 mm (9 x 13 in.)	✓	X	X	X	X	X	X
C5 Envelope	162 x 229 mm (6.4 x 9 in.)	✓	X	X	X	X	X	X
DL Envelope	110 x 220 mm (4.3 x 8.7 in.)	✓	X	X	X	X	X	X
Other Envelope	98.4 x 162 mm to 229 x 359.9 mm (3.9 x 6.4 in. to (9 x 14.2 in.)	✓	X	X	X	X	X	X

* This option supports only CX825, CX860, and XC8100 Series models.

Supported paper types

Supported input types

Note: Labels, envelopes, and card stock always print at reduced speed.

Paper type	550-sheet tray	2200-sheet tray	Multipurpose feeder	Two-sided printing	ADF
Plain Paper	✓	✓	✓	✓	✓
Card Stock [†]	✓ [*]	X	✓ [*]	✓ [*]	X
Recycled	✓	✓	✓	✓	✓
Glossy	✓	✓	✓	✓	X
Heavy Glossy	✓	✓	✓	✓	X
Labels	✓	X	✓	X	X
Vinyl Labels	✓	X	✓	X	X
Bond	✓	✓	✓	✓	✓
Envelope	X	X	✓	X	X
Rough Envelope	X	X	✓	X	X
Transparency	X	X	✓	X	X
Letterhead	✓	✓	✓	✓	✓
Preprinted	✓	✓	✓	✓	✓
Colored Paper	✓	✓	✓	✓	✓
Light Paper	✓	✓	✓	✓	✓
Heavy Paper	✓	✓	✓	✓	✓
Rough Cotton	✓	✓	✓	✓	✓

* This option supports up to 176 g/m² of card stock weight.

† Card stock that weighs more than 176 g/m² is supported only in one-sided printing using the standard 550-sheet tray.

Supported output types

Paper type	Staple finisher			Multiposition staple, hole punch finisher [*]		
	Non-finishing	Offset	Staple	Standard bin (Normal and offset stacking)	2-bin mailbox	Staple and hole punch
Plain Paper	✓	✓	✓	✓	✓	✓
Card Stock	✓	✓	X	✓	X	X

* This option supports only CX825, CX860, and XC8100 Series models.

Paper type	Staple finisher			Multiposition staple, hole punch finisher*		
	Non-finishing	Offset	Staple	Standard bin (Normal and offset stacking)	2-bin mailbox	Staple and hole punch
Transparency	✓	X	X	✓	X	X
Recycled	✓	✓	✓	✓	✓	✓
Glossy	✓	✓	X	✓	✓	X
Heavy Glossy	✓	✓	X	✓	✓	X
Labels	✓	X	X	✓	X	X
Vinyl Labels	✓	X	X	✓	X	X
Bond	✓	✓	✓	✓	✓	✓
Envelope	✓	✓	X	✓	X	X
Rough Envelope	✓	✓	X	✓	X	X
Letterhead	✓	✓	✓	✓	✓	✓
Preprinted	✓	✓	✓	✓	✓	✓
Colored Paper	✓	✓	✓	✓	✓	✓
Light Paper	✓	✓	✓	✓	✓	✓
Heavy Paper	✓	✓	✓	✓	✓	✓
Rough Cotton	✓	✓	✓	✓	✓	✓

* This option supports only CX825, CX860, and XC8100 Series models.

Supported paper weights

Paper type	Standard 550-sheet tray	2200-sheet tray	Multipurpose feeder
Plain Paper ^{a,b}	60–176 g/m ² (16–47 lb) ^c	60–120 g/m ² (16–32 lb)	60–176 g/m ² (16–47 lb)
Banner Paper	N/A	N/A	90–105 g/m ² (24–28 lb)
Glossy	88–176 g/m ² (60–120 lb)	N/A	88–176 g/m ² (60–120 lb)
Card stock	88–300 g/m ² (60–192 lb)	N/A	163–176 g/m ² (90–120 lb)
Labels	88–300 g/m ² (60–192 lb)	N/A	199–220 g/m ² (53–59 lb)

^a Grain short paper that weighs at least 90 g/m² (24 lb) is supported in two-sided printing.
^b Recycled paper that weighs 75–120 g/m² (20–32 lb) is supported in two-sided printing.
^c The weight is also supported in two-sided printing.

Paper type	Standard 550-sheet tray	2200-sheet tray	Multipurpose feeder
Envelopes	N/A	N/A	60–105 g/m ² (16–28 lb)

^a Grain short paper that weighs at least 90 g/m² (24 lb) is supported in two-sided printing.

^b Recycled paper that weighs 75–120 g/m² (20–32 lb) is supported in two-sided printing.

^c The weight is also supported in two-sided printing.

Supported card stock

Paper type	Grain direction	Paper weight			
		Standard tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing
Index Bristol	Grain long	300 g/m ² (166 lb)	163 g/m ² (90 lb)	163 g/m ² (90 lb)	163 g/m ² (90 lb)
	Grain short	300 g/m ² (166 lb)	199 g/m ² (110 lb)	199 g/m ² (110 lb)	199 g/m ² (110 lb)
Tag	Grain long	300 g/m ² (184 lb)	163 g/m ² (100 lb)	163 g/m ² (100 lb)	163 g/m ² (100 lb)
	Grain short	300 g/m ² (184 lb)	203 g/m ² (125 lb)	203 g/m ² (125 lb)	203 g/m ² (125 lb)
Cover	Grain long	300 g/m ² (110 lb)	176 g/m ² (65 lb)	176 g/m ² (65 lb)	176 g/m ² (65 lb)
	Grain short	300 g/m ² (110 lb)	218 g/m ² (80 lb)	218 g/m ² (80 lb)	218 g/m ² (80 lb)

Supported labels

Label type	Width and length	Weight	Thickness	Smoothness
Paper	76 x 216 mm (3 x 8.5 in.) ^a	Up to 180 g/m ² (48 lb)	0.13–0.20 mm (0.005–0.0008 in.)	50–300 Sheffield ^b
Dual web		Up to 180 g/m ² (48 lb)		
Polyester		Up to 220 g/m ² (59 lb)		
Vinyl		Up to 300 g/m ² (92 lb)		
Integrated forms	N/A	Up to 175 g/m ² (47 lb) ^c	N/A	N/A

^a The minimum size for labels supported in the multipurpose feeder is 76 x 124 mm (3 x 5 in.). The minimum size for labels supported in the standard and optional trays is 148 x 210 mm (5.8 x 8.3 in.).

^b 50 Sheffield is optimal. Using media higher than 300 Sheffield could result in print quality degradation.

^c The weight is only supported in two-line-printing.

Letterhead orientation

Source	Printing	Printed side	Paper orientation
Trays	One-sided	Faceup	Load paper with the top edge toward the left side of the tray.
	Two-sided	Facedown	Load paper with the top edge toward the right side of the tray.
Multipurpose feeder	One-sided	Facedown	Load paper with the top edge entering the printer first.
	Two-sided	Faceup	Load paper with the top edge entering the printer last.

Notes:

- For one-sided print jobs that require finishing, load paper facedown with the top edge toward the right side of the tray. For the multipurpose feeder, load paper faceup with the top edge entering the printer last.
- For two-sided print jobs that require finishing, load paper faceup with the top edge toward the left side of the tray. For the multipurpose feeder, load paper facedown with the top edge entering the printer first.

Paper guidelines

Selecting the correct paper or specialty media reduces printing problems. For the best print quality, try a sample of the paper or specialty media before buying large quantities.

Paper characteristics

The following paper characteristics affect print quality and reliability. Consider these factors before printing on them.

Weight

The trays can feed paper weights from 60 to 176 g/m² (16 to 47 lb) grain long paper. Paper lighter than 60 g/m² (16 lb) may not be stiff enough to feed properly, and may cause jams.

Curl

Curl is the tendency for paper to curl at its edges. Excessive curl can cause paper feeding problems. Curl can occur after the paper passes through the printer, where it is exposed to high temperatures. Storing paper unwrapped in hot, humid, cold, or dry conditions can contribute to paper curling before printing and can cause feeding problems.

Smoothness

Paper smoothness directly affects print quality. If paper is too rough, toner cannot fuse to it properly. If paper is too smooth, it can cause paper feeding or print quality issues. We recommend the use of paper with 50 Sheffield points.

Moisture content

The amount of moisture in paper affects both print quality and the printer ability to feed the paper correctly. Leave paper in its original wrapper until you use it. Exposure of paper to moisture changes can degrade its performance.

Store paper in its original wrapper in the same environment as the printer for 24 to 48 hours before printing. Extend the time several days if the storage or transportation environment is very different from the printer environment. Thick paper may also require a longer conditioning period.

Grain direction

Grain refers to the alignment of the paper fibers in a sheet of paper. Grain is either *grain long*, running the length of the paper, or *grain short*, running the width of the paper.

For 60–176 g/m² (16–47-lb) paper, grain long paper is recommended.

Fiber content

Most high-quality xerographic paper is made from 100 percent chemically treated pulped wood. This content provides the paper with a high degree of stability, resulting in fewer paper feeding problems and better print quality. Paper containing fibers such as cotton can negatively affect paper handling.

Selecting paper

Using the appropriate paper prevents jams and helps ensure trouble-free printing.

To help avoid paper jams and poor print quality:

- *Always* use new, undamaged paper.
- Before loading paper, know the recommended printable side of the paper. This information is usually indicated on the paper package.
- *Do not* use paper that has been cut or trimmed by hand.
- *Do not* mix paper sizes, types, or weights in the same tray; mixing results in jams.
- *Do not* use coated papers unless they are specifically designed for electrophotographic printing.

Selecting preprinted forms and letterhead

- Use grain long for 60–176-g/m² (16–47-lb) paper.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid paper with rough or heavily textured surfaces.
- Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based generally meet these requirements; latex inks might not.
- Print samples on preprinted forms and letterheads considered for use before buying large quantities. This determines whether or not the ink in the preprinted form or letterhead will affect print quality.
- When in doubt, contact your paper supplier.

Using recycled paper and other office papers

As an environmentally conscientious company, Lexmark supports the use of recycled paper produced specifically for use in laser (electrophotographic) printers.

While no blanket statement can be made that all recycled paper feeds well, Lexmark consistently tests papers that represent recycled cut size copier papers available on the global market. This scientific testing is conducted with rigor and discipline. Many factors are considered both separately and as a whole, including the following:

- Amount of post-consumer waste (Lexmark tests up to 100% post-consumer waste content.)
- Temperature and humidity conditions (Testing chambers simulate climates from all over the world.)

- Moisture content (Business papers should have low moisture: 4–5%.)
- Bending resistance and proper stiffness means optimum feeding through the printer.
- Thickness (impacts how much can be loaded into a tray)
- Surface roughness (measured in Sheffield units, impacts print clarity and how well toner fuses to the paper)
- Surface friction (determines how easily sheets can be separated)
- Grain and formation (impacts curling, which also influences the mechanics of how the paper behaves as it moves through the printer)
- Brightness and texture (look and feel)

Recycled papers are better than ever; however, the amount of recycled content in a paper affects the degree of control over foreign matter. And while recycled papers are one good path to printing in an environmentally responsible manner, they are not perfect. The energy required to de-ink and deal with additives such as colorants and “glue” often generates more carbon emissions than does normal paper production. However, using recycled papers enables better resource management overall.

Lexmark concerns itself with the responsible use of paper in general based on life cycle assessments of its products. To gain a better understanding of the impact of printers on the environment, the company commissioned a number of life cycle assessments and found that paper was identified as the primary contributor (up to 80%) of carbon emissions caused throughout the entire life of a device (from design to end-of-life). This is due to the energy-intensive manufacturing processes required to make paper.

Thus, Lexmark seeks to educate customers and partners on minimizing the impact of paper. Using recycled paper is one way. Eliminating excessive and unnecessary paper consumption is another. Lexmark is well-equipped to help customers minimize printing and copying waste. In addition, the company encourages purchasing paper from suppliers who demonstrate their commitment to sustainable forestry practices.

Lexmark does not endorse specific suppliers, although a product list for special applications from a converter is maintained. However, the following paper choice guidelines help alleviate the environmental impact of printing:

- 1** Minimize paper consumption.
- 2** Be selective about the origin of wood fiber. Buy from suppliers who carry certifications such as the Forestry Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC). These certifications guarantee that the paper manufacturer uses wood pulp from forestry operators that employ environmentally and socially responsible forest management and restoration practices.
- 3** Choose the most appropriate paper for printing needs: normal 75 or 80 g/m² certified paper, lower weight paper, or recycled paper.

Unacceptable paper examples

Test results indicate that the following paper types are at risk for use with laser printers:

- Chemically treated papers used to make copies without carbon paper, also known as *carbonless papers*
- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers affected by the temperature in the printer fuser
- Preprinted papers that require a registration (the precise location on the page) greater than ± 2.3 mm (± 0.9 in.), such as optical character recognition (OCR) forms. In some cases, registration can be adjusted with an application to print successfully on these forms.)
- Coated papers (erasable bond), synthetic papers, thermal papers
- Rough-edged, rough, or heavily textured surface papers or curled papers
- Recycled papers that fail EN12281:2002 (European testing)

- Paper weighing less than 60 g/m² (16 lb)
- Multiple part forms or documents

For more information on environmental sustainability, go to www.lexmark.com.

Storing paper

Use these paper storage guidelines to help avoid jams and uneven print quality:

- For best results, store paper where the temperature is 21°C (70°F) and the relative humidity is 40 percent. Most label manufacturers recommend printing in a temperature range of 18–24°C (65–75°F) with relative humidity between 40 and 60 percent.
- Store paper in cartons, on a pallet or shelf, rather than on the floor.
- Store individual packages on a flat surface.
- Do not store anything on top of individual paper packages.
- Take paper out of the carton or wrapper only when you are ready to load it in the printer. The carton and wrapper help keep the paper clean, dry, and flat.

Using specialty media

Tips on using card stock

Card stock is heavy, single-ply specialty media. Many of its variable characteristics, such as moisture content, thickness, and texture, can significantly affect print quality.

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the card stock loaded in the tray.
- Print samples on the card stock being considered for use before buying large quantities.
- Specify the paper texture and weight from the tray settings to match the paper loaded in the tray.
- Preprinting, perforation, and creasing may significantly affect the print quality and cause jams or other paper feed problems.
- Before loading the card stock on the tray, flex and fan the card stock to loosen them. Straighten the edges on a level surface.

Tips on using envelopes

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the envelopes loaded in the tray.
- Print samples on the envelopes being considered for use before buying large quantities.
- Use envelopes designed specifically for laser printers.
- For best performance, use envelopes made from 90-g/m² (24-lb) paper or 25% cotton.
- Use only new envelopes from undamaged packages.
- To optimize performance and minimize jams, do not use envelopes that:
 - Have excessive curl or twist.
 - Are stuck together or damaged in any way.
 - Have windows, holes, perforations, cutouts, or embossing.
 - Have metal clasps, string ties, or folding bars.

- Have an interlocking design.
- Have postage stamps attached.
- Have any exposed adhesive when the flap is in the sealed or closed position.
- Have bent corners.
- Have rough, cockle, or laid finishes.
- Adjust the width guides to fit the width of the envelopes.
- Before loading the envelopes on the tray, flex the stack of envelopes back and forth to loosen them, and then fan them. Straighten the edges on a level surface.

Note: A combination of high humidity (over 60%) and high printing temperature may wrinkle or seal envelopes.

Tips on using labels

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the labels loaded in the tray.
- Print samples on labels being considered for use before buying large quantities.
- For more information on label printing, characteristics, and design, see the *Card Stock & Label Guide* on the Lexmark Web site at <http://support.lexmark.com>.
- Use labels designed specifically for laser printers.
- Do not use labels with slick backing material.
- Do not use labels with exposed adhesive.
- Use full label sheets. Partial sheets may cause labels to peel off during printing, resulting in a jam. Partial sheets also contaminate the printer and the cartridge with adhesive, and could void the printer and toner cartridge warranties.
- Before loading labels on the tray, flex and fan labels to loosen them. Straighten the edges on a level surface.

Tips on using letterhead

- Use letterhead specifically for laser printers.
- Print samples before buying large quantities.
- Before loading letterhead, flex and fan the sheets.
- When printing on letterhead, take note of the page orientation.

Source	Printing	Side with the letterhead	Paper orientation
Trays	One-sided	Faceup	Load the sheet with the top edge toward the left side of the tray.
	Two-sided	Facedown	Load the sheet with the top edge toward the right side of the tray.

Source	Printing	Side with the letterhead	Paper orientation
Multipurpose feeder	One-sided	Facedown	Load the sheet with the top edge on the right side.
	Two-sided	Faceup	Load the sheet with the top edge on the left side.

Data security notice

Identifying printer memory

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Non-volatile memory**—The printer may use two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.
- **Hard disk memory**—Some printers have a hard disk drive installed. The printer hard disk is designed for printer-specific functionality and cannot be used for the long-term storage of data that is not print-related. The hard disk does not provide the capability for users to extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disks

Note: The printer control panel and controller board contain NVRAM.

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase non-volatile memory:

- 1 From the home screen, touch **Settings > Device > Maintenance > Out of Service Erase**.
- 2 Select the **Sanitize all information on nonvolatile memory** check box, and then touch **ERASE**.
- 3 Follow the instructions on the display.

To erase the hard disk memory:

- 1 From the home screen, touch **Settings > Device > Maintenance > Out of Service Erase**.
- 2 Select the **Sanitize all information on hard disk** check box, and then touch **ERASE**.
- 3 Follow the instructions on the display.





Notes:

- This process can take from several minutes to more than an hour, making the printer unavailable for other tasks.
- After removing the hard disk, return it to the next level of support.

Tools required for service

- Flat-blade screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- Torx screwdriver (T20 head)
- Needle-nose pliers
- Diagonal side cutters
- Spring hook
- Feeler gauges
- Analog or digital multimeter
- 3-mm ball hex wrench
- Toner vacuum
- Flashlight

Diagnostics and troubleshooting

-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.
-  **CAUTION—POTENTIAL INJURY:** The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.
-  **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.
-  **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Troubleshooting overview

Performing the initial troubleshooting check

- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure that the printer is properly grounded.
- Make sure that the power supply line voltage is within 10% of the rated line voltage.
- Make sure that the printer is securely installed on a level surface in a well-ventilated area.
- Make sure that the temperature and relative humidity are within the specifications. See [“Temperature information” on page 1562](#).
- Avoid locations that:
 - Generate ammonia gas
 - Are exposed to direct sunlight
 - Are near open flames
 - Are dusty
- Make sure that the recommended paper for this printer is used.
- Do a test print with paper from a newly opened package, and then check the result.

Fixing print quality issues

- [“Initial print quality check” on page 64](#)
- [“Blank or white pages, or one color missing check” on page 65](#)
- [“Dark print check” on page 68](#)

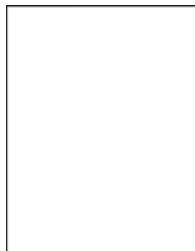
- “Ghost images check” on page 70
- “Gray or colored background check” on page 71
- “Horizontal dark lines check” on page 74
- “Light print check” on page 75
- “Mottled print and dots check” on page 78
- “Print crooked or skewed check” on page 80
- “Solid color or black images check” on page 81
- “Text or images cut off check” on page 83
- “Toner easily rubs off check” on page 83
- “Uneven print density check” on page 85
- “Vertical dark lines or streaks check” on page 86
- “Vertical white lines check” on page 87
- “Blurred print or misaligned color check” on page 88
- “Physical grit on printed surface check” on page 89
- “Image banding check” on page 92
- “Image void (process direction) check” on page 94
- “Random marks check” on page 95
- “Repeating defects check” on page 96
- “Paper curl check” on page 98
- “Folded or wrinkled paper check” on page 99
- “Incorrect margins on prints check” on page 100

Initial print quality check

Before troubleshooting print problems, perform the following:

- Make sure that the printer is located in an area that follows the recommended operating environment and power requirement specifications.
- Check the status of supplies. Replace supplies that are low or empty.
- Load 20-lb plain letter or A4 paper. Make sure that the paper guides are properly set and locked. From the control panel, set the paper size and type to match the paper loaded in the tray.
- Print and keep the menu settings page. The original menu settings page is used to restore the custom settings if necessary.
- Make sure that the Print resolution and Toner darkness on the menu settings page are set to their default values.
- Check the transfer roller, toner cartridge, and transfer belt for damage, and replace if necessary.
- Print the advanced print quality samples to see if the problem remains. Use tray 1 to test print quality problems. Look for variations in the print from what is expected.
- Make sure that the correct print driver is used to prevent print problems. If the wrong print driver is installed, then incorrect characters could print and the copy may not fit the page correctly.

Blank or white pages, or one color missing check



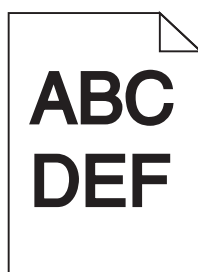
Actions	Yes	No
<p>Step 1</p> <p>a Remove the transfer belt.</p> <p>b Check if the cable shield end of the transfer belt contact is touching the black only retract coupler.</p> <p>Does the transfer belt contact interfere with the BOR coupler?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Reinstall, repair, or replace the transfer belt contact.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 3</p> <p>Check the cable for proper connection.</p> <ul style="list-style-type: none"> • Check the controller board socket JVD01. • Check the cable connected to the printhead. <p>Is the cable properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a From the home screen, touch Settings > Device > Notifications > Show Supply Estimates.</p> <p>b Check the remaining life of the photoconductor units and developer units.</p> <p>Is the photoconductor unit or developer unit near or at its end of life?</p>	Go to step 6.	Go to step 7.
<p>Step 6</p> <p>Replace the appropriate photoconductor unit or developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Actions	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color missing?</p>	Go to step 8.	Go to step 7.
<p>Step 8</p> <p>Check the contacts of the photoconductor unit and developer unit of the affected color.</p> <p>Are the contacts clean?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Clean the contacts.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Do the following:</p> <ul style="list-style-type: none"> • If the missing color is cyan, magenta, or yellow, then replace the appropriate developer unit. • If the missing color is black, then replace the black developer unit. <p>See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests</p> <p>b Select the developer unit of the affected color, and then touch Start.</p> <p>Do the developer unit drive couplers rotate?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Replace the EP/developer/toner add gearbox. See “EP, developer, toner add gearbox removal” on page 796.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Remove the main HVPS, and then clean its contacts. See “Main HVPS removal” on page 753.</p> <p>b Reinstall the main HVPS.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Actions	Yes	No
<p>Step 14 Replace the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the continuity of the main HVPS cable.</p> <p>Does the cable have continuity?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics Let the cleaning operation run for three minutes.</p> <p>b From the home screen, touch Settings > Reports > Print Quality Pages.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>a Turn off the printer to let the printhead shutters remain open.</p> <p>b Remove the developer and PC combos, and then clean the printhead lenses using a lint-free cloth.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the motor (printhead wiper) for damage.</p> <p>Is the motor free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Replace the motor. See “Motor (printhead wiper) removal” on page 728.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Check the printhead wiper actuator rack for misalignment and damage.</p> <p>Is the actuator rack properly engaged with the printhead wipers, and is it free of damage?</p>	Go to step 23.	Go to step 22.

Actions	Yes	No
<p>Step 22 Reinstall or replace the printhead wiper actuator rack.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Replace the printhead. See “Printhead removal” on page 725.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Dark print check

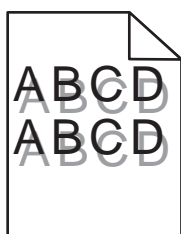


Actions	Yes	No
<p>Step 1</p> <p>a From the home screen, touch Settings > Print > Quality > Toner Darkness.</p> <p>b Check the darkness setting value.</p> <p>Is the darkness setting too low?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Adjust the darkness setting to the proper value.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color affected?</p>	Go to step 4.	Go to step 12.

Actions	Yes	No
<p>Step 4 Perform color alignment adjustment on all colors. See “Color alignment adjust” on page 639.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Perform the Toner patch sensing service check. See “Toner patch sensing service check” on page 582.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the main HVPS for proper connection.</p> <ul style="list-style-type: none"> • Check the main HVPS connector. • Check the main HVPS socket JHVPS1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the continuity of the main HVPS cable.</p> <p>Does the cable have continuity?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the electrical contacts of the developer/PC unit wiper rail of the affected color.</p> <p>Are the contacts stuck or damaged?</p>	Go to step 11.	Go to step 11.
<p>Step 11 Repair or replace the developer/PC unit wiper rail.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the electrical contacts of the transfer belt.</p> <p>Are the pins stuck or damaged?</p>	Go to step 13.	Go to step 14.

Actions	Yes	No
<p>Step 13 Repair the pins or replace the transfer belt contacts.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

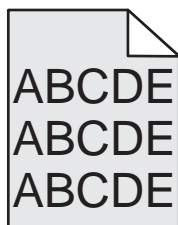
Ghost images check



Actions	Yes	No
<p>Step 1</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color affected on the ghost images?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the transfer belt for traces of residual toner.</p> <p>Is the transfer belt free of residual toner?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Actions	Yes	No
<p>Step 5 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Gray or colored background check

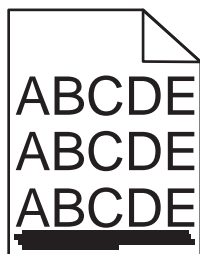


Actions	Yes	No
<p>Step 1 a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples b Check the test page for background.</p> <p>Is only one color producing the background?</p>	Go to step 2.	Go to step 4.
<p>Step 2 a From the home screen, touch Settings > Device > Notifications > Show Supply Estimates. b Check the remaining life of the photoconductor units and developer units.</p> <p>Is the photoconductor unit or developer unit near or at its end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the appropriate photoconductor unit or developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the waste toner bottle.</p> <p>Is the waste toner bottle full?</p>	Go to step 5.	Go to step 6.
<p>Step 5 Replace the waste toner bottle.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Actions	Yes	No
<p>Step 6 Check the transfer roller for misalignment, wear, and damage.</p> <p>Is the transfer roller properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reinstall or replace the transfer roller. See “Transfer roller removal” on page 693.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the transfer belt for misalignment, wear, and damage.</p> <p>Is the transfer belt properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reinstall or replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the main HVPS for proper connection.</p> <ul style="list-style-type: none"> • Check the main HVPS connector. • Check the main HVPS socket JHVPS1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the continuity of the main HVPS cable.</p> <p>Does the cable have continuity?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the charge roller HVPS for proper connection.</p> <ul style="list-style-type: none"> • Check the charge roller HVPS connector. • Check the charge roller HVPS socket JHVPS2 on the controller board. <p>Is the cable properly connected?</p>	Go to step 16.	Go to step 15.

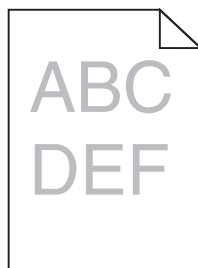
Actions	Yes	No
<p>Step 15 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the continuity of the charge roller HVPS cable.</p> <p>Does the cable have continuity?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Remove, and then reinstall the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Replace the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Remove, and then reinstall the charge roller HVPS. See “Charge roller HVPS removal” on page 772.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Replace the charge roller HVPS. See “Charge roller HVPS removal” on page 772.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Horizontal dark lines check



Actions	Yes	No
<p>Step 1</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page for dark lines.</p> <p>Does the line repeat within a test page?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Perform the Repeating defects service check. See “Repeating defects check” on page 96.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the pages right after the defective page.</p> <p>Does the defect repeat after two consecutive normal pages (A3 or letter) have been printed?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the transfer belt for contamination.</p> <p>Is the transfer belt free of contamination?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Clean the transfer belt.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Light print check



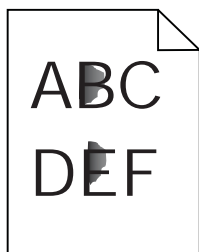
Actions	Yes	No
<p>Step 1</p> <p>a From the home screen, touch Settings > Print > Quality > Color saver.</p> <p>b Set Color saver to Off.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Update the firmware to the latest version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a From the home screen, touch Settings > Print > Quality > Toner Darkness.</p> <p>b Check the darkness setting value.</p> <p>Is the darkness setting too low?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Adjust the darkness setting to the proper value.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color producing light print?</p>	Go to step 6.	Go to step 15.
<p>Step 6</p> <p>Check the toner cartridge of the affected color for proper installation.</p> <ul style="list-style-type: none"> • Make sure that there are no packing material still on it. • Check for misalignment. <p>Is the toner cartridge properly installed?</p>	Go to step 8.	Go to step 7.

Actions	Yes	No
<p>Step 7 Reinstall the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the affected toner cartridge.</p> <ul style="list-style-type: none"> • Check the shutter. <p>Note: The toner cartridge shutter slides open to supply toner to the developer unit.</p> <ul style="list-style-type: none"> • Check if the cartridge is empty. <p>Is the toner cartridge filled and properly working?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Repair the shutter or replace the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the developer unit of the affected color for proper installation.</p> <p>Is the developer unit properly installed?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall the developer unit.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests</p> <p>b Select the motor (toner add) of the affected color, and then touch Start.</p> <p>Does the motor run?</p>	Go to step 15.	Go to step 13.
<p>Step 13 Check the motor cable JBTLM1 on the controller board for proper connection, and then reseat if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Actions	Yes	No
<p>Step 15</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics</p> <p>Let the cleaning operation run for three minutes.</p> <p>b Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>a Turn off the printer to let the printhead shutters remain open.</p> <p>b Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the main HVPS for proper connection.</p> <ul style="list-style-type: none"> • Check the main HVPS connector. • Check the main HVPS socket JHVPS1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 19.	Go to step 18.
<p>Step 18</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Check the continuity of the main HVPS cable.</p> <p>Does the cable have continuity?</p>	Go to step 21.	Go to step 20.
<p>Step 20</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Check the electrical contacts of the developer/PC unit wiper rail of the affected color.</p> <p>Are the contacts stuck or damaged?</p>	Go to step 23.	Go to step 22.

Actions	Yes	No
<p>Step 22 Repair or replace the developer/PC unit wiper rail. See “Developer/PC unit CMY wiper rail removal” on page 765 or “Developer/PC unit K wiper rail removal” on page 766.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Check the electrical contacts of the transfer belt.</p> <p>Are the pins stuck or damaged?</p>	Go to step 24.	Go to step 25.
<p>Step 24 Repair the pins or replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25 Replace the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mottled print and dots check

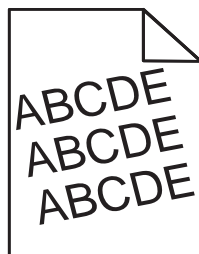


Actions	Yes	No
<p>Step 1</p> <p>a From the home screen, touch Settings > Device > Preferences.</p> <p>b Check if the paper type and size settings match the paper type and size set on the tray.</p> <p>Do the settings match?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size and type, or adjust the size settings in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Actions	Yes	No
<p>Step 3 Check the paper for texture or rough finish.</p> <p>Is the paper textured or rough?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the textured or rough paper with plain paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the printer for toner contamination.</p> <p>Is the printer free of leaked toner?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Remove the leaked toner.</p> <ul style="list-style-type: none"> • Using a toner vacuum, clean the printer and remove all traces of leaked toner. • Print several pages to clear the remaining traces of toner from the imaging components. <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a From the home screen, touch Settings > Device > Notifications > Show Supply Estimates.</p> <p>b Check the remaining life of the photoconductor units and developer units.</p> <p>Is the photoconductor unit or developer unit near or at its end of life?</p>	Go to step 8.	Go to step 9.
<p>Step 8 Replace the appropriate photoconductor unit or developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color producing mottled print and dots?</p>	Go to step 10.	Go to step 11.

Actions	Yes	No
<p>Step 10 Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

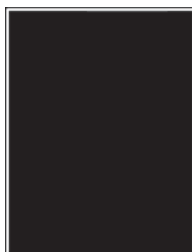
Print crooked or skewed check



Actions	Yes	No
<p>Step 1 Check the positions of the guides on all the trays. Adjust the guides to match the size of the paper.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the deskew roller for contamination and damage.</p> <p>Is the roller free of contamination and damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Clean or replace the deskew roller.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Perform the printhead alignment adjustment. See “Printhead alignment adjustment” on page 668.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Actions	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Deskew</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Contact the next level of support.	Go to step 6.
<p>Step 6</p> <p>Check the motor cable JMTR3 on the controller board for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Solid color or black images check

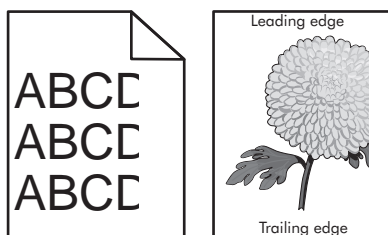


Actions	Yes	No
<p>Step 1</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color producing the solid color image?</p>	Go to step 2.	Go to step 4.
<p>Step 2</p> <p>Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Actions	Yes	No
<p>Step 3 Replace the developer unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the charge roller HVPS for proper connection.</p> <ul style="list-style-type: none"> • Check the charge roller HVPS connector. • Check the charge roller HVPS socket JHVPS2 on the controller board. <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the continuity of the charge roller HVPS cable.</p> <p>Does the cable have continuity?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the high voltage connectors on the charge roller HVPS for proper connection.</p> <p>Are the connectors properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the high voltage connectors.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the charge roller HVPS. See “Charge roller HVPS removal” on page 772.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Actions	Yes	No
<p>Step 11</p> <p>Check the cable for proper connection.</p> <ul style="list-style-type: none"> • Check the controller board socket JVD01. • Check the cable connected to the printhead. <p>Is the cable properly connected?</p>	Contact the next level of support.	Go to step 12.
<p>Step 12</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Text or images cut off check



Actions	Yes	No
<p>Check the positions of the guides on all the trays. Adjust the guides to match the size of the paper.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Toner easily rubs off check



Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 64](#).

Note: Do not replace a fuser due to a wrinkled backup roller (A).



Actions	Yes	No
<p>Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge.</p> <p>Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.</p> <p>Is the printer using a genuine and supported toner cartridge?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Install a genuine and supported toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 From the control panel, set the paper type, texture, and weight in the Paper menu to match the paper loaded.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Remove, and then reinstall the fuser.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Remove the right cover. See “Right cover removal” on page 718.</p> <p>b Reseat the connections on the LVPS.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the LVPS. See “LVPS removal” on page 781.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

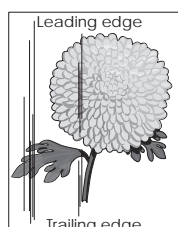
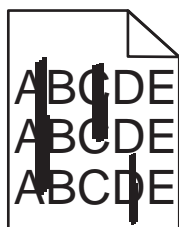
Uneven print density check



Actions	Yes	No
<p>Step 1 Load paper from a fresh package.</p> <p>Note: Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color producing uneven print density?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Remove, and then reinstall the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Remove, and then reinstall the transfer roller. See “Transfer roller removal” on page 693.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

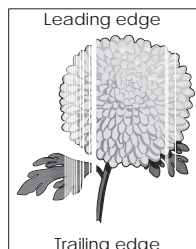
Actions	Yes	No
<p>Step 7 Replace the transfer roller. See “Transfer roller removal” on page 693.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Vertical dark lines or streaks check



Actions	Yes	No
<p>Step 1 a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples b Check the test page.</p> <p>Is only one color producing the vertical lines or streaks?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Vertical white lines check



Actions	Yes	No
<p>Step 1</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page and check the colors affected.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics</p> <p>Let the cleaning operation run for three minutes.</p> <p>b From the home screen, touch Settings > Reports > Print Quality Pages.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Turn off the printer to let the printhead shutters remain open.</p> <p>b Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Replace the developer unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the printhead. See “Printhead removal” on page 725.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

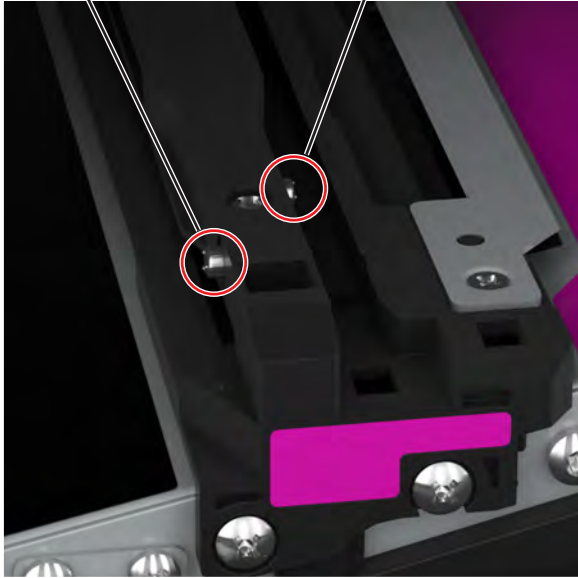
Blurred print or misaligned color check

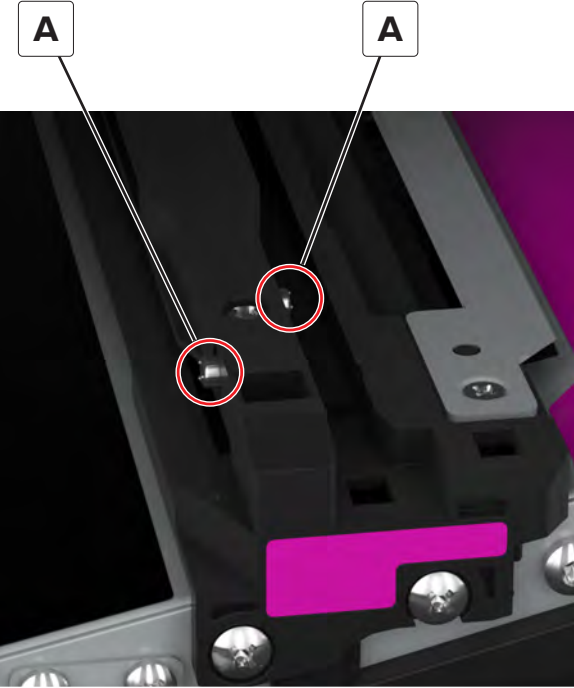
Actions	Yes	No
<p>Step 1</p> <p>a From the home screen, touch Settings > Print Quality Pages.</p> <p>b Check the test page.</p> <p>Is only one color blurred or misaligned?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Perform color alignment adjustment on the misaligned color. See “Color alignment adjust” on page 639.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Perform color alignment adjustment on all colors. See “Color alignment adjust” on page 639.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Perform the Auto alignment service check. See “Auto alignment service check” on page 579.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics Let the cleaning operation run for three minutes.</p> <p>b Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Turn off the printer to let the printhead shutters remain open.</p> <p>b Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the EP/Developer/toner add gearbox. See “EP, developer, toner add gearbox removal” on page 796.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Actions	Yes	No
<p>Step 8 Replace the printhead. See “Printhead removal” on page 725.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Physical grit on printed surface check

Actions	Yes	No
<p>Step 1 Update the firmware to the latest version.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a From the home screen, touch Settings > Print > Quality > Advanced Imaging > Color Adjust.</p> <p>b Touch Start.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is there a color that is missing?</p>	Go to step 4.	Go to step 11.
<p>Step 4 Check the electrical contacts of the photoconductor unit and developer unit of the affected color.</p> <p>Are the contacts clean?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Clean the contacts.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Actions	Yes	No
<p>Step 6 Check the charge contacts (A) of the developer/PC unit wiper rail of the affected color.</p>  <p>Are the contacts clean?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Clean the contacts.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Actions	Yes	No
<p>Step 8 Press the charge contacts (A) to check if they actuate freely.</p>  <p>Do the contacts actuate freely?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the developer/PC unit wiper rail of the affected color. See “Developer/PC unit K wiper rail removal” on page 766 or “Developer/PC unit CMY wiper rail removal” on page 765.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the developer unit and photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Actions	Yes	No
<p>Step 11 Check the test page for the following print quality issues, and then resolve the issues found.</p> <ul style="list-style-type: none"> • If there are solid color or black images, then see “Solid color or black images check” on page 81. • If there are one or more missing colors, then see “Blank or white pages, or one color missing check” on page 65. • If there are horizontal dark lines, then see “Horizontal dark lines check” on page 74. • If there is image banding, then see “Image banding check” on page 92. • If there is dark print, then see “Dark print check” on page 68. • If there is gray or colored background, then see “Gray or colored background check” on page 71. • If there is light print, then see “Light print check” on page 75. • If there are mottled print and dots, then see “Mottled print and dots check” on page 78. • If there is blurred print or misaligned color, then see “Blurred print or misaligned color check” on page 88. • If there are image voids, then see “Image void (process direction) check” on page 94. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Image banding check

Actions	Yes	No
<p>Step 1 Load paper from a fresh package.</p> <p>Note: Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Are all colors affected by image banding?</p>	Go to step 7.	Go to step 3.

Actions	Yes	No
<p>Step 3 Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Remove, and then reinstall the transfer roller. See “Transfer roller removal” on page 693.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Remove, and then reinstall the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the transfer roller. See “Transfer roller removal” on page 693.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Image void (process direction) check

Actions	Yes	No
<p>Step 1 Load paper from a fresh package.</p> <p>Note: Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics</p> <p>Let the cleaning operation run for three minutes.</p> <p>b From the home screen, touch Settings > Reports > Print Quality Pages.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Turn off the printer to let the printhead shutters remain open.</p> <p>b Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (printhead wiper) for damage.</p> <p>Is the motor free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the motor. See “Motor (printhead wiper) removal” on page 728.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the printhead wiper actuator rack for misalignment and damage.</p> <p>Is the actuator rack properly engaged with the printhead wipers, and is it free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reinstall or replace the printhead wiper actuator rack.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Actions	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>b Check the test page.</p> <p>Is only one color affected?</p>	Go to step 9.	Go to step 10.
<p>Step 9</p> <p>Replace the photoconductor unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the transfer belt for contamination.</p> <p>Is the transfer belt free of contamination?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Clean the transfer belt.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Random marks check

Actions	Yes	No
<p>Step 1</p> <p>Check the printer for toner contamination.</p> <p>Is the printer free of leaked toner?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the leaked toner.</p> <ul style="list-style-type: none"> Using a toner vacuum, clean the printer and remove all traces of leaked toner. Print several pages to clear the remaining traces of toner from the developer units and PC units. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Actions	Yes	No
<p>Step 3 Check the developer and PC unit combo for contamination.</p> <p>Is the developer and PC unit combo free of contamination?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Clean or replace the developer and PC unit combo.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the developer units for contamination.</p> <p>Is the developer unit free of contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Replace the contaminated developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the transfer belt for contamination.</p> <p>Is the transfer belt free of contamination?</p>	Contact the next level of support.	Go to step 8.
<p>Step 8 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Repeating defects check

Action	Yes	No
<p>Step 1 Check the printer rollers for contamination or dust.</p> <p>Are the rollers free of contamination or dust?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the contamination or dust.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Measure the distance between the repeating marks.</p> <p>Is the distance between the marks 42 mm?</p>	Go to step 4.	Go to step 5.

Action	Yes	No
<p>Step 4 Replace the developer unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 5 Measure the distance between the repeating marks.</p> <p>Is the distance between the marks either 125.7 mm, or 35.4 mm?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the developer unit of the affected color. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 7 Measure the distance between the repeating marks.</p> <p>Is the distance between the marks 78.5 mm?</p>	Go to step 8.	Go to step 9.
<p>Step 8 Replace the transfer roller. See “Transfer roller removal” on page 693.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 9 Measure the distance between the repeating marks.</p> <p>Is the distance between the marks either 96.6 mm or 127.6 mm?</p>	Go to step 10.	Go to step 11.
<p>Step 10 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 11 Measure the distance between the repeating marks.</p> <p>Is the distance between the marks either 47.1 mm or 90 mm?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Check the marks that appear on a multi-page print job.</p> <p>Do the marks appear on every other page?</p>	Go to step 13.	Contact the next level of support.

Action	Yes	No
<p>Step 13 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Paper curl check



Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 64](#).

Actions	Yes	No
<p>Step 1 Check if the printer is using a genuine and supported Lexmark toner cartridge.</p> <p>Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.</p> <p>Is the printer using a genuine and supported toner cartridge?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Install a genuine and supported toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Adjust the guides in the tray to the correct position for the paper loaded.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 From the control panel, set the paper size, type, and weight in the Paper menu to match the paper loaded.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Actions	Yes	No
<p>Step 5</p> <p>Depending on the operating system, specify the paper size from Printing Preferences or Print dialog.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Remove paper from the tray, and then turn it over.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Make sure that the paper loaded is from a fresh package.</p> <p>Note: Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Make sure that the printer supports the paper loaded.</p> <p>Is the paper supported?</p>	Contact the next level of support.	Go to step 9.
<p>Step 9</p> <p>Load a supported paper.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Folded or wrinkled paper check



Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 64](#).

Note: Do not replace the fuser due to a wrinkled backup roller (A).



Actions	Yes	No
<p>Step 1</p> <p>a Check if the printer is using a non-Lexmark toner cartridge. Note: If the printer is using a third-party cartridge, then do not replace the imaging unit. Refer the users to their cartridge supplier.</p> <p>b Make sure that the toner cartridge is compatible with the imaging unit.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check if the paper loaded is from a fresh package. Note: The amount of moisture in paper affects both print quality and printer ability to feed paper correctly.</p> <p>b Make sure that the printer supports the paper loaded. For a complete list of supported paper, see the printer <i>User's Guide</i>.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Make sure that the fuser entry guide is free of waste toner and dust. Warning—Potential Damage: Clean the fuser entry guide with a toner vacuum and cloth. Do not use compressed air.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>If the fuser has reached end of life, then replace the maintenance kit.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Incorrect margins on prints check



Note: Before performing this print quality check, go to the control panel home screen and navigate to **Settings > Troubleshooting > Print Quality Test Pages**, and then perform the initial print quality check. See [“Initial print quality check” on page 64](#).

Actions	Yes	No
<p>Step 1 Adjust the guides in the tray according to the size of the paper loaded.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Do one of the following:</p> <ul style="list-style-type: none"> • From the printer control panel, set the paper size in the Paper menu to match the paper loaded in the tray. • Change the paper loaded in the tray to match the paper size specified in the tray settings. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Depending on the operating system used, specify the paper size from Printing Preferences or from the Print dialog.</p> <p>Does the problem remain?</p>	Go to step 4 or contact the next level of support.	The problem is solved.
<p>Step 4 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics and adjustments > Registration adjust b Adjust the margins.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Fixing scan quality issues

Dark image quality (using the ADF or scanner) check



Actions	Yes	No
<p>Step 1 Navigate to Settings > Troubleshooting > Print Quality Test Pages.</p> <p>Is the scan defect seen on the print quality samples?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Identify, and then resolve the print quality defect. See “Fixing print quality issues” on page 63.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Clean the ADF glass and the scanner glass. For more information, see “Cleaning the scanner” on page 1397.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Clean the ADF glass pad and the scanner glass pad. For more information, see “Cleaning the scanner” on page 1397.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Open the ADF bottom door (door E).</p> <p>b In door E, clean the ADF glass and its pad. For more information, see “Cleaning the scanner” on page 1397.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Replace the appropriate CCDM. See “ADF CCDM removal” on page 835 or “Flatbed scanner CCDM removal” on page 847.</p> <p>b Perform a scan-to-print test using both the ADF scanner and flatbed scanner.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the printer controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Vertical lines (process direction using the ADF) check



Actions	Yes	No
<p>Step 1 Navigate to Settings > Troubleshooting > Print Quality Test Pages.</p> <p>Is the scan defect seen on the print quality samples?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Identify, and then resolve the print quality defect. See “Fixing print quality issues” on page 63.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <ul style="list-style-type: none"> a Clean the ADF glass and the scanner glass. For more information, see “Cleaning the scanner” on page 1397. b Using the ADF, perform a scan job on a blank sheet. <p>Does the issue occur on the front page?</p>	Go to step 4.	Go to step 8.
<p>Step 4 Check the ADF glass for damage.</p> <p>Is the glass free of damage?</p>	Go to step 5.	Go to step 7.
<p>Step 5 Using the flatbed scanner, perform a scan job on a blank sheet.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the scanner glass for damage.</p> <p>Is the glass free of damage?</p>	Go to step 9.	Go to step 7.
<p>Step 7 Replace the flatbed scanner top cover. See “Flatbed scanner top cover removal” on page 843.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Actions	Yes	No
<p>Step 8</p> <p>a Open the ADF bottom door (door E).</p> <p>b In door E, clean the ADF glass and its pad. For more information, see “Cleaning the scanner” on page 1397.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 9</p> <p>a Replace the flatbed scanner CCDM. See “Flatbed scanner CCDM removal” on page 847.</p> <p>b Perform a scan-to-print test using both the ADF scanner and flatbed scanner.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 10</p> <p>a Replace the ADF scanner CCD. See “ADF CCDM removal” on page 835.</p> <p>b Perform a scan-to-print test using both the ADF scanner and flatbed scanner.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Replace the printer controller board. See “Controller board removal” on page 776.</p> <p>b Perform a scan-to-print test using both the ADF scanner and flatbed scanner.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Spots (using the flatbed scanner) check



Actions	Yes	No
<p>Step 1 Navigate to Settings > Troubleshooting > Print Quality Test Pages.</p> <p>Is the scan defect seen on the print quality samples?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Identify, and then resolve the print quality defect. See “Fixing print quality issues” on page 63.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <ul style="list-style-type: none"> a Clean the ADF glass and the scanner glass. For more information, see “Cleaning the scanner” on page 1397. b Check the scanner glass for damage. <p>Is the glass free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the flatbed scanner top cover. See “Flatbed scanner top cover removal” on page 843.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <ul style="list-style-type: none"> a Open the ADF bottom door (door E). b In door E, clean the ADF glass and its pad. For more information, see “Cleaning the scanner” on page 1397. <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <ul style="list-style-type: none"> a Replace the flatbed scanner CCDM. See “Flatbed scanner CCDM removal” on page 847. b Perform a scan-to-print test using both the ADF scanner and flatbed scanner. <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <ul style="list-style-type: none"> a Replace the printer controller board. See “Controller board removal” on page 776. b Perform a scan-to-print test using both the ADF scanner and flatbed scanner. <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF skew check

Actions	Yes	No
<p>Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer. Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>Is the scan defect seen on the print quality samples?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Identify, and then resolve the print quality defect. See “Fixing print quality issues” on page 63.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check if the printer is placed in a flat, sturdy, and stable surface.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the caster base casters for damage.</p> <p>Are the casters free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the damaged caster. See “Locking caster removal” on page 892 or “Non-locking caster removal” on page 895.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Properly load the document into the ADF tray and ensure that all guides are correctly set.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Clear the paper path in the ADF of any obstructions.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Open, and then properly close the following ADF covers and door:</p> <ul style="list-style-type: none"> • Left cover • Top cover • Top door assembly <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

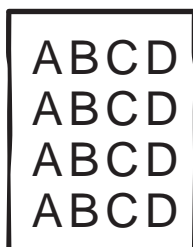
Actions	Yes	No
<p>Step 9 Check the ADF pick roller for wear or damage.</p> <p>Is the roller free of wear or damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the ADF pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 11 Check the ADF separator roller for wear or damage.</p> <p>Is the roller free of wear or damage?</p>	Contact the next level of support.	Go to step 12.
<p>Step 12 Replace the ADF separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

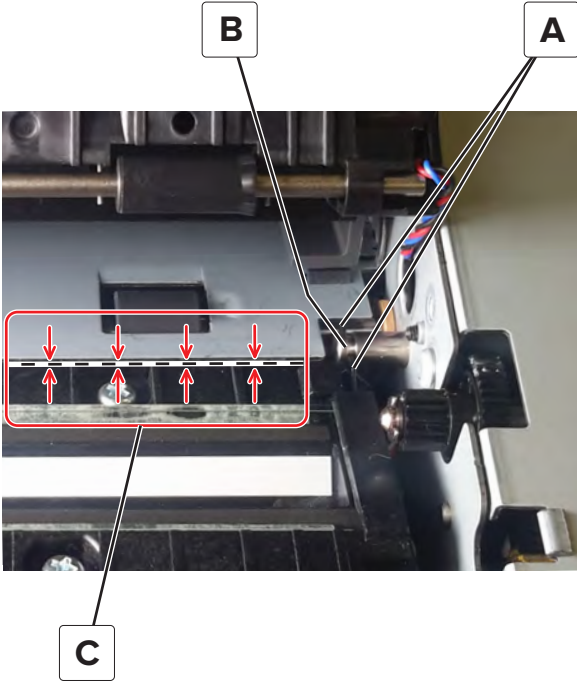
Media damage (using the ADF) check

Actions	Yes	No
<p>Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer.</p> <p>Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples</p> <p>Is the scan defect seen on the print quality samples?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Identify, and then resolve the print quality defect. See “Fixing print quality issues” on page 63.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Properly load the document into the ADF tray and ensure that all guides are correctly set.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Actions	Yes	No
<p>Step 4 Clear the paper path in the ADF of any obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Open, and then properly close the following ADF covers and door:</p> <ul style="list-style-type: none"> • Left cover • Top cover • Top door assembly <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the ADF pick roller for wear or damage.</p> <p>Is the roller free of wear or damage?</p>	Contact the next level of support.	Go to step 7.
<p>Step 7 Replace the ADF pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Wavy edge (ADF 2nd side scan) service check



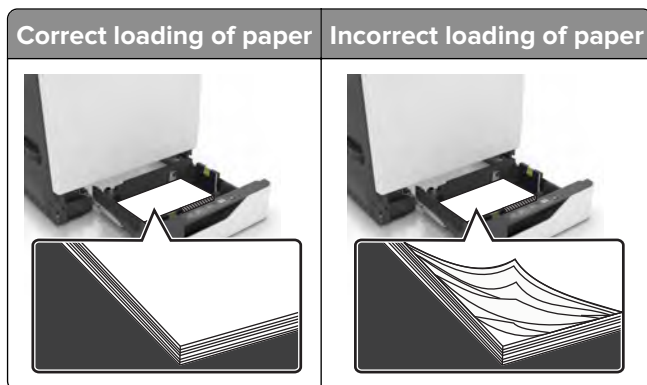
Actions	Yes	No
<p>Step 1</p> <p>a Raise the ADF to its full upright position.</p> <p>b Check the plastic locaters (A) on the rear of the CCDM (ADF).</p> <p>Note: The locaters are properly seated in the slot (B) if there is no gap (C) between the metal plate and the frame rib.</p>  <p>Are the plastic locaters properly seated in the slot on the alignment post?</p>	<p>Go to step 3.</p>	<p>Go to step 2.</p>
<p>Step 2</p> <p>a Check the CCDM (ADF) for proper installation.</p> <p>b Gently move the the CCDM towards the front of the ADF and seat the locaters in the slot on the alignment post.</p> <p>Does the problem remain?</p>	<p>Go to step 3.</p>	<p>The problem is solved.</p>
<p>Step 3</p> <p>Check the plastic locaters on the rear of the CCD (ADF) housing.</p> <p>Are the plastic locaters free of damage or missing?</p>	<p>Go to step 4.</p>	<p>Go to step 5.</p>
<p>Step 4</p> <p>Reinstall or replace the CCDM (ADF) and ensure that the plastic locaters are seated in the slot on the alignment post.</p> <p>Does the problem remain?</p>	<p>Contact the next level of support.</p>	<p>The problem is solved.</p>

Paper jams

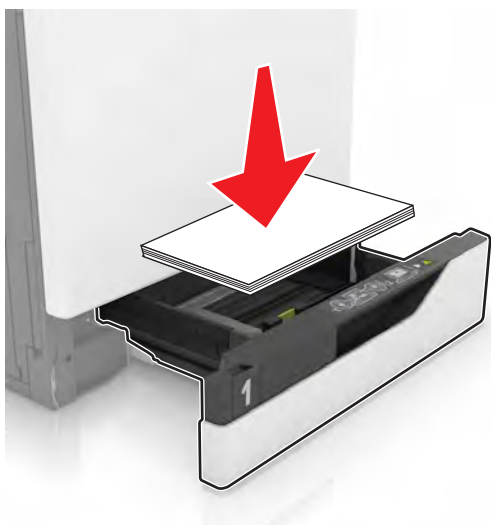
Avoiding jams

Load paper properly

- Make sure that the paper lies flat in the tray.



- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.

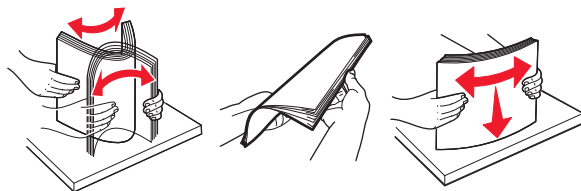


- Make sure that the paper guides are positioned correctly and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.

Use recommended paper

- Use only recommended paper or specialty media.
- Do not load paper that is wrinkled, creased, damp, bent, or curled.

- Flex, fan, and align the paper edges before loading.



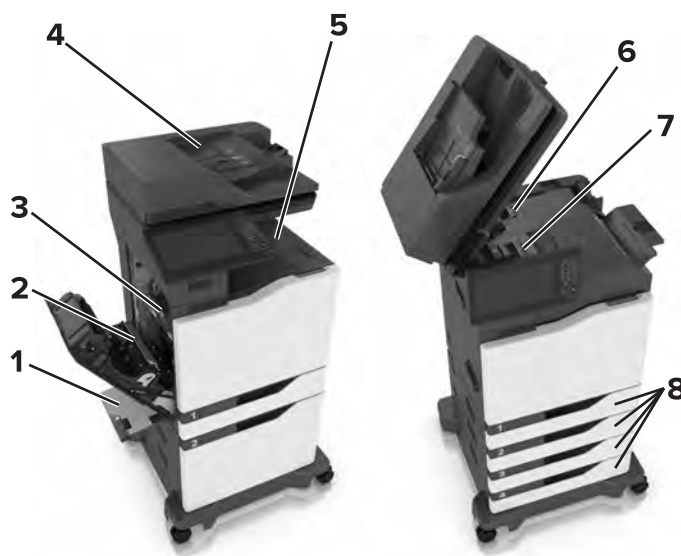
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Notes:

- When Jam Assist is set to On, the printer flushes blank pages or pages with partial prints after a jammed page has been cleared. Check your printed output for blank pages.
- When Jam Recovery is set to On or Auto, the printer reprints jammed pages.

Basic model



1	Multipurpose feeder
2	Duplex unit
3	Fuser
4	Automatic document feeder (ADF)

5	Standard bin
6	Door G
7	Door F
8	Trays

Configured model



1	Door L
2	Door J
3	Door K
4	Door N

Paper jam in trays

- 1 Pull out the tray.



- 2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



- 3 Insert the tray.

- 4 Open the tray cover.



- 5 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

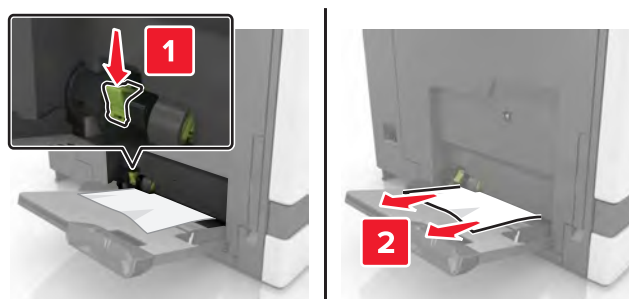


- 6 Close the tray cover.

Paper jam in the multipurpose feeder

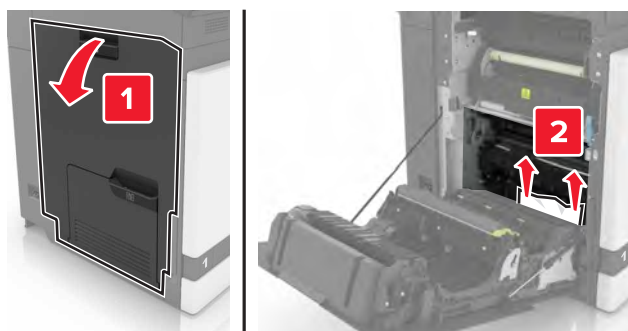
- 1 Remove paper from the multipurpose feeder.
- 2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



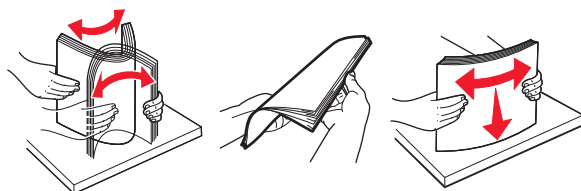
- 3 Open door B, and then remove any paper fragments.

CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



4 Close door B.

5 Flex, fan, and align the paper edges before loading.

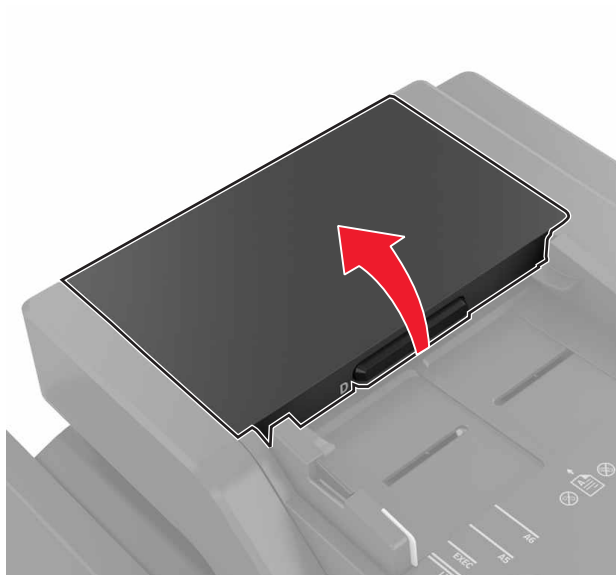


6 Reload paper.

Paper jam in the automatic document feeder

1 Remove all original documents from the ADF tray.

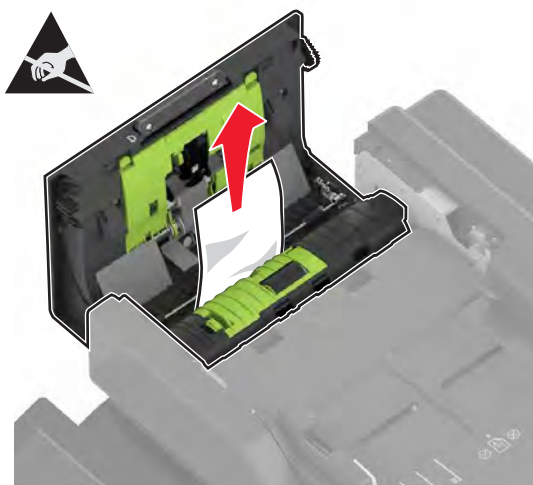
2 Open door D.



3 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

Warning—Potential Damage: Some parts of the printer are easily damaged by static electricity. Before touching any parts or components in an area marked with the static-sensitive symbol, touch a metal surface in an area away from the symbol.

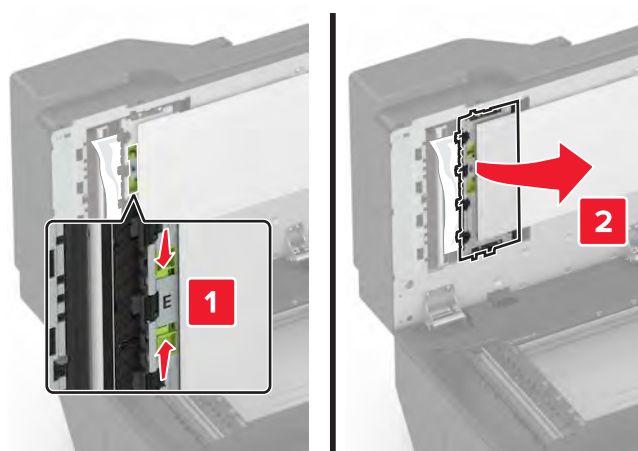


4 Close door D.

5 Open the scanner cover.

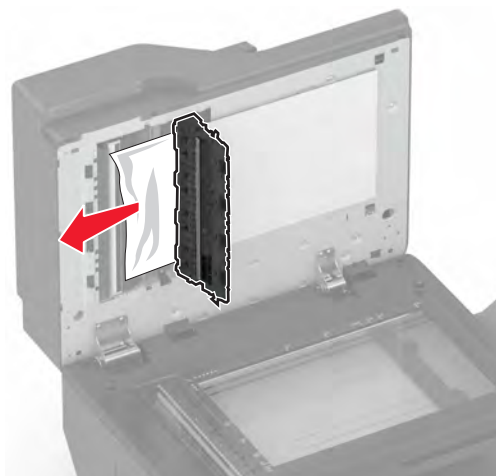


6 Open door E.



7 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

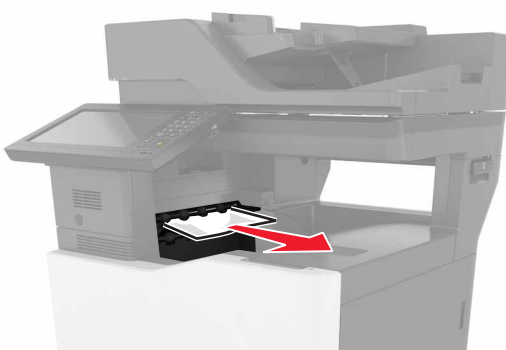


8 Close door E and the scanner cover.

Paper jam in the standard bin

1 Remove the jammed paper.

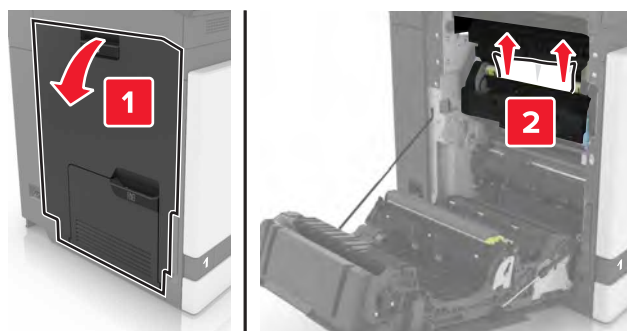
Note: Make sure that all paper fragments are removed.



2 Open door B, and then remove any paper fragments.



CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.




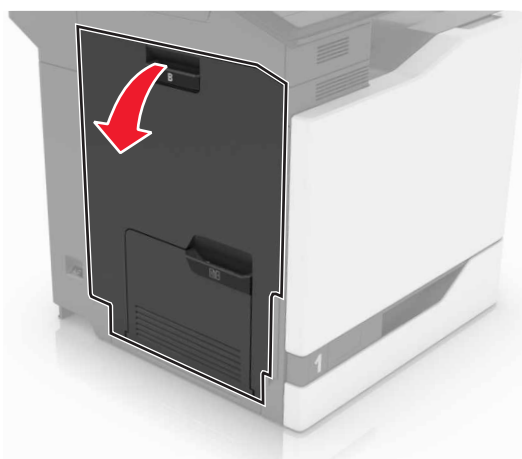
3 Close door B.

Paper jam in door B

Paper jam in the fuser

1 Open door B.

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

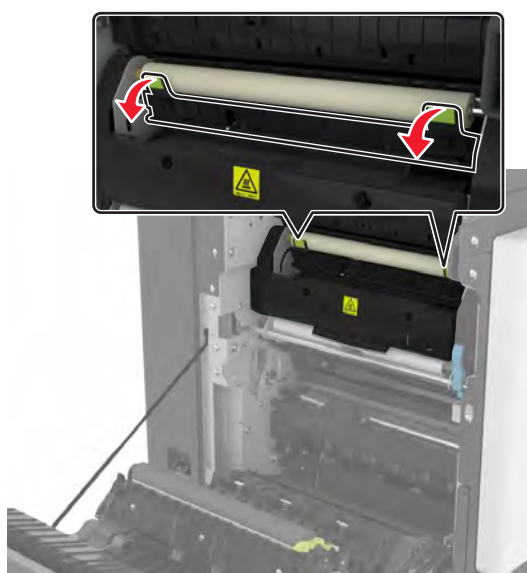


2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

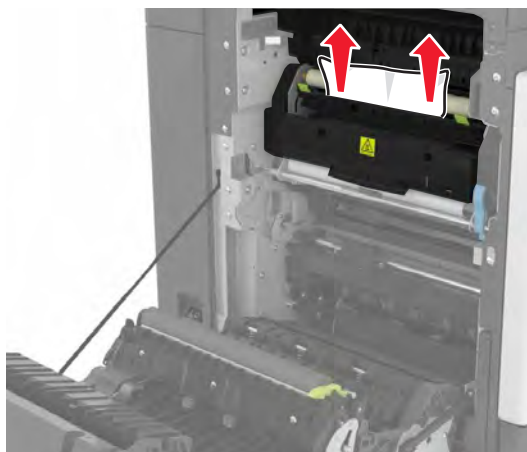


3 Open the fuser access door.



4 Remove the jammed paper.


Note: Make sure that all paper fragments are removed.

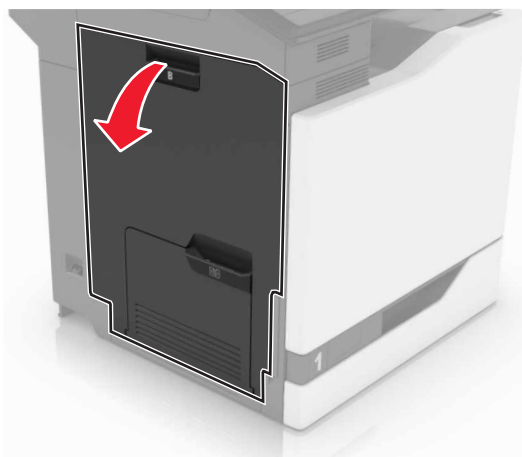


5 Close door B.

Paper jam in the duplex unit

1 Open door B.

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

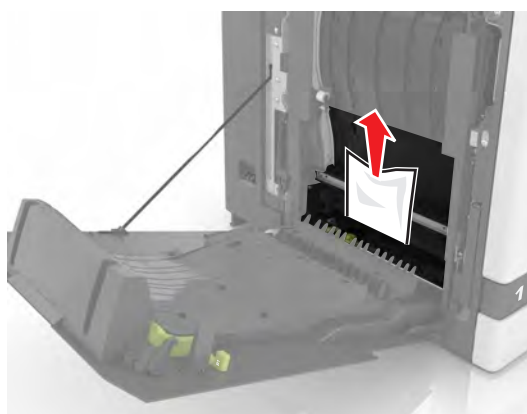


3 Open the duplex cover.



4 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

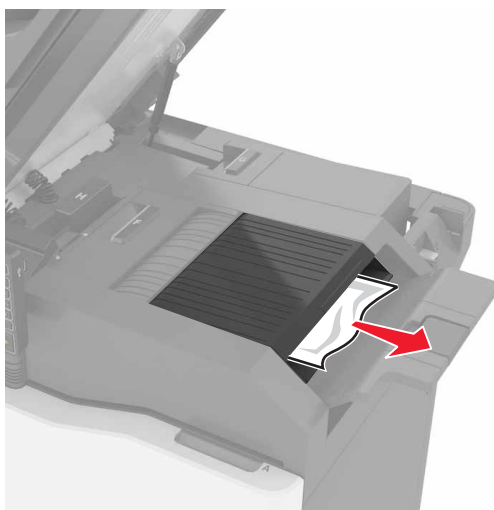


5 Close the duplex cover and door B.

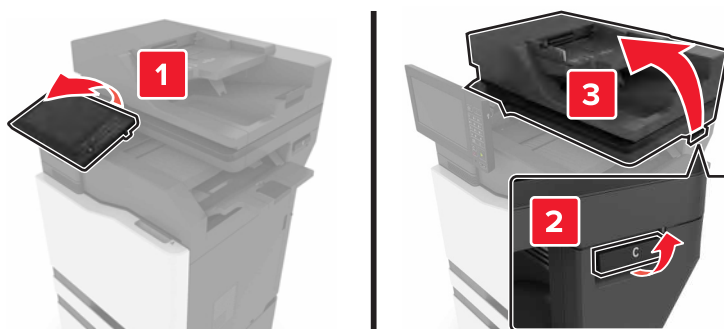
Paper jam in the finisher bin

1 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



2 Open door C.

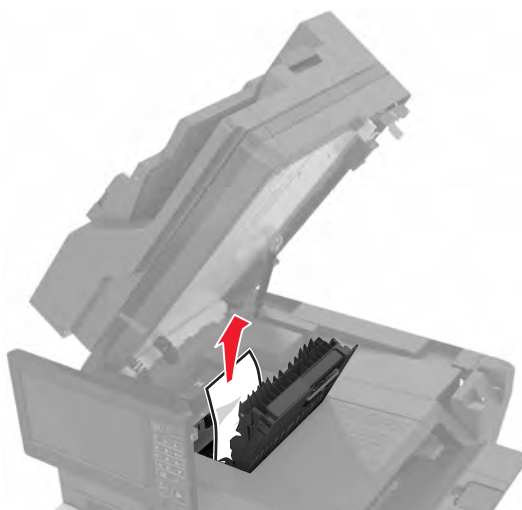


3 Open door F.




4 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

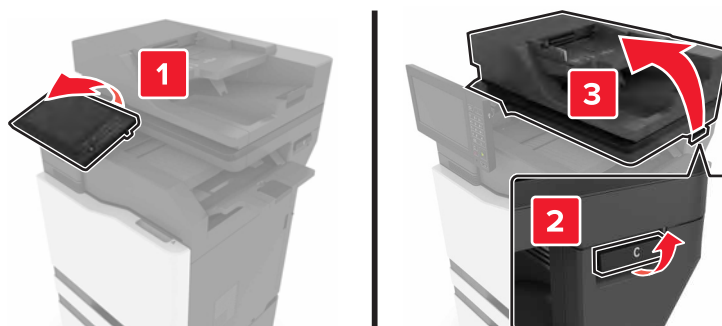


5 Close doors F and C.

 **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, keep hands clear of the labeled area when closing door C.

Staple jam in door G

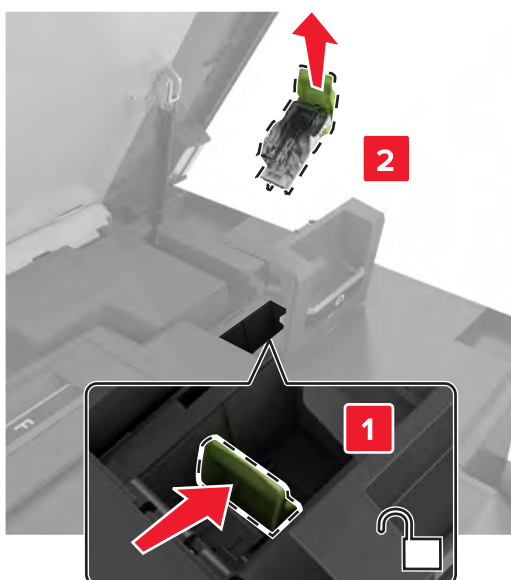
1 Open door C.



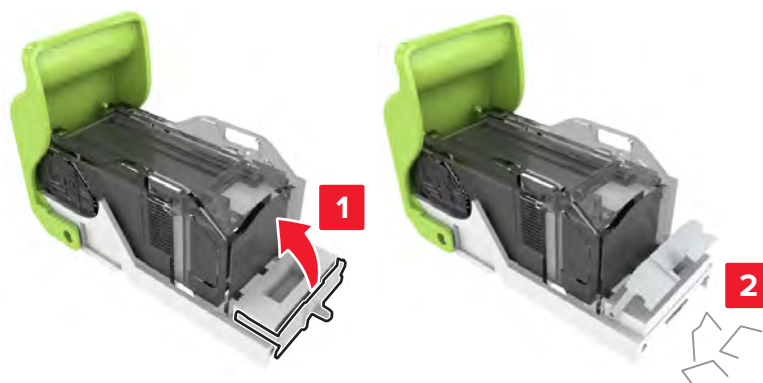
2 Open door G.



3 Pull out the staple cartridge holder.



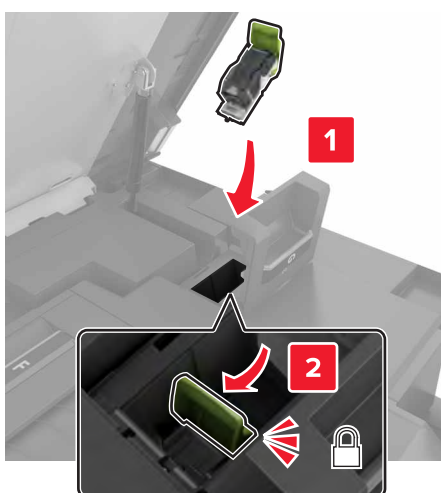
- 4 Lift the staple guard, remove the loose staples, and then remove the partial slab of staples so only the full slabs remain.



5 Close the staple guard.



6 Insert the staple cartridge holder.

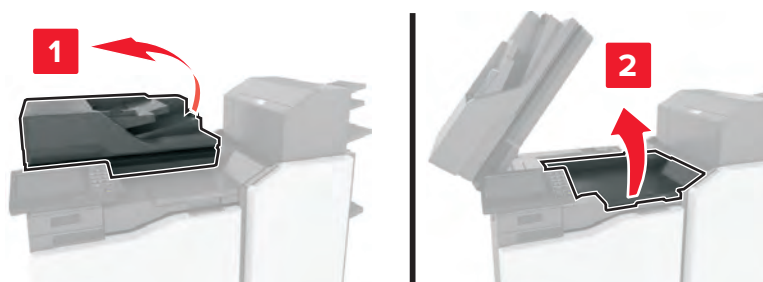


7 Close doors G and C.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, keep hands clear of the labeled area when closing door C.

Paper jam in door K

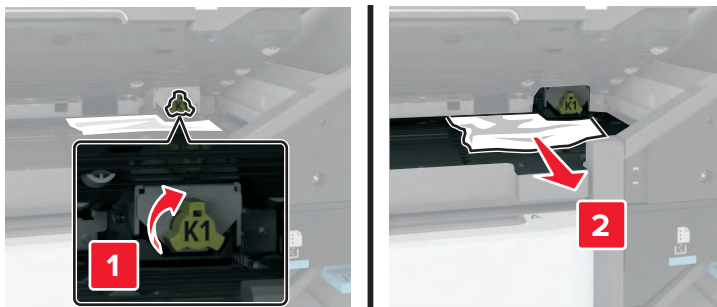
1 Open doors C and K.



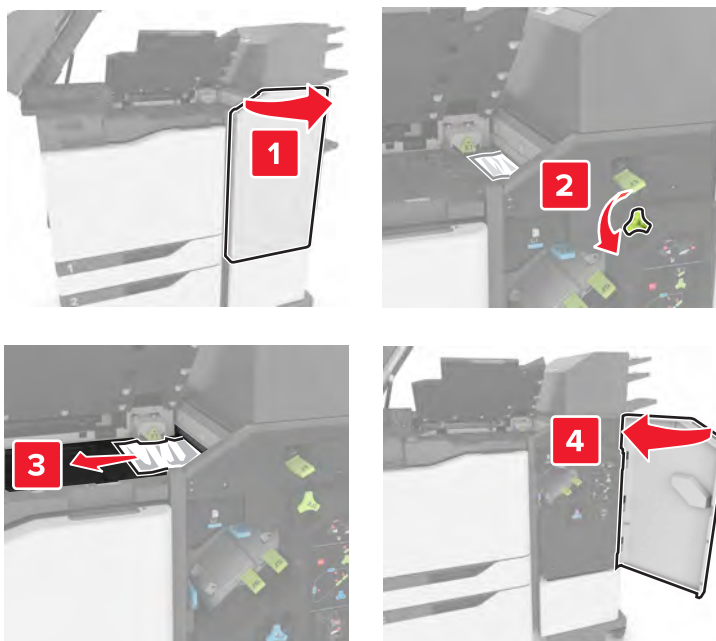
2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.


- Using knob K1



- Using knob J2



3 Close doors K and C.

 **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, keep hands clear of the labeled area when closing door C.

Paper jam in door J

- 1 Open door J.



- 2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

- Area J1



- Areas J3 and J4



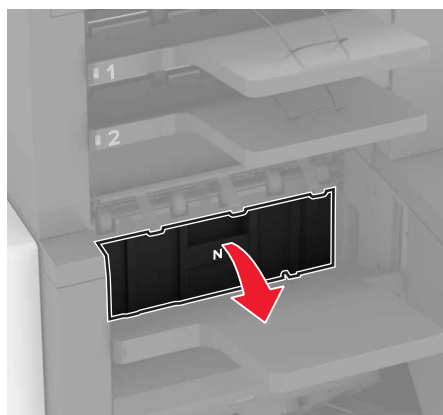
- Areas J5 and J6



- 3 Close door J.

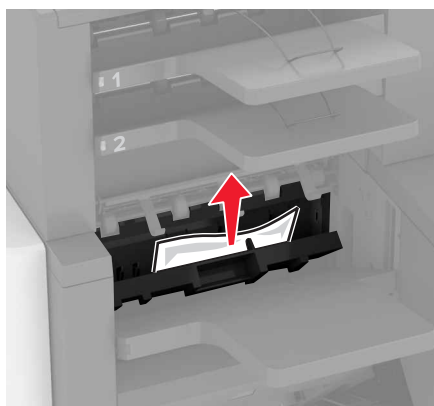
Paper jam in door N

- 1 Open door N.



- 2 Remove the jammed paper.

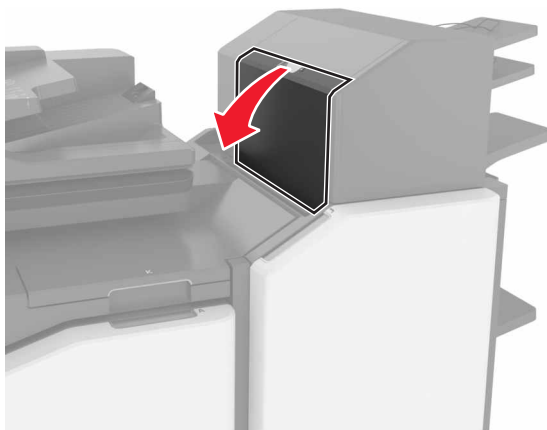
Note: Make sure that all paper fragments are removed.



3 Close door N.

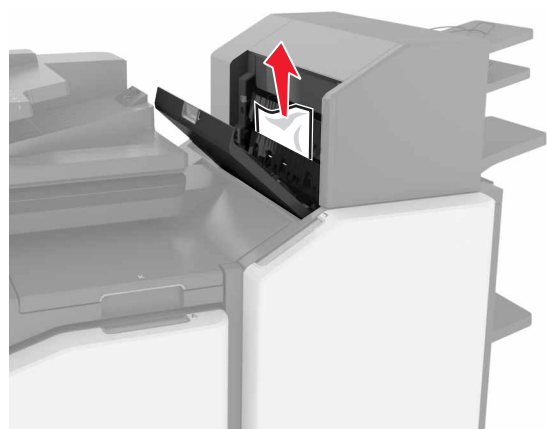
Paper jam in door L

1 Open door L.



2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



3 Close door L.

Paper jam in the staple finisher bin

- 1 Open door J.



- 2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



- 3 Close door J.

Staple jam in door J

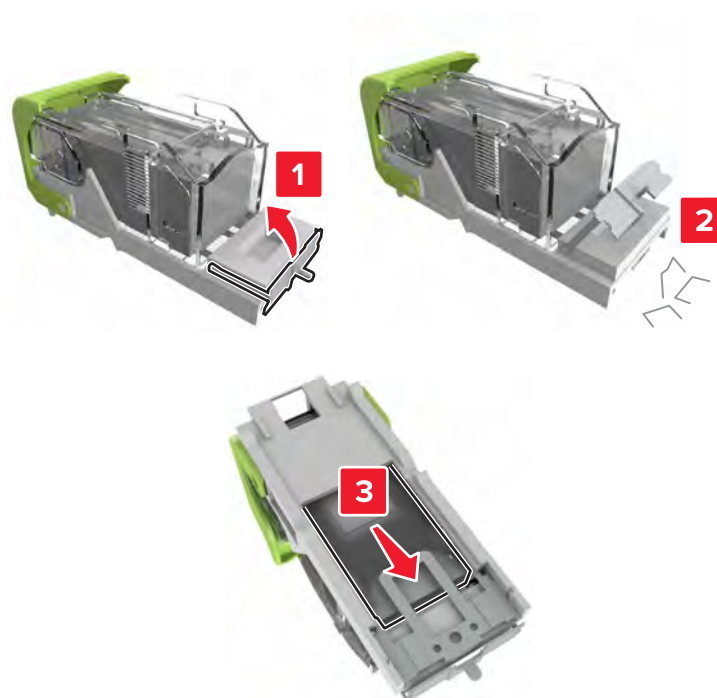
- 1 Open door J.



2 Remove the staple cartridge holder.

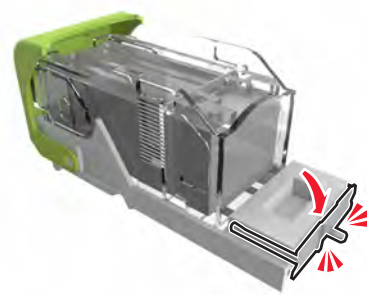


3 Open the staple guard, and then remove the loose staples.

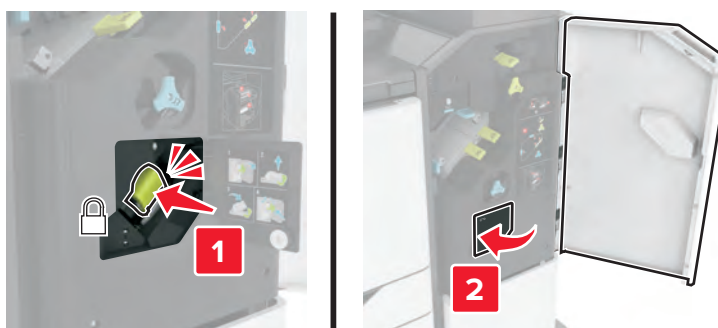


Note: Do not insert the staples that came out of the cartridge.

4 Close the staple guard.



5 Insert the staple cartridge holder.



6 Close door J.

200 paper jams

200 paper jam messages

Error code	Description	Action
200.05	Paper fed from the MPF never cleared the sensor (input).	See “Sensor (input): Paper failed to clear service check” on page 135.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See “Sensor (input): Paper arrived too early service check” on page 135.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See “Sensor (input): Paper cleared too early service check” on page 156.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See “Sensor (input): Paper failed to clear service check” on page 135.
200.16	Paper fed from tray 1 was picked but it never arrived at the sensor (input).	See “Sensor (input): Tray 1 failed to pick service check” on page 137.
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See “Sensor (input): Paper arrived too early service check” on page 135.

Error code	Description	Action
200.23	Paper fed from tray 2 jammed at the sensor (input). Paper did not reach the sensor (input).	See “Sensor (input): Paper (tray 2) failed to arrive service check” on page 139.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See “Sensor (input): Paper cleared too early service check” on page 156.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See “Sensor (input): Paper failed to clear service check” on page 135.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See “Sensor (input): Paper arrived too early service check” on page 135.
200.33	Paper fed from tray 3 jammed at the sensor (input). Paper did not reach the sensor (input).	See “Sensor (input): Paper (tray 3) failed to arrive service check” on page 142.
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See “Sensor (input): Paper cleared too early service check” on page 156.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See “Sensor (input): Paper failed to clear service check” on page 135.
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See “Sensor (input): Paper arrived too early service check” on page 135.
200.43	Paper fed from tray 4 jammed at the sensor (input). Paper did not reach the sensor (input).	See “Sensor (input): Paper (tray 4) failed to arrive service check” on page 145.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See “Sensor (input): Paper cleared too early service check” on page 156.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See “Sensor (input): Paper failed to clear service check” on page 135.
200.52	Paper fed from tray 5 was detected earlier than expected at the sensor (input).	See “Sensor (input): Paper arrived too early service check” on page 135.
200.53	Paper fed from tray 5 jammed at the sensor (input). Paper did not reach the sensor (input).	See “Sensor (input): Paper (tray 5) failed to arrive service check” on page 150.
200.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected.	See “Sensor (input): Paper cleared too early service check” on page 156.
200.55	Paper fed from tray 5 never cleared the sensor (input).	See “Sensor (input): Paper failed to clear service check” on page 135.
200.56	Paper fed from tray 5 was picked but it never arrived at the sensor (input).	See “Sensor (input): Paper (tray 5) failed to arrive service check” on page 150.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See “Sensor (input) static jam service check” on page 157.

Sensor (input): Paper arrived too early service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper path along the tray exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation b Touch Start.</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p>Step 11 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
<p>Step 12 Replace the motor (isolation).</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Tray 1 failed to pick service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray 1 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 1 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p>Step 8 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the condition of the tray 1 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <ul style="list-style-type: none"> a Check the pick roller for proper installation. b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. <p>Is the pick roller assembly properly installed?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the paper path along the tray exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <ul style="list-style-type: none"> a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input). <p>Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.
<p>Step 16 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.

Action	Yes	No
<p>Step 17 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Pick (tray 1) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 21.	Go to step 19.
<p>Step 19 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Replace the tray 1 paper feeder. See “Paper feeder removal” on page 762.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper (tray 2) failed to arrive service check

Action	Yes	No
<p>Step 1 Check the tray 1 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check tray 2 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in tray 2.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 2 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the condition of the tray 2 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the pick roller for proper installation.</p> <p>b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft.</p> <p>Is the pick roller assembly properly installed?</p>	Go to step 13.	Go to step 12.

Action	Yes	No
<p>Step 12 Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the paper path along the tray 2 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.
<p>Step 16 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 21.	Go to step 19.
<p>Step 19 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.

Action	Yes	No
<p>Step 21</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 24.	Go to step 22.
<p>Step 22</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>Replace the motor (isolation).</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper (tray 3) failed to arrive service check

Action	Yes	No
<p>Step 1</p> <p>Check the tray 1 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the tray 2 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check tray 3 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the paper condition in tray 3.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 8.	Go to step 9.
<p>Step 8 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the tray 3 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the condition of the tray 3 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Check the pick roller for proper installation.</p> <p>b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft.</p> <p>Is the pick roller assembly properly installed?</p>	Go to step 15.	Go to step 14.

Action	Yes	No
<p>Step 14 Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the paper path along the tray 3 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 20.	Go to step 18.
<p>Step 18 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (MPF/pass through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 23.	Go to step 21.
<p>Step 21 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.

Action	Yes	No
<p>Step 23</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 26.	Go to step 24.
<p>Step 24</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>Replace the motor (isolation).</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper (tray 4) failed to arrive service check

Action	Yes	No
<p>Step 1</p> <p>Check the tray 1 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the tray 2 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check the tray 3 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check tray 4 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 8.	Go to step 9.
<p>Step 8 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the paper condition in tray 4.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 10.	Go to step 11.
<p>Step 10 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the tray 4 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the condition of the tray 4 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p>Step 15</p> <p>a Check the pick roller for proper installation.</p> <p>b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft.</p> <p>Is the pick roller assembly properly installed?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the paper path along the tray 4 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 19.	Go to step 18.
<p>Step 18</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 22.	Go to step 20.
<p>Step 20</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (MPF/pass through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 25.	Go to step 23.

Action	Yes	No
<p>Step 23 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 28.	Go to step 26.
<p>Step 26 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 31.	Go to step 29.
<p>Step 29 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 31.	The problem is solved.

Action	Yes	No
<p>Step 31</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 34.	Go to step 32.
<p>Step 32</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.
<p>Step 33</p> <p>Replace the motor (isolation).</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 2)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 37.	Go to step 35.
<p>Step 35</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 36.	The problem is solved.
<p>Step 36</p> <p>Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 37.	The problem is solved.
<p>Step 37</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 40.	Go to step 38.

Action	Yes	No
<p>Step 38 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 39.	The problem is solved.
<p>Step 39 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 40.	The problem is solved.
<p>Step 40 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper (tray 5) failed to arrive service check

Action	Yes	No
<p>Step 1 Check the tray 1 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray 2 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the tray 3 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7 Check the tray 4 paper path.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check tray 5 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 10.	Go to step 11.
<p>Step 10 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the paper condition in tray 5.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 12.	Go to step 13.
<p>Step 12 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the tray 5 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the condition of the tray 5 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.

Action	Yes	No
<p>Step 17</p> <p>a Check the pick roller for proper installation.</p> <p>b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft.</p> <p>Is the pick roller assembly properly installed?</p>	Go to step 19.	Go to step 18.
<p>Step 18</p> <p>Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Check the paper path along the tray 5 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 21.	Go to step 20.
<p>Step 20</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 24.	Go to step 22.
<p>Step 22</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (MPF/pass through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 27.	Go to step 25.

Action	Yes	No
<p>Step 25 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 30.	Go to step 28.
<p>Step 28 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 33.	Go to step 31.
<p>Step 31 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.

Action	Yes	No
<p>Step 33</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 36.	Go to step 34.
<p>Step 34</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 36.	The problem is solved.
<p>Step 36</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 39.	Go to step 37.
<p>Step 37</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 38.	The problem is solved.
<p>Step 38</p> <p>Replace the motor (isolation).</p> <p>Does the problem remain?</p>	Go to step 39.	The problem is solved.
<p>Step 39</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 2)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 42.	Go to step 40.
<p>Step 40</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 41.	The problem is solved.

Action	Yes	No
<p>Step 41 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 42.	The problem is solved.
<p>Step 42 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 45.	Go to step 43.
<p>Step 43 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 44.	The problem is solved.
<p>Step 44 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 45.	The problem is solved.
<p>Step 45 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 4) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 48.	Go to step 46.
<p>Step 46 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 47.	The problem is solved.
<p>Step 47 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 48.	The problem is solved.
<p>Step 48 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper cleared too early service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	The problem is solved.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

202 paper jams

202 paper jam messages

Error code	Description	Action
202.02	Paper fed from the MPF was detected earlier than expected at the sensor (fuser exit).	See “Sensor (fuser exit): Paper arrived too early service check” on page 160.
202.03	Paper fed from the MPF never arrived at the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to arrive service check” on page 161.
202.04	Paper fed from the MPF cleared the sensor (fuser exit) earlier than expected.	See “Sensor (fuser exit): Paper cleared too early service check” on page 163.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to clear service check” on page 164.
202.07	Paper fed from the MPF never cleared the sensor (fuser exit).	
202.12	Paper fed from tray 1 was detected earlier than expected at the sensor (fuser exit).	See “Sensor (fuser exit): Paper arrived too early service check” on page 160.
202.13	Paper fed from tray 1 never arrived at the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to arrive service check” on page 161.
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	See “Sensor (fuser exit): Paper cleared too early service check” on page 163.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to clear service check” on page 164.
202.22	Paper fed from tray 2 was detected earlier than expected at the sensor (fuser exit).	See “Sensor (fuser exit): Paper arrived too early service check” on page 160.
202.23	Paper fed from tray 2 never arrived at the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to arrive service check” on page 161.
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	See “Sensor (fuser exit): Paper cleared too early service check” on page 163.
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to clear service check” on page 164.
202.32	Paper fed from tray 3 was detected earlier than expected at the sensor (fuser exit).	See “Sensor (fuser exit): Paper arrived too early service check” on page 160.
202.33	Paper fed from tray 3 never arrived at the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to arrive service check” on page 161.
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	See “Sensor (fuser exit): Paper cleared too early service check” on page 163.
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to clear service check” on page 164.
202.42	Paper fed from tray 4 was detected earlier than expected at the sensor (fuser exit).	See “Sensor (fuser exit): Paper arrived too early service check” on page 160.

Error code	Description	Action
202.43	Paper fed from tray 4 never arrived at the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to arrive service check” on page 161.
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	See “Sensor (fuser exit): Paper cleared too early service check” on page 163.
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to clear service check” on page 164.
202.52	Paper fed from tray 5 was detected earlier than expected at the sensor (fuser exit).	See “Sensor (fuser exit): Paper arrived too early service check” on page 160.
202.53	Paper fed from tray 5 never arrived at the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to arrive service check” on page 161.
202.54	Paper fed from tray 5 cleared the sensor (fuser exit) earlier than expected.	See “Sensor (fuser exit): Paper cleared too early service check” on page 163.
202.55	Paper fed from tray 5 never cleared the sensor (fuser exit).	See “Sensor (fuser exit): Paper failed to clear service check” on page 164.
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See “Sensor (fuser exit) static jam service check” on page 165.

Sensor (fuser buckle) static jam service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Fuser buckle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Replace the sensor (fuser buckle detect).</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (fuser exit): Paper arrived too early service check

Action	Yes	No
<p>Step 1 Check the paper path just before the fuser for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the fuser rollers for damage.</p> <p>Are the rollers free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (fuser exit): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the fuser for obstructions.</p> <p>Is the fuser free of obstructions?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the obstructions in the fuser area.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the fuser for damage and life expiration.</p> <p>Is the fuser damaged or has reached end of life?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Check the transfer belt for damage.</p> <p>Is the transfer belt damaged?</p>	Go to step 11.	Go to step 13.
<p>Step 11 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Fuser b Touch Start.</p> <p>Does the motor run?</p>	Go to step 15.	Go to step 13.
<p>Step 13 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Transfer belt b Touch Start.</p> <p>Does the motor run?</p>	Go to step 18.	Go to step 16.
<p>Step 16 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (fuser exit): Paper cleared too early service check

Action	Yes	No
<p>Step 1 Check the fuser rollers for damage.</p> <p>Are the rollers free of damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (fuser exit): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the fuser for obstructions.</p> <p>Is the fuser free of obstructions?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the obstructions on the fuser.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the fuser for damage and life expiration.</p> <p>Is the fuser damaged or has it reached end of life?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Fuser</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the motor (fuser).</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the motor (transfer belt) cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Replace the motor (transfer belt).</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (fuser exit) static jam service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Fuser exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

212 paper jams

212 paper jam messages

Error code	Description	Action
212.02	Paper fed from the MPF was detected earlier than expected at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper arrived too early service check” on page 168 .
212.03	Paper fed from the MPF never arrived at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to arrive service check” on page 168 .
212.04	Paper fed from the MPF cleared the sensor (deskew roller entry) earlier than expected.	See “Sensor (deskew roller entry): Paper cleared too early service check” on page 170 .
212.05	Paper fed from the MPF never cleared the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to clear service check” on page 170 .
212.12	Paper fed from tray 1 was detected earlier than expected at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper arrived too early service check” on page 168 .
212.13	Paper fed from tray 1 never arrived at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to arrive service check” on page 168 .

Error code	Description	Action
212.14	Paper fed from tray 1 cleared the sensor (deskew roller entry) earlier than expected.	See “Sensor (deskew roller entry): Paper cleared too early service check” on page 170.
212.15	Paper fed from tray 1 never cleared the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to clear service check” on page 170.
212.22	Paper fed from tray 2 was detected earlier than expected at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper arrived too early service check” on page 168.
212.23	Paper fed from tray 2 never arrived at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to arrive service check” on page 168.
212.24	Paper fed from tray 2 cleared the sensor (deskew roller entry) earlier than expected.	See “Sensor (deskew roller entry): Paper cleared too early service check” on page 170.
212.25	Paper fed from tray 2 never cleared the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to clear service check” on page 170.
212.32	Paper fed from tray 3 was detected earlier than expected at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper arrived too early service check” on page 168.
212.33	Paper fed from tray 3 never arrived at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to arrive service check” on page 168.
212.34	Paper fed from tray 3 cleared the sensor (deskew roller entry) earlier than expected.	See “Sensor (deskew roller entry): Paper cleared too early service check” on page 170.
212.35	Paper fed from tray 3 never cleared the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to clear service check” on page 170.
212.42	Paper fed from tray 4 was detected earlier than expected at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper arrived too early service check” on page 168.
212.43	Paper fed from tray 4 never arrived at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to arrive service check” on page 168.
212.44	Paper fed from tray 4 cleared the sensor (deskew roller entry) earlier than expected.	See “Sensor (deskew roller entry): Paper cleared too early service check” on page 170.
212.45	Paper fed from tray 4 never cleared the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to clear service check” on page 170.
212.52	Paper fed from tray 5 was detected earlier than expected at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper arrived too early service check” on page 168.
212.53	Paper fed from tray 5 never arrived at the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to arrive service check” on page 168.
212.54	Paper fed from tray 5 cleared the sensor (deskew roller entry) earlier than expected.	See “Sensor (deskew roller entry): Paper cleared too early service check” on page 170.

Error code	Description	Action
212.55	Paper fed from tray 5 never cleared the sensor (deskew roller entry).	See “Sensor (deskew roller entry): Paper failed to clear service check” on page 170.
212.91	Paper remains detected at the sensor (deskew roller entry) after the printer is turned on.	See “Sensor (deskew roller entry) static jam service check” on page 172.

Sensor (deskew roller entry): Paper arrived too early service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path just before the deskew roller for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the deskew roller for damage.</p> <p>Is the roller free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Replace the deskew roller.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller entry): Paper failed to arrive service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller entry).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller entry): Paper cleared too early service check

Action	Yes	No
<p>Step 1 Check the deskew roller for damage.</p> <p>Is the roller free of damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Replace the deskew roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller entry).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller entry): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller entry).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Deskew b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller entry) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller entry).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

213 paper jams

213 paper jam messages

Error code	Description	Action
213.03	Paper fed from the MPF never arrived at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to arrive service check” on page 174.
213.05	Paper fed from the MPF never cleared the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to clear service check” on page 176.
213.12	Paper fed from tray 1 was detected earlier than expected at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper arrived too early service check” on page 174.

Error code	Description	Action
213.13	Paper fed from tray 1 never arrived at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to arrive service check” on page 174.
213.14	Paper fed from tray 1 cleared the sensor (deskew roller exit) earlier than expected.	See “Sensor (deskew roller exit): Paper cleared too early service check” on page 176.
213.15	Paper fed from tray 1 never cleared the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to clear service check” on page 176.
213.22	Paper fed from tray 2 was detected earlier than expected at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper arrived too early service check” on page 174.
213.23	Paper fed from tray 2 never arrived at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to arrive service check” on page 174.
213.24	Paper fed from tray 2 cleared the sensor (deskew roller exit) earlier than expected.	See “Sensor (deskew roller exit): Paper cleared too early service check” on page 176.
213.25	Paper fed from tray 2 never cleared the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to clear service check” on page 176.
213.32	Paper fed from tray 3 was detected earlier than expected at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper arrived too early service check” on page 174.
213.33	Paper fed from tray 3 never arrived at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to arrive service check” on page 174.
213.34	Paper fed from tray 3 cleared the sensor (deskew roller exit) earlier than expected.	See “Sensor (deskew roller exit): Paper cleared too early service check” on page 176.
213.35	Paper fed from tray 3 never cleared the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to clear service check” on page 176.
213.42	Paper fed from tray 4 was detected earlier than expected at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper arrived too early service check” on page 174.
213.43	Paper fed from tray 4 never arrived at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to arrive service check” on page 174.
213.44	Paper fed from tray 4 cleared the sensor (deskew roller exit) earlier than expected.	See “Sensor (deskew roller exit): Paper cleared too early service check” on page 176.
213.45	Paper fed from tray 4 never cleared the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to clear service check” on page 176.
213.52	Paper fed from tray 5 was detected earlier than expected at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper arrived too early service check” on page 174.
213.53	Paper fed from tray 5 never arrived at the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to arrive service check” on page 174.
213.54	Paper fed from tray 5 cleared the sensor (deskew roller exit) earlier than expected.	See “Sensor (deskew roller exit): Paper cleared too early service check” on page 176.
213.55	Paper fed from tray 5 never cleared the sensor (deskew roller exit).	See “Sensor (deskew roller exit): Paper failed to clear service check” on page 176.

Error code	Description	Action
213.91	Paper remains detected at the sensor (deskew roller exit) after the printer is turned on.	See “Sensor (deskew roller exit) static jam service check” on page 178.

Sensor (deskew roller exit): Paper arrived too early service check

Action	Yes	No
<p>Step 1 Check the paper path just before the deskew roller for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the deskew roller for damage.</p> <p>Is the roller free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the deskew roller.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller exit): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the paper condition in the tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Deskew b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller exit): Paper cleared too early service check

Action	Yes	No
<p>Step 1 Check the deskew roller for damage.</p> <p>Is the roller free of damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Replace the deskew roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor (deskew roller exit).</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller exit): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Deskew roller exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Transfer belt</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 9.	Go to step 7.
<p>Step 7</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (deskew roller exit) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Deskew roller exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the deskew roller for contamination and damage.</p> <p>Is the roller free of contamination and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean or replace the deskew roller.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor (deskew roller exit).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

230 paper jams

230 paper jam messages

Error code	Description	Action
230.03	Paper fed from the MPF never arrived at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to arrive service check” on page 181.
230.05	Paper fed from the MPF never cleared the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to clear service check” on page 184.
230.12	Paper fed from tray 1 was detected earlier than expected at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper arrived too early service check” on page 181.
230.13	Paper fed from tray 1 never arrived at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to arrive service check” on page 181.
230.14	Paper fed from tray 1 cleared the sensor (duplex path 1) earlier than expected.	See “Sensor (duplex path 1): Paper cleared too early service check” on page 184.
230.15	Paper fed from tray 1 never cleared the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to clear service check” on page 184.
230.22	Paper fed from tray 2 was detected earlier than expected at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper arrived too early service check” on page 181.
230.23	Paper fed from tray 2 never arrived at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to arrive service check” on page 181.
230.24	Paper fed from tray 2 cleared the sensor (duplex path 1) earlier than expected.	See “Sensor (duplex path 1): Paper cleared too early service check” on page 184.
230.25	Paper fed from tray 2 never cleared the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to clear service check” on page 184.
230.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper arrived too early service check” on page 181.
230.33	Paper fed from tray 3 never arrived at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to arrive service check” on page 181.
230.34	Paper fed from tray 3 cleared the sensor (duplex path 1) earlier than expected.	See “Sensor (duplex path 1): Paper cleared too early service check” on page 184.
230.35	Paper fed from tray 3 never cleared the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to clear service check” on page 184.
230.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper arrived too early service check” on page 181.
230.43	Paper fed from tray 4 never arrived at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to arrive service check” on page 181.
230.44	Paper fed from tray 4 cleared the sensor (duplex path 1) earlier than expected.	See “Sensor (duplex path 1): Paper cleared too early service check” on page 184.

Error code	Description	Action
230.45	Paper fed from tray 4 never cleared the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to clear service check” on page 184.
230.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper arrived too early service check” on page 181.
230.53	Paper fed from tray 5 never arrived at the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to arrive service check” on page 181.
230.54	Paper fed from tray 5 cleared the sensor (duplex path 1) earlier than expected.	See “Sensor (duplex path 1): Paper cleared too early service check” on page 184.
230.55	Paper fed from tray 5 never cleared the sensor (duplex path 1).	See “Sensor (duplex path 1): Paper failed to clear service check” on page 184.
230.91	Paper remains detected at the sensor (duplex path 1) after the printer is turned on.	See “Sensor (duplex path 1) static jam service check” on page 186.

Sensor (redrive buckle) static jam service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for partially fed or jammed paper.</p> <p>Is the paper path free of partially fed or jammed paper?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the partially fed or jammed paper.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Redrive buckle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 1): Paper arrived too early service check

Action	Yes	No
<p>Step 1 Check the paper path entering the duplex path for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 1): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the redrive area for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the duplex path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Duplex path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Duplex diverter</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the redrive. See “Redrive removal” on page 709.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Redrive</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13 Replace the redrive. See “Redrive removal” on page 709.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Duplex b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the duplex drive gears for damage.</p> <p>Is the duplex drive gears free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Replace the duplex drive gears. See “Duplex drive gears removal” on page 694.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the duplex assembly for damaged gears, belts, and rollers.</p> <p>Is the duplex assembly free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Replace the duplex assembly.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 1): Paper cleared too early service check

Action	Yes	No
<p>Step 1 Check the duplex rollers for damage.</p> <p>Are the rollers free of damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Replace the duplex assembly.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Duplex path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 1): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the redrive area for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the duplex path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Duplex path 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Duplex b Touch Start.</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p>Step 11 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Replace the motor. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path 1) static jam service check

Action	Yes	No
Step 1 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Duplex path 1). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseal if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

231 paper jams

231 paper jam messages

Error code	Description	Action
231.03	Paper fed from the MPF never arrived at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to arrive service check” on page 189.
231.05	Paper fed from the MPF never cleared the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to clear service check” on page 191.
231.12	Paper fed from tray 1 was detected earlier than expected at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper arrived too early service check” on page 188.
231.13	Paper fed from tray 1 never arrived at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to arrive service check” on page 189.
231.14	Paper fed from tray 1 cleared the sensor (duplex path 2) earlier than expected.	See “Sensor (duplex path 2): Paper cleared too early service check” on page 190.
231.15	Paper fed from tray 1 never cleared the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to clear service check” on page 191.
231.22	Paper fed from tray 2 was detected earlier than expected at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper arrived too early service check” on page 188.
231.23	Paper fed from tray 2 never arrived at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to arrive service check” on page 189.
231.24	Paper fed from tray 2 cleared the sensor (duplex path 2) earlier than expected.	See “Sensor (duplex path 2): Paper cleared too early service check” on page 190.
231.25	Paper fed from tray 2 never cleared the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to clear service check” on page 191.
231.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper arrived too early service check” on page 188.
231.33	Paper fed from tray 3 never arrived at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to arrive service check” on page 189.
231.34	Paper fed from tray 3 cleared the sensor (duplex path 2) earlier than expected.	See “Sensor (duplex path 2): Paper cleared too early service check” on page 190.
231.35	Paper fed from tray 3 never cleared the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to clear service check” on page 191.
231.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper arrived too early service check” on page 188.
231.43	Paper fed from tray 4 never arrived at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to arrive service check” on page 189.
231.44	Paper fed from tray 4 cleared the sensor (duplex path 2) earlier than expected.	See “Sensor (duplex path 2): Paper cleared too early service check” on page 190.

Error code	Description	Action
231.45	Paper fed from tray 4 never cleared the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to clear service check” on page 191.
231.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper arrived too early service check” on page 188.
231.53	Paper fed from tray 5 never arrived at the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to arrive service check” on page 189.
231.54	Paper fed from tray 5 cleared the sensor (duplex path 2) earlier than expected.	See “Sensor (duplex path 2): Paper cleared too early service check” on page 190.
231.55	Paper fed from tray 5 never cleared the sensor (duplex path 2).	See “Sensor (duplex path 2): Paper failed to clear service check” on page 191.
231.91	Paper remains detected at the sensor (duplex path 2) after the printer is turned on.	See “Sensor (duplex path 2) static jam service check” on page 192.

Sensor (duplex path 2): Paper arrived too early service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path entering the duplex path for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 2): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the duplex path for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Duplex b Touch Start.</p> <p>Does the motor run?</p>	Go to step 9.	Go to step 7.
<p>Step 7 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the duplex drive gears for damage. Is the duplex drive gears free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the duplex drive gears. See “Duplex drive gears removal” on page 694. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the duplex assembly for damaged gears, belts, and rollers. Is the duplex assembly free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the duplex assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path 2): Paper cleared too early service check

Action	Yes	No
Step 1 Check the duplex rollers for damage. Are the rollers free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the duplex assembly. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Duplex path 2). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.

Action	Yes	No
<p>Step 4 Check the sensor cable for proper connection, and then reseal it if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 2): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the duplex path for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.

Action	Yes	No
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (duplex path 2) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (Duplex path 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

232 paper jams

232 paper jam messages

Error code	Description	Action
232.03	Paper fed from the MPF never arrived at the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to arrive service check” on page 194.
232.04	Paper fed from the MPF cleared the sensor (input) earlier than expected during a duplex print job.	See “Sensor (input): Paper (duplex job) cleared too early service check” on page 196.
232.05	Paper fed from the MPF never cleared the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to clear service check” on page 197.
232.13	Paper fed from tray 1 never arrived at the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to arrive service check” on page 194.
232.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected during a duplex print job.	See “Sensor (input): Paper (duplex job) cleared too early service check” on page 196.
232.15	Paper fed from tray 1 never cleared the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to clear service check” on page 197.
232.23	Paper fed from tray 2 never arrived at the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to arrive service check” on page 194.

Error code	Description	Action
232.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected during a duplex print job.	See “Sensor (input): Paper (duplex job) cleared too early service check” on page 196.
232.25	Paper fed from tray 2 never cleared the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to clear service check” on page 197.
232.33	Paper fed from tray 3 never arrived at the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to arrive service check” on page 194.
232.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected during a duplex print job.	See “Sensor (input): Paper (duplex job) cleared too early service check” on page 196.
232.35	Paper fed from tray 3 never cleared the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to clear service check” on page 197.
232.43	Paper fed from tray 4 never arrived at the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to arrive service check” on page 194.
232.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected during a duplex print job.	See “Sensor (input): Paper (duplex job) cleared too early service check” on page 196.
232.45	Paper fed from tray 4 never cleared the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to clear service check” on page 197.
232.53	Paper fed from tray 5 never arrived at the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to arrive service check” on page 194.
232.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected during a duplex print job.	See “Sensor (input): Paper (duplex job) cleared too early service check” on page 196.
232.55	Paper fed from tray 5 never cleared the sensor (input) during a duplex print job.	See “Sensor (input): Paper (duplex job) failed to clear service check” on page 197.

Sensor (input): Paper (duplex job) failed to arrive service check

Action	Yes	No
Step 1 Check the sensor (input) area for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the duplex path for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.

Action	Yes	No
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Duplex b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the duplex drive gears for damage.</p> <p>Is the duplex drive gears free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Replace the duplex drive gears. See “Duplex drive gears removal” on page 694.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13 Check the duplex assembly for damaged gears, belts, and rollers.</p> <p>Is the duplex assembly free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Replace the duplex assembly.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper (duplex job) cleared too early service check

Action	Yes	No
<p>Step 1 Check the duplex rollers for damage.</p> <p>Are the rollers free of damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Replace the duplex.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (input): Paper (duplex job) failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the duplex path for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Input).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor. See “Sensor (input) removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Deskew</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

240 paper jams

240 paper jam messages

Error code	Description	Action
240.05	Paper fed from the MPF cleared the sensor (MPF/pass-through) later than expected.	See “Sensor (MPF/pass-through): Paper failed to clear service check” on page 207.
240.06	Paper fed from the MPF was picked but it never arrived at the sensor (MPF/pass-through).	See “MPF failed to pick service check” on page 208.
240.25	Paper fed from tray 2 cleared the sensor (MPF/pass-through) later than expected.	See “Sensor (MPF/pass-through): Paper failed to clear service check” on page 207.
240.26	Paper fed from tray 2 was picked but it never arrived at the sensor (MPF/pass-through).	See “Sensor (MPF/pass-through): Tray 2 failed to pick service check” on page 210.
240.27	Paper fed from tray 2 never cleared the sensor (MPF/pass-through).	See “Sensor (MPF/pass-through): Paper failed to clear service check” on page 207.
240.33	Paper fed from tray 3 was picked but it never arrived at the sensor (MPF/pass-through).	See “Sensor (MPF/pass-through): Paper (tray 3) failed to arrive service check” on page 199.

Error code	Description	Action
240.35	Paper fed from tray 3 cleared the sensor (MPF/pass-through) later than expected.	See “Sensor (MPF/pass-through): Paper failed to clear service check” on page 207.
240.43	Paper fed from tray 4 was picked but it never arrived at the sensor (MPF/pass-through).	See “Sensor (MPF/pass-through): Paper (tray 4) failed to arrive service check” on page 201.
240.45	Paper fed from tray 4 cleared the sensor (MPF/pass-through) later than expected.	See “Sensor (MPF/pass-through): Paper failed to clear service check” on page 207.
240.53	Paper fed from tray 5 was picked but it never arrived at the sensor (MPF/pass-through).	See “Sensor (MPF/pass-through): Paper (tray 5) failed to arrive service check” on page 203.
240.55	Paper fed from tray 5 cleared the sensor (MPF/pass-through) later than expected.	See “Sensor (MPF/pass-through): Paper failed to clear service check” on page 207.
240.82	The motor (MPF pick) has stalled.	See “Motor (MPF pick) jam service check” on page 213.
240.83	The motor (MPF pick) has stalled.	
240.84	The motor (MPF pick) has stalled.	
240.91	Paper remains detected at the sensor (MPF/pass-through) after the printer is turned on.	See “Sensor (MPF/pass-through) static jam service check” on page 214.

Sensor (MPF/pass-through): Paper (tray 3) failed to arrive service check

Action	Yes	No
Step 1 Check the tray 2 paper path guides for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the paper condition in tray 3. Is the paper crumpled or damaged?	Go to step 4.	Go to step 5.
Step 4 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 2)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (MPF/pass-through): Paper (tray 4) failed to arrive service check

Action	Yes	No
<p>Step 1 Check the tray 2 paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray 3 paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 2) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.

Action	Yes	No
<p>Step 15 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 20.	Go to step 18.
<p>Step 18 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (MPF/pass-through): Paper (tray 5) failed to arrive service check

Action	Yes	No
<p>Step 1 Check the tray 2 paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>Check the tray 3 paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the tray 4 paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
<p>Step 12 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.
<p>Step 14 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 19.	Go to step 17.
<p>Step 17 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 2) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 22.	Go to step 20.

Action	Yes	No
<p>Step 20</p> <p>Check the motor cable for proper connection, and then reseat if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 25.	Go to step 23.
<p>Step 23</p> <p>Check the motor cable for proper connection, and then reseat if necessary.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 4)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 28.	Go to step 26.
<p>Step 26</p> <p>Check the motor cable for proper connection, and then reseat if necessary.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27</p> <p>Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.

Action	Yes	No
<p>Step 28 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (MPF/pass-through): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the paper path for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Isolation</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MPF failed to pick service check

Action	Yes	No
<p>Step 1</p> <p>Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the MPF tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>Check the paper condition in the MPF tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6</p> <p>Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the condition of the MPF pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Replace the pick roller. See “MPF pick roller removal” on page 704.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the paper path along the MPF tray exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > MPF pick</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (MPF/pass-through): Tray 2 failed to pick service check

Action	Yes	No
<p>Step 1</p> <p>Check if the paper size matches the size set on the tray 2 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check tray 2 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check the paper condition in tray 2.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 2 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the condition of the tray 2 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the paper path along the tray 2 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests</p> <p>b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.

Action	Yes	No
<p>Step 14 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 2) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 19.	Go to step 17.
<p>Step 17 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Replace the tray 2 paper feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (MPF pick) jam service check

Action	Yes	No
<p>Step 1 Check the sensor actuator (MPF media present) for misalignment or damage.</p> <p>Is the actuator misaligned or damaged?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Repair or replace the actuator.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the MPF tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in the MPF tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the paper path along the tray exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > MPF pick b Touch Start.</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 10.

Action	Yes	No
<p>Step 10 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (MPF/pass-through) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (MPF/pass-through).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor. See “Sensor (MPF/pass-through) with deflector removal” on page 711.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

241 paper jams

241 paper jam messages

Error code	Description	Action
241.82	The motor (tray 1 pick) has stalled.	See “Motor (tray 1 pick) jam service check” on page 215.
241.83	The motor (tray 1 pick) has stalled.	
241.84	The motor (tray 1 pick) has stalled.	

Motor (tray 1 pick) jam service check

Action	Yes	No
Step 1 Check tray 1 for overfilling. Is the tray overfilled?	Go to step 2.	Go to step 3.
Step 2 Remove the excess paper from the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the paper condition in tray 1. Is the paper crumpled or damaged?	Go to step 4.	Go to step 5.
Step 4 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper path along the tray 1 exit. Is the paper path free of fragments and contamination?	Go to step 7.	Go to step 6.
Step 6 Clean the paper path. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Pick (tray 1)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

242 paper jams

242 paper jam messages

Error code	Description	Action
242.31	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 3 is the paper source.	See “Sensor (tray 2 pass-through) static jam service check” on page 227 .
242.32	Paper fed from tray 3 was detected earlier than expected at the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Paper arrived too early service check” on page 218 .
242.34	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) earlier than expected.	See “Sensor (tray 2 pass-through): Paper cleared too early service check” on page 221 .
242.35	Paper fed from tray 3 did not clear the sensor (tray 2 pass-through) in time.	See “Sensor (tray 2 pass-through): Paper failed to clear service check” on page 222 .
242.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Tray 3 failed to pick service check” on page 223 .
242.37	Paper fed from tray 3 never cleared the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Paper failed to clear service check” on page 222 .

Error code	Description	Action
242.41	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 4 is the paper source.	See “Sensor (tray 2 pass-through) static jam service check” on page 227.
242.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Paper arrived too early service check” on page 218.
242.43	Paper fed from tray 4 never arrived at the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 219.
242.44	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) earlier than expected.	See “Sensor (tray 2 pass-through): Paper cleared too early service check” on page 221.
242.45	Paper fed from tray 4 did not clear the sensor (tray 2 pass-through) in time.	See “Sensor (tray 2 pass-through): Paper failed to clear service check” on page 222.
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	
242.51	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 5 is the paper source.	See “Sensor (tray 2 pass-through) static jam service check” on page 227.
242.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Paper arrived too early service check” on page 218.
242.53	Paper fed from tray 5 never arrived at the sensor (tray 2 pass-through).	See “Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 219.
242.54	Paper fed from tray 5 cleared the sensor (tray 2 pass-through) earlier than expected.	See “Sensor (tray 2 pass-through): Paper cleared too early service check” on page 221.
242.55	Paper fed from tray 5 did not clear the sensor (tray 2 pass-through) in time.	See “Sensor (tray 2 pass-through): Paper failed to clear service check” on page 222.
242.57	Paper fed from tray 5 never cleared the sensor (tray 2 pass-through).	
242.72	The motor (tray 2 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
242.72	The motor (tray 2 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
242.73	The motor (tray 2 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
242.73	The motor (tray 2 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
242.74	The motor (tray 2 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
242.74	The motor (tray 2 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.

Error code	Description	Action
242.75	The motor (tray 2 pass-through) ran too fast.	See “Motor (tray [x] pass-through) failure service check” on page 495.
242.75	The motor (tray 2 elevator) ran too fast.	See “Motor (tray [x] elevator) failure service check” on page 496.
242.82	The motor (tray 2 pick) has stalled.	See “Motor (tray 2 pick) jam service check” on page 226.
242.83	The motor (tray 2 pick) has stalled.	
242.84	The motor (tray 2 pick) has stalled.	
242.85	The motor (tray 2 pick) ran too fast.	
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	See “Sensor (tray 2 pass-through) static jam service check” on page 227.
242.92	Paper was detected earlier than expected at the sensor (tray 2 pass-through). Paper source is undetermined.	See “Sensor (tray 2 pass-through): Paper arrived too early service check” on page 218.
242.93	Paper never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See “Sensor (tray 2 pass-through): Paper failed to arrive service check” on page 219.
242.94	Paper cleared the sensor (tray 2 pass-through) earlier than expected. Paper source is undetermined.	See “Sensor (tray 2 pass-through): Paper cleared too early service check” on page 221.
242.95	Paper did not clear the sensor (tray 2 pass-through) in time. Paper source is undetermined.	See “Sensor (tray 2 pass-through): Paper failed to clear service check” on page 222.
242.96	Paper was picked but it never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See “Sensor (tray 2 pass-through): Tray 3 failed to pick service check” on page 223.
242.97	Paper never cleared the sensor (tray 2 pass-through). Paper source is undetermined.	See “Sensor (tray 2 pass-through): Paper failed to clear service check” on page 222.

Sensor (tray 2 pass-through): Paper arrived too early service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through): Paper failed to arrive service check

Action	Yes	No
<p>Step 1</p> <p>Check the tray 3 paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 7.
<p>Step 7 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 10.
<p>Step 10 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through): Paper cleared too early service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the source tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the source tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in the source tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the source tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray paper path guides for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 2)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through): Tray 3 failed to pick service check

Action	Yes	No
<p>Step 1</p> <p>Check if the paper size matches the size set on the tray 3 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check tray 3 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check the paper condition in tray 3.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 3 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the condition of the tray 3 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the paper path along the tray 3 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.

Action	Yes	No
<p>Step 14 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 19.	Go to step 17.
<p>Step 17 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Replace the tray 3 paper feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 2 pick) jam service check

Action	Yes	No
<p>Step 1 Check tray 2 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the paper condition in tray 2.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper path along the tray 2 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 2) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8 Check the motor cable for proper connection,, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 2 pass-through) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 2)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

243 paper jams

243 paper jam messages

Error code	Description	Action
243.41	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 4 is the paper source.	See “Sensor (tray 3 pass-through) static jam service check” on page 238.
243.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 3 pass-through).	See “Sensor (tray 3 pass-through): Paper arrived too early service check” on page 230.
243.43	Paper fed from tray 4 never arrived at the sensor (tray 3 pass-through).	See “Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 230.
243.44	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) earlier than expected.	See “Sensor (tray 3 pass-through): Paper cleared too early service check” on page 234.
243.45	Paper fed from tray 4 did not clear the sensor (tray 3 pass-through) in time.	See “Sensor (tray 3 pass-through): Paper failed to clear service check” on page 236.
243.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 3 pass-through).	See “Sensor (tray 3 pass-through): Tray 4 failed to pick service check” on page 232.
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	See “Sensor (tray 3 pass-through): Paper failed to clear service check” on page 236.
243.51	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 5 is the paper source.	See “Sensor (tray 3 pass-through) static jam service check” on page 238.
243.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 3 pass-through).	See “Sensor (tray 3 pass-through): Paper arrived too early service check” on page 230.
243.53	Paper fed from tray 5 never arrived at the sensor (tray 3 pass-through).	See “Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 230.
243.54	Paper fed from tray 5 cleared the sensor (tray 3 pass-through) earlier than expected.	See “Sensor (tray 3 pass-through): Paper cleared too early service check” on page 234.
243.55	Paper fed from tray 5 did not clear the sensor (tray 3 pass-through) in time.	See “Sensor (tray 3 pass-through): Paper failed to clear service check” on page 236.
243.57	Paper fed from tray 5 never cleared the sensor (tray 3 pass-through).	
243.72	The motor (tray 3 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
243.72	The motor (tray 3 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
243.73	The motor (tray 3 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.

Error code	Description	Action
243.73	The motor (tray 3 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
243.74	The motor (tray 3 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
243.74	The motor (tray 3 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
243.75	The motor (tray 3 pass-through) ran too fast.	See “Motor (tray [x] pass-through) failure service check” on page 495.
243.75	The motor (tray 3 elevator) ran too fast.	See “Motor (tray [x] elevator) failure service check” on page 496.
243.82	The motor (tray 3 pick) has stalled.	See “Motor (tray 3 pick) jam service check” on page 237.
243.83	The motor (tray 3 pick) has stalled.	
243.84	The motor (tray 3 pick) has stalled.	
243.85	The motor (tray 3 pick) ran too fast.	
243.91	Paper remains detected at the sensor (tray 3 pass-through) after the printer is turned on.	See “Sensor (tray 3 pass-through) static jam service check” on page 238.
243.92	Paper was detected earlier than expected at the sensor (tray 3 pass-through). Paper source is undetermined.	See “Sensor (tray 3 pass-through): Paper arrived too early service check” on page 230.
243.93	Paper never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See “Sensor (tray 3 pass-through): Paper failed to arrive service check” on page 230.
243.94	Paper cleared the sensor (tray 3 pass-through) earlier than expected. Paper source is undetermined.	See “Sensor (tray 3 pass-through): Paper cleared too early service check” on page 234.
243.95	Paper did not clear the sensor (tray 3 pass-through) in time. Paper source is undetermined.	See “Sensor (tray 3 pass-through): Paper failed to clear service check” on page 236.
243.96	Paper was picked but it never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See “Sensor (tray 3 pass-through): Tray 4 failed to pick service check” on page 232.
243.97	Paper never cleared the sensor (tray 3 pass-through). Paper source is undetermined.	See “Sensor (tray 3 pass-through): Paper failed to clear service check” on page 236.

Sensor (tray 3 pass-through): Paper arrived too early service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the tray paper path guides for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 4)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 9.	Go to step 7.
<p>Step 7</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through): Tray 4 failed to pick service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray 4 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check tray 4 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in tray 4.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 4 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the condition of the tray 4 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 a Check the tray 4 pick roller for proper installation. b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft.</p> <p>Is the pick roller assembly properly installed?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the paper path along the tray 4 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.
<p>Step 16 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 4)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 21.	Go to step 19.
<p>Step 19</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the tray 4 paper feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through): Paper cleared too early service check

Action	Yes	No
<p>Step 1</p> <p>Check if the paper size matches the size set on the source tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the source tray for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.

Action	Yes	No
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in the source tray.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the tray paper path guides for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 3) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.

Action	Yes	No
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 3 pick) jam service check

Action	Yes	No
<p>Step 1 Check tray 3 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the paper condition in tray 3.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper path along the tray 3 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 3)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 3 pass-through) static jam service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 3)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

244 paper jams

244 paper jam messages

Error code	Description	Action
244.51	Paper remains detected at the sensor (tray 4 pass-through) although the printer is idle. Tray 5 is the paper source.	See “Sensor (tray 4 pass-through) static jam service check” on page 248.
244.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 4 pass-through).	See “Sensor (tray 4 pass-through): Paper arrived too early service check” on page 240.
244.54	Paper fed from tray 5 cleared the sensor (tray 4 pass-through) earlier than expected.	See “Sensor (tray 4 pass-through): Paper cleared too early service check” on page 241.
244.55	Paper fed from tray 5 did not clear the sensor (tray 4 pass-through) in time.	See “Sensor (tray 4 pass-through): Paper failed to clear service check” on page 242.
244.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 4 pass-through).	See “Sensor (tray 4 pass-through): Tray 5 failed to pick service check” on page 244.
244.57	Paper fed from tray 5 never cleared the sensor (tray 4 pass-through).	See “Sensor (tray 4 pass-through): Paper failed to clear service check” on page 242.
244.72	The motor (tray 4 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
244.72	The motor (tray 4 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
244.73	The motor (tray 4 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
244.73	The motor (tray 4 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
244.74	The motor (tray 4 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
244.74	The motor (tray 4 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.

Error code	Description	Action
244.75	The motor (tray 4 pass-through) ran too fast.	See “Motor (tray [x] pass-through) failure service check” on page 495.
244.75	The motor (tray 4 elevator) ran too fast.	See “Motor (tray [x] elevator) failure service check” on page 496.
244.82	The motor (tray 4 pick) has stalled.	See “Motor (tray 4 pick) jam service check” on page 246.
244.83	The motor (tray 4 pick) has stalled.	
244.84	The motor (tray 4 pick) has stalled.	
244.85	The motor (tray 4 pick) ran too fast.	
244.91	Paper remains detected at the sensor (tray 4 pass-through) after the printer is turned on.	See “Sensor (tray 4 pass-through) static jam service check” on page 248.
244.92	Paper was detected earlier than expected at the sensor (tray 4 pass-through). Paper source is undetermined.	See “Sensor (tray 4 pass-through): Paper arrived too early service check” on page 240.
244.94	Paper cleared the sensor (tray 4 pass-through) earlier than expected. Paper source is undetermined.	See “Sensor (tray 4 pass-through): Paper cleared too early service check” on page 241.
244.95	Paper did not clear the sensor (tray 4 pass-through) in time. Paper source is undetermined.	See “Sensor (tray 4 pass-through): Paper failed to clear service check” on page 242.
244.96	Paper was picked but it never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See “Sensor (tray 4 pass-through): Tray 5 failed to pick service check” on page 244.
244.97	Paper never cleared the sensor (tray 4 pass-through). Paper source is undetermined.	See “Sensor (tray 4 pass-through): Paper failed to clear service check” on page 242.

Sensor (tray 4 pass-through): Paper arrived too early service check

Action	Yes	No
<p>Step 1</p> <p>Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 4 pass-through): Paper cleared too early service check

Action	Yes	No
<p>Step 1</p> <p>Check if the paper size matches the size set on the tray 5 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check tray 5 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4</p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check the paper condition in tray 5.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 8.
<p>Step 8 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 4 pass-through): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray 5 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the tray paper path guides for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pass-through (tray 4) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor. See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 4 pass-through): Tray 5 failed to pick service check

Action	Yes	No
<p>Step 1 Check if the paper size matches the size set on the tray 5 guides.</p> <p>Does the paper size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check tray 5 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper condition in tray 5.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 6.	Go to step 7.
<p>Step 6 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the tray 5 separator pad for misalignment and damage.</p> <p>Is the separator pad properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the separator pad. See “Separator pad removal” on page 748.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9 Check the condition of the tray 5 pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the pick roller. See “Pick roller removal” on page 747.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the tray 5 pick roller for proper installation.</p> <p>b Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft.</p> <p>Is the pick roller assembly properly installed?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall the pick roller assembly.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the paper path along the tray 5 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests</p> <p>b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.
<p>Step 16 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 5)</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 21.	Go to step 19.
<p>Step 19</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Replace the tray 5 paper feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 4 pick) jam service check

Action	Yes	No
<p>Step 1</p> <p>Check tray 4 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the paper condition in tray 4.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper path along the tray 4 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean the paper path.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 4) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (tray 4 pass-through) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pass-through (tray 4)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Perform a print job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

245 paper jams

245 paper jam messages

Error code	Description	Action
245.72	The motor (tray 5 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
245.72	The motor (tray 5 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
245.73	The motor (tray 5 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.

Error code	Description	Action
245.73	The motor (tray 5 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
245.74	The motor (tray 5 pass-through) has stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
245.74	The motor (tray 5 elevator) has stalled.	See “Motor (tray [x] elevator) failure service check” on page 496.
245.75	The motor (tray 5 pass-through) ran too fast.	See “Motor (tray [x] pass-through) failure service check” on page 495.
245.75	The motor (tray 5 elevator) ran too fast.	See “Motor (tray [x] elevator) failure service check” on page 496.
245.82	The motor (tray 5 pick) has stalled.	See “Motor (tray 5 pick) jam service check” on page 249.
245.83	The motor (tray 5 pick) has stalled.	
245.84	The motor (tray 5 pick) has stalled.	
245.85	The motor (tray 5 pick) ran too fast.	

Motor (tray 5 pick) jam service check

Action	Yes	No
<p>Step 1 Check tray 5 for overfilling.</p> <p>Is the tray overfilled?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Remove the excess paper from the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the paper condition in tray 5.</p> <p>Is the paper crumpled or damaged?</p>	Go to step 4.	Go to step 5.
<p>Step 4 Replace the crumpled or damaged paper.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the paper path along the tray 5 exit.</p> <p>Is the paper path free of fragments and contamination?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Clean the paper path. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 5) b Touch Start . Does the motor run?	Go to step 10.	Go to step 8.
Step 8 Check the motor cable for proper connection, and then reseal if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

280 paper jams

280 paper jam messages

Error code	Description	Action
280.11	Paper remains detected at the sensor (ADF 1st scan) after the printer is turned on.	See “Sensor (ADF 1st scan) static jam service check” on page 251.
280.13	Paper never arrived at the sensor (ADF 1st scan).	See “Sensor (ADF 1st scan): Paper failed to arrive service check” on page 251.
280.15	Paper never cleared the sensor (ADF 1st scan).	See “Sensor (ADF 1st scan): Paper failed to clear service check” on page 253.

Sensor (ADF 1st scan) static jam service check

Action	Yes	No
<p>Step 1 Check the paper path for paper jams and fragments.</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF 1st scan).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF 1st scan): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the condition of the ADF pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Clean or replace the pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 5 Check the condition of the ADF feed belt.</p> <p>Is the feed belt free from excess wear, contamination, and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean or replace the feed belt. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 7 Check the condition of the ADF separator roller.</p> <p>Is the separator roller free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Clean or replace the separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF 1st scan).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 12.	Go to step 10.
<p>Step 10 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 15.	Go to step 13.
<p>Step 13 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF 1st scan): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF 1st scan).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

281 paper jams

281 paper jam messages

Error code	Description	Action
281.11	Paper remains detected at the sensor (ADF pick) after the printer is turned on.	See “Sensor (ADF pick) static jam service check” on page 255.
281.15	Paper never cleared the sensor (ADF pick).	See “Sensor (ADF pick): Paper failed to clear service check” on page 256.
281.16	Paper never arrived at the sensor (ADF pick).	See “Sensor (ADF pick): ADF failed to pick service check” on page 259.

Sensor (ADF pick) static jam service check

Note: Update the firmware after resolving the problem with this service check. When the printer is in the jammed state, the firmware cannot be updated. Resolve the jam error first before updating the firmware.

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF pick).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF deskew).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 7.
<p>Step 7</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF pick): Paper failed to clear service check

Note: Update the firmware after resolving the problem with this service check. When the printer is in the jammed state, the firmware cannot be updated. Resolve the jam error first before updating the firmware.

Action	Yes	No
<p>Step 1</p> <p>Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF pick).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF deskew).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF pick</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF pick): ADF failed to pick service check

Note: Update the firmware after resolving the problem with this service check. When the printer is in the jammed state, the firmware cannot be updated. Resolve the jam error first before updating the firmware.

Action	Yes	No
<p>Step 1 Check if the document size matches the size set on the ADF tray guides.</p> <p>Does the document size match the size set on the tray?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Change the paper size or adjust the size setting in the tray.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the ADF tray guides for damage.</p> <p>Are the tray guides free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the ADF tray. See “ADF tray removal” on page 821.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p>Step 8 Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the condition of the ADF pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Clean or replace the pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 11 Check the condition of the ADF feed belt.</p> <p>Is the feed belt free from excess wear, contamination, and damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Clean or replace the feed belt. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 13 Check the condition of the ADF separator roller.</p> <p>Is the separator roller free from excess wear, contamination, and damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Clean or replace the separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF pick).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.

Action	Yes	No
<p>Step 16 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF deskew).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 21.	Go to step 19.
<p>Step 19 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 24.	Go to step 22.
<p>Step 22 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.

Action	Yes	No
Step 24 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

282 paper jams

282 paper jam messages

Error code	Description	Action
282.11	Paper remains detected at the sensor (ADF exit) after the printer is turned on.	See “Sensor (ADF exit) static jam service check” on page 262.
282.13	Paper never arrived at the sensor (ADF exit).	See “Sensor (ADF exit): Paper failed to arrive service check” on page 263.
282.15	Paper never cleared the sensor (ADF exit).	See “Sensor (ADF exit): Paper failed to clear service check” on page 265.

Sensor (ADF exit) static jam service check

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF media exit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.

Action	Yes	No
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF exit): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 a Remove the contaminations or replace the damaged original document. b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check the condition of the ADF pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean or replace the pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 7 Check the condition of the ADF feed belt.</p> <p>Is the feed belt free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Clean or replace the feed belt. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 9 Check the condition of the ADF separator roller.</p> <p>Is the separator roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Clean or replace the separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF media exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF exit): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF media exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

283 paper jams

283 paper jam messages

Error code	Description	Action
283.11	Paper remains detected at the sensor (ADF deskew) after the printer is turned on.	See “Sensor (ADF deskew) static jam service check” on page 267.
283.13	Paper never arrived at the sensor (ADF deskew).	See “Sensor (ADF deskew): Paper failed to arrive service check” on page 268.
283.15	Paper never cleared the sensor (ADF deskew).	See “Sensor (ADF deskew): Paper failed to clear service check” on page 271.

Sensor (ADF deskew) static jam service check

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF deskew).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF deskew): Paper failed to arrive service check

Action	Yes	No
<p>Step 1</p> <p>Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the condition of the ADF pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Clean or replace the pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 7 Check the condition of the ADF feed belt.</p> <p>Is the feed belt free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Clean or replace the feed belt. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 9 Check the condition of the ADF separator roller.</p> <p>Is the separator roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Clean or replace the separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF dekew).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF pick</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF deskew): Paper failed to clear service check

Action	Yes	No
<p>Step 1</p> <p>Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF deskew).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF deskew</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

284 paper jams

284 paper jam messages

Error code	Description	Action
284.11	Paper remains detected at the sensor (ADF 2nd scan) after the printer is turned on.	See “Sensor (ADF 2nd scan) static jam service check” on page 273.
284.13	Paper never arrived at the sensor (ADF 2nd scan).	See “Sensor (ADF 2nd scan): Paper failed to arrive service check” on page 273.
284.15	Paper never cleared the sensor (ADF 2nd scan).	See “Sensor (ADF 2nd scan): Paper failed to clear service check” on page 276.

Sensor (ADF 2nd scan) static jam service check

Action	Yes	No
<p>Step 1 Check the ADF paper path for paper jams and fragments</p> <p>Is the paper path free of jams and fragments?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the paper jams and fragments.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF 2nd scan).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor. See “Sensor (ADF 2nd scan) removal” on page 838.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF 2nd scan): Paper failed to arrive service check

Action	Yes	No
<p>Step 1 Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the condition of the ADF pick roller.</p> <p>Is the pick roller free from excess wear, contamination, and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Clean or replace the pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 7</p> <p>Check the condition of the ADF feed belt.</p> <p>Is the feed belt free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Clean or replace the feed belt. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 9</p> <p>Check the condition of the ADF separator roller.</p> <p>Is the separator roller free from excess wear, contamination, and damage?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Clean or replace the separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF 2nd scan).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the sensor. See “Sensor (ADF 2nd scan) removal” on page 838.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18 Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (ADF 2nd scan): Paper failed to clear service check

Action	Yes	No
<p>Step 1 Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2 a Remove the contaminations or replace the damaged original document. b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF 2nd scan).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7 Replace the sensor. See “Sensor (ADF 2nd scan) removal” on page 838.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the ADF controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

288–289 paper jams

288–289 paper jam messages

Error code	Description	Action
288.10	Jam is detected at the sensor (ADF multi-feed detect).	See “Sensor (ADF multi-feed detect) jam service check” on page 278 .
289.01	The scanner controller communication failed.	See “Scanner communication failure service check” on page 515 .

Sensor (ADF multi-feed detect) jam service check

Action	Yes	No
<p>Step 1</p> <p>Check the original document:</p> <ul style="list-style-type: none"> • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. <p>Is the original document free of contaminations and damage?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>a Remove the contaminations or replace the damaged original document.</p> <p>b Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Scanner quick feed</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips and staples.</p> <p>Is the paper path free of obstructions and contaminations?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Remove the obstructions and contaminations.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the condition of the ADF feed belt.</p> <p>Is the feed belt free from excess wear, contamination, and damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Clean or replace the feed belt. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 7</p> <p>Check the condition of the ADF separator roller.</p> <p>Is the separator roller free from excess wear, contamination, and damage?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p>Step 8 Clean or replace the separator roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Load an undamaged document into the ADF tray, and then perform a copy job.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the sensor (ADF multi-feed detect).</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Procedure before starting the MSHPF service checks

To check for proper installation, do the following:

- 1 Make sure that the HPT is properly installed.
- 2 Check the HPT and MSHPF for misalignment.
- 3 Make sure that the HPT and MSHPF interface cables are properly connected.
- 4 Reseat the HPT and MSHPF.

To check the paper path, do the following:

- 1 Open the HPT and MSHPF jam doors to clear paper jams and fragments.

Note: Close all doors after clearing the jam.

- 2 Remove the obstructions on the bins.

Procedure before starting the mailbox service checks

To check for proper installation, do the following:

- 1 Check the mailbox for misalignment.
- 2 Make sure that the interface cables are properly connected.
- 3 Reseat the mailbox.

To check the paper path, do the following:

- 1 Remove the mailbox, and then open the jam doors to clear paper jams and fragments.
- 2 Remove the obstructions on the bins.

40y paper jams

400–403 paper jam messages

Error code	Description	Action
400.11	Paper remains detected at the sensor 1 (HPT transport) after the printer is turned on.	See “Sensor (HPT transport) jam service check” on page 281.
400.13	Paper never arrived at the sensor 1 (HPT transport).	
400.15	Paper never cleared the sensor 1 (HPT transport).	
401.11	Paper remains detected at the sensor 2 (HPT transport) after the printer is turned on.	See “Sensor (HPU entrance) jam service check” on page 284.
401.13	Paper never arrived at the sensor 2 (HPT transport).	
401.15	Paper never cleared the sensor 2 (HPT transport).	
402.51	Motor (HPT transport) did not turn off.	See “Motor (HPT transport) service check” on page 543.
402.54	Motor (HPT transport) ran too fast.	
402.55	Motor (HPT transport) ran too slow.	
403.13	The hole punch fails to reach home at the specified time.	See “Hole punch unit service check” on page 546.
403.15	The hole punch fails to leave home at the specified time.	
403.51	Motor (hole punch unit) did not turn off.	
403.54	Motor (hole punch unit) ran too fast.	
403.55	Motor (hole punch unit) ran too slow.	

Sensor (HPT transport) jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the HPT and multiposition staple, hole punch finisher for proper installation.</p> <p>b Open door K and clear paper jams, fragments, and obstructions along the paper path.</p> <p>c Enter the Diagnostics menu, and then touch Output bin quick feed.</p> <p>d Select a bin and test type, and then start the test.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Horizontal paper transport</p> <p>b Find the sensor (Transport).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (HPT transport) removal” on page 1008.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the HPT alignment rollers for misalignment, wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the rollers. See “HPT alignment rollers removal” on page 1012.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the HPT transport idler roller for misalignment and damage.</p> <p>Is the roller properly installed and free of damage?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p>Step 8 Reinstall or replace the roller. See “HPT transport idler roller removal” on page 998.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (HPT transport and fan), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 10.
<p>Step 10 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the motor. See “Motor (HPT transport) removal” on page 992.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the HPT transport drive belt for misalignment and damage.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the belt. See “HPT transport drive belt removal” on page 996.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the HPT front transport drive belt for misalignment and damage.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Reinstall or replace the belt. See “HPT front transport belt removal” on page 981.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16 Check the HPT transport belts for misalignment and damage.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Reinstall or replace the belts. See “HPT transport belts removal” on page 985.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Check the HPT front transport belt gear for wear and damage.</p> <p>Is the gear free of wear and damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19 Replace the gear. See “HPT front transport belt gear removal” on page 981.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the HPT transport gear for wear and damage.</p> <p>Is the gear free of wear and damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Replace the gear. See “HPT transport gears removal” on page 994.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the HPT lock for misalignment and damage.</p> <p>Is the lock properly installed and free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the lock. See “HPT lock removal” on page 1001.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Reseat the HPT autoconnect cable, and then check the cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 26.	Go to step 25.

Action	Yes	No
<p>Step 25 Replace the cable. See “HPT autoconnect cable removal” on page 1004.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Reseat the HPT controller board cables, and then check the cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 28.	Go to step 27.
<p>Step 27 Replace the cables. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (HPU entrance) jam service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Check the HPT and multiposition staple, hole punch finisher for proper installation. b Open door K and clear paper jams, fragments, and obstructions along the paper path. c Enter the Diagnostics menu, and then touch Output bin quick feed. d Select a bin and test type, and then start the test. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Horizontal paper transport</p> <p>b Find the sensor (HPU entrance).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor and actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (HPU entrance) removal” on page 1010.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher</p> <p>b Find the motor (HPT transport and fan), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (HPT transport) removal” on page 992.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the HPT transport drive belt for misalignment and damage.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the belt. See “HPT transport drive belt removal” on page 996.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Check the HPT transport drive gear for wear and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Replace the gear. See “HPT transport gears removal” on page 994.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the HPT transport gear for wear and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Replace the gear. See “HPT transport gears removal” on page 994.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the HPT transport belts for misalignment and damage.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Reinstall or replace the belts. See “HPT transport belts removal” on page 985.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the HPT front transport belt gear for wear and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Replace the gear. See “HPT front transport belt gear removal” on page 981.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>a Manually turn knob K1 and the hole punch unit gears. b Check if the punch rotates with the knob and gears.</p> <p>Does the punch rotate with knob K1 and the gears?</p>	Go to step 20.	Go to step 19.

Action	Yes	No
<p>Step 19 Replace the hole punch unit.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Horizontal paper transport b Find the sensor (HPU).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 23.	Go to step 21.
<p>Step 21 Reseat the sensor cable, and then check the sensor and actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22 Reinstall or replace the sensor. See “Sensor (hole punch unit) removal” on page 989.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher b Find the motor (HPU), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 26.	Go to step 24.
<p>Step 24 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace the motor. See “Motor (hole punch unit) removal” on page 987.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the hole punch unit gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 28.	Go to step 27.

Action	Yes	No
<p>Step 27 Reinstall or replace the gears. See “Hole punch unit gears removal” on page 988.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 Check the HPT alignment rollers for misalignment, wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 30.	Go to step 29.
<p>Step 29 Reinstall or replace the rollers. See “HPT alignment rollers removal” on page 1012.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Check the HPT transport idler roller for misalignment and damage.</p> <p>Is the roller properly installed and free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Reinstall or replace the roller. See “HPT transport idler roller removal ” on page 998.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32 Check the HPT transport rollers for misalignment, wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 34.	Go to step 33.
<p>Step 33 Reinstall or replace the rollers. See “HPT transport rollers removal” on page 1016.</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34 Reseat the HPT controller board cables, and then check the cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 36.	Go to step 35.

Action	Yes	No
<p>Step 35</p> <p>Replace the cables. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 36.	The problem is solved.
<p>Step 36</p> <p>Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 37.	The problem is solved.
<p>Step 37</p> <p>Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

41y paper jams

415–419 paper jam messages

Error code	Description	Action
415.33	The diverter did not reach the sensor (mailbox diverter home).	See “Mailbox diverter jam service check” on page 290 .
415.35	The diverter never cleared the sensor (mailbox diverter home).	
416.71	The motor (mailbox transport) ran too slow.	See “Mailbox transport failure service check” on page 548 .
416.74	The motor (mailbox transport) ran too slow.	
416.75	The motor (mailbox transport) ran too fast.	
417.31	Paper remains detected at the sensor (mailbox transport) after the printer is turned on.	See “Mailbox transport jam service check” on page 292 .
417.33	Paper did not reach the sensor (mailbox transport).	
417.35	Paper never cleared the sensor (mailbox transport).	
419.xx	Engine page error was detected.	See “Procedure before starting the mailbox service checks” on page 279 .

Mailbox diverter jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the mailbox jam door and its rollers for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the mailbox jam door. See “Mailbox jam door removal” on page 1336.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the mailbox diverters and bottom diverter spring for misalignment and damage.</p> <p>Are the diverters properly installed and free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Reinstall or replace the mailbox diverters. See “Mailbox diverter removal” on page 1348.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Find the sensor (Diverter).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 9.	Go to step 7.
<p>Step 7</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p>Step 8 Reinstall or replace the sensor. See “Sensor (mailbox diverter home) removal” on page 1347.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Mailbox > Mailbox position diverter b Touch Start.</p> <p>Does the motor run?</p>	Go to step 12.	Go to step 10.
<p>Step 10 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the motor. See “Motor (mailbox diverter) removal” on page 1337.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the mailbox diverter gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the mailbox diverter gear. See “Mailbox diverter gear removal” on page 1349.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16</p> <p>Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mailbox transport jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Find the sensor (Transport).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (mailbox transport) removal” on page 1360.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>Check the mailbox jam door and its rollers for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the mailbox jam door. See “Mailbox jam door removal” on page 1336.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the mailbox diverters and bottom diverter spring for misalignment and damage.</p> <p>Are the diverters free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Reinstall or replace the mailbox diverters. See “Mailbox diverter removal” on page 1348.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the mailbox bin full sensor flags for misalignment and damage.</p> <p>Are the flags properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the mailbox bin full sensor flags. See “Mailbox bin 1 full sensor flag removal” on page 1355 or “Mailbox bin 2 full sensor flag removal” on page 1353.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Mailbox > Mailbox transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.

Action	Yes	No
<p>Step 13 Reinstall or replace the motor. See “Motor (mailbox transport) removal” on page 1340.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the mailbox transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 15.	Go to step 25.
<p>Step 15 Check the mailbox drive gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Reinstall or replace the mailbox drive gears. See “Mailbox drive gears removal” on page 1365.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the mailbox pulley gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Reinstall or replace the mailbox pulley gears. See “Mailbox bin 1 pulley gear removal” on page 1364 or “Mailbox bin 2 pulley gear removal” on page 1362.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the mailbox drive belts for misalignment and damage.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Reinstall or replace the mailbox drive belts. See “Mailbox drive belt removal” on page 1353.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.

Action	Yes	No
<p>Step 21</p> <p>Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22</p> <p>Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

42y paper jams

42y paper jam messages

Error code	Description	Action
420.11	The media, with the leading edge on the compiler section, remains detected by sensor (staple finisher transport) during warm-up sequence.	See “Staple finisher compiler section jam service check” on page 297.
420.11	The media, with the leading edge on the upper exit area, remains detected by sensor (staple finisher transport) during warm-up sequence.	See “Staple finisher upper exit area jam service check” on page 300.

Error code	Description	Action
420.12	The media reached the sensor (staple finisher transport) sooner than the specified time.	See “Staple finisher compiler section jam service check” on page 297.
420.13	The media is late reaching the sensor (staple finisher transport) within the specified time.	
420.15	The media reached the sensor (staple finisher transport) but did not clear it within the specified time.	
420.51	The motor (staple finisher transport) does not turn off.	
420.54	The motor (staple finisher transport) fails to achieve expected speed.	
420.55	The motor (staple finisher transport) runs too fast.	
421.13	The sensor (staple finisher front tamper home) was not covered at the specified time.	See “Sensor (staple finisher front tamper home) jam service check” on page 316.
421.15	The sensor (staple finisher front tamper home) was not cleared within the specified time.	
422.13	The sensor (staple finisher rear tamper home) was not covered at the specified time.	See “Sensor (staple finisher rear tamper home) jam service check” on page 306.
422.15	The sensor (staple finisher rear tamper home) was not cleared within the specified time.	
423.13	The sensor (staple finisher upper exit roller) was not covered within the specified time.	See “Staple finisher exit jam service check” on page 551.
423.15	The sensor (staple finisher upper exit roller) remains covered after the specified time.	
423.51	The motor (staple finisher upper exit roller) does not turn off.	
423.54	The motor (staple finisher upper exit roller) fails to achieve expected speed.	
423.55	The motor (staple finisher upper exit roller) runs too fast.	
424.13	The staple finisher paddle fails to reach home at the specified time.	See “Staple finisher paddle jam service check” on page 308.
424.15	The staple finisher paddle fails to leave home at the specified time.	
425.13	Staple finisher bin clamp fails to reach home at the specified time.	See “Staple finisher bin clamp jam service check” on page 310.
425.15	Staple finisher bin clamp fails to leave home at the specified time.	

Error code	Description	Action
426.13	The motor (staple finisher aligner paddle) fails to reach home at the specified time.	See “Staple finisher decurl assembly service check” on page 312.
426.15	The motor (staple finisher aligner paddle) fails to reach home at the specified time.	
426.51	The motor (staple finisher aligner paddle) does not turn off.	
426.54	The motor (staple finisher aligner paddle) fails to achieve expected speed.	
426.55	The motor (staple finisher aligner paddle) runs too fast.	
428.13	The staple head fails to reach home at the specified time.	See “Staples Low [83] service check” on page 601.
428.15	The staple head fails to leave home at the specified time.	
429.11	The media remains detected by the sensor (staple finisher staple unit paper present) after power-on.	See “Staple finisher stapler throat jam service check” on page 313.
429.13	The sensor (staple finisher staple unit paper present) does not detect the media within the specified time.	
429.14	The sensor (staple finisher staple unit paper present) was not covered by the media during stapling.	
429.15	The media does not leave the sensor (staple finisher staple unit paper present) within the specified time.	

Staple finisher compiler section jam service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the paper path of any jams or obstructions.</p> <p>b Make sure that the jam access door is properly closed.</p> <p>c Reset the printer, and then reseal the finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit</p> <p>b Find the sensor (Transport).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3</p> <p>a Check the sensor (staple finisher transport) for proper installation and damage, and replace if necessary. See “Sensor (staple finisher transport) removal” on page 977.</p> <p>b Reseat the sensor connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the staple finisher entrance paper guide for proper installation and damage, and replace if necessary. See “Staple finisher entrance paper guide removal” on page 957.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Check the staple finisher jam access door for proper installation and damage, and replace if necessary. See “Staple finisher jam access door removal” on page 904.</p> <p>b Make sure that the door is properly closed.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the staple finisher compiler paper guide for proper installation and damage, and replace if necessary. See “Staple finisher compiler paper guide removal” on page 946.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Transport), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>a Check the motor (staple finisher transport) for damage, and replace if necessary. See “Motor (staple finisher transport) removal” on page 972.</p> <p>b Check the motor for proper installation.</p> <p>c Reseat the motor connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10</p> <p>Check the staple finisher transport gears for proper installation and damage, and replace if necessary. See “Staple finisher transport gears removal” on page 924.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the compiler feed roller for proper installation.</p> <p>b Check the roller for wear or damage, and replace if necessary. See “Staple finisher compiler feed roller removal” on page 948.</p> <p>c Manually turn the roller and make sure that the compiler feed idler rolls with the roller.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Check the compiler feed idler for proper installation and damage, and replace if necessary. See “Staple finisher compiler feed idler removal” on page 950.</p> <p>b Manually turn the mating roller and make sure that the idler rolls with the roller.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Check the staple finisher aligner paddle for wear or damage, and replace if necessary. See “Staple finisher aligner paddle and upper paper guide removal” on page 951.</p> <p>b Manually turn the paddle to check for proper operation.</p> <p>c Check the paddle for proper installation.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Aligner paddle), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 16.	Go to step 15.
<p>Step 15</p> <p>a Check the motor (staple finisher aligner paddle) for damage, and replace if necessary. See “Motor (staple finisher aligner paddle) removal ” on page 924.</p> <p>b Check the motor for proper installation.</p> <p>c Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16</p> <p>a Check the staple finisher aligner paddle gears for damage, and replace if necessary. See “Staple finisher aligner paddle gears removal” on page 926.</p> <p>b Check the gears for proper alignment and installation.</p> <p>c Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher upper exit area jam service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the paper path of any jams or obstructions.</p> <p>b Check if the jam access door is properly closed.</p> <p>c Reset the printer, and then reseat the finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the staple finisher jam access door for proper installation and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the door. See “Staple finisher jam access door removal” on page 904.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the staple finisher upper paper guide for proper installation and damage.</p> <p>Is the paper guide properly installed and free of damage?</p>	Go to step 6.	Go to step 5.

Action	Yes	No
<p>Step 5 Reinstall or replace the paper guide. See “Staple finisher aligner paddle and upper paper guide removal” on page 951.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 a Move the tampers from the side to the center, and then clear the area of any obstructions. b Check the tampers for proper installation and damage.</p> <p>Are the tampers properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reinstall or replace the tampers. See “Staple finisher tamper removal” on page 942.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Transport), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor (staple finisher transport) for proper installation and damage. Make sure to reseat the motor connector on both ends.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Reinstall or replace the motor. See “Motor (staple finisher transport) removal” on page 972.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the staple finisher transport gears for proper installation and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 14.	Go to step 13.

Action	Yes	No
<p>Step 13 Reinstall or replace the gears. See “Staple finisher transport gears removal” on page 924.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the compiler feed roller for proper installation and damage. Manually turn the roller and make sure that the compiler feed idler rolls with the roller.</p> <p>Is the roller properly installed and free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Reinstall or replace the roller. See “Staple finisher compiler feed roller removal” on page 948.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the compiler feed idler for proper installation and damage. Manually turn the mating roller and make sure that the idler rolls with the roller.</p> <p>Is the idler properly installed and free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Reinstall or replace the idler. See “Staple finisher compiler feed idler removal” on page 950.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Check the staple finisher aligner paddle for proper installation and wear or damage. Make sure to manually turn the paddle to check for proper operation.</p> <p>Is the paddle properly installed and free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19 Reinstall or replace the paddle. See “Staple finisher aligner paddle and upper paper guide removal” on page 951.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 <ul style="list-style-type: none"> a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Aligner paddle), and then touch Start. <p>Does the motor run?</p> </p>	Go to step 23.	Go to step 21.

Action	Yes	No
<p>Step 21</p> <p>Check the motor for proper installation and damage. Make sure to reseal the motor connector on both ends.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22</p> <p>Reinstall or replace the motor. See “Motor (staple finisher aligner paddle) removal” on page 924.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Compile and staple section</p> <p>b Find the sensor (Aligner paddle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 26.	Go to step 24.
<p>Step 24</p> <p>Check the sensor for proper installation and damage, and replace if necessary. Make sure to reseal the sensor connector on both ends.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25</p> <p>Reinstall or replace the sensor. See “Staple finisher aligner paddle gears removal” on page 926.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is resolved.
<p>Step 26</p> <p>a Check the staple finisher aligner paddle gears for damage, and replace if necessary. See “Staple finisher aligner paddle gears removal” on page 926.</p> <p>b Check the gears for proper alignment and installation.</p> <p>c Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is resolved.
<p>Step 27</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Upper exit), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 30.	Go to step 28.

Action	Yes	No
<p>Step 28</p> <p>Check the motor for proper installation and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 30.	Go to step 29.
<p>Step 29</p> <p>Reinstall or replace the motor. See “Motor (staple finisher upper exit roller) removal” on page 911.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section</p> <p>b Find the sensor (Upper exit roller).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 33.	Go to step 31.
<p>Step 31</p> <p>Check the sensor for proper installation and damage. Make sure to reseat the sensor connector on both ends.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 33.	Go to step 32.
<p>Step 32</p> <p>Reinstall or replace the sensor. See “Sensor (staple finisher upper exit roller) removal” on page 928.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.
<p>Step 33</p> <p>a Check the staple finisher front upper exit roller position gears for proper installation and damage, and replace if necessary. See “Staple finisher front upper position exit roller gears removal” on page 929.</p> <p>b Check the actuator and lever for proper installation and damage, and replace if necessary.</p> <p>c Make sure that the springs are properly installed.</p> <p>d Check if the roller goes up and down after moving the gears.</p> <p>e Lift the gear to check if the actuator covers the sensor.</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.

Action	Yes	No
<p>Step 34</p> <p>a Check the staple finisher rear upper exit roller position gears and lever for proper installation and damage, and replace if necessary. See “Staple finisher rear upper position exit roller gears removal” on page 912.</p> <p>b Check if the roller goes up and down after moving the gears.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35</p> <p>a Check the staple finisher upper exit roller for proper installation and damage, and replace if necessary. See “Staple finisher upper exit roller removal” on page 954.</p> <p>b Check if the roller goes up and down after moving the gears.</p> <p>Does the problem remain?</p>	Go to step 36.	The problem is solved.
<p>Step 36</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Exit), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 39.	Go to step 37.
<p>Step 37</p> <p>Check the motor for proper installation and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 39.	Go to step 38.
<p>Step 38</p> <p>Reinstall or replace the motor. See “Motor (staple finisher exit) removal” on page 972.</p> <p>Does the problem remain?</p>	Go to step 39.	The problem is solved.
<p>Step 39</p> <p>Check the exit gears for proper alignment and installation.</p> <p>Are the gears properly aligned or installed?</p>	Go to step 41.	Go to step 40.
<p>Step 40</p> <p>Realign or reinstall the exit gears.</p> <p>Does the problem remain?</p>	Go to step 41.	The problem is solved.
<p>Step 41</p> <p>Check the exit gears for damage.</p> <p>Are the gears free of damage?</p>	Go to step 43.	Go to step 42.

Action	Yes	No
<p>Step 42 Replace the gears. See “Staple finisher exit gears removal” on page 931.</p> <p>Does the problem remain?</p>	Go to step 43.	The problem is solved.
<p>Step 43 Check the exit roller belts for proper installation and damage.</p> <p>Are the belts properly installed or free of damage?</p>	Go to step 45.	Go to step 44.
<p>Step 44 Reinstall or replace the belts. See “Staple finisher exit roller belts removal” on page 933.</p> <p>Does the problem remain?</p>	Go to step 45.	The problem is solved.
<p>Step 45 Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 46.	The problem is solved.
<p>Step 46 Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (staple finisher rear tamper home) jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check and clear the following areas of any jams and obstructions:</p> <ul style="list-style-type: none"> • Jam door • Output bin • Paper path • Staple finisher tamper area <p>b Move the staple finisher tampers from the side to the center, and then back to their original positions.</p> <p>c Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Tamper front and rear), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>a Check the motor (staple finisher rear tamper) for proper installation and damage, and replace if necessary. See “Motor (staple finisher tamper) removal” on page 938.</p> <p>b Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Tamper sensors</p> <p>b Find the sensor (Rear tamper home).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>a Check the sensor (staple finisher rear tamper home) for proper installation and damage, and replace if necessary. See “Sensor (staple finisher tamper position) removal” on page 938.</p> <p>b Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cables for cuts or damages, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the tamper for proper installation and damage, and replace if necessary. See “Staple finisher tamper removal” on page 942.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Check the rear tamper belt holder for proper installation and damage, and replace if necessary. See “Staple finisher tamper belts removal” on page 940.</p> <p>b Check the rear tamper belt for proper alignment.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9</p> <p>a Check the rear tamper belt for proper installation and damage, and replace if necessary. See “Staple finisher tamper belts removal” on page 940.</p> <p>b Check the spring for proper installation.</p> <p>c Check the belt for proper alignment.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the tamper gears for proper installation and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher paddle jam service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the paper path of any jams or obstructions.</p> <p>b Reset the printer, and then reseat the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Compile and staple section</p> <p>b Find the sensor (Aligner paddle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3</p> <p>Check the sensor (staple finisher aligner paddle) for proper installation and damage, and replace if necessary. See “Staple finisher aligner paddle gears removal” on page 926.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Aligner paddle), and then touch Start.</p> <p>Does the motor run?</p>	Go to 6.	Go to step 5.
<p>Step 5</p> <p>Check the motor (staple finisher rear tamper home) for proper installation and damage, and replace if necessary. See “Motor (staple finisher aligner paddle) removal ” on page 924.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Check the staple finisher aligner paddle gears for proper installation and damage, and replace if necessary. See “Staple finisher aligner paddle gears removal” on page 926.</p> <p>b Check the actuator for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Check the staple finisher aligner paddle for any wear or damage, and replace if necessary. See “Staple finisher aligner paddle and upper paper guide removal” on page 951.</p> <p>b Manually turn the aligner paddle to check it for proper operation.</p> <p>c Check the aligner paddle for proper installation.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher bin clamp jam service check

Action	Yes	No
<p>Step 1 a Clear the staple finisher bin. b Clear the paper path of any obstruction. c Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Bin clamp), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 4.	Go to step 3.
<p>Step 3 a Check the motor (staple finisher bin clamp) for damage, and replace if necessary. See “Motor (staple finisher bin clamp) removal” on page 967. b Check the motor for proper installation. c Reseat the motor connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section b Find the sensor (Tray holder arm).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 5.

Action	Yes	No
<p>Step 5</p> <p>a Check the sensor (staple finisher bin clamp) for damage, and replace if necessary. See “Sensor (staple finisher bin clamp) removal” on page 966.</p> <p>b Check the sensor for proper installation.</p> <p>c Reseat the sensor connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Check the staple finisher bin arms for damage, and replace if necessary. See “Staple finisher bin clamp assembly removal” on page 959.</p> <p>b Clear the bin arms of any obstructions.</p> <p>c Check the bin arms for proper installation and alignment.</p> <p>d Manually actuate the arm to check for proper function.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Check the staple finisher bin for damage, and replace if necessary. See “Staple finisher bin removal” on page 945.</p> <p>b Manually push, and then release the bin to check if it goes back to its original position.</p> <p>c Clear the bin of any obstructions.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>a Check the staple finisher bin link for damage, and replace if necessary. See “Staple finisher bin link removal” on page 944.</p> <p>b Check the links and the spring for proper installation.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Reseat all cable connectors in the controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11 Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher decurl assembly service check

Action	Yes	No
<p>Step 1 a Reset the printer. b Reseat the staple finisher. c Clear the paper path of any obstructions.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Compile and staple section b Find the sensor (Decurl).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 4.	Go to step 3.
<p>Step 3 a Check the sensor (staple finisher decurl) for proper installation and damage, and replace if necessary. See “Sensor (staple finisher decurl) removal” on page 976. b Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Decurl), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 5.
<p>Step 5 a Check the motor (staple finisher decurl) for proper installation and damage, and replace if necessary. See “Staple finisher decurl assembly removal” on page 974. b Reseat the end of the connector that is on the controller board.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Replace the staple finisher decurl paddle. See “Staple finisher decurl assembly removal” on page 974.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reseat all cable connectors in the controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher stapler throat jam service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Clear the paper path of any jams or obstructions. b Reset the printer, and then reseat the staple finisher. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the sensor (staple finisher staple unit paper present) for proper operation.</p> <ul style="list-style-type: none"> a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple finisher > Compile and staple section b Find the sensor (Staple unit paper presence). <p>Does the sensor status change while toggling the sensor?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3</p> <p>a Check the sensor (staple finisher staple unit paper present) for proper installation and damage, and replace if necessary. See “Sensor (staple finisher staple unit paper present) removal” on page 975.</p> <p>b Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple finisher > Transport and exit section</p> <p>b Find the sensor (Upper exit roller).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>a Check the sensor for proper installation and damage, and replace if necessary. See “Sensor (staple finisher upper exit roller) removal” on page 928.</p> <p>b Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Exit assembly), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>a Check the motor for proper installation and damage, and replace if necessary. See “Motor (staple finisher upper exit roller) removal” on page 911.</p> <p>b Reseat the connector on both ends.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9</p> <p>a Check the staple finisher upper paper guide for proper installation and damage, and replace if necessary. See “Staple finisher aligner paddle and upper paper guide removal” on page 951.</p> <p>b Check the paper guide bail for proper installation and damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Check the staple finisher front upper exit roller position gears for proper installation and damage, and replace if necessary. See “Staple finisher front upper position exit roller gears removal” on page 929.</p> <p>b Check the actuator and lever for proper installation and damage, and replace if necessary.</p> <p>c Make sure that the springs are properly installed.</p> <p>d Check if the roller goes up and down after moving the gears.</p> <p>e Lift the gear to check if the actuator covers the sensor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the staple finisher rear upper exit roller position gears and lever for proper installation and damage, and replace if necessary. See “Staple finisher rear upper position exit roller gears removal” on page 912.</p> <p>b Check if the roller goes up and down after moving the gears.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Check the staple finisher upper exit roller for proper installation and damage, and replace if necessary. See “Staple finisher upper exit roller removal” on page 954.</p> <p>b Check if the roller goes up and down after moving the gears.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the controller board for damage, and replace if necessary. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14 Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

43y paper jams

430–439 paper jam messages

Error code	Description	Action
430.19	Stapler head fails to prime.	See “Staples Low [83] service check” on page 601.
431.xx	Staple supply is low.	
436.13	The media fails to cover the sensor (staple finisher front tamper home) within the specified time.	See “Sensor (staple finisher front tamper home) jam service check” on page 316.
436.15	The media fails to leave the sensor (staple finisher front tamper home) within the specified time.	
439.19	Page ID mismatch.	See “Staple finisher engine error service check” on page 318.

Sensor (staple finisher front tamper home) jam service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the following areas of any jams or obstructions:</p> <ul style="list-style-type: none"> • Jam door • Finisher bin • Paper path • Staple finisher tamper area <p>b Move the tampers from one side to another, and then back to the original position.</p> <p>c Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Tamper front and rear), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3</p> <p>a Check the motor (staple finisher front tamper home) for proper installation and damage, and replace if necessary. See “Motor (staple finisher tamper) removal” on page 938.</p> <p>b Reseat the connector on both ends of the motor.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Tamper sensors</p> <p>b Find the sensor (Front tamper home).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>a Check the sensor (staple finisher front tamper home) for proper installation and damage, and replace if necessary. See “Sensor (staple finisher tamper position) removal” on page 938.</p> <p>b Reseat the connector on both ends of the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Move the tampers from one side to another, and then make sure that the tamper area is free from any obstructions.</p> <p>b Check the tampers for any damages, and replace if necessary. See “Staple finisher tamper removal” on page 942.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Check the tamper belt holder for damages, and replace if necessary. See “Staple finisher tamper removal” on page 942.</p> <p>b Check the tamper belt holder for proper installation. Make sure that the front tamper belt is properly aligned.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9</p> <p>a Check the staple finisher tamper belt for damage, and replace if necessary. See “Staple finisher tamper belts removal” on page 940.</p> <p>b Check the belts for proper installation. Make that the spring and the holder are properly aligned.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Check the stapler finisher tamper pulley gears for damage, and replace if necessary. See “Staple finisher tamper pulley gear removal” on page 941.</p> <p>b Make sure that the gears are properly installed.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Reseat all connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher engine error service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the paper path of any jams or obstructions.</p> <p>b Make sure that the jam access door is properly closed.</p> <p>c Reset the printer, and then reseat the finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Transport), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.

Action	Yes	No
<p>Step 3 Check the motor for proper installation and damage.</p> <p>Is the motor properly installed or free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reinstall or replace the motor. See “Motor (staple finisher transport) removal” on page 972.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit b Find the sensor (Transport).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the sensor and the flag for proper installation and damage.</p> <p>Is the sensor and the flag properly installed or free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reinstall or replace the sensor and the flag. See “Sensor (staple finisher transport) removal” on page 977.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Aligner paddle), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Check the motor for proper installation and damage.</p> <p>Is the motor properly installed or free of damage</p>	Go to step 11.	Go to step 10.
<p>Step 10 Reinstall or replace the motor. See “Motor (staple finisher aligner paddle) removal ” on page 924.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section</p> <p>b Find the sensor (Upper exit roller).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the sensor for proper installation and damage.</p> <p>Is the sensor properly installed or free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <p>Reinstall or replace the sensor. See “Sensor (staple finisher upper exit roller) removal” on page 928.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Upper exit), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>Check the motor for proper installation and damage.</p> <p>Is the motor properly installed or free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall or replace the motor. See “Motor (staple finisher upper exit roller) removal” on page 911.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Exit), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 20.	Go to step 18.
<p>Step 18</p> <p>Check the motor for proper installation and damage.</p> <p>Is the motor properly installed or free of damage?</p>	Go to step 20.	Go to step 19.

Action	Yes	No
<p>Step 19 Reinstall or replace the motor. See “Motor (staple finisher exit) removal” on page 972.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the upper exit roller for proper installation and damage. Make sure that the roller can move up and down.</p> <p>Is the roller properly installed or free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Reinstall or replace the roller. See “Staple finisher upper exit roller removal” on page 954.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the cables for any cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

45y paper jams

450–458 paper jam messages

Error code	Description	Action
450.21	Paper remains detected at the sensor (mid-transport) after the printer is turned on.	See “Mid-transport jam service check” on page 323.
450.23	Paper did not reach the sensor (mid-transport).	
450.25	Paper never cleared the sensor (mid-transport).	

Error code	Description	Action
451.21	Paper remains detected at the sensor (MSHPPF standard bin exit) after the printer is turned on.	See “MSHPPF standard bin exit jam service check” on page 326.
451.23	Paper did not reach the sensor (MSHPPF standard bin exit).	
451.25	Paper never cleared the sensor (MSHPPF standard bin exit).	
452.21	Paper remains detected at the sensor (staging entrance) after the printer is turned on.	See “Staging entrance jam service check” on page 331.
452.23	Paper did not reach the sensor (staging entrance).	
452.25	Paper never cleared the sensor (staging entrance).	
453.21	Paper remains detected at the sensor (staging outer transport 1) after the printer is turned on.	See “Staging outer transport 1 jam service check” on page 336.
453.23	Paper did not reach the sensor (staging outer transport 1).	
453.25	Paper never cleared the sensor (staging outer transport 1).	
454.21	Paper remains detected at the sensor (staging outer transport 2) after the printer is turned on.	See “Staging outer transport 2 jam service check” on page 341.
454.23	Paper did not reach the sensor (staging outer transport 2).	
454.25	Paper never cleared the sensor (staging outer transport 2).	
455.21	Paper remains detected at the sensor (staging inner transport 1) after the printer is turned on.	See “Staging inner transport 1 jam service check” on page 344.
455.23	Paper did not reach the sensor (staging inner transport 1).	
455.25	Paper never cleared the sensor (staging inner transport 1).	
456.21	Paper remains detected at the sensor (staging inner transport 2) after the printer is turned on.	See “Staging inner transport 2 jam service check” on page 348.
456.23	Paper did not reach the sensor (staging inner transport 2).	
456.25	Paper never cleared the sensor (staging inner transport 2).	

Error code	Description	Action
457.21	Paper remains detected at the sensor (compiler tray paper present) after the printer is turned on.	See “Compiler tray jam service check” on page 352.
457.23	Paper did not reach the sensor (compiler tray paper present).	
457.25	Paper never cleared the sensor (compiler tray paper present).	
458.21	Paper remains detected at the sensor (MSHPPF staple unit paper present) after the printer is turned on.	See “MSHPPF staple unit jam service check” on page 358.
458.23	Paper did not reach the sensor (MSHPPF staple unit paper present).	
458.25	Paper never cleared the sensor (MSHPPF staple unit paper present).	

Mid-transport jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Mid-transport).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (mid-transport) removal” on page 1198.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Diverter, standard bin position</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (mid-transport diverter) removal” on page 1158.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Mid-transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the motor. See “Motor (mid-transport) removal” on page 1127.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the mid-transport gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the gear. See “Mid-transport gear removal” on page 1129.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13</p> <p>Check the mid-transport diverter cams and gear for misalignment and damage.</p> <p>Are the cams and gear properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Reinstall or replace the cams and gear. See “Mid-transport diverter cams and gear removal” on page 1161.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Check mid-transport diverter 1 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 1 properly installed and free of damage?</p>	Go to step 16.	Go to step 17.
<p>Step 16</p> <p>Turn the mid-transport diverter gear and check if the position of diverter 1 changes.</p> <p>Does diverter 1 change position?</p>	Go to step 18.	Go to step 17.
<p>Step 17</p> <p>Reinstall or replace diverter 1. See “Mid-transport diverter 1 removal” on page 1178.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Check the mid-transport roller for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Replace the roller.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Check mid-transport diverter 2 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 2 properly installed and free of damage?</p>	Go to step 21.	Go to step 22.
<p>Step 21</p> <p>Turn the mid-transport diverter gear and check if the position of diverter 2 changes.</p> <p>Does diverter 2 change position?</p>	Go to step 23.	Go to step 22.

Action	Yes	No
<p>Step 22 Reinstall or replace diverter 2. See “Mid-transport diverter 2 removal” on page 1188.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 25.	Go to step 24.
<p>Step 24 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <ol style="list-style-type: none"> Reseat all connectors on the MSHPF controller board. Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF standard bin exit jam service check

Action	Yes	No
<p>Step 1</p> <ol style="list-style-type: none"> Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279. Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check door J1 for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3 Reinstall or replace the door. See “Door J1 removal” on page 1187.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher b Find the sensor (Standard bin exit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5 Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Reinstall or replace the sensor. See “Sensor (MSHPF standard bin exit) removal” on page 1191.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the MSHPF standard bin bail for misalignment and damage.</p> <p>Is the bin bail properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the standard bin bail.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the MSHPF standard bin exit belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Reinstall or replace the belt. See “MSHPF standard bin exit belt removal” on page 1122.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Offset roller).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <p>Reinstall or replace the sensor. See “Sensor (offset roller) removal” on page 1145.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Standard bin offset</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall or replace the motor.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the offset assembly for misalignment and damage.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Move the offset roller from side to side to check for lateral movement. • Make sure that the offset roller belt is properly installed. <p>Is the offset assembly properly installed and free of damage?</p>	Go to step 19.	Go to step 18.

Action	Yes	No
<p>Step 18 Reinstall or replace the offset assembly. See “Offset assembly removal” on page 1150.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the mid-transport diverter cams and gear for misalignment and damage.</p> <p>Are the cams and gear properly installed and free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Reinstall or replace the cams and gear. See “Mid-transport diverter cams and gear removal” on page 1161.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Check mid-transport diverter 1 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 1 properly installed and free of damage?</p>	Go to step 22.	Go to step 23.
<p>Step 22 Turn the mid-transport diverter gear and check if the position of diverter 1 changes.</p> <p>Does diverter 1 change position?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace diverter 1. See “Mid-transport diverter 1 removal” on page 1178.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Check mid-transport diverter 2 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 2 properly installed and free of damage?</p>	Go to step 25.	Go to step 26.
<p>Step 25 Turn the mid-transport diverter gear and check if the position of diverter 2 changes.</p> <p>Does diverter 2 change position?</p>	Go to step 27.	Go to step 26.

Action	Yes	No
<p>Step 26 Reinstall or replace diverter 2. See “Mid-transport diverter 2 removal” on page 1188.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27 Check the mid-transport roller for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 29.	Go to step 28.
<p>Step 28 Replace the roller.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 31.	The problem is solved.
<p>Step 31 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 33.	Go to step 32.
<p>Step 32 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.
<p>Step 33</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.

Action	Yes	No
<p>Step 34 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging entrance jam service check

Action	Yes	No
<p>Step 1 a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279. b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher b Find the sensor (Staging entrance).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3 Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reinstall or replace the sensor. See “Sensor (staging entrance) removal” on page 1208.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check door J1 for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Reinstall or replace the door. See “Door J1 removal” on page 1187.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Diverter).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the sensor. See “Sensor (staging diverter) removal” on page 1101.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging diverter</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the motor.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the staging diverter and its fingers and spring for misalignment and damage.</p> <p>Is the diverter properly installed and free of damage?</p>	Go to step 16.	Go to step 14.
<p>Step 14</p> <p>Turn the staging diverter gear and check if the position of the diverter changes.</p> <p>Does the diverter change position?</p>	Go to step 16.	Go to step 15.

Action	Yes	No
<p>Step 15 Reinstall or replace the diverter. See “Staging diverter removal” on page 1229.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Mid-transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 19.	Go to step 17.
<p>Step 17 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Reinstall or replace the motor. See “Motor (mid-transport) removal” on page 1127.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the MSHPF standard bin exit belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Reinstall or replace the belt. See “MSHPF standard bin exit belt removal” on page 1122.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Check the mid-transport diverter cams and gear for misalignment and damage.</p> <p>Are the cams and gear properly installed and free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22 Reinstall or replace the cams and gear. See “Mid-transport diverter cams and gear removal” on page 1161.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.

Action	Yes	No
<p>Step 23 Check mid-transport diverter 1 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 1 properly installed and free of damage?</p>	Go to step 24.	Go to step 25.
<p>Step 24 Turn the mid-transport diverter gear and check if the position of diverter 1 changes.</p> <p>Does diverter 1 change position?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace diverter 1. See “Mid-transport diverter 1 removal” on page 1178.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check mid-transport diverter 2 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 2 properly installed and free of damage?</p>	Go to step 27.	Go to step 28.
<p>Step 27 Turn the mid-transport diverter gear and check if the position of diverter 2 changes.</p> <p>Does diverter 2 change position?</p>	Go to step 29.	Go to step 28.
<p>Step 28 Reinstall or replace diverter 2. See “Mid-transport diverter 2 removal” on page 1188.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 31.	Go to step 30.
<p>Step 30 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 31.	The problem is solved.
<p>Step 31 Check the mid-transport gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 33.	Go to step 32.

Action	Yes	No
<p>Step 32 Reinstall or replace the gear. See “Mid-transport gear removal” on page 1129.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.
<p>Step 33 Check the door N guide for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door guide for wear, damage, and contamination. • Check the door guide for missing rollers. • Check the door guide hinges for proper installation. • Check if door N can properly close. <p>Is the door guide properly installed and free of damage?</p>	Go to step 35.	Go to step 34.
<p>Step 34 Reinstall or replace the door guide. See “Staging paper guide removal” on page 1224.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35 Check the roller J2 for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 36.	Go to step 37.
<p>Step 36 Check the roller J2 for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 38.	Go to step 37.
<p>Step 37 Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 38.	The problem is solved.
<p>Step 38 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 39.	The problem is solved.
<p>Step 39 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 40.	The problem is solved.

Action	Yes	No
<p>Step 40 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 42.	Go to step 41.
<p>Step 41 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 42.	The problem is solved.
<p>Step 42 a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 43.	The problem is solved.
<p>Step 43 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging outer transport 1 jam service check

Action	Yes	No
<p>Step 1 a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279. b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check door J3 for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door for wear, damage, and contamination. • Check the door for missing rollers. • Check the door hinges for proper installation. • Check if the door can properly close. <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reinstall or replace the door.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Outer transport 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the sensor. See “Sensor (staging outer transport 1) removal” on page 1203.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the motor. See “Motor (staging outer transport) removal” on page 1104.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the staging outer transport belts for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 12.	Go to step 11.

Action	Yes	No
<p>Step 11 Reinstall or replace the belt. See “Staging outer transport belt removal” on page 1095.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Mid-transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Reinstall or replace the motor. See “Motor (mid-transport) removal” on page 1127.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the staging transport gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Action	Yes	No
<p>Step 19 Check the MSHPF standard bin exit belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Reinstall or replace the belt. See “MSHPF standard bin exit belt removal” on page 1122.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Check the roller J2 for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 22.	Go to step 23.
<p>Step 22 Check the roller J2 for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Check the door N guide for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door guide for wear, damage, and contamination. • Check the door guide for missing rollers. • Check the door guide hinges for proper installation. • Check if door N can properly close. <p>Is the door guide properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Replace the door guide. See “Staging paper guide removal” on page 1224.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the staging outer transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 27.	Go to step 28.

Action	Yes	No
<p>Step 27 Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 27.	Go to step 28.
<p>Step 28 Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 31.	The problem is solved.
<p>Step 31 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 33.	Go to step 32.
<p>Step 32 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.
<p>Step 33</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging outer transport 2 jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check door J4 for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door for wear, damage, and contamination. • Check the door for missing rollers. • Check the door hinges for proper installation. • Check if the door can properly close. <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the door.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Outer transport 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.

Action	Yes	No
<p>Step 8 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reinstall or replace the motor. See “Motor (staging outer transport) removal” on page 1104.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the staging outer transport belts for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the belt. See “Staging outer transport belt removal” on page 1095.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the staging transport gears for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16</p> <p>Check the staging outer transport rollers for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17</p> <p>Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 19.	Go to step 18.
<p>Step 18</p> <p>Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging inner transport 1 jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check door J5 for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door for wear, damage, and contamination. • Check the door for missing rollers. • Check the door hinges for proper installation. • Check if the door can properly close. <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the door.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Inner transport 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the sensor. See “Sensor (staging inner transport 1) removal” on page 1314.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the motor. See “Motor (staging inner transport) removal” on page 1108.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the staging transport gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <p>Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Check the staging diverter and its fingers and spring for misalignment and damage.</p> <p>Is the diverter properly installed and free of damage?</p>	Go to step 15.	Go to step 16.

Action	Yes	No
<p>Step 15</p> <p>Turn the staging diverter gear and check if the position of the diverter changes.</p> <p>Does the diverter change position?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall or replace the diverter. See “Staging diverter removal” on page 1229.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Diverter).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 20.	Go to step 18.
<p>Step 18</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Reinstall or replace the sensor. See “Sensor (staging diverter) removal” on page 1101.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging diverter</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 23.	Go to step 21.
<p>Step 21</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22</p> <p>Reinstall or replace the motor. See “Motor (staging diverter) removal” on page 1099.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.

Action	Yes	No
<p>Step 23</p> <p>Check the door N guide for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door guide for wear, damage, and contamination. • Check the door guide for missing rollers. • Check the door guide hinges for proper installation. • Check if door N can properly close. <p>Is the door guide properly installed and free of damage?</p>	Go to step 25.	Go to step 24.
<p>Step 24</p> <p>Replace the door guide. See “Staging paper guide removal” on page 1224.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>Check the roller J2 for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 26.	Go to step 27.
<p>Step 26</p> <p>Check the roller for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 28.	Go to step 27.
<p>Step 27</p> <p>Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28</p> <p>Check the staging inner transport rollers for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 29.	Go to step 30.
<p>Step 29</p> <p>Check the roller for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 31.	Go to step 30.
<p>Step 30</p> <p>Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 31.	The problem is solved.

Action	Yes	No
<p>Step 31</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 33.	The problem is solved.
<p>Step 33</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 35.	Go to step 34.
<p>Step 34</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 36.	The problem is solved.
<p>Step 36</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging inner transport 2 jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>Check door J6 for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door for wear, damage, and contamination. • Check the door for missing rollers. • Check the door hinges for proper installation. • Check if the door can properly close. <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Replace or reinstall the door.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Inner transport 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the sensor. See “Sensor (staging inner transport 2) removal” on page 1315.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.

Action	Yes	No
<p>Step 9 Reinstall or replace the motor. See “Motor (staging inner transport) removal” on page 1108.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the staging transport belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the belt. See “Staging transport belts removal” on page 1116.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the staging transport gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the staging inner transport rollers for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 17.	Go to step 18.
<p>Step 17 Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 19.	Go to step 18.

Action	Yes	No
<p>Step 18 Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Compiler tray jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (compiler paper present) removal” on page 1288.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the compiler exit rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 6.	Go to step 7.
<p>Step 6</p> <p>Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the roller. See “Compiler exit roller removal” on page 1273.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Paddle</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the motor. See “Motor (compiler paddle) removal” on page 1274.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler paddle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <p>Reinstall or replace the sensor. See “Sensor (compiler paddle) removal” on page 1268.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Compiler exit cam</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.

Action	Yes	No
<p>Step 15</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall or replace the motor. See “Motor (compiler exit cam) removal” on page 1270.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler exit cam).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 20.	Go to step 18.
<p>Step 18</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Reinstall or replace the sensor. See “Sensor (compiler exit cam) removal” on page 1267.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Check the compiler paddle and exit drive for proper installation.</p> <ul style="list-style-type: none"> • Check all of the components for misalignment. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive properly installed?</p>	Go to step 21.	Go to step 22.
<p>Step 21</p> <p>Check the compiler paddle and exit drive for damage.</p> <ul style="list-style-type: none"> • Check the gears and paddles for contamination, wear, and damage. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive free of damage?</p>	Go to step 23.	Go to step 22.

Action	Yes	No
<p>Step 22 Reinstall or replace the paddle and exit drive. See “Compiler paddle and exit drive removal” on page 1271.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Check the MSHPF compiler tray and its spring for proper installation.</p> <p>Is the compiler tray properly installed?</p>	Go to step 24.	Go to step 25.
<p>Step 24 Check the compiler tray and its plastic guides for wear and damage.</p> <p>Is the compiler tray free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace the compiler tray. See “MSHPF compiler tray removal” on page 1285.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler stack height).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 29.	Go to step 27.
<p>Step 27 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 29.	Go to step 28.
<p>Step 28 Reinstall or replace the sensor. See “Sensor (compiler stack height) removal” on page 1265.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Compiler stack height</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 32.	Go to step 30.

Action	Yes	No
<p>Step 30 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Reinstall or replace the motor. See “Motor (compiler stack height) removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32 Check the stack height assembly for proper installation.</p> <ul style="list-style-type: none"> • Check all of the components for misalignment. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the assembly properly installed?</p>	Go to step 33.	Go to step 34.
<p>Step 33 Check the stack height assembly for damage.</p> <p>Is the assembly free of damage?</p>	Go to step 35.	Go to step 34.
<p>Step 34 Reinstall or replace the assembly. See “Stack height assembly removal” on page 1267.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35 Check the stapler bin lower exit roller for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 36.	Go to step 37.
<p>Step 36 Check the roller for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 38.	Go to step 37.
<p>Step 37 Reinstall or replace the roller. See “Stapler bin lower exit roller removal” on page 1290.</p> <p>Does the problem remain?</p>	Go to step 38.	The problem is solved.

Action	Yes	No
<p>Step 38</p> <p>Check the stapler bin lower exit belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 40.	Go to step 39.
<p>Step 39</p> <p>Reinstall or replace the belt. See “Stapler bin lower exit roller belt removal” on page 1276.</p> <p>Does the problem remain?</p>	Go to step 40.	The problem is solved.
<p>Step 40</p> <p>Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 42.	Go to step 41.
<p>Step 41</p> <p>Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 42.	The problem is solved.
<p>Step 42</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 43.	The problem is solved.
<p>Step 43</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 44.	The problem is solved.
<p>Step 44</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 46.	Go to step 45.
<p>Step 45</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 46.	The problem is solved.

Action	Yes	No
<p>Step 46</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 47.	The problem is solved.
<p>Step 47</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF staple unit jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Staple unit paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF staple unit paper present) removal” on page 1077.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Staple unit position).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF staple unit position) removal” on page 1073.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher</p> <p>b Perform all the motor tests involving the staple unit position.</p> <p>Does the motor run?</p>	Go to step 26.	Go to step 9.
<p>Step 9</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the motor. See “Motor (staple unit carriage) removal” on page 1299.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the staple carriage belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the belt. See “Staple unit carriage belt removal” on page 1299.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13</p> <p>Check the staple unit carriage gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Reinstall or replace the gear.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Check the MSHPF staple unit and its cable for damage.</p> <p>Is the staple unit free of damage?</p>	Go to step 16.	Go to step 17.
<p>Step 16</p> <p>Check the staple unit for proper installation.</p> <ul style="list-style-type: none"> • Check the staple unit for misalignment. • Reseat the staple unit extension cable. <p>Is the staple unit properly installed?</p>	Go to step 18.	Go to step 17.
<p>Step 17</p> <p>Reinstall or replace the staple unit. See “MSHPF staple unit removal” on page 1081.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Check the MSHPF staple unit carriage and its cables for damage.</p> <p>Is the carriage free of damage?</p>	Go to step 19.	Go to step 20.
<p>Step 19</p> <p>Check the MSHPF staple unit carriage for proper installation.</p> <ul style="list-style-type: none"> • Check the staple unit carriage for misalignment. • Reseat the staple unit cable. <p>Is the staple unit carriage properly installed?</p>	Go to step 21.	Go to step 20.
<p>Step 20</p> <p>Replace the staple unit carriage. See “MSHPF staple unit carriage removal” on page 1070.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.

Action	Yes	No
<p>Step 21</p> <p>a Reseat the staple unit cable and staple unit extension cable.</p> <p>b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Check the carriage cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23</p> <p>Replace the cable. See “Staple unit extension cable removal” on page 1084 and “Staple unit cable removal” on page 1301.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Check the carriage rail for misalignment and damage.</p> <p>Is the carriage rail properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25</p> <p>Reinstall or replace the carriage rail.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Paddle</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 29.	Go to step 27.
<p>Step 27</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 29.	Go to step 28.
<p>Step 28</p> <p>Reinstall or replace the motor. See “Motor (compiler paddle) removal” on page 1274.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.

Action	Yes	No
<p>Step 29</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler paddle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 32.	Go to step 30.
<p>Step 30</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31</p> <p>Reinstall or replace the sensor. See “Sensor (compiler paddle) removal” on page 1268.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Compiler exit cam</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 35.	Go to step 33.
<p>Step 33</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 35.	Go to step 34.
<p>Step 34</p> <p>Reinstall or replace the motor. See “Motor (compiler exit cam) removal” on page 1270.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler exit cam).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 38.	Go to step 36.

Action	Yes	No
<p>Step 36</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 38.	Go to step 37.
<p>Step 37</p> <p>Reinstall or replace the sensor. See “Sensor (compiler exit cam) removal” on page 1267.</p> <p>Does the problem remain?</p>	Go to step 38.	The problem is solved.
<p>Step 38</p> <p>Check the compiler exit rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 39.	Go to step 40.
<p>Step 39</p> <p>Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 41.	Go to step 40.
<p>Step 40</p> <p>Reinstall or replace the roller. See “Compiler exit roller removal” on page 1273.</p> <p>Does the problem remain?</p>	Go to step 41.	The problem is solved.
<p>Step 41</p> <p>Check the compiler paddle and exit drive for proper installation.</p> <ul style="list-style-type: none"> • Check all of the components for misalignment. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive properly installed?</p>	Go to step 42.	Go to step 43.
<p>Step 42</p> <p>Check the compiler paddle and exit drive for damage.</p> <ul style="list-style-type: none"> • Check the gears and paddles for contamination, wear, and damage. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive free of damage?</p>	Go to step 44.	Go to step 43.

Action	Yes	No
<p>Step 43 Reinstall or replace the paddle and exit drive. See “Compiler paddle and exit drive removal” on page 1271.</p> <p>Does the problem remain?</p>	Go to step 44.	The problem is solved.
<p>Step 44 Check the stapler bin lower exit belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 46.	Go to step 45.
<p>Step 45 Reinstall or replace the belt. See “Stapler bin lower exit roller belt removal” on page 1276.</p> <p>Does the problem remain?</p>	Go to step 46.	The problem is solved.
<p>Step 46 Check the stapler bin lower exit roller for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 47.	Go to step 48.
<p>Step 47 Check the roller for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 49.	Go to step 48.
<p>Step 48 Reinstall or replace the roller. See “Stapler bin lower exit roller removal” on page 1290.</p> <p>Does the problem remain?</p>	Go to step 49.	The problem is solved.
<p>Step 49</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 52.	Go to step 50.
<p>Step 50 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 52.	Go to step 51.

Action	Yes	No
<p>Step 51 Reinstall or replace the sensor. See “Sensor (compiler paper present) removal” on page 1288.</p> <p>Does the problem remain?</p>	Go to step 52.	The problem is solved.
<p>Step 52 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher b Find the sensor (Bin clamp).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 55.	Go to step 53.
<p>Step 53 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 55.	Go to step 54.
<p>Step 54 Reinstall or replace the sensor. See “Sensor (MSHPF bin clamp home) removal” on page 1289.</p> <p>Does the problem remain?</p>	Go to step 55.	The problem is solved.
<p>Step 55 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Stapler bin clamp b Touch Start.</p> <p>Does the motor run?</p>	Go to step 58.	Go to step 56.
<p>Step 56 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 58.	Go to step 57.
<p>Step 57 Reinstall or replace the motor. See “Motor (MSHPF bin clamp) removal” on page 1289.</p> <p>Does the problem remain?</p>	Go to step 58.	The problem is solved.
<p>Step 58 Check the MSHPF compiler tray and its spring for proper installation.</p> <p>Is the compiler tray properly installed?</p>	Go to step 59.	Go to step 60.

Action	Yes	No
<p>Step 59 Check the compiler tray and its plastic guides for wear and damage.</p> <p>Is the compiler tray free of damage?</p>	Go to step 61.	Go to step 60.
<p>Step 60 Reinstall or replace the compiler tray. See “MSHPF compiler tray removal” on page 1285.</p> <p>Does the problem remain?</p>	Go to step 61.	The problem is solved.
<p>Step 61 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 62.	The problem is solved.
<p>Step 62 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 63.	The problem is solved.
<p>Step 63 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 65.	Go to step 64.
<p>Step 64 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 65.	The problem is solved.
<p>Step 65</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 66.	The problem is solved.
<p>Step 66 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

46y paper jams

460–469 paper jam messages

Error code	Description	Action
460.64	The motor (mid-transport) ran too slow.	See “Mid-transport failure service check” on page 553.
460.65	The motor (mid-transport) ran too fast.	
461.23	The offset roller did not reach the sensor (offset roller).	See “Offset roller jam service check” on page 368.
461.25	The offset roller never cleared the sensor (offset roller).	
462.64	The motor (staging outer transport) ran too slow.	See “Staging outer transport failure service check” on page 556.
462.65	The motor (staging outer transport) ran too fast.	
463.64	The motor (staging inner transport) ran too slow.	See “Staging inner transport failure service check” on page 558.
463.65	The motor (staging inner transport) ran too fast.	
464.23	The compiler paddle did not reach its home position.	See “Compiler exit cam jam service check” on page 370.
464.25	The compiler paddle never cleared its home position.	
464.64	The motor (compiler paddle) ran too slow.	See “Compiler paddle and exit failure service check” on page 561.
464.65	The motor (compiler paddle) ran too fast.	
465.23	The compiler exit cam did not reach the sensor (compiler exit cam).	See “Compiler exit cam jam service check” on page 370.
465.25	The compiler exit cam never cleared the sensor (compiler exit cam).	
466.23	The stack height actuator did not reach the sensor (compiler stack height).	See “Compiler stack jam service check” on page 374.
466.25	The stack height actuator never cleared the sensor (compiler stack height).	
468.23	The MSHPF front tamper did not reach the sensor (MSHPF front tamper).	See “MSHPF front tamper jam service check” on page 376.
468.25	The MSHPF front tamper never cleared the sensor (MSHPF front tamper).	
469.23	The MSHPF rear tamper did not reach the sensor (MSHPF rear tamper).	See “MSHPF rear tamper jam service check” on page 378.
469.25	The MSHPF rear tamper never cleared the sensor (MSHPF rear tamper).	

Offset roller jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Offset roller).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (offset roller) removal” on page 1145.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Standard bin offset</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Check the offset assembly for misalignment and damage.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Move the offset roller from side to side to check for lateral movement. • Make sure that the offset roller belt is properly installed. <p>Is the offset assembly properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reinstall or replace the offset assembly. See “Offset assembly removal” on page 1150.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <ol style="list-style-type: none"> Reseat all connectors on the MSHPF controller board. Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Compiler exit cam jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Paddle</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (compiler paddle) removal” on page 1274.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler paddle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the sensor. See “Sensor (compiler paddle) removal” on page 1268.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Compiler exit cam</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the motor. See “Motor (compiler exit cam) removal” on page 1270.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler exit cam).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <p>Reinstall or replace the sensor. See “Sensor (compiler exit cam) removal” on page 1267.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Check the compiler paddle and exit drive for proper installation.</p> <ul style="list-style-type: none"> • Check all of the components for misalignment. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive properly installed?</p>	Go to step 15.	Go to step 16.

Action	Yes	No
<p>Step 15</p> <p>Check the compiler paddle and exit drive for damage.</p> <ul style="list-style-type: none"> • Check the gears and paddles for contamination, wear, and damage. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall or replace the paddle and exit drive. See “Compiler paddle and exit drive removal” on page 1271.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the compiler exit rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 18.	Go to step 19.
<p>Step 18</p> <p>Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Reinstall or replace the roller. See “Compiler exit roller removal” on page 1273.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Check the stapler bin lower exit belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21</p> <p>Reinstall or replace the belt. See “Stapler bin lower exit roller belt removal” on page 1276.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Check the stapler bin lower exit roller for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 23.	Go to step 24.

Action	Yes	No
<p>Step 23</p> <p>Check the roller for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 25.	Go to step 24.
<p>Step 24</p> <p>Reinstall or replace the roller. See “Stapler bin lower exit roller removal” on page 1290.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 29.	Go to step 28.
<p>Step 28</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Compiler stack jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler stack height).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (compiler stack height) removal” on page 1265.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Compiler stack height</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (compiler stack height) removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>Check the compiler stack height clamp for proper installation.</p> <ul style="list-style-type: none"> • Check all of the components for misalignment. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the stack height clamp properly installed?</p>	Go to step 9.	Go to step 10.
<p>Step 9</p> <p>Check the stack height clamp for damage.</p> <p>Is the stack height clamp free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the stack height clamp. See “Stack height assembly removal” on page 1267.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF front tamper jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Front tamper).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF tamper) removal” on page 1258.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Front and rear tamper</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.

Action	Yes	No
<p>Step 6 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reinstall or replace the motor. See “Motor (MSHPF front tamper) removal” on page 1253.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the MSHPF tamper belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reinstall or replace the belt. See “MSHPF tamper belt removal” on page 1255.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the tamper pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the tamper for misalignment and damage. Note: Make sure that the belt is properly installed to the tamper.</p> <p>Is the tamper properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the tamper. See “MSHPF tampers removal” on page 1259.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF rear tamper jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Rear tamper).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF tamper) removal” on page 1258.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Front and rear tamper</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (MSHPF rear tamper) removal” on page 1254.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the MSHPF tamper belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 10.	Go to step 9.

Action	Yes	No
<p>Step 9 Reinstall or replace the belt. See “MSHPF tamper belt removal” on page 1255.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the tamper pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the tamper for misalignment and damage. Note: Make sure that the belt is properly installed to the tamper.</p> <p>Is the tamper properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the tamper. See “MSHPF tampers removal” on page 1259.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

47y paper jams

470–479 paper jam messages

Error code	Description	Action
470.23	The MSHPF bin clamp did not reach the sensor (MSHPF bin clamp).	See “MSHPF bin clamp jam service check” on page 382 .
470.25	The MSHPF bin clamp never cleared the sensor (MSHPF bin clamp).	
471.23	Mid-transport diverter 1 did not reach the sensor (mid-transport diverter 1).	See “Mid-transport diverter 1 jam service check” on page 385 .
471.25	Mid-transport diverter 1 never cleared the sensor (mid-transport diverter 1).	
473.23	The staging diverter did not reach the sensor (staging diverter).	See “Staging diverter jam service check” on page 387 .
473.25	The staging diverter never cleared the sensor (staging diverter).	
474.64	The motor (standard bin elevator) ran too slow.	See “MSHPF standard bin stack failure service check” on page 565 .
474.65	The motor (standard bin elevator) ran too fast.	
475.xx	Sensor (standard bin stack upper limit) error was detected.	See “Stapler bin stack failure service check” on page 570 .
476.xx	Sensor (stapler bin stack upper limit) error was detected.	
477.64	The motor (stapler bin elevator) ran too slow.	
477.65	The motor (stapler bin elevator) ran too fast.	

Error code	Description	Action
478.23	The MSHPF standard bin did not reach the sensor (standard bin stack upper limit).	See “MSHPF standard bin stack jam service check” on page 390.
478.25	The MSHPF standard bin never cleared the sensor (standard bin stack upper limit).	
479.23	The MSHPF stapler bin did not reach the sensor (stapler bin stack upper limit).	See “Stapler bin stack jam service check” on page 394.
479.25	The MSHPF stapler bin never cleared the sensor (stapler bin stack upper limit).	

MSHPF bin clamp jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Bin clamp).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF bin clamp home) removal” on page 1289.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Stapler bin clamp</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (MSHPF bin clamp) removal” on page 1289.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the compiler gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the gear. See “Compiler gears removal” on page 1281.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the MSHPF compiler tray and its spring for proper installation.</p> <p>Is the compiler tray properly installed?</p>	Go to step 11.	Go to step 12.
<p>Step 11</p> <p>Check the compiler tray and its plastic guides for wear and damage.</p> <p>Is the compiler tray free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the compiler tray. See “MSHPF compiler tray removal” on page 1285.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13</p> <p>a Reseat the compiler tray cables.</p> <p>b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Check the cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mid-transport diverter 1 jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Diverter 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (mid-transport diverter 1) removal” on page 1159.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Diverter, mailbox position</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (mid-transport diverter) removal” on page 1158.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>Check the mid-transport diverter cams and gear for misalignment and damage.</p> <p>Are the cams and gear properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the cams and gear. See “Mid-transport diverter cams and gear removal” on page 1161.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check mid-transport diverter 1 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 1 properly installed and free of damage?</p>	Go to step 11.	Go to step 12.
<p>Step 11</p> <p>Turn the mid-transport diverter gear and check if the position of diverter 1 changes.</p> <p>Does diverter 1 change position?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace diverter 1. See “Mid-transport diverter 1 removal” on page 1178.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check mid-transport diverter 2 and its fingers and spring for misalignment and damage.</p> <p>Is diverter 2 properly installed and free of damage?</p>	Go to step 14.	Go to step 15.
<p>Step 14</p> <p>Turn the mid-transport diverter gear and check if the position of diverter 2 changes.</p> <p>Does diverter 2 change position?</p>	Go to step 16.	Go to step 15.
<p>Step 15</p> <p>Reinstall or replace diverter 2. See “Mid-transport diverter 2 removal” on page 1188.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging diverter jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Staging entrance).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (staging entrance) removal” on page 1208.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging diverter</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the motor. See “Motor (staging diverter) removal” on page 1099.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the staging transport gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10</p> <p>Check the staging diverter and its fingers and spring for misalignment and damage.</p> <p>Is the diverter properly installed and free of damage?</p>	Go to step 11.	Go to step 12.
<p>Step 11</p> <p>Turn the staging diverter gear and check if the position of the diverter changes.</p> <p>Does the diverter change position?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the diverter. See “Staging diverter removal” on page 1229.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF standard bin stack jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Standard bin elevator</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (standard bin elevator) removal” on page 1139.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the standard bin elevator drive for misalignment and damage.</p> <p>Is the elevator drive properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the elevator drive. See “Standard bin elevator drive removal” on page 1138.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Standard bin lower limit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Standard bin stack upper limit 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the sensor. See “Sensor (standard bin stack upper limit) removal” on page 1137.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Standard bin paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.
<p>Step 14</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 6.	Go to step 15.

Action	Yes	No
<p>Step 15 Reinstall or replace the sensor. See “Sensor (standard bin paper present) removal” on page 1140.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the MSHPF standard bin for misalignment and damage. Note: Make sure that the shaft aligns with the gear.</p> <p>Is the bin properly installed and free of damage?</p>	Go to step 17.	Go to step 19.
<p>Step 17 Turn the elevator gears and check if the bin moves from top to bottom.</p> <p>Does the bin properly move?</p>	Go to step 20.	Go to step 18.
<p>Step 18 Remove the obstructions along the bin path.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Reinstall or replace the bin.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the standard bin elevator gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Reinstall or replace the gear.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the standard bin elevator belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the belt.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.

Action	Yes	No
<p>Step 24 Check the standard bin elevator belt holder for misalignment and damage.</p> <p>Note: Make sure that the elevator belt is properly engaged with the holder.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace the belt holder.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the pulley gears for misalignment and damage.</p> <p>Note: Make sure that the pin is properly installed.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 28.	Go to step 27.
<p>Step 27 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.

Action	Yes	No
<p>Step 32</p> <p>Check the MSHPF standard bin assembly for misalignment and damage.</p> <p>Note: Check the cables for damage and make sure that they are properly routed.</p> <p>Is the bin assembly properly installed and free of damage?</p>	Go to step 34.	Go to step 33.
<p>Step 33</p> <p>Reinstall or replace the bin assembly. See “MSHPF standard bin assembly removal” on page 1221.</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Stapler bin stack jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Stapler bin elevator</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.

Action	Yes	No
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (stapler bin elevator) removal” on page 1292.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the stapler bin elevator drive for misalignment and damage.</p> <p>Is the elevator drive properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the elevator drive. See “Stapler bin elevator drive removal” on page 1295.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Stapler bin lower limit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the sensor. See “Sensor (stapler bin lower limit) removal” on page 1068.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Stapler bin stack upper limit 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.

Action	Yes	No
<p>Step 11</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the sensor. See “Sensor (stapler bin stack upper limit) removal” on page 1088.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Stapler bin paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.
<p>Step 14</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15</p> <p>Reinstall or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Check the MSHPF stapler bin for misalignment and damage.</p> <p>Note: Make sure that the shaft aligns with the gear.</p> <p>Is the bin properly installed and free of damage?</p>	Go to step 17.	Go to step 19.
<p>Step 17</p> <p>Turn the elevator gears and check if the bin moves from top to bottom.</p> <p>Does the bin properly move?</p>	Go to step 20.	Go to step 18.
<p>Step 18</p> <p>Remove the obstructions along the bin path.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Reinstall or replace the bin.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.

Action	Yes	No
<p>Step 20 Check the stapler bin gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Reinstall or replace the gear.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the stapler bin elevator belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the belt.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Check the stapler bin elevator belt holder for misalignment and damage. Note: Make sure that the elevator belt is properly engaged with the holder.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace the belt holder.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the pulley gears for misalignment and damage. Note: Make sure that the pin is properly installed.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 28.	Go to step 27.
<p>Step 27 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.

Action	Yes	No
<p>Step 28</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32</p> <p>Check the MSHPF stapler bin assembly for misalignment and damage.</p> <p>Note: Check the cables for damage and make sure that they are properly routed.</p> <p>Is the bin assembly properly installed and free of damage?</p>	Go to step 34.	Go to step 33.
<p>Step 33</p> <p>Reinstall or replace the bin assembly. See “Stapler bin assembly removal” on page 1308.</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

48y paper jams

480–489 paper jam messages

Error code	Description	Action
480.23	The staple unit head did not reach its home position.	See “Staple unit head jam service check” on page 400.
480.25	The staple unit head never cleared its home position.	
481.29	The staple unit head failed.	
482.xx	Staple supply is low.	
483.64	The motor (staple unit carriage) ran too slow.	See “Staple carriage jam service check” on page 402.
483.65	The motor (staple unit carriage) ran too fast.	
484.23	The staple unit carriage did not reach the sensor (MSHPPF staple unit carriage position).	
484.25	The staple unit carriage never cleared the sensor (MSHPPF staple unit carriage position).	
485.23	Sensor (MSHPPF staple unit position) error was detected.	
486.29	Engine page error was detected.	See “MSHPPF engine error service check” on page 408.
488.23	The MSHPPF standard bin did not reach the sensor (standard bin lower limit).	See “MSHPPF standard bin stack jam service check” on page 390.
488.25	The MSHPPF standard bin never cleared the sensor (standard bin lower limit).	
489.23	The MSHPPF stapler bin did not reach the sensor (stapler bin lower limit).	See “Stapler bin stack jam service check” on page 394.
489.25	The MSHPPF stapler bin never cleared the sensor (stapler bin lower limit).	

Staple unit head jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Remove the staple cartridge holder, and then check for staple and paper fragments.</p> <p>b Check the cartridge holder for damage.</p> <p>Is the cartridge holder free of fragments and damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Remove the fragments, and then reinstall or replace the cartridge holder.</p> <p>Note: Remove the remaining partial slabs of staples so that only the full slabs remain.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the staple unit.</p> <ul style="list-style-type: none"> • Check the staple unit for misalignment and damage. • Reseat the staple unit extension cable. <p>Is the staple unit properly installed and free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Reinstall or replace the staple unit. See “MSHPF staple unit removal” on page 1081.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher</p> <p>b Perform all the motor tests involving the staple unit position.</p> <p>Does the motor run?</p>	Go to step 9.	Go to step 7.

Action	Yes	No
<p>Step 7 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the motor. See “Motor (staple unit carriage) removal” on page 1299.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the MSHPF staple unit carriage and its cables for damage.</p> <p>Is the carriage free of damage?</p>	Go to step 10.	Go to step 12.
<p>Step 10 Check the MSHPF staple unit carriage for proper installation.</p> <ul style="list-style-type: none"> • Check the staple unit carriage for misalignment. • Reseat the staple unit cable. <p>Is the staple unit carriage properly installed?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Replace the staple unit carriage. See “MSHPF staple unit carriage removal” on page 1070.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Reseat the staple unit cable and staple unit extension cable. b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the carriage cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Replace the cable. See “Staple unit extension cable removal” on page 1084 and “Staple unit cable removal” on page 1301.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p>Step 15</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple carriage jam service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>Check the MSHPF staple cartridge door for misalignment and damage.</p> <p>Note: When closing the door, its actuator should properly engage with the door sensor and switch.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the door. See “MSHPF staple cartridge door removal” on page 1032.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Cartridge door interlock switch).</p> <p>Does the sensor status change while toggling the switch?</p>	Go to step 10.	Go to step 5.
<p>Step 5</p> <p>Reseat the switch cable, and then check the switch for misalignment and damage.</p> <p>Is the switch properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the switch. See “Switch (MSHPF cartridge door interlock) removal” on page 1066.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the door interlock cable for proper connection.</p> <ul style="list-style-type: none"> • Reseat the cable. • Make sure that the cable is properly routed. <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the cable for cuts and damage.</p> <p>Is the cable free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10</p> <p>a Remove the staple cartridge holder, and then check for staple and paper fragments.</p> <p>b Check the cartridge holder for damage.</p> <p>Is the cartridge holder free of fragments and damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Remove the fragments, and then reinstall or replace the cartridge holder.</p> <p>Note: Remove the remaining partial slabs of staples so that only the full slabs remain.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Cartridge loading position).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 15.	Go to step 13.
<p>Step 13</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Reinstall or replace the sensor. See “Sensor (cartridge loading position) removal” on page 1068.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Staple unit position).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.
<p>Step 16</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 18.	Go to step 17.

Action	Yes	No
<p>Step 17 Reinstall or replace the sensor. See “Sensor (MSHPF staple unit position) removal” on page 1073.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher b Find the sensor (Staple unit paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 21.	Go to step 19.
<p>Step 19 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Reinstall or replace the sensor. See “Sensor (MSHPF staple unit paper present) removal” on page 1077.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher b Perform all the motor tests involving the staple unit position.</p> <p>Does the motor run?</p>	Go to step 24.	Go to step 22.
<p>Step 22 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the motor. See “Motor (staple unit carriage) removal” on page 1299.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Check the staple carriage belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 26.	Go to step 25.

Action	Yes	No
<p>Step 25 Reinstall or replace the belt. See “Staple unit carriage belt removal” on page 1299.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the staple unit carriage gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 28.	Go to step 27.
<p>Step 27 Reinstall or replace the gear.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 Check the carriage rail for misalignment and damage.</p> <p>Is the carriage rail properly installed and free of damage?</p>	Go to step 30.	Go to step 29.
<p>Step 29 Reinstall or replace the carriage rail.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Check the staple unit for proper installation.</p> <ul style="list-style-type: none"> • Check the staple unit for misalignment. • Reseat the staple unit extension cable. <p>Is the staple unit properly installed?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Reinstall or replace the staple unit. See “MSHPP staple unit removal” on page 1081.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32 Check the MSHPP staple unit carriage and its cables for damage.</p> <p>Is the carriage free of damage?</p>	Go to step 33.	Go to step 34.
<p>Step 33 Check the MSHPP staple unit carriage for proper installation.</p> <ul style="list-style-type: none"> • Check the staple unit carriage for misalignment. • Reseat the staple unit cable. <p>Is the staple unit carriage properly installed?</p>	Go to step 35.	Go to step 34.

Action	Yes	No
<p>Step 34 Replace the staple unit carriage. See “MSHPF staple unit carriage removal” on page 1070.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35 a Reseat the staple unit cable and staple unit extension cable. b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 36.	The problem is solved.
<p>Step 36 Check the carriage cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 38.	Go to step 37.
<p>Step 37 Replace the cable. See “Staple unit extension cable removal” on page 1084 and “Staple unit cable removal” on page 1301.</p> <p>Does the problem remain?</p>	Go to step 38.	The problem is solved.
<p>Step 38 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 39.	The problem is solved.
<p>Step 39 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 40.	The problem is solved.
<p>Step 40 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 42.	Go to step 41.
<p>Step 41 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 42.	The problem is solved.

Action	Yes	No
<p>Step 42</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 43.	The problem is solved.
<p>Step 43</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF engine error service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Staging entrance).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (staging entrance) removal” on page 1208.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Outer transport 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the sensor. See “Sensor (staging outer transport 1) removal” on page 1203.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Outer transport 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Inner transport 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.

Action	Yes	No
<p>Step 13 Reinstall or replace the sensor. See “Sensor (staging inner transport 1) removal” on page 1314.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher b Find the sensor (Inner transport 2).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 17.	Go to step 15.
<p>Step 15 Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Reinstall or replace the sensor. See “Sensor (staging inner transport 2) removal” on page 1315.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the compiler entrance belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Reinstall or replace the belt. See “Multiposition stapler assembly removal” on page 1244.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the compiler entrance belt tensioner for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the belt tensioner for damage. • Check the retainer spring for proper installation. • Check if the belt is properly engaged with the belt tensioner. <p>Is the belt tensioner properly installed and free of damage?</p>	Go to step 21.	Go to step 20.

Action	Yes	No
<p>Step 20 Reinstall or replace the belt tensioner. See “Compiler entrance belt tensioner removal” on page 1090.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Check doors J1, J3, J4, and J5 for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the doors for wear and damage. • Check the doors for missing rollers. • Check if the doors can properly close. <p>Are the doors properly installed and free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22 Replace or reinstall the door.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Check the staging outer transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 25.	Go to step 24.
<p>Step 24 Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 25.	The problem is solved.
<p>Step 25 Check the staging inner transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 27.	Go to step 26.
<p>Step 26 Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 27.	The problem is solved.
<p>Step 27 Check the staging transport belts for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belts.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 29.	Go to step 28.

Action	Yes	No
<p>Step 28 Reinstall or replace the belt. See “Staging transport belts removal” on page 1116.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 32.	Go to step 30.
<p>Step 30 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Reinstall or replace the motor. See “Motor (staging outer transport) removal” on page 1104.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 35.	Go to step 33.
<p>Step 33 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 35.	Go to step 34.
<p>Step 34 Reinstall or replace the motor. See “Motor (staging inner transport) removal” on page 1108.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35 Check the staging transport gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 37.	Go to step 36.

Action	Yes	No
<p>Step 36 Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 37.	The problem is solved.
<p>Step 37 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 39.	Go to step 38.
<p>Step 38 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 39.	The problem is solved.
<p>Step 39 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 40.	The problem is solved.
<p>Step 40 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 41.	The problem is solved.
<p>Step 41 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 43.	Go to step 42.
<p>Step 42 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 43.	The problem is solved.
<p>Step 43</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 44.	The problem is solved.
<p>Step 44 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

User attendance messages

Non-Lexmark supply

The printer has detected a non-Lexmark supply or part installed in the printer.

The Lexmark printer is designed to function best with genuine Lexmark supplies and parts. Use of third-party supplies or parts may affect the performance, reliability, or life of the printer and its imaging components.

All life indicators are designed to function with Lexmark supplies and parts and may deliver unpredictable results if third-party supplies or parts are used. Imaging component usage beyond the intended life may damage the Lexmark printer or associated components.

Warning—Potential Damage: Use of third-party supplies or parts can affect warranty coverage. Damage caused by the use of third-party supplies or parts may not be covered by the warranty.

If a customer accepts any and all of these risks and proceeds with the use of non-genuine supplies or parts in the printer, then instruct the customer to press and hold **X** and **#** simultaneously from the control panel for 15 seconds. Do not perform this action yourself.

If a customer does not want to accept these risks, then remove the third-party supply or part from the printer and install a genuine Lexmark supply or part. For more information, see [Using genuine Lexmark parts and supplies](#).

If the printer does not print after pressing and holding **X** and **#** simultaneously for 15 seconds, then instruct the customer to reset the supply usage counter.

- 1 From the control panel, navigate to:
Settings > Device > Maintenance > Configuration Menu > Supply Usage And Counters
- 2 Select the part or supply to reset, and then select **Start**.
- 3 Read the warning message, and then select **Continue**.
- 4 Press and hold **X** and **#** simultaneously for 15 seconds to clear the message.

Note: If the customer is unable to reset the supply usage counters, then the customer should return the item to the place of purchase.

31–39 user attendance errors

31–39 user attendance messages

Note: For 33.xx messages, see [“Non-Lexmark supply” on page 414](#).

Error code	Description	Action
31.30	Transfer belt smart chip or sensor communication problem was detected.	See “Supplies smart chip error service check” on page 417.
31.40	Toner cartridge (K) smart chip or sensor communication problem was detected.	
31.41	Toner cartridge (C) smart chip or sensor communication problem was detected.	
31.42	Toner cartridge (M) smart chip or sensor communication problem was detected.	
31.43	Toner cartridge (Y) smart chip or sensor communication problem was detected.	
31.50	Developer (K) smart chip or sensor communication problem was detected.	
31.51	Developer (C) smart chip or sensor communication problem was detected.	
31.52	Developer (M) smart chip or sensor communication problem was detected.	
31.53	Developer (Y) smart chip or sensor communication problem was detected.	
31.60	Imaging unit/photoconductor (K) smart chip or sensor communication problem was detected.	See “Supplies smart chip error service check” on page 417.
31.61	Imaging unit/photoconductor (C) smart chip or sensor communication problem was detected.	
31.62	Imaging unit/photoconductor (M) smart chip or sensor communication problem was detected.	
31.63	Imaging unit/photoconductor (Y) smart chip or sensor communication problem was detected.	
31.80	Fuser/maintenance kit smart chip or sensor communication problem was detected.	
32.40	The third party toner cartridge (K) is unsupported.	See “Unsupported third party supply service check” on page 419.
32.41	The third party toner cartridge (C) is unsupported.	
32.42	The third party toner cartridge (M) is unsupported.	
32.43	The third party toner cartridge (Y) is unsupported.	
32.50	The third party developer (K) is unsupported.	
32.51	The third party developer (C) is unsupported.	
32.52	The third party developer (M) is unsupported.	
32.53	The third party developer (Y) is unsupported.	

Error code	Description	Action
32.60	The third party imaging unit/photoconductor (K) is unsupported.	See “Unsupported third party supply service check” on page 419.
32.61	The third party imaging unit/photoconductor (C) is unsupported.	
32.62	The third party imaging unit/photoconductor (M) is unsupported.	
32.63	The third party imaging unit/photoconductor (Y) is unsupported.	
32.80	The third party fuser is unsupported.	
33.40z	Non-Lexmark black cartridge. The smart chip contents have been manipulated by a third party manufacturer.	See “Cartridge or photoconductor error service check” on page 419.
33.41z	Non-Lexmark cyan cartridge. The smart chip contents have been manipulated by a third party manufacturer.	
33.42z	Non-Lexmark magenta cartridge. The smart chip contents have been manipulated by a third party manufacturer.	
33.43z	Non-Lexmark yellow cartridge. The smart chip contents have been manipulated by a third party manufacturer.	
33.50z	Non-Lexmark black developer. The smart chip contents have been manipulated by a third party manufacturer.	
33.64z	Non-Lexmark color imaging unit. The smart chip contents have been manipulated by a third party manufacturer.	
34.xx	Incorrect paper size was detected.	See “Mismatched paper size service check” on page 420.
35.xx	The printer memory is insufficient to enable Resource Save.	See “Insufficient memory service check” on page 420.
37.xx	The printer memory is insufficient to do the job.	
38.xx	The memory is full.	
39.xx	The page is too complex to properly print.	See “Complex page service check” on page 421.

Z codes:

- 33.xxA— Non-genuine Lexmark supply
- 33.xxB— Supply exposed

Supplies smart chip error service check

Action	Yes	No
<p>Step 1</p> <p>Check whether the following supplies installed are genuine.</p> <ul style="list-style-type: none"> • Transfer belt • Toner cartridge • Developer • Photoconductor • Imaging unit <p>Are the parts genuine and supported Lexmark units?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Install genuine Lexmark supplies.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the following supplies for proper installation.</p> <ul style="list-style-type: none"> • Transfer belt • Toner cartridge • Developer • Photoconductor • Imaging unit <p>Are the parts properly installed?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall the supply.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Remove the supply, and then install a different unit.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the socket JDISTR1 on the controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>Check the electrical contacts and cables of the following supplies for damage.</p> <ul style="list-style-type: none"> • Transfer belt • Toner cartridge • Developer • Photoconductor • Imaging unit <p>Are the contacts and their cables free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Replace the contact.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the RIP firmware version.</p> <p>Does the RIP firmware have the latest version?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Update the RIP firmware.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the printer firmware version.</p> <p>Does the printer firmware have the latest version?</p>	Contact the next level of support.	Go to step 14.
<p>Step 14</p> <p>Update the printer firmware.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Unsupported third party supply service check

Action	Yes	No
<p>Step 1</p> <p>Check whether third party supplies are used.</p> <ul style="list-style-type: none"> • toner cartridge • developer and PC unit combo • fuser <p>Are third party supplies used?</p>	Go to step 2.	Contact the next level of support.
<p>Step 2</p> <p>Replace the third party supply (toner cartridge, imaging unit, or fuser) with a genuine Lexmark part.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Cartridge or photoconductor error service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the cartridge or photoconductor unit is installed.</p> <p>b Check if the cartridge or photoconductor unit is supported, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Make sure that the cartridge or photoconductor unit is properly installed.</p> <p>b Make sure that the cartridge or photoconductor cables are properly connected.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the cartridge or photoconductor contacts for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mismatched paper size service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the tray paper length and tray paper width guides are properly installed.</p> <p>b Check the guides for wear or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the paper width and paper length sensor actuators for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Reseat the paper width and paper length sensor cables.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the paper width and paper length sensors for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Insufficient memory service check

Action	Yes	No
<p>Step 1</p> <p>a Perform a POR.</p> <p>b From the home screen, navigate to Settings > Print > Setup > Download Target > Disk.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>If applicable, install an extra memory card.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>Check the controller board pins for damage.</p> <p>Are the pins free of damage?</p>	Contact the next level of support.	Go to step 4.
<p>Step 4</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Complex page service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then navigate to: Settings > Print > Setup > Download Target > Disk</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Enter the Diagnostics menu, and then navigate to: Input tray quick print > Tray 1 > Single</p> <p>Does the problem remain?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>If applicable, install extra memory card.</p> <p>If applicable, make sure that the additional memory card is properly installed.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

42–59 user attendance errors

42–59 user attendance messages

Error code	Description	Action
42.xx	The cartridge is incompatible due to printer region mismatch.	See “Cartridge or photoconductor error service check” on page 419.
43.40	Toner cartridge (B) falling paddle error was detected.	See “Toner cartridge paddle error service check” on page 423.
43.41	Toner cartridge (C) falling paddle error was detected.	
43.42	Toner cartridge (M) falling paddle error was detected.	
43.43	Toner cartridge (Y) falling paddle error was detected.	
50.xx	PPDS font error was detected.	See “PPDS font error service check” on page 424.
51.xx	The flash memory is defective.	See “Flash memory failure service check” on page 424.
52.xx	The flash memory is insufficient.	See “Insufficient flash memory service check” on page 425.
53.xx	The flash memory is unformatted.	See “Flash memory failure service check” on page 424.
54.xx	The printer was not able to communicate with the network.	See “Network service check” on page 425.
55.xx	The internal option installed is unsupported.	See “Unsupported internal option service check” on page 428.
56.xx	The parallel port, serial port, or standard USB port is disabled.	See “Disabled port service check” on page 429.
58.xx	The disks, trays, or bins installed are too many.	See “Excess options service check” on page 429.
58.xx	An output configuration error was detected at the MSHPF.	See “MSHPF configuration error service check” on page 430.
59.xx	The input option or output option is incompatible.	See “Incompatible hardware option service check” on page 434.

Toner cartridge paddle error service check

Action	Yes	No
<p>Step 1</p> <p>Check the toner cartridge of the affected color for proper installation.</p> <ul style="list-style-type: none"> • Make sure that there are no packing material still on it. • Check for misalignment. <p>Is the toner cartridge properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Reinstall the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests</p> <p>b Select the motor (toner add) of the affected color, and then touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the motor cable JBTL1M1 on the controller board for proper connection, and then reseat if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the drive coupler between the affected toner add motor and cartridge for damage and misalignment.</p> <p>Does the drive coupler properly engage with the cartridge and is it free of damage?</p>	Contact the next level of support.	Go to step 7.
<p>Step 7</p> <p>Replace the affected toner add motor.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

PPDS font error service check

Action	Yes	No
<p>Step 1 Navigate to Settings > Print > Layout > Print Area > Fit to Page.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Make sure that the font is supported by the memory card. Replace the memory card if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Flash memory failure service check

Action	Yes	No
<p>Step 1 Navigate to Settings > Print > Job Accounting > Log Near Full Level. Make sure that the value is set to maximum.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 If applicable, make sure that the optional memory card is supported.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Insufficient flash memory service check

Action	Yes	No
<p>Step 1 Navigate to Settings > USB Drive > Flash Drive Scan > Format Flash.</p> <p>Does the problem remain?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Navigate to Settings > Print > Job Accounting > Log Near Full Level. Make sure that the value is set to maximum.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 If applicable, make sure that the optional memory card is supported.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Network service check

Note: Before starting this service check, print the network setup page. This page is found under **Settings > Reports > Network**. Consult the network administrator to make sure that the physical and wireless network settings displayed on the network settings page for the printer are properly configured. If a wireless network is used, then make sure that the printer is in the range of the host computer or wireless access point. Make sure that there is no electronic interference in the wireless network. Have the network administrator check that the printer is using the correct SSID, and wireless security protocols.

Actions	Yes	No
<p>Step 1 If the printer is physically connected to the network, make sure that the Ethernet cable is properly connected on both ends.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 If the network is wireless, check the online status of the printer under Printers and Faxes on the host computer. Delete all print jobs in the print queue.</p> <p>Is the printer online and in Ready state?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Change the printer status to online.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the IP address displayed on the network settings page.</p> <p>Does it match the IP address in the port of the drivers using the printer?</p>	Go to step 9.	Go to step 5.
<p>Step 5 Note: A printer should use a static IP address on a network.</p> <p>Does the LAN use DHCP?</p>	Go to step 6.	Go to step 8.
<p>Step 6 Check the first two segments of the IP address.</p> <p>Does the IP address start with 169.254?</p>	Go to step 7.	Go to step 8.
<p>Step 7 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 8 Reset the address on the printer to match the IP address on the driver.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Have the network administrator check if the printer and computer IP address have identical subnet addresses.</p> <p>Are the subnet addresses the same?</p>	Go to step 11.	Go to step 10.

Actions	Yes	No
<p>Step 10</p> <p>Using the subnet address supplied by the network administrator, assign a unique IP address to the printer.</p> <p>Note: The printer IP address should match the IP address on the print driver.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Is the printer physically connected (Ethernet cable) to the network?</p>	Go to step 12.	Go to step 15.
<p>Step 12</p> <p>Try using a different Ethernet cable.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Have the network administrator check the network drop for activity.</p> <p>Is the network drop functioning properly?</p>	Go to step 14.	Contact the network administrator.
<p>Step 14</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Is the printer on the same wireless network as the other devices?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Assign the correct wireless network to the printer.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Are the other devices on the wireless network communicating properly?</p>	Go to step 18.	Contact the network administrator.
<p>Step 18</p> <p>Make sure that the wireless card on the controller board is properly installed.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Actions	Yes	No
<p>Step 19</p> <p>If there is an attached antenna, check it for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Make sure that the antenna is properly connected to the wireless card.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the wireless card.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Unsupported internal option service check

Action	Yes	No
<p>Step 1</p> <p>If applicable, make sure that the option cards are supported.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Disabled port service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the cables connected to ports are properly installed.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>From the home screen, touch Settings > Network/Ports, and then make sure that the applicable port settings are enabled.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>If applicable, make sure that the option card is supported.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Make sure that the firmware version is the latest, and update if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Excess options service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>If applicable, make sure that the internal option is supported.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a If applicable, remove all internal options.</p> <p>b Reset the printer, and then resend the print job.</p> <p>Does the problem remain?</p>	Go to step 6.	Go to step 4.

Action	Yes	No
<p>Step 4</p> <p>Check if the number of internal options installed is allowed, and remove the excess option.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check if the number of input options installed is allowed, and remove the excess option.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the controller board pins for damage, and replace if necessary. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF configuration error service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the MSHPF power cord is properly connected.</p> <p>b Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>c Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Reseat the HPT lock cable.</p> <p>b Check the HPT lock for proper installation.</p> <p>Is the HPT lock properly installed?</p>	Go to step 3.	Go to step 4.
<p>Step 3</p> <p>Check the HPT lock for damage.</p> <ul style="list-style-type: none"> • Check the HPT lock connector for damage. • Check the HPT lock connector pins for damage. <p>Is the HPT lock free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the HPT lock. See “HPT lock removal” on page 1001.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>Reseat the HPT autoconnect cable, and then check it for damage.</p> <ul style="list-style-type: none"> • Check the cable for cuts. • Check the connector pins for damage. <p>Is the cable free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Replace the cable. See “HPT autoconnect cable removal” on page 1004.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Reseat the mid-transport (HPT) interface cable.</p> <p>b Make sure that the cable is properly routed.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the cable and its pins for cuts and damage.</p> <p>Is the cable free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Replace the cable. See “Mid-transport (HPT) interface cable removal” on page 1132.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Reseat the mid-transport (mailbox) interface cable.</p> <p>b Make sure that the cable is properly routed.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the cable and its pins for cuts and damage.</p> <p>Is the cable free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Replace the cable. See “Mid-transport (mailbox) interface cable removal” on page 1134.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13</p> <p>a Reseat the MSHPF power supply cable. b Make sure that the cable is properly routed.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Check the cable and its pins for cuts and damage.</p> <p>Is the cable free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>a Reseat the mailbox interface cable. b Make sure that the cable is properly routed.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the cable and its pins for cuts and damage.</p> <p>Is the cable free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18</p> <p>Replace the cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>a Reseat the HPT controller board cables. b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Check the controller board for damage.</p> <p>Is the controller board free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21</p> <p>Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.

Action	Yes	No
<p>Step 22</p> <p>a Reseat the mailbox controller board cables.</p> <p>b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>Check the controller board for damage.</p> <p>Is the controller board free of damage?</p>	Go to step 25.	Go to step 24.
<p>Step 24</p> <p>Replace the controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25</p> <p>Reseat the MSHPF power supply cables, and then check the power supply for proper installation.</p> <p>Is the power supply properly installed?</p>	Go to step 26.	Go to step 27.
<p>Step 26</p> <p>Check the power supply and its connector pins for damage.</p> <p>Is the power supply free of damage?</p>	Go to step 28.	Go to step 27.
<p>Step 27</p> <p>Reinstall or replace the power supply. See “MSHPF power supply removal” on page 1059.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Incompatible hardware option service check

Action	Yes	No
<p>Step 1</p> <p>Warning—Potential Damage: Do not perform this step if the printer is on.</p> <p>a Reseat the hardware option cables.</p> <p>b Check the cables for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the firmware version of the hardware option if it is supported by the engine firmware. Update the firmware if necessary.</p> <p>Note: Contact the next level of support for the correct firmware version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the hardware option controller board pins for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

61–88 user attendance errors

61–88 user attendance messages

Error code	Description	Action
61.xx	The hard disk is defective.	See “Hard disk failure service check” on page 435.
62.xx	The hard disk is full.	
80.xx	The printer requires maintenance. The appropriate maintenance kit needs to be installed.	See “Maintenance kit service check” on page 436.
84.xx	A photoconductor unit end of life error was detected: <ul style="list-style-type: none"> The photoconductor unit life is low, nearly low, or very low. The photoconductor unit needs to be replaced. 	See “Cartridge or photoconductor error service check” on page 419.
85.xx	A developer unit end of life error was detected: <ul style="list-style-type: none"> The developer unit life is low, nearly low, or very low. The developer unit needs to be replaced. 	See “Cartridge or photoconductor error service check” on page 419.

Error code	Description	Action
88.xx	<p>A toner cartridge end of life error was detected:</p> <ul style="list-style-type: none"> The toner cartridge supply is low, nearly low, or very low. The toner cartridge needs to be replaced. 	See “Cartridge or photoconductor error service check” on page 419.

Hard disk failure service check

Action	Yes	No
<p>Step 1 Delete unnecessary files.</p> <p>a From the home screen, navigate to Settings > Device > Maintenance > Out-of-Service Erase > Erase Hard Disk > Sanitize all information on hard disk.</p> <p>b Select Erase downloads (Erase all macros, fonts, PFOs, etc), Erase buffered jobs, and Erase held jobs > All held jobs.</p> <p>c Touch Erase.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Make sure that the printer is using the latest firmware version.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Make sure that the hard disk cable is properly installed.</p> <p>b Check the cable for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Make sure that the hard disk is properly installed.</p> <p>b Check the hard disk for damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the controller board pins for damage.</p> <p>Are the pins free of damage?</p>	Contact the next level of support.	Go to step 6.
<p>Step 6 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Maintenance kit service check

Action	Yes	No
<p>Warning—Potential Damage: Do not perform this step if the printer is on.</p> <p>a Replace the required maintenance kit.</p> <p>b Reset the maintenance counter. See “Resetting the maintenance counter” on page 1395.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Printer hardware errors

10y errors

100–101 error messages

Error code	Description	Action
100.01	Engine software error was detected.	See “Weather station failure service check” on page 438 .
101.20	Tray 2 product ID is invalid.	See “Invalid input option type or ID is detected service check” on page 437 .
101.21	Tray 2 controller board ID is invalid.	
101.22	The input option type is invalid.	
101.30	Tray 3 product ID is invalid.	
101.31	Tray 3 controller board ID is invalid.	
101.32	The input option type is invalid.	
101.40	Tray 4 product ID is invalid.	See “Invalid input option type or ID is detected service check” on page 437 .
101.41	Tray 4 controller board ID is invalid.	
101.42	The input option type is invalid.	
101.50	Tray 5 product ID is invalid.	
101.51	Tray 5 controller board ID is invalid.	
101.52	The input option type is invalid.	

Invalid input option type or ID is detected service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the latest firmware is installed.</p> <p>b Make sure that the options configuration is supported. See the <i>Printer, Option, and Stand Compatibility Guide</i>.</p> <p>c Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the interface cable for proper connection, and reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the interface cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Replace the cable. See “550-sheet tray interface cable removal” on page 868 or “2200-sheet tray interface cable removal” on page 880.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the interface cable of the printer and adjacent options for damage.</p> <p>Is the cable free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the input option controller board. See “550-sheet tray controller board removal” on page 868 or “2200-sheet tray controller board removal” on page 879.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Weather station failure service check

Action	Yes	No
<p>Step 1 Check the cable JWTHR1 on the controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the weather station cable for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reseat the cable.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 5 Replace the weather station. See “Weather station removal” on page 787.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

110 errors

110 error messages

Error code	Description	Action
110.20	Printhead error (mirror motor lock is asserted) was detected before the motor was turned on.	See “Printhead failure service check” on page 439.
110.21	No printhead power (+5V) when the laser servo started.	
110.31	Printhead error (no first Hysnc) was detected.	
110.32	Printhead error (lost first Hysnc) was detected.	
110.33	Printhead error (lost first Hysnc) was detected during servo.	
110.34	Printhead error (mirror motor lost lock) was detected.	
110.35	Printhead error (mirror motor no first lock) was detected.	
110.36	Printhead error (mirror motor never stabilized) was detected.	
110.41	Printhead NVRAM read failure occurred.	
110.70	Printhead NVRAM values were incorrect.	
110.91	Printhead timing error was detected.	
110.92	Printhead NVRAM checksum mismatch occurred.	

Printhead failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board sockets JWPR1 and JVD01 connections.</p> <p>Are the cables properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4 Check the printhead connections.</p> <p>Is the printhead properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the printhead cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cables.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the printhead. See “Printhead removal” on page 725.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

120–126 errors

120 error messages

Error code	Description	Action
120.80	Motor (fuser) did not turn on.	See “Motor (fuser) failure service check” on page 444.
120.81	Motor (fuser) did not turn off.	
120.82	The motor (fuser) speed did not ramp up to the required level.	
120.83	The motor (fuser) stalled.	
120.84	The motor (fuser) ran too slow.	
120.85	The motor (fuser) ran too fast.	

121 error messages

Error code	Description	Action
121.00	Fuser did not reach the required temperature (during warmup).	See “Fuser failure service check” on page 446.
121.01	During an attempt to heat up, the fuser was not detected.	
121.02	Fuser went over the required temperature (during EWC/Line voltage detection).	
121.03	Fuser hardware and driver are mismatched.	
121.04	During an attempt to heat up, the fuser relay was open and the microcontroller was not reporting an error.	
121.05	During an attempt to heat up, the fuser relay was open and the microcontroller was reporting an error.	
121.09	Fuser did not reach the required temperature for motors (not applicable to standby mode).	

Error code	Description	Action
121.10	Fuser did not reach the required temperature (during start of EWC/Line voltage detection).	See “Fuser failure service check” on page 446.
121.11	Fuser reached the required temperature (during final EWC/Line voltage detection) too late.	
121.12	Fuser did not reach the required temperature (during final EWC/Line voltage detection).	
121.13	Fuser reached the required temperature (during final EWC/Line voltage detection) too fast.	
121.15	Power of fuser heater is too high.	
121.16	Power of fuser heater is too low.	
121.17	Fuser heater error (runaway on LV machine) was detected.	
121.18	Fuser heater error (runaway on HV machine) was detected.	
121.22	Open fuser relay was detected.	See “Fuser failure service check” on page 446.
121.25	After line voltage detection, control did not roll over to steady state in time.	
121.28	Fuser did not reach the required temperature (during EP warmup).	
121.32	Fuser did not reach the required temperature (on 100% power).	
121.33	Fuser did not reach the required temperature (while page is in fuser).	
121.34	Fuser did not reach the required temperature (during steady state control).	
121.36	Open fuser relay was detected with very cold or unknown ambient temperature.	
121.38	Fuser UBER defect was detected. Belt to heater temperature delta is too high.	
121.41	Fuser mechanism failed to detect the expected cam sensor transition.	See “Fuser failure service check” on page 446.
121.42	Fuser gate time has increased out of control.	

Error code	Description	Action
121.50	Fuser went over the required temperature (during global overtemp check).	See “Fuser failure service check” on page 446.
121.52	Main thermistor temperature is out of range.	
121.53	Main thermistor temperature change rate is out of range.	
121.54	Secondary thermistor temperature is out of range.	
121.55	Secondary thermistor temperature change rate is out of range.	
121.56	Middle thermistor temperature is out of range.	
121.57	Middle thermistor temperature change rate is out of range.	
121.58	Edge thermistor temperature is out of range.	
121.59	Edge thermistor temperature change rate is out of range.	
121.60	Belt contact thermistor temperature is out of range.	See “Fuser failure service check” on page 446.
121.61	Belt contact thermistor temperature change rate is out of range.	
121.62	Belt non-contact thermistor 1 temperature is out of range.	
121.63	Belt non-contact thermistor 1 temperature change rate is out of range.	
121.64	Belt non-contact thermistor 2 temperature is out of range.	
121.65	Belt non-contact thermistor 2 temperature change rate is out of range.	
121.66	Narrow media thermistor temperature is out of range.	
121.67	Narrow media thermistor temperature change rate is out of range.	
121.70	Heater resistance is too high.	See “Fuser failure service check” on page 446.
121.71	Open fuser main heater thermistor was detected.	
121.72	Open fuser secondary heater thermistor was detected.	
121.73	Open fuser middle heater thermistor was detected.	
121.74	Open fuser edge thermistor was detected.	

Error code	Description	Action
121.81	Open fuser backup roll thermistor was detected.	See “Fuser failure service check” on page 446.
121.82	Open fuser second backup roll thermistor was detected.	
121.84	Non-contact BUR sensor is missing.	
121.86	Backup roller thermistor 1 temperature is out of range.	
121.87	Backup roller thermistor 1 temperature change rate is out of range.	
121.88	Backup roller thermistor 2 temperature is out of range.	
121.89	Backup roller thermistor 2 temperature change rate is out of range.	
121.90	Non-contact backup roller thermistor temperature is out of range.	
121.91	Non-contact backup roller thermistor temperature change rate is out of range.	

126 error messages

Error code	Description	Action
126.06	LVPS 25V line error was detected.	See “LVPS failure service check” on page 447.
126.07	LVPS 5V rail was down during power-on.	
126.10	No line frequency was detected.	
126.11	Line frequency has gone outside the operating range.	

Motor (fuser) failure service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the fuser for damage and life expiration.</p> <p>Is the fuser damaged or has it reached end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3</p> <p>Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Remove the fuser, and then manually turn the fuser drive gears. b Check the movement of the gears.</p> <p>Does the fuser drive gear properly turn?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Replace the fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the controller board sockets JFIS1 and JFIP1 connections.</p> <p>Are the cables properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the motor (fuser) connections.</p> <p>Is the motor properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the motor (fuser) cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Replace the cables.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Replace the fuser/transfer belt motor gearbox. See “Fuser/transfer belt motor gearbox removal” on page 799.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Fuser failure service check

Action	Yes	No
<p>Step 1 Check the fuser for proper installation.</p> <p>Is the fuser properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the fuser.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Remove the fuser, and then install a different fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board socket JFSR1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the LVPS. See “LVPS removal” on page 781.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Check the fuser cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the cables.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the LVPS. See “LVPS removal” on page 781.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

LVPS failure service check

Action	Yes	No
<p>Step 1 Check the fuser for proper installation.</p> <p>Is the fuser properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the fuser.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Remove the fuser, and then install a different fuser. See “Fuser removal” on page 692.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board sockets JFSR1 and CN1 connections.</p> <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the LVPS. See “LVPS removal” on page 781.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the LVPS cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the cables.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the LVPS. See “LVPS removal” on page 781.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Replace the controller board. See “Controller board removal” on page 776 . Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

127–128 errors

127–128 error messages

Error code	Description	Action
127.01	The main HVPS was not detected.	See “Main HVPS undetected service check” on page 449 .
127.02	The charge roller HVPS was not detected.	See “Charge roller HVPS undetected service check” on page 450 .
128.00	Toner patch sensor error was detected.	See “Sensor (TPS) failure service check” on page 451 .

Main HVPS undetected service check

Action	Yes	No
Step 1 Check the controller board socket JHVPS1 connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the main HVPS cable. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Replace the main HVPS. See “Main HVPS removal” on page 753.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Charge roller HVPS undetected service check

Action	Yes	No
<p>Step 1 Check the controller board socket JHVPS2 connection.</p> <p>Is the cable properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the charge roller HVPS cable.</p> <p>Is the cable properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the charge roller HVPS. See “Charge roller HVPS removal” on page 772.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (TPS) failure service check

Action	Yes	No
<p>Step 1 Check the cable JTPS1 on the controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the sensor (TPS) cable for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Perform the Toner patch sensing service check.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

13y errors

130–137 error messages

Error code	Description	Action
130.80	The motor (printhead wiper) did not turn on.	See “Motor (printhead wiper) failure service check” on page 452.
130.81	The motor (printhead wiper) did not turn off.	
130.82	The motor (printhead wiper) speed did not ramp up to the required level.	
130.83	The motor (printhead wiper) stalled.	
130.84	The motor (printhead wiper) ran too slow.	
130.85	The motor (printhead wiper) ran too fast.	

Error code	Description	Action
136.80	The motor (K developer) did not turn on.	See “Motor (K developer) failure service check” on page 453.
136.81	The motor (K developer) did not turn off.	
136.82	The motor (K developer) speed did not ramp up to the required level.	
136.83	The motor (K developer) stalled.	
136.84	The motor (K developer) ran too slow.	
136.85	The motor (K developer) ran too fast.	
137.80	The motor (CMY developers) did not turn on.	See “Motor (CMY developers) failure service check” on page 455.
137.81	The motor (CMY developers) did not turn off.	
137.82	The motor (CMY developers) speed did not ramp up to the required level.	
137.83	The motor (CMY developers) stalled.	
137.84	The motor (CMY developers) ran too slow.	
137.85	The motor (CMY developers) ran too fast.	

Motor (printhead wiper) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JWPR1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (printhead wiper) connection.</p> <p>Is the motor properly connected?</p>		
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Check the motor (printhead wiper) cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cables.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor (printhead wiper). See “Motor (printhead wiper) removal” on page 728.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (K developer) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the K developer unit for damage and life expiration.</p> <p>Is the developer unit damaged or has it reached end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>a Remove the K developer unit, and then manually turn the developer drive gear.</p> <p>b Check the movement of the gear.</p> <p>Does the developer drive gear properly turn?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Replace the developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the controller board socket JMAG1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the motor (K developer) connection.</p> <p>Is the motor properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the motor (K developer) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13 Replace the EP/developer/toner add gearbox. See “EP, developer, toner add gearbox removal” on page 796.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (CMY developers) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the CMY developer units for damage and life expiration.</p> <p>Are the developer units damaged or have they reached end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the affected developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Remove the CMY developer units, and then manually turn the developer drive gears.</p> <p>b Check the movement of the gears.</p> <p>Do the developer drive gears properly turn?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the affected developer unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Check the controller board socket JMAG1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the motor (CMY developers) connection.</p> <p>Is the motor properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the motor (CMY developers) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the EP/developer/toner add gearbox. See “EP, developer, toner add gearbox removal” on page 796.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

14y errors

141–149 error messages

Error code	Description	Action
141.80	The motor (K photoconductor) did not turn on.	See “Motor (K photoconductor) failure service check” on page 458.
141.81	The motor (K photoconductor) did not turn off.	
141.82	The motor (K photoconductor) speed did not ramp up to the required level.	
141.83	The motor (K photoconductor) stalled.	
141.84	The motor (K photoconductor) ran too slow.	
141.85	The motor (K photoconductor) ran too fast.	
142.80	The motor (CMY photoconductors) did not turn on.	See “Motor (CMY photoconductors) failure service check” on page 460.
142.81	The motor (CMY photoconductors) did not turn off.	
142.82	The motor (CMY photoconductors) speed did not ramp up to the required level.	
142.83	The motor (CMY photoconductors) stalled.	
142.84	The motor (CMY photoconductors) ran too slow.	
142.85	The motor (CMY photoconductors) ran too fast.	
145.80	The motor (black only retract) did not turn on.	See “Motor (black only retract) failure service check” on page 462.
145.81	The motor (black only retract) did not turn off.	
145.82	The motor (black only retract) speed did not ramp up to the required level.	
145.83	The motor (black only retract) stalled.	
145.84	The motor (black only retract) ran too slow.	
145.85	The motor (black only retract) ran too fast.	
147.80	The motor (deskew) did not turn on.	See “Motor (deskew) failure service check” on page 463.
147.81	The motor (deskew) did not turn off.	
147.82	The motor (deskew) speed did not ramp up to the required level.	
147.83	The motor (deskew) stalled.	
147.84	The motor (deskew) ran too slow.	
147.85	The motor (deskew) ran too fast.	

Error code	Description	Action
148.80	The motor (duplex diverter) did not turn on.	See “Motor (duplex diverter) failure service check” on page 465.
148.81	The motor (duplex diverter) did not turn off.	
148.82	The motor (duplex diverter) speed did not ramp up to the required level.	
148.83	The motor (duplex diverter) stalled.	
148.84	The motor (duplex diverter) ran too slow.	
148.85	The motor (duplex diverter) ran too fast.	
149.80	The motor (redrive) did not turn on.	See “Motor (redrive) failure service check” on page 466.
149.81	The motor (redrive) did not turn off.	
149.82	The motor (redrive) speed did not ramp up to the required level.	
149.83	The motor (redrive) stalled.	
149.84	The motor (redrive) ran too slow.	
149.85	The motor (redrive) ran too fast.	

Motor (K photoconductor) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the K photoconductor unit for damage and life expiration.</p> <p>Is the photoconductor unit damaged or has it reached end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the photoconductor unit. See “Repeating defects check” on page 96.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Remove the K photoconductor unit, and then manually turn the photoconductor drive gear.</p> <p>b Check the movement of the gear.</p> <p>Does the photoconductor drive gear properly turn?</p>	Go to step 6.	Go to step 5.

Action	Yes	No
<p>Step 5 Replace the photoconductor unit. See “Repeating defects check” on page 96.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the controller board sockets JPCS1 and JPCP1 connections.</p> <p>Are the cables properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the motor (K photoconductor) connection.</p> <p>Is the motor properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the motor (K photoconductor) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the EP/developer/toner add gearbox. See “EP, developer, toner add gearbox removal” on page 796.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

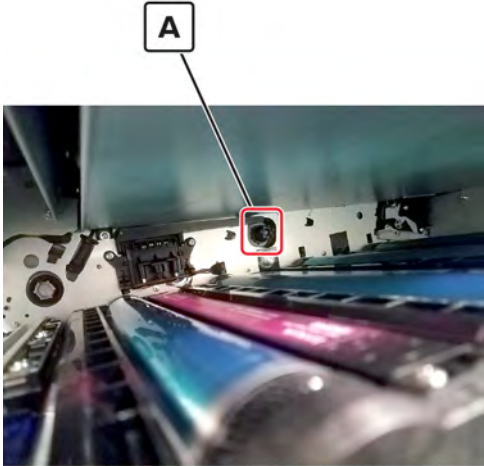
Action	Yes	No
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (CMY photoconductors) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the CMY photoconductor units for damage and life expiration.</p> <p>Are the photoconductor units damaged or have they reached end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the affected photoconductor unit. See “Developer unit and photoconductor unit removal” on page 739.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Remove the CMY developer units, and then manually turn the developer drive gears.</p> <p>b Check the movement of the gears.</p> <p>Do the developer drive gears properly turn?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the affected developer unit. See “Developer unit and photoconductor unit removal” on page 739</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the controller board sockets JPCS1 and JPCP1 connections.</p> <p>Are the cables properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Check the motor (CMY photoconductors) connection.</p> <p>Is the motor properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the motor (CMY photoconductors) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the EP/developer/toner add gearbox. See “EP, developer, toner add gearbox removal” on page 796.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (black only retract) failure service check

Action	Yes	No
<p>Step 1 Check if the Black only retract coupling (A) is missing.</p>  <p>Is the Black only retract coupling missing?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Install the Black only retract coupling.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the controller board socket JMAG1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (black only retract) connection.</p> <p>Is the motor properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

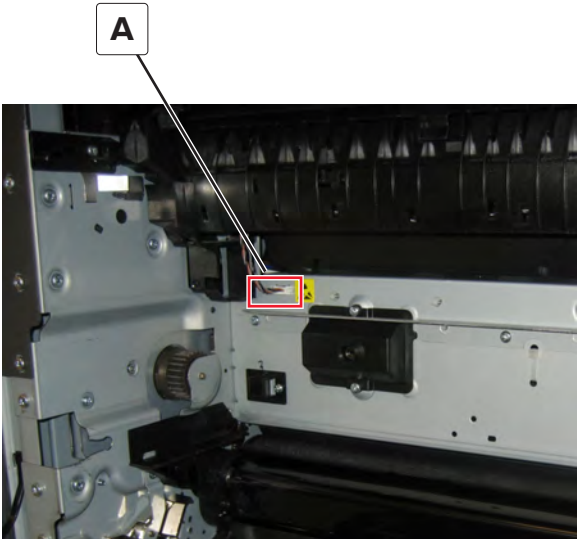
Action	Yes	No
<p>Step 8 Check the motor (black only retract) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the motor (black only retract).</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (deskew) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JMTR3 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4 Check the motor (deskew) connection.</p> <p>Is the motor properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (deskew) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor (deskew).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (duplex diverter) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JMTR1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (duplex diverter) connection.</p> <p>Is the motor properly connected?</p>	Go to step 5.	Go to step 6.
<p>Step 5</p> <p>a Remove the fuser. See “Fuser removal” on page 692.</p> <p>b Check the in-line cable (A) connection.</p> <div style="text-align: center;">  </div> <p>Is the cable properly connected?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7 Check the motor (duplex diverter) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the redrive. See “Redrive removal” on page 709.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (redrive) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JMTR1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4 Check the motor (redrive) connection.</p> <p>Is the motor properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (redrive) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor (redrive).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

15y errors

150–158 error messages

Error code	Description	Action
150.80	The motor (duplex) did not turn on.	See “Motor (duplex) failure service check” on page 469.
150.81	The motor (duplex) did not turn off.	
150.82	The motor (duplex) speed did not ramp up to the required level.	
150.83	The motor (duplex) stalled.	
150.84	The motor (duplex) ran too slow.	
150.85	The motor (duplex) ran too fast.	
151.80	The motor (transfer belt) did not turn on.	See “Motor (transfer belt) failure service check” on page 471.
151.81	The motor (transfer belt) did not turn off.	
151.82	The motor (transfer belt) speed did not ramp up to the required level.	
151.83	The motor (transfer belt) stalled.	
151.84	The motor (transfer belt) ran too slow.	
151.85	The motor (transfer belt) ran too fast.	
153.80	The motor (isolation) did not turn on.	See “Motor (isolation) failure service check” on page 472.
153.81	The motor (isolation) did not turn off.	
153.82	The motor (isolation) speed did not ramp up to the required level.	
153.83	The motor (isolation) stalled.	
153.84	The motor (isolation) ran too slow.	
153.85	The motor (isolation) ran too fast.	
155.80	The motor (K toner add) did not turn on.	See “Motor (K toner add) failure service check” on page 474.
155.81	The motor (K toner add) did not turn off.	
155.82	The motor (K toner add) speed did not ramp up to the required level.	
155.83	The motor (K toner add) stalled.	
155.84	The motor (K toner add) ran too slow.	
155.85	The motor (K toner add) ran too fast.	

Error code	Description	Action
156.80	The motor (C toner add) did not turn on.	See “Motor (C toner add) failure service check” on page 476.
156.81	The motor (C toner add) did not turn off.	
156.82	The motor (C toner add) speed did not ramp up to the required level.	
156.83	The motor (C toner add) stalled.	
156.84	The motor (C toner add) ran too slow.	
156.85	The motor (C toner add) ran too fast.	
157.80	The motor (M toner add) did not turn on.	See “Motor (M toner add) failure service check” on page 479.
157.81	The motor (M toner add) did not turn off.	
157.82	The motor (M toner add) speed did not ramp up to the required level.	
157.83	The motor (M toner add) stalled.	
157.84	The motor (M toner add) ran too slow.	
157.85	The motor (M toner add) ran too fast.	
158.80	The motor (Y toner add) did not turn on.	See “Motor (Y toner add) failure service check” on page 481.
158.81	The motor (Y toner add) did not turn off.	
158.82	The motor (Y toner add) speed did not ramp up to the required level.	
158.83	The motor (Y toner add) stalled.	
158.84	The motor (Y toner add) ran too slow.	
158.85	The motor (Y toner add) ran too fast.	

Motor (duplex) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JMTR3 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4 Check the motor (duplex) connection.</p> <p>Is the motor properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (duplex) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor (duplex).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (transfer belt) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the transfer belt for damage and life expiration.</p> <p>Is the transfer belt damaged or has it reached end of life?</p>	Go to step 3.	Go to step 4.
<p>Step 3 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Remove the transfer belt, and then manually turn the transfer belt drive gears.</p> <p>b Check the movement of the gears.</p> <p>Do the drive gears properly turn?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the transfer belt. See “Transfer belt removal” on page 744.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the controller board sockets JFIP1 and JFIS1 connections.</p> <p>Are the cables properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the motor (transfer belt) connection.</p> <p>Is the motor properly connected?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.


Action	Yes	No
<p>Step 10 Check the motor (transfer belt) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the fuser/transfer belt motor gearbox. See “Fuser/transfer belt motor gearbox removal” on page 799.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

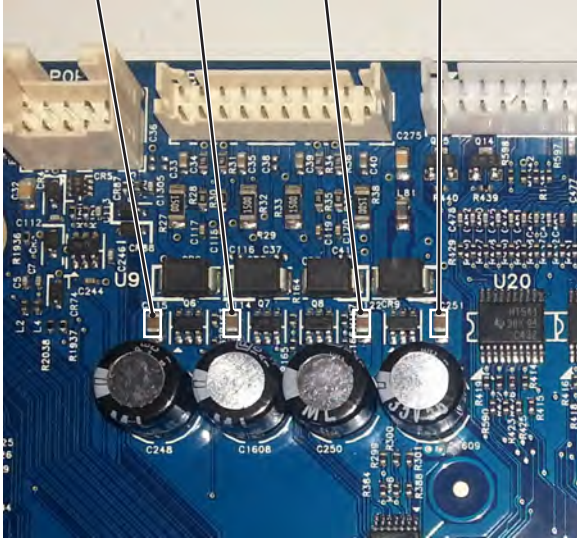
Motor (isolation) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JMTR2 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4 Check the motor (isolation) connection.</p> <p>Is the motor properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (isolation) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the MPF and the reference edge motor gearbox.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.


Motor (K toner add) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Remove the K toner cartridge, and then manually turn the drive gear.</p>  <p>b Check the movement of the gear.</p> <p>Does the drive gear properly turn?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Replace the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (K toner add) cable for proper connection.</p> <ul style="list-style-type: none"> • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

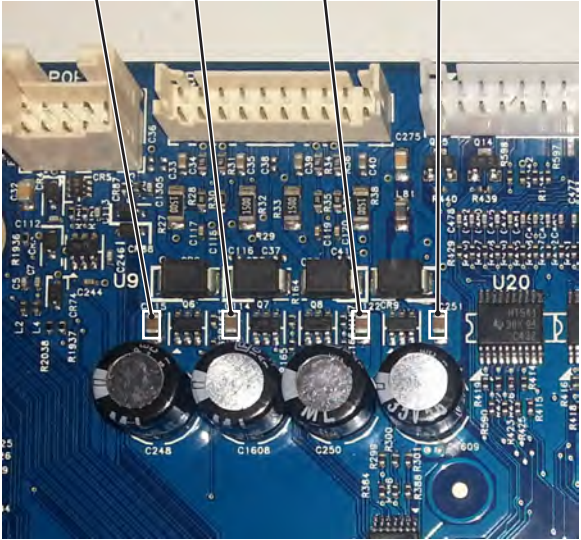
Action	Yes	No
<p>Step 6</p> <p>Check the motor (K toner add) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the motor (K toner add).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>On the upper part of the controller board, check the K toner add capacitor C251 for damage.</p> <p>Note: Blown capacitors may look deformed or bulged.</p>  <p>Is the capacitor free of damage?</p>	Contact the next level of support.	Go to step 12.

Action	Yes	No
<p>Step 12</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.


Motor (C toner add) failure service check

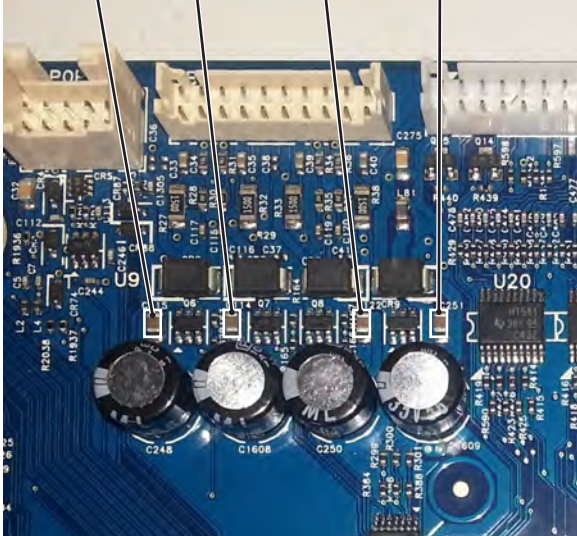
Action	Yes	No
<p>Step 1</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Remove the C toner cartridge, and then manually turn the drive gear.</p>  <p>b Check the movement of the gear.</p> <p>Does the drive gear properly turn?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Replace the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the motor (C toner add) cable for proper connection.</p> <ul style="list-style-type: none"> • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (C toner add) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (C toner add). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>On the upper part of the controller board, check the C toner add capacitor C114 for damage.</p> <p>Note: Blown capacitors may look deformed or bulged.</p>  <p>Is the capacitor free of damage?</p>	<p>Contact the next level of support.</p>	<p>Go to step 12.</p>
<p>Step 12</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	<p>Contact the next level of support.</p>	<p>The problem is solved.</p>


Motor (M toner add) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Remove the M toner cartridge, and then manually turn the drive gear.</p>  <p>b Check the movement of the gear.</p> <p>Does the drive gear properly turn?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Replace the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (M toner add) cable for proper connection.</p> <ul style="list-style-type: none"> • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

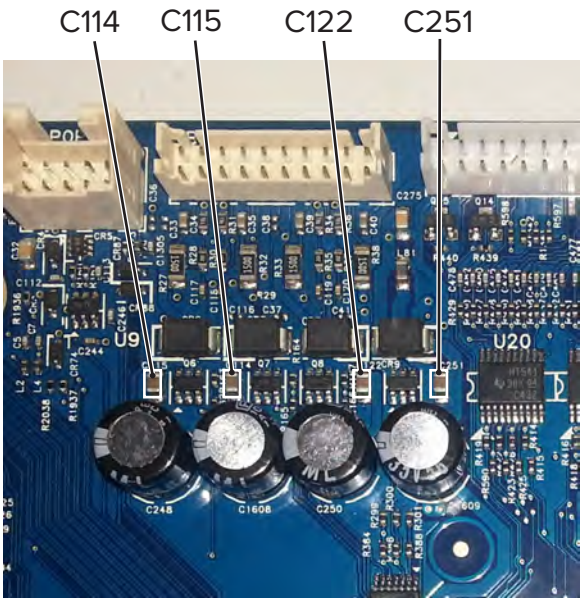
Action	Yes	No
<p>Step 6</p> <p>Check the motor (M toner add) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the motor (M toner add).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>On the upper part of the controller board, check the M toner add capacitor C122 for damage.</p> <p>Note: Blown capacitors may look deformed or bulged.</p>  <p>Is the capacitor free of damage?</p>	Contact the next level of support.	Go to step 12.

Action	Yes	No
<p>Step 12</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (Y toner add) failure service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Remove the Y toner cartridge, and then manually turn the drive gear.</p>  <p>b Check the movement of the gear.</p> <p>Does the drive gear properly turn?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Replace the toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the motor (Y toner add) cable for proper connection.</p> <ul style="list-style-type: none"> • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.

Action	Yes	No
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (Y toner add) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor (Y toner add).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>On the upper part of the controller board, check the Y toner add capacitor C115 for damage.</p> <p>Note: Blown capacitors may look deformed or bulged.</p>  <p>Is the capacitor free of damage?</p>	Contact the next level of support.	Go to step 12.
<p>Step 12</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

160–161 errors

160–161 error messages

Error code	Description	Action
160.80	The motor (MPF pick) did not turn on.	See “Motor (MPF pick) failure service check” on page 484 .
160.81	The motor (MPF pick) did not turn off.	
160.82	The motor (MPF pick) speed did not ramp up to the required level.	
160.83	The motor (MPF pick) stalled.	
160.84	The motor (MPF pick) ran too slow.	
160.85	The motor (MPF pick) ran too fast.	

Error code	Description	Action
161.80	The motor (tray 1 pick) did not turn on.	See “Motor (tray 1 pick) failure service check” on page 485.
161.81	The motor (tray 1 pick) did not turn off.	
161.82	The motor (tray 1 pick) speed did not ramp up to the required level.	
161.83	The motor (tray 1 pick) stalled.	
161.84	The motor (tray 1 pick) ran too slow.	
161.85	The motor (tray 1 pick) ran too fast.	

Motor (MPF pick) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JMTR2 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (MPF pick) connection.</p> <p>Is the motor properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (MPF pick) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the motor (MPF pick).</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 1 pick) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the controller board socket JTRAY1 connection.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Remove tray 1, and then check the paper feeder connection.</p> <p>Is the feeder properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Check the motor (tray 1 pick) connection.</p> <p>Is the motor properly connected?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the motor (tray 1 pick) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Remove the tray 1 paper feeder, and then check for developer carrier contamination in the pick motor.</p> <p>Is the pick motor free of contamination?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <ul style="list-style-type: none"> a Using an approved toner vacuum, clean the pick roller of developer carrier contamination. b Remove the plastic cap from the pick motor, and then clean the encoder wheel and sensor. c Reset the printer. <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Replace the tray 1 paper feeder. See “Paper feeder removal” on page 762.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p>Step 15 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

162–165 errors

162–165 error messages

Error code	Description	Action
162.80	The motor (tray 2 pick) did not turn on.	See “Motor (tray 2 pick) failure service check” on page 488 .
162.81	The motor (tray 2 pick) did not turn off.	
162.82	The motor (tray 2 pick) speed did not ramp up to the required level.	
162.83	The motor (tray 2 pick) stalled.	
162.84	The motor (tray 2 pick) ran too slow.	
162.85	The motor (tray 2 pick) ran too fast.	
163.80	The motor (tray 3 pick) did not turn on.	See “Motor (tray 3 pick) failure service check” on page 489 .
163.81	The motor (tray 3 pick) did not turn off.	
163.82	The motor (tray 3 pick) speed did not ramp up to the required level.	
163.83	The motor (tray 3 pick) stalled.	
163.84	The motor (tray 3 pick) ran too slow.	
163.85	The motor (tray 3 pick) ran too fast.	
164.80	The motor (tray 4 pick) did not turn on.	See “Motor (tray 4 pick) failure service check” on page 490 .
164.81	The motor (tray 4 pick) did not turn off.	
164.82	The motor (tray 4 pick) speed did not ramp up to the required level.	
164.83	The motor (tray 4 pick) stalled.	
164.84	The motor (tray 4 pick) ran too slow.	
164.85	The motor (tray 4 pick) ran too fast.	

Error code	Description	Action
165.80	The motor (tray 5 pick) did not turn on.	See “Motor (tray 5 pick) failure service check” on page 491.
165.81	The motor (tray 5 pick) did not turn off.	
165.82	The motor (tray 5 pick) speed did not ramp up to the required level.	
165.83	The motor (tray 5 pick) stalled.	
165.84	The motor (tray 5 pick) ran too slow.	
165.85	The motor (tray 5 pick) ran too fast.	

Motor (tray 2 pick) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connections between the motor (tray 2 pick) and controller board.</p> <p>Is the motor properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (tray 2 pick) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the motor (tray 2 pick).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868 or “2200-sheet tray controller board removal” on page 879.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 3 pick) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connections between the motor (tray 3 pick) and controller board.</p> <p>Is the motor properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (tray 3 pick) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the motor (tray 3 pick).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868 or “2200-sheet tray controller board removal” on page 879.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 4 pick) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connections between the motor (tray 4 pick) and controller board.</p> <p>Is the motor properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (tray 4 pick) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the motor (tray 4 pick).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 5 pick) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connections between the motor (tray 5 pick) and controller board.</p> <p>Is the motor properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor (tray 5 pick) cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the motor (tray 5 pick).</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868. Does the problem remain?	Contact the next level of support.	The problem is solved.

166–169 errors

166 error messages

Error code	Description	Action
166.70	The motor (tray 2 elevator) does not turn on.	See “Motor (tray [x] elevator) failure service check” on page 496.
166.71	The motor (tray 2 elevator) does not turn off.	
166.72	The motor (tray 2 elevator) fails to achieve the required speed.	
166.73	The motor (tray 2 elevator) fails during operation.	
166.74	The motor (tray 2 elevator) fails to reach the required speed.	
166.75	The motor (tray 2 elevator) runs faster than the required speed.	
166.80	The motor (tray 2 pass-through) does not turn on.	See “Motor (tray [x] pass-through) failure service check” on page 495.
166.81	The motor (tray 2 pass-through) does not turn off.	
166.82	The motor (tray 2 pass-through) fails to achieve the required speed.	
166.83	The motor (tray 2 pass-through) fails during operation.	
166.84	The motor (tray 2 pass-through) fails to reach the required speed.	
166.85	The motor (tray 2 pass-through) runs faster than the required speed.	

167 error messages

Error code	Description	Action
167.70	The motor (tray 3 elevator) does not turn on.	See “Motor (tray [x] elevator) failure service check” on page 496.
167.71	The motor (tray 3 elevator) does not turn off.	
167.72	The motor (tray 3 elevator) fails to achieve the required speed.	
167.73	The motor (tray 3 elevator) fails during operation.	
167.74	The motor (tray 3 elevator) fails to reach the required speed.	
167.75	The motor (tray 3 elevator) runs faster than the required speed.	
167.80	The motor (tray 3 pass-through) does not turn on.	See “Motor (tray [x] pass-through) failure service check” on page 495.
167.81	The motor (tray 3 pass-through) does not turn off.	
167.82	The motor (tray 3 pass-through) fails to achieve the required speed.	
167.83	The motor (tray 3 pass-through) fails during operation.	
167.84	The motor (tray 3 pass-through) fails to reach the required speed.	
167.85	The motor (tray 3 pass-through) runs faster than the required speed.	

168 error messages

Error code	Description	Action
168.70	The motor (tray 4 elevator) does not turn on.	See “Motor (tray [x] elevator) failure service check” on page 496.
168.71	The motor (tray 4 elevator) does not turn off.	
168.72	The motor (tray 4 elevator) fails to achieve the required speed.	
168.73	The motor (tray 4 elevator) fails during operation.	
168.74	The motor (tray 4 elevator) fails to reach the required speed.	
168.75	The motor (tray 4 elevator) runs faster than the required speed.	

Error code	Description	Action
168.80	The motor (tray 4 pass-through) does not turn on.	See “Motor (tray [x] pass-through) failure service check” on page 495.
168.81	The motor (tray 4 pass-through) does not turn off.	
168.82	The motor (tray 4 pass-through) fails to achieve the required speed.	
168.83	The motor (tray 4 pass-through) fails during operation.	
168.84	The motor (tray 4 pass-through) fails to reach the required speed.	
168.85	The motor (tray 4 pass-through) runs faster than the required speed.	

169 error messages

Error code	Description	Action
169.70	The motor (tray 5 elevator) does not turn on.	See “Motor (tray [x] elevator) failure service check” on page 496.
169.71	The motor (tray 5 elevator) does not turn off.	
169.72	The motor (tray 5 elevator) fails to achieve the required speed.	
169.73	The motor (tray 5 elevator) fails during operation.	
169.74	The motor (tray 5 elevator) fails to reach the required speed.	
169.75	The motor (tray 5 elevator) runs faster than the required speed.	
169.80	The motor (tray 5 pass-through) does not turn on.	See “Motor (tray [x] pass-through) failure service check” on page 495.
169.81	The motor (tray 5 pass-through) does not turn off.	
169.82	The motor (tray 5 pass-through) fails to achieve the required speed.	
169.83	The motor (tray 5 pass-through) fails during operation.	
169.84	The motor (tray 5 pass-through) fails to reach the required speed.	
169.85	The motor (tray 5 pass-through) runs faster than the required speed.	

Motor (tray [x] pass-through) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the cable connecting the motor (tray [x] pass-through) to the controller board.</p> <p>Is the motor properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the motor cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the motor (tray [x] pass-through). See “Motor (550-sheet tray pass-through) removal” on page 873.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray [x] elevator) failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Clear the motor (tray [x] elevator) gears of any obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the gears for damage.</p> <p>Are the gears free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the gears. See “2200-sheet tray elevator gears removal” on page 882.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the cable connecting the motor (tray [x] elevator) to the controller board.</p> <p>Is the motor properly connected?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Replace the motor (tray [x] elevator). See “Motor (2200-sheet tray elevator) removal” on page 883.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

17y errors

171–179 error messages

Error code	Description	Action
171.82	The main fan speed did not ramp up to the required level.	See “Main fan failure service check” on page 497.
171.83	The main fan stalled.	
171.84	The main fan ran too slow.	
171.85	The main fan ran too fast.	
178.82	The printhead fan speed did not ramp up to the required level.	See “Printhead fan failure service check” on page 498.
178.83	The printhead fan stalled.	
178.84	The printhead fan ran too slow.	
178.85	The printhead fan ran too fast.	
179.80	The HVPS fan did not turn on.	See “HVPS fan failure service check” on page 499.
179.81	The HVPS fan did not turn off.	
179.82	The HVPS fan speed did not ramp up to the required level.	
179.83	The HVPS fan stalled.	
179.84	The HVPS fan ran too slow.	
179.85	The HVPS fan ran too fast.	

Main fan failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connection between the main fan and controller board.</p> <p>Is the fan properly connected?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the main fan cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the fan. See “Main fan removal” on page 778.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Printhead fan failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connection between the printhead fan and controller board.</p> <p>Is the fan properly connected?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the printhead fan cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the printhead fan. See “Printhead fan removal” on page 723.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

HVPS fan failure service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the connection between the HVPS fan and controller board.</p> <p>Is the fan properly connected?</p>	Go to step 4.	Go to step 3.

Action	Yes	No
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the HVPS fan cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the HVPS fan. See “HVPS fan removal” on page 750.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

602–658 errors

602–658 error messages

Error code	Description	Action
602.19	Tray 1 is unable to get ready for picking paper.	See “Source tray error service check” on page 502.
602.29	Tray 2 is unable to get ready for picking paper.	
602.39	Tray 3 is unable to get ready for picking paper.	
602.49	Tray 4 is unable to get ready for picking paper.	
602.59	Tray 5 is unable to get ready for picking paper.	

Error code	Description	Action
621.01	The fuser heater was not hot enough when the paper entered the fuser nip.	See “Fuser failure service check” on page 446.
621.42	The sensor (fuser temperature) is contaminated.	See “Sensor (fuser temperature) contamination service check” on page 502.
630.xx	The motor (printhead wiper) stalled.	See “Motor (printhead wiper) failure service check” on page 452.
636.xx	The motor (K developer) stalled.	See “Motor (K developer) failure service check” on page 453.
637.xx	The motor (CMY developers) stalled.	See “Motor (CMY developers) failure service check” on page 455.
641.xx	The motor (K photoconductor) stalled.	See “Motor (K photoconductor) failure service check” on page 458.
642.xx	The motor (CMY photoconductors) stalled.	See “Motor (CMY photoconductors) failure service check” on page 460.
645.xx	The motor (black only retract) stalled.	See “Motor (black only retract) failure service check” on page 462.
647.xx	The motor (deskew) stalled.	See “Motor (deskew) failure service check” on page 463.
648.xx	The motor (duplex diverter) stalled.	See “Motor (duplex diverter) failure service check” on page 465.
649.xx	The motor (redrive) stalled.	See “Motor (redrive) failure service check” on page 466.
650.xx	The motor (duplex) stalled.	See “Motor (duplex) failure service check” on page 469.
651.xx	The motor (transfer belt) stalled.	See “Motor (transfer belt) failure service check” on page 471.
653.xx	The motor (isolation) stalled.	See “Motor (isolation) failure service check” on page 472.
655.84	The motor (K toner add) stalled.	See “Motor (toner add) stalled service check” on page 502.
656.84	The motor (C toner add) stalled.	
657.84	The motor (M toner add) stalled.	
658.84	The motor (Y toner add) stalled.	

Source tray error service check

Action	Yes	No
<p>Step 1 If prompted, touch Continue.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Sensor (fuser temperature) contamination service check

Action	Yes	No
<p>a Remove the fuser to access the sensor (fuser temperature) behind it. See “Fuser removal” on page 692.</p> <p>b Using a cotton swab, gently clean the sensor lens. Note: The sensor lens has a mirrored finish. When cleaning the surface, do not apply excessive pressure.</p> <p>c Reinstall the fuser.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (toner add) stalled service check

Action	Yes	No
<p>Step 1 a Remove the affected toner cartridge, and then shake it. b Reinstall the toner cartridge. c Enter the Diagnostics menu, and then navigate to: Advanced Print Quality Samples > Advanced Print Quality Samples Check the test page.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the shutter under the affected toner cartridge for proper operation.</p> <p>Does the shutter properly open and retract?</p>	Go to step 3.	Go to step 8.
<p>Step 3 Check the shutter for damage.</p> <p>Is the shutter free of damage?</p>	Go to step 4.	Go to step 8.

Action	Yes	No
<p>Step 4</p> <p>a Remove the affected developer and PC unit combo.</p> <p>b Check the shutter at the rear of the developer and PC unit combo for proper operation.</p> <p>Does the shutter properly open and retract?</p>	Go to step 5.	Go to step 6.
<p>Step 5</p> <p>Check the shutter for damage.</p> <p>Is the shutter free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Replace the developer and PC unit combo.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Using a toner vacuum, clean the toner add tubes.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the affected toner cartridge.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the affected toner add tube. See “Toner add tube removal” on page 807.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

660–680 errors

660–680 error messages

Error code	Description	Action
660.83	The motor (MPF pick) stalled.	See “Motor (MPF pick) stalled service check” on page 504.
661.13	The tray 1 lift plate failed to lift.	See “Motor (tray 1 pick) failure service check” on page 485.
661.83	The motor (tray 1 pick) stalled.	See “Motor (tray 1 pick) stalled service check” on page 506.
662.23	The tray 2 lift plate failed to lift.	See “Motor (option tray pick) lifting error service check” on page 513.

Error code	Description	Action
662.83	The motor (tray 2 pick) stalled.	See “Motor (tray 2 pick) stalled service check” on page 507.
663.33	The tray 3 lift plate failed to lift.	See “Motor (option tray pick) lifting error service check” on page 513.
663.83	The motor (tray 3 pick) stalled.	See “Motor (tray 3 pick) stalled service check” on page 508.
664.43	The tray 4 lift plate failed to lift.	See “Motor (option tray pick) lifting error service check” on page 513.
664.83	The motor (tray 4 pick) stalled.	See “Motor (tray 4 pick) stalled service check” on page 509.
665.53	The tray 5 lift plate failed to lift.	See “Motor (option tray pick) lifting error service check” on page 513.
665.83	The motor (tray 5 pick) stalled.	See “Motor (tray 5 pick) stalled service check” on page 510.
666.83	The motor (tray 2 pass-through) stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
666.84	The motor (tray 2 pass-through) did not reach the required speed.	See “Motor (tray [x] pass-through) failure service check” on page 495.
667.83	The motor (tray 3 pass-through) stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
668.83	The motor (tray 4 pass-through) stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
669.83	The motor (tray 5 pass-through) stalled.	See “Motor (tray [x] pass-through) failure service check” on page 495.
680.10	The ADF top door was open while feeding.	Remove paper and obstructions along the paper path, and then restart the job. See “Paper jam in the automatic document feeder” on page 115.
680.20	The ADF did not detect paper.	

Motor (MPF pick) stalled service check

Action	Yes	No
<p>Step 1</p> <p>Check the pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Reinstall the pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > MPF pick</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the motor for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 7.	Go to step 8.
<p>Step 7</p> <p>Replace the MPF/reference edge gearbox. See “Reference edge motor gearbox removal” on page 712.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 1 pick) stalled service check

Action	Yes	No
<p>Step 1 Check the pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Pick (tray 1) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (tray 1 pick) for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 7.	Go to step 8.
<p>Step 7 Replace the tray 1 paper feeder. See “Paper feeder removal” on page 762.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 2 pick) stalled service check

Action	Yes	No
<p>Step 1 Check the pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 2) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (tray 2 pick) for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 7.	Go to step 8.
<p>Step 7 Replace the tray 2 paper feeder. See “550-sheet tray paper feeder removal” on page 865 or “2200-sheet tray paper feeder removal” on page 885.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868 or “2200-sheet tray controller board removal” on page 879.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 3 pick) stalled service check

Action	Yes	No
<p>Step 1 Check the pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 3) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (tray 3 pick) for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 7.	Go to step 8.

Action	Yes	No
<p>Step 7 Replace the tray 3 paper feeder. See “550-sheet tray paper feeder removal” on page 865 or “2200-sheet tray paper feeder removal” on page 885.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868 or “2200-sheet tray controller board removal” on page 879.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 4 pick) stalled service check

Action	Yes	No
<p>Step 1 Check the pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 4) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Check the motor (tray 4 pick) for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 7.	Go to step 8.
<p>Step 7 Replace the tray 4 feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 5 pick) stalled service check

Action	Yes	No
<p>Step 1 Check the pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray 5) b Touch Start.</p> <p>Does the motor run?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the motor cable for proper connection, and then reseal if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Replace the motor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the motor (tray 5 pick) for noise.</p> <p>Does the motor sound abnormal or do the gears make a grinding sound?</p>	Go to step 7.	Go to step 8.
<p>Step 7 Replace the tray 5 feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Perform a print job.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the controller board. See “550-sheet tray controller board removal” on page 868.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (tray 1 pick) lifting error service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check if the tray insert is properly seated or fully inserted.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Sensor tests b Find the sensor (Pick roller index (tray 1)).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 4.

Action	Yes	No
<p>Step 4 Check the cable that connects the sensor (tray 1 pick roller index) to the controller board.</p> <p>Are both ends of the cable properly seated?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the sensor cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 7.	Go to step 12.
<p>Step 7 Replace the sensor. See “Sensor (550-sheet tray pick roller index) removal” on page 871.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the cable that connects the motor (tray 1 pick) to the controller board.</p> <p>Are both ends of the cable properly seated?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the motor (tray 1 pick) for proper operation and noise.</p> <p>a Remove the tray insert.</p> <p>b Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Pick (tray 1)</p> <p>c Select Pick (tray 1) lifting, and then touch Start.</p> <p>Does the motor run or does it sound normal?</p>	Go to step 13.	Go to step 11.
<p>Step 11 Check the motor cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 13.	Go to step 12.

Action	Yes	No
<p>Step 12 Replace the paper feeder. See “550-sheet tray paper feeder removal” on page 865.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (option tray pick) lifting error service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check if the tray insert is properly seated or fully inserted.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Sensor tests b Find the sensor (Pick roller index (tray [x])).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 4.
<p>Step 4 Check the cable that connects the sensor (tray [x] pick roller index) to the controller board.</p> <p>Are both ends of the cable properly seated?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the sensor cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 7.	Go to step 12.

Action	Yes	No
<p>Step 7 Replace the sensor. See “Sensor (550-sheet tray pick roller index) removal” on page 871 or “Sensor (2200-sheet tray pick roller index) removal” on page 886.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the cable that connects the motor (tray [x] pick) to the controller board.</p> <p>Are both ends of the cable properly seated?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the motor (tray [x] pick) for proper operation and noise.</p> <p>a Remove the tray insert.</p> <p>b Enter the Diagnostics menu, and then navigate to: Additional input tray diagnostics > Motor tests > Pick (tray [x])</p> <p>c Select Pick (tray [x]) lifting, and then touch Start.</p> <p>Does the motor run or does it sound normal?</p>	Go to step 13.	Go to step 11.
<p>Step 11 Check the motor cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Replace the paper feeder. See “550-sheet tray paper feeder removal” on page 865 or “2200-sheet tray paper feeder removal” on page 885.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

8yy errors

800–845 error messages

Error code	Description	Action
800.00	A communication failure has occurred between the printer controller board and the scanner.	See “Scanner communication failure service check” on page 515.
840.01	The scanner was manually disabled by the user.	See “Scanner disabled (manual) service check” on page 517.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	See “Scanner disabled (automatic) service check” on page 517.
842.00	A communication failure has occurred due to no response from the scanner to the system controller.	See “Scanner communication failure service check” on page 515.
842.01	A communication failure has occurred due to an incorrect response from the scanner to the printer controller.	
842.02	A communication failure has occurred during front side scanning.	See “Front side scan CCDM failure service check” on page 518.
843.00	The flatbed CCDM failed to reach its home position.	See “Flatbed CCDM home position failure service check” on page 518.
843.01	The ADF calibration roller failed to reach its home position.	See “ADF calibration strip failure service check” on page 521.
843.07	The ADF tray lift arm failed to reach its home position.	See “ADF tray lift failure service check” on page 523.
843.15	The motor (ADF tray lift) stalled.	See “Motor (ADF tray lift) stalled service check” on page 524.
843.18	The ADF pick roller failed to reach its proper picking position.	See “ADF pick position failure service check” on page 526.
845.03	A communication failure has occurred during back side scanning.	See “Back side scan CCDM failure service check” on page 529.

Scanner communication failure service check

Action	Yes	No
<p>Step 1</p> <p>Check the HDMI cables on the printer controller board and ADF controller board for proper connection.</p> <p>Are the cables properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>Check the following sockets for proper connection.</p> <ul style="list-style-type: none"> • JSCPOW1 on the printer controller board • JSPWR1 on the ADF controller board <p>Are the cables properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check socket J1 on the printer controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Replace the printer controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Scanner disabled (manual) service check

Action	Yes	No
Navigate to Settings > Device > Maintenance > Configuration Menu > Scanner Configuration . Set Disable Scanner to Enabled. Does the problem remain?	Contact the next level of support.	The problem is solved.

Scanner disabled (automatic) service check

Note: This only applies when, after performing the required service actions, the scanner remains in disabled state.

Action	Yes	No
Step 1 From the “Scanner disabled” error screen, select Reboot and automatically enable scanner . Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 a From the home screen, navigate to: Settings > Device > Maintenance > Configuration Menu > Scanner Configuration b Scroll down and select Disable Scanner . Note: Enabled prompts, but ignore this message since the scanner was automatically disabled at the microcode level. c Select Disabled , and then reset or power cycle the printer. d Observe the behavior, which is no errors and no messages on boot-up. e Navigate to Settings > Device > Maintenance > Configuration Menu > Scanner Configuration > Disable Scanner . f Select Enabled , and then reset the printer once more to complete the procedure and return the scanner to full operation. Does the problem remain?	Contact the next level of support.	The problem is solved.

Front side scan CCDM failure service check

Action	Yes	No
<p>Step 1 Check socket J1 on the printer controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the flatbed scanner CCDM cable for proper connection.</p> <p>Is the cable properly connected to the CCDM?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the flatbed scanner CCDM. See “Flatbed scanner CCDM removal” on page 847.</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Flatbed CCDM home position failure service check

Action	Yes	No
<p>Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection.</p> <p>Are the cables properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>Check the following sockets for proper connection.</p> <ul style="list-style-type: none"> • JSCPOW1 on the printer controller board • JSPWR1 on the ADF controller board <p>Are the cables properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the following sockets for proper connection.</p> <ul style="list-style-type: none"> • JICC on the ADF controller board • JICC on the flatbed scanner board <p>Are the cables properly connected?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check socket J1 on the printer controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the scanner belt for misalignment and damage.</p> <p>Is the scanner belt properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the scanner belt.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11 Check the tension of the scanner belt. Note: With the proper belt tension, the flatbed CCDM will move smoothly. Is the belt tension properly set?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reset or adjust the belt tension. Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the sensor (FB CCD home) for proper installation. Is the sensor properly mounted to the scanner frame?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Reinstall or replace the sensor. See “Sensor (FB CCD home) removal” on page 854. Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (FB CCD home). Does the sensor status change while toggling the sensor?</p>	Go to step 18.	Go to step 16.
<p>Step 16 Check the sensor cable for proper connection, and then reseal if necessary. <ul style="list-style-type: none"> • Check JFB1 on the flatbed scanner board. • Check the connector on the sensor. Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Replace the sensor. See “Sensor (FB CCD home) removal” on page 854. Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Check the sensor actuator on the flatbed scanner CCDM. Does the actuator on the CCDM properly trigger the sensor (FB CCD home)?</p>	Go to step 20.	Go to step 19.

Action	Yes	No
<p>Step 19 Replace the flatbed scanner CCDM. See “Flatbed scanner CCDM removal” on page 847.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF calibration strip failure service check

Action	Yes	No
<p>Step 1</p> <p>a Open the ADF bottom door, and then manually rotate the ADF calibration roller.</p> <p>b Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check socket JCSHM on the ADF controller board.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF calibration strip home).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.

Action	Yes	No
<p>Step 5 Check the sensor cable for proper connection, and then reseal if necessary.</p> <ul style="list-style-type: none"> • Check the connector on the ADF controller board. • Check the connector on the sensor. <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the ADF bottom door. See “ADF bottom door removal” on page 822.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF tray lift failure service check



Action	Yes	No
<p>Step 1 Check the ADF tray lift mechanism for obstructions.</p> <p>Is the lift mechanism free of obstructions?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Remove the obstructions.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF tray upper limit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 6.	Go to step 4.
<p>Step 4 Check the sensor cable for proper connection, and then reseal if necessary.</p> <ul style="list-style-type: none"> • Check the connector on the ADF controller board. • Check the connector on the sensor. <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Motor (ADF tray lift) stalled service check

Action	Yes	No
<p>Step 1 Check the ADF pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reinstall the ADF pick roller.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the sensor actuator on the ADF pick roller.</p> <p>Does the actuator on the pick roller properly trigger the sensor (ADF pick roller index)?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Replace the ADF pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the ADF tray lift mechanism for obstructions.</p> <p>Is the lift mechanism free of obstructions?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Remove the obstructions.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Motor tests > ADF tray lift</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8 Check the motor cable for proper connection, and then reseal if necessary.</p> <ul style="list-style-type: none"> • Check the connector on the ADF controller board. • Check the connector on the motor. <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.

Action	Yes	No
<p>Step 9 Replace the motor. See “Motor (ADF) removal” on page 826.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests b Find the sensor (ADF tray upper limit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.
<p>Step 11 Check the sensor cable for proper connection, and then reseal if necessary.</p> <ul style="list-style-type: none"> • Check the connector on the ADF controller board. • Check the connector on the sensor. <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

ADF pick position failure service check

Action	Yes	No
<p>Step 1 Open the ADF top door, and then check whether the correct lift plate shim is used.</p> <p>Correct shim</p>  <p>Wrong shim</p>  <p>Is the correct shim installed?</p>	Go to step 3.	Go to step 2.

Action	Yes	No
<p>Step 2 Replace the shim.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the ADF pick roller for proper installation.</p> <p>Is the pick roller properly installed?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reinstall the ADF pick roller.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Check the sensor actuator on the ADF pick roller.</p> <p>Does the actuator on the pick roller properly trigger the sensor (ADF pick roller index)?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Replace the ADF pick roller. See “ADF maintenance kit removal” on page 817.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the ADF pick roller cover for proper installation.</p> <p>Is the cover properly installed?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall the cover.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the ADF tray lift mechanism for obstructions.</p> <p>Is the lift mechanism free of obstructions?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Remove the obstructions.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.

Action	Yes	No
<p>Step 11</p> <p>a Enter the Diagnostics menu, and then navigate to: Scanner diagnostics > Sensor tests</p> <p>b Find the sensor (ADF pick roller index high) and sensor (ADF pick roller index low).</p> <p>Note: The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12</p> <p>Check the sensor cable for proper connection, and then reseal if necessary.</p> <ul style="list-style-type: none"> • Check socket JHINGE1 on the ADF controller board. • Check the connector on the sensor. <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Replace the sensor. See “ADF top door removal” on page 830.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Back side scan CCDM failure service check

Action	Yes	No
<p>Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection.</p> <p>Are the cables properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cables.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Replace the HDMI cables (PN 41X0219).</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check socket JCCDM1 on the ADF controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 6.	Go to step 5.
<p>Step 5 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the ADF CCDM cable for proper connection.</p> <p>Is the cable properly connected to the CCDM?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the ADF CCDM. See “ADF CCDM removal” on page 835.</p>	Go to step 9.	The problem is solved.
<p>Step 9 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Replace the ADF controller board. See “ADF controller board removal” on page 820.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the printer controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Procedure before starting the 9yy service checks

Retrieve certain information that helps your next level of support in diagnosing the problem before replacing the controller board.

Warning—Potential Damage: Do not replace the controller board unless instructed by your next level of support.

- 1 Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.
- 2 Collect the settings from the Menu Settings Page.
- 3 Collect information from the user.

Note: Not all of the items are retrievable from the printer that you are working on.

A. Collecting the history information from the SE menu

Note: Make sure that your printer is connected to a network or to a print server.

- 1 Open a web browser, type `http://printer_IP_address/se`, and then press **Enter**.

Notes:

- `printer_IP_address` is the TCP/IP address of the printer.
- `se` is required to access the printer diagnostic information.

- 2 Click **History Information**, copy all information, and then save it as a text file.
- 3 E-mail the text file to your next level of support.

B. Collecting the firmware logs (Fwdebug and logs.tar.gz) from the SE menu

Notes:

- Make sure that your printer is connected to a network or to a print server.
- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.

1 Open a web browser, type **http://printer_IP_address/se**, and then press **Enter**.

2 Click **Logs Gzip Compressed**.

Note: A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.

3 E-mail the logs to your next level of support.

Note: To download the FWdebug log to a flash drive, see [“General SE” on page 650](#).

C. Collecting the settings from the Menu Settings Page

Note: The Menu Settings Page is different for each printer. For more information, see the *User's Guide*. Your next level of support will tell you which page they want to see.

Copying the Menu Settings Page from the Embedded Web Server (EWS)

Note: Make sure that your printer is connected to a network or to a print server.

1 Open a web browser, type **http://printer_IP_address**, and then press **Enter**.

2 Click Settings, and then select one of the settings pages from the links shown on the page.

3 Copy all the information, and then save it as a text file.

4 E-mail the text file to your next level of support.

Printing the Menu Settings Page

1 From the home screen, navigate to:

Reports > Menu Settings Page

2 Print the Menu Settings Page, and then use Scan to E-mail to send it to your next level of support.

D. Collecting information from the user

Ask the user for information about the following:

- Print job being run
- Operating system being used
- Print driver being used
- Other information on what was happening when the 9yy error occurred

90y errors

900-909 error messages

Error code	Description	Action
900-909.x x	RIP firmware errors	See “900 error service check” on page 532 .

900 error service check

Action	Yes	No
<p>Step 1</p> <p>a Perform a POR.</p> <p>b Check if a 900.xx error code appears on the display.</p> <p>Does a 900.xx error code appear?</p>	Go to step 4.	Go to step 2.
<p>Step 2</p> <p>Check if another type of error code appears instead of the 900.xx error code.</p> <p>Does a different error code appear?</p>	Go to step 3.	Go to step 4.
<p>Step 3</p> <p>See the error code and its service instructions in the printer <i>Service Manual</i>.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Turn off the printer.</p> <p>b At the rear of the printer, disconnect the network cable, USB cable, and fax line.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 12.	Go to step 5.
<p>Step 5</p> <p>a From the control panel, navigate to the Reports menu.</p> <p>b Select Device Statistics and Device Settings.</p> <p>Does the problem remain?</p>	Go to step 12.	Go to step 6.
<p>Step 6</p> <p>Check if the printer has a scanner.</p> <p>Does the printer have a scanner?</p>	Go to step 7.	Go to step 8.

Action	Yes	No
<p>Step 7</p> <p>Using the scanner, perform a one-page copy job in color.</p> <p>Does the problem remain?</p>	Go to step 12.	Go to step 8.
<p>Step 8</p> <p>a Turn off the printer.</p> <p>b At the rear of the printer, connect the network cable, USB cable, and fax line.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	Go to step 10.
<p>Step 9</p> <p>a Start the printer in Invalid engine mode. See “Entering Invalid engine mode” on page 648.</p> <p>b Check if an Invalid Engine Code message appears.</p> <p>Does an Invalid Engine Code message appear?</p>	Go to step 10.	Contact the next level of support.
<p>Step 10</p> <p>Using the Device Settings report that is printed in step 5, check if the firmware level is older than the latest available version.</p> <p>Is the firmware version older, and does the customer agree to update the firmware?</p>	Go to step 11.	Contact the next level of support.
<p>Step 11</p> <p>Update the firmware to the latest version.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>a Turn off the printer.</p> <p>b Make sure that all the cables on the controller board and scanner are properly connected.</p> <p>c Turn on the printer.</p> <p>d From the control panel, navigate to the Reports menu, and then select Device Statistics and Device Settings.</p> <p>e For MFPs, perform a one-page copy and scan job in color.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check if a hard disk installed.</p> <p>Is a hard disk installed?</p>	Go to step 14.	Go to step 17.

Action	Yes	No
<p>Step 14</p> <p>a Check for buffered print jobs, and then delete them. See “Hard disk failure service check” on page 435.</p> <p>b Perform a POR.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>a Turn off the printer.</p> <p>b Uninstall the hard disk drive.</p> <p>c Perform a POR.</p> <p>Does the problem remain?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Replace the hard disk.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check if the printer has any of the following components installed:</p> <ul style="list-style-type: none"> • Memory options • Fax card • Modem • Wireless and network option cards <p>Is any of the components installed?</p>	Go to step 18.	Go to step 21.
<p>Step 18</p> <p>a Turn off the printer.</p> <p>b Remove all the installed components.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	Go to step 19.
<p>Step 19</p> <p>a Turn off the printer.</p> <p>b Install the following components one at a time:</p> <ul style="list-style-type: none"> • Memory options • Fax card • Modem • Wireless and network option cards <p>Note: Make sure to perform a POR after installing each component.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.

Action	Yes	No
<p>Step 20</p> <p>a Turn off the printer.</p> <p>b Replace the components that caused the error.</p> <p>c Turn on the printer.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

912 errors

912 error messages

Error code	Description	Action
912.05	A software error occurred.	See “Firmware error service check” on page 536 .
912.08	A software error occurred.	
912.09	A software error occurred.	
912.15	A software error occurred.	
912.16	A software error occurred.	
912.17	A software error occurred.	
912.19	A software error occurred.	
912.28	A software error occurred.	
912.32	A software error occurred.	
912.33	A software error occurred.	
912.34	A software error occurred.	See “Firmware error service check” on page 536 .
912.35	A software error occurred.	
912.38	A software error occurred.	
912.40	A software error occurred.	
912.42	A software error occurred.	
912.44	A software error occurred.	
912.45	A software error (supplies) occurred.	
912.46	A software error occurred.	
912.48	A software error occurred.	
912.49	A software error occurred.	

Error code	Description	Action
912.52	A software error occurred.	See “Firmware error service check” on page 536.
912.58	A software error occurred.	
912.60	A software error occurred.	
912.61	A software error occurred.	
912.66	A software error occurred.	
912.69	A software error occurred.	
912.70	A software error occurred.	
912.72	A software error occurred.	
912.74	A software error occurred.	
912.76	A software error occurred.	
912.77	A software error occurred.	
912.79	A software error occurred.	
912.80	A software error occurred.	
912.82	A software error occurred.	
912.86	A software error occurred.	
912.88	A software error occurred.	

Firmware error service check

Action	Yes	No
<p>Step 1</p> <p>Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Update the firmware to the following version: FW 052.212</p> <p>b Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Update the firmware to the latest version.</p> <p>b Restart the printer.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

95y errors

950–953 error messages

Error code	Description	Action
950.10	An NVRAM mismatch error occurred.	See “NVRAM mismatch failure service check” on page 537 .
953.99	A control panel NVRAM error occurred.	

NVRAM mismatch failure service check

Warning—Potential Damage: To avoid NVRAM mismatch issues, replace only one of the following components at a time:

- Control panel board
- Controller board

To replace a component and to test whether the problem is resolved:

- 1 Replace the affected component.

Warning—Potential Damage: Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 2 Enter the Diagnostics menu. The Diagnostics menu allows you to use temporarily the replacement part.

Warning—Potential Damage: Some printers perform automatically a POR if the Diagnostics menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 3 Use the Diagnostics menu to test the replacement part. Perform a feed test to check if the problem is resolved.
 - If the problem is not resolved—Turn off the printer, and then install the old part.
 - If the problem is resolved—Perform a POR.

Action	Yes	No
<p>Step 1 Check if the control panel board was recently replaced.</p> <p>Was the control panel board recently replaced?</p>	Go to step 2.	Go to step 4.
<p>Step 2 Replace the current control panel board with the original control panel board..</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Replace the original control panel board with a new control panel board.</p> <p>Note: Make sure that the new control panel board is not previously installed from another printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.
<p>Step 4 Check if the controller board was recently replaced.</p> <p>Was the controller board recently replaced?</p>	Go to step 5.	Contact the next level of support.
<p>Step 5 Replace the current controller board with the original controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the original controller board with a new controller board.</p> <p>Note: Make sure that the new controller board is not previously installed from another printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

98y errors

980–984 error messages

Error code	Description	Action
980.xx	<p>Engine experiencing unreliable communication with the specified device.</p> <p>Note: <device> can be one of the following:</p> <ul style="list-style-type: none"> • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher • Optional MSHPF • Optional 2-bin mailbox 	See “Options communication error service check” on page 540.
981.xx	<p>Engine protocol violation detected by the specified device.</p> <p>Note: <device> can be one of the following:</p> <ul style="list-style-type: none"> • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher • Optional MSHPF • Optional 2-bin mailbox 	
982.xx	<p>Communications error detected by the specified device.</p> <p>Note: <device> can be one of the following:</p> <ul style="list-style-type: none"> • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher • Optional MSHPF • Optional 2-bin mailbox 	

Error code	Description	Action
983.xx	Invalid command received by the specified device. Note: <device> can be one of the following: <ul style="list-style-type: none"> • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher • Optional MSHPF • Optional 2-bin mailbox 	See “Options communication error service check” on page 540.
984.xx	Invalid command parameter received by the specified device. Note: <device> can be one of the following: <ul style="list-style-type: none"> • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher • Optional MSHPF • Optional 2-bin mailbox 	

Options communication error service check

Action	Yes	No
Step 1 Disconnect the output option. Does the problem remain?	Go to step 2.	Go to step 9.
Step 2 a Check if the firmware is updated, and then update if necessary. b Make sure that the printer supports the input option. c Make sure that the input option is properly attached to the printer or adjacent option. d Reset the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Reseat the printer interface cable on the printer controller board. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Do the following to each input option: a Reinstall the input option. b Print a test page, and then check if the input option is defective. Is there an input option that is not properly working?	Go to step 5.	If the error persists, then contact the next level of support.

Action	Yes	No
<p>Step 5 Reseat the interface cable of the affected input option.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Check the input option interface cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7 Replace the input option interface cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the input option controller board.</p> <p>Does the problem remain?</p>	Contact the next level of support	The problem is solved.
<p>Step 9 Check the output option locking mechanism for damage.</p> <p>Is the lock free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the lock.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Reinstall the output option.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the output option interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Replace the output option interface cable.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reseat all connectors on the output option controller board.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Replace the output option controller board. Does the problem remain?	Contact the next level of support	The problem is solved.

Output option hardware errors

302–326 errors

302–303 error messages

Error code	Description	Action
302.50	The motor (HPT transport) did not turn on.	See “Motor (HPT transport) service check” on page 543.
303.50	The motor (hole punch unit) did not turn on.	See “Hole punch unit service check” on page 546.

316 error messages

Error code	Description	Action
316.40	The motor (mailbox transport) ran too slow.	See “Mailbox transport failure service check” on page 548.
316.41	The motor (mailbox transport) ran too fast.	

320–326 error messages

Error code	Description	Action
320.xx	The motor (staple finisher transport) does not turn on or off.	See “Staple finisher compiler section jam service check” on page 297.
323.80	The motor (staple finisher upper exit roller) does not turn on.	See “Staple finisher exit jam service check” on page 551.
326.50	The motor (staple finisher aligner paddle) does not turn on.	See “Staple finisher decurl assembly service check” on page 312.

Motor (HPT transport) service check

Action	Yes	No
<p>Step 1</p> <p>a Check the HPT and multiposition staple, hole punch finisher for proper installation.</p> <p>b Open door K and clear paper jams, fragments, and obstructions along the paper path.</p> <p>c Enter the Diagnostics menu, and then touch Output bin quick feed.</p> <p>d Select a bin and test type, and then start the test.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (HPT transport and fan), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (HPT transport) removal” on page 992.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the HPT transport drive belt for misalignment and damage.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the belt. See “HPT transport drive belt removal” on page 996.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the HPT transport drive gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 9.	Go to step 8.

Action	Yes	No
<p>Step 8 Reinstall or replace the gear. See “HPT transport gears removal” on page 994.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the HPT transport gear for wear and damage.</p> <p>Is the gear free of wear and damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Replace the gear. See “HPT transport gears removal” on page 994.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the HPT transport belts for misalignment and damage.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall or replace the belts. See “HPT transport belts removal” on page 985.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the HPT front transport belt gear for wear and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Replace the gear. See “HPT front transport belt gear removal” on page 981.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the HPT alignment rollers for misalignment, wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Reinstall or replace the rollers. See “HPT alignment rollers removal” on page 1012.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.

Action	Yes	No
<p>Step 17 Check the HPT transport idler roller for misalignment and damage.</p> <p>Is the roller properly installed and free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Reinstall or replace the roller. See “HPT transport idler roller removal” on page 998.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the HPT transport rollers for misalignment, wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Reinstall or replace the rollers. See “HPT transport rollers removal” on page 1016.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Reseat the HPT controller board cables, and then check the cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 23.	Go to step 22.
<p>Step 22 Replace the cables. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23 Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Hole punch unit service check

Action	Yes	No
<p>Step 1</p> <p>a Check the HPT and multiposition staple, hole punch finisher for proper installation.</p> <p>b Open door K and clear paper jams, fragments, and obstructions along the paper path.</p> <p>c Enter the Diagnostics menu, and then touch Output bin quick feed.</p> <p>d Select a bin and test type, and then start the test.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Manually turn knob K1 and the hole punch unit gears.</p> <p>b Check if the punch rotates with the knob and gears.</p> <p>Does the punch rotate with knob K1 and the gears?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Check the quality of the punched holes on the media.</p> <p>Is the quality of the holes good?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Replace the hole punch unit.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Horizontal paper transport</p> <p>b Find the sensor (HPU).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor and actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the sensor. See “Sensor (hole punch unit) removal” on page 989.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.

Action	Yes	No
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher</p> <p>b Find the motor (HPU), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the motor. See “Motor (hole punch unit) removal” on page 987.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the hole punch unit gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the gears. See “Hole punch unit gears removal” on page 988.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Reseat the HPT controller board cables, and then check the cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Replace the cables. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.

Action	Yes	No
<p>Step 16</p> <p>Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mailbox transport failure service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then select Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Mailbox > Mailbox transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (mailbox transport) removal” on page 1340.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Look for Transport, and then toggle the sensor.</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.

Action	Yes	No
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the sensor. See “Sensor (mailbox transport) removal” on page 1360.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the mailbox jam door and its rollers for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the mailbox jam door. See “Mailbox jam door removal” on page 1336.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the mailbox diverters and bottom diverter spring for misalignment and damage.</p> <p>Are the diverters properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Reinstall or replace the mailbox diverters. See “Mailbox diverter removal” on page 1348.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Check the mailbox transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 13.	Go to step 23.
<p>Step 13</p> <p>Check the mailbox drive gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Reinstall or replace the mailbox drive gears. See “Mailbox drive gears removal” on page 1365.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p>Step 15 Check the mailbox pulley gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Reinstall or replace the mailbox pulley gears. See “Mailbox bin 1 pulley gear removal” on page 1364 or “Mailbox bin 2 pulley gear removal” on page 1362.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the mailbox drive belts for misalignment and damage.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 19.	Go to step 18.
<p>Step 18 Reinstall or replace the mailbox drive belts. See “Mailbox drive belt removal” on page 1353.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21 Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.

Action	Yes	No
<p>Step 23 Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher exit jam service check

Action	Yes	No
<p>Step 1 a Clear the paper path of any jams or obstructions. b Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section b Find the sensor (Upper exit roller).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3 Check the sensor (staple finisher upper exit roller) for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reinstall or replace the sensor. See “Sensor (staple finisher upper exit roller) removal” on page 928.</p> <p>Does the motor run?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Upper exit roller), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the motor (staple finisher upper exit) for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.

Action	Yes	No
<p>Step 7 Reinstall or replace the motor. See “Motor (staple finisher upper exit roller) removal” on page 911.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the cables for cuts or damages, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <ul style="list-style-type: none"> a Check the front upper exit roller position gears, actuator, and lever for damage. b Check the gears for proper installation and alignment. c Check the spring for proper installation. d Move the gears, and then check if the roller moves up and down. e Check if the actuator can cover the sensor. <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the staple finisher front upper exit roller position gears. See “Staple finisher front upper position exit roller gears removal” on page 929.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <ul style="list-style-type: none"> a Check the rear upper exit roller position gears, actuator, and lever for damage. b Check the gears for proper installation and alignment. c Check the spring for proper installation. d Move the gears, and then check if the roller moves up and down. e Check if the actuator can cover the sensor. <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Replace the staple finisher rear upper exit roller position gears. See “Staple finisher rear upper position exit roller gears removal” on page 912.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.

Action	Yes	No
<p>Step 13</p> <p>a Check the staple finisher upper exit roller for proper installation.</p> <p>b Check the roller for wear or damage, and replace if necessary. See “Staple finisher upper exit roller removal” on page 954.</p> <p>c Check if the roller can move up and down.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Reseat all cable connectors in the controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

36y errors

360–364 error messages

Error code	Description	Action
360.60	The motor (mid-transport) did not turn on.	See “Mid-transport failure service check” on page 553.
360.61	The motor (mid-transport) did not turn off.	
362.60	The motor (staging outer transport) did not turn on.	See “Staging outer transport failure service check” on page 556.
362.61	The motor (staging outer transport) did not turn off.	
363.60	The motor (staging inner transport) did not turn on.	See “Staging inner transport failure service check” on page 558.
363.61	The motor (staging inner transport) did not turn off.	
364.60	The motor (compiler paddle) did not turn on.	See “Compiler paddle and exit failure service check” on page 561.
364.61	The motor (compiler paddle) did not turn off.	

Mid-transport failure service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Mid-transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (mid-transport) removal” on page 1127.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the mid-transport gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the gear. See “Mid-transport gear removal” on page 1129.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the hole punch box belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Reinstall or replace the belt. See “Hole punch box belt removal” on page 1092.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the MSHPF standard bin exit belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Reinstall or replace the belt. See “MSHPP standard bin exit belt removal” on page 1122.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check the offset assembly for misalignment and damage.</p> <p>Notes:</p> <ul style="list-style-type: none"> • Move the offset roller from side to side to check for lateral movement. • Make sure that the offset roller belt is properly installed. <p>Is the offset assembly properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Reinstall or replace the offset assembly. See “Offset assembly removal” on page 1150.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 19.	Go to step 18.

Action	Yes	No
<p>Step 18 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging outer transport failure service check

Action	Yes	No
<p>Step 1 a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279. b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reinstall or replace the motor. See “Motor (staging outer transport) removal” on page 1104.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Check the staging transport belts for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belts.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Reinstall or replace the belt. See “Staging transport belts removal” on page 1116.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the staging transport gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the staging outer transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 12.	Go to step 13.
<p>Step 12 Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staging inner transport failure service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Staging, outer and inner transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (staging inner transport) removal” on page 1108.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the staging transport belts for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belts.</p> <p>Are the belts properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the belt. See “Staging transport belts removal” on page 1116.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the staging transport gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Reinstall or replace the gear. See “Staging transport gears removal” on page 1112.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the staging outer transport rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 12.	Go to step 13.
<p>Step 12 Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the roller.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Action	Yes	No
<p>Step 19 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Compiler paddle and exit failure service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Paddle</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (compiler paddle) removal” on page 1274.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Compiler paddle).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.

Action	Yes	No
<p>Step 7 Reinstall or replace the sensor. See “Sensor (compiler paddle) removal” on page 1268.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Compiler exit cam b Touch Start.</p> <p>Does the motor run?</p>	Go to step 11.	Go to step 9.
<p>Step 9 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10 Reinstall or replace the motor. See “Motor (compiler exit cam) removal” on page 1270.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher b Find the sensor (Compiler exit cam).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the sensor. See “Sensor (compiler exit cam) removal” on page 1267.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14</p> <p>Check the compiler paddle and exit drive for proper installation.</p> <ul style="list-style-type: none"> • Check all of the components for misalignment. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive properly installed?</p>	Go to step 15.	Go to step 16.
<p>Step 15</p> <p>Check the compiler paddle and exit drive for damage.</p> <ul style="list-style-type: none"> • Check the gears and paddles for contamination, wear, and damage. • Reseat the cables. • Make sure that the cables are properly routed. <p>Is the paddle and exit drive free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Reinstall or replace the paddle and exit drive. See “Compiler paddle and exit drive removal” on page 1271.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the compiler exit rollers for contamination, wear, and damage.</p> <p>Are the rollers free of damage?</p>	Go to step 18.	Go to step 19.
<p>Step 18</p> <p>Check the rollers for misalignment.</p> <p>Are the rollers properly installed?</p>	Go to step 20.	Go to step 19.
<p>Step 19</p> <p>Reinstall or replace the roller. See “Compiler exit roller removal” on page 1273.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20</p> <p>Check the stapler bin lower exit belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 22.	Go to step 21.

Action	Yes	No
<p>Step 21 Reinstall or replace the belt. See “Stapler bin lower exit roller belt removal” on page 1276.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the stapler bin lower exit roller for contamination, wear, and damage.</p> <p>Is the roller free of damage?</p>	Go to step 23.	Go to step 24.
<p>Step 23 Check the roller for misalignment.</p> <p>Is the roller properly installed?</p>	Go to step 25.	Go to step 24.
<p>Step 24 Reinstall or replace the roller. See “Stapler bin lower exit roller removal” on page 1290.</p> <p>Does the problem remain?</p>	Go to step 25.	The problem is solved.
<p>Step 25 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 29.	Go to step 28.
<p>Step 28 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.

Action	Yes	No
<p>Step 29</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

374–383 errors

374–383 error messages

Error code	Description	Action
374.60	The motor (standard bin elevator) did not turn on.	See “MSHPF standard bin stack failure service check” on page 565 .
374.61	The motor (standard bin elevator) did not turn off.	
377.60	The motor (stapler bin elevator) did not turn on.	See “Stapler bin stack failure service check” on page 570 .
377.61	The motor (stapler bin elevator) did not turn off.	
383.60	The motor (staple unit carriage) did not turn on.	See “Staple carriage jam service check” on page 402 .
383.61	The motor (staple unit carriage) did not turn off.	

MSHPF standard bin stack failure service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Standard bin elevator</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.

Action	Yes	No
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (standard bin elevator) removal” on page 1139.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the standard bin elevator drive for misalignment and damage.</p> <p>Is the elevator drive properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the elevator drive. See “Standard bin elevator drive removal” on page 1138.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Standard bin lower limit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Standard bin stack upper limit 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.

Action	Yes	No
<p>Step 11</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the sensor. See “Sensor (standard bin stack upper limit) removal” on page 1137.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Standard bin paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.
<p>Step 14</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 6.	Go to step 15.
<p>Step 15</p> <p>Reinstall or replace the sensor. See “Sensor (standard bin paper present) removal” on page 1140.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16</p> <p>Check the MSHPF standard bin for misalignment and damage. Note: Make sure that the shaft aligns with the gear.</p> <p>Is the bin properly installed and free of damage?</p>	Go to step 17.	Go to step 19.
<p>Step 17</p> <p>Turn the elevator gears and check if the bin moves from top to bottom.</p> <p>Does the bin properly move?</p>	Go to step 20.	Go to step 18.
<p>Step 18</p> <p>Remove the obstructions along the bin path.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.

Action	Yes	No
<p>Step 19 Reinstall or replace the bin.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the standard bin elevator gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Reinstall or replace the gear.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the standard bin elevator belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the belt.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24 Check the standard bin elevator belt holder for misalignment and damage.</p> <p>Note: Make sure that the elevator belt is properly engaged with the holder.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace the belt holder.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the pulley gears for misalignment and damage.</p> <p>Note: Make sure that the pin is properly installed.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 28.	Go to step 27.

Action	Yes	No
<p>Step 27 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.
<p>Step 32 Check the MSHPF standard bin assembly for misalignment and damage.</p> <p>Note: Check the cables for damage and make sure that they are properly routed.</p> <p>Is the bin assembly properly installed and free of damage?</p>	Go to step 34.	Go to step 33.
<p>Step 33 Reinstall or replace the bin assembly. See “MSHPF standard bin assembly removal” on page 1221.</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.

Action	Yes	No
<p>Step 35 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Stapler bin stack failure service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Stapler bin elevator</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the motor. See “Motor (stapler bin elevator) removal” on page 1292.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the stapler bin elevator drive for misalignment and damage.</p> <p>Is the elevator drive properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the elevator drive. See “Stapler bin elevator drive removal” on page 1295.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Stapler bin lower limit).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the sensor. See “Sensor (stapler bin lower limit) removal” on page 1068.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Stapler bin stack upper limit 1).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the sensor. See “Sensor (stapler bin stack upper limit) removal” on page 1088.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Stapler bin paper present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 16.	Go to step 14.
<p>Step 14</p> <p>Reseat the sensor cable, and then check the sensor and its actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 16.	Go to step 15.

Action	Yes	No
<p>Step 15 Reinstall or replace the sensor.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the MSHPF stapler bin for misalignment and damage. Note: Make sure that the shaft aligns with the gear.</p> <p>Is the bin properly installed and free of damage?</p>	Go to step 17.	Go to step 19.
<p>Step 17 Turn the elevator gears and check if the bin moves from top to bottom.</p> <p>Does the bin properly move?</p>	Go to step 20.	Go to step 18.
<p>Step 18 Remove the obstructions along the bin path.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Reinstall or replace the bin.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the stapler bin gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Reinstall or replace the gear.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Check the stapler bin elevator belt for misalignment and damage. Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 24.	Go to step 23.
<p>Step 23 Reinstall or replace the belt.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.

Action	Yes	No
<p>Step 24 Check the stapler bin elevator belt holder for misalignment and damage.</p> <p>Note: Make sure that the elevator belt is properly engaged with the holder.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25 Reinstall or replace the belt holder.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26 Check the pulley gears for misalignment and damage.</p> <p>Note: Make sure that the pin is properly installed.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 28.	Go to step 27.
<p>Step 27 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 28.	The problem is solved.
<p>Step 28 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 29.	The problem is solved.
<p>Step 29 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 30.	The problem is solved.
<p>Step 30 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 32.	Go to step 31.
<p>Step 31 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 32.	The problem is solved.

Action	Yes	No
<p>Step 32 Check the MSHPF stapler bin assembly for misalignment and damage.</p> <p>Note: Check the cables for damage and make sure that they are properly routed.</p> <p>Is the bin assembly properly installed and free of damage?</p>	Go to step 34.	Go to step 33.
<p>Step 33 Reinstall or replace the bin assembly. See “Stapler bin assembly removal” on page 1308.</p> <p>Does the problem remain?</p>	Go to step 34.	The problem is solved.
<p>Step 34</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 35.	The problem is solved.
<p>Step 35 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Service option software error service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the paper path of any jams or obstructions.</p> <p>b Make sure that the jam access door is properly closed.</p> <p>c Reset the printer, and then reseat the finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests</p> <p>b Find the motor (Transport), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 5.	Go to step 3.
<p>Step 3 Check the motor for proper installation and damage.</p> <p>Is the motor properly installed or free of damage?</p>	Go to step 5.	Go to step 4.

Action	Yes	No
<p>Step 4 Reinstall or replace the motor. See “Motor (staple finisher transport) removal” on page 972.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests b Find the motor (Exit), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 8.	Go to step 6.
<p>Step 6 Check the motor for proper installation and damage.</p> <p>Is the motor properly installed or free of damage</p>	Go to step 8.	Go to step 7.
<p>Step 7 Reinstall or replace the motor. See “Motor (staple finisher exit) removal” on page 972.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the staple finisher transport gears for proper installation and damage. Make sure to manually turn the roller to check if the gears are properly working.</p> <p>Are the gears properly installed or free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Reinstall or replace the gears. See “Staple finisher transport gears removal” on page 924.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the aligner paddle gears for proper alignment and installation.</p> <p>Are the gears properly aligned or installed?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Realign or reinstall the gears.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.

Action	Yes	No
<p>Step 12 Check the gears and the flag for damage.</p> <p>Are the gears and the flag free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Replace the gears. See “Staple finisher aligner paddle gears removal” on page 926.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Check the exit roller belts for proper installation and damage.</p> <p>Are the belts properly installed or free of damage?</p>	Go to step 16.	Go to step 15.
<p>Step 15 Reinstall or replace the belts. See “Staple finisher exit roller belts removal” on page 933.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Check the exit gears for proper alignment and installation.</p> <p>Are the gears properly aligned or installed?</p>	Go to step 18.	Go to step 17.
<p>Step 17 Realign or reinstall the exit gears.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18 Check the exit gears for damage.</p> <p>Are the gears free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19 Replace the gears. See “Staple finisher exit gears removal” on page 931.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.

Action	Yes	No
<p>Step 21</p> <p>Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22</p> <p>Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
The printer has problems with proximity detection.	See “Proximity detection failure service check” on page 578.
The printer has problems with color alignment.	See “Auto alignment service check” on page 579.
The printer has problems with toner patch sensing.	See “Toner patch sensing service check” on page 582.
The printer has problems with NFC.	See “Mobile solutions module NFC service check” on page 586.
A repeating thumping noise is heard from the lower right side of the printer.	See “Printer thumping noise service check” on page 588.
The control panel is unresponsive. During power on, the controller board makes five short beeps.	See “Unresponsive control panel service check” on page 589.
The control panel is unresponsive. The control panel LED flashes alternately between red and blue.	See “Control panel flashing LED service check” on page 590.

Proximity detection failure service check

Action	Yes	No
<p>Step 1</p> <p>Check the area within 20 feet for other printers that have proximity sensors.</p> <p>Is there another printer in the area that has a proximity sensor?</p>	Go to step 2.	Go to step 3.
<p>Step 2</p> <p>Disable the sensor of the other printer.</p> <ul style="list-style-type: none"> • Turn off the other printer. • If the other printer is a similar printer, then navigate to Settings > Device > Power management > Timeouts, and then disable the Proximity sensor setting. <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the area within six feet of the printer for obstructions.</p> <p>Is the area near the printer free of obstructions?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Clear the obstructions.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Navigate to Settings > Device > Power management > Timeouts, and then enable the Proximity sensor setting.</p> <p>b Press the power button to enable Sleep mode, and then walk more than six feet away from the printer.</p> <p>c While the printer is in Sleep mode, approach the printer control panel.</p> <p>Does the printer wake from Sleep mode?</p>	The problem is solved.	Go to step 6.
<p>Step 6</p> <p>Reseat the proximity sensor cable.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Replace the sensor (proximity).</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Auto alignment service check

Pre-check procedure

- 1 Enter the Diagnostics menu, and then navigate to:
Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics
 Let the operation run for three minutes.

- 2 Perform color alignment adjustment. See [“Color alignment adjustment” on page 675](#).

- 3 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Color alignment adjust
 On the AA Adjustment row, touch **Start**.

Note: This triggers the Auto Align routine which performs correction of color alignment errors (0.42 mm—Normal, 0.84 mm—Coarse, and 3 mm—Factory ranges).

The following lists the different Auto Align routine results:

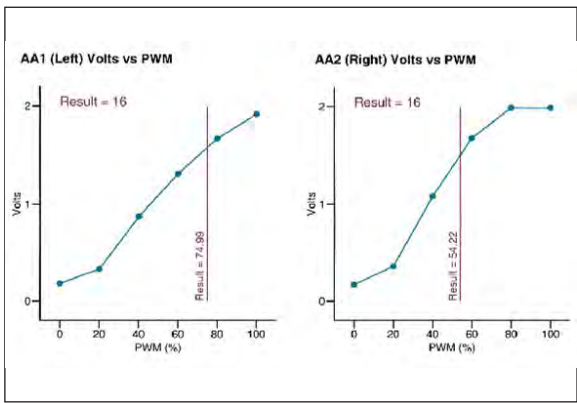
- AA Result 1—Failed to complete
- AA Result 2—Normal Data Deficient
- AA Result 3—All OK. Normal data within limits
- AA Result 4—Normal exceeds sense limits
- AA Result 5—Normal exceeds margin limits
- AA Result 6—All OK. Normal corrections applied
- AA Result 7—Coarse data within limits
- AA Result 8—Coarse data deficient
- AA Result 9—Coarse failed to converse
- AA Result 10—Coarse exceeds sense limits
- AA Result 11—Coarse exceeds margin limits
- AA Result 12—Coarse corrections applied
- AA Result 13—Normal exceeds skew limits
- AA Result 14—Coarse exceeds skew limits
- AA Result 15—Coarse new ITU speed
- AA Result 16—AA characterization successfully completed
- AA Result 17—AA characterization deficient, using defaults
- AA Result 18—AA Manufacturing mode successfully completed
- AA Result 19—AA Manufacturing mode deficient, not updating the results

- 4 Enter the Diagnostics menu, and then navigate to:
Printer setup > EP setup > Toner patch sensor adjust > Full calibration
 Let the calibration run for one minute.

Note: This will also trigger the Auto Align routine (0.42 mm—Normal range only).

Action	Yes	No																												
<p>Step 1</p> <p>a From the home screen, touch Settings > Reports > Print quality pages.</p> <p>b On the Device information section of the Print quality test page, check the Color Alignment Stat value.</p> <p>Note: If the value is 1, then the sensors (auto alignment) are working.</p> <p>Is the value equal to 0?</p>	Go to step 2.	The problem is solved.																												
<p>Step 2</p> <p>a Perform the blank page check. See “Blank or white pages, or one color missing check” on page 65.</p> <p>b Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust On the Sensor gain characterization row, touch Start. Wait for the operation to finish.</p> <p>c On the Sensor gain verification row, touch Start.</p> <p>d Check the graph generated on the printed page. The following sample graph shows good values.</p> <p>Note: Normal range of values for the sensor voltage is 1.5–2 volts.</p> <div style="text-align: center;"> <p>AA1 (Left) Volts vs PWM</p> <table border="1"> <caption>Data for AA1 (Left) Volts vs PWM</caption> <thead> <tr> <th>PWM (%)</th> <th>Volts</th> </tr> </thead> <tbody> <tr><td>0</td><td>0.2</td></tr> <tr><td>20</td><td>0.4</td></tr> <tr><td>40</td><td>0.9</td></tr> <tr><td>60</td><td>1.3</td></tr> <tr><td>80</td><td>1.7</td></tr> <tr><td>100</td><td>1.9</td></tr> </tbody> </table> <p>AA2 (Right) Volts vs PWM</p> <table border="1"> <caption>Data for AA2 (Right) Volts vs PWM</caption> <thead> <tr> <th>PWM (%)</th> <th>Volts</th> </tr> </thead> <tbody> <tr><td>0</td><td>0.2</td></tr> <tr><td>20</td><td>0.4</td></tr> <tr><td>40</td><td>1.1</td></tr> <tr><td>60</td><td>1.6</td></tr> <tr><td>80</td><td>2.0</td></tr> <tr><td>100</td><td>2.0</td></tr> </tbody> </table> </div> <p>Does the graph show good values?</p>	PWM (%)	Volts	0	0.2	20	0.4	40	0.9	60	1.3	80	1.7	100	1.9	PWM (%)	Volts	0	0.2	20	0.4	40	1.1	60	1.6	80	2.0	100	2.0	The problem is solved.	Go to step 3.
PWM (%)	Volts																													
0	0.2																													
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40	1.1																													
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80	2.0																													
100	2.0																													

Action	Yes	No
<p>Step 3</p> <p>Check the TPS sensor wiper for proper movement.</p> <p>a Remove the transfer belt. See “Transfer belt removal” on page 744.</p> <p>b Close door B and door A.</p> <p>c Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Printhead wiper</p> <p>d Open door A, and then touch Start.</p> <p>Does the sensor wiper properly move?</p>	Go to step 7.	Go to step 4.
<p>Step 4</p> <p>Check the TPS wiper actuator for alignment and proper connection.</p> <p>Is the wiper actuator properly aligned and connected with the TPS sensor wiper and K printhead wiper rail?</p>	Go to step 5.	Reinstall, repair, or replace the wiper actuator, and then perform again the Auto alignment service check.
<p>Step 5</p> <p>Check the K printhead wiper for proper movement.</p> <p>a Remove the transfer belt. See “Transfer belt removal” on page 744.</p> <p>b Close door B and door A.</p> <p>c Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Printhead wiper</p> <p>d Open door A, and then touch Start.</p> <p>Does the printhead wiper properly move?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Check the motor (printhead wiper) cable and socket JPWR1 on the controller board for proper connection.</p> <p>Is the motor cable properly connected?</p>	Replace the motor. See “Motor (printhead wiper) removal” on page 728. Perform again the Auto alignment service check.	Reseat the cable, and then perform again the Auto alignment service check.
<p>Step 7</p> <p>Check the sensor (auto alignment) cables and socket JTPS2 on the controller board for proper connection.</p> <p>Are the sensor cables properly connected?</p>	Go to step 8.	Reseat the cable, and then perform again the Auto alignment service check.

Action	Yes	No
<p>Step 8</p> <p>a Replace the two sensors. See “Sensor (auto alignment) removal” on page 763.</p> <p>b Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust On the Sensor gain characterization row, touch Start. Wait for the operation to finish.</p> <p>c On the Sensor gain verification row, touch Start.</p> <p>d Check the graph generated on the printed page. The following sample graph shows good values.</p> <p>Note: Normal range of values for the sensor voltage is 1.5–2 volts.</p>  <p>Does the graph show good values?</p>	<p>The problem is solved.</p>	<p>Contact the next level of support.</p>

Toner patch sensing service check

Pre-check procedure

- Enter the Diagnostics menu, and then navigate to:
Printer setup > EP setup > Toner patch sensor adjust > Clean sensing and laser optics
Let the operation run for three minutes.
- Perform color alignment adjustment. See [“Color alignment adjustment” on page 675](#).
- Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Color alignment adjust
On the AA Adjustment row, touch **Start**.

Note: This triggers the Auto Align routine which performs correction of color alignment errors (0.42 mm—Normal, 0.84 mm—Coarse, and 3 mm—Factory ranges).

The following lists the different Auto Align routine results:

- AA Result 1—Failed to complete
- AA Result 2—Normal Data Deficient

- AA Result 3—All OK. Normal data within limits
- AA Result 4—Normal exceeds sense limits
- AA Result 5—Normal exceeds margin limits
- AA Result 6—All OK. Normal corrections applied
- AA Result 7—Coarse data within limits
- AA Result 8—Coarse data deficient
- AA Result 9—Coarse failed to converse
- AA Result 10—Coarse exceeds sense limits
- AA Result 11—Coarse exceeds margin limits
- AA Result 12—Coarse corrections applied
- AA Result 13—Normal exceeds skew limits
- AA Result 14—Coarse exceeds skew limits
- AA Result 15—Coarse new ITU speed
- AA Result 16—AA characterization successfully completed
- AA Result 17—AA characterization deficient, using defaults
- AA Result 18—AA Manufacturing mode successfully completed
- AA Result 19—AA Manufacturing mode deficient, not updating the results

4 Enter the Diagnostics menu, and then navigate to:

Printer setup > EP setup > Toner patch sensor adjust > Full calibration

Let the calibration run for one minute.

Note: This will also trigger the Auto Align routine (0.42 mm—Normal range only).

Action	Yes	No
<p>Step 1</p> <p>a From the home screen, touch Settings > Reports > Print quality pages.</p> <p>b On the Device information section of the Print quality test page, check the following CalSet values.</p> <ul style="list-style-type: none"> • C Developer operating point • C Laser operating point • C linearization stat • M Developer operating point • M Laser operating point • M linearization stat • Y Developer operating point • Y Laser operating point • Y linearization stat • K Developer operating point • K Laser operating point • K linearization stat <p>Is there a Calset value equal to 0?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>Perform the blank page check. See “Blank or white pages, or one color missing check” on page 65.</p> <p>During the check, was there an issue found and then resolved?</p>	Perform again the Toner patch sensing service check.	Go to step 3.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Full calibration</p> <p>On the Sensor gain characterization row, touch Start. Wait for the operation to finish.</p> <p>b On the Sensor gain verification row, touch Start.</p> <p>c On the top portion of the printed verification page, check the Patch Average from TPS values.</p> <p>Are the Avg Signal (Volts) values within range of the Requirement values?</p>	The problem is solved.	Go to step 4.
<p>Step 4</p> <p>Check the TPS sensor wiper for proper movement.</p> <p>a Remove the transfer belt. See “Transfer belt removal” on page 744.</p> <p>b Close door B and door A.</p> <p>c Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Printhead wiper</p> <p>d Open door A, and then touch Start.</p> <p>Does the sensor wiper properly move?</p>	Go to step 8.	Go to step 5.
<p>Step 5</p> <p>Check the TPS wiper actuator for alignment and proper connection.</p> <p>Is the wiper actuator properly aligned and connected with the TPS sensor wiper and K printhead wiper rail?</p>	Go to step 6.	Reinstall, repair, or replace the wiper actuator, and then perform again the Toner patch sensing service check.

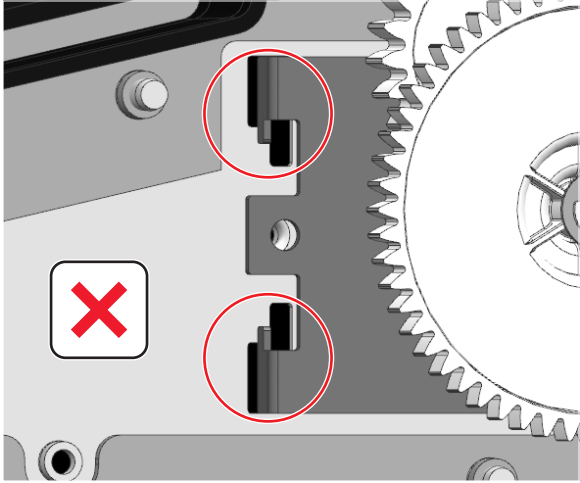
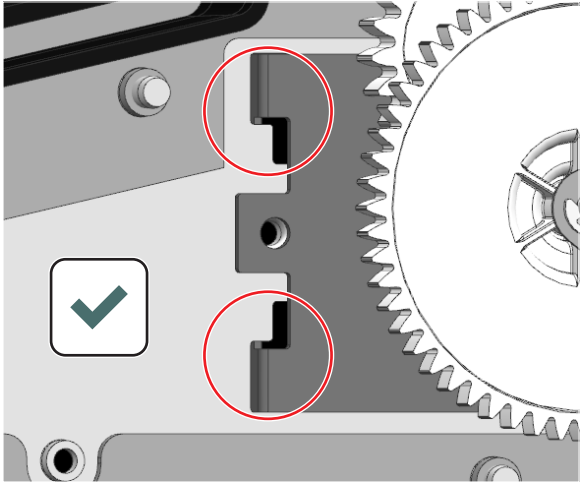
Action	Yes	No
<p>Step 6</p> <p>Check the K printhead wiper for proper movement.</p> <p>a Remove the transfer belt. See “Transfer belt removal” on page 744.</p> <p>b Close door B and door A.</p> <p>c Enter the Diagnostics menu, and then navigate to: Printer diagnostics & adjustments > Motor tests > Printhead wiper</p> <p>d Open door A, and then touch Start.</p> <p>Does the printhead wiper properly move?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Check the motor (printhead wiper) cable and socket JPWR1 on the controller board for proper connection.</p> <p>Is the motor cable properly connected?</p>	Replace the motor. See “Motor (printhead wiper) removal” on page 728. Perform again the Toner patch sensing service check.	Reseat the cable, and then perform again the Toner patch sensing service check.
<p>Step 8</p> <p>Check the sensor (TPS) cable and socket JTPS1 on the controller board for proper connection.</p> <p>Is the sensor cable properly connected?</p>	Go to step 9.	Reseat the cable, and then perform again the Toner patch sensing service check.
<p>Step 9</p> <p>a Replace sensor (TPS). See “Sensor (TPS) removal” on page 764.</p> <p>b Enter the Diagnostics menu, and then navigate to: Printer setup > EP setup > Toner patch sensor adjust > Full calibration</p> <p>On the Sensor gain characterization row, touch Start. Wait for the operation to finish.</p> <p>c On the Sensor gain verification row, touch Start.</p> <p>d On the top portion of the printed verification page, check the Patch Average from TPS values.</p> <p>Are the Avg Signal (Volts) values within range of the Requirement values?</p>	The problem is solved.	Contact the next level of support.

Mobile solutions module NFC service check

Action	Yes	No
<p>Step 1 Check if the control panel is functioning properly.</p> <p>Is the control panel functioning properly?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Replace the control panel.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Verify if the mobile device is an Android device that supports NFC and can read passive NFC tags.</p> <p>Does the device support NFC and can it read passive NFC tags?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Use a mobile device that supports NFC.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Make sure that the latest version of the Lexmark Mobile Printing application is installed on the Android device.</p> <p>Is the latest version of the application installed?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Install the latest version of the Lexmark Mobile Printing application on the mobile device.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check if the printer has a wireless ISP installed and if it is functioning properly.</p> <p>Is the wireless ISP installed and functioning properly?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Install or reinstall the wireless ISP in the printer.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Verify if WiFi Direct is enabled in the printer.</p> <p>Is WiFi Direct enabled?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Enable WiFi direct in the printer.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Verify that the NFC tap sticker is in the proper place on the control panel.</p> <p>Is the NFC tap sticker properly located on the control panel?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Using a template, reposition the tap sticker.</p> <p>Note: The sticker should be placed over the NFC antenna on the mobile solutions module.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13 Check if the mobile solutions module is properly installed on the control panel assembly.</p> <p>Is the mobile solutions module properly installed?</p>	Go to step 15.	Go to step 14.
<p>Step 14 Reinstall the mobile solutions module on the control panel assembly.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Install a new NFC card.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Printer thumping noise service check

Action	Yes	No
<p>Step 1</p> <p>a Remove the printhead. See “Printhead removal” on page 725.</p> <p>b Check the motor (printhead wiper) and its gears for proper installation and alignment.</p> <p>Note: Make sure that the motor tabs hook behind the frame slots.</p>   <p>Is the motor properly installed?</p>	Go to step 3.	Go to step 2.
<p>Step 2</p> <p>Reinstall the motor.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3 Replace the motor. See “Motor (printhead wiper) removal” on page 728.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Unresponsive control panel service check

Note: During power on, the controller board makes five short beeps when the control panel is unresponsive.

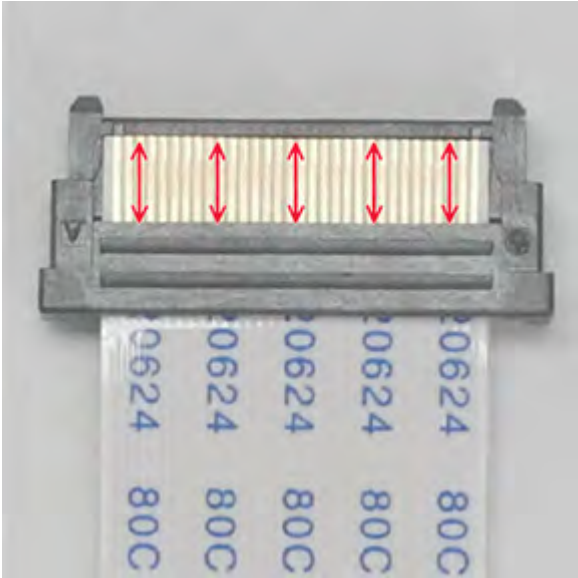
Action	Yes	No
<p>Step 1 Check the display cable JLCD2 on the controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 3.	Go to step 2.
<p>Step 2 Reseat the cable.</p> <p>Warning—Potential Damage: Do not yank the ribbon cable. See “Disconnecting ribbon cables” on page 663.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3 Check the control panel cable JOPPWR1 on the controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 5.	Go to step 4.
<p>Step 4 Reseat the cable.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5 Replace the display cable.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6 Replace the control panel cable.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

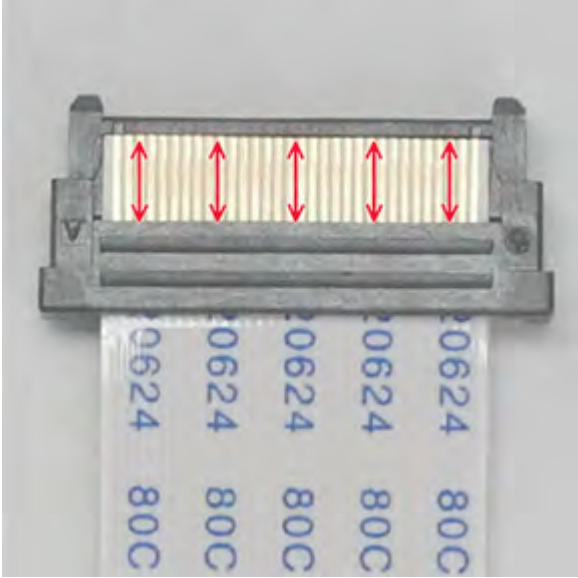
Action	Yes	No
<p>Step 7 Replace the control panel. See “Control panel removal” on page 734.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Control panel flashing LED service check

Note: When the control panel LED indicator flashes alternately between red and blue, the control panel is not likely the problem. This indicates a communication issue with the printer controller board.

Action	Yes	No
<p>Step 1 Check the display cable JLCD2 on the controller board for proper connection.</p> <p>Is the cable properly connected?</p>	Go to step 2.	Go to step 3.
<p>Step 2 Check the cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 3.	Go to step 7.
<p>Step 3</p> <p>a Disconnect the cable JLCD2 from the controller board.</p> <p>Warning—Potential Damage: Do not yank or wiggle the ribbon cable. See “Disconnecting ribbon cables” on page 663.</p> <p>b Check the connector and socket for debris.</p> <p>Is the connector clean?</p>	Go to step 5.	Go to step 4.

Action	Yes	No
<p>Step 4</p> <p>Wipe the connector with a lint-free cloth along the direction shown, and then reseat the cable.</p>  <p>Note: To properly plug the connector, hold it by its sides and avoid pressing the release tab.</p> <p>Does the problem remain?</p>	<p>Go to step 5.</p>	<p>The problem is solved.</p>
<p>Step 5</p> <p>a Disconnect the ribbon cable from the control panel board. See “Control panel display removal” on page 731.</p> <p>Warning—Potential Damage: Do not yank or wiggle the ribbon cable. See “Disconnecting ribbon cables” on page 663.</p> <p>b Check the connector and socket for debris.</p> <p>Is the connector clean?</p>	<p>Go to step 7.</p>	<p>Go to step 6.</p>

Action	Yes	No
<p>Step 6 Wipe the connector with a lint-free cloth along the direction shown, and then reseat the cable.</p>  <p>Note: To properly plug the connector, hold it by its sides and avoid pressing the release tab.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the control panel FFC cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Replace the control panel. See “Control panel removal” on page 734.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Input option symptoms

Input option symptoms

Symptom	Action
The input option is not detected or recognized.	See “Input option is not detected or recognized service check” on page 593.
“Missing tray” error message persistently prompts even if tray is inserted.	See “Persistent 'tray (x) missing' prompt even if tray is inserted service check” on page 594.
“Tray empty” error message persistently prompts even if tray is loaded.	See “Persistent 'tray (x) empty' prompt even if paper is present service check” on page 595.

Input option is not detected or recognized service check

Action	Yes	No
<p>Step 1</p> <p>a Make sure that the printer supports the input option. See the <i>Printer, Option, and Stand Compatibility Guide</i>.</p> <p>b Check if the option is properly attached to the printer or adjacent option.</p> <p>c Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check if the option interface cable is properly connected to the option controller board.</p> <p>Is the cable properly connected?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reseat the connection.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the interface cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Replace the cable. See “550-sheet tray interface cable removal” on page 868 or “2200-sheet tray interface cable removal” on page 880.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.

Action	Yes	No
<p>Step 6 Reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Persistent “tray (x) missing” prompt even if tray is inserted service check

Action	Yes	No
<p>Step 1 Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Remove, and then reinstall the tray insert.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>For the 550-sheet tray</p> <p>a Check the tray rails for obstructions and damage, and replace if necessary. See “550-sheet tray right rail removal” on page 865 and “550-sheet tray left rail removal” on page 872.</p> <p>b Reinstall the tray insert.</p> <p>For the 2200-sheet tray</p> <p>a Check the tray rails for obstructions and damage, and replace if necessary. See “2200-sheet tray rail removal” on page 876.</p> <p>b Check the bellcrank assembly for proper installation or damage, and replace if necessary. See “Bell crank removal” on page 876.</p> <p>c Reinstall the tray insert.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4 Check the media size sensor actuators for damage, and replace if necessary. See “550-sheet tray media size sensor actuators removal” on page 862.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input trays diagnostics > Sensor tests</p> <p>b Find the sensor (Media size (tray [x]) switch [x]).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>a Check if the media size sensor cable is properly connected to the option controller board.</p> <p>b Reseat the connection if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the media size sensor for damage, and replace if necessary. See “Sensor (550-sheet tray media size) removal” on page 862 or “Sensor (2200-sheet tray media size) removal” on page 878.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Persistent “tray (x) empty” prompt even if paper is present service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Additional input trays diagnostics > Sensor tests</p> <p>b Find the sensor (Media out (tray [x])).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>a Check if the paper feeder cable is properly connected to the option controller board.</p> <p>b Reseat the connection if necessary.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>Check the media out sensor actuator for damage, and replace if necessary. See “Sensor (550-sheet tray media out) removal” on page 866 or “2200-sheet tray media out sensor actuator removal” on page 888.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the sensor (media out) for damage, and replace if necessary. See “Sensor (550-sheet tray media out) removal” on page 866 or “Sensor (2200-sheet tray media out) removal” on page 885.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the controller board. See “Controller board removal” on page 776.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher symptoms

Staple finisher symptoms

Symptom	Action
A message to close the staple finisher top door prompts even after the door is closed.	See “Close staple finisher top door service check” on page 597 .
A message to close the staple cartridge door prompts even after the door is closed.	See “Close staple finisher staple cartridge door service check” on page 598 .
A bin full message prompts even after the bin is cleared or empty.	See “Staple finisher bin full service check” on page 599 .
Staples Low [83] prompts.	See “Staples Low [83] service check” on page 601 .
Staple finisher is not detected or recognized.	See “Staple finisher is not detected service check” on page 603 .

Close staple finisher top door service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the jam access door of any obstruction, and then close it.</p> <p>b Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the staple finisher jam access door for proper installation and damage, and replace if necessary. See “Staple finisher jam access door removal” on page 904.</p> <p>Note: Make sure that the jam door closes correctly.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Door test</p> <p>b Find the switch (Jam door switch).</p> <p>Does the switch status change while toggling the switch?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Check the staple finisher jam door switch for proper installation.</p> <p>b Reseat the jam door switch cable on both ends.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the staple finisher jam door switch for damage, and replace if necessary. See “Staple finisher jam door switches removal” on page 919.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cables for cuts or any damages, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Reseat all connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Close staple finisher staple cartridge door service check

Action	Yes	No
<p>Step 1</p> <p>a Check if the staple cartridge door is properly closed.</p> <p>b Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the staple finisher staple cartridge door for proper installation and damage, and replace if necessary. See “Staple finisher staple cartridge door removal” on page 903.</p> <p>Note: Make sure that the door closes correctly.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the staple finisher rear cover for proper installation and damage, and replace if necessary. See “Staple finisher rear cover removal” on page 900.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Door test</p> <p>b Find the switch (Staple door).</p> <p>Does the switch status change while toggling the switch?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>a Check the staple finisher staple cartridge door switch for proper installation and damage, and replace if necessary. See “Staple finisher staple cartridge door switch removal” on page 907.</p> <p>b Reseat the switch cable.</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cables for cuts or damages, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Reseat all connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher bin full service check

Action	Yes	No
<p>Step 1</p> <p>a Clear the staple finisher bin.</p> <p>b Clear the paper path of any obstruction.</p> <p>c Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Clear the output bin.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.
<p>Step 3</p> <p>Check the sensors (staple finisher front and rear upper bin full) for proper operation.</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section</p> <p>b Find the sensor (Staple finisher bin full).</p> <p>Does the sensor status change while toggling the sensors?</p>	Go to step 6.	Go to step 4.
<p>Step 4</p> <p>a Check the sensors for proper installation and damage.</p> <p>b Reseat the cable on both ends of the sensors.</p> <p>Are the sensors properly installed or free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Reinstall or replace the sensors. See “Sensor (staple finisher upper bin full) removal” on page 909.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the cable for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the sensors (staple finisher front and rear lower bin full) for proper operation.</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section</p> <p>b Find the sensor (Staple finisher bin full).</p> <p>Does the sensor status change while toggling the sensors?</p>	Go to step 10.	Go to step 8.

Action	Yes	No
<p>Step 8</p> <p>a Check the sensors for proper installation and damage.</p> <p>b Reseat the cable on both ends of the sensors.</p> <p>Are the sensors properly installed or free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the sensors. See “Sensor (staple finisher lower bin full) removal” on page 908.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the cable for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>a Check the staple finisher bin for damage.</p> <p>b Manually push, and then release the bin. Make sure that it returns to its default position.</p> <p>c Clear the bin of any obstructions.</p> <p>Is the bin properly installed or free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the bin. See “Staple finisher bin removal” on page 945.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>a Check the staple finisher bin arms for damage.</p> <p>b Check the bin arms and spring for proper installation.</p> <p>Are the bin arms properly installed or free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Reinstall or replace the bin arms. See “Staple finisher bin clamp assembly removal” on page 959.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p>Step 15</p> <p>Check the lock assembly. Make sure that the following components are free of damage:</p> <ul style="list-style-type: none"> • Snap • Handle • Lock actuator • Interface connector and its pins <p>Are the components free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Replace the damaged component.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Reseat all connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.
<p>Step 18</p> <p>Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staples Low [83] service check

Action	Yes	No
<p>Step 1</p> <p>a Remove any jammed or loose staples, and then remove the partial slab of staples so only the full slabs remain.</p> <p>b Reseat the staple cartridge and the cartridge holder.</p> <p>c Check if the staple cartridge door is closed properly.</p> <p>d Reset the printer, and then reseat the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Check the staple finisher staple cartridge holder for damage, and replace if necessary.</p> <p>b Reseat the staple cartridge.</p> <p>Does the problem remain?</p>	Go to step 3.	The problem is solved.

Action	Yes	No
<p>Step 3</p> <p>a Enter the Diagnostics menu, and then navigate to: Printer Diagnostics > Output device diagnostics > Staple test</p> <p>b Select a staple job.</p> <p>Is the job stapled?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>a Check the staple finisher staple unit for proper installation and damage, and replace if necessary. See “Staple finisher staple unit removal” on page 917.</p> <p>b Reseat the cables on both ends of the staple unit.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the cables for cuts or any damages, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>a Check the staple finisher staple unit ejector for damage, and replace if necessary. See “Staple finisher staple unit ejector removal” on page 915.</p> <p>b Check the ejector for proper installation and operation. Make sure to clear the area of any obstructions.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>a Check the staple finisher staple cartridge door for damage, and replace if necessary. See “Staple finisher staple cartridge door removal” on page 903.</p> <p>b Check the door for proper installation. Make sure that it closes correctly.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Staple finisher is not detected service check

Action	Yes	No
<p>Step 1</p> <p>Reset the printer, and then reseal the staple finisher.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the lock assembly. Make sure that the following components are free of damage:</p> <ul style="list-style-type: none"> • Snap • Handle • Lock actuator • Interface connector and its pins <p>Are the components free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Replace the damaged component.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the cables for cuts or damage, and replace if necessary.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Reseat all cable connectors in the staple finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Replace the controller board. See “Staple finisher controller board removal” on page 902.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Multiposition staple, hole punch finisher symptoms

MSHPF symptoms

Symptom	Action
A persistent C lose d oor K message appears.	See “HPT door undetected service check” on page 604.
The MSHPF is not detected.	See “Multiposition staple, hole punch finisher undetected service check” on page 605.

Symptom	Action
Hole punch quality is poor.	See “Hole punch quality service check” on page 606.
The MSHPF front door is not detected.	See “MSHPF front door undetected service check” on page 609.
The MSHPF staple cartridge is not detected.	See “MSHPF staple cartridge error service check” on page 611.
The hole punch box is not detected.	See “MSHPF hole punch box error service check” on page 613.
A persistent Empty the hole punch box message appears.	
A persistent Close door N message appears.	See “Door N undetected service check” on page 616.

HPT door undetected service check

Action	Yes	No
<p>Step 1</p> <p>a Check the HPT and multiposition staple, hole punch finisher for proper installation.</p> <p>b Open door K and clear paper jams, fragments, and obstructions along the paper path.</p> <p>c Enter the Diagnostics menu, and then touch Output bin quick feed.</p> <p>d Select a bin and test type, and then start the test.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Horizontal paper transport</p> <p>b Find the sensor (Jam access door).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Are the sensor and actuator properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (hole punch unit) removal” on page 989.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.

Action	Yes	No
<p>Step 5 Reseat the HPT controller board cables, and then check the cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6 Replace the cables. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Multiposition staple, hole punch finisher undetected service check

Action	Yes	No
<p>Step 1</p> <p>a Check the HPT and multiposition staple, hole punch finisher for proper installation.</p> <p>b Open door K and clear paper jams, fragments, and obstructions along the paper path.</p> <p>c Enter the Diagnostics menu, and then touch Output bin quick feed.</p> <p>d Select a bin and test type, and then start the test.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the HPT lock for misalignment and damage.</p> <p>Is the lock properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reinstall or replace the lock. See “HPT lock removal” on page 1001.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.

Action	Yes	No
<p>Step 4</p> <p>Reseat the printer interface cable, and then check the cable for damage.</p> <p>Is the cable free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Replace the cable. See “HPT autoconnect cable removal” on page 1004.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Reseat the HPT controller board cables, and then check the cables for damage.</p> <p>Are the cables free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Replace the cables. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the controller board. See “HPT controller board removal” on page 983.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Hole punch quality service check

Action	Yes	No
<p>Step 1</p> <p>a Check the HPT and multiposition staple, hole punch finisher for proper installation.</p> <p>b Open door K and clear paper jams, fragments, and obstructions along the paper path.</p> <p>c Enter the Diagnostics menu, and then touch Output bin quick feed.</p> <p>d Select a bin and test type, and then start the test.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>Check the HPT alignment rollers for misalignment, wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the rollers. See “HPT alignment rollers removal” on page 1012.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the HPT transport idler roller for misalignment and damage.</p> <p>Is the roller properly installed and free of damage?</p>	Go to step 6.	Go to step 5.
<p>Step 5</p> <p>Reinstall or replace the roller. See “HPT transport idler roller removal ” on page 998.</p> <p>Does the problem remain?</p>	Go to step 6.	The problem is solved.
<p>Step 6</p> <p>Check the HPT transport rollers for misalignment and wear, damage, and contamination.</p> <p>Are the rollers properly installed and free of wear, damage, and contamination?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the rollers. See “HPT transport rollers removal” on page 1016.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Manually turn knob K1 and the hole punch unit gears. b Check if the punch rotates with the knob and gears.</p> <p>Does the punch rotate with knob K1 and the gears?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Check the quality of the punched holes on the media.</p> <p>Is the quality of the holes good?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Replace the hole punch unit.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Horizontal paper transport b Find the sensor (HPU).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 14.	Go to step 12.
<p>Step 12 Reseat the sensor cable, and then check the sensor and actuator for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the sensor. See “Sensor (hole punch unit) removal” on page 989.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher b Find the motor (HPU), and then touch Start.</p> <p>Does the motor run?</p>	Go to step 17.	Go to step 15.
<p>Step 15 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 17.	The problem is solved.
<p>Step 16 Reinstall or replace the motor. See “Motor (hole punch unit) removal” on page 987.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Check the hole punch unit gears for misalignment and damage.</p> <p>Are the gears properly installed and free of damage?</p>	Go to step 19.	Go to step 18.

Action	Yes	No
<p>Step 18 Reinstall or replace the gears. See “Hole punch unit gears removal” on page 988.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Replace the HPT.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF front door undetected service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Door J interlock).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF door interlock) removal” on page 1087.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the MSHPF front door for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
<p>Step 6 Replace or reinstall the door. See “MSHPP front door removal” on page 1025.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the MSHPP door hinges for misalignment and damage.</p> <p>Are the doors properly installed and free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Replace or reinstall the door hinge. See “MSHPP door hinge removal” on page 1028.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <ol style="list-style-type: none"> a Reseat all connectors on the MSHPP controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF staple cartridge error service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Remove the staple cartridge holder, and then check for staple and paper fragments.</p> <p>b Check the cartridge holder for damage.</p> <p>Is the cartridge holder free of fragments and damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Remove the fragments, and then reinstall or replace the cartridge holder.</p> <p>Note: Remove the remaining partial slabs of staples so that only the full slabs remain.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>Check the MSHPF staple unit and its cable for damage.</p> <p>Is the staple unit free of damage?</p>	Go to step 5.	Go to step 6.
<p>Step 5</p> <p>Check the staple unit for proper installation.</p> <ul style="list-style-type: none"> • Check the staple unit for misalignment. • Reseat the staple unit extension cable. <p>Is the staple unit properly installed?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
<p>Step 6 Reinstall or replace the staple unit. See “MSHPF staple unit removal” on page 1081.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 a Reseat the staple unit cable and staple unit extension cable. b Make sure that the cables are properly routed.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8 Check the carriage cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9 Replace the cable. See “Staple unit extension cable removal” on page 1084 and “Staple unit cable removal” on page 1301.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.

Action	Yes	No
<p>Step 14</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF hole punch box error service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>a Empty the hole punch box, and then remove the obstructions along the sensor path holes.</p> <p>b Check the box for misalignment and damage.</p> <p>Is the box properly installed and free of damage?</p>	Go to step 3.	Go to step 4.
<p>Step 3</p> <p>Turn the hole punch box gear and check if the auger rotates.</p> <p>Does the auger rotate?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the hole punch box.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Hole punch box full).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 8.	Go to step 6.

Action	Yes	No
<p>Step 6</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 8.	Go to step 7.
<p>Step 7</p> <p>Reinstall or replace the sensor. See “Sensor (hole punch box full, receiver) removal” on page 1164 and “Sensor (hole punch box full, transmitter) removal” on page 1169.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Hole punch box present).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 11.	Go to step 9.
<p>Step 9</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 11.	Go to step 10.
<p>Step 10</p> <p>Reinstall or replace the sensor. See “Sensor (hole punch box present) removal” on page 1104.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11</p> <p>Check the hole punch box gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the gear. See “Sensor (mid-transport) removal” on page 1198.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the pulley gears for misalignment and damage.</p> <p>Are the pulley gears properly installed and free of damage?</p>	Go to step 15.	Go to step 14.

Action	Yes	No
<p>Step 14 Reinstall or replace the pulley gear.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Check the hole punch box belt for misalignment and damage.</p> <p>Note: Make sure that there are no other parts interfering with the movement of the belt.</p> <p>Is the belt properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16 Reinstall or replace the belt. See “Hole punch box belt removal” on page 1092.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Finisher > Mid-transport</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 20.	Go to step 18.
<p>Step 18 Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 20.	Go to step 19.
<p>Step 19 Reinstall or replace the motor. See “Motor (mid-transport) removal” on page 1127.</p> <p>Does the problem remain?</p>	Go to step 20.	The problem is solved.
<p>Step 20 Check the mid-transport gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 22.	Go to step 21.
<p>Step 21 Reinstall or replace the gear. See “Mid-transport gear removal” on page 1129.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.

Action	Yes	No
<p>Step 22</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 23.	The problem is solved.
<p>Step 23</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 24.	The problem is solved.
<p>Step 24</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 26.	Go to step 25.
<p>Step 25</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 26.	The problem is solved.
<p>Step 26</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 27.	The problem is solved.
<p>Step 27</p> <p>Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Door N undetected service check

Action	Yes	No
<p>Step 1</p> <p>a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Door J interlock).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 5.	Go to step 3.
<p>Step 3</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 5.	Go to step 4.
<p>Step 4</p> <p>Reinstall or replace the sensor. See “Sensor (door N interlock) removal” on page 1194.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the door N guide for misalignment and damage.</p> <ul style="list-style-type: none"> • Check the door guide for wear, damage, and contamination. • Check the door guide for missing rollers. • Check the door hinges for proper installation. • Check if the door can properly close. <p>Is the door guide properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Replace or reinstall the door guide.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the mid-transport interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Replace the interface board. See “Mid-transport interface board removal” on page 1131.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 11.	Go to step 10.

Action	Yes	No
<p>Step 10 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Check the MSHPF standard bin assembly for misalignment and damage.</p> <p>Note: Check the cables for damage and make sure that they are properly routed.</p> <p>Is the bin assembly properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12 Reinstall or replace the bin assembly. See “MSHPF standard bin assembly removal” on page 1221.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <ul style="list-style-type: none"> a Reseat all connectors on the MSHPF controller board. b Make sure that the cables are properly routed, and then reset the printer. <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

MSHPF staple cartridge door undetected service check

Action	Yes	No
<p>Step 1</p> <ul style="list-style-type: none"> a Check the MSHPF for proper installation, and then check its paper path. See “Procedure before starting the MSHPF service checks” on page 279. b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then touch Single or Continuous. <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>Check the MSHPF staple cartridge door for misalignment and damage.</p> <p>Note: When closing the door, its actuator should properly engage with the door sensor and switch.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the door. See “MSHPF staple cartridge door removal” on page 1032.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Cartridge door interlock switch).</p> <p>Does the sensor status change while toggling the switch?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the switch cable, and then check the switch for misalignment and damage.</p> <p>Is the switch properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the switch. See “Switch (MSHPF cartridge door interlock) removal” on page 1066.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the door interlock cable for proper connection.</p> <ul style="list-style-type: none"> • Reseat the cable. • Make sure that the cable is properly routed. <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the cable for cuts and damage.</p> <p>Is the cable free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Finisher</p> <p>b Find the sensor (Door J interlock).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 13.	Go to step 11.
<p>Step 11</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 13.	Go to step 12.
<p>Step 12</p> <p>Reinstall or replace the sensor. See “Sensor (MSHPF door interlock) removal” on page 1087.</p> <p>Does the problem remain?</p>	Go to step 13.	The problem is solved.
<p>Step 13</p> <p>Check the MSHPF front door for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 15.	Go to step 14.
<p>Step 14</p> <p>Replace or reinstall the door. See “MSHPF front door removal” on page 1025.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15</p> <p>Check the MSHPF door hinges for misalignment and damage.</p> <p>Are the doors properly installed and free of damage?</p>	Go to step 17.	Go to step 16.
<p>Step 16</p> <p>Replace or reinstall the door hinge. See “MSHPF door hinge removal” on page 1028.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17</p> <p>Check the compiler interface board cables.</p> <ul style="list-style-type: none"> • Reseat all connectors on the interface board. • Make sure that the cables are properly routed. <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18 Replace the interface board. See “Compiler interface board removal” on page 1263.</p> <p>Does the problem remain?</p>	Go to step 19.	The problem is solved.
<p>Step 19 Check the interface board cables for cuts and damage.</p> <p>Are the cables free of damage?</p>	Go to step 21.	Go to step 20.
<p>Step 20 Replace the cable.</p> <p>Does the problem remain?</p>	Go to step 21.	The problem is solved.
<p>Step 21</p> <p>a Reseat all connectors on the MSHPF controller board.</p> <p>b Make sure that the cables are properly routed, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 22.	The problem is solved.
<p>Step 22 Replace the MSHPF controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

2-bin mailbox symptoms

Mailbox symptoms

Symptom	Action
The printer fails to detect the mailbox.	See “Mailbox undetected service check” on page 622 .
The paper does not exit to the assigned mailbox bin.	See “Mailbox wrong bin exit service check” on page 624 .
A persistent Remove paper from bin 2 message appears.	See “Mailbox bin 1 full error service check” on page 626 .
A persistent Remove paper from bin 3 message appears.	See “Mailbox bin 2 full error service check” on page 627 .
A persistent Close door L message appears.	See “Mailbox door undetected service check” on page 629 .

Mailbox undetected service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Check the finisher for proper installation.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 4</p> <p>Reseat the mailbox interface cable from the mailbox controller board.</p> <p>Does the problem remain?</p>	Go to step 5.	The problem is solved.
<p>Step 5</p> <p>Check the mid-transport (mailbox) interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Replace the interface cable. See “Mid-transport (mailbox) interface cable removal” on page 1134.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 7</p> <p>Reseat the interface cable.</p> <p>Does the problem remain?</p>	Go to step 8.	The problem is solved.
<p>Step 8</p> <p>Check the mailbox latch and spring for misalignment and damage.</p> <p>Is the latch properly installed and free of damage?</p>	Go to step 10.	Go to step 9.

Action	Yes	No
<p>Step 9 Reinstall or replace the mailbox latch. See “Mailbox latch removal” on page 1343.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Check the mailbox front cover for misalignment and damage.</p> <p>Is the cover properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11 Reinstall or replace the mailbox front cover. See “Mailbox front cover removal” on page 1336.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12 Check the mailbox rear cover for misalignment and damage.</p> <p>Is the cover properly installed and free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13 Reinstall or replace the mailbox rear cover. See “Mailbox rear cover removal” on page 1338.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14 Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.
<p>Step 15 Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the mailbox.</p> <p>Does the problem remain?</p>	Go to step 17.	The problem is solved.
<p>Step 17 Reseat all connectors on the finisher controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 18.	The problem is solved.

Action	Yes	No
<p>Step 18 Replace the finisher controller board. See “MSHPF controller board removal” on page 1063.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mailbox wrong bin exit service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then select Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2</p> <p>Check the mailbox diverters and bottom diverter spring for misalignment and damage.</p> <p>Are the diverters properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the mailbox diverters. See “Mailbox diverter removal” on page 1348.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Find the sensor (Diverter).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the sensor. See “Sensor (mailbox diverter home) removal” on page 1347.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.

Action	Yes	No
<p>Step 7</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Motor tests > Mailbox > Mailbox position diverter</p> <p>b Touch Start.</p> <p>Does the motor run?</p>	Go to step 10.	Go to step 8.
<p>Step 8</p> <p>Reseat the motor cable, and then check the motor for misalignment and damage.</p> <p>Is the motor properly installed and free of damage?</p>	Go to step 10.	Go to step 9.
<p>Step 9</p> <p>Reinstall or replace the motor. See “Motor (mailbox diverter) removal” on page 1337.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10</p> <p>Check the mailbox diverter gear for misalignment and damage.</p> <p>Is the gear properly installed and free of damage?</p>	Go to step 12.	Go to step 11.
<p>Step 11</p> <p>Reinstall or replace the mailbox diverter gear. See “Mailbox diverter gear removal” on page 1349.</p> <p>Does the problem remain?</p>	Go to step 12.	The problem is solved.
<p>Step 12</p> <p>Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 14.	Go to step 13.
<p>Step 13</p> <p>Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 14.	The problem is solved.
<p>Step 14</p> <p>Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 15.	The problem is solved.

Action	Yes	No
<p>Step 15 Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 16.	The problem is solved.
<p>Step 16 Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mailbox bin 1 full error service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then select Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the mailbox bin full sensor flag for misalignment and damage.</p> <p>Is the flag properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reinstall or replace the mailbox bin full sensor flag. See “Mailbox bin 1 full sensor flag removal” on page 1355.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Find the sensor (Bin 1 full).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
<p>Step 6 Reinstall or replace the sensor. See “Sensor (mailbox bin 1 full) removal” on page 1351.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mailbox bin 2 full error service check

Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then select Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.

Action	Yes	No
<p>Step 2</p> <p>Check the mailbox bin full sensor flag for misalignment and damage.</p> <p>Is the flag properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3</p> <p>Reinstall or replace the mailbox bin full sensor flag. See “Mailbox bin 2 full sensor flag removal” on page 1353.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Find the sensor (Bin 2 full).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5</p> <p>Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.
<p>Step 6</p> <p>Reinstall or replace the sensor. See “Sensor (mailbox bin 2 full) removal” on page 1352.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7</p> <p>Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8</p> <p>Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9</p> <p>Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.

Action	Yes	No
<p>Step 10 Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Mailbox door undetected service check

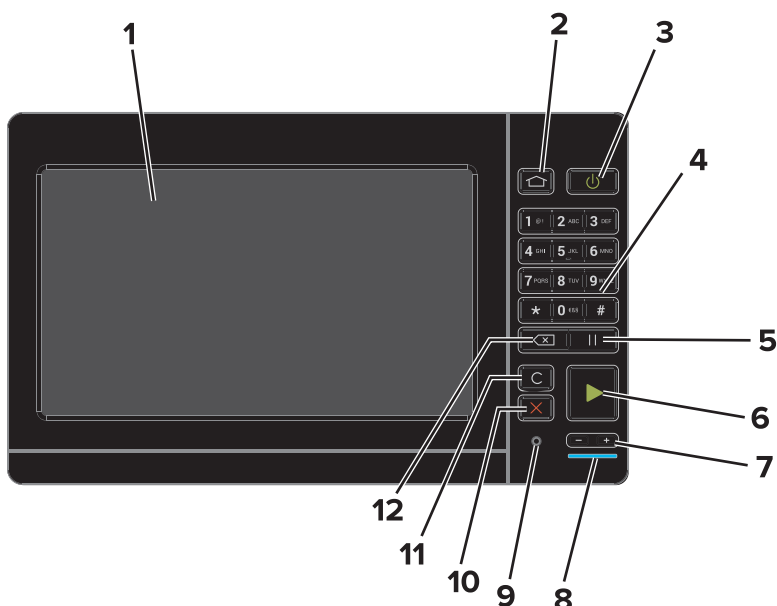
Action	Yes	No
<p>Step 1</p> <p>a Check the mailbox for proper installation, and then check its paper path. See “Procedure before starting the mailbox service checks” on page 279.</p> <p>b Enter the Diagnostics menu, select Output bin quick feed > select bin, and then select Single or Continuous.</p> <p>Does the problem remain?</p>	Go to step 2.	The problem is solved.
<p>Step 2 Check the mailbox jam door and its rollers for misalignment and damage.</p> <p>Is the door properly installed and free of damage?</p>	Go to step 4.	Go to step 3.
<p>Step 3 Reinstall or replace the mailbox jam door. See “Mailbox jam door removal” on page 1336.</p> <p>Does the problem remain?</p>	Go to step 4.	The problem is solved.
<p>Step 4</p> <p>a Enter the Diagnostics menu, and then navigate to: Output device diagnostics > Sensor tests > Mailbox</p> <p>b Find the sensor (Jam access door).</p> <p>Does the sensor status change while toggling the sensor?</p>	Go to step 7.	Go to step 5.
<p>Step 5 Reseat the sensor cable, and then check the sensor for misalignment and damage.</p> <p>Is the sensor properly installed and free of damage?</p>	Go to step 7.	Go to step 6.

Action	Yes	No
<p>Step 6 Reinstall or replace the sensor. See “Sensor (mailbox jam door) removal” on page 1341.</p> <p>Does the problem remain?</p>	Go to step 7.	The problem is solved.
<p>Step 7 Check the mailbox interface cable:</p> <ul style="list-style-type: none"> • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. <p>Is the cable free of damage?</p>	Go to step 9.	Go to step 8.
<p>Step 8 Replace the mailbox interface cable. See “Mailbox interface cable removal” on page 1342.</p> <p>Does the problem remain?</p>	Go to step 9.	The problem is solved.
<p>Step 9 Reseat all connectors on the mailbox controller board, and then reset the printer.</p> <p>Does the problem remain?</p>	Go to step 10.	The problem is solved.
<p>Step 10 Replace the mailbox controller board. See “Mailbox controller board removal” on page 1339.</p> <p>Does the problem remain?</p>	Go to step 11.	The problem is solved.
<p>Step 11 Replace the mailbox.</p> <p>Does the problem remain?</p>	Contact the next level of support.	The problem is solved.

Service menus

Understanding the printer control panel

Using the control panel



Use the		To
1	Display	<ul style="list-style-type: none"> View the printer messages and supply status. Set up and operate the printer.
2	Home button	Go to the home screen.
3	Power button	<ul style="list-style-type: none"> Turn on or turn off the printer. <p>Note: To turn off the printer, press and hold the power button for five seconds.</p> <ul style="list-style-type: none"> Set the printer to Sleep or Hibernate mode. Wake the printer from Sleep or Hibernate mode.
4	Keypad	Enter numbers or symbols in an input field.
5	Pause button	Place a dial pause in a fax number.
6	Start button	Start a job, depending on which mode is selected.
7	Volume buttons	Adjust the volume of the headset or speaker.
8	Indicator light	Check the status of the printer.
9	Headset or speaker port	Attach a headset or speaker.
10	Stop or Cancel button	Stop the current job.
11	Clear all or Reset button	Reset the default settings of a function such as copying, faxing, or scanning.

Use the	To
12 Backspace button	Move the cursor backward and delete a character in an input field.

Understanding the status of the power button and indicator light

Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blue	The printer is ready or processing data.
Red	The printer requires user intervention.

Power button light	Printer status
Off	The printer is off, ready, or processing data.
Solid amber	The printer is in sleep mode.
Blinking amber	The printer is in hibernate mode.

Using the home screen

Note: Your home screen may vary depending on your home screen customization settings, administrative setup, and active embedded solutions.



Touch	To
1 Copy	Make copies.
2 E-mail	Send e-mails.
3 Change Language	Change the language on the printer display.
4 Fax	Send fax.
5 Settings	Access the printer menus.
6 Held Faxes	Show all the current held fax jobs. Note: If Held Faxes is hidden, then Release Held Faxes appears.

Touch		To
7	Shortcut Center	Organize all shortcuts.
8	Status/Supplies	<ul style="list-style-type: none"> • Show a printer warning or error message whenever the printer requires intervention to continue processing. • View more information on the printer warning or message, and on how to clear it. <p>Note: You can also access this setting by touching the top section of the home screen.</p>
9	Address Book	Access, create, and organize contacts.
10	Scan Profiles	Scan and save documents directly to the computer.
11	FTP	Scan and save documents directly to an FTP server.
12	Bookmarks	Organize all bookmarks.
13	Held Jobs	Show all the current held print jobs
14	USB Drive	View, select, or print photos and documents from a flash drive.
15	Job Queue	Show all the current print jobs. Note: You can also access this setting by touching the top section of the home screen.

These settings may also appear on the home screen

Touch	To
App Profiles	Access application profiles.
Lock Device	Prevent users from accessing any printer functions from the home screen.

Printing a menu settings page

From the home screen, touch **Settings > Reports > Menu Settings Page**.

Menus list

Device	Print	Paper	Copy	Fax
Preferences	Layout	Tray Configuration	Copy	Fax Mode
Notifications	Finishing	Media Configuration	Defaults	Analog Fax Setup
Group Lists	Setup	Bin Configuration		Fax Server Setup
Alert Types	Quality			
Anti-Spam Logic Description	Job Accounting			
Suppressing Duplicate Alerts	Image			
Power Management	XPS			
Information Sent to Lexmark	PDF			
Accessibility	HTML			
Restore Factory Defaults	PostScript			
Maintenance	PCL			
Remote Operator Panel	PPDS			
Visible Home Screen Icons				
Site Map				
Update Firmware				
About This Printer				
E-mail	FTP	Network/Ports	USB Drive	Security
E-mail Defaults	FTP Defaults	Network Overview	Flash Drive	Login Methods
E-mail Setup		Wireless	Scan	Certificate Management
Web Link Setup		AirPrint	Flash Drive	Schedule USB Devices
		Ethernet	Print	Security Audit Log
		TCP/IP		Login Restrictions
		IPv6		Confidential Print Setup
		SNMP		Disk Encryption
		802.1x		Erase Temporary Data Files
		IPSec		Solutions LDAP Settings
		LPD Configuration		Miscellaneous
		HTTP/FTP Settings		
		ThinPrint		
		USB		
		Parallel [x]		
		Serial		
		Wi-Fi Direct		

Option Card Menu

Note: This setting appears only when an optional card is installed.

Reports

Menu Settings Page
 Print Quality Pages
 Device
 Print
 Shortcuts
 Fax
 Network

Help

Print All Guides
 Color Quality Guide
 Connection Guide
 Copy Guide
 E-mail Guide
 Information Guide
 Media Guide
 Moving Guide
 Print Quality Guide
 Scan Guide
 Supplies Guide

Diagnostics menu

Entering the Diagnostics menu

The Diagnostics menu contains tests that are used to help isolate issues with the printer. To access some of these tests, avoid POST tests that run at POR. Some POST tests can generate errors that prevent a diagnostic test from running.

To access the Diagnostics menu from the home screen, press **** 3 6** on the control panel.

For 2-line control panels, press the left arrow button twice, press **OK**, and then press the right arrow button.

Event Log

Display Log

This setting displays the panel text that appears when the event occurs.

Enter the Diagnostics menu, and then navigate to:

Event Log > Display Log

Print Log

This setting lists an extended version of the various printer events.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > Print Log

2 Touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Print Log Summary

This setting lists a brief summary of the various printer events.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > Print Log Summary

2 Touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Mark Log

This setting allows you to create a service, maintenance, or custom log entry. Each log entry is added in the printer event log.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > Mark Log

2 Select a log that you want to create, and then touch **Start**.

Reports

Device Settings

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

Reports > Device Settings

Installed Licenses

This setting lists all the installed licenses and their feature data.

Enter the Diagnostics menu, and then navigate to:

Reports > Installed Licenses

Advanced Print Quality Samples

This setting prints a list of the printer settings and sample pages to check print quality.

Enter the Diagnostics menu, and then navigate to:

Advanced Print Quality Samples > Advanced Print Quality Samples

Input tray quick print

This setting lets you print a single or continuous Quick Test page in either duplex or simplex mode.

1 Enter the Diagnostics menu, and then touch **Input tray quick print**.

2 Select where you want to print the pages from.

- 3 Select whether to print a single or continuous test page, and then touch **Start**.

Printer Setup

Printed page count (mono)

This setting displays the amount of pages printed in mono.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the printed page count for mono.

Printed page count (color)

This setting displays the amount of pages printed in color.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the printed page count for color.

Permanent page count

This setting displays the total number of pages printed in mono and color. After all the print tests are completed, this value resets to zero.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the permanent page count.

Enable edge-to-edge (printing)

This setting shifts all four margins to the physical edges of the page.

Note: Contamination of the second transfer roller may result from printing up to the physical edges of the page.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer Setup > Enable edge-to-edge (printing)
- 2 Select a setting to adjust.
Note: This feature does not work in PPDS emulation.

Enable edge-to-edge (copy)

This setting determines whether the printer accepts the ADF or flatbed edge erase value when performing an ADF or flatbed copy.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer Setup > Enable edge-to-edge (copy)
- 2 Select a setting to adjust.

Processor ID

This setting indicates the ID of the processor on the controller board.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the processor ID.

Serial number

This setting displays a read-only value of the serial number.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the serial number.

Model name

This setting displays the model name of the printer.

- 1 Enter the Diagnostics menu, and then touch **Printer Setup**.
- 2 View the model name.

Engine setting [x]

Warning—Potential Damage: Do not change this setting without specific instructions from the next level of support.

This setting allows you to select a printer engine setting. Possible values are 0–255. 0 is the default.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer Setup > Engine setting [x]
- 2 Select a setting, enter a value, and then touch **OK**.

EP setup

Warning—Potential Damage: Do not change this setting without specific instructions from the next level of support.

This setting allows you to adjust the EP setup of the printer.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer Setup > EP setup
- 2 Select a setting.

Printer diagnostics and adjustments

Sensor tests

- 1 Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**.
- 2 From the Sensor tests section, touch **Start**.
A dialog listing the sensor tests appears.
- 3 Find, and then manually toggle the sensor.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Motor tests

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Motor tests
- 2 Select a motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test. For more information, see [“Registration adjustment” on page 673](#).

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Registration adjust
- 2 Select a setting to adjust.

Color alignment adjust

This setting allows you to adjust the color alignments and to print or reset the default settings.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Color alignment adjust
- 2 Select a setting.

Supply reset

The setting resets the ITM counter values to zero.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Supply reset
- 2 Select a setting, and then touch **Start**.

Add-on cards tests

This setting allows you to test the add-on cards installed on the printer.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Add-on cards tests
- 2 Select a card.

Printhead diagnostics

This setting allows you to test the printhead.

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Printhead diagnostics
- 2 Select a test, and then touch **Start**.

Additional input tray diagnostics

Sensor tests

- 1 Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**.
- 2 From the Sensor tests section, touch **Start**.
A dialog listing the sensor tests appears.
- 3 Find, and then manually toggle the sensor.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Motor tests

- 1 Enter the Diagnostics menu, and then navigate to:
Additional input tray diagnostics > Motor tests
- 2 Select a motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.

- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Output device diagnostics

Sensor tests

- 1 Enter the Diagnostics menu, and then navigate to:
Output device diagnostics > Sensor tests
- 2 Select the output device where the sensor is located.
- 3 Find, and then manually toggle the sensor.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Motor tests

- 1 Enter the Diagnostics menu, and then navigate to:
Output device diagnostics > Motor tests
- 2 Select the output device where the motor is located.
- 3 Find the motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Staple test

Note: This menu appears only when a finisher is installed.

- 1 Enter the Diagnostics menu, and then navigate to:
Output device diagnostics > Staple test
- 2 Select a staple job, and then check the output for any issues.

Punch tests

Note: This menu appears only when a finisher is installed.

- 1 Enter the Diagnostics menu, and then navigate to:
Output device diagnostics > Punch tests
- 2 Select a punch job, and then check the output for any issues.

Offset tests

Note: This menu appears only when a finisher is installed.

- 1 Enter the Diagnostics menu, and then navigate to:
Output device diagnostics > Offset tests
- 2 Select a bin.

Scanner diagnostics

Feed Test

This test allows for a continuous feed from the ADF or flatbed.

- 1 Enter the Diagnostics menu, and then navigate to:
Scanner diagnostics > Feed Test
- 2 Select a paper size.
- 3 From the Feed Test section, touch **Start**.

Sensor tests

This test verifies the status of the scanner sensors.

- 1 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
- 2 From the Sensor tests section, touch **Start**.
A dialog listing the sensor tests appears.
- 3 Find, and then manually toggle the sensor.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Test	Procedure to perform before the test
FB CCD home	--
ADF closed	Open the ADF.

Test	Procedure to perform before the test
ADF media present	Open the ADF top cover.
ADF pick	
ADF deskew	
ADF 1st scan	
ADF 2nd scan	--
ADF top door interlock	Open the ADF top cover.
ADF calibration strip home	--

Motor tests

1 Enter the Diagnostics menu, and then select navigate to:

Scanner diagnostics > Motor tests

2 Select a motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Multifeed calibration

1 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.

2 Select Multifeed Calibration, and then touch **Start**.

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and backing material are clean. For more information, go to [“Cleaning the scanner” on page 1397](#).

1 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.

2 From the Sensor Calibration Test section, touch **Start**.

To verify the result, do the following:

1 Load the ADF with a document containing light and dark content.

2 Print a two-sided copy of the document.

Notes:

- If the back side of the copy has vertical streaks, then clean the scanner glass and backing material, and then print another copy.

- If the streaks still appear, then repeat the cleaning and verification procedure or replace the ADF.

Configuration Menu

Menu item	Description
USB Configuration USB PnP 1* 2 USB Scan to Local Off On* USB Speed Full Auto*	Configure the USB settings.
Tray Configuration Size Sensing Tray [x] Sensing	Set the printer to detect the size of the paper loaded in the tray. Note: This menu item appears only in trays with size-sensing mechanism.
Tray Configuration Tray Linking Automatic* Off	Set the printer to link the trays that have the same paper type and paper size settings.
Tray Configuration Tray Insert Message Delay Off* On	Set the printer to display the Tray Insert message after the user has inserted a tray.
Tray Configuration A5 Loading Short Edge Long Edge*	Specify the page orientation when loading A5 paper size.
Tray Configuration Paper Prompts Auto* Multipurpose Feeder Manual Paper Envelope Prompts Auto* Multipurpose Feeder Manual Paper	Set the paper source that the user will fill when a prompt appears to load paper or envelope. Note: For Multipurpose Feeder to appear, set Configure MP to Cassette from the Paper menu.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Tray Configuration Action for Prompts Prompt user* Continue Use current	Set the printer to resolve paper- or envelope-related change prompts.
Reports Menu Settings Page Event Log Event Log Summary Health Check Statistics	Print reports about printer menu settings, status, and event logs.
Supply Usage And Counters Clear Supply Usage History Reset [color] Cartridge Counter Reset [color] Imaging Unit Counter Reset [color] Developer Unit Counter Reset Color Imaging Kit Counter Tiered Coverage Ranges	Reset the supply page counter or view the total printed pages. Note: These settings may vary depending on your printer model.
Scanner Configuration Edge Erase ADF Edge Erase 0–6 (3*) FB Edge Erase 0–6 (3*) ADF Mechanical Deskew On* Off ADF Electronic Deskew On* Off	Set the size of a border around the scanned image that will be erased.
Scanner Configuration Scanner Manual Registration Print Quick Test Front ADF Registration Rear ADF Registration Flatbed Registration	Set the scanner registration after replacing the ADF, scanner glass, or controller board.
Scanner Configuration Tiff Byte Order CPU Endianness* Little Endian Big Endian	Determine the byte order of a TIFF-formatted scan output.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Scanner Configuration Exact Tiff Rows Per Strip On* Off	Set the RowsPerStrip tag value of a TIFF-formatted scan output.
Printer Emulations PPDS Emulation Off* On	Set the printer to use the PPDS data stream.
Fax Configuration Fax Low Power Support Disable Sleep Permit Sleep Auto*	Specify the power setting when in fax mode.
Fax Configuration Fax Storage Location NAND Disk*	Specify the fax storage location. Note: This setting appears only when a printer hard disk is installed.
Print Configuration Black Only Mode Off* On	Print color content in grayscale.
Print Configuration Color Trapping Off 1 2* 3 4 5	Enhance the printed output to correct misregistration in the printer.
Print Configuration Font Sharpening 0–150 (24*)	Adjust the value of the high frequency screens used for font data.
Print Configuration Print Density 0–5 (3*) Copy Density 0–5 (3*)	Adjust the toner density when printing or copying documents.
Print Configuration Quiet Mode Off* On	Reduce the amount of noise that the printer makes when printing.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Device Operations Panel Menus Off On*	Set the printer to show the control panel menus.
Device Operations Safe Mode Off* On	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues.
Device Operations Minimum Copy Memory 20 MB 30 MB 50 MB 80 MB 100 MB	Set the memory allocation for storing copy jobs. Notes: <ul style="list-style-type: none"> • 20 MB is the factory default setting for mono laser printers. • 80 MB is the factory default setting for color laser printers. • The values may vary depending on your printer model. • The values appear only if the amount of installed DRAM is at least twice the amount of the value.
Device Operations Clear Custom Status	Erase all custom messages.
Device Operations Automatically Display Error Screens Off On*	Show existing error messages on the display when the printer returns to an active state.
Device Operations Honor orientation on fast path copy Off* On	Set the printer to use the Orientation setting under Copy menu when sending quick copy jobs.
Device Operations Clean sensing and laser optics	Set the printer to run its wipers and clean the sensing and laser optics. Note: This setting is available only in some printer models.
Device Operations Calibration frequency preference Disabled* Fewest color adjustments Fewer color adjustments Normal Better color accuracy Best color accuracy	Set the printer to put down the correct amount of toner to maintain color consistency.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Device Operations Automatic Media Type Detection Off On*	Set the printer to detect the paper type being loaded.
Device Operations Custom Supply Levels Off* On	Set supply levels.
Toner patch sensor setup Calibration frequency preference Disabled* Fewest color adjustments Fewer color adjustments Normal Better color accuracy Best color accuracy	Set the printer to put down the correct amount of toner to maintain color consistency.
Toner patch sensor setup Full calibration	Run the full color calibration.
Toner patch sensor setup Print TPS information page	Print a diagnostic page that contains toner patch sensor calibration.
App Configuration LES Applications Off On*	Enable the Lexmark Embedded Solutions (LES) applications. Note: This setting does not affect built-in applications.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Entering Invalid engine mode

This mode allows the printer to load the correct firmware code.

- 1 Turn off the printer.
- 2 From the control panel, press and hold the **3**, **4**, and **6** while turning on the printer.
- 3 Release the buttons after 10 seconds.

Entering Recovery mode

This mode allows the printer to boot from a secondary set of instructions and flash firmware code. While in this mode, you can only flash firmware code through a USB cable directly connected to a PC.

Depending on your printer model, do any of the following:

For LED display

- 1 Turn off the printer.
- 2 Open the front door.
- 3 Press and hold the **Stop** button.
- 4 Turn on the printer.
- 5 When all the icons flash, release the button.

For 2-line display

- 1 Turn off the printer.
- 2 Press and hold the **OK** and **Back** buttons.
- 3 Turn on the printer.
- 4 When the display shows the following icon, release the buttons.



For 2.4-, 4.3-, 7-, and 10-inch displays

- 1 Turn off the printer.
- 2 Press and hold the **2**, **7**, and **8** buttons.
- 3 Turn on the printer.
- 4 When the display shows the following icon, release the buttons.



For 2.8-inch display

- 1 Turn off the printer.
- 2 Open tray 1.
- 3 Make sure that paper is loaded in tray 1.
- 4 Turn on the printer.
- 5 When the display shows the following icon, close tray 1.



Note: If tray 1 is not closed, then the printer will boot normally.

- 6 A screen with red selection items appears.
Touch -> to navigate to Recovery mode.
- 7 Touch **Boot** or **RECOVERY**.

Service Engineer menu

Entering the Service Engineer (SE) menu

To access the Service Engineer (SE) menu:

- 1 Turn on the printer.
- 2 When the home screen appears, press ** **411** on the control panel.
For 2-line control panels, press the right arrow button twice, press **OK**, and then press the left arrow button.

General SE

This setting allows you to save a log file to a USB drive.

Enter the Service Engineer (SE) menu, and then navigate to:

General SE > Capture Logs to USB Drive

Network SE

Enter the Service Engineer (SE) menu, and then touch **Network SE**.

Note: Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
Print SE Menus	Print SE Menus
History	<ul style="list-style-type: none"> • Print History • Mark History
MAC	<ul style="list-style-type: none"> • Set Card Speed • LAA • Keep Alive
NPAP	Print Alerts
TCP/IP	<ul style="list-style-type: none"> • netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode
Wireless	Enable Wi-Fi Direct Sigma Control Agent
Ping Test	<ul style="list-style-type: none"> • Ping • Ping6
Other Actions	<ul style="list-style-type: none"> • ifconfig • IPtables [Firewall Dump] • IP6tables [Firewall Dump] • IPsec Dump

Fax SE

Use this menu for the fax transmission and fax reception service checks.

Enter the Service Engineer (SE) menu, and then touch **Fax SE**.

Note: Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
Code Levels	<ul style="list-style-type: none"> • Base: [current value] • Kernel: [current value] • Network: [current value] • Engine: [current value] • Loader: [current value] • Fax: [current value] • Scanner: [current value]

Top level menu	Intermediate menu
Agency Test	<ul style="list-style-type: none">• Go Off Hook• Ring Detect• Generate Tones• Modulations
Fax Settings	<ul style="list-style-type: none">• Line Features• Fax Modulations• Detect EOLS• Print Logs• AutoPrint T30 Logs

Top level menu	Intermediate menu
Modem Settings	<ul style="list-style-type: none"> • Caller ID Pattern Note: Changing the value of this setting also changes the value of the Caller ID setting in the Fax Settings. • Dial Timeout • Transmit Level • Receive Thresh • DTMF Low Level • DTMF High Level • Positive Twt Ctrl • Negative Twt Ctrl • ATRA EQM Bias • V34 PreEmph Filt • Dial Tone Thresh • Progress Thresh • Pulse Make Time • Pulse Break Time • Pulse Dial Type • Interdigit Delay • Enable CEQ • V17 TX Filter • DC Characteristic • Impedance • Caller ID Pattern • Busy Tone Cycles • Busy Tone Min On Time • Busy Tone Max On Time • Busy Tone Min Off Time • Busy Tone Max Off Time • Congest Tone Cycles • Congest Tone Min On Time • Adjust Power FSK • Pulse Fall Time • High Ring Impedance
Reboot System	After this setting is selected, the control panel displays the message: About to reboot. Press Start to reboot. Press Stop to return.

Scan SE




This setting displays the current left, top, right, and mag scanner registration values for each scanner source (flatbed, ADF front, ADF rear).

Enter the Service Engineer (SE) menu, and then navigate to:

Scan SE > Scanner Info

Parts removal

Removal precautions

-  **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.
-  **CAUTION—POTENTIAL INJURY:** The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.
-  **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

Data security notice

Identifying printer memory

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Non-volatile memory**—The printer may use two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.
- **Hard disk memory**—Some printers have a hard disk drive installed. The printer hard disk is designed for printer-specific functionality and cannot be used for the long-term storage of data that is not print-related. The hard disk does not provide the capability for users to extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disks

Note: The printer control panel and controller board contain NVRAM.

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase non-volatile memory:

- 1 From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase**.
- 2 Select the **Sanitize all information on nonvolatile memory** check box, and then touch **ERASE**.
- 3 Follow the instructions on the display.

To erase the hard disk memory:

- 1 From the home screen, touch **Settings > Device > Maintenance > Out of Service Erase**.
- 2 Select the **Sanitize all information on hard disk** check box, and then touch **ERASE**.
- 3 Follow the instructions on the display.

Notes:


- This process can take from several minutes to more than an hour, making the printer unavailable for other tasks.
- After removing the hard disk, return it to the next level of support.


Handling ESD-sensitive parts


Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, do the following:


- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.
- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them into their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

Critical information for controller board or control panel replacement

 **CAUTION—POTENTIAL INJURY:** The lithium battery in this product is not intended to be replaced. There is a danger of explosion if a lithium battery is incorrectly replaced. Do not recharge, disassemble, or incinerate a lithium battery. Discard used lithium batteries according to the manufacturer's instructions and local regulations.

 **ATTENTION—RISQUE DE BLESSURE :** La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n'incinerez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

 **PRECAUCIÓN: POSIBLES DAÑOS PERSONALES:** La batería de litio de este producto no debe reemplazarse. Existe riesgo de explosión si se sustituye incorrectamente una batería de litio. No recargue, desmonte ni incinere una batería de litio. Deseche las baterías de litio según las instrucciones del fabricante y las normativas locales.

 **VORSICHT – MÖGLICHE VERLETZUNGSGEFAHR** Die Lithiumbatterie in diesem Produkt darf nicht ausgetauscht werden. Wird eine Lithiumbatterie nicht ordnungsgemäß ausgetauscht, besteht Explosionsgefahr. Lithiumbatterien dürfen auf keinen Fall wieder aufgeladen, auseinander genommen oder verbrannt werden. Befolgen Sie zum Entsorgen verbrauchter Lithiumbatterien die Anweisungen des Herstellers und die örtlichen Bestimmungen.

Warning—Potential Damage: Observe all precautions when handling ESD sensitive parts. See [“Handling ESD-sensitive parts” on page 656](#).

Warning—Potential Damage: Carefully remove cables and connectors. Make sure they are not damaged.

Note: Some models have eSF solutions, it is recommended to back up the eSF solutions and settings before replacing the controller board. See [“Backing up eSF solutions and settings” on page 663](#).

Warning—Potential Damage: To avoid damaging the part or experience NVRAM mismatch issues, replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

1 Replace the affected component.

Warning—Potential Damage: Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

Warning—Potential Damage: Some printers will perform a POR automatically if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.

- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.
- If NVRAM error occurs during the replacement, go to [“NVRAM mismatch failure service check” on page 537](#)

Restoring the printer configuration after replacing the controller board

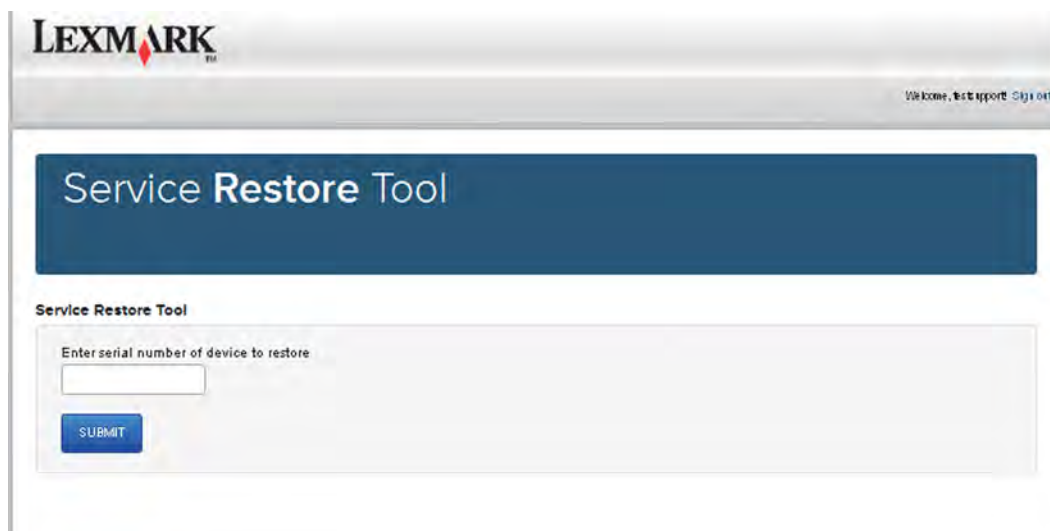
Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

Note: Perform this procedure only if the printer has an eSF application that is installed from the Virtual Solution Center, during manufacturing, or through customization. If you do not have access to Service Restore Tool, then contact your next level of support.

Note: The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark Virtual Solutions Center (VSC). The printer firmware may be at a different level from what was used before replacing the controller board.

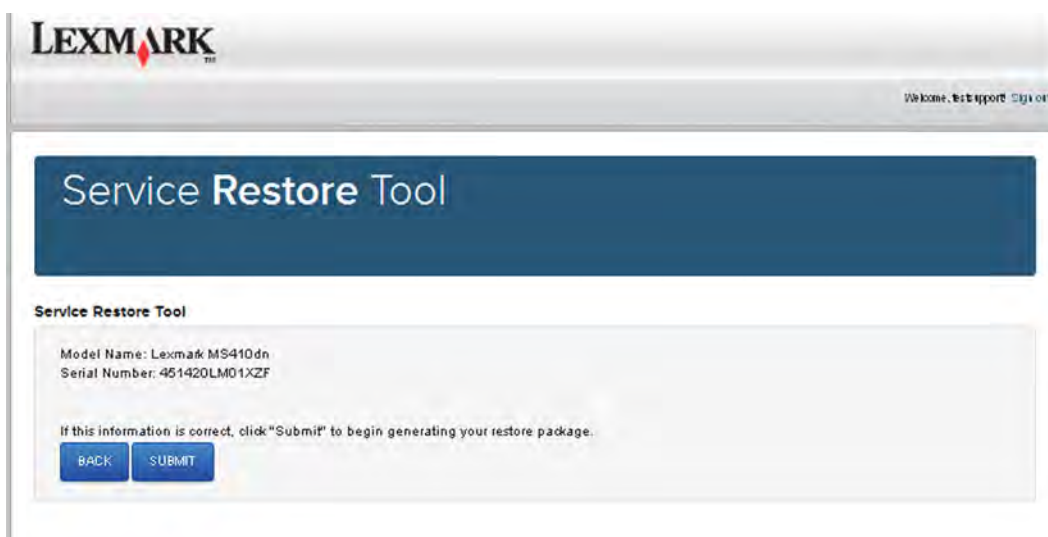
Using the Service Restore Tool

- 1 Go to <https://cdp.lexmark.com/service-restore-tool/> to access the tool.
- 2 Log in using your Lexmark or partner login.
If your login fails, then contact your next level of support.
- 3 Enter the printer serial number, and then submit the information.



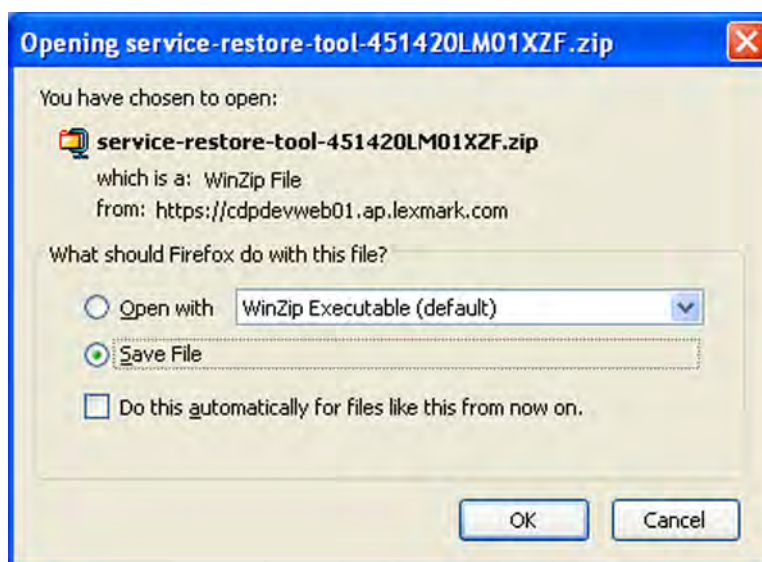
The screenshot shows the Lexmark Service Restore Tool web interface. At the top left is the Lexmark logo. At the top right, there is a user greeting: "Welcome, test support Sign out". Below the header is a large blue banner with the text "Service Restore Tool". Underneath the banner, the page title "Service Restore Tool" is repeated. The main content area contains a form with the label "Enter serial number of device to restore" above a text input field. Below the input field is a blue "SUBMIT" button.

Note: Make sure that the serial number that appears on the verification screen is correct.



4 Save the zip file.

Note: Make sure that the serial number in the zip file matches the serial number of the printer being restored.



5 Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

Notes:

- Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
- For more information on how to flash the downloaded files, see [“Updating the printer firmware” on page 661](#).
- To load the zip files that are extracted from the Service Restore Tool, see [“Restoring solutions, licenses, and configuration settings” on page 660](#).

```

README.txt - Notepad
File Edit Format View Help
How to unpack the restore package:
* The restore package provided is a compressed archive and must be
extracted using an archive manager.
  Once extracted, the following is provided at the root of the
extracted directory:
  * This restore document
  * All applicable firmware files
  * All solutions and their licenses
  * Settings bundle(s) that do not contain sensitive settings

Install the files from the zip in the order shown below:
* Install FDN.PIR.E309.fls
* Install LW20.PRL.P235.fls
* Install LW1.PRL.P124_NON.fls
* Install 82M0235-004.zip
* Reboot the printer

The following device settings were not included due to availability
limitations
(Please contact your next level of support for more information):
* 82M1256-001 (Error Code: 101)

```

- 6 After performing the installation instructions in the *Readme* file, confirm from the customer if all the eSF apps have been installed.

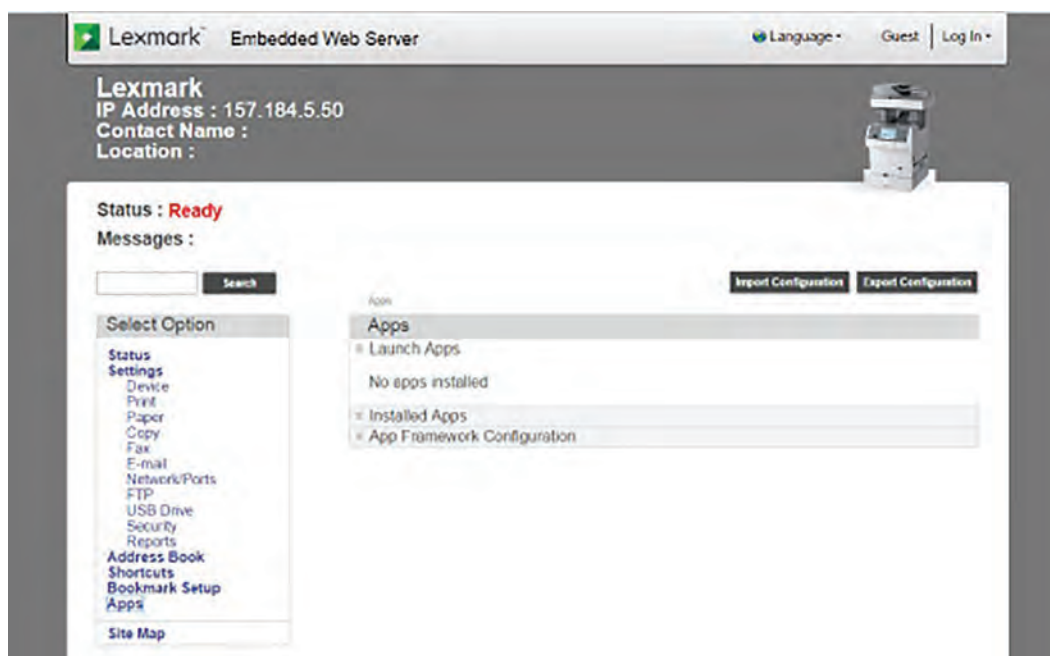
Notes:

- If you are unable to access the administrative menus to verify that the printer is restored, then ask the customer for access rights.
- If a 10.00 error appears after you restart the printer, then contact the next level of support.

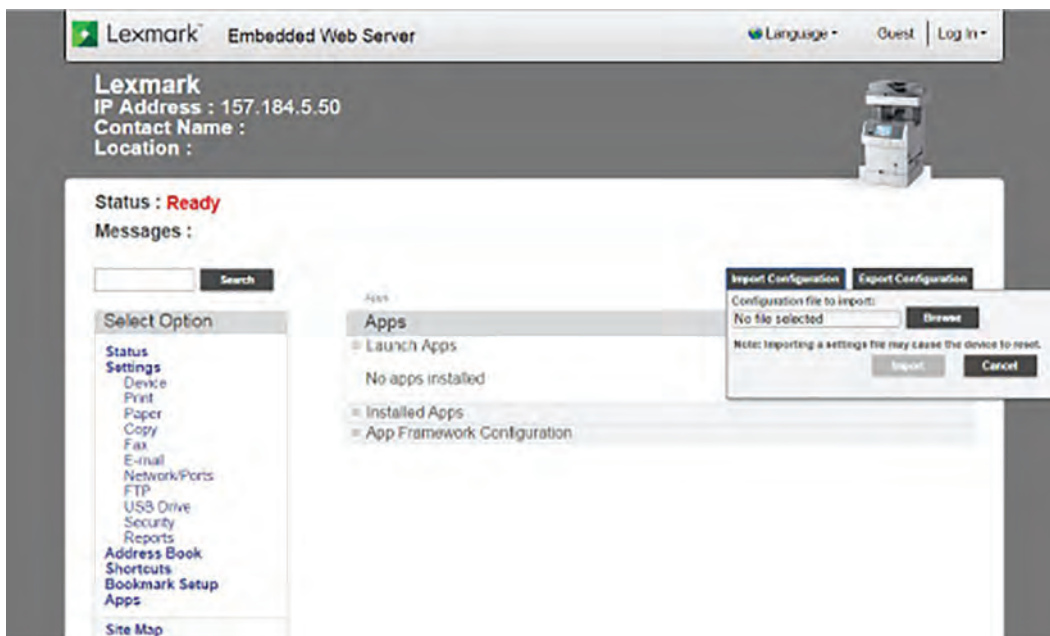
Restoring solutions, licenses, and configuration settings

To load the zip files that are extracted from the Service Restore Tool, do the following:

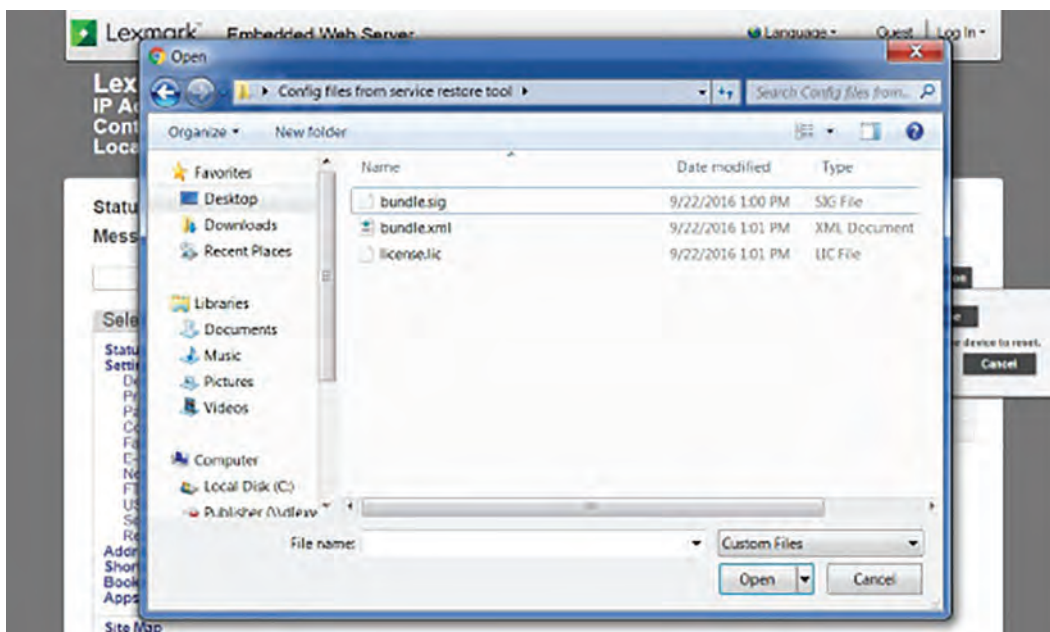
- 1 Open a web browser, and then type the printer IP address.



- 2 Click **Import Configuration**, and then click **Browse**.



- 3 Navigate to the folder where the zip files are extracted from the Service Restore Tool.



- 4 Select the file to import, and then click **Import**.
- 5 Repeat step 2 through step 4 for the other files that are included in the extracted zip file.

Updating the printer firmware

Warning—Potential Damage: Before updating the printer firmware, ask the next level of support for the correct code. Using an incorrect code level may damage the printer.

Using a flash drive

Note: The printer must be in ready state to update the firmware.

This option is available only in printer models with front USB port.

- 1 Insert the flash drive into the USB port.
- 2 Depending on the printer model, do any of the following:
 - From the control panel, navigate to **USB Menu: Print from USB > Accept** or **OK**, and then select the file that you need to flash.
 - Select the firmware file.

Note: Do not turn off the printer while the update is going on.

Using a network computer

Using the File Transfer Protocol (FTP)

Note: The printer must be in ready state to update the firmware.

- 1 Turn on the printer.
- 2 Obtain the IP address from the home screen.
- 3 From the command prompt of a network computer, open an FTP session to the printer IP address.
- 4 Use a PUT command to place the firmware file on the printer.

The printer performs a POR sequence and terminates the FTP session.

Using the Embedded Web Server

Note: The printer must be in ready state to update the firmware.

- 1 Open a web browser, and then type the printer IP address.
- 2 Click **Settings > Device > Update Firmware**.
- 3 Select the file to use.

The printer performs a POR sequence and terminates the EWS session.

Using a USB cable connection

Note: Make sure that the cable is connected to the rear USB port.

Using USB Flash Utility

- 1 Go to support.lexmark.com, and then download USB Flash Utility.
- 2 Extract, and then run the utility.
- 3 Click **Browse Files**, and then browse to the firmware file directory.
- 4 Select the firmware file.
- 5 Select the source printer.
- 6 Click **Start**.

Using USButil

- 1 Go to support.lexmark.com, and then download USButil.
- 2 Extract, and then drag and drop the firmware file onto the USButil icon.
- 3 A command prompt window appears briefly.

Note: Make sure to disconnect other USB devices when using USButil.

Backing up eSF solutions and settings

Note: Export the eSF solutions and settings from the printer before replacing the controller board.

Exporting eSF solutions and settings file

- 1 Reset the printer into Invalid engine mode. See [“Entering Invalid engine mode” on page 648](#).
- 2 Open a web browser, and then type the printer IP address.

Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

- 3 Navigate to **Settings > Solutions > Embedded Solutions**.
- 4 From the Embedded Solutions page, select the applications that you want to export.
- 5 Click **Export**.

Note: The size limit of the export file is 128 KB.

Importing eSF solutions and settings file

After replacing the controller board, import back to the printer the eSF solutions and settings that were exported.

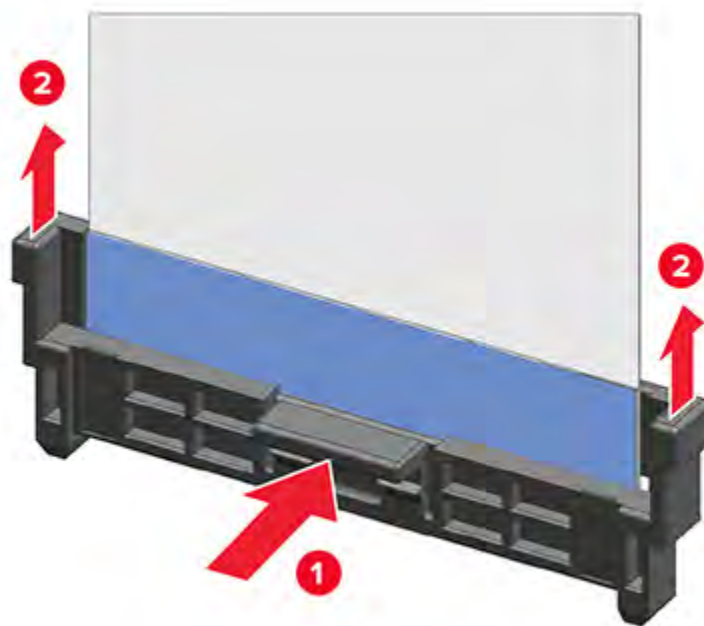
- 1 Reset the printer into Invalid engine mode. See [“Entering Invalid engine mode” on page 648](#).
- 2 Open a web browser, and then type the printer IP address.

Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

- 3 Navigate to **Settings > Solutions > Embedded Solutions**.
- 4 From the Embedded Solutions page, select the applications that you want to import.
- 5 Click **Import**.

Disconnecting ribbon cables

Warning—Potential Damage: The ribbon cable and its socket may get damaged if it is not properly disconnected. When disconnecting the cable, hold its connector and press its tab before unplugging it.

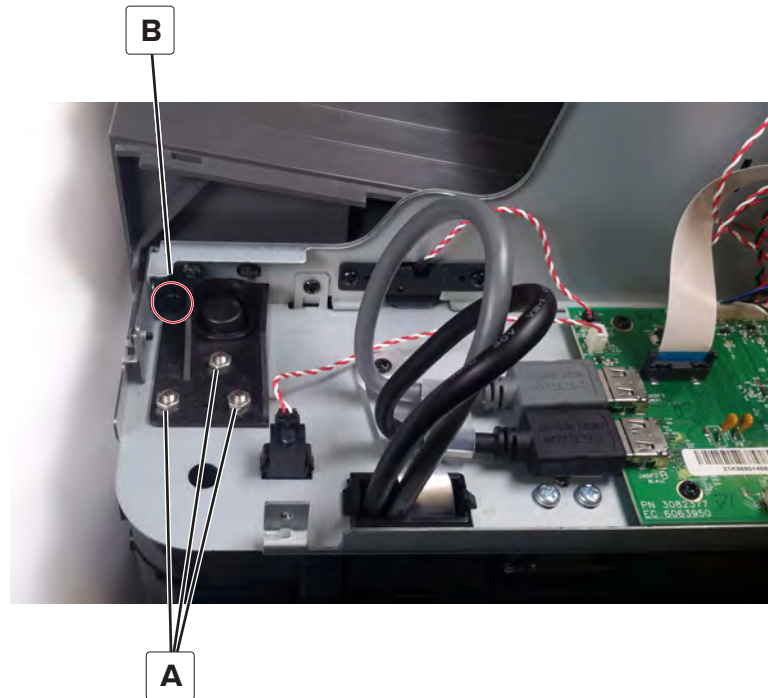


Adjustments

ADF skew adjustment (front side)

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the scanner glass cushion.
- 3 Loosen, but do not remove the three nuts (A) securing the adjusting bracket to the ADF frame.

- 4 Turn the skew adjustment screw (B) clockwise for positive skew or counterclockwise for negative skew.



Notes:

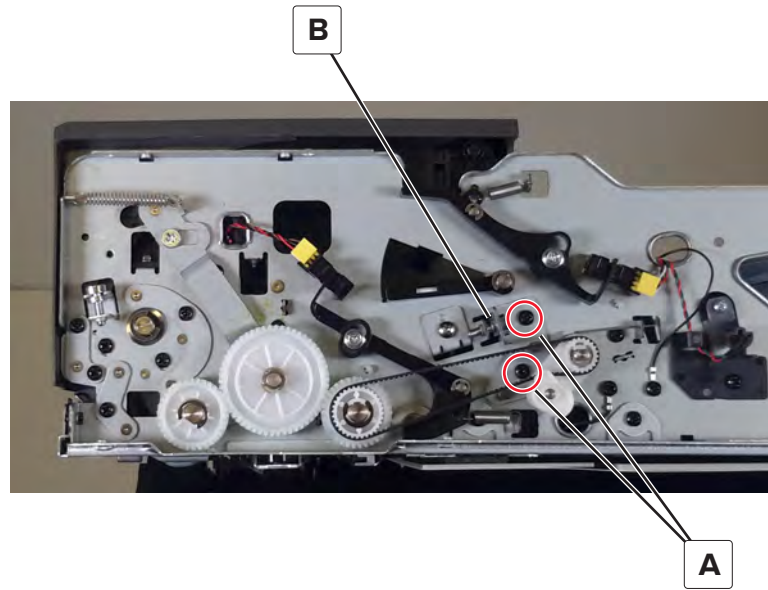
- Do not completely remove the nuts or screws when performing this adjustment.
- Each full turn of the adjustment screw yields 0.3 mm of skew correction. The maximum adjustment is two full turns either way.

- 5 After the skew has been corrected, tighten the three nuts, and then reinstall the ADF rear cover.

ADF skew adjustment (back side)

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 821](#).
- 2 Loosen the two screws (A) securing the adjusting bracket to the ADF frame.

- 3 Turn the skew adjustment screw (B) clockwise for negative skew or counterclockwise for positive skew.



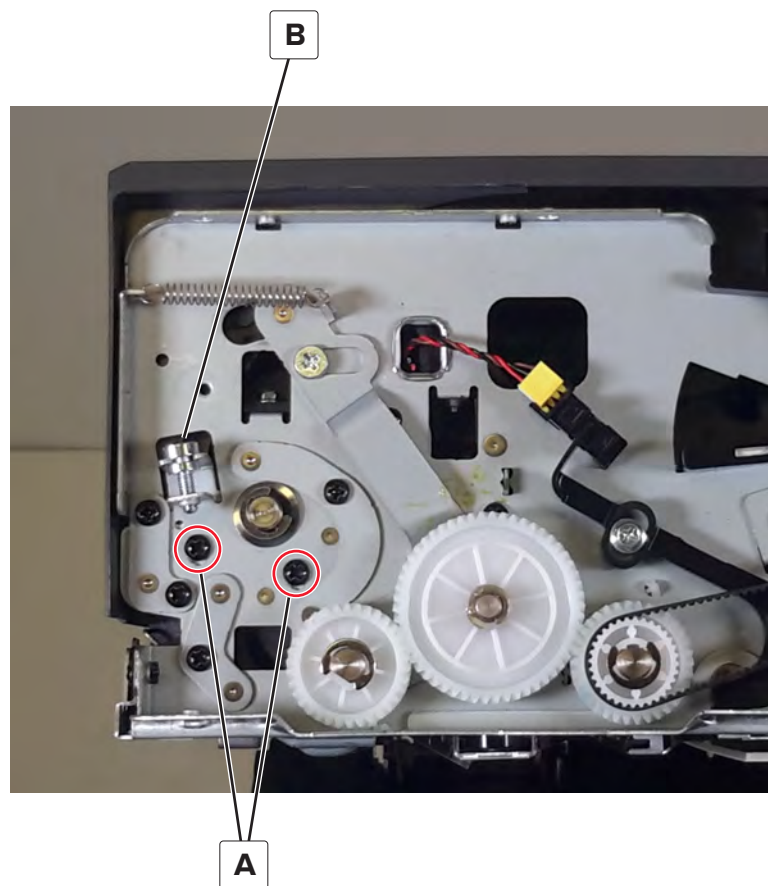
Note: Each full turn of the adjustment screw yields 0.6 mm of skew correction. The maximum adjustment is one full turn either way.

- 4 After the skew has been corrected, tighten the two screws, and then reinstall the ADF front cover.

ADF skew adjustment (deskew roller)

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 821](#).
- 2 Loosen the two screws (A) securing the adjusting bracket to the ADF frame.

- 3** Turn the skew adjustment screw (B) clockwise for negative skew or counterclockwise for positive skew.

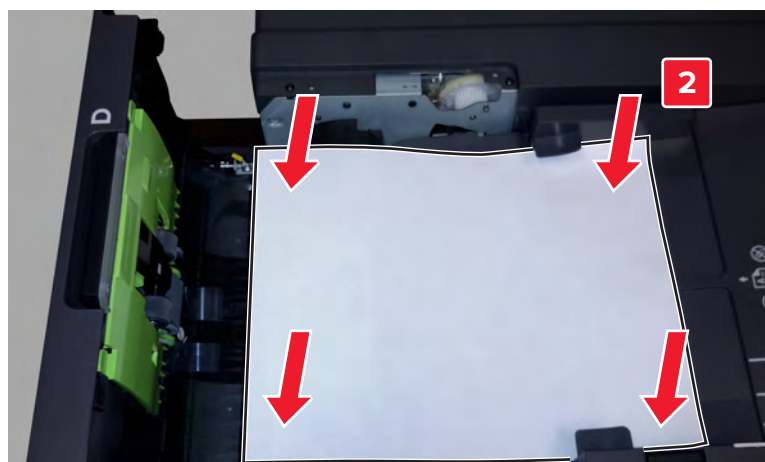
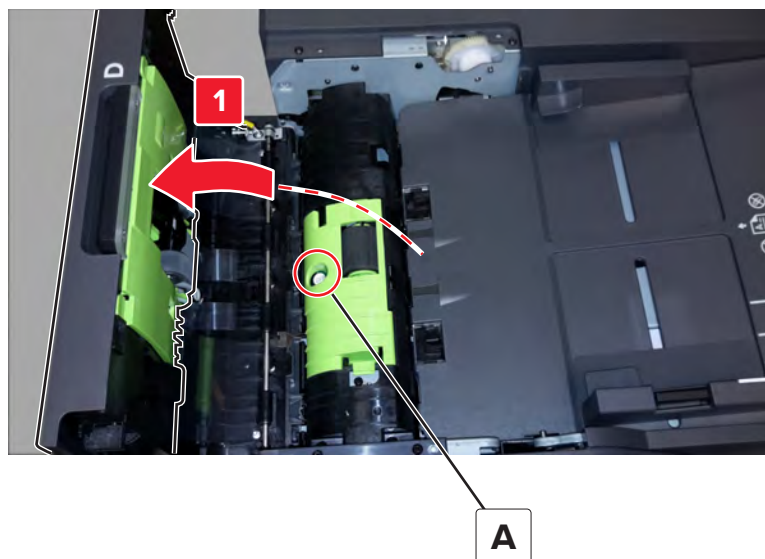


- 4** After the skew has been corrected, tighten the two screws, and then reinstall the ADF front cover.

Sensor (ADF multifeed) calibration

The sensor (ADF multifeed) detects the air gaps between sheets to detect double feeds. Perform this procedure after replacing the sensor or if there are double feed issues in the ADF.

- 1 Open door D, and then cover the sensor (A) with a sheet of paper (16–20 lb).



- 2 Close the door.
- 3 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.
- 4 Select Multifeed Calibration, and then touch **Start**.

Printhead alignment adjustment

Printhead misalignment may cause crooked or skewed print. Perform this procedure after replacing the printhead or if there are skewed print issues.

Checking the test page for alignment

- 1 Enter the Diagnostics menu, and then navigate to:
Printer diagnostics & adjustments > Registration adjust > Quick test
- 2 Check the test page.

The following test page result shows a properly aligned printhead:

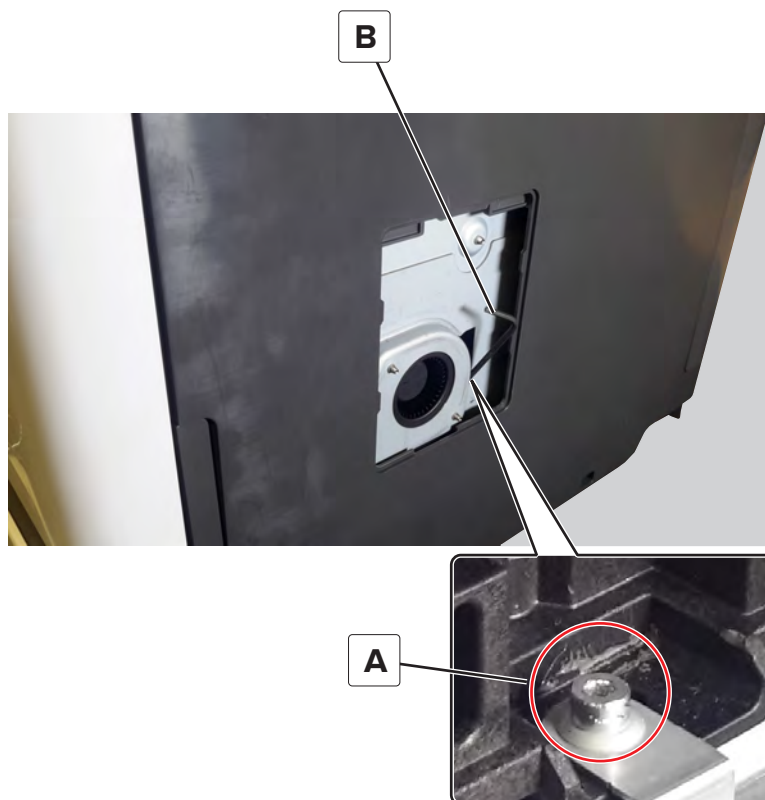


Aligning a printhead skewed in the clockwise direction

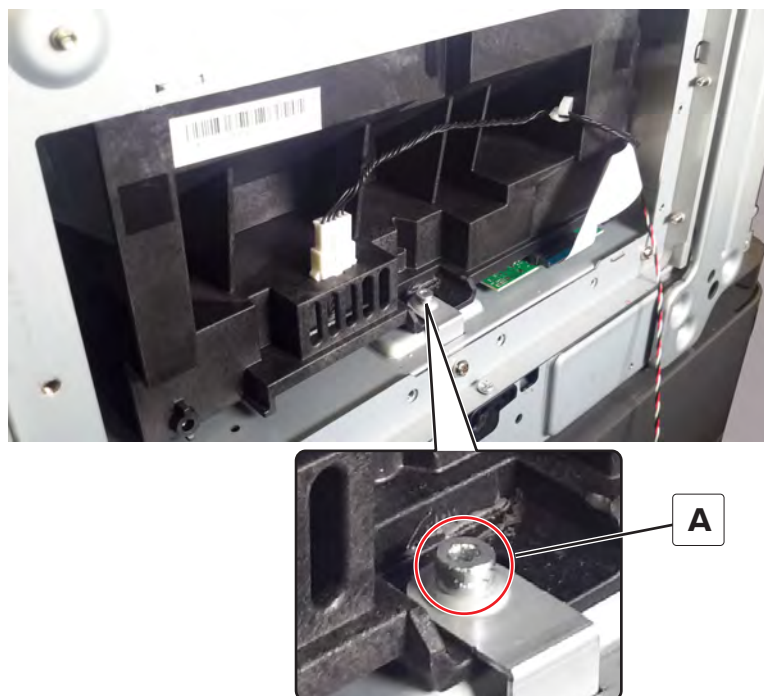
The following test page result shows a test page skewed in the clockwise direction:



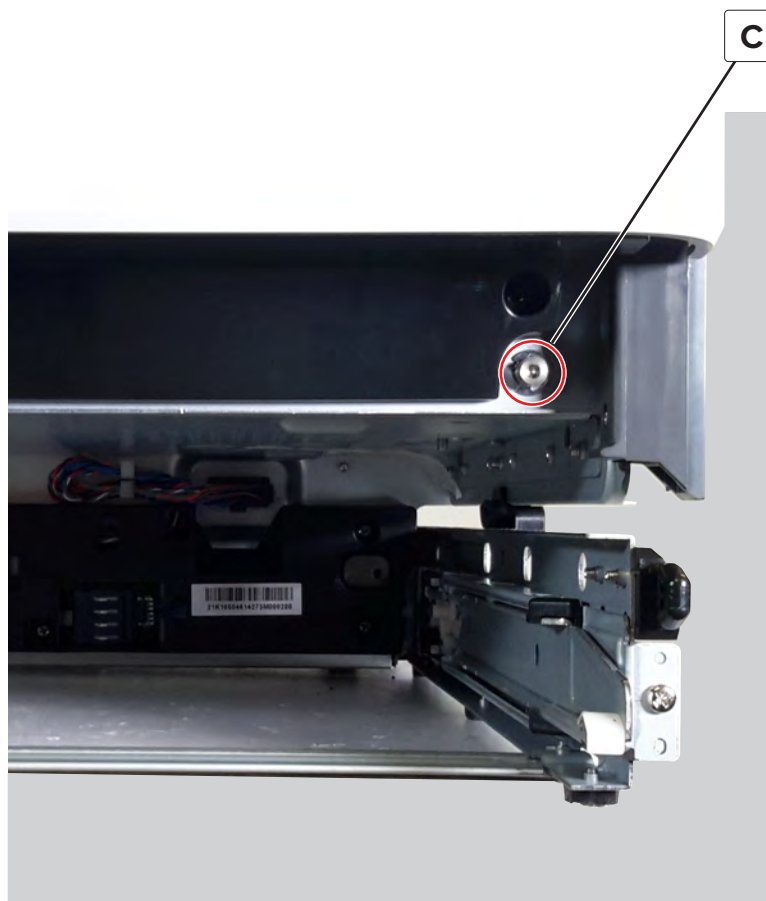
- 1 Remove the vent cover, see [“Vent cover removal” on page 717](#), or remove the inner right cover, see [“Printhead fan removal” on page 723](#).
- 2 Using a 3-mm ball hex wrench (B), turn the printhead clamp hex screw (A) counterclockwise by one turn.



The printhead clamp hex screw (A) with the right covers removed is shown below.



- 3 Remove tray 1, and then find the adjustment screw (C).



- 4 Turn the screw clockwise in half turn increments to adjust the printhead. Check the test page for alignment.

Note: Repeat this step until the skew on the test page is corrected.

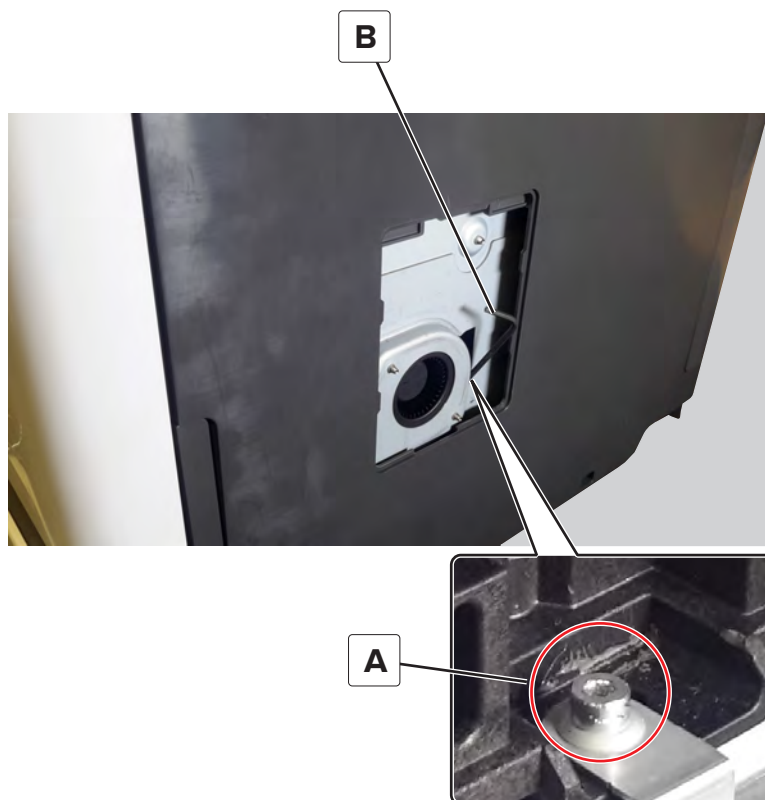
- 5 Tighten the printhead clamp screw.

Aligning a printhead skewed in the counterclockwise direction

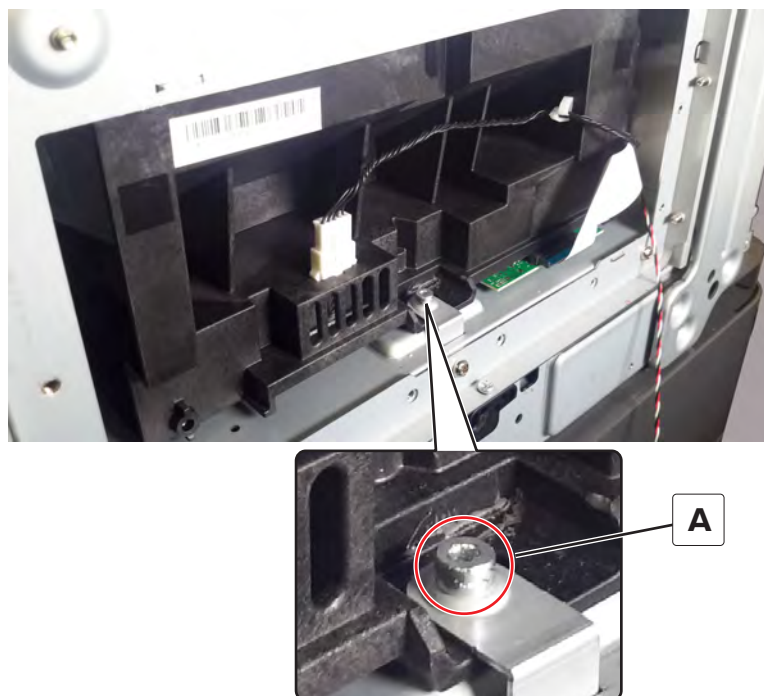
The following test page result shows a test page skewed in the counterclockwise direction:



- 1 Remove the vent cover, see [“Vent cover removal” on page 717](#), or remove the inner right cover, see [“Printhead fan removal” on page 723](#).
- 2 Using a 3-mm ball hex wrench (B), turn the printhead clamp hex screw (A) counterclockwise by one turn.



The printhead clamp hex screw (A) with the right covers removed is shown below.



- 3 Remove tray 1, and then find the adjustment screw (C).



- 4 Turn the screw counterclockwise in half turn increments to adjust the printhead. Check the test page for alignment.

Note: Repeat this step until the skew on the test page is corrected.

- 5 Tighten the printhead clamp screw.

Registration adjustment

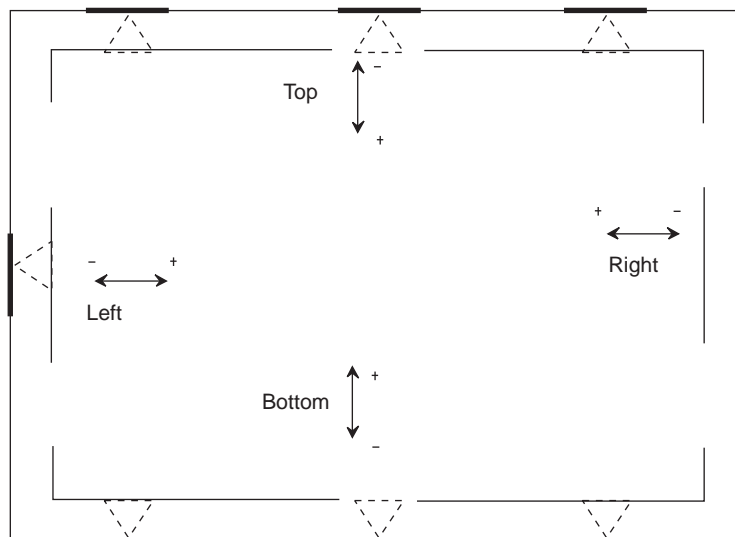
Image misalignments may occur after printhead replacement. Perform this procedure to correct the position of the image relative to the paper edges.

Generating a test page for margin alignment

Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Registration adjust > Quick test

A test page showing the margins is generated.



Adjusting the margins

Note: The procedure may not work for old firmware versions. Make sure that the latest firmware version is installed.

- 1 Refer to the test page generated for margin alignment.

Check the arrows along the margin.

- The arrows should be completely visible along the edge.
- The tip of the arrows should point to the edge.

If the arrows are misaligned, then adjust the Top margin setting:

Enter the Diagnostics menu, and then navigate to **Printer diagnostics & adjustments > Registration adjust > Top Margin**.

- 2 If necessary, perform printhead alignment until the test page arrows are squarely aligned. See [“Printhead alignment adjustment” on page 668](#).

Note: After printhead alignment, make sure that the printhead clamp hex screw is properly locked.

- 3 Generate a new test page for margin alignment, check the arrows, and if necessary, adjust the following settings:

- Top margin
- Bottom margin
- Left margin
- Right margin

Note: Correcting the printhead and margin settings is necessary before proceeding with the Color alignment procedure.

4 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Color alignment adjust

On the AA adjustment row, touch **Start**. The Color alignment procedure is performed on the cyan, magenta, and yellow colors.

Note: The procedure may not work for old firmware versions. Make sure that the latest firmware version is installed.

5 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Color alignment adjust > Cyan > Quick test

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

6 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Color alignment adjust > Yellow > Quick test

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

7 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Color alignment adjust > Magenta > Quick test

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

8 If color misalignment still occurs, then repeat steps 4 to 7.

Color alignment adjustment

Color misalignment may cause blurred print or color misalignment. Perform this procedure to align the colors.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Color alignment adjust

2 Select the color to align, and then touch **Quick test**. Follow the alignment procedure on the test page.

Note: Repeat this step until the color misalignment in the test page is corrected.

MSHPF tamper alignment adjustment

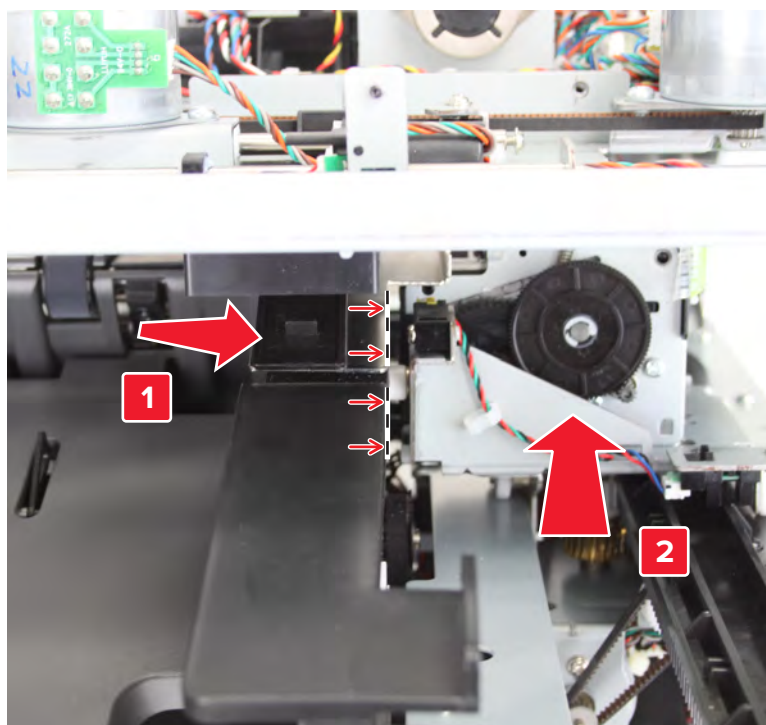
Tamper misalignment may cause the tamper to affect the movement of the staple unit carriage. Perform this procedure after replacing the MSHPF tampers or if there are carriage jams.

Checking the alignment

1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).

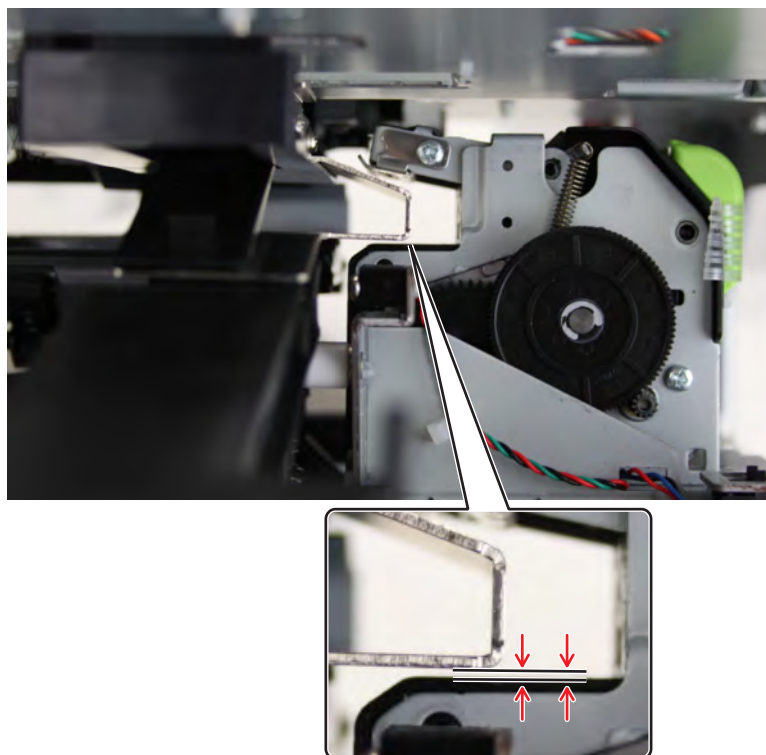
2 Move the rear tamper and staple unit carriage to the positions shown.

Note: Align the tamper with the paper guide edge. Move the carriage to the position where its throat is facing the tamper edge.



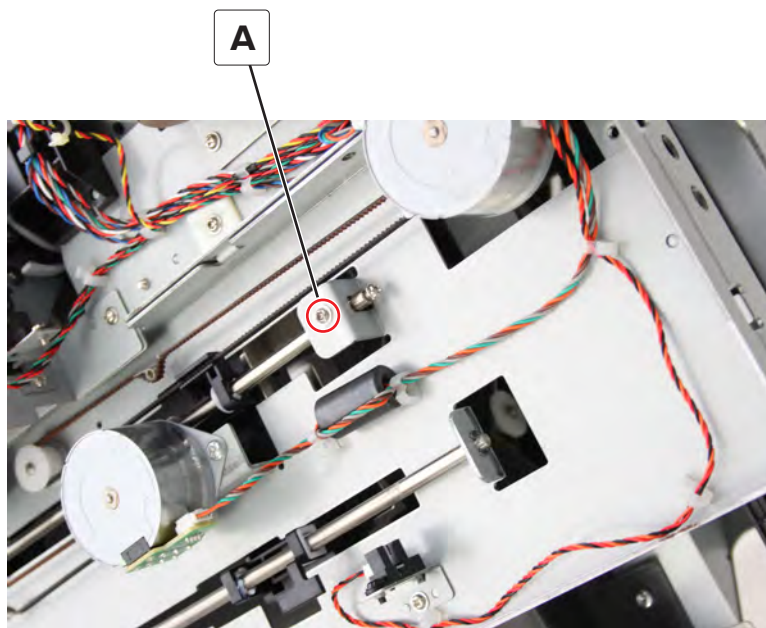
3 Using feeler gauges, measure the gap between the tamper and carriage.

Note: The gap shown should be 1-mm thick.



Aligning the tamper

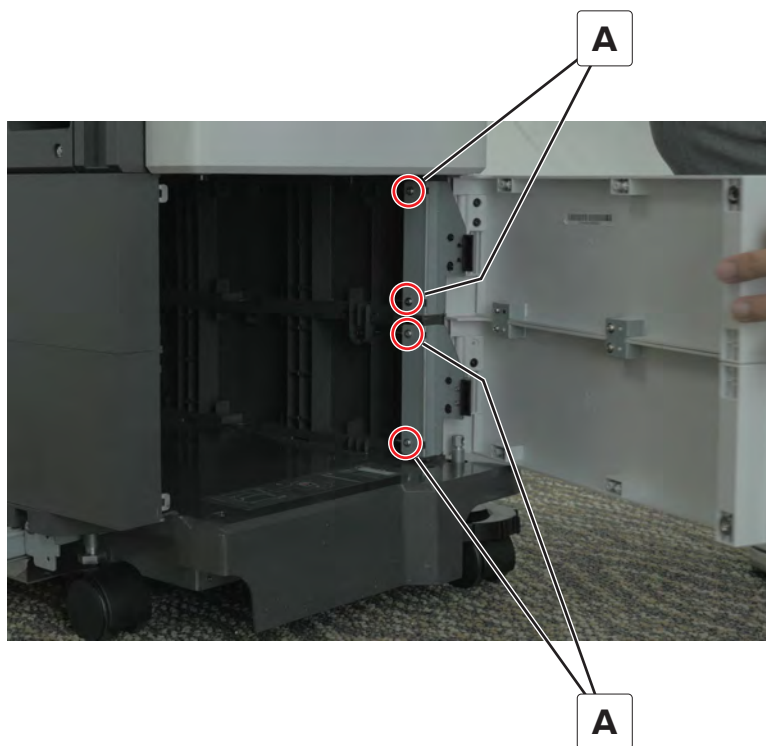
- 1 Rotate the screw (A) to adjust the tamper until the gap is at the correct thickness.



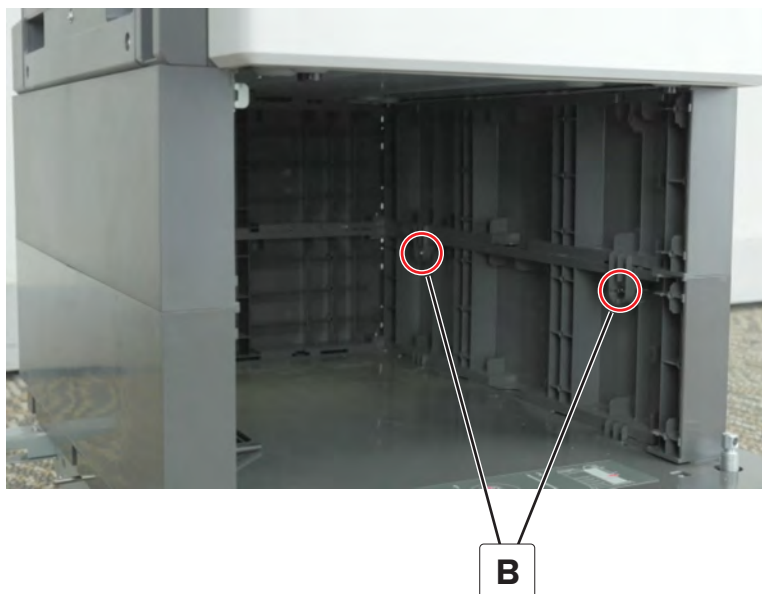
- 2 Perform a staple job, and then verify if the carriage is properly moving along its path.

MSHPF cabinet height conversion

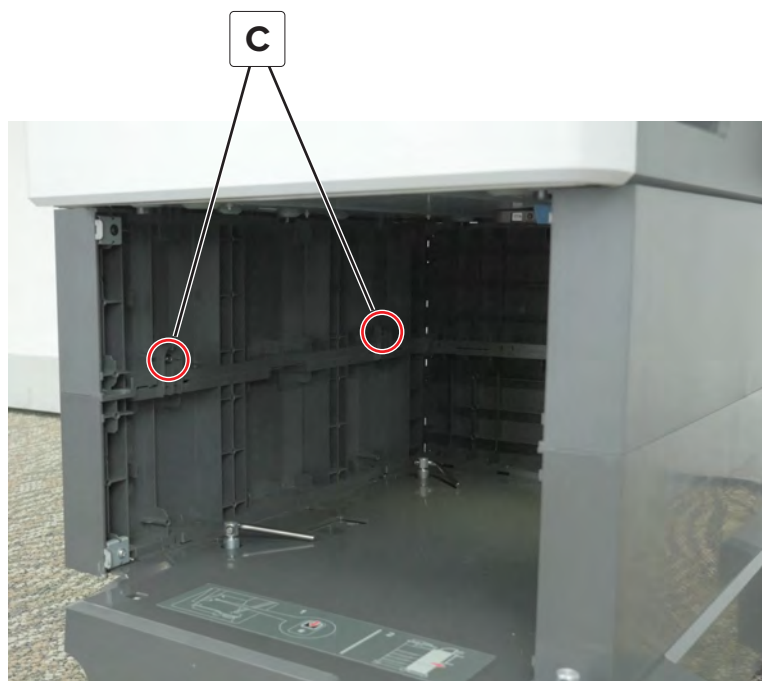
- 1 Open the cabinet door, remove the four screws (A), and then remove the door.



- 2 Remove the two screws (B).



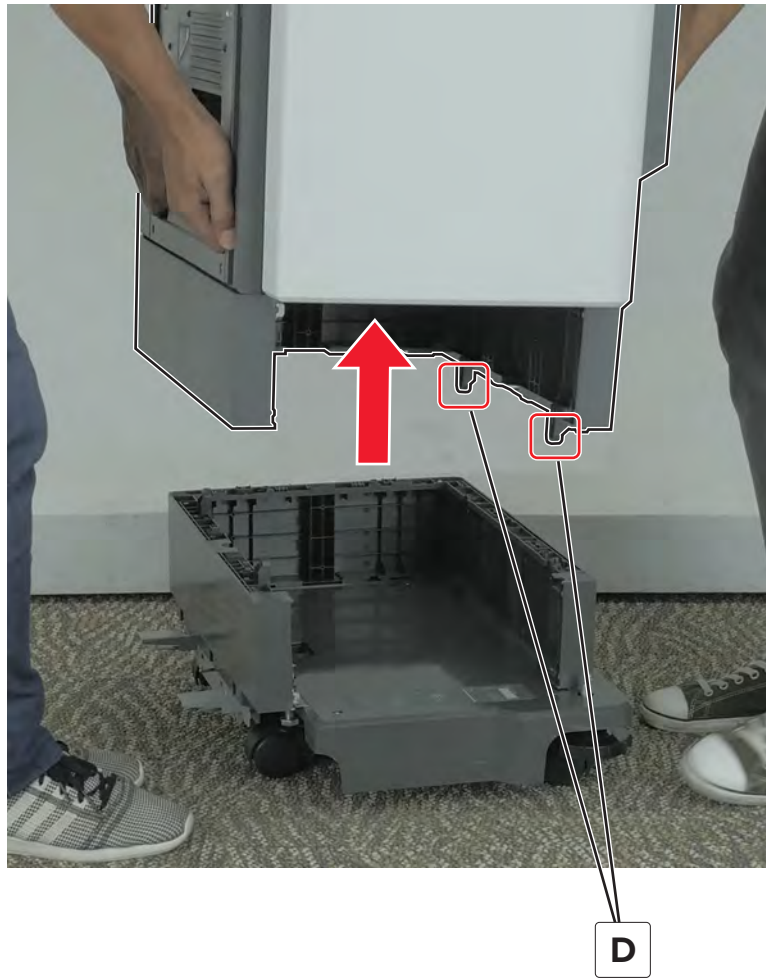
- 3 Remove the two screws (C).



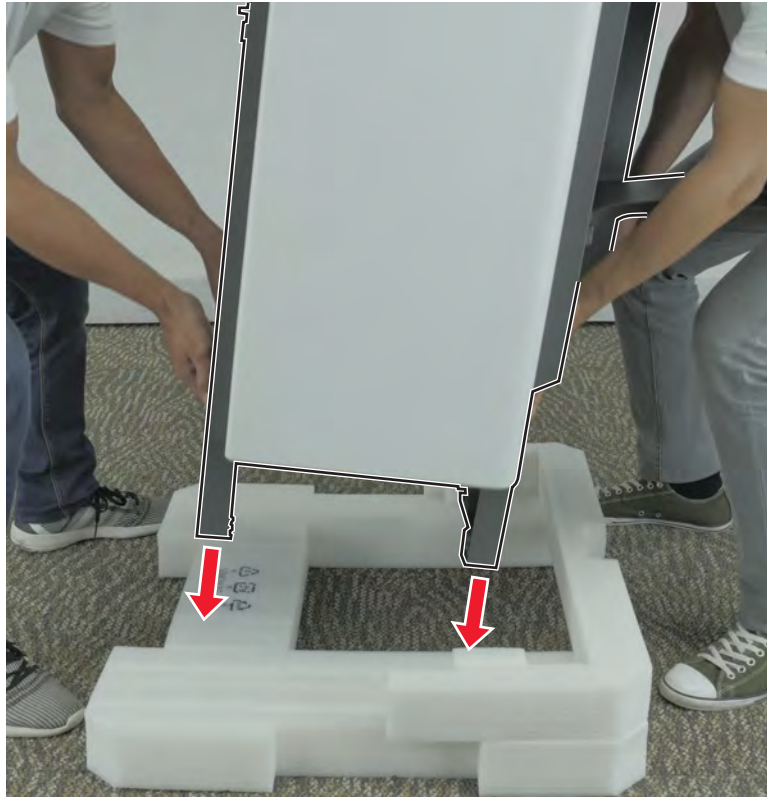
- 4 Lift the finisher to separate the bottom section.

⚠ CAUTION—POTENTIAL INJURY: The finisher requires two or more trained personnel to lift it safely. Always use the handholds on the finisher to lift it. Make sure that your fingers are not under the finisher when you lift or set the finisher down.

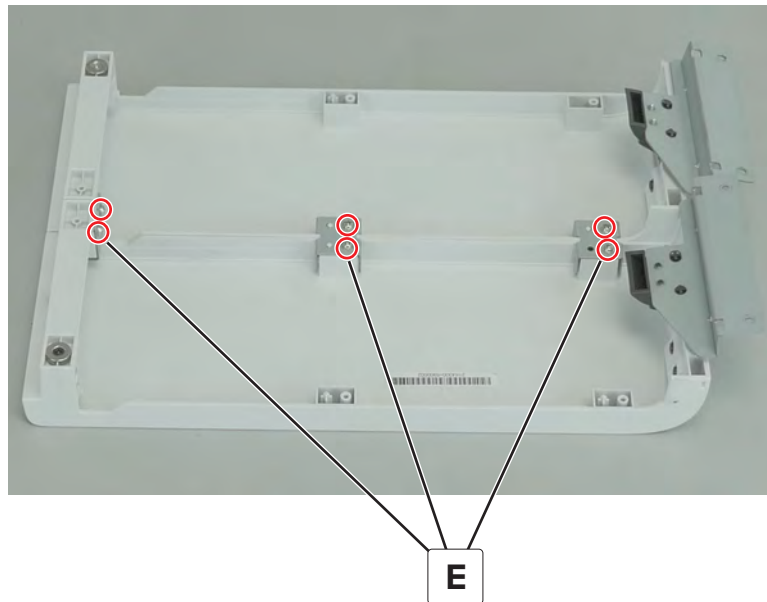
Warning—Potential Damage: Be careful not to break the tabs (D).



Note: Gently place the finisher on a cushion.

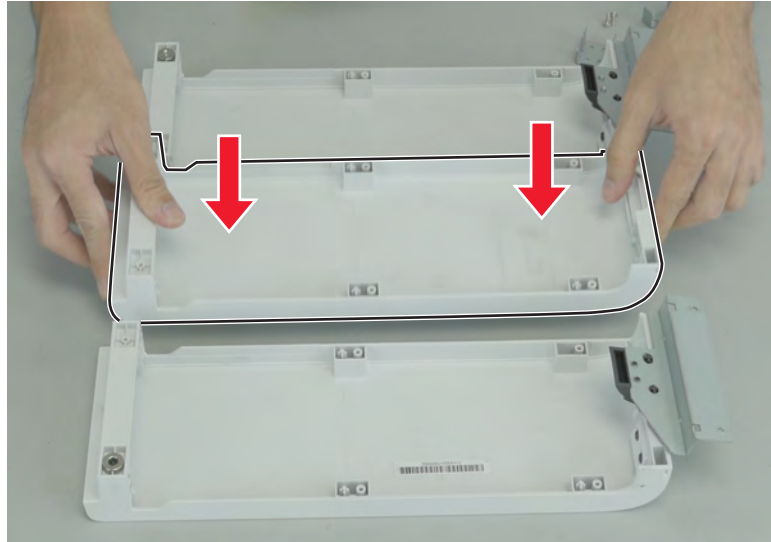


5 Remove the six screws (E) at the back of the door, and then remove the connecting brackets.

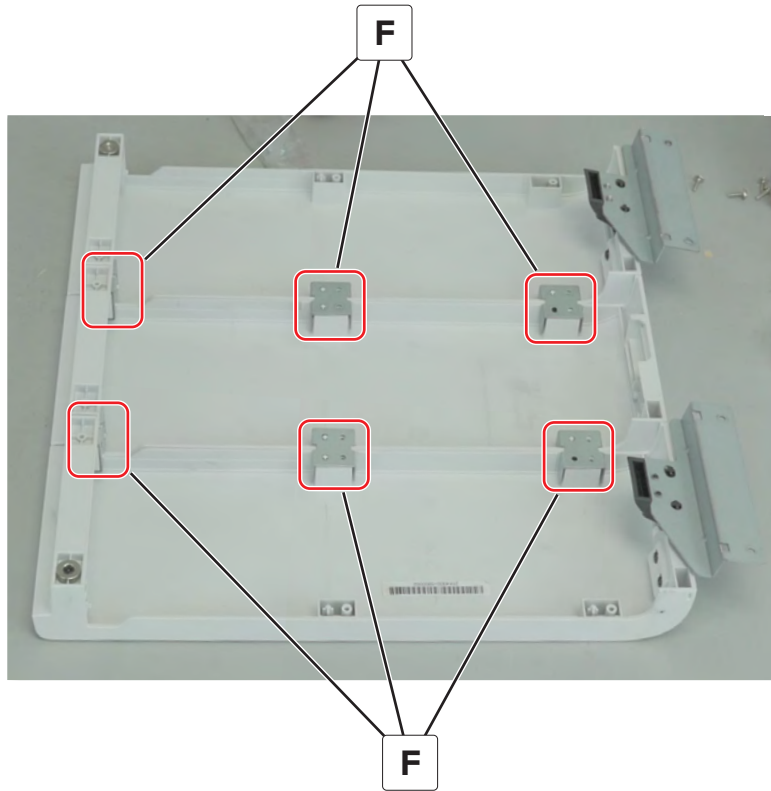


6 Unpack the MSHPF cabinet height conversion kit.

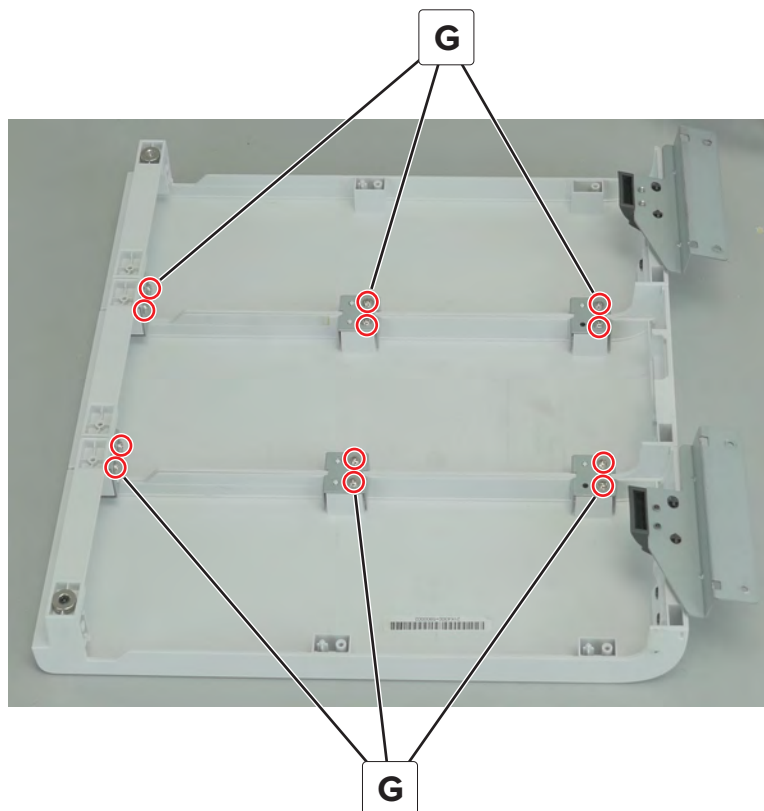
7 Position the additional cover in between the door covers.



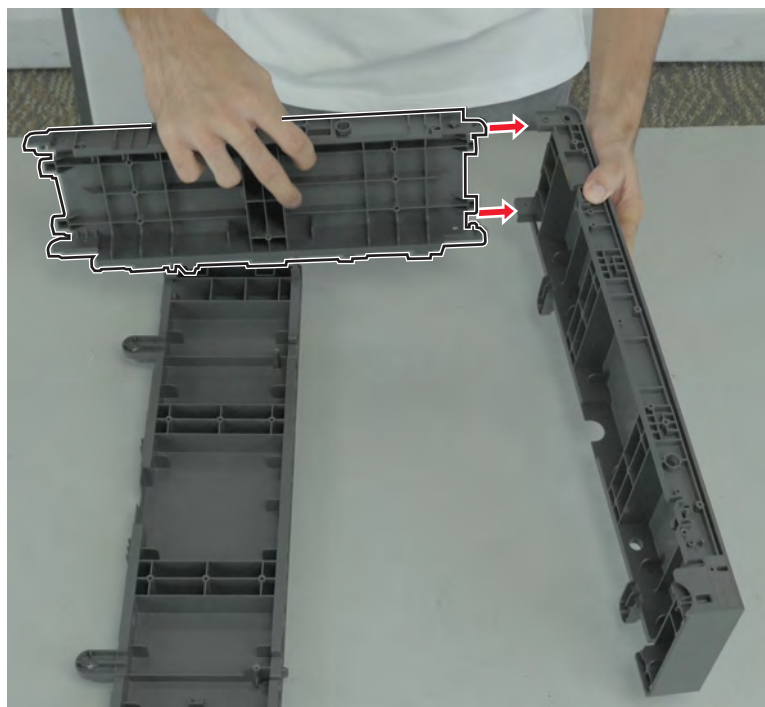
8 Connect the doors with the six brackets (F).



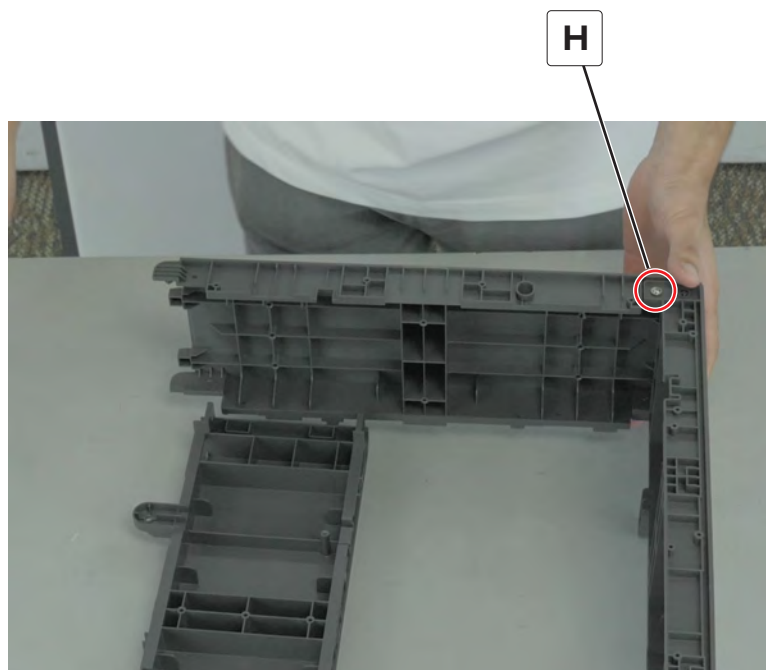
9 Secure the brackets with the 12 screws (G).



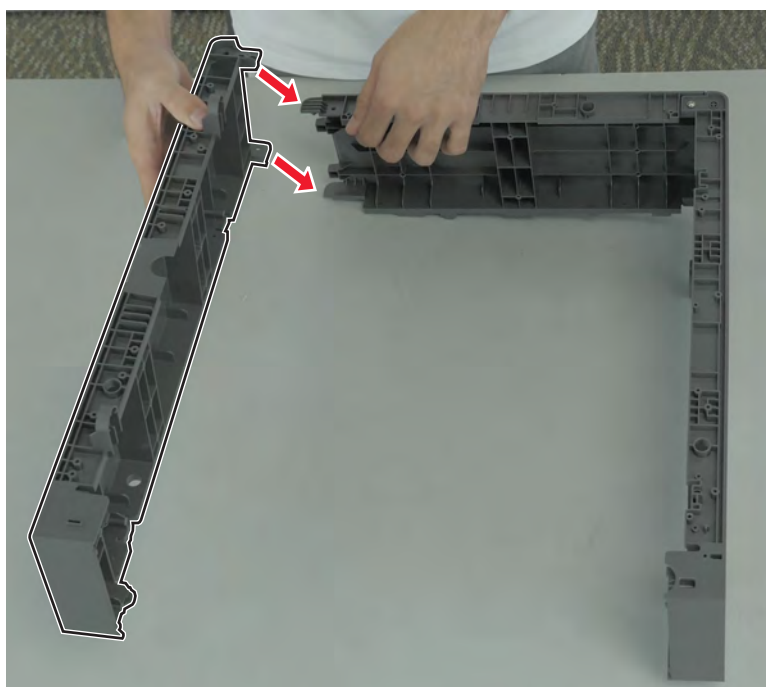
10 Attach the rear cover to the side cover.



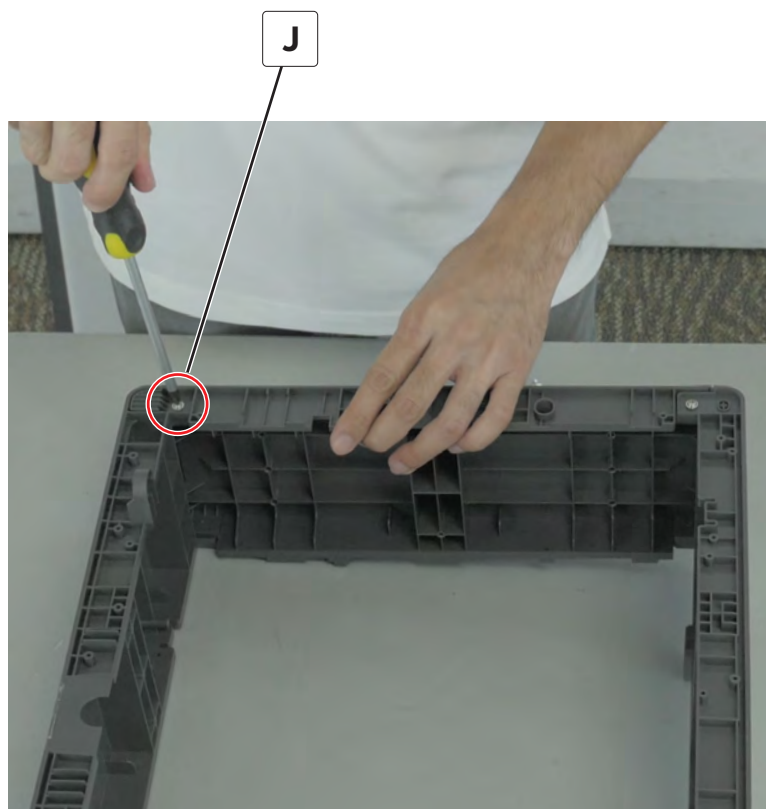
11 Secure the covers with the screw (H).



12 Attach the remaining side cover.



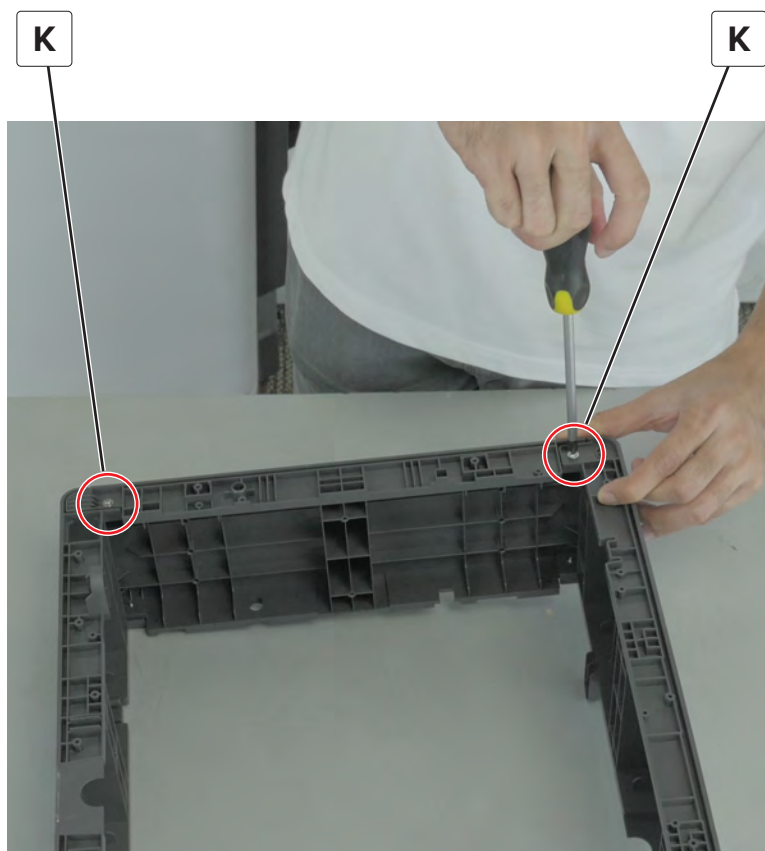
13 Secure the cover with the screw (J).



Parts removal

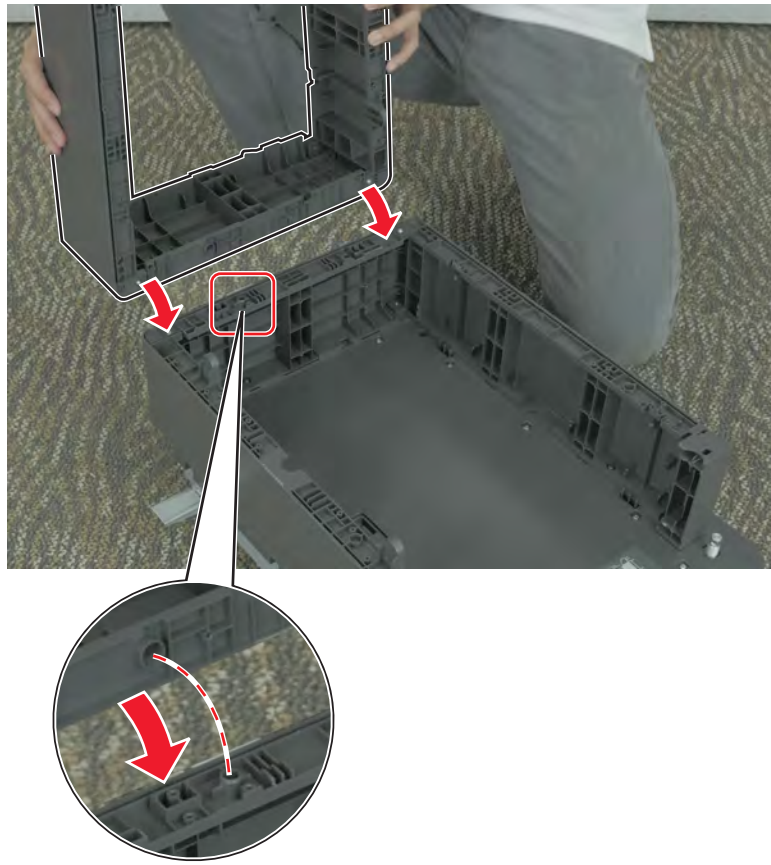
684

14 Secure the opposite side of the covers with the two screws (K).

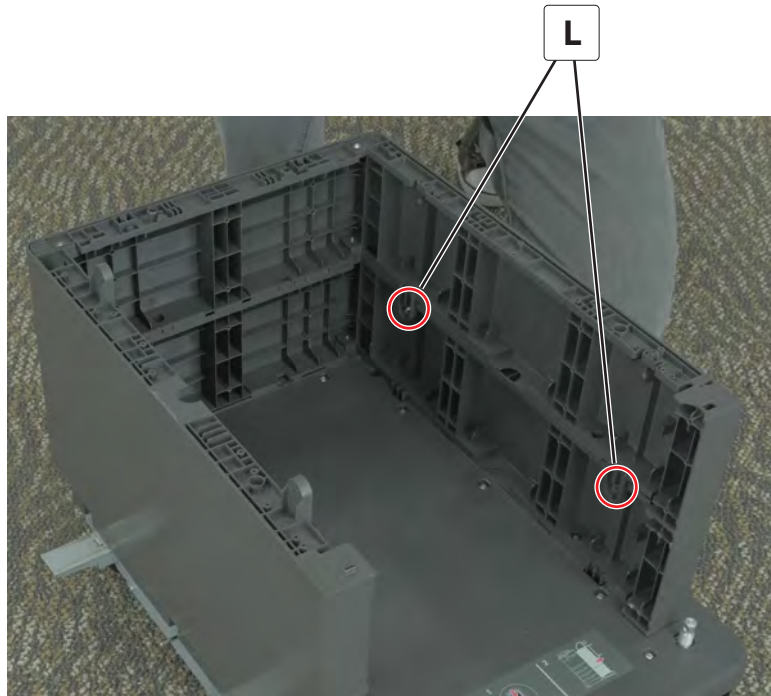


15 Place the additional covers over the bottom section.

Note: Align the locating tabs.

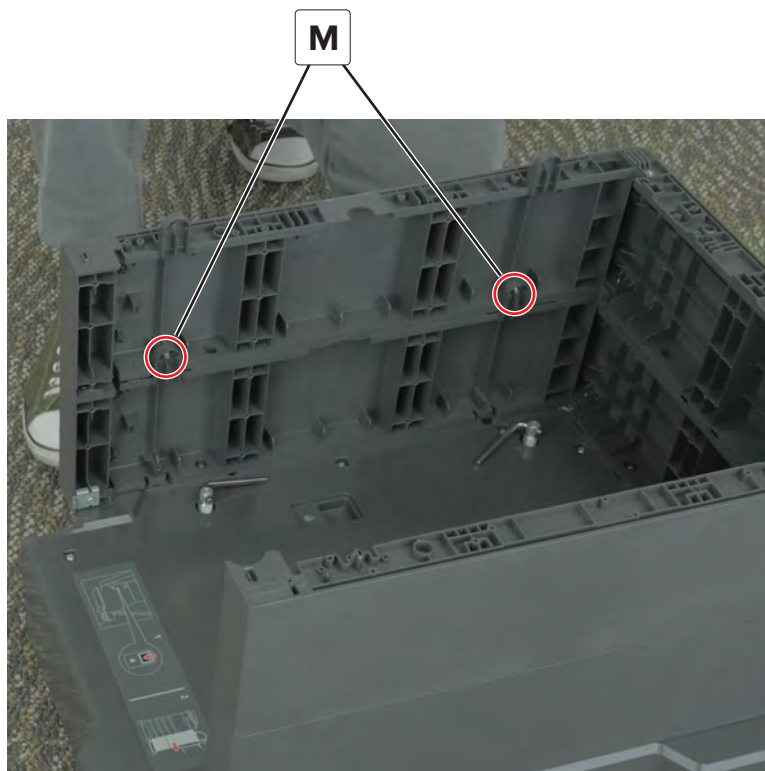


16 Secure the covers with the two screws (L).



Parts removal

- 17 Secure the covers with the two screws (M).

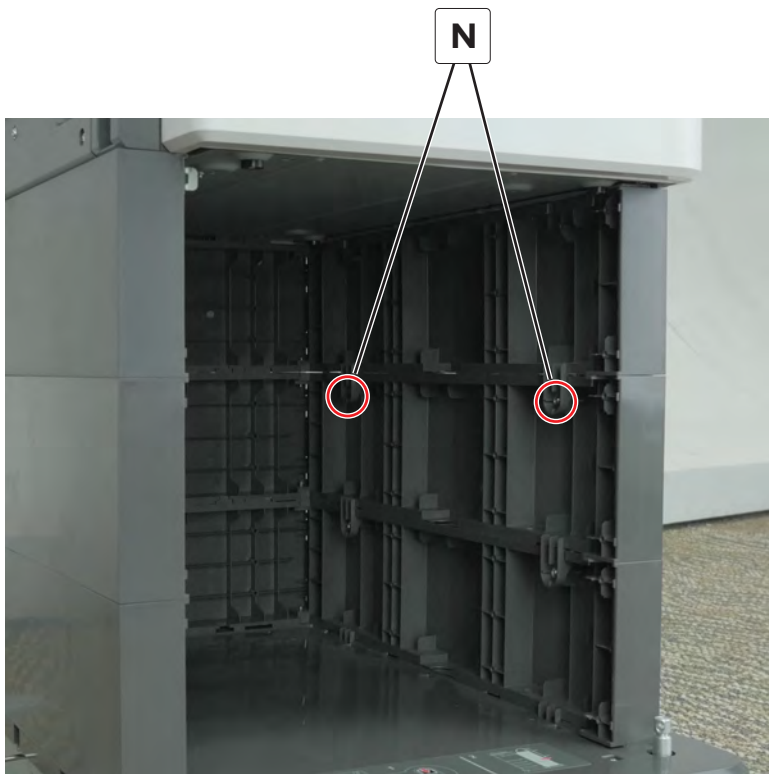


- 18 Lift the finisher and place it on top of the bottom section.

⚠ CAUTION—POTENTIAL INJURY: The finisher requires two or more trained personnel to lift it safely. Always use the handholds on the finisher to lift it. Make sure that your fingers are not under the finisher when you lift or set the finisher down.



19 Secure the covers with the two screws (N).

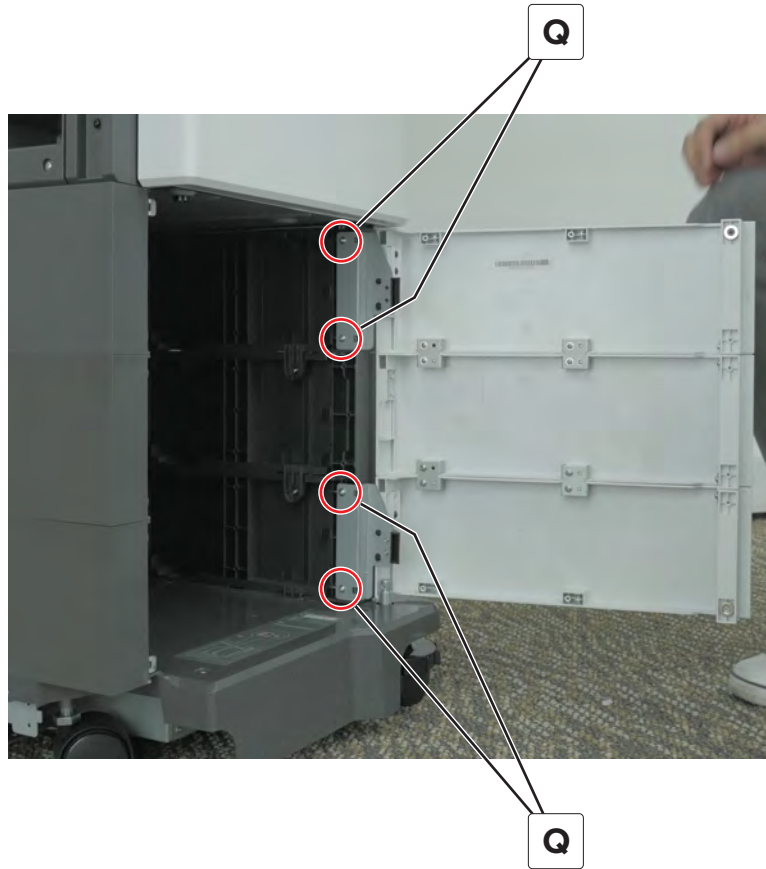


Parts removal

20 Secure the covers with the two screws (P).



21 Attach the cabinet door, and then secure its hinges with the four screws (Q).



22 Close the door.

Removal procedures


When replacing printer parts, consider the following:

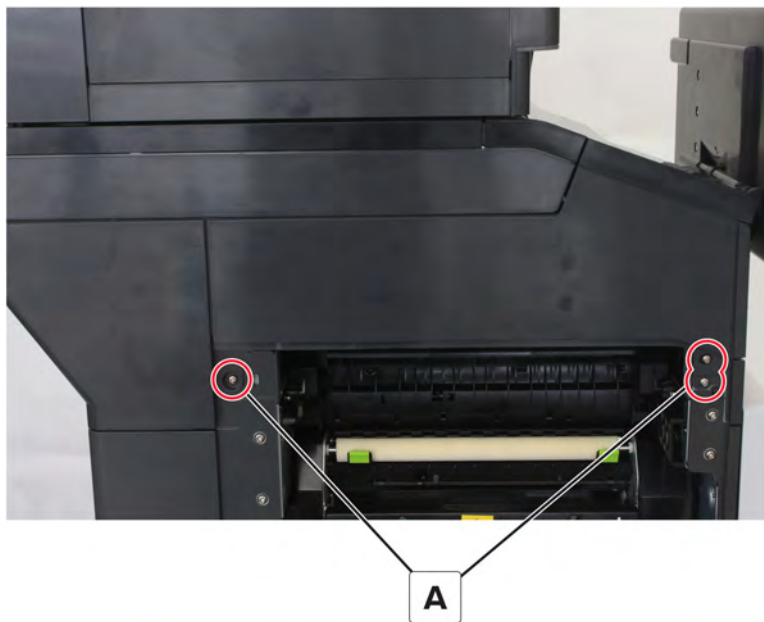
- Some removal procedures require removing cable ties. Replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, developer units, photoconductor units, trays, and paper handling options before removing other printer parts.
- Place the imaging or photoconductor unit on a clean, smooth, and flat surface. Do not expose the photoconductor drum to light.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held by several screws, start all screws before the final tightening.

Left side removals

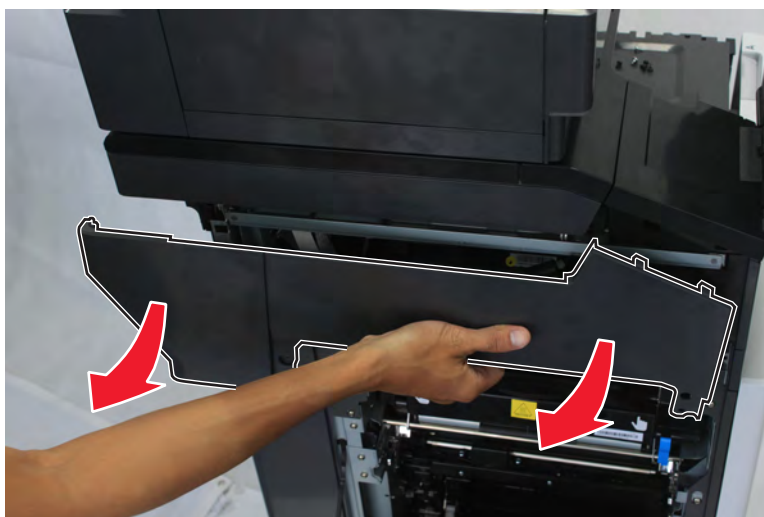
Left upper cover removal

- 1 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 2 Open door B, and then remove the three screws (A).

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.




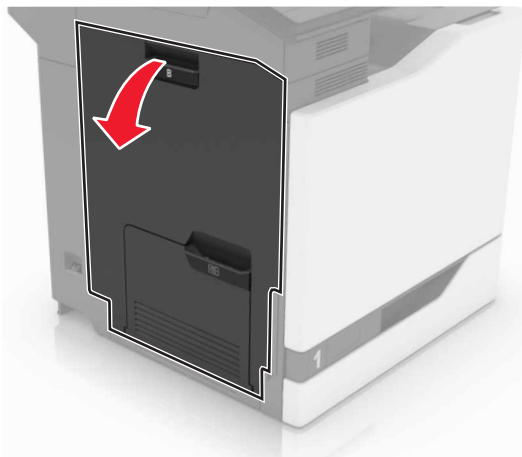
- 3 Remove the cover.



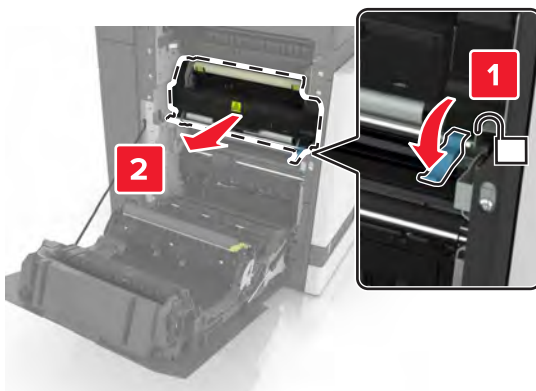
Fuser removal

- 1 Open door B.

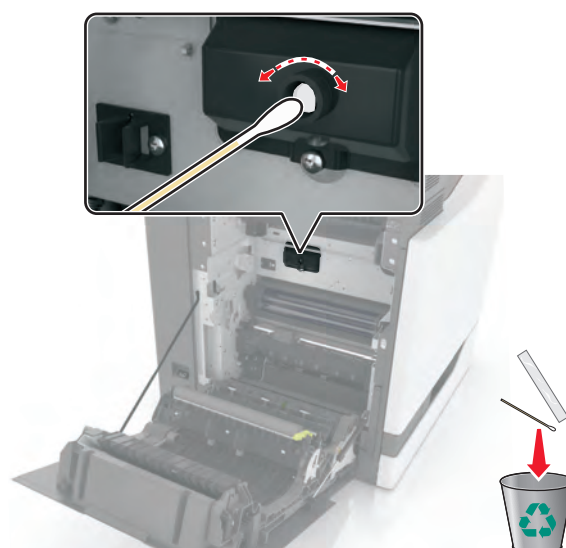
 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



- 2 Remove the fuser.




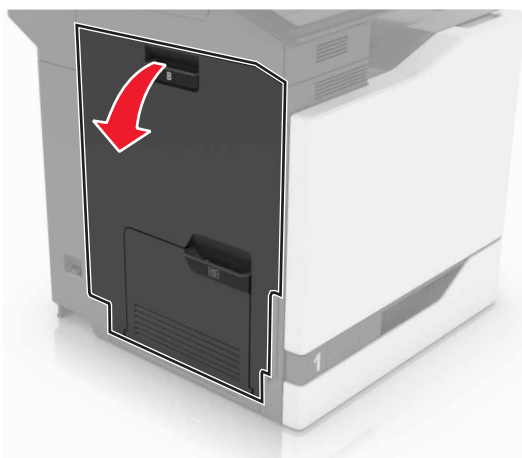
Installation note: Before installing the fuser, clean the fuser lens using the cotton swab that came with the package.



Transfer roller removal

1 Open door B.

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.




2 Remove the roller.

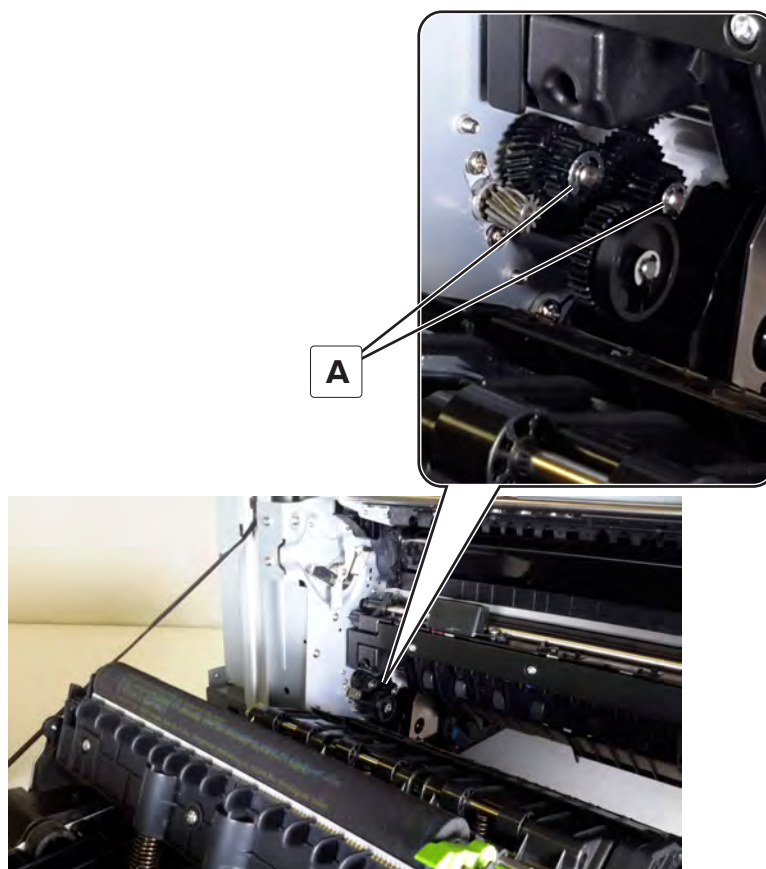


Parts removal

Duplex drive gears removal

- 1 Open door B, and then remove the two E-clips (A).

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.




- 2 Remove the gears.

Installation warning: Make sure that the torsion spring is properly installed.

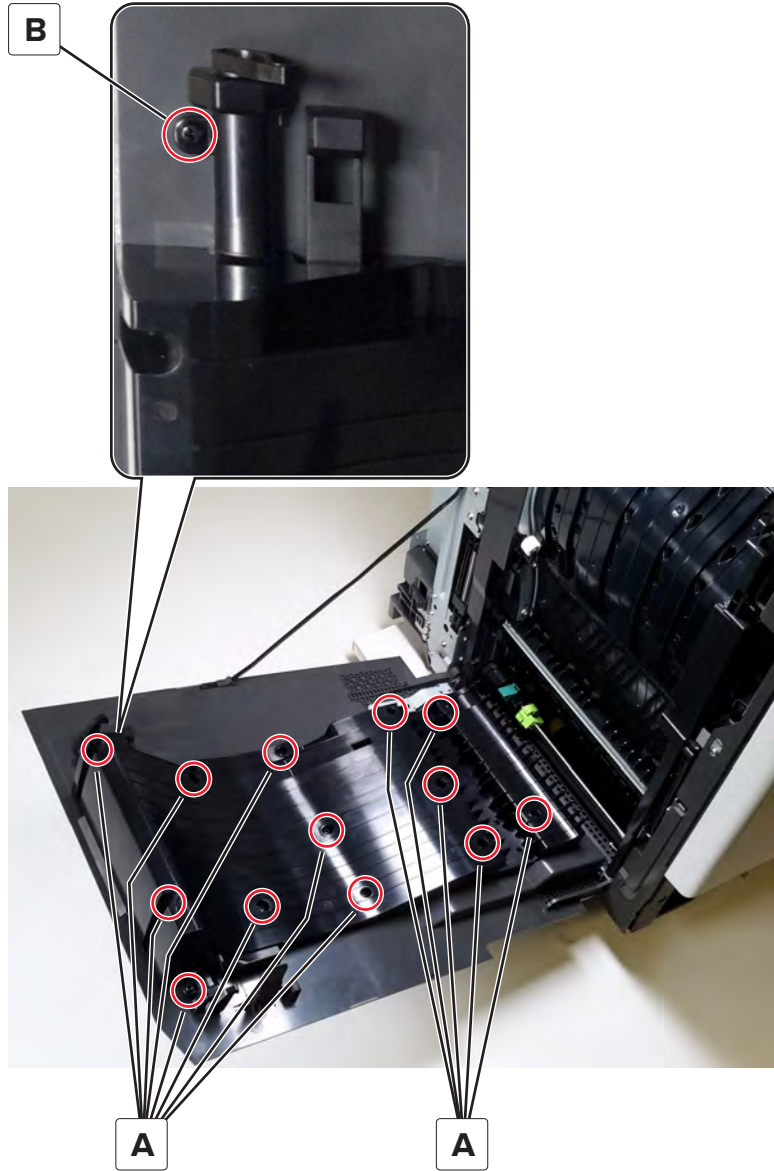
Duplex release latch removal

- 1 Open door B.

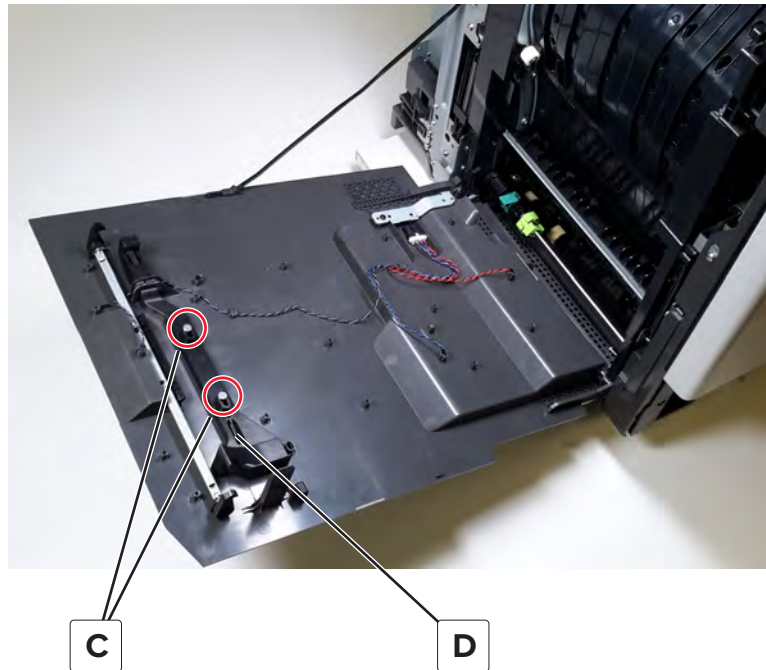
 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

- 2 Release the inner duplex guide, and then swing it toward the printer.

3 Remove the 14 screws (A and B), and then remove the outer duplex guide.



- 4 Remove the two screws (C), and then release the spring (D).




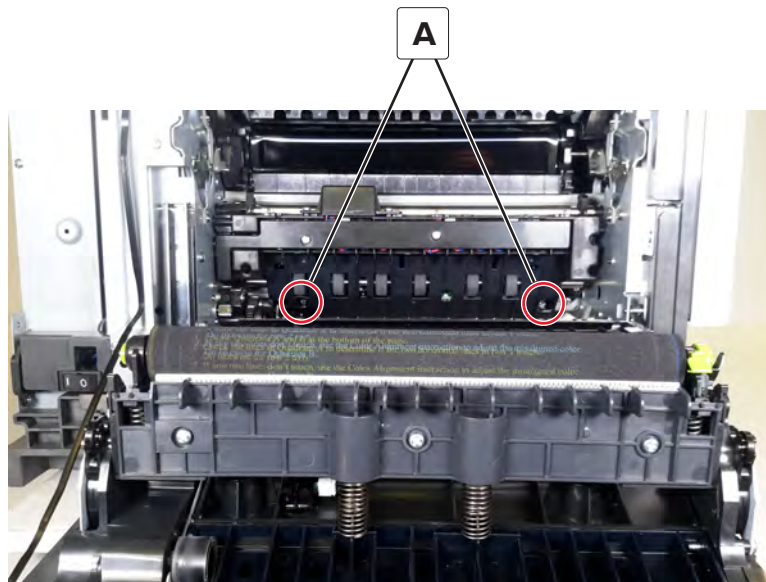
- 5 Remove the latch.

Deskew roller sensor guide removal

Note: For a video demonstration, see [Deskew roller sensor guide removal](#).

- 1 Open door B, and then remove the two screws (A).

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



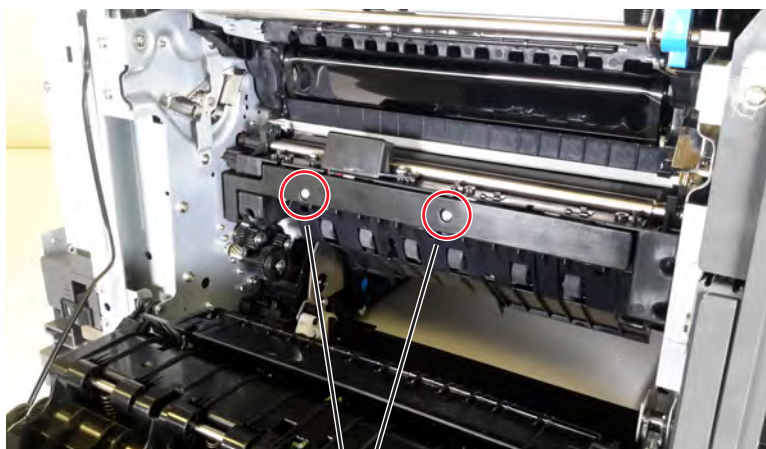
- 2 Open door A, and then remove the waste toner bottle.

3 Open door A1, and then remove the screw (B).



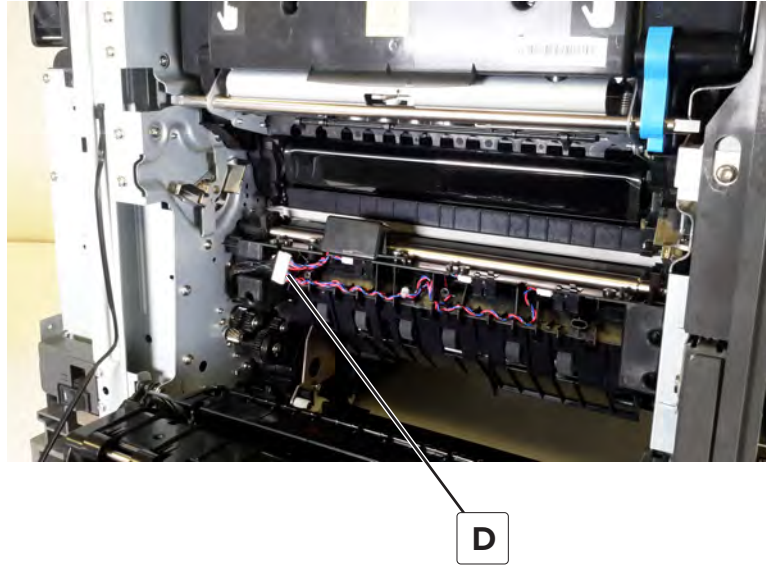
B

4 From the left, remove the two screws (C), and then remove the cover.



C

- 5 Disconnect the cable (D), and then remove the guide.



Motor (deskew) removal

Note: For a video demonstration, see [Motor \(deskew\) removal](#).

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 6 Remove the LVPS. See [“LVPS removal” on page 781](#).
- 7 Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).
- 8 Remove the deskew roller sensor guide. See [“Deskew roller sensor guide removal” on page 696](#).


- 9** Remove the two screws (A) securing the motor to the machine.



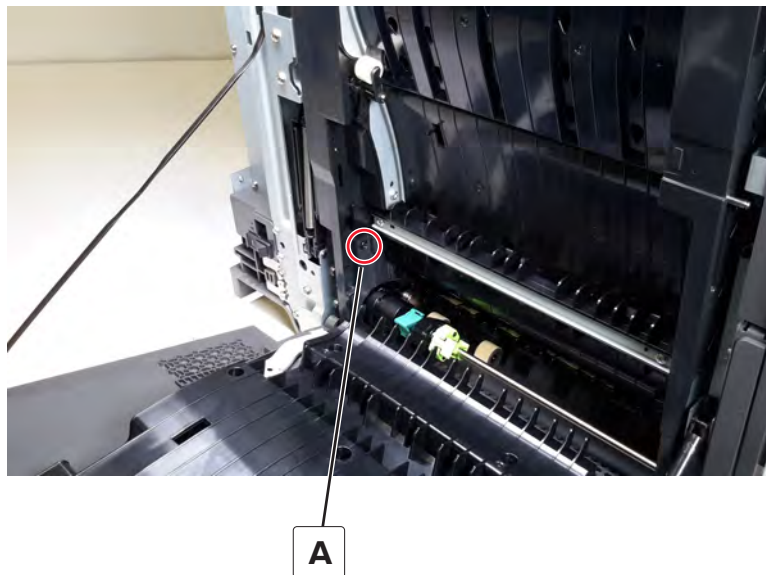
- 10** Remove the motor.
- 11** Cut the plastic wire tie, and then remove the motor cap.
- 12** Disconnect the connection.

Plastic connector cover removal

1 Open door B.


 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

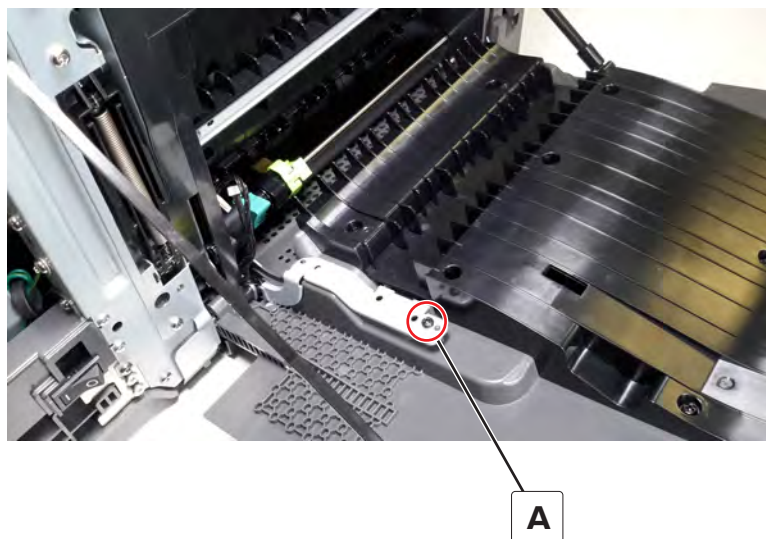
2 Remove the screw (A), and then remove the plastic connector cover.



Metal connector cover removal

1 Open door B, and then remove the screw (A).

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



2 Remove the cover.

Left door, duplex, and MPF removal

Note: For a video demonstration, see [Left door removal](#), [Duplex removal](#) and [MPF tray removal](#).

CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

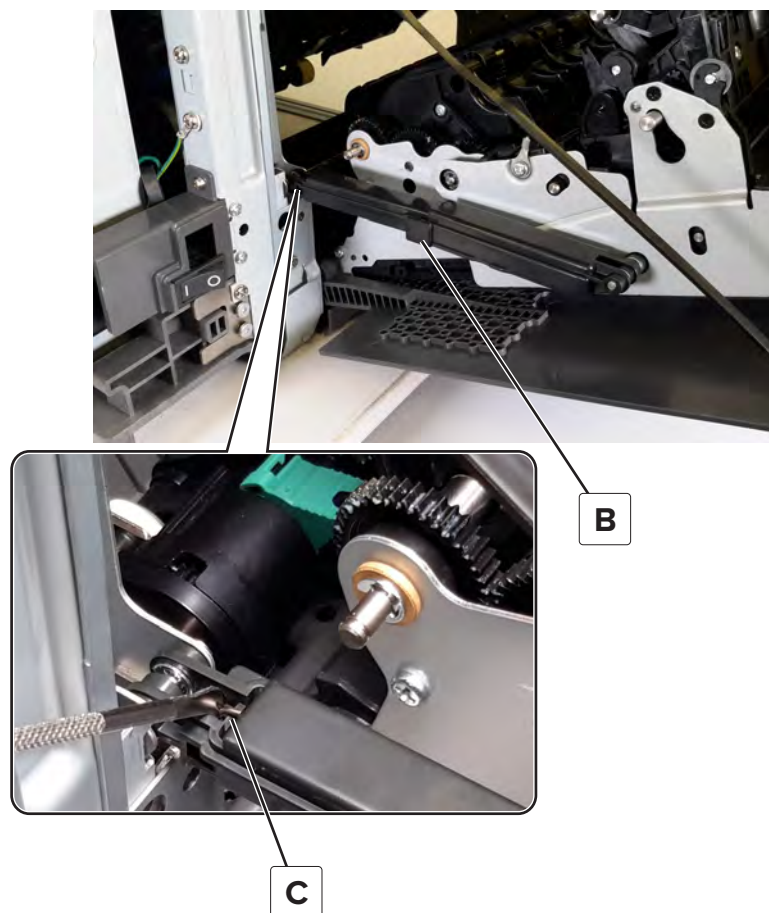
- 1 Remove the plastic connector cover. See [“Plastic connector cover removal” on page 700](#).
- 2 Remove the door rod cover. See [“Door rod cover removal” on page 748](#).
- 3 Disconnect the cable (A).



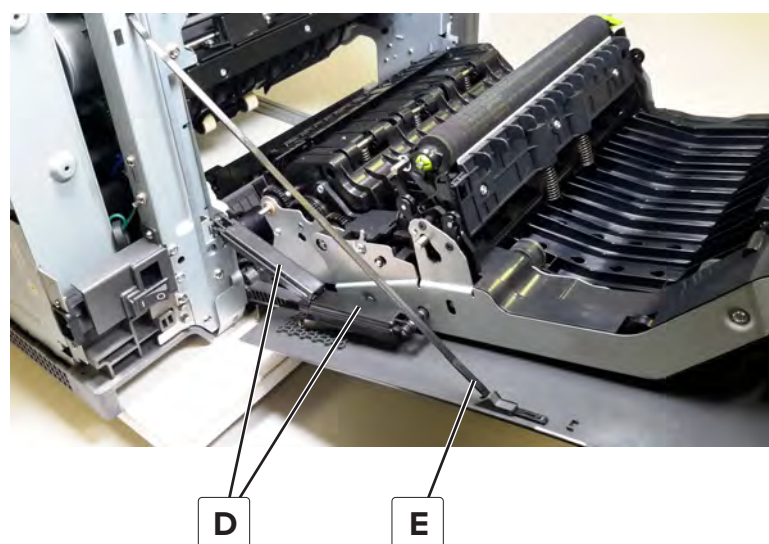
A

- 4 Remove the retainer (B).

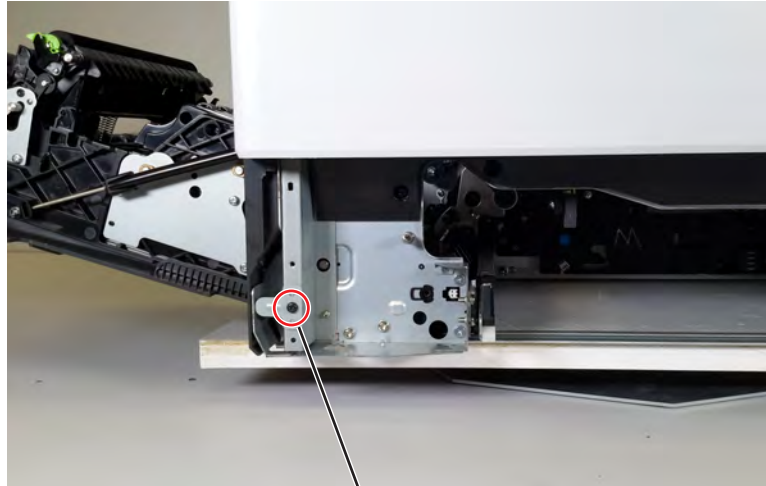
- 5 Using a spring hook, disconnect the spring (C) from the door damper.



- 6 Separate the two damper parts (D), and then disconnect the support strap (E).



- 7 Remove the screw (F), and then remove the retainer plate.



F

- 8 Release the retainer (G), and then disconnect the door support.

- 9 Pull out, and then remove the door rod (H).

Installation warning: Make sure that the left door, duplex, and MPF are properly aligned and engaged with the door rod. Improper installation may cause damage.



G

H

- 10** Remove the left door, duplex, and MPF.



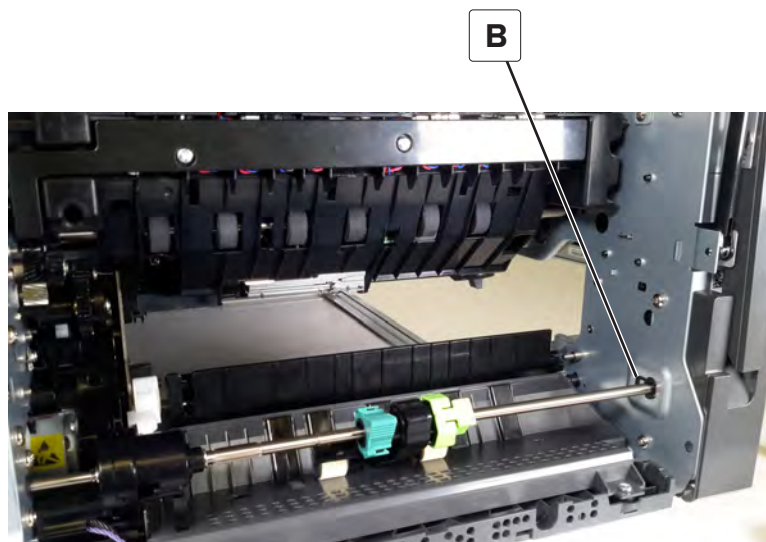
MPF pick roller removal

- 1** Remove the left door, duplex, and MPF. See [“Left door, duplex, and MPF removal” on page 701.](#)
- 2** Release the E-clip (A), and then slide the pick roller to the center of the shaft.



A

- 3 Rotate the retainer (B) clockwise by a quarter turn, and then remove.

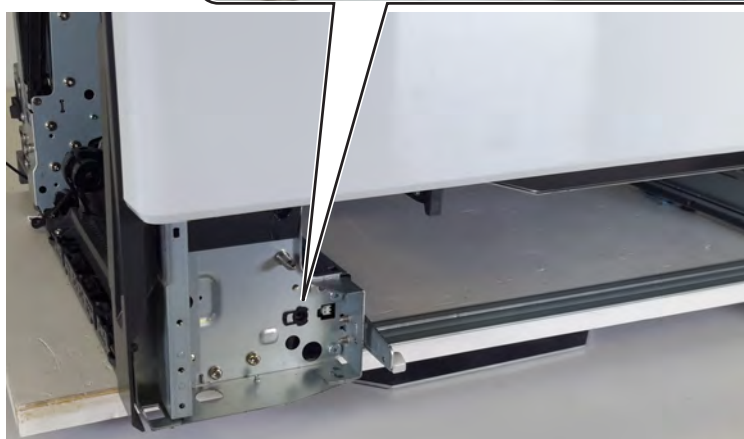


- 4 Slide the shaft out of the printer, and then remove the pick roller.

MPF pick guide removal

- 1 Remove the left door, duplex, and MPF. See [“Left door, duplex, and MPF removal” on page 701.](#)
- 2 Remove the MPF pick roller. See [“MPF pick roller removal” on page 704.](#)

- 3 From the front, carefully rotate the retainer by a quarter turn to release, and then remove using a pliers.



- 4 Pull the pick guide, and then disconnect the cable (A).

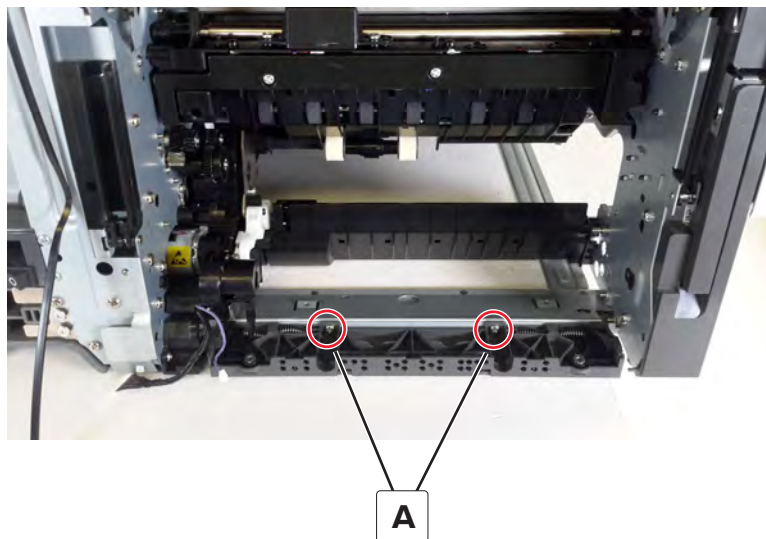


A

- 5 Remove the pick guide.

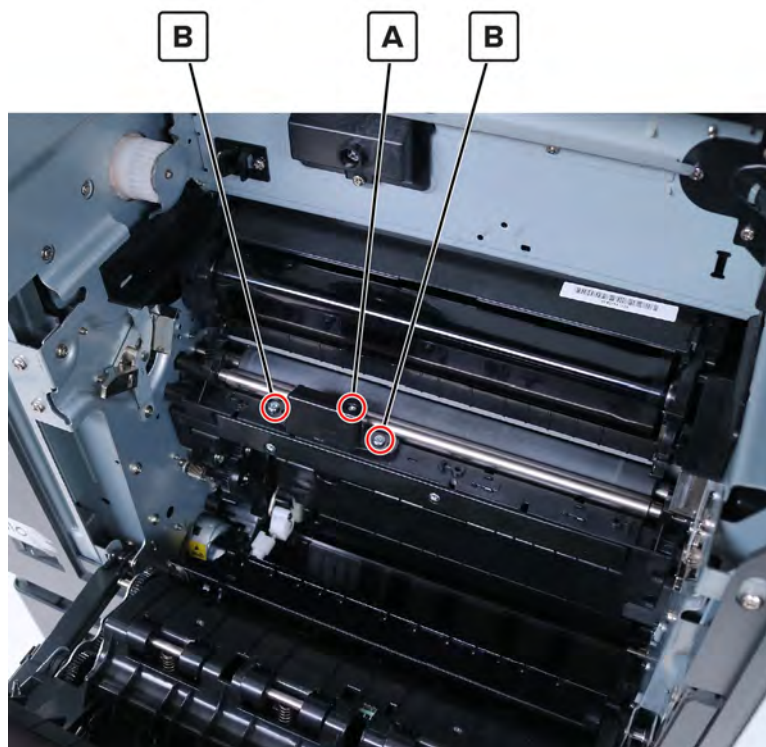
MPF tray stop removal

- 1 Remove the left door, duplex, and MPF. See [“Left door, duplex, and MPF removal” on page 701.](#)
- 2 Remove the MPF pick roller. See [“MPF pick roller removal” on page 704.](#)
- 3 Remove the MPF pick guide. See [“MPF pick guide removal” on page 705.](#)
- 4 Remove the two screws (A), and then remove the tray stop.

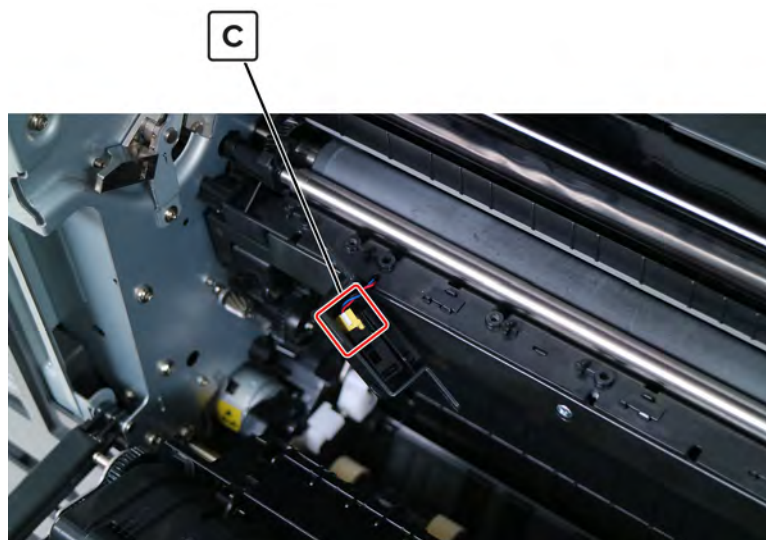


Sensor (deskew roller exit) removal

- 1 Remove the fuser. See [“Fuser removal” on page 692](#).
- 2 Remove the retention screw (A), remove the two screws (B), and then remove the sensor housing.



- 3 Disconnect the cable (C), and then remove the sensor.



Redrive removal

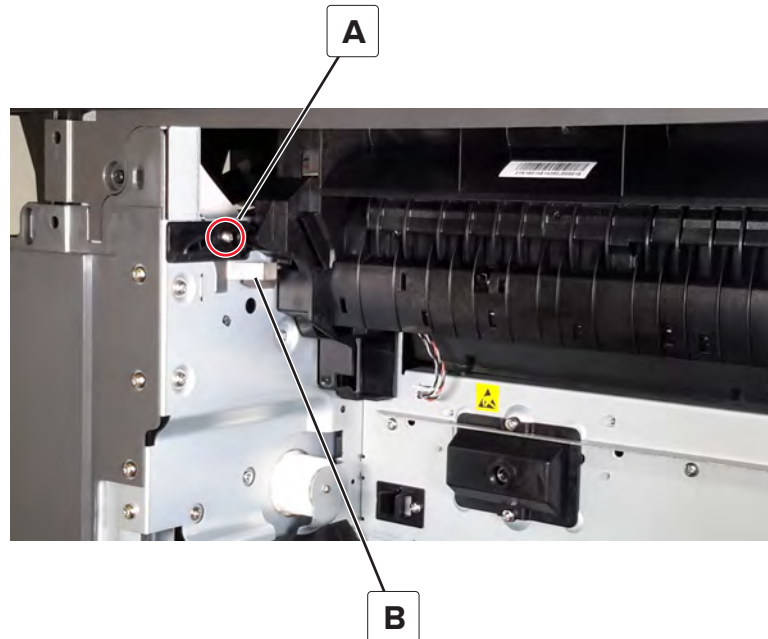
Note: For a video demonstration, see [Redrive removal](#).

1 Remove the fuser. See [“Fuser removal” on page 692](#).

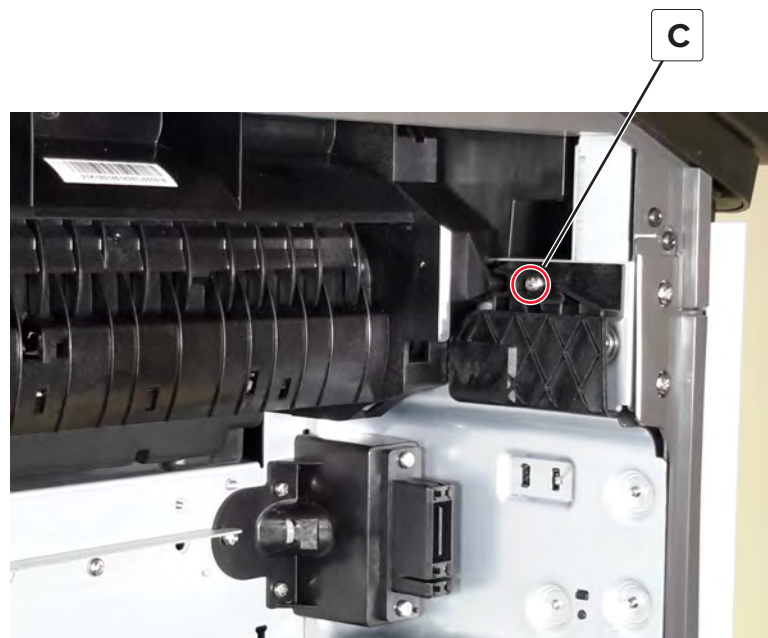
2 Open door A.

Warning—Potential Damage: The redrive may get damaged during removal if door A is closed.

3 Remove the screw (A), and then remove the rear fuser guide and grounding strip (B).



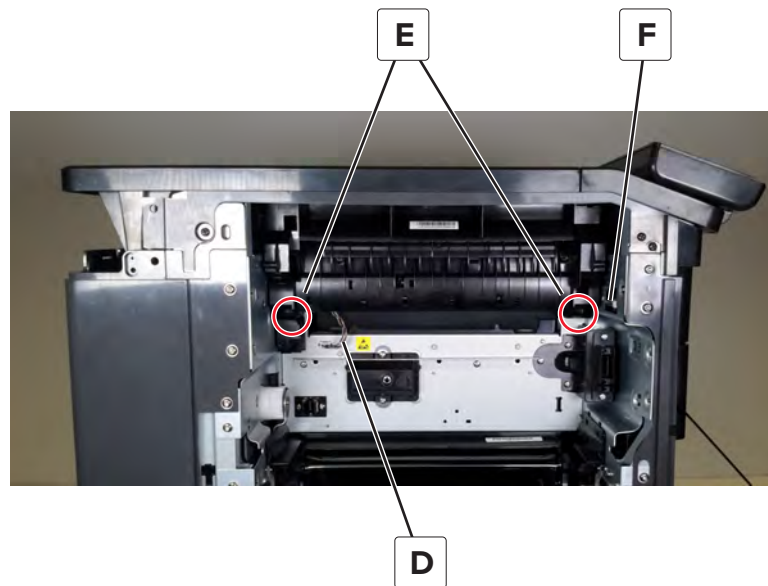
4 Remove the screw (C), and then remove the front fuser guide.



5 Disconnect the cable (D), remove the two screws (E), and then remove the redrive.

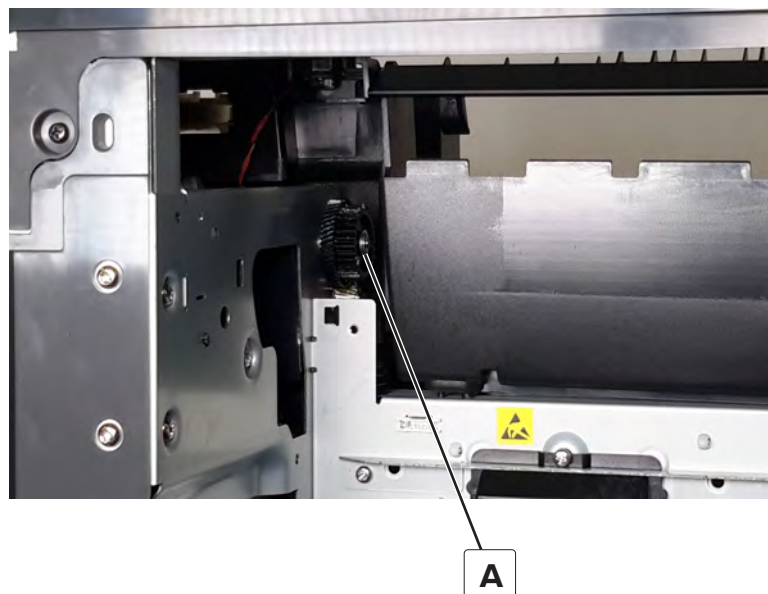
Warning—Potential Damage: The redrive may get damaged during removal if door A is closed.

Warning—Potential Damage: Be careful not to damage or change the position of the coil spring (F).



Redrive gear removal

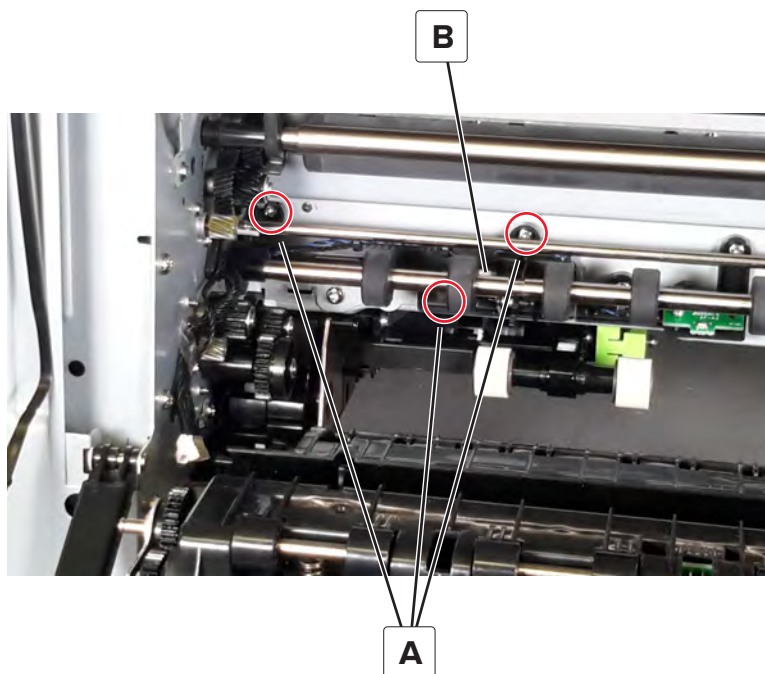
- 1 Remove the fuser. See [“Fuser removal” on page 692.](#)
- 2 Remove the redrive. See [“Redrive removal” on page 709.](#)
- 3 Remove the E-clip (A), and then remove the gear.



Sensor (input) removal

Note: For a video demonstration, see [Sensor \(input\) removal](#).

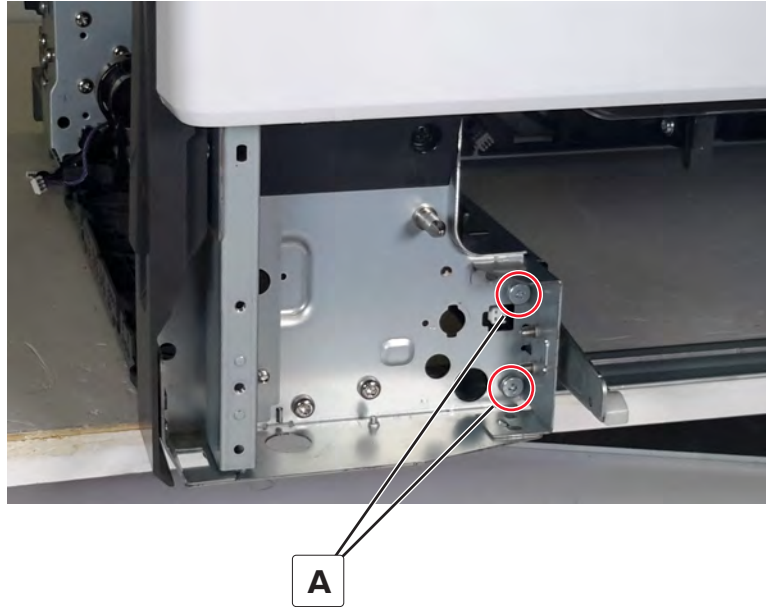
- 1 Remove the deskew roller sensor guide. See [“Deskew roller sensor guide removal” on page 696](#).
- 2 Gently flex the shaft, and then remove the three screws (A).
- 3 Pull the sensor, disconnect its cable (B), and then remove it.



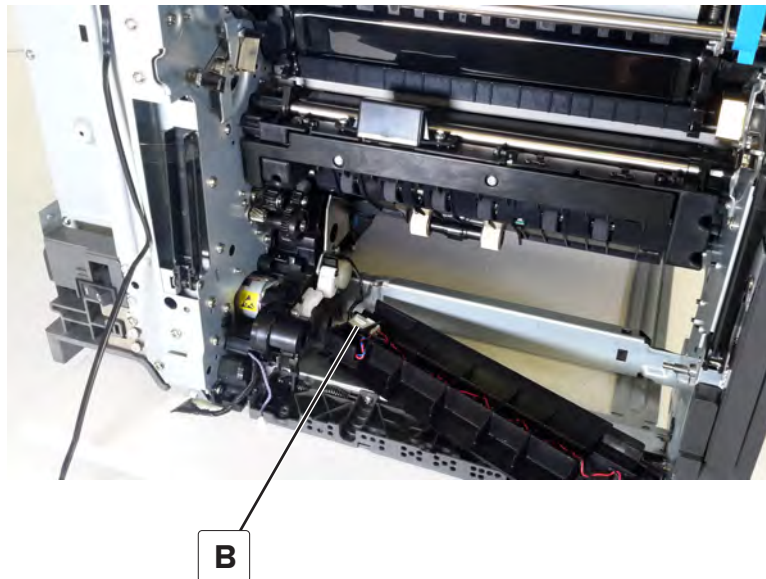
Sensor (MPF/pass-through) with deflector removal

- 1 Remove the left door, duplex, and MPF. See [“Left door, duplex, and MPF removal” on page 701](#).
- 2 Remove the MPF pick roller. See [“MPF pick roller removal” on page 704](#).
- 3 Remove the MPF pick guide. See [“MPF pick guide removal” on page 705](#).
- 4 Remove the MPF tray stop. See [“MPF tray stop removal” on page 707](#).

5 From the front, remove the two screws (A).



6 Release the guide, disconnect its cable (B), and then remove it.



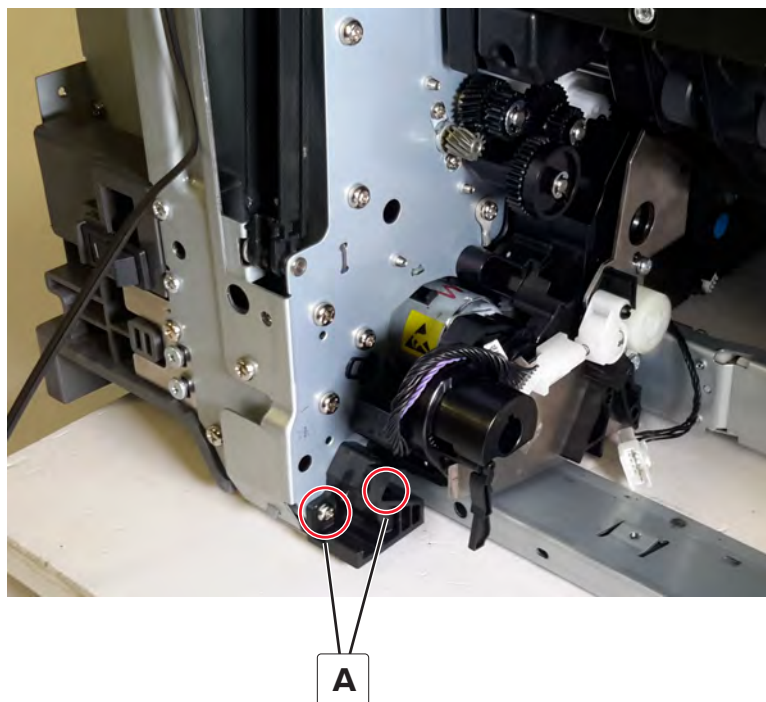
Installation warning: To avoid pinch or damage to the sensor (MPF/pass-through) cable, make sure to route the cable away from the moving rollers.

Reference edge motor gearbox removal

Note: For a video demonstration, see [Reference edge motor gearbox removal](#).

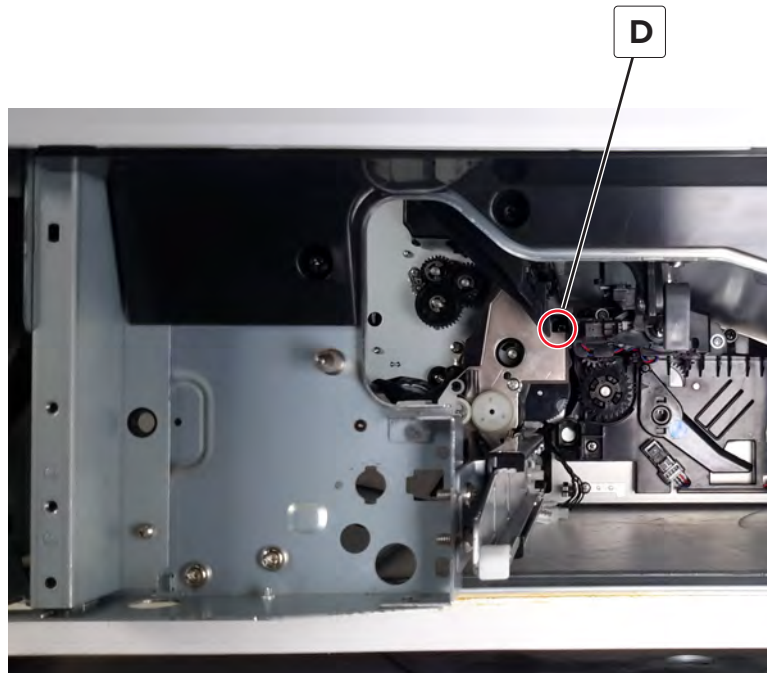
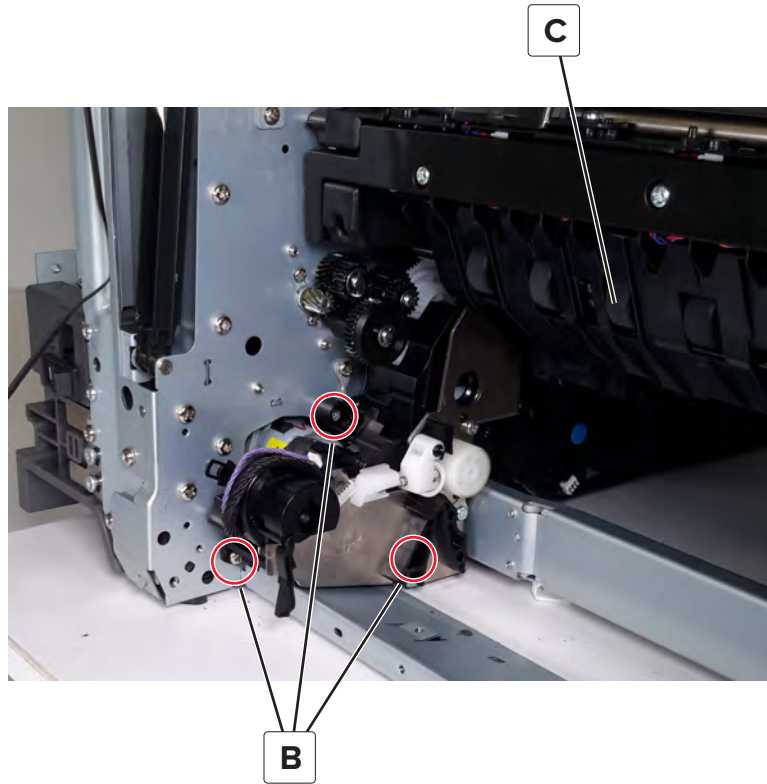
- 1 Remove the left door, duplex, and MPF. See [“Left door, duplex, and MPF removal” on page 701](#).
- 2 Remove the MPF pick roller. See [“MPF pick roller removal” on page 704](#).
- 3 Remove the MPF pick guide. See [“MPF pick guide removal” on page 705](#).

- 4 Remove the MPF tray stop. See [“MPF tray stop removal” on page 707](#).
- 5 Remove the sensor (MPF/pass-through) with deflector. See [“Sensor \(MPF/pass-through\) with deflector removal” on page 711](#).
- 6 Remove the two screws (A), and then remove the hinge support.

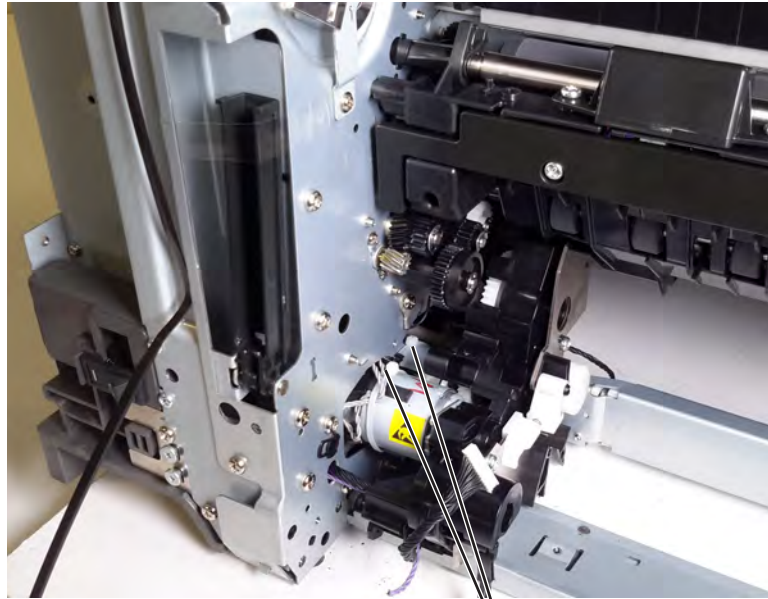


- 7 Remove the three screws (B).

8 Remove the screw (D) behind the isolation roller (C) guide.

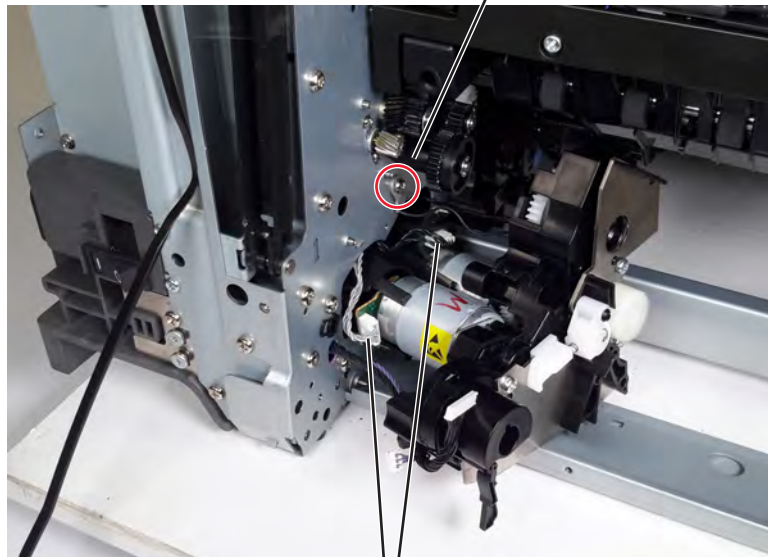


- 9 Carefully pull out the gearbox, and then cut the cable ties (E).



E

- 10 Remove the ground screw (F), and then disconnect the cables (G).



F

G

- 11 Remove the gearbox.

Installation note: Make sure that the motor covers are installed and the cable ties are replaced.

Installation warning: To avoid pinch or damage to the sensor (MPF/pass-through) cable, make sure to route the cable away from the moving rollers.

Isolation roller gear removal

- 1 Remove the left door, duplex, and MPF. See [“Left door, duplex, and MPF removal” on page 701](#).
- 2 Remove the MPF pick roller. See [“MPF pick roller removal” on page 704](#).
- 3 Remove the MPF pick guide. See [“MPF pick guide removal” on page 705](#).
- 4 Remove the MPF tray stop. See [“MPF tray stop removal” on page 707](#).
- 5 Remove the sensor (MPF/pass-through) with deflector. See [“Sensor \(MPF/pass-through\) with deflector removal” on page 711](#).
- 6 To access the isolation roller gear, pull out the reference edge motor gearbox. See [“Reference edge motor gearbox removal” on page 712](#).
- 7 Remove the E-clip (A), and then remove the duplex gears.



A

Installation note: Make sure that the duplex gear spring is properly installed.

- 8 Remove the E-clip (B), and then remove the roller gear.

**B**

Right side removals

Vent cover removal

- 1 Pry the bottom edge of the cover to release.



- 2 Remove the cover.

Column outer cover removal

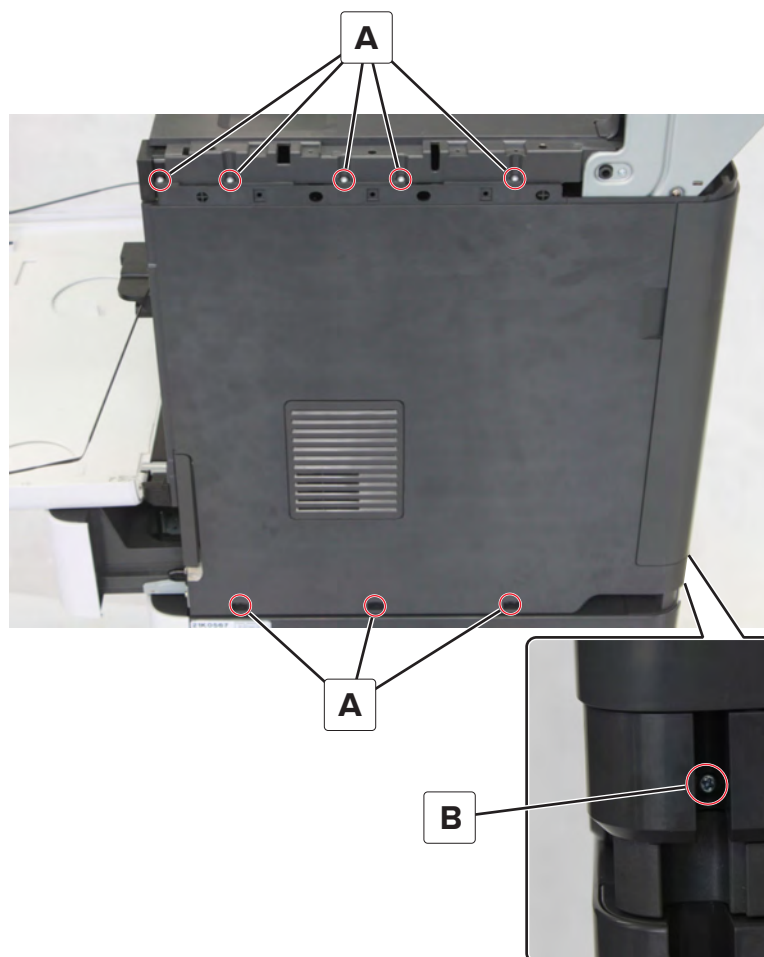
- 1 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 2 Remove the screw (A), and then remove the cover.



Right cover removal

- 1 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 2 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 3 Remove the column outer cover. See [“Column outer cover removal” on page 718.](#)
- 4 Remove the eight screws (A).

5 From the rear, remove the screw (B).



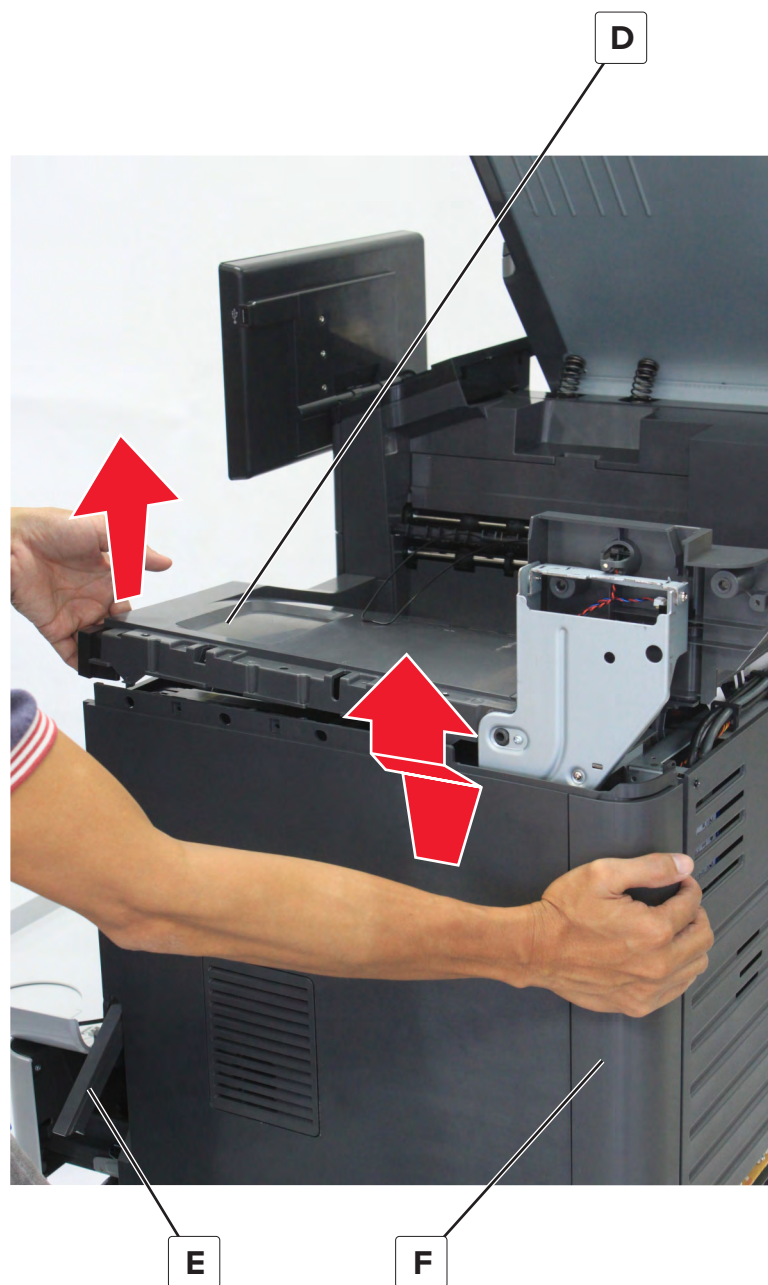
- 6 Open door A, and then remove the two screws (C).



- 7 Lift the standard bin cover (D) to release, and then lift the right cover to remove.

Note: Raise the handle (E) to easily remove the cover.

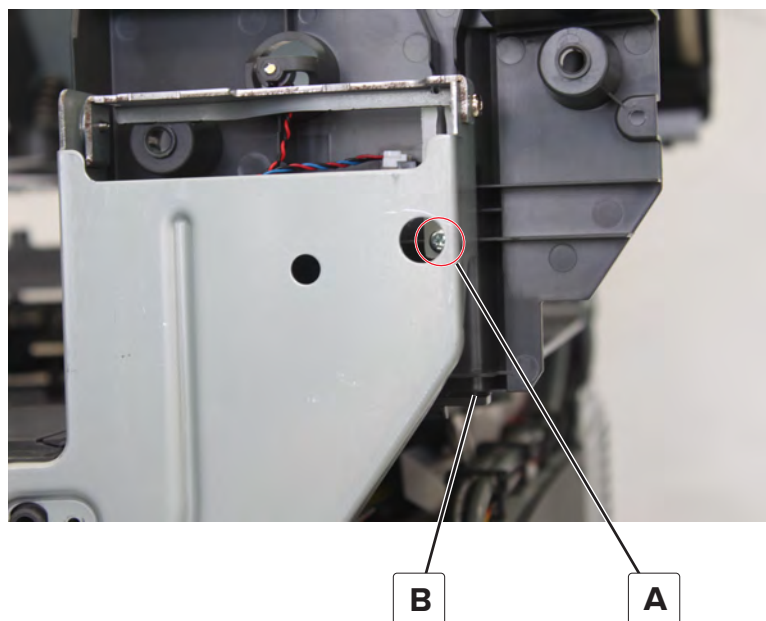
8 Remove the cover (F).



Column inner cover removal

- 1 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 2 Remove the column outer cover. See [“Column outer cover removal” on page 718](#).

- 3 Remove the screw (A), and then release the latch (B).

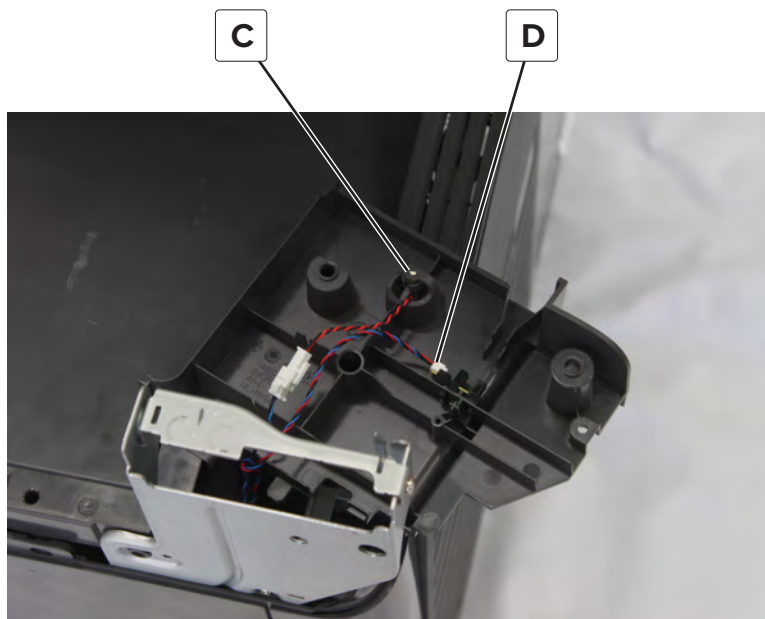


- 4 Slightly pull the cover, and then lift to release.

Warning—Potential Damage: Carefully handle the cover to avoid breaking it.



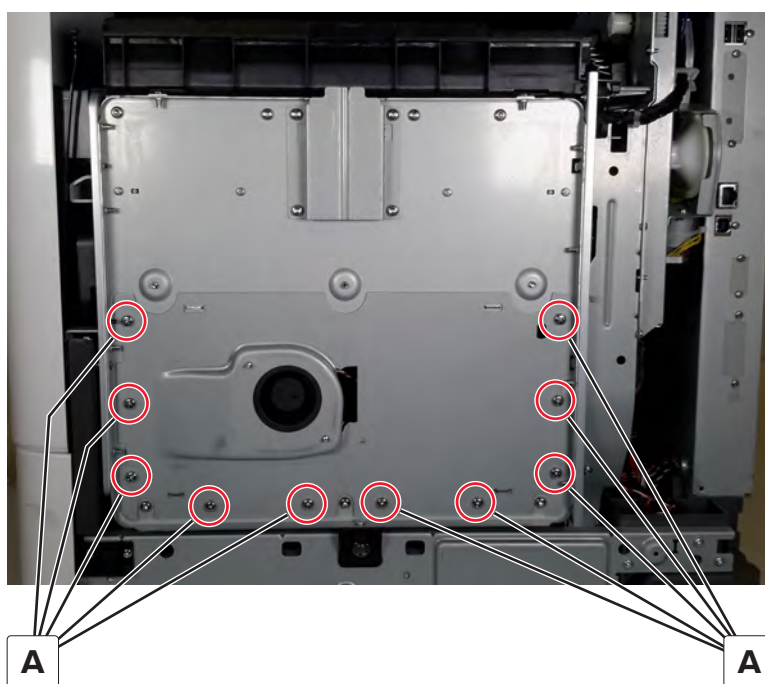
- 5 Release the LED (C) and sensor (D), and then remove the cover.



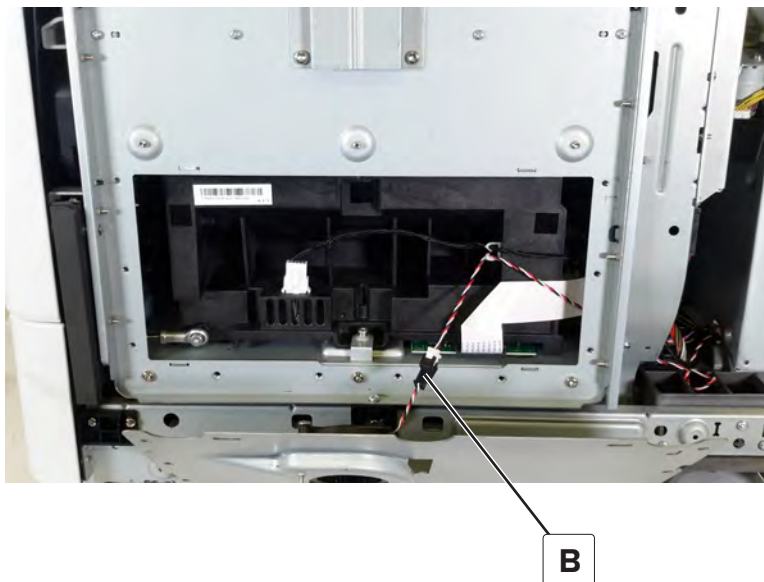
Printhead fan removal

Note: For a video demonstration, see [Printhead fan removal](#).

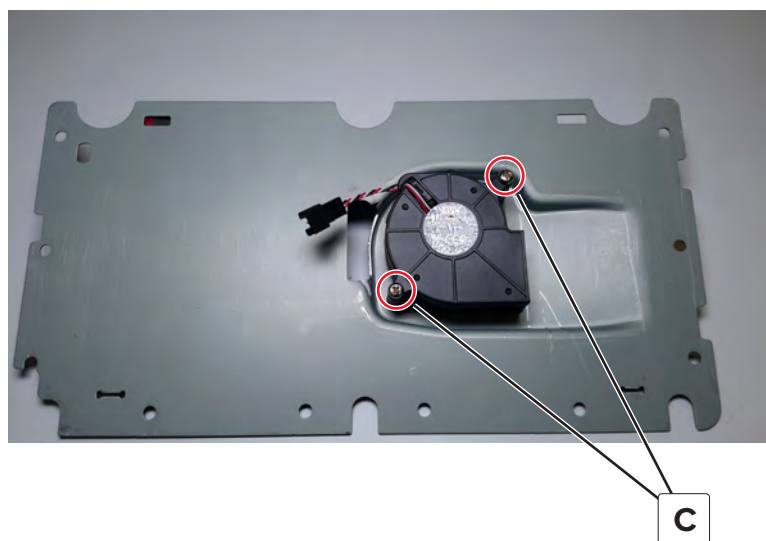
- 1 Remove the right cover. See [“Right cover removal” on page 718](#).
- 2 Remove the 10 screws (A), and then pull the inner right cover.



3 Disconnect the cable (B).



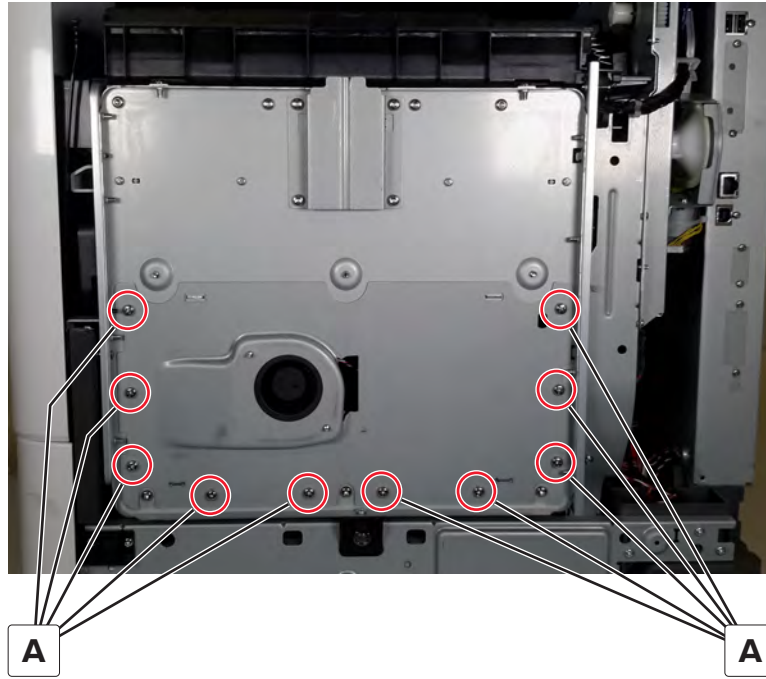
4 Remove the two screws (C), and then remove the fan.



Printhead removal

Note: For a video demonstration, see [Printhead removal](#).

- 1 Remove the right cover. See [“Right cover removal” on page 718](#).
- 2 Remove the 10 screws (A).



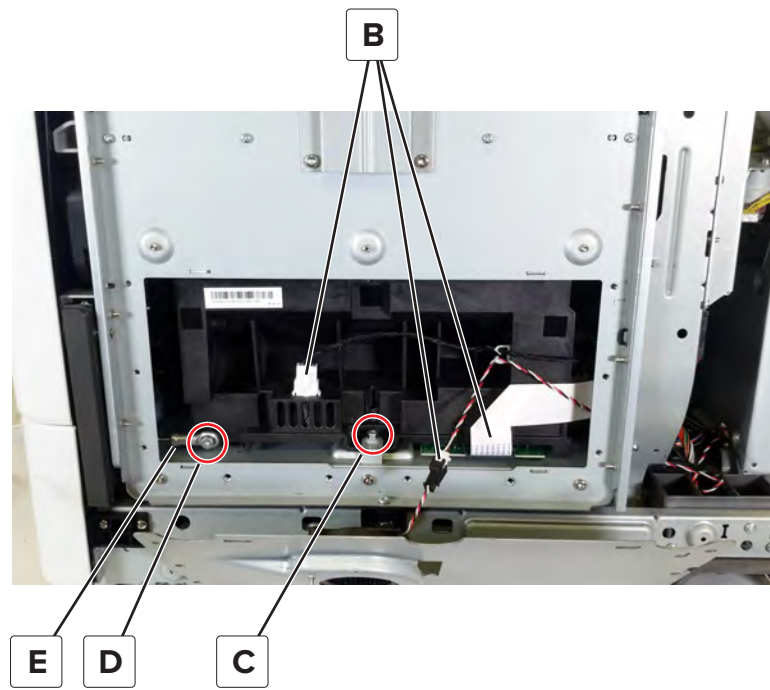
- 3 Pull the plate, and then disconnect the cables (B).

Warning—Potential Damage: Do not yank the ribbon cable. See [“Disconnecting ribbon cables” on page 663](#).

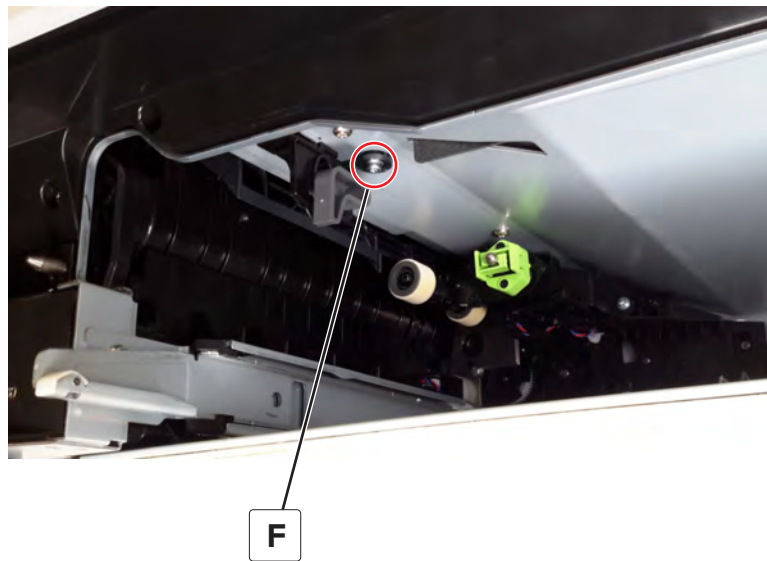
- 4 Remove the screw (C), and then remove the bracket.
- 5 Remove the screw (D).

Warning—Potential Damage: Do not change the position of the adjuster link (E).

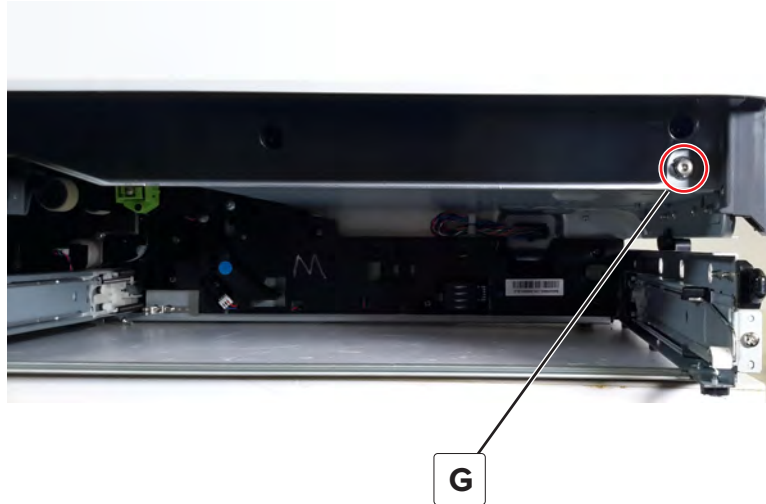
Installation warning: Do not overtighten the adjuster link screw.



- 6 Release the cables from the cable guide.
- 7 Remove tray 1, and then remove the screw (F).

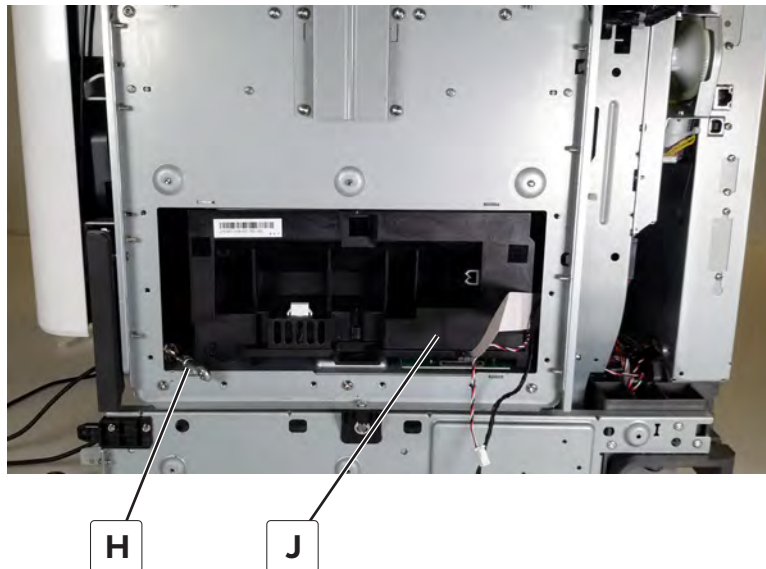


- 8 Release the E-clip (G).

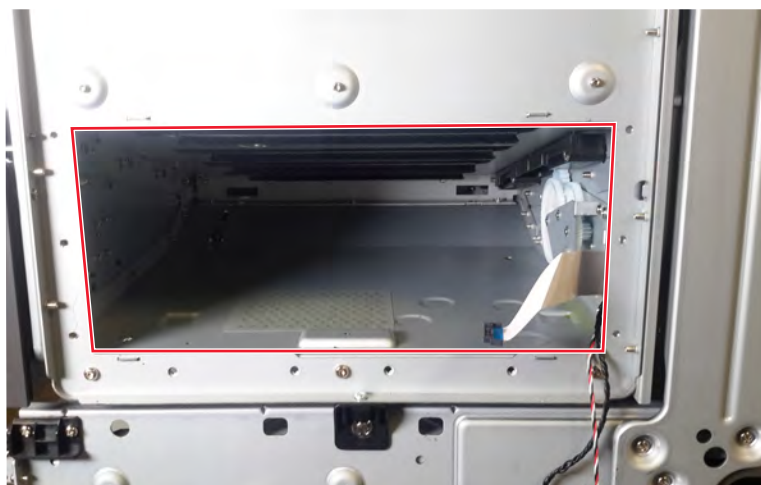


- 9 Remove the adjuster assembly (H), and then carefully remove the printhead (J).

Note: To minimize printhead misalignment, do not change the length of the adjuster assembly during removal.



Installation warning: The edges of the frame may be sharp. Do not let the edges of the frame scrape the printhead or cables. Scraped strips or shavings may contaminate the printhead and cause print quality issues.

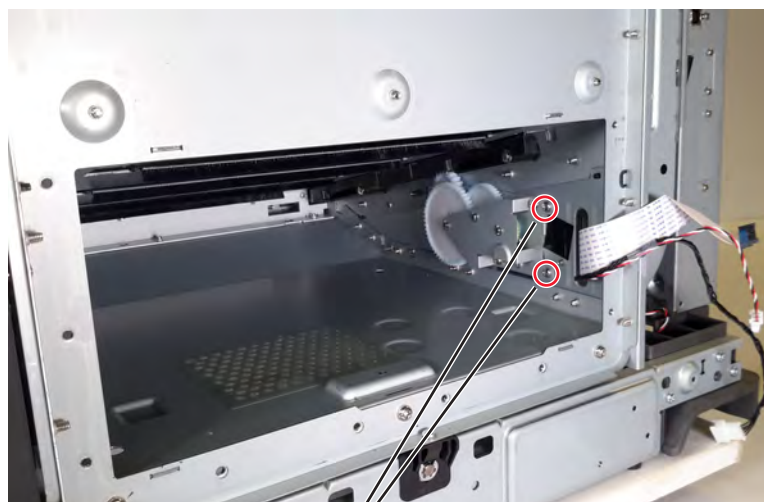


Installation notes:

- a Perform the printhead alignment adjustment. See [“Printhead alignment adjustment” on page 668.](#)
- b Perform the registration adjustment. See [“Registration adjustment” on page 673.](#)

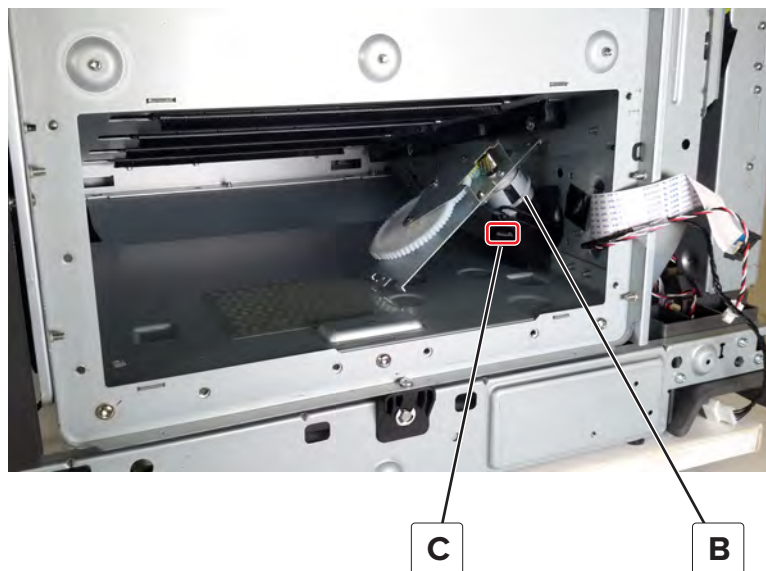
Motor (printhead wiper) removal

- 1 Remove the right cover. See [“Right cover removal” on page 718.](#)
- 2 Remove the printhead. See [“Printhead removal” on page 725.](#)
- 3 Remove the two screws (A).



A

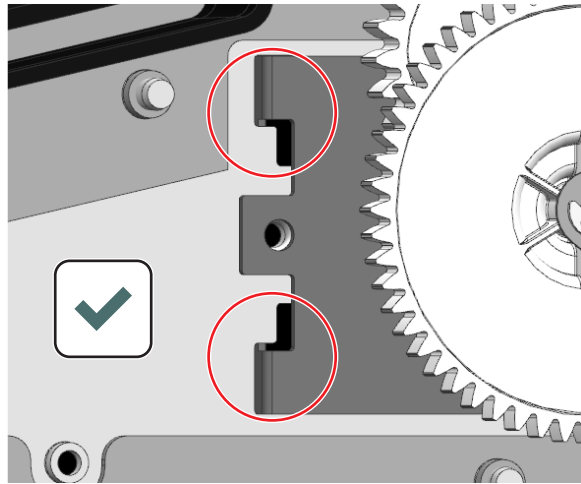
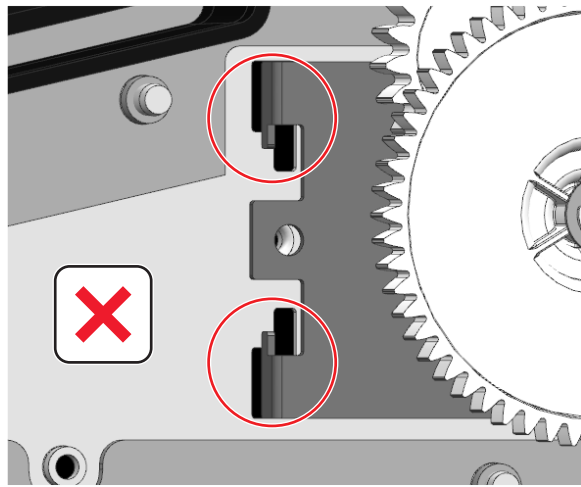
- 4 Pull the bracket, cut the cable tie (B), and then disconnect the cable (C).



- 5 Remove the motor.

Installation note: Make sure that the dust cover and cable tie are reinstalled.

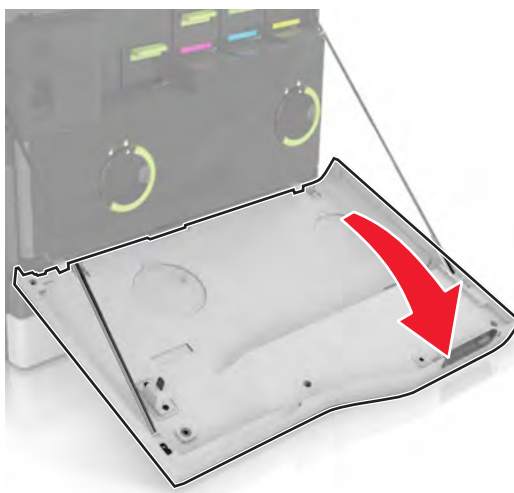
Installation note: Make sure that the motor tabs hook behind the frame slots.



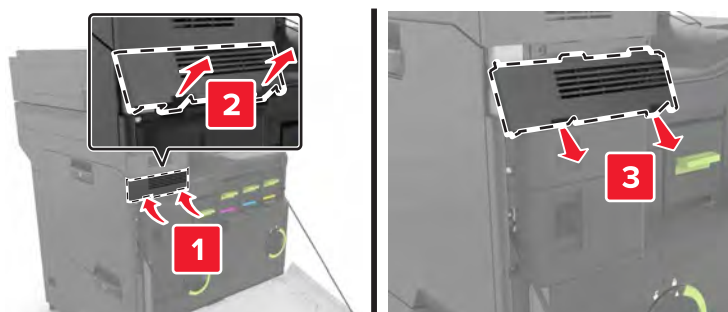
Front side removals

Keyboard attach cover removal

- 1 Open door A.



- 2 Remove the cover.



Control panel display removal

Critical information for controller board or control panel display replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel display
- Controller board

To replace a component, and to test whether the problem is resolved:

- 1 Replace the affected component.

Warning—Potential Damage: Do not perform a POR (Power-On Reset) until the problem is resolved. If a POR is performed at this point, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

Warning—Potential Damage: Some printers will automatically perform a POR if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, the replacement part can no longer be used in another printer and must be returned to the manufacturer.

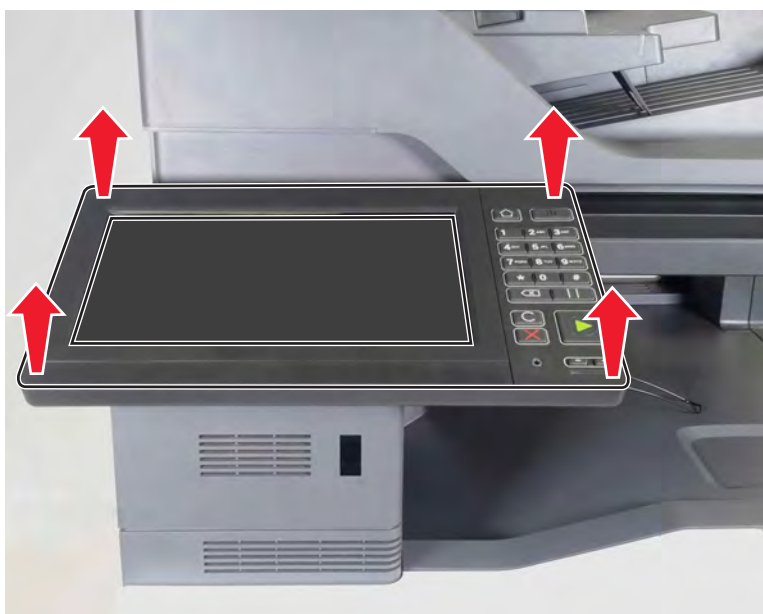
- 3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.

- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.

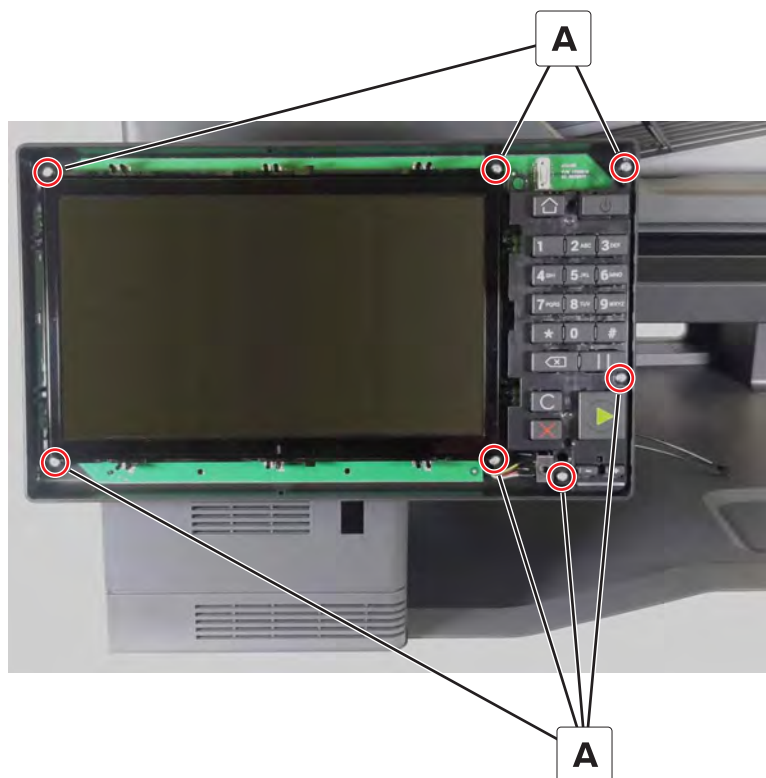
Removal procedure

- 1 Remove the model plate bezel.

Note: Lift the right side off first.

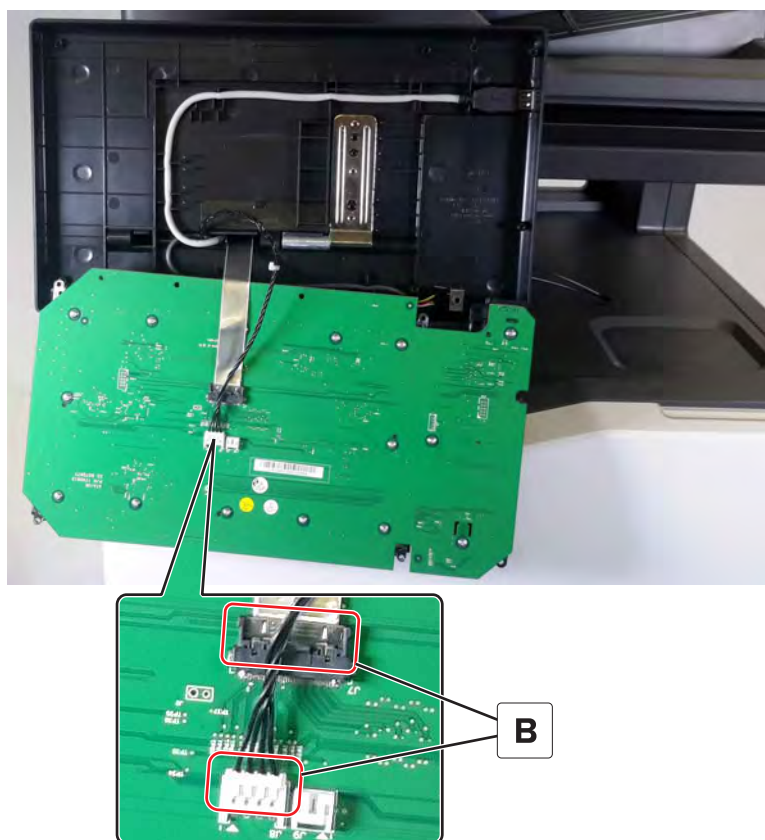


- 2 Remove the seven screws (A).



- 3 Disconnect the two cables (B), and then remove the display.

Warning—Potential Damage: Do not yank the ribbon cable. See [“Disconnecting ribbon cables” on page 663](#).



Control panel removal

Critical information for controller board or control panel replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

- 1 Replace the affected component.

Warning—Potential Damage: Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

Warning—Potential Damage: Some printers will perform a POR automatically if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

- 3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
 - If the problem is not resolved—Turn off the printer, and then reinstall the old part.
 - If the problem is resolved—Perform a POR.

- If NVRAM error occurs during the replacement, go to [“NVRAM mismatch failure service check” on page 537](#)

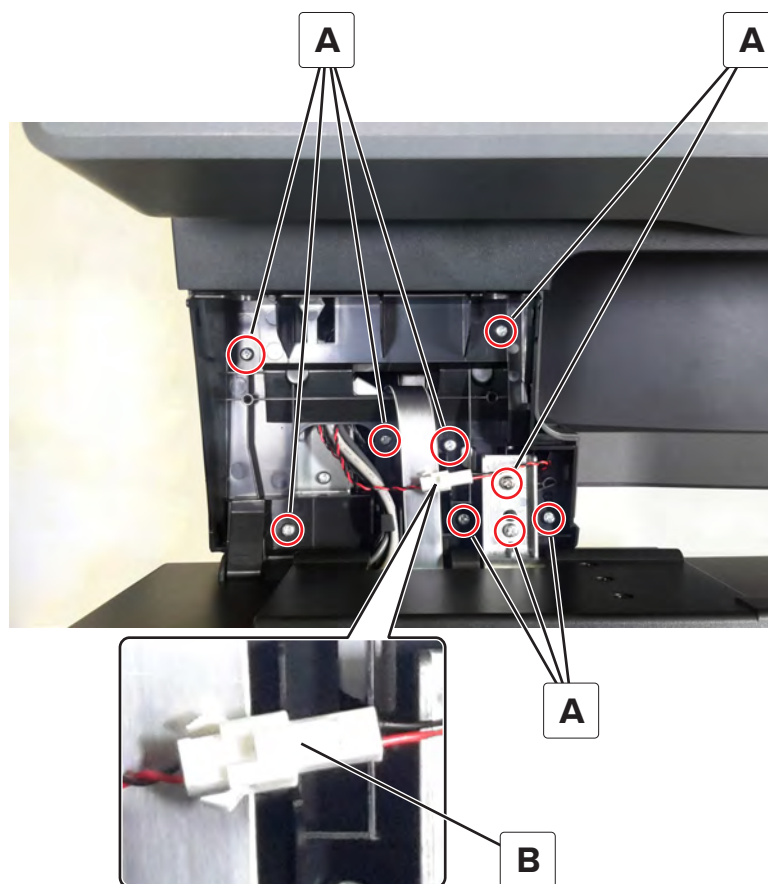
Removal procedure

- 1 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 2 Remove the control panel display. See [“Control panel display removal” on page 731](#).
- 3 Using a screwdriver, carefully pry the control panel support cover.



- 4 Remove the support cover.

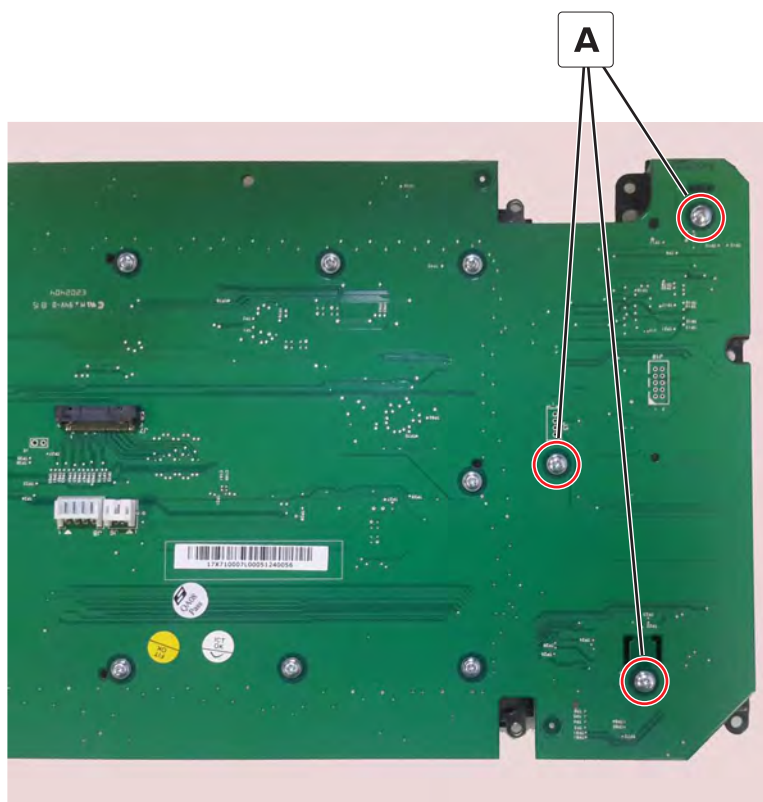
- 5** Remove the nine screws (A), and then disconnect the cable (B).



- 6** Remove the cables from the assembly as needed.

Control panel button kit removal


- 1 Remove the control panel display. See [“Control panel display removal” on page 731](#).
- 2 Remove the three screws (A).

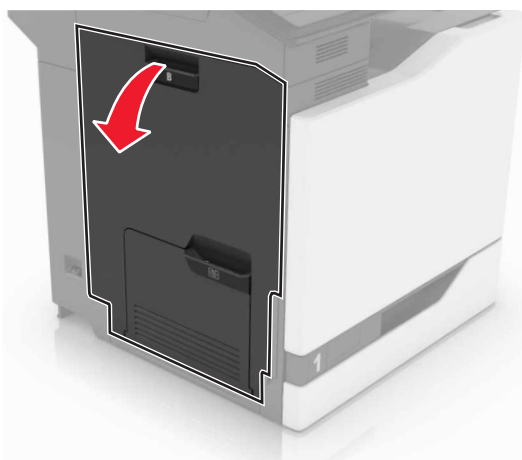


- 3 Remove the button kit.

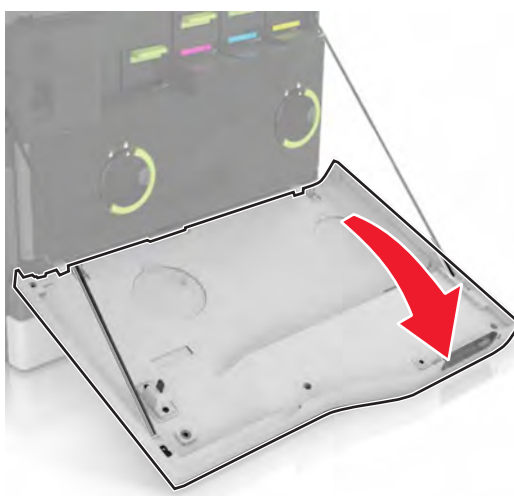
Waste toner bottle removal

- 1 Open door B.

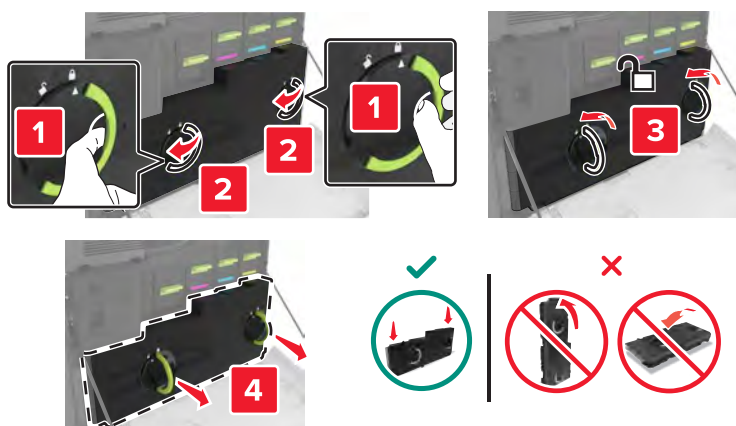
 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



2 Open door A.



3 Remove the waste toner bottle.




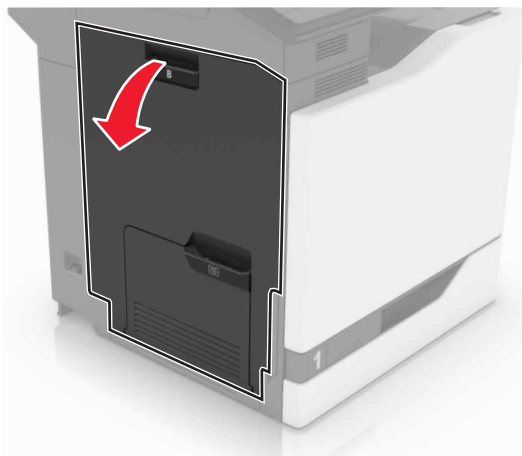
Parts removal

Developer unit and photoconductor unit removal

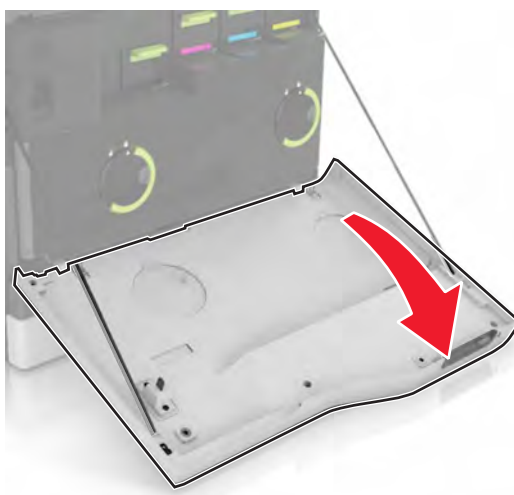
Note: For a video demonstration, see [PC unit/developer door removal](#).

1 Open door B.

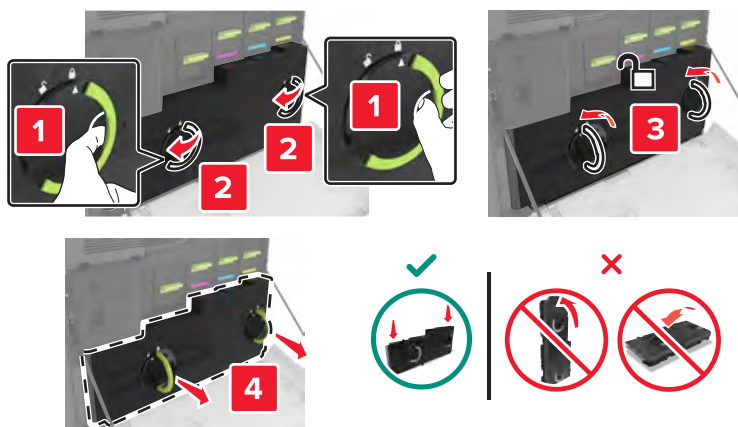
 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



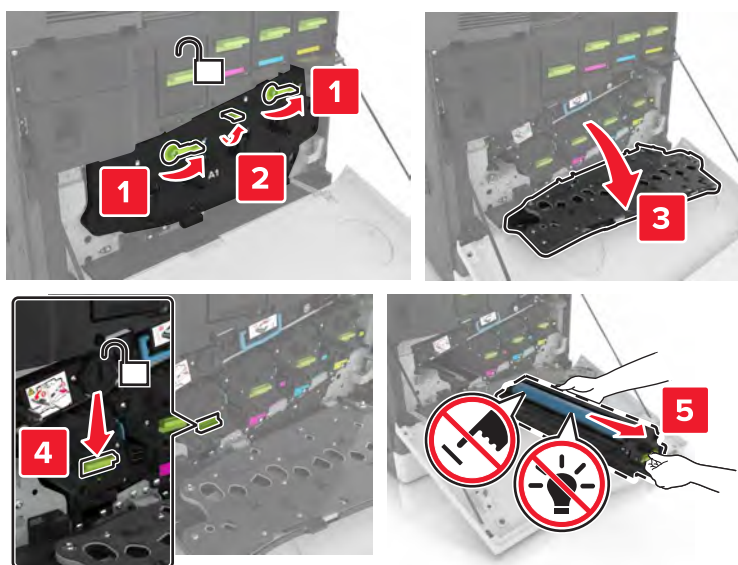
2 Open door A.



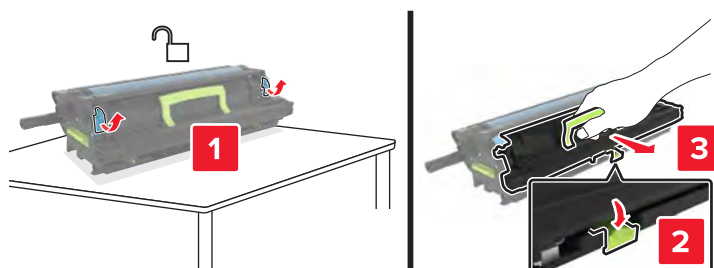
3 Remove the waste toner bottle.



4 Remove the developer and PC unit combo.

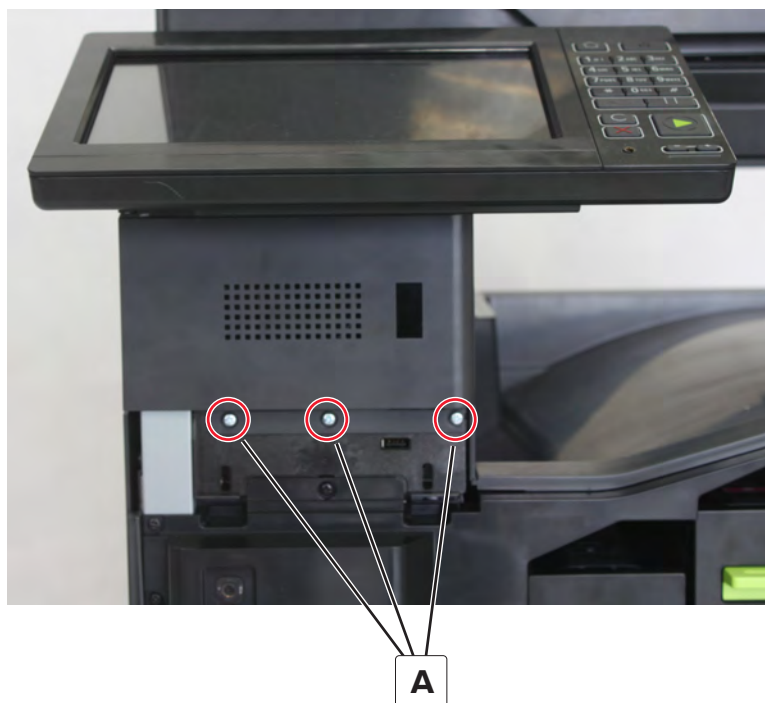


5 Remove the developer unit from the photoconductor unit.



Front column upper cover removal

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731](#).
- 2 Remove the three screws (A), and then remove the cover.

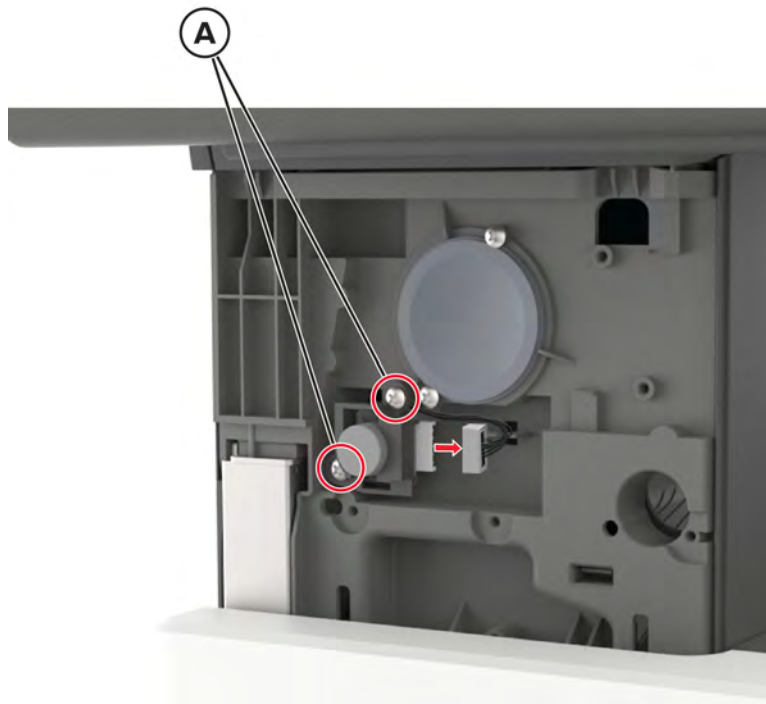


Sensor (proximity) removal

Note: The sensor (proximity) is not included in some printers. If the fifth digit (counting from the right) of the printer serial number is D or above, then the sensor is not available. For printers that do not have the sensor (proximity) installed, a sensor plug is mounted instead of the sensor.

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731](#).
- 2 Remove the front column upper cover. See [“Front column upper cover removal” on page 741](#).

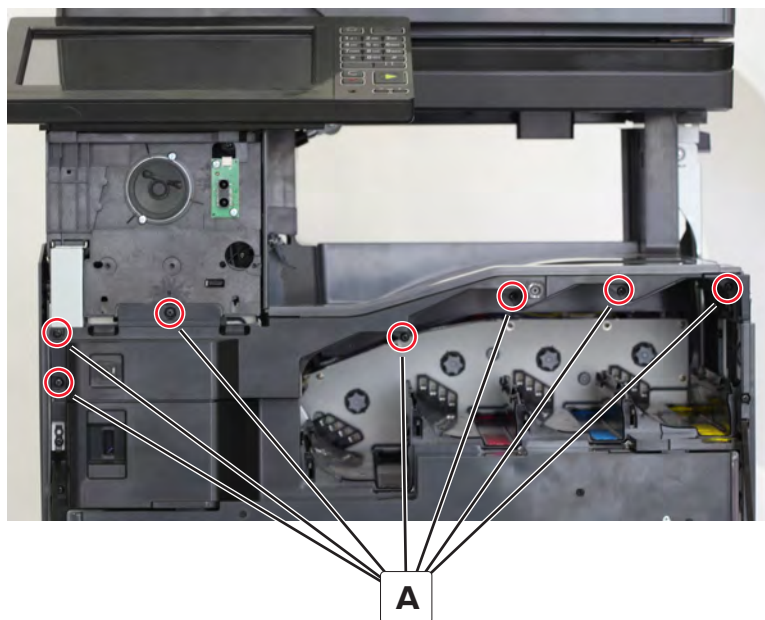
- 3** Remove the two screws (A), remove the proximity sensor cover, and then disconnect the sensor cable.



- 4** Remove the sensor.

Inner upper cover removal

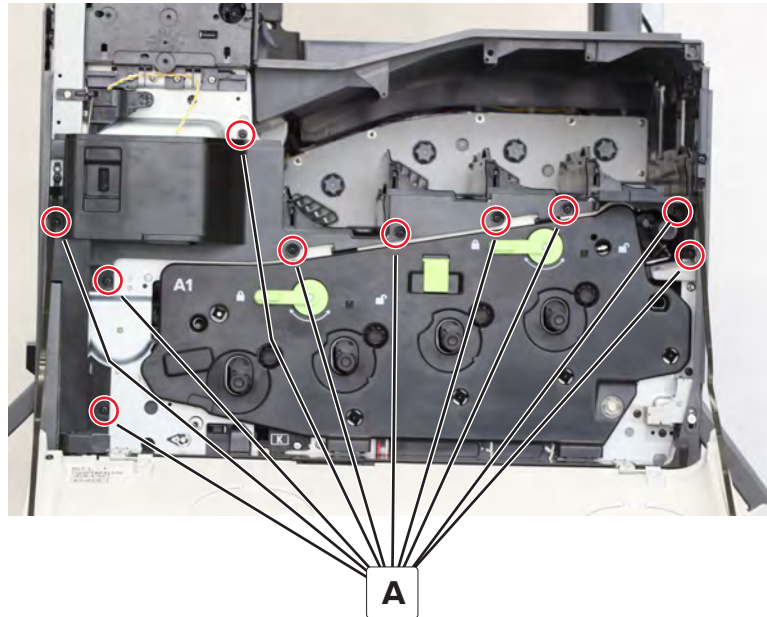
- 1** Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 2** Remove the front column upper cover. See [“Front column upper cover removal” on page 741.](#)
- 3** Remove the seven screws (A), and then remove the cover.



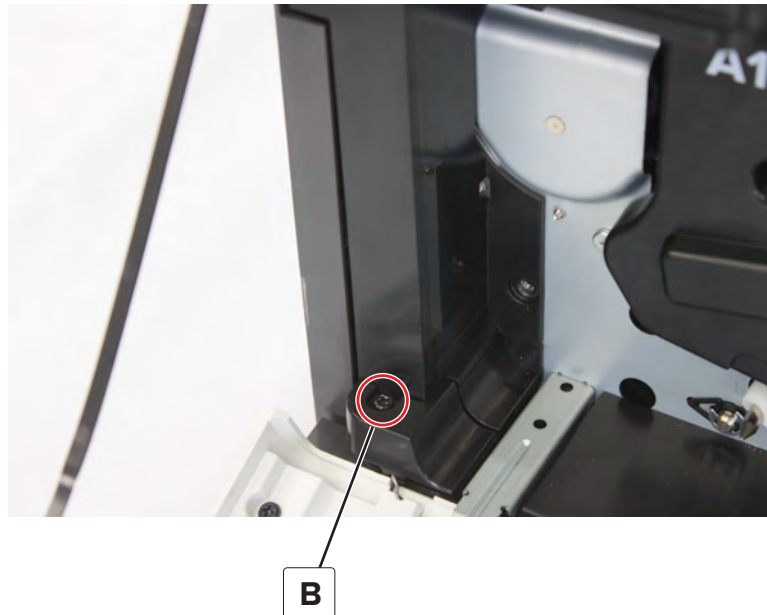
Parts removal

Inner lower cover removal

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 2 Remove the inner upper cover. See [“Inner upper cover removal” on page 742.](#)
- 3 Remove the 10 screws (A).



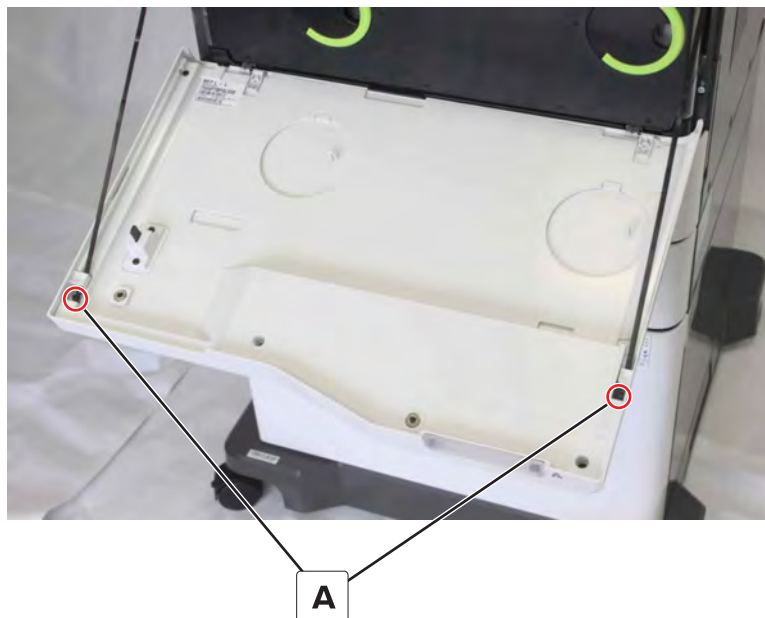
- 4 Remove the screw (B), and then remove the connector cover.



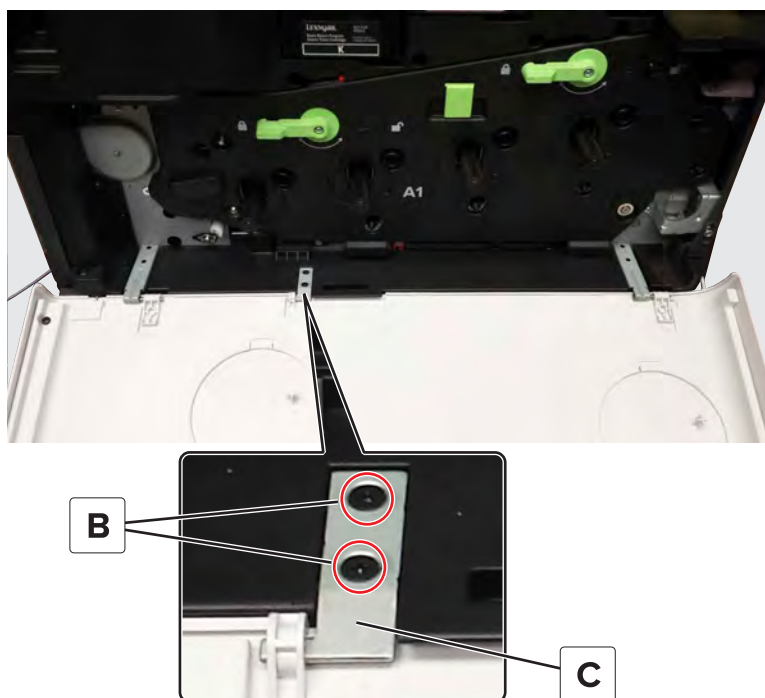
- 5 Remove the cover.

Front door removal

- 1 Open the door, and then remove the two screws (A).



- 2 Remove the two screws (B) and the bracket (C).




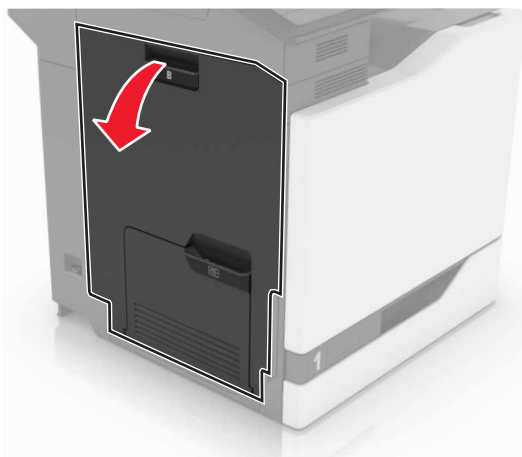
- 3 Move the door to the right to remove it.

Transfer belt removal

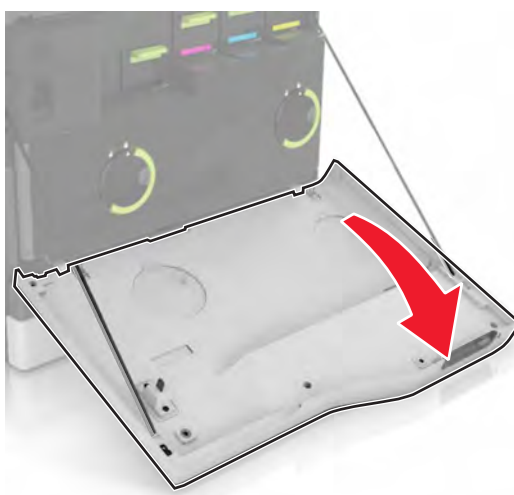
- 1 Open door B.

Parts removal

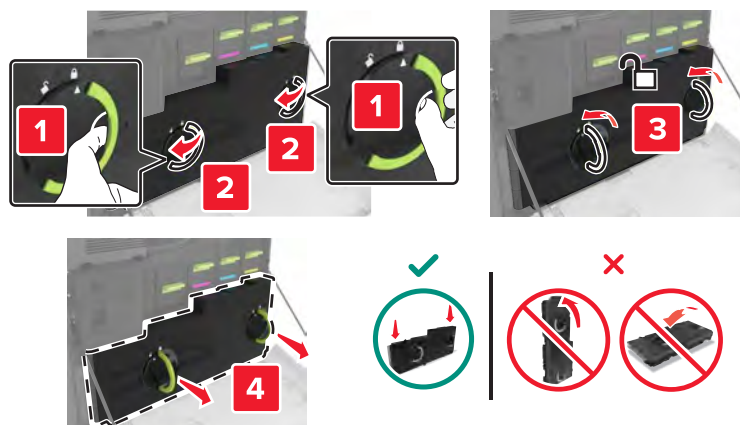
 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



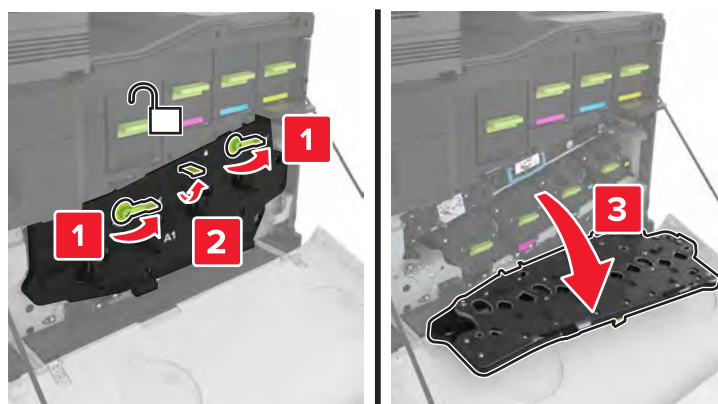
2 Open door A.



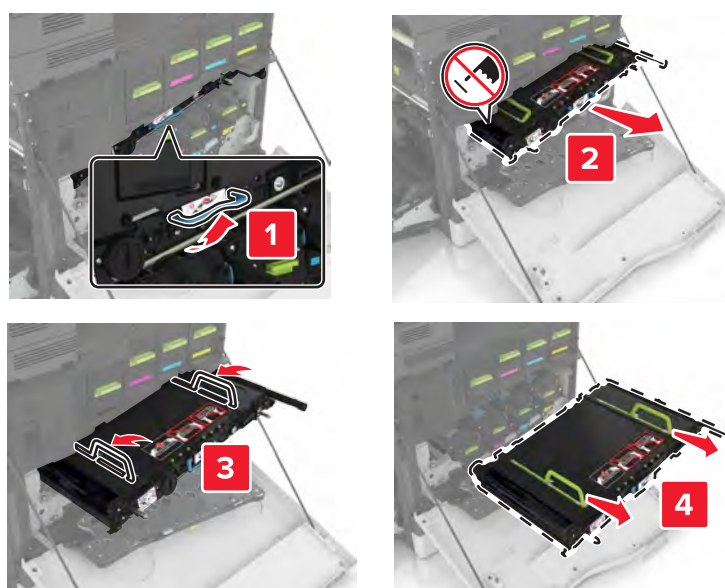
3 Remove the waste toner bottle.



4 Open door A1.

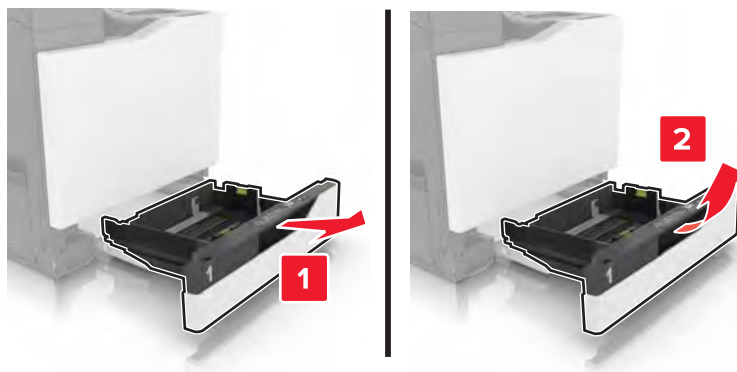


5 Remove the transfer belt.

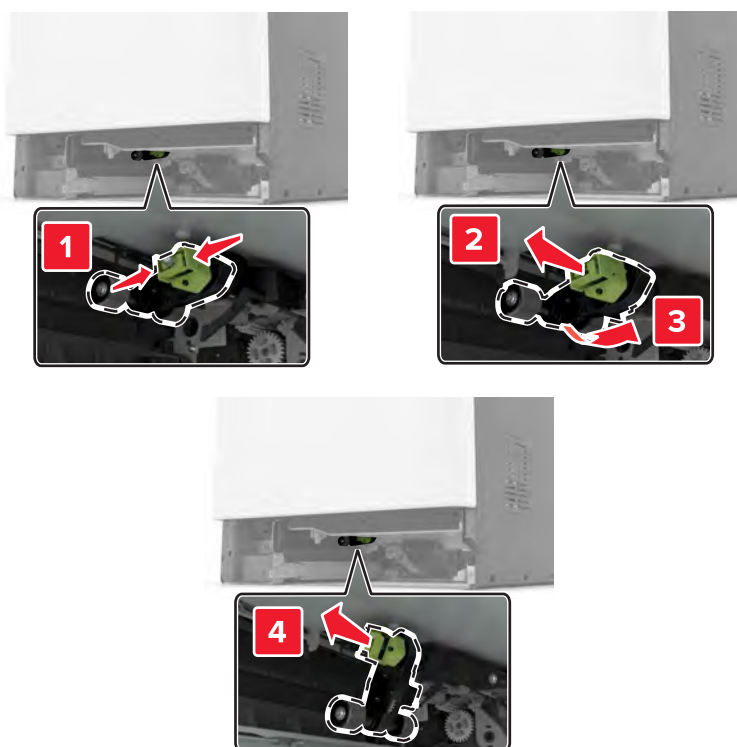


Pick roller removal

1 Remove the tray.

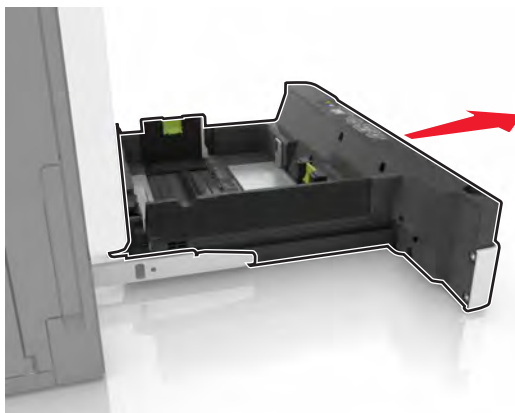


2 Remove the pick roller.

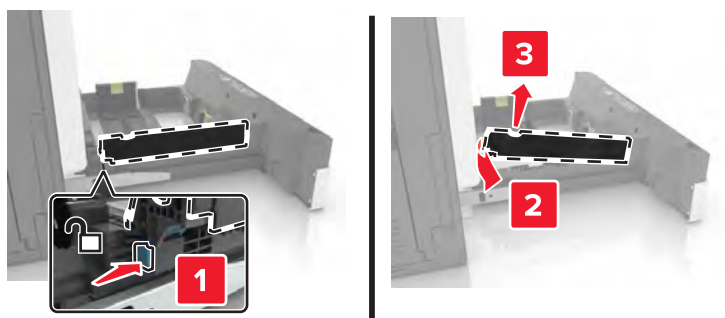


Separator pad removal

- 1 Pull out the tray.

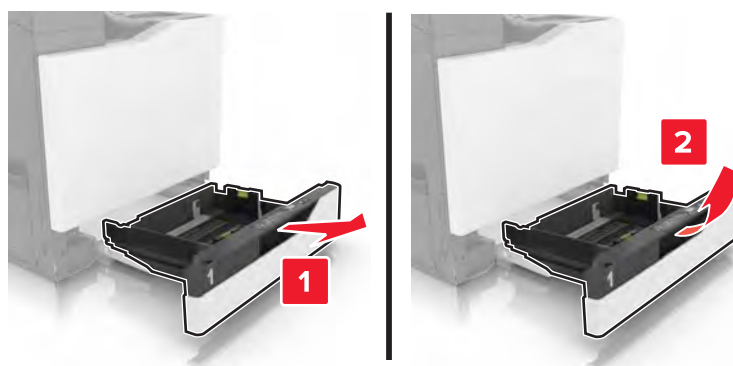


- 2 Remove the separator pad.

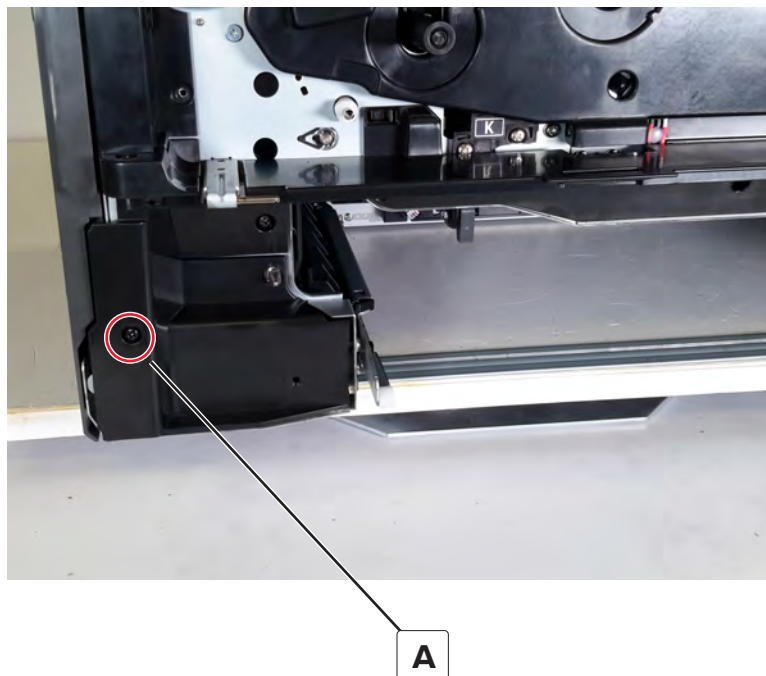


Door rod cover removal

- 1 Remove tray 1.



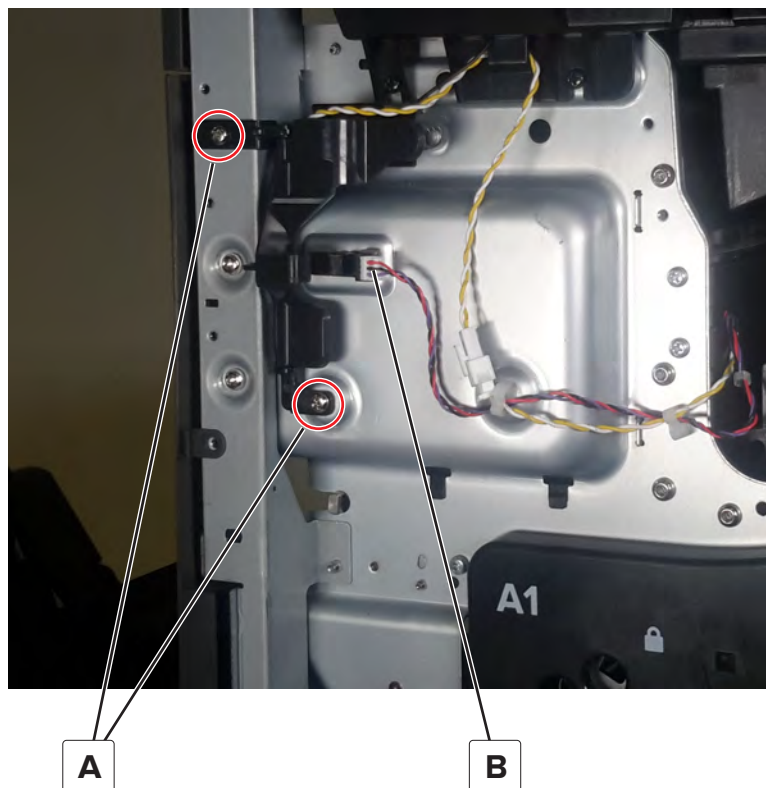
- 2 Remove the screw (A), and then remove the cover.



Sensor (door interlock) removal

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 2 Remove the inner upper cover. See [“Inner upper cover removal” on page 742.](#)
- 3 Remove the inner lower cover. See [“Inner lower cover removal” on page 743.](#)
- 4 Remove the two screws (A), and then remove the actuator.


5 Disconnect the cable (B), and then remove the sensor.

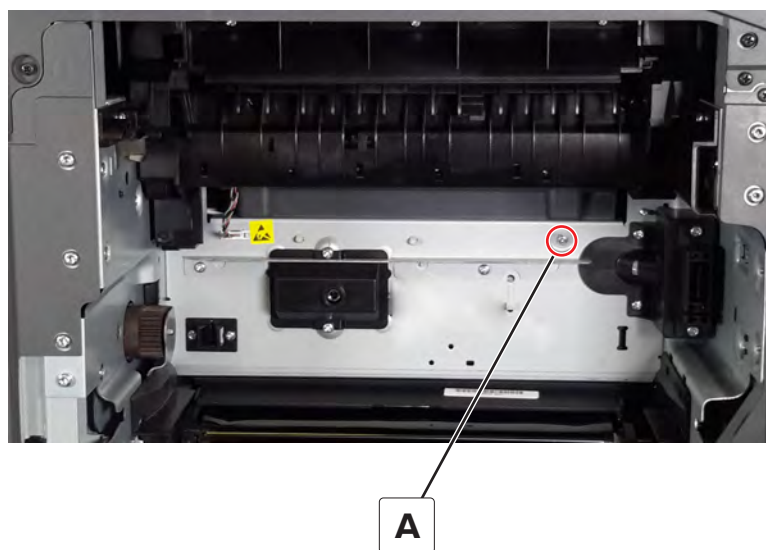


HVPS fan removal

Note: For a video demonstration, see [HVPS fan removal](#).

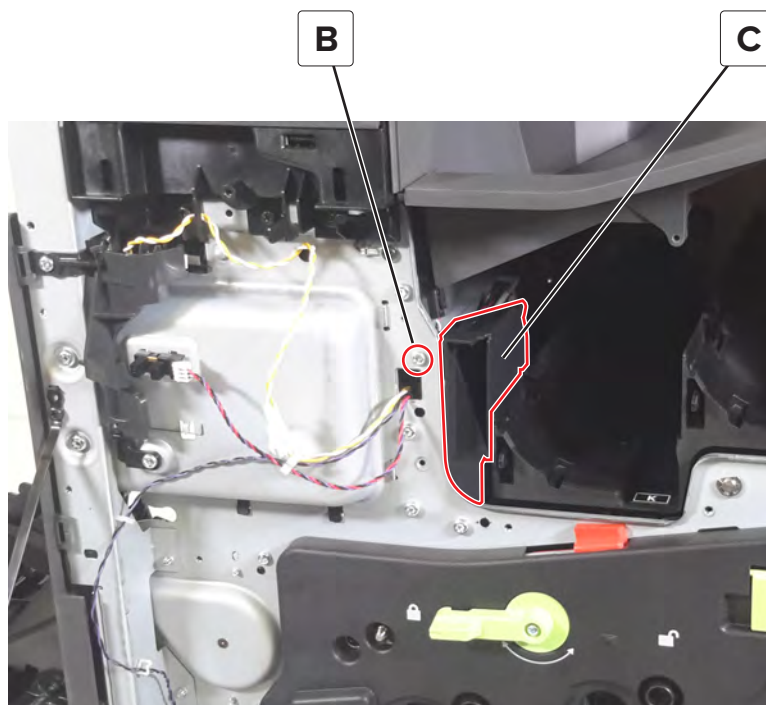
1 Open door B, and then remove the screw (A).

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

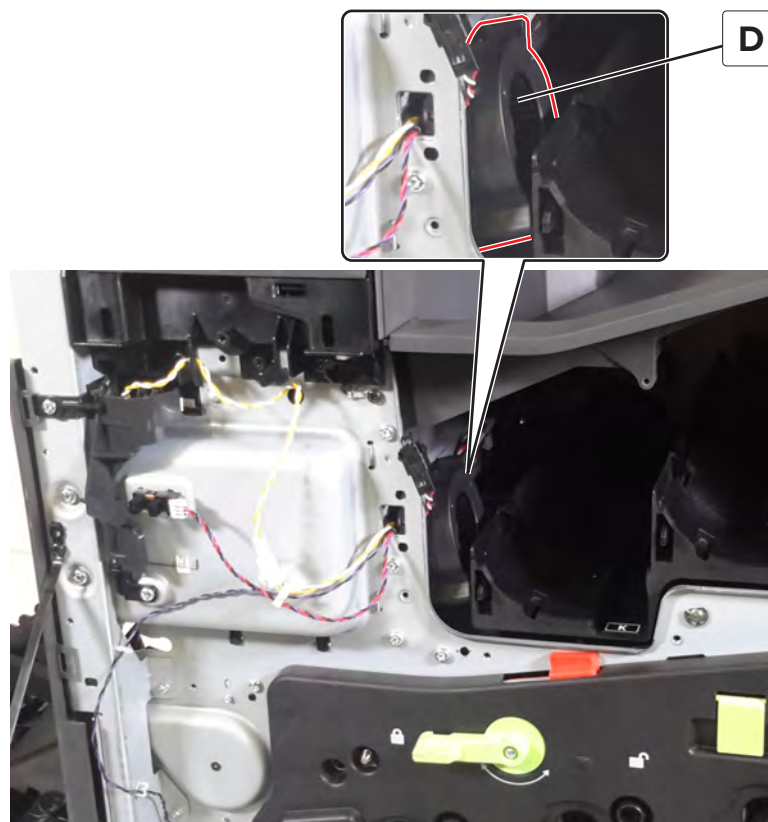


Parts removal

- 2 Open door A.
- 3 Remove the inner upper cover. See [“Inner upper cover removal” on page 742.](#)
- 4 Remove the inner lower cover. See [“Inner lower cover removal” on page 743.](#)
- 5 Remove the screw (B) and the duct (C).



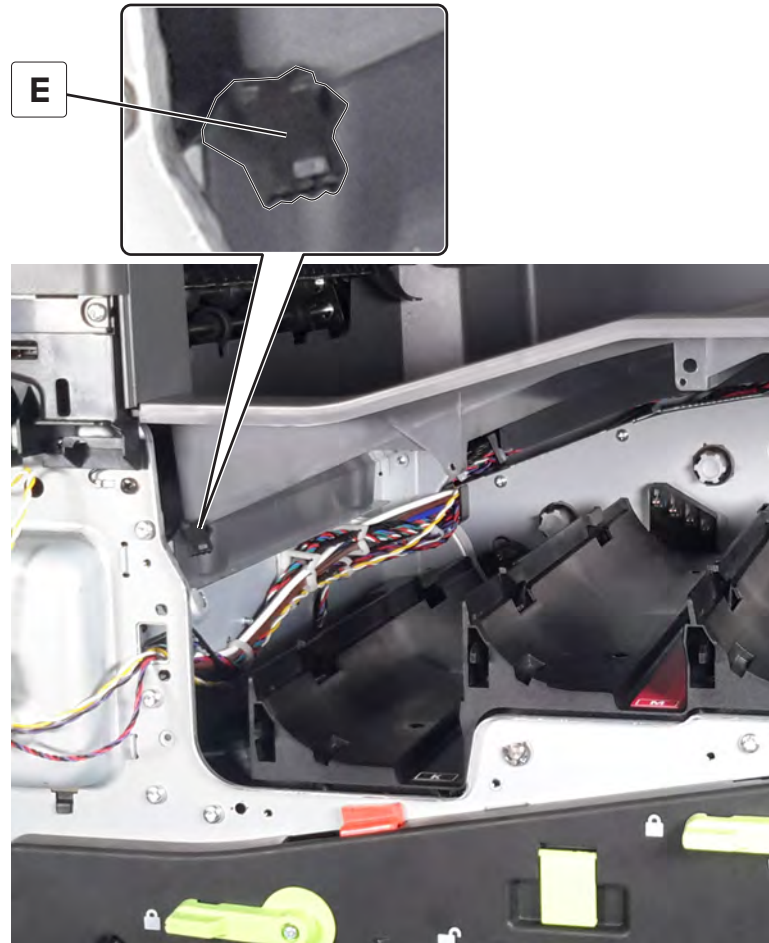
6 Remove the fan (D).



Parts removal

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7 Disconnect the cable (E).

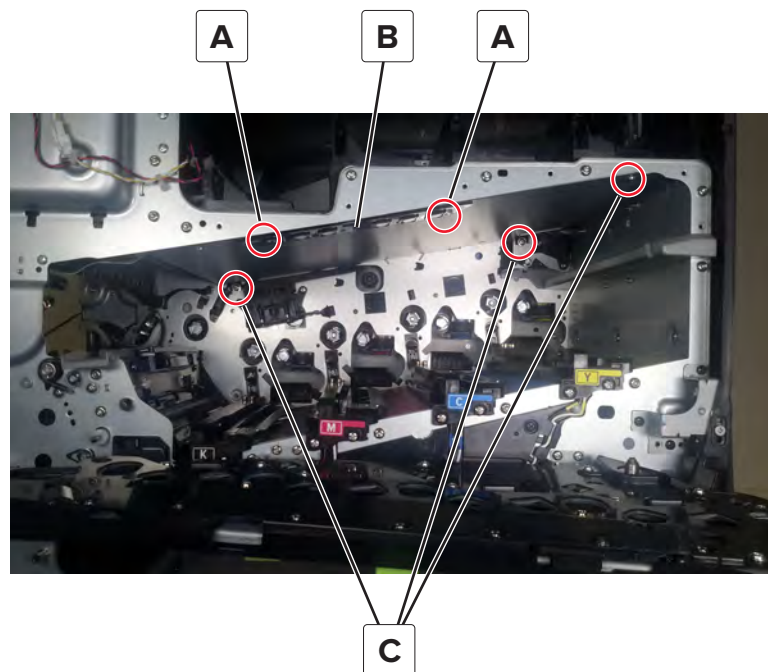


Main HVPS removal

Note: For a video demonstration, see [Main HVPS removal](#).

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731](#).
- 2 Remove the inner upper cover. See [“Inner upper cover removal” on page 742](#).
- 3 Remove the inner lower cover. See [“Inner lower cover removal” on page 743](#).
- 4 Remove the HVPS fan. See [“HVPS fan removal” on page 750](#).
- 5 Remove the two screws (A), and then remove the bezel (B).

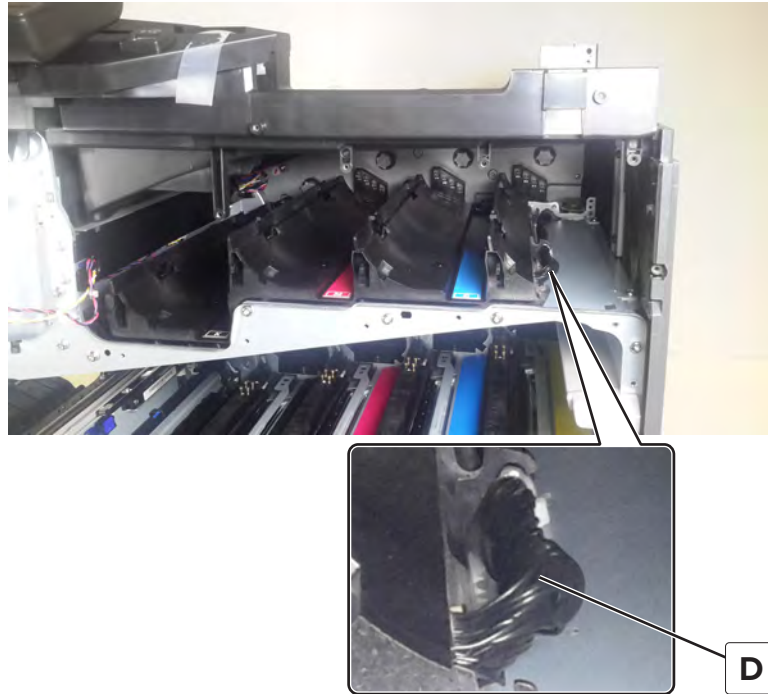
6 Remove the three screws (C).



7 Remove the toner cartridge guide.



- 8 Disconnect the cable (D).

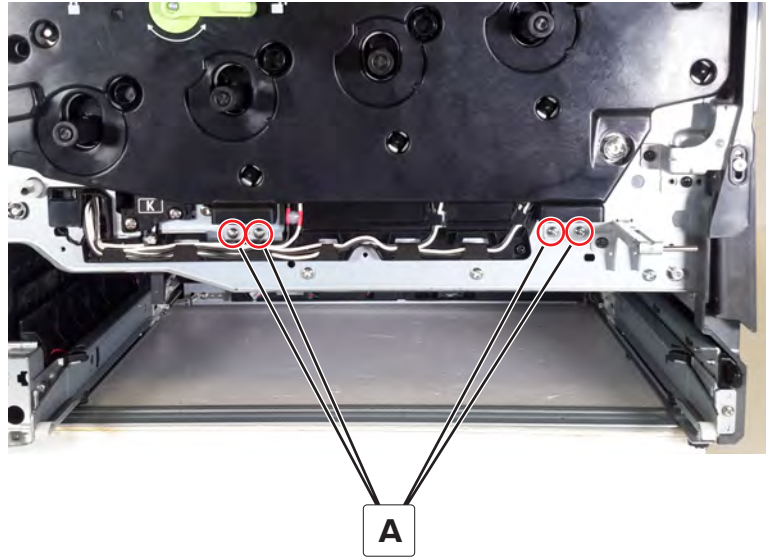


- 9 Lift the rear end of the HVPS to release, and then remove the HVPS.

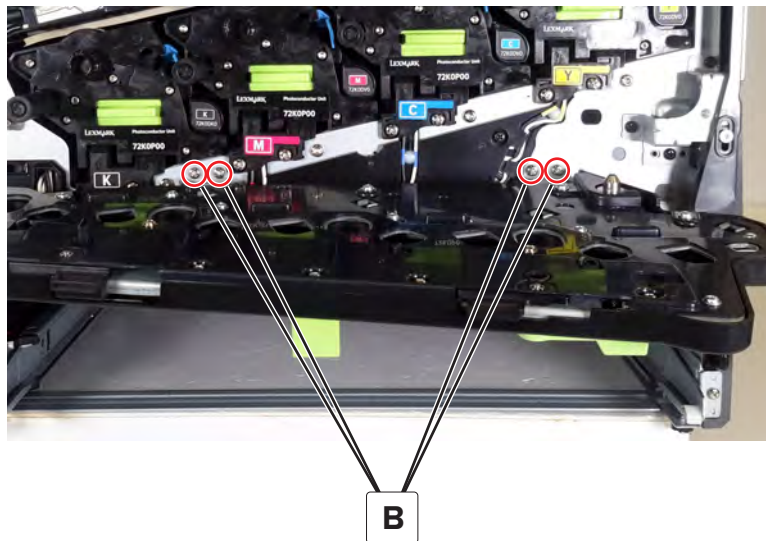
PC unit/developer door removal

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 2 Remove the inner upper cover. See [“Inner upper cover removal” on page 742.](#)
- 3 Remove the inner lower cover. See [“Inner lower cover removal” on page 743.](#)
- 4 Remove the front door. See [“Front door removal” on page 744.](#)

- 5 Remove the four screws (A).



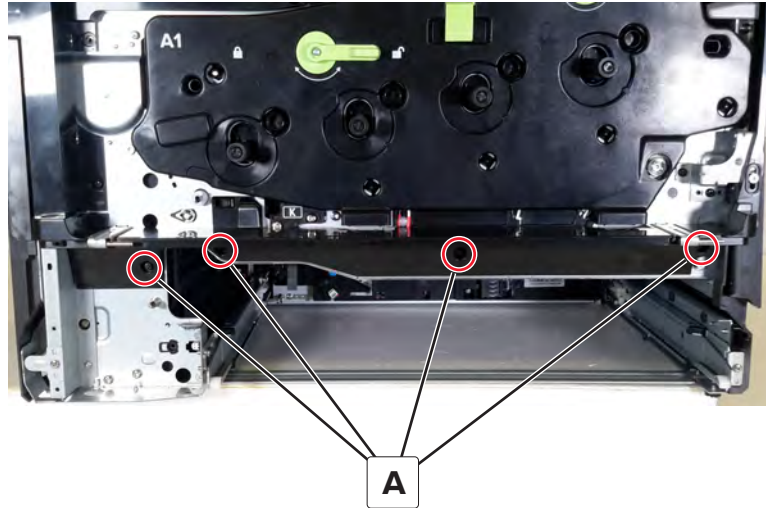
- 6 Open door A1, remove the four screws (B), and then remove the door.




Lower front cover removal

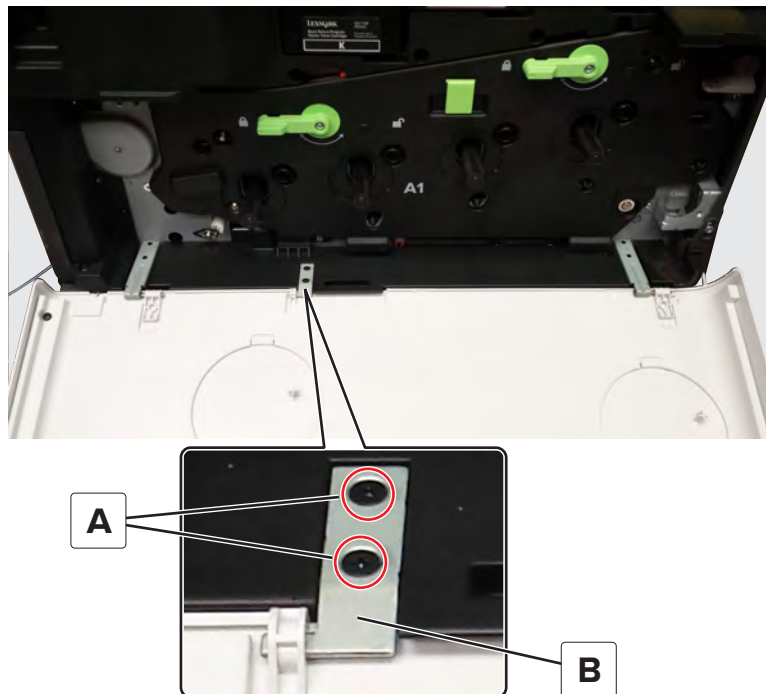
- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 2 Remove the inner upper cover. See [“Inner upper cover removal” on page 742.](#)
- 3 Remove the inner lower cover. See [“Inner lower cover removal” on page 743.](#)
- 4 Remove the front door. See [“Front door removal” on page 744.](#)
- 5 Remove the door rod cover. See [“Door rod cover removal” on page 748.](#)

- 6 Remove the four screws (A), and then remove the cover.



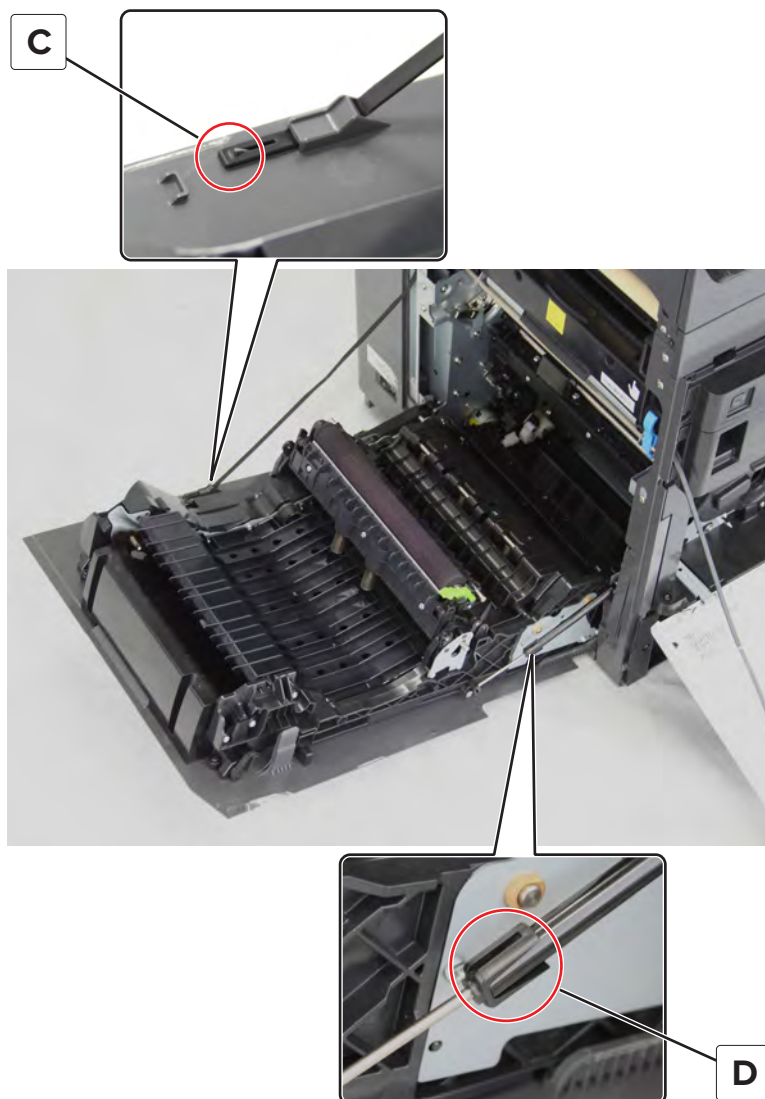
Sensor (waste toner bottle present) and bracket removal

- 1 Remove the waste toner bottle. See [“Waste toner bottle removal” on page 737.](#)
- 2 Remove the black developer and PC unit combo. See [“Developer unit and photoconductor unit removal” on page 739.](#)
- 3 Remove tray 1, and then open door A and door B.
 -  **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.
- 4 Remove the two screws (A), and then remove the bracket (B).

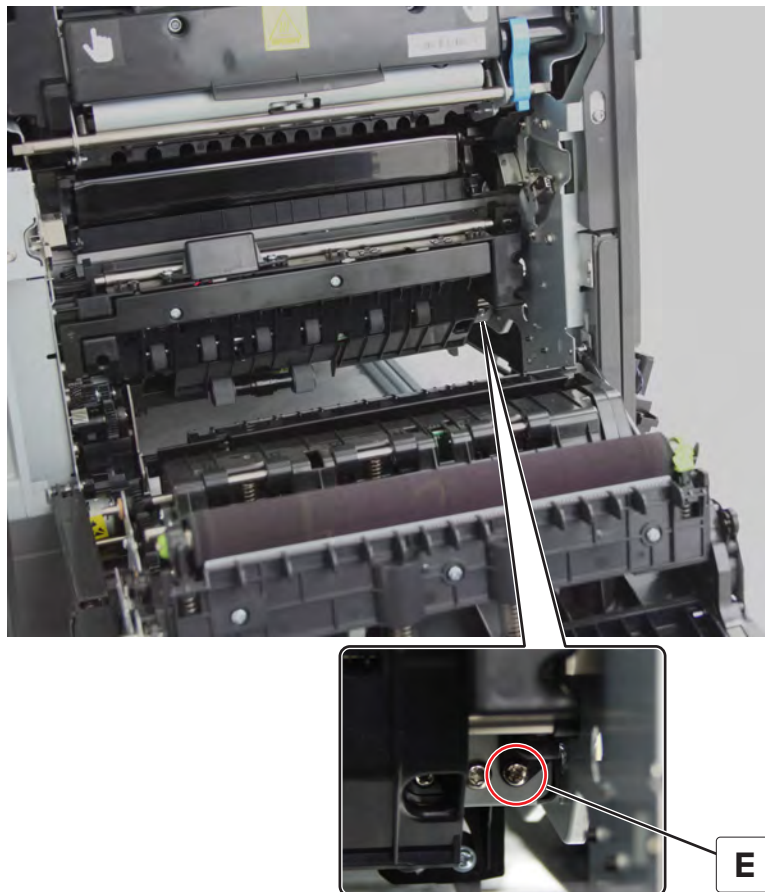


Parts removal

- 5 Move the door to the right to release, and then place it on top of the printer.
- 6 Remove the door rod cover. See [“Door rod cover removal” on page 748](#).
- 7 Remove the lower front cover. See [“Lower front cover removal” on page 756](#).
- 8 Disconnect the support strap (C), and then release the retainer (D) to disconnect the door support.



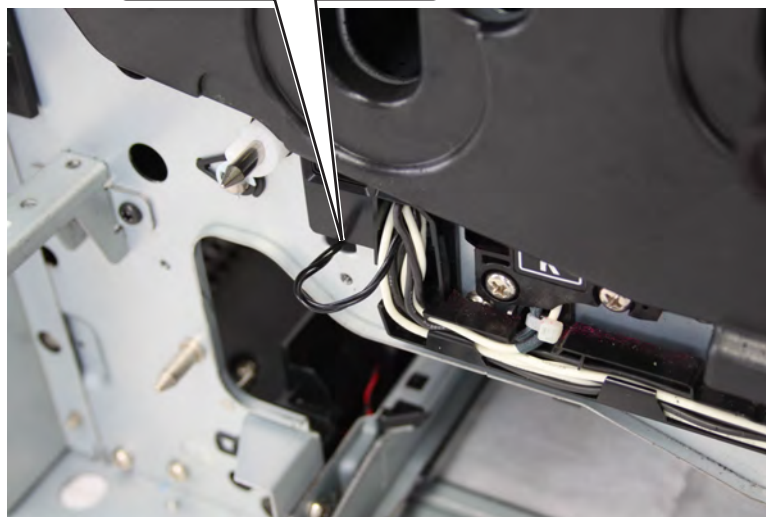
9 From the left side, remove the screw (E).



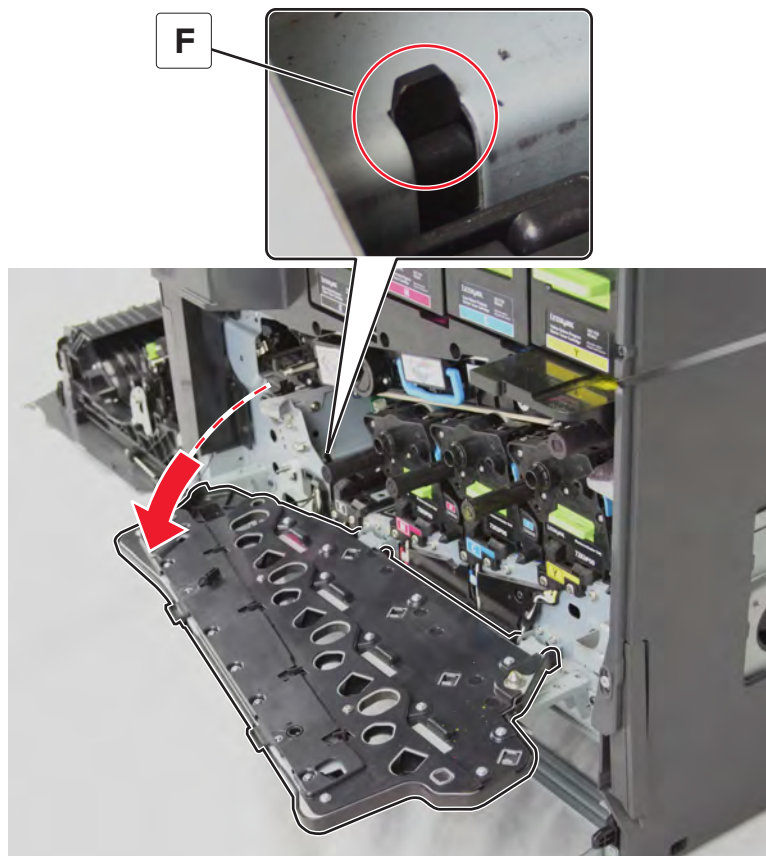
Parts removal

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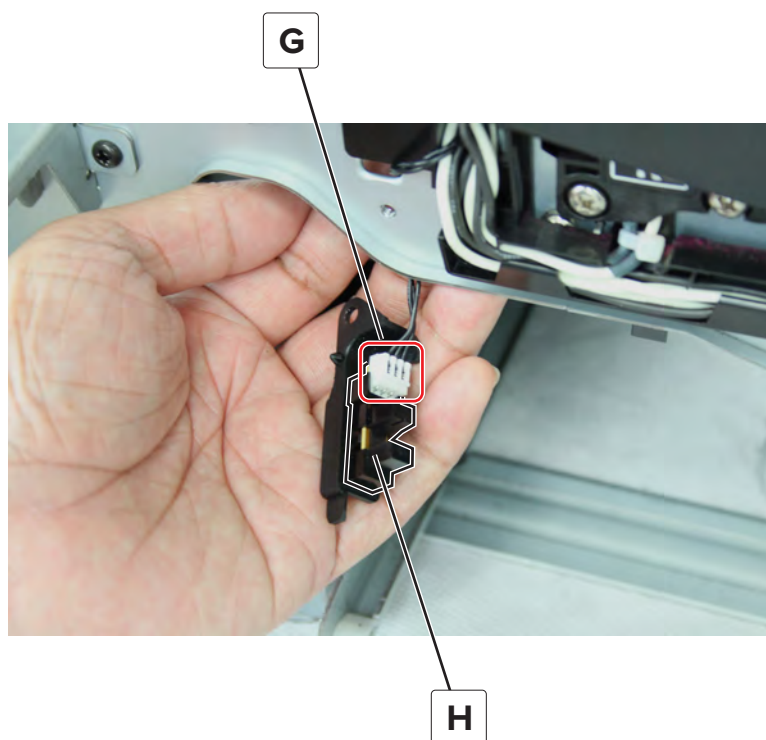
- 10** From the front side, pull the sensor cable to allow more slack.



11 Open door A1, and then dislodge the sensor bracket (F) while pulling it down from the left side.



12 Disconnect the cable (G), and then separate the sensor (H) from the bracket.

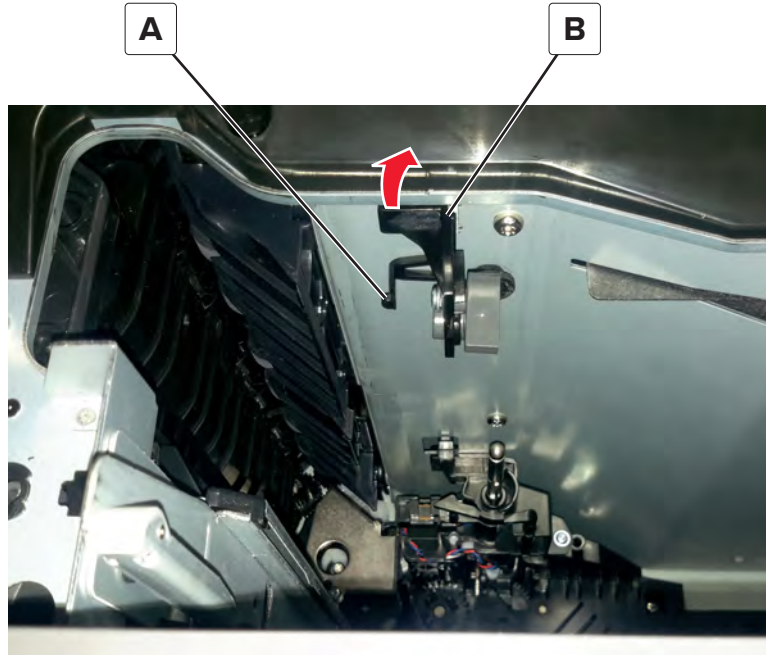


Parts removal

Paper feeder removal

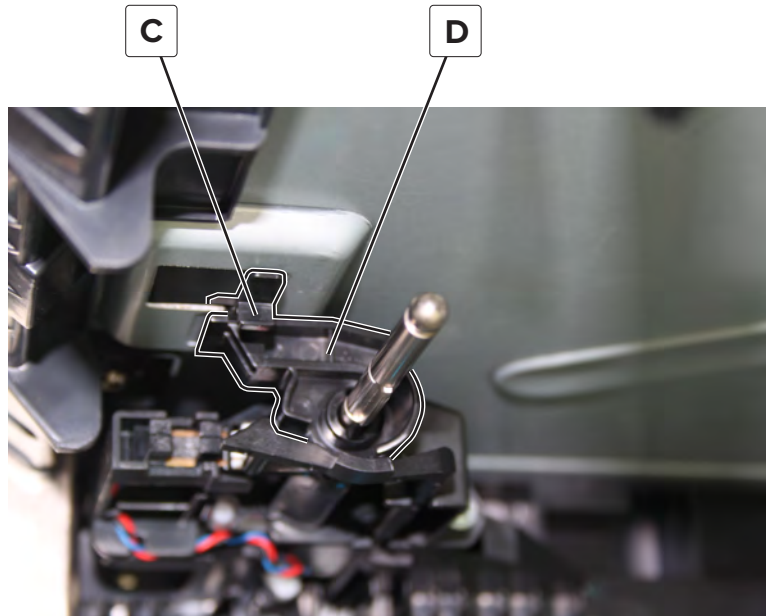
Note: For a video demonstration, see [Paper feeder removal](#).

- 1 Remove the pick roller. See [“Pick roller removal” on page 747](#).
- 2 Press and hold the latch (A), and then rotate and remove the paper stopper (B).



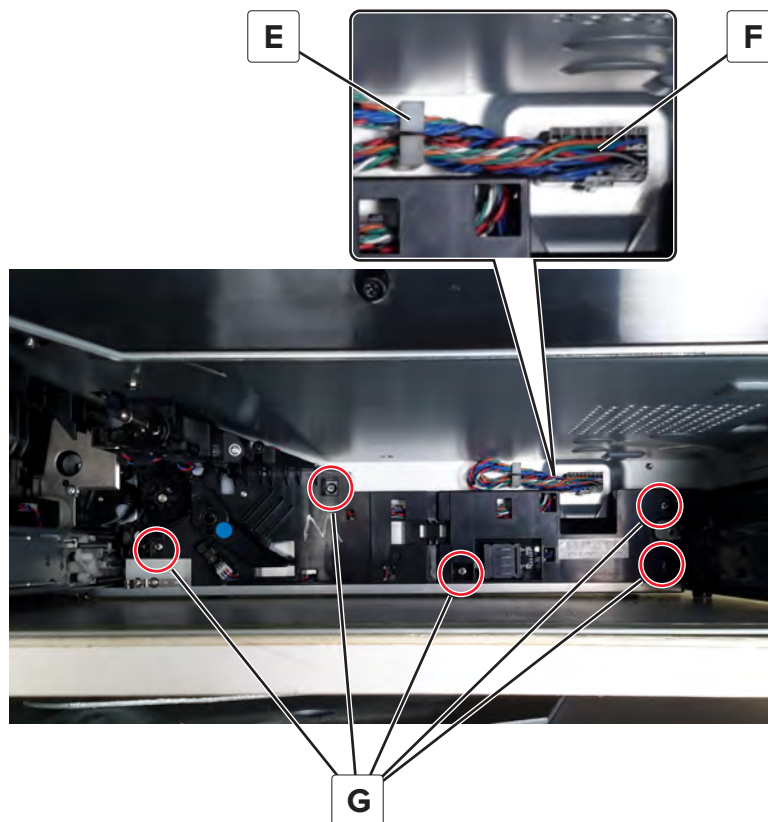
- 3 Lower the latch (C) to release, and then remove the feeder bearing (D).

Note: The shaft may need to be slightly rotated to align it with the hole on the feeder bearing.



- 4 Release the cable from its guide (E), and then disconnect it (F).

5 Remove the five screws (G).

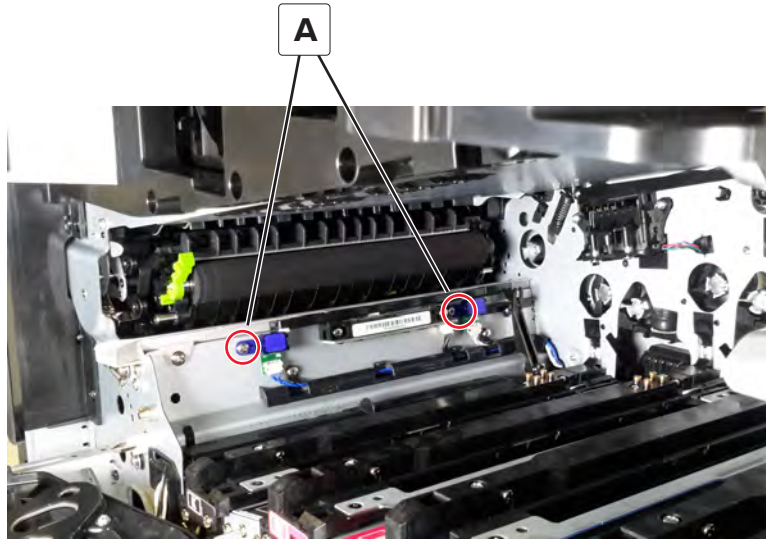


6 Pull out, and then remove the feeder.

Sensor (auto alignment) removal

- 1 Remove the developer and PC unit combos.
- 2 Remove the transfer belt. See [“Transfer belt removal” on page 744.](#)

- 3 Remove the screw (A) from the appropriate sensor.

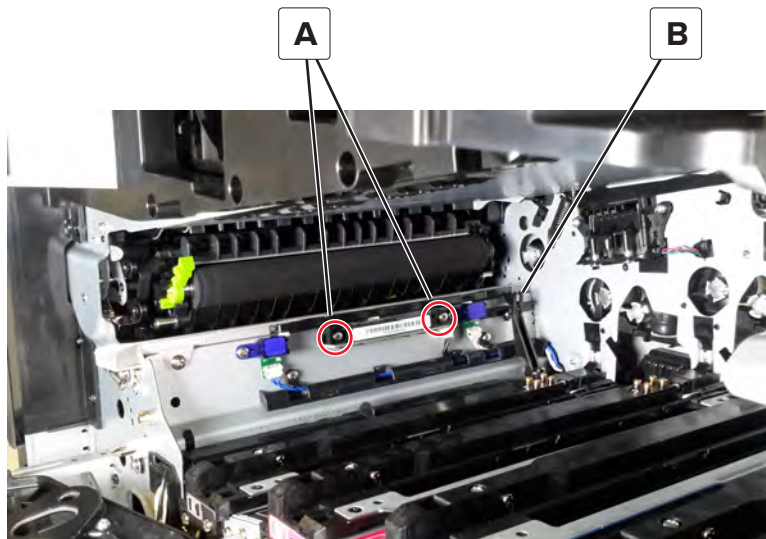


- 4 Disconnect, and then remove the sensor.

Sensor (TPS) removal

- 1 Remove the developer and PC unit combos.
- 2 Remove the transfer belt. See [“Transfer belt removal” on page 744.](#)
- 3 Remove the two screws (A), and then release the sensor from the fork (B).

Installation note: Engage the sensor tab with the fork properly.

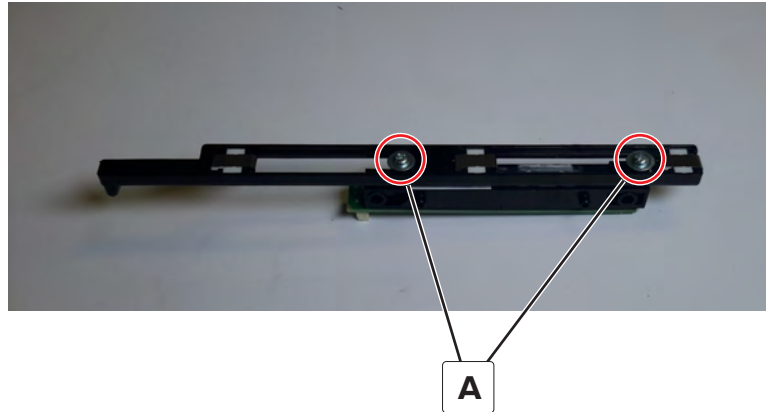


- 4 Disconnect, and then remove the sensor.

Warning—Potential Damage: Press the latch on the connector to unlock. Do not pull the connector without unlocking it.

TPS sensor wiper removal

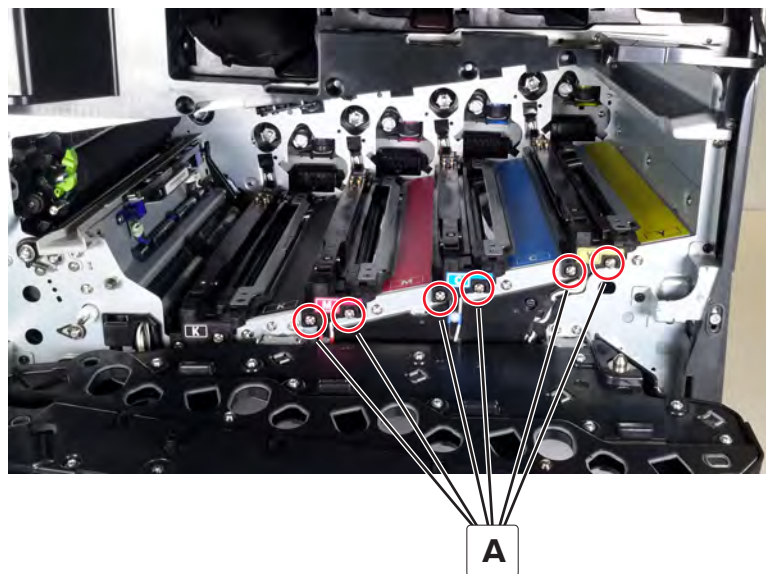
- 1 Remove the developer and PC unit combos.
- 2 Remove the transfer belt. See [“Transfer belt removal” on page 744.](#)
- 3 Remove the sensor (TPS). See [“Sensor \(TPS\) removal” on page 764.](#)
- 4 Remove the two screws (A), and then remove the wiper.



Developer/PC unit CMY wiper rail removal

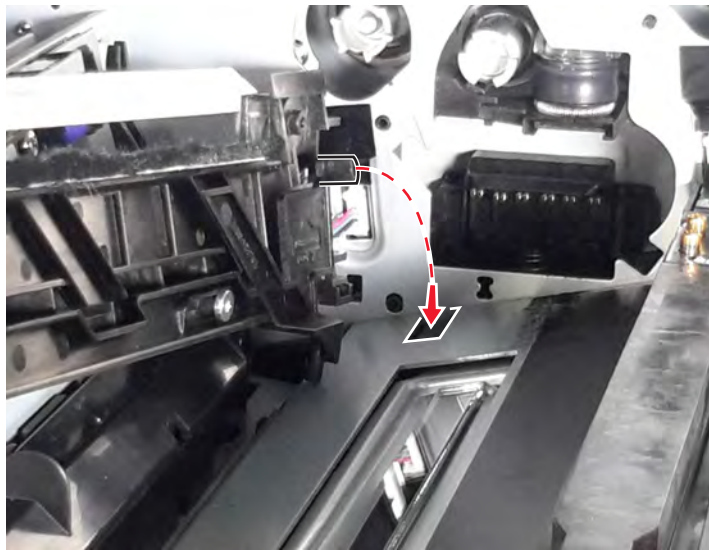
Note: For a video demonstration, see [Developer/PC unit CMY wiper rail removal.](#)

- 1 Remove the developer and PC unit combos.
- 2 Remove the transfer belt. See [“Transfer belt removal” on page 744.](#)
- 3 Remove the two screws (A) from the appropriate wiper rail.



- 4 Disconnect, and then remove the wiper rail.

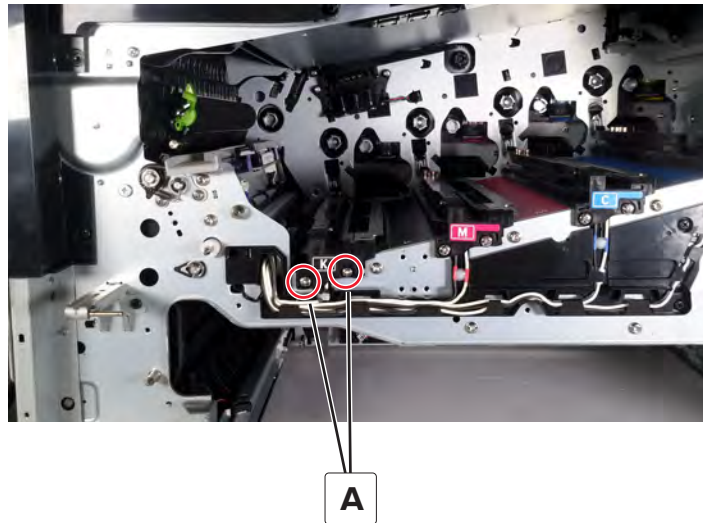
Installation warning: Align the peg with the slot, or damage may occur.



Developer/PC unit K wiper rail removal

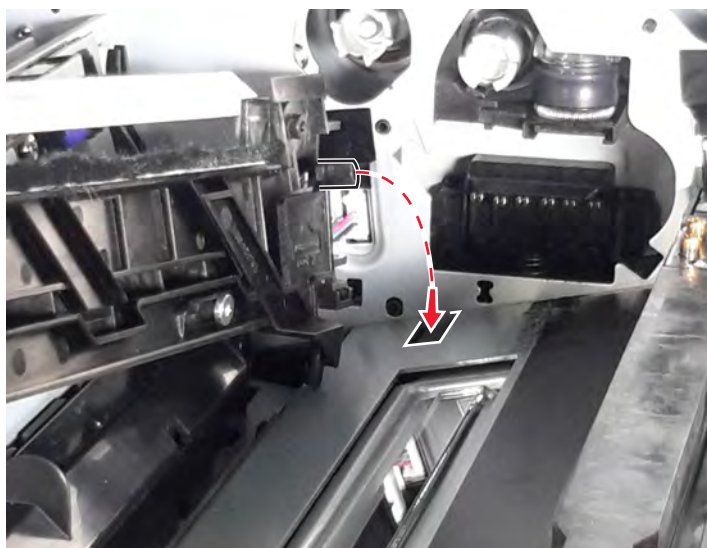
Note: For a video demonstration, see [Developer/PC unit K wiper rail removal](#).

- 1 Remove the developer and PC unit combos.
- 2 Remove the transfer belt. See [“Transfer belt removal” on page 744](#).
- 3 Remove the PC unit/developer door. See [“PC unit/developer door removal” on page 755](#).
- 4 Remove the two screws (A).



- 5 Disconnect, and then remove the wiper rail.

Installation warning: Align the peg with the slot, or damage may occur.

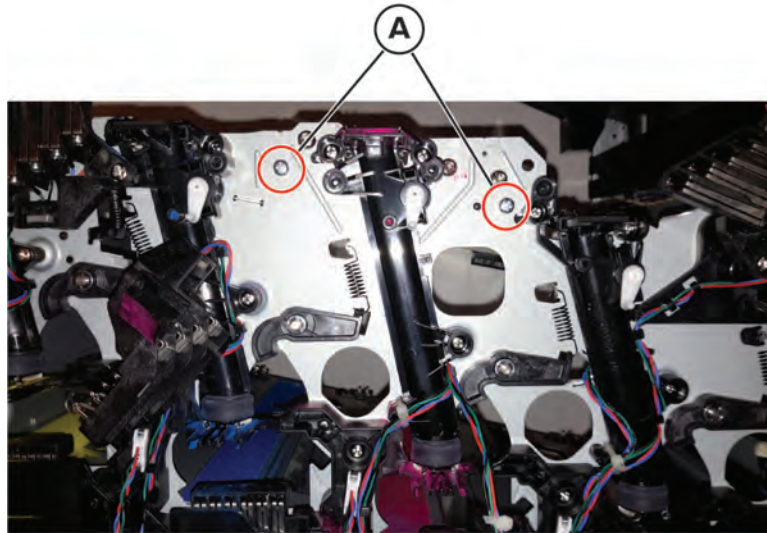


Developer roll power contact removal

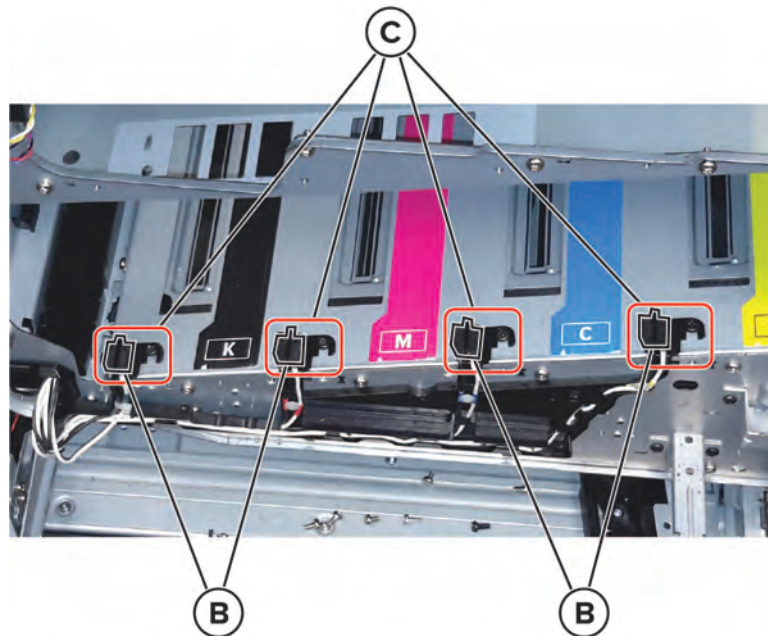
Warning—Potential Damage: Pay attention to the cable routing to avoid damage.

- 1 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 2 Remove the inner upper cover. See [“Inner upper cover removal” on page 742.](#)
- 3 Remove the inner lower cover. See [“Inner lower cover removal” on page 743.](#)
- 4 Remove the HVPS fan. See [“HVPS fan removal” on page 750.](#)
- 5 Remove the developer and PC unit combos. See [“Developer unit and photoconductor unit removal” on page 739.](#)
- 6 Remove the transfer belt. See [“Transfer belt removal” on page 744.](#)
- 7 Remove the front door. See [“Front door removal” on page 744.](#)
- 8 Remove the lower front cover. See [“Lower front cover removal” on page 756.](#)
- 9 Remove the PC unit/developer door. See [“PC unit/developer door removal” on page 755.](#)
- 10 Remove the main HVPS. See [“Main HVPS removal” on page 753.](#)
- 11 Remove the developer/PC unit CMY wiper rail. See [“Developer/PC unit CMY wiper rail removal” on page 765.](#)
- 12 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 13 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 14 Remove the column outer cover removal. See [“Column outer cover removal” on page 718.](#)
- 15 Remove the right cover. See [“Right cover removal” on page 718.](#)
- 16 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 17 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 18 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)

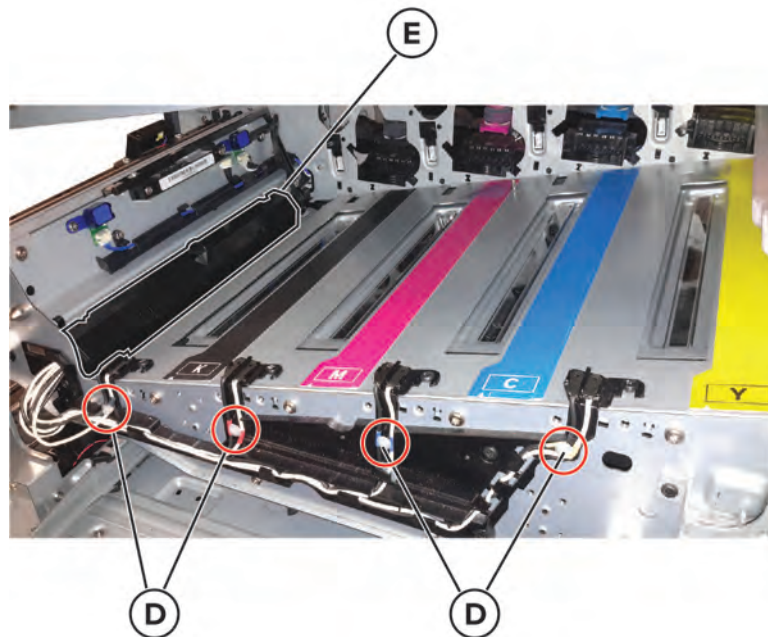
- 19 Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 20 Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).
- 21 Remove the main fan duct. See [“Main fan duct removal” on page 792](#).
- 22 Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796](#).
- 23 Remove the fuser/transfer belt motor gearbox. See [“Fuser/transfer belt motor gearbox removal” on page 799](#).
- 24 Remove the cyan and magenta toner cartridge contacts. See [“Toner cartridge contact removal” on page 805](#).
- 25 Remove the two screws (A) securing the developer roll power contact to the frame.



- 26** Lift the four contacts (B) with a small flat tipped screwdriver, and then detach them from the four brackets (C).



- 27** Remove the four cable retainers (D), and then remove the cover (E).



- 28** Remove the four black cables from the cable guides, and then remove the developer roll power contact.

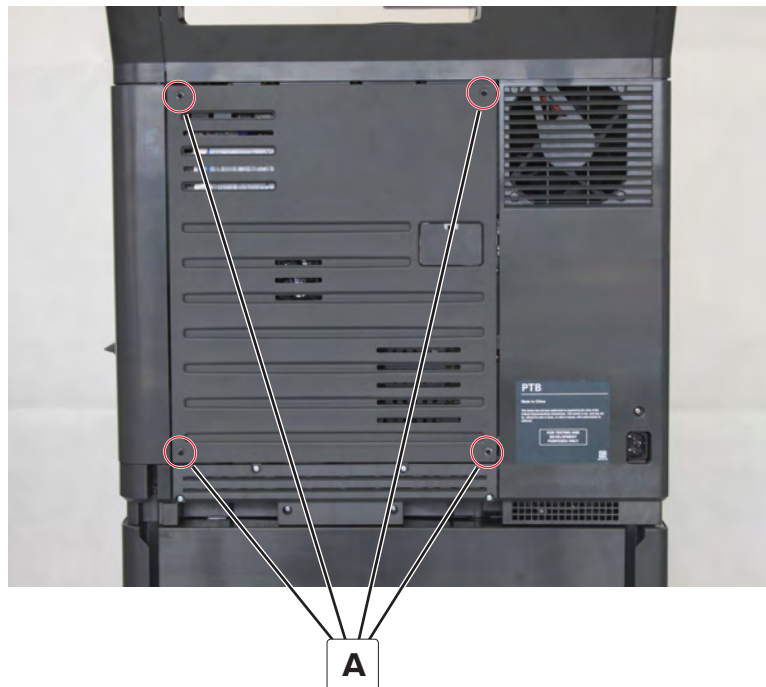
Installation notes:

- a** Make sure that the cables are properly routed and replaced.
- b** Make sure to collect and bundle the excess cables under the cover (E).

Rear side removals

Controller board cover removal

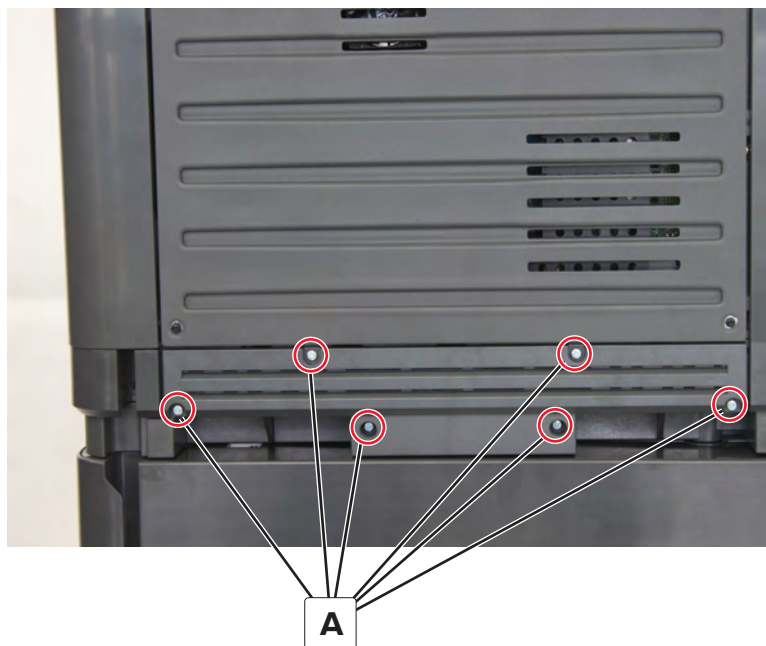
- 1 Remove the four screws (A).



- 2 Remove the cover.

Rear lower cover removal

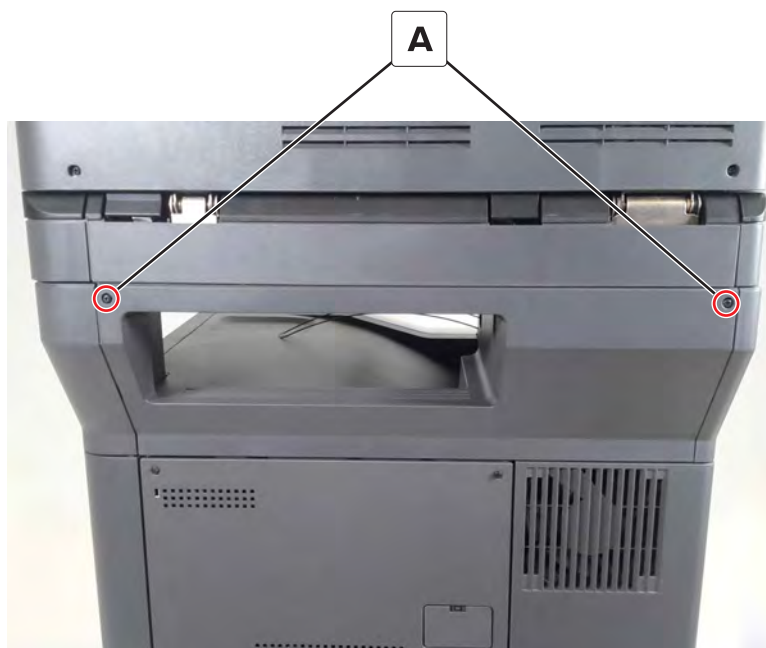
- 1 Remove the six screws (A).



- 2 Remove the cover.

Rear upper cover removal


- 1 Remove the two screws (A).

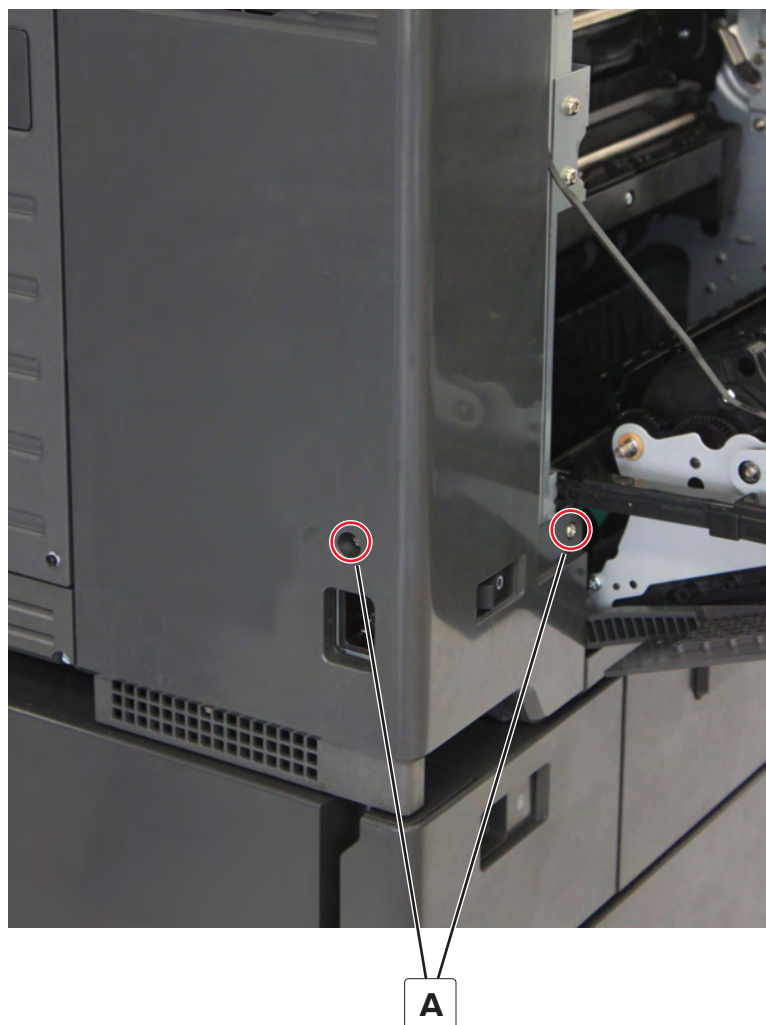


- 2 Remove the cover.

Rear left cover removal

- 1 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 3 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 4 Open door B, and then remove the two screws (A).

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



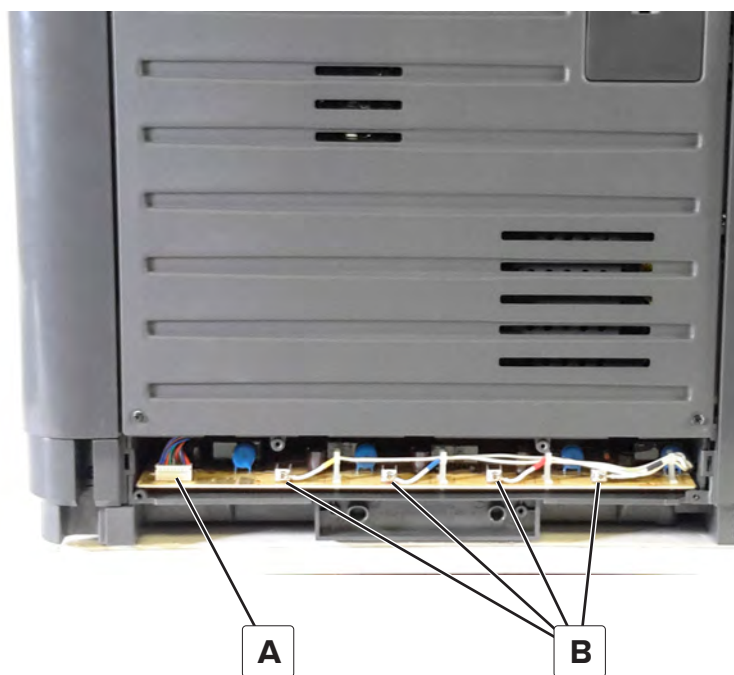
- 5 Remove the cover.

Charge roller HVPS removal

- 1 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2 Disconnect the cable (A), and then remove the four screws (B).

Warning—Potential Damage: Do not touch the HVPS circuit components. Only handle it by its edges.

Installation warning: Print quality issues may occur if the screws (B) are loose.

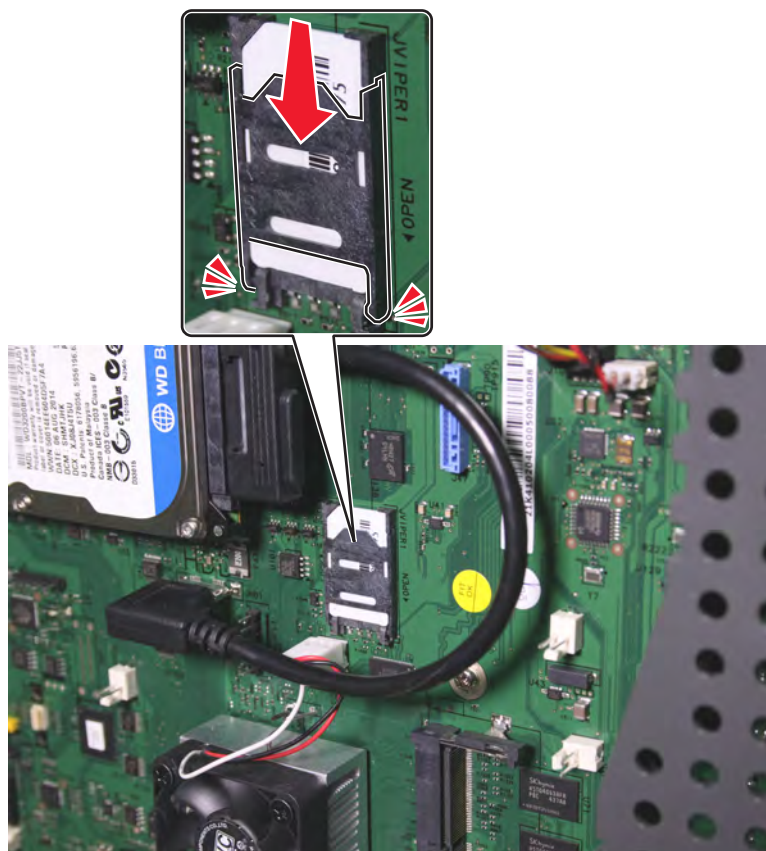


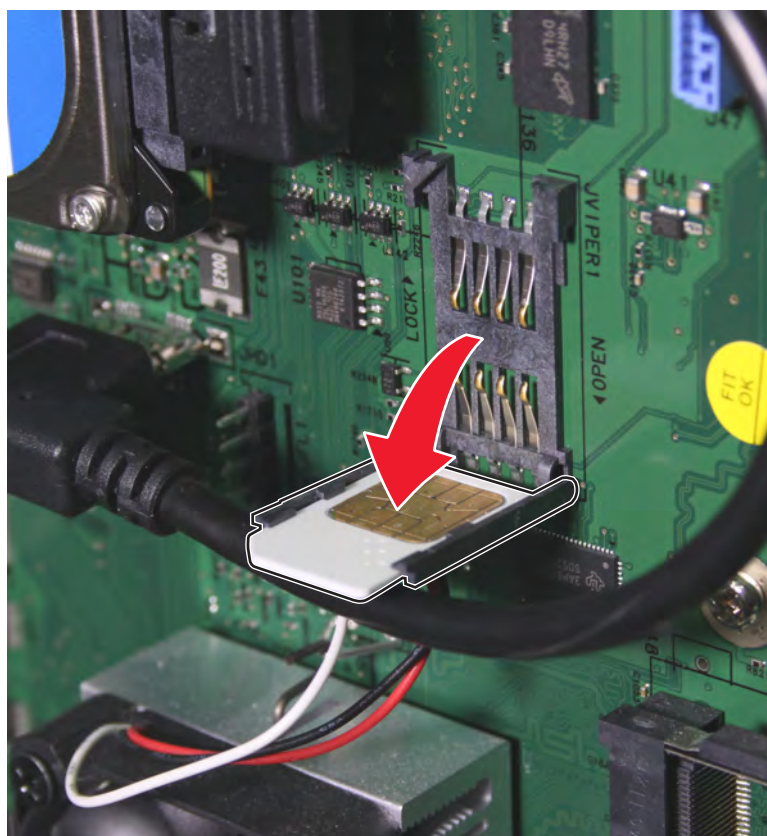
3 Remove the HVPS.

Controller board SIM removal

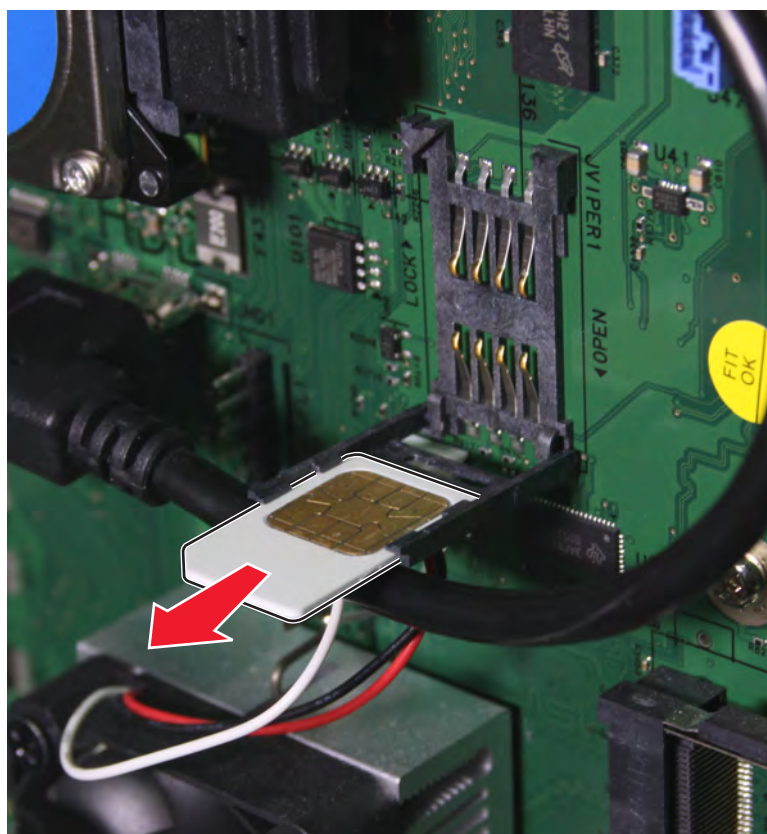
Note: The printer controller board may contain a Secure Element SIM. This SIM contains software and security settings that are unique to the printer. The SIM must be transferred from the old controller board to the new controller board.

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 2 Slide the SIM lock to the open position.





3 Remove the SIM.



Parts removal

Controller board removal

Critical information for controller board or control panel replacement

Warning—Potential Damage: Replace only one of the following components at a time:

- Control panel
- Controller board

To replace a component and to test whether the problem is resolved:

1 Replace the affected component.

Warning—Potential Damage: Do not perform a Power-On Reset (POR) until the problem is resolved. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

2 Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

Warning—Potential Damage: Some printers will perform a POR automatically if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

3 Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.

- If the problem is not resolved—Turn off the printer, and then reinstall the old part.
- If the problem is resolved—Perform a POR.
- If NVRAM error occurs during the replacement, go to [“NVRAM mismatch failure service check” on page 537](#)

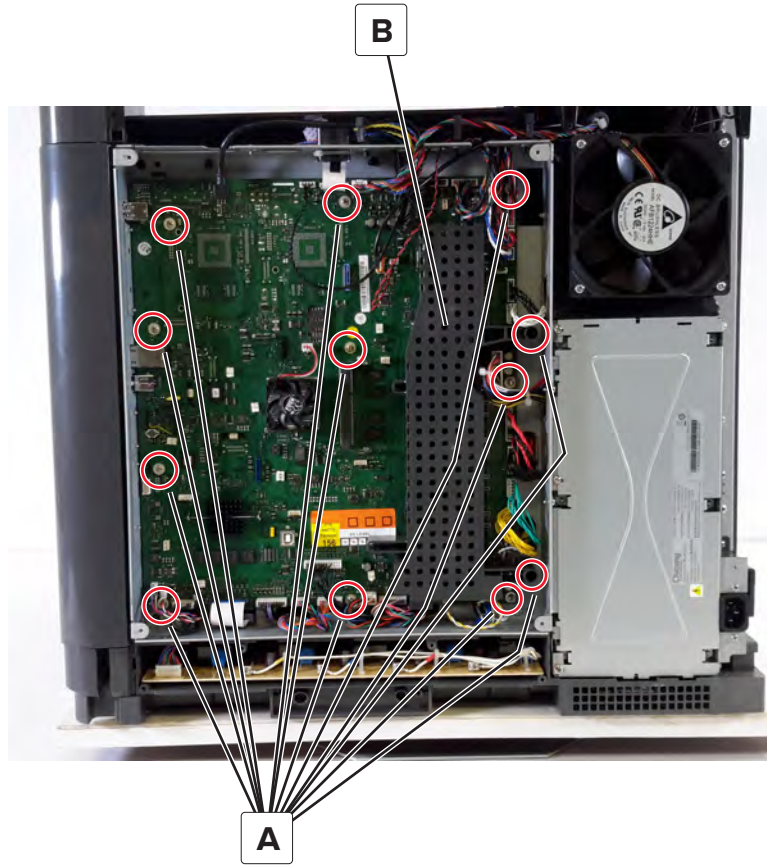
Removal procedure

1 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).

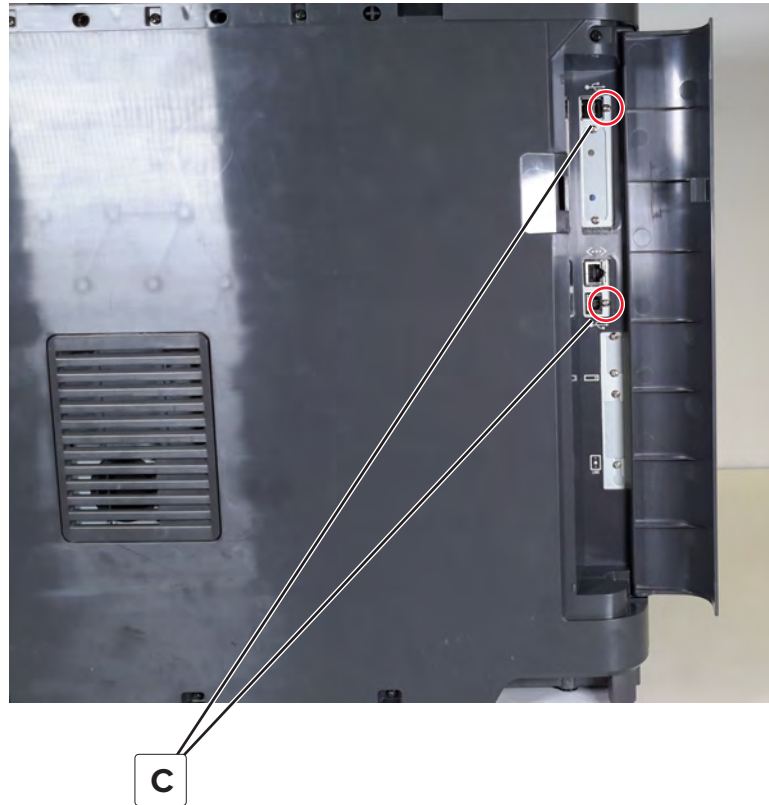
2 Disconnect all the cables from the board.

Warning—Potential Damage: Do not yank the ribbon cables. See [“Disconnecting ribbon cables” on page 663](#).

3 Remove the 12 screws (A), and then remove the board shield (B).



- 4 From the right, open the connector access cover, and then remove the two screws (C).



- 5 Remove the board.

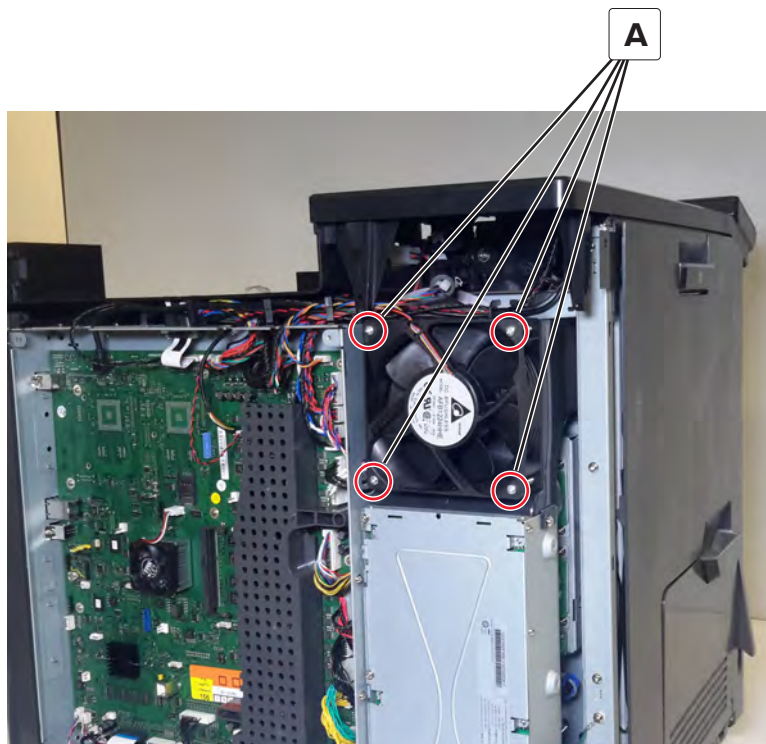
Installation note: Make sure that the shield is reinstalled after replacing the board.

Main fan removal

Note: For a video demonstration, see [Main fan removal](#).

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).

- 6 Disconnect the cable JF1 from the controller board, and then remove the four screws (A).



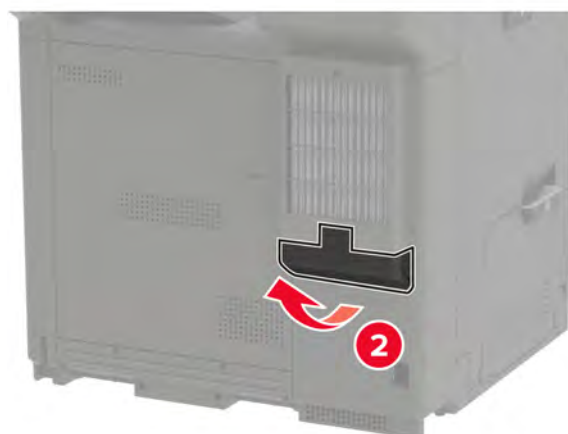
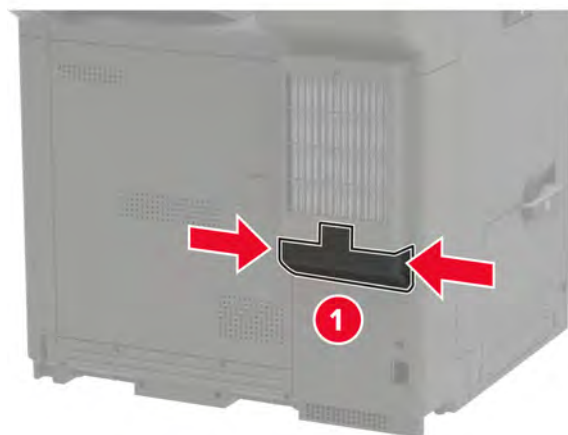
Note: Take note of the correct fan direction and position.

- 7 Remove the fan.

Installation note: Route the cables through the guides properly.

HEPA filter removal

- 1 Open the filter door.



- 2 Remove the filter.



Installation note: Make sure to reset the HEPA filter counter after replacing the filter. See [“Resetting the HEPA filter counter” on page 1396](#).

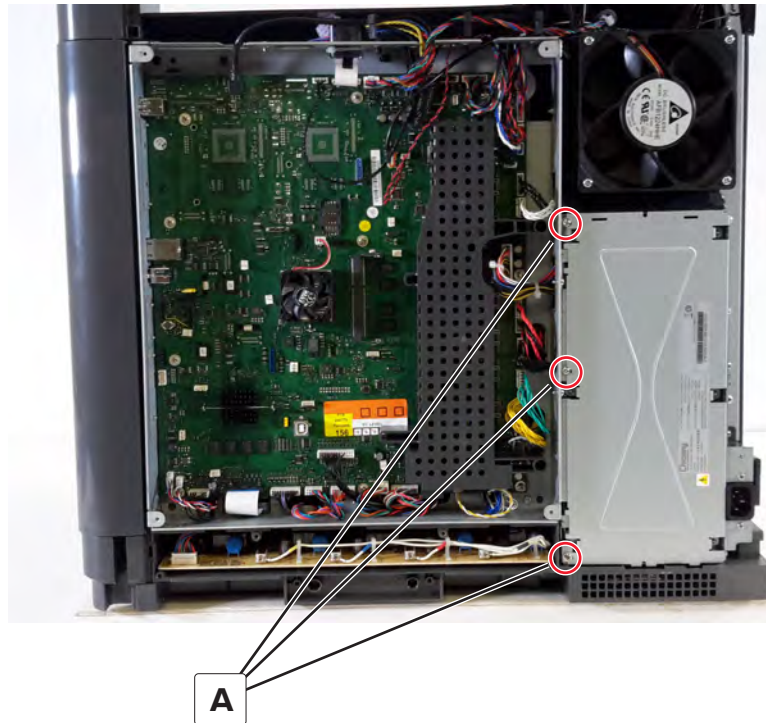
LVPS removal

Note: For a video demonstration, see [LVPS removal](#).

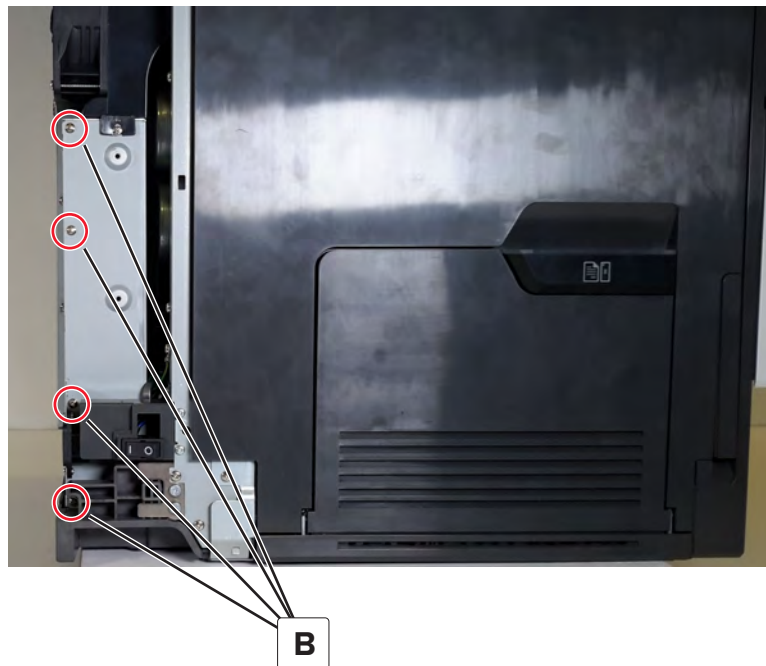
⚠ CAUTION—SHOCK HAZARD: The low-voltage power supply (LVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its outer edges.

- 1 Turn off the printer.
- 2 Unplug the power cord from the electrical outlet, and then from the printer.
- 3 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 4 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 5 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 6 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 7 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).

- 8 Disconnect the cable JLVP51 from the controller board, and then remove the three screws (A).



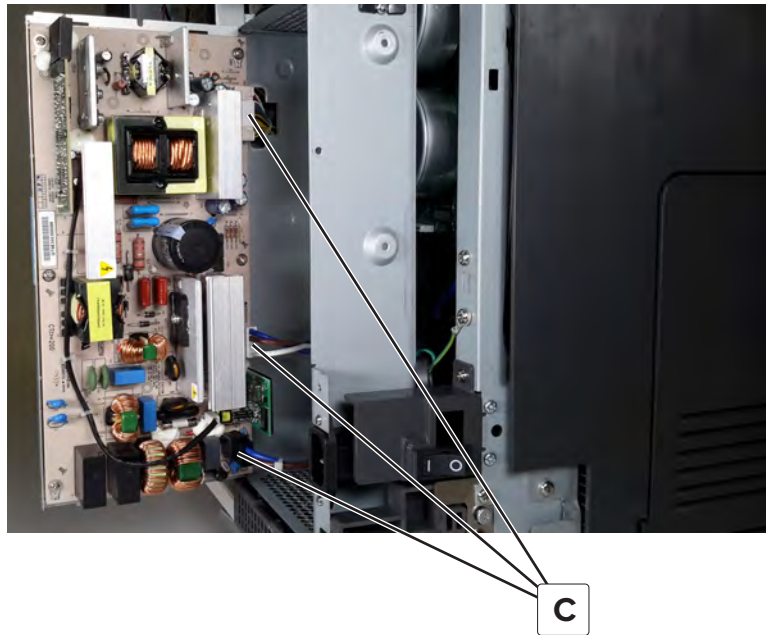
- 9 Remove the four screws (B) from the side, and then carefully open the LVPS.



- 10 Disconnect the three cables (C), and then remove the LVPS.

⚠ CAUTION—SHOCK HAZARD: The LVPS may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its outer edges.

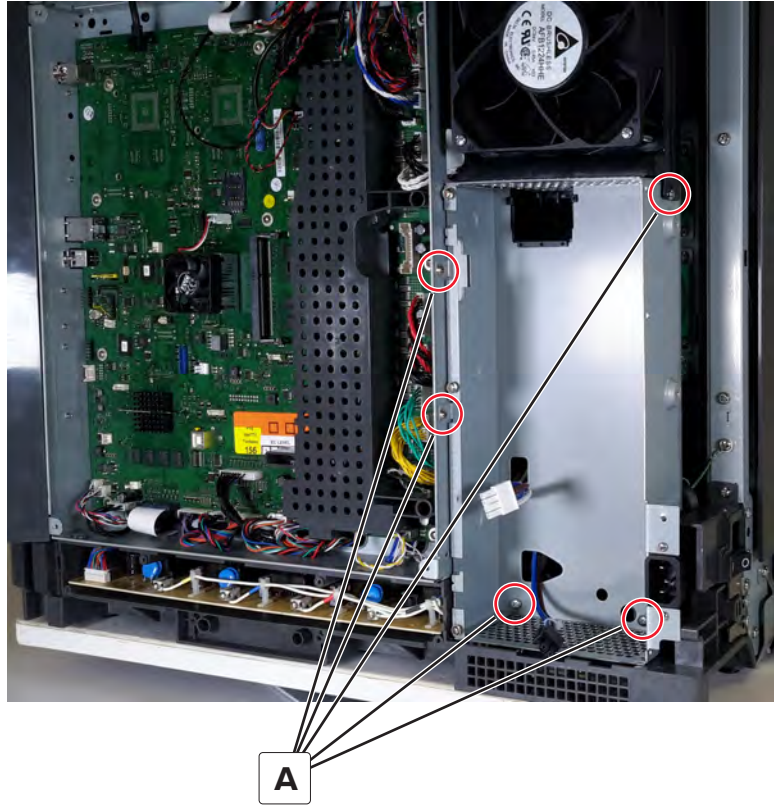
Warning—Potential Damage: Do not put too much strain on the LVPS cables and sockets.



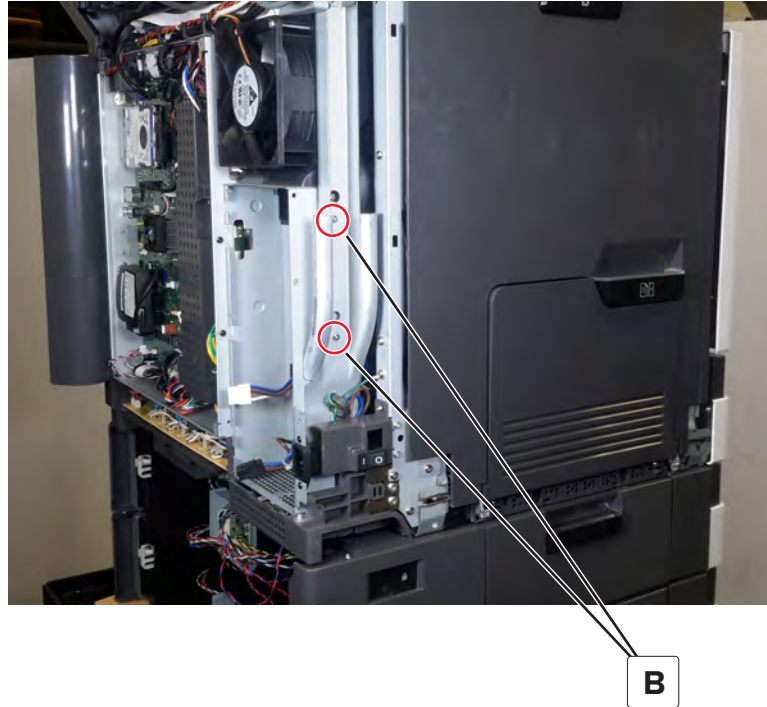
LVPS cage removal

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 6 Remove the LVPS. See [“LVPS removal” on page 781.](#)

7 Remove the five screws (A).



- 8 Remove the two screws (B).



- 9 Remove the cage.

Installation note: Route the cables through the cage holes properly.

Motor (duplex) removal

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 6 Remove the LVPS. See [“LVPS removal” on page 781.](#)
- 7 Remove the LVPS cage. See [“LVPS cage removal” on page 783.](#)

- 8 Remove the two screws (A) securing the motor to the frame.



- 9 Remove the motor.

- 10 Cut the plastic wire tie (B).



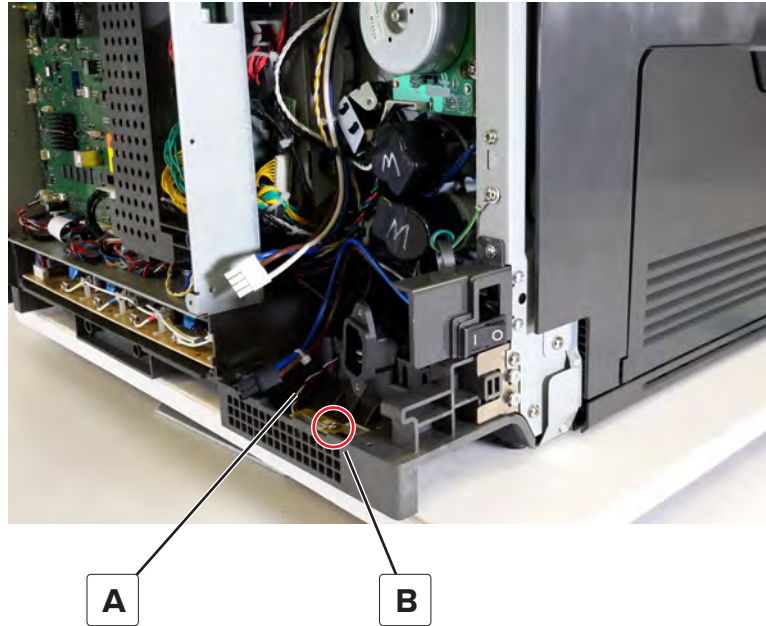
B

- 11 Remove the motor cap, and then disconnect the connection.

Weather station removal

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 6 Remove the LVPS. See [“LVPS removal” on page 781.](#)
- 7 Remove the LVPS cage. See [“LVPS cage removal” on page 783.](#)

- 8 Disconnect the cable (A), and then remove the screw (B).



- 9 Remove the weather station.

Controller board cage removal

Note: This part is not a FRU.

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)

6 Disconnect all the cables from the board, and then remove the seven screws (A).



7 Release the cables from the controller board cage, and then remove the cage.

Installation note: Route properly the cables to their appropriate holes.

- Top side



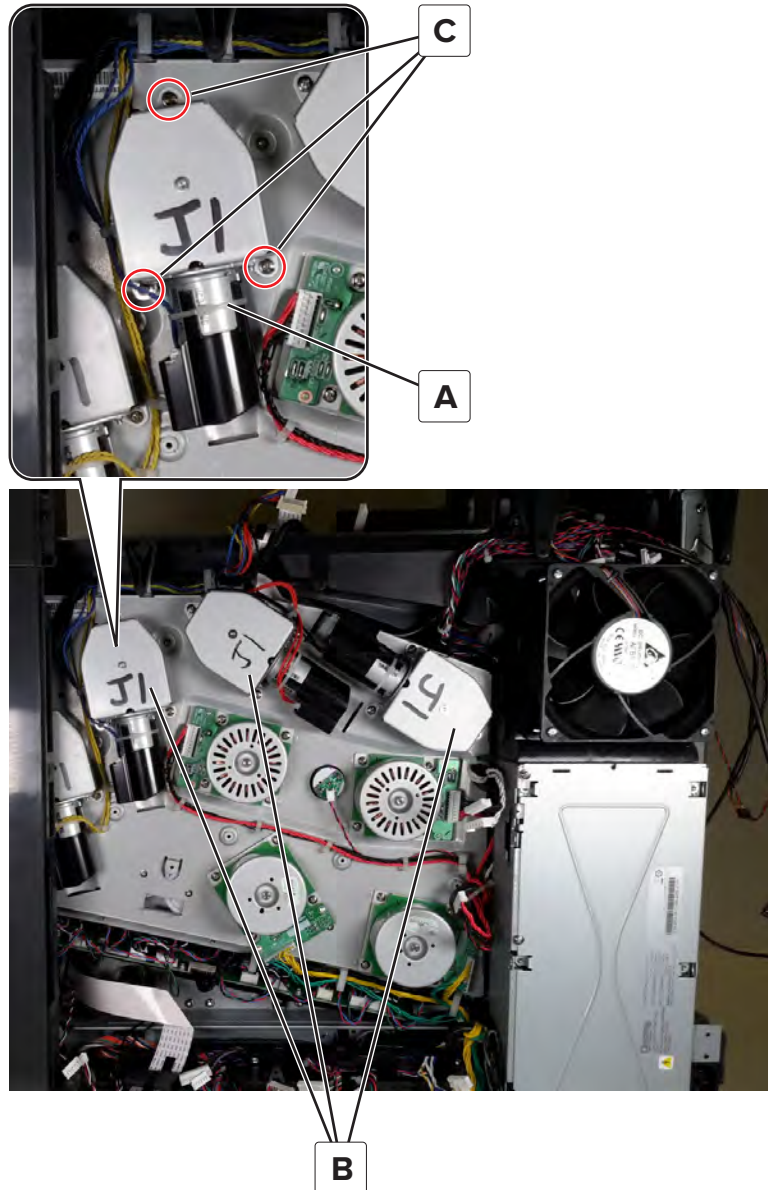
- Bottom and right side



Toner add motor gearbox (K, C, and M) removal

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 6 Remove the controller board cage. See [“Controller board cage removal” on page 788.](#)
- 7 Cut the cable tie (A), and then disconnect the cable from the appropriate motor (B).

- 8 Remove the three screws (C), and then remove the motor gearbox.

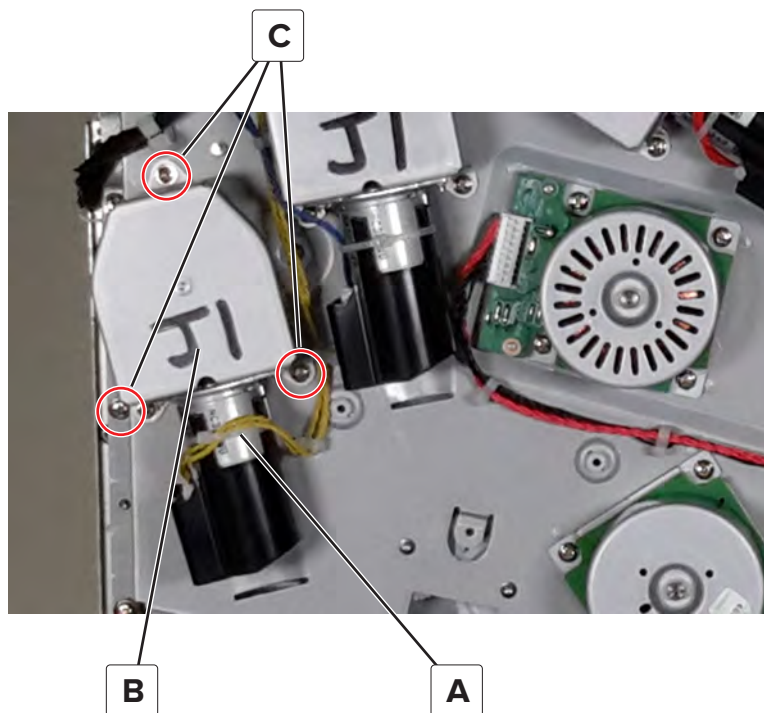


Installation note: Make sure to replace the cable tie and reinstall the motor cover.

Toner add motor gearbox (Y) removal

- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 4 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 5 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 6 Remove the column outer cover removal. See [“Column outer cover removal” on page 718.](#)


- 7 Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 8 Remove the right cover. See [“Right cover removal” on page 718](#).
- 9 Cut the cable tie (A), and then disconnect the cable from the motor (B).
- 10 Remove the three screws (C), and then remove the motor gearbox.

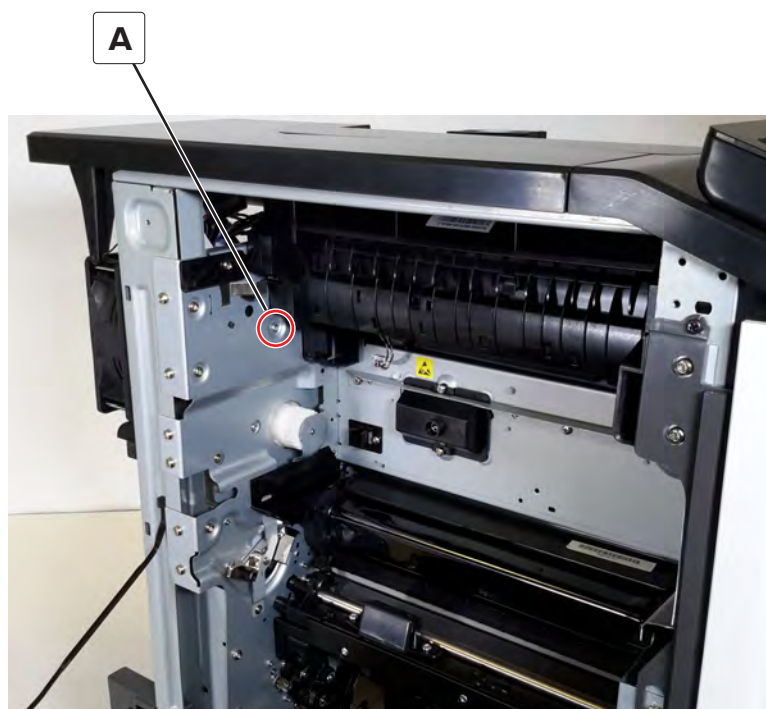


Installation note: Make sure to replace the cable tie, and reinstall the motor cover.

Main fan duct removal

- 1 Remove the fuser. See [“Fuser removal” on page 692](#).
- 2 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 3 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 4 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 5 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 6 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 7 Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 8 Remove the two screws securing the main fan.
- 9 Allow the fan to carefully hang by the wire.
- 10 Remove the two screws (A) securing the main fan duct to the frame.

 **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



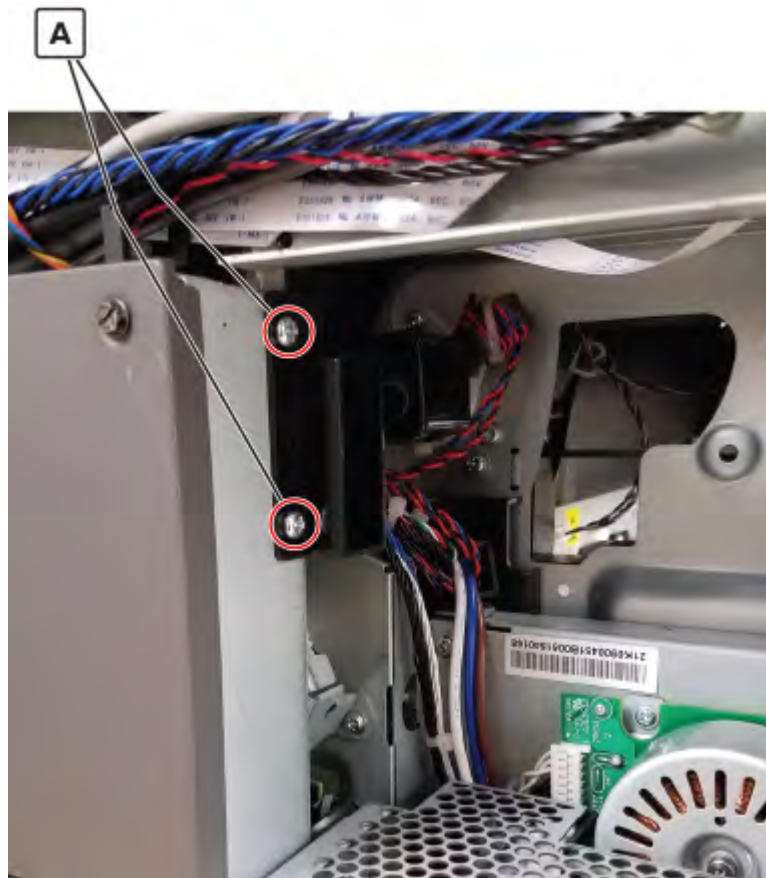
11 Remove the main fan duct.

Parts removal

793

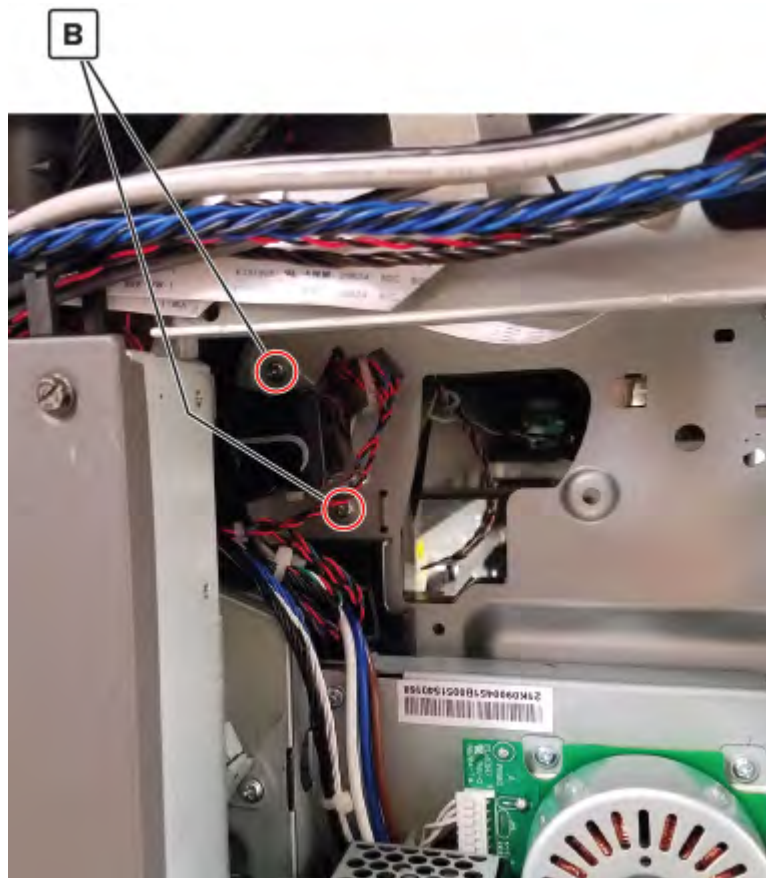
Motor (redrive) removal

- 1 Remove the fuser. See [“Fuser removal” on page 692](#).
- 2 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 3 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 4 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 5 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 6 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 7 Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 8 Remove the main fan duct. See [“Main fan duct removal” on page 792](#).
- 9 Remove the two screws (A) securing the small duct to the frame.

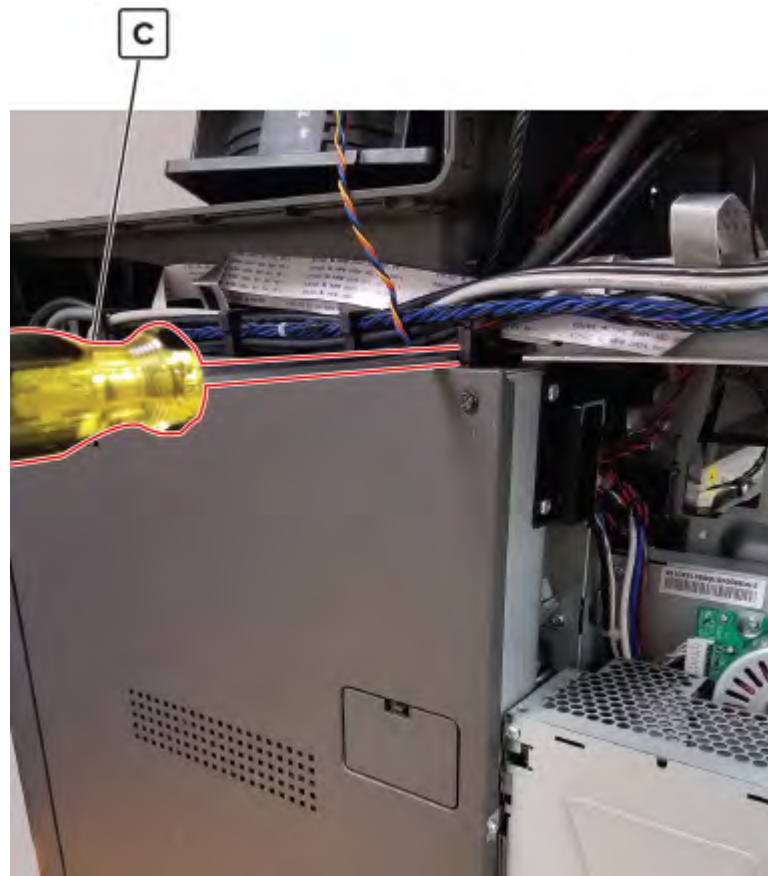


- 10 Remove the small duct.

11 Remove the two screws (B) securing the motor (redrive) to the frame.



Note: See where the screwdriver (C) is inserted to gain straight-on access to the top screw.



- 12 Remove the motor.
- 13 Cut the plastic wire tie, and then remove the motor cap.
- 14 Disconnect the connection.

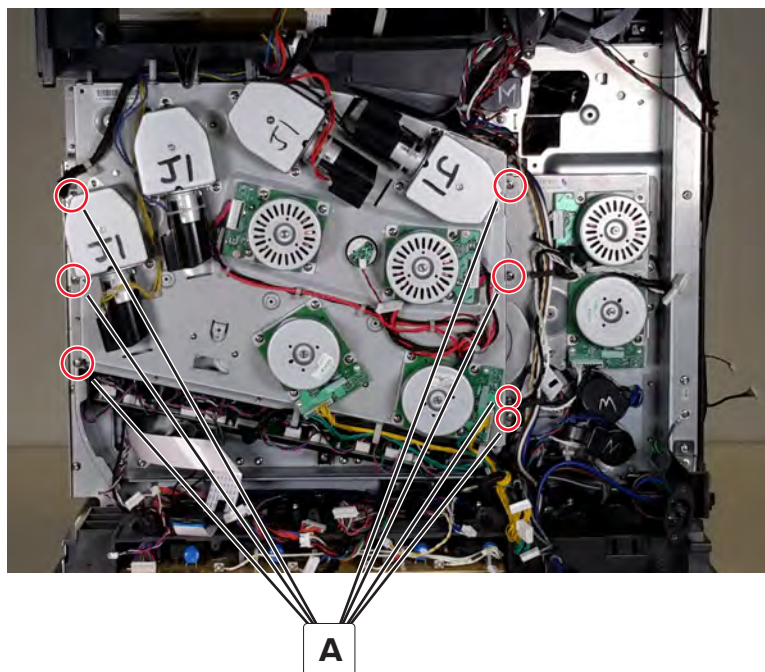
EP, developer, toner add gearbox removal

Note: For a video demonstration, see [Toner add gearbox removal](#).

- 1 Remove the toner cartridges, developer and PC unit combos, and transfer belt.
- 2 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 3 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 4 Remove the column outer cover. See [“Column outer cover removal” on page 718](#).
- 5 Remove the right cover. See [“Right cover removal” on page 718](#).
- 6 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 7 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 8 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 9 Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 10 Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).

- 11 Remove the main fan duct. See [“Main fan duct removal” on page 792](#).
- 12 Remove the seven screws (A), and then release the cables from the cable guides.

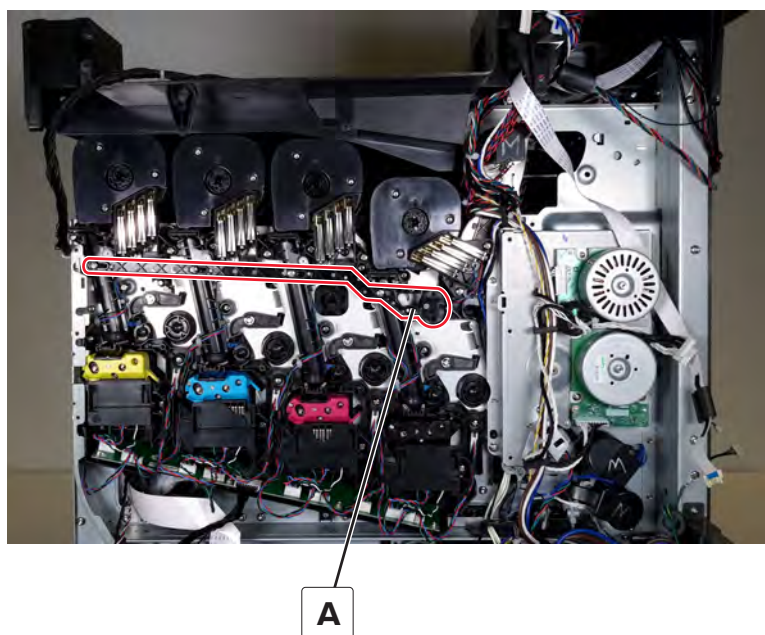
Warning—Potential Damage: The flat cable is fragile. Be careful when detaching the cable from the gearbox.



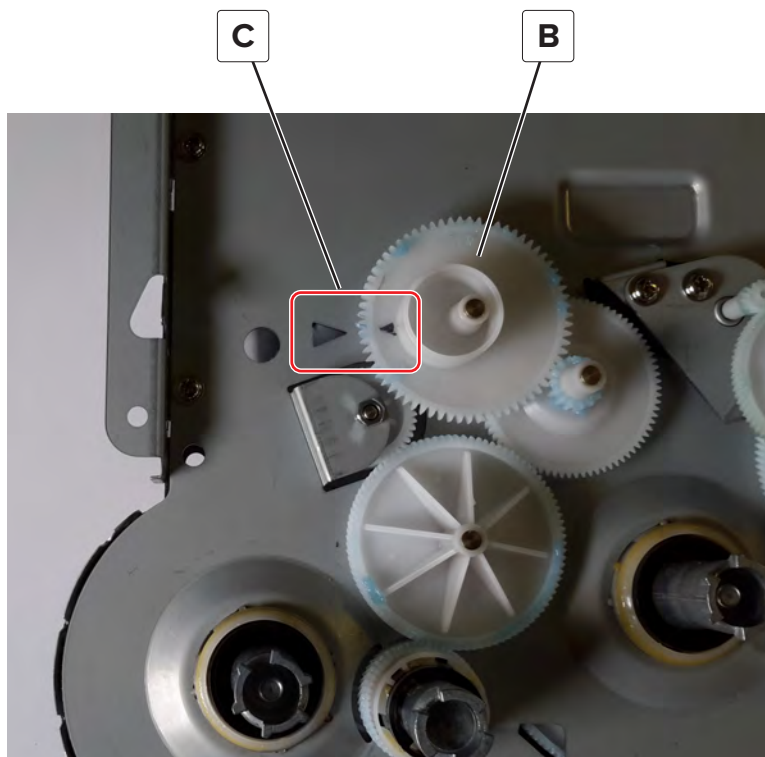
- 13 Remove the gearbox.

Installation notes:

- a Position the toner supply actuator (A) as far to the right as possible.

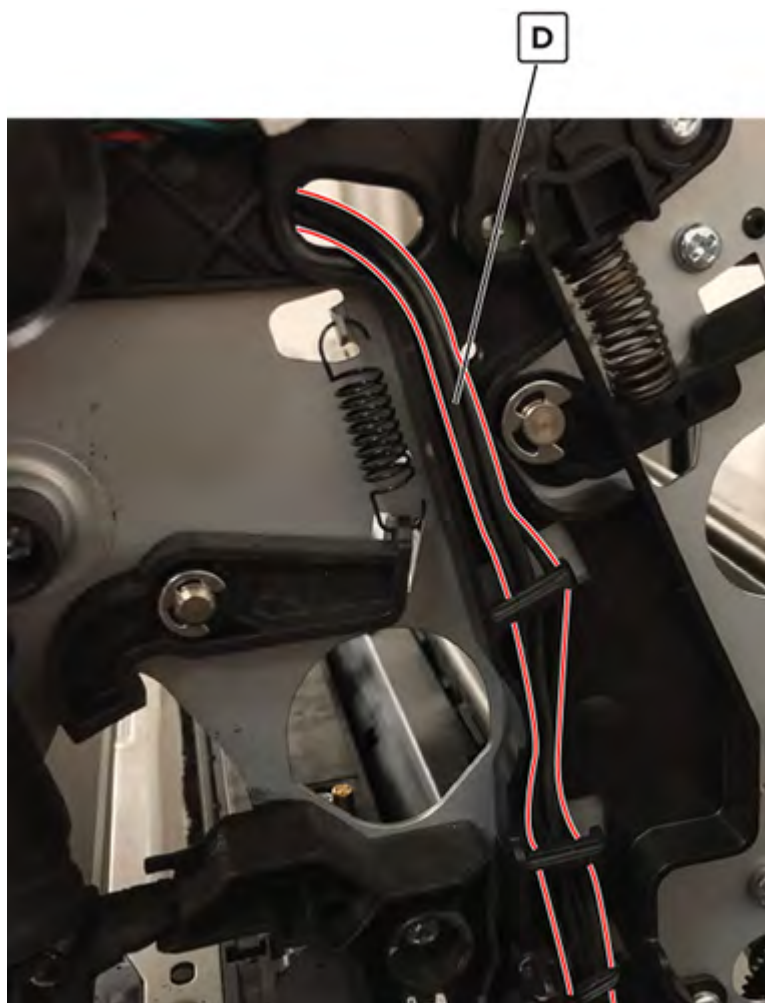


- b** Take note of the correct position of the cam gear (B). Make sure that the arrow indicators (C) align.



- c** Make sure that the cables under the gearbox are properly routed.

Warning—Potential Damage: Cables (D) may get pinched if they are not properly installed.



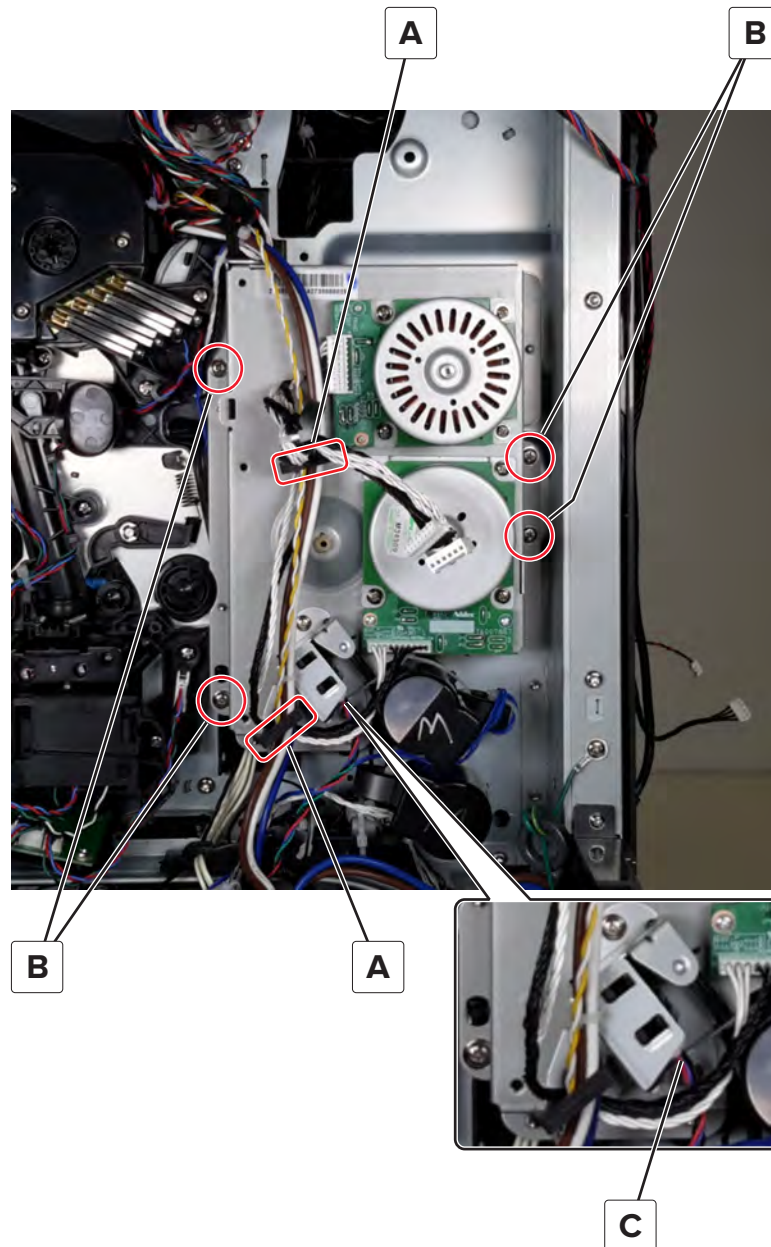
- d** Align the bottom edge of the gearbox first, and then swing up to align the cam gear to the toner supply actuator.
- e** Route the cables properly.

Fuser/transfer belt motor gearbox removal

Note: For a video demonstration, see [Fuser/transfer belt motor gearbox removal](#).

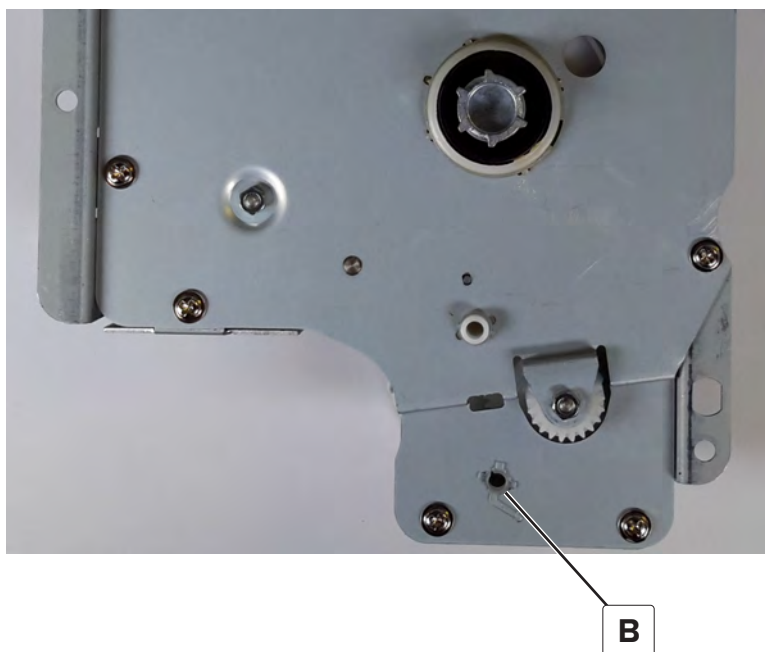
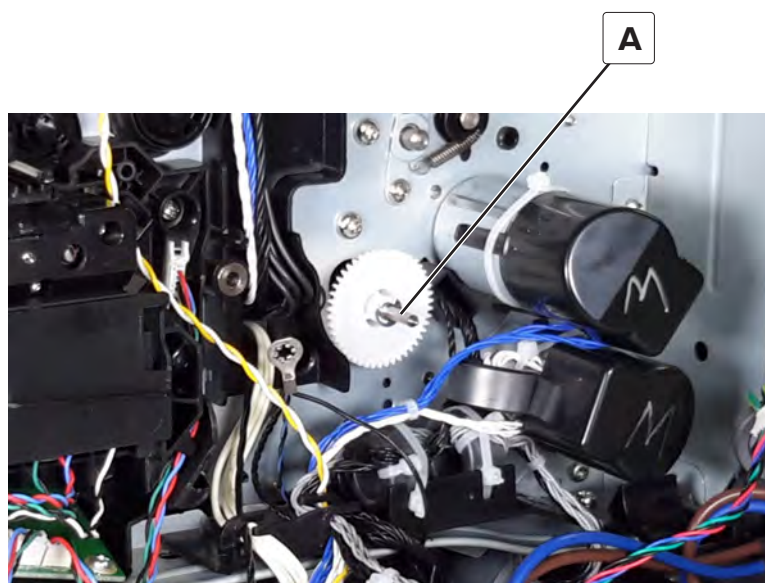
- 1** Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2** Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 3** Remove the column outer cover. See [“Column outer cover removal” on page 718](#).
- 4** Remove the right cover. See [“Right cover removal” on page 718](#).
- 5** Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 6** Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 7** Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 8** Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).

- 9 Remove the main fan duct. See [“Main fan duct removal” on page 792.](#)
- 10 Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796.](#)
- 11 Release the cables from the cable guides (A).
- 12 Remove the four screws (B), and then disconnect the sensor cable (C).



- 13 Remove the gearbox.

Installation note: Insert the waste toner shaft (A) into the bushing (B) on the gearbox.

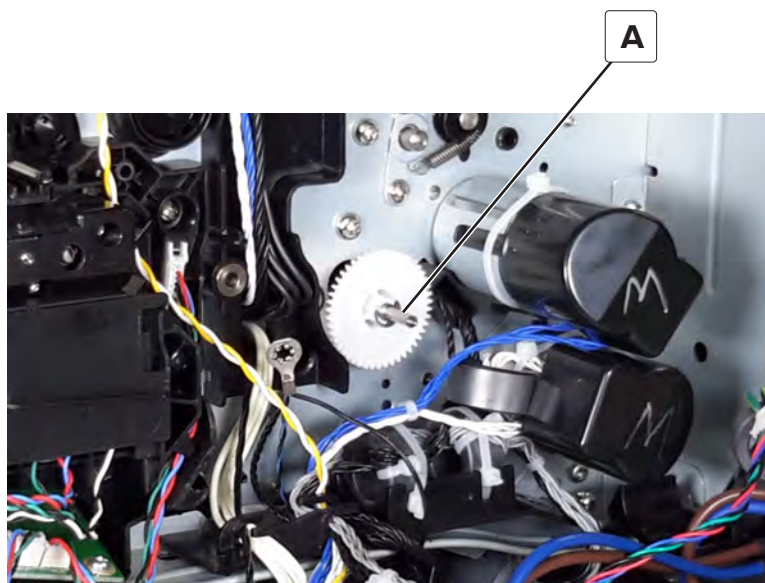


Waste toner gear removal

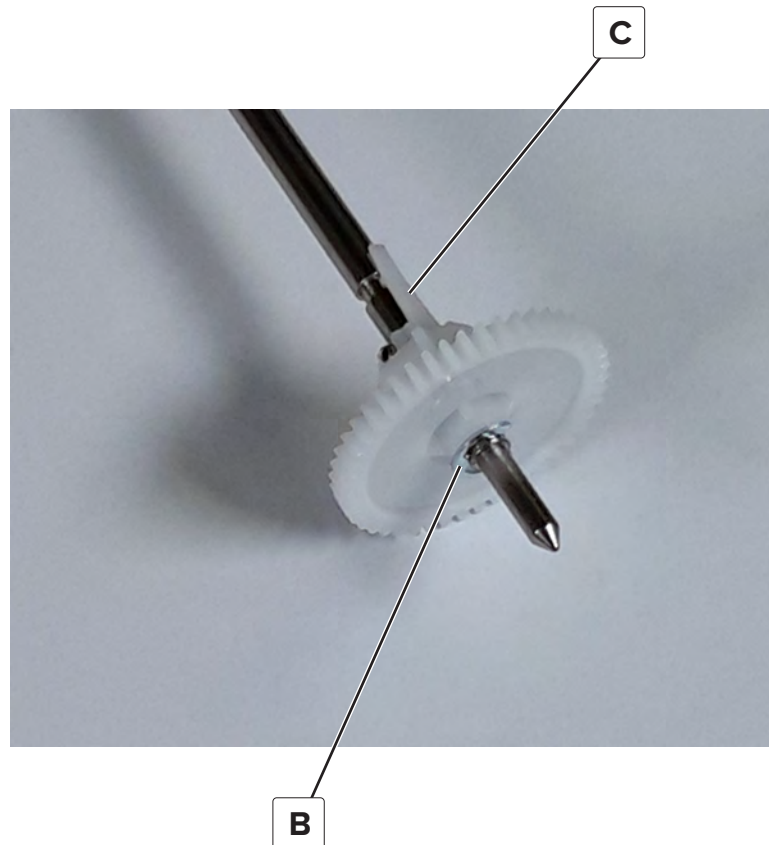
Note: For a video demonstration, see [Waste toner gear removal](#).

- 1 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 3 Remove the column outer cover. See [“Column outer cover removal” on page 718](#).
- 4 Remove the right cover. See [“Right cover removal” on page 718](#).
- 5 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).

- 6 Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 7 Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 8 Remove the controller board cage. See [“Controller board cage removal” on page 788.](#)
- 9 Remove the LVPS cage. See [“LVPS cage removal” on page 783.](#)
- 10 Remove the main fan duct. See [“Main fan duct removal” on page 792.](#)
- 11 Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796.](#)
- 12 Remove the fuser/transfer belt motor gearbox. See [“Fuser/transfer belt motor gearbox removal” on page 799.](#)
- 13 Pull out the waste toner shaft (A).



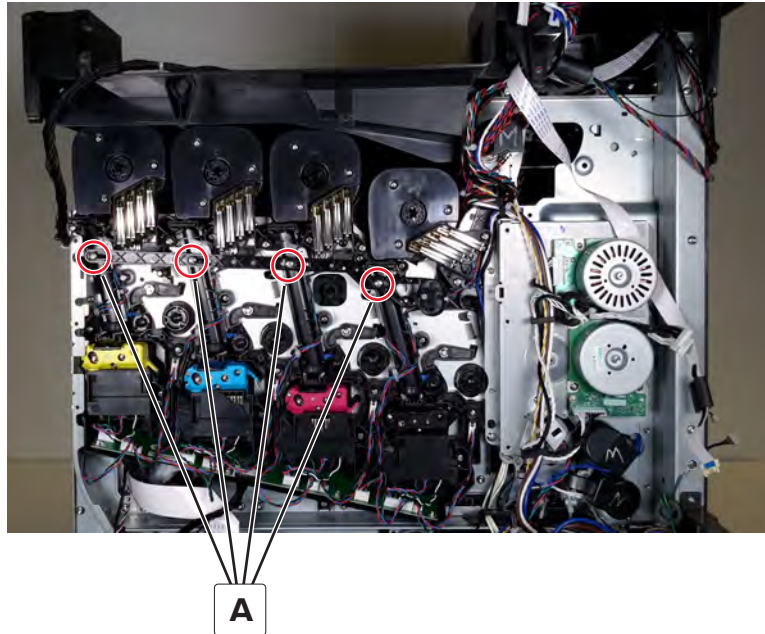
- 14** Remove the E-clip (B), release the latch (C), and then remove the gear.



Toner supply actuator removal

- 1** Remove the rear lower cover. See [“Rear lower cover removal” on page 771.](#)
- 2** Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 3** Remove the column outer cover. See [“Column outer cover removal” on page 718.](#)
- 4** Remove the right cover. See [“Right cover removal” on page 718.](#)
- 5** Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 6** Remove the left upper cover. See [“Left upper cover removal” on page 691.](#)
- 7** Remove the rear left cover. See [“Rear left cover removal” on page 772.](#)
- 8** Remove the controller board cage. See [“Controller board cage removal” on page 788.](#)
- 9** Remove the LVPS cage. See [“LVPS cage removal” on page 783.](#)
- 10** Remove the main fan duct. See [“Main fan duct removal” on page 792.](#)
- 11** Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796.](#)

- 12 Remove the four screws (A), and then remove the actuator.

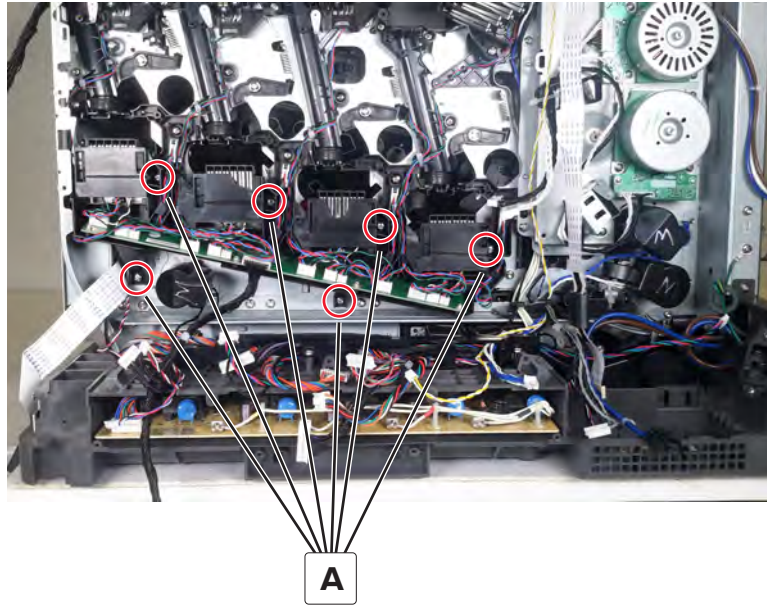


Smart chip interface board removal

Note: For a video demonstration, see [Smart chip interface board removals](#).

- 1 Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 3 Remove the column outer cover. See [“Column outer cover removal” on page 718](#).
- 4 Remove the right cover. See [“Right cover removal” on page 718](#).
- 5 Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 6 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 7 Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 8 Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 9 Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).
- 10 Remove the main fan duct. See [“Main fan duct removal” on page 792](#).
- 11 Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796](#).
- 12 Disconnect, and then release all the cables from their guides.

- 13** Remove the six screws (A), and then remove the board.

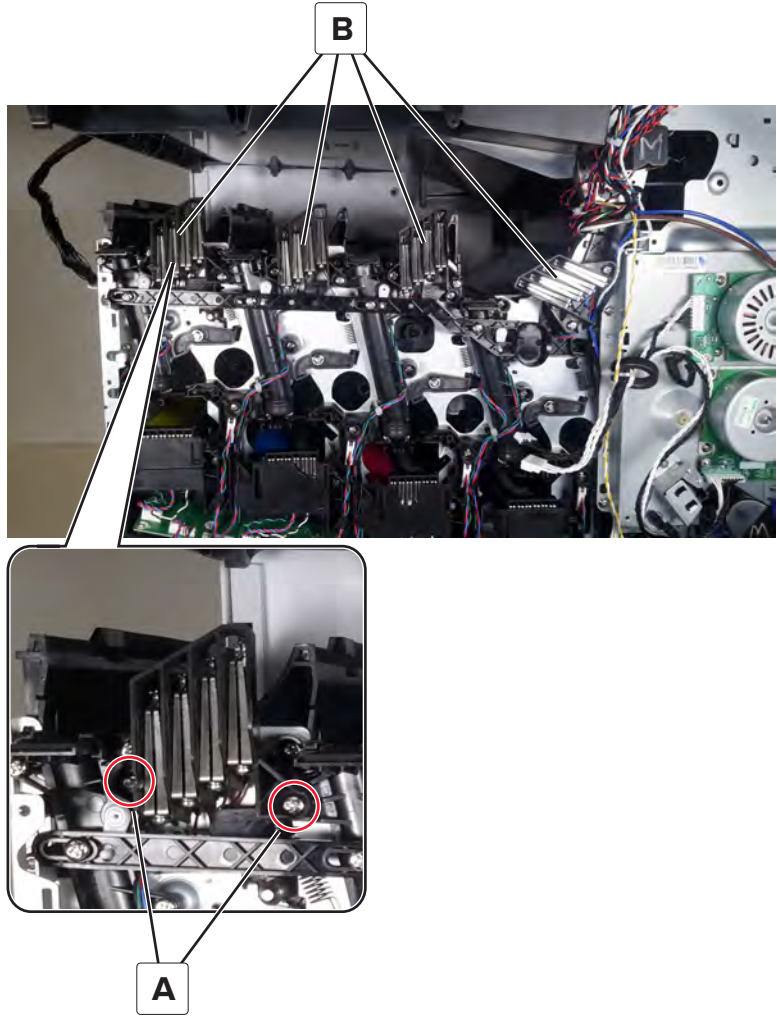


Toner cartridge contact removal

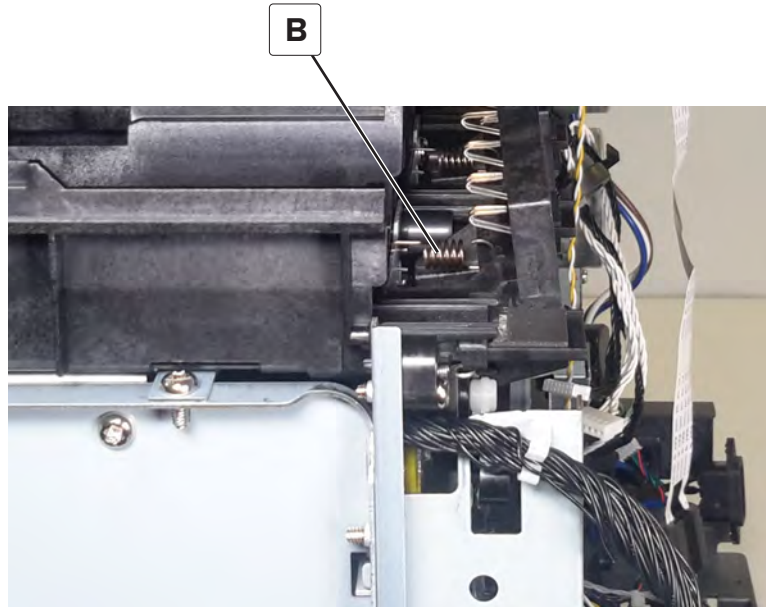
Note: For a video demonstration, see [Toner cartridge contact removal](#).

- 1** Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2** Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 3** Remove the column outer cover. See [“Column outer cover removal” on page 718](#).
- 4** Remove the right cover. See [“Right cover removal” on page 718](#).
- 5** Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 6** Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 7** Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 8** Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 9** Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).
- 10** Remove the main fan duct. See [“Main fan duct removal” on page 792](#).
- 11** Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796](#).

12 Remove the two screws (A) from the appropriate contact (B).



- 13** Pull the contact, and then disconnect the spring (B).



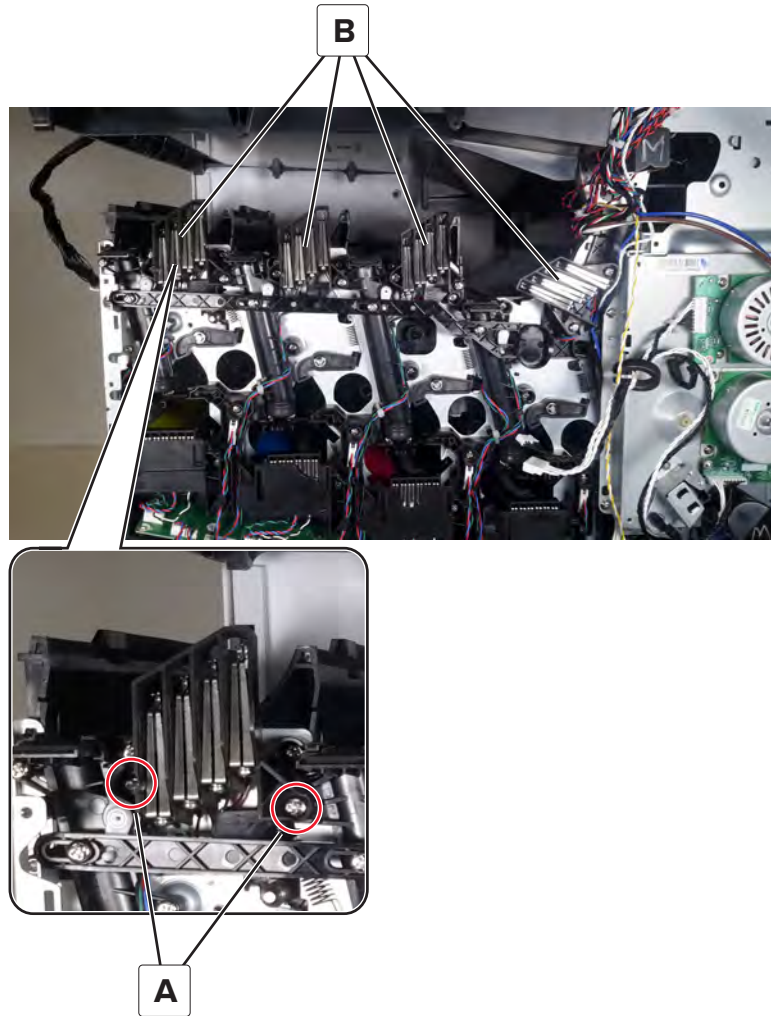
- 14** Release the contact cable from the cable guides.
- 15** Disconnect the contact cable from the smart chip board.
- 16** Remove the contact.

Toner add tube removal

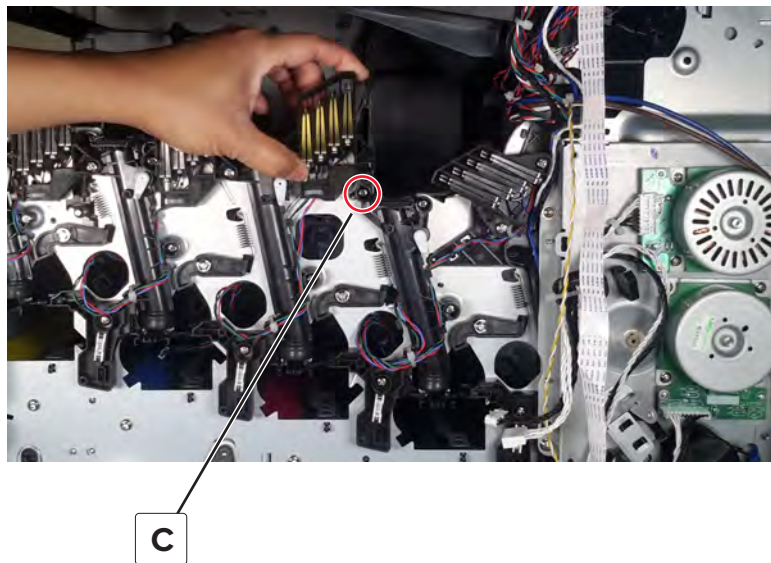
Note: For a video demonstration, see [Toner add tube removal](#).

- 1** Remove the rear lower cover. See [“Rear lower cover removal” on page 771](#).
- 2** Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).
- 3** Remove the column outer cover. See [“Column outer cover removal” on page 718](#).
- 4** Remove the right cover. See [“Right cover removal” on page 718](#).
- 5** Remove the controller board cover. See [“Controller board cover removal” on page 770](#).
- 6** Remove the left upper cover. See [“Left upper cover removal” on page 691](#).
- 7** Remove the rear left cover. See [“Rear left cover removal” on page 772](#).
- 8** Remove the controller board cage. See [“Controller board cage removal” on page 788](#).
- 9** Remove the LVPS cage. See [“LVPS cage removal” on page 783](#).
- 10** Remove the main fan duct. See [“Main fan duct removal” on page 792](#).
- 11** Remove the EP, developer, toner add gearbox. See [“EP, developer, toner add gearbox removal” on page 796](#).

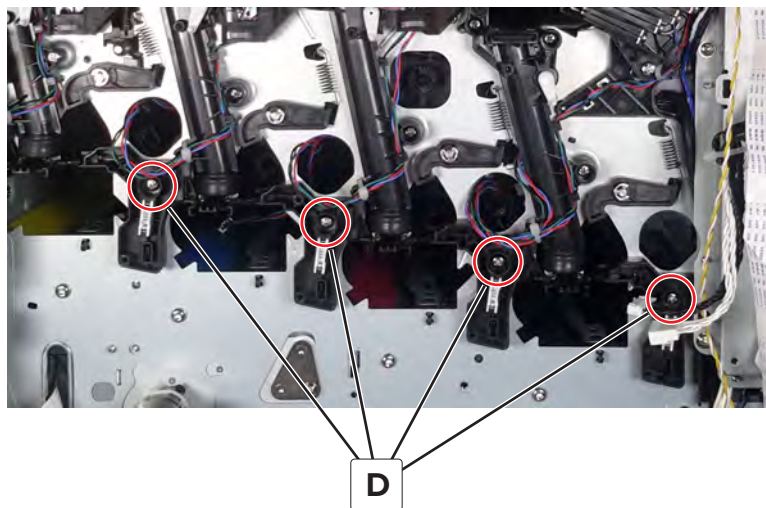
12 Remove the two screws (A) from the appropriate contact (B).



13 Carefully lift the contact, and then remove the screw (C) under it.

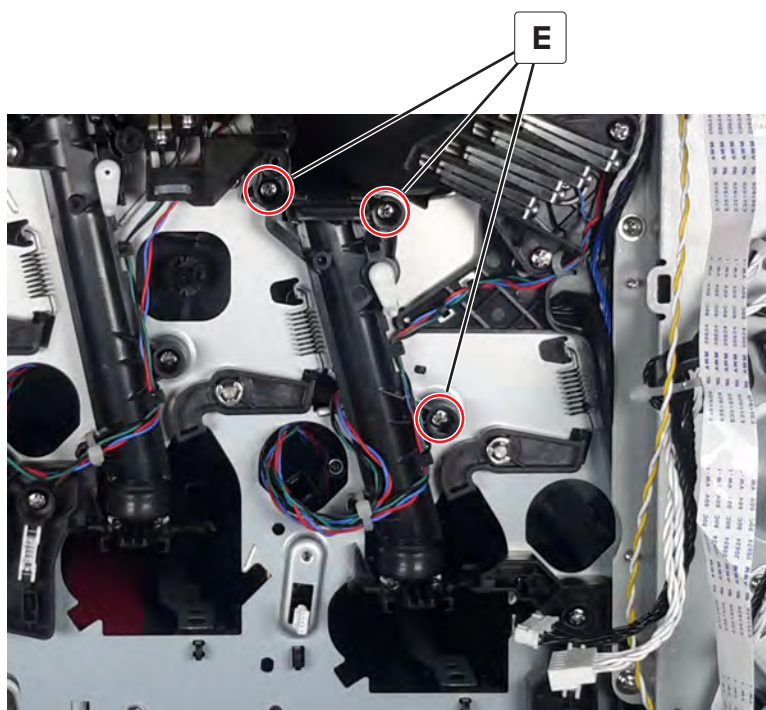


- 14 Release the appropriate cables from the cable guides.
- 15 Remove the appropriate screw (D), and then carefully remove the toner port retainer.



- 16 Remove the three screws (E), and then remove the appropriate tube.

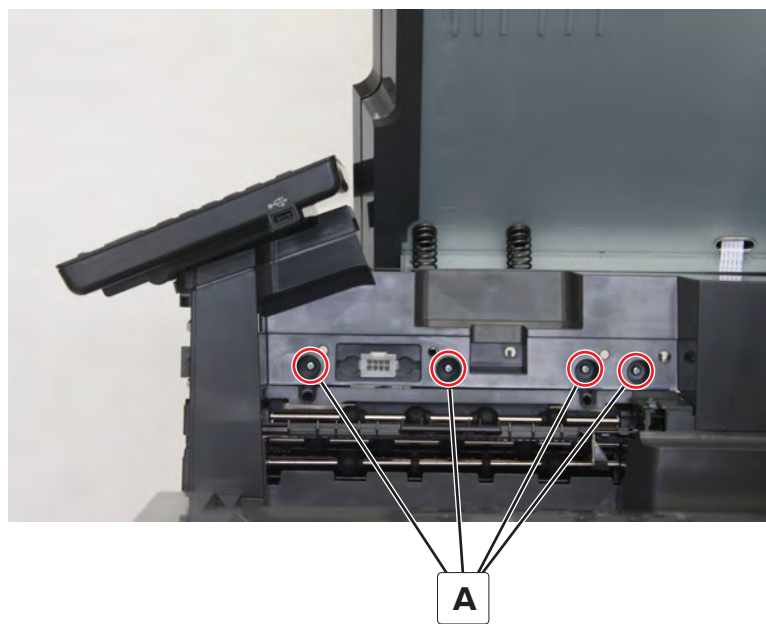
Warning—Potential Damage: The tube is fragile. Do not disconnect the tube from the nozzle.



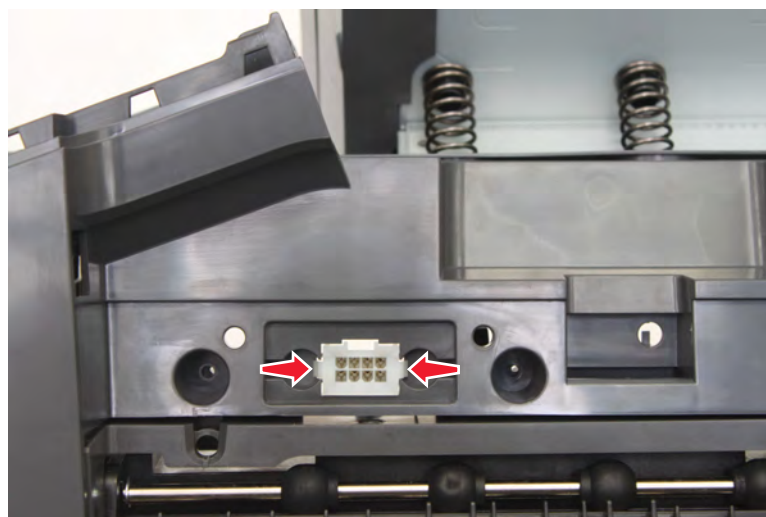
Top side removals

Top cover removal

- 1 Remove the exit cover.
- 2 Open door C, and then remove the four screws (A).

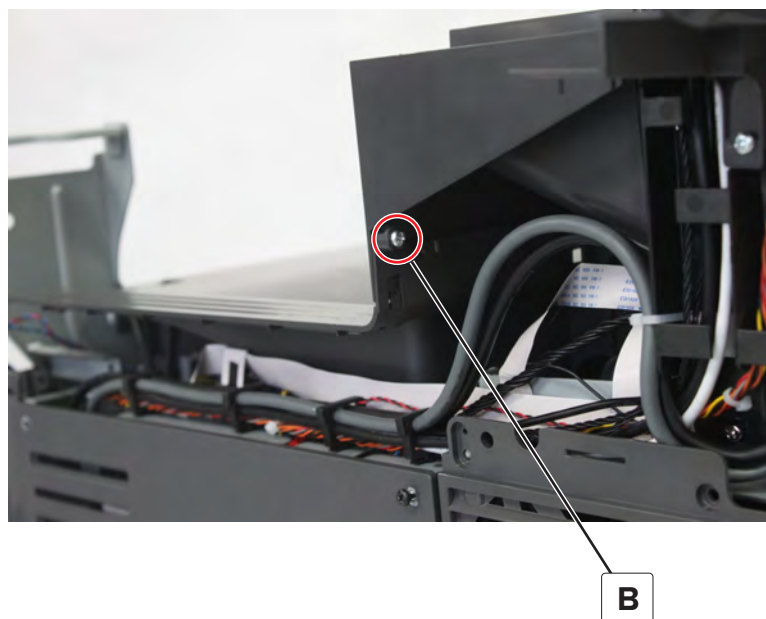


- 3 Press the latches to release, and then push the connector.



- 4 Remove the rear upper cover. See [“Rear upper cover removal” on page 771](#).

- 5 From the rear right, remove the screw (B).



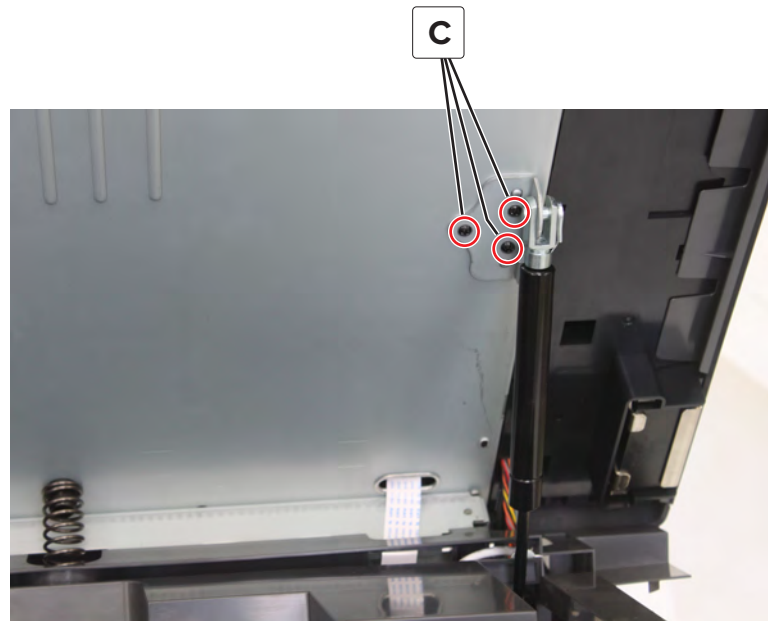
- 6 Lift, and then remove the cover under the control panel.



- 7 Remove the three screws (C), and then disconnect the door holder.

Warning—Potential Damage: Hold the ADF door while removing the screws to avoid slamming the door into the printer.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution when handling the door mechanism.



8 Remove the cover.



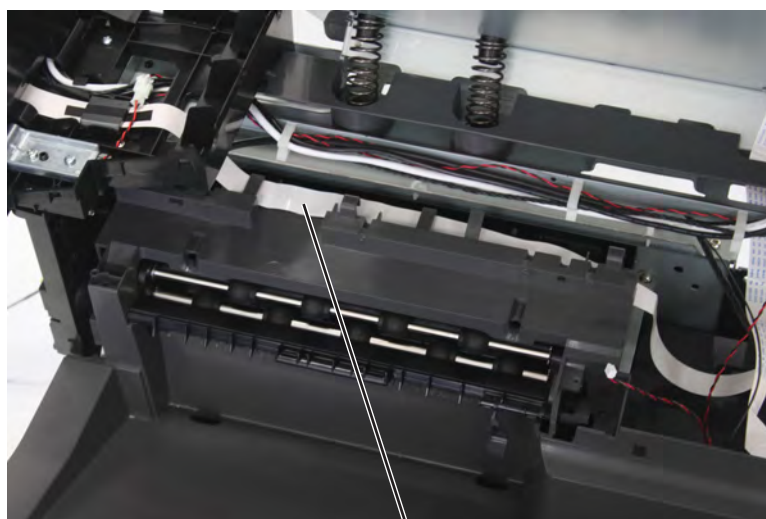
CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, keep hands clear of the labeled area when closing door C.

Standard bin cover removal

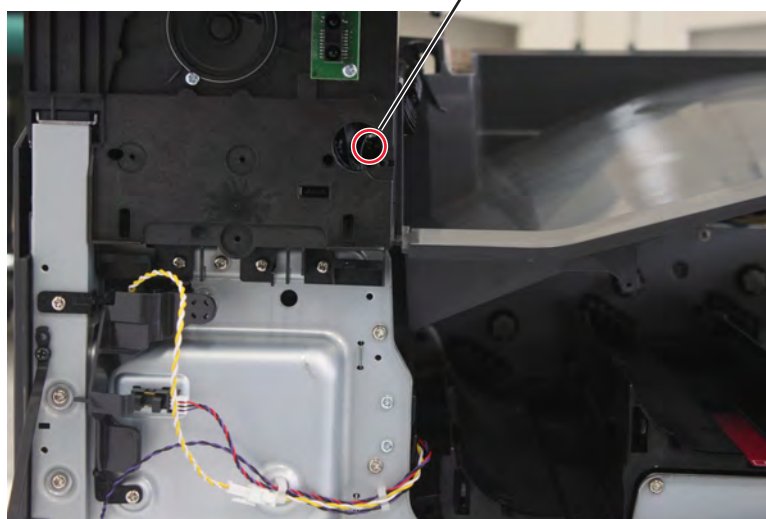
- 1 Remove the controller board cover. See [“Controller board cover removal” on page 770.](#)
- 2 Remove the keyboard attach cover. See [“Keyboard attach cover removal” on page 731.](#)
- 3 Remove the front column upper cover. See [“Front column upper cover removal” on page 741.](#)
- 4 Pull, and then remove the HTU attach cover.
- 5 Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)
- 6 Remove the column outer cover. See [“Column outer cover removal” on page 718.](#)
- 7 Release the cable (A) from the cable holders.

Note: Take note of the original route of the cable.

Warning—Potential Damage: Be careful in handling the cable.

**A**

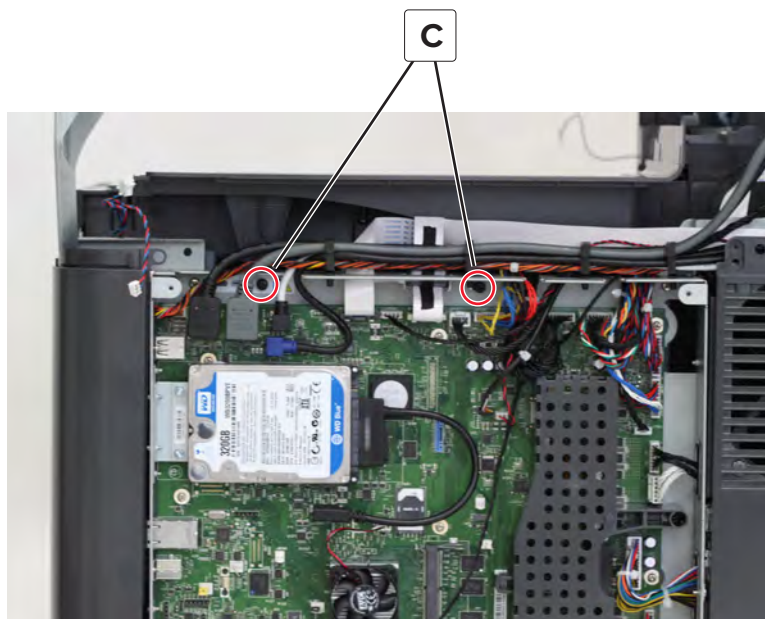
8 Remove the ground screw (B) from the front column.

**B**

Parts removal

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9 From the rear, remove the two screws (C).



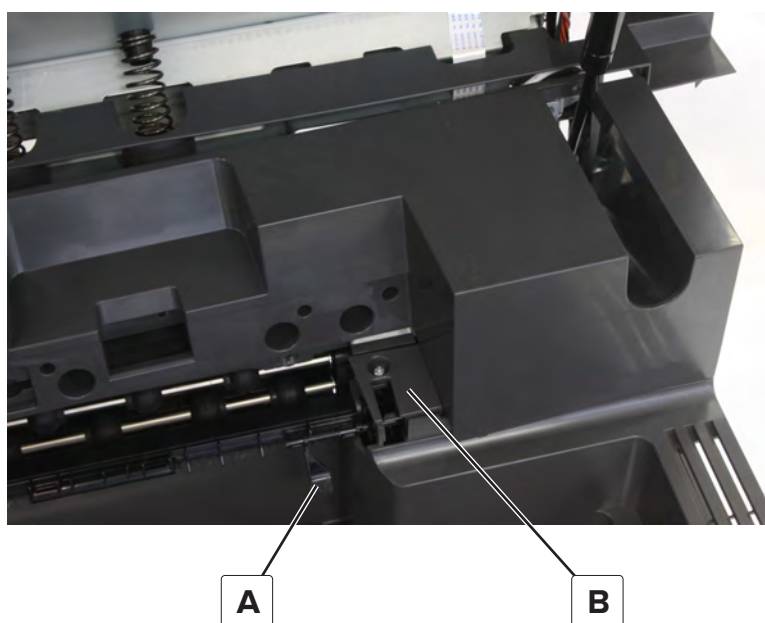
10 Remove the cover.

Sensor cover removal

1 Open door C, and then remove the screw.

 **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, keep hands clear of the labeled area when closing door C.

2 Lift the flag (A) to release, and then lift the cover (B).

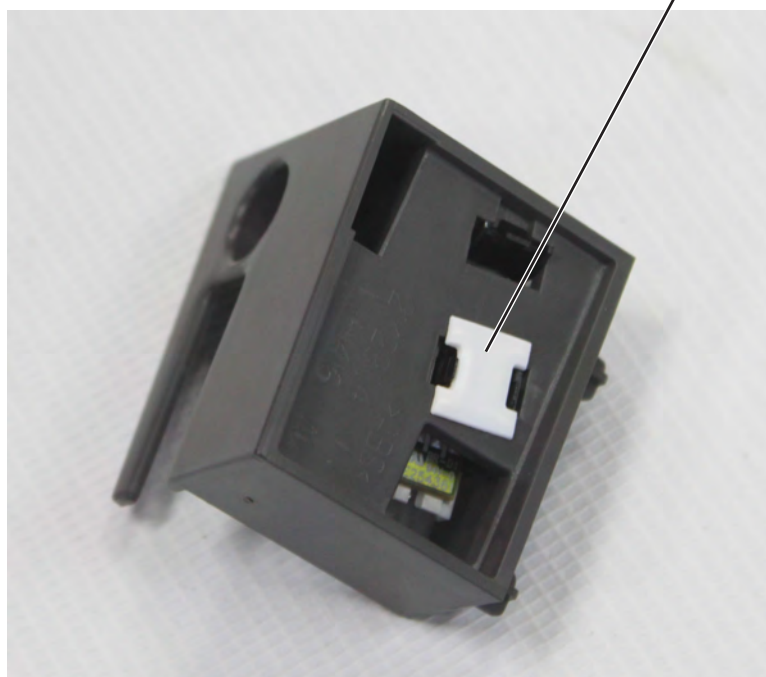


- 3 Disconnect the cable (C), and then remove the sensor.



C

Installation note: Reinstall the strip (A) to secure the sensor latches properly.



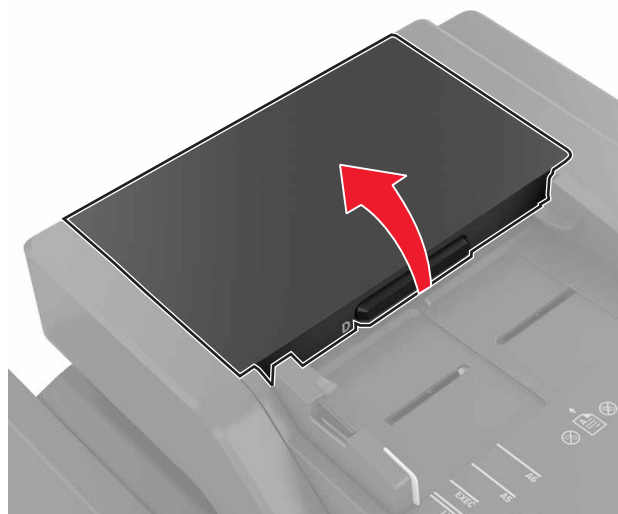
A

ADF and flatbed removals

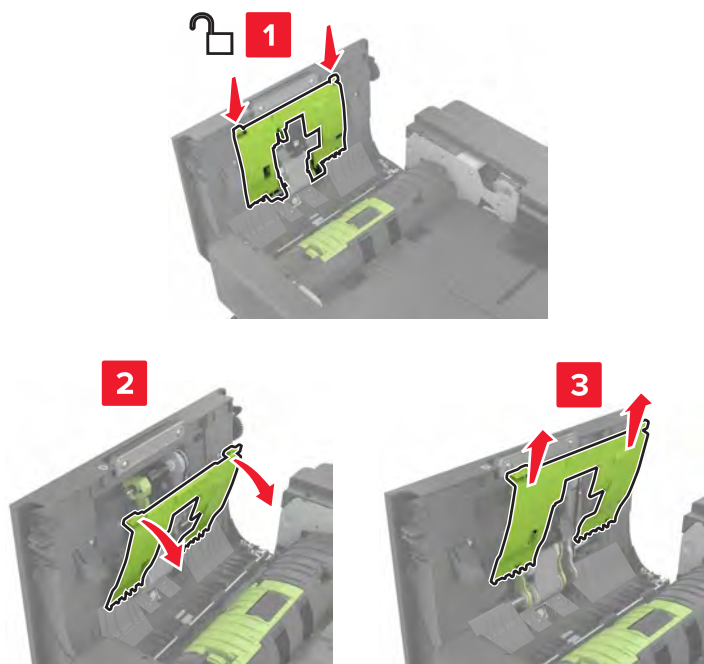
ADF pick roller cover removal

Warning—Potential Damage: Some parts of the printer are easily damaged by static electricity. Before touching any parts or components in an area marked with the static-sensitive symbol, touch a metal surface in an area away from the symbol.

- 1 Open door D.



- 2 Release the latches, and then remove the cover.

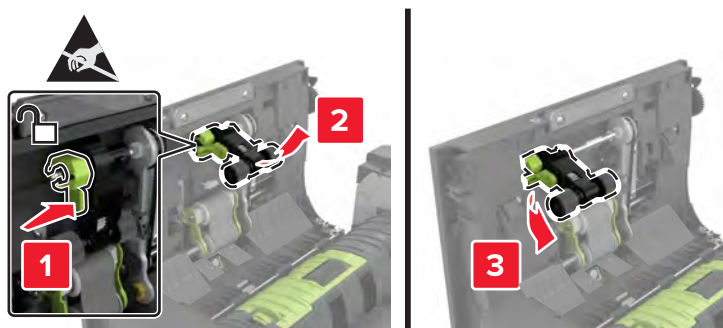


ADF maintenance kit removal

Warning—Potential Damage: Replace the ADF pick roller, ADF feed belt, and ADF separator roller at the same time. If the life of these parts don't match, feed issues may occur.

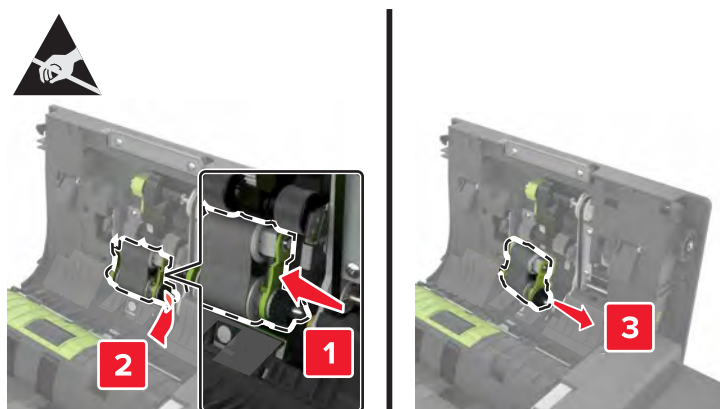
ADF pick roller removal

- 1 Remove the ADF pick roller cover. See [“ADF pick roller cover removal” on page 816](#).
- 2 Remove the pick roller.



ADF feed belt removal

- 1 Remove the ADF pick roller cover. See [“ADF pick roller cover removal” on page 816.](#)
- 2 Remove the feed belt.



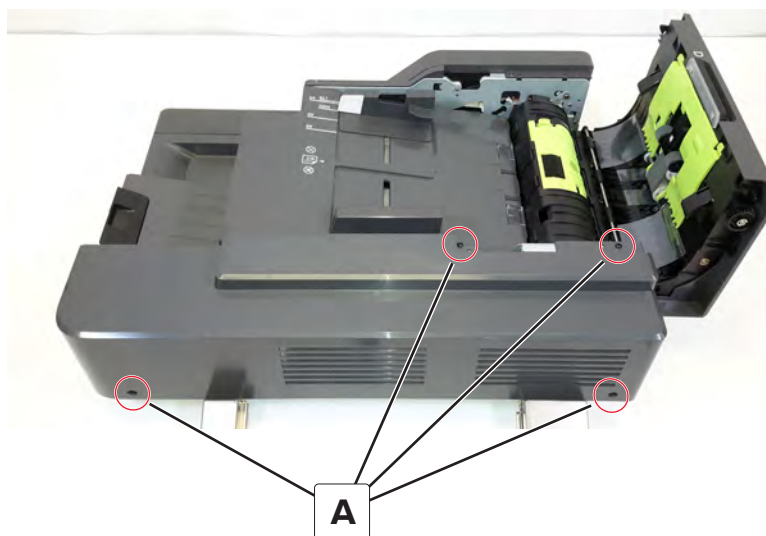
ADF separator roller removal

- 1 Remove the ADF pick roller cover. See [“ADF pick roller cover removal” on page 816.](#)
- 2 Remove the separator roller.



ADF rear cover removal

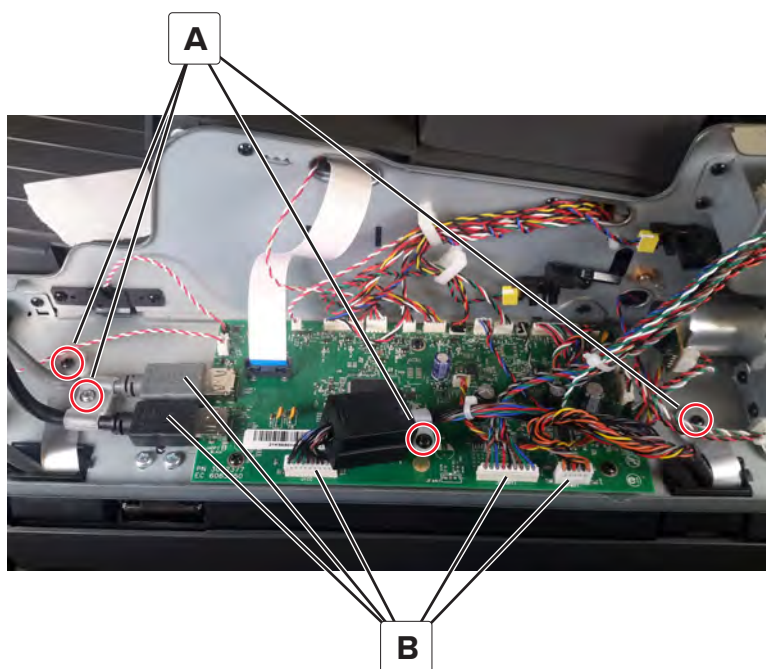
- 1 Open the ADF top door.
- 2 Remove the four screws (A), and then remove the cover.



ADF removal

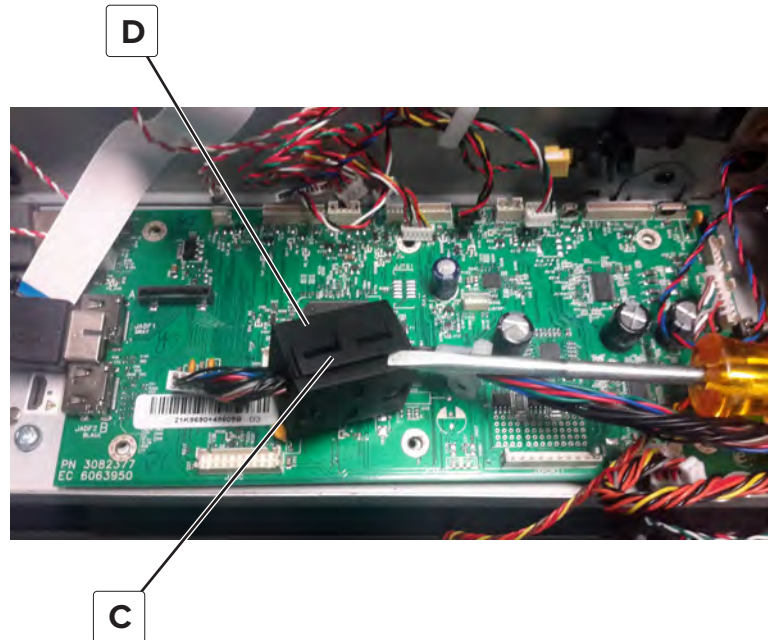
Note: For a video demonstration, see [ADF removal](#).

- 1 Remove the rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the four screws (A) from the retainers and grounding straps.
- 3 Disconnect the five cables (B).



Parts removal

- 4 Release the latch (C) from the toroid casing (D), and then remove it from the cable.

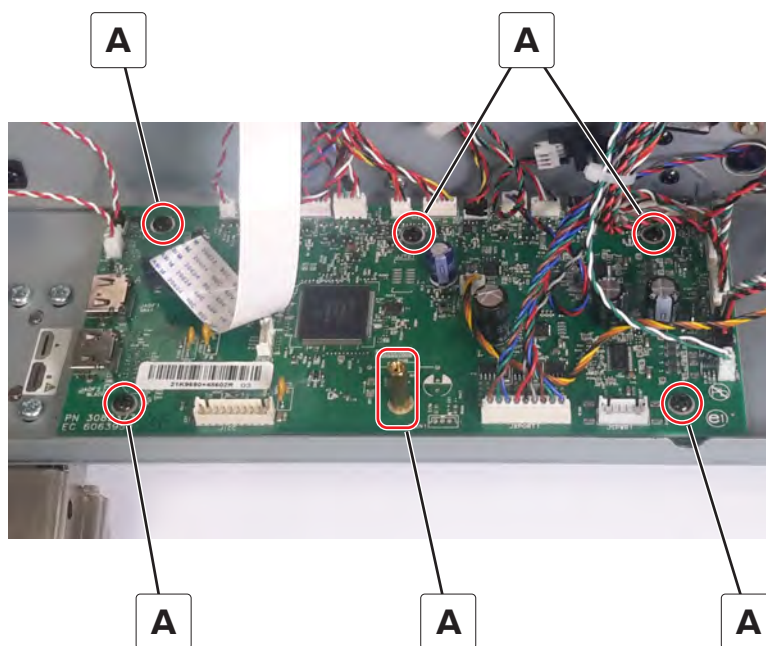


- 5 Gently remove the ADF from the flatbed scanner while unrouting the cables from the ADF frame.
Installation note: Make sure that all grounding straps and toroid casings are properly reinstalled.

ADF controller board removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Disconnect all the cables from the controller board, and then remove the six screws (A).

Warning—Potential Damage: Do not yank the ribbon cable. See [“Disconnecting ribbon cables” on page 663](#).



3 Remove the board.

ADF tray removal

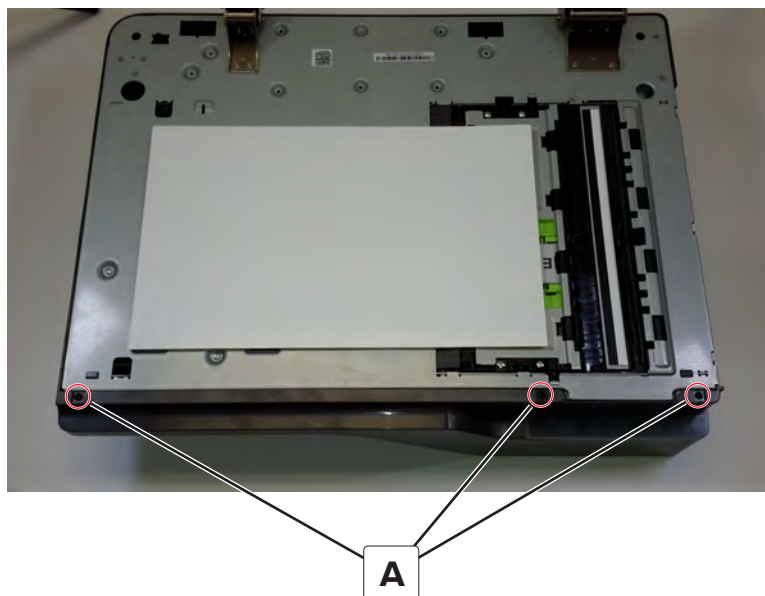
- 1** Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2** Lift the tray, and then pull to remove.



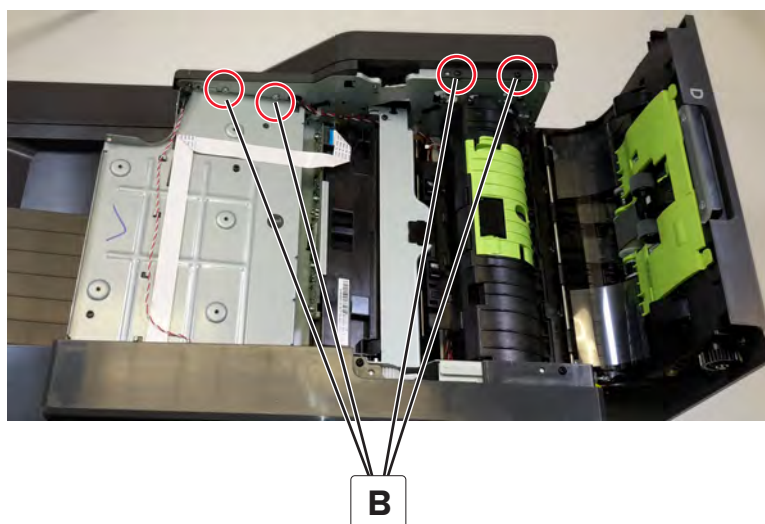
ADF front cover removal

- 1** Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2** Remove the ADF tray. See [“ADF tray removal” on page 821](#).

- 3 Remove the three screws (A) under the ADF.



- 4 Remove the four screws (B) behind the cover.

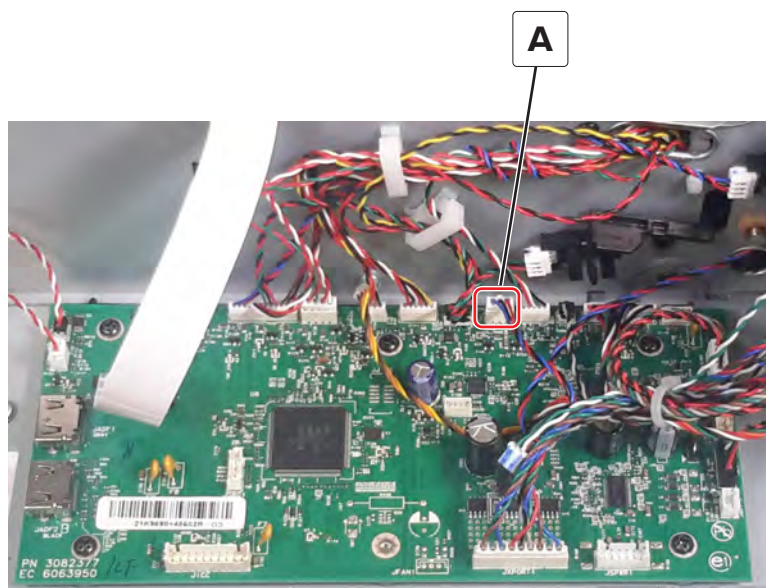


- 5 Remove the cover.

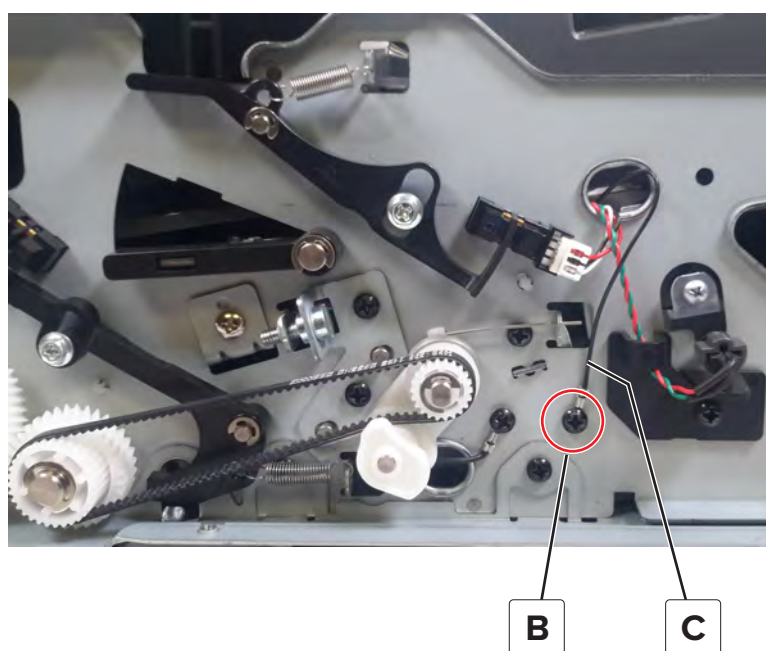
ADF bottom door removal

- 1 Remove the ADF front cover. See [“ADF front cover removal” on page 821.](#)
- 2 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819.](#)

- 3** Disconnect connector JCSHM (A) from the ADF controller board.

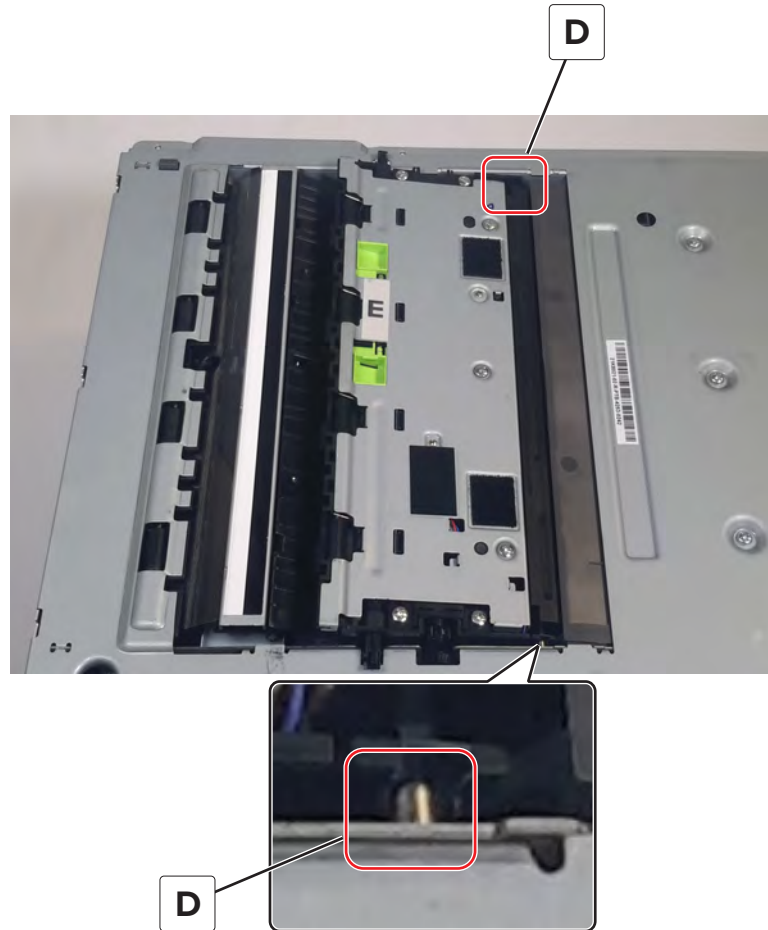


- 4** Remove the screw (B) securing the ground wire (C) to the frame.



- 5** Open the ADF bottom door.

6 Gently flex the hinges (D), and then remove the door.

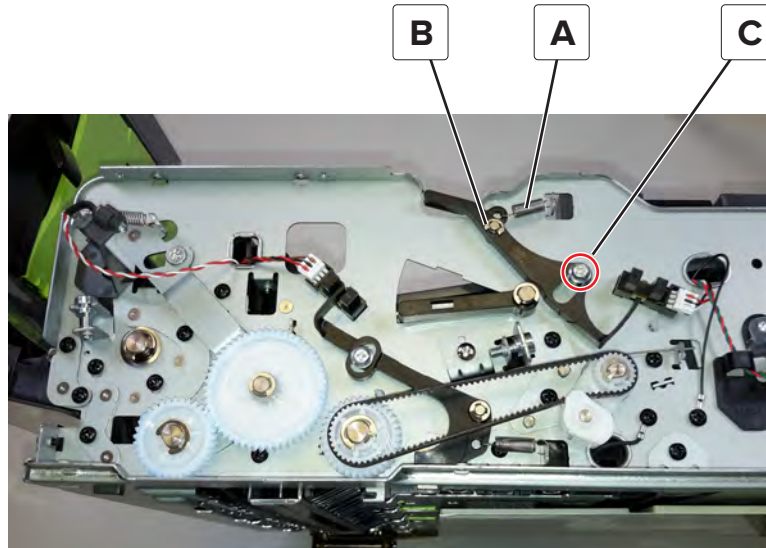


Installation note: When installing the bottom door, make sure to reconnect the ground wire.

Top interlock actuator removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819.](#)
- 2 Remove the ADF tray. See [“ADF tray removal” on page 821.](#)
- 3 Remove the ADF front cover. See [“ADF front cover removal” on page 821.](#)

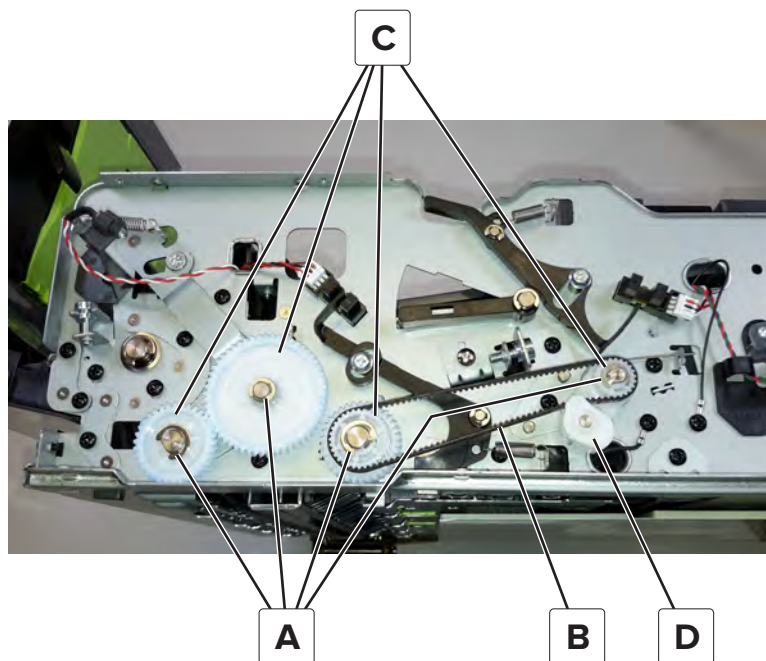
- 4 Remove the spring (A), E-clip (B), and screw (C).



- 5 Remove the actuator.

ADF front drive train removal

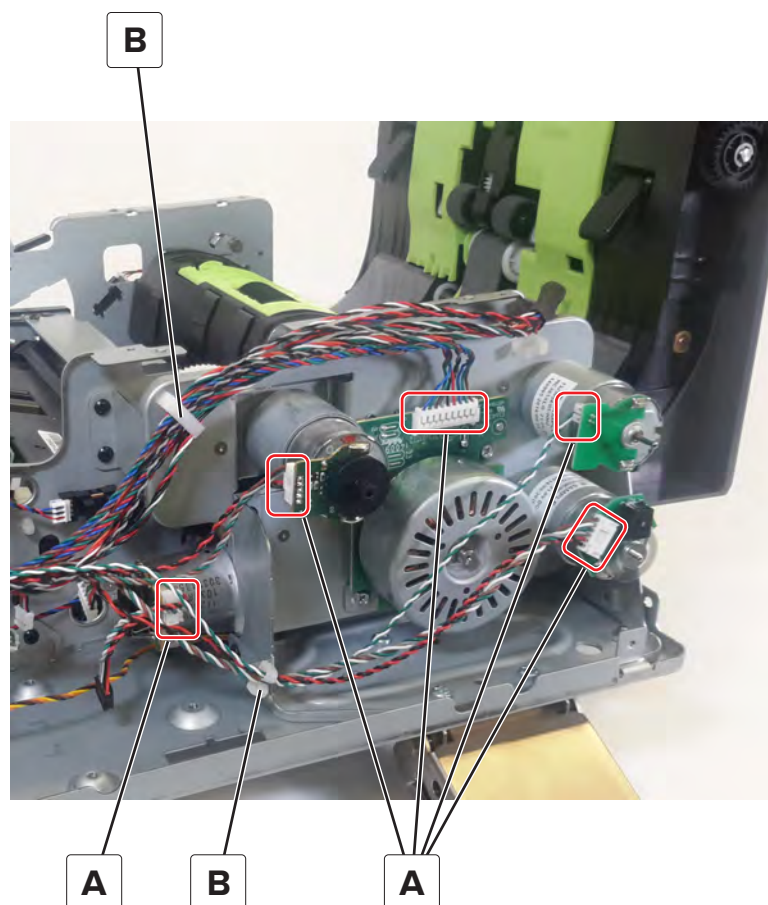
- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819.](#)
- 2 Remove the ADF tray. See [“ADF tray removal” on page 821.](#)
- 3 Remove the ADF front cover. See [“ADF front cover removal” on page 821.](#)
- 4 Remove the four E-clips (A).
- 5 Remove the belt (B), the four gears (C), and the tensioner (D).



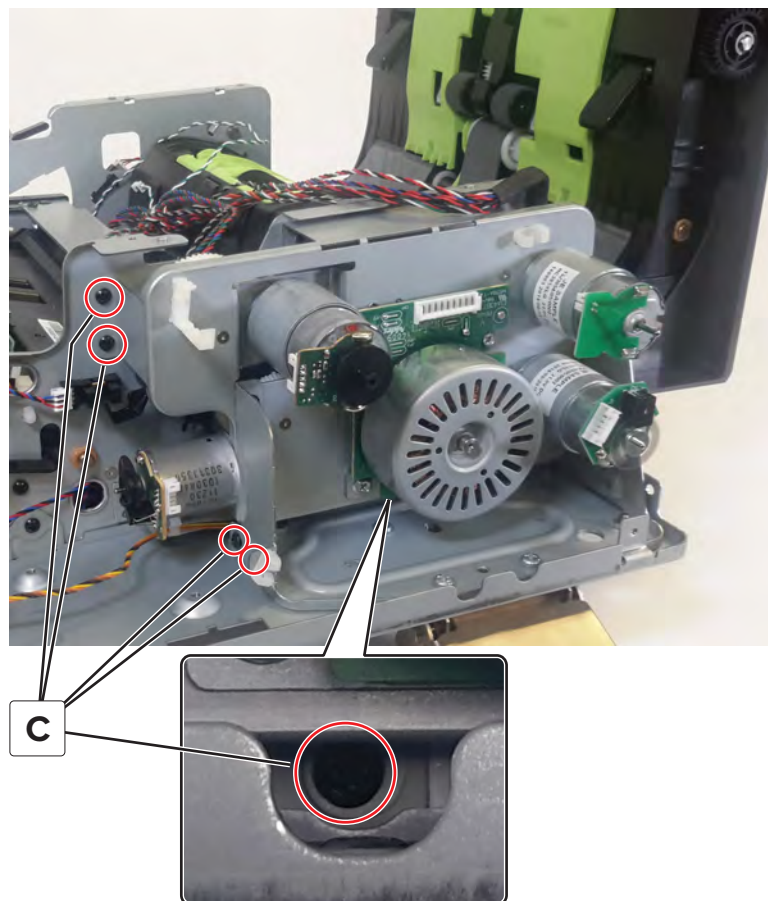
Parts removal

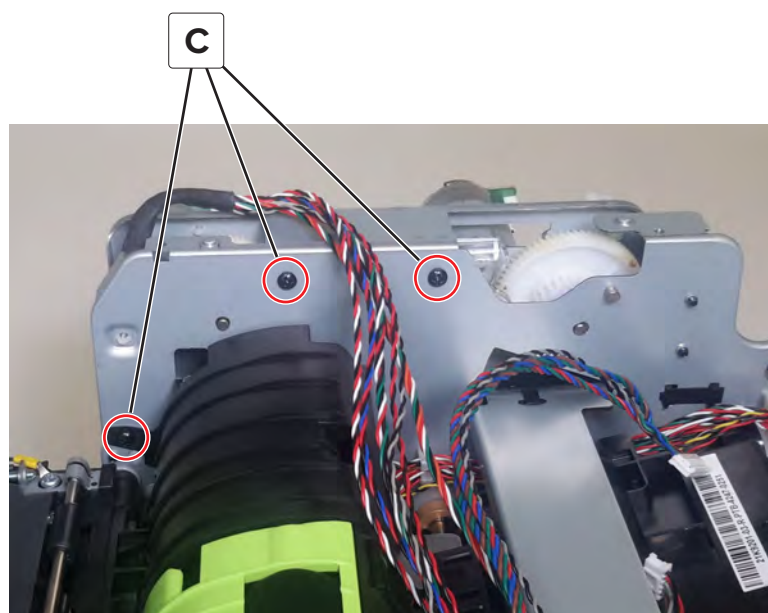
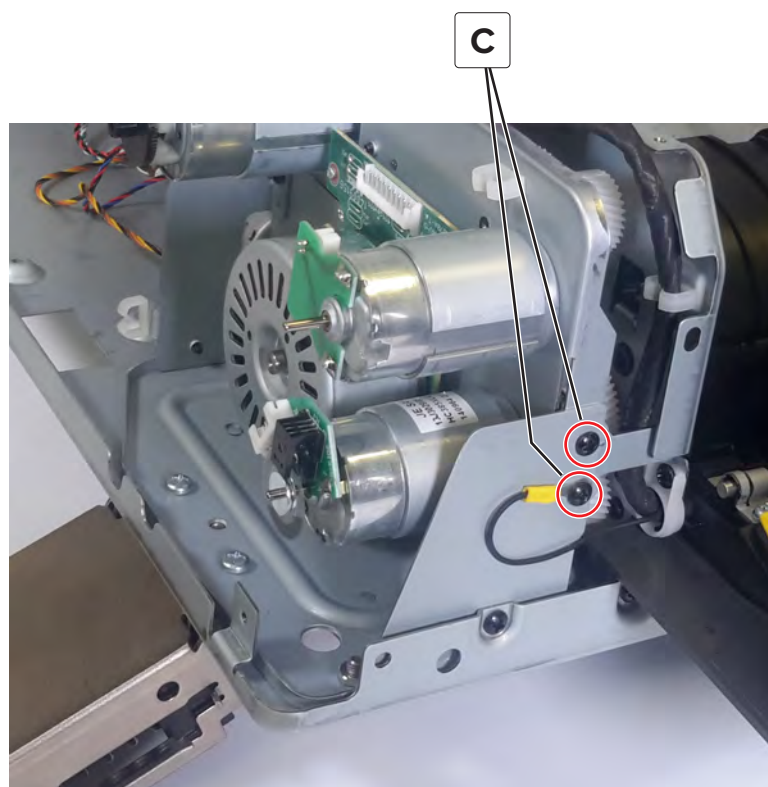
Motor (ADF) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the ADF controller board. See [“ADF controller board removal” on page 820](#).
- 3 Disconnect the five cables (A).
- 4 Release the cables from the retainers (B).



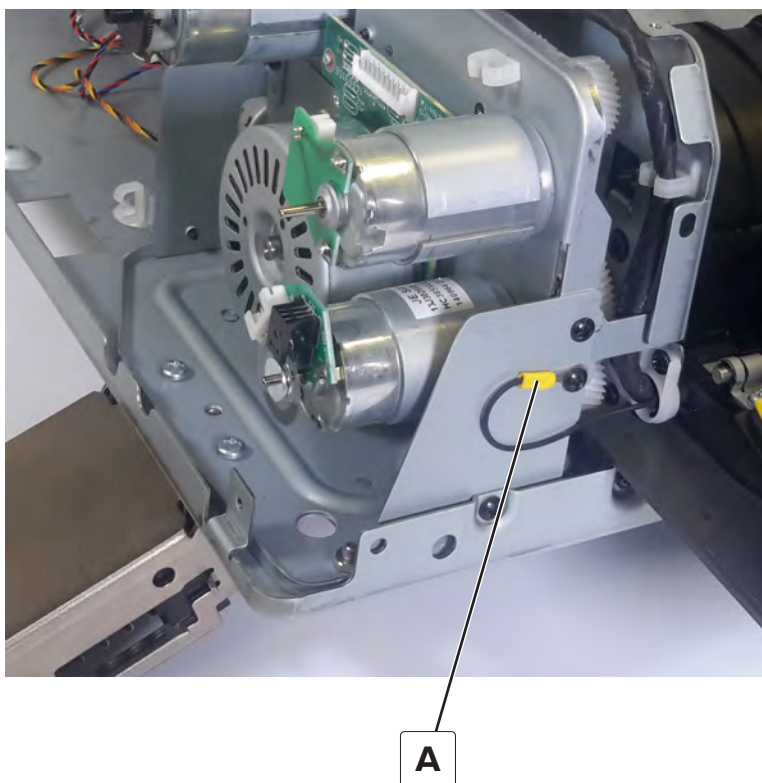
- 5 Remove the ten screws (C) securing the motor (ADF).





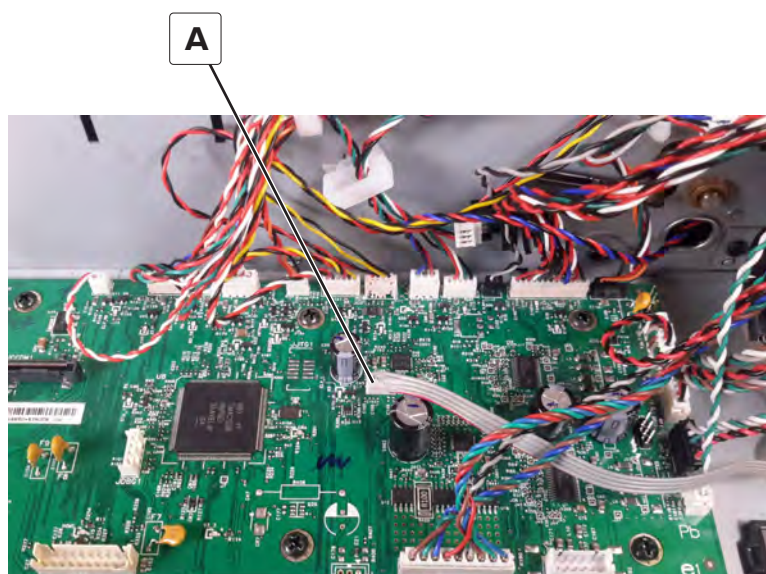
6 Remove the motor (ADF).

Installation note: When installing the motor, make sure to reconnect the ground wire (A).

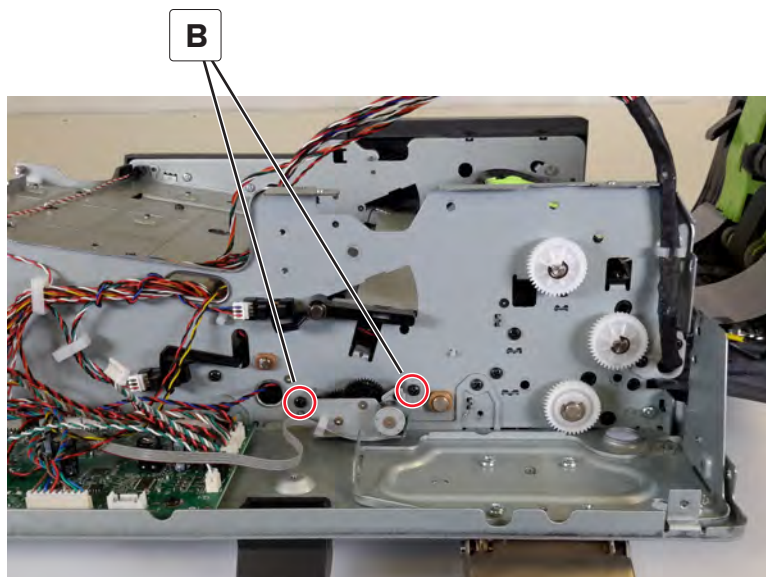


Motor (ADF calibration roller) removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the motor (ADF). See [“Motor \(ADF\) removal” on page 826](#).
- 3 Disconnect connector JSTEP1 (A) from the ADF controller board.



- 4 Remove the two screws (B).

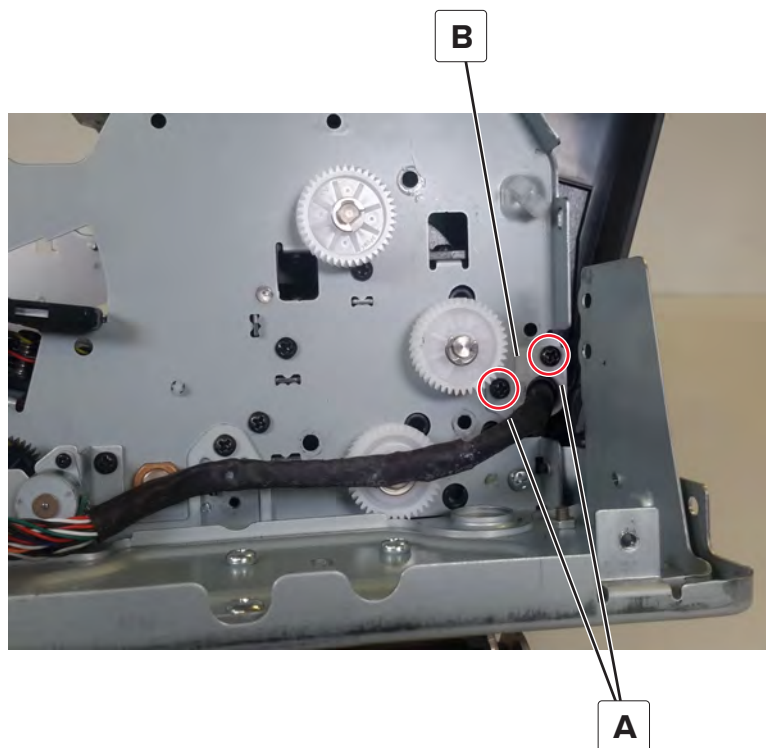


- 5 Remove the motor (ADF calibration roller).

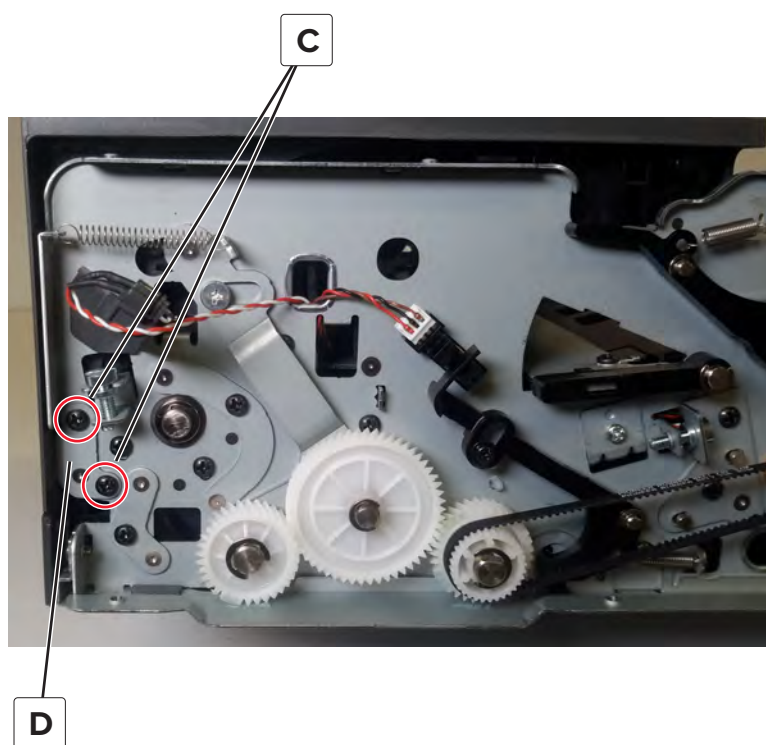
ADF top door removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the ADF front cover. See [“ADF front cover removal” on page 821](#).
- 3 Remove the motor (ADF). See [“Motor \(ADF\) removal” on page 826](#).
- 4 From the rear side, remove the two screws (A).

5 Detach the hinge (B).



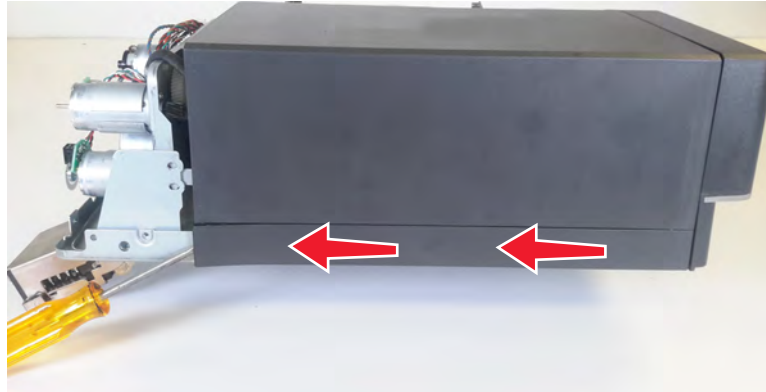
6 From the front side, remove the two screws (C), and then remove the bracket (D).



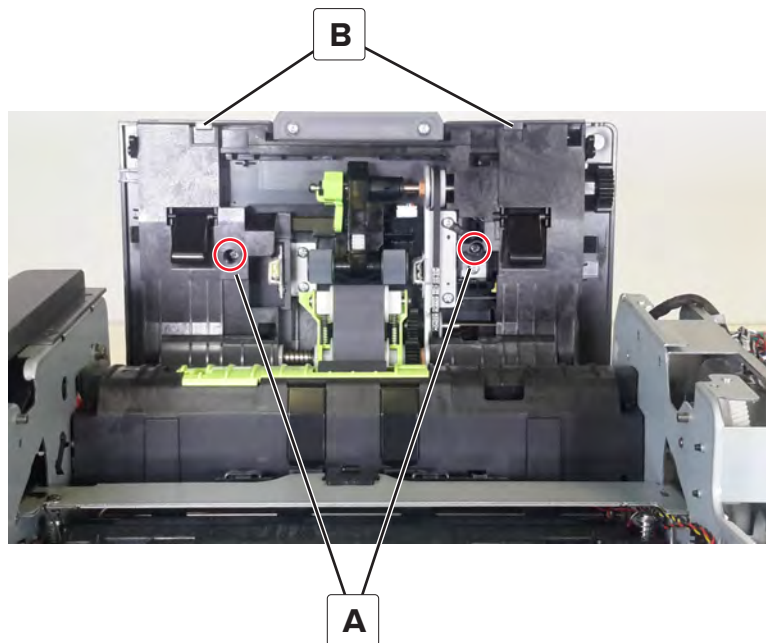
7 Remove the door.

ADF top door cover removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Gently pry the left side of the lower left cover, and then slide the cover to the left to remove it.



- 3 Open the top door, and then remove the pick roller cover.
- 4 Remove the two screws (A).
- 5 Release the two plastic latches (B).

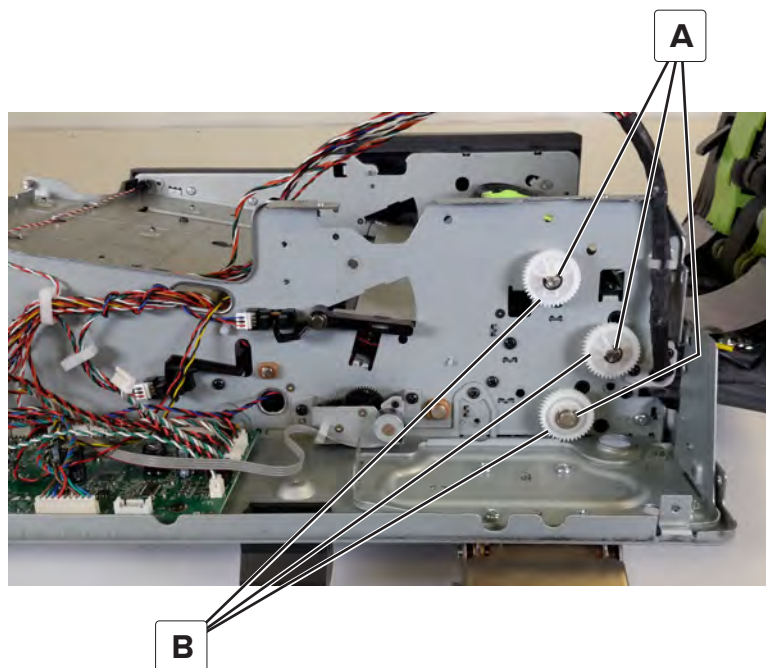


- 6 Close the top door, and then gently remove the cover.

ADF rear drive gears removal

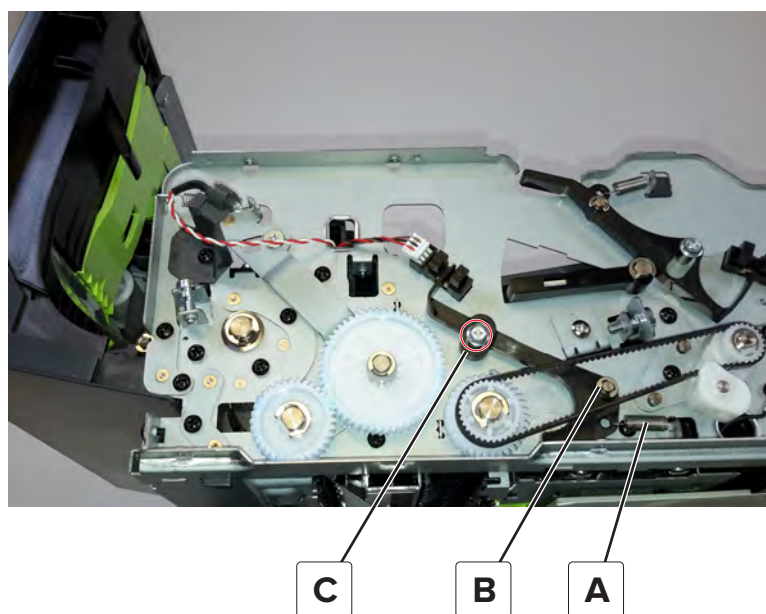
- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the motor (ADF). See [“Motor \(ADF\) removal” on page 826](#).

- 3** Remove the three E-clips (A), and then remove the three gears (B).



Bottom interlock actuator removal

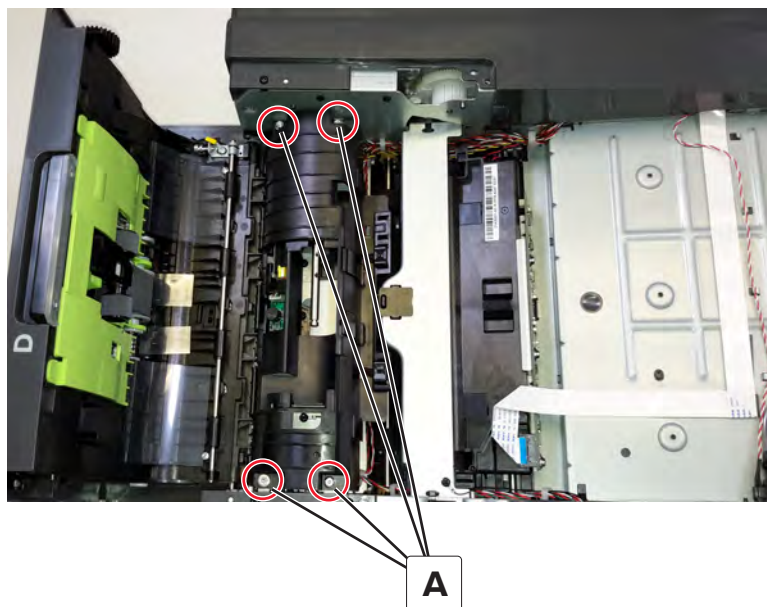
- 1** Remove the ADF rear cover. See [“ADF rear cover removal” on page 819.](#)
- 2** Remove the ADF tray. See [“ADF tray removal” on page 821.](#)
- 3** Remove the ADF front cover. See [“ADF front cover removal” on page 821.](#)
- 4** Remove the spring (A), E-clip (B), and screw (C).



- 5** Remove the actuator.

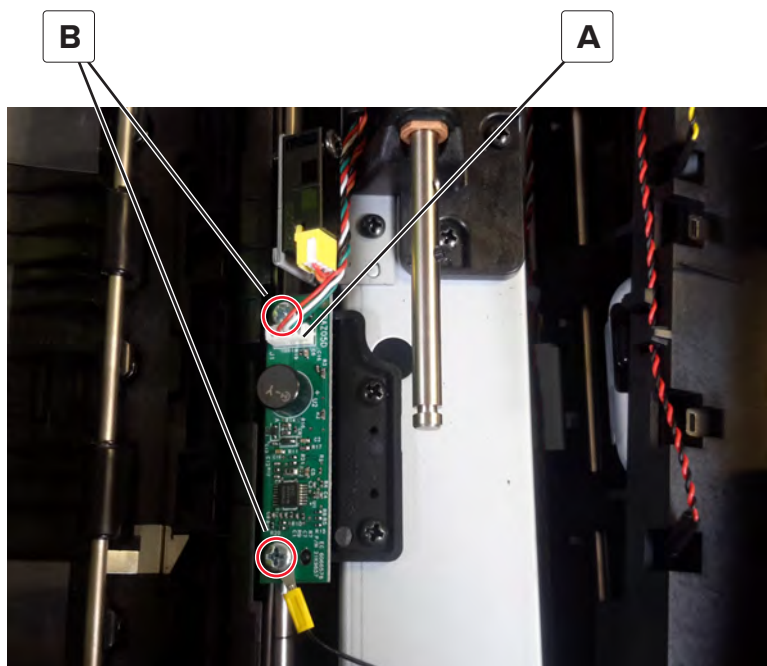
Input guide removal

- 1 Remove the ADF separator roller. See [“ADF maintenance kit removal” on page 817.](#)
- 2 Remove the four screws (A), and then remove the guide.



Sensor (ADF multifeed receiver) removal

- 1 Remove the input guide. See [“Input guide removal” on page 834.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).

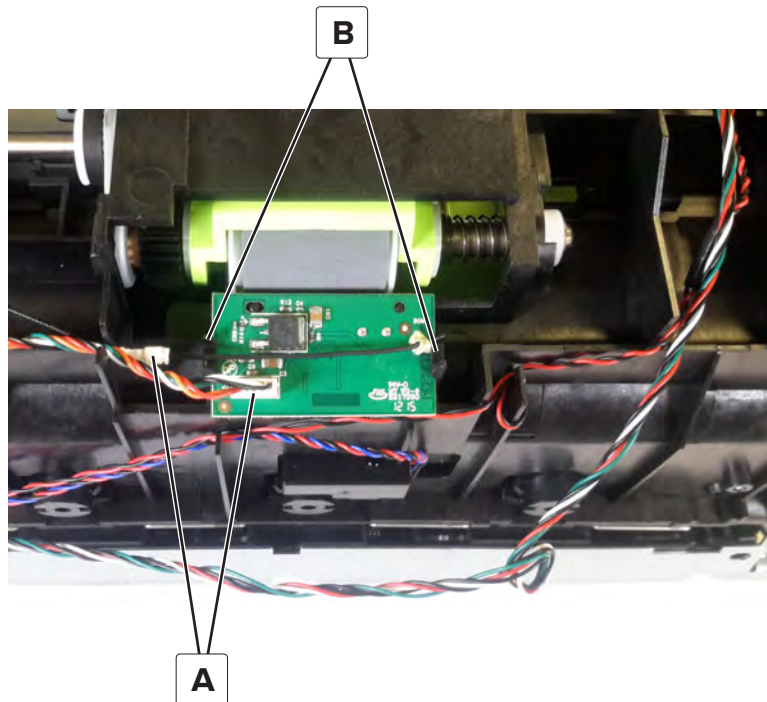


- 3 Remove the sensor.

Installation note: Perform Multifeed calibration on the new sensor. See [“Sensor \(ADF multifeed\) calibration” on page 668](#).

Sensor (ADF multifeed transmitter) removal

- 1 Remove the ADF top door cover. See [“ADF top door cover removal” on page 832](#).
- 2 Disconnect the two cables (A).
- 3 Gently release the latches (B) to remove the sensor.

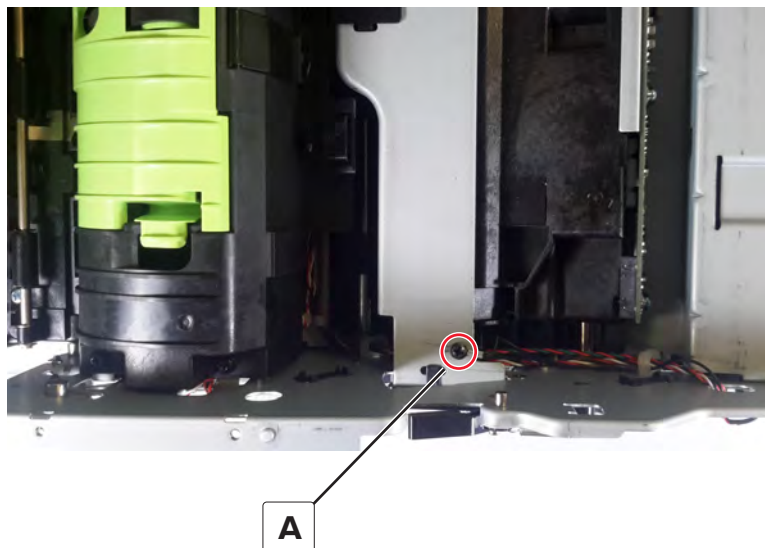


Installation note: Perform Multifeed calibration on the new sensor. See [“Sensor \(ADF multifeed\) calibration” on page 668](#).

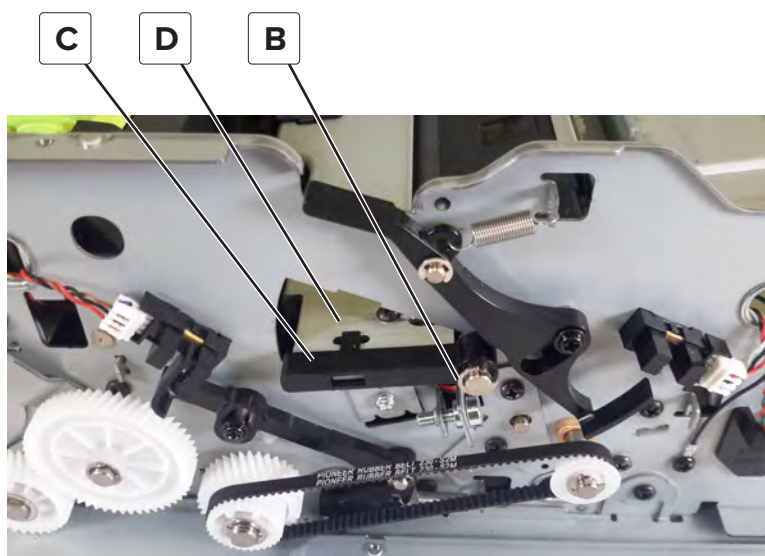
ADF CCDM removal

- 1 Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2 Remove the ADF front cover. See [“ADF front cover removal” on page 821](#).
- 3 Remove the ADF tray. See [“ADF tray removal” on page 821](#).

- 4 Remove the screw (A) securing the ground wire.

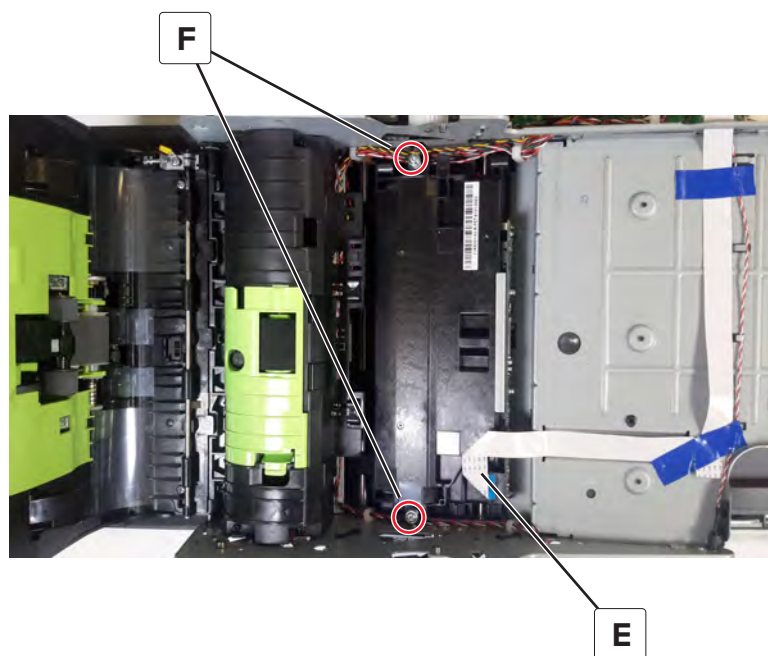


- 5 Remove the E-clip (B), the hinge (C), and then the lift bracket (D).



- 6 Disconnect the cable (E), and then remove the two screws (F) securing the CCDM.

Warning—Potential Damage: Do not yank the ribbon cables. See [“Disconnecting ribbon cables” on page 663.](#)



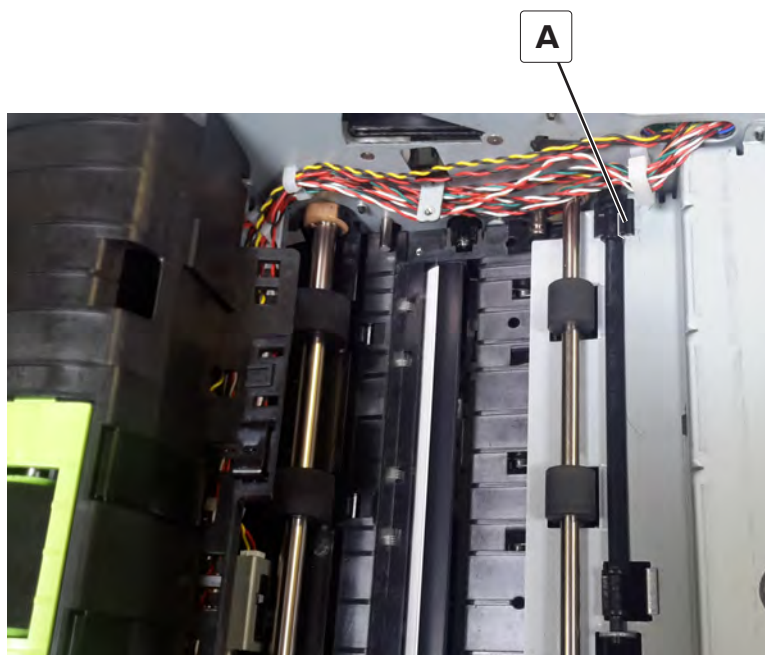
7 Remove the CCDM (ADF).

Note: When installing or replacing the CCDM (ADF), make sure to reconnect the ground wire, and then perform test scans to ensure that image skew does not occur. If image skew occurs, then see [“ADF skew adjustment \(back side\)” on page 665](#).

ADF media exit actuator removal

- 1** Remove the ADF rear cover. See [“ADF rear cover removal” on page 819](#).
- 2** Remove the ADF front cover. See [“ADF front cover removal” on page 821](#).
- 3** Remove the ADF tray. See [“ADF tray removal” on page 821](#).
- 4** Remove the CCDM (ADF). See [“ADF CCDM removal” on page 835](#).

- 5 Gently remove the retainer (A).

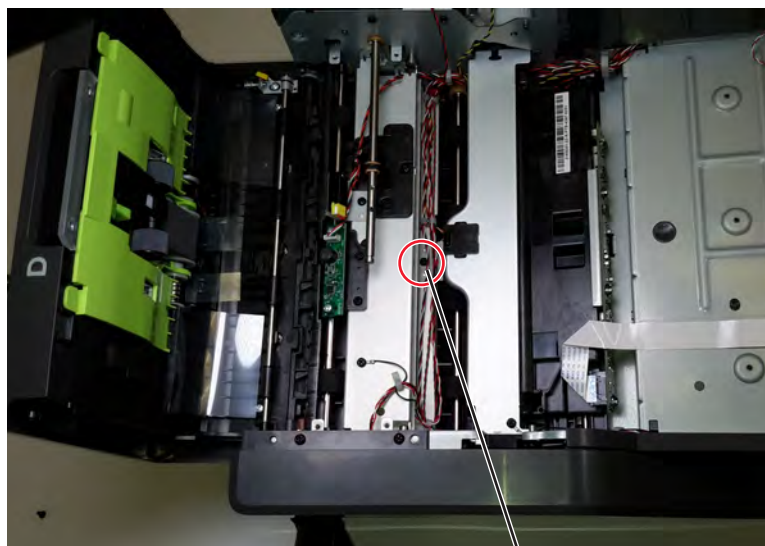


- 6 Remove the actuator.

Sensor (ADF 2nd scan) removal

- 1 Remove the ADF separator roller. See [“ADF maintenance kit removal” on page 817.](#)
- 2 Remove the input guide. See [“Input guide removal” on page 834.](#)

- 3 Remove the screw (A), and then release the cables from the bracket.



A

- 4 Remove the bracket, and then remove the sensor.

Flatbed scanner front upper cover removal

- 1 Fully tilt the control panel.



2 Remove the cover.



Flatbed scanner rear cover removal

1 Open door C.



Parts removal

840

- 2 Pull the lower edge of the cover to detach it.



- 3 Remove the cover.

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, keep hands clear of the labeled area when closing door C.

Flatbed scanner left cover removal

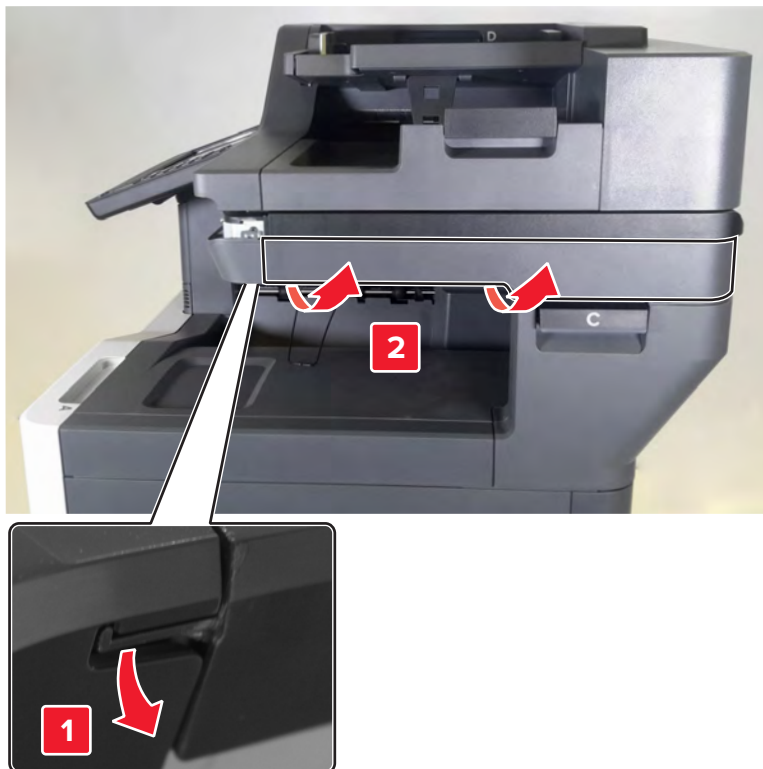
- 1 Remove the rear cover. See [“Flatbed scanner rear cover removal” on page 840.](#)
- 2 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 3 Simultaneously move the two covers to the rear to detach them from the scanner.



- 4 Remove the left cover.

Flatbed scanner right cover removal

- 1 Remove the rear cover. See [“Flatbed scanner rear cover removal” on page 840.](#)
- 2 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 3 Pull down the right cover to detach it from the scanner.



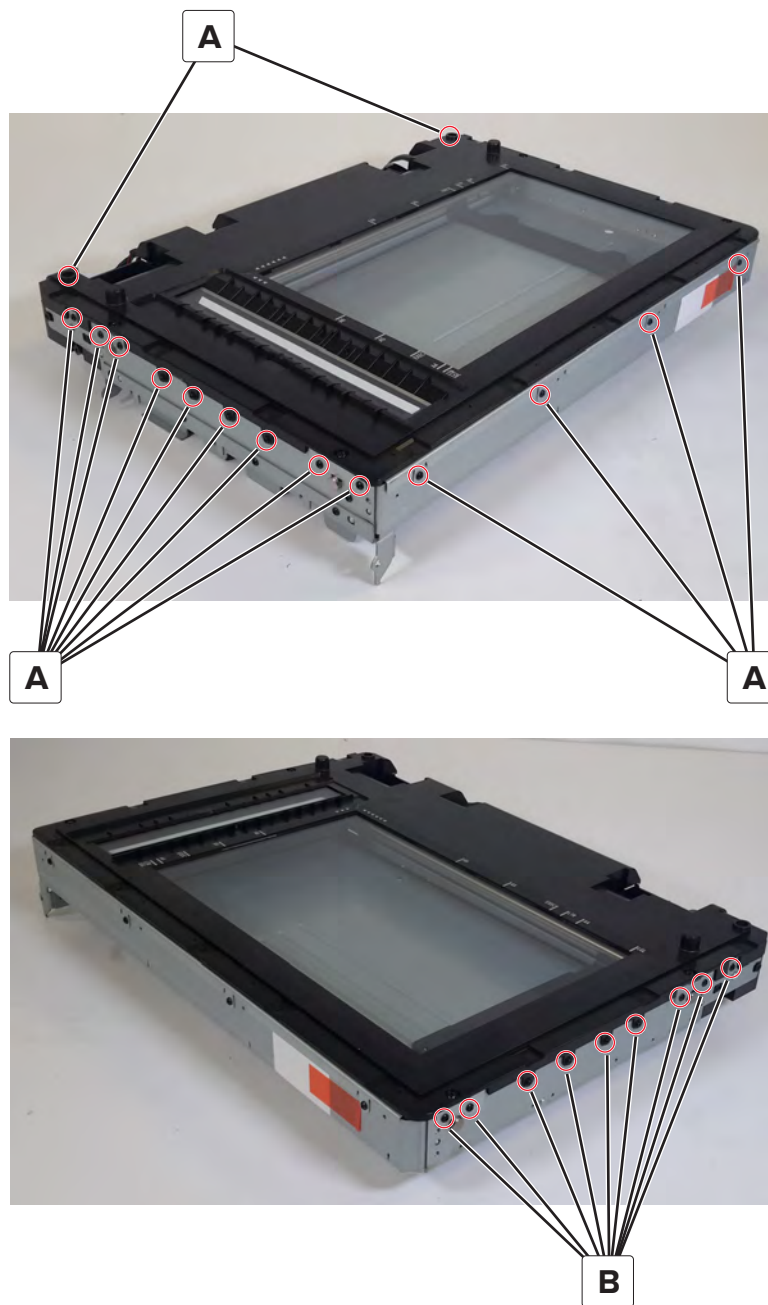
- 4 Simultaneously slide the trim and right covers to the rear to remove.



Flatbed scanner top cover removal

- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)
- 3 Remove the right cover. See [“Flatbed scanner right cover removal” on page 842.](#)
- 4 Remove the 24 screws (A, B) securing the cover.

Note: The ADF is not shown to improve clarity.

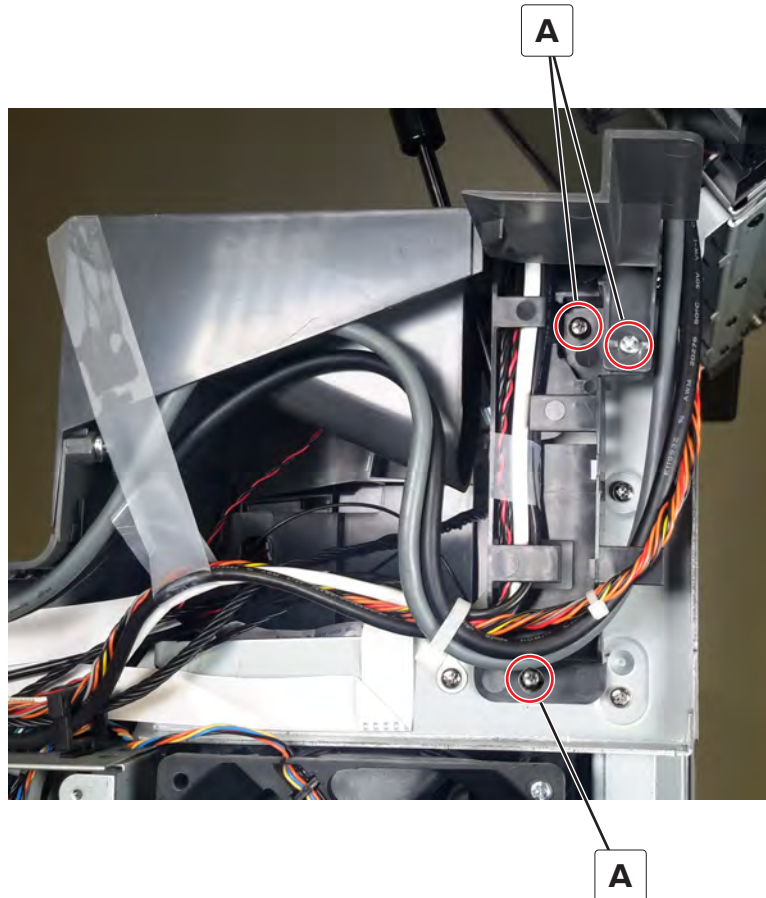


- 5 Remove the top cover.

Flatbed scanner support removal

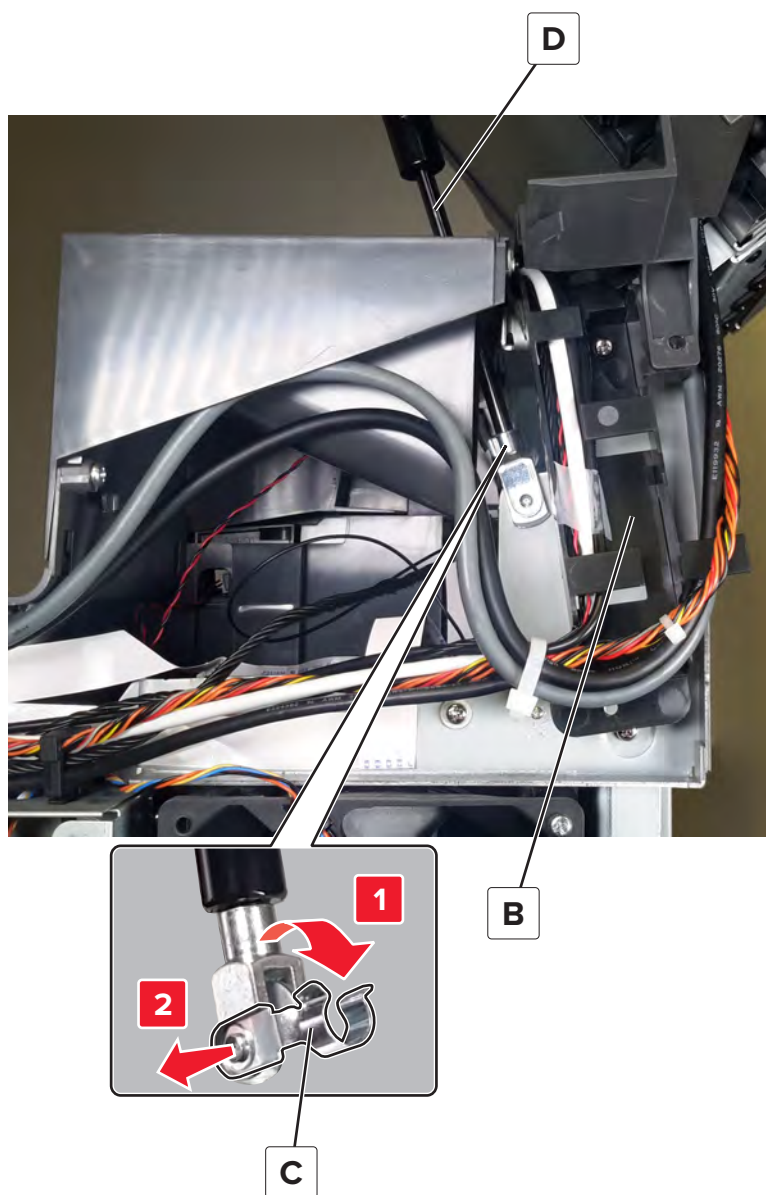
Warning—Potential Damage: When removing the scanner support, make sure that the scanner is properly supported to prevent it from falling and avoid potential injury and scanner damage.

- 1 Remove the flatbed scanner rear left cover.
- 2 Remove the three (A) screws securing the cable holder.



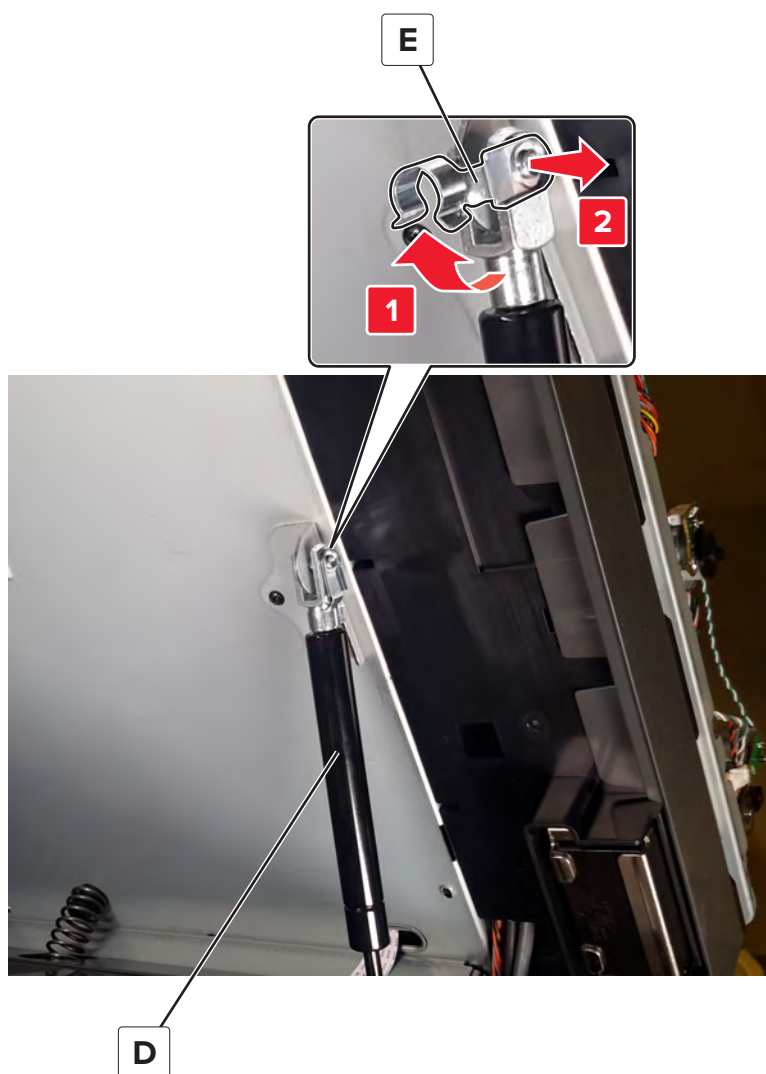
- 3 Position the cable holder (B) to the right, but do not remove it.
- 4 Rotate the lower lock pin (C) clockwise to release it from the scanner support (D), and then remove it.

Warning—Potential Damage: To prevent the scanner from falling and avoid potential injury and scanner damage, make sure that the scanner is properly supported.



- 5** Rotate the upper lock pin (E) clockwise to release it from the scanner support (D), and then remove it.

Warning—Potential Damage: To prevent the scanner from falling and avoid potential injury and scanner damage, make sure that the scanner is properly supported.

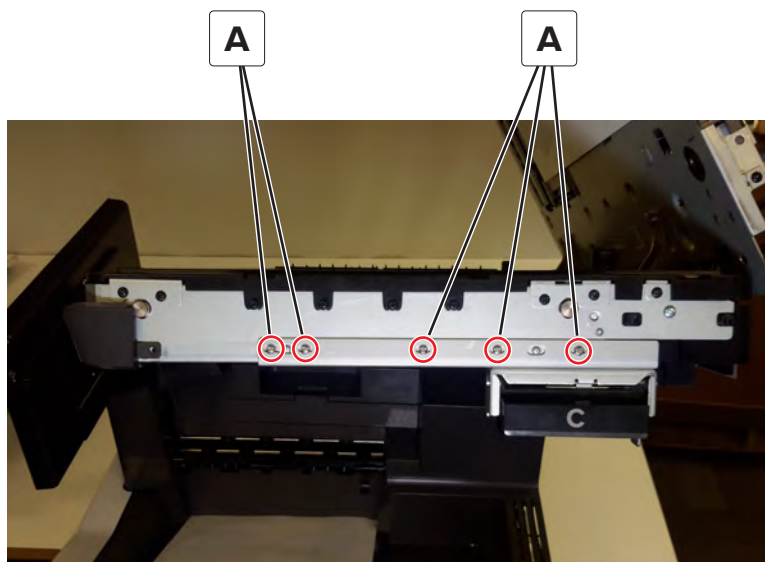


6 Remove the scanner support.

Flatbed scanner frame latch removal

- 1** Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2** Remove the right. See [“Flatbed scanner right cover removal” on page 842.](#)

- 3 Remove the five screws (A).

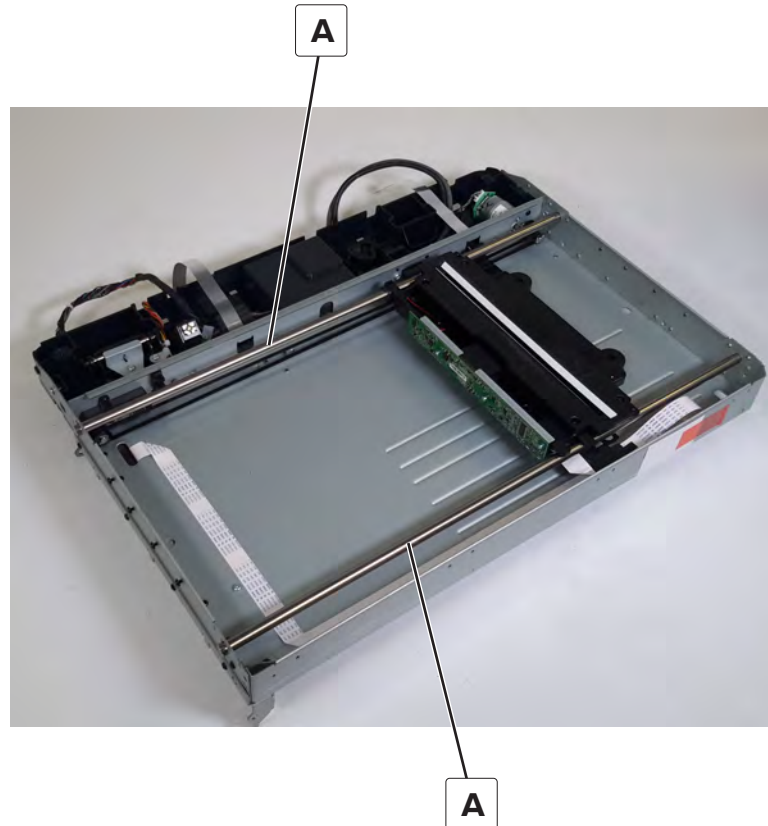


- 4 Remove the flatbed scanner frame latch.

Flatbed scanner CCDM removal

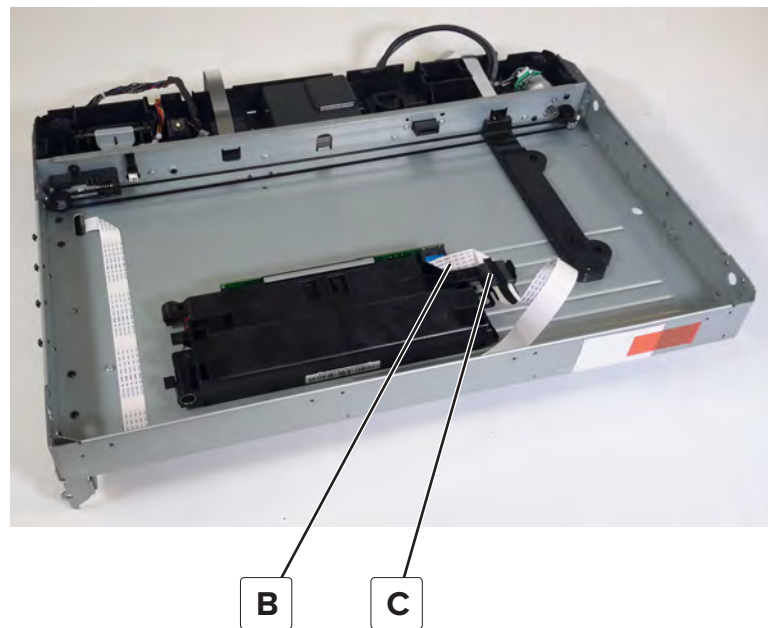
- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)
- 3 Remove the right cover. See [“Flatbed scanner right cover removal” on page 842.](#)
- 4 Remove the top cover. See [“Flatbed scanner top cover removal” on page 843.](#)

- 5 Lift, and then slide the rods (A) out the left side of the frame.



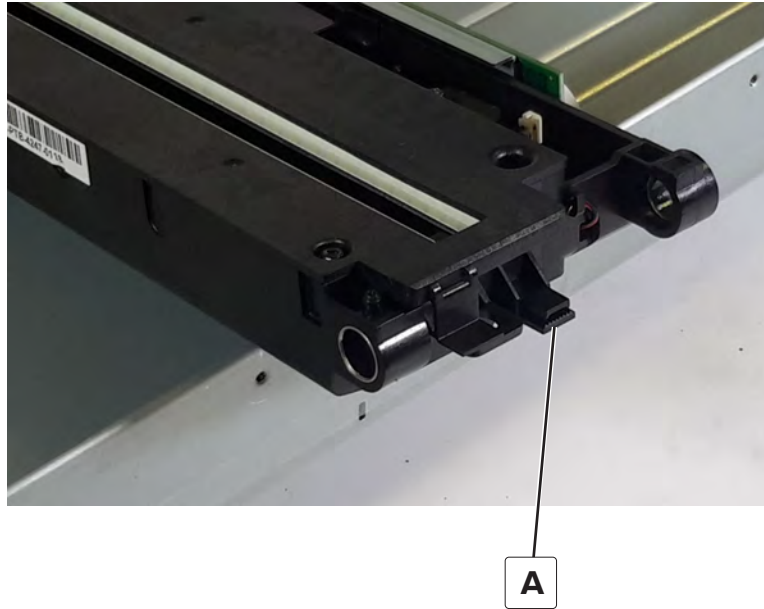
- 6 Detach the CCDM from the belt.
- 7 Release the cable (B) and the toroid (C) from the CCDM.

Warning—Potential Damage: Do not yank the ribbon cables. See [“Disconnecting ribbon cables” on page 663.](#)



Parts removal

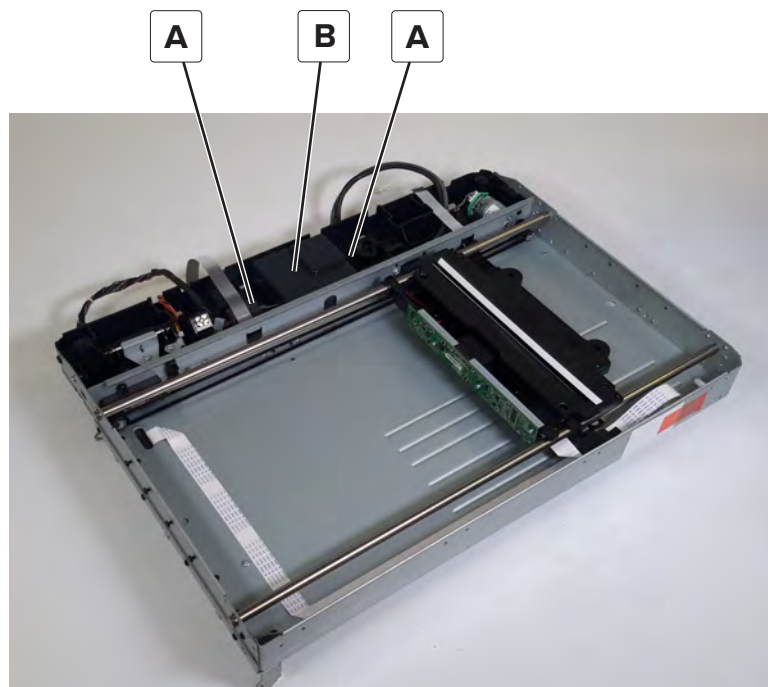
Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.



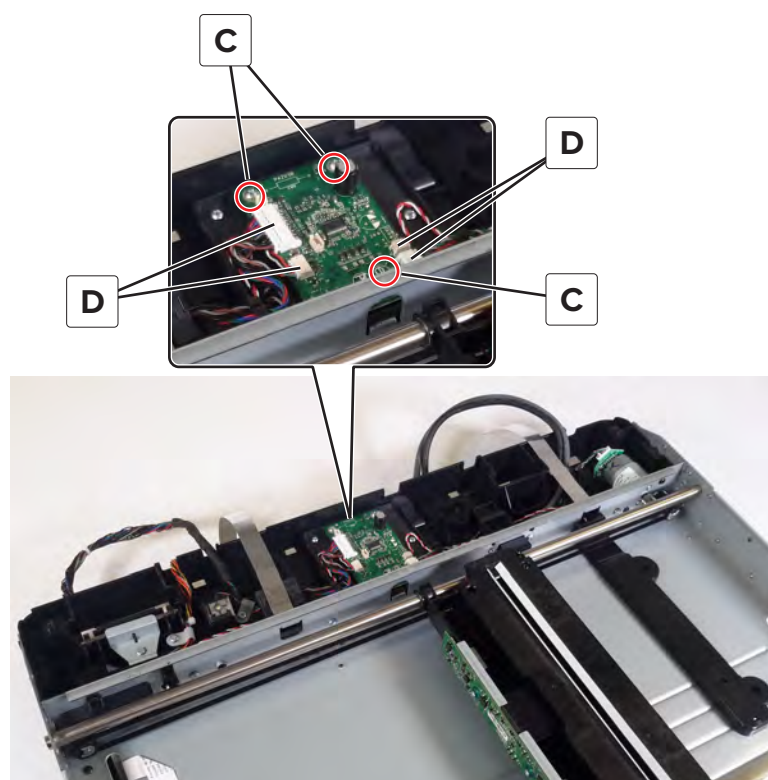
Flatbed scanner board removal

- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)
- 3 Remove the right cover. See [“Flatbed scanner right cover removal” on page 842.](#)
- 4 Remove the top cover. See [“Flatbed scanner top cover removal” on page 843.](#)
- 5 Release the latch (A) on both sides of the cover.

6 Remove the cover (B).



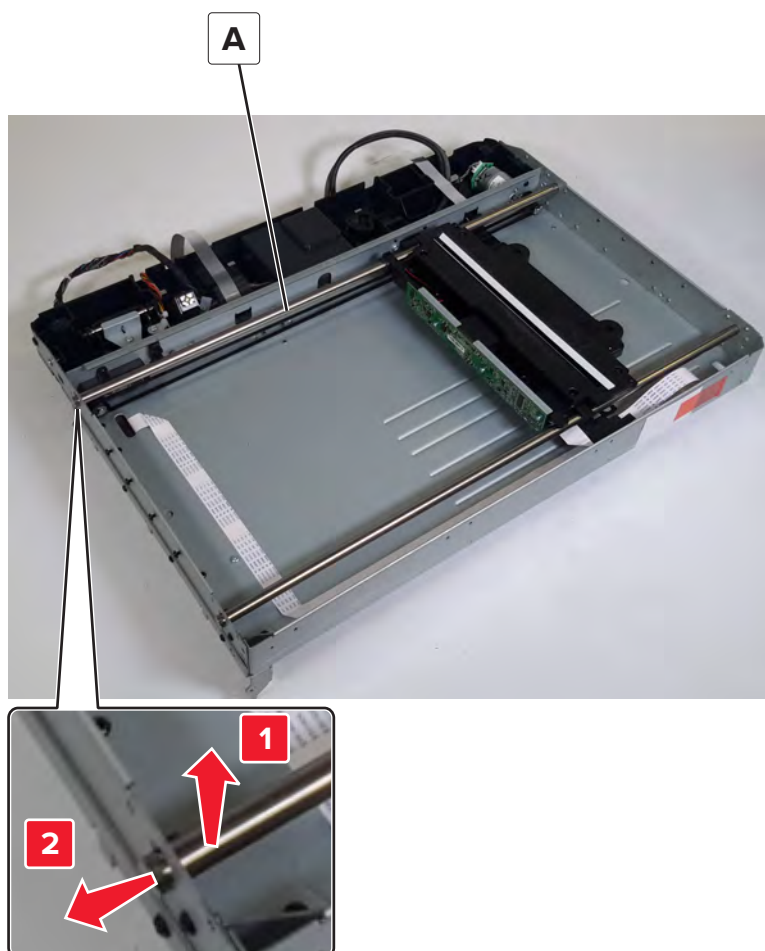
7 Remove the three screws (C), and then disconnect the four cables (D).



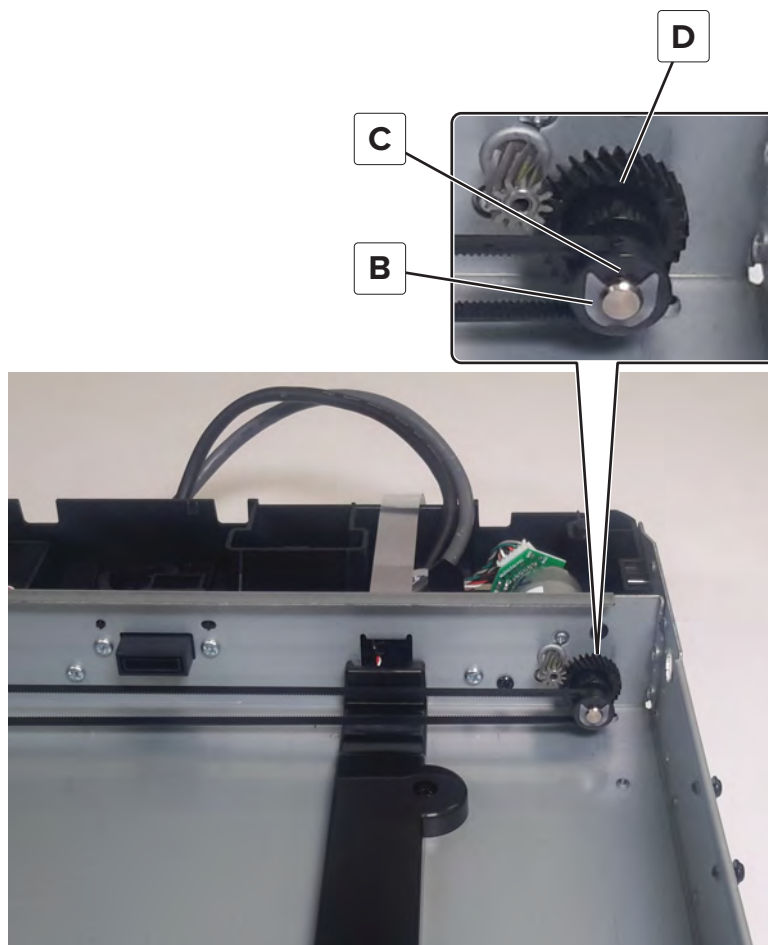
8 Remove the board.

Flatbed scanner gear removal

- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)
- 3 Remove the top cover. See [“Flatbed scanner top cover removal” on page 843.](#)
- 4 Lift, and then slide the rear rod (A) out of the left side of the frame.



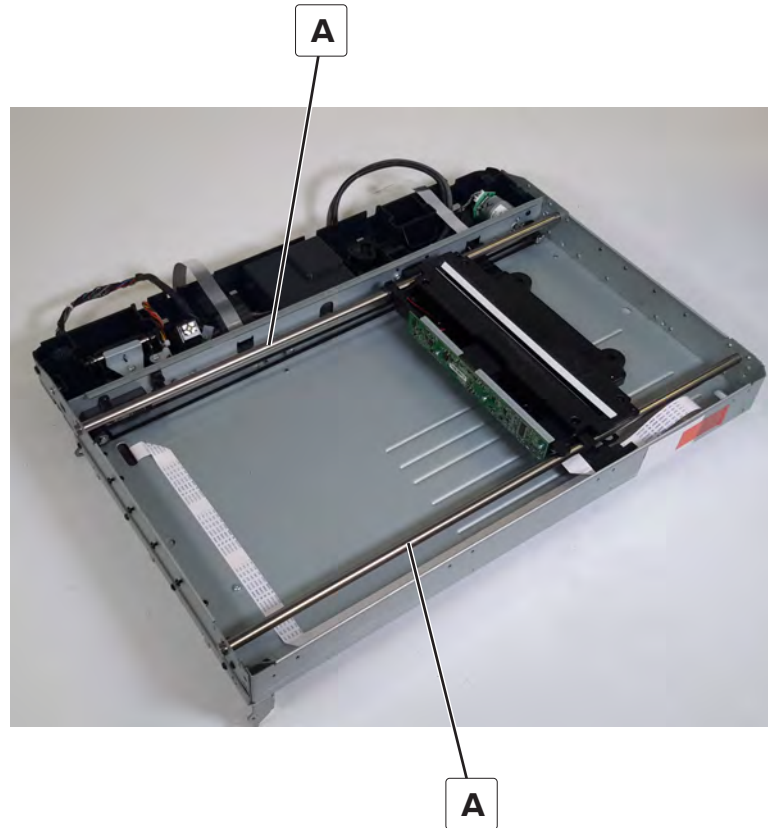
- 5 Remove the retainer clip (B), flange, and then the scanner gear (D).



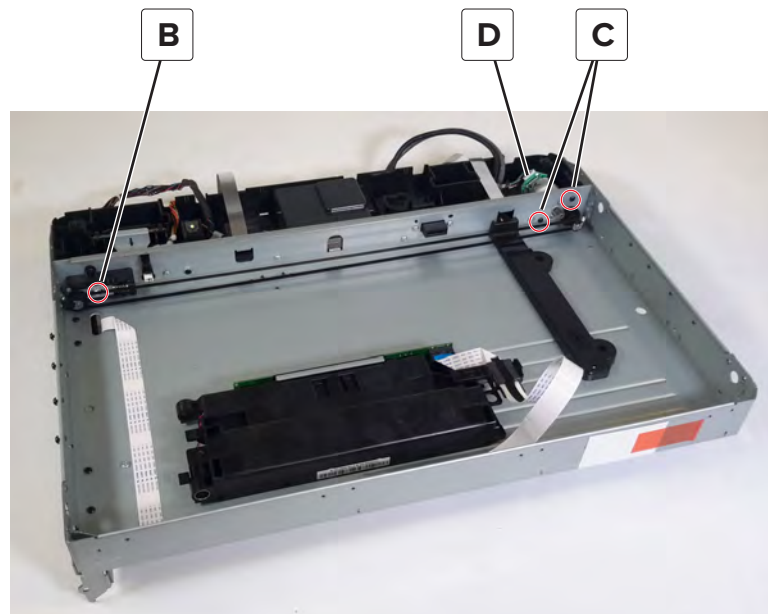
Motor (flatbed scanner) removal

- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)
- 3 Remove the right cover. See [“Flatbed scanner right cover removal” on page 842.](#)
- 4 Remove the top cover. See [“Flatbed scanner top cover removal” on page 843.](#)

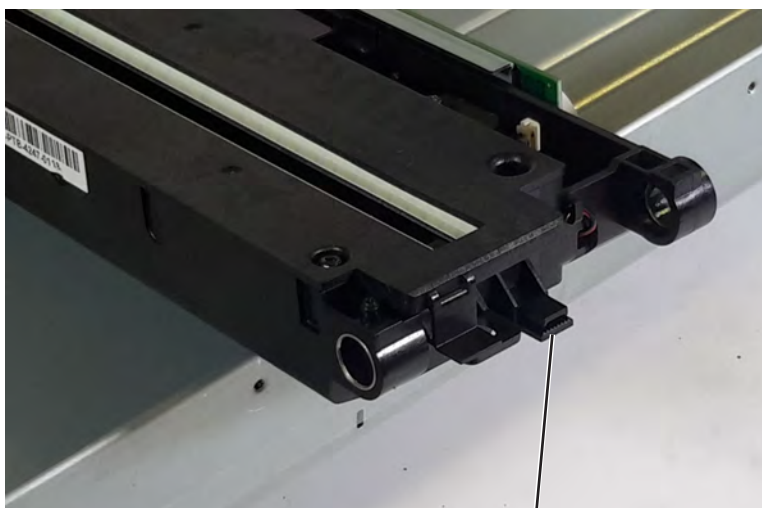
- 5 Lift, and then slide the rods (A) out the left side of the frame.



- 6 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.
- 7 Loosen the tension adjusting screw (B), and then remove the two screws (C) securing the motor.
- 8 Disconnect the cable (D), and then remove the motor.



Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.



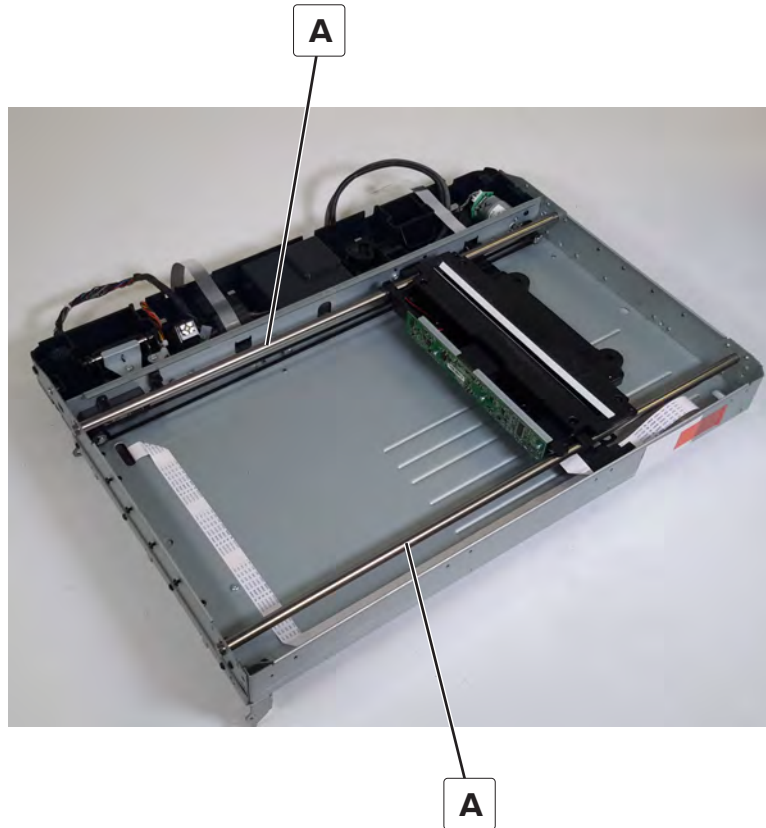
A

Installation warning: Tighten only the tension adjusting screw after the belt is reattached.

Sensor (FB CCD home) removal

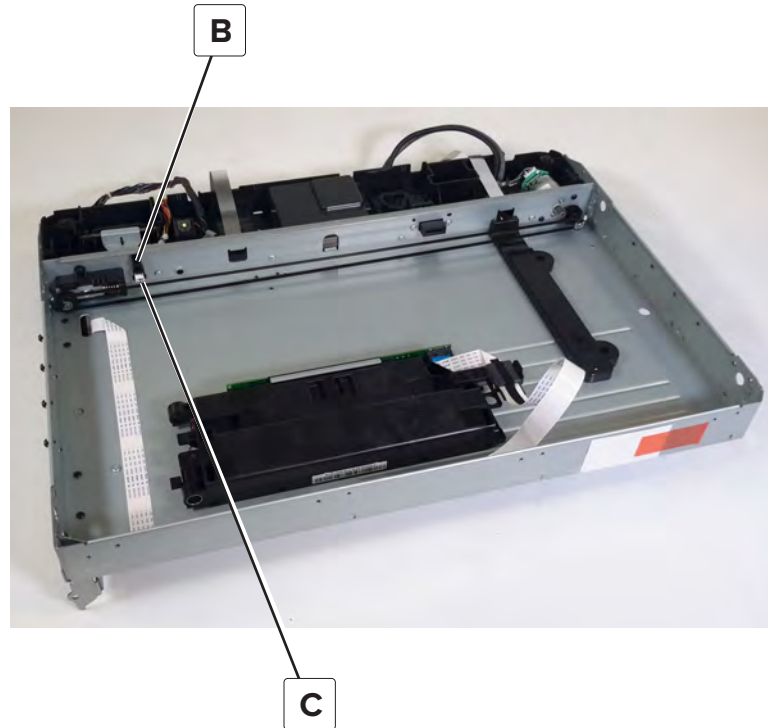
- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)
- 3 Remove the right cover. See [“Flatbed scanner right cover removal” on page 842.](#)
- 4 Remove the top cover. See [“Flatbed scanner top cover removal” on page 843.](#)

- 5** Lift, and then slide the rods (A) out the left side of the frame.



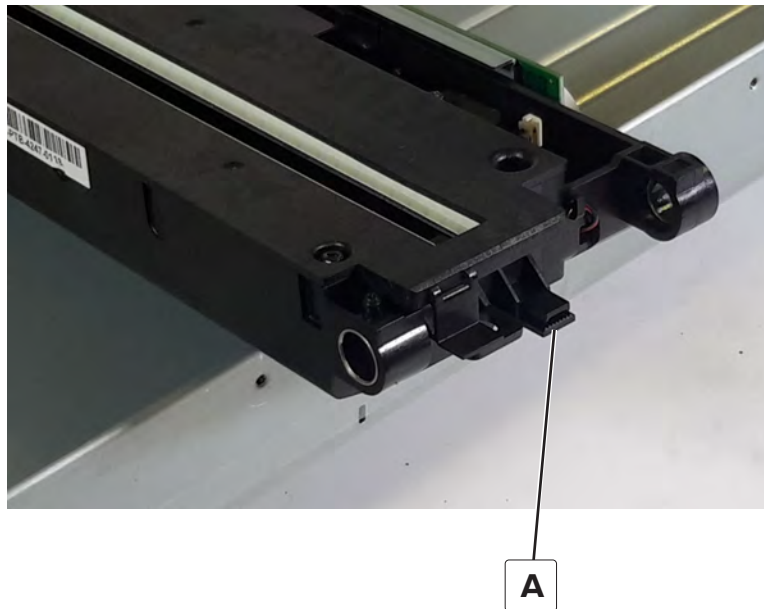
- 6** Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.
- 7** Release the hooks attaching the sensor (B).

8 Disconnect the cable (C).



9 Remove the sensor.

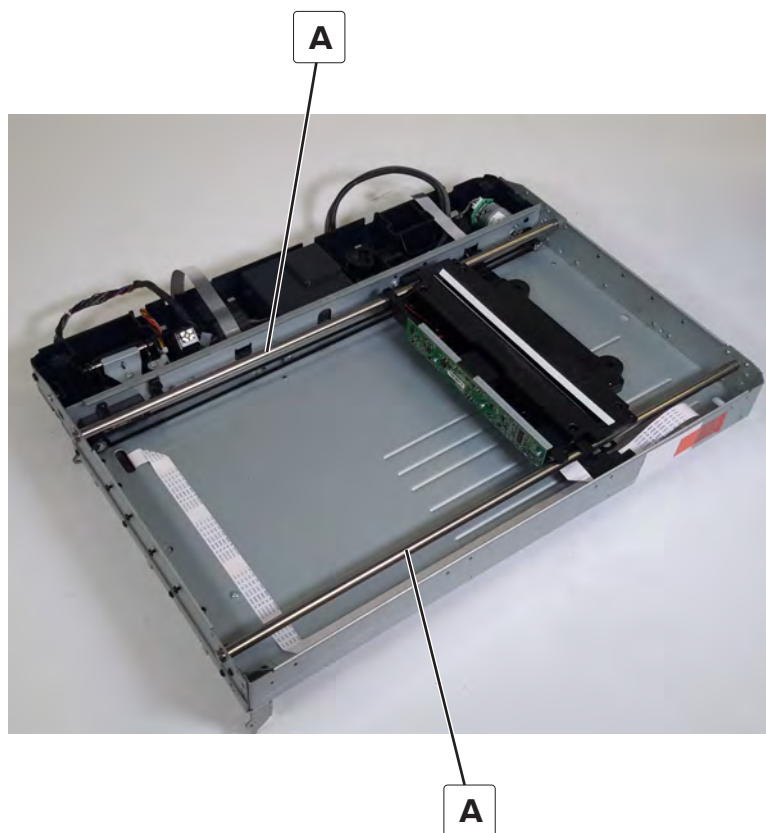
Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.



Flatbed scanner tensioner pulley removal

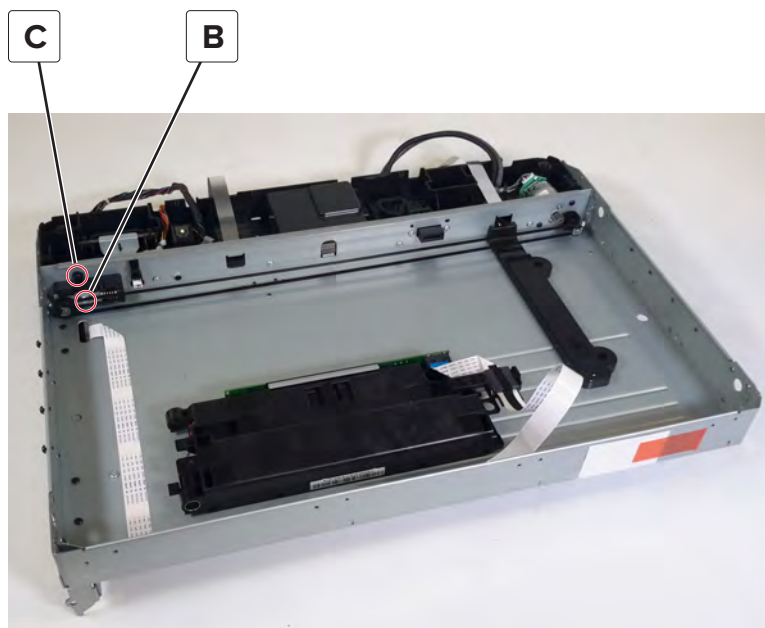
- 1 Remove the front upper cover. See [“Flatbed scanner front upper cover removal” on page 839.](#)
- 2 Remove the left cover. See [“Flatbed scanner left cover removal” on page 841.](#)

- 3 Remove the right cover. See [“Flatbed scanner right cover removal” on page 842.](#)
- 4 Remove the top cover. See [“Flatbed scanner top cover removal” on page 843.](#)
- 5 Lift, and then slide the rods (A) out the left side of the frame.



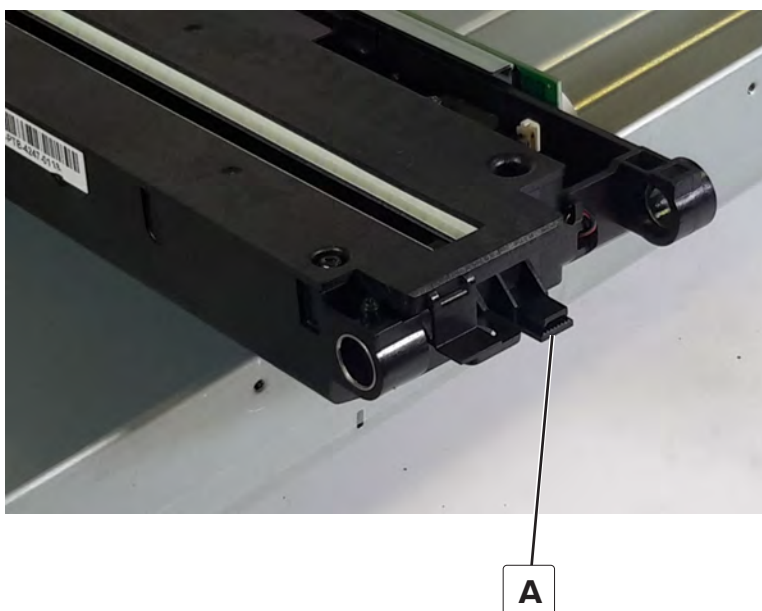
- 6 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

7 Loosen the tension adjusting screw (B), and then remove the screw (C) securing the tensioner pulley.



8 Remove the pulley.

Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.



Installation warning: Tighten only the tension adjusting screw after the belt is reattached.

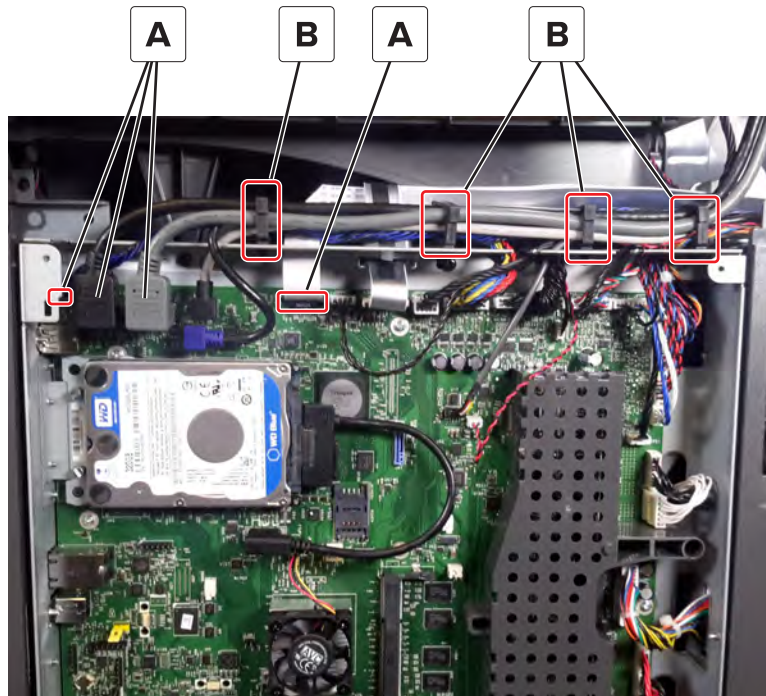
Flatbed scanner removal

- 1** Remove the ADF. See [“ADF removal” on page 819.](#)
- 2** Remove the rear upper cover. See [“Rear upper cover removal” on page 771.](#)

- 3 Remove the left upper cover. See [“Left upper cover removal” on page 691](#).

Warning—Potential Damage: When removing the scanner support, make sure that the scanner is properly supported to prevent it from falling and avoid potential injury and scanner damage.

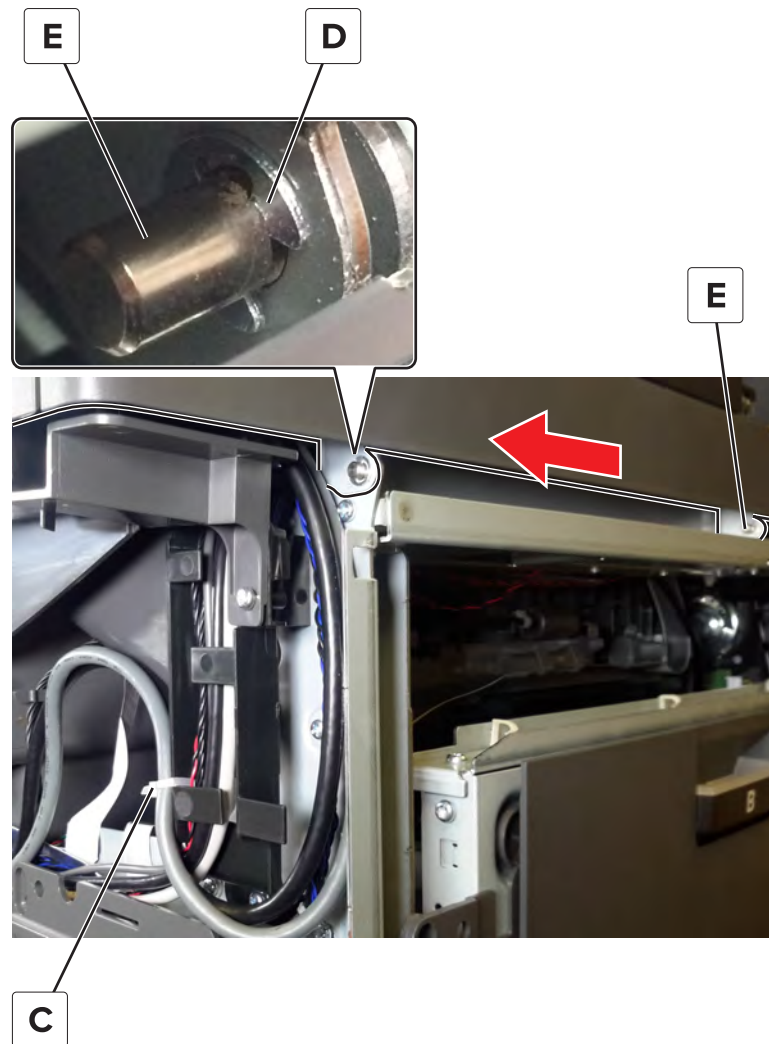
- 4 Remove the flatbed scanner support. See [“Flatbed scanner support removal” on page 844](#).
- 5 Lower the flatbed scanner to its lowermost position.
- 6 Disconnect the connections (A) JSCPOW1, J1, J31, and J32 from the controller board.
- 7 Carefully remove the cables from the holders (B).



- 8 Cut the wire tie (C), and then remove the E-clip (D).

Warning—Potential Damage: Make sure that the cable is completely removed from the clamps and wire tie before removing the flatbed scanner.

- 9 Slightly raise the flatbed scanner and carefully move it toward the rear to disengage it from the two pivot pins (E).



When replacing the flatbed scanner, make sure that the cables are properly routed and the following parts are replaced:

- E-clip
- Flatbed scanner support
- Wire tie

After installing the flatbed scanner, open door C, and then move the latch (A) toward the front of the printer to disengage the CCDM.



550-sheet tray removals

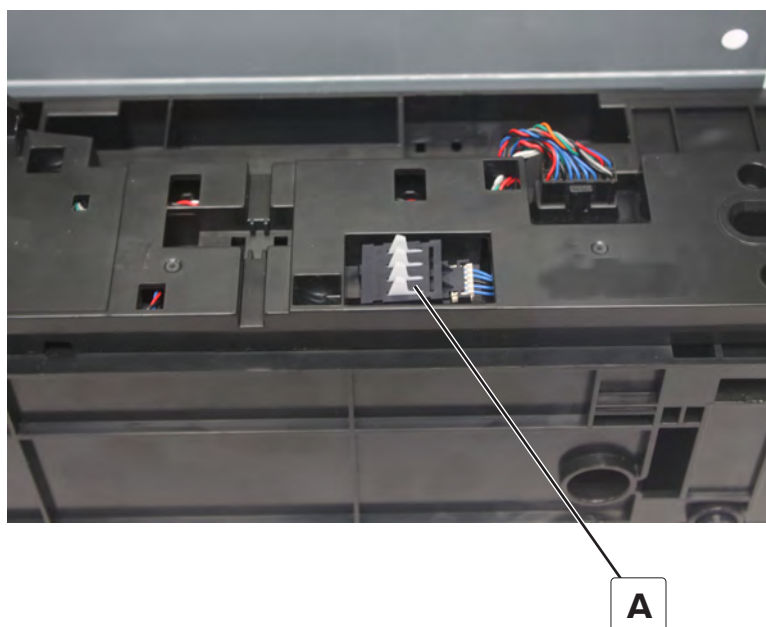
550-sheet tray media size sensor actuators removal

- 1 Remove the tray insert.
- 2 Pry, and then remove the actuators.



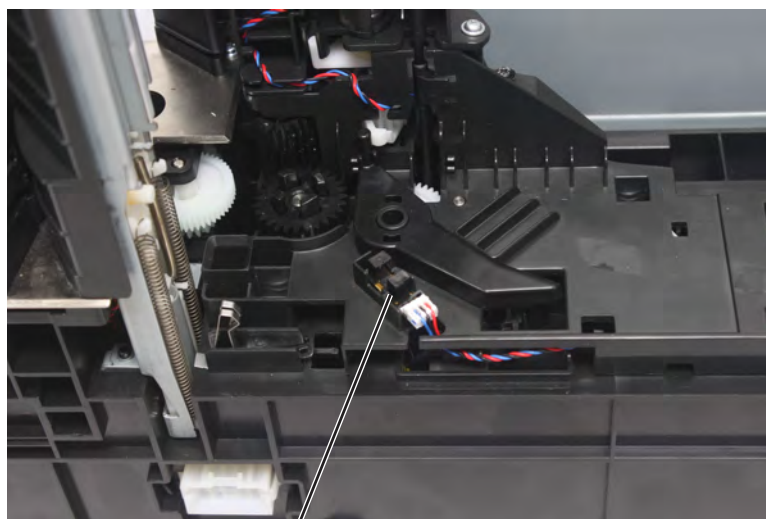
Sensor (550-sheet tray media size) removal

- 1 Remove the tray insert.
- 2 Remove the sensor (A), and then disconnect the cable from the sensor.



Sensor (550-sheet tray media low) removal

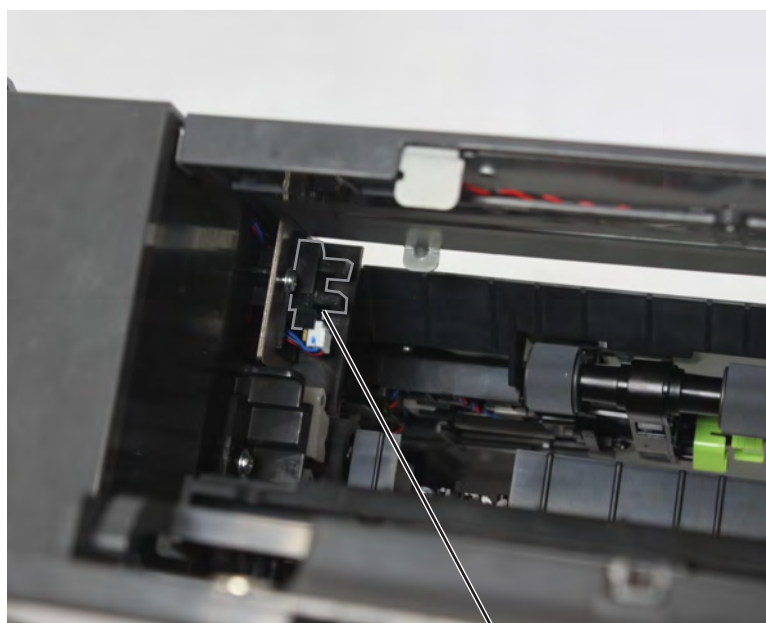
- 1 Remove the tray insert.
- 2 Remove the sensor (A), and then disconnect the cable from the sensor.



A

Sensor (550-sheet tray jam door)

- 1 Open the jam door.
- 2 Remove the sensor (A), and then disconnect the cable from the sensor.

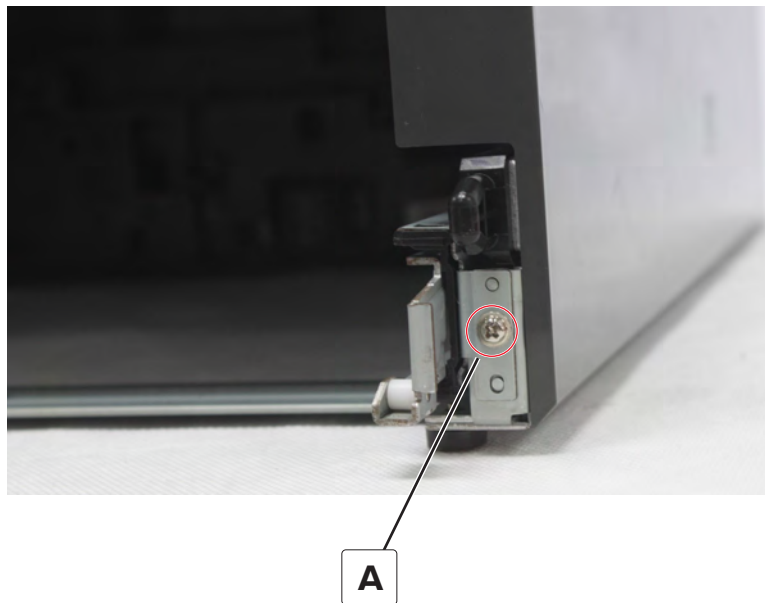


A

550-sheet tray right rail removal

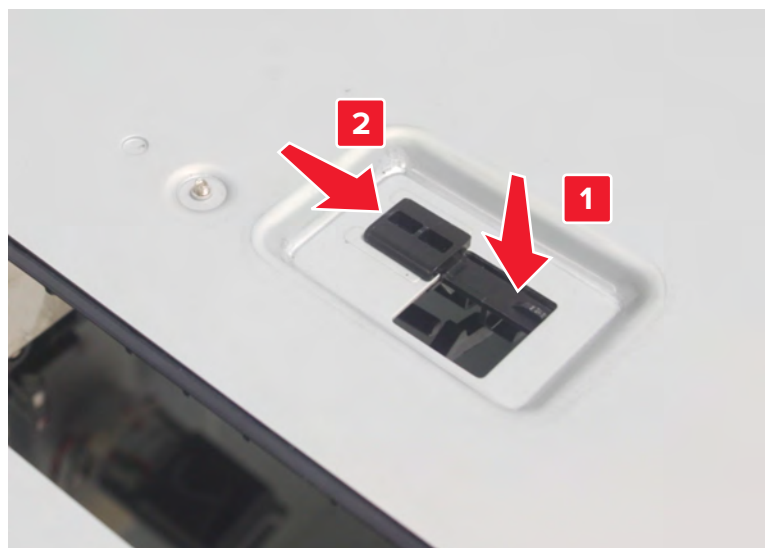
Note: For a video demonstration, see [550-sheet tray rail removal](#).

- 1 Remove the tray insert.
- 2 Remove the screw (A), and then remove the rail.

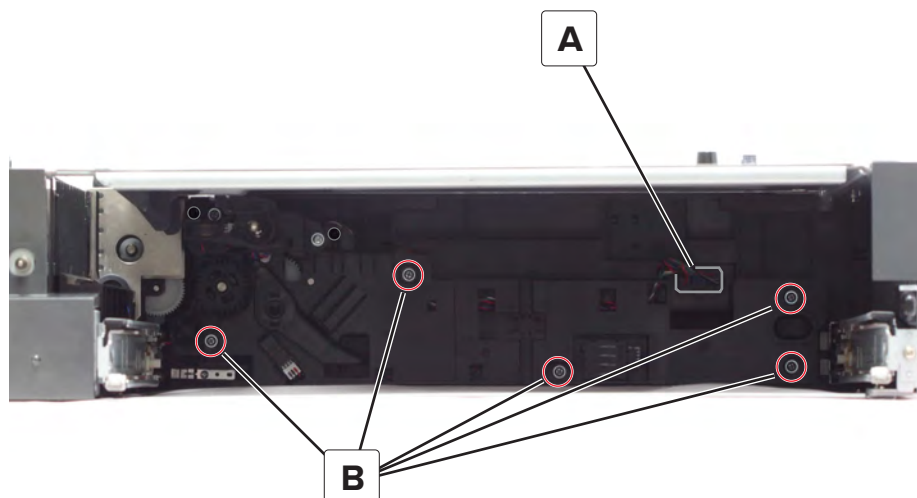


550-sheet tray paper feeder removal

- 1 Remove the tray insert.
- 2 Remove the pick roller.
- 3 Press, and then slide to remove the bracket.



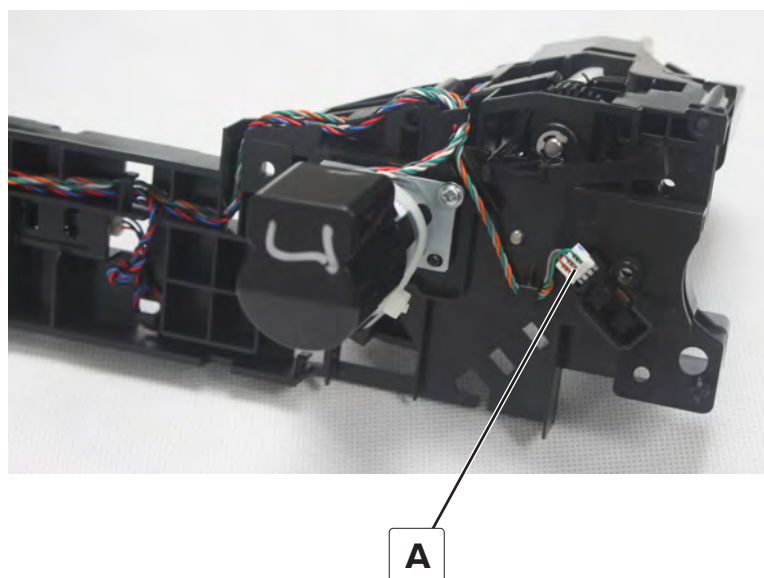
- 4 Disconnect the cable (A), and then remove the five screws (B).



- 5 Remove the feeder.

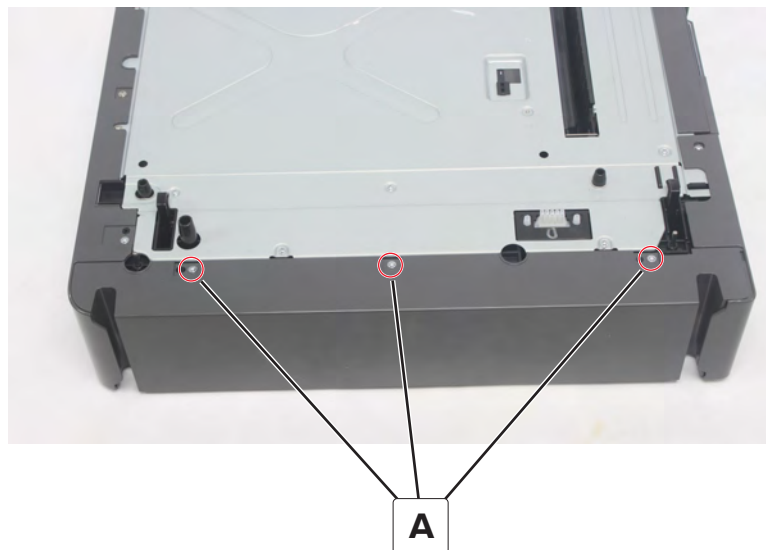
Sensor (550-sheet tray media out) removal

- 1 Remove the tray insert.
- 2 Remove the paper feeder. See [“550-sheet tray paper feeder removal” on page 865.](#)
- 3 Disconnect the cable (A), and then remove the sensor.



550-sheet tray rear cover removal

- 1 Remove the three screws (A).

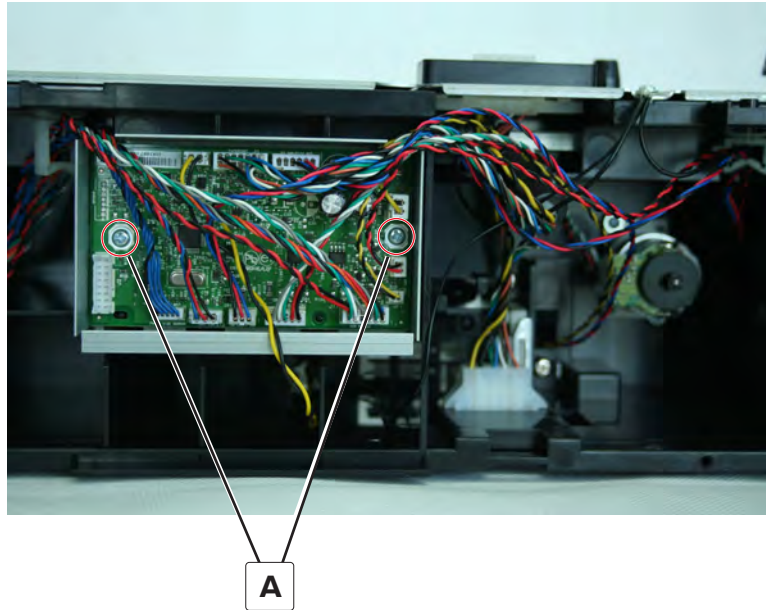


- 2 Slide and hold the latch to the right, and then remove the cover.



550-sheet tray controller board removal

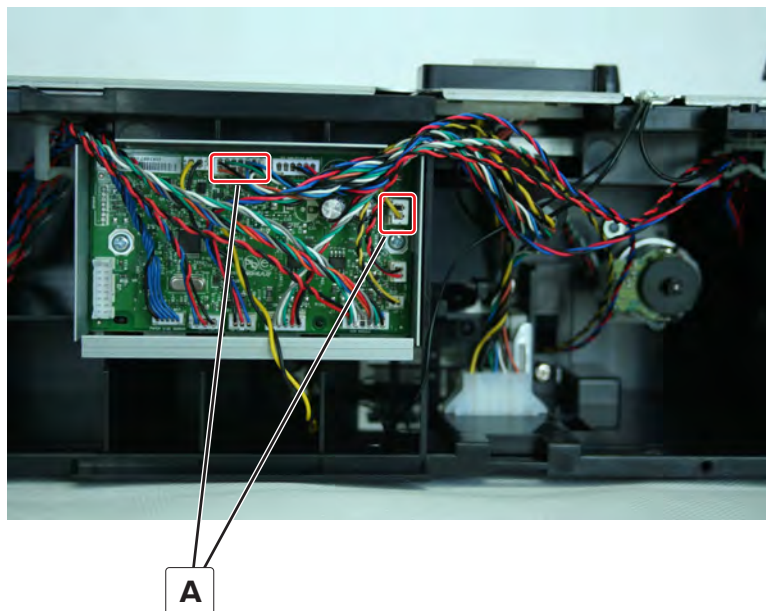
- 1 Remove the rear cover. See [“550-sheet tray rear cover removal” on page 867.](#)
- 2 Disconnect the cables, and then remove the two screws (A).



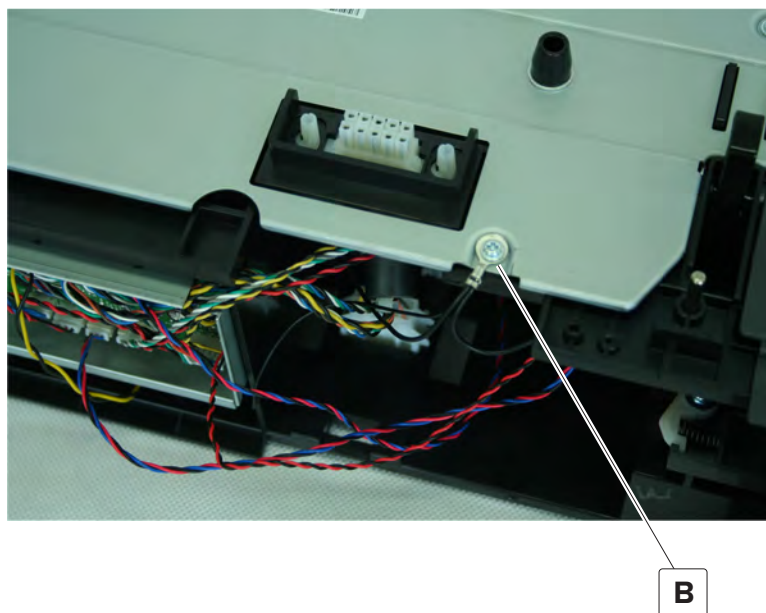
- 3 Remove the controller board.

550-sheet tray interface cable removal

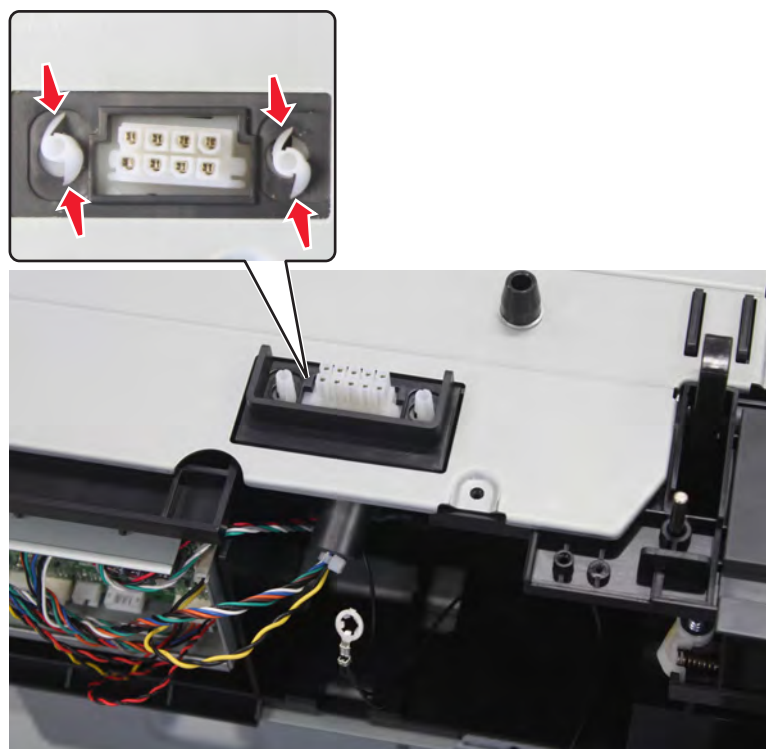
- 1 Remove the tray insert.
- 2 Remove the rear cover. See [“550-sheet tray rear cover removal” on page 867.](#)
- 3 Disconnect the two cables (A) from the controller board.



- 4 Remove the screw (B), and then remove the ground cable.

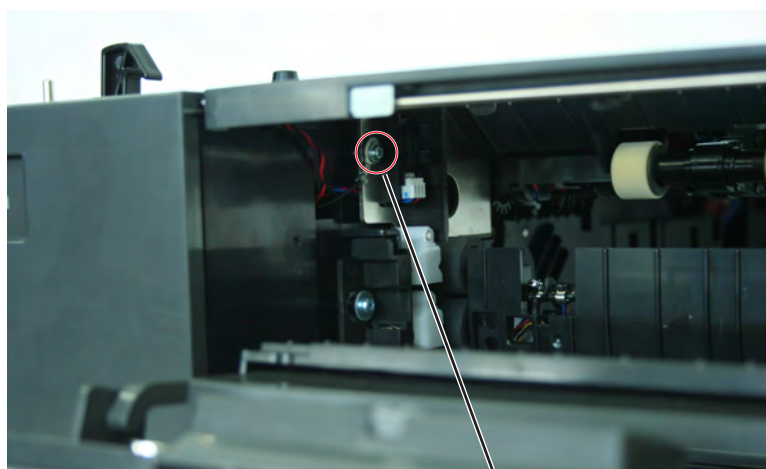


- 5 Using needle-nose pliers, remove the top interface cable.



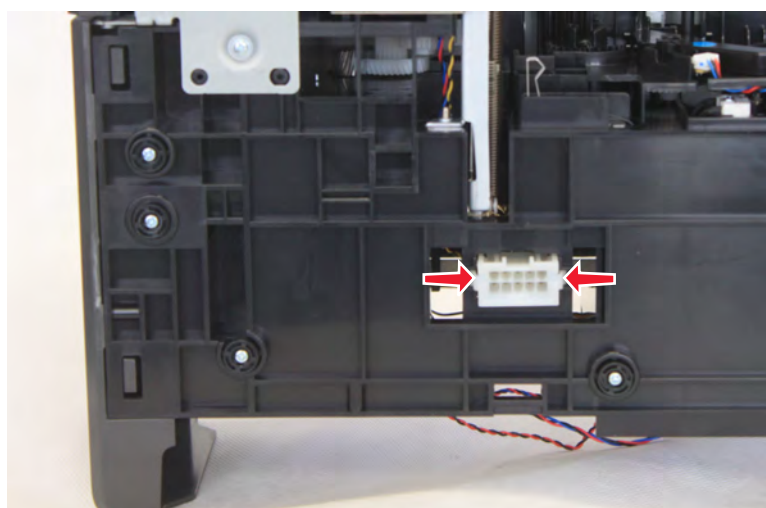
- 6 Open the jam door.

7 Remove the screw (C), and then remove the ground cable.

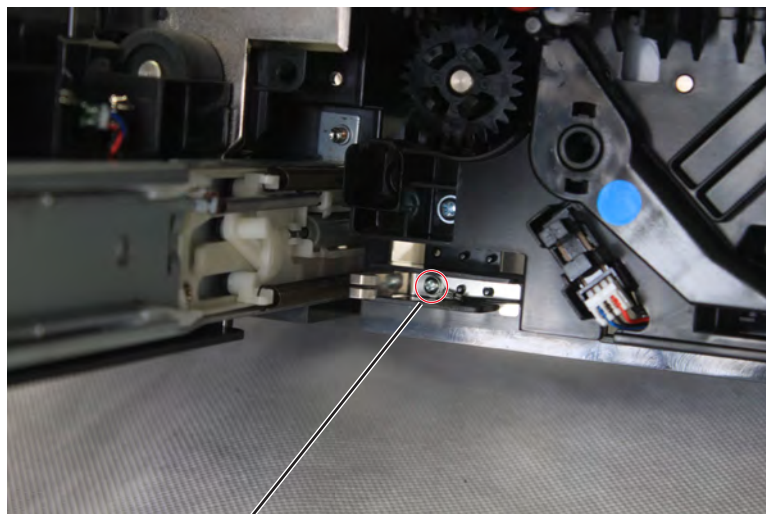


C

8 Remove the bottom interface cable.



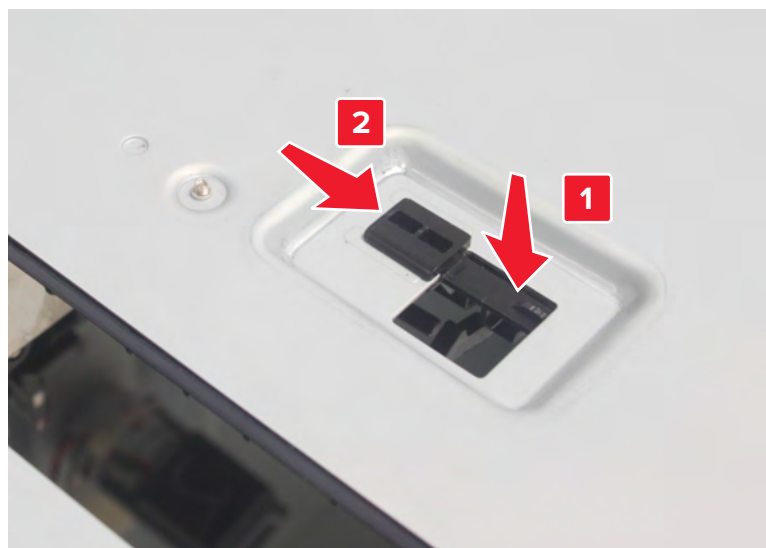
- 9 Remove the screw (D), and then remove the ground cable.



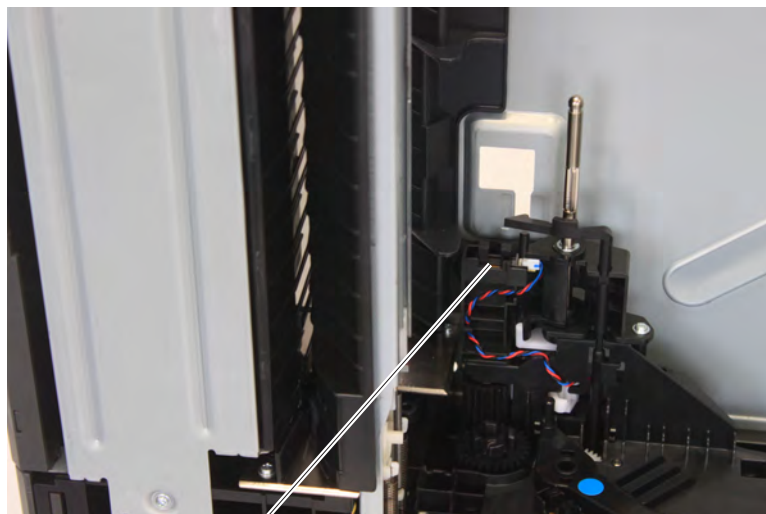
D

Sensor (550-sheet tray pick roller index) removal

- 1 Remove the tray insert.
- 2 Remove the pick roller assembly.
- 3 Press, and then slide to remove the bracket.



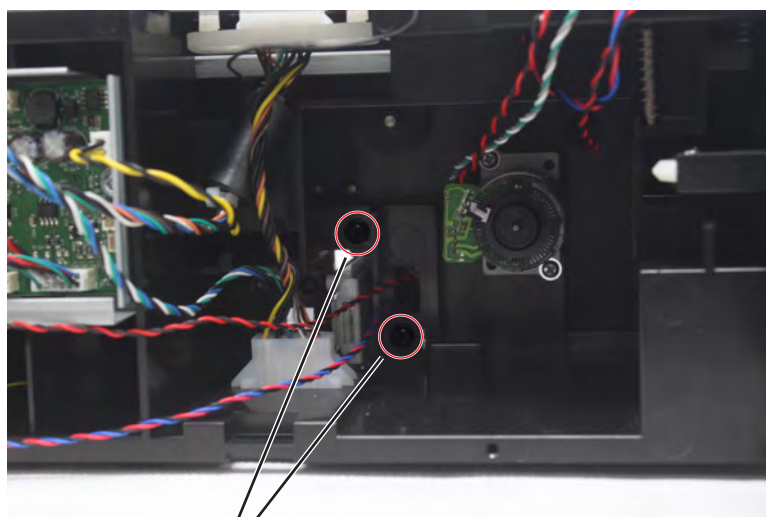
- 4 Remove the sensor (A), and then remove the cable.

**A**

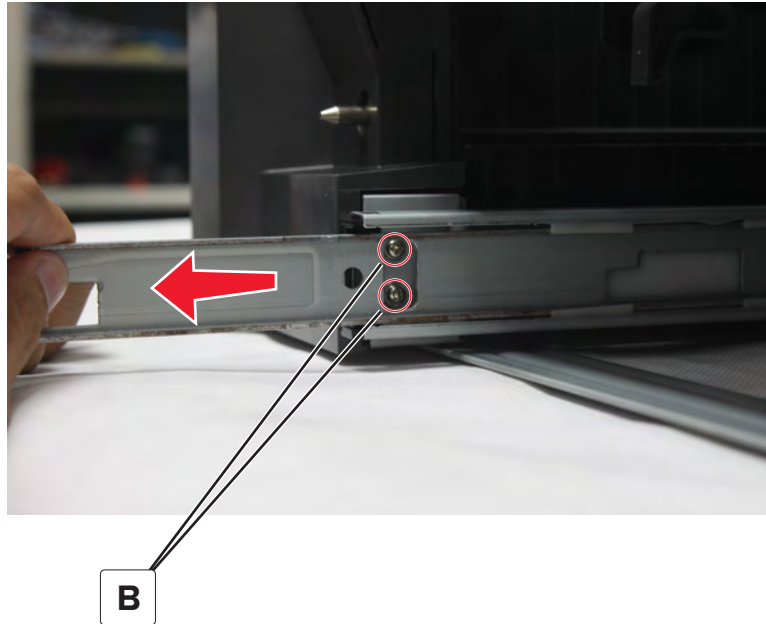
550-sheet tray left rail removal

Note: For a video demonstration, see [550-sheet tray rail removal](#).

- 1 Remove the tray insert.
- 2 Remove the rear cover. See [“550-sheet tray rear cover removal” on page 867](#).
- 3 Remove the two screws (A).

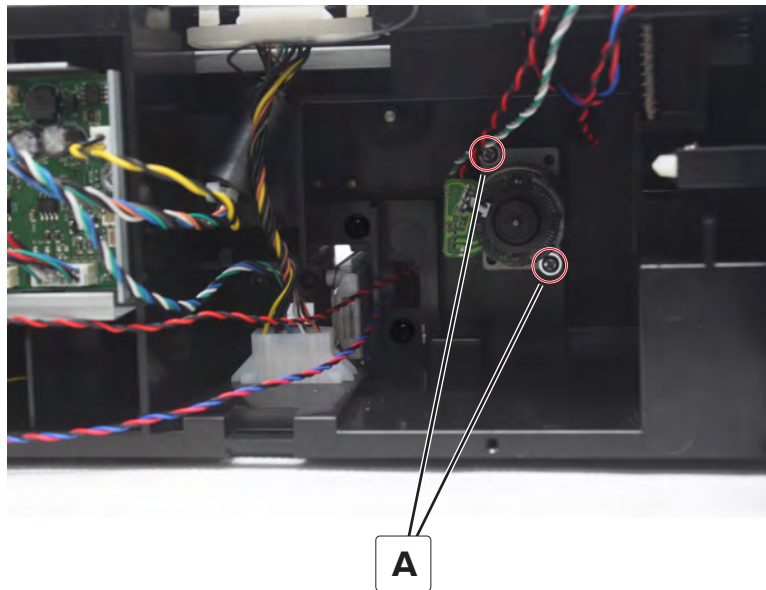
**A**

- 4 Remove the two screws (B), and then remove the rail.



Motor (550-sheet tray pass-through) removal

- 1 Remove the tray insert.
- 2 Remove the rear cover. See [“550-sheet tray rear cover removal” on page 867.](#)
- 3 Remove the two screws (A), and then remove the motor.



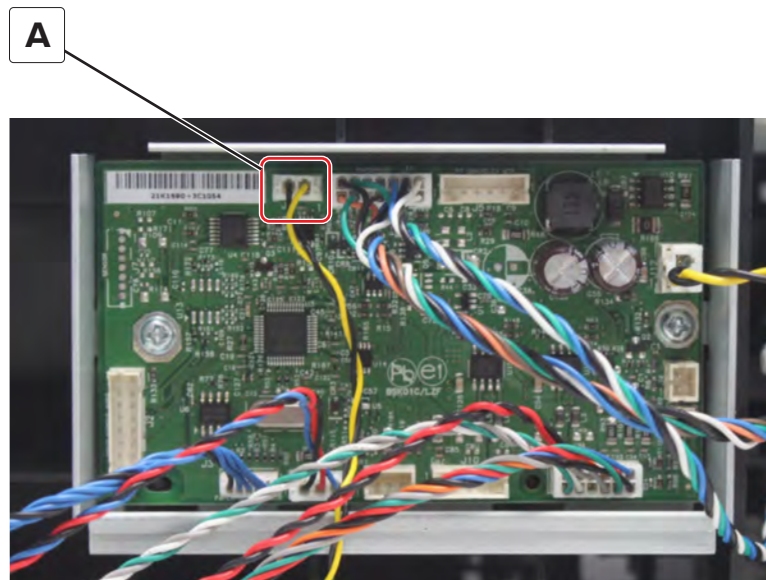
- 4 Disconnect the cable from the motor.
- 5 Remove the two screws (B), and then remove the bracket.

Note: Pay attention to the type of bracket used.

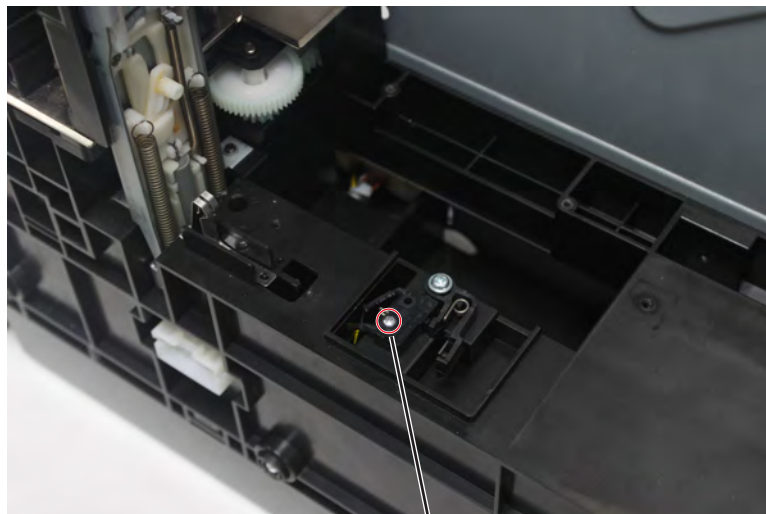


550-sheet tray wake up switch removal

- 1 Remove the tray insert.
- 2 Remove the rear cover. See [“550-sheet tray rear cover removal” on page 867.](#)
- 3 Remove the paper feeder. See [“550-sheet tray paper feeder removal” on page 865.](#)
- 4 Disconnect the cable (A) from the controller board.



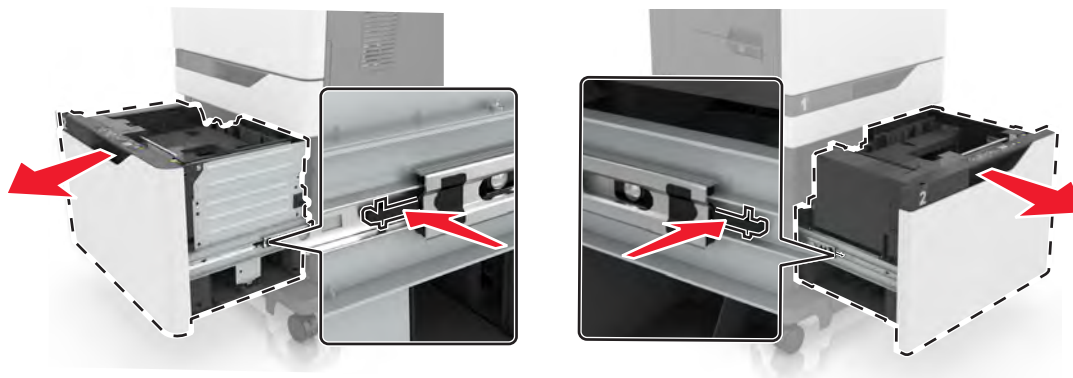
- 5 Remove the screw (B), and then remove the switch.

**B**

2200-sheet tray removals

2200-sheet tray insert removal

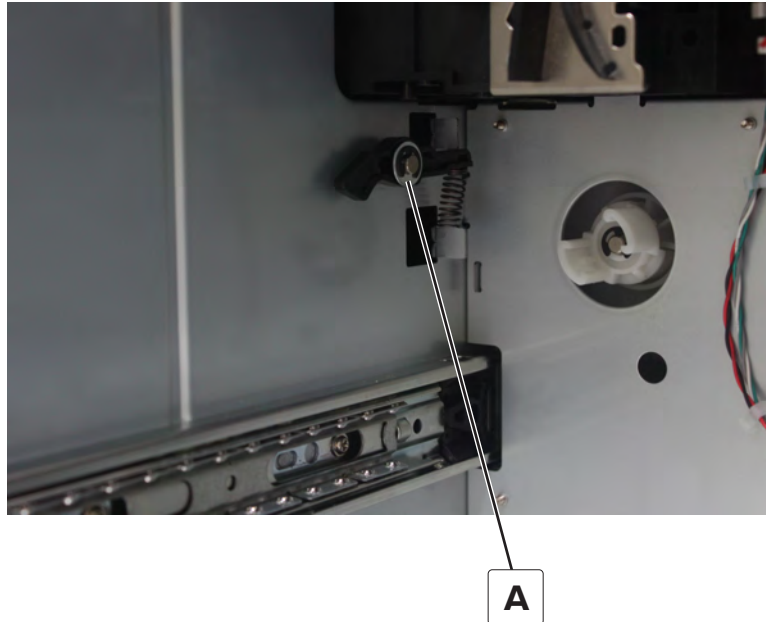
- 1 Fully extend the tray, and then press the left and right latches to release the tray.



- 2 Remove the tray.

Bell crank removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the clip (A), and then remove the washer.



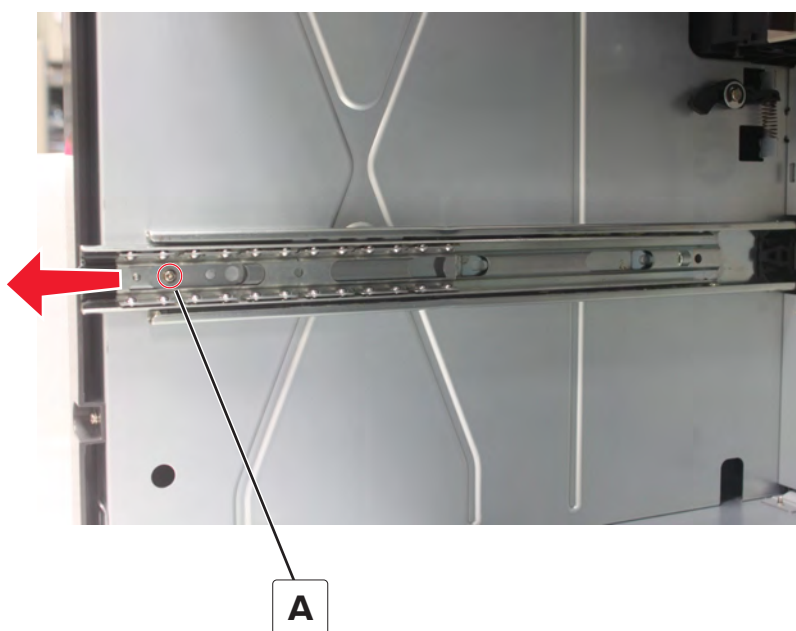
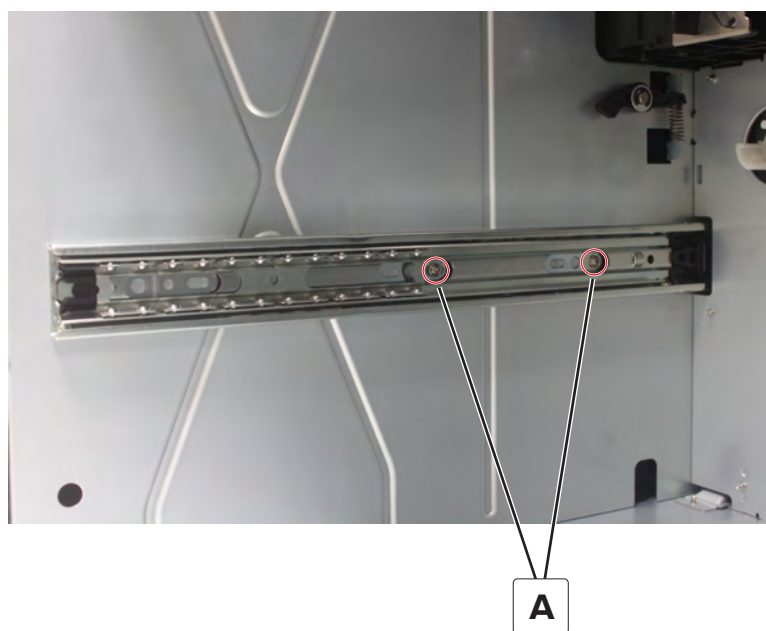
- 3 Remove the bell crank and spring.

Note: The same steps apply when removing the other crank.

2200-sheet tray rail removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the three screws (A).

Note: Move the rail to the front to show the third screw.

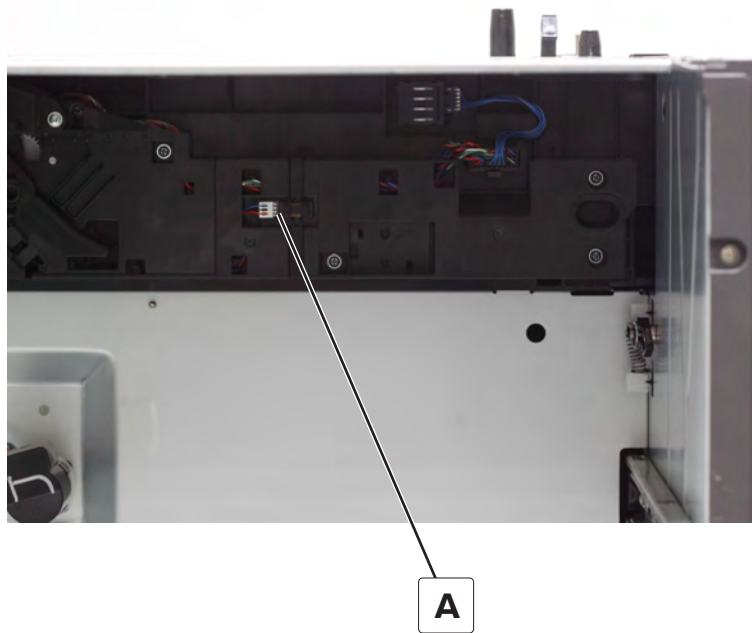


3 Remove the rail.

Note: The same steps apply when removing the other rail.

Sensor (2200-sheet tray media low) removal

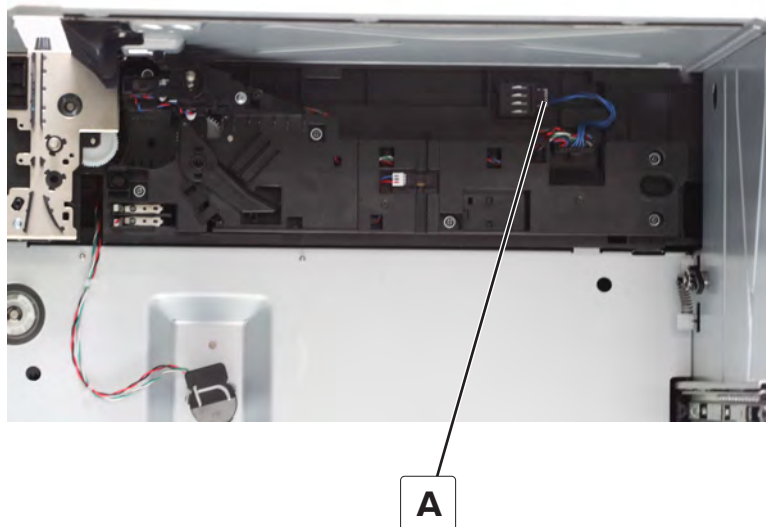
- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the sensor (A).



- 3 Disconnect the cable from the sensor.

Sensor (2200-sheet tray media size) removal

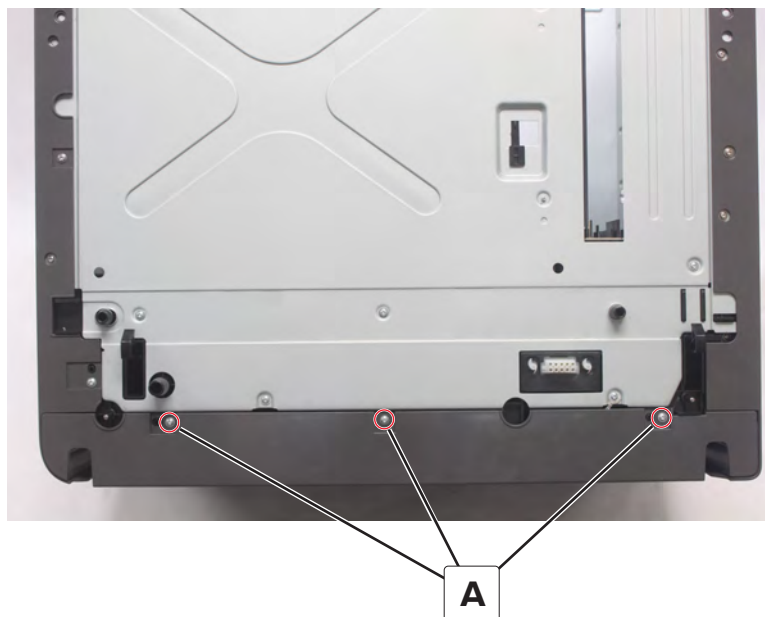
- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Disconnect the cable (A).



- 3 Remove the sensor.

2200-sheet tray rear cover removal

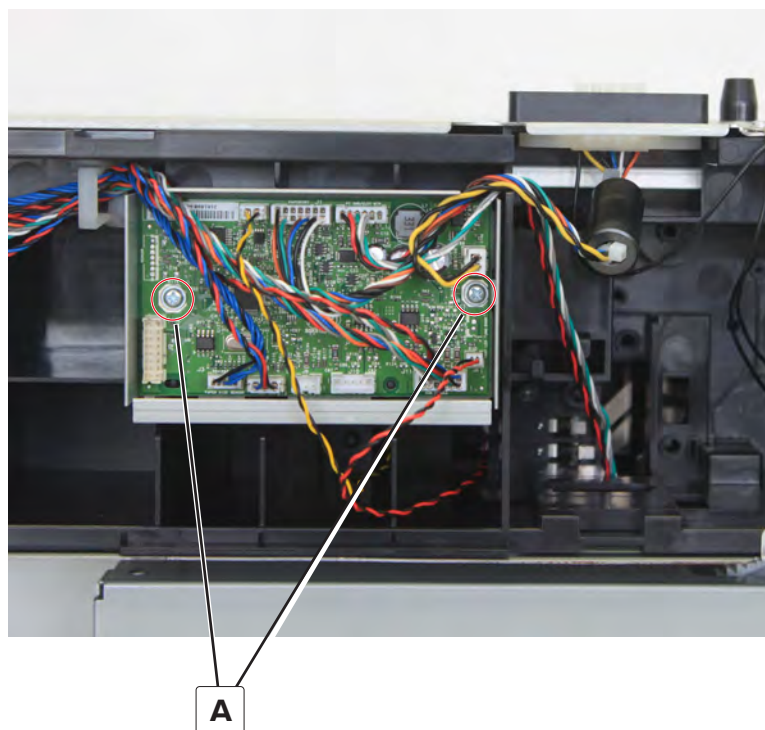
- 1 Remove the three screws (A).



- 2 Remove the cover.

2200-sheet tray controller board removal

- 1 Remove the tray rear cover. See [“2200-sheet tray rear cover removal” on page 879](#).
- 2 Disconnect the cables, and then remove the two screws (A).

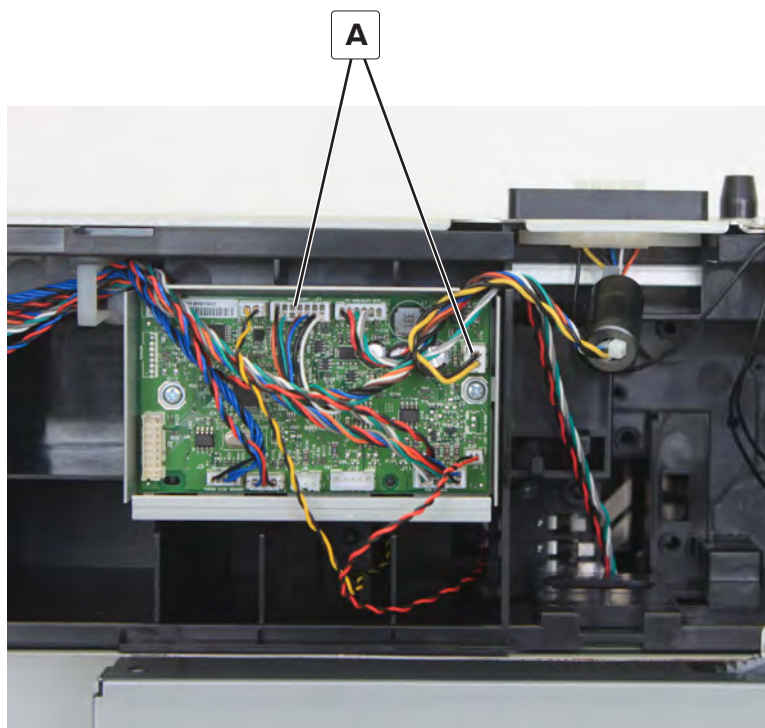


Parts removal

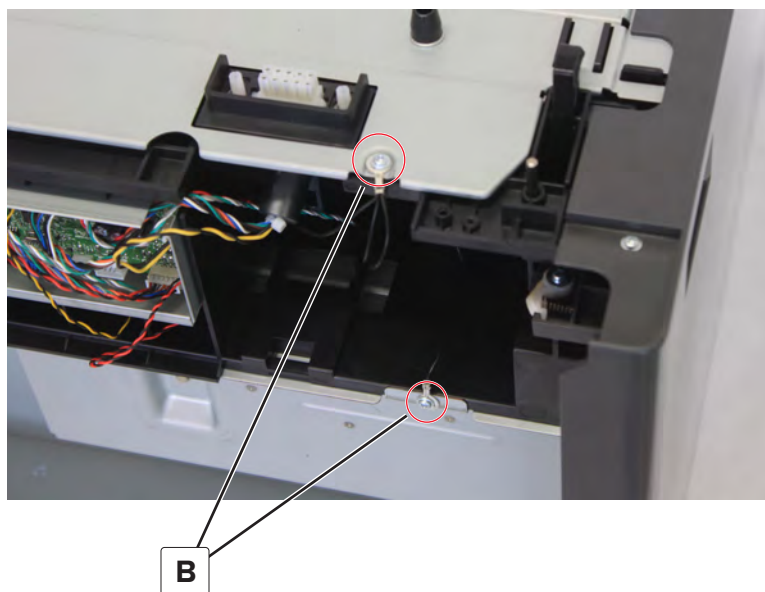
- 3 Remove the controller board.

2200-sheet tray interface cable removal

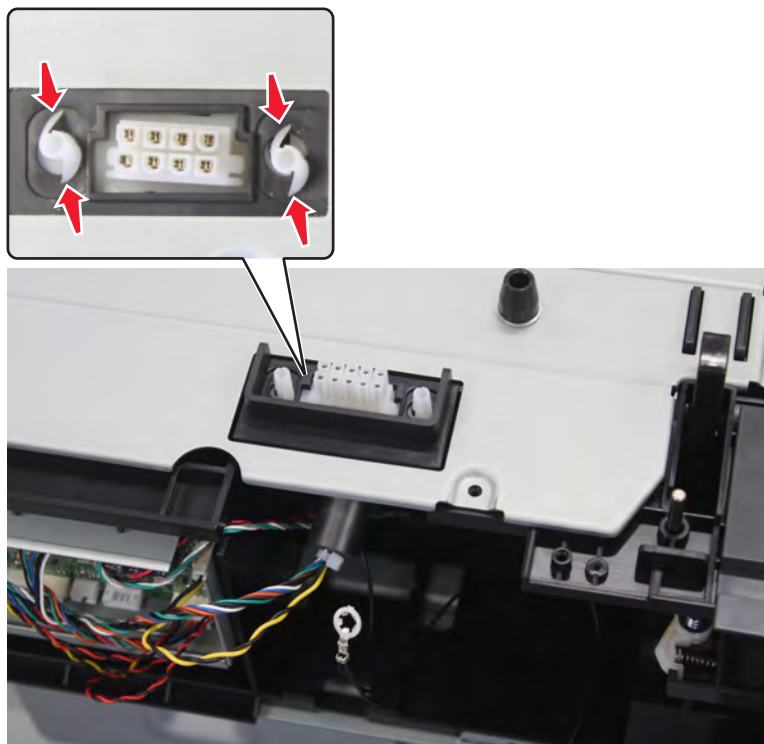
- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the tray rear cover. See [“2200-sheet tray rear cover removal” on page 879.](#)
- 3 Disconnect the two cables (A).



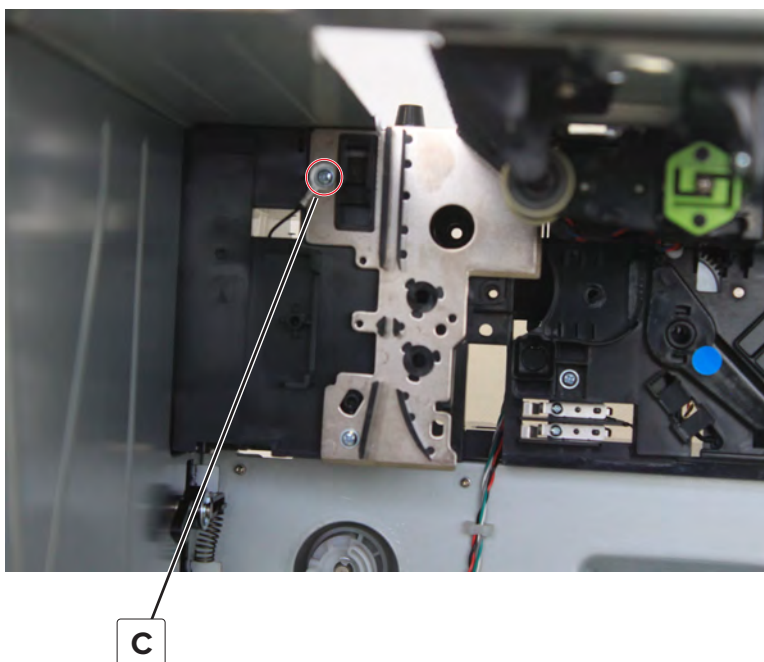
- 4 Remove the two screws (B), and then remove the ground cable.



5 Using needle-nose pliers, remove the interface cable.

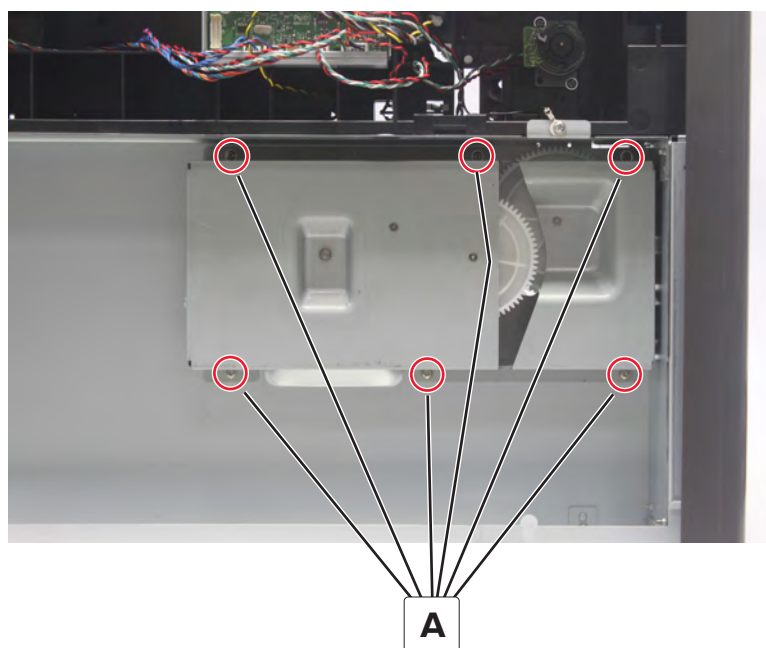


6 Remove the screw (C), and then remove the ground cable.

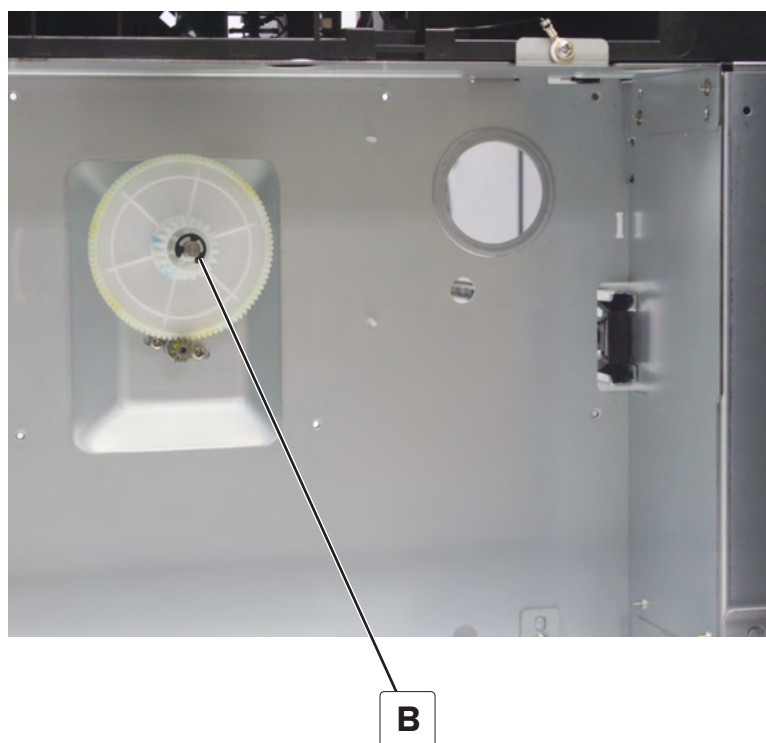


2200-sheet tray elevator gears removal

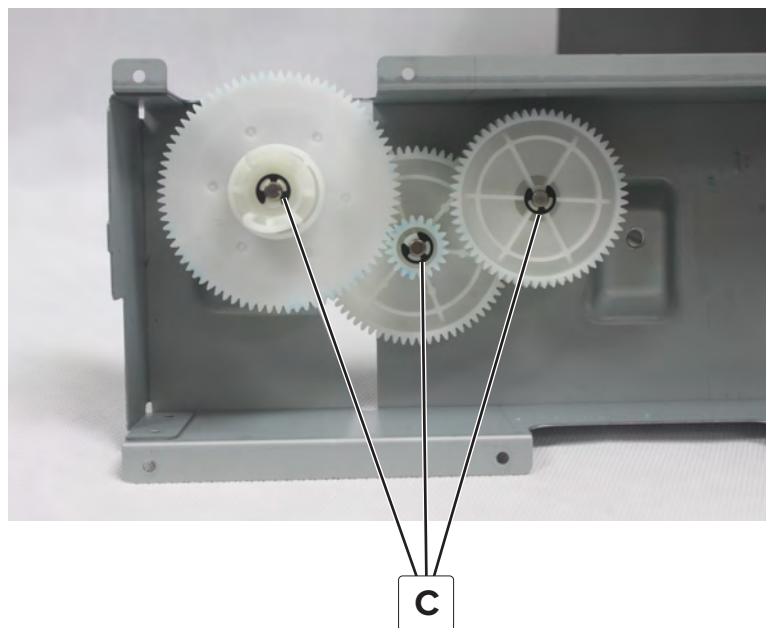
- 1 Remove the rear cover. See [“2200-sheet tray rear cover removal” on page 879](#).
- 2 Remove the six screws (A), and then remove the gear bracket.



- 3 Remove the clip (B), and then remove the gear.



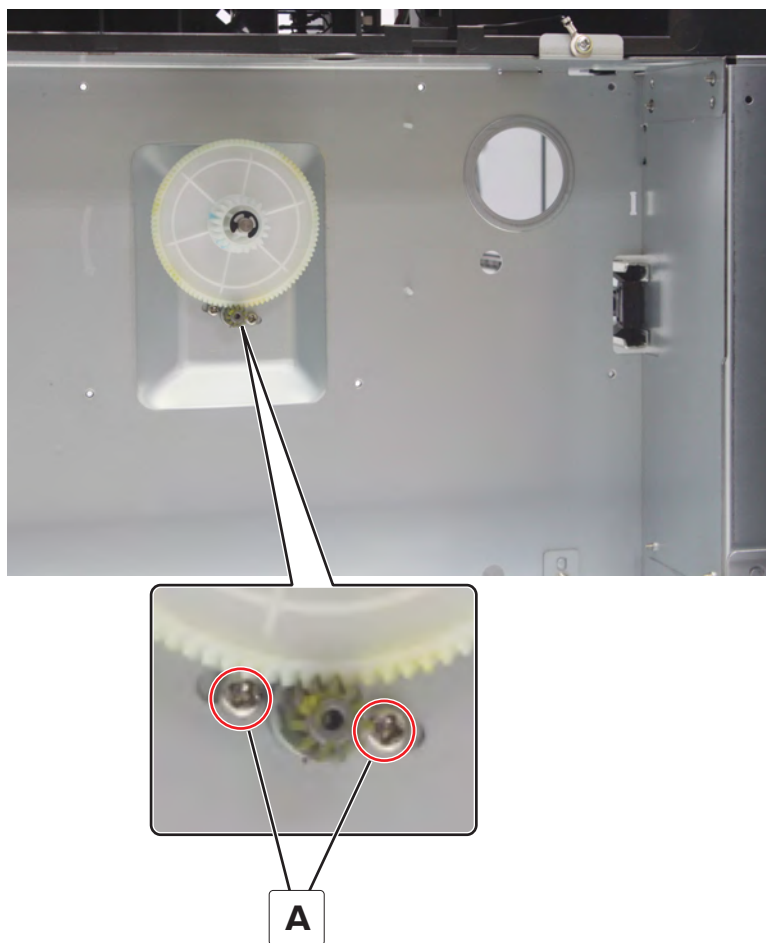
- 4 Remove the three clips (C), and then remove the gears.



Motor (2200-sheet tray elevator) removal

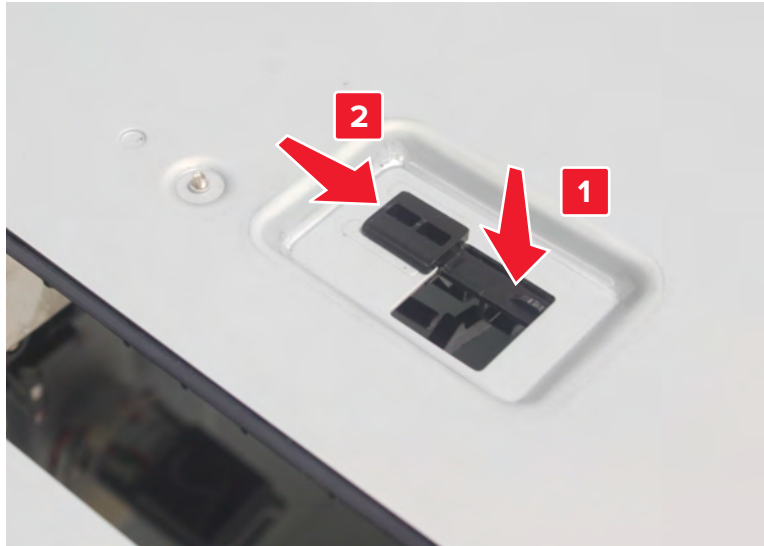
- 1 Remove the rear cover. See [“2200-sheet tray rear cover removal” on page 879.](#)
- 2 Remove the elevator gear bracket. See [“2200-sheet tray elevator gears removal” on page 882.](#)
- 3 Disconnect the cable.

- 4 Remove the two screws (A), and then remove the motor.

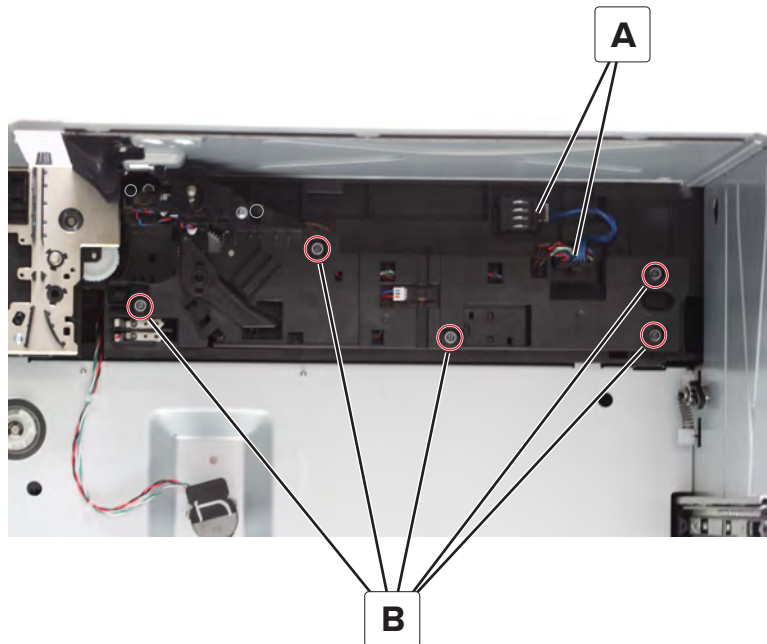


2200-sheet tray paper feeder removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Press, and then slide to remove the bracket.



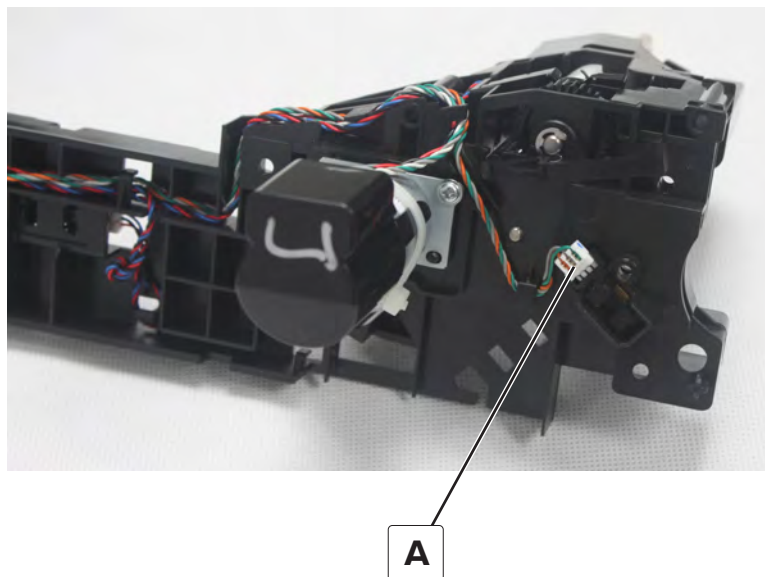
- 3 Disconnect the two cables (A).
- 4 Remove the five screws (B), and then remove the feeder.



Sensor (2200-sheet tray media out) removal

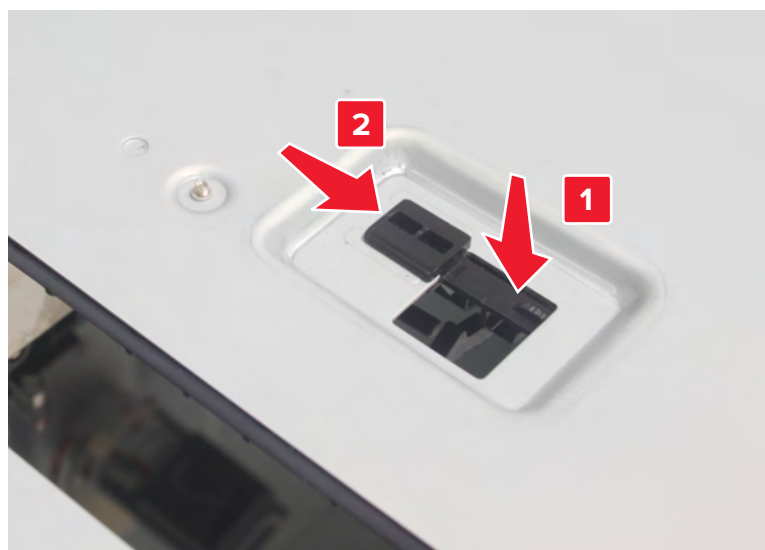
- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the paper feeder. See [“2200-sheet tray paper feeder removal” on page 885.](#)

- 3 Disconnect the cable (A), and then remove the sensor.

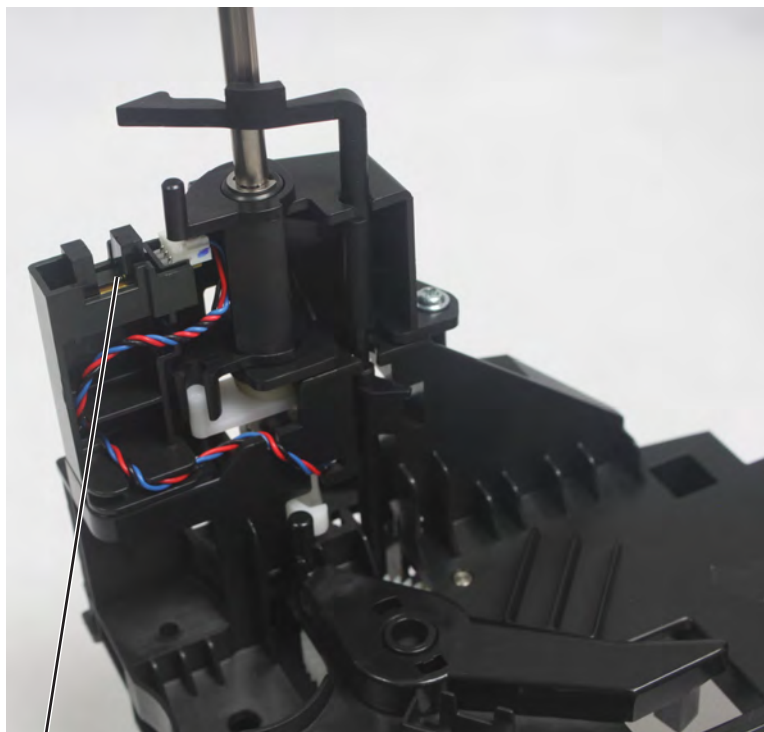


Sensor (2200-sheet tray pick roller index) removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the paper feeder. See [“2200-sheet tray paper feeder removal” on page 885.](#)
- 3 Remove the pick roller.
- 4 Remove the bracket.



- 5 Remove the sensor (A), and then disconnect the cable.

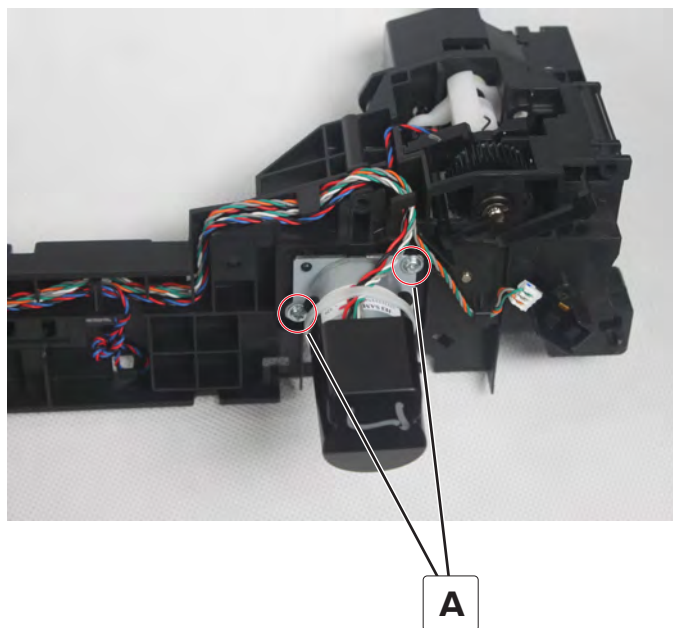


A

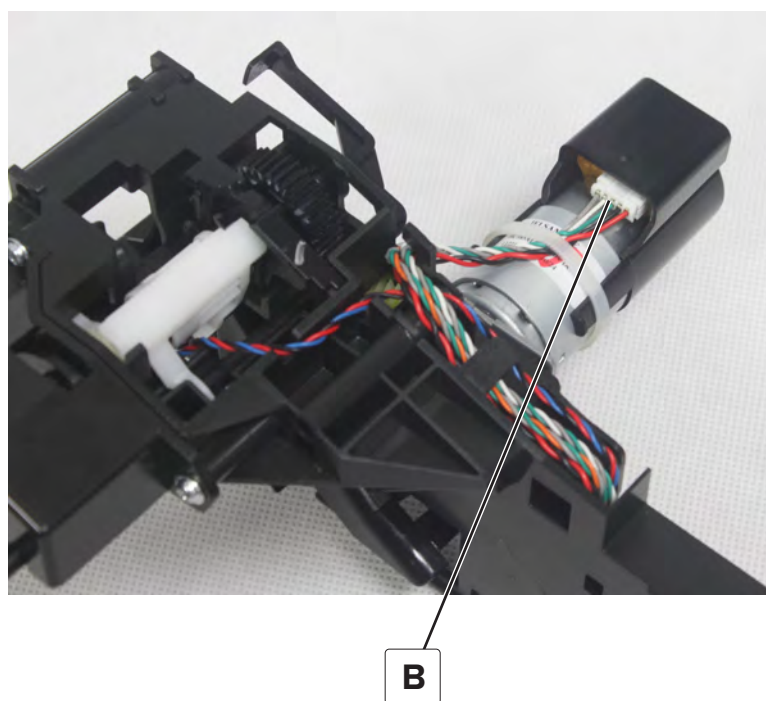
Motor (2200-sheet tray pick) removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the paper feeder. See [“2200-sheet tray paper feeder removal” on page 885.](#)

- 3 Remove the two screws (A).



- 4 Cut the zip tie, disconnect the cable (B), and then remove the motor.

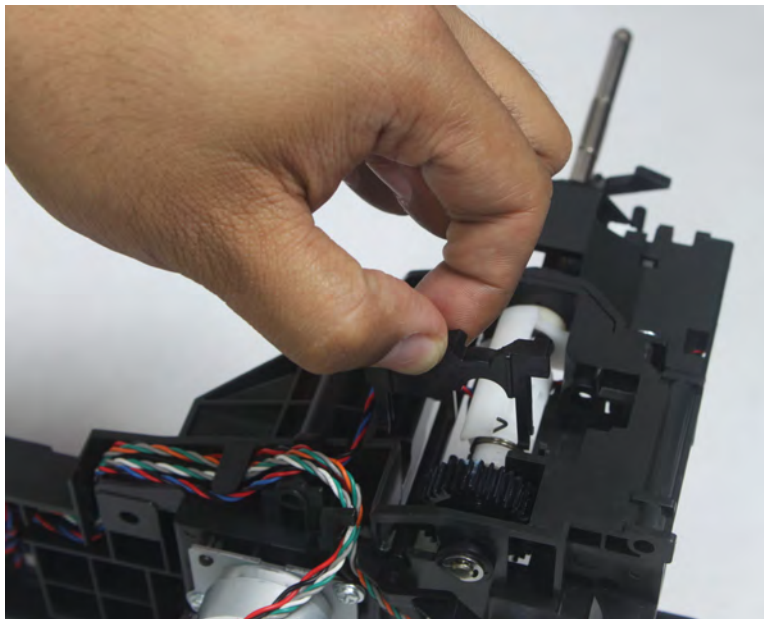


- 5 Remove the cover from the motor.

2200-sheet tray media out sensor actuator removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the paper feeder. See [“2200-sheet tray paper feeder removal” on page 885.](#)

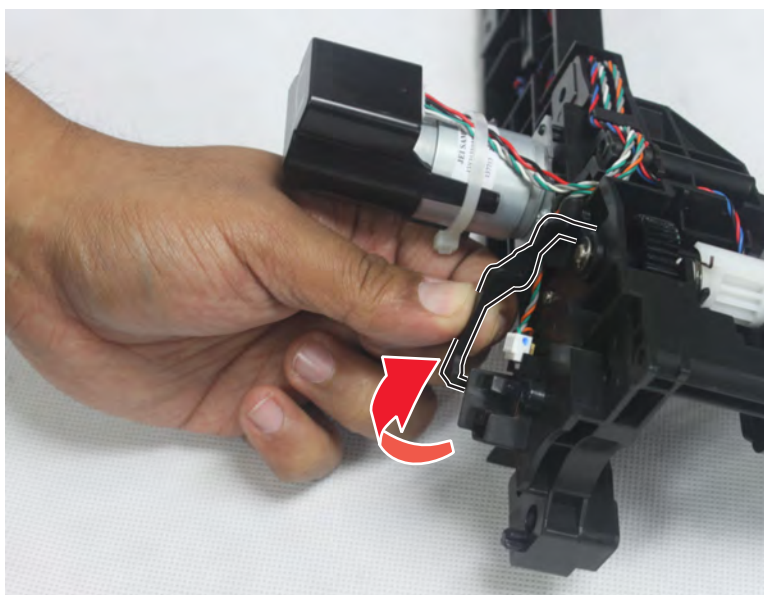
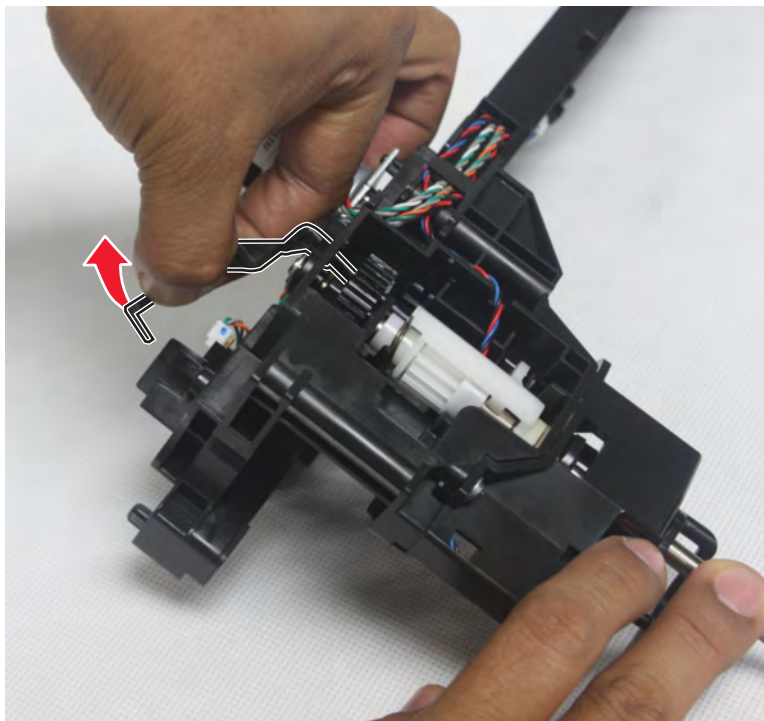
3 Remove the bracket.



Parts removal

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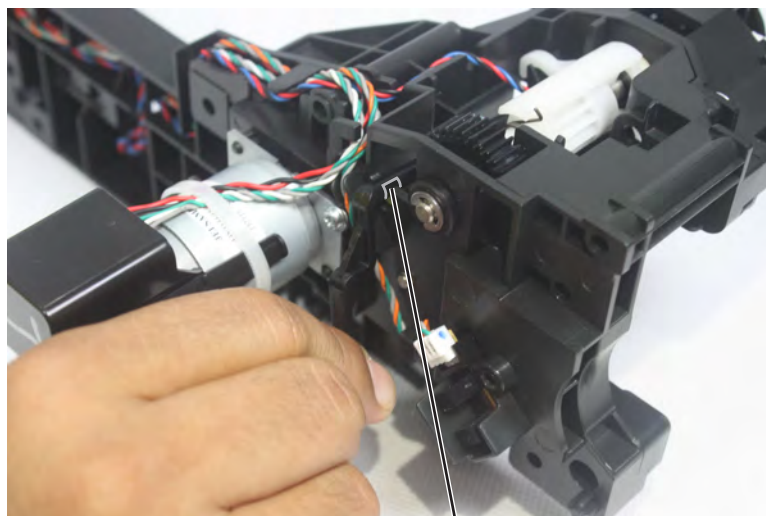
- 4 Move the actuator away, and then behind the sensor.



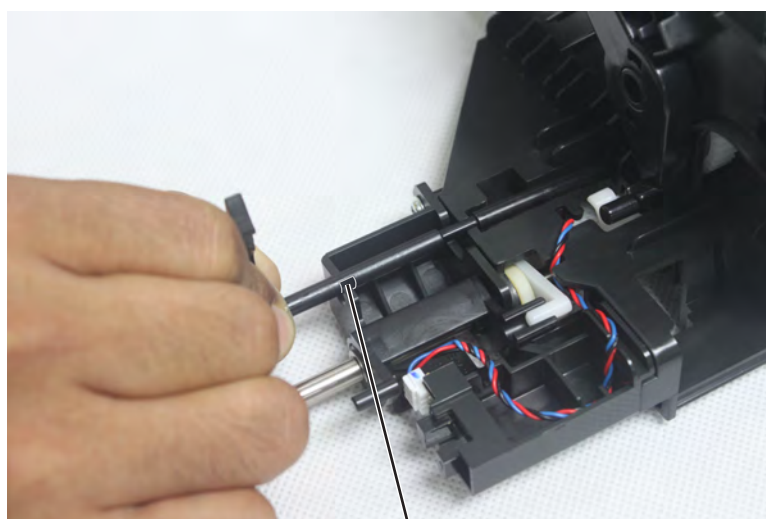
Parts removal

890

- 5 Rotate the actuator to align the two notches (A) with the slots.



A



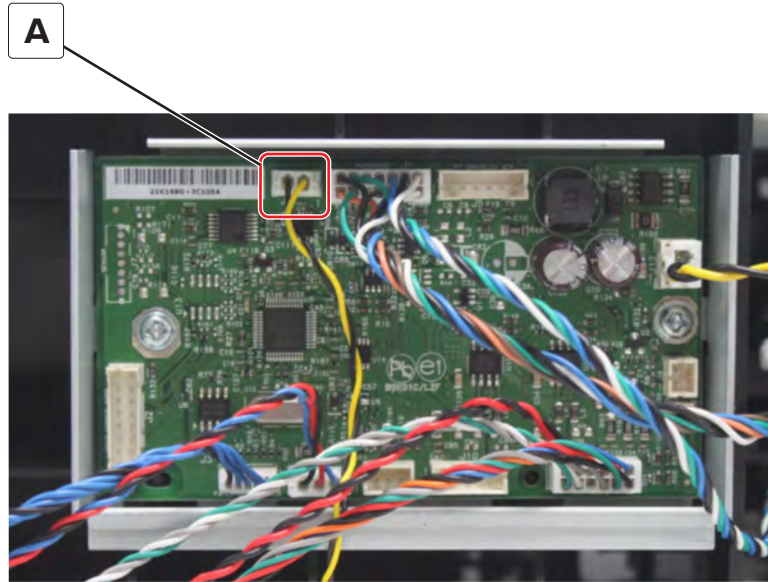
A

- 6 Remove the actuator.

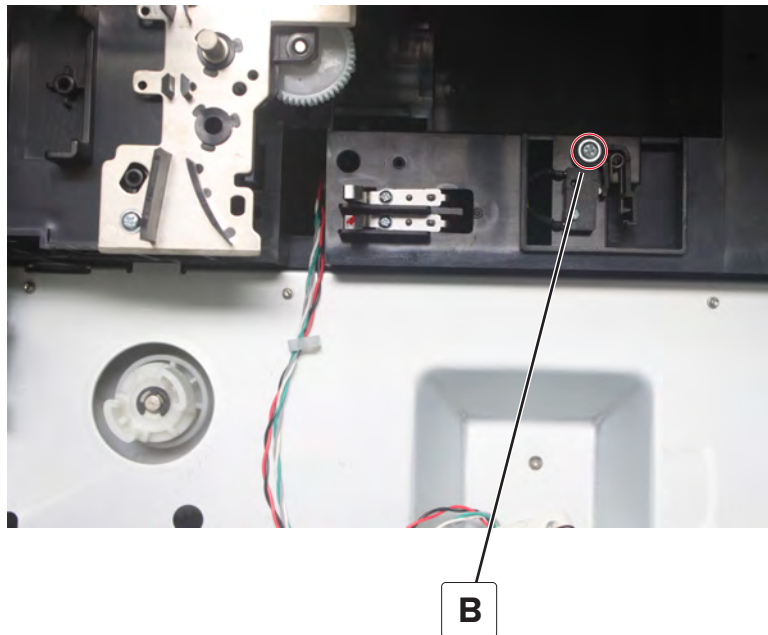
2200-sheet tray wake up switch removal

- 1 Remove the tray insert. See [“2200-sheet tray insert removal” on page 875.](#)
- 2 Remove the paper feeder. See [“2200-sheet tray paper feeder removal” on page 885.](#)
- 3 Remove the rear cover. See [“2200-sheet tray rear cover removal” on page 879.](#)

4 Disconnect the cable (A).



5 Remove the screw (B), and then remove the switch.



Caster base removals

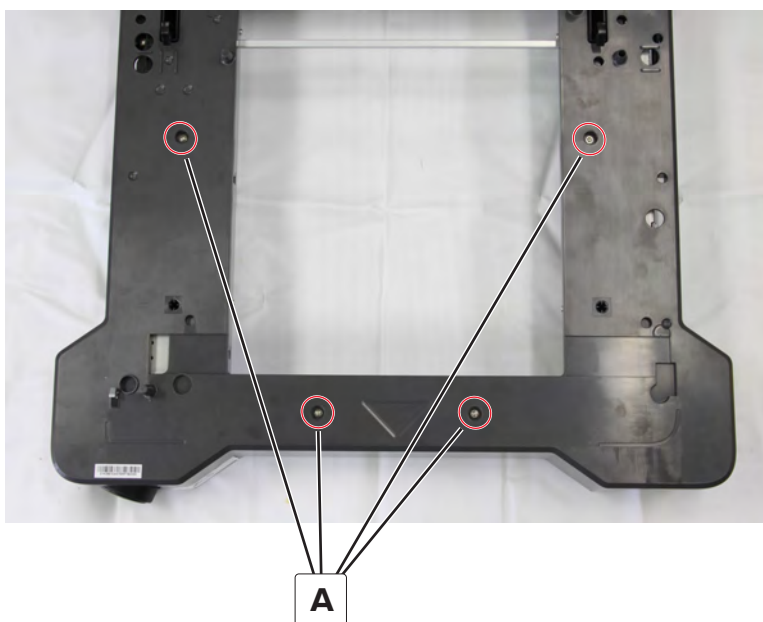
Locking caster removal

1 Slide the latch to the right to unlock, and then remove the printer base or input option from the caster base.

⚠ CAUTION—POTENTIAL INJURY: The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.



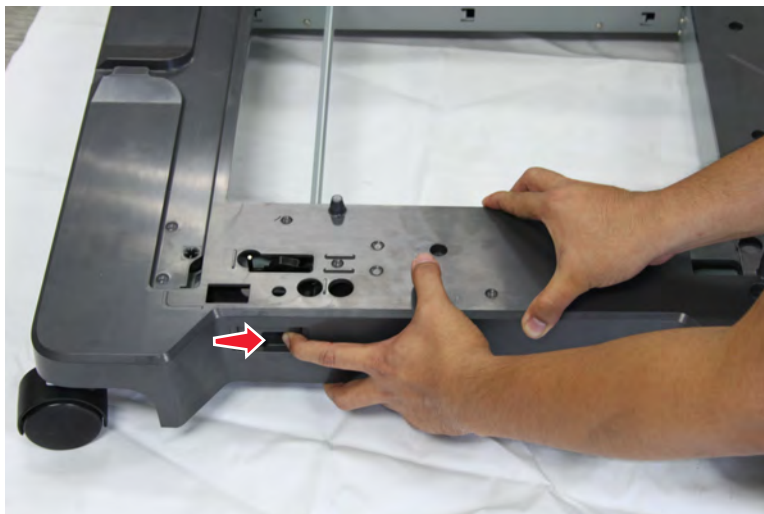
2 Remove the four screws (A).



Parts removal

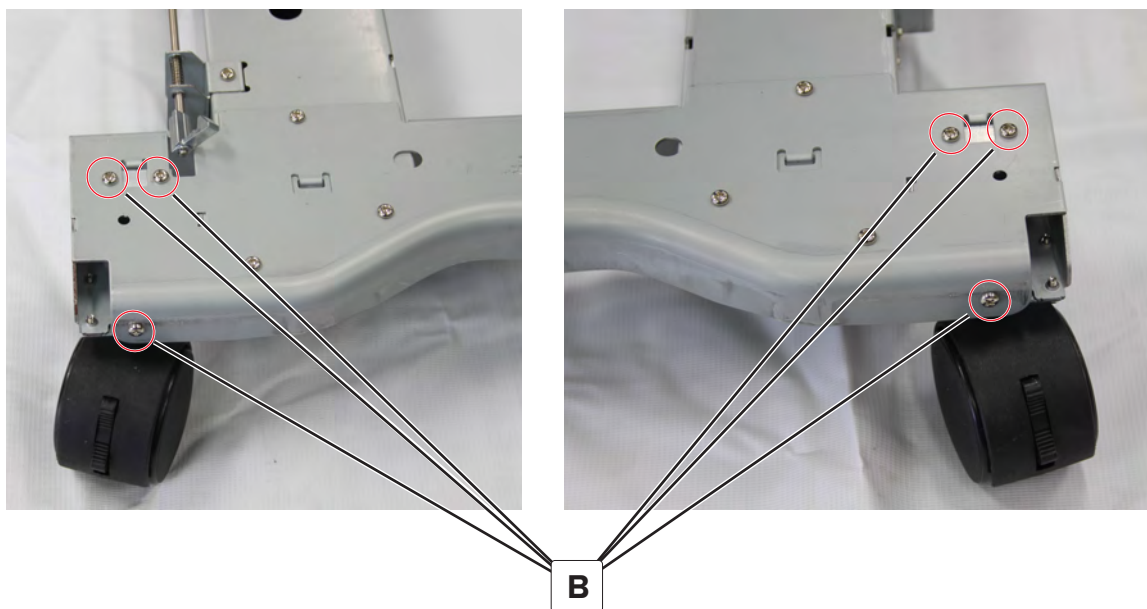
893

- 3 Slide the latch to the right, and then remove the caster base cover.

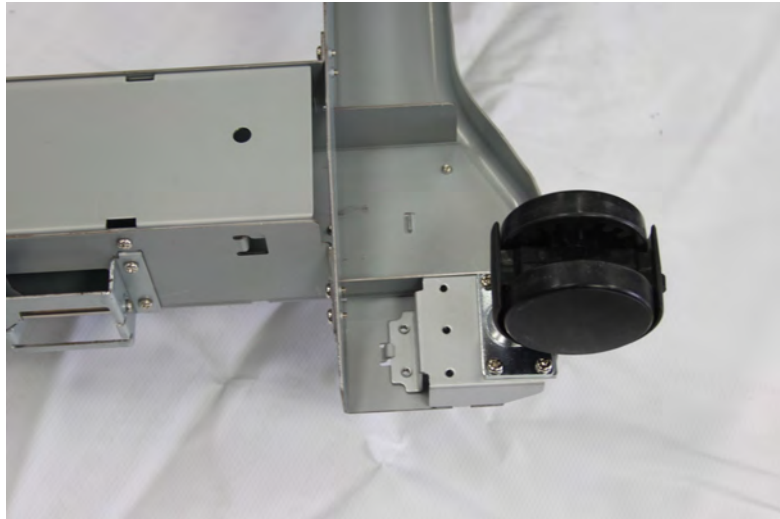


- 4 Remove the three screws (B), and then remove the locking caster.

Note: Remove and replace the damaged caster only. The left and right locking casters do not wear and tear at the same time.



Installation note: When installing the left or right locking caster, make sure to position the caster and the screws as shown.



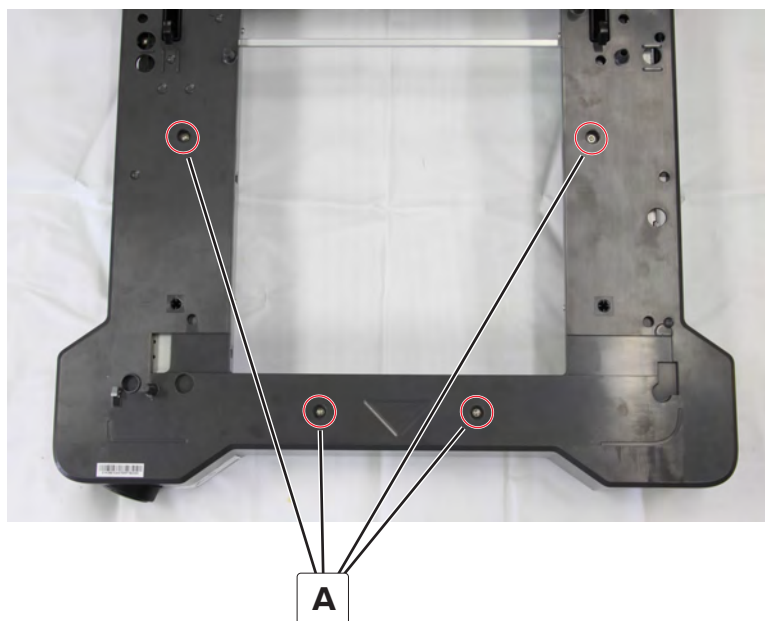
Non-locking caster removal

- 1 Slide the latch to the right to unlock, and then remove the printer base or input option from the caster base.

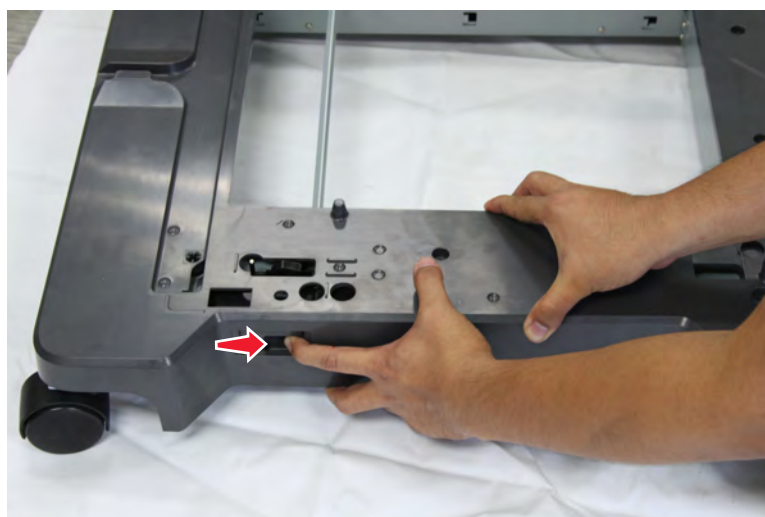
⚠ CAUTION—POTENTIAL INJURY: The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.



- 2 Remove the four screws (A).

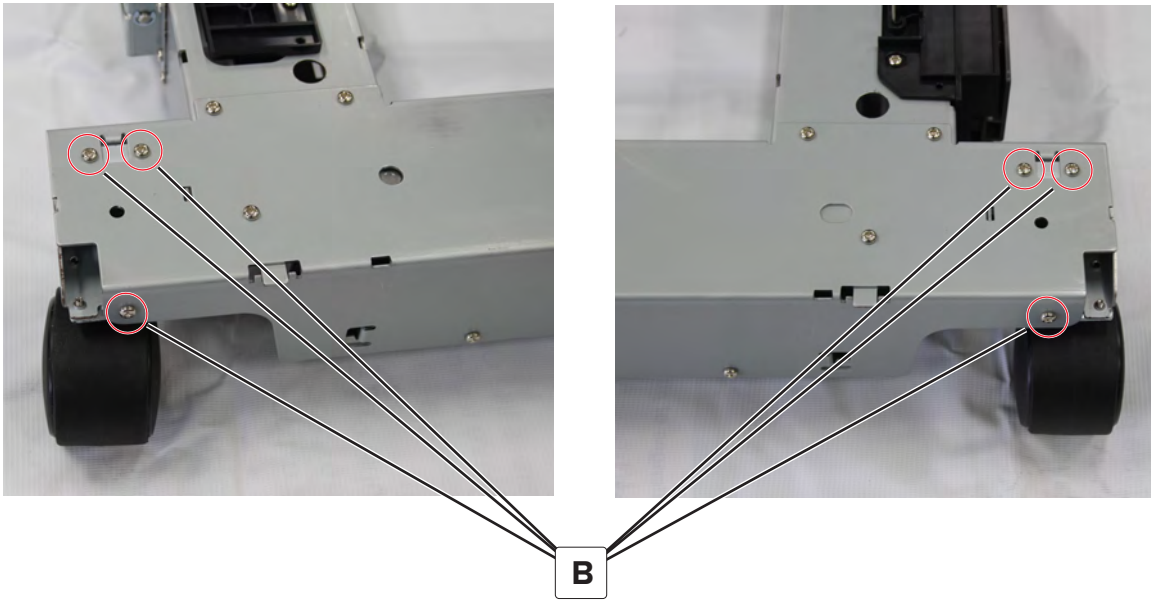


- 3 Slide the latch to the right, and then remove the caster base cover.

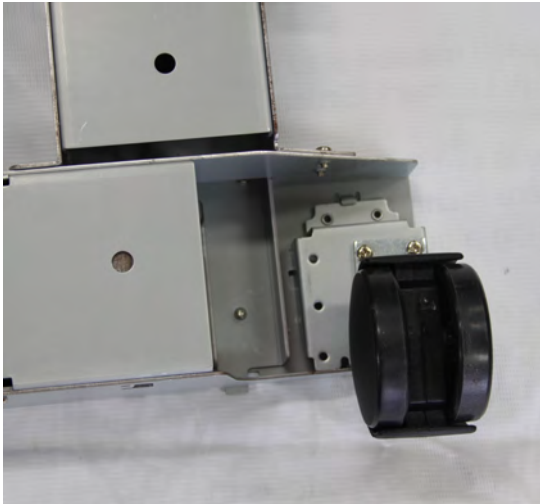
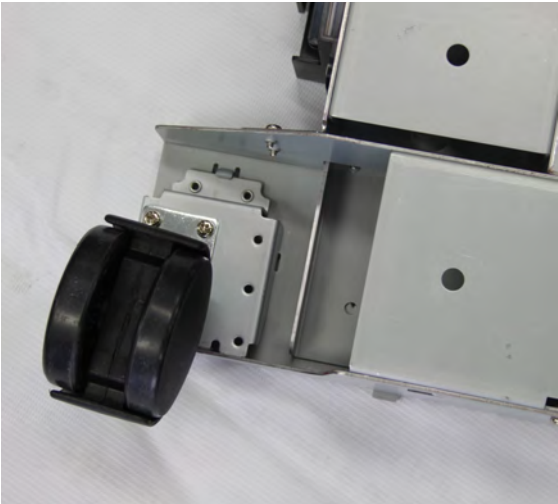


- 4 Remove the three screws (B), and then remove the non-locking caster.

Note: Remove and replace the damaged caster only. The left and right non-locking casters do not wear and tear at the same time.



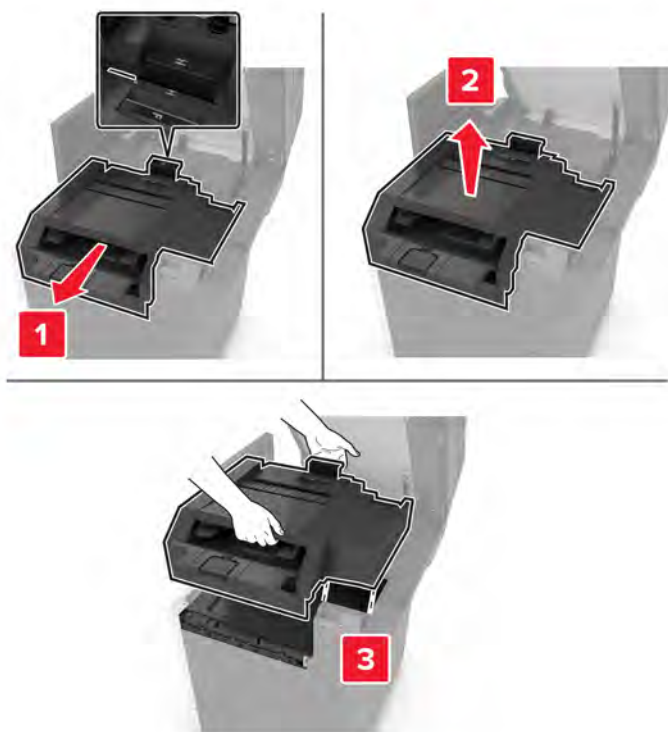
Installation note: When installing the left or right non-locking castor, make sure to position the screws as shown.



Staple finisher removals

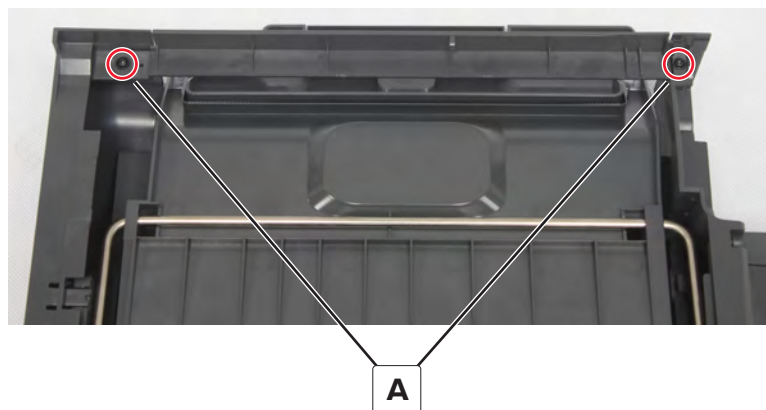
Staple finisher removal

- 1 Unlock handle H.
- 2 Remove the staple finisher.



Staple finisher right cover removal

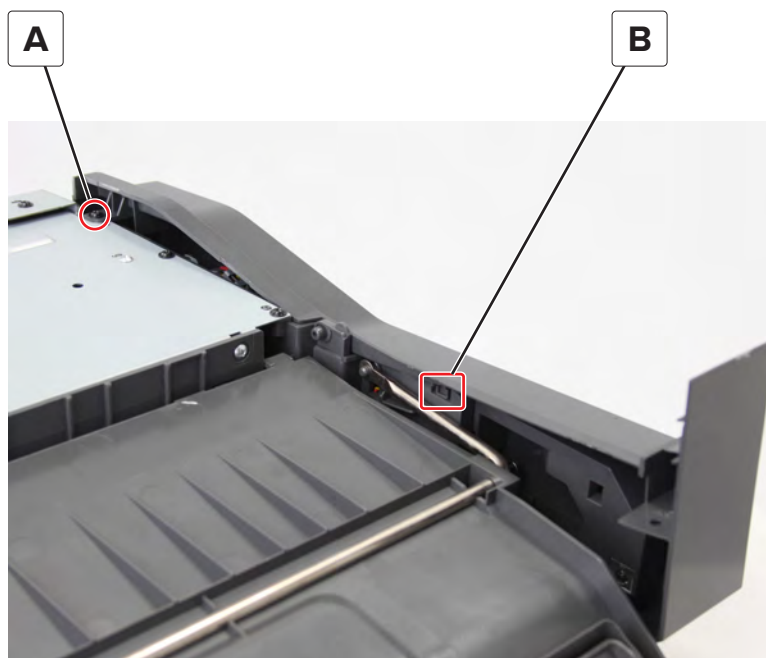
- 1 Remove the staple finisher. See [“Staple finisher removal” on page 898](#)
- 2 Place the staple finisher on its top side, and then remove the two screws (A).



- 3 Remove the cover.

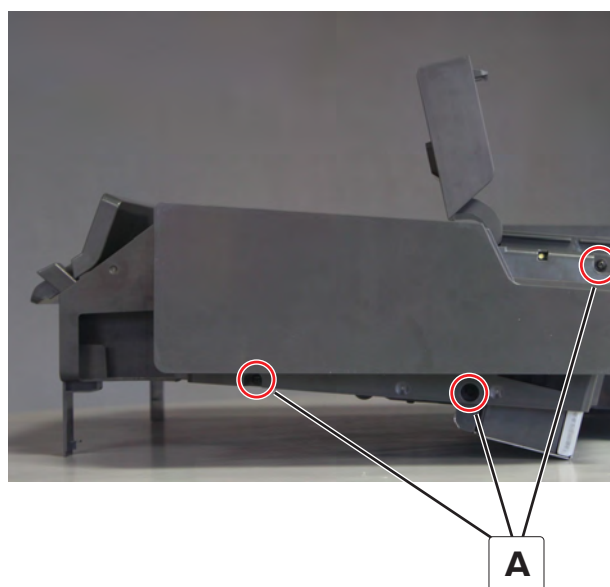
Staple finisher front cover removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898](#).
- 2 Remove the screw (A).
- 3 Release the latch (B), and then remove the cover.

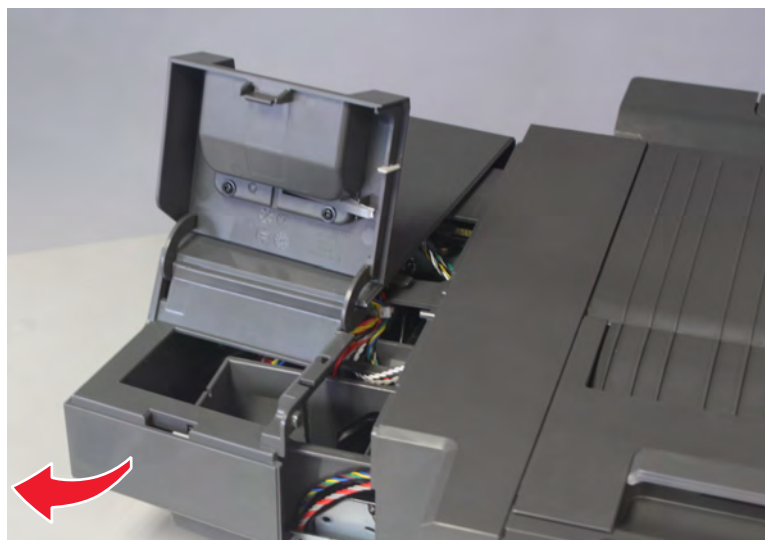


Staple finisher rear cover removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898](#).
- 2 Open the staple cartridge door, and then remove the three screws (A).

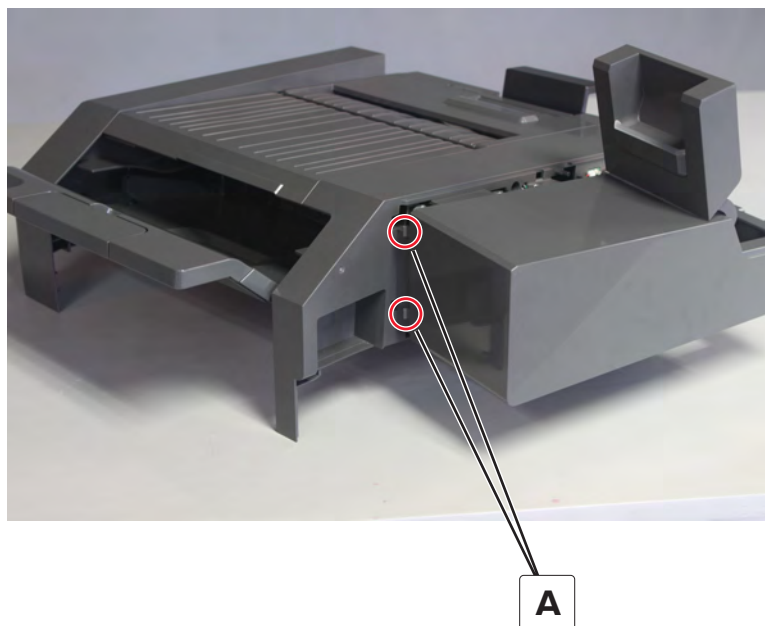


- 3 Swing out the cover to remove.

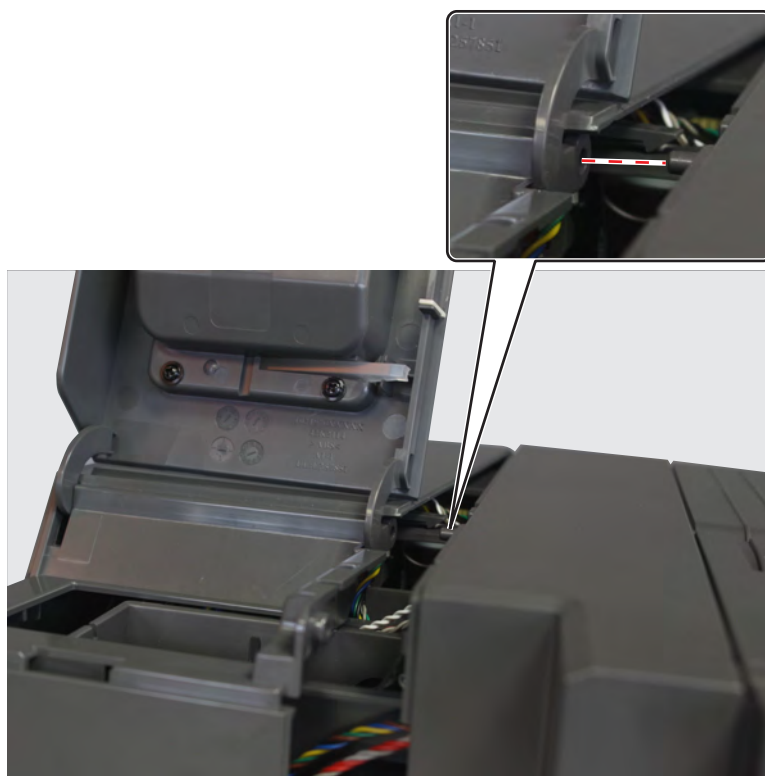


Installation notes:

- a** Make sure to align the two tabs (A).

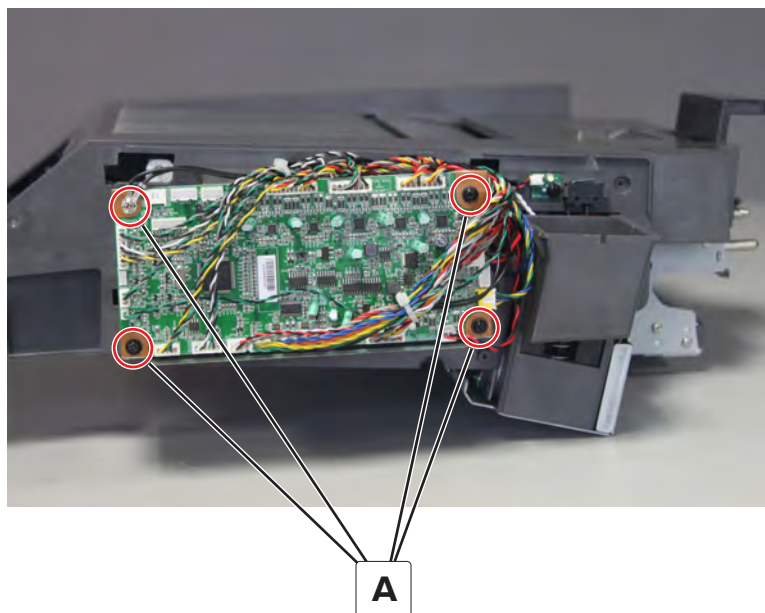


- b** Make sure that the pin is aligned with the hole on the staple cartridge door arm.



Staple finisher controller board removal

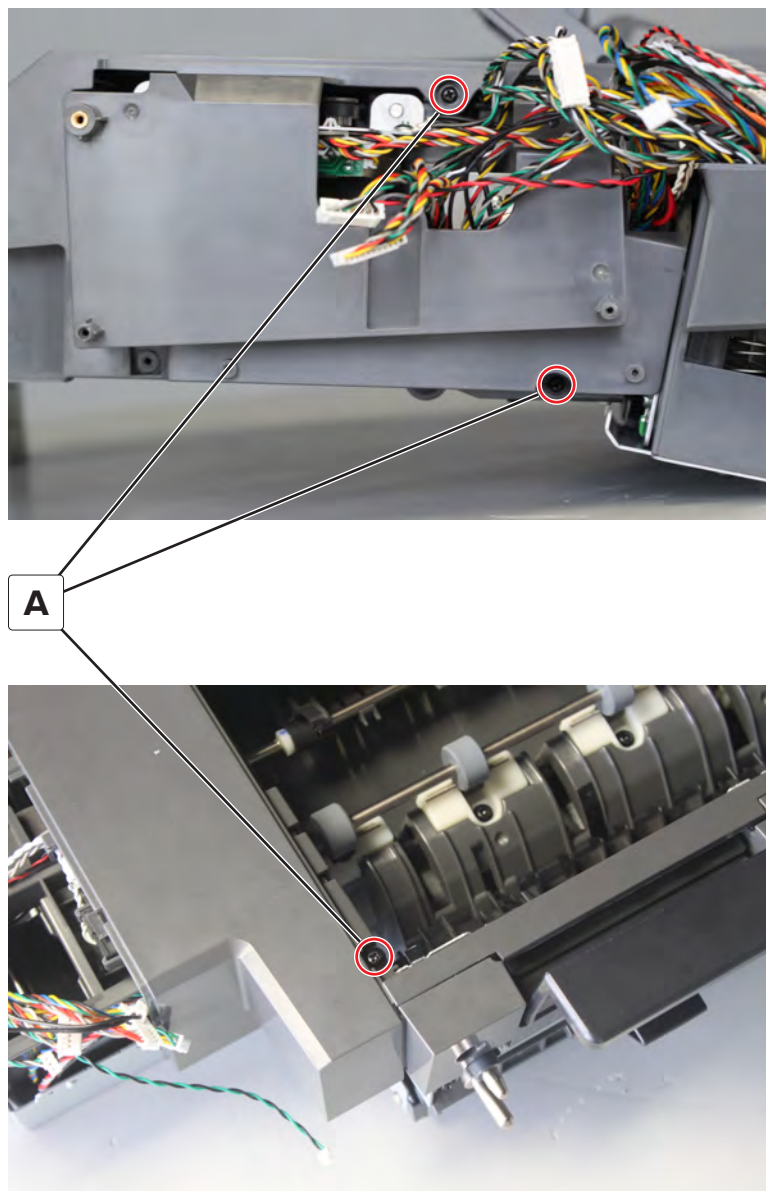
- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Disconnect the cables, and then remove the four screws (A).



Staple finisher inner rear cover removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)

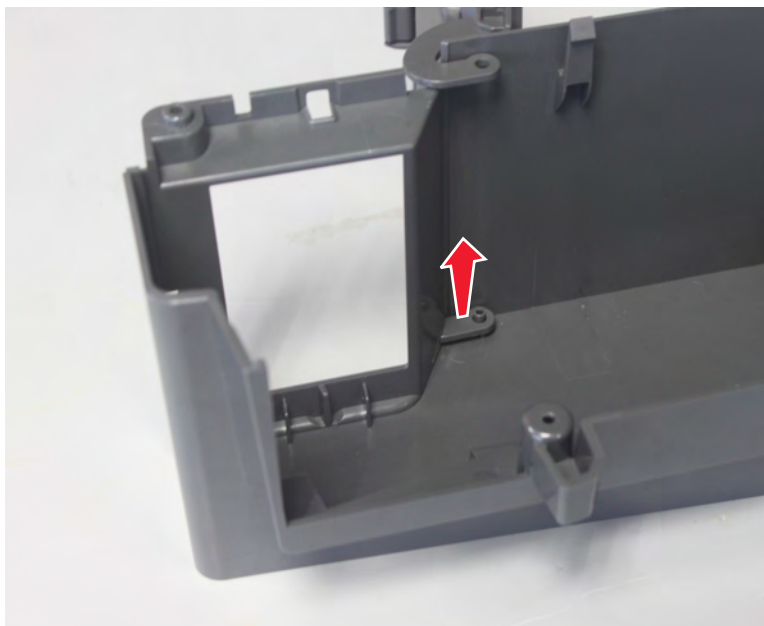
4 Remove the screws (A), and then remove the cover.



Staple finisher staple cartridge door removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)

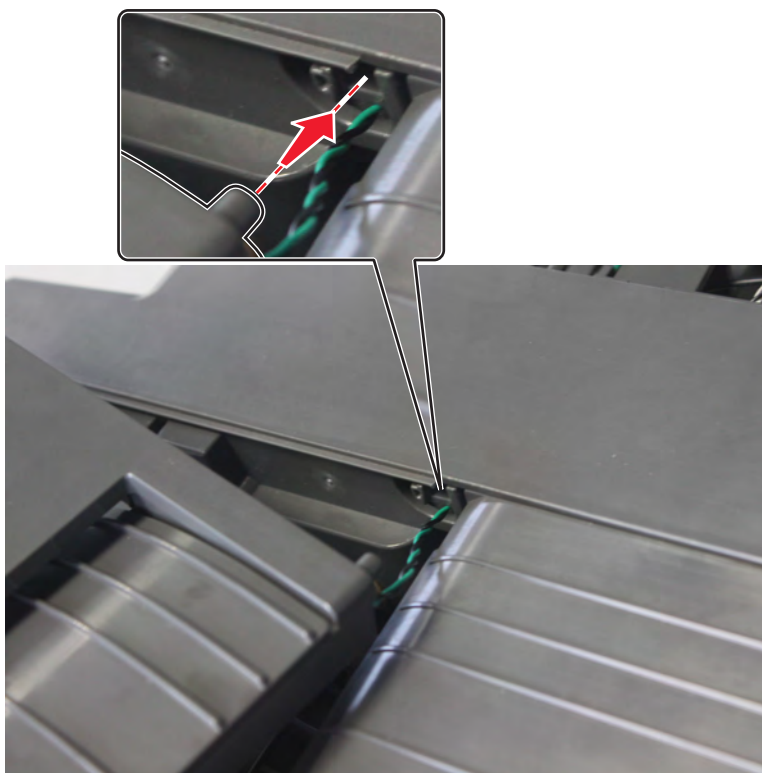
- 3 Release the arm from the pin, and then remove the door.



Staple finisher jam access door removal

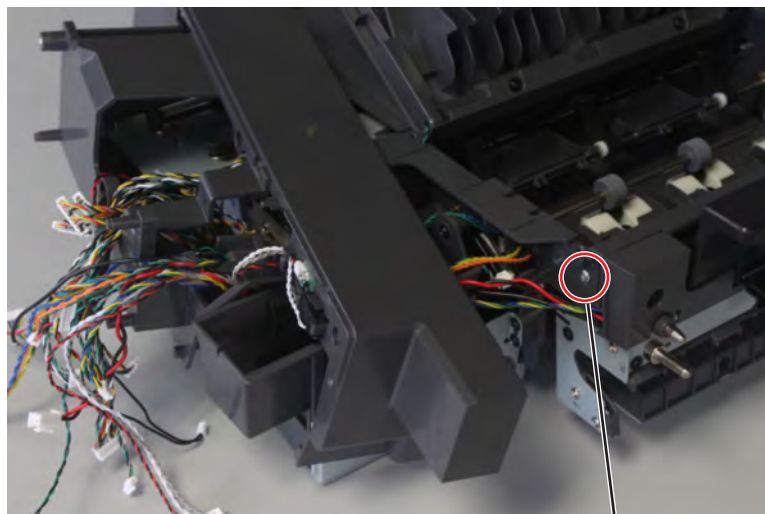
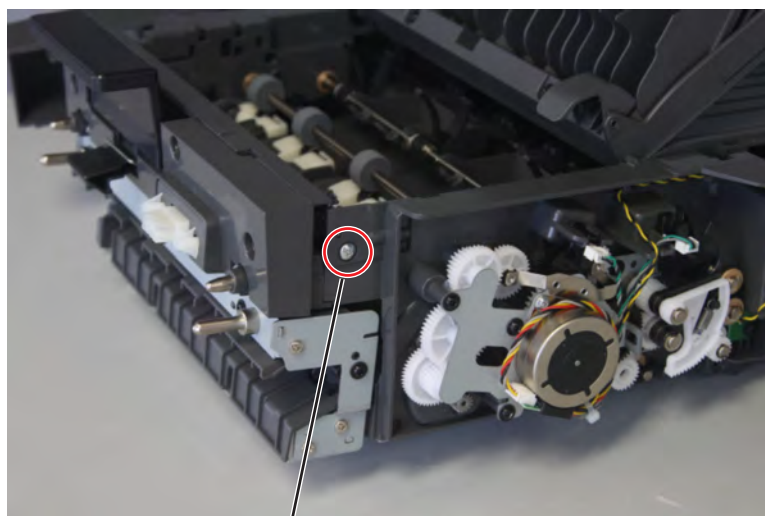
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the door.

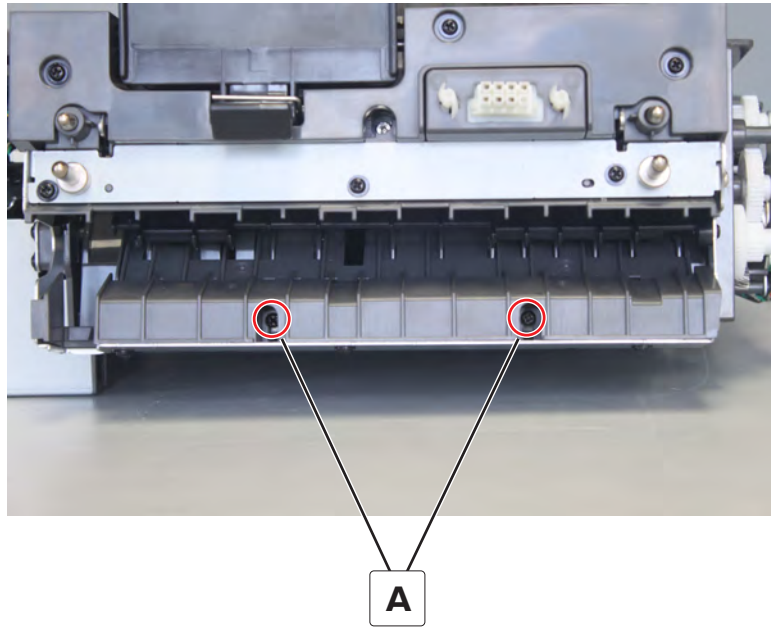
Installation note: When installing the door, insert the pin into the hole first.



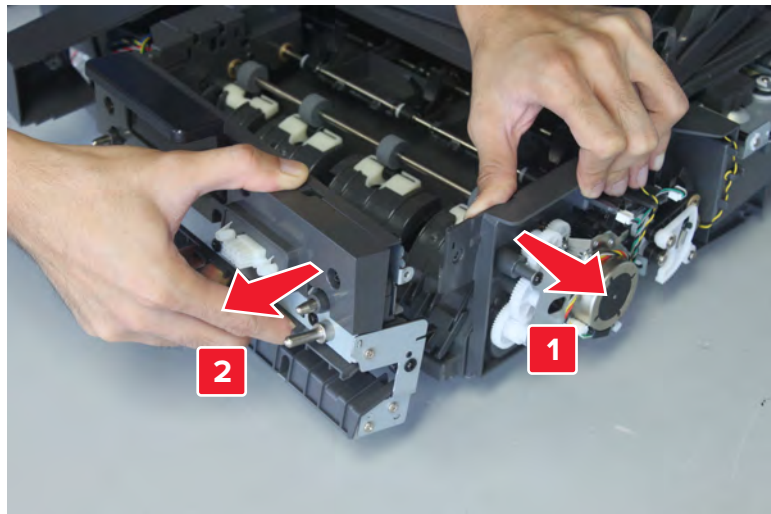
Staple finisher lock assembly removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Set aside the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Open the jam access door.
- 5 Remove the four screws (A).

**A****A**

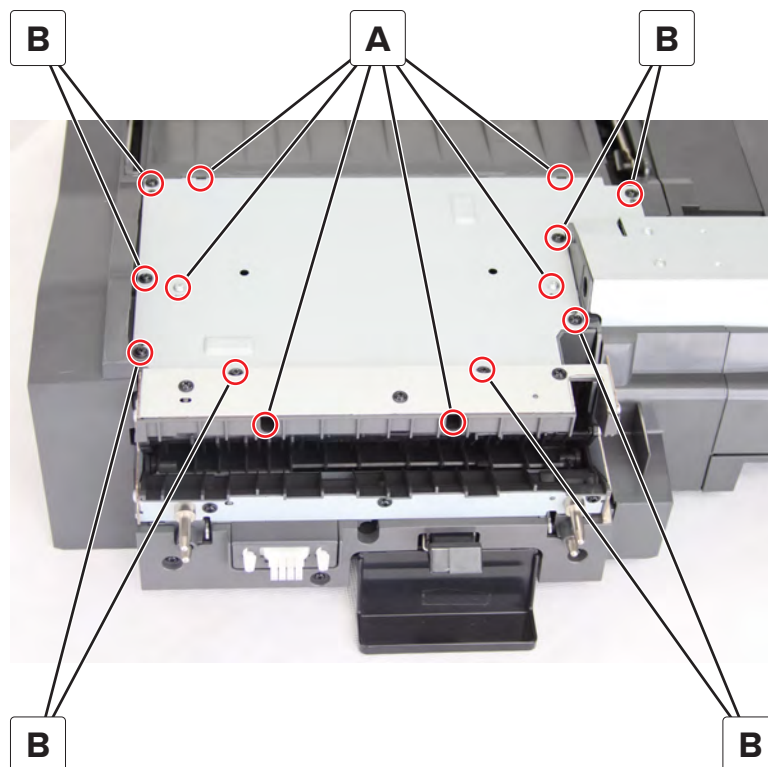


6 Push the plate, and then pull the assembly to remove.



Staple finisher bottom cover removal

- 1 Remove the six metal screws (A) and the eight plastic screws (B).

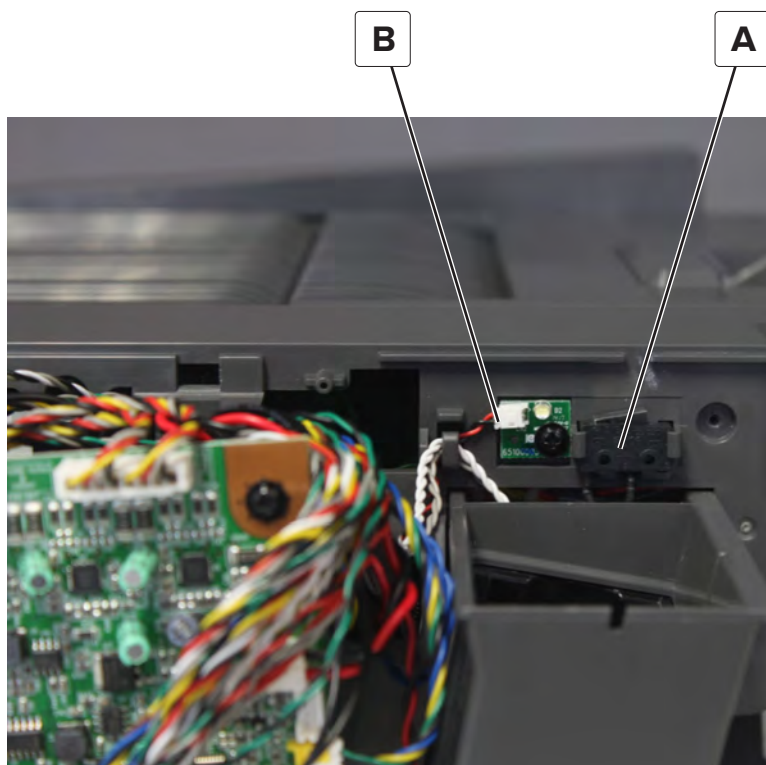


- 2 Remove the cover.

Staple finisher staple cartridge door switch removal

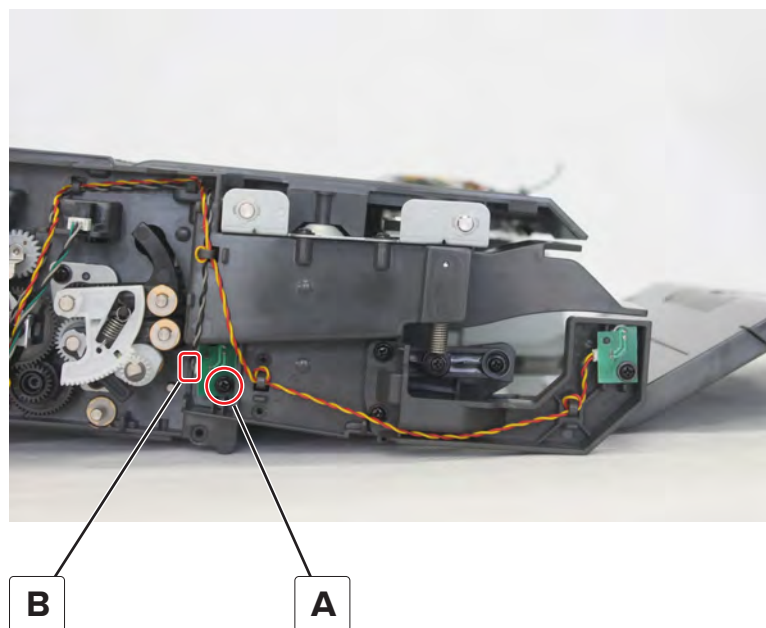
- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)

- 3 Release the latches (A), and then remove the switch (B).



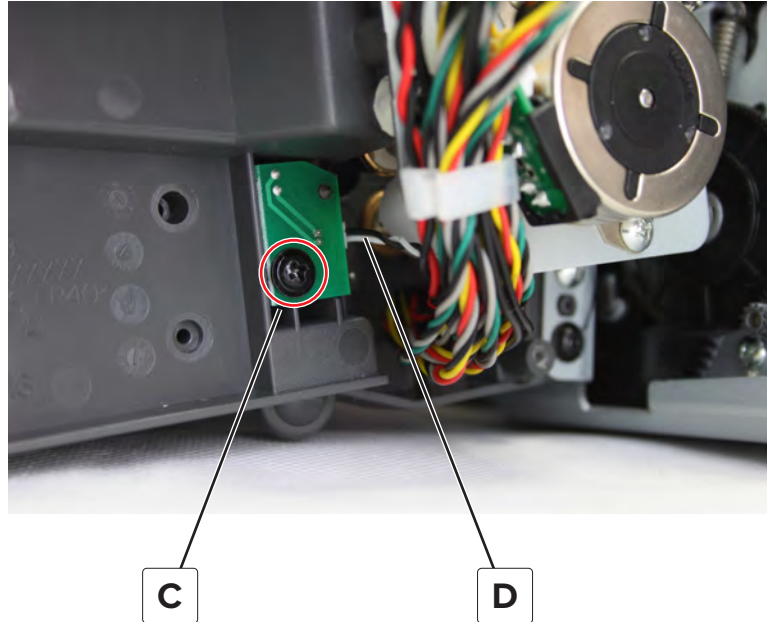
Sensor (staple finisher lower bin full) removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899](#).
- 2 Remove the screw (A), and then remove the sensor (staple finisher front lower bin full—transmitter).
- 3 Disconnect the cable (B).



Parts removal

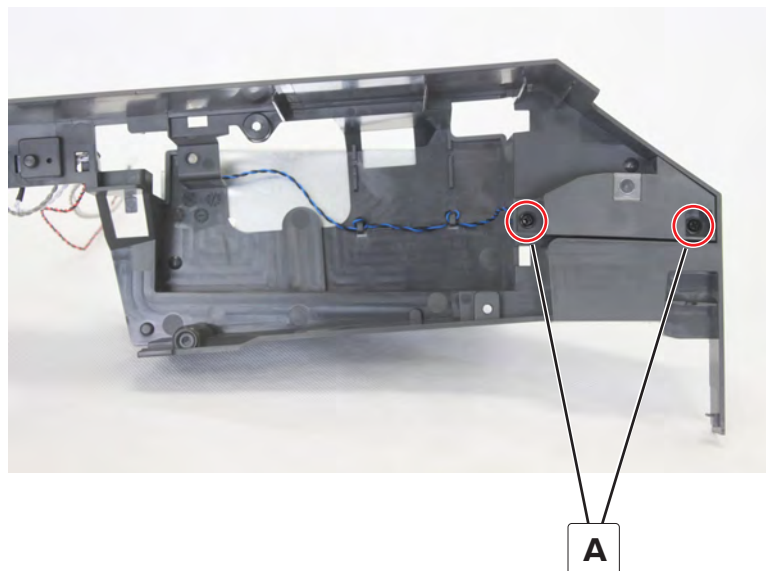
- 4 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 5 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 6 Set aside the inner rear cover.
- 7 Remove the screw (C), and then remove the sensor (staple finisher rear lower bin full—transmitter).
- 8 Disconnect the cable (D).



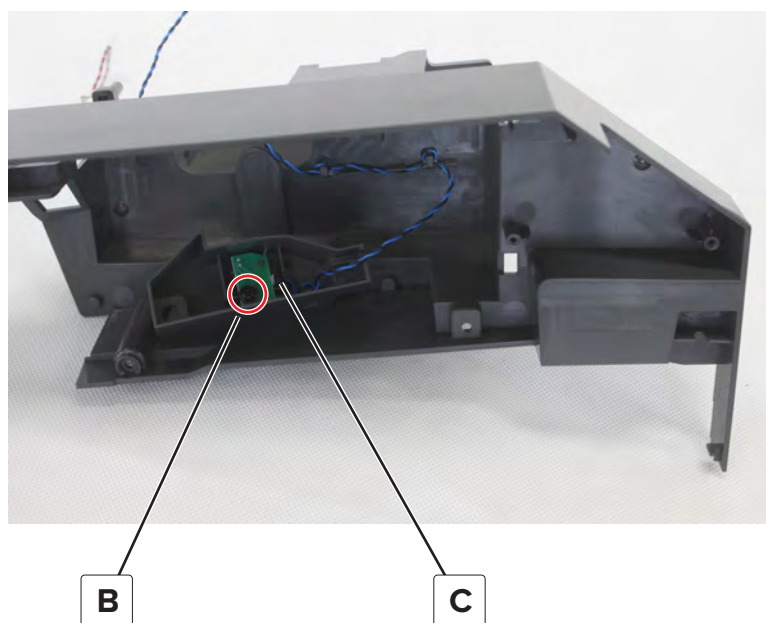
Sensor (staple finisher upper bin full) removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 4 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)

- 5 Remove the two screws (A).

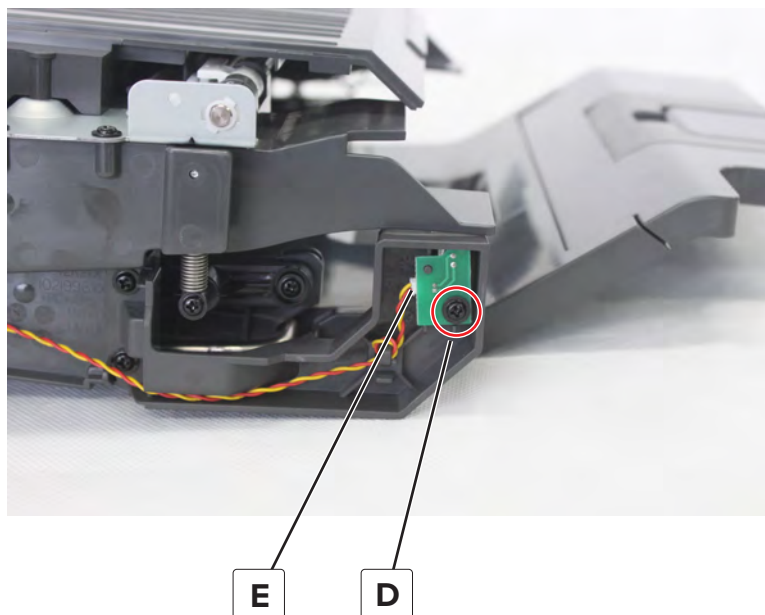


- 6 Remove the screw (B), disconnect the cable (C), and then remove the sensor (staple finisher rear upper bin full—receiver).



- 7 Remove the front cover. See [“Staple finisher front cover removal” on page 899](#).

- 8 Remove the screw (D), and then disconnect the cable (E).

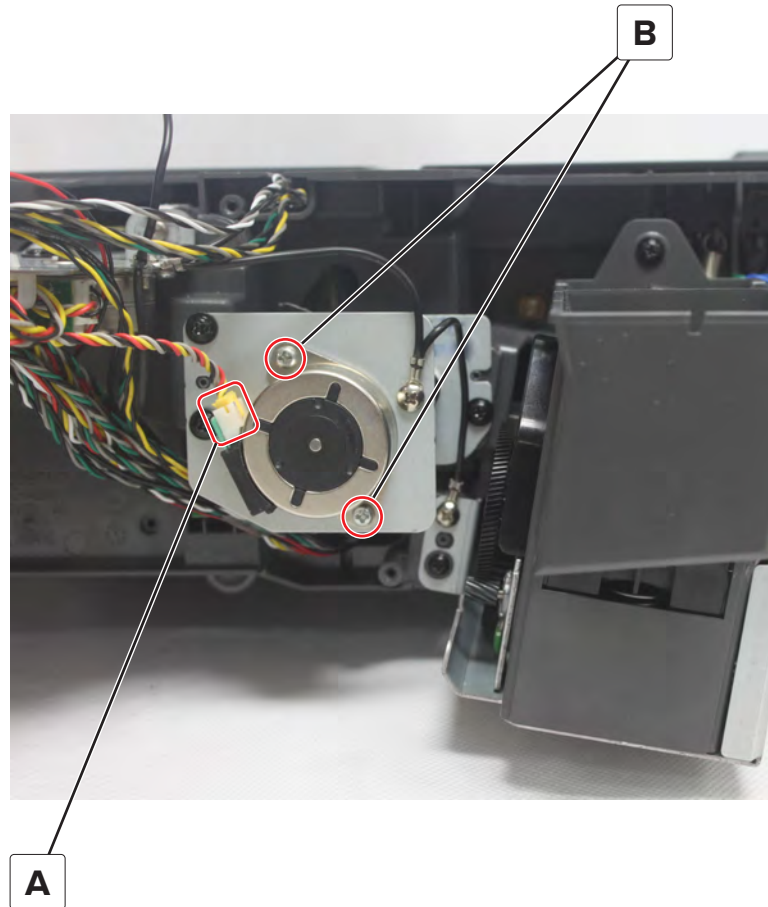


- 9 Remove the sensor (staple finisher front upper bin full—receiver).

Motor (staple finisher upper exit roller) removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 4 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 5 Disconnect the cable (A).

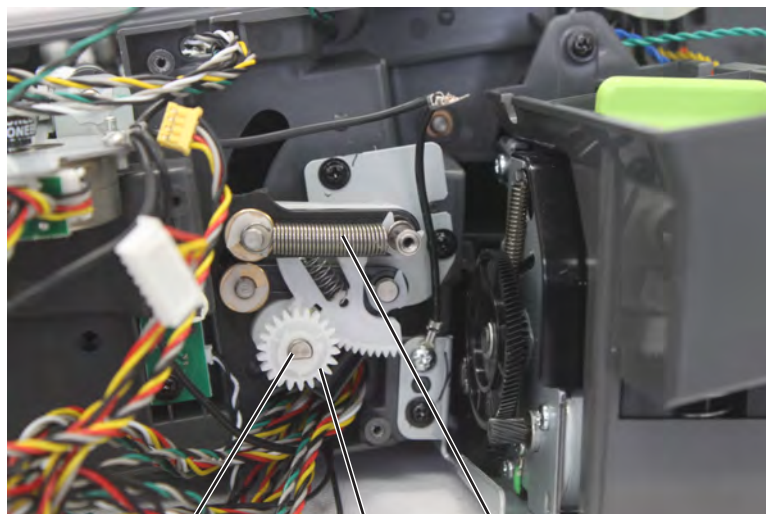
6 Remove the two screws (B), and then remove the motor.



Staple finisher rear upper position exit roller gears removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 4 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 5 Remove the upper exit motor. See [“Motor \(staple finisher upper exit roller\) removal” on page 911.](#)

6 Remove the clip (A) and the gear (B), and then remove the spring (C).

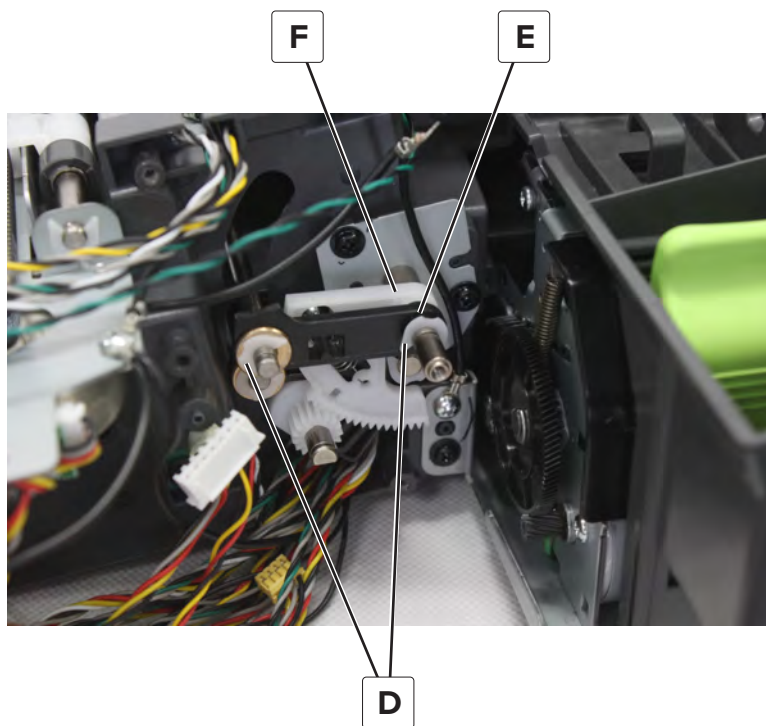


A

B

C

7 Remove the two clips (D) and the bushing, remove the lever (E), and then remove the gear (F).



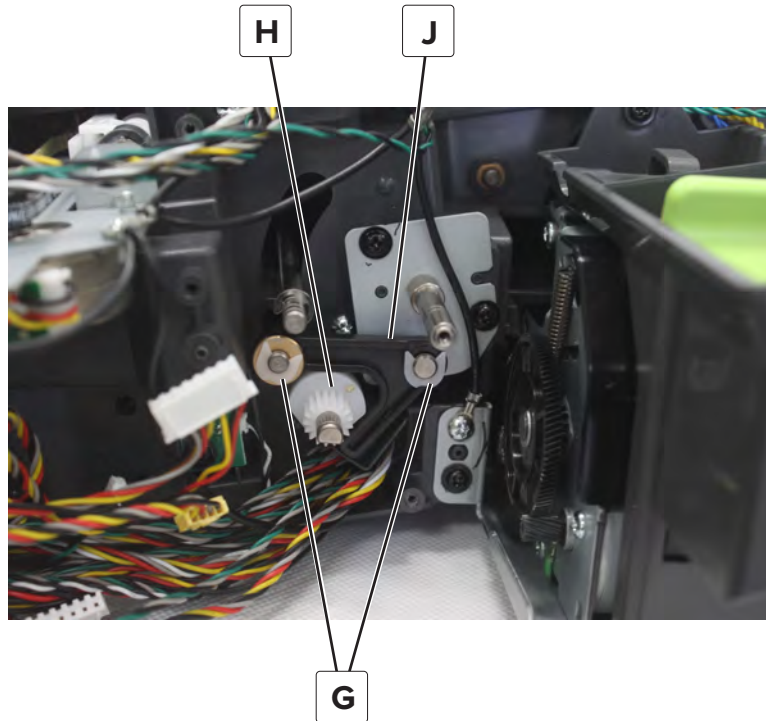
F

E

D

8 Remove the two clips (G), and then remove the bushing.

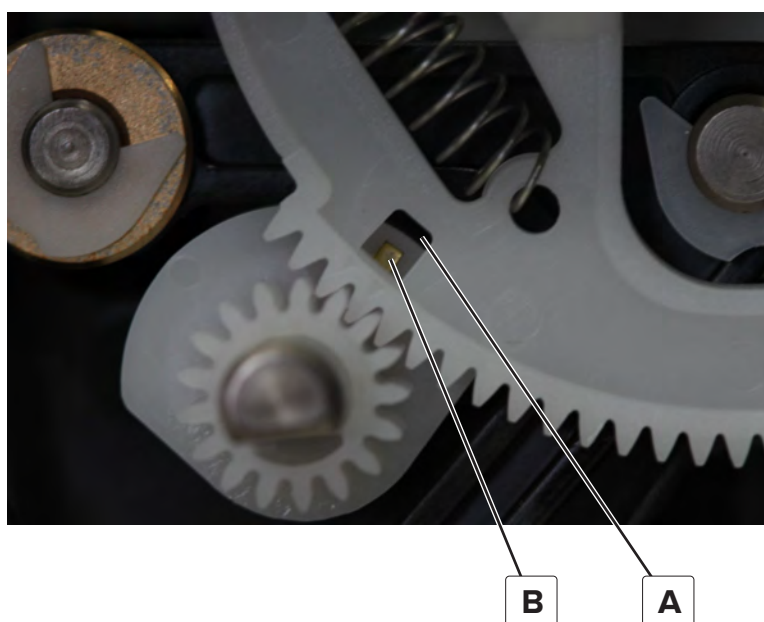
9 Remove the cam (H), and then remove the lever (J).



10 Remove the gear.



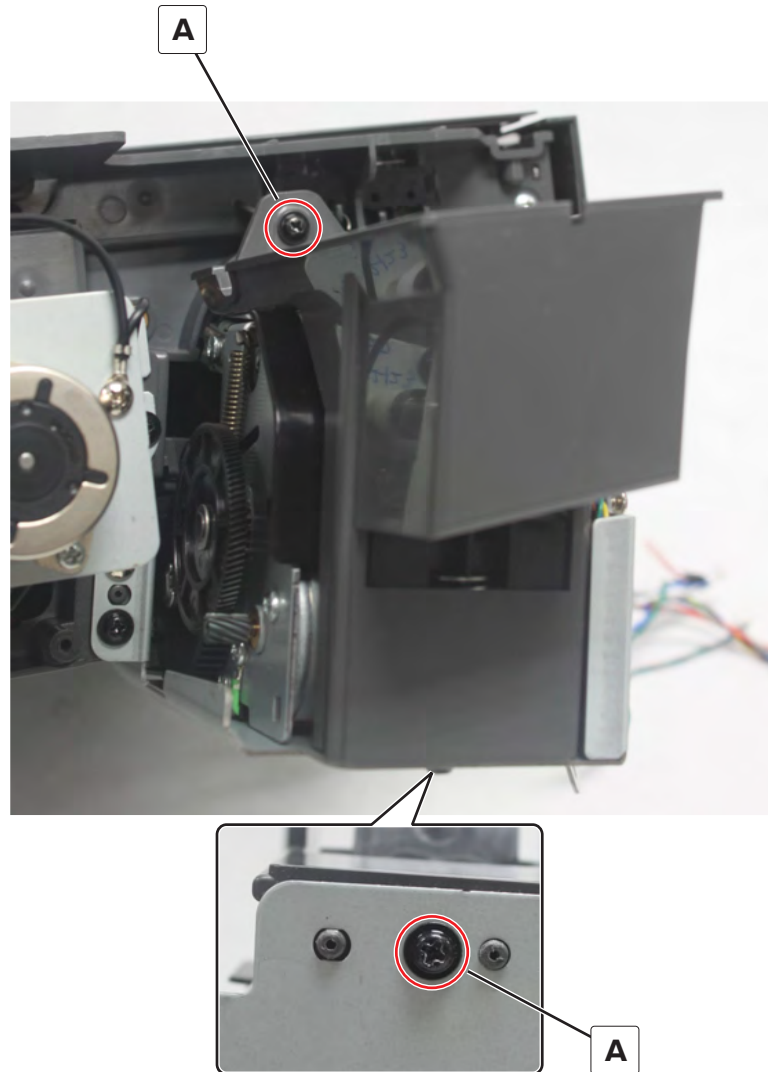
Installation note: Make sure that the hole (A) aligns with the gold, rectangular marker (B).



Staple finisher staple unit ejector removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Set aside the cables from the top of the ejector.

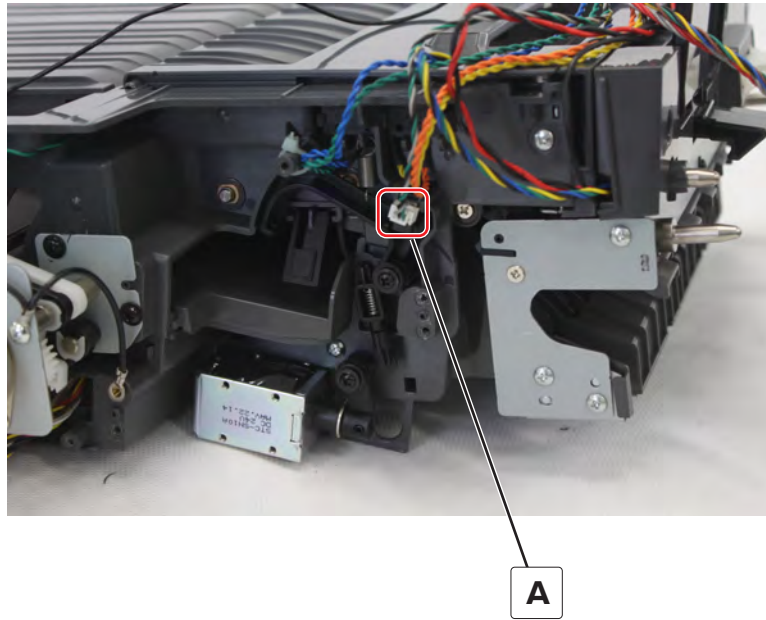
- 5 Remove the two screws (A), and then remove the ejector.



Sensor (staple finisher stack clamp) removal

- 1 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 2 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the ejector. See [“Staple finisher staple unit ejector removal” on page 915.](#)

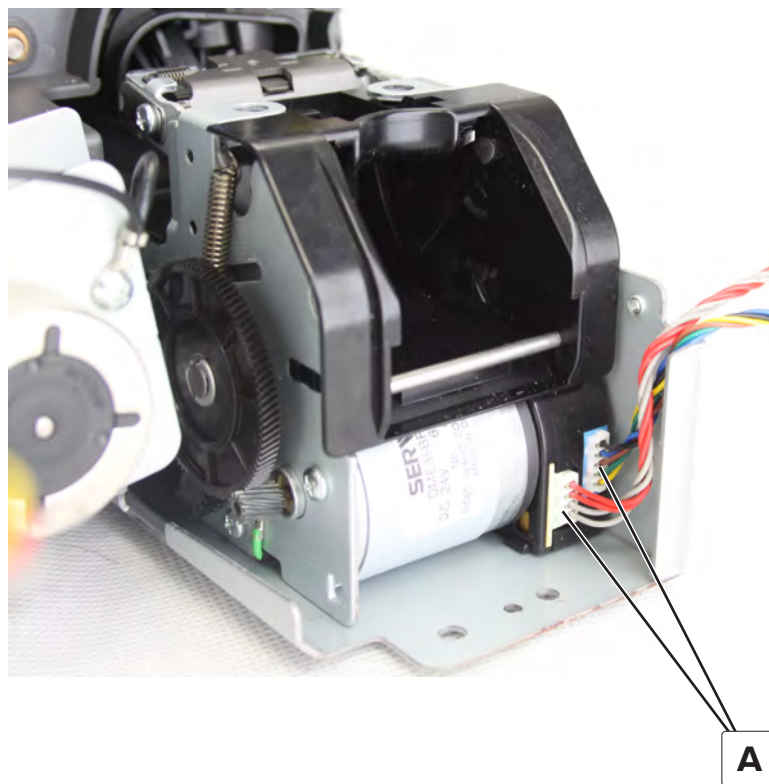
- 5 Push down the stack clamp, remove the adhesive, and then remove the sensor (A).



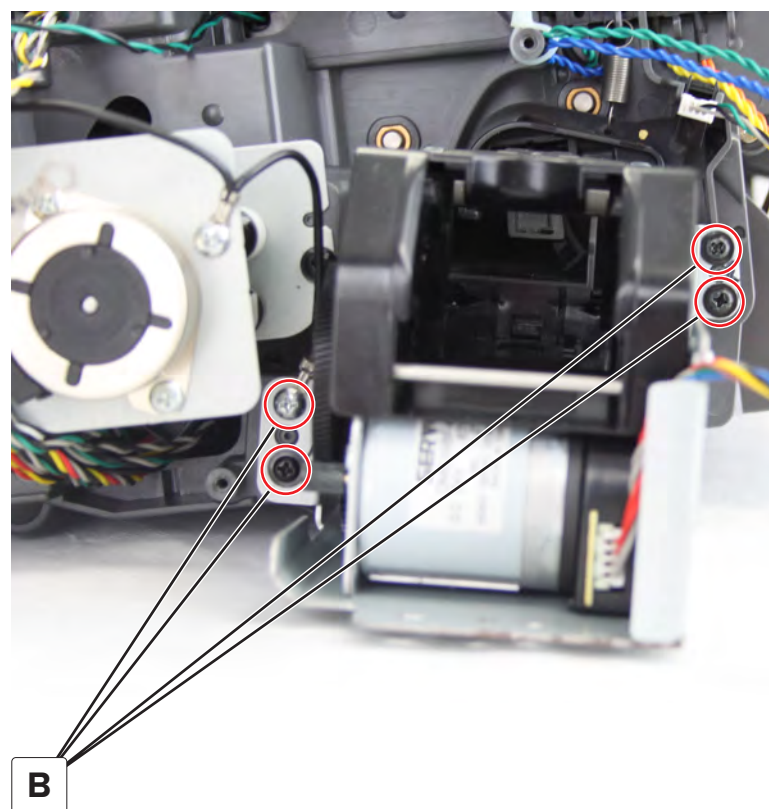
Staple finisher staple unit removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the ejector. See [“Staple finisher staple unit ejector removal” on page 915.](#)

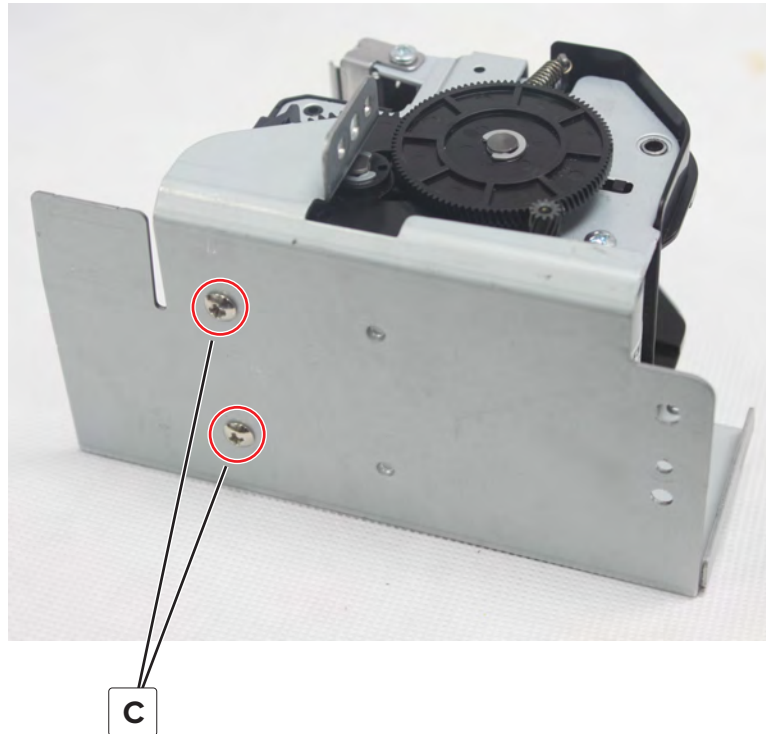
5 Disconnect the two cables (A).



6 Remove the four screws (B), and then remove the bracket.



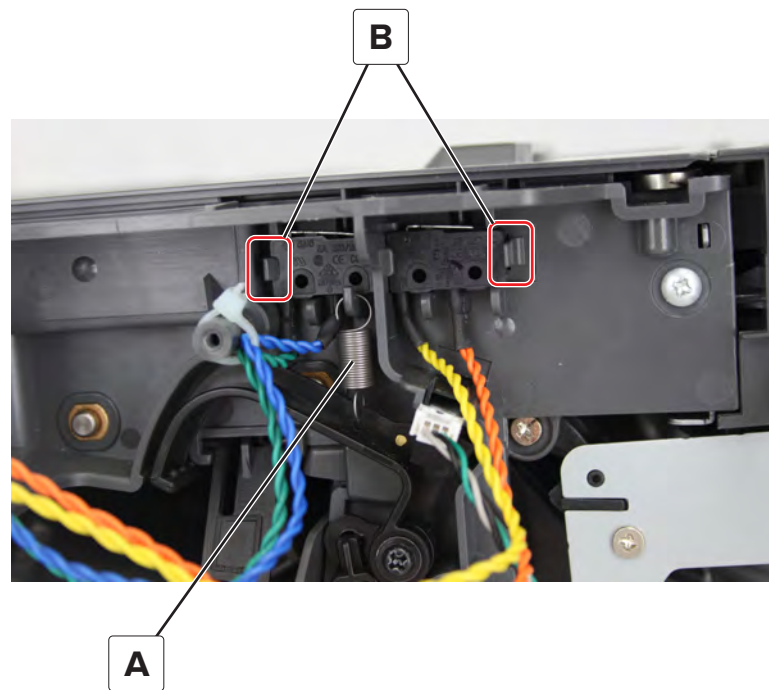
- 7 Remove the two screws (C), and then remove the staple unit.



Staple finisher jam door switches removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 4 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 5 Remove the ejector. See [“Staple finisher staple unit ejector removal” on page 915.](#)
- 6 Remove the spring (A).
- 7 Release the two latches (B), and then remove the switches.

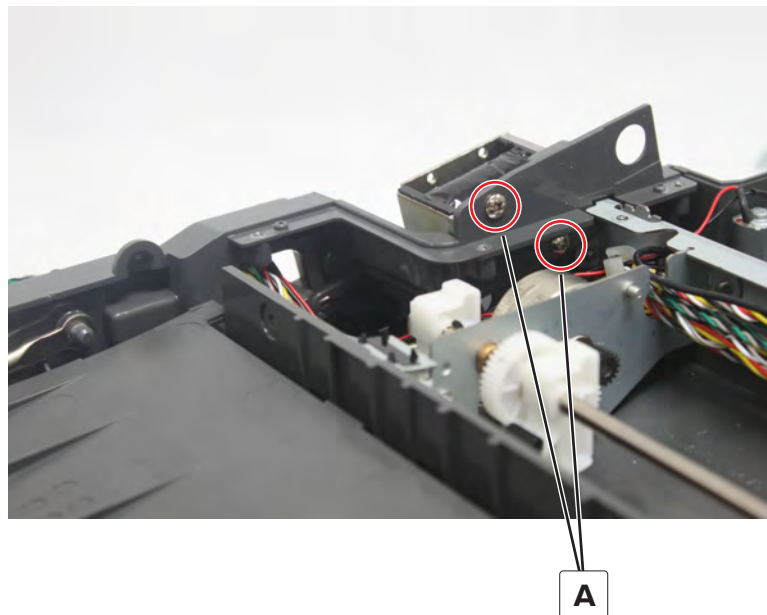
Note: Pay attention to the switch assignments based on the cable colors.



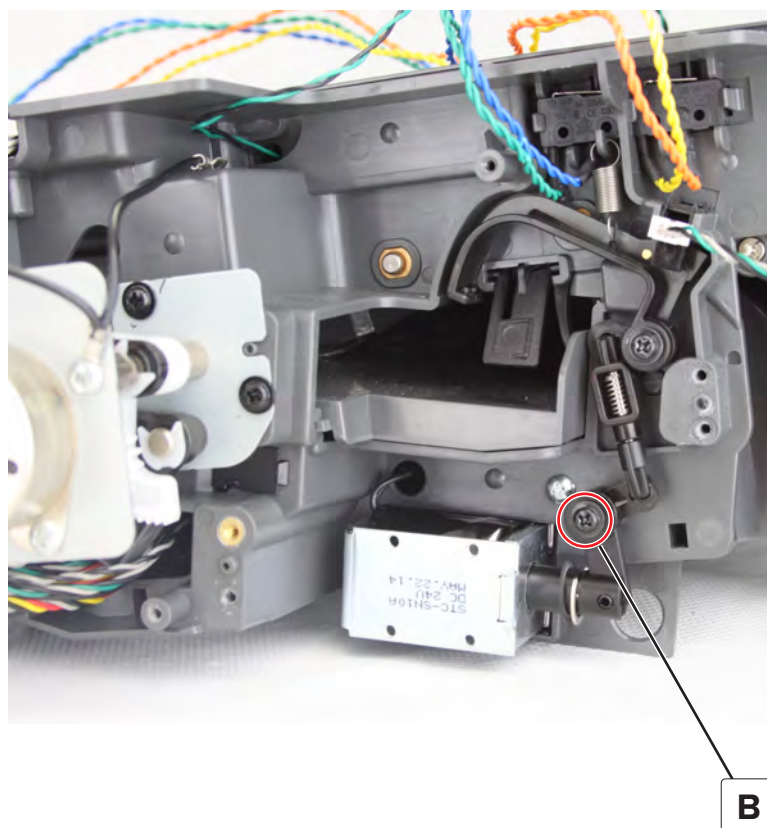
Staple finisher stack clamp solenoid removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the ejector. See [“Staple finisher staple unit ejector removal” on page 915.](#)
- 5 Remove the staple unit bracket. See [“Staple finisher staple unit removal” on page 917.](#)
- 6 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)

7 Remove the two screws (A).

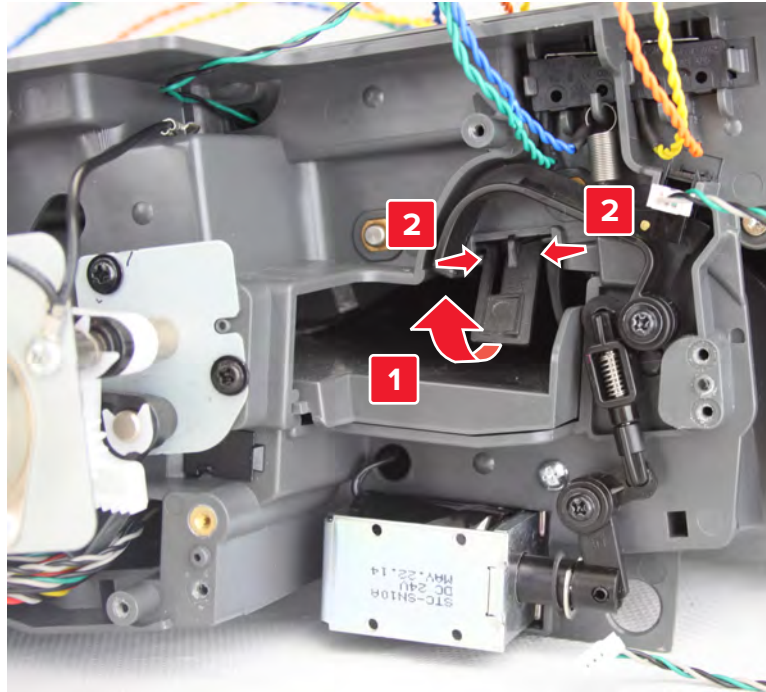


8 Remove the screw (B), and then remove the solenoid.

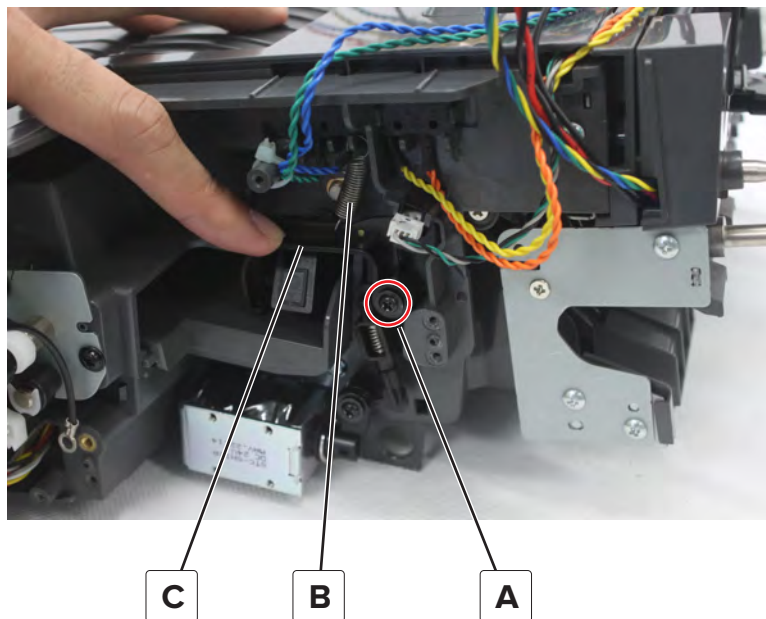


Staple finisher stack clamp removal

- 1 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 2 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Set aside the staple unit. See [“Staple finisher staple unit removal” on page 917.](#)
- 5 Remove the staple unit bail.



- 6 Remove the screw (A), remove the spring (B), and then push down the clamp (C).

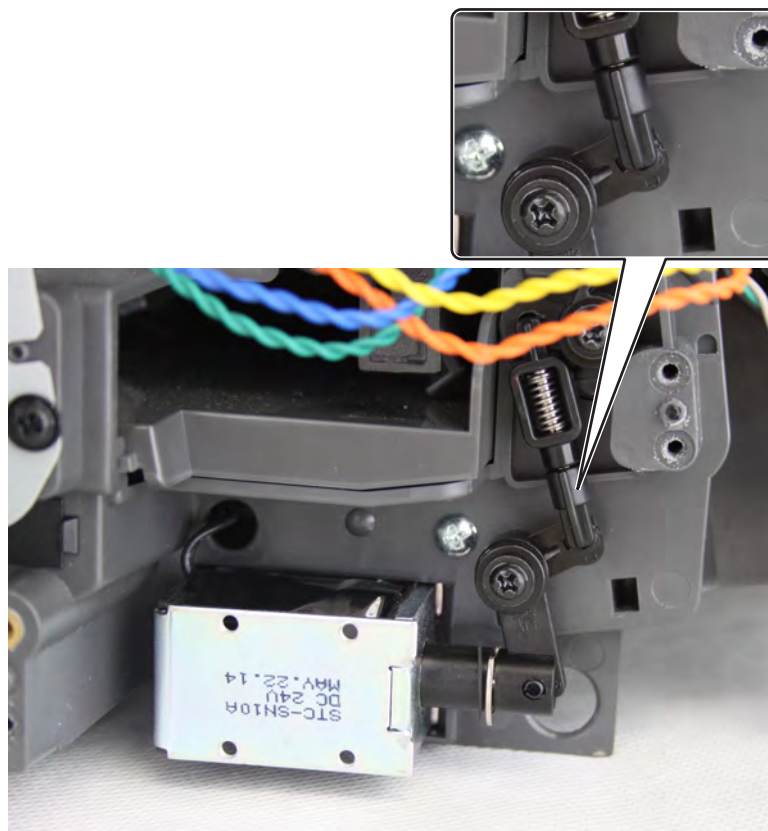


7 Remove the stack clamp solenoid. See [“Staple finisher stack clamp solenoid removal” on page 920](#).

8 Remove the clamp.

When installing the stack clamp:

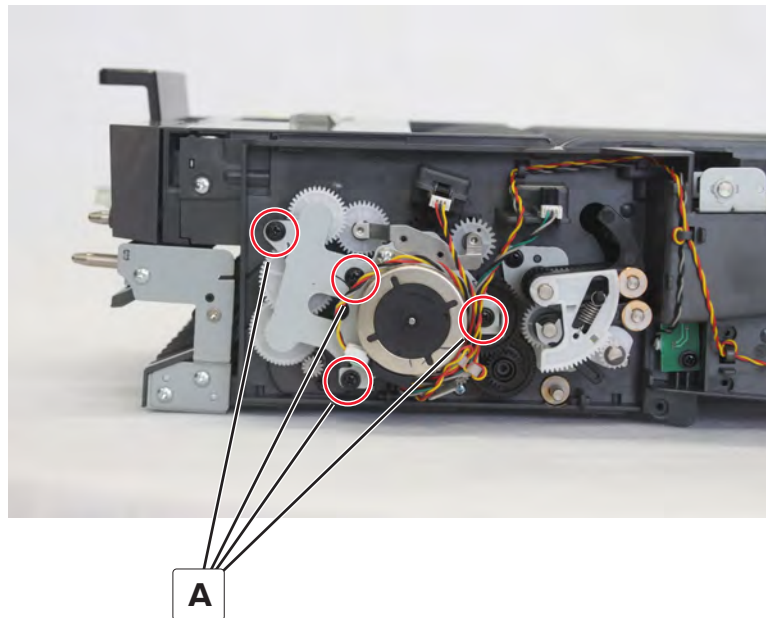
- Pay attention to the exact position of the lower part of the clamp.



- Push down, and then release the clamp to verify if it is properly installed.

Motor (staple finisher aligner paddle) removal

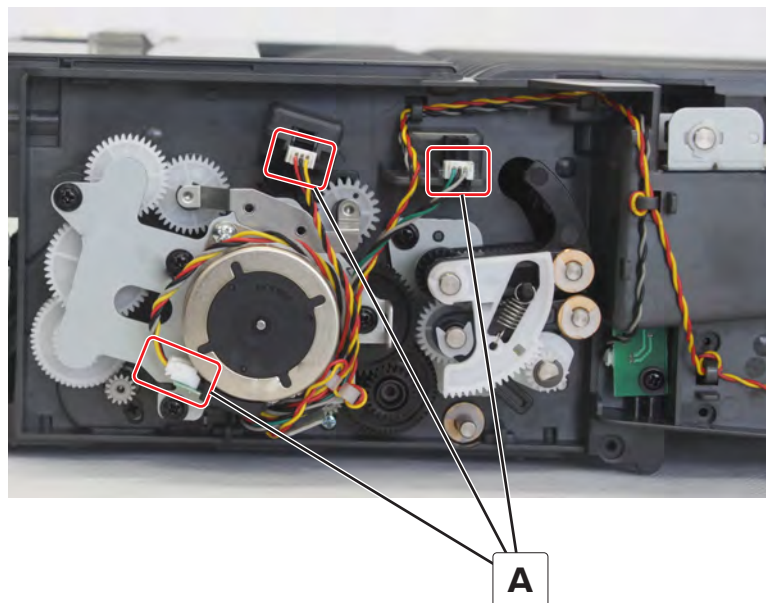
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Set aside the cables, and then remove the four screws (A).

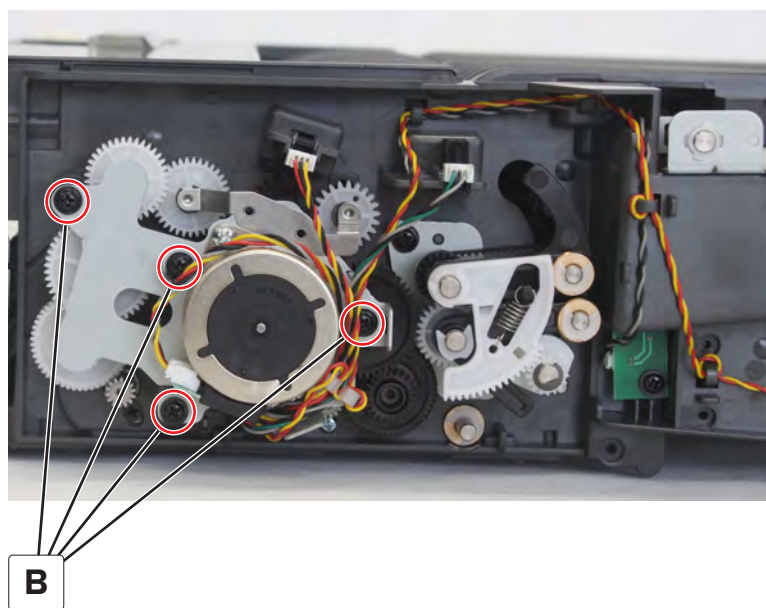


- 3 Remove the motor from the bracket.

Staple finisher transport gears removal

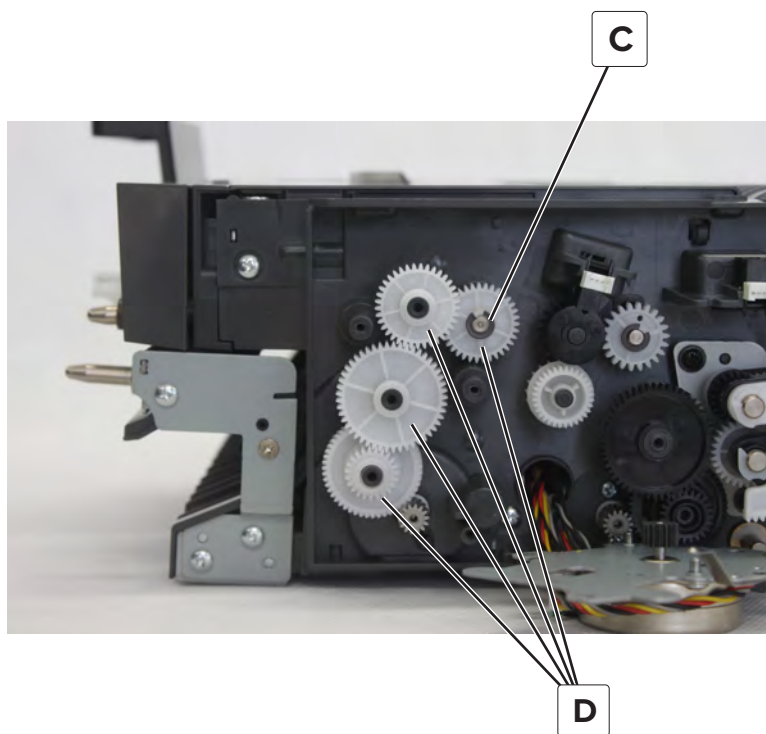
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Disconnect the three cables (A), and then remove the four screws (B).





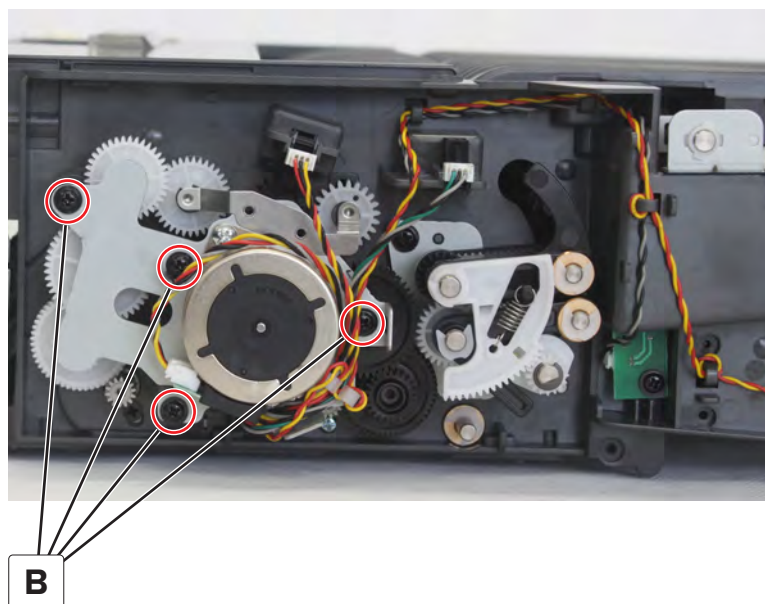
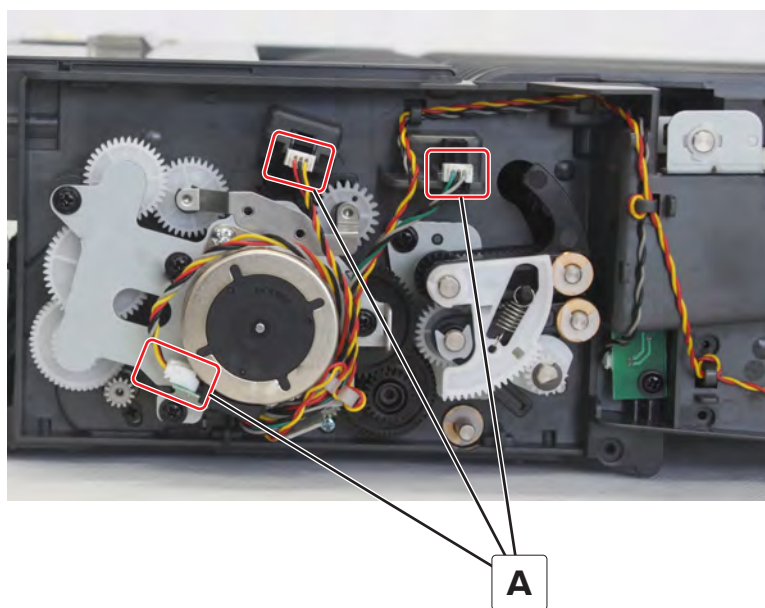
3 Set aside the aligner paddle motor and the bracket.

4 Remove the clip (C), and then remove the four gears (D).



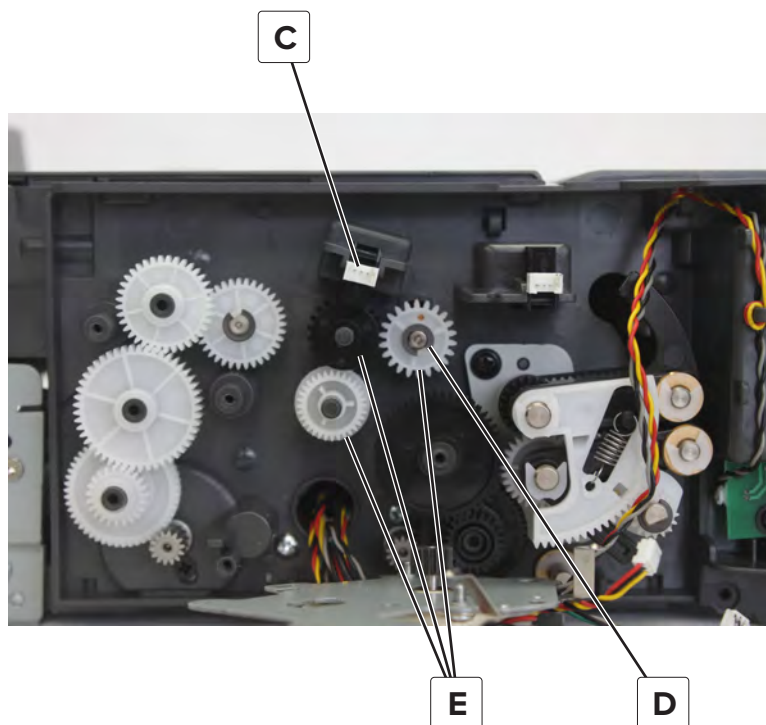
Staple finisher aligner paddle gears removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Disconnect the three cables (A), and then remove the four screws (B).

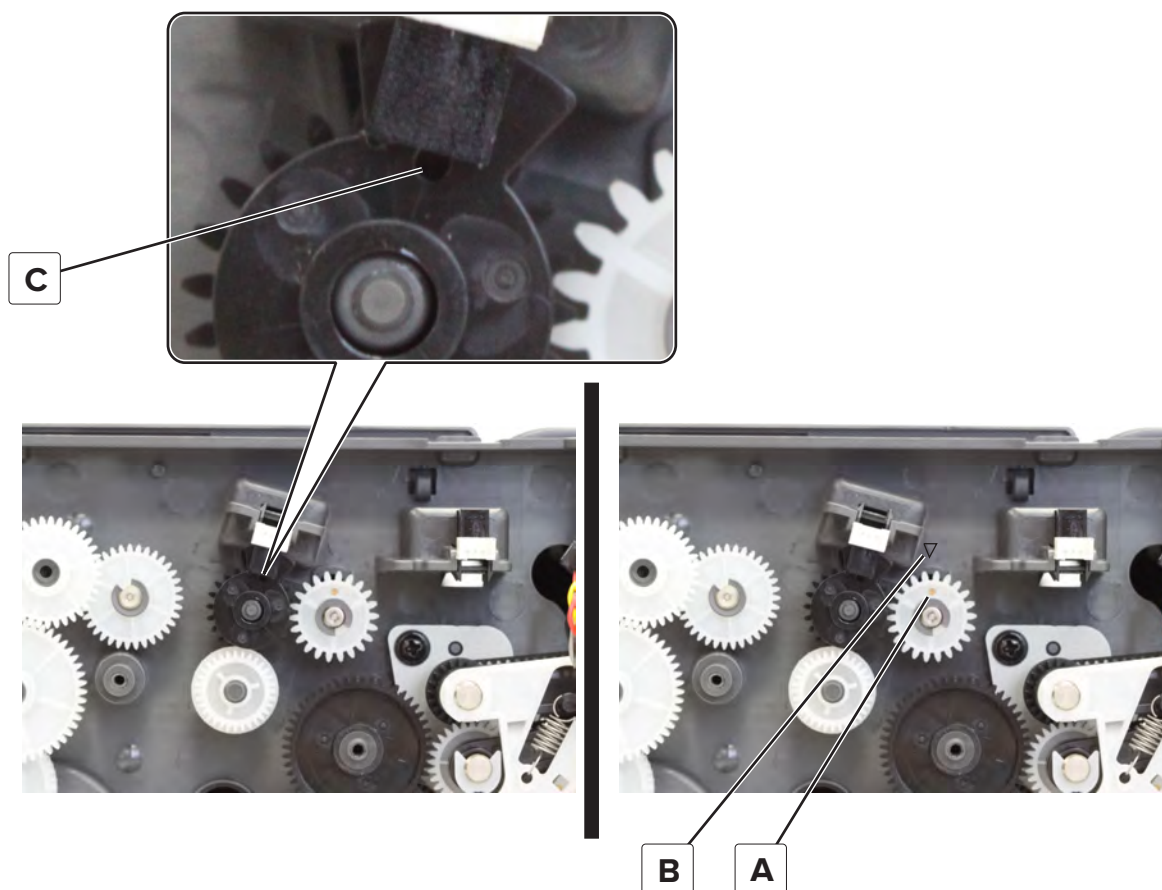


- 3 Set aside the aligner paddle motor and bracket.
- 4 Remove the sensor (staple finisher aligner paddle) (C), and then remove the clip (D).

5 Remove the three gears (E).

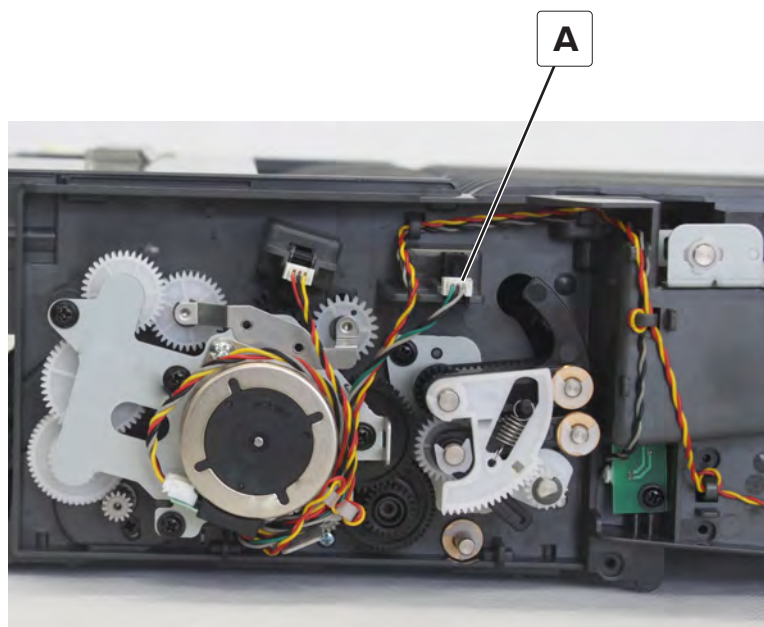


Installation note: Make sure that the hole (A) on the white gear is aligned with the arrow (B) and the hole on the black gear (C) is centered with the sensor. Align both at the same time.



Sensor (staple finisher upper exit roller) removal

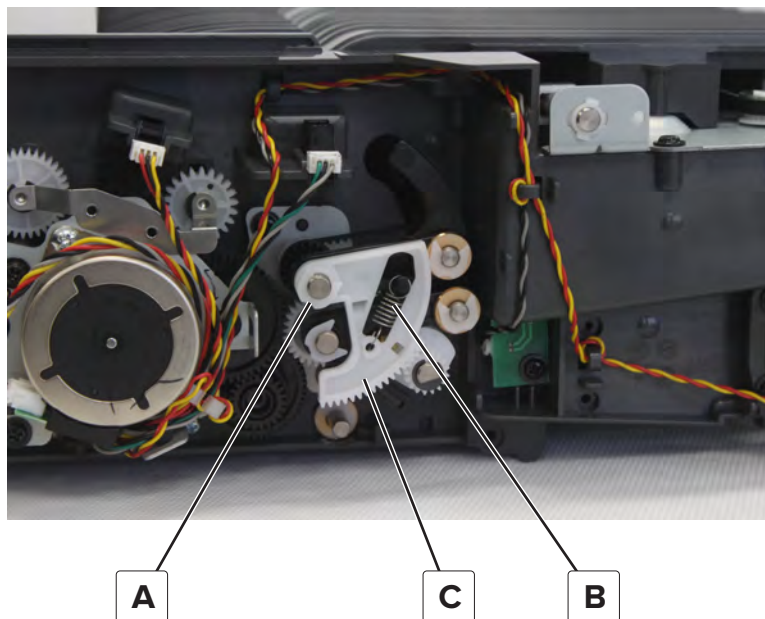
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Disconnect the cable (A), and then remove the sensor.



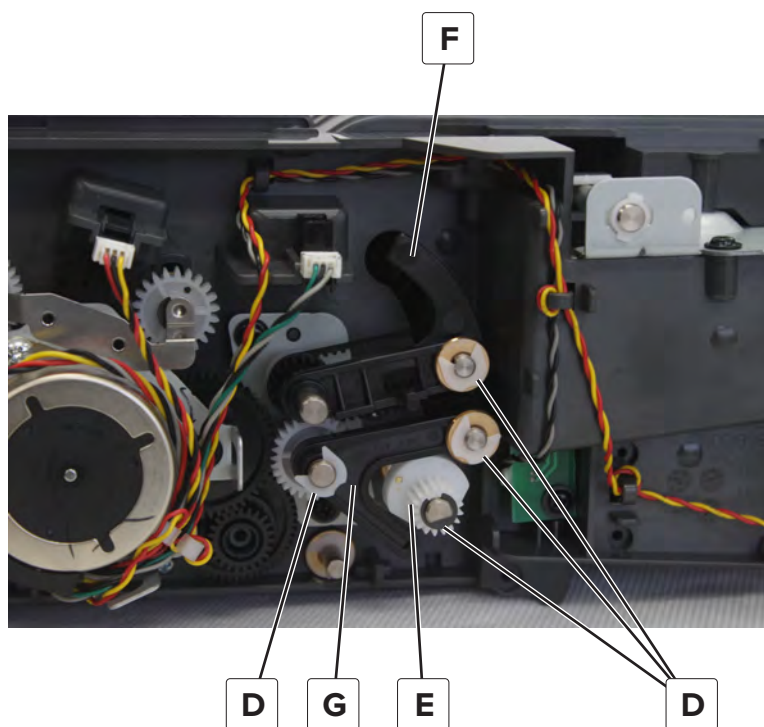
Parts removal

Staple finisher front upper position exit roller gears removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899](#).
- 2 Remove the clip (A), and then remove the spring (B).
- 3 Remove the gear (C).

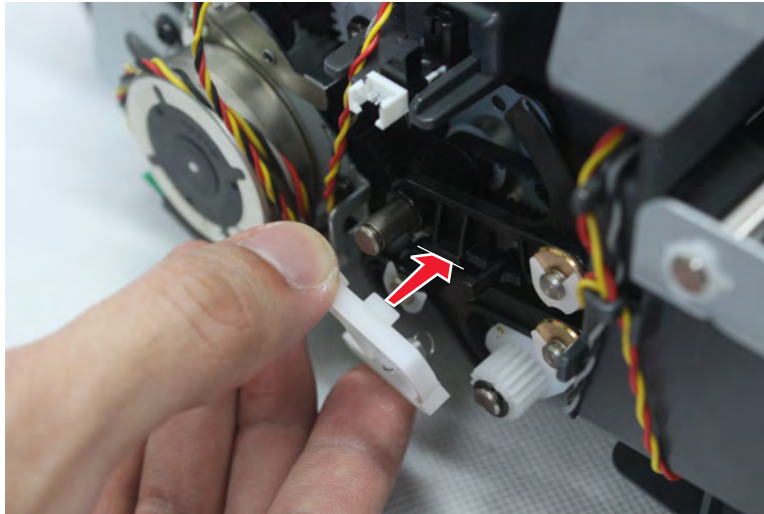


- 4 Remove the remaining four clips (D) and the bushings, and then remove the gear (E).
- 5 Remove the actuator (F), and then remove the lever (G).

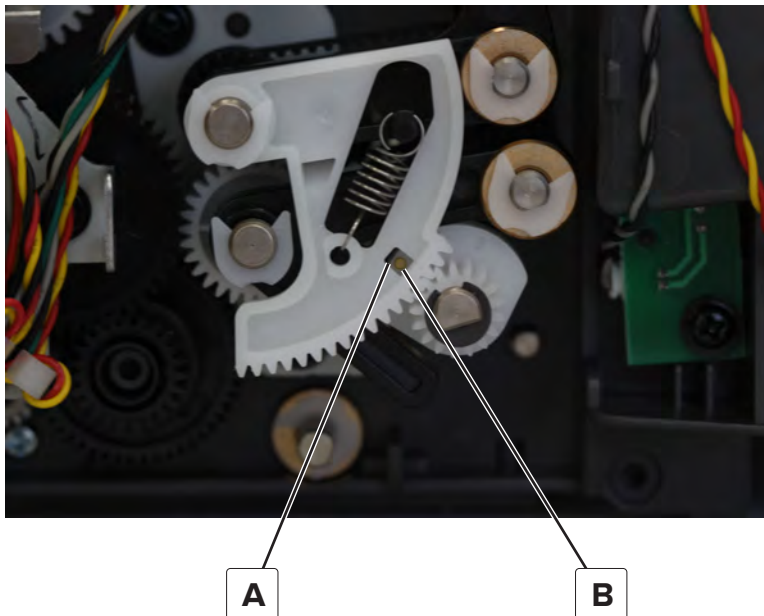


When installing the gears, make sure:

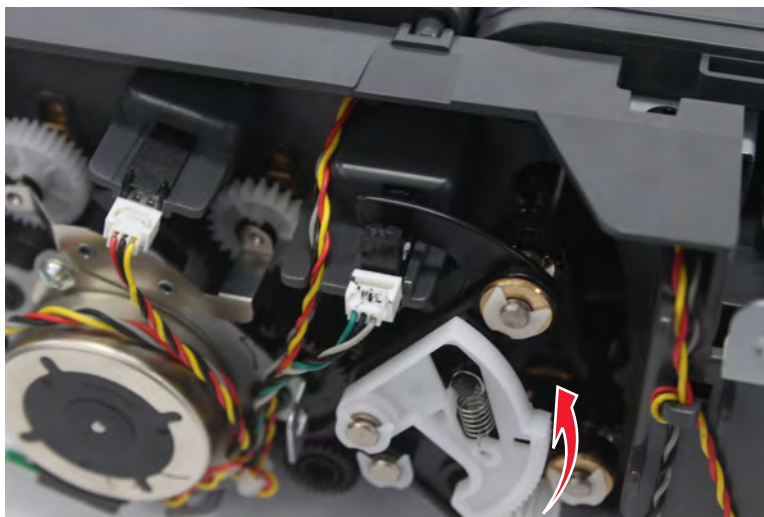
- That the tab on the gear is under the actuator.



- That the hole (A) aligns with the gold, circle marker (B).

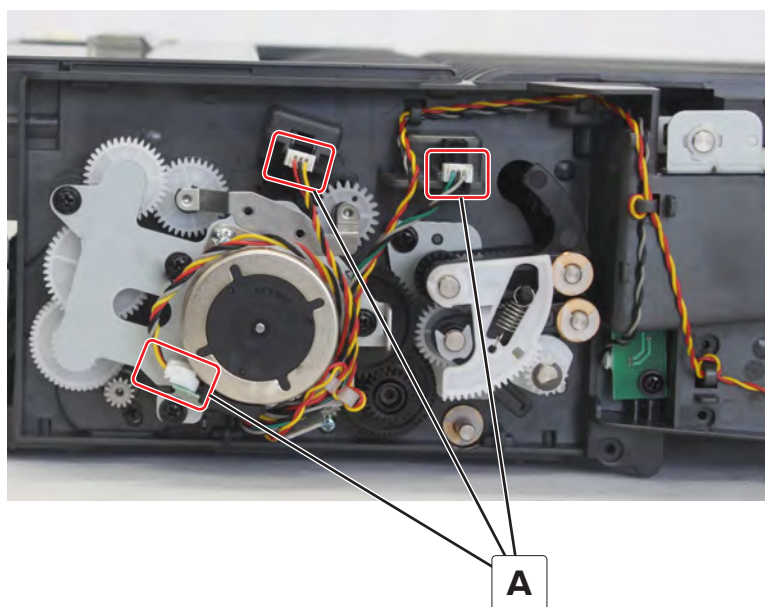


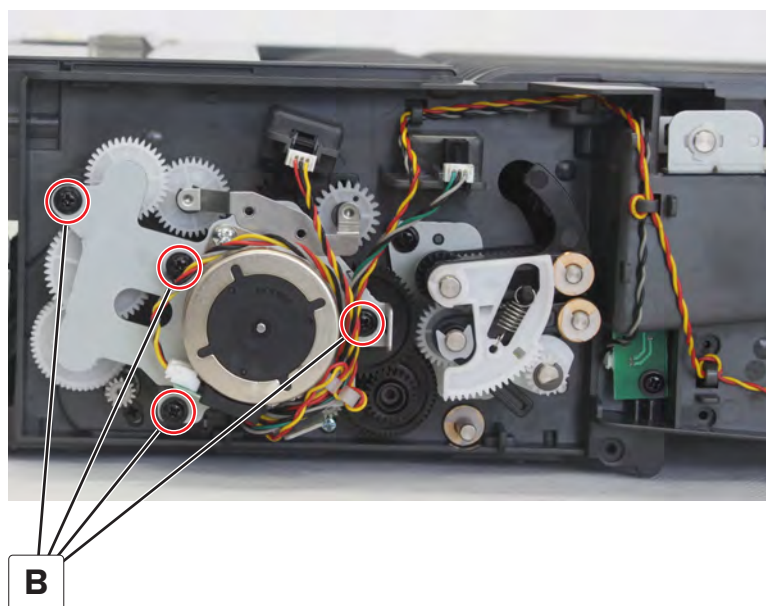
- To lift the gear to check if the actuator covers the sensor.



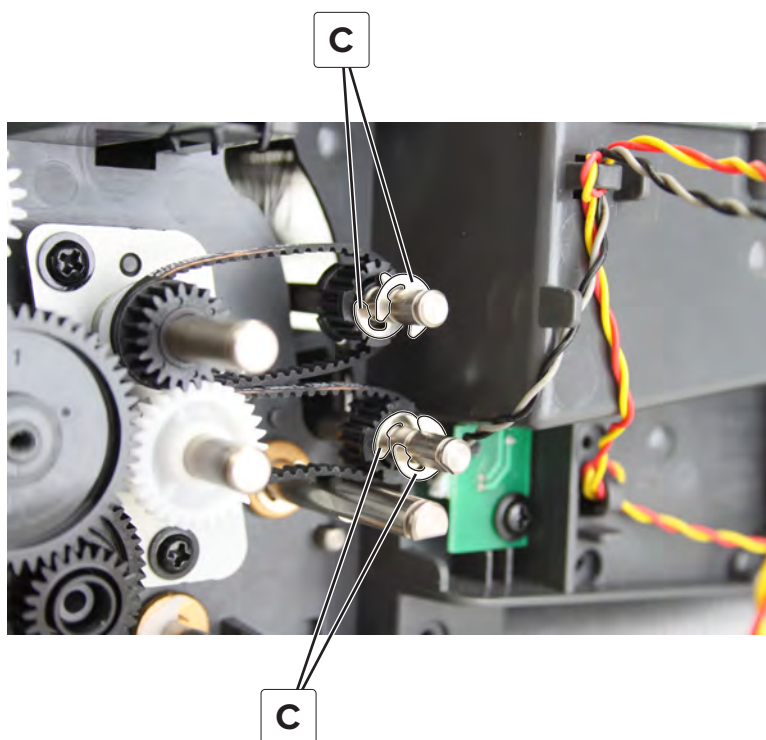
Staple finisher exit gears removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899](#).
- 2 Disconnect the three cables (A), and then remove the four screws (B).

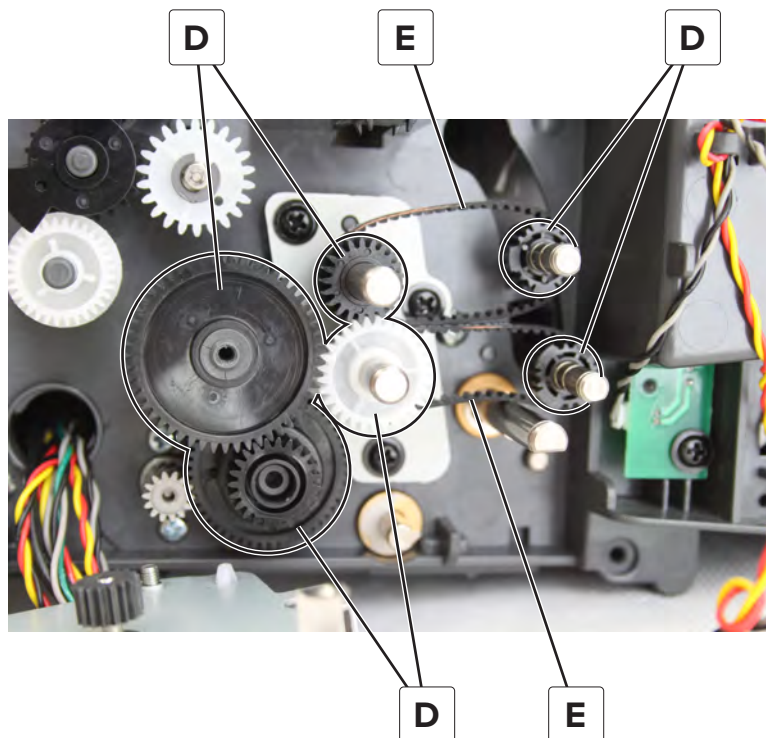




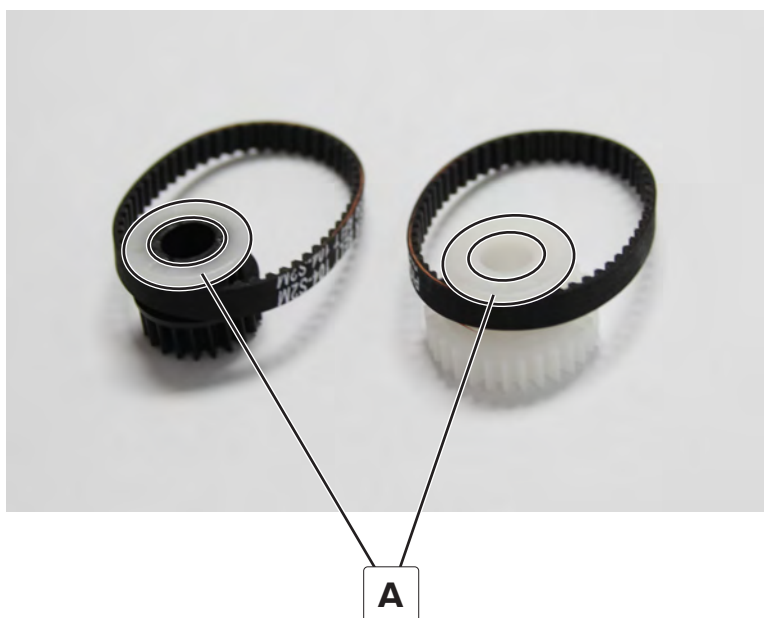
- 3 Set aside the aligner paddle motor and bracket.
- 4 Remove the front upper position exit roller gears. See [“Staple finisher front upper position exit roller gears removal” on page 929.](#)
- 5 Remove the four clips (C).



- 6 Remove the six exit gears (D), and then remove the two exit roller belts (E).



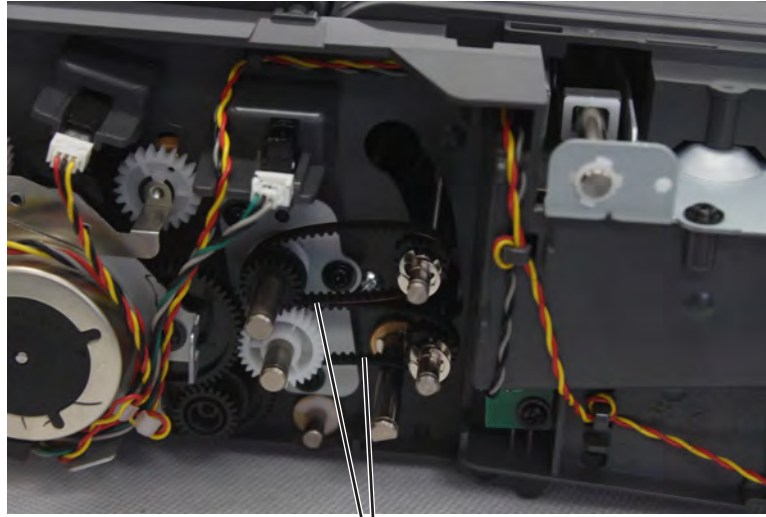
Installation note: Make sure that the washers (A) are installed together with the belts.



Staple finisher exit roller belts removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)

- 3 Remove the upper position exit roller gears. See [“Staple finisher front upper position exit roller gears removal” on page 929.](#)
- 4 Remove the two belts (A).

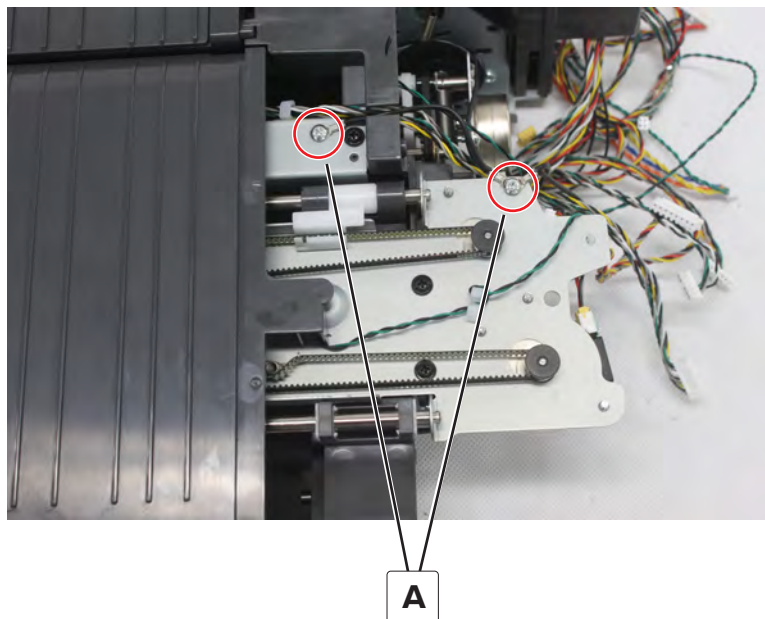


A

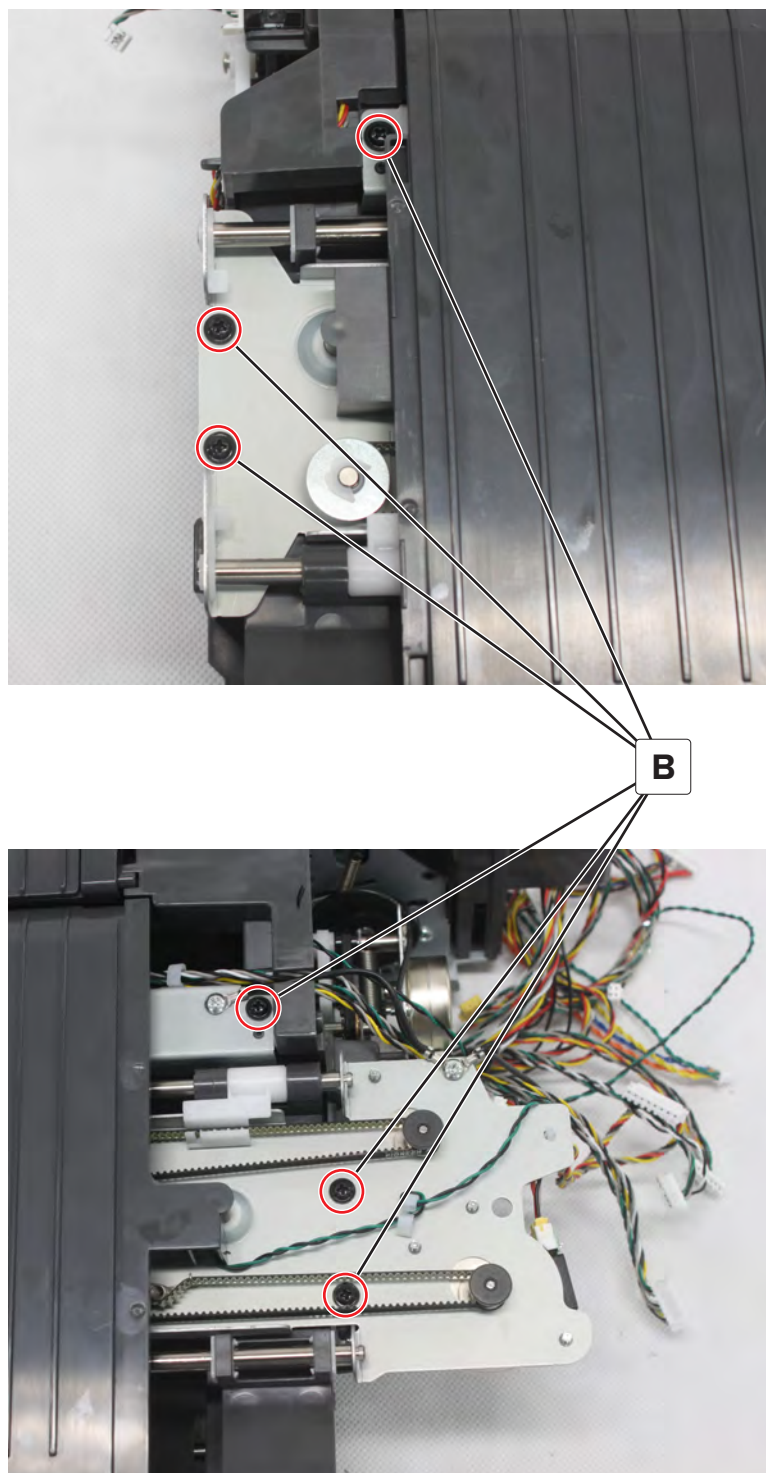
Staple finisher tamper assembly removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)

- 5 Remove the two screws (A), and then set aside the cables.



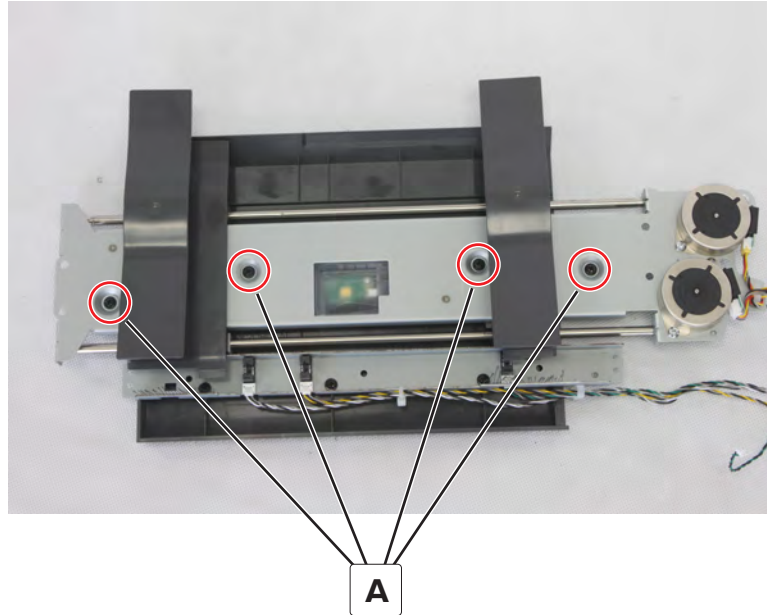
6 Remove the six screws (B).



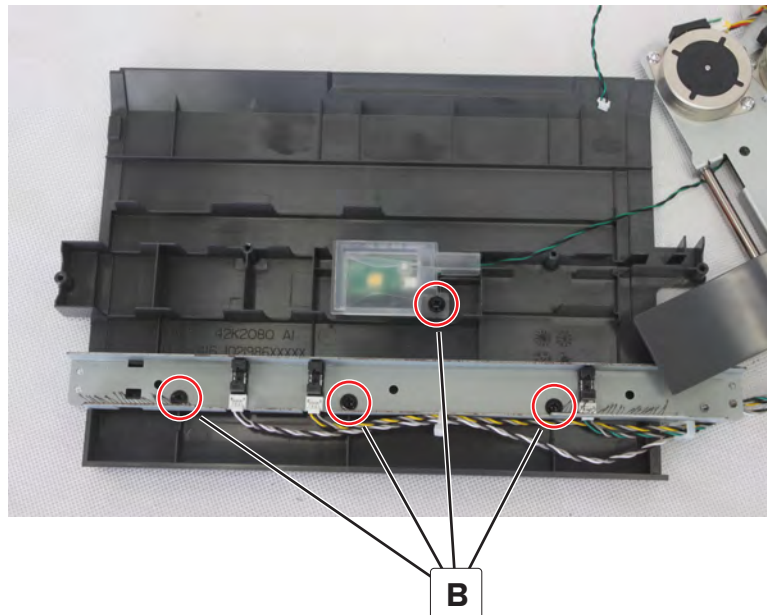
7 Set aside the cable, and then pull up the assembly.

Staple finisher tamper top cover removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 5 Remove the tamper assembly. See [“Staple finisher tamper assembly removal” on page 934.](#)
- 6 Remove the four screws (A), and then separate the top cover from the tamper.



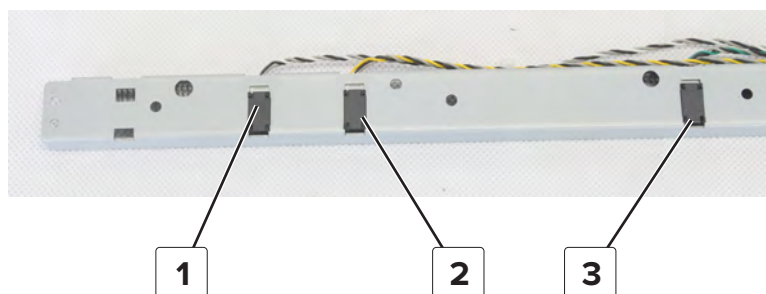
- 7 Remove the four screws (B), and then remove the cave light and the metal bracket.



Parts removal

Sensor (staple finisher tamper position) removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 5 Remove the tamper assembly. See [“Staple finisher tamper assembly removal” on page 934.](#)
- 6 Remove the tamper top cover. See [“Staple finisher tamper top cover removal” on page 937.](#)
- 7 Remove the sensor holders, and then remove the sensors.

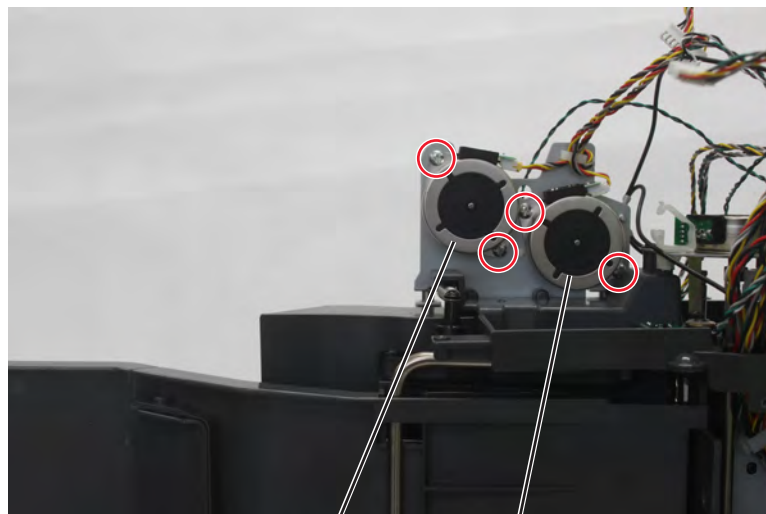


1	Sensor (staple finisher front tamper home)
2	Sensor (staple finisher narrow media tamper)
3	Sensor (staple finisher rear tamper home)

Motor (staple finisher tamper) removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher right cover removal” on page 898.](#)
- 3 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 4 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)

5 From the rear or front tamper motor, remove the two screws.

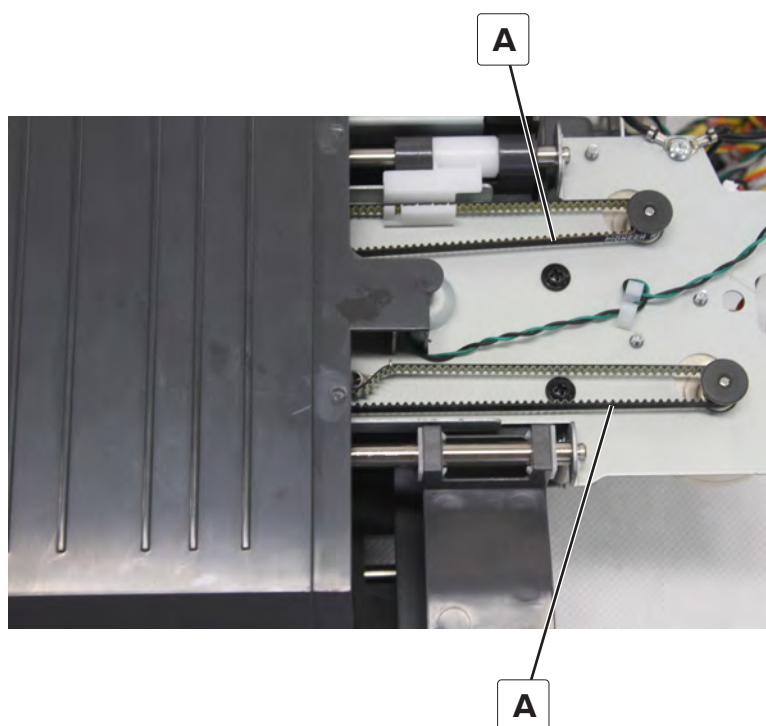


1

2

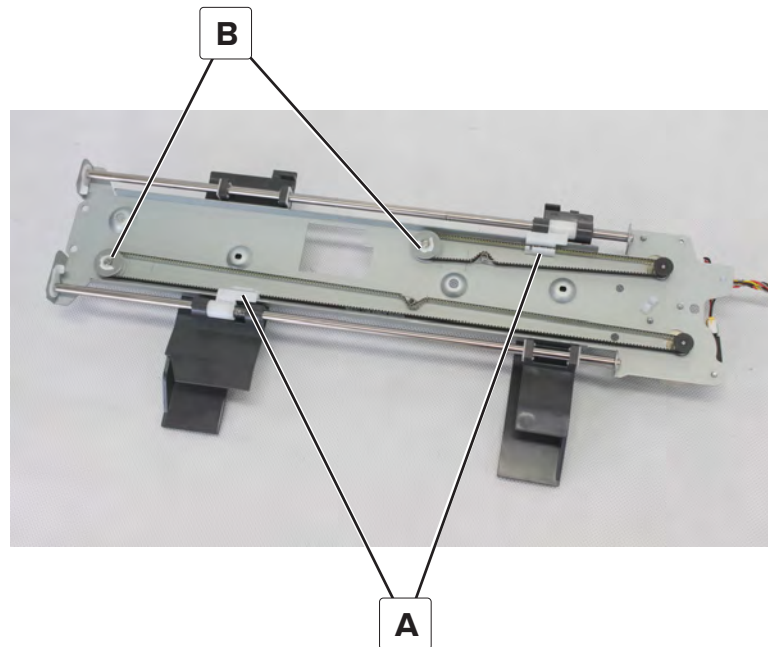
1	Motor (staple finisher front tamper)
2	Motor (staple finisher rear tamper)

6 Release the rear or front tamper belt (A) from the gear, and then remove the motor.



Staple finisher tamper belts removal

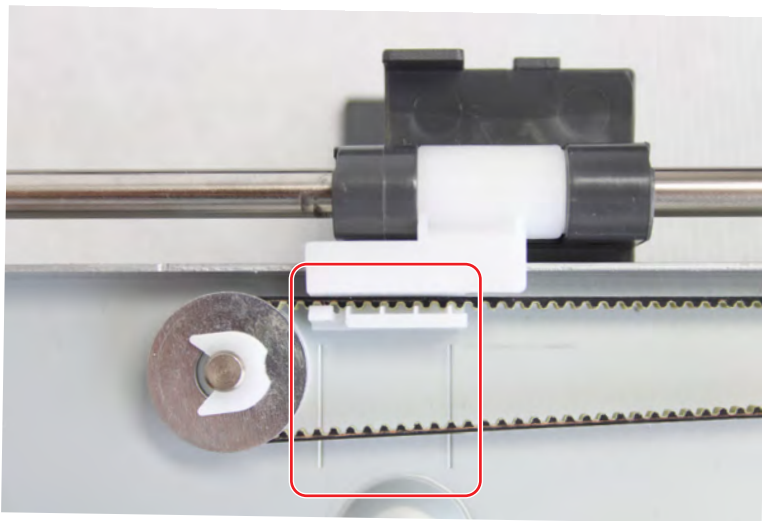
- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 5 Remove the tamper assembly. See [“Staple finisher tamper assembly removal” on page 934.](#)
- 6 Remove the tamper top cover. See [“Staple finisher tamper top cover removal” on page 937.](#)
- 7 Release the belt from the belt holder (A).
- 8 Remove the clip (B), and then remove the washer.



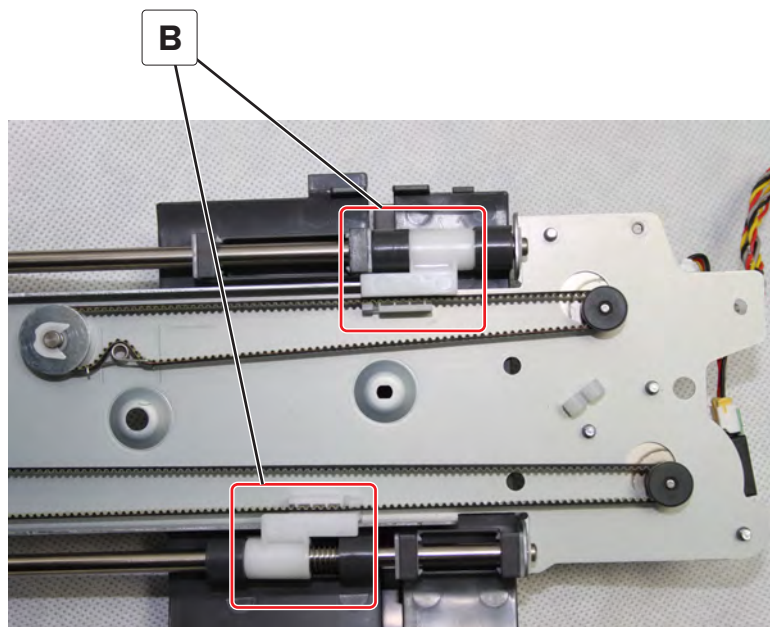
- 9 Remove the belt.

Installation notes:

- a Move the tampers (A) to the right.
- b Align the edges of the spring with the markings on the plate.

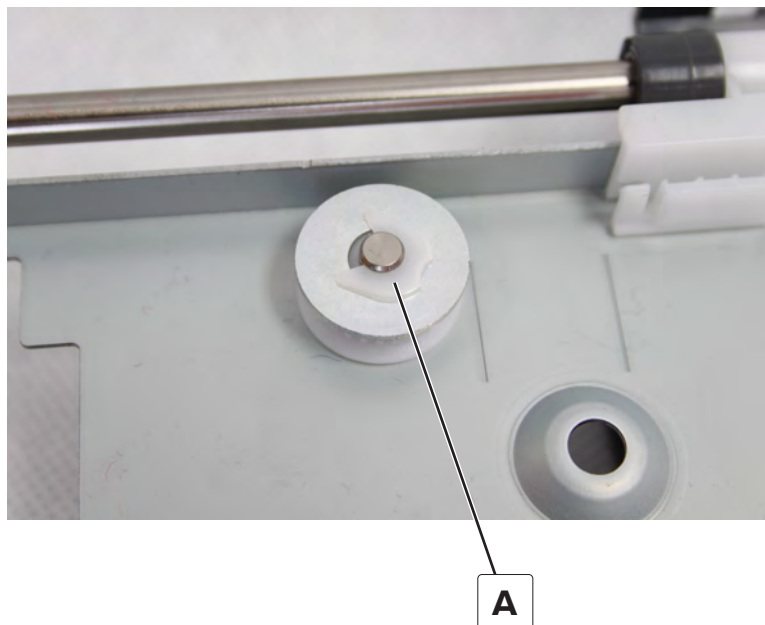


- c Insert the belt into the belt holder (B).

**Staple finisher tamper pulley gear removal**

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 5 Remove the tamper assembly. See [“Staple finisher tamper assembly removal” on page 934.](#)

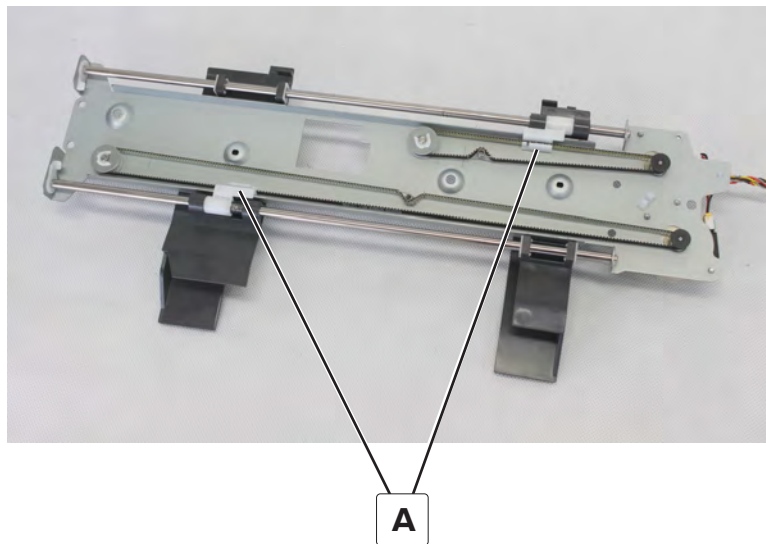
- 6 Remove the tamper top cover. See [“Staple finisher tamper top cover removal” on page 937.](#)
- 7 Remove the tamper belts. See [“Staple finisher tamper belts removal” on page 940.](#)
- 8 Remove the clip (A), and then remove the gear.



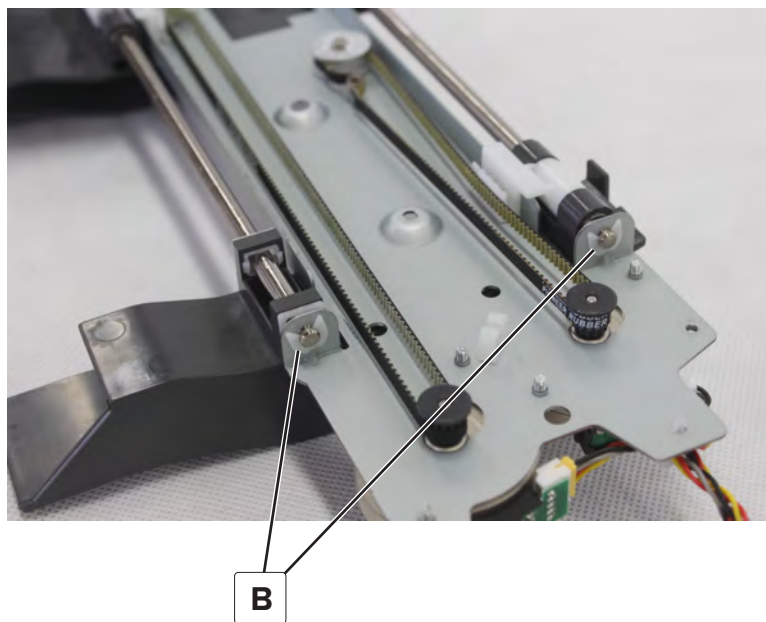
Staple finisher tamper removal

- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 5 Remove the tamper assembly. See [“Staple finisher tamper assembly removal” on page 934.](#)

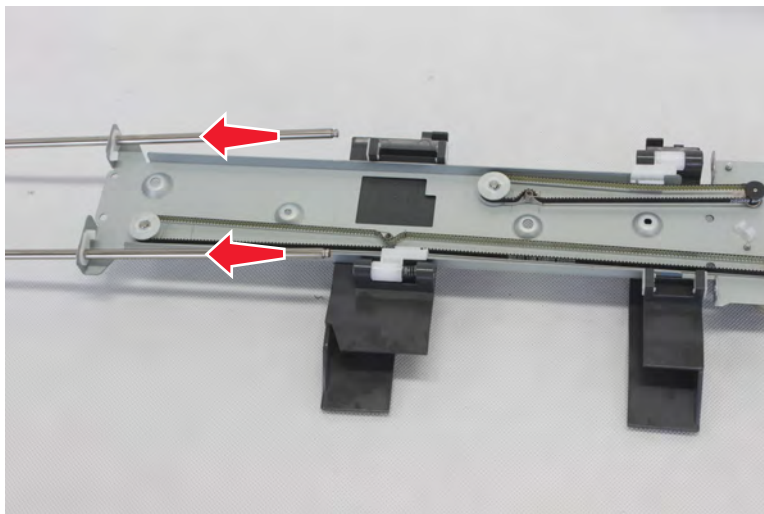
6 Release the belts from the holders (A).



7 Remove the two clips (B).



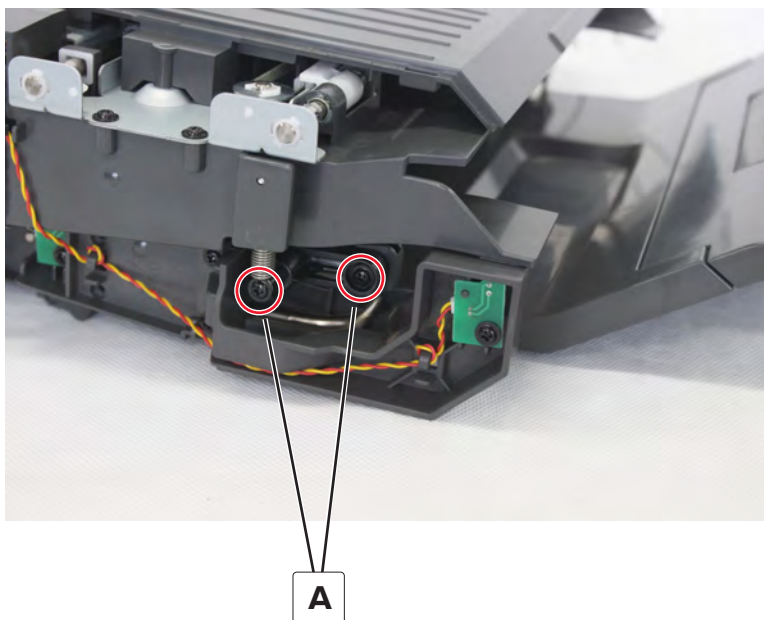
- 8 Remove the shafts.



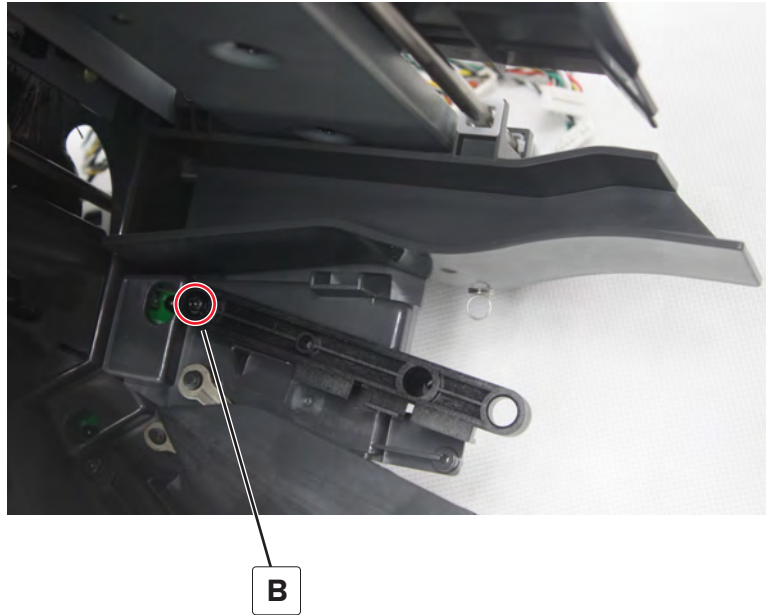
- 9 Remove the holder, and then remove the spring.

Staple finisher bin link removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Set aside the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the two screws (A), and then release the spring. Do the same for the two screws and the spring on the other side.

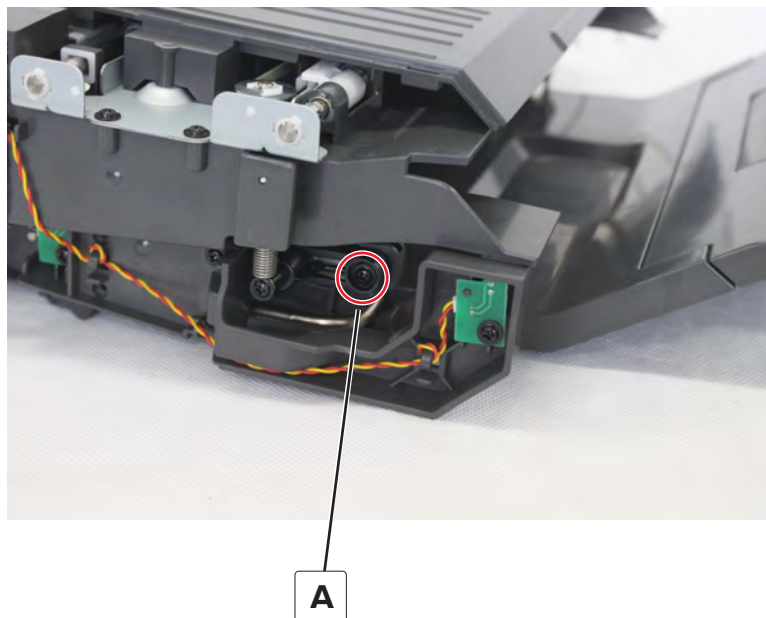


- 5 Remove the screw (B), and then remove the link from both sides of the finisher.

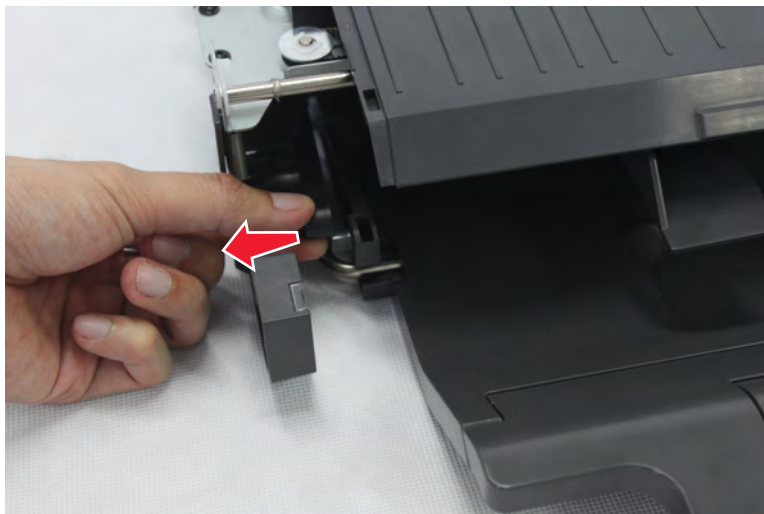


Staple finisher bin removal

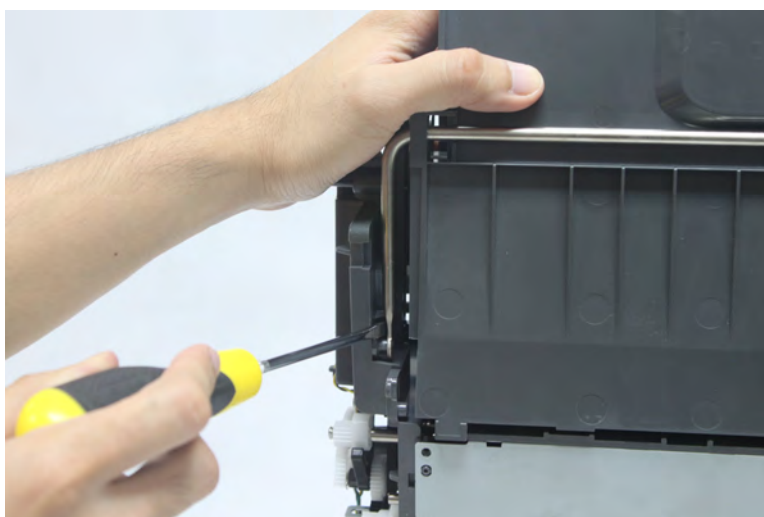
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Set aside the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the screw (A), and then release the spring. Do the same for the screw and the spring on the other side.



- 5 Release the plastic bin link. Do the same for the link on the other side.



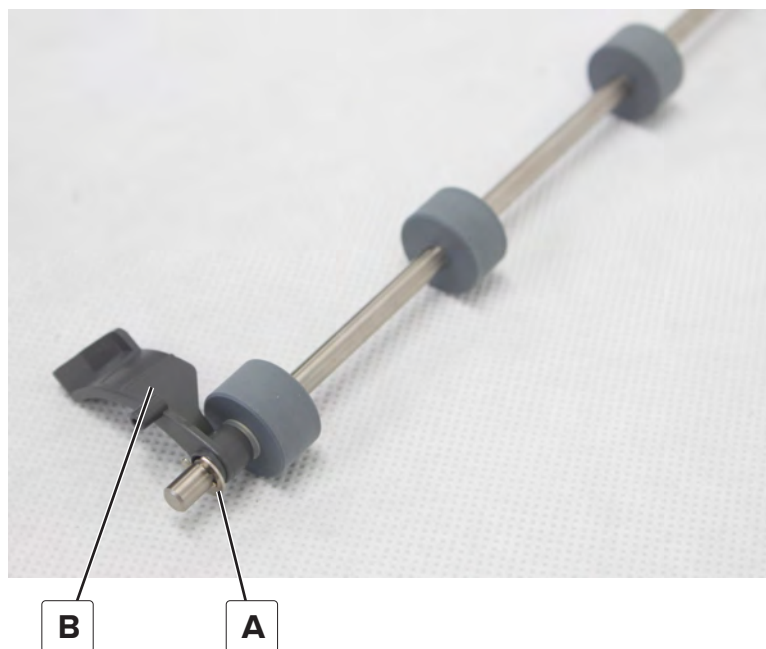
- 6 Release both sides of the bin support bar, and then remove the bin.



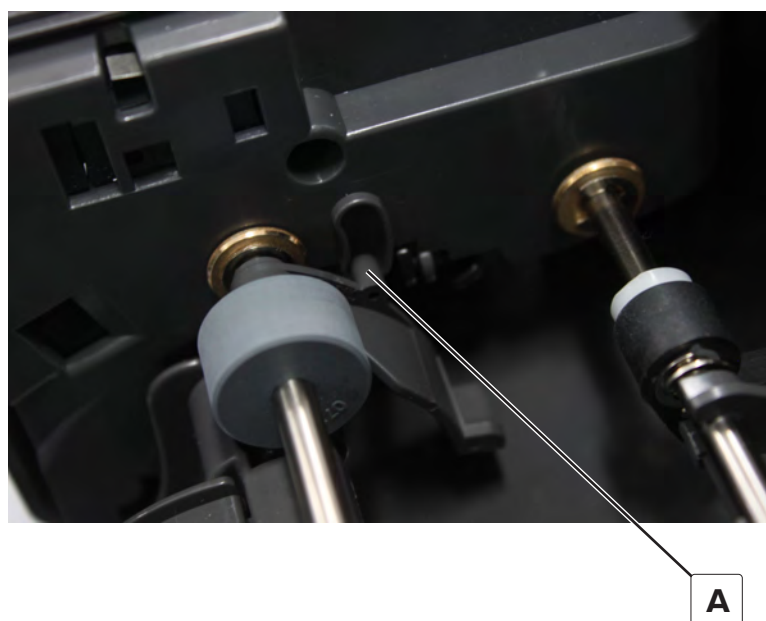
Staple finisher compiler paper guide removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the compiler feed roller. See [“Staple finisher compiler feed roller removal” on page 948.](#)

3 Remove the clip (A), and then remove the guide (B).

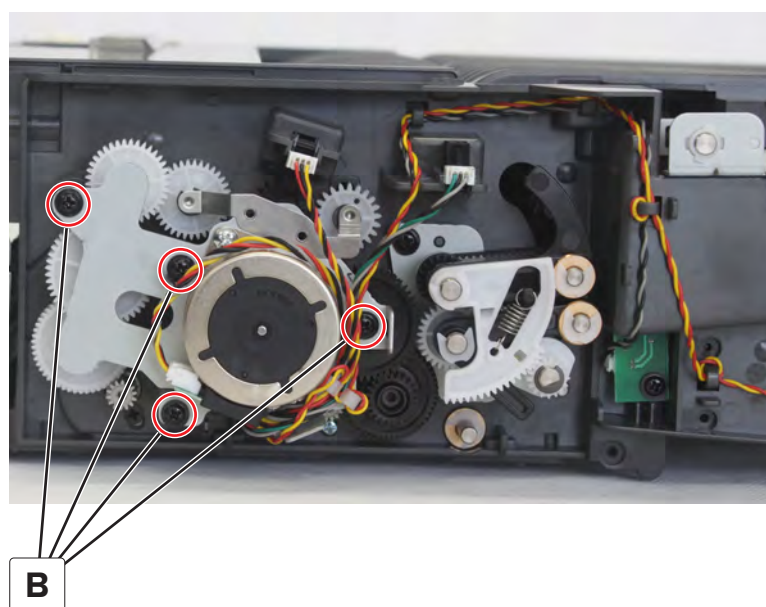
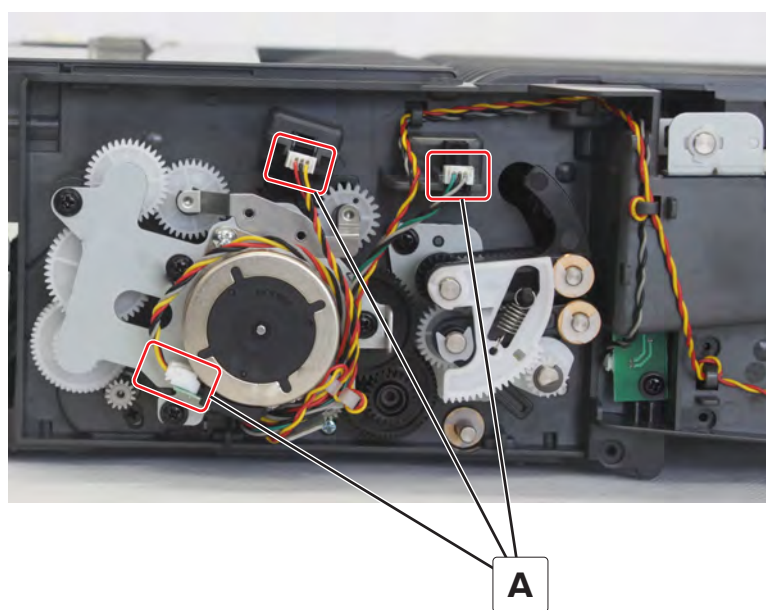


Installation note: Make sure that the tab (A) is inside the slot.



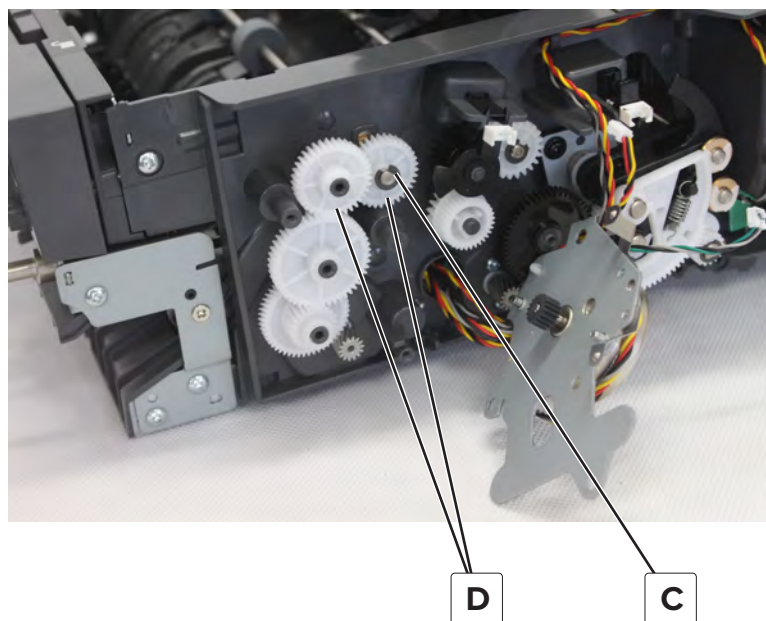
Staple finisher compiler feed roller removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Disconnect the three cables (A), and then remove the four screws (B).



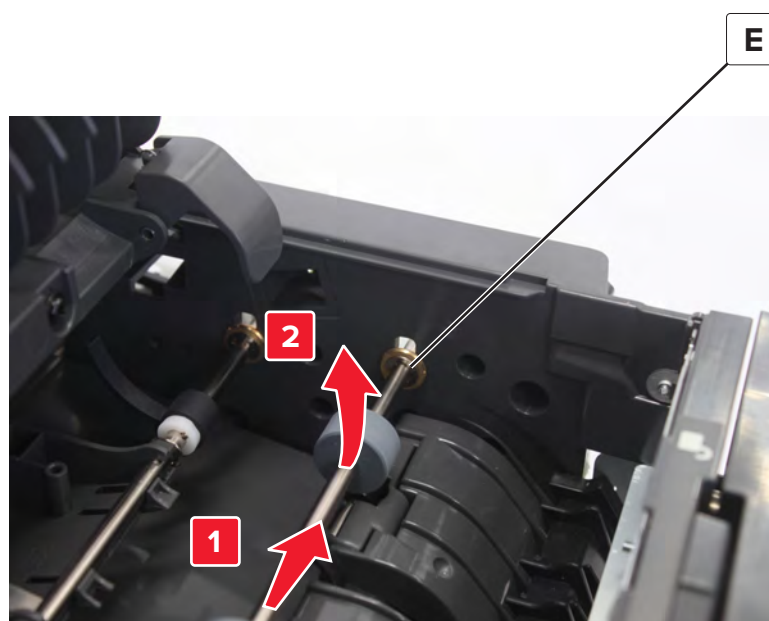
- 3 Set aside the aligner paddle motor and bracket.

- 4 Remove the clip (C), and then remove the two gears (D).



- 5 Remove the clip (E).

- 6 Push, and then swing out to remove the roller.



- 7 Remove the compiler paper guide. See [“Staple finisher compiler paper guide removal” on page 946.](#)

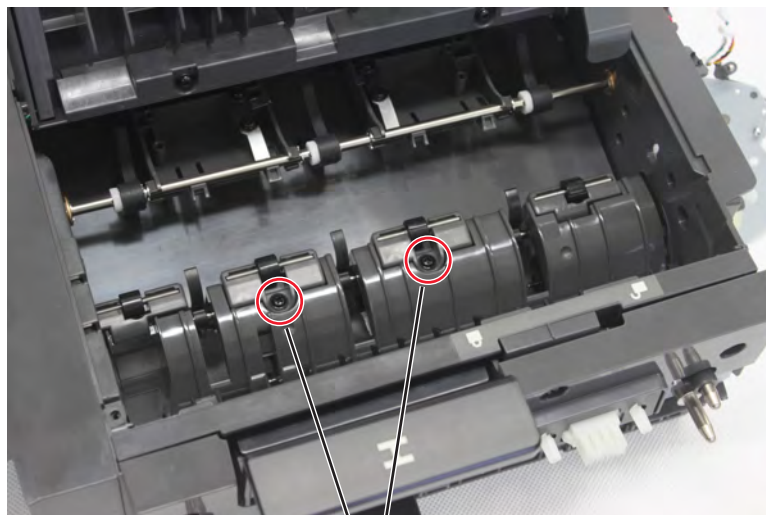
Installation note: Make sure that the tab (A) is inside the slot.



A

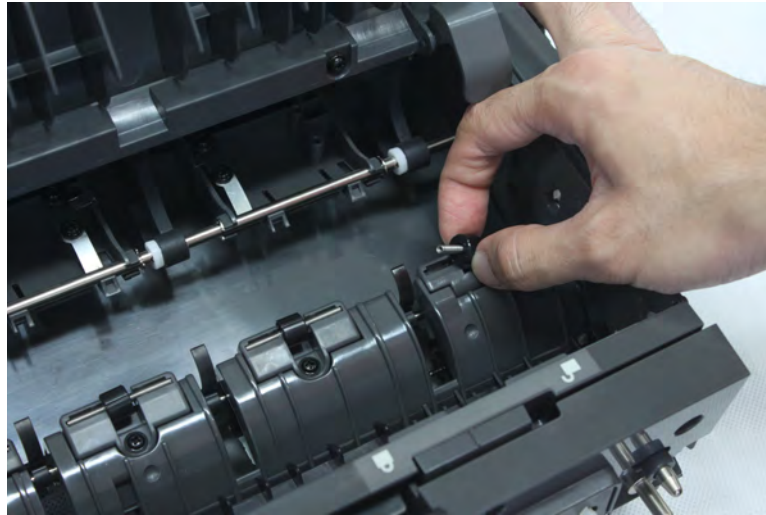
Staple finisher compiler feed idler removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the compiler feed roller. See [“Staple finisher compiler feed roller removal” on page 948.](#)
- 3 Remove the two screws (A).

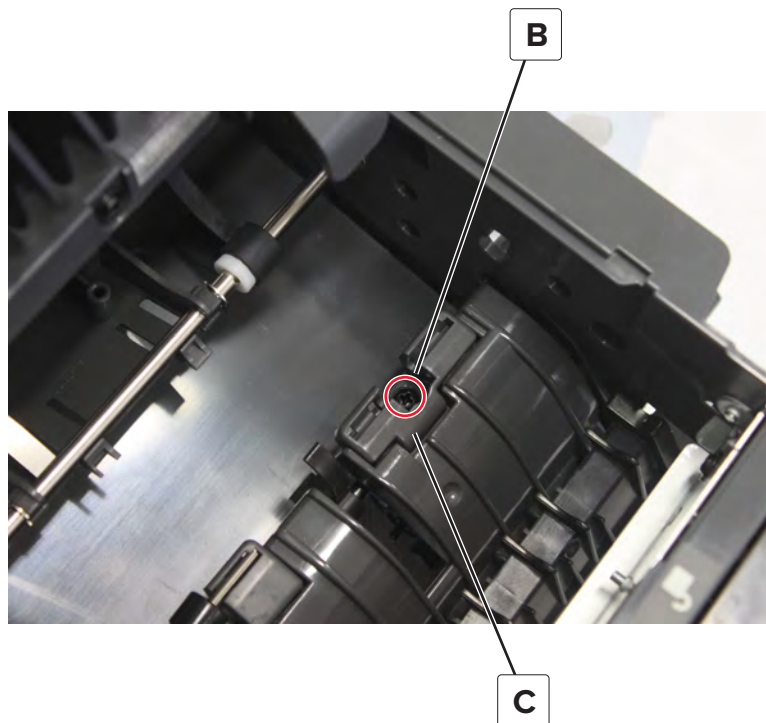


A

- 4 Remove the roller, and then remove the spring.



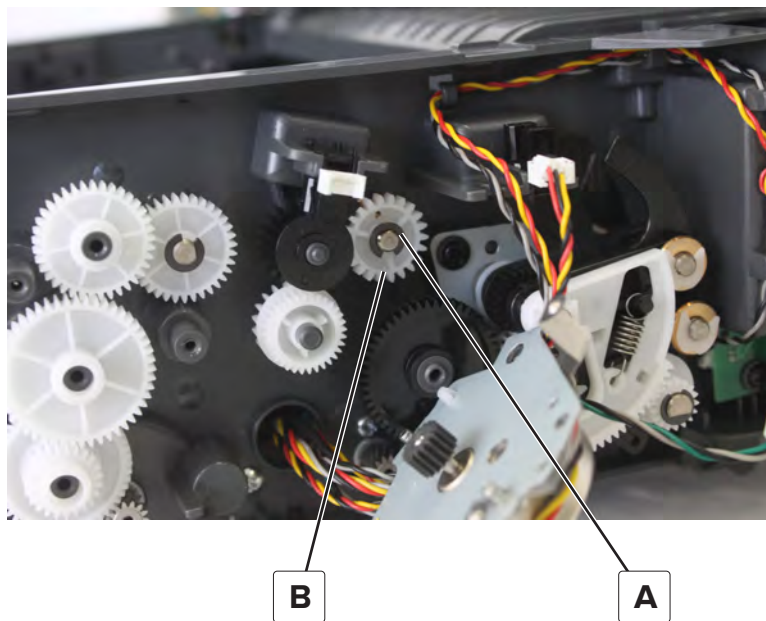
- 5 Remove the screw (B), and then remove the holder (C).



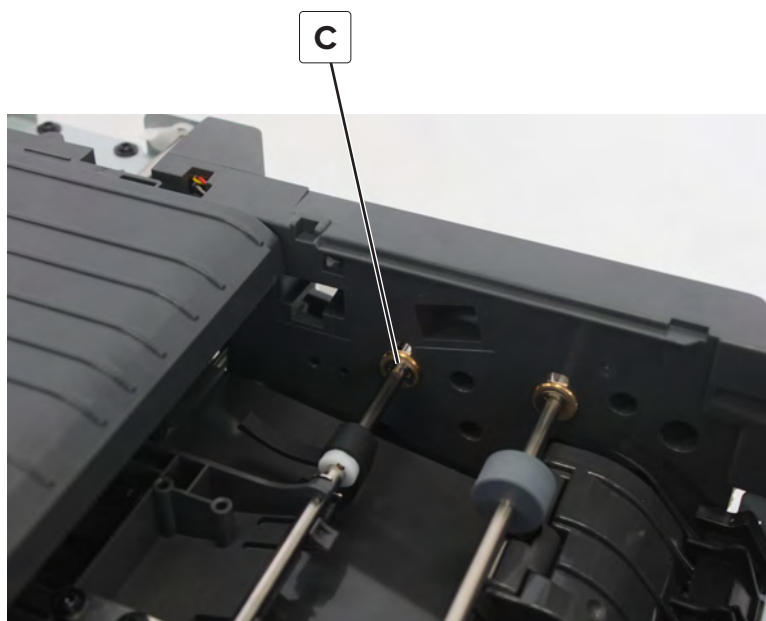
Staple finisher aligner paddle and upper paper guide removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the paddle motor and bracket. See [“Motor \(staple finisher aligner paddle\) removal ” on page 924.](#)

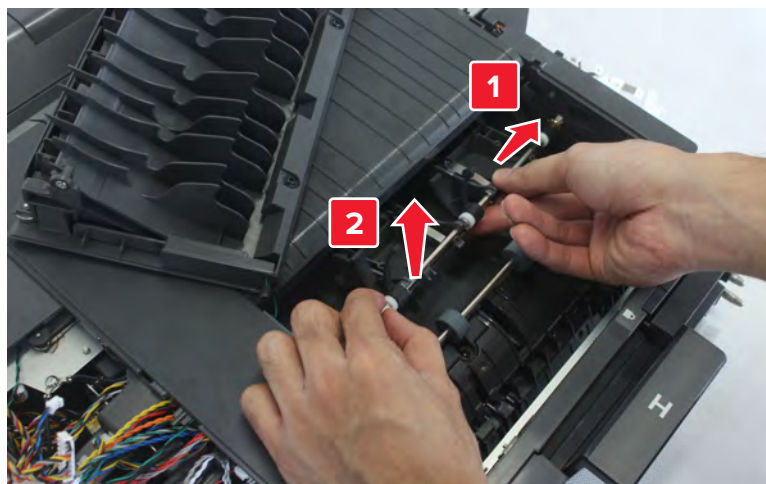
- 3** Remove the clip (A), and then remove the gear (B).



- 4** Set aside Door F.
5 Remove the clip (C).

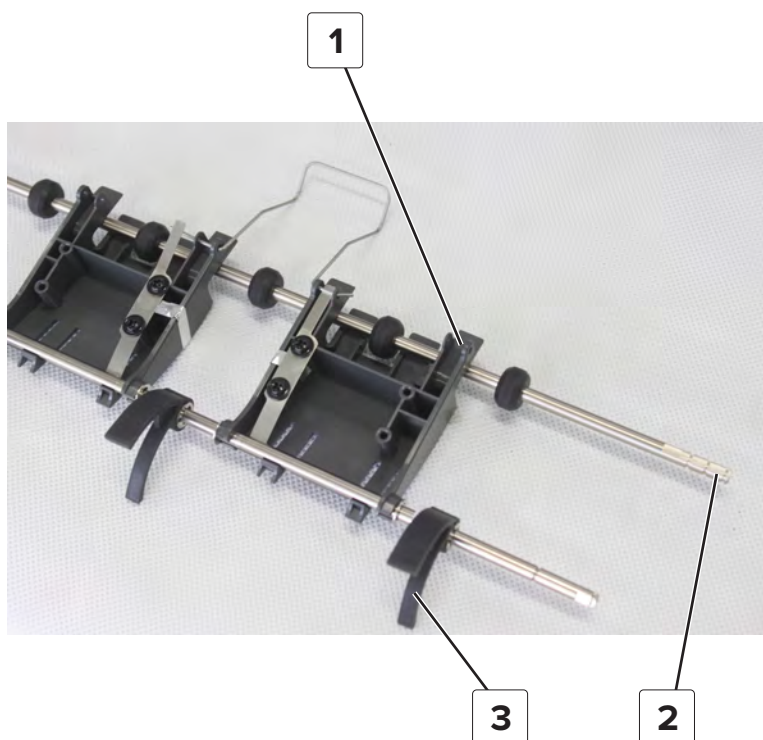


6 Remove the paddle.



7 Remove the upper paper guide.

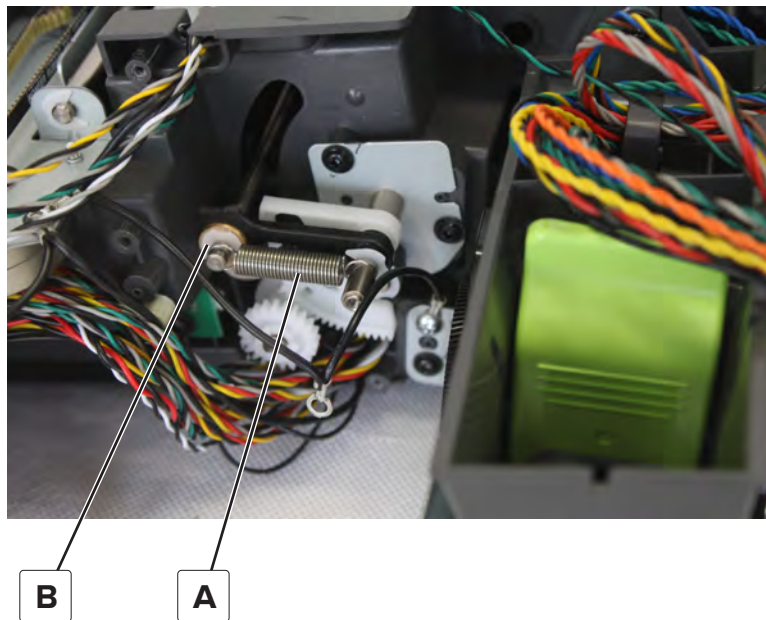
Installation note: Pay attention to the correct position of the upper exit roller and paddle.



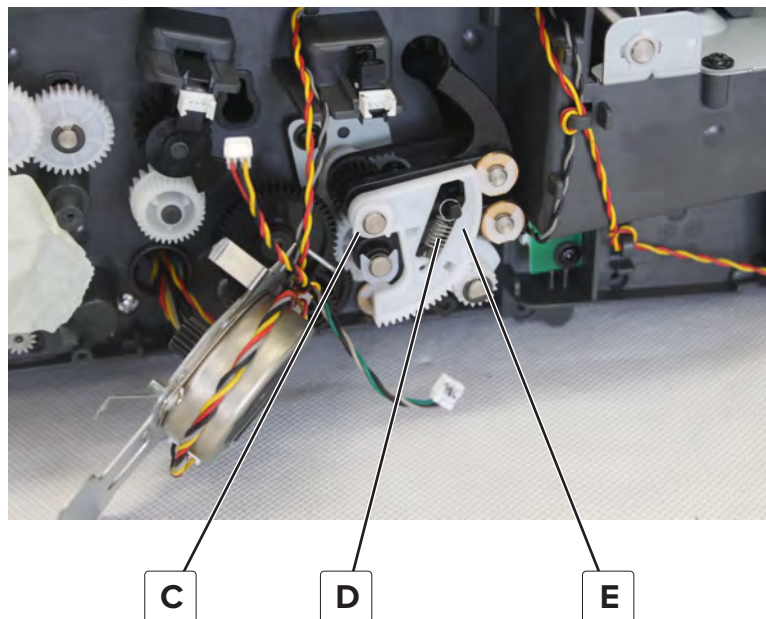
1	Staple finisher upper paper guide
2	Staple finisher upper exit roller
3	Staple finisher aligner paddle

Staple finisher upper exit roller removal

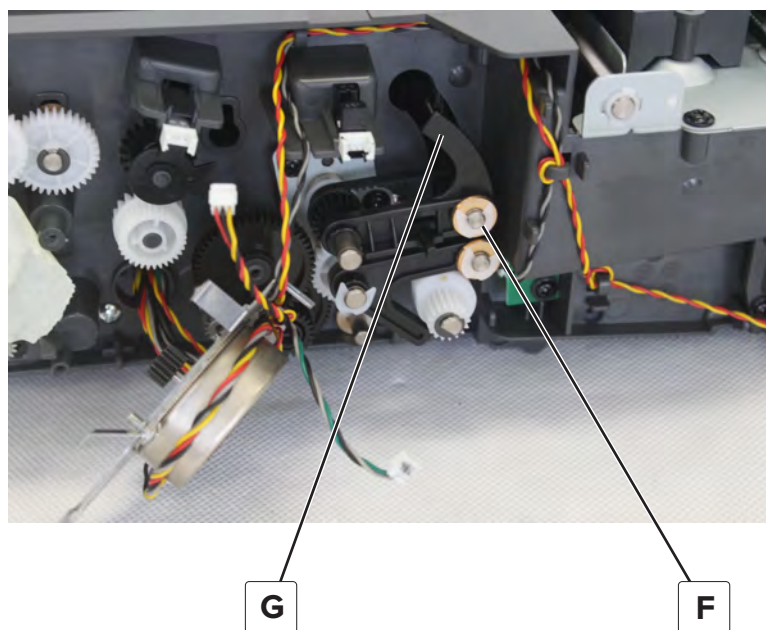
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the paddle motor and bracket. See [“Motor \(staple finisher aligner paddle\) removal ” on page 924.](#)
- 3 Remove the paddle. See [“Staple finisher aligner paddle and upper paper guide removal” on page 951.](#)
- 4 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 5 Remove the controller board. See [“Staple finisher controller board removal” on page 902.](#)
- 6 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 7 Remove the motor (staple finisher upper exit roller). See [“Motor \(staple finisher upper exit roller\) removal” on page 911.](#)
- 8 Set aside the spring (A), and then remove the clip (B) and bushing.



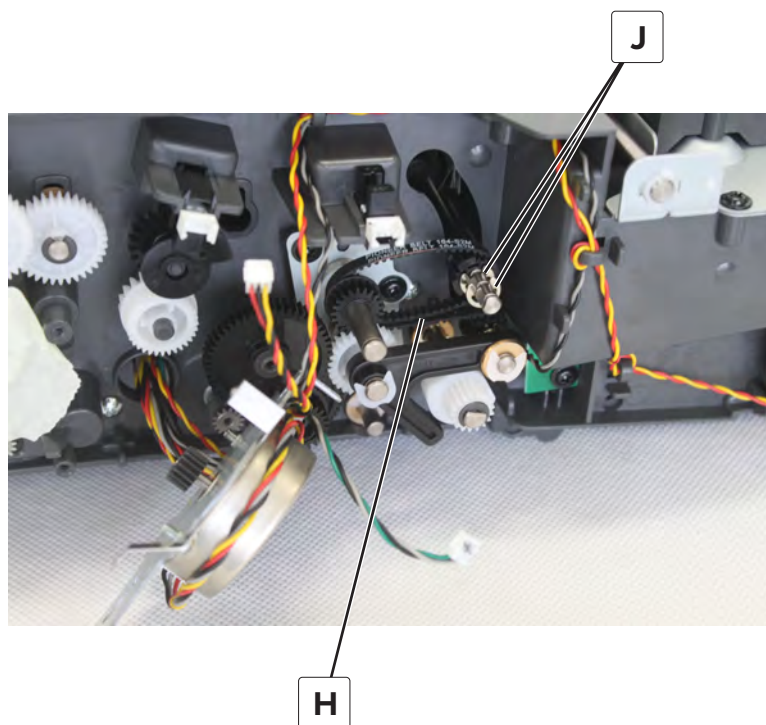
- 9 Remove the clip (C), release the spring (D), and then remove the gear (E).



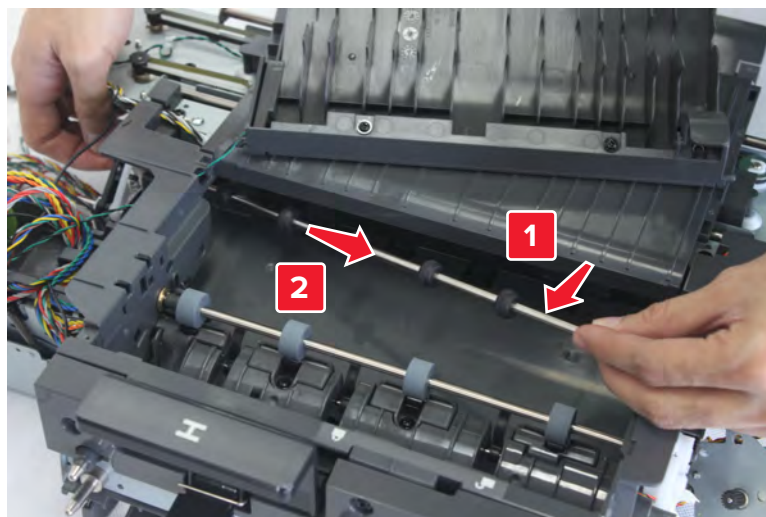
- 10 Remove the clip (F) and the bushing, and then remove the flag (G).



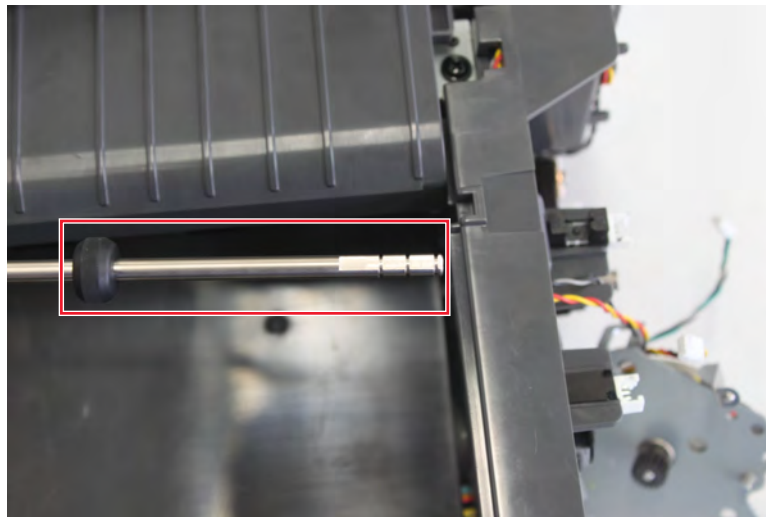
11 Detach the belt (H), remove the two clips (J), and then remove the gear.



12 Remove the exit roller.

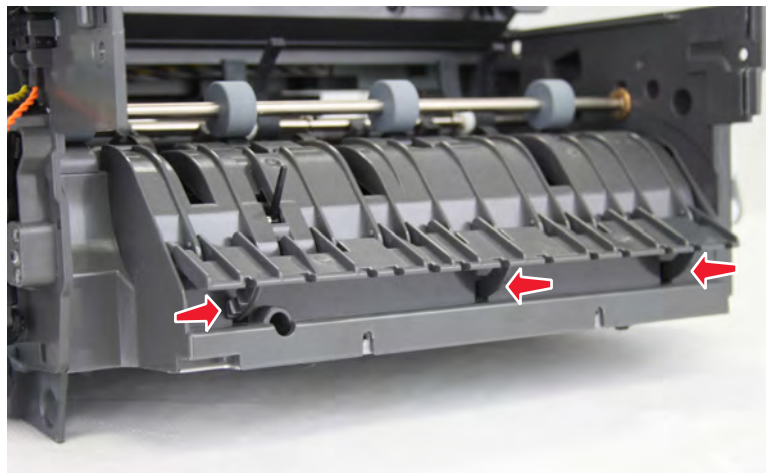


Installation note: Make sure that this side of the exit roller is installed into the front.

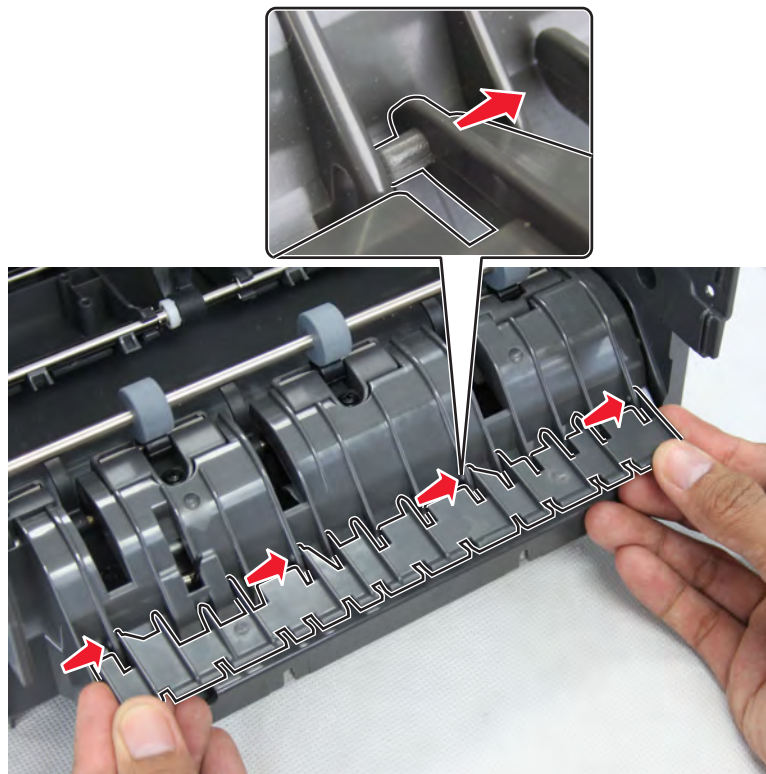


Staple finisher entrance paper guide removal

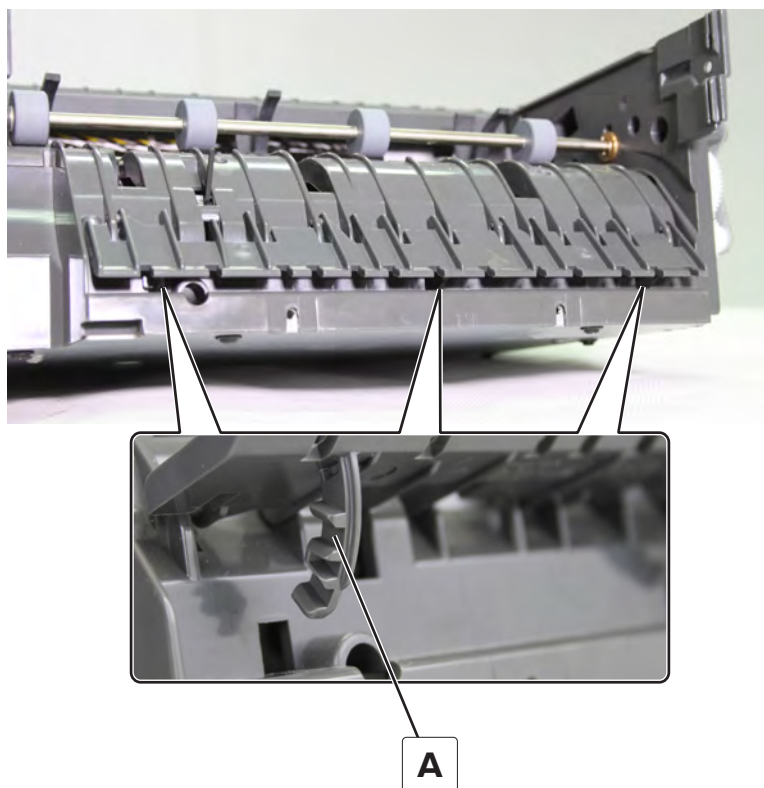
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Set aside the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the lock assembly. See [“Staple finisher lock assembly removal” on page 905.](#)
- 5 Release the three latches.



6 Release the four pins, and then remove the paper guide.



Installation note: Secure the guide on the second set of slots (A).

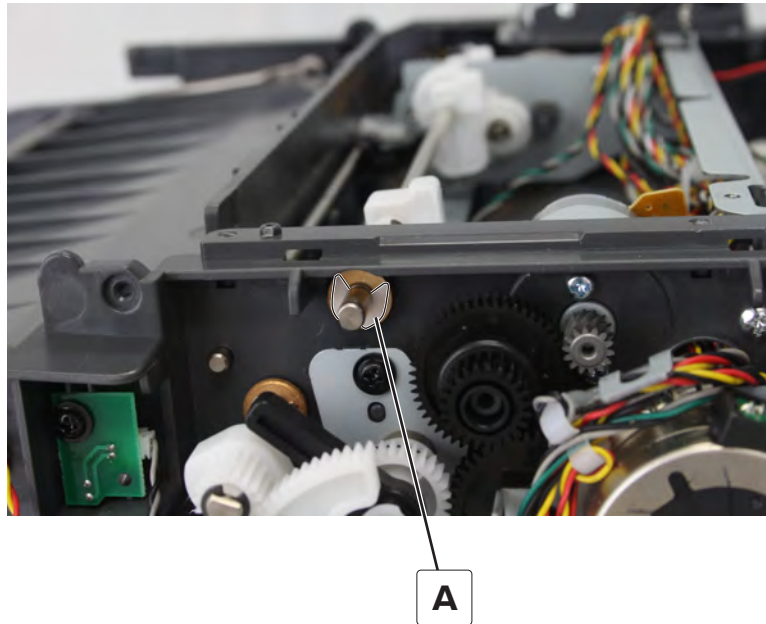


Parts removal

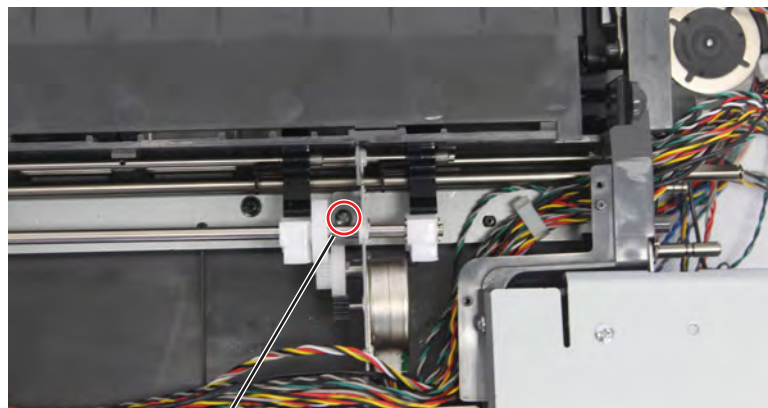
Staple finisher bin clamp assembly removal

Note: For a video demonstration, see [Staple finisher bin clamp assembly removal](#).

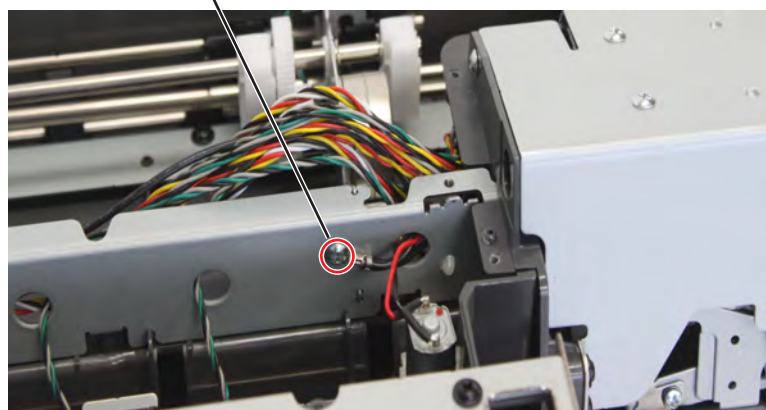
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899](#).
- 2 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907](#).
- 3 Set aside the locking assembly.
- 4 Remove the sensor (staple finisher bin clamp). See [“Sensor \(staple finisher bin clamp\) removal” on page 966](#).
- 5 Remove the clip (A) and the the bushing.



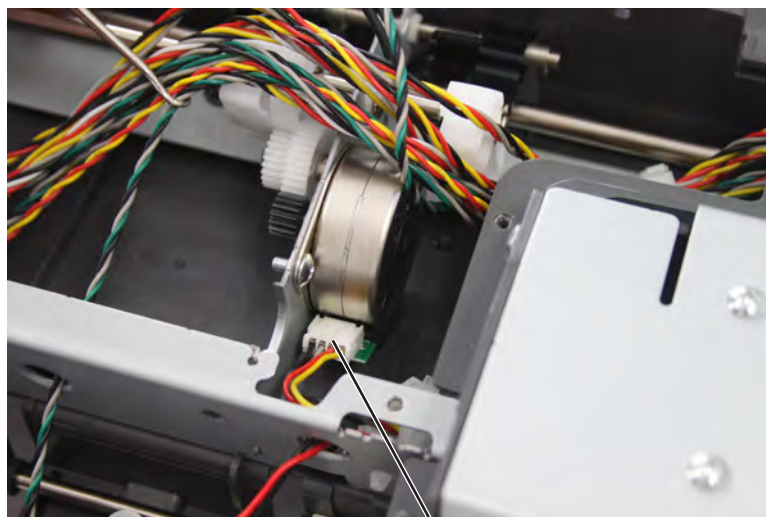
6 Remove the two screws (B).



B



7 Disconnect the cable (C).

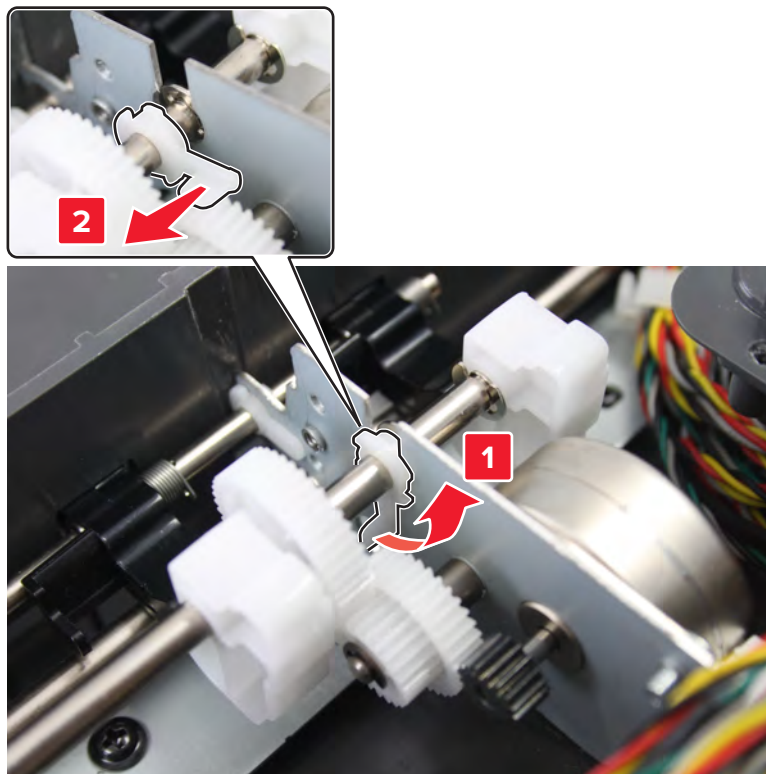


C

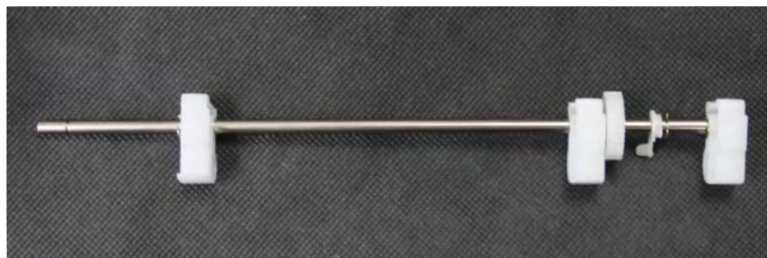
Parts removal

960

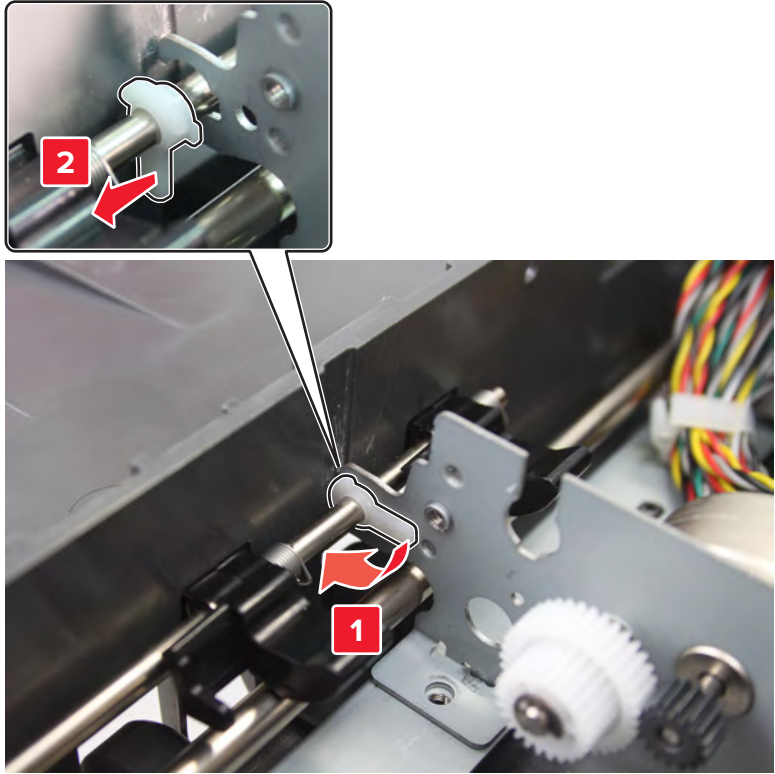
8 Pry the retainer counterclockwise to unlock, and then loosen it.



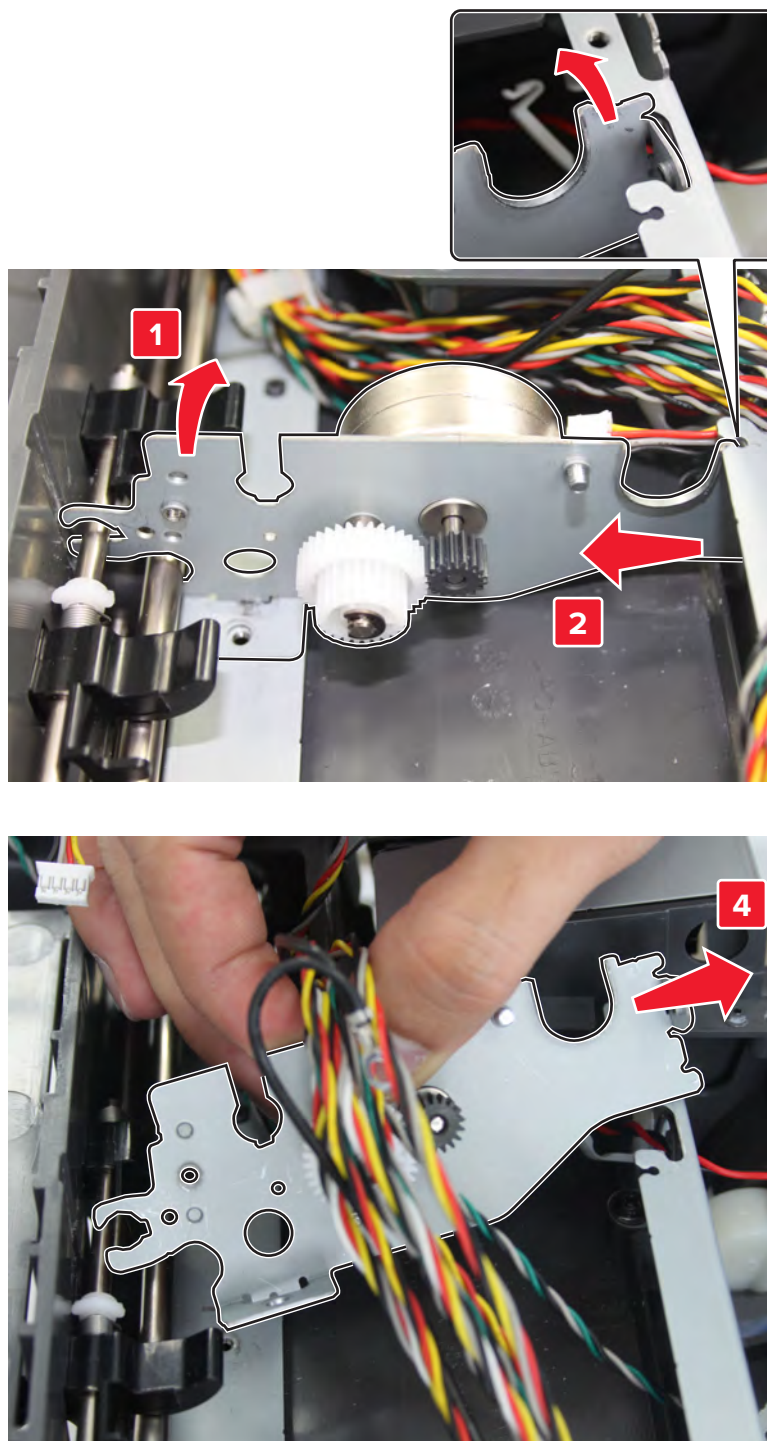
9 Remove the cam gear assembly.



10 Pry the retainer clockwise to unlock, and then loosen it.

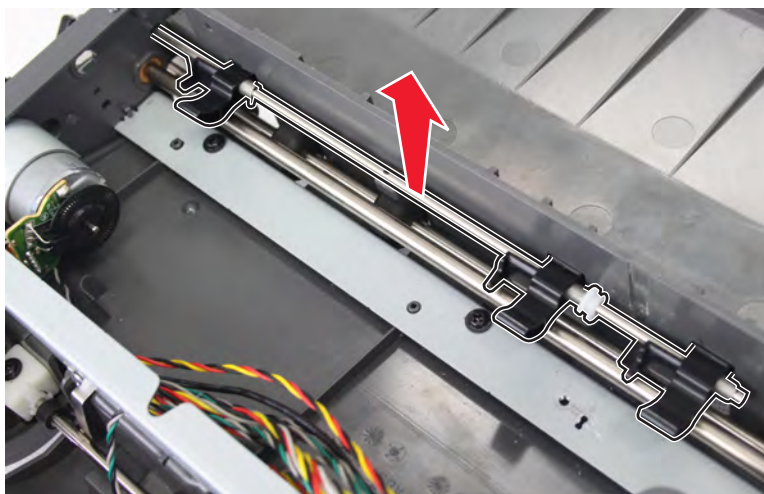


11 Release, and then remove the bracket.

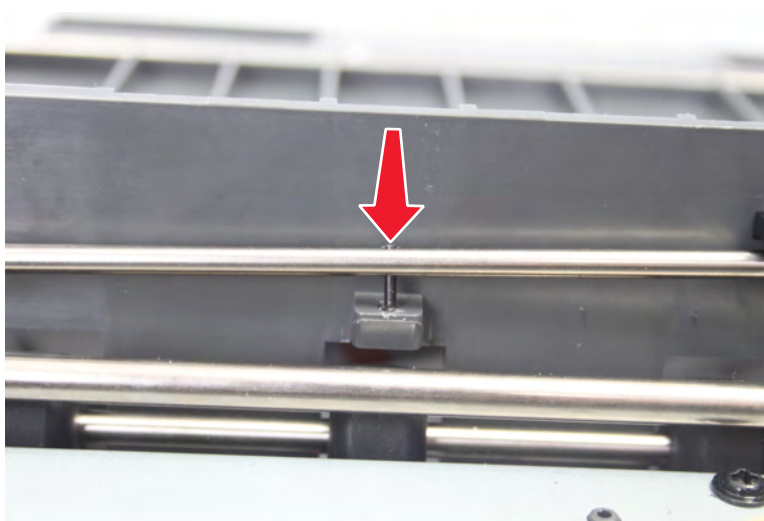
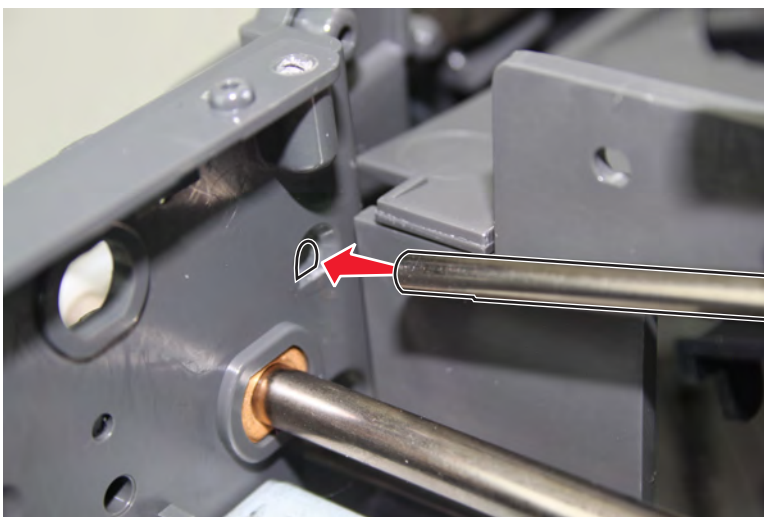


12 Remove the bin clamp.

Note: Pay attention to the default position of the arms.

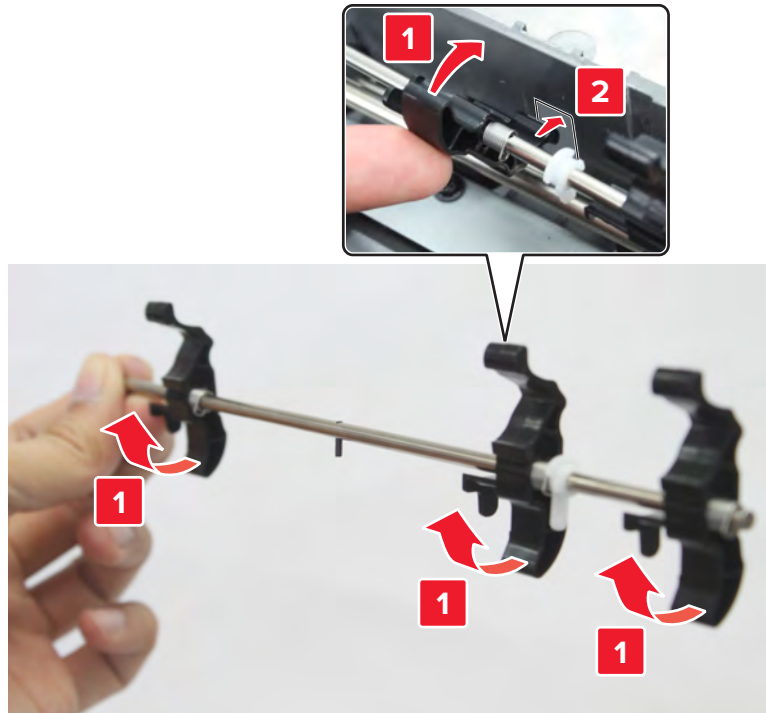
**Installation notes:**

- When installing the bin clamp, make sure that the left side of the shaft is inserted into the D-shaped hole and the pin is placed facedown and aligned with hole.

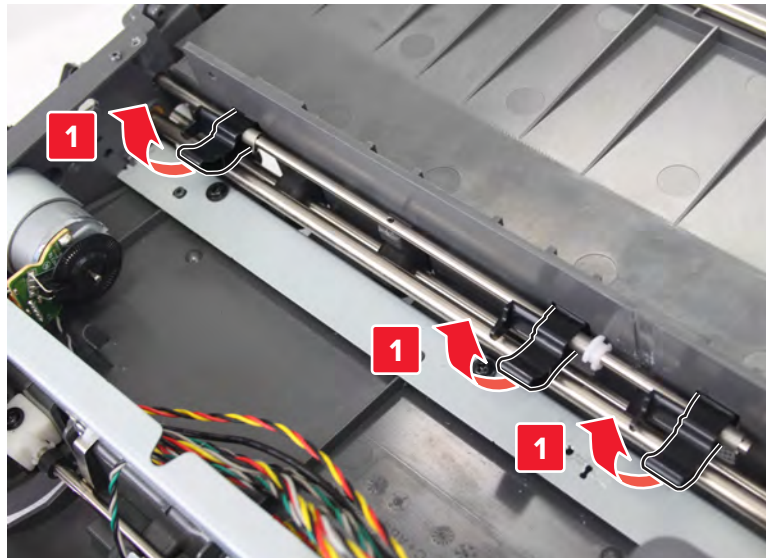


Parts removal

- With the pin placed facedown, turn the arm clockwise until the other side of the arm is aligned with the hole, and then insert the arm.



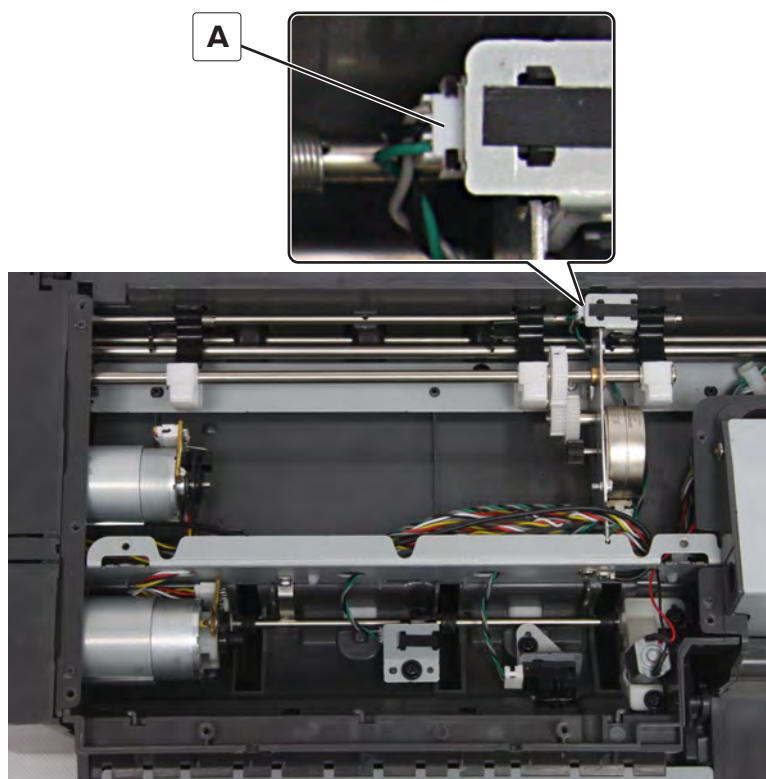
- Raise the arm, and then release it. If the arm goes back to the original position, and with a tension load, then it is properly installed.



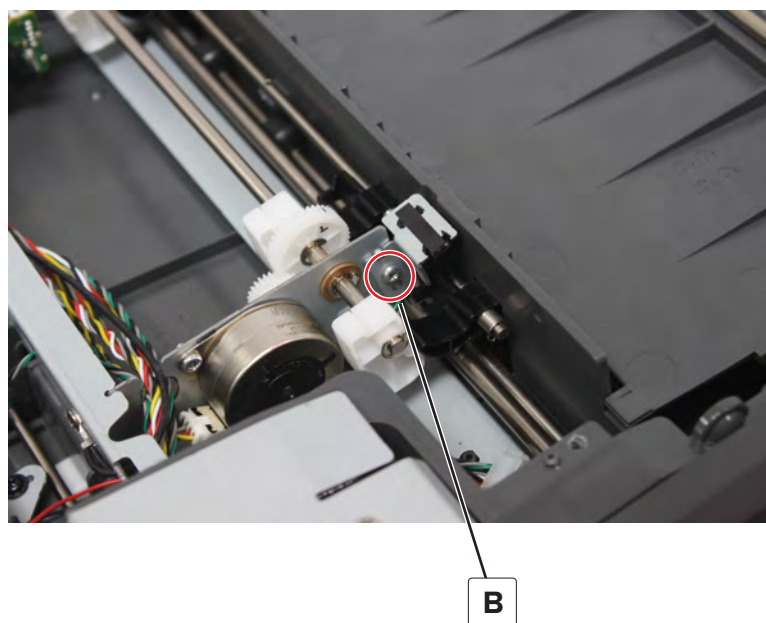
Note: For a video demonstration, see the *CS82x and CX8xx Staple finisher staple bin clamp assembly removal* at infoserve.lexmark.com/videos/stfin_bin_clamp_asm_removal.html.

Sensor (staple finisher bin clamp) removal

- 1 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)
- 2 Disconnect the cable (A).



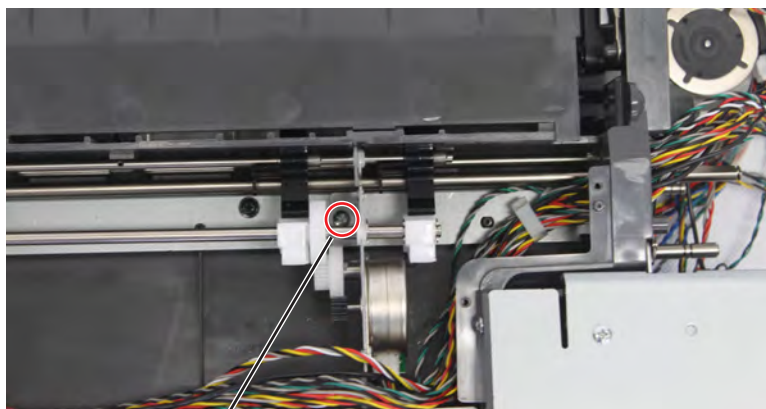
- 3 Remove the screw (B), and then remove the bracket.



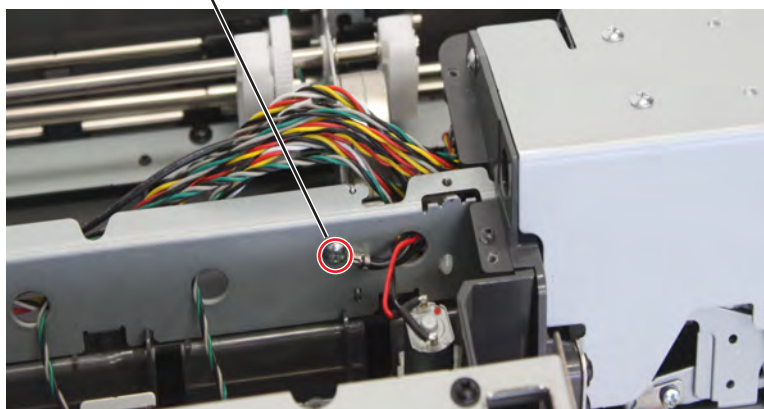
- 4 Remove the adhesive, and then remove the sensor.

Motor (staple finisher bin clamp) removal

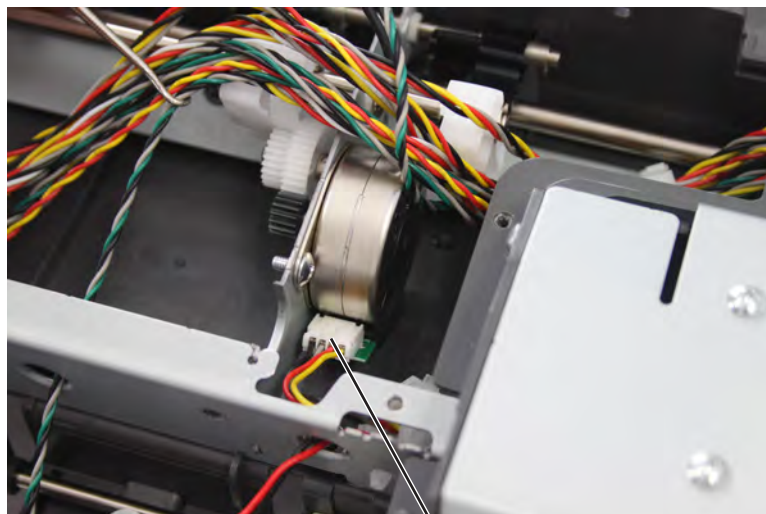
- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)
- 3 Set aside the locking assembly.
- 4 Remove the sensor (staple finisher bin clamp). See [“Sensor \(staple finisher bin clamp\) removal” on page 966.](#)
- 5 Remove the two screws (A).



A

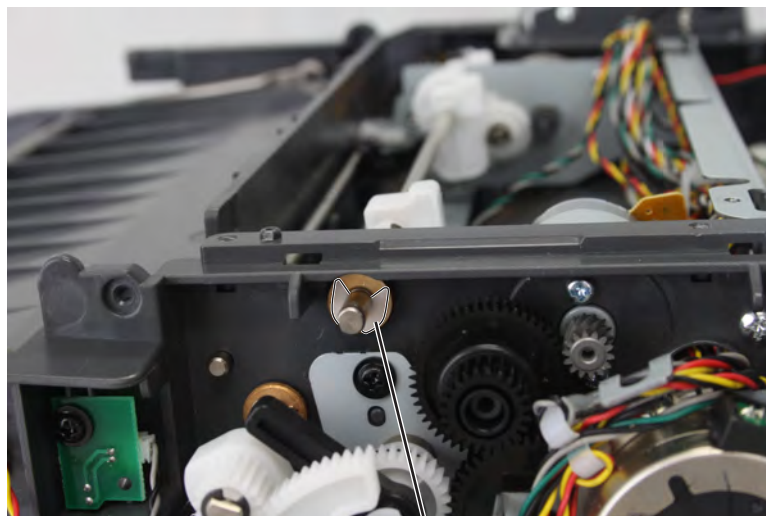


- 6 Disconnect the cable (B).



B

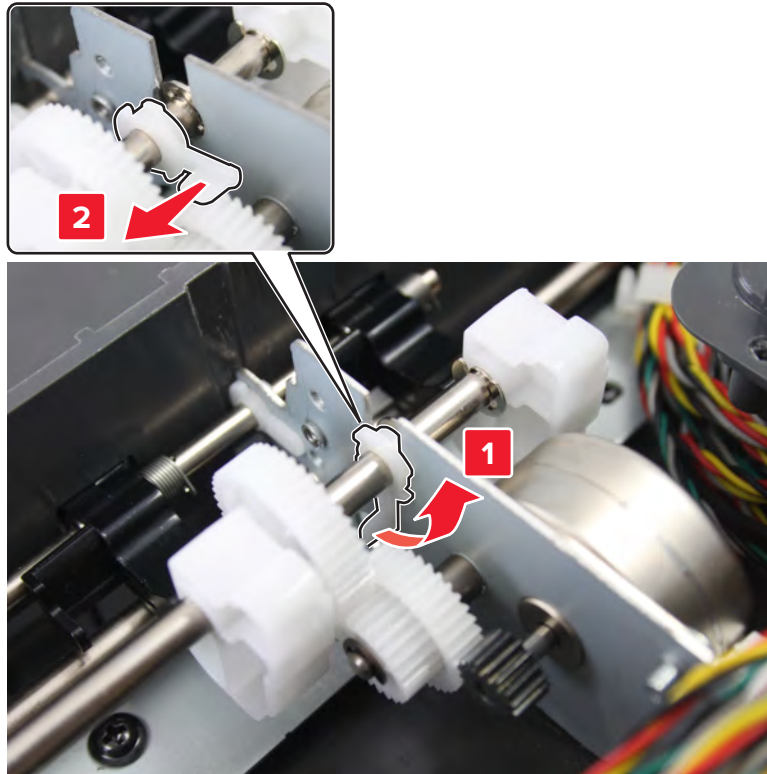
- 7 Remove the clip (C) and the bushing.



C

- 8 Pry the retainer counterclockwise to unlock, and then loosen it.

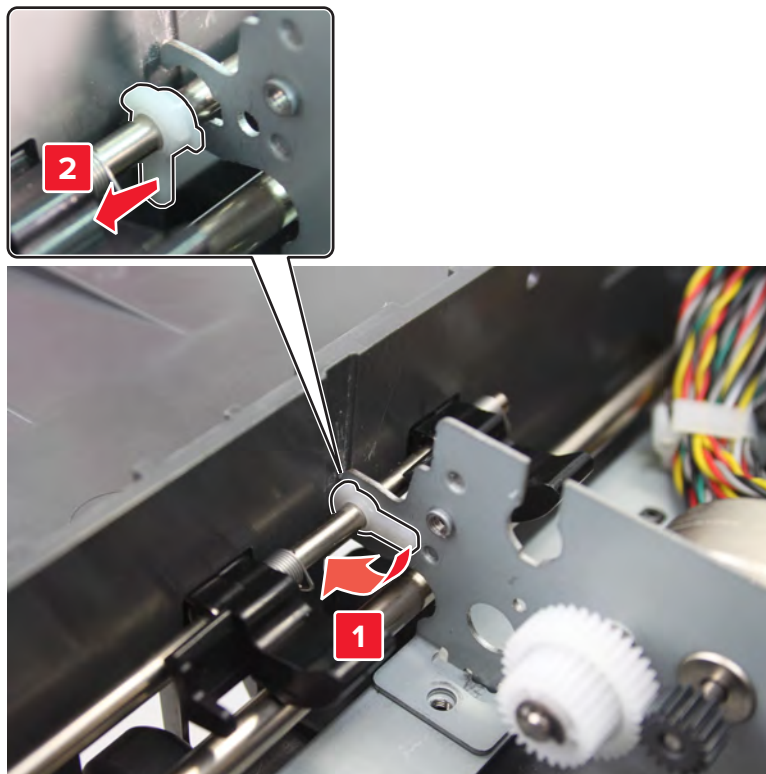
Note: Pay attention to the position of the E-clip.



9 Remove the cam gear assembly.



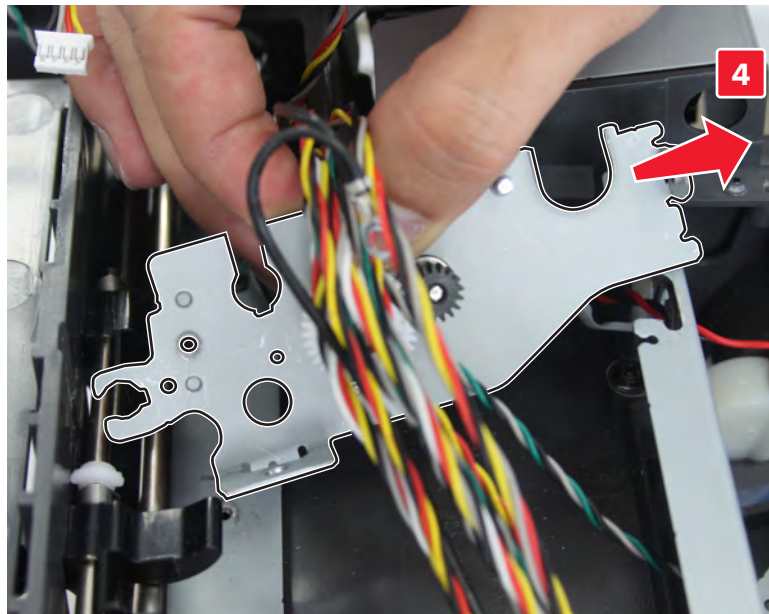
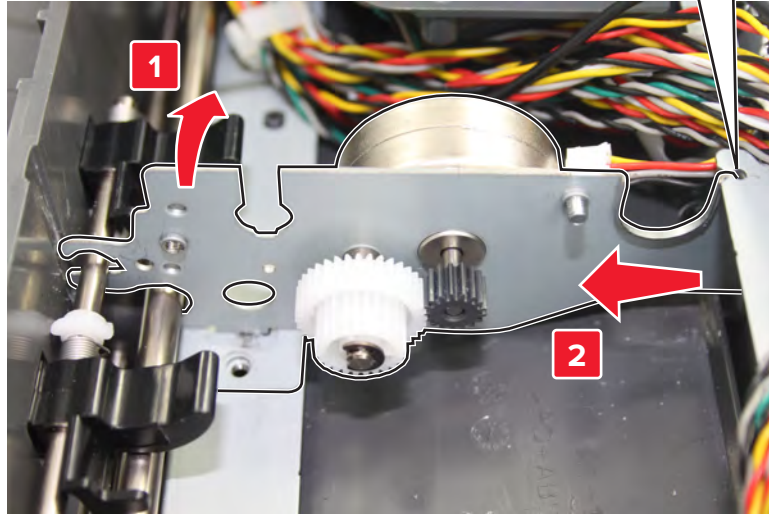
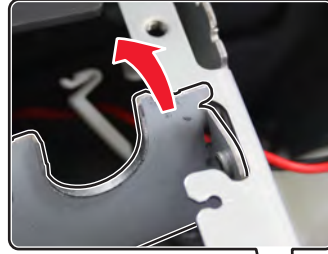
10 Pry the retainer clockwise to unlock, and then loosen it.



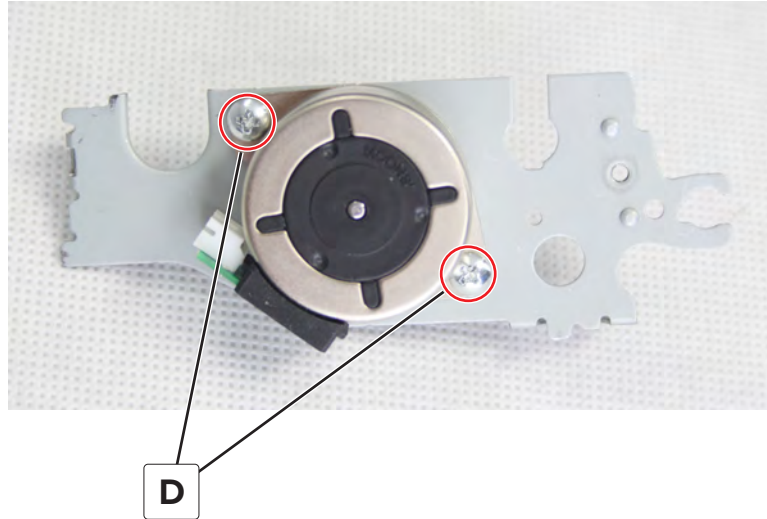
Parts removal

970

11 Release, and then remove the bracket from the frames.

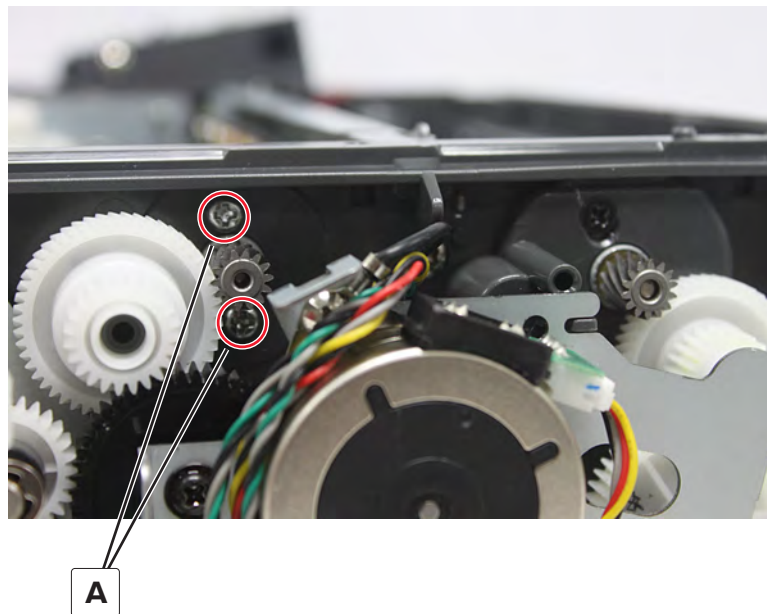


- 12** Remove the two screws (D), and then remove the motor (staple finisher bin clamp).



Motor (staple finisher exit) removal

- 1** Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2** Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)
- 3** Remove the two screws (A).

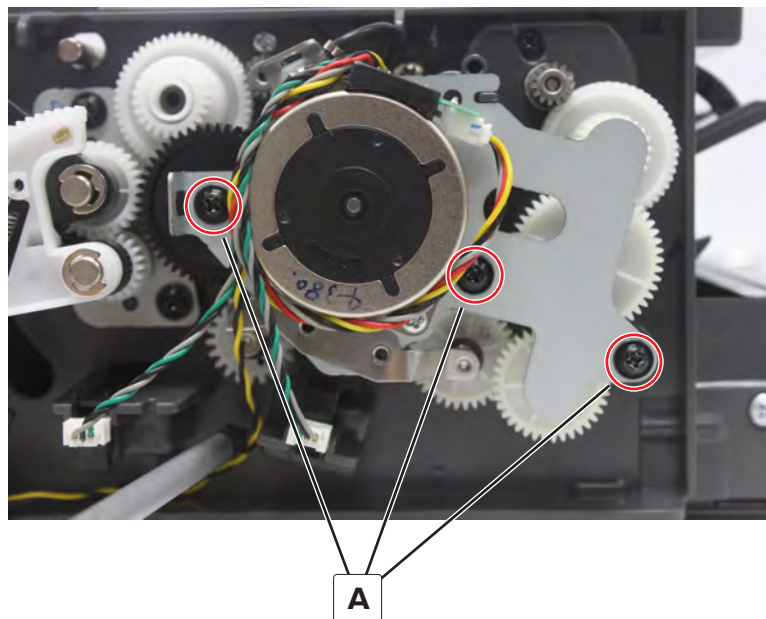


- 4** Remove the motor, and then disconnect the cable from the motor.

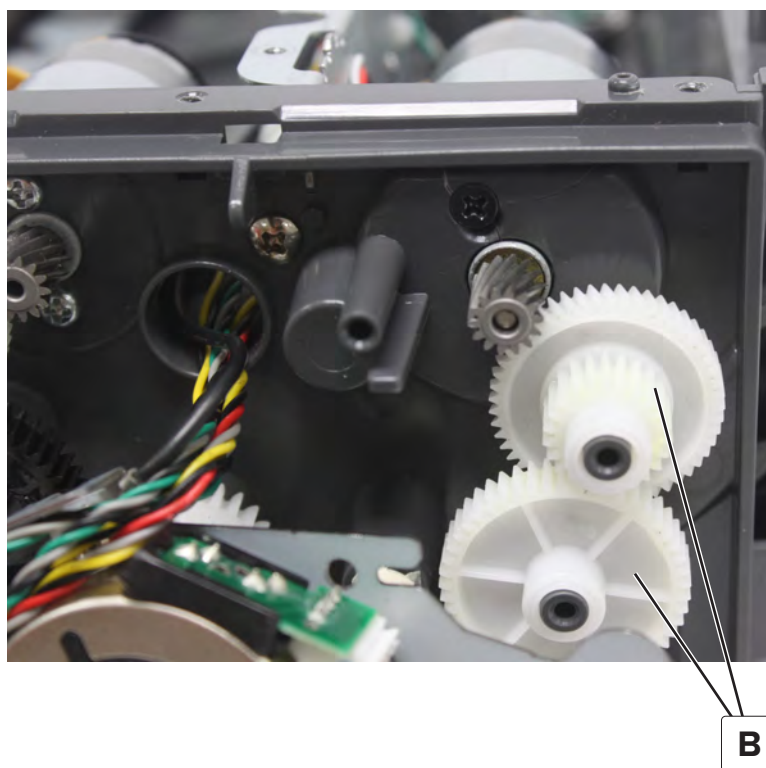
Motor (staple finisher transport) removal

- 1** Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2** Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)

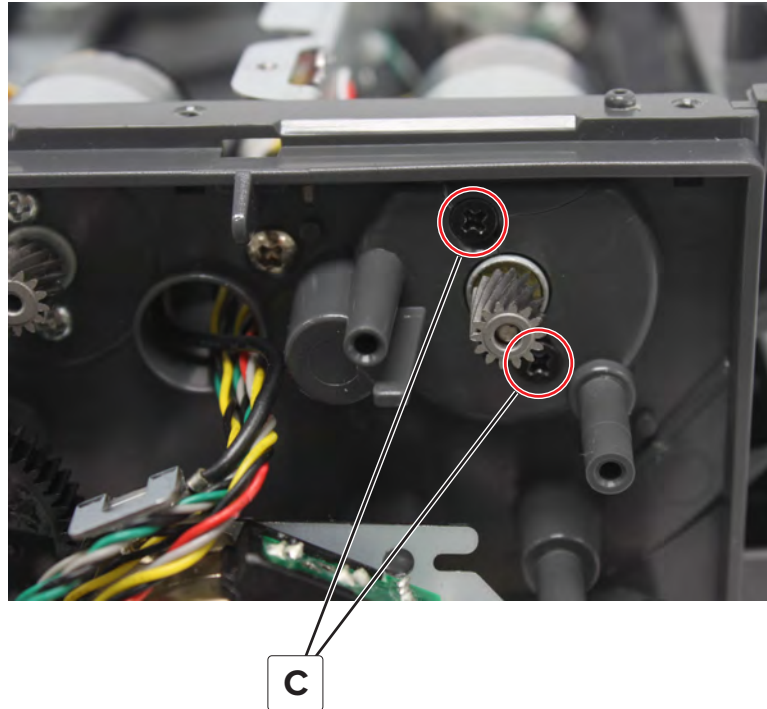
3 Remove the three screws (A), and then set aside the bracket.



4 Remove the two gears (B).



- 5 Remove the two screws (C), and then remove the motor.

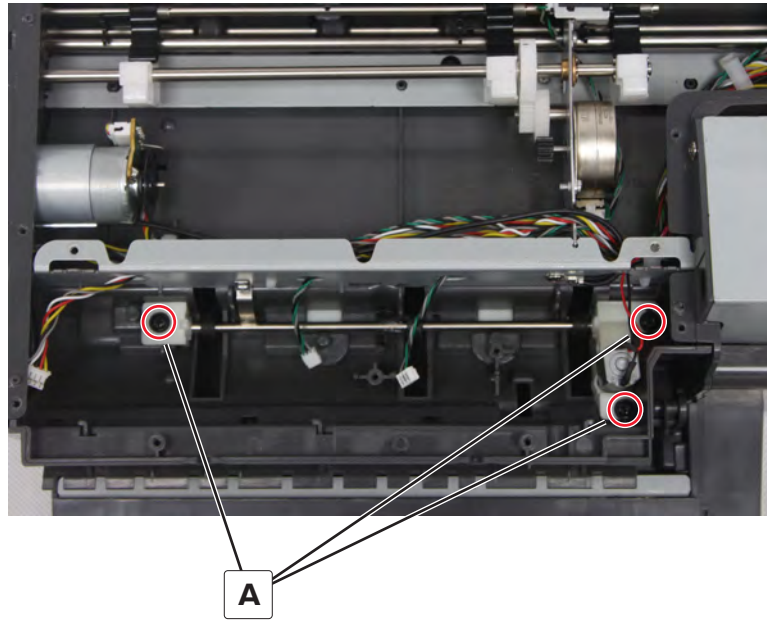


- 6 Disconnect the cable from the motor.

Staple finisher decurl assembly removal

- 1 Remove the front cover. See [“Staple finisher front cover removal” on page 899.](#)
- 2 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)
- 3 Remove the sensor (staple finisher decurl). See [“Sensor \(staple finisher decurl\) removal” on page 976.](#)
- 4 Remove the sensor (staple finisher transport). See [“Sensor \(staple finisher transport\) removal” on page 977.](#)
- 5 Remove the motor (staple finisher transport). See [“Motor \(staple finisher transport\) removal” on page 972.](#)
- 6 Disconnect the decurl motor cable from the controller board, and then unrout the cable.

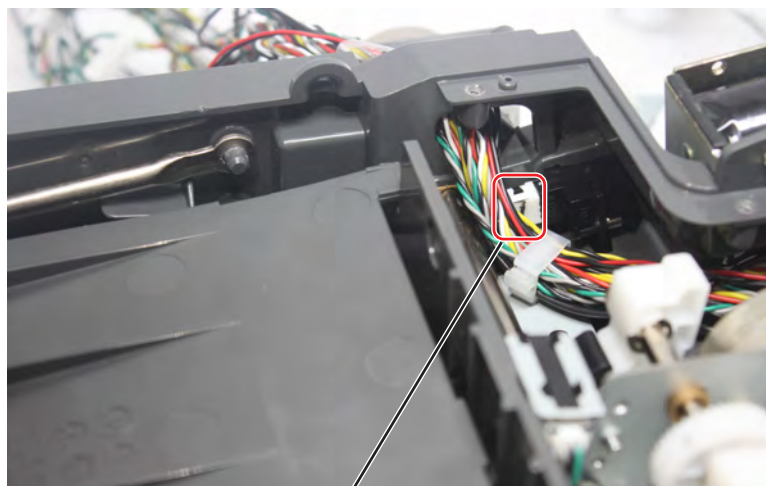
- 7 Remove the three screws (A), and then remove the assembly.



Sensor (staple finisher staple unit paper present) removal

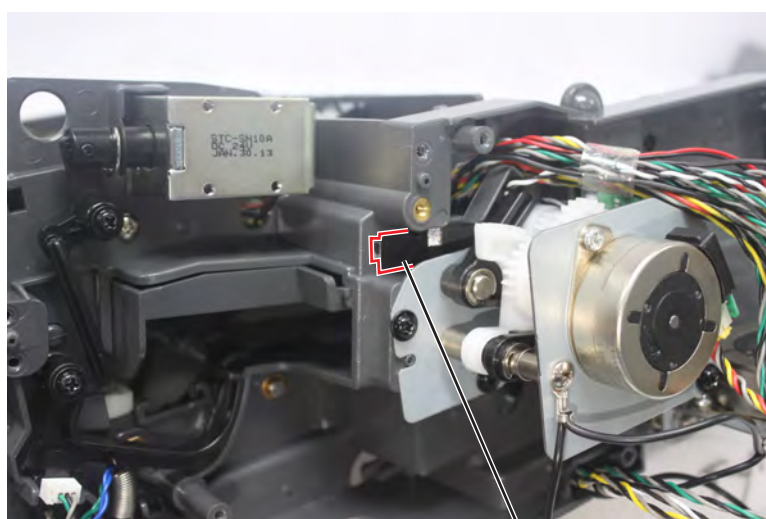
- 1 Remove the right cover. See [“Staple finisher right cover removal” on page 898.](#)
- 2 Remove the rear cover. See [“Staple finisher rear cover removal” on page 900.](#)
- 3 Remove the inner rear cover. See [“Staple finisher inner rear cover removal” on page 902.](#)
- 4 Remove the ejector. See [“Staple finisher staple unit ejector removal” on page 915.](#)
- 5 Remove the staple unit bracket. See [“Staple finisher staple unit removal” on page 917.](#)
- 6 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)

7 Disconnect the cable (A).



A

8 Remove the adhesive (B), and then remove the sensor.

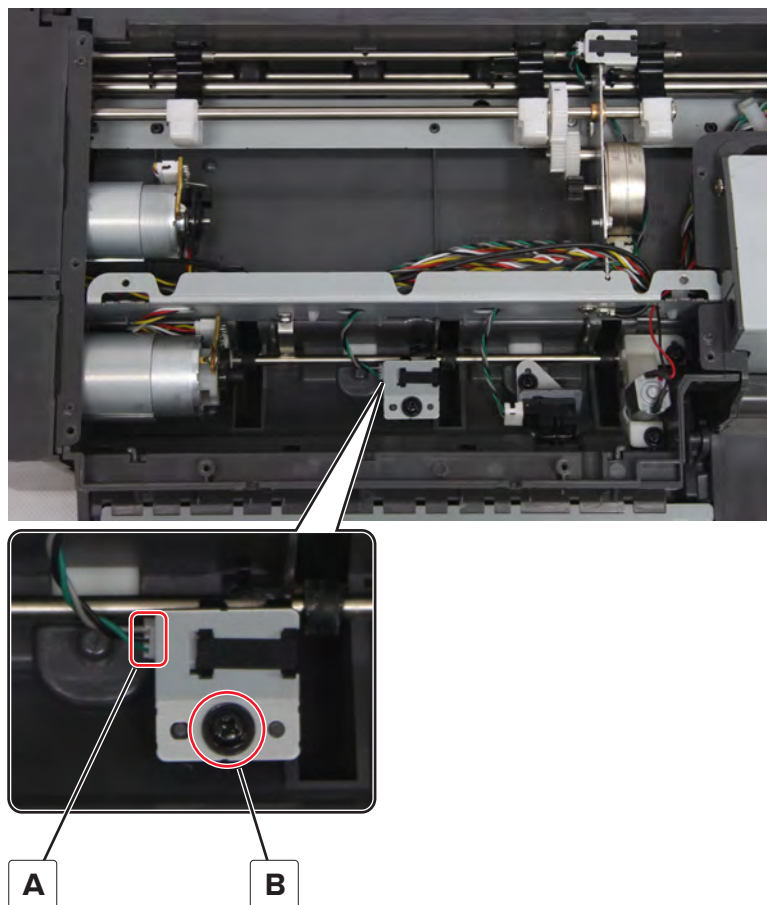


B

Sensor (staple finisher decurl) removal

- 1 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)
- 2 Disconnect the cable (A).

- 3 Remove the screw (B), and then remove the bracket.

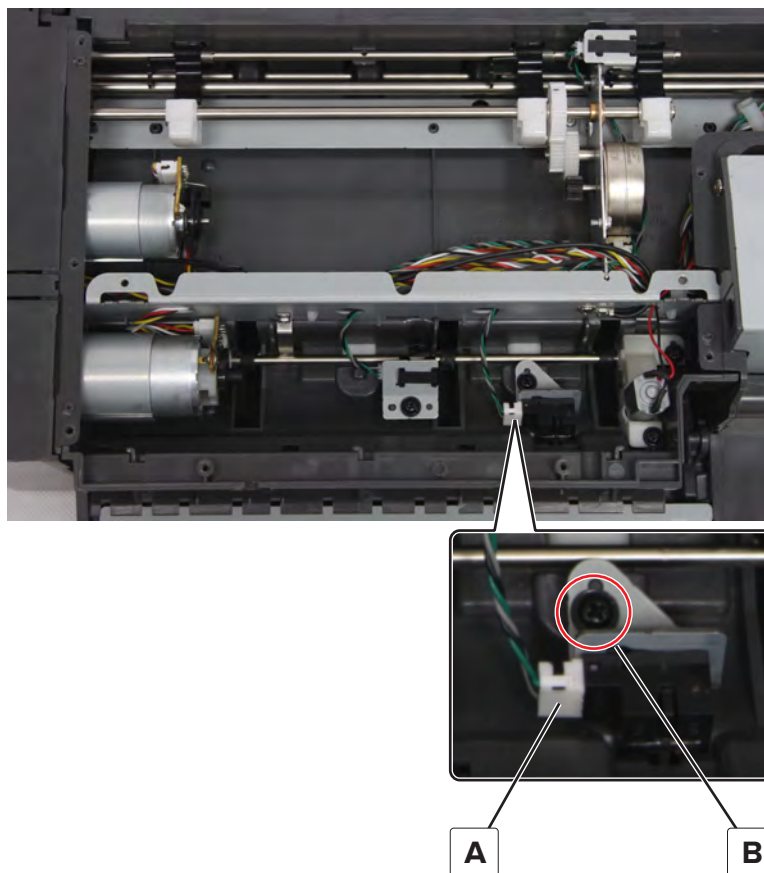


- 4 Remove the adhesive, and then remove the sensor.

Sensor (staple finisher transport) removal

- 1 Remove the bottom cover. See [“Staple finisher bottom cover removal” on page 907.](#)
- 2 Disconnect the cable (A).

3 Remove the screw (B), and then remove the bracket.

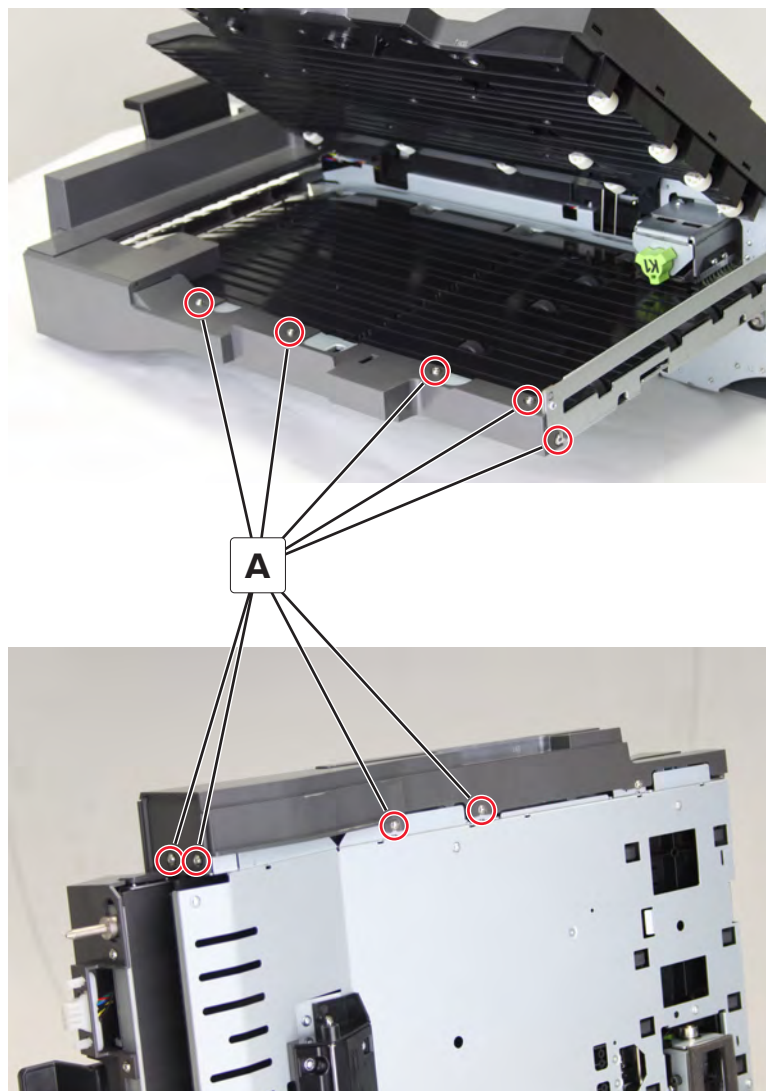


4 Remove the adhesive, and then remove the sensor.

Horizontal paper transport removals

HPT front cover removal

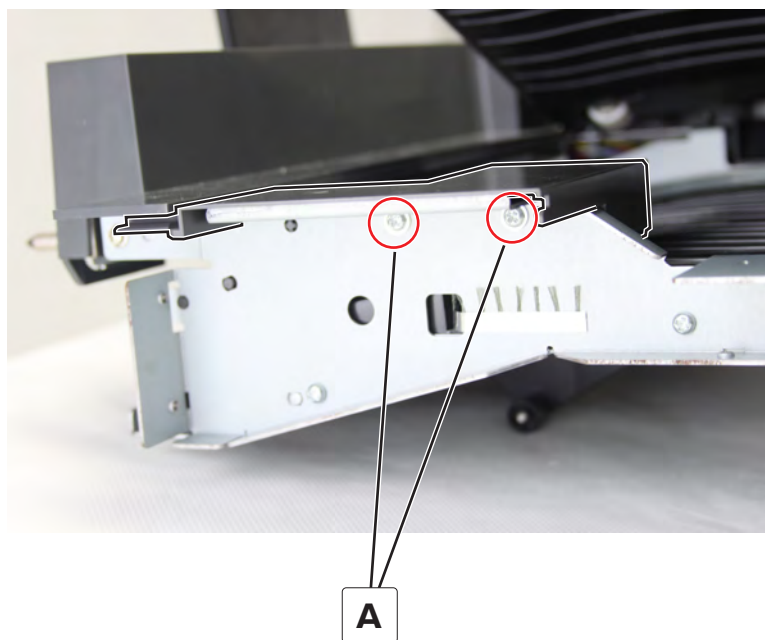
- 1 Open door K.
- 2 Remove the nine screws (A).



- 3 Remove the cover.

HPT front inner cover removal

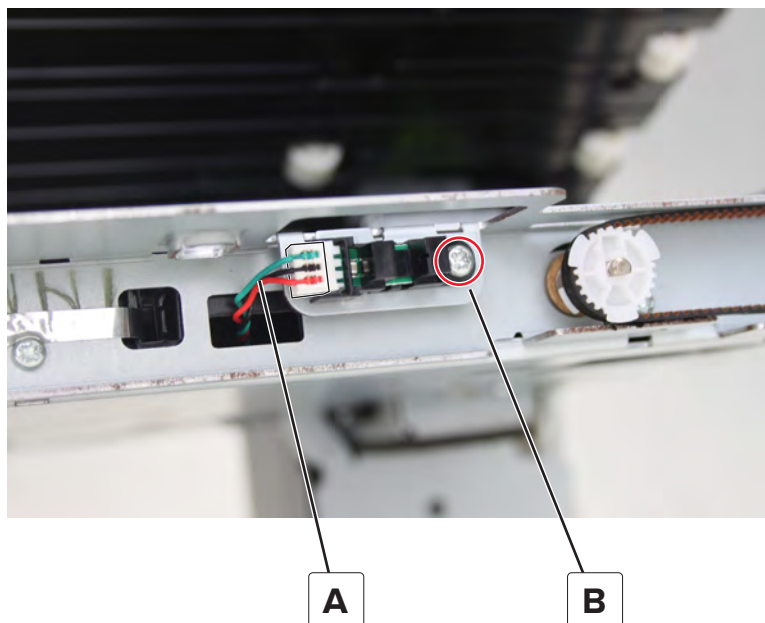
- 1 Remove the front cover. See [“HPT front cover removal” on page 979](#).
- 2 Remove the two screws (A).



- 3 Remove the cover.

Sensor (HPT jam cover) removal

- 1 Remove the front cover. See [“HPT front cover removal” on page 979](#).
- 2 Disconnect the cable (A), and then remove the screw (B).

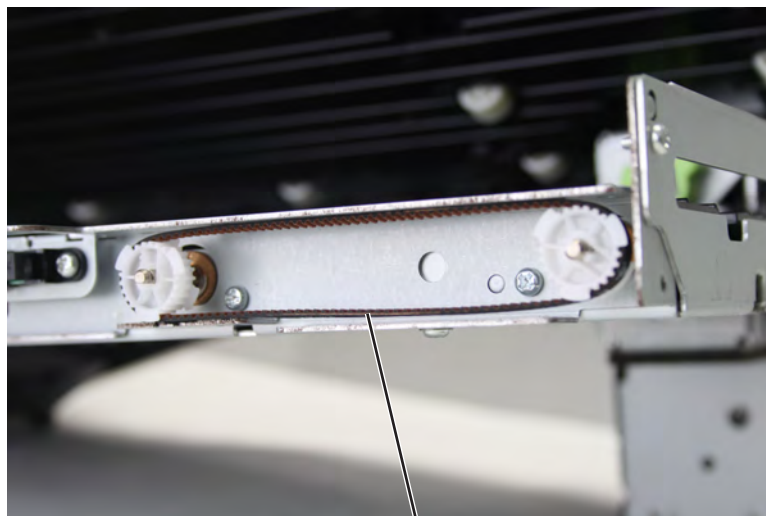


Parts removal

- 3 Remove the sensor.

HPT front transport belt removal

- 1 Remove the front cover. See [“HPT front cover removal” on page 979](#).
- 2 Remove the belt (A).

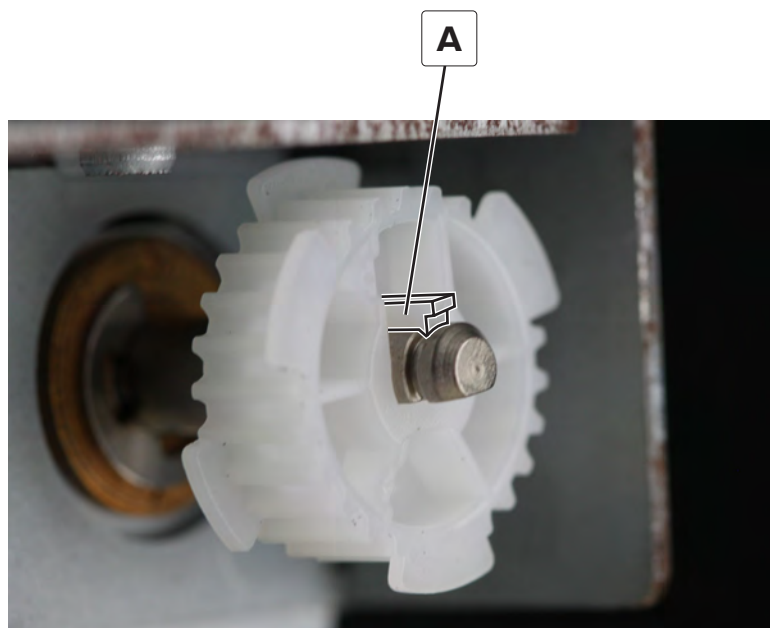


A

HPT front transport belt gear removal

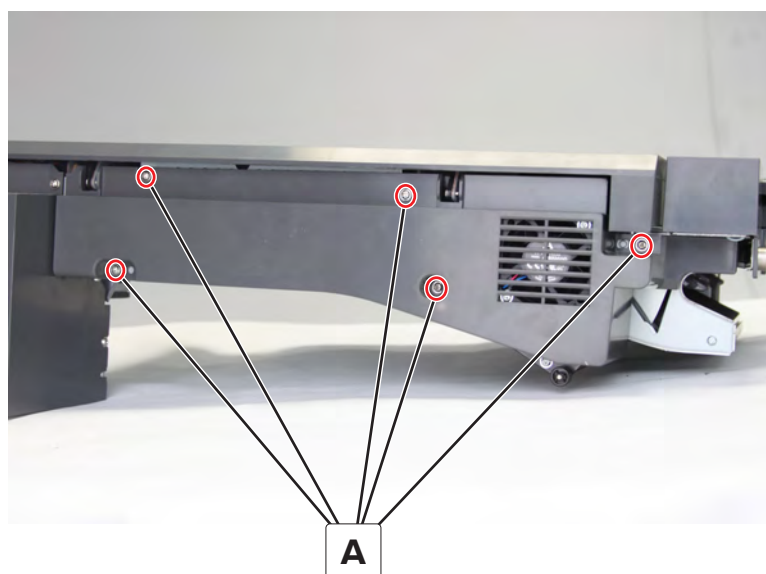
- 1 Remove the front cover. See [“HPT front cover removal” on page 979](#).
- 2 Remove the front transport belt. See [“HPT front transport belt removal” on page 981](#).

- 3 Release the latch (A), and then remove the gear.



HPT rear cover removal

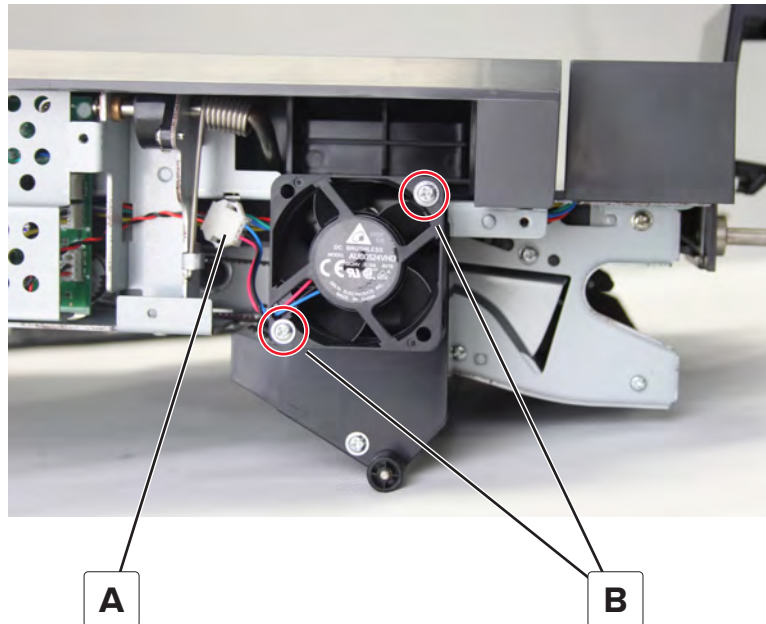
- 1 Remove the five screws (A).



- 2 Remove the cover.

HPT fan removal

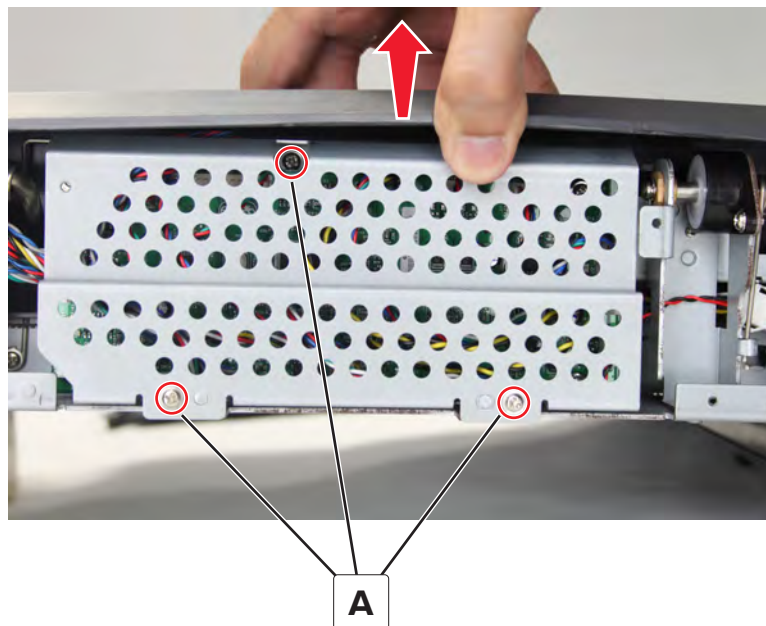
- 1 Remove the rear cover. See [“HPT rear cover removal” on page 982.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).



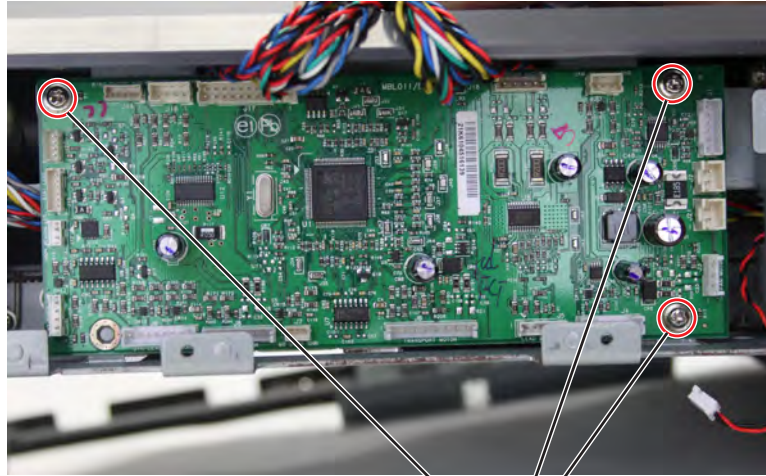
- 3 Remove the fan.

HPT controller board removal

- 1 Remove the rear cover. See [“HPT rear cover removal” on page 982.](#)
- 2 Slightly lift the top cover, and then remove the three screws (A).



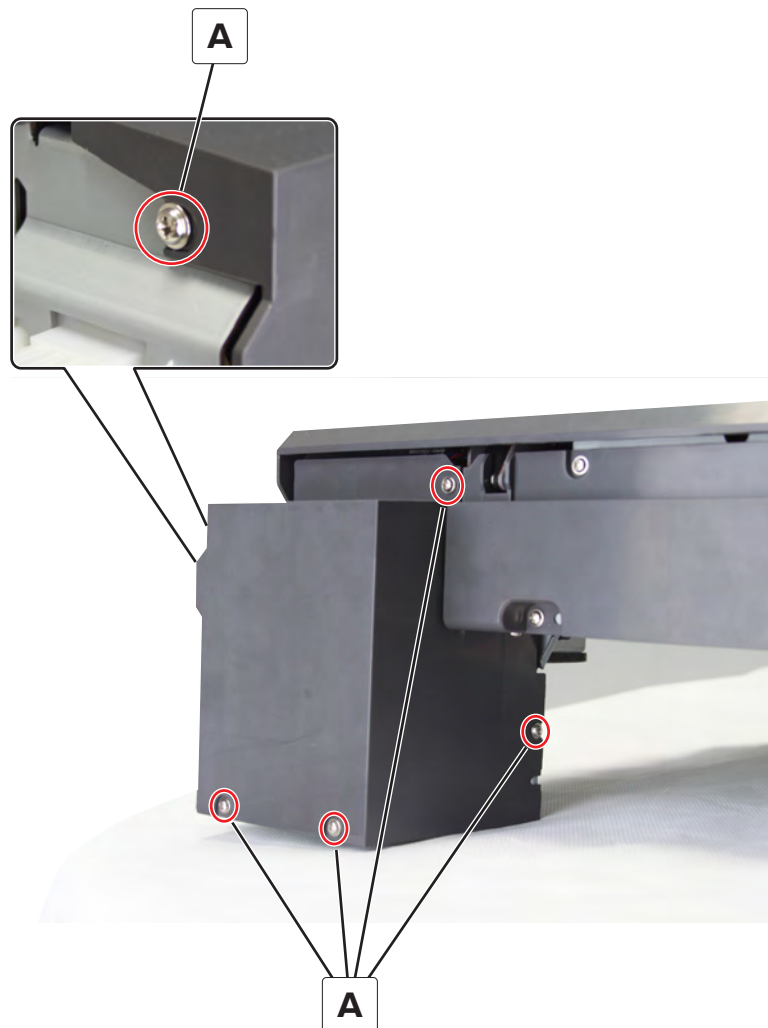
- 3 Release, and then remove the controller board cage.
- 4 Disconnect all the cables, and then remove the three screws (B).

**B**

- 5 Remove the board.

Hole punch unit cover removal

- 1 Remove the five screws.

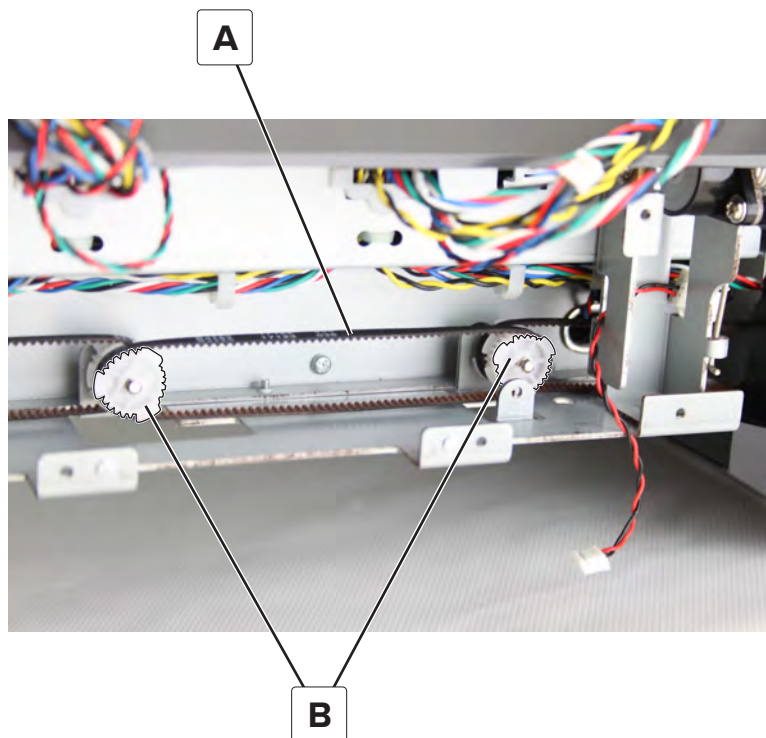


- 2 Remove the cover.

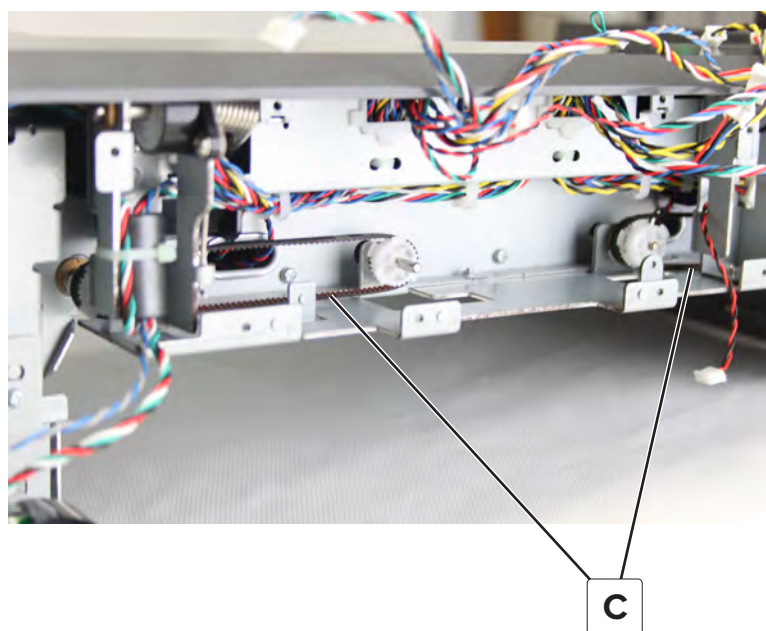
HPT transport belts removal

- 1 Remove the rear cover. See [“HPT rear cover removal” on page 982.](#)
- 2 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985.](#)
- 3 Remove the controller board. See [“HPT controller board removal” on page 983.](#)

4 Remove the center belt (A), and then remove the two gears (B).

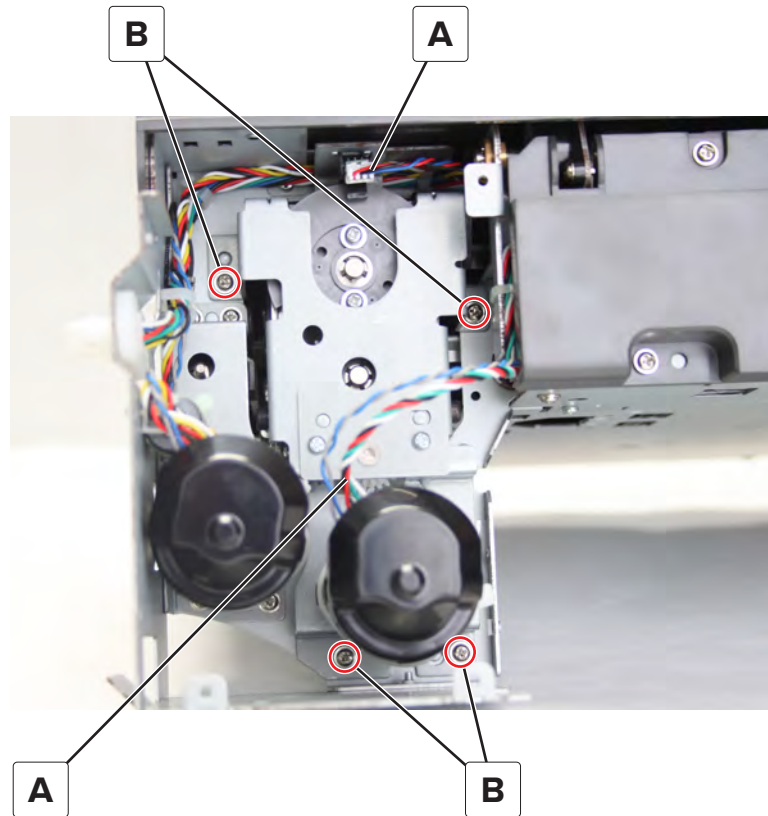


5 Remove the two belts (C).



Hole punch unit removal

- 1 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 2 Disconnect the two cables (A), and then remove the four screws (B).

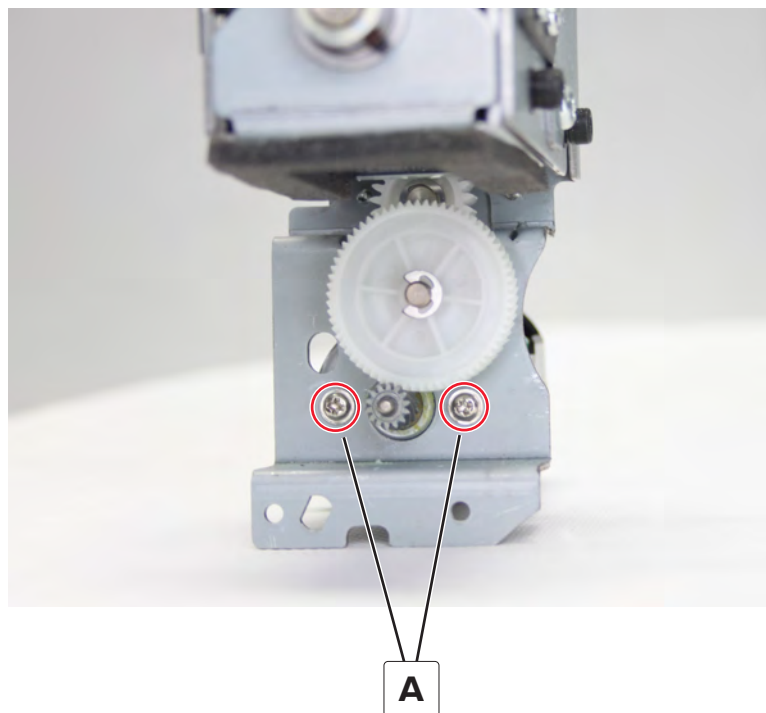


- 3 Remove the hole punch unit.

Motor (hole punch unit) removal

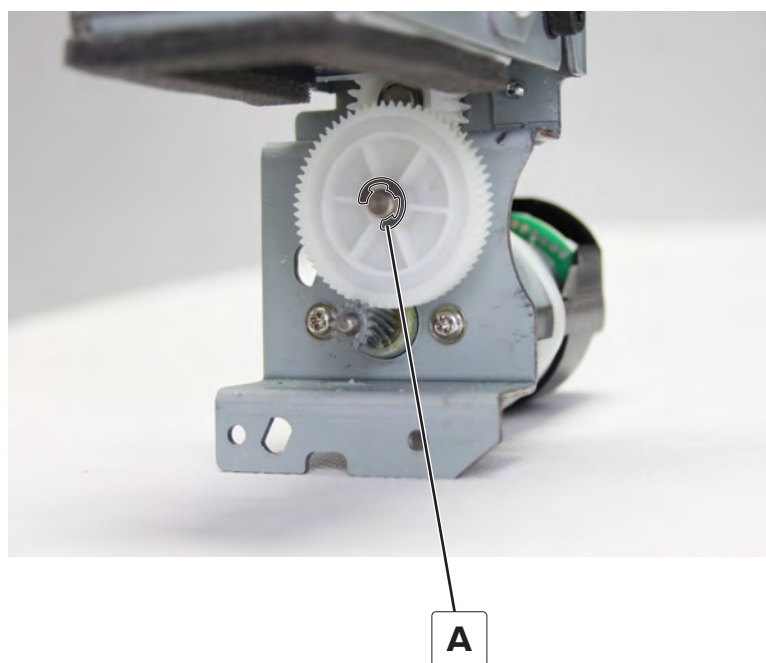
- 1 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 2 Remove the hole punch unit. See [“Hole punch unit removal” on page 987](#).

- 3** Remove the two screws (A), and then remove the hole punch unit motor.

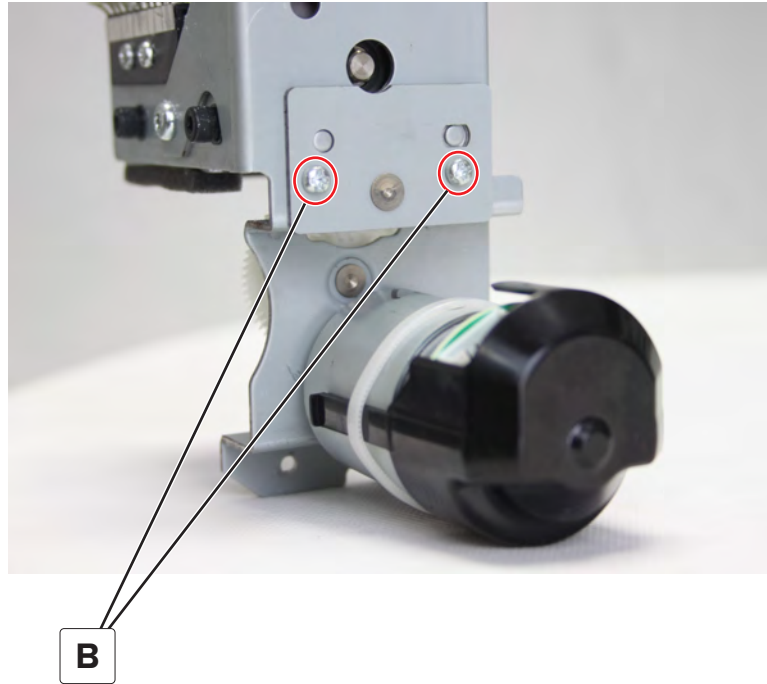


Hole punch unit gears removal

- 1** Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 2** Remove the hole punch unit. See [“Hole punch unit removal” on page 987](#).
- 3** Remove the clip (A), and then remove the gear.

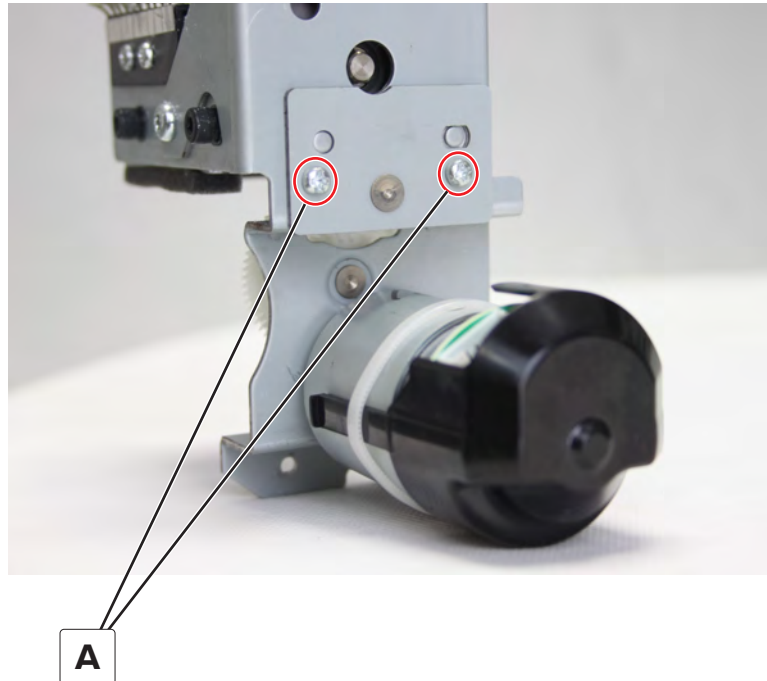


- 4 Remove the two screws (B), and then remove the gear.

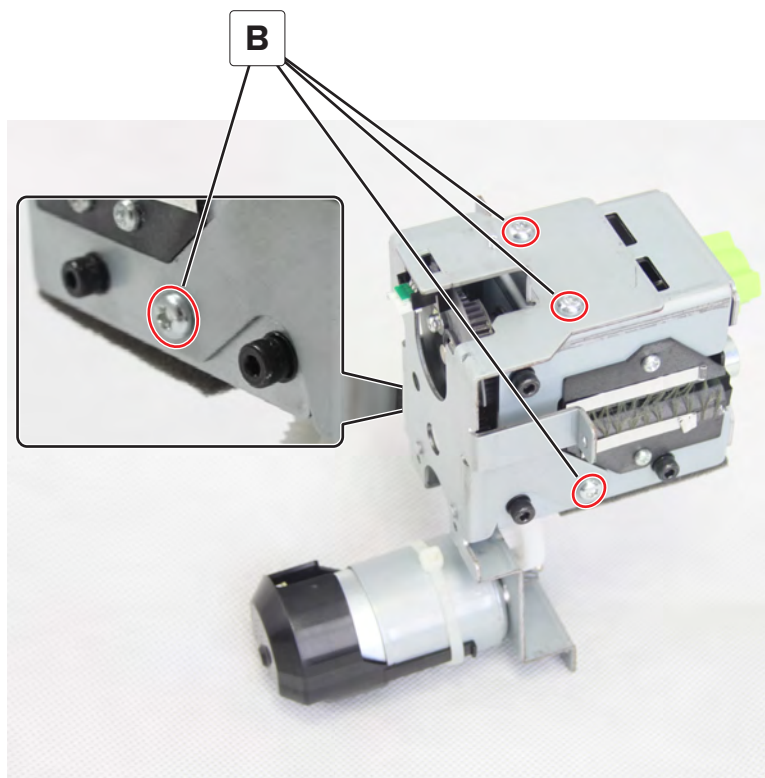


Sensor (hole punch unit) removal

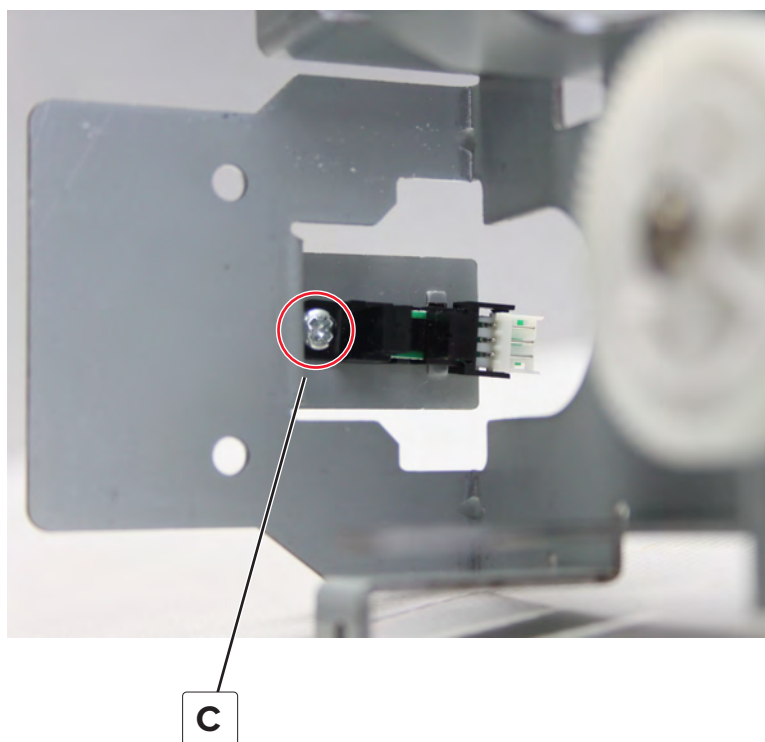
- 1 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 2 Remove the hole punch unit. See [“Hole punch unit removal” on page 987](#).
- 3 Remove the two screws (A).



4 Remove the four screws (B).



5 Remove the screw (C).

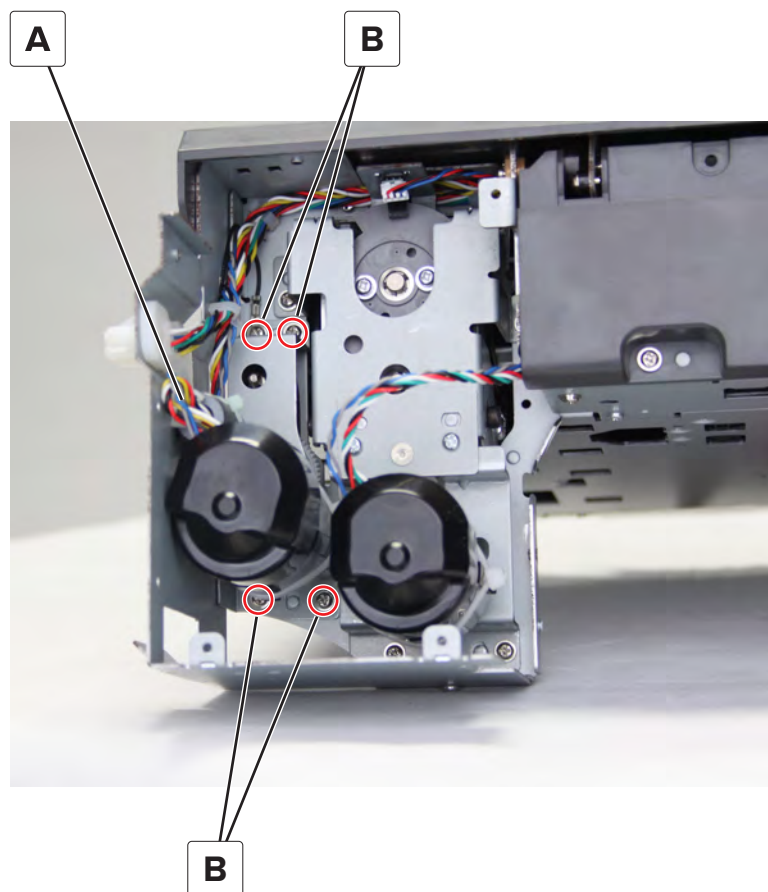


6 Remove the sensor.

HPT transport assembly removal

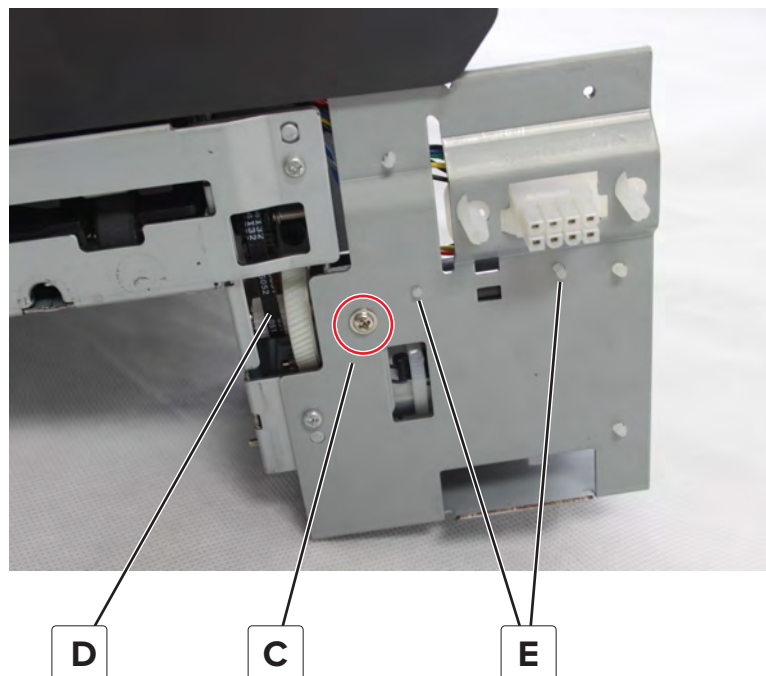
Note: This part is not a FRU.

- 1 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 2 Disconnect the cable (A), and then remove the four screws (B).



- 3 Remove the screw (C), and then remove the belt (D).

- 4 Remove the cable clamps (E).

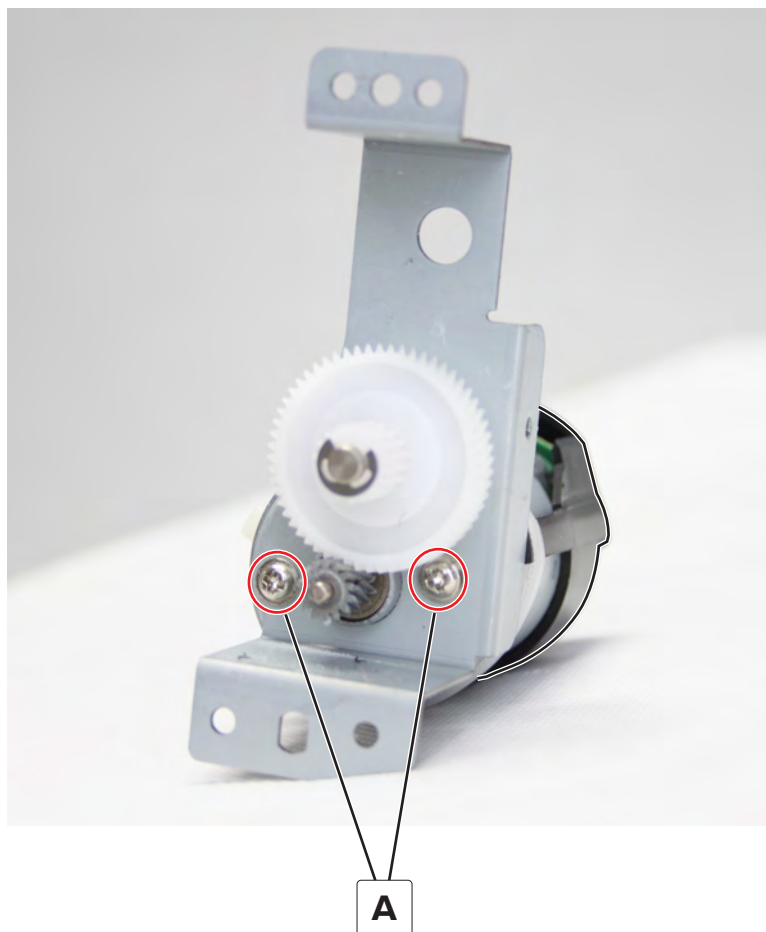


- 5 Remove the transport assembly.

Motor (HPT transport) removal

- 1 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985.](#)
- 2 Remove the HPT transport assembly. See [“HPT transport assembly removal” on page 991.](#)

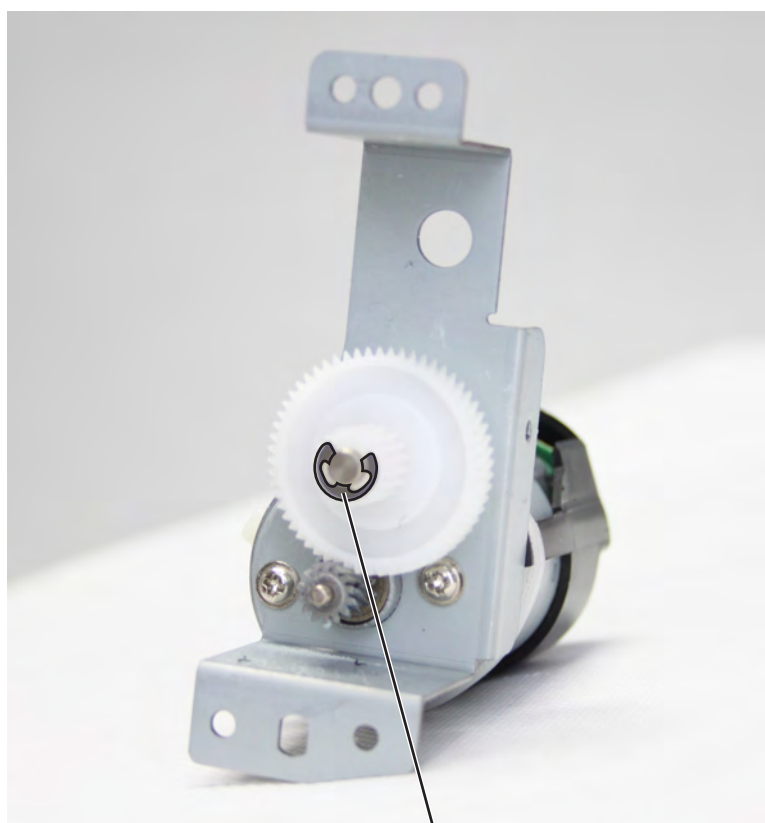
3 Remove the two screws (A).



4 Remove the motor.

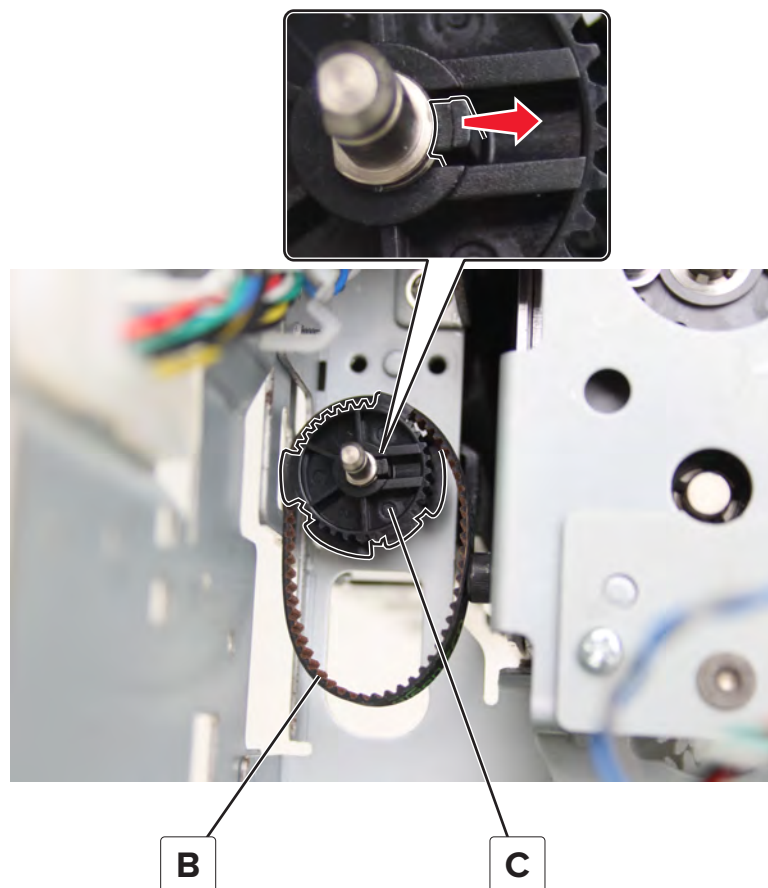
HPT transport gears removal

- 1 Remove the HPT transport assembly. See [“HPT transport assembly removal” on page 991](#).
- 2 Remove the clip (A), and then remove the gear.



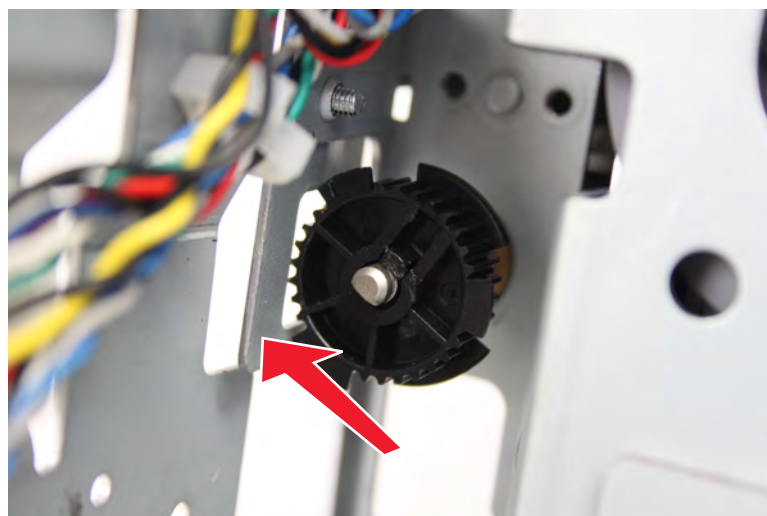
A

- 3 Remove the belt (B), and then release the latch of the gear (C).



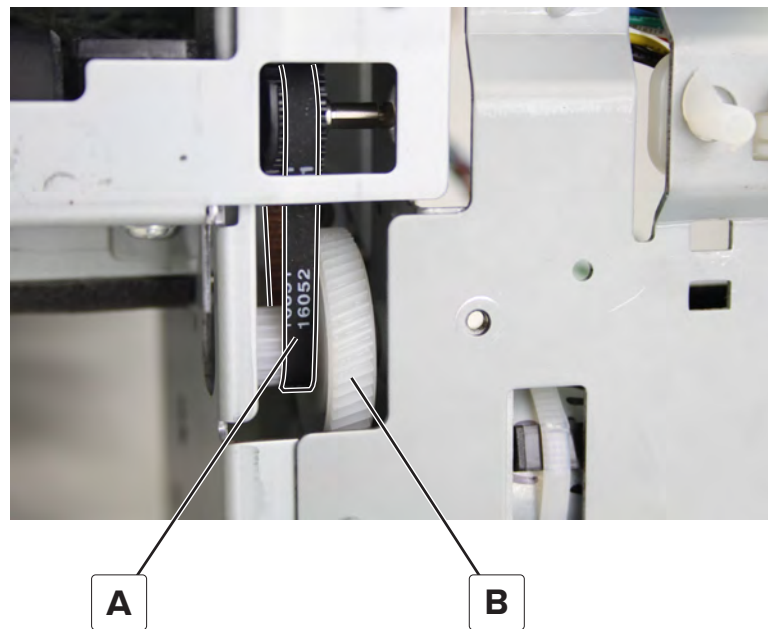
- 4 Pull the gear along the shaft until it touches the frame.

- 5 Rotate the gear as shown, and then push the frame.



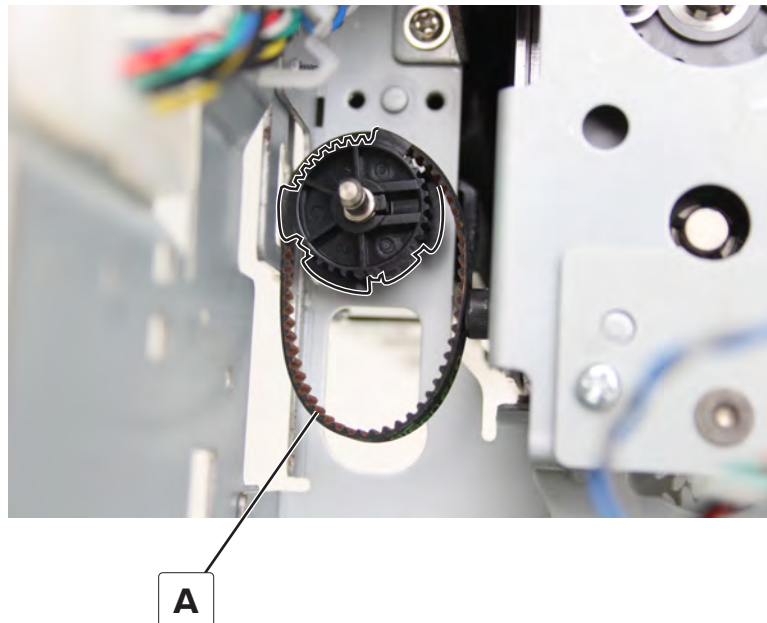
- 6 Remove the gear.

Installation note: Make sure that the belt (A) is connected to the transport gear (B).

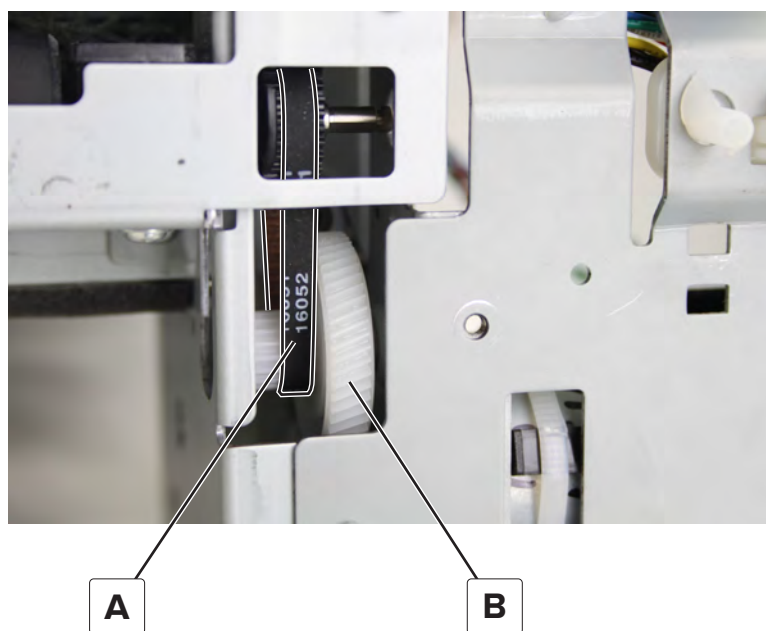


HPT transport drive belt removal

- 1 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985.](#)
- 2 Remove the HPT transport assembly. See [“HPT transport assembly removal” on page 991.](#)
- 3 Remove the belt (A).

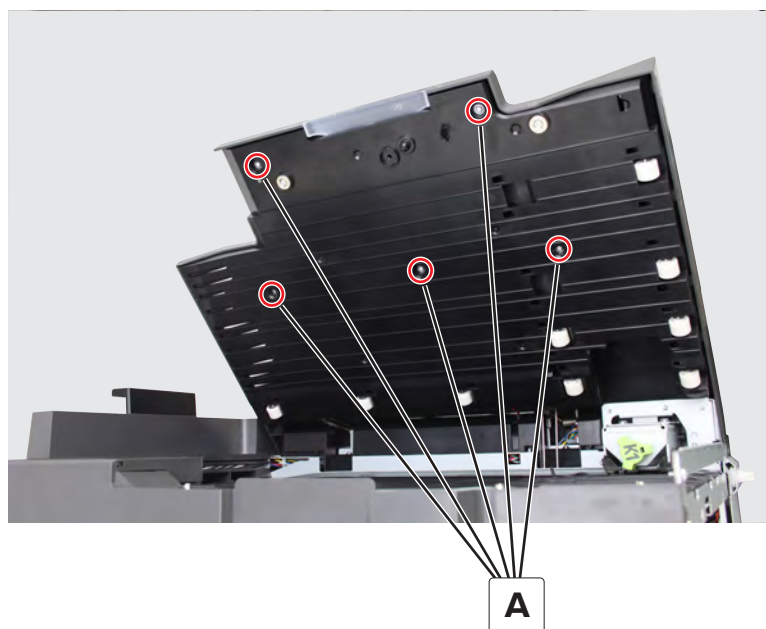


Installation note: Make sure the belt (A) is connected to the transport gear (B).



HPT top cover removal

- 1 Lift door K.
- 2 Remove the five screws (A).



- 3 Pry the top cover from the three latches.

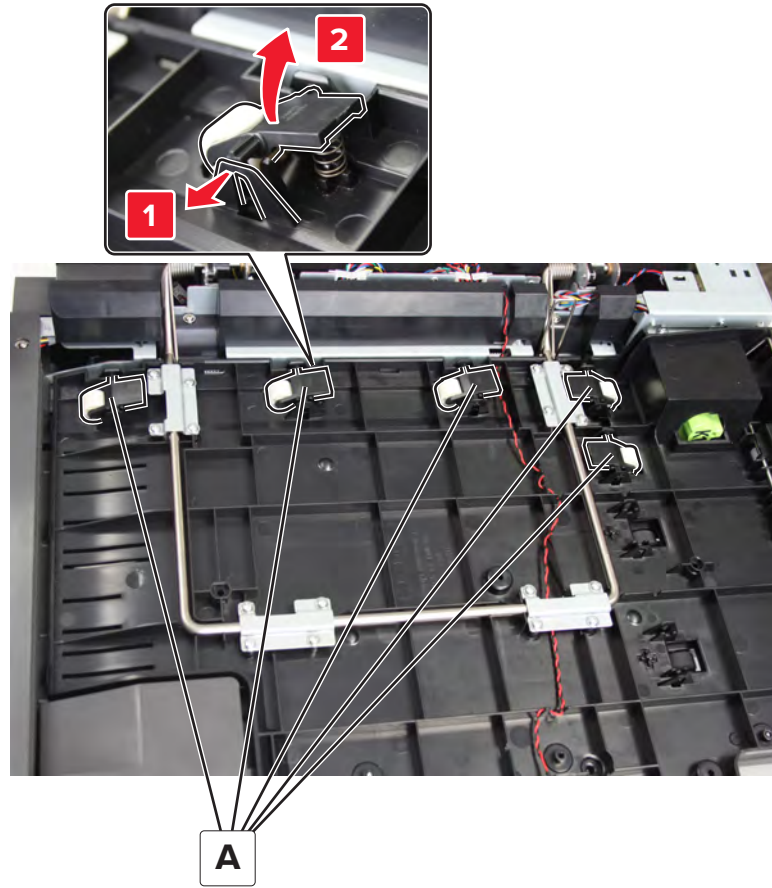


- 4 Remove the top cover.

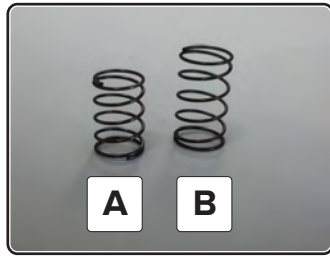
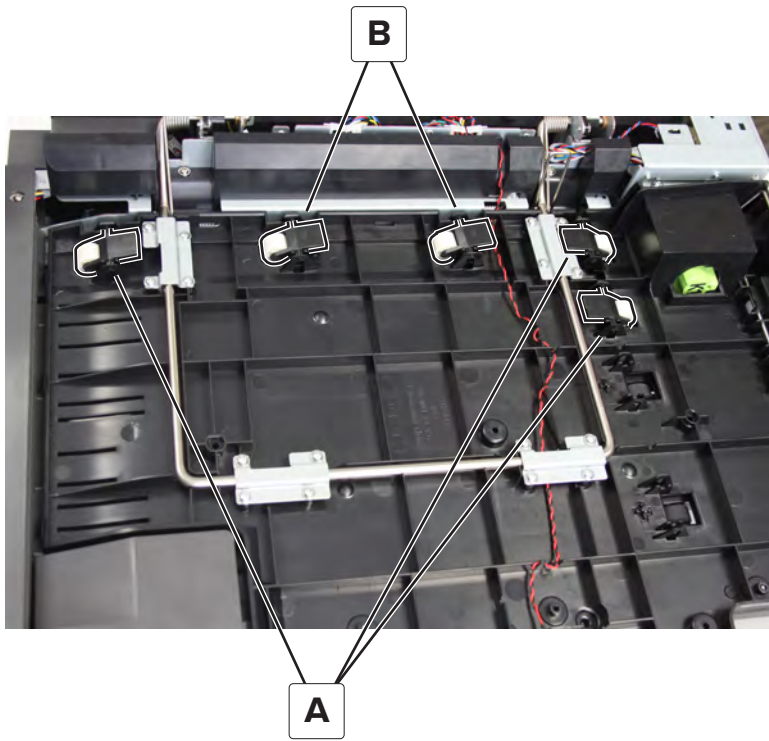
HPT transport idler roller removal

- 1 Remove the top cover. See [“HPT top cover removal” on page 997](#).
- 2 Release the latch to remove the damaged roller.

Note: Any of the five rollers (A) could be damaged.

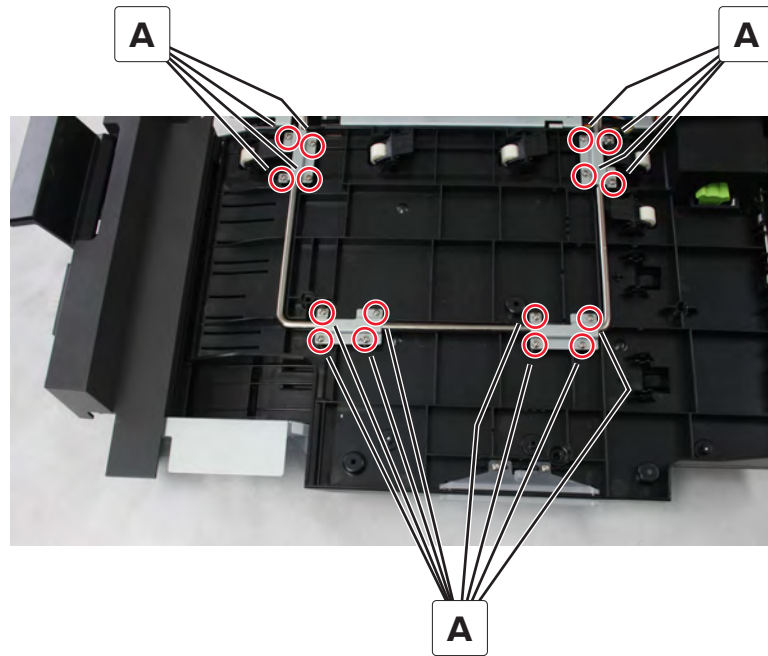


Installation note: Make sure to install the appropriate springs.



HPT top door removal

- 1 Remove the top cover. See [“HPT top cover removal” on page 997](#).
- 2 Remove the 16 screws (A).

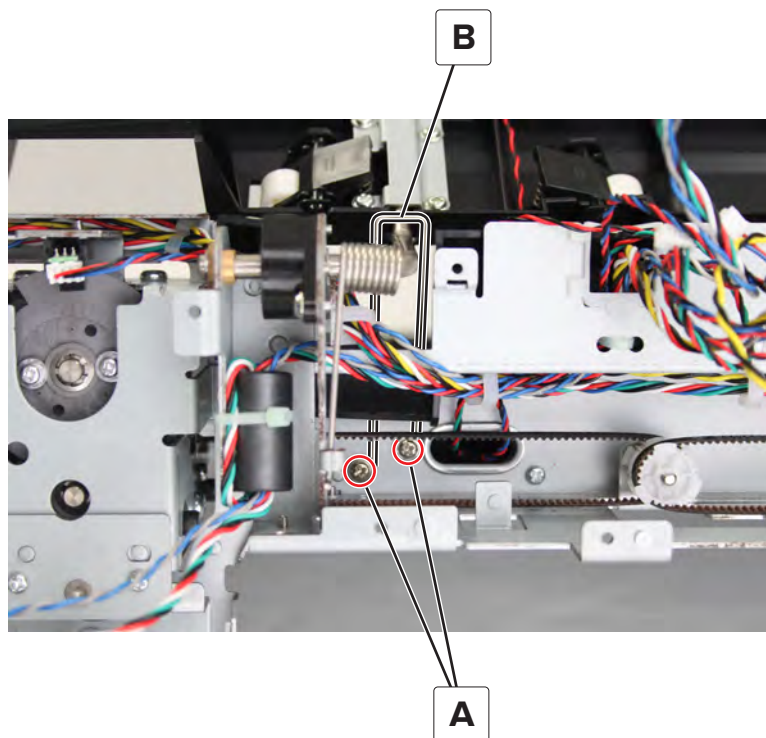


- 3 Remove the top door.

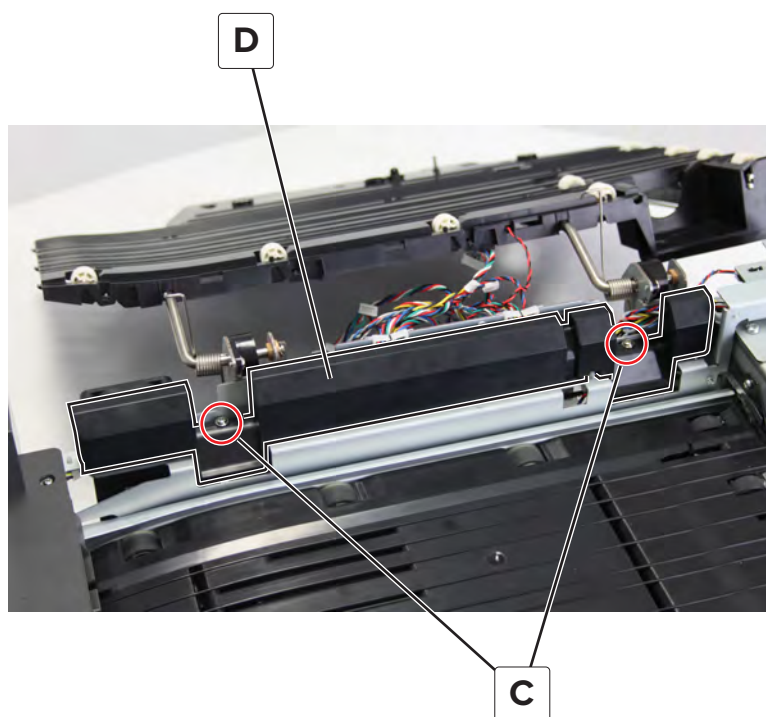
HPT lock removal

- 1 Remove the front cover. See [“HPT front cover removal” on page 979](#).
- 2 Remove the rear cover. See [“HPT rear cover removal” on page 982](#).
- 3 Remove the controller board. See [“HPT controller board removal” on page 983](#).
- 4 Remove the top cover. See [“HPT top cover removal” on page 997](#).

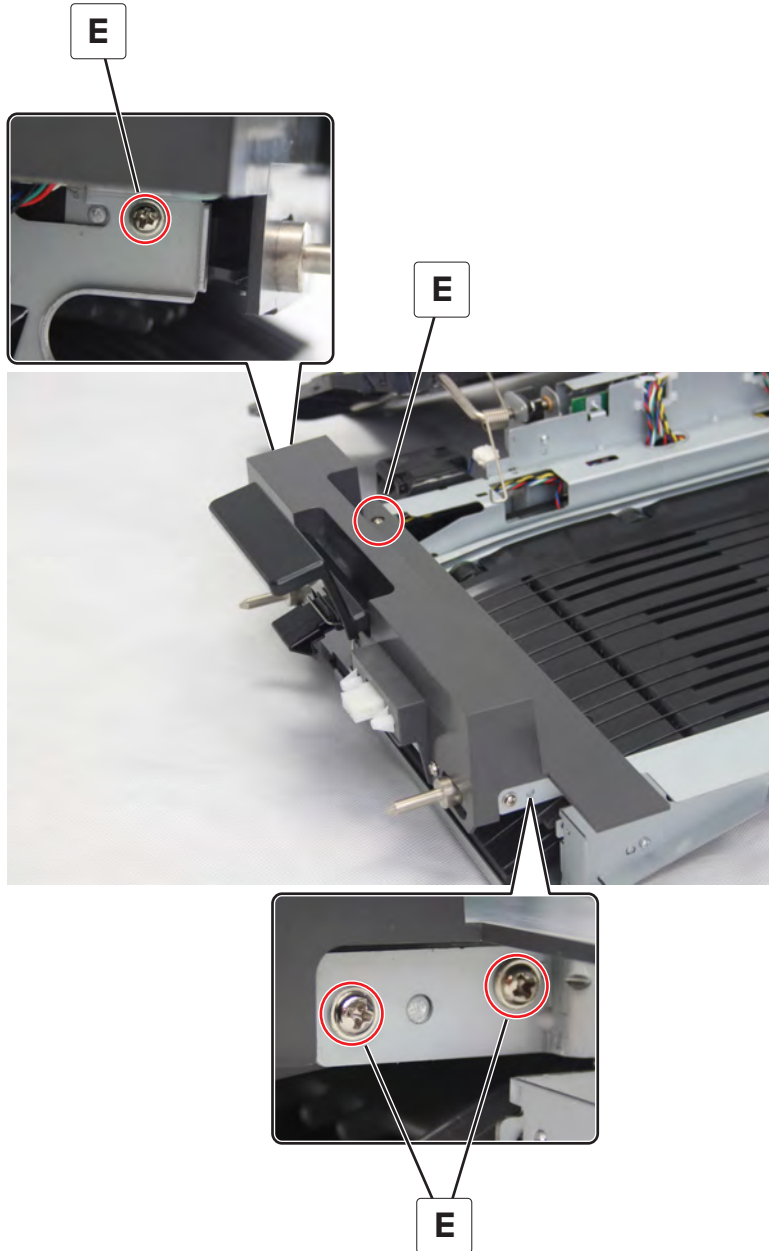
5 Remove the two screws (A), and then remove the retainer (B).



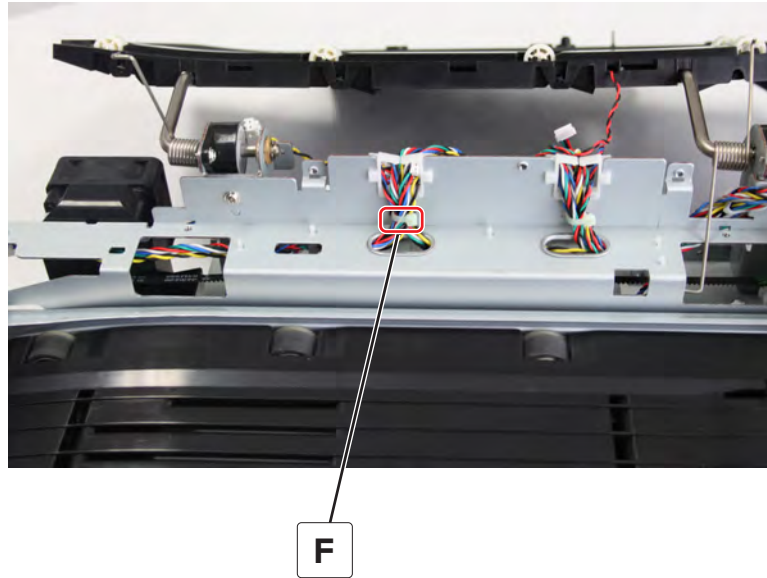
6 Open door K to access and to remove the two screws (C), and then remove the cable cover (D).



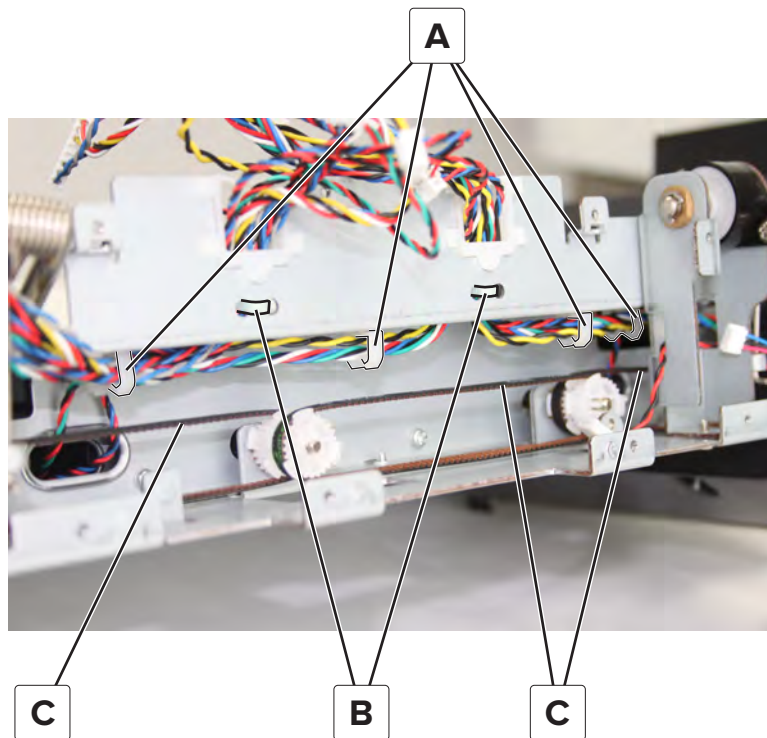
7 Remove the four screws (E).



- 8 Cut the cable tie (F), and then remove the cables.



Installation note: Route the cables through the clamps (A), and then secure the cables with cable ties (B) to avoid contact between the cables and the belts (C).

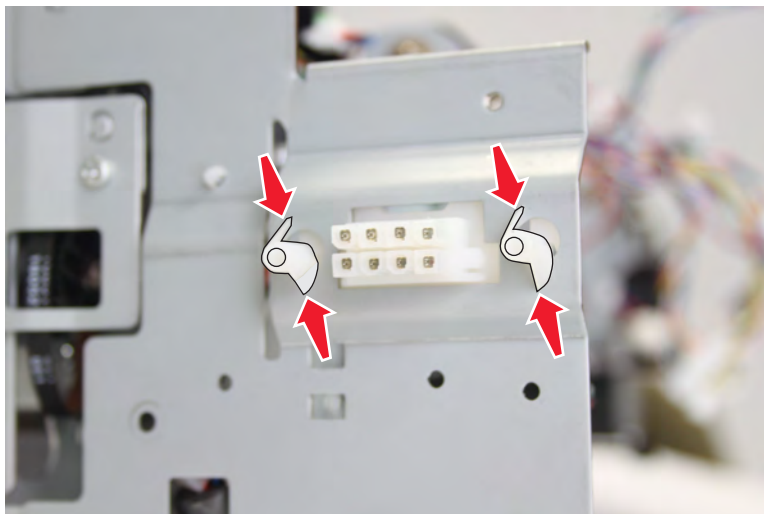


- 9 Remove the HPT lock.

HPT autoconnect cable removal

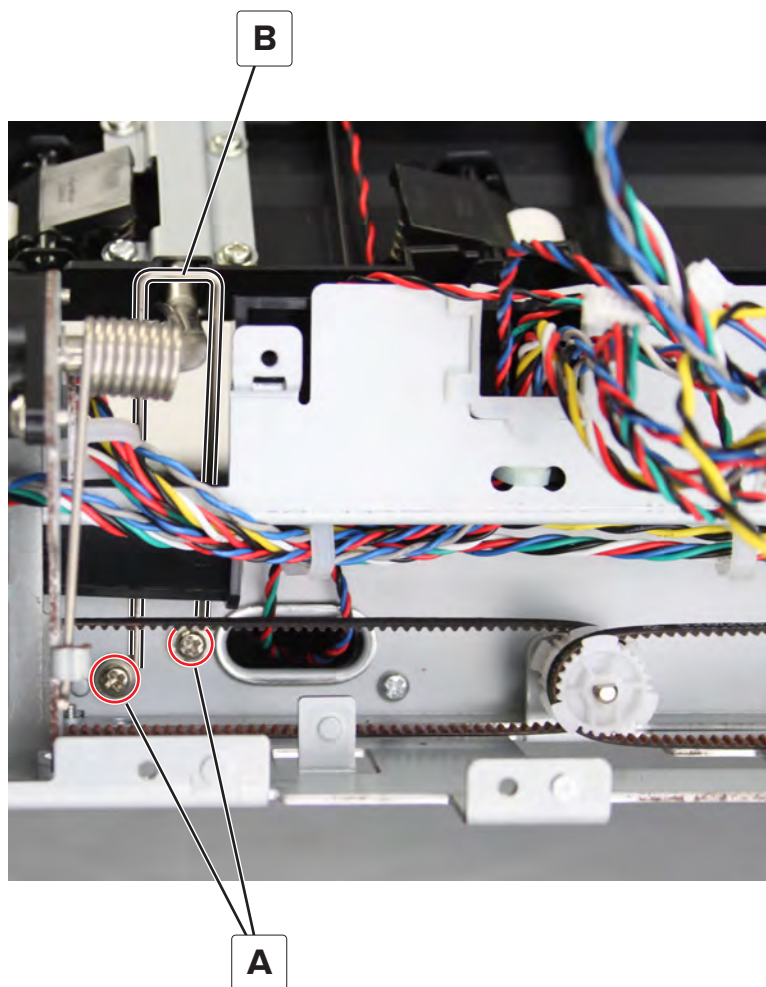
- 1 Remove the rear cover. See [“HPT rear cover removal” on page 982.](#)
- 2 Remove the controller board. See [“HPT controller board removal” on page 983.](#)

- 3 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 4 Remove the hole punch unit. See [“Hole punch unit removal” on page 987](#).
- 5 Remove the autoconnect cable.



- 6 Remove the top cover. See [“HPT top cover removal” on page 997](#).

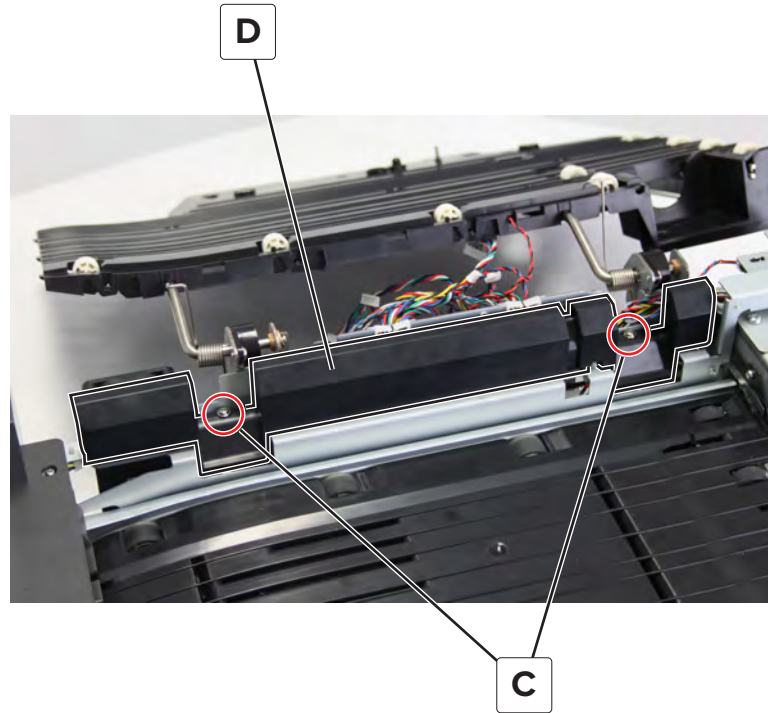
7 Remove the two screws (A), and then remove the retainer (B).



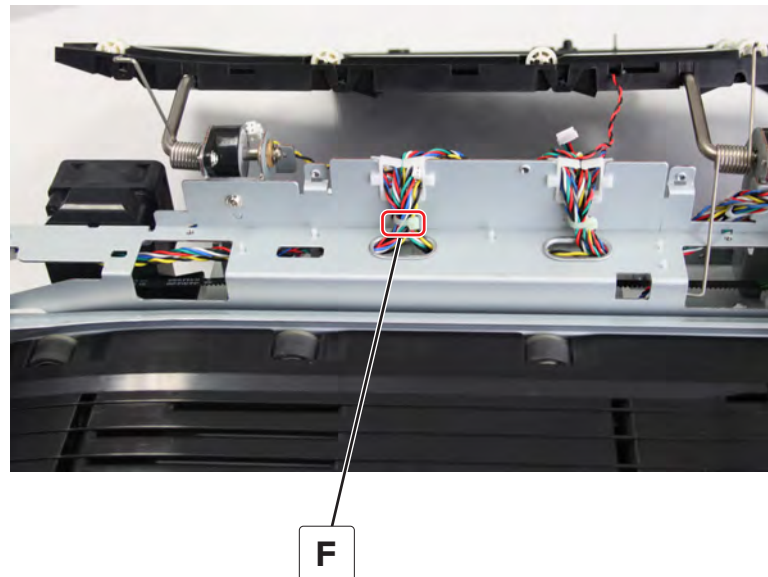
Parts removal

1006

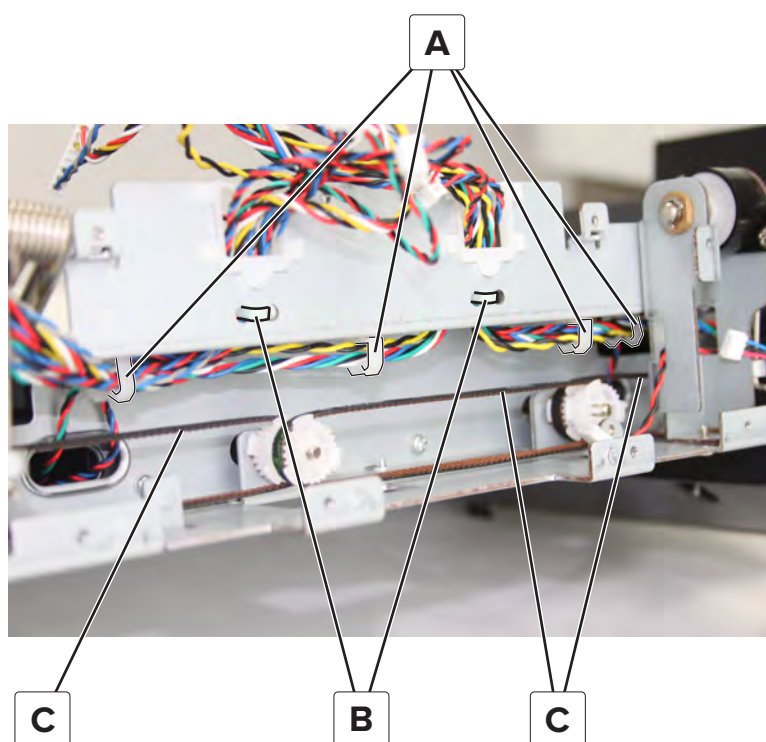
- 8 Open door K to access and to remove the two screws (C), and then remove the cable cover (D).



- 9 Cut the cable tie (F), and then remove the cables.

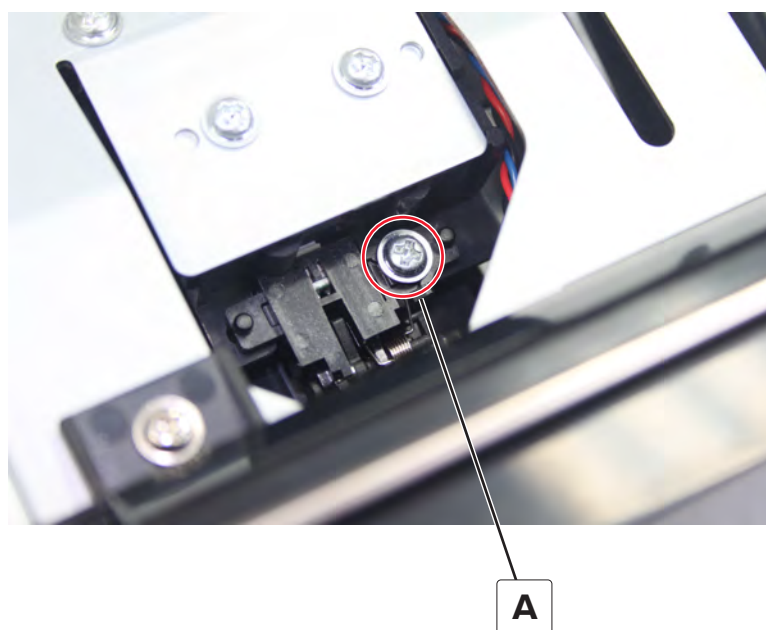


Installation note: Route the cables through the clamps (A), and then secure the cables with cable ties (B) to avoid contact between the cables and the belts (C).

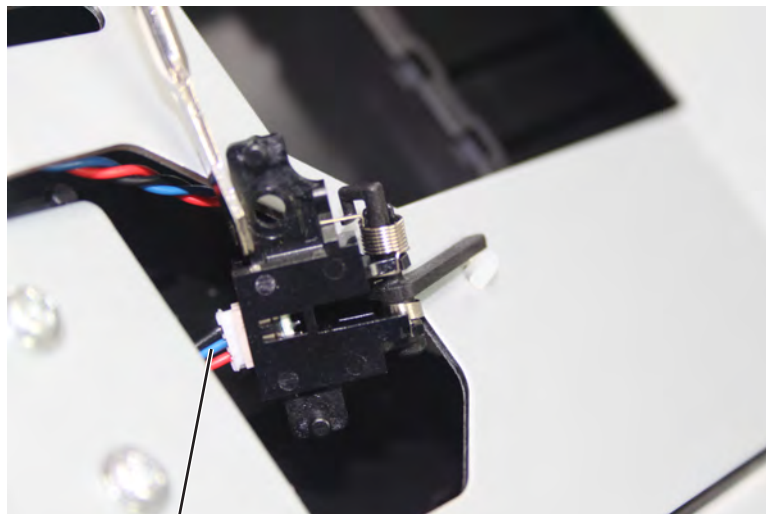


Sensor (HPT transport) removal

- 1 Turn over the HPT.
- 2 Remove the screw (A).

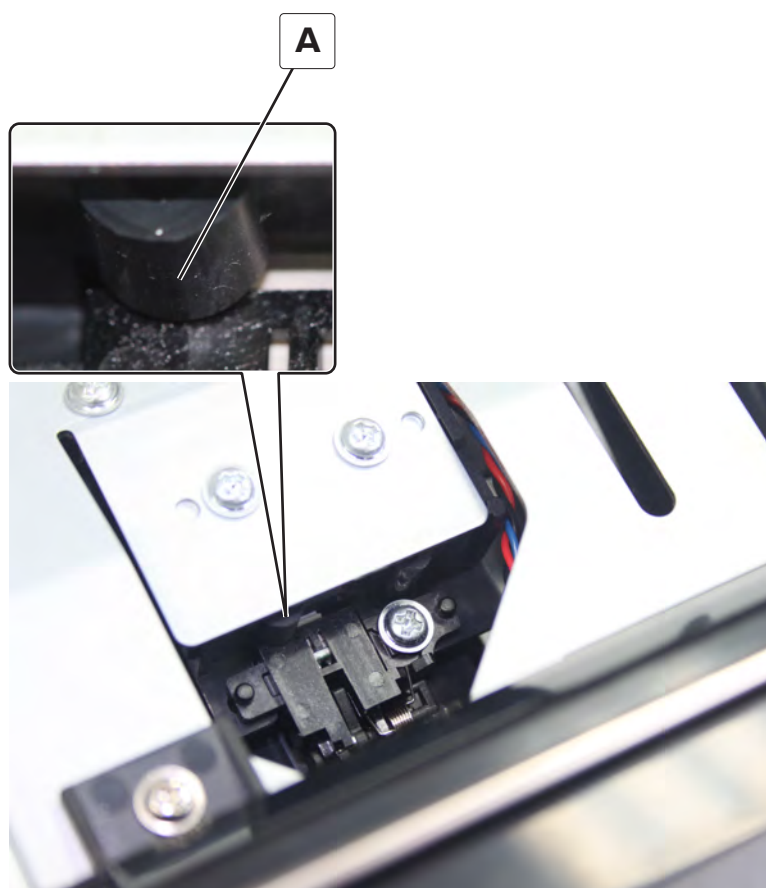


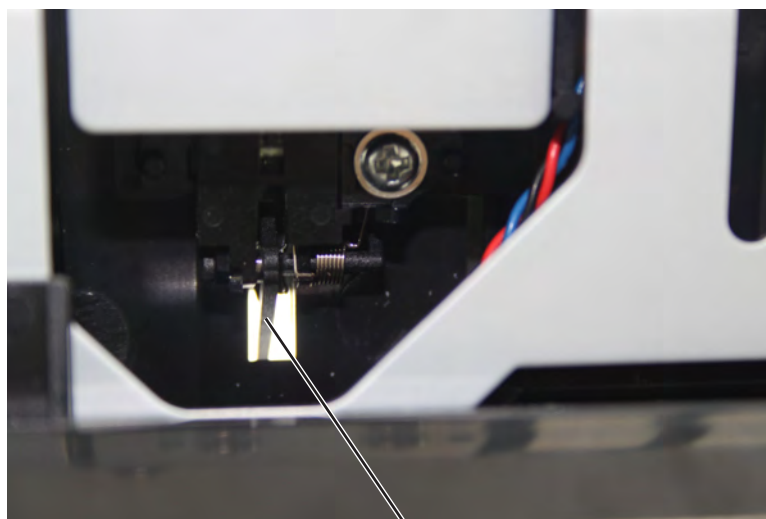
- 3 Disconnect the cable (B), and then remove the sensor.



B

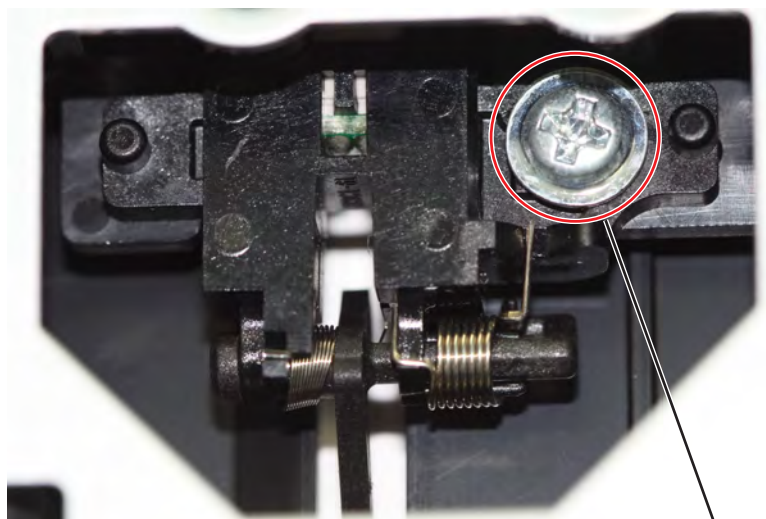
Installation note: Make sure that the sensor is properly installed under the boss (A) and the actuator slipped through the slot as shown.



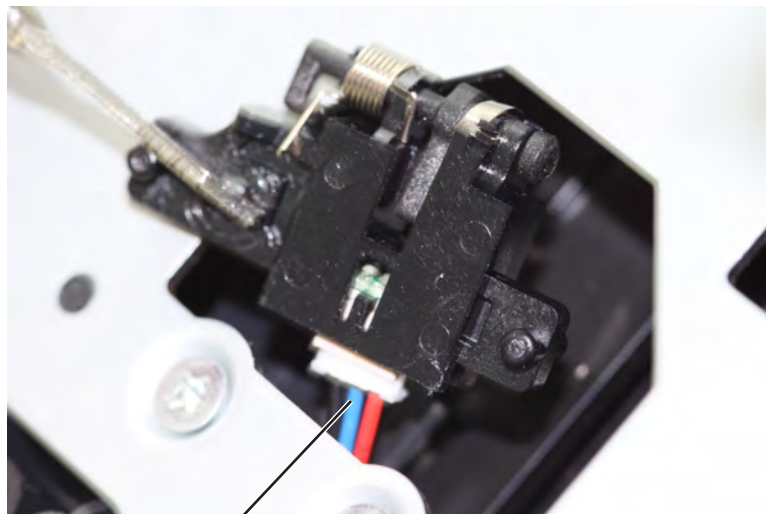
**A**

Sensor (HPU entrance) removal

- 1 Turn over the HPT.
- 2 Remove the screw (A).

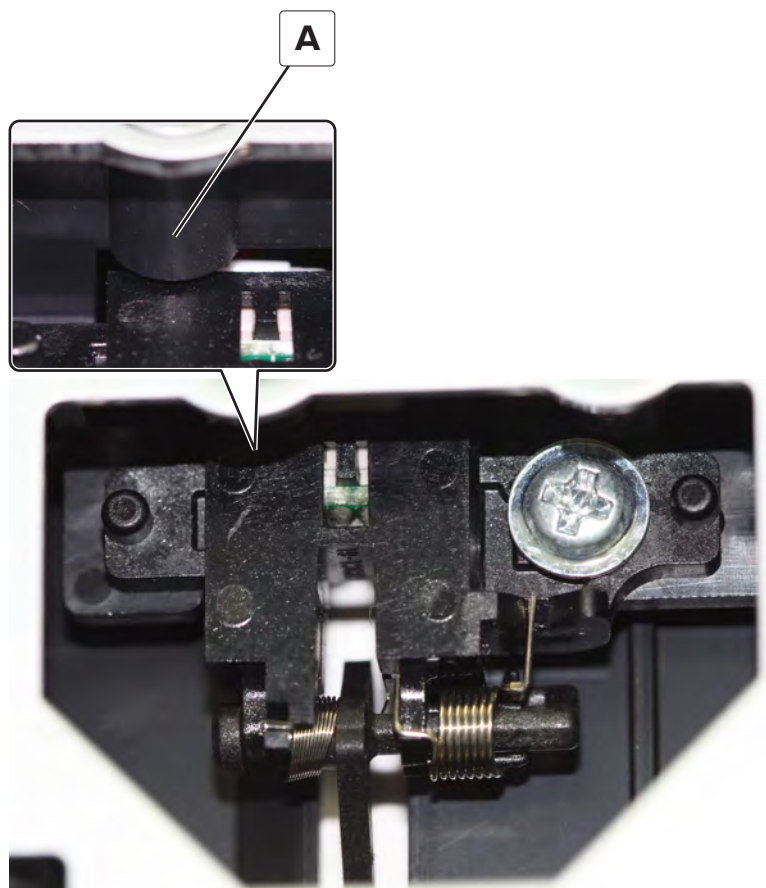
**A**

- 3 Disconnect the cable (B), and then remove the sensor.



B

Installation note: Make sure that the sensor is properly installed under the boss (A) as shown.

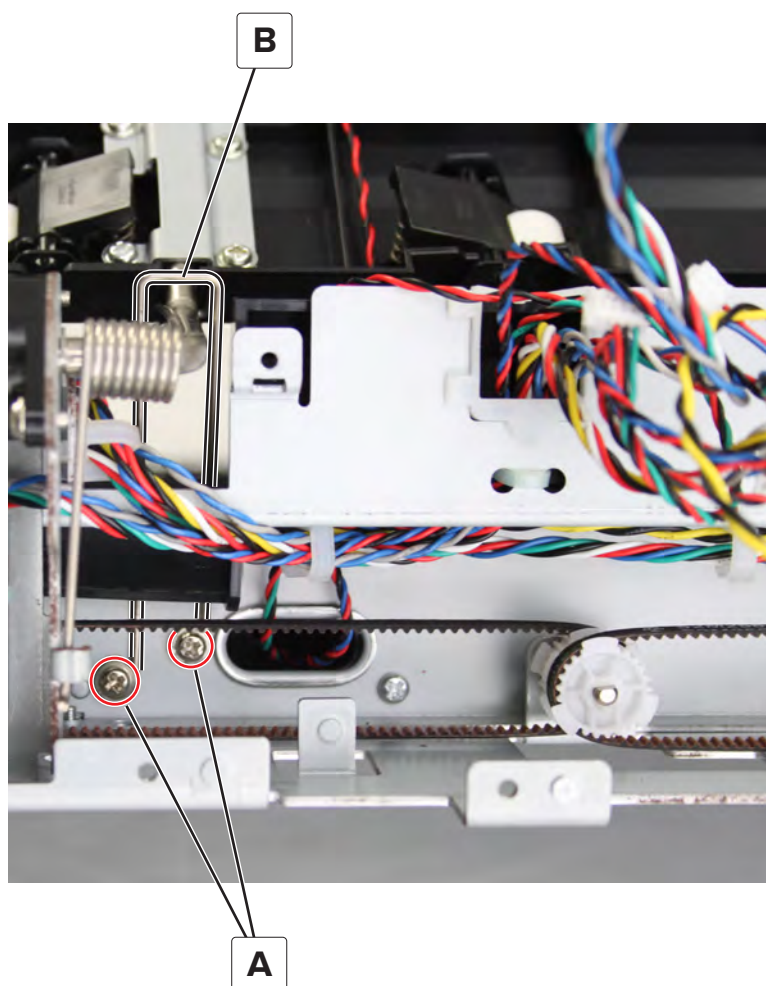


Parts removal

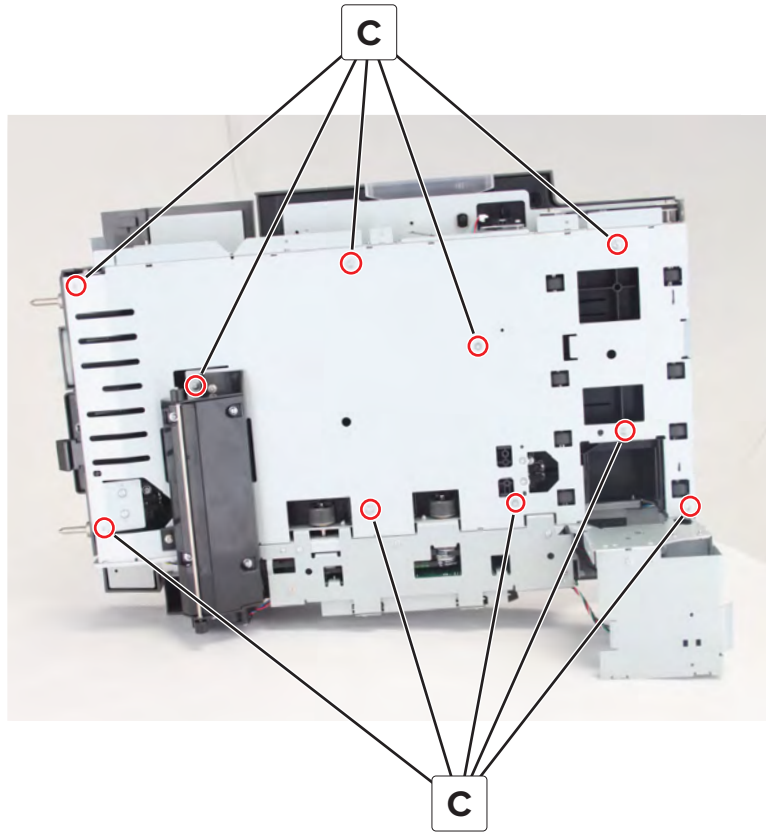
1011

HPT alignment rollers removal

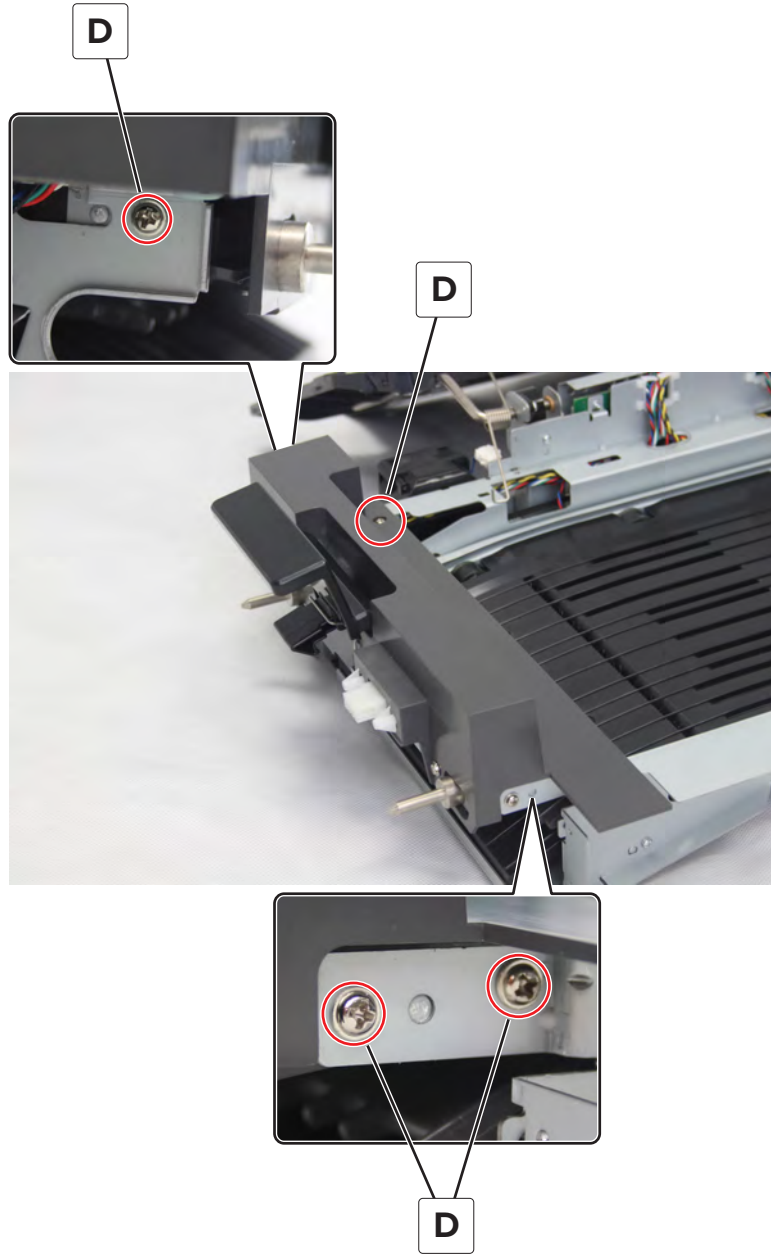
- 1 Remove the front cover. See [“HPT front cover removal” on page 979](#).
- 2 Remove the front inner cover. See [“HPT front inner cover removal” on page 980](#).
- 3 Remove the top cover. See [“HPT top cover removal” on page 997](#).
- 4 Remove the rear cover. See [“HPT rear cover removal” on page 982](#).
- 5 Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985](#).
- 6 Remove the hole punch unit. See [“Hole punch unit removal” on page 987](#).
- 7 Remove the two screws (A), and then remove the retainer (B).



8 Remove the 10 screws (C).

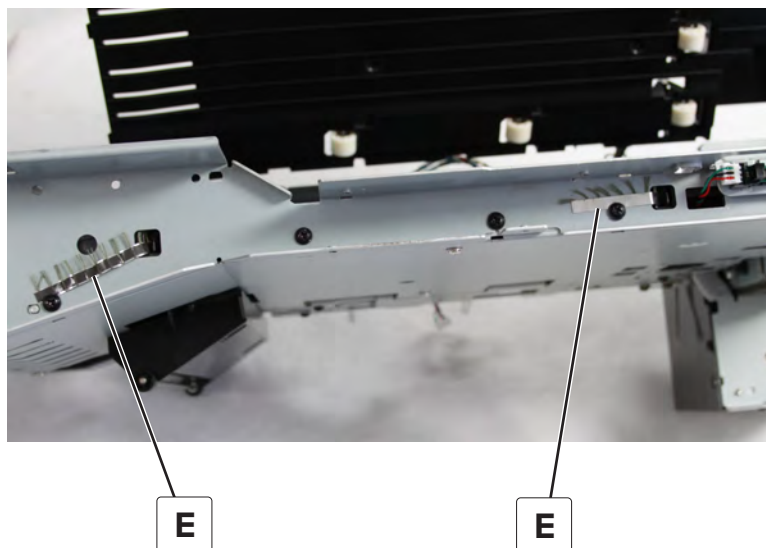


9 Remove the four screws (D), and then set aside the HPT lock.

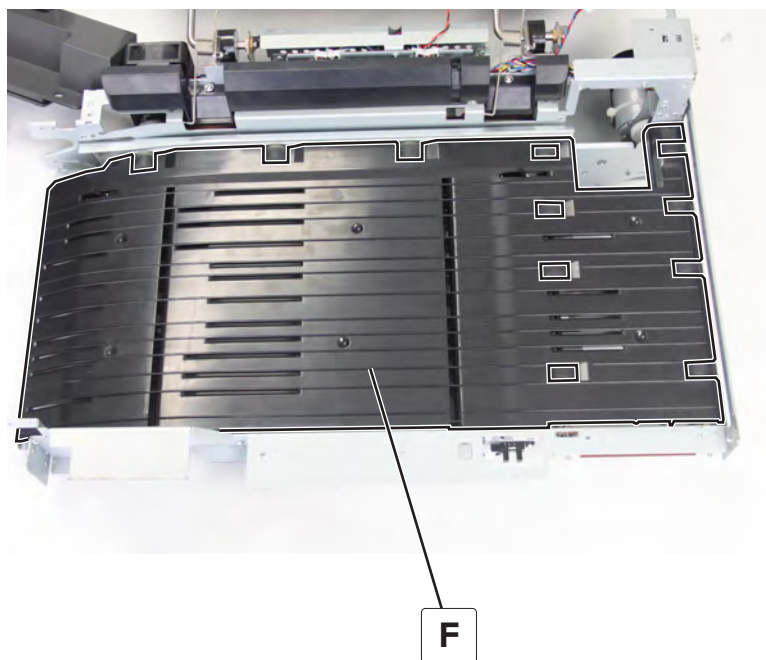


Parts removal

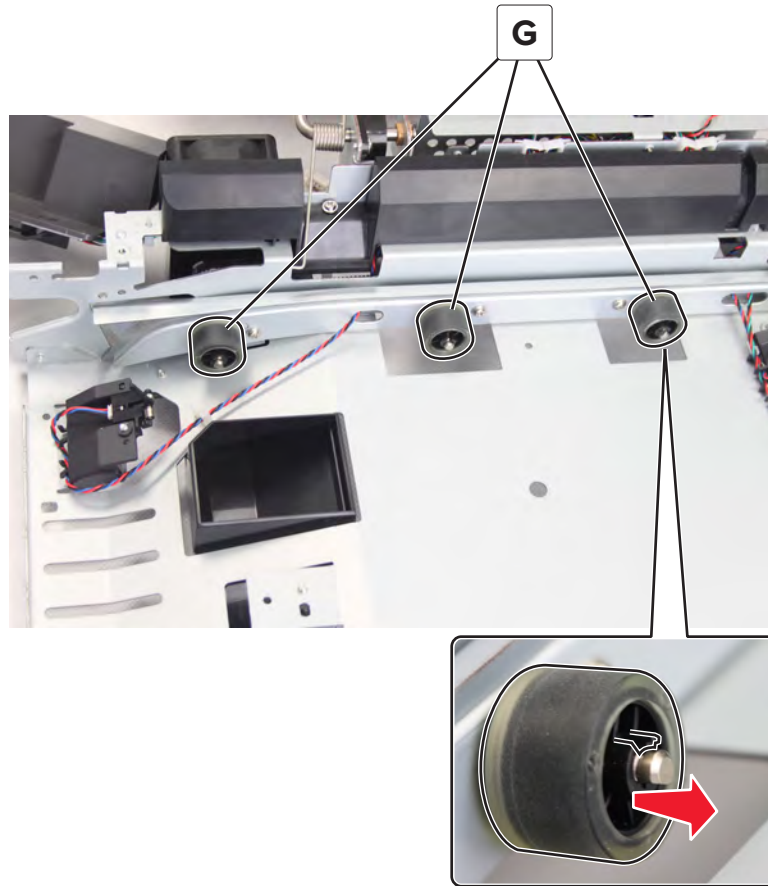
10 Remove the two static brushes (E).



11 Remove the transport guide (F).



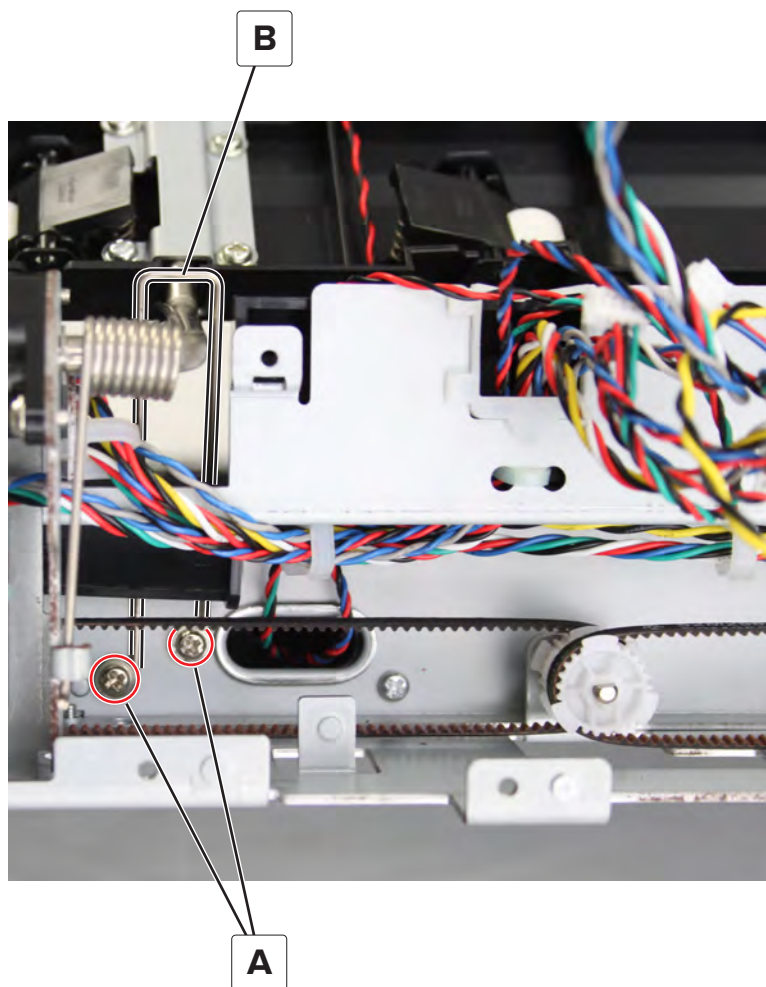
12 Release the latch of each roller (G), and then remove the three rollers.



HPT transport rollers removal

- 1** Remove the front cover. See [“HPT front cover removal” on page 979.](#)
- 2** Remove the front inner cover. See [“HPT front inner cover removal” on page 980.](#)
- 3** Remove the top cover. See [“HPT top cover removal” on page 997.](#)
- 4** Remove the rear cover. See [“HPT rear cover removal” on page 982.](#)
- 5** Remove the hole punch unit cover. See [“Hole punch unit cover removal” on page 985.](#)
- 6** Remove the hole punch unit. See [“Hole punch unit removal” on page 987.](#)
- 7** Remove the HPT transport assembly. See [“HPT transport assembly removal” on page 991.](#)
- 8** Remove the front transport belt. See [“HPT front transport belt removal” on page 981.](#)
- 9** Remove the front transport belt gears. See [“HPT front transport belt gear removal” on page 981.](#)

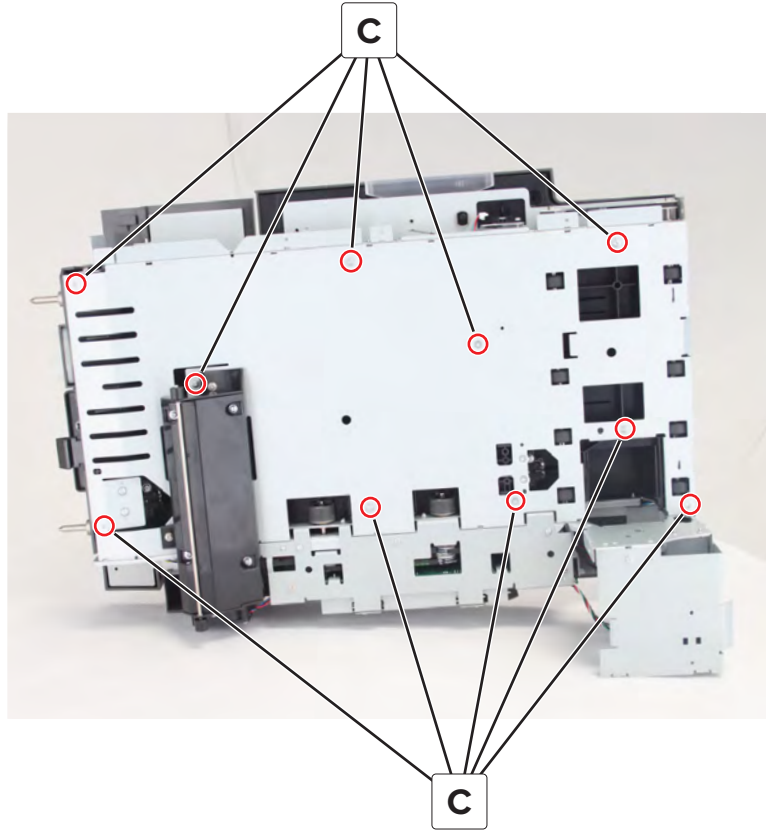
10 Remove the two screws (A), and then remove the retainer (B).



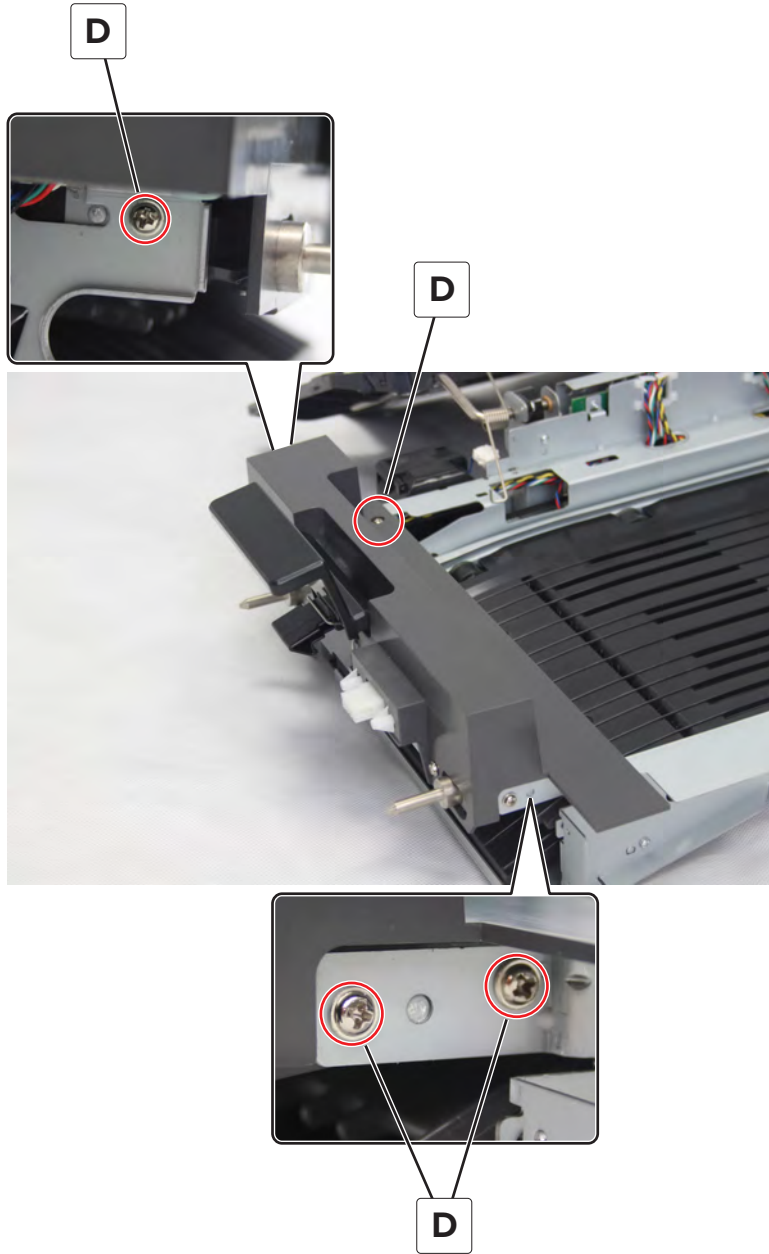
Parts removal

1017

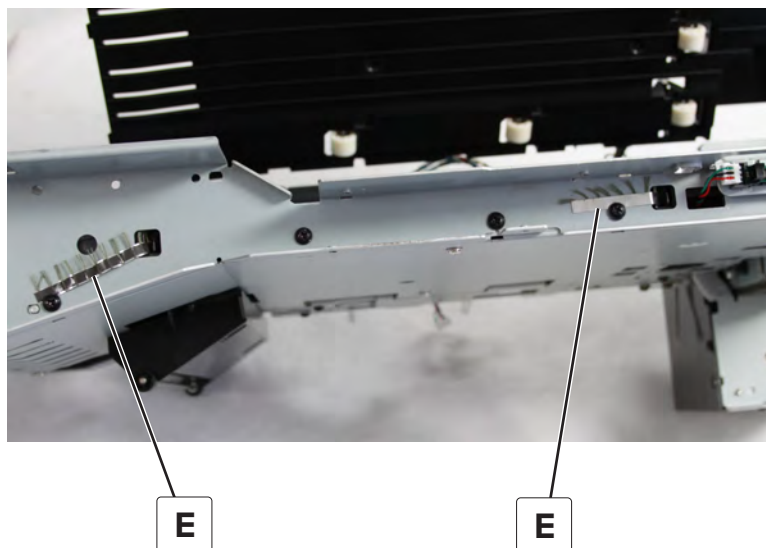
11 Remove the 10 screws (C).



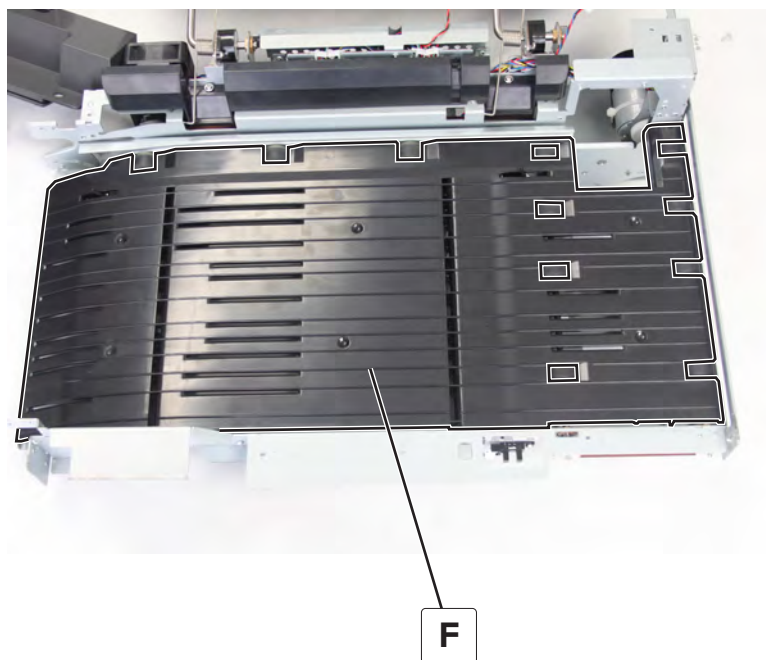
12 Remove the four screws (D).



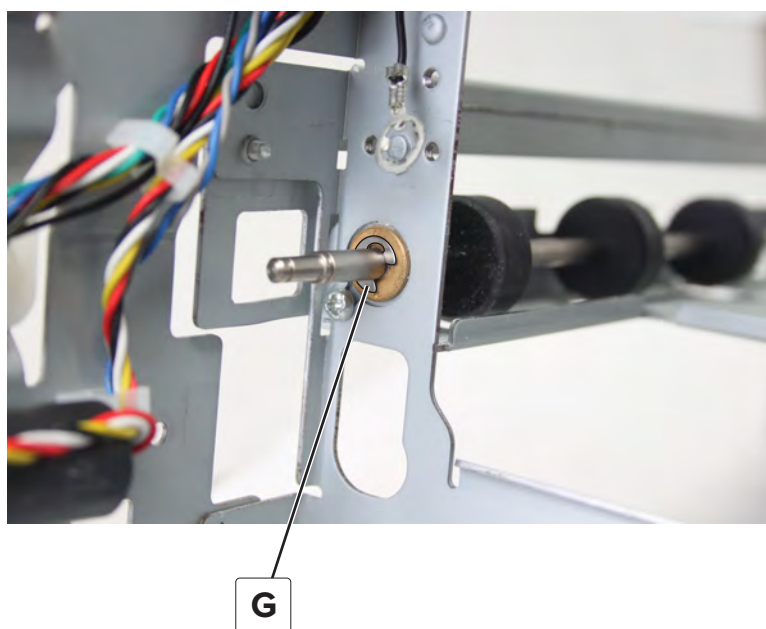
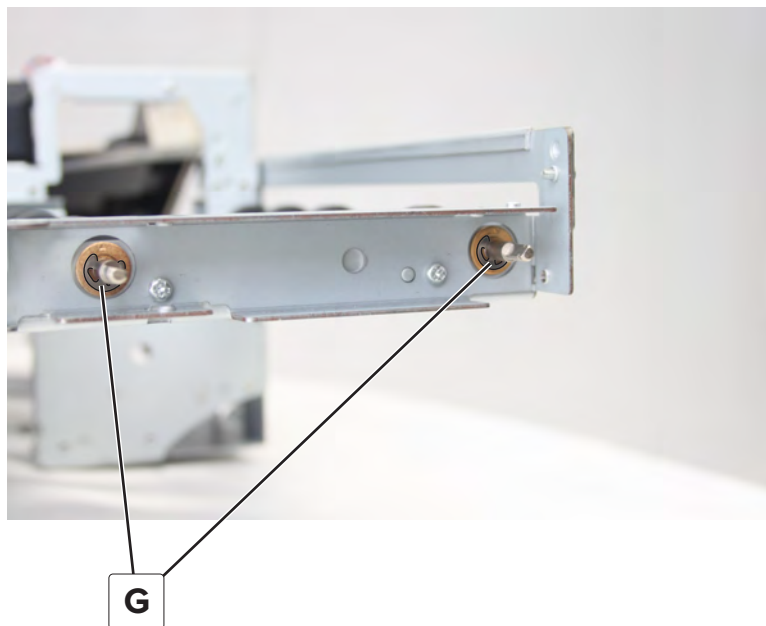
13 Remove the two static brushes (E).



14 Remove the transport guide (F).



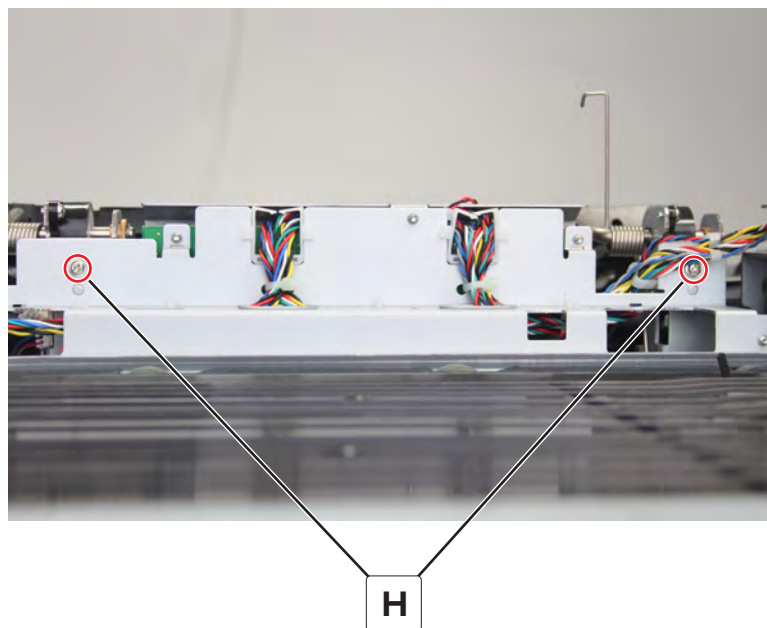
15 Remove the three clips (G), and then remove the bushings.

16 Remove the roller.

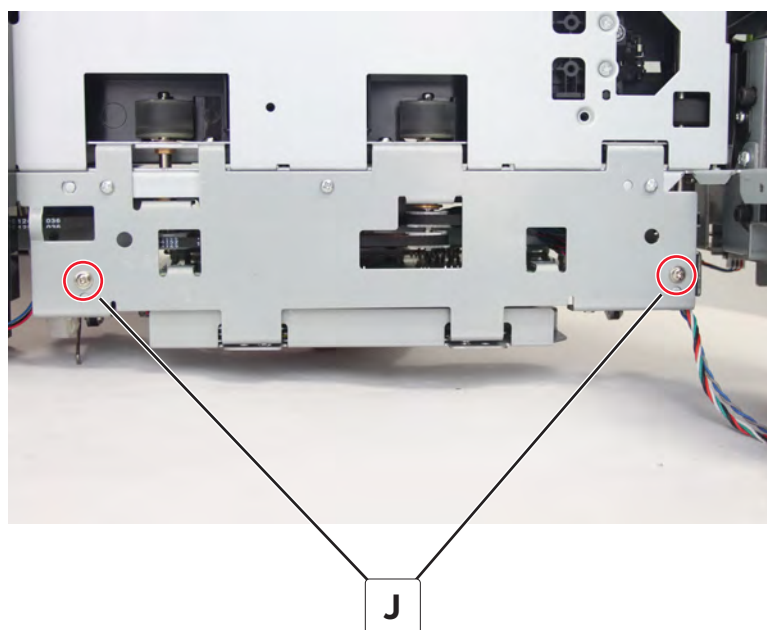
Parts removal

1021

17 Remove the two screws (H).



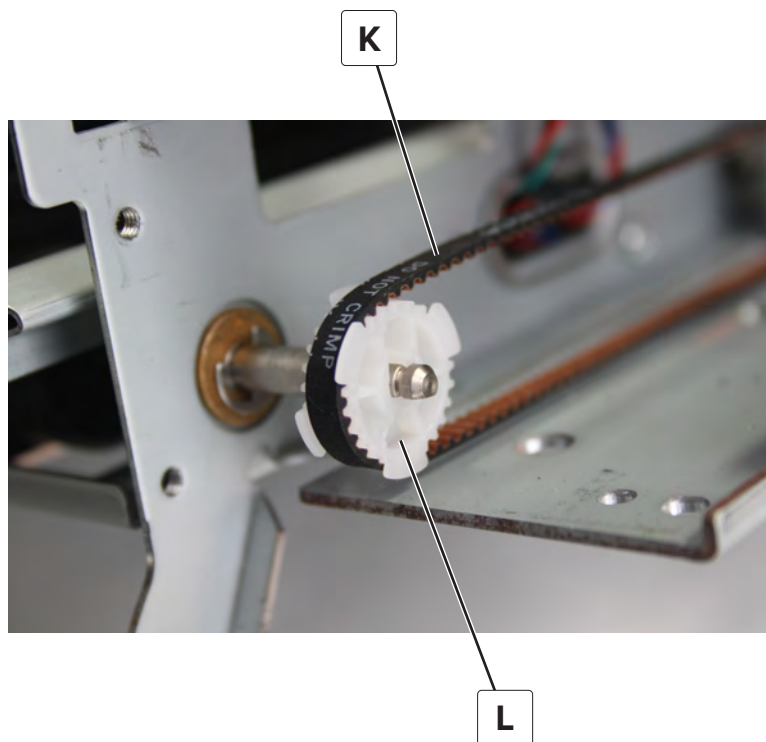
18 Remove the two screws (J), and then remove door K.



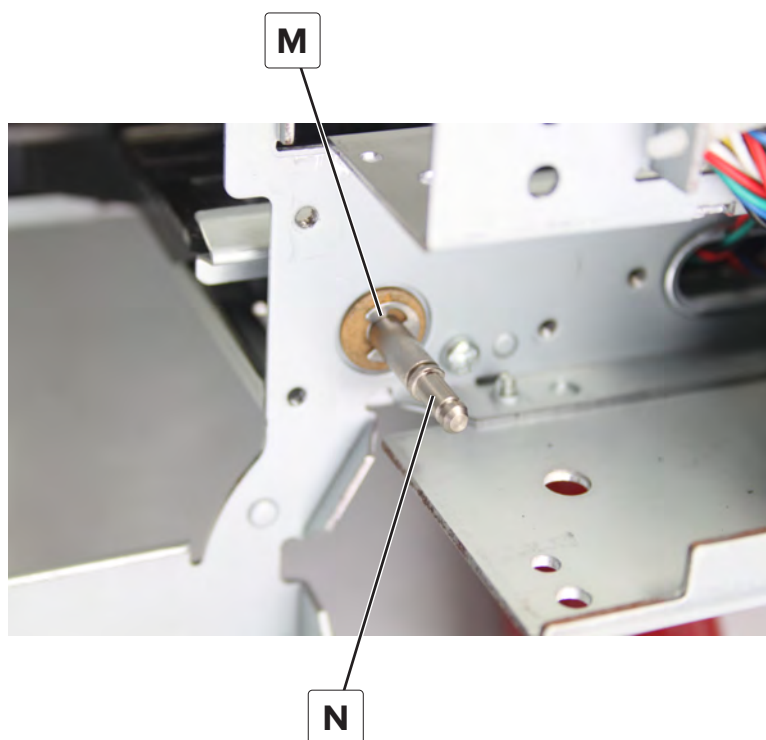
Parts removal

1022

19 Remove the belt (K), and then remove the gear (L).



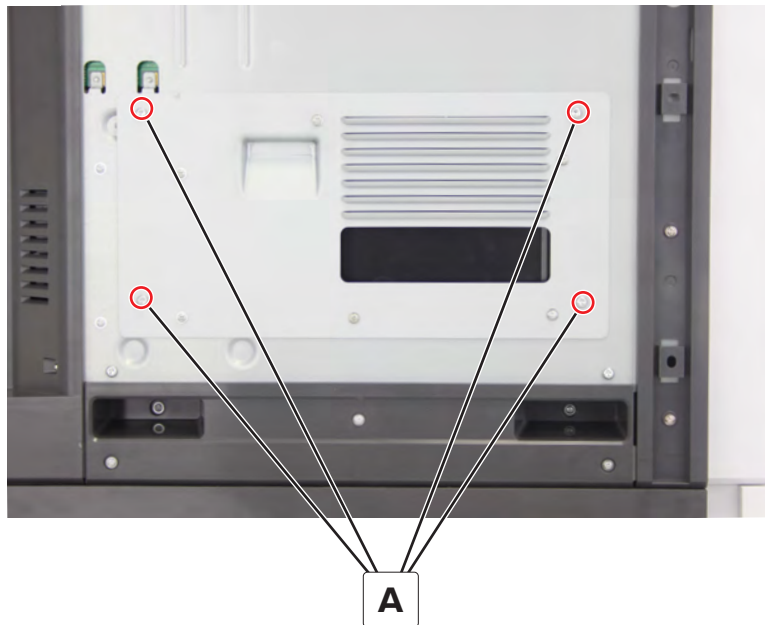
20 Remove the clip (M), bushing, and transport rollers (N).



Multiposition staple, hole punch finisher removals

MSHPF power supply cover removal

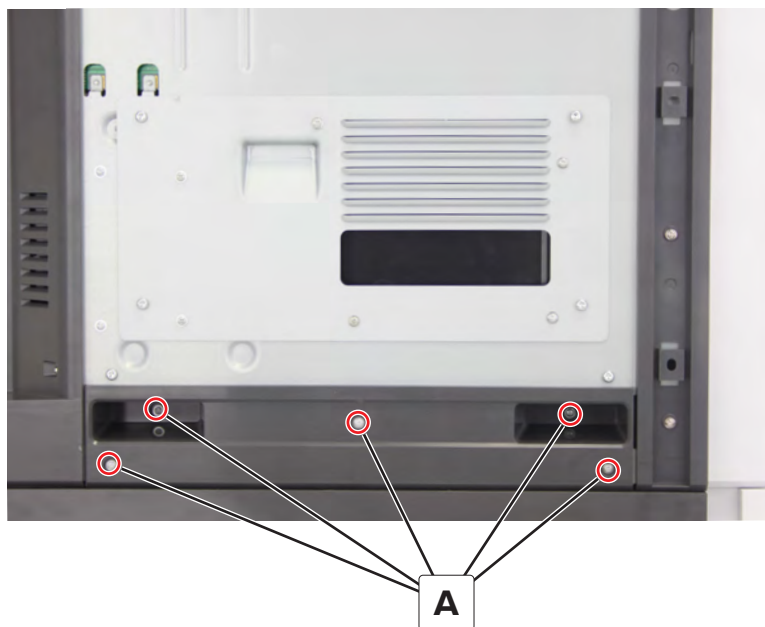
- 1 Using a Torx screwdriver, remove the four screws (A).



- 2 Remove the cover.

MSHPF bottom left cover removal

- 1 Remove the five screws (A).



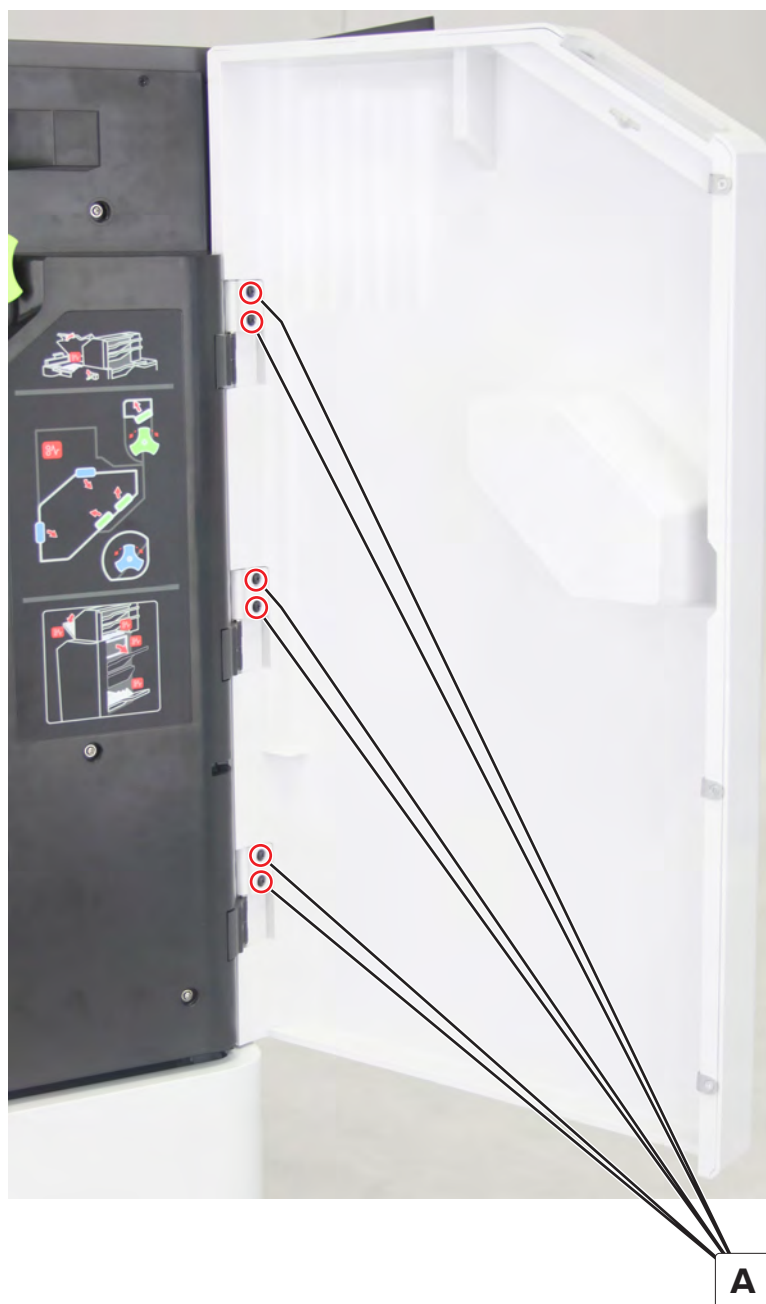
Parts removal

1024

2 Remove the cover.

MSHPF front door removal

1 Open the door, and then remove the six screws (A).



Parts removal

1025

2 Open the hinges, and then remove the door.



Parts removal

1026

Knobs J2 and J7 removal

- 1 Open door J.
- 2 Remove the two screws (A).



- 3 Remove the knobs.

MSHPF door hinge removal

- 1 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025](#).
- 2 Remove the two screws (A) from the appropriate hinge (B).



- 3 Remove the hinge.

MSHPP front left cover removal

1 Remove the five screws (A and B).



2 Remove the cover.

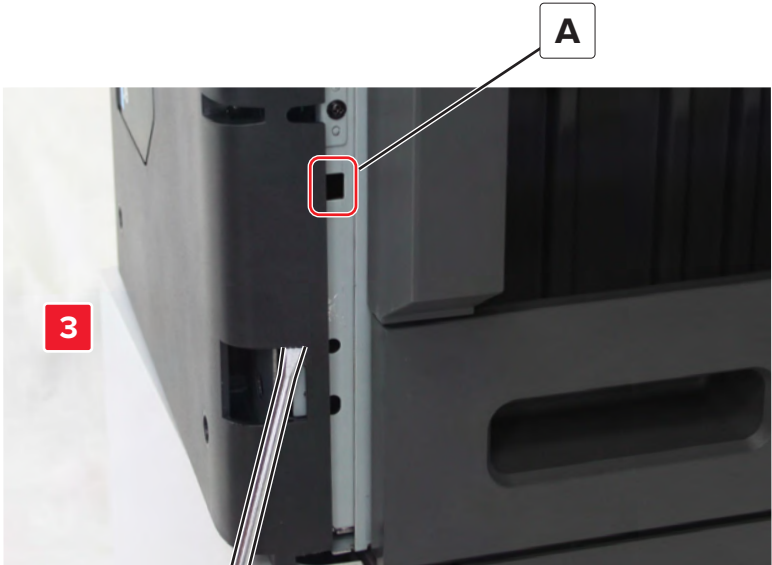
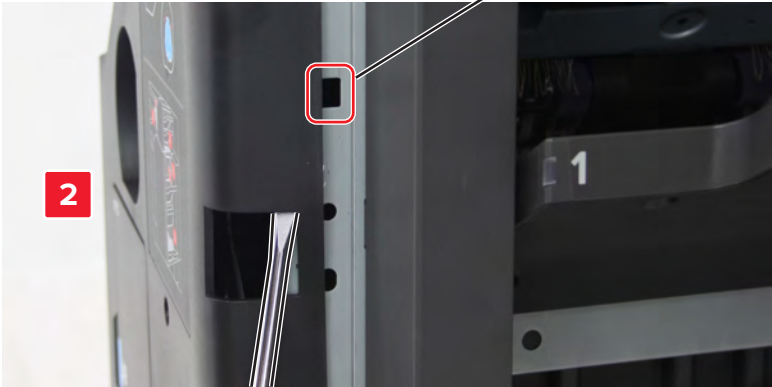
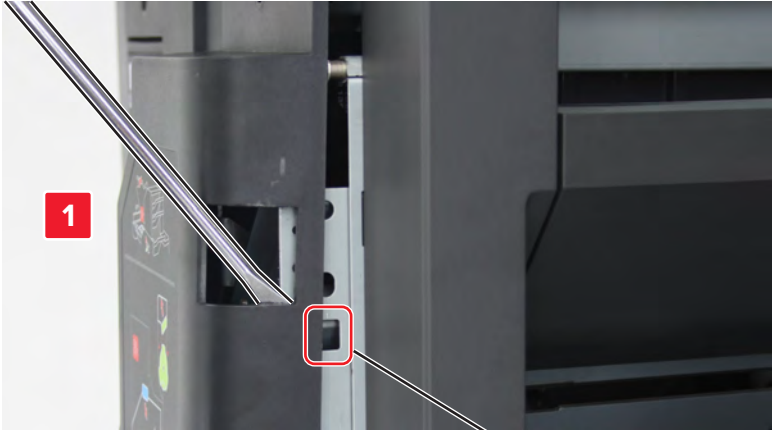
MSHPPF inner front cover removal

- 1 Remove the MSHPPF front left cover. See [“MSHPPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPPF front door. See [“MSHPPF front door removal” on page 1025.](#)
- 3 Remove the MSHPPF door hinge. See [“MSHPPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Open the staple cartridge door, and then remove the eight screws (A and B).



- 6 Pry the cover to release the latches, and then remove the cover.

Note: The latches engage with the holes (A) on the frame.



MSHPP staple cartridge door removal

- 1 Remove the MSHPP front left cover. See [“MSHPP front left cover removal” on page 1029.](#)
- 2 Remove the MSHPP front door. See [“MSHPP front door removal” on page 1025.](#)
- 3 Remove the MSHPP door hinge. See [“MSHPP door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPP inner front cover. See [“MSHPP inner front cover removal” on page 1030.](#)

- 6 At the back of the inner front cover, remove the two screws (A).



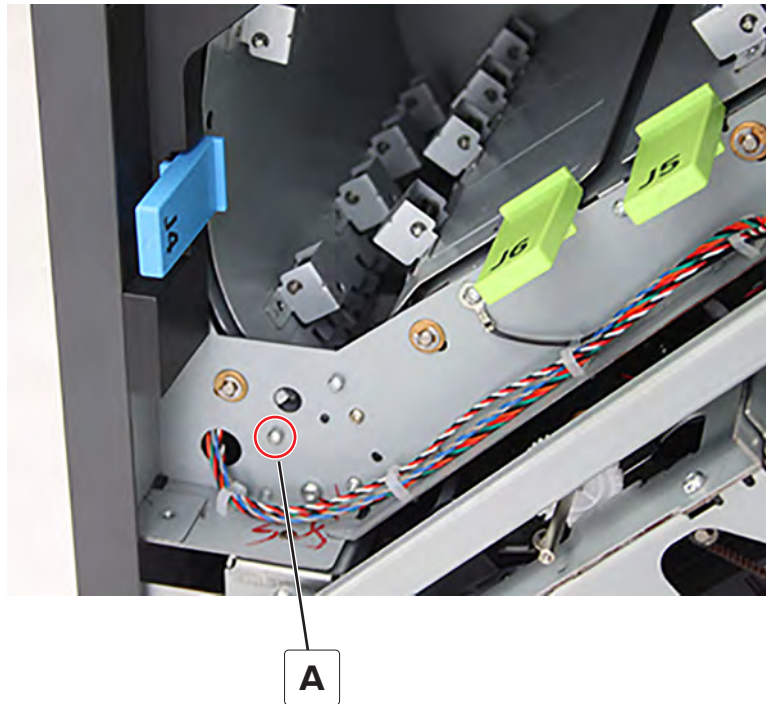
- 7 Remove the door.

Parts removal

1033

Door J4 removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 7 Remove the screw (A).



8 Remove the two screws (B), and then open the door.



Parts removal

1035

- 9 Remove the screw (C), and then remove door J4.

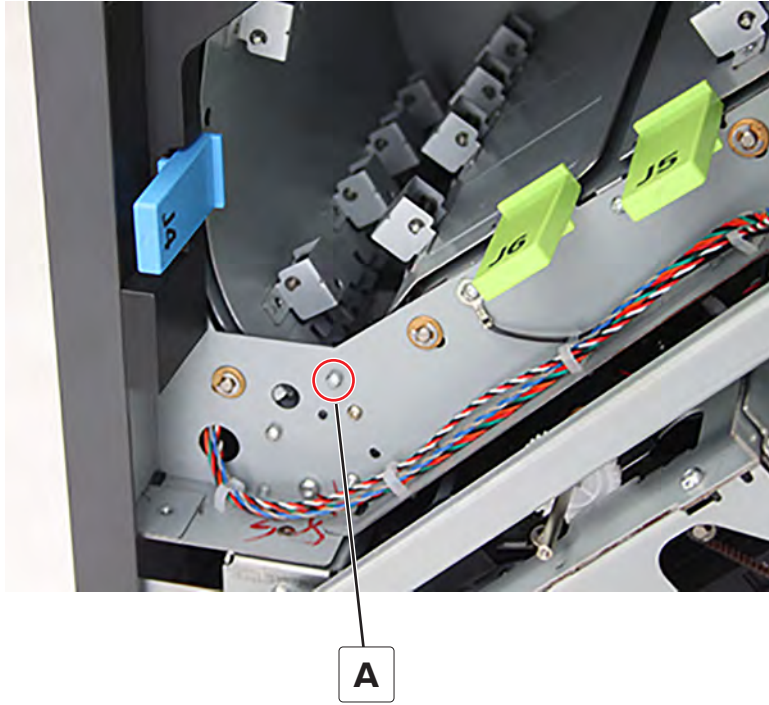


C

Door J6 removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)

7 Remove the screw (A).



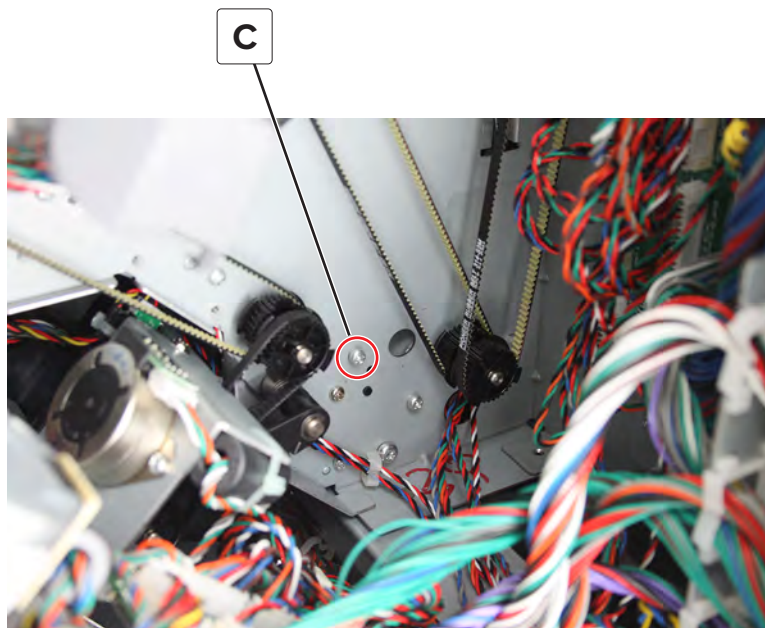
8 Remove the two screws (B), and then open the door.



Parts removal

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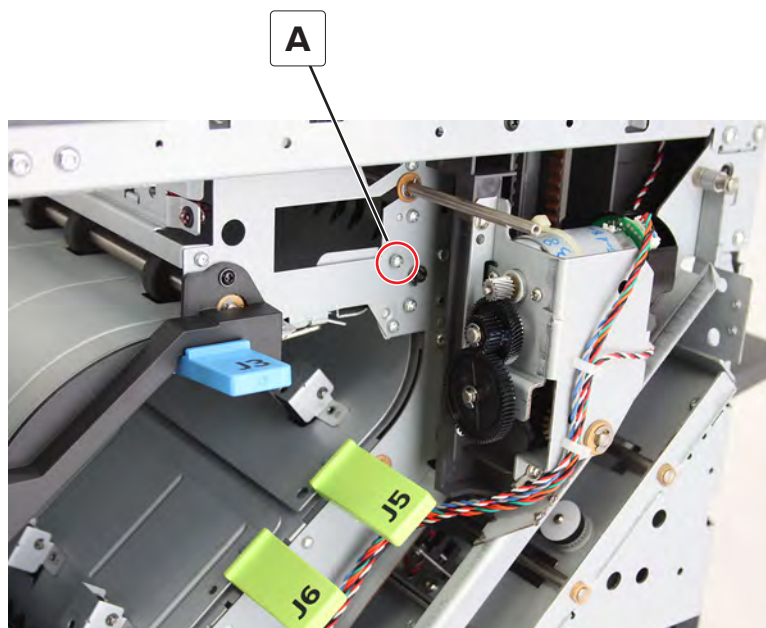
- 9 Remove the screw (C), and then remove door J6.



Door J3 removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)

7 Remove the screw (A).



Parts removal

1040

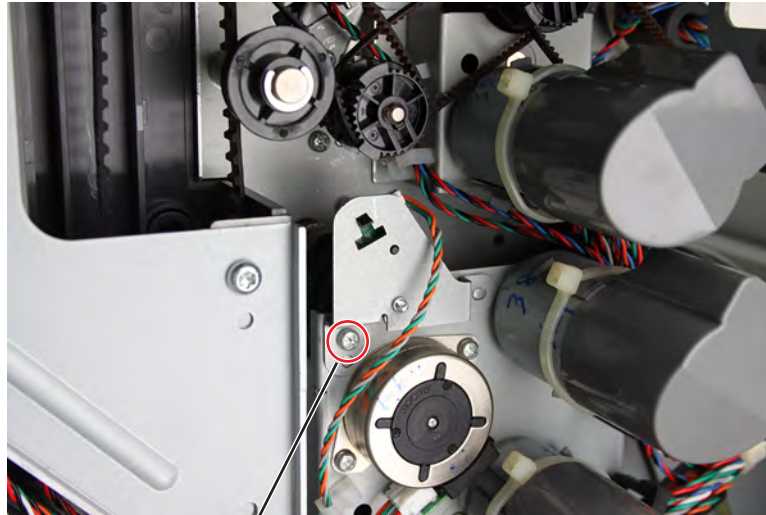
8 Remove the two screws (B), and then open the door.



Parts removal

1041

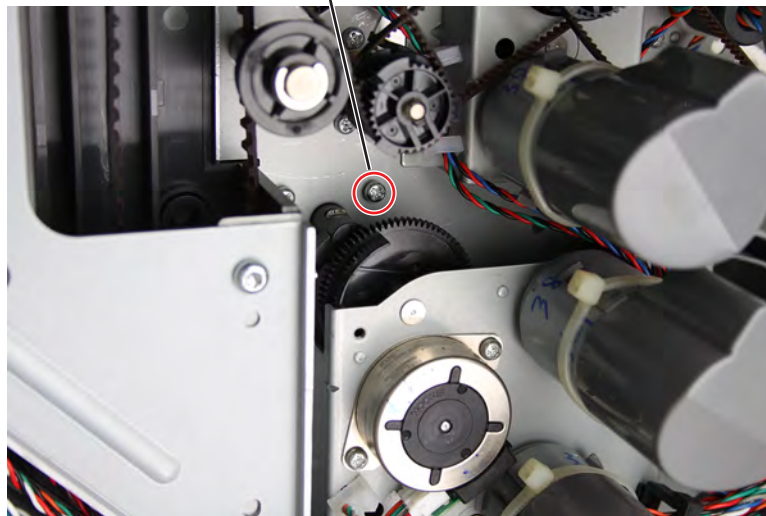
- 9 Remove the screw (C), and then release the bracket.



C

- 10 Remove the screw (D), and then remove door J3.

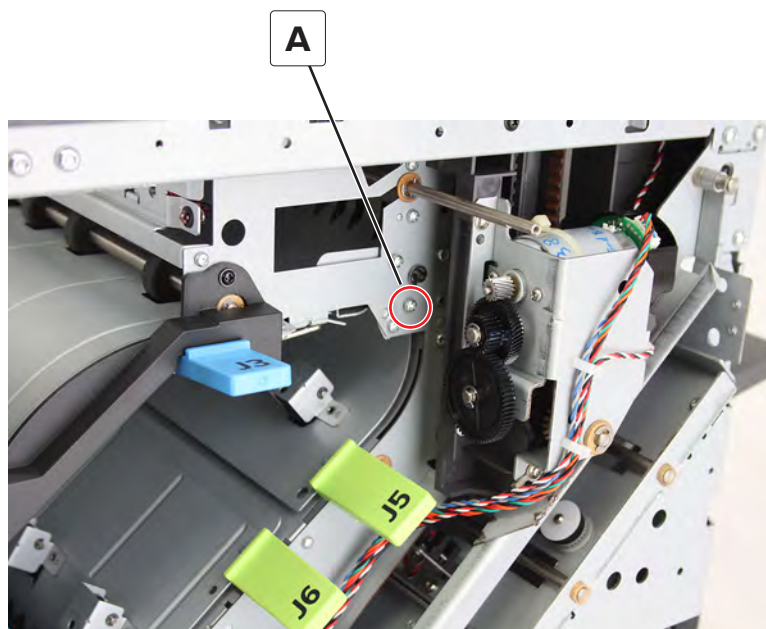
D



Door J5 removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

- 6 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 7 Remove the screw (A).



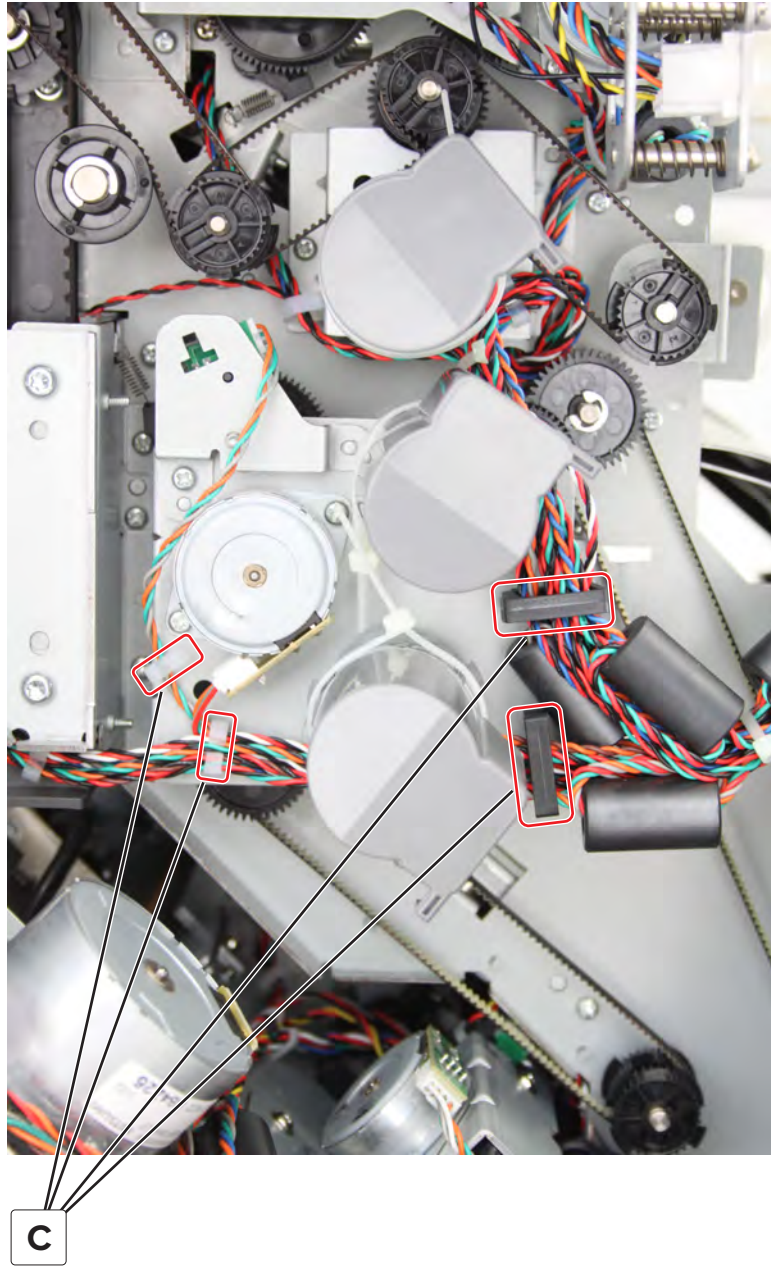
8 Remove the two screws (B), and then open the door.



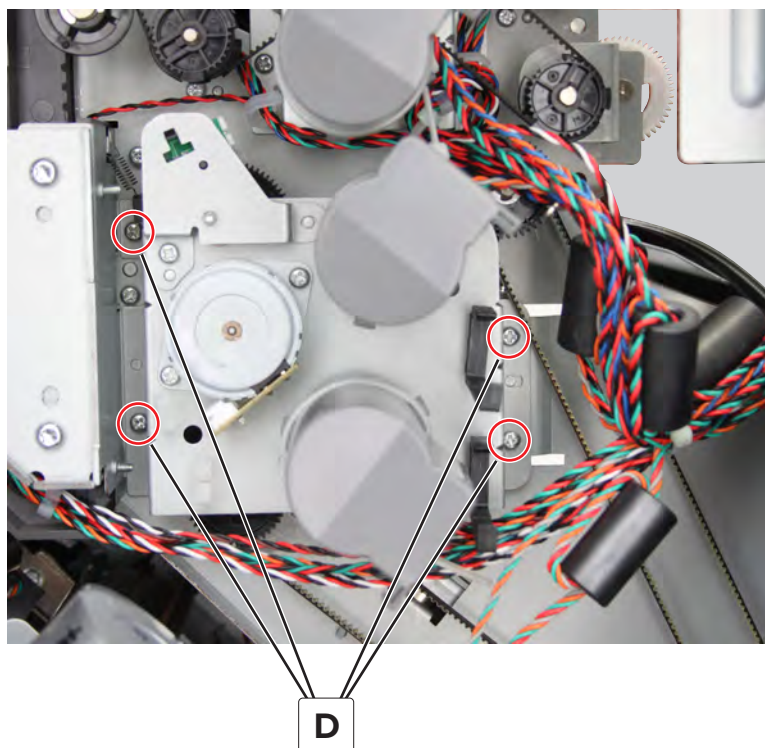
Parts removal

1044

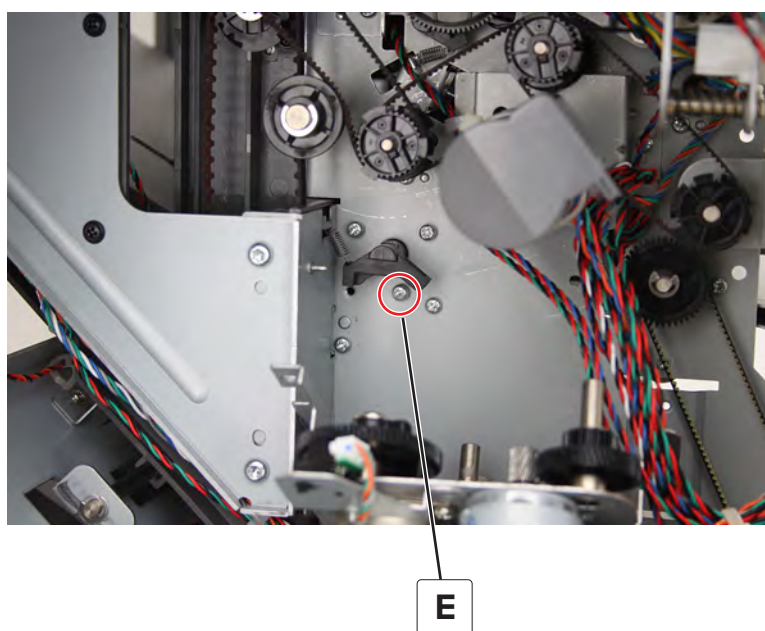
9 Release the cables from their guides (C), and then detach them from the bracket.



10 Remove the four screws (D), and then release the bracket.



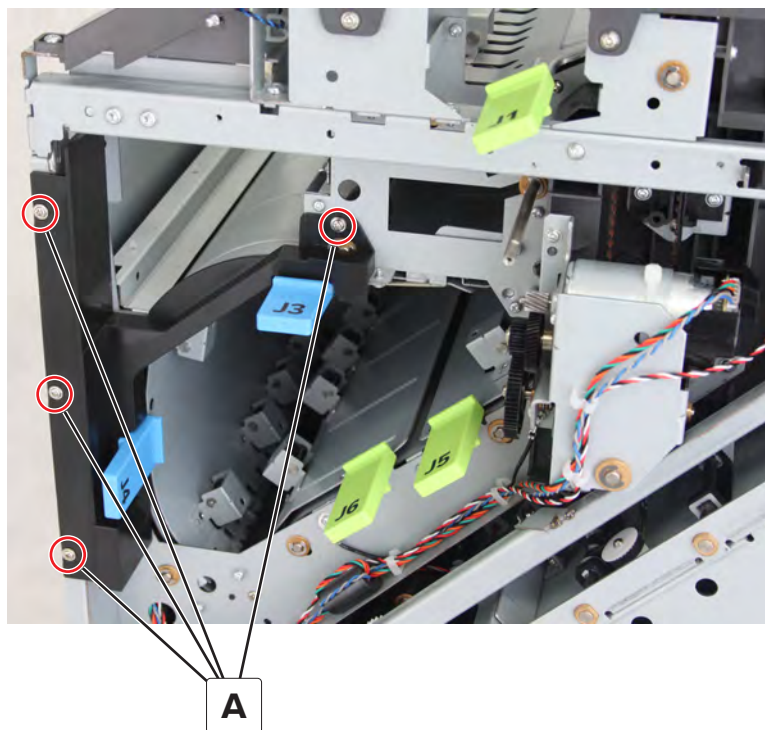
11 Remove the screw (E), and then remove door J5.



MSHPF left front cover removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)

- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028](#).
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027](#).
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030](#).
- 6 Remove the four screws (A), and then remove the cover.



MSHPF controller board cover removal

- 1 Remove the screw (A).



- 2 Remove the cover.

Installation note: Engage the bottom latches (B) properly.



B

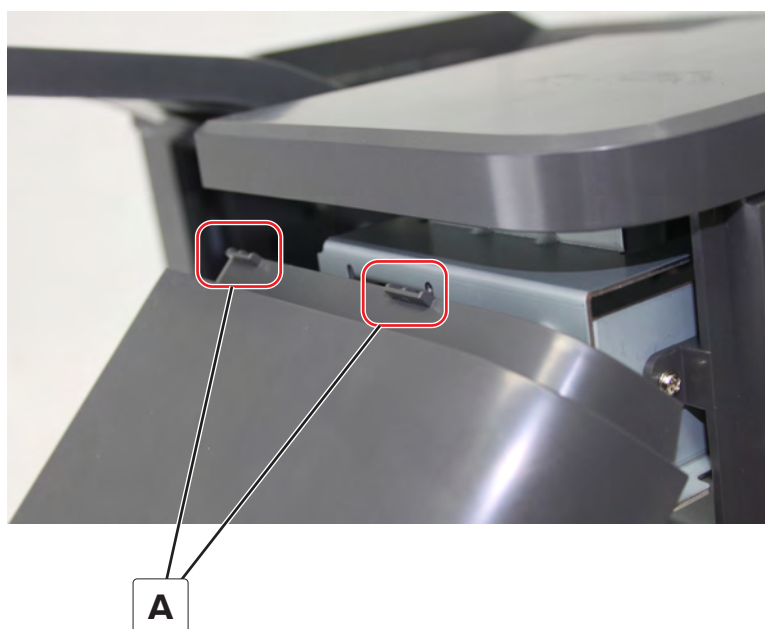
MSHPF right cover removal

- 1 Remove the two screws (A).



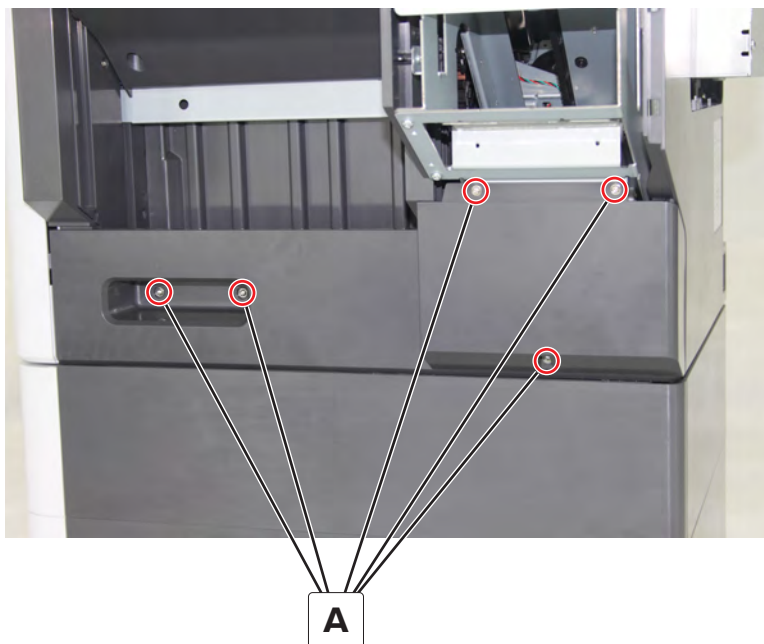
- 2 Remove the cover.

Installation note: Engage the upper latches (A) properly.



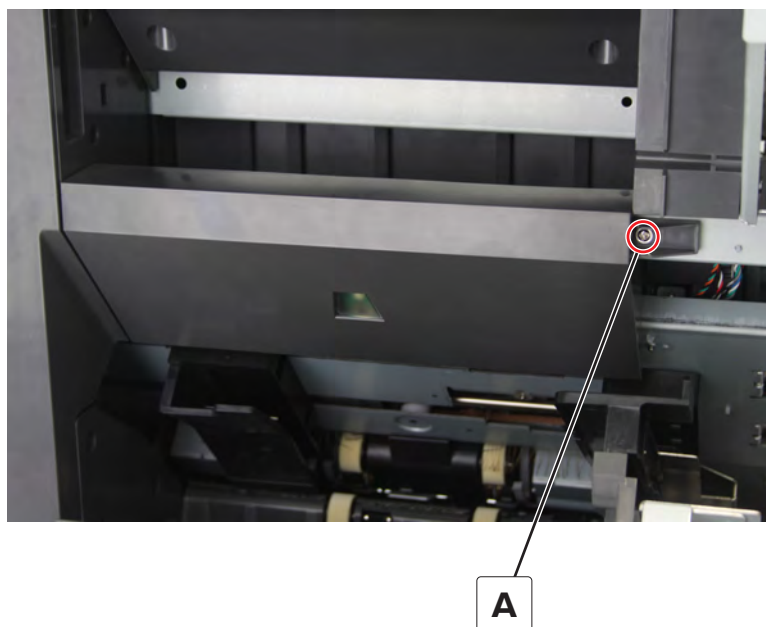
MSHPF bottom right cover removal

- 1 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 2 Remove the five screws (A), and then remove the cover.



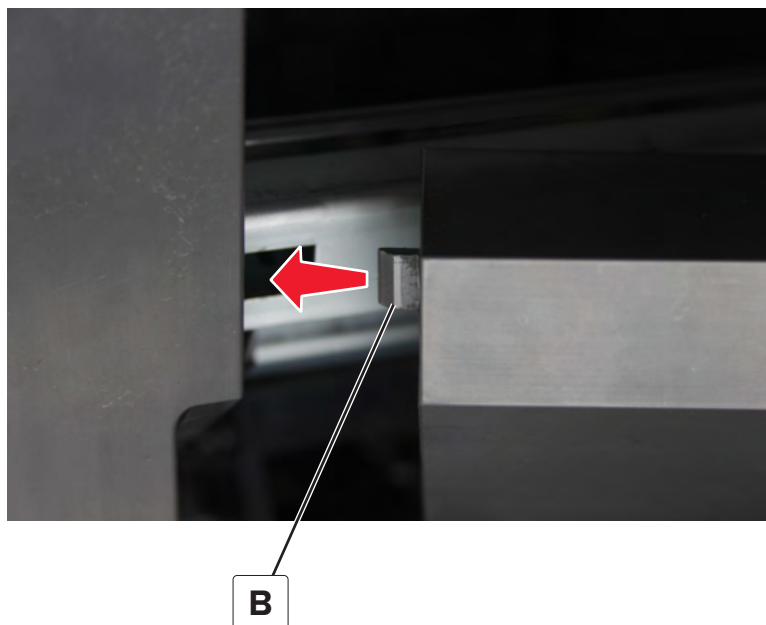
Stapler bin cave cover removal

- 1 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 2 Remove the screw (A).

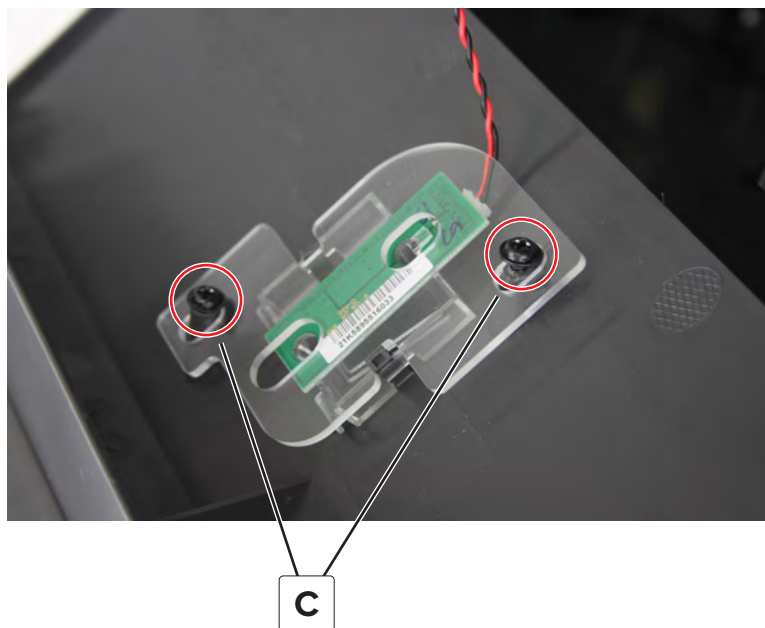


- 3 Swing the cover to the left to release, and then pull the cover.

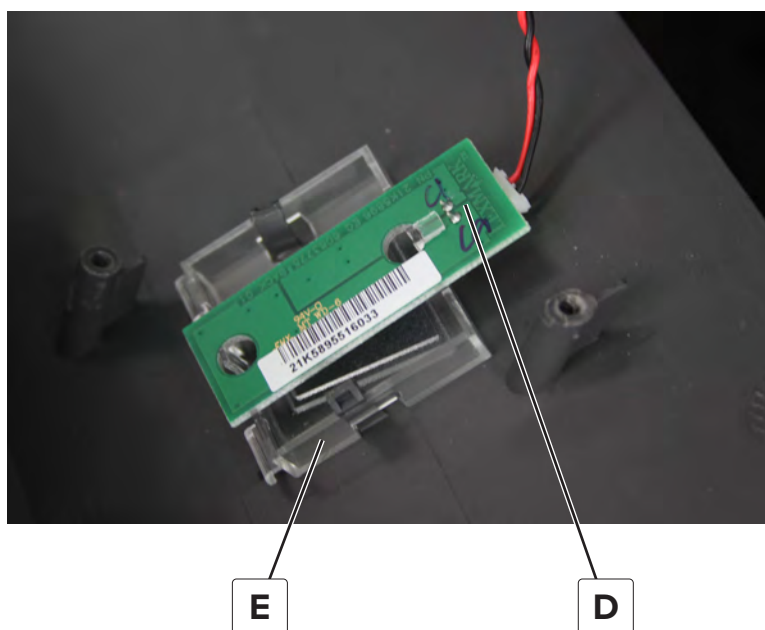
Installation note: Insert the latch (B) properly.



- 4 Remove the two screws (C) at the back of the cover, and then remove the inner cover.

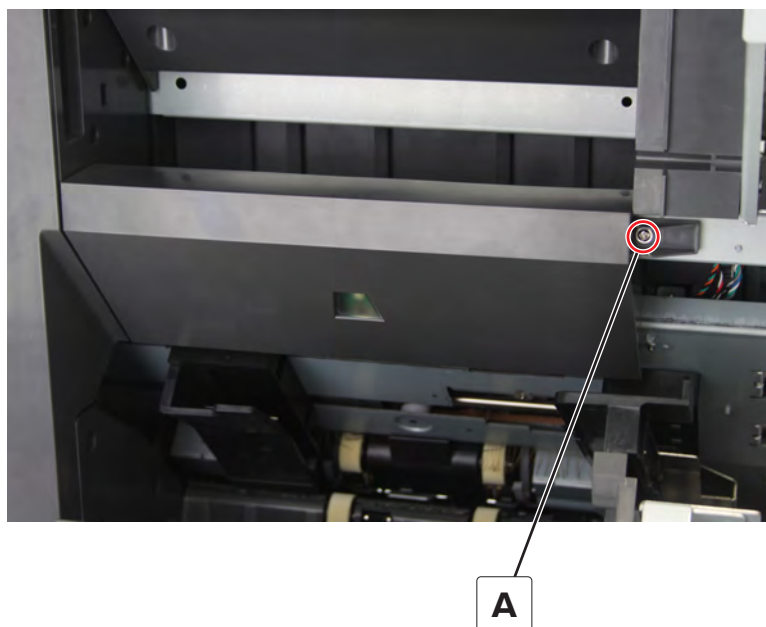


- 5 Detach the LED (D) and lens (E), and then remove the cover.



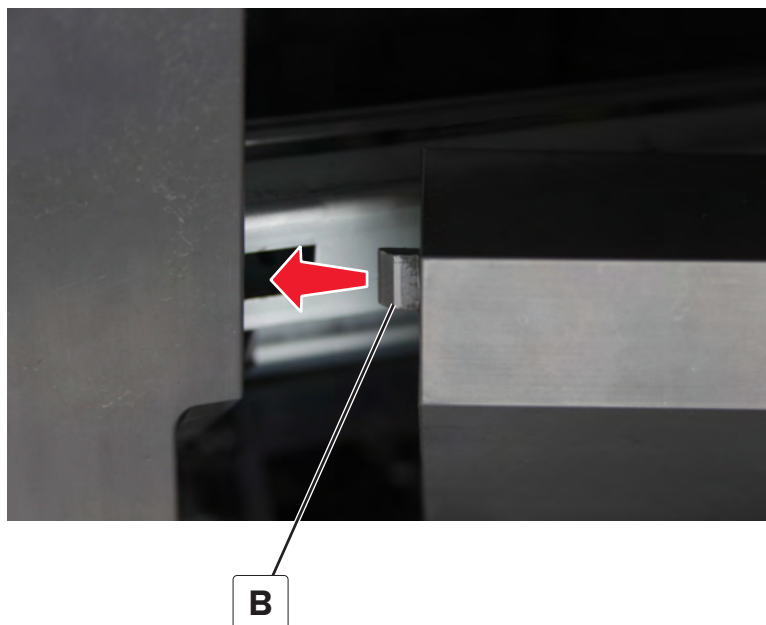
MSHPF bin light board removal

- 1 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 2 Remove the screw (A).

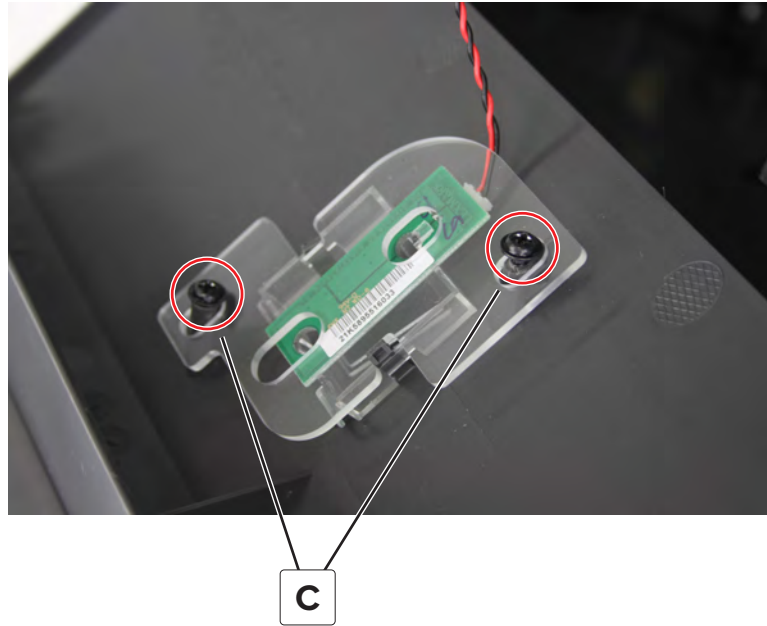


- 3 Swing the cover to the left to release, and then pull the cover.

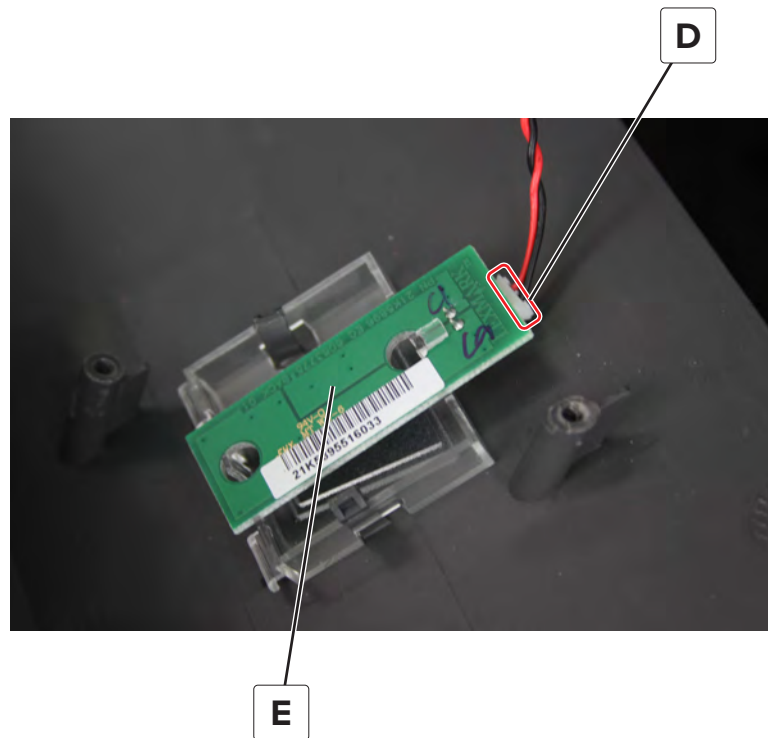
Installation note: Insert the latch (B) properly.



- 4 Remove the two screws (C) at the back of the cover, and then remove the inner cover.



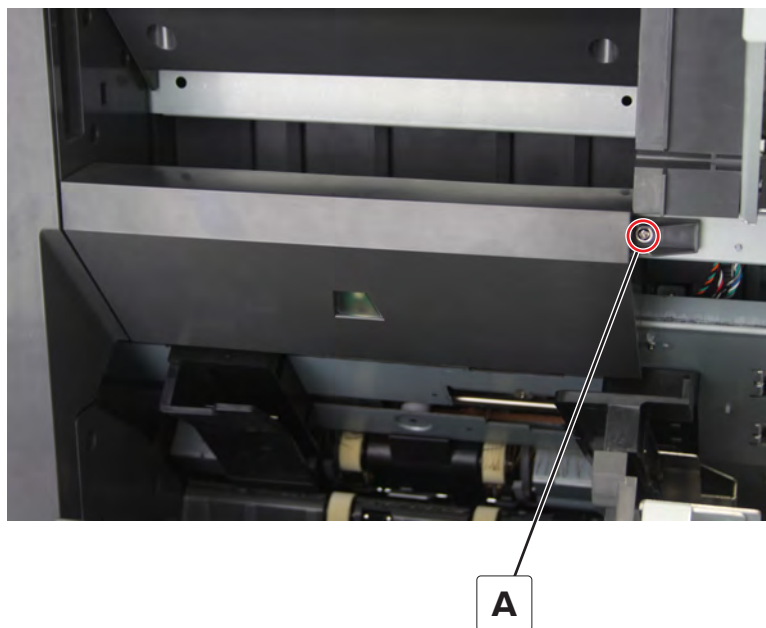
- 5 Disconnect the cable (D), and then remove the LED (E).



MSHPF right frame cover removal

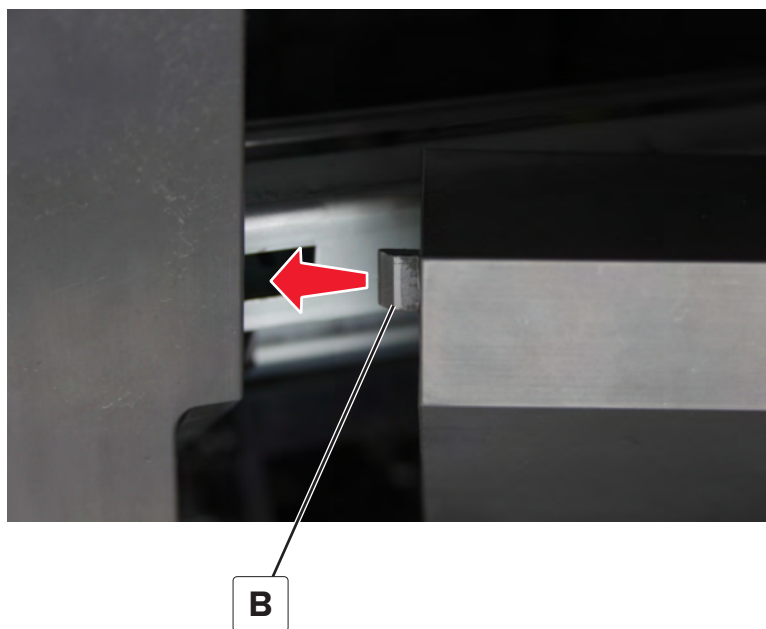
- 1 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 2 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).

- 3 Remove the screw (A).

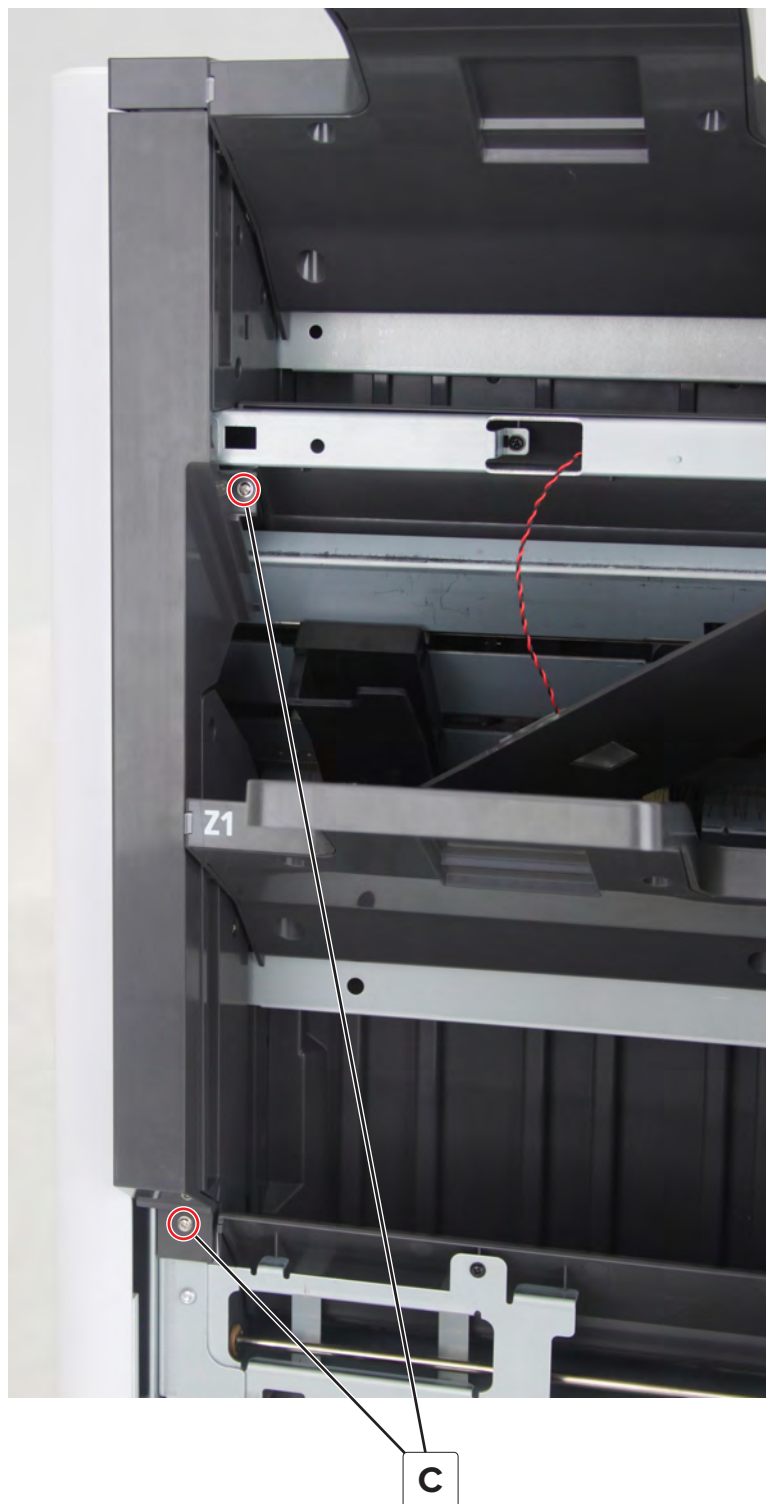


- 4 Swing the cover to the left to release, and then pull the cover.

Installation note: Insert the latch (B) properly.



- 5 Remove the two screws (C), and then remove the cover.



Parts removal

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MSHPPF rear cover removal

- 1 Remove the MSHPPF controller board cover. See [“MSHPPF controller board cover removal” on page 1048](#).
- 2 Remove the MSHPPF right cover. See [“MSHPPF right cover removal” on page 1050](#).
- 3 Remove the MSHPPF bottom right cover. See [“MSHPPF bottom right cover removal” on page 1051](#).
- 4 Remove the eight screws (A), and then remove the cover.




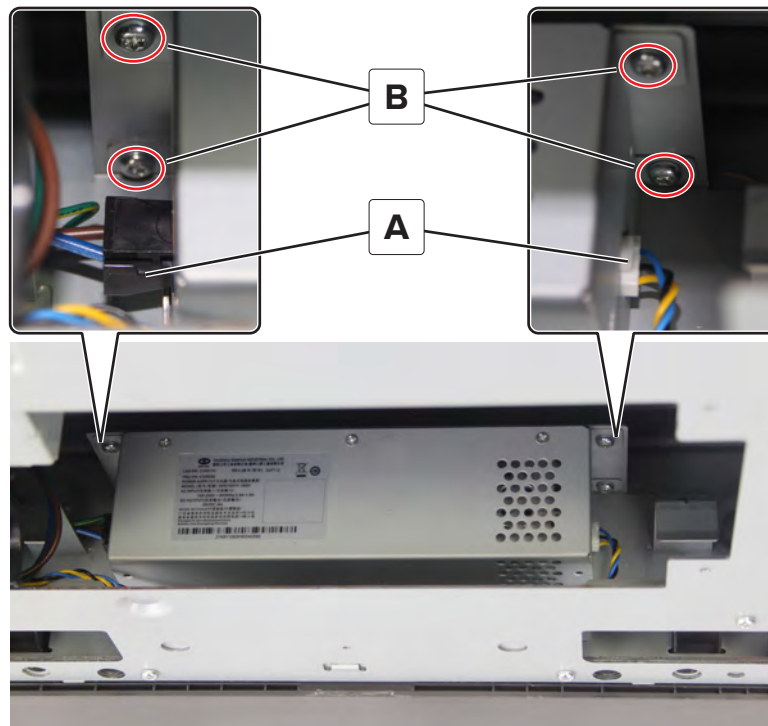
Installation note: Insert the locating pins (A) on the top edge of the cover properly.



MSHPF power supply removal

- 1 Remove the MSHPF power supply cover. See [“MSHPF power supply cover removal” on page 1024](#).
- 2 Remove the MSHPF bottom left cover. See [“MSHPF bottom left cover removal” on page 1024](#).
- 3 Disconnect the cables (A), and then remove the four screws (B).

 **CAUTION—POTENTIAL INJURY:** The frame edges may be sharp. To avoid the risk of a laceration injury, use caution when working near the frame edges.

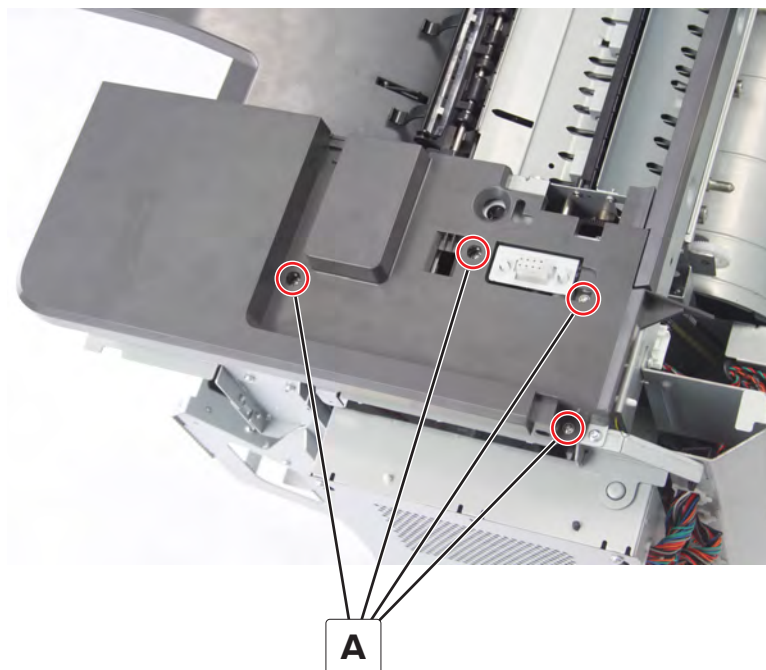


4 Remove the power supply.

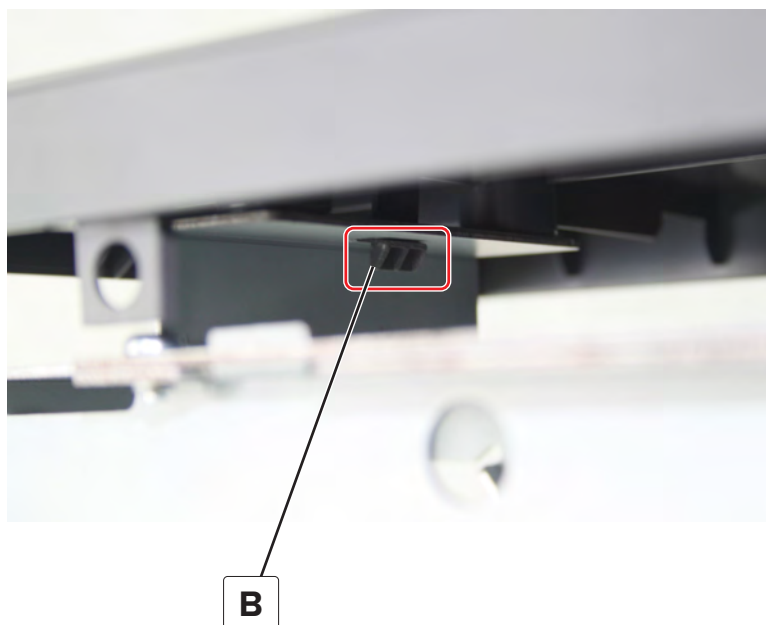
MSHPF inner top cover removal

- 1** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

5 Remove the four screws (A).



6 Release the latch (B) under the cover.

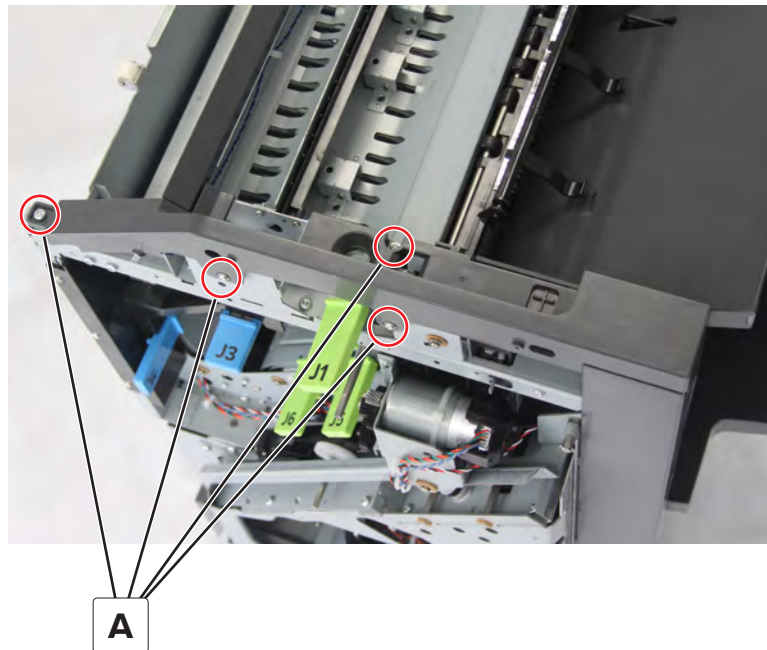


7 Remove the cover.

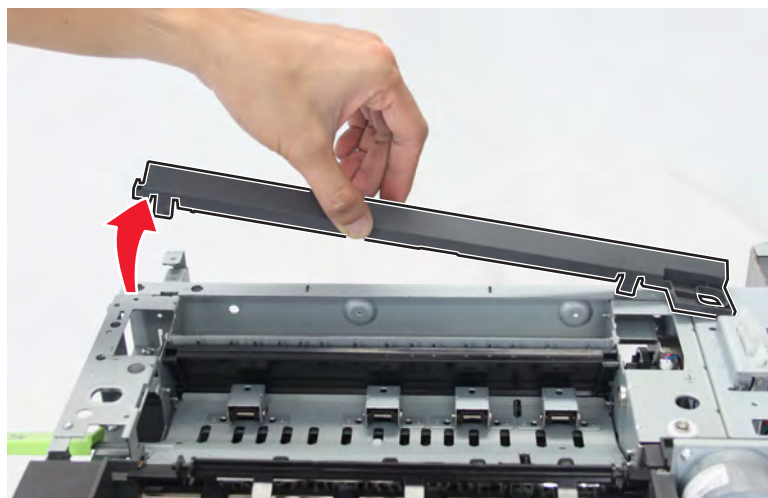
MSHPPF top frame covers removal

- 1 Remove the MSHPPF front left cover. See [“MSHPPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPPF front door. See [“MSHPPF front door removal” on page 1025.](#)
- 3 Remove the MSHPPF door hinge. See [“MSHPPF door hinge removal” on page 1028.](#)

- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027](#).
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030](#).
- 6 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048](#).
- 7 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 8 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 9 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 10 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060](#).
- 11 Remove the four screws (A), and then remove the front top cover.



- 12 Lift the left top cover to release, and then remove.

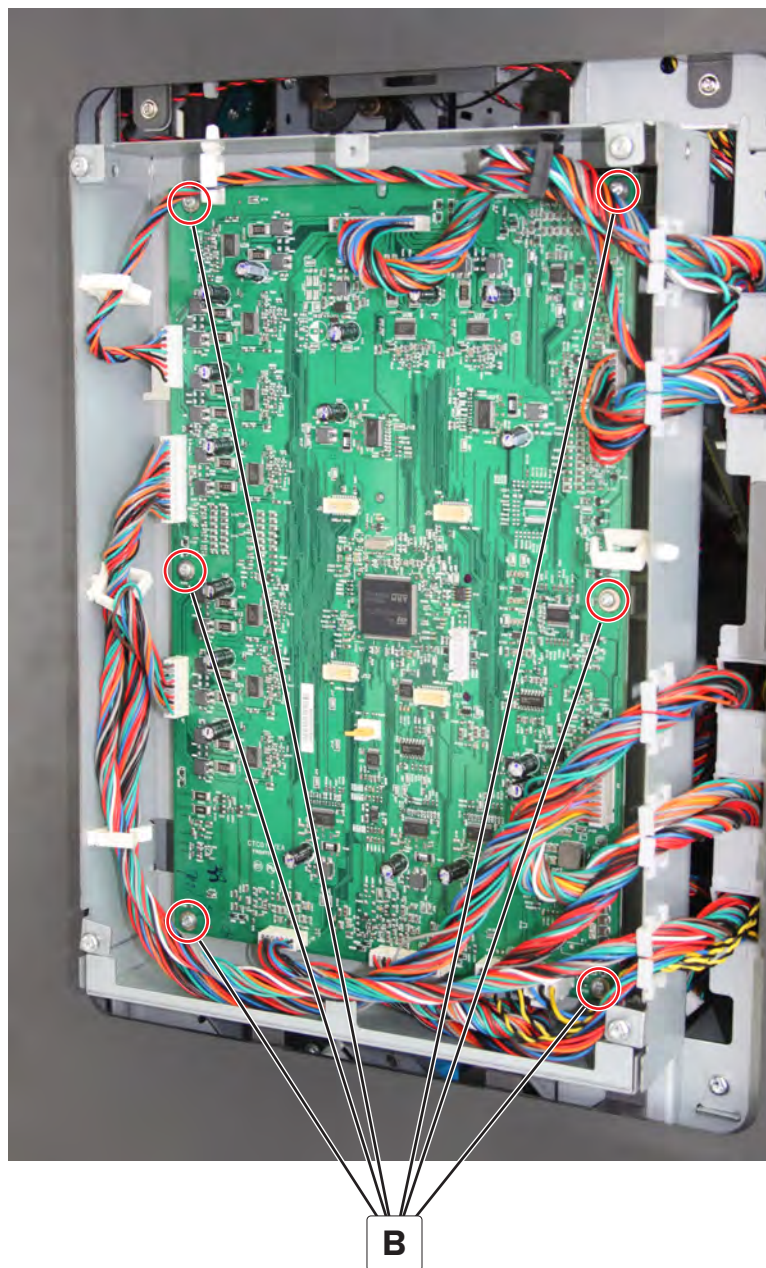


MSHPPF controller board removal

- 1 Remove the MSHPPF controller board cover. See [“MSHPPF controller board cover removal” on page 1048](#).
- 2 Loosen the four screws (A), and then remove the cage.



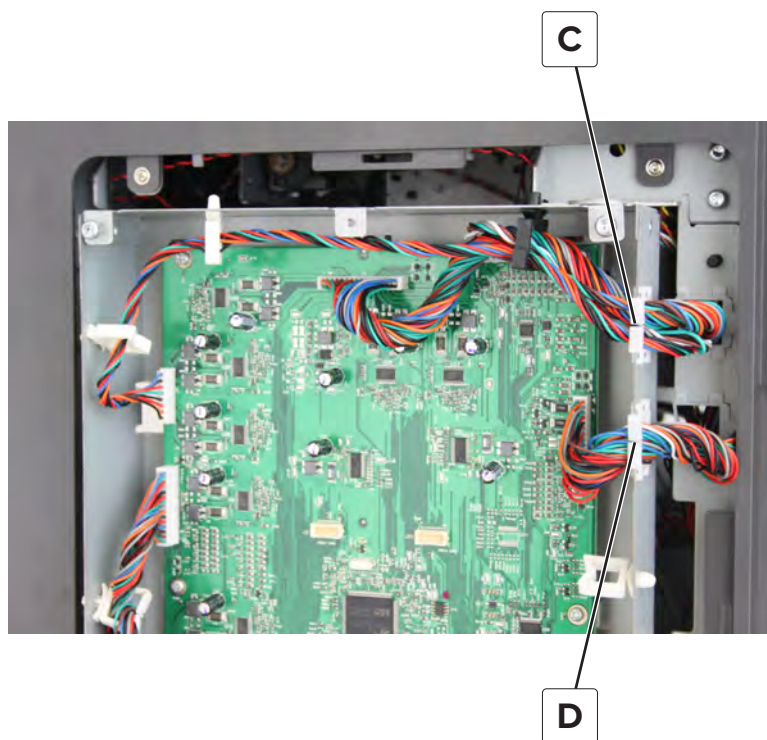
3 Remove the six screws (B).



4 Disconnect all the cables.

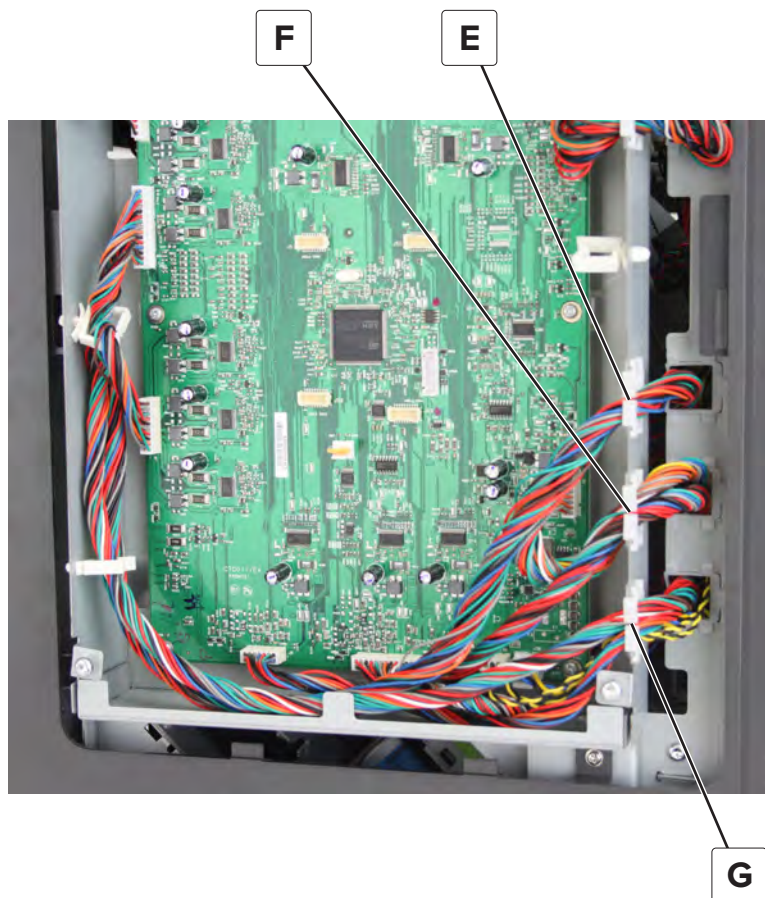
Installation note: Route and group the cables properly.

- Cable group (C)—J4, J7, J11, J34
- Cable group (D)—J8



- Cable group (E)—J3
- Cable group (F)—J9, J2

- Cable group (G)—5J38, J47, J46, J2, J5

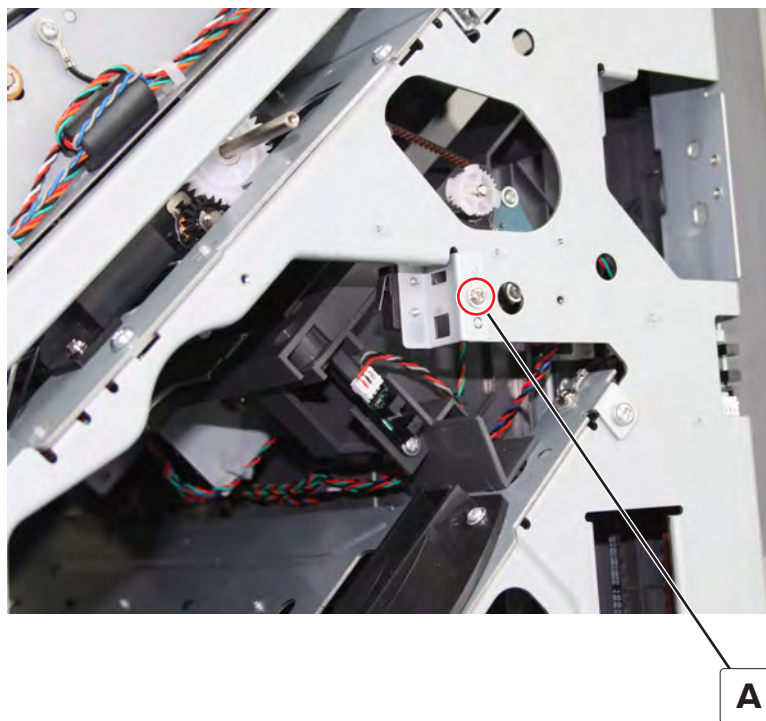


- 5 Remove the board.

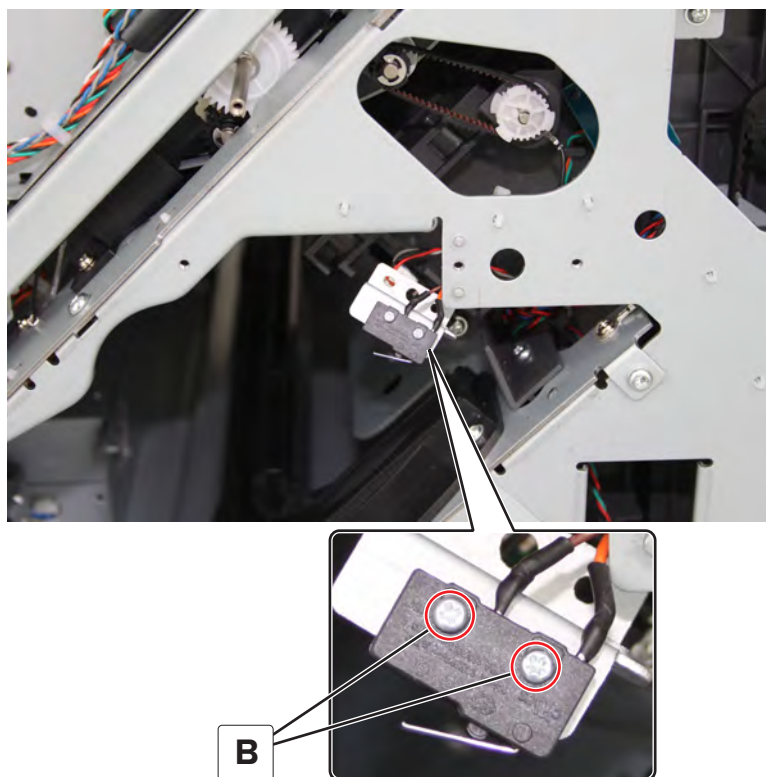
Switch (MSHPF cartridge door interlock) removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

6 Remove the screw (A), and then release the bracket.



7 Remove the two screws (B), and then disconnect and remove the sensor.

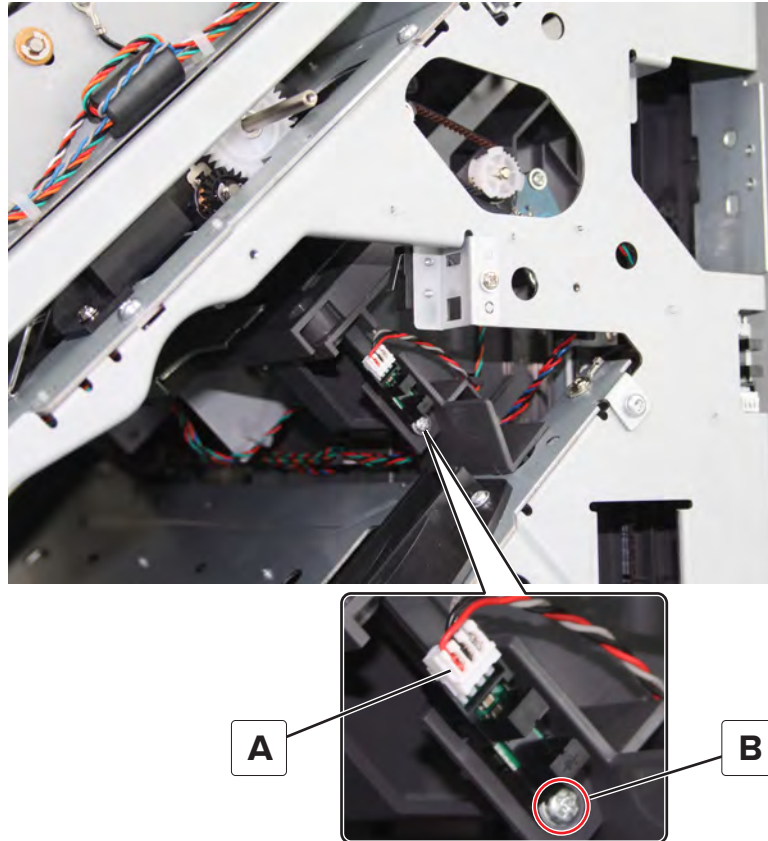


Parts removal

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Sensor (cartridge loading position) removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Disconnect the cable (A), and then remove the screw (B).

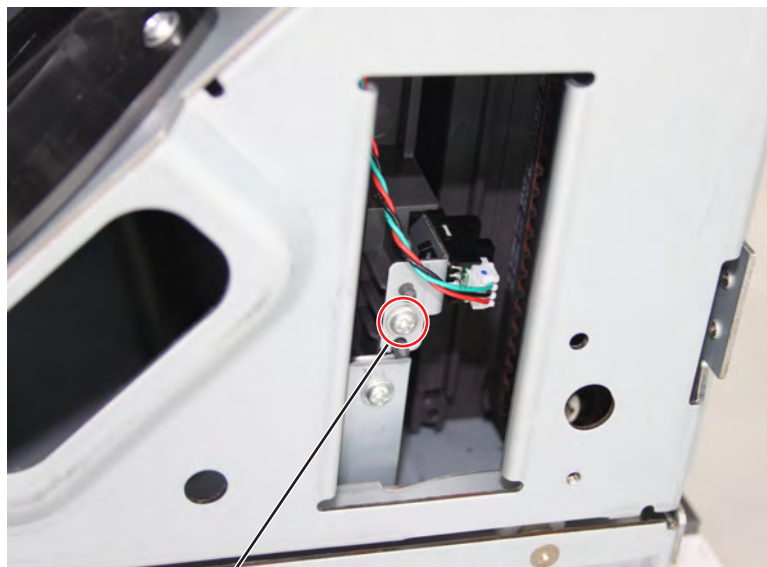


- 7 Remove the sensor.

Sensor (stapler bin lower limit) removal

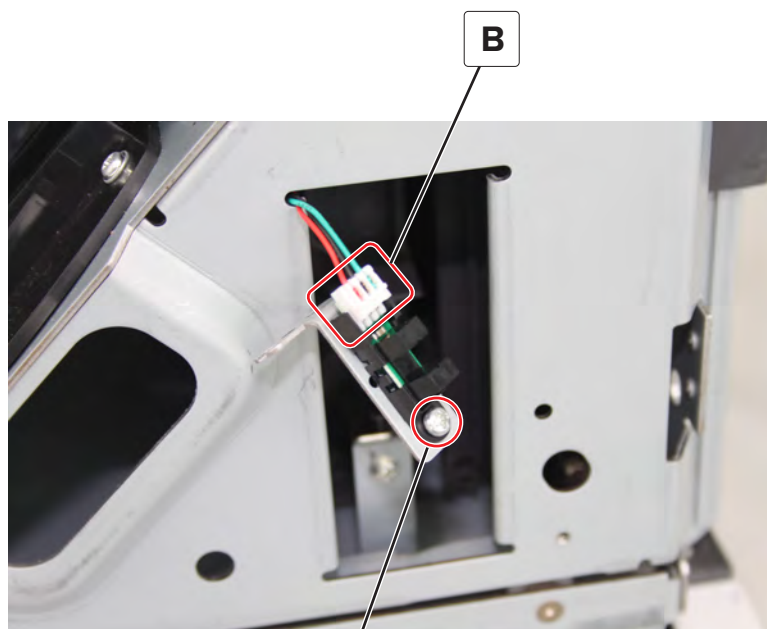
- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

6 Remove the screw (A), and then release the bracket.



A

7 Disconnect the cable (B), and then remove the screw (C).



B

C

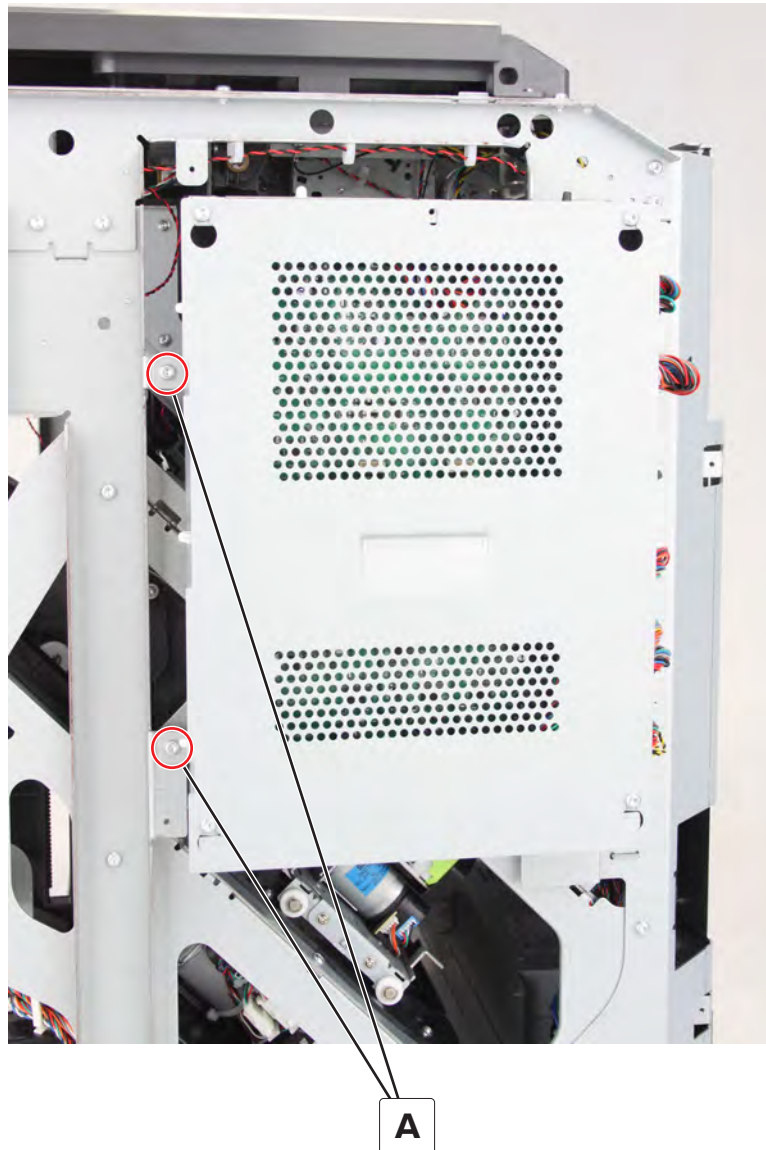
8 Remove the sensor.

MSHPPF staple unit carriage removal

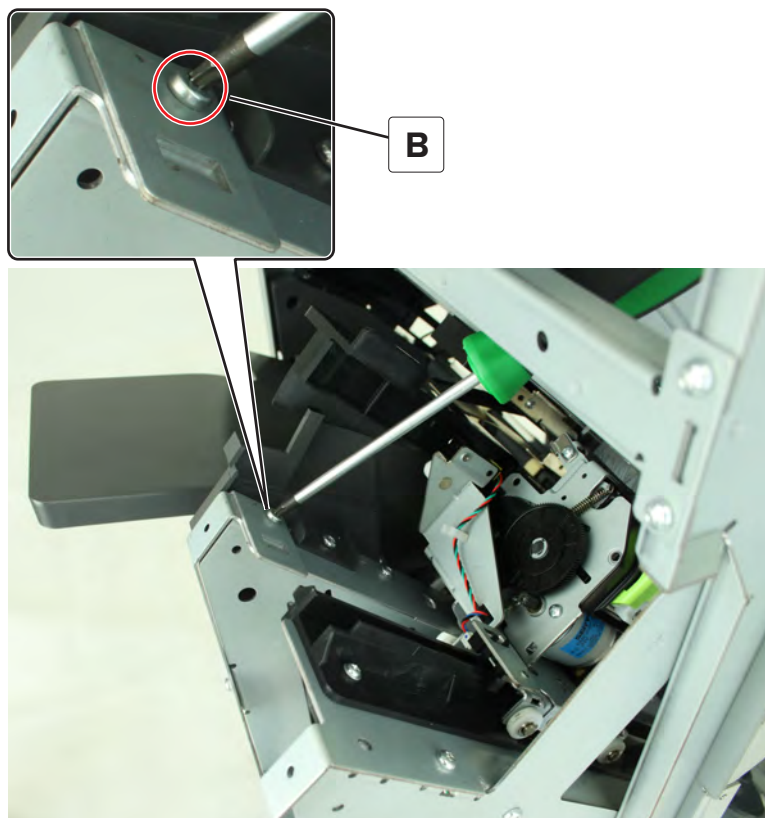
Note: For a video demonstration, see [MSHPPF staple unit carriage removal](#).

Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position**.

- 1 Remove the MSHPPF controller board cover. See [“MSHPPF controller board cover removal” on page 1048](#).
- 2 Remove the MSHPPF right cover. See [“MSHPPF right cover removal” on page 1050](#).
- 3 Remove the MSHPPF bottom right cover. See [“MSHPPF bottom right cover removal” on page 1051](#).
- 4 Remove the MSHPPF rear cover. See [“MSHPPF rear cover removal” on page 1058](#).
- 5 Remove the two screws (A), and then open the cage.

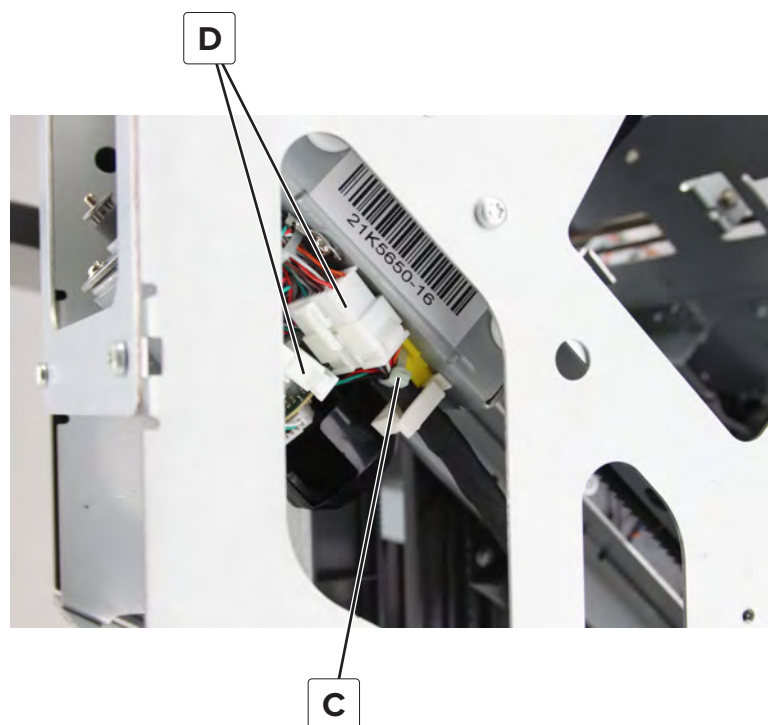


- 6 Using a Torx screwdriver, remove the screw (B), and then remove the bracket.



- 7 Cut the cable tie (C), and then disconnect the two cables (D).

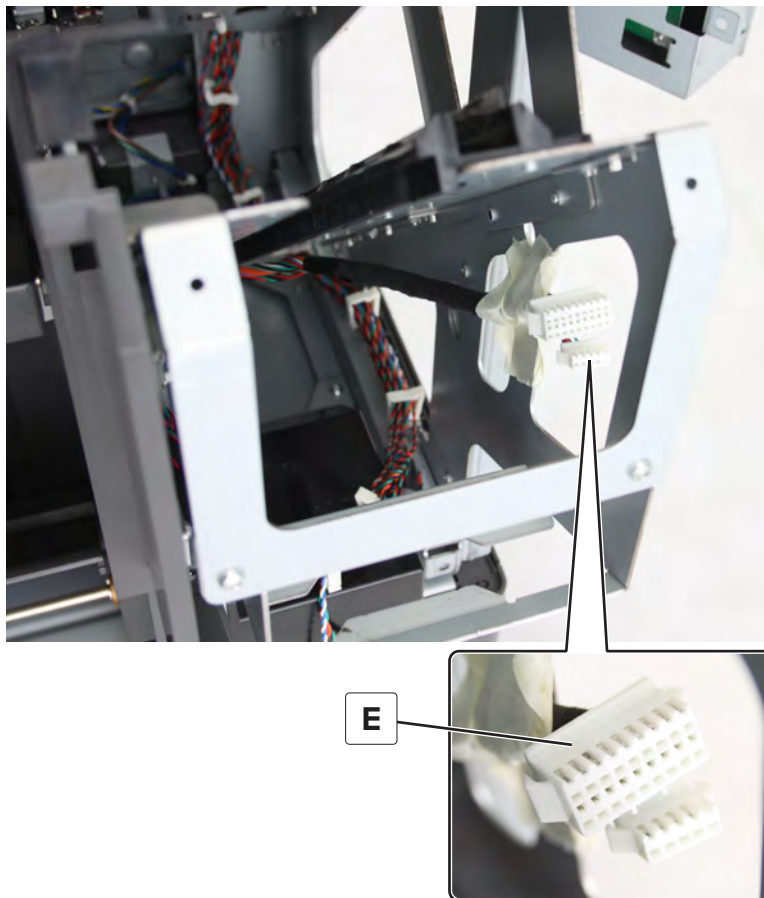
Installation warning: Replace the cable tie, or the cables may interfere with moving parts.



Parts removal

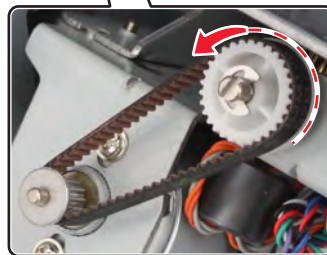
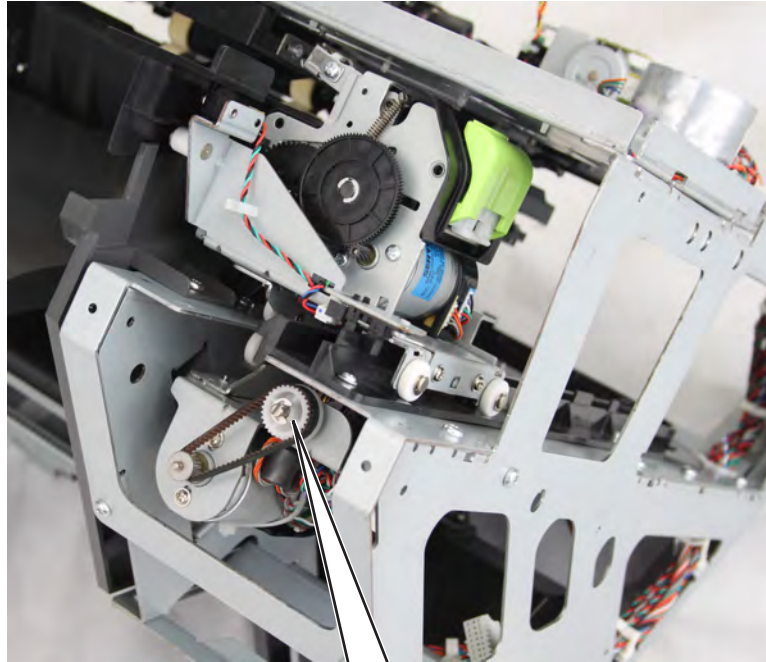
1071

Installation warning: Keep the carriage cable straight. Temporarily tape the cable to the frame as shown.



Installation note: Position the connector (E) with its exposed contacts facing up.

- 8 Turn the gear counterclockwise until the carriage is released.



- 9 Remove the staple unit from the carriage. See [“MSHPF staple unit removal” on page 1081](#).

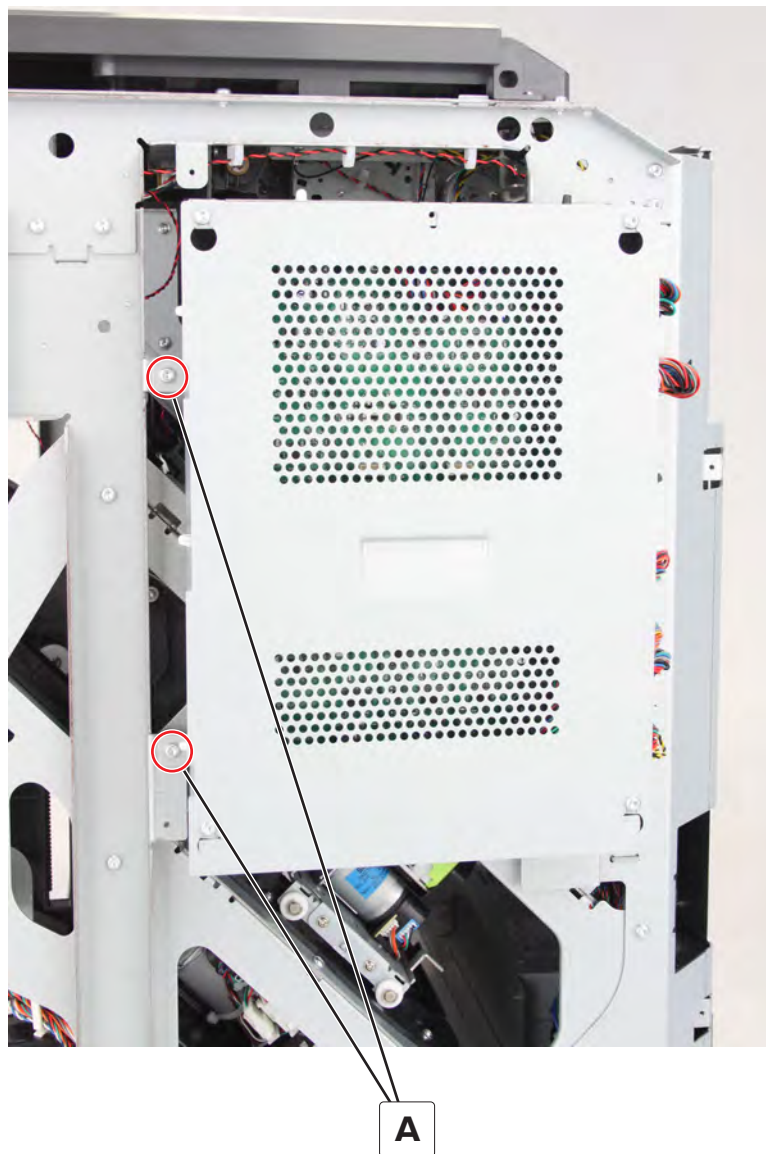
Note: For a video demonstration, see the *CX860 MSHPF staple unit carriage removal* at infoserve.lexmark.com/videos/sfin_staple_unit_carriage_removal.html.

Sensor (MSHPF staple unit position) removal

Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position**.

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048](#).
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).

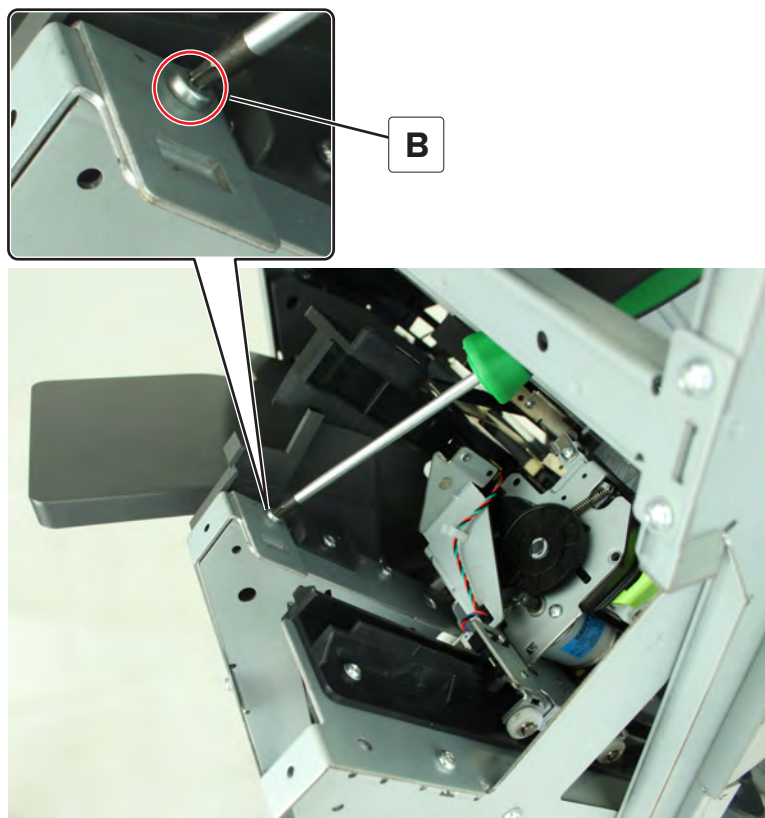
- 5 Remove the two screws (A), and then open the cage.



Parts removal

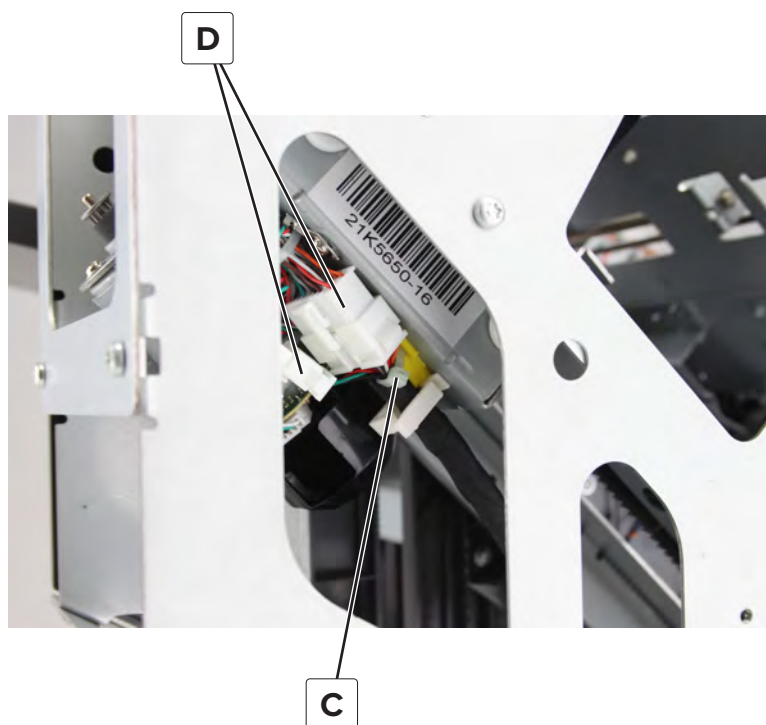
1074

- 6 Using a Torx screwdriver, remove the screw (B), and then remove the bracket.



- 7 Cut the cable tie (C), and then disconnect the two cables (D).

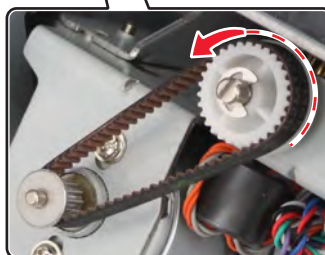
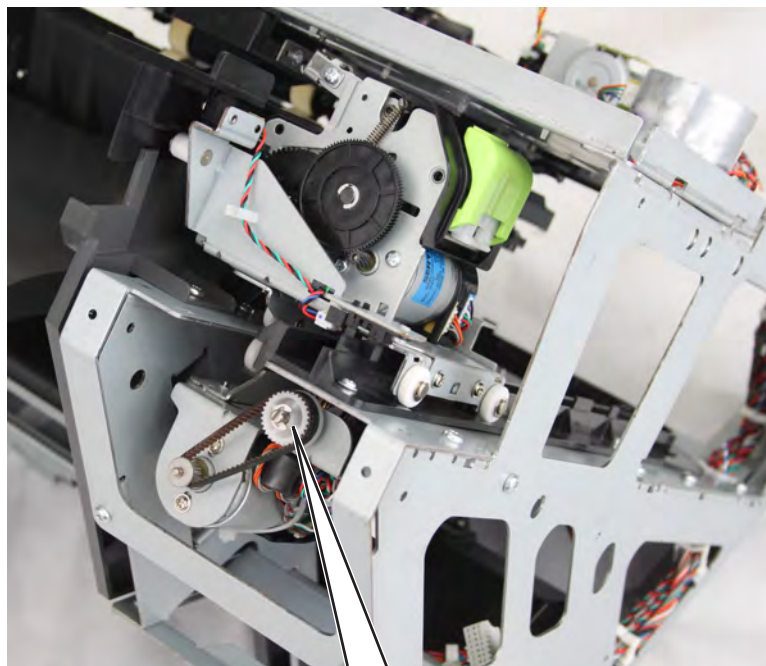
Installation warning: Replace the cable tie, or the cables may interfere with moving parts.



Parts removal

1075

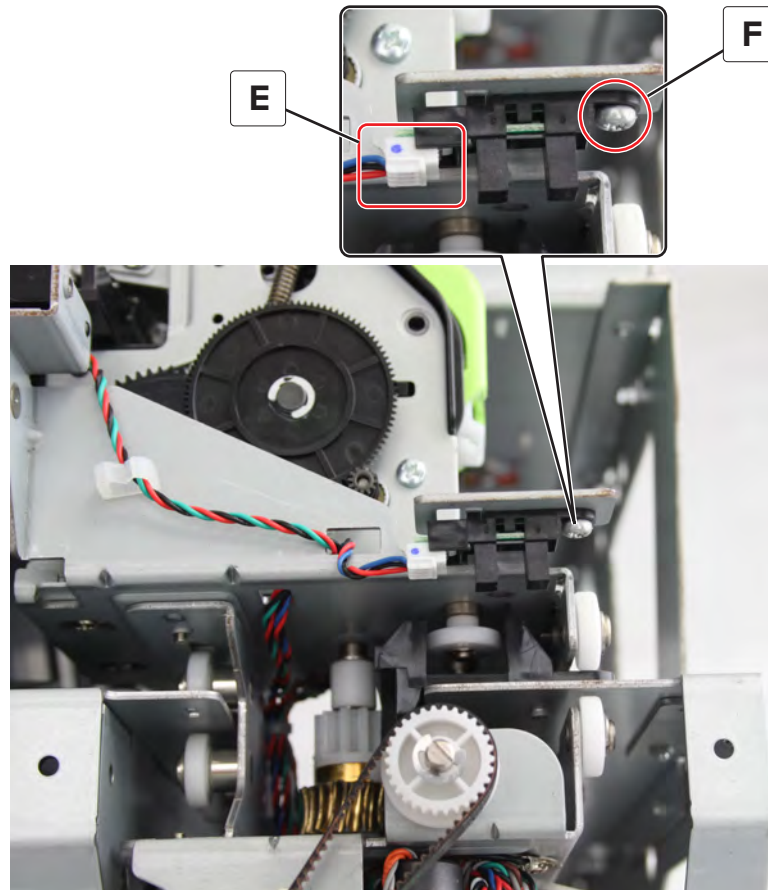
- 8 To access the sensor, turn the gear counterclockwise to move up the carriage.



Parts removal

1076

9 Disconnect the cable (E), and then remove the screw (F).



10 Remove the sensor.

Sensor (MSHPF staple unit paper present) removal

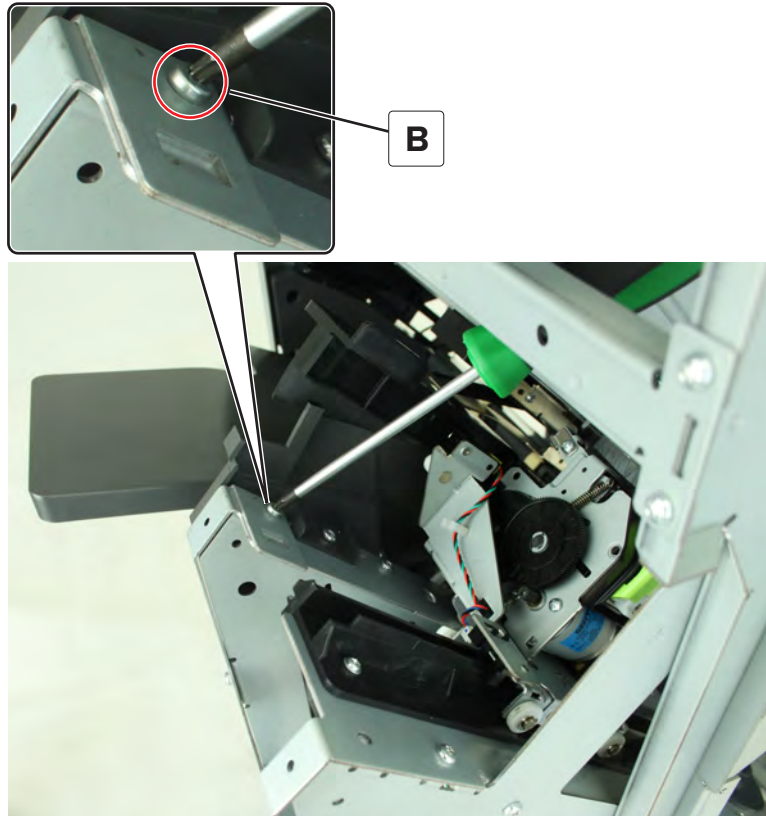
Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position**.

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048](#).
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).

5 Remove the two screws (A), and then open the cage.

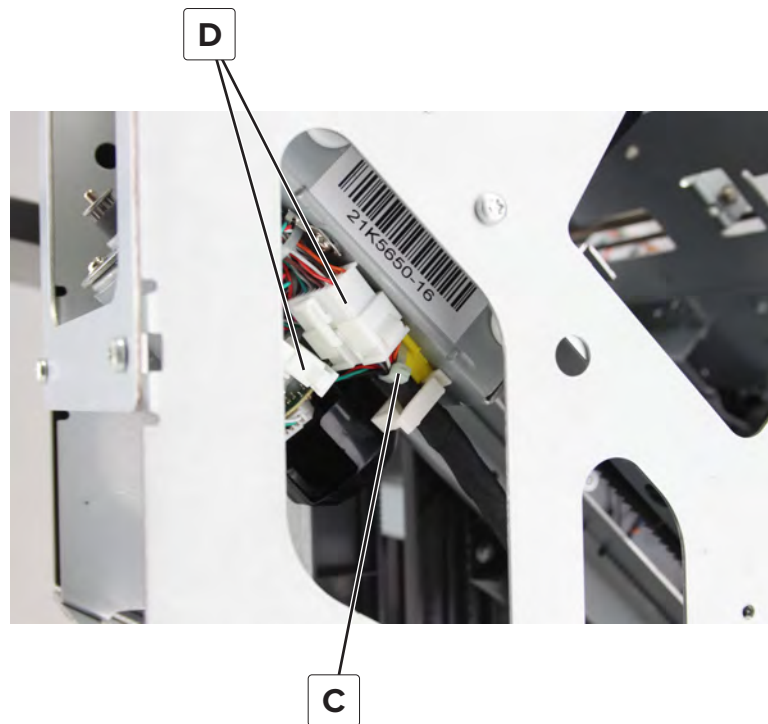


- 6 Using a Torx screwdriver, remove the screw (B), and then remove the bracket.

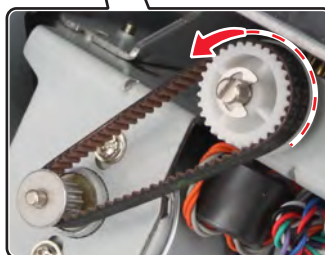
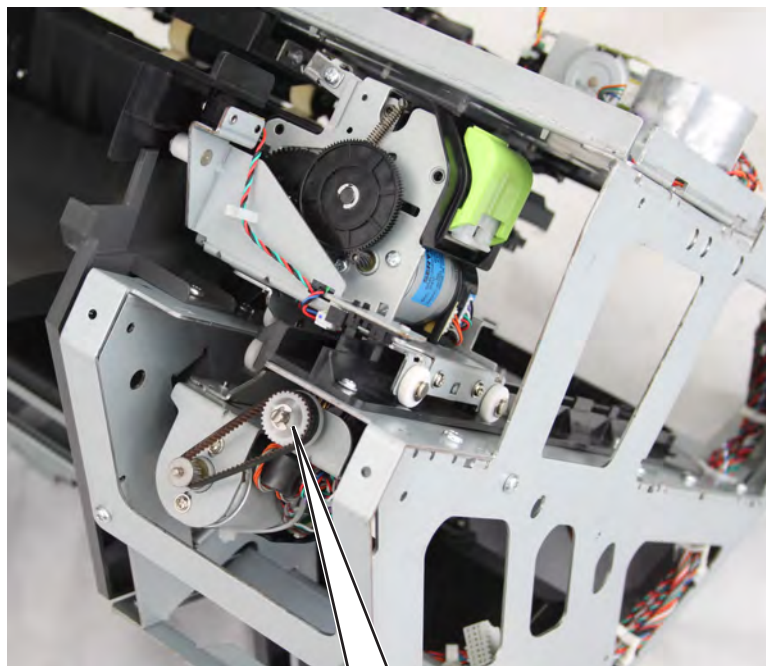


- 7 Cut the cable tie (C), and then disconnect the two cables (D).

Installation warning: Replace the cable tie, or the cables may interfere with moving parts.



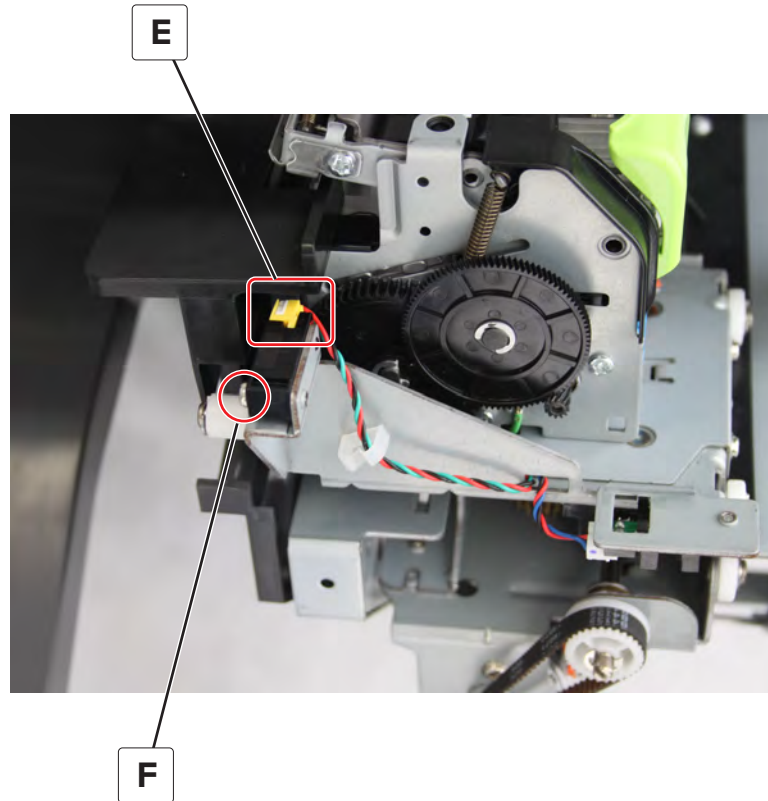
- 8 To access the sensor, turn the gear counterclockwise to move up the carriage.



Parts removal

1080

- 9 Disconnect the cable (E), and then remove the screw (F).

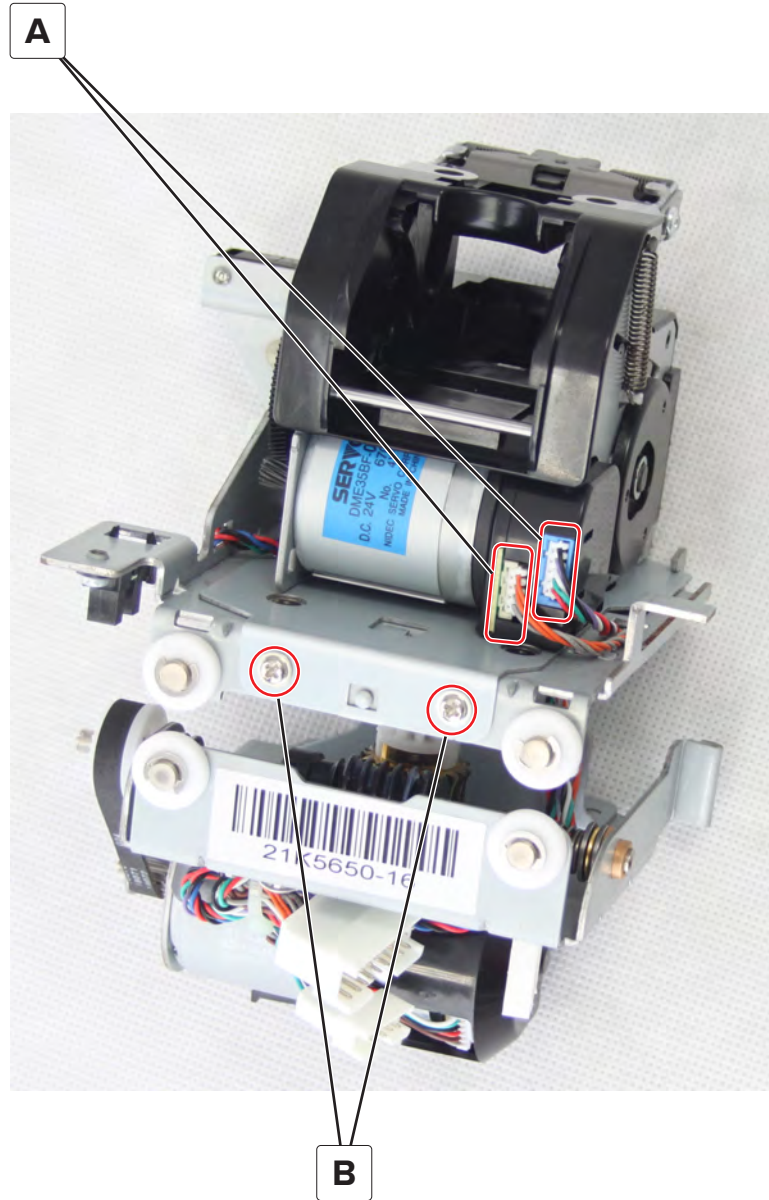


- 10 Remove the sensor.

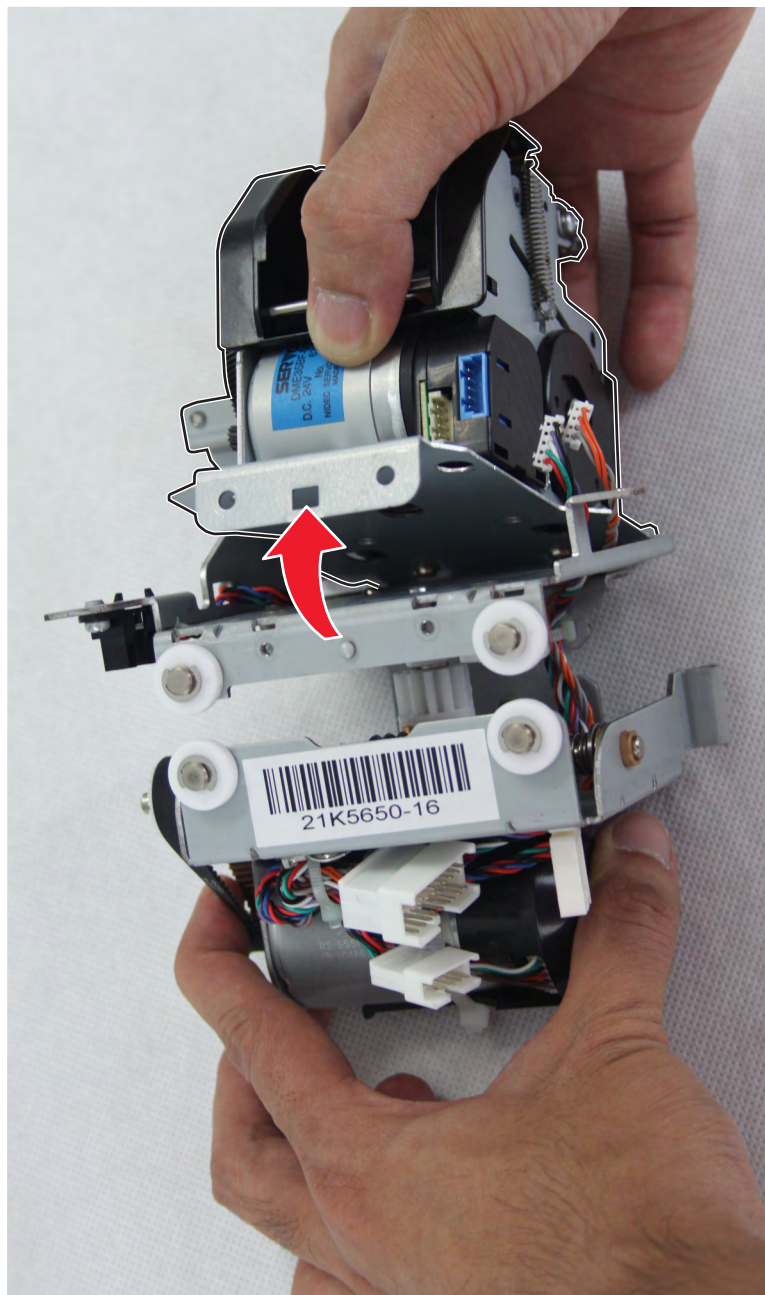
MSHPF staple unit removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the MSHPF staple unit carriage. See [“MSHPF staple unit carriage removal” on page 1070.](#)

6 Disconnect the two cables (A), and then remove the two screws (B).



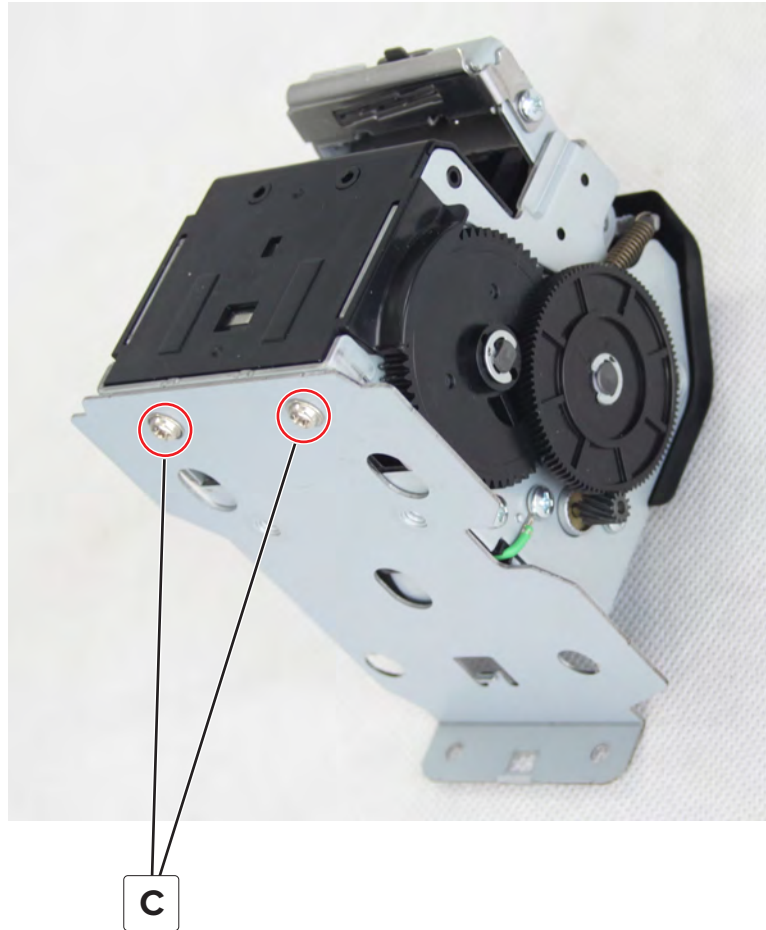
7 Release the bracket from the carriage.



Parts removal

1083

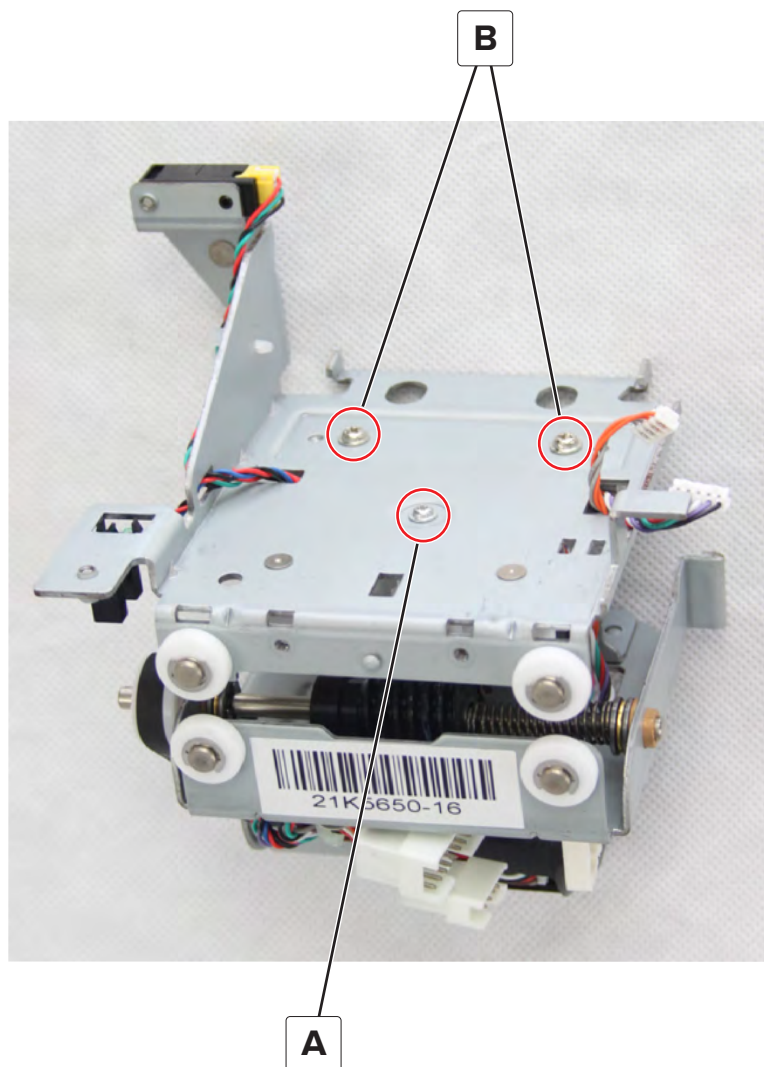
- 8 Remove the two screws (C), and then remove the unit.



Staple unit extension cable removal

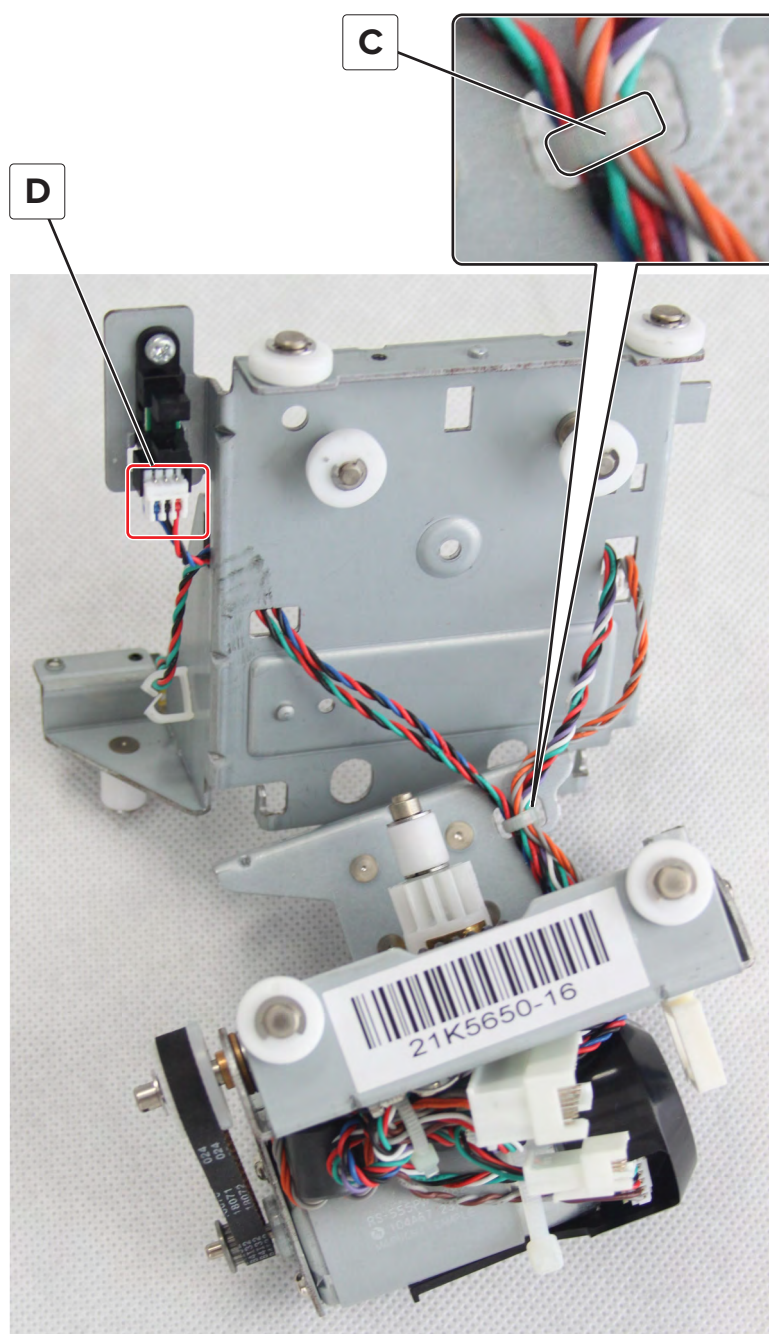
- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the MSHPF staple unit carriage. See [“MSHPF staple unit carriage removal” on page 1070.](#)
- 6 Remove the MSHPF staple unit. See [“MSHPF staple unit removal” on page 1081.](#)

7 Remove the three screws (A and B), and then separate the two brackets.



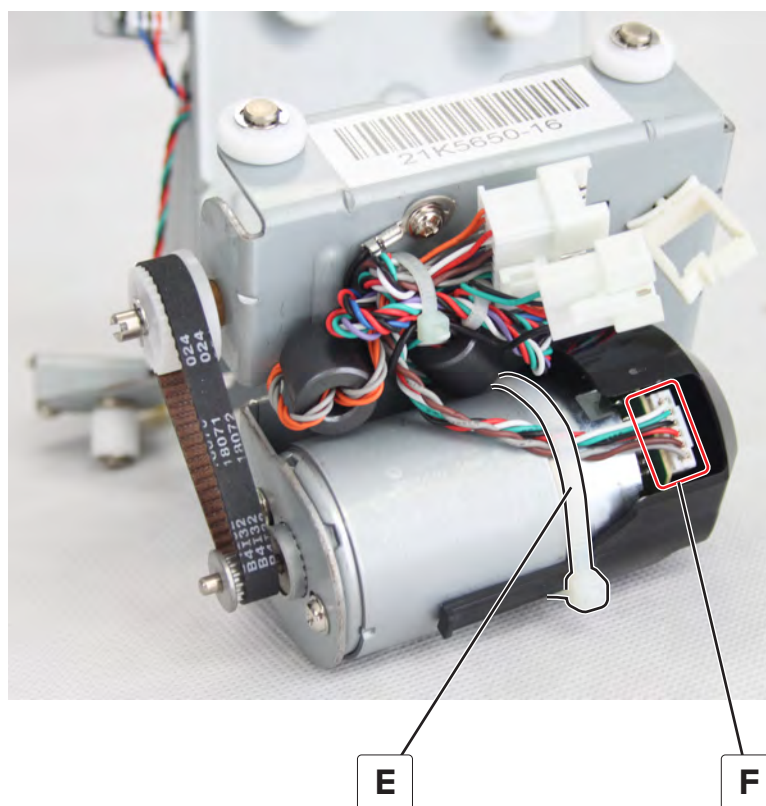
8 Cut the cable tie (C), and then disconnect the cable (D).

Installation warning: Replace the cable tie, or the cables may interfere with moving parts.



9 Cut the cable tie (E), and then disconnect the cable (F).

Installation warning: Replace the cable tie, or the cable may interfere with moving parts.



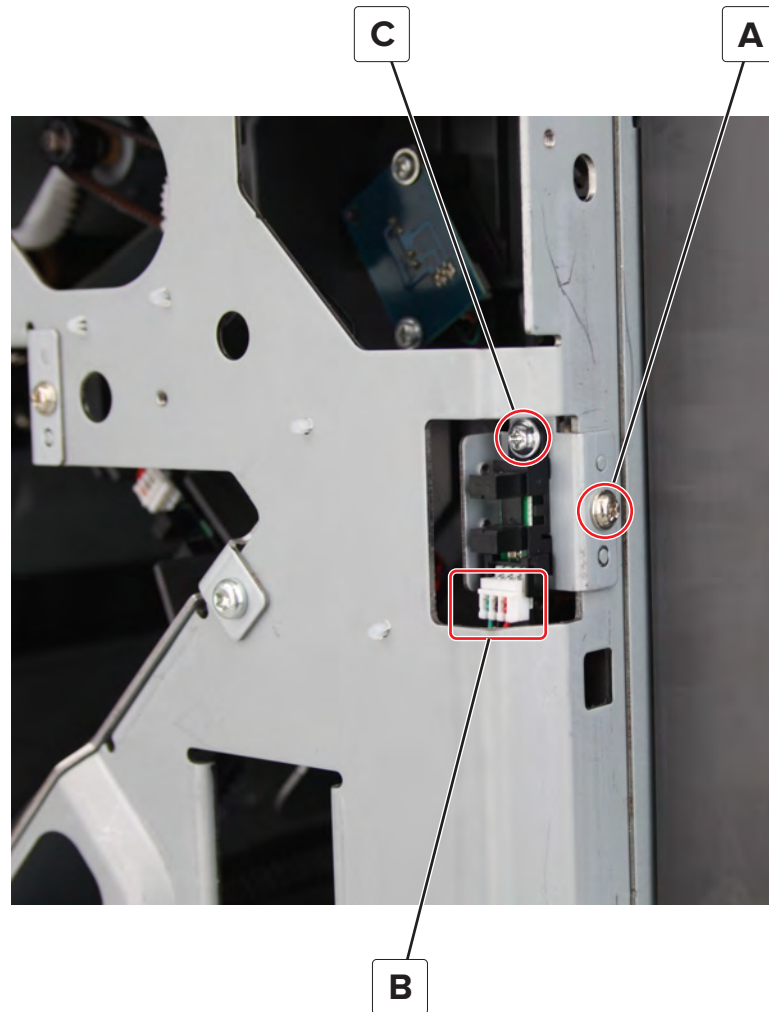
- 10** Release the cable from its guides, and then remove it.

Installation warning: Route the cable properly, or it may interfere with moving parts.

Sensor (MSHPF door interlock) removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the screw (A), and then pull the bracket.

7 Disconnect the cable (B), and then remove the screw (C).

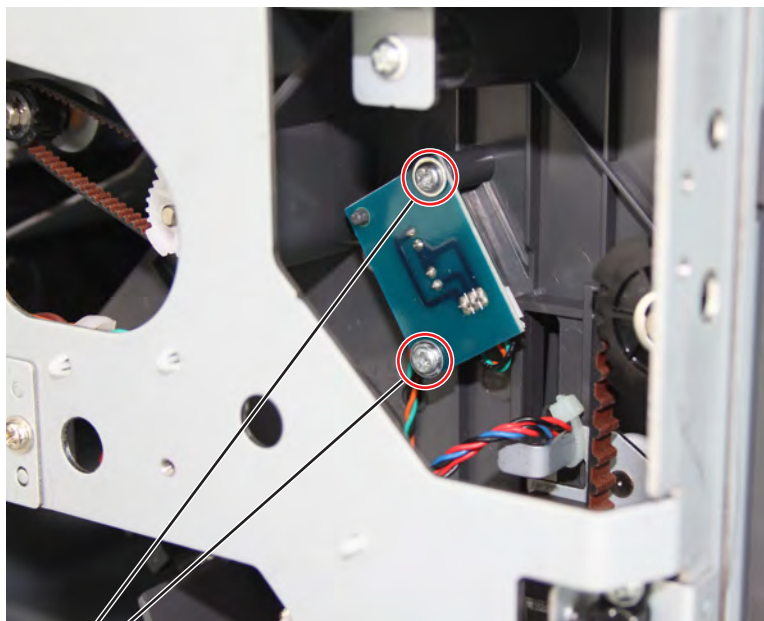


8 Remove the sensor.

Sensor (stapler bin stack upper limit) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 6 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 7 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 8 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 9 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

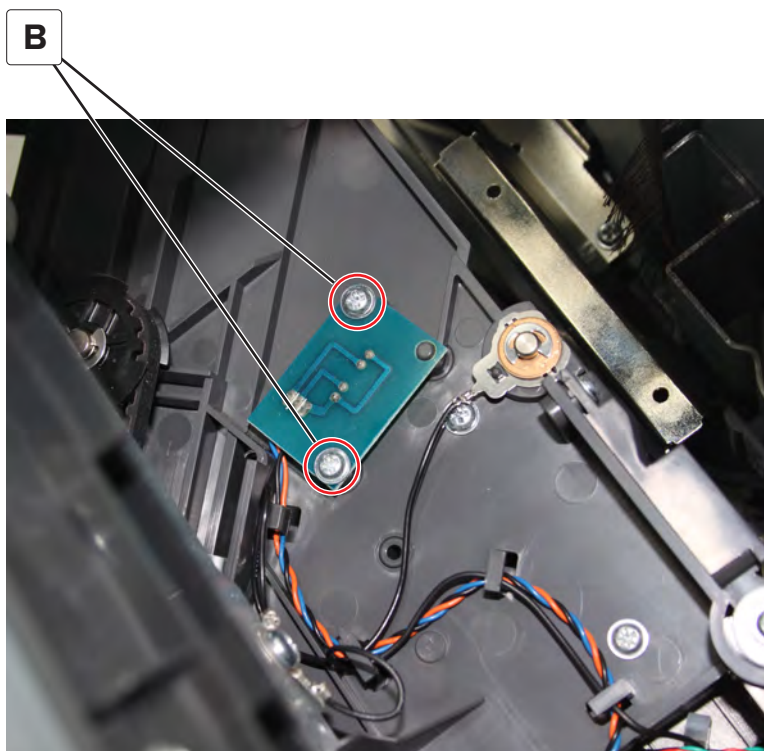
10 From the front, remove the two screws (A).



A

11 Disconnect the cable, and then remove the transmitter sensor.

12 From the rear, remove the two screws (B).



B

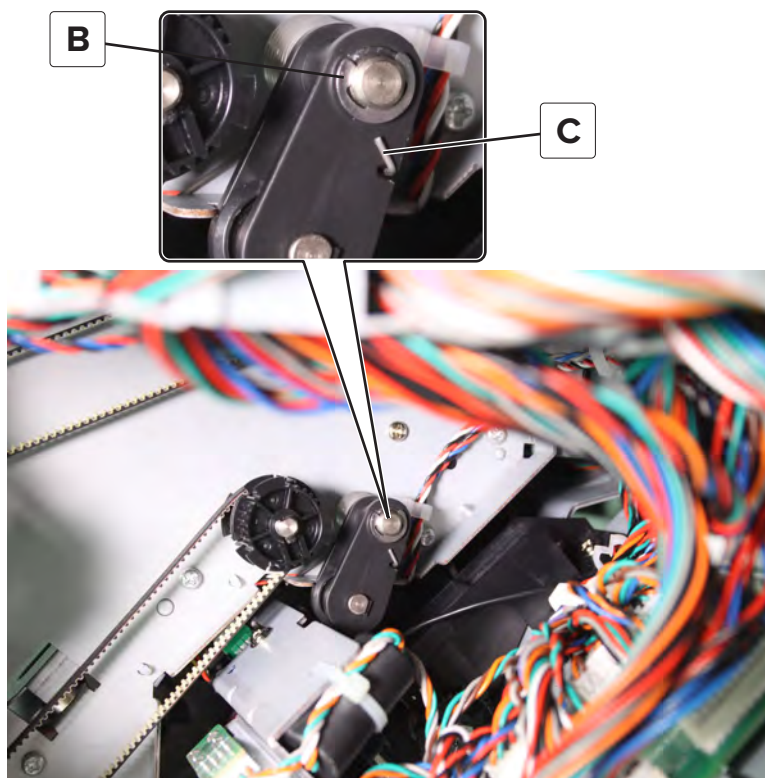
13 Disconnect the cable, and then remove the receiver sensor.

Compiler entrance belt tensioner removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the two screws (A), and then open the cage.

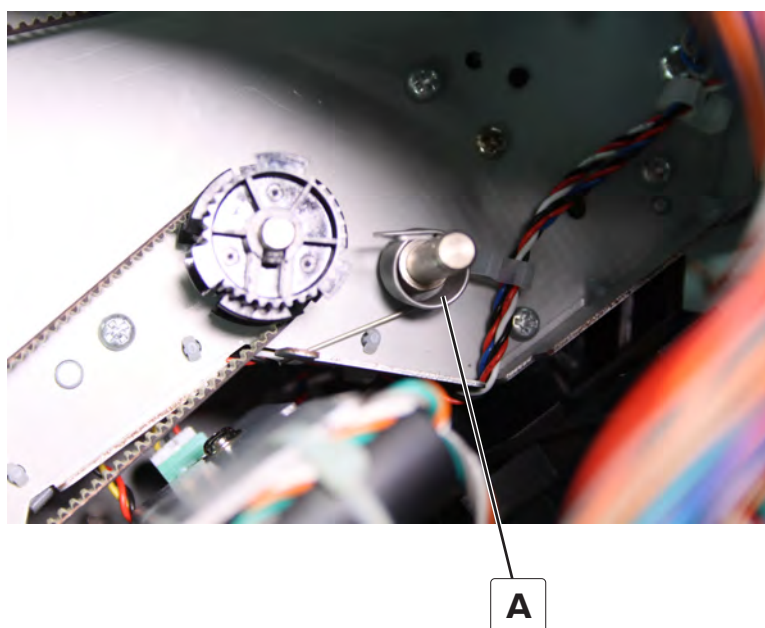


- 6 Remove the E-clip (B), and then release the retainer (C).



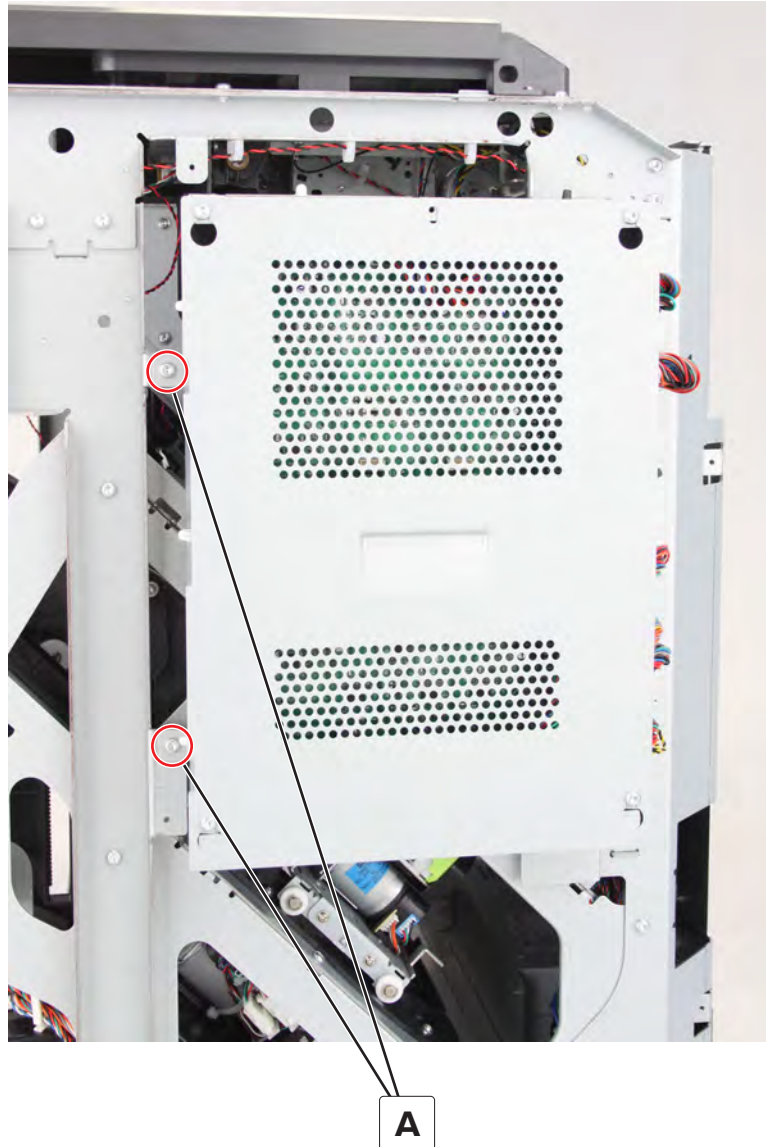
- 7 Remove the belt tensioner.

Installation note: Install the retainer spring (A) properly.

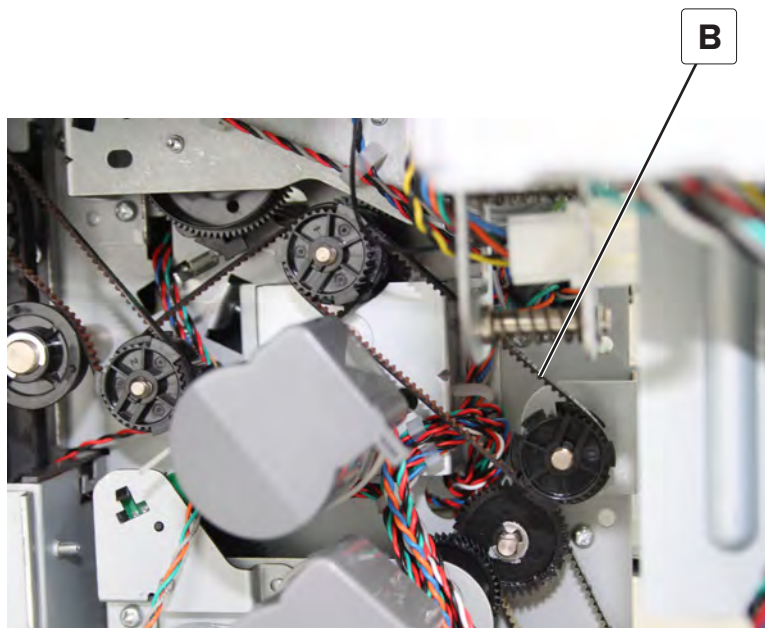


Hole punch box belt removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the two screws (A), and then open the cage.



- 6 Remove the belt (B).



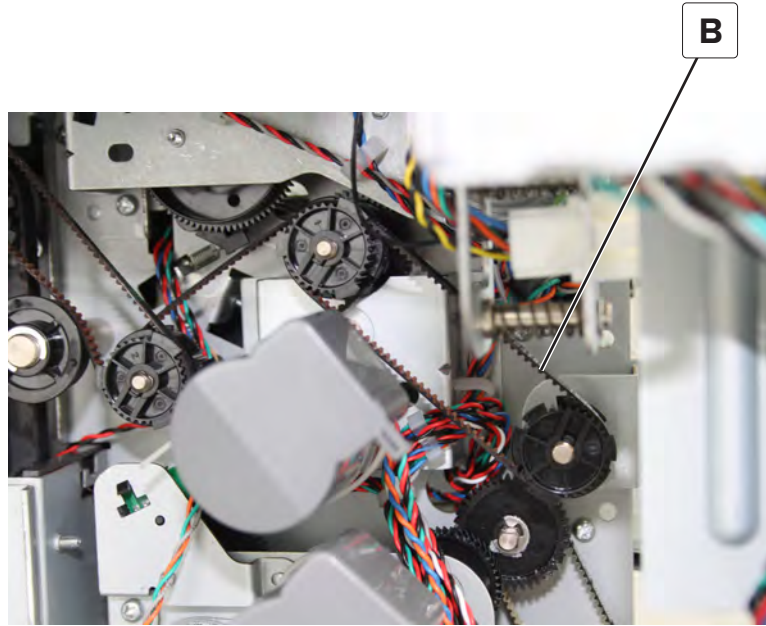
Hole punch box pulley gear removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

5 Remove the two screws (A), and then open the cage.



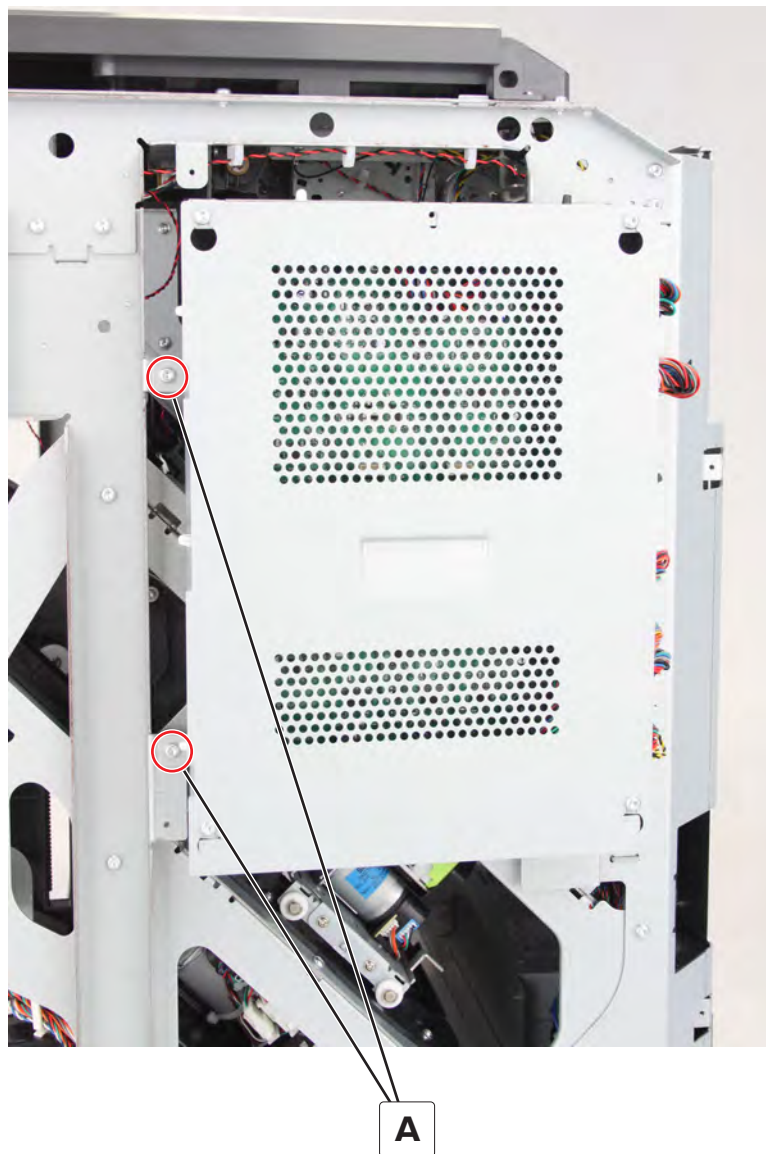
- 6 Remove the belt (B), and then remove the appropriate pulley gear.



Staging outer transport belt removal

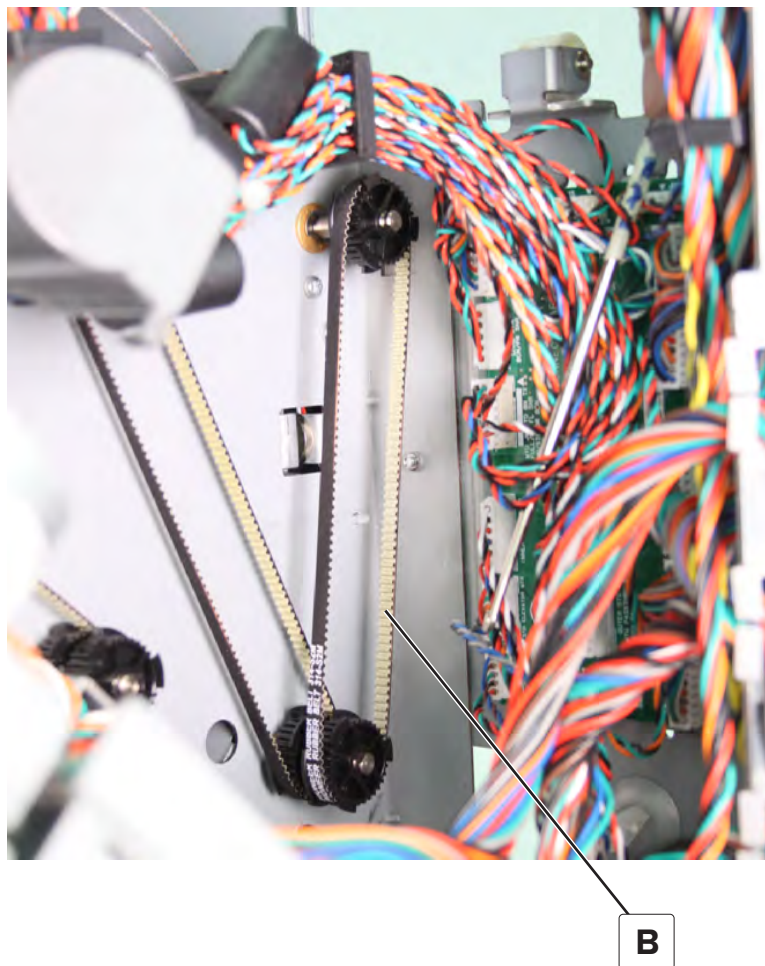
- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

- 5 Remove the two screws (A), and then open the cage.



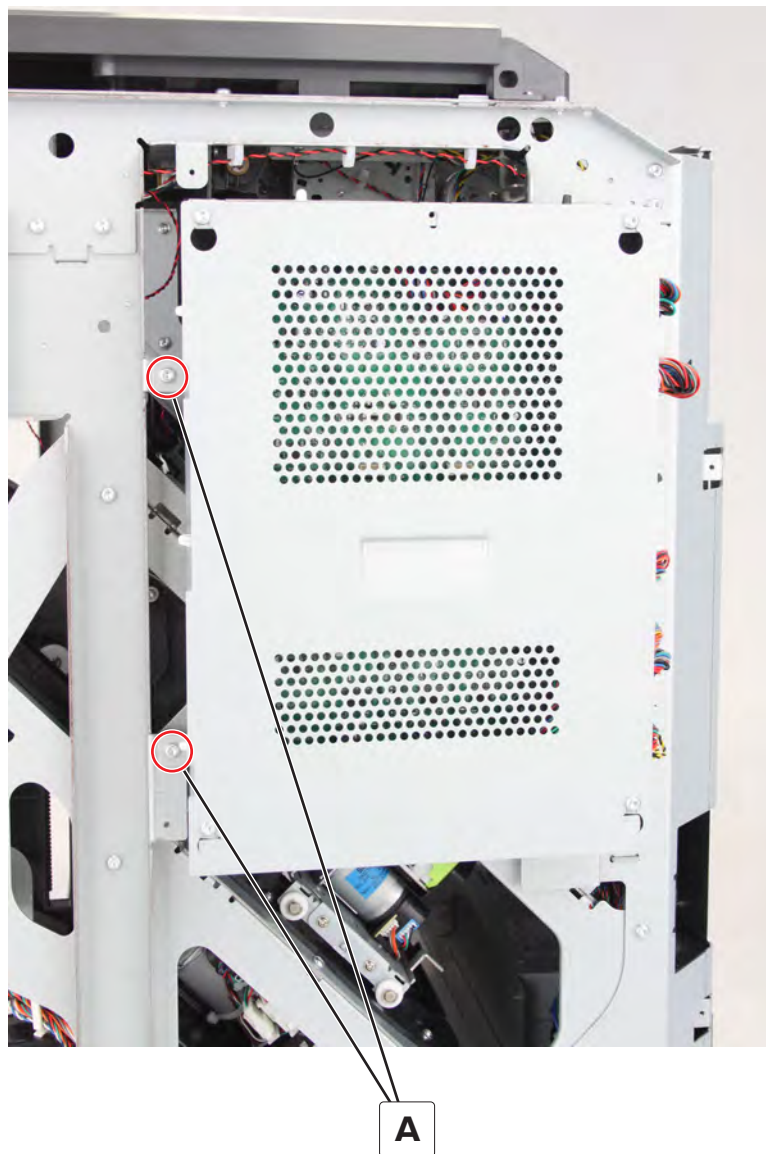
Parts removal

1096

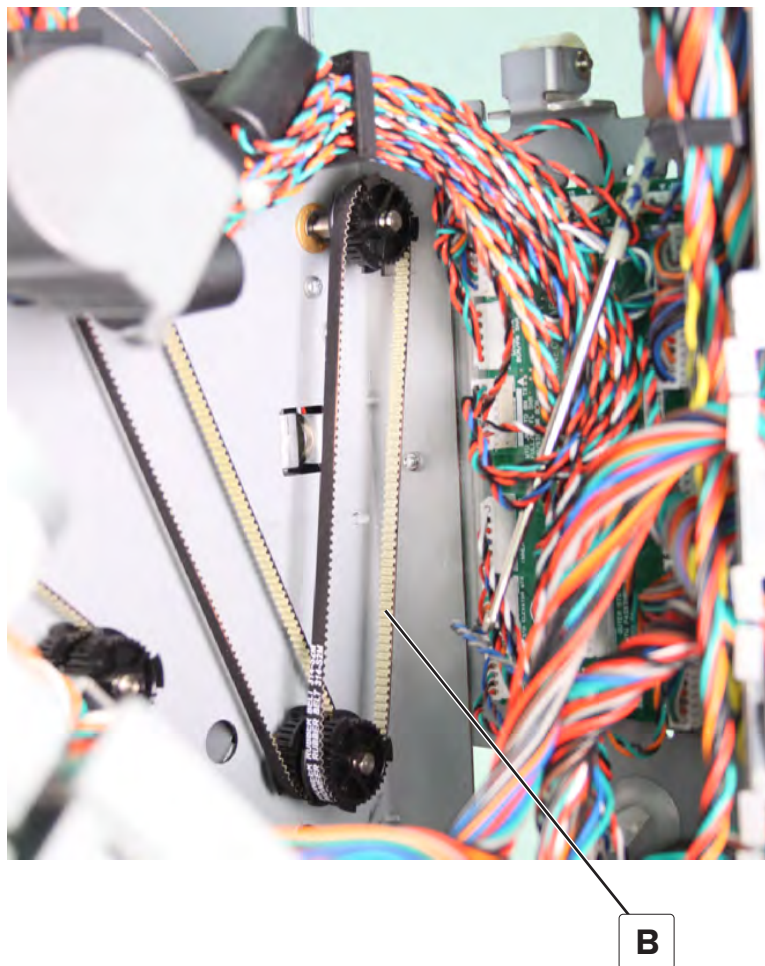
6 Remove the belt (B).**Staging outer transport pulley gear removal**

- 1** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

- 5 Remove the two screws (A), and then open the cage.



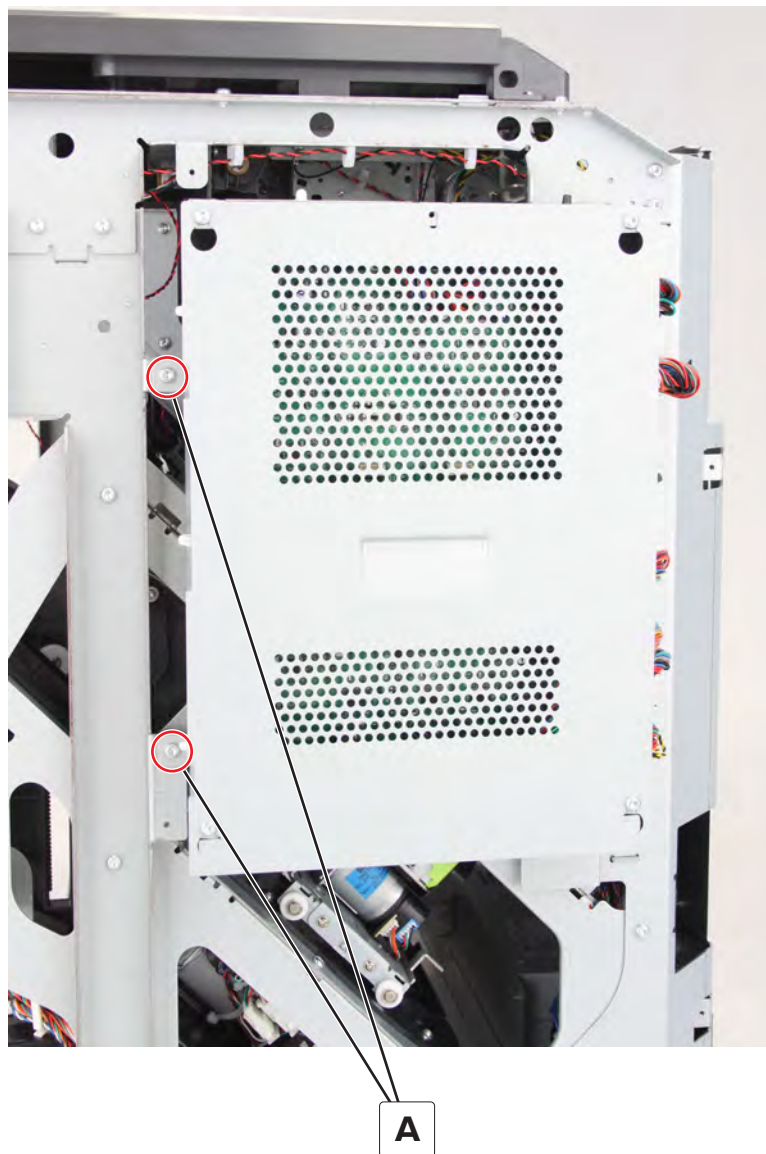
- 6 Release the belt (B), and then remove the pulley gear.



Motor (staging diverter) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

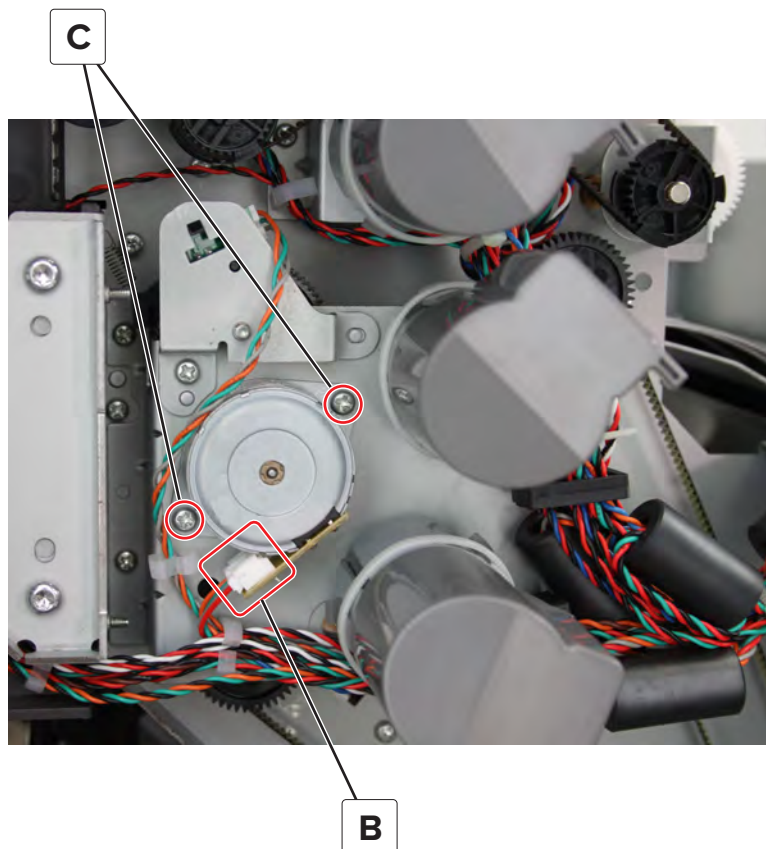
- 5 Remove the two screws (A), and then open the cage.



Parts removal

1100

- 6 Disconnect the cable (B), and then remove the two screws (C).

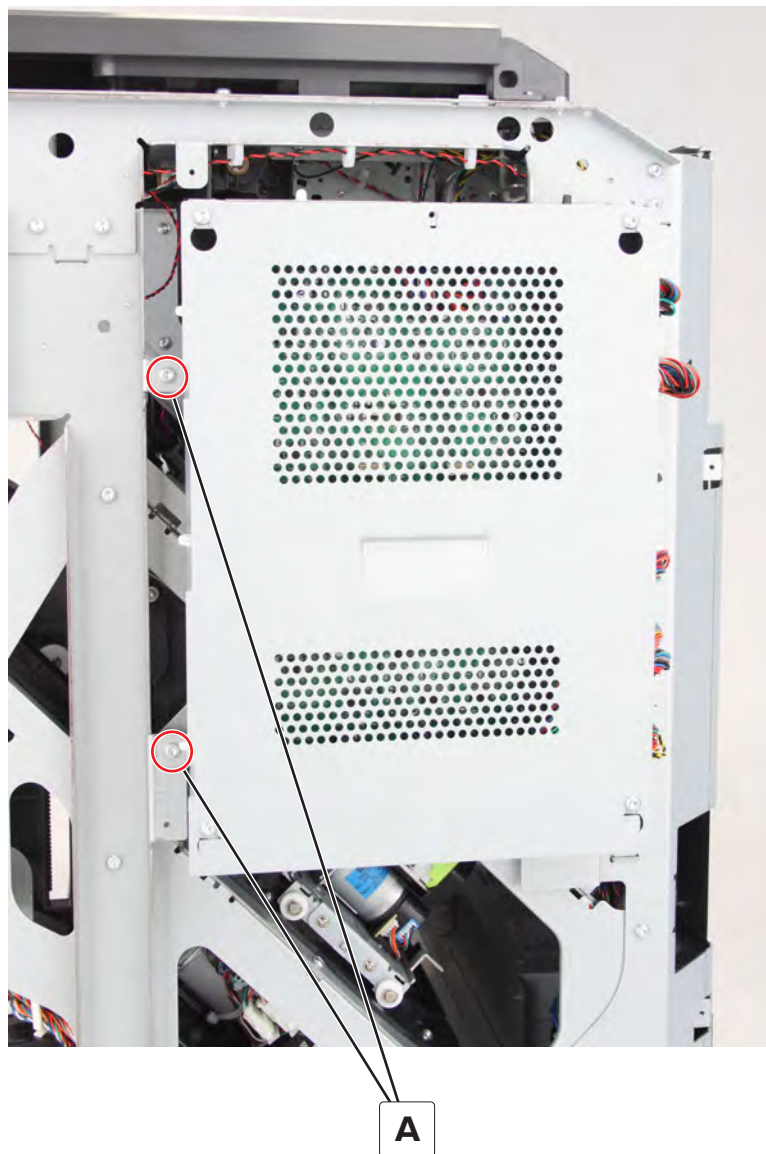


- 7 Remove the motor.

Sensor (staging diverter) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

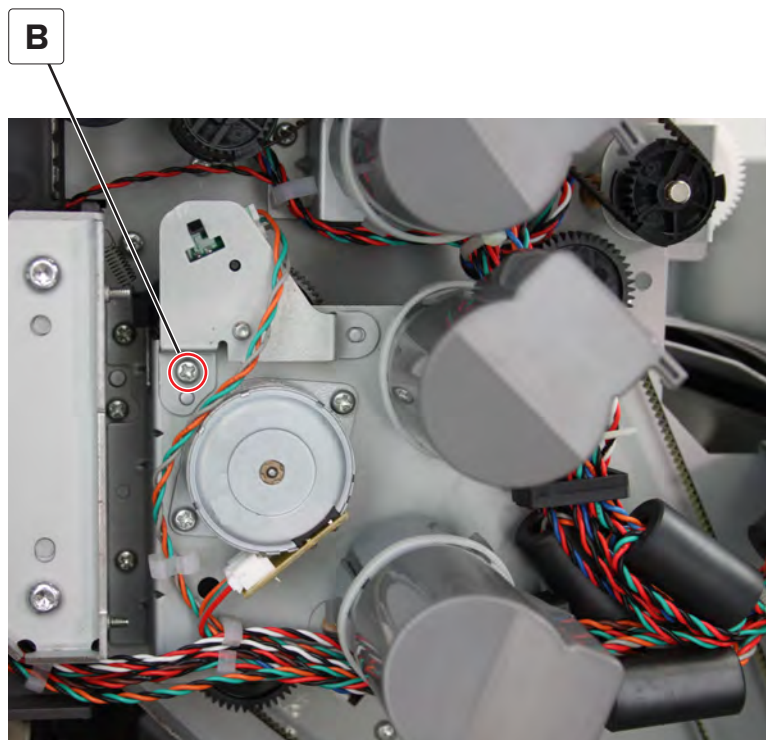
- 5 Remove the two screws (A), and then open the cage.



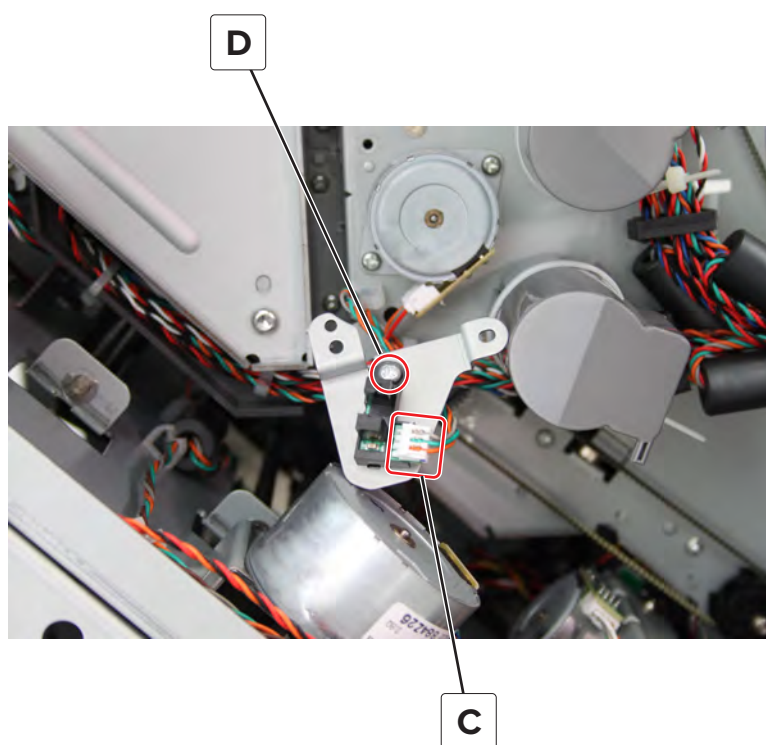
Parts removal

1102

6 Remove the screw (B), and then pull the bracket.



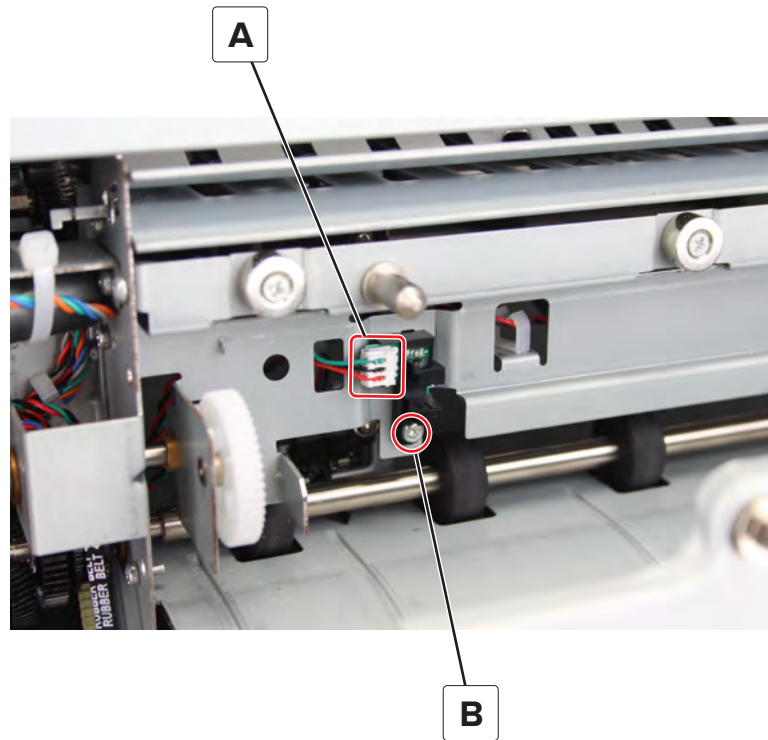
7 Disconnect the cable (C), and then remove the screw (D).



8 Remove the sensor.

Sensor (hole punch box present) removal

- 1 Remove the hole punch box.
- 2 Disconnect the cable (A), and then remove the screw (B).



- 3 Remove the sensor.

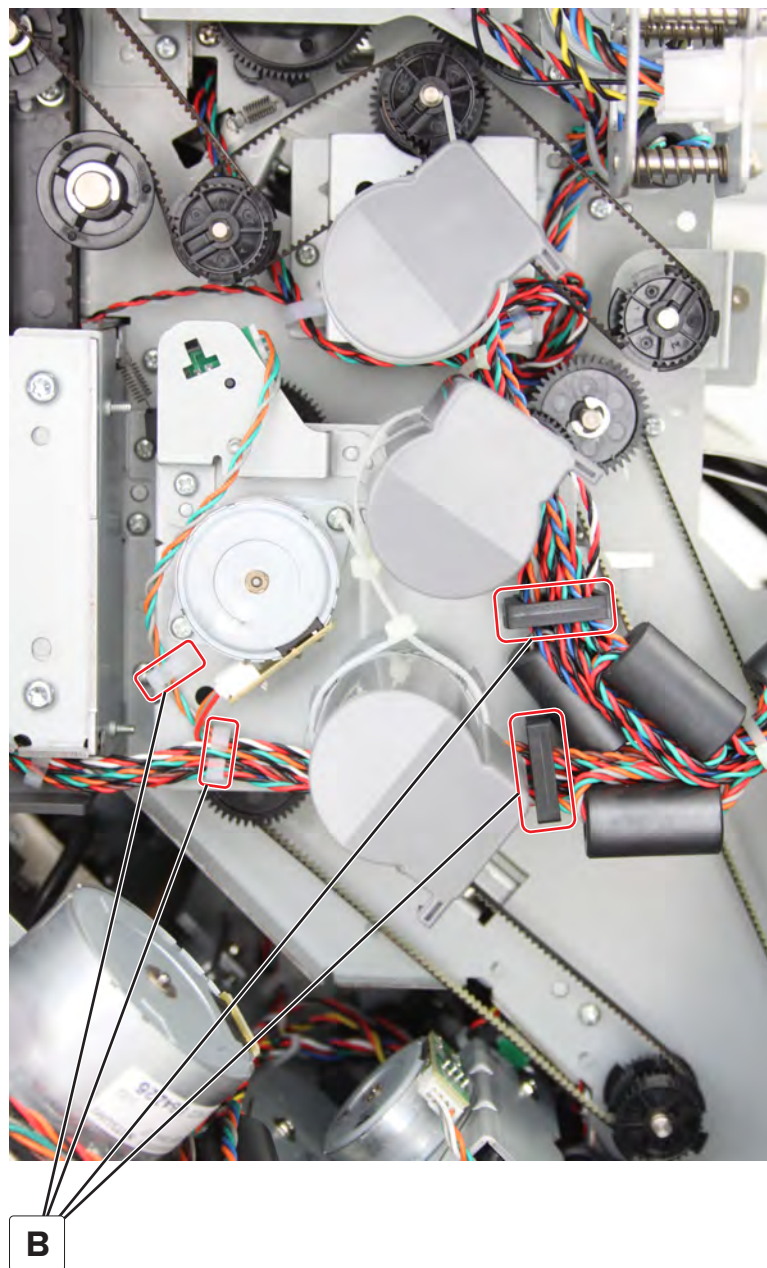
Motor (staging outer transport) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

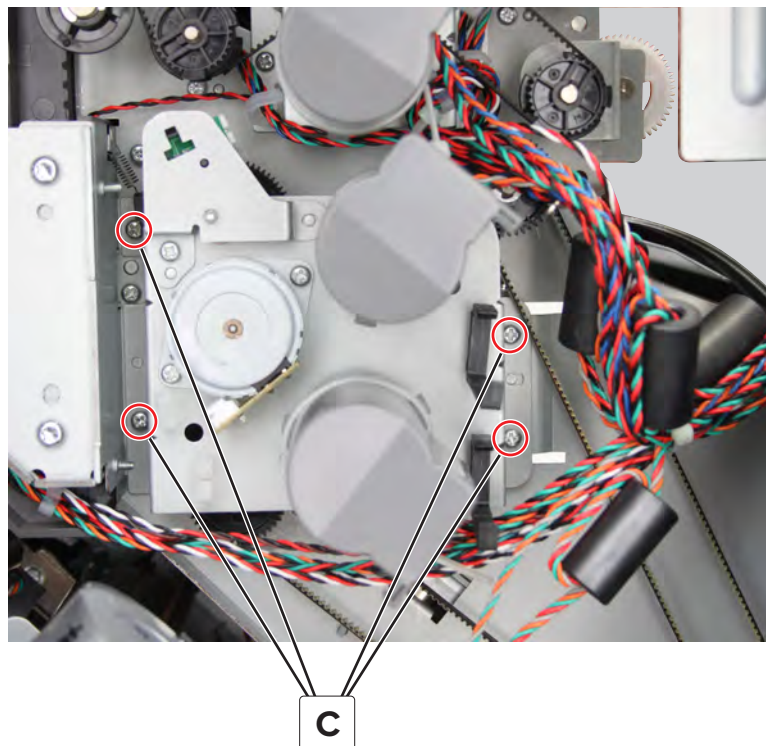
5 Remove the two screws (A), and then open the cage.



- 6 Release the cables from their guides (B), and then detach them from the bracket.

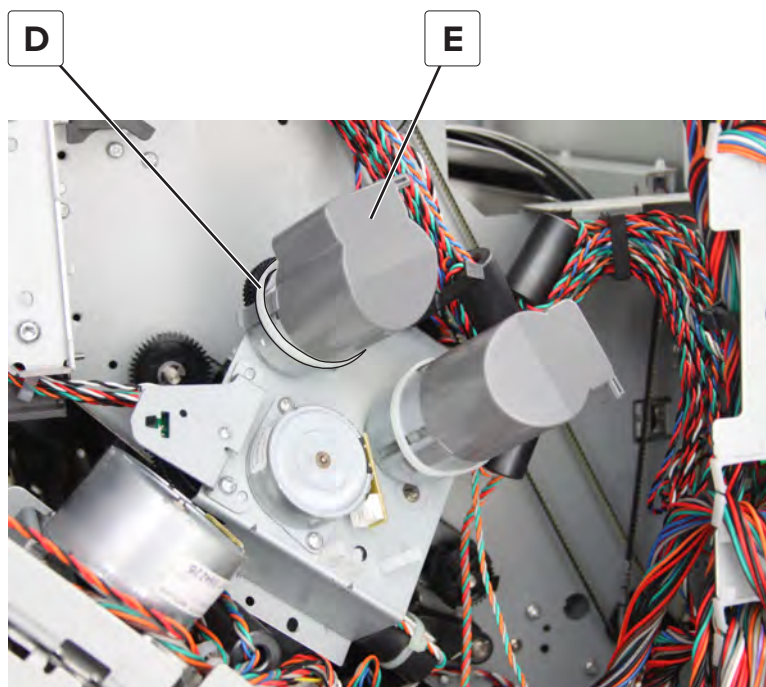


- 7 Remove the four screws (C), and then pull the bracket.



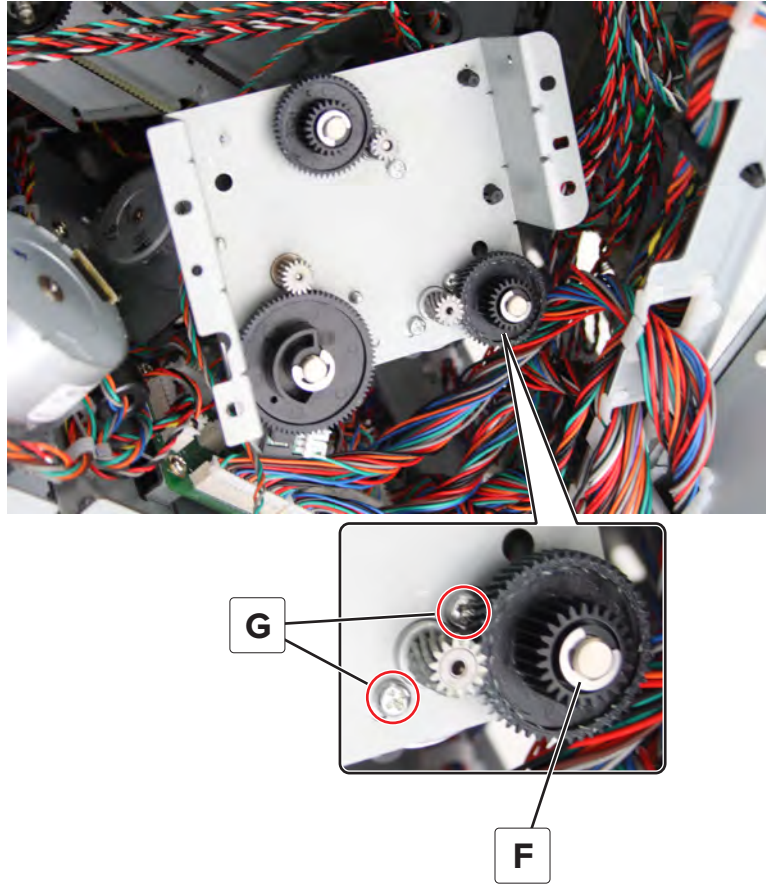
- 8 Cut the cable tie (D), remove the cap (E), and then disconnect the motor cable.

Installation warning: Replace the cable tie, or the cable may interfere with moving parts.



- 9 Under the bracket, remove the E-clip (F), and then remove the gear.

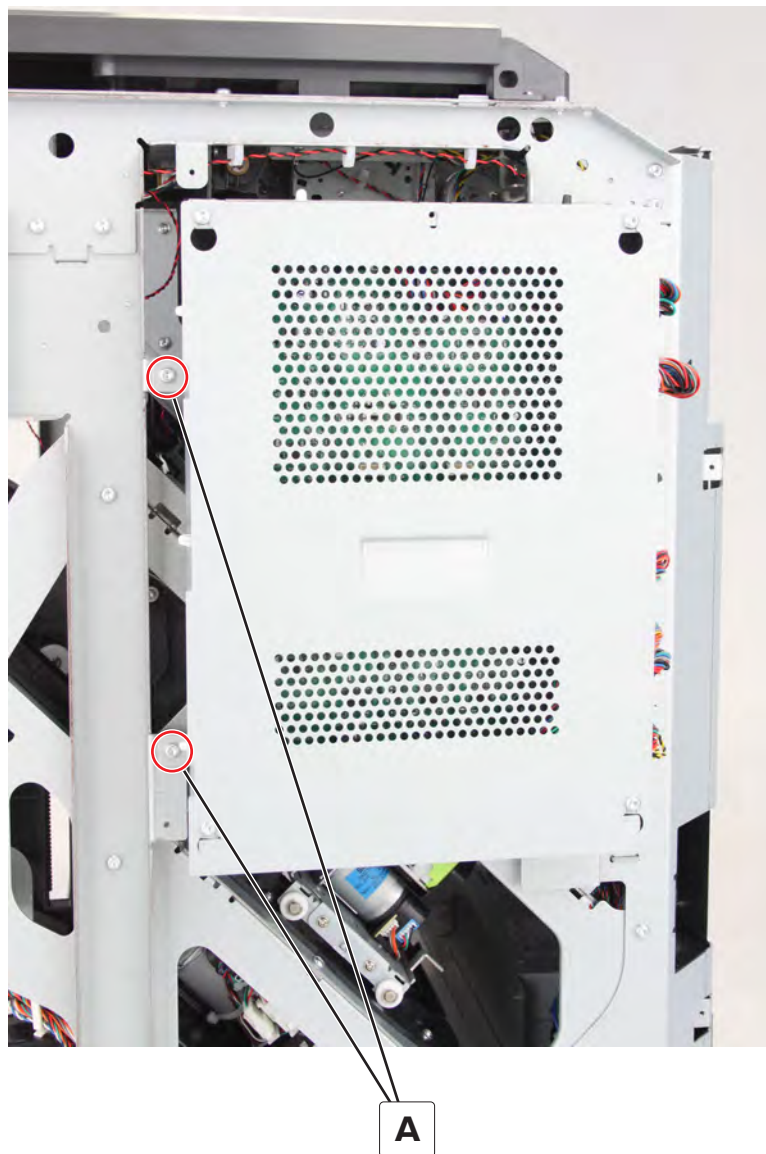
- 10 Remove the two screws (G), and then remove the motor.



Motor (staging inner transport) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

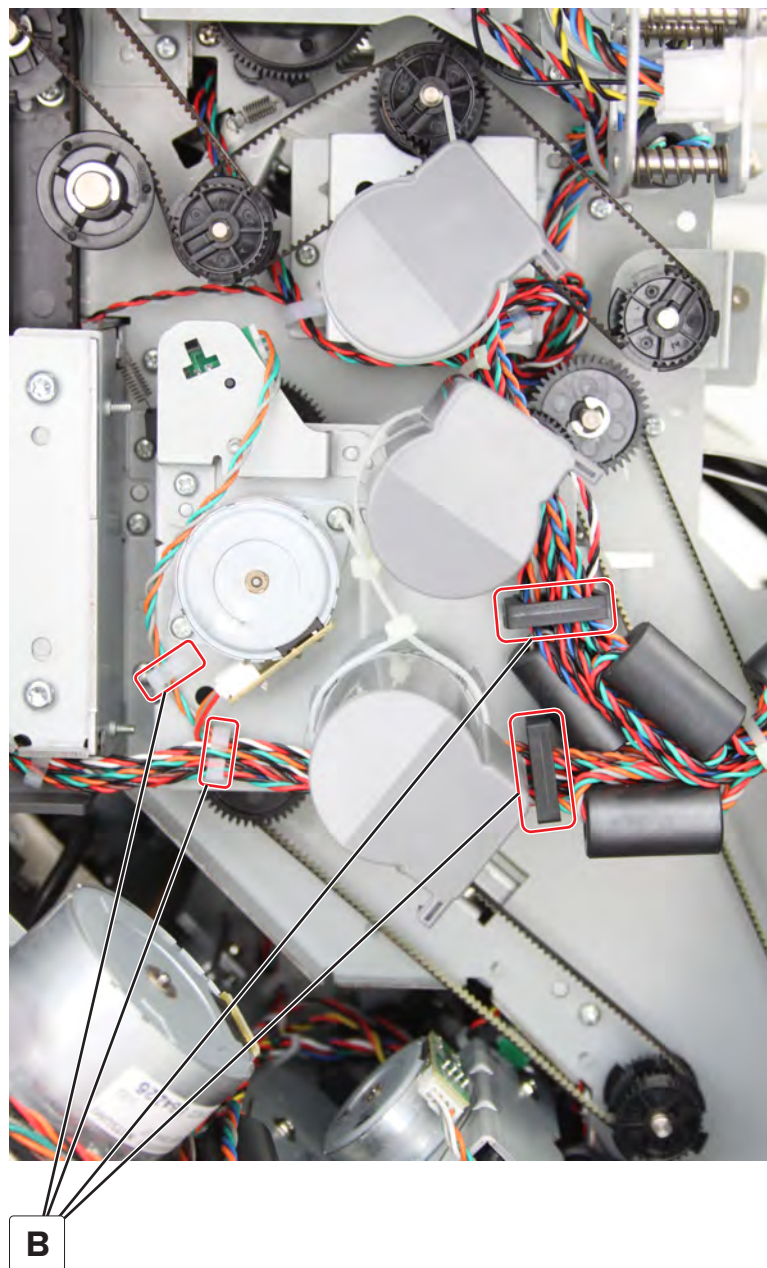
- 5 Remove the two screws (A), and then open the cage.



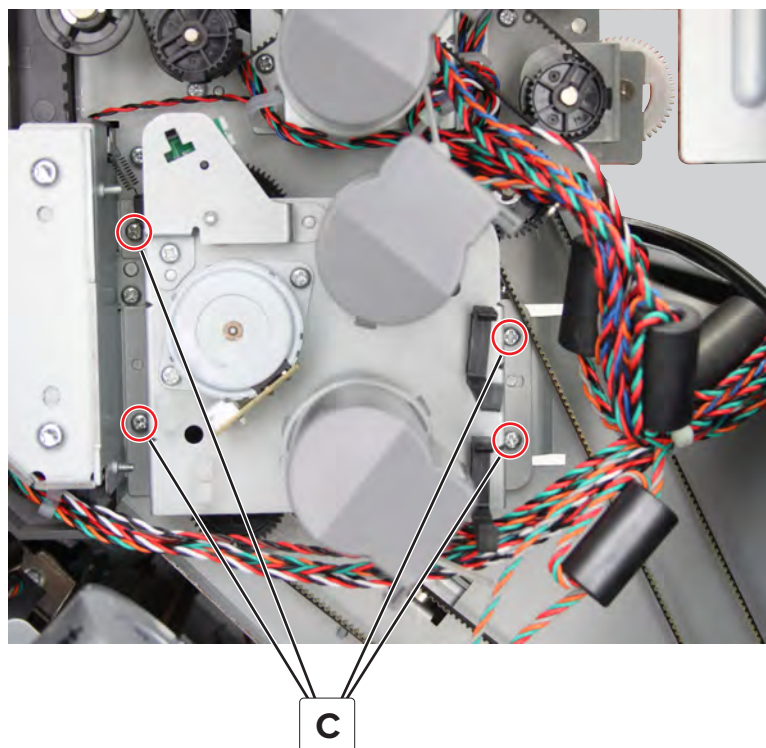
Parts removal

1109

- 6 Release the cables from their guides (B), and then detach them from the bracket.

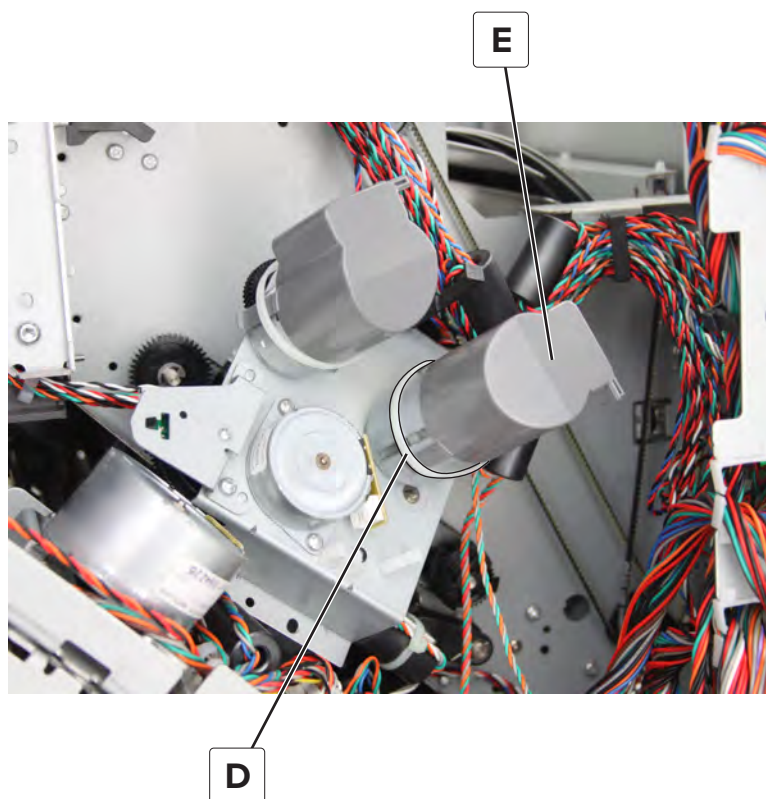


- 7 Remove the four screws (C), and then pull the bracket.



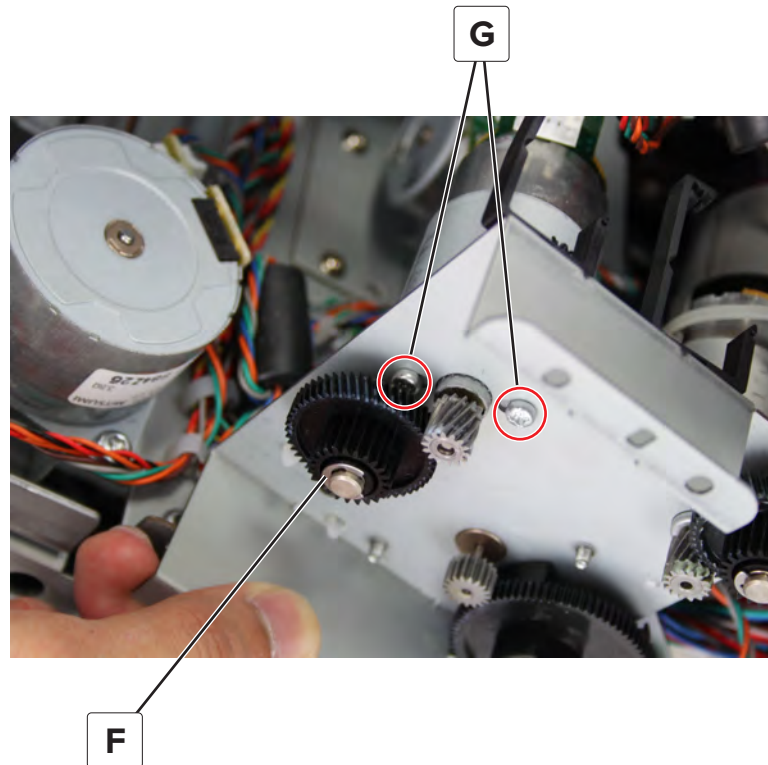
- 8 Cut the cable tie (D), remove the cap (E), and then disconnect the motor cable.

Installation warning: Replace the cable tie, or the cable may interfere with moving parts.



Parts removal

- 9 Under the bracket, remove the E-clip (F), and then remove the gear.
- 10 Remove the two screws (G), and then remove the motor.



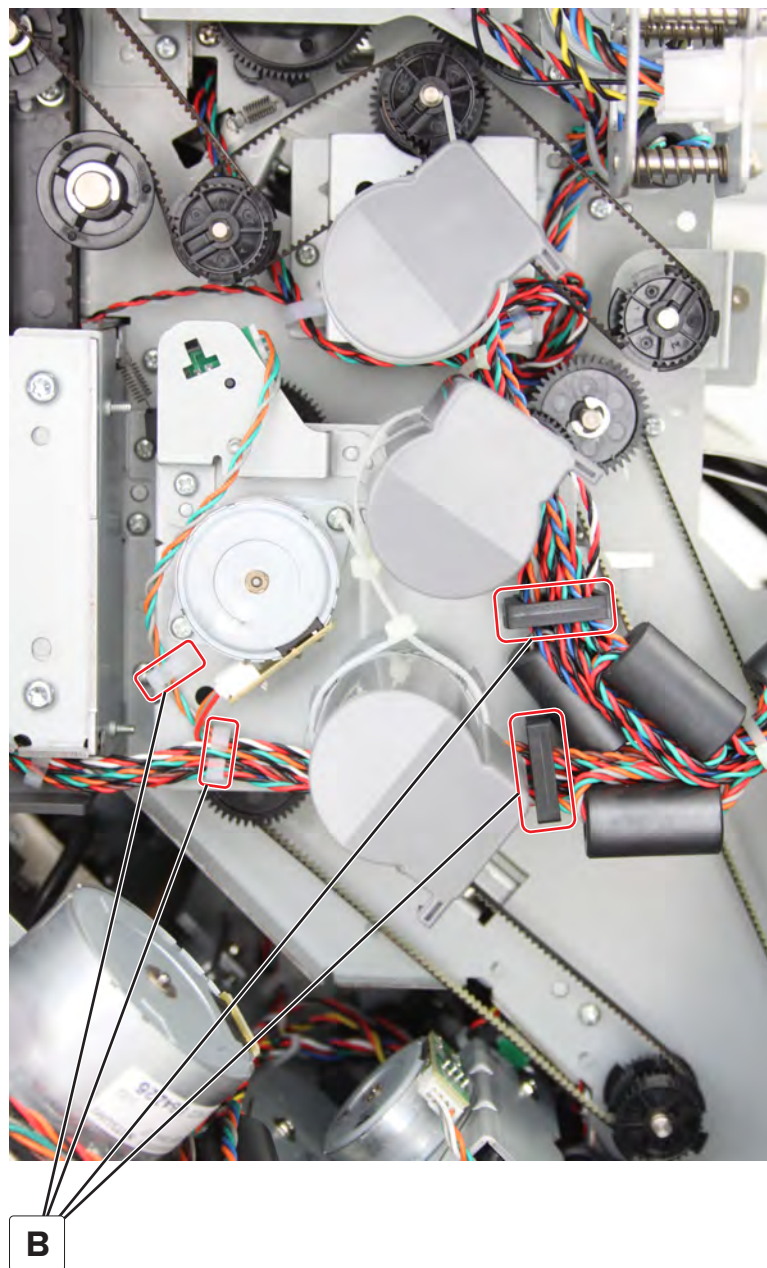
Staging transport gears removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048](#).
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).

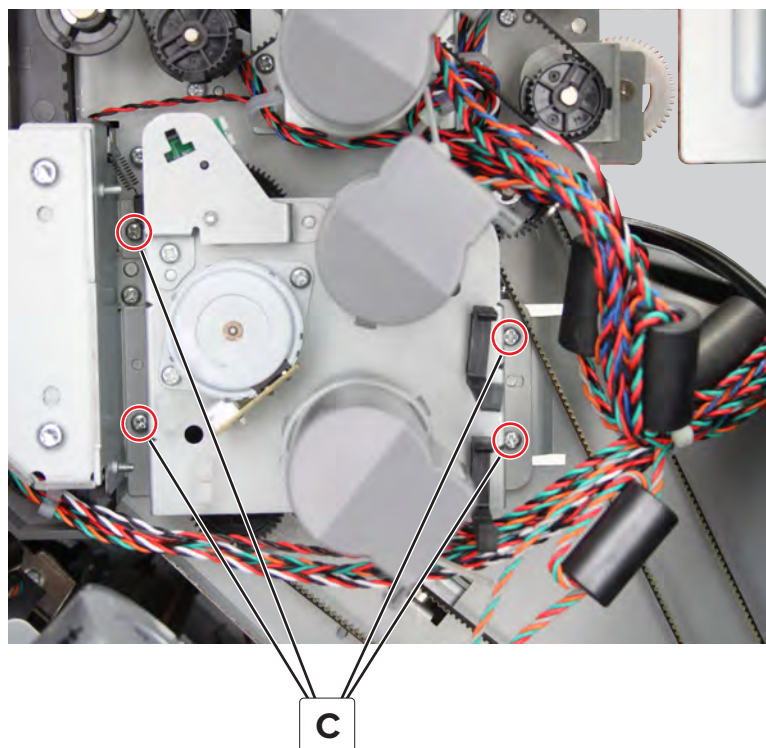
5 Remove the two screws (A), and then open the cage.



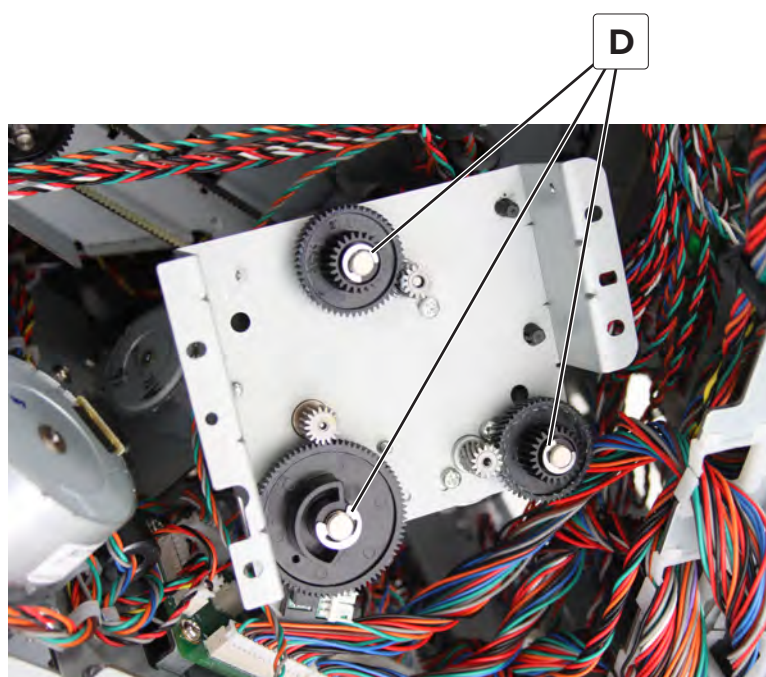
- 6 Release the cables from their guides (B), and then detach them from the bracket.



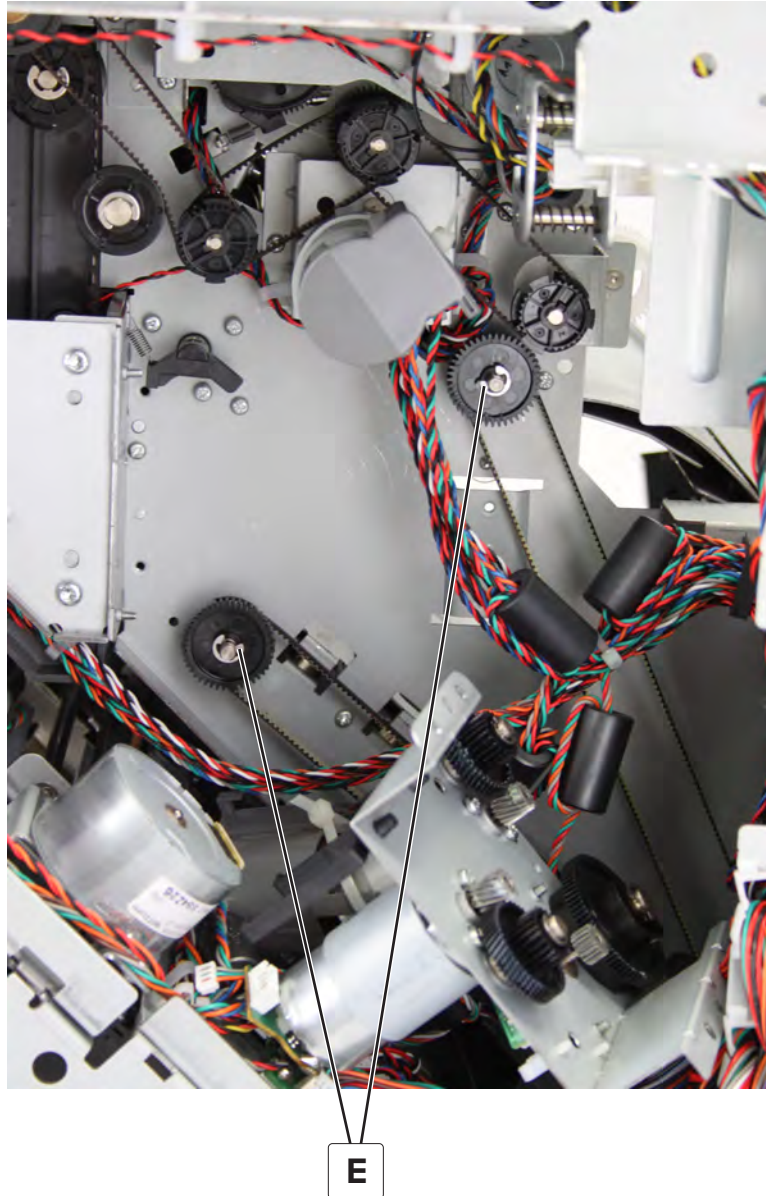
7 Remove the four screws (C), and then pull the bracket.



8 Remove the three E-clips (D), and then remove the gears.



- 9 Remove the two E-clips (E), and then remove the gears.



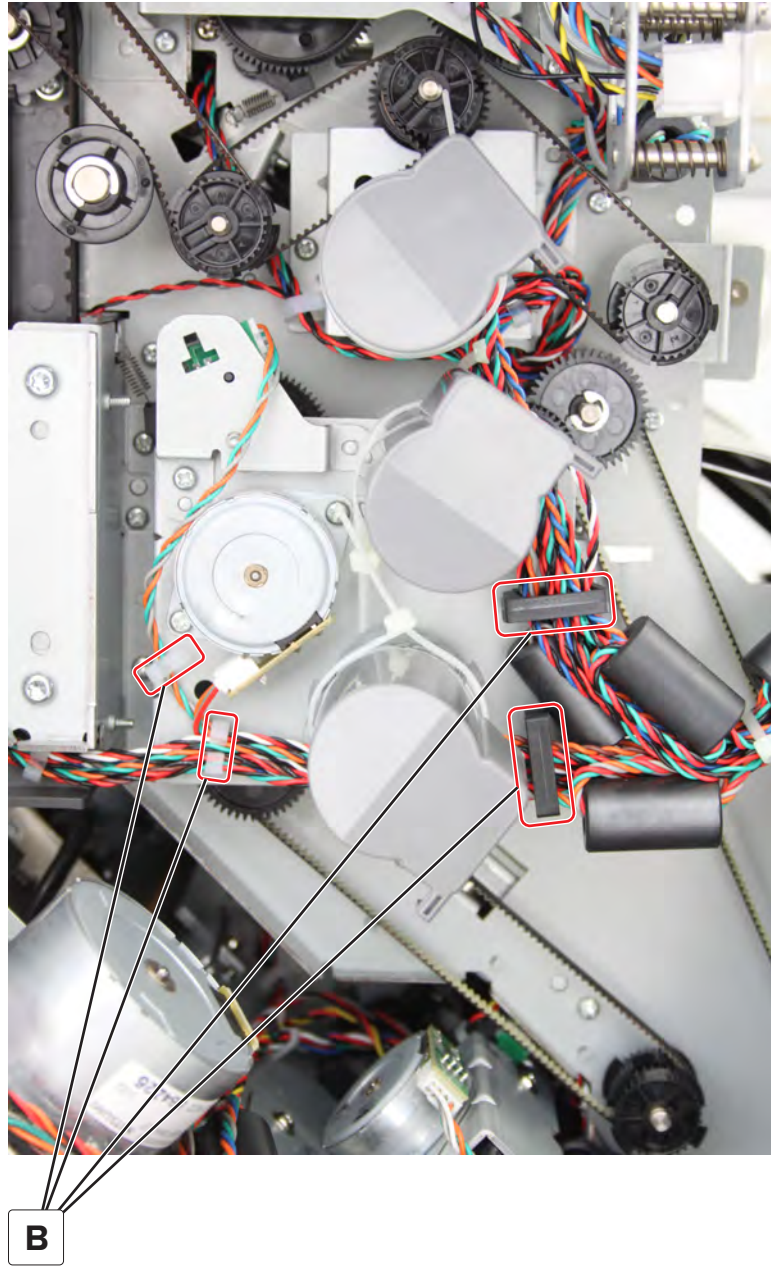
Staging transport belts removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the staging outer transport belt. See [“Staging outer transport belt removal” on page 1095.](#)

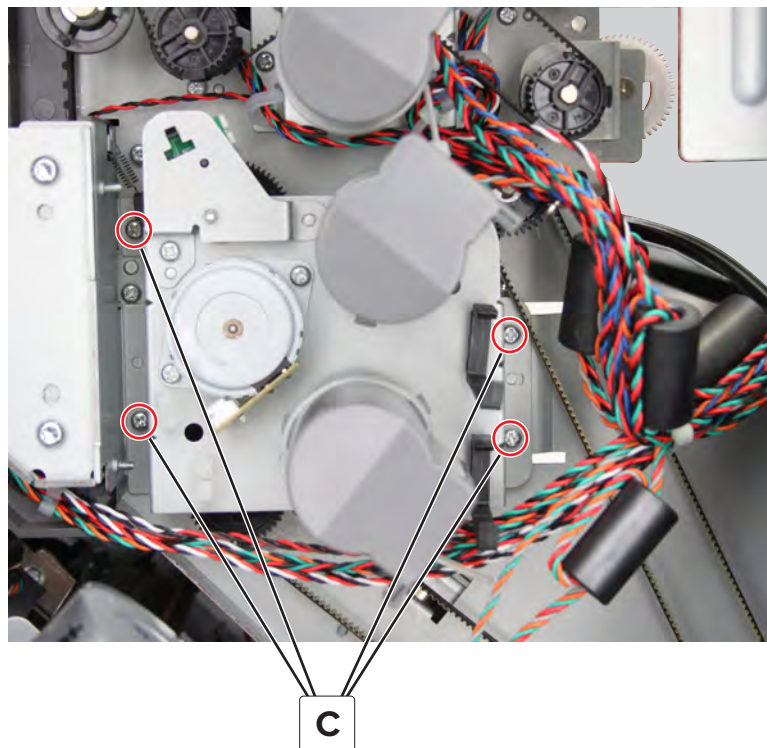
6 Remove the two screws (A), and then open the cage.

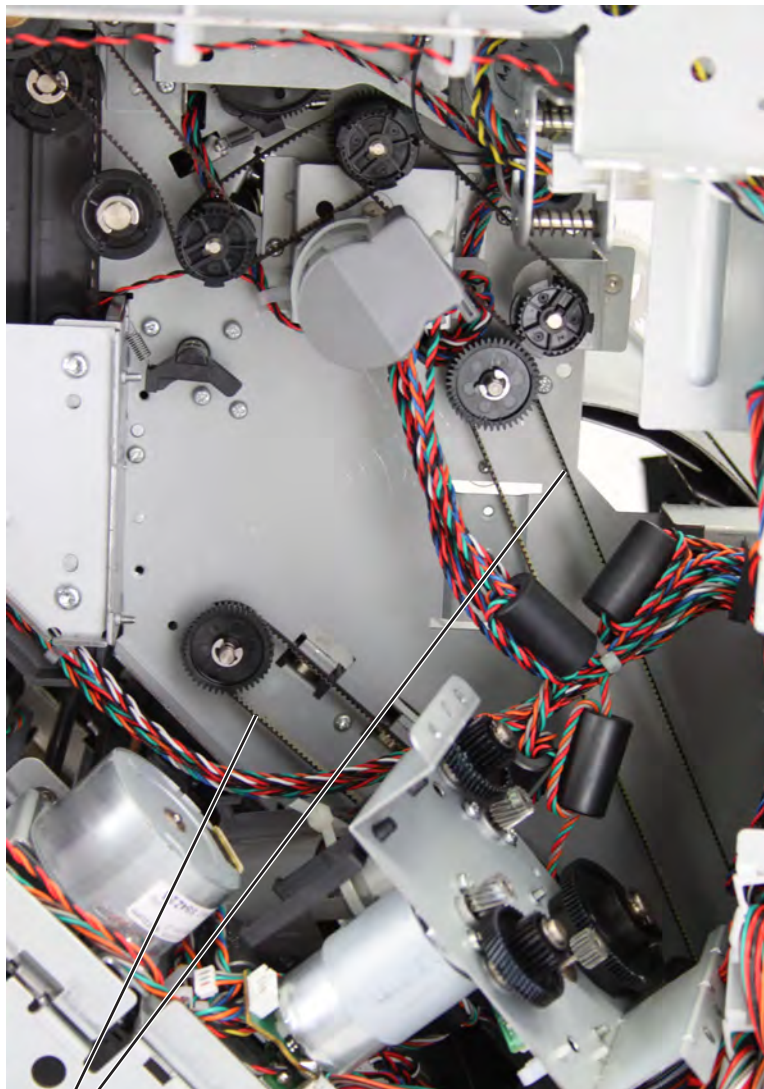


7 Release the cables from their guides (B), and then detach them from the bracket.



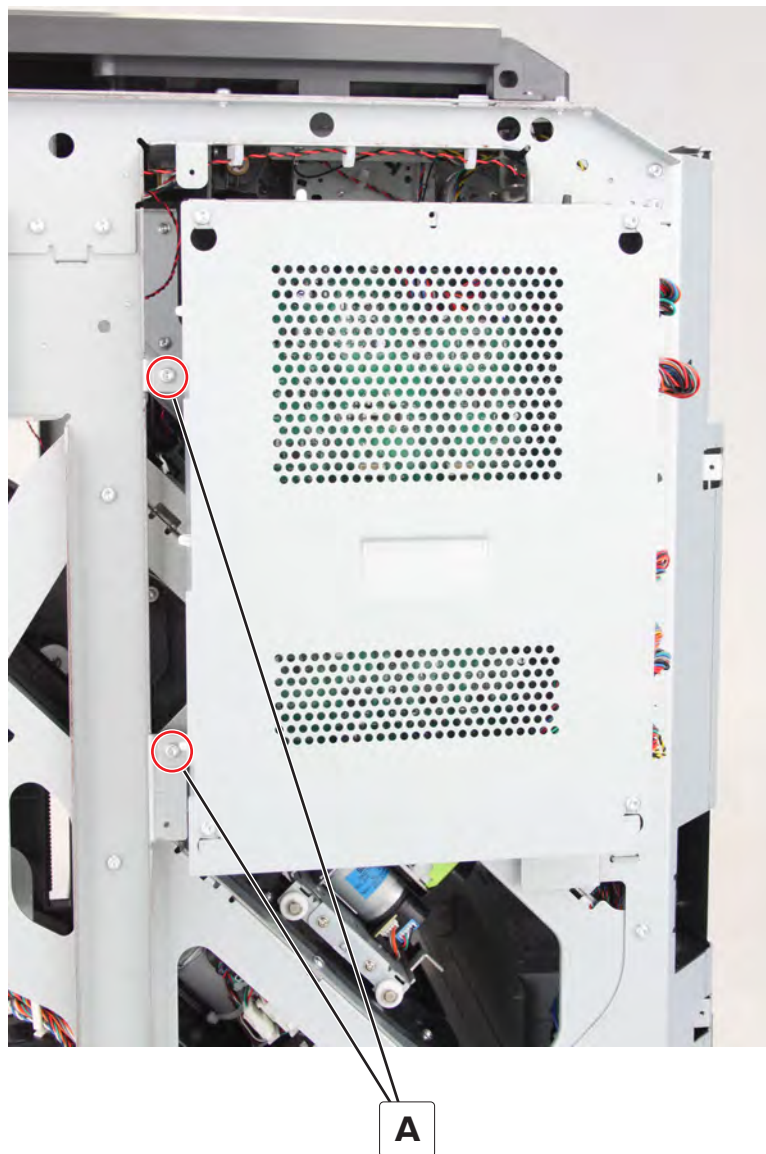
8 Remove the four screws (C), and then pull the bracket.



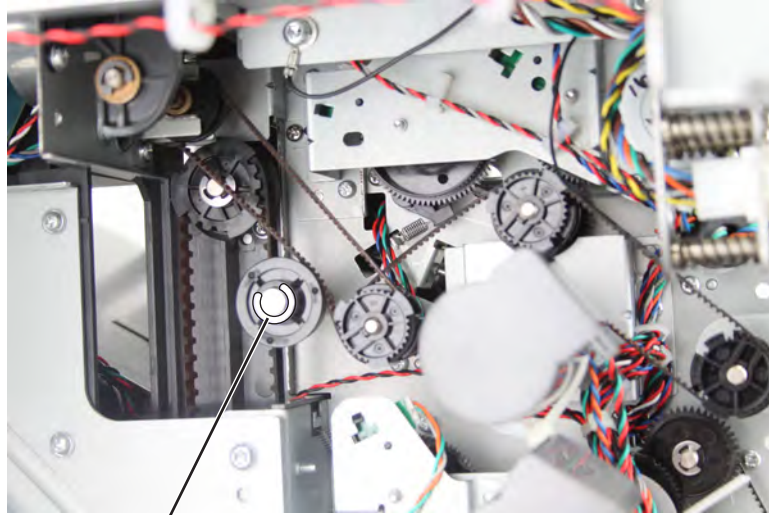
9 Remove the belts (D).**D****Offset belt tensioner removal**

- 1** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

- 5 Remove the two screws (A), and then open the cage.



- 6 Remove the E-clip (B), and then remove the tensioner.

**B**

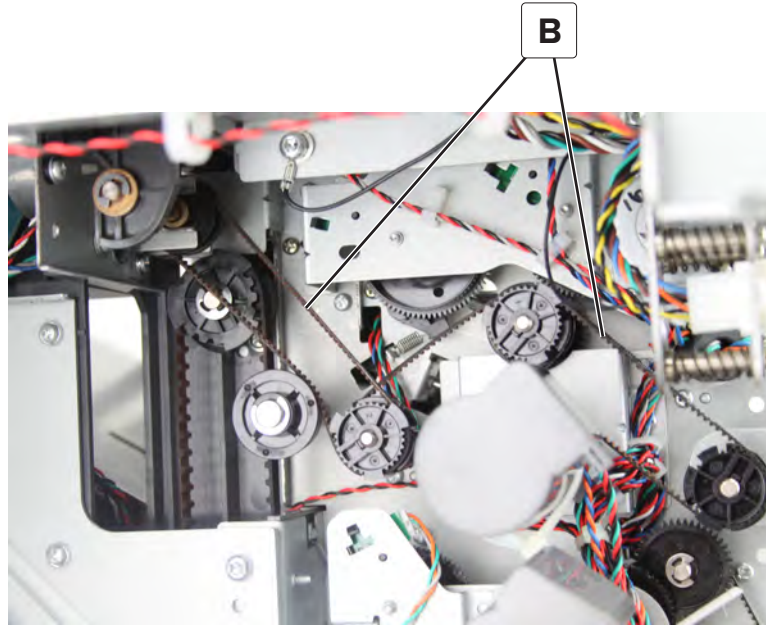
MSHPF standard bin exit belt removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

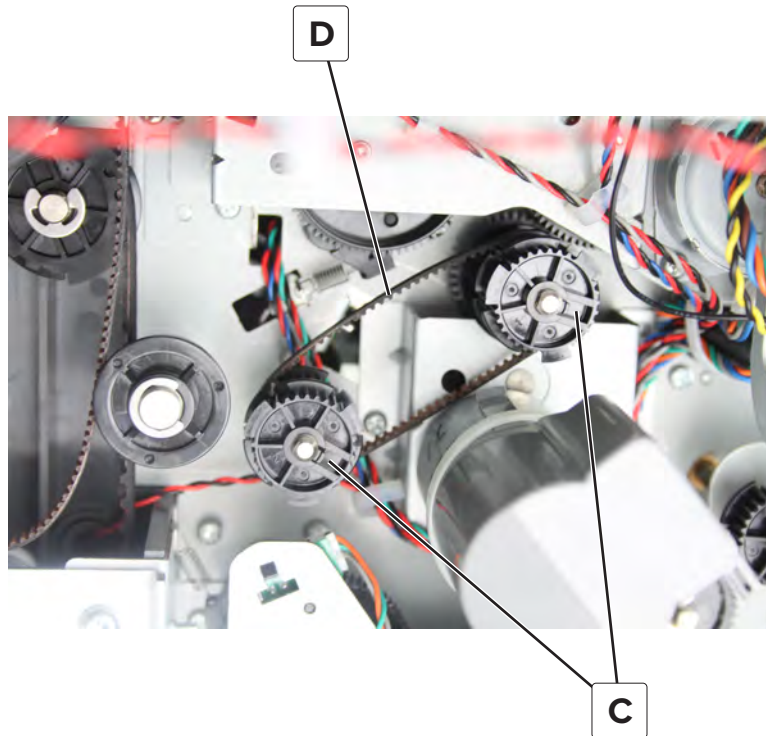
5 Remove the two screws (A), and then open the cage.



6 Remove the two belts (B).



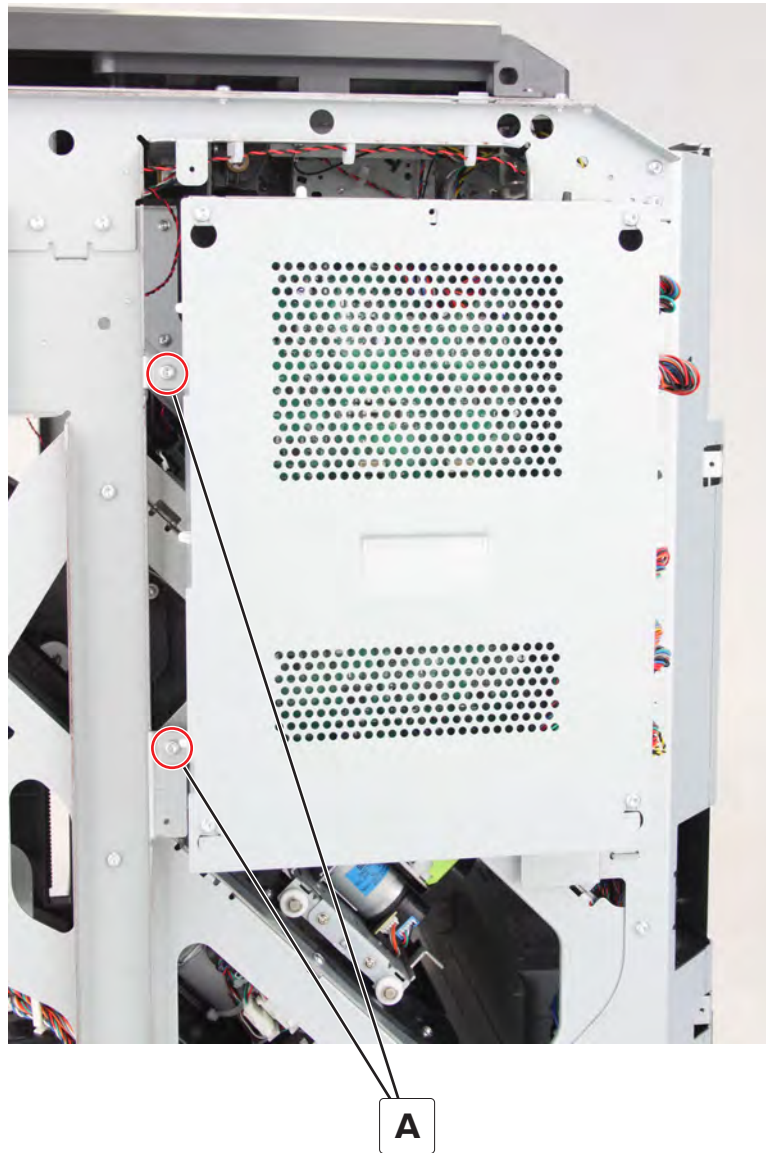
7 Remove either of the two gears (C), and then remove the belt (D).



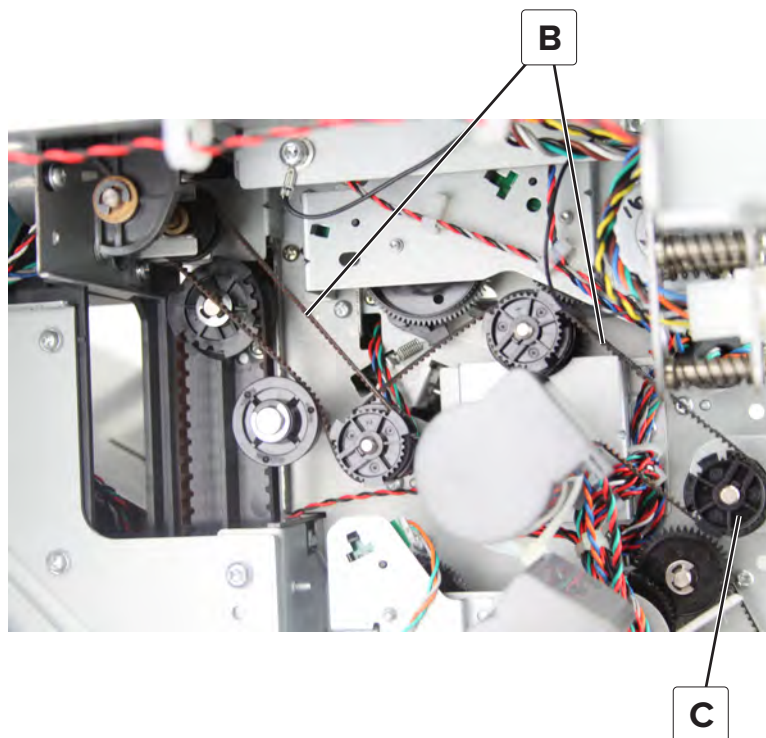
Mid-transport pulley gears removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)

- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 5 Remove the two screws (A), and then open the cage.

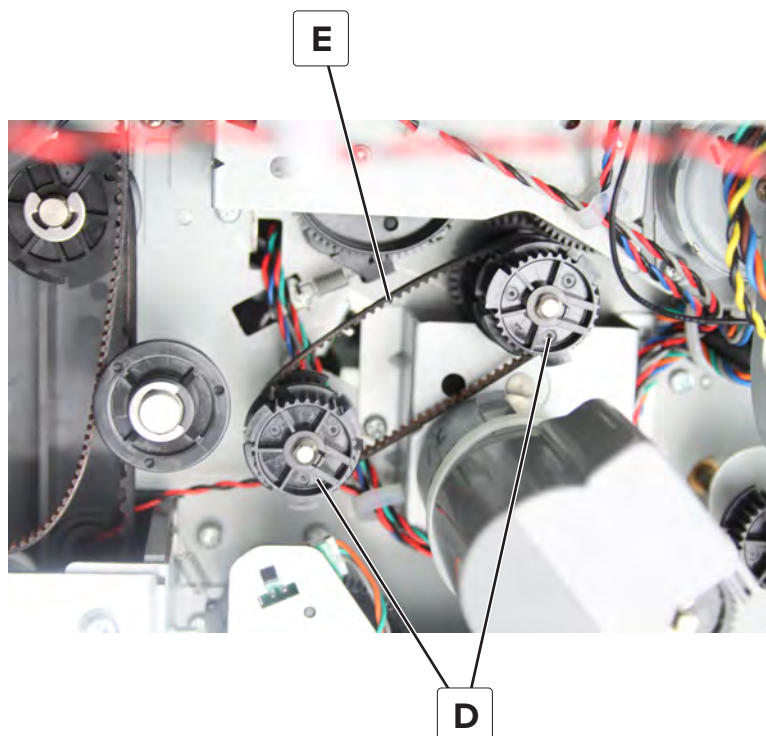


- 6** Remove the two belts (B), and then remove the pulley gear (C).



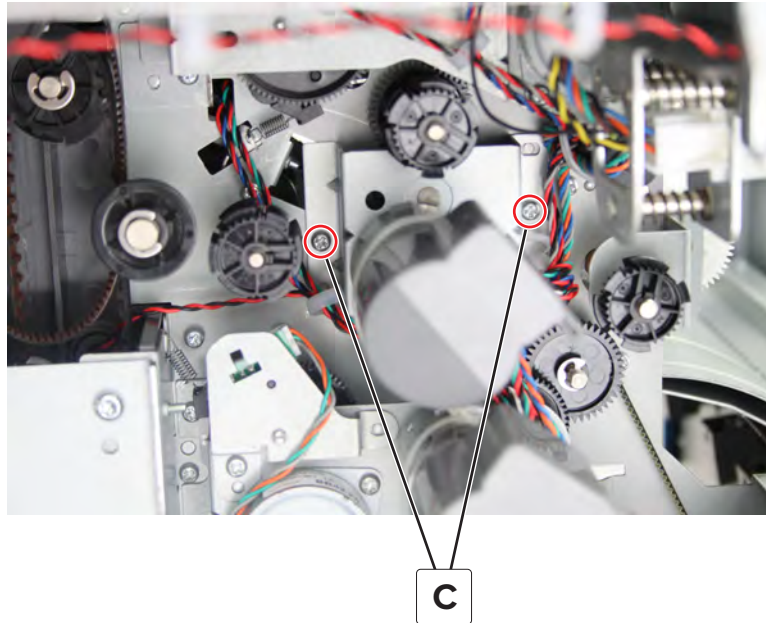
- 7** Remove the two pulley gears (D).

- 8** Remove the belt (E), and then remove the two pulley gears under the pulley gears (D).



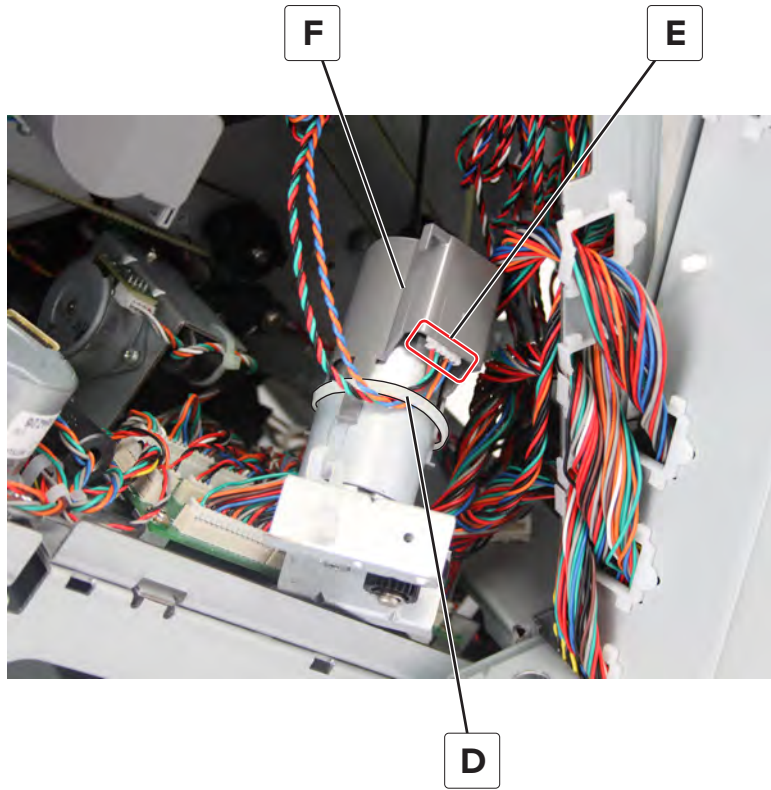
Motor (mid-transport) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the MSHPF standard bin exit belt. See [“MSHPF standard bin exit belt removal” on page 1122.](#)
- 6 Remove the two screws (C), and then pull the bracket.



- 7 Cut the cable tie (D), disconnect the cable (E), and then remove the cap (F).

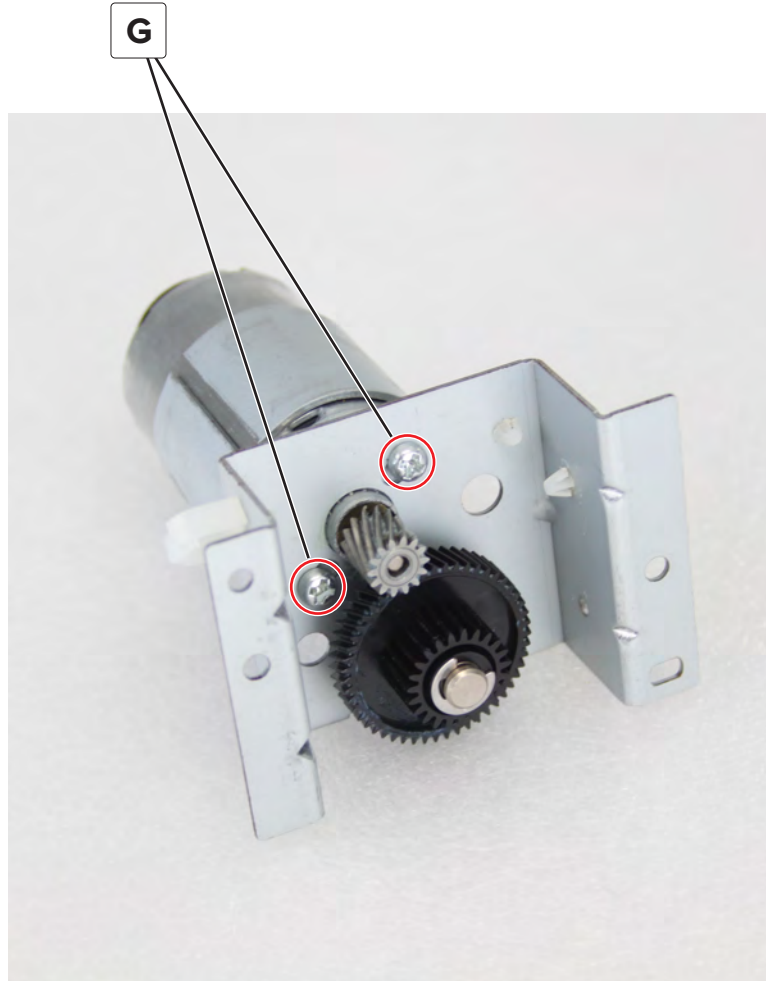
Installation warning: Replace the cable tie, or the cable may interfere with moving parts.



Parts removal

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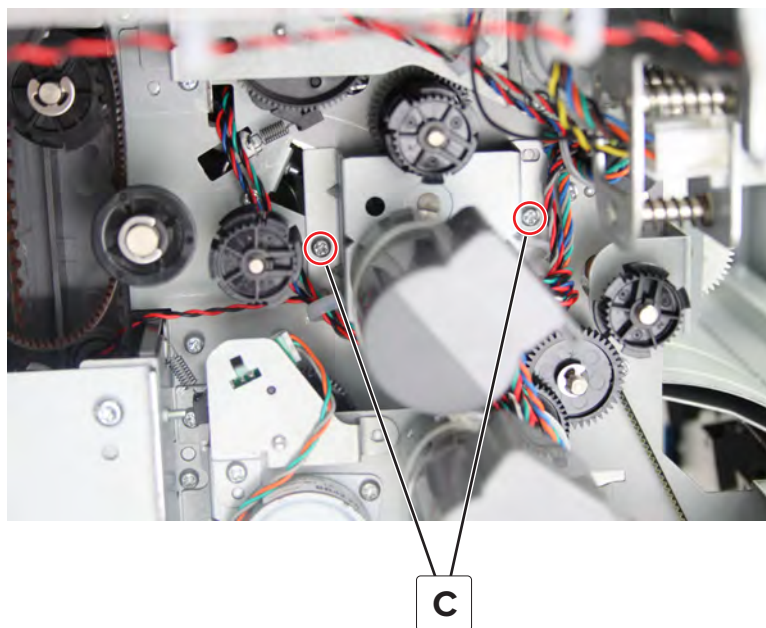
- 8 Remove the two screws (G), and then remove the motor.



Mid-transport gear removal

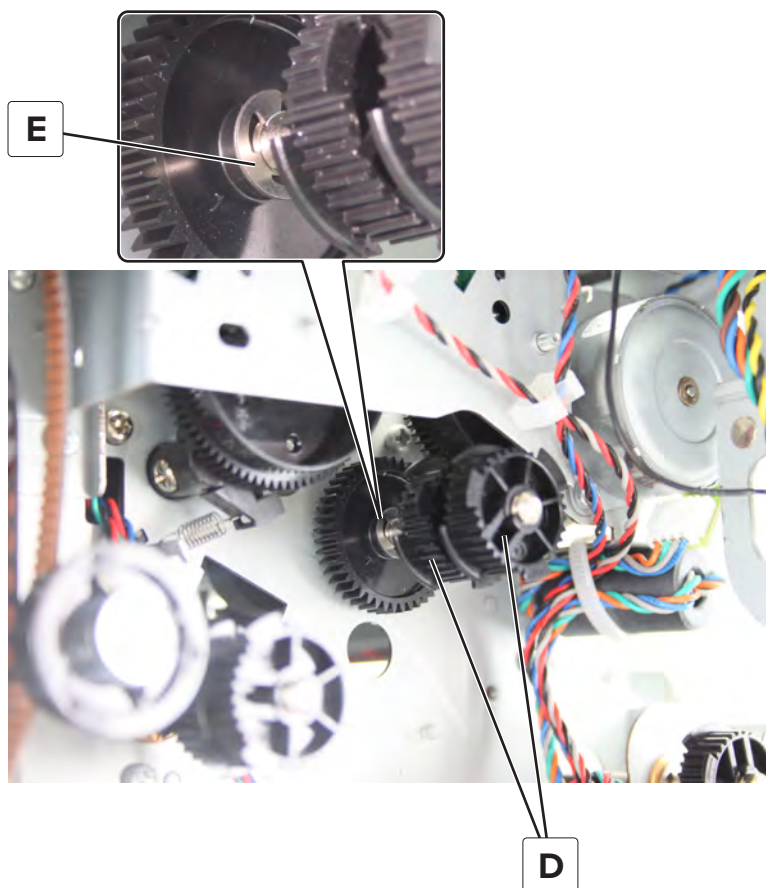
- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the MSHPF standard bin exit belt. See [“MSHPF standard bin exit belt removal” on page 1122.](#)

6 Remove the two screws (C), and then pull the bracket.



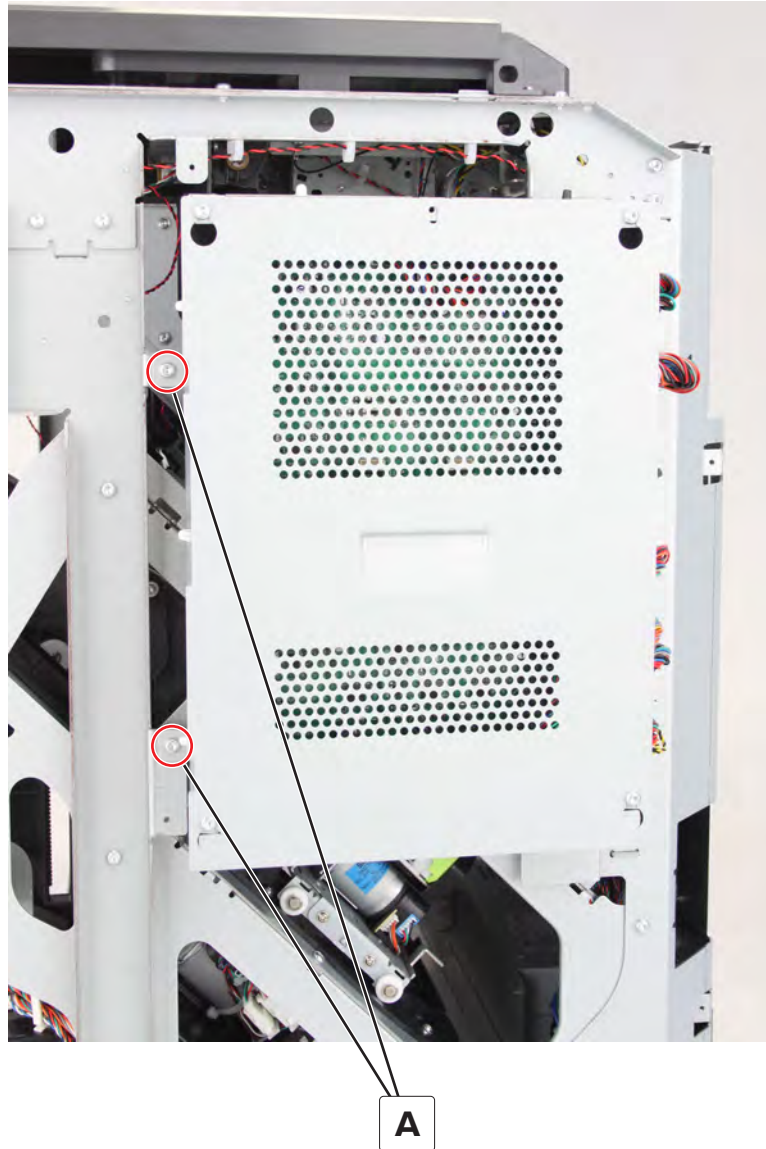
7 Remove the two pulley gears (D).

8 Remove the E-clip (E), and then remove the gear.

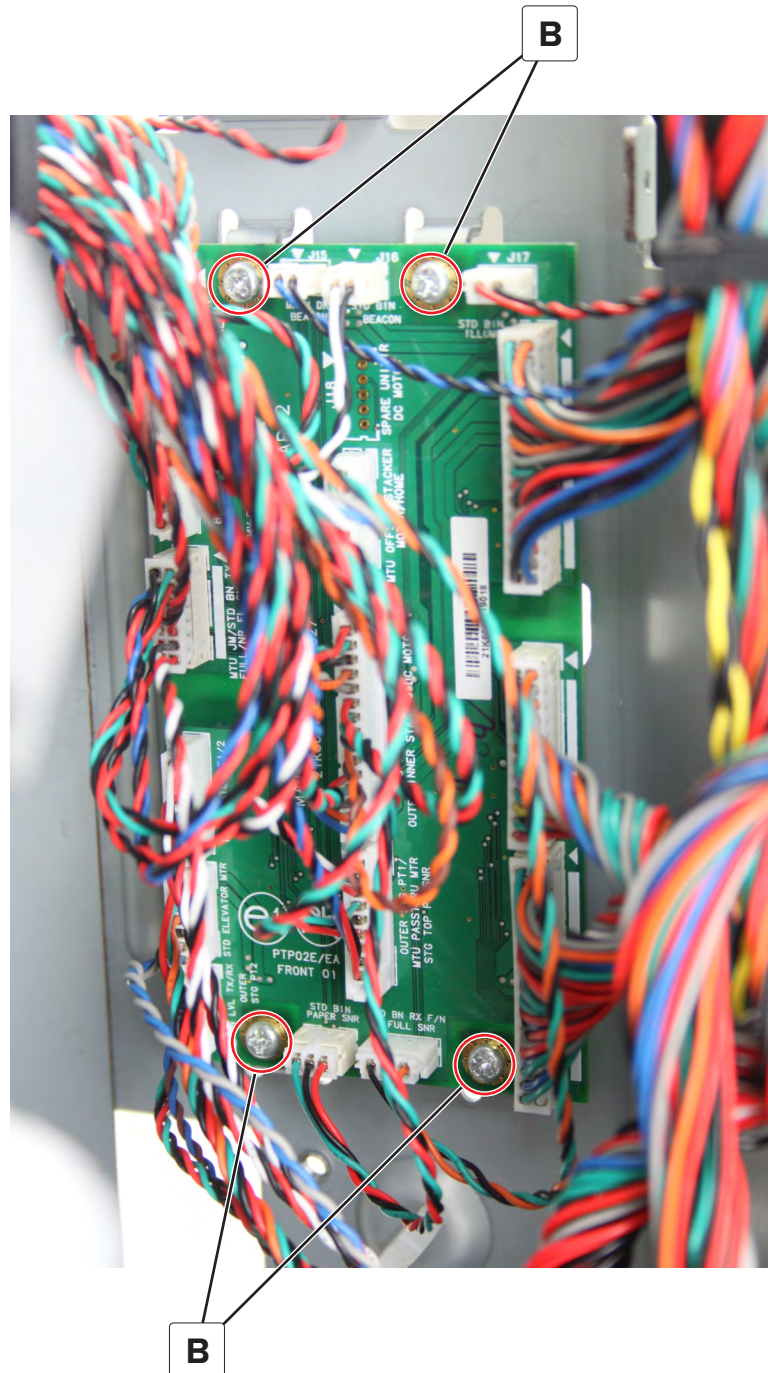


Mid-transport interface board removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the two screws (A), and then open the cage.



- 6 Disconnect all the cables, and then remove the four screws (B).

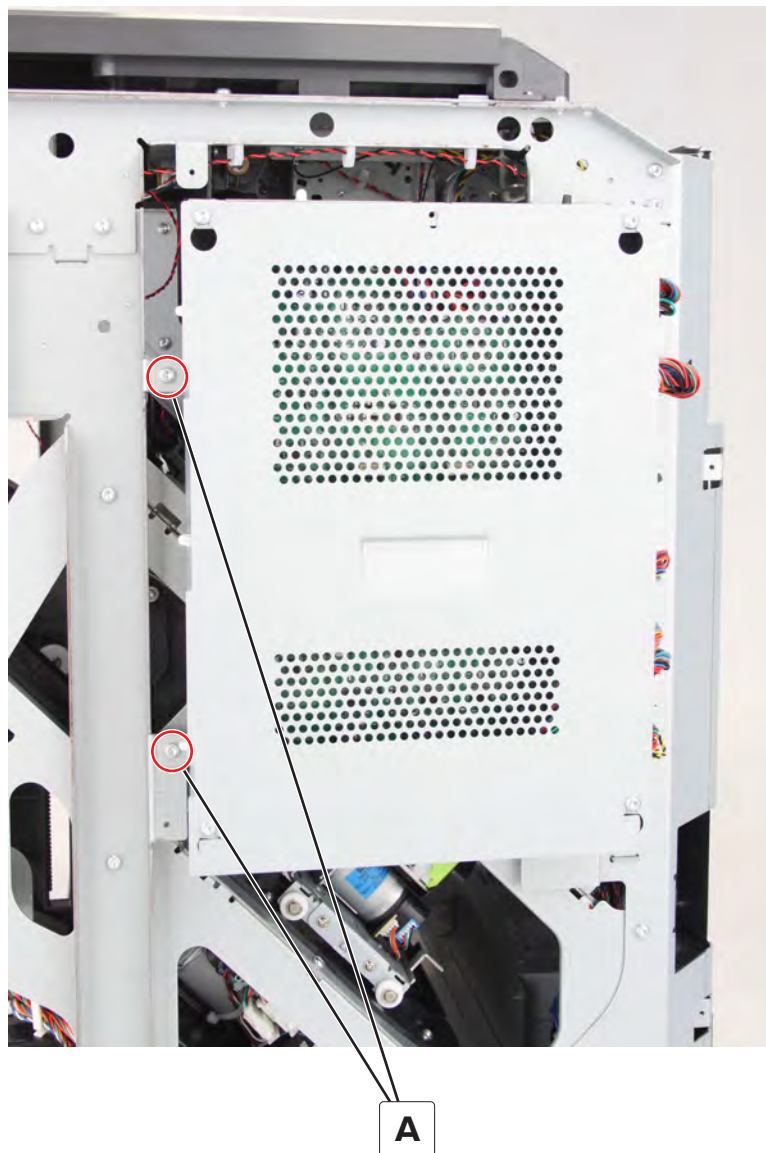


- 7 Remove the board.

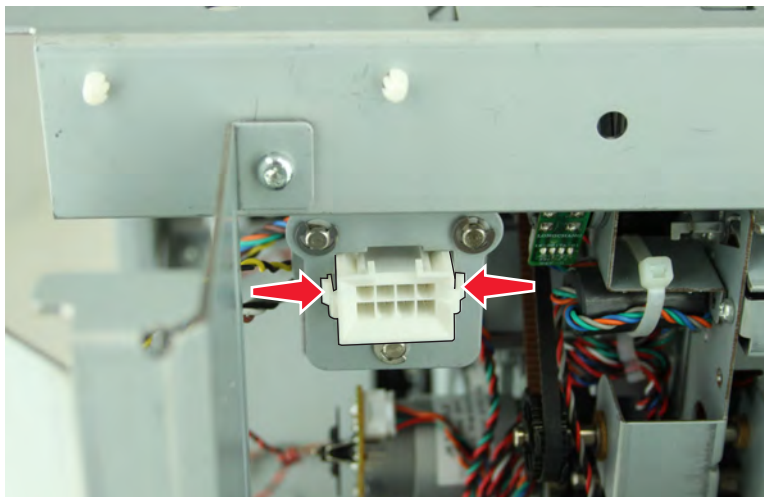
Mid-transport (HPT) interface cable removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)

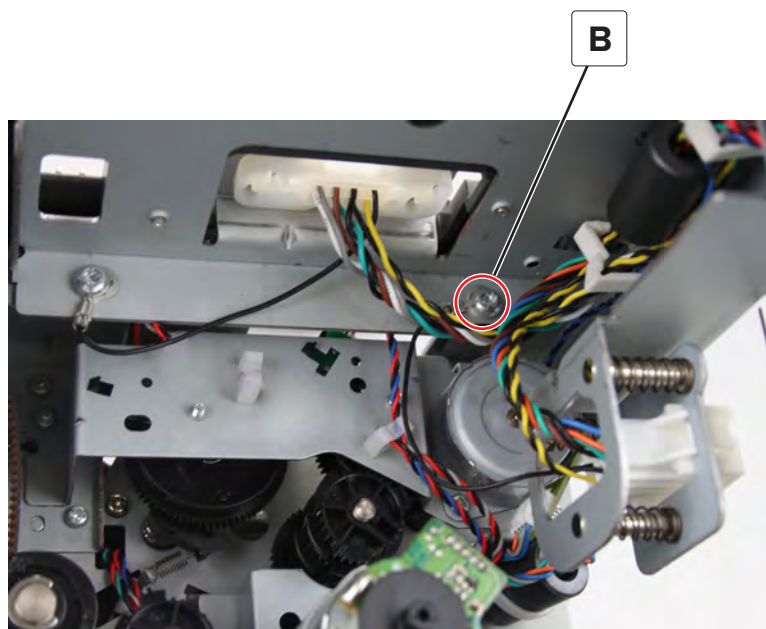
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 5 Remove the two screws (A), and then open the cage.



- 6 From the left, release the connector from its slot.



- 7 From the rear, remove the ground screw (B), and then disconnect the interface cable from the mid-transport interface board.



- 8 Release the cable from its guides, and then remove it.

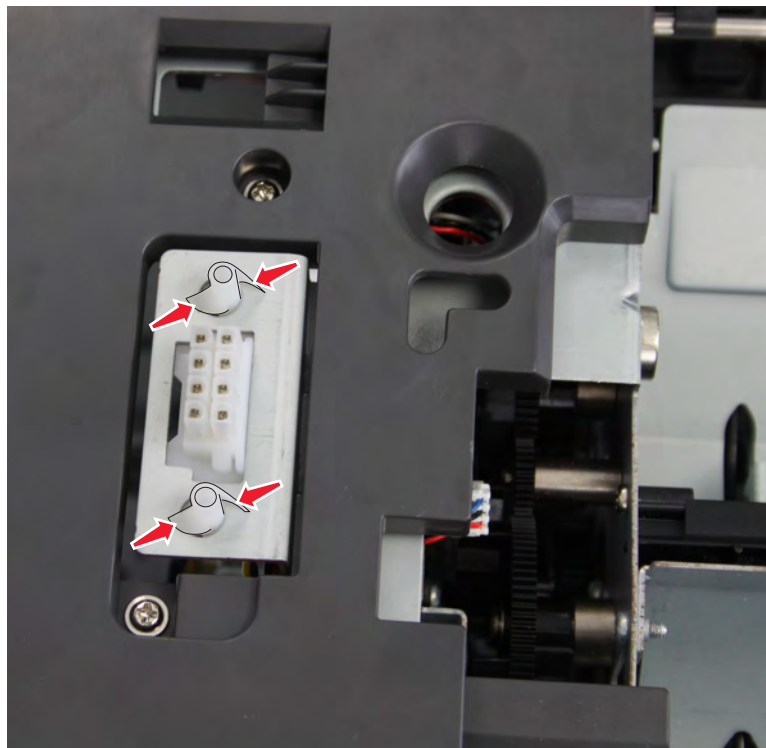
Mid-transport (mailbox) interface cable removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048](#).
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).

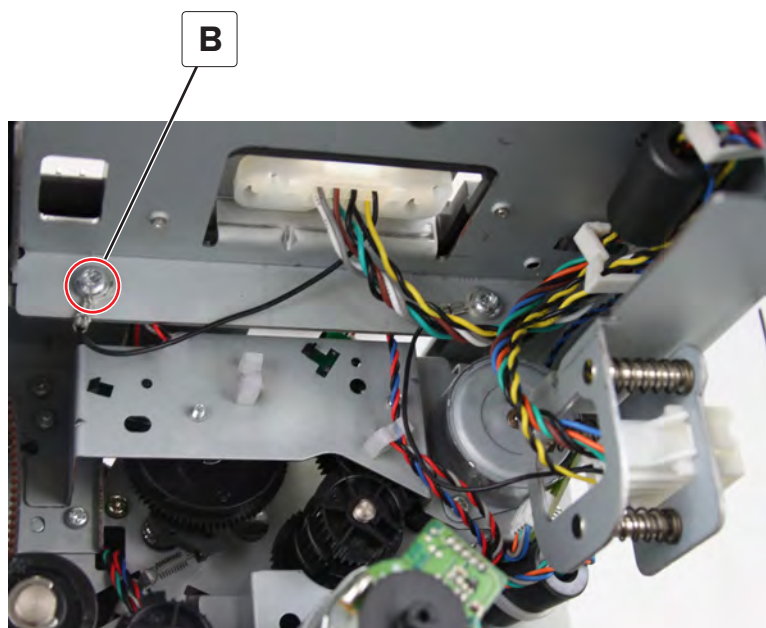
5 Remove the two screws (A), and then open the cage.



- 6** From the top, release the connector from its slot.



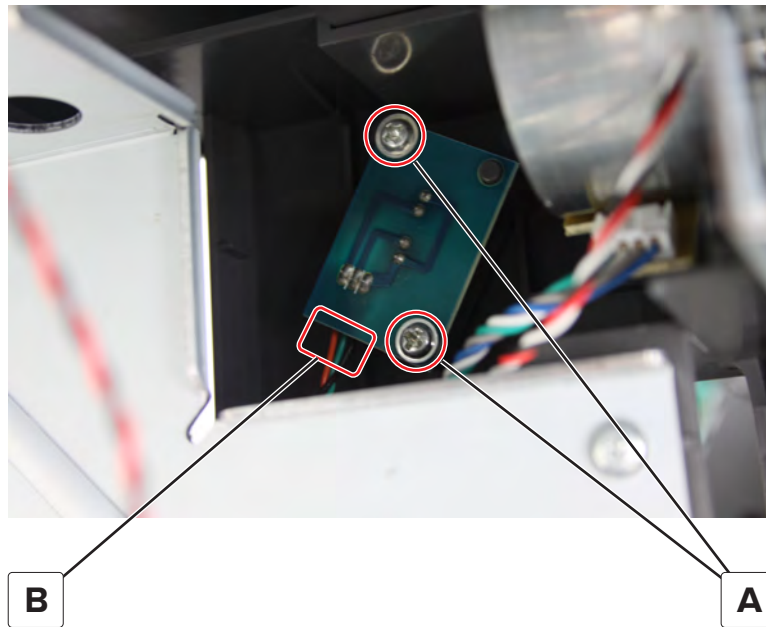
- 7** From the rear, remove the ground screw (B), and then disconnect the interface cable from the mid-transport interface board.



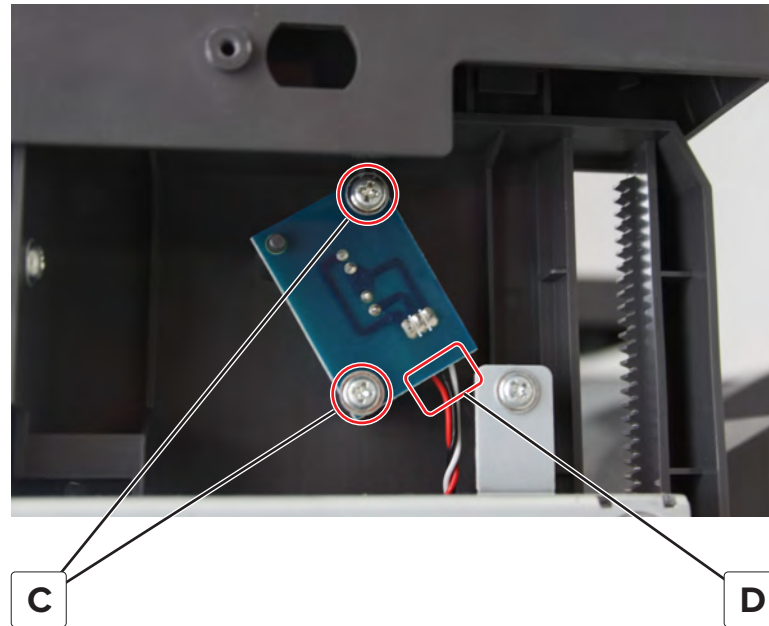
- 8** Release the cable from its guides, and then remove.

Sensor (standard bin stack upper limit) removal

- 1 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 2 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 7 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 8 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 9 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 10 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 11 Remove the two screws (A), disconnect the cable (B), and then remove the receiver sensor.



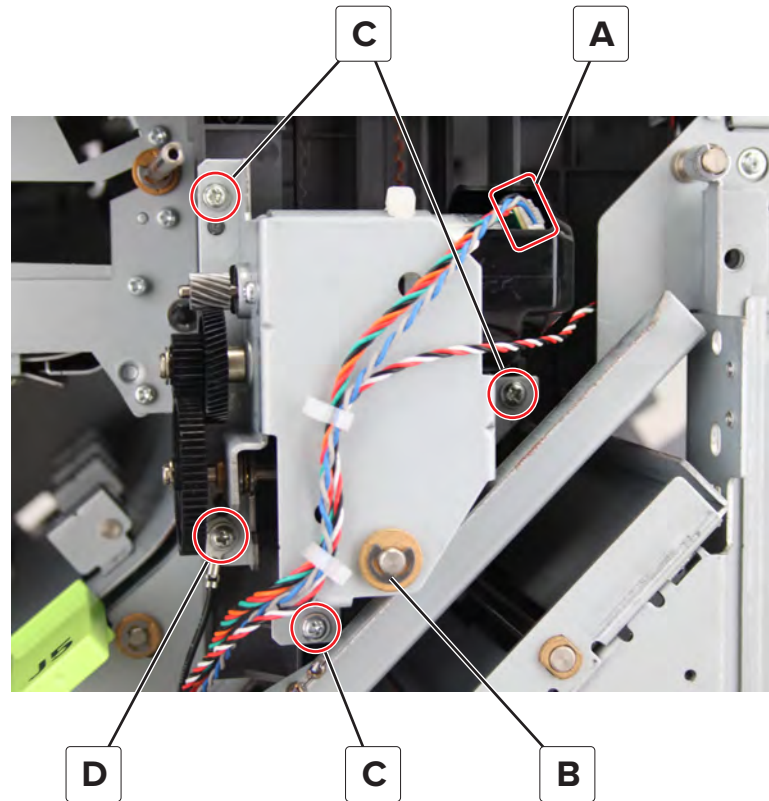
- 12** Remove the two screws (C), disconnect the cable (D), and then remove the transmitter sensor.



Standard bin elevator drive removal

- 1** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 2** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Disconnect the cable (A), and then remove the E-clip (B).

7 Remove the three screws (C), and then remove the ground screw (D).

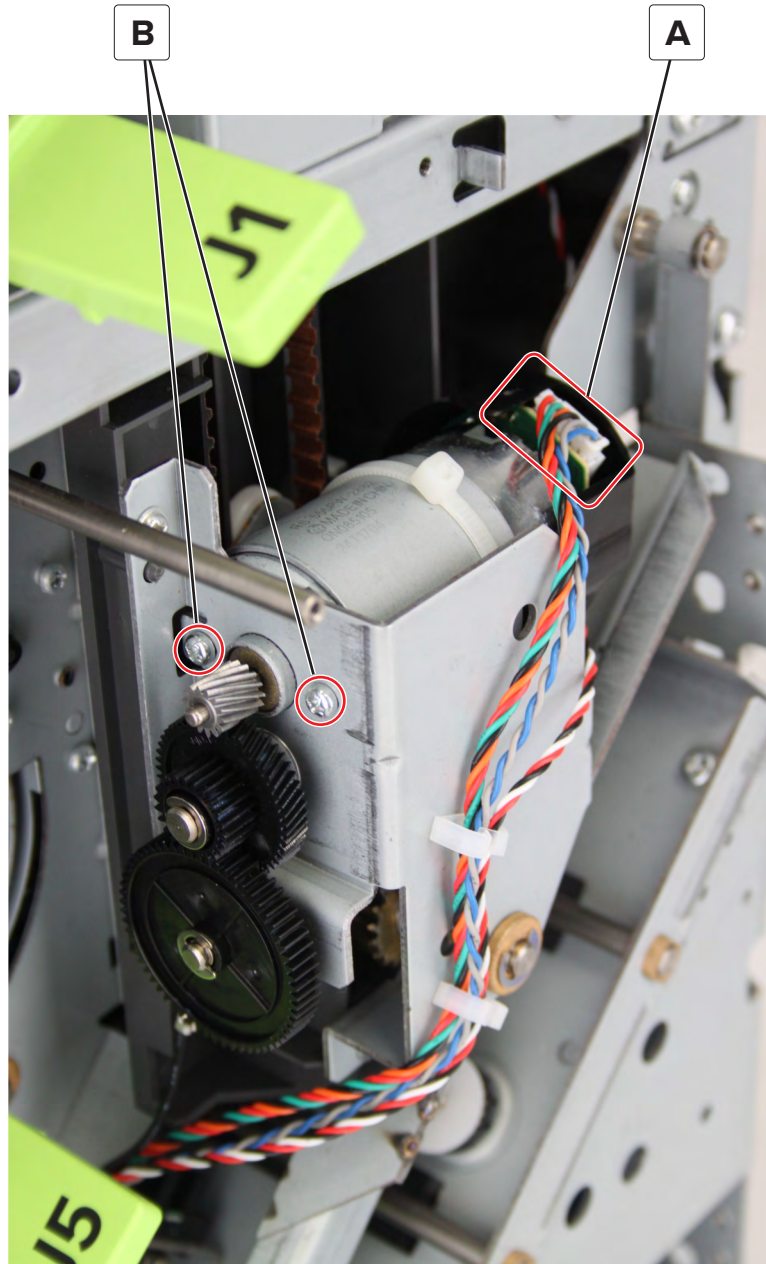


8 Remove the elevator drive.

Motor (standard bin elevator) removal

- 1** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 2** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

6 Disconnect the cable (A), and then remove the two screws (B).

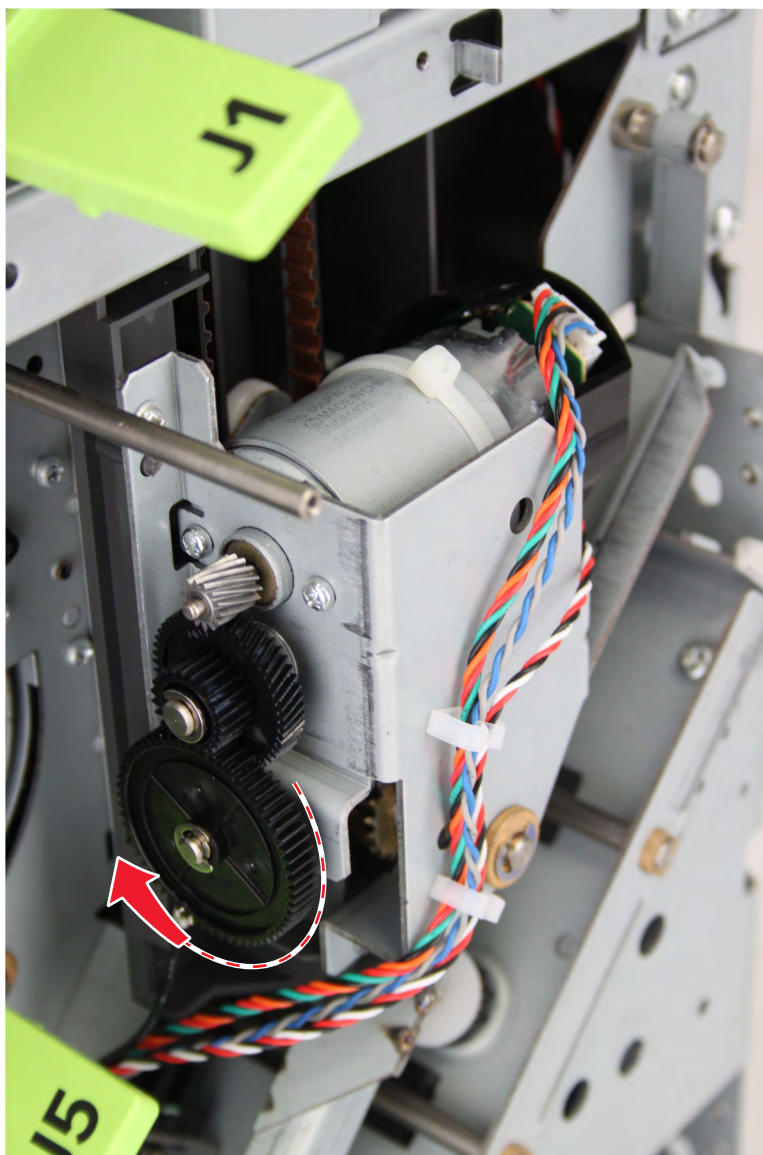


7 Remove the motor.

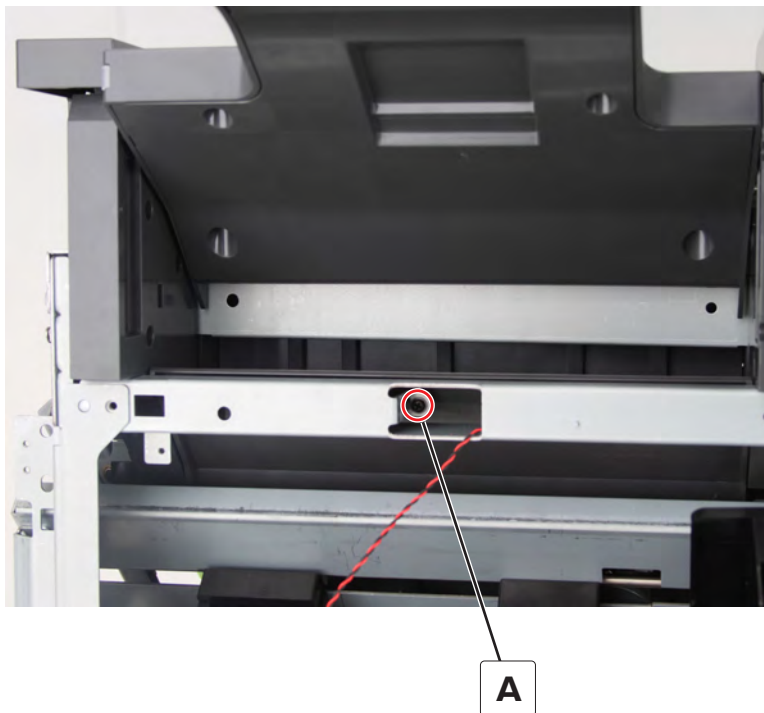
Sensor (standard bin paper present) removal

- 1 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 2 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

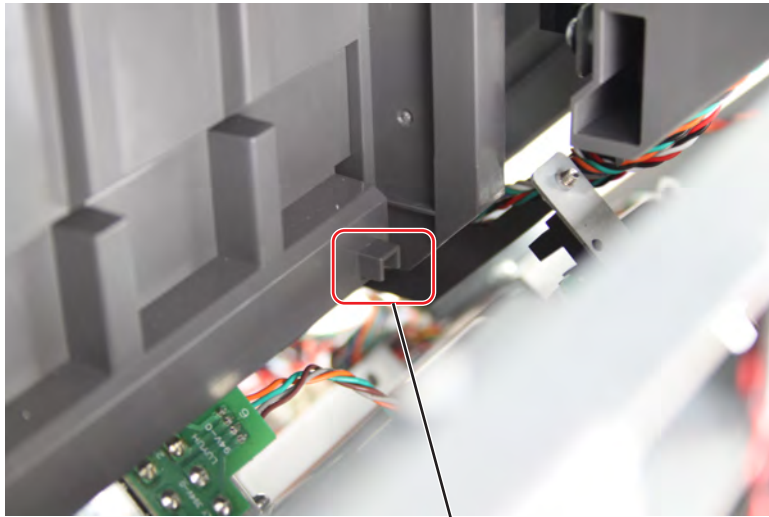
- 6 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 7 Remove the stapler bin cave cover. See [“Stapler bin cave cover removal” on page 1052](#).
- 8 Rotate the gear until the bin is at the topmost position.



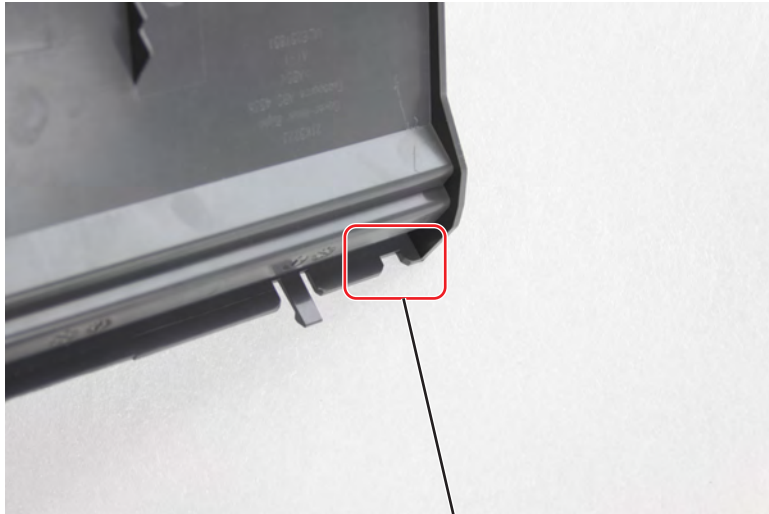
- 9 Remove the screw (A), and then remove the MSHPF standard bin bottom cover.



Installation note: Align the square pegs (B) with the slots (C) on the cover.



B

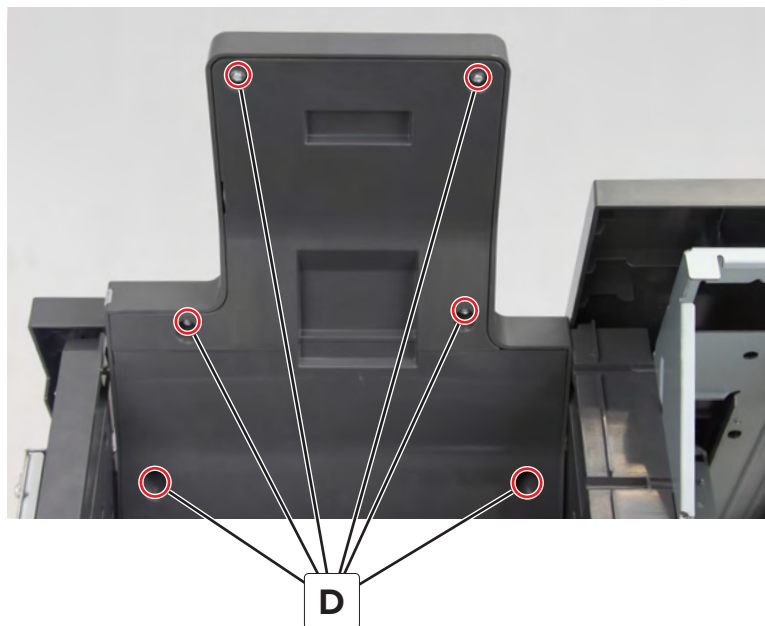


C

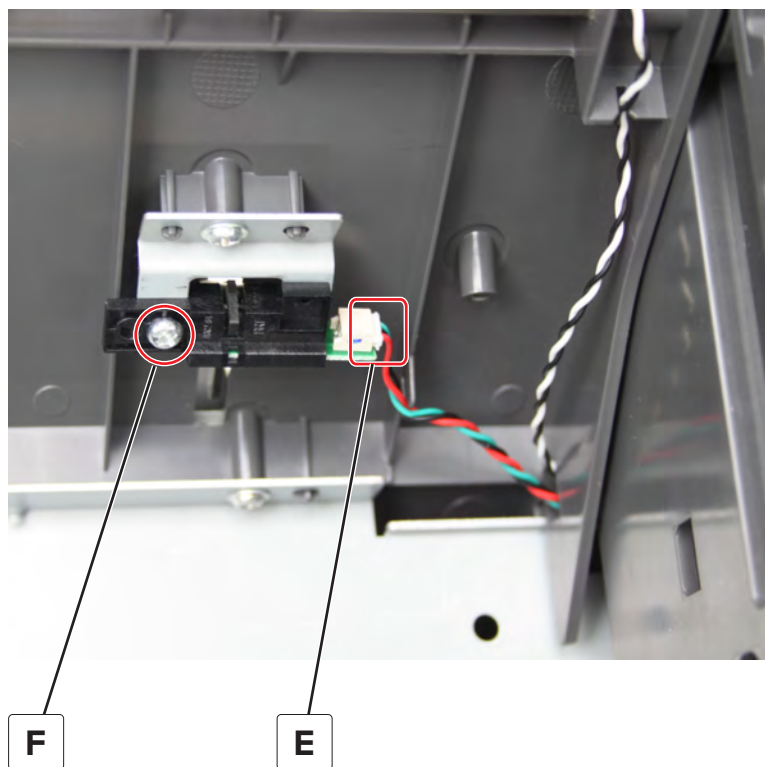
Parts removal

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10 Under the bin, remove the six screws (D), and then remove the cover.



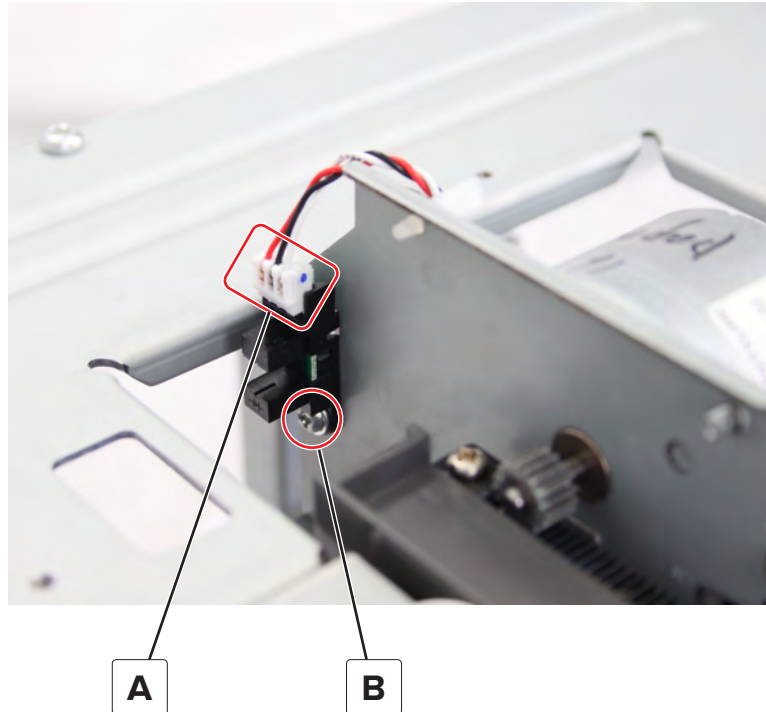
11 Disconnect the cable (E), and then remove the screw (F).



12 Remove the sensor.

Sensor (offset roller) removal

- 1 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 2 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 3 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 4 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 5 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 6 Disconnect the cable (A), and then remove the screw (B).



- 7 Remove the sensor.

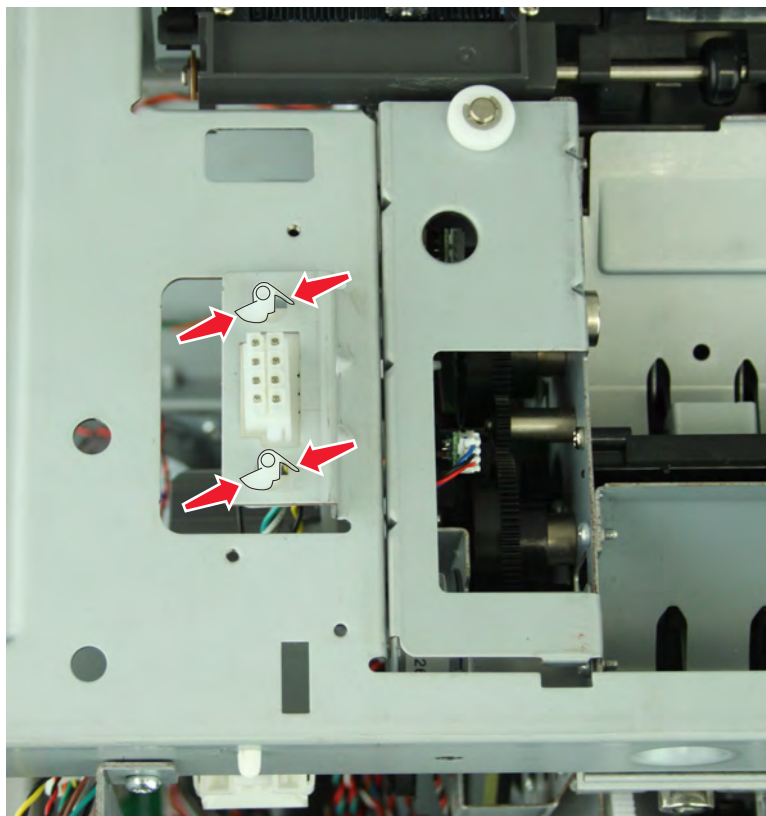
MSHPF top frame removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)

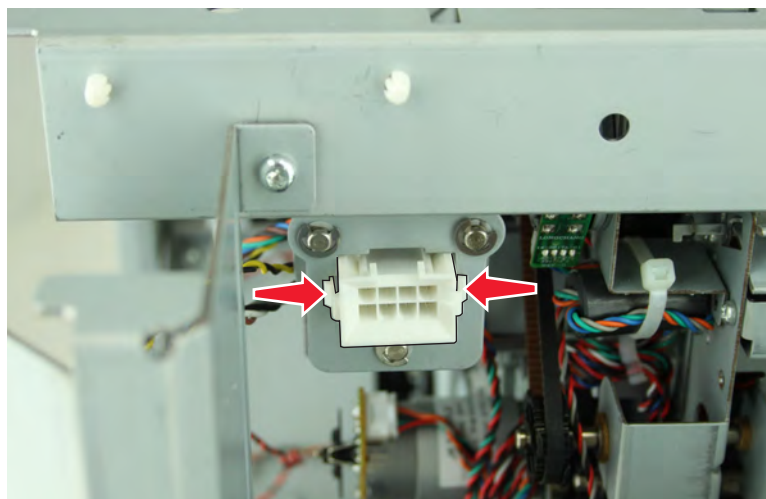
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055](#).
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060](#).
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061](#).
- 14 Remove the two screws (A), and then open the cage.



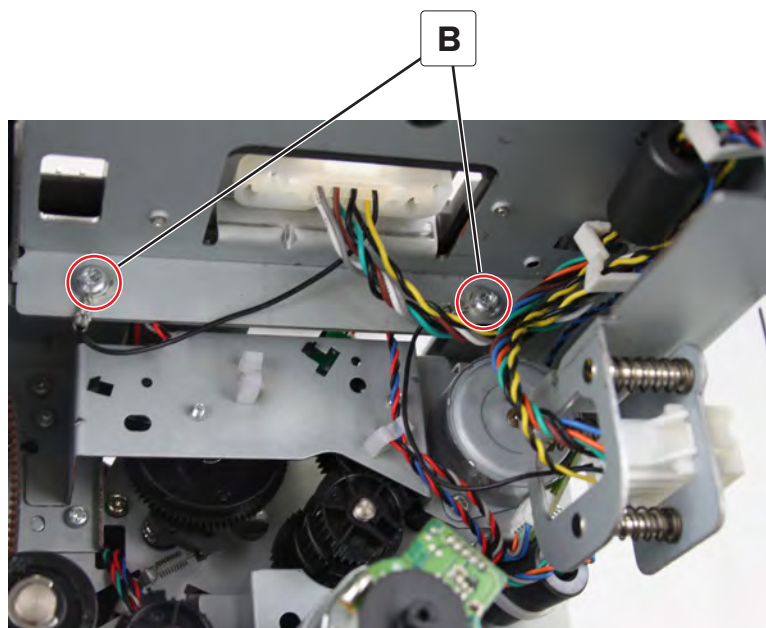
15 From the top, release the connector from its slot.



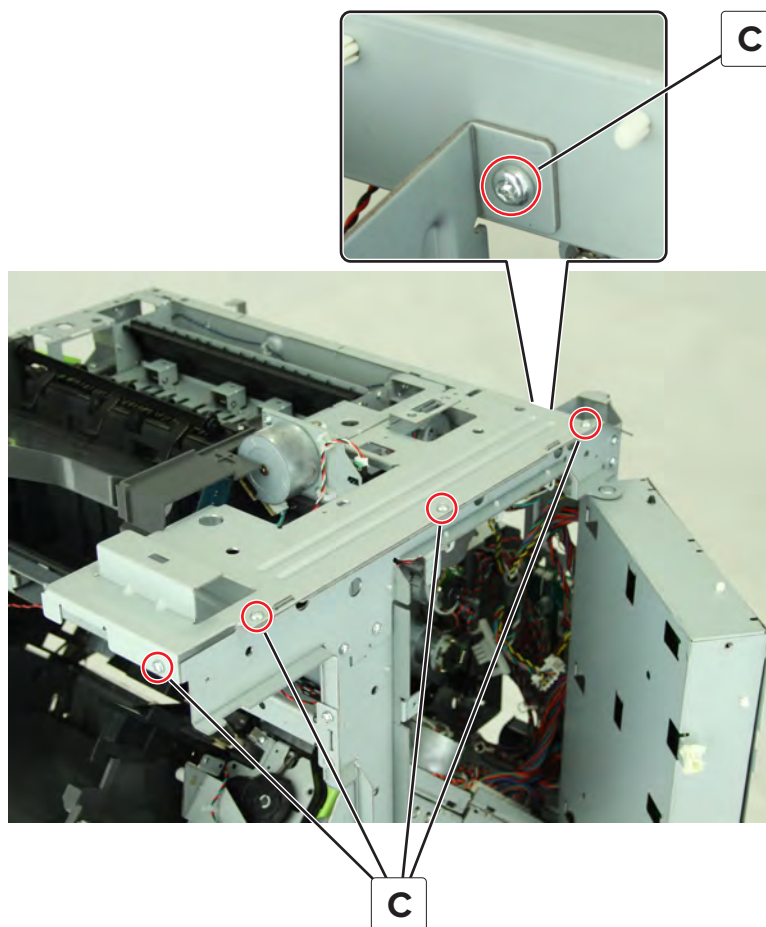
16 From the left, release the connector from its slot.



17 Remove the two ground screws (B).



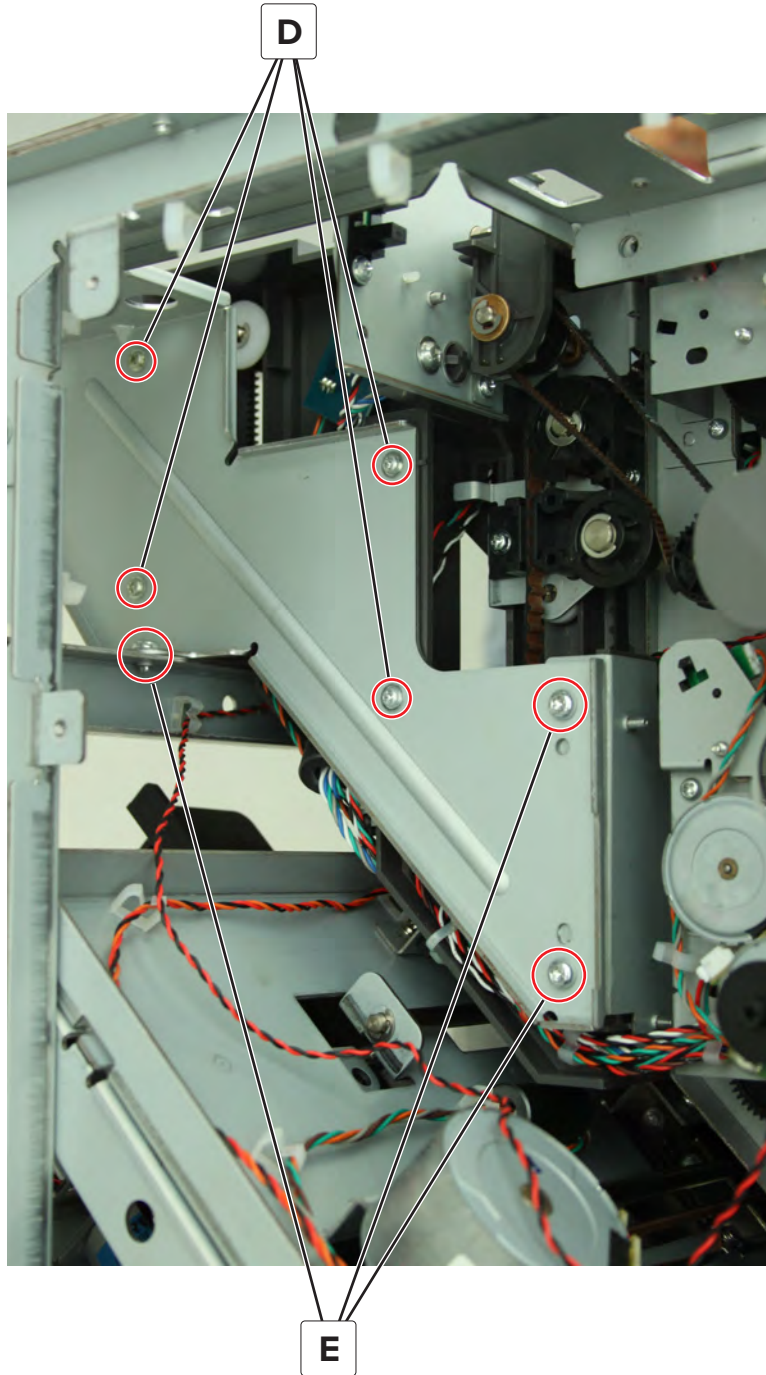
18 From the rear, remove the five screws (C).



19 Remove the four screws (D).

Parts removal

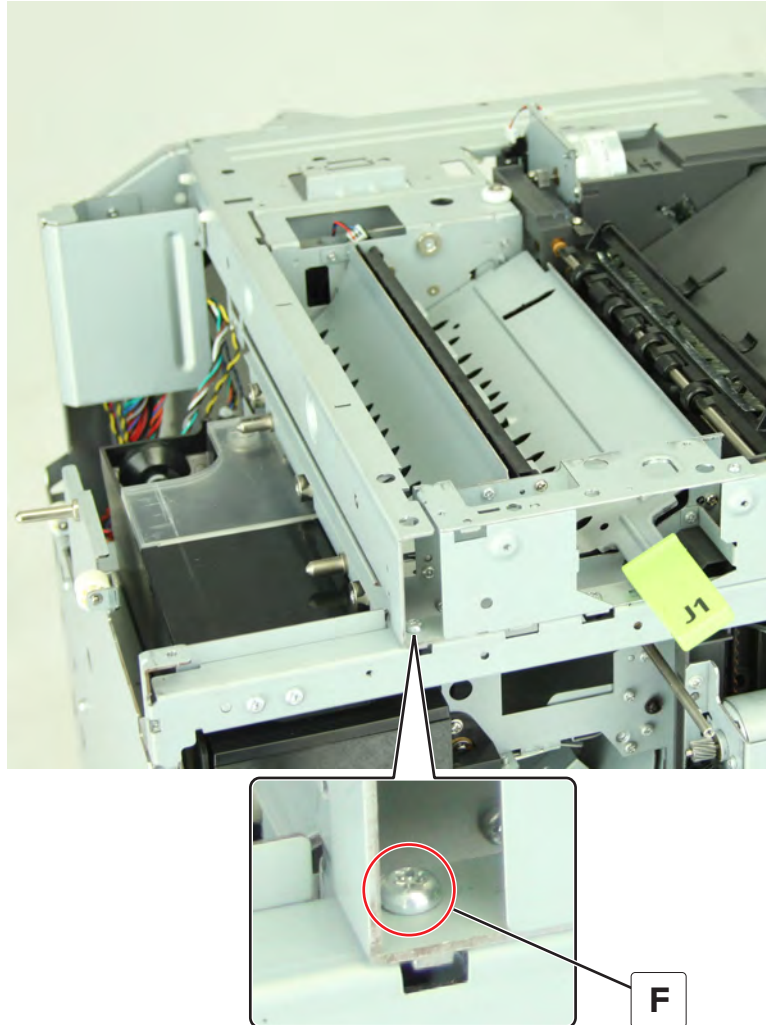
20 Using a Torx screwdriver, remove the three screws (E).



Parts removal

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- 21 Using a Torx screwdriver, remove the screw (F).

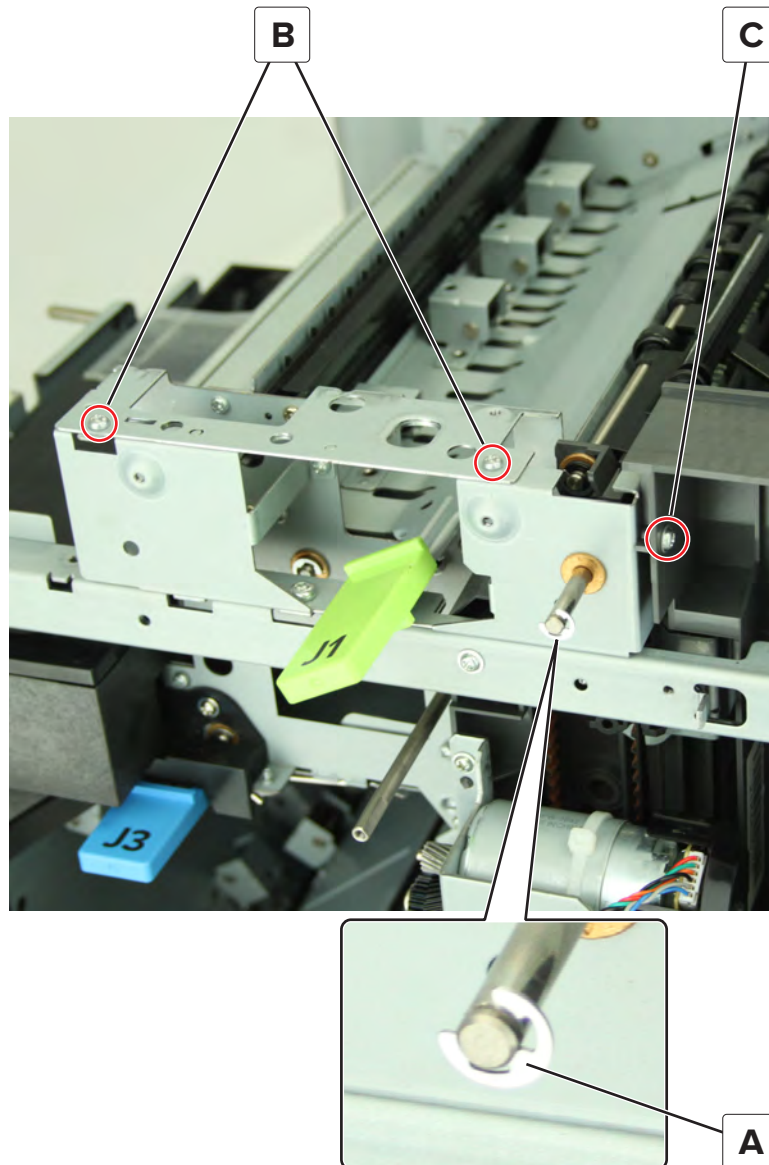


- 22 Remove the frame.

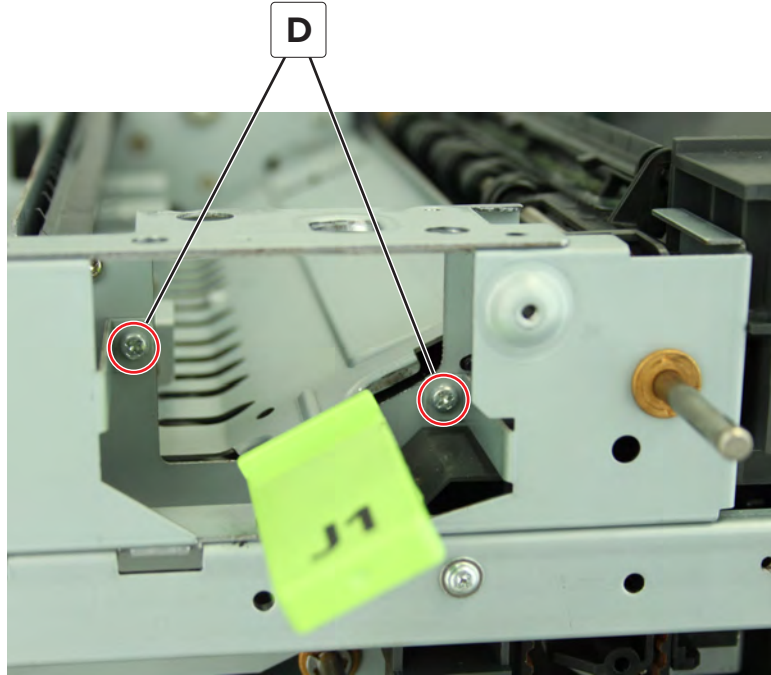
Offset assembly removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)

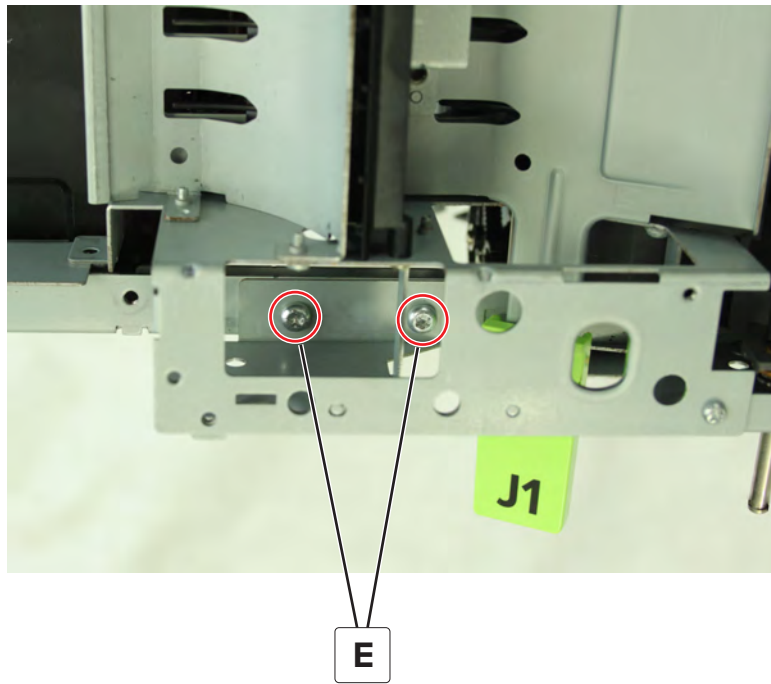
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055](#).
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060](#).
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061](#).
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145](#).
- 15 Remove the E-clip (A), and then remove the three screws (B and C).



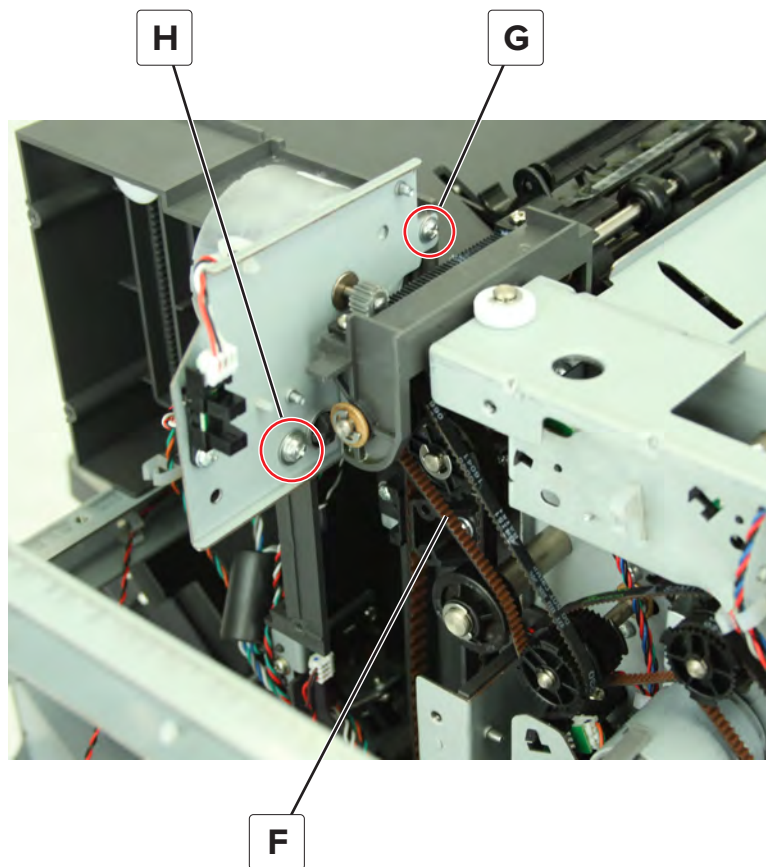
16 Remove the two screws (D).



17 Using a Torx screwdriver, remove the two screws (E), and then remove the bracket.



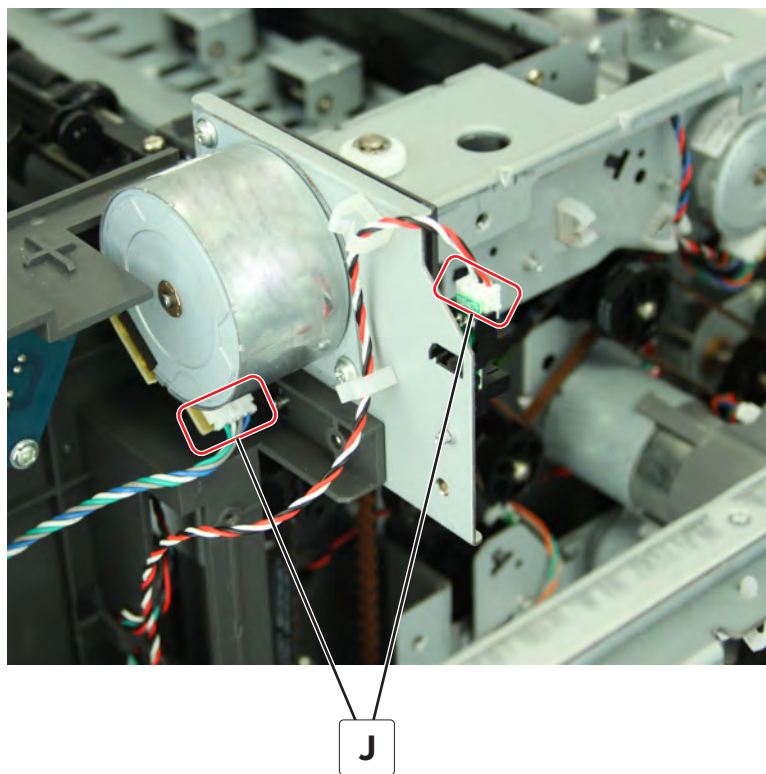
18 Release the belt (F), and then remove the two screws (G and H).



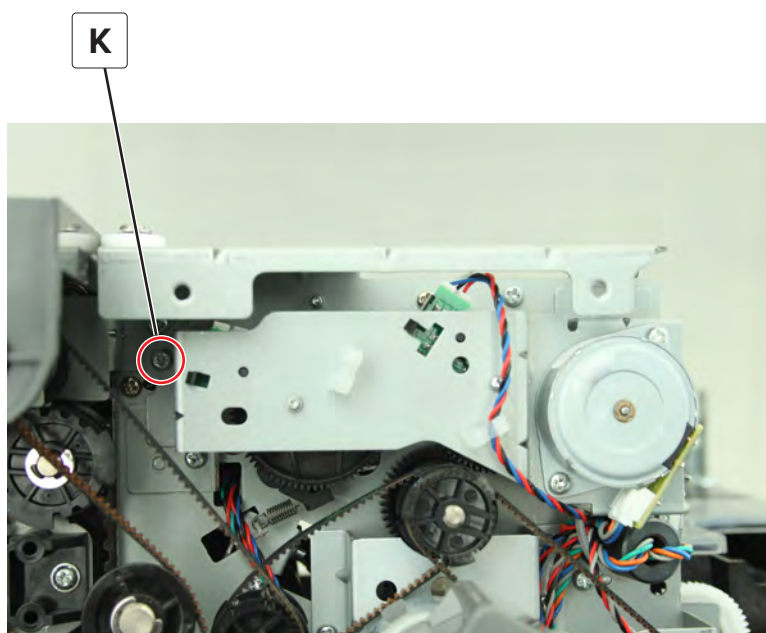
Parts removal

1153

19 Disconnect the two cables (J).



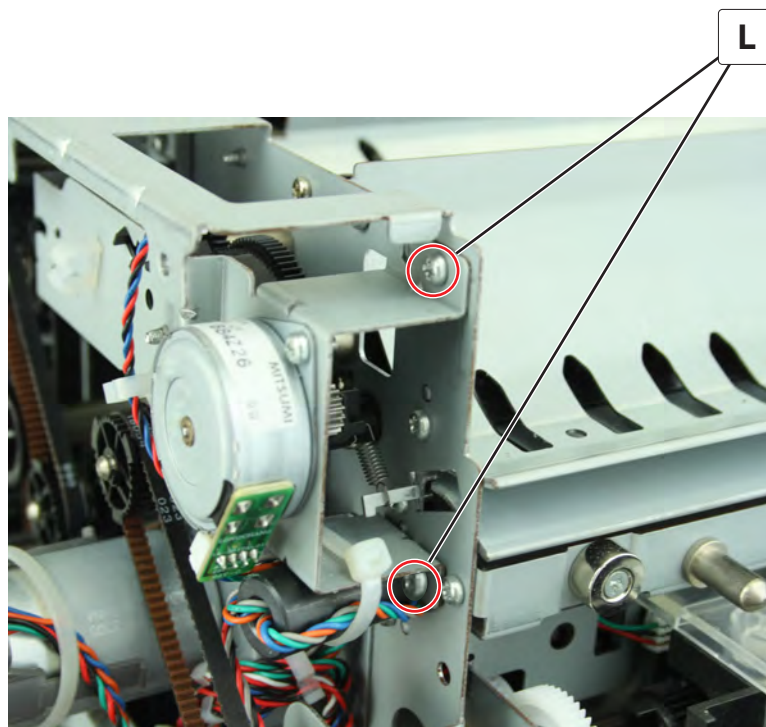
20 Remove the screw (K).



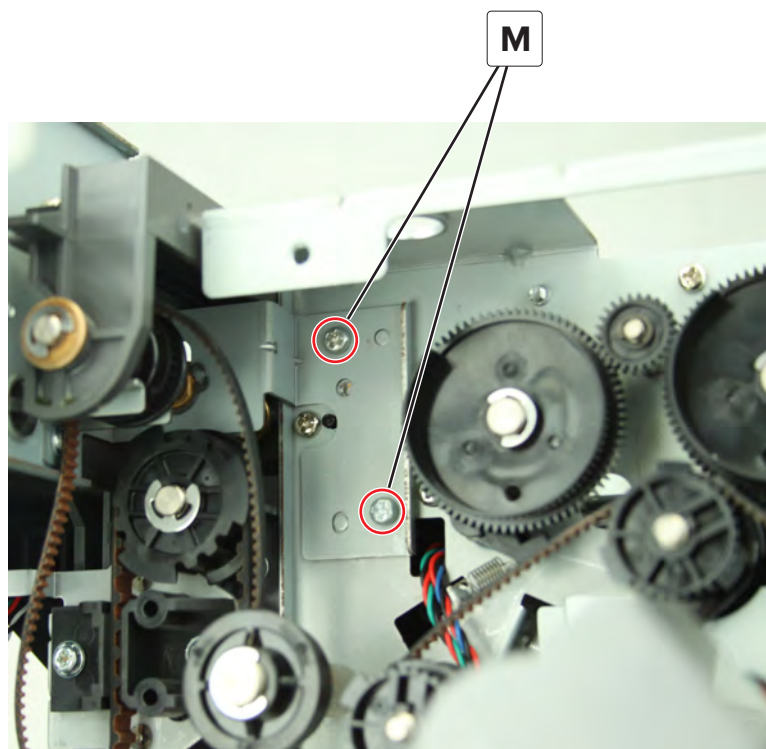
Parts removal

1154

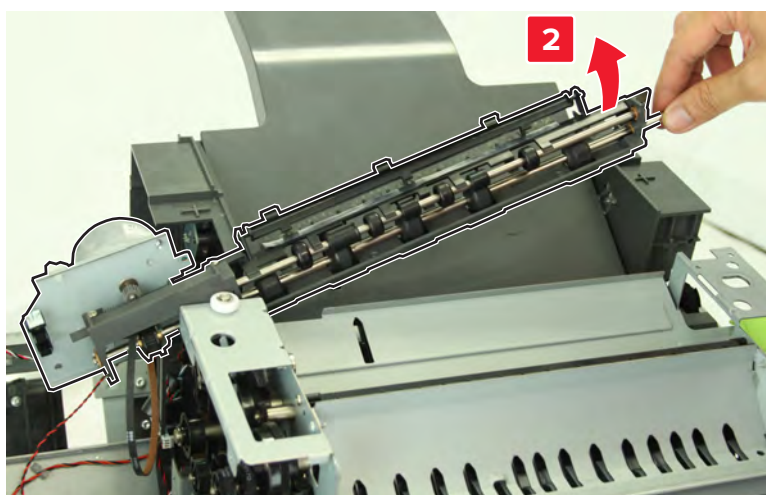
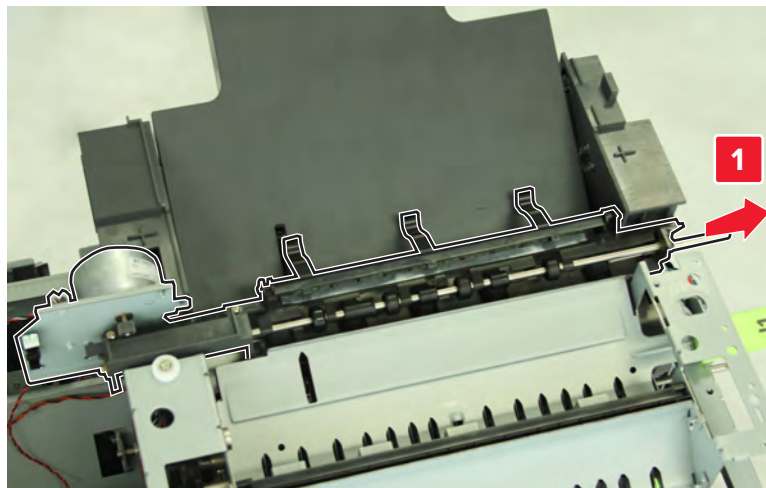
21 Remove the two screws (L), and then pull the bracket.



22 Remove the two screws (M).



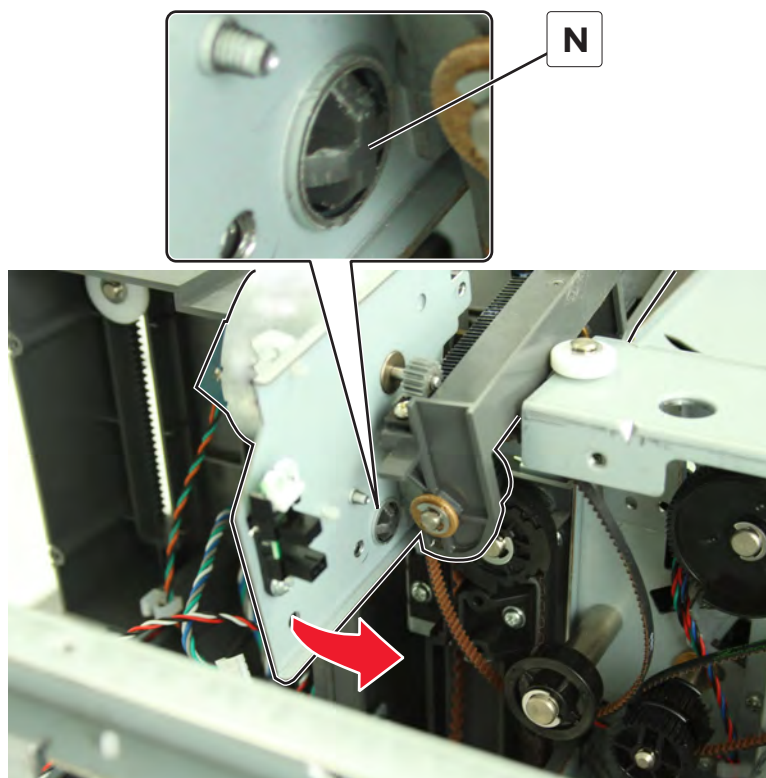
23 Pull the shaft to the front, and then lift it.



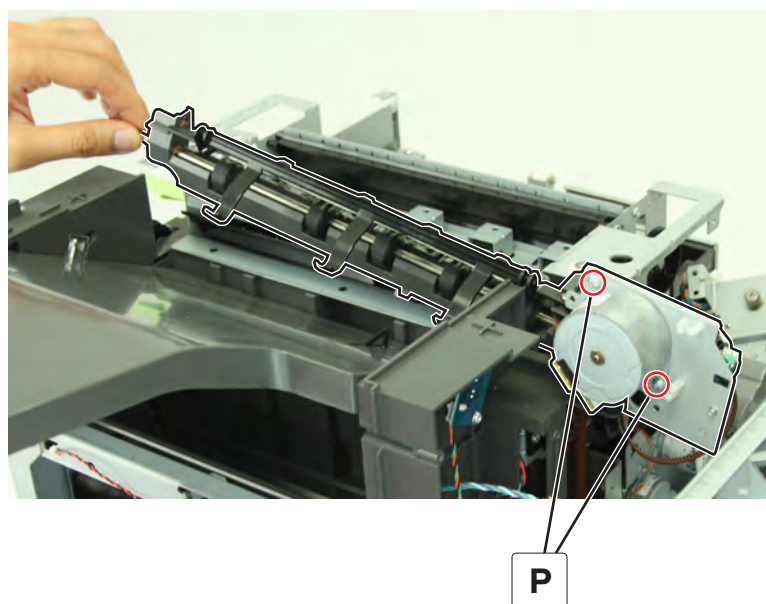
Parts removal

1156

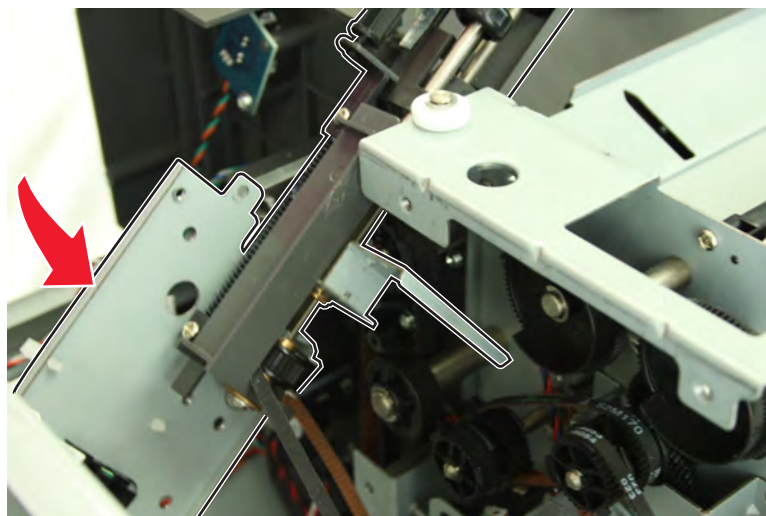
24 Swing away the bracket to release it from the tab (N).



25 Remove the two screws (P), and then remove the motor (offset).



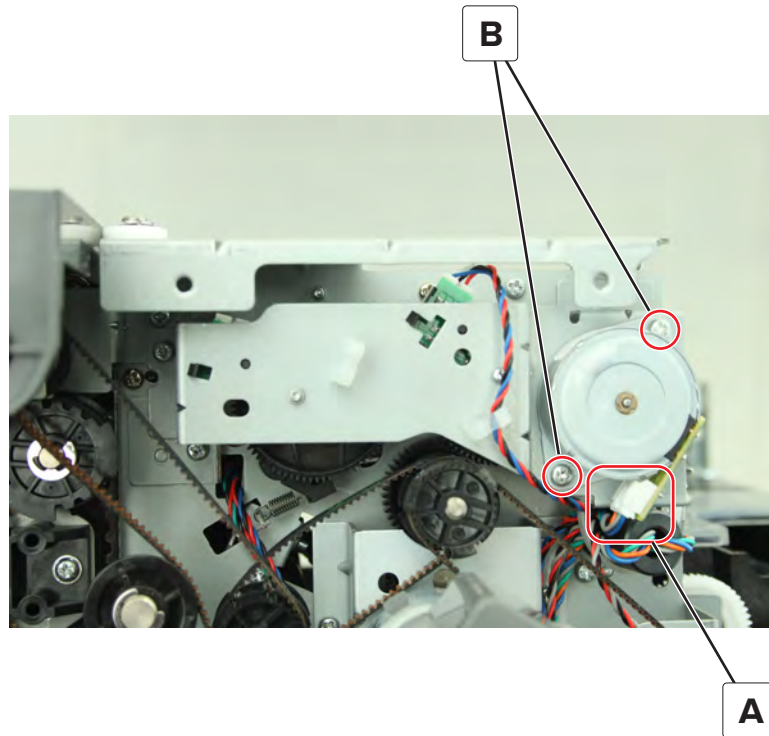
- 26** Swing down the bracket to release, and then remove the offset assembly.



Motor (mid-transport diverter) removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10** Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12** Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13** Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14** Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)

- 15** Disconnect the cable (A), and then remove the two screws (B).

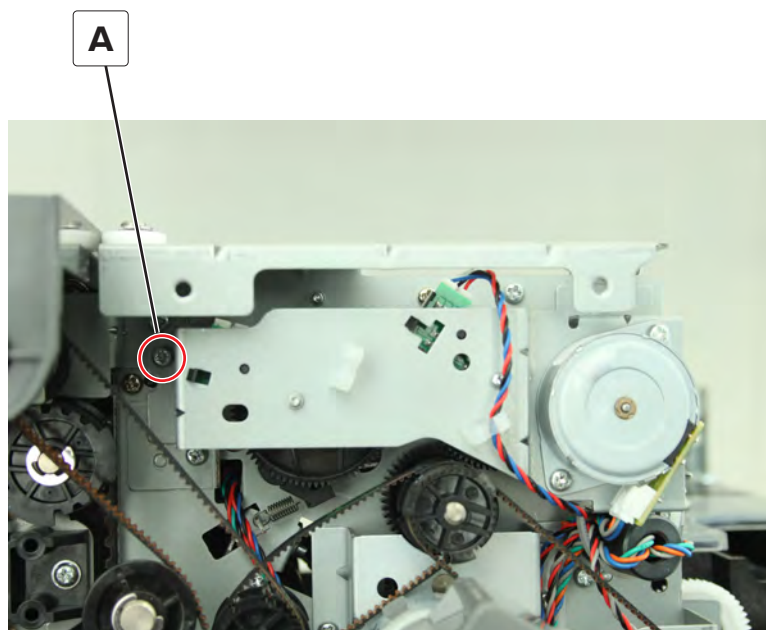


- 16** Remove the motor.

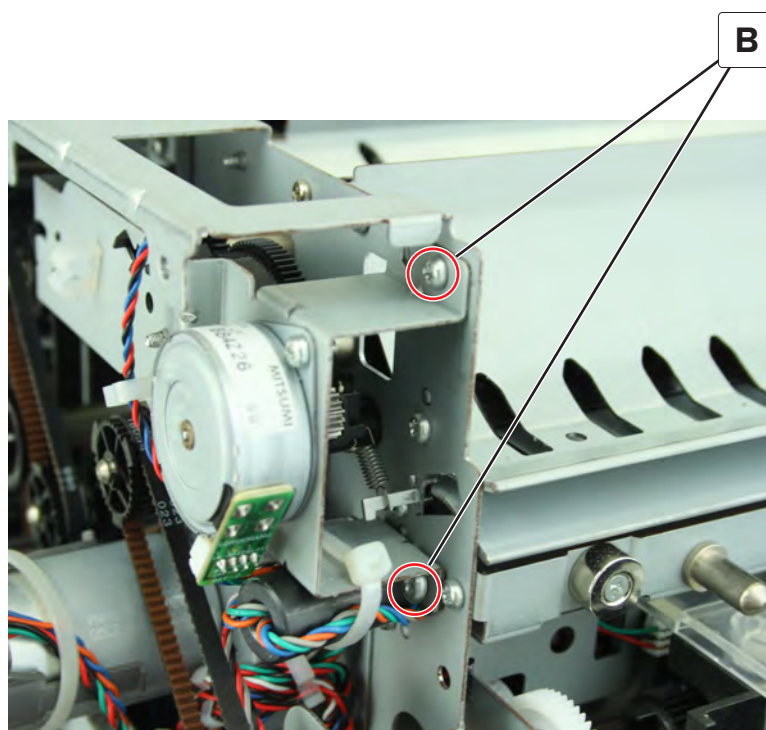
Sensor (mid-transport diverter 1) removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10** Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12** Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13** Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14** Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)

15 Remove the screw (A).



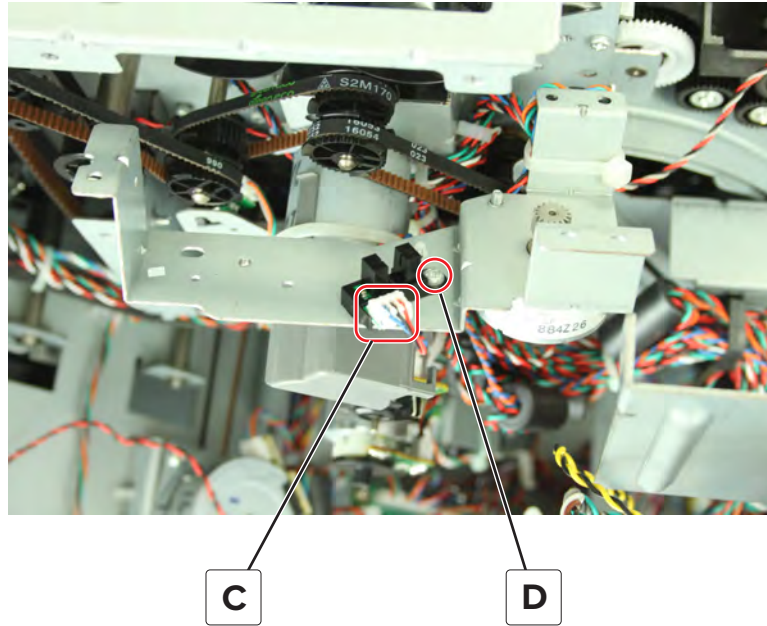
16 Remove the two screws (B), and then pull the bracket.



Parts removal

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- 17** Disconnect the cable (C), and then remove the screw (D).

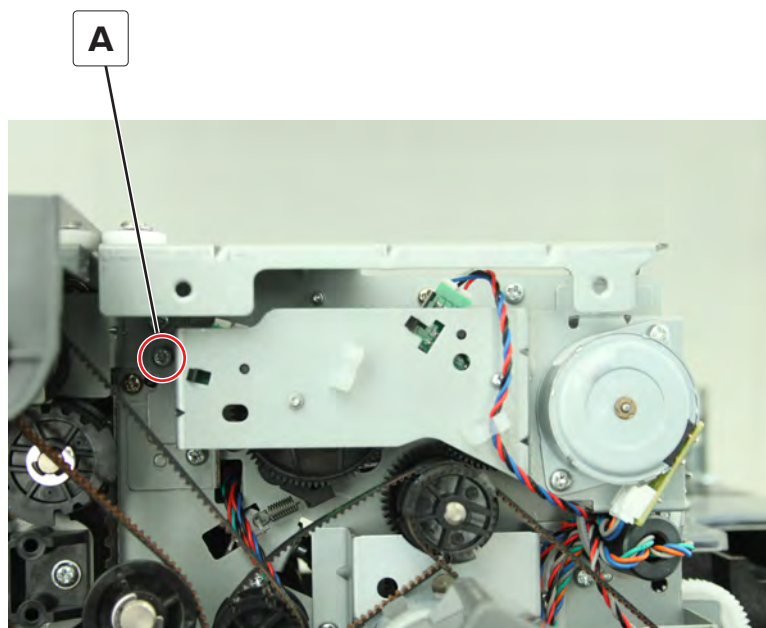


- 18** Remove the sensor.

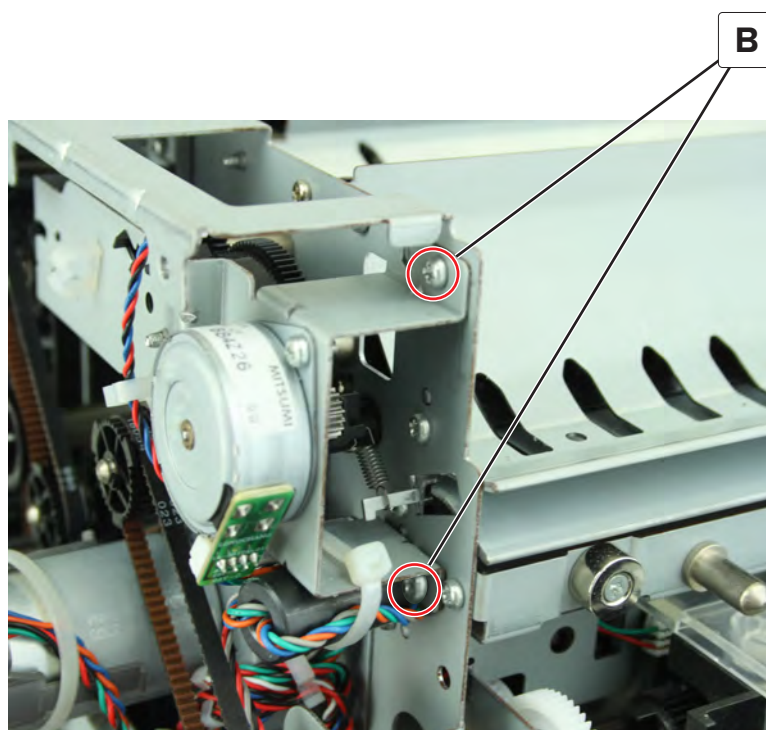
Mid-transport diverter cams and gear removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10** Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12** Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13** Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14** Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)

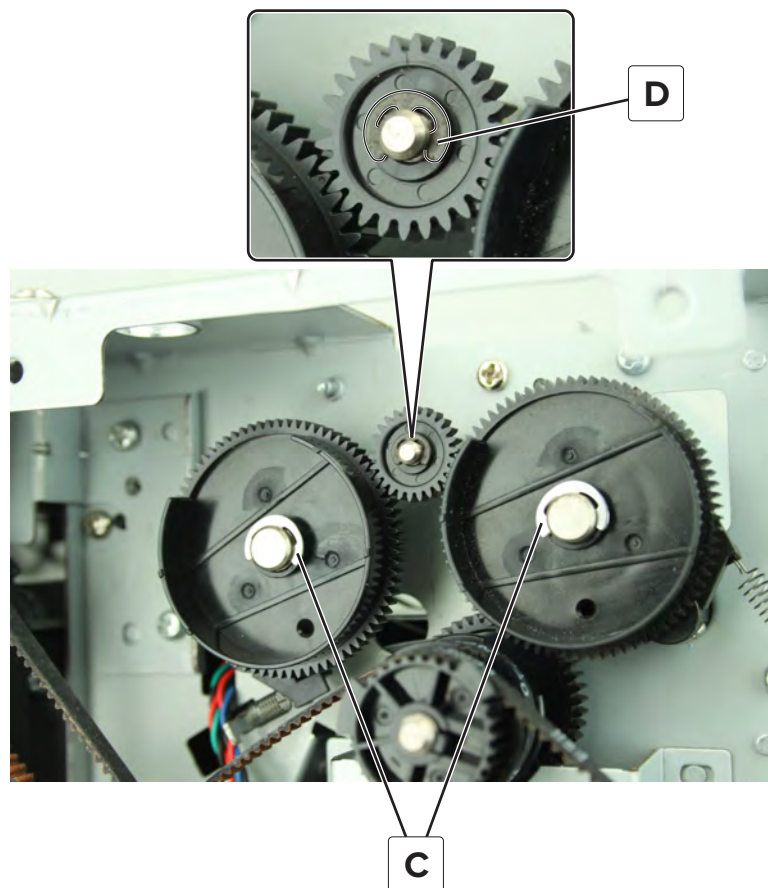
15 Remove the screw (A).



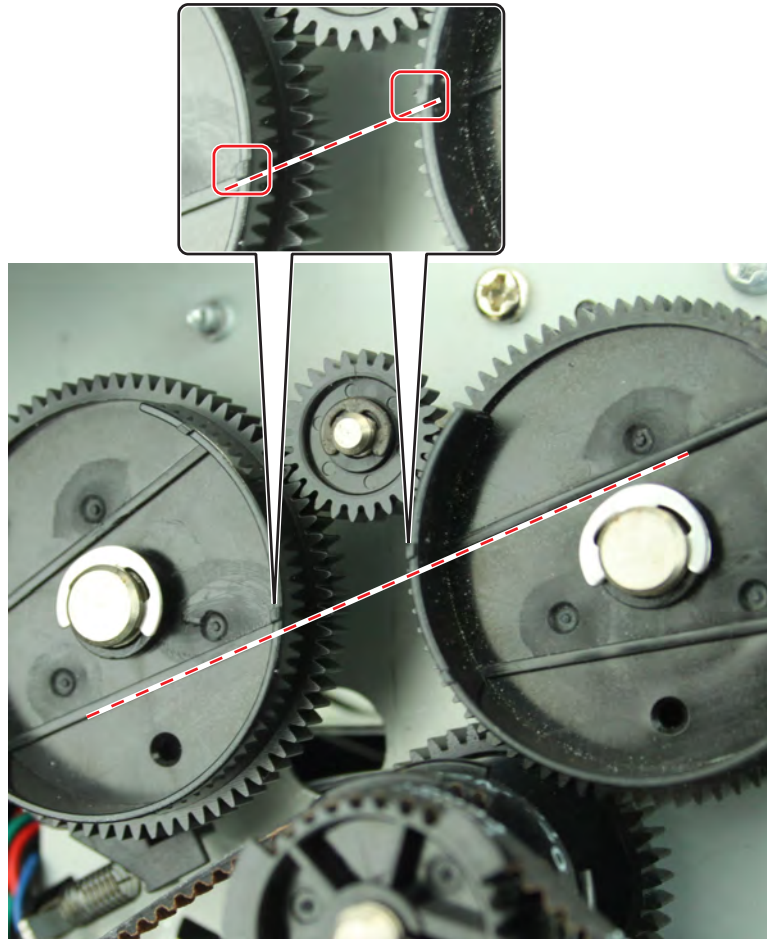
16 Remove the two screws (B), and then pull the mid-transport diverter motor bracket.



17 Remove the three E-clips (C and D), and then remove the cams and gear.



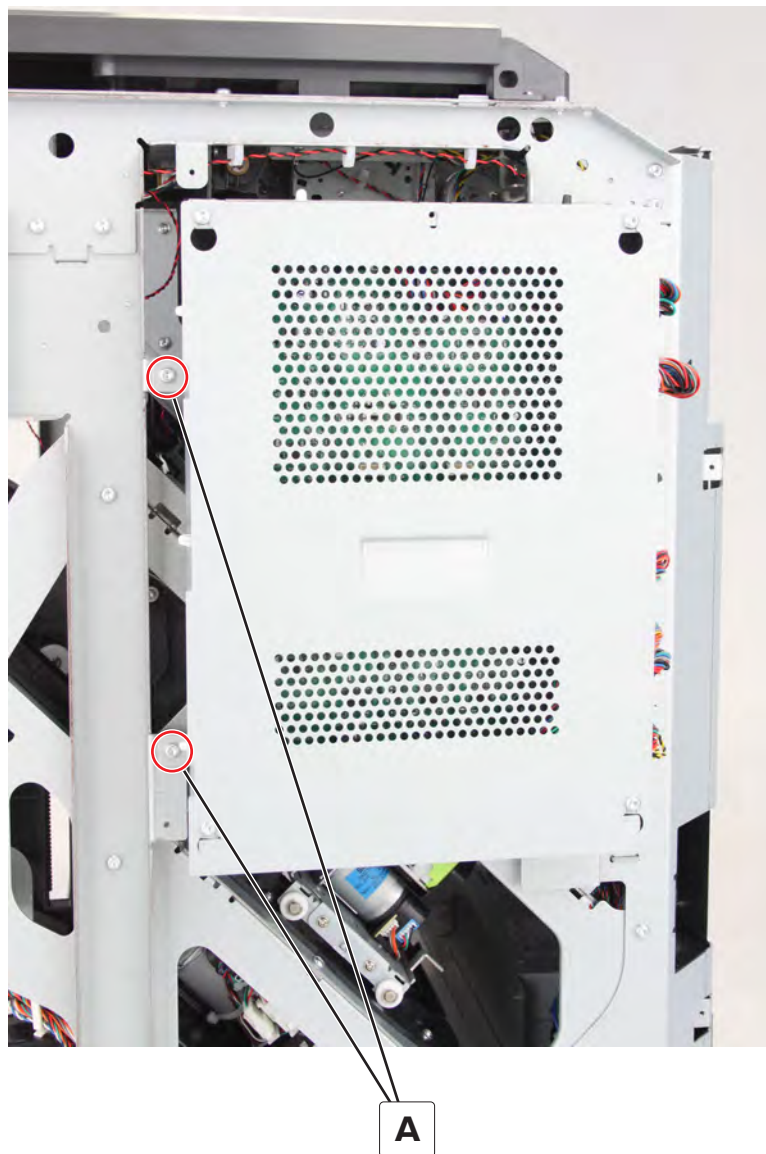
Installation note: Align the markers and line.



Sensor (hole punch box full, receiver) removal

- 1 Remove the hole punch box.
- 2 Remove the MSHPF power supply cover. See [“MSHPF power supply cover removal” on page 1024.](#)
- 3 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 4 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 5 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 6 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 7 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 8 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 9 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 10 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 11 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 12 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

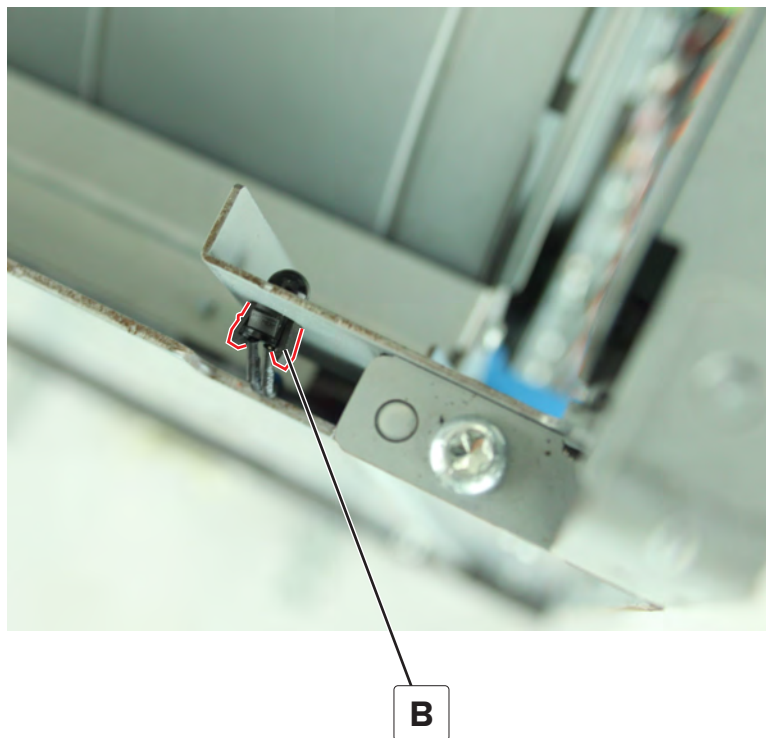
13 Remove the two screws (A), and then open the cage.



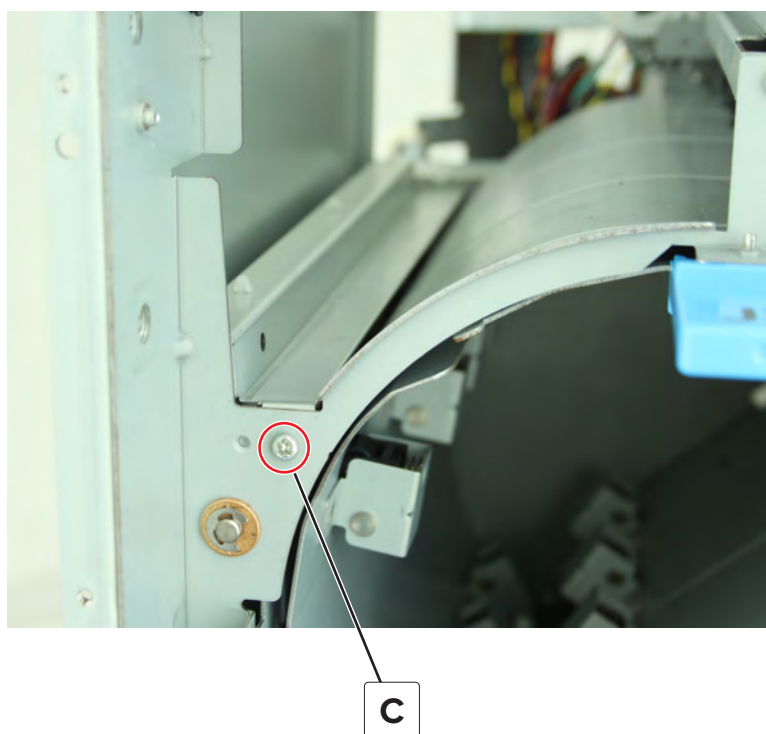
Parts removal

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14 Release the receiver from its grommet (B), and then pull it off its slot.



15 Remove the screw (C).

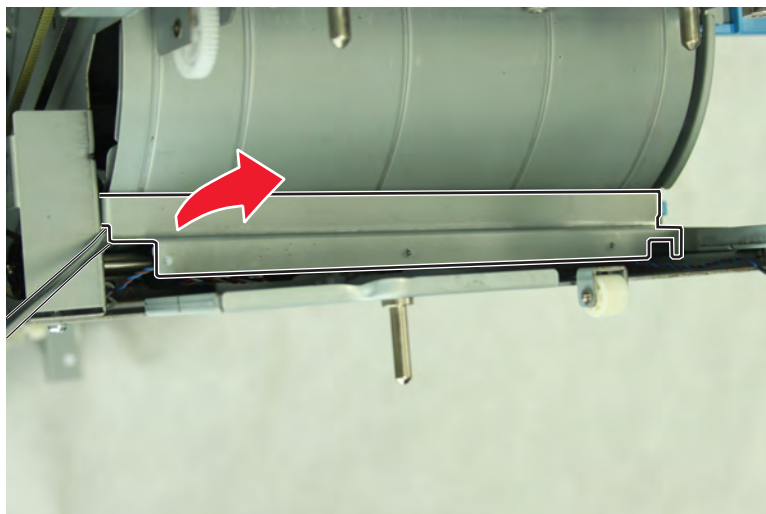


16 From the rear, remove the screw (D).

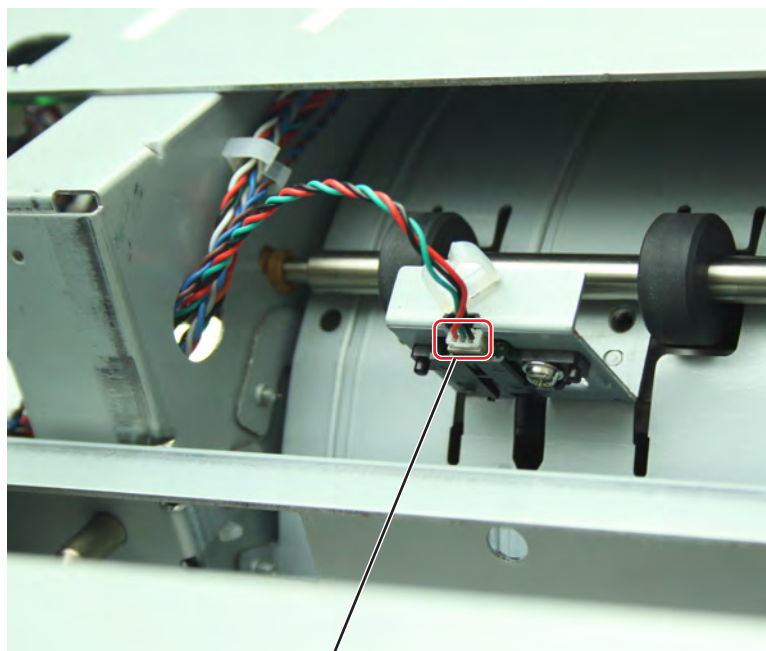


D

17 Release the bracket, and then release the receiver cable from the bracket.



18 Disconnect the cable (E) from the sensor (staging outer transport 2).

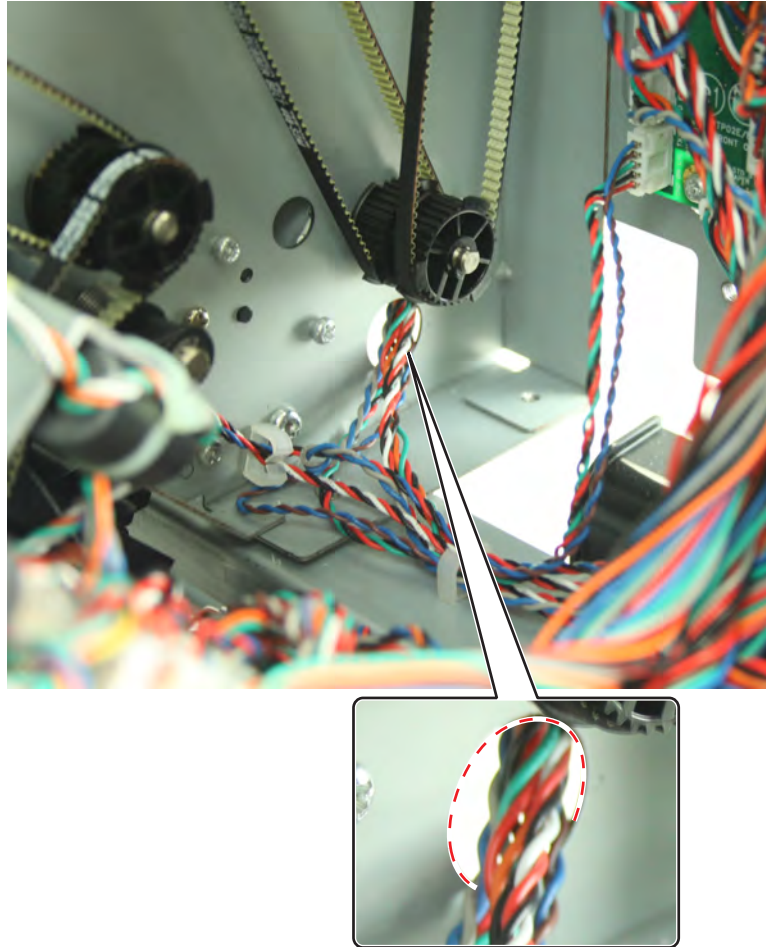


E

Parts removal

1168

- 19 Thread the cable through the hole and out of the frame.

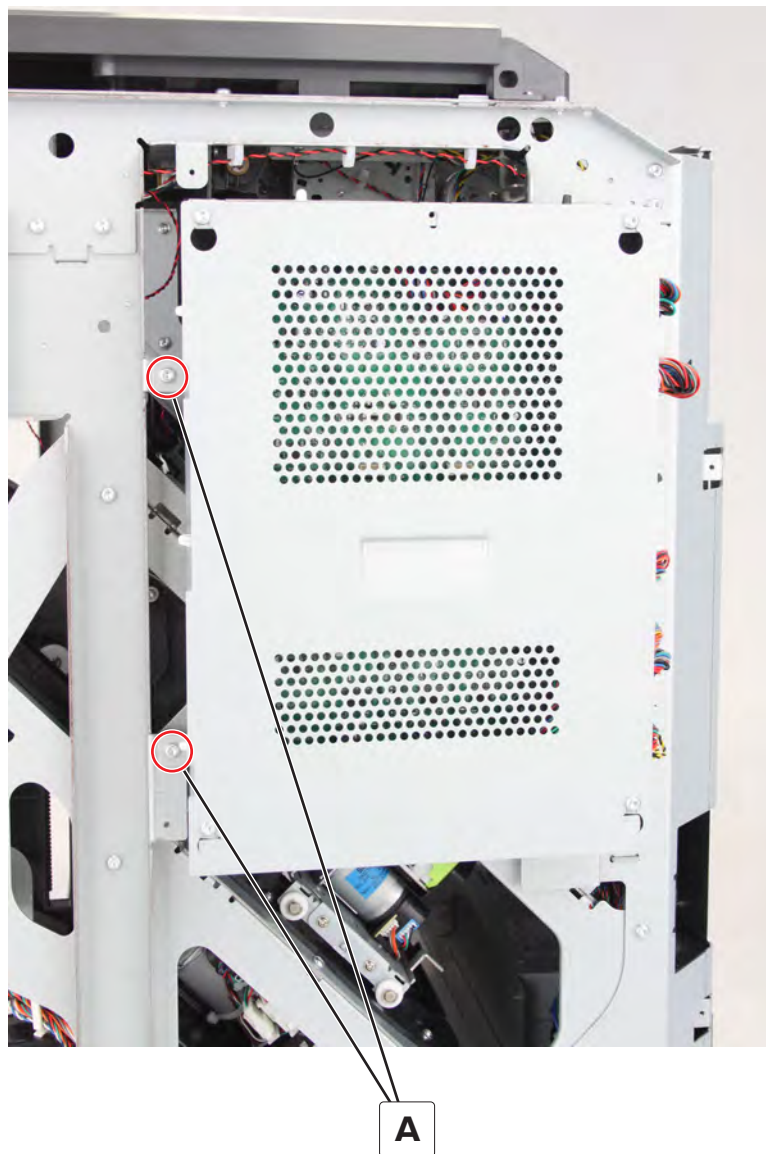


- 20 Remove the sensor receiver.

Sensor (hole punch box full, transmitter) removal

- 1 Remove the hole punch box.
- 2 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 3 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 4 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 5 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 6 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 7 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 8 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 9 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 10 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

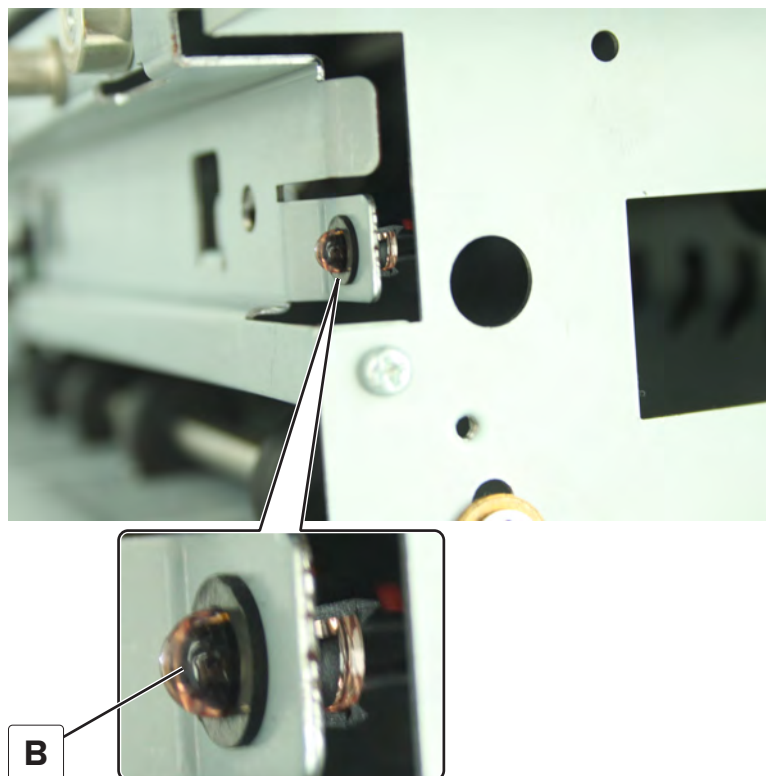
12 Remove the two screws (A), and then open the cage.



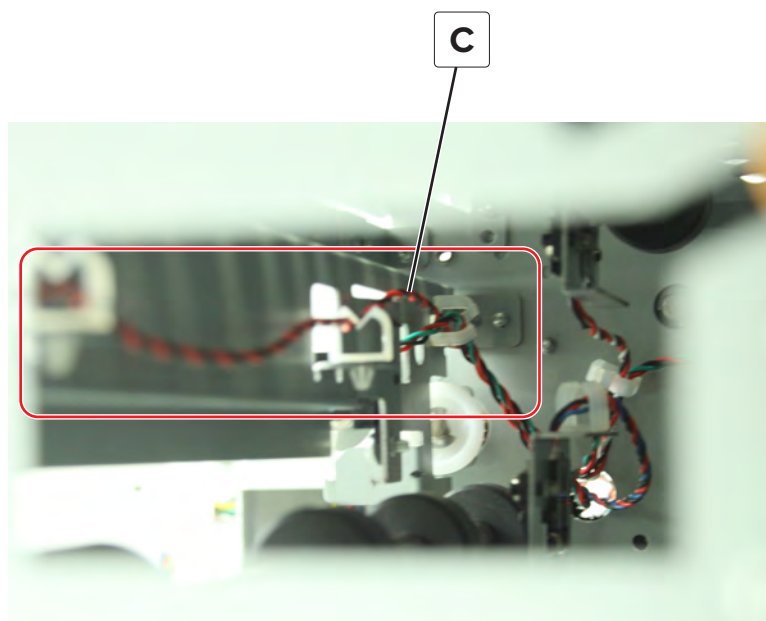
Parts removal

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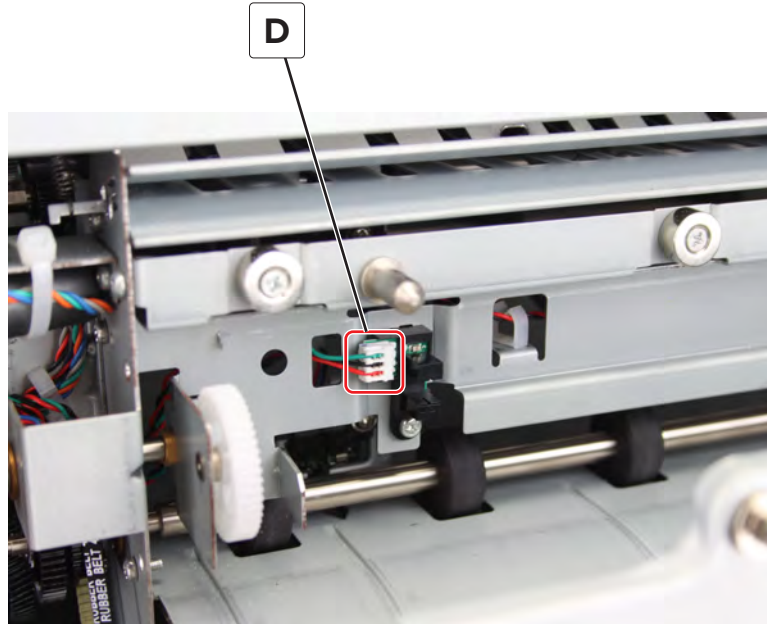
13 Release the transmitter (B) from its grommet, and then pull it off the frame.



Installation warning: Route the transmitter cable (C) properly, or it may interfere with the roller.



- 14 Disconnect the cable (D) from the sensor (hole punch box present).



- 15 Cut the two cable ties (E), and then release the transmitter cable.

Installation warning: Replace the cable ties, or the cables may interfere with moving parts.

Installation note: The transmitter cable threads through the hole (F) and into the frame.



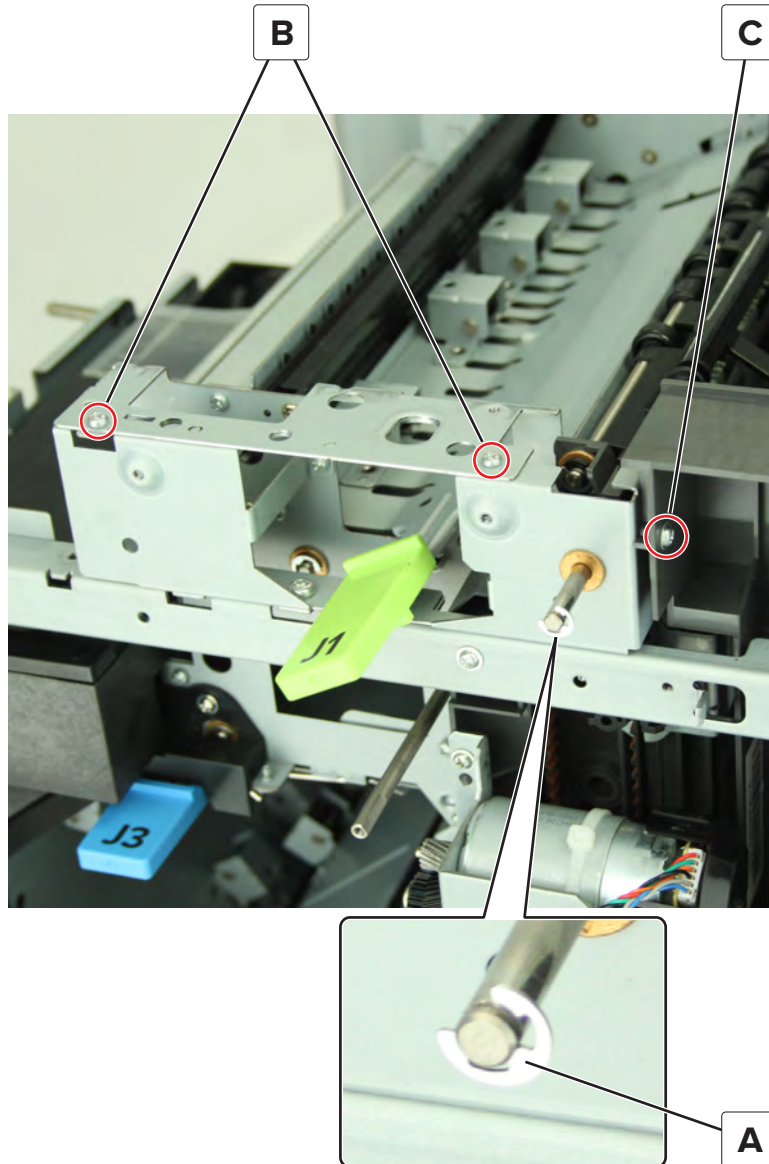
16 Remove the sensor transmitter.

Mid-transport mailbox entrance frame removal

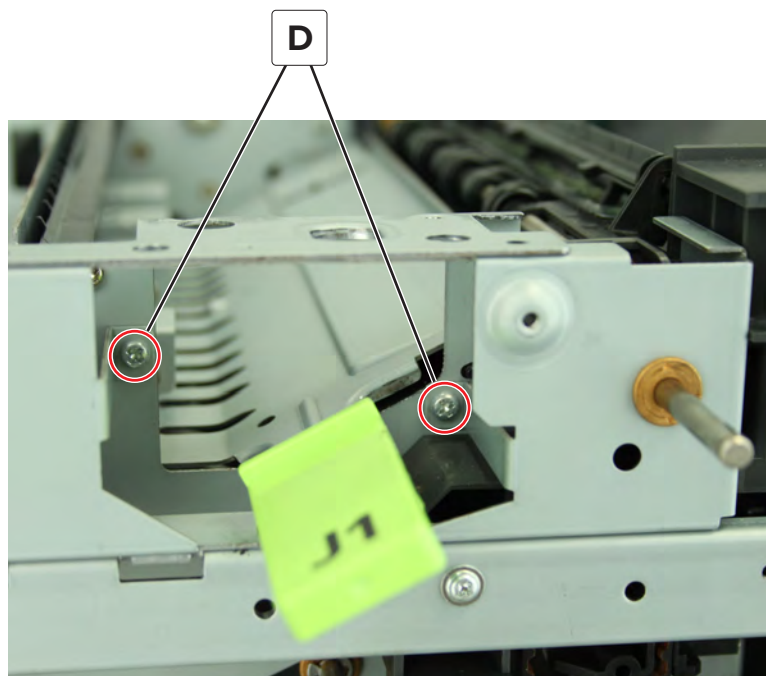
Note: This part is not a FRU.

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10** Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12** Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13** Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14** Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15** Release the mid-transport diverter motor bracket. See [“Mid-transport diverter cams and gear removal” on page 1161.](#)

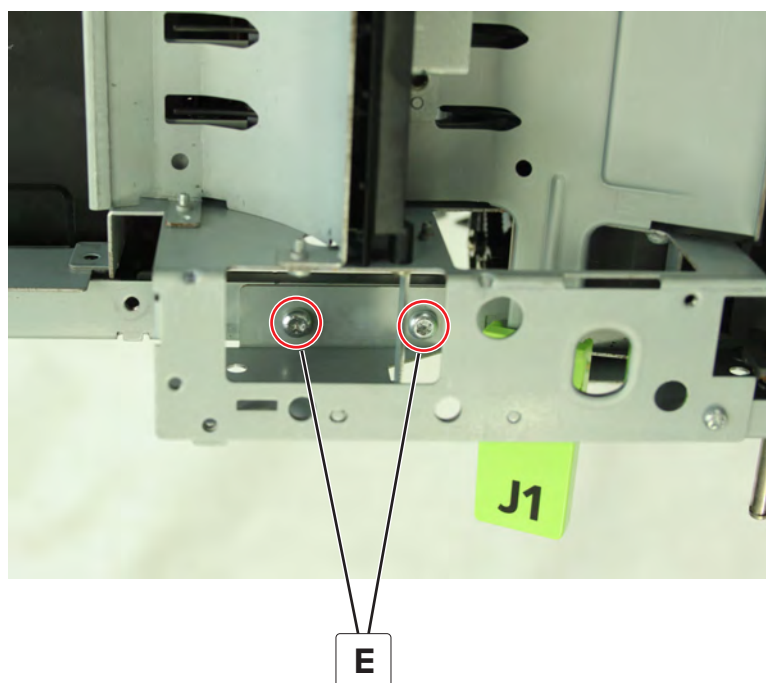
16 Remove the E-clip (A), and then remove the three screws (B and C).



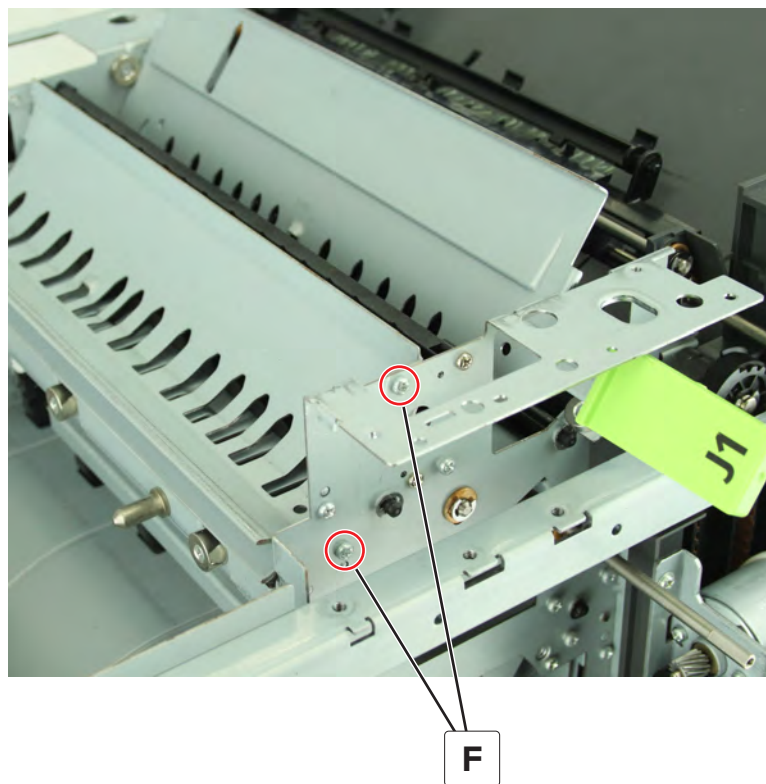
17 Remove the two screws (D).



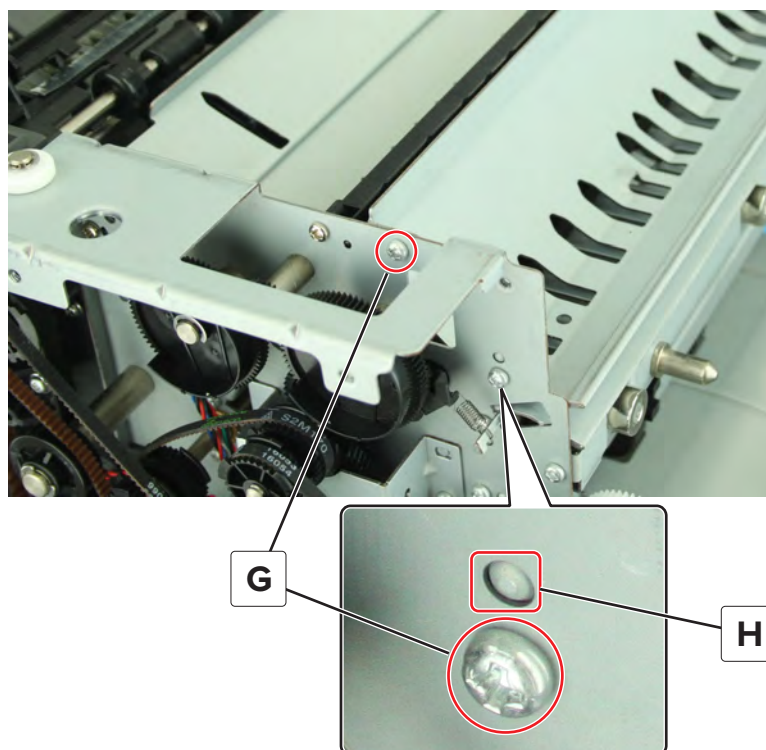
18 Using a Torx screwdriver, remove the two screws (E), and then remove the bracket.



19 Remove the two screws (F).



20 From the rear, remove the two screws (G), release the tab (H), and then remove the guide.



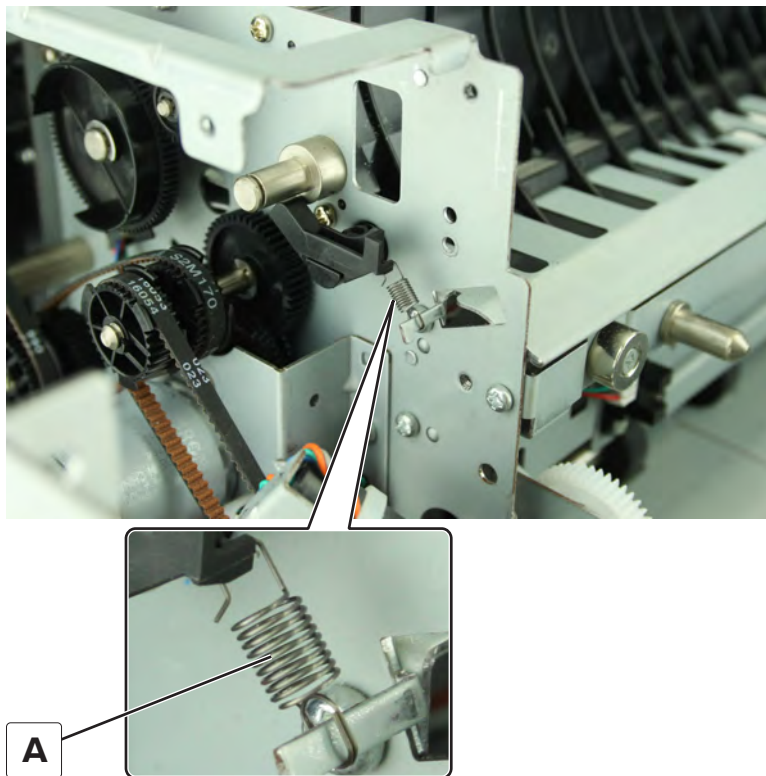
Parts removal

1177

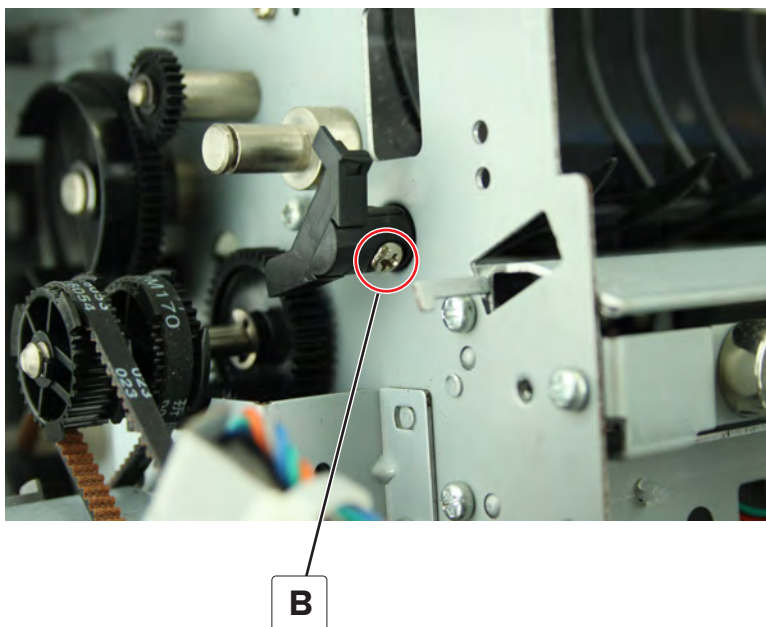
Mid-transport diverter 1 removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161.](#)
- 16 Remove the mid-transport mailbox entrance frame. See [“Mid-transport mailbox entrance frame removal” on page 1174.](#)

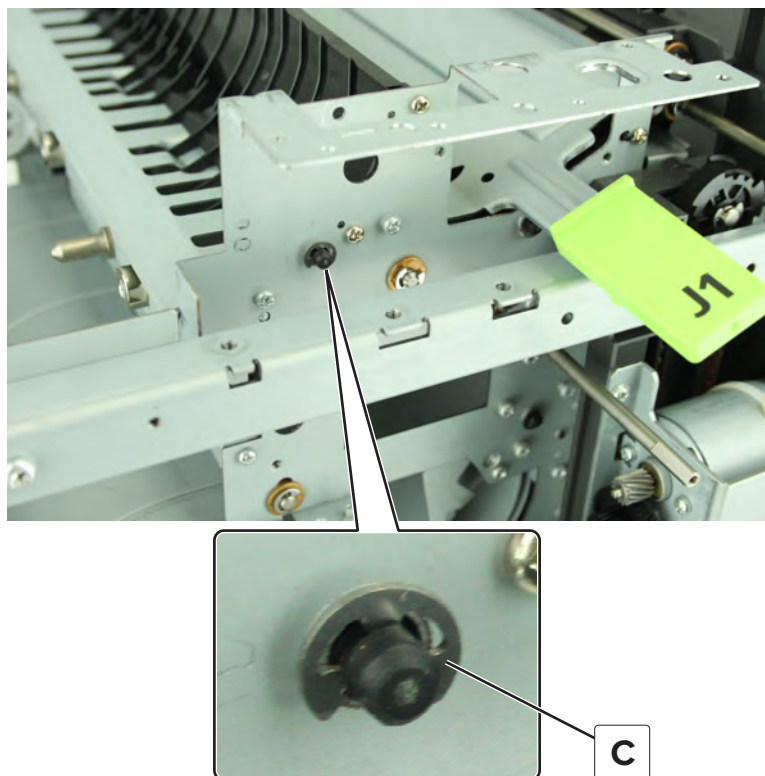
17 Unhook the spring (A).



18 Remove the screw (B), and then remove the actuator.

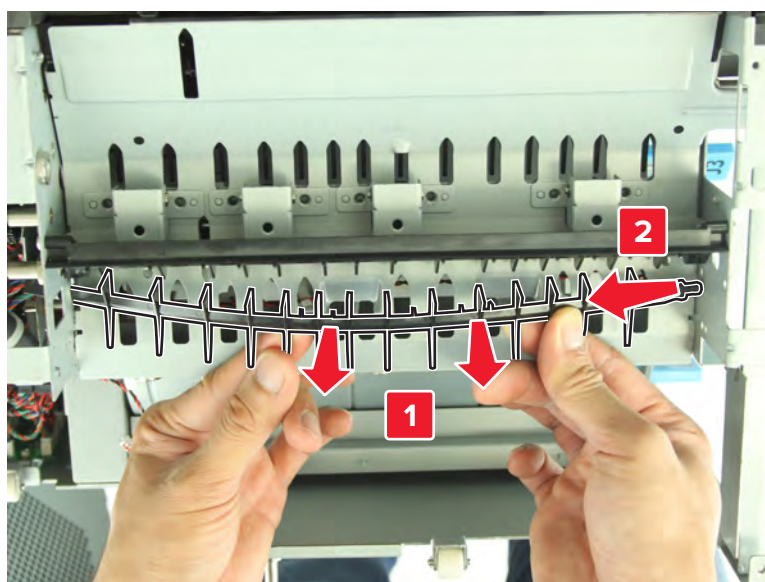


19 From the front, remove the E-clip (C).



20 Flex the diverter, and then release its front end.

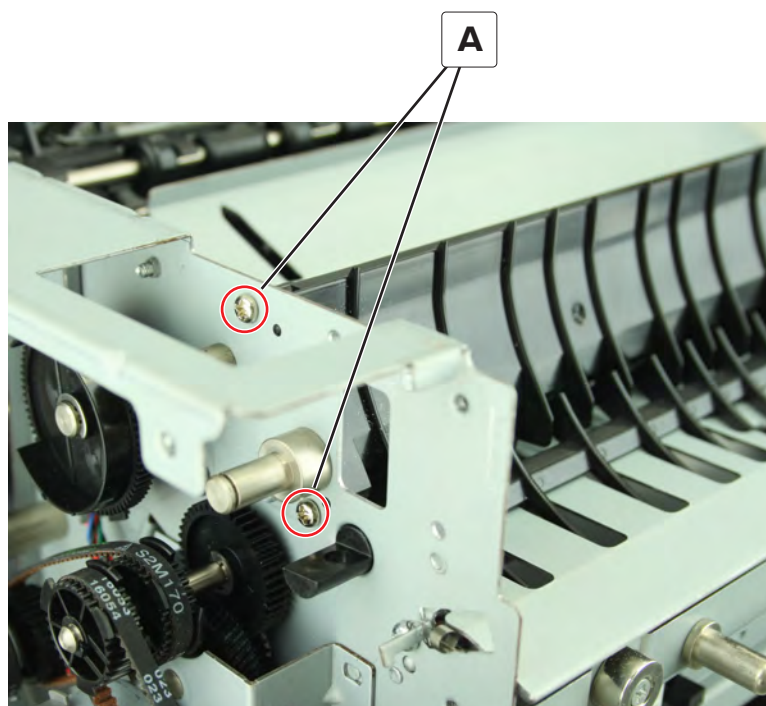
Warning—Potential Damage: Carefully flex the diverter to avoid breaking it.



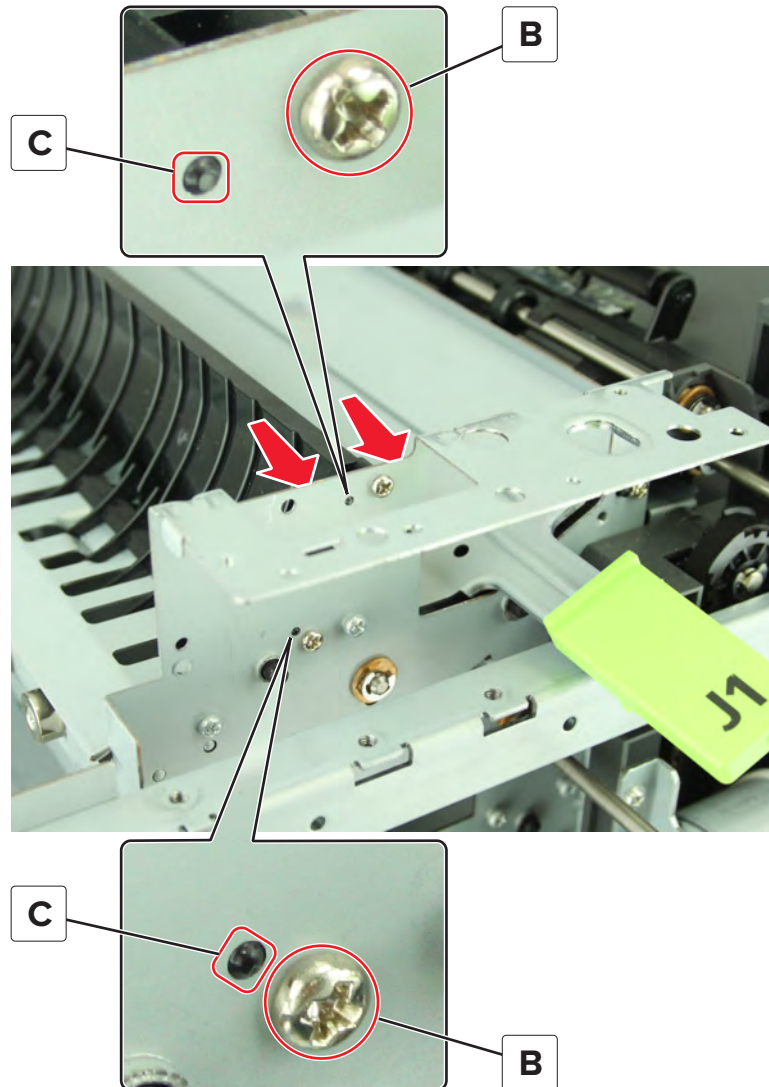
21 Remove the diverter.

Mid-transport guide removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161.](#)
- 16 Remove the mid-transport mailbox entrance frame. See [“Mid-transport mailbox entrance frame removal” on page 1174.](#)
- 17 Remove the two screws (A).



18 From the front, remove the two screws (B), and then release the tabs (C).



19 Remove the guide.

Mid-transport guide sensors removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF inner left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)

- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055](#).
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060](#).
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061](#).
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145](#).
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161](#).
- 16 Remove door J1. See [“Door J1 removal” on page 1187](#).
- 17 Cut the two cable ties (A), and then release the sensor cable.

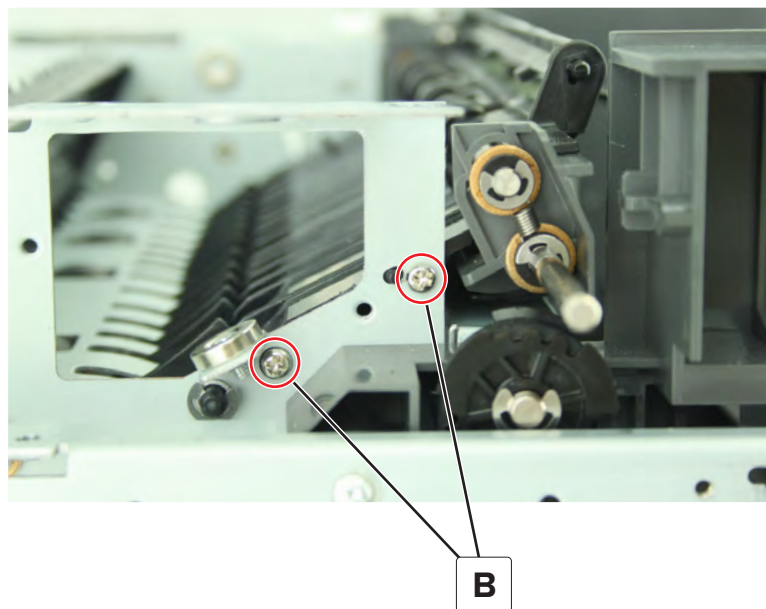
Installation warning: The cables may interfere with moving parts. Make sure that the cable ties are replaced.



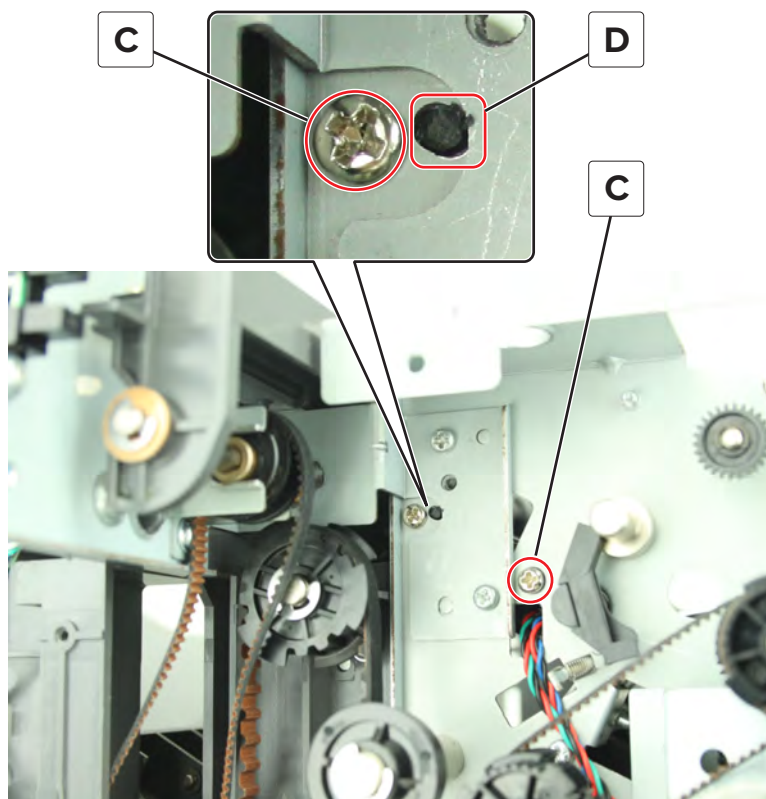
Parts removal

1184

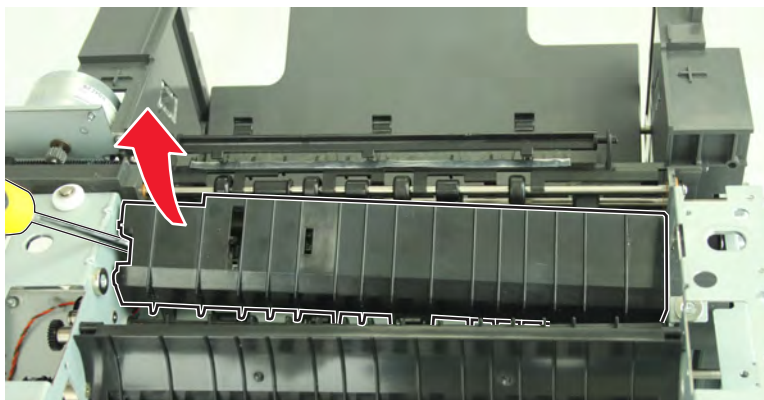
18 From the front, remove the two screws (B).



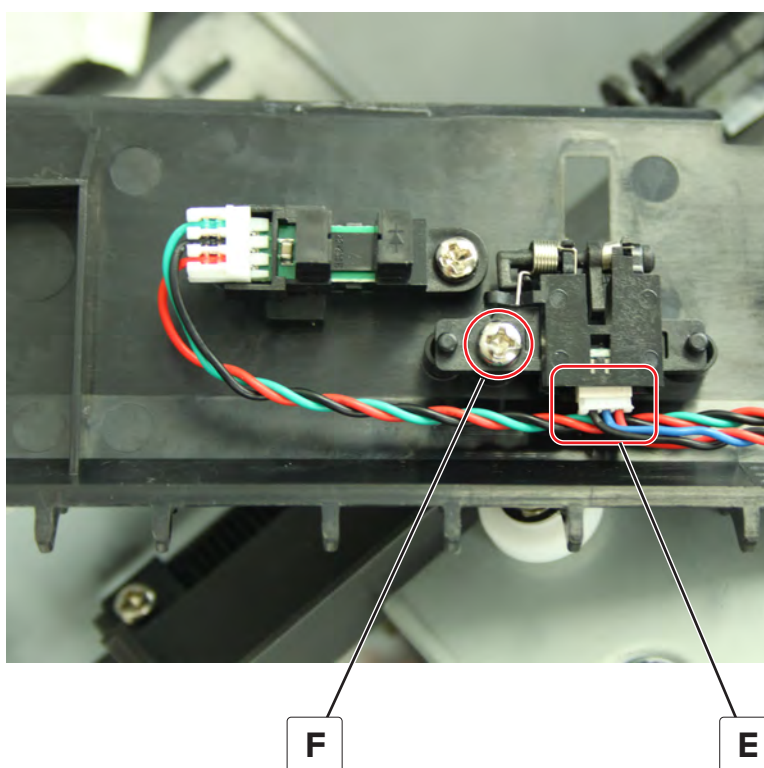
19 From the rear, remove the two screws (C), and then release the tab (D).



20 Pry the mid-transport guide to release, and then lift it.

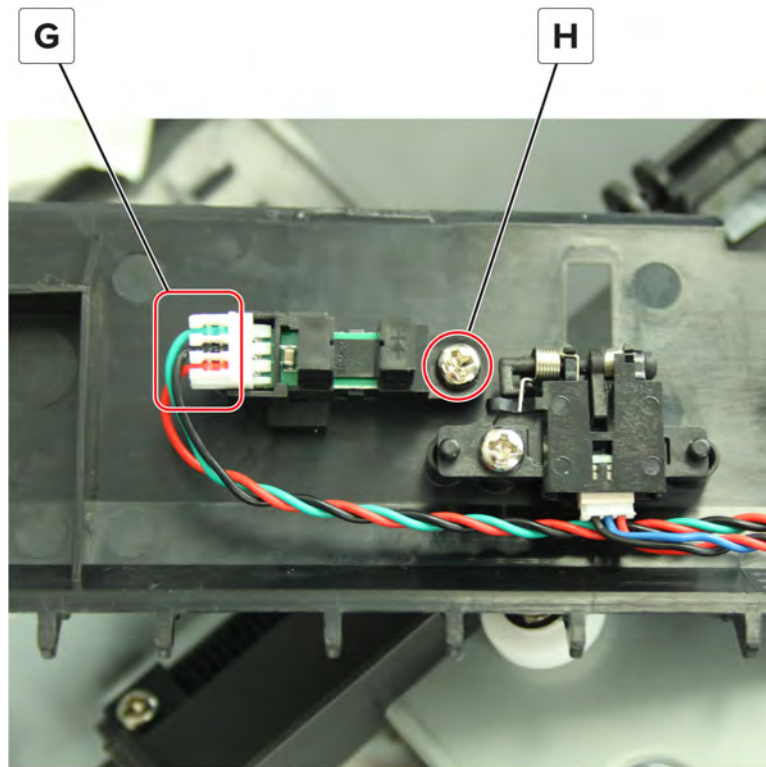


21 Under the guide, disconnect the cable (E), and then remove the screw (F).



22 Remove the sensor.

23 Under the guide, disconnect the cable (G), and then remove the screw (H).

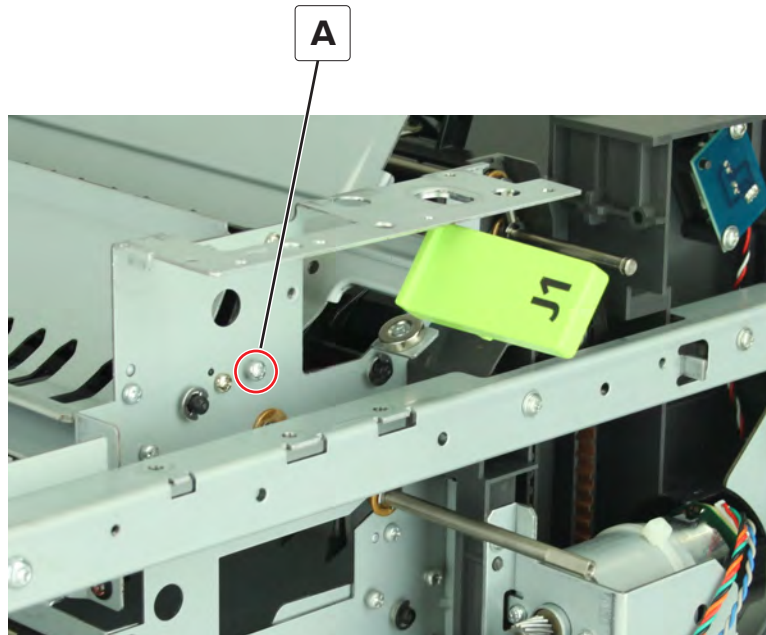


24 Remove the sensor.

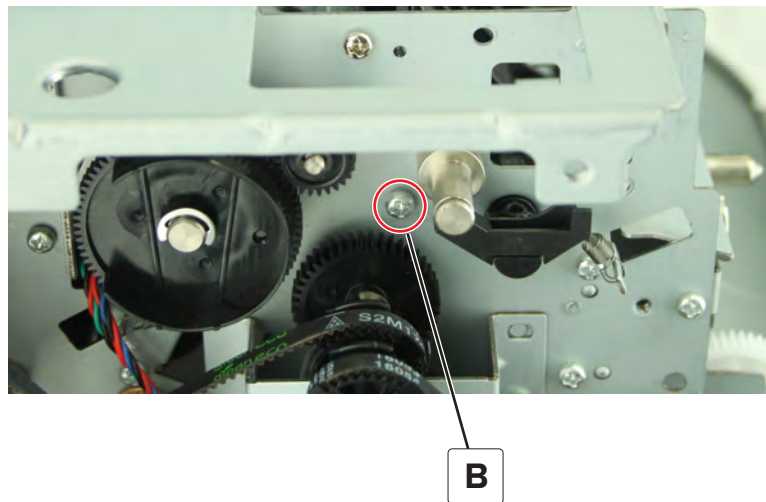
Door J1 removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10** Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12** Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13** Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14** Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)

- 15** Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161.](#)
- 16** Remove the screw (A).



- 17** From the rear, remove the screw (B).

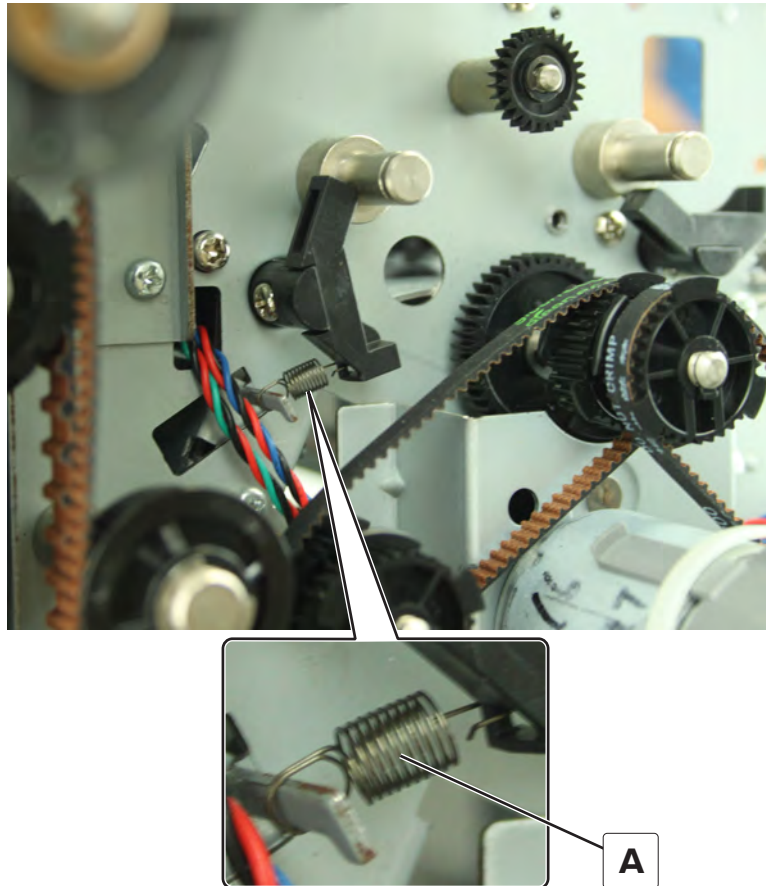


- 18** Remove the access door.

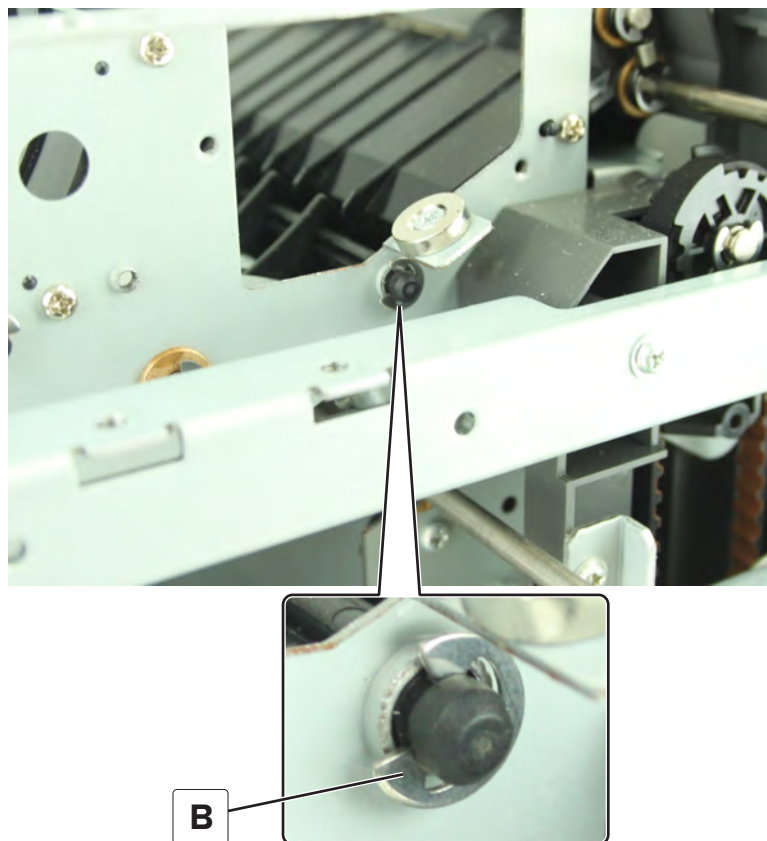
Mid-transport diverter 2 removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)

- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161.](#)
- 16 Remove the mid-transport mailbox entrance frame. See [“Mid-transport mailbox entrance frame removal” on page 1174.](#)
- 17 Remove door J1. See [“Door J1 removal” on page 1187.](#)
- 18 Unhook the spring (A).

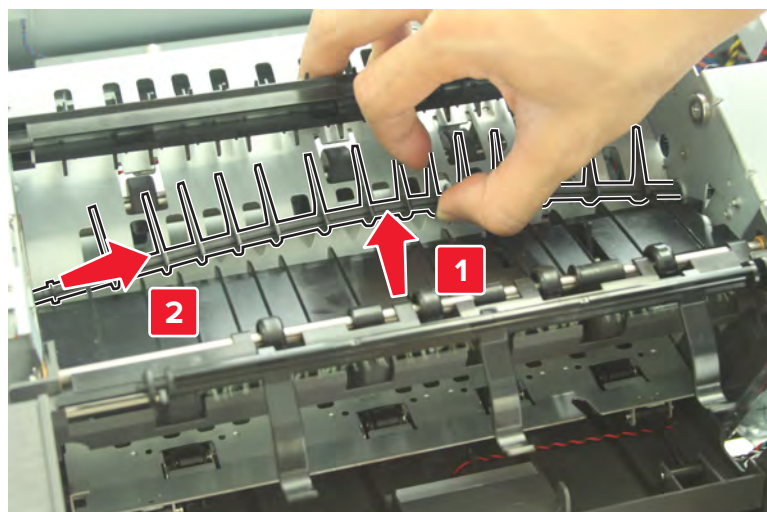


19 From the front, remove the E-clip (B).

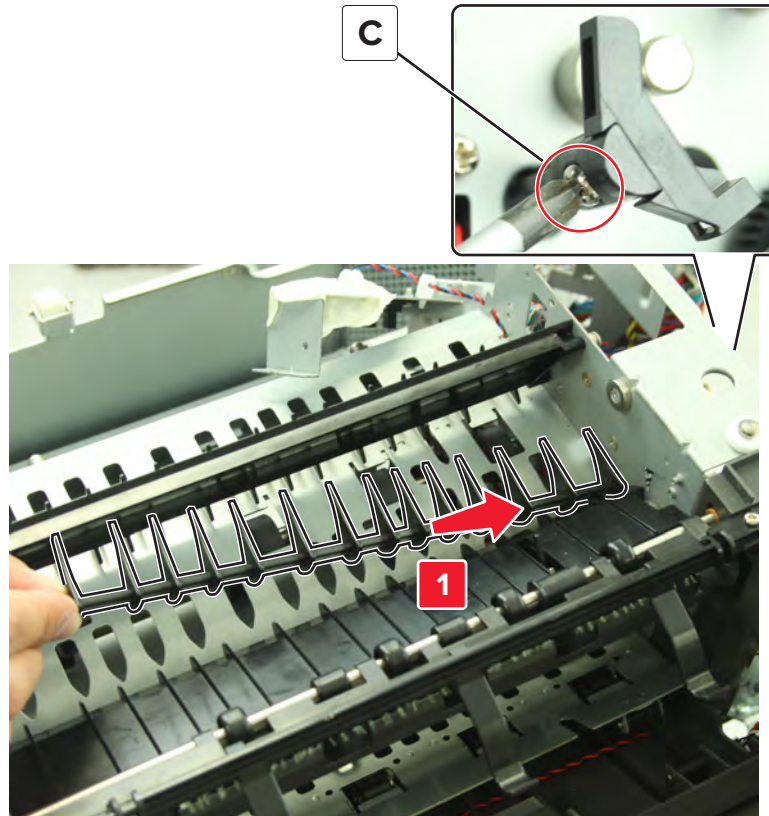


20 Flex the diverter, and then release its front end.

Warning—Potential Damage: Carefully flex the diverter to avoid breaking it.



21 Push the diverter, remove the screw (C), and then remove the actuator.



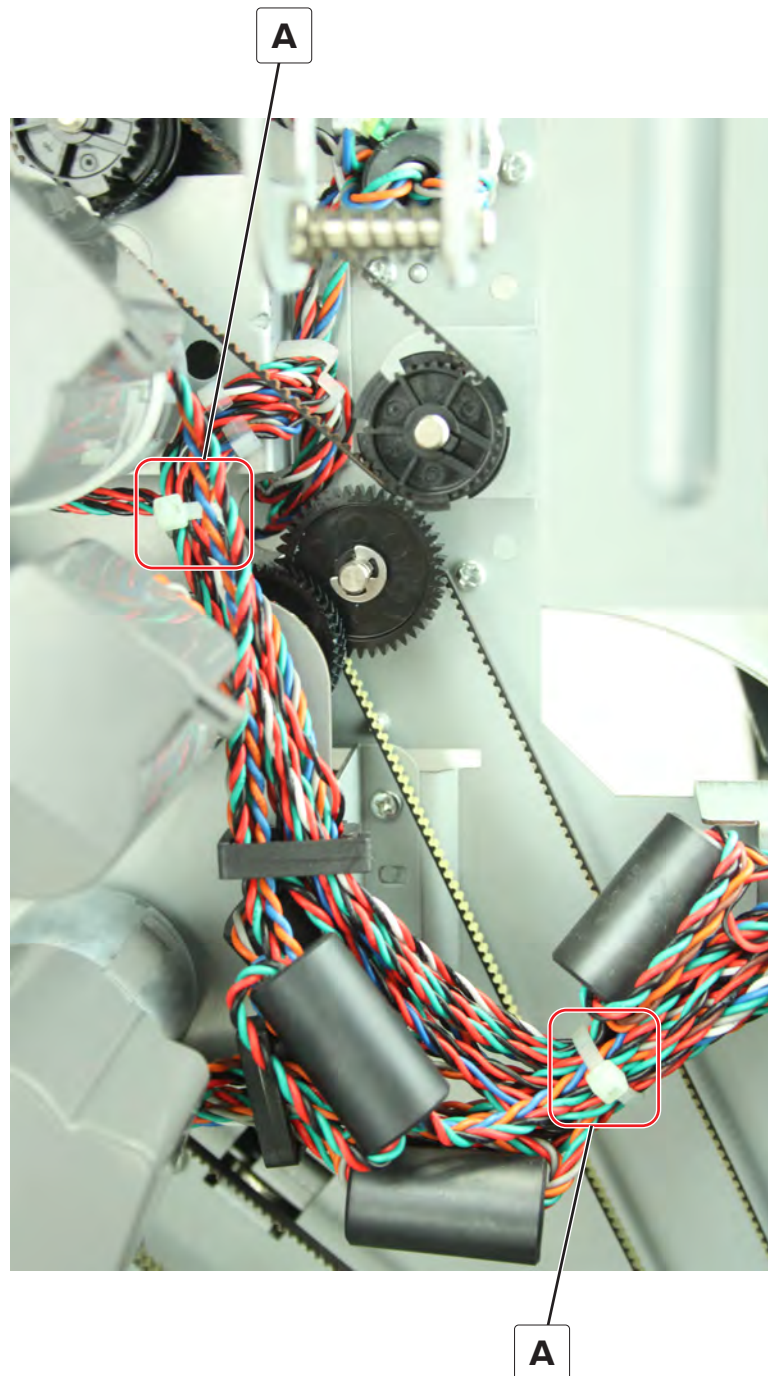
22 Remove the diverter.

Sensor (MSHPF standard bin exit) removal

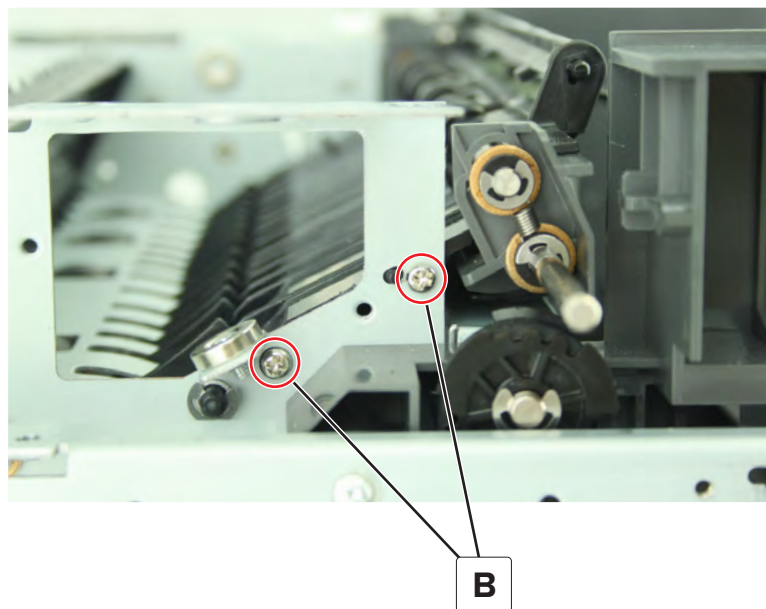
- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF inner left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)

- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145](#).
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161](#).
- 16 Remove door J1. See [“Door J1 removal” on page 1187](#).
- 17 Cut the two cable ties (A), and then release the sensor cable.

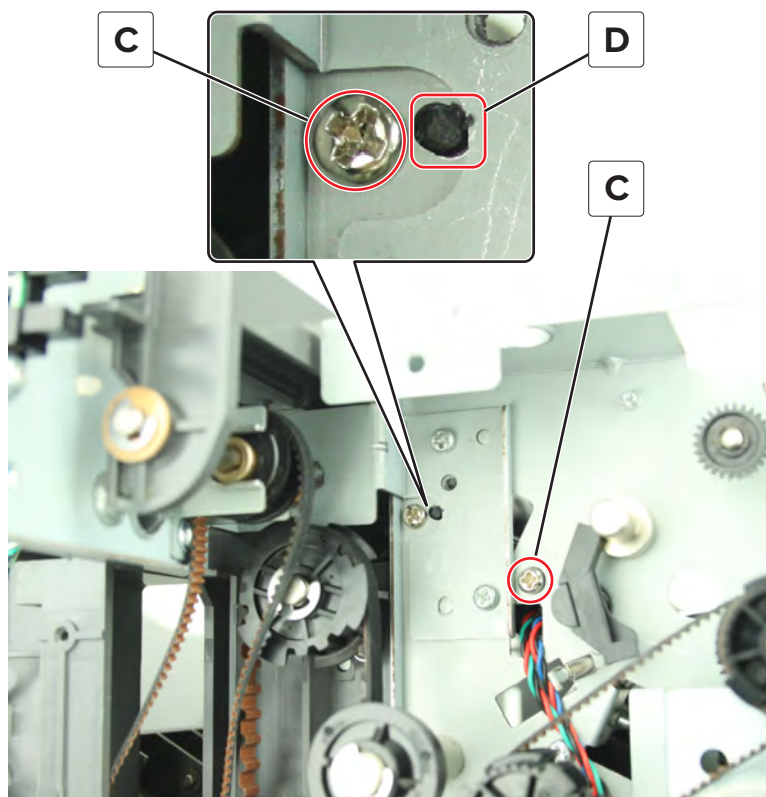
Installation warning: The cables may interfere with moving parts. Make sure that the cable ties are replaced.



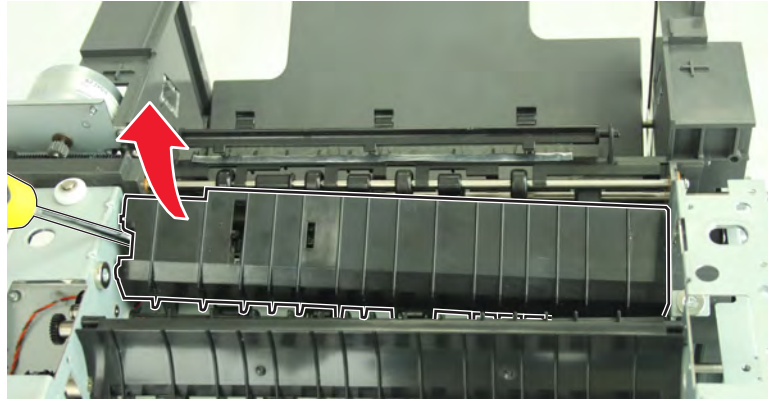
18 From the front, remove the two screws (B).



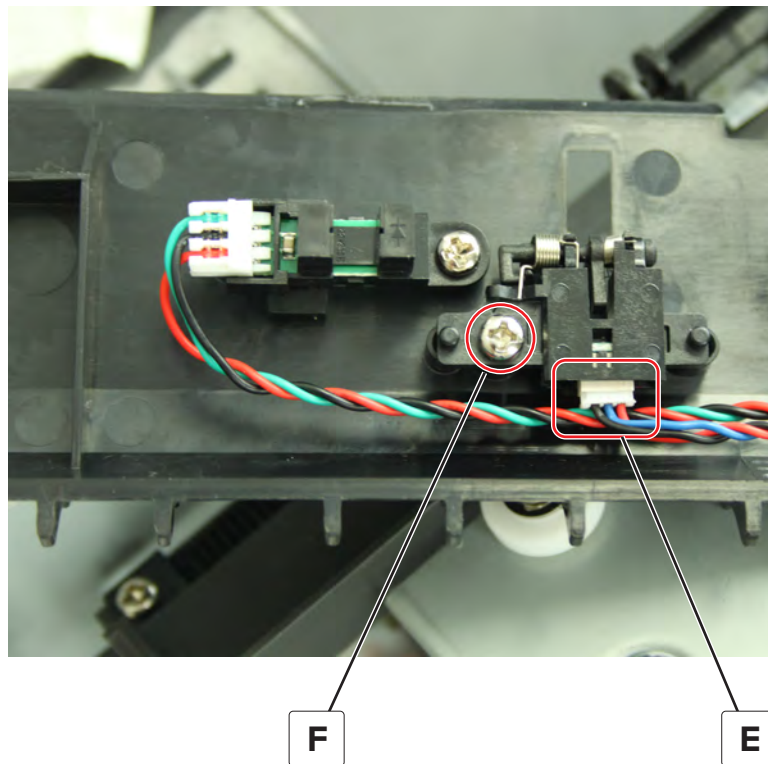
19 From the rear, remove the two screws (C), and then release the tab (D).



20 Pry the mid-transport guide to release, and then lift it.



21 Under the guide, disconnect the cable (E), and then remove the screw (F).



22 Remove the sensor.

Sensor (door N interlock) removal

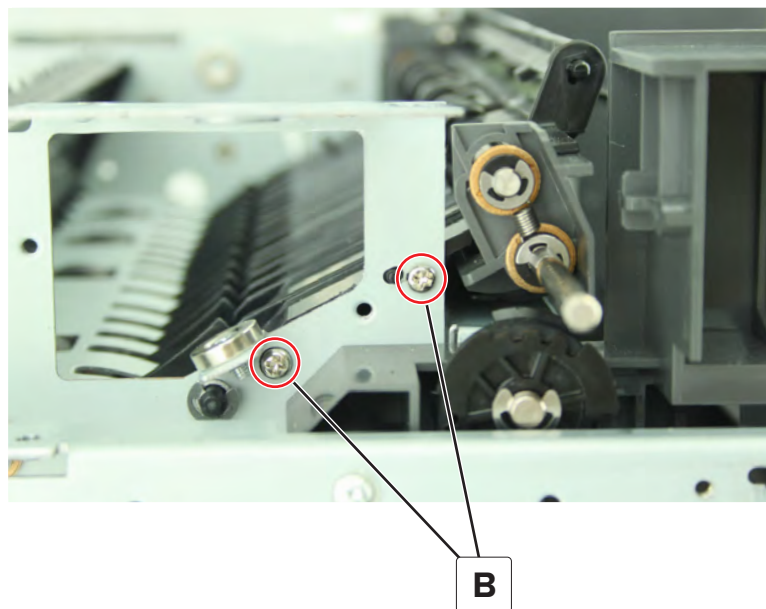
- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)

- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046](#).
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048](#).
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050](#).
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051](#).
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055](#).
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058](#).
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060](#).
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061](#).
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145](#).
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161](#).
- 16 Remove door J1. See [“Door J1 removal” on page 1187](#).
- 17 Cut the two cable ties (A), and then release the sensor cable.

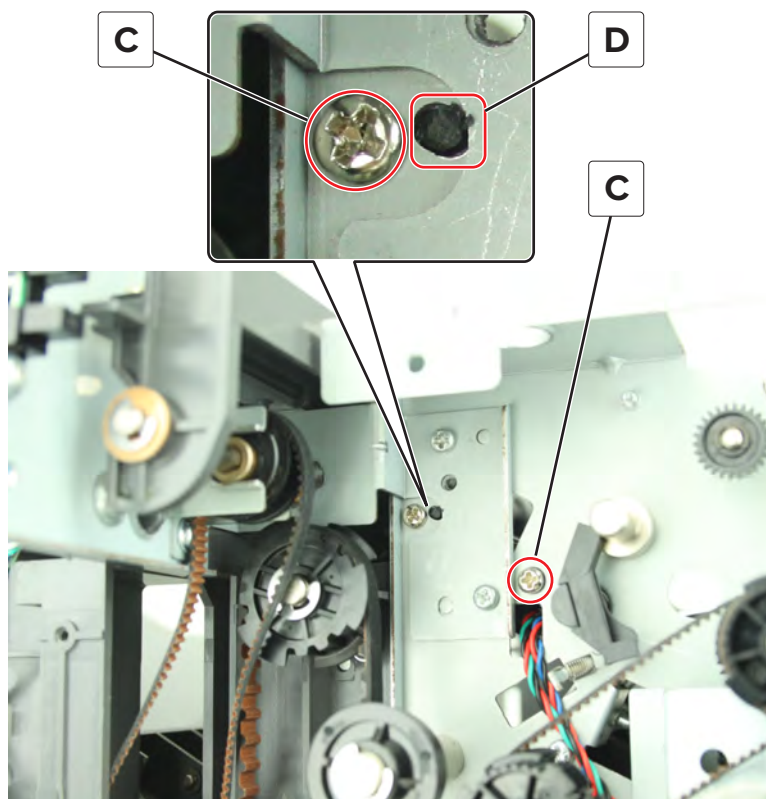
Installation warning: The cables may interfere with moving parts. Make sure that the cable ties are replaced.



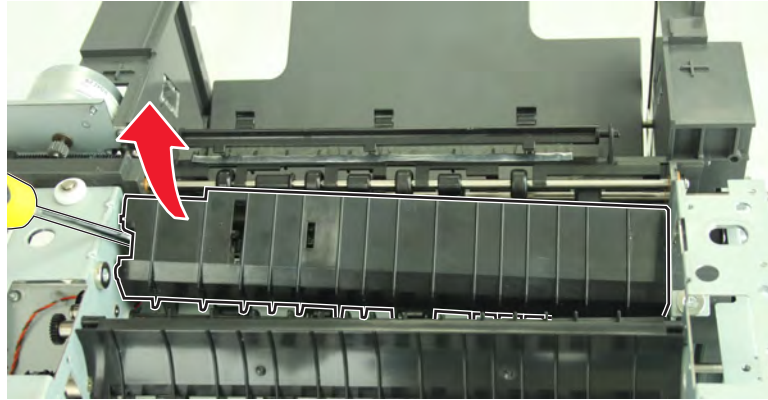
18 From the front, remove the two screws (B).



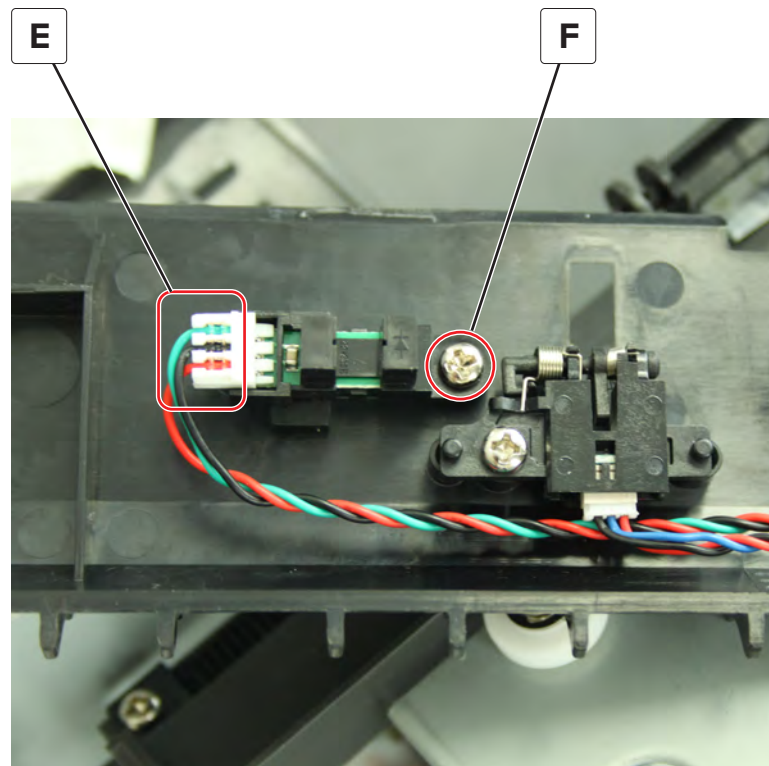
19 From the rear, remove the two screws (C), and then release the tab (D).



20 Pry the mid-transport guide to release, and then lift it.



21 Under the guide, disconnect the cable (E), and then remove the screw (F).

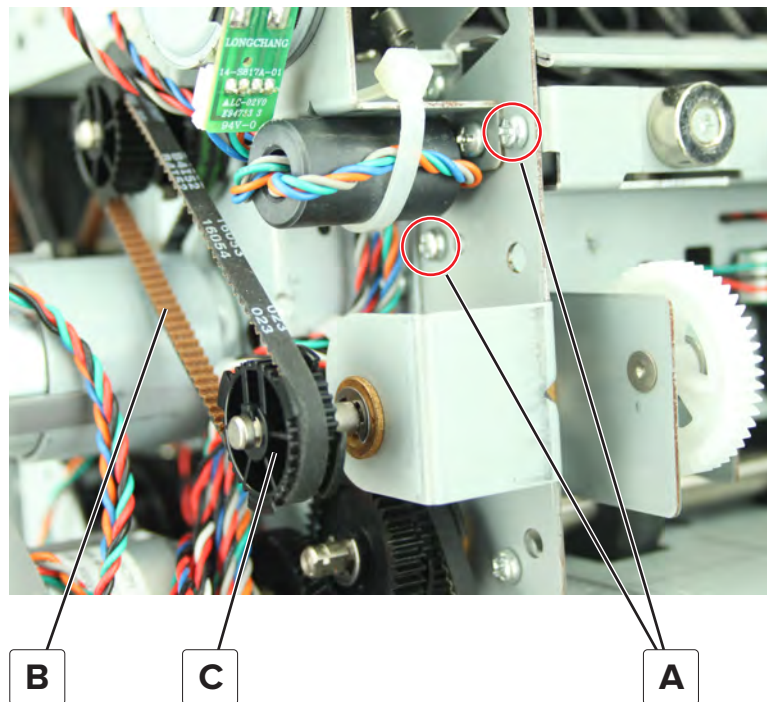


22 Remove the sensor.

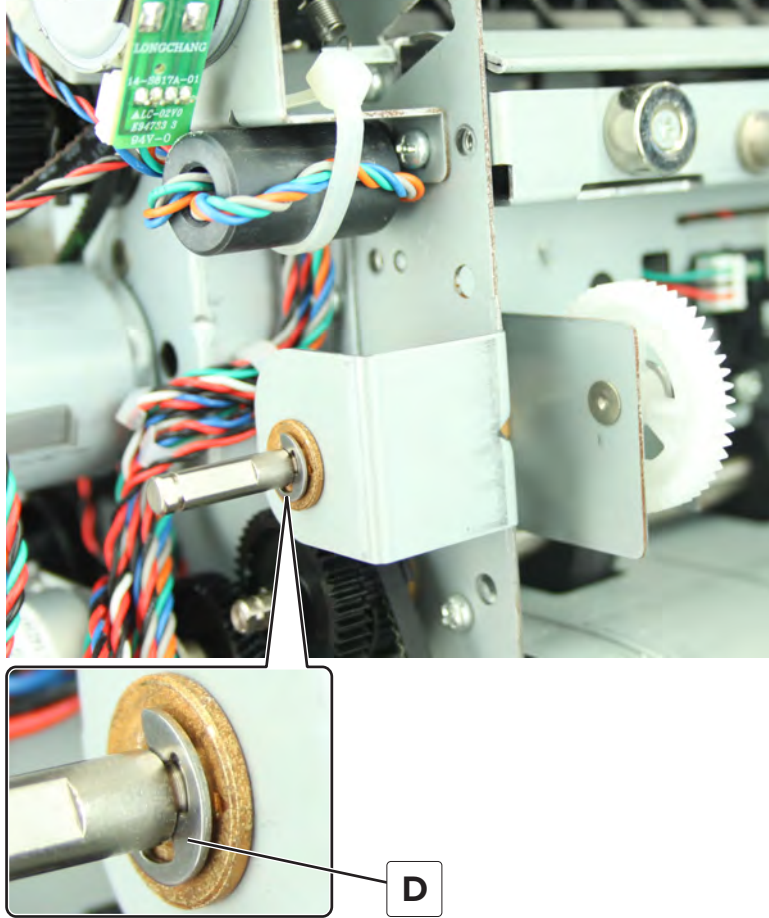
Sensor (mid-transport) removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029](#).
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025](#).
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028](#).
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027](#).
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030](#).

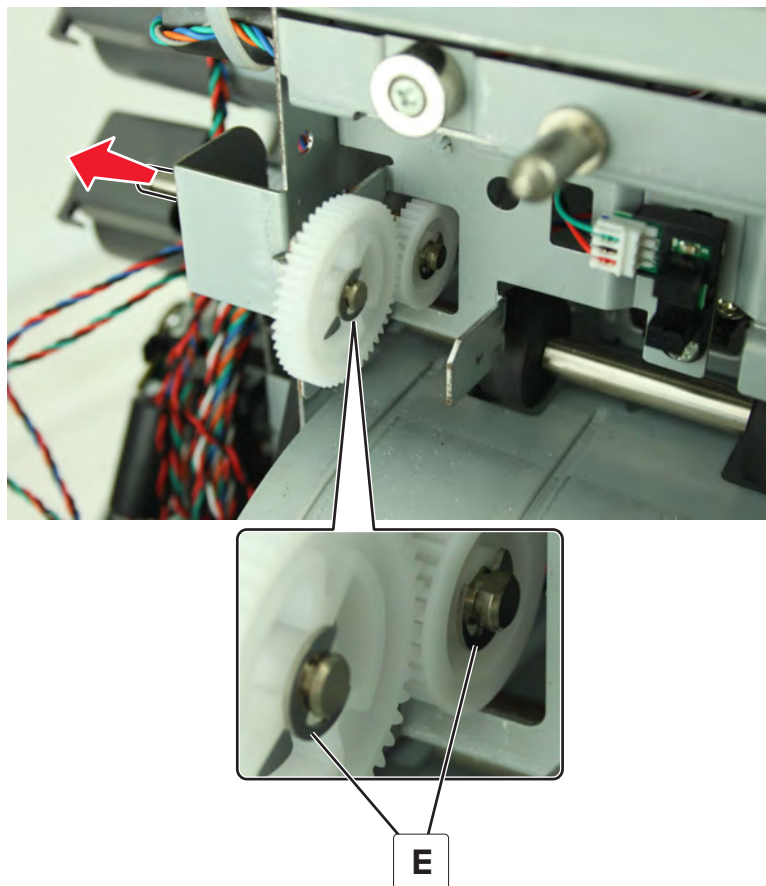
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15 Remove the two screws (A), remove the belt (B), and then remove the pulley gear (C).



16 Remove the E-clip (D), and then remove the bushing.

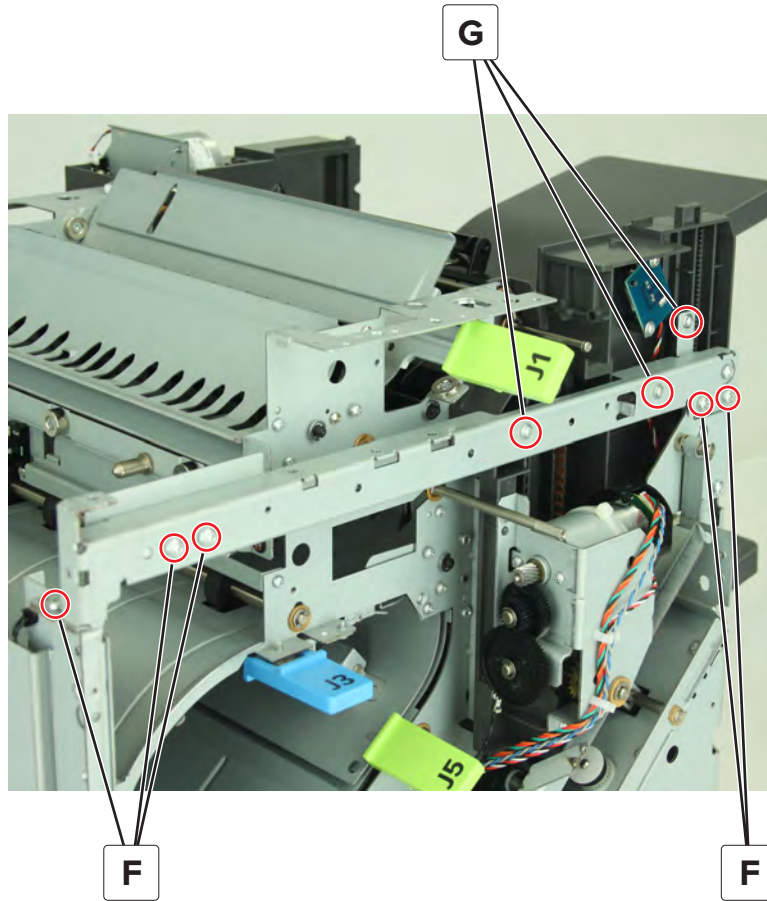


- 17** From the left, remove the two E-clips (E), remove the hole punch gears, and then pull out the shaft.

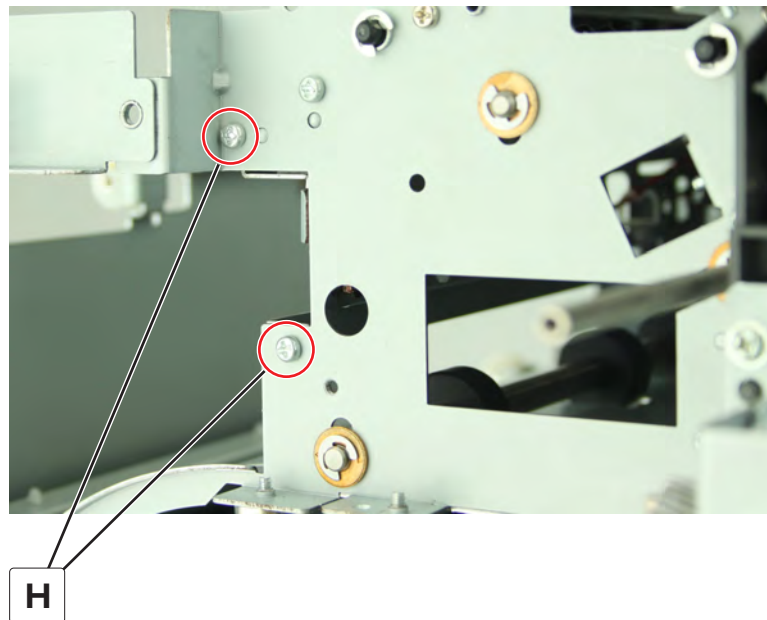


- 18** From the front, using a Torx screwdriver, remove the five screws (F).

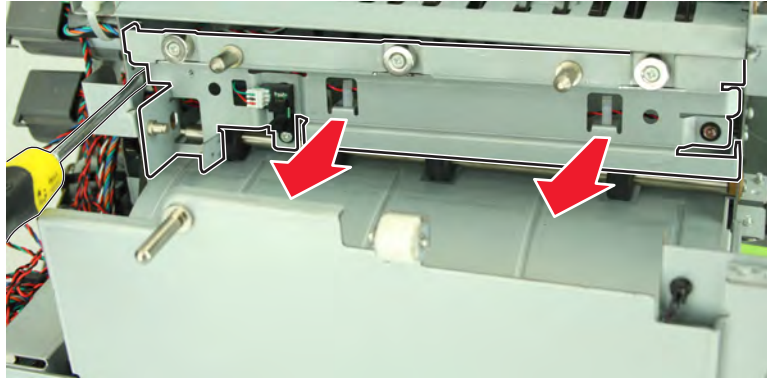
19 Remove the three screws (G), and then remove the bracket.



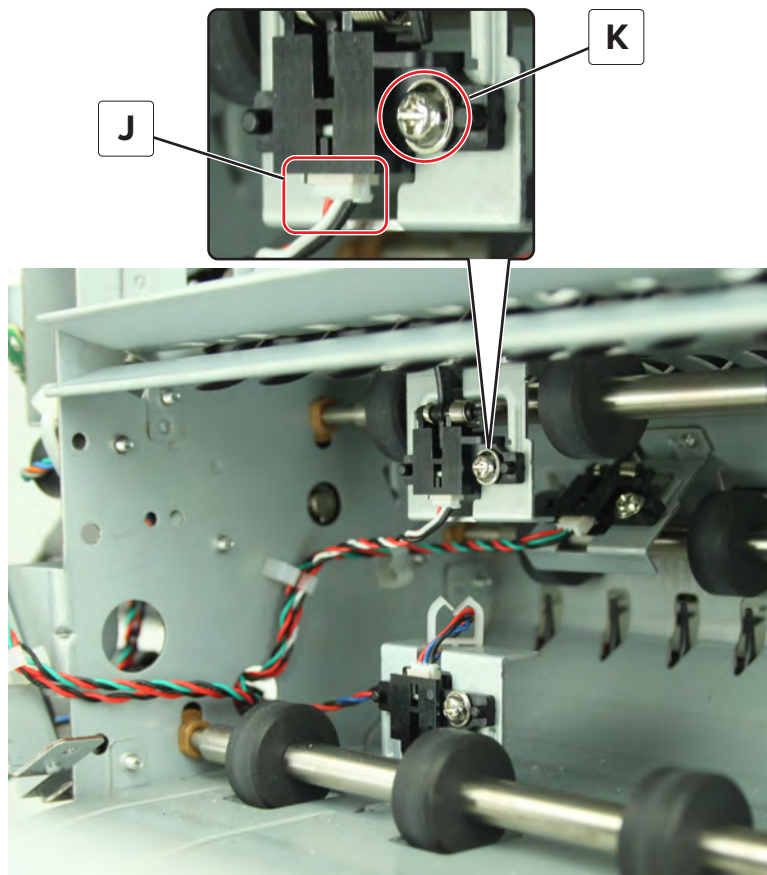
20 Remove the two screws (H).



21 Pry the bracket to release, and then pull it.



22 Disconnect the cable (J), and then remove the screw (K).

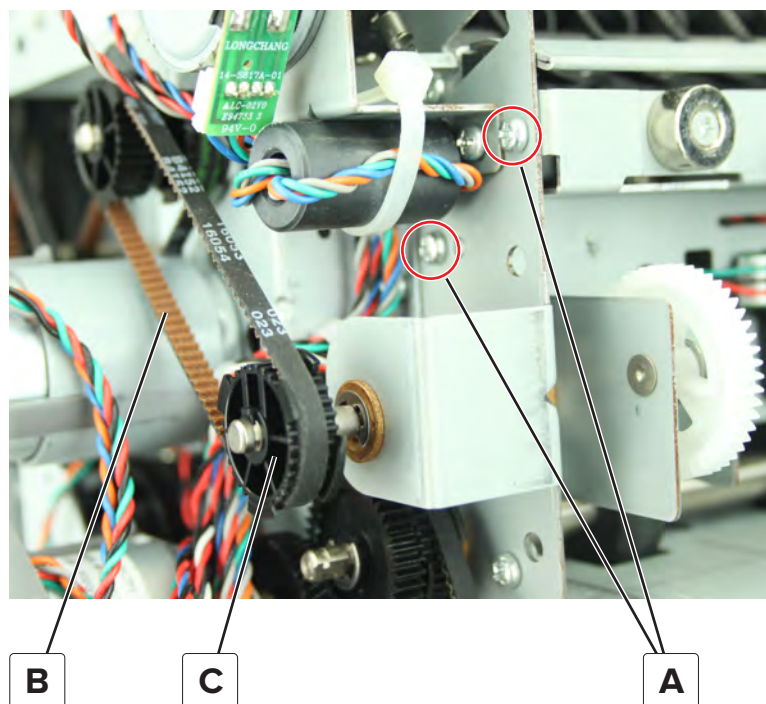


23 Remove the sensor.

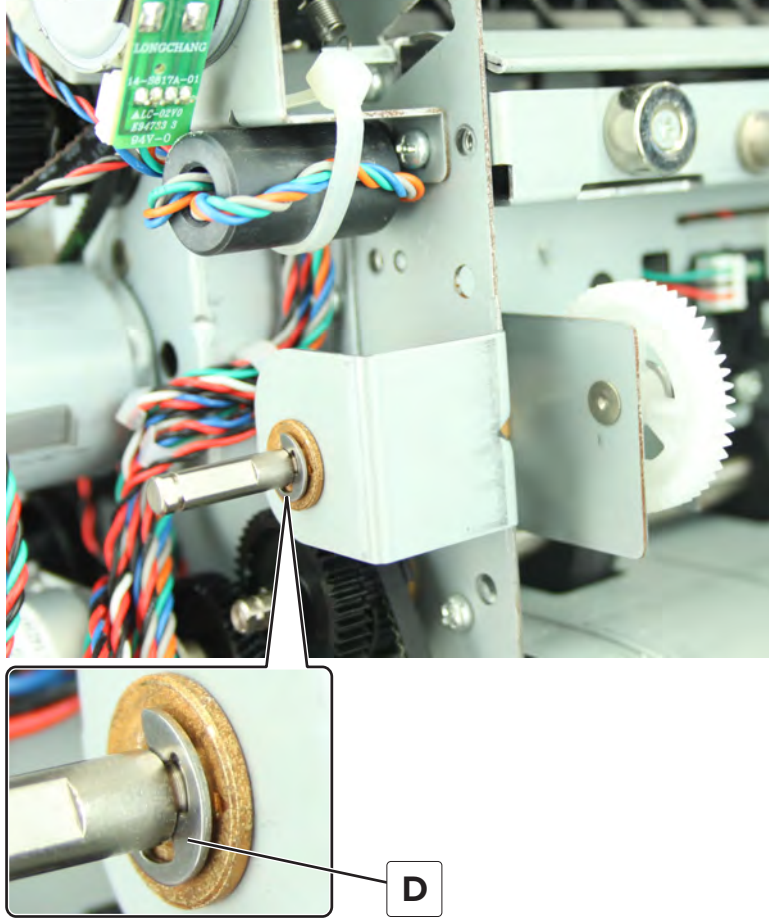
Sensor (staging outer transport 1) removal

- 1 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)

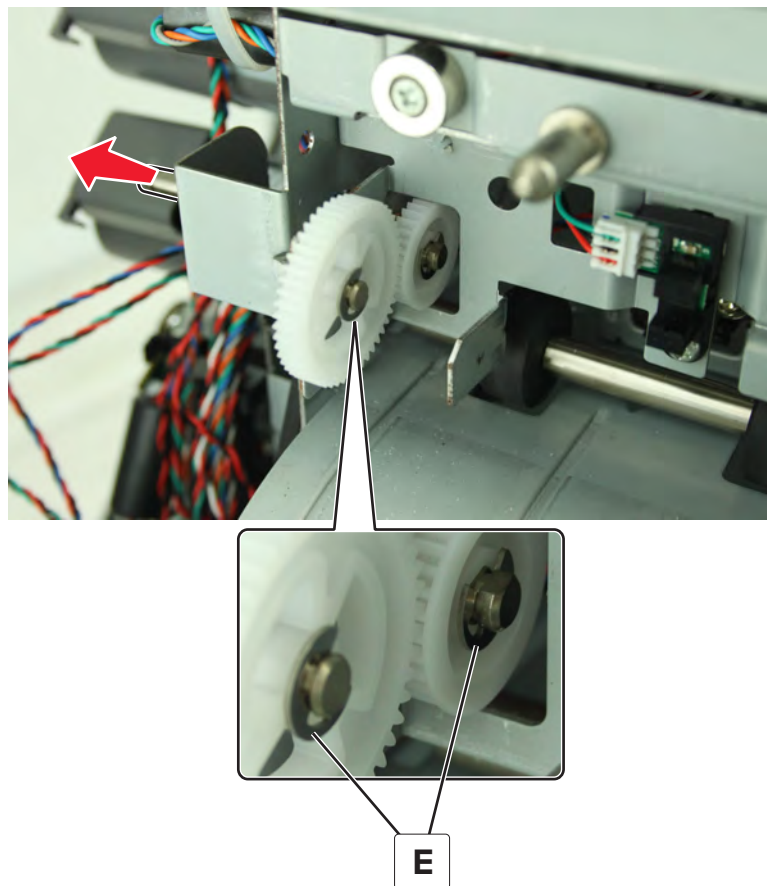
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15 Remove the two screws (A), remove the belt (B), and then remove the pulley gear (C).



16 Remove the E-clip (D), and then remove the bushing.

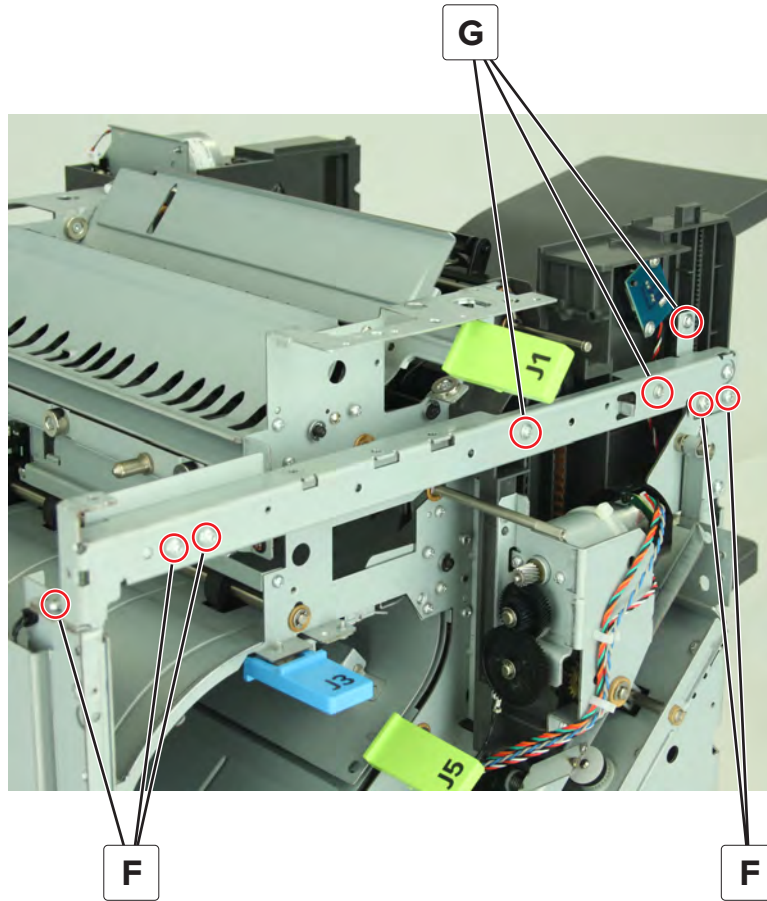


17 From the left, remove the two E-clips (E), remove the hole punch gears, and then pull out the shaft.

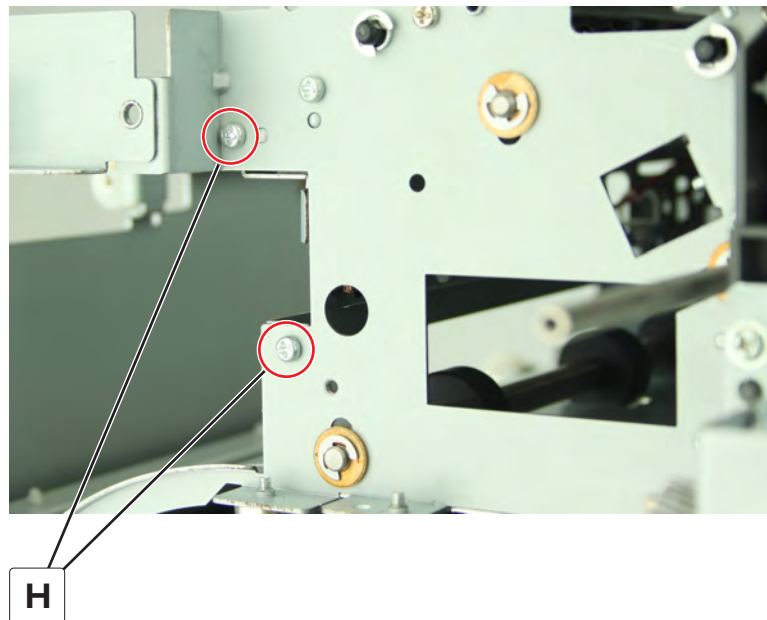


18 From the front, using a Torx screwdriver, remove the five screws (F).

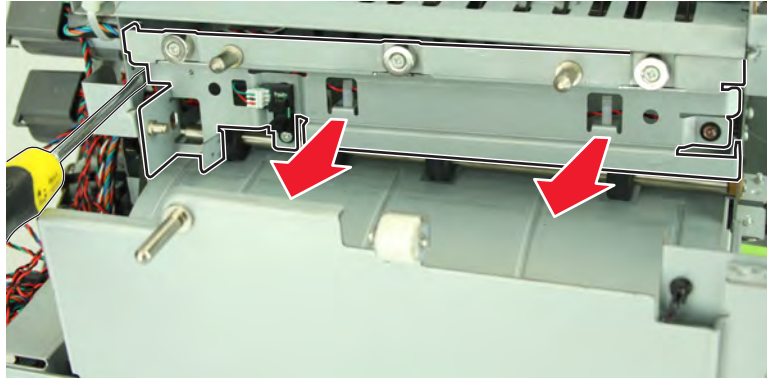
19 Remove the three screws (G), and then remove the bracket.



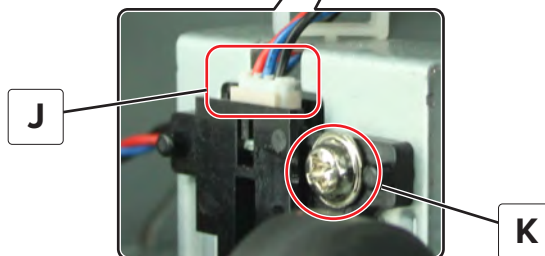
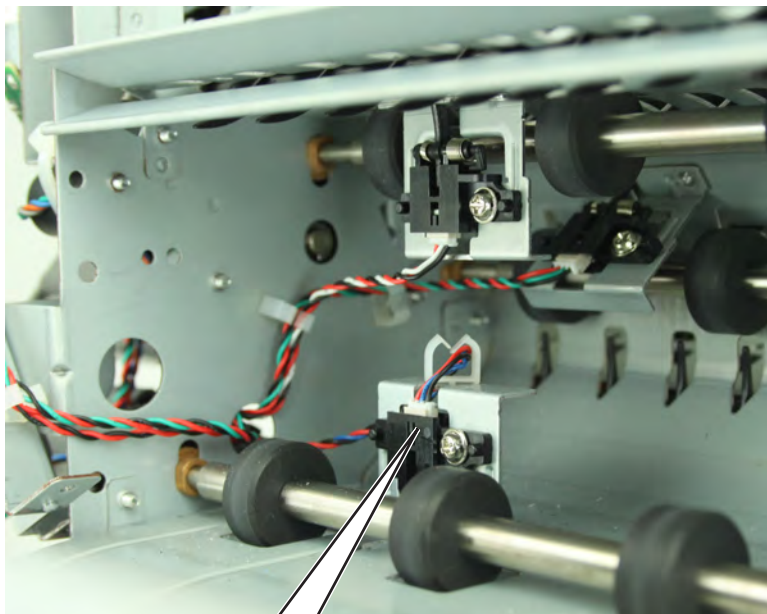
20 Remove the two screws (H).



21 Pry the bracket to release, and then pull it.



22 Disconnect the cable (J), and then remove the screw (K).

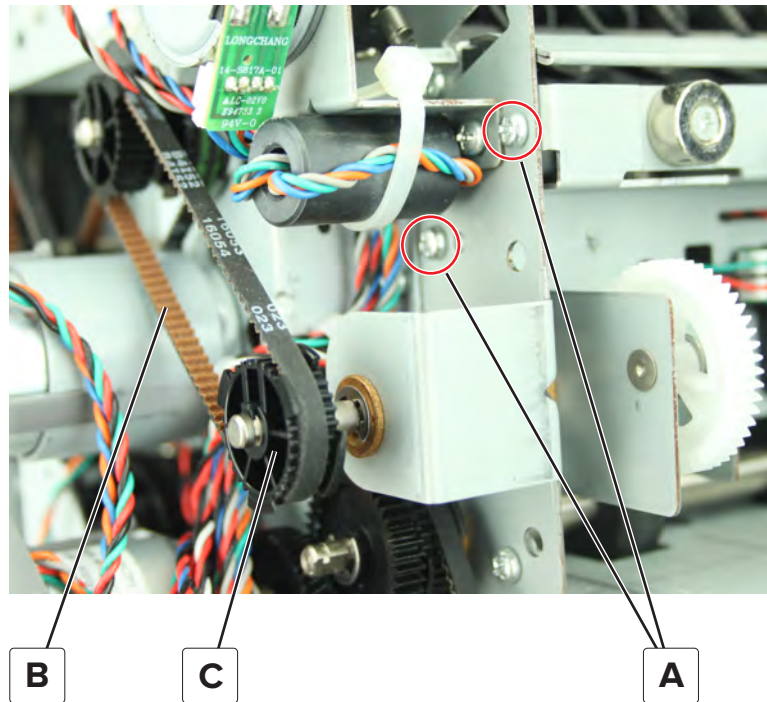


23 Remove the sensor.

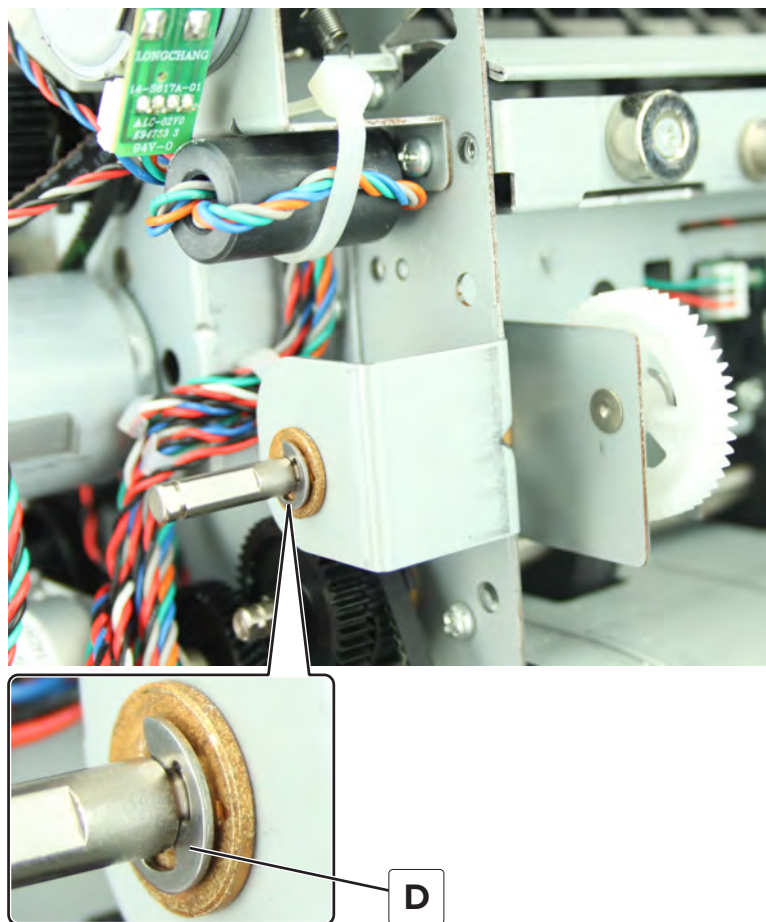
Sensor (staging entrance) removal

- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)

- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12 Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13 Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14 Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)
- 15 Remove the mid-transport diverter cam. See [“Mid-transport diverter cams and gear removal” on page 1161.](#)
- 16 Remove the mid-transport mailbox entrance frame. See [“Mid-transport mailbox entrance frame removal” on page 1174.](#)
- 17 Remove the mid-transport guide. See [“Mid-transport guide removal” on page 1181.](#)
- 18 Remove the two screws (A), remove the belt (B), and then remove the pulley gear (C).



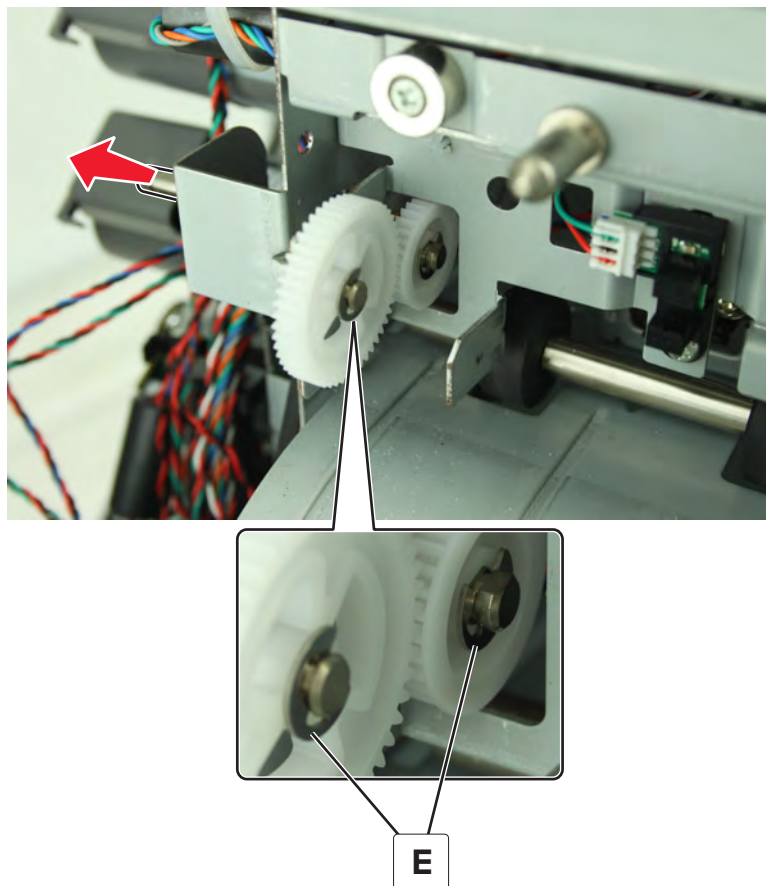
19 Remove the E-clip (D), and then remove the bushing.



Parts removal

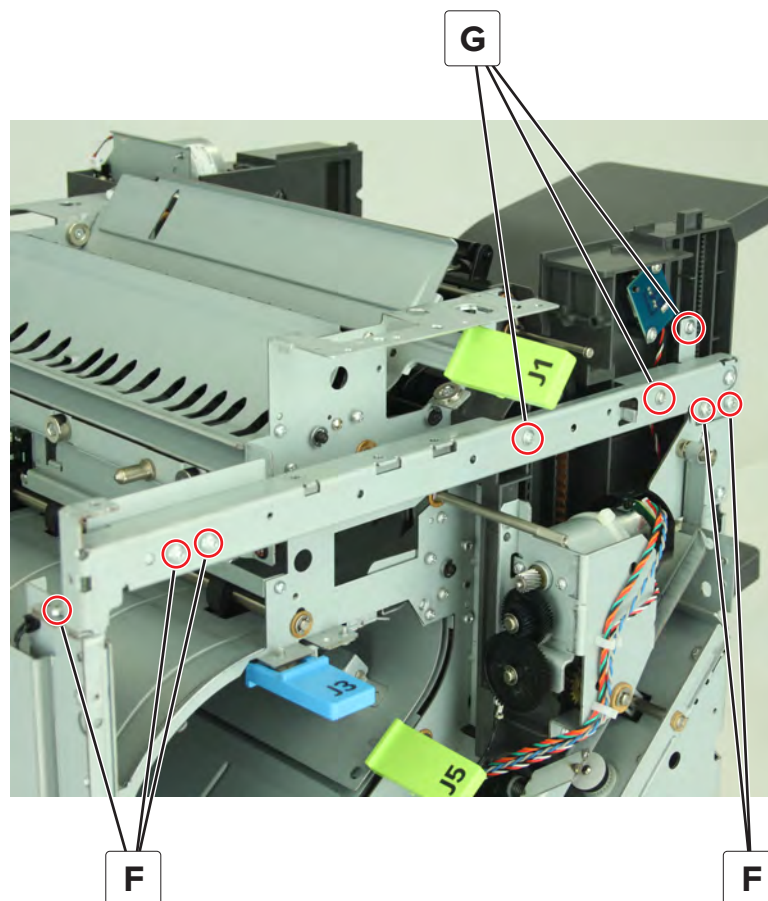
1210

20 From the left, remove the two E-clips (E), remove the hole punch gears, and then pull out the shaft.



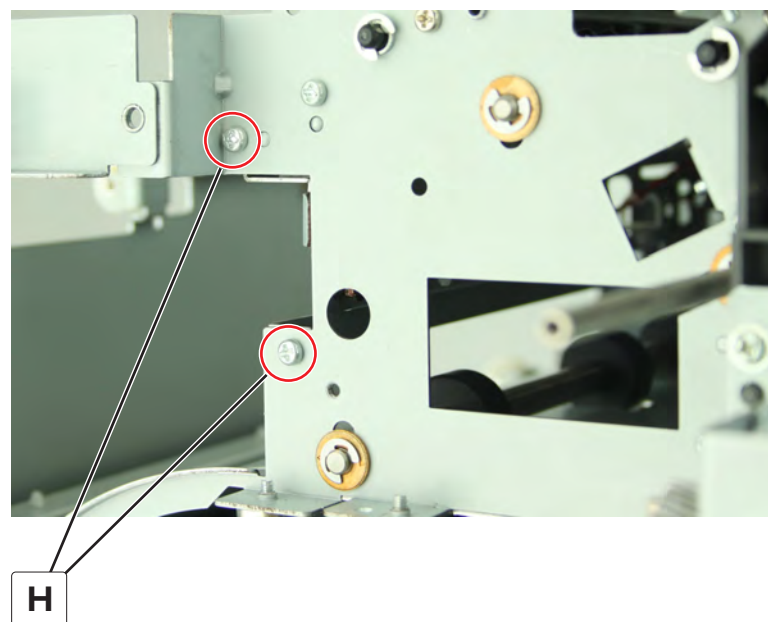
21 From the front, using a Torx screwdriver, remove the five screws (F).

22 Remove the three screws (G), and then remove the bracket.

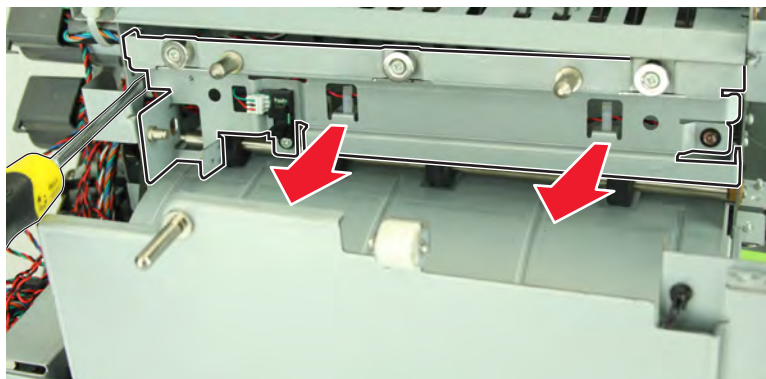


23 Remove the J1 access door. See [“Door J1 removal” on page 1187](#).

24 Remove the two screws (H).



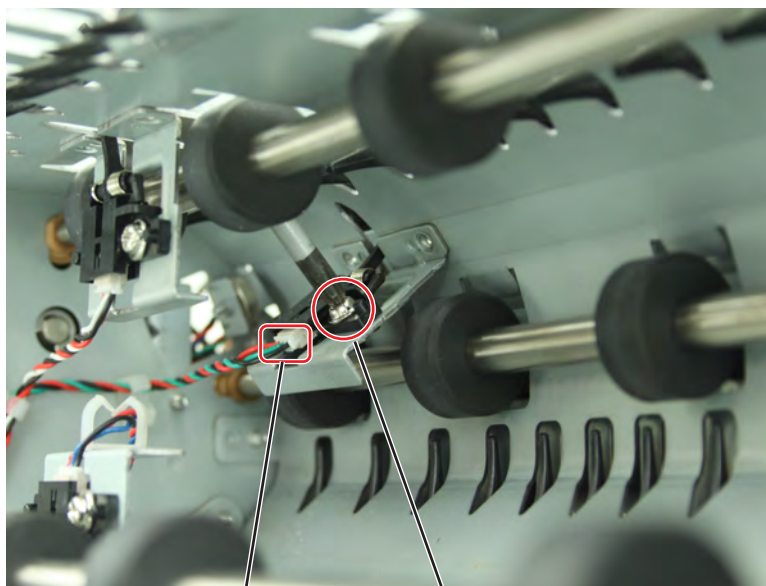
25 Pry the bracket to release, and then pull it.



Parts removal

1213

- 26** Disconnect the cable (J), insert the screwdriver to the access hole as shown, and then remove the screw (K).



J

K

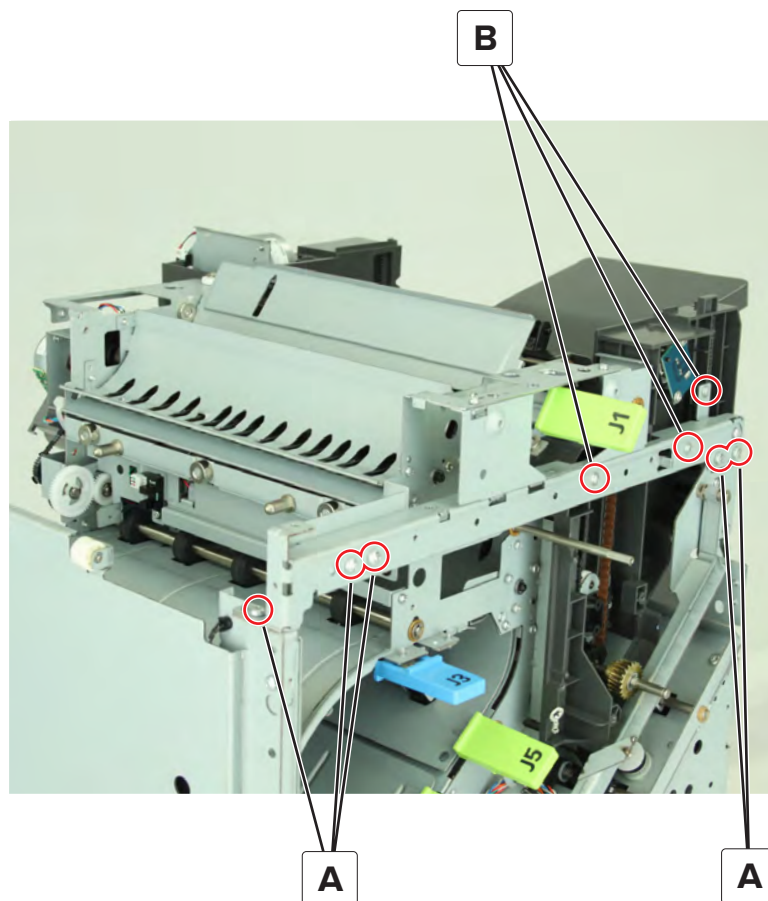
- 27** Remove the sensor.

Mid-transport and staging assembly removals

Mid-transport and staging assembly removal

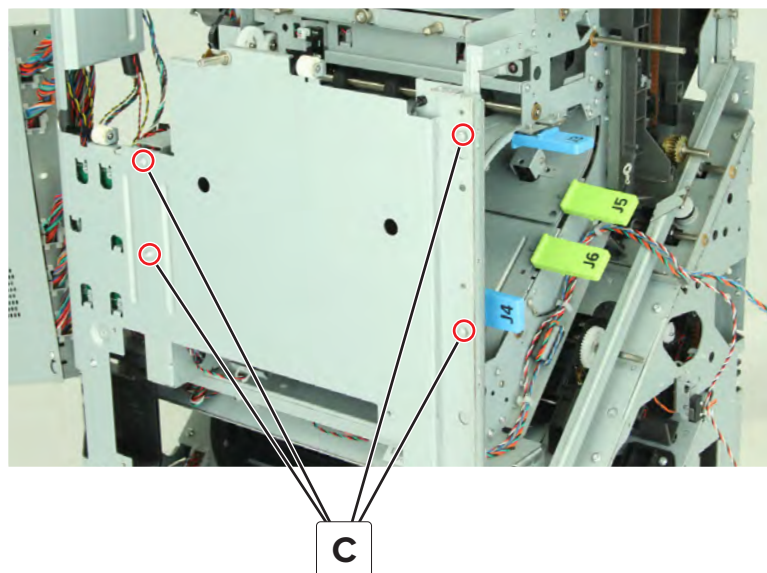
- 1** Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 2** Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 3** Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4** Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 5** Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6** Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7** Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8** Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9** Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10** Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 11** Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)
- 12** Remove the MSHPF inner top cover. See [“MSHPF inner top cover removal” on page 1060.](#)
- 13** Remove the MSHPF top frame covers. See [“MSHPF top frame covers removal” on page 1061.](#)
- 14** Remove the standard bin elevator drive. See [“Standard bin elevator drive removal” on page 1138.](#)
- 15** Remove the MSHPF top frame. See [“MSHPF top frame removal” on page 1145.](#)

18 Remove the three screws (B), and then remove the bracket.

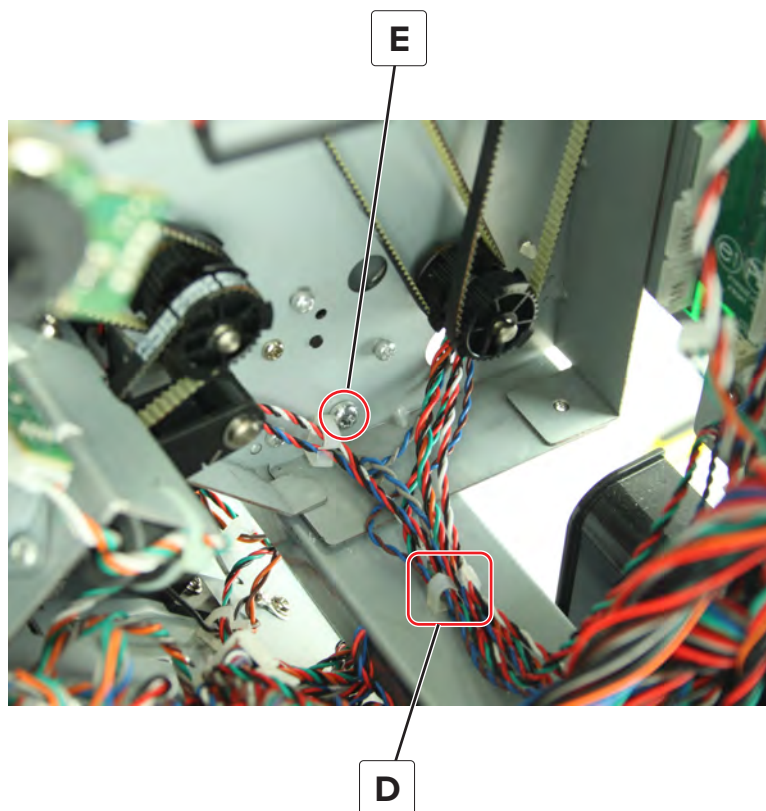


19 Remove the offset assembly. See [“Offset assembly removal” on page 1150](#).

20 Remove the four screws (C), and then remove the plate.



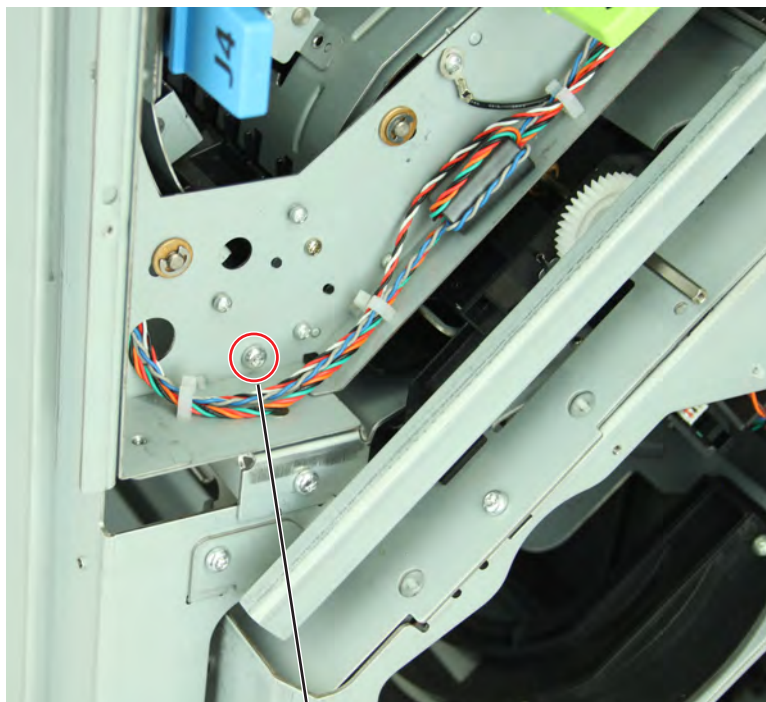
21 Release the cables from their clamp (D), and then remove the screw (E) using a Torx screwdriver.



Parts removal

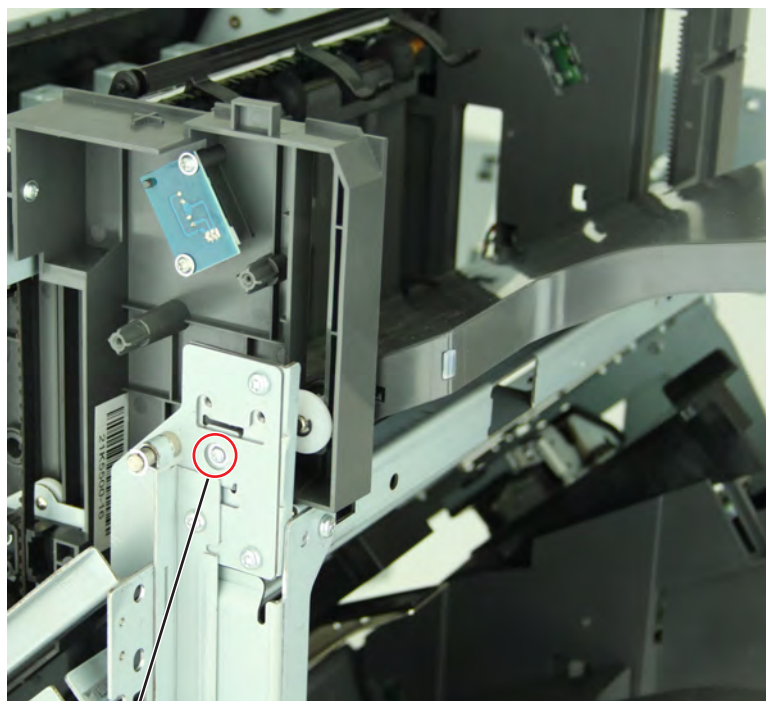
1218

22 From the front, using a Torx screwdriver, remove the screw (F).



F

23 Remove the screw (G).



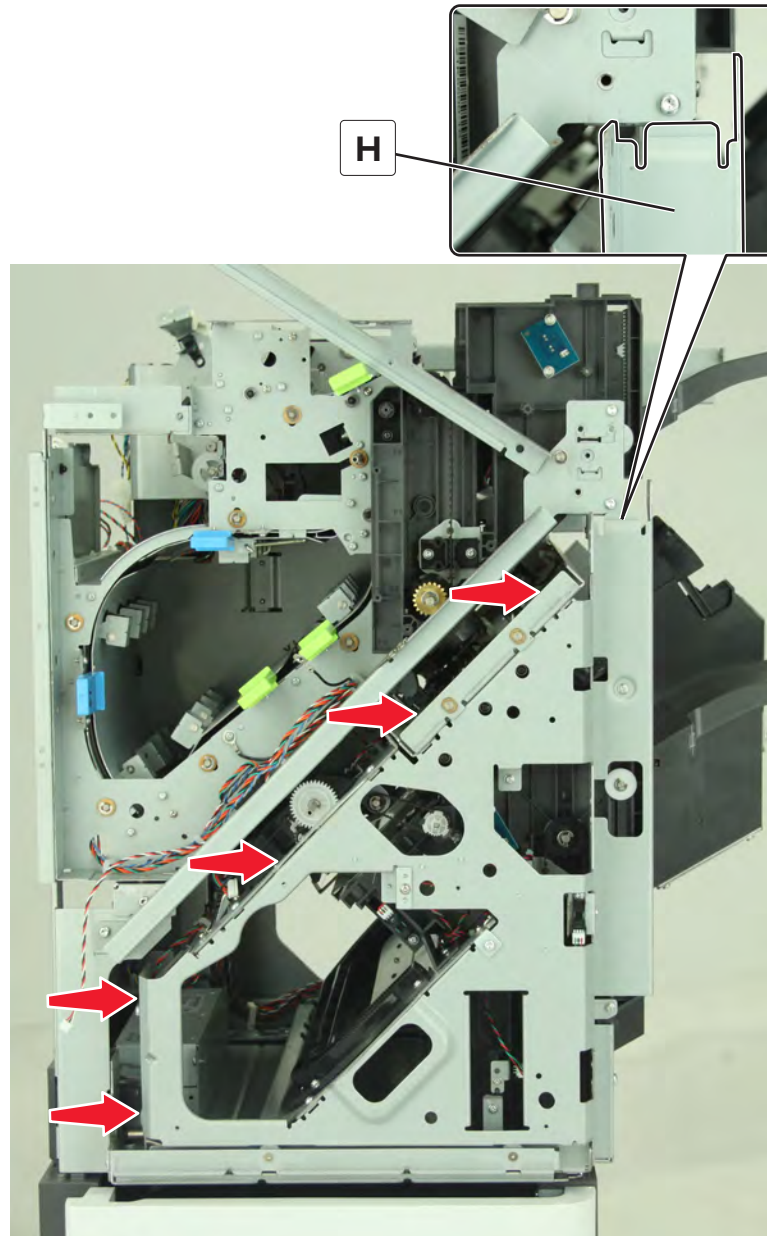
G

Parts removal

1219

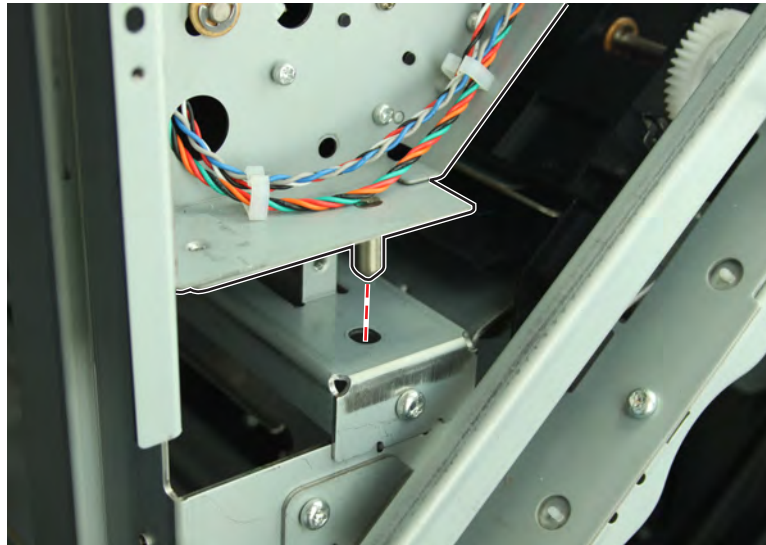
- 24 Pull the multiposition stapler assembly by half an inch. See [“Multiposition stapler assembly removal” on page 1244.](#)

Warning—Potential Damage: The weight of the mid-transport and staging assembly may deform the frame. Make sure that the frame is supported by the column (H).



- 25 Lift, and then remove the mid-transport and staging assembly.

Installation note: Align the assembly locating pins with the frame holes.

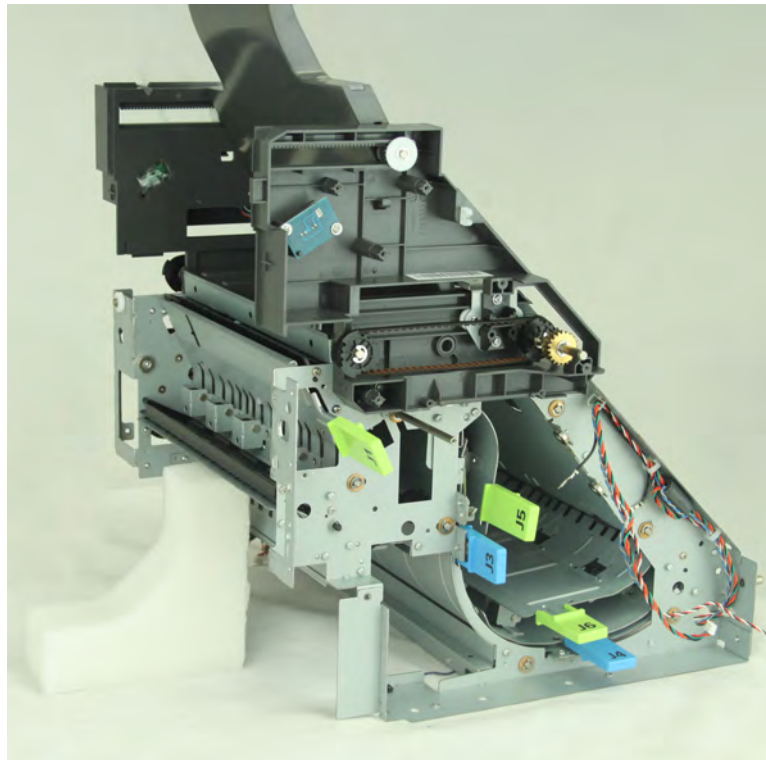


MSHPF standard bin assembly removal

Note: For a video demonstration, see [MSHPF standard bin assembly removal](#).

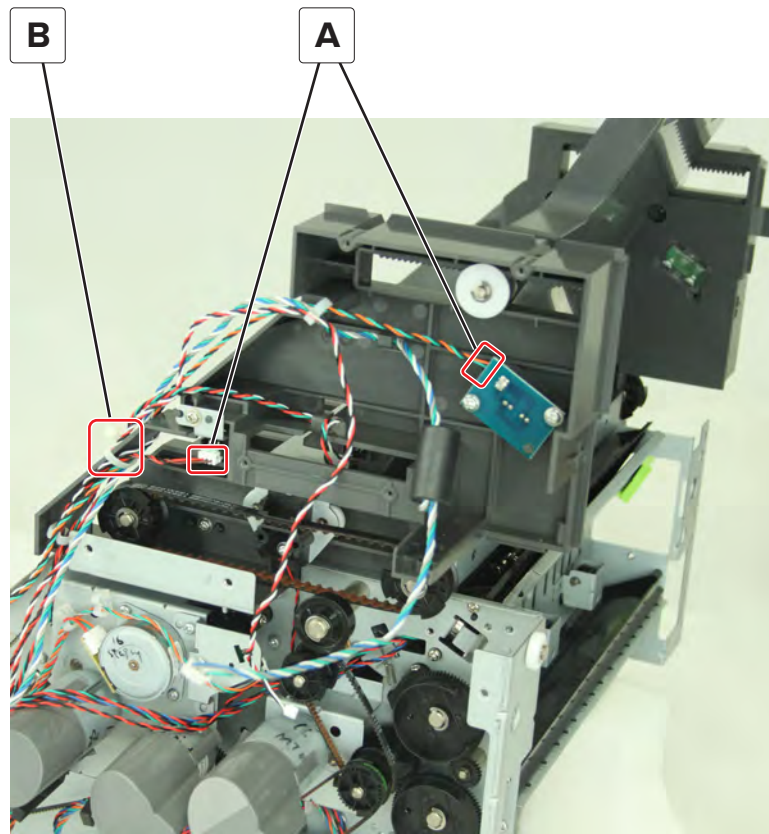
- 1 Remove the mid-transport and staging assembly. See [“Mid-transport and staging assembly removal” on page 1215](#).

Note: Position the mid-transport and staging assembly as shown.

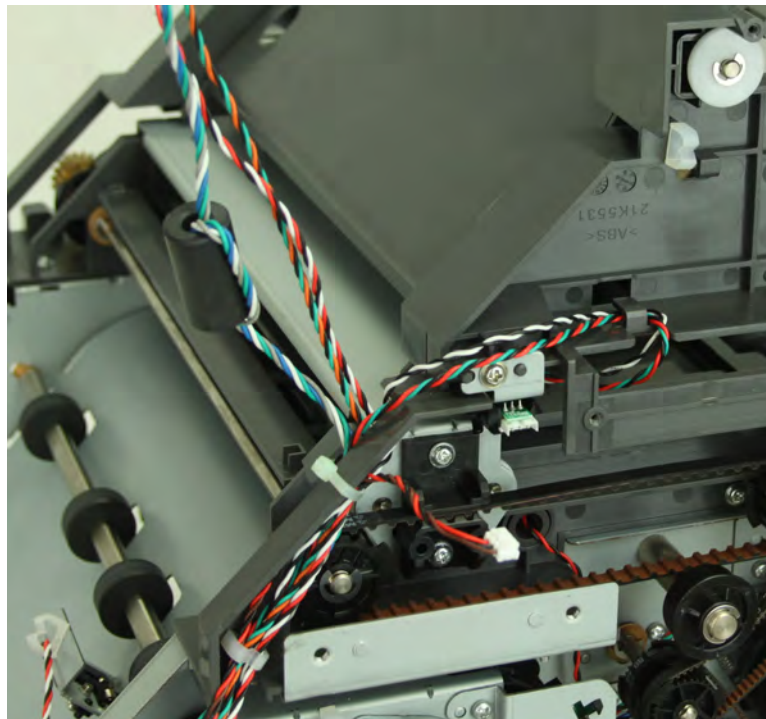


- 2 Disconnect the two cables (A), cut the cable tie (B), and then release the cables from the bin.

Installation warning: Replace the cable tie, or the cables may interfere with moving parts.

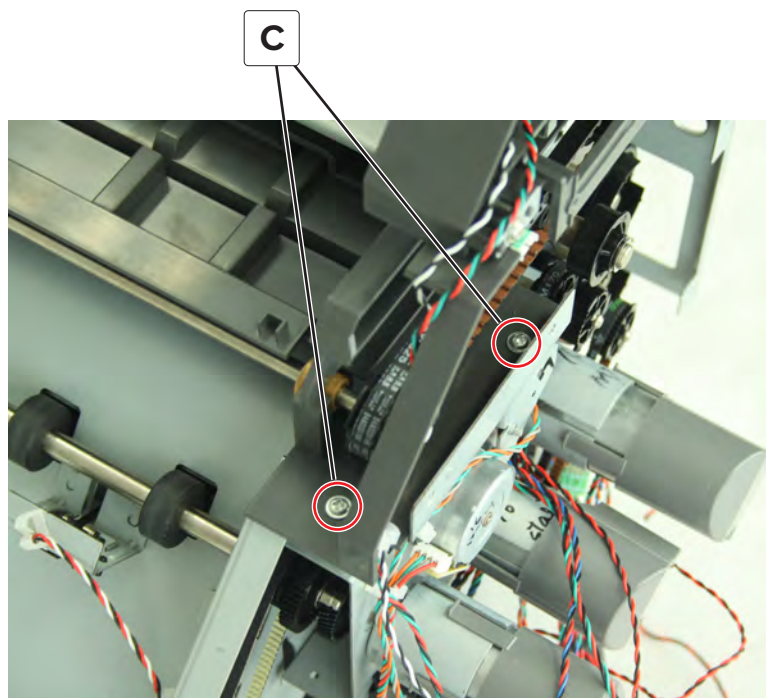


Installation note: Route the cables as shown.

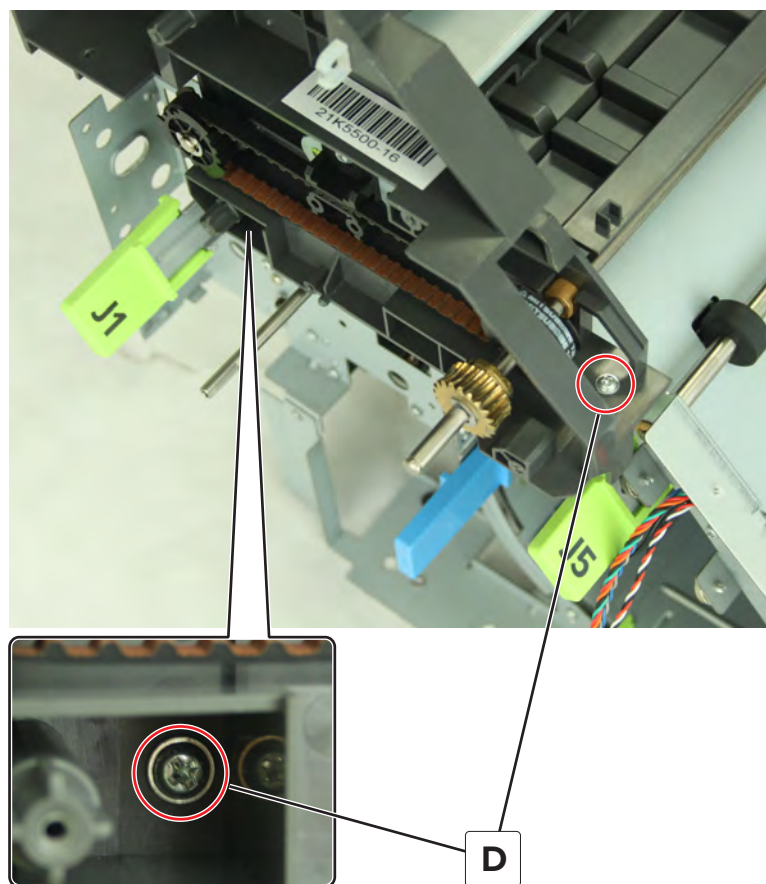


Parts removal

3 Remove the two screws (C).



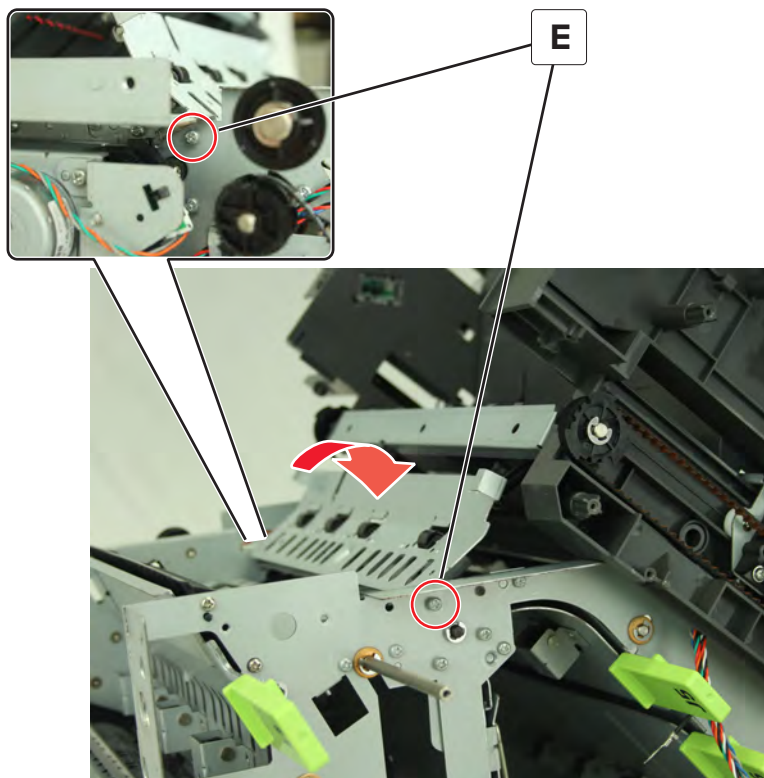
4 Remove the two screws (D).



Parts removal

1223

- 5 Pull the bin to access the screws, and then remove the screws (E).



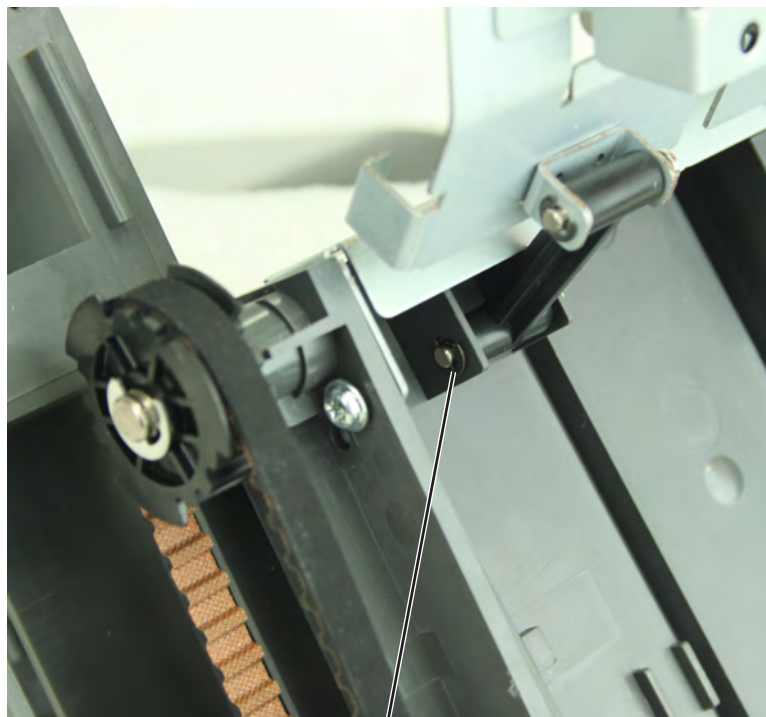
- 6 Remove the bin.

Note: For a video demonstration, see the *CX860 MSHPF standard bin assembly removal* at infoserve.lexmark.com/videos/sfin_standard_bin_asm_removal.html.

Staging paper guide removal

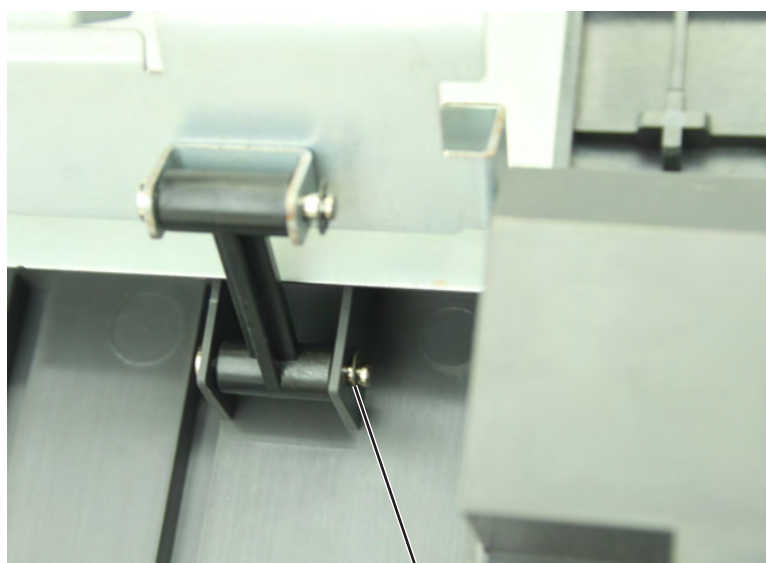
- 1 Remove the mid-transport and staging assembly. See [“Mid-transport and staging assembly removal” on page 1215](#).
- 2 Remove the MSHPF standard bin assembly. See [“MSHPF standard bin assembly removal” on page 1221](#).

- 3** Under door N, remove the E-clip (A), and then remove the hinge pin.



A

- 4** Remove the E-clip (B), and then remove the hinge pin.



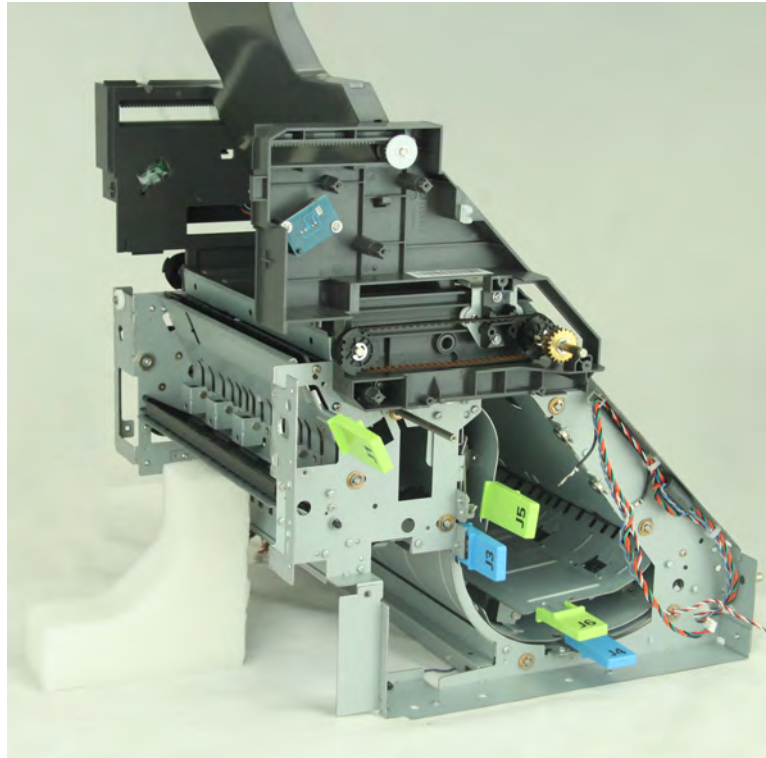
B

- 5** Remove the guide.

Staging inner transport roller removal

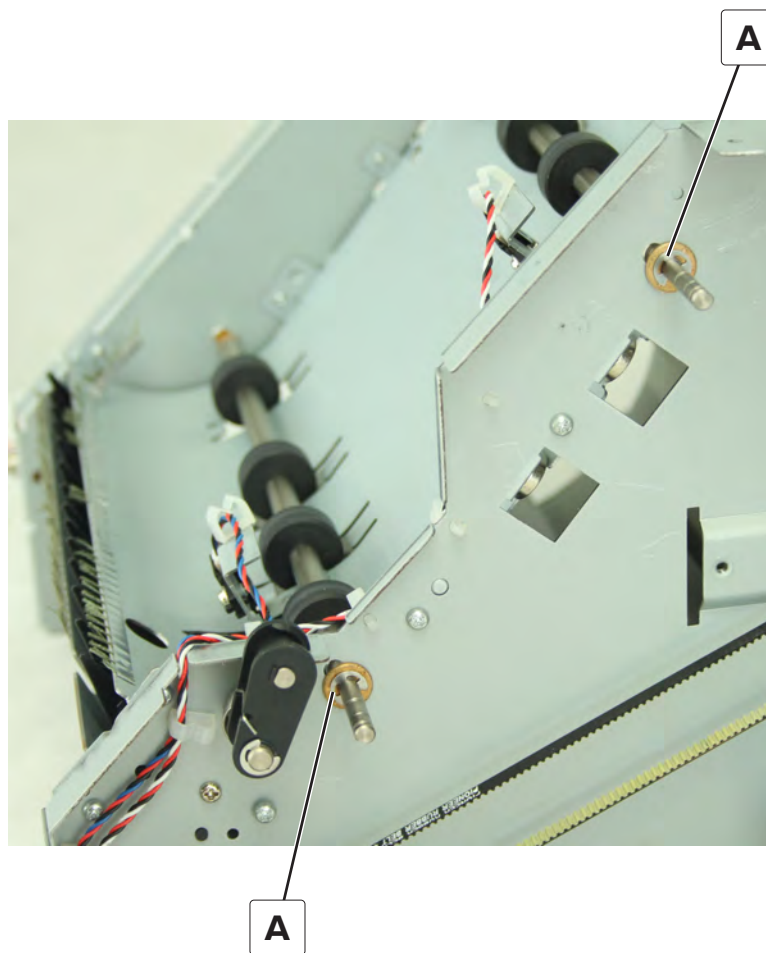
- 1 Remove the mid-transport and staging assembly. See [“Mid-transport and staging assembly removal” on page 1215.](#)

Note: Position the mid-transport and staging assembly as shown.



- 2 Remove the staging outer transport belt. See [“Staging outer transport belt removal” on page 1095.](#)
- 3 Remove the staging transport gears. See [“Staging transport gears removal” on page 1112.](#)
- 4 Remove the staging transport belts. See [“Staging transport belts removal” on page 1116.](#)

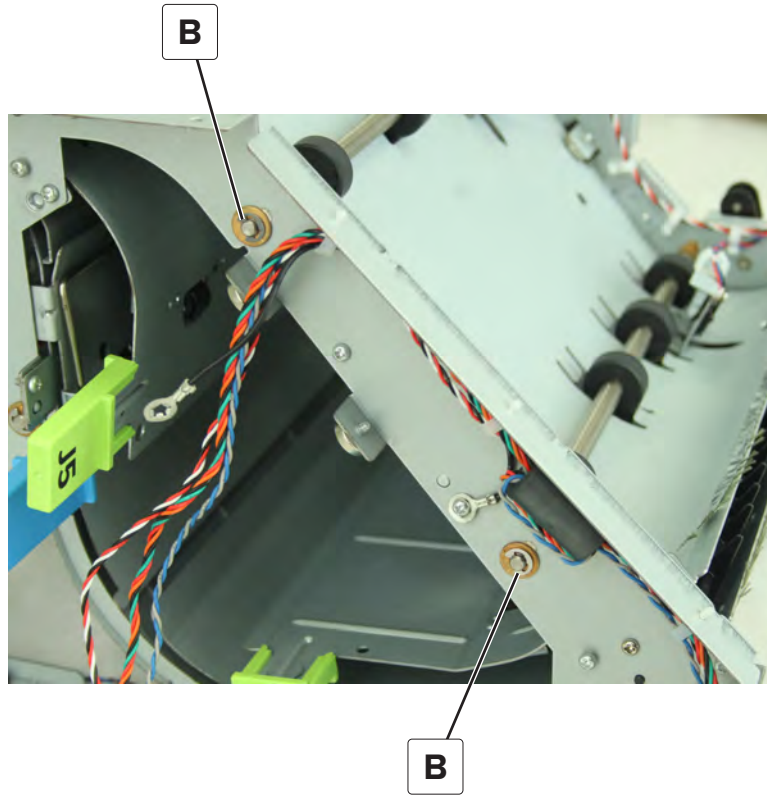
5 Remove the E-clip (A) from the appropriate roller.



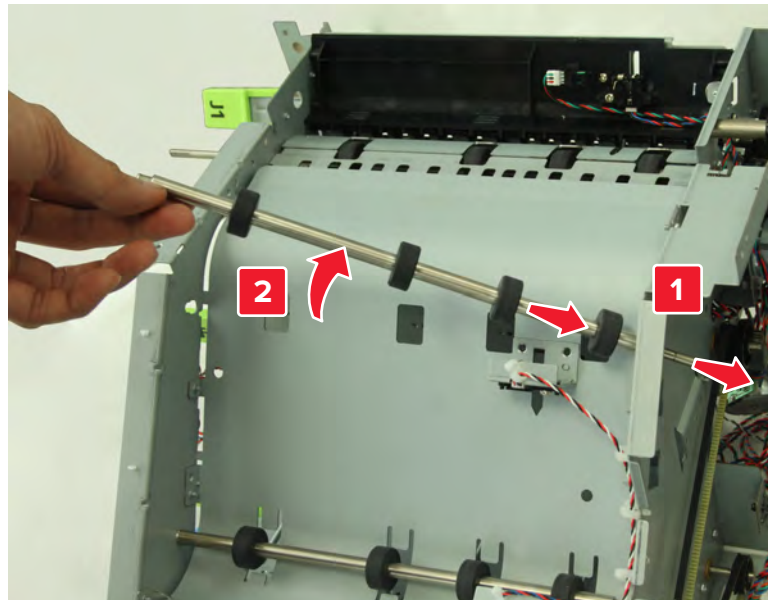
Parts removal

1227

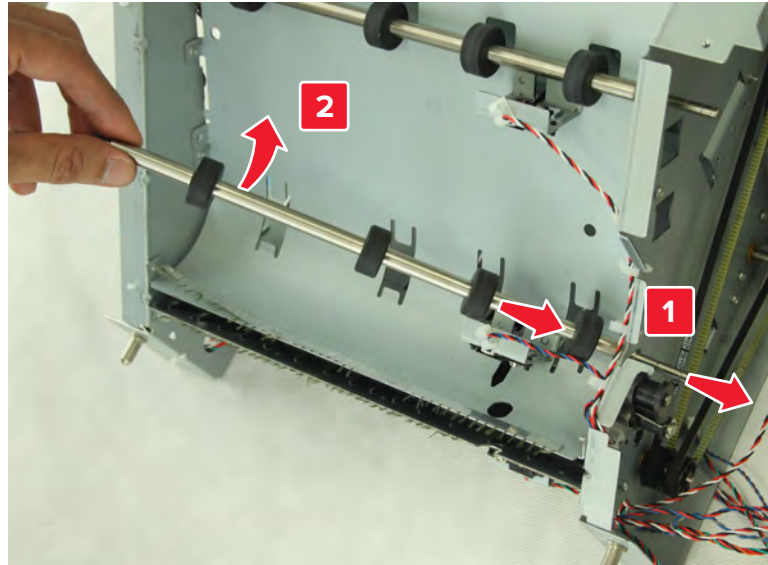
6 Remove the E-clip (B).



7 Remove the roller.
• Upper roller



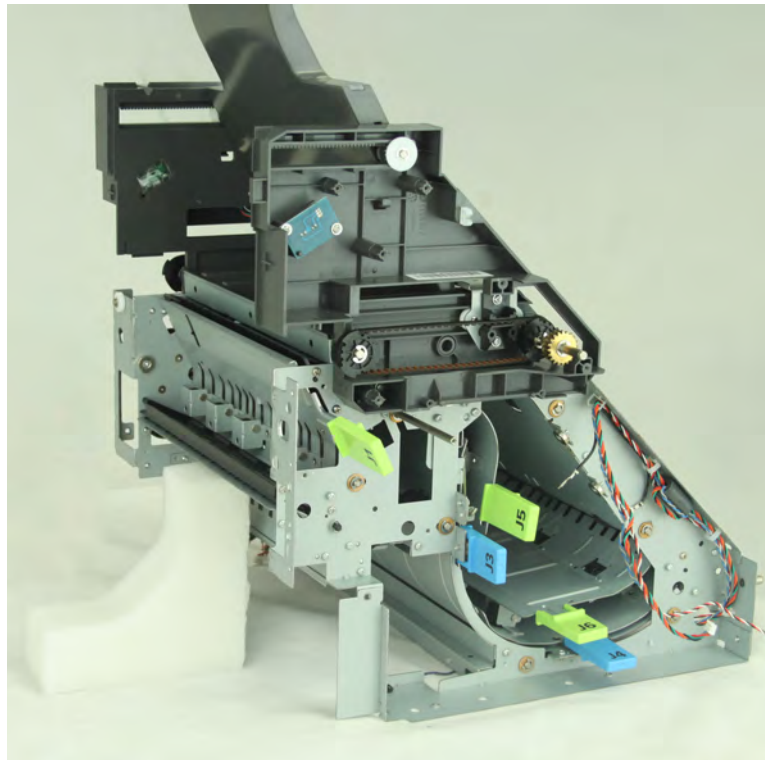
- Lower roller



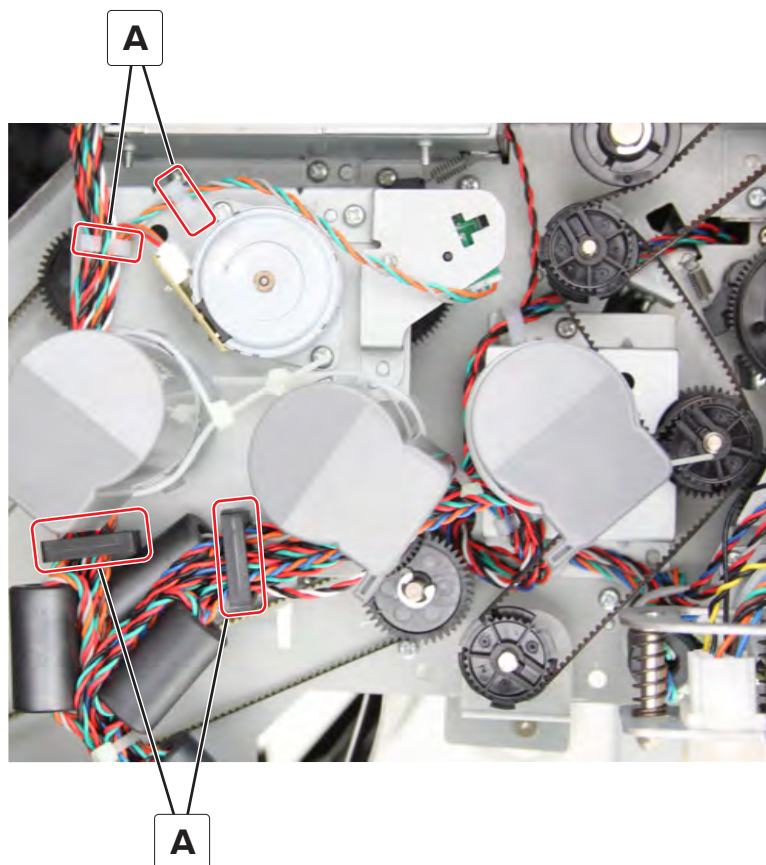
Staging diverter removal

- 1 Remove the mid-transport and staging assembly. See [“Mid-transport and staging assembly removal” on page 1215.](#)

Note: Position the mid-transport and staging assembly as shown.



2 Release the cables from their guides (A), and then detach them from the bracket.



Parts removal

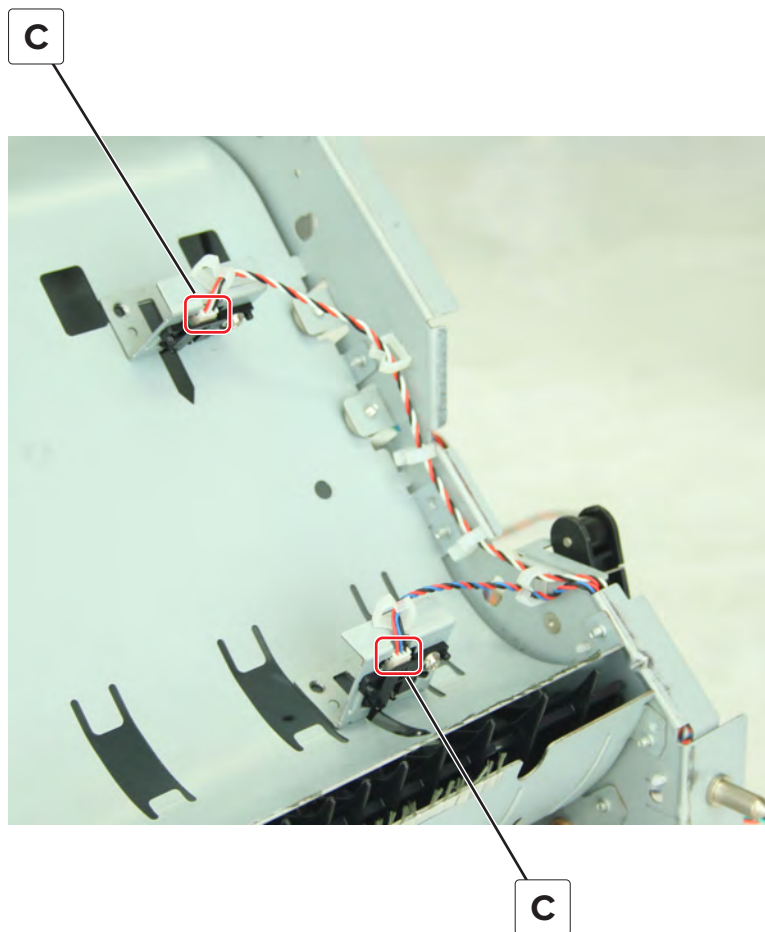
1230

- 3 Remove the four screws (B), and then pull the bracket.

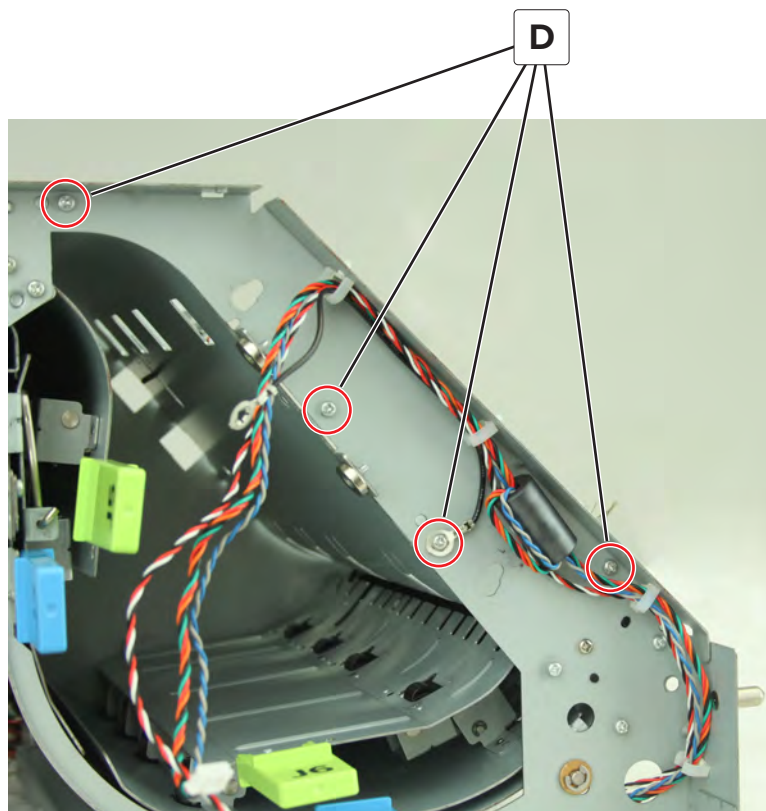


- 4 Remove the MSHPF standard bin assembly. See [“MSHPF standard bin assembly removal” on page 1221.](#)
- 5 Remove the staging outer transport belt. See [“Staging outer transport belt removal” on page 1095.](#)
- 6 Remove the staging transport gears. See [“Staging transport gears removal” on page 1112.](#)
- 7 Remove the staging transport belts. See [“Staging transport belts removal” on page 1116.](#)
- 8 Remove the staging inner transport rollers. See [“Staging inner transport roller removal” on page 1226.](#)

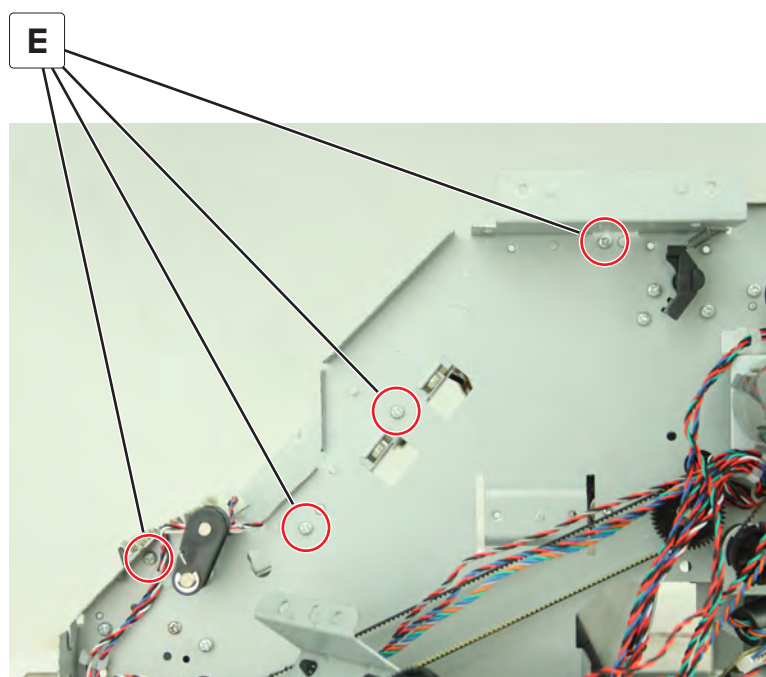
9 Disconnect the two cables (C), and then release them from their guides.



10 Remove the four screws (D).



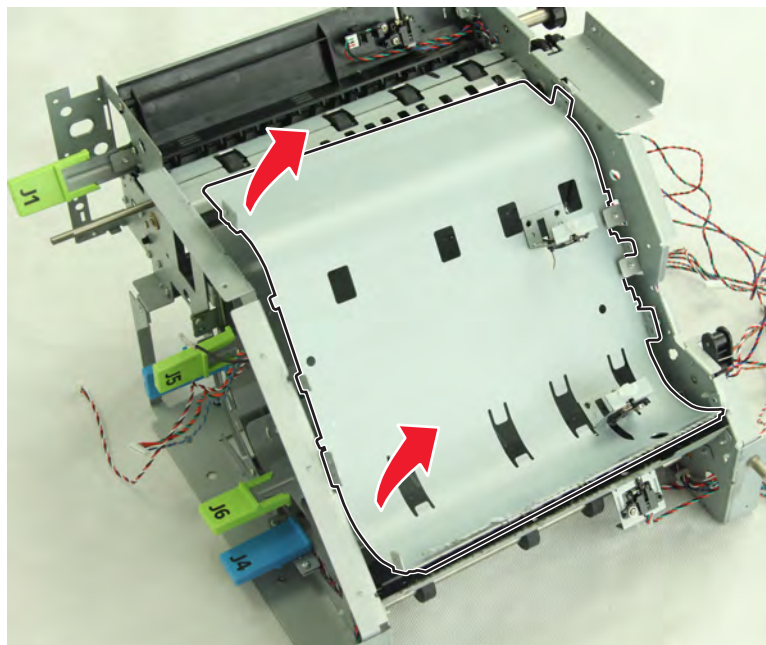
11 Remove the four screws (E).



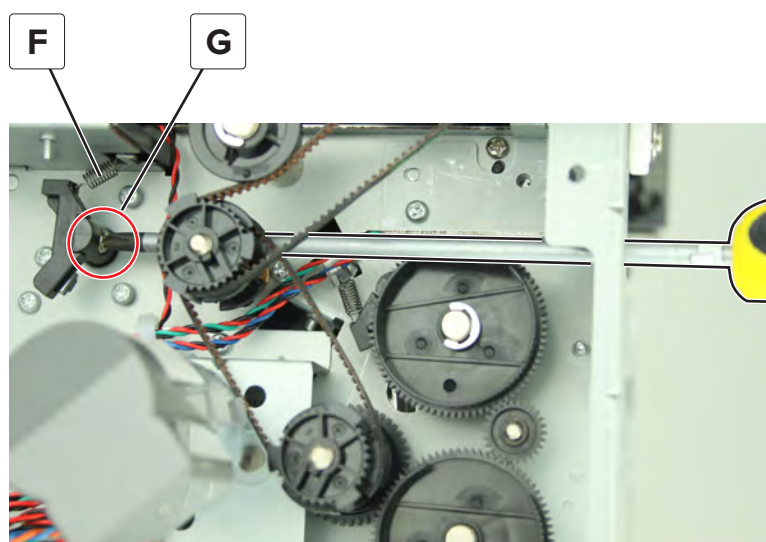
Parts removal

1233

12 Lift the front end of the plate, and then remove the plate.



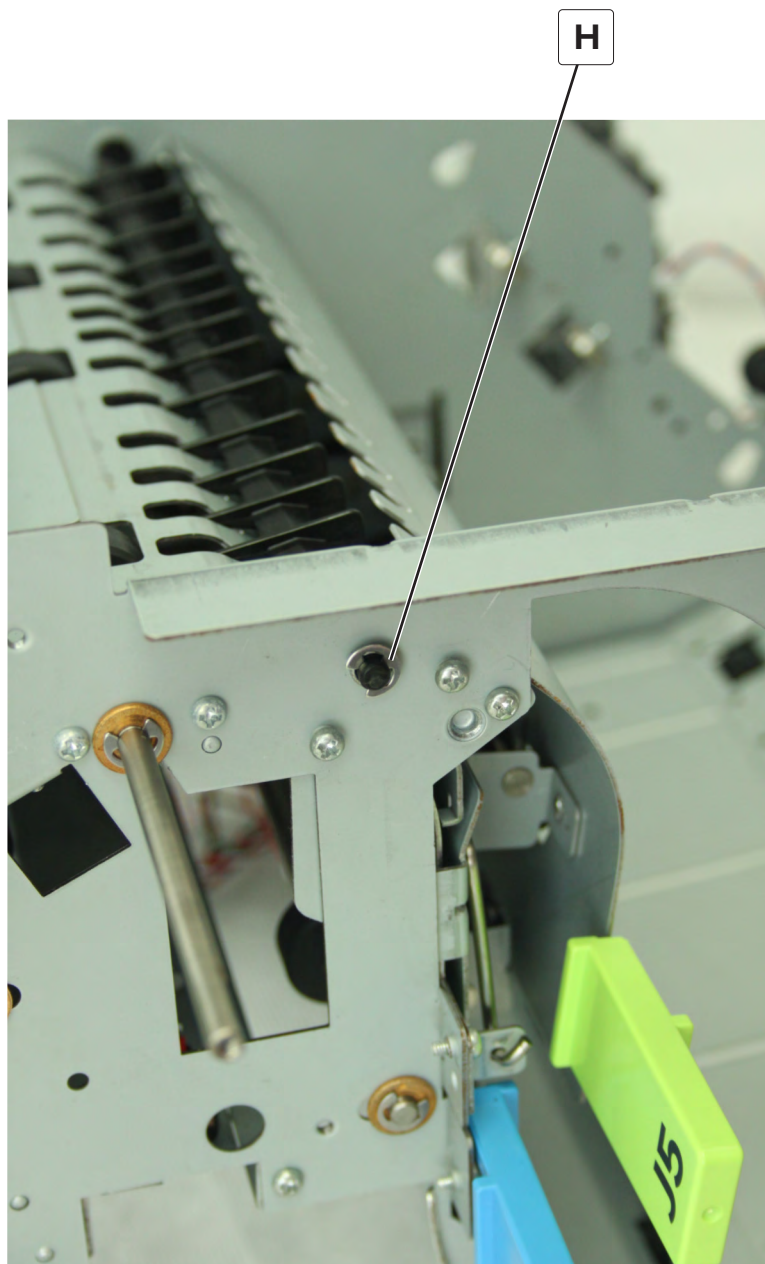
13 Unhook the spring (F), remove the screw (G), and then remove the actuator.



Parts removal

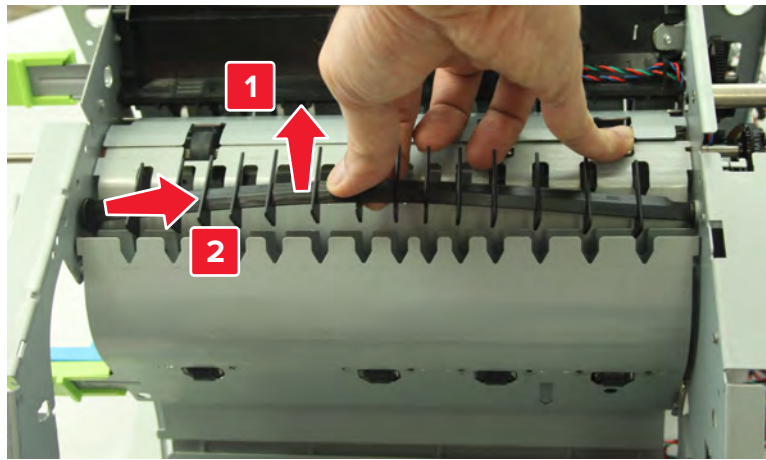
1234

14 Remove the E-clip (H).



15 Flex the diverter, and then release its front end.

Warning—Potential Damage: Carefully flex the diverter to avoid breaking it.

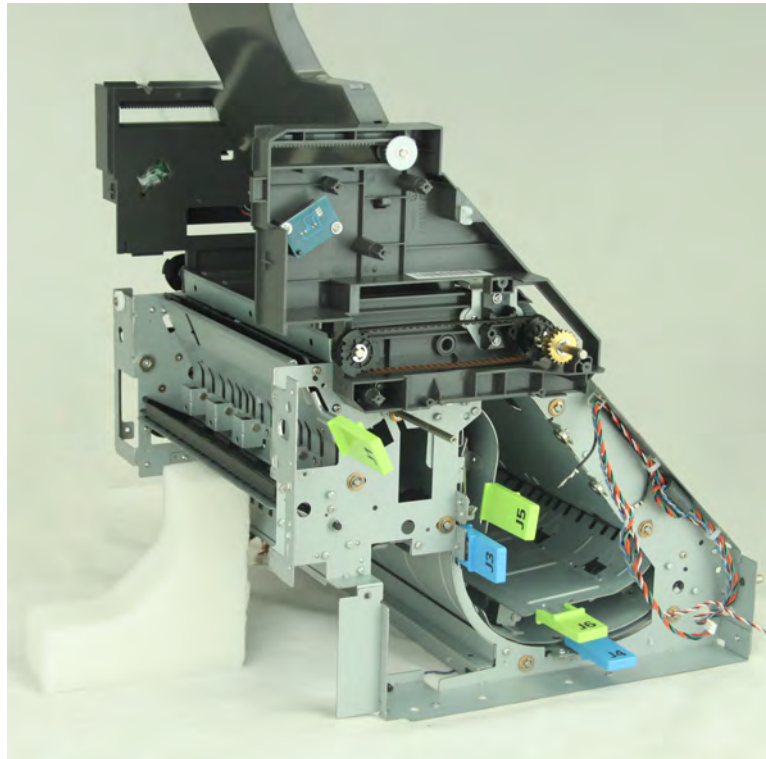


16 Remove the diverter.

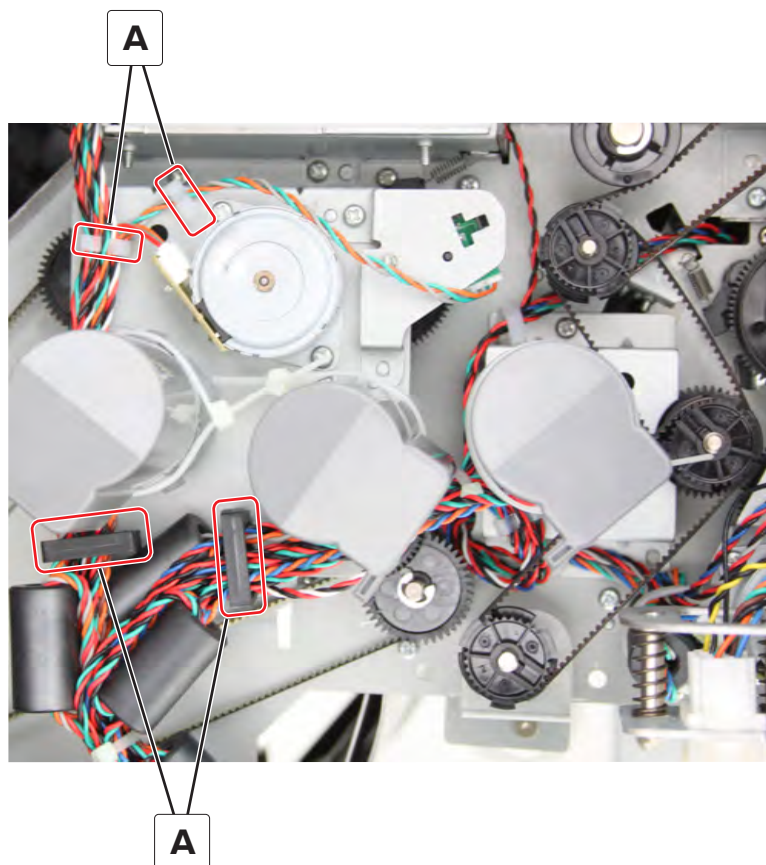
Staging exit guide removal

1 Remove the mid-transport and staging assembly. See [“Mid-transport and staging assembly removal” on page 1215.](#)

Note: Position the mid-transport and staging assembly as shown.



2 Release the cables from their guides (A), and then detach them from the bracket.

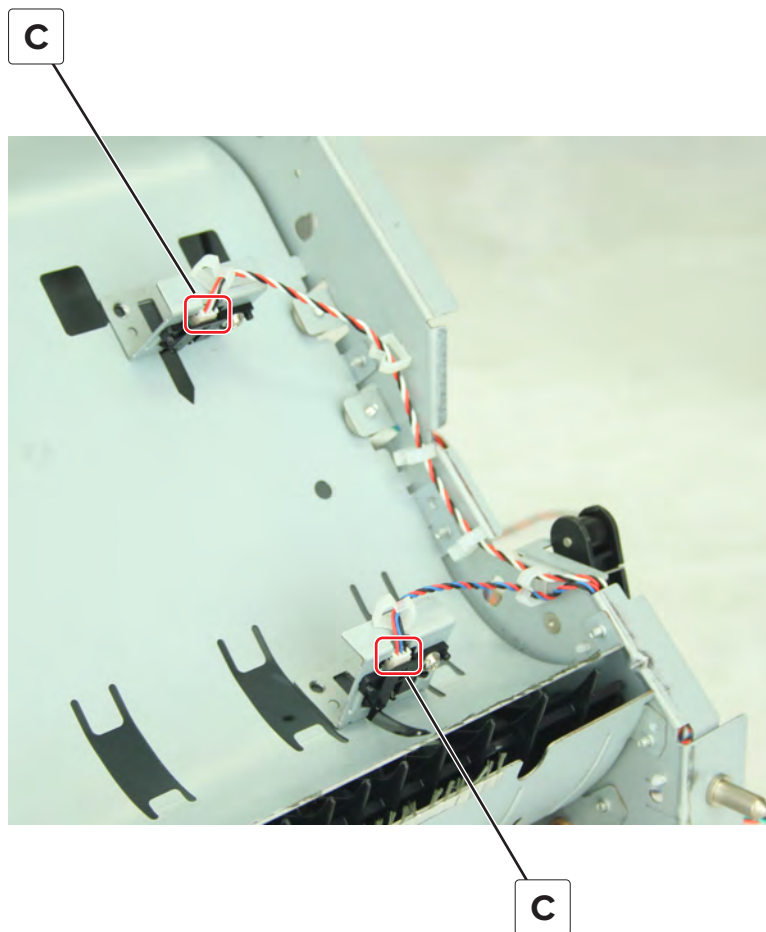


- 3** Remove the four screws (B), and then pull the bracket.

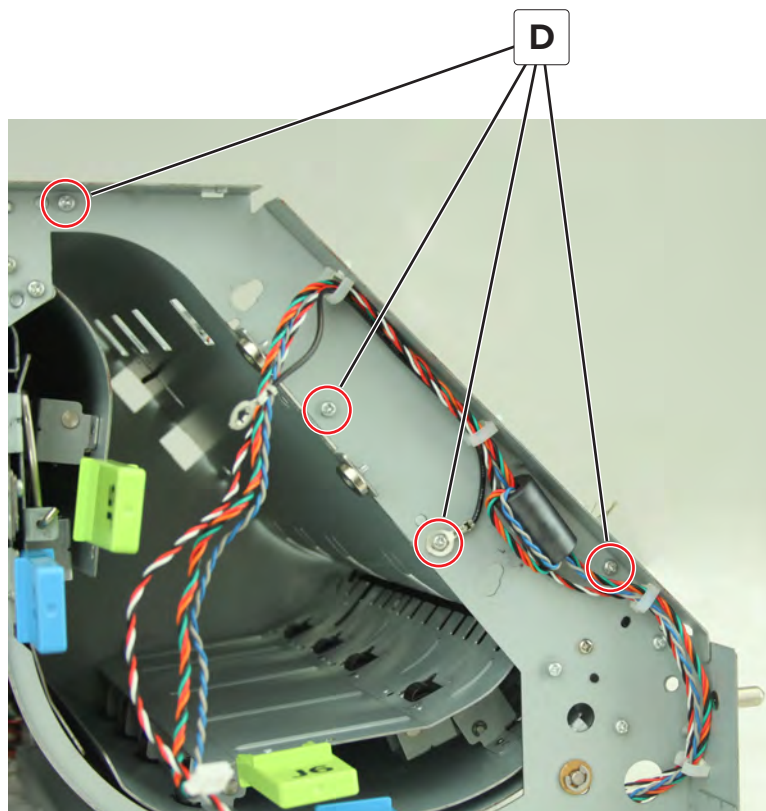


- 4** Remove the MSHPF standard bin assembly. See [“MSHPF standard bin assembly removal” on page 1221.](#)
- 5** Remove the staging outer transport belt. See [“Staging outer transport belt removal” on page 1095.](#)
- 6** Remove the staging transport gears. See [“Staging transport gears removal” on page 1112.](#)
- 7** Remove the staging transport belts. See [“Staging transport belts removal” on page 1116.](#)
- 8** Remove the staging inner transport rollers. See [“Staging inner transport roller removal” on page 1226.](#)

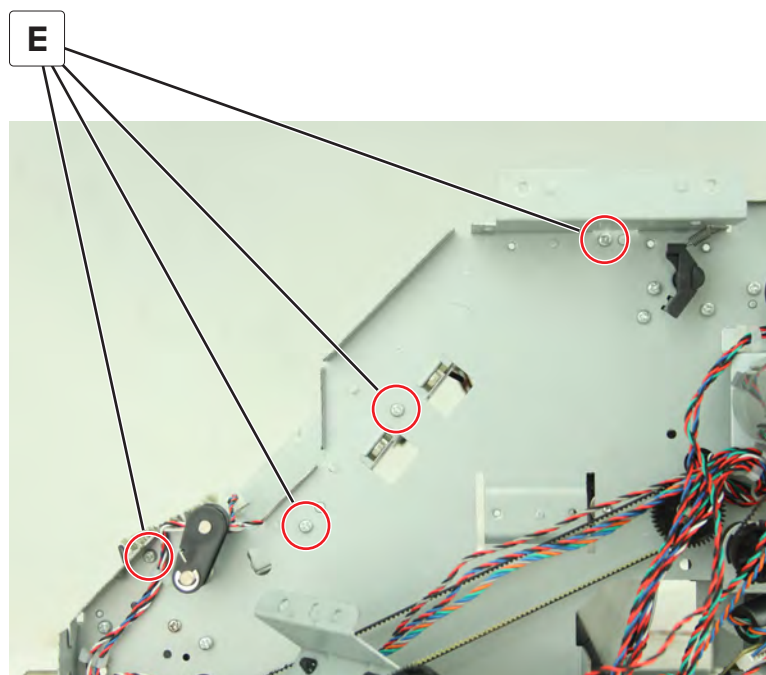
9 Disconnect the two cables (C), and then release them from their guides.



10 Remove the four screws (D).



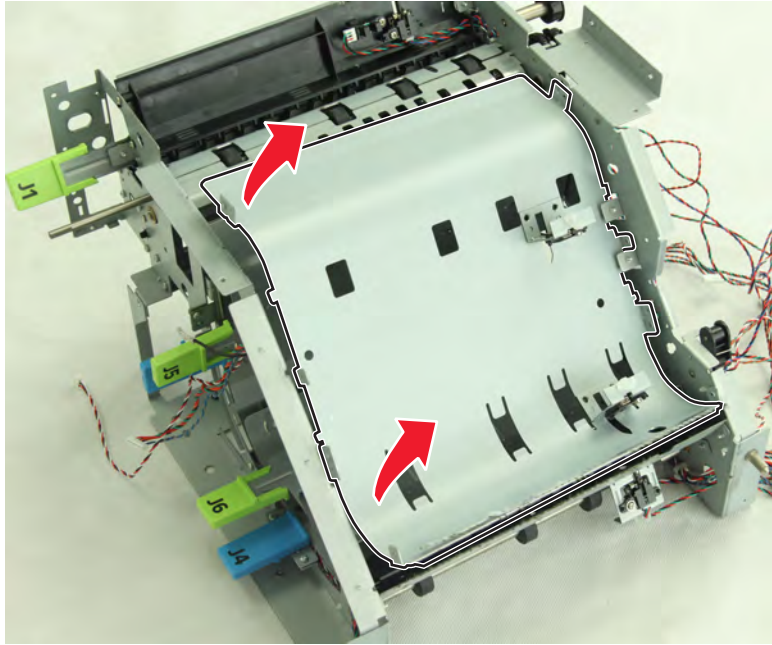
11 Remove the four screws (E).



Parts removal

1240

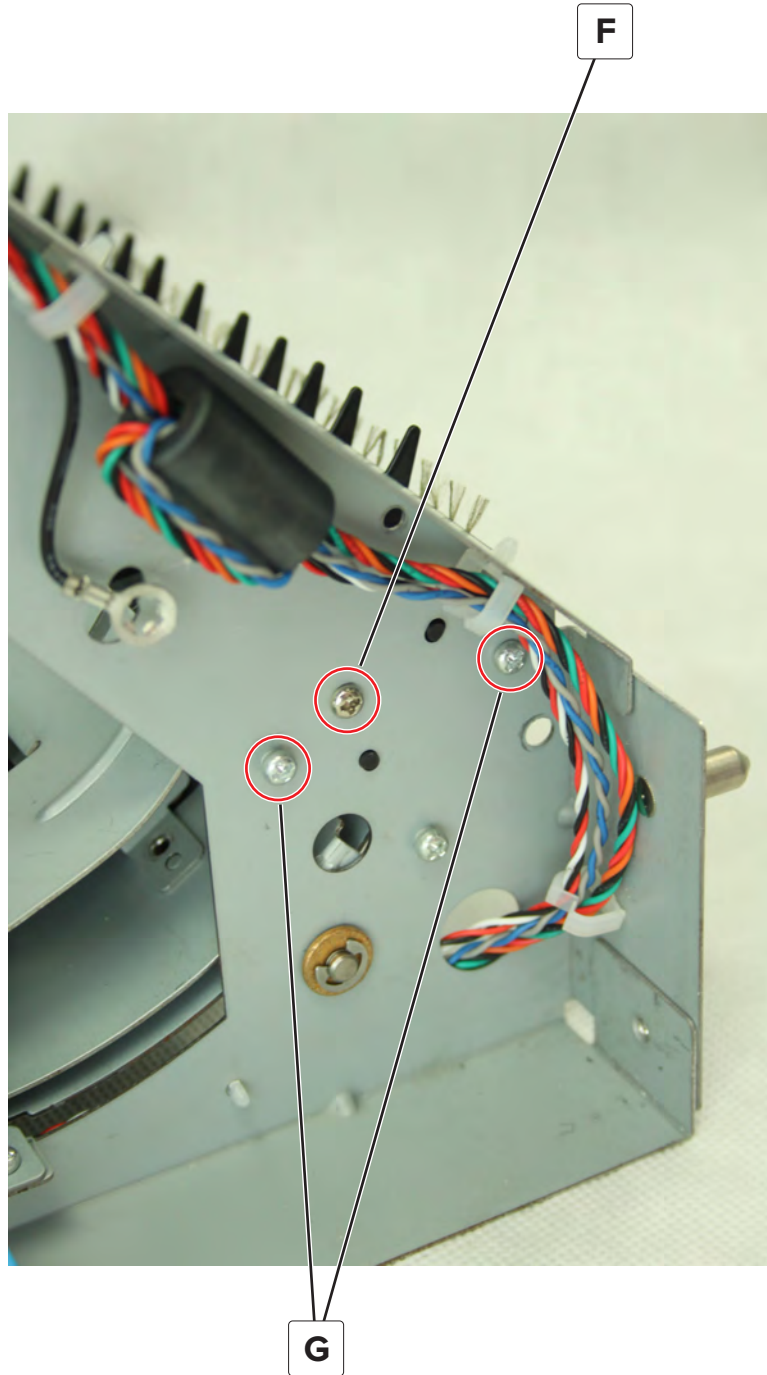
12 Lift the front end of the plate, and then remove the plate.



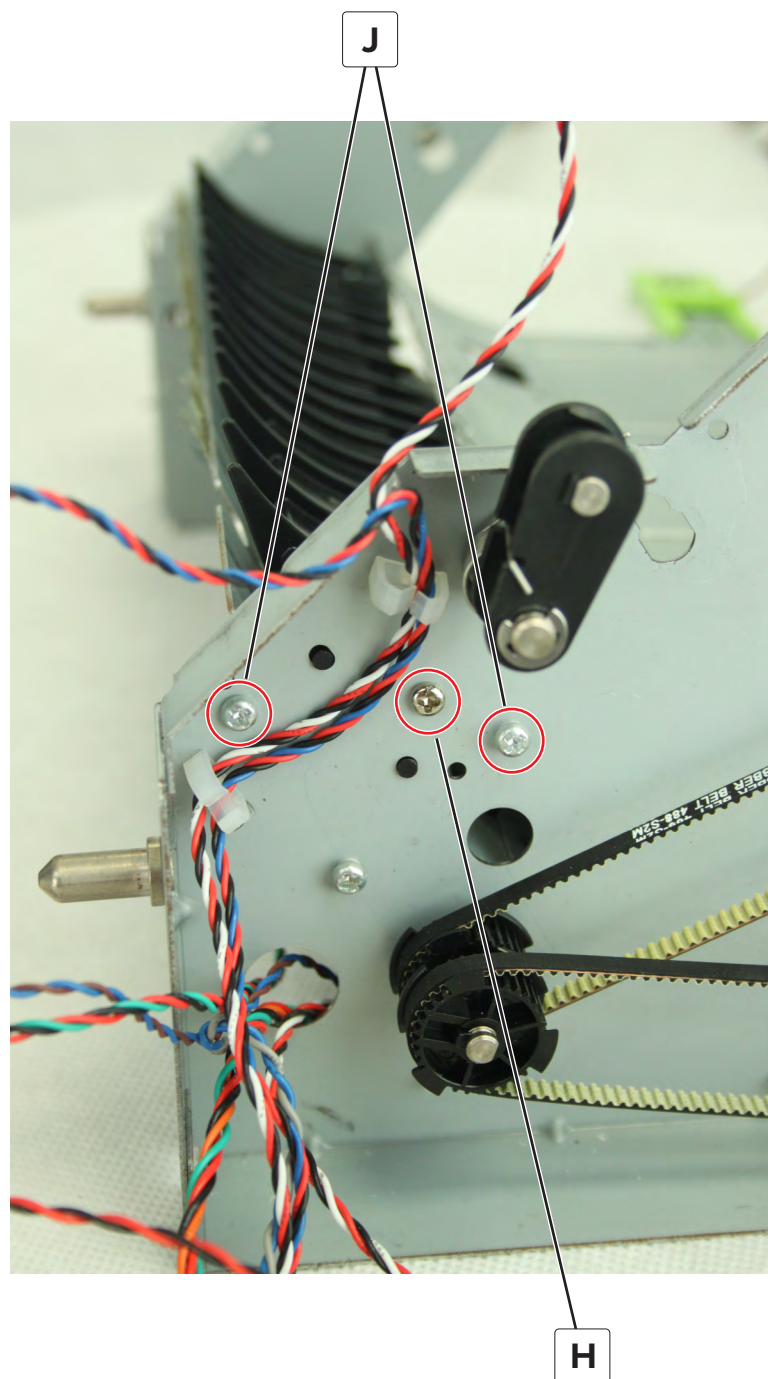
Parts removal

1241

13 Remove the screw (F), and then loosen the two screws (G).



14 Remove the screw (H), and then loosen the two screws (J).



15 Slightly flex the left and right frames outward to release the guide, and then remove the guide.

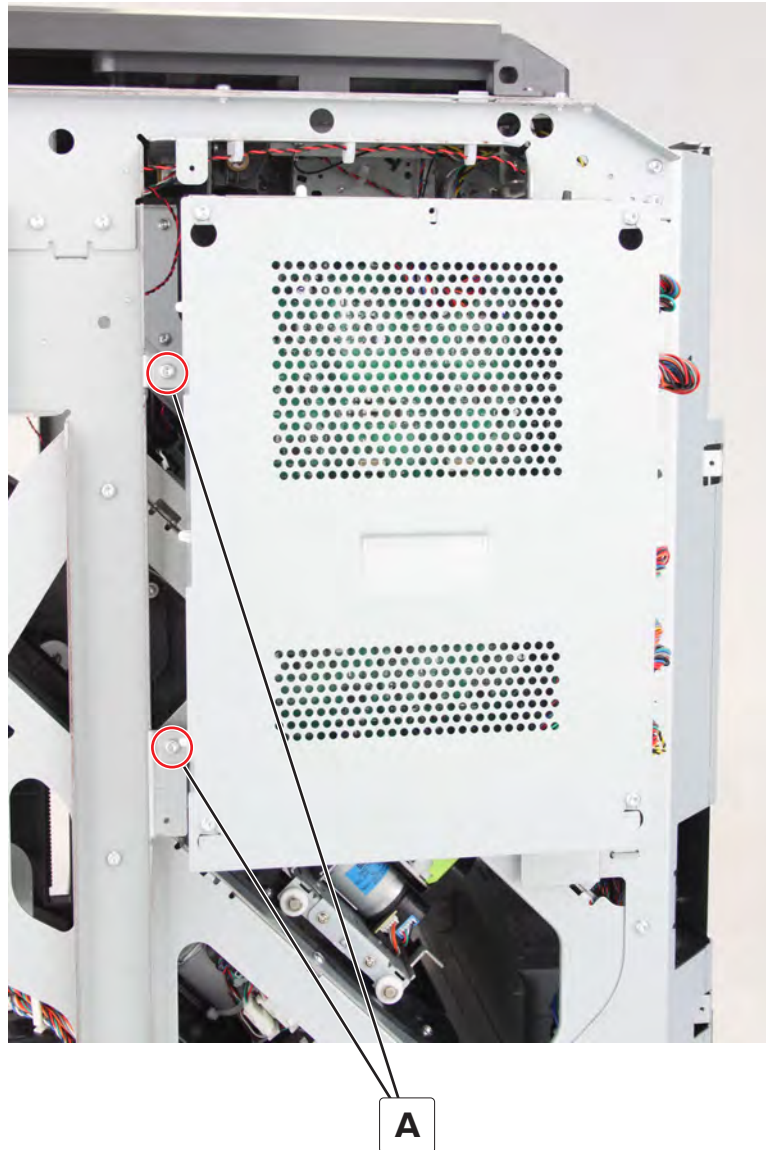
Multiposition stapler assembly removals

Multiposition stapler assembly removal

Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position.**

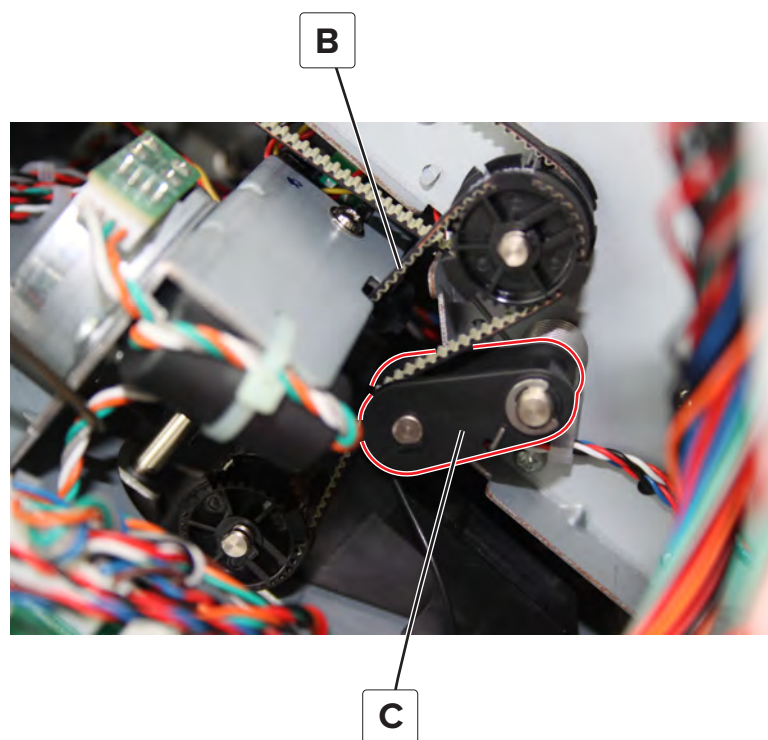
- 1 Remove the MSHPF front door. See [“MSHPF front door removal” on page 1025.](#)
- 2 Remove the knobs J2 and J7. See [“Knobs J2 and J7 removal” on page 1027.](#)
- 3 Remove the MSHPF door hinge. See [“MSHPF door hinge removal” on page 1028.](#)
- 4 Remove the MSHPF front left cover. See [“MSHPF front left cover removal” on page 1029.](#)
- 5 Remove the MSHPF inner front cover. See [“MSHPF inner front cover removal” on page 1030.](#)
- 6 Remove the MSHPF left front cover. See [“MSHPF left front cover removal” on page 1046.](#)
- 7 Remove the MSHPF controller board cover. See [“MSHPF controller board cover removal” on page 1048.](#)
- 8 Remove the MSHPF right cover. See [“MSHPF right cover removal” on page 1050.](#)
- 9 Remove the MSHPF bottom right cover. See [“MSHPF bottom right cover removal” on page 1051.](#)
- 10 Remove the stapler bin cave cover. See [“Stapler bin cave cover removal” on page 1052.](#)
- 11 Remove the MSHPF right frame cover. See [“MSHPF right frame cover removal” on page 1055.](#)
- 12 Remove the MSHPF rear cover. See [“MSHPF rear cover removal” on page 1058.](#)

13 Remove the two screws (A), and then open the cage.

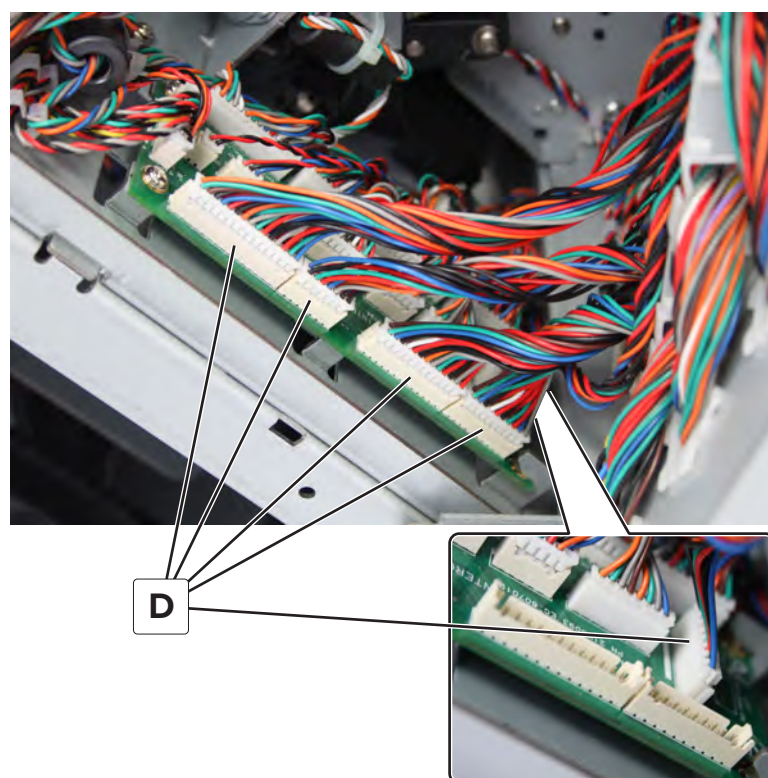


14 Remove the compiler entrance belt (B).

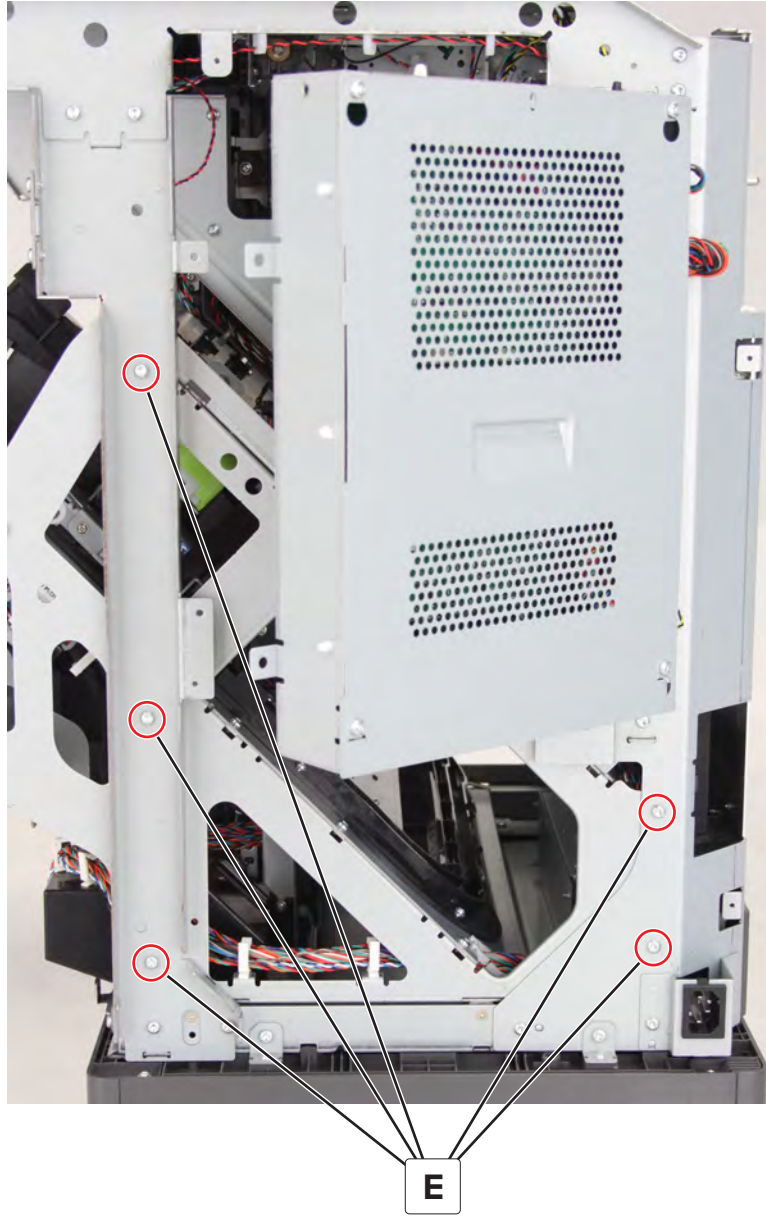
Installation note: Engage the belt with its tensioner (C) properly.



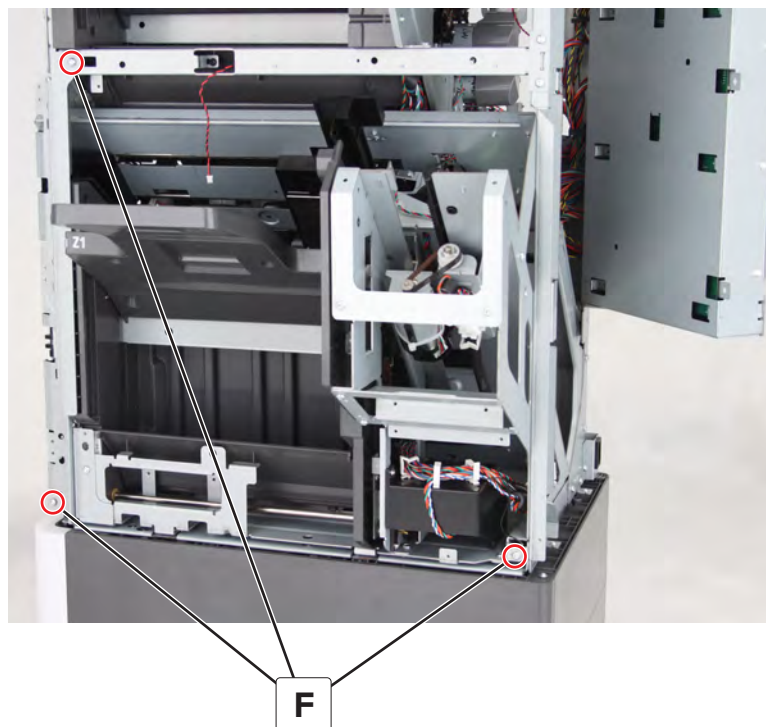
15 Disconnect the cables (D) J1, J2, J4, J5, and J3 from the interface board.



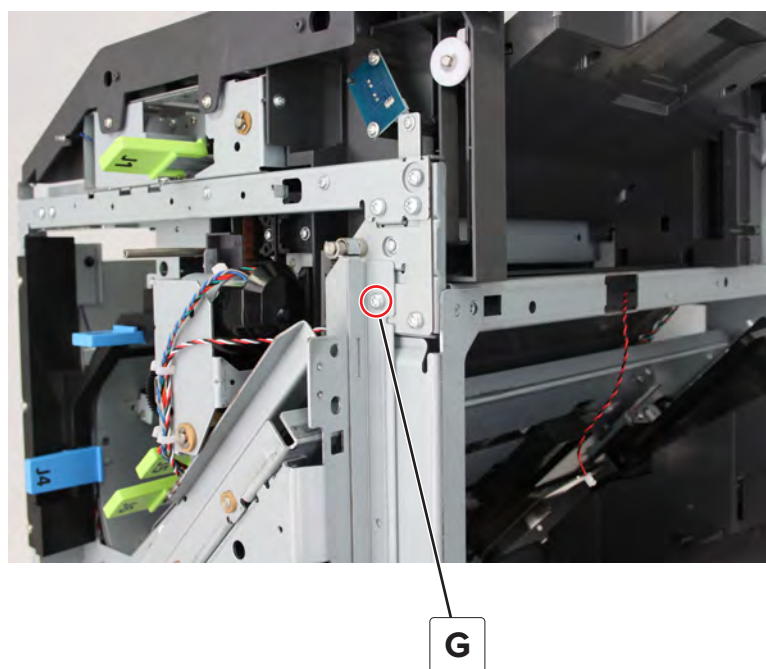
16 Remove the five screws (E).



17 From the right, remove the three screws (F).



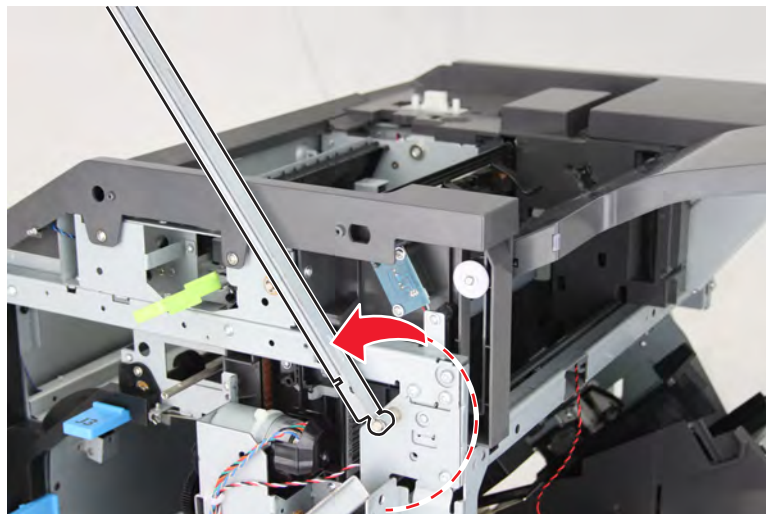
18 From the front, remove the screw (G).



Parts removal

1248

19 Swing the frame brace upward.



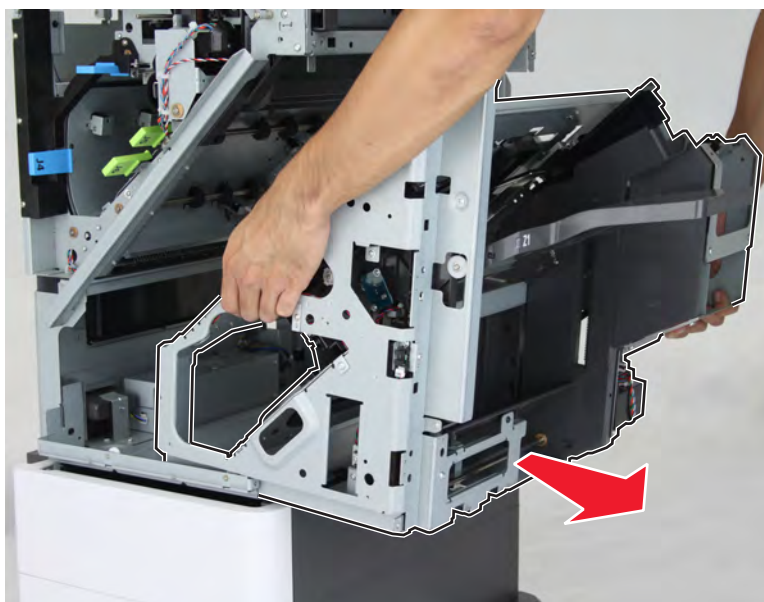
Installation note: The lower tab (H) of the brace goes under the slot.



H

20 Pull out the assembly.

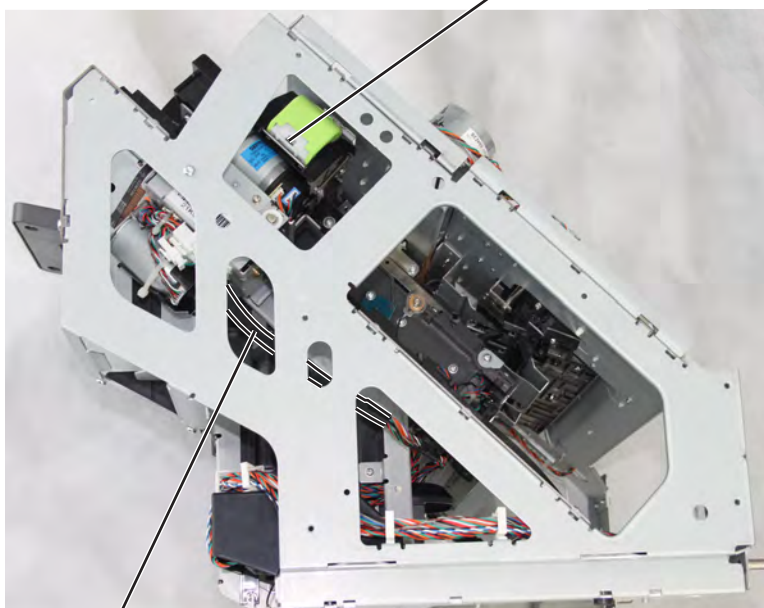
Note: Take note of the holding positions.



Warning—Potential Damage: Lower down the brace to its original position, or the finisher frame may deform.

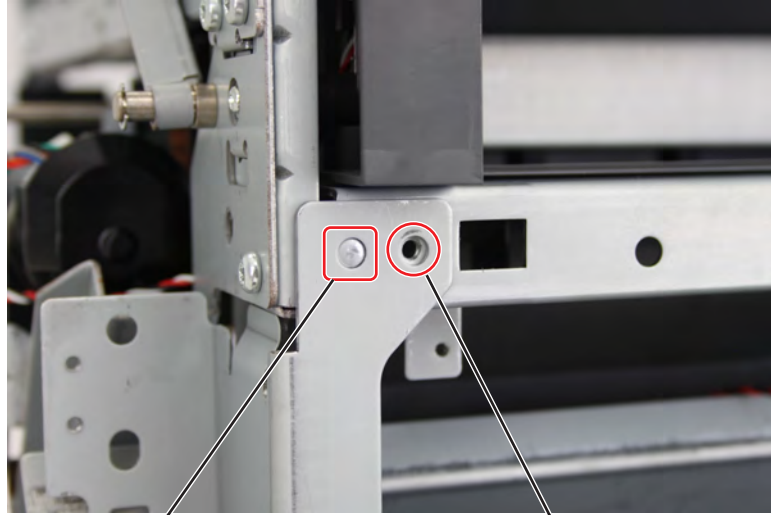


Installation warning: Make sure that the stapler carriage (A) is in the service position, or the carriage cable (B) may snag when pushing the multiposition stapler assembly back in.

**A****B****Installation notes:**

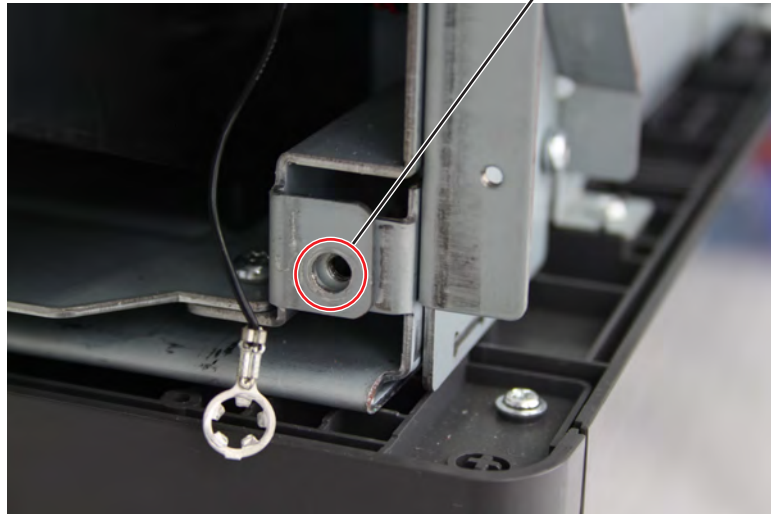
- a** Tuck the interface board cables out of the way to avoid snags.
- b** Align the multiposition stapler assembly along the rear side of the finisher when pushing it back in.

c Align the locating pins (C) and screw holes (D).



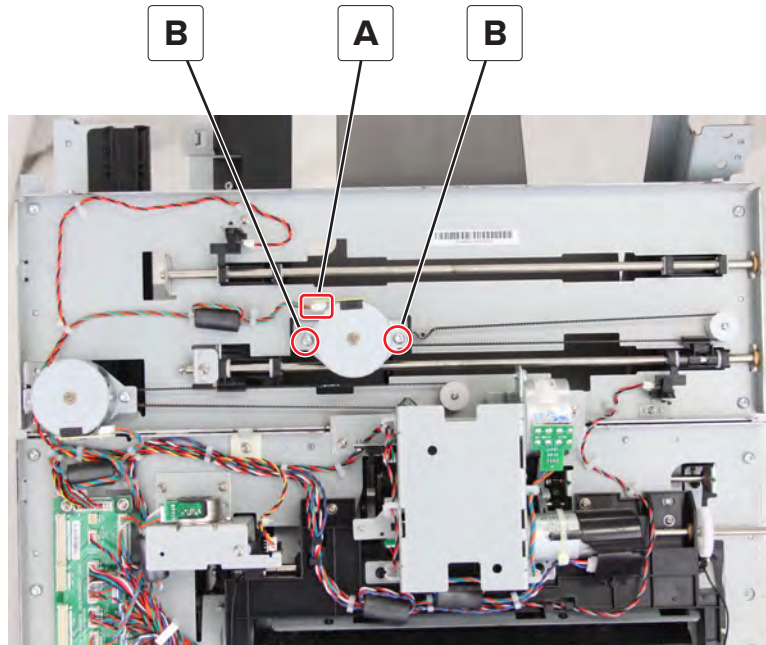
C

D



Motor (MSHPP front tamper) removal

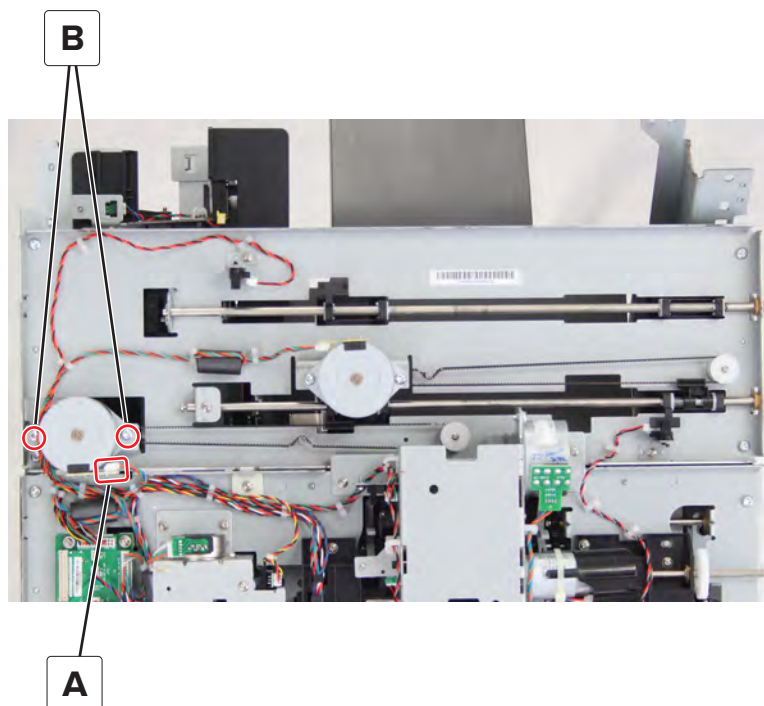
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).



- 3 Remove the motor.

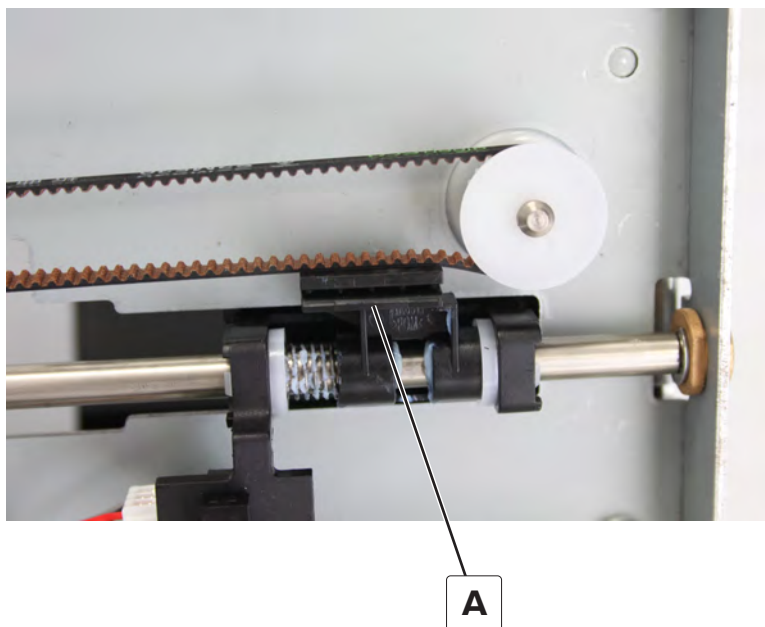
Motor (MSHPP rear tamper) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).



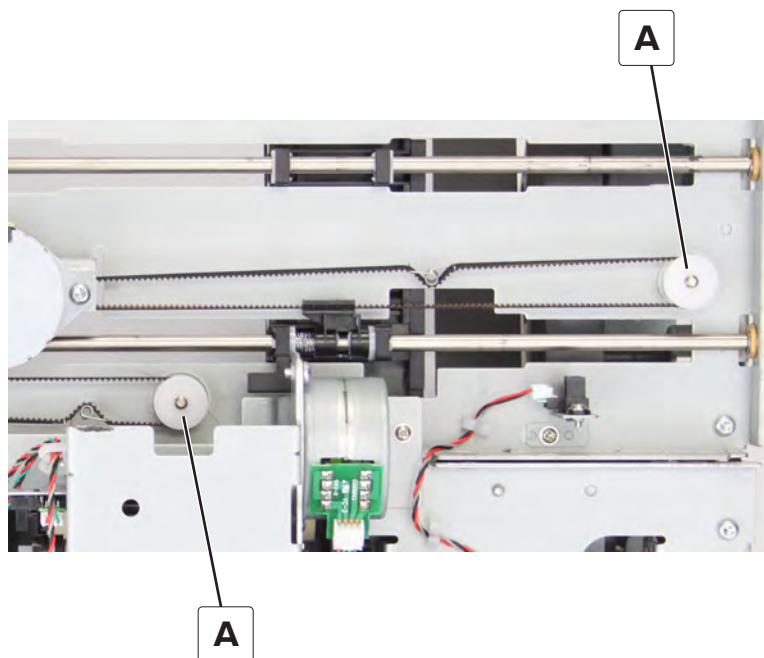
- 3 Remove the motor.

- b** For the front tamper belt, slide the clip (A) as far to the front as possible. For the rear tamper belt, slide the clip (A) as far to the rear as possible.

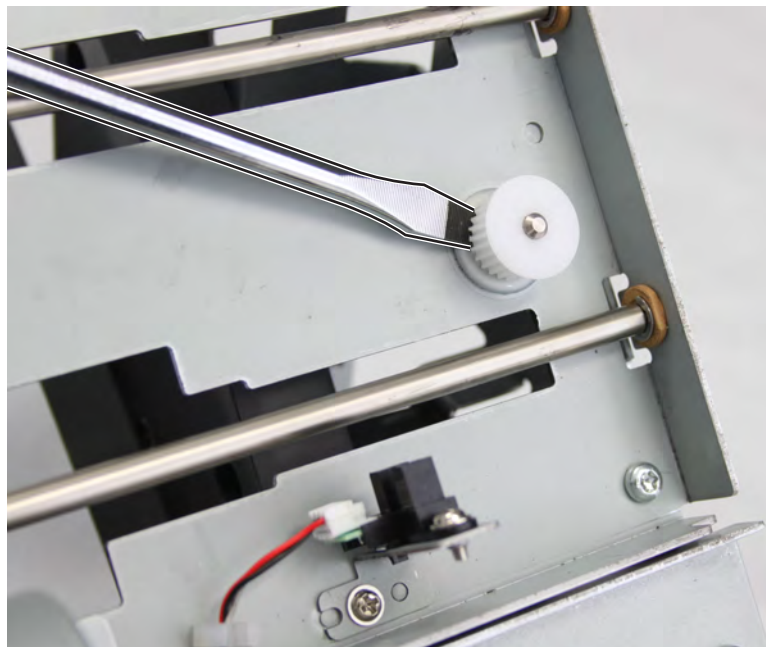


MSHPF tamper pulley gear removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Release the belt from the appropriate pulley (A).

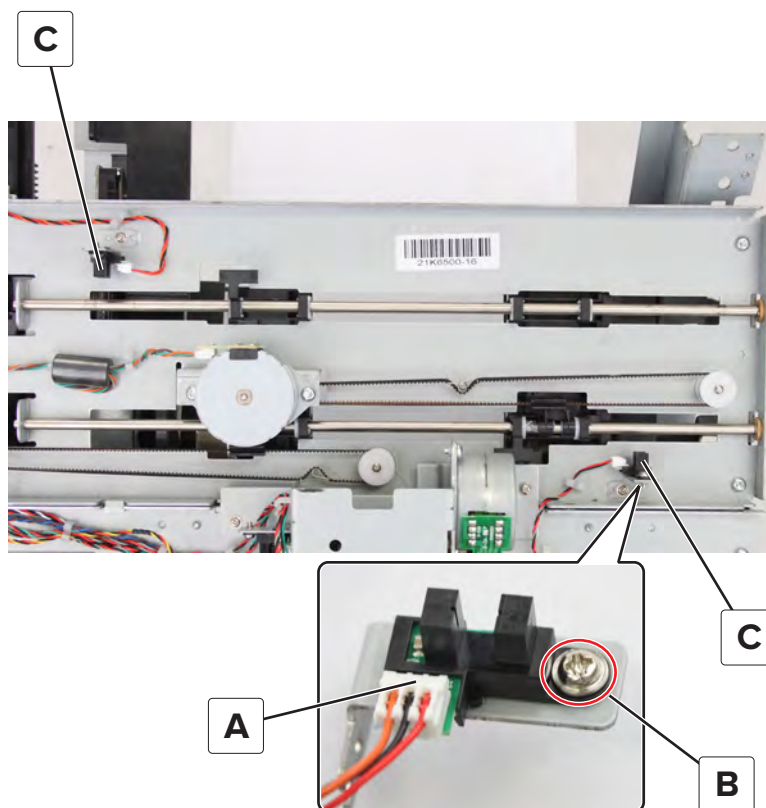


- 3** Pry the pulley gear with a flat-blade screwdriver to release, and then remove.



Sensor (MSHPF tamper) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the screw (B) from the appropriate sensor (C).

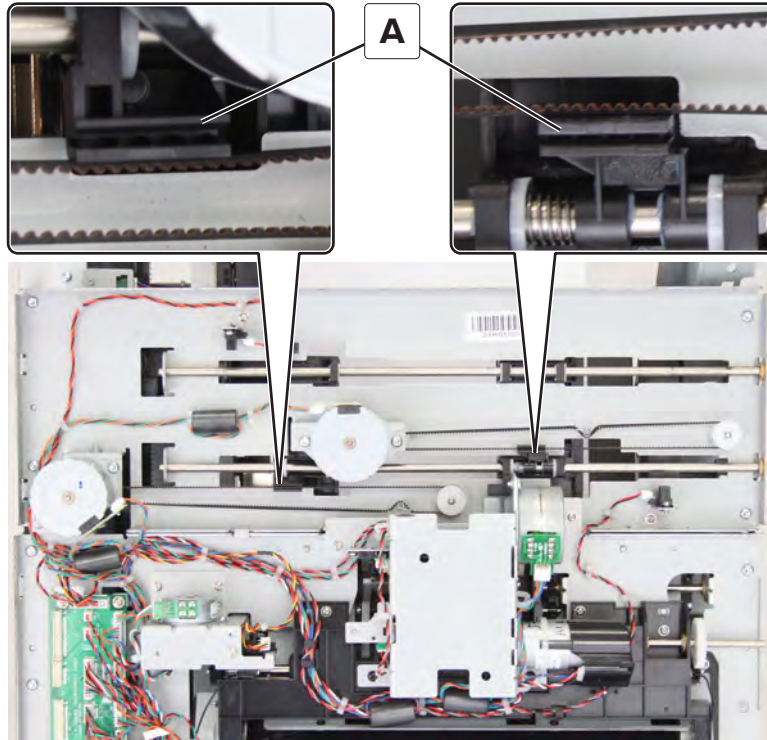


- 3 Remove the sensor.

MSHPF tampers removal

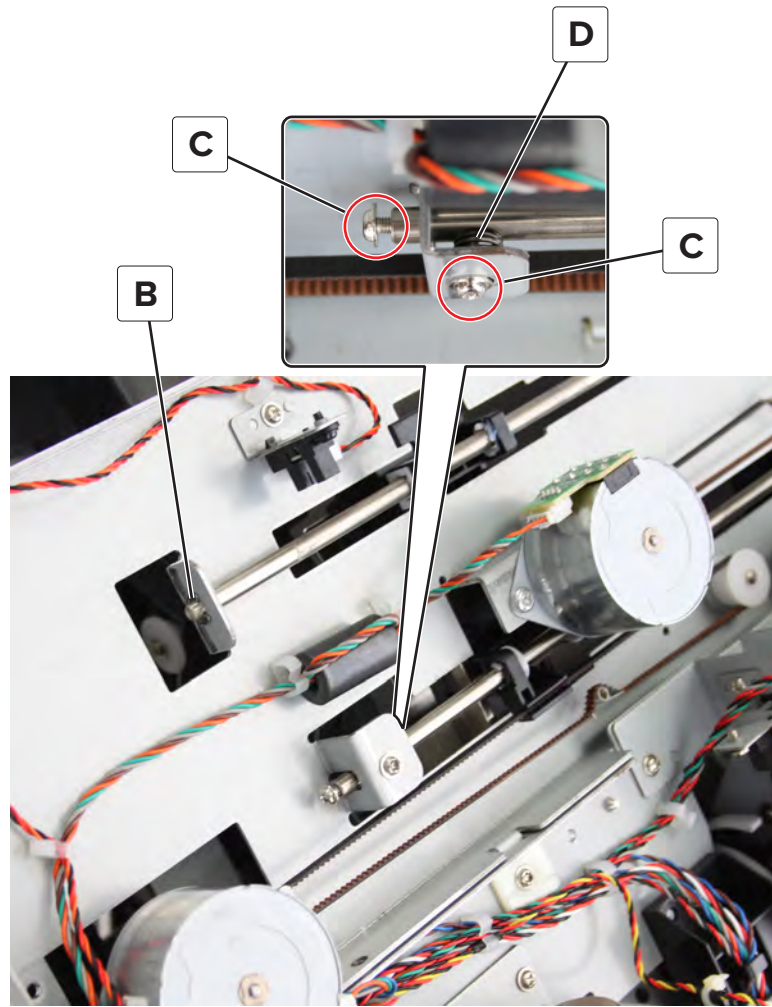
Note: For a video demonstration, see [MSHPF tampers removal](#).

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).
- 2 Release the belts from the clips (A).



- 3 From the rear, remove the E-clip (B), and then remove the two screws (C).

Warning—Potential Damage: Do not lose the spring (D).



Parts removal

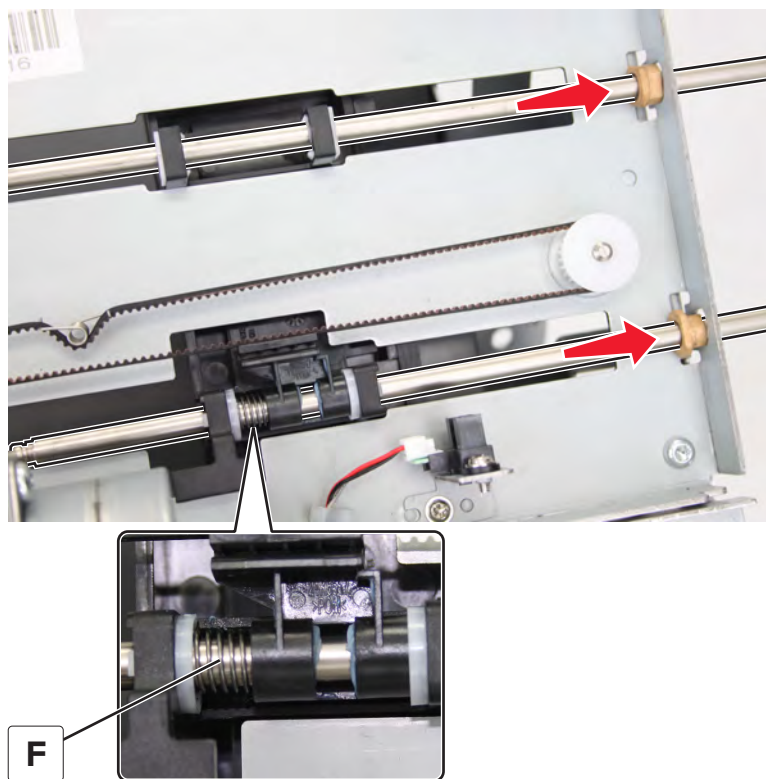
1260

- 4 From the front, remove the two E-clips (E).



- 5 Slide the shafts out of the frame.

Note: For the rear tamper belt, take note of the original position of the spring (F).



6 Remove the rear or front tamper.

Installation note: Perform the MSHPF tamper alignment adjustment after installing the tamper. See [“MSHPF tamper alignment adjustment” on page 675](#).

Note: For a video demonstration, see the *CX860 MSHPF tampers removal* at infoserve.lexmark.com/videos/sfin_tampers_removal.html.

Compiler interface board removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect all the cables, and then remove the two screws (A).

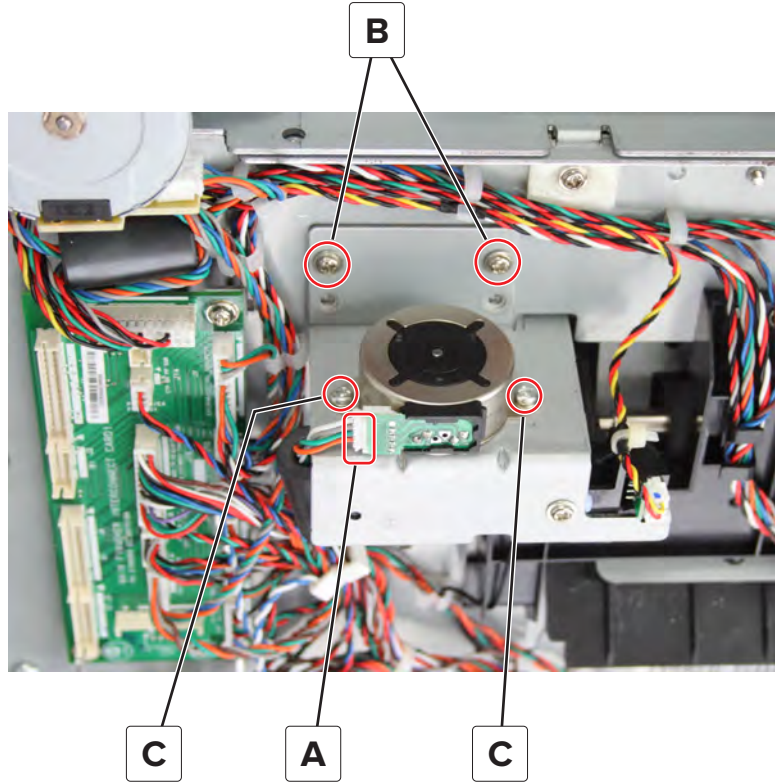


- 3 Remove the board.

Motor (compiler stack height) removal

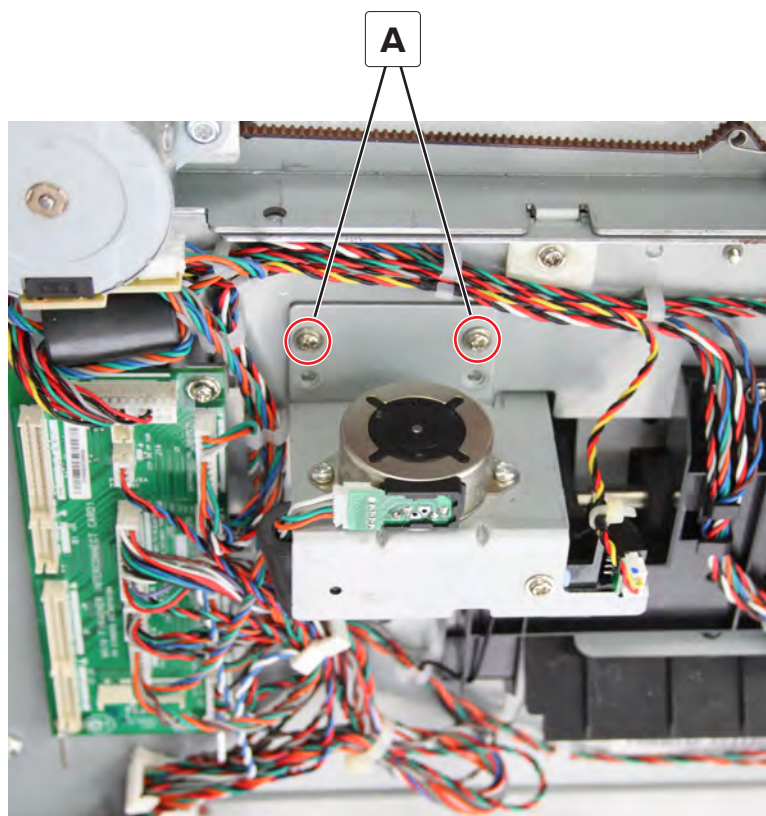
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).

3 Lift the bracket, remove the two screws (C), and then remove the motor.

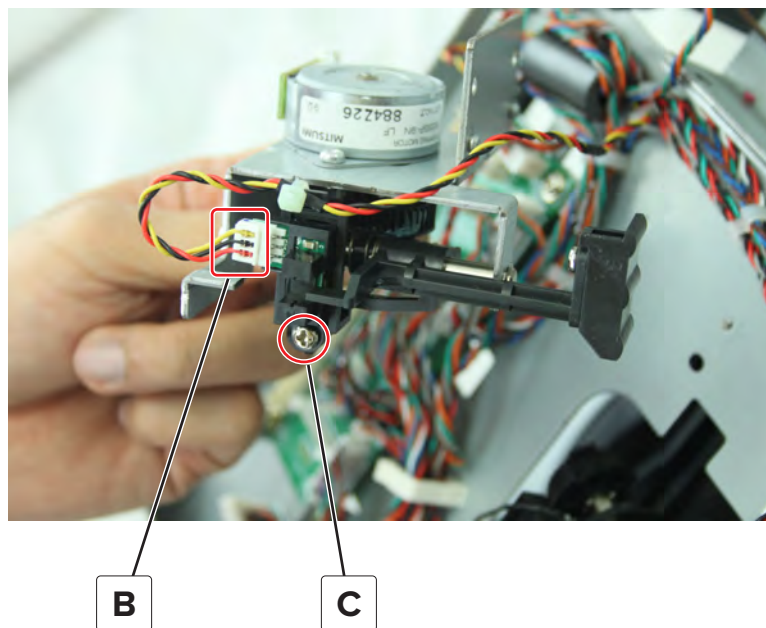


Sensor (compiler stack height) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal”](#) on page [1244](#).
- 2 Remove the two screws (A), and then lift the bracket.

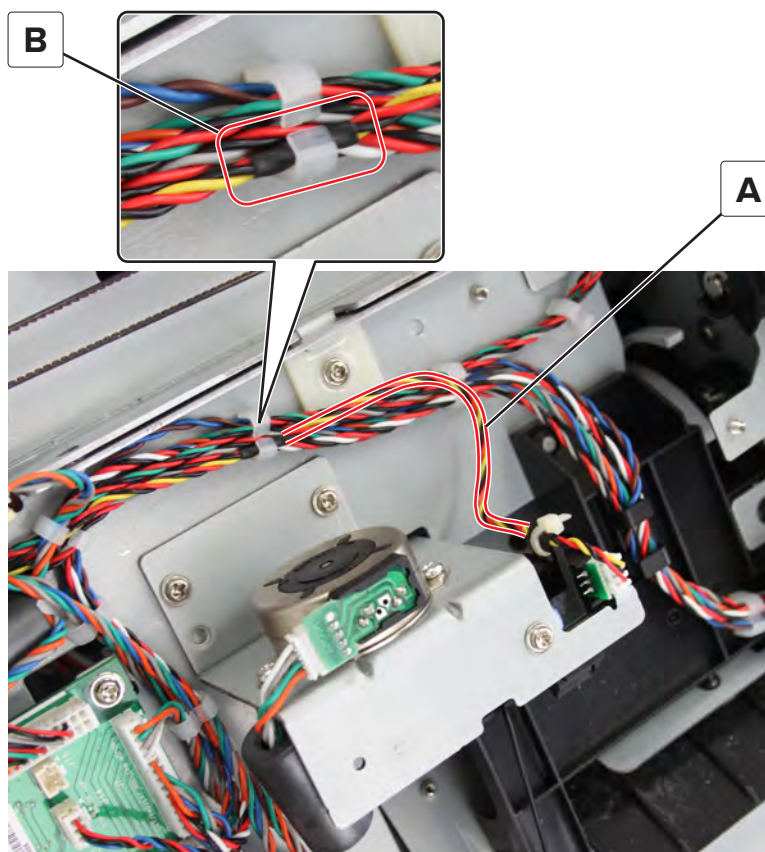


3 Lower the sensor, disconnect the cable (B), and then remove the screw (C).



4 Remove the sensor.

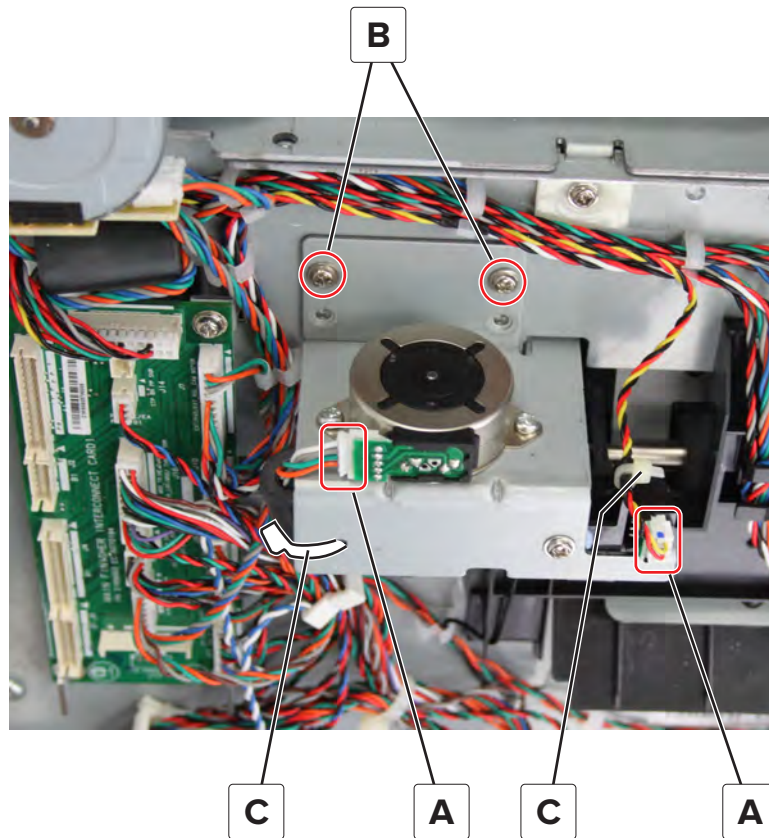
Installation note: Route the sensor cable as shown. The segment of the cable (A) routes through the cable guide and then directly to the sensor. The cable guide should wrap around the shrink tube (B) of the cable.



Stack height assembly removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the two cables (A), remove the two screws (B), and then cut the cable ties (C).

Installation warning: Replace the cable ties, or the cables may interfere with moving parts.

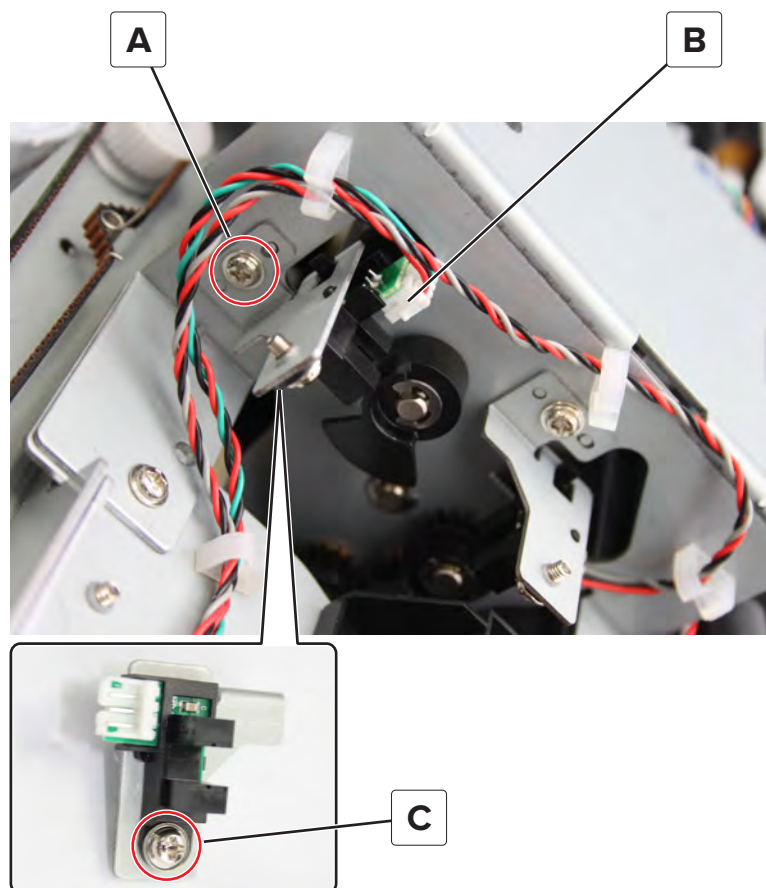


- 3 Remove the assembly.

Sensor (compiler exit cam) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the screw (A), disconnect the cable (B), and then remove the bracket.

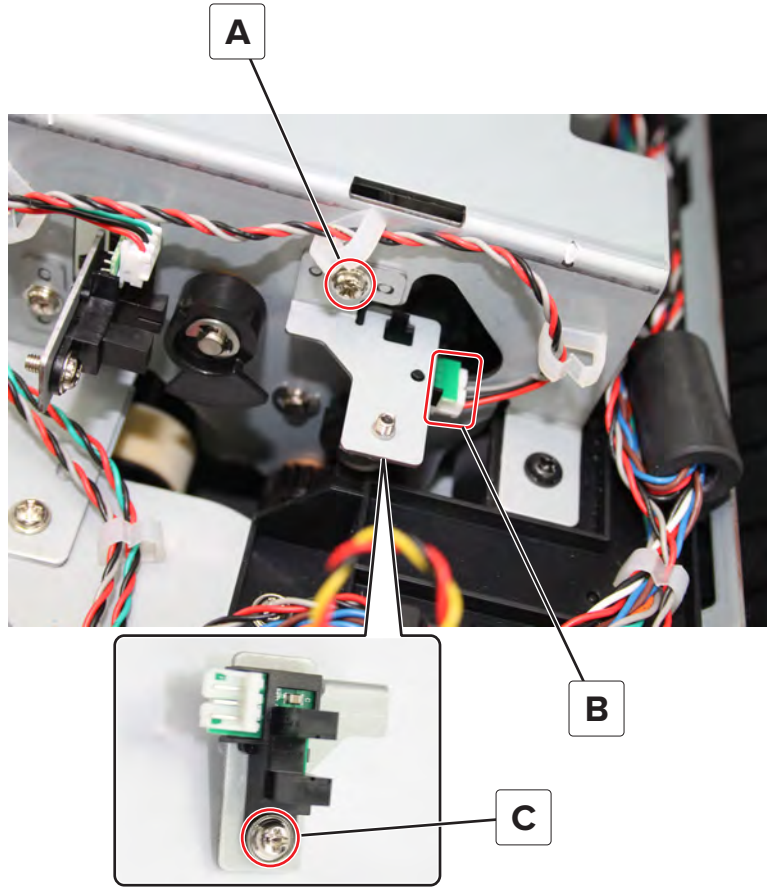
3 Remove the screw (C), and then remove the sensor.



Sensor (compiler paddle) removal

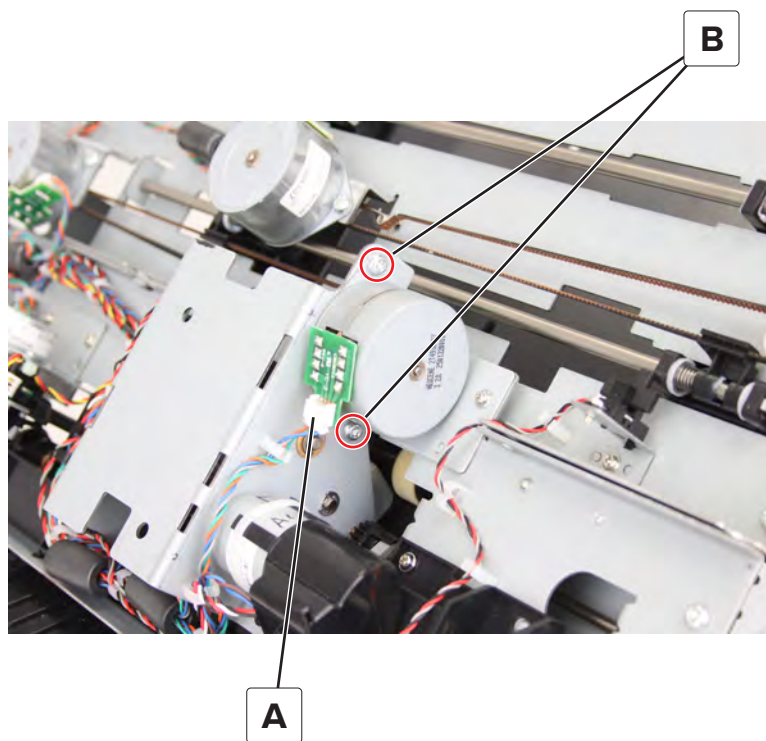
- 1** Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2** Remove the screw (A), disconnect the cable (B), and then remove the bracket.

3 Remove the screw (C), and then remove the sensor.



Motor (compiler exit cam) removal

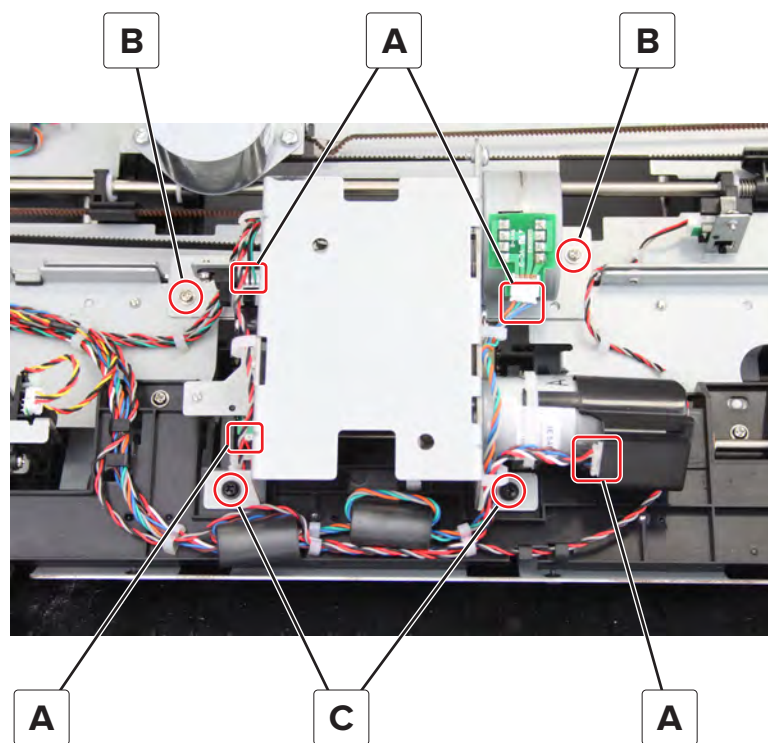
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the two screws (B).



- 3 Remove the motor.

Compiler paddle and exit drive removal

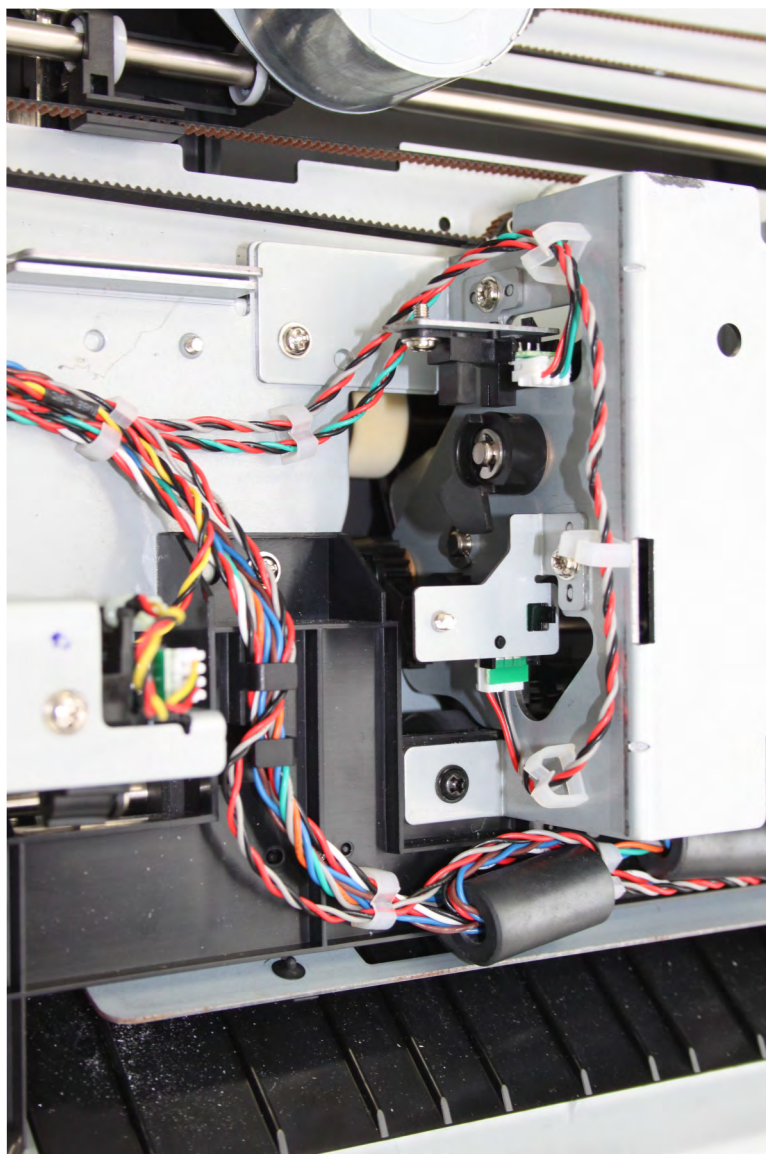
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the four cables (A), and then remove the four screws (B and C).



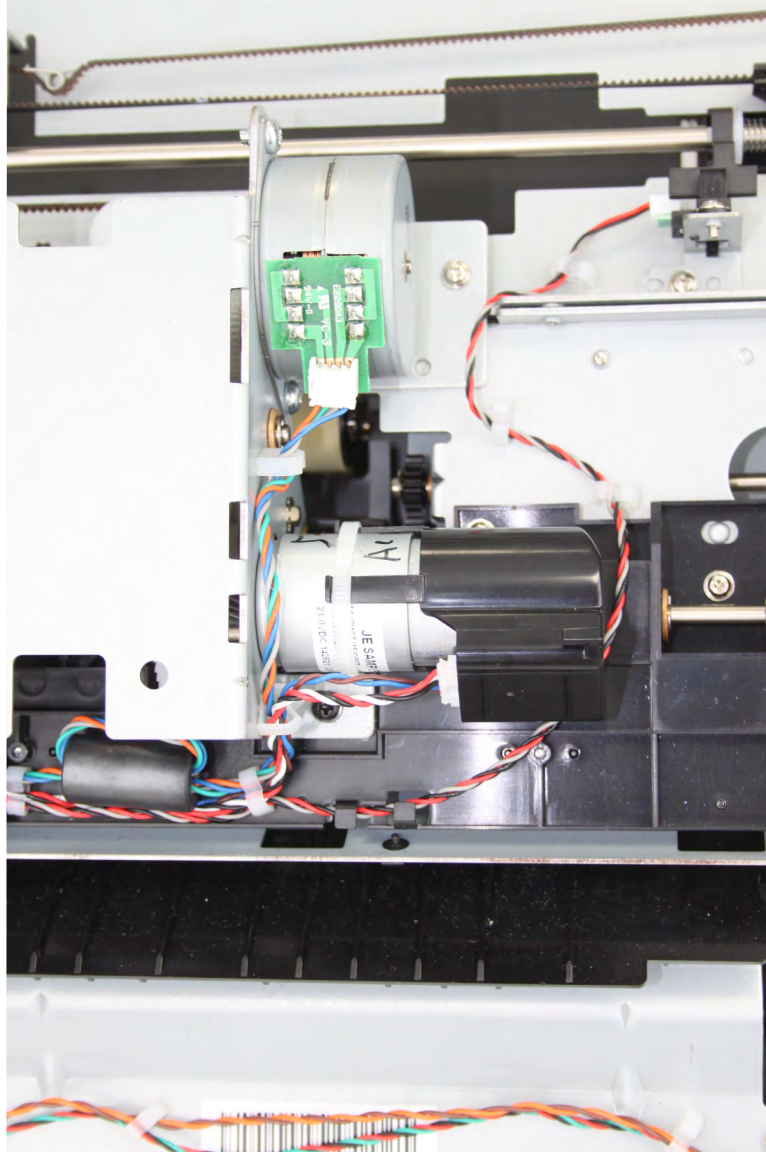
- 3 Release the cables, and then remove the assembly.

Installation notes:

- a Route the cables properly on the rear side.



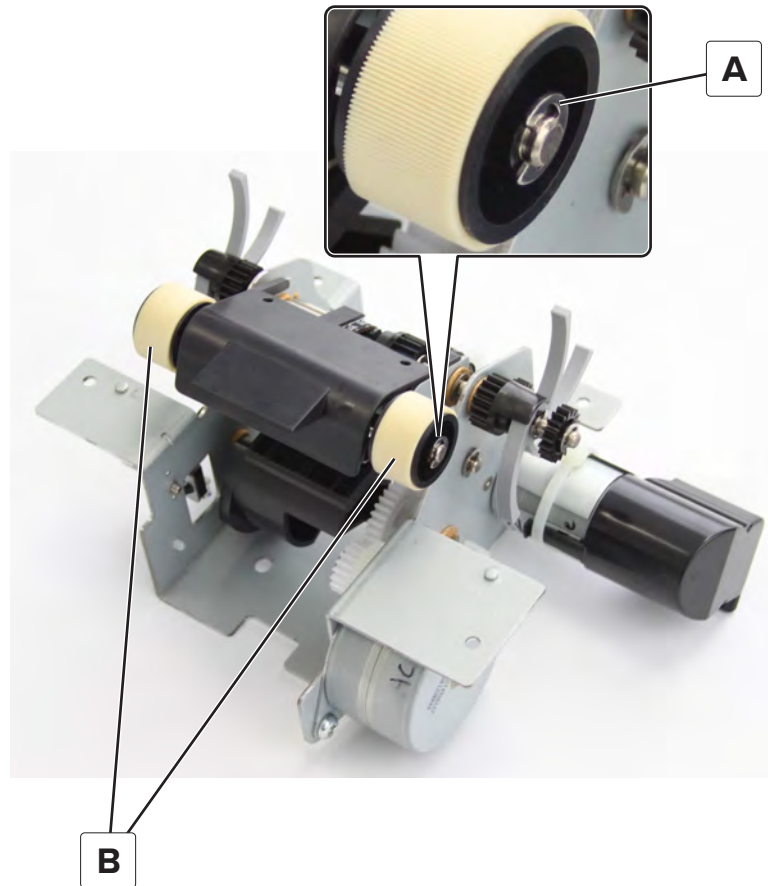
- b** Route the cables properly on the front side.



Compiler exit roller removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the compiler paddle and exit drive. See [“Compiler paddle and exit drive removal” on page 1271.](#)

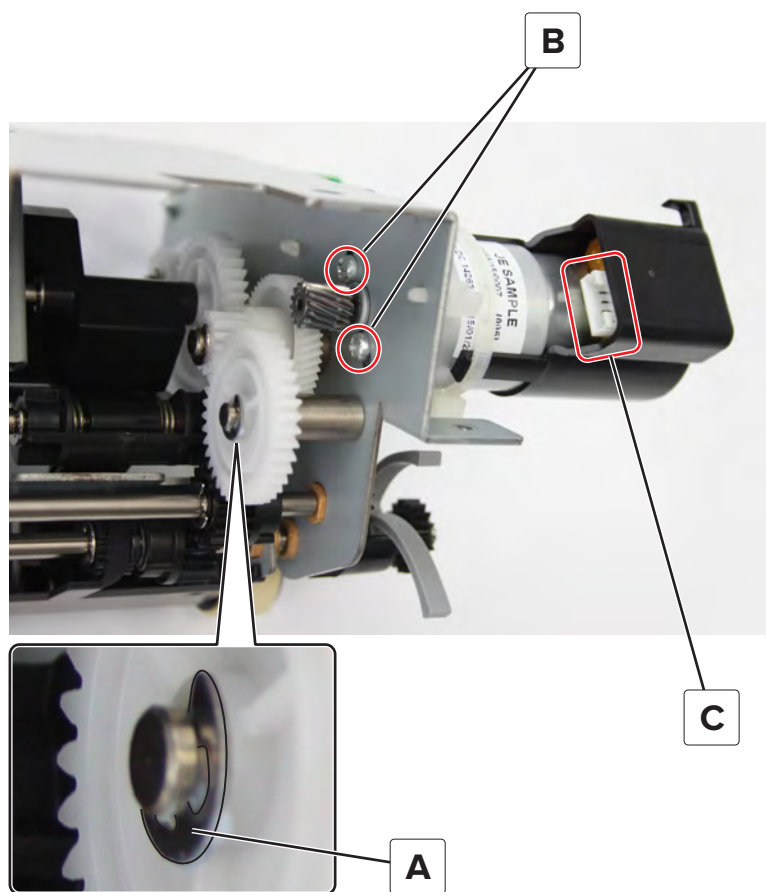
- 3 Remove the E-clip (A) from each roller (B), and then remove the rollers.



Motor (compiler paddle) removal

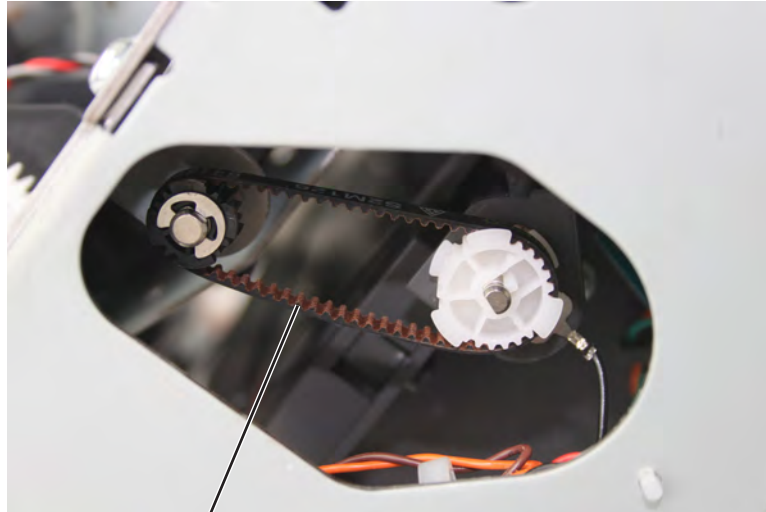
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the compiler paddle and exit drive. See [“Compiler paddle and exit drive removal” on page 1271.](#)
- 3 Remove the E-clip (A), and then remove the gear.
- 4 Remove the two screws (B), and then remove the motor.

Note: Take note of the original orientation of the motor cable socket (C).



Stapler bin lower exit roller belt removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 From the front, remove the belt (A).

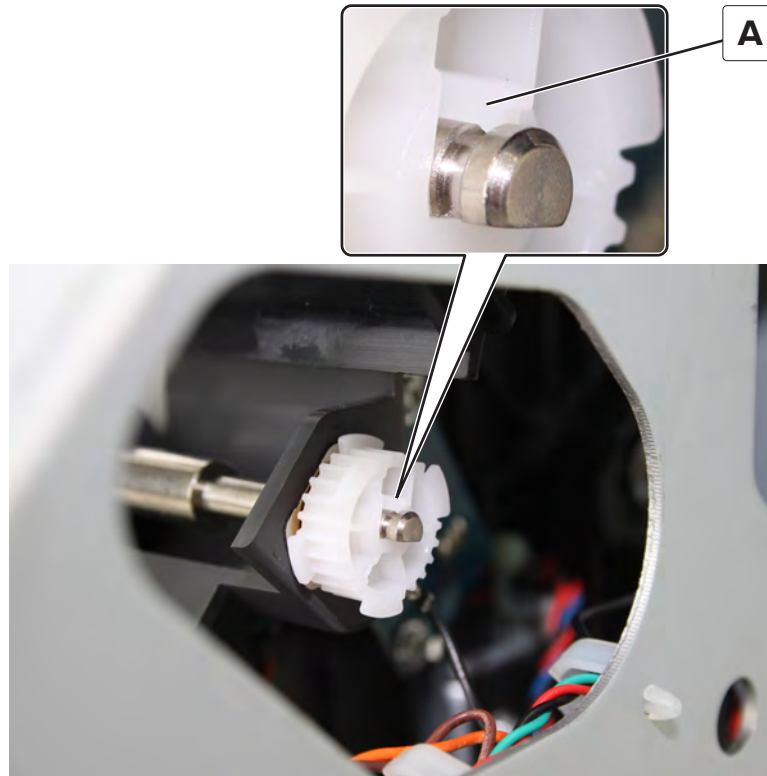


A

Stapler bin lower exit roller pulley gear removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the stapler bin lower exit roller belt. See [“Stapler bin lower exit roller belt removal” on page 1276.](#)

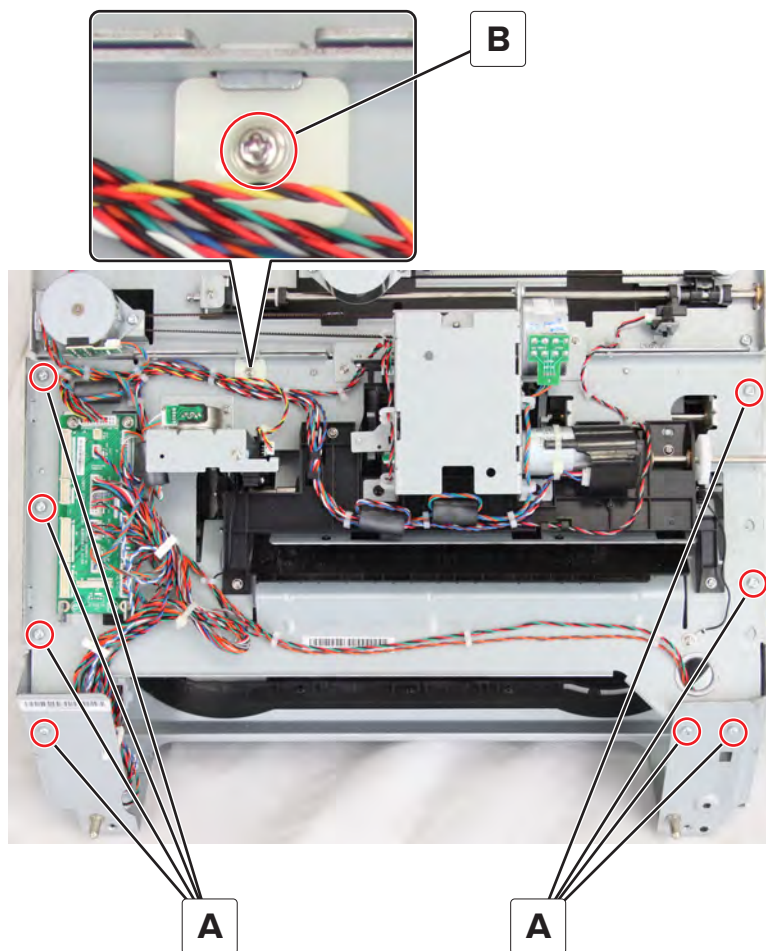
- 3 From the front, release the latch (A), and then remove the pulley gear.



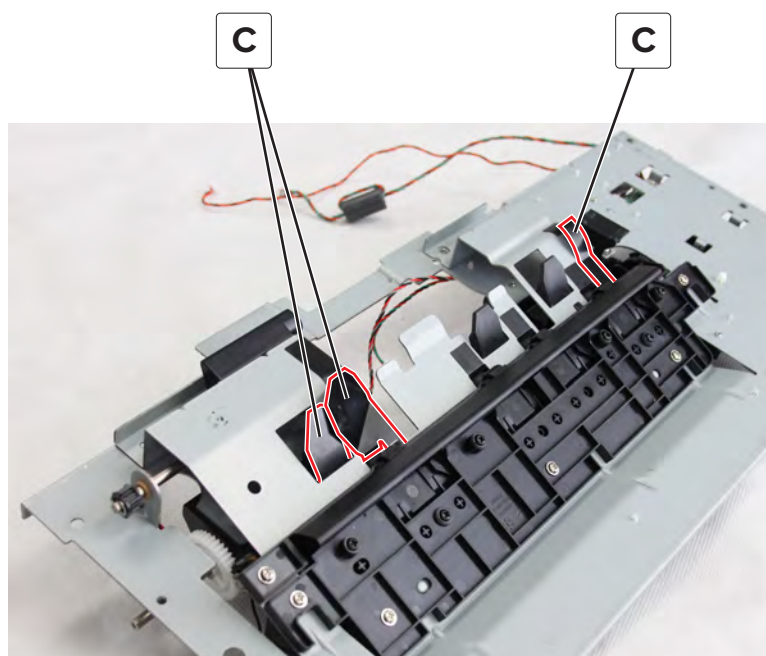
Compiler entrance guide removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the compiler paddle and exit drive. See [“Compiler paddle and exit drive removal” on page 1271.](#)
- 3 Disconnect the interface board cables, and then release the cables from the frame.

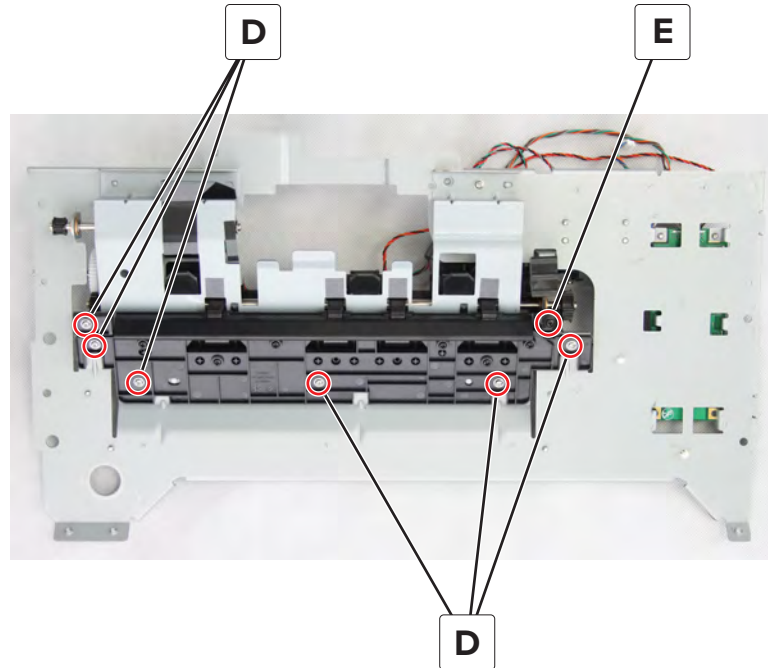
4 Remove the nine screws (A and B), and then remove the frame.



Warning—Potential Damage: Be careful not to deform the plastic guides (C) under the frame.

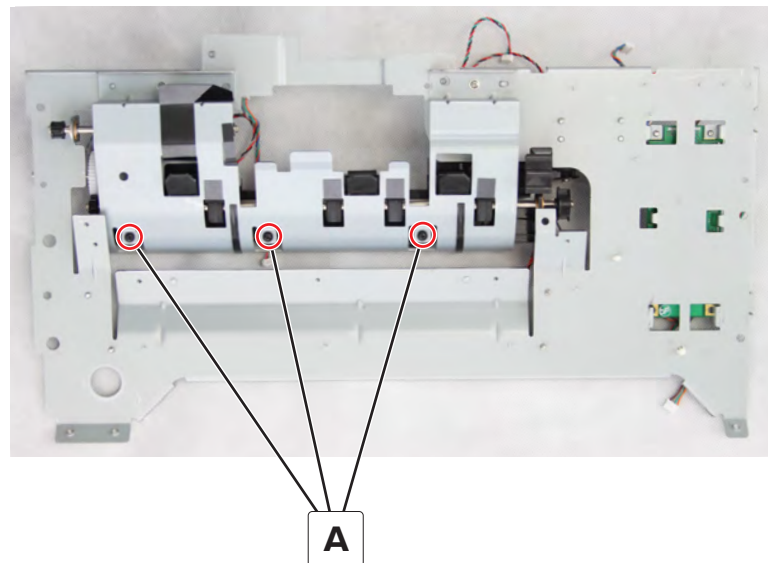


- 5 Under the frame, remove the seven screws (D and E), and then remove the guide.

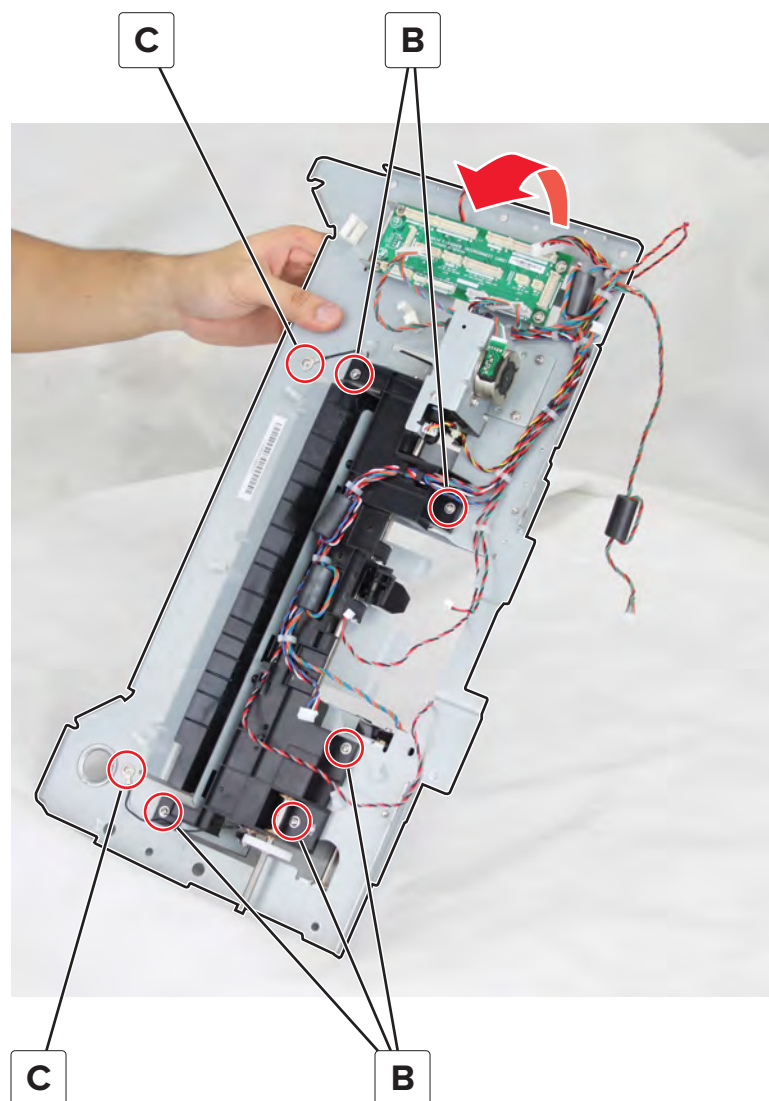


Compiler entrance upper roller removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the compiler paddle and exit drive. See [“Compiler paddle and exit drive removal” on page 1271.](#)
- 3 Remove the compiler entrance guide. See [“Compiler entrance guide removal” on page 1277.](#)
- 4 Remove the three screws (A).



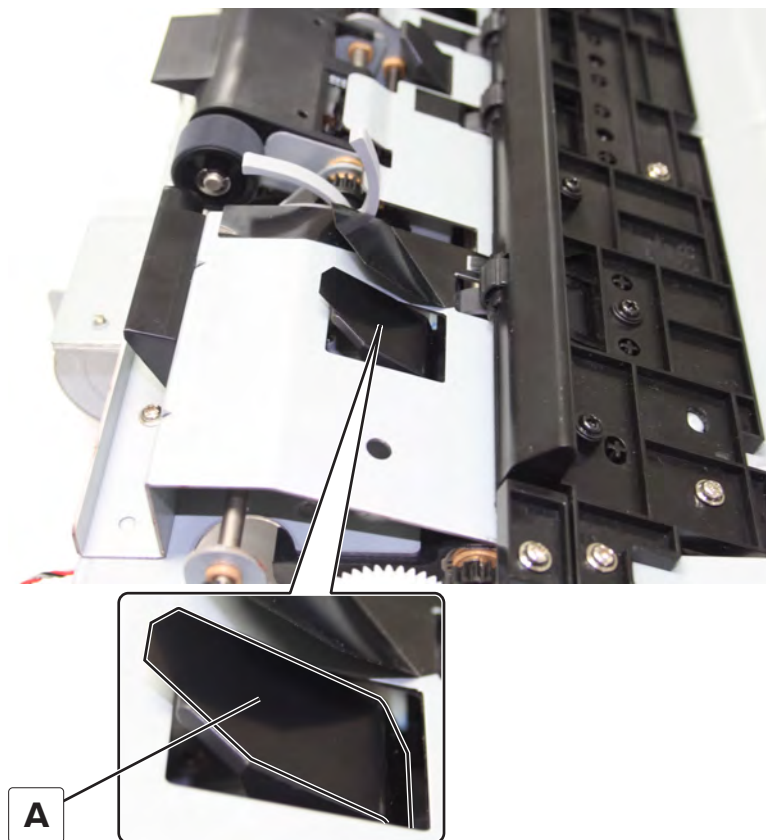
- 5 Lift the frame, release the cables, remove the five screws (B), and then remove the two ground screws (C).



- 6 Remove the guide.

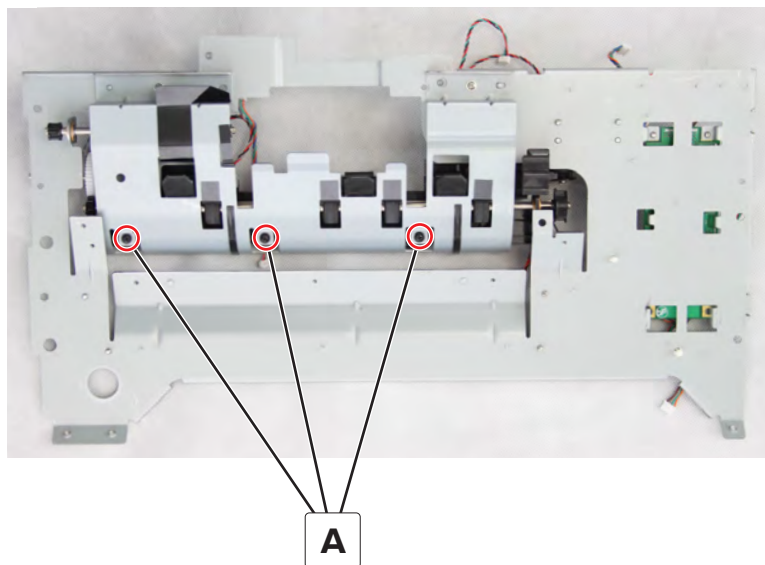
Installation notes:

- a Install the compiler entrance upper roller to the frame.
- b Align, and then stick the plastic film (A) to the paper guide.

**Compiler gears removal**

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the compiler paddle and exit drive. See [“Compiler paddle and exit drive removal” on page 1271.](#)
- 3 Remove the compiler entrance guide. See [“Compiler entrance guide removal” on page 1277.](#)

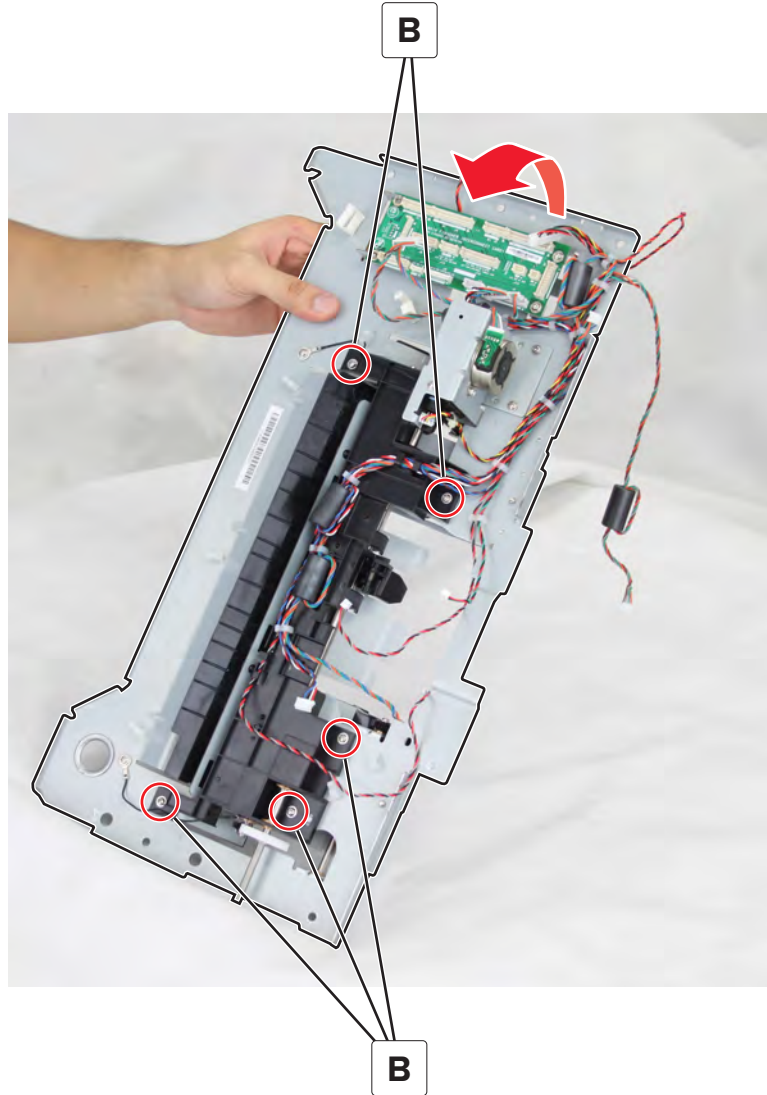
4 Remove the three screws (A).



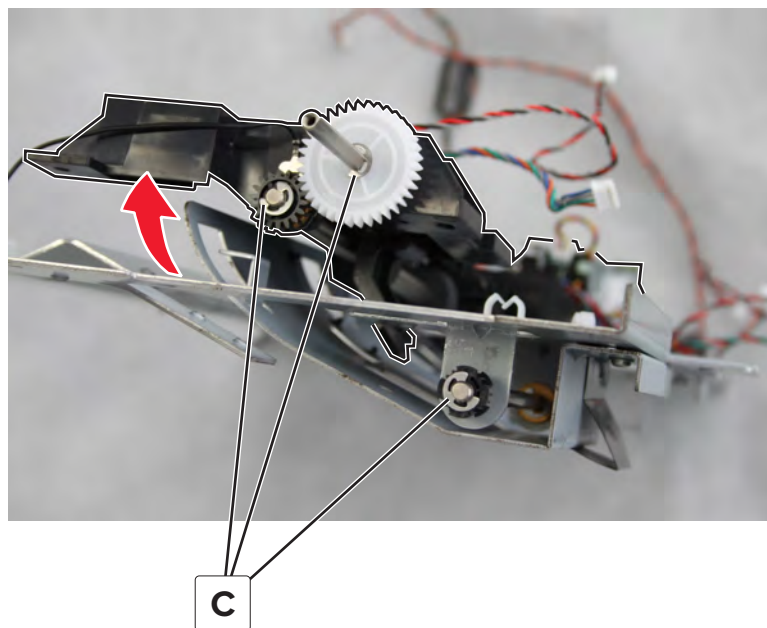
Parts removal

1282

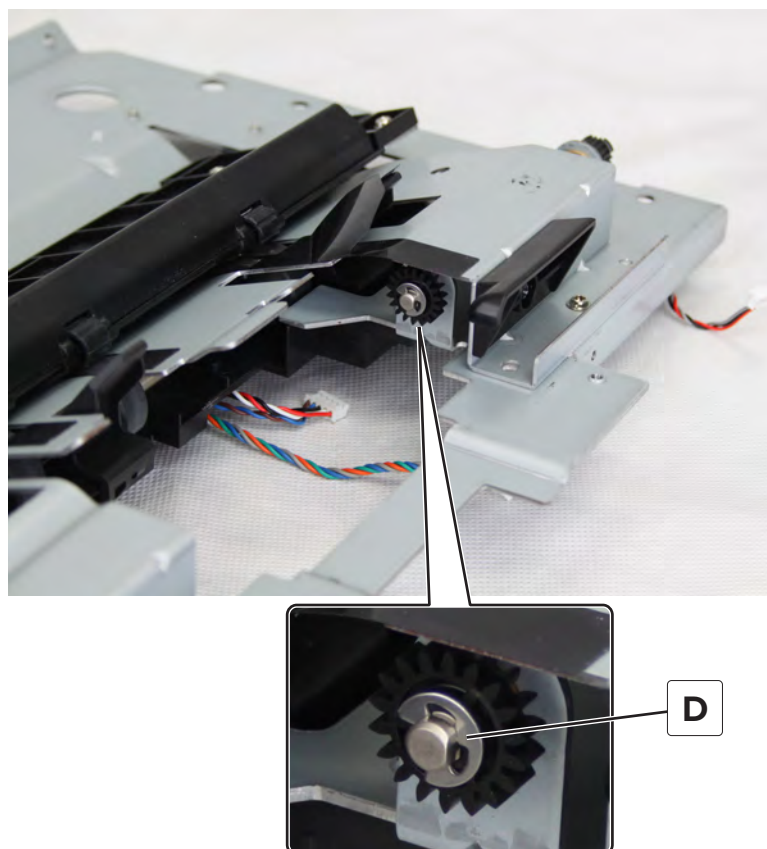
5 Lift the frame, release the cables, and then remove the five screws (B).



- 6 Lift the upper guide, remove the three E-clips (C), and then remove the gears.



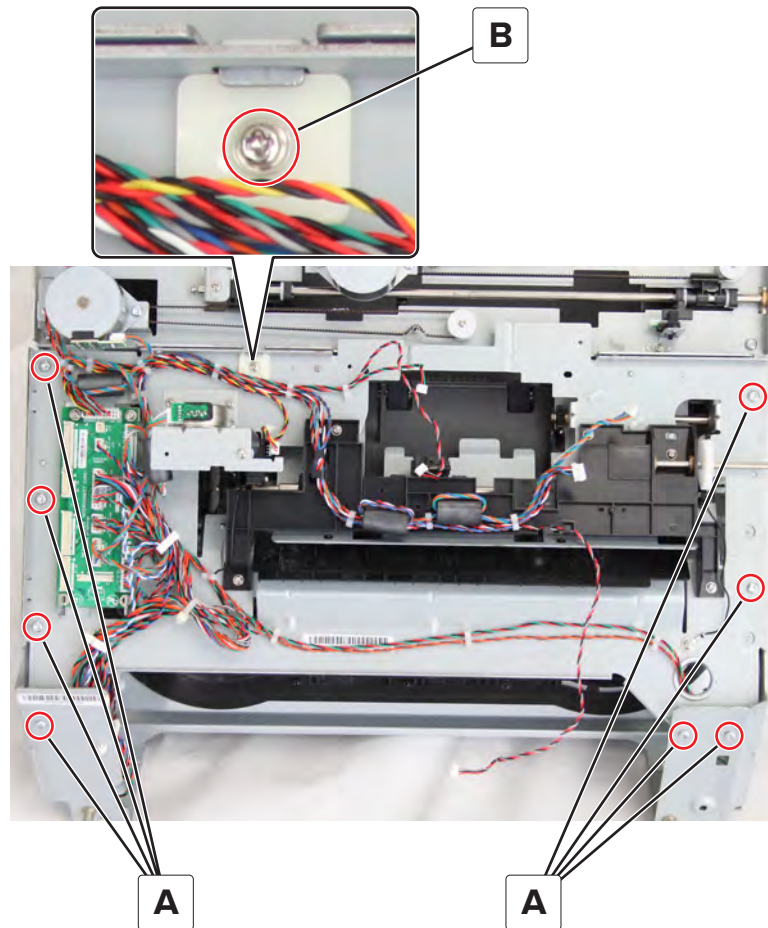
- 7 Remove the E-clip (D) from the frame, and then remove the gear.



Parts removal

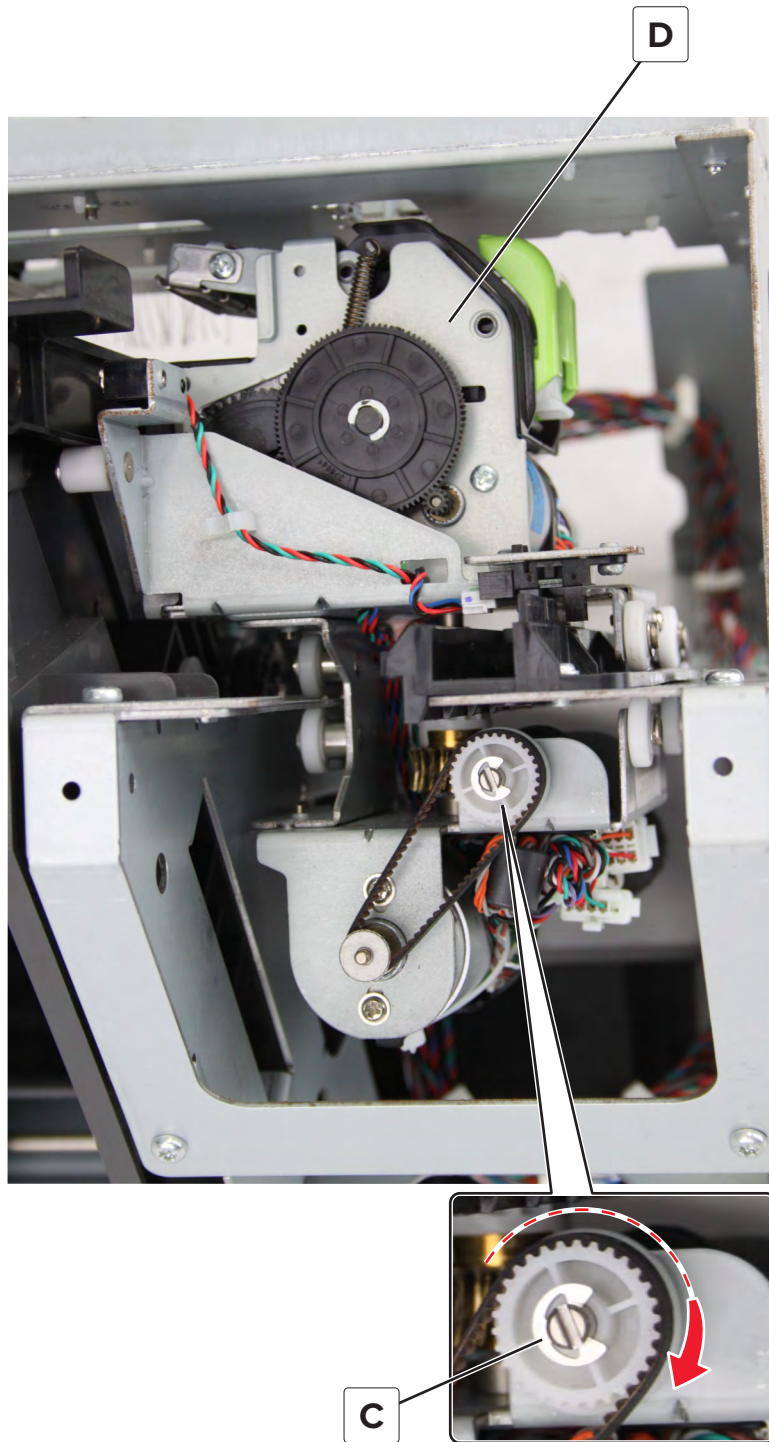
MSHPF compiler tray removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the interface board cables, and then release the cables from the frame.
- 3 Remove the nine screws (A and B), and then remove the frame.

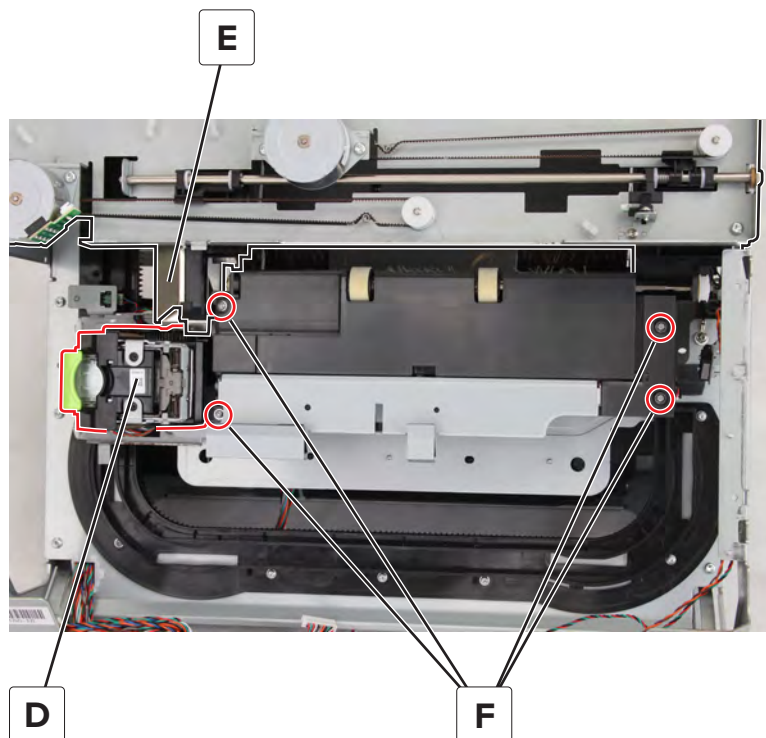


- 4 Using a flat-blade screwdriver, rotate the gear (C) to lower the stapler carriage (D).

Note: The carriage is lowered to clear the path for the rear tamper.

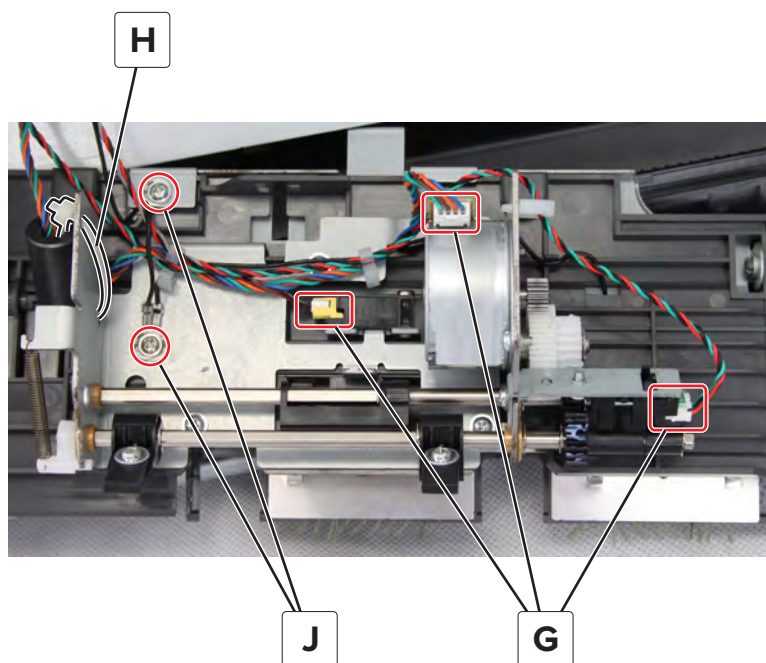


- 5 Move the rear tamper (E) to the rear, remove the four screws (F), and then pull the compiler tray.



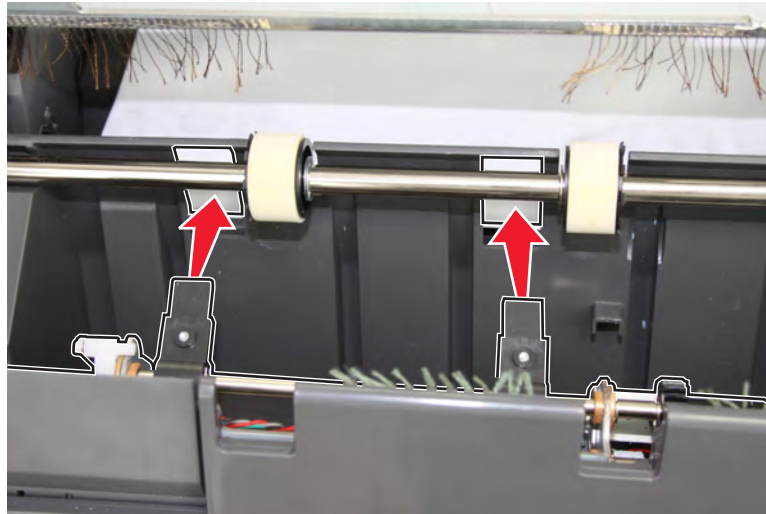
- 6 Under the compiler tray, disconnect the three cables (G), cut the cable tie (H), and then remove the two ground screws (J).

Installation warning: Replace the cable tie, or the cable with toroid may interfere with the movement of the stapler carriage.



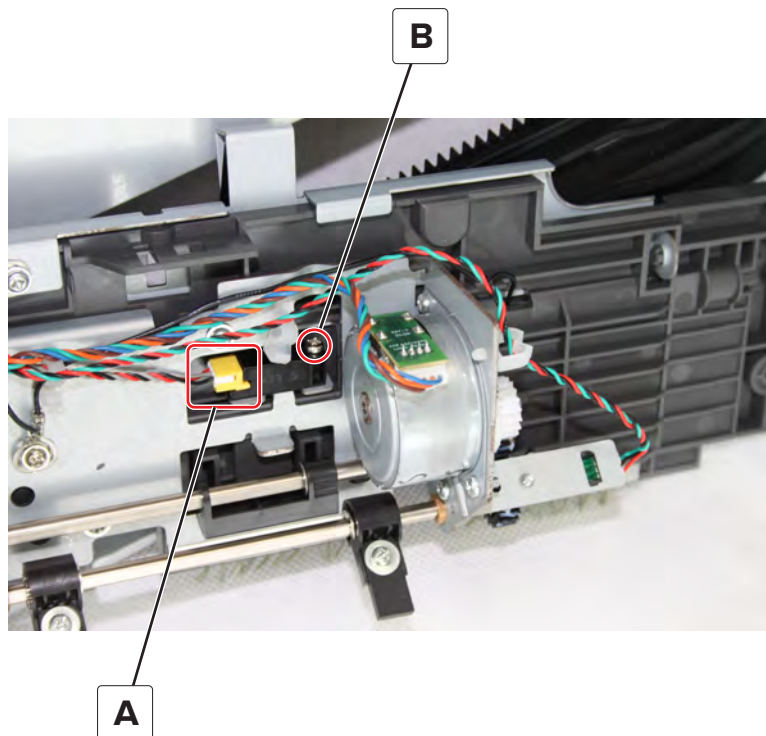
- 7 Remove the compiler tray.

Installation note: Insert the paddles to the slots.



Sensor (compiler paper present) removal

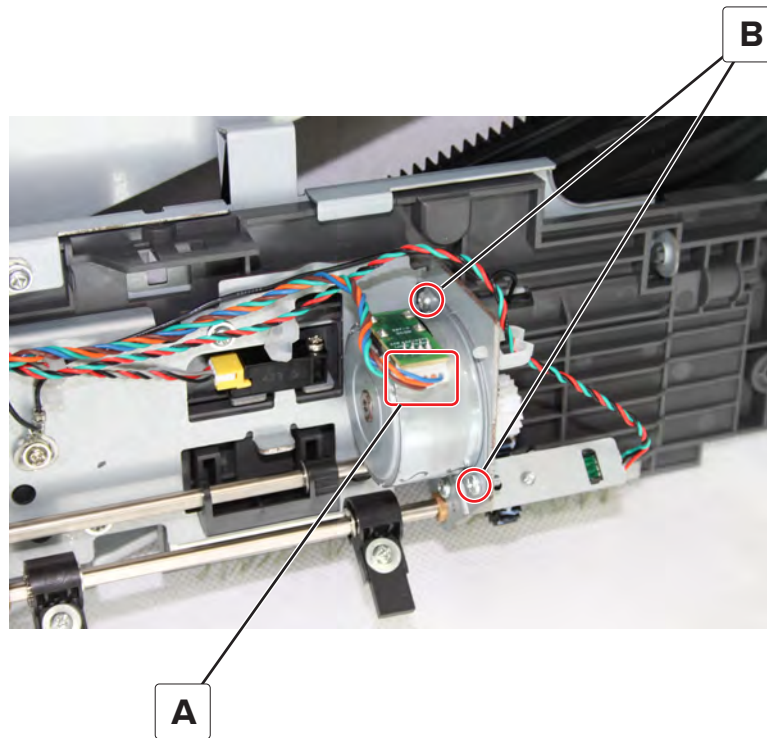
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the MSHPF compiler tray. See [“MSHPF compiler tray removal” on page 1285.](#)
- 3 Under the compiler tray, disconnect the cable (A), and then remove the screw (B).



- 4 Remove the sensor.

Motor (MSHPF bin clamp) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the MSHPF compiler tray. See [“MSHPF compiler tray removal” on page 1285.](#)
- 3 Disconnect the cable (A), and then remove the two screws (B).

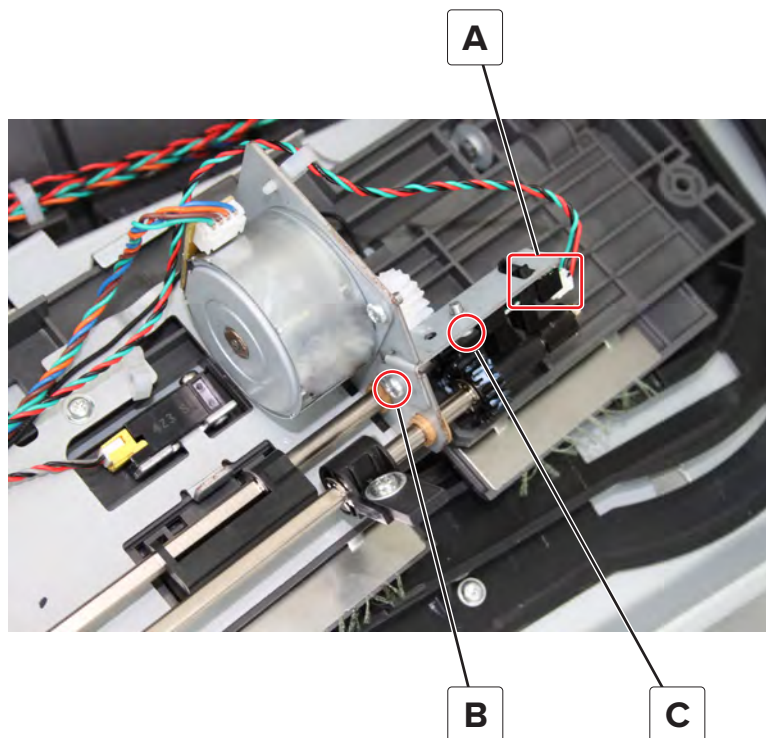


- 4 Remove the motor.

Sensor (MSHPF bin clamp home) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the compiler paddle and exit drive. See [“Compiler paddle and exit drive removal” on page 1271.](#)
- 3 Remove the MSHPF compiler tray. See [“MSHPF compiler tray removal” on page 1285.](#)
- 4 Disconnect the cable (A), remove the screw (B), and then remove the bracket.

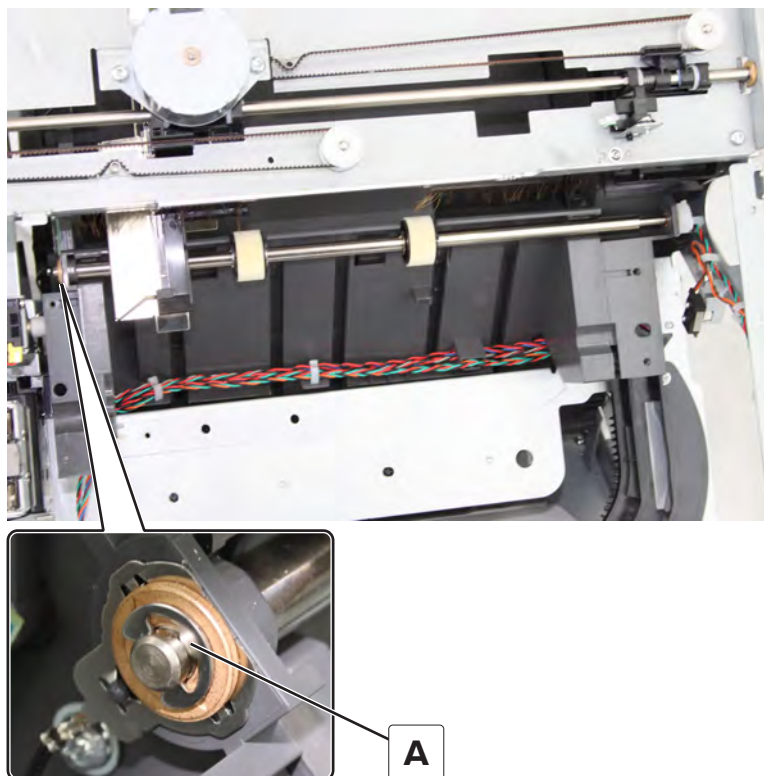
- 5 Remove the screw (C), and then remove the sensor.



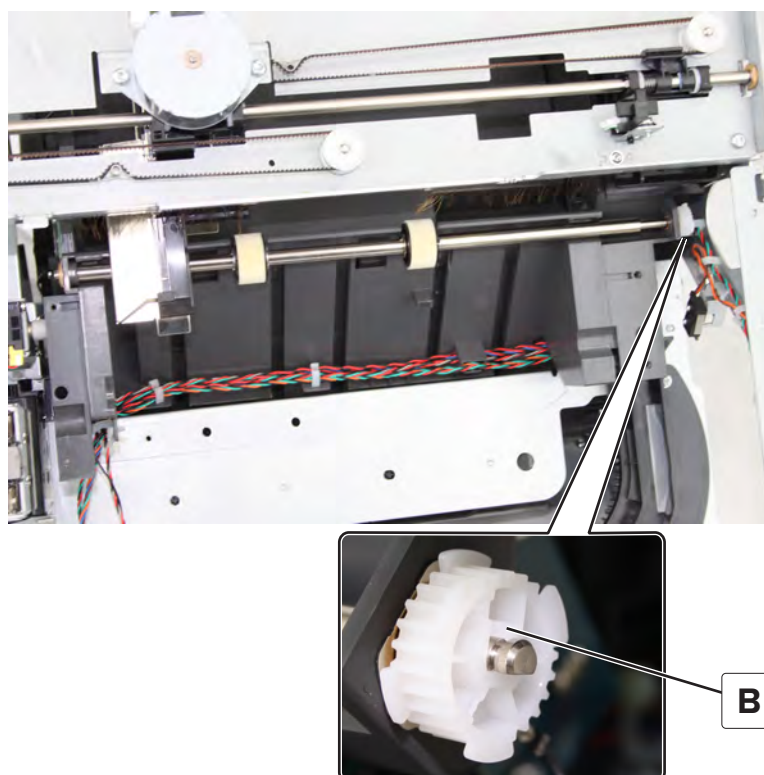
Stapler bin lower exit roller removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Remove the MSHPF compiler tray. See [“MSHPF compiler tray removal” on page 1285.](#)

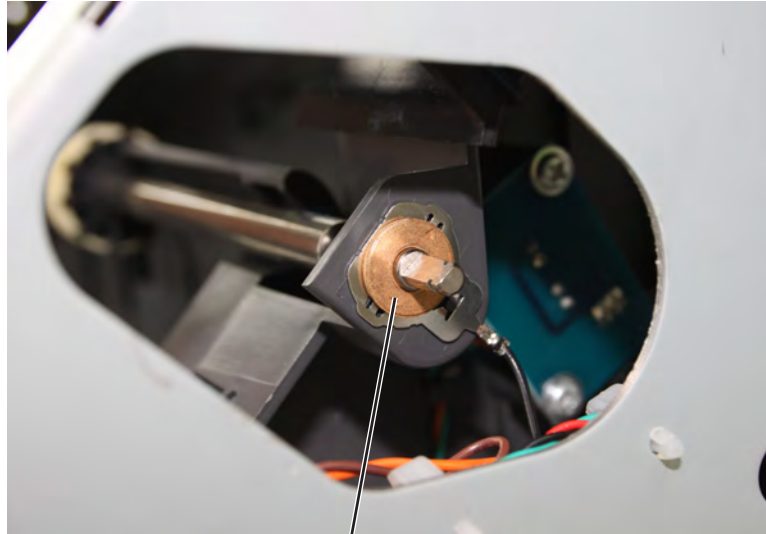
- 3 Remove the E-clip (A), and then remove the bushing.



- 4 Release the latch (B), and then remove the gear.

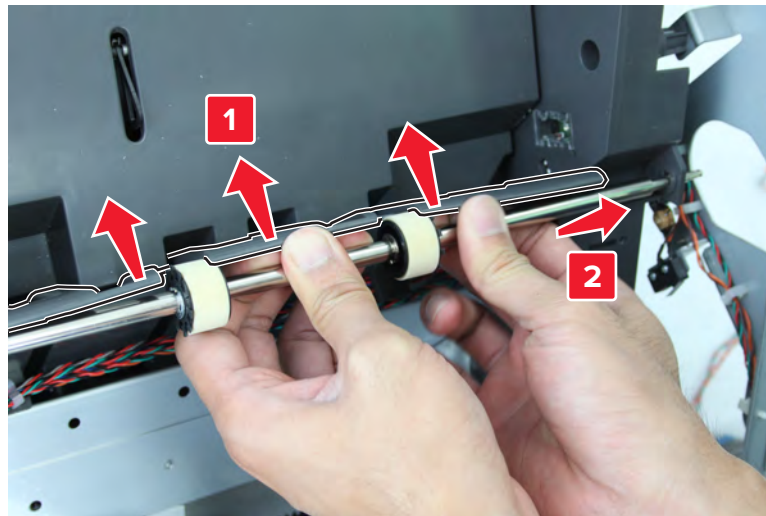


- 5 Remove the bushing (C) and the ground plate.



C

- 6 To release the left end of the roller, push the guide while pulling the roller to the right.

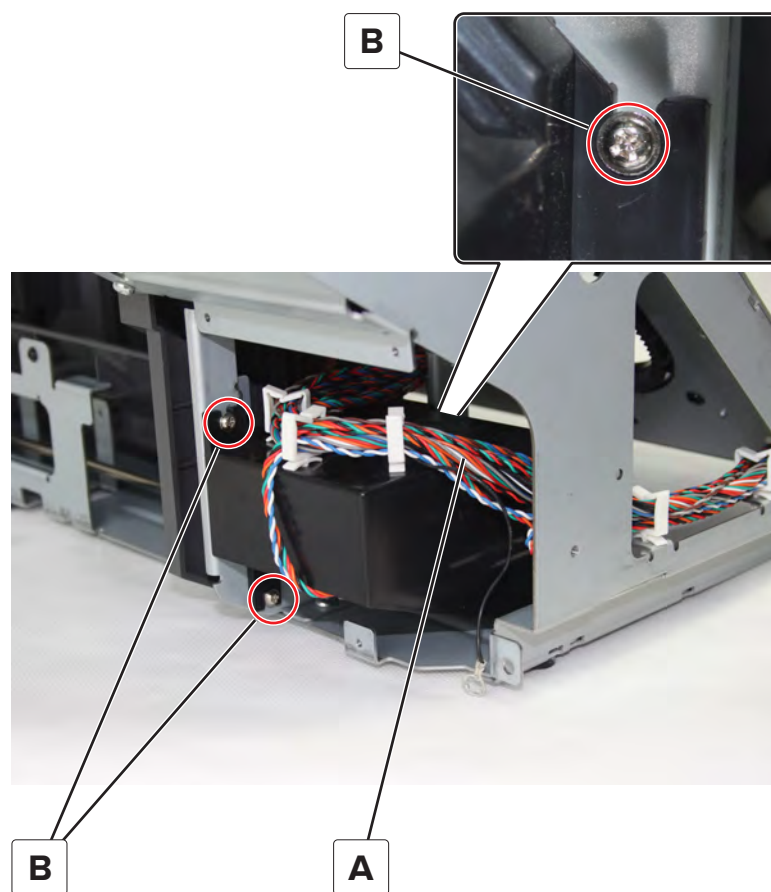


- 7 Remove the roller.

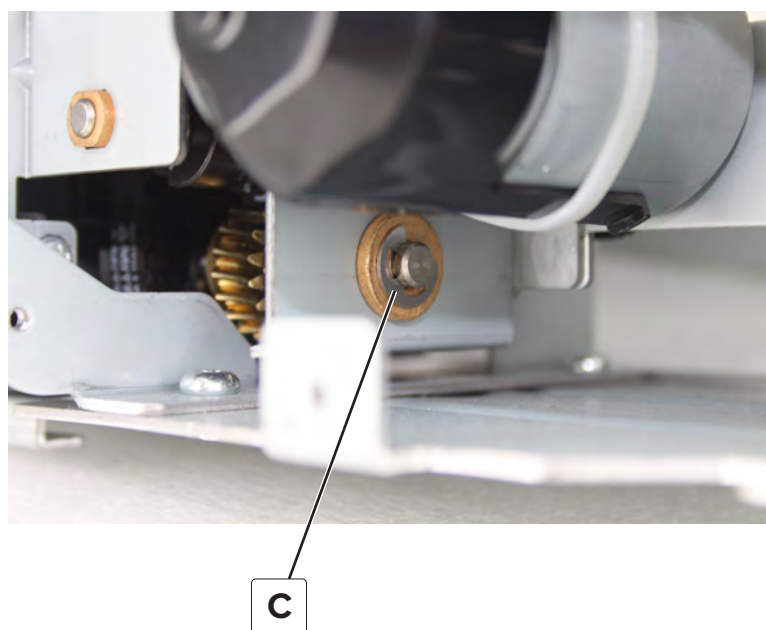
Motor (stapler bin elevator) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Release the cables (A), remove the three screws (B), and then remove the cover.

Installation note: Route the cables properly.



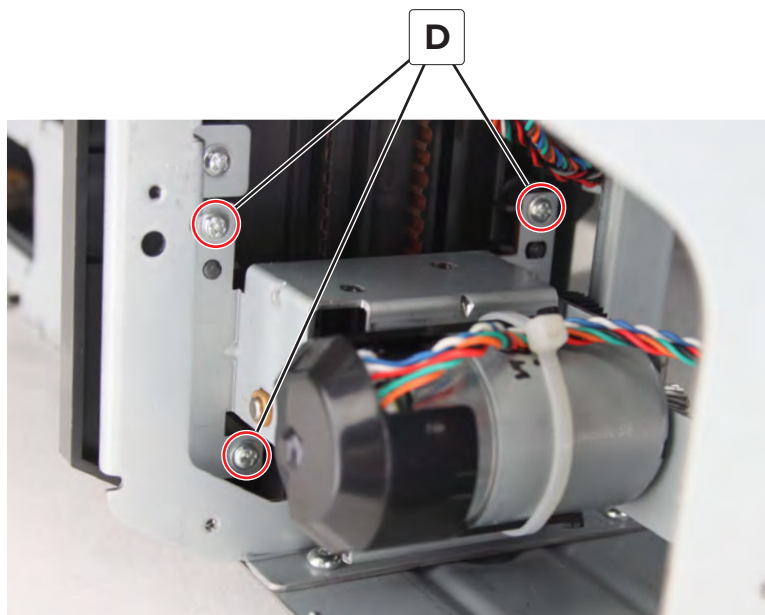
3 Remove the E-clip (C).



Parts removal

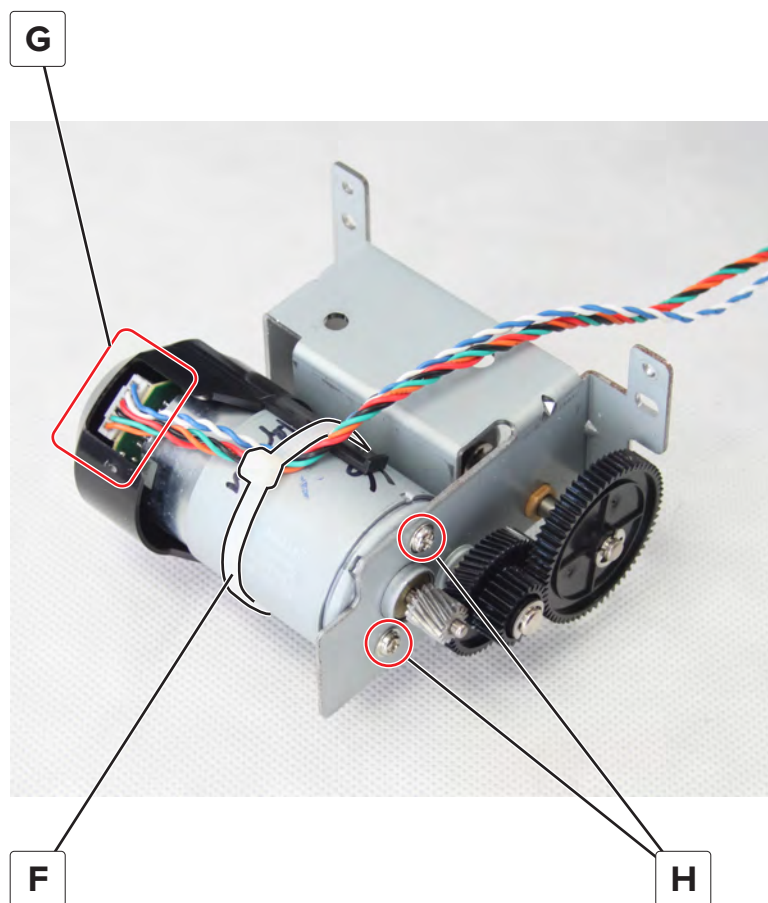
1293

- 4 Remove the three screws (D), and then pull the bracket.



- 5 Cut the cable tie (F), disconnect the cable (G), and then remove the two screws (H).

Installation warning: Replace the cable tie, or the cable may interfere with the movement of the elevator belt.



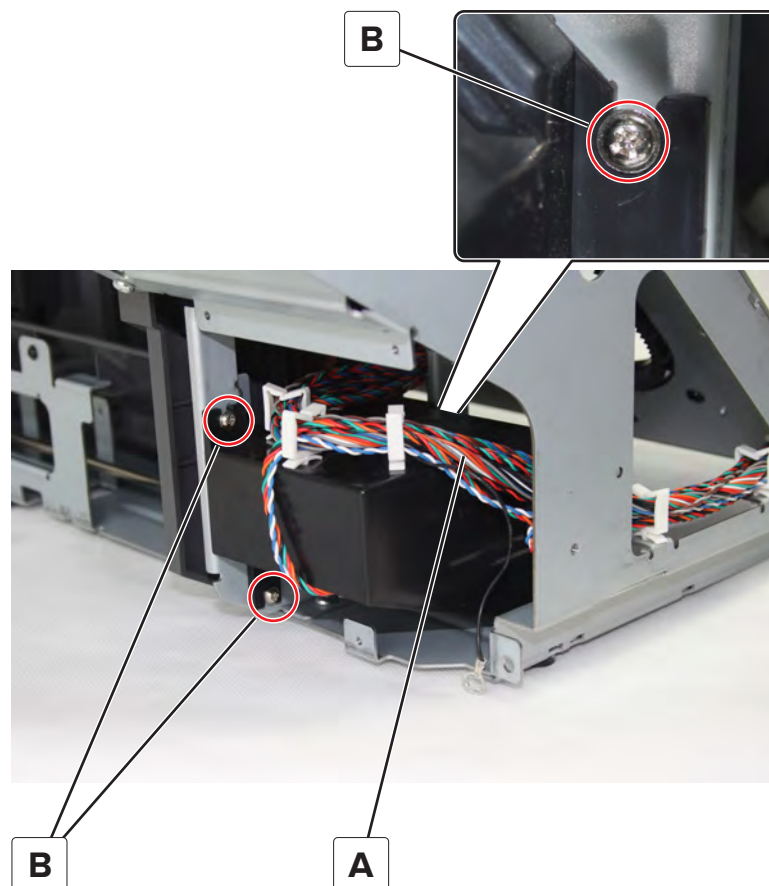
Parts removal

1294

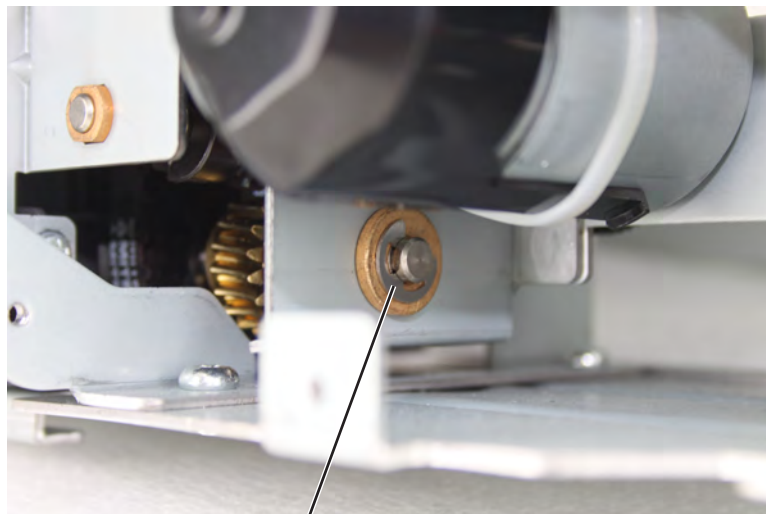
Stapler bin elevator drive removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Release the cables (A), remove the three screws (B), and then remove the cover.

Installation note: Route the cables properly.

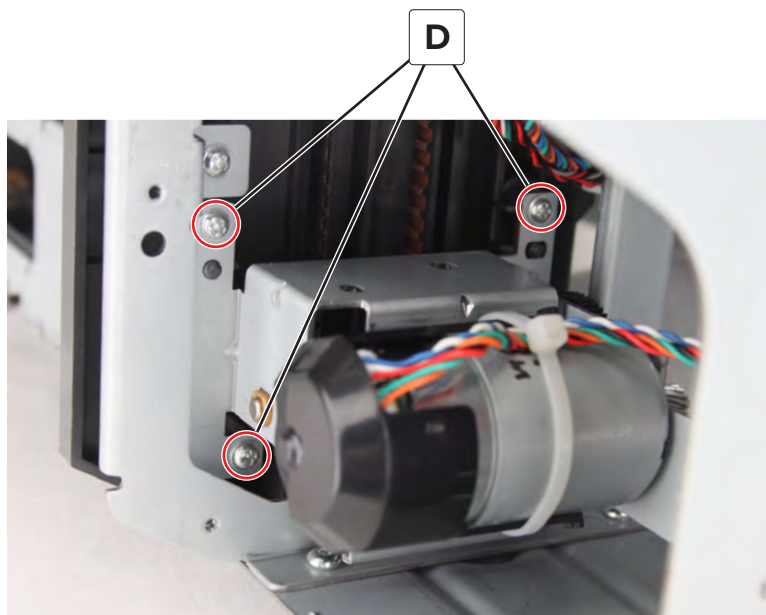


3 Remove the E-clip (C).



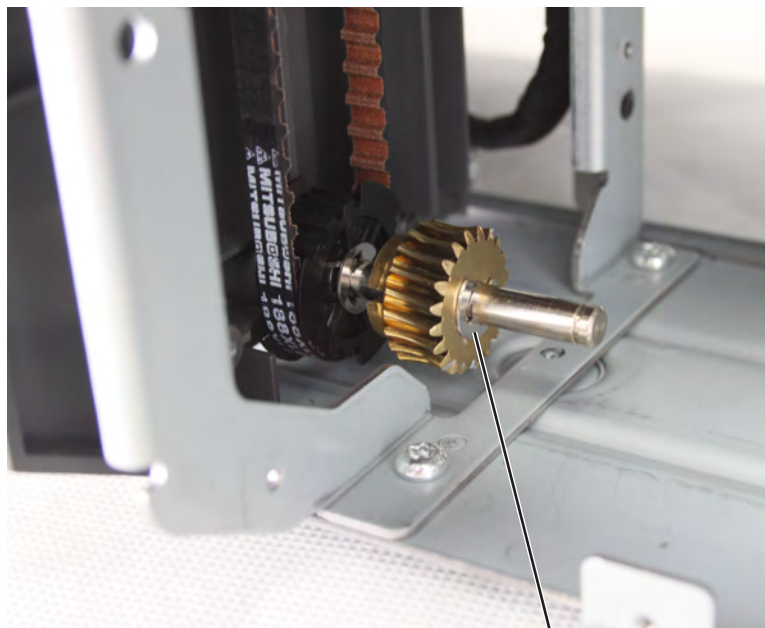
C

4 Remove the three screws (D), and then pull the bracket.



D

- 5 Remove the E-clip (E), and then remove the gear.

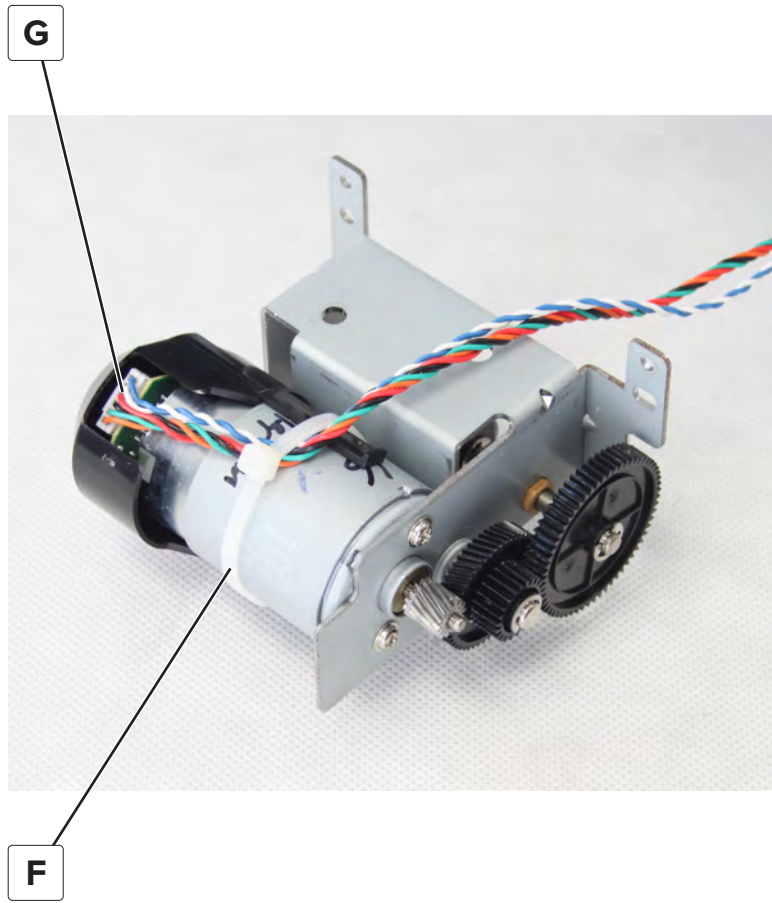


E

Installation note: Align the groove on the gear with the pin on the shaft.

- 6 Cut the cable tie (F), disconnect the cable (G), and then remove the drive.

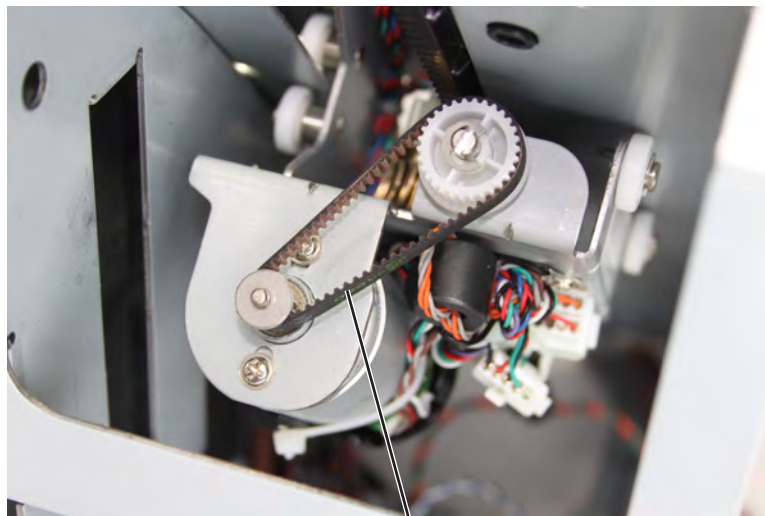
Installation warning: Replace the cable tie, or the cable may interfere with the movement of the elevator belt.



Staple unit carriage belt removal

Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position**.

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).
- 2 Remove the belt (A).



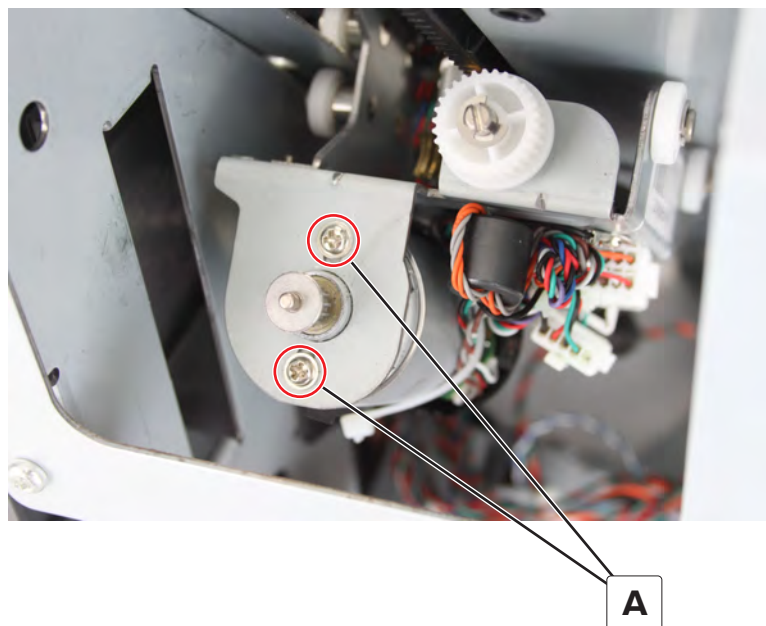
A

Motor (staple unit carriage) removal

Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position**.

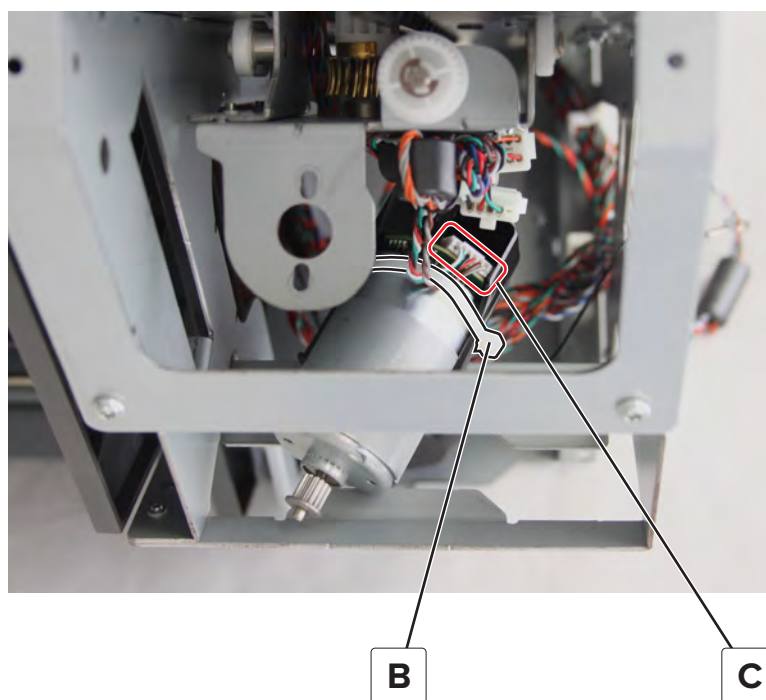
- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).
- 2 Remove the staple carriage belt. See [“Staple unit carriage belt removal” on page 1299](#).

- 3 Remove the two screws (A), and then release the motor.



- 4 Cut the cable tie (B), and then disconnect the cable (C).

Installation warning: Replace the cable tie, or the cable may interfere with moving parts.



- 5 Remove the motor.

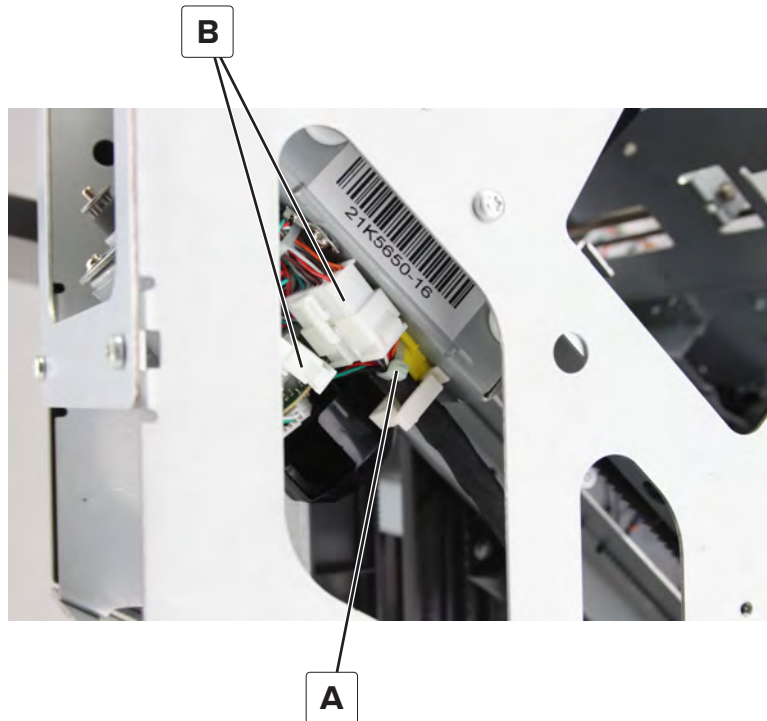
Staple unit cable removal

Note: For a video demonstration, see [Staple unit cable removal](#).

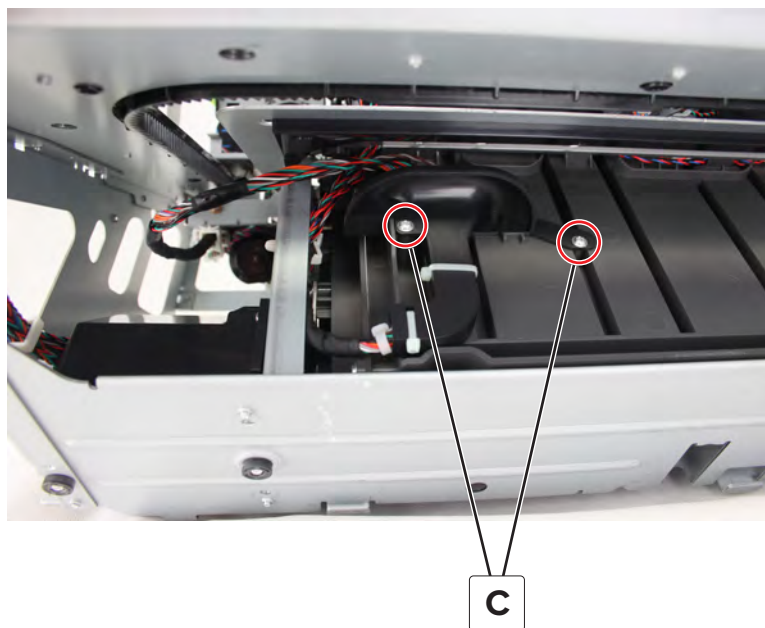
Note: Make sure that the staple carriage is in the service position. Before turning off the printer, enter the Diagnostics menu, and then navigate to **Output device diagnostics > Motor tests > Finisher > Staple unit, service position**.

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).
- 2 Cut the cable tie (A), and then disconnect the two cables (B).

Installation warning: Replace the cable tie, or the cables may interfere with moving parts.



- 3 Remove the two screws (C), and then release the cable support.



Installation warning: Route and secure the cable, or it may interfere with the movement of the staple unit carriage.

- 4 Disconnect cable J16 from the interface board.

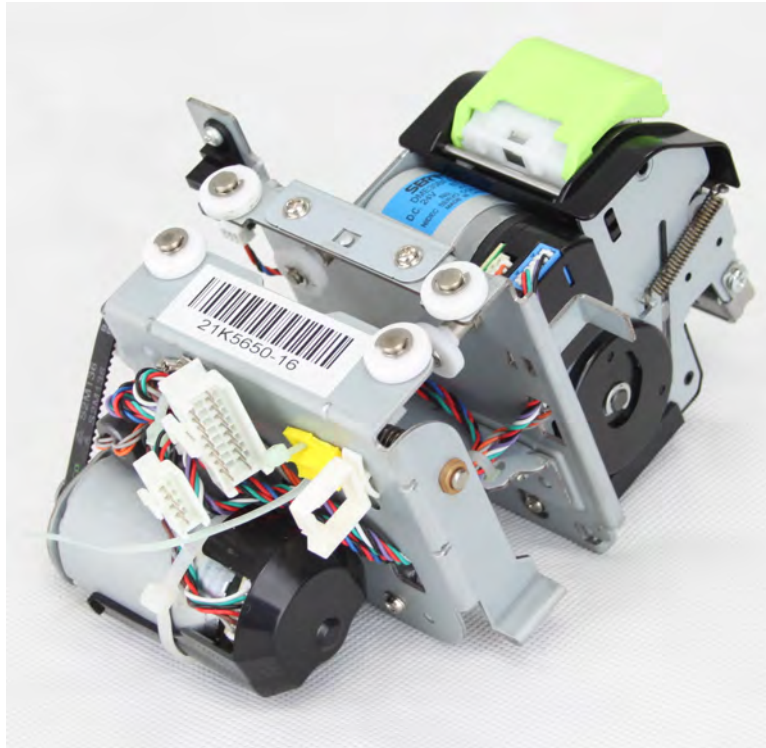
- 5 Cut the cable tie (D), and then release the cable from its guides.



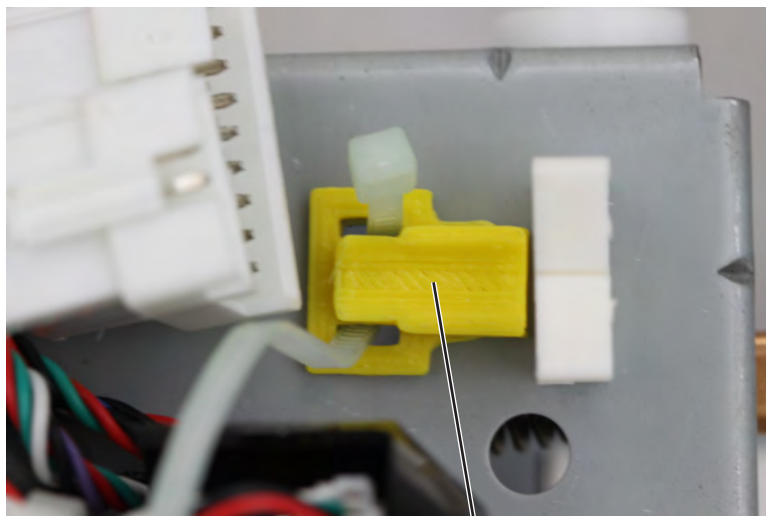
Installation warning: Replace the cable tie, or the cable may interfere with moving parts.

Installation notes:

- a Remove the MSHPF staple unit carriage, and position it as shown. See [“MSHPF staple unit carriage removal” on page 1070](#).



- b Thread the cable tie to secure the spacer (A) to the carriage.



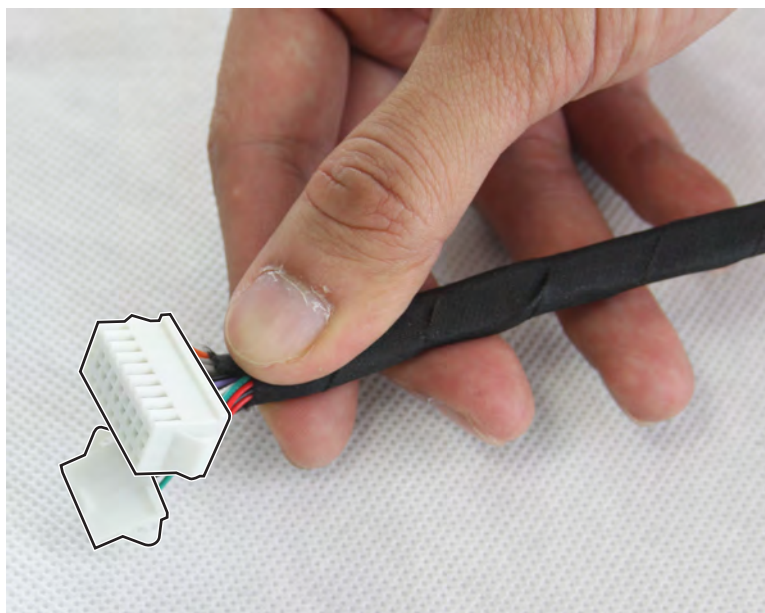
A

- c Unpack the replacement cable.

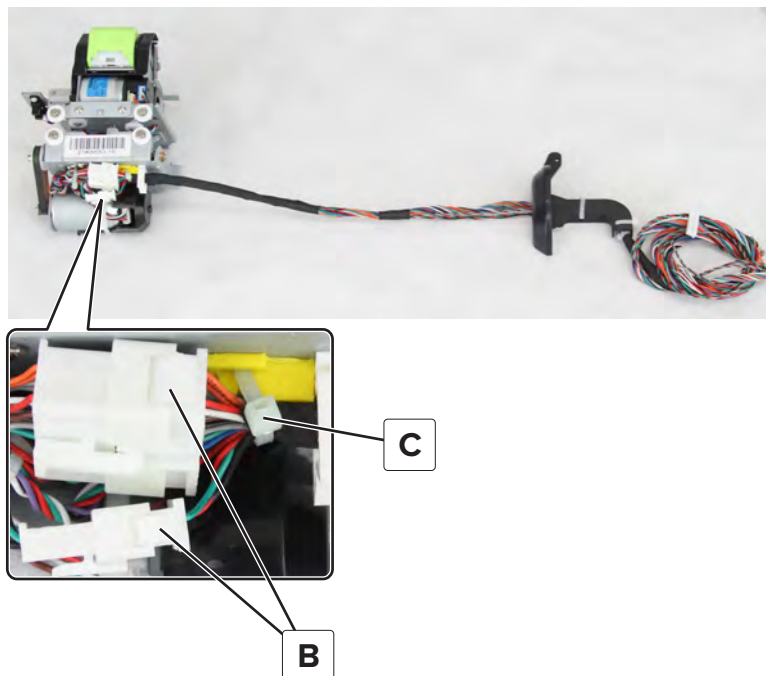
Installation warning: Do not roll or twist the section of the replacement cable between the two ends. The cable must retain its straightness, shape, and length.



Note: When connecting the replacement cable to the carriage, plug it in with the exposed contacts facing up.

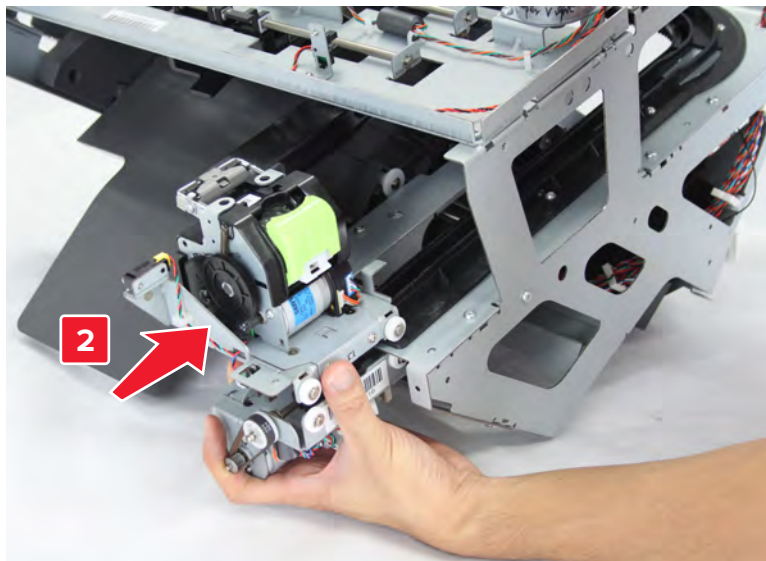


- d Plug the two connectors (B), and then secure the cable with the cable tie (C).



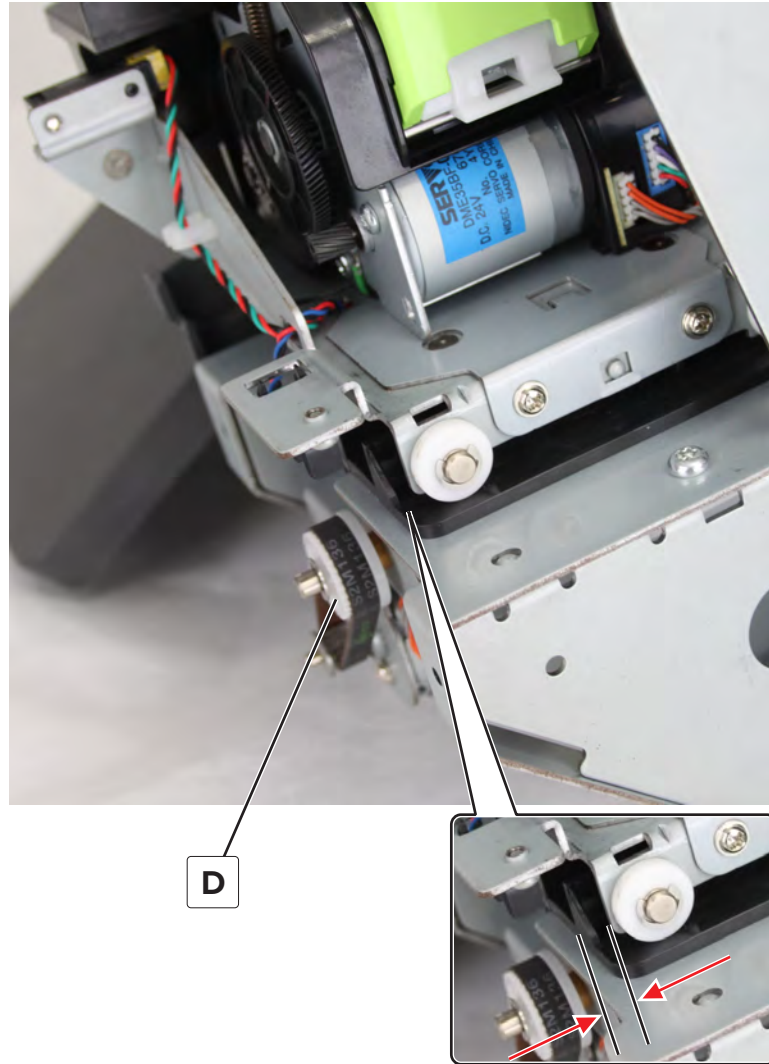
- e Insert the cable and carriage into the multiposition stapler assembly.

Note: Insert the cable support first, followed by the staple unit carriage. Keep the cable straight.



Installation warning: Frame edges may be sharp. Handle the cable carefully, or it may get cut.

- f Rotate the gear (D) until the carriage is positioned as shown.



- g Install the cable support, and then connect the cable to the interface board.

Note: Make sure that the cable is properly routed.

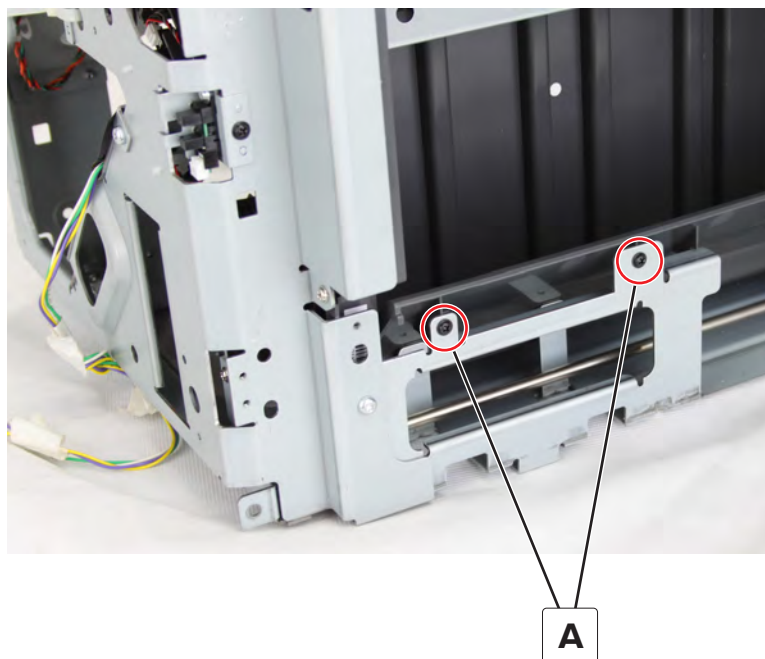
Note: For a video demonstration, see the *CX860 MSHPF staple unit cable removal* at infoserve.lexmark.com/videos/sfin_staple_unit_cable_removal.html.

Stapler bin assembly removal

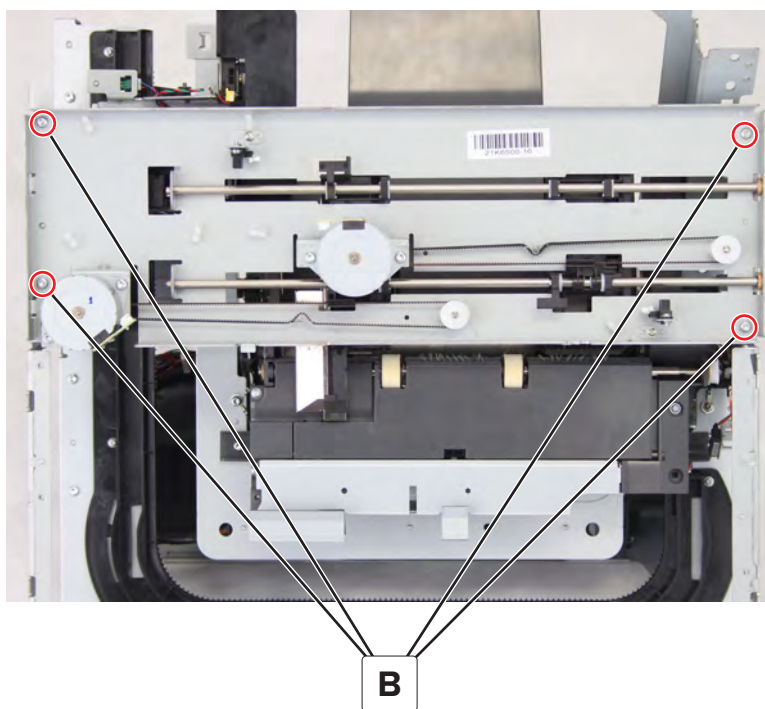
Note: For a video demonstration, see [Stapler bin assembly removal](#).

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).
- 2 Remove the MSHPF compiler tray. See [“MSHPF compiler tray removal” on page 1285](#).
- 3 Remove the stapler bin elevator drive. See [“Stapler bin elevator drive removal” on page 1295](#).

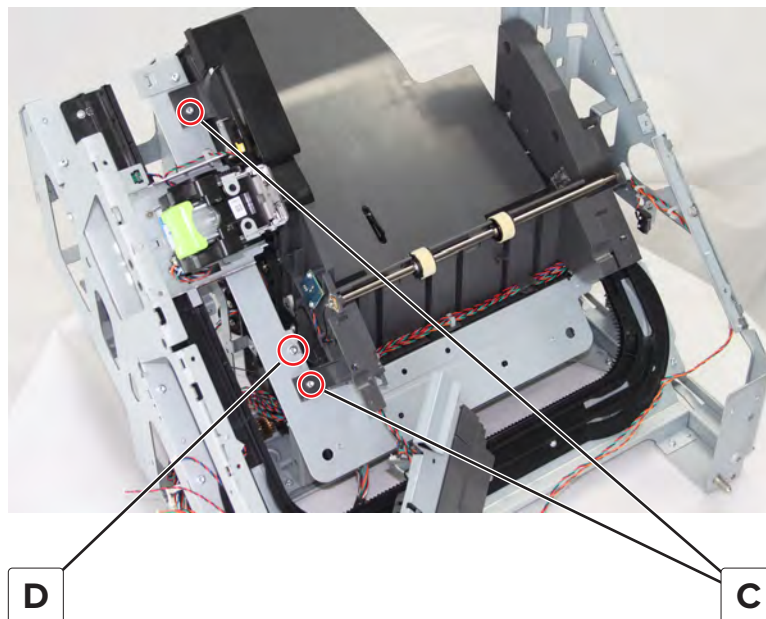
- 4 Remove the two screws (A), and then remove the MSHPF stapler bin bottom cover.



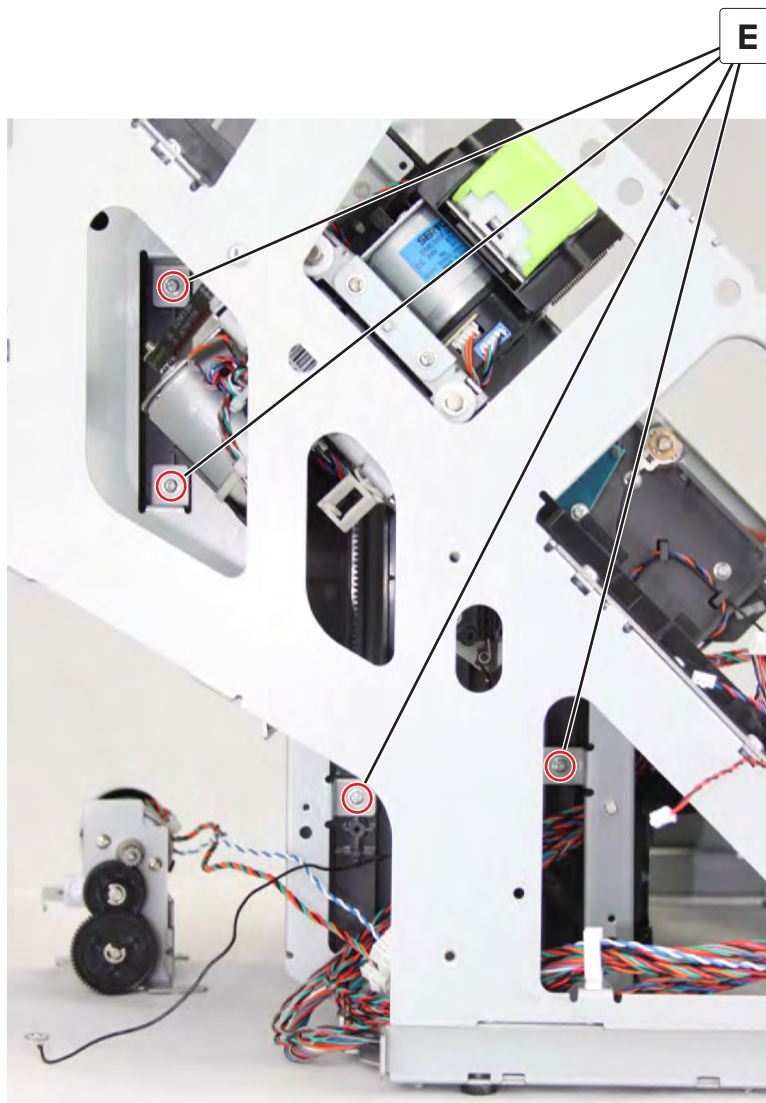
- 5 Disconnect the cables, remove the four screws (B), and then remove the tamper frame.



6 Remove the two screws (C), and then remove the ground screw (D).

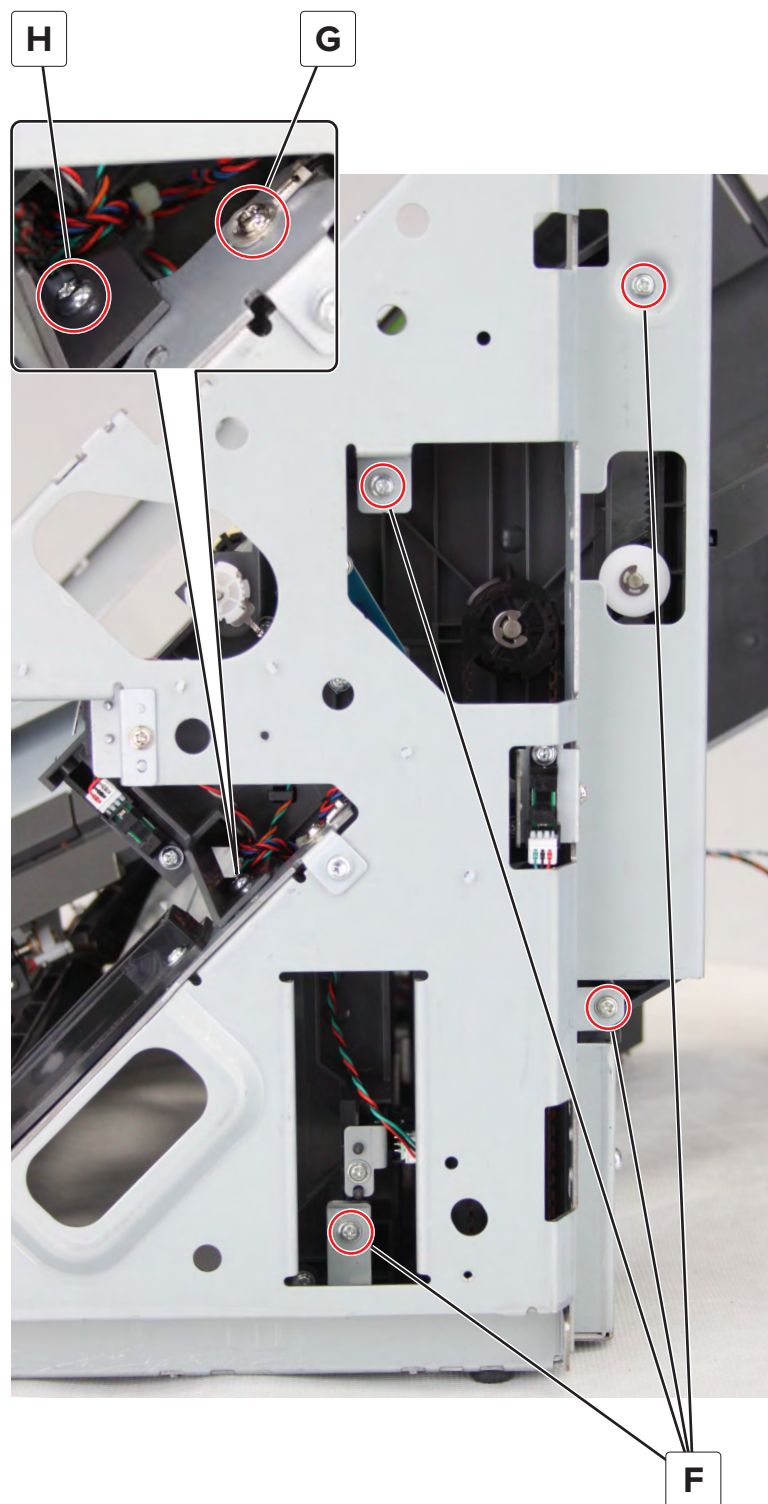


7 From the rear, remove the four screws (E).



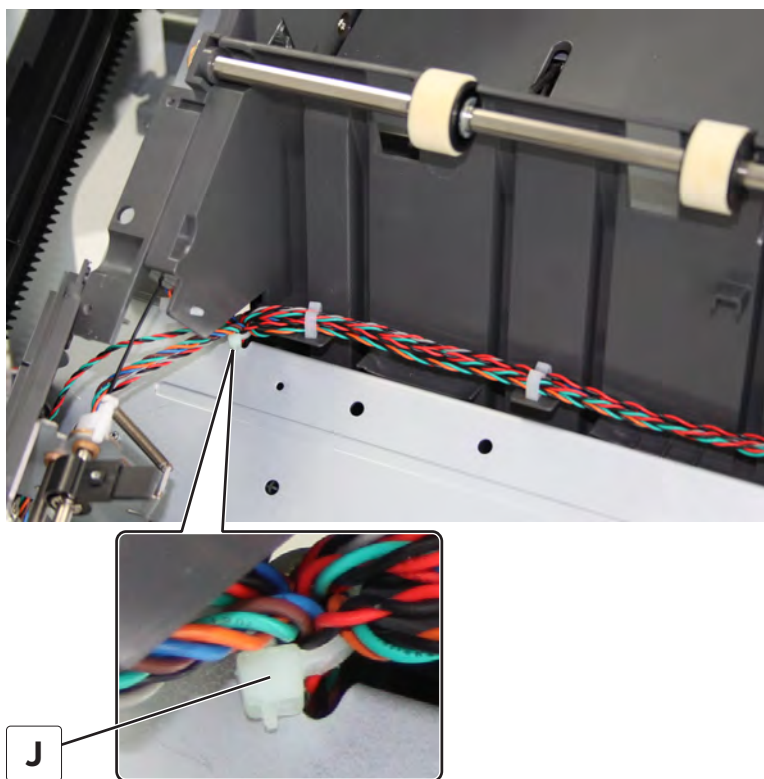
8 From the front, remove the four screws (F), and then remove the ground screw (G).

9 Using a Torx screwdriver, remove the screw (H).



10 From the right, cut the cable tie (J).

Installation warning: Replace the cable tie, or the cables may interfere with moving parts.



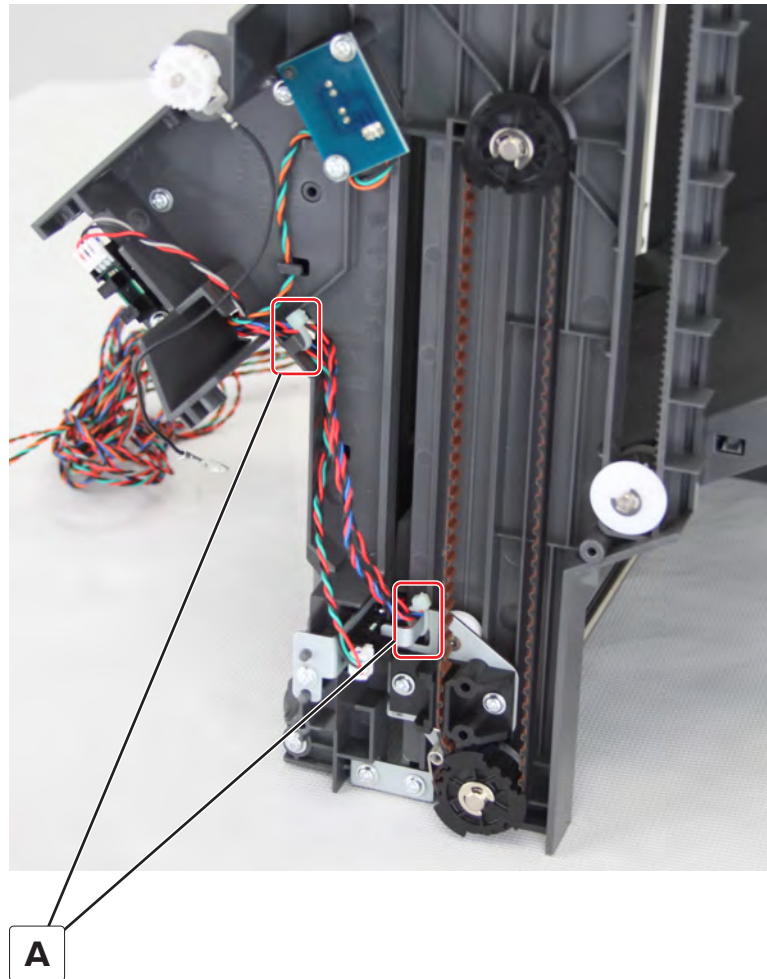
11 Remove the bin assembly.

Note: For a video demonstration, see the *CX860 MSHPF stapler bin assembly removal* at infoserve.lexmark.com/videos/sfin_stapler_bin_asm_removal.html.

Stapler bin assembly cables removal

- 1** Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2** Remove the MSHPF compiler tray. See [“MSHPF compiler tray removal” on page 1285.](#)
- 3** Remove the stapler bin elevator drive. See [“Stapler bin elevator drive removal” on page 1295.](#)
- 4** Remove the stapler bin assembly. See [“Stapler bin assembly removal” on page 1308.](#)

- 5 Cut the two cable ties (A), and then disconnect the cables.



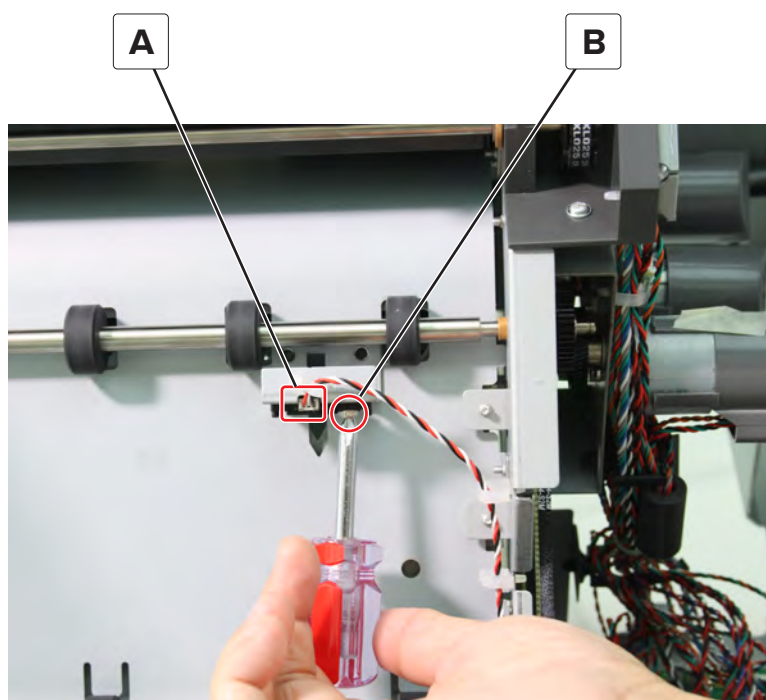
- 6 Release the cables from their guides, and then remove.

Installation note: Make sure that the elevator bin can properly move to its topmost and bottommost positions.

Sensor (staging inner transport 1) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the screw (B).

Warning—Potential Damage: Do not bend the sensor bracket, or it may deform.

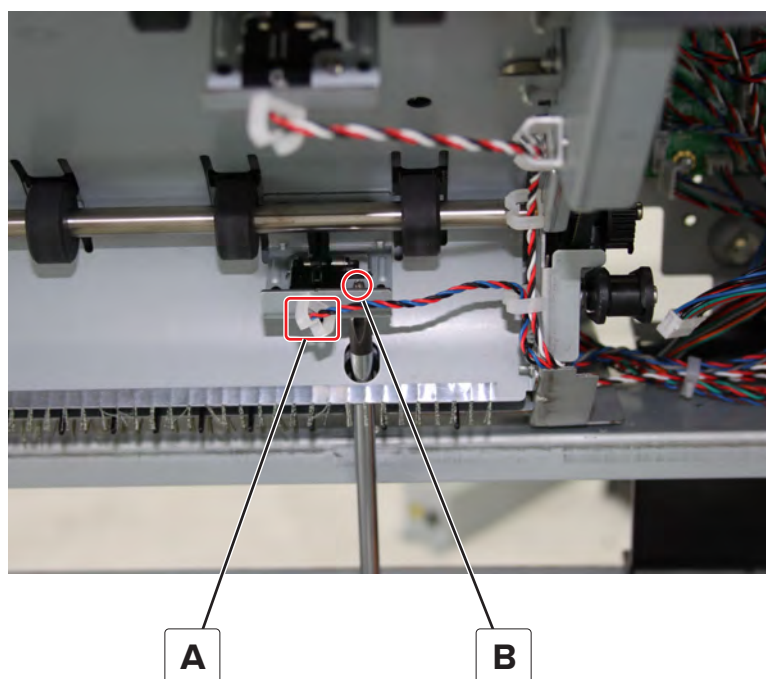


3 Remove the sensor.

Sensor (staging inner transport 2) removal

- 1 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244.](#)
- 2 Disconnect the cable (A), and then remove the screw (B).

Warning—Potential Damage: Do not bend the sensor bracket, or it may deform.



Parts removal

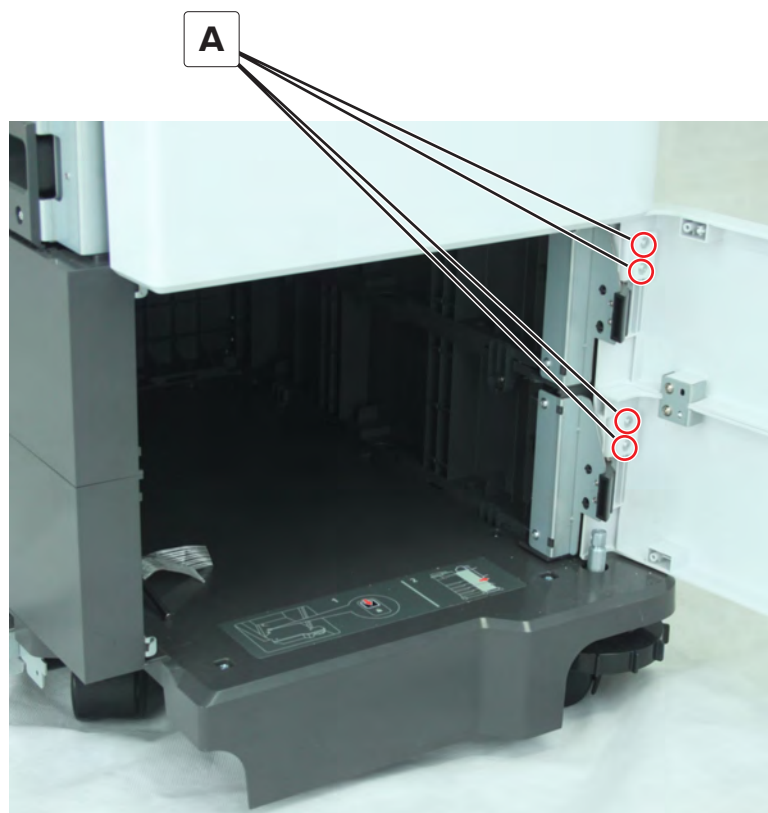
1315

3 Remove the sensor.

Cabinet removals

Cabinet door removal

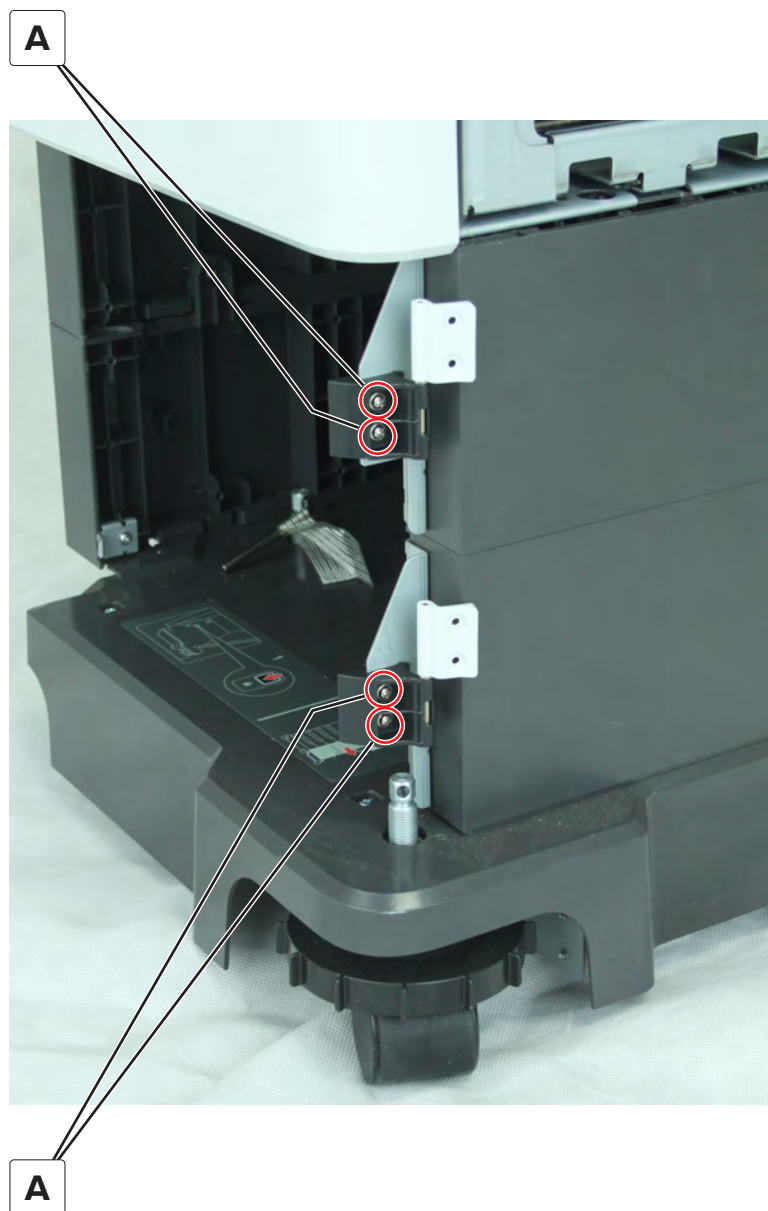
1 Open the cabinet door, and then remove the four screws (A).



2 Remove the door.

Cabinet door hinge removal

- 1 Remove the cabinet door. See [“Cabinet door removal” on page 1316](#).
- 2 Remove the two screws (A) from the appropriate hinge.

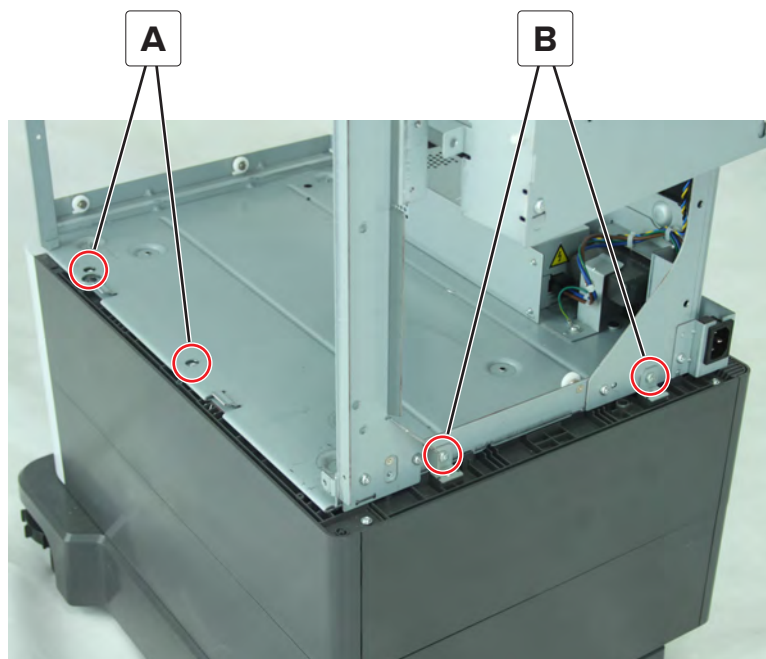


- 3 Remove the hinge.

Cabinet removal

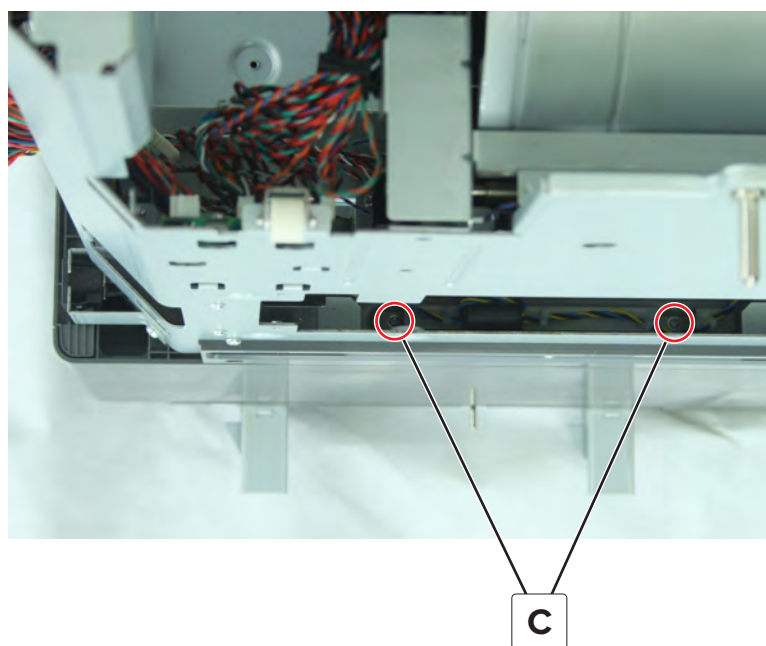
- 1 Remove the MSHPF power supply cover. See [“MSHPF power supply cover removal” on page 1024](#).
- 2 Remove the multiposition stapler assembly. See [“Multiposition stapler assembly removal” on page 1244](#).

3 Remove the four screws (A and B).



4 From the left, remove the two screws (C).

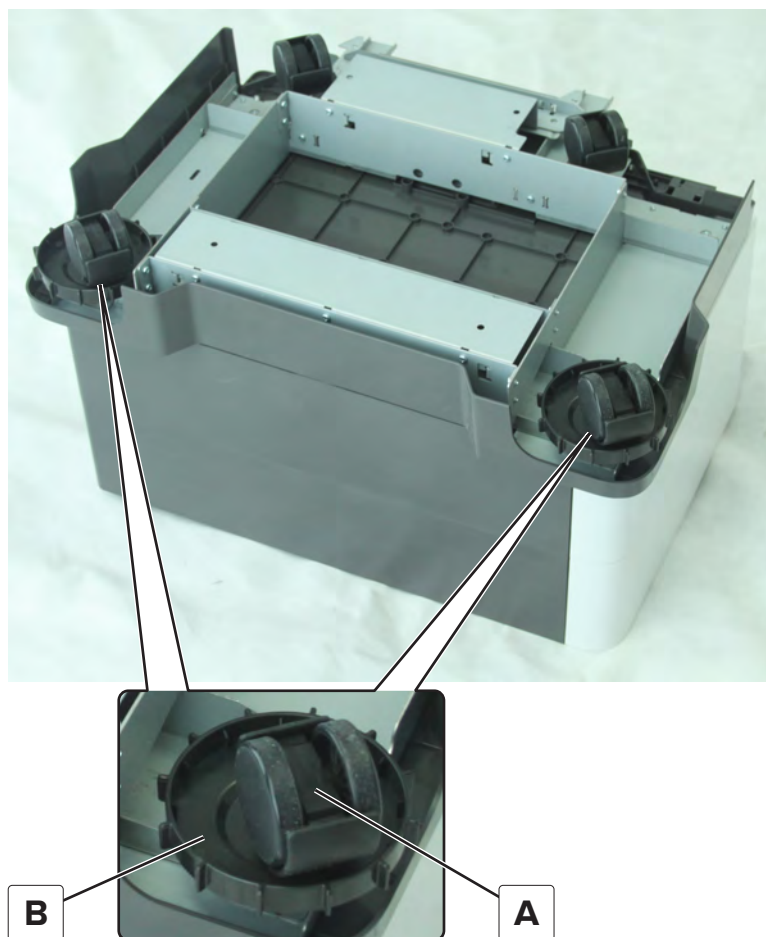
⚠ CAUTION—POTENTIAL INJURY: The frame edges may be sharp. To avoid the risk of a laceration injury, use caution when working near the frame edges.



5 Lift the finisher, and then remove the cabinet.

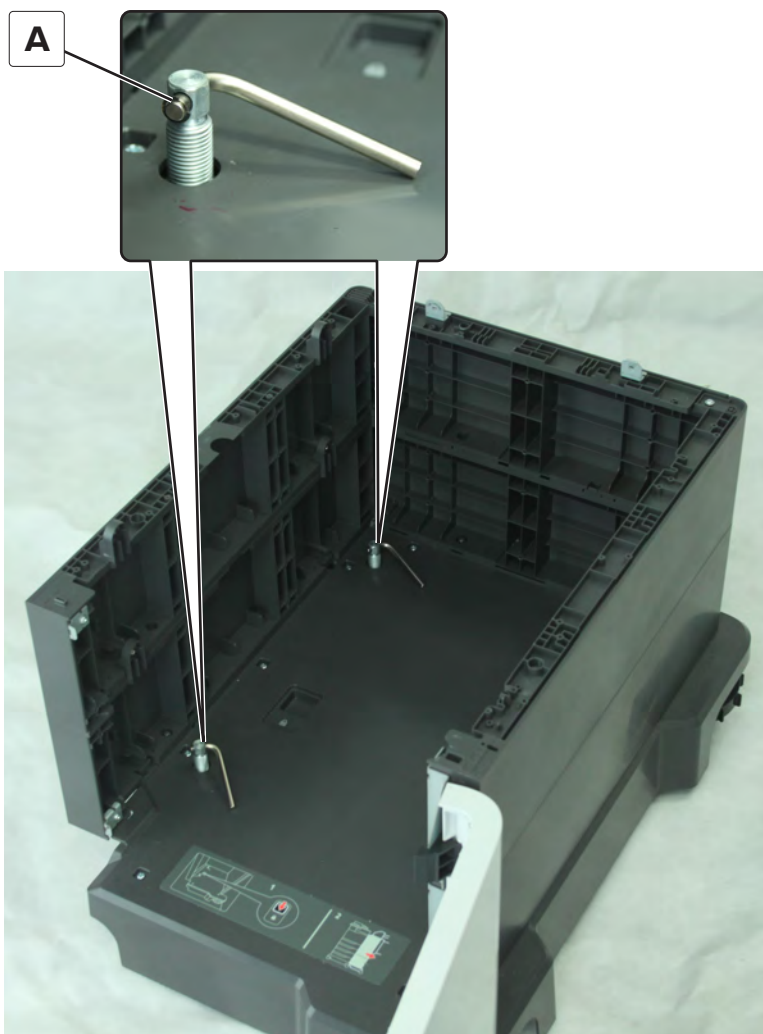
Cabinet right wheel removal

- 1 Remove the cabinet. See [“Cabinet removal” on page 1317](#).
- 2 From the bottom, rotate the wheel (A) and knob (B) counterclockwise until they are removed.

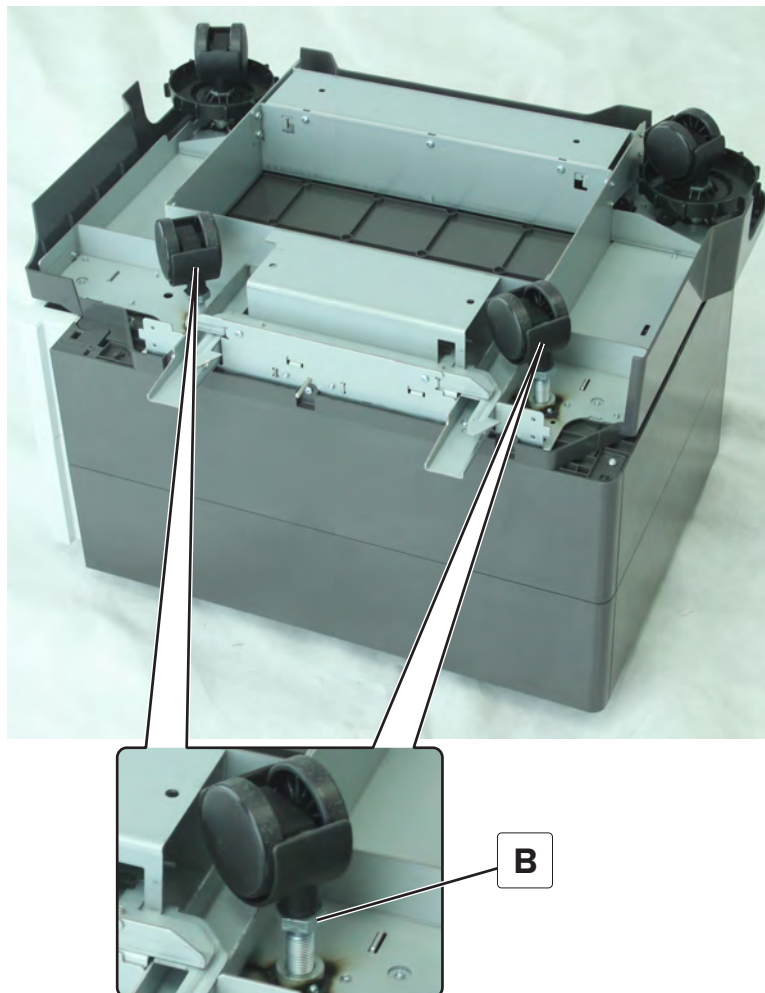


Cabinet left wheel removal

- 1 Remove the cabinet. See [“Cabinet removal” on page 1317.](#)
- 2 Remove the E-clip (A), and then remove the handle.



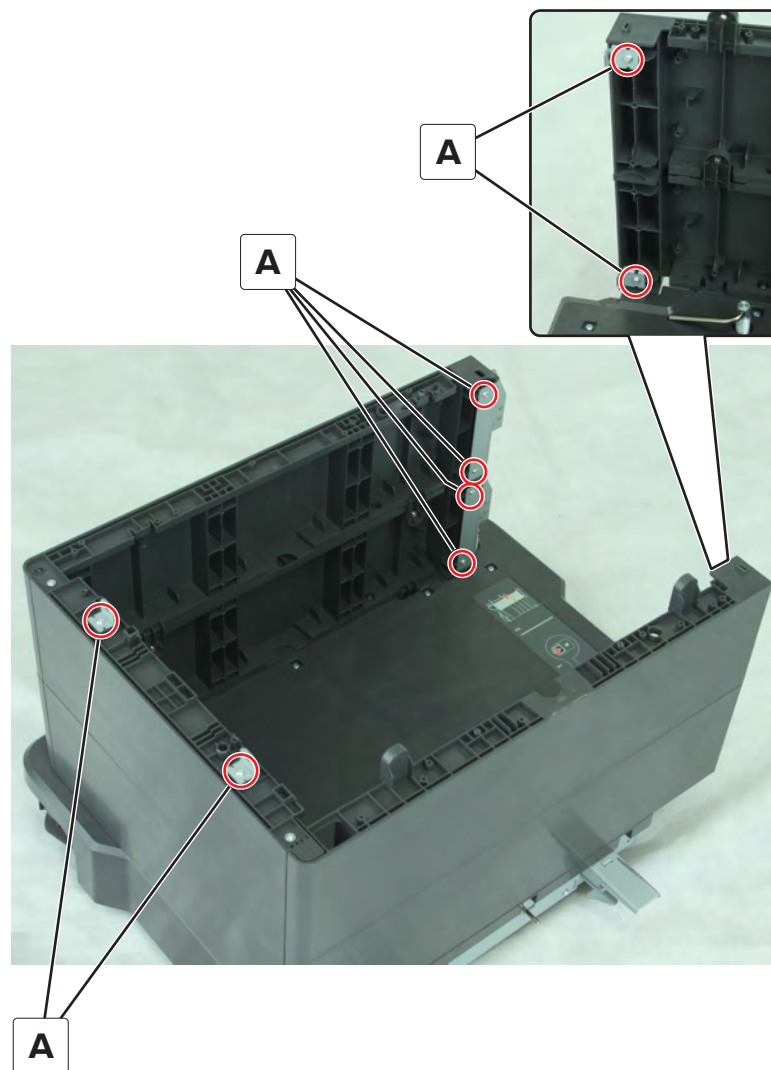
- 3 From the bottom, rotate the wheel screw (B) counterclockwise until the wheel is removed.



Cabinet brackets removal

- 1 Remove the cabinet. See [“Cabinet removal” on page 1317](#).
- 2 Remove the cabinet door. See [“Cabinet door removal” on page 1316](#).

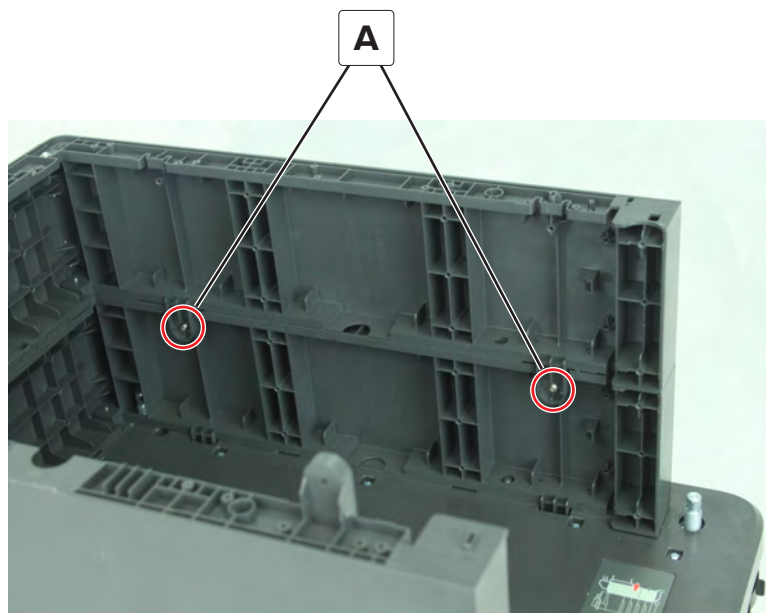
3 Remove the eight screws (A), and then remove the brackets.



Cabinet upper covers removal

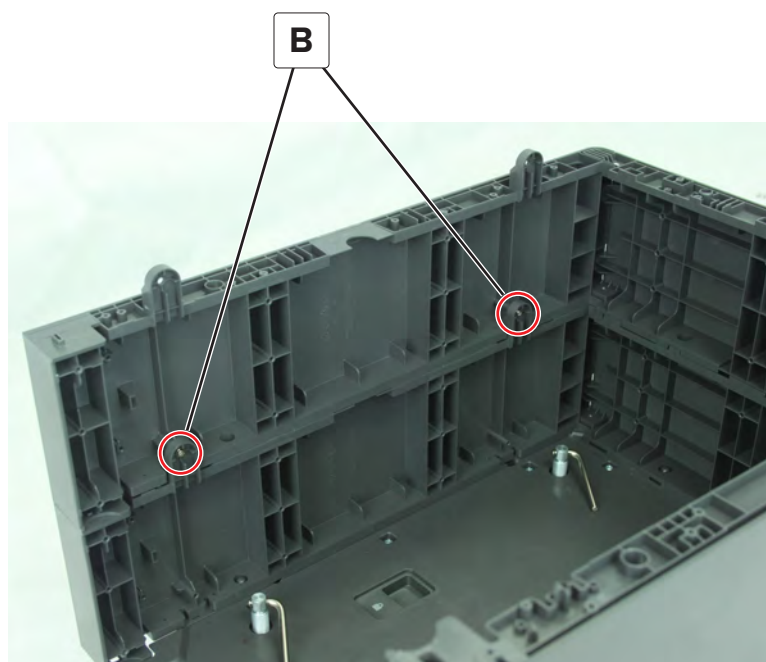
- 1** Remove the cabinet. See [“Cabinet removal” on page 1317.](#)
- 2** Remove the appropriate cabinet brackets. See [“Cabinet brackets removal” on page 1321.](#)

- 3 Remove the two screws (A).

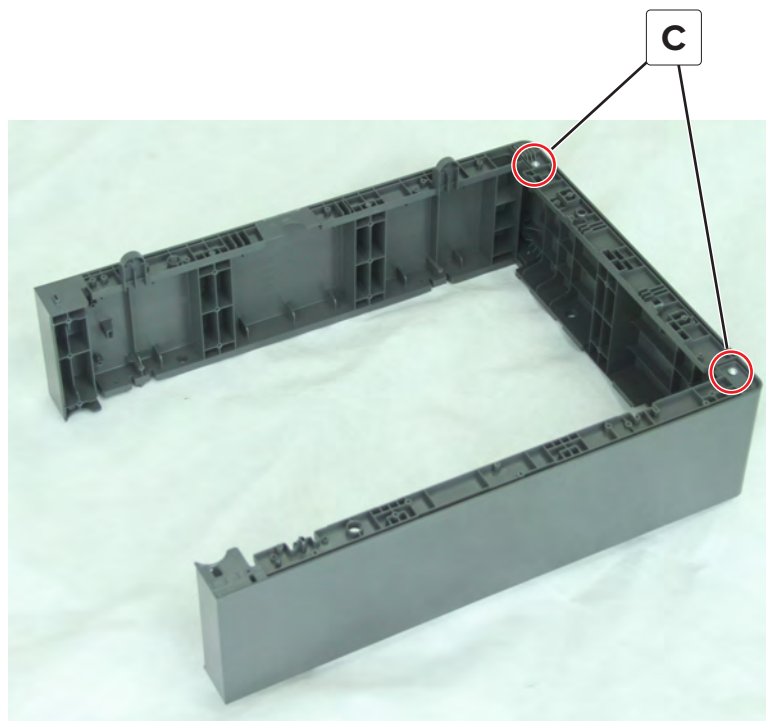


- 4 Remove the two screws (B), and then remove the side and rear covers.

Installation note: On the left side cover, the pegs point upward.



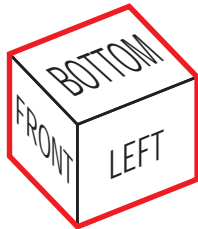
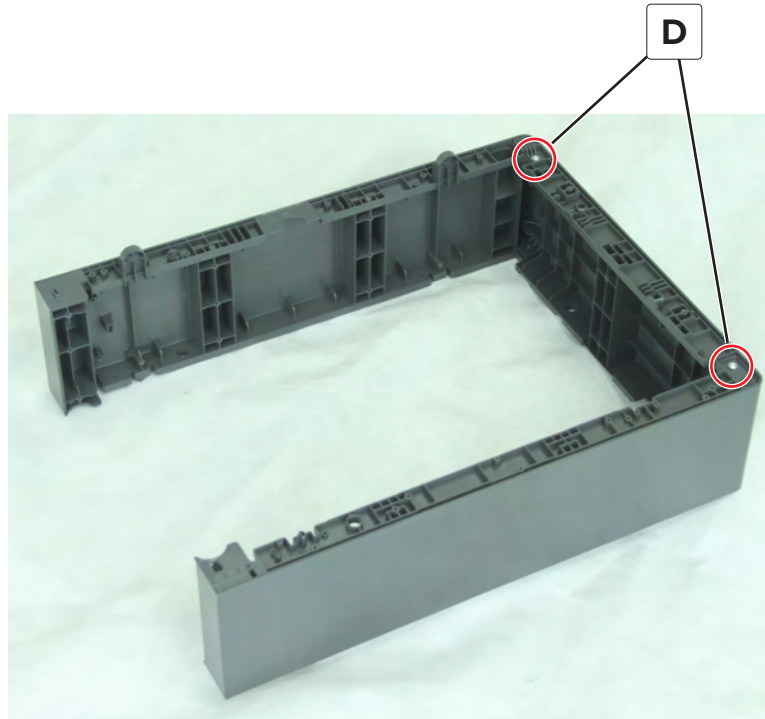
5 Remove the two screws (C).



Parts removal

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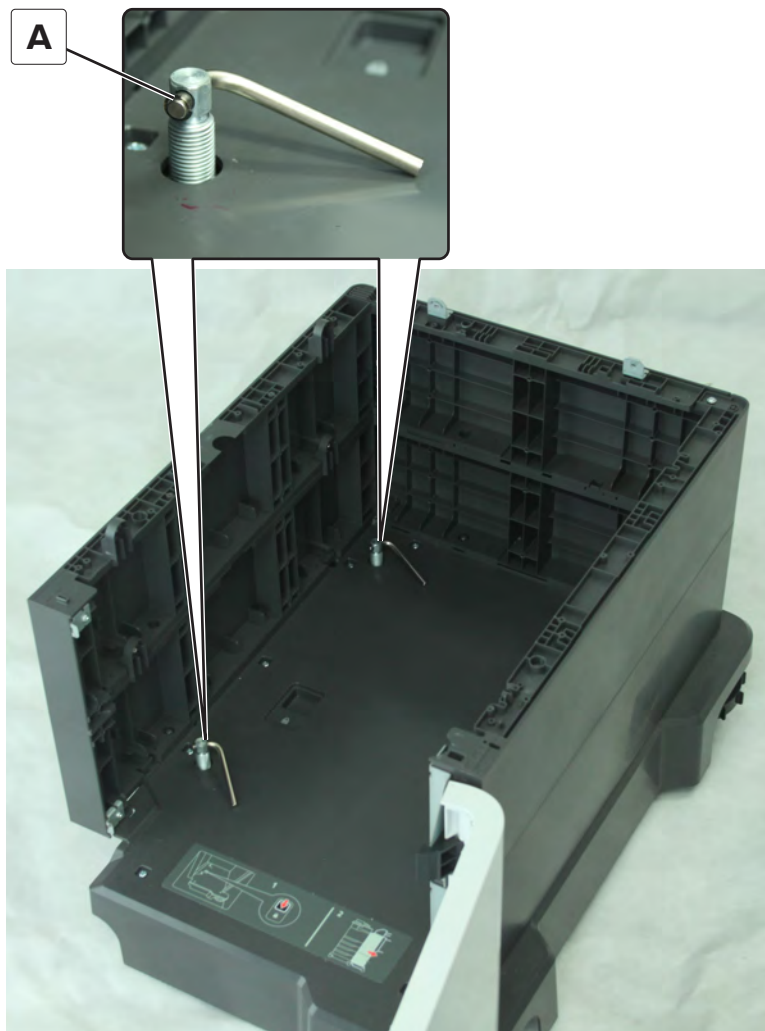
- 6 From the bottom, remove the two screws (D), and then remove the covers.



Cabinet lower covers removal

- 1 Remove the cabinet. See [“Cabinet removal” on page 1317.](#)
- 2 Remove the appropriate cabinet brackets. See [“Cabinet brackets removal” on page 1321.](#)
- 3 Remove the cabinet upper covers. See [“Cabinet upper covers removal” on page 1322.](#)

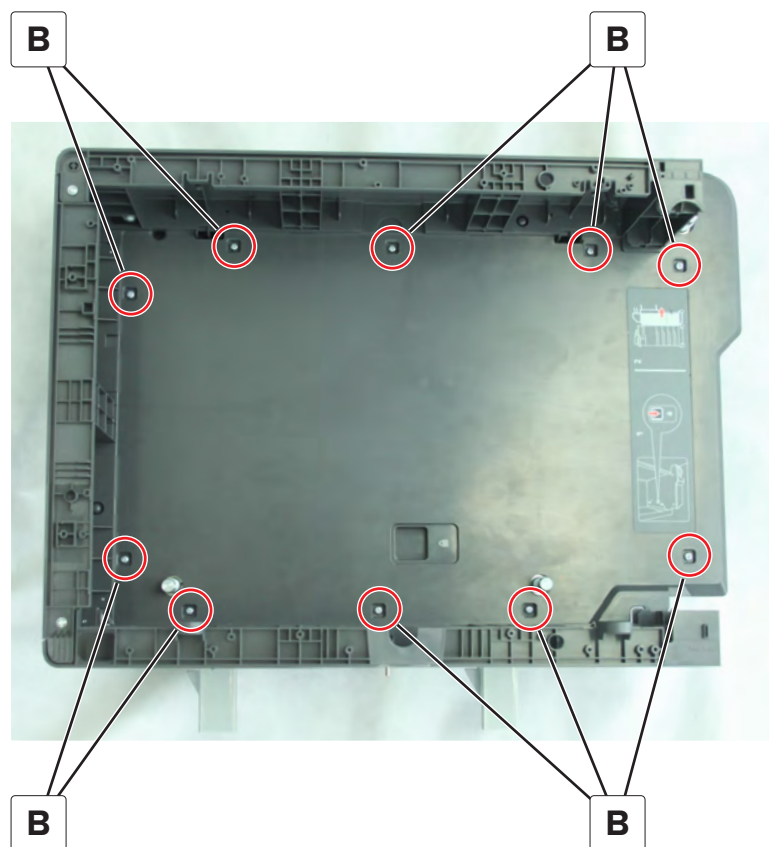
4 Remove the two E-clips (A), and then remove the handles.



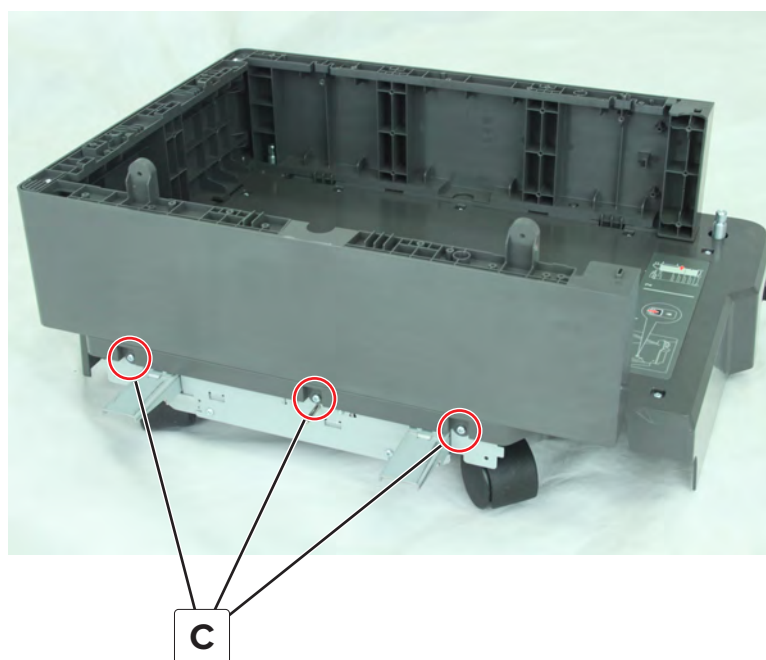
Parts removal

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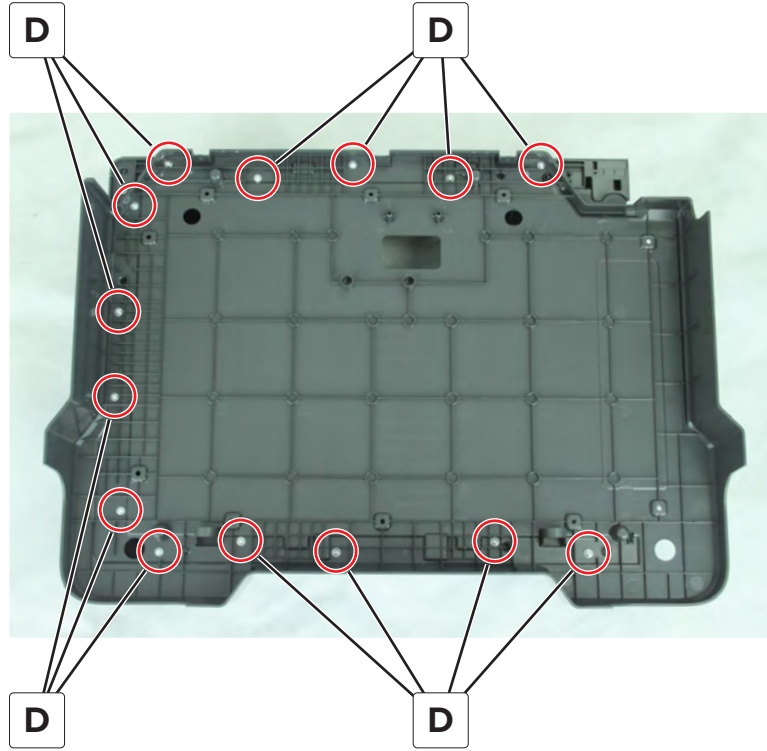
5 Remove the 10 screws (B).



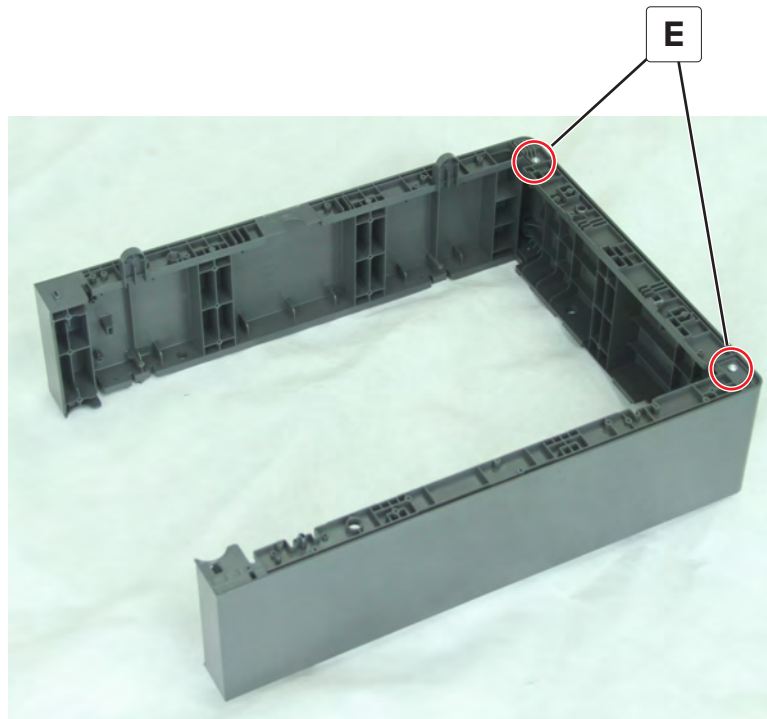
6 Remove the three screws (C), and then separate the lower covers from the wheel frame.



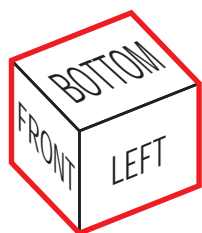
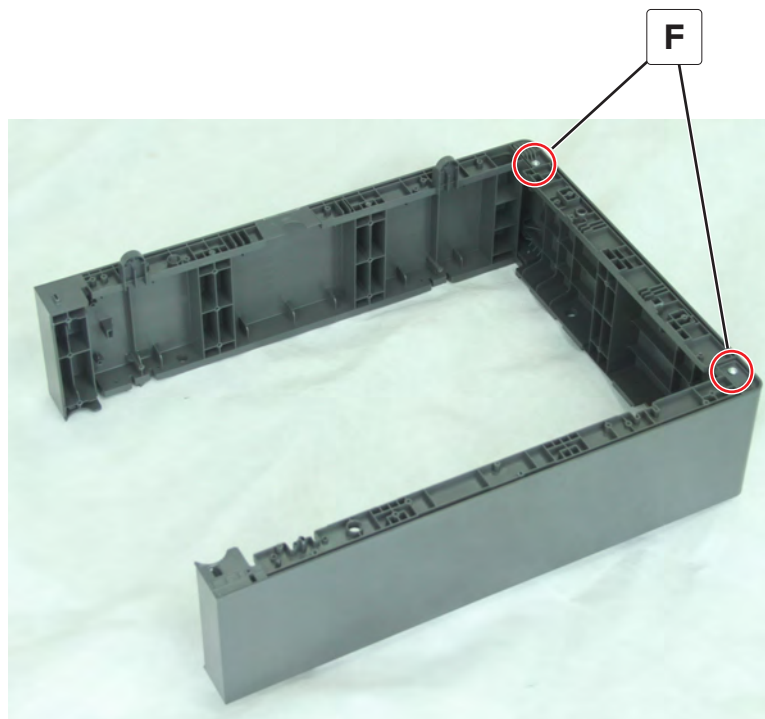
7 From the bottom, remove the 14 screws (D), and then remove the cabinet bottom cover.



8 Remove the two screws (E).



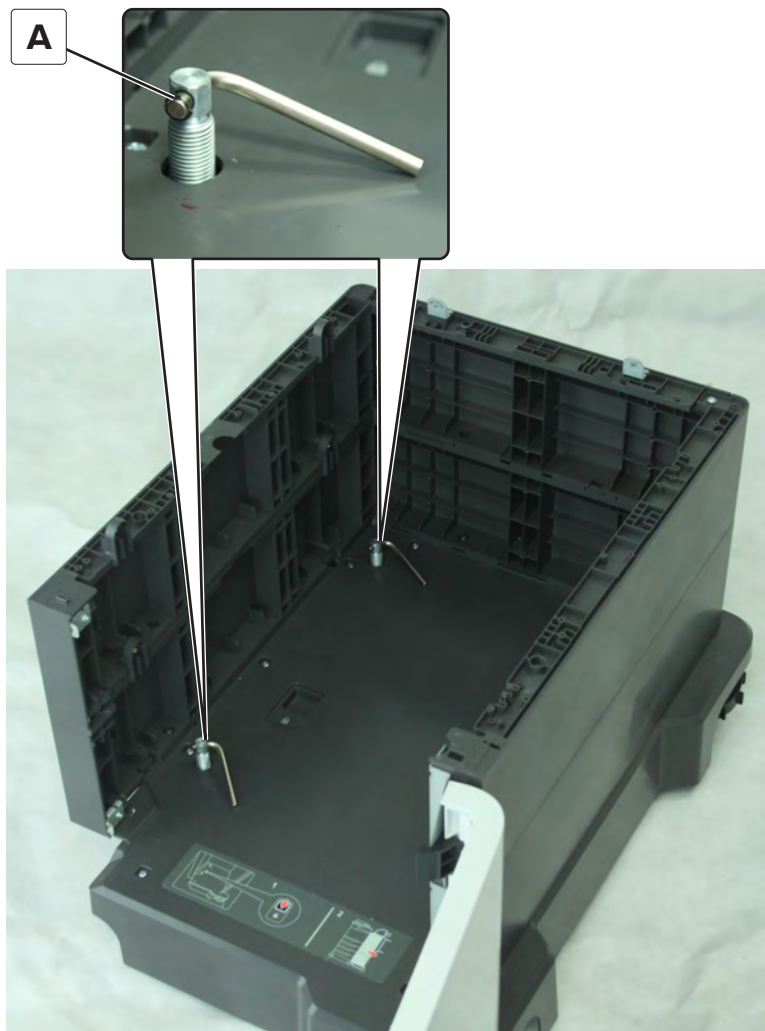
9 From the bottom, remove the two screws (F), and then remove the covers.



Finisher lock button removal

- 1 Remove the cabinet. See [“Cabinet removal” on page 1317.](#)
- 2 Remove the cabinet door. See [“Cabinet door removal” on page 1316.](#)

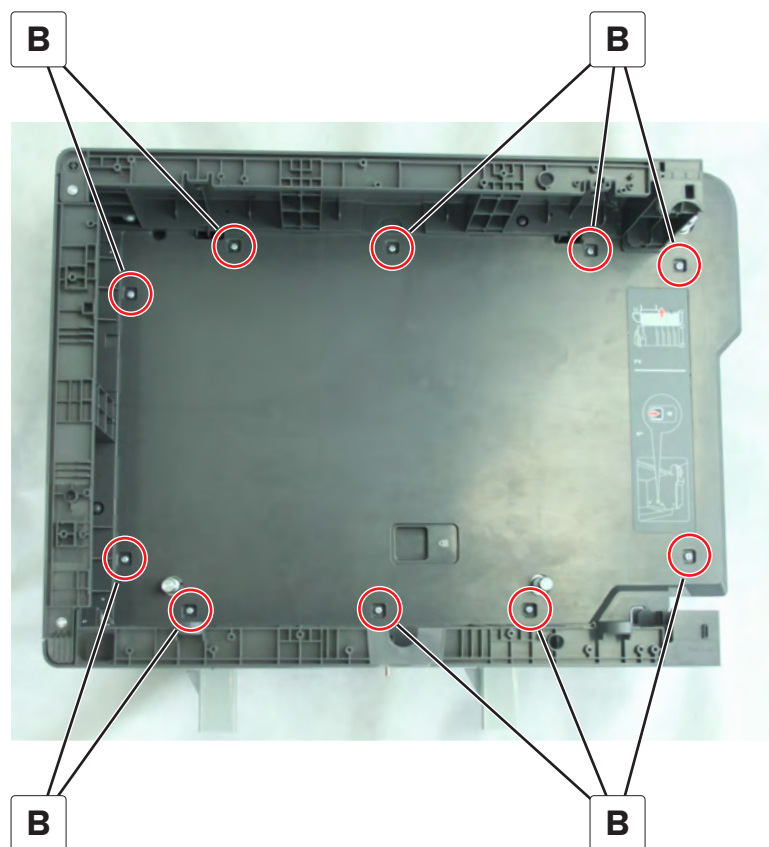
3 Remove the two E-clips (A), and then remove the handles.



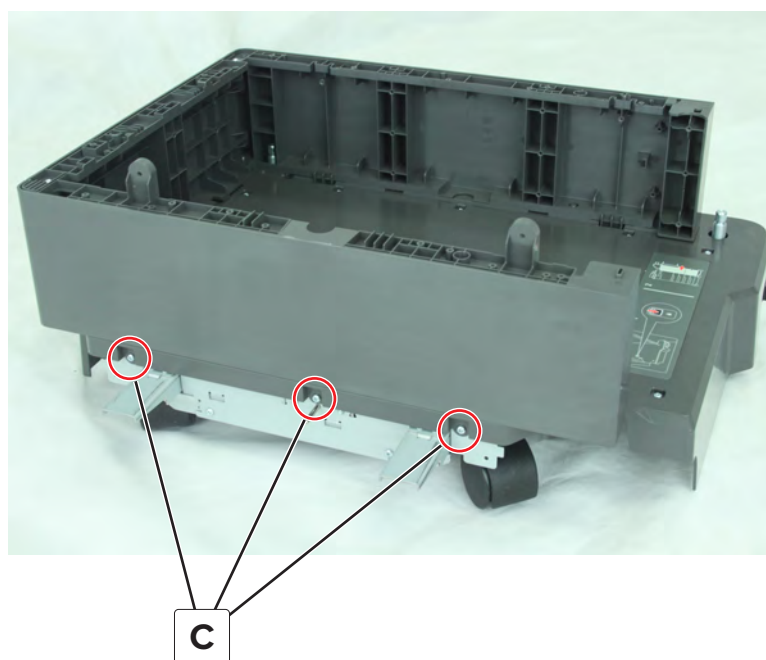
Parts removal

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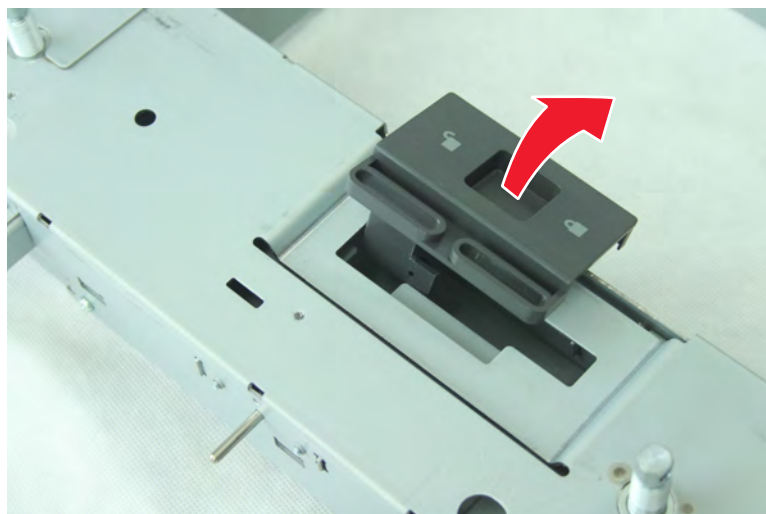
4 Remove the 10 screws (B).



5 Remove the three screws (C), and then separate the walls and cabinet floor from the wheel frame.

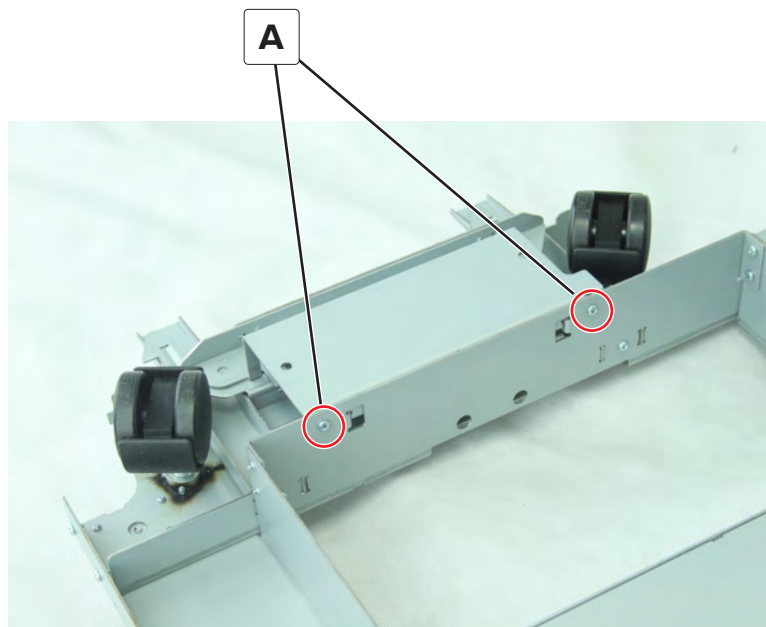


- 6 Release the button from its latch, and then remove it.

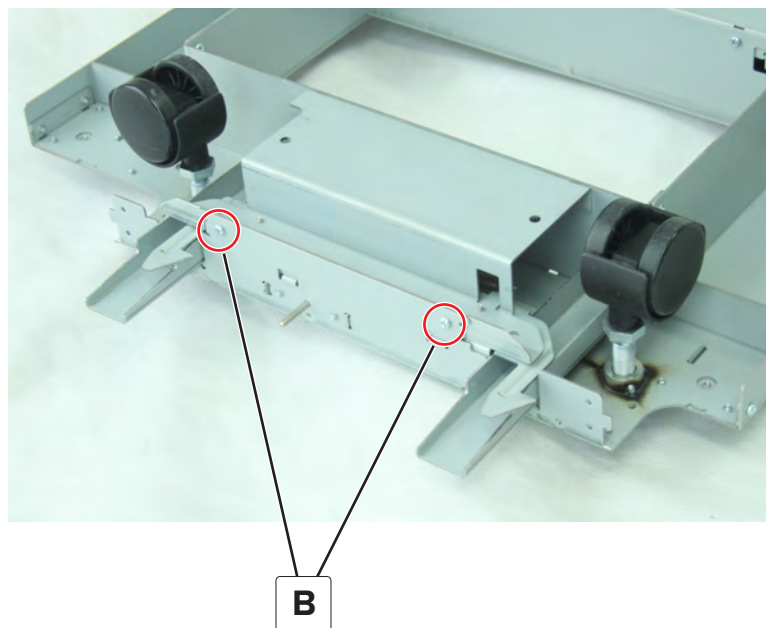


Finisher lock latch removal

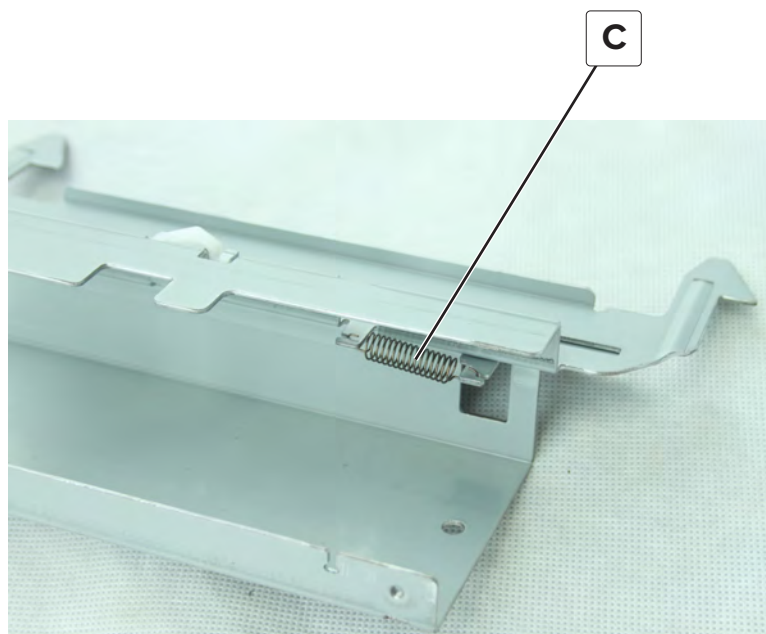
- 1 Remove the cabinet. See [“Cabinet removal” on page 1317](#).
- 2 Remove the cabinet door. See [“Cabinet door removal” on page 1316](#).
- 3 Remove the finisher lock button. See [“Finisher lock button removal” on page 1329](#).
- 4 From the bottom, remove the two screws (A).



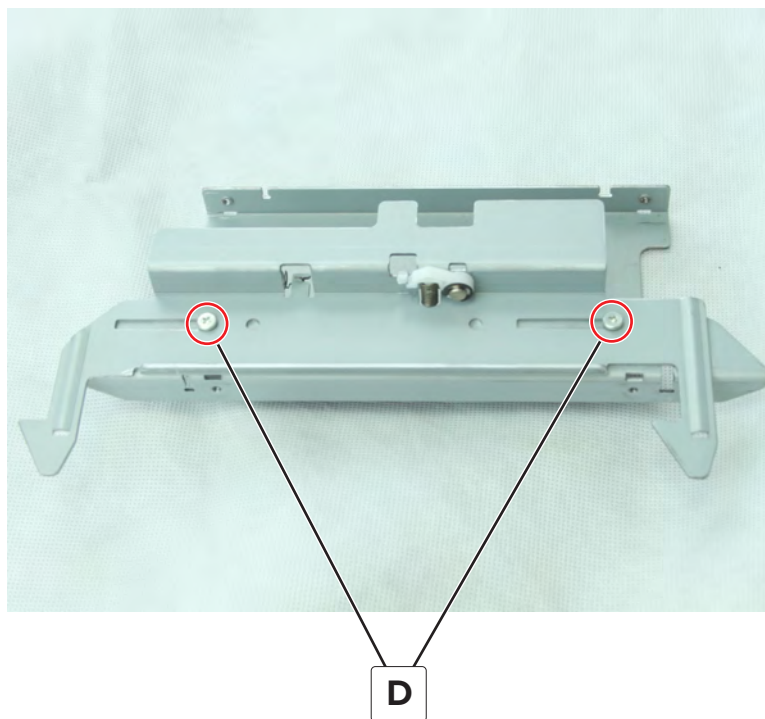
5 Remove the two screws (B), and then remove the bracket.



6 Release the spring (C).



7 Remove the two screws (D), and then remove the latch.

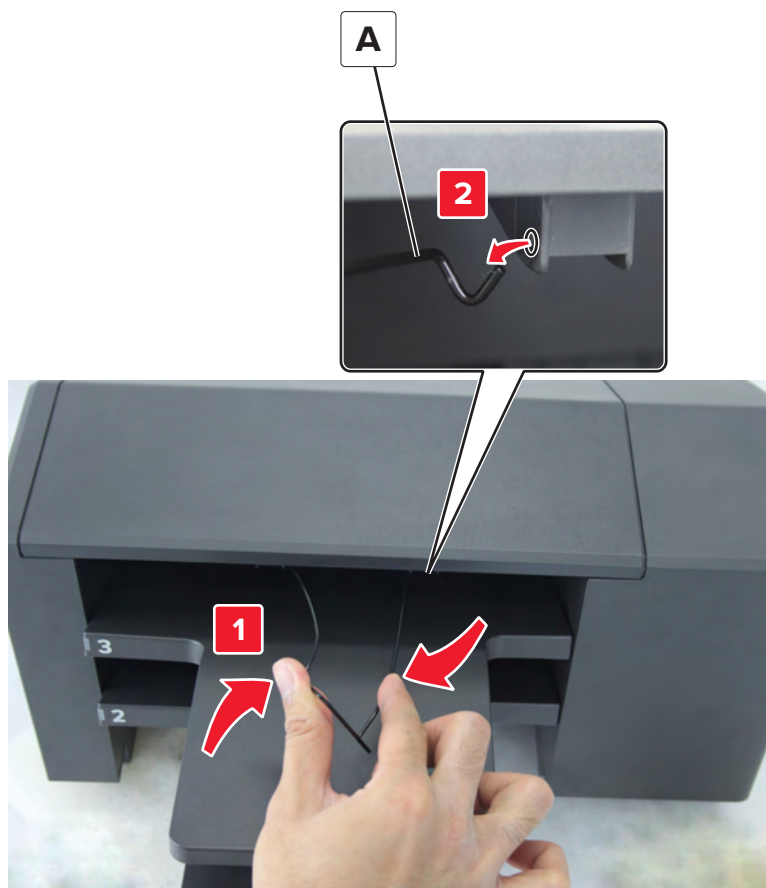


Installation note: Make sure that the latch retracts properly.

2-bin mailbox removals

Mailbox bail removal

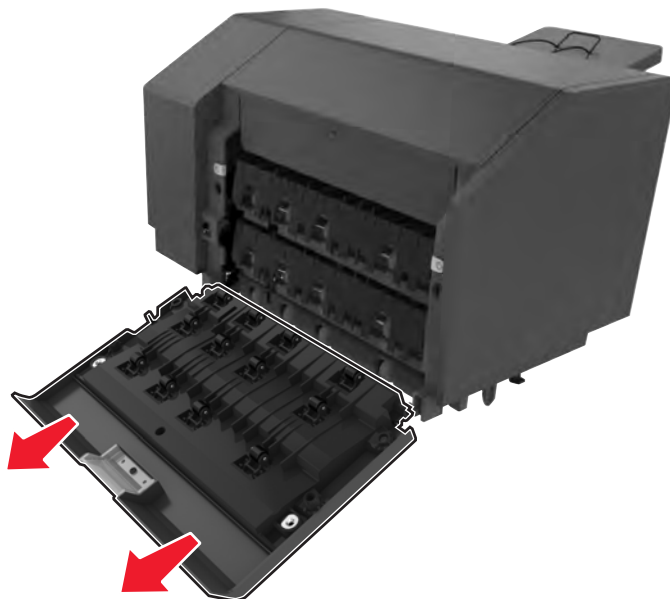
- 1 Twist the bail until one end (A) is released.



- 2 Remove the bail.

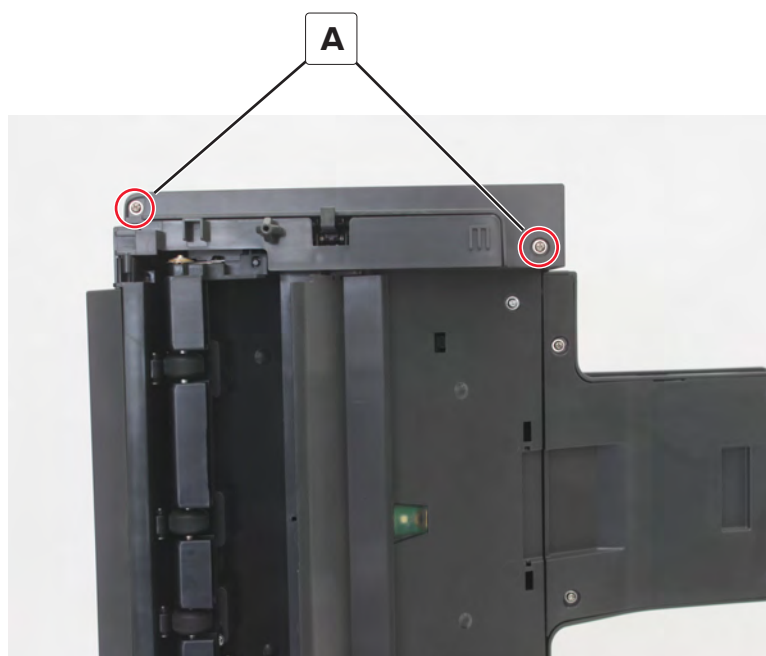
Mailbox jam door removal

- 1 Open the jam door.
- 2 Remove the door.



Mailbox front cover removal

- 1 Remove the two screws (A) under the cover.



Parts removal

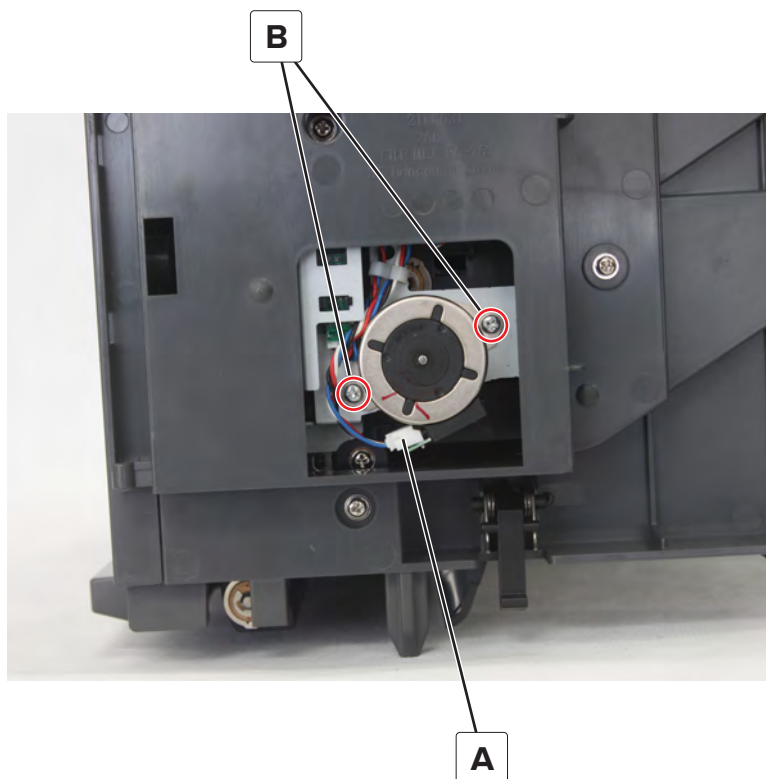
1336

- 2 Pry to release, and then remove the cover.



Motor (mailbox diverter) removal

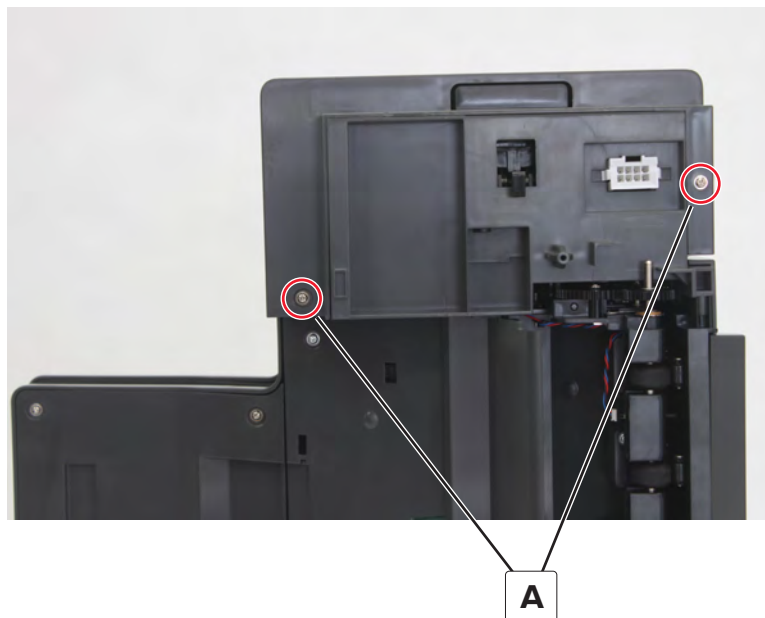
- 1 Remove the mailbox front cover. See [“Mailbox bail removal” on page 1335](#).
- 2 Disconnect the cable (A), and then remove the two screws (B).



- 3 Remove the motor.

Mailbox rear cover removal

- 1 Remove the two screws (A) under the cover.

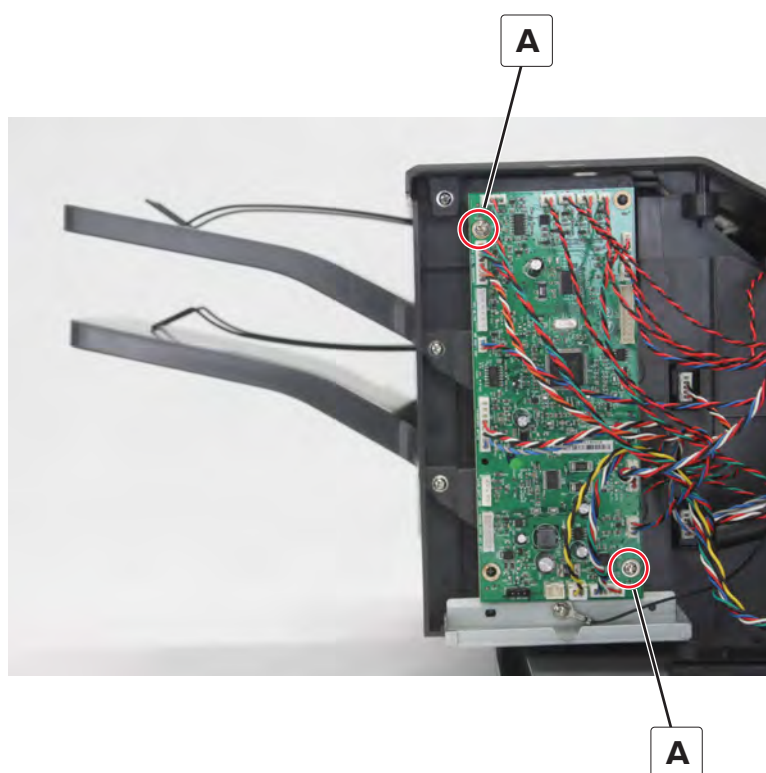


- 2 While pressing the latch, pry the cover to release, and then remove the cover.



Mailbox controller board removal

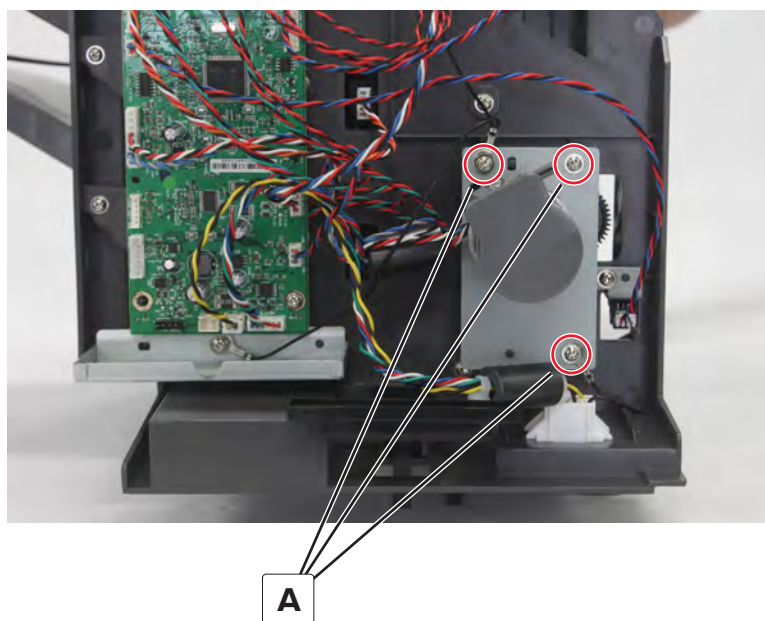
- 1 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 2 Disconnect all the cables, and then remove the two screws (A).



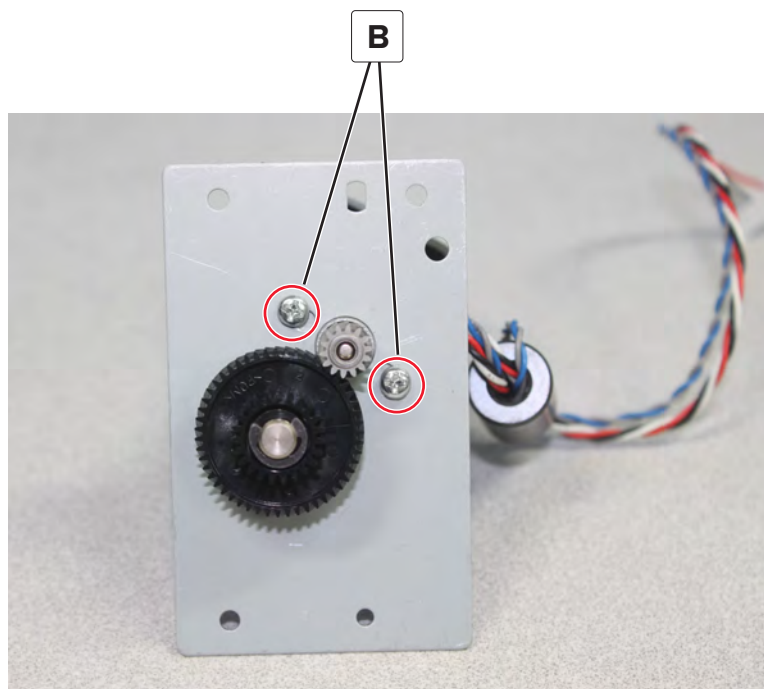
- 3 Remove the board.

Motor (mailbox transport) removal

- 1 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 2 Remove the three screws (A), and then remove the bracket.



- 3 Disconnect the motor cable from the mailbox controller board.
- 4 Remove the two screws (B), and then remove the motor.



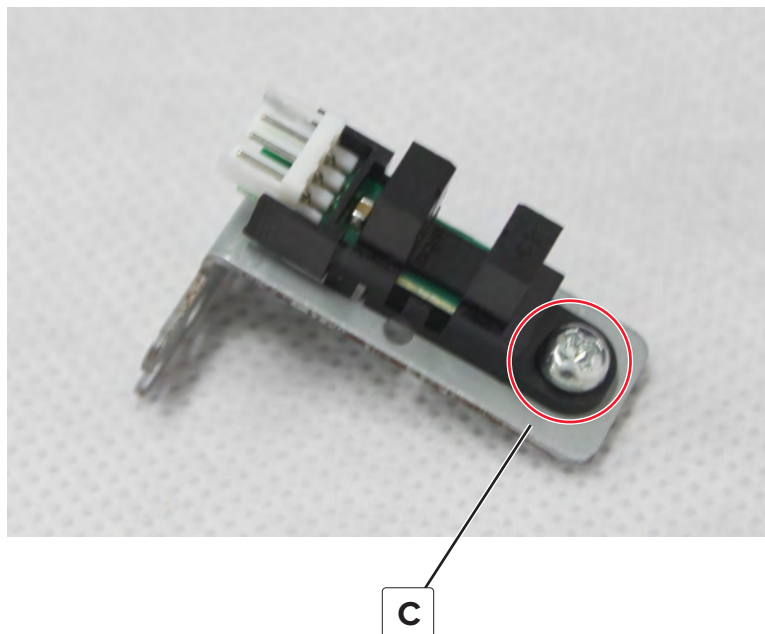
- 5 Disconnect the cable, and then remove the motor.

Sensor (mailbox jam door) removal

- 1 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 2 Disconnect the cable (A), remove the screw (B), and then remove the sensor bracket.

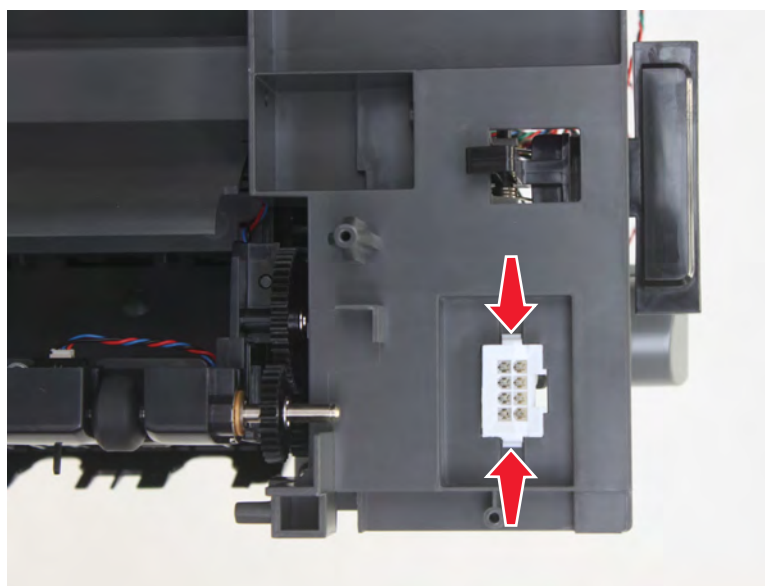


- 3 Remove the screw (C), and then remove the sensor.



Mailbox interface cable removal

- 1 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 2 Disconnect the cables J1 and J2 from the mailbox controller board.
- 3 Under the mailbox, press the latches, and then push the connector to release.

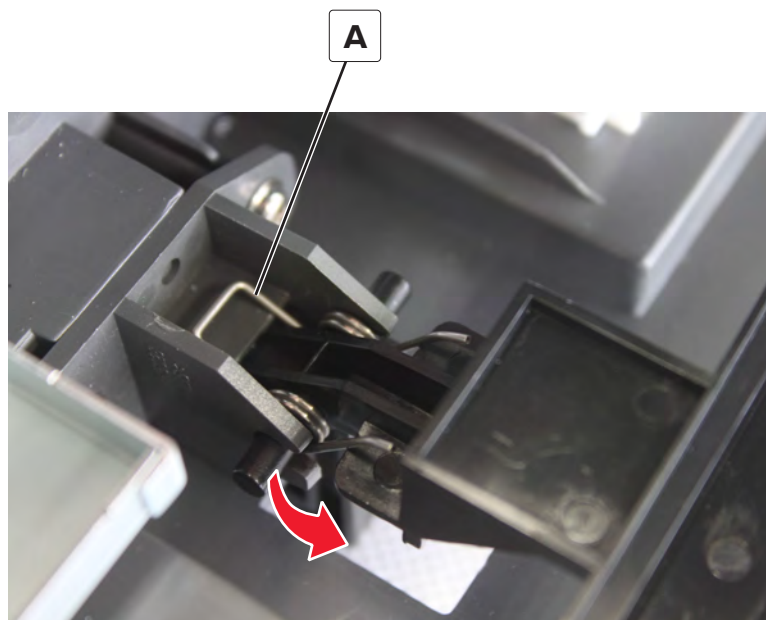


- 4 Remove the cable.

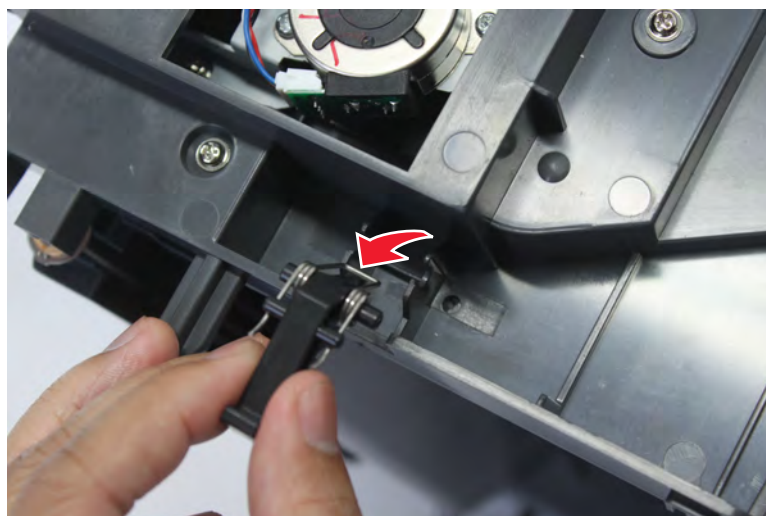
Mailbox latch removal

- 1 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336](#).
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 3 Remove the rear latch.

Installation note: Take note of the correct position of the spring (A).



- 4 Remove the front latch.



Installation note: Take note of the correct position of the spring.



Parts removal

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Mailbox bottom cover removal

- 1 Pry the cover to release.

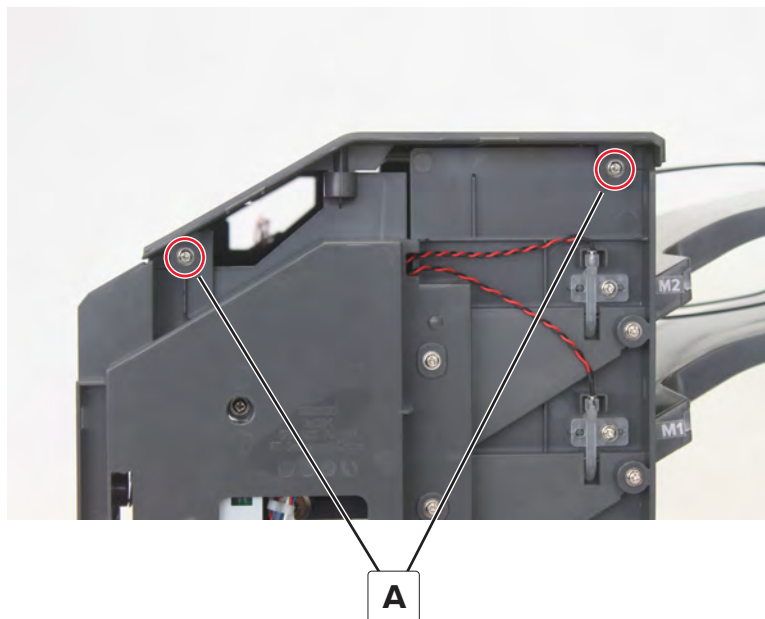


- 2 Remove the cover.

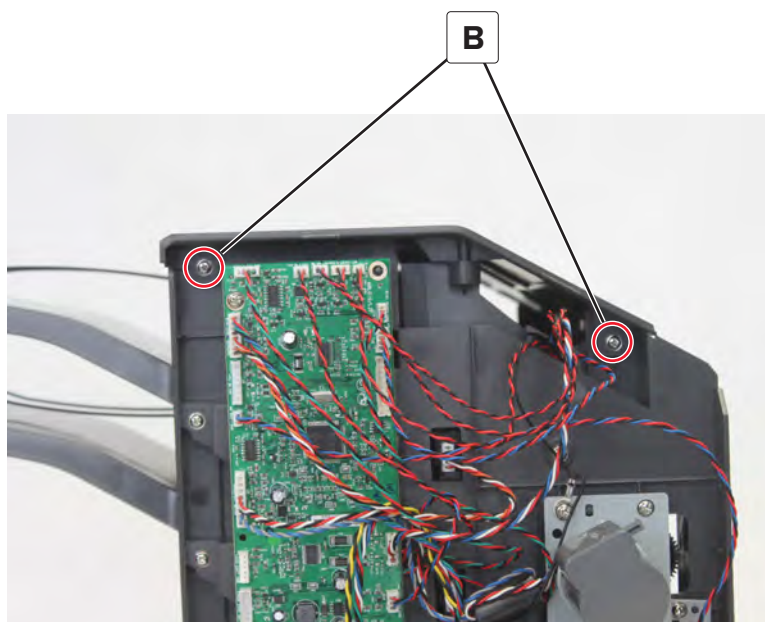
Mailbox top cover removal

- 1 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336](#).
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).

3 Remove the two screws (A).



4 From the rear, remove the two screws (B).



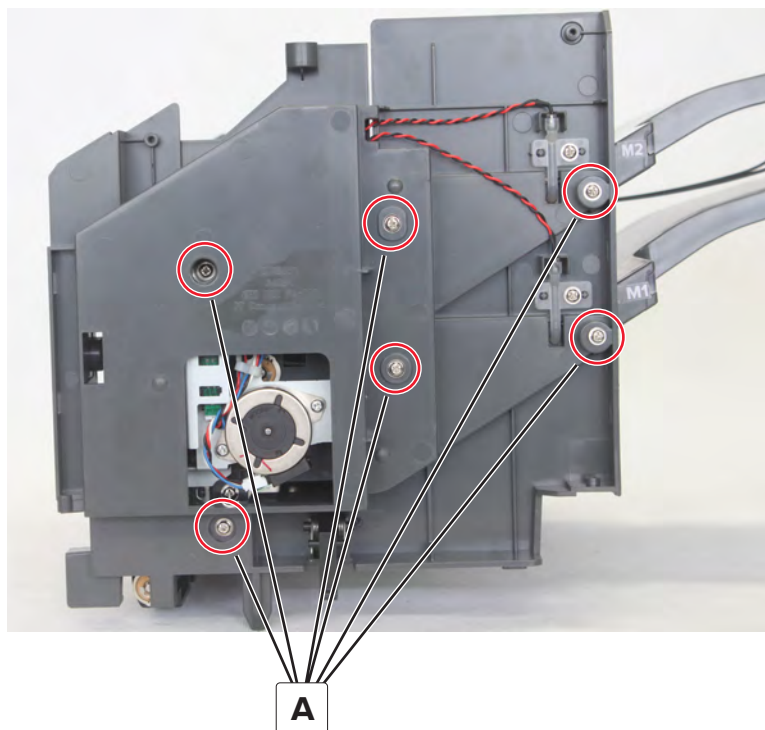
5 Remove the cover.

Mailbox front inner cover removal

Note: This part is not a FRU.

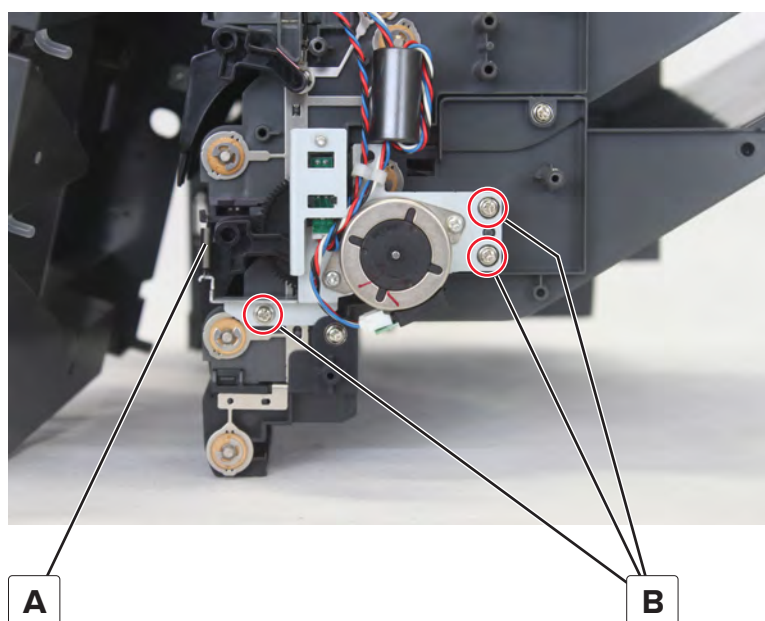
- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336](#).

- 3 Remove the six screws (A), and then remove the cover.



Sensor (mailbox diverter home) removal

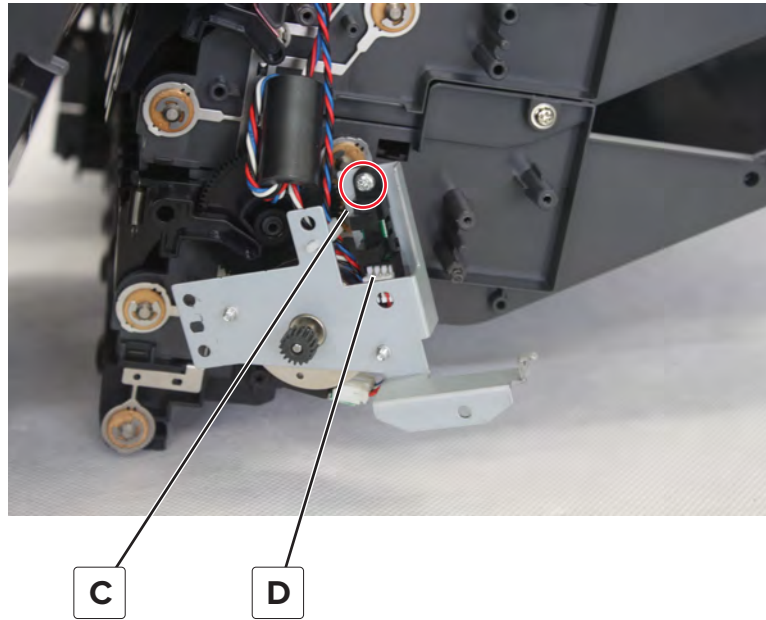
- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336](#).
- 3 Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346](#).
- 4 Disconnect the spring (A), and then remove the three screws (B).



Parts removal

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- 5 Lift the bracket, remove the screw (C), and then disconnect the cable (D).

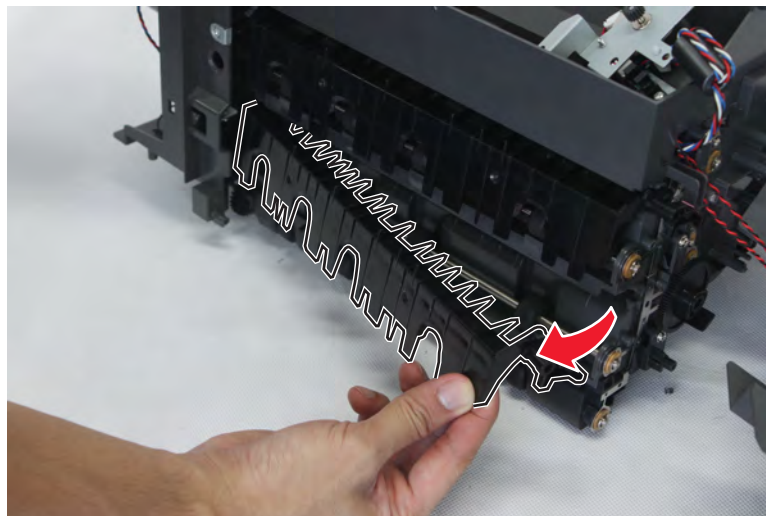


- 6 Remove the sensor.

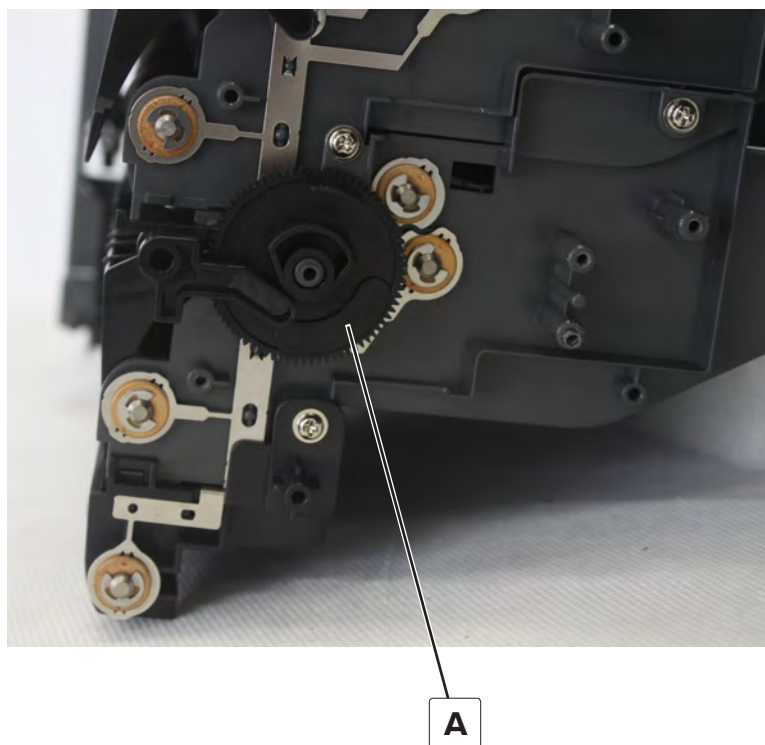
Mailbox diverter removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336](#).
- 3 Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346](#).
- 4 Pull the diverter to release, and then remove it.

Warning—Potential Damage: Do not lose the spring from the bottom diverter.



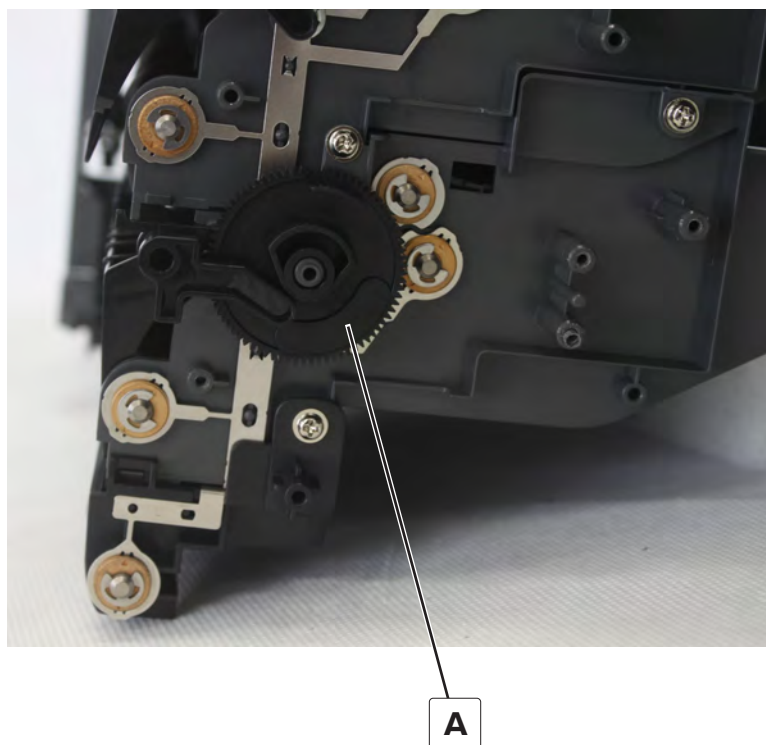
Note: Take note of the correct position of the diverter gear (A).



Mailbox diverter gear removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336.](#)
- 3 Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346.](#)
- 4 Remove the mailbox bottom diverter. See [“Mailbox diverter removal” on page 1348.](#)
- 5 Remove the gear (A).

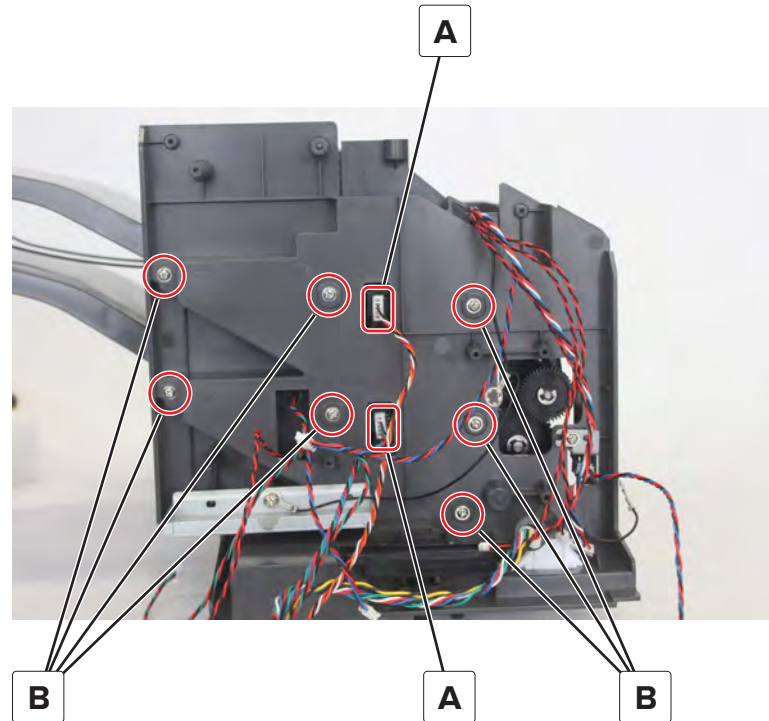
Installation note: Take note of the correct position of the gear.



Mailbox rear inner cover removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)

- 5 Disconnect the two cables (A), and then remove the seven screws (B).

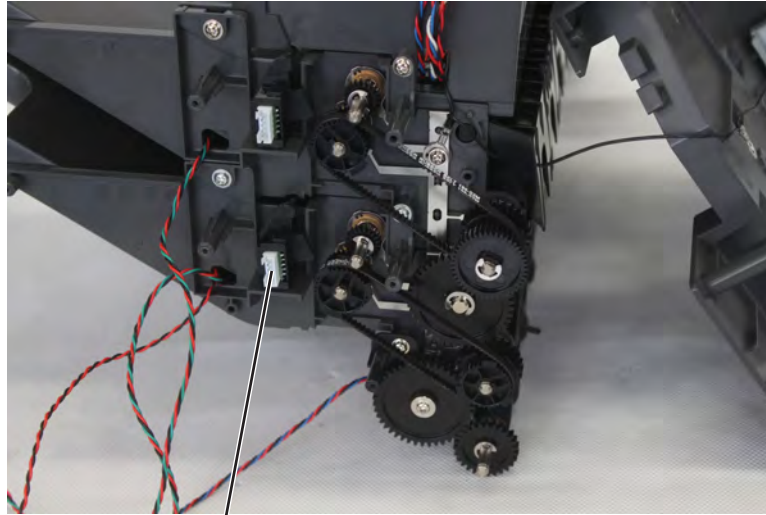


- 6 Remove the cover.

Sensor (mailbox bin 1 full) removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)

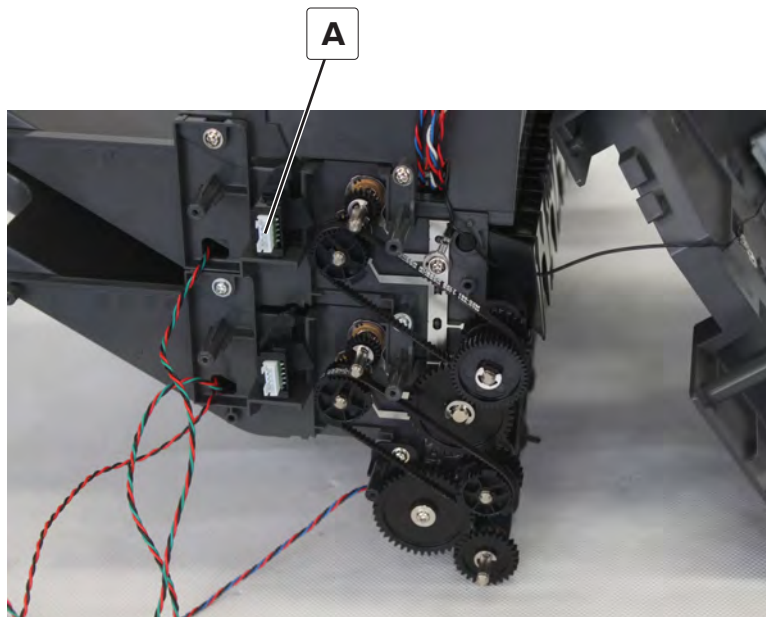
- 6 Remove the sensor (A).



A

Sensor (mailbox bin 2 full) removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339](#).
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340](#).
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350](#).
- 6 Remove the sensor (A).

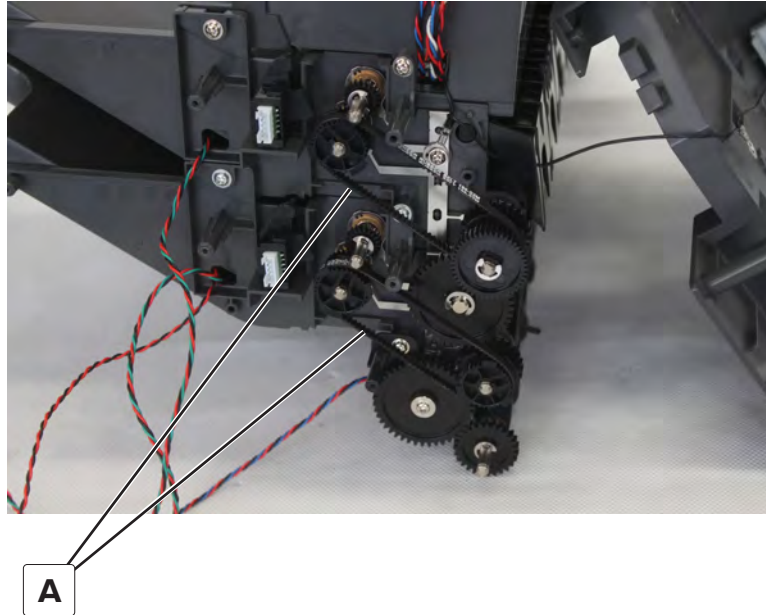


Parts removal

1352

Mailbox drive belt removal

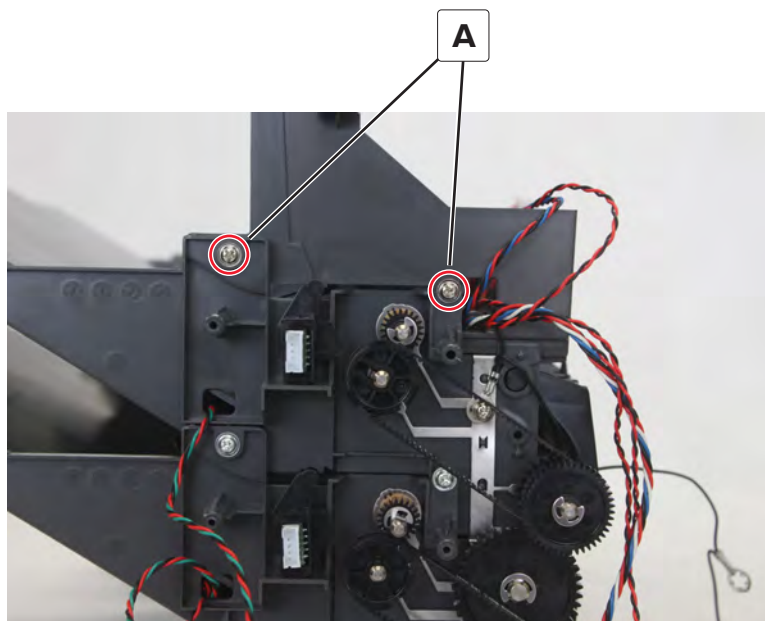
- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)
- 6 Remove the belt (A).



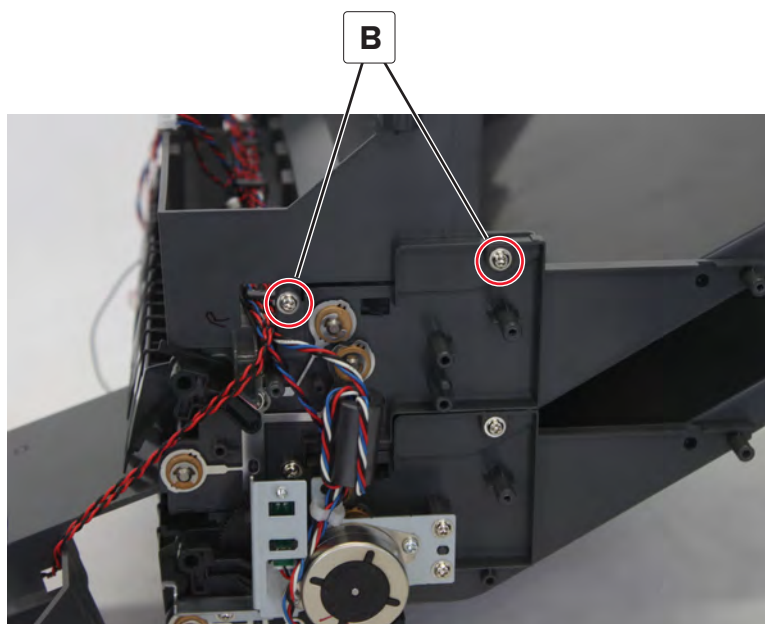
Mailbox bin 2 full sensor flag removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)
- 6 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336.](#)
- 7 Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346.](#)

8 Remove the two screws (A).



9 From the front, remove the two screws (B).



10 Lift bin 2, and then pry the sensor flag to release.

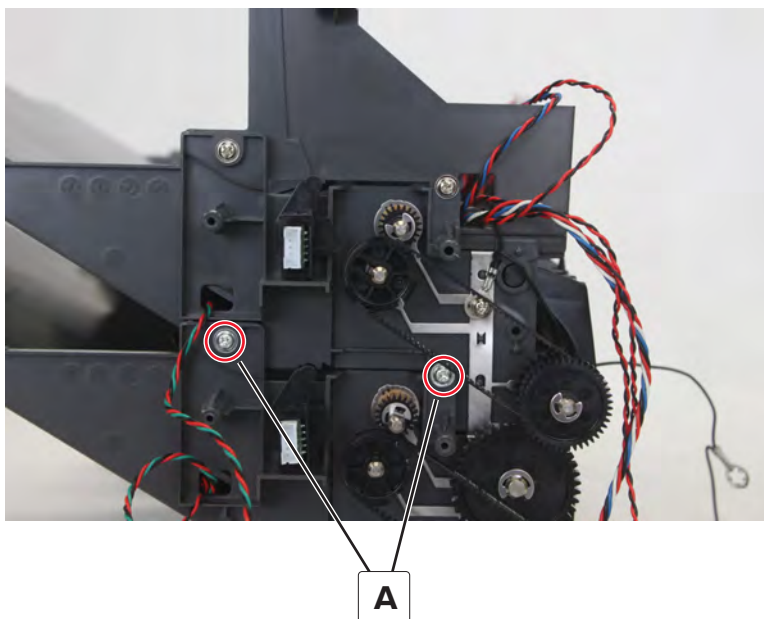
Warning—Potential Damage: Be careful when handling the sensor flag.



- 11** Remove the sensor flag.

Mailbox bin 1 full sensor flag removal

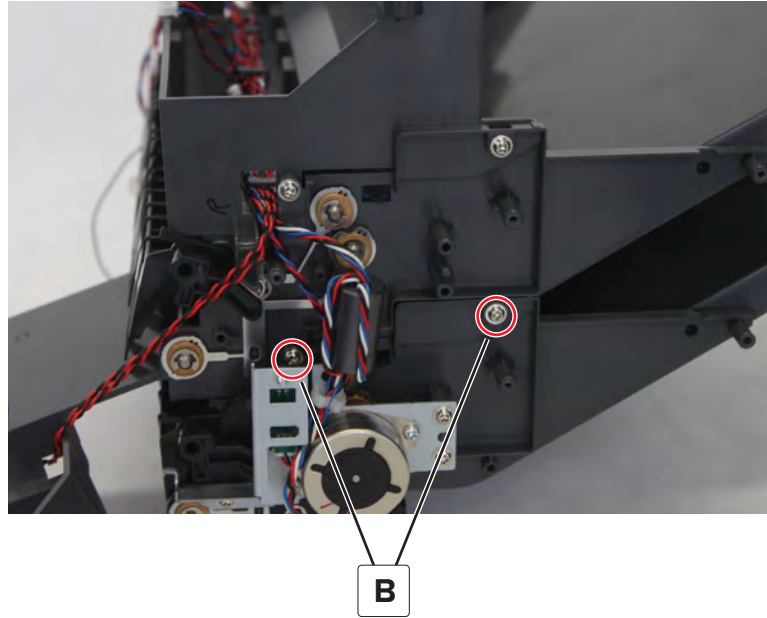
- 1** Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2** Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3** Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4** Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5** Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)
- 6** Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336.](#)
- 7** Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346.](#)
- 8** Remove the two screws (A).



Parts removal

1355

- 9 From the front, remove the two screws (B).



- 10 Lift bin 1, and then pry the sensor flag to release.

Warning—Potential Damage: Be careful when handling the sensor flag.

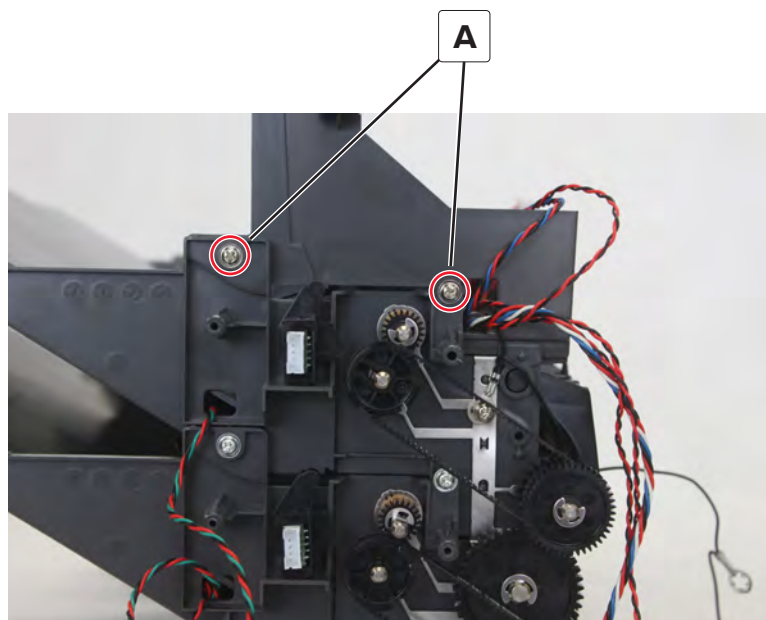


- 11 Remove the sensor flag.

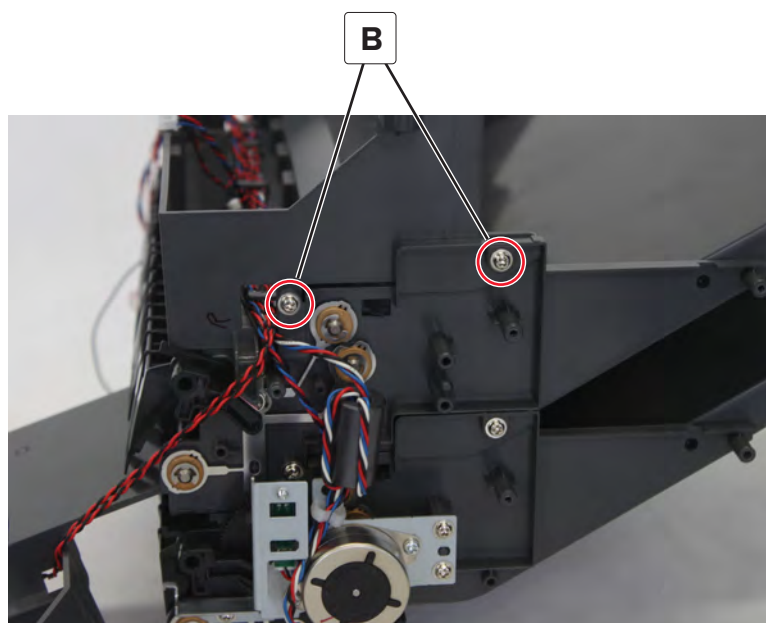
Sensor (mailbox bin 2 paper present) removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339](#).
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340](#).
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350](#).

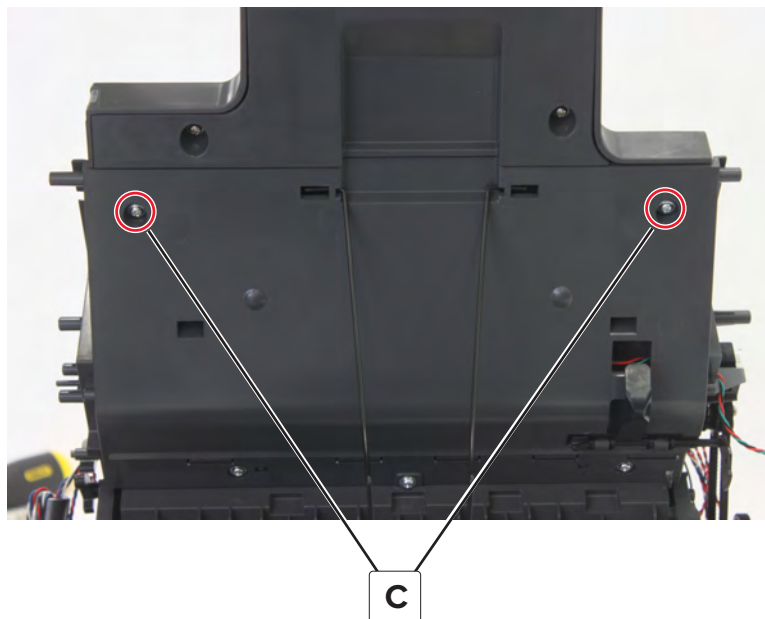
- 6 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336](#).
- 7 Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346](#).
- 8 Remove the two screws (A).



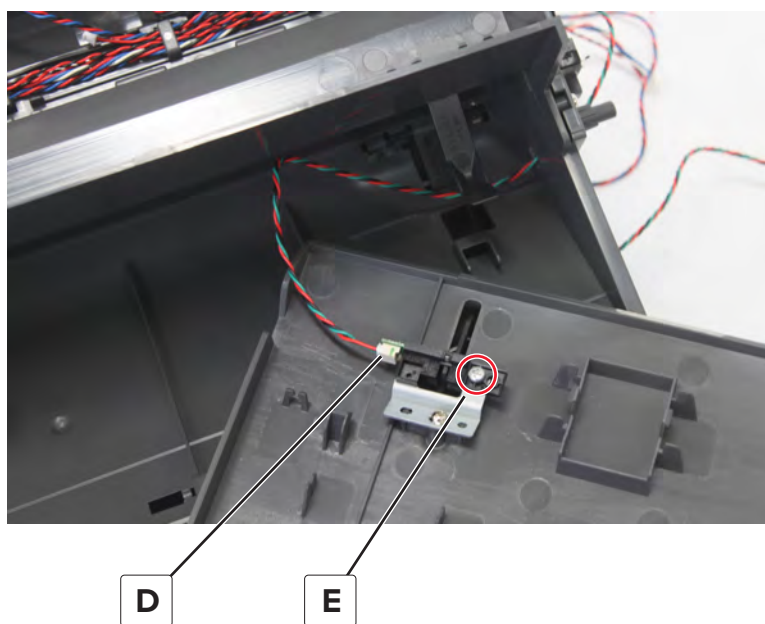
- 9 From the front, remove the two screws (B).



10 Lift Bin 2, remove the two screws (C), and then open the bin.



11 Disconnect the cable (D), and then remove the screw (E).

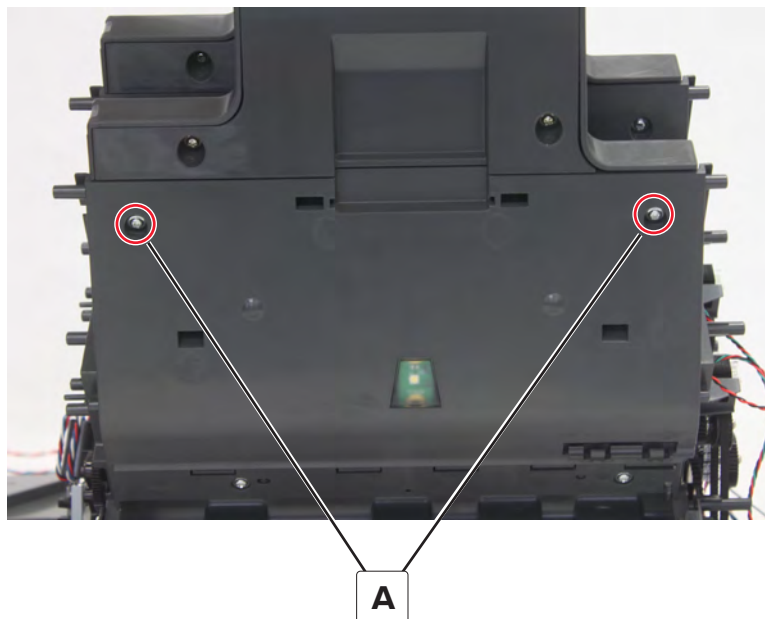


12 Remove the sensor.

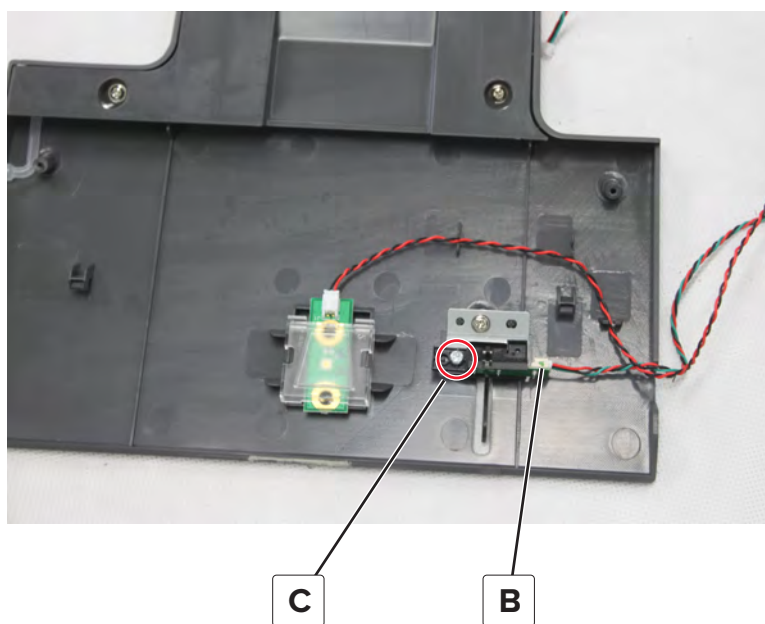
Sensor (mailbox bin 1 paper present) removal

- 1** Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2** Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3** Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336.](#)

- 4 Under bin 1, remove the two screws (A), and then open the bin.



- 5 Disconnect the cable (B), and then remove the screw (C).

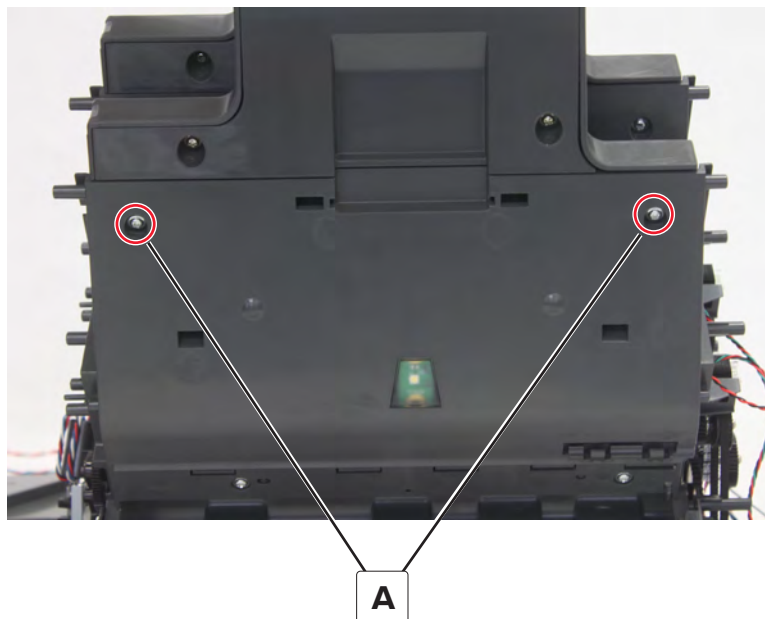


- 6 Remove the sensor.

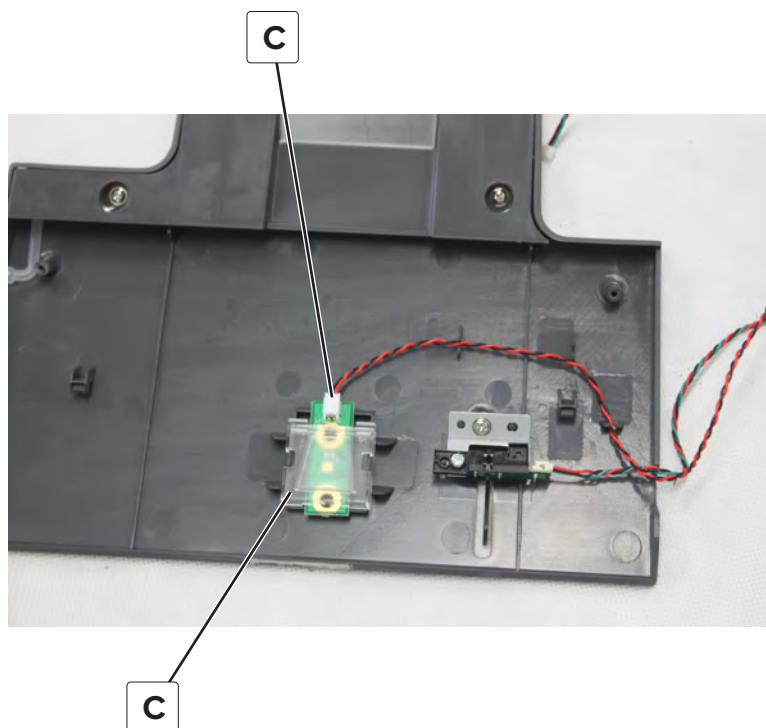
Bin light board removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336.](#)

- 4 Under bin 1, remove the two screws (A), and then open the cover.



- 5 Remove the lens (B), and then disconnect the cable (C).

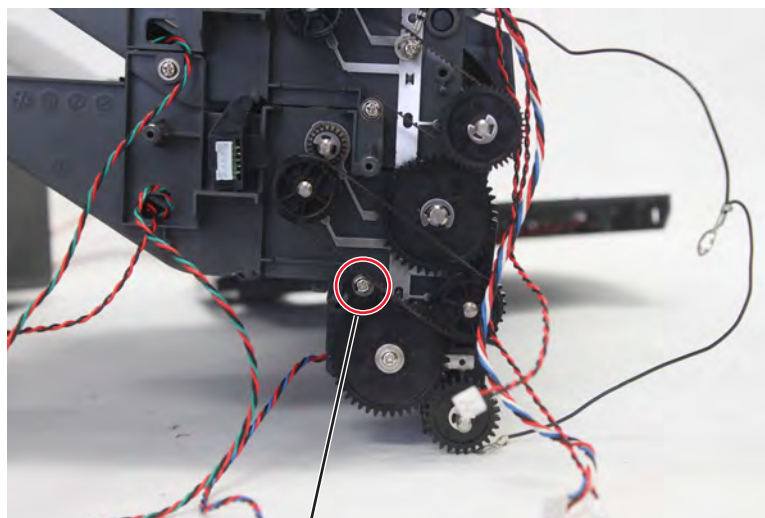


- 6 Remove the bin light board.

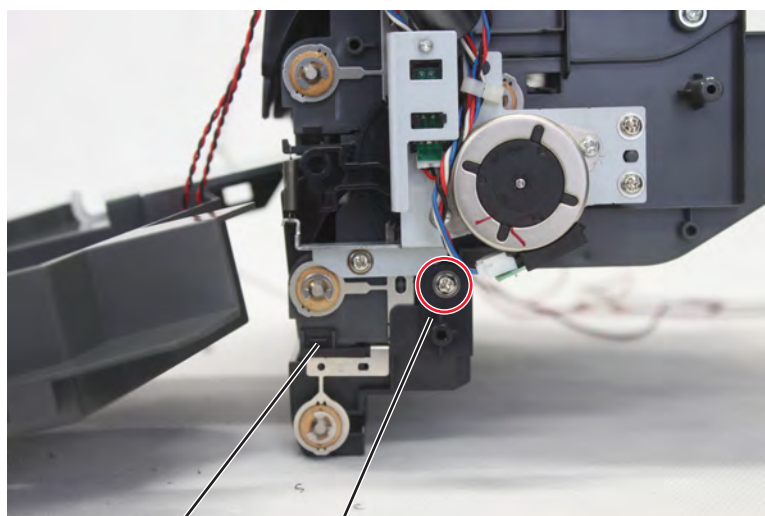
Sensor (mailbox transport) removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).

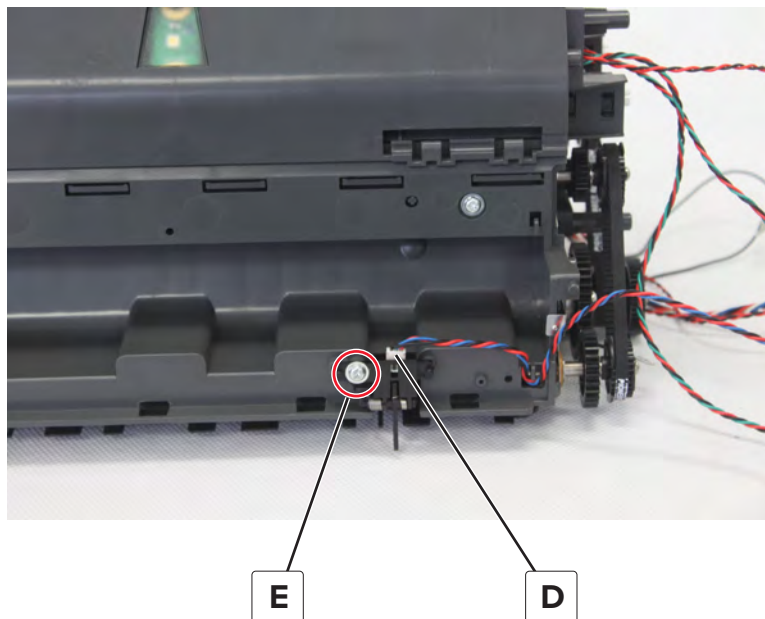
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)
- 6 Remove the mailbox front cover. See [“Mailbox front cover removal” on page 1336.](#)
- 7 Remove the mailbox front inner cover. See [“Mailbox front inner cover removal” on page 1346.](#)
- 8 Remove the screw (A).

**A**

- 9 From the front, remove the screw (B), release the latch (C), and then remove the roller.

**C****B**

- 10 Disconnect the cable (D), and then remove the screw (E).

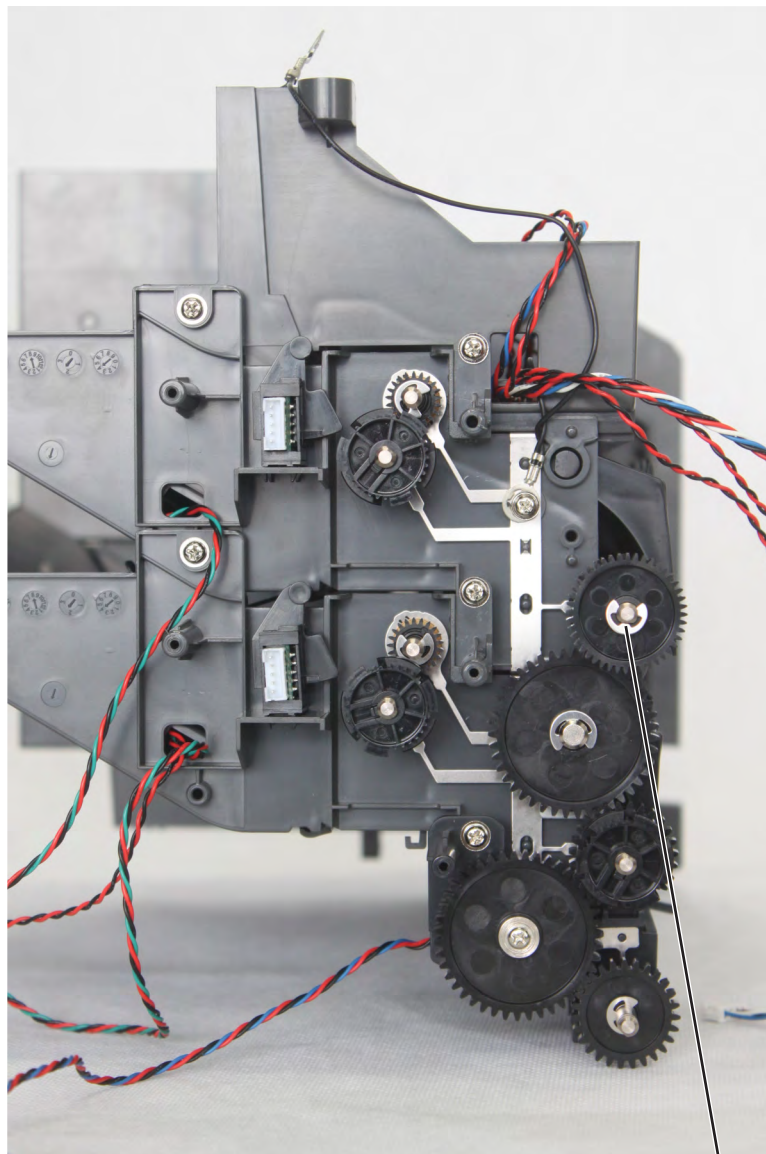


- 11 Remove the sensor.

Mailbox bin 2 pulley gear removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)
- 6 Remove the mailbox drive belt. See [“Mailbox drive belt removal” on page 1353.](#)

7 Remove the E-clip (A), and then remove the gear.



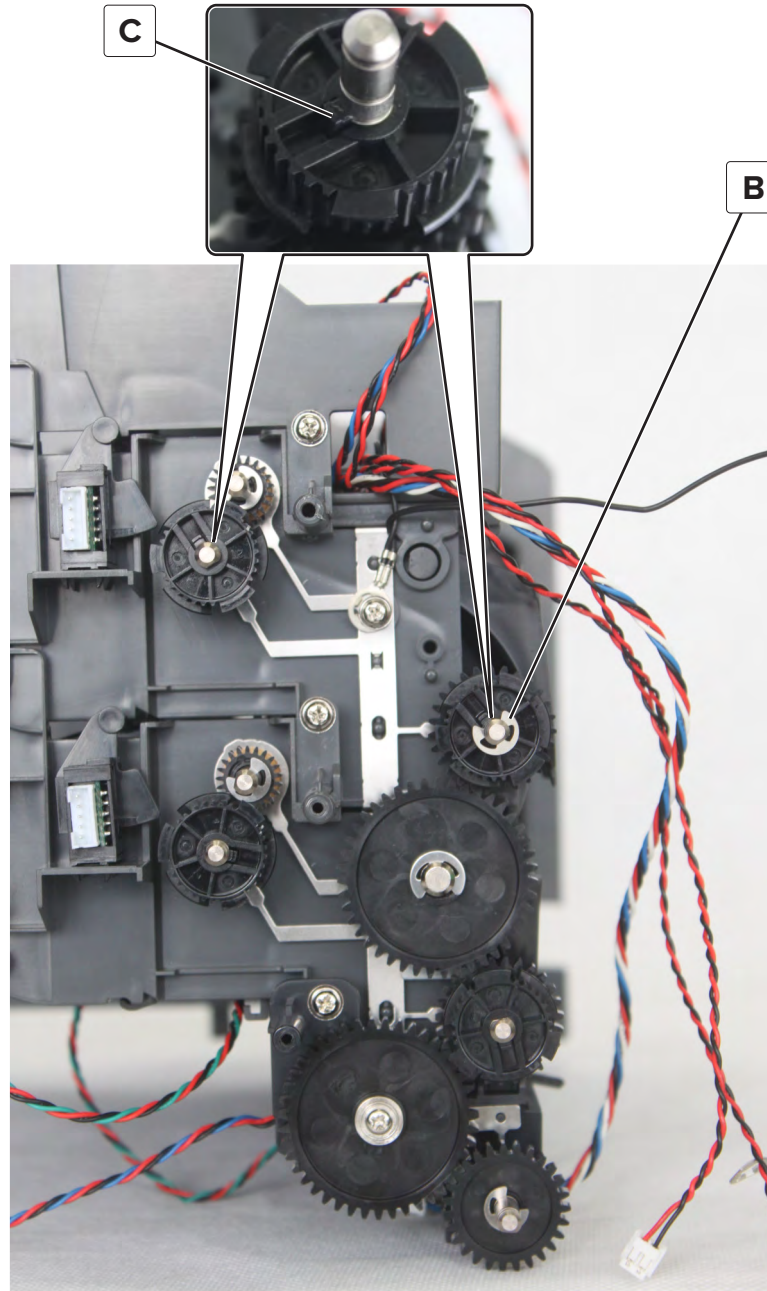
A

8 Remove the E-clip (B).

Parts removal

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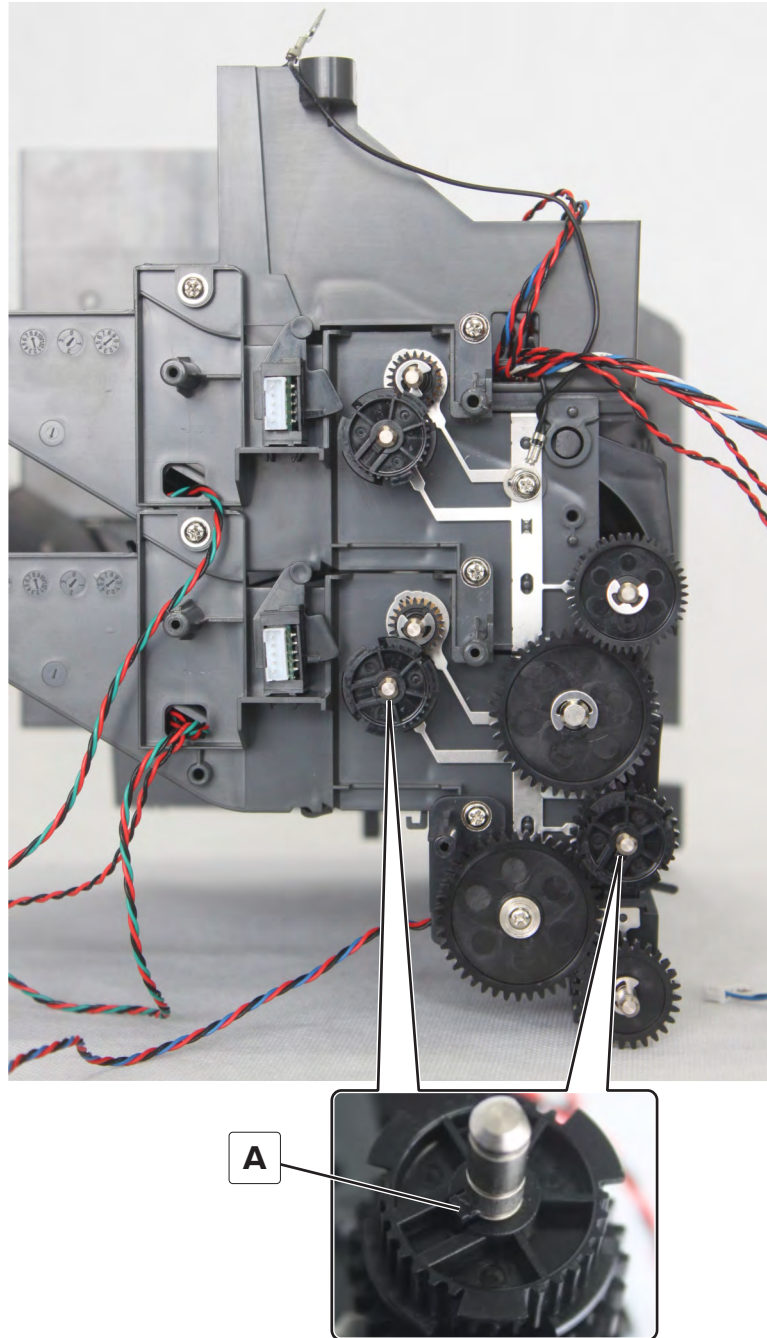
- 9 Release the latch (C), and then remove the pulley gear.



Mailbox bin 1 pulley gear removal

- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336.](#)
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338.](#)
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339.](#)
- 4 Remove the motor (mailbox transport). See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)

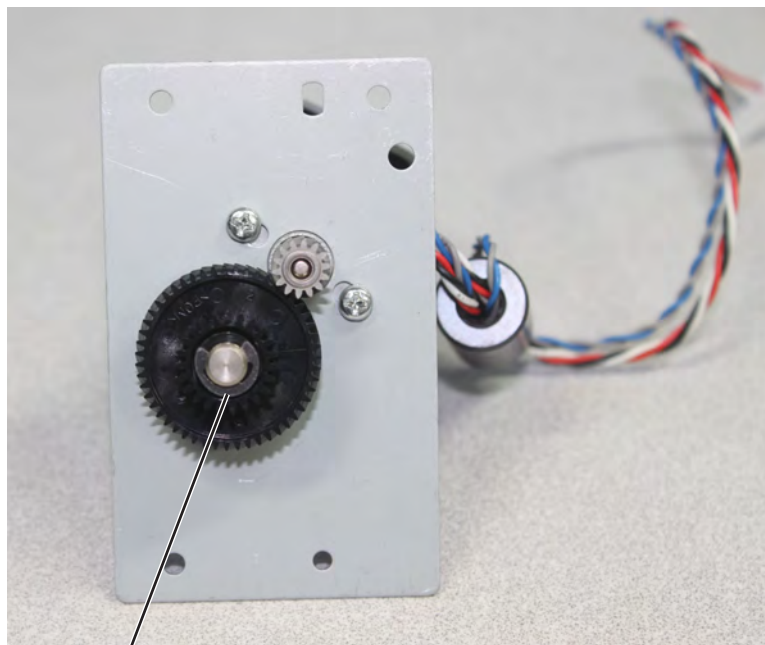
- 6 Remove the mailbox drive belt. See [“Mailbox drive belt removal” on page 1353](#).
- 7 Release the latch (A), and then remove the pulley gear.



Mailbox drive gears removal

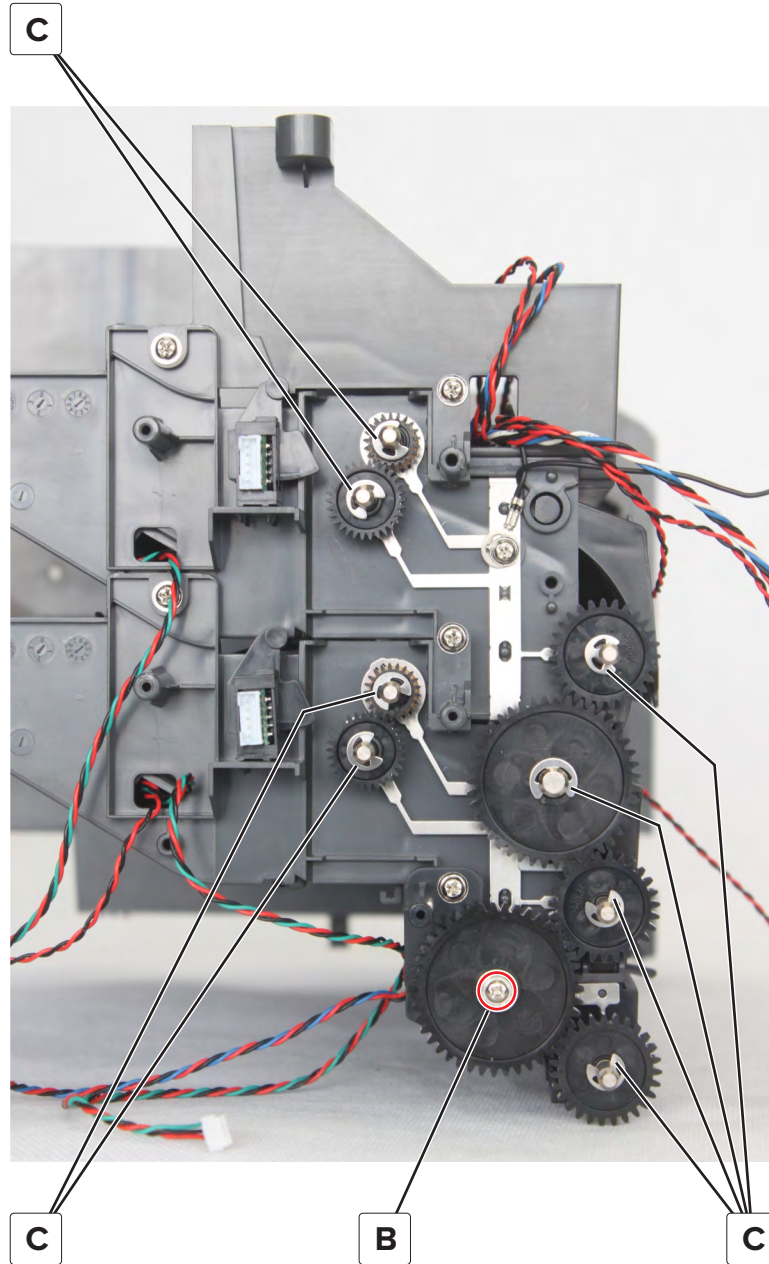
- 1 Remove the mailbox jam door. See [“Mailbox jam door removal” on page 1336](#).
- 2 Remove the mailbox rear cover. See [“Mailbox rear cover removal” on page 1338](#).
- 3 Remove the mailbox controller board. See [“Mailbox controller board removal” on page 1339](#).

- 4 Remove the motor bracket. See [“Motor \(mailbox transport\) removal” on page 1340.](#)
- 5 Remove the E-clip (A), and then remove the gear.

**A**

- 6 Remove the mailbox rear inner cover. See [“Mailbox rear inner cover removal” on page 1350.](#)
- 7 Remove the mailbox drive belts. See [“Mailbox drive belt removal” on page 1353.](#)
- 8 Remove the mailbox pulley gears. See [“Mailbox bin 2 pulley gear removal” on page 1362](#) and [“Mailbox bin 1 pulley gear removal” on page 1364.](#)
- 9 Remove the screw (B), and then remove the gear.

10 Remove the eight E-clips (C), and then remove the gears.



Parts removal

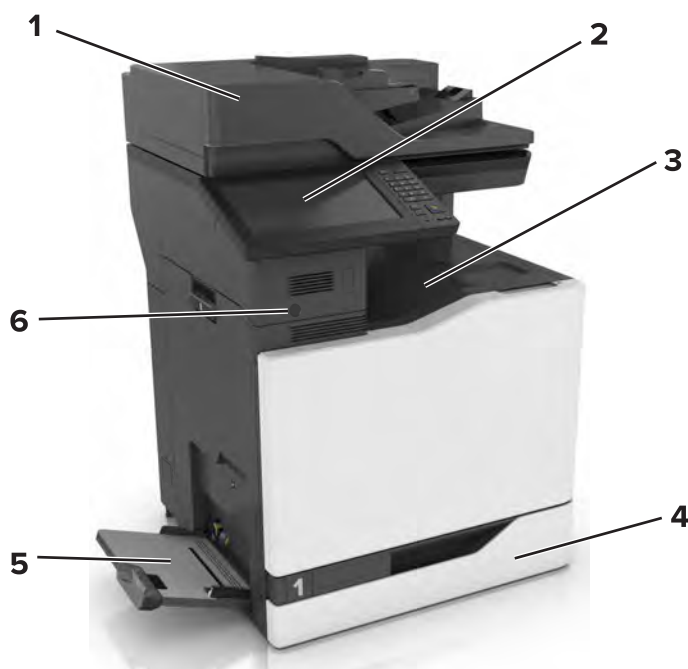
1367

Component locations

Printer configurations

Note: Make sure to configure the printer on a flat, sturdy, and stable surface.

Basic model

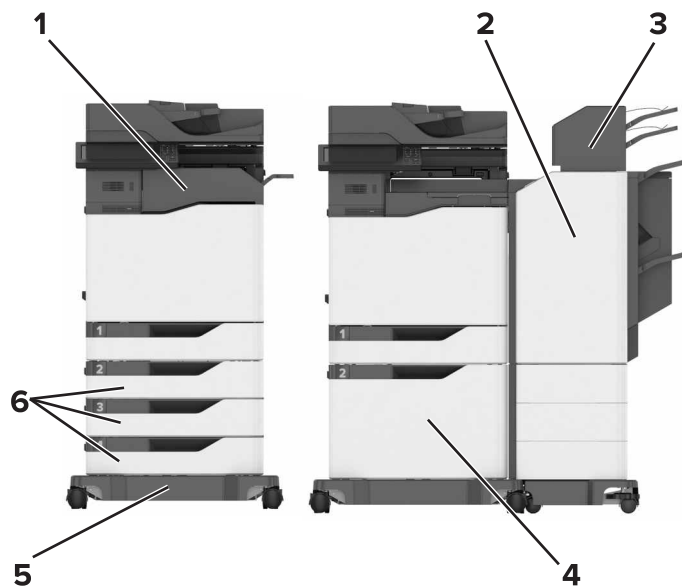


1	Automatic document feeder (ADF)
2	Control panel
3	Standard bin
4	Standard 550-sheet tray
5	Multipurpose feeder
6	Proximity sensor

Configured model

CAUTION—TIPPING HAZARD: Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, see www.lexmark.com/multifunctionprinters.

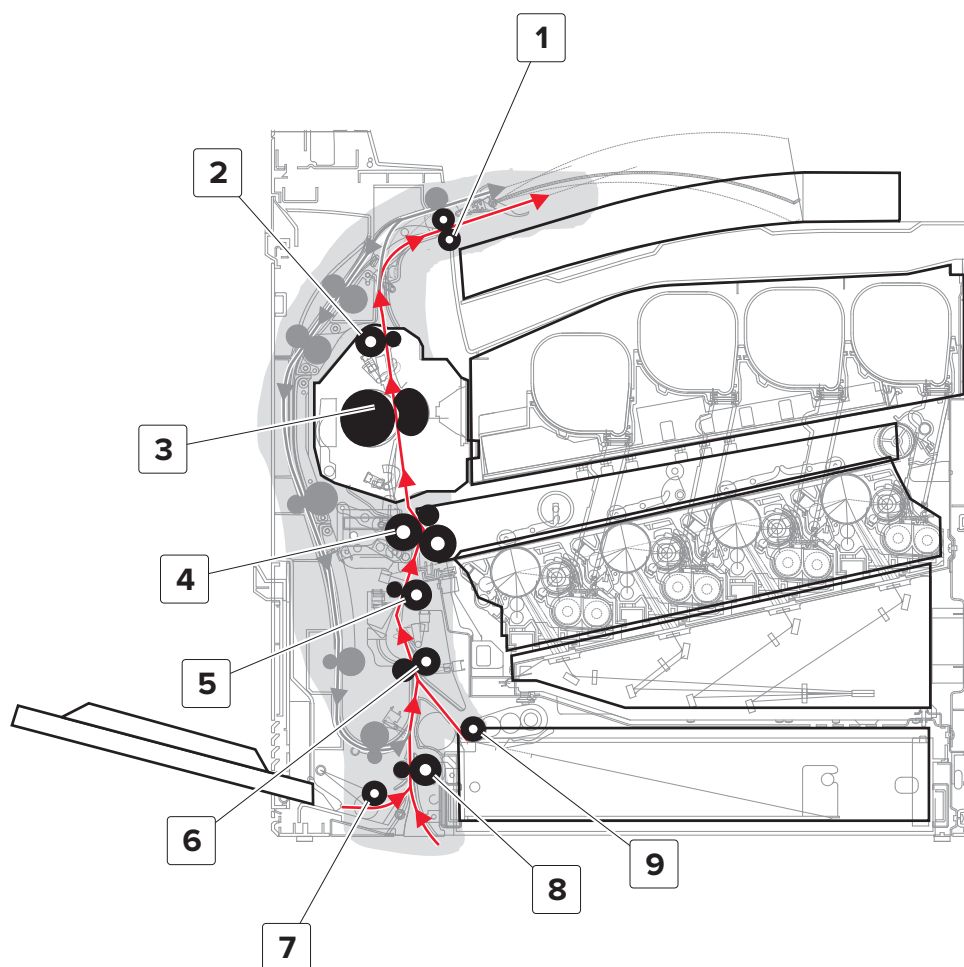
You can configure your printer by adding three optional 550-sheet trays or an optional 2200-sheet tray.



1	Staple finisher Note: This option is not supported if another finisher is installed.
2	Multiposition staple, hole punch finisher Note: This option is not supported if another finisher is installed.
3	Mailbox
4	Optional 2200-sheet tray
5	Caster base
6	Optional 550-sheet tray

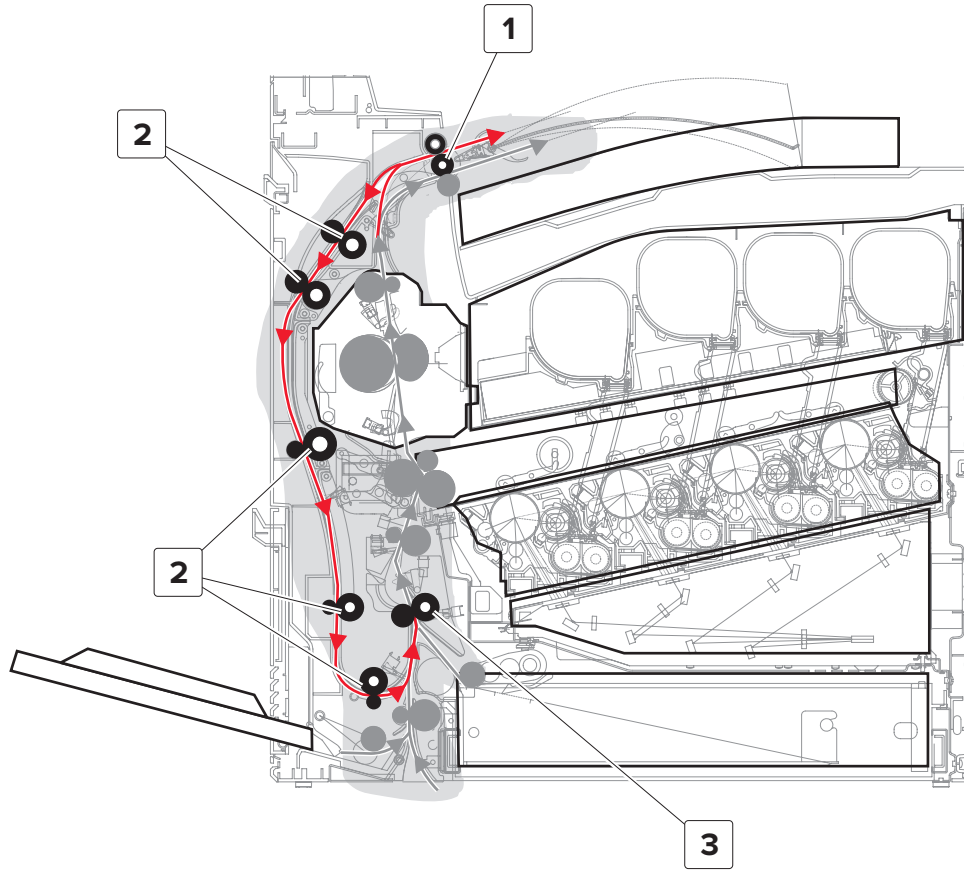
Printer roller locations

Standard path rollers



1	Media exit roller
2	Fuser decurler roller
3	Fuser heat belt
4	2nd transfer roller
5	Deskew roller
6	Isolation roller
7	MPF pick roller
8	MPF/pass-through roller
9	Tray 1 pick roller

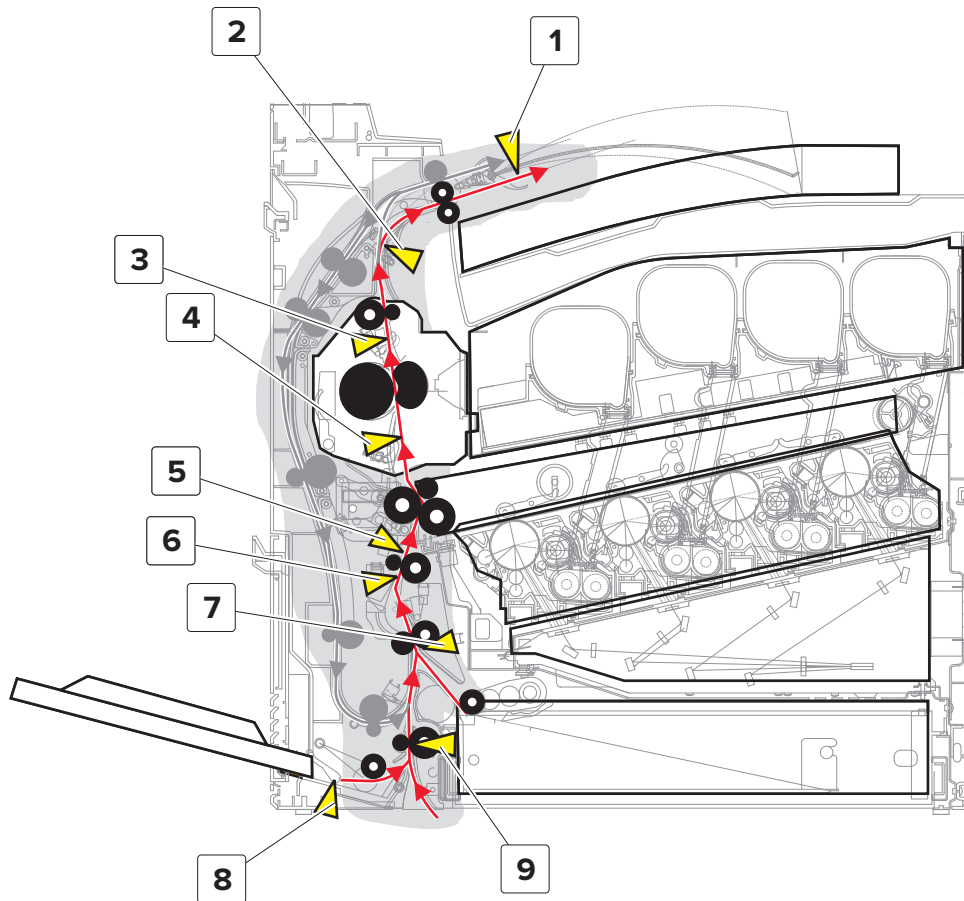
Duplex path rollers



1	Duplex exit roller
2	Duplex path rollers
3	Isolation roller

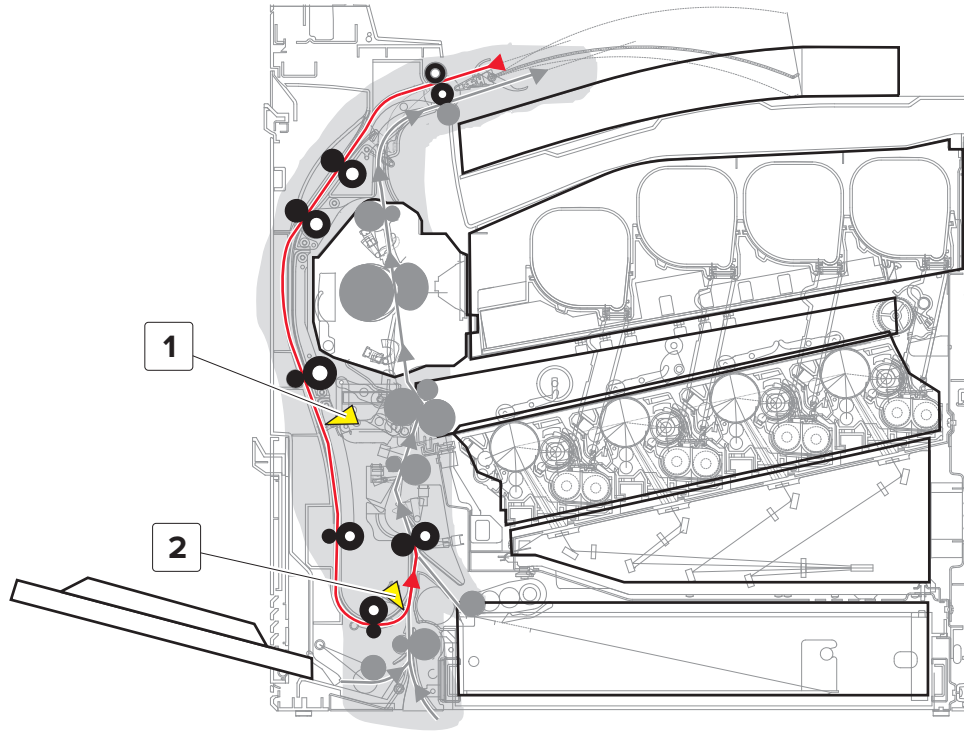
Printer sensor locations

Standard path sensors



1	Sensor (output bin)
2	Sensor (redrive buckle)
3	Sensor (fuser exit)
4	Sensor (fuser buckle)
5	Sensor (deskew roller exit)
6	Sensor (deskew roller entry)
7	Sensor (input)
8	Sensor (MPF media present)
9	Sensor (MPF/pass-through)

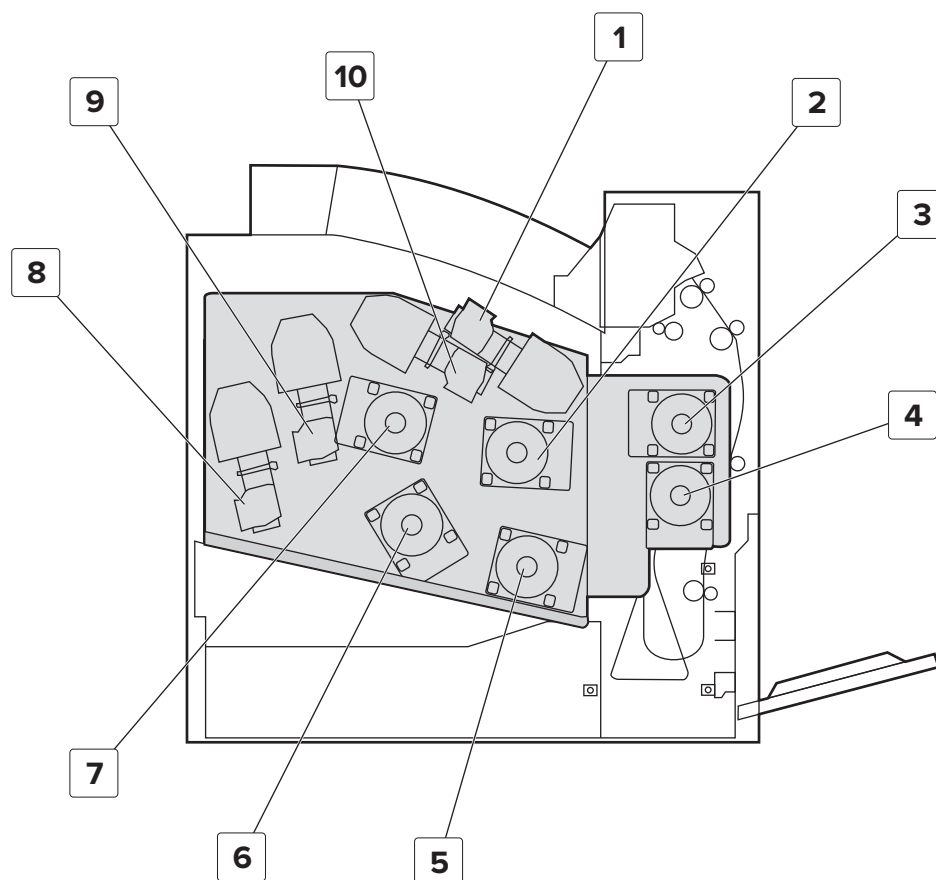
Duplex path sensors



1	Sensor (duplex path 1)
2	Sensor (duplex path 2)

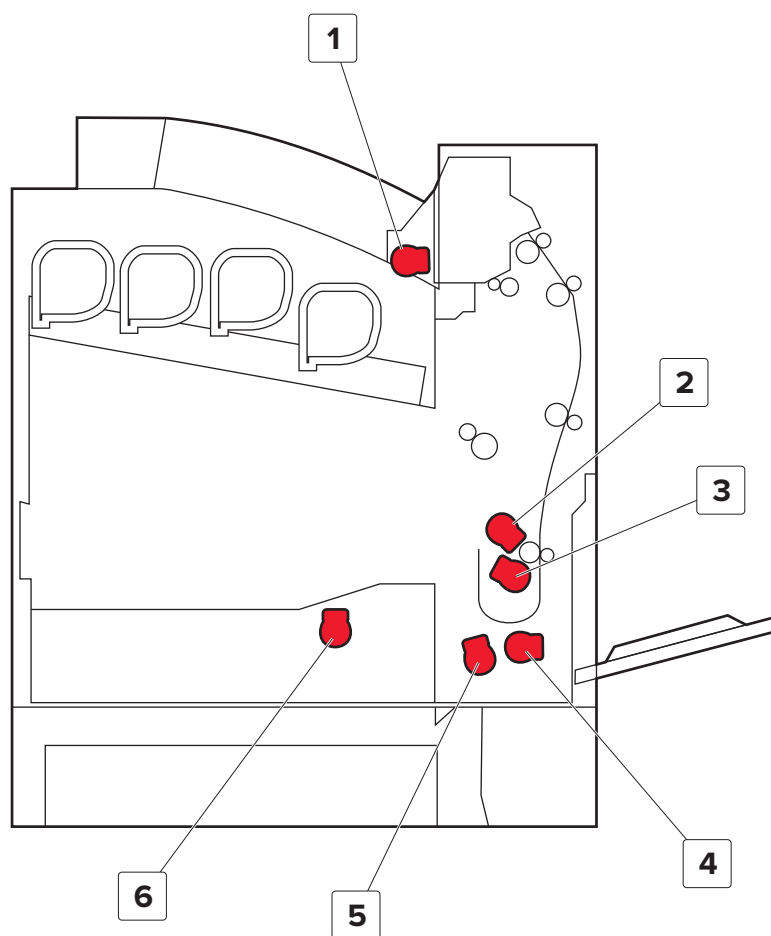
Printer motor locations

Print engine motors—Rear



1	Motor (K toner add)
2	Motor (K developer)
3	Motor (fuser)
4	Motor (transfer belt)
5	Motor (K photoconductor)
6	Motor (CMY photoconductors)
7	Motor (CMY developers)
8	Motor (Y toner add)
9	Motor (C toner add)
10	Motor (M toner add)

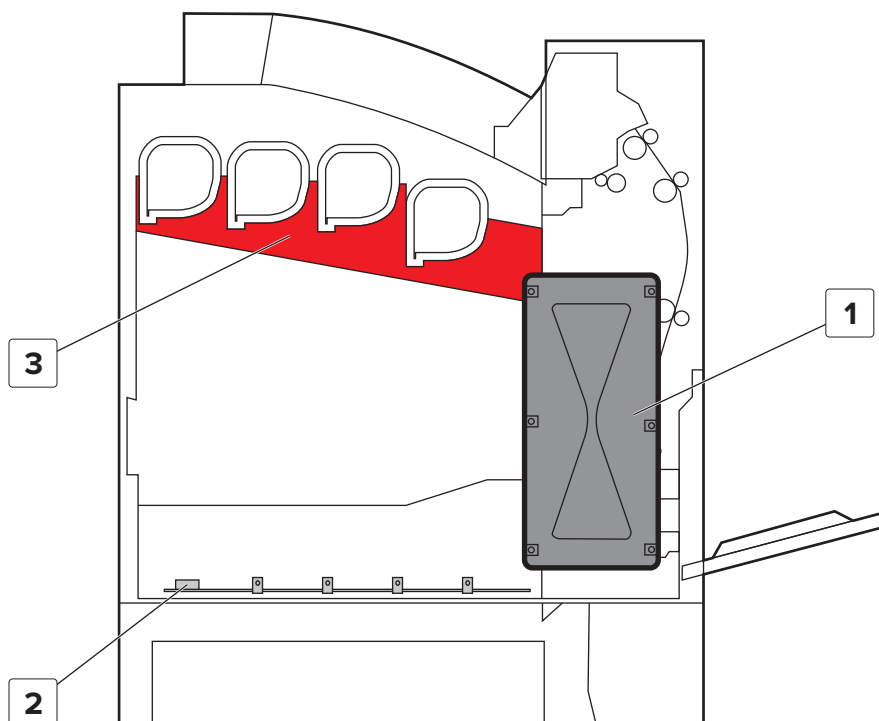
Paper path motors—Rear



1	Motor (redrive)
2	Motor (deskew)
3	Motor (duplex)
4	Motor (MPF pick)
5	Motor (isolation)
6	Motor (tray 1 pick)

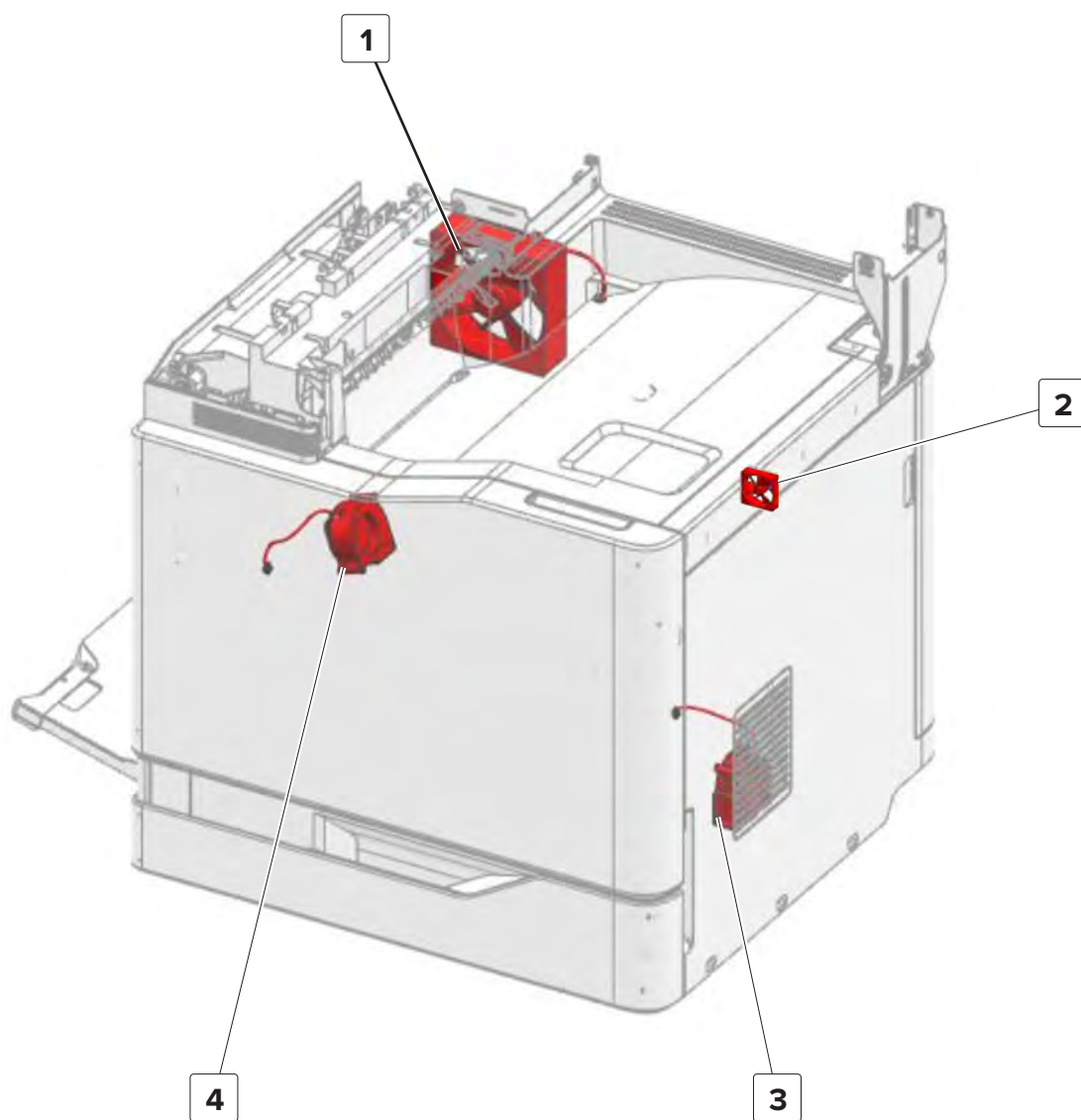
Component locations

Power supply locations—Rear



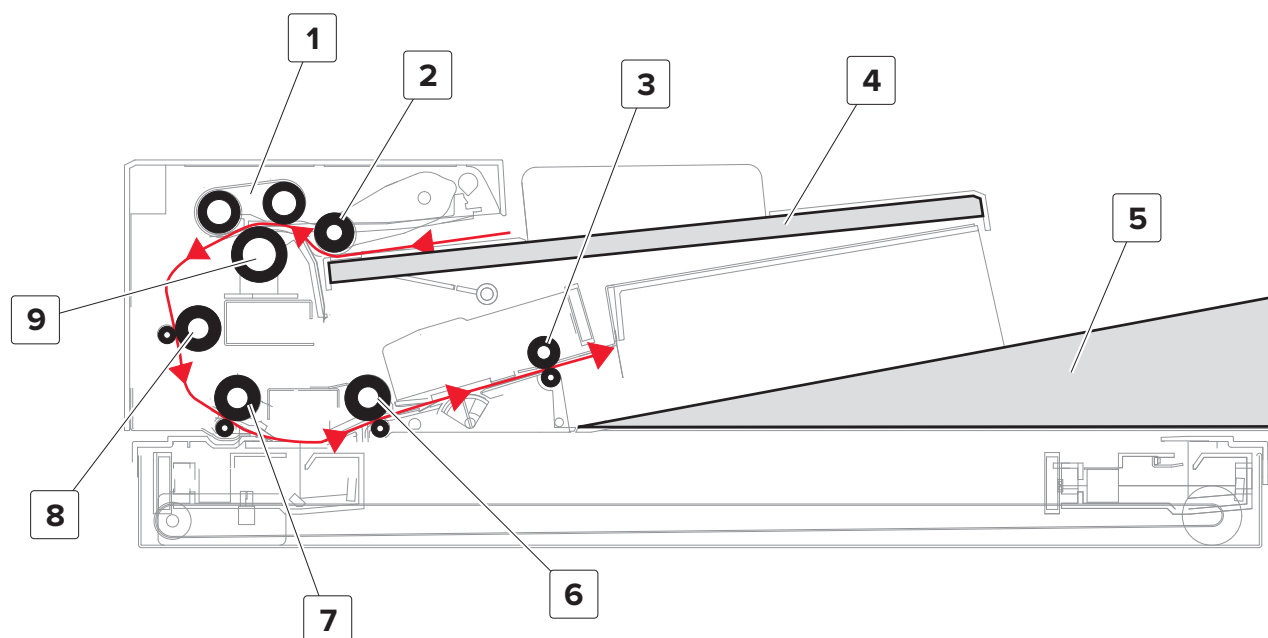
1	LVPS
2	Charge roller HVPS
3	Main HVPS

Printer fan locations



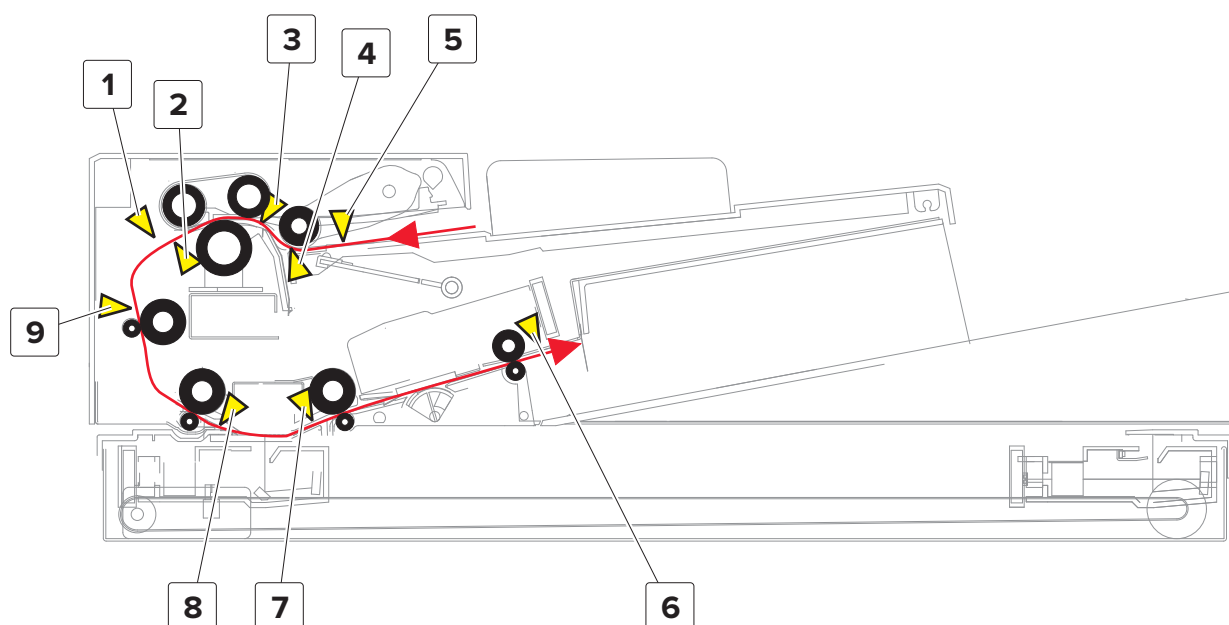
1	Main fan
2	Controller board fan
3	Printhead fan
4	HVPS fan

ADF roller locations



1	Feed belt
2	Pick roller
3	Exit roller
4	ADF tray
5	ADF bin
6	2nd scan roller
7	1st scan roller
8	ADF deskew roller
9	Separator roller

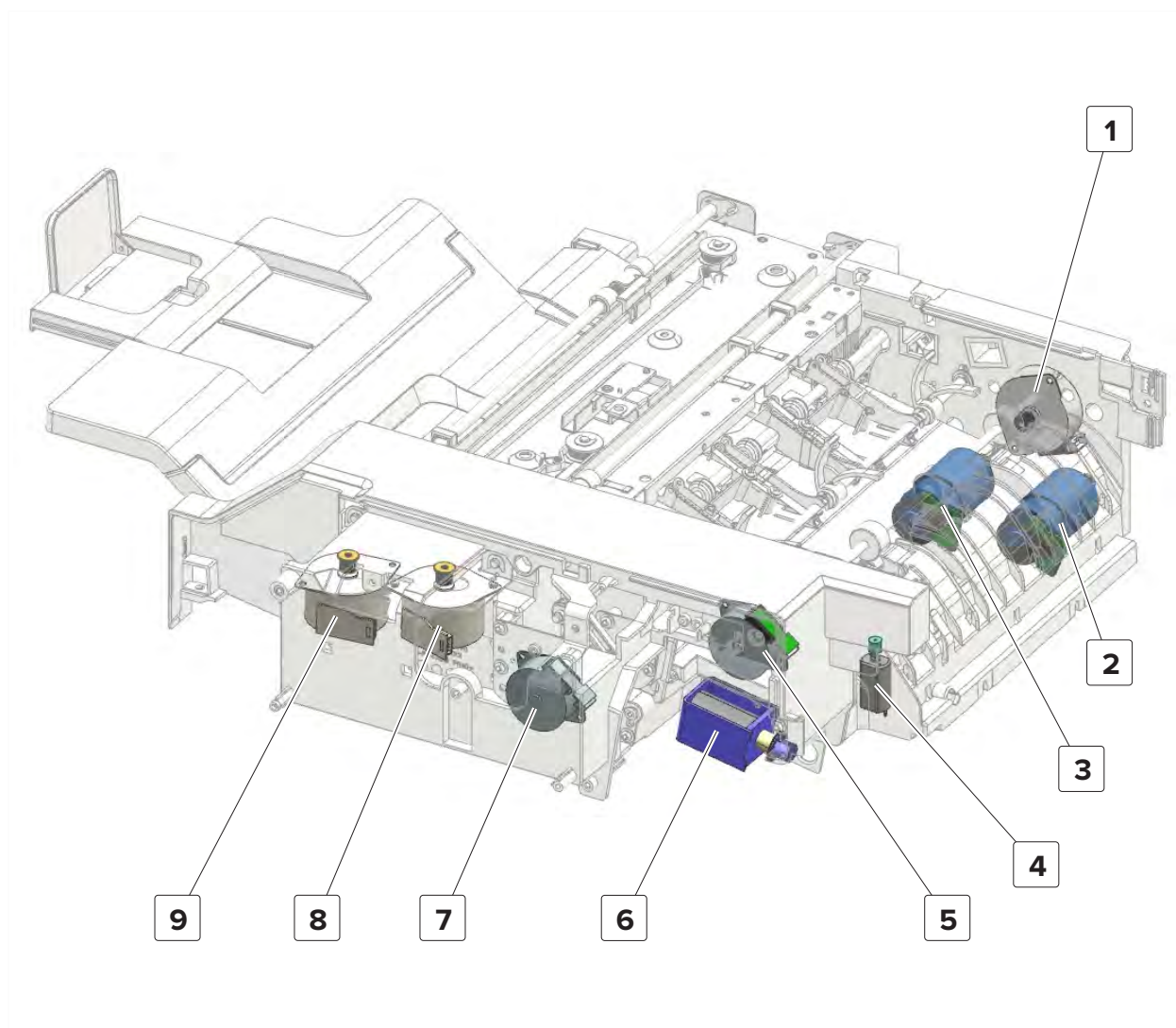
ADF sensor locations



1	Sensor (ADF multi-feed detect)
2	Sensor (ADF pick)
3	Sensor (ADF gap detect)
4	Sensor (ADF media present)
5	Sensor (ADF pick roller index) Note: The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.
6	Sensor (ADF media exit)
7	Sensor (ADF 2nd scan)
8	Sensor (ADF 1st scan)
9	Sensor (ADF deskew)

Staple finisher locations

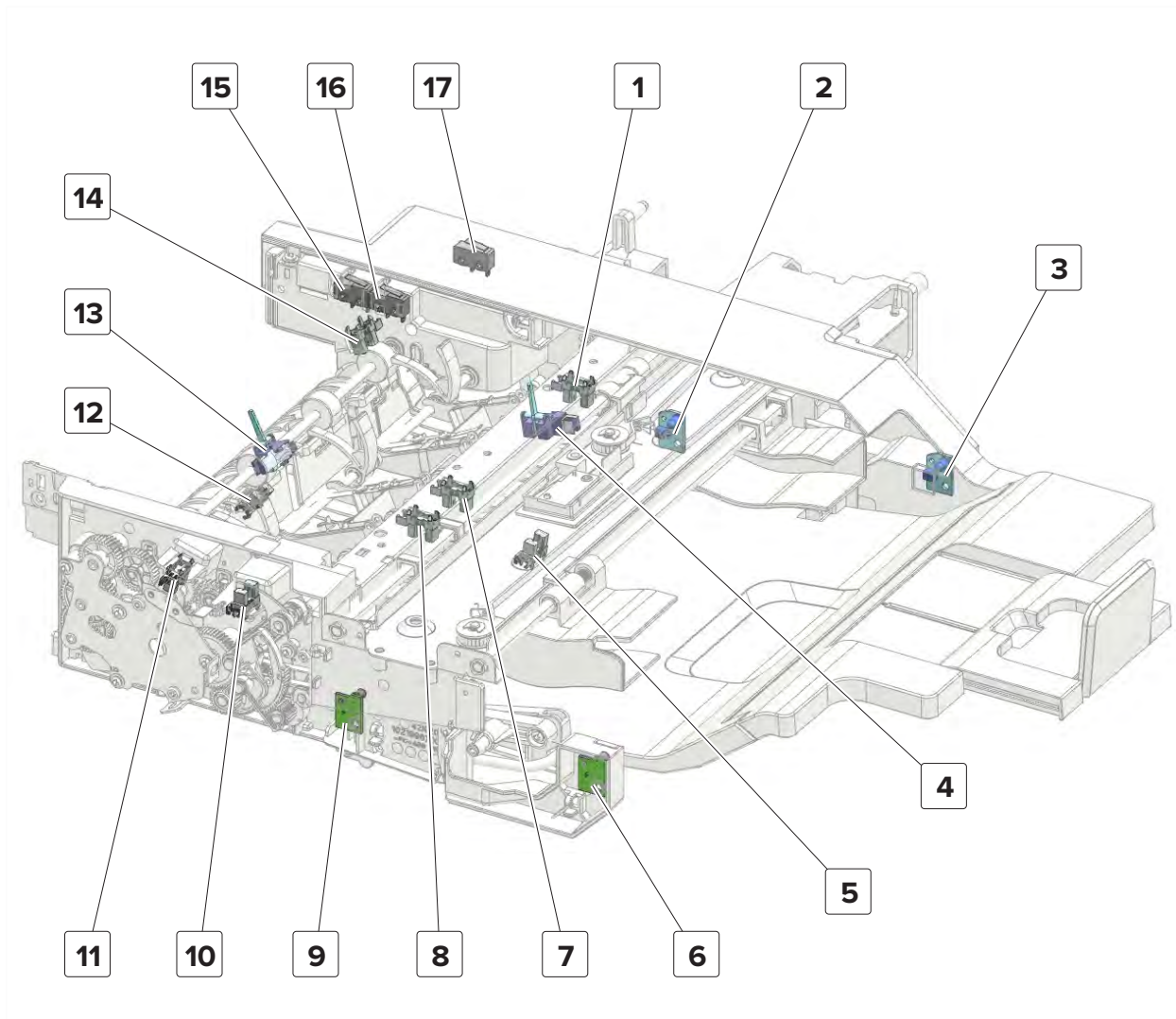
Motors and solenoid



1	Motor (staple finisher aligner paddle)
2	Motor (staple finisher transport)
3	Motor (staple finisher exit)
4	Motor (staple finisher decurl)
5	Motor (staple finisher bin clamp)
6	Staple finisher stack clamp solenoid
7	Motor (staple finisher upper exit roller)
8	Motor (staple finisher rear tamper)
9	Motor (staple finisher front tamper)

Component locations

Sensors and switches



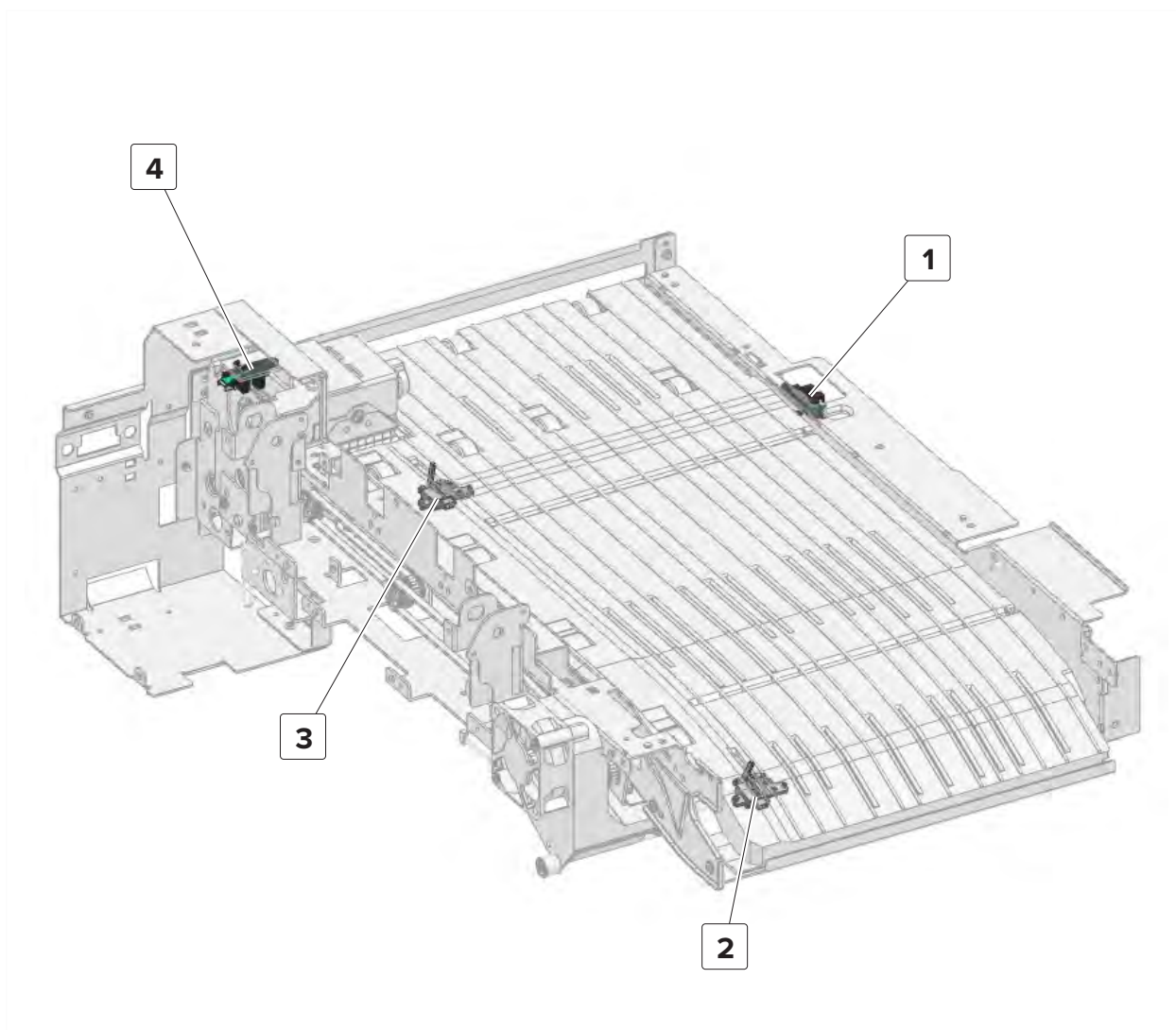
1	Sensor (staple finisher rear tamper home)
2	Sensor (staple finisher rear lower bin full—receiver)
3	Sensor (staple finisher rear upper bin full—receiver)
4	Sensor (staple finisher staple unit paper present)
5	Sensor (staple finisher bin clamp)
6	Sensor (staple finisher front upper bin full—transmitter)
7	Sensor (staple finisher narrow media tamper)
8	Sensor (staple finisher front tamper home)
9	Sensor (staple finisher front lower bin full—transmitter)
10	Sensor (staple finisher upper exit roller)
11	Sensor (staple finisher aligner paddle)
12	Sensor (staple finisher decurl)

Component locations

13	Sensor (staple finisher transport)
14	Sensor (staple finisher stack clamp)
15	Staple finisher jam door switch 1
16	Staple finisher jam door switch 2
17	Staple finisher staple cartridge door switch

HPT locations

HPT sensors



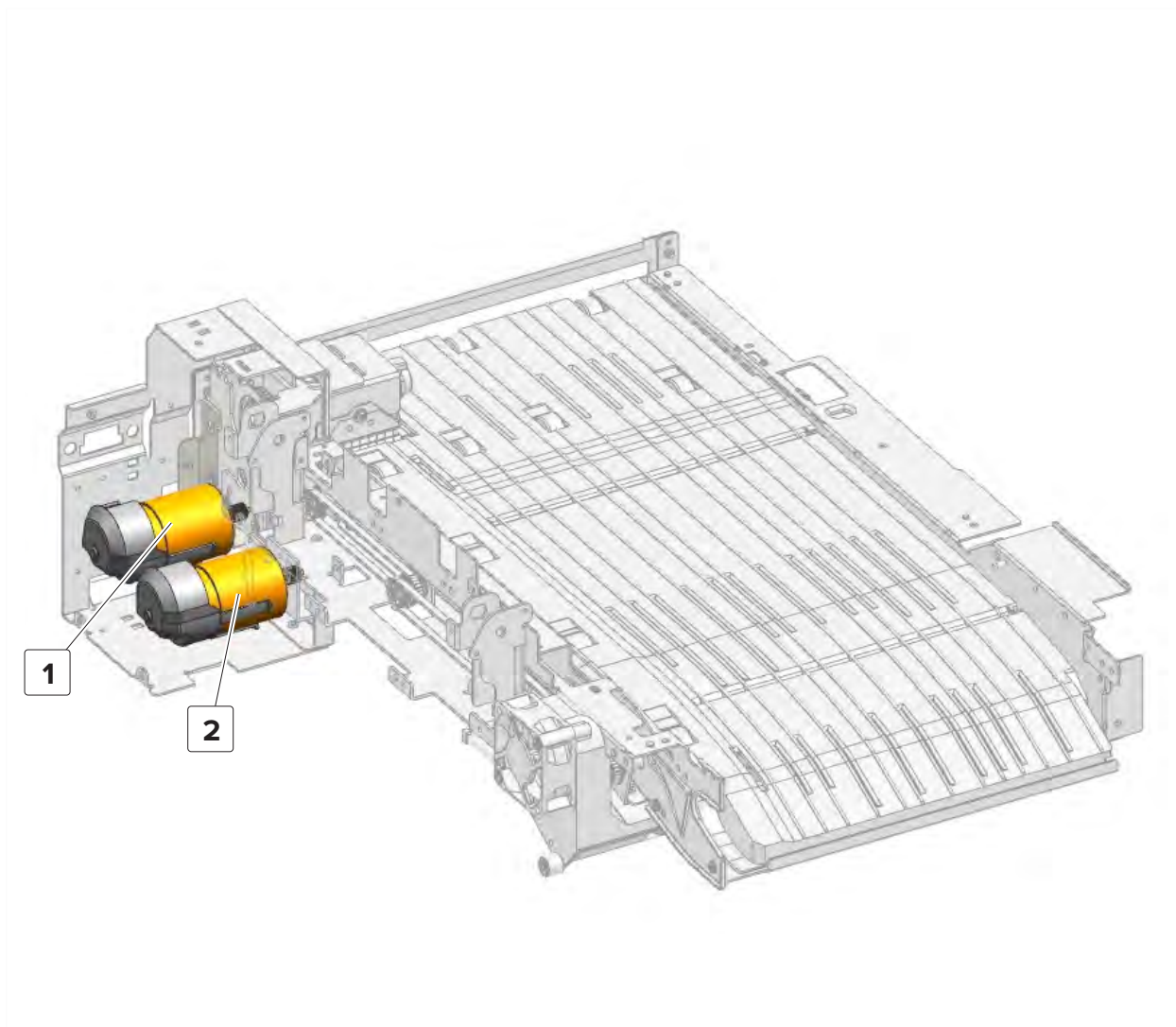
1	Sensor (HPT jam cover)
2	Sensor (HPT transport)
3	Sensor (HPU entrance)

Component locations

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4	Sensor (HPT hole punch unit)
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HPT motors



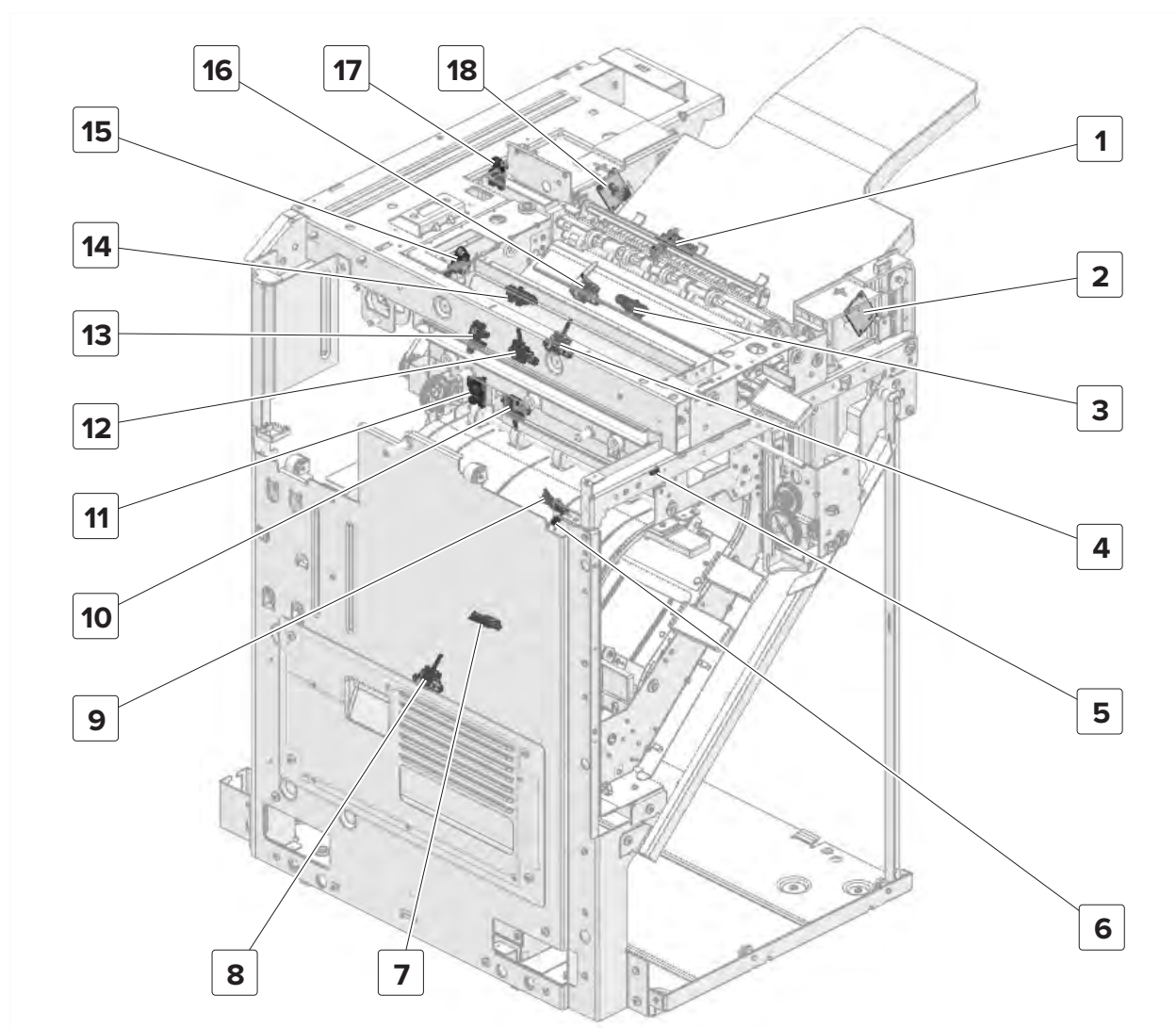
1	Motor (HPT transport)
2	Motor (HPT hole punch unit)

Component locations

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MSHPF sensor locations

MSHPF sensors—Top

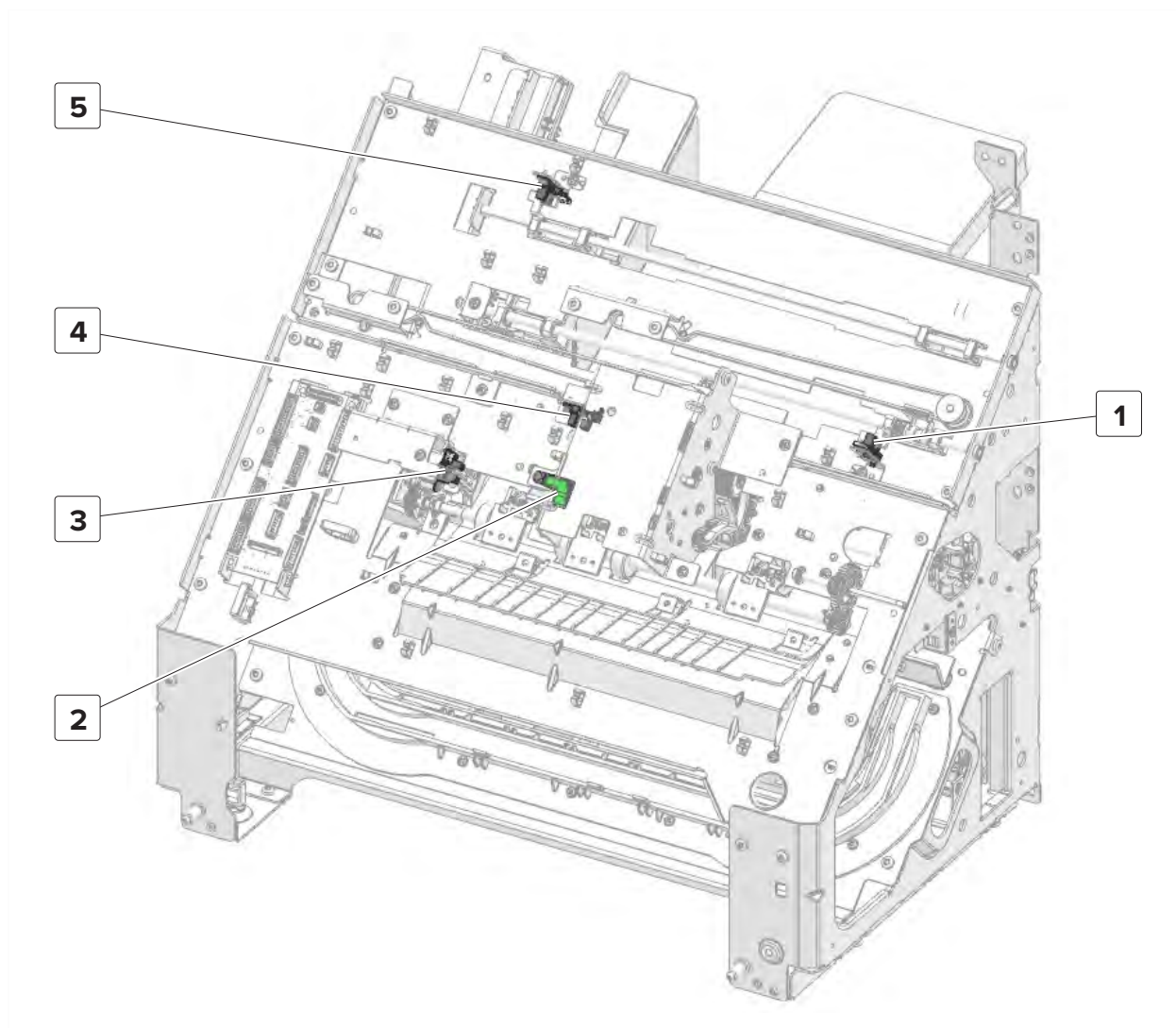


1	Sensor (standard bin paper present)
2	Sensor (standard bin stack upper limit), transmitter
3	Sensor (door N interlock)
4	Sensor (staging entrance)
5	Sensor (hole punch box full), transmitter
6	Sensor (hole punch box full), receiver
7	Sensor (staging inner transport 2)
8	Sensor (staging outer transport 2)
9	Sensor (staging inner transport 1)

Component locations

10	Sensor (staging outer transport 1)
11	Sensor (hole punch box present)
12	Sensor (mid-transport)
13	Sensor (staging diverter)
14	Sensor (standard bin lower limit)
15	Sensor (mid-transport diverter)
16	Sensor (MSHPP standard bin exit)
17	Sensor (offset roller)
18	Sensor (standard bin stack upper limit), receiver

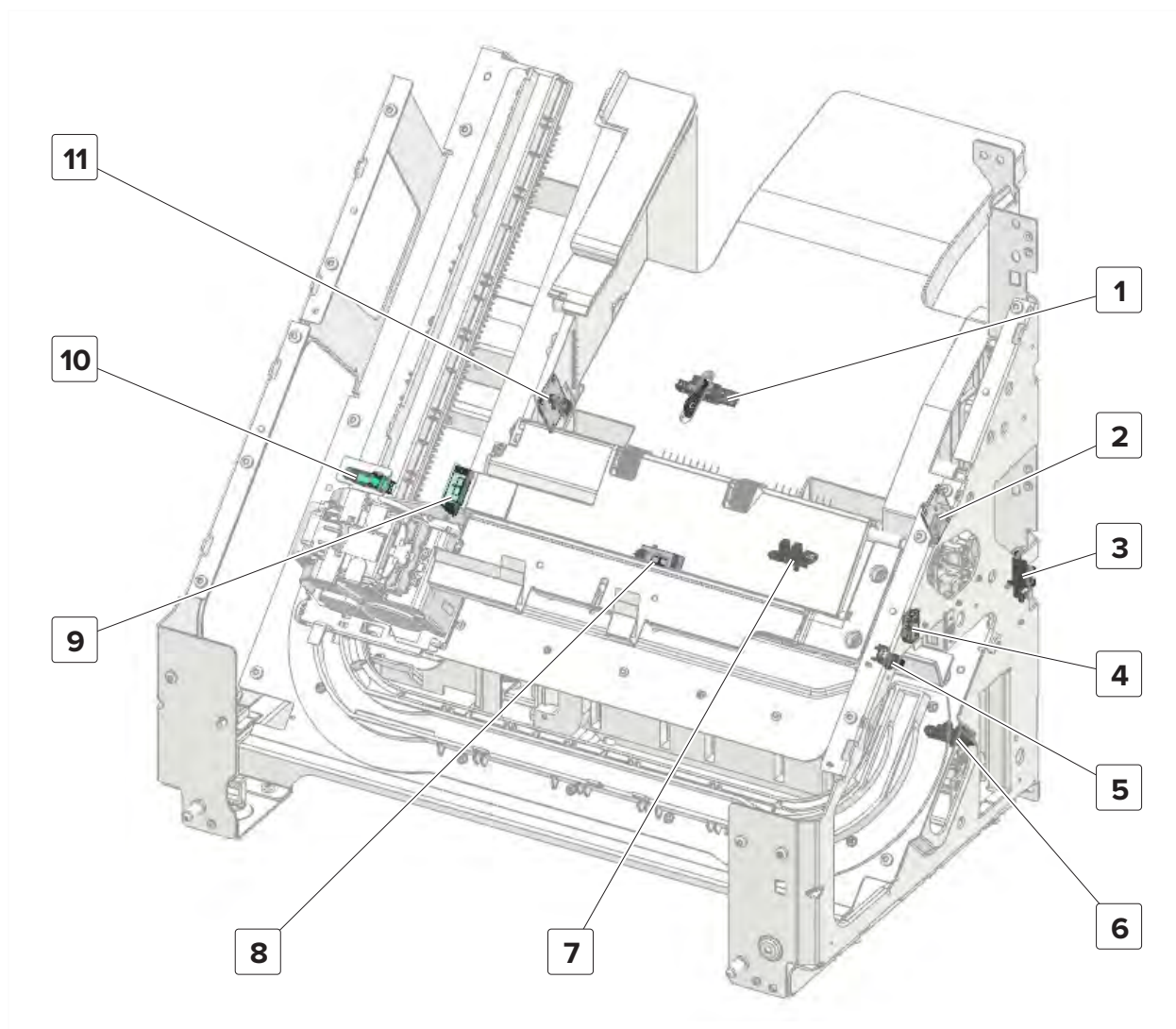
MSHPP sensors—Bottom



1	Sensor (MSHPP front tamper)
2	Sensor (compiler paddle)

Component locations

3	Sensor (compiler stack height)
4	Sensor (compiler exit cam)
5	Sensor (MSHPP rear tamper)



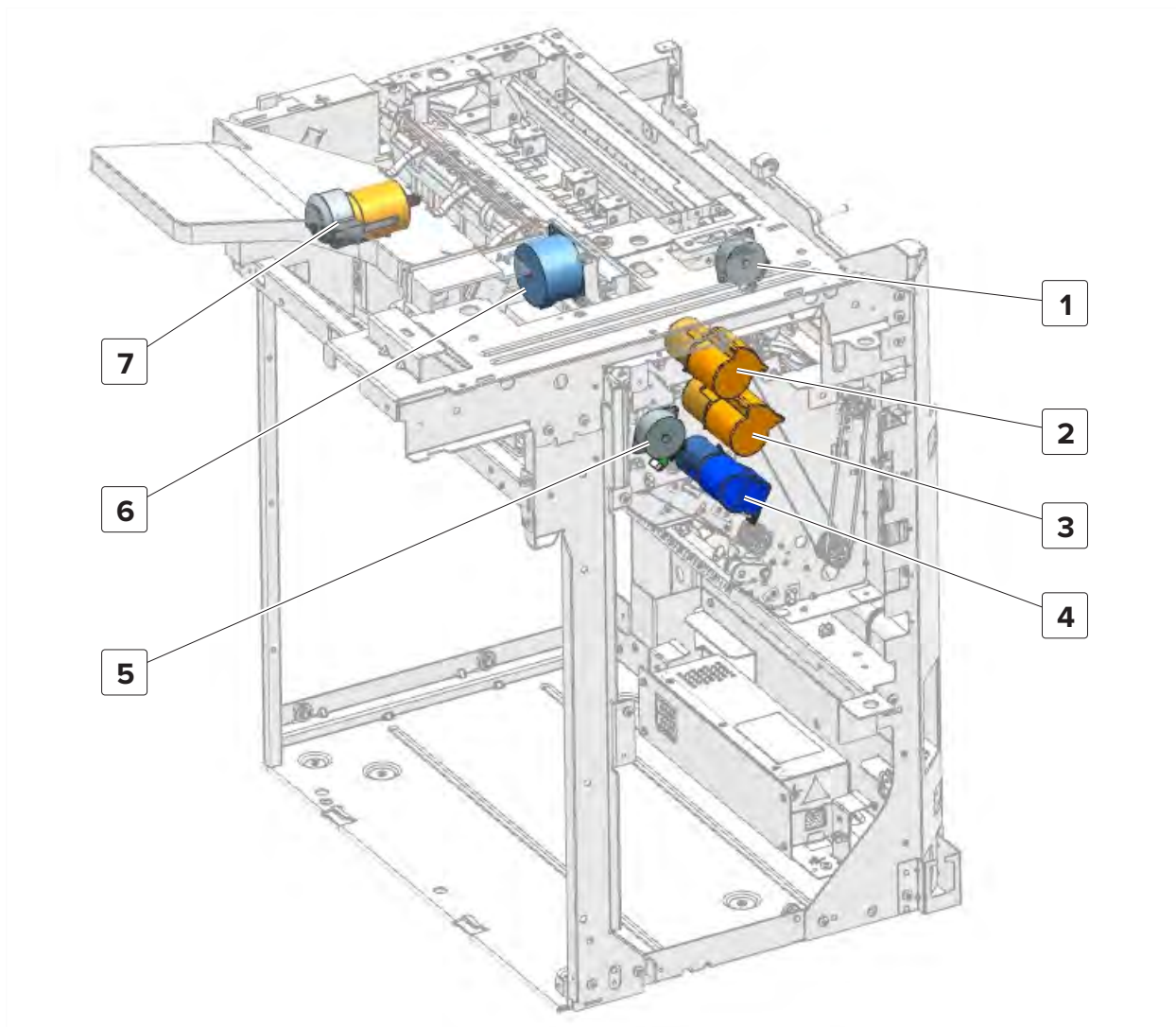
1	Sensor (stapler bin paper present)
2	Sensor (stapler bin stack upper limit), transmitter
3	Sensor (MSHPP door interlock)
4	Switch (MSHPP cartridge door interlock)
5	Sensor (cartridge loading position)
6	Sensor (stapler bin lower limit)
7	Sensor (MSHPP bin clamp)
8	Sensor (compiler paper present)
9	Sensor (stapler bin paper present)

Component locations

10	Sensor (staple unit position)
11	Sensor (stapler bin stack upper limit), receiver

MSHPF motor locations

MSHPF motors—Top

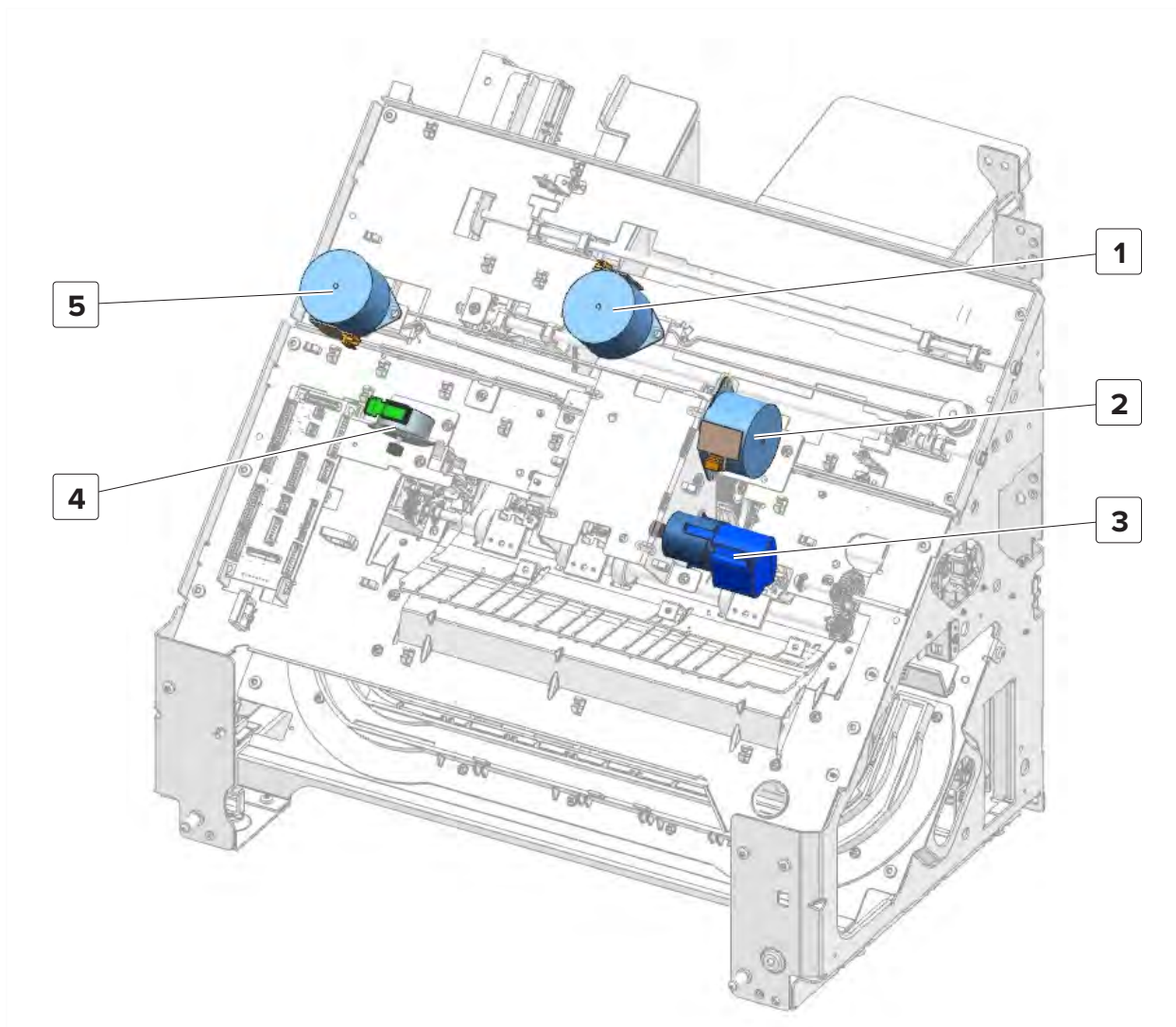


1	Motor (mid-transport diverter)
2	Motor (mid-transport)
3	Motor (staging outer transport)
4	Motor (staging inner transport)
5	Motor (staging diverter)
6	Motor (offset)

Component locations

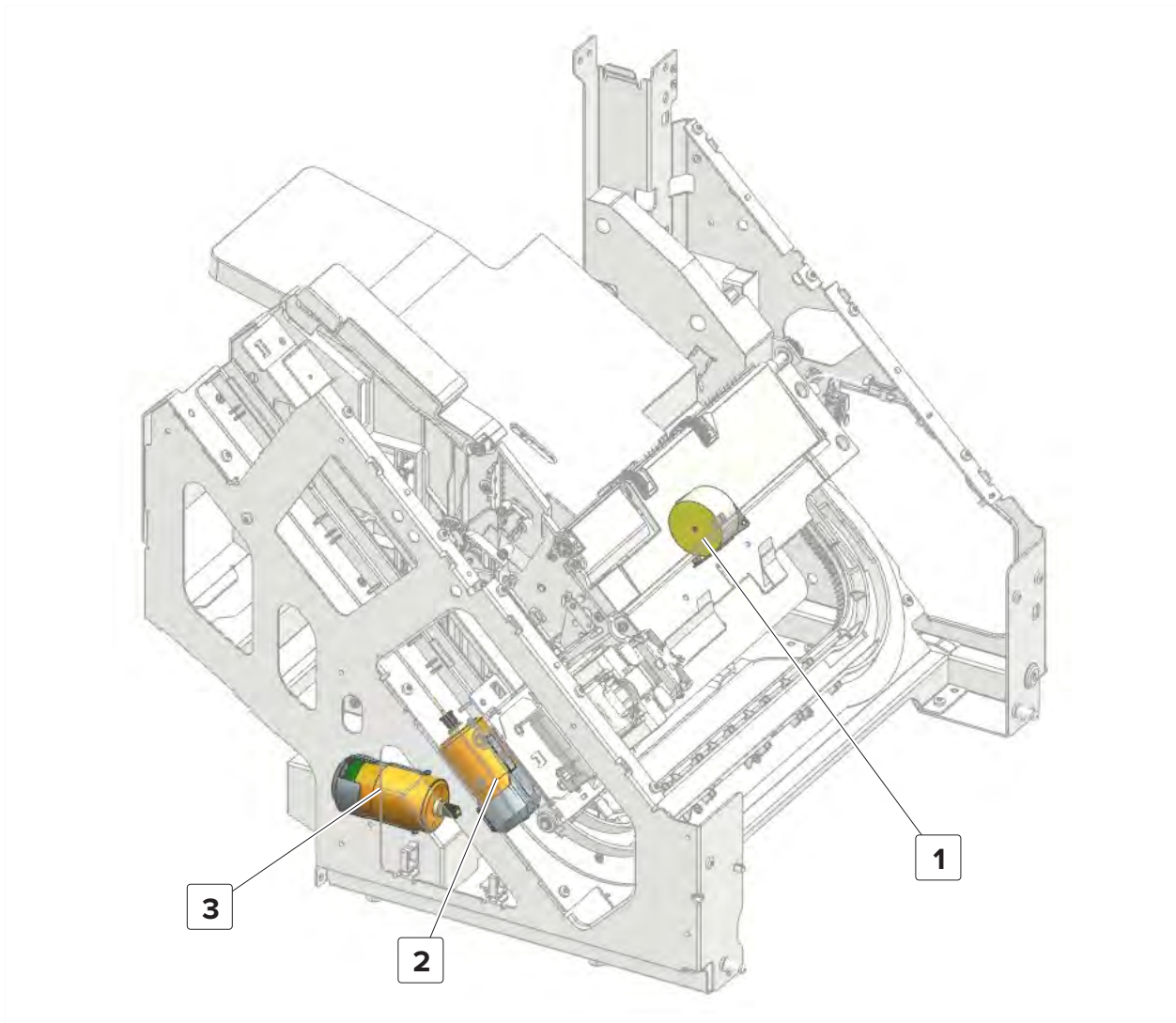
7	Motor (standard bin elevator)
---	-------------------------------

MSHPF motors—Bottom



1	Motor (MSHPF front tamper)
2	Motor (compiler exit cam)
3	Motor (compiler paddle)
4	Motor (compiler stack height)
5	Motor (MSHPF rear tamper)

Component locations

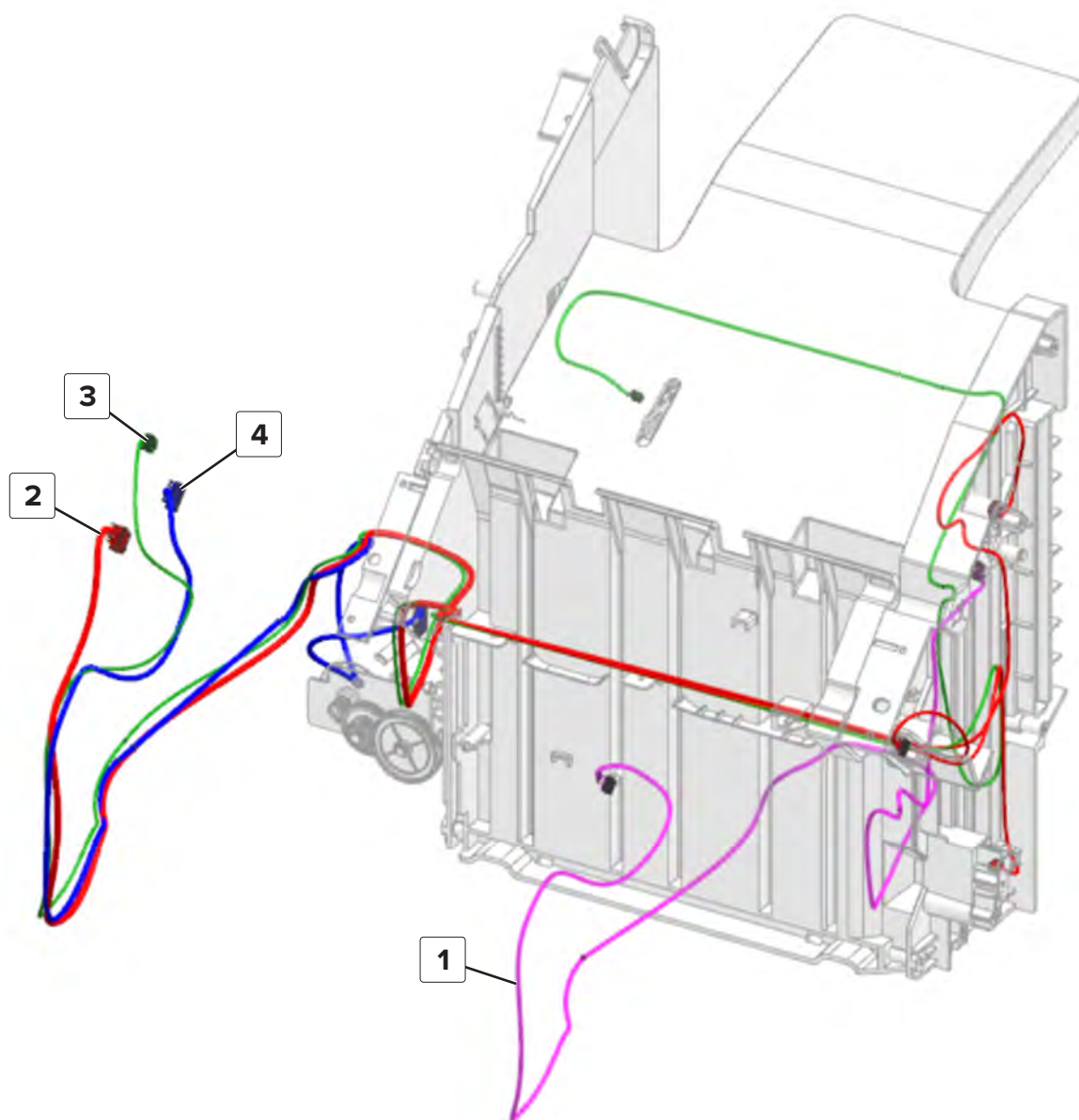


1	Motor (MSHPF bin clamp)
2	Motor (staple unit carriage)
3	Motor (stapler bin elevator)

Component locations

1390

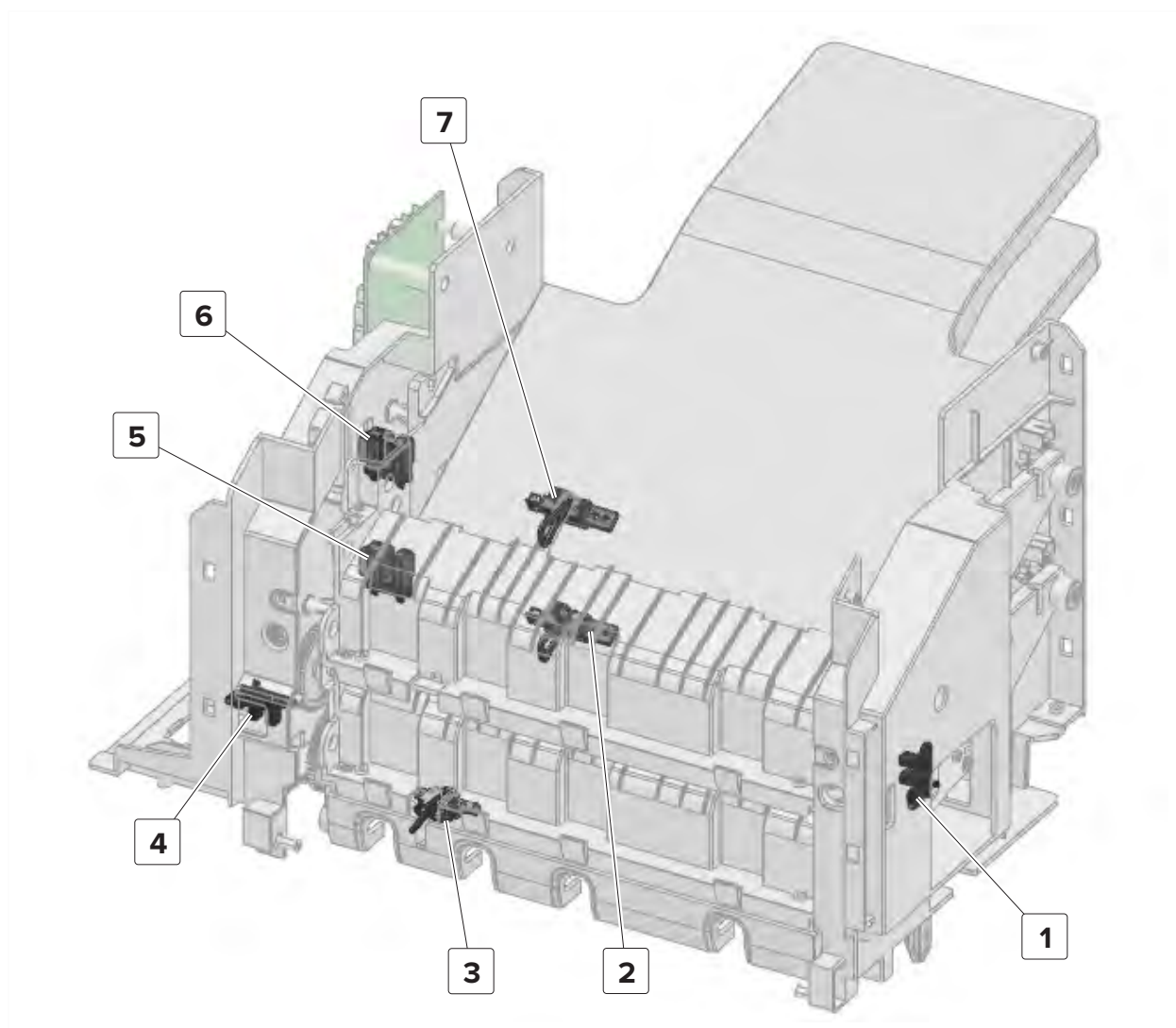
MSHPF cable locations



1	MSHPF stapler bin full sensor cable
2	MSHPF stapler bin sensor cable
3	MSHPF stapler bin paper present sensor cable
4	MSHPF stapler bin elevator motor cable

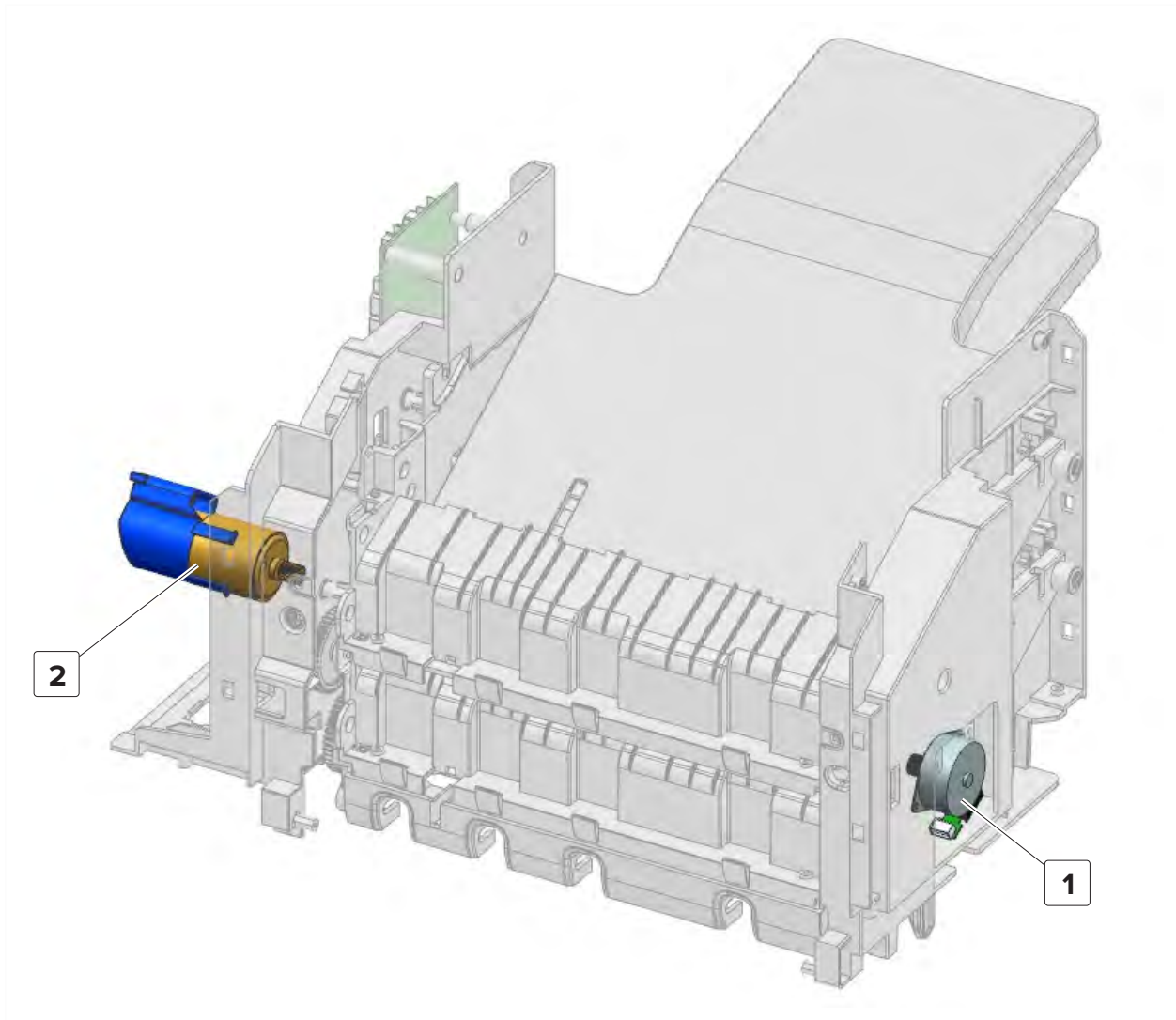
Mailbox locations

Mailbox sensors



1	Sensor (mailbox diverter)
2	Sensor (mailbox bin 1 paper present)
3	Sensor (mailbox transport)
4	Sensor (mailbox jam door)
5	Sensor (mailbox bin 1 full)
6	Sensor (mailbox bin 2 full)
7	Sensor (mailbox bin 2 paper present)

Mailbox motors



1	Motor (mailbox diverter)
2	Motor (mailbox transport)

Component locations

1393

Maintenance

Scheduled maintenance

The control panel displays an 80.xx error when the printer reaches a preset number of page counts. It is necessary to install the appropriate maintenance kit to maintain the print quality and reliability of the printer. Reset the maintenance counter after replacing the maintenance kit.

Maintenance kits

Part number and kit	Contents
41X0931—200K ADF maintenance kit	<p>Warning—Potential Damage: Replace the following parts at the same time. Feed issues may occur if the page count of these parts do not match.</p> <ul style="list-style-type: none"> • ADF pick roller • ADF feed belt • ADF separator roller
41X0927—300K Combo fuser and transfer module maintenance kit, 100 V	<ul style="list-style-type: none"> • 41X0248—Fuser (100 V) • 41X0245—Transfer belt • 41X0154—Transfer roller • 41X0999—Pick roller and separator pad, 3 units
41X0928—300K Combo fuser and transfer module maintenance kit, 115 V	<ul style="list-style-type: none"> • 41X0246—Fuser (115 V) • 41X0245—Transfer belt • 41X0154—Transfer roller • 41X0999—Pick roller and separator pad, 3 units
41X0929—300K Combo fuser and transfer module maintenance kit, 220 V	<ul style="list-style-type: none"> • 41X0247—Fuser (220 V) • 41X0245—Transfer belt • 41X0154—Transfer roller • 41X0999—Pick roller and separator pad, 3 units • 41X2213—Filter

Resetting the maintenance counter

Automatic counter reset

The counter automatically resets after installing the following replacement parts:

- Developer unit (C, M, Y, and K)
- Photoconductor unit (C, M, Y, and K)
- Toner cartridge (C, M, Y, and K)

Note: The waste toner bottle counter resets when the toner supply is replaced.

- Transfer belt
- Fuser

ADF maintenance kit counter reset

Reset the maintenance counter after installing the new ADF pick roller, ADF feed belt, and ADF separator roller that are included in the kit.

- 1 From the control panel, navigate to:
Settings > Device > Maintenance > Configuration menu > Scanner Configuration > Reset Maintenance Counter
- 2 Touch **Start**.


Resetting the HEPA filter counter

Reset the filter counter after installing the new HEPA filter.

- 1 From the home screen, navigate to:
Settings > Device > Maintenance > Configuration menu > Supply Usage And Counters
- 2 On the Reset Filter Counter row, touch **Start**.

Cleaning printer parts

Cleaning the printer


 **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

Notes:

- Perform this task after every few months.
 - Damage to the printer caused by improper handling is not covered by the printer warranty.
- 1 Turn off the printer, and then unplug the power cord from the electrical outlet.
 - 2 Remove paper from the standard bin and multipurpose feeder.
 - 3 Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
 - 4 Wipe the outside of the printer with a damp, soft, lint-free cloth.

Notes:

- Do not use household cleaners or detergents, as they may damage the finish of the printer.
 - Make sure that all areas of the printer are dry after cleaning.
- 5 Connect the power cord to the electrical outlet, and then turn on the printer.

 **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Cleaning the scanner

1 Open the scanner cover.



2 Using a damp, soft, lint-free cloth, wipe the following areas:

- ADF glass



- ADF glass pad



- Scanner glass



- Scanner glass pad



3 Open door E.



4 Wipe the following areas:

- ADF glass in door E



- ADF glass pad in door E



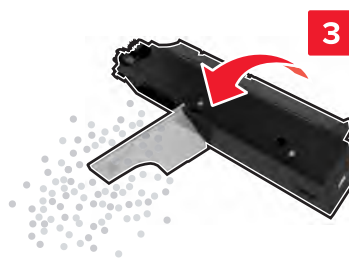
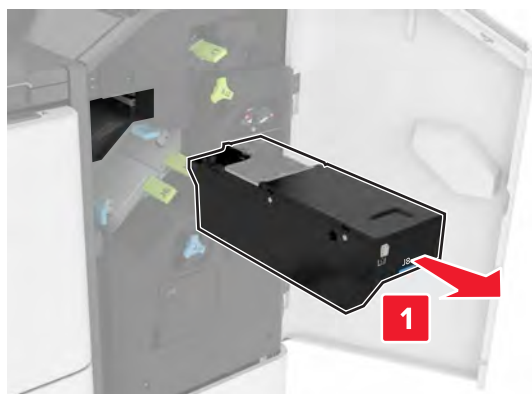
- 5 Close the door, and then close the scanner cover.

Emptying the hole punch box

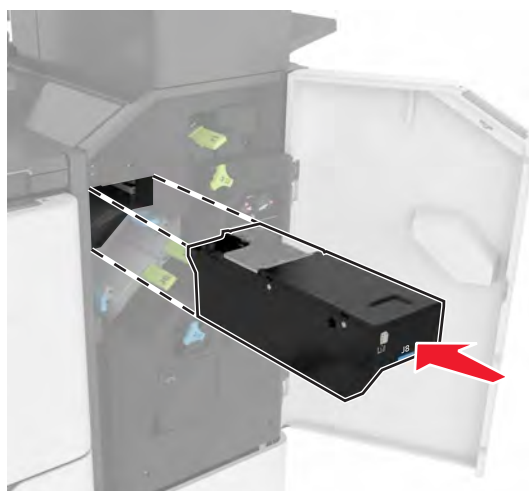
- 1 Open door J.



2 Remove and empty the hole punch box.



3 Insert the hole punch box.



4 Close door J.

Parts catalog

Legend

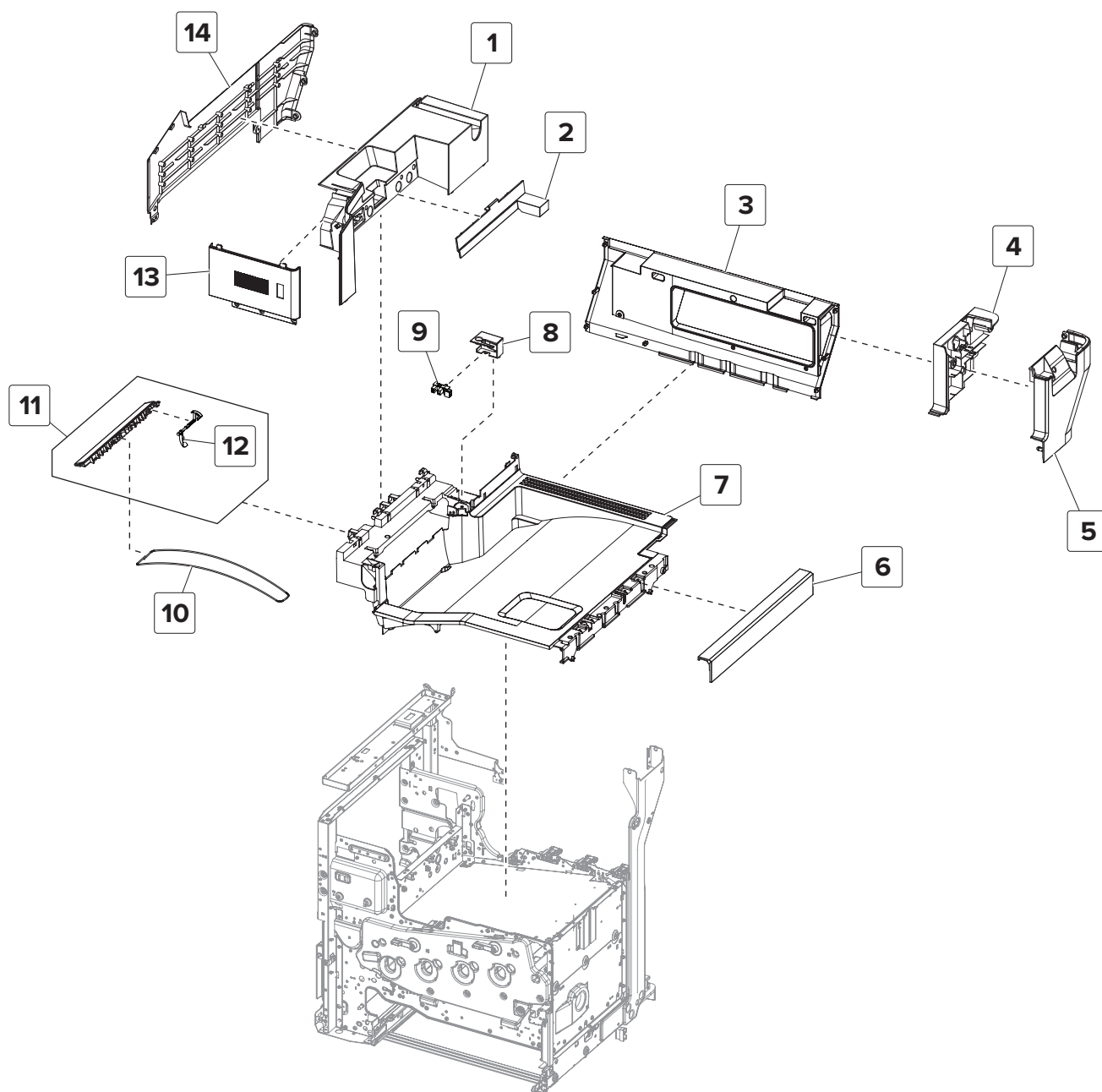
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration
- **P/N**—Identifies the part number of a FRU
- **Units/mach**—Refers to the number of units in a printer
- **Units/opt**—Refers to the number of units in an option
- **Units/FRU**—Refers to the number of units in a FRU
- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

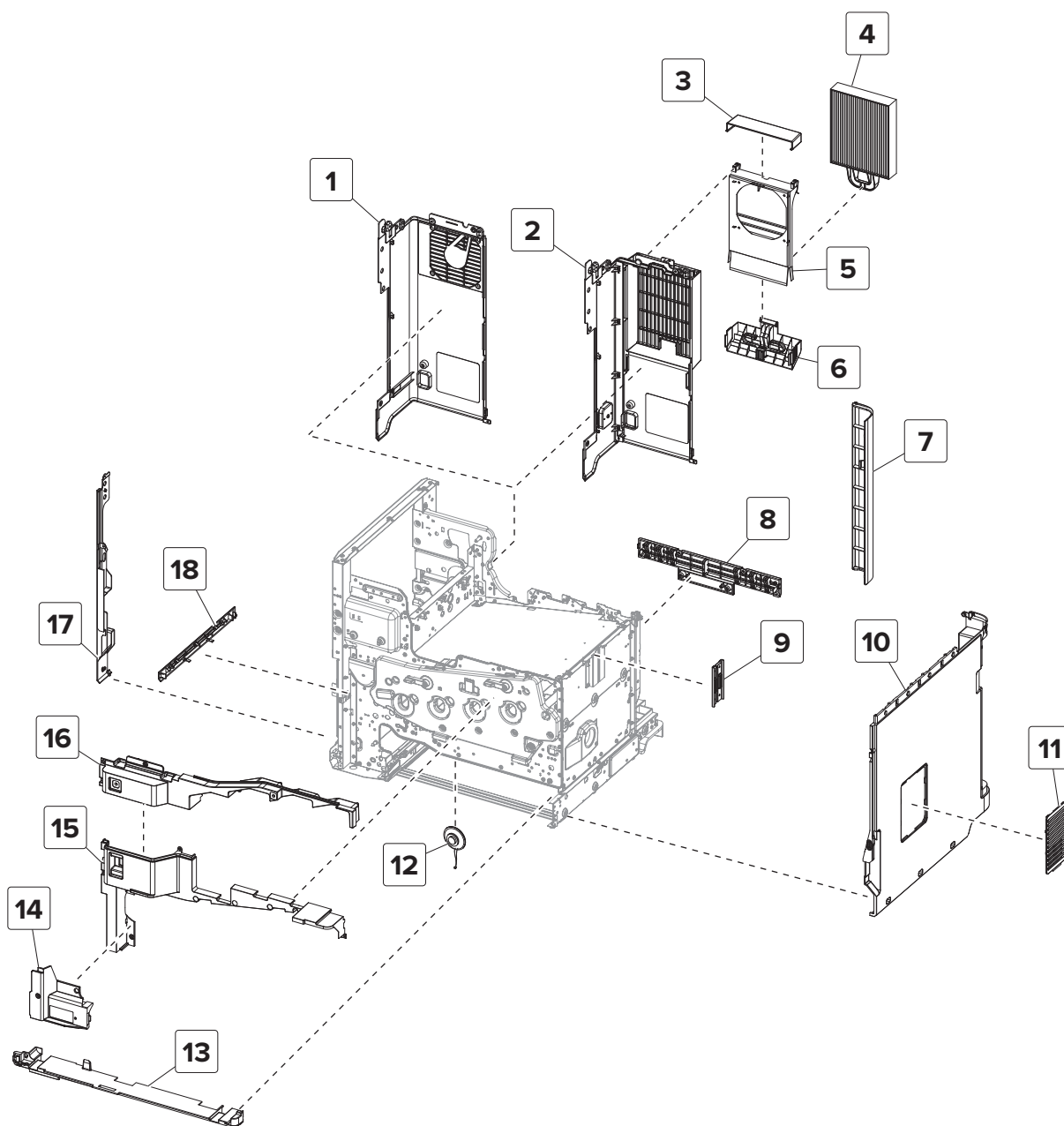
Assembly 1: Covers 1



Assembly 1: Covers 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0213	1	1	Top cover	“Top cover removal” on page 810
2	41X0710	1	1	Connector access cover	--
3	41X0214	1	1	Rear upper cover	“Rear upper cover removal” on page 771
4	41X0218	1	1	Column inner cover	“Column inner cover removal” on page 721
5	41X0217	1	1	Column outer cover	“Column outer cover removal” on page 718
6	41X0211	1	1	HPT attach cover	--
7	41X0210	1	1	Standard bin cover	--
8	41X0228	1	1	Bin full sensor housing	--
9	41X0570	1	1	Sensor (bin full)	--
10	41X0716	1	1	Stacking bail	--
11	41X0212	1	1	Static brush/bin full actuator	--
12	41X1737	1	1	Bin full actuator	--
13	41X0220	1	1	Front column upper cover	“Front column upper cover removal” on page 741
14	41X0216	1	1	Left upper cover	“Left upper cover removal” on page 691

Assembly 2: Covers 2

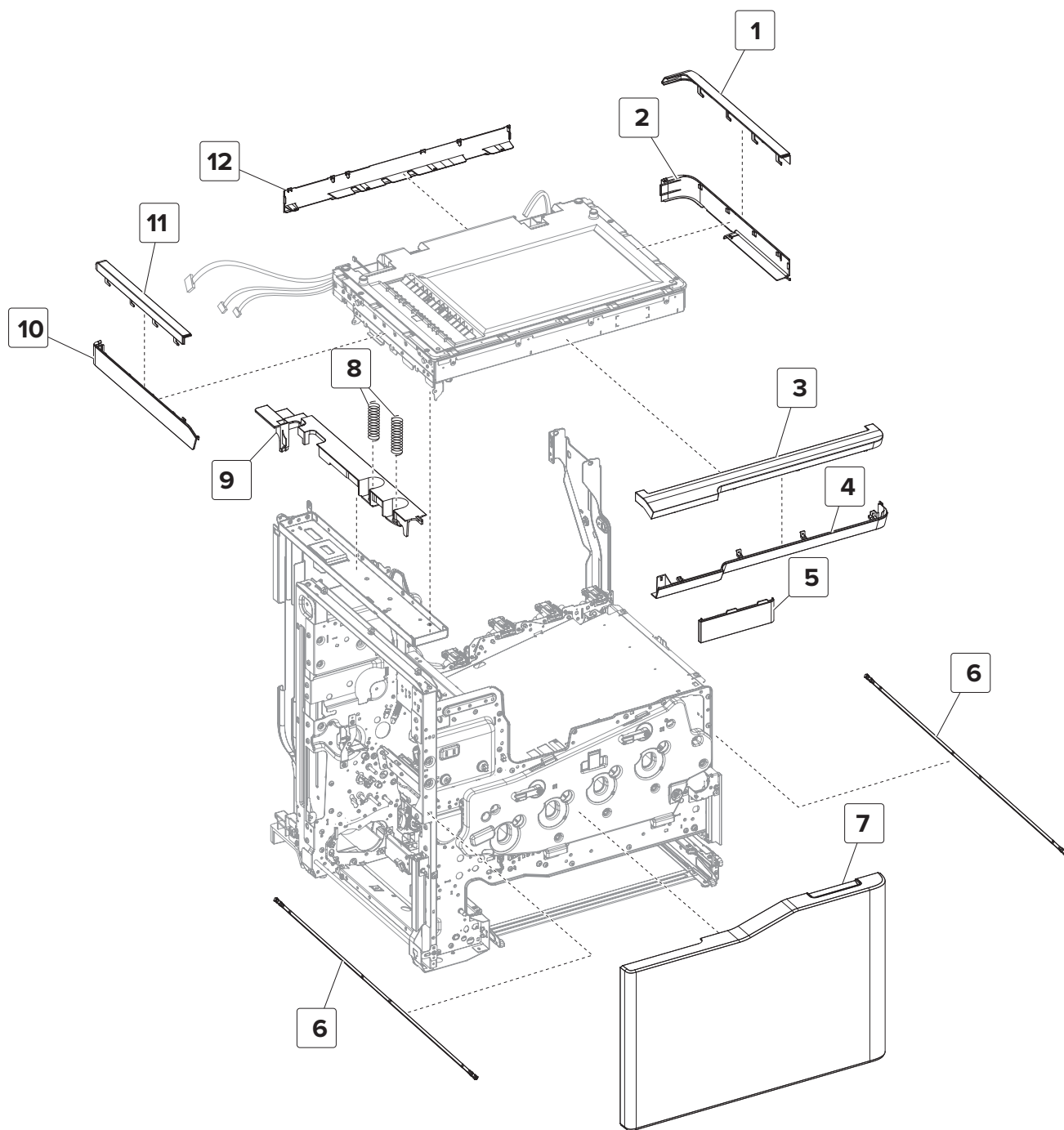


Assembly 2: Covers 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0089	1	1	Rear left cover	“Rear left cover removal” on page 772
2	41X2503	1	1	Rear left cover with HEPA filter Note: This part is only supported for 220 V printer models with E to Z as the 9th character in the serial number.	“Rear left cover removal” on page 772
3	41X2506	1	1	HEPA filter top cover Note: This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	--
4	41X2213	1	1	HEPA filter Note: This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	“HEPA filter removal” on page 780
5	41X2505	1	1	HEPA fan bezel Note: This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	--
6	41X2504	1	1	HEPA filter door Note: This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	--
7	41X0099	1	1	Connector access cover	--
8	41X0088	1	1	Rear lower cover	“Rear lower cover removal” on page 771
9	41X0070	1	1	Right cover bracket	--
10	41X0092	1	1	Right cover	“Right cover removal” on page 718
11	41X0090	1	1	Vent cover	“Vent cover removal” on page 717
12	40X9079	1	1	Audio speaker	--
13	41X0094	1	1	Lower front cover	“Lower front cover removal” on page 756
14	41X0097	1	1	Door rod cover	“Door rod cover removal” on page 748

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
15	41X0093	1	1	Inner lower cover	“Inner lower cover removal” on page 743
16	41X0715	1	1	Inner upper cover	“Inner upper cover removal” on page 742
17	41X0091	1	1	Left front cover	--
18	41X0096	1	1	Left lower cover	--

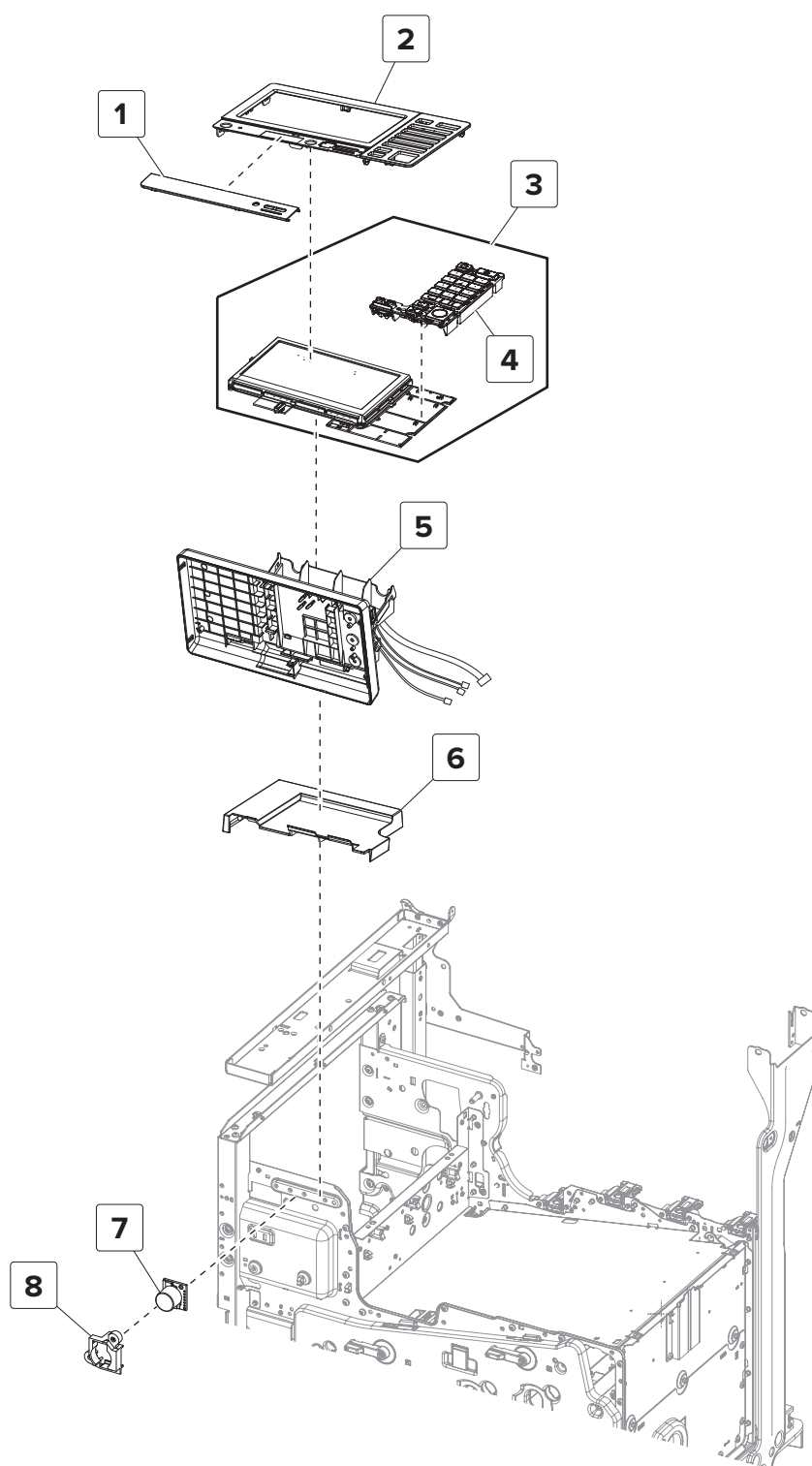
Assembly 3: Covers 3



Assembly 3: Covers 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0234	1	1	Scanner right upper cover	--
2	41X0231	1	1	Scanner right cover	“Flatbed scanner right cover removal” on page 842
3	41X0235	1	1	Scanner front upper cover	“Flatbed scanner front upper cover removal” on page 839
4	41X0232	1	1	Scanner front cover	--
5	41X0229	1	1	Keyboard access cover	--
6	41X0780	2	1	Front door strap	--
7	41X0227	1	1	Front door	“Front door removal” on page 744
8	41X0781	2	1	Support spring	--
9	41X0278	1	1	Cable cover	--
10	41X0230	1	1	Scanner left cover	“Flatbed scanner left cover removal” on page 841
11	41X0233	1	1	Scanner left upper cover	--
12	41X0236	1	1	Scanner rear cover	“Flatbed scanner rear cover removal” on page 840

Assembly 4: Control panel

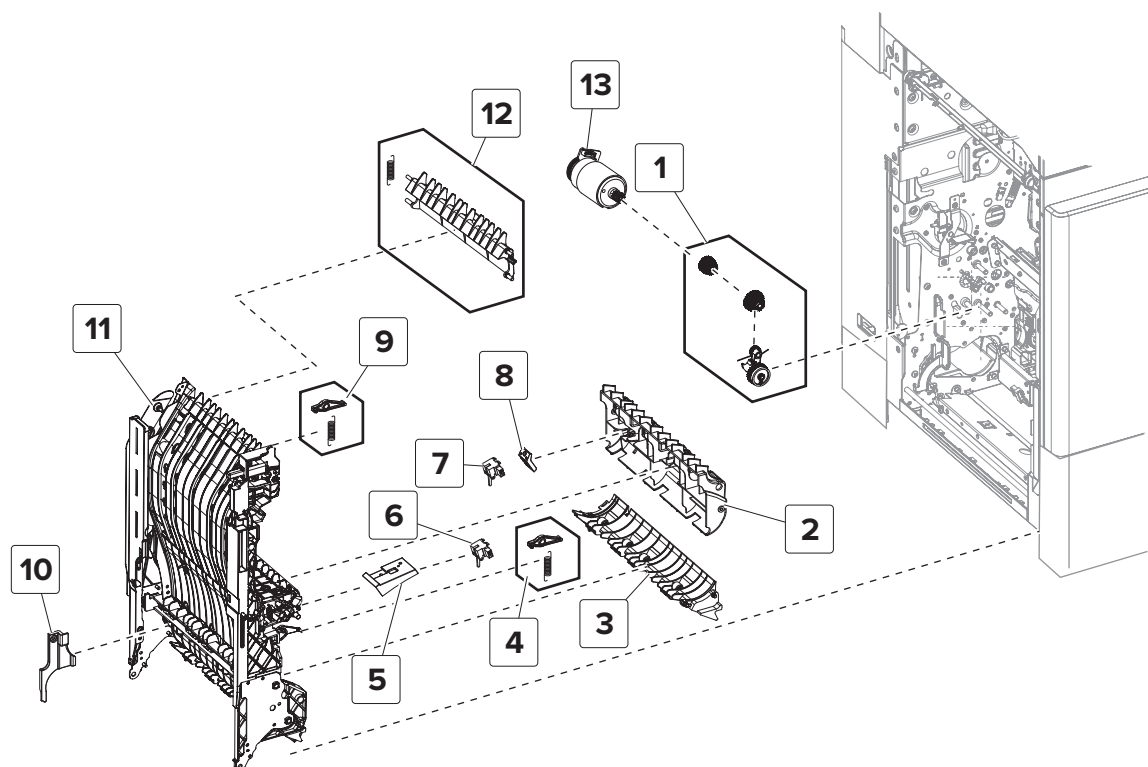


Assembly 4: Control panel

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0902	1	1	Bezel (CX825)	--
1	41X0903	1	1	Bezel (CX860)	--
1	41X0904	1	1	Bezel (XC8155)	--
1	41X0905	1	1	Bezel (XC8160)	--
1	41X2859	1	1	Bezel (XC8163)	--
2	41X0544	1	1	10.1-inch control panel front cover	--
3	41X2276	1	1	Board, 10.1-inch control panel	--
4	41X0224	1	1	Button kit, 10.1-inch control panel	“Control panel button kit removal” on page 737
5	41X0215	1	1	Support, 10.1-inch control panel	--
6	41X0238	1	1	Control panel support cover	--
7	41X0222	1	1	Sensor (proximity) Note: The sensor (proximity) is not included in some printers. If the fifth digit (counting from the right) of the printer serial number is D or above, then the sensor is not available. For printers that do not have the sensor (proximity) installed, a sensor plug is mounted instead of the sensor.	“Sensor (proximity) removal” on page 741
8	41X0221	1	1	Proximity sensor cover	“Sensor (proximity) removal” on page 741

Warning—Potential Damage: Do not replace the control panel and controller board at the same time. See [“Critical information for controller board or control panel replacement” on page 656](#).

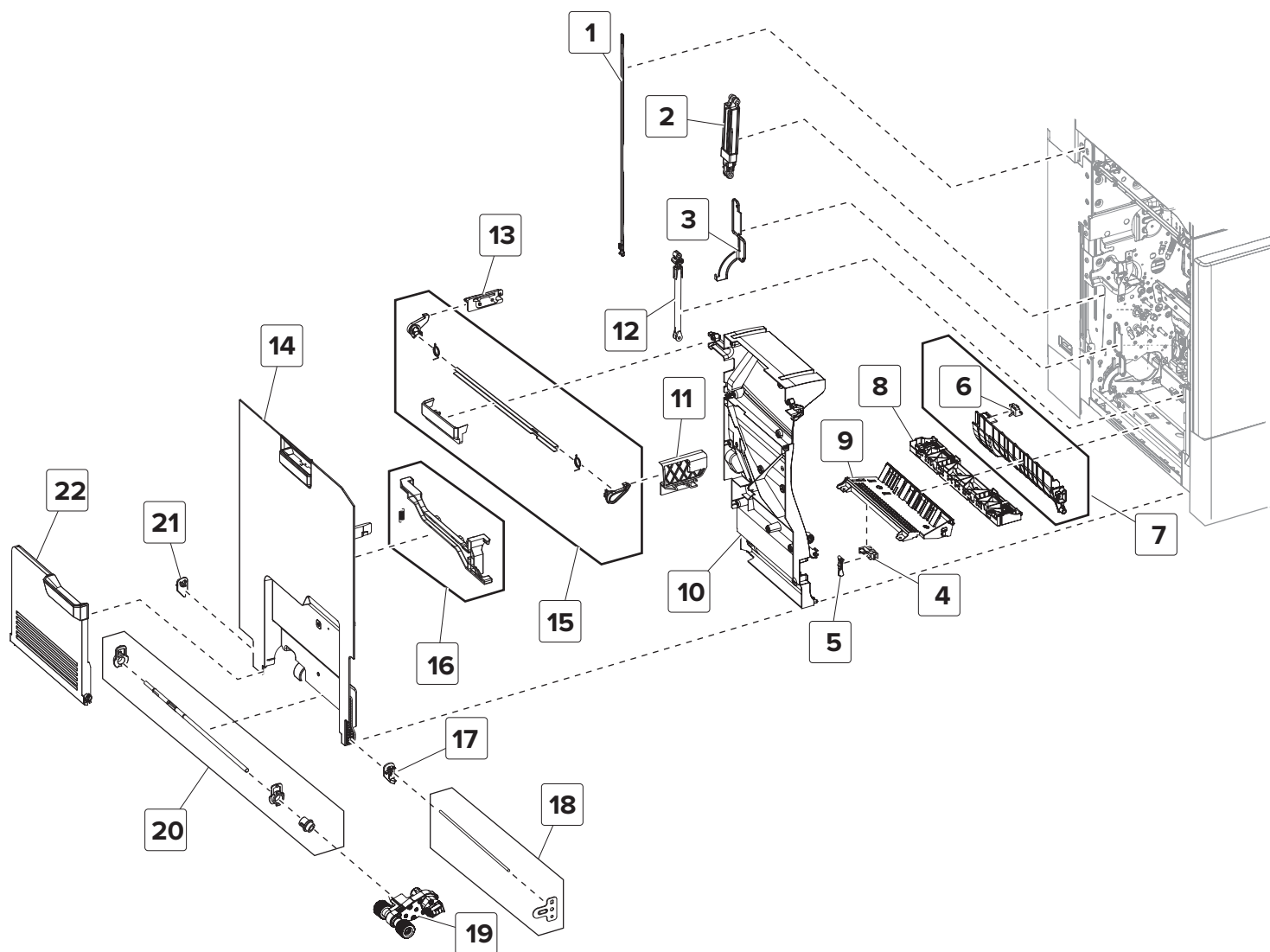
Assembly 5: Duplex



Assembly 5: Duplex

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0133	1	1	Duplex drive gears	“Duplex drive gears removal” on page 694
2	41X0123	1	1	Duplex lower pinch roller guide	--
3	41X0121	1	1	Duplex turn guide	--
4	41X0066	1	1	Front nip release arm	--
5	41X0072	1	1	Lower duplex sensor bracket	--
6	41X0915	1	1	Sensor (duplex path 2)	--
7	41X0915	1	1	Sensor (duplex path 1)	--
8	41X0071	1	1	Upper duplex sensor bracket	--
9	41X0065	1	1	Rear nip release arm	--
10	41X0098	1	1	Connector cover, plastic	“Plastic connector cover removal” on page 700
11	41X0105	1	1	Duplex	“Left door, duplex, and MPF removal” on page 701
12	41X0122	1	1	Duplex upper guide	--
13	41X0140	1	1	Motor (duplex)	Motor (duplex) removal

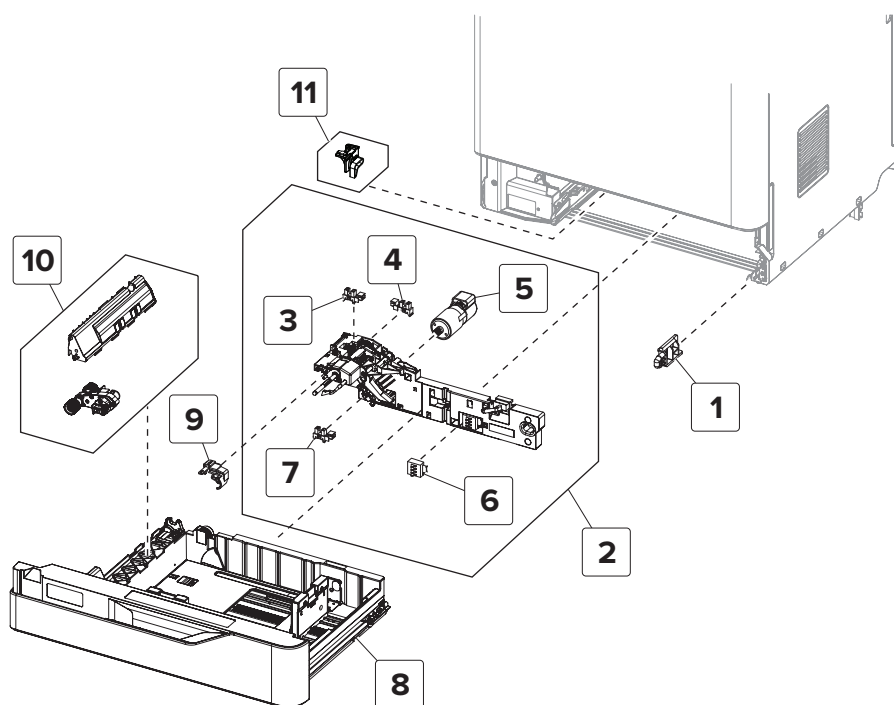
Assembly 6: Left door



Assembly 6: Left door

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0173	1	1	Left door support strap	--
2	41X0174	1	1	Left door support	--
3	41X0073	1	1	Connector cover, metal	--
4	41X0684	1	1	Sensor (MPF paper present)	--
5	41X0058	1	1	MPF media present actuator	--
6	41X0914	1	1	Sensor (MPF/pass-through)	“Sensor (MPF/pass-through) with deflector removal” on page 711
7	41X0120	1	1	Deflector with sensor (MPF/pass-through)	“Sensor (MPF/pass-through) with deflector removal” on page 711
8	41X0172	1	1	MPF tray stop	“MPF tray stop removal” on page 707
9	41X0119	1	1	MPF pick guide	“MPF pick guide removal” on page 705
10	41X0124	1	1	Left door paper guide	--
11	41X0081	1	1	Left door front catch	--
12	41X0100	1	1	Left door damper	--
13	41X0080	1	1	Left door rear catch	--
14	41X0101	1	1	Left door	“Left door, duplex, and MPF removal” on page 701
15	41X0136	1	1	Left door release latch	--
16	41X0135	1	1	Duplex release latch	“Duplex release latch removal” on page 694
17	41X0059	1	1	MPF tray front actuator	--
18	41X0250	1	1	Left door rod	“Door rod cover removal” on page 748
19	41X0956	1	1	Pick roller	“MPF pick roller removal” on page 704
20	41X0167	1	1	MPF pick shaft	--
21	41X0060	1	1	MPF tray rear actuator	--
22	41X0176	1	1	MPF tray	“Left door, duplex, and MPF removal” on page 701

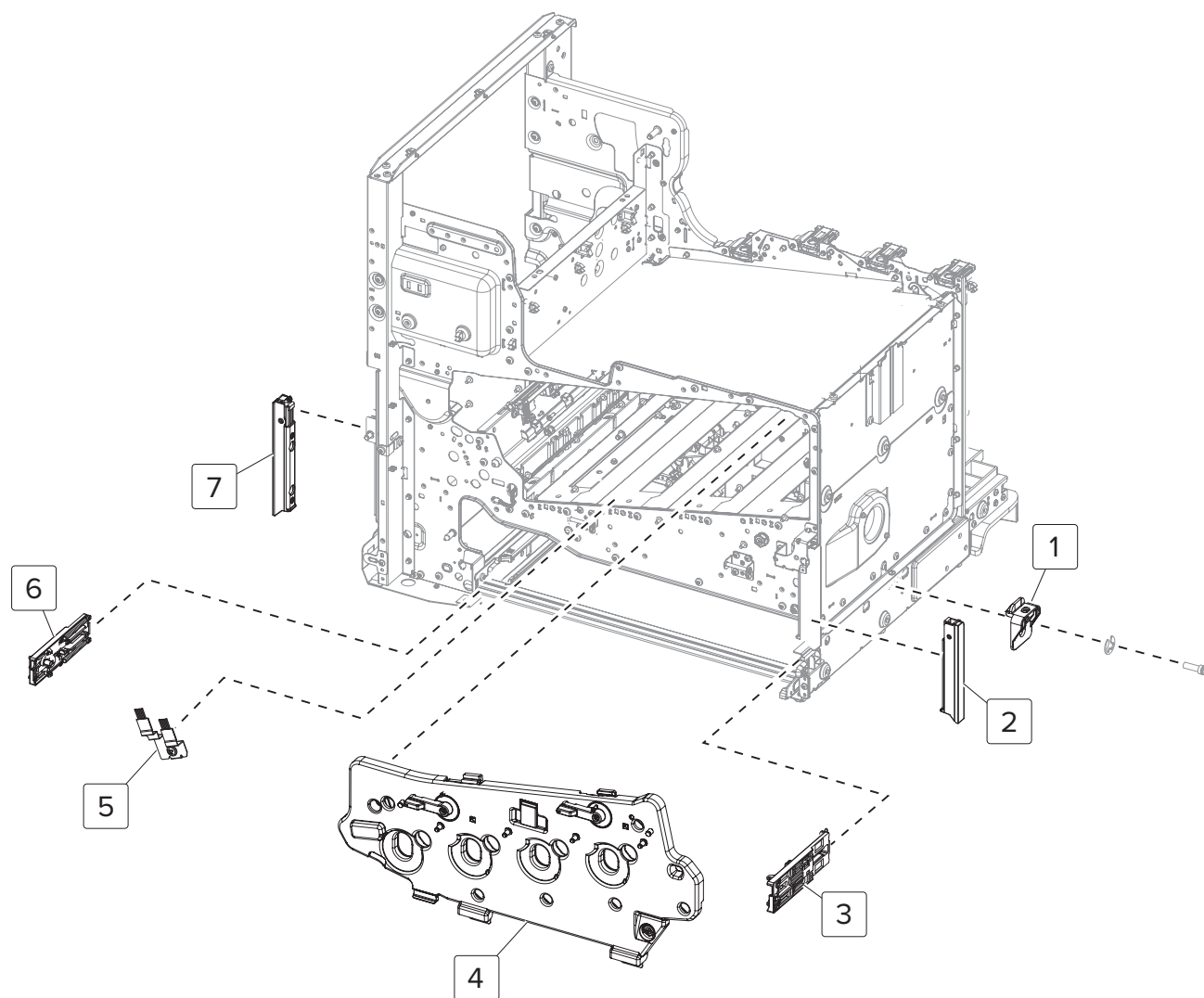
Assembly 7: Feeder



Assembly 7: Feeder

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0129	1	1	Paper tray guide	--
2	41X0106	1	1	Paper feeder	“Paper feeder removal” on page 762
3	41X0684	1	1	Sensor (pick roller index)	--
4	41X0684	1	1	Sensor (media out)	--
5	41X0140	1	1	Motor (pick)	--
6	40X7911	1	1	Sensor (media size)	Sensor (media size) removal
7	41X0684	1	1	Sensor (media low)	--
8	41X0175	1	1	Media tray	--
9	41X0067	1	1	Feeder bearing	“Paper feeder removal” on page 762
10	41X0999	1	1	Pick roller and separator pad	“Pick roller removal” on page 747
11	41X1033	1	1	Paper overfill stop	--

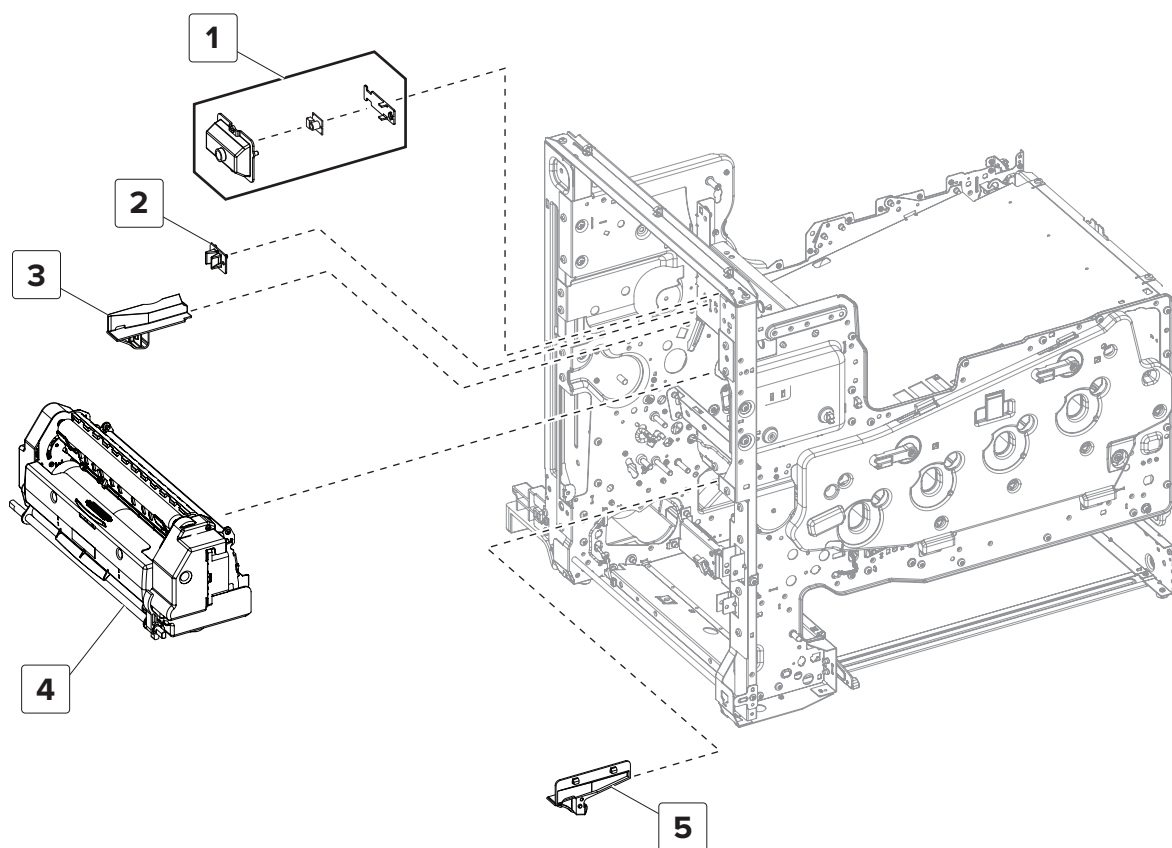
Assembly 8: Frame



Assembly 8: Frame

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0074	1	1	Frame connector bracket	--
2	41X0131	1	1	Right handle	--
3	41X0991	1	1	Tray close rail, right	--
4	41X0103	1	1	PC unit/developer door	“Developer unit and photoconductor unit removal” on page 739
5	41X1975	1	1	Grounding plate	--
6	41X0992	1	1	Tray close rail, left	--
7	41X0130	1	1	Left handle	--

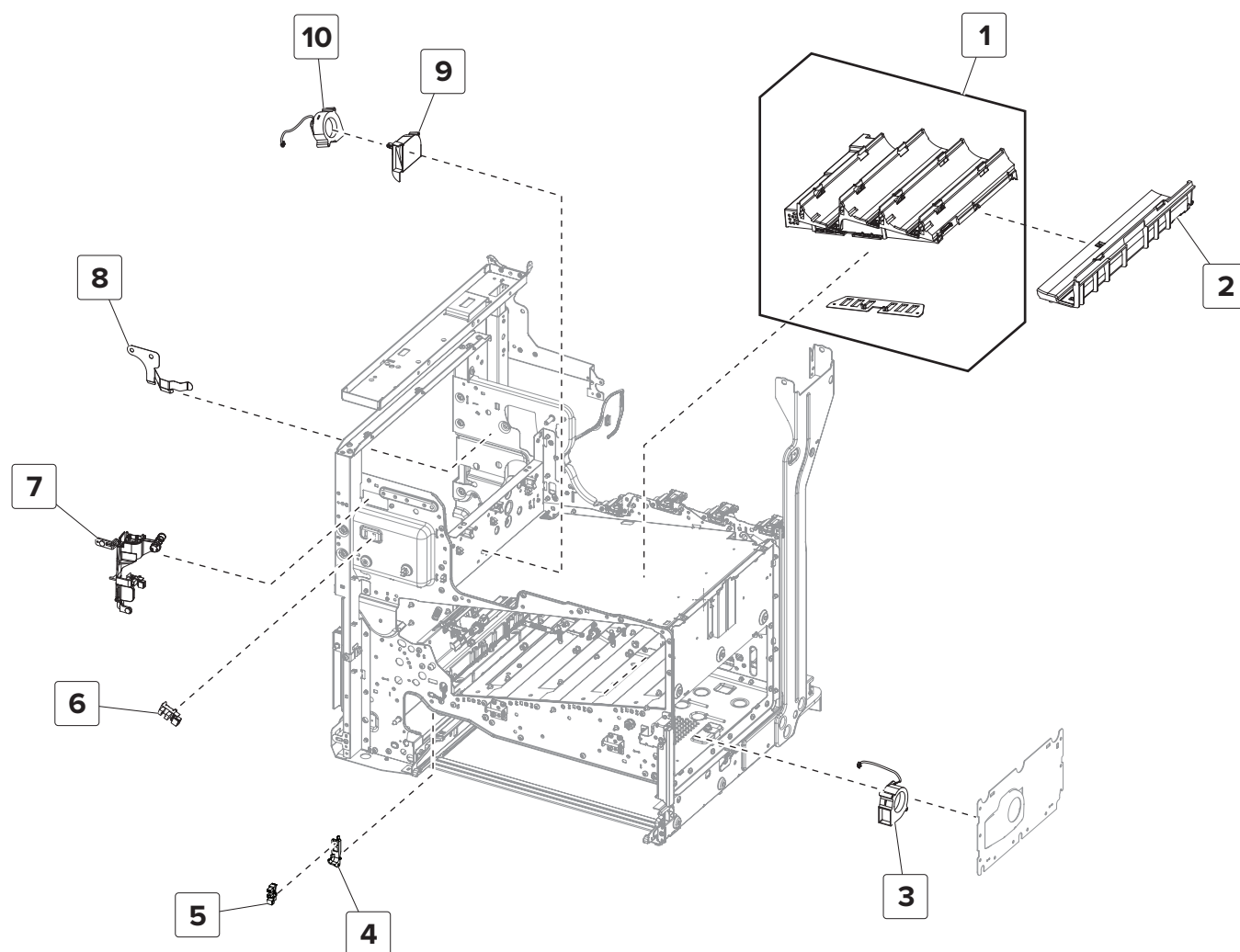
Assembly 9: Fuser



Assembly 9: Fuser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0165	1	1	Sensor (fuser temperature)	--
2	41X0127	1	1	Fuser alignment guide	--
3	41X0126	1	1	Fuser rear loading guide	--
4	41X0248	1	1	Fuser (100 V)	"Fuser removal" on page 692
4	41X0246	1	1	Fuser (115 V)	"Fuser removal" on page 692
4	41X0247	1	1	Fuser (230 V)	"Fuser removal" on page 692
5	41X0125	1	1	Fuser front loading guide	--

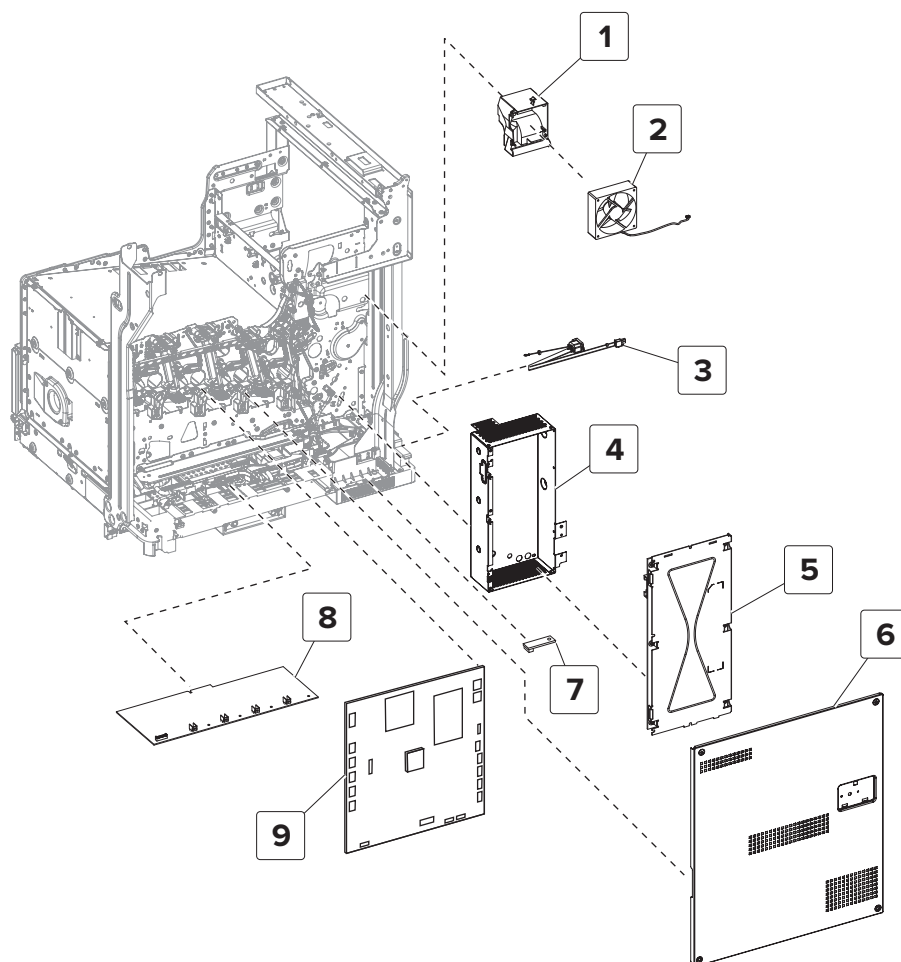
Assembly 10: Electronics—Front



Assembly 10: Electronics—Front

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0143	1	1	Main HVPS	“Main HVPS removal” on page 753
2	41X0117	1	1	Toner cartridge guide	--
3	41X0975	1	1	Printhead fan	“Printhead fan removal” on page 723
4	41X1620	1	1	Waste toner bottle present sensor bracket	--
5	41X0570	1	1	Sensor (waste toner bottle present)	--
6	41X0684	1	1	Sensor (door interlock)	“Sensor (door interlock) removal” on page 749
7	41X0162	1	1	Door interlock actuator	--
8	41X0141	1	1	Grounding plate	--
9	41X0973	1	1	Fan duct	--
10	41X0974	1	1	HVPS fan	“HVPS fan removal” on page 750

Assembly 11: Electronics—Rear

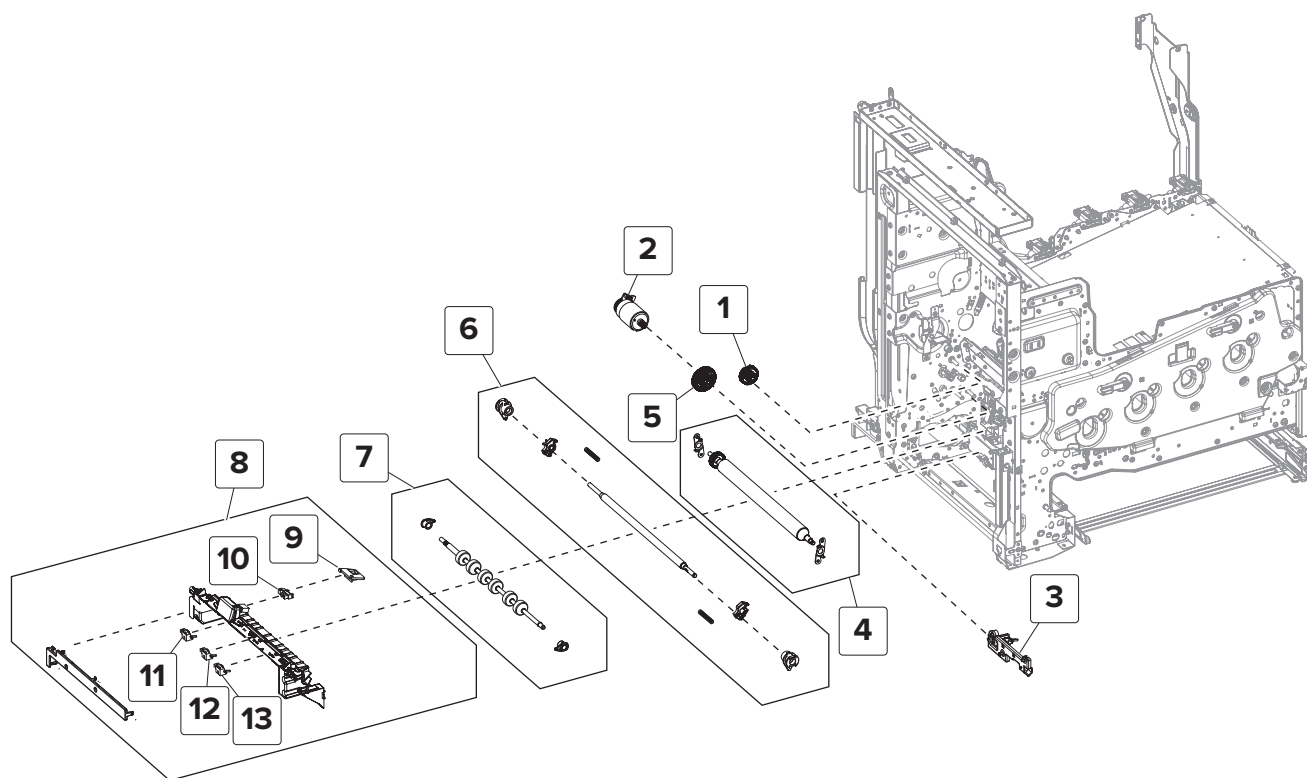


Assembly 11: Electronics—Rear

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0104	1	1	Main fan duct	“Main fan duct removal” on page 792
2	41X0954	1	1	Main fan	“Main fan removal” on page 778
2	41X2539	1	1	HEPA main fan Note: This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	“Main fan removal” on page 778
3	41X0260	1	1	AC power input cable	--
4	41X0244	1	1	LVPS cage	“LVPS cage removal” on page 783
5	41X0242	1	1	LVPS	“LVPS removal” on page 781
6	41X0087	1	1	Controller board cover	“Controller board cover removal” on page 770
7	41X0785	1	1	Weather station	“Weather station removal” on page 787
8	41X0241	1	1	Charge roller HVPS	“Charge roller HVPS removal” on page 772
9	41X0237	1	1	Controller board (CX825, CX860, XC8155, XC8160, XC8163)	“Controller board removal” on page 776

Warning—Potential Damage: Do not replace the control panel and controller board at the same time. See [“Critical information for controller board or control panel replacement” on page 656](#).

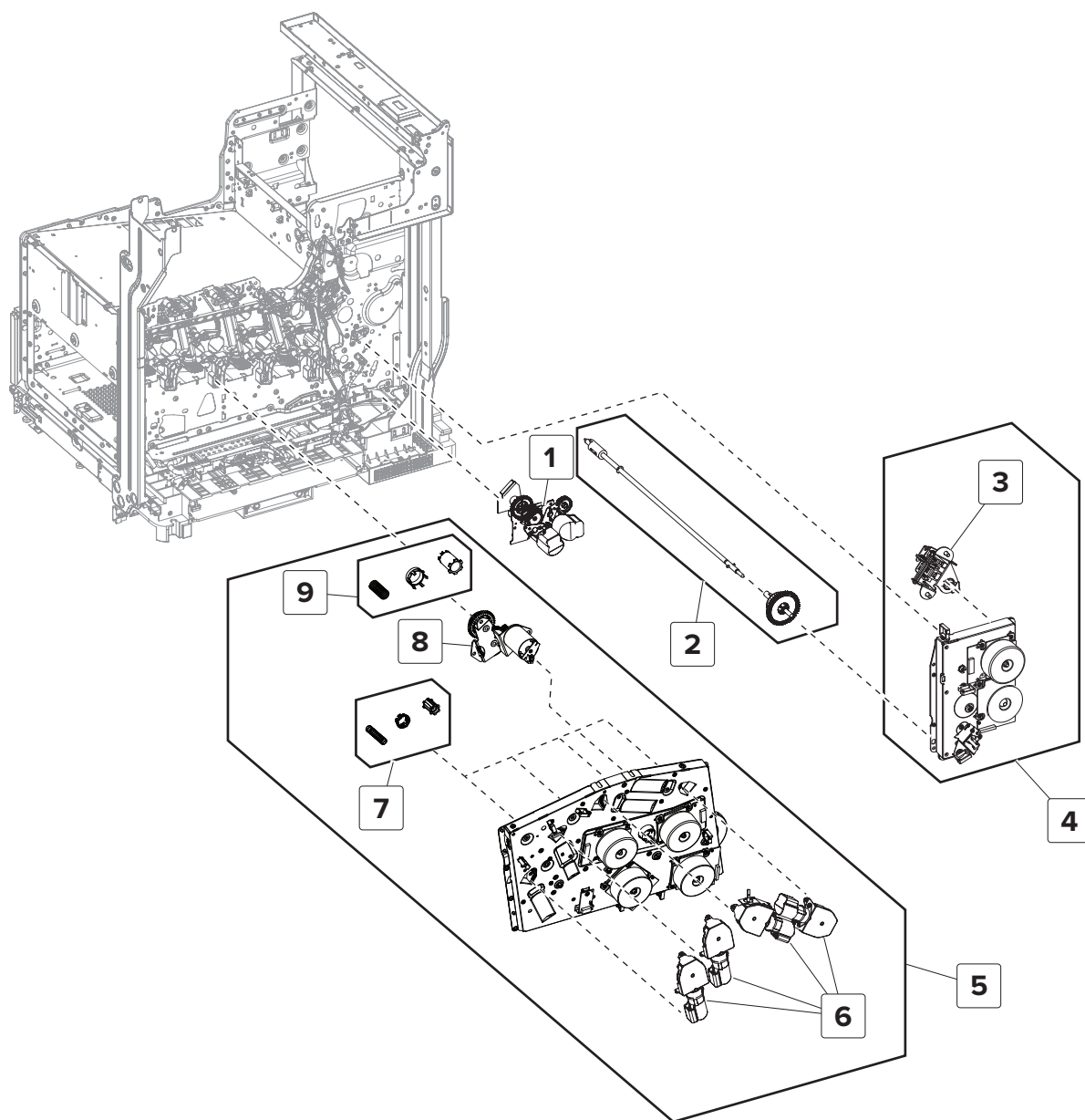
Assembly 12: Registration



Assembly 12: Registration

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0108	1	1	Deskew roller gear	--
2	41X0140	1	1	Motor (deskew)	--
3	41X0163	1	1	Sensor (input)	“Sensor (input) removal” on page 711
4	41X0155	1	1	Deskew roller	Deskew roller removal
5	41X0107	1	1	Isolation roller gear	“Isolation roller gear removal” on page 716
6	41X0156	1	1	Deskew pinch roller	--
7	41X0168	1	1	Isolation roller shaft	Isolation roller shaft removal
8	41X0128	1	1	Deskew roller sensor guide	“Deskew roller sensor guide removal” on page 696
9	41X2278	1	1	Sensor aperture	--
10	40X7779	1	1	Sensor (deskew roller exit)	“Sensor (deskew roller exit) removal” on page 708
11	41X0914	1	1	Sensor (deskew roller entry)	--
12	41X0914	1	1	Sensor (narrow media)	--
13	41X0914	1	1	Sensor (near narrow media)	--

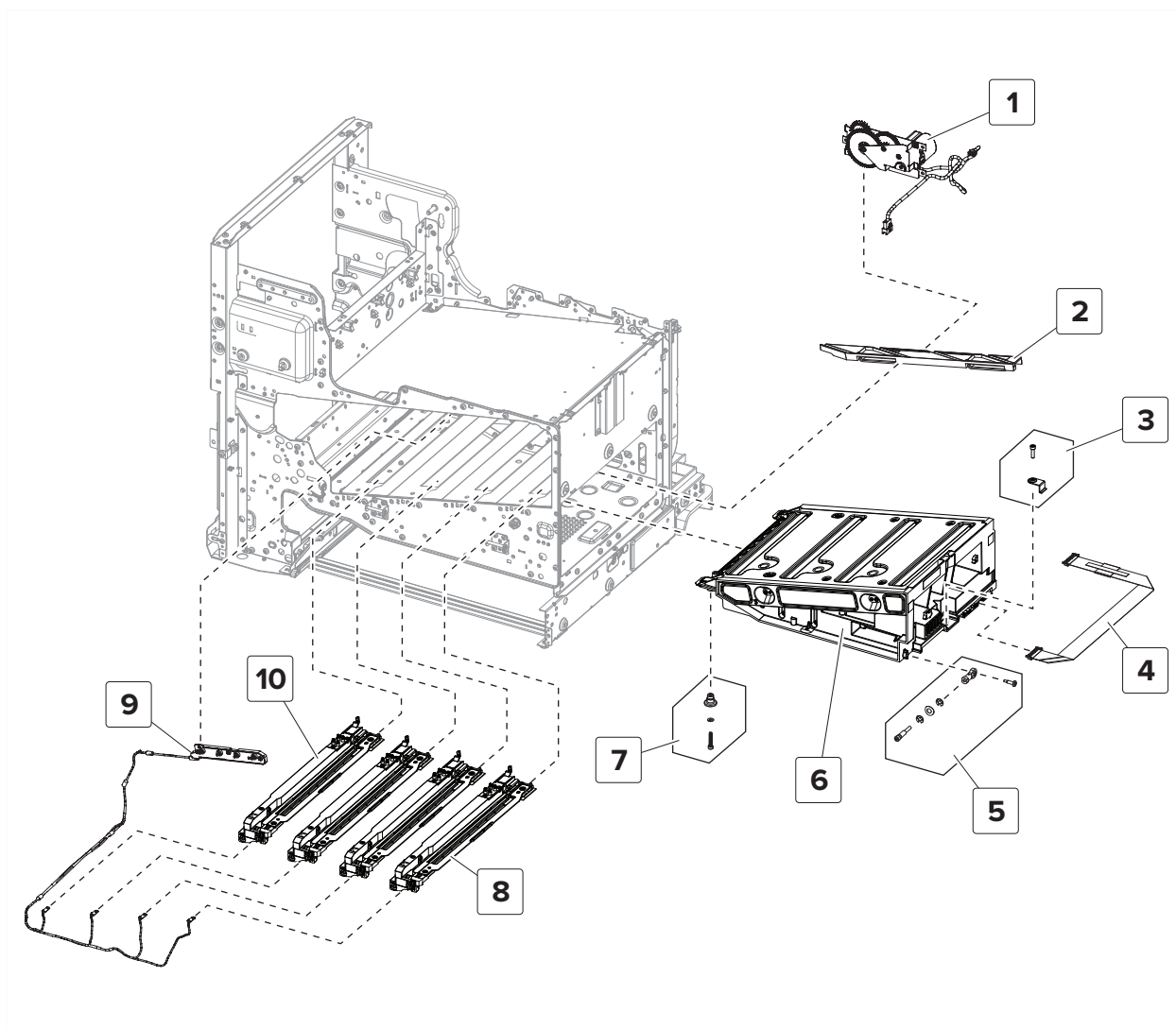
Assembly 13: Motors



Assembly 13: Motors

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0115	1	1	MPF, reference edge gearbox	“Reference edge motor gearbox removal” on page 712
2	41X0109	1	1	Waste toner gear and shaft	“Waste toner gear removal” on page 801
3	41X0159	1	1	Sensor (waste toner full)	--
4	41X0111	1	1	Fuser/transfer belt motor gearbox	“Fuser/transfer belt motor gearbox removal” on page 799
5	41X0112	1	1	EP, developer, toner add gearbox	“EP, developer, toner add gearbox removal” on page 796
6	41X0113	3	1	Toner add motor gearbox (K, C, and M)	“Toner add motor gearbox (K, C, and M) removal” on page 790
6	41X0113	3	1	Toner add motor gearbox (Y)	“Toner add motor gearbox (Y) removal” on page 791
7	41X1976	4	3	Toner cartridge drive coupling	--
8	41X0114	1	1	Motor (black only retract)	--
9	41X2905	1	3	Black only retract coupling	--

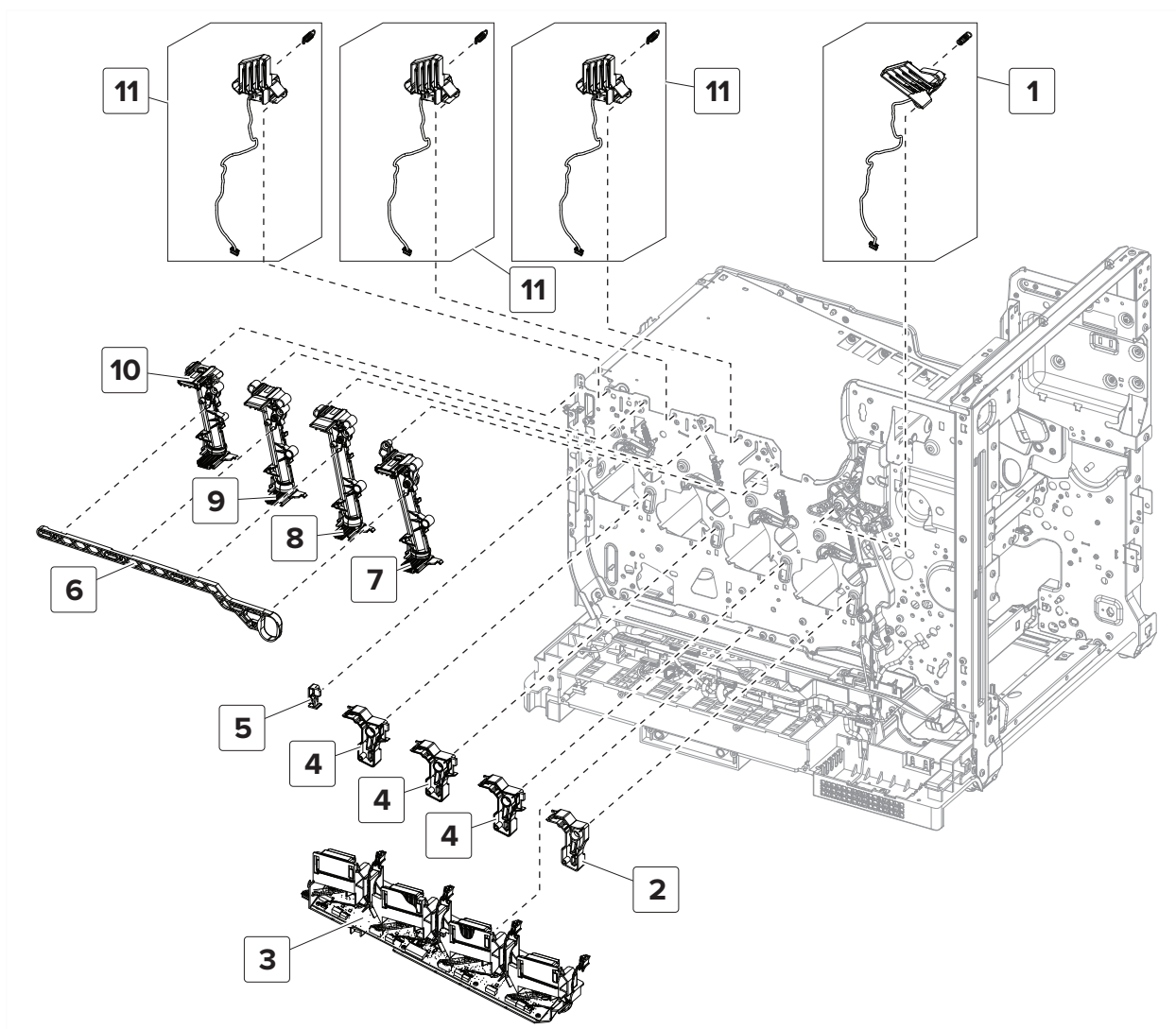
Assembly 14: Printhead



Assembly 14: Printhead

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0139	1	1	Motor (printhead wiper)	“Motor (printhead wiper) removal” on page 728
2	41X0145	1	1	Printhead wiper actuator rack	--
3	41X0082	1	1	Printhead clamp	--
4	41X0076	1	1	Printhead data cable	--
5	41X0240	1	1	Printhead adjustment parts pack	--
6	41X0144	1	1	Laser printhead	“Printhead removal” on page 725
7	41X0132	1	1	Printhead post	--
8	41X0147	3	1	Developer/PC unit CMY wiper rail	“Developer/PC unit CMY wiper rail removal” on page 765
9	41X0086	1	1	Developer roll power contact	--
10	41X0146	1	1	Developer/PC unit K wiper rail	“Developer/PC unit K wiper rail removal” on page 766

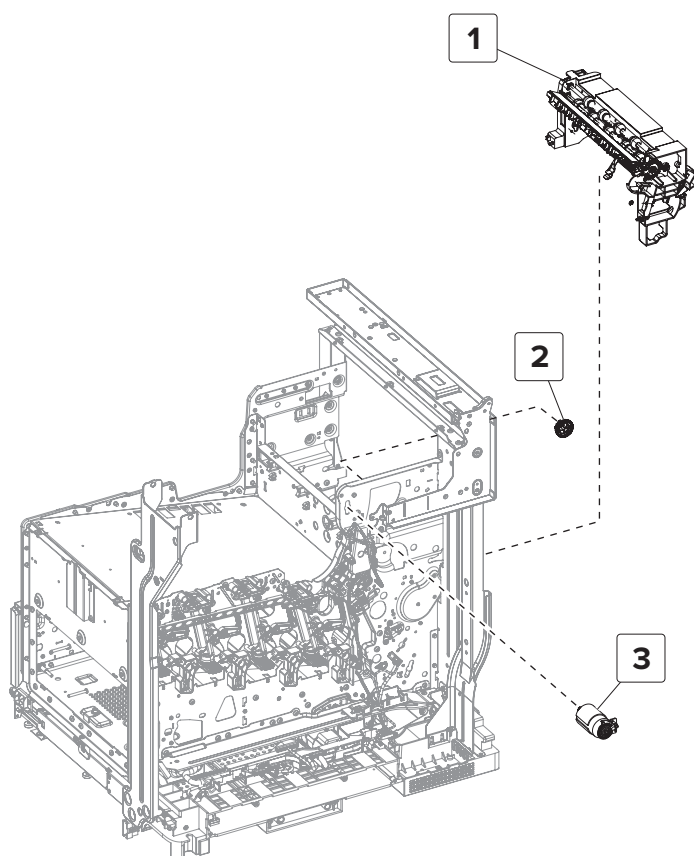
Assembly 15: Toner supply



Assembly 15: Toner supply

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0084	1	1	Toner cartridge contact (K)	“Toner cartridge contact removal” on page 805
2	41X0152	1	1	Toner port retainer (K)	--
3	41X0069	1	1	Smart chip interface board	“Smart chip interface board removal” on page 804
4	41X0151	3	1	Toner port retainer (CMY)	--
5	41X0150	1	1	Toner port retainer	--
6	41X0056	1	1	Toner supply actuator	“Toner supply actuator removal” on page 803
7	41X0180	1	1	Toner add tube (K)	“Toner add tube removal” on page 807
8	41X0178	1	1	Toner add tube (M)	“Toner add tube removal” on page 807
9	41X0177	1	1	Toner add tube (C)	“Toner add tube removal” on page 807
10	41X0179	1	1	Toner add tube (Y)	“Toner add tube removal” on page 807
11	41X0083	3	1	Toner cartridge contact (CMY)	“Toner cartridge contact removal” on page 805

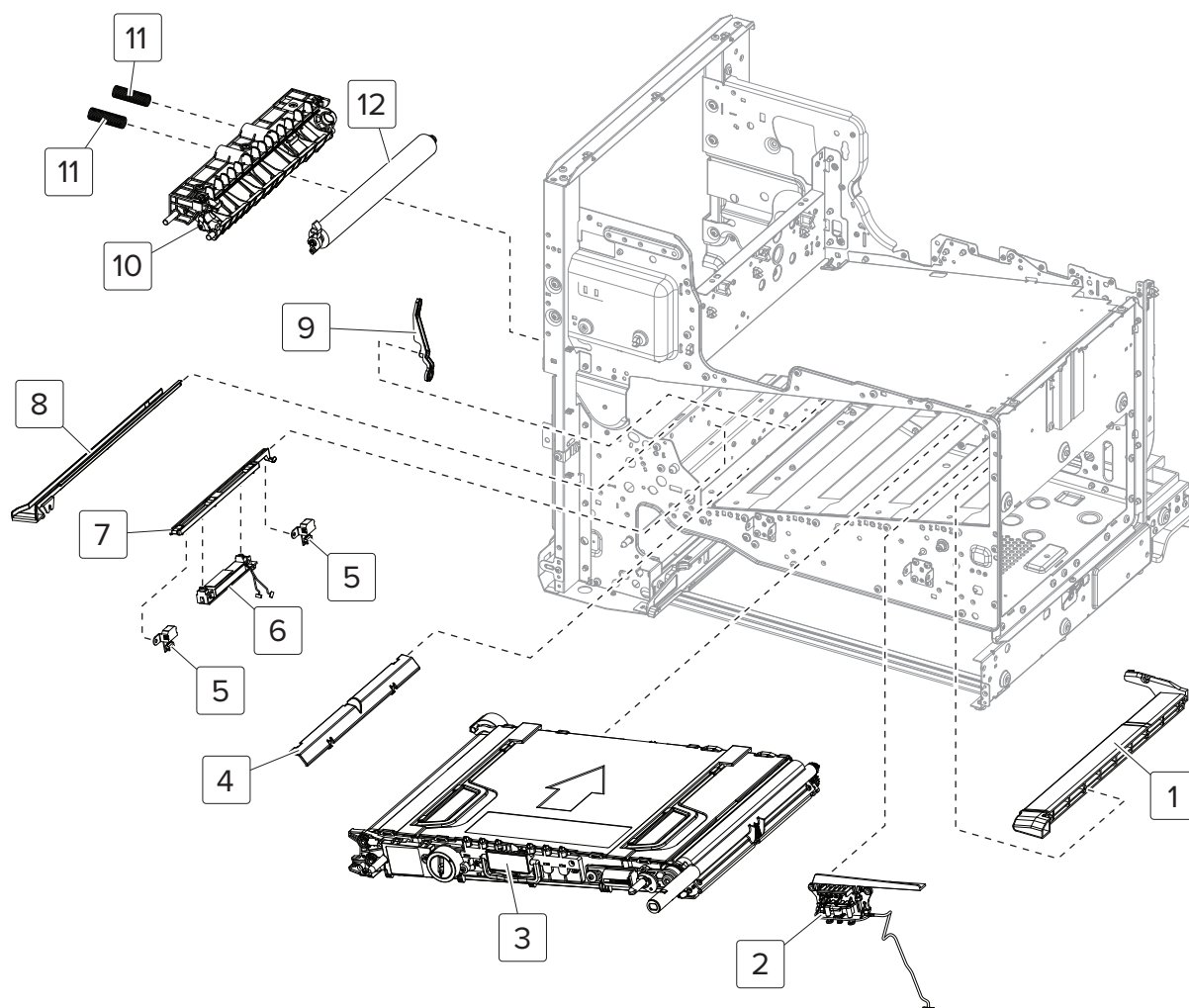
Assembly 16: Redrive



Assembly 16: Redrive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0148	1	1	Redrive	“Redrive removal” on page 709
2	41X0110	1	1	Redrive gear	“Redrive gear removal” on page 710
3	41X0451	1	1	Motor (redrive)	Motor (redrive) removal

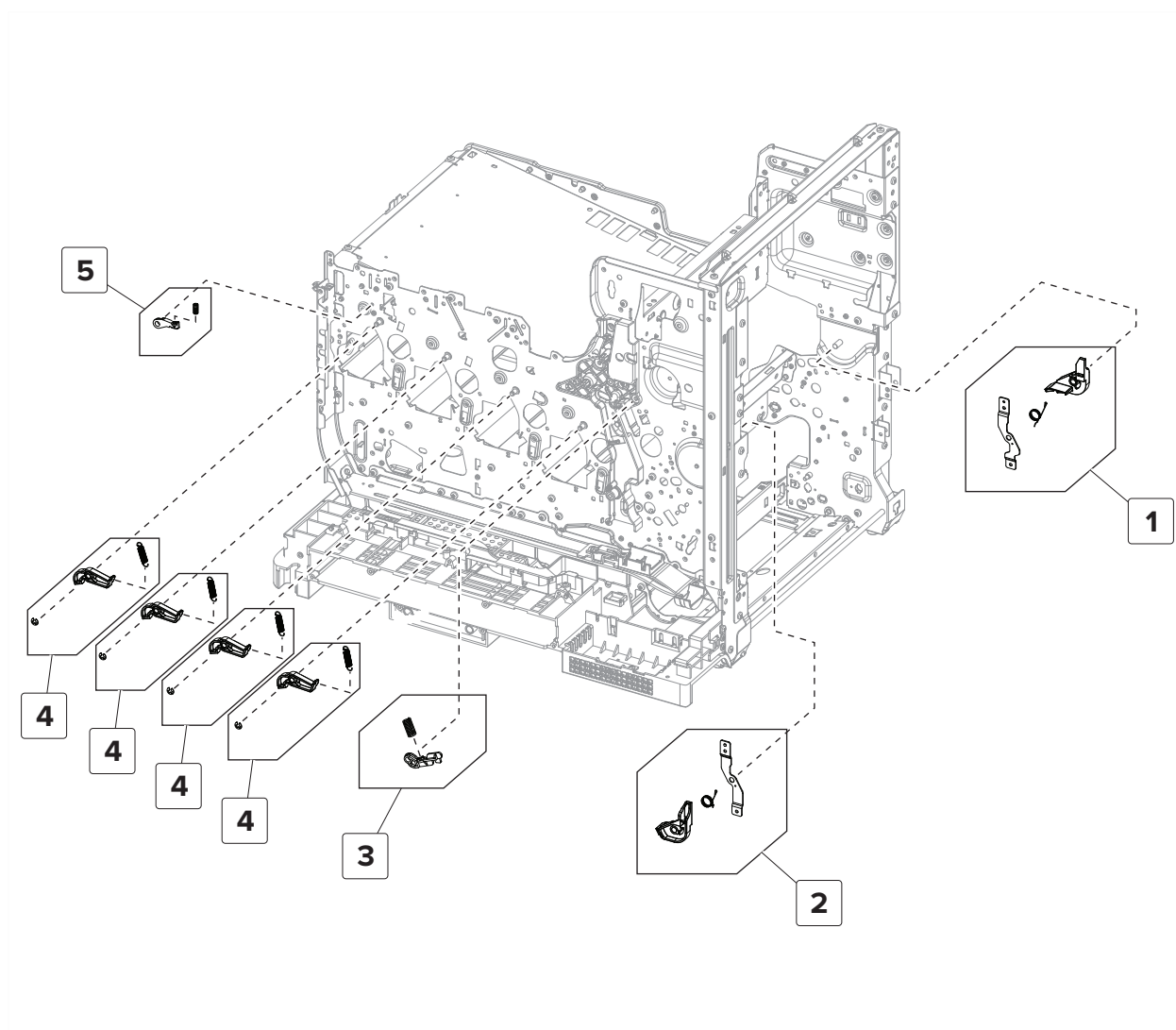
Assembly 17: Transfer—Front



Assembly 17: Transfer—Front

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0116	1	1	Transfer belt right guide	--
2	41X0085	1	1	Transfer belt contact	--
3	41X0245	1	1	Transfer belt	“Transfer belt removal” on page 744
4	41X0095	1	1	Wiring cover	--
5	41X0161	2	1	Sensor (auto alignment)	“Sensor (auto alignment) removal” on page 763
6	41X0160	1	1	Sensor (TPS)	“Sensor (TPS) removal” on page 764
7	41X0181	1	1	TPS sensor wiper	“TPS sensor wiper removal” on page 765
8	41X0118	1	1	Transfer belt left guide	--
9	41X0057	1	1	TPS wiper actuator	--
10	41X0079	1	1	Transfer roller housing	--
11	41X0171	2	1	Transfer roller carriage spring	--
12	41X0154	2	1	Transfer roller	“Transfer roller removal” on page 693

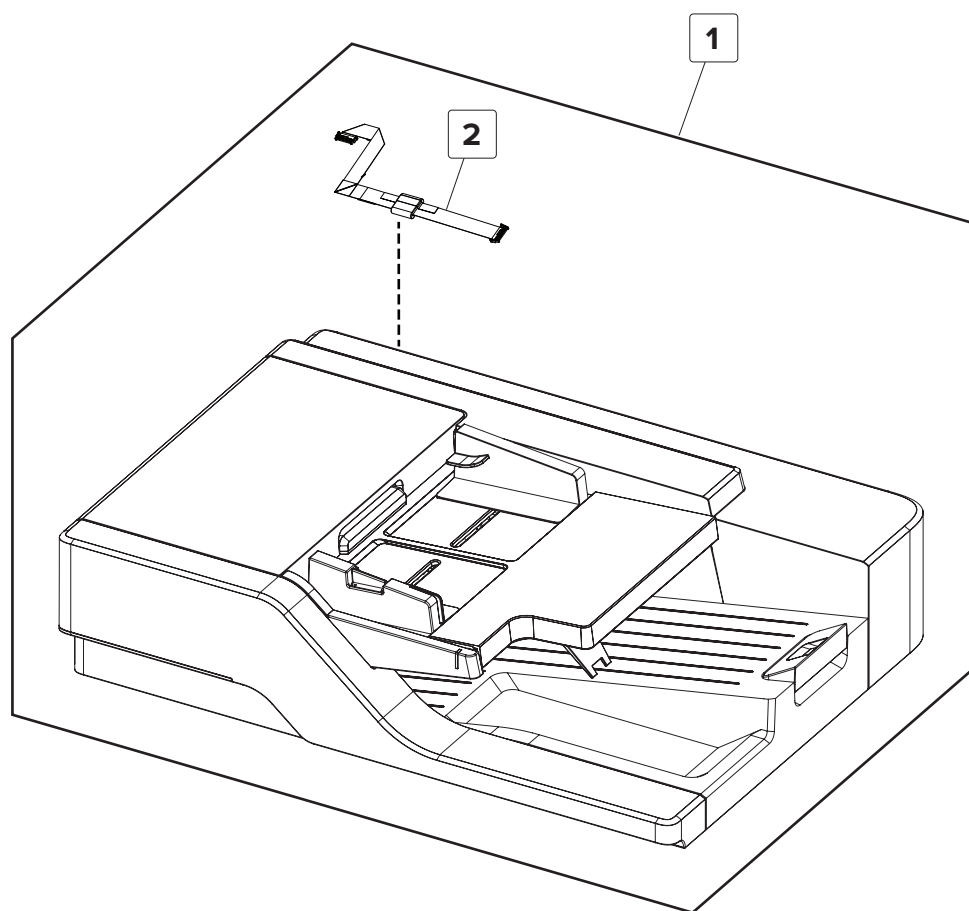
Assembly 18: Transfer—Rear



Assembly 18: Transfer—Rear

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0137	1	1	Transfer roller front latch	--
2	41X0138	1	1	Transfer roller rear latch	--
3	41X0064	1	1	Transfer belt left bias arm	--
4	41X0062	4	1	Hold down arm	--
5	41X0063	1	1	Transfer belt right bias arm	--

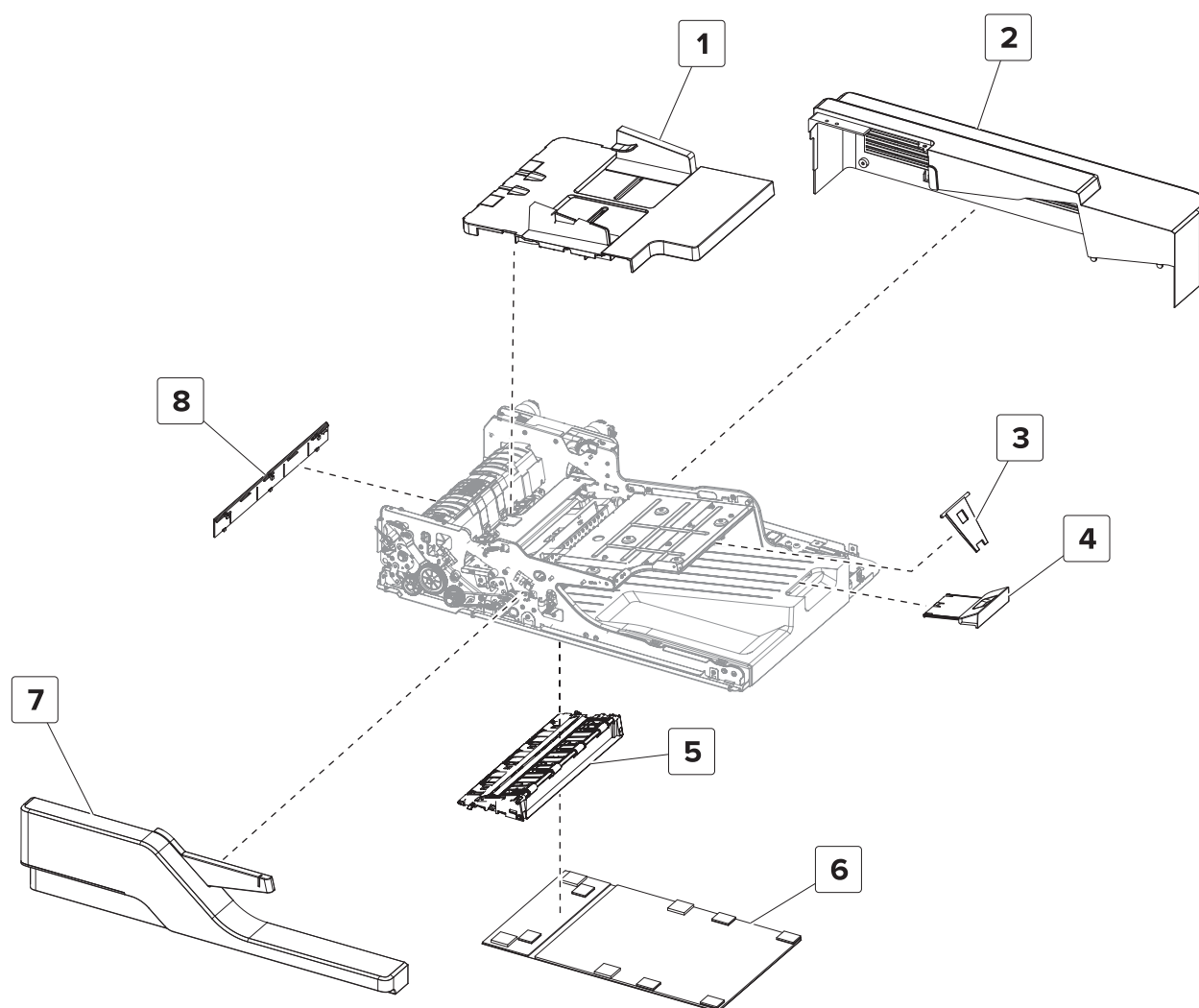
Assembly 19: ADF 1



Assembly 19: ADF 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0324	1	1	ADF	“ADF removal” on page 819.
2	41X0296	1	1	CCDM cable, ADF	--

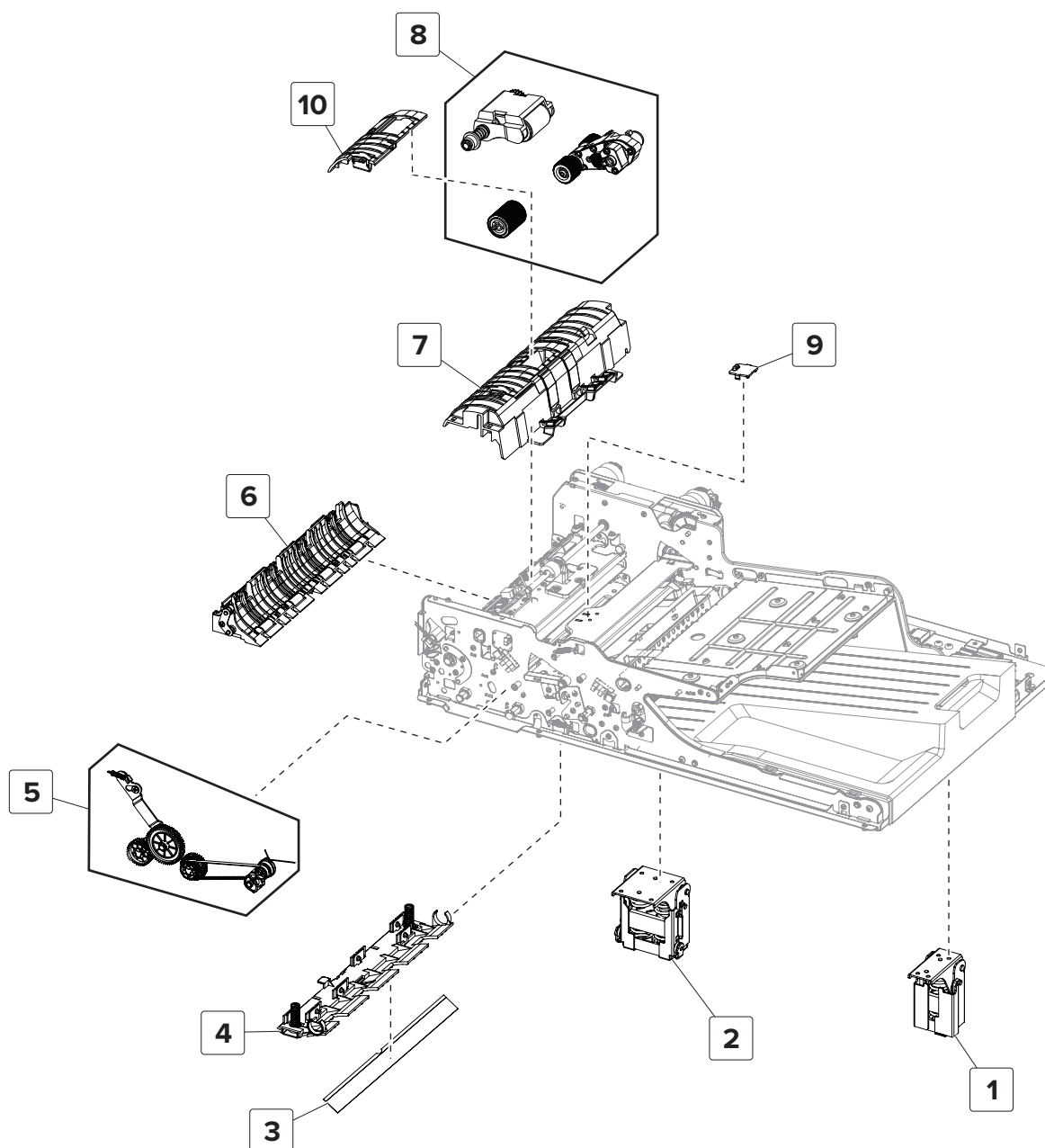
Assembly 20: ADF 2



Assembly 20: ADF 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0323	1	1	ADF tray	“ADF tray removal” on page 821
2	41X0298	1	1	ADF rear cover	“ADF rear cover removal” on page 819
3	41X0295	1	1	Paper bail	--
4	41X0304	1	1	Bin extension	--
5	41X0303	1	1	ADF bottom door	“ADF bottom door removal” on page 822
6	41X0314	1	1	Scanner pad	--
7	41X0297	1	1	ADF front cover	“ADF front cover removal” on page 821
8	41X0277	1	1	Left lower cover	--

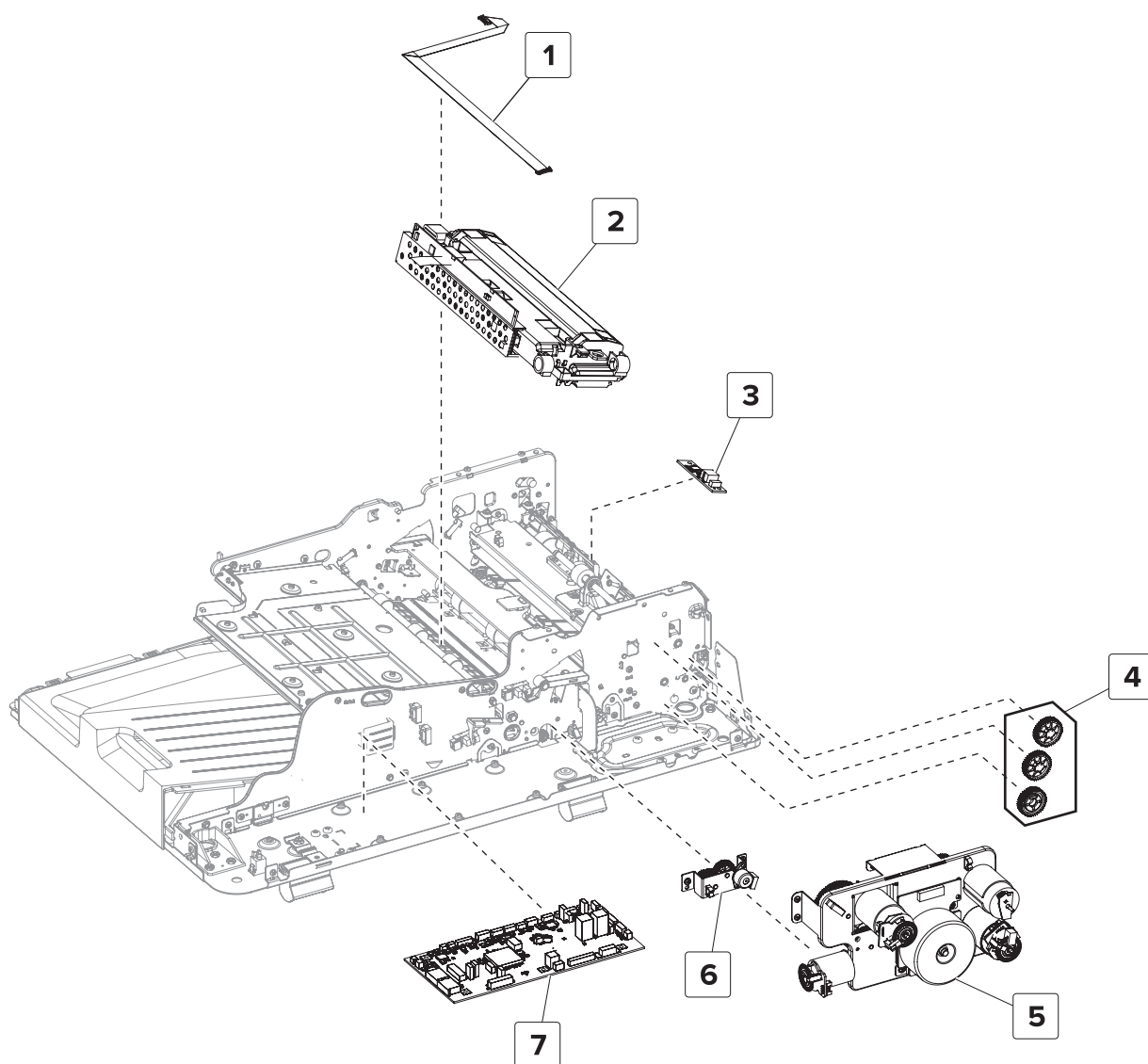
Assembly 21: ADF 3



Assembly 21: ADF 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X7762	1	1	Right hinge	--
2	41X2216	1	1	Left hinge	--
3	41X0305	1	1	Float plate guide	--
4	41X0319	1	1	Float plate	--
5	41X0317	1	1	ADF front drive train	“ADF front drive train removal” on page 825
6	41X0309	1	1	Deflector guide	--
7	41X0306	1	1	Input guide	“Input guide removal” on page 834
8	41X0931	1	1	<p>ADF maintenance kit</p> <p>Warning—Potential Damage: If the following parts are not replaced at the same time, feed issues may occur.</p> <ul style="list-style-type: none"> • ADF pick roller • ADF feed belt • ADF separator roller 	“ADF maintenance kit removal” on page 817
9	41X1032	1	1	Lift plate shim	--
10	41X2701	1	1	Separator roller cover	“ADF maintenance kit removal” on page 817

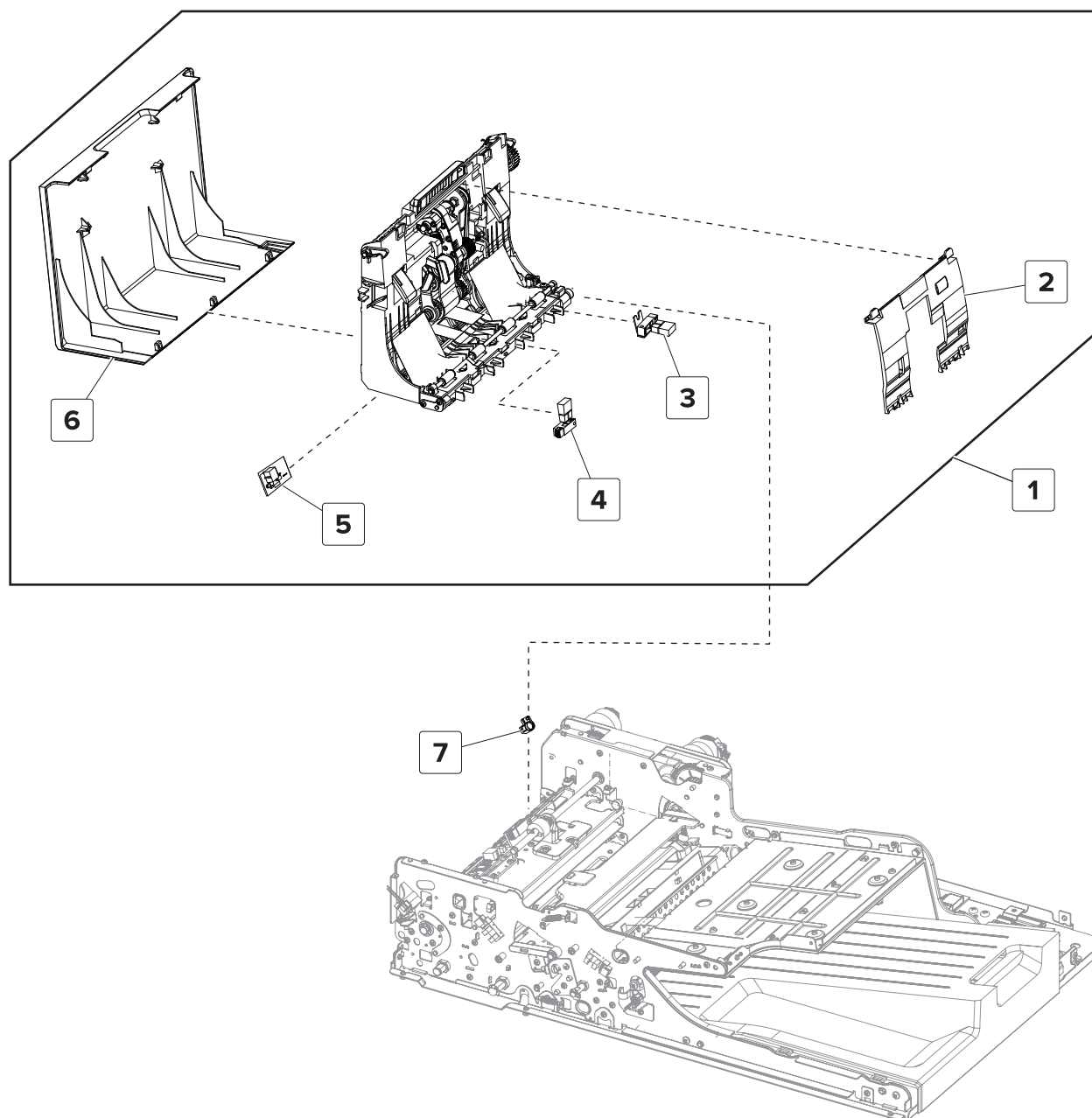
Assembly 22: ADF 4



Assembly 22: ADF 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0296	1	1	CCDM cable, ADF	--
2	41X0320	1	1	CCDM, ADF	“ADF CCDM removal” on page 835
3	41X0322	1	1	Sensor (ADF multifeed receiver)	--
4	41X0316	1	1	ADF rear drive gears	--
5	41X0312	1	1	Motor (ADF)	--
6	41X0313	1	1	Motor (calibration roller)	--
7	41X0318	1	1	ADF controller board	--
NS	41X0219	1	1	ADF cable pack	--

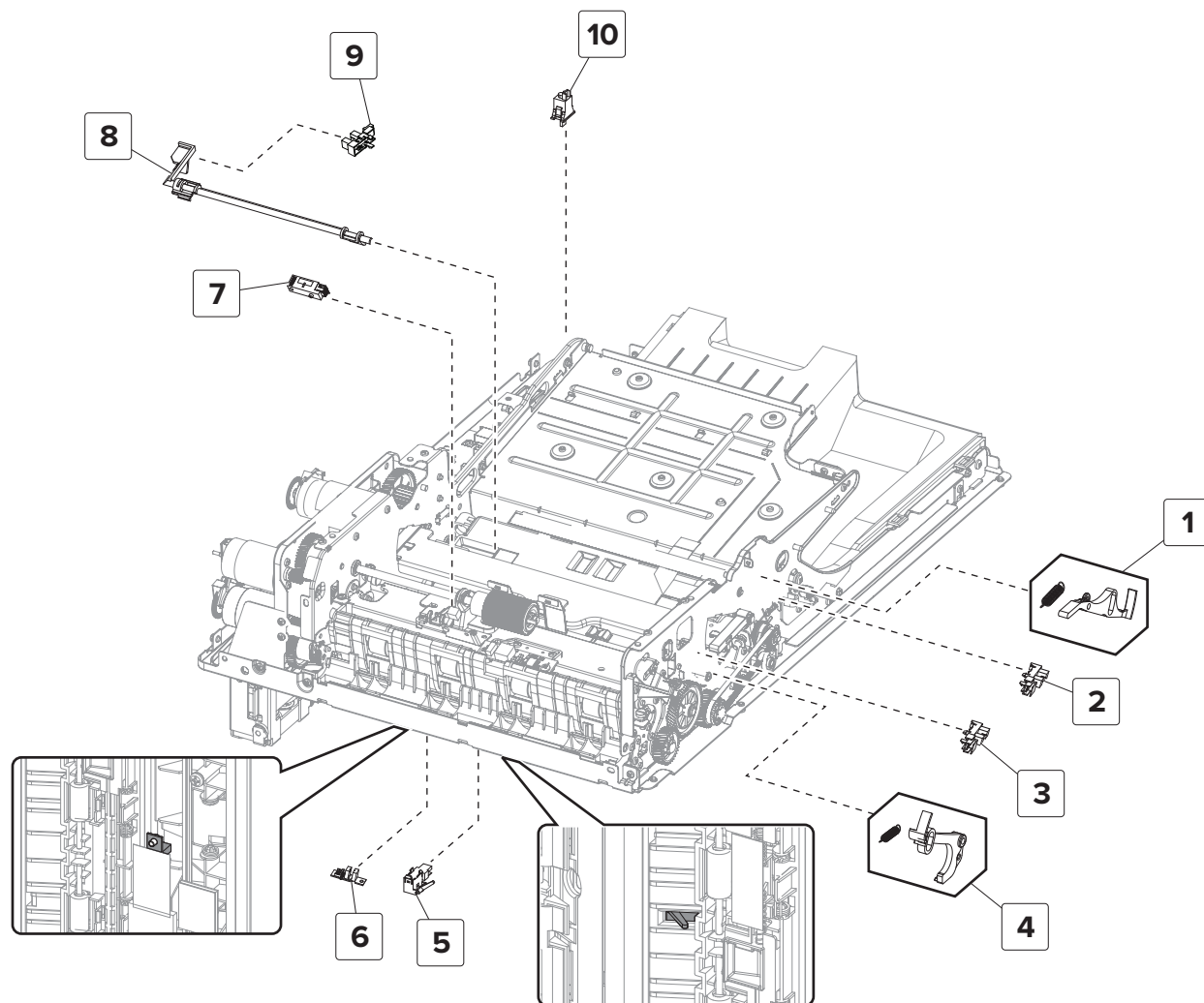
Assembly 23: ADF 5



Assembly 23: ADF 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0302	1	1	Top door	--
2	41X0299	1	1	Pick roller cover	“ADF pick roller cover removal” on page 816
3	40X7779	1	1	Sensor (ADF gap detect)	--
4	40X7779	1	1	Sensor (ADF deskew)	--
5	41X0574	1	1	Sensor (ADF multifeed transmitter)	--
6	41X0579	1	1	Top door cover	--
7	41X0310	1	1	Top door hinge retainer	--

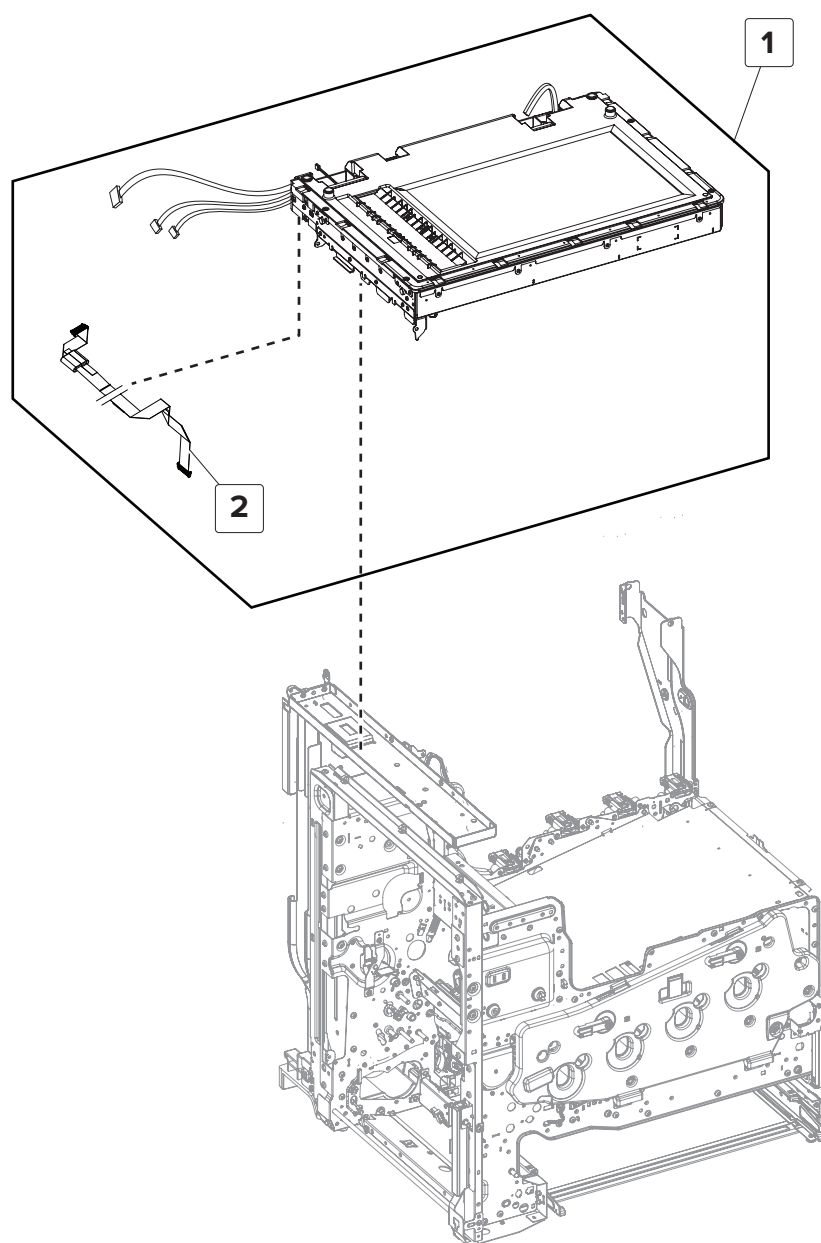
Assembly 24: ADF 6



Assembly 24: ADF 6

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0293	1	1	Top interlock actuator	“Top interlock actuator removal” on page 824
2	40X7592	1	1	Sensor (ADF top door interlock)	--
3	40X7592	1	1	Sensor (ADF bottom door interlock)	--
4	41X0294	1	1	Bottom interlock actuator	“Bottom interlock actuator removal” on page 833
5	40X7776	1	1	Sensor (ADF 2nd scan)	“Sensor (ADF 2nd scan) removal” on page 838
6	41X0576	1	1	Sensor (ADF 1st scan)	--
7	40X7779	1	1	Sensor (ADF pick)	--
8	41X0292	1	1	ADF media exit actuator	--
9	40X7592	1	1	Sensor (ADF media exit)	--
10	40X7778	1	1	Sensor (ADF closed)	--

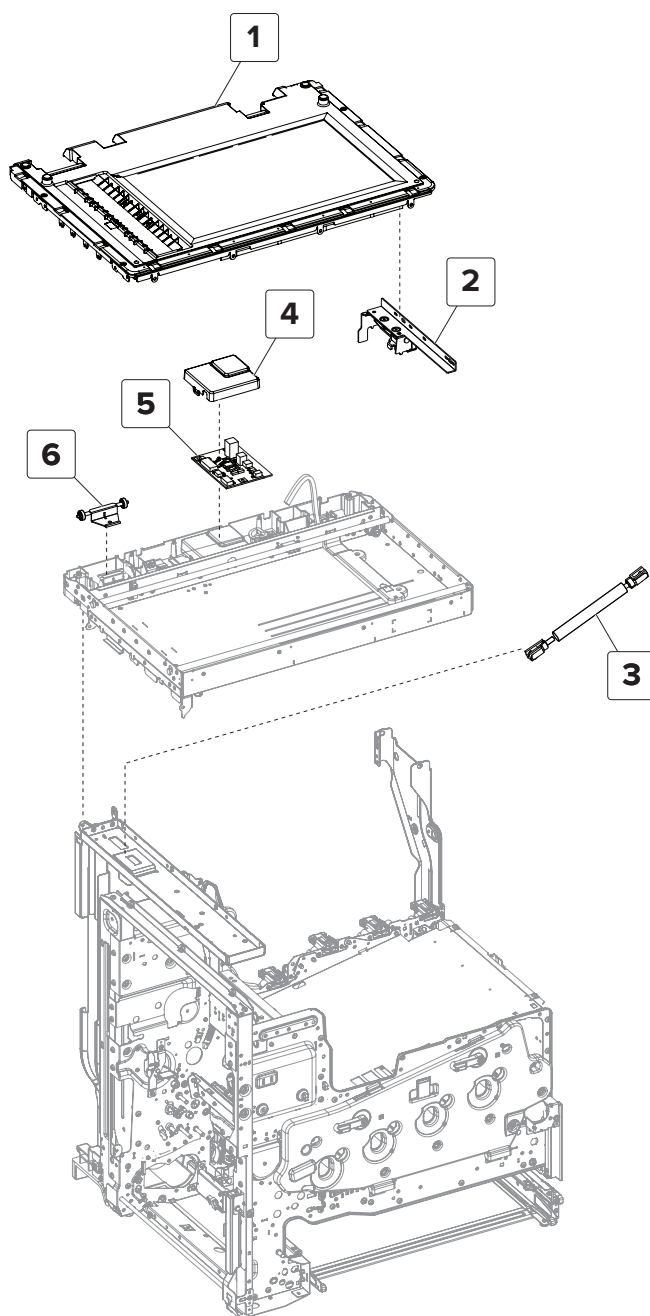
Assembly 25: Flatbed scanner 1



Assembly 25: Flatbed scanner 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0289	1	1	Flatbed scanner	--
2	41X0274	1	1	CCDM cable, flatbed	--

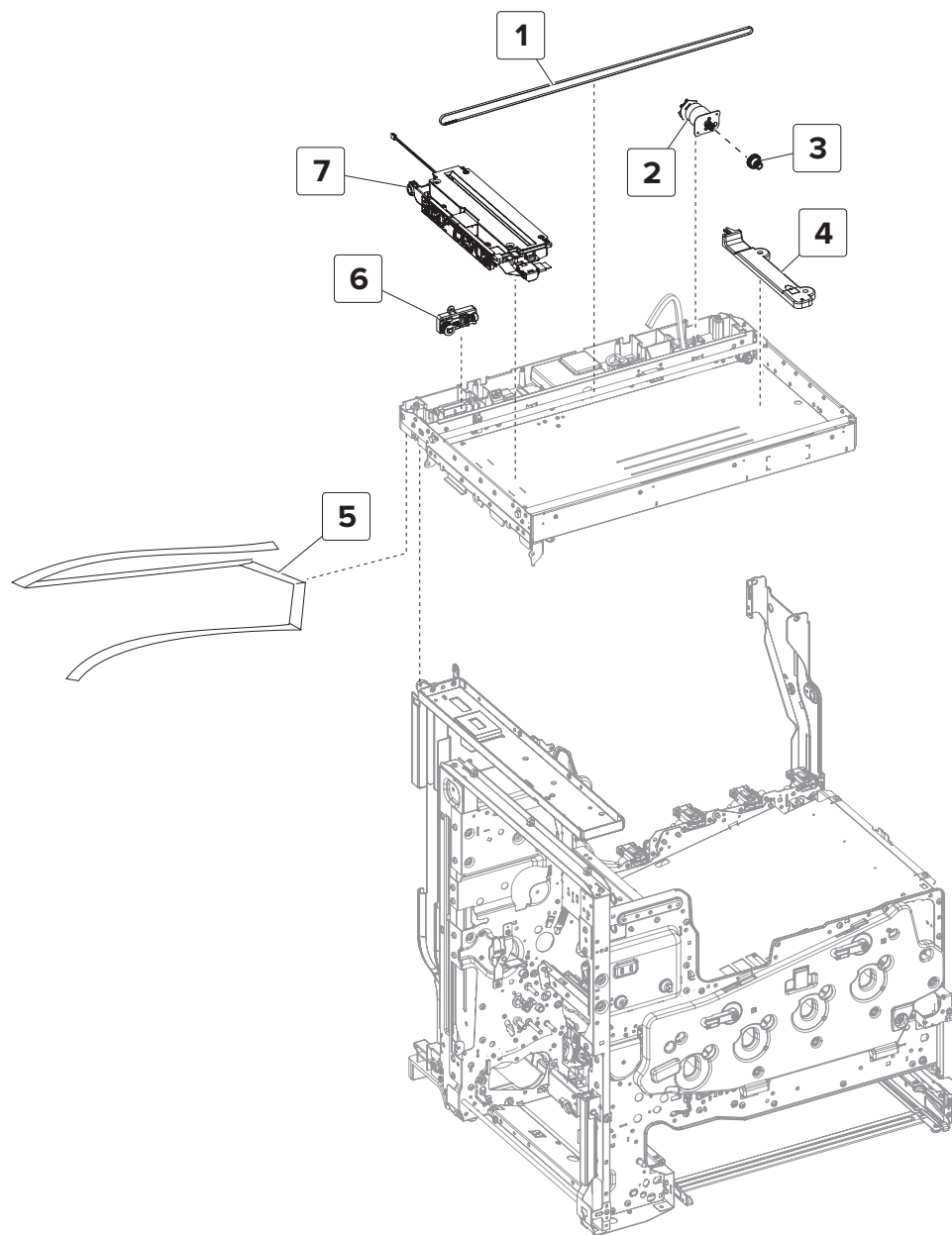
Assembly 26: Flatbed scanner 2



Assembly 26: Flatbed scanner 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0275	1	1	Flatbed scanner top cover	“Flatbed scanner top cover removal” on page 843
2	41X0281	1	1	Scanner frame latch	--
3	41X0261	1	1	Scanner support	--
4	41X0276	1	1	Board cover	--
5	41X0283	1	1	Flatbed scanner board	“Flatbed scanner board removal” on page 849
6	41X0286	1	1	Hinge roller	--

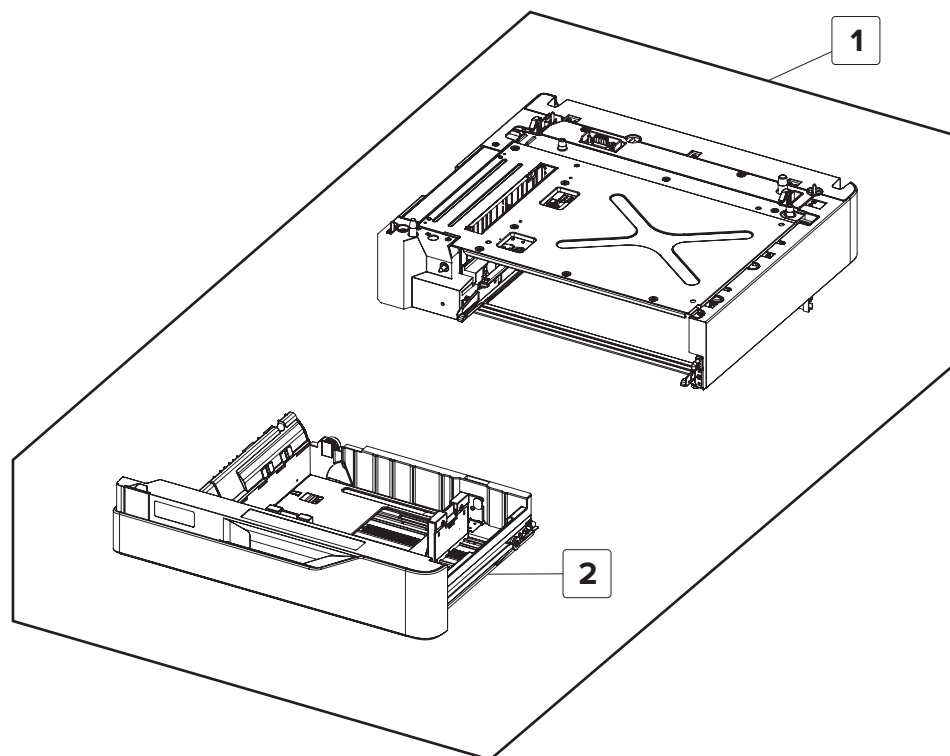
Assembly 27: Flatbed scanner 3



Assembly 27: Flatbed scanner 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0273	1	1	Scanner belt	--
2	41X0282	1	1	Motor (flatbed scanner)	“Motor (flatbed scanner) removal” on page 852
3	41X0279	1	1	Scanner gear	--
4	41X0290	1	1	Sensor (flatbed media length)	--
5	41X0274	1	1	CCDM cable, flatbed	--
6	41X0284	1	1	Tensioner pulley	“Flatbed scanner tensioner pulley removal” on page 856
7	41X0287	1	1	CCDM, flatbed	“Flatbed scanner CCDM removal” on page 847

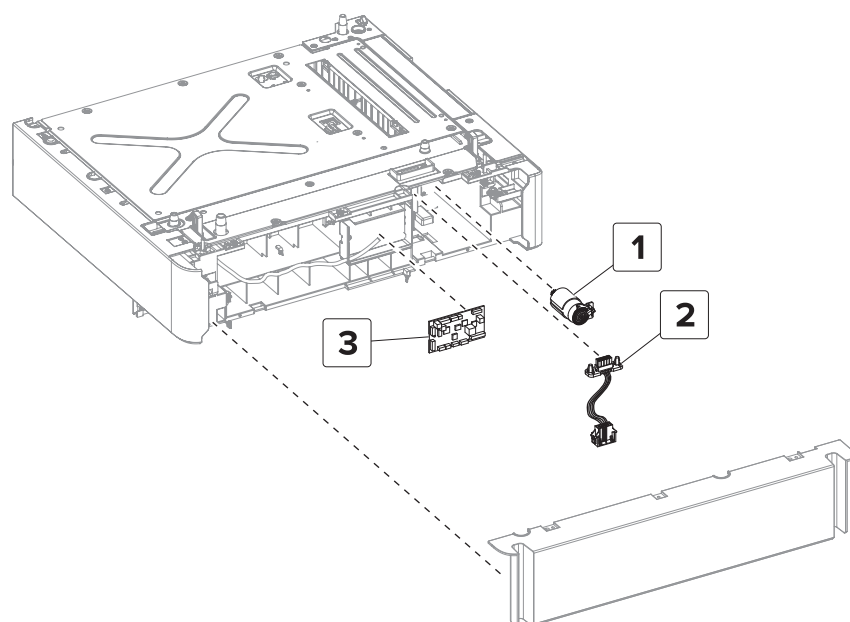
Assembly 28: 550-sheet tray



Assembly 28: 550-sheet tray

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0326	1	1	550-sheet tray	--
2	41X0175	1	1	550-sheet tray insert	--

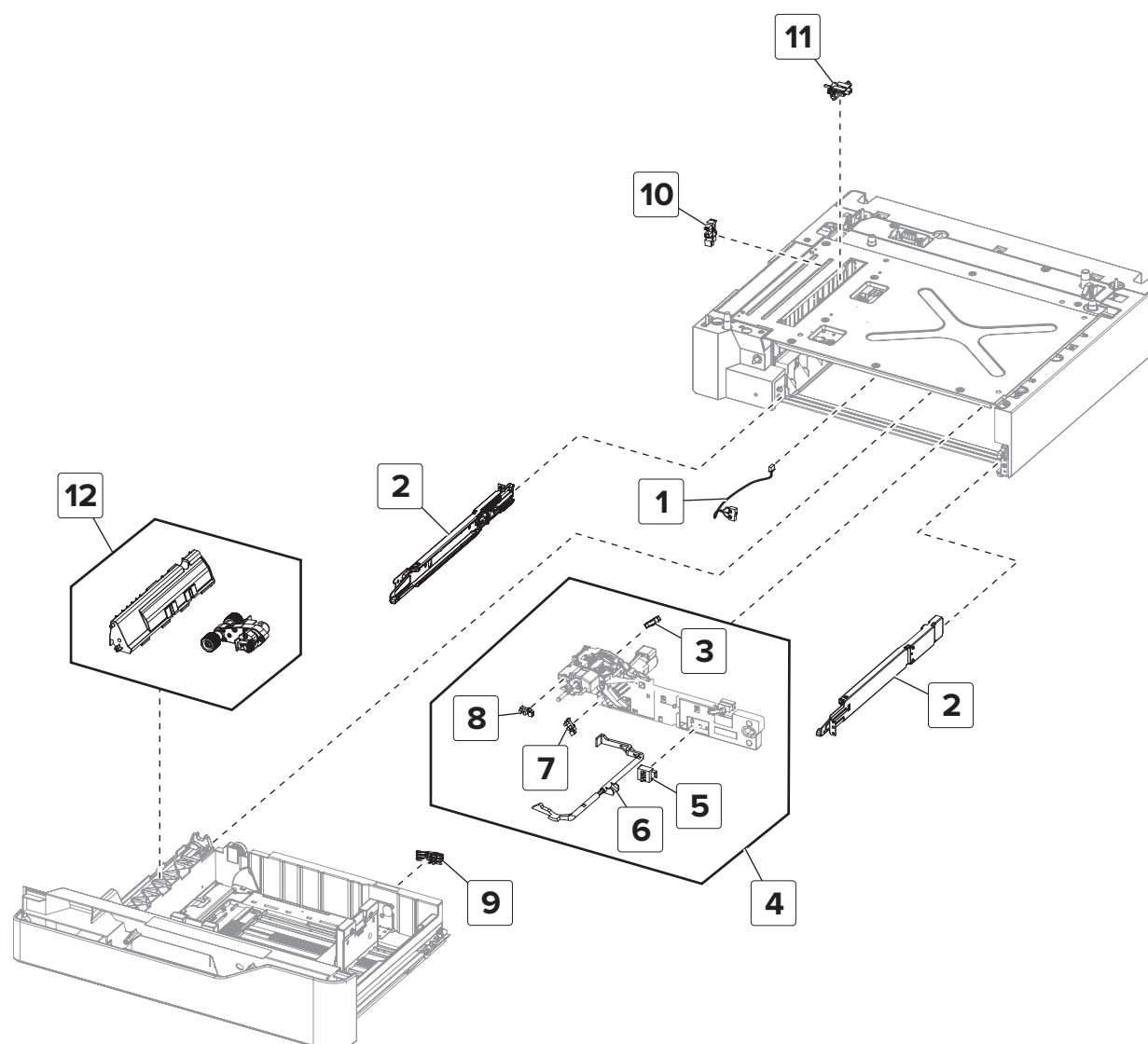
Assembly 29: 550-sheet tray—Rear



Assembly 29: 550-sheet tray—Rear

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0451	1	1	Motor (550-sheet tray pass-through)	“Motor (550-sheet tray pass-through) removal” on page 873
2	41X0336	1	1	550-sheet tray interface cable	“550-sheet tray interface cable removal” on page 868
3	41X0331	1	1	550-sheet tray controller board	“550-sheet tray controller board removal” on page 868

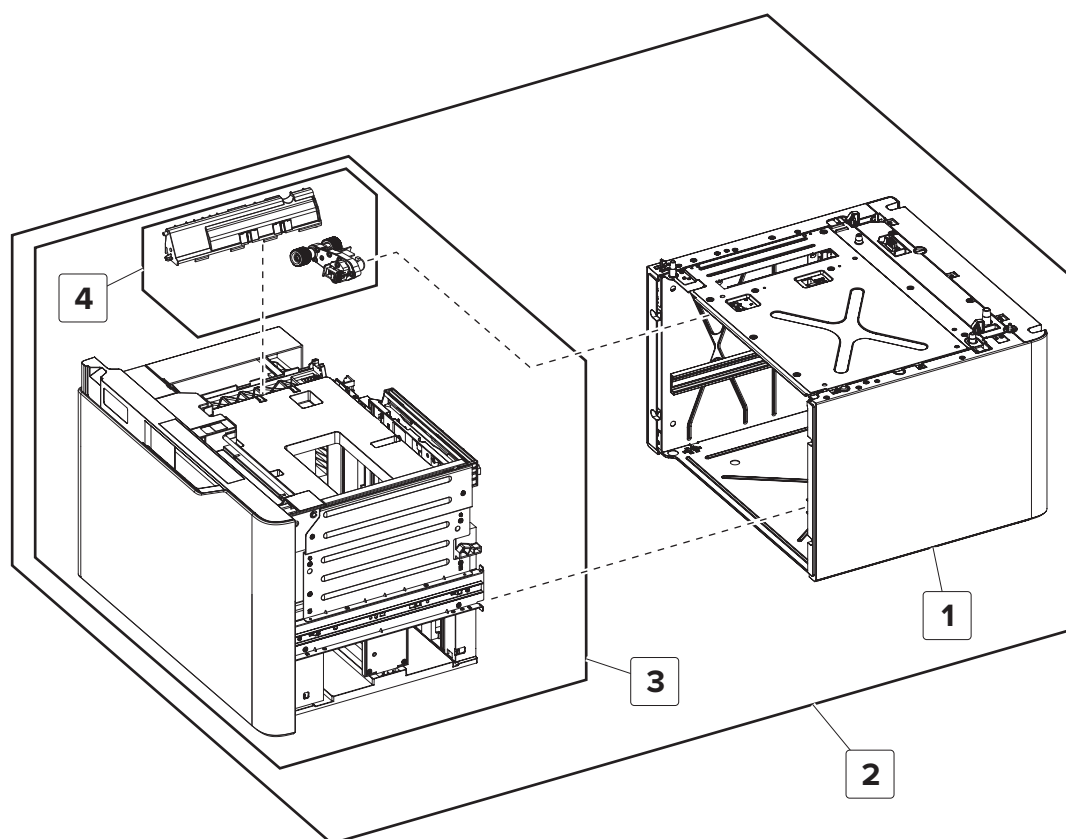
Assembly 30: 550-sheet tray—Front



Assembly 30: 550-sheet tray—Front

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0335	1	1	550-sheet tray wake-up switch	“550-sheet tray wake up switch removal” on page 874
2	41X0342	1	1	550-sheet tray rails	“550-sheet tray right rail removal” on page 865 “550-sheet tray left rail removal” on page 872
3	41X0684	1	1	Sensor (550-sheet tray media out)	“Sensor (550-sheet tray media out) removal” on page 866
4	41X0106	1	1	550-sheet tray paper feeder	“550-sheet tray paper feeder removal” on page 865
5	40X7911	1	1	Sensor (550-sheet tray media size)	“Sensor (550-sheet tray media size) removal” on page 862
6	41X0338	1	1	550-sheet tray media out sensor actuator	“Sensor (550-sheet tray media out) removal” on page 866
7	41X0684	1	1	Sensor (550-sheet tray media low)	“Sensor (550-sheet tray media low) removal” on page 863
8	41X0684	1	1	Sensor (550-sheet tray pick roller index)	“Sensor (550-sheet tray pick roller index) removal” on page 871
9	40X8541	1	1	550-sheet tray media size sensor actuators	“550-sheet tray media size sensor actuators removal” on page 862
10	41X0684	1	1	Sensor (550-sheet tray jam door)	“Sensor (550-sheet tray jam door)” on page 864
11	41X0951	1	1	Sensor (550-sheet tray pass-through)	--
12	41X0999	1	1	Pick roller and separator pad	“Pick roller removal” on page 747

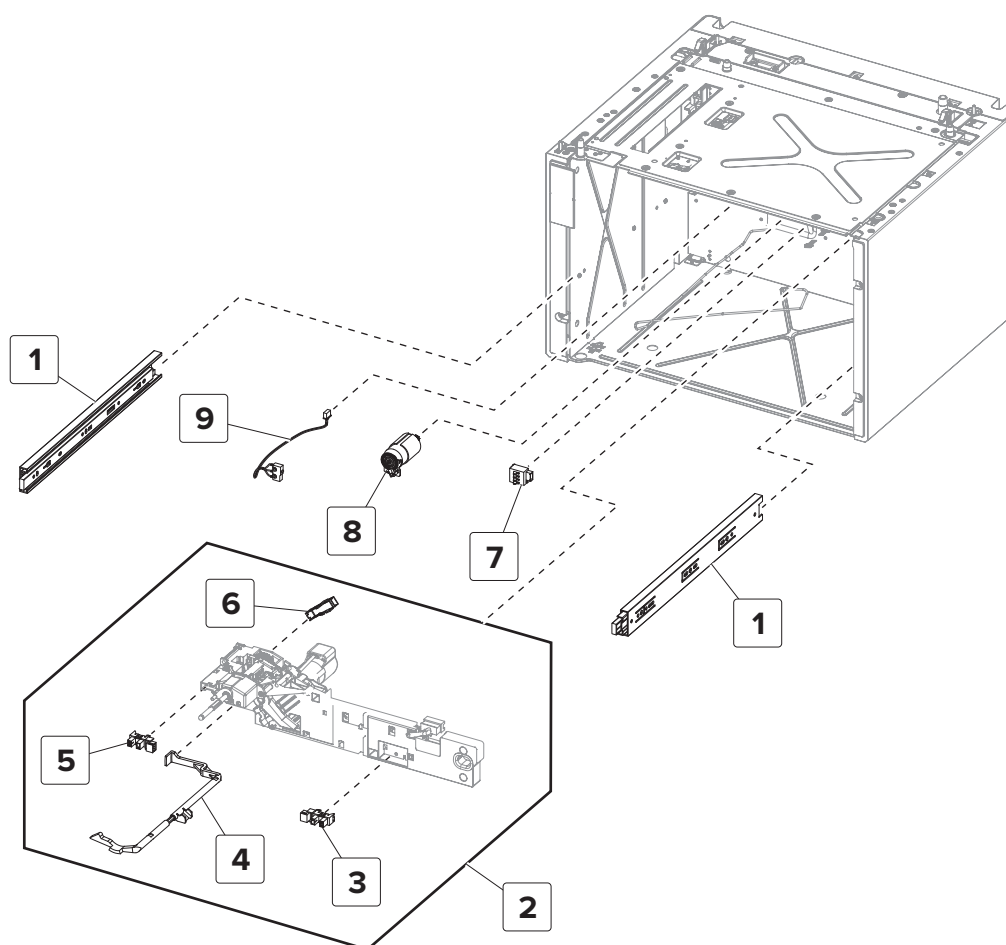
Assembly 31: 2200-sheet tray



Assembly 31: 2200-sheet tray

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0329	1	1	2200-sheet tray base	--
2	41X0328	1	1	2200-sheet tray	--
3	41X0330	1	1	2200-sheet tray insert	"2200-sheet tray insert removal" on page 875
4	41X0999	1	1	Pick roller and separator pad	--

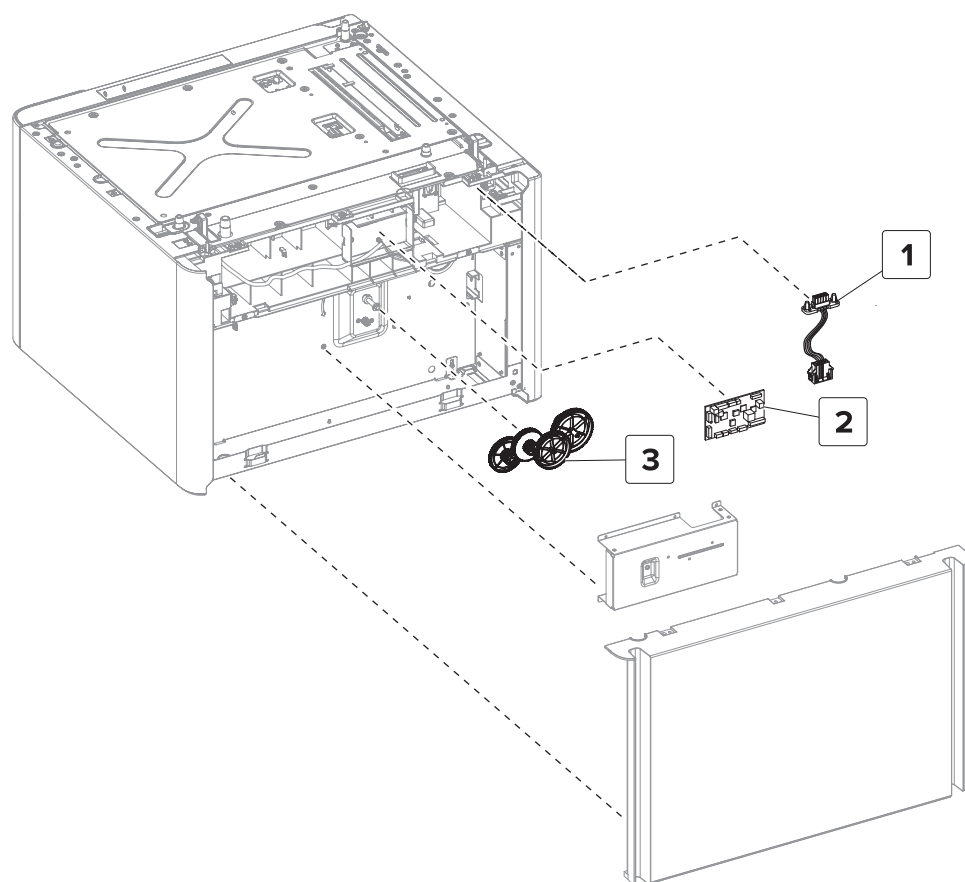
Assembly 32: 2200-sheet tray—Front



Assembly 32: 2200-sheet tray—Front

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0343	2	2	2200-sheet tray rails	“2200-sheet tray rail removal” on page 876
2	41X0369	1	1	2200-sheet tray paper feeder	“2200-sheet tray paper feeder removal” on page 885
3	41X0684	1	1	Sensor (2200-sheet tray media low)	“Sensor (2200-sheet tray media low) removal” on page 878
4	41X0338	1	1	2200-sheet tray media out sensor actuator	“2200-sheet tray media out sensor actuator removal” on page 888
5	41X0684	1	1	Sensor (2200-sheet tray pick roller index)	“Sensor (2200-sheet tray pick roller index) removal” on page 886
6	41X0684	1	1	Sensor (2200-sheet tray media out)	“Sensor (2200-sheet tray media out) removal” on page 885
7	40X7911	1	1	Sensor (2200-sheet tray media size)	“Sensor (2200-sheet tray media size) removal” on page 878
8	41X0140	1	1	Lift motor	“Motor (2200-sheet tray elevator) removal” on page 883
9	41X0335	1	1	2200-sheet tray wake up switch	“2200-sheet tray wake up switch removal” on page 891

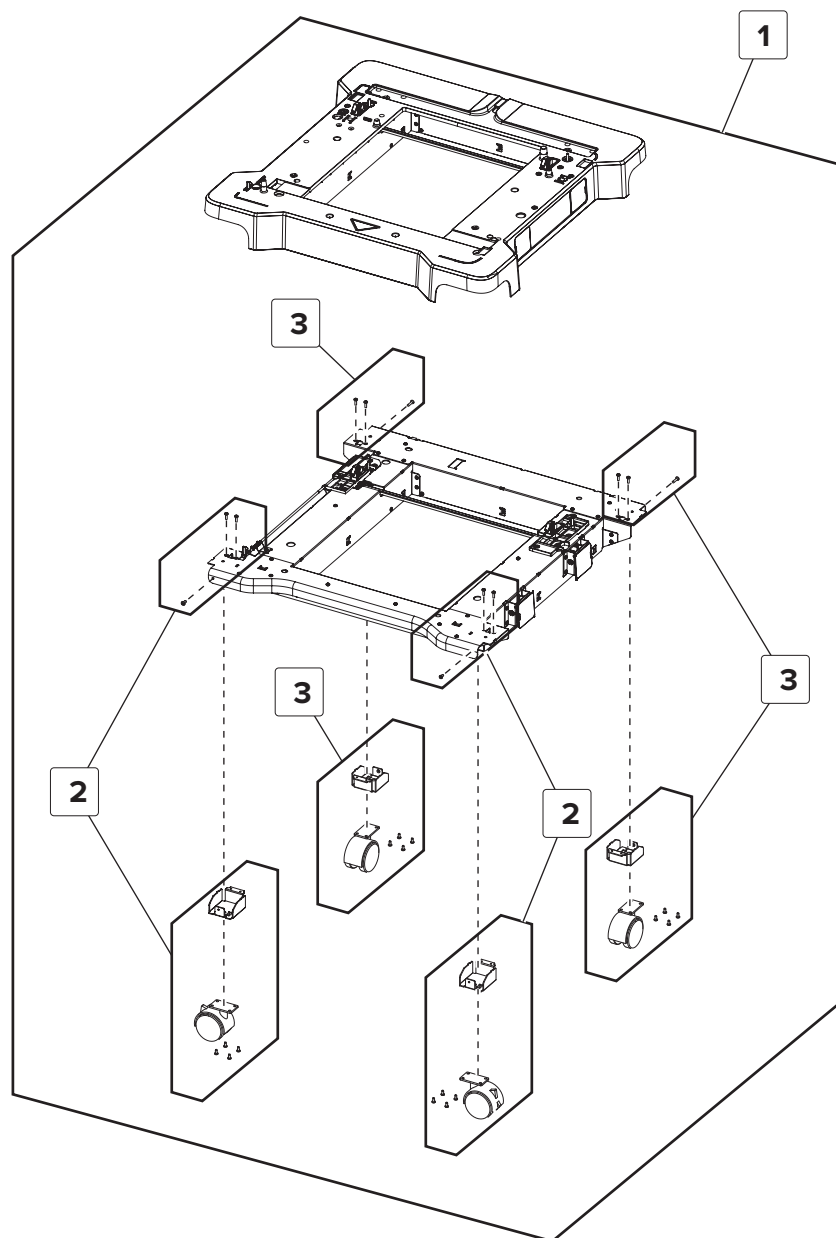
Assembly 33: 2200-sheet tray—Rear



Assembly 33: 2200-sheet tray—Rear

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0337	1	1	2200-sheet tray interface cable	“2200-sheet tray interface cable removal” on page 880
2	41X0332	1	1	2200-sheet tray controller board	“2200-sheet tray controller board removal” on page 879
3	41X0351	1	1	2200-sheet tray elevator gears	“2200-sheet tray elevator gears removal” on page 882

Assembly 34: Caster base



Assembly 34: Caster base

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0762	1	1	Caster base	--
2	41X0774	2	1	Caster base locking caster	“Locking caster removal” on page 892
3	41X0775	2	1	Caster base non-locking caster	“Non-locking caster removal” on page 895

Assembly 35: Cables

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0280	1	1	Flatbed scanner cable	--
NS	41X0890	1	1	Paper feed cables parts pack <ul style="list-style-type: none"> • Tray 1 sensor cable • Deskew/duplex motor cable • MPF/pass-through motor cable • Redrive sensor/motor cable • Redrive extension cable • MPF cable • Paper path sensor • Duplex door beacon cable • Paper path sensor module cable 	--
NS	41X0891	1	1	Motor cables parts pack <ul style="list-style-type: none"> • Toner add motor cable • Fuser/transfer belt motor cable • Developers drive motor cable • Drums drive motor cable • Printhead fan extension cable • HVPS fan extension cable 	--
NS	41X0892	1	1	HVPS cables parts pack <ul style="list-style-type: none"> • Charge roller HVPS cable • Wiper/printhead mirror motor cable • Main HVPS cable • White high voltage charge wires 	--
NS	41X0893	1	1	LVPS cables parts kit <ul style="list-style-type: none"> • AC power cable • LVPS/controller board cable • Fuser power cable 	--
NS	41X0894	1	1	Miscellaneous cables parts pack <ul style="list-style-type: none"> • Waste toner bottle present sensor cable • Door interlock switch cable • Ground cable • Flat flex ground cable • Smartchip interface board cable 	--
NS	41X1630	1	1	Control panel cables kit <ul style="list-style-type: none"> • Control panel FFC cable (SFP) • Control panel FFC cable (MFP) • Display cable 	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0895	1	1	Miscellaneous control panel cables kit <ul style="list-style-type: none"> • Proximity sensor cable (MFP) • Speaker extension cable • Headphone cable (MFP) • Keyboard USB cable 	--
NS	41X0896	1	1	Options interface cables parts kit <ul style="list-style-type: none"> • Input option cable • Output option cable (SFP) • Output option cable (MFP) 	--
NS	41X0950	1	1	Optional tray cables parts pack <ul style="list-style-type: none"> • Separator motor cable • Paper feeder extension cable • Paper feeder cable 	--

Assembly 36: Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0927	1	1	Maintenance kit, 300K (100 V Combo fuser and transfer module) includes: <ul style="list-style-type: none"> • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads 	--
NS	41X0928	1	1	Maintenance kit, 300K (115 V Combo fuser and transfer module) includes: <ul style="list-style-type: none"> • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads 	--
NS	41X0929	1	1	Maintenance kit, 300K (220 V Combo fuser and transfer module) includes: <ul style="list-style-type: none"> • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads • Filter 	--
NS	41X0931	1	1	Maintenance kit, 200K (ADF) includes: <ul style="list-style-type: none"> • ADF pick rollers • ADF separator roller • ADF feed belt 	--

Assembly 37: Power cords

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X7104	1	1	Power cord (low-voltage)—USA, Canada, Puerto Rico, Virgin Islands and Caribbean countries (including Dominican Republic), Mexico, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Venezuela	--
NS	40X0288	1	1	Power cord (high-voltage)—Argentina	--
NS	40X0297	1	1	Power cord (high-voltage)—Argentina	--
NS	40X0259	1	1	Power cord (low-voltage)—Brazil	--
NS	40X0273	1	1	Power cord (high-voltage)—Chile, Uruguay	--
NS	40X7104	1	1	Power cord (low-voltage)—USA (TAA)	--
NS	40X1767	1	1	Power cord (high-voltage)—USA (TAA)	--
NS	40X0301	1	1	Power cord (high-voltage)—Australia, New Zealand	--
NS	40X0303	1	1	Power cord (high-voltage)—PRC	--
NS	40X1791	1	1	Power cord (low-voltage)—Taiwan	--
NS	40X3609	1	1	Power cord (100 V)—Japan	--
NS	40X1792	1	1	Power cord (high-voltage)—Korea	--
NS	40X0271	1	1	Power cord (high-voltage)—Hong Kong, Singapore, Malaysia, Pakistan, Sri Lanka, Myanmar, Brunei, Bangladesh	--
NS	40X0279	1	1	Power cord (high-voltage)—Philippines, Thailand	--
NS	40X1767	1	1	Power cord (100 V)—Indonesia, Vietnam, Cambodia, Laos	--
NS	40X1773	1	1	Power cord (high-voltage)—Nepal, Bhutan	--
NS	40X1767	1	1	Power cord (high-voltage)—Algeria, Austria, Belgium, Bosnia, Bulgaria, Croatia, Czech Republic, Egypt, Estonia, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Morocco, Netherlands, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Turkey	--
NS	40X1774	1	1	Power cord (high-voltage)—Denmark, Finland, Norway, Sweden, Iceland	--
NS	40X0271	1	1	Power cord (high-voltage)—United Kingdom (England, Scotland, Wales, Northern Ireland), Ireland, Saudi Arabia, Bahrain, Cyprus, Kuwait, Lebanon, Malta, Oman, Qatar, United Arab Emirates	--

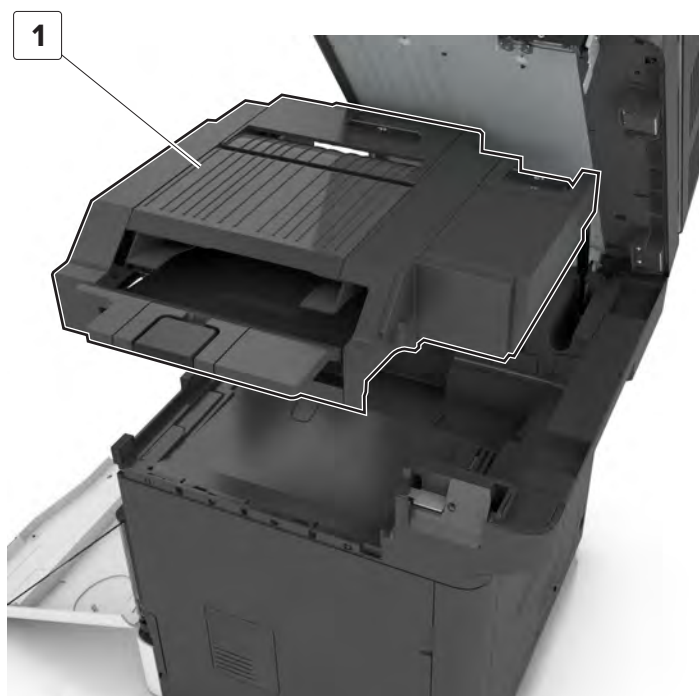
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X0275	1	1	Power cord (high-voltage)—Israel	--
NS	40X1773	1	1	Power cord (high-voltage)—South Africa (South Africa, Namibia, Lesotho, Botswana), Afghanistan	--
NS	40X1772	1	1	Power cord (high-voltage)—Switzerland	--
NS	40X3141	1	1	Power cord (high-voltage)—Turkey, Russia (CIS)	--

Assembly 38: Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2093	1	1	Envelope tray	--
NS	40X8671	1	1	Cover, Removable HDD kit	--
NS	40X9934	1	1	Hard disk drive, SATA	--
NS	40X8737	1	1	Authentication device, RFID	--
NS	41X1372	1	1	MarkNet N8370 Wireless Print Server Interface card	--
NS	40X7854	1	1	Adapter, Fax	--
NS	40X9652	1	1	Adapter, Fiber Gigabit ISP	--
NS	41X0029	1	1	DDR3 RAM, 2GB, 256Mx64, 204 SODIMM	--
NS	41X1011	1	1	Font card, Hebrew	--
NS	41X1012	1	1	Font card, Arabic	--
NS	41X1013	1	1	Font card, Simplified Chinese	--
NS	41X1014	1	1	Font card, Traditional Chinese Note: This part is obsolete.	--
NS	41X1015	1	1	Font card, Korean	--
NS	41X1016	1	1	Font card, Japanese Note: This part is obsolete.	--
NS	41X1001	1	1	Forms and Bar Code card	--
NS	41X1029	1	1	Forms and Simplified Chinese font card Note: This part is obsolete.	--
NS	41X1005	1	1	PRESCRIBE card	--
NS	41X1003	1	1	IPDS SCS TNE card	--
NS	41X1010	1	1	User Flash Memory, 256MB	--
NS	40X9879	1	1	Authentication device, Contact	--
NS	41X0027	1	1	Smart card, Security Element	--
NS	41X0997	1	1	Authentication Device, Contact Front Solutions Module	--
NS	41X0998	1	1	Authentication Device, Contactless Front Solutions Module	--
NS	41X0035	1	1	Keypad, English keyboard kit	--
NS	41X0036	1	1	Keypad, French keyboard kit	--
NS	41X0037	1	1	Keypad, Italian keyboard kit Note: This part is obsolete.	--
NS	41X0038	1	1	Keypad, German keyboard kit	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0039	1	1	Keypad, Spanish keyboard kit	--
NS	41X0045	1	1	Keypad, English keyboard	--
NS	41X0046	1	1	Keypad, French keyboard	--
NS	41X0047	1	1	Keypad, Italian keyboard Note: This part is obsolete.	--
NS	41X0048	1	1	Keypad, German keyboard	--
NS	41X0049	1	1	Keypad, Spanish keyboard	--
NS	41X0357	1	1	Surge protector, 110V	--
NS	41X0370	1	1	Surge protector, 220V	--

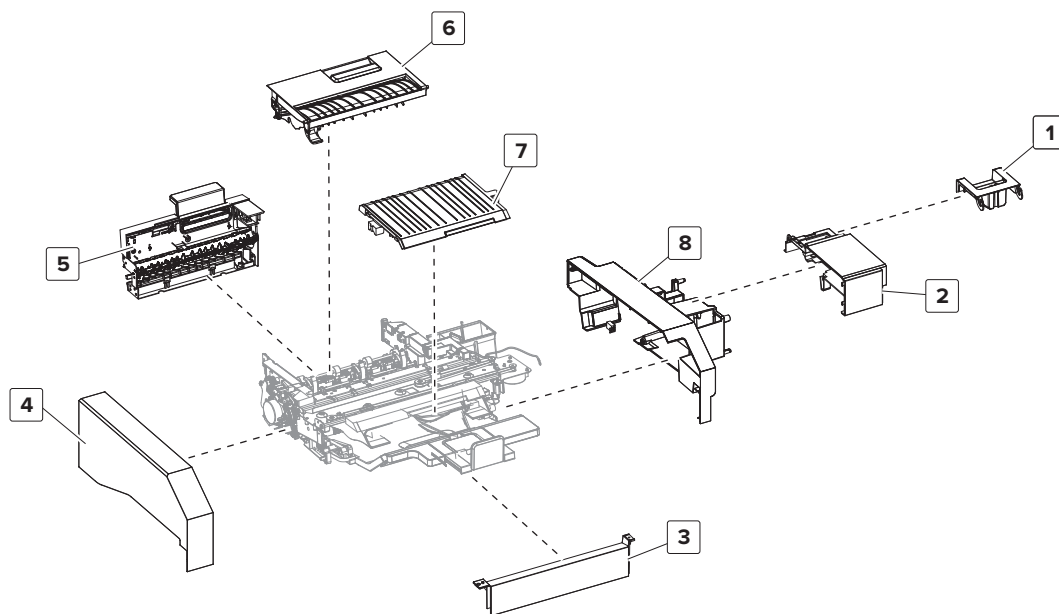
Assembly 39: Staple finisher option



Assembly 39: Staple finisher option

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0747	1	1	Staple finisher option	--

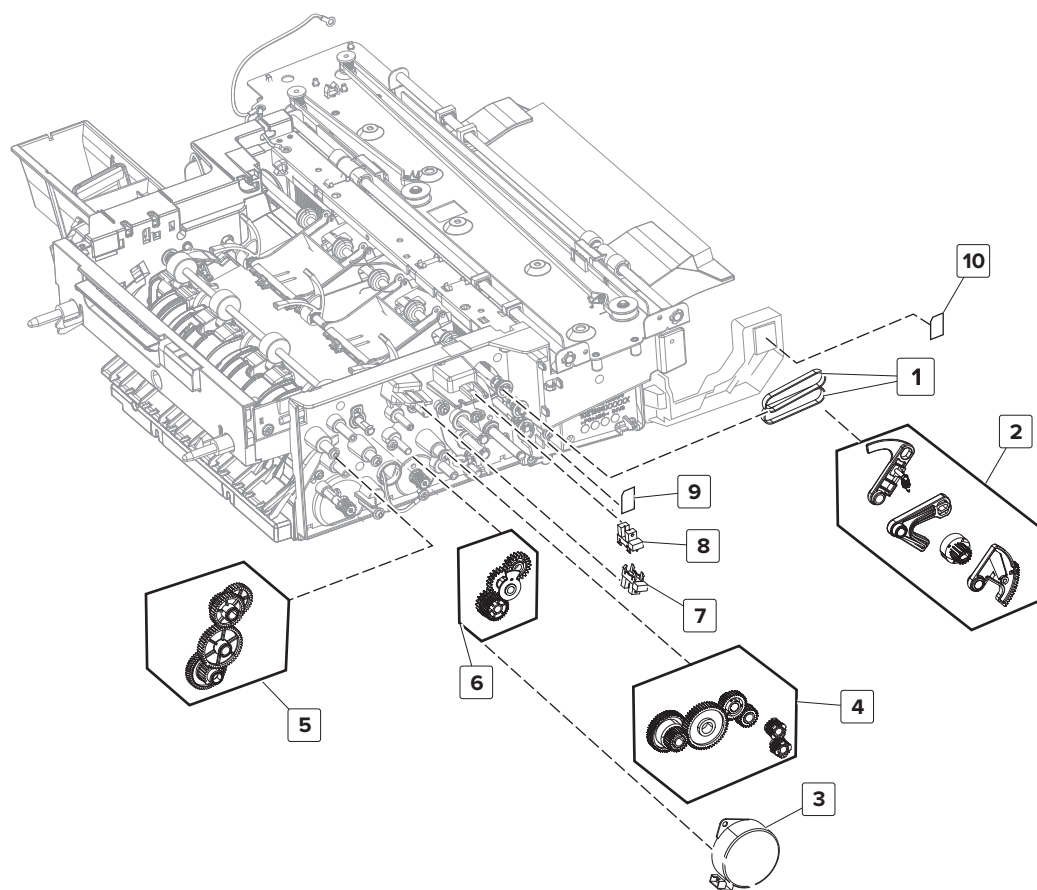
Assembly 40: Staple finisher—Covers



Assembly 40: Staple finisher—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0531	1	1	Staple finisher staple cartridge door	--
2	41X0742	1	1	Staple finisher rear cover	“Staple finisher rear cover removal” on page 900
3	41X0743	1	1	Staple finisher right cover	“Staple finisher right cover removal” on page 898
4	41X0744	1	1	Staple finisher front cover	“Staple finisher front cover removal” on page 899
5	41X0745	1	1	Staple finisher lock assembly	“Staple finisher lock assembly removal” on page 905
6	41X0498	1	1	Staple finisher jam access door	“Staple finisher jam access door removal” on page 904
7	41X0507	1	1	Staple finisher tamper top cover	“Staple finisher tamper top cover removal” on page 937
8	41X0748	1	1	Staple finisher inner rear cover	“Staple finisher inner rear cover removal” on page 902

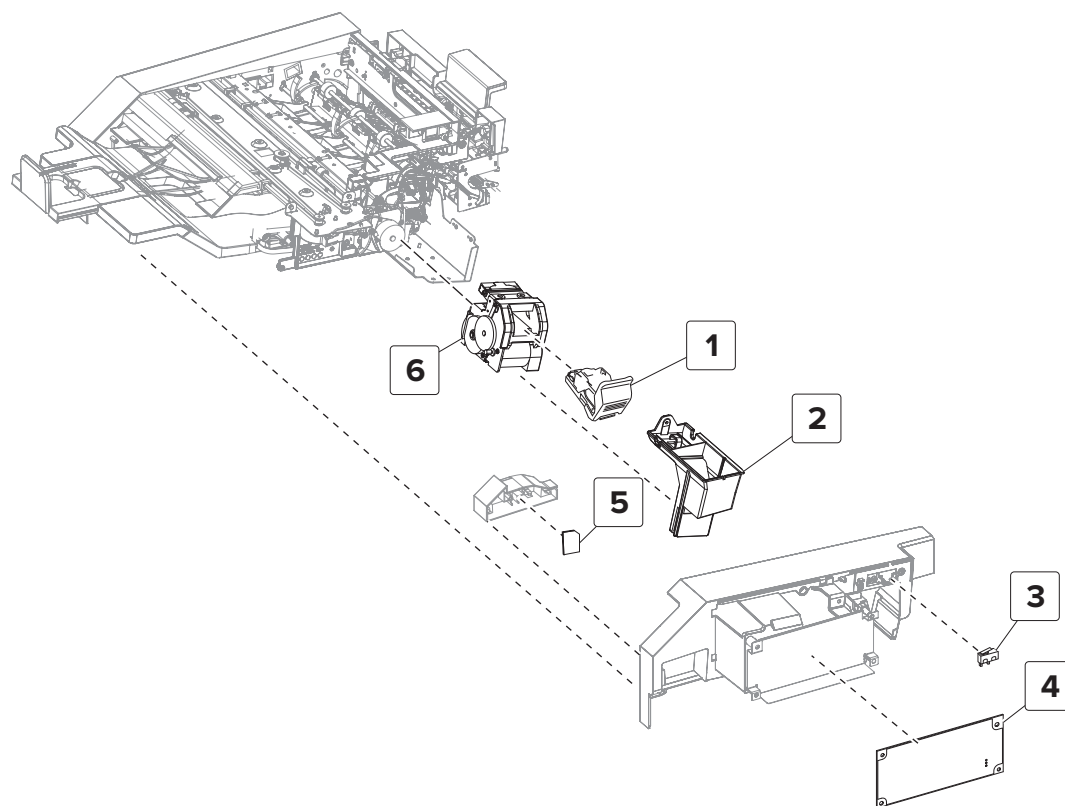
Assembly 41: Staple finisher—Front



Assembly 41: Staple finisher—Front

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0521	2	1	Staple finisher exit roller belts	“Staple finisher exit roller belts removal” on page 933
2	41X0516	1	1	Staple finisher front upper exit roller position gears	“Staple finisher front upper position exit roller gears removal” on page 929
3	40X8753	1	1	Motor (staple finisher aligner paddle)	“Motor (staple finisher aligner paddle) removal ” on page 924
4	41X0514	1	1	Staple finisher exit gears	“Staple finisher exit gears removal” on page 931
5	41X0512	1	1	Staple finisher transport gears	“Staple finisher transport gears removal” on page 924
6	41X0513	1	1	Staple finisher aligner paddle gears	“Staple finisher aligner paddle gears removal” on page 926
7	40X7301	1	1	Sensor (staple finisher aligner paddle)	“Staple finisher aligner paddle gears removal” on page 926
8	40X7301	1	1	Sensor (staple finisher upper exit roller)	“Sensor (staple finisher upper exit roller) removal” on page 928
9	41X0504	1	1	Sensor (staple finisher front lower bin full)	“Sensor (staple finisher lower bin full) removal” on page 908
10	41X0504	1	1	Sensor (staple finisher front upper bin full)	“Sensor (staple finisher upper bin full) removal” on page 909

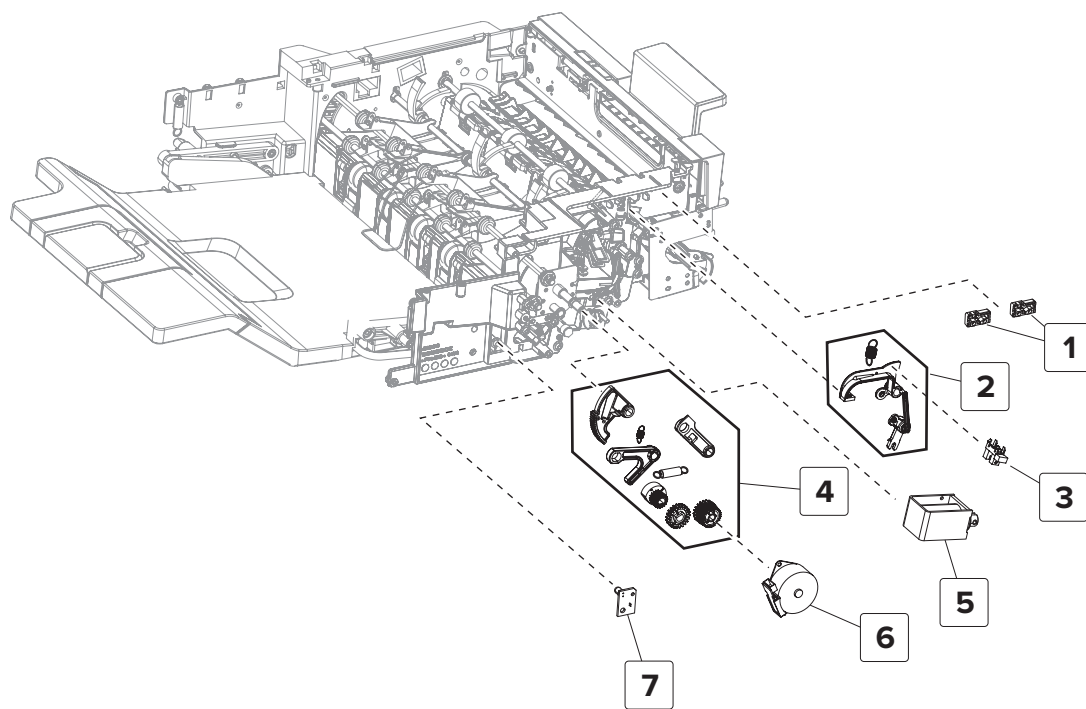
Assembly 42: Staple finisher—Electrical



Assembly 42: Staple finisher—Electrical

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0530	1	1	Staple finisher staple cartridge holder	--
2	41X0500	1	1	Staple finisher staple cartridge ejector	“Staple finisher staple unit ejector removal” on page 915
3	41X0499	1	1	Staple finisher staple cartridge door switch	“Staple finisher staple cartridge door switch removal” on page 907
4	41X0496	1	1	Staple finisher controller board	“Staple finisher controller board removal” on page 902
5	41X0504	1	1	Sensor (staple finisher rear lower bin full)	“Sensor (staple finisher lower bin full) removal” on page 908
6	41X0501	1	1	Staple finisher staple unit	“Staple finisher staple unit removal” on page 917
NS	41X0783	1	1	Staple finisher cable parts pack	--

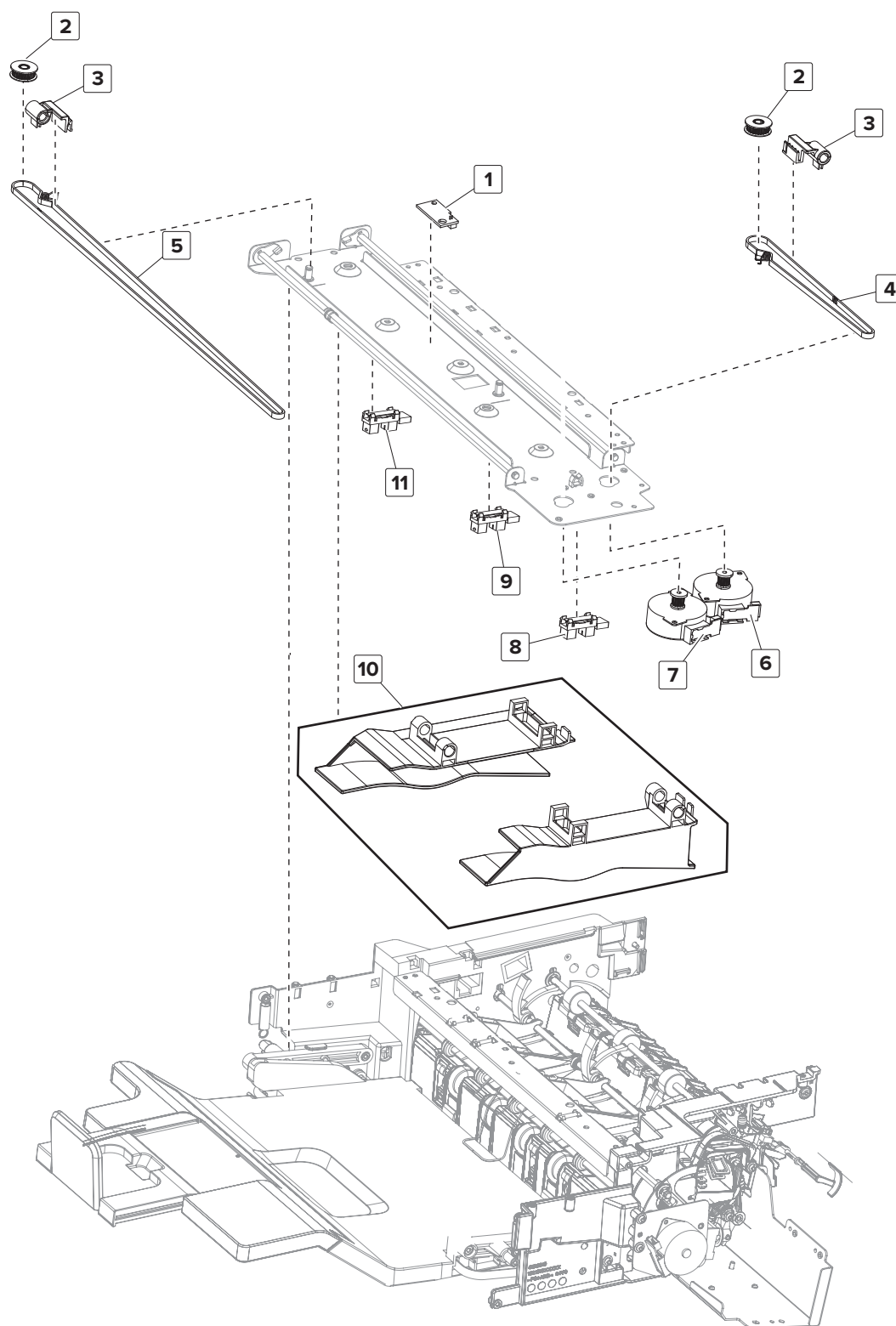
Assembly 43: Staple finisher—Rear



Assembly 43: Staple finisher—Rear

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0505	2	1	Staple finisher jam door switch	“Staple finisher jam door switches removal” on page 919
2	41X0503	1	1	Staple finisher stack clamp	“Staple finisher stack clamp removal” on page 922
3	40X7301	1	1	Sensor (staple finisher stack clamp)	“Staple finisher stack clamp removal” on page 922
4	41X0784	1	1	Staple finisher rear upper exit roller position gears	“Staple finisher rear upper position exit roller gears removal” on page 912
5	41X0502	1	1	Staple finisher stack clamp solenoid	“Staple finisher stack clamp solenoid removal” on page 920
6	40X8256	1	1	Motor (staple finisher upper exit roller)	“Motor (staple finisher upper exit roller) removal” on page 911
7	41X0504	1	1	Sensor (staple finisher rear upper bin full)	“Sensor (staple finisher upper bin full) removal” on page 909

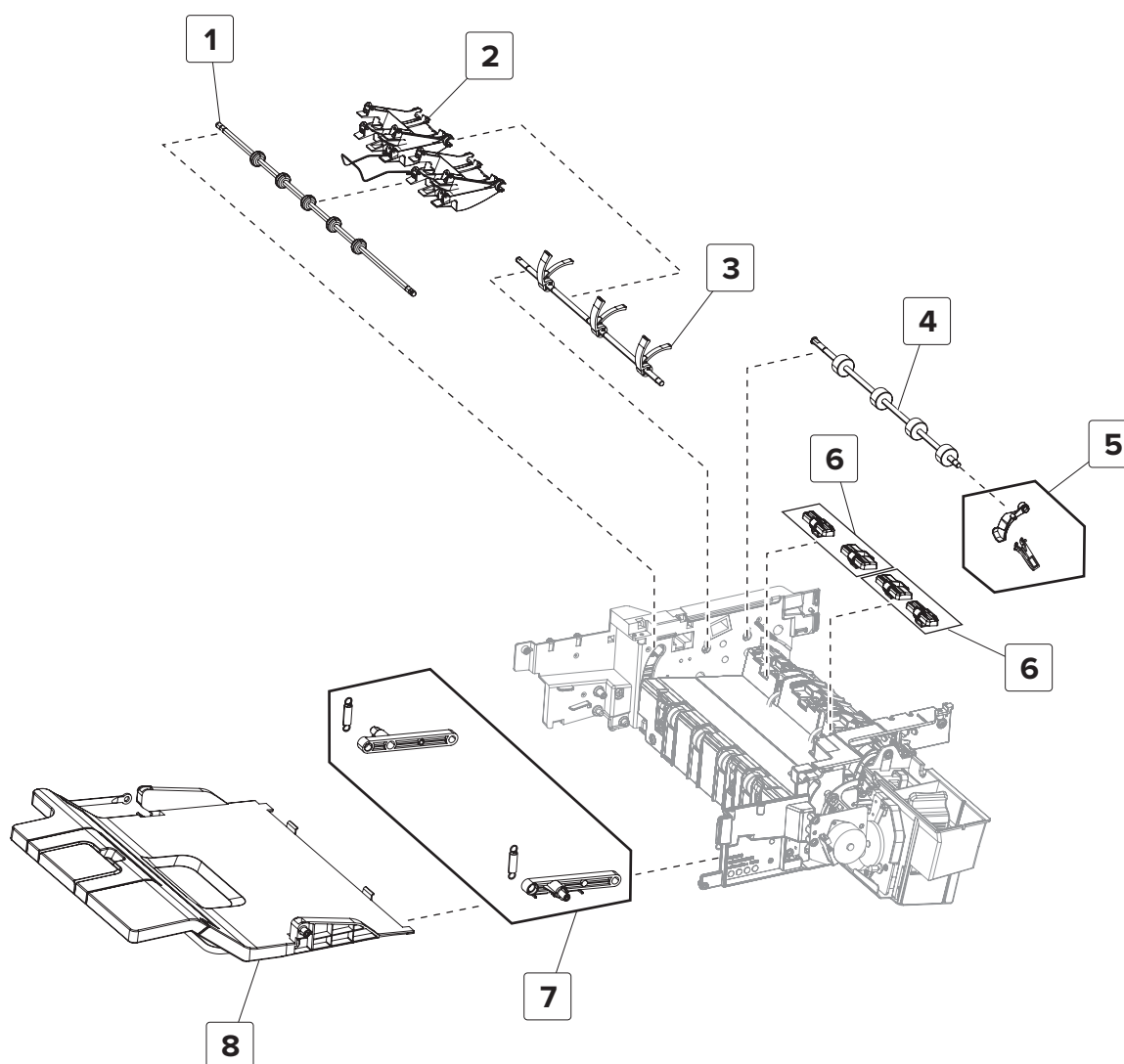
Assembly 44: Staple finisher—Tamper



Assembly 44: Staple finisher—Tamper

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0778	1	1	Staple finisher cave light	“Staple finisher tamper top cover removal” on page 937
2	41X0776	1	1	Staple finisher tamper pulley gears	“Staple finisher tamper pulley gear removal” on page 941
3	41X0508	1	1	Staple finisher tamper belt holders	“Staple finisher tamper removal” on page 942
4	41X0535	1	1	Staple finisher rear tamper belt	“Staple finisher tamper belts removal” on page 940
5	41X0534	1	1	Staple finisher front tamper belt	“Staple finisher tamper belts removal” on page 940
6	40X8211	1	1	Motor (staple finisher rear tamper)	“Motor (staple finisher tamper) removal” on page 938
7	40X8211	1	1	Motor (staple finisher front tamper)	“Motor (staple finisher tamper) removal” on page 938
8	40X7301	1	1	Sensor (staple finisher rear tamper home)	“Sensor (staple finisher tamper position) removal” on page 938
9	40X7301	1	1	Sensor (staple finisher narrow media tamper)	“Sensor (staple finisher tamper position) removal” on page 938
10	41X0509	1	1	Staple finisher tampers	“Staple finisher tamper removal” on page 942
11	40X7301	1	1	Sensor (staple finisher front tamper home)	“Sensor (staple finisher tamper position) removal” on page 938

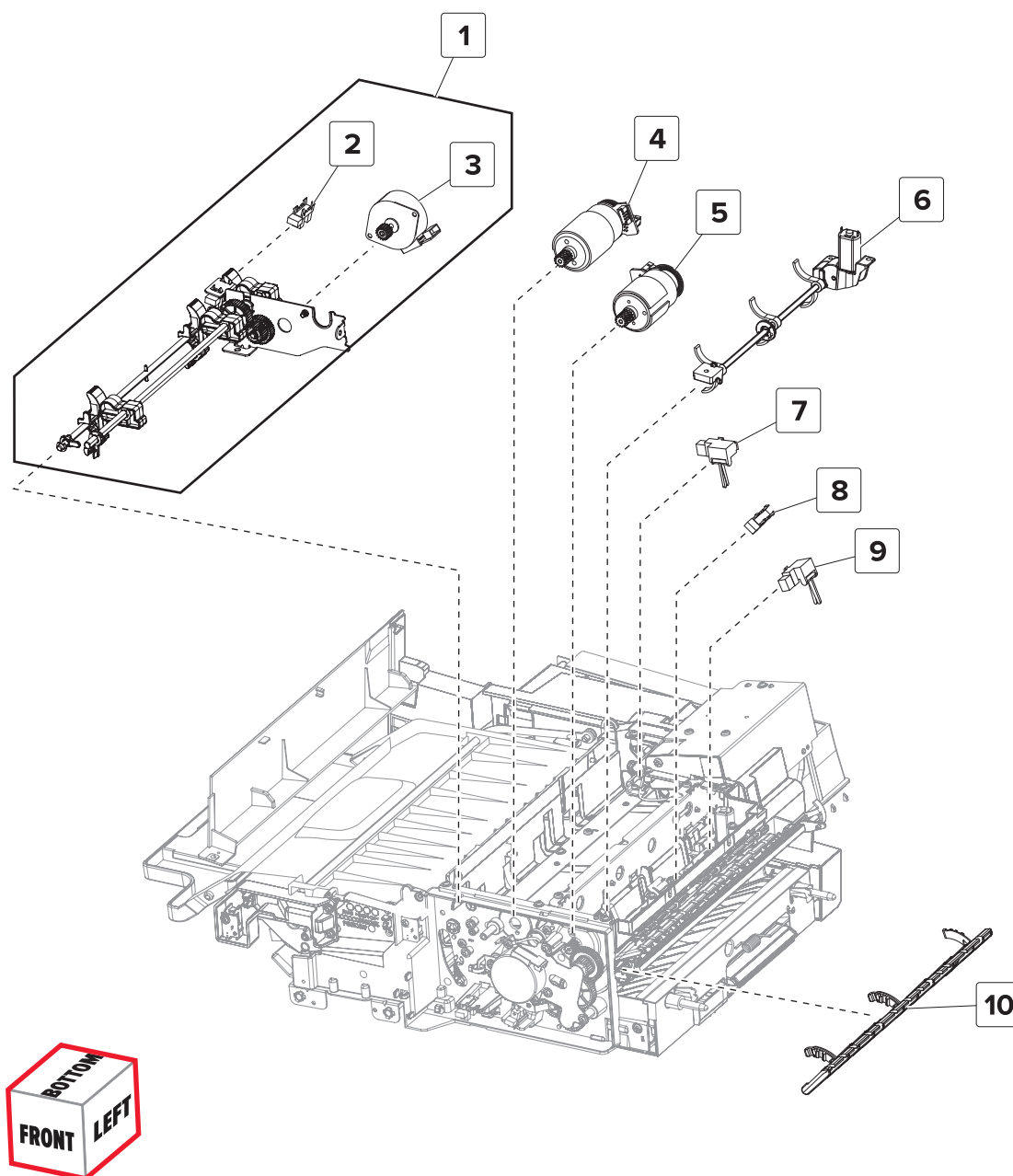
Assembly 45: Staple finisher—Transport



Assembly 45: Staple finisher—Transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0515	1	1	Staple finisher upper exit roller	“Staple finisher upper exit roller removal” on page 954
2	41X0519	1	1	Staple finisher upper paper guide	“Staple finisher aligner paddle and upper paper guide removal” on page 951
3	41X0518	1	1	Staple finisher aligner paddle	“Staple finisher aligner paddle and upper paper guide removal” on page 951
4	41X0517	1	1	Staple finisher compiler feed roller	“Staple finisher compiler feed roller removal” on page 948
5	41X0525	1	1	Staple finisher compiler paper guide	“Staple finisher compiler paper guide removal” on page 946
6	41X0526	2	1	Staple finisher compiler feed idler	“Staple finisher compiler feed idler removal” on page 950
7	41X0527	1	1	Staple finisher bin link	“Staple finisher bin link removal” on page 944
8	41X0528	1	1	Staple finisher bin	“Staple finisher bin removal” on page 945

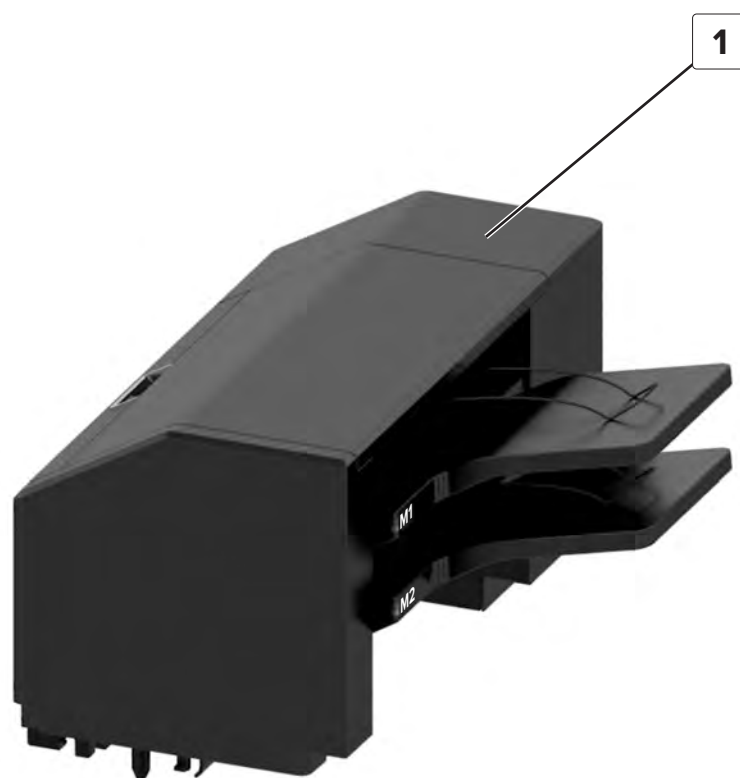
Assembly 46: Staple finisher—Bottom



Assembly 46: Staple finisher—Bottom

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0532	1	1	Staple finisher bin clamp assembly	“Staple finisher bin clamp assembly removal” on page 959
2	40X7301	1	1	Sensor (staple finisher bin clamp)	“Sensor (staple finisher bin clamp) removal” on page 966
3	40X8256	1	1	Motor (staple finisher bin clamp)	“Motor (staple finisher bin clamp) removal” on page 967
4	41X0529	1	1	Motor (staple finisher exit)	“Motor (staple finisher exit) removal” on page 972
5	41X0529	1	1	Motor (staple finisher transport)	“Motor (staple finisher transport) removal” on page 972
6	41X0523	1	1	Staple finisher decurl paddle	“Staple finisher decurl assembly removal” on page 974
7	40X8745	1	1	Sensor (staple finisher staple unit paper present)	“Sensor (staple finisher staple unit paper present) removal” on page 975
8	40X7301	1	1	Sensor (staple finisher decurl)	“Sensor (staple finisher decurl) removal” on page 976
9	40X8745	1	1	Sensor (staple finisher transport)	“Sensor (staple finisher transport) removal” on page 977
10	41X0511	1	1	Staple finisher entrance paper guide	“Staple finisher entrance paper guide removal” on page 957
NS	41X0786	1	1	Staple finisher screw parts pack	--
NS	41X0787	1	1	Staple finisher plastic clip	--

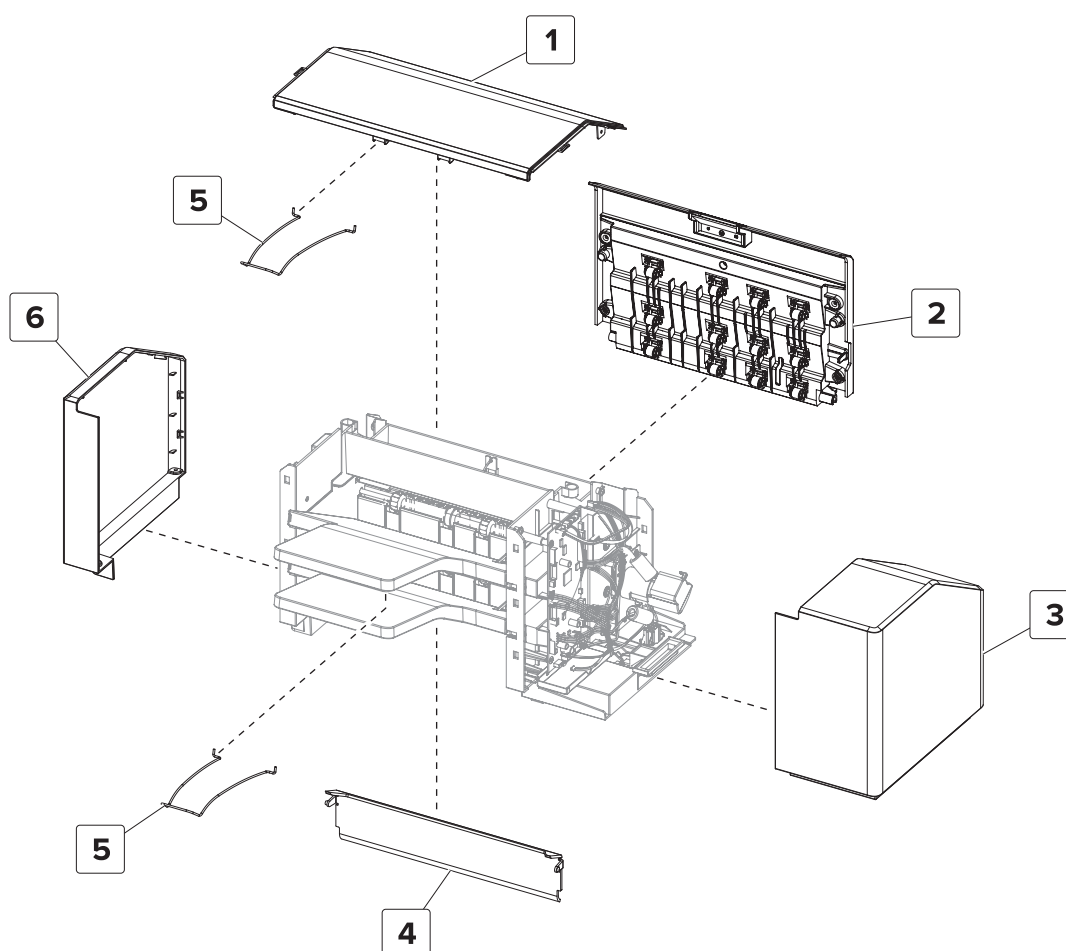
Assembly 47: Mailbox 1



Assembly 47: Mailbox 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0707	1	1	Optional 2-bin mailbox	--

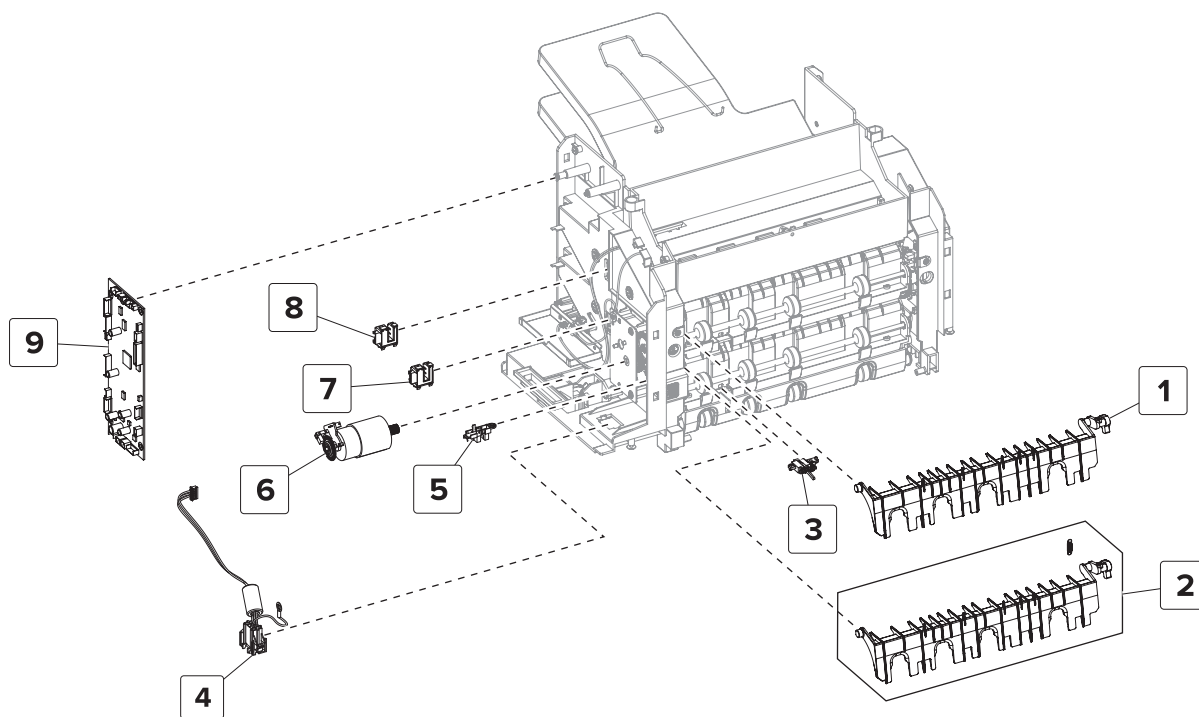
Assembly 48: Mailbox 2



Assembly 48: Mailbox 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0696	1	1	Mailbox top cover	“Mailbox top cover removal” on page 1345
2	41X0697	1	1	Mailbox jam door	“Mailbox jam door removal” on page 1336
3	41X0721	1	1	Mailbox rear cover	“Mailbox rear cover removal” on page 1338
4	41X0722	1	1	Mailbox bottom cover	“Mailbox bottom cover removal” on page 1345
5	41X0698	2	1	Mailbox bail	“Mailbox bail removal” on page 1335
6	41X0695	1	1	Mailbox front cover	“Mailbox front cover removal” on page 1336

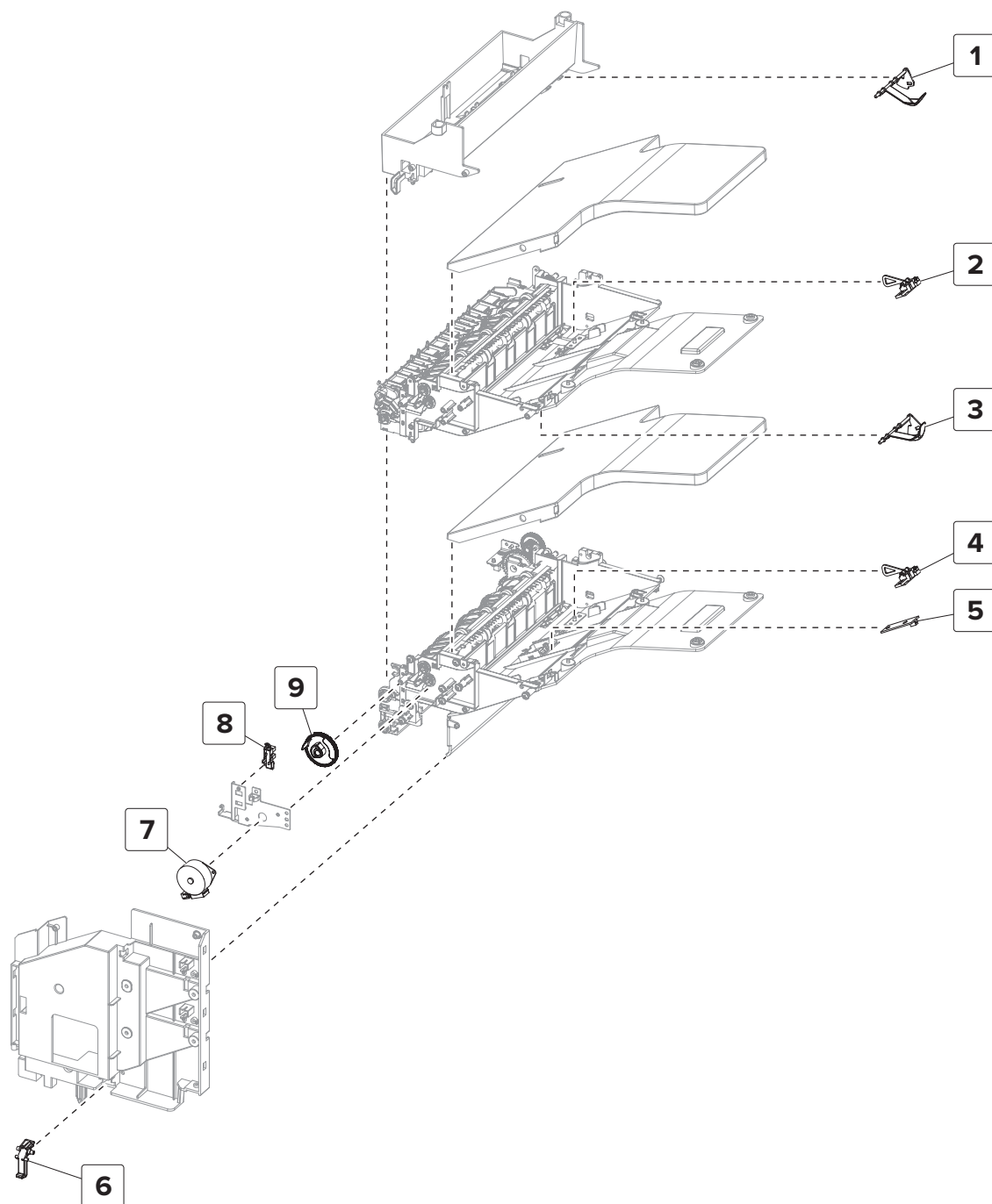
Assembly 49: Mailbox 3



Assembly 49: Mailbox 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0702	1	1	Mailbox top diverter Installation note: The spring is not required during replacement.	“Mailbox diverter removal” on page 1348
2	41X0702	1	1	Mailbox diverter, bottom	“Mailbox diverter removal” on page 1348
3	41X0385	1	1	Sensor (mailbox transport)	“Sensor (mailbox transport) removal” on page 1360
4	41X0723	1	1	Mailbox interface cable	“Mailbox interface cable removal” on page 1342
5	41X0709	1	1	Sensor (mailbox jam door)	“Sensor (mailbox jam door) removal” on page 1341
6	41X0703	1	1	Motor (mailbox transport)	“Motor (mailbox transport) removal” on page 1340
7	41X0701	1	1	Sensor (mailbox bin 1 full)	“Sensor (mailbox bin 1 full) removal” on page 1351
8	41X0701	1	1	Sensor (mailbox bin 2 full)	“Sensor (mailbox bin 2 full) removal” on page 1352
9	41X0679	1	1	Mailbox controller board	“Mailbox controller board removal” on page 1339

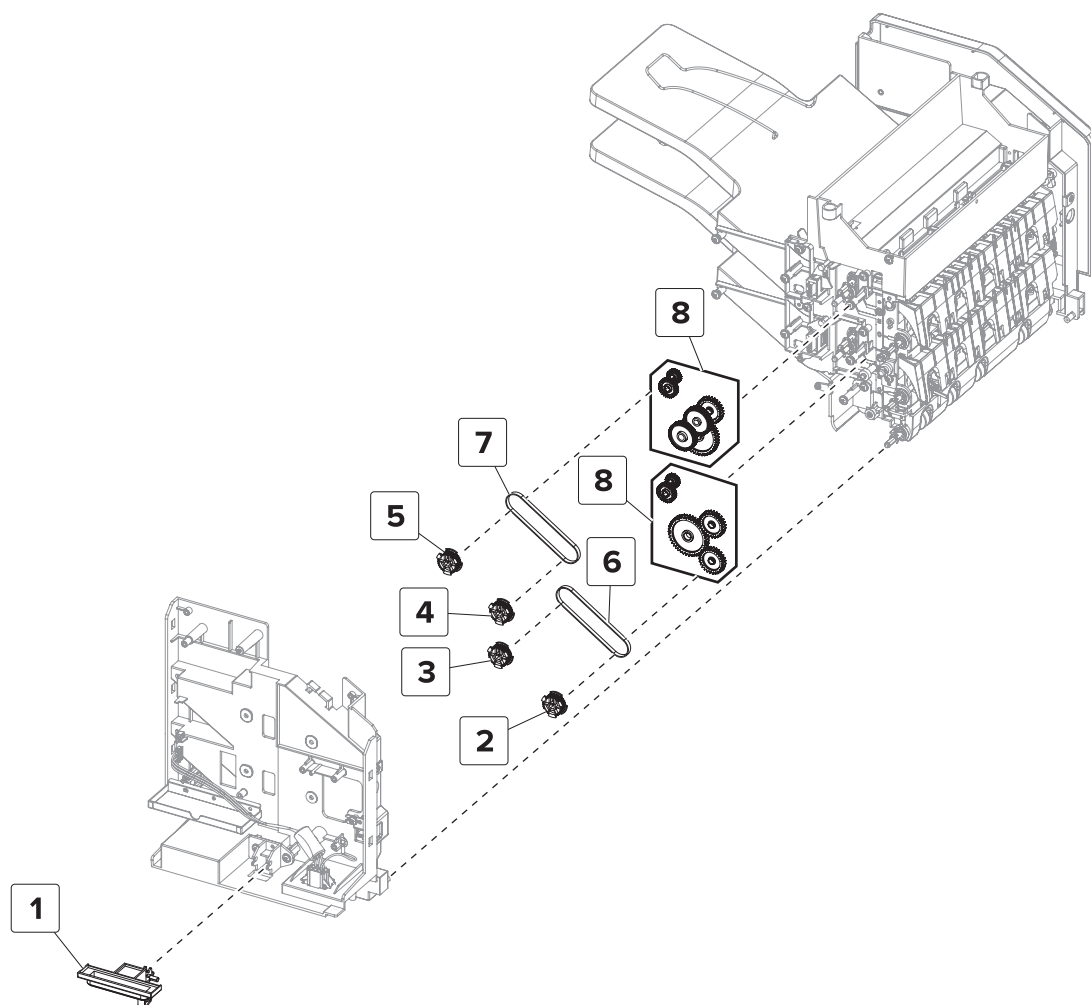
Assembly 50: Mailbox 4



Assembly 50: Mailbox 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0700	1	1	Mailbox bin 2 full sensor flag	“Mailbox bin 2 full sensor flag removal” on page 1353
2	41X0724	1	1	Sensor (mailbox bin 2 paper present)	“Sensor (mailbox bin 2 paper present) removal” on page 1356
3	41X0700	1	1	Mailbox bin 1 full sensor flag	“Mailbox bin 1 full sensor flag removal” on page 1355
4	41X0724	1	1	Sensor (mailbox bin 1 paper present)	“Sensor (mailbox bin 1 paper present) removal” on page 1358
5	41X0725	1	1	Bin light board	“Bin light board removal” on page 1359
6	41X0726	1	1	Mailbox latch	“Mailbox latch removal” on page 1343
7	40X8256	1	1	Motor (mailbox diverter)	“Motor (mailbox diverter) removal” on page 1337
8	41X0709	1	1	Sensor (mailbox diverter home)	“Sensor (mailbox diverter home) removal” on page 1347
9	41X0727	1	1	Mailbox diverter gear	“Mailbox diverter gear removal” on page 1349

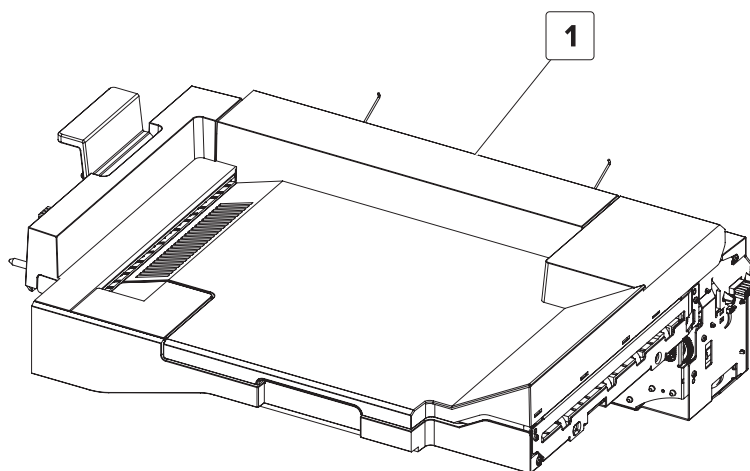
Assembly 51: Mailbox 5



Assembly 51: Mailbox 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0726	1	1	Mailbox latch	“Mailbox latch removal” on page 1343
2	41X0628	1	1	Mailbox pulley gear, bin 1	“Mailbox bin 1 pulley gear removal” on page 1364
3	41X0628	1	1	Mailbox pulley gear, bin 1	“Mailbox bin 1 pulley gear removal” on page 1364
4	41X0628	1	1	Mailbox pulley gear, bin 2	“Mailbox bin 2 pulley gear removal” on page 1362
5	41X0628	1	1	Mailbox pulley gear, bin 2	“Mailbox bin 2 pulley gear removal” on page 1362
6	40X8249	1	1	Mailbox drive belt, bin 1	“Mailbox drive belt removal” on page 1353
7	40X8249	1	1	Mailbox drive belt, bin 2	“Mailbox drive belt removal” on page 1353
8	41X0699	1	1	Mailbox drive gears	--

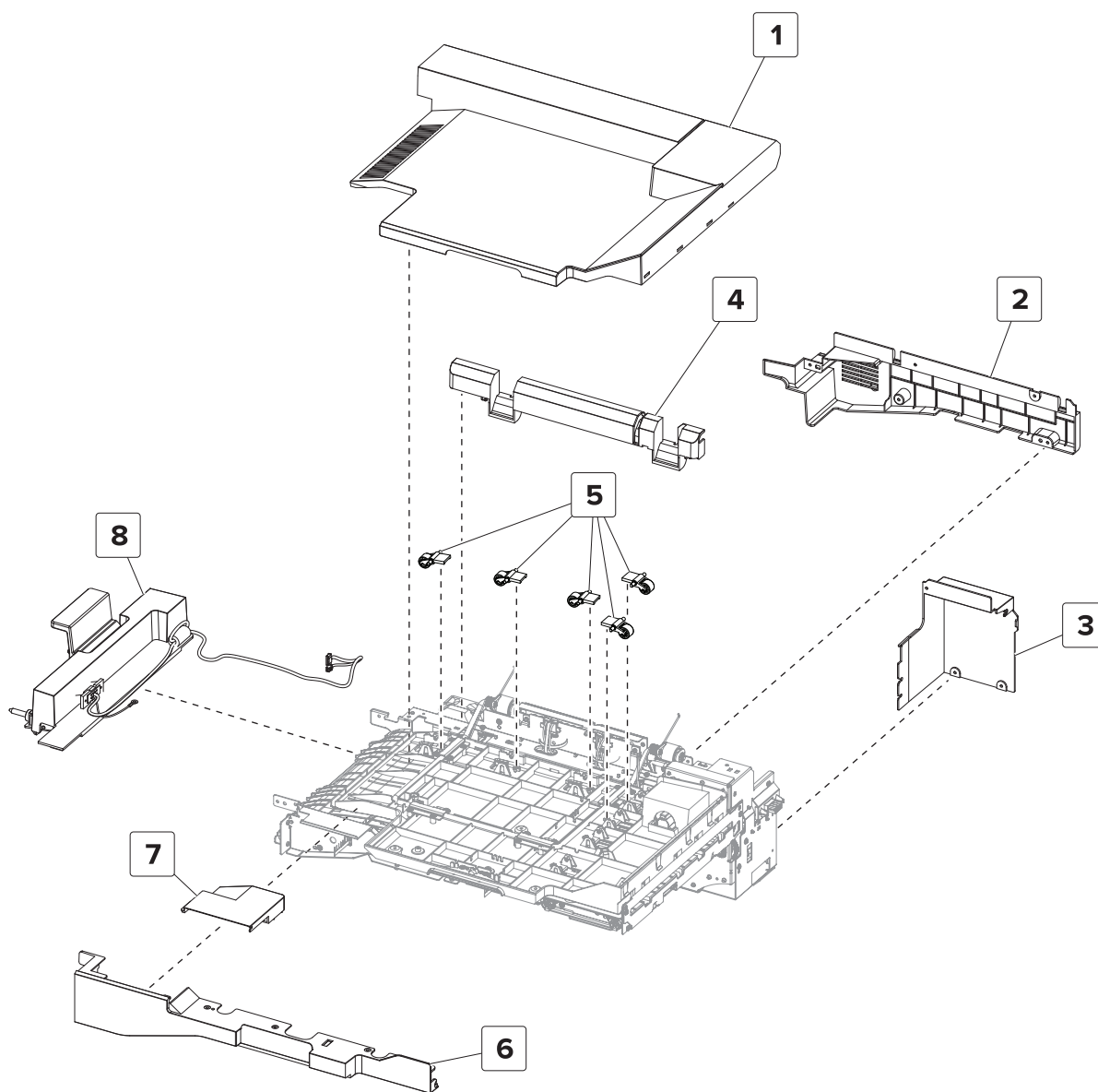
Assembly 52: HPT 1



Assembly 52: HPT 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0708	1	1	HPT	--
1	41X1947	1	1	Swedish HPT	--

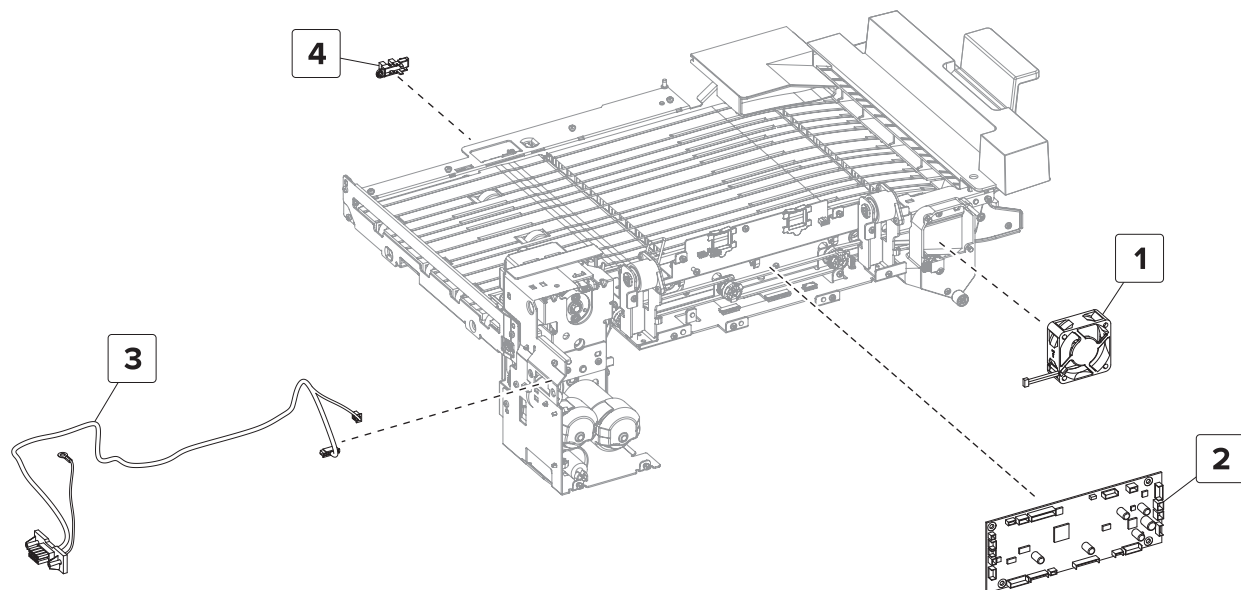
Assembly 53: HPT 2



Assembly 53: HPT 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0729	1	1	HPT top cover	“HPT top cover removal” on page 997
2	41X0674	1	1	HPT rear cover	“HPT rear cover removal” on page 982
3	41X0677	1	1	HPT hole punch unit cover	“Hole punch unit cover removal” on page 985
4	41X0731	1	1	HPT door hinge covers	--
5	41X0934	5	5	HPT transport idler roller	“HPT transport idler roller removal ” on page 998
6	41X0673	1	1	HPT front cover	“HPT front cover removal” on page 979
7	41X0675	1	1	HPT front inner cover	“HPT front cover removal” on page 979
8	41X0676	1	1	HPT lock	“HPT lock removal” on page 1001

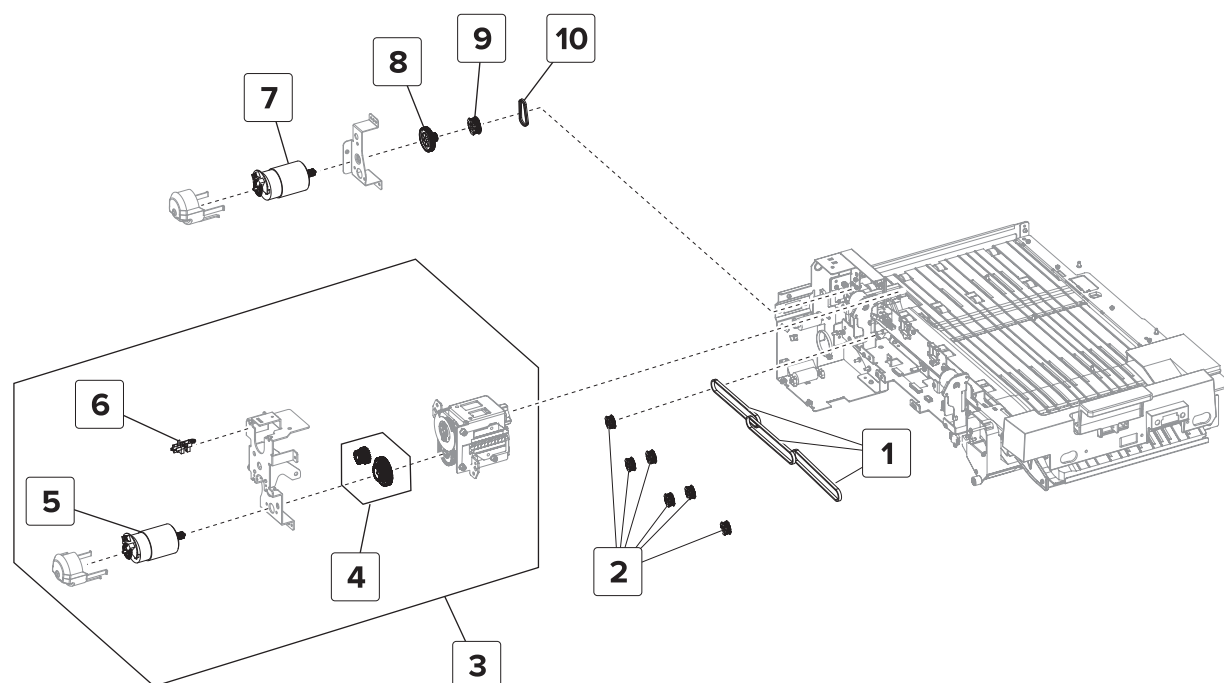
Assembly 54: HPT 3



Assembly 54: HPT 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X7580	1	1	HPT fan	“HPT fan removal” on page 983
2	41X0679	1	1	HPT controller board	“HPT controller board removal” on page 983
2	41X2072	1	1	Swedish HPT controller board	“HPT controller board removal” on page 983
3	41X0681	1	1	HPT autoconnect cable	“HPT autoconnect cable removal” on page 1004
4	41X0709	1	1	Sensor (HPT jam cover)	“Sensor (HPT jam cover) removal” on page 980

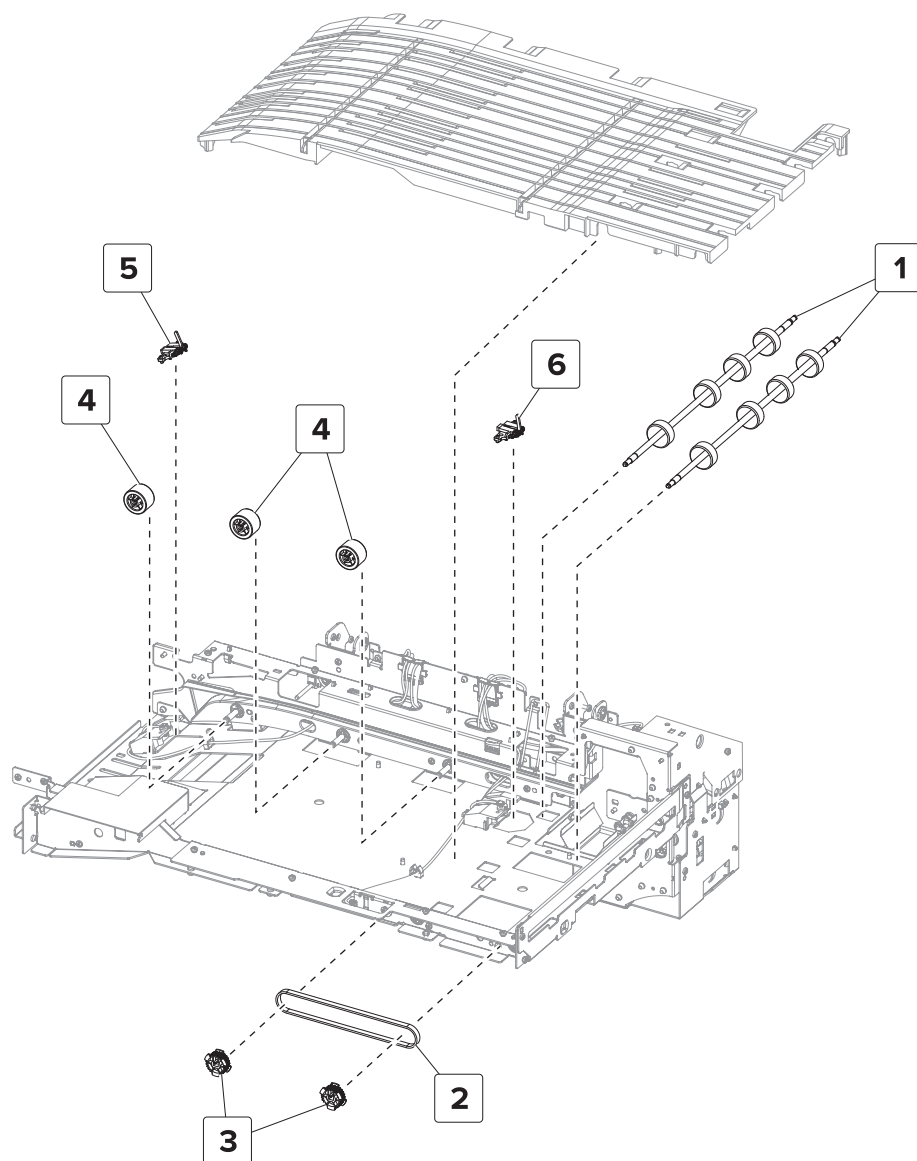
Assembly 55: HPT 4



Assembly 55: HPT 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0732	1	1	HPT transport belts	“HPT transport belts removal” on page 985
2	41X0652	6	1	HPT transport belt gears	“HPT front transport belt gear removal” on page 981
3	41X0694	1	1	HPT hole punch unit	“Hole punch unit removal” on page 987
3	41X1914	1	1	Swedish HPT hole punch unit	“Hole punch unit removal” on page 987
4	41X0734	1	1	HPT hole punch unit gears	“Hole punch unit gears removal” on page 988
5	41X0803	1	1	Motor (HPT hole punch unit)	“Motor (hole punch unit) removal” on page 987
6	41X0709	1	1	Sensor (HPT hole punch unit)	“Sensor (hole punch unit) removal” on page 989
7	41X0803	1	1	Motor (HPT transport)	“Motor (HPT transport) removal” on page 992
8	41X0749	1	1	HPT transport drive gear	“HPT transport gears removal” on page 994
9	41X0628	1	1	HPT transport gear	“HPT transport gears removal” on page 994
10	41X0736	1	1	HPT transport drive belt	“HPT transport drive belt removal” on page 996

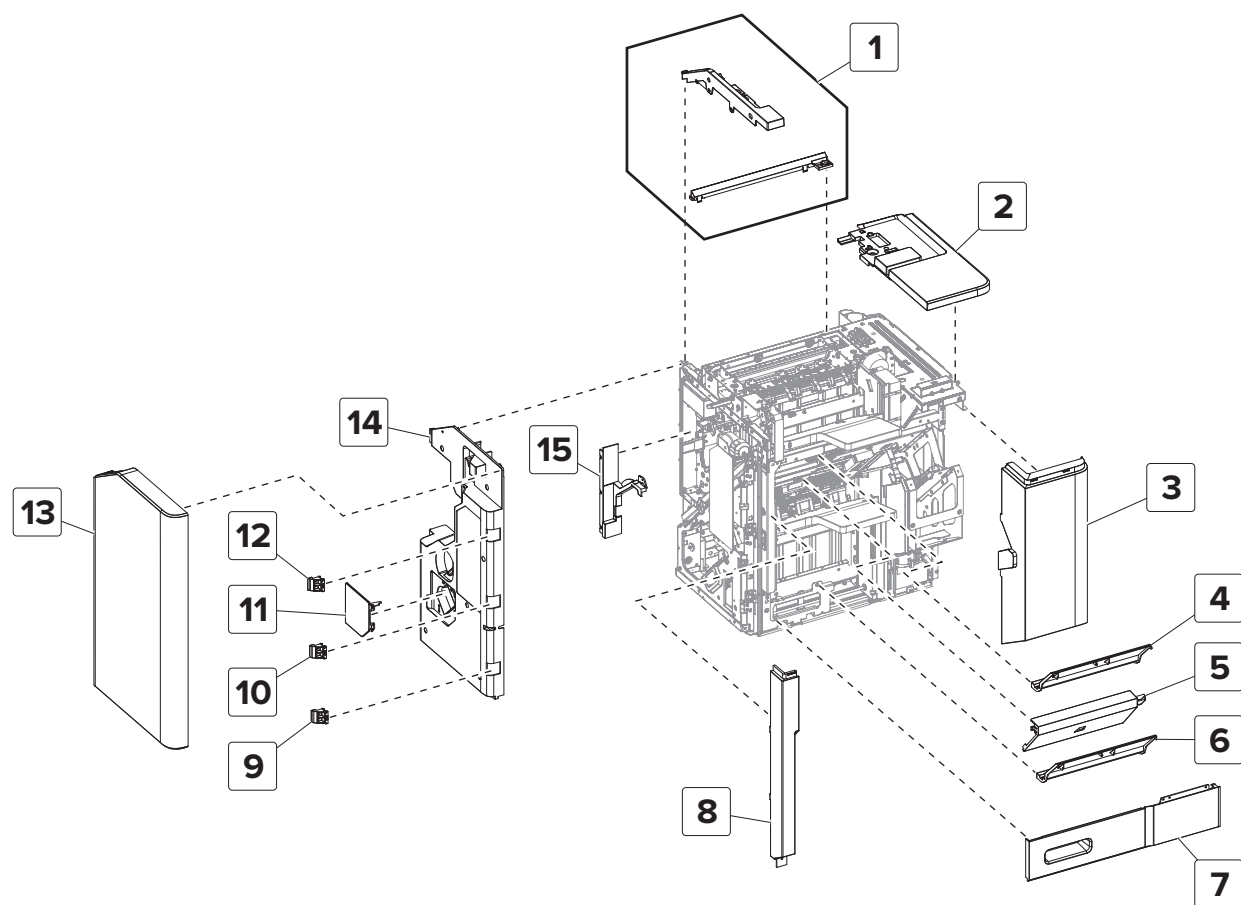
Assembly 56: HPT 5



Assembly 56: HPT 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0737	2	2	HPT transport rollers	“HPT transport rollers removal” on page 1016
2	41X0738	1	1	HPT transport belts	“HPT front transport belt gear removal” on page 981
3	41X0652	2	1	HPT transport belt gears	“HPT front transport belt gear removal” on page 981
4	41X0739	3	3	HPT alignment rollers	“HPT alignment rollers removal” on page 1012
5	41X0951	1	1	Sensor (HPT transport)	“Sensor (HPT transport) removal” on page 1008
6	41X0951	1	1	Sensor (HPU entrance)	“Sensor (HPU entrance) removal” on page 1010

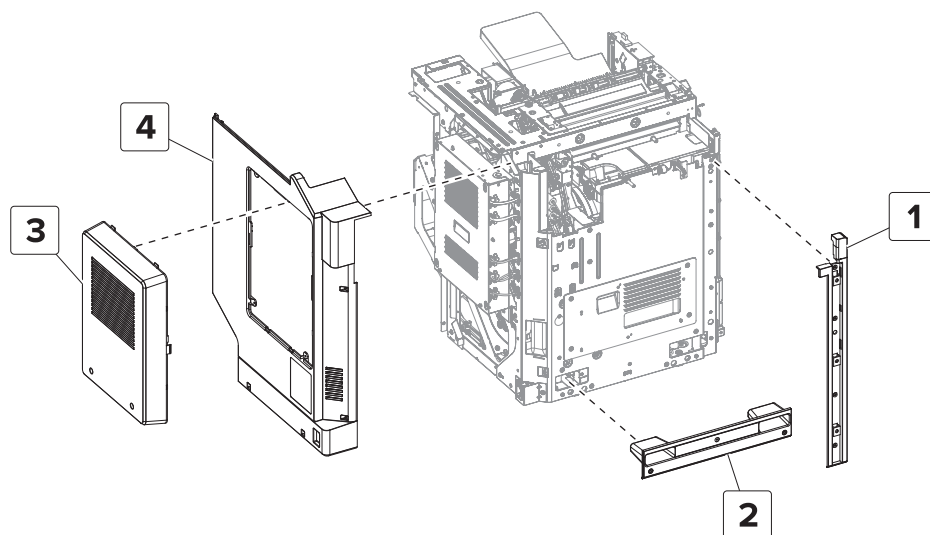
Assembly 57: MSHPF covers 1



Assembly 57: MSHPF covers 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0594	1	1	MSHPF top frame covers	“MSHPF top frame covers removal” on page 1061
2	41X0593	1	1	MSHPF inner top cover	“MSHPF inner top cover removal” on page 1060
3	41X0589	1	1	MSHPF right cover	“MSHPF right cover removal” on page 1050
4	41X0595	1	1	MSHPF standard bin bottom cover	“Sensor (standard bin paper present) removal” on page 1140
5	41X0591	1	1	Stapler bin cave cover	“Stapler bin cave cover removal” on page 1052
6	41X0595	1	1	MSHPF stapler bin bottom cover	“Stapler bin assembly removal” on page 1308
7	41X0588	1	1	MSHPF bottom right cover	“MSHPF bottom right cover removal” on page 1051
8	41X0587	1	1	MSHPF right frame cover	“MSHPF right frame cover removal” on page 1055
9	41X0682	1	1	MSHPF door hinge	“MSHPF door hinge removal” on page 1028
10	41X0682	1	1	MSHPF door hinge	“MSHPF door hinge removal” on page 1028
11	41X0583	1	1	MSHPF staple cartridge door	“MSHPF staple cartridge door removal” on page 1032
12	41X0682	1	1	MSHPF door hinge	“MSHPF door hinge removal” on page 1028
13	41X0581	1	1	MSHPF front door	“MSHPF front door removal” on page 1025
14	41X0582	1	1	MSHPF inner front cover	“MSHPF inner front cover removal” on page 1030
15	41X0584	1	1	MSHPF left front cover	“MSHPF left front cover removal” on page 1046
NS	41X0725	1	1	MSHPF bin light board	“MSHPF bin light board removal” on page 1054

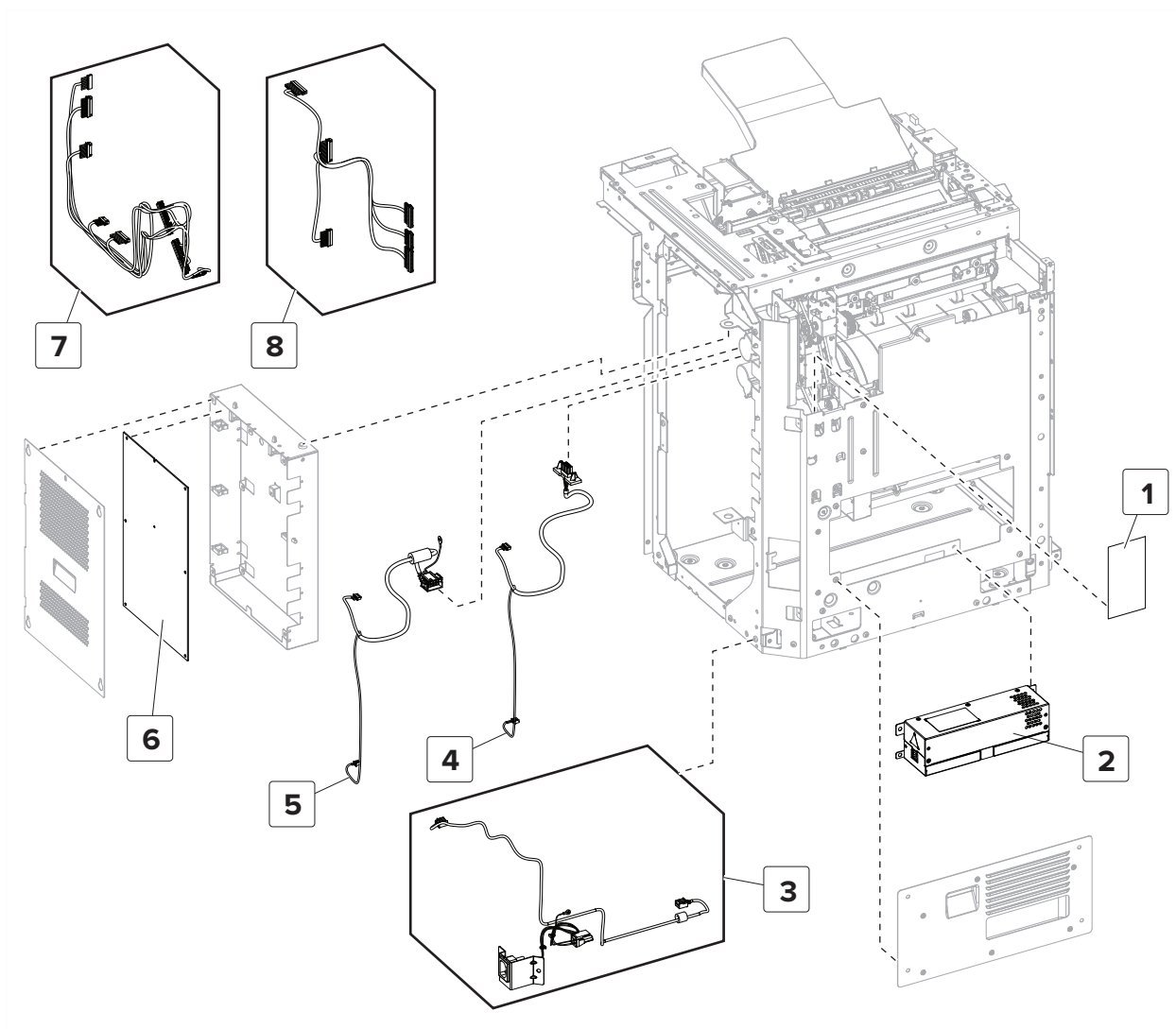
Assembly 58: MSHPF covers 2



Assembly 58: MSHPF covers 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0585	1	1	MSHPF front left cover	“MSHPF front left cover removal” on page 1029
2	41X0586	1	1	MSHPF bottom left cover	“MSHPF bottom left cover removal” on page 1024
3	41X0592	1	1	MSHPF controller board cover	“MSHPF controller board cover removal” on page 1048
4	41X0590	1	1	MSHPF rear cover	“MSHPF rear cover removal” on page 1058

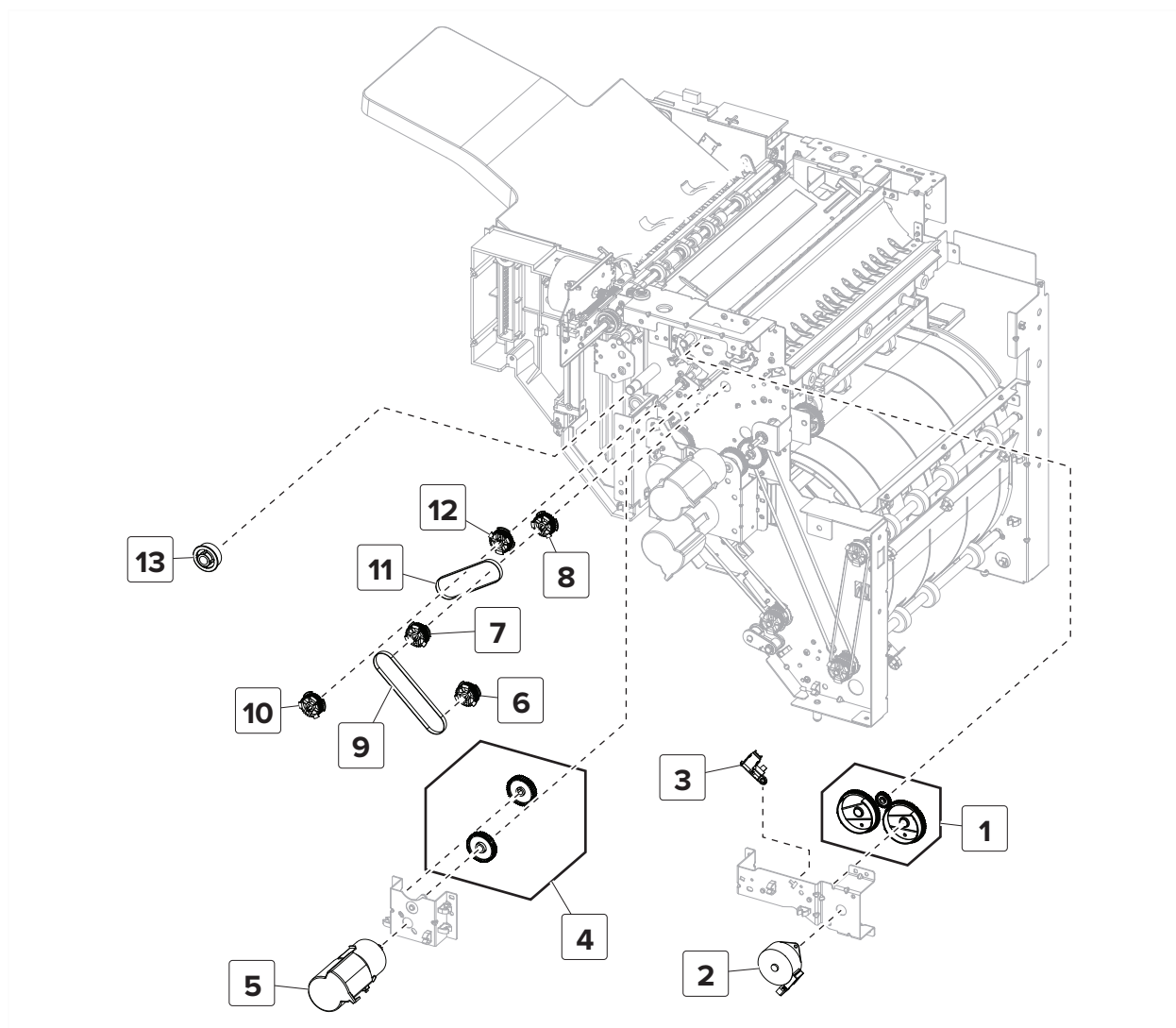
Assembly 59: MSHPF electronics



Assembly 59: MSHPF electronics

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0599	1	1	Mid-transport interface board	“Mid-transport interface board removal” on page 1131
2	41X0639	1	1	MSHPF power supply	“MSHPF power supply removal” on page 1059
3	41X0638	1	1	MSHPF power supply cable	--
4	41X0805	1	1	Mid-transport (mailbox) interface cable	“Mid-transport (mailbox) interface cable removal” on page 1134
5	41X0806	1	1	Mid-transport (HPT) interface cable	“Mid-transport (HPT) interface cable removal” on page 1132
6	41X0598	1	1	MSHPF controller board	“MSHPF controller board removal” on page 1063
7	41X0637	1	1	Mid-transport interface board cable	--
8	41X0636	1	1	Compiler interface board cable	--

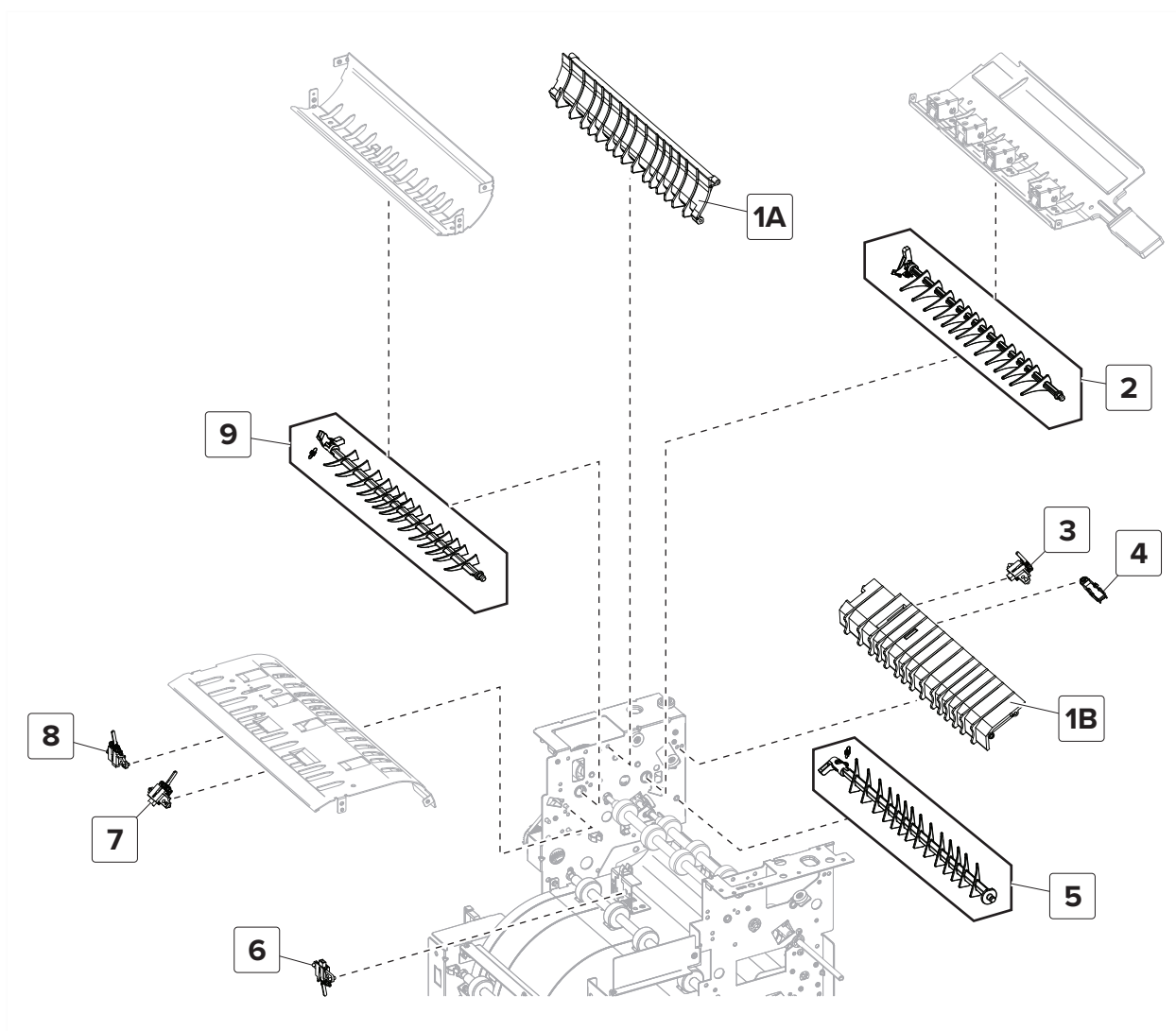
Assembly 60: MSHPF mid-transport drive



Assembly 60: MSHPF mid-transport drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0633	1	1	Mid-transport diverter cam	“Mid-transport diverter cams and gear removal” on page 1161
2	40X8256	1	1	Motor (mid-transport diverter)	“Motor (mid-transport diverter) removal” on page 1158
3	41X0798	1	1	Sensor (mid-transport diverter 1)	“Sensor (mid-transport diverter 1) removal” on page 1159
4	41X0629	1	1	Mid-transport gear	“Mid-transport gear removal” on page 1129
5	41X0612	1	1	Motor (mid-transport)	“Motor (mid-transport) removal” on page 1127
6	41X0628	1	1	Mid-transport pulley gear	“Mid-transport pulley gears removal” on page 1124
7	41X0628	1	1	Mid-transport pulley gear	“Mid-transport pulley gears removal” on page 1124
8	41X0628	1	1	Mid-transport pulley gear	“Mid-transport pulley gears removal” on page 1124
9	41X0630	1	1	Hole punch box belt	“Hole punch box belt removal” on page 1092
10	41X0628	1	1	Mid-transport pulley gear	“Mid-transport pulley gears removal” on page 1124
11	41X0632	1	1	MSHPF standard bin exit belt	“MSHPF standard bin exit belt removal” on page 1122
12	41X0628	1	1	Mid-transport pulley gear	“Mid-transport pulley gears removal” on page 1124
13	41X0814	1	1	Offset belt tensioner	“Offset belt tensioner removal” on page 1120

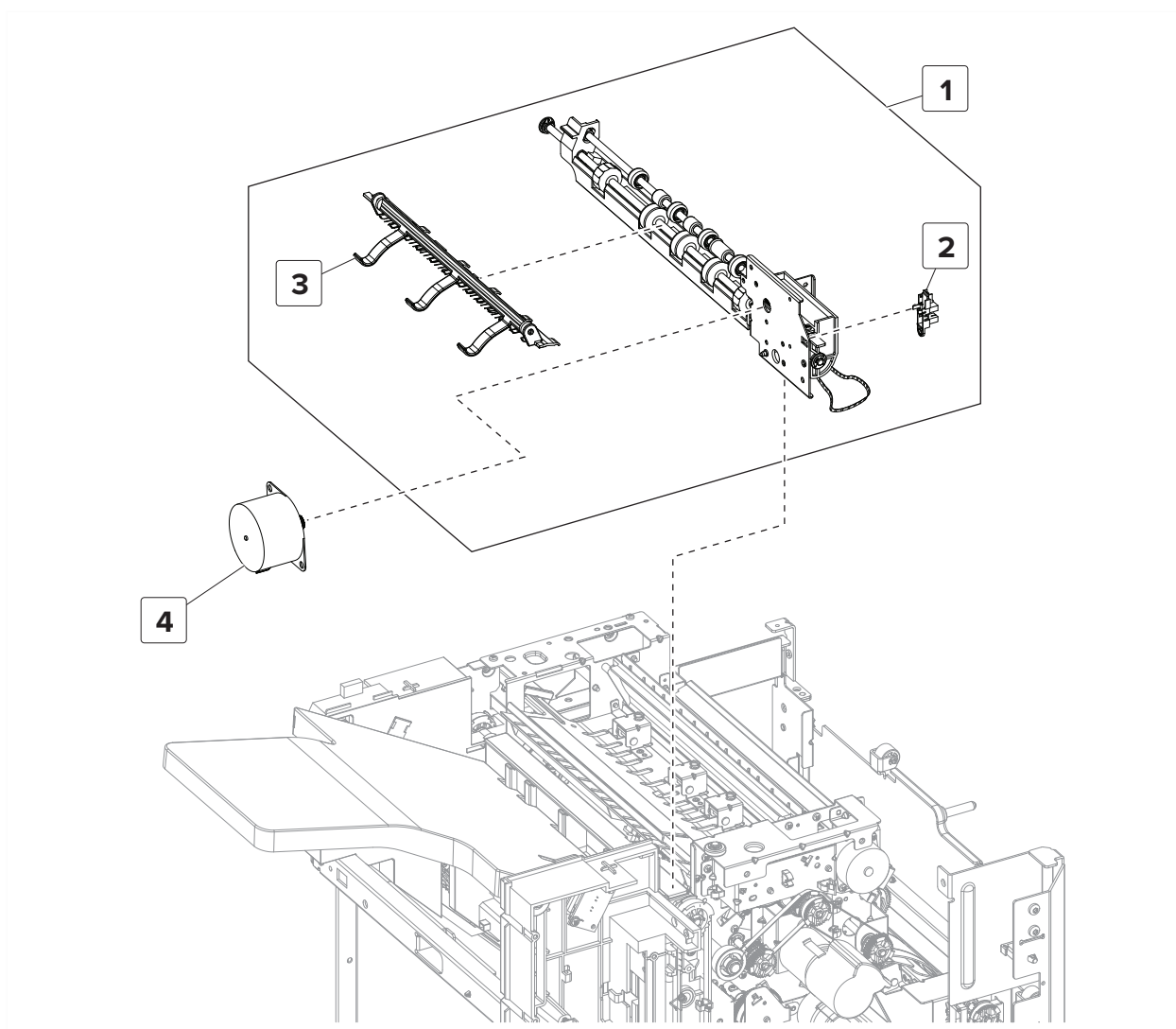
Assembly 61: MSHPF mid-transport paper path



Assembly 61: MSHPF mid-transport paper path

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1A	41X0635	1	1	Mid-transport guide	“Mid-transport guide removal” on page 1181
1B	41X0635	1	1	Mid-transport guide	“Mid-transport guide sensors removal” on page 1182
2	41X0621	1	1	Mid-transport diverter 2	“Mid-transport diverter 2 removal” on page 1188
3	41X0951	1	1	Sensor (MSHPF standard bin exit)	“Sensor (MSHPF standard bin exit) removal” on page 1191
4	41X0709	1	1	Sensor (door N interlock)	“Sensor (door N interlock) removal” on page 1194
5	41X0622	1	1	Staging diverter	“Staging diverter removal” on page 1229
6	41X0385	1	1	Sensor (staging outer transport 1)	“Sensor (staging outer transport 1) removal” on page 1203
7	41X0385	1	1	Sensor (staging entrance)	“Sensor (staging entrance) removal” on page 1208
8	41X0385	1	1	Sensor (mid-transport)	“Sensor (mid-transport) removal” on page 1198
9	41X0620	1	1	Mid-transport diverter 1	“Mid-transport diverter 1 removal” on page 1178

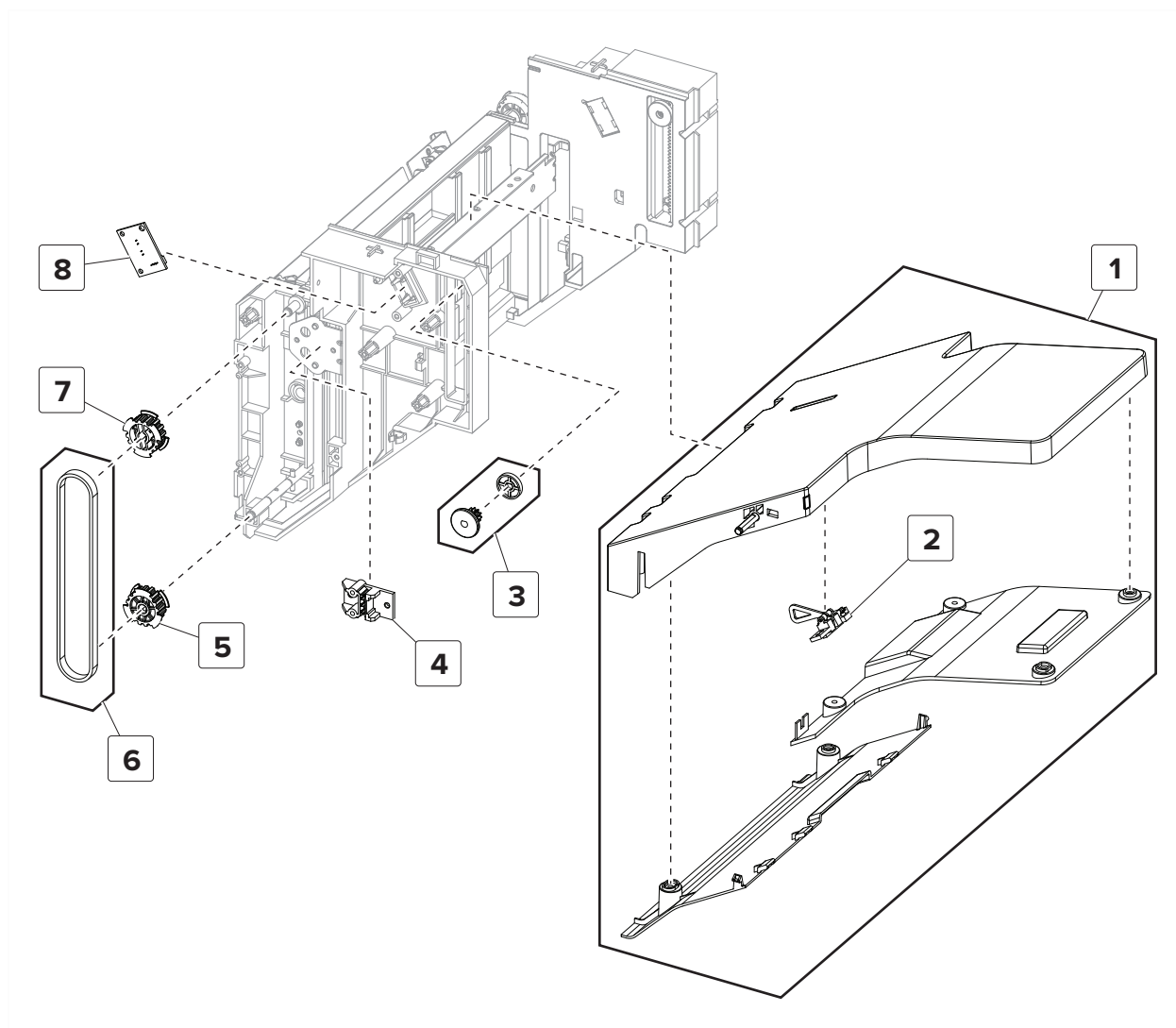
Assembly 62: MSHPF offset drive



Assembly 62: MSHPF offset drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0617	1	1	Offset assembly	“Offset assembly removal” on page 1150
2	41X0709	1	1	Sensor (offset roller)	“Sensor (offset roller) removal” on page 1145
3	41X0932	1	1	MSHPF standard bin bail	--
4	41X0797	1	1	Motor (offset)	“Offset assembly removal” on page 1150

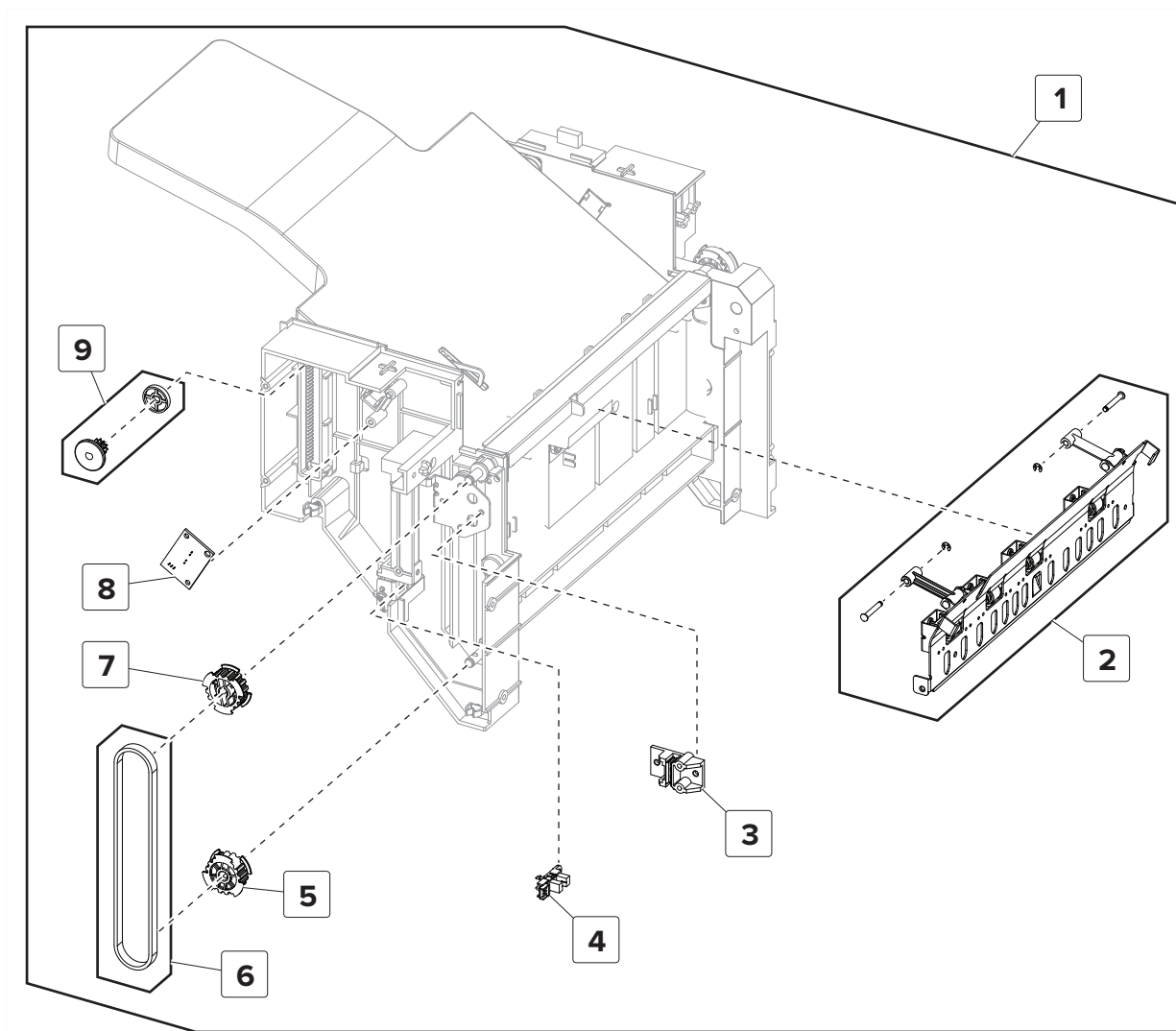
Assembly 63: MSHPF standard bin 1



Assembly 63: MSHPF standard bin 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0618	1	1	MSHPF standard bin	--
2	41X0724	1	1	Sensor (standard bin paper present)	“Sensor (standard bin paper present) removal” on page 1140
3	41X0644	1	1	Standard bin elevator gear	--
4	41X0614	1	1	Standard bin elevator belt holder	--
5	41X0642	1	1	Standard bin elevator pulley gear	--
6	41X0810	1	1	Standard bin elevator belt	--
7	41X0642	1	1	Standard bin elevator pulley gear	--
8	41X0802	1	1	Sensor (standard bin stack upper limit), transmitter	“Sensor (standard bin stack upper limit) removal” on page 1137

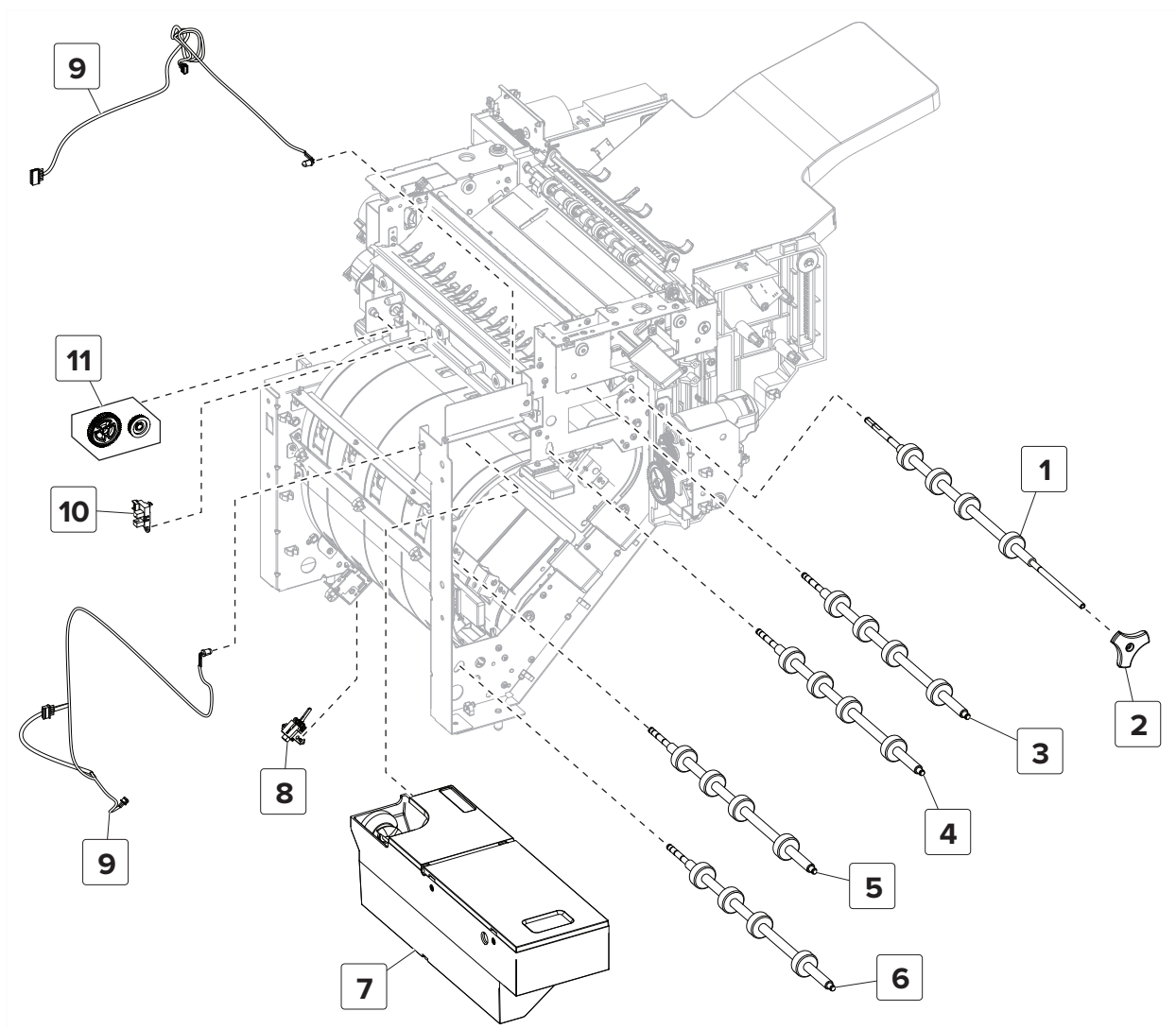
Assembly 64: MSHPF standard bin 2



Assembly 64: MSHPF standard bin 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0704	1	1	MSHPF standard bin assembly	“MSHPF standard bin assembly removal” on page 1221
2	41X0809	1	1	Staging paper guide	“Staging paper guide removal” on page 1224
3	41X0614	1	1	Standard bin elevator belt holder	--
4	41X0709	1	1	Sensor (standard bin lower limit)	--
5	41X0642	1	1	Standard bin elevator pulley gear	--
6	41X0810	1	1	Standard bin elevator belt	--
7	41X0642	1	1	Standard bin elevator pulley gear	--
8	41X0802	1	1	Sensor (standard bin stack upper limit), receiver	“Sensor (standard bin stack upper limit) removal” on page 1137
9	41X0644	1	1	Standard bin gear	--

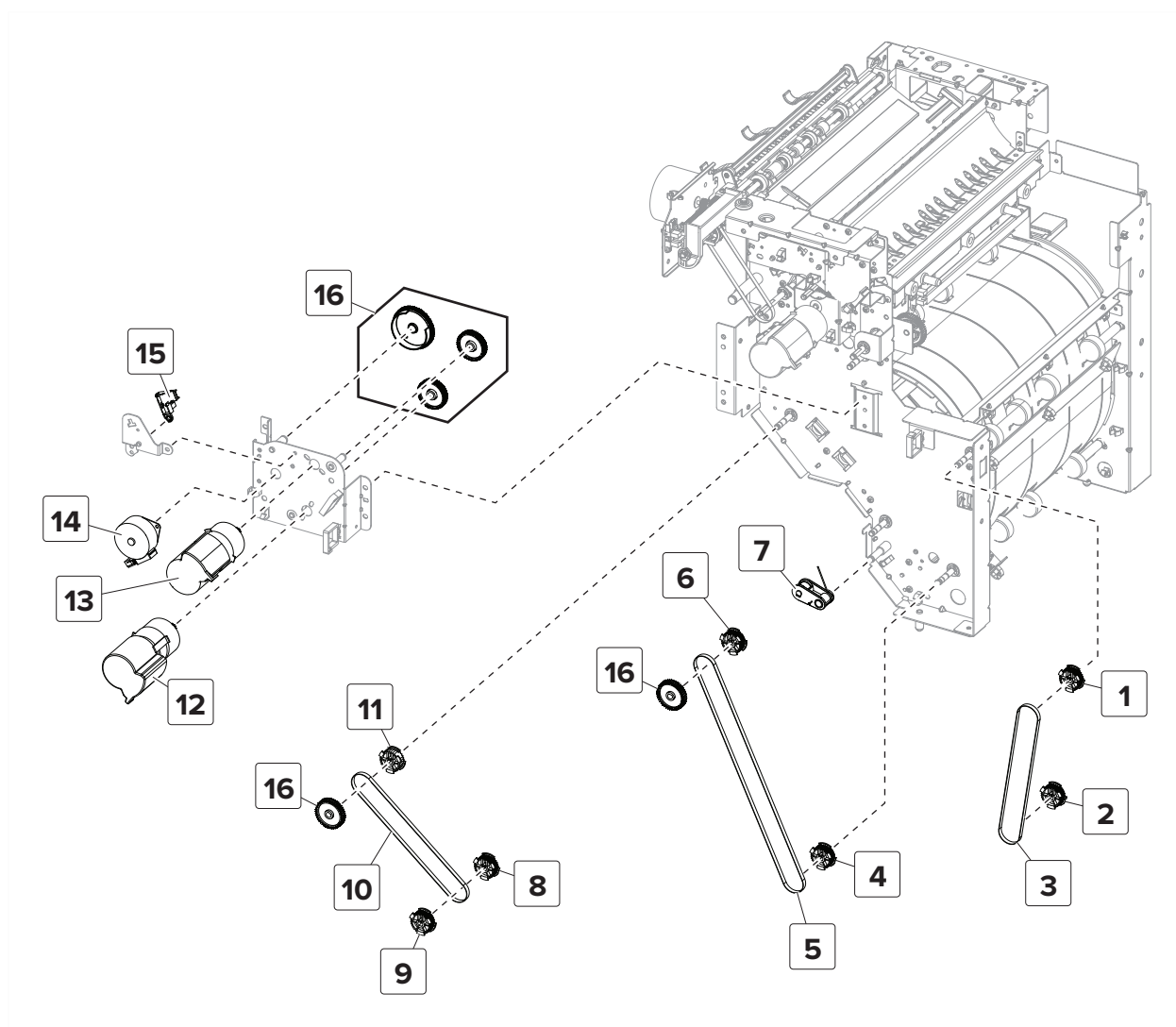
Assembly 65: MSHPF transport roller and hole punch box



Assembly 65: MSHPF transport roller and hole punch box

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0706	1	1	Roller J2	--
2	41X0821	1	1	Knob J2	“Knobs J2 and J7 removal” on page 1027
3	41X0980	1	1	Mid-transport roller	--
4	41X0807	1	1	Staging outer transport roller 1	--
5	41X0807	1	1	Staging outer transport roller 2	--
6	41X0807	1	1	Staging outer transport roller 3	--
7	41X0624	1	1	Hole punch box	--
8	41X0385	1	1	Sensor (staging outer transport 2)	“Sensor (hole punch box full, receiver) removal” on page 1164
9	41X0601	1	1	Sensor (hole punch box full), receiver	“Sensor (hole punch box full, receiver) removal” on page 1164
9	41X0601	1	1	Sensor (hole punch box full), transmitter	“Sensor (hole punch box full, transmitter) removal” on page 1169
10	41X0798	1	1	Sensor (hole punch box present)	“Sensor (hole punch box present) removal” on page 1104
11	41X0623	1	1	Hole punch box gears	“Sensor (mid-transport) removal” on page 1198

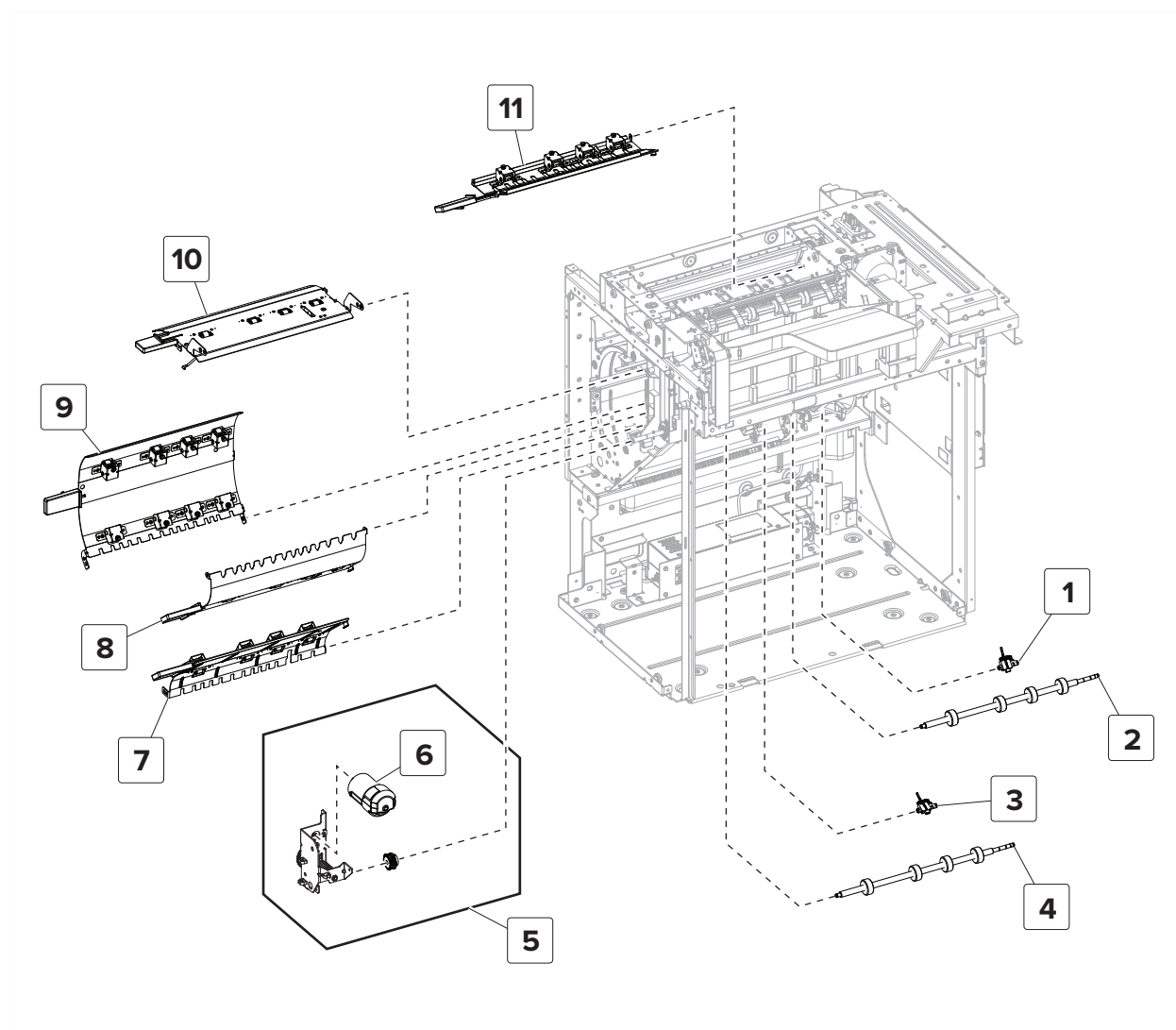
Assembly 66: MSHPF staging drive



Assembly 66: MSHPF staging drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0628	1	1	Staging outer transport pulley gear	“Staging outer transport pulley gear removal” on page 1097
2	41X0628	1	1	Staging outer transport pulley gear	“Staging outer transport pulley gear removal” on page 1097
3	41X0811	1	1	Staging outer transport belt	“Staging outer transport belt removal” on page 1095
4	41X0628	1	1	Staging outer transport pulley gear	--
5	41X0626	1	1	Staging outer transport drive belt	“Staging transport belts removal” on page 1116
6	41X0628	1	1	Staging outer transport pulley gear	--
7	41X0813	1	1	Compiler entrance belt tensioner	“Compiler entrance belt tensioner removal” on page 1090
8	41X0628	1	1	Staging inner transport pulley gear	--
9	41X0628	1	1	Staging compiler entrance pulley gear	--
10	41X0811	1	1	Staging inner transport belt	“Staging transport belts removal” on page 1116
11	41X0628	1	1	Staging inner transport pulley gear	--
12	41X0612	1	1	Motor (staging inner transport)	“Motor (staging inner transport) removal” on page 1108
13	41X0612	1	1	Motor (staging outer transport)	“Motor (staging outer transport) removal” on page 1104
14	40X8256	1	1	Motor (staging diverter)	“Motor (staging diverter) removal” on page 1099
15	41X0798	1	1	Sensor (staging diverter)	“Sensor (staging diverter) removal” on page 1101
16	41X0812	1	1	Staging transport gear parts pack	“Staging transport gears removal” on page 1112

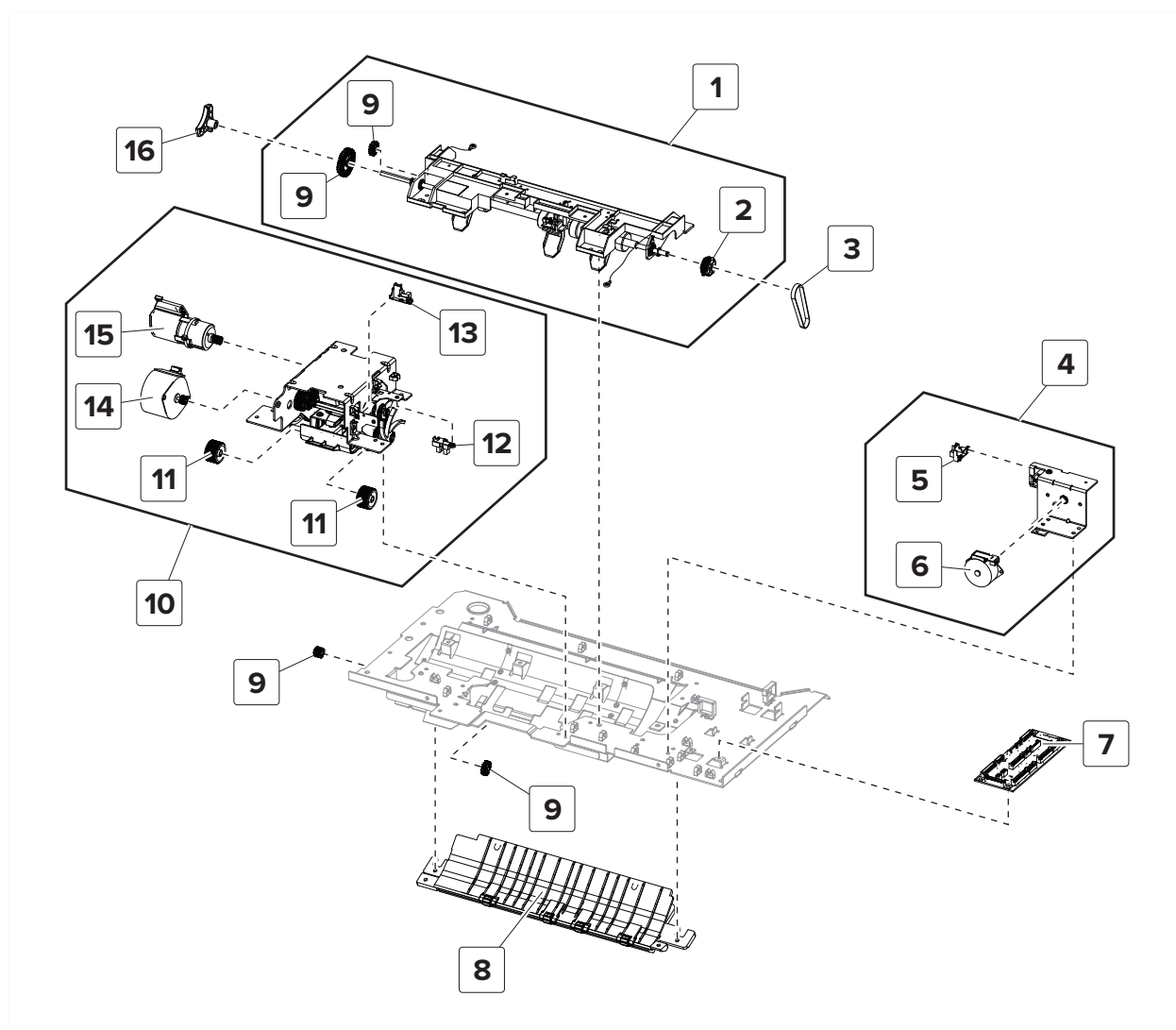
Assembly 67: MSHPF staging paper path



Assembly 67: MSHPF staging paper path

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0385	1	1	Sensor (staging inner transport 1)	“Sensor (staging inner transport 1) removal” on page 1314
2	41X0807	1	1	Staging upper inner transport roller	“Staging inner transport roller removal” on page 1226
3	41X0385	1	1	Sensor (staging inner transport 2)	“Sensor (staging inner transport 2) removal” on page 1315
4	41X0807	1	1	Staging lower inner transport roller	“Staging inner transport roller removal” on page 1226
5	41X0611	1	1	Standard bin elevator drive	“Standard bin elevator drive removal” on page 1138
6	41X0803	1	1	Motor (standard bin elevator)	“Motor (standard bin elevator) removal” on page 1139
7	41X0607	1	1	Door J6	“Door J6 removal” on page 1036
8	41X0606	1	1	Door J5	“Door J5 removal” on page 1042
9	41X0605	1	1	Door J4	“Door J4 removal” on page 1034
10	41X0604	1	1	Door J3	“Door J3 removal” on page 1039
11	41X0603	1	1	Door J1	“Door J1 removal” on page 1187
NS	41X0816	1	1	Staging exit guide	“Staging exit guide removal” on page 1236

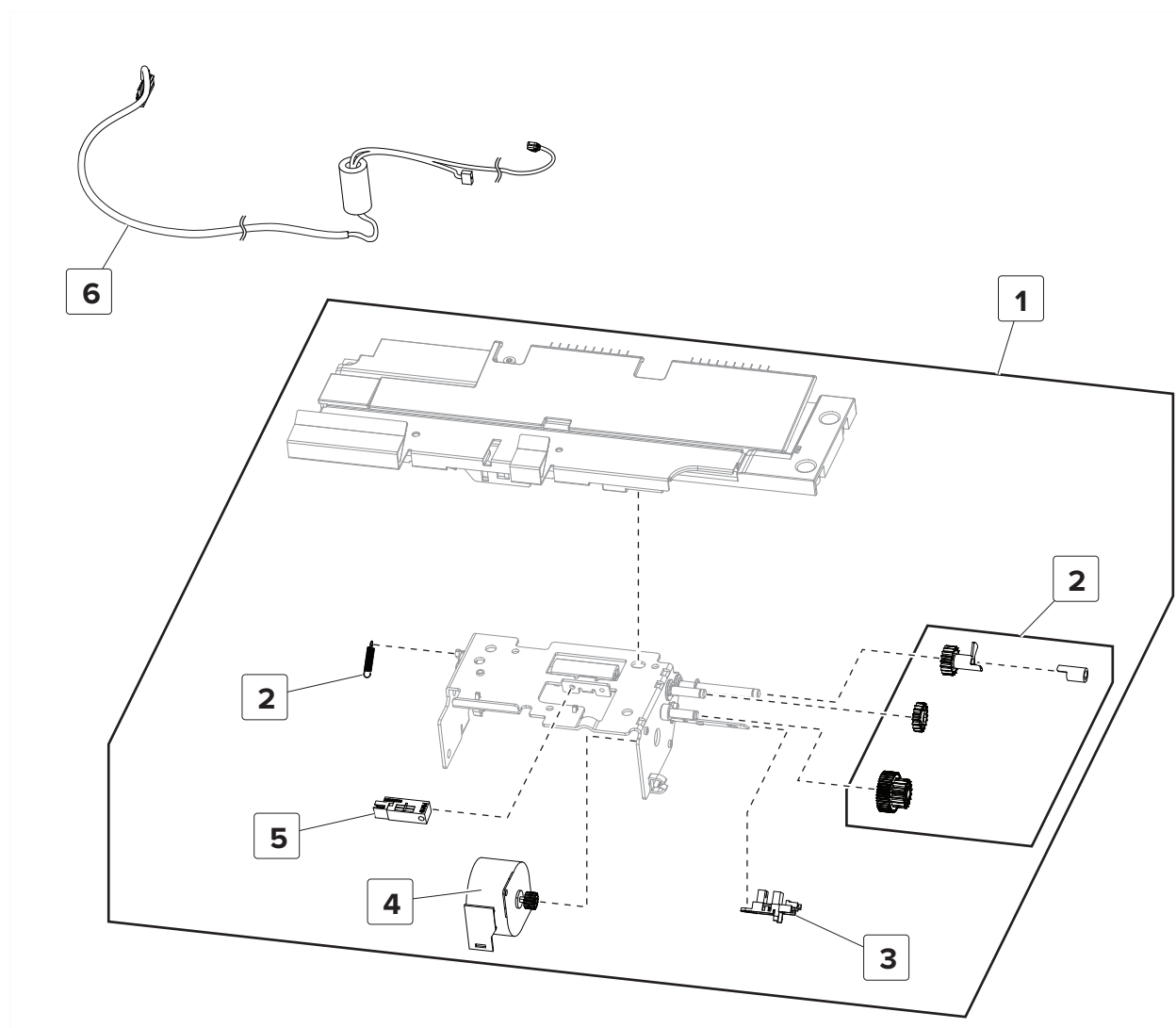
Assembly 68: MSHPF compiler 1



Assembly 68: MSHPF compiler 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0666	1	1	Compiler entrance upper roller	“Compiler entrance upper roller removal” on page 1279
2	41X0628	1	1	Compiler entrance pulley gear	--
3	41X0669	1	1	Compiler entrance belt	“Multiposition stapler assembly removal” on page 1244
4	41X0671	1	1	Compiler stack height clamp	--
5	41X0798	1	1	Sensor (compiler stack height)	“Sensor (compiler stack height) removal” on page 1265
6	40X8256	1	1	Motor (compiler stack height)	“Motor (compiler stack height) removal” on page 1263
7	41X0600	1	1	Compiler interface board	“Compiler interface board removal” on page 1263
8	41X0667	1	1	Compiler entrance guide	“Compiler entrance guide removal” on page 1277
9	41X0670	1	1	Compiler gear parts pack	“Compiler gears removal” on page 1281
10	41X0649	1	1	Compiler paddle and exit drive	“Compiler paddle and exit drive removal” on page 1271
11	41X0650	2	1	Compiler exit roller	“Compiler exit roller removal” on page 1273
12	41X0798	1	1	Sensor (compiler paddle)	“Sensor (compiler paddle) removal” on page 1268
13	41X0798	1	1	Sensor (compiler exit cam)	“Sensor (compiler exit cam) removal” on page 1267
14	41X0797	1	1	Motor (compiler exit cam)	“Motor (compiler exit cam) removal” on page 1270
15	41X0690	1	1	Motor (compiler paddle)	“Motor (compiler paddle) removal” on page 1274
16	41X0821	1	1	Knob J7	“Knobs J2 and J7 removal” on page 1027

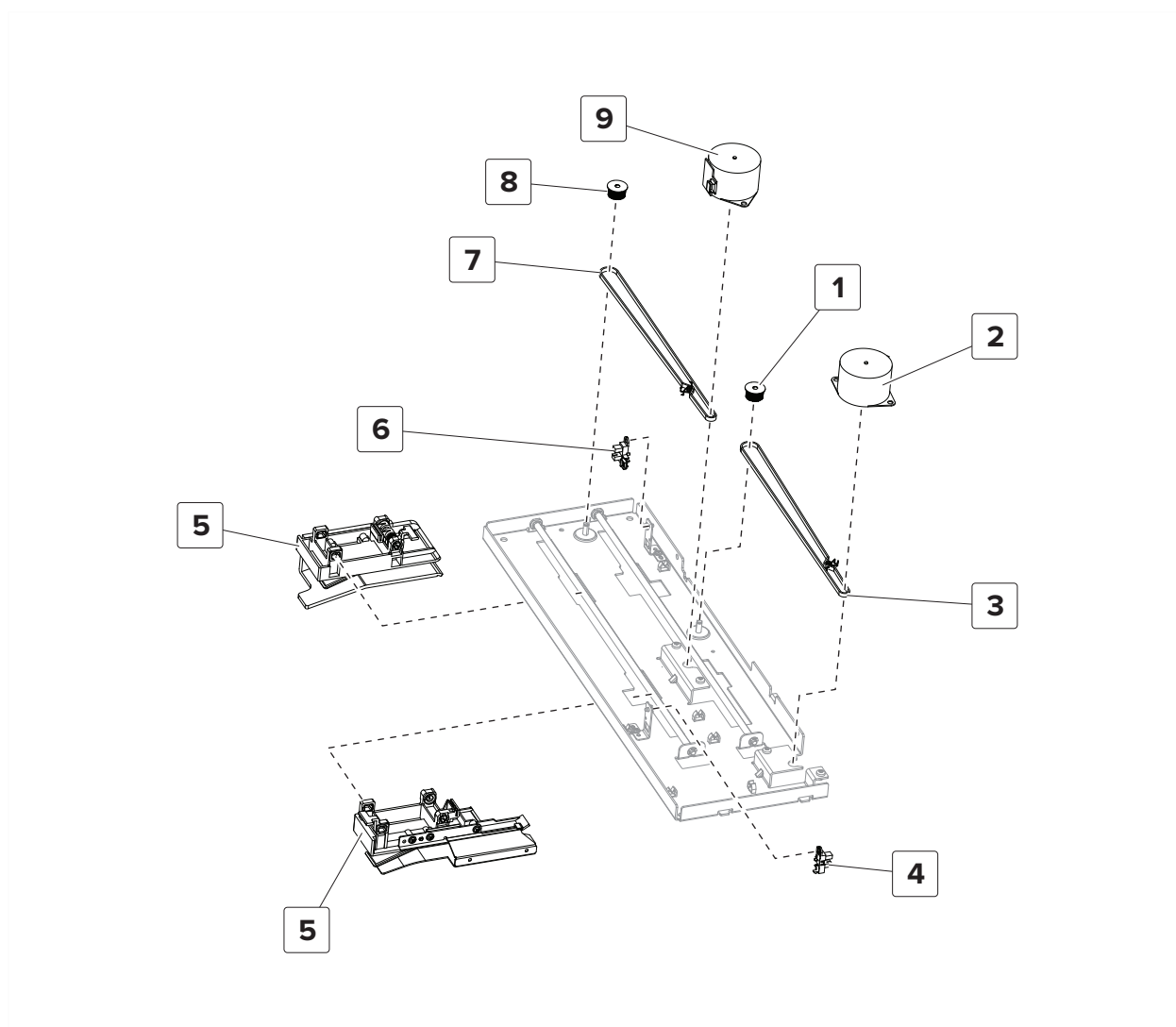
Assembly 69: MSHPF compiler 2



Assembly 69: MSHPF compiler 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0648	1	1	MSHPF compiler tray	“MSHPF compiler tray removal” on page 1285
2	41X0794	1	1	MSHPF compiler tray gear	--
3	41X0709	1	1	Sensor (MSHPF bin clamp)	--
4	40X8213	1	1	Motor (MSHPF bin clamp)	--
5	40X7779	1	1	Sensor (MSHPF compiler paper present)	“Sensor (compiler paper present) removal” on page 1288
6	41X0795	1	1	MSHPF compiler tray cable	--

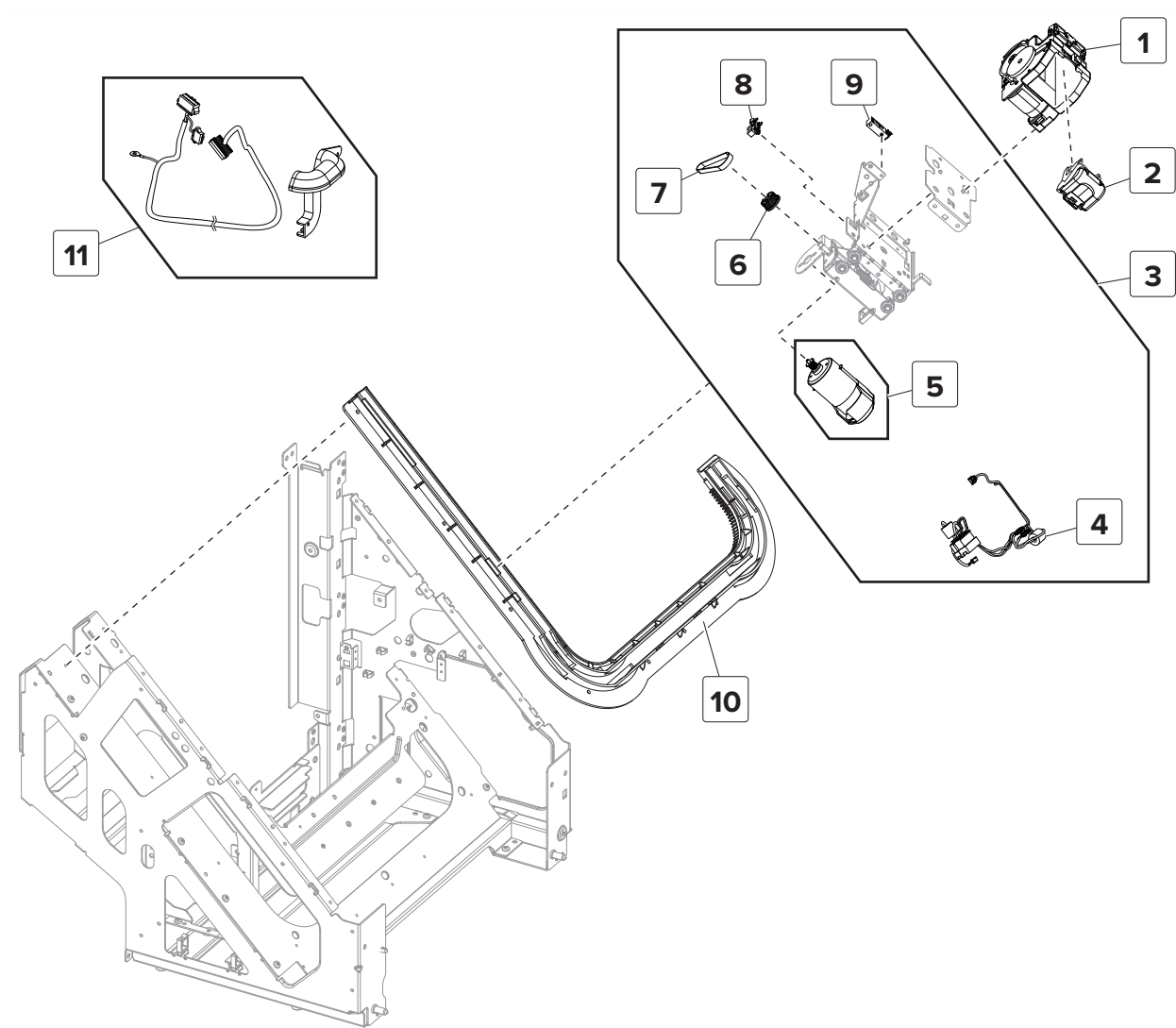
Assembly 70: MSHPF tamper



Assembly 70: MSHPF tamper

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0664	1	1	MSHPF tamper pulley gear	“MSHPF tamper pulley gear removal” on page 1256
2	41X0692	1	1	Motor (MSHPF rear tamper)	“Motor (MSHPF rear tamper) removal” on page 1254
3	41X0661	1	1	MSHPF tamper belt	“MSHPF tamper belt removal” on page 1255
4	41X0798	1	1	Sensor (MSHPF rear tamper)	“Sensor (MSHPF tamper) removal” on page 1258
5	41X0663	1	1	MSHPF tamper	“MSHPF tampers removal” on page 1259
6	41X0798	1	1	Sensor (MSHPF front tamper)	“Sensor (MSHPF tamper) removal” on page 1258
7	41X0661	1	1	MSHPF tamper belt	“MSHPF tamper belt removal” on page 1255
8	41X0664	1	1	MSHPF tamper pulley gear	“MSHPF tamper pulley gear removal” on page 1256
9	41X0692	1	1	Motor (MSHPF front tamper)	“Motor (MSHPF front tamper) removal” on page 1253

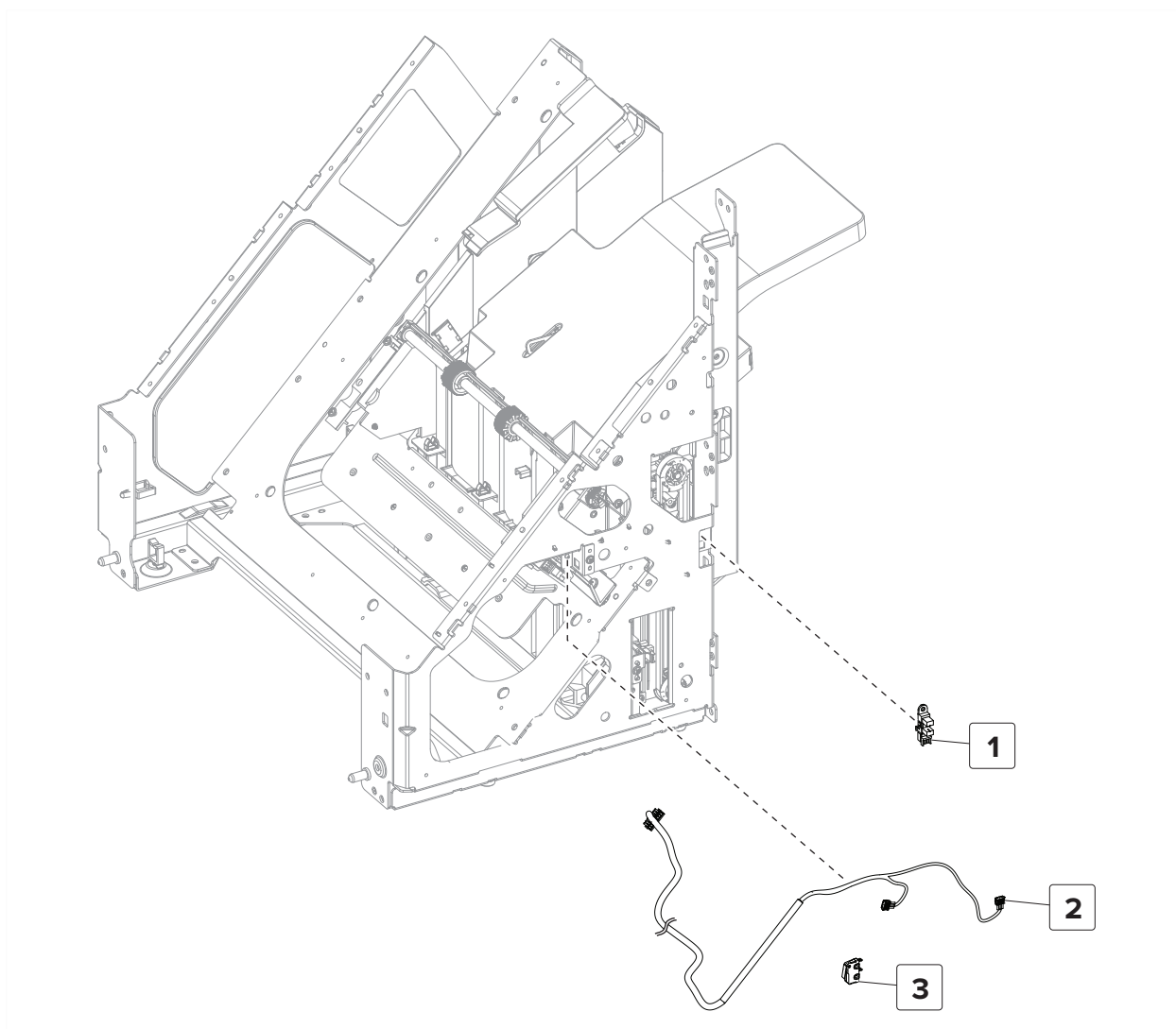
Assembly 71: MSHPF carriage transport



Assembly 71: MSHPF carriage transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0654	1	1	MSHPF staple unit	“MSHPF staple unit removal” on page 1081
2	41X0656	1	1	MSHPF staple cartridge holder	--
3	41X0693	1	1	MSHPF staple unit carriage	“MSHPF staple unit carriage removal” on page 1070
4	41X0659	1	1	Staple unit extension cable	“Staple unit extension cable removal” on page 1084
5	41X0691	1	1	Motor (staple unit carriage)	“Motor (staple unit carriage) removal” on page 1299
6	41X0796	1	1	Staple unit carriage gear	--
7	41X0658	1	1	Staple carriage belt	“Staple unit carriage belt removal” on page 1299
8	41X0709	1	1	Sensor (staple unit position)	“Sensor (MSHPF staple unit position) removal” on page 1073
9	40X7779	1	1	Sensor (MSHPF staple unit paper present)	“Sensor (MSHPF staple unit paper present) removal” on page 1077
10	41X0655	1	1	Carriage rail	--
11	41X0646	1	1	Staple unit cable	“Staple unit cable removal” on page 1301

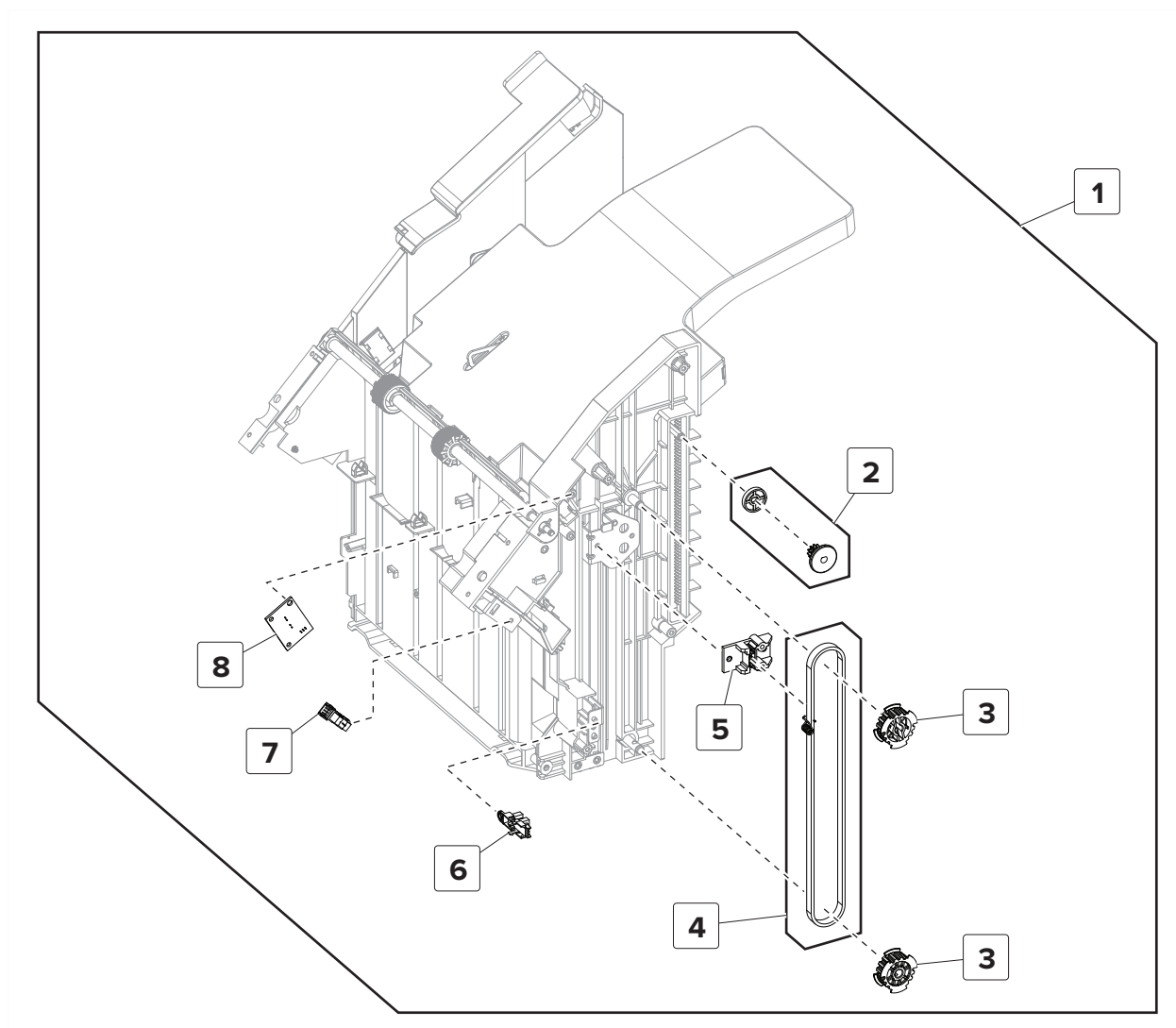
Assembly 72: MSHPF door interlock



Assembly 72: MSHPF door interlock

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0709	1	1	Sensor (MSHPF door interlock)	“Sensor (MSHPF door interlock) removal” on page 1087
2	41X0672	1	1	Door interlock cable	--
3	41X0660	1	1	Switch (MSHPF cartridge door interlock)	“Switch (MSHPF cartridge door interlock) removal” on page 1066

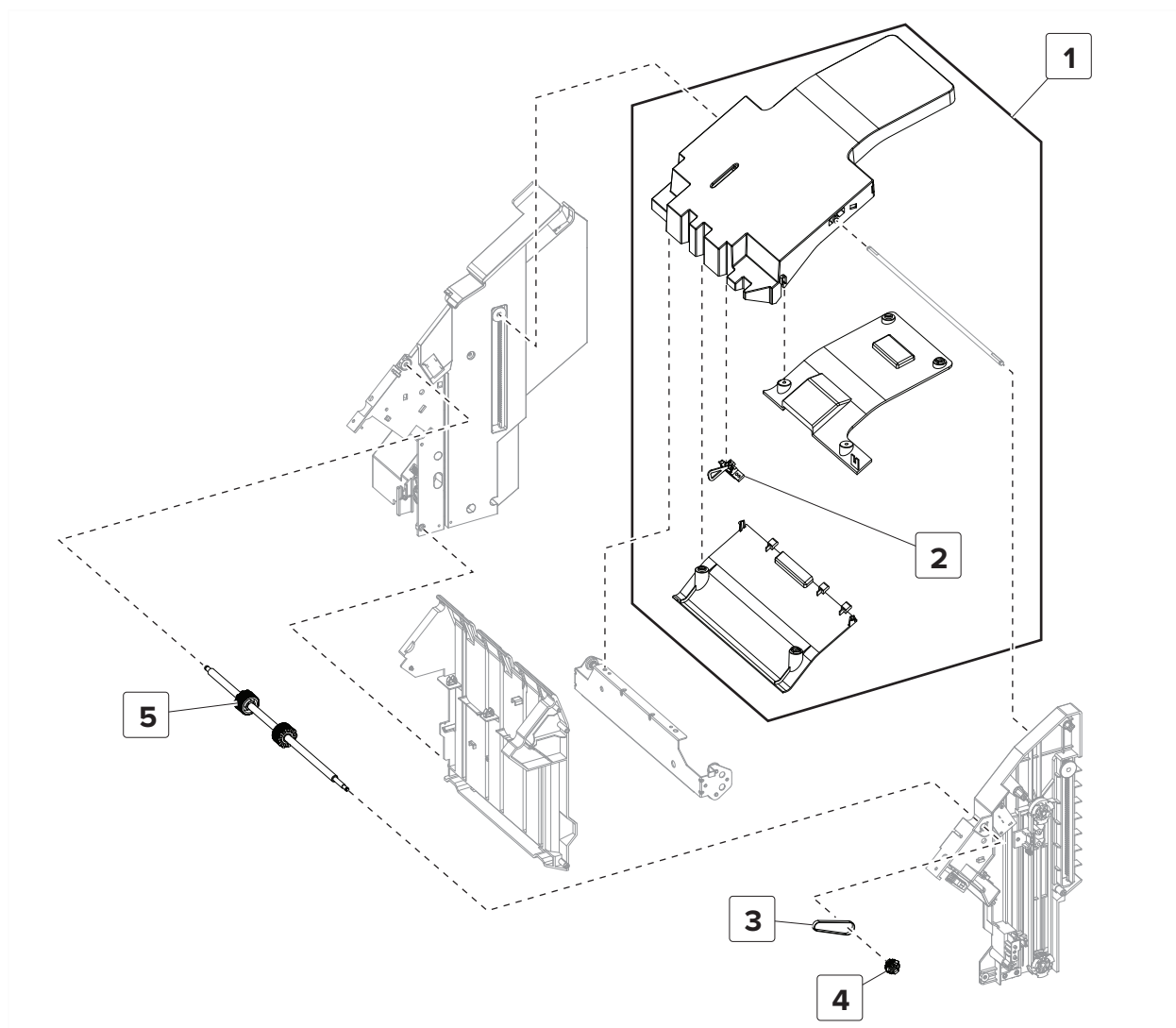
Assembly 73: MSHPF stapler bin 1



Assembly 73: MSHPF stapler bin 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0705	1	1	MSHPF stapler bin assembly	“Stapler bin assembly removal” on page 1308
2	41X0644	1	1	Stapler bin gear	--
3	41X0642	2	1	Stapler bin elevator pulley gear	--
4	41X0641	1	1	Stapler bin elevator belt	--
5	41X0614	1	1	Stapler bin elevator belt holder	--
6	41X0709	1	1	Sensor (stapler bin lower limit)	“Sensor (stapler bin lower limit) removal” on page 1068
7	41X0709	1	1	Sensor (cartridge loading position)	“Sensor (cartridge loading position) removal” on page 1068
8	41X0802	1	1	Sensor (stapler bin stack upper limit), transmitter	“Sensor (stapler bin stack upper limit) removal” on page 1088

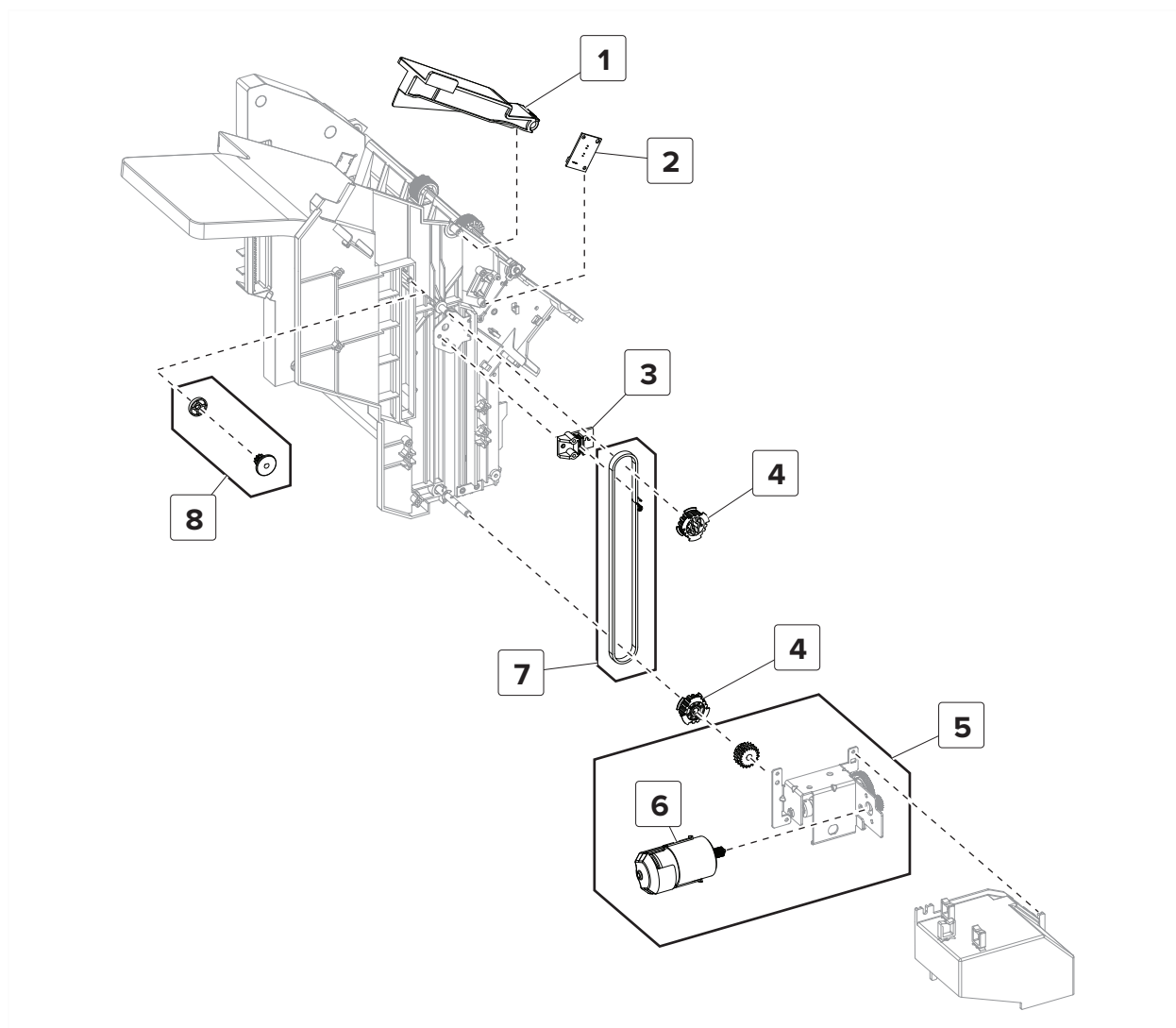
Assembly 74: MSHPF stapler bin 2



Assembly 74: MSHPF stapler bin 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0640	1	1	MSHPF stapler bin	--
2	41X0724	1	1	Sensor (stapler bin paper present)	--
3	41X0799	1	1	Stapler bin lower exit roller belt	“Stapler bin lower exit roller belt removal” on page 1276
4	41X0652	1	1	Stapler bin lower exit roller pulley gear	“Stapler bin lower exit roller pulley gear removal” on page 1276
5	41X0651	1	1	Stapler bin lower exit roller	“Stapler bin lower exit roller removal” on page 1290

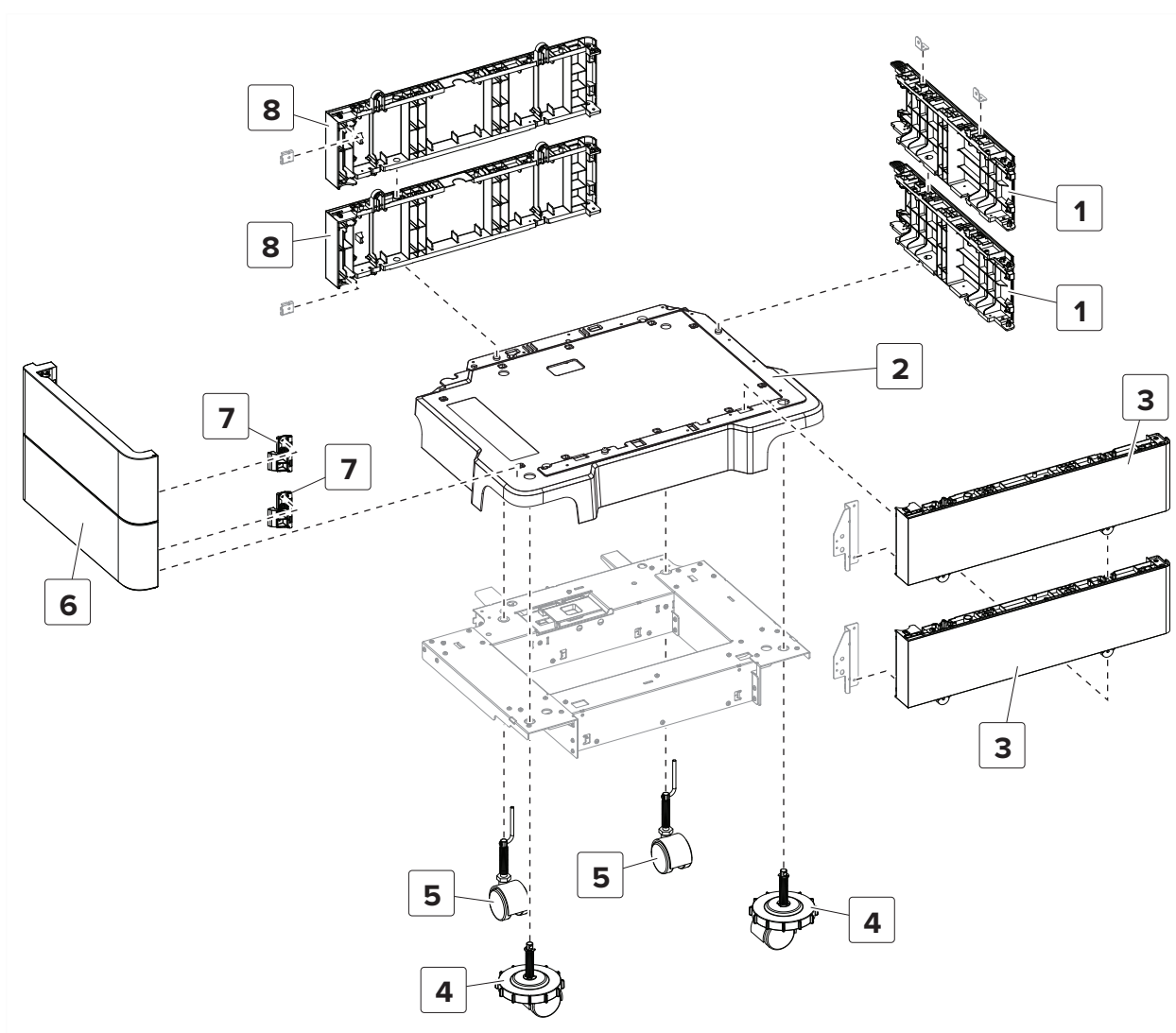
Assembly 75: MSHPF stapler bin 3



Assembly 75: MSHPF stapler bin 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0801	1	1	Stapler bin guide	--
2	41X0802	1	1	Sensor (stapler bin stack upper limit), receiver	“Sensor (stapler bin stack upper limit) removal” on page 1088
3	41X0614	1	1	Stapler bin elevator belt holder	--
4	41X0642	2	1	Stapler bin elevator pulley gear	--
5	41X0800	1	1	Stapler bin elevator drive	“Stapler bin elevator drive removal” on page 1295
6	41X0803	1	1	Motor (stapler bin elevator)	“Motor (stapler bin elevator) removal” on page 1292
7	41X0641	1	1	Stapler bin elevator belt	--
8	41X0644	1	1	Stapler bin gear	--

Assembly 76: MSHPF cabinet



Assembly 76: MSHPF cabinet

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0939	2	1	Cabinet rear cover	“Cabinet lower covers removal” on page 1325
2	41X0940	1	1	Cabinet bottom cover	“Cabinet lower covers removal” on page 1325
3	41X0941	2	1	Cabinet side covers	“Cabinet lower covers removal” on page 1325
4	41X0942	2	1	Cabinet right wheels	“Cabinet right wheel removal” on page 1319
5	41X0943	2	1	Cabinet left wheels	“Cabinet left wheel removal” on page 1320
6	41X0944	1	1	Cabinet door	“Cabinet door removal” on page 1316
7	41X0682	2	1	Cabinet door hinge	“Cabinet door hinge removal” on page 1317
8	41X0941	2	1	Cabinet side covers	“Cabinet lower covers removal” on page 1325
NS	41X0945	1	1	Cabinet door, tall	--
NS	41X0947	1	1	MSHPF lock button	--
NS	41X0985	1	1	MSHPF lock latch	--
NS	41X1034	1	1	Cabinet height conversion kit includes: <ul style="list-style-type: none"> • 2 cabinet side covers • cabinet rear cover • cabinet door, short 	--

Assembly 77: Miscellaneous, MSHPF

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0602	1	1	MSHPF staging cables	--
NS	41X0608	1	1	Parts pack, MSHPF standard bin and exit cables	--
NS	41X0657	1	1	Parts pack, MSHPF stapler bin cables includes: <ul style="list-style-type: none"> • MSHPF stapler bin full sensor cable • MSHPF stapler bin sensor cable • MSHPF stapler bin paper present sensor cable • MSHPF stapler bin elevator motor cable 	“MSHPF cable locations” on page 1391
NS	41X0665	1	1	Parts pack, MSHPF tamper and compiler tray cables	--
NS	41X0728	1	1	Parts pack, mailbox cables	--
NS	41X0735	1	1	Parts pack, HPT cables	--
NS	41X0946	1	1	Parts pack, MSHPF stand brackets	--
NS	41X0948	1	1	Parts pack, MSHPF stand screws	--
NS	41X0981	1	1	Parts pack, MSHPF screws	--

Printer specifications

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

Note: Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	One-sided: 825 (CX825), 870 (CX860); Two-sided: 775 (CX825), 820 (CX860)
Copy	The product is generating hard-copy output from hard-copy original documents.	650
Scan	The product is scanning hard-copy documents.	110 (CX825); 115 (CX860)
Ready	The product is waiting for a print job.	Higher power usage: 125 (CX825), 125 (CX860); Lower power usage: 85 (CX825), 81 (CX860)
Sleep Mode	The product is in a high-level energy-saving mode.	3.4 (CX825); 3.3 (CX860)
Hibernate	The product is in a low-level energy-saving mode.	0.3
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change. See www.lexmark.com for current values.

Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product—1 minute

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate Mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes

Factory default Hibernate Timeout for this product in all countries or regions—3 days

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to calculate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020

Per Commission Regulation (EU) 2019/2015 and (EU) 2019/2020, the light source contained within this product or its component is intended to be used for Image Capture or Image Projection only, and is not intended for use in other applications.

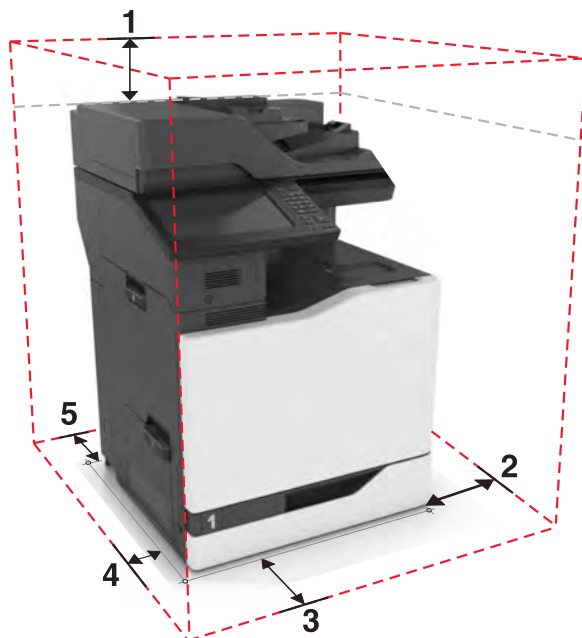
Selecting a location for the printer

When selecting a location for the printer, leave enough room to open trays, covers, and doors. If you plan to install any options, then leave enough room for them also. It is important to:

- Set up the printer near a properly grounded and easily accessible electrical outlet with correct voltage and current capability.
- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
 - Clean, dry, and free of dust.
 - Away from stray staples and paper clips.
 - Away from the direct airflow of air conditioners, heaters, or ventilators.
 - Free from direct sunlight and humidity extremes.
- Observe the recommended temperatures and avoid fluctuations:

Ambient temperature	10 to 32.2°C (50 to 90°F)
Storage temperature	-40 to 43.3°C (-40 to 110°F)

- Allow the following recommended amount of space around the printer for proper ventilation:



1	Top	458 mm (18 in.)
2	Right side	432 mm (17 in.)
3	Front	380 mm (14.9 in.)
4	Left side	100 mm (3.9 in.)
5	Rear	150 mm (5.9 in.)

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

Note: Some modes may not apply to your product.

Mode	1-meter average sound pressure, dBA
Printing	One-sided: 55 (mono), 56 (color); Two-sided: 57 (mono), 57 (color)
Scanning	56 (CX825); 55 (CX860)
Copying	58 (mono); 59 (color)
Ready	16 (CX825); 14 (CX860)

Values are subject to change. See www.lexmark.com for current values.

Temperature information

Ambient operating temperature	10 to 32.2°C (50 to 90°F)
Shipping temperature	-40 to 43.3°C (-40 to 110°F)
Storage temperature and relative humidity	-40 to 43.3°C (-40 to 110°F) 8 to 80% RH

Enabling the security reset jumper

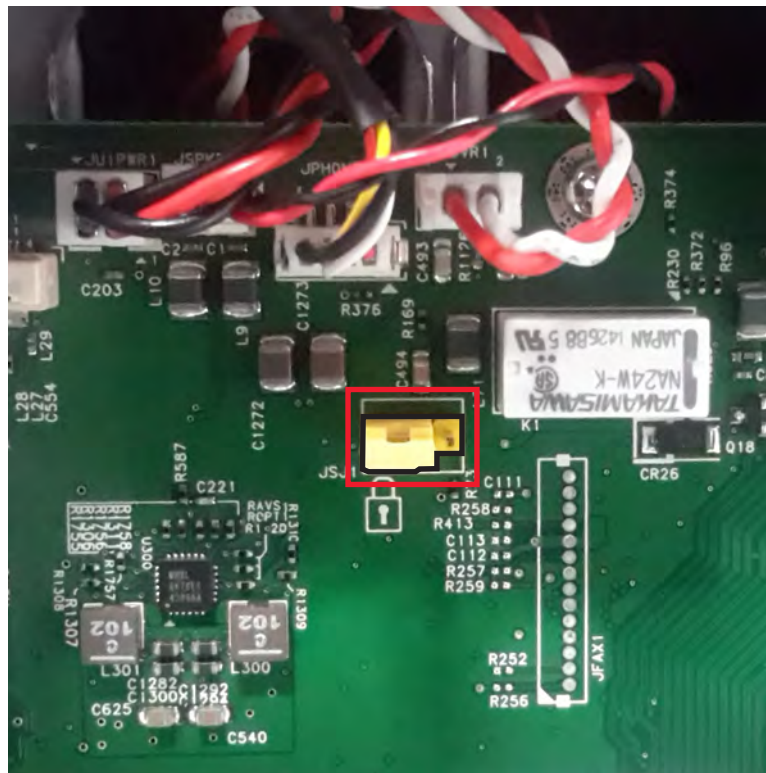
Notes:

- Before changing the security settings, ask for permission from your administrator.
- Resetting the printer deletes all security settings.
- For MFPs, replacing the controller board deletes all security settings.
- If LDAP is used to authenticate the copy function in MFPs, then the LDAP configuration and copy function are no longer protected.
- To prevent the tampering of the jumper, secure the controller board cage with a Kensington lock. To disable the effect of the jumper reset, select **No Effect** from the Security Reset Jumper Setting section in the Security menu.
- If Enable Audit is activated from the Security Audit Log section in the Security menu, then the printer logs a message each time the jumper is reset.

To reset the jumper:

- 1 Turn off the printer.
- 2 Access the controller board.
- 3 Locate the jumper on the controller board.

Note: The jumper is located next to a lock icon on the controller board.



4 Move the jumper to cover the middle and exposed prongs.

Note: The movement of the jumper triggers the reset, not the jumper position.

5 Turn on the printer.

Options and features

Some of the options may not be available in every country or region.

Available internal options

- Memory card
 - DDR3 DIMM
 - Flash memory
 - Fonts
 - Application cards
 - Forms and Bar Code
 - PRESCRIBE
 - IPDS
- Lexmark Internal Solutions Port (ISP)
 - MarkNet™ N8360 (802.11 b/g/n/a wireless print server bundled with LEX-M06-001 Mobile Solutions Module)
 - IEEE 1284-B Parallel Card
 - RS-232C Serial Card

Input/output configurations and capacities

Input sources

Printer model	Number of standard trays	Maximum number of optional trays	Maximum number of trays*
CX820de, CX827de	2	4	6
CX820dtfe	4	4	6
CX825de/CX860de	2	4	6
CX825dte/CX860dte	4	4	6
CX825dtfe/CX860dtfe	2	4	6

* Maximum of four optional trays are supported at one time.

Input capacities

Printer model	550-sheet trays	Multipurpose feeder	Total standard capacity	Maximum input capacity
CX820de, CX827de	550	100	650	4500
CX820dtfe	1650	100	1750	4500
CX825de/CX860de	550	100	650	4500

Printer model	550-sheet trays	Multipurpose feeder	Total standard capacity	Maximum input capacity
CX825dte/CX860dte	1650	100	1750	4500
CX825dtfe/CX860dtfe	1650	100	1750	4500

Output capacities*

Printer model	Standard bin (printer top)	Standard bin with staple finisher installed	Multiposition staple, hole punch finisher (unstapled)	Maximum output capacity ¹
CX820de, CX827de	500	300	N/A	500
CX820dtfe	300	300	N/A	300
CX825de/CX860de	500	300	1950 ²	1950 ²
CX825dte/CX860dte	500	300	1950 ²	1950 ²
CX825dtfe/CX860dtfe	300	300	N/A	N/A

¹ Only one output option can be installed.
² This requires installation of MSHPF.

Input capacity by paper and source

Source	Paper	Stack height	Approximate reference capacity
550-sheet tray ^b	Plain paper ^a	59 mm (2.32 in.)	550 sheets (75 g/m ²)
	Labels	236 mm (9.29 in.)	200 labels Note: Capacity varies with label material and construction.
Optional 2200-sheet tray ^b	Plain paper ^a	236 mm (9.29 in.)	2200 sheets (75 g/m ²)
	Labels	236 mm (9.29 in.)	800 labels (75 g/m ²) Note: Capacity varies with label material and construction.

^a 20 lb xerographic paper at ambient environment.
^b Capacity may vary and is subject to media specifications and printer operating environment.

Source	Paper	Stack height	Approximate reference capacity
Multipurpose feeder ^b	Plain paper ^a	11 mm (.43 in.)	100 sheets (75 g/m ²)
	Envelopes	11 mm (.43 in.)	10 envelopes (75 g/m ²)
	Other	11 mm (.43 in.)	Various quantities Note: Capacity varies depending on weight and type of media.
^a 20 lb xerographic paper at ambient environment. ^b Capacity may vary and is subject to media specifications and printer operating environment.			

Output capacity by paper and source

Source	Paper	Stack height	Approximate reference capacity
Standard bin ^{a,b}	Plain paper ^a	68 mm (2.68 in.)	550 sheets (75 g/m ²)
	Labels	68 mm (2.68 in.)	200 labels Note: Capacity varies with label material and construction.
	Envelopes	68 mm (2.68 in.)	50 envelopes (75 g/m ²)
^a 20 lb xerographic paper at ambient environment. ^b Capacity may vary and is subject to media specifications and printer operating environment.			

Source	Paper	Stack height	Approximate reference capacity
Standard bin with staple finisher installed ^{a,b}	Plain paper ^a	40 mm (1.57 in.)	300 sheets (75 g/m ²)
	Labels	40 mm (1.57 in.)	120 labels (75 g/m ²) Note: Capacity varies with label material and construction.
	Envelopes	40 mm (1.57 in.)	30 envelopes (75 g/m ²)
Staple finisher ^{a,b}	Plain paper ^a (stapled sheets)	40 mm (1.57 in.)	300 sheets (75 g/m ²)
^a 20 lb xerographic paper at ambient environment. ^b Capacity may vary and is subject to media specifications and printer operating environment.			

Physical specifications (input options)

Item	Height	Width	Depth
550-sheet tray (installed)	120 mm (4.72 in.)	558.8 mm (22 in.)	522.4 mm (20.6 in.)
2200-sheet tray (installed)	359 mm (14.13 in.)	558.8 mm (22 in.)	522.4 mm (20.6 in.)

Output options supported

- Mailbox
- Staple finisher
- Multiposition staple, hole punch finisher

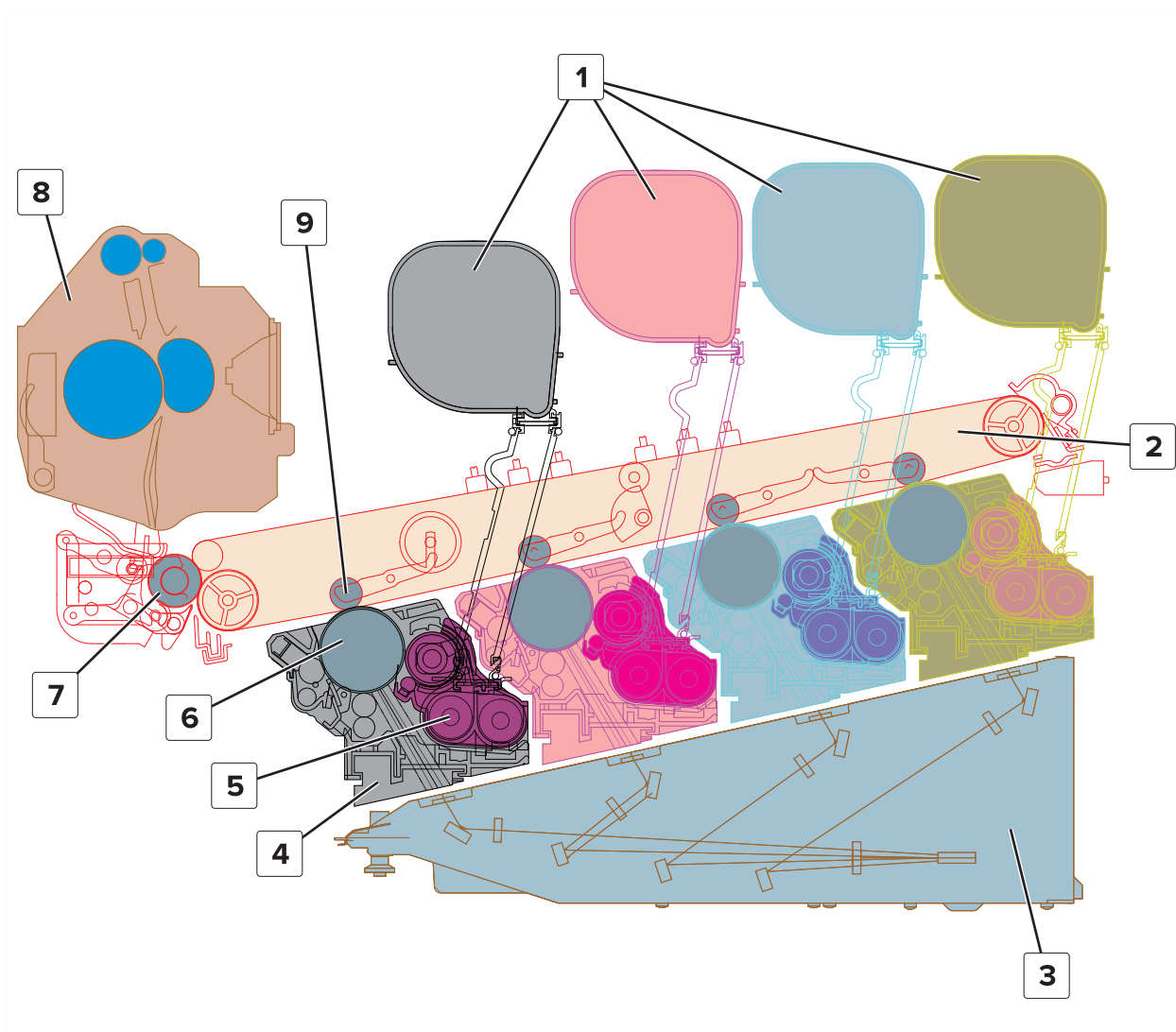
Theory of operation

POR sequence

As the printer is turned on, the engine code goes through a series of tests to verify hardware integrity. If a hardware failure is detected, then it is reported to the printer. If the POR sequence cannot be completed successfully, then the printer may post an error message. The message states that service may be needed.

Print cycle operation

Print engine layout

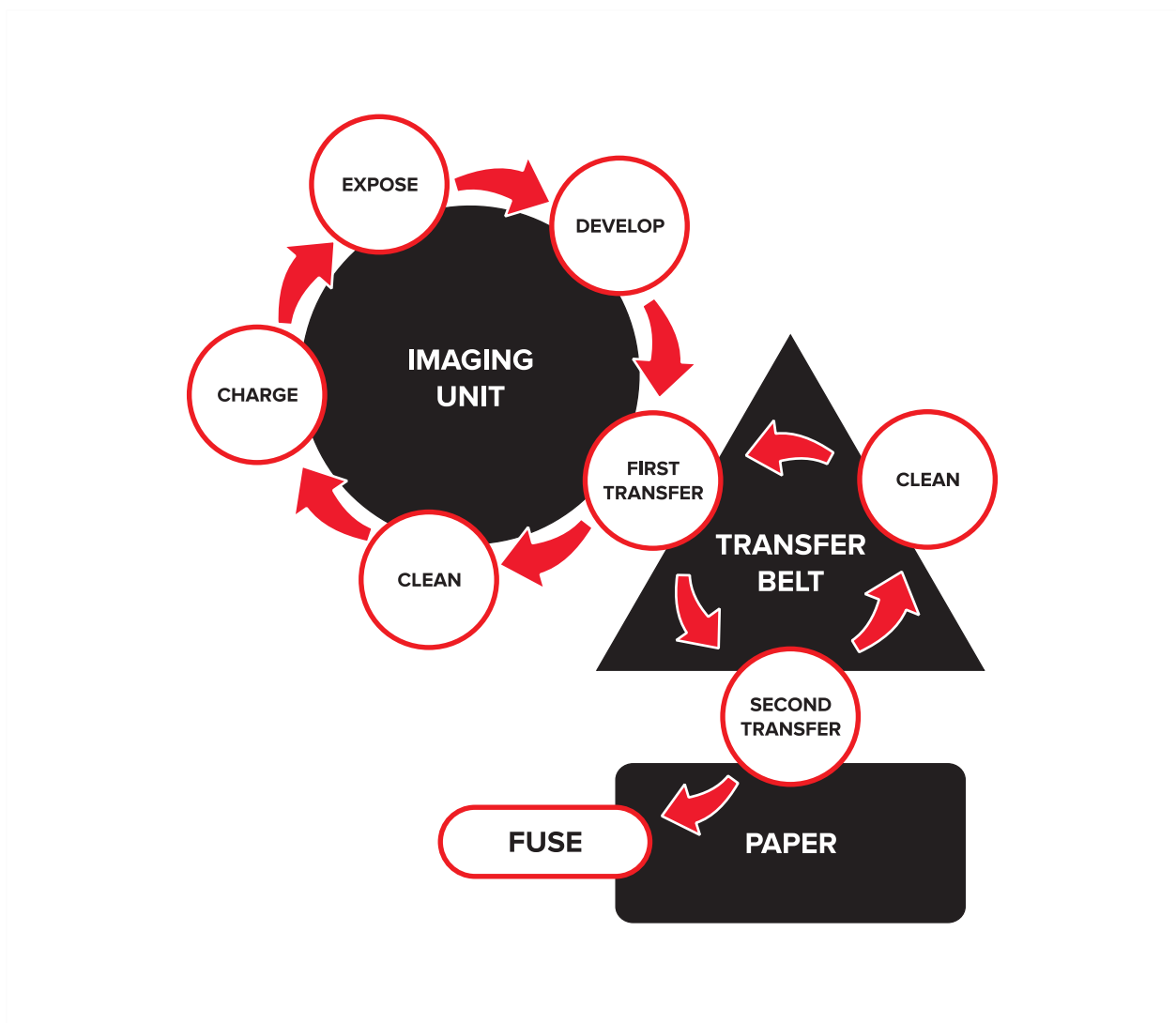


1	Toner cartridges (K, M, C, Y)
2	Transfer belt

3	Printhead
4	Imaging unit
5	Developer unit
6	Photoconductor unit
7	Second transfer roller
8	Fuser
9	First transfer roller

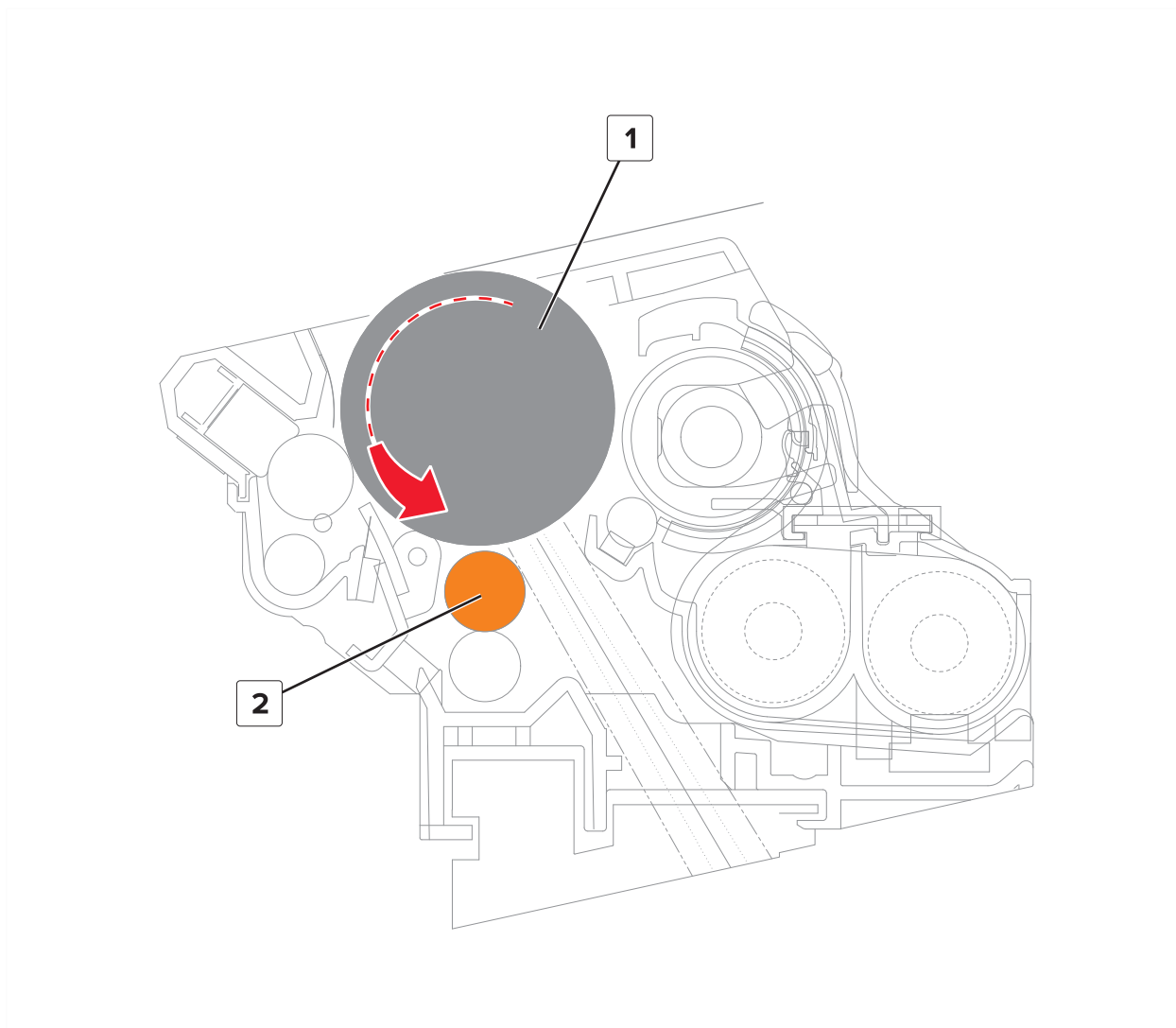
Electrophotographic (EP) process

Flowchart



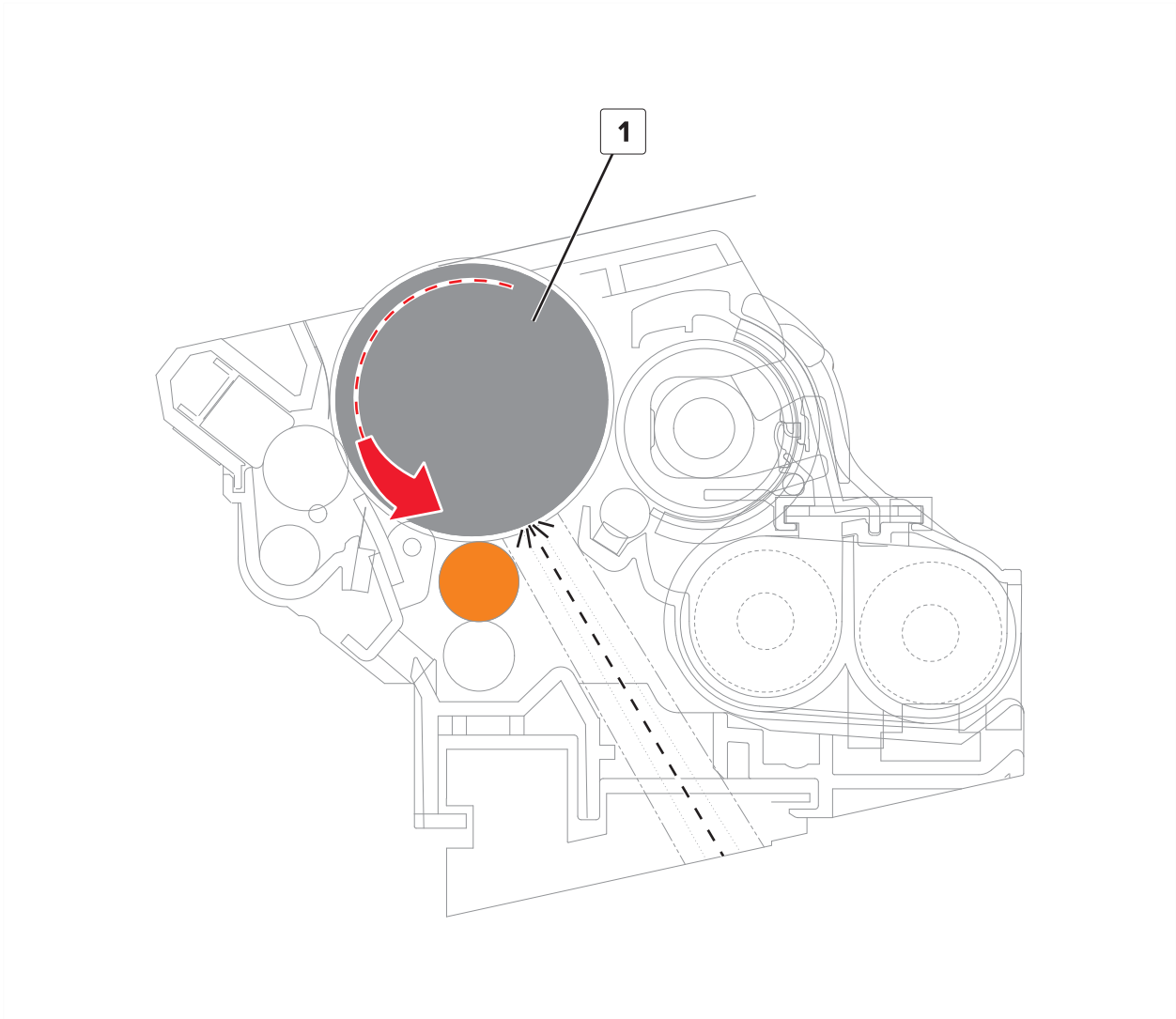
Theory of operation

Charge



1	Photoconductor drum
2	Charge roller

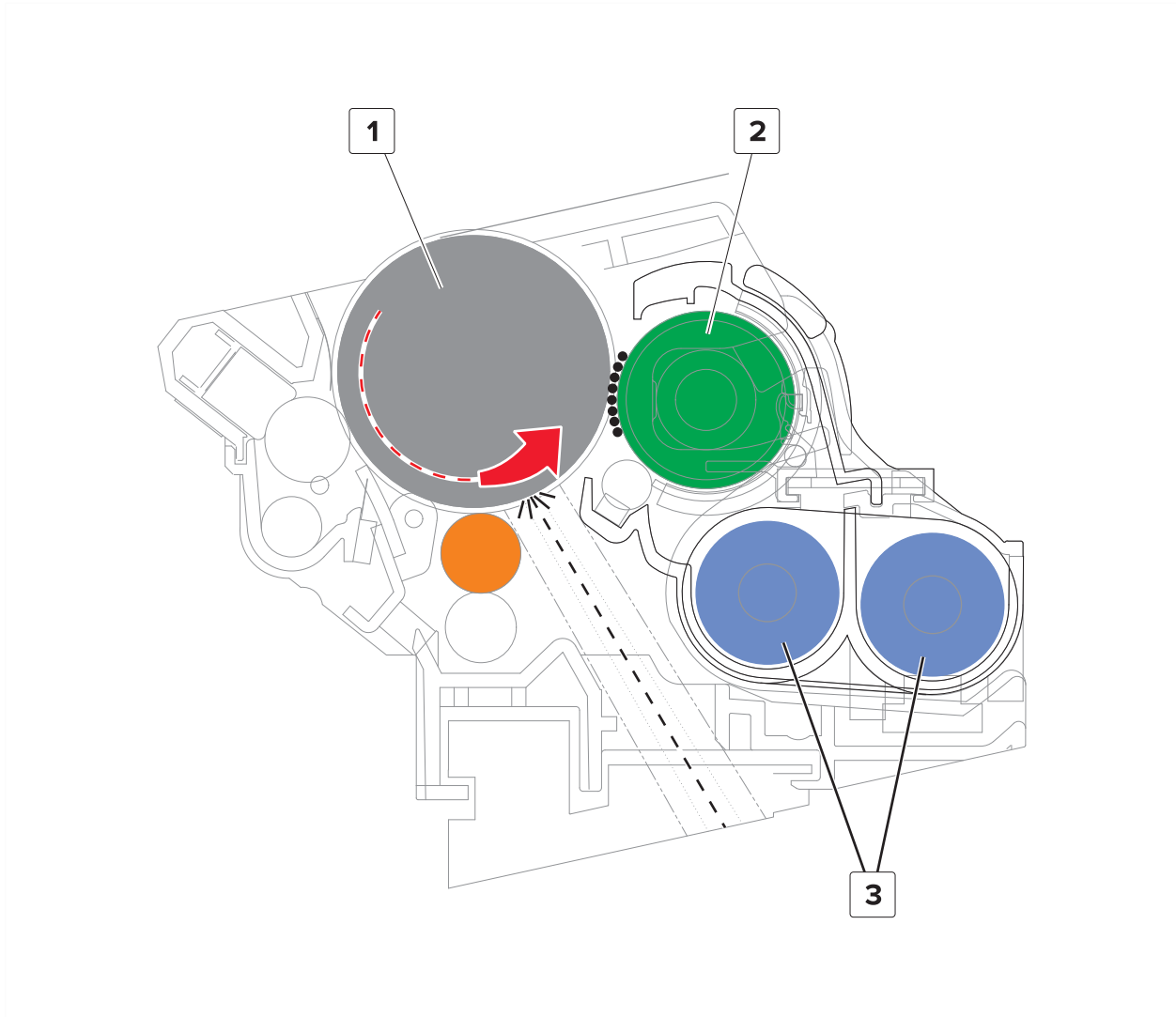
A uniform negative electrical charge is applied by the charge roller to the surface of the photoconductor drum. The photoconductive properties of the surface material allow it to hold the charge as long as it is not exposed to light.

Expose

1	Photoconductor drum
---	---------------------

The printhead emits the light that contacts the surface of the photoconductor drum. The light turns on or off coinciding with the digital latent image. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

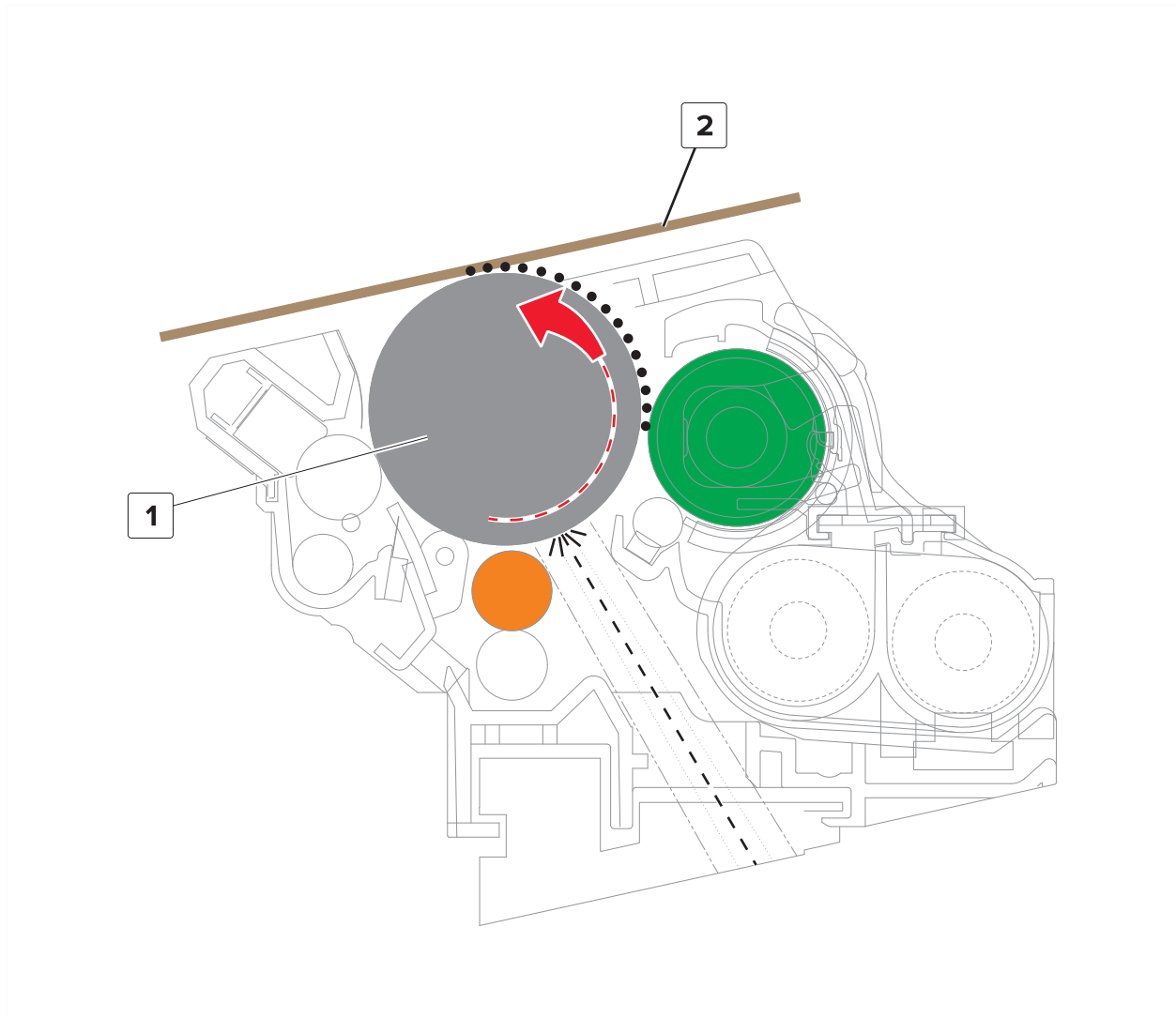
Develop



1	Photoconductor drum
2	Developer roller
3	Augers

The developer unit applies the toner from the toner cartridge to the photoconductor drum. The difference in charge causes the toner particles to attract to the photoconductor drum areas which are exposed to light.

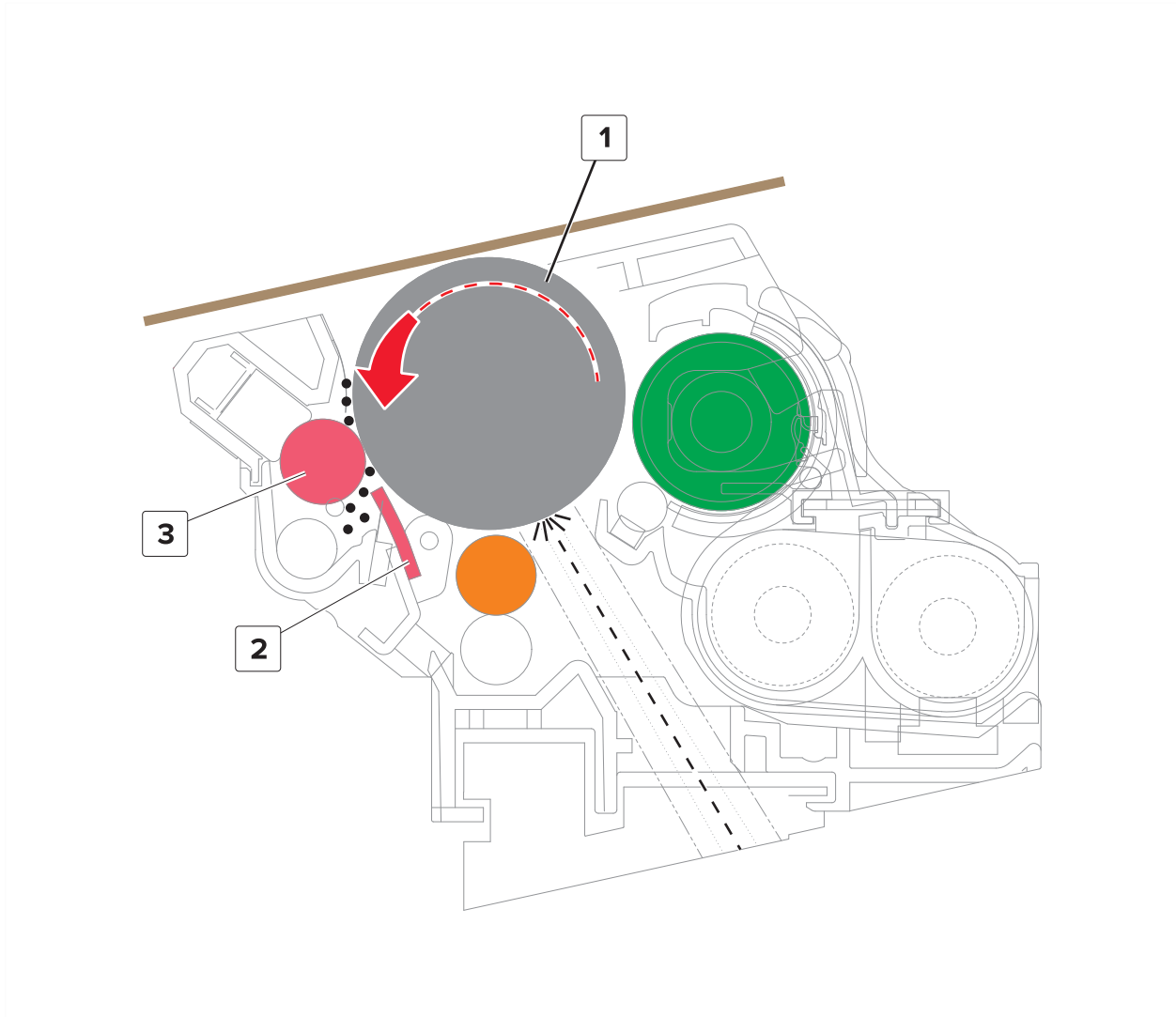
First transfer



1	Photoconductor drum
2	Transfer belt

The developed image transfers from the photoconductor drum to the transfer belt. Due to relative opposite polarities, the transfer belt pressed against the photoconductor drum attracts the toner onto its surface.

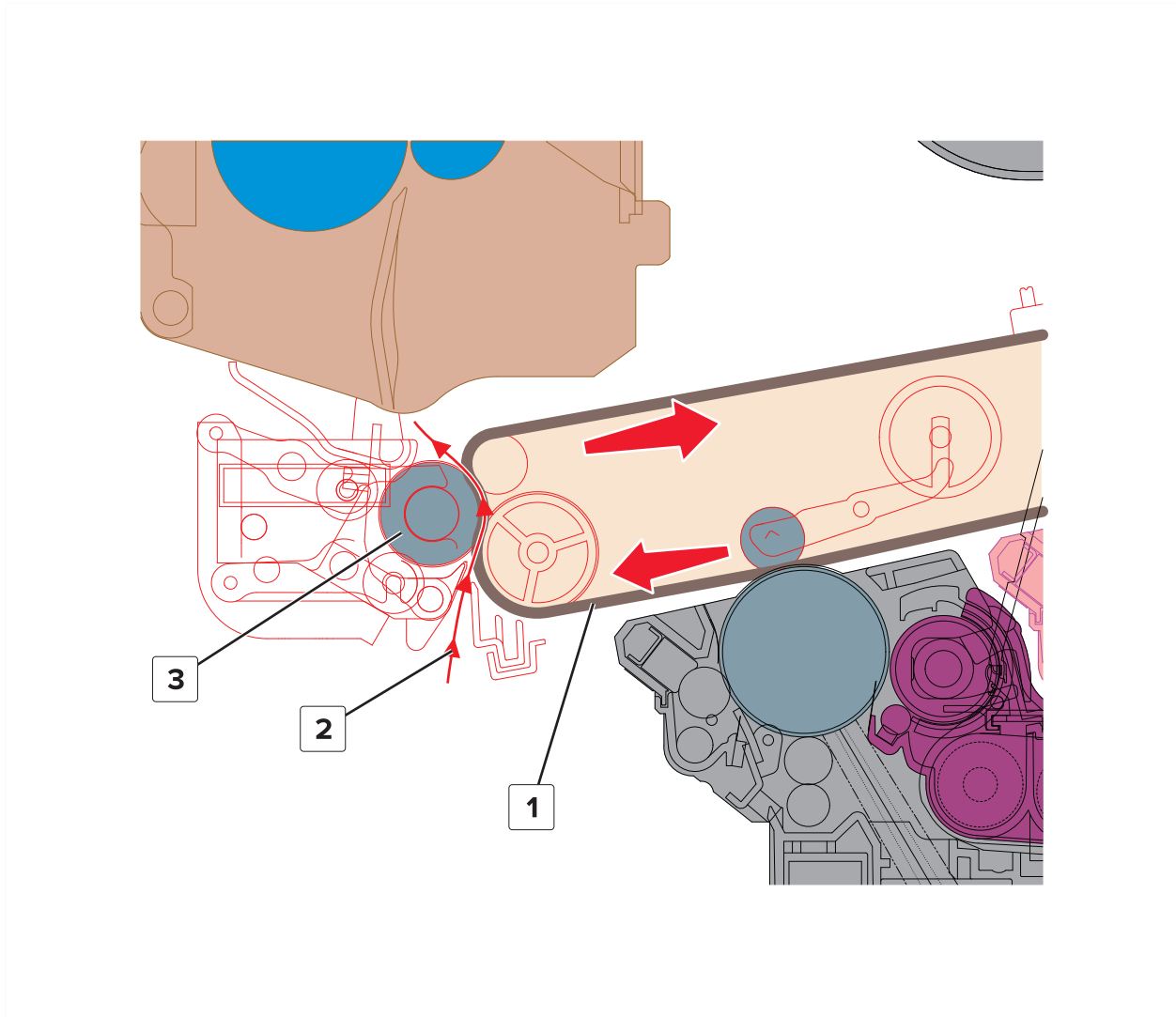
Clean (photoconductor)



1	Photoconductor drum
2	Cleaning blade
3	Brush roller

The brush roller and the cleaning blade remove the toner residue from the photoconductor drum. The cycle (charge, expose, develop, first transfer, clean) repeats until the whole image is transferred to the transfer belt.

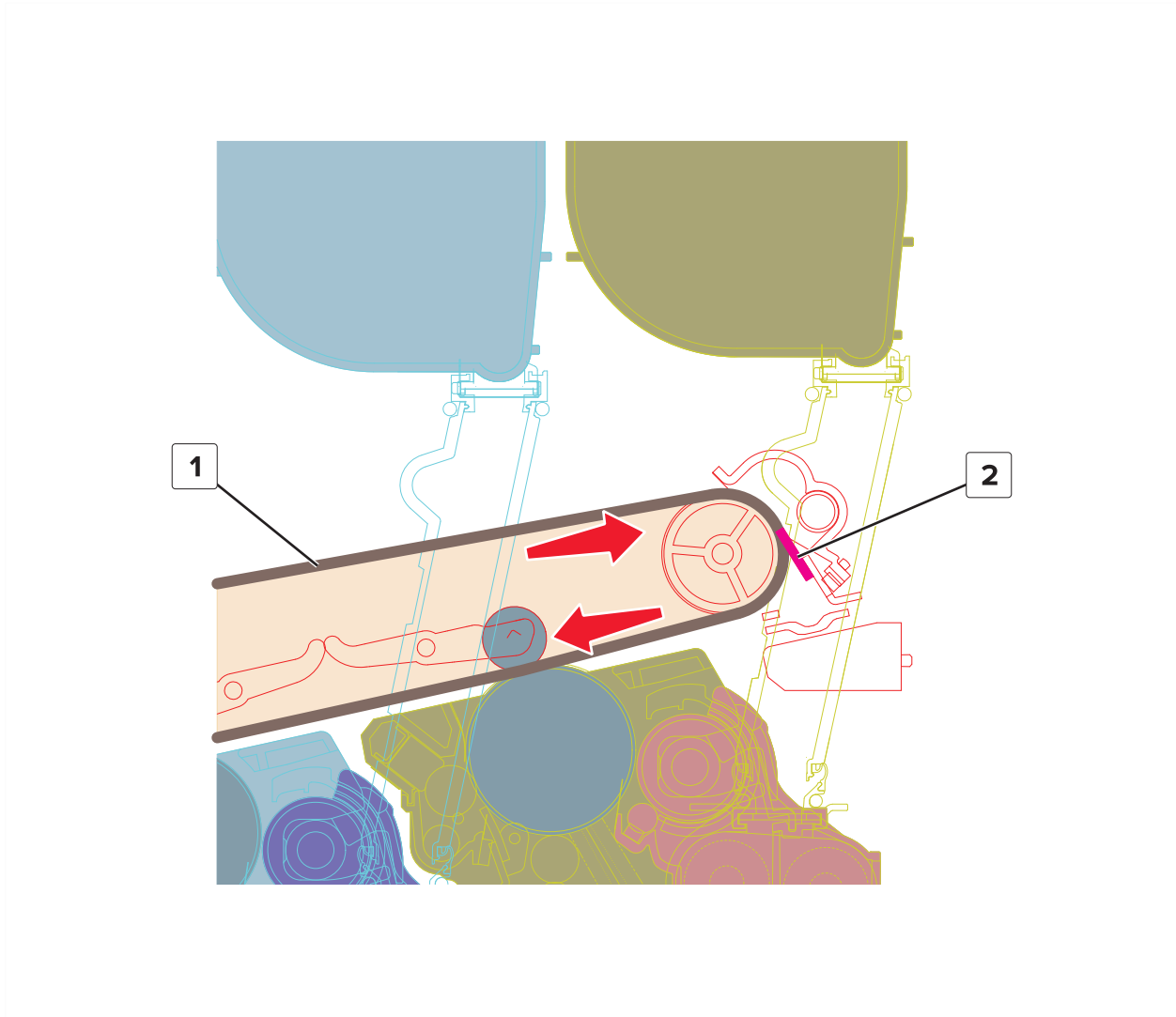
Second transfer



1	Transfer belt
2	Paper
3	Second transfer roller

The whole image from the transfer belt is transferred again, this time onto the paper. The paper, which is pressed between the transfer belt and transfer roller, attracts the toner to its surface.

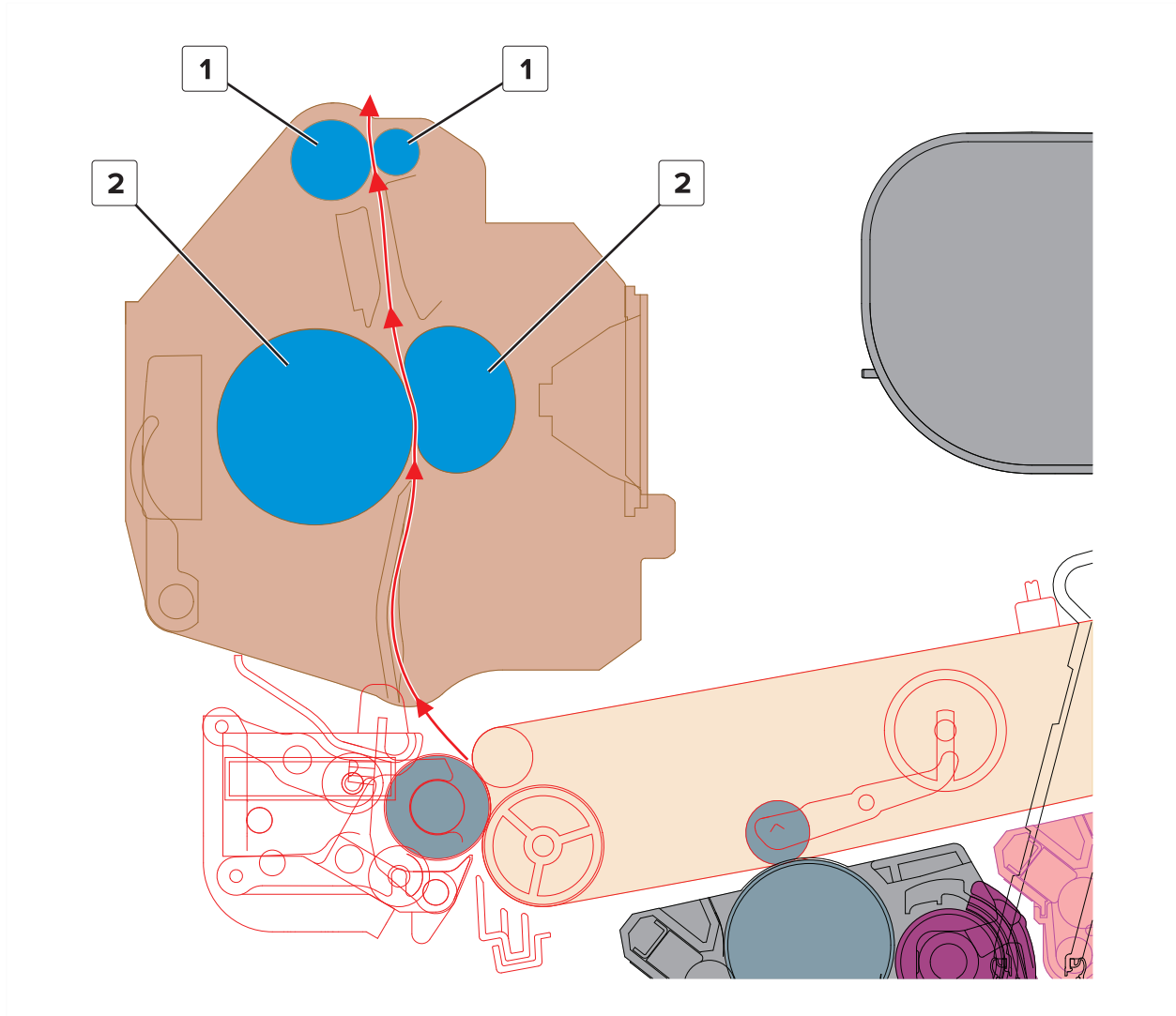
Clean (transfer belt)



1	Transfer belt
2	Cleaning blade

Some residual toner remains applied to the surface of the transfer belt. To prevent contamination on the next image, a cleaning blade scrapes off the toner from the transfer belt surface. Waste toner from the transfer belt and photoconductor drum is transported to the waste toner bottle. The cycle (first transfer, second transfer, clean) repeats for the succeeding print jobs.

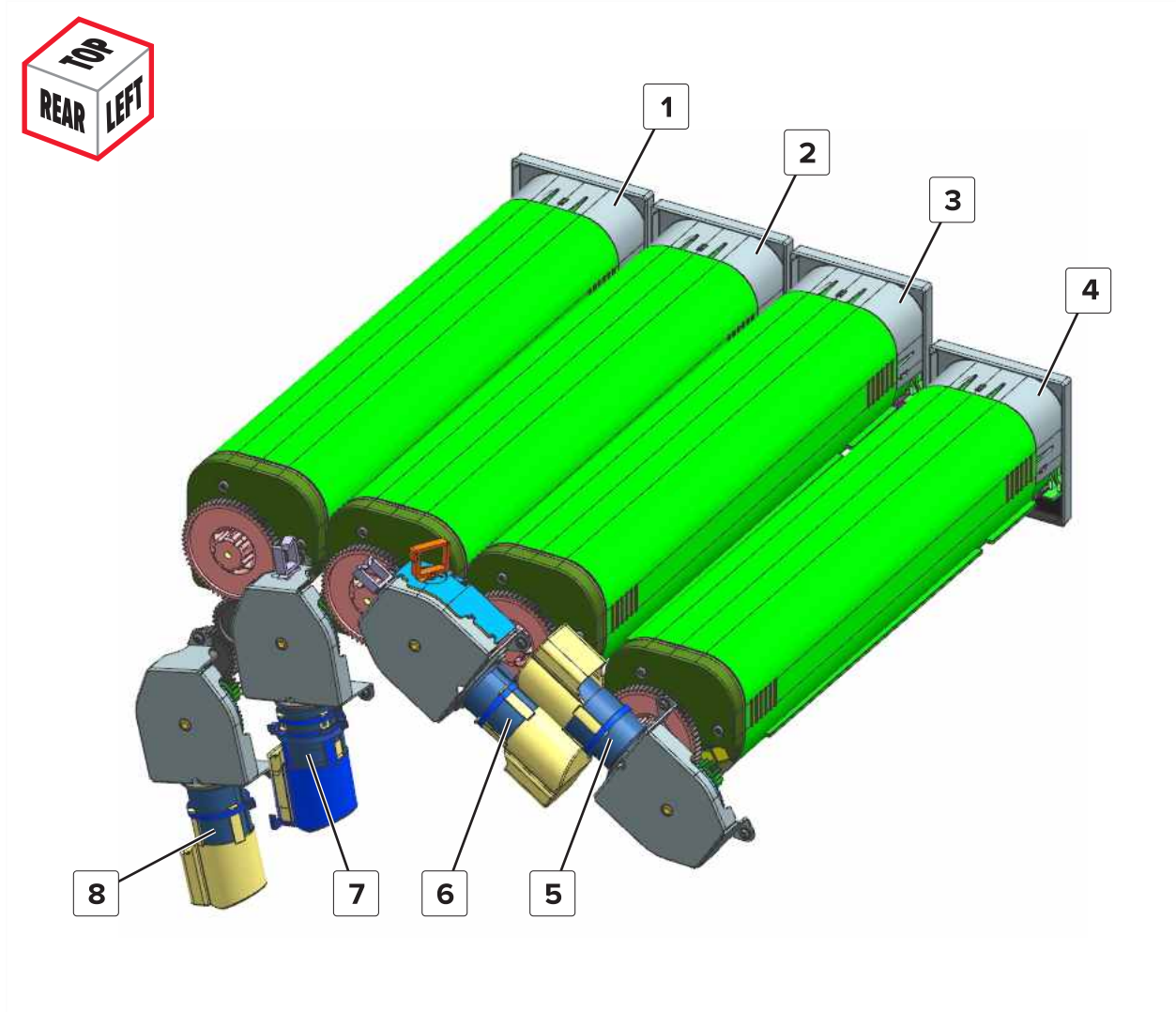
Fuse



1	Decurler rollers
2	Fuser rollers

Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. For the final part of printing, the paper is transported to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing the print process. The print cycle repeats for the succeeding pages.

Fresh toner delivery drive

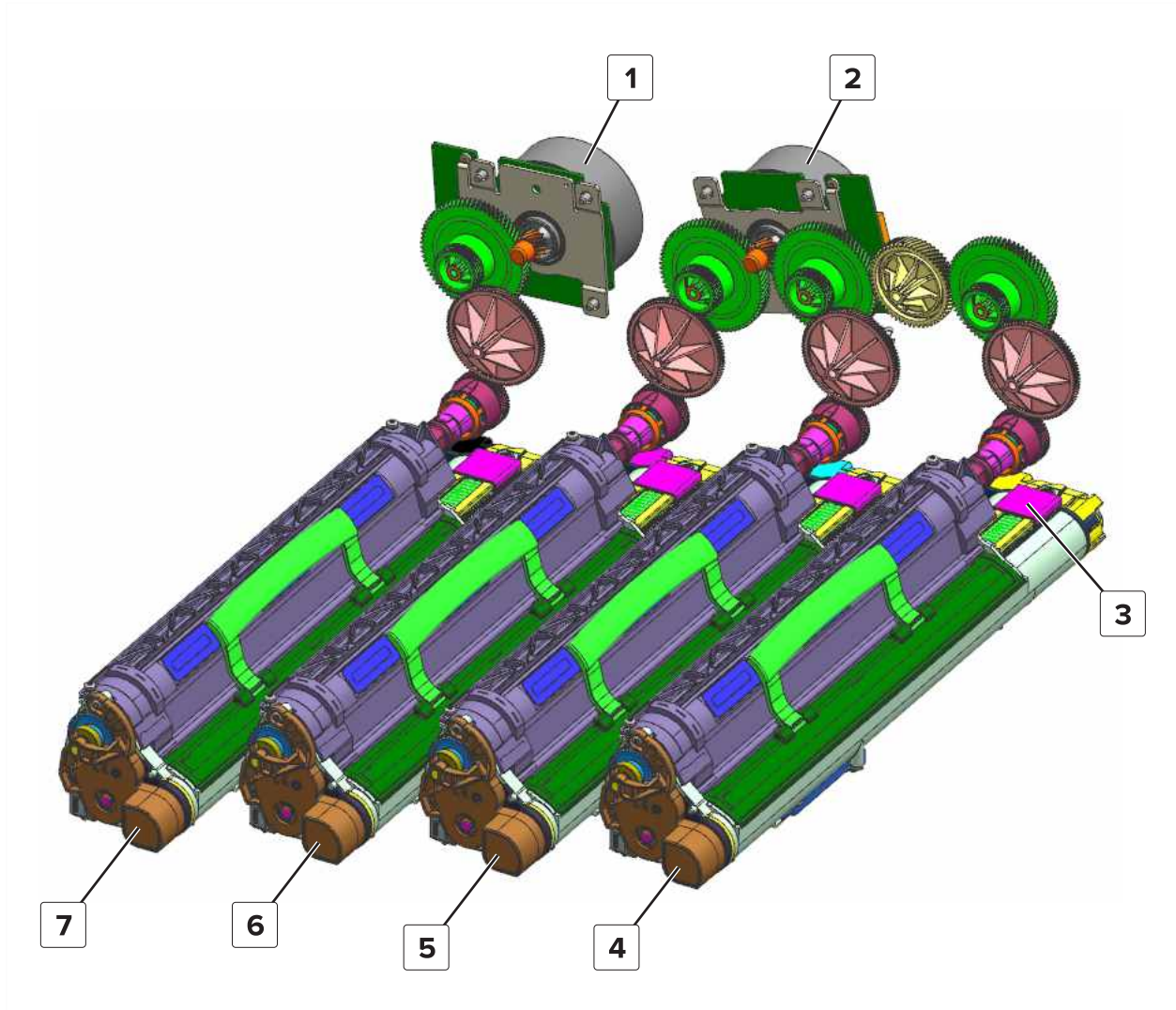


1	Toner cartridge (Y)
2	Toner cartridge (C)
3	Toner cartridge (M)
4	Toner cartridge (K)
5	Motor (K toner add)
6	Motor (M toner add)
7	Motor (C toner add)
8	Motor (Y toner add)

Toner cartridges supply fresh toner to the developer units. Inside the cartridges, the toner is agitated by paddles so that it is properly delivered to the developer unit.

A motor drives the paddle in each toner cartridge.

Developer drive

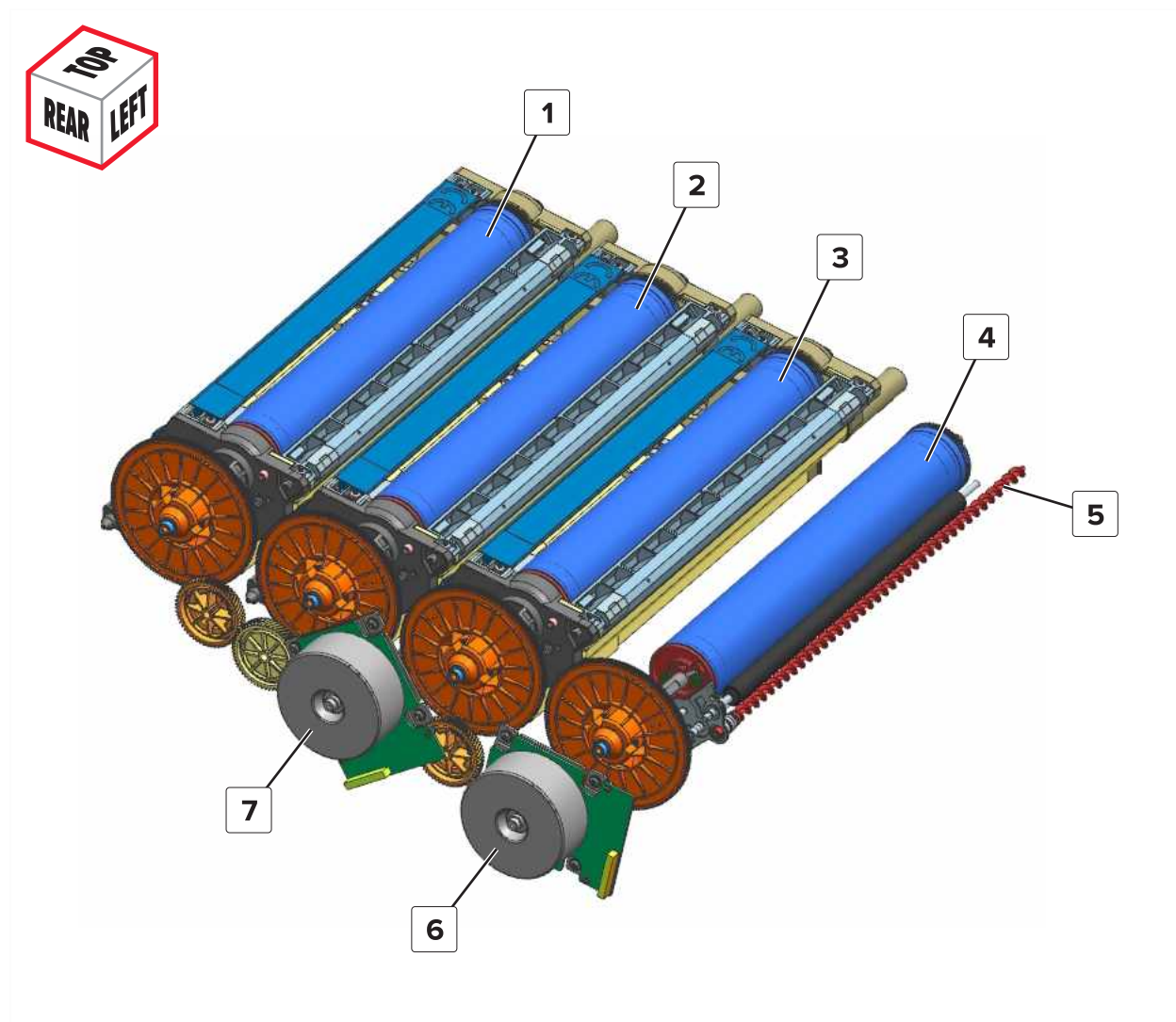


1	Motor (K developer)
2	Motor (CMY developers)
3	Shutter
4	Developer unit (Y)
5	Developer unit (C)
6	Developer unit (M)
7	Developer unit (K)

A shutter for each developer unit receives toner from the toner cartridge. Inside the developer unit, the toner is circulated by rotating augers so that it is evenly distributed. The developer roller also rotates to apply the toner particles to the photoconductor drum.

The C, M, and Y developer rollers and augers are driven by a motor. The K developer roller and augers are driven by a separate motor.

Photoconductor drive

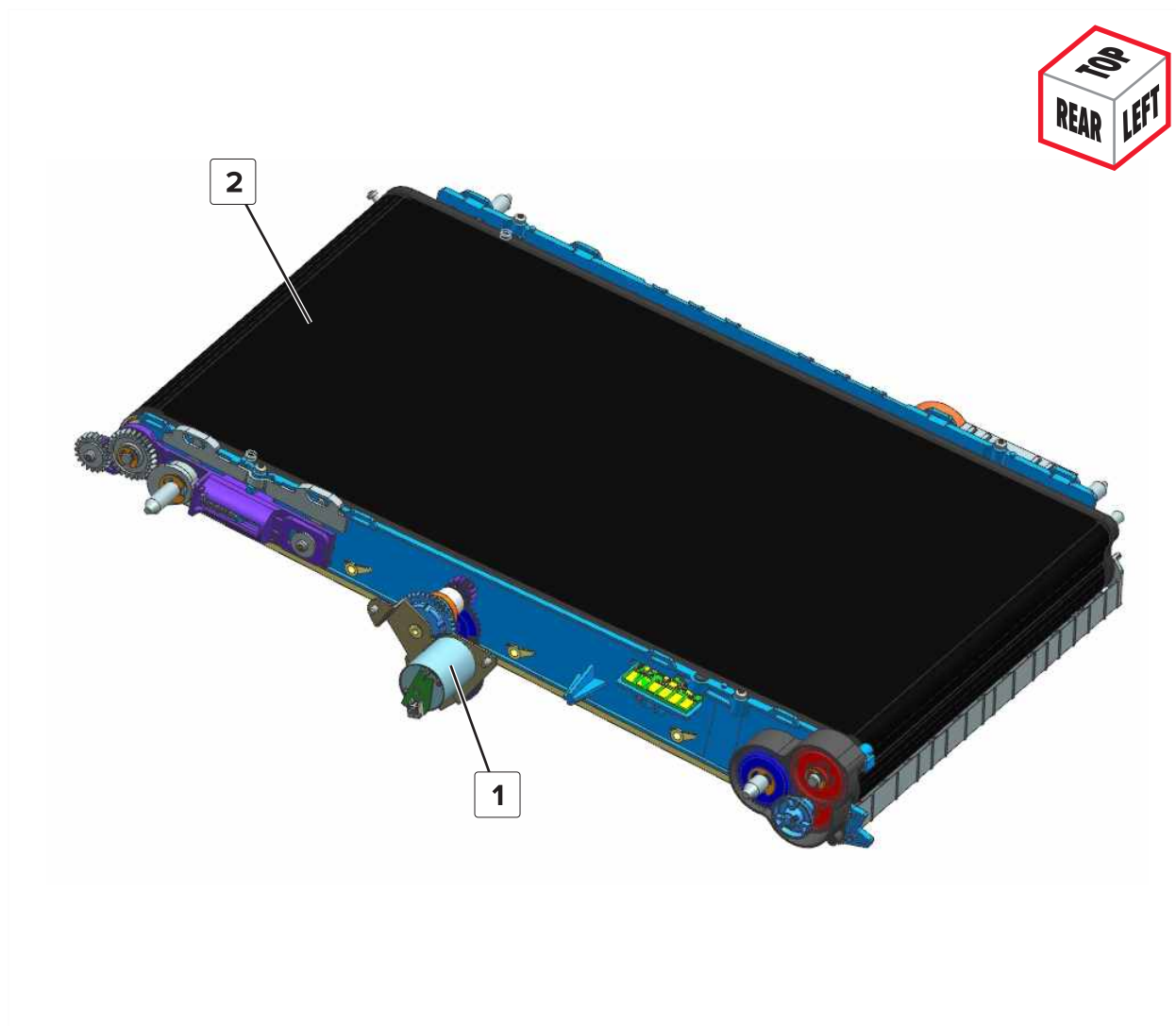


1	Photoconductor drum (Y)
2	Photoconductor drum (C)
3	Photoconductor drum (M)
4	Photoconductor drum (K)
5	Auger
6	Motor (K photoconductor)
7	Motor (CMY photoconductors)

The photoconductor drum rotates during the print cycle (charge, expose, develop, first transfer, clean). An auger for each photoconductor drum transfers the residual toner to the waste toner bottle.

The C, M, and Y photoconductor drums and augers are driven by a motor. The K photoconductor drum and auger are driven by a separate motor.

Black only retract (BOR) drive

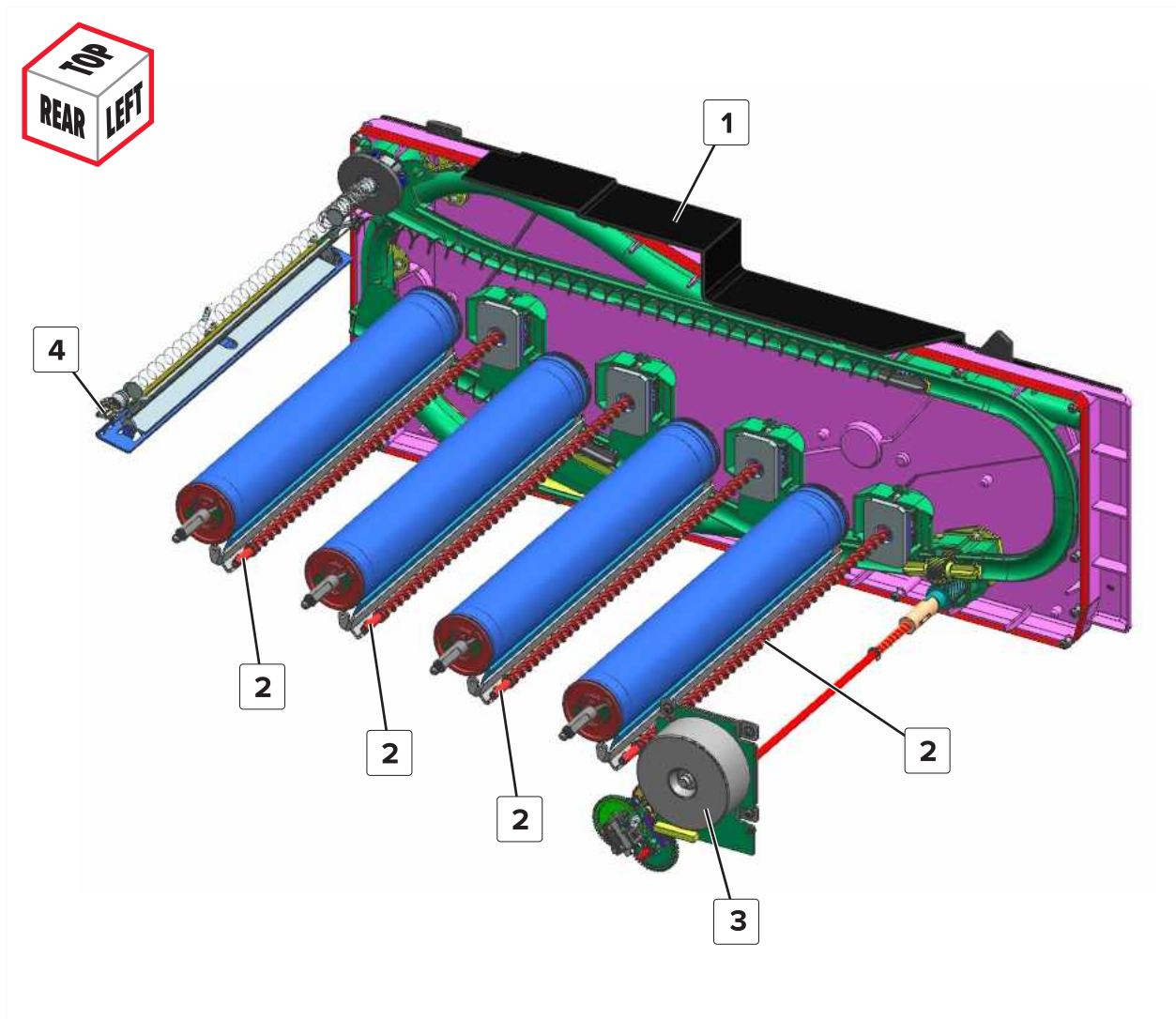


1	Motor (black only retract)
2	Transfer belt

For black and white print jobs, only the K photoconductor drum needs to be engaged with the transfer belt. For colorless printing, the C, M, and Y first transfer rollers inside the transfer belt retract to move away from the C, M, and Y photoconductor drums. As a result, image transfer only occurs on the K photoconductor drum.

The motor (black only retract) controls the positions of the first transfer rollers.

Waste toner delivery drive



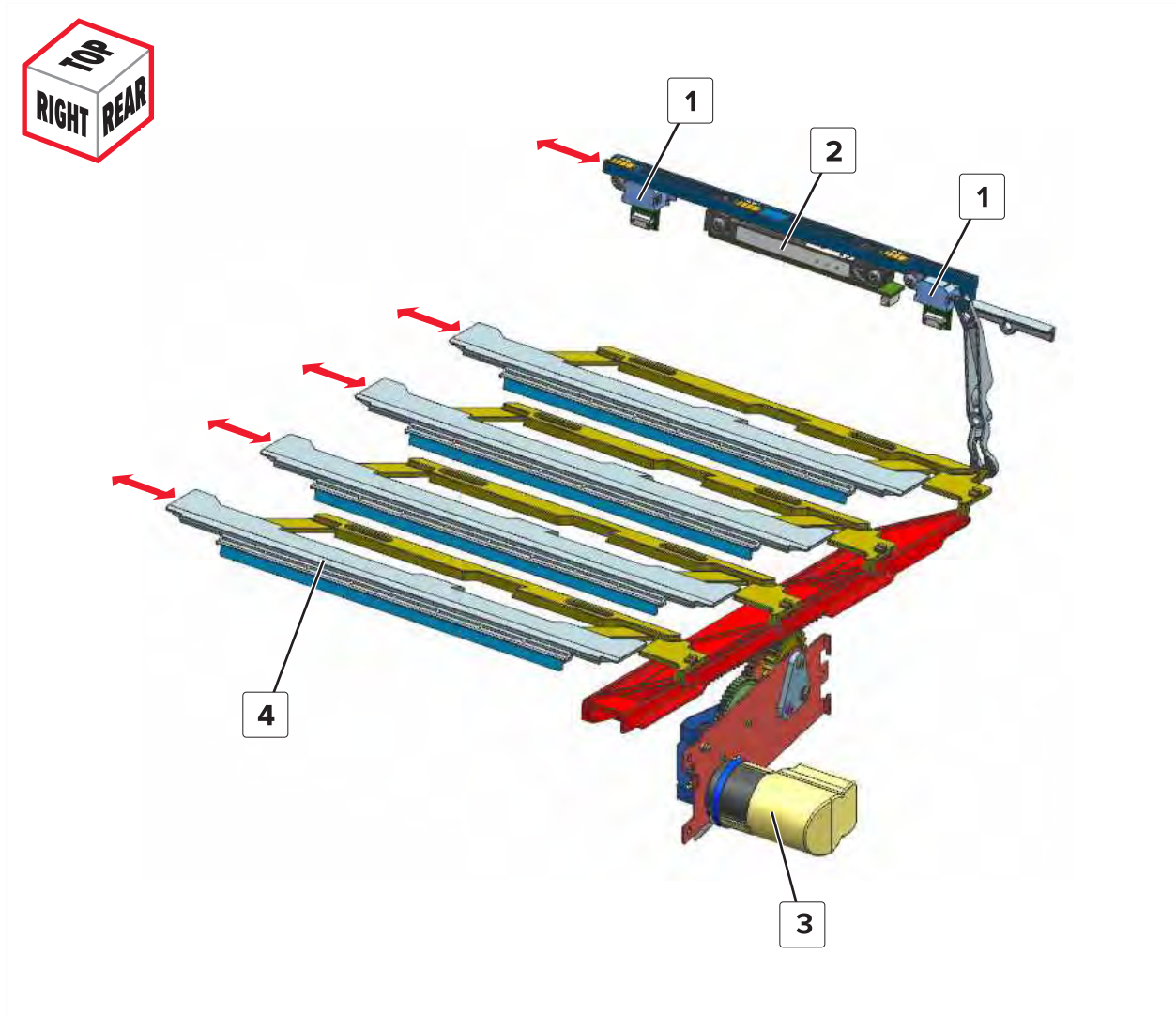
1	Waste toner bottle
2	Photoconductor cleaners
3	Motor (transfer belt)
4	Transfer belt cleaner

Toner residue from the photoconductor drums and transfer belt are removed by cleaners, and then transferred to the waste toner bottle.

Inside the waste toner bottle, augers uniformly collect the toner to maximize the container capacity.

The motor (transfer belt) drives the augers inside the waste toner bottle.

Printhead lens cleaner drive



1	Sensors (auto alignment)
2	Sensor (TPS)
3	Motor (printhead wiper)
4	Printhead wiper brush

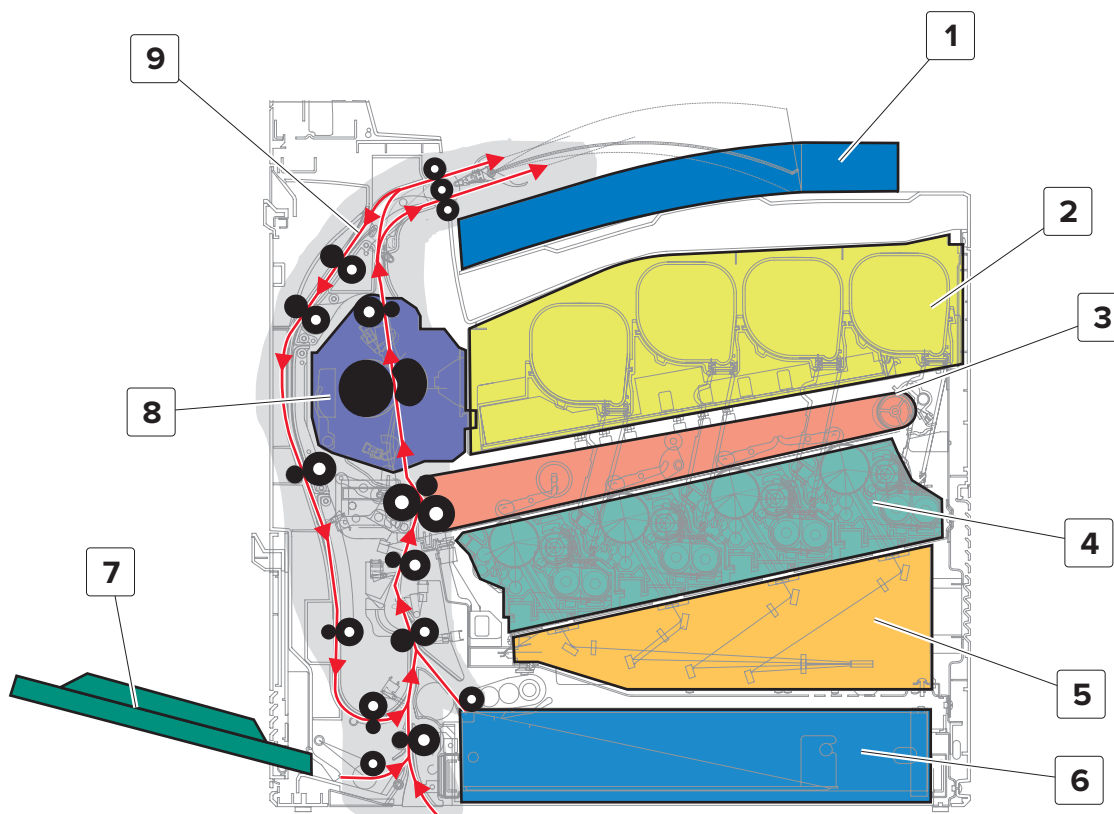
The printhead lenses are cleaned by wiper brushes so that they are free from contamination. At the same time, the sensor (TPS) and the sensors (auto alignment) are also cleaned.

Note: TPS stands for *toner patch sensing*. The sensor (TPS) detects the toner density of individual toners on the belt. The sensor (auto alignment) checks if the different colors are aligned with each other.

The motor (printhead wiper) drives the wipers and TPS mechanism.

Printer operation

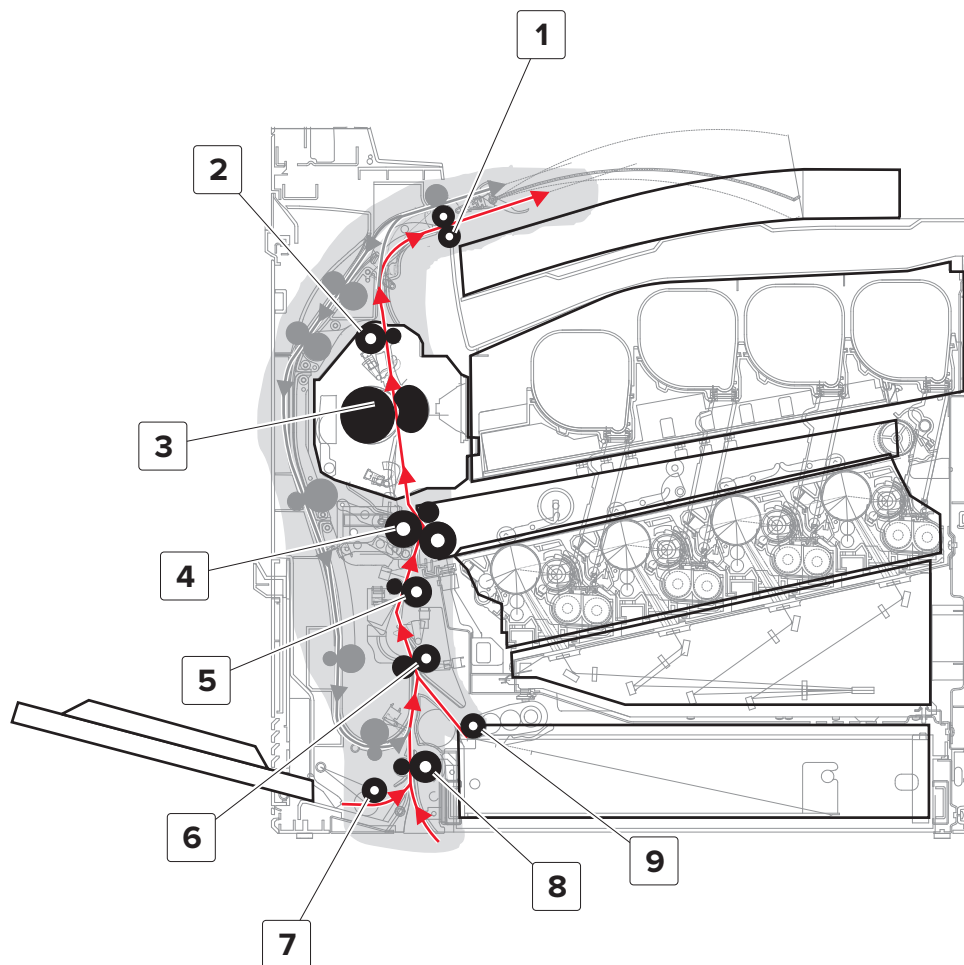
Printer sections



1	Bin
2	Toner supply
3	Transfer belt
4	Imaging assembly
5	Printhead
6	Tray 1
7	MPF
8	Fuser
9	Paper path

Printer paper path

Standard print job



1	Media exit roller
2	Fuser decurler roller
3	Fuser heat belt
4	2nd transfer roller
5	Deskew roller
6	Isolation roller
7	MPF pick roller
8	MPF/pass-through roller
9	Tray 1 pick roller

Paper from tray 1 is picked and fed by the tray pick roller to the isolation roller. For MPF print jobs, the paper is picked and fed by the pick roller to the MPF/pass-through roller before it goes to the isolation roller.

The isolation roller transports the paper to the deskew roller where skew correction is performed.

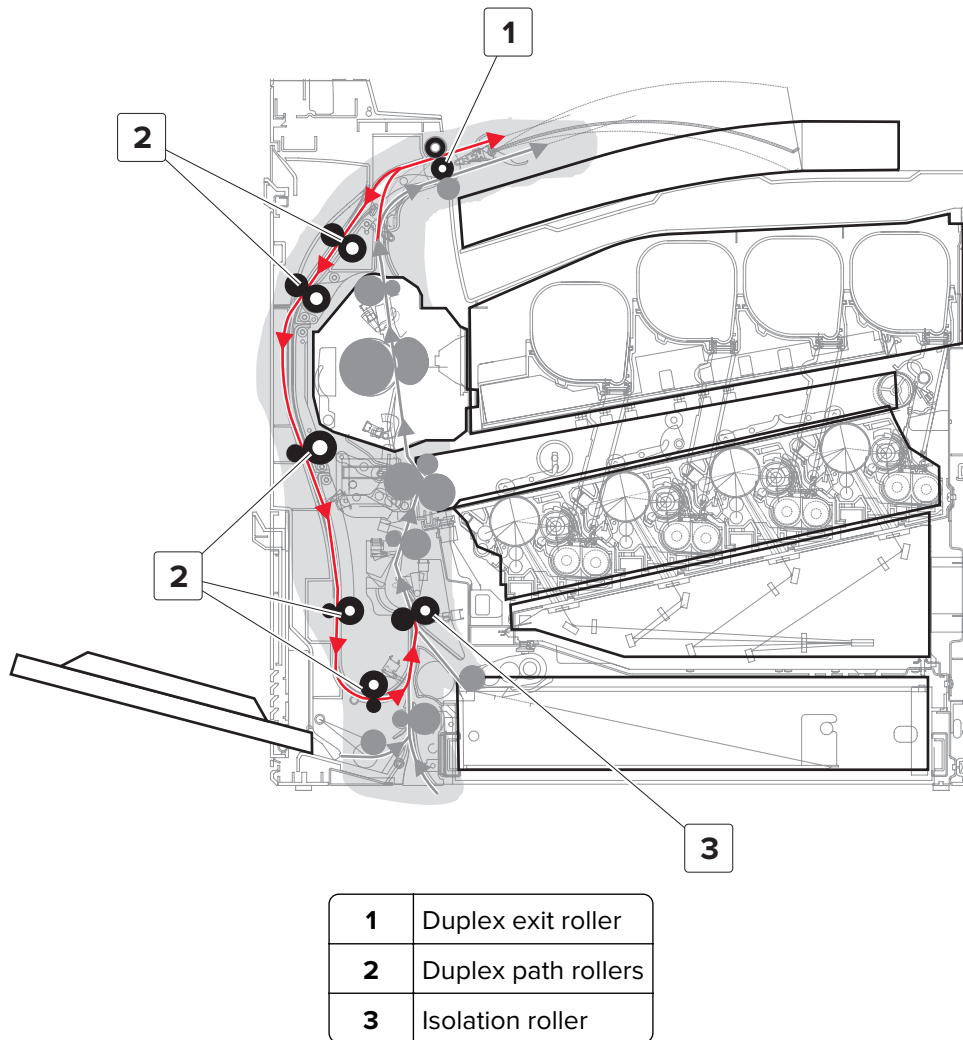
At the 2nd transfer roller, the developed image from the transfer belt is transferred to the paper to create the printed image.

As the paper passes the fuser heat belt, heat and pressure are applied to permanently bond the toner to the paper.

At the fuser, a decurler roller counteracts the curl to flatten the paper.

Once printing is done, the paper is ejected out of the printer by the exit rollers.

Duplex print job

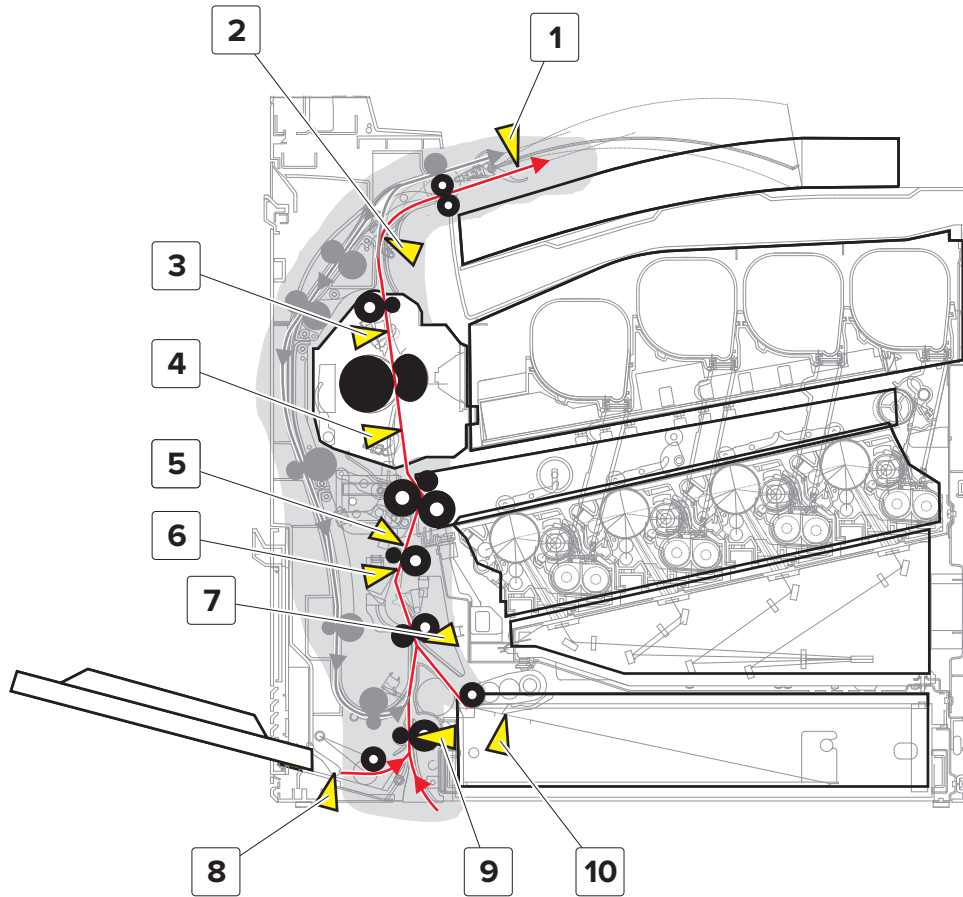


After the first side is printed, the paper is diverted to the top of the duplex exit roller. The duplex path opens, and then the paper reverses direction to get its opposite page printed.

The paper travels along the duplex path rollers until it reenters the isolation roller. From there, the paper continues its path until the print job is done.

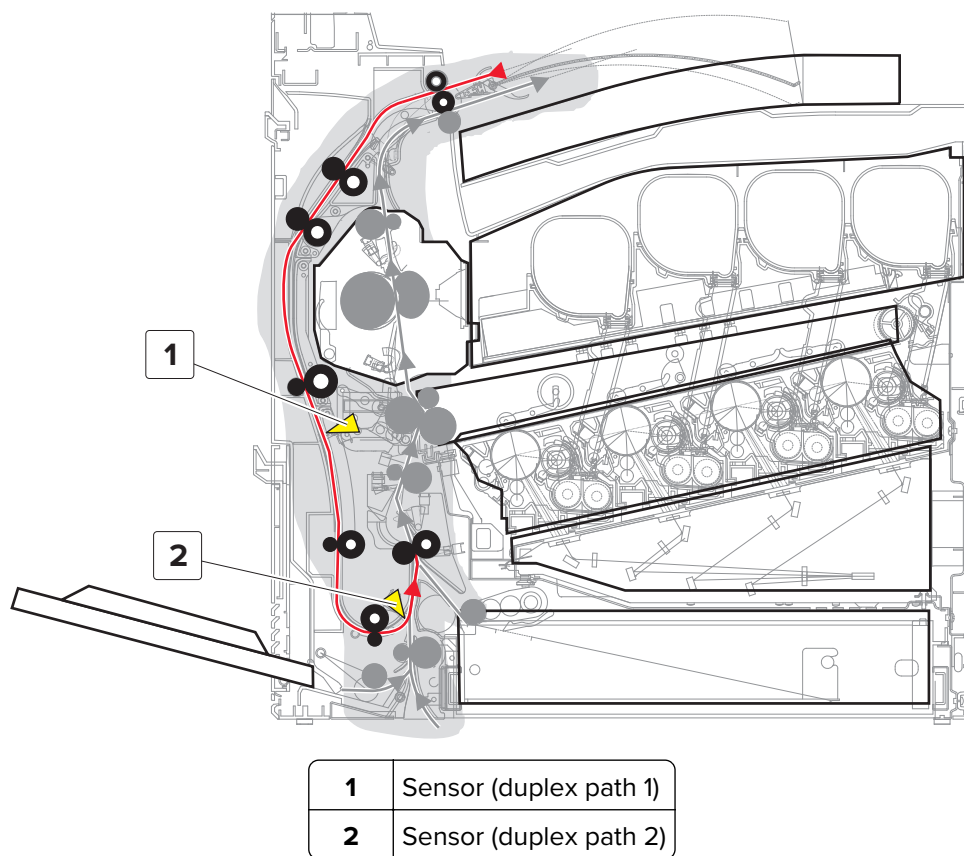
Printer paper path sensors

Standard print job



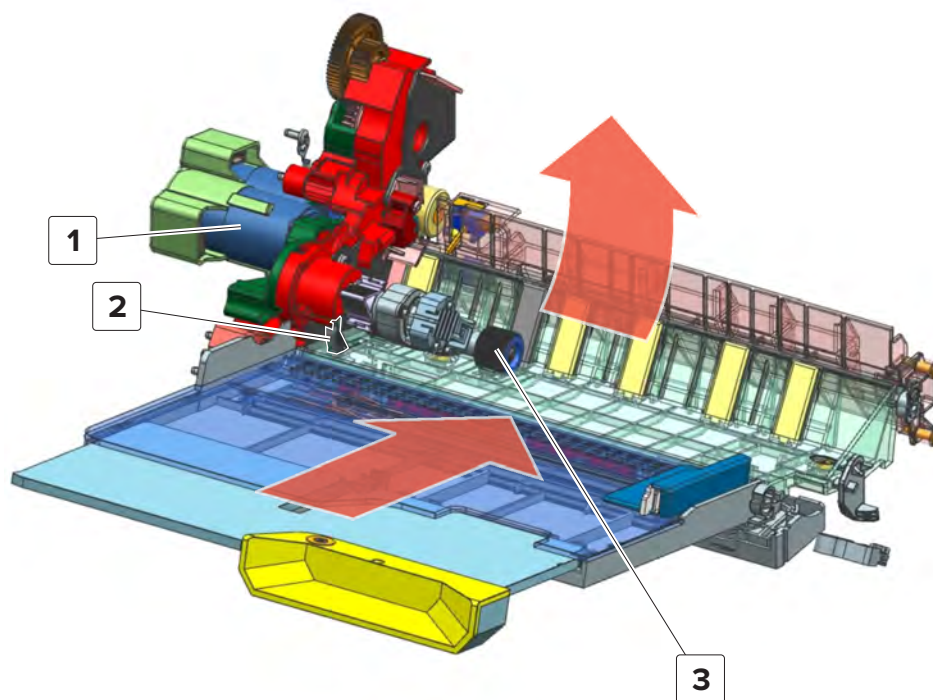
#	Sensor	Function
1	Sensor (output bin)	Detects if the bin is full.
2	Sensor (redrive buckle)	Detects buckled paper at the redrive area. If the sensor is triggered and the paper is long (>14 in.), then the exit rollers rotate slower to relax the tension.
3	Sensor (fuser exit)	Detects the paper exiting the fuser.
4	Sensor (fuser buckle)	Detects buckled paper at the fuser area. Once the sensor is triggered, the fuser rollers rotate faster to reduce the buckle.
5	Sensor (deskew roller exit)	Detects the paper exiting the deskew roller.
6	Sensor (deskew roller entry)	Detects the paper entering the deskew roller.
7	Sensor (input)	Detects the paper passing the isolation roller.
8	Sensor (MPF media present)	Detects if paper is in the MPF tray.
9	Sensor (MPF/pass-through)	Detects paper fed from the MPF and optional trays.
10	Sensor (tray 1 media out)	Detects if the tray is empty.

Duplex print job



Two sensors detect the paper traveling along the duplex path.

MPF pick drive

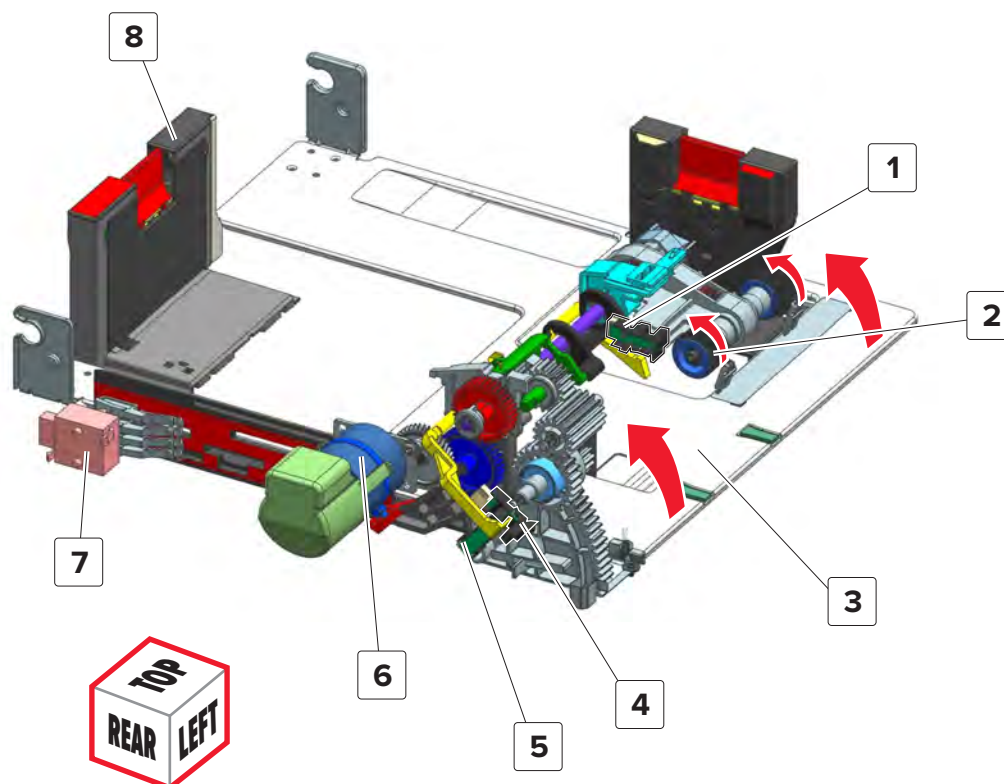


1	Motor (MPF pick)
2	MPF media present sensor actuator
3	Pick roller

The MPF pick roller feeds the paper into the printer.

The motor (MPF pick) controls the pick roller. The sensor (MPF media present) detects if the MPF tray is empty.

Tray 1 lift and pick drive



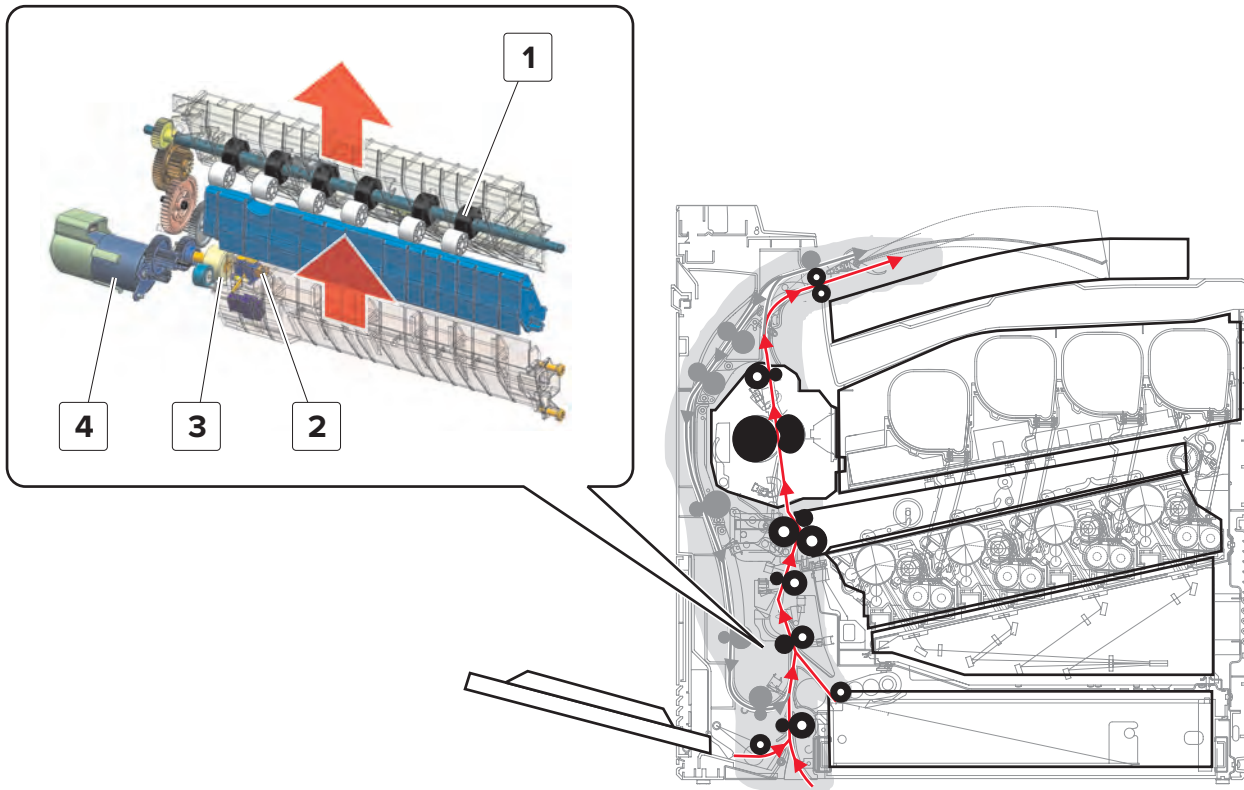
1	Sensor (pick roller index)
2	Pick roller
3	Lift plate
4	Sensor (media out)
5	Sensor (media low)
6	Motor (pick)
7	Sensor (media size)
8	Paper guide

In preparation for feeding, the lift plate raises to push the paper against the pick roller. The lift plate stops pushing at the point where the pick roller is at the proper height for picking.

After the pick roller is in position, it feeds the topmost paper to the isolation roller. Separator pads opposite the pick roller ensure that only one sheet is fed at a time.

The motor (pick) drives the lift plate and pick roller. The sensor (media out) detects if the tray is empty.

MPF/pass-through and isolation drive



1	Isolation roller
2	Sensor (MPF/pass-through)
3	MPF/pass-through roller
4	Motor (isolation)

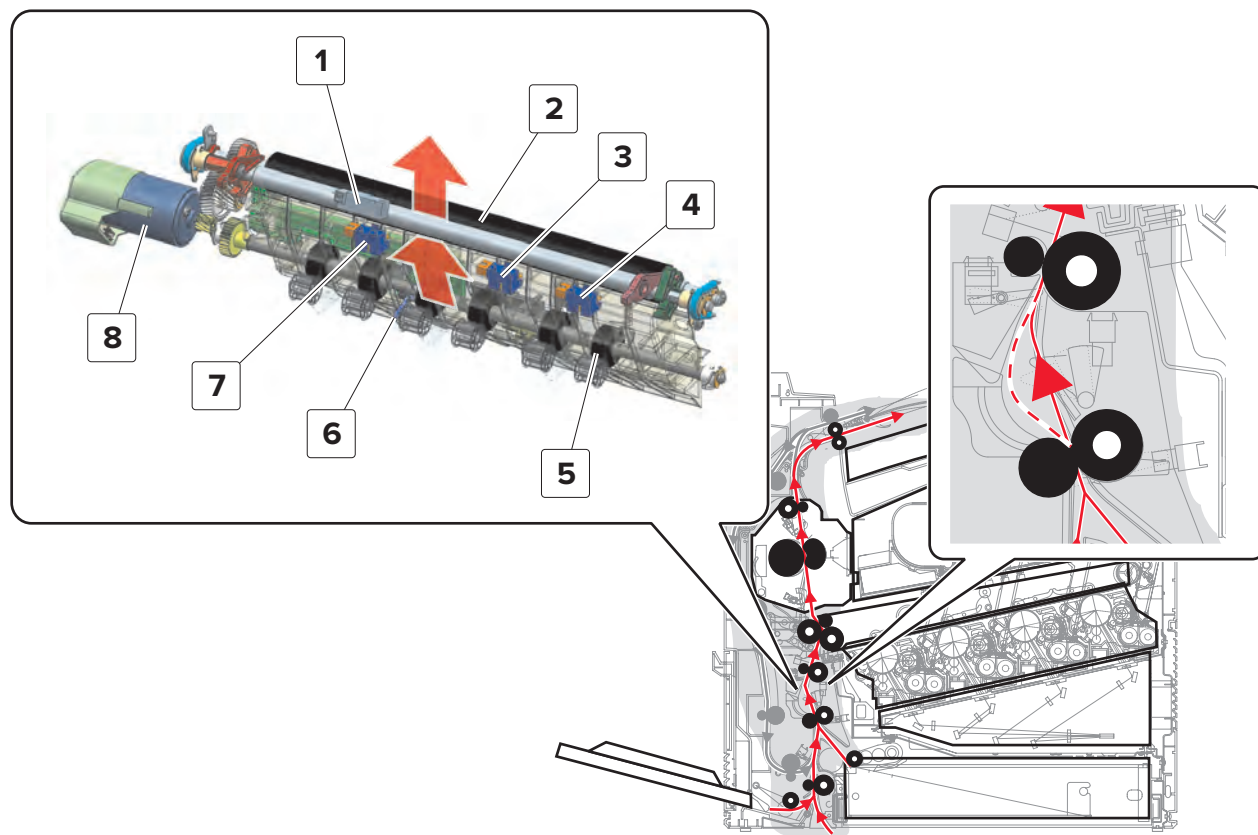
Paper coming from tray 1 and duplex print jobs are received by the isolation roller.

Paper coming from MPF and optional tray print jobs enter the MPF/pass-through roller before going to the isolation roller.

The isolation roller pushes the paper to the deskew roller.

The motor (isolation) drives the MPF/pass-through and isolation rollers.

Registration drive

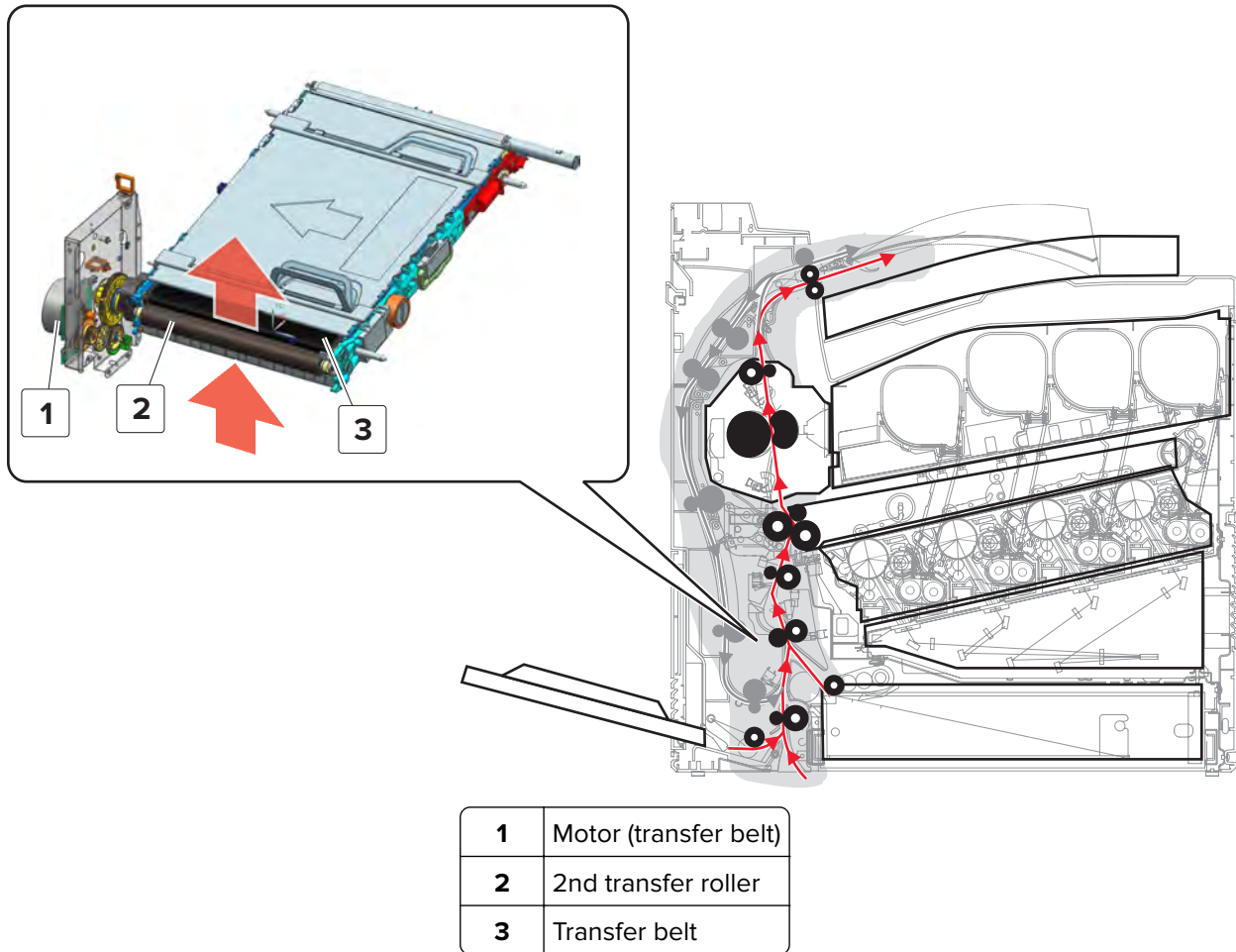


1	Sensor (deskew roller exit)
2	Deskew roller
3	Sensor (narrow media)
4	Sensor (near narrow media)
5	Isolation roller
6	Input sensor actuator
7	Sensor (deskew roller entry)
8	Motor (deskew)

During registration, the paper stops at the deskew roller to undergo skew correction. The isolation roller pushes the paper against the counterrotating deskew roller. As the paper buckles, its leading edge aligns with the deskew roller. After the skew is corrected, the deskew roller reverses to its normal rotation to continue moving the paper to the transfer belt.

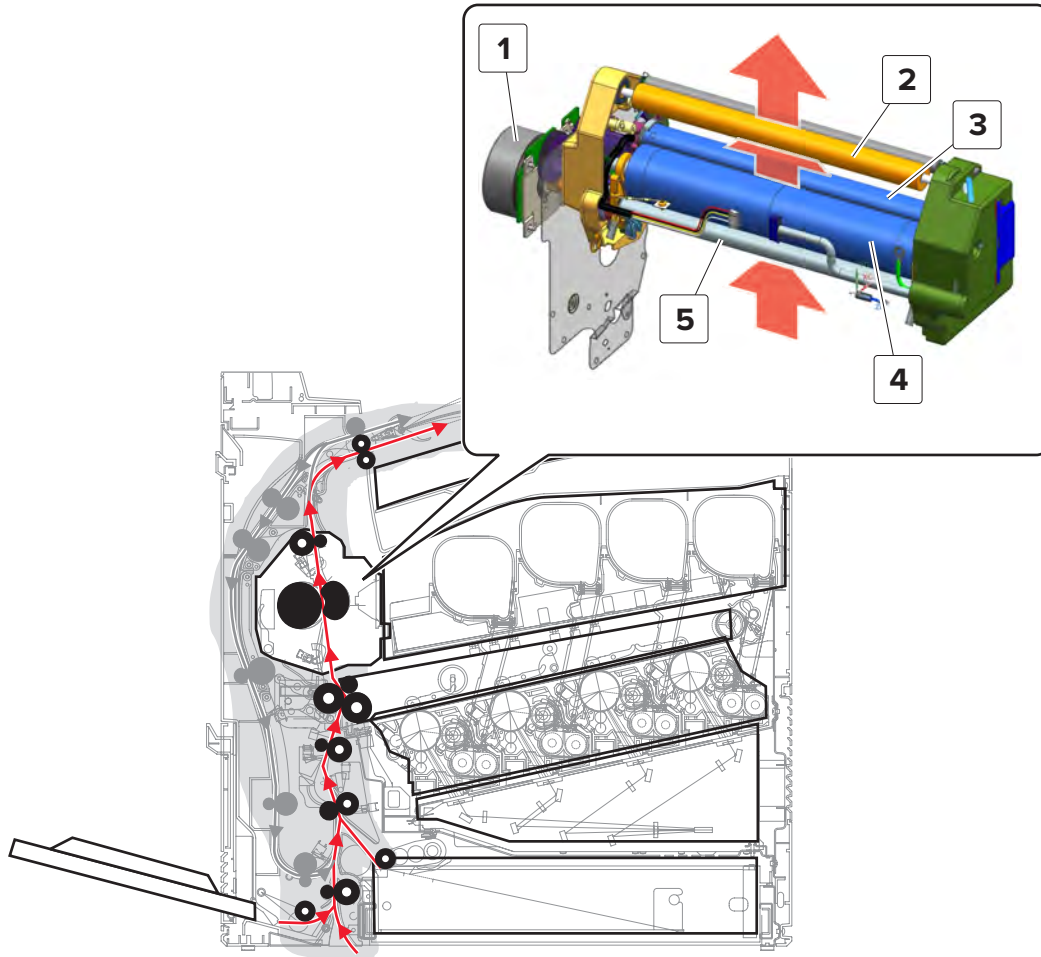
The motor (deskew) drives the deskew rollers.

Transfer belt drive



During second transfer, the developed image from the transfer belt is transferred to the paper to create the printed image. Paper from the deskew roller passes the 2nd transfer roller, and then moves towards the fuser. The motor (transfer belt) drives the transfer belt.

Fuser drive



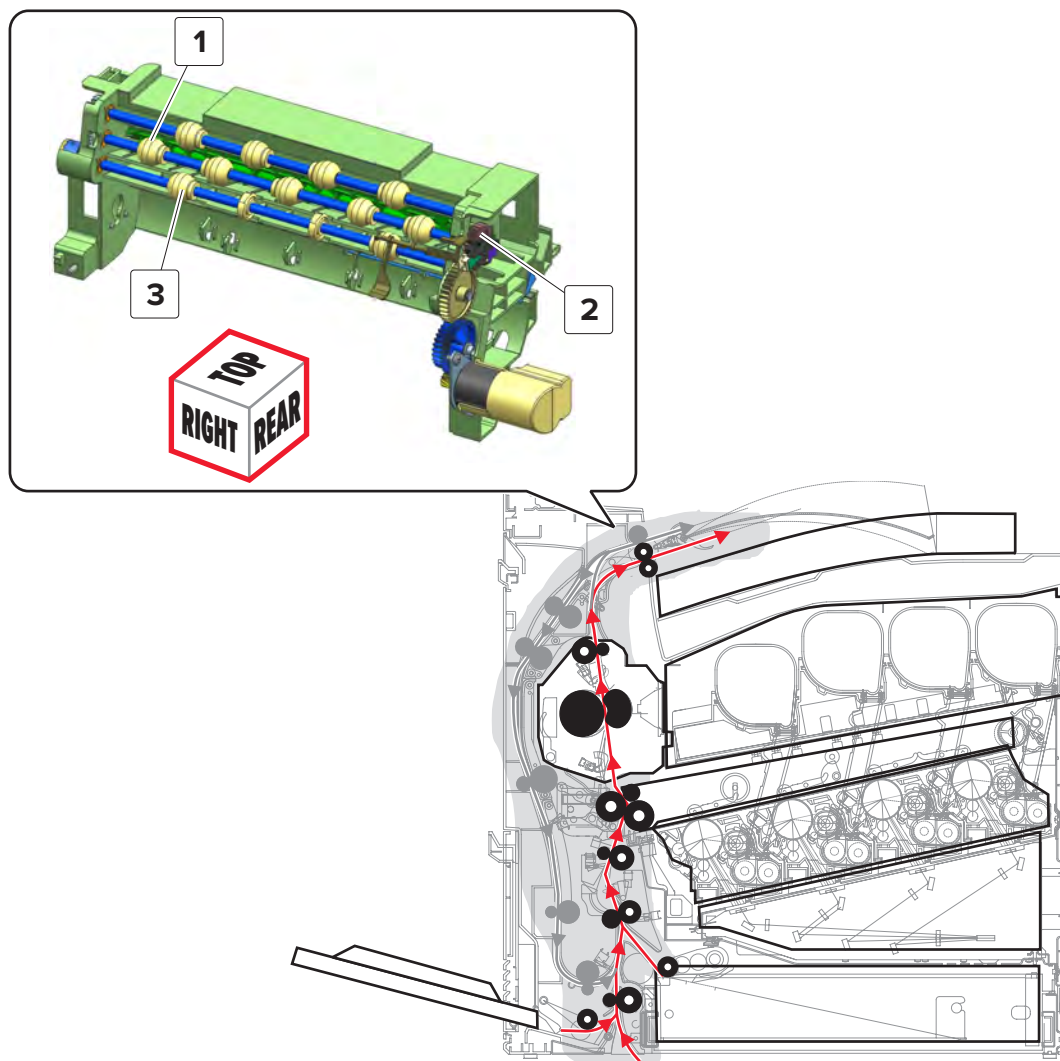
1	Motor (fuser)
2	Fuser decurler roller
3	Fuser heat belt
4	Fuser backup roller
5	Heat pipe

As the paper passes between the fuser heat belt and backup roller, heat and pressure are applied to permanently bond the toner to the paper.

As the paper exits the fuser, the decurler roller counteracts the curl to flatten the paper.

The motor (fuser) drives the fuser rollers.

Exit and redrive drive



1	Duplex exit roller
2	Sensor (bin full)
3	Media exit roller

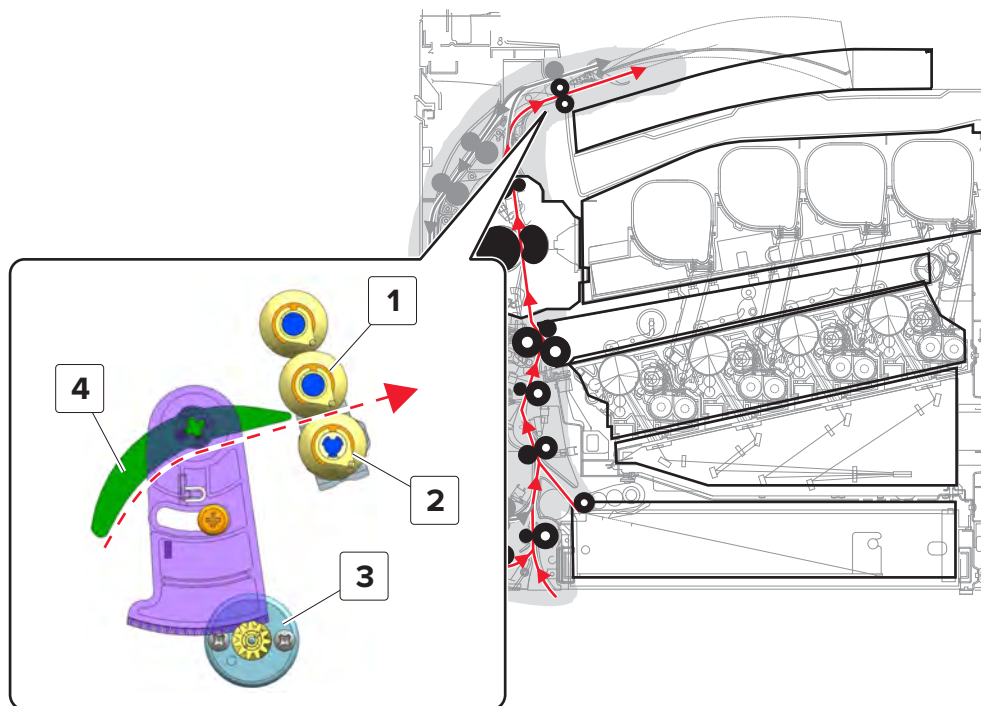
For standard print jobs, the paper exits on top of the media exit roller.

For duplex print jobs, the paper is diverted on top of the duplex exit roller before feeding it for printing on its opposite side.

The motor (redrive) controls the exit rollers.

Diverter drive

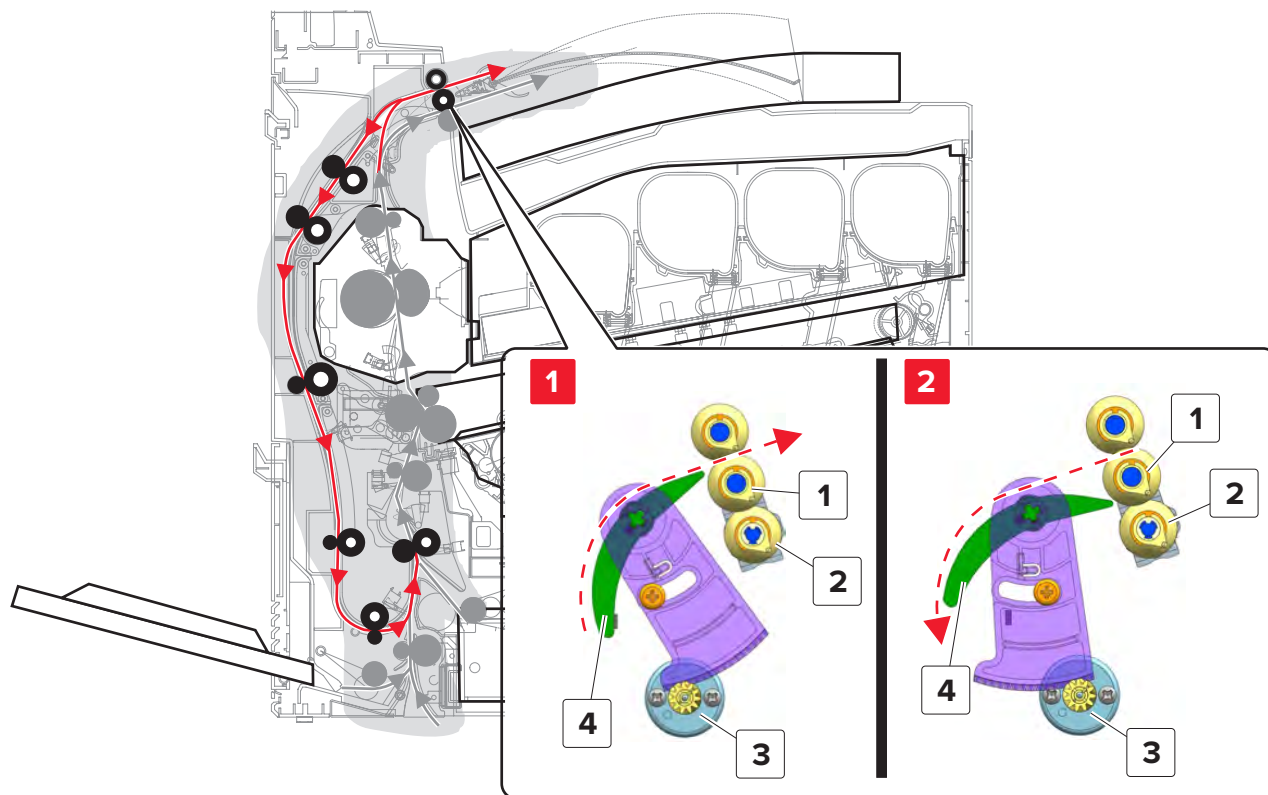
Standard print job



1	Duplex exit roller
2	Media exit roller
3	Motor (duplex diverter)
4	Duplex diverter

The paper passes under the diverter, and then exits between the duplex exit roller and media exit roller.

Duplex print job



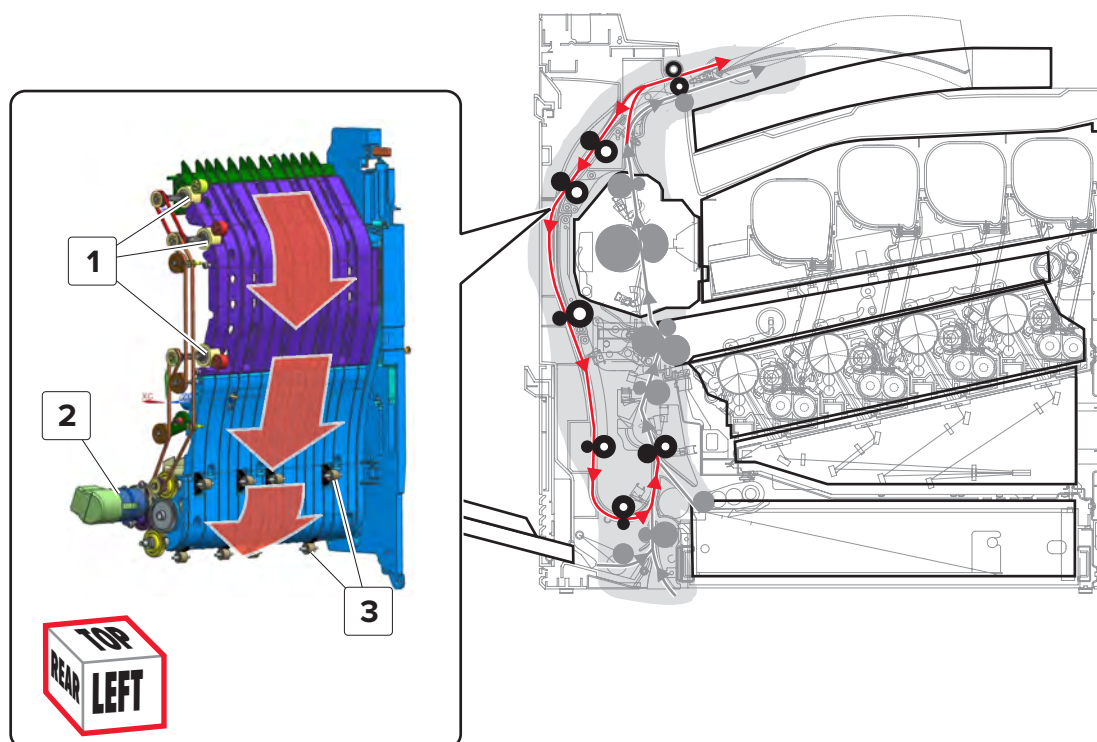
1	Duplex exit roller
2	Media exit roller
3	Motor (duplex diverter)
4	Duplex diverter

Redrive sequence:

- 1 The diverter switches to push the paper to the top of the duplex exit roller.
- 2 The diverter switches again to close the standard paper path. The duplex exit roller reverses to feed the paper to the duplex paper path.

The motor (duplex diverter) controls the diverter.

Duplex path drive

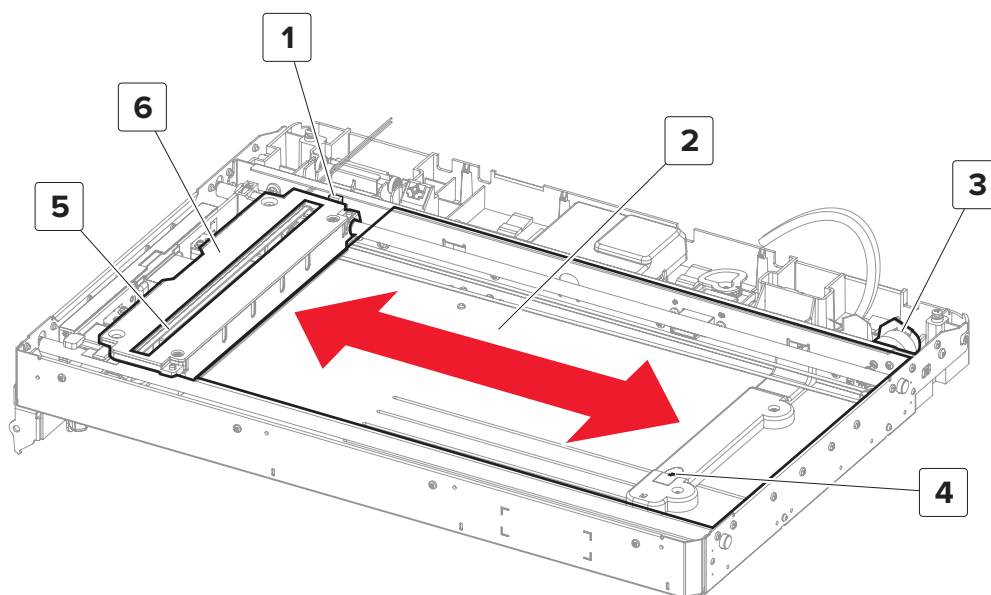


1	Upper duplex path rollers
2	Motor (duplex)
3	Lower duplex path rollers

Paper fed from the duplex exit roller travels along the duplex path rollers and reenters the isolation roller. The motor (duplex) drives the rollers.

ADF and scanner operation

Flatbed scanner drive



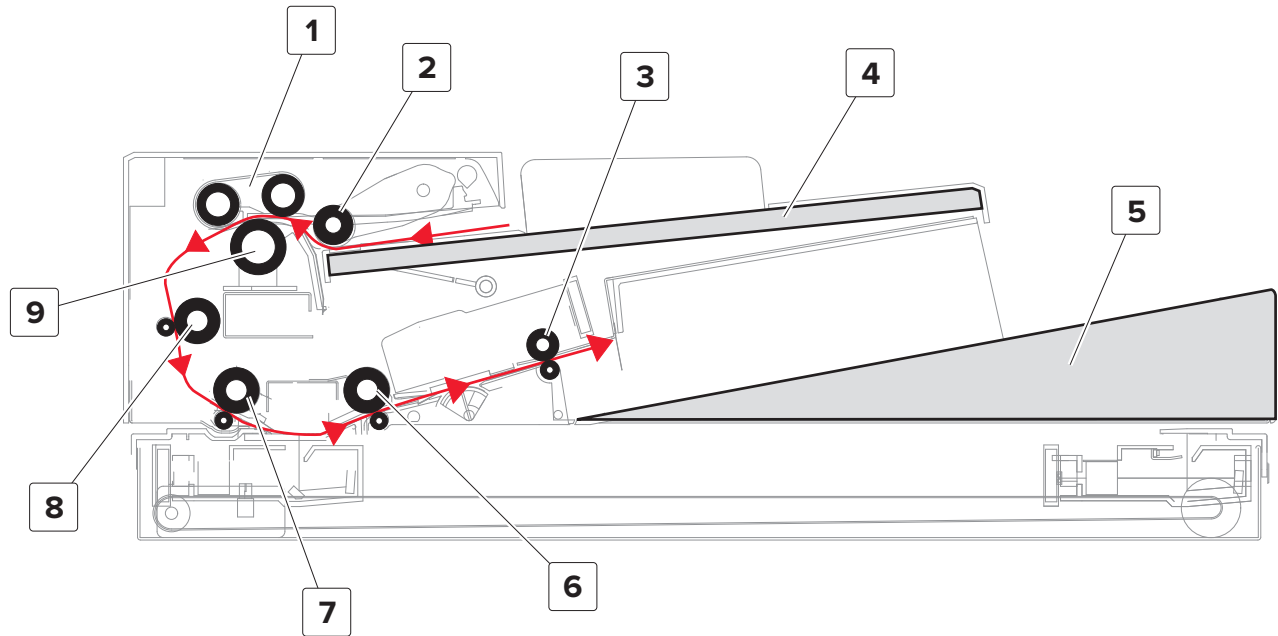
1	Sensor (FB CCD home)
2	Scanner glass
3	Motor (FB scanner)
4	Sensor (FB paper length)
5	Scanner lamp
6	Flatbed scanner

The flatbed scanner has a scanner lamp that is used to illuminate the surface of the document. The reflections produced are processed to create the scan image.

For flatbed scan jobs, the flatbed scanner moves across the scanner glass area to scan the front side of the document (facedown). The motor (FB scanner) controls the scanner position. The scanner is detected at its home position by the sensor (FB CCD home). The sensor (FB paper length) detects the edge of the document to determine the length of the paper.

For ADF scan jobs, the flatbed scanner stays at the left side to do the first scan (front side of the document).

ADF paper path



1	Feed belt
2	Pick roller
3	Exit roller
4	ADF tray
5	ADF bin
6	2nd scan roller
7	1st scan roller
8	ADF deskew roller
9	Separator roller

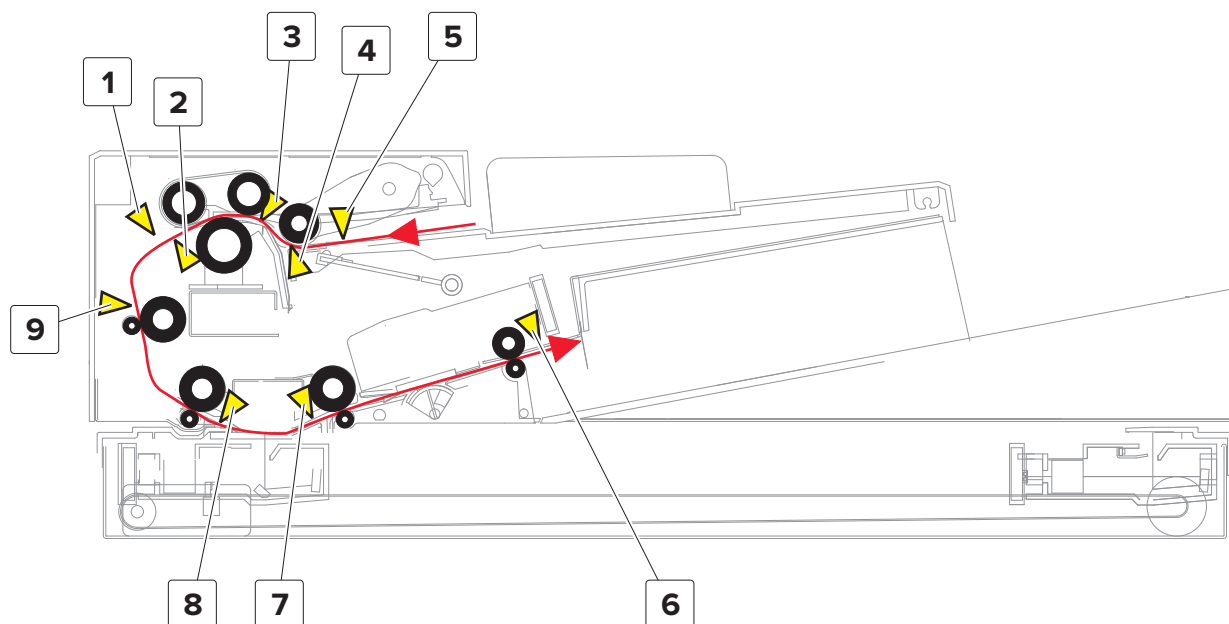
Paper from the ADF tray enters the ADF through the pick roller, feed belt, and separator roller.

After the paper is fed, it travels to the deskew roller where skew correction is performed.

Just past the 1st and 2nd scan rollers, both sides of the paper are scanned to produce the scan images.

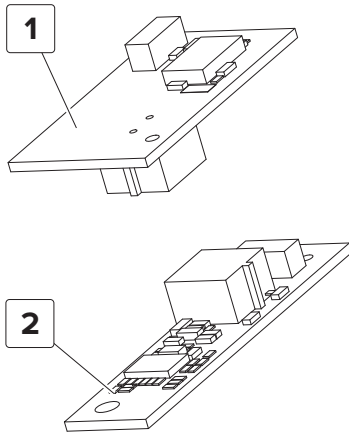
After the paper is scanned, it is ejected by the exit roller to the ADF bin.

ADF paper path sensors



#	Sensor	Function
1	Sensor (ADF multifeed)	Detects the air gaps between sheets to detect double feeds.
2	Sensor (ADF pick)	Detects the paper to ensure proper picking.
3	Sensor (ADF gap detect)	Detects the gap between fed pages. If no paper is detected, the next page is fed to maximize page output.
4	Sensor (ADF media present)	Detects if paper is in the tray. It also detects punch holes on the paper.
5	Sensor (ADF pick roller index) Note: The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.	Detects if the pick roller is at the correct height to pick paper from the tray.
6	Sensor (ADF media exit)	Detects the paper exiting to the bin.
7	Sensor (ADF 2nd scan)	Detects the paper jammed at the 2nd scan roller area.
8	Sensor (ADF 1st scan)	Detects the paper about to be scanned at its front side.
9	Sensor (ADF deskew)	Detects the paper entering the deskew roller.

ADF double-feed detection

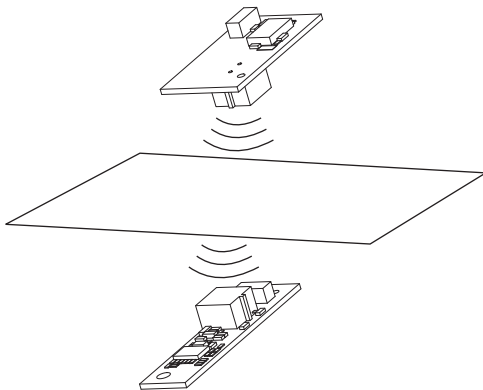


Sensor (ADF multi-feed detect) components

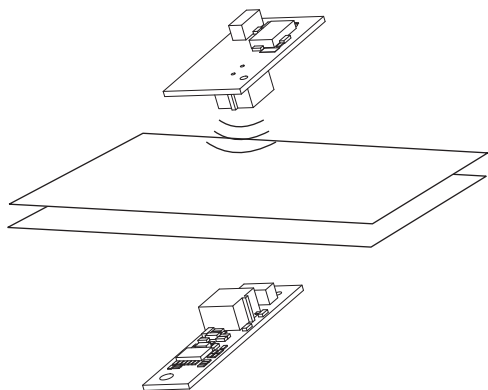
1	Transmitter
2	Receiver

The sensor (ADF multifeed) consists of a transmitter and a receiver. The sensor detects the presence of an air gap between sheets of paper passing between the transmitter and receiver. The transmitter emits an ultrasonic frequency in the direction of the receiver. The signal that arrives at the receiver will drop to nearly nothing when there are multiple sheets in the path.

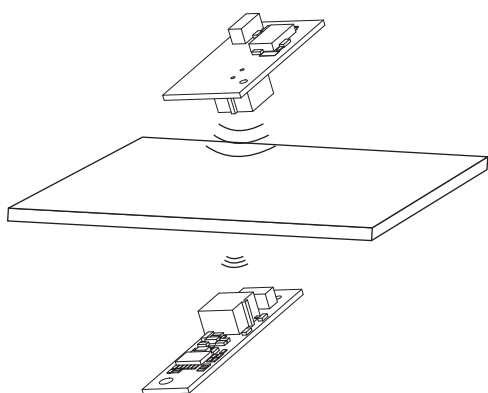
Single sheet (normal)



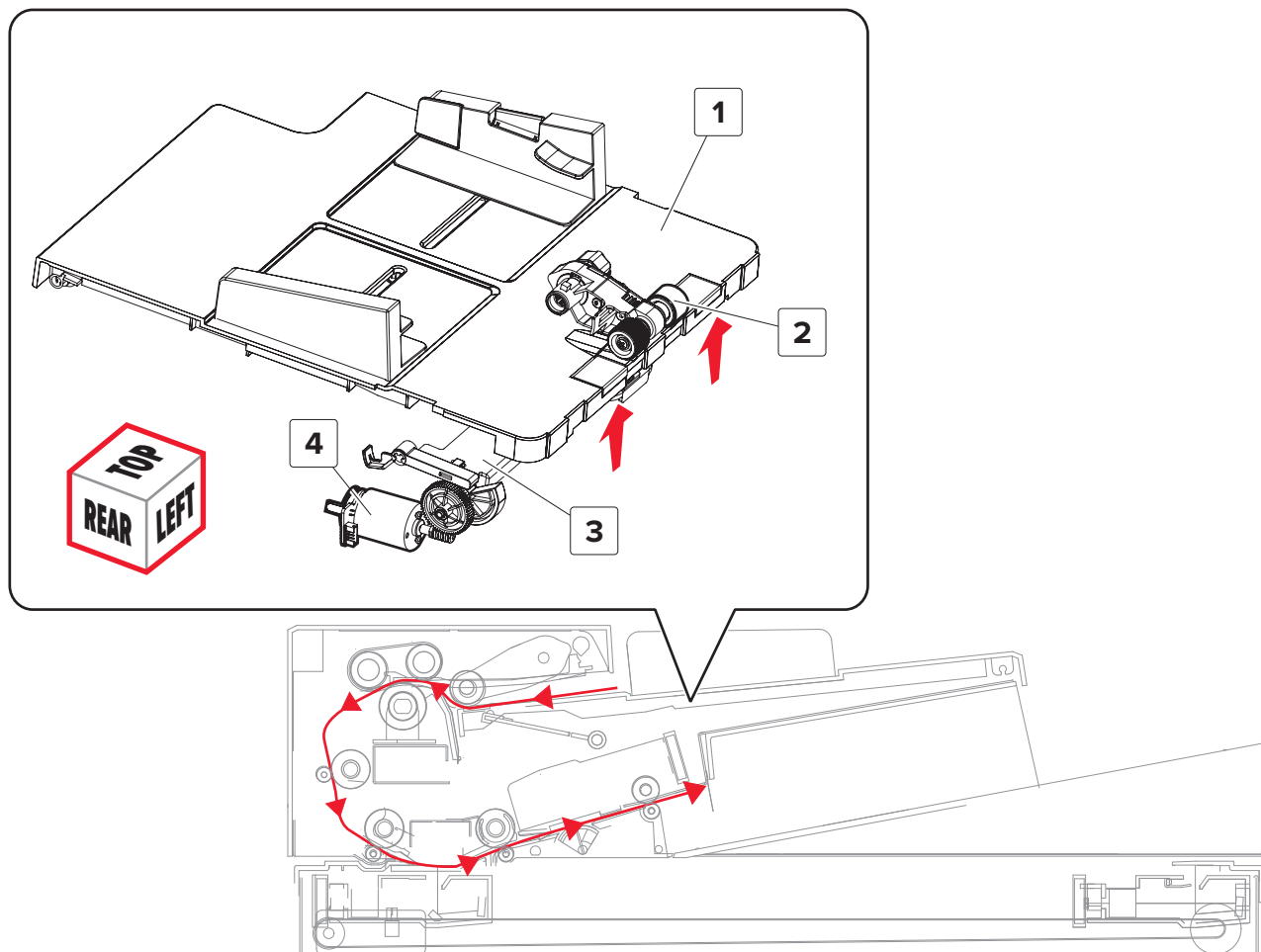
Multiple sheets



Single sheet (thick)



ADF tray lift drive

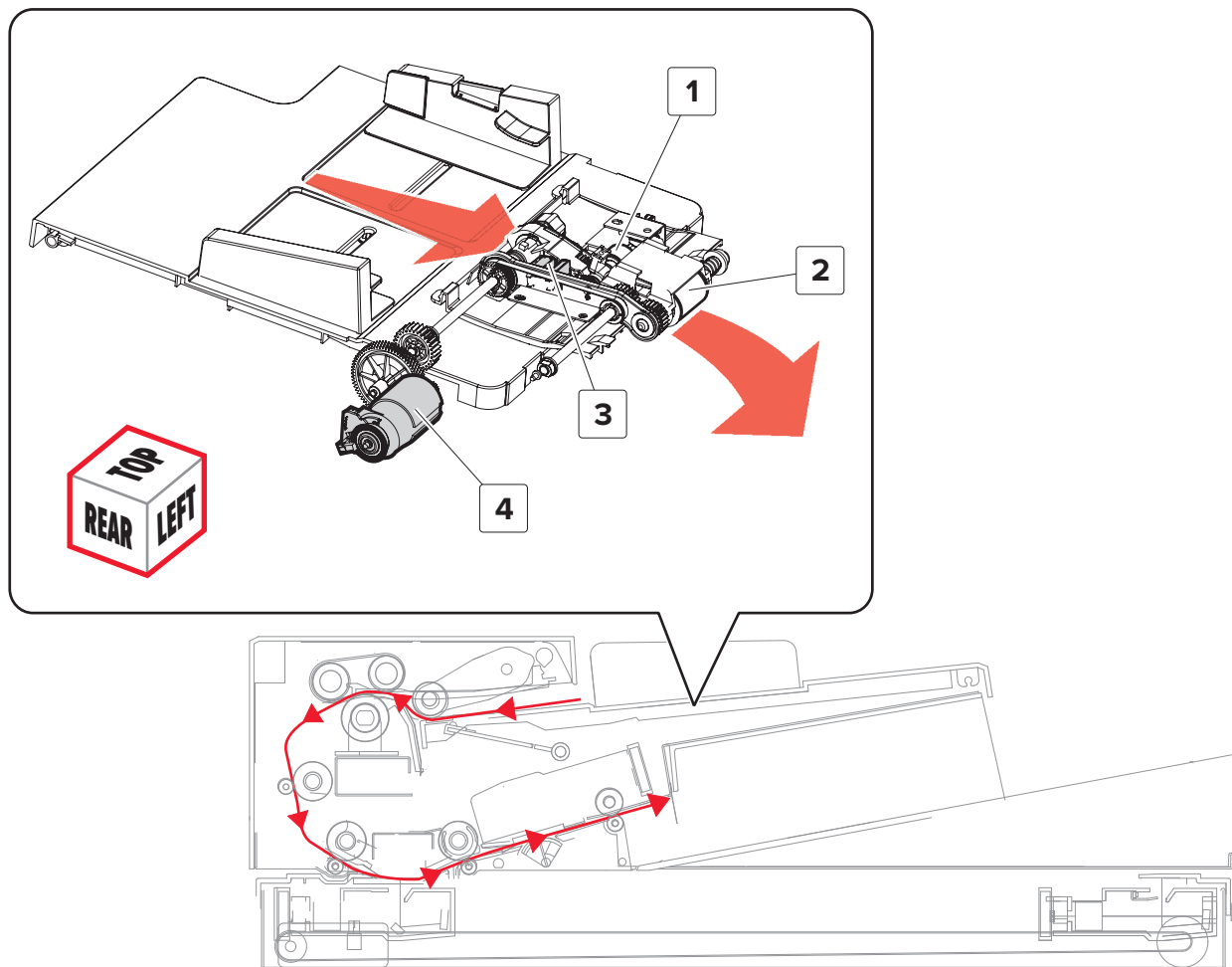


1	ADF tray
2	ADF pick roller
3	ADF tray lift arm
4	Motor (ADF tray lift)

In preparation for feeding, the lift arm raises the ADF tray to push the paper against the pick roller. The ADF tray stops pushing at the point where the pick roller is at the proper height for picking.

The motor (ADF tray lift) controls the movement of the ADF tray.

ADF tray pick and feed drive

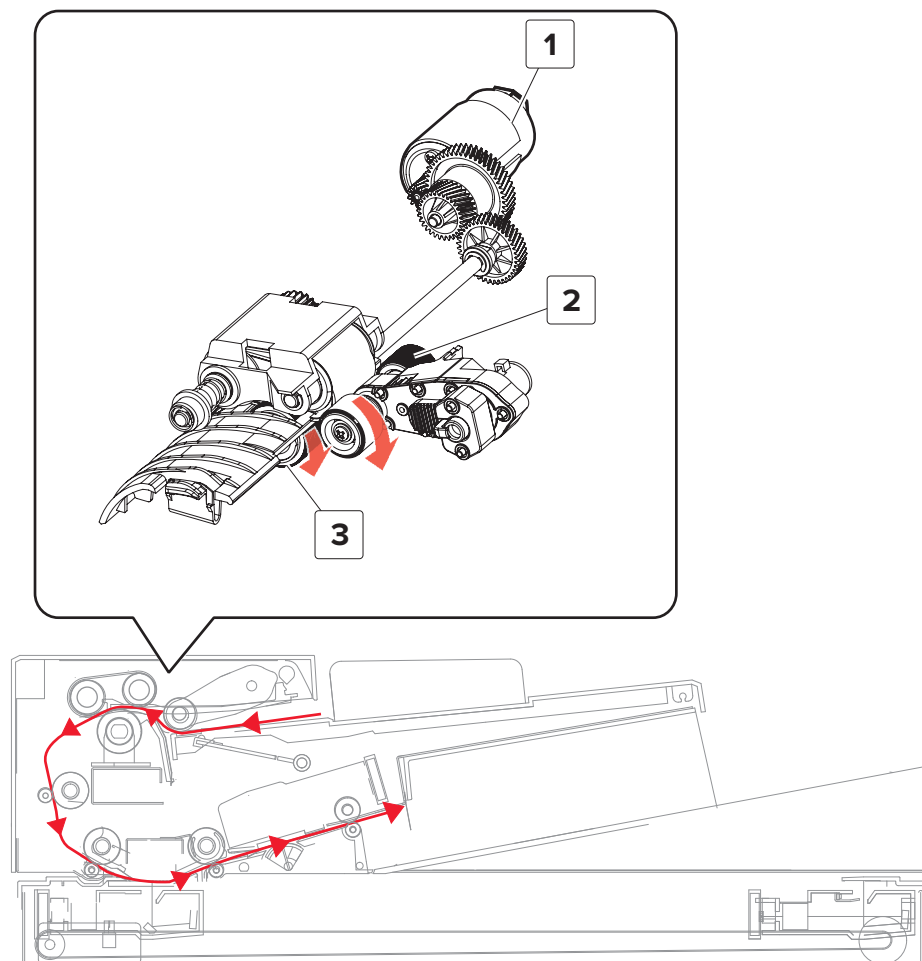


1	ADF pick roll
2	ADF feed belt
3	Sensor (ADF pick roller index) Note: The sensor (ADF pick roller index) consists of two sensors to detect the high and low positions of the pick roller.
4	Motor (ADF pick/feed)

The pick roller and feed belt rotate in the same direction to feed the topmost paper to the ADF.

The motor (ADF pick/feed) drives both the pick roller and feed belt. The sensor (ADF pick roller index) detects if the pick roller is at the proper height to pick paper from the tray.

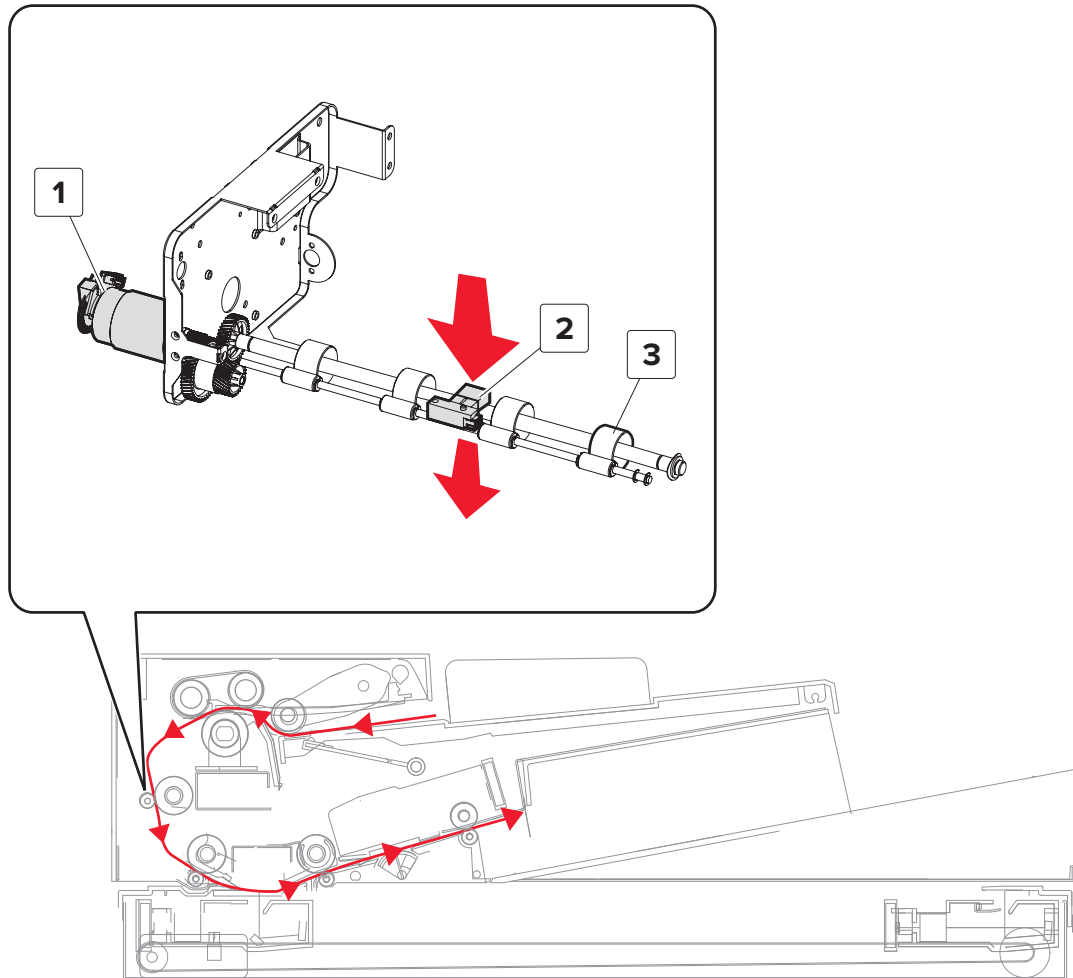
ADF separator drive



1	Motor (ADF separator)
2	ADF pick roller
3	ADF separator roller

The separator roller counterrotates opposite the pick roller to allow only one sheet to be fed at a time.
The motor (ADF separator) drives the separator roller.

ADF registration drive

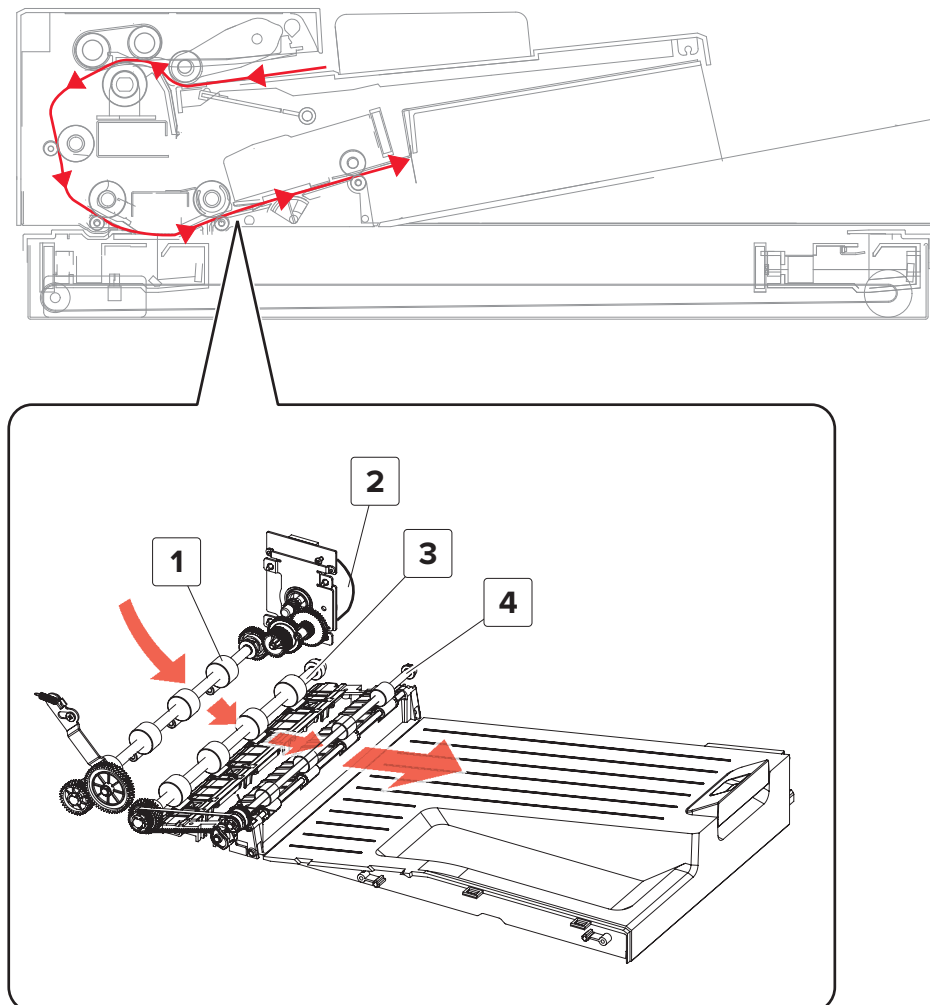


1	Motor (ADF registration)
2	Sensor (ADF deskew)
3	ADF deskew roller

The paper stops at the deskew roller to undergo skew correction. The deskew roller counterrotates to align the leading edge of the paper against the rollers. After the skew is corrected, the deskew roller rotates to pass the paper to the 1st scan section.

The motor (ADF registration) drives the deskew roller. The sensor (ADF deskew) detects the paper entering the deskew roller.

ADF scan and exit drive

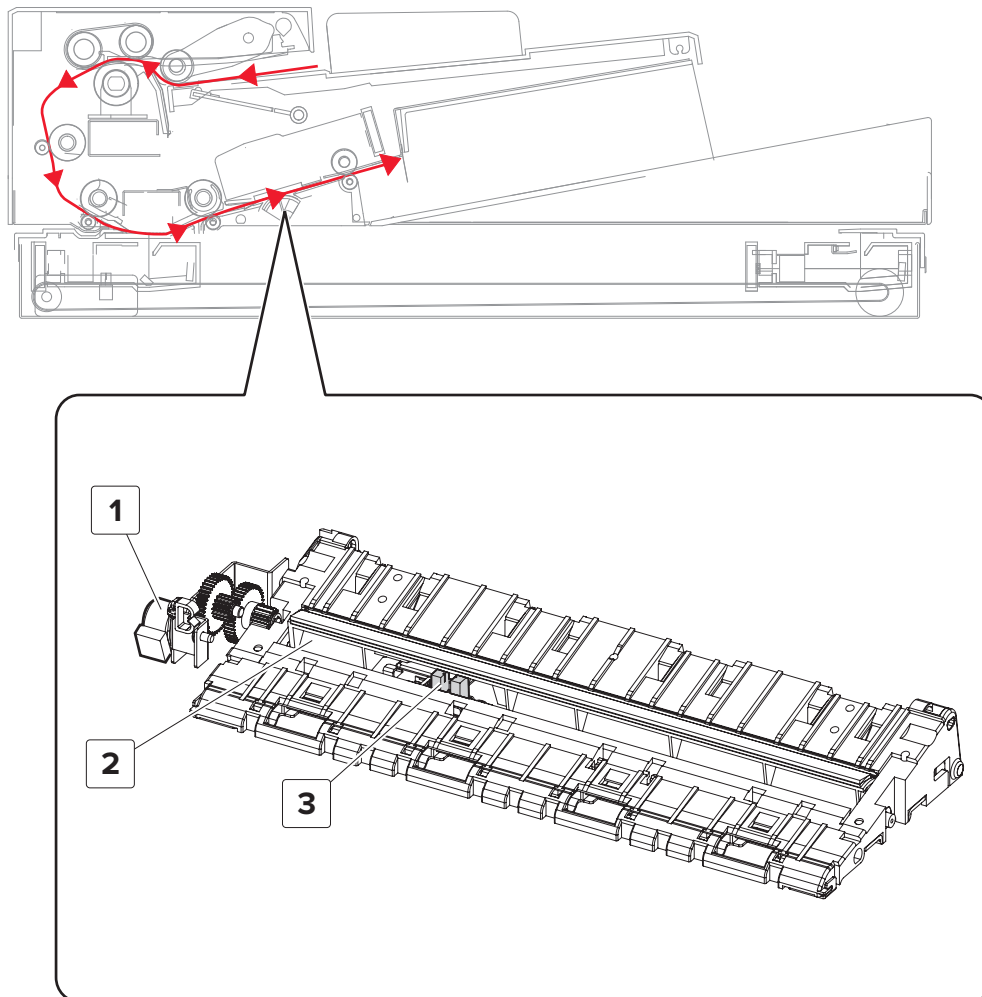


1	1st scan roller
2	Motor (ADF transport)
3	2nd scan roller
4	ADF exit roller

The paper is fed to the 1st scan roller to scan its front side. The flatbed scanner does the first scan. When the paper passes the 2nd scan roller, its back side is also scanned. The ADF CCD does the second scan. The exit roller ejects the scanned document to the ADF bin.

The motor (ADF transport) drives the scan and exit rollers.

ADF calibration drive



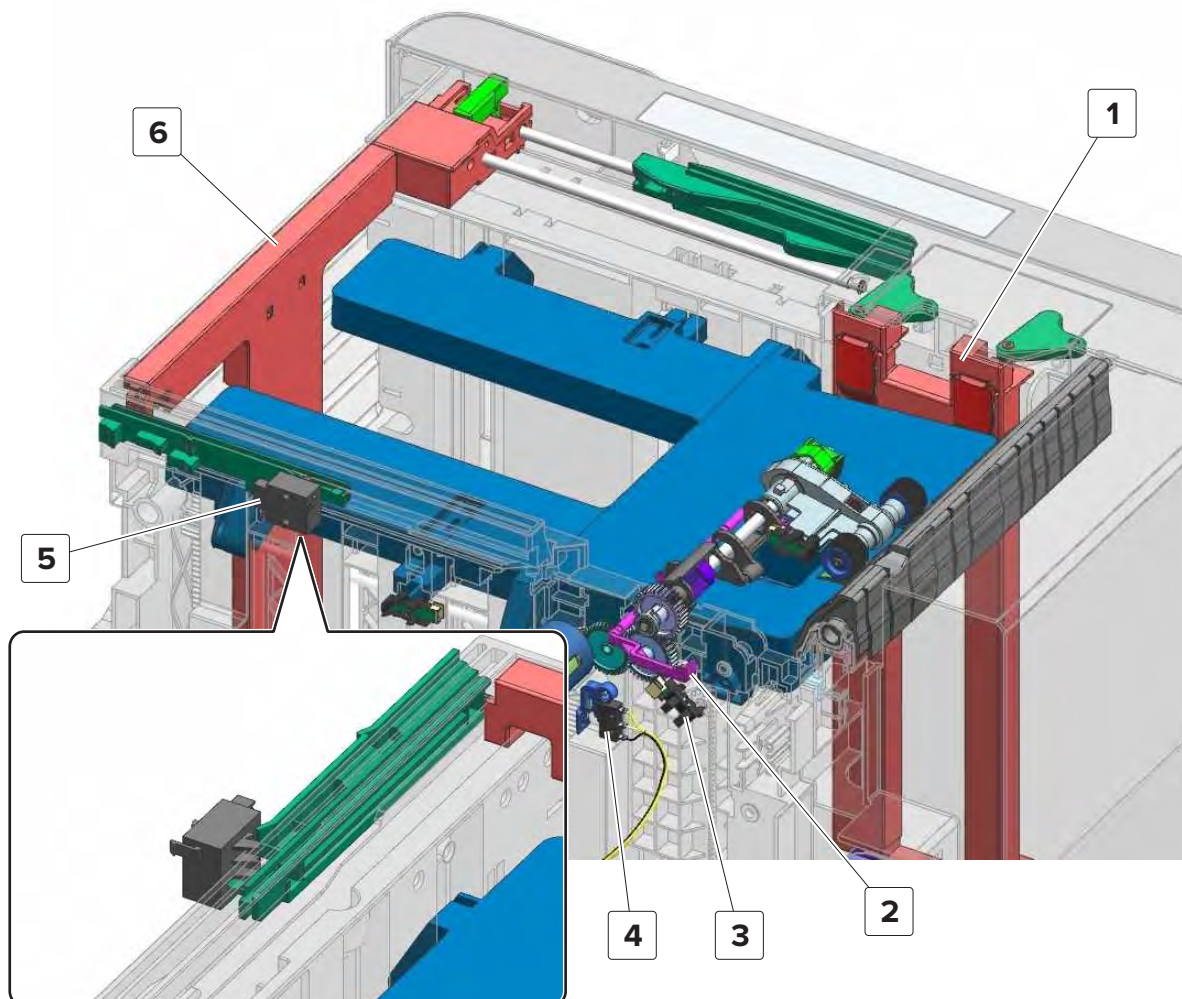
1	Motor (ADF calibration)
2	ADF calibration roller
3	Sensor (ADF calibration)

For rear side scanning, the ADF calibration roller has a black reference strip and two white reference strips. Both white strips are used for calibrating white levels. By default, the thin white strip is used for scan jobs. The black strip is for jobs that involve image editing or cropping.

The roller rotates until the appropriate strip is facing the ADF scanner. The motor (ADF calibration) controls the roller position.

2200-sheet tray operation

Paper presence and size detection

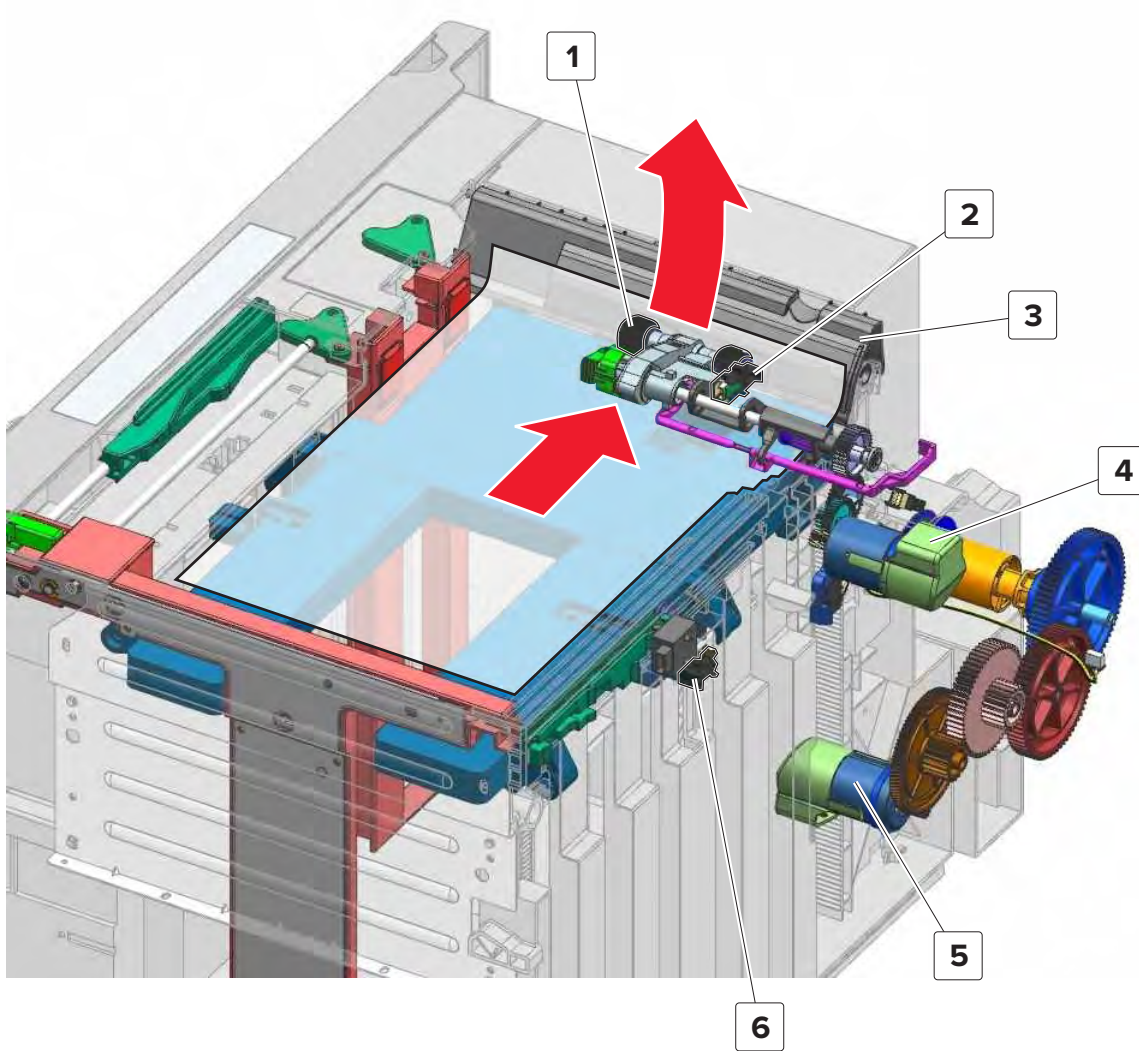


1	2200-sheet tray media width guide
2	2200-sheet tray media out actuator
3	Sensor (2200-sheet tray media out)
4	2200-sheet tray wake up switch
5	Sensor (2200-sheet tray media size)
6	2200-sheet tray media length guide

When the tray insert is pulled, the switch (2200-sheet tray wake up) wakes the printer from Hibernate/Sleep mode.

Triggered by the media out actuator, the sensor (2200-sheet tray media out) then detects that there is no paper in the tray. The positions of the guides determine the dimensions of the paper. The sensor (2200-sheet tray media size) detects the position of the guides.

Paper lift and feed



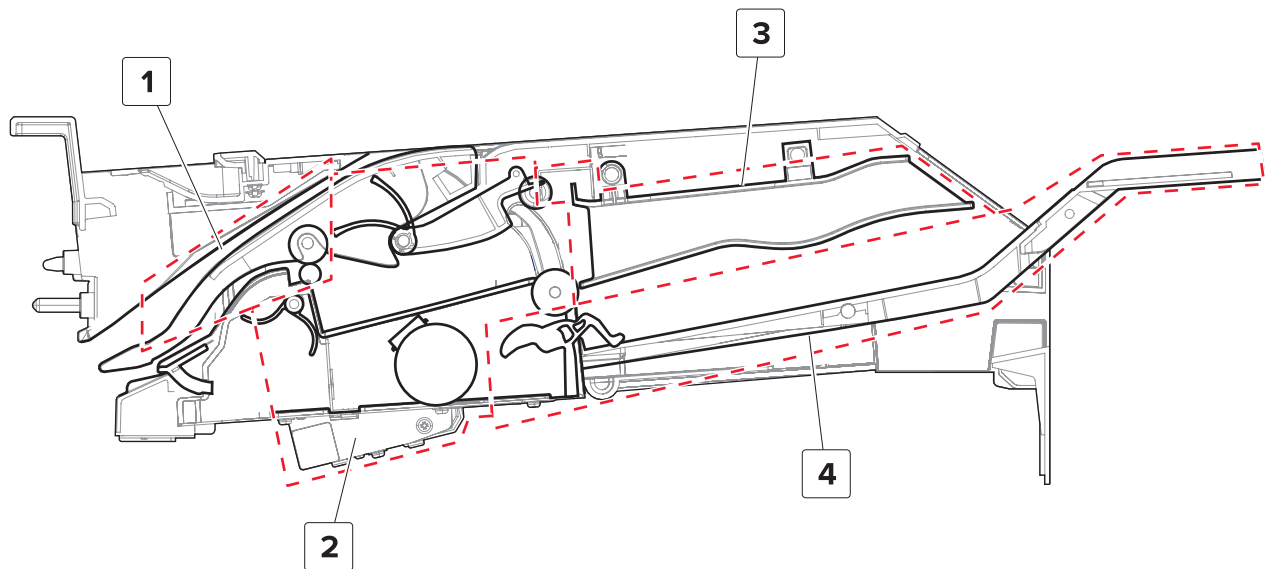
1	2200-sheet tray pick roller
2	Sensor (2200-sheet tray pick roller index)
3	2200-sheet tray separator pad
4	Motor (2200-sheet tray pick)
5	Motor (2200-sheet tray lift)
6	Sensor (2200-sheet tray media low)

During the feed, the elevator plate raises the paper until the paper comes into contact with the pick roller. The sensor (2200-sheet tray pick roller index) detects if the pick roller is sufficiently engaged with the paper. The motor (2200-sheet tray lift) controls the movement of the elevator plate. As the amount of paper lessens, the elevator plate also continues to move up. When the tray is almost empty, the actuator triggers the sensor (2200-sheet tray media low).

After the pick roller is in position, it feeds the topmost paper to the transport rollers on the upper tray. Separator pads opposite the pick roller ensure that only one sheet is fed a time. The motor (2200-sheet tray pick) drives the pick roller.

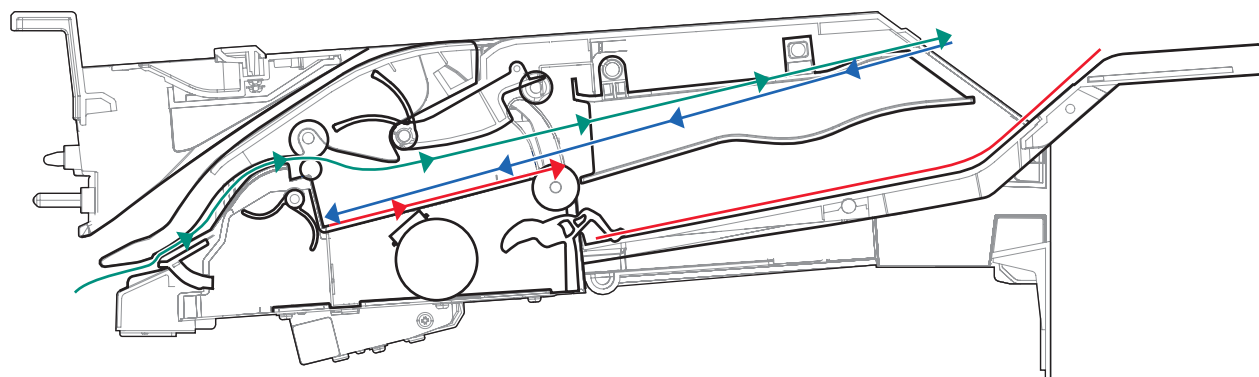
Staple finisher operation

Staple finisher sections



1	Feed section
2	Compiler section
3	Tamper section
4	Bin section

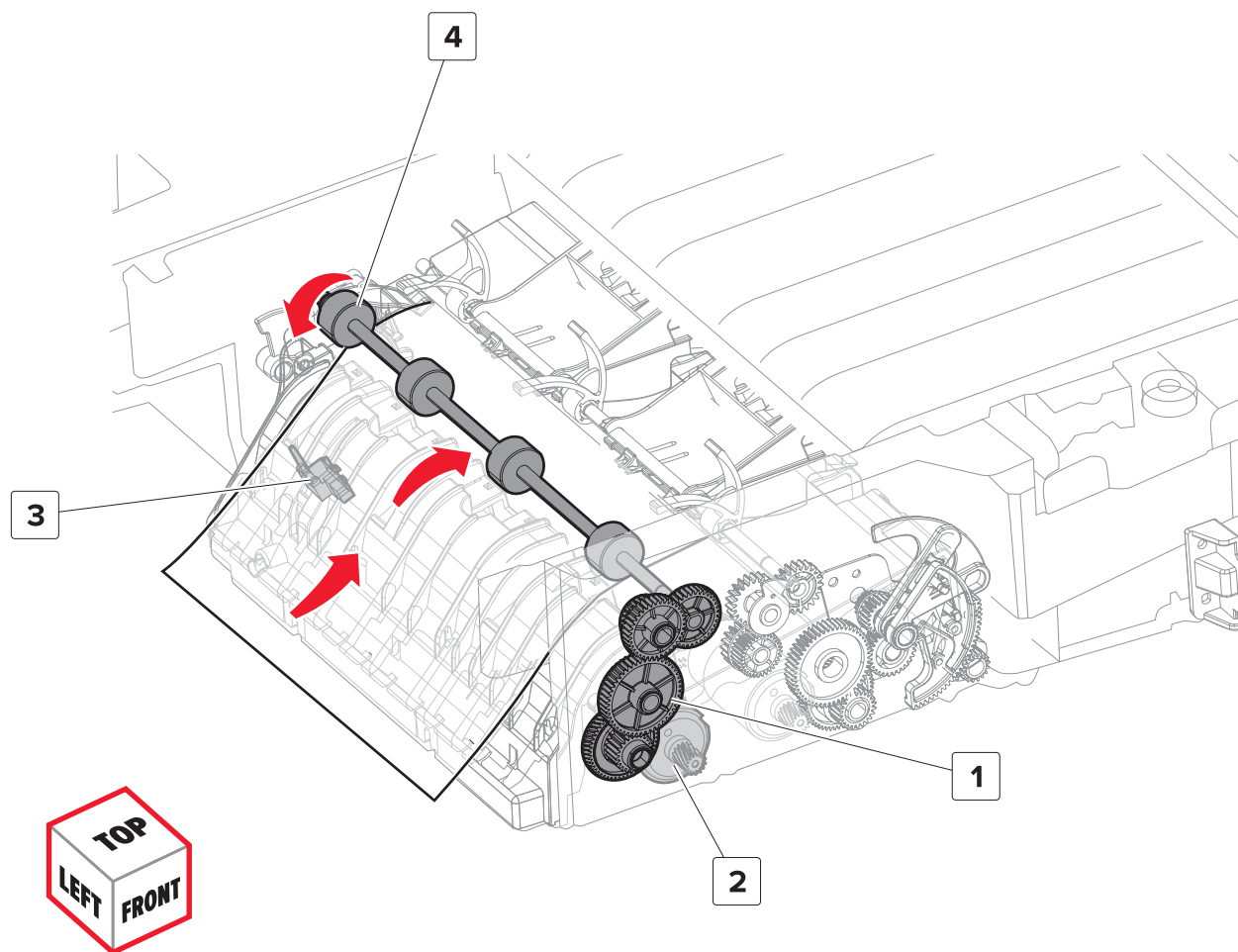
Paper path



The staple finisher is installed on the printer standard bin and receives paper from the printer exit roller.

Staple or offset jobs are fed to the compiler section for the required finishing, and then to the bin. Print jobs that do not require finishing are directly fed to the bin.

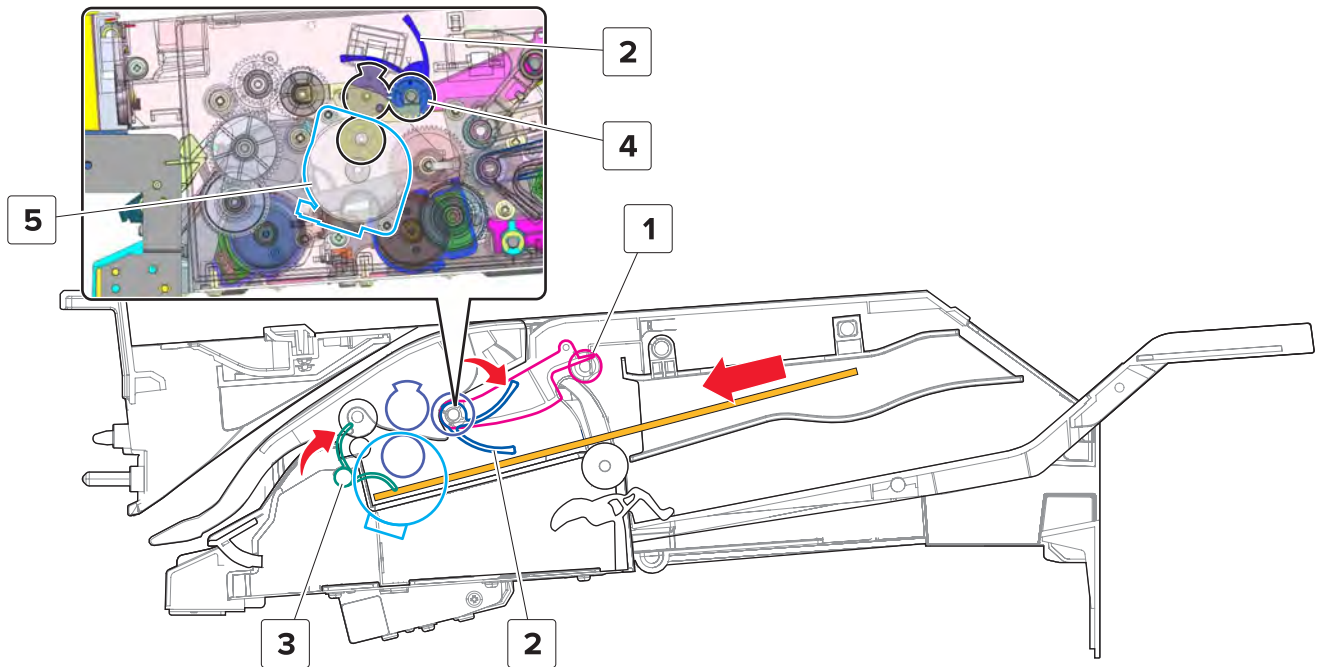
Staple finisher feed section



1	Transport gears
2	Motor (staple finisher transport)
3	Sensor (staple finisher transport)
4	Transport roller

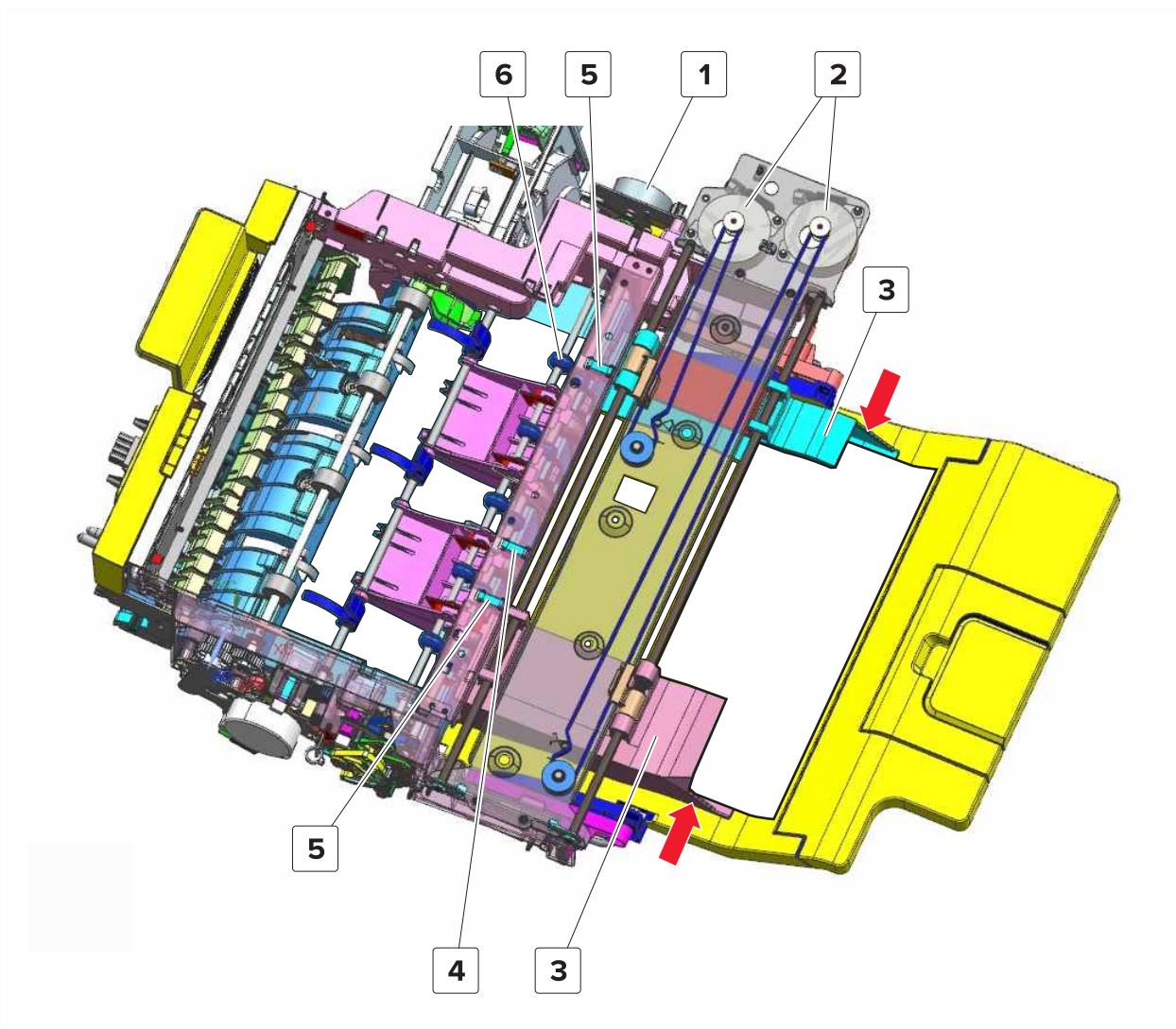
The feed section receives the paper from the printer, and the sensor (staple finisher transport) detects the paper entering the finisher. The motor (staple finisher transport) drives the transport roller to feed the paper to the compiler section.

Compiler section feed and paper alignment



1	Upper exit roller
2	Aligner paddles
3	Decurl paddles
4	Aligner paddle gears
5	Motor (staple finisher aligner paddle)

As the paper enters the compiler section, the motor (staple finisher aligner paddle) drives the aligner paddles. These paddles push the paper to the compiler wall, aligning the short edge. The decurl paddles rotate to push the paper on the compiler tray.

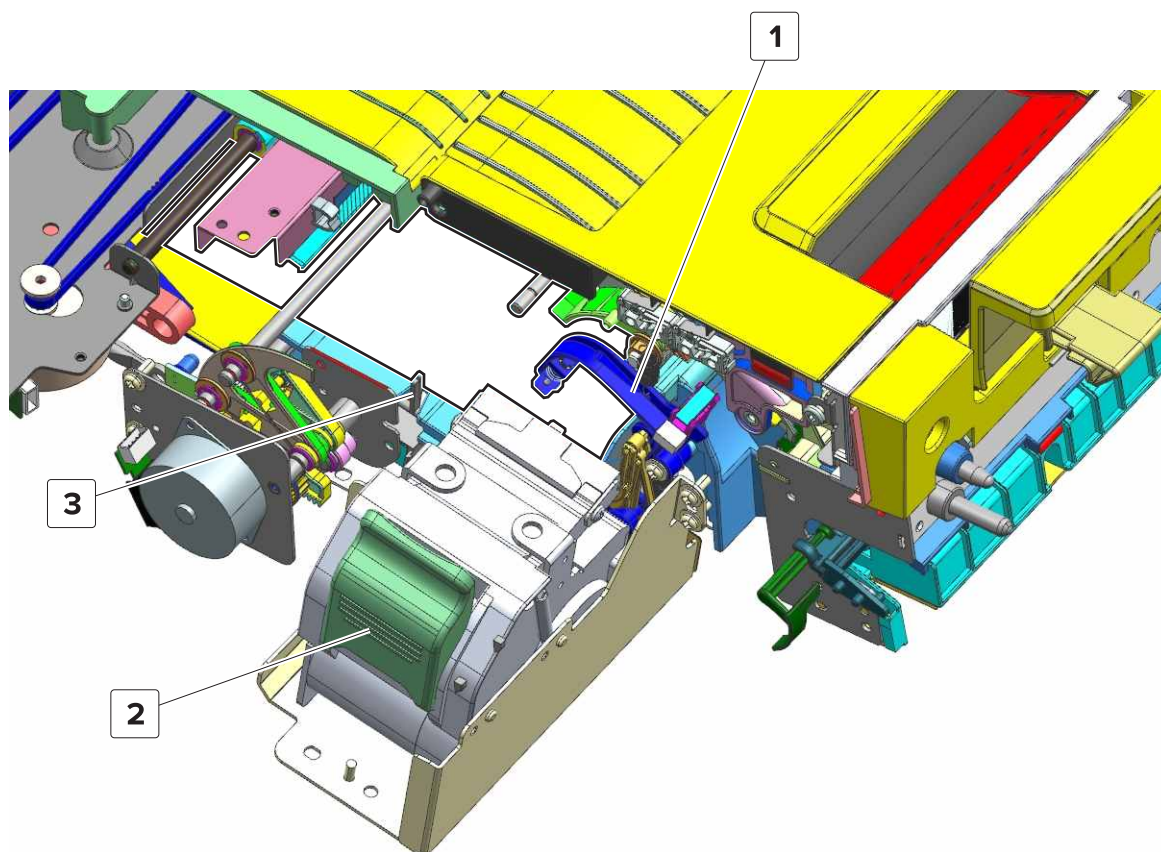


1	Motor (staple finisher upper exit roller)
2	Tamper motors
3	Tampers
4	Sensor (narrow media tamper)
5	Tamper home sensors
6	Upper exit roller

After the long edges are aligned, the motor (staple finisher upper exit roller) raises the upper exit roller to clear the paper path. The transport roller continues to move the paper until the leading portion enters the tamper section and the trailing edge falls into the compiler. The tampers move to align the long edges.

Subsequent sheets are fed and aligned in the same manner.

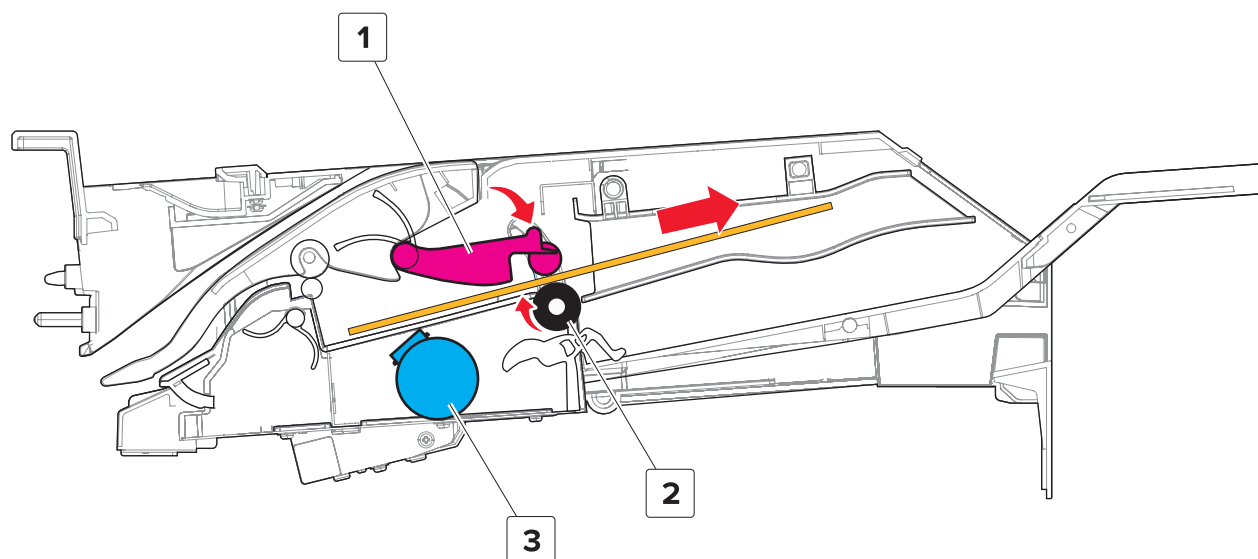
Offset and stapling operation



1	Stack clamp
2	Staple unit
3	Sensor (staple finisher staple unit paper present)

If the print job requires stapling, then the tampers push the paper stack to the rear of the finisher. The stack is detected by the sensor (staple finisher staple unit paper present). The stack clamp moves down to hold the stack in place, and then the stack is stapled. For offset jobs, the stack is pushed to the front or rear.

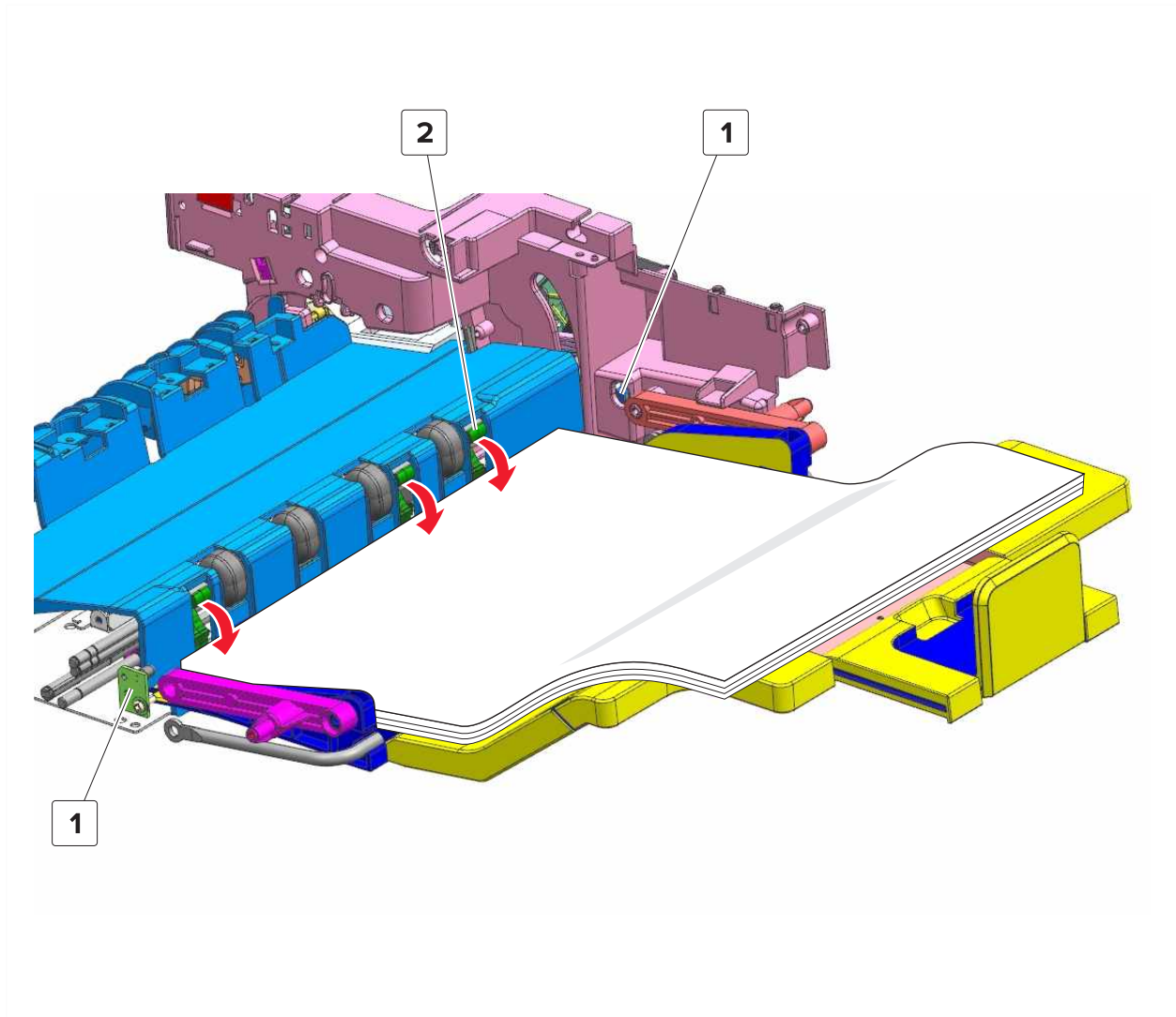
Compiler section exit



1	Upper exit roller
2	Lower exit roller
3	Motor (staple finisher exit)

After stapling or offset, the motor (staple finisher upper exit roller) lowers the upper exit roller causing the roller to come into contact with the stack. The motor (staple finisher exit) drives the upper and lower exit rollers to feed the stack to the bin.

Bin section

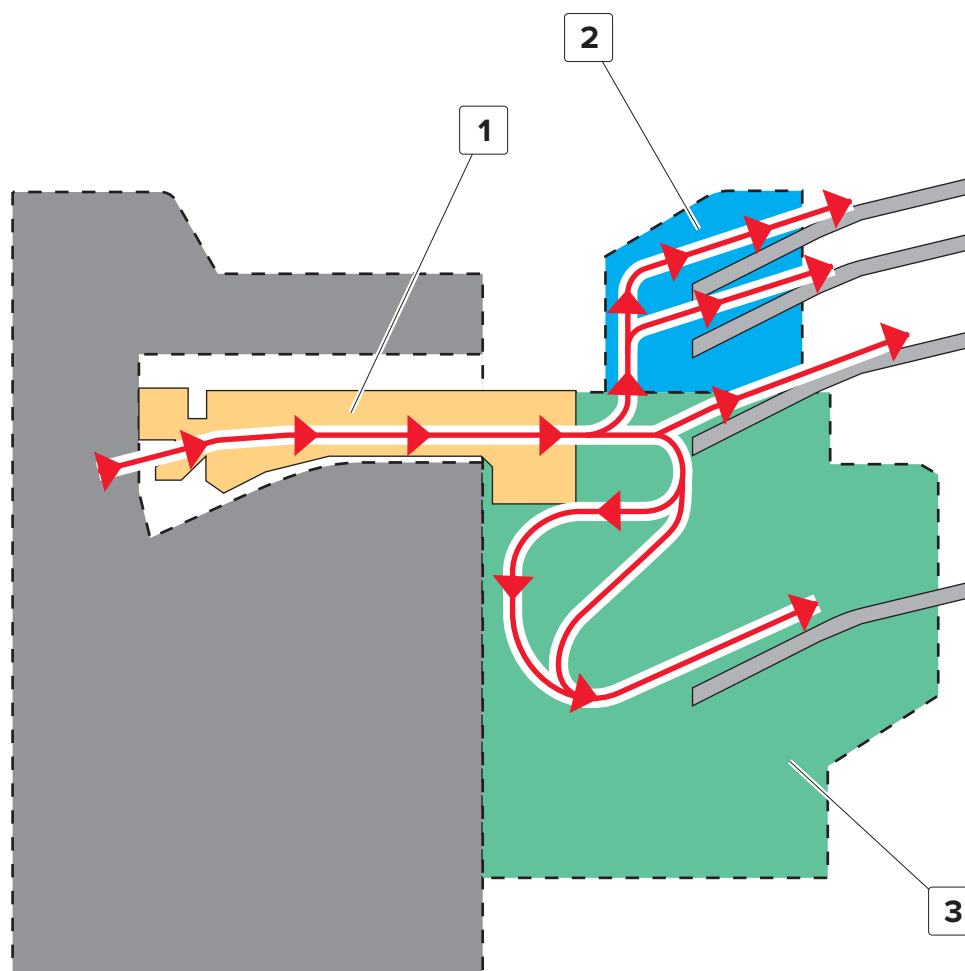


1	Sensor (staple finisher bin full)
2	Bin arms

After the paper is placed on the bin, the bin arms lower to set the stack on the bin. The bin is held by springs, and it lowers due to the weight of the accumulating paper. The sensor (staple finisher bin full) detects if the bin is full.

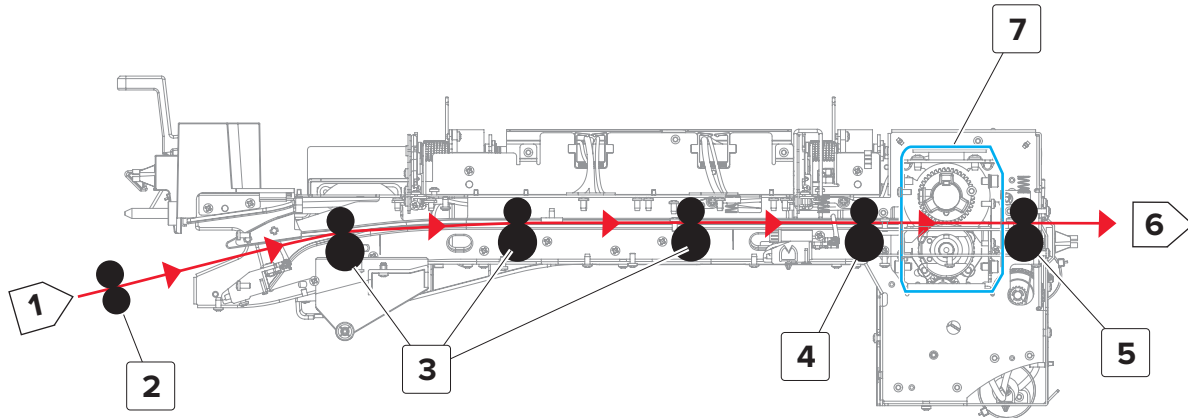
Multiposition staple, hole punch finisher operation

Finisher sections



#	Part	Function
1	Horizontal paper transport (HPT)	Transfers the paper from the printer to the output finisher options and performs hole punch jobs.
2	2-bin mailbox	Delivers print jobs to multiple bin destinations and allows the user to segregate the printed output to an assigned bin.
3	Multiposition staple, hole punch finisher (MSHPF)	Compiles and staples multiple pages into one document.

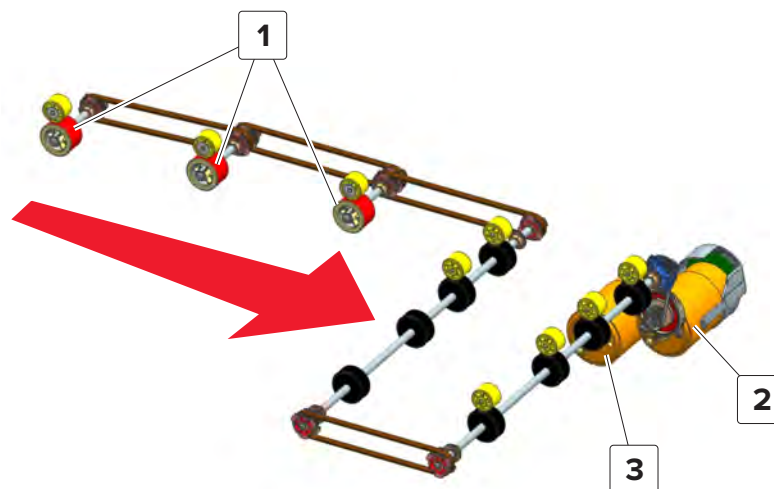
HPT paper path



1	From printer
2	Exit roller
3	Transport rollers
4	Hole punch entrance roller
5	HPT exit roller
6	To mailbox or finisher
7	Hole punch unit (HPU)

The exit roller feeds the paper to the HPT. Paper continues to move through the transport rollers and hole punch entrance roller. Paper exits through the HPT exit roller, and then enters the mailbox or finisher. Two sensors detect the position of the paper along the paper path.

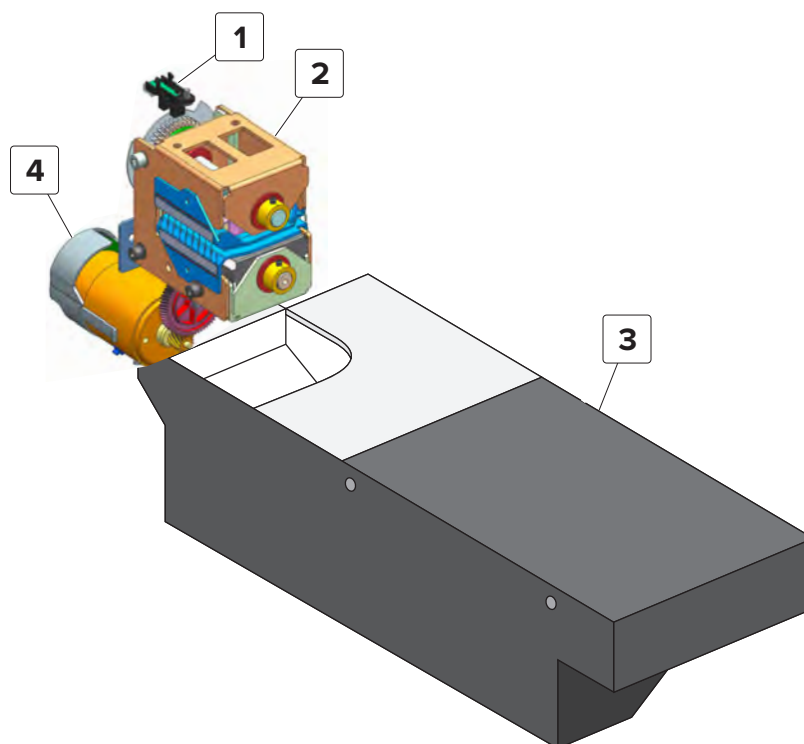
HPT drive



1	Transport rollers
2	Motor (HPT transport)
3	Motor (HPU)

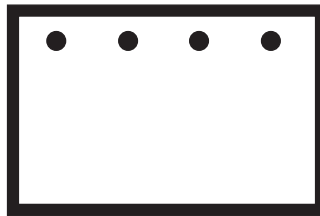
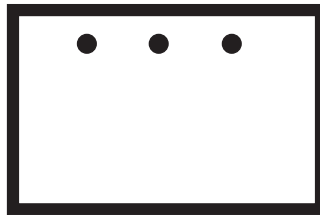
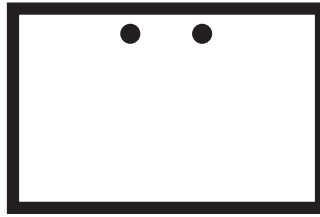
The motor (HPT transport) drives the rollers. Transport rollers are slightly skewed to push and align the long edge of the paper to the rear.

HPU drive



1	Sensor (HPU)
2	HPU
3	Hole punch box
4	Motor (HPU)

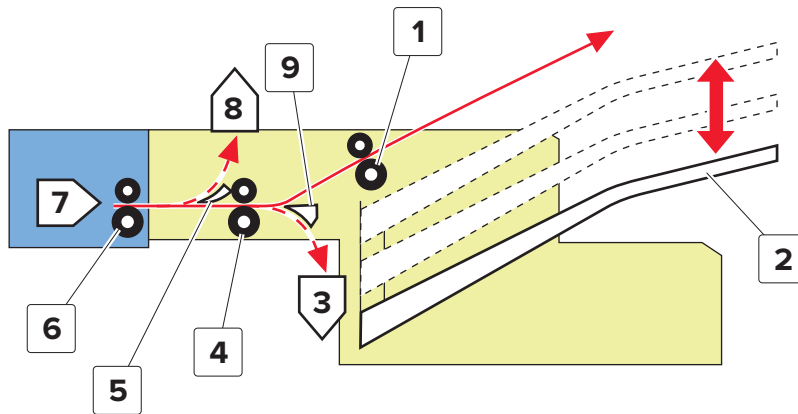
The motor (HPU) drives the puncher. The HPU can punch two to four holes in a sheet.



The sensor (HPU) detects the movement of the puncher head.

Inside the hole punch box, a rotating auger stirs the chad particles to even the chad level.

Finisher standard bin paper path

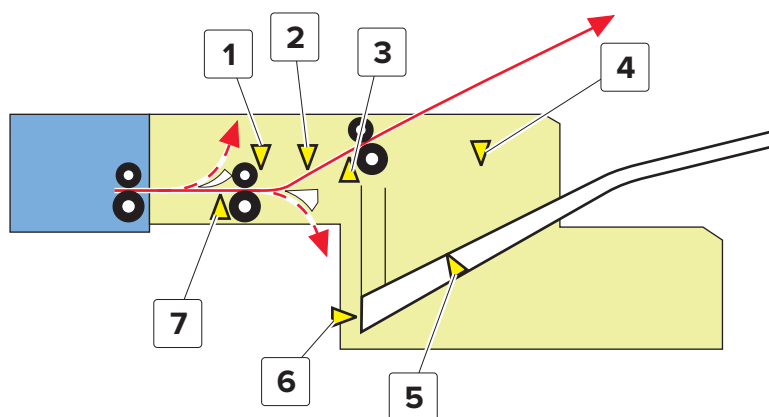


1	Standard bin exit roller
2	Standard bin
3	To staple finisher
4	Mid-transport roller
5	Mid-transport diverter 1
6	HPT exit roller
7	From HPT
8	To mailbox
9	Mid-transport diverter 2

The two mid-transport diverters open to guide the paper to the finisher standard bin.

The paper is ejected by the exit roller to the bin. The bin moves up or down depending on the height of the paper stack.

Finisher standard bin paper path sensors



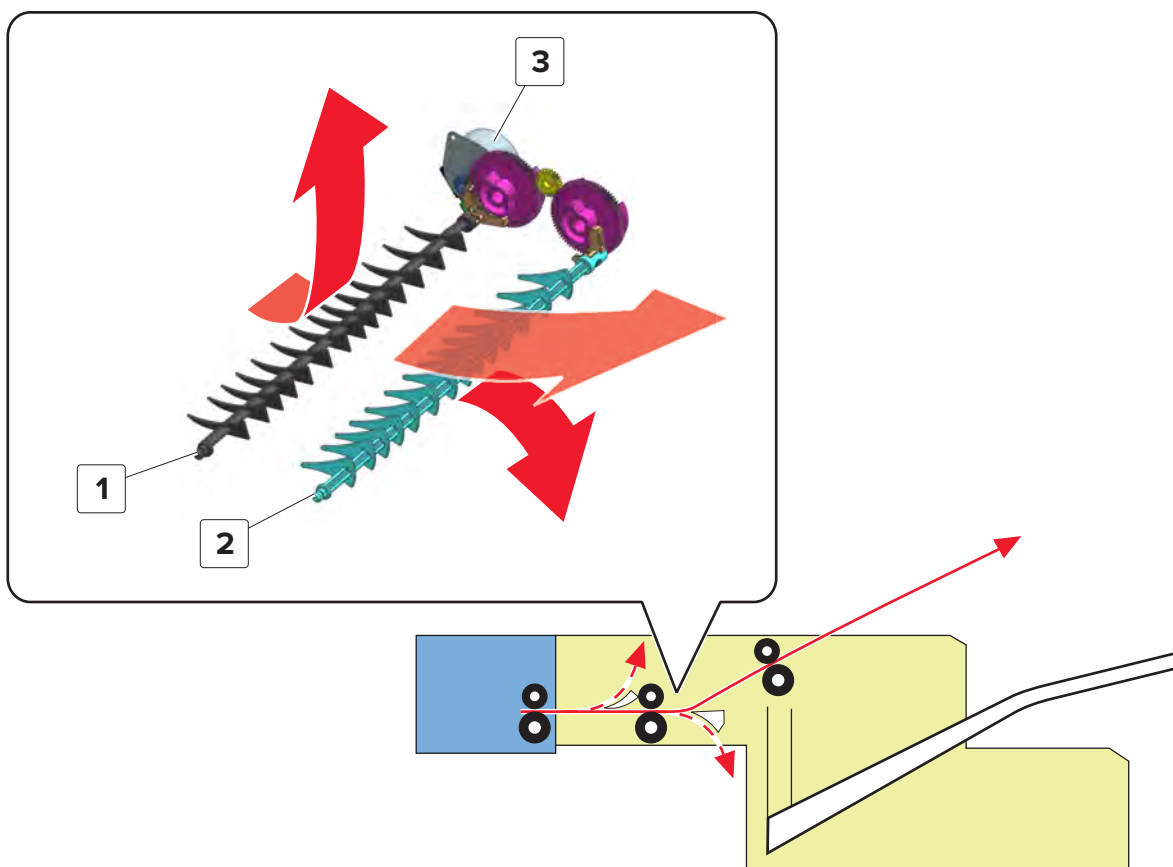
Theory of operation

1	Sensor (mid-transport diverter 1)
2	Sensor (mid-transport diverter 2)
3	Sensor (MSHPF standard bin exit)
4	Sensor (standard bin stack upper limit)
5	Sensor (standard bin paper present)
6	Sensor (standard bin lower limit)
7	Sensor (mid-transport)

Paper path sensors and their functions:

- Each mid-transport diverter has a sensor that detects its position.
- Sensors detect the paper passing the mid-transport roller and the bin exit roller.
- Sensors on the bin detect if the bin is empty, near full, or full.

Mid-transport diverter drive



1	Mid-transport diverter 1
2	Mid-transport diverter 2
3	Motor (mid-transport diverter)

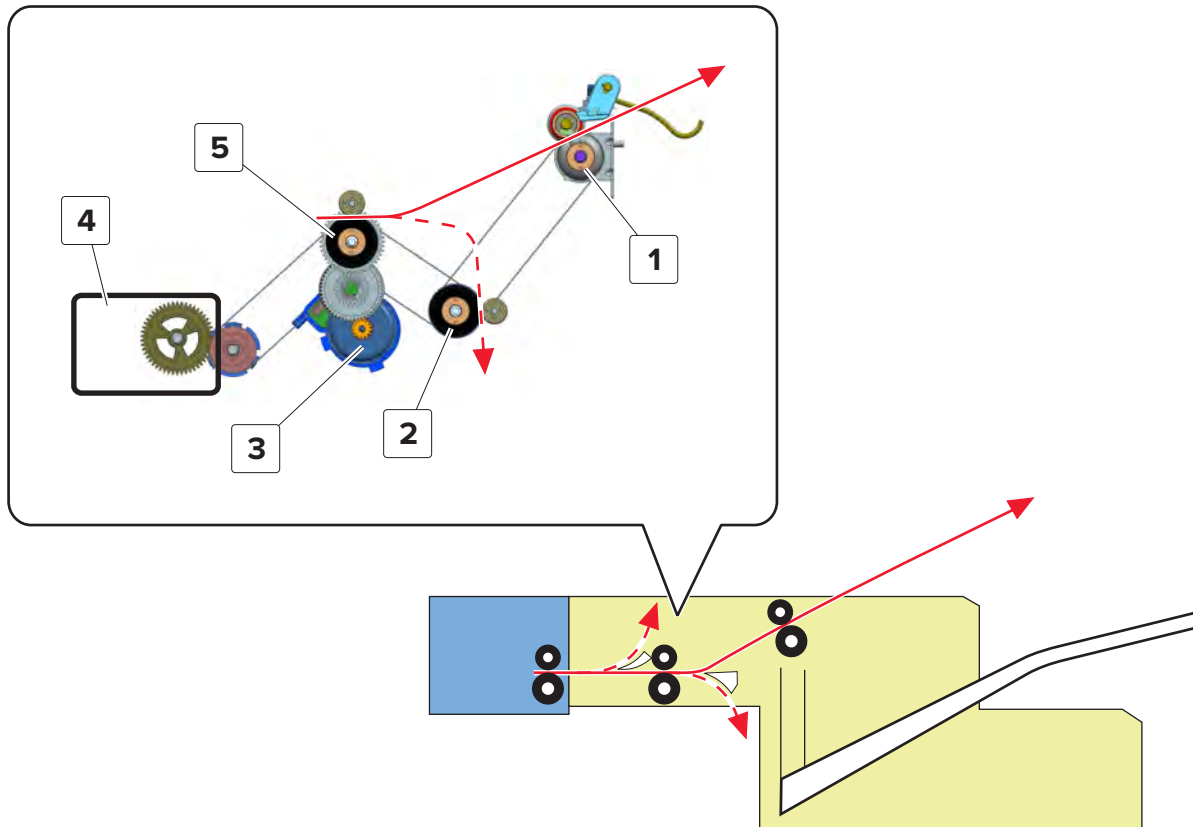
Theory of operation

The two diverters are controlled by the motor (mid-transport diverter).

The positions of the diverters determine whether the paper enters the mailbox, finisher standard bin, or staging area.

Two sensors detect the position of the two diverters. For more information, see [“Finisher standard bin paper path sensors” on page 1625](#).

Finisher standard bin transport drive

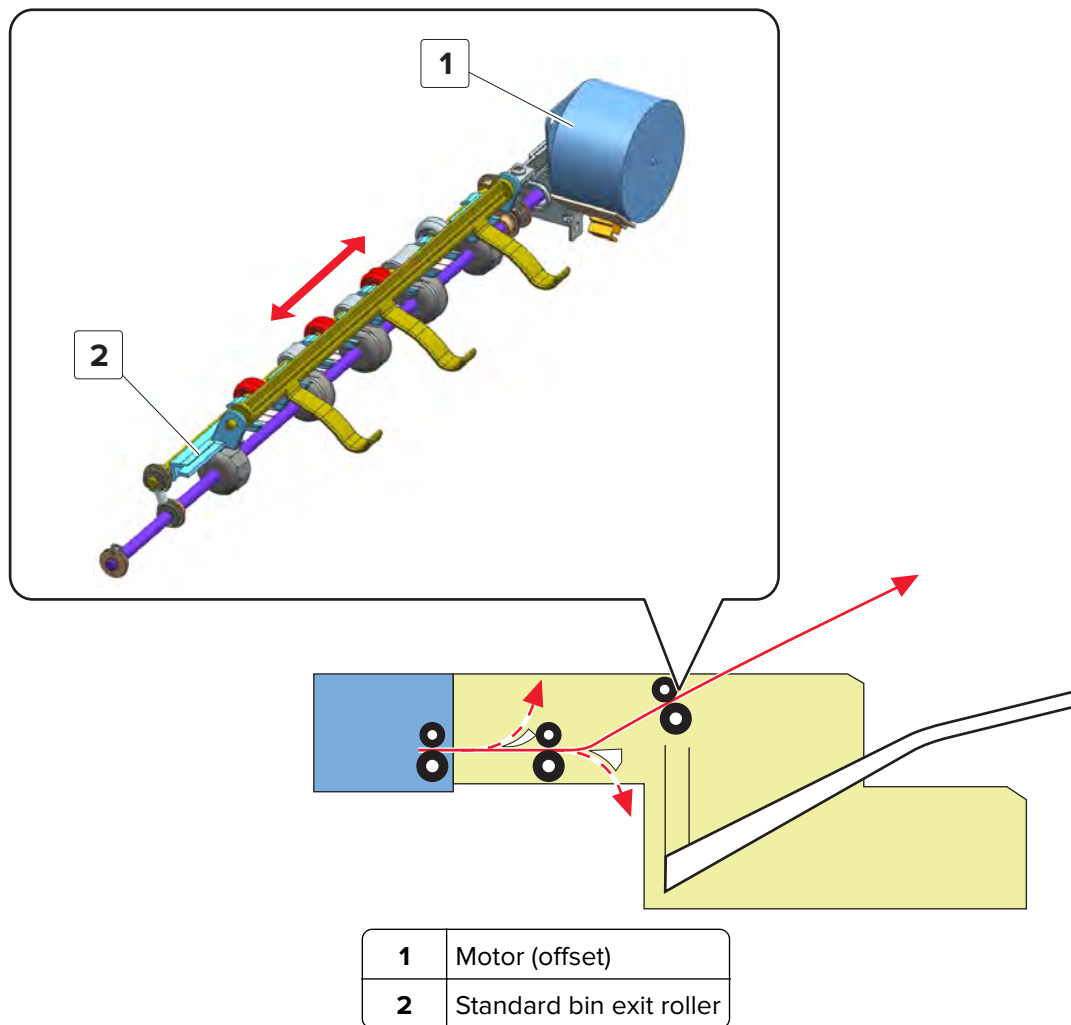


1	Finisher standard bin exit roller
2	Staging entrance roller
3	Motor (mid-transport)
4	Hole punch box
5	Mid-transport roller

The motor (mid-transport) drives the mid-transport and exit rollers. It also drives the rotation of the auger inside the hole punch box. For more information, see [“HPU drive” on page 1623](#).

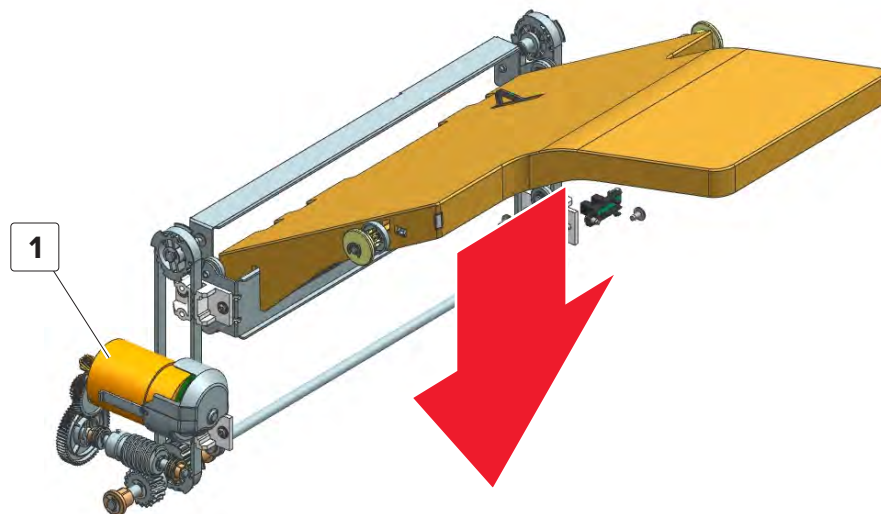
For staple jobs, the paper is diverted to the staging entrance roller.

Finisher standard bin offset drive



For offset stacking, the motor (offset) moves the exit rollers to control the lateral position of the exited paper.

Finisher standard bin elevator drive

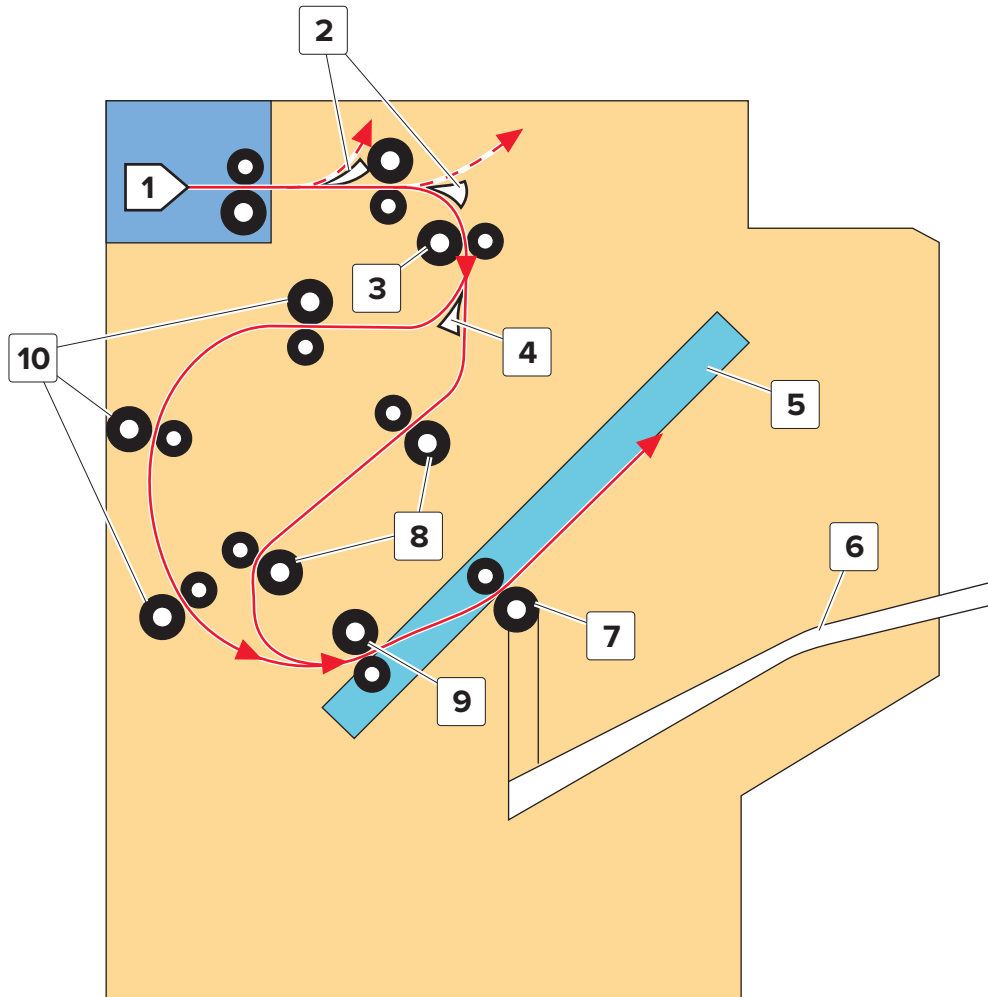


1	Motor (standard bin elevator)
---	-------------------------------

The bin lowers as the height of the paper stack increases. The movement of the bin is controlled by the motor (standard bin elevator).

Sensors detect the positions of the bin and paper. For more information, see [“Finisher standard bin paper path sensors” on page 1625](#).

Finisher stapler bin paper path



1	From HPT
2	Mid-transport diverters
3	Staging entrance roller
4	Staging diverter
5	Compiler tray
6	Stapler bin
7	Stapler bin exit roller
8	Staging inner transport rollers
9	Compiler entrance roller
10	Staging outer transport rollers

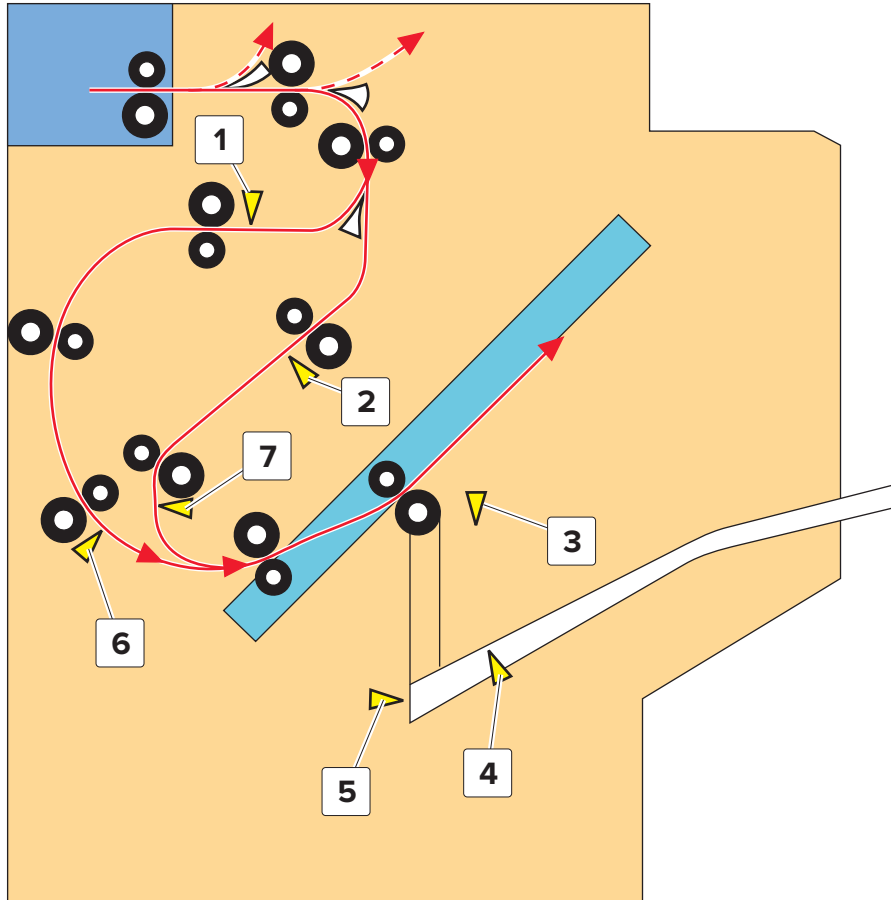
The mid-transport diverters open to guide the paper from the HPT to the staging entrance roller.

As the paper enters the staging area, the staging diverter switches to guide the paper to the staging outer or inner path.

After staging is done, the paper passes the compiler entrance roller and enters the compiler tray. In preparation for stapling, the pages are stacked together at the compiler tray. The edges of the pages are also aligned before stapling.

After the staple job is done, the finished document is ejected by the exit roller to the stapler bin.

Finisher stapler bin paper path sensors



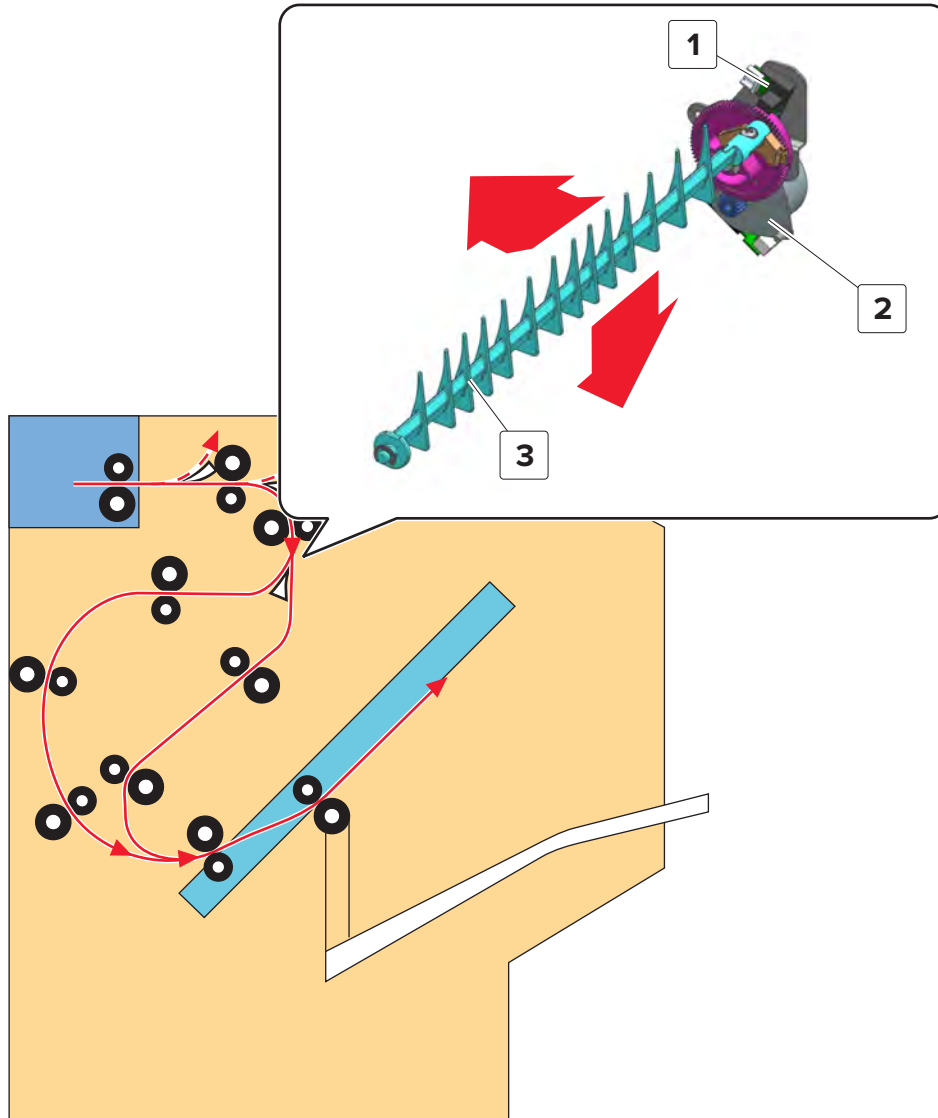
1	Sensor (staging outer transport 1)
2	Sensor (staging inner transport 1)
3	Sensor (stapler bin stack upper limit)
4	Sensor (stapler bin paper present)
5	Sensor (stapler bin lower limit)
6	Sensor (staging outer transport 2)
7	Sensor (staging inner transport 2)

Sensors at the staging area detect the paper passing through the outer and inner transport rollers.

Sensors on the bin detect if the bin is empty, near full, or full.

Sensor name	Type	Empty bin	Near full bin	Full bin
Sensor (stapler bin stack upper limit)	Transmitter and receiver	N/A	Off	On
Sensor (stapler bin lower limit)	Photointerruptor	N/A	On	On
Sensor (stapler bin paper present)	Photointerruptor	Off	On	On

Finisher staging diverter drive

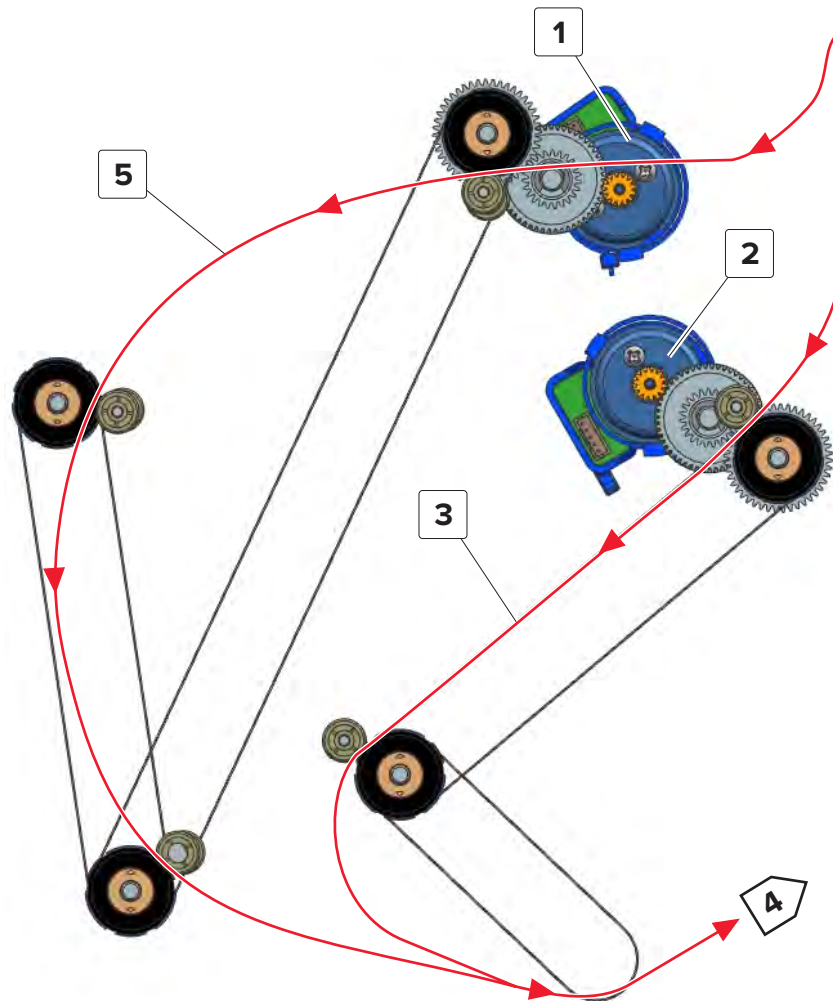


1	Sensor (staging diverter)
2	Motor (staging diverter)
3	Staging diverter

Theory of operation

The diverter guides the paper to the outer or inner staging path. It is controlled by the motor (staging diverter). A sensor detects the position of the diverter.

Finisher staging transport drive



1	Motor (staging outer transport)
2	Motor (staging inner transport)
3	Staging inner path
4	To compiler tray
5	Staging outer path

Staging is done to maximize the amount of finishing jobs at a given time. As a job is being processed at the compiler tray, the next job is simultaneously preloaded at the staging path. As a result, multiple staple jobs are done more efficiently.

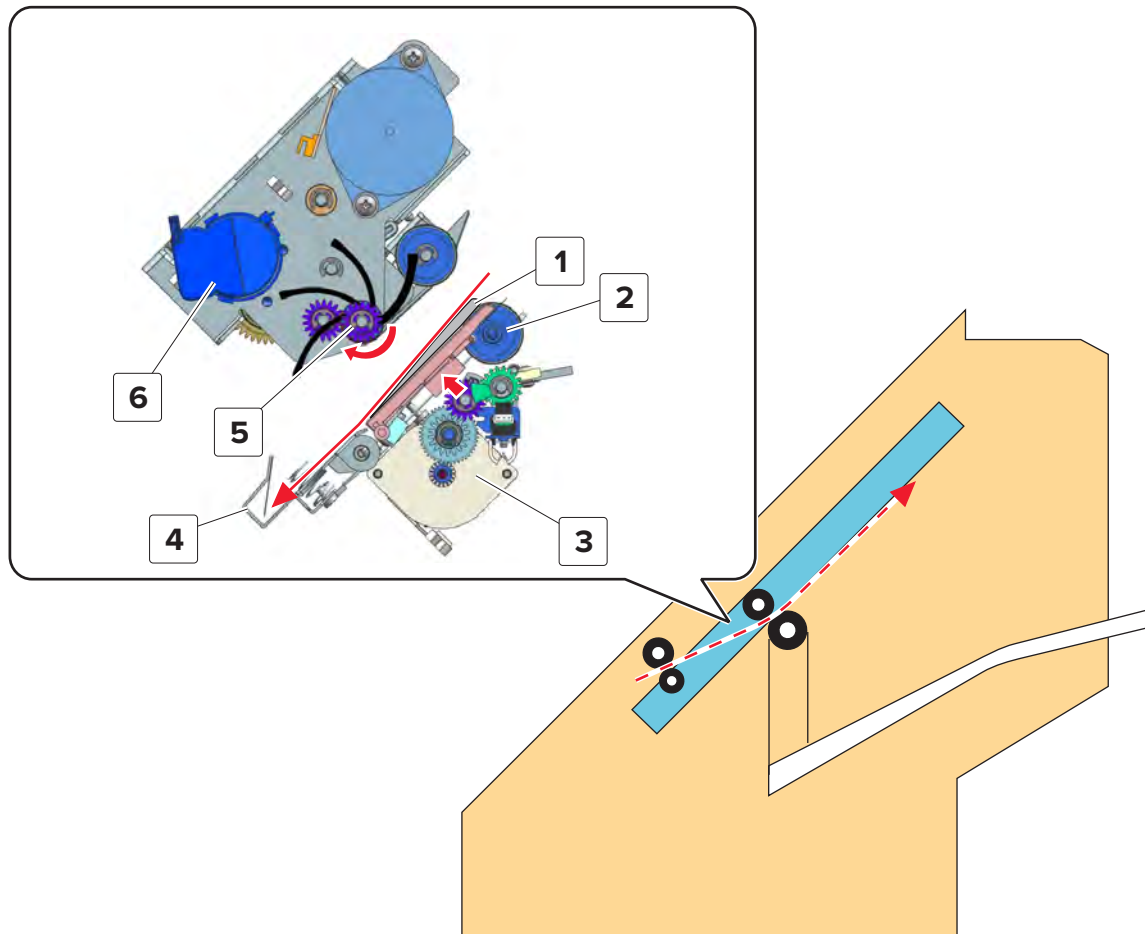
Staging sequence:

- 1** The first sheet (document 1) is diverted to the staging outer path. The second sheet (document 1) enters the staging inner path.
- 2** The first sheet waits for the second sheet, and then both sheets (document 1) enter the compiler tray.
Note: The trailing edge of the first sheet is slightly nearer to the bottom catch of the compiler tray.
- 3** Each of the remaining sheets (document 1) enters the staging inner path, and exits to the compiler tray. While ejecting the last sheet (document 1) to the the compiler tray, the staging sequence restarts at step 1 for document 2.

A motor for each staging path drives the transport rollers.

Compiler tray edge alignment drive

Short edge alignment



1	Lift plate (raised)
2	Lower exit roller
3	Motor (MSHPF bin clamp)
4	Bottom catch

Theory of operation

5	Paddle roller
6	Motor (compiler paddle)

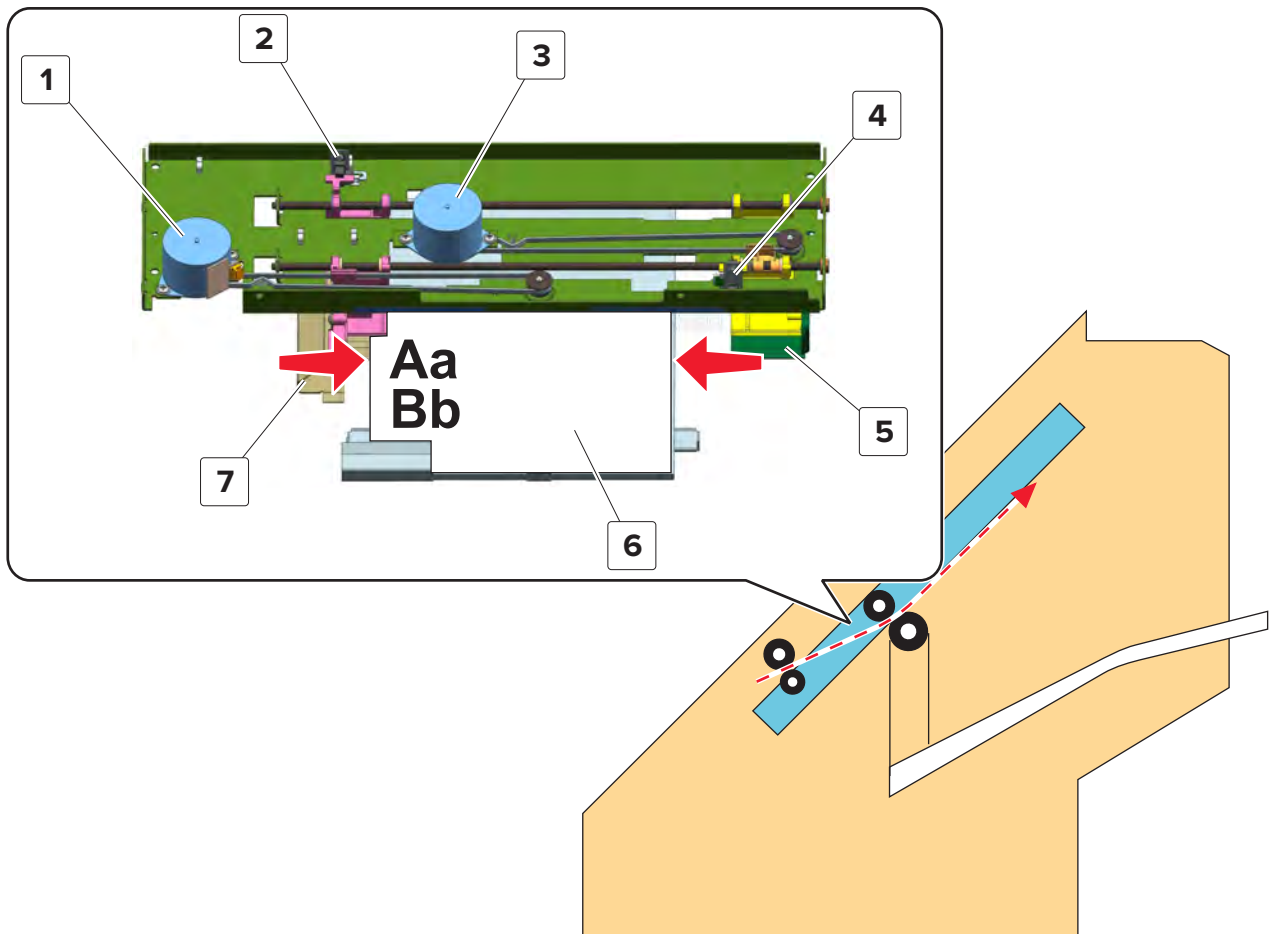
A lift plate on the compiler tray raises to counteract the paper curl. The raised lift plate also prevents the sheets from touching the lower exit roller.

Note: The lift plate lowers back during document ejection.

The motor (MSHPP bin clamp) controls the lift plate.

Each sheet that enters the compiler tray is aligned at its trailing edge by the paddle rollers. The motor (compiler paddle) turns the paddle rollers clockwise to push the sheet against the bottom catch of the compiler tray.

Long edge alignment

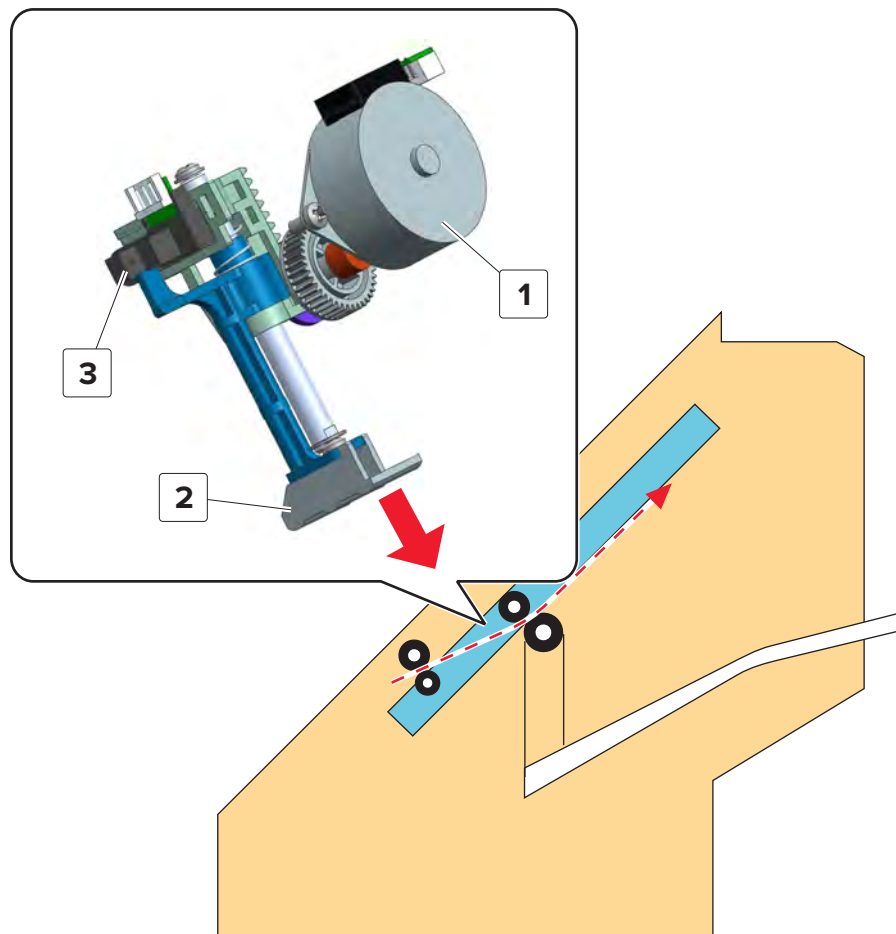


1	Motor (MSHPP rear tamper)
2	Sensor (MSHPP rear tamper)

3	Motor (MSHPF front tamper)
4	Sensor (MSHPF front tamper)
5	Front tamper
6	Paper
7	Rear tamper

In preparation for stapling, each sheet that enters the compiler tray is aligned at its long edge by the rear and front tampers. Motors control the positions of the tampers during edge alignment. The tampers are detected by their sensors when they are at their home positions.

Compiler tray stack height detection



1	Motor (compiler stack height)
2	Stack height actuator

Theory of operation

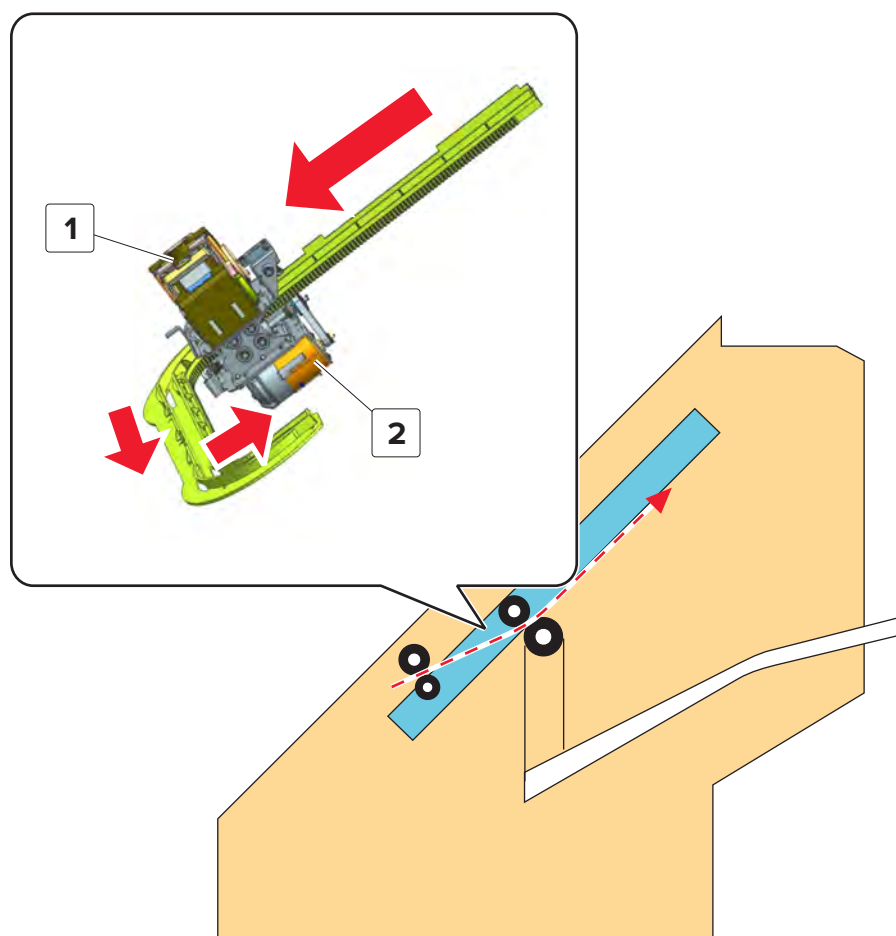
3	Sensor (compiler stack height)
----------	--------------------------------

Stack height detection is done each time a sheet enters the compiler tray.

The stack height actuator presses on top of the paper stack. The sensor (compiler stack height) detects if the stack thickness has reached the limit. Limiting the thickness of the stack prevents damage to the staple unit.

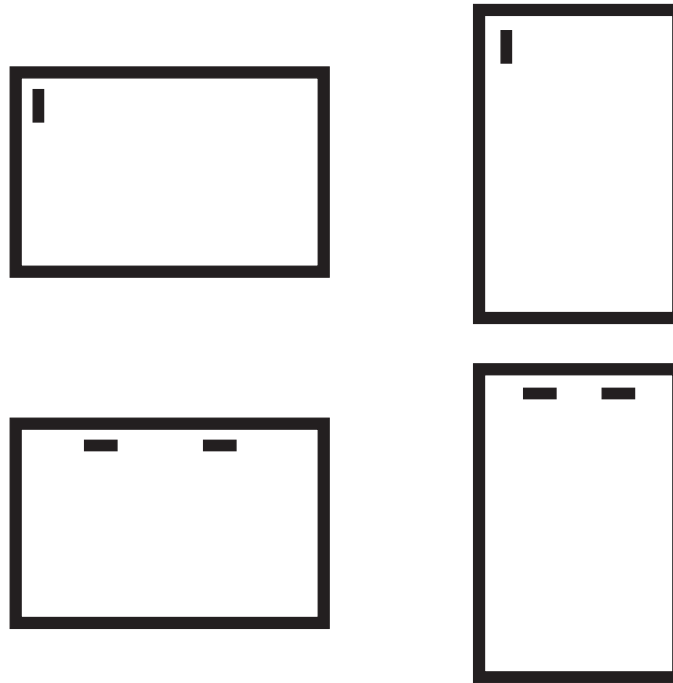
Note: If the thickness is over the limit, then the stack is ejected without being stapled.

Finisher staple unit carriage drive



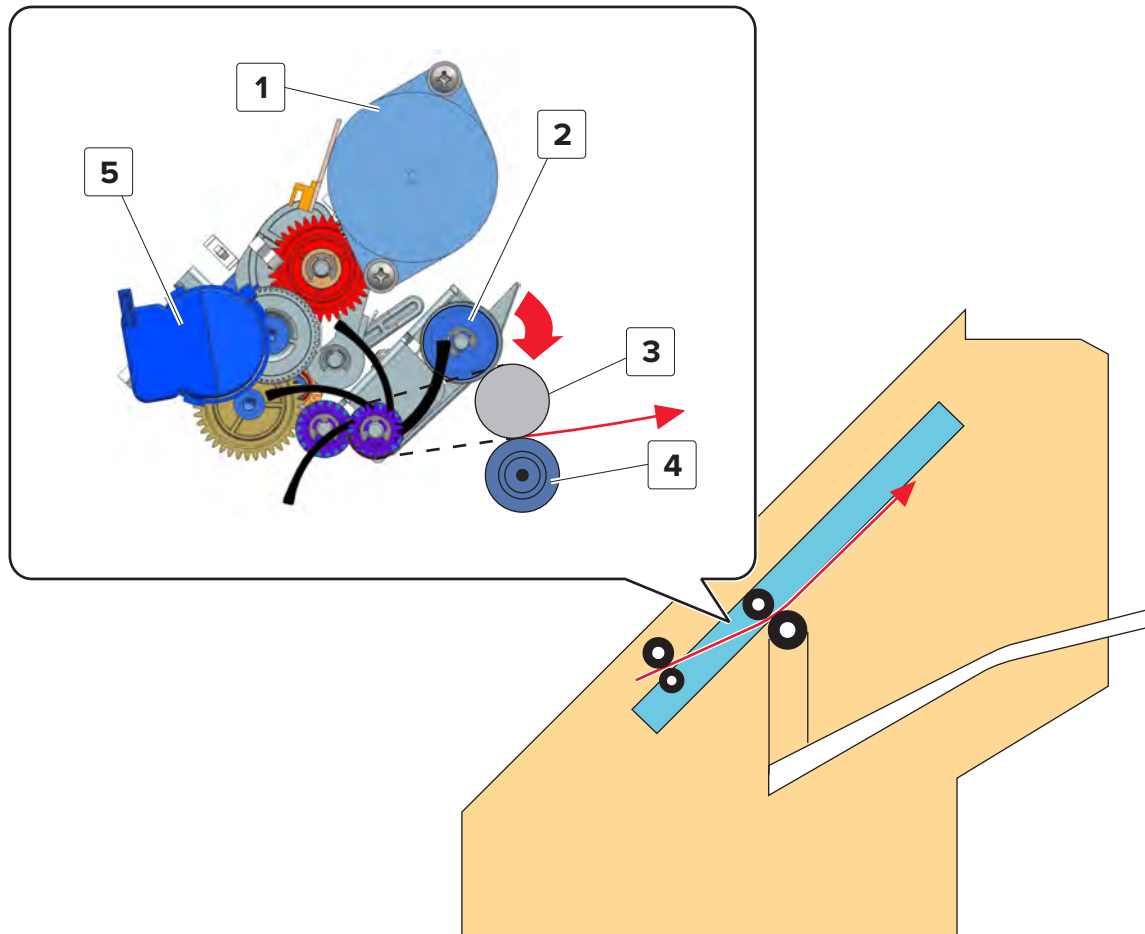
1	Staple unit
2	Motor (staple unit carriage)

The staple unit carriage travels along the edges of the paper stack and stops at positions where a staple job is required.



The motor (staple unit carriage) controls the position of the carriage.

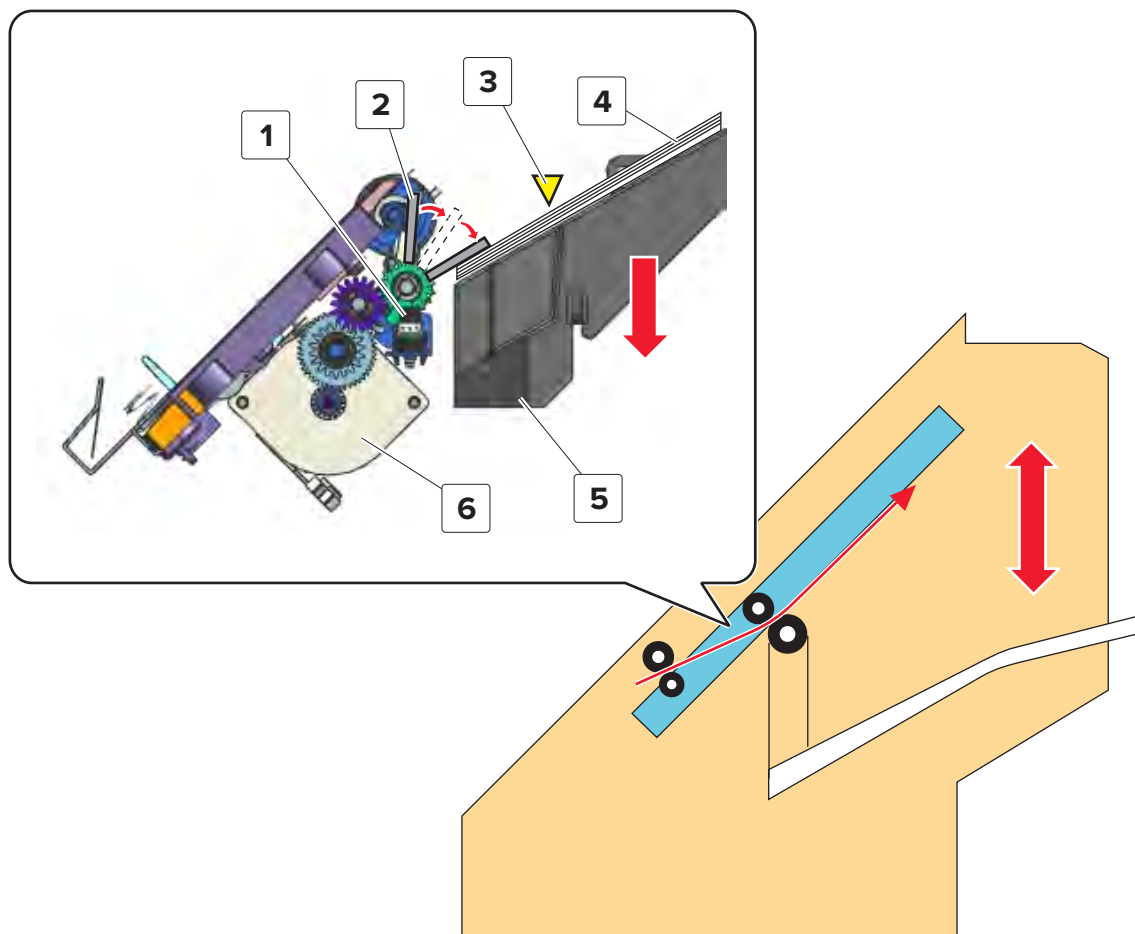
Finisher stapler bin exit drive



1	Motor (compiler exit cam)
2	Upper exit roller (up position)
3	Upper exit roller (down position)
4	Lower exit roller
5	Motor (compiler paddle)

After the staple job is done, the tampers move the document to the exit position, and then release the document on top of the lower exit roller. At the same time, the lift plate lowers and the upper exit roller moves down to engage with the lower exit roller. The movement of the upper exit roller is controlled by the motor (compiler exit cam). The motor (compiler paddle) turns the upper exit roller counterclockwise to eject the stapled document.

Finisher stapler bin clamp drive and upper limit detection



1	Sensor (MSHPPF bin clamp)
2	Bin clamp
3	Sensor (stapler bin stack upper limit)
4	Bin stack
5	Bin
6	Motor (MSHPPF bin clamp)

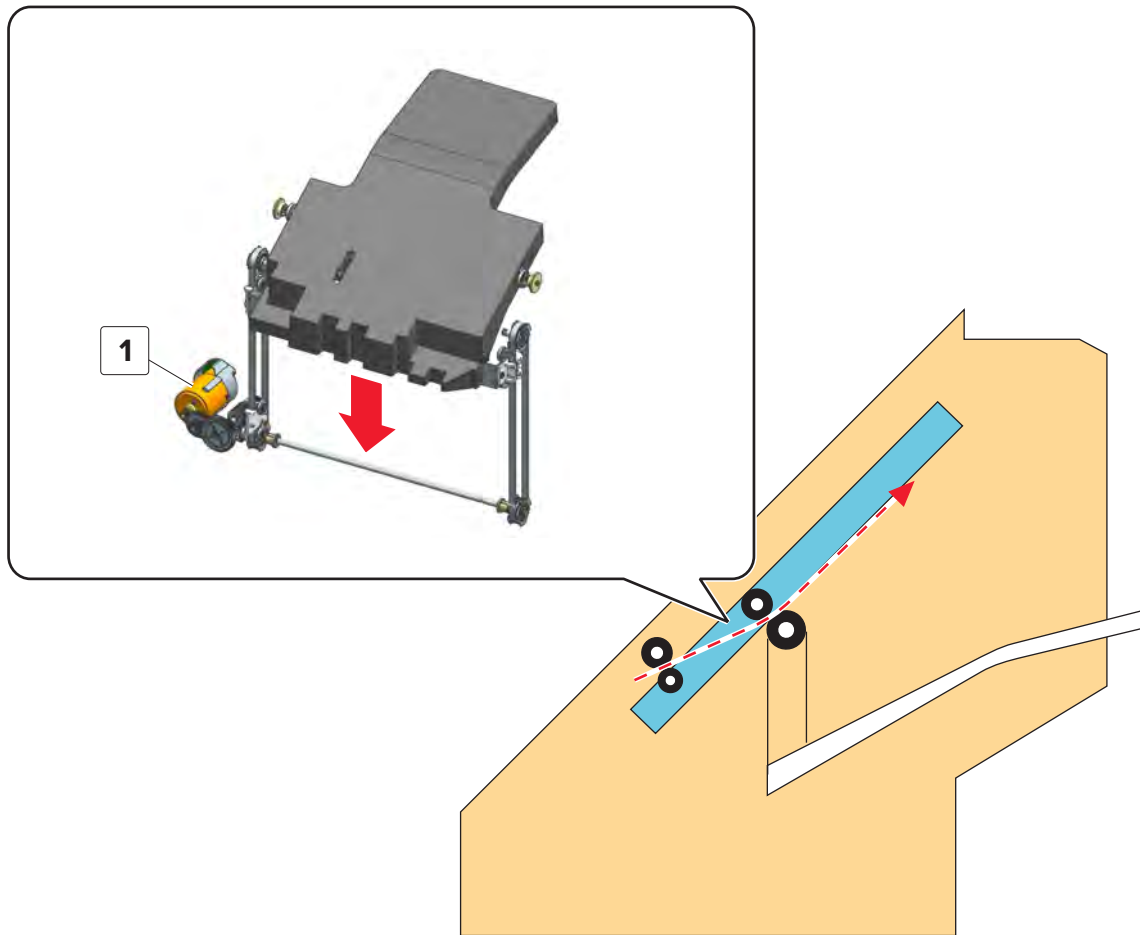
After a document is ejected, the bin clamp lowers and holds the bin stack.

Note: The bin clamp will raise back to move out of the way during document ejection.

The motor (MSHPPF bin clamp) drives the clamp.

The sensor (stapler bin stack upper limit) detects the top level of the bin stack. When the bin stack reaches the height of the sensor, the bin lowers to compensate for the stack height increase.

Finisher stapler bin elevator drive

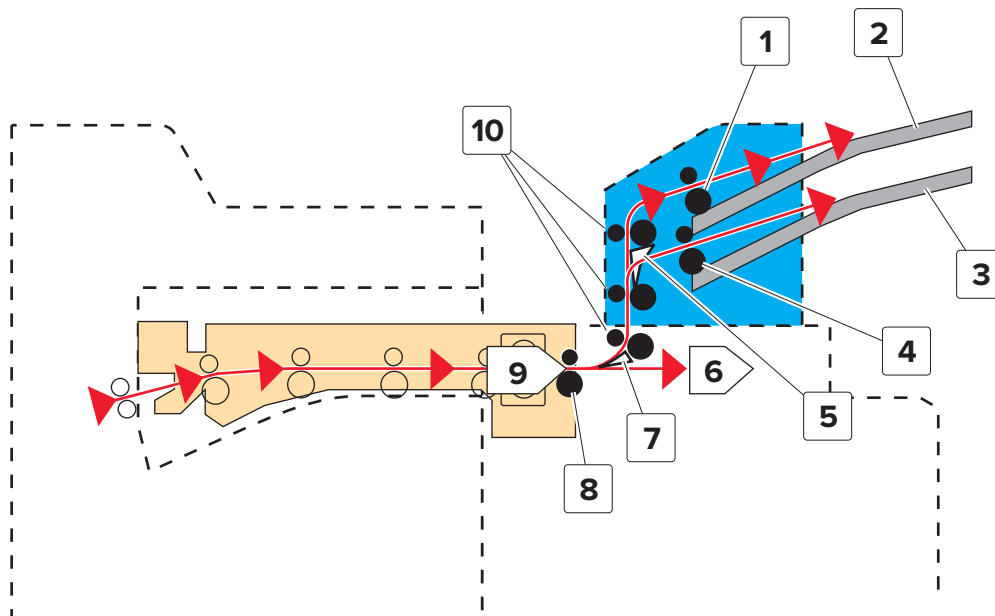


1	Motor (stapler bin elevator)
---	------------------------------

The bin lowers as the height of the stack increases. The movement of the bin is controlled by the motor (stapler bin elevator).

2-bin mailbox operation

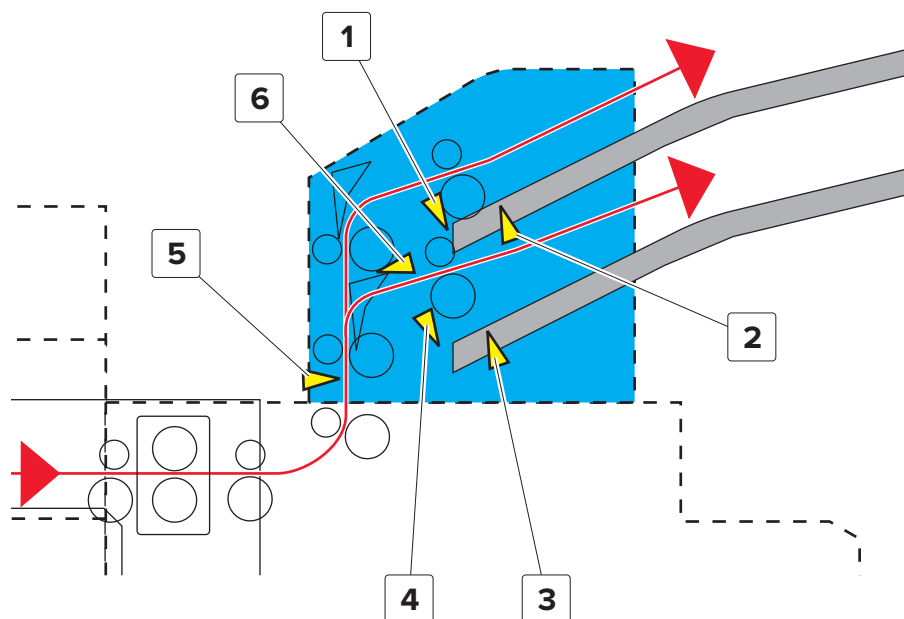
Mailbox paper path



1	Mailbox bin 2 exit roller
2	Mailbox bin 2
3	Mailbox bin 1
4	Mailbox bin 1 exit roller
5	Mailbox diverter
6	To finisher
7	Mid-transport diverter 1
8	HPT exit roller
9	From HPT
10	Transport rollers

The mid-transport diverter opens to guide the paper to the mailbox. Paper continues to move up through the transport rollers. The mailbox diverter controls whether the paper exits through bin 1 or bin 2. Bin exit rollers eject the paper to its destination bin.

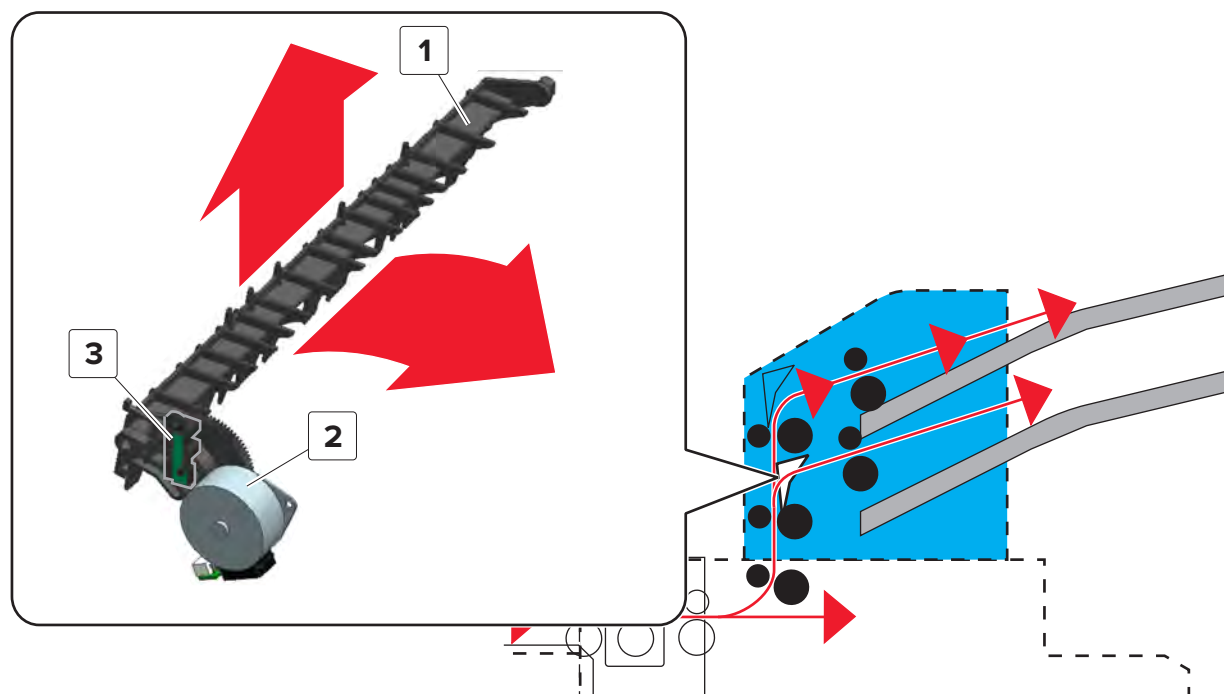
Mailbox paper path sensors



1	Sensor (mailbox bin 2 full)
2	Sensor (mailbox bin 2 paper present)
3	Sensor (mailbox bin 1 paper present)
4	Sensor (mailbox bin 1 full)
5	Sensor (mailbox transport)
6	Sensor (mailbox diverter)

The sensor (mailbox transport) detects the paper passing through the transport rollers. The sensor (mailbox diverter) detects the position of the diverter. In each bin there are sensors that detect if the bin is full or empty.

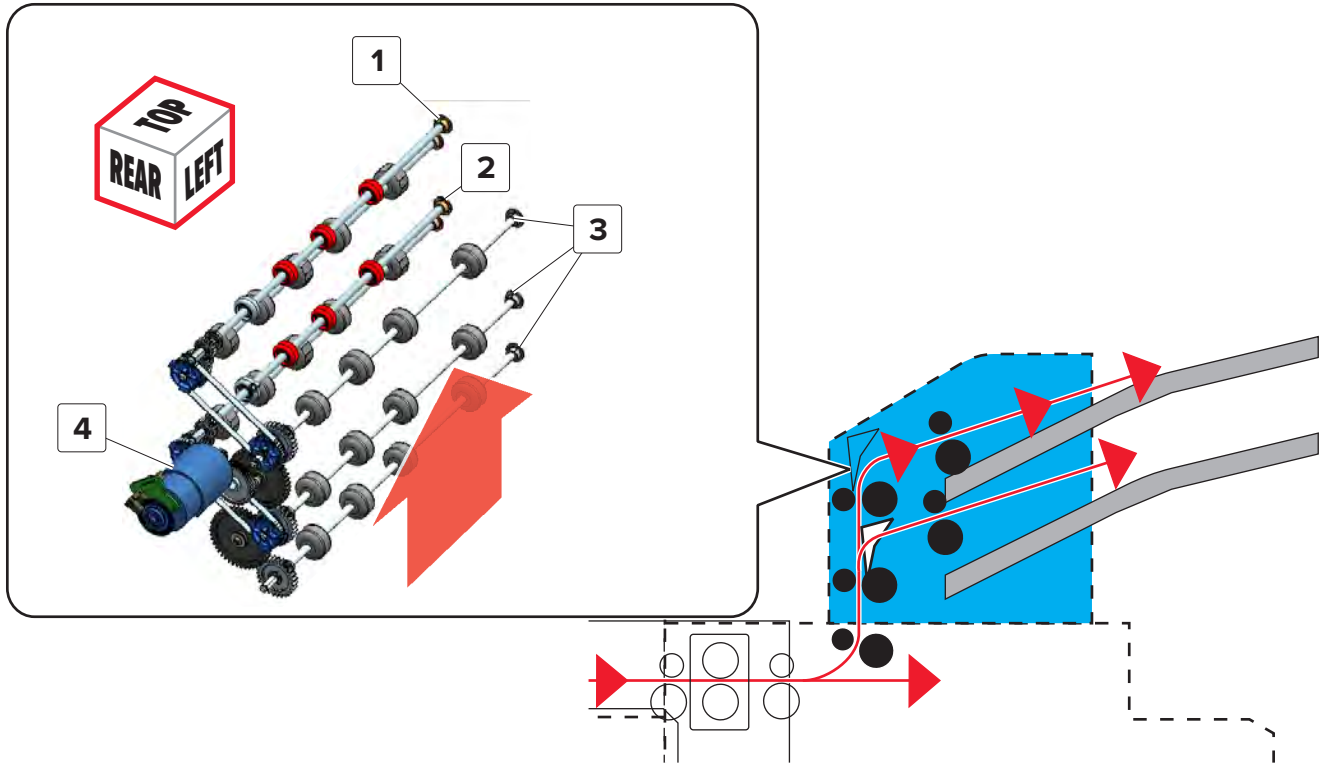
Mailbox diverter drive



1	Mailbox diverter
2	Motor (mailbox diverter)
3	Sensor (mailbox diverter)

The diverter guides the paper to bin 1 or bin 2. The motor (mailbox diverter) drives the diverter.

Mailbox transport drive



1	Bin 2 exit roller
2	Bin 1 exit roller
3	Transport rollers
4	Motor (mailbox transport)

The motor (mailbox transport) controls the transport rollers and exit rollers.

Acronyms

Acronyms

ASIC	Application-specific integrated circuit
BLDC	Brushless DC motor
BOR	Black only retract
C	Cyan
CCD	Charge coupled device
CCP	Carbonless copy paper
CRC	Cyclic redundancy check
CSU	Customer setup
CTLS	Capacitance toner level sensing
DIMM	Dual inline memory module
DRAM	Dynamic random access memory
EDO	Enhanced data out
EP	Electrophotography
EPROM	Erasable programmable read-only memory
ESD	Electrostatic discharge
FFC	Flat flexible cable
FRU	Field replaceable unit
GB	Gigabyte
HVPS	High voltage power supply
K	Black
LCD	Liquid crystal display
LDAP	Lightweight directory access protocol
LED	Light-emitting diode
LVPS	Low voltage power supply
M	Magenta
MB	Megabyte
MFP	Multi-function product
MPF	Multipurpose feeder
MROM	Masked read-only memory
MS	Microswitch
NVM	Nonvolatile memory
NVRAM	Nonvolatile random access memory

OEM	Original equipment manufacturer
OPT	Optical sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-on reset
POST	Power-on self test
PSD	Position sensing device
PWM	Pulse width modulation
RIP	Raster imaging processor
ROM	Read-only memory
SDRAM	Synchronous dual random access memory
SIMM	Single inline memory module
SRAM	Static random access memory
TPS	Toner patch sensing
UPR	Used parts return
V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum transport belt
Y	Yellow

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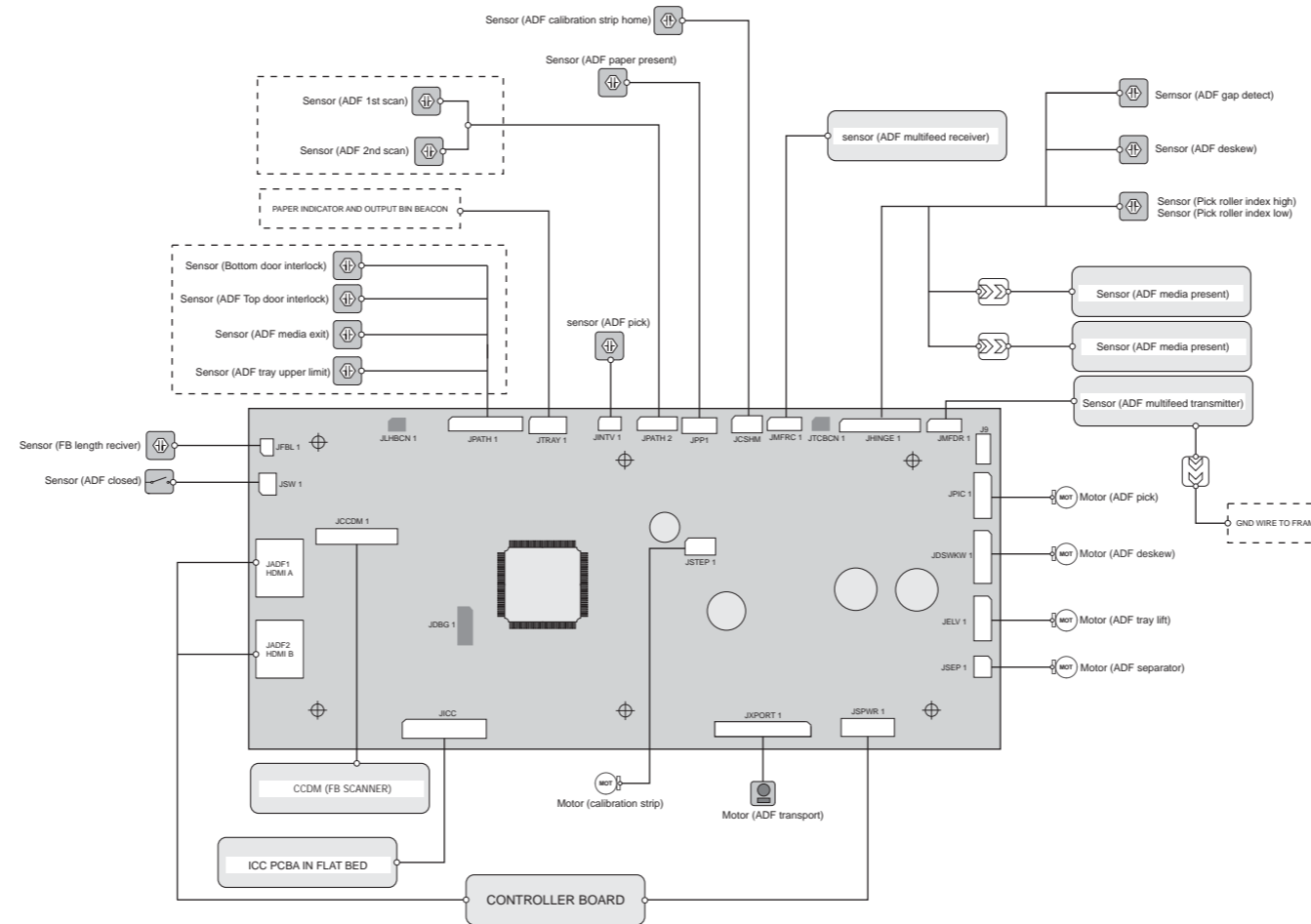
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ADF

WIRING DIAGRAM



CAUTION—SHOCK HAZARD: This type of caution indicates a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you start working, or use caution if the product must receive power to perform the task.

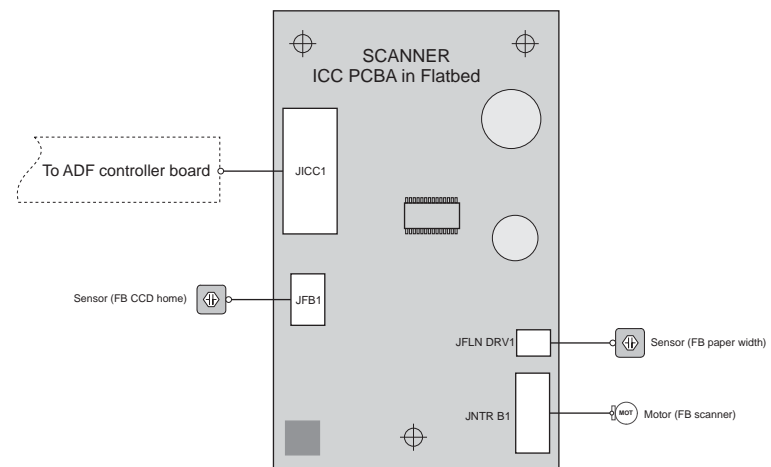


Flatbed

WIRING DIAGRAM



CAUTION—SHOCK HAZARD: This type of caution indicates a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you start working, or use caution if the product must receive power to perform the task.



550-SHEET TRAY 2200-SHEET TRAY

WIRING DIAGRAM

