CS820, CS827, and C6160 Printers

Service Manual

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Product information

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Lexmark CS820, CS820, C6160 printers
Machine type:
5063
Model(s):
530, 539, 571

Edition notice

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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-bruikbare printkopeenheid. 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 l (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 bølgelængdeområdet 755–800 nanometer og indbygget i en printhovedenhed, der ikke er servicerbar. 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 nanometrin 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 skrivehodeenhet 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.

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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
Når du ser dette symbol, er der risiko for elektrisk spænding i nærheden af produktet, hvor du arbejder. Tag strømstikket ud inden du begynder, eller udvis forsigtighed, hvis produktet skal modtage strøm for at udføre opgaven.

CAUTION—POTENTIAL INJURY
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.

Sicherheitshinweise

- 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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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 oauktoriserade 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.

CAUTION—SHOCK HAZARD
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.

CAUTION—POTENTIAL INJURY
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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- 이 제품의 안전은 기본 디자인 및 특정 구성품의 승인 및 테스팅을 기반으로 합니다. 제조업체는 권한 없는 교체 부품 사용 시 안전에 대해 책임을 지지 않습니다.
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CAUTION—SHOCK HAZARD
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。

CAUTION—POTENTIAL INJURY
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。

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- 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。
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CAUTION—SHOCK HAZARD
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。

CAUTION—POTENTIAL INJURY
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.

CAUTION—POTENTIAL INJURY
Do not use this product with an inline surge protector. The use of a surge protection device may result in a risk of fire, property damage, or poor printer performance.

Change history

Change history

August 16, 2024

- Added the 42.60–42.64K error codes in the 42–59 user attendance messages topic of the Diagnostics and troubleshooting chapter. See 42–59 user attendance messages on page 354.
- Added the Toner cartridge service check in the Diagnostics and troubleshooting chapter. See Toner cartridge service check on page 355.

August 2, 2024

- Updated the Unsupported third party supply service check topic of the Diagnostics and troubleshooting chapter. See Unsupported third party supply service check on page 350.

November 9, 2023

- Updated the Firmware error service check topic of the Diagnostics and troubleshooting chapter. See Firmware error service check on page 491.

March 30, 2023

- Updated the part number of Inner upper cover from 41X2904 to 41X5026. See Covers 2 on page 944.

December 15, 2022

- Added the topic group Securing the printer in the Diagnostics and troubleshooting chapter. It includes these topics:
    - Resetting the printer without admin credentials. See Resetting the printer without admin credentials on page 67.
    - Using the security reset jumper. See Using the security reset jumper on page 67.

September 13, 2022

- Updated the Entering recovery mode topic in the Service menus chapter. See Entering Recovery mode on page 553.

October 13, 2021

- Added an installation note in the Fuser removal topic in the Parts removal chapter. See Fuser removal on page 581.
- Updated the description of the following parts in the Control panel assembly in the Parts catalog chapter:
    - Bezel, 4.3-inch control panel to 4.3-inch control panel front cover (41X0542).
    - Model plate (CS820) to Bezel (CS820) (41X0898).
    - Model plate (CS827) to Bezel (CS827) (41X2041).
    - Model plate (C6160) to Bezel (C6160) (41X0899).

  See Control panel on page 947.

- Added Applicability of Regulation (EU) 2019/2015 and (EU) 2019/2020 notice in the Printer specifications chapter.

June 14, 2021

- Updated the Hard disk failure service check topic in the Diagnostics and troubleshooting chapter. See Hard disk failure service check on page 368.
- Added the 900 error service check topic in the Diagnostics and troubleshooting chapter. See 900 error service check on page 485.
- Replaced the System software error service check with the 900 error service check topic in the Diagnostics and troubleshooting chapter.

April 5, 2021

- Added video demonstration links for the following topics:
    - Toner cartridge contact (CMY) removal (Toner cartridge contact removal on page 737)
    - Developer/PC unit CMY wiper rail removal (Developer/PC unit CMY wiper rail removal on page 684)
    - Motor (deskew) removal (Motor (deskew) removal on page 591)
    - Deskew roller sensor guide removal (Deskew roller sensor guide removal on page 588)
    - Deskew roller removal (Registration on page 960)
    - Smart chip interface board removal (Smart chip interface board removal on page 736)
    - Motor (duplex) removal (Duplex on page 950)
    - Toner add gearbox removal (EP, developer, toner add gearbox removal on page 725)
    - Fuser/transfer belt motor gearbox removal (Fuser/transfer belt motor gearbox removal on page 730)
    - HVPS fan removal (HVPS fan removal on page 663)
    - Main HVPS removal (Main HVPS removal on page 667)
    - Sensor (input) removal (Sensor (input) removal on page 612)
    - Isolation roller shaft removal (Registration on page 960)
    - Developer/PC unit K wiper rail removal (Developer/PC unit K wiper rail removal on page 686)
    - Printhead removal (Printhead removal on page 630)
    - Left door, duplex and MPF tray removal (Left door, duplex, and MPF removal on page 594)
    - LVPS removal (LVPS removal on page 707)
    - Printhead fan removal (Printhead fan removal on page 628)
    - PC unit/developer door removal (Developer unit and photoconductor unit removal on page 649)
    - Main fan removal (Main fan removal on page 704)
    - Motor (redrive) removal (Redrive on page 967)
    - Redrive removal (Redrive removal on page 608)
    - Reference edge motor gearbox removal (Reference edge motor gearbox removal on page 615)
    - Toner add tube removal (Toner add tube removal on page 739)
    - Paper feeder removal (Paper feeder removal on page 678)
    - Sensor (media size) removal (Feeder on page 953)
    - 550-sheet tray right rail removal (550-sheet tray right rail removal on page 751)
    - 500-sheet tray left rail removal (550-sheet tray left rail removal on page 767)
    - Waste toner gear removal (Waste toner gear removal on page 734)
- Added Power cords topic in the Parts catalog chapter (Power cords on page 984).

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.
- Changed 41X0715 to 41X2904 in the Covers 2 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

- Updated 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:
    - Staple finisher bin clamp assembly removal

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.

January 17, 2020

- Updated the Updating the printer firmware topic to include using a USB cable connection option.

August 16, 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.

May 31, 2019

- Step for replacing the controller board was added to the Persistent “tray (x) empty” prompt service check.
- 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.
- 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.

March 13, 2019

- Added PN 41X0899 back in the parts catalog chapter.

February 21, 2019

- Updated the Assembly 12: Motors illustration in the Parts catalog chapter:
- Removed PN 41X0899 from 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 26: 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.

July 5, 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.

May 23, 2018

- Added the CS827 model in the following topics:
    - Printer model configurations in the General information section
    - Input/output configurations and capacities in the Options and features section
    - Wiring diagram
- Replaced all instances of the column outer cover removal with the rear corner cover removal in the parts removal section.

April 3, 2018

- Updated the menu path for the Separator pad and pick roller counter reset in the Resetting the maintenance counter topic under the Maintenance Chapter.

January 23, 2018

- Added 666.84 error code in the printer hardware errors.

December 14, 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.

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.

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 “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.”

June 27, 2017

- Added “CS827” in the cover.
- Added “CS827de” in the introduction to the “General information" chapter.
- Added 41X2041 to the topic "Control panel" in the "Parts catalog" chapter.

May 23, 2017

- 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 613
    - Reference edge motor gearbox removal on page 615
- Created the following removals:
    - Motor (duplex) removal on page 711
    - Motor (deskew) removal on page 591
    - Motor (redrive) removal on page 722
- Revised Main fan duct removal on page 720 and EP, developer, toner add gearbox removal on page 725.

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

- 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 24, 2016

- 6yy errors were revised.
    - New errors were added (600–602).
    - New errors were added (660–680).
    - Source tray error service check was added.

October 6, 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.
- Bin full actuator (41X1737) was added to the Covers 1 parts catalog.

September 4, 2016

- 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.

August 11, 2016

- The 320–326 error messages table on the Output option hardware errors section was revised.
- The 430–439 paper jam messages table on the Output option paper jams section was revised.

August 2, 2016

- 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 254 to include the checking of the sensor actuator (MPF media present) for possible misalignment or damage.

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.

June 29, 2016

- A video link was added to the Staple finisher bin clamp assembly 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)
- Updated the left door assembly to change the descriptions and PNs for callouts 2 and 12.
- Added PN 40X9934 in the Parts catalog chapter.

May 23, 2016

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

May 3, 2016

- Updated the control panel assembly (both art and the table).
- 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.
- 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 added.

March 31, 2016

- Updated the Feeder Parts catalog to change the PN for paper overfill stop to 41X1033.
- Changed the description for PN 41X0899 to model plate (C6160).
- Deleted 41X0930 (maintenance kit).
- FRU 41X0930—300K Roller Maintenance kit was removed from the Maintenance kits parts catalog.

March 11, 2016

- 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.

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.

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™ CS820 and C6160 printers are network-capable laser printers that print color print jobs. All information in this manual pertains to all models unless explicitly noted. The printers are available in the following models:

Model name	Configuration / description	Machine type / model number
CS820de, CS827de	Network, duplex, 4.3” e-Task touch screen	5063-530
CS820dte	Network, duplex, 4.3” e-Task touch screen, optional 550-sheet tray	5063-530
CS820dtfe	Network, duplex, 4.3” e-Task touch screen, optional 550-sheet tray, staple finisher	5063-571
C6160	Network, duplex, 4.3” e-Task touch screen	5063-539
N/A	2200-sheet tray	0563-HCI
N/A	550-sheet tray	0563-550
N/A	Staple finisher	0563-ILS
N/A	Caster base	9045-076

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

Supported paper sizes, types, and weights

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.)	✓	✓	✓	✓	✓

Paper size	Dimensions	550-sheet tray	2200-sheet tray	Multipurpose feeder*	Two-sided printing	ADF
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.)	✓	✓	✓	✓	✓
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.)	✓	✓	✓	✓	✓
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	✓	✓	✓

Paper size	Dimensions	550-sheet tray	2200-sheet tray	Multipurpose feeder*	Two-sided printing	ADF
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.)	✓	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
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
7 3/4 Envelope	98 x 190.5 mm (3.9 x 7.5 in.)	X	X	✓	X	X
9 Envelope	98.4 x 225.4 mm (3.86 x 8.9 in.)	X	X	✓	X	X
10 Envelope	104.8 x 241.3 mm (4.1 x 9.5 in.)	X	X	✓	X	X
B5 Envelope	176 x 250 mm (6.9 x 9.8 in.)	X	X	✓	X	X
C4 Envelope	229 x 324 mm (9 x 13 in.)	X	X	✓	X	X
C5 Envelope	162 x 229 mm (6.4 x 9 in.)	X	X	✓	X	X
DL Envelope	110 x 220 mm (4.3 x 8.7 in.)	X	X	✓	X	X

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	✓	X	X	✓
4 x 6	101.6 x 152.4 mm (4 x 6 in.)	✓	X	X	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	X
Executive	184.2 x 266.7 mm (7.3 x 10.5 in.)	✓	✓	X	✓	✓	✓	✓	✓

Paper size	Dimensions	Standard bin	Staple finisher	Multiposition staple, hole punch finisher*			
		Offset	Staple	Hole punch	2-bin mailbox		
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	✓
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
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
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

Paper size	Dimensions	Standard bin	Staple finisher	Multiposition staple, hole punch finisher*				
Offset	Staple	Offset	Staple	Hole punch	2-bin mailbox			
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/m^2 of card stock weight.

† Card stock that weighs more than 176 g/m^2 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
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	✓	✓	✓	✓	✓	✓

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	
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)
Envelopes	N/A	N/A	60–105 g/m^2 (16–28 lb)

[a] Grain short paper that weighs at least 90 g/m^2 (24 lb) is supported in two-sided printing.

[b] Recycled paper that weighs 75–120 g/m^2 (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.	

Note:

- 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

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/m^2 (16 to 47 lb) grain long paper. Paper lighter than 60 g/m^2 (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/m^2 (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/m^2 (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 will feed 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 taken into consideration both separately and as a whole, including the following:
Recycled office paper produced specifically for use in laser (electrophotographic) printers may be used in your printer. However, no blanket statement can be made that all recycled paper will feed well.
Generally, the following property guidelines apply to recycled paper.

- Amount of post-consumer waste (Lexmark tests up to 100% post-consumer waste content.)
- Amount of post-consumer waste (We test 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 converter’s product list for special applications is maintained. However, the following paper choice guidelines will 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/m^2 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 that can be 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 a software application to successfully print 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/m^2 (16 lb)
- Multiple part forms or documents

For more information about Lexmark, visit www.lexmark.com. General sustainability-related information can be found at the **Environmental Sustainability** link.

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/m^2 (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.	
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.	

Tools required for service

- Flat-blade screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- 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

Troubleshooting precautions

CAUTION—SHOCK HAZARD
When you see this symbol on the product, 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—SHOCK HAZARD
This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock while troubleshooting with covers removed or doors open, do not touch the exposed wires or circuits while the printer is connected to an electrical outlet.

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—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.

Précautions de dépannage

CAUTION—SHOCK HAZARD
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.

CAUTION—SHOCK HAZARD
Ce produit utilise un commutateur d'alimentation électronique. Il ne déconnecte pas physiquement la tension d'alimentation CA. Pour éviter tout risque d'électrocution, débranchez toujours le cordon d'alimentation de l'imprimante lorsque vous devez déconnecter la tension d'alimentation CA.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution lors du dépannage de l'imprimante avec les capots retirés ou les portes ouvertes, prenez garde de ne pas toucher les fils ou circuits dénudés si l'imprimante est connectée à une prise électrique.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution et éviter d'endommager l'imprimante, débranchez le cordon d'alimentation de la prise électrique et déconnectez toute connexion à tout périphérique externe avant de brancher ou débrancher des câbles ou circuits et assemblages électroniques.

CAUTION—HOT SURFACE
L'intérieur de l'imprimante risque d'être brûlant. pour réduire le risque de brûlure, laissez la surface ou le composant refroidir avant d'y toucher.

CAUTION—PINCH HAZARD
Pour éviter tout risque de blessure par pincement, agissez avec précaution au niveau des zones signalées par cette étiquette. Les blessures par pincement peuvent se produire autour des pièces mobiles telles que les engrenages, portes, tiroirs et capots.

Precauciones durante la solución de problemas

CAUTION—SHOCK HAZARD
Cuando vea este símbolo en el producto, 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.

CAUTION—SHOCK HAZARD
Este producto utiliza un interruptor de corriente electrónico. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descarga eléctrica al solucionar problemas sin las cubiertas o con las puertas abiertas, no toque los cables ni los circuitos expuestos mientras la impresora está conectada a una toma de corriente.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

CAUTION—HOT SURFACE
El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

CAUTION—PINCH HAZARD
Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Fehlerbehebung

CAUTION—SHOCK HAZARD
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.

CAUTION—SHOCK HAZARD
Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswechselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswechselspannung erforderlich ist.

CAUTION—SHOCK HAZARD
Um die Gefahr eines Stromschlags während der Fehlerbehebung bei entfernten Abdeckungen oder offenen Klappen zu vermeiden, berühren Sie die freiliegenden Drähte oder Stromkreise nicht, wenn der Drucker an eine Steckdose angeschlossen ist.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags und Schäden am Drucker zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose und trennen Sie alle Verbindungen zu jeglichen externen Geräten, bevor Sie Kabel, Elektronikplatinen oder Baugruppen einstecken oder abziehen.

CAUTION—HOT SURFACE
Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

CAUTION—PINCH HAZARD
Um das Risiko einer Quetschung zu vermeiden, gehen Sie in Bereichen, die mit diesem Etikett gekennzeichnet sind, mit Vorsicht vor. Quetschungen können im Bereich von beweglichen Komponenten auftreten, wie z. B. Zahnrädern, Klappen, Fächern und Abdeckungen.

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 .
- 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.

Securing the printer

Resetting the printer without admin credentials

Note:

- Resetting the printer or replacing the controller board deletes all security settings.
- Before changing the security settings, ask permission from your administrator.

1. Perform an Out of Service Erase to reset the printer to factory defaults without using admin credentials. For more information, see Data security notice on page 69.

   Warning—Potential Damage
   This method makes the device vulnerable to hacking because it allows the creation of an admin account afterwards. By default, newer firmware versions restrict Out of Service Erase to admin users only, making the printer more secure and remembering the admin password more important.

2. If Out of Service Erase is unavailable, then use the security reset jumper to reset the printer to factory defaults. For more information, see Using the security reset jumper on page 67.
3. If the effect of the jumper reset is disabled, then replace the controller board. For more information, see Controller board removal on page 701.

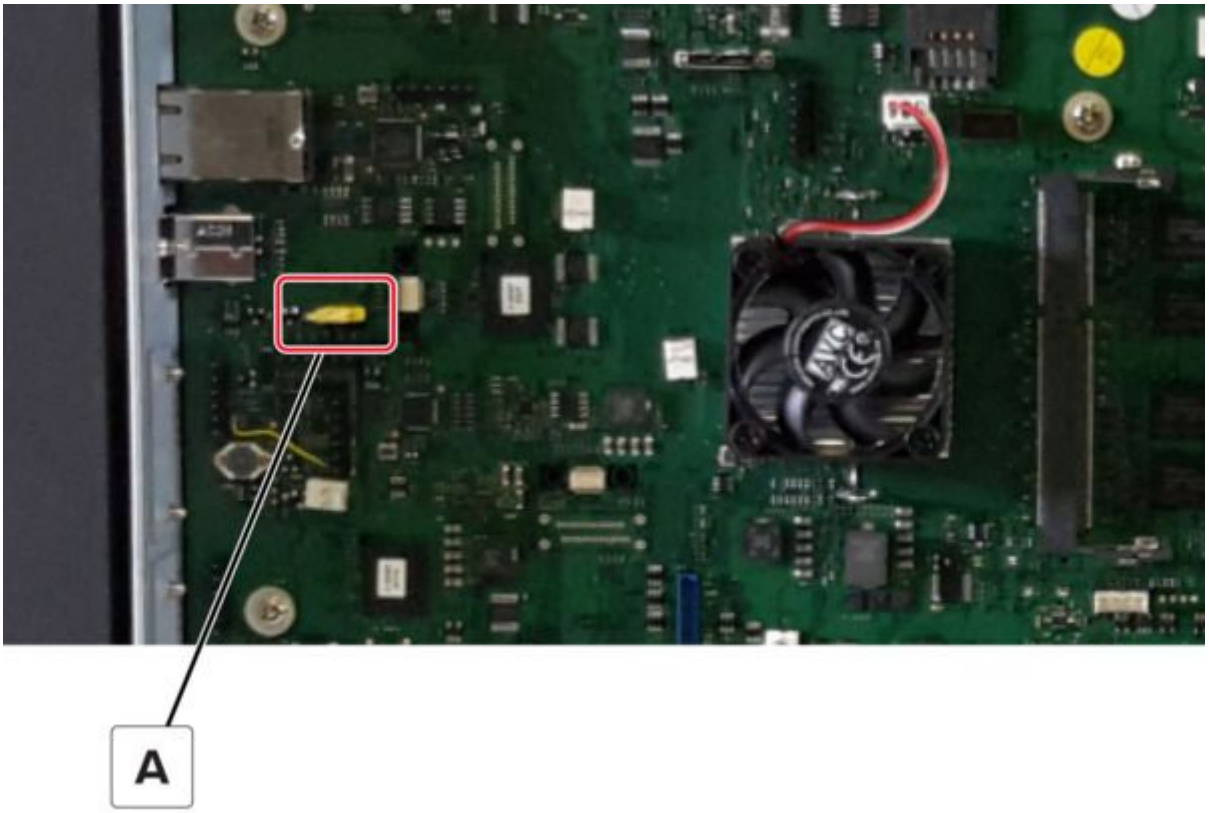
Using the security reset jumper

The security reset jumper is on the controller board. It can be used if the admin password is lost or forgotten, and Out of Service Erase is not available.

Note:

- To enable the effect of the security reset jumper, from the home screen navigate to: **Security > Miscellaneous > Security Reset Jumper > Enable “Guest” Access**.
- To disable the effect of the jumper, select **No Effect** from the Security Reset Jumper section in the Security menu. If the password is forgotten or lost, perform an Out of Service Erase or replace the controller board. See Resetting the printer without admin credentials on page 67 or Controller board removal on page 701.

1. Turn off the printer.
2. Remove the controller board shield.
3. Locate the security jumper (A) 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. Attach the controller board shield.
6. Turn on the printer.

Note:

- The security framework remains in place after the reset. Public permissions are reset to default and now include Out of Service Erase as an option.
- If LDAP is used to authenticate the copy function in MFPs, then the LDAP configuration and copy function are no longer protected.
- If Enable Audit is activated in the Security Audit Log, then the printer logs a message each time the jumper is reset.
- Physical access to the printer is required to use the jumper, making it more secure against hacking. To prevent tampering of the jumper, secure the controller board cage with a Kensington lock.

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.
- **Nonvolatile memory**—The printer may use two forms of nonvolatile 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 hard disk is designed for printer-specific functionality and cannot be used for long-term storage of data that is not print-related. The hard disk does not let users 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 nonvolatile memory, do the following:

1. From the control panel, navigate to **Settings > Device > Maintenance > Out of Service Erase > Sanitize all information on nonvolatile memory**.
2. Select **Sanitize all information on nonvolatile memory**, and then select **ERASE**.
3. Follow the instructions on the screen.

To erase hard disk memory, do the following:

1. From the control panel, navigate to **Settings > Device > Maintenance > Out of Service Erase > Sanitize all information on hard disk**.
2. Select **Sanitize all information on hard disk**, and then select **ERASE**.
3. Follow the instructions on the screen.

> **Note:** This process can take from several minutes to more than an hour, making the printer unavailable for other tasks.

If a hard disk is replaced, then do the following:

1. Remove the hard disk, and then return it to the customer.
2. Request the customer to sign the *Customer Retention* form.

   > **Note:** You can get printed copies of the form from your Lexmark partner manager.

3. Take a photo of the signed form, and then upload it to the Service Request debrief tool.
4. Fax or e-mail the signed form to the number or e-mail address shown at the bottom of the form.

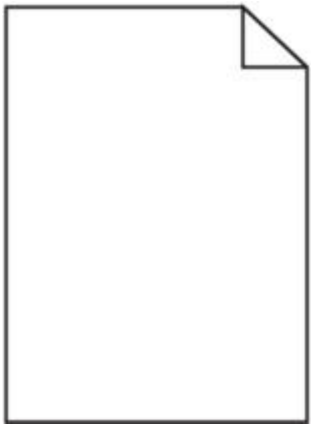
Fixing print quality issues

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



1. Perform the following tests:
   a. Remove the transfer belt.
   b. Check if the cable shield end of the transfer belt contact is touching the black only retract coupler.

   Does the transfer belt contact interfere with the BOR coupler?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Reinstall, repair, or replace the transfer belt contact.

   Does the problem remain?

   - **Yes**:
     Go to step 5.
   - **No**:
     The problem is solved.
3. Perform the following tests:

   Check the cable for proper connection.

   - Check the controller board socket JVD01.
   - Check the cable connected to the printhead.

   Is the cable properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reseat the cable.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

5. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Notifications > Show Supply Estimates**.
   b. Check the remaining life of the photoconductor units and developer units.

   Is the photoconductor unit or developer unit near or at its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the appropriate photoconductor unit or developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color missing?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
8. Check the contacts of the photoconductor unit and developer unit of the affected color.

   Are the contacts clean?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
9. Clean the contacts.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. See Developer unit and photoconductor unit removal on page 649.

    See Developer unit and photoconductor unit removal on page 649.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests

    b. Select the developer unit of the affected color, and then touch **Start**.

    Do the developer unit drive couplers rotate?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the EP/developer/toner add gearbox. See .EP, developer, toner add gearbox removal on page 725

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Remove the main HVPS, and then clean its contacts. See Main HVPS removal on page 667.
    b. Reinstall the main HVPS.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Replace the main HVPS. See Main HVPS removal on page 667.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Check the continuity of the main HVPS cable.

Does the cable have continuity?

- **Yes**:
  Go to step 17.
- **No**:
  Go to the next step.

16. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform the following tests:
    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.

    b. From the home screen, touch **Settings > Reports > Print Quality Pages**.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform the following tests:
    a. Turn off the printer to let the printhead shutters remain open.
    b. Remove the developer and PC combos, and then clean the printhead lenses using a lint-free cloth.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Check the motor (printhead wiper) for damage.

    Is the motor free of damage?

    - **Yes**:
      Go to step 21.
    - **No**:
      Go to the next step.

20. Replace the motor. See Motor (printhead wiper) removal on page 634.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

21. Check the printhead wiper actuator rack for misalignment and damage.

    Is the actuator rack properly engaged with the printhead wipers, and is it free of damage?

    - **Yes**:
      Go to step 23.
    - **No**:
      Go to the next step.

22. Reinstall or replace the printhead wiper actuator rack.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

23. Replace the printhead. See Printhead removal on page 630.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

24. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Dark print check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Print > Quality > Toner Darkness**.
   b. Check the darkness setting value.

   Is the darkness setting too low?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Adjust the darkness setting to the proper value.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color affected?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 12.
4. Perform color alignment adjustment on all colors. See Color alignment adjust on page 546.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the Toner patch sensing service check. See Toner patch sensing service check on page 510.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform the following tests:

   Check the main HVPS for proper connection.

   - Check the main HVPS connector.

- Check the main HVPS socket JHVPS1 on the controller board.

Is the cable properly connected?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

7. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the continuity of the main HVPS cable.

   Does the cable have continuity?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the electrical contacts of the developer/PC unit wiper rail of the affected color.

    Are the contacts stuck or damaged?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to the next step.

11. Repair or replace the developer/PC unit wiper rail.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Check the electrical contacts of the transfer belt.

    Are the pins stuck or damaged?

    - **Yes**:

Go to the next step.
- **No**:
  Go to step 14.

13. Repair the pins or replace the transfer belt contacts.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Replace the main HVPS. See Main HVPS removal on page 667.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Ghost images check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color affected on the ghost images?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

3. Check the transfer belt for traces of residual toner.

   Is the transfer belt free of residual toner?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

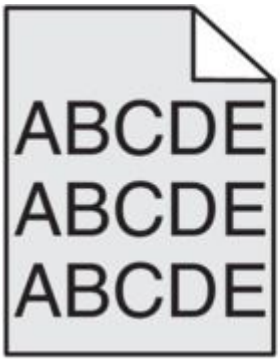
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Gray or colored background check



1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page for background.

   Is only one color producing the background?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 4.

2. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Notifications > Show Supply Estimates**.
   b. Check the remaining life of the photoconductor units and developer units.

   Is the photoconductor unit or developer unit near or at its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Replace the appropriate photoconductor unit or developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the waste toner bottle.

   Is the waste toner bottle full?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Replace the waste toner bottle.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the transfer roller for misalignment, wear, and damage.

   Is the transfer roller properly installed and free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reinstall or replace the transfer roller. See Transfer roller removal on page 583.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

8. Check the transfer belt for misalignment, wear, and damage.

   Is the transfer belt properly installed and free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reinstall or replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:

    Check the main HVPS for proper connection.

    - Check the main HVPS connector.
    - Check the main HVPS socket JHVPS1 on the controller board.

    Is the cable properly connected?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Reseat the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Check the continuity of the main HVPS cable.

    Does the cable have continuity?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

13. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

14. Perform the following tests:

    Check the charge roller HVPS for proper connection.

    - Check the charge roller HVPS connector.
    - Check the charge roller HVPS socket JHVPS2 on the controller board.

    Is the cable properly connected?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

15. Reseat the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Check the continuity of the charge roller HVPS cable.

    Does the cable have continuity?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

17. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Remove, and then reinstall the main HVPS. See Main HVPS removal on page 667.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Replace the main HVPS. See Main HVPS removal on page 667.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

20. Remove, and then reinstall the charge roller HVPS. See Main HVPS removal on page 667.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Replace the charge roller HVPS. See Main HVPS removal on page 667.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Horizontal dark lines check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page for dark lines.

   Does the line repeat within a test page?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 3.

2. Perform the Repeating defects service check. See Repeating defects check on page 114.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the pages right after the defective page.

   Does the defect repeat after two consecutive normal pages (A3 or letter) have been printed?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the transfer belt for contamination.

   Is the transfer belt free of contamination?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Clean the transfer belt.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Light print check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Print > Quality > Color saver**.
   b. Set Color saver to Off.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Update the firmware to the latest version.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. From the home screen, touch **Settings > Print > Quality > Toner Darkness**.
   b. Check the darkness setting value.

   Is the darkness setting too low?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Adjust the darkness setting to the proper value.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:

a. Enter the Diagnostics menu, and then navigate to:

Advanced Print Quality Samples > Advanced Print Quality Samples

b. Check the test page.

Is only one color producing light print?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 15.

6. Perform the following tests:

Check the toner cartridge of the affected color for proper installation.

- Make sure that there are no packing material still on it.
- Check for misalignment.

Is the toner cartridge properly installed?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

7. Reinstall the toner cartridge.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Perform the following tests:

Check the affected toner cartridge.

- Check the shutter.

> **Note:** The toner cartridge shutter slides open to supply toner to the developer unit.

- Check if the cartridge is empty.

Is the toner cartridge filled and properly working?

- **Yes**:
  Go to step 10.
- **No**:
  Go to the next step.

9. Repair the shutter or replace the toner cartridge.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

10. Check the developer unit of the affected color for proper installation.

    Is the developer unit properly installed?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Reinstall the developer unit.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests

    b. Select the motor (toner add) of the affected color, and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

13. Check the motor cable JBTLM1 on the controller board for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    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.

    b. Enter the Diagnostics menu, and then navigate to:

       Advanced Print Quality Samples > Advanced Print Quality Samples

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
16. Perform the following tests:
    a. Turn off the printer to let the printhead shutters remain open.
    b. Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
17. Perform the following tests:

    Check the main HVPS for proper connection.

    - Check the main HVPS connector.
    - Check the main HVPS socket JHVPS1 on the controller board.

    Is the cable properly connected?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.
18. Reseat the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
19. Check the continuity of the main HVPS cable.

Does the cable have continuity?

- **Yes**:
  Go to step 21.
- **No**:
  Go to the next step.

20. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Check the electrical contacts of the developer/PC unit wiper rail of the affected color.

    Are the contacts stuck or damaged?

    - **Yes**:
      Go to step 23.
    - **No**:
      Go to the next step.

22. Repair or replace the developer/PC unit wiper rail. See Developer/PC unit CMY wiper rail removal on page 684 or Developer/PC unit K wiper rail removal on page 686.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

23. Check the electrical contacts of the transfer belt.

    Are the pins stuck or damaged?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 25.

24. Repair the pins or replace the transfer belt. See Transfer belt removal on page 656.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

25. Replace the main HVPS. See Main HVPS removal on page 667.

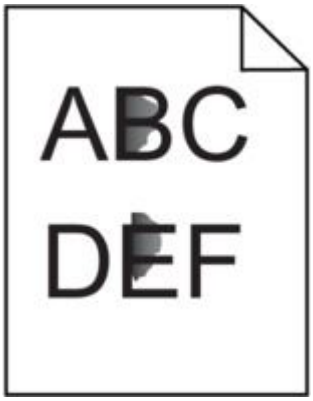
    Does the problem remain?

    - **Yes**:

Contact the next level of support.

- **No**:
  The problem is solved.

Mottled print and dots check



1. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Preferences**.
   b. Check if the paper type and size settings match the paper type and size set on the tray.

   Do the settings match?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size and type, or adjust the size settings in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper for texture or rough finish.

   Is the paper textured or rough?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the textured or rough paper with plain paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

5. Check the printer for toner contamination.

   Is the printer free of leaked toner?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Perform the following tests:

   Remove the leaked toner.

   - 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.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. From the home screen, touch **Settings > Device > Notifications > Show Supply Estimates**.
   b. Check the remaining life of the photoconductor units and developer units.

   Is the photoconductor unit or developer unit near or at its end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the appropriate photoconductor unit or developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color producing mottled print and dots?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 11.

10. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the transfer belt. See Transfer belt removal on page 656.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Print crooked or skewed check

1. Check the positions of the guides on all the trays. Adjust the guides to match the size of the paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the deskew roller for contamination and damage.

   Is the roller free of contamination and damage?

   - **Yes**:
     Go to step 4.

- **No**:
  Go to the next step.

3. Clean or replace the deskew roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the printhead alignment adjustment. See Printhead alignment adjustment on page 570.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

6. Check the motor cable JMTR3 on the controller board for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Solid color or black images check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color producing the solid color image?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
2. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Replace the developer unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:

   Check the charge roller HVPS for proper connection.

   - Check the charge roller HVPS connector.
   - Check the charge roller HVPS socket JHVPS2 on the controller board.

Is the cable properly connected?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the continuity of the charge roller HVPS cable.

   Does the cable have continuity?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the high voltage connectors on the charge roller HVPS for proper connection.

   Are the connectors properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the high voltage connectors.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the charge roller HVPS. See Charge roller HVPS removal on page 697.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

11. Perform the following tests:

    Check the cable for proper connection.

    - Check the controller board socket JVD01.
    - Check the cable connected to the printhead.

    Is the cable properly connected?

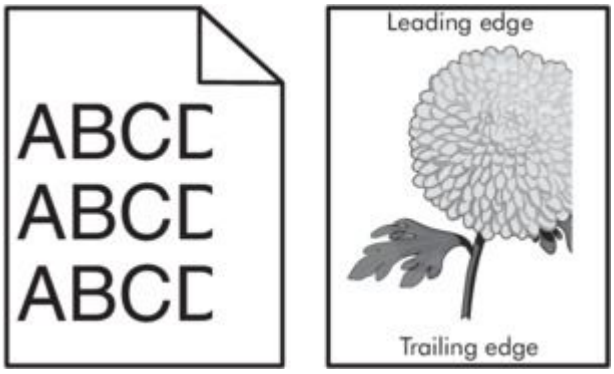
    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

12. Reseat the cable.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Text or images cut off check



1. Check the positions of the guides on all the trays. Adjust the guides to match the size of the paper.

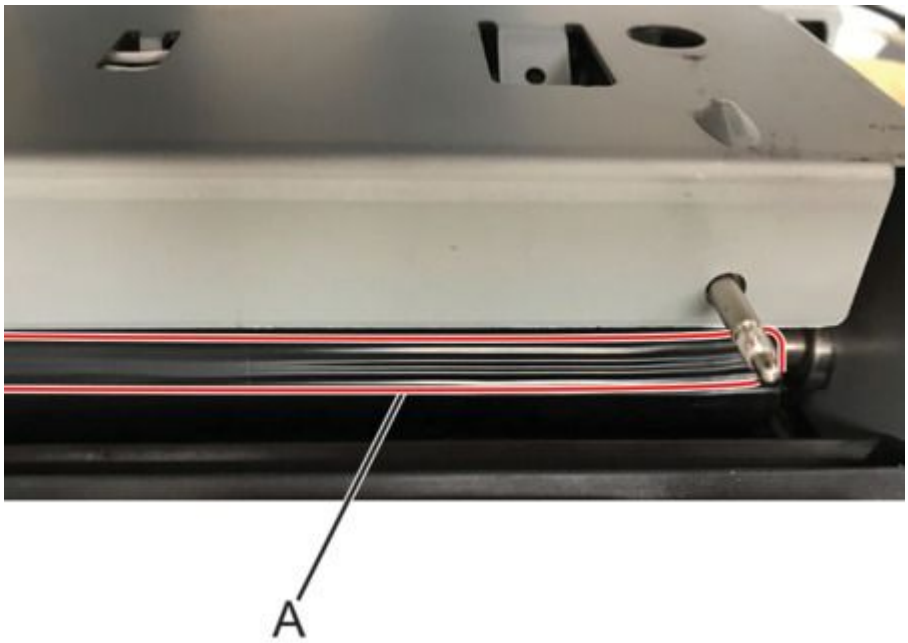
   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 70.

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



1. Check if the printer is using a genuine and supported Lexmark toner cartridge.

   Note: If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported toner cartridge?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Install a genuine and supported toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. From the control panel, set the paper type, texture, and weight in the Paper menu to match the paper loaded.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Remove, and then reinstall the fuser.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Remove the right cover. See .Right cover removal on page 624
   b. Reseat the connections on the LVPS.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the LVPS. See LVPS removal on page 707.

   Does the problem remain?

   - **Yes**:

Contact the next level of support.

- **No**:
  The problem is solved.

Uneven print density check

1. Load paper from a fresh package.

   > **Note:** Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color producing uneven print density?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
3. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

4. Remove, and then reinstall the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Remove, and then reinstall the transfer roller. See Transfer roller removal on page 583.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

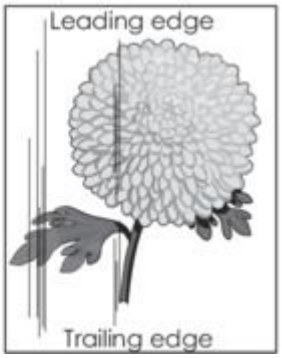
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the transfer roller. See Transfer roller removal on page 583.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Vertical dark lines or streaks check



1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

b. Check the test page.

Is only one color producing the vertical lines or streaks?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 3.

2. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Vertical white lines check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

b. Check the test page and check the colors affected.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Perform the following tests:
   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.

   b. From the home screen, touch **Settings > Reports > Print Quality Pages**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Turn off the printer to let the printhead shutters remain open.
   b. Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Replace the developer unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the printhead. See Printhead removal on page 630.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Blurred print or misaligned color check

1. Perform the following tests:
   a. From the home screen, touch **Settings > Print Quality Pages**.
   b. Check the test page.

   Is only one color blurred or misaligned?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Perform color alignment adjustment on the misaligned color. See Color alignment adjust on page 546.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform color alignment adjustment on all colors. See Color alignment adjust on page 546.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the Auto alignment service check. See Auto alignment service check on page 506.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   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.

   b. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

6. Perform the following tests:
   a. Turn off the printer to let the printhead shutters remain open.
   b. Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the EP/Developer/toner add gearbox. See .EP, developer, toner add gearbox removal on page 725

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Replace the printhead. See Printhead removal on page 630.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Physical grit on printed surface check

1. Update the firmware to the latest version.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:

a. From the home screen, touch **Settings > Print > Quality > Advanced Imaging > Color Adjust**.
b. Touch **Start**.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is there a color that is missing?

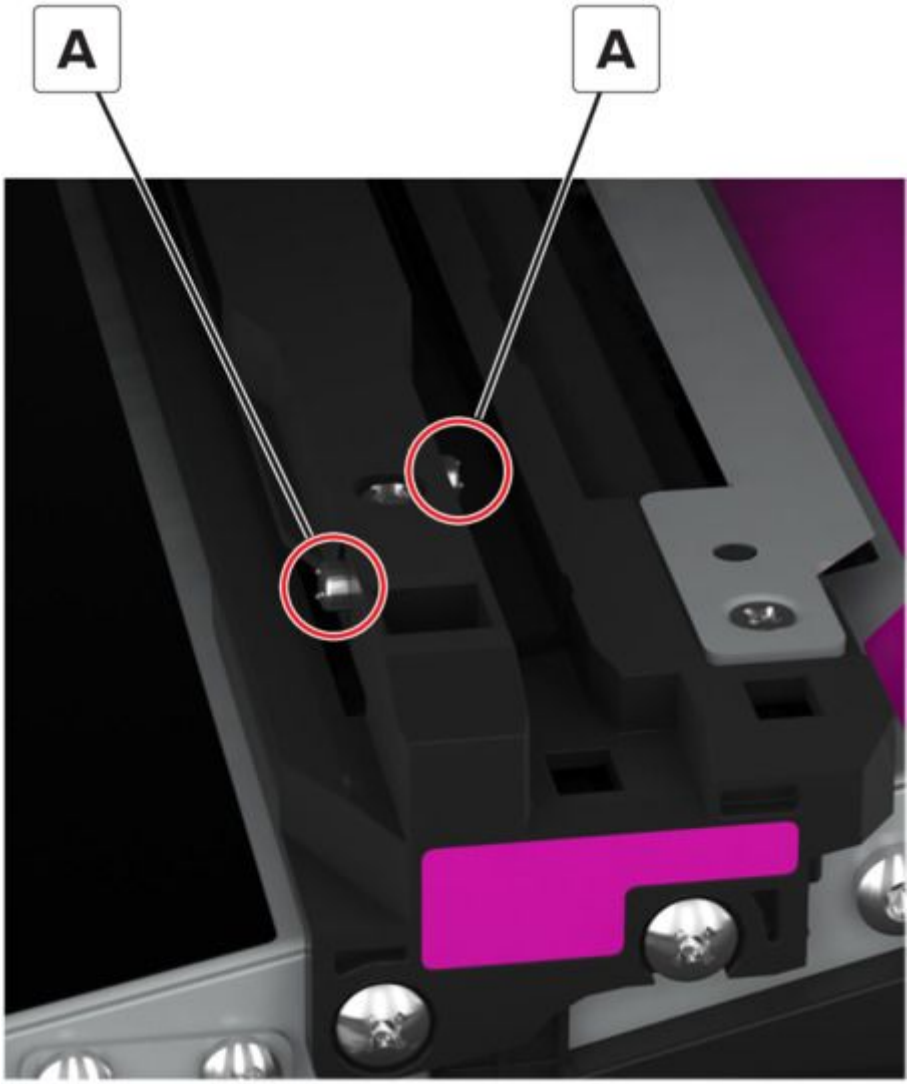
   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.
4. Check the electrical contacts of the photoconductor unit and developer unit of the affected color.

   Are the contacts clean?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Clean the contacts.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the charge contacts (A) of the developer/PC unit wiper rail of the affected color.



Are the contacts clean?

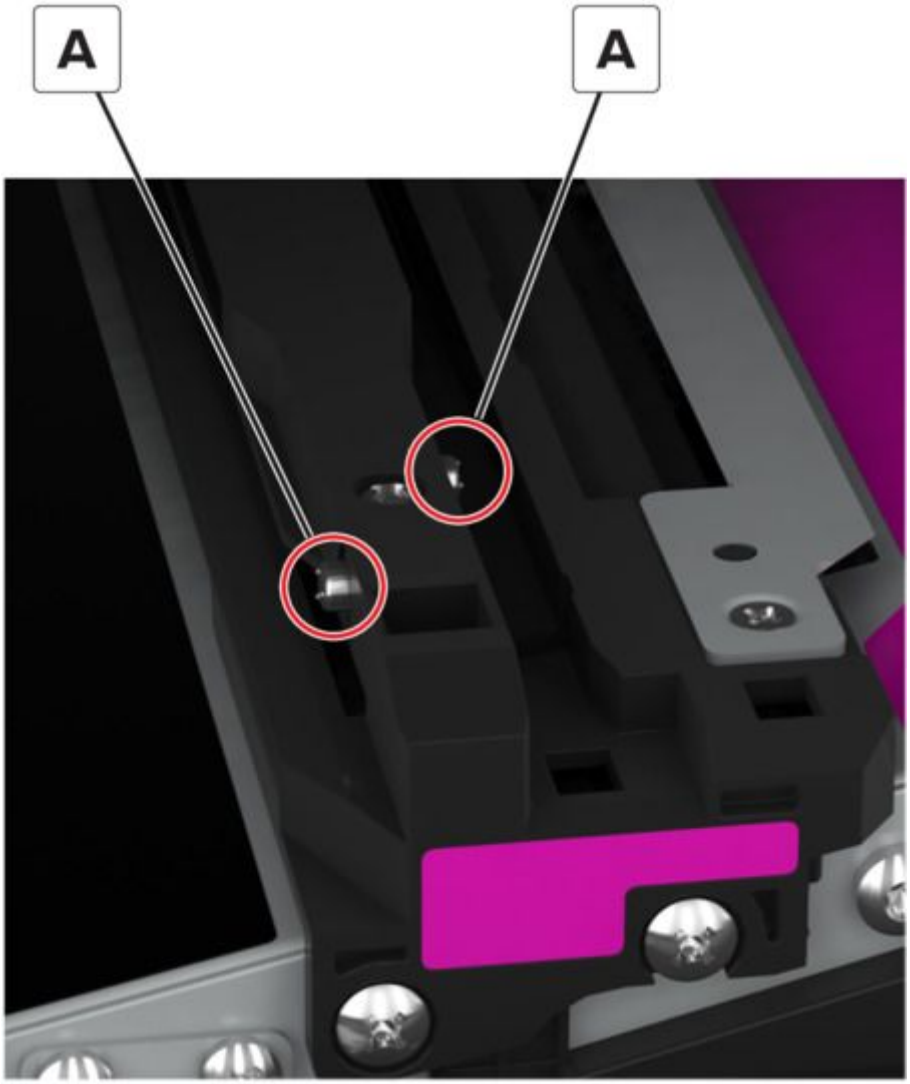
- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

7. Clean the contacts.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Press the charge contacts (A) to check if they actuate freely.



Do the contacts actuate freely?

- **Yes**:
  Go to step 10.
- **No**:
  Go to the next step.

9. Replace the developer/PC unit wiper rail of the affected color. See Developer/PC unit K wiper rail removal on page 686 or Developer/PC unit CMY wiper rail removal on page 684.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the developer unit and photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

    Does the problem remain?

    - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

11. Perform the following tests:

    Check the test page for the following print quality issues, and then resolve the issues found.

    - If there are solid color or black images, then see Solid color or black images check on page 94.
    - If there are one or more missing colors, then see Blank or white pages, or one color missing check on page 71.
    - If there are horizontal dark lines, then see Horizontal dark lines check on page 83.
    - If there is image banding, then see Image banding check on page 108.
    - If there is dark print, then see Dark print check on page 75.
    - If there is gray or colored background, then see Gray or colored background check on page 79.
    - If there is light print, then see Light print check on page 85.
    - If there are mottled print and dots, then see Mottled print and dots check on page 90.
    - If there is blurred print or misaligned color, then see Blurred print or misaligned color check on page 103.
    - If there are image voids, then see .Image void (process direction) check on page 110

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Image banding check

1. Load paper from a fresh package.

   > **Note:** Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

b. Check the test page.

Are all colors affected by image banding?

- **Yes**:
  Go to step 7.
- **No**:
  Go to the next step.

3. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Remove, and then reinstall the transfer roller. See Transfer roller removal on page 583.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Remove, and then reinstall the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the transfer roller. See Transfer roller removal on page 583.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

8. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the main HVPS. See Main HVPS removal on page 667.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Image void (process direction) check

1. Load paper from a fresh package.

   > **Note:** Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   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.

   b. From the home screen, touch **Settings > Reports > Print Quality Pages**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:

a. Turn off the printer to let the printhead shutters remain open.
b. Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

4. Check the motor (printhead wiper) for damage.

   Is the motor free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the motor. See Motor (printhead wiper) removal on page 634.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the printhead wiper actuator rack for misalignment and damage.

   Is the actuator rack properly engaged with the printhead wipers, and is it free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reinstall or replace the printhead wiper actuator rack.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Advanced Print Quality Samples > Advanced Print Quality Samples

   b. Check the test page.

   Is only one color affected?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 10.

9. Replace the photoconductor unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the transfer belt for contamination.

    Is the transfer belt free of contamination?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Clean the transfer belt.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the transfer belt. See Transfer belt removal on page 656.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Random marks check

1. Check the printer for toner contamination.

   Is the printer free of leaked toner?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Perform the following tests:

   Remove the leaked toner.

   - 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.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Check the developer and PC unit combo for contamination.

   Is the developer and PC unit combo free of contamination?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Clean or replace the developer and PC unit combo.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the developer units for contamination.

   Is the developer unit free of contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Replace the contaminated developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Check the transfer belt for contamination.

   Is the transfer belt free of contamination?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.
8. Replace the transfer belt. See Transfer belt removal on page 656.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Repeating defects check

1. Check the printer rollers for contamination or dust.

   Are the rollers free of contamination or dust?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the contamination or dust.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Measure the distance between the repeating marks.

   Is the distance between the marks 42 mm?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the developer unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.
5. Measure the distance between the repeating marks.

   Is the distance between the marks either 125.7 mm, or 35.4 mm?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the developer unit of the affected color. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

7. Measure the distance between the repeating marks.

   Is the distance between the marks 78.5 mm?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the transfer roller. See Transfer roller removal on page 583.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

9. Measure the distance between the repeating marks.

   Is the distance between the marks either 96.6 mm or 127.6 mm?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.

10. Replace the fuser. See Fuser removal on page 581.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

11. Measure the distance between the repeating marks.

    Is the distance between the marks either 47.1 mm or 90 mm?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Check the marks that appear on a multi-page print job.

    Do the marks appear on every other page?

- **Yes**:
  Go to the next step.
- **No**:
  Contact the next level of support.

13. Replace the transfer belt. See Transfer belt removal on page 656.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 70.

1. Check if the printer is using a genuine and supported Lexmark toner cartridge.

   > **Note:** If the printer is using a third-party cartridge, then refer the users to their cartridge supplier.

   Is the printer using a genuine and supported toner cartridge?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Install a genuine and supported toner cartridge.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

3. Adjust the guides in the tray to the correct position for the paper loaded.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. From the control panel, set the paper size, type, and weight in the Paper menu to match the paper loaded.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Depending on the operating system, specify the paper size from Printing Preferences or Print dialog.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Remove paper from the tray, and then turn it over.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Make sure that the paper loaded is from a fresh package.

   > **Note:** Paper absorbs moisture due to high humidity. Store paper in its original wrapper until you use it.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Make sure that the printer supports the paper loaded.

Is the paper supported?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

9. Load a supported paper.

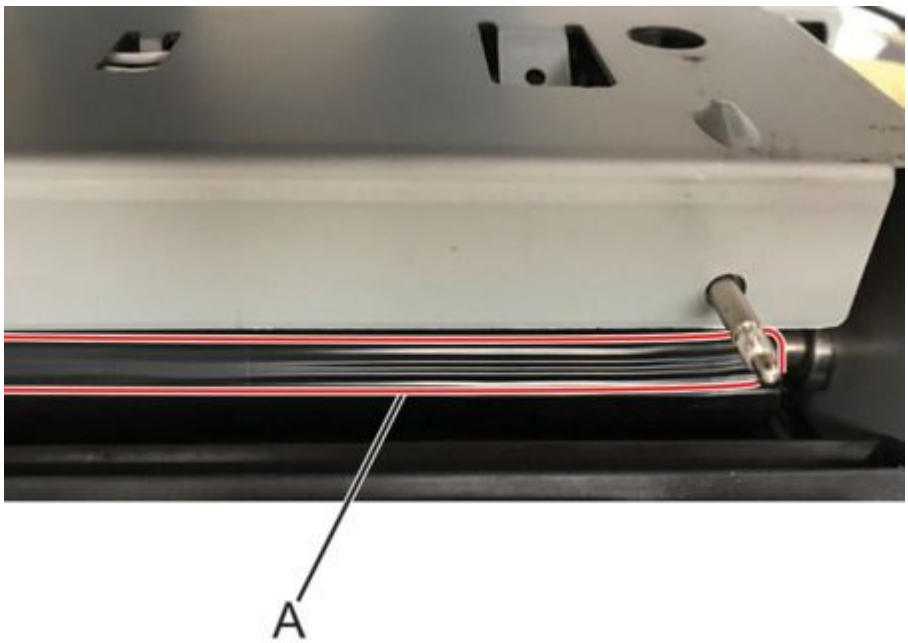
   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 70.

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



1. Perform the following tests:
   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.

   b. Make sure that the toner cartridge is compatible with the imaging unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   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.

   b. Make sure that the printer supports the paper loaded. For a complete list of supported paper, see the printer *User's Guide*.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. 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.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. If the fuser has reached end of life, then replace the maintenance kit.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 70.

1. Adjust the guides in the tray according to the size of the paper loaded.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:

   Do one of the following:

   - 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.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Depending on the operating system used, specify the paper size from Printing Preferences or from the Print dialog.

   Does the problem remain?

   - **Yes**:
     Go to step 4 or contact the next level of support.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics and adjustments > Registration adjust

   b. Adjust the margins.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Paper jams

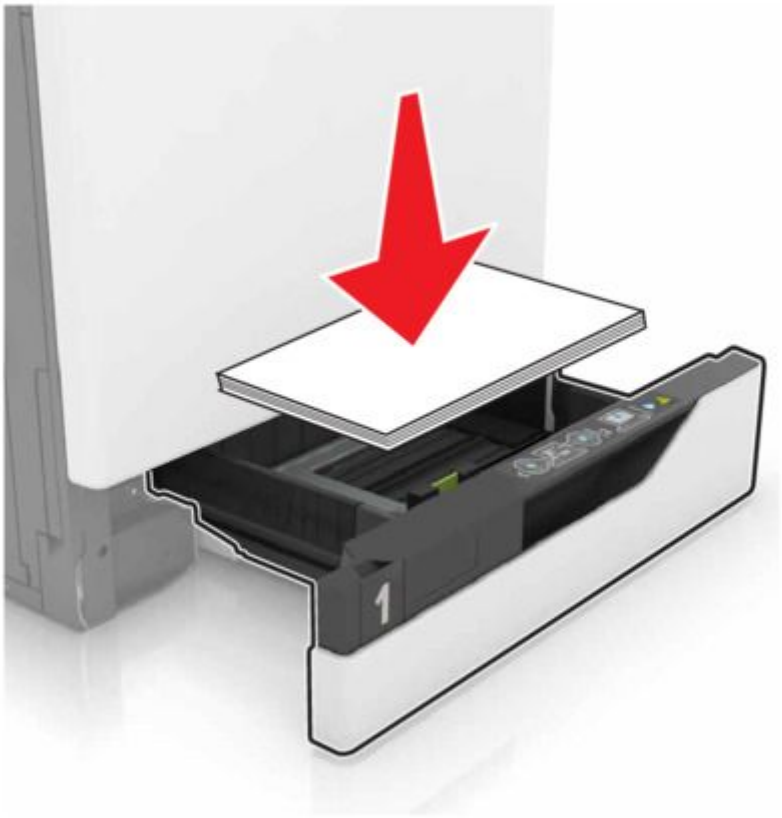
Avoiding jams

Load paper properly

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

Correct loading of paper	Incorrect loading of paper

- 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

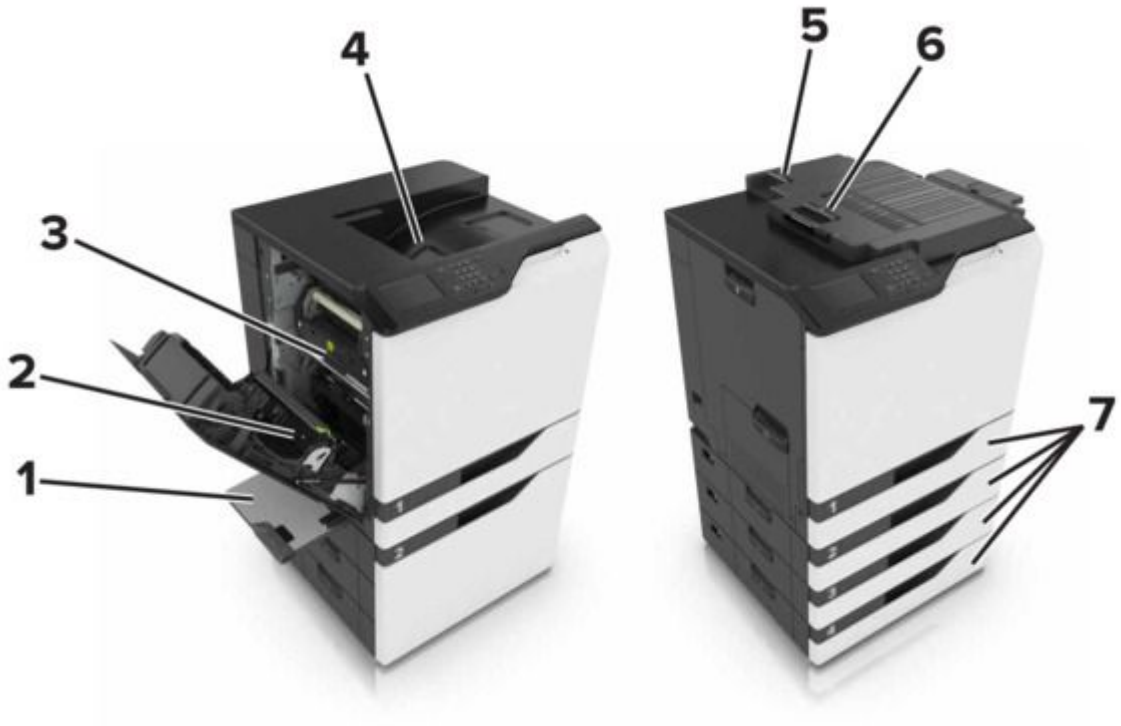
- Use only recommended paper or specialty media.
- Do not load paper that is wrinkled, creased, damp, bent, or curled.
- Flex, fan, and align the paper edges before loading.

- 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

Note:

- 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.



	Jam locations
1	Multipurpose feeder

	Jam locations
2	Duplex unit
3	Fuser
4	Standard bin
5	Door G
6	Door F
7	Trays

Paper jam in trays

1. Pull out the tray.

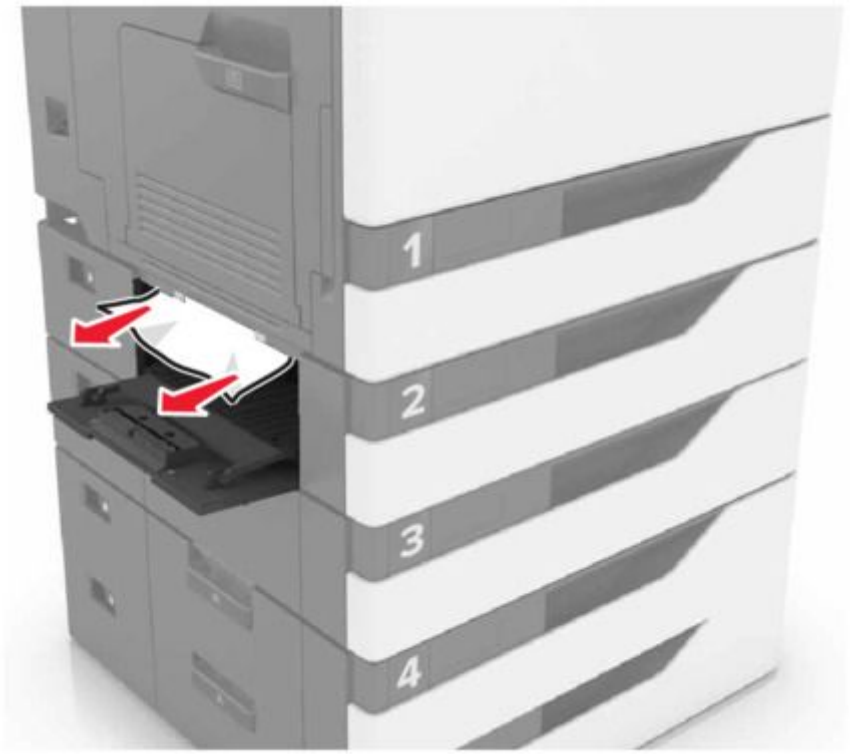
2. Remove the jammed paper.

> **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.

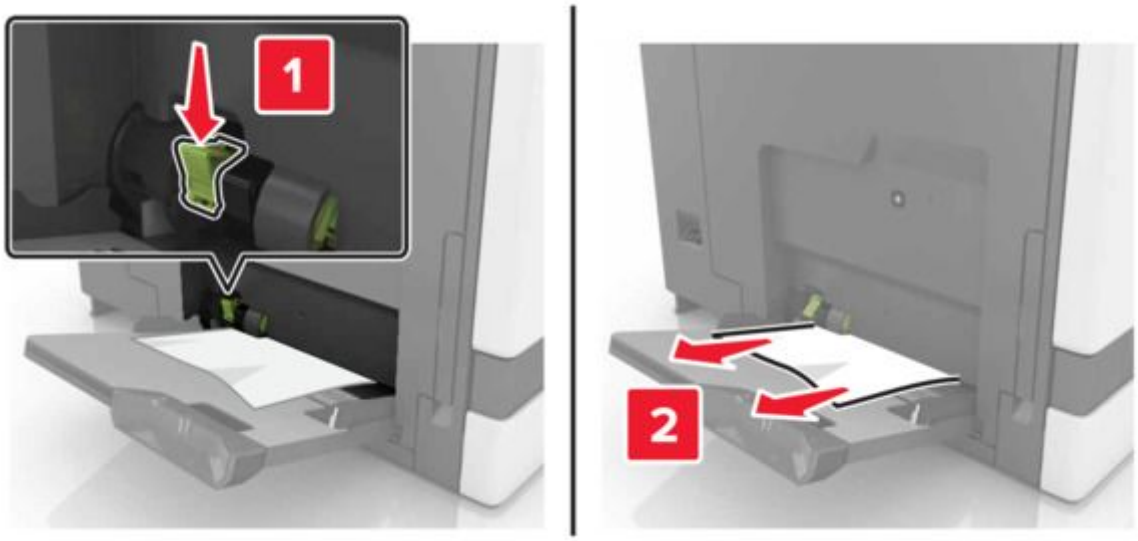


6. Close the tray cover.

Paper jam in the multipurpose feeder

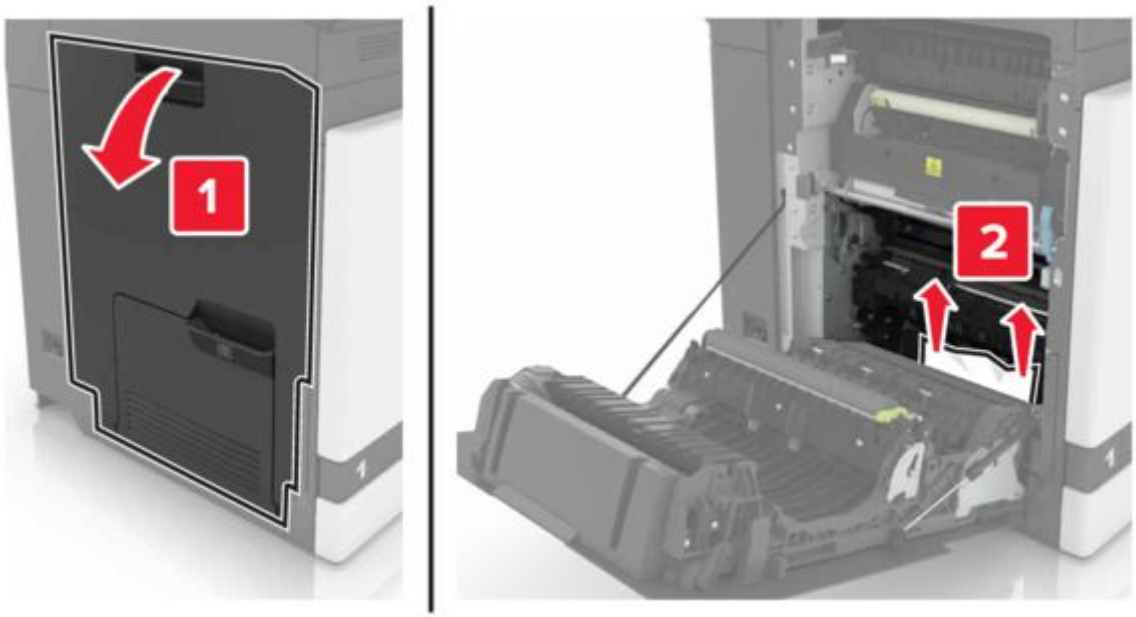
1. Remove paper from the multipurpose feeder.
2. Remove the jammed paper.

> **Note:** Make sure that all paper fragments are removed.

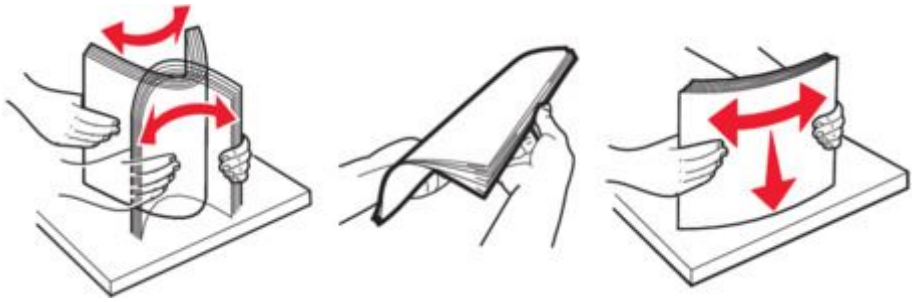


3. Open door B, and then remove any paper fragments.

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.

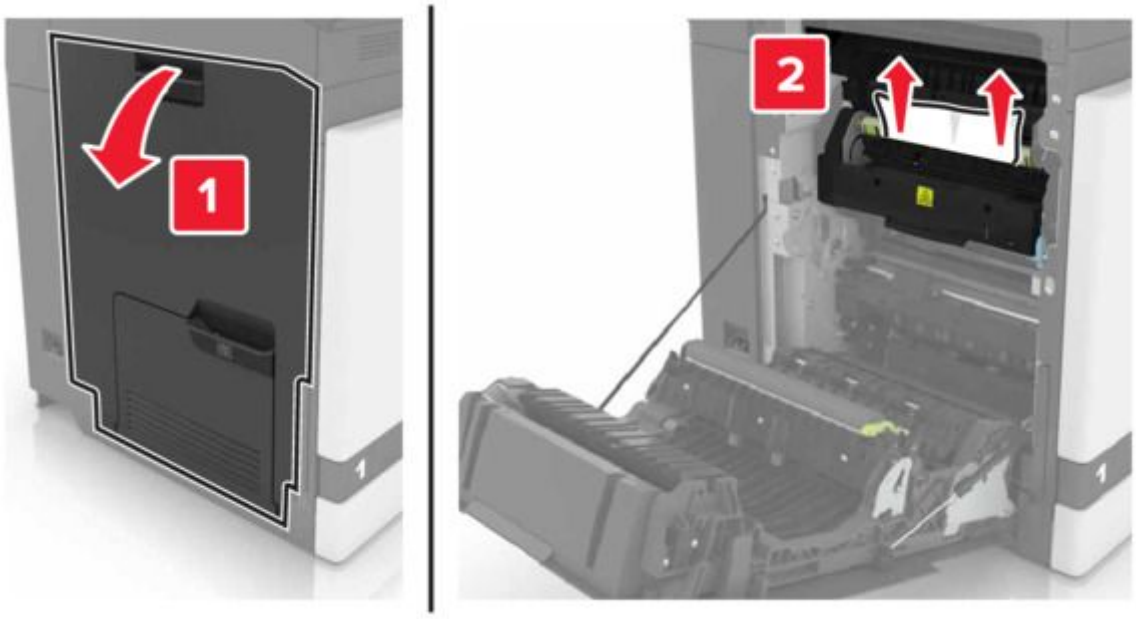
Paper jam in the standard bin

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

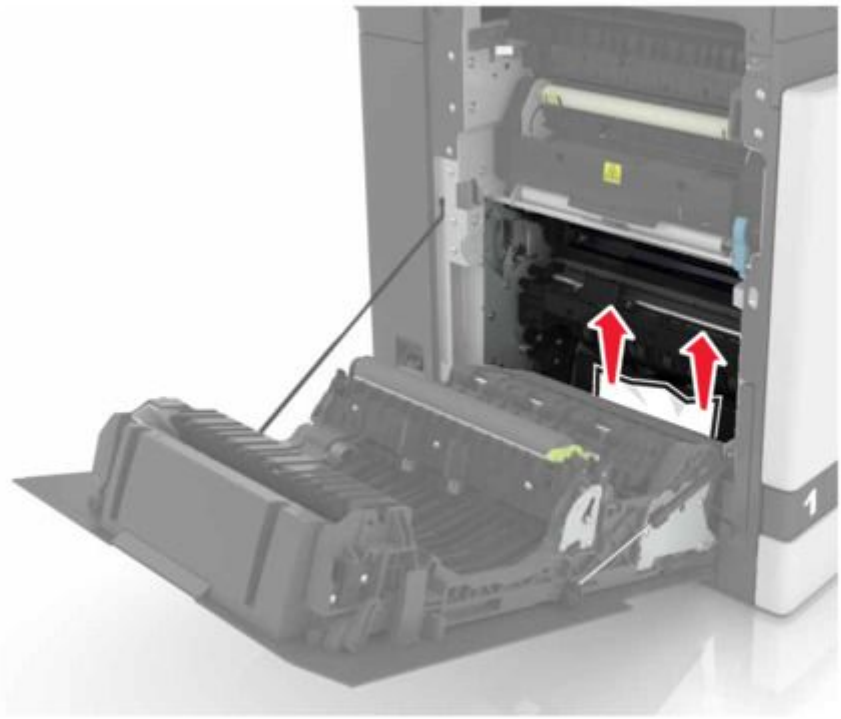
Paper jam in the fuser

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.

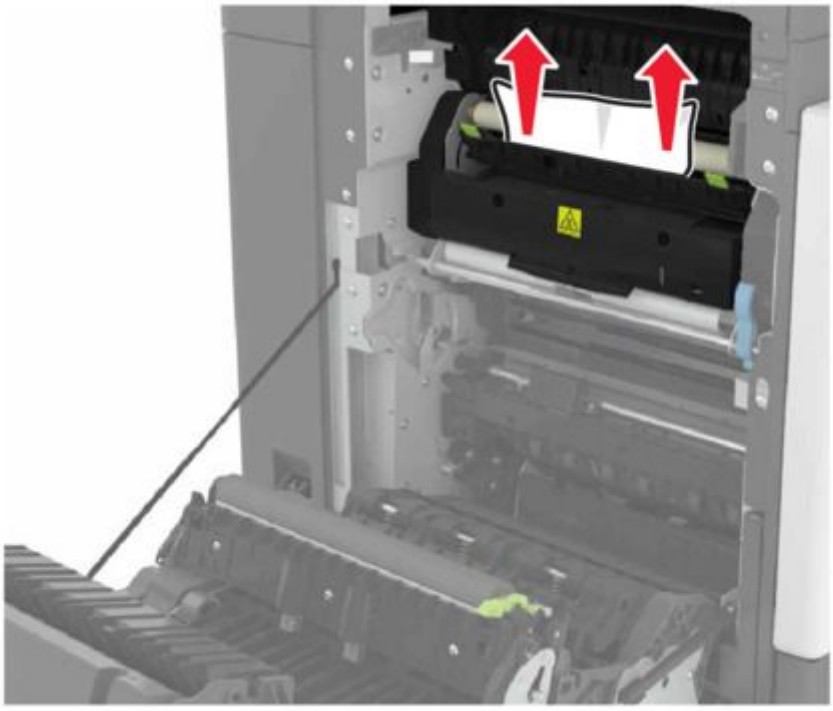
> **Note:** Make sure that all paper fragments are removed.



3. Open the fuser access door.

4. Remove the jammed paper.

> **Note:** Make sure that all paper fragments are removed.



5. Close door B.

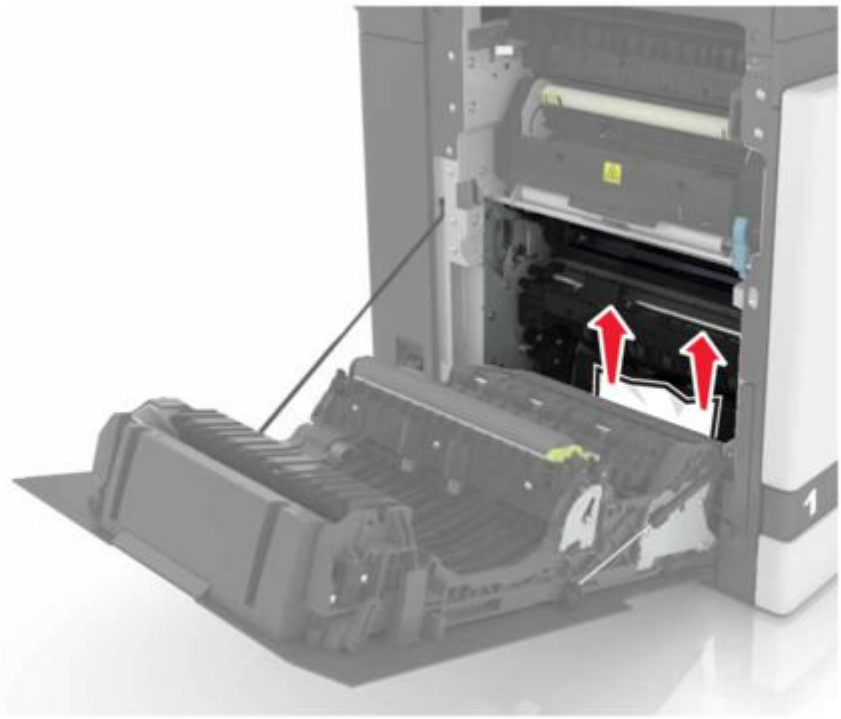
Paper jam in the duplex unit

1. Open door B.

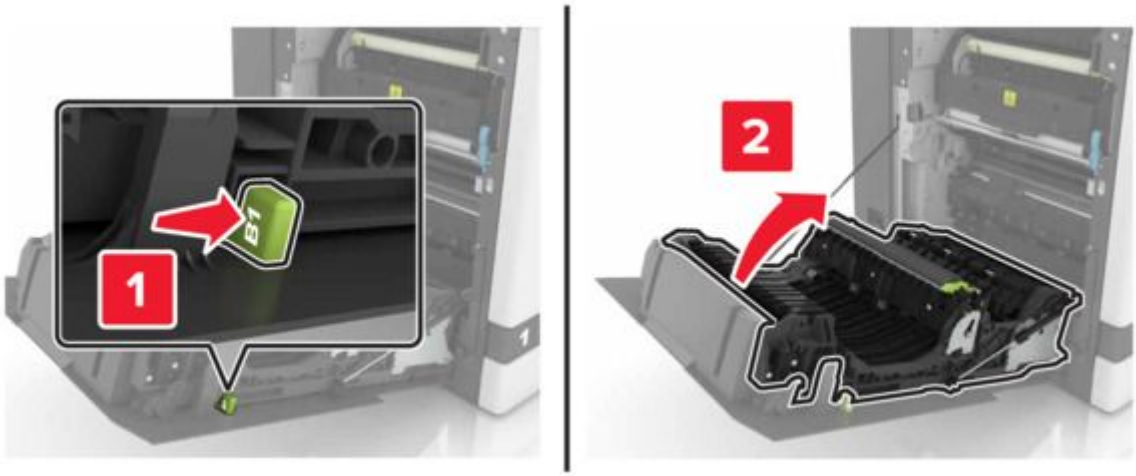
> **CAUTION—HOT SURFACE**
> The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

2. Remove the jammed paper.

> **Note:** Make sure that all paper fragments are removed.

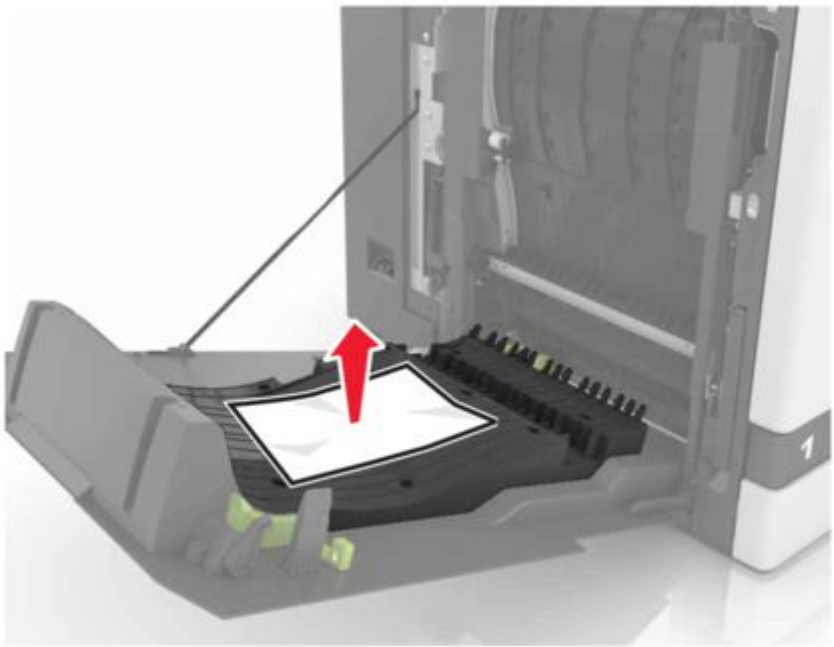


3. Open the duplex cover.



4. Remove the jammed paper.

> **Note:** Make sure that all paper fragments are removed.



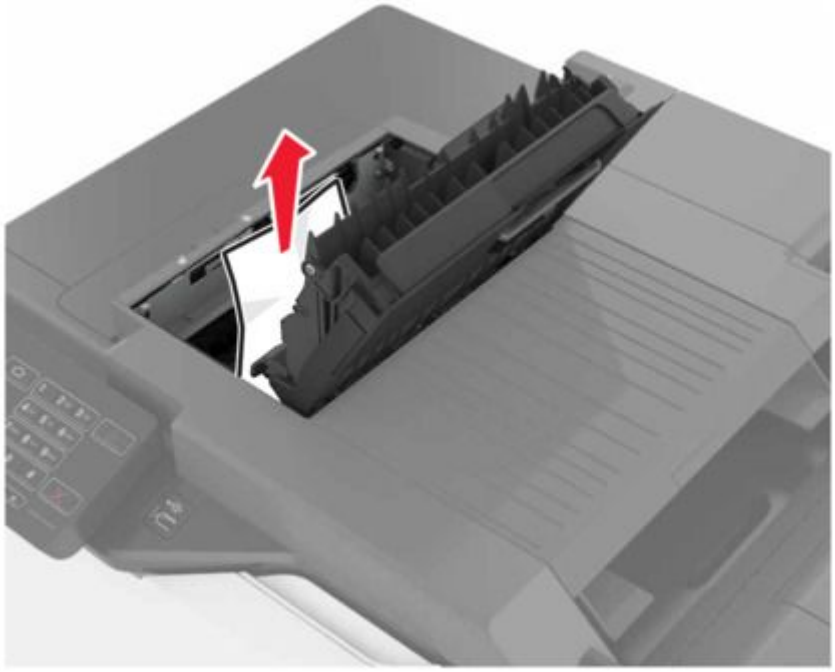
5. Close the duplex cover and door B.

Paper jam in the finisher bin

1. Open door F.

2. Remove the jammed paper.

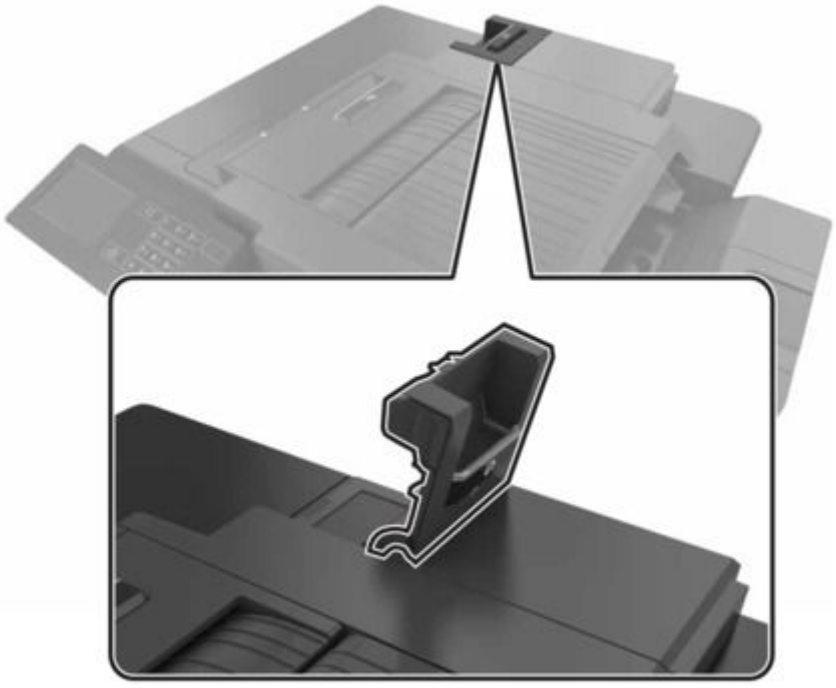
> **Note:** Make sure that all paper fragments are removed.



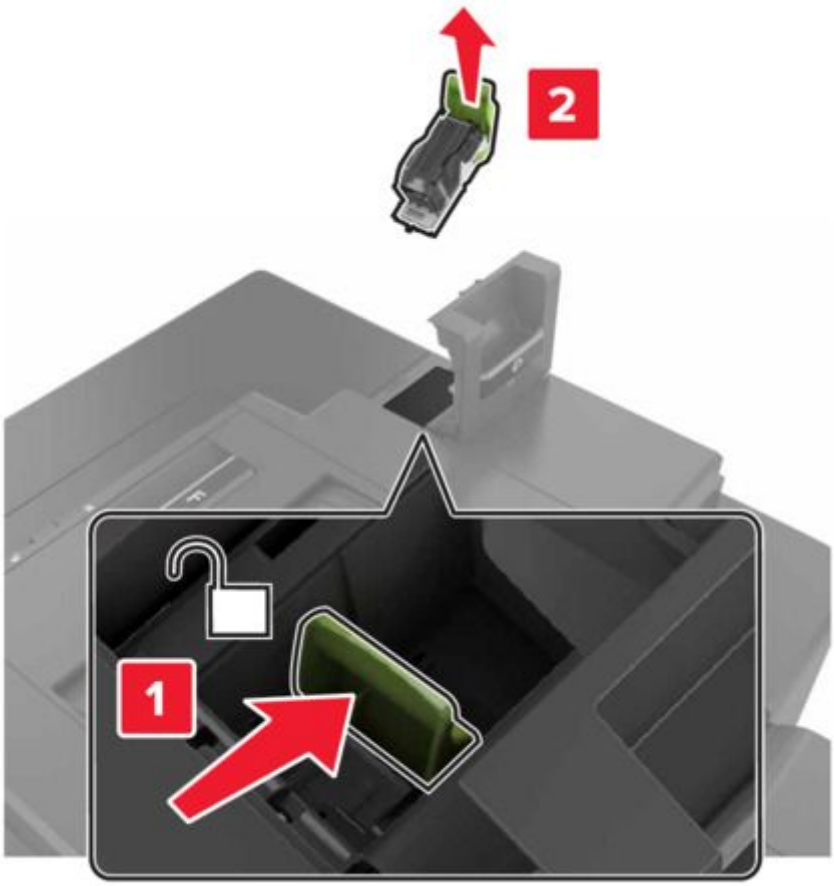
3. Close door F.

Staple jam in door G

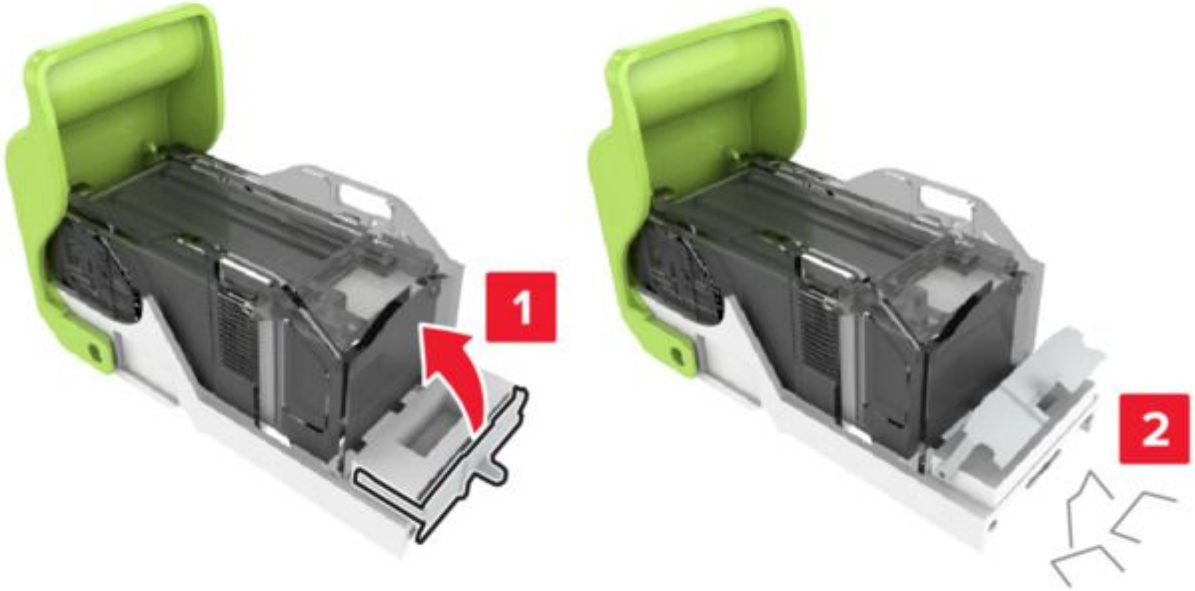
1. Open door G.

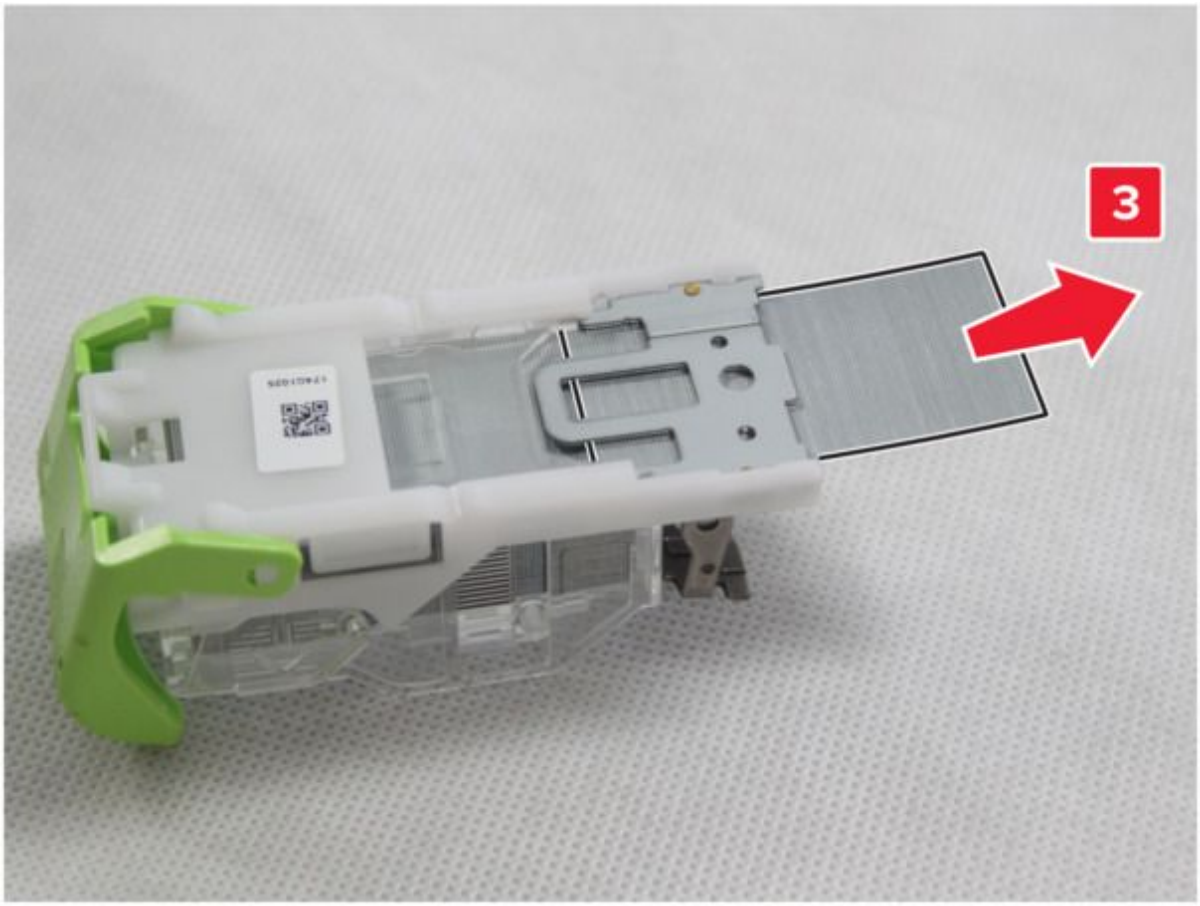


2. Pull out the staple cartridge holder.



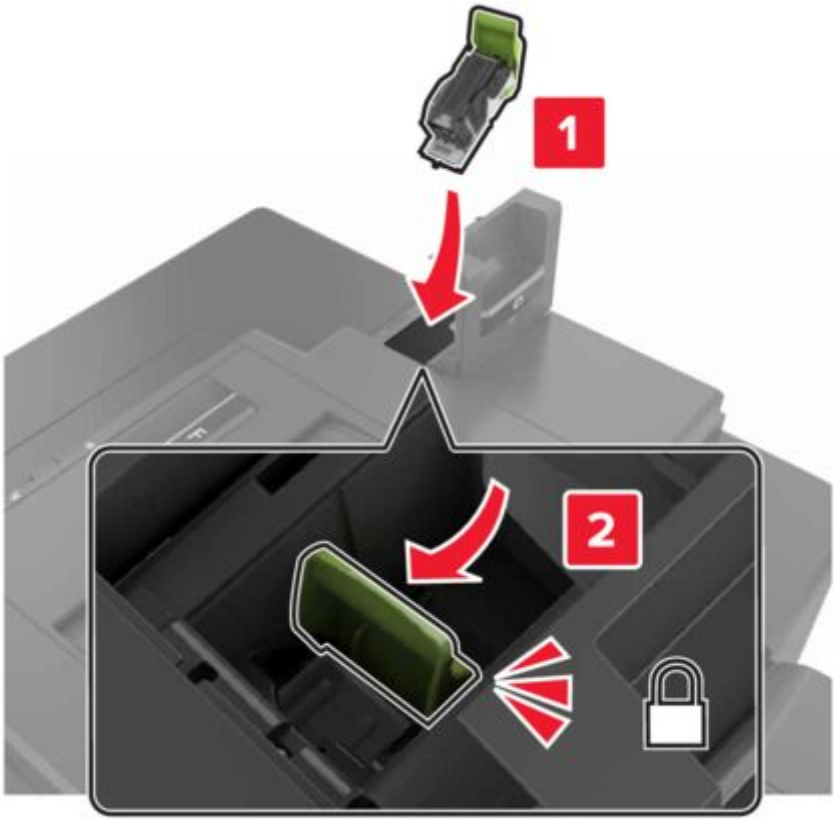
3. Open the staple guard, remove the loose staples, and then remove the partial slab of staples so only the full slabs remain.


1
2



4. Close the staple guard.

5. Insert the staple cartridge holder.



6. Close door G.

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 143.
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 142.
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 173.
200.15	Paper fed from tray 1 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 143.

Error code	Description	Action
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 146.
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 142.
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 149.
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 173.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 143.
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 142.
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 153.
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 173.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 143.
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 142.
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 158.
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 173.

Error code	Description	Action
200.45	Paper fed from tray 4 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 143.
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 142.
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 165.
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 173.
200.55	Paper fed from tray 5 never cleared the sensor (input).	See Sensor (input): Paper failed to clear service check on page 143.
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 165.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See Sensor (input) static jam service check on page 174.

Sensor (input): Paper arrived too early service check

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray for overfilling.

   Is the tray overfilled?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper path along the tray exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Sensor (input): Paper failed to clear service check

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Replace the sensor. See Sensor (input) removal on page 612.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

11. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the motor (isolation).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the tray 1 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Check the tray 1 separator pad for misalignment and damage.

Is the separator pad properly installed and free of damage?

- **Yes**:
  Go to step 9.
- **No**:
  Go to the next step.

8. Reinstall or replace the separator pad. See Separator pad removal on page 660.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the condition of the tray 1 pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the paper path along the tray exit.

    Is the paper path free of fragments and contamination?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

14. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (Input).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

16. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Replace the sensor. See Sensor (input) removal on page 612.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Pick (tray 1)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 21.
    - **No**:

Go to the next step.

19. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the tray 1 paper feeder. See Paper feeder removal on page 678.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the tray 1 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

3. Check tray 2 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper condition in tray 2.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the tray 2 separator pad for misalignment and damage.

   Is the separator pad properly installed and free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Reinstall or replace the separator pad. See Separator pad removal on page 660.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the condition of the tray 2 pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

- **Yes**:
  Go to step 11.
- **No**:
  Go to the next step.

10. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the paper path along the tray 2 exit.

    Is the paper path free of fragments and contamination?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Input).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 18.
- **No**:
  Go to the next step.

16. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Replace the sensor. See Sensor (input) removal on page 612.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass-through).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 21.
    - **No**:
      Go to the next step.

19. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 24.
    - **No**:
      Go to the next step.
22. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
23. Replace the motor (isolation).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
24. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the tray 1 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Clean the paper path.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Check the tray 2 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check tray 3 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper condition in tray 3.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.

8. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the tray 3 separator pad for misalignment and damage.

   Is the separator pad properly installed and free of damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Reinstall or replace the separator pad. See Separator pad removal on page 660.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the condition of the tray 3 pick roller.

    Is the pick roller free from excess wear, contamination, and damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Check the paper path along the tray 3 exit.

Is the paper path free of fragments and contamination?

- **Yes**:
  Go to step 17.
- **No**:
  Go to the next step.

16. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (Input).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 20.
    - **No**:
      Go to the next step.

18. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Replace the sensor. See Sensor (input) removal on page 612.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass through).

    Does the sensor status change while toggling the sensor?

    - **Yes**:

Go to step 23.

- **No**:
  Go to the next step.

21. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

23. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 26.
    - **No**:
      Go to the next step.

24. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

25. Replace the motor (isolation).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

26. Perform a print job.

    Does the problem remain?

    - **Yes**:

Contact the next level of support.
- **No**:
  The problem is solved.

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

1. Check the tray 1 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray 2 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the tray 3 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Clean the paper path.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

7. Check tray 4 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.
8. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Check the paper condition in tray 4.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.
10. Replace the crumpled or damaged paper.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Check the tray 4 separator pad for misalignment and damage.

    Is the separator pad properly installed and free of damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.
12. Reinstall or replace the separator pad. See Separator pad removal on page 660.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Check the condition of the tray 4 pick roller.

Is the pick roller free from excess wear, contamination, and damage?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

14. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Check the paper path along the tray 4 exit.

    Is the paper path free of fragments and contamination?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

18. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Sensor tests

b. Find the sensor (Input).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 22.
- **No**:
  Go to the next step.

20. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Replace the sensor. See Sensor (input) removal on page 612.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass through).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 25.
    - **No**:
      Go to the next step.

23. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

24. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

25. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 2)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 28.
    - **No**:
      Go to the next step.

26. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

27. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

28. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 31.
    - **No**:
      Go to the next step.

29. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

30. Replace the sensor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

31. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 34.
    - **No**:
      Go to the next step.
32. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
33. Replace the motor (isolation).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
34. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 2)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 37.
    - **No**:
      Go to the next step.
35. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

36. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

37. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 40.
    - **No**:
      Go to the next step.

38. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

39. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

40. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the tray 1 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray 2 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the tray 3 paper path.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Check the tray 4 paper path.

Is the paper path free of fragments and contamination?

- **Yes**:
  Go to step 9.
- **No**:
  Go to the next step.

8. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check tray 5 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 11.

10. Remove the excess paper from the tray.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the paper condition in tray 5.

    Is the paper crumpled or damaged?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 13.

12. Replace the crumpled or damaged paper.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the tray 5 separator pad for misalignment and damage.

    Is the separator pad properly installed and free of damage?

    - **Yes**:
      Go to step 15.

- **No**:
  Go to the next step.

14. Reinstall or replace the separator pad. See Separator pad removal on page 660.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Check the condition of the tray 5 pick roller.

    Is the pick roller free from excess wear, contamination, and damage?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform the following tests:
    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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

18. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Check the paper path along the tray 5 exit.

    Is the paper path free of fragments and contamination?

    - **Yes**:
      Go to step 21.
    - **No**:

Go to the next step.

20. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (Input).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 24.
    - **No**:
      Go to the next step.

22. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

23. Replace the sensor. See Sensor (input) removal on page 612.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

24. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass through).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 27.
    - **No**:
      Go to the next step.

25. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

26. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

27. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 2)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 30.
    - **No**:
      Go to the next step.

28. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

29. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

30. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 33.
    - **No**:

Go to the next step.

31. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

32. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

33. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 4)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 36.
    - **No**:
      Go to the next step.

34. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

35. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

36. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Isolation

    b. Touch **Start**.

    Does the motor run?

- **Yes**:
  Go to step 39.
- **No**:
  Go to the next step.

37. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

38. Replace the motor (isolation).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

39. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 2)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 42.
    - **No**:
      Go to the next step.

40. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

41. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

42. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

b. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 45.
- **No**:
  Go to the next step.

43. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

44. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

45. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 4)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 48.
    - **No**:
      Go to the next step.

46. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

47. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

48. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (input): Paper cleared too early service check

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 9.
   - **No**:
     The problem is solved.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the sensor. See Sensor (input) removal on page 612.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (input) static jam service check

1. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor. See Sensor (input) removal on page 612.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 179.
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 180.
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 183.
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 184.
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 179.
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 180.
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 183.
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 184.
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 179.
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 180.

Error code	Description	Action
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 183.
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 184.
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 179.
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 180.
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 183.
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 184.
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 179.
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 180.
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 183.
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 184.
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 179.
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 180.
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 183.

Error code	Description	Action
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 184.
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 186.

Sensor (fuser buckle) static jam service check

1. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser buckle).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor (fuser buckle detect).

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the paper path just before the fuser for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the fuser rollers for damage.

   Are the rollers free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform a print job.

   Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the fuser for obstructions.

   Is the fuser free of obstructions?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Remove the obstructions in the fuser area.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the fuser for damage and life expiration.

   Is the fuser damaged or has reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Check the transfer belt for damage.

    Is the transfer belt damaged?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 13.
11. Replace the transfer belt. See Transfer belt removal on page 656.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
12. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Fuser

b. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

13. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Transfer belt

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

16. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the fuser rollers for damage.

   Are the rollers free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the fuser for obstructions.

   Is the fuser free of obstructions?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Remove the obstructions on the fuser.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the fuser for damage and life expiration.

   Is the fuser damaged or has it reached end of life?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 7.

6. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Fuser

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 13.
    - **No**:

Go to the next step.

11. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the motor (fuser).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the motor (transfer belt) cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Replace the motor (transfer belt).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (fuser exit) static jam service check

1. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 3.
   - **No**:

Go to the next step.

2. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Fuser exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 190.
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 191.
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 193.
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 194.
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 190.
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 191.
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 193.
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 194.
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 190.
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 191.
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 193.

Error code	Description	Action
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 194.
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 190.
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 191.
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 193.
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 194.
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 190.
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 191.
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 193.
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 194.
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 190.
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 191.
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 193.

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 194.
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 196.

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

1. Check the paper path just before the deskew roller for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the deskew roller for damage.

   Is the roller free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Replace the deskew roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform a print job.

   Does the problem remain?

   - **Yes**:

Contact the next level of support.

- **No**:
  The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller entry).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:

Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Isolation

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:

The problem is solved.

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

1. Check the deskew roller for damage.

   Is the roller free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Replace the deskew roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller entry).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform a print job.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

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

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller entry).

   Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform a print job.

    Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Sensor (deskew roller entry) static jam service check

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller entry).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 200.
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 203.
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 199.
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 200.
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 202.
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 203.
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 199.
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 200.

Error code	Description	Action
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 202.
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 203.
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 199.
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 200.
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 202.
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 203.
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 199.
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 200.
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 202.
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 203.
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 199.
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 200.

Error code	Description	Action
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 202.
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 203.
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 204.

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

1. Check the paper path just before the deskew roller for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the deskew roller for damage.

   Is the roller free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Replace the deskew roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper condition in the tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller exit).

   Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform a print job.

    Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

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

1. Check the deskew roller for damage.

   Is the roller free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Replace the deskew roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor (deskew roller exit).

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Transfer belt

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.
7. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Sensor (deskew roller exit) static jam service check

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:

Go to step 3.

- **No**:
  Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Deskew roller exit).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the deskew roller for contamination and damage.

   Is the roller free of contamination and damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean or replace the deskew roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor (deskew roller exit).

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 209.
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 214.
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 209.
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 209.
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 213.
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 214.
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 209.
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 209.

Error code	Description	Action
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 213.
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 214.
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 209.
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 209.
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 213.
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 214.
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 209.
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 209.
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 213.
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 214.
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 209.
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 209.

Error code	Description	Action
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 213.
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 214.
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 216.

Sensor (redrive buckle) static jam service check

1. Check the paper path for partially fed or jammed paper.

   Is the paper path free of partially fed or jammed paper?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the partially fed or jammed paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Redrive buckle).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the paper path entering the duplex path for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the redrive area for paper jams and fragments.

Is the paper path free of jams and fragments?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the duplex path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   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?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Duplex diverter

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Replace the redrive. See Redrive removal on page 608.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Redrive

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.
12. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

13. Replace the redrive. See Redrive removal on page 608.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Duplex

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

15. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Check the duplex drive gears for damage.

    Is the duplex drive gears free of damage?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

18. Replace the duplex drive gears. See Duplex drive gears removal on page 584.

    Does the problem remain?

    - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

19. Check the duplex assembly for damaged gears, belts, and rollers.

    Is the duplex assembly free of damage?

    - **Yes**:
      Go to step 21.
    - **No**:
      Go to the next step.
20. Replace the duplex assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
21. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the duplex rollers for damage.

   Are the rollers free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Replace the duplex assembly.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   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?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the redrive area for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the duplex path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   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?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Duplex

    b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 13.
   - **No**:
     Go to the next step.

11. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (duplex path 1) static jam service check

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   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?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 220.
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 223.
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 220.
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 220.
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 222.
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 223.
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 220.
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 220.
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 222.
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 223.
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 220.

Error code	Description	Action
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 220.
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 222.
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 223.
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 220.
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 220.
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 222.
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 223.
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 220.
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 220.
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 222.
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 223.
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 225.

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

1. Check the paper path entering the duplex path for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the duplex path for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   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?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Duplex

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

7. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the duplex drive gears for damage.

Is the duplex drive gears free of damage?

- **Yes**:
  Go to step 11.
- **No**:
  Go to the next step.

10. Replace the duplex drive gears. See Duplex drive gears removal on page 584.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the duplex assembly for damaged gears, belts, and rollers.

    Is the duplex assembly free of damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the duplex assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the duplex rollers for damage.

   Are the rollers free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Replace the duplex assembly.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Perform the following tests:
   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?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:

Go to step 3.

- **No**:
  Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the duplex path for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   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?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Isolation

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (duplex path 2) static jam service check

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   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?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 228.
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 231.
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 232.
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 228.
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 231.
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 232.
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 228.
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 231.
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 232.
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 228.
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 231.

Error code	Description	Action
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 232.
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 228.
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 231.
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 232.
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 228.
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 231.
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 232.

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

1. Check the sensor (input) area for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the duplex path for paper jams and fragments

   Is the paper path free of jams and fragments?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor. See Sensor (input) removal on page 612.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Duplex

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:

Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the duplex drive gears for damage.

    Is the duplex drive gears free of damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the duplex drive gears. See Duplex drive gears removal on page 584.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the duplex assembly for damaged gears, belts, and rollers.

    Is the duplex assembly free of damage?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Replace the duplex assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform a print job.

    Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

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

1. Check the duplex rollers for damage.

   Are the rollers free of damage?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Replace the duplex.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor. See Sensor (input) removal on page 612.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the duplex path for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Input).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor. See Sensor (input) removal on page 612.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Deskew

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform a print job.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  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 246.
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 248.
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 246.
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 251.
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 246.
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 235.
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 246.
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 238.

Error code	Description	Action
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 246.
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 241.
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 246.
240.82	The motor (MPF pick) has stalled.	See Motor (MPF pick) jam service check on page 254.
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 256.

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

1. Check the tray 2 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper condition in tray 3.

   Is the paper crumpled or damaged?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 5.

4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 11.
   - **No**:

Go to the next step.

9. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 2)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

12. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:

The problem is solved.

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

1. Check the tray 2 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray 3 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
6. Check the sensor cable for proper connection, and then reseat if necessary.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:

Go to step 14.

- **No**:
  Go to the next step.

12. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 2)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

15. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

b. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 20.
- **No**:
  Go to the next step.

18. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the tray 2 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

3. Check the tray 3 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the tray 4 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

9. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 13.
   - **No**:
     Go to the next step.

11. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

14. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

15. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 4)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

17. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 2)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 22.
    - **No**:

Go to the next step.

20. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 25.
    - **No**:
      Go to the next step.

23. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

24. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

25. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 4)

    b. Touch **Start**.

    Does the motor run?

- **Yes**:
  Go to step 28.
- **No**:
  Go to the next step.

26. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

27. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

28. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper path for paper jams and fragments

   Is the paper path free of jams and fragments?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Isolation

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:

Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

MPF failed to pick service check

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the MPF tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:

Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper condition in the MPF tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the condition of the MPF pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Replace the pick roller. See MPF pick roller removal on page 601.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the paper path along the MPF tray exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Clean the paper path.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass-through).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.
12. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
14. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > MPF pick

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.
15. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:

The problem is solved.

16. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the tray 2 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check tray 2 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

5. Check the paper condition in tray 2.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the tray 2 separator pad for misalignment and damage.

   Is the separator pad properly installed and free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Reinstall or replace the separator pad. See Separator pad removal on page 660.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the condition of the tray 2 pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the paper path along the tray 2 exit.

    Is the paper path free of fragments and contamination?

- **Yes**:
  Go to step 13.
- **No**:
  Go to the next step.

12. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Sensor tests

    b. Find the sensor (MPF/pass-through).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

14. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pick (tray 2)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 19.
    - **No**:

Go to the next step.

17. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Replace the tray 2 paper feeder. See 550-sheet tray paper feeder removal on page 752.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (MPF pick) jam service check

1. Check the sensor actuator (MPF media present) for misalignment or damage.

   Is the actuator misaligned or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Repair or replace the actuator.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

3. Check the MPF tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper condition in the MPF tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the paper path along the tray exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > MPF pick

b. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 12.
- **No**:
  Go to the next step.

10. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (MPF/pass-through).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor. See Sensor (MPF/pass-through) with deflector removal on page 613.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 258.
241.83	The motor (tray 1 pick) has stalled.	

Error code	Description	Action
241.84	The motor (tray 1 pick) has stalled.	

Motor (tray 1 pick) jam service check

1. Check tray 1 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper condition in tray 1.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the paper path along the tray 1 exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Clean the paper path.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Pick (tray 1)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
8. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 275.
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 263.
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 266.
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 268.
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 270.
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 268.
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 275.
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 263.
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 264.

Error code	Description	Action
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 266.
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 268.
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 275.
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 263.
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 264.
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 266.
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 268.
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 452.
242.72	The motor (tray 2 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
242.73	The motor (tray 2 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.

Error code	Description	Action
242.73	The motor (tray 2 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
242.74	The motor (tray 2 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
242.74	The motor (tray 2 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
242.75	The motor (tray 2 pass-through) ran too fast.	See Motor (tray [x] pass-through) failure service check on page 452.
242.75	The motor (tray 2 elevator) ran too fast.	See Motor (tray [x] elevator) failure service check on page 453.
242.82	The motor (tray 2 pick) has stalled.	See Motor (tray 2 pick) jam service check on page 273.
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 275.
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 263.
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 264.
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 266.

Error code	Description	Action
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 268.
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 270.
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 268.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the tray 3 paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.

- **No**:
  Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 3)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

7. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

   b. Touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 12.
- **No**:
  Go to the next step.

10. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the source tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the source tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper condition in the source tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the source tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the tray paper path guides for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pass-through (tray 2)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the tray 3 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check tray 3 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the paper condition in tray 3.

Is the paper crumpled or damaged?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the tray 3 separator pad for misalignment and damage.

   Is the separator pad properly installed and free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Reinstall or replace the separator pad. See Separator pad removal on page 660.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the condition of the tray 3 pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the paper path along the tray 3 exit.

    Is the paper path free of fragments and contamination?

    - **Yes**:
      Go to step 13.

- **No**:
  Go to the next step.

12. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 2)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

14. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 19.
    - **No**:
      Go to the next step.

17. Check the motor cable for proper connection, and then reseat if necessary.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

18. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. Replace the tray 3 paper feeder. See 550-sheet tray paper feeder removal on page 752.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (tray 2 pick) jam service check

1. Check tray 2 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper condition in tray 2.

Is the paper crumpled or damaged?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 5.

4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper path along the tray 2 exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pick (tray 2)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Check the motor cable for proper connection,, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 2)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 291.
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 279.
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 280.
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 285.
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 287.

Error code	Description	Action
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 282.
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 287.
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 291.
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 279.
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 280.
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 285.
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 287.
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 452.
243.72	The motor (tray 3 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
243.73	The motor (tray 3 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
243.73	The motor (tray 3 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.

Error code	Description	Action
243.74	The motor (tray 3 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
243.74	The motor (tray 3 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
243.75	The motor (tray 3 pass-through) ran too fast.	See Motor (tray [x] pass-through) failure service check on page 452.
243.75	The motor (tray 3 elevator) ran too fast.	See Motor (tray [x] elevator) failure service check on page 453.
243.82	The motor (tray 3 pick) has stalled.	See Motor (tray 3 pick) jam service check on page 289.
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 291.
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 279.
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 280.
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 285.
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 287.

Error code	Description	Action
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 282.
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 287.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 3)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check the tray paper path guides for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 3)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pass-through (tray 4)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

7. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check if the paper size matches the size set on the tray 4 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check tray 4 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the paper condition in tray 4.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the tray 4 separator pad for misalignment and damage.

   Is the separator pad properly installed and free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.
8. Reinstall or replace the separator pad. See Separator pad removal on page 660.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Check the condition of the tray 4 pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
10. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Perform the following tests:
    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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.
12. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Check the paper path along the tray 4 exit.

Is the paper path free of fragments and contamination?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

14. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 3)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

16. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pick (tray 4)

    b. Touch **Start**.

    Does the motor run?

    - **Yes**:

Go to step 21.
- **No**:
  Go to the next step.

19. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Replace the tray 4 paper feeder. See 550-sheet tray paper feeder removal on page 752.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the source tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Check the source tray for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper condition in the source tray.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 3)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the tray guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the tray paper path guides for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Remove the paper jams and fragments.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 3)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
6. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pass-through (tray 3)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

10. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (tray 3 pick) jam service check

1. Check tray 3 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper condition in tray 3.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

5. Check the paper path along the tray 3 exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pick (tray 3)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:

Contact the next level of support.

- **No**:
  The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 3)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 304.
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 294.
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 295.
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 297.
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 299.
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 297.
244.72	The motor (tray 4 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
244.72	The motor (tray 4 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.

Error code	Description	Action
244.73	The motor (tray 4 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
244.73	The motor (tray 4 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
244.74	The motor (tray 4 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
244.74	The motor (tray 4 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
244.75	The motor (tray 4 pass-through) ran too fast.	See Motor (tray [x] pass-through) failure service check on page 452.
244.75	The motor (tray 4 elevator) ran too fast.	See Motor (tray [x] elevator) failure service check on page 453.
244.82	The motor (tray 4 pick) has stalled.	See Motor (tray 4 pick) jam service check on page 302.
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 304.
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 294.
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 295.
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 297.

Error code	Description	Action
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 299.
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 297.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 4)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

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

1. Check if the paper size matches the size set on the tray 5 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check tray 5 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

5. Check the paper condition in tray 5.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 4)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

8. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:

The problem is solved.

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

1. Check if the paper size matches the size set on the tray 5 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the tray paper path guides for paper jams and fragments

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pass-through (tray 4)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
6. Check the sensor cable for proper connection, and then reseat if necessary.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pass-through (tray 4)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check if the paper size matches the size set on the tray 5 guides.

   Does the paper size match the size set on the tray?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Change the paper size or adjust the size setting in the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check tray 5 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.
4. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the paper condition in tray 5.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.
6. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the tray 5 separator pad for misalignment and damage.

   Is the separator pad properly installed and free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.
8. Reinstall or replace the separator pad. See Separator pad removal on page 660.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Check the condition of the tray 5 pick roller.

   Is the pick roller free from excess wear, contamination, and damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
10. Replace the pick roller. See Pick roller removal on page 659.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Perform the following tests:
    a. Check the tray 5 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.

    Is the pick roller assembly properly installed?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.
12. Reinstall the pick roller assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Check the paper path along the tray 5 exit.

Is the paper path free of fragments and contamination?

- **Yes**:
  Go to step 15.
- **No**:
  Go to the next step.

14. Clean the paper path.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Sensor tests

    b. Find the sensor (Pass-through (tray 4)).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

16. Check the sensor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Replace the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

18. Perform the following tests:
    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?

    - **Yes**:

Go to step 21.
- **No**:
  Go to the next step.

19. Check the motor cable for proper connection, and then reseat if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Replace the motor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the tray 5 paper feeder. See 550-sheet tray paper feeder removal on page 752.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

23. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (tray 4 pick) jam service check

1. Check tray 4 for overfilling.

   Is the tray overfilled?

   - **Yes**:

Go to the next step.
- **No**:
  Go to step 3.

2. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the paper condition in tray 4.

   Is the paper crumpled or damaged?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 5.

4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper path along the tray 4 exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pick (tray 4)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:

Go to step 10.

- **No**:
  Go to the next step.

8. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

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

1. Check the paper path for paper jams and fragments.

   Is the paper path free of jams and fragments?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Remove the paper jams and fragments.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

b. Find the sensor (Pass-through (tray 4)).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

4. Check the sensor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 452.
245.72	The motor (tray 5 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
245.73	The motor (tray 5 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.

Error code	Description	Action
245.73	The motor (tray 5 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
245.74	The motor (tray 5 pass-through) has stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
245.74	The motor (tray 5 elevator) has stalled.	See Motor (tray [x] elevator) failure service check on page 453.
245.75	The motor (tray 5 pass-through) ran too fast.	See Motor (tray [x] pass-through) failure service check on page 452.
245.75	The motor (tray 5 elevator) ran too fast.	See Motor (tray [x] elevator) failure service check on page 453.
245.82	The motor (tray 5 pick) has stalled.	See Motor (tray 5 pick) jam service check on page 306.
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

1. Check tray 5 for overfilling.

   Is the tray overfilled?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.
2. Remove the excess paper from the tray.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the paper condition in tray 5.

Is the paper crumpled or damaged?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 5.

4. Replace the crumpled or damaged paper.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the paper path along the tray 5 exit.

   Is the paper path free of fragments and contamination?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Clean the paper path.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   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?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

8. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

10. Perform a print job.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 311.
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 315.
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 311.
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.	

Error code	Description	Action
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 336.
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 323.
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 499.
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 326.

Error code	Description	Action
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 328.
425.15	Staple finisher bin clamp fails to leave home at the specified time.	
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 330.
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 533.
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 332.
429.13	The sensor (staple finisher staple unit paper present) does not detect the media within the specified time.	

Error code	Description	Action
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

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Make sure that the jam access door is properly closed.
   c. Reset the printer, and then reseat the finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit

   b. Find the sensor (Transport).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Perform the following tests:
   a. Check the sensor (staple finisher transport) for proper installation and damage, and replace if necessary. See Sensor (staple finisher transport) removal on page 925.
   b. Reseat the sensor connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. 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 896

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Perform the following tests:
   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 815.
   b. Make sure that the door is properly closed.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. 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 878.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Transport), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.
8. Perform the following tests:
   a. Check the motor (staple finisher transport) for damage, and replace if necessary. See Motor (staple finisher transport) removal on page 918.
   b. Check the motor for proper installation.
   c. Reseat the motor connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the staple finisher transport gears for proper installation and damage, and replace if necessary. See Staple finisher transport gears removal on page 843.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Check the compiler feed roller for proper installation.
    b. Check the roller for wear or damage, and replace if necessary. See Staple finisher compiler feed roller removal on page 880.
    c. Manually turn the roller and make sure that the compiler feed idler rolls with the roller.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:
    a. Check the compiler feed idler for proper installation and damage, and replace if necessary. See Staple finisher compiler feed idler removal on page 885.
    b. Manually turn the mating roller and make sure that the idler rolls with the roller.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    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 887.
    b. Manually turn the paddle to check for proper operation.
    c. Check the paddle for proper installation.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:

The problem is solved.

14. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Output device diagnostics > Motor tests

    b. Find the motor (Aligner paddle), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.
15. Perform the following tests:
    a. Check the motor (staple finisher aligner paddle) for damage, and replace if necessary.
       See Motor (staple finisher aligner paddle) removal on page 842.
    b. Check the motor for proper installation.
    c. Reseat the connector on both ends.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
16. Perform the following tests:
    a. Check the staple finisher aligner paddle gears for damage, and replace if necessary.
       See Staple finisher aligner paddle gears removal on page 846.
    b. Check the gears for proper alignment and installation.
    c. Check the actuator for damage, and replace if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
17. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
18. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.

- **No**:
  The problem is solved.

Staple finisher upper exit area jam service check

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Check if the jam access door is properly closed.
   c. Reset the printer, and then reseat the finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the staple finisher jam access door for proper installation and damage.

   Is the door properly installed and free of damage?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reinstall or replace the door. See Staple finisher jam access door removal on page 815.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the staple finisher upper paper guide for proper installation and damage.

   Is the paper guide properly installed and free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reinstall or replace the paper guide. See Staple finisher aligner paddle and upper paper guide removal on page 887.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Perform the following tests:

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.

Are the tampers properly installed and free of damage?

- **Yes**:
  Go to step 8.
- **No**:
  Go to the next step.

7. Reinstall or replace the tampers. See Staple finisher tamper removal on page 872.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Transport), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor (staple finisher transport) for proper installation and damage. Make sure to reseat the motor connector on both ends.

   Is the motor properly installed and free of damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Reinstall or replace the motor. See Motor (staple finisher transport) removal on page 918.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Check the cables for cuts or damage, and replace if necessary.

    Does the problem remain?

    - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

12. Check the staple finisher transport gears for proper installation and damage.

    Are the gears properly installed and free of damage?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

13. Reinstall or replace the gears. See Staple finisher transport gears removal on page 843.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

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.

    Is the roller properly installed and free of damage?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

15. Reinstall or replace the roller. See Staple finisher compiler feed roller removal on page 880.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

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.

    Is the idler properly installed and free of damage?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

17. Reinstall or replace the idler. See Staple finisher compiler feed idler removal on page 885.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:

The problem is solved.

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.

    Is the paddle properly installed and free of damage?

    - **Yes**:
      Go to step 20.
    - **No**:
      Go to the next step.

19. Reinstall or replace the paddle. See Staple finisher aligner paddle and upper paper guide removal on page 887.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Output device diagnostics > Motor tests

    b. Find the motor (Aligner paddle), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 23.
    - **No**:
      Go to the next step.

21. Check the motor for proper installation and damage. Make sure to reseat the motor connector on both ends.

    Is the motor properly installed and free of damage?

    - **Yes**:
      Go to step 23.
    - **No**:
      Go to the next step.

22. Reinstall or replace the motor. See Motor (staple finisher aligner paddle) removal on page 842.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

23. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > Sensor tests > Staple Finisher > Compile and staple section

b. Find the sensor (Aligner paddle).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 26.
- **No**:
  Go to the next step.

24. Check the sensor for proper installation and damage, and replace if necessary. Make sure to reseat the sensor connector on both ends.

    Is the sensor properly installed and free of damage?

    - **Yes**:
      Go to step 26.
    - **No**:
      Go to the next step.

25. Reinstall or replace the sensor. See Staple finisher aligner paddle gears removal on page 846.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is resolved.

26. Perform the following tests:
    a. Check the staple finisher aligner paddle gears for damage, and replace if necessary. See Staple finisher aligner paddle gears removal on page 846.
    b. Check the gears for proper alignment and installation.
    c. Check the actuator for damage, and replace if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is resolved.

27. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Output device diagnostics > Motor tests

    b. Find the motor (Upper exit), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 30.

- **No**:
  Go to the next step.

28. Check the motor for proper installation and damage.

    Is the motor properly installed and free of damage?

    - **Yes**:
      Go to step 30.
    - **No**:
      Go to the next step.

29. Reinstall or replace the motor. See Staple finisher upper exit roller removal on page 891.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

30. Perform the following tests:
    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).

    Does the sensor status change while toggling the sensor?

    - **Yes**:
      Go to step 33.
    - **No**:
      Go to the next step.

31. Check the sensor for proper installation and damage. Make sure to reseat the sensor connector on both ends.

    Is the sensor properly installed and free of damage?

    - **Yes**:
      Go to step 33.
    - **No**:
      Go to the next step.

32. Reinstall or replace the sensor. See Staple finisher upper exit roller removal on page 891.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

33. Perform the following tests:

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 851.
b. Check the actuator and lever for proper installation and damage, and replace if necessary.
c. Make sure that the springs are properly installed.
d. Check if the roller goes up and down after moving the gears.
e. Lift the gear to check if the actuator covers the sensor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

34. Perform the following tests:
    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 827.
    b. Check if the roller goes up and down after moving the gears.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

35. Perform the following tests:
    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 891.
    b. Check if the roller goes up and down after moving the gears.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

36. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Output device diagnostics > Motor tests

    b. Find the motor (Exit), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 39.
    - **No**:
      Go to the next step.

37. Check the motor for proper installation and damage.

    Is the motor properly installed and free of damage?

    - **Yes**:
      Go to step 39.
    - **No**:
      Go to the next step.

38. Reinstall or replace the motor. See Motor (staple finisher exit) removal on page 917.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

39. Check the exit gears for proper alignment and installation.

    Are the gears properly aligned or installed?

    - **Yes**:
      Go to step 41.
    - **No**:
      Go to the next step.

40. Realign or reinstall the exit gears.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

41. Check the exit gears for damage.

    Are the gears free of damage?

    - **Yes**:
      Go to step 43.
    - **No**:
      Go to the next step.

42. Replace the gears. See Staple finisher exit gears removal on page 855.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

43. Check the exit roller belts for proper installation and damage.

    Are the belts properly installed or free of damage?

    - **Yes**:

Go to step 45.
- **No**:
  Go to the next step.

44. Reinstall or replace the belts. See Staple finisher exit roller belts removal on page 860.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
45. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
46. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Sensor (staple finisher rear tamper home) jam service check

1. Perform the following tests:
   a. Check and clear the following areas of any jams and obstructions:
      - Jam door
      - Output bin
      - Paper path
      - Staple finisher tamper area

   b. Move the staple finisher tampers from the side to the center, and then back to their original positions.
   c. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > Motor tests

b. Find the motor (Tamper front and rear), and then touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 4.
- **No**:
  Go to the next step.

3. Perform the following tests:
   a. Check the motor (staple finisher rear tamper) for proper installation and damage, and replace if necessary. See Staple finisher tamper removal on page 872.
   b. Reseat the connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Tamper sensors

   b. Find the sensor (Rear tamper home).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Perform the following tests:
   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 865.
   b. Reseat the connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the cables for cuts or damages, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

7. Check the tamper for proper installation and damage, and replace if necessary. See Staple finisher tamper removal on page 872.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Check the rear tamper belt holder for proper installation and damage, and replace if necessary. See Staple finisher tamper belts removal on page 868.
   b. Check the rear tamper belt for proper alignment.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   a. Check the rear tamper belt for proper installation and damage, and replace if necessary. See Staple finisher tamper belts removal on page 868.
   b. Check the spring for proper installation.
   c. Check the belt for proper alignment.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the tamper gears for proper installation and damage, and replace if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the controller board. See Staple finisher controller board removal on page 812.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Staple finisher paddle jam service check

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Compile and staple section

   b. Find the sensor (Aligner paddle).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. 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 846.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Aligner paddle), and then touch **Start**.

   Does the motor run?

- **Yes**:
  Go to 6.
- **No**:
  Go to the next step.

5. 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 842.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   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 846.
   b. Check the actuator for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   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 887.
   b. Manually turn the aligner paddle to check it for proper operation.
   c. Check the aligner paddle for proper installation.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

10. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Staple finisher bin clamp jam service check

1. Perform the following tests:
   a. Clear the staple finisher bin.
   b. Clear the paper path of any obstruction.
   c. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Bin clamp), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Perform the following tests:
   a. Check the motor (staple finisher bin clamp) for damage, and replace if necessary.
      See .Motor (staple finisher bin clamp) removal on page 910
   b. Check the motor for proper installation.
   c. Reseat the motor connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:

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).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Perform the following tests:
   a. Check the sensor (staple finisher bin clamp) for damage, and replace if necessary.
   See Sensor (staple finisher bin clamp) removal on page 908.
   b. Check the sensor for proper installation.
   c. Reseat the sensor connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Perform the following tests:
   a. Check the staple finisher bin arms for damage, and replace if necessary. See .Staple finisher bin clamp assembly removal on page 898
   b. Clear the bin arms of any obstructions.
   c. Check the bin arms for proper installation and alignment.
   d. Manually actuate the arm to check for proper function.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Perform the following tests:
   a. Check the staple finisher bin for damage, and replace if necessary. See Staple finisher bin removal on page 876.
   b. Manually push, and then release the bin to check if it goes back to its original position.
   c. Clear the bin of any obstructions.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Perform the following tests:
   a. Check the staple finisher bin link for damage, and replace if necessary. See Staple finisher bin link removal on page 875.
   b. Check the links and the spring for proper installation.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Reseat all cable connectors in the controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Staple finisher decurl assembly service check

1. Perform the following tests:
   a. Reset the printer.
   b. Reseat the staple finisher.
   c. Clear the paper path of any obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   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).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 4.
- **No**:
  Go to the next step.

3. Perform the following tests:
   a. Check the sensor (staple finisher decurl) for proper installation and damage, and replace if necessary. See Sensor (staple finisher decurl) removal on page 924.
   b. Reseat the connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Decurl), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Perform the following tests:
   a. Check the motor (staple finisher decurl) for proper installation and damage, and replace if necessary. See Staple finisher decurl assembly removal on page 921.
   b. Reseat the end of the connector that is on the controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Replace the staple finisher decurl paddle. See Staple finisher decurl assembly removal on page 921.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

7. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reseat all cable connectors in the controller board, and then reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See Staple finisher controller board removal on page 812.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Staple finisher stapler throat jam service check

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   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).

   Does the sensor status change while toggling the sensor?

   - **Yes**:

Go to step 4.

- **No**:
  Go to the next step.

3. Perform the following tests:
   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 922.
   b. Reseat the connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   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).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Perform the following tests:
   a. Check the sensor for proper installation and damage, and replace if necessary. See Staple finisher upper exit roller removal on page 891.
   b. Reseat the connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Exit assembly), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 8.
   - **No**:

Go to the next step.

7. Perform the following tests:
   a. Check the motor for proper installation and damage, and replace if necessary. See Staple finisher upper exit roller removal on page 891.
   b. Reseat the connector on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Perform the following tests:
   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 887.
   b. Check the paper guide bail for proper installation and damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Perform the following tests:
    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 851.
    b. Check the actuator and lever for proper installation and damage, and replace if necessary.
    c. Make sure that the springs are properly installed.
    d. Check if the roller goes up and down after moving the gears.
    e. Lift the gear to check if the actuator covers the sensor.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Perform the following tests:

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 827.
b. Check if the roller goes up and down after moving the gears.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

12. Perform the following tests:
    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 891.
    b. Check if the roller goes up and down after moving the gears.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Check the controller board for damage, and replace if necessary. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
14. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 533.
431.xx	Staple supply is low.	

Error code	Description	Action
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 336.
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 339.

Sensor (staple finisher front tamper home) jam service check

1. Perform the following tests:
   a. Clear the following areas of any jams or obstructions:
      - Jam door
      - Finisher bin
      - Paper path
      - Staple finisher tamper area

   b. Move the tampers from one side to another, and then back to the original position.
   c. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Tamper front and rear), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Perform the following tests:
   a. Check the motor (staple finisher front tamper home) for proper installation and damage, and replace if necessary. See Staple finisher tamper removal on page 872.
   b. Reseat the connector on both ends of the motor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Tamper sensors

   b. Find the sensor (Front tamper home).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Perform the following tests:
   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 865.
   b. Reseat the connector on both ends of the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Perform the following tests:
   a. Move the tampers from one side to another, and then make sure that the tamper area is free from any obstructions.
   b. Check the tampers for any damages, and replace if necessary. See Staple finisher tamper removal on page 872.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Check the tamper belt holder for damages, and replace if necessary. See Staple finisher tamper removal on page 872.
   b. Check the tamper belt holder for proper installation. Make sure that the front tamper belt is properly aligned.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Perform the following tests:
   a. Check the staple finisher tamper belt for damage, and replace if necessary. See Staple finisher tamper belts removal on page 868.
   b. Check the belts for proper installation. Make that the spring and the holder are properly aligned.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Perform the following tests:
    a. Check the stapler finisher tamper pulley gears for damage, and replace if necessary. See Staple finisher tamper pulley gear removal on page 871.
    b. Make sure that the gears are properly installed.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Reseat all connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
12. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Staple finisher engine error service check

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Make sure that the jam access door is properly closed.
   c. Reset the printer, and then reseat the finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Transport), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
3. Check the motor for proper installation and damage.

   Is the motor properly installed or free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reinstall or replace the motor. See Motor (staple finisher transport) removal on page 918.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit

   b. Find the sensor (Transport).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.

- **No**:
  Go to the next step.

6. Check the sensor and the flag for proper installation and damage.

   Is the sensor and the flag properly installed or free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reinstall or replace the sensor and the flag. See Sensor (staple finisher transport) removal on page 925.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Aligner paddle), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

9. Check the motor for proper installation and damage.

   Is the motor properly installed or free of damage

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Reinstall or replace the motor. See Motor (staple finisher aligner paddle) removal on page 842.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    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).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 14.
- **No**:
  Go to the next step.

12. Check the sensor for proper installation and damage.

    Is the sensor properly installed or free of damage?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

13. Reinstall or replace the sensor. See Staple finisher upper exit roller removal on page 891.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Output device diagnostics > Motor tests

    b. Find the motor (Upper exit), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

15. Check the motor for proper installation and damage.

    Is the motor properly installed or free of damage?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Reinstall or replace the motor. See Staple finisher upper exit roller removal on page 891.

    Does the problem remain?

    - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

17. Perform the following tests:
    a. Enter the Diagnostics menu, and then navigate to:

       Output device diagnostics > Motor tests

    b. Find the motor (Exit), and then touch **Start**.

    Does the motor run?

    - **Yes**:
      Go to step 20.
    - **No**:
      Go to the next step.

18. Check the motor for proper installation and damage.

    Is the motor properly installed or free of damage?

    - **Yes**:
      Go to step 20.
    - **No**:
      Go to the next step.

19. Reinstall or replace the motor. See Motor (staple finisher exit) removal on page 917.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Check the upper exit roller for proper installation and damage. Make sure that the roller can move up and down.

    Is the roller properly installed or free of damage?

    - **Yes**:
      Go to step 22.
    - **No**:
      Go to the next step.

21. Reinstall or replace the roller. See Staple finisher upper exit roller removal on page 891.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Check the cables for any cuts or damage, and replace if necessary.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

23. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

24. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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.xxz messages, see Non-Lexmark supply on page 343.

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 347.
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.	

Error code	Description	Action
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 347.
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 350.
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.	

Error code	Description	Action
32.52	The third party developer (M) is unsupported.	
32.53	The third party developer (Y) is unsupported.	
32.60	The third party imaging unit/ photoconductor (K) is unsupported.	See Unsupported third party supply service check on page 350.
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 351.
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.	

Error code	Description	Action
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 351.
35.xx	The printer memory is insufficient to enable Resource Save.	See Insufficient memory service check on page 352.
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 353.

Z codes:

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

Supplies smart chip error service check

1. Perform the following tests:

   Check whether the following supplies installed are genuine.

   - Transfer belt
   - Toner cartridge
   - Developer
   - Photoconductor
   - Imaging unit

   Are the parts genuine and supported Lexmark units?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Install genuine Lexmark supplies.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

3. Perform the following tests:

   Check the following supplies for proper installation.

   - Transfer belt
   - Toner cartridge
   - Developer
   - Photoconductor
   - Imaging unit

   Are the parts properly installed?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reinstall the supply.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Remove the supply, and then install a different unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the socket JDISTR1 on the controller board for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Perform the following tests:

Check the electrical contacts and cables of the following supplies for damage.

- Transfer belt
- Toner cartridge
- Developer
- Photoconductor
- Imaging unit

Are the contacts and their cables free of damage?

- **Yes**:
  Go to step 10.
- **No**:
  Go to the next step.

9. Replace the contact.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the RIP firmware version.

    Does the RIP firmware have the latest version?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Update the RIP firmware.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check the printer firmware version.

    Does the printer firmware have the latest version?

    - **Yes**:
      Contact the next level of support.

- **No**:
  Go to the next step.

14. Update the printer firmware.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Unsupported third party supply service check

1. Perform the following tests:

   Check whether third party supplies are used.

   - toner cartridge
   - developer and PC unit combo
   - fuser

   Are third party supplies used?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

2. Make sure that the printer model matches with the settings. Do the following:
   a. From the home screen, navigate to **Settings › Reports › Menu Settings Page**
   b. Compare the printer model with the model indicated in the Menu Settings Page.

   Does the printer model match with the settings?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

3. Replace the third party supply (toner cartridge, imaging unit, or fuser) with a genuine Lexmark part.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Cartridge or photoconductor error service check

1. Perform the following tests:
   a. Make sure that the cartridge or photoconductor unit is installed.
   b. Check if the cartridge or photoconductor unit is supported, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Make sure that the cartridge or photoconductor unit is properly installed.
   b. Make sure that the cartridge or photoconductor cables are properly connected.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the cartridge or photoconductor contacts for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Mismatched paper size service check

1. Perform the following tests:
   a. Make sure that the tray paper length and tray paper width guides are properly installed.
   b. Check the guides for wear or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

2. Check the paper width and paper length sensor actuators for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Reseat the paper width and paper length sensor cables.
   b. Check the cables for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the paper width and paper length sensors for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Insufficient memory service check

1. Perform the following tests:
   a. Perform a POR.
   b. From the home screen, navigate to **Settings > Print > Setup > Download Target > Disk**.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

2. If applicable, install an extra memory card.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the controller board pins for damage.

   Are the pins free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

4. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Complex page service check

1. Reset the printer, and then navigate to:

   Settings > Print > Setup > Download Target > Disk

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Enter the Diagnostics menu, and then navigate to:

   Input tray quick print > Tray 1 > Single

   Does the problem remain?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. If applicable, install extra memory card.

   If applicable, make sure that the additional memory card is properly installed.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

42–59 user attendance errors

42–59 user attendance messages

Error code	Description	Action
42.60	Toner cartridge region does not match the printer region.	See Toner cartridge service check on page 355.
42.60K		
42.61		
42.61K		
42.62		
42.62K		
42.63		
42.63K		
42.64		
42.64K		
43.40	Toner cartridge (B) falling paddle error was detected.	See Toner cartridge paddle error service check on page 356.
43.41	Toner cartridge (C) falling paddle error was detected.	

Error code	Description	Action
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 357.
51.xx	The flash memory is defective.	See Flash memory failure service check on page 358.
52.xx	The flash memory is insufficient.	See Insufficient flash memory service check on page 359.
53.xx	The flash memory is unformatted.	See Flash memory failure service check on page 358.
54.xx	The printer was not able to communicate with the network.	See Network service check on page 360.
55.xx	The internal option installed is unsupported.	See Unsupported internal option service check on page 364.
56.xx	The parallel port, serial port, or standard USB port is disabled.	See Disabled port service check on page 364.
58.xx	The disks, trays, or bins installed are too many.	See Excess options service check on page 365.
59.xx	The input option or output option is incompatible.	See Incompatible hardware option service check on page 366.

Toner cartridge service check

1. Make sure that the imaging unit and toner cartridge are genuine Lexmark supplies.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Shake the toner cartridge.
   b. Clean the toner cartridge smart chip contacts, and then check the contacts for damage.

c. Clean the toner cartridge spring contacts, and then check the contacts for damage.
d. Perform a print test.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Make sure that the toner cartridge is changed from shipped with equipment (SWE) toner to a compatible toner.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Reset the printer configuration. See Restoring the printer configuration on page 562.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Toner cartridge paddle error service check

1. Perform the following tests:

   Check the toner cartridge of the affected color for proper installation.

   - Make sure that there are no packing material still on it.
   - Check for misalignment.

   Is the toner cartridge properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Reinstall the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:

a. Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > Motor tests

b. Select the motor (toner add) of the affected color, and then touch **Start**.

Does the motor run?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

4. Check the motor cable JBTLM1 on the controller board for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the drive coupler between the affected toner add motor and cartridge for damage and misalignment.

   Does the drive coupler properly engage with the cartridge and is it free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

7. Replace the affected toner add motor.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

PPDS font error service check

1. Navigate to **Settings > Print > Layout > Print Area > Fit to Page**.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Make sure that the font is supported by the memory card. Replace the memory card if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Flash memory failure service check

1. Navigate to **Settings > Print > Job Accounting > Log Near Full Level**. Make sure that the value is set to maximum.

   Does the problem remain?

   - **Yes**:
     Go to step 2.
   - **No**:
     The problem is solved.

2. If applicable, make sure that the optional memory card is supported.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

4. Make sure that the firmware version is the latest, and update if necessary.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Insufficient flash memory service check

1. Navigate to **Settings > USB Drive > Flash Drive Scan > Format Flash**.

   Does the problem remain?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Navigate to **Settings > Print > Job Accounting > Log Near Full Level**. Make sure that the value is set to maximum.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. If applicable, make sure that the optional memory card is supported.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Make sure that the firmware version is the latest, and update if necessary.

   Does the problem remain?

   - **Yes**:

Contact the next level of support.

- **No**:
  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.

1. If the printer is physically connected to the network, make sure that the Ethernet cable is properly connected on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
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.

   Is the printer online and in Ready state?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Change the printer status to online.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the IP address displayed on the network settings page.

   Does it match the IP address in the port of the drivers using the printer?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

5. Perform the following tests:

   > **Note:** A printer should use a static IP address on a network.

   Does the LAN use DHCP?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.
6. Check the first two segments of the IP address.

   Does the IP address start with 169.254?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.
7. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to step 9.
   - **No**:
     The problem is solved.
8. Reset the address on the printer to match the IP address on the driver.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Have the network administrator check if the printer and computer IP address have identical subnet addresses.

   Are the subnet addresses the same?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
10. Using the subnet address supplied by the network administrator, assign a unique IP address to the printer.

    > **Note:** The printer IP address should match the IP address on the print driver.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. Perform the following tests:

    Is the printer physically connected (Ethernet cable) to the network?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 15.

12. Try using a different Ethernet cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Have the network administrator check the network drop for activity.

    Is the network drop functioning properly?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the network administrator.

14. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:

    Is the printer on the same wireless network as the other devices?

    - **Yes**:
      Go to step 17.
    - **No**:
      Go to the next step.

16. Assign the correct wireless network to the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

17. Perform the following tests:

    Are the other devices on the wireless network communicating properly?

    - **Yes**:
      Go to the next step.
    - **No**:
      Contact the network administrator.

18. Make sure that the wireless card on the controller board is properly installed.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

19. If there is an attached antenna, check it for damage, and replace if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Make sure that the antenna is properly connected to the wireless card.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Replace the wireless card.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Unsupported internal option service check

1. If applicable, make sure that the option cards are supported.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Make sure that the firmware version is the latest, and update if necessary.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Disabled port service check

1. Perform the following tests:
   a. Make sure that the cables connected to ports are properly installed.
   b. Check the cables for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. From the home screen, touch **Settings > Network/Ports**, and then make sure that the applicable port settings are enabled.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. If applicable, make sure that the option card is supported.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

4. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Make sure that the firmware version is the latest, and update if necessary.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Excess options service check

1. Reset the printer, and then resend the print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. If applicable, make sure that the internal option is supported.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. If applicable, remove all internal options.
   b. Reset the printer, and then resend the print job.

   Does the problem remain?

   - **Yes**:
     Go to step 6.

- **No**:
  Go to the next step.

4. Check if the number of internal options installed is allowed, and remove the excess option.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check if the number of input options installed is allowed, and remove the excess option.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Incompatible hardware option service check

1. Perform the following tests:
   a. Reseat the hardware option cables.
   b. Check the cables for damage, and replace if necessary.

   1. Reseat the hardware option cables.
   2. Check the cables for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the firmware version of the hardware option if it is supported by the engine firmware. Update the firmware if necessary.

   > **Note:** Contact the next level of support for the correct firmware version.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Check the hardware option controller board pins for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 368.
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 369.
84.xx	A photoconductor unit end of life error was detected: • 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 351.
85.xx	A developer unit end of life error was detected: • 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 351.

Error code	Description	Action
88.xx	A toner cartridge end of life error was detected: • 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 351.

Hard disk failure service check

1. Perform the following tests:
   a. From the home screen, navigate to **Settings > Device > Maintenance > Out-of-Service Erase > Erase Hard Disk > Sanitize all information on hard disk**.
   b. Select **Erase downloads (Erase all macros, fonts, PFOs, etc)**, **Erase buffered jobs**, and **Erase held jobs > All held jobs**.
   c. Touch **Erase**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Make sure that the printer is using the latest firmware version.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Make sure that the hard disk cable is properly installed.
   b. Check the cable for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Make sure that the hard disk is properly installed.
   b. Check the hard disk for damage, and replace if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Check the controller board pins for damage.

   Are the pins free of damage?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.

6. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Maintenance kit service check

1. Perform the following tests:
   a. Replace the required maintenance kit.
   b. Reset the maintenance counter. See .Resetting the maintenance counter on page 939

   1. Replace the required maintenance kit.
   2. Reset the maintenance counter. See .Resetting the maintenance counter on page 939

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 372.
101.20	Tray 2 product ID is invalid.	See Invalid input option type or ID is detected service check on page 370.
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.	See Invalid input option type or ID is detected service check on page 370.
101.40	Tray 4 product ID is invalid.	
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

1. Perform the following tests:
    a. Make sure that the latest firmware is installed.

b. Make sure that the options configuration is supported. See the *Printer, Option, and Stand Compatibility Guide*.
c. Reset the printer.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Check the interface cable for proper connection, and reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the interface cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the cable. See 550-sheet tray interface cable removal on page 760 or 2200-sheet tray interface cable removal on page 779.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the interface cable of the printer and adjacent options for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the input option controller board. See 550-sheet tray controller board removal on page 760 or 2200-sheet tray controller board removal on page 778.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Weather station failure service check

1. Check the cable JWTHR1 on the controller board for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the weather station cable for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:

The problem is solved.

5. Replace the weather station. See Weather station removal on page 713.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 374.
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.	

Error code	Description	Action
110.91	Printhead timing error was detected.	
110.92	Printhead NVRAM checksum mismatch occurred.	

Printhead failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the controller board sockets JWPR1 and JVD01 connections.

   Are the cables properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the printhead connections.

   Is the printhead properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the printhead cables for damage.

   Are the cables free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the printhead. See Printhead removal on page 630.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 380.
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 383.
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.	

Error code	Description	Action
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).	
121.10	Fuser did not reach the required temperature (during start of EWC/Line voltage detection).	See Fuser failure service check on page 383.
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 383.
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).	

Error code	Description	Action
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 383.
121.42	Fuser gate time has increased out of control.	
121.50	Fuser went over the required temperature (during global overtemp check).	See Fuser failure service check on page 383.
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.	

Error code	Description	Action
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 383.
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 383.
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.	
121.81	Open fuser backup roll thermistor was detected.	See Fuser failure service check on page 383.

Error code	Description	Action
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 385.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

2. Check the fuser for damage and life expiration.

   Is the fuser damaged or has it reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   a. Remove the fuser, and then manually turn the fuser drive gears.
   b. Check the movement of the gears.

   Does the fuser drive gear properly turn?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the controller board sockets JFIS1 and JFIP1 connections.

   Are the cables properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reseat the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

8. Check the motor (fuser) connections.

   Is the motor properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the motor (fuser) cables for damage.

    Are the cables free of damage?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the cables.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the fuser/transfer belt motor gearbox. See .Fuser/transfer belt motor gearbox removal on page 730

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Reset the printer.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Fuser failure service check

1. Check the fuser for proper installation.

   Is the fuser properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reinstall the fuser.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Remove the fuser, and then install a different fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the controller board socket JFSR1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the LVPS. See LVPS removal on page 707.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the fuser cables for damage.

   Are the cables free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Replace the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the LVPS. See LVPS removal on page 707.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

LVPS failure service check

1. Check the fuser for proper installation.

   Is the fuser properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reinstall the fuser.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Remove the fuser, and then install a different fuser. See Fuser removal on page 581.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the controller board sockets JFSR1 and CN1 connections.

   Is the cable properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the LVPS. See LVPS removal on page 707.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check the LVPS cables for damage.

   Are the cables free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
9. Replace the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Reset the printer.

    Does the problem remain?

    - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

11. Replace the LVPS. See LVPS removal on page 707.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 388.
127.02	The charge roller HVPS was not detected.	See Charge roller HVPS undetected service check on page 389.
128.00	Toner patch sensor error was detected.	See Sensor (TPS) failure service check on page 390.

Main HVPS undetected service check

1. Check the controller board socket JHVPS1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the main HVPS cable.

   Is the cable properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the main HVPS. See Main HVPS removal on page 667.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Charge roller HVPS undetected service check

1. Check the controller board socket JHVPS2 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the charge roller HVPS cable.

   Is the cable properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the charge roller HVPS. See Charge roller HVPS removal on page 697.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Sensor (TPS) failure service check

1. Check the cable JTPS1 on the controller board for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the sensor (TPS) cable for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the Toner patch sensing service check.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 392.
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.	
136.80	The motor (K developer) did not turn on.	See Motor (K developer) failure service check on page 394.
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 396.
137.81	The motor (CMY developers) did not turn off.	

Error code	Description	Action
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the controller board socket JWPR1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the motor (printhead wiper) connection.

   Is the motor properly connected?

   - **Yes**:
   - **No**:
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

6. Check the motor (printhead wiper) cables for damage.

   Are the cables free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the motor (printhead wiper). See Motor (printhead wiper) removal on page 634.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (K developer) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the K developer unit for damage and life expiration.

   Is the developer unit damaged or has it reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
3. Replace the developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Remove the K developer unit, and then manually turn the developer drive gear.
   b. Check the movement of the gear.

   Does the developer drive gear properly turn?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the controller board socket JMAG1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 8.

- **No**:
  Go to the next step.

7. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the motor (K developer) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the motor (K developer) cable for damage.

    Is the cable free of damage?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the EP/developer/toner add gearbox. See .EP, developer, toner add gearbox removal on page 725

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (CMY developers) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the CMY developer units for damage and life expiration.

   Are the developer units damaged or have they reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Replace the affected developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   a. Remove the CMY developer units, and then manually turn the developer drive gears.
   b. Check the movement of the gears.

   Do the developer drive gears properly turn?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the affected developer unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the controller board socket JMAG1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Check the motor (CMY developers) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.
9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Check the motor (CMY developers) cable for damage.

Is the cable free of damage?

- **Yes**:
  Go to step 12.
- **No**:
  Go to the next step.

11. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the EP/developer/toner add gearbox. See .EP, developer, toner add gearbox removal on page 725

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 401.
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 403.
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.	

Error code	Description	Action
145.80	The motor (black only retract) did not turn on.	See Motor (black only retract) failure service check on page 406.
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 408.
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.	
148.80	The motor (duplex diverter) did not turn on.	See Motor (duplex diverter) failure service check on page 410.
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.	

Error code	Description	Action
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 413.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the K photoconductor unit for damage and life expiration.

   Is the photoconductor unit damaged or has it reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
3. Replace the photoconductor unit. See Repeating defects check on page 114.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Remove the K photoconductor unit, and then manually turn the photoconductor drive gear.

b. Check the movement of the gear.

Does the photoconductor drive gear properly turn?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Replace the photoconductor unit. See Repeating defects check on page 114.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the controller board sockets JPCS1 and JPCP1 connections.

   Are the cables properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reseat the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the motor (K photoconductor) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the motor (K photoconductor) cable for damage.

    Is the cable free of damage?

    - **Yes**:

Go to step 12.
- **No**:
  Go to the next step.

11. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the EP/developer/toner add gearbox. See .EP, developer, toner add gearbox removal on page 725

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (CMY photoconductors) failure service check

1. Reset the printer.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Check the CMY photoconductor units for damage and life expiration.

   Are the photoconductor units damaged or have they reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.

3. Replace the affected photoconductor unit. See Developer unit and photoconductor unit removal on page 649.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:
   a. Remove the CMY developer units, and then manually turn the developer drive gears.
   b. Check the movement of the gears.

   Do the developer drive gears properly turn?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the affected developer unit. See Developer unit and photoconductor unit removal on page 649

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the controller board sockets JPCS1 and JPCP1 connections.

   Are the cables properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reseat the cables.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Check the motor (CMY photoconductors) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the motor (CMY photoconductors) cable for damage.

    Is the cable free of damage?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the EP/developer/toner add gearbox. See .EP, developer, toner add gearbox removal on page 725

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:

The problem is solved.

14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

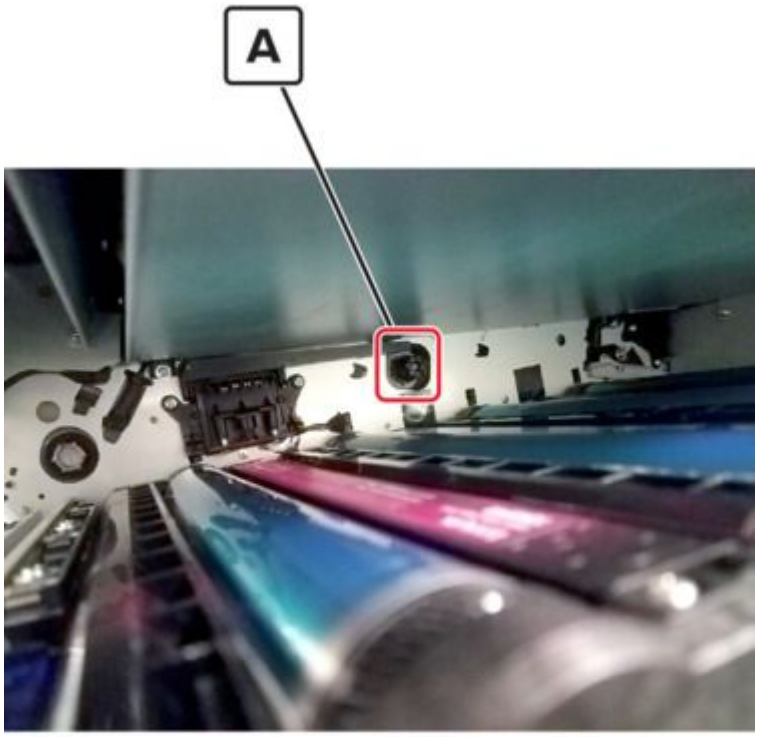
15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (black only retract) failure service check

1. Check if the Black only retract coupling (A) is missing.



   Is the Black only retract coupling missing?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 3.

2. Install the Black only retract coupling.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the controller board socket JMAG1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (black only retract) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the motor (black only retract) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 10.

- **No**:
  Go to the next step.

9. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the motor (black only retract).

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (deskew) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

2. Check the controller board socket JMTR3 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the motor (deskew) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (deskew) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Replace the motor (deskew).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (duplex diverter) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the controller board socket JMTR1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

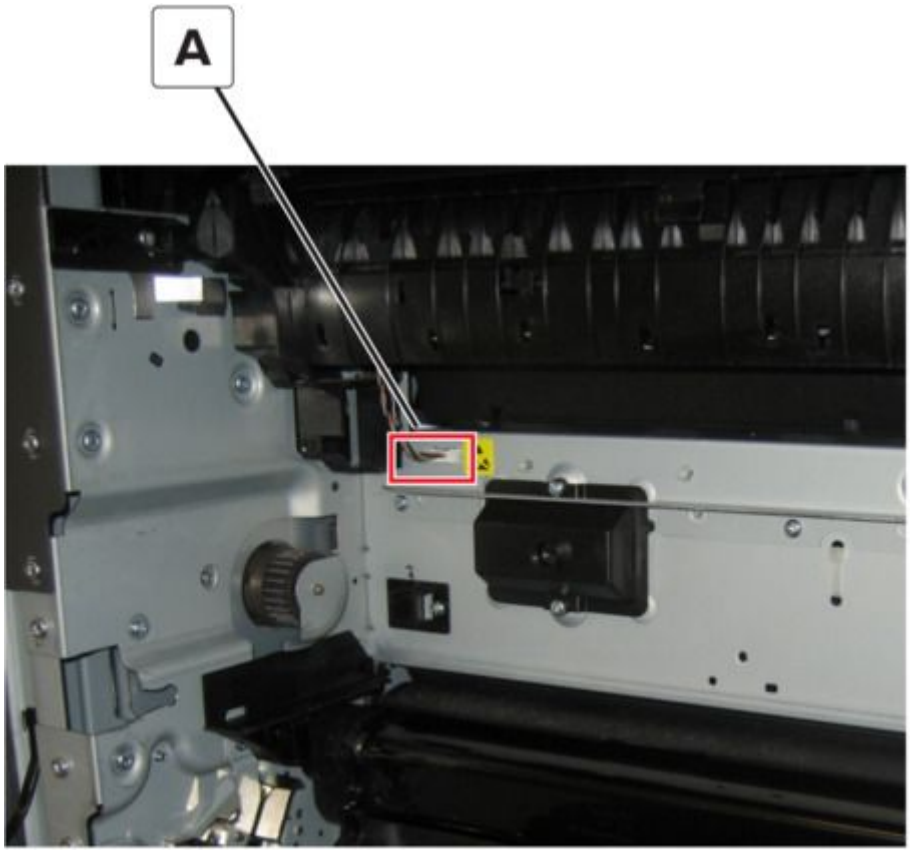
- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

4. Check the motor (duplex diverter) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Perform the following tests:
   a. Remove the fuser. See Fuser removal on page 581.
   b. Check the in-line cable (A) connection.



   Is the cable properly connected?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

7. Check the motor (duplex diverter) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the redrive. See Redrive removal on page 608.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (redrive) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the controller board socket JMTR1 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the motor (redrive) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor (redrive) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cable.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor (redrive).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 417.
150.81	The motor (duplex) did not turn off.	

Error code	Description	Action
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 419.
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 421.
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 423.

Error code	Description	Action
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.	
156.80	The motor (C toner add) did not turn on.	See Motor (C toner add) failure service check on page 426.
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 430.
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.	

Error code	Description	Action
158.80	The motor (Y toner add) did not turn on.	See Motor (Y toner add) failure service check on page 433.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the controller board socket JMTR3 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the motor (duplex) connection.

   Is the motor properly connected?

   - **Yes**:

Go to step 6.

- **No**:
  Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (duplex) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor (duplex).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the controller board. See Controller board removal on page 701.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Motor (transfer belt) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the transfer belt for damage and life expiration.

   Is the transfer belt damaged or has it reached end of life?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
3. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Remove the transfer belt, and then manually turn the transfer belt drive gears.
   b. Check the movement of the gears.

   Do the drive gears properly turn?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the transfer belt. See Transfer belt removal on page 656.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

6. Check the controller board sockets JFIP1 and JFIS1 connections.

   Are the cables properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reseat the cables.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the motor (transfer belt) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the motor (transfer belt) cable for damage.

    Is the cable free of damage?

    - **Yes**:
      Go to step 12.
    - **No**:
      Go to the next step.

11. Replace the cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Reset the printer.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

13. Replace the fuser/transfer belt motor gearbox. See .Fuser/transfer belt motor gearbox removal on page 730

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (isolation) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the controller board socket JMTR2 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

4. Check the motor (isolation) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (isolation) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the MPF and the reference edge motor gearbox.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (K toner add) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Remove the K toner cartridge, and then manually turn the drive gear.

b. Check the movement of the gear.

Does the drive gear properly turn?

- **Yes**:
  Go to step 4.
- **No**:
  Go to the next step.

3. Replace the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:

   Check the motor (K toner add) cable for proper connection.

   - Check the connector on the motor.
   - Check the connector JBTLM1 on the controller board.

   Is the cable properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor (K toner add) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the motor (K toner add).

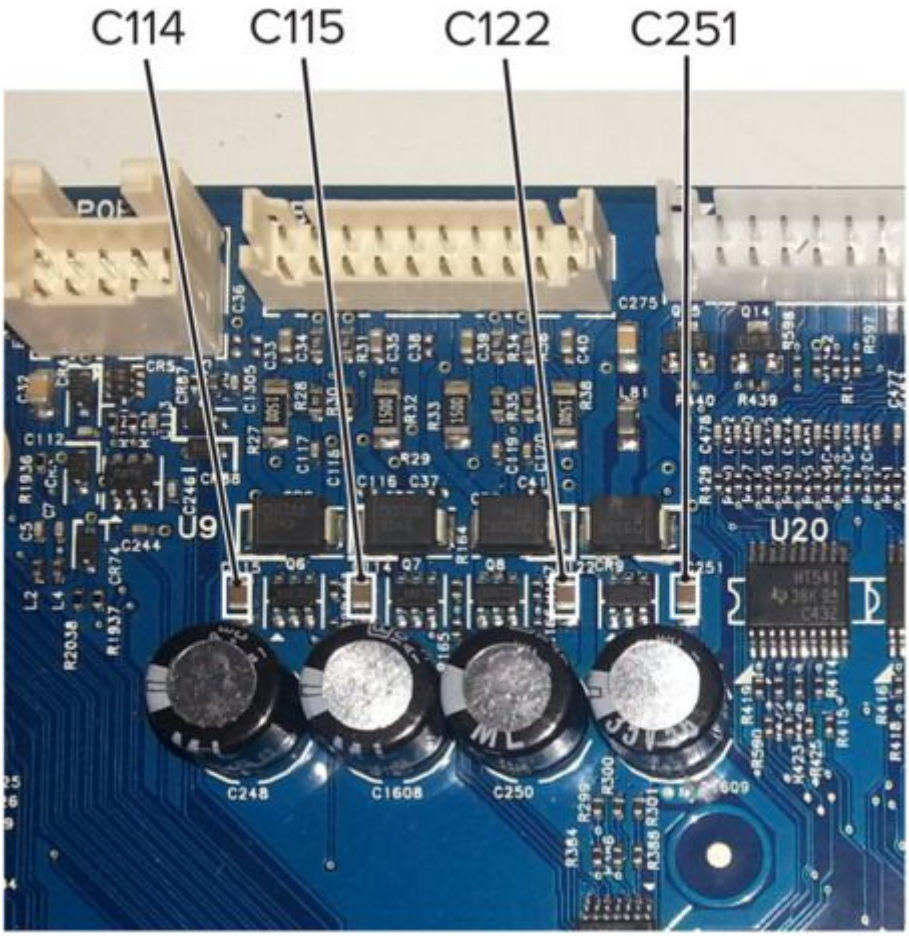
   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. On the upper part of the controller board, check the K toner add capacitor C251 for damage.

Note: Blown capacitors may look deformed or bulged.



Is the capacitor free of damage?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

12. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (C toner add) failure service check

1. Reset the printer.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Perform the following tests:
   a. Remove the C toner cartridge, and then manually turn the drive gear.

   b. Check the movement of the gear.

Does the drive gear properly turn?

- **Yes**:
  Go to step 4.
- **No**:
  Go to the next step.

3. Replace the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:

   Check the motor (C toner add) cable for proper connection.

- Check the connector on the motor.
- Check the connector JBTLM1 on the controller board.

Is the cable properly connected?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (C toner add) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor (C toner add).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

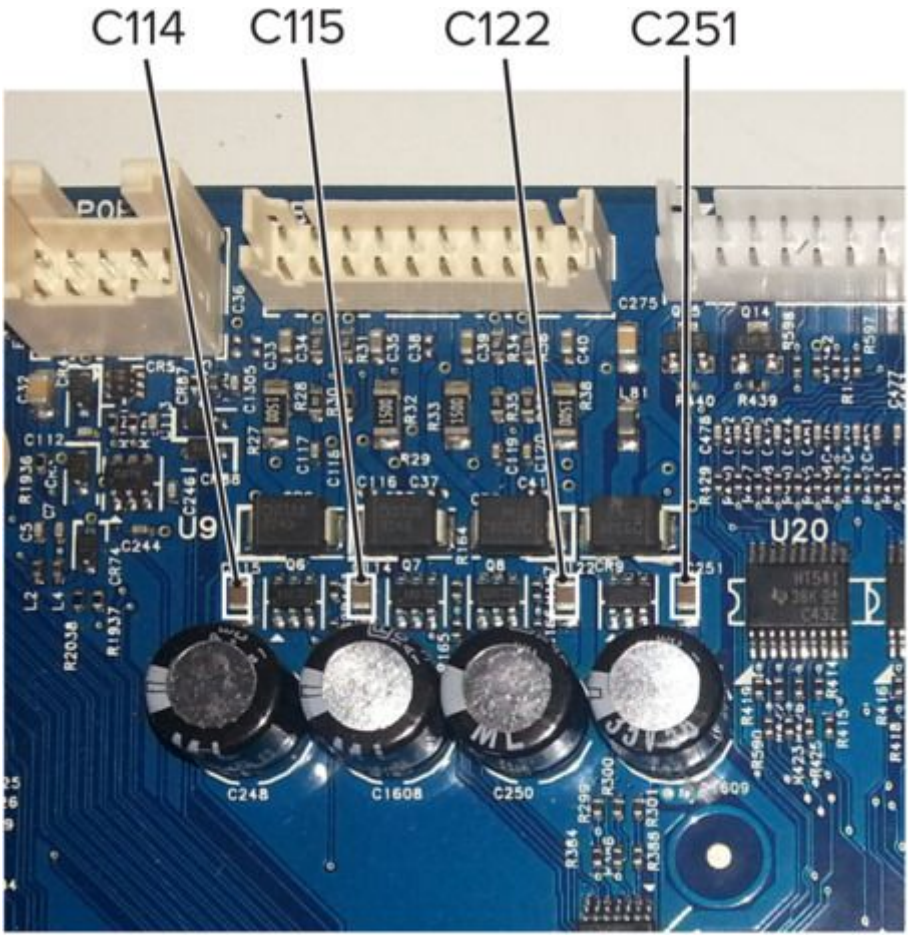
10. Reset the printer.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. On the upper part of the controller board, check the C toner add capacitor C114 for damage.

> **Note:** Blown capacitors may look deformed or bulged.



Is the capacitor free of damage?

- **Yes**:
  Contact the next level of support.
- **No**:
  Go to the next step.

12. Replace the controller board. See Controller board removal on page 701.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

Motor (M toner add) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Remove the M toner cartridge, and then manually turn the drive gear.

   b. Check the movement of the gear.

   Does the drive gear properly turn?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Replace the toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Perform the following tests:

   Check the motor (M toner add) cable for proper connection.

   - Check the connector on the motor.
   - Check the connector JBTLM1 on the controller board.

   Is the cable properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor (M toner add) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the motor (M toner add).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

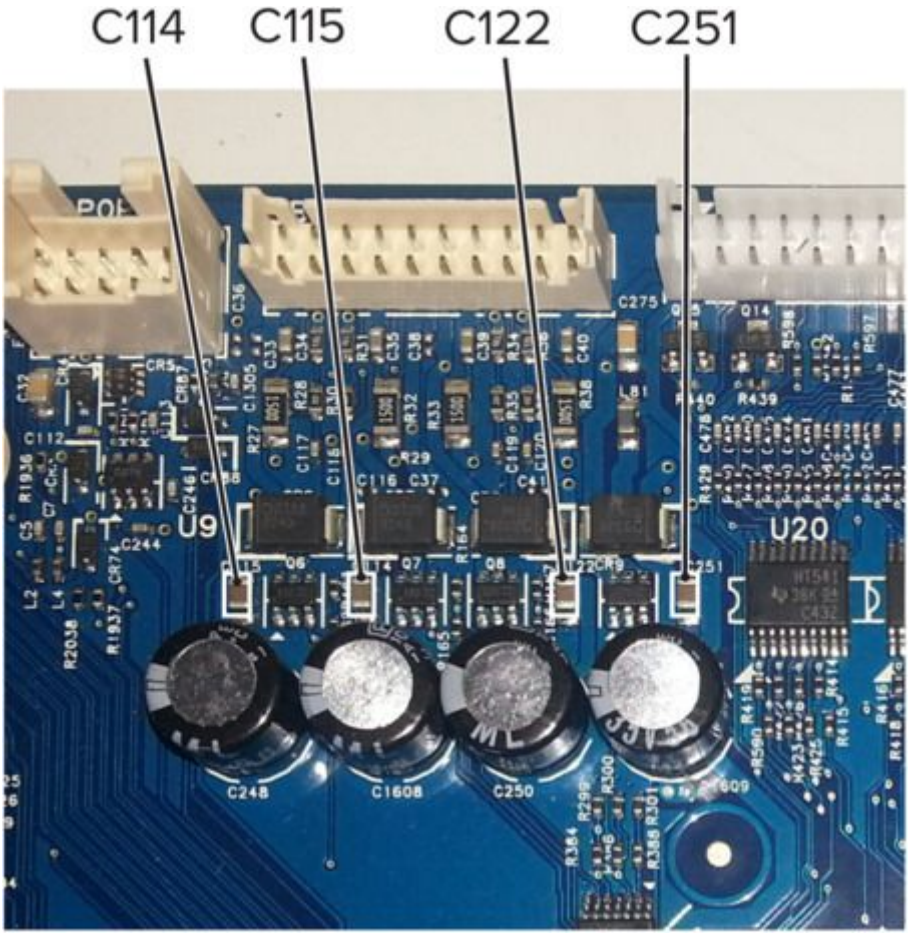
10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. On the upper part of the controller board, check the M toner add capacitor C122 for damage.

    > **Note:** Blown capacitors may look deformed or bulged.



    Is the capacitor free of damage?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

12. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:

Contact the next level of support.

- **No**:
  The problem is solved.

Motor (Y toner add) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Remove the Y toner cartridge, and then manually turn the drive gear.

   b. Check the movement of the gear.

   Does the drive gear properly turn?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Replace the toner cartridge.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

4. Perform the following tests:

   Check the motor (Y toner add) cable for proper connection.

   - Check the connector on the motor.
   - Check the connector JBTLM1 on the controller board.

   Is the cable properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor (Y toner add) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the motor (Y toner add).

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

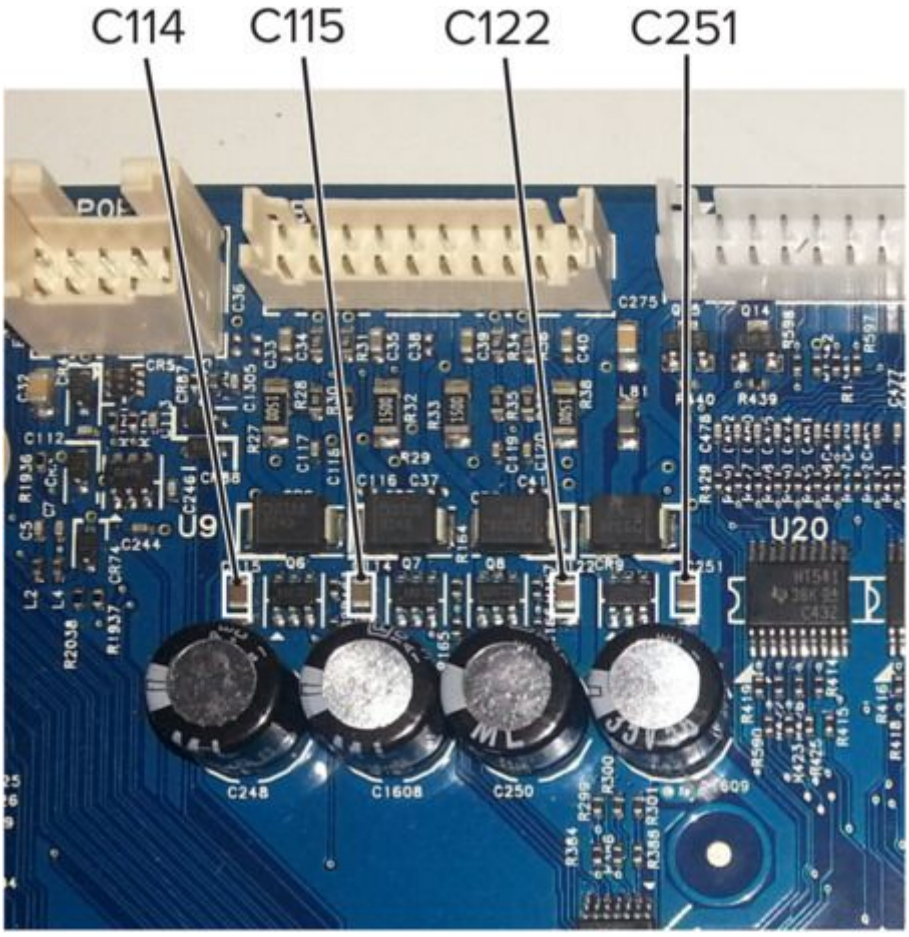
10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. On the upper part of the controller board, check the Y toner add capacitor C115 for damage.

    > **Note:** Blown capacitors may look deformed or bulged.



    Is the capacitor free of damage?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      Go to the next step.

12. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 437.
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.	
161.80	The motor (tray 1 pick) did not turn on.	See Motor (tray 1 pick) failure service check on page 438.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the controller board socket JMTR2 connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the motor (MPF pick) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor (MPF pick) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Replace the cable.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the motor (MPF pick).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (tray 1 pick) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the controller board socket JTRAY1 connection.

Is the cable properly connected?

- **Yes**:
  Go to step 4.
- **No**:
  Go to the next step.

3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Remove tray 1, and then check the paper feeder connection.

   Is the feeder properly connected?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (tray 1 pick) connection.

   Is the motor properly connected?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the motor (tray 1 pick) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 10.

- **No**:
  Go to the next step.

9. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Remove the tray 1 paper feeder, and then check for developer carrier contamination in the pick motor.

    Is the pick motor free of contamination?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Perform the following tests:
    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.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Replace the tray 1 paper feeder. See Paper feeder removal on page 678.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Reset the printer.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

15. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 442.
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 444.
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.	

Error code	Description	Action
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 445.
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.	
165.80	The motor (tray 5 pick) did not turn on.	See Motor (tray 5 pick) failure service check on page 447.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

2. Check the connections between the motor (tray 2 pick) and controller board.

   Is the motor properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the motor (tray 2 pick) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the motor (tray 2 pick).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760 or 2200-sheet tray controller board removal on page 778.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 3 pick) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the connections between the motor (tray 3 pick) and controller board.

   Is the motor properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the motor (tray 3 pick) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the motor (tray 3 pick).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Replace the controller board. See 550-sheet tray controller board removal on page 760 or 2200-sheet tray controller board removal on page 778.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 4 pick) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

2. Check the connections between the motor (tray 4 pick) and controller board.

   Is the motor properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the motor (tray 4 pick) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the motor (tray 4 pick).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 5 pick) failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check the connections between the motor (tray 5 pick) and controller board.

   Is the motor properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the motor (tray 5 pick) cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the cable.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the motor (tray 5 pick).

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 453.
166.71	The motor (tray 2 elevator) does not turn off.	

Error code	Description	Action
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 452.
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 453.
167.71	The motor (tray 3 elevator) does not turn off.	
167.72	The motor (tray 3 elevator) fails to achieve the required speed.	

Error code	Description	Action
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 452.
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 453.
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.	

Error code	Description	Action
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.	
168.80	The motor (tray 4 pass-through) does not turn on.	See Motor (tray [x] pass-through) failure service check on page 452.
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 453.
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.	

Error code	Description	Action
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 452.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the cable connecting the motor (tray [x] pass-through) to the controller board.

   Is the motor properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

4. Check the motor cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Replace the motor (tray [x] pass-through). See Motor (550-sheet tray pass-through) removal on page 768.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray [x] elevator) failure service check

1. Reset the printer.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Clear the motor (tray [x] elevator) gears of any obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the gears for damage.

   Are the gears free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Replace the gears. See 2200-sheet tray elevator gears removal on page 783.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the cable connecting the motor (tray [x] elevator) to the controller board.

   Is the motor properly connected?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check the cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.

8. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Replace the motor (tray [x] elevator). See Motor (2200-sheet tray elevator) removal on page 786.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 456.
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 457.
178.83	The printhead fan stalled.	
178.84	The printhead fan ran too slow.	

Error code	Description	Action
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 459.
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

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the connection between the main fan and controller board.

   Is the fan properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the main fan cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.

- **No**:
  Go to the next step.

5. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the fan. See Main fan removal on page 704.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Printhead fan failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

2. Check the connection between the printhead fan and controller board.

   Is the fan properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the printhead fan cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

5. Replace the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the printhead fan. See Printhead fan removal on page 628.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

9. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

HVPS fan failure service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check the connection between the HVPS fan and controller board.

   Is the fan properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the HVPS fan cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the cable.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the HVPS fan. See HVPS fan removal on page 663.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

60y errors

600–602 error messages

Error code	Description	Action
600.00	The image was not ready during a print job from the MPF.	See Unready image service check on page 461.
600.01	The image was not ready during a print job from tray 1.	

Error code	Description	Action
600.02	The image was not ready during a print job from tray 2.	
600.03	The image was not ready during a print job from tray 3.	
600.04	The image was not ready during a print job from tray 4.	
600.05	The image was not ready during a print job from tray 5.	
600.10	The image was not ready during a duplex print job.	
602.19	Tray 1 is unable to get ready for picking paper.	See Source tray error service check on page 462.
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.	

Unready image service check

1. Make sure that the Page description language (PDL) of the print job is supported. Install the supporting option card if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Enter the Diagnostics menu, and then navigate to:

   PRINT TESTS > Tray 1

   Does the problem remain?

   - **Yes**:

Go to the next step.
- **No**:
  The problem is solved.

3. Perform the following tests:
   a. Make sure that the printhead and board cables are properly connected.
   b. Check the cables for damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the controller board pins for damage, and replace if necessary. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Perform the following tests:
   a. Make sure that the printhead is properly installed.
   b. Check the printhead for damage, and replace if necessary. See Printhead removal on page 630.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Source tray error service check

1. If prompted, touch **Continue**.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.

- **No**:
  The problem is solved.

621–658 errors

621–658 error messages

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 383.
621.42	The sensor (fuser temperature) is contaminated.	See Sensor (fuser temperature) contamination service check on page 464.
630.xx	The motor (printhead wiper) stalled.	See Motor (printhead wiper) failure service check on page 392.
636.xx	The motor (K developer) stalled.	See Motor (K developer) failure service check on page 394.
637.xx	The motor (CMY developers) stalled.	See Motor (CMY developers) failure service check on page 396.
641.xx	The motor (K photoconductor) stalled.	See Motor (K photoconductor) failure service check on page 401.
642.xx	The motor (CMY photoconductors) stalled.	See Motor (CMY photoconductors) failure service check on page 403.
645.xx	The motor (black only retract) stalled.	See Motor (black only retract) failure service check on page 406.
647.xx	The motor (deskew) stalled.	See Motor (deskew) failure service check on page 408.
648.xx	The motor (duplex diverter) stalled.	See Motor (duplex diverter) failure service check on page 410.
649.xx	The motor (redrive) stalled.	See Motor (redrive) failure service check on page 413.
650.xx	The motor (duplex) stalled.	See Motor (duplex) failure service check on page 417.

Error code	Description	Action
651.xx	The motor (transfer belt) stalled.	See Motor (transfer belt) failure service check on page 419.
653.xx	The motor (isolation) stalled.	See Motor (isolation) failure service check on page 421.
655.84	The motor (K toner add) stalled.	See Motor (toner add) stalled service check on page 464.
656.84	The motor (C toner add) stalled.	
657.84	The motor (M toner add) stalled.	
658.84	The motor (Y toner add) stalled.	

Sensor (fuser temperature) contamination service check

1. Perform the following tests:
   a. Remove the fuser to access the sensor (fuser temperature) behind it. See Fuser removal on page 581.
   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.

   c. Reinstall the fuser.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (toner add) stalled service check

1. Perform the following tests:
   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.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

2. Check the shutter under the affected toner cartridge for proper operation.

   Does the shutter properly open and retract?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

3. Check the shutter for damage.

   Is the shutter free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

4. Perform the following tests:
   a. Remove the affected developer and PC unit combo.
   b. Check the shutter at the rear of the developer and PC unit combo for proper operation.

   Does the shutter properly open and retract?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 6.

5. Check the shutter for damage.

   Is the shutter free of damage?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Replace the developer and PC unit combo.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

7. Using a toner vacuum, clean the toner add tubes.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the affected toner cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the affected toner add tube. See .Toner add tube removal on page 739

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

66y errors

660–669 error messages

Error code	Description	Action
660.83	The motor (MPF pick) stalled.	See Motor (MPF pick) stalled service check on page 467.
661.83	The motor (tray 1 pick) stalled.	See Motor (tray 1 pick) stalled service check on page 469.
662.23	The tray 2 lift plate failed to lift.	See Motor (option tray pick) lifting error service check on page 479.
662.83	The motor (tray 2 pick) stalled.	See Motor (tray 2 pick) stalled service check on page 470.
663.33	The tray 3 lift plate failed to lift.	See Motor (option tray pick) lifting error service check on page 479.

Error code	Description	Action
663.83	The motor (tray 3 pick) stalled.	See Motor (tray 3 pick) stalled service check on page 472.
664.43	The tray 4 lift plate failed to lift.	See Motor (option tray pick) lifting error service check on page 479.
664.83	The motor (tray 4 pick) stalled.	See Motor (tray 4 pick) stalled service check on page 474.
665.53	The tray 5 lift plate failed to lift.	See Motor (option tray pick) lifting error service check on page 479.
665.83	The motor (tray 5 pick) stalled.	See Motor (tray 5 pick) stalled service check on page 475.
666.83	The motor (tray 2 pass-through) stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
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 452.
667.83	The motor (tray 3 pass-through) stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
668.83	The motor (tray 4 pass-through) stalled.	See Motor (tray [x] pass-through) failure service check on page 452.
669.83	The motor (tray 5 pass-through) stalled.	See Motor (tray [x] pass-through) failure service check on page 452.

Motor (MPF pick) stalled service check

1. Check the pick roller for proper installation.

   Is the pick roller properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reinstall the pick roller.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > MPF pick

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.
7. Replace the MPF/reference edge gearbox. See Reference edge motor gearbox removal on page 615.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 1 pick) stalled service check

1. Check the pick roller for proper installation.

   Is the pick roller properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Reinstall the pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Pick (tray 1)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (tray 1 pick) for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

7. Replace the tray 1 paper feeder. See Paper feeder removal on page 678.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 2 pick) stalled service check

1. Check the pick roller for proper installation.

   Is the pick roller properly installed?

- **Yes**:
  Go to step 3.
- **No**:
  Go to the next step.

2. Reinstall the pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pick (tray 2)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.

4. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (tray 2 pick) for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

7. Replace the tray 2 paper feeder. See 550-sheet tray paper feeder removal on page 752 or 2200-sheet tray paper feeder removal on page 787.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760 or 2200-sheet tray controller board removal on page 778.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 3 pick) stalled service check

1. Check the pick roller for proper installation.

   Is the pick roller properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Reinstall the pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pick (tray 3)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.

- **No**:
  Go to the next step.

4. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (tray 3 pick) for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

7. Replace the tray 3 paper feeder. See 550-sheet tray paper feeder removal on page 752 or 2200-sheet tray paper feeder removal on page 787.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760 or 2200-sheet tray controller board removal on page 778.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 4 pick) stalled service check

1. Check the pick roller for proper installation.

   Is the pick roller properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Reinstall the pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pick (tray 4)

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
4. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the motor (tray 4 pick) for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 8.

7. Replace the tray 4 feeder. See 550-sheet tray paper feeder removal on page 752.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Motor (tray 5 pick) stalled service check

1. Check the pick roller for proper installation.

   Is the pick roller properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Reinstall the pick roller.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   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?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

4. Check the motor cable for proper connection, and then reseat if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Replace the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the motor (tray 5 pick) for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.

7. Replace the tray 5 feeder. See 550-sheet tray paper feeder removal on page 752.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the controller board. See 550-sheet tray controller board removal on page 760.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.

- **No**:
  The problem is solved.

Motor (tray 1 pick) lifting error service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check if the tray insert is properly seated or fully inserted.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Sensor tests

   b. Find the sensor (Pick roller index (tray 1)).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
4. Check the cable that connects the sensor (tray 1 pick roller index) to the controller board.

   Are both ends of the cable properly seated?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the sensor cable for damage.

Is the cable free of damage?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 12.

7. Replace the sensor. See Sensor (550-sheet tray pick roller index) removal on page 765.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the cable that connects the motor (tray 1 pick) to the controller board.

   Are both ends of the cable properly seated?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Remove the tray insert.
    b. Enter the Diagnostics menu, and then navigate to:

       Printer diagnostics & adjustments > Motor tests > Pick (tray 1)

    c. Select **Pick (tray 1) lifting**, and then touch **Start**.

    Does the motor run or does it sound normal?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

11. Check the motor cable for damage.

    Is the cable free of damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the paper feeder. See 550-sheet tray paper feeder removal on page 752.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
13. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (option tray pick) lifting error service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Check if the tray insert is properly seated or fully inserted.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Sensor tests

   b. Find the sensor (Pick roller index (tray [x])).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
4. Check the cable that connects the sensor (tray [x] pick roller index) to the controller board.

   Are both ends of the cable properly seated?

- **Yes**:
  Go to step 6.
- **No**:
  Go to the next step.

5. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the sensor cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 12.

7. Replace the sensor. See Sensor (550-sheet tray pick roller index) removal on page 765 or Sensor (2200-sheet tray pick roller index) removal on page 790.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the cable that connects the motor (tray [x] pick) to the controller board.

   Are both ends of the cable properly seated?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reseat the cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Perform the following tests:
    a. Remove the tray insert.
    b. Enter the Diagnostics menu, and then navigate to:

       Additional input tray diagnostics > Motor tests > Pick (tray [x])

    c. Select **Pick (tray [x]) lifting**, and then touch **Start**.

Does the motor run or does it sound normal?

- **Yes**:
  Go to step 13.
- **No**:
  Go to the next step.

11. Check the motor cable for damage.

    Is the cable free of damage?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.

12. Replace the paper feeder. See 550-sheet tray paper feeder removal on page 752 or 2200-sheet tray paper feeder removal on page 787.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Reset the printer.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Motor (tray [x] pass-through) stalled service check

1. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input tray diagnostics > Motor tests > Pass-through (tray [x])

   b. Touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.

2. Check the motor cable for proper connection, and reseat if necessary.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

3. Replace the motor. See Motor (550-sheet tray pass-through) removal on page 768.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the motor for noise.

   Does the motor sound abnormal or do the gears make a grinding sound?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     Go to the next step.
5. Perform a print job.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Replace the controller board. See 550-sheet tray controller board removal on page 760 or 2200-sheet tray controller board removal on page 778.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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**.

   > **Note:**
   > - 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. Email the text file to your next level of support.

B. Collecting the firmware logs (Fwdebug and logs.tar.gz) from the SE menu

> **Note:**
>
> - 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. Email the logs to your next level of support.

> **Note:** To download the FWdebug log to a flash drive, see General SE on page 555.

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. Email 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 email a scanned copy of the page 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.xx	RIP firmware errors	See 900 error service check on page 485.

900 error service check

1. Perform the following tests:
   a. Perform a POR.
   b. Check if a 900.xx error code appears on the display.

   Does a 900.xx error code appear?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
2. Check if another type of error code appears instead of the 900.xx error code.

   Does a different error code appear?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 4.
3. See the error code and its service instructions in the printer *Service Manual*.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Turn off the printer.
   b. At the rear of the printer, disconnect the network cable, USB cable, and fax line.
   c. Turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to step 12.
   - **No**:
     Go to the next step.

5. Perform the following tests:
   a. From the control panel, navigate to the **Reports** menu.
   b. Select **Device Statistics** and **Device Settings**.

   Does the problem remain?

   - **Yes**:
     Go to step 12.
   - **No**:
     Go to the next step.
6. Check if the printer has a scanner.

   Does the printer have a scanner?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 8.
7. Using the scanner, perform a one-page copy job in color.

   Does the problem remain?

   - **Yes**:
     Go to step 12.
   - **No**:
     Go to the next step.
8. Perform the following tests:
   a. Turn off the printer.
   b. At the rear of the printer, connect the network cable, USB cable, and fax line.
   c. Turn on the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 10.
9. Perform the following tests:
   a. Start the printer in **Invalid engine mode**. See Entering Invalid engine mode on page 553.
   b. Check if an Invalid Engine Code message appears.

   Does an Invalid Engine Code message appear?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.
10. Using the Device Settings report that is printed in step 5, check if the firmware level is older than the latest available version.

    Is the firmware version older, and does the customer agree to update the firmware?

- **Yes**:
  Go to the next step.
- **No**:
  Contact the next level of support.

11. Update the firmware to the latest version.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:
    a. Turn off the printer.
    b. Make sure that all the cables on the controller board and scanner are properly connected.
    c. Turn on the printer.
    d. From the control panel, navigate to the **Reports** menu, and then select **Device Statistics** and **Device Settings**.
    e. For MFPs, perform a one-page copy and scan job in color.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Check if a hard disk installed.

    Is a hard disk installed?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 17.

14. Perform the following tests:
    a. Check for buffered print jobs, and then delete them. See Hard disk failure service check on page 368.
    b. Perform a POR.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Perform the following tests:
    a. Turn off the printer.
    b. Uninstall the hard disk drive.
    c. Perform a POR.

Does the problem remain?

- **Yes**:
  Go to step 17.
- **No**:
  Go to the next step.

16. Replace the hard disk.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

17. Check if the printer has any of the following components installed:

    - Memory options
    - Fax card
    - Modem
    - Wireless and network option cards

    Is any of the components installed?

    - **Yes**:
      Go to the next step.
    - **No**:
      Go to step 21.

18. Perform the following tests:
    a. Turn off the printer.
    b. Remove all the installed components.
    c. Turn on the printer.

    Does the problem remain?

    - **Yes**:
      Go to step 21.
    - **No**:
      Go to the next step.

19. Perform the following tests:
    a. Turn off the printer.
    b. Install the following components one at a time:

       - Memory options
       - Fax card
       - Modem
       - Wireless and network option cards

> **Note:** Make sure to perform a POR after installing each component.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

20. Perform the following tests:
    a. Turn off the printer.
    b. Replace the components that caused the error.
    c. Turn on the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
21. Replace the controller board. See Controller board removal on page 701.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      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 491.
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.	

Error code	Description	Action
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 491.
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.	
912.52	A software error occurred.	See Firmware error service check on page 491.
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.	See Firmware error service check on page 491.

Error code	Description	Action
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

1. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Update the firmware to the latest release from support.lexmark.com.
   b. Restart the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. > **Note:** Make sure that your printer is connected to a network or to a print server.

   Perform the following:
   a. Open a web browser, type **https://printerIP/se**, and then press **Enter**.

   > **Notes**
   > - **printerIP** is the TCP/IP address of the printer.
   > - **se** is required to access the printer diagnostic information.

   b. Click **Logs Gzip Compressed**, and then save the file.
   c. Send the file to your next level of support.

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 492
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
- 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.

1. Check if the control panel was recently replaced.

Was the control panel recently replaced?

- **Yes**:
  Go to the next step.
- **No**:
  Go to step 4.

2. Replace the current control panel with the original control panel. See Control panel removal on page 644.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Replace the original control panel with a new control panel.

   > **Note:** Make sure that the new control panel is not previously installed from another printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

4. Check if the controller board was recently replaced.

   Was the controller board recently replaced?

   - **Yes**:
     Go to the next step.
   - **No**:
     Contact the next level of support.

5. Replace the current controller board with the original controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the original controller board with a new controller board.

> **Note:** Make sure that the new controller board is not previously installed from another printer.

Does the problem remain?

- **Yes**:
  Contact the next level of support.
- **No**:
  The problem is solved.

98y errors

980–984 error messages

Error code	Description	Action
980.xx	Engine experiencing unreliable communication with the specified device. **Note:** <*device*> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	See Options communication error service check on page 496.

Error code	Description	Action
981.xx	Engine protocol violation detected by the specified device. **Note:** <*device*> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	
982.xx	Communications error detected by the specified device. **Note:** <*device*> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	
983.xx	Invalid command received by the specified device. **Note:** <*device*> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	See Options communication error service check on page 496.

Error code	Description	Action
984.xx	Invalid command parameter received by the specified device. **Note:** <*device*> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	

Options communication error service check

1. Disconnect the output option.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 9.
2. Perform the following tests:
   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?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Reseat the printer interface cable on the printer controller board.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:

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?

- **Yes**:
  Go to the next step.
- **No**:
  If the error persists, then contact the next level of support.

5. Reseat the interface cable of the affected input option.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Check the input option interface cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Replace the input option interface cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the input option controller board.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support
   - **No**:
     The problem is solved.

9. Check the output option locking mechanism for damage.

   Is the lock free of damage?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.

10. Replace the lock.

    Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

11. Reinstall the output option.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:

    Check the output option interface cable:

    - Check the connectors and its pins for damage.
    - Check the cable for cuts and exposed wires.

    Is the cable free of damage?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

13. Replace the output option interface cable.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Reseat all connectors on the output option controller board.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Replace the output option controller board.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support
    - **No**:
      The problem is solved.

Output option hardware errors

302 and 323 errors

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 311.
323.80	The motor (staple finisher upper exit roller) does not turn on.	See Staple finisher exit jam service check on page 499.
326.50	The motor (staple finisher aligner paddle) does not turn on.	See Staple finisher decurl assembly service check on page 330.

Staple finisher exit jam service check

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   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).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
3. Check the sensor (staple finisher upper exit roller) for misalignment and damage.

   Is the sensor properly installed and free of damage?

- **Yes**:
  Go to step 5.
- **No**:
  Go to the next step.

4. Reinstall or replace the sensor. See Staple finisher upper exit roller removal on page 891.

   Does the motor run?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   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**.

   Does the motor run?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the motor (staple finisher upper exit) for misalignment and damage.

   Is the motor properly installed and free of damage?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reinstall or replace the motor. See Staple finisher upper exit roller removal on page 891.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Check the cables for cuts or damages, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Perform the following tests:
   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.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

10. Replace the staple finisher front upper exit roller position gears. See Staple finisher front upper position exit roller gears removal on page 851.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    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.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Replace the staple finisher rear upper exit roller position gears. See Staple finisher rear upper position exit roller gears removal on page 827.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Check the staple finisher upper exit roller for proper installation.
    b. Check the roller for wear or damage, and replace if necessary. See Staple finisher upper exit roller removal on page 891.
    c. Check if the roller can move up and down.

    Does the problem remain?

    - **Yes**:
      Go to the next step.

- **No**:
  The problem is solved.

14. Reseat all cable connectors in the controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Service option software error service check

1. Perform the following tests:
   a. Clear the paper path of any jams or obstructions.
   b. Make sure that the jam access door is properly closed.
   c. Reset the printer, and then reseat the finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Transport), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
3. Check the motor for proper installation and damage.

   Is the motor properly installed or free of damage?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Reinstall or replace the motor. See Motor (staple finisher transport) removal on page 918.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Motor tests

   b. Find the motor (Exit), and then touch **Start**.

   Does the motor run?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

6. Check the motor for proper installation and damage.

   Is the motor properly installed or free of damage

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

7. Reinstall or replace the motor. See Motor (staple finisher exit) removal on page 917.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

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.

   Are the gears properly installed or free of damage?

   - **Yes**:
     Go to step 10.
   - **No**:
     Go to the next step.

9. Reinstall or replace the gears. See Staple finisher transport gears removal on page 843.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the aligner paddle gears for proper alignment and installation.

    Are the gears properly aligned or installed?

    - **Yes**:

Go to step 12.

- **No**:
  Go to the next step.

11. Realign or reinstall the gears.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Check the gears and the flag for damage.

    Are the gears and the flag free of damage?

    - **Yes**:
      Go to step 14.
    - **No**:
      Go to the next step.

13. Replace the gears. See Staple finisher aligner paddle gears removal on page 846.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

14. Check the exit roller belts for proper installation and damage.

    Are the belts properly installed or free of damage?

    - **Yes**:
      Go to step 16.
    - **No**:
      Go to the next step.

15. Reinstall or replace the belts. See Staple finisher exit roller belts removal on page 860.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

16. Check the exit gears for proper alignment and installation.

    Are the gears properly aligned or installed?

    - **Yes**:
      Go to step 18.
    - **No**:
      Go to the next step.

17. Realign or reinstall the exit gears.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

18. Check the exit gears for damage.

    Are the gears free of damage?

    - **Yes**:
      Go to step 20.
    - **No**:
      Go to the next step.

19. Replace the gears. See Staple finisher exit gears removal on page 855.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

20. Check the cables for cuts or damage, and replace if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

21. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

22. Replace the controller board. See Staple finisher controller board removal on page 812.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
The printer has problems with color alignment.	See Auto alignment service check on page 506.
The printer has problems with toner patch sensing.	See Toner patch sensing service check on page 510.
The printer has problems with NFC.	See Mobile solutions module NFC service check on page 514.
A repeating thumping noise is heard from the lower right side of the printer.	See Printer thumping noise service check on page 516.
The control panel is unresponsive. During power on, the controller board makes five short beeps.	See Unresponsive control panel service check on page 517.
The control panel is unresponsive. The control panel LED flashes alternately between red and blue.	See Control panel flashing LED service check on page 518.

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 579.
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).

1. Perform the following tests:
   a. From the home screen, touch **Settings > Reports > Print quality pages**.
   b. On the Device information section of the Print quality test page, check the Color Alignment Stat value.

      > **Note:** If the value is 1, then the sensors (auto alignment) are working.

   Is the value equal to 0?

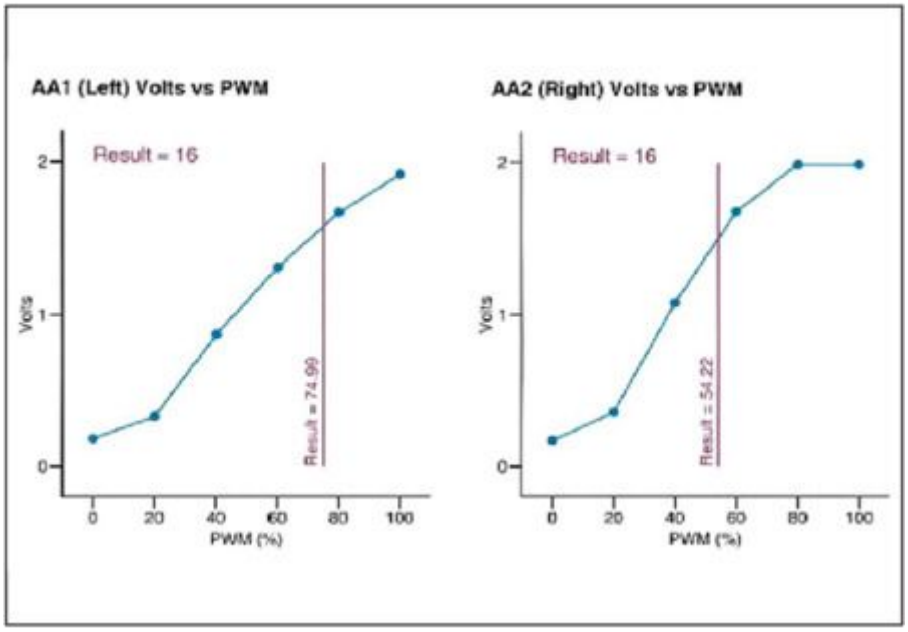
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Perform the blank page check. See Blank or white pages, or one color missing check on page 71.
   b. Enter the Diagnostics menu, and then navigate to:

      Printer setup > EP setup > Toner patch sensor adjust

      On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish.

c. On the Sensor gain verification row, touch **Start**.
d. Check the graph generated on the printed page. The following sample graph shows good values.

> **Note:** Normal range of values for the sensor voltage is 1.5–2 volts.



Does the graph show good values?

- **Yes**:
  The problem is solved.
- **No**:
  Go to the next step.

3. Perform the following tests:
   a. Remove the transfer belt. See Transfer belt removal on page 656.
   b. Close door B and door A.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Printhead wiper

   d. Open door A, and then touch **Start**.

   Does the sensor wiper properly move?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
4. Check the TPS wiper actuator for alignment and proper connection.

   Is the wiper actuator properly aligned and connected with the TPS sensor wiper and K printhead wiper rail?

- **Yes**:
  Go to the next step.
- **No**:
  Reinstall, repair, or replace the wiper actuator, and then perform again the Auto alignment service check.

5. Perform the following tests:
   a. Remove the transfer belt. See Transfer belt removal on page 656.
   b. Close door B and door A.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Printhead wiper

   d. Open door A, and then touch **Start**.

   Does the printhead wiper properly move?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Check the motor (printhead wiper) cable and socket JPWR1 on the controller board for proper connection.

   Is the motor cable properly connected?

   - **Yes**:
     Replace the motor. See Motor (printhead wiper) removal on page 634. Perform again the Auto alignment service check.
   - **No**:
     Reseat the cable, and then perform again the Auto alignment service check.

7. Check the sensor (auto alignment) cables and socket JTPS2 on the controller board for proper connection.

   Are the sensor cables properly connected?

   - **Yes**:
     Go to the next step.
   - **No**:
     Reseat the cable, and then perform again the Auto alignment service check.

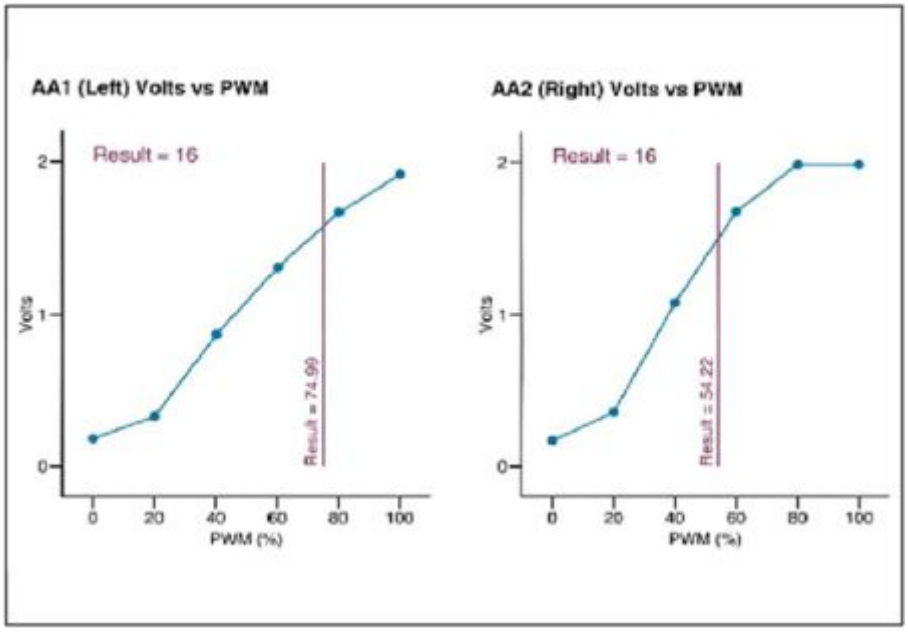
8. Perform the following tests:
   a. Replace the two sensors. See Sensor (auto alignment) removal on page 681.
   b. Enter the Diagnostics menu, and then navigate to:

      Printer setup > EP setup > Toner patch sensor adjust

      On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish.

   c. On the Sensor gain verification row, touch **Start**.
   d. Check the graph generated on the printed page. The following sample graph shows good values.

Note: Normal range of values for the sensor voltage is 1.5–2 volts.



Does the graph show good values?

- **Yes**:
  The problem is solved.
- **No**:
  Contact the next level of support.

Toner patch sensing 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 579.
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).

1. Perform the following tests:
   a. From the home screen, touch **Settings > Reports > Print quality pages**.
   b. On the Device information section of the Print quality test page, check the following CalSet values.

      - 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

   Is there a Calset value equal to 0?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

2. Perform the blank page check. See Blank or white pages, or one color missing check on page 71.

   During the check, was there an issue found and then resolved?

   - **Yes**:
     Perform again the Toner patch sensing service check.
   - **No**:
     Go to the next step.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer setup > EP setup > Toner patch sensor adjust > Full calibration

      On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish.

   b. On the Sensor gain verification row, touch **Start**.
   c. On the top portion of the printed verification page, check the Patch Average from TPS values.

   Are the Avg Signal (Volts) values within range of the Requirement values?

   - **Yes**:
     The problem is solved.
   - **No**:
     Go to the next step.

4. Perform the following tests:
   a. Remove the transfer belt. See Transfer belt removal on page 656.
   b. Close door B and door A.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Printhead wiper

   d. Open door A, and then touch **Start**.

   Does the sensor wiper properly move?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.

5. Check the TPS wiper actuator for alignment and proper connection.

   Is the wiper actuator properly aligned and connected with the TPS sensor wiper and K printhead wiper rail?

   - **Yes**:
     Go to the next step.
   - **No**:
     Reinstall, repair, or replace the wiper actuator, and then perform again the Toner patch sensing service check.

6. Perform the following tests:
   a. Remove the transfer belt. See Transfer belt removal on page 656.
   b. Close door B and door A.
   c. Enter the Diagnostics menu, and then navigate to:

      Printer diagnostics & adjustments > Motor tests > Printhead wiper

   d. Open door A, and then touch **Start**.

   Does the printhead wiper properly move?

   - **Yes**:
     Go to step 8.
   - **No**:
     Go to the next step.
7. Check the motor (printhead wiper) cable and socket JPWR1 on the controller board for proper connection.

   Is the motor cable properly connected?

   - **Yes**:
     Replace the motor. See Motor (printhead wiper) removal on page 634. Perform again the Toner patch sensing service check.
   - **No**:
     Reseat the cable, and then perform again the Toner patch sensing service check.
8. Check the sensor (TPS) cable and socket JTPS1 on the controller board for proper connection.

   Is the sensor cable properly connected?

   - **Yes**:
     Go to the next step.
   - **No**:
     Reseat the cable, and then perform again the Toner patch sensing service check.
9. Perform the following tests:
   a. Replace sensor (TPS). See Sensor (TPS) removal on page 682.
   b. Enter the Diagnostics menu, and then navigate to:

      Printer setup > EP setup > Toner patch sensor adjust > Full calibration

      On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish.

   c. On the Sensor gain verification row, touch **Start**.
   d. On the top portion of the printed verification page, check the Patch Average from TPS values.

   Are the Avg Signal (Volts) values within range of the Requirement values?

   - **Yes**:
     The problem is solved.
   - **No**:
     Contact the next level of support.

Mobile solutions module NFC service check

1. Check if the control panel is functioning properly.

   Is the control panel functioning properly?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.
2. Replace the control panel.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Verify if the mobile device is an Android device that supports NFC and can read passive NFC tags.

   Does the device support NFC and can it read passive NFC tags?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Use a mobile device that supports NFC.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Make sure that the latest version of the Lexmark Mobile Printing application is installed on the Android device.

   Is the latest version of the application installed?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.
6. Install the latest version of the Lexmark Mobile Printing application on the mobile device.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Check if the printer has a wireless ISP installed and if it is functioning properly.

   Is the wireless ISP installed and functioning properly?

   - **Yes**:
     Go to step 9.
   - **No**:
     Go to the next step.
8. Install or reinstall the wireless ISP in the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
9. Verify if WiFi Direct is enabled in the printer.

   Is WiFi Direct enabled?

   - **Yes**:
     Go to step 11.
   - **No**:
     Go to the next step.
10. Enable WiFi direct in the printer.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.
11. Verify that the NFC tap sticker is in the proper place on the control panel.

    Is the NFC tap sticker properly located on the control panel?

    - **Yes**:
      Go to step 13.
    - **No**:
      Go to the next step.
12. Using a template, reposition the tap sticker.

    > **Note:** The sticker should be placed over the NFC antenna on the mobile solutions module.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:

The problem is solved.

13. Check if the mobile solutions module is properly installed on the control panel assembly.

    Is the mobile solutions module properly installed?

    - **Yes**:
      Go to step 15.
    - **No**:
      Go to the next step.

14. Reinstall the mobile solutions module on the control panel assembly.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

15. Install a new NFC card.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Printer thumping noise service check

1. Perform the following tests:
   a. Remove the printhead. See Printhead removal on page 630.
   b. Check the motor (printhead wiper) and its gears for proper installation and alignment.

   > **Note:** Make sure that the motor tabs hook behind the frame slots.

   Is the motor properly installed?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Reinstall the motor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

3. Replace the motor. See Motor (printhead wiper) removal on page 634.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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.

1. Check the display cable JLCD2 on the controller board for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 3.
   - **No**:
     Go to the next step.

2. Reseat the cable.

   > **Warning—Potential Damage**
   > Do not yank the ribbon cable. See Disconnecting ribbon cables on page 570.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Check the control panel cable JOPPWR1 on the controller board for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Reseat the cable.

   Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Replace the display cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Replace the control panel cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Replace the control panel. See Control panel removal on page 644.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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.

1. Check the display cable JLCD2 on the controller board for proper connection.

   Is the cable properly connected?

   - **Yes**:
     Go to the next step.

- **No**:
  Go to step 3.

2. Check the cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to the next step.
   - **No**:
     Go to step 7.

3. Perform the following tests:
   a. Disconnect the cable JLCD2 from the controller board.

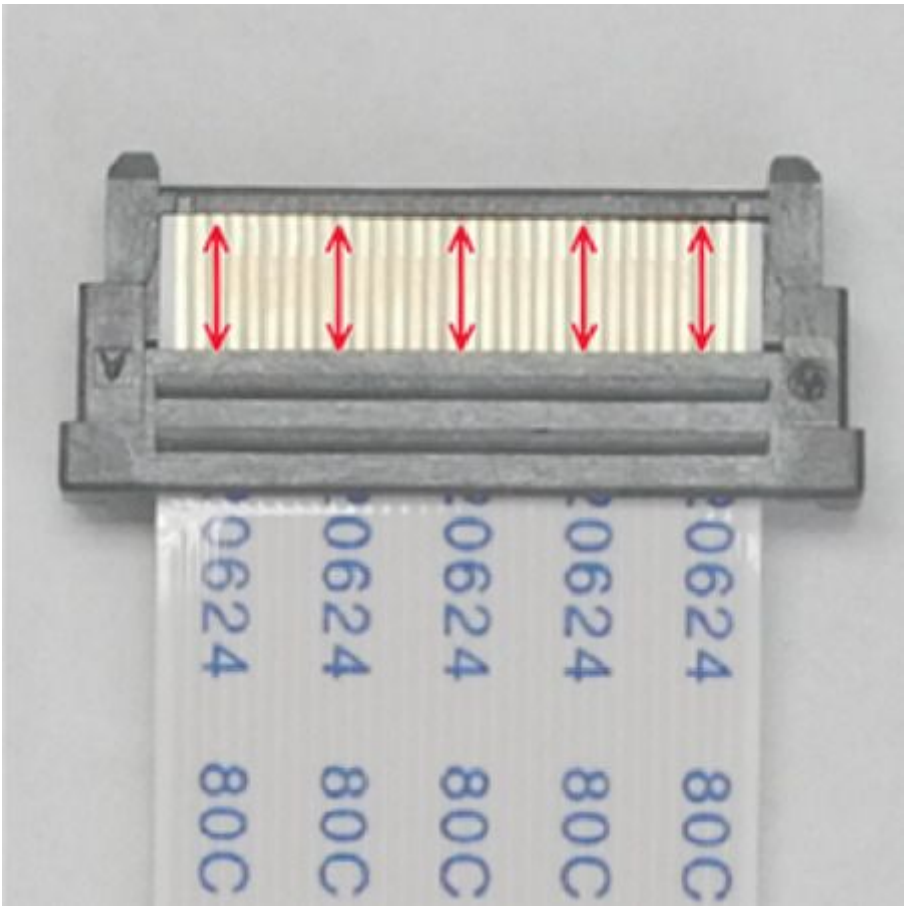
   > **Warning—Potential Damage**
   > Do not yank or wiggle the ribbon cable. See Disconnecting ribbon cables on page 570.

   b. Check the connector and socket for debris.

   Is the connector clean?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.

4. Wipe the connector with a lint-free cloth along the direction shown, and then reseat the cable.



> **Note:** To properly plug the connector, hold it by its sides and avoid pressing the release tab.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Perform the following tests:
   a. Disconnect the ribbon cable from the control panel board. See Control panel board removal on page 642.

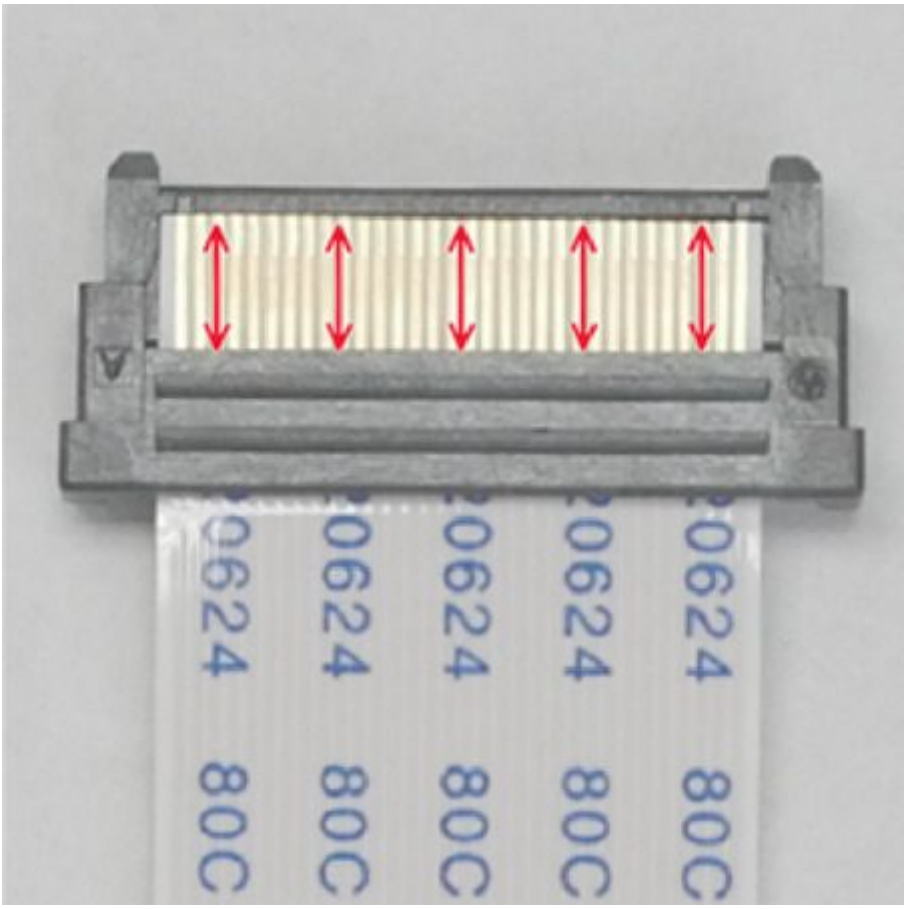
      > **Warning—Potential Damage**
      > Do not yank or wiggle the ribbon cable. See Disconnecting ribbon cables on page 570.

   b. Check the connector and socket for debris.

Is the connector clean?

- **Yes**:
  Go to step 7.
- **No**:
  Go to the next step.

6. Wipe the connector with a lint-free cloth along the direction shown, and then reseat the cable.



> **Note:** To properly plug the connector, hold it by its sides and avoid pressing the release tab.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

7. Replace the control panel FFC cable.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:

The problem is solved.

8. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

9. Replace the control panel. See Control panel removal on page 644.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 522.
“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 523.
“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 525.

Input option is not detected or recognized service check

1. Perform the following tests:
   a. Make sure that the printer supports the input option. See the *Printer, Option, and Stand Compatibility Guide*.
   b. Check if the option is properly attached to the printer or adjacent option.
   c. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Check if the option interface cable is properly connected to the option controller board.

   Is the cable properly connected?

   - **Yes**:
     Go to step 4.
   - **No**:
     Go to the next step.
3. Reseat the connection.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the interface cable for damage.

   Is the cable free of damage?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Replace the cable. See 550-sheet tray interface cable removal on page 760 or 2200-sheet tray interface cable removal on page 779.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Persistent “tray (x) missing” prompt even if tray is inserted service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.

- **No**:
  The problem is solved.

2. Remove, and then reinstall the tray insert.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Check the tray rails for obstructions and damage, and replace if necessary. See 550-sheet tray right rail removal on page 751 and 550-sheet tray left rail removal on page 767.
   b. Reinstall the tray insert.
   c. Check the tray rails for obstructions and damage, and replace if necessary. See 2200-sheet tray rail removal on page 773.
   d. Check the bellcrank assembly for proper installation or damage, and replace if necessary. See Bell crank removal on page 773.
   e. Reinstall the tray insert.

   For the 2200-sheet tray

   1. Check the tray rails for obstructions and damage, and replace if necessary. See 2200-sheet tray rail removal on page 773.
   2. Check the bellcrank assembly for proper installation or damage, and replace if necessary. See Bell crank removal on page 773.
   3. Reinstall the tray insert.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

4. Check the media size sensor actuators for damage, and replace if necessary. See 550-sheet tray media size sensor actuators removal on page 747.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays diagnostics > Sensor tests

   b. Find the sensor (Media size (tray [x]) switch [x]).

Does the sensor status change while toggling the sensor?

- **Yes**:
  Go to step 7.
- **No**:
  Go to the next step.

6. Perform the following tests:
   a. Check if the media size sensor cable is properly connected to the option controller board.
   b. Reseat the connection if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Check the media size sensor for damage, and replace if necessary. See Sensor (550-sheet tray media size) removal on page 748 or Sensor (2200-sheet tray media size) removal on page 776.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Persistent “tray (x) empty” prompt even if paper is present service check

1. Reset the printer.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Additional input trays diagnostics > Sensor tests

   b. Find the sensor (Media out (tray [x])).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 4.

- **No**:
  Go to the next step.

3. Perform the following tests:
   a. Check if the paper feeder cable is properly connected to the option controller board.
   b. Reseat the connection if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the media out sensor actuator for damage, and replace if necessary. See Sensor (550-sheet tray media out) removal on page 753 or 2200-sheet tray media out sensor actuator removal on page 794.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the sensor (media out) for damage, and replace if necessary. See Sensor (550-sheet tray media out) removal on page 753 or Sensor (2200-sheet tray media out) removal on page 789.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Replace the controller board. See Controller board removal on page 701.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     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 527.

Symptom	Action
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 528.
A bin full message prompts even after the bin is cleared or empty.	See .Staple finisher bin full service check on page 530
Staples Low [83] prompts.	See Staples Low [83] service check on page 533.
Staple finisher is not detected or recognized.	See .Staple finisher is not detected service check on page 535

Close staple finisher top door service check

1. Perform the following tests:
   a. Clear the jam access door of any obstruction, and then close it.
   b. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. 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 815.

   > **Note:** Make sure that the jam door closes correctly.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Door test

   b. Find the switch (Jam door switch).

   Does the switch status change while toggling the switch?

   - **Yes**:
     Go to step 6.
   - **No**:

Go to the next step.

4. Perform the following tests:
   a. Check the staple finisher jam door switch for proper installation.
   b. Reseat the jam door switch cable on both ends.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the staple finisher jam door switch for damage, and replace if necessary. See Staple finisher jam door switches removal on page 836.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the cables for cuts or any damages, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
7. Reseat all connectors in the staple finisher controller board, and then reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Close staple finisher staple cartridge door service check

1. Perform the following tests:
   a. Check if the staple cartridge door is properly closed.
   b. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. 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 815.

   > **Note:** Make sure that the door closes correctly.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the staple finisher rear cover for proper installation and damage, and replace if necessary. See .Staple finisher rear cover removal on page 808

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Door test

   b. Find the switch (Staple door).

   Does the switch status change while toggling the switch?

   - **Yes**:
     Go to step 6.
   - **No**:
     Go to the next step.
5. Perform the following tests:
   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 818.
   b. Reseat the switch cable.
   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Check the cables for cuts or damages, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:

The problem is solved.

7. Reseat all connectors in the staple finisher controller board, and then reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Staple finisher bin full service check

1. Perform the following tests:
   a. Clear the staple finisher bin.
   b. Clear the paper path of any obstruction.
   c. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Clear the finisher bin.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section

   b. Find the sensor (Staple finisher bin full).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 5.
   - **No**:
     Go to the next step.
4. Perform the following tests:
   a. Check the sensor (staple finisher front upper bin full) for proper installation and damage, and replace if necessary. See Sensor (staple finisher upper bin full) removal on page 821.
   b. Reseat the cable on both ends of the sensor.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

5. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section

   b. Find the sensor (Staple finisher bin full).

   Does the sensor status change while toggling the sensor?

   - **Yes**:
     Go to step 7.
   - **No**:
     Go to the next step.

6. Perform the following tests:
   a. Check the sensor (staple finisher rear upper bin full) for proper installation and damage, and replace if necessary. See Sensor (staple finisher upper bin full) removal on page 821.
   b. Reseat the cable on both ends of the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Clear the area between the sensors (staple finisher front and rear lower bin full) of any obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Output device diagnostics > Sensor tests > Staple Finisher > Transport and exit section

   b. Find the sensor (Staple finisher bin full).

   Does the sensor status change while toggling the sensor?

   - **Yes**:

Go to step 10.

- **No**:
  The problem is solved.

9. Perform the following tests:
   a. Check the sensor (staple finisher front lower bin full) for proper installation and damage, and replace if necessary. See Sensor (staple finisher lower bin full) removal on page 819.
   b. Reseat the cable on both ends of the sensor.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

10. Check the cables for cuts or any damages, and replace if necessary.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

11. Perform the following tests:
    a. Check the staple finisher bin for damages, and replace if necessary. See Staple finisher bin removal on page 876.
    b. Manually push, and then release the bin. Make sure that it returns to its default position.
    c. Clear the bin of any obstructions.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

12. Perform the following tests:
    a. Check the staple finisher bin arms for damages, and replace if necessary. See .Staple finisher bin clamp assembly removal on page 898
    b. Check the bin arms and spring for proper installation.

    Does the problem remain?

    - **Yes**:
      Go to the next step.
    - **No**:
      The problem is solved.

13. Perform the following tests:
    a. Check the staple finisher interface cable for cuts or any damages, and replace if necessary.
    b. Reseat the cable.

Does the problem remain?

- **Yes**:
  Go to the next step.
- **No**:
  The problem is solved.

14. Reseat all connectors in the staple finisher controller board, and then reset the printer.

    Does the problem remain?

    - **Yes**:
      Contact the next level of support.
    - **No**:
      The problem is solved.

Staples Low [83] service check

1. Perform the following tests:
   a. Remove any jammed or loose staples, and then remove the partial slab of staples so only the full slabs remain.
   b. Reseat the staple cartridge and the cartridge holder.
   c. Check if the staple cartridge door is closed properly.
   d. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

2. Perform the following tests:
   a. Check the staple finisher staple cartridge holder for damage, and replace if necessary.
   b. Reseat the staple cartridge.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

3. Perform the following tests:
   a. Enter the Diagnostics menu, and then navigate to:

      Printer Diagnostics > Output device diagnostics > Staple test

   b. Select a staple job.

   Is the job stapled?

   - **Yes**:

Go to step 5.

- **No**:
  Go to the next step.

4. Perform the following tests:
   a. Check the staple finisher staple unit for proper installation and damage, and replace if necessary. See Staple finisher staple unit removal on page 833.
   b. Reseat the cables on both ends of the staple unit.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

5. Check the cables for cuts or any damages, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

6. Perform the following tests:
   a. Check the staple finisher staple unit ejector for damage, and replace if necessary. See Staple finisher staple unit ejector removal on page 831.
   b. Check the ejector for proper installation and operation. Make sure to clear the area of any obstructions.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

7. Perform the following tests:
   a. Check the staple finisher staple cartridge door for damage, and replace if necessary. See Staple finisher staple cartridge door removal on page 815.
   b. Check the door for proper installation. Make sure that it closes correctly.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.

8. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

   Does the problem remain?

   - **Yes**:
     Contact the next level of support.

- **No**:
  The problem is solved.

Staple finisher is not detected service check

1. Reset the printer, and then reseat the staple finisher.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
2. Reseat the staple finisher interface cable.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
3. Check the interface cable connector for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
4. Check the interface cable for cuts or damage, and replace if necessary. See Staple finisher interface cable removal on page 824.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
5. Check the cables for cuts or damage, and replace if necessary.

   Does the problem remain?

   - **Yes**:
     Go to the next step.
   - **No**:
     The problem is solved.
6. Reseat all cable connectors in the staple finisher controller board, and then reset the printer.

   Does the problem remain?

   - **Yes**:

Go to the next step.

- **No**:
  The problem is solved.

7. Replace the controller board. See Staple finisher controller board removal on page 812.

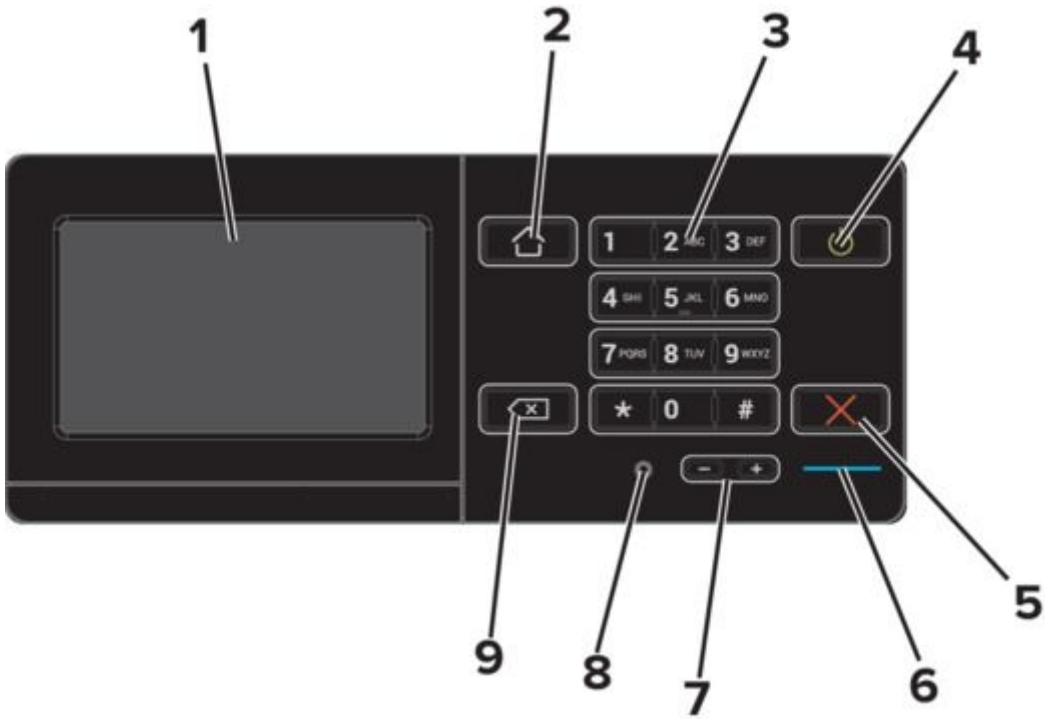
   Does the problem remain?

   - **Yes**:
     Contact the next level of support.
   - **No**:
     The problem is solved.

Service menus

Understanding the printer control panel

Using the control panel



	Use the	To
1	Display	• View the printer messages and supply status. • Set up and operate the printer.
2	Home button	Go to the home screen.
3	Keypad	Enter numbers or symbols in an input field.

	Use the	To
4	Power button	• Turn on or turn off the printer. > **Note:** To turn off the printer, press and hold the power button for five seconds. • Set the printer to Sleep or Hibernate mode. • Wake the printer from Sleep or Hibernate mode.
5	Stop or Cancel button	Stop the current job.
6	Indicator light	Check the status of the printer.
7	Volume buttons	Adjust the volume of the headset or speaker.
8	Headset or speaker port	Attach a headset or speaker.
9	Backspace button	Move the cursor backward and delete a character in an input field.

Understanding the status of the power button and indicator light

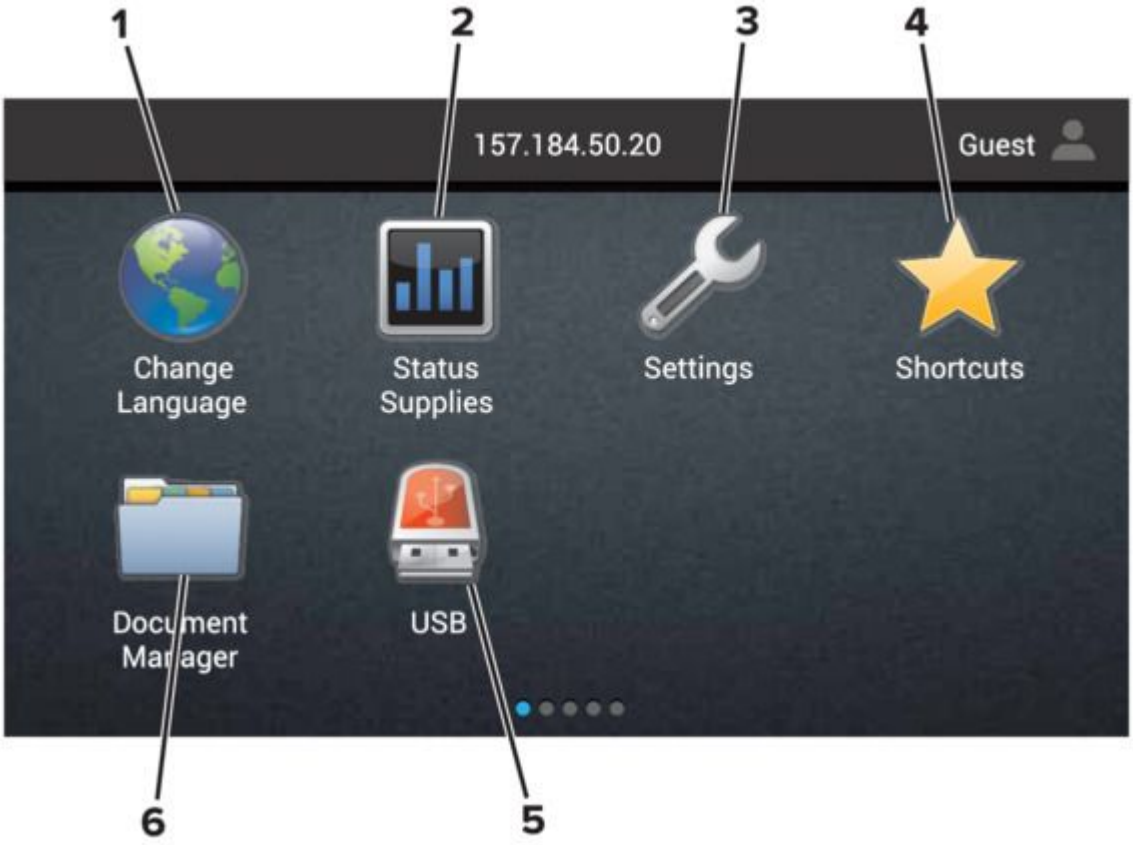
Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blue	The printer is ready or processing data.
Red	The printer requires user intervention.

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

When the printer is turned on, the display shows the home screen. Use the home screen buttons and icons to initiate an action.

> **Note:** Your home screen may vary depending on your home screen customization settings, administrative setup, and active embedded solutions.



Touch	To	
1	Status/Supplies	• 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. **Note:** You can also access this setting by touching the top section of the home screen.
2	Job Queue	Show all the current print jobs. **Note:** You can also access this setting by touching the top section of the home screen.
3	Change Language	Change the language on the printer display.
4	Settings	Access the printer menus.
5	USB Drive	View, select, or print photos and documents from a flash drive.
6	Held Jobs	Show all the current held print jobs.

Touch	To
Bookmarks	Access bookmarks.
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**.

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.

> **Note:**
> - 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**.

Note:

- 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 577.

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.

> **Note:**
> - 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**.

> **Note:**
> - 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.

> **Note:**
> - 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**.

> **Note:**
>
> - 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.

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.

Menu item	Description
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.
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.

Menu item	Description
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.
Clear all remotely-installed messages	Delete all logs created during remote installation.
Printer Emulations PPDS Emulation Off* On	Set the printer to use the PPDS data stream.
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*)	Adjust the toner density when printing documents.
Print Configuration Quiet Mode Off* On	Reduce the amount of noise that the printer makes when printing.

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 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 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.
Device Operations Automatic Media Type Detection Off On*	Set the printer to detect the paper type being loaded.

Menu item	Description
Device Operations Custom Supply Levels Off* On	Set supply levels.
Toner patch sensor setup Calibration frequency preference	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 with number pads

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-, 4.3-, 7-, and 10-inch displays without number pads

1. Turn off the printer.
2. Open tray 1.

   > **Note:** Make sure that paper is loaded in the tray.

3. Turn on the printer.
4. When an ellipses appears on the upper-left corner of the display, close tray 1.

   > **Note:** If tray 1 is not closed, then the printer boots normally.

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

Top level menu	Intermediate menu
History	• Print History • Mark History
MAC	• Set Card Speed • LAA • Keep Alive
NPAP	Print Alerts
TCP/IP	• netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode
Wireless	Enable Wi-Fi Direct Sigma Control Agent
Ping Test	• Ping • Ping6
Other Actions	• ifconfig • IPtables [Firewall Dump] • IP6tables [Firewall Dump] • IPsec Dump

Parts removal

Important removal information

Removal precautions

CAUTION—SHOCK HAZARD
The low-voltage power supply (LVPS) and the high-voltage power supply (HVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch their circuit components or the solder side of the board. Only handle them by their outer edges or metal housing.

CAUTION—SHOCK HAZARD
This product uses an electronic power switch. It does not physically disconnect the input AC voltage. To avoid the risk of electrical shock, always remove the power cord from the printer when removal of the input AC voltage is required.

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—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.

Précautions de retrait

CAUTION—SHOCK HAZARD
Une tension résiduelle peut être présente dans le bloc d'alimentation basse tension (LVPS) et le bloc d'alimentation haute tension (HVPS). Pour éviter tout risque d'électrocution, ne touchez pas les composants du circuit ou le côté soudure de la carte. Tenez-les uniquement par leurs extrémités ou le boîtier en métal.

CAUTION—SHOCK HAZARD
Ce produit utilise un commutateur d'alimentation électronique. Il ne déconnecte pas physiquement la tension d'alimentation CA. Pour éviter tout risque d'électrocution, débranchez toujours le cordon d'alimentation de l'imprimante lorsque vous devez déconnecter la tension d'alimentation CA.

CAUTION—SHOCK HAZARD
Pour éviter tout risque d'électrocution et éviter d'endommager l'imprimante, débranchez le cordon d'alimentation de la prise électrique et déconnectez toute connexion à tout périphérique externe avant de brancher ou débrancher des câbles ou circuits et assemblages électroniques.

CAUTION—HOT SURFACE
L'intérieur de l'imprimante risque d'être brûlant. pour réduire le risque de brûlure, laissez la surface ou le composant refroidir avant d'y toucher.

CAUTION—PINCH HAZARD
Pour éviter tout risque de blessure par pincement, agissez avec précaution au niveau des zones signalées par cette étiquette. Les blessures par pincement peuvent se produire autour des pièces mobiles telles que les engrenages, portes, tiroirs et capots.

Precauciones durante la extracción

CAUTION—SHOCK HAZARD
La fuente de alimentación de bajo voltaje (LVPS) y la fuente de alimentación de alto voltaje (HVPS) pueden presentar voltaje residual. Para evitar el riesgo de descarga eléctrica, no toque los componentes del circuito ni el lateral soldado de la placa. Manipule solo los bordes exteriores o la carcasa metálica.

CAUTION—SHOCK HAZARD
Este producto utiliza un interruptor de corriente electrónico. No desconecta físicamente la entrada de voltaje de CA. Para evitar el riesgo de descarga eléctrica, desenchufe siempre el cable de alimentación de la impresora cuando sea necesario retirar la entrada de voltaje de CA.

CAUTION—SHOCK HAZARD
Para evitar el riesgo de descargas eléctricas y daños en la impresora, retire el cable de alimentación de la toma eléctrica y desconecte todas las conexiones a dispositivos externos antes de conectar o desconectar cualquier cable, placa electrónica o conjunto.

CAUTION—HOT SURFACE
El interior de la impresora podría estar caliente. Para evitar el riesgo de heridas producidas por el contacto con un componente caliente, deje que la superficie se enfríe antes de tocarlo.

CAUTION—PINCH HAZARD
Para evitar el riesgo de lesión por atrapamiento, preste atención en las áreas marcadas con esta etiqueta. Las lesiones por atrapamiento se pueden producir en torno a partes móviles, tales como engranajes, puertas, bandejas y cubiertas.

Vorsichtsmaßnahmen bei der Demontage

CAUTION—SHOCK HAZARD
Im Niederspannungsnetzteil (LVPS) und Hochspannungsnetzteil (HVPS) liegt unter Umständen Restspannung vor. Um das Risiko eines elektrischen Schlags zu vermeiden, berühren Sie keine umliegenden Bauteile oder die Lötseite der Platine. Fassen Sie sie nur an den Außenkanten oder am Metallgehäuse an.

CAUTION—SHOCK HAZARD
Dieses Produkt verwendet einen elektronischen Leistungsschalter. Er trennt die Eingangswechselspannung nicht physikalisch. Um das Risiko eines elektrischen Schlags zu vermeiden, ziehen Sie stets das Netzkabel vom Drucker ab, wenn eine Abtrennung der Eingangswechselspannung erforderlich ist.

CAUTION—SHOCK HAZARD
Um das Risiko eines elektrischen Schlags und Schäden am Drucker zu vermeiden, ziehen Sie das Netzkabel aus der Steckdose und trennen Sie alle Verbindungen zu jeglichen externen Geräten, bevor Sie Kabel, Elektronikplatinen oder Baugruppen einstecken oder abziehen.

CAUTION—HOT SURFACE
Das Innere des Druckers kann sehr heiß sein. Vermeiden Sie Verletzungen, indem Sie heiße Komponenten stets abkühlen lassen, bevor Sie ihre Oberfläche berühren.

CAUTION—PINCH HAZARD
Um das Risiko einer Quetschung zu vermeiden, gehen Sie in Bereichen, die mit diesem Etikett gekennzeichnet sind, mit Vorsicht vor. Quetschungen können im Bereich von beweglichen Komponenten auftreten, wie z. B. Zahnrädern, Klappen, Fächern und Abdeckungen.

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.

CAUTION—POTENTIAL INJURY
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’incinérez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

CAUTION—POTENTIAL INJURY
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.

CAUTION—POTENTIAL INJURY
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 560.

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 569.

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 492

Restoring the printer configuration

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.

Notes:

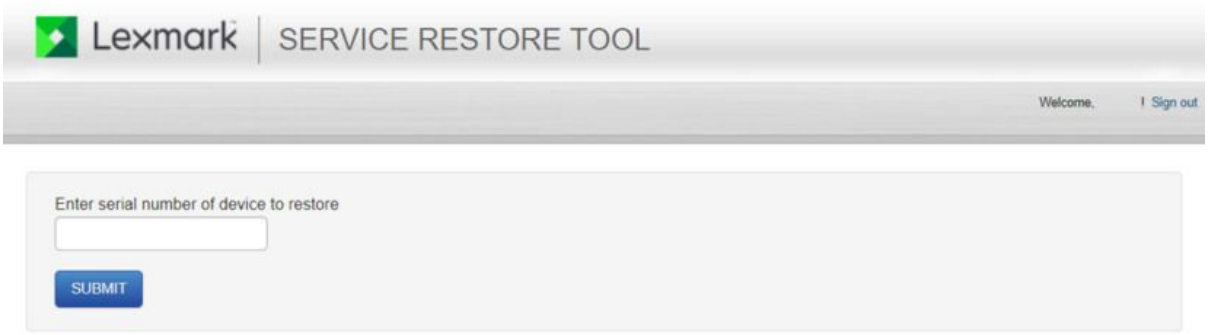
- If you do not have access to Service Restore Tool, then contact your next level of support.
- If you do not have access to Service Restore Tool, then contact your next level of support. The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark CFM and Package Builder. The printer firmware may be at a different level from what is used before replacement of the part.

Using the Service Restore Tool

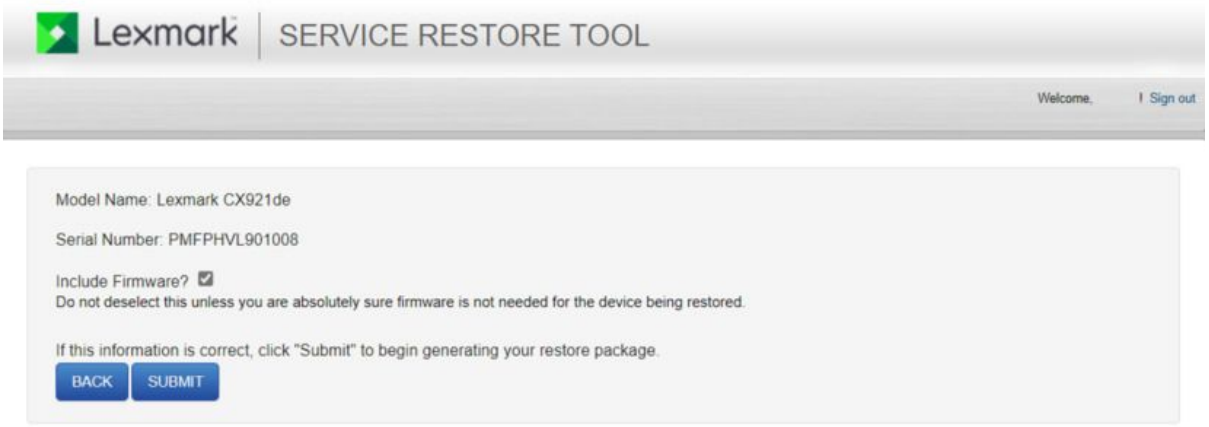
1. Go to https://iss.lexmark.com/cdp/service-restore-tool/#/ to access the tool.
2. Log in using your Lexmark or partner login.

   If your login fails, then contact your next level of support.

3. Enter the printer serial number, and then submit the information.

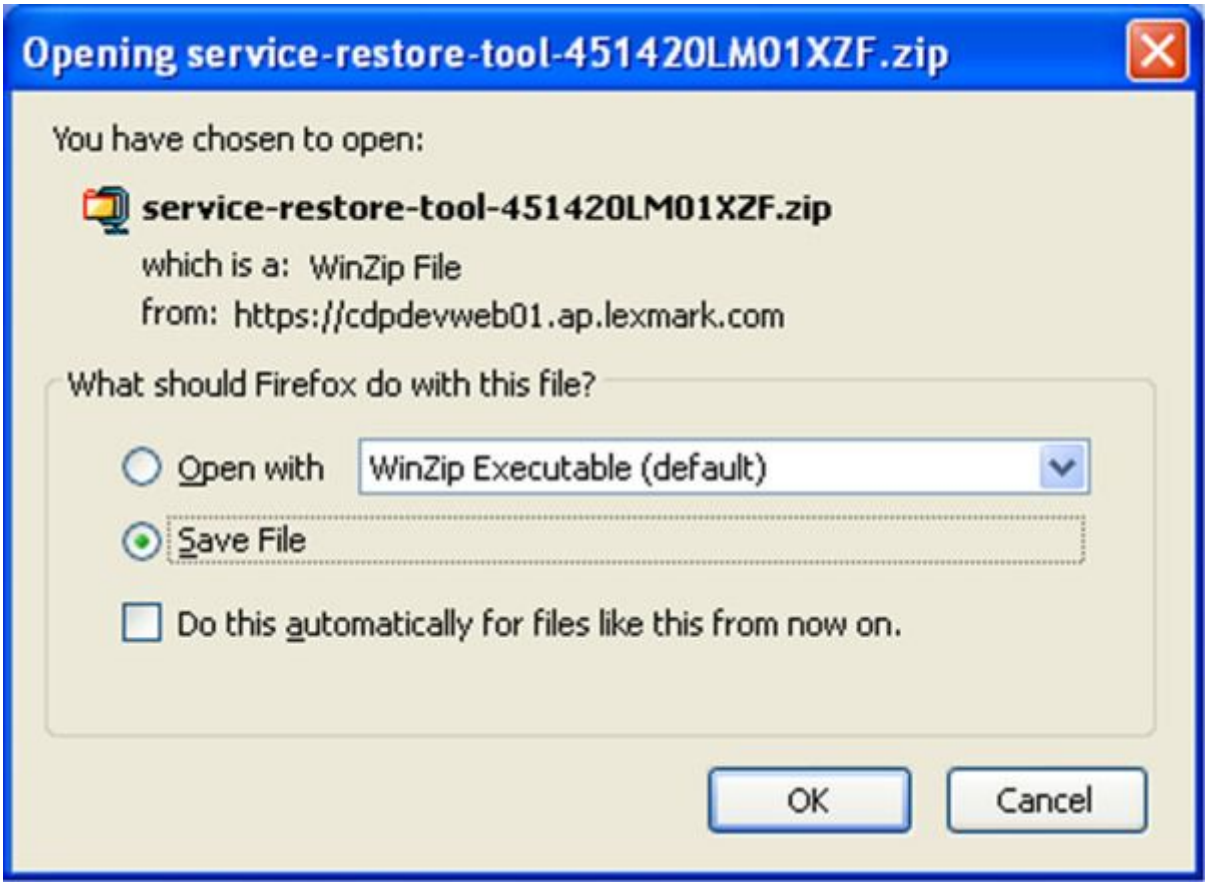


Note: Make sure that the serial number that appears on the verification screen is correct.



4. Save the zip file.

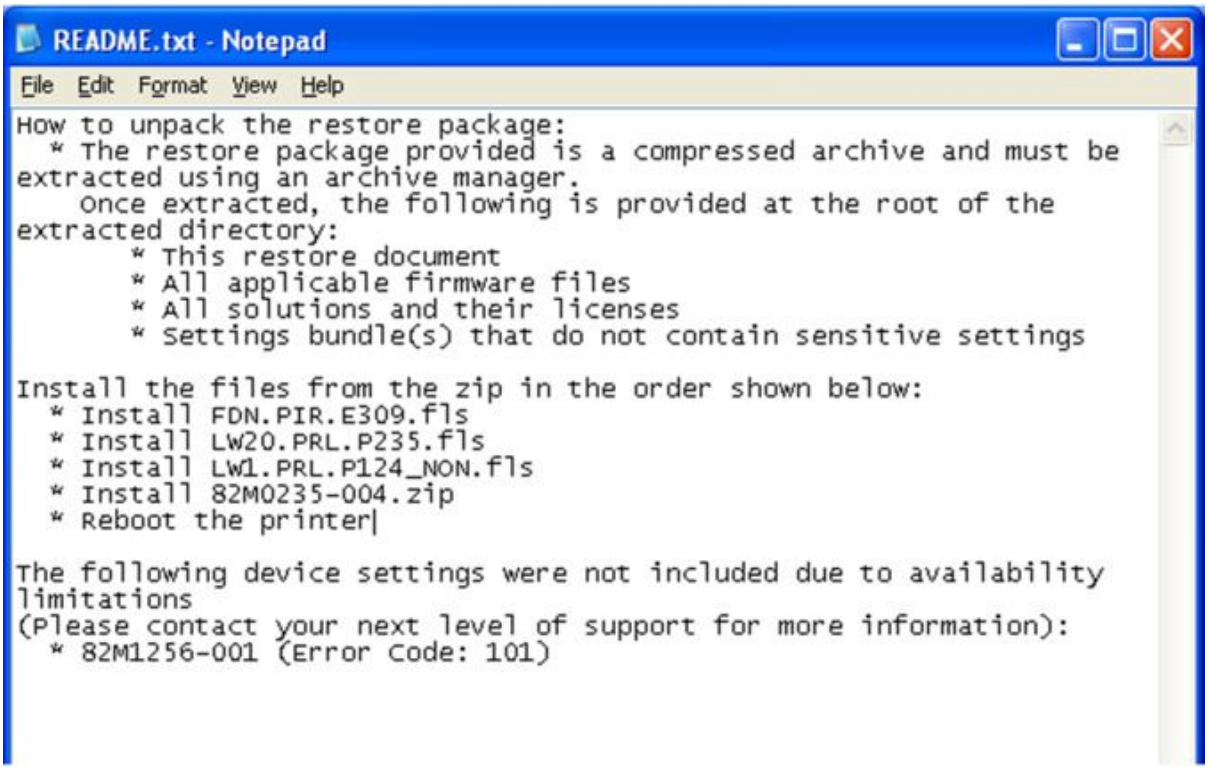
> **Note:** Make sure that the serial number in the zip file matches the serial number of the printer being restored.



5. Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

Note:

- 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 567.
- To load the zip files that are extracted from the Service Restore Tool, see Restoring solutions, licenses, and configuration settings on page 566.



6. If the printer had eSF apps previously installed, then confirm from the customer if all the eSF apps have been installed after performing the installation instructions in the *Readme* file.

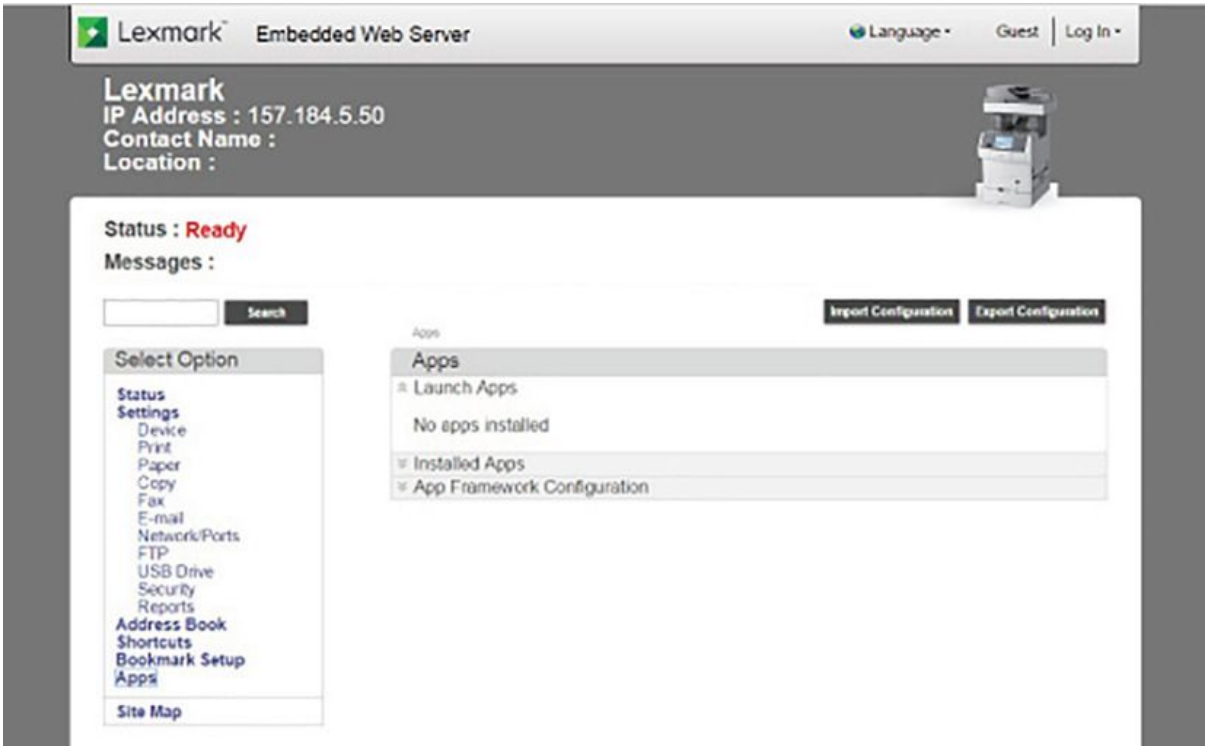
Note:

- 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.

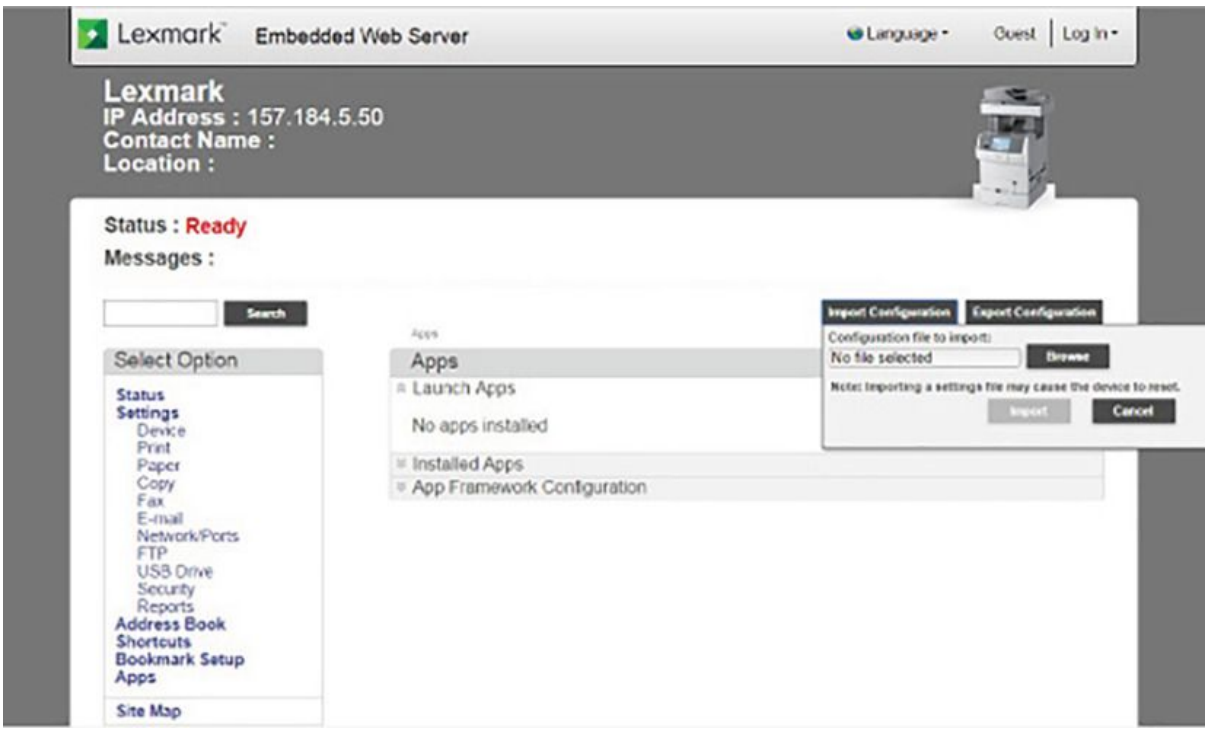
Restoring solutions, licenses, and configuration settings

To load the zip files that are extracted from the Service Restore Tool, do the following:

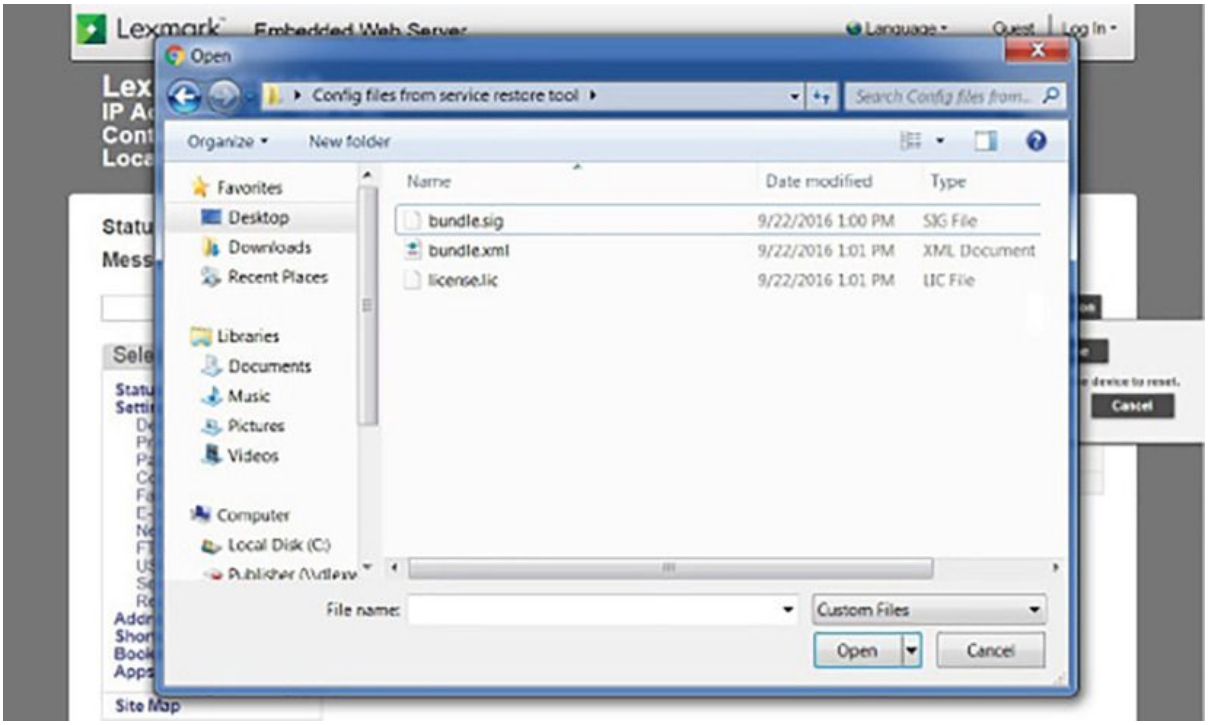
1. Open a web browser, and then type the printer IP address.



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 553.
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.

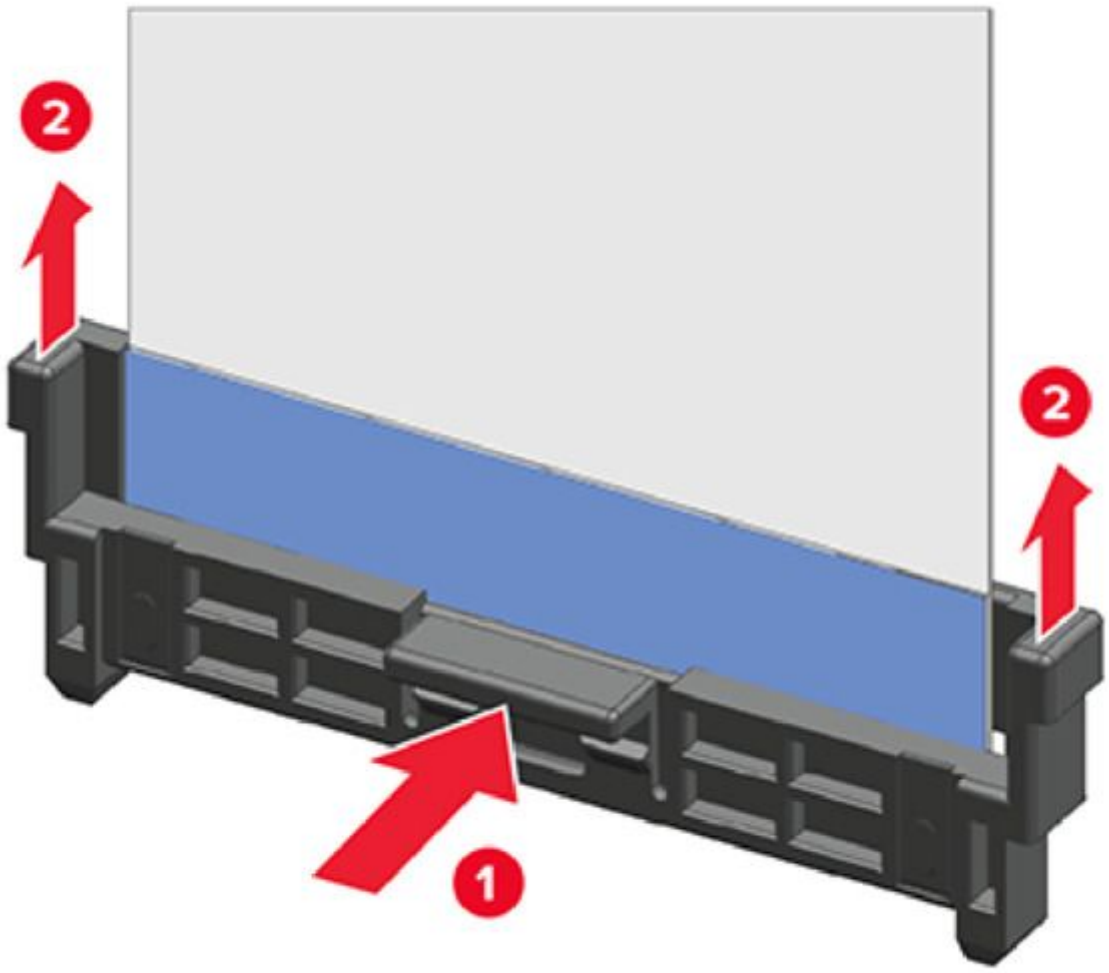
1. Reset the printer into Invalid engine mode. See Entering Invalid engine mode on page 553.
2. Open a web browser, and then type the printer IP address.

   > **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

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:

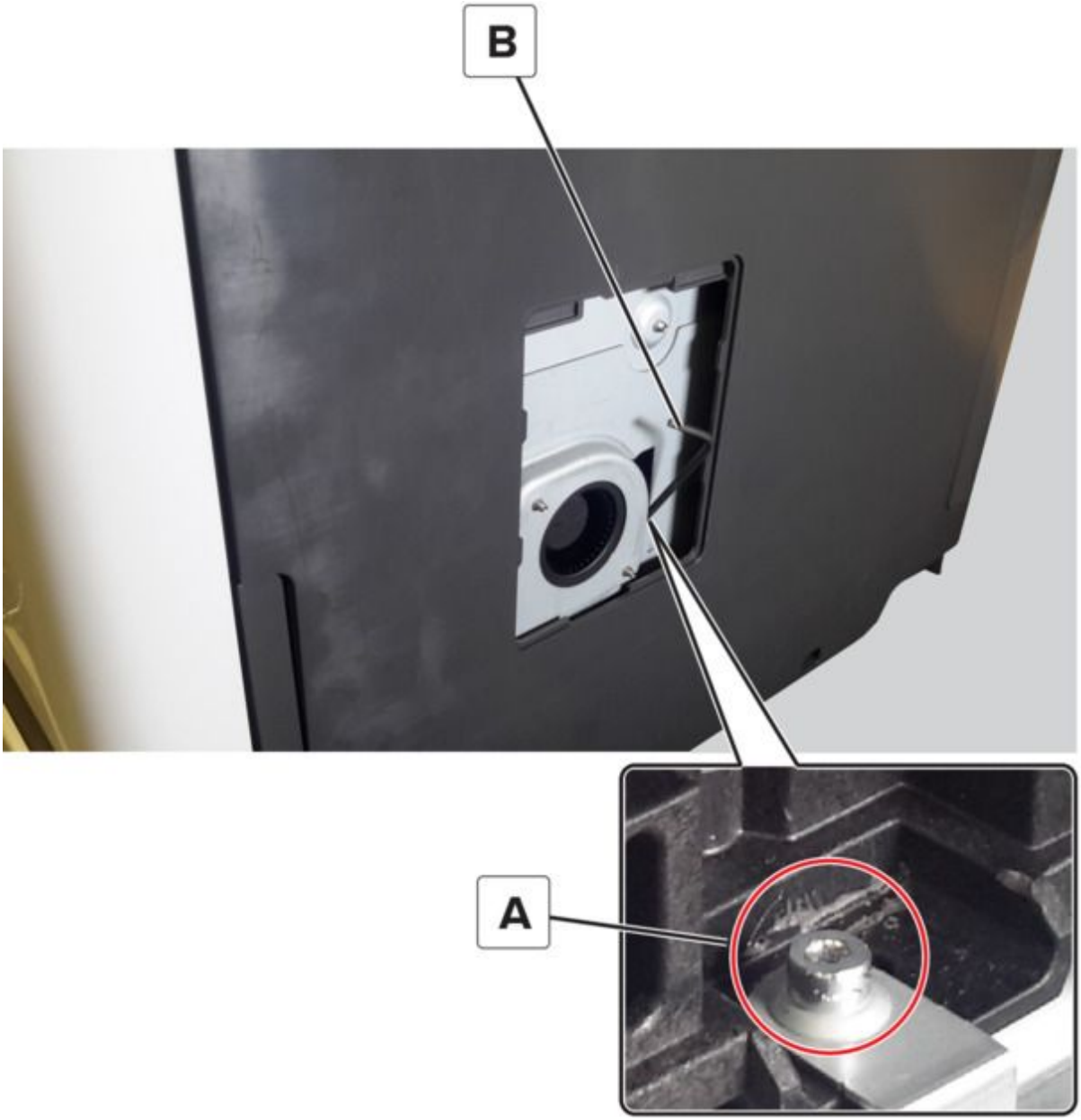
   Printer diagnostics & adjustments > Registration adjust > Quick test
2. Check the test page.

   The following test page result shows a properly aligned printhead:

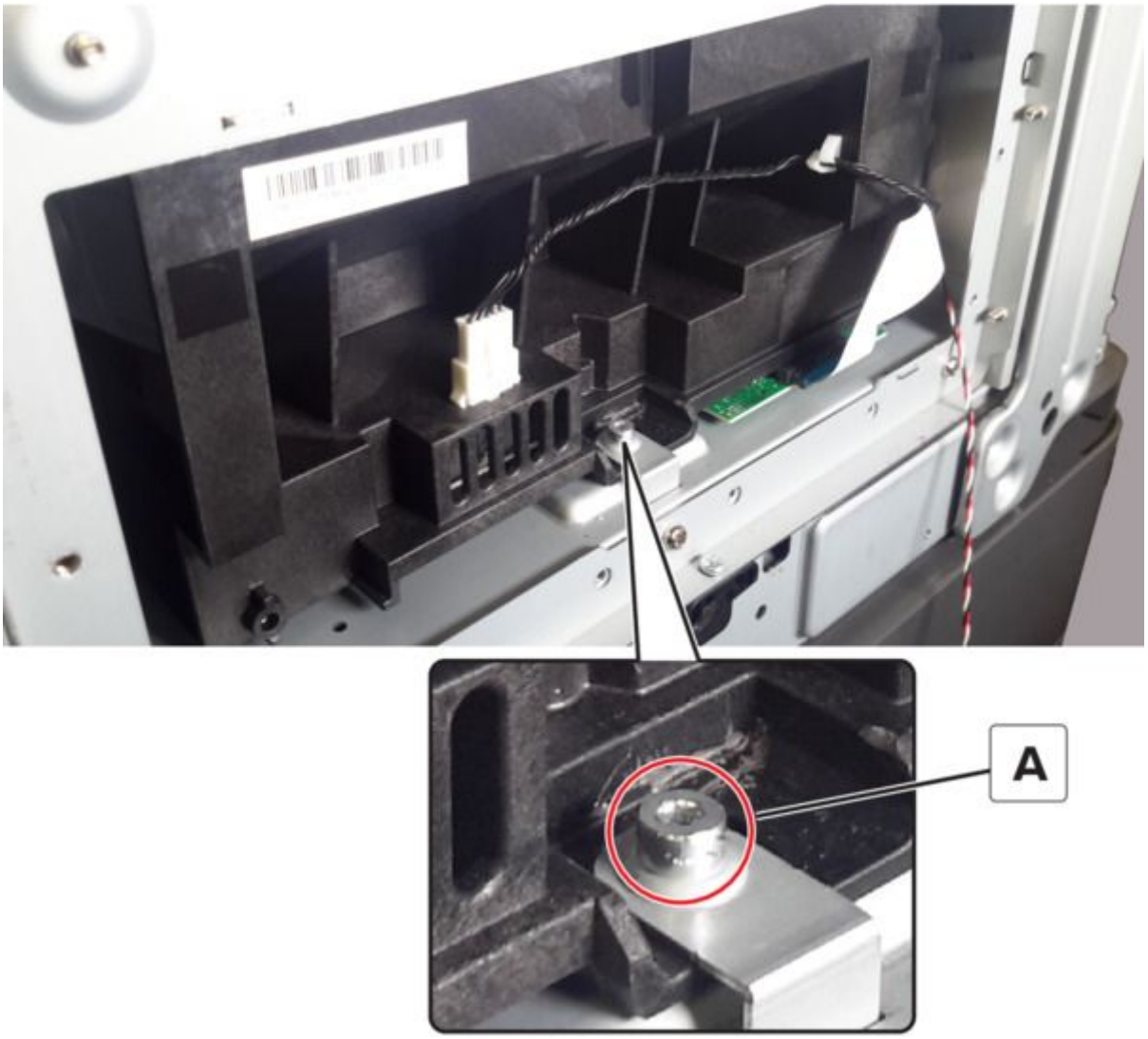
Aligning a printhead skewed in the clockwise direction

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 622, or remove the inner right cover, see Printhead fan removal on page 628.
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.

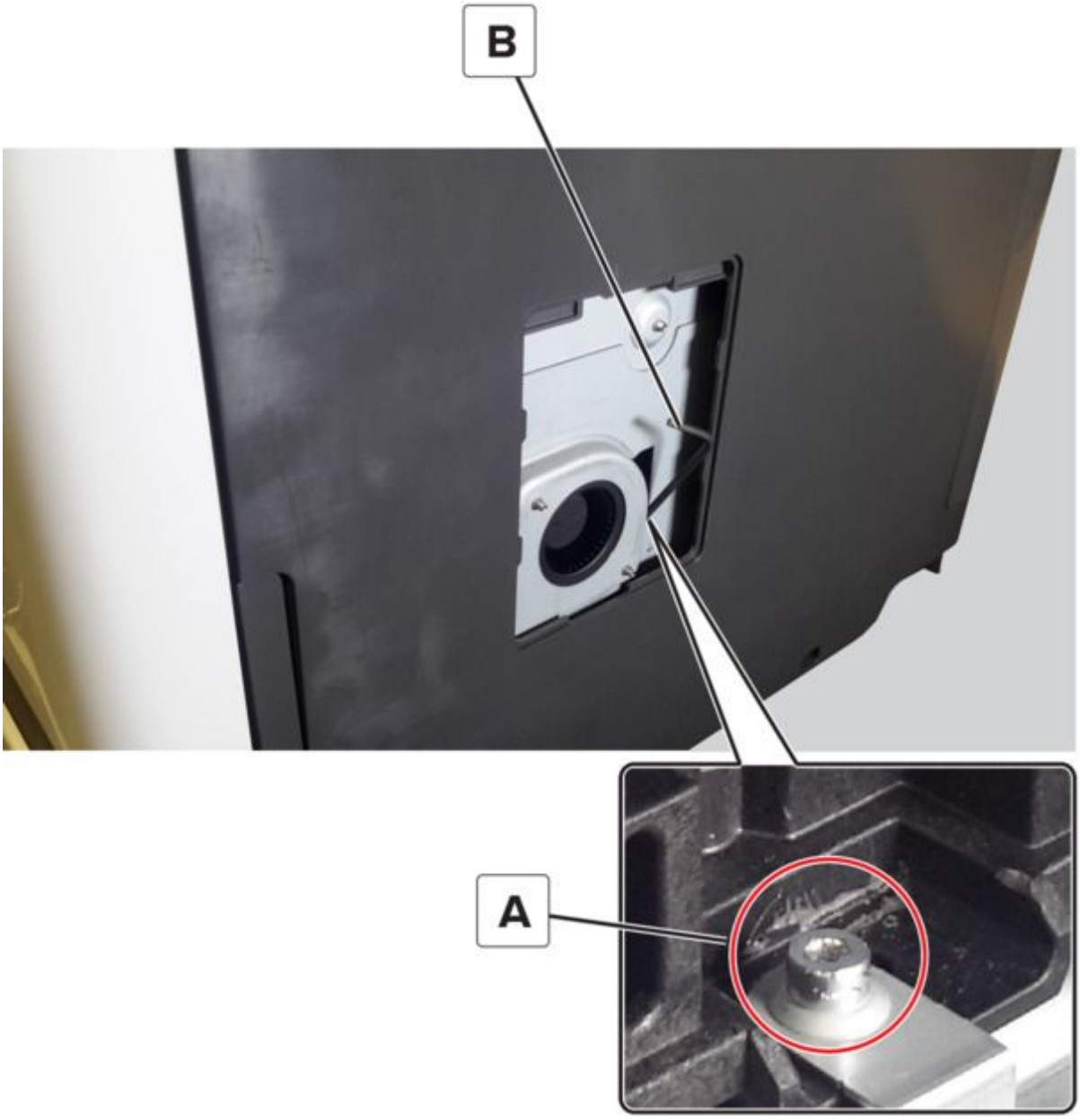
   > **Note:** Repeat this step until the skew on the test page is corrected.

5. Tighten the printhead clamp screw.

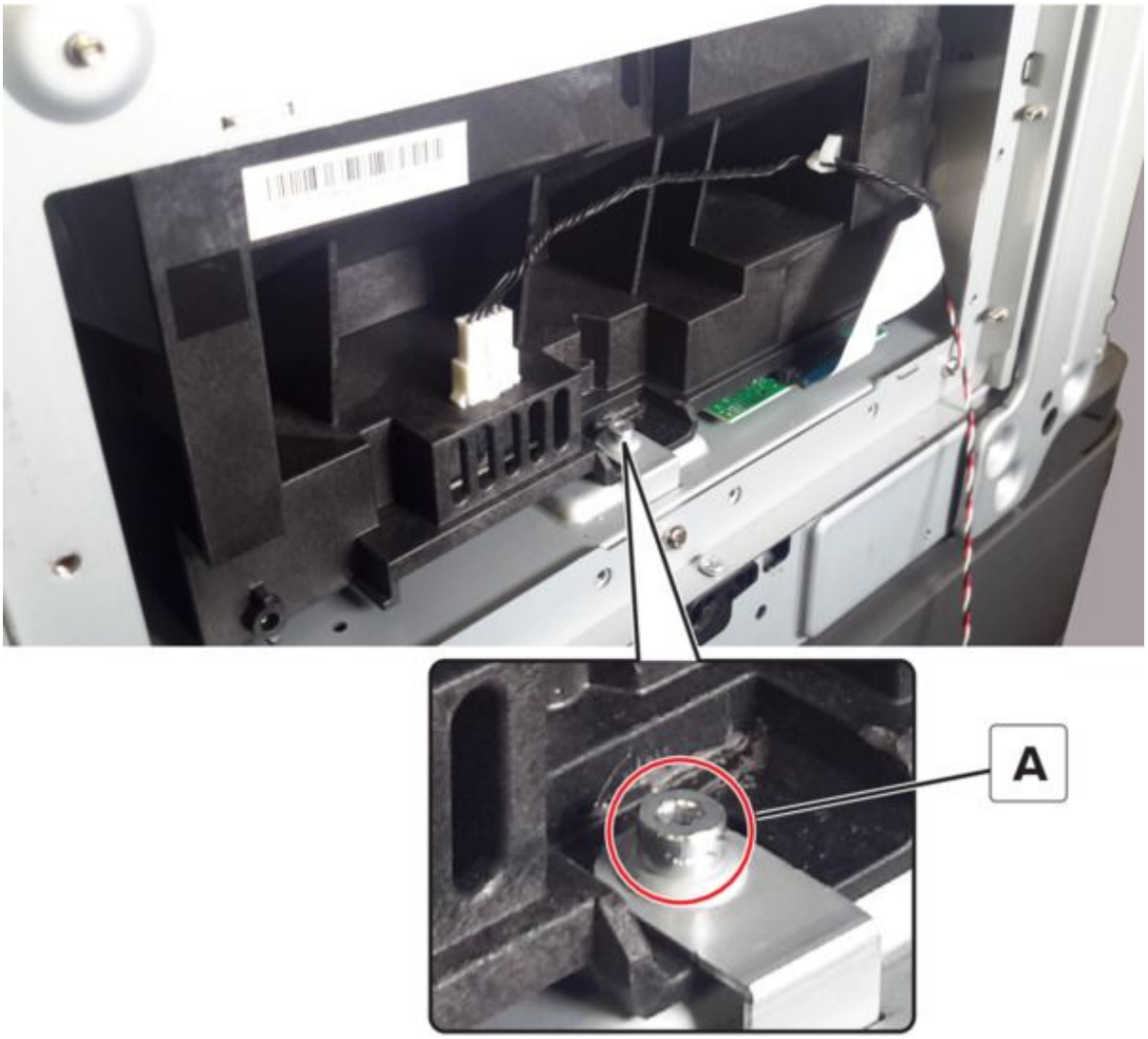
Aligning a printhead skewed in the counterclockwise direction

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 622, or remove the inner right cover, see Printhead fan removal on page 628.
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

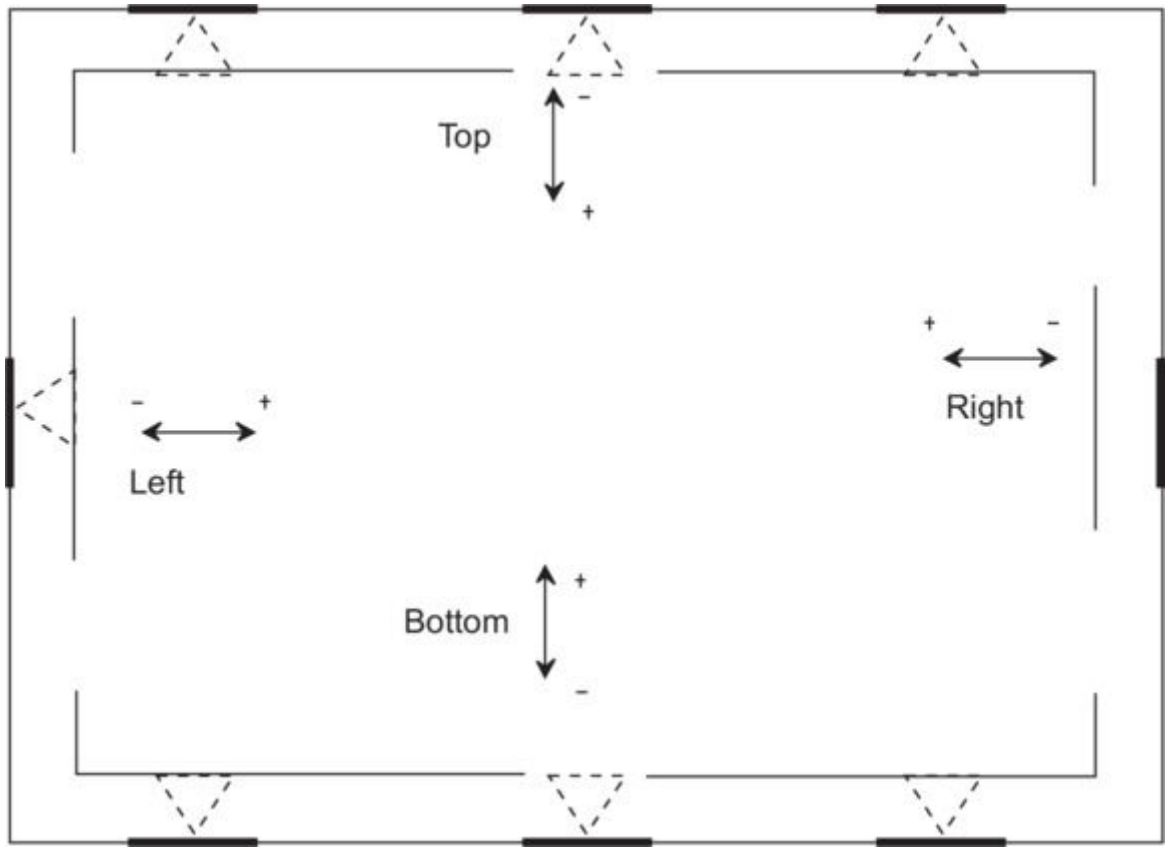
Image misalignments may occur after printhead replacement. Perform this procedure to correct the position of the image relative to the paper edges.

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 570.

> **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.

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.

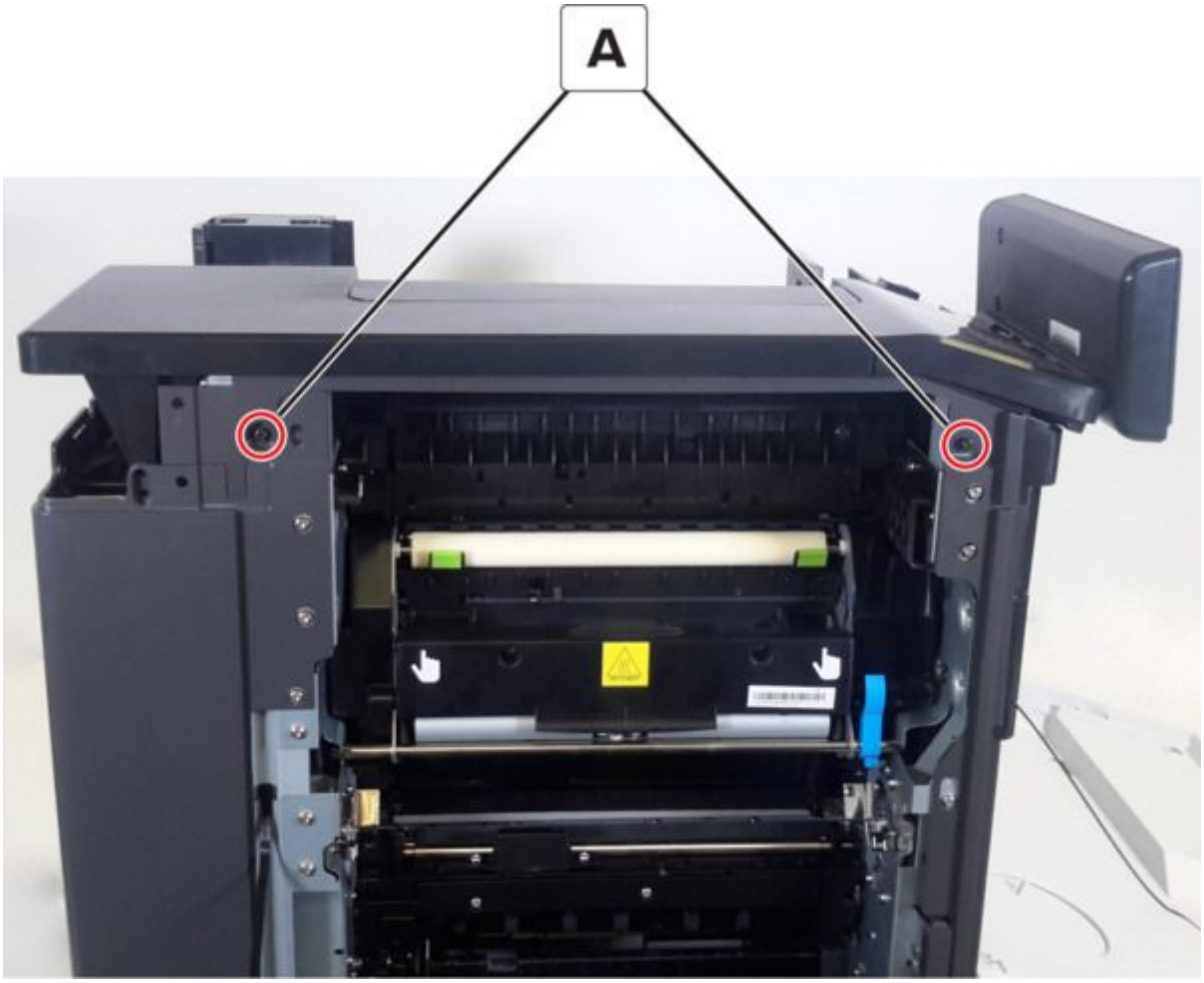
Left side removals

Left upper cover removal

1. Remove the rear upper cover. See Rear upper cover removal on page 695.
2. 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.

3. Remove the two screws (A), and then remove the cover.

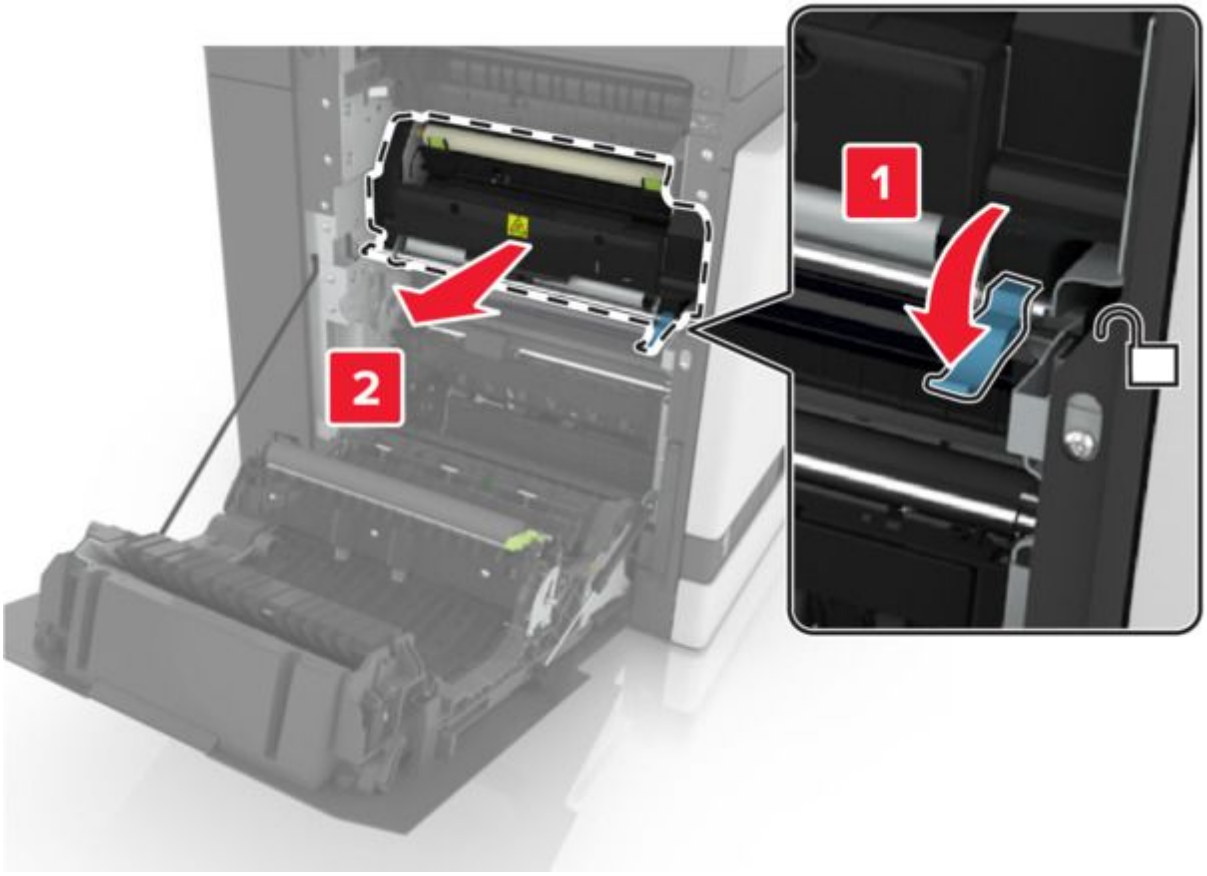


Fuser removal

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.



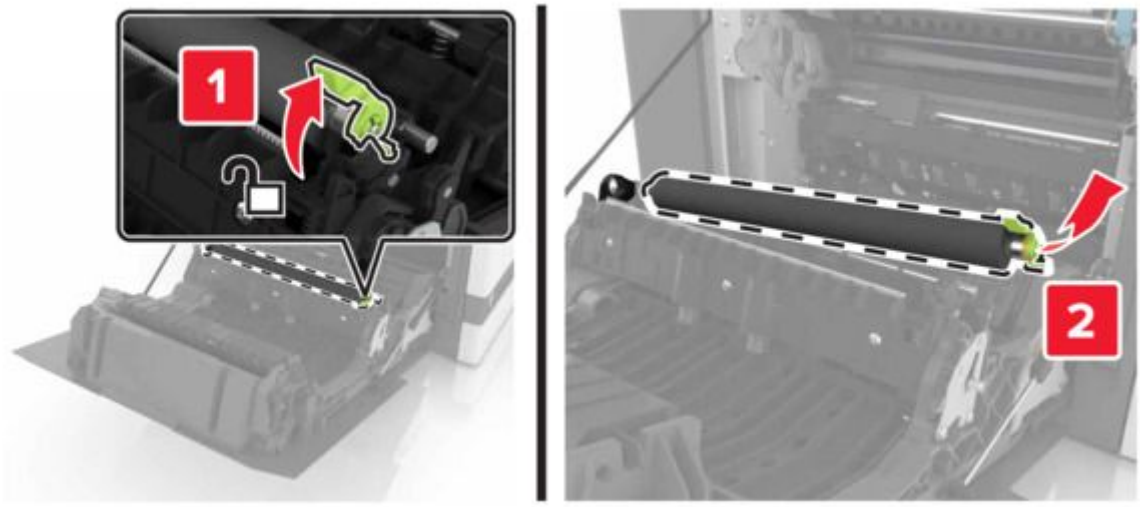
Installation Note
Before installing the fuser, clean the fuser lens using the cotton swab that came with the package.

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.

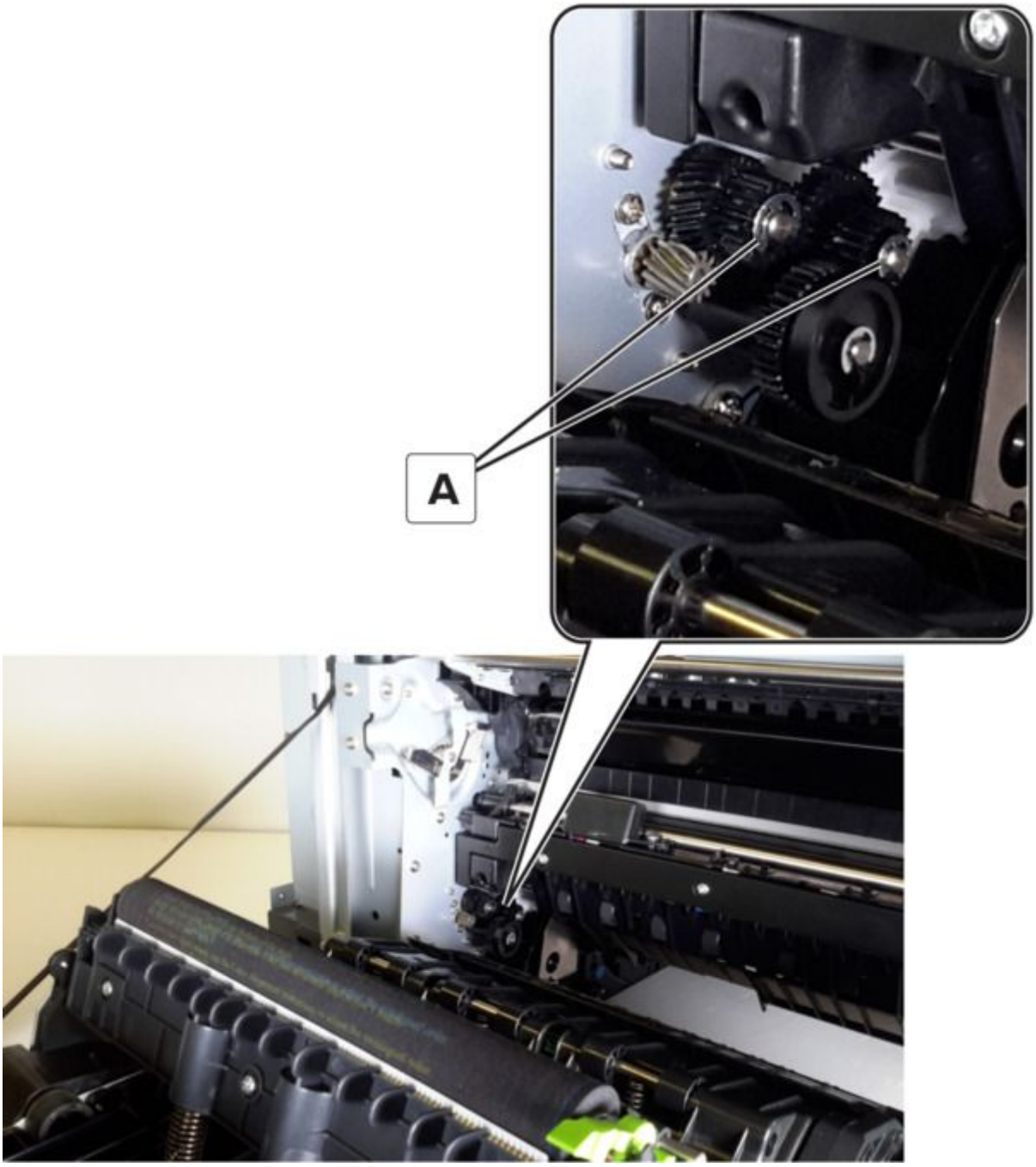
2. Remove the roller.



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.

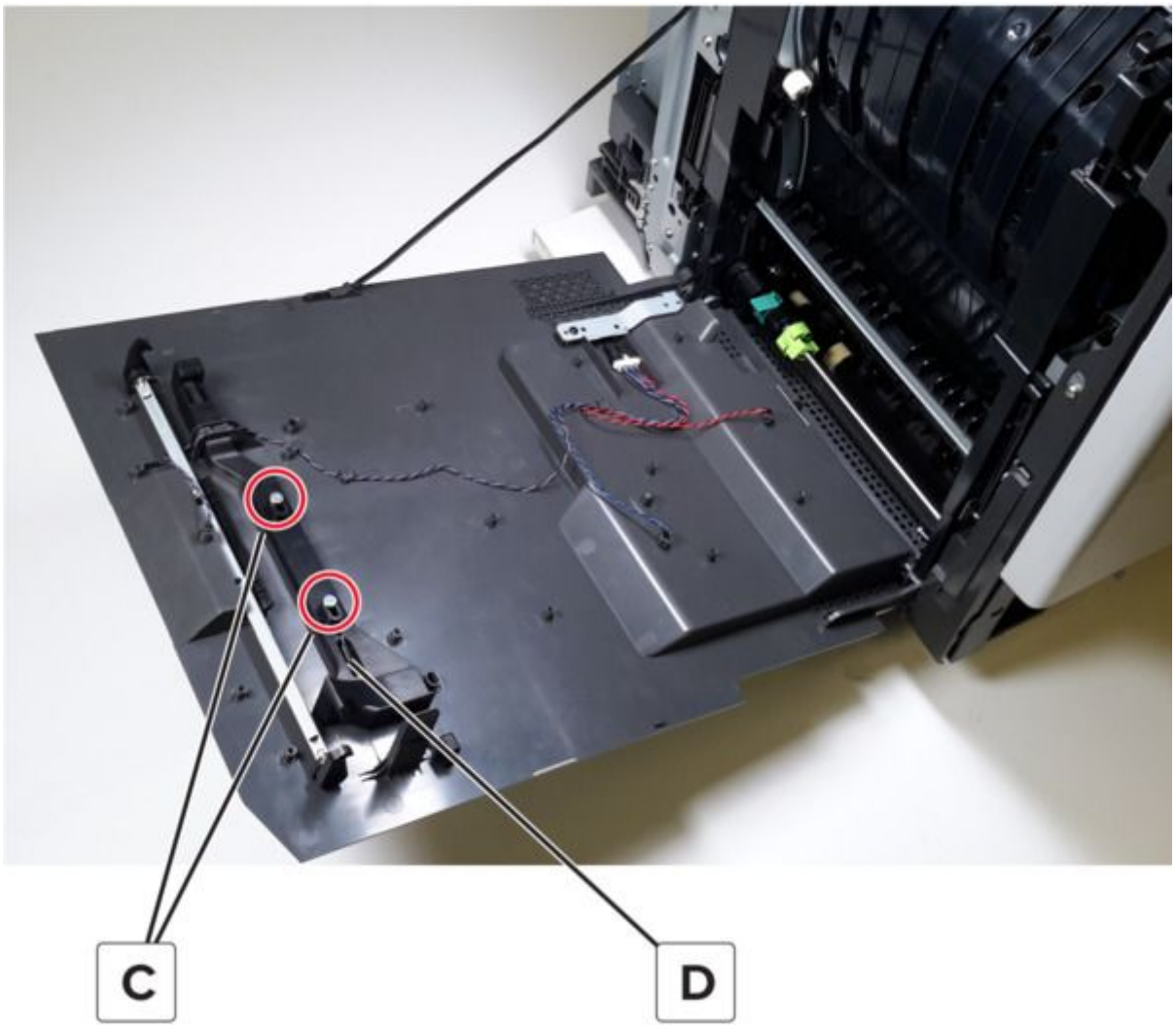
Duplex release latch removal

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).



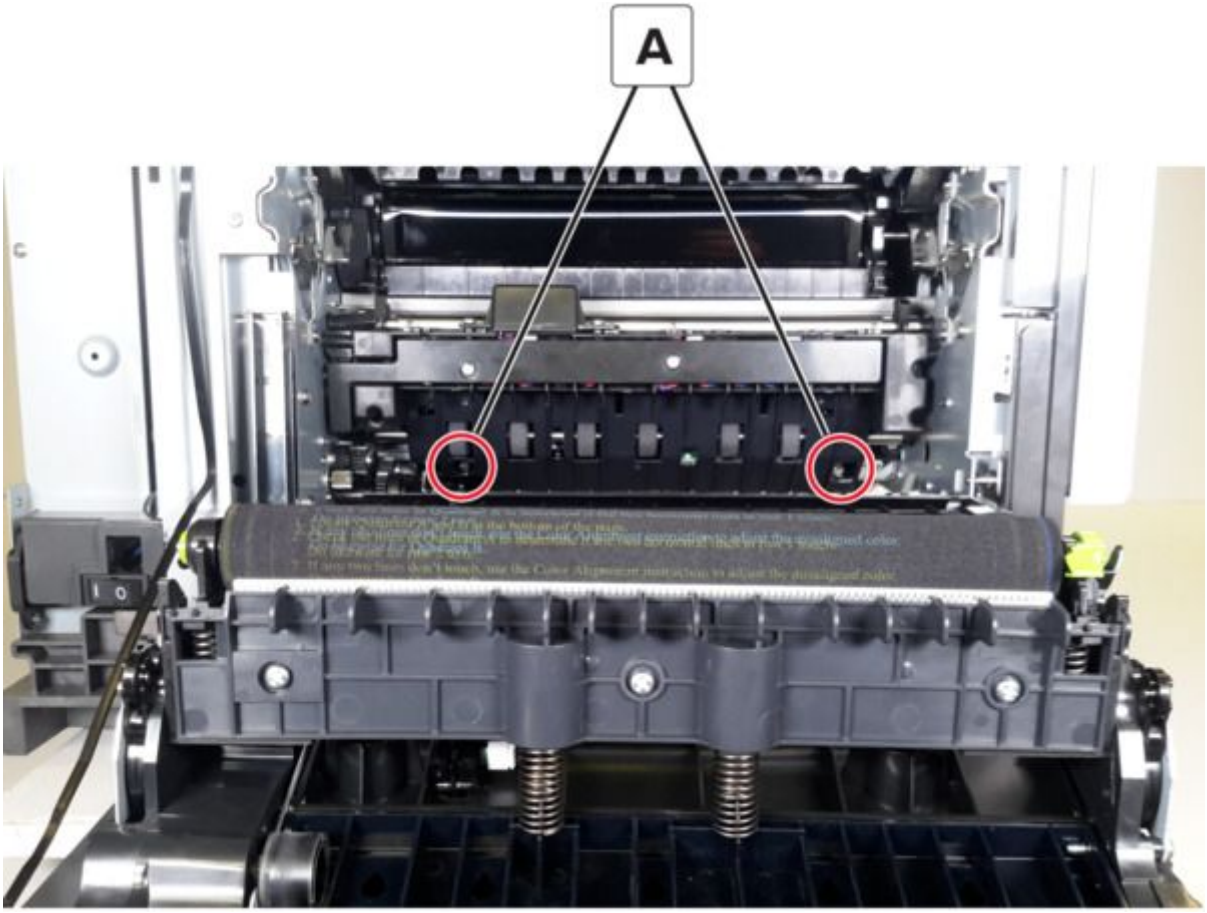
5. Remove the latch.

Deskew roller sensor guide removal

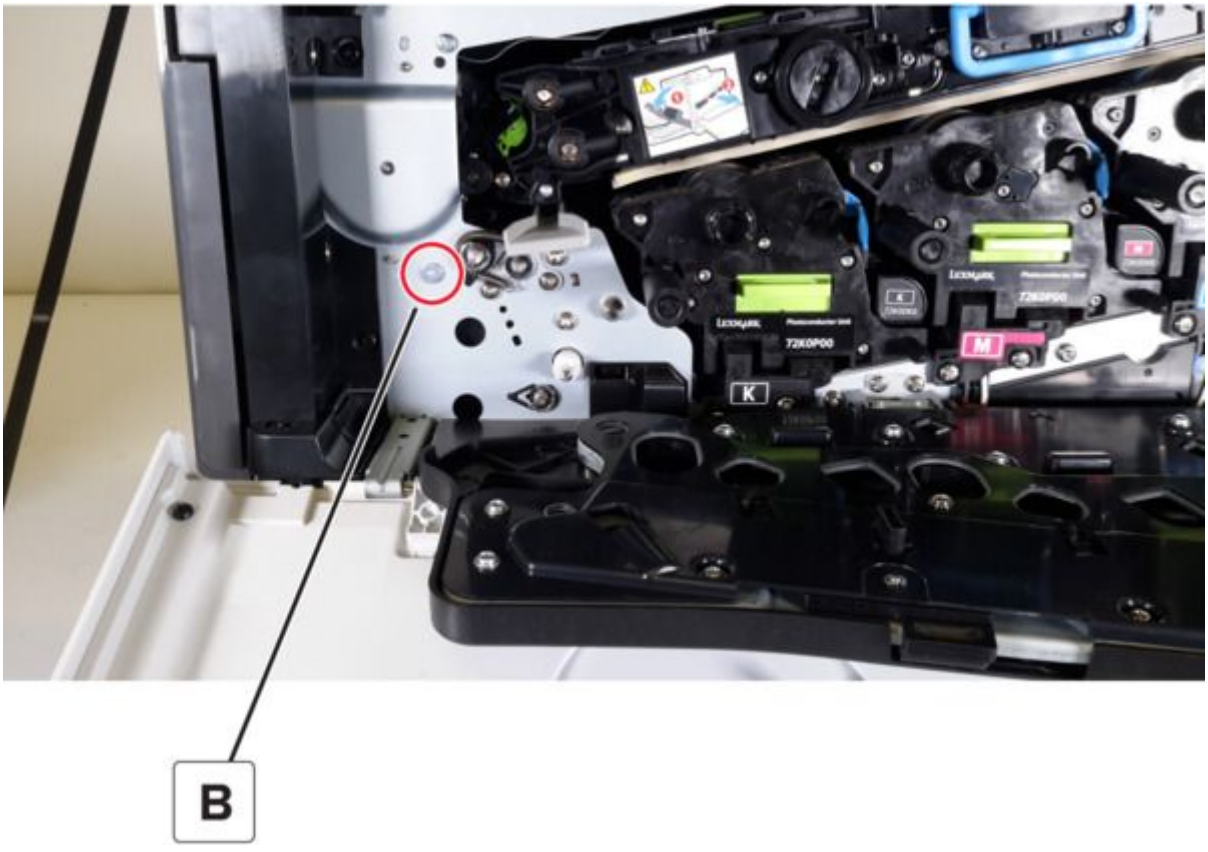
> **Note:** For a video demonstration, see Deskew roller sensor guide removal.

1. Open door B, and then remove the two screws (A).

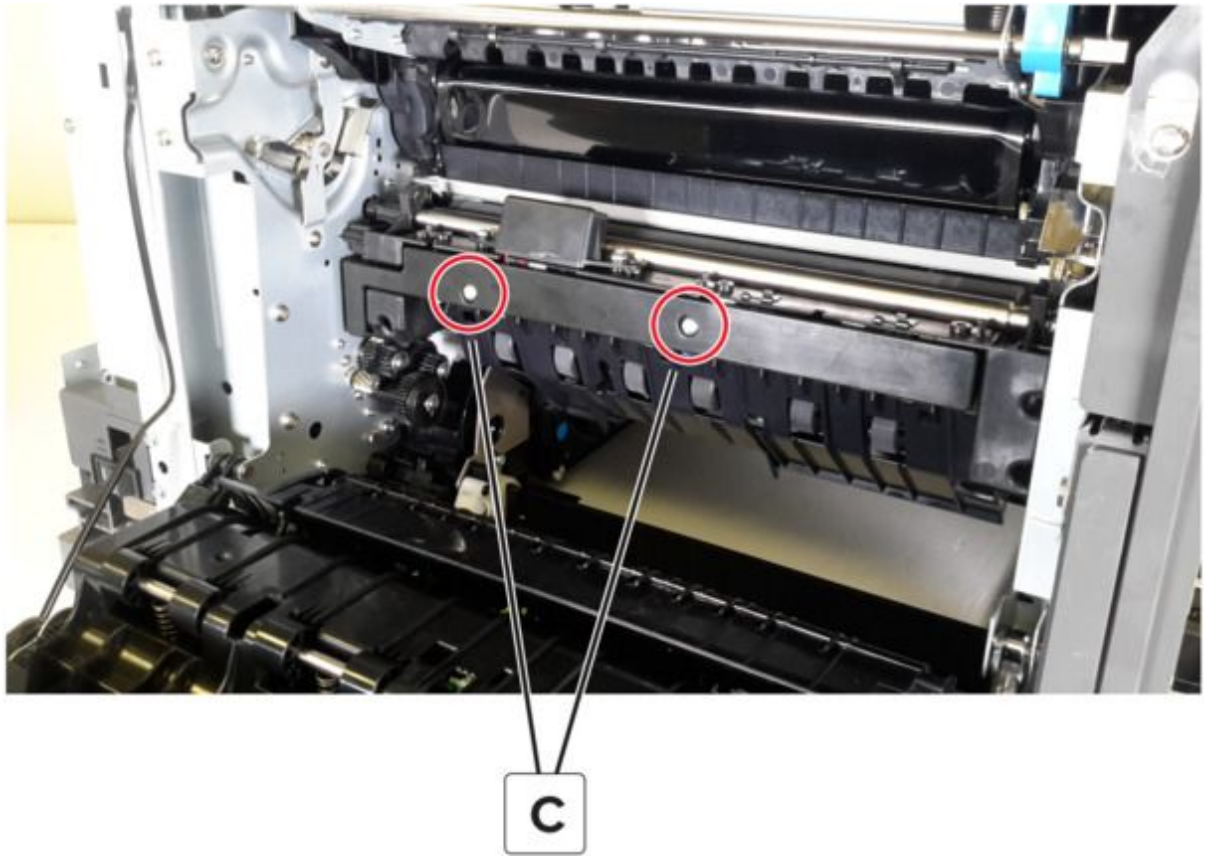
> **CAUTION—HOT SURFACE**
> The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



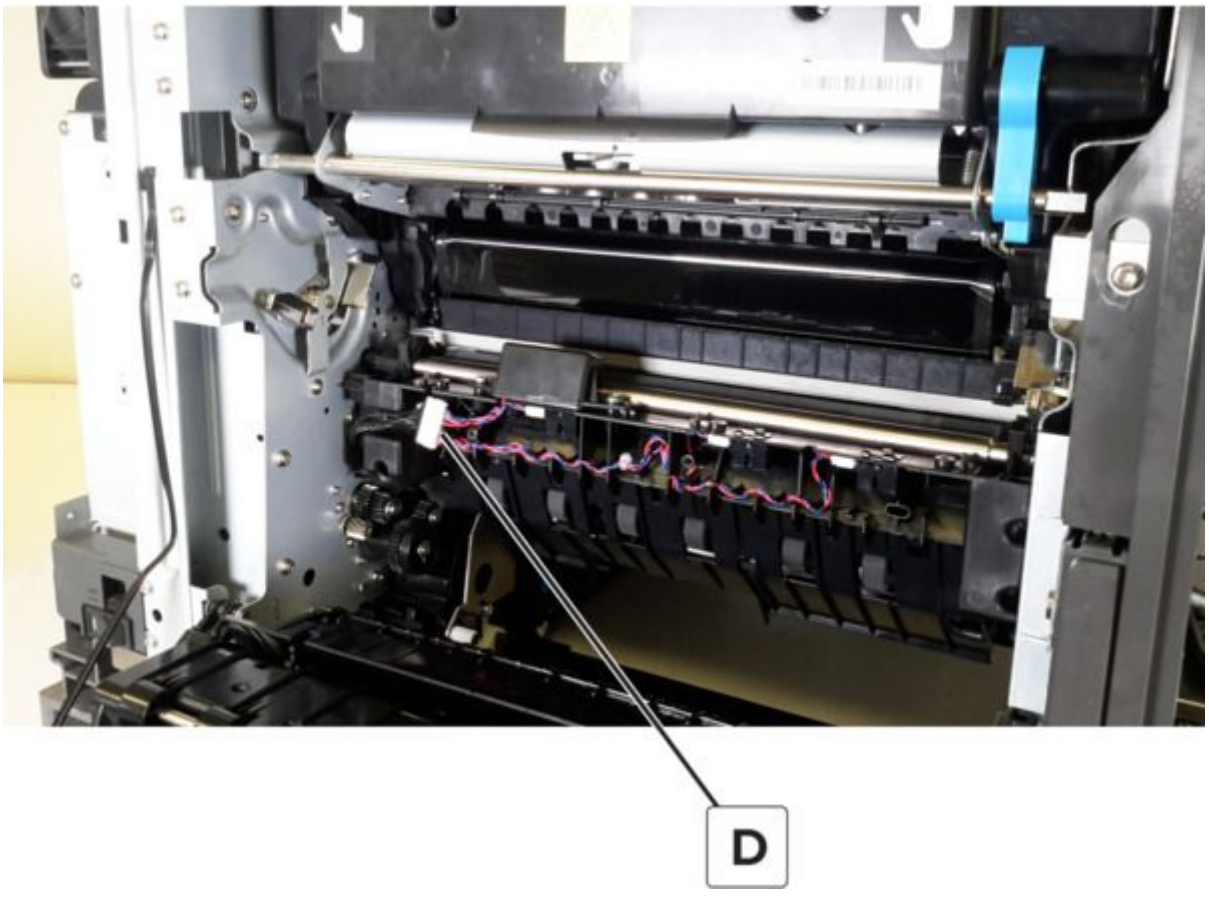
2. Open door A, and then remove the waste toner bottle.
3. Open door A1, and then remove the screw (B).



4. From the left, remove the two screws (C), and then remove the cover.



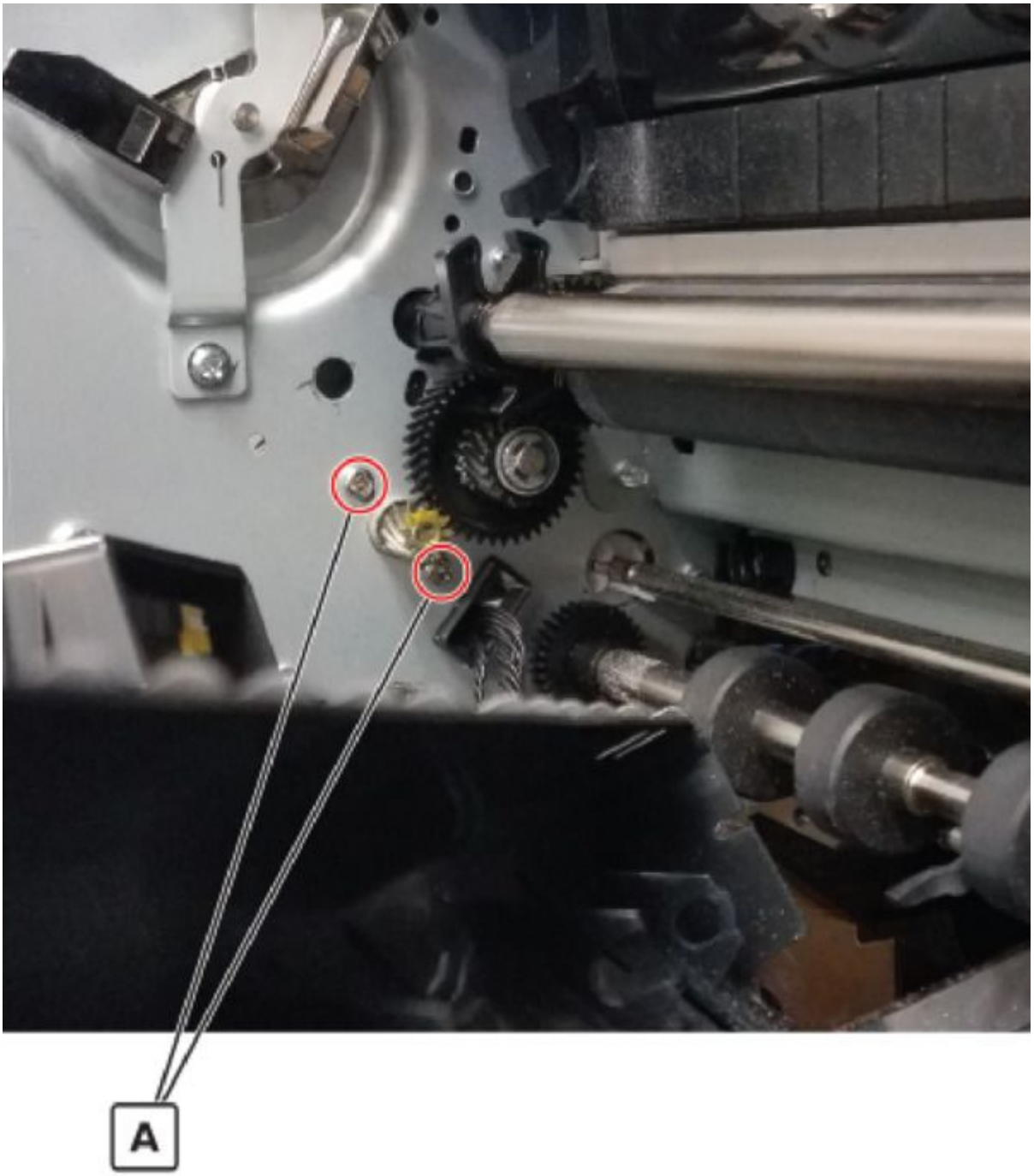
5. Disconnect the cable (D), and then remove the guide.



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 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See .Rear upper cover removal on page 695
4. Remove the left upper cover. See .Left upper cover removal on page 580
5. Remove the rear left cover. See .Rear left cover removal on page 693
6. Remove the LVPS. See LVPS removal on page 707.
7. Remove the LVPS cage. See .LVPS cage removal on page 710
8. Remove the deskew roller sensor guide. See Deskew roller sensor guide removal on page 588.
9. Remove the two screws (A) securing the motor to the machine.



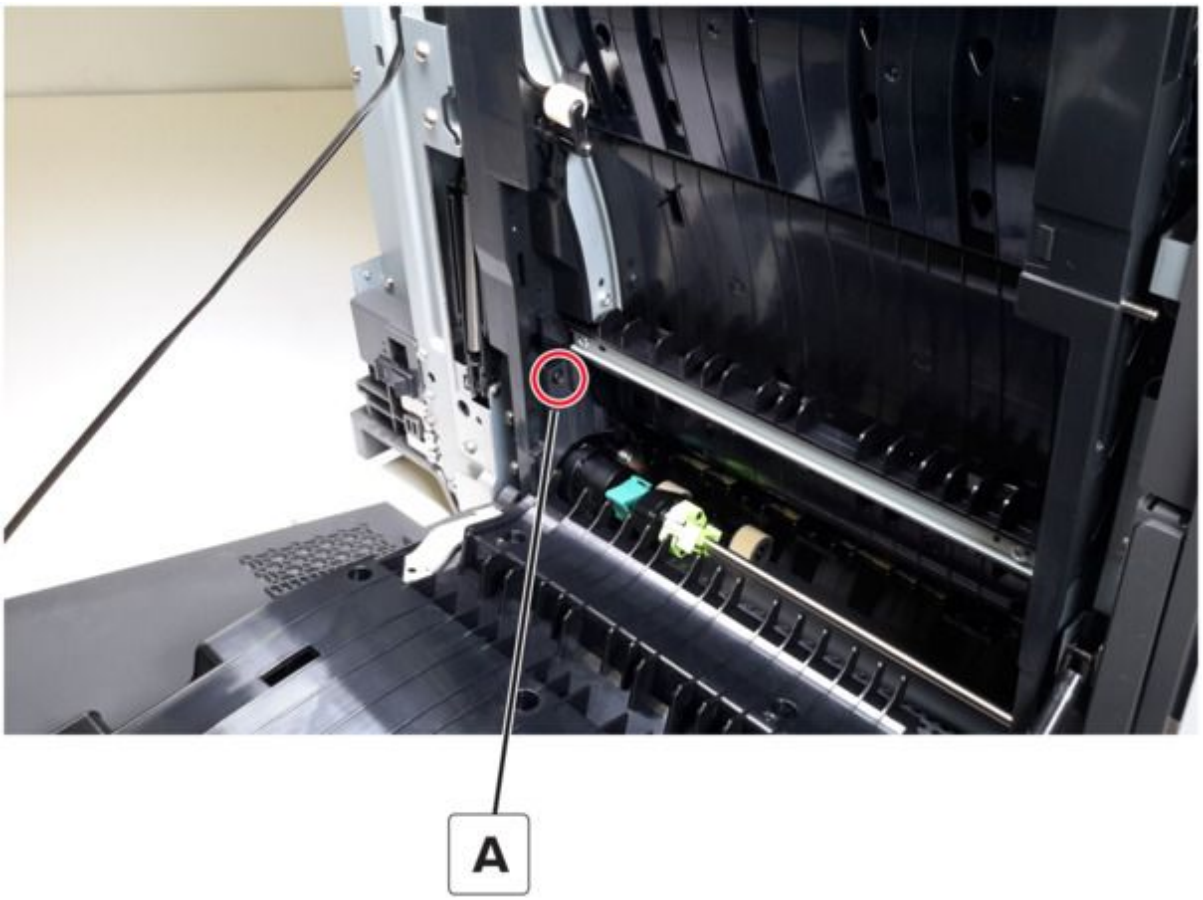
10. Remove the motor.
11. Cut the plastic wire tie, and then remove the motor cap.
12. Disconnect the connection.

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.

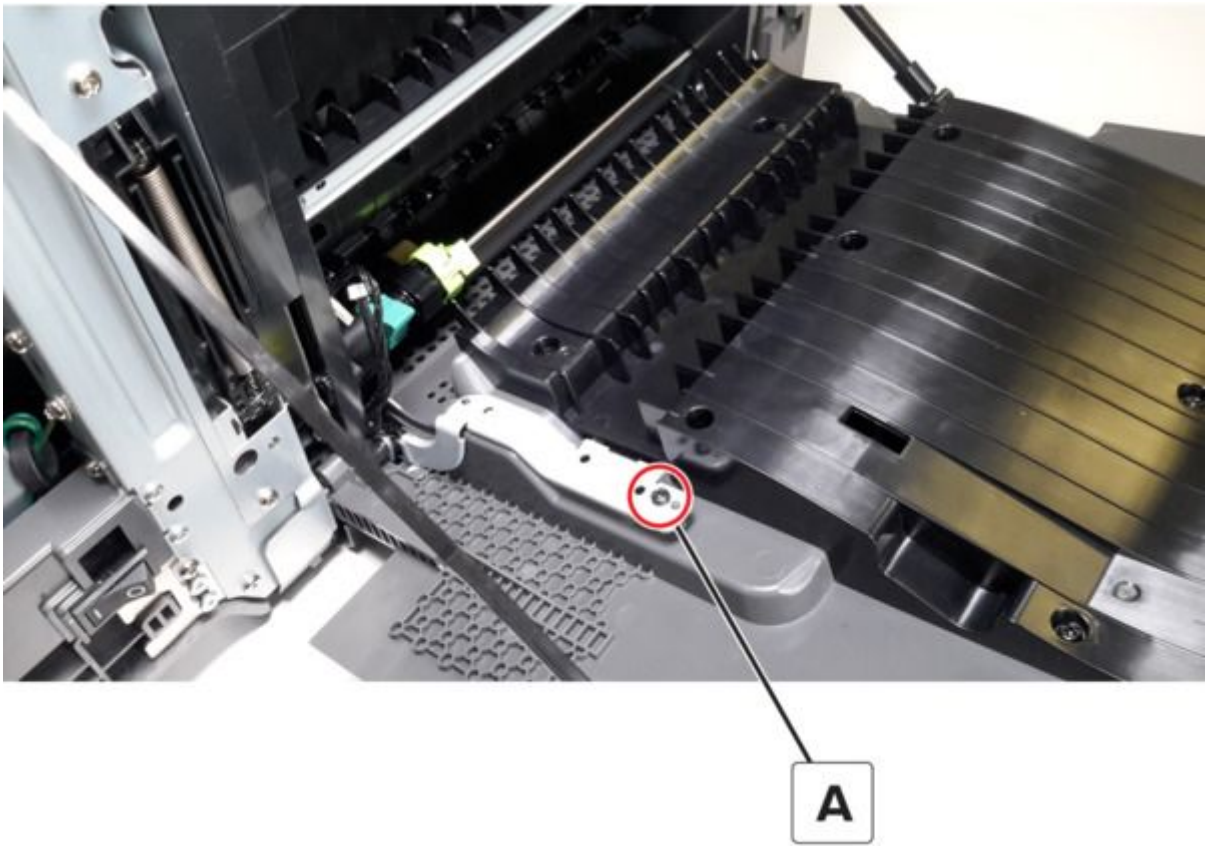
2. Remove the screw (A), and then remove the plastic connector cover.



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.



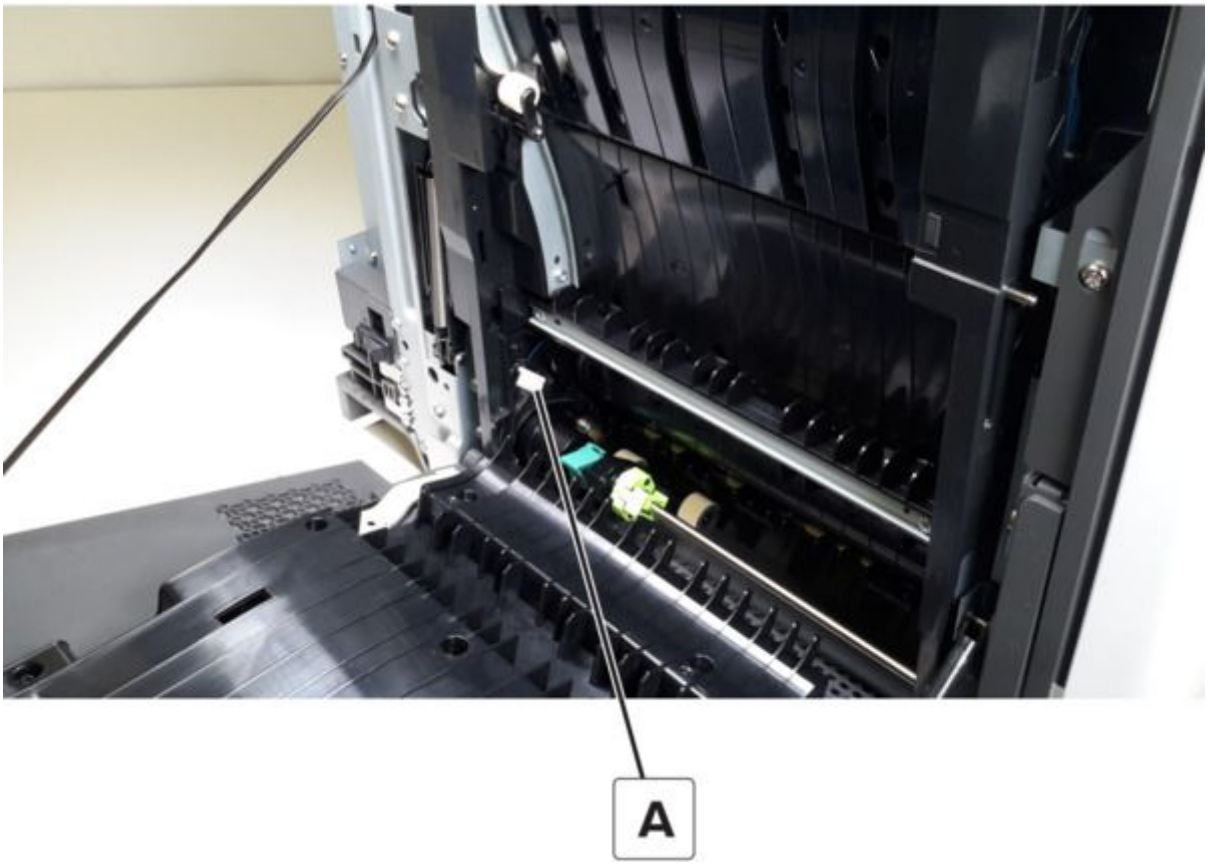
2. Remove the cover.

Left door, duplex, and MPF removal

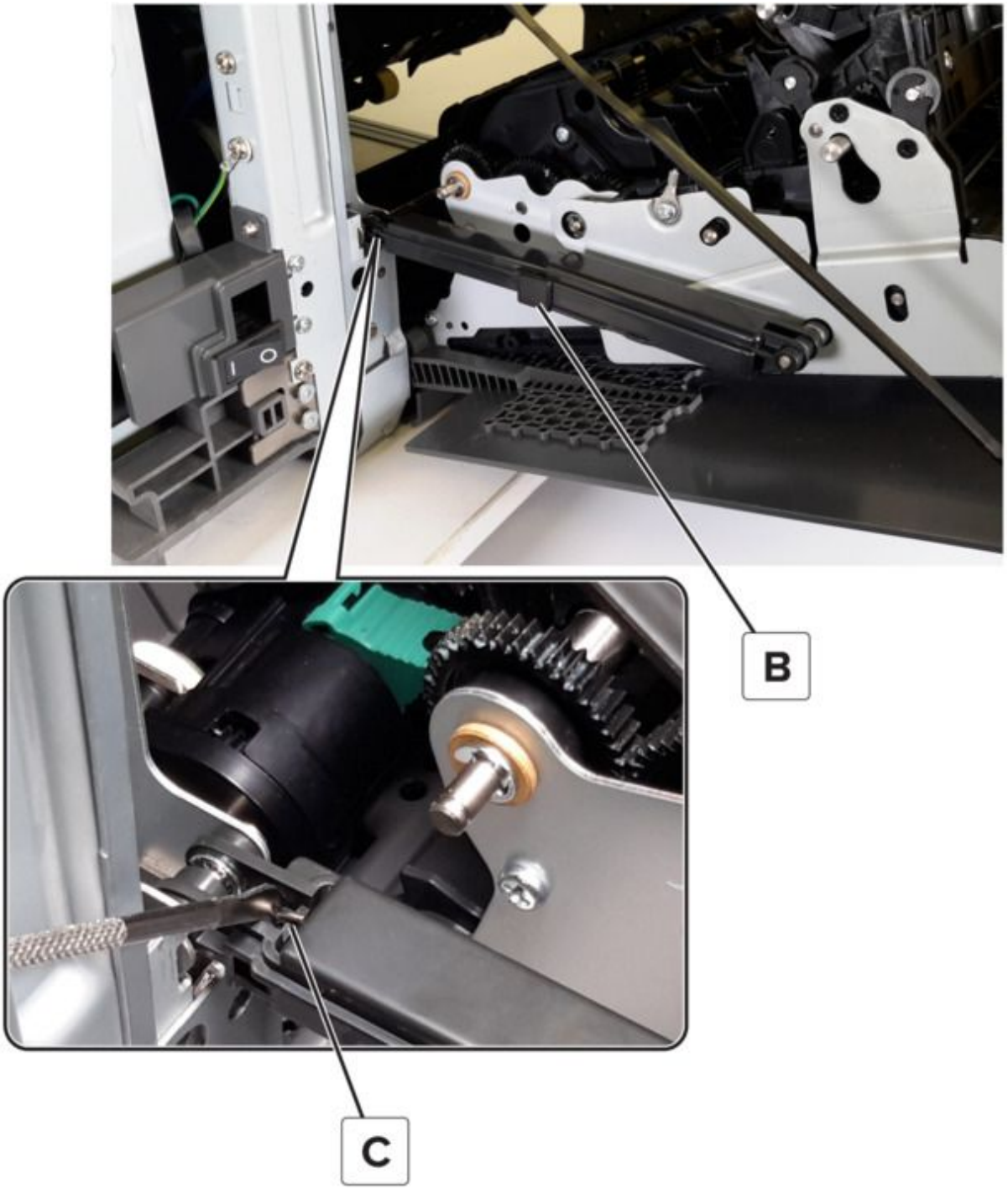
Note: For a video demonstration, see Left door removal, Duplex removal and MPF tray removal.

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.

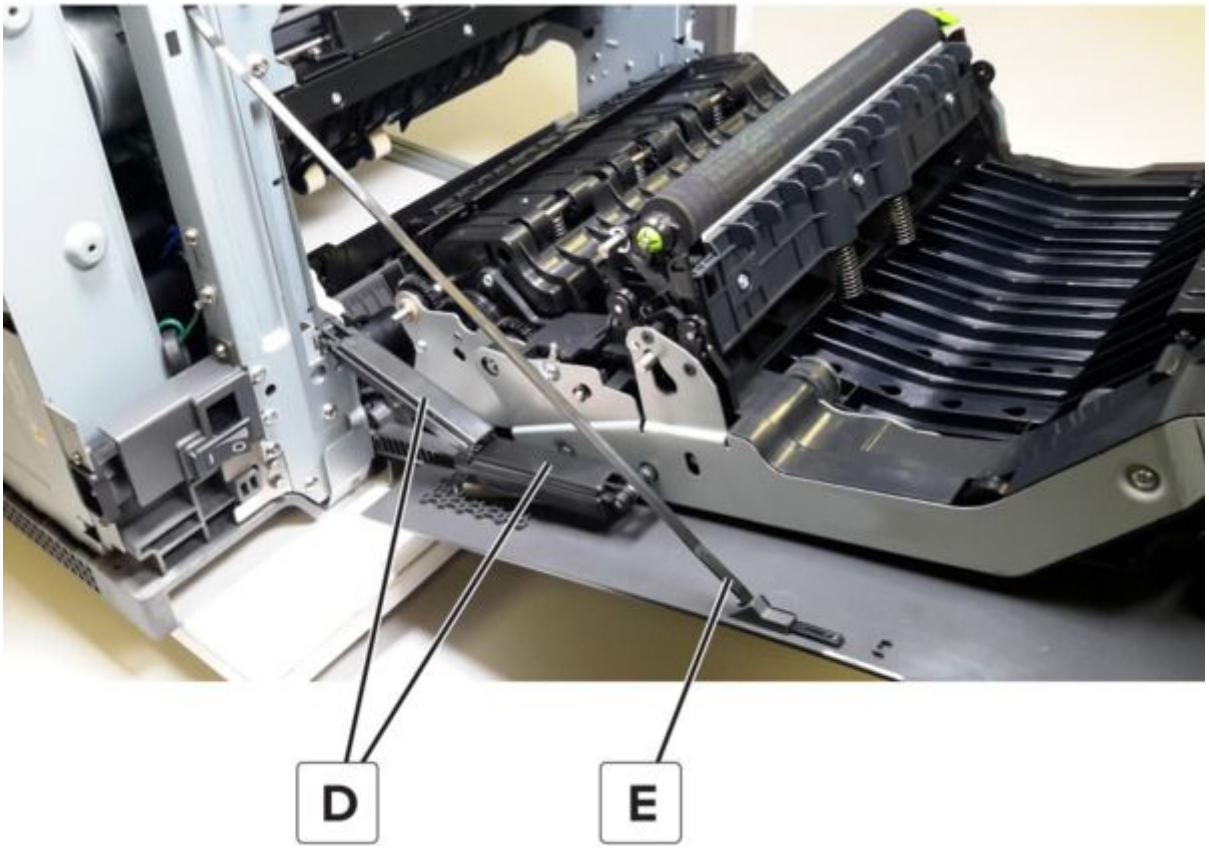
1. Remove the plastic connector cover. See Plastic connector cover removal on page 592.
2. Remove the door rod cover. See Door rod cover removal on page 661.
3. Disconnect the cable (A).



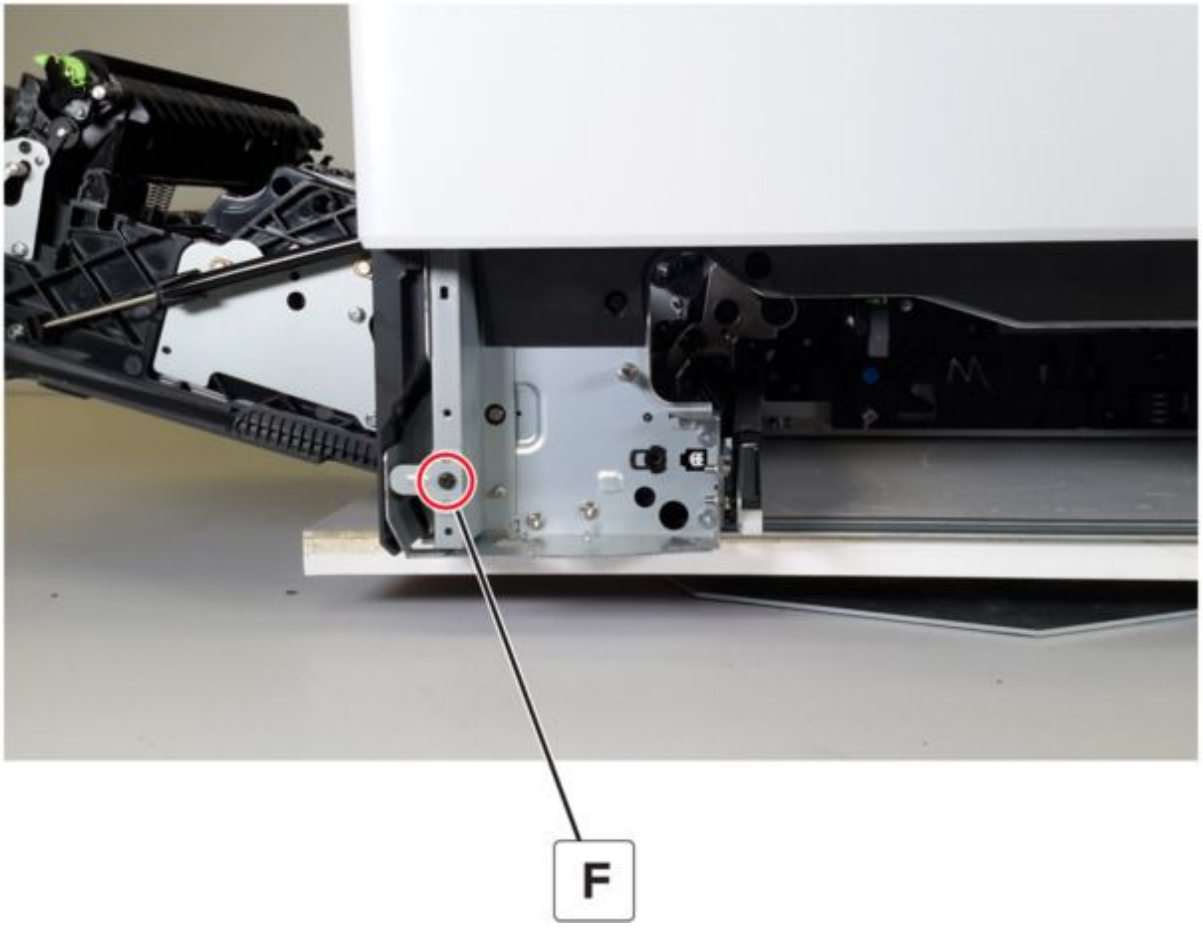
4. Remove the retainer (B).
5. Using a spring hook, disconnect the spring (C) from the door damper.



6. Separate the two damper parts (D), and then disconnect the support strap (E).

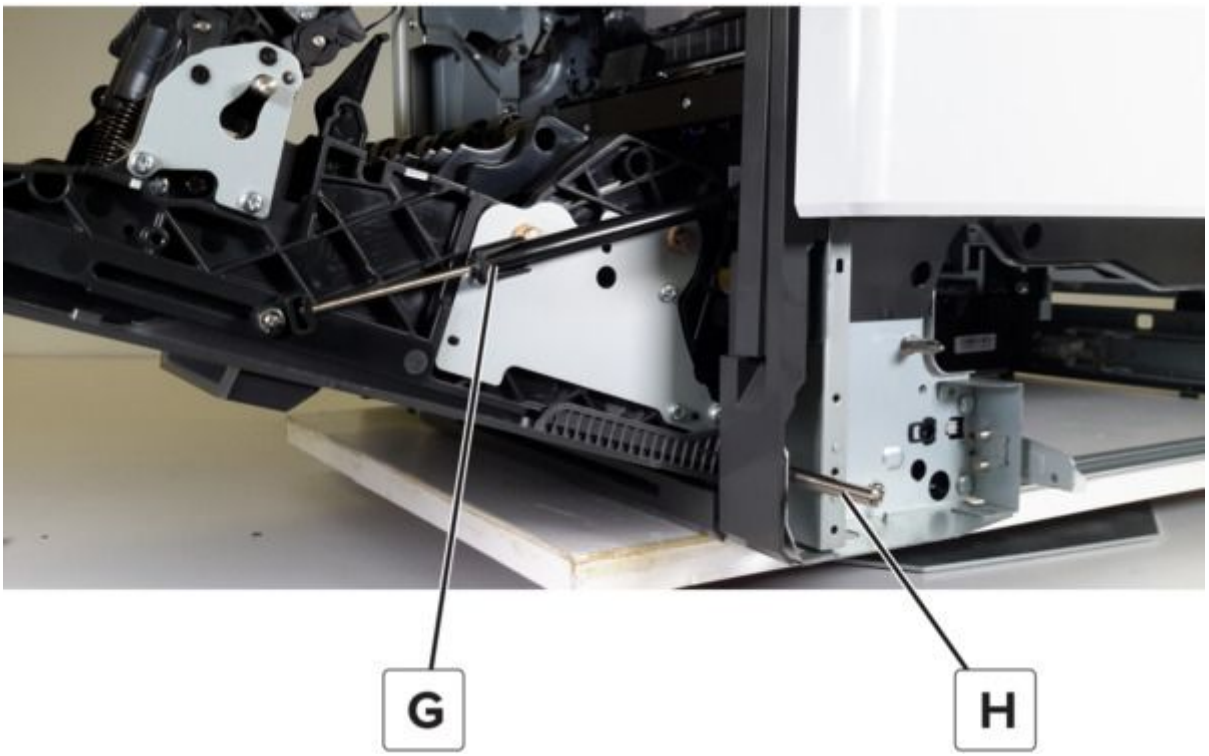


7. Remove the screw (F), and then remove the retainer plate.

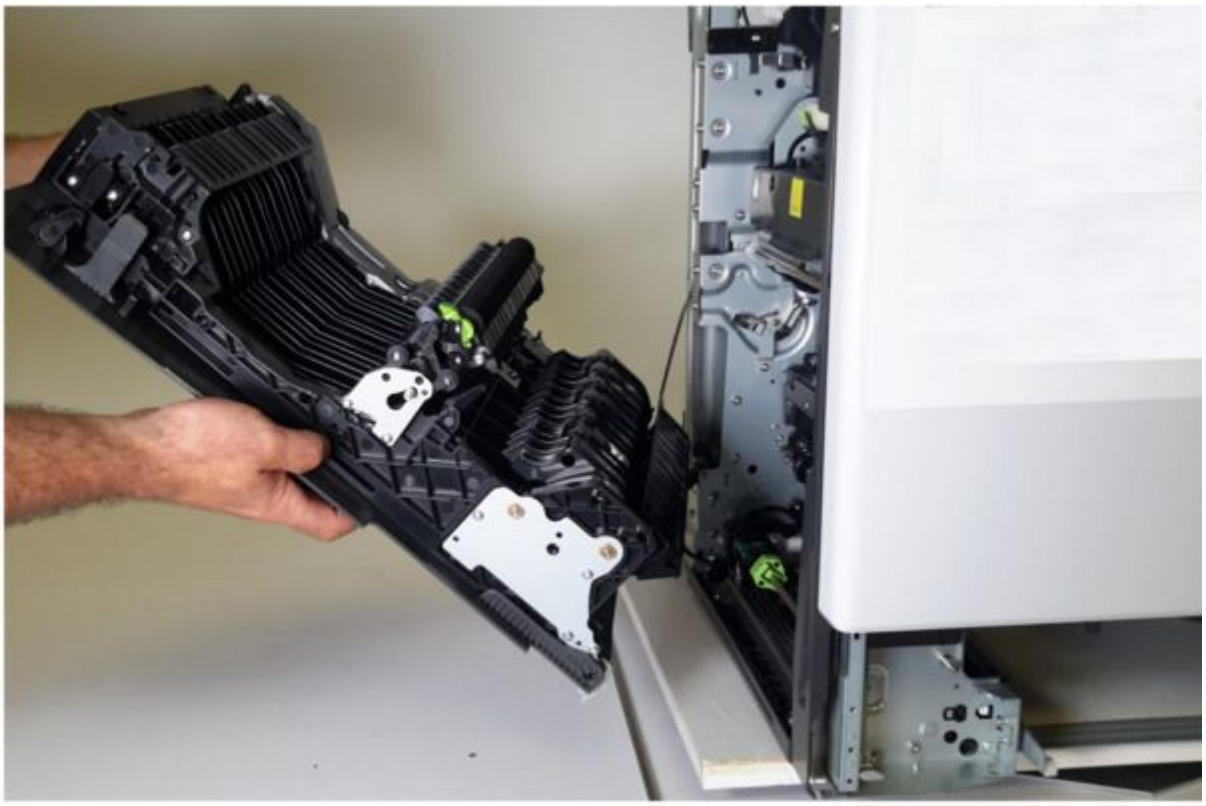


8. Release the retainer (G), and then disconnect the door support.
9. Pull out, and then remove the door rod (H).

> **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.

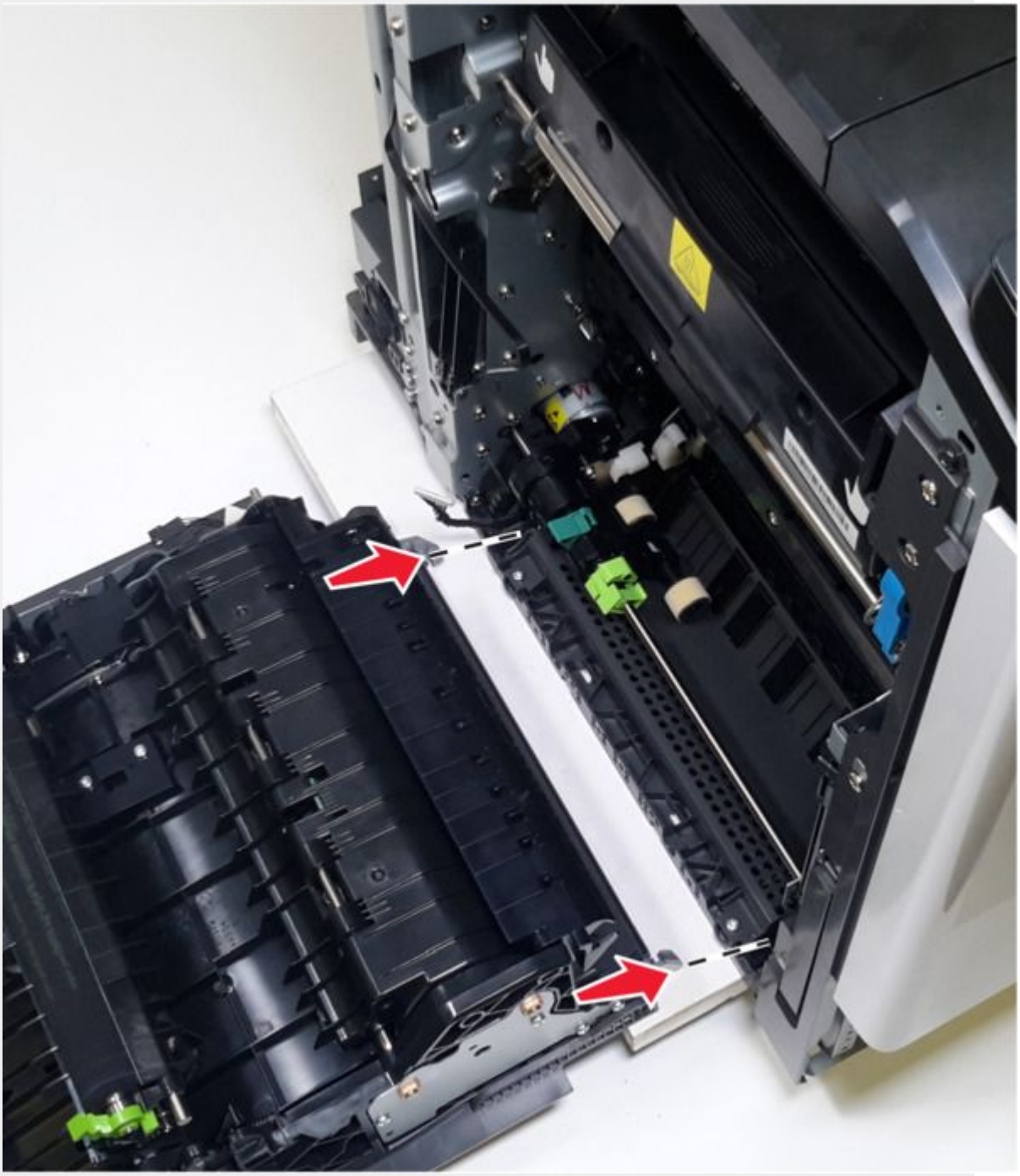


10. Remove the left door, duplex, and MPF.

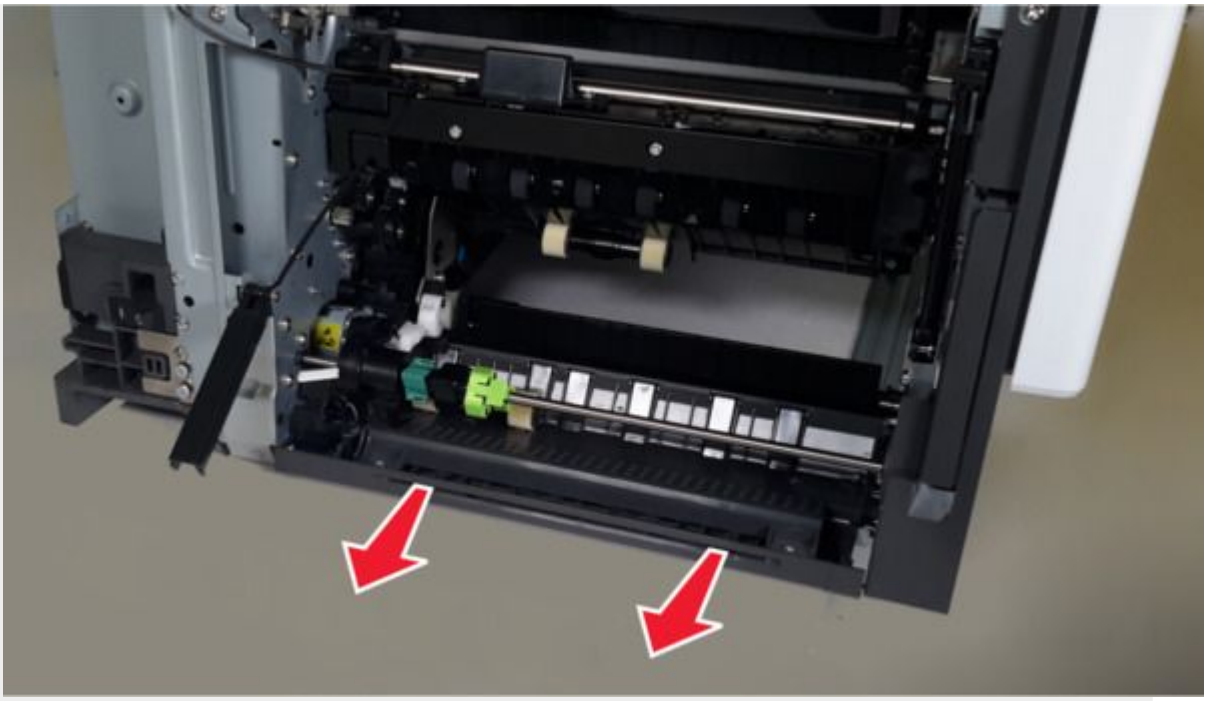


Installation Note

1. Make sure that the door actuators are properly engaged with their slots.

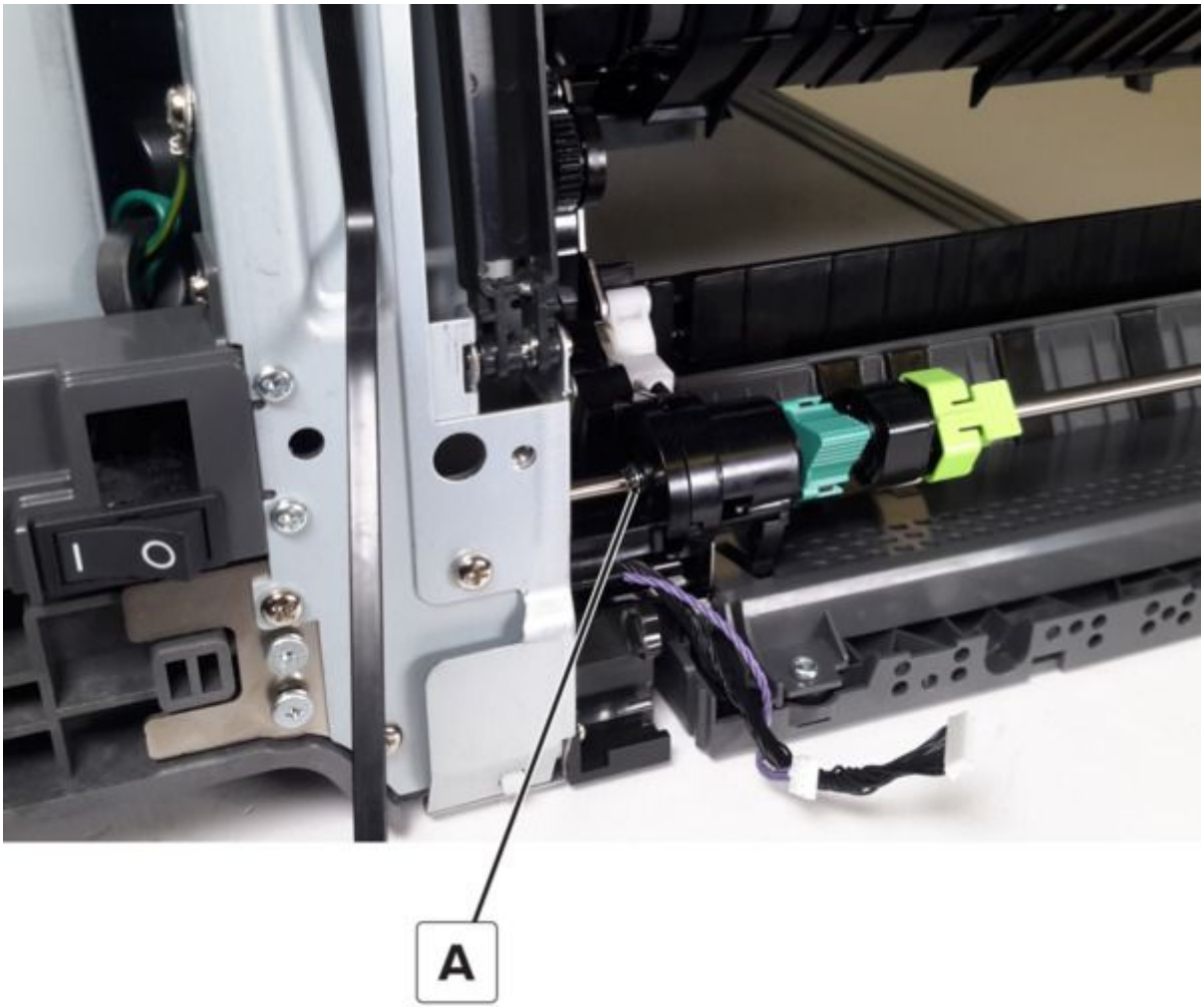


2. For easier installation of the door, remove the left lower cover first.

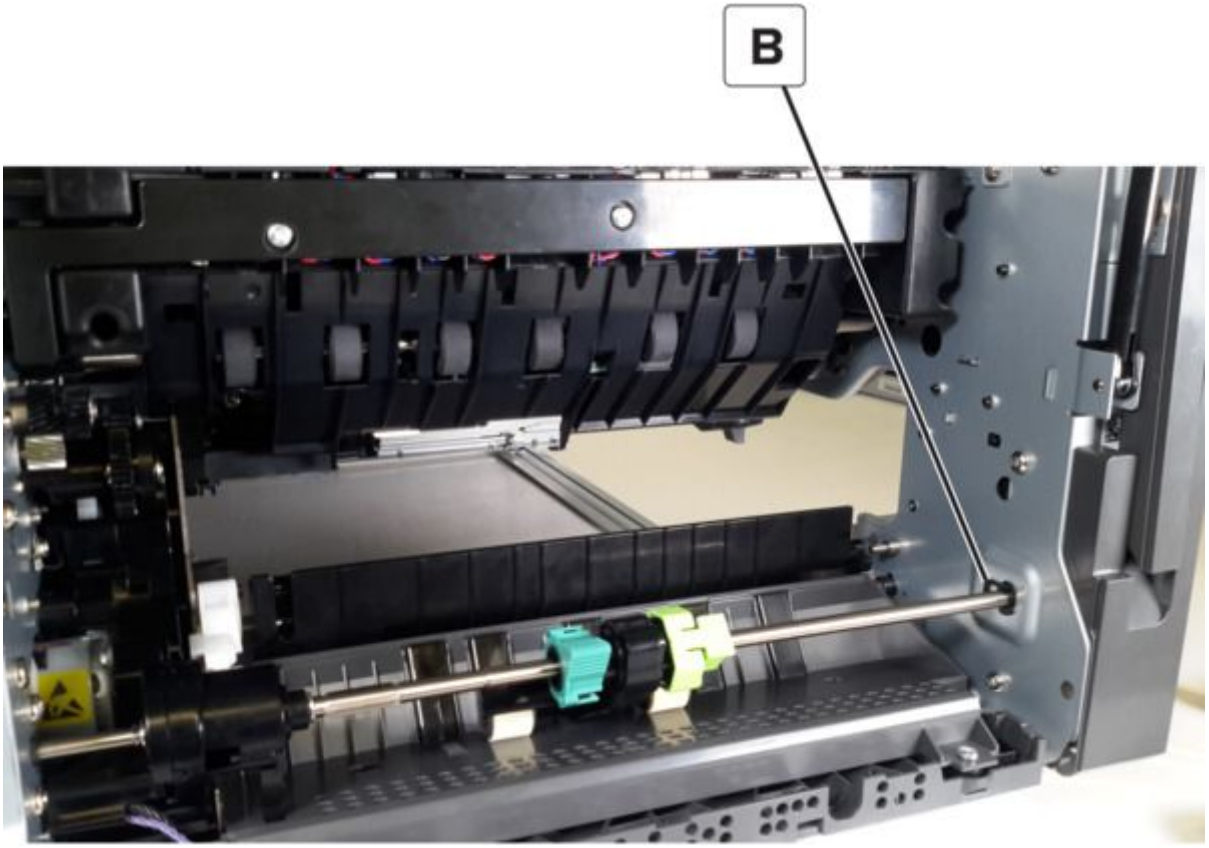


MPF pick roller removal

1. Remove the left door, duplex, and MPF. See Left door, duplex, and MPF removal on page 594.
2. Release the E-clip (A), and then slide the pick roller to the center of the shaft.



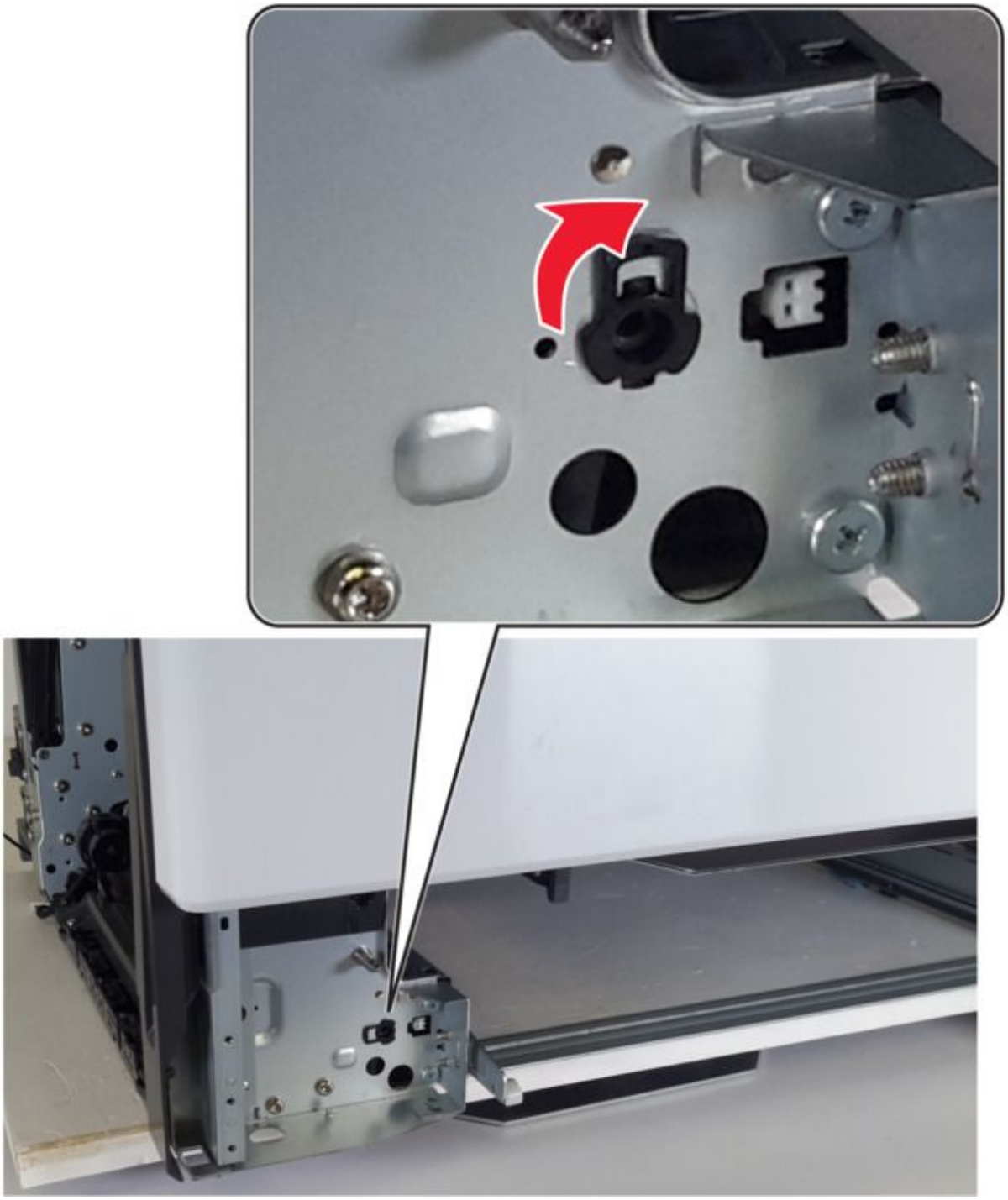
3. Rotate the retainer (B) clockwise by a quarter turn, and then remove.



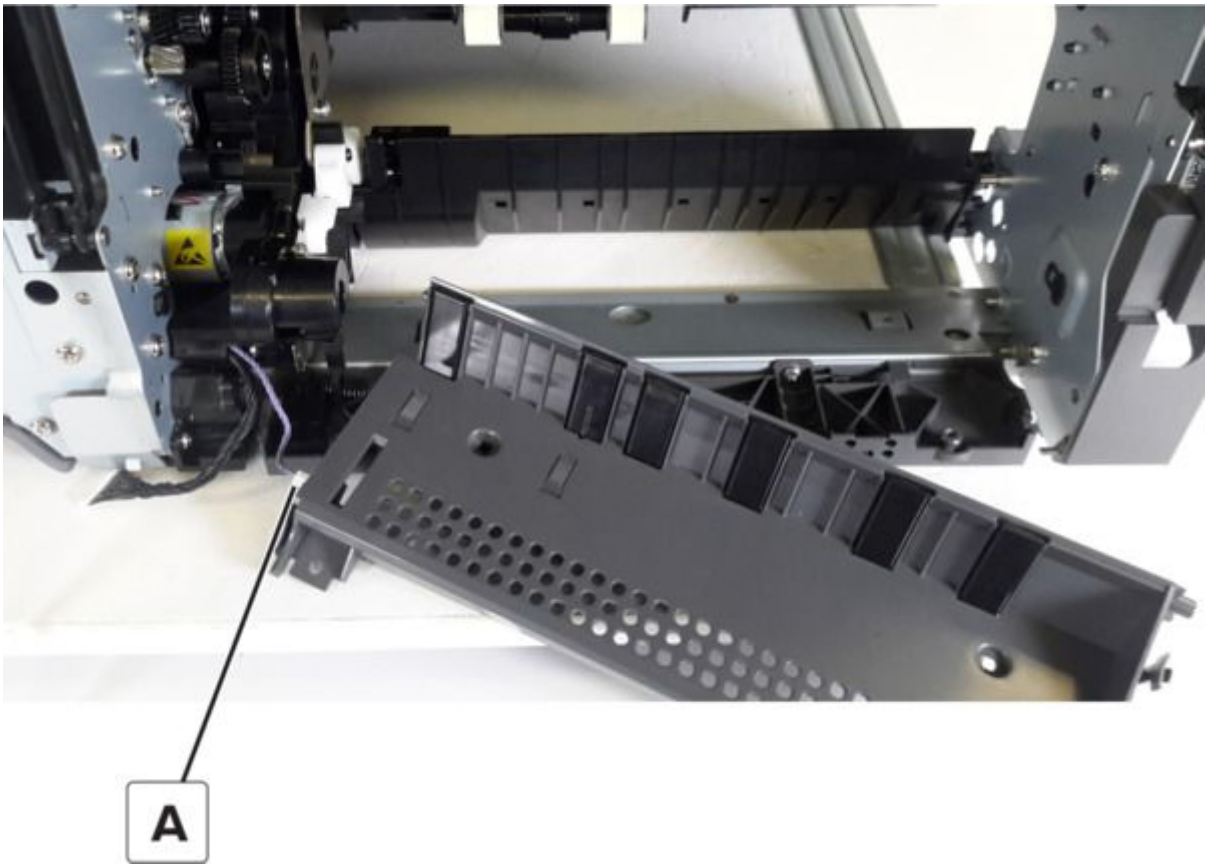
4. Slide the shaft out of the printer, and then remove the pick roller.

MPF pick guide removal

1. Remove the left door, duplex, and MPF. See Left door, duplex, and MPF removal on page 594.
2. Remove the MPF pick roller. See MPF pick roller removal on page 601.
3. From the front, carefully rotate the retainer by a quarter turn to release, and then remove using a pliers.



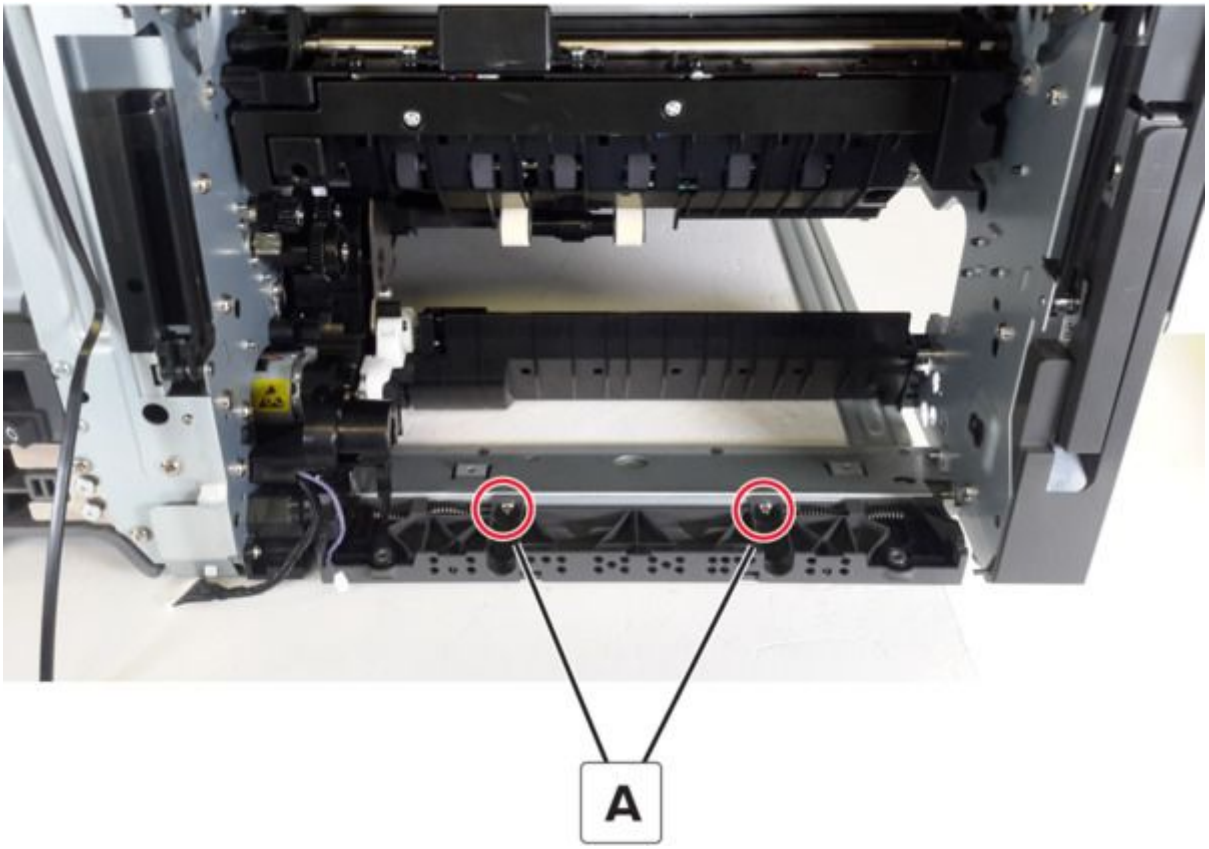
4. Pull the pick guide, and then disconnect the cable (A).



5. Remove the pick guide.

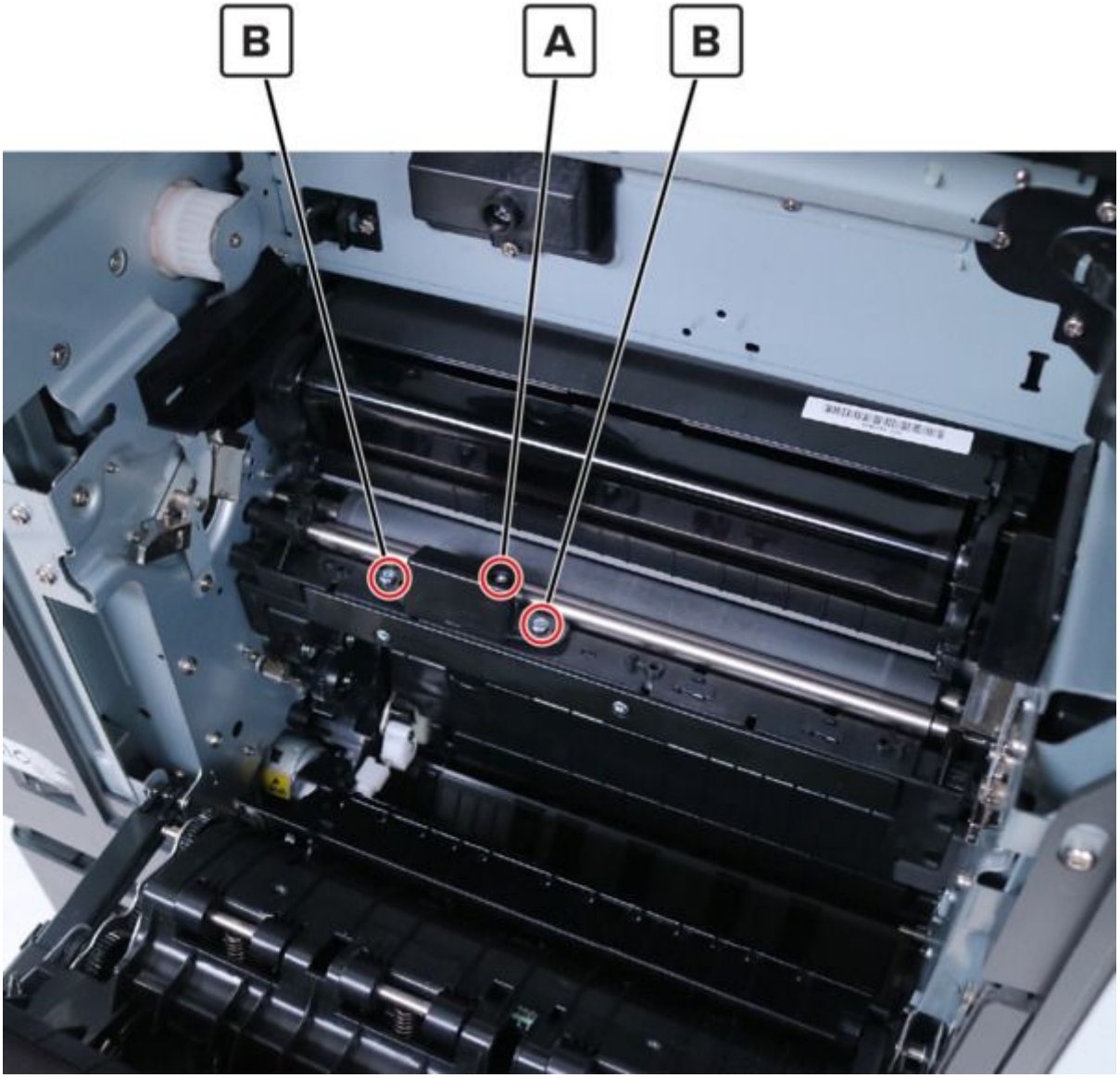
MPF tray stop removal

1. Remove the left door, duplex, and MPF. See Left door, duplex, and MPF removal on page 594.
2. Remove the MPF pick roller. See MPF pick roller removal on page 601.
3. Remove the MPF pick guide. See MPF pick guide removal on page 603.
4. Remove the two screws (A), and then remove the tray stop.

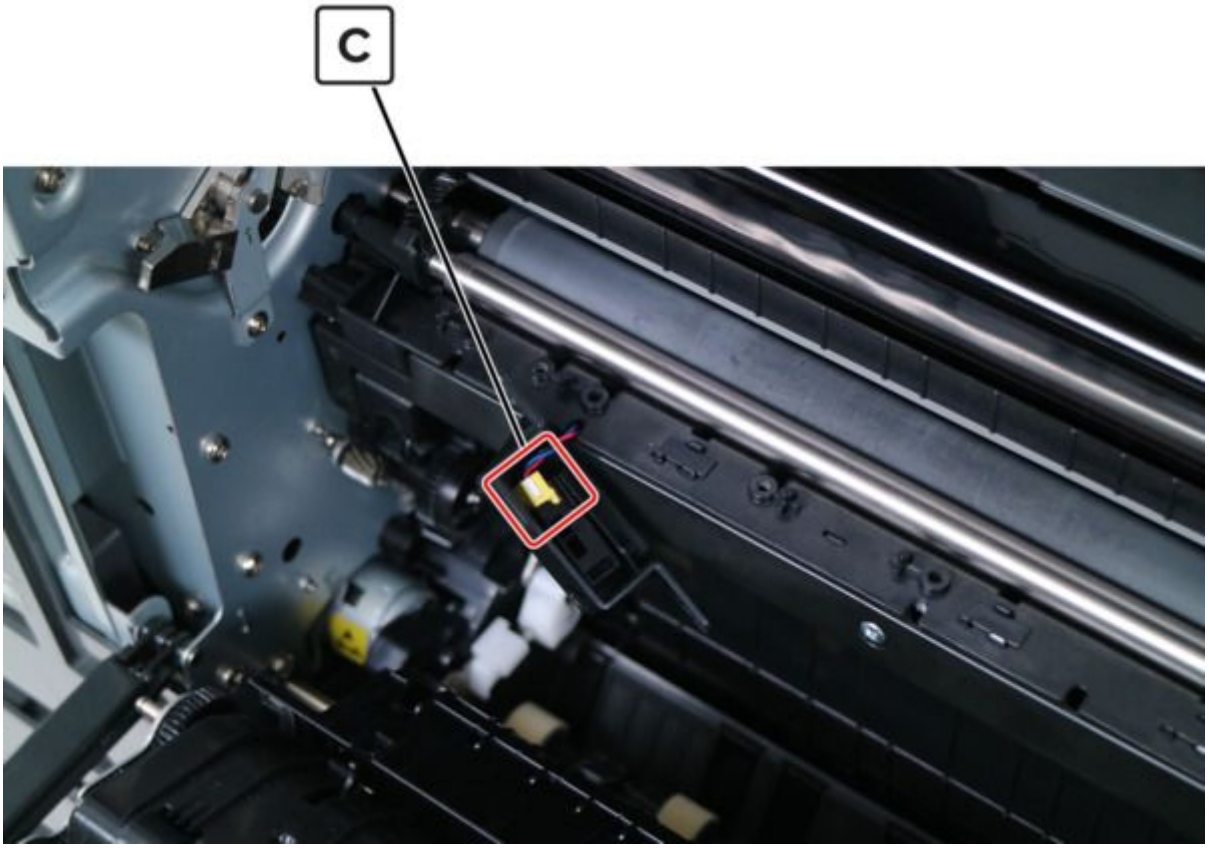


Sensor (deskew roller exit) removal

1. Remove the fuser. See Fuser removal on page 581.
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.



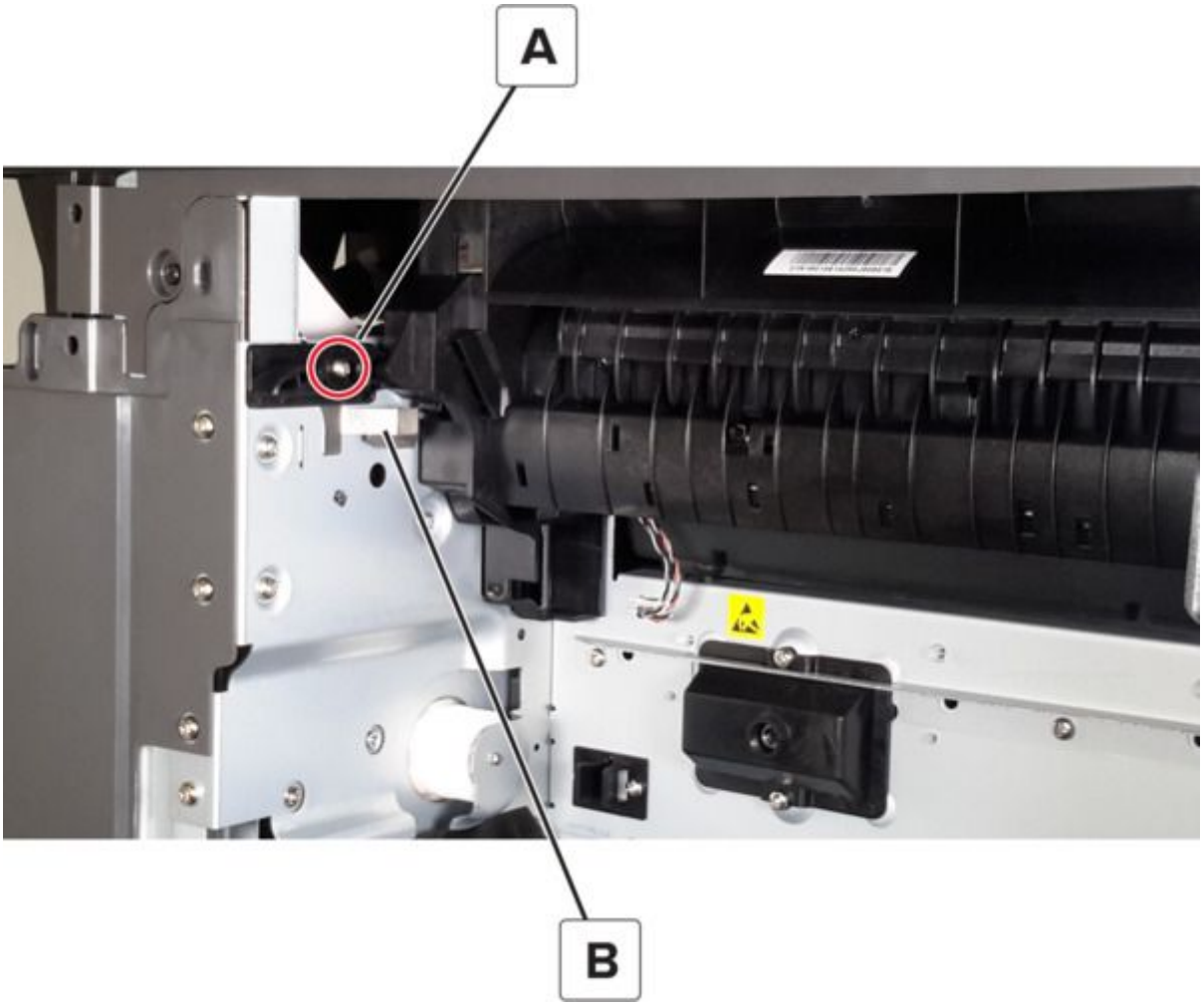
Redrive removal

> **Note:** For a video demonstration, see Redrive removal.

1. Remove the fuser. See Fuser removal on page 581.
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).

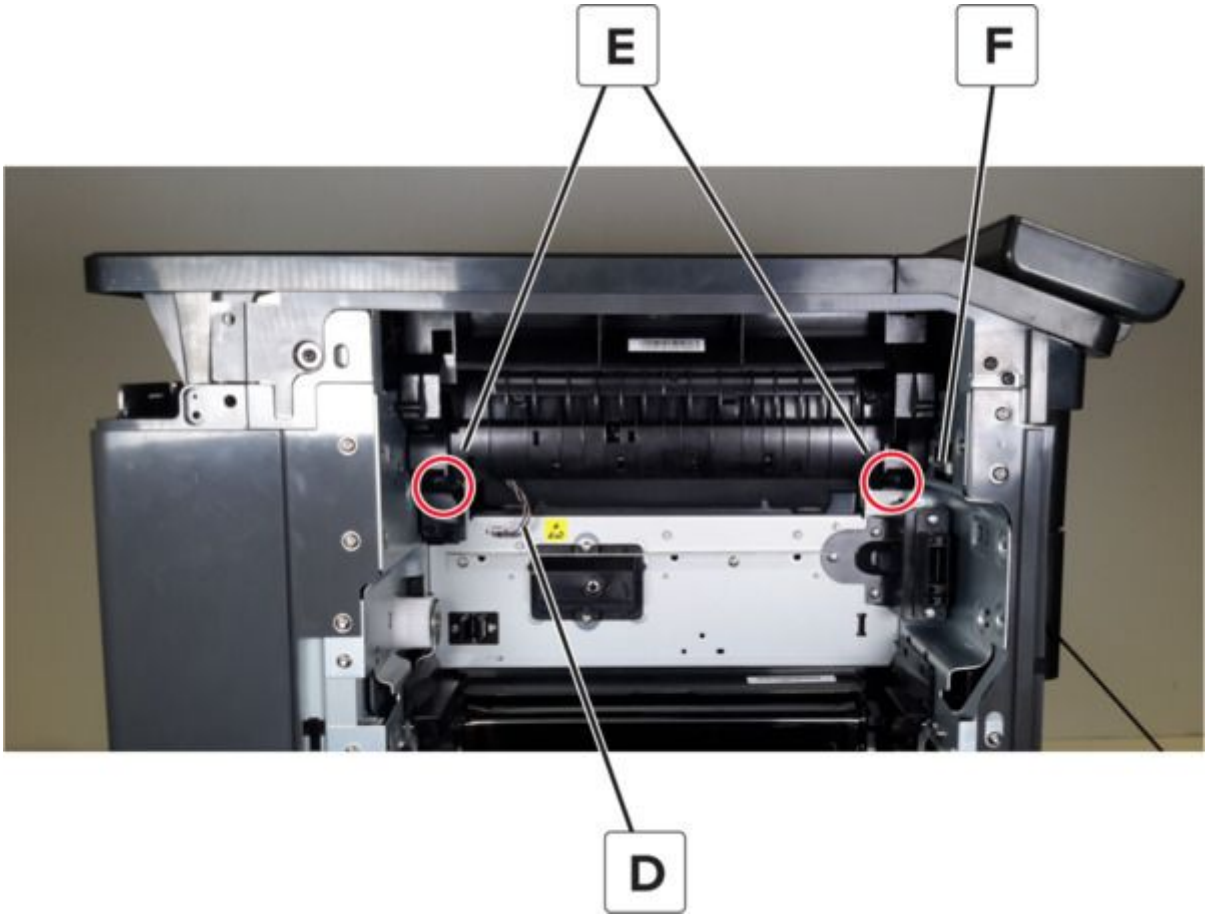


4. Remove the screw (C), and then remove the front fuser guide.

5. Disconnect the cable (D), remove the two screws (E), and then remove the redrive.

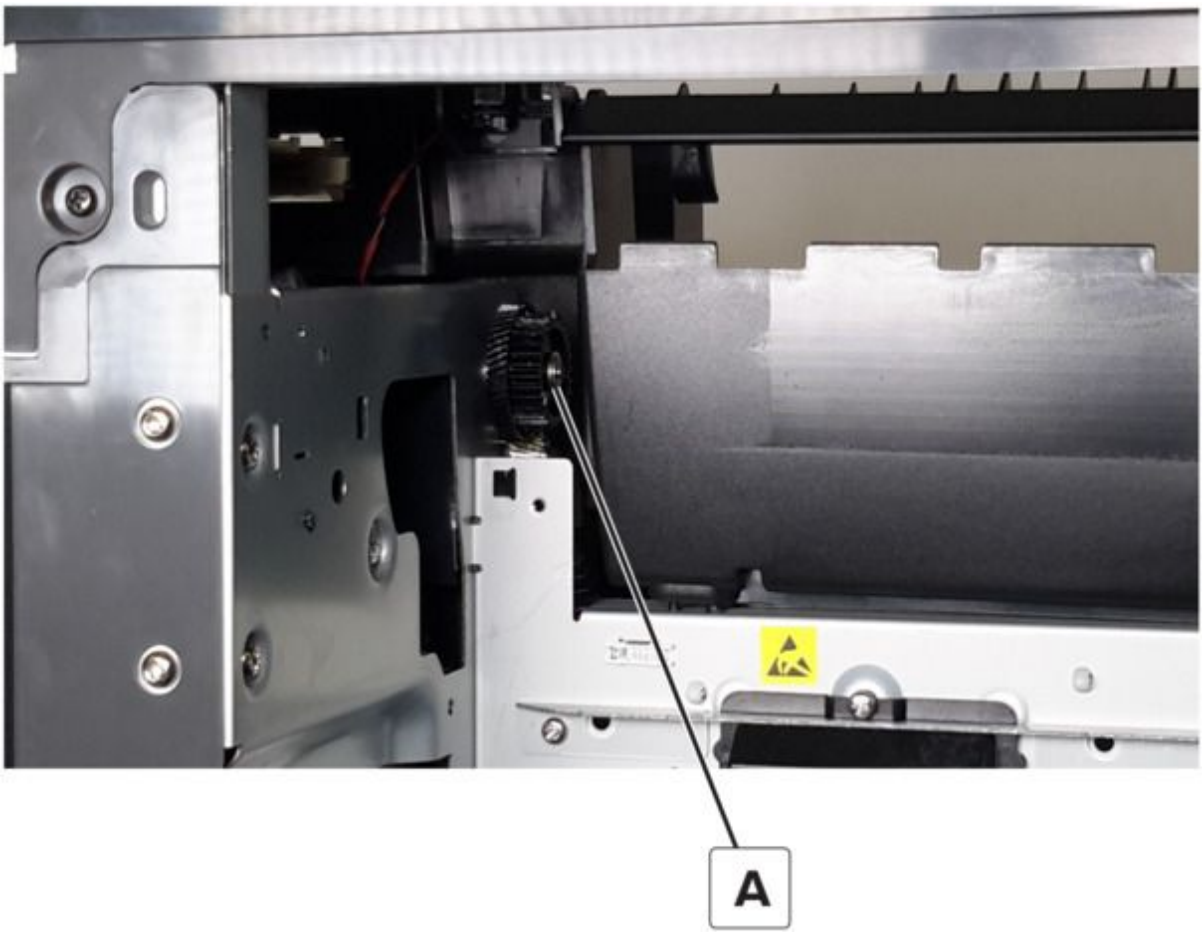
Warning—Potential Damage
The redrive may get damaged during removal if door A is closed.

Warning—Potential Damage
Be careful not to damage or change the position of the coil spring (F).



Redrive gear removal

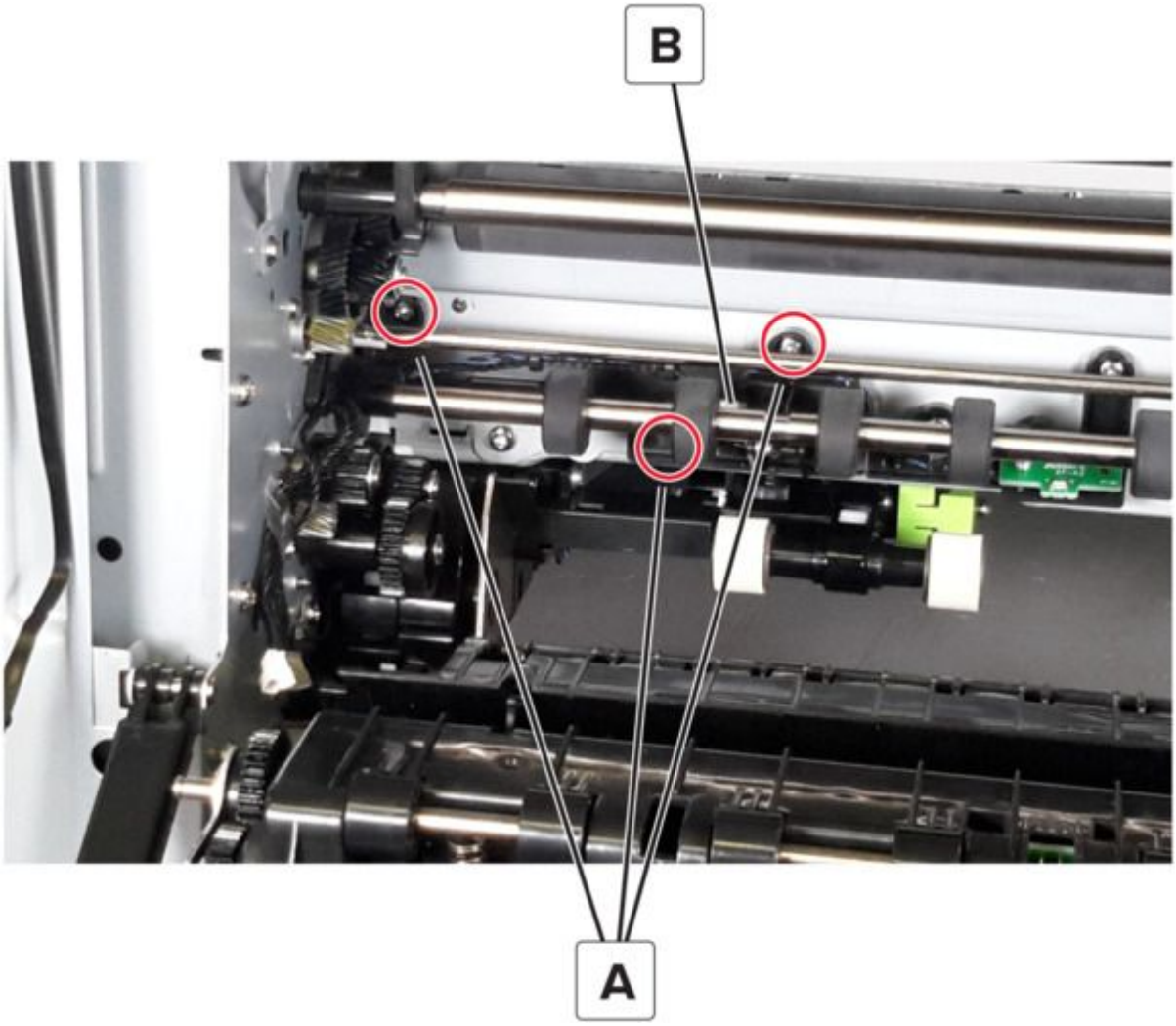
1. Remove the fuser. See Fuser removal on page 581.
2. Remove the redrive. See Redrive removal on page 608.
3. Remove the E-clip (A), and then remove the gear.



Sensor (input) removal

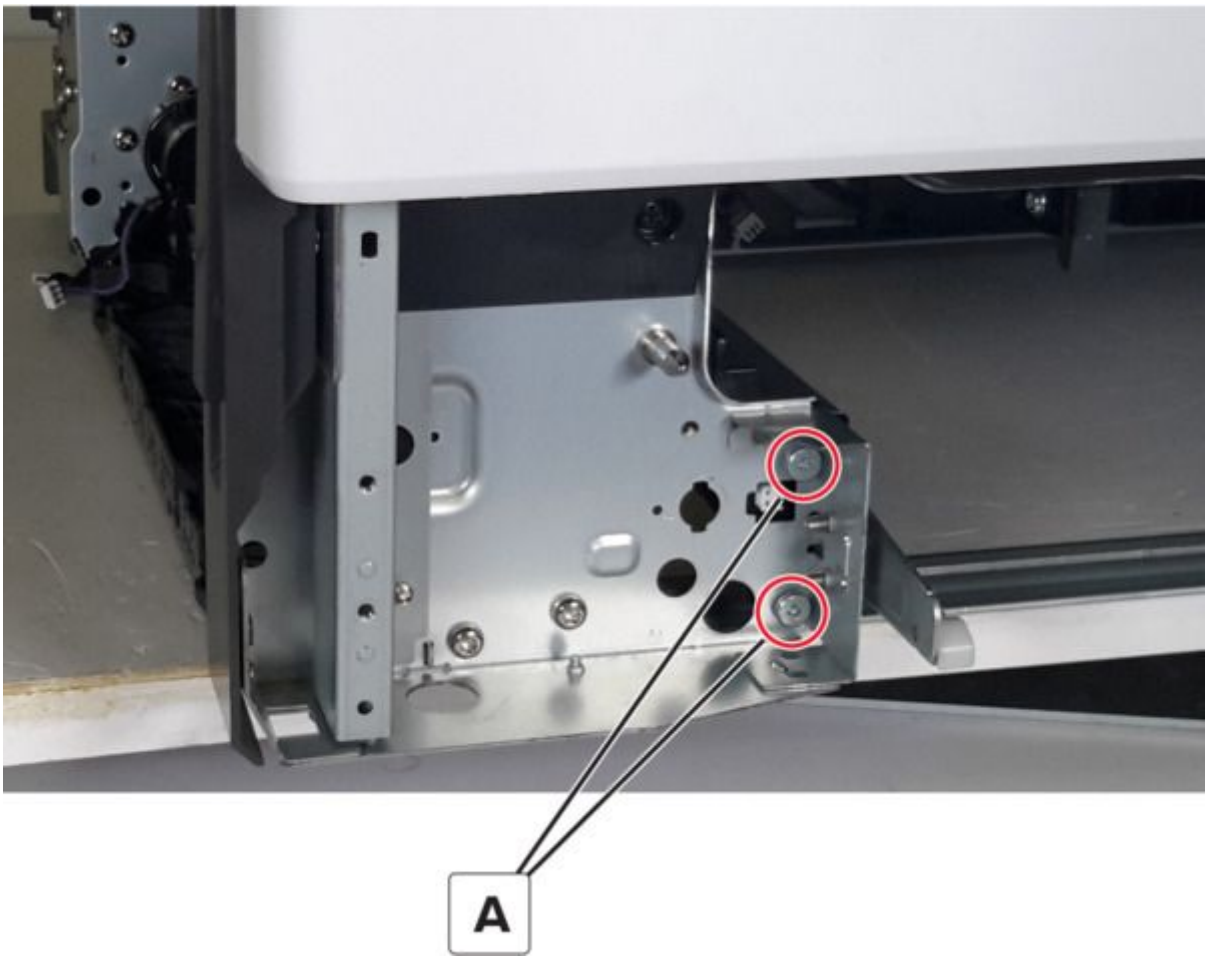
> **Note:** For a video demonstration, see Sensor (input) removal.

1. Remove the deskew roller sensor guide. See Deskew roller sensor guide removal on page 588.
2. Gently flex the shaft, and then remove the three screws (A).
3. Pull the sensor, disconnect its cable (B), and then remove it.

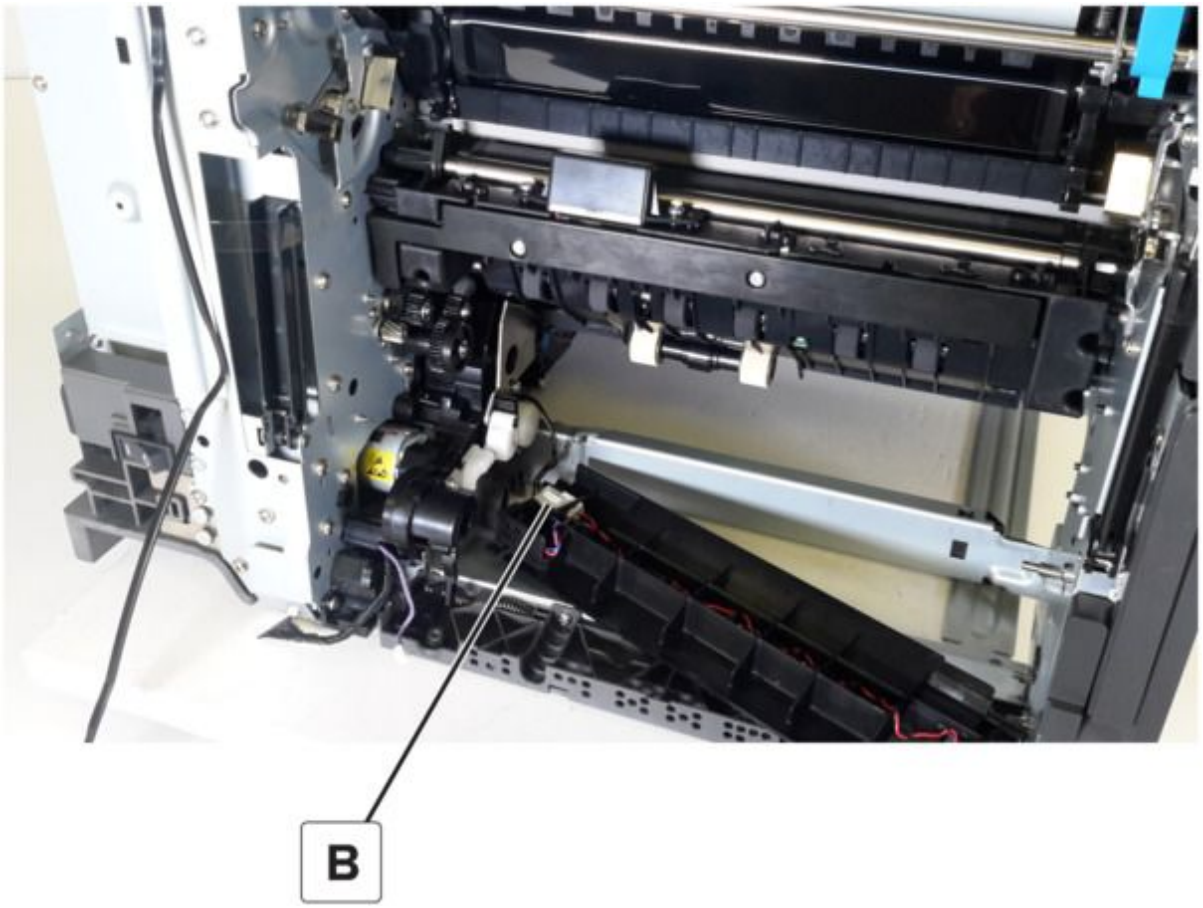


Sensor (MPF/pass-through) with deflector removal

1. Remove the left door, duplex, and MPF. See Left door, duplex, and MPF removal on page 594.
2. Remove the MPF pick roller. See MPF pick roller removal on page 601.
3. Remove the MPF pick guide. See MPF pick guide removal on page 603.
4. Remove the MPF tray stop. See MPF tray stop removal on page 605.
5. From the front, remove the two screws (A).



6. Release the guide, disconnect its cable (B), and then remove it.

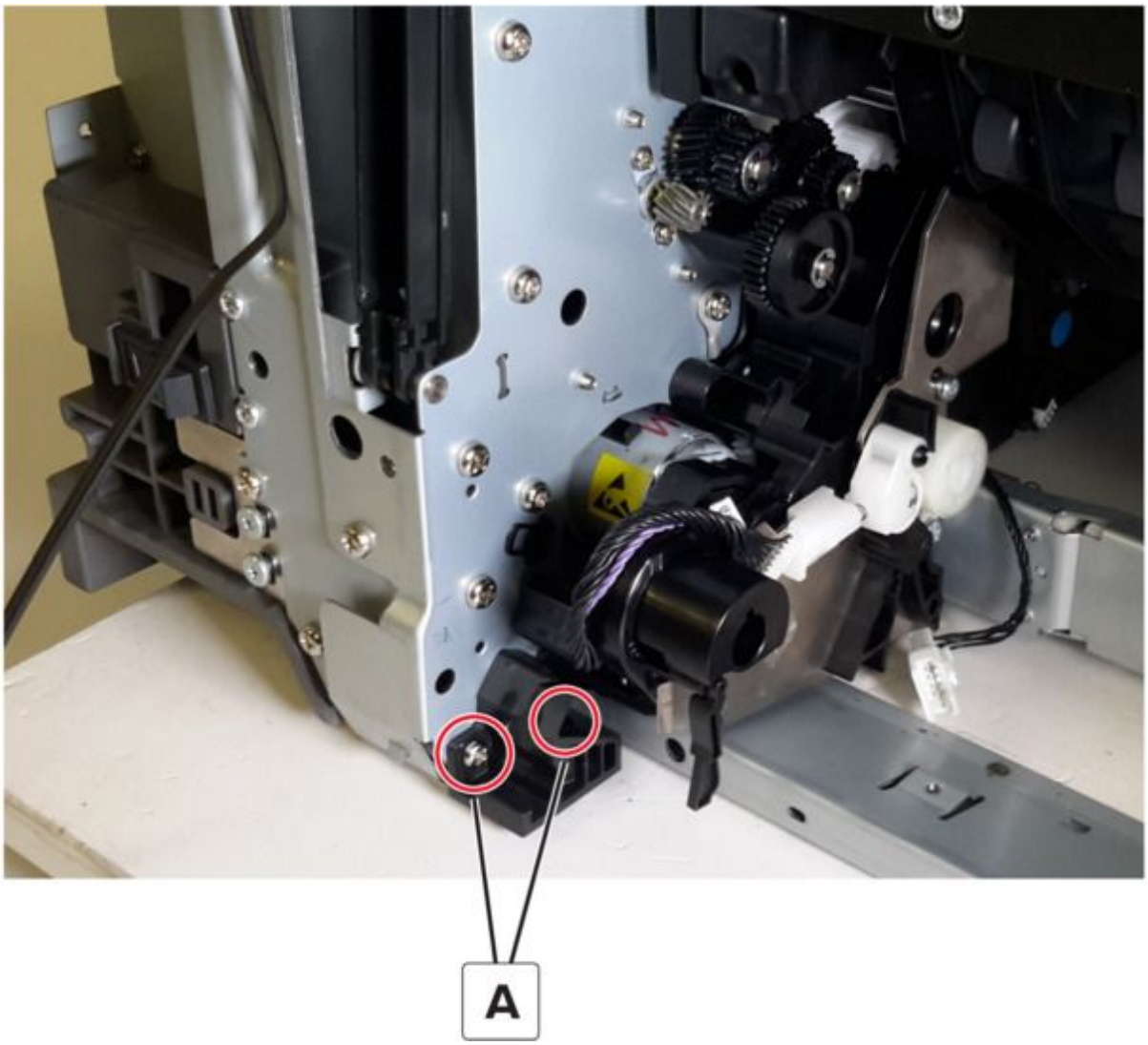


Installation Warning
To avoid pinch or damage to the sensor (MPF/pass-through) cable, make sure to route the cable away from the moving rollers.

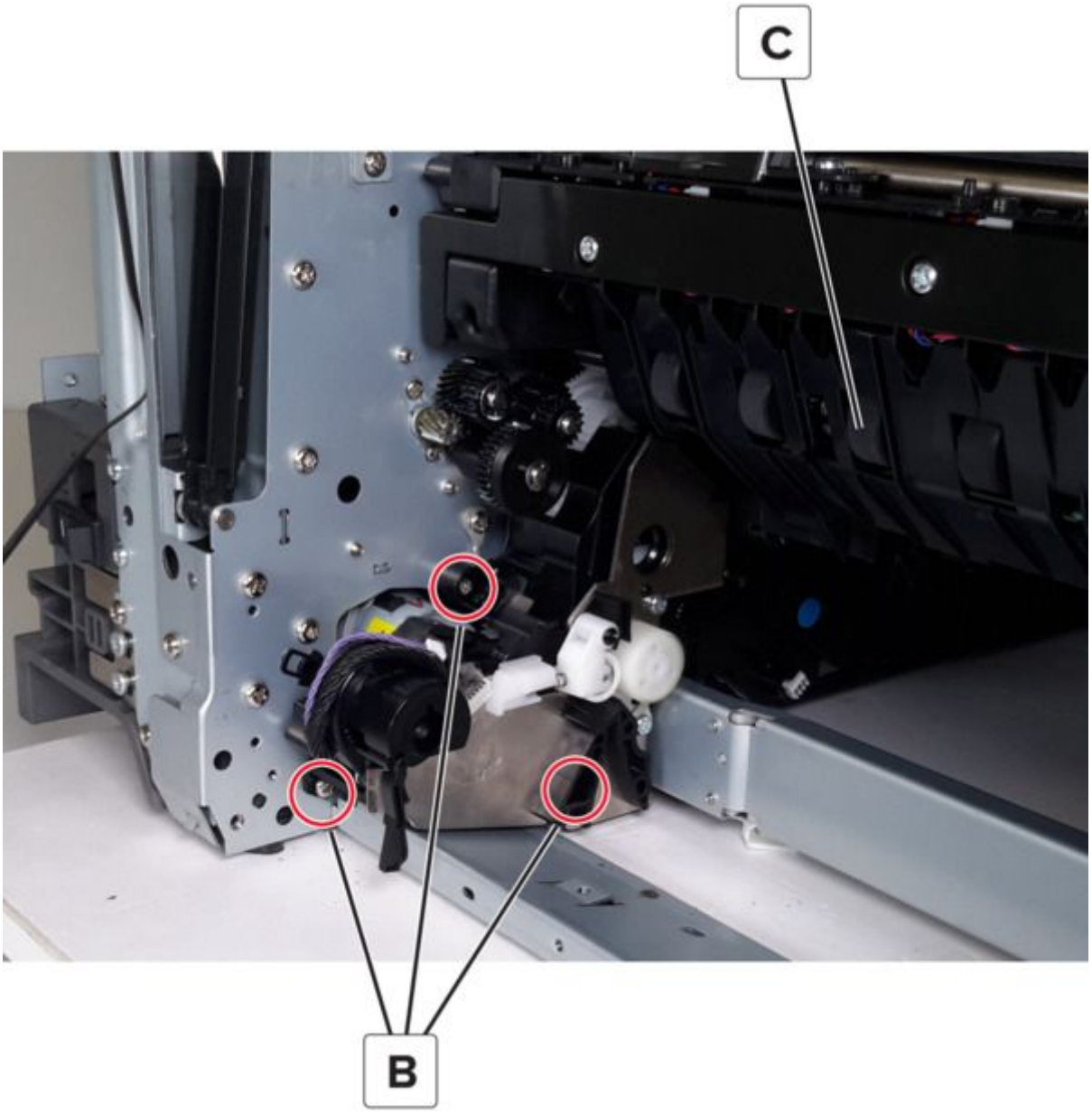
Reference edge motor gearbox removal

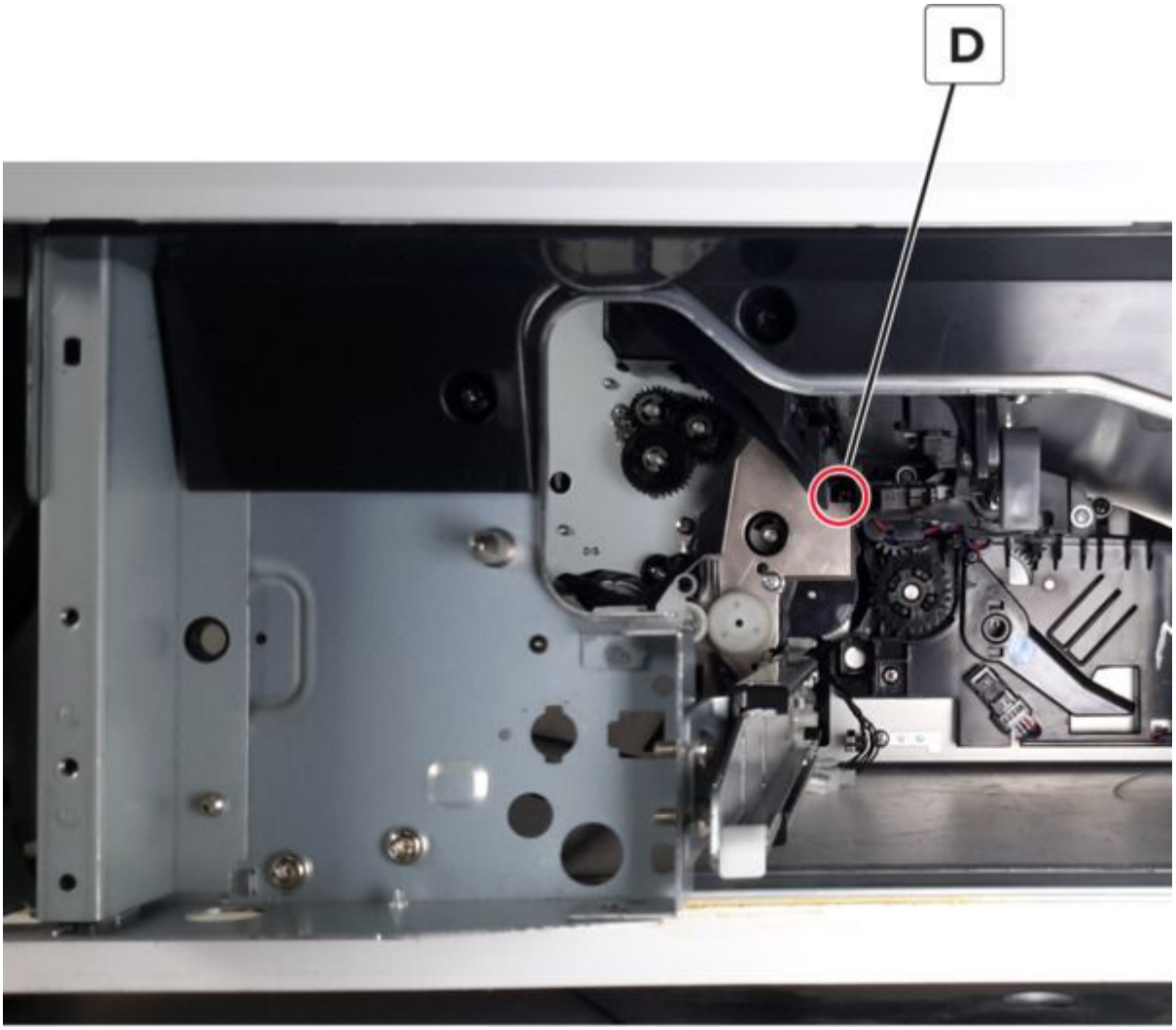
Note: For a video demonstration, see Reference edge motor gearbox removal.

1. Remove the left door, duplex, and MPF. See Left door, duplex, and MPF removal on page 594.
2. Remove the MPF pick roller. See MPF pick roller removal on page 601.
3. Remove the MPF pick guide. See MPF pick guide removal on page 603.
4. Remove the MPF tray stop. See MPF tray stop removal on page 605.
5. Remove the sensor (MPF/pass-through) with deflector. See Sensor (MPF/pass-through) with deflector removal on page 613.
6. Remove the two screws (A), and then remove the hinge support.

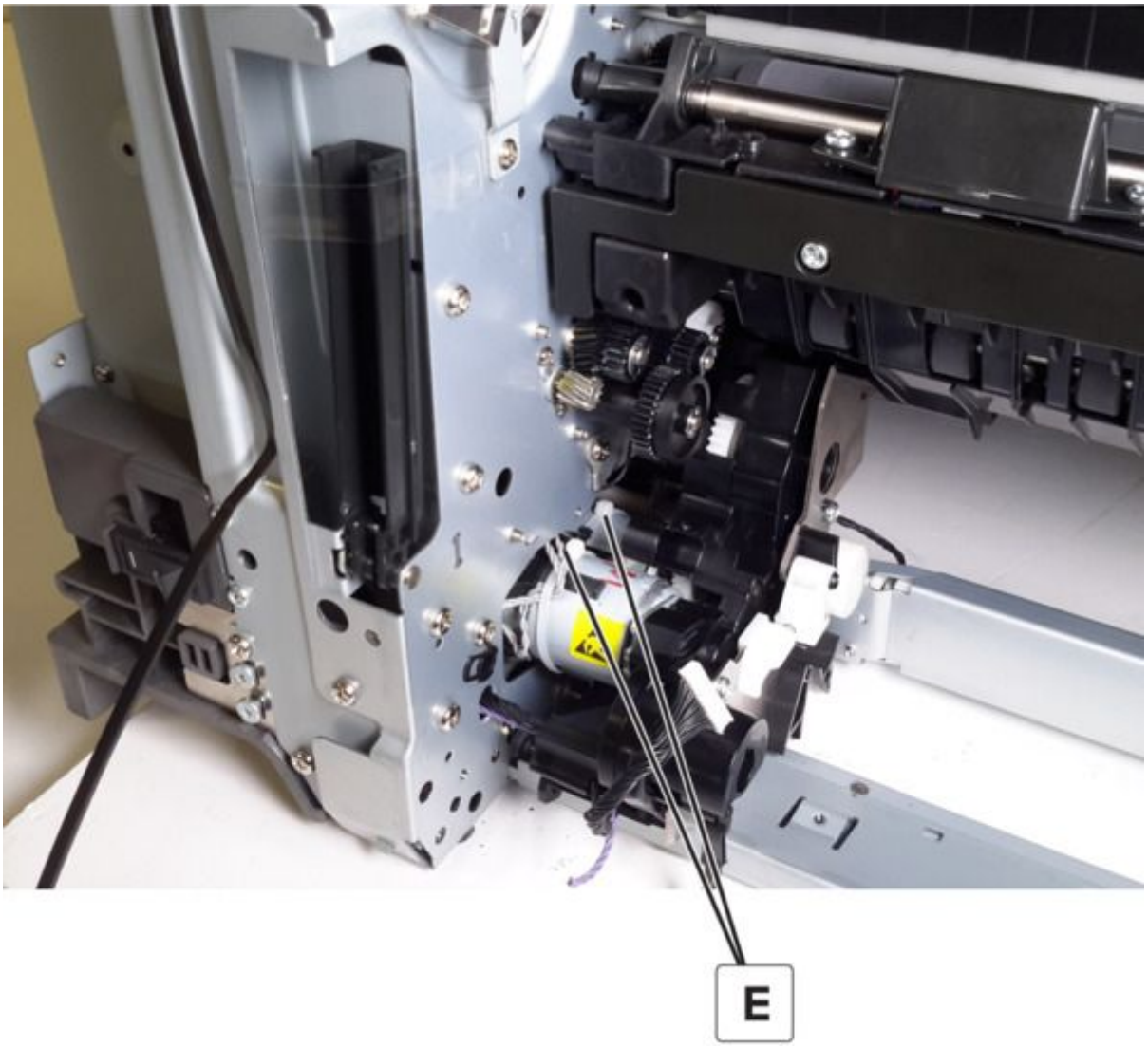


7. Remove the three screws (B).
8. Remove the screw (D) behind the isolation roller (C) guide.

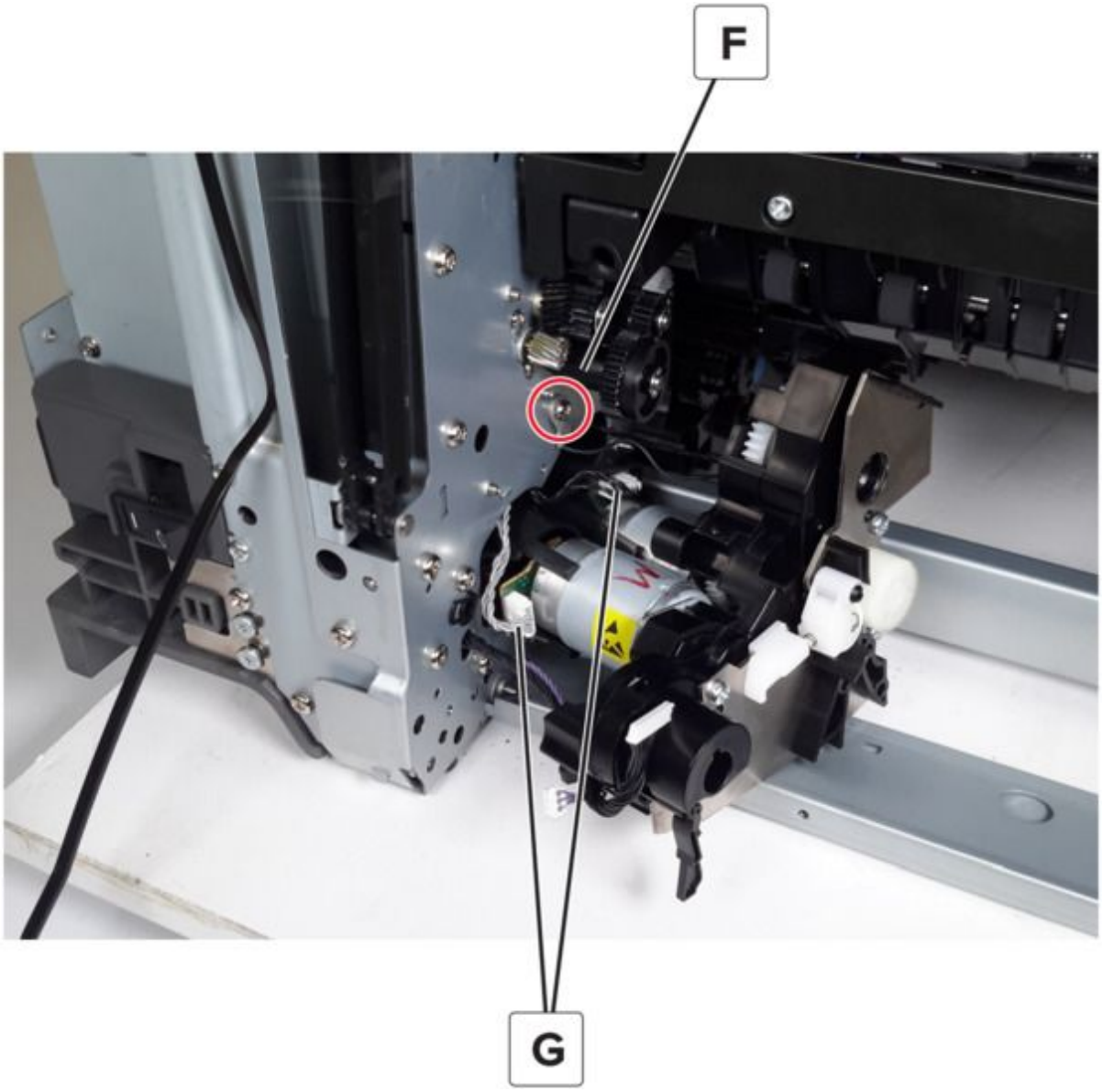

C
B



9. Carefully pull out the gearbox, and then cut the cable ties (E).



10. Remove the ground screw (F), and then disconnect the cables (G).



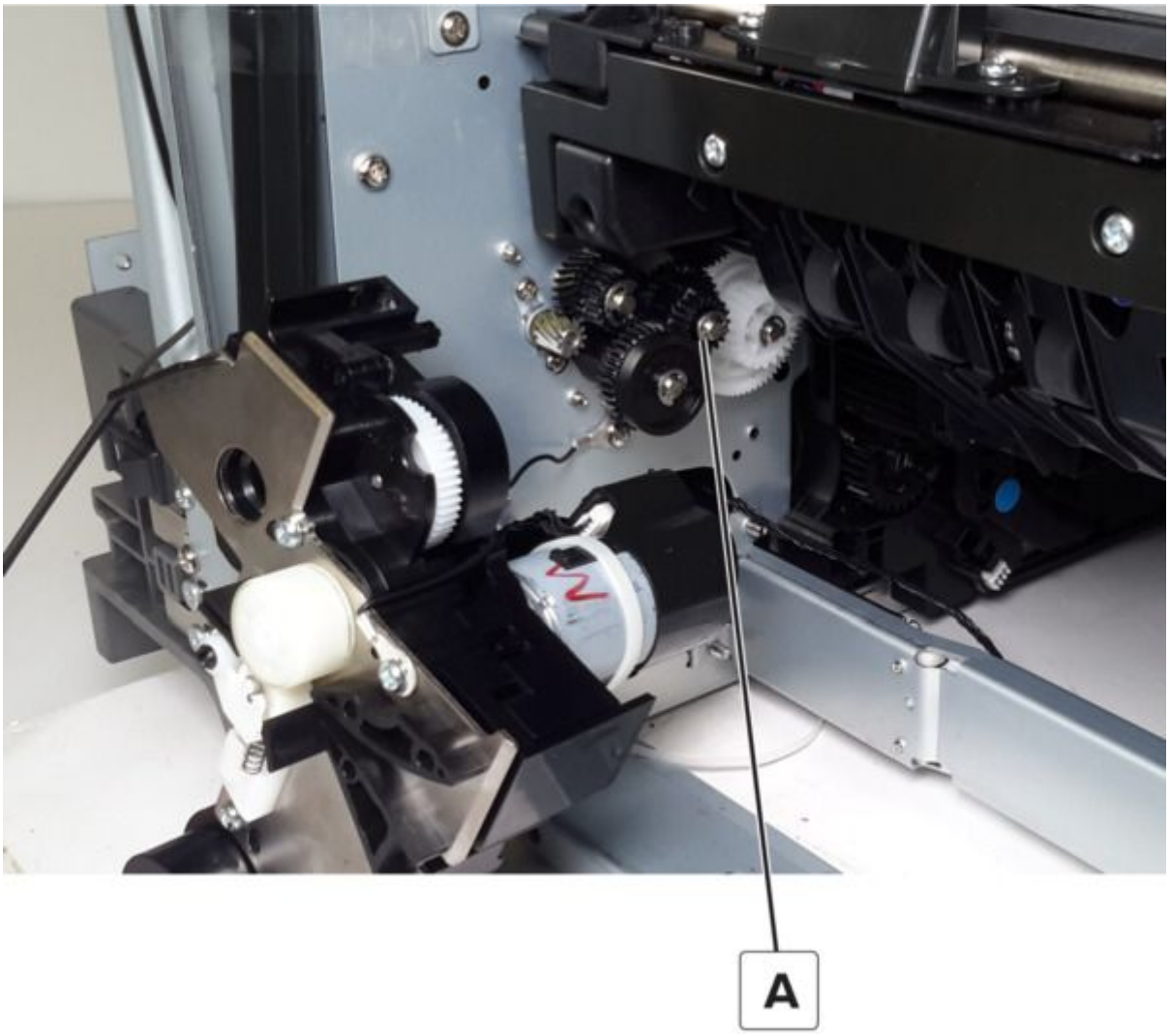
11. Remove the gearbox.

> **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.

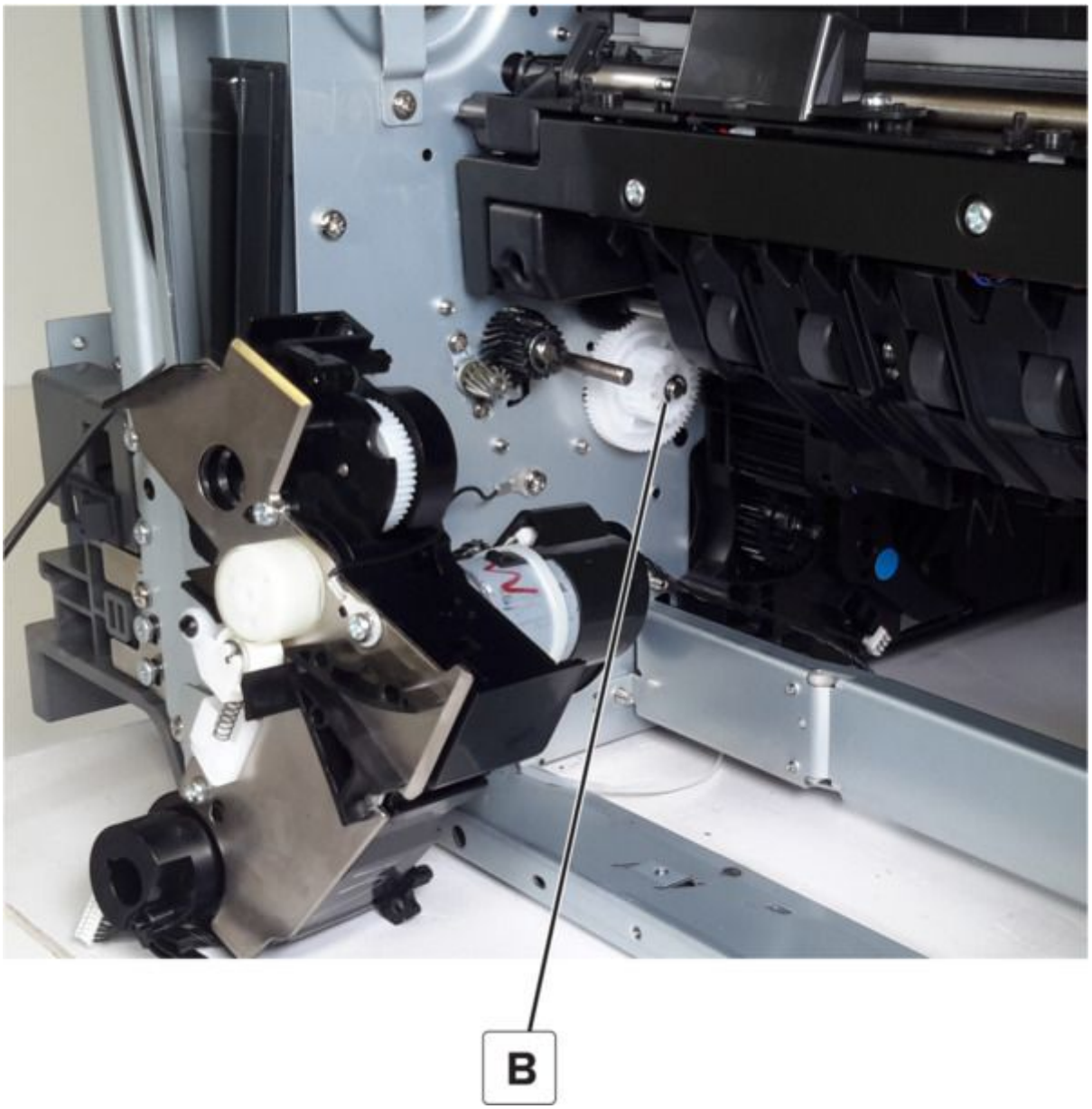
Isolation roller gear removal

1. Remove the left door, duplex, and MPF. See Left door, duplex, and MPF removal on page 594.
2. Remove the MPF pick roller. See MPF pick roller removal on page 601.
3. Remove the MPF pick guide. See MPF pick guide removal on page 603.
4. Remove the MPF tray stop. See MPF tray stop removal on page 605.
5. Remove the sensor (MPF/pass-through) with deflector. See Sensor (MPF/pass-through) with deflector removal on page 613.
6. To access the isolation roller gear, pull out the reference edge motor gearbox. See Reference edge motor gearbox removal on page 615.
7. Remove the E-clip (A), and then remove the duplex gears.



Installation Note
Make sure that the duplex gear spring is properly installed.

8. Remove the E-clip (B), and then remove the roller gear.



Right side removals

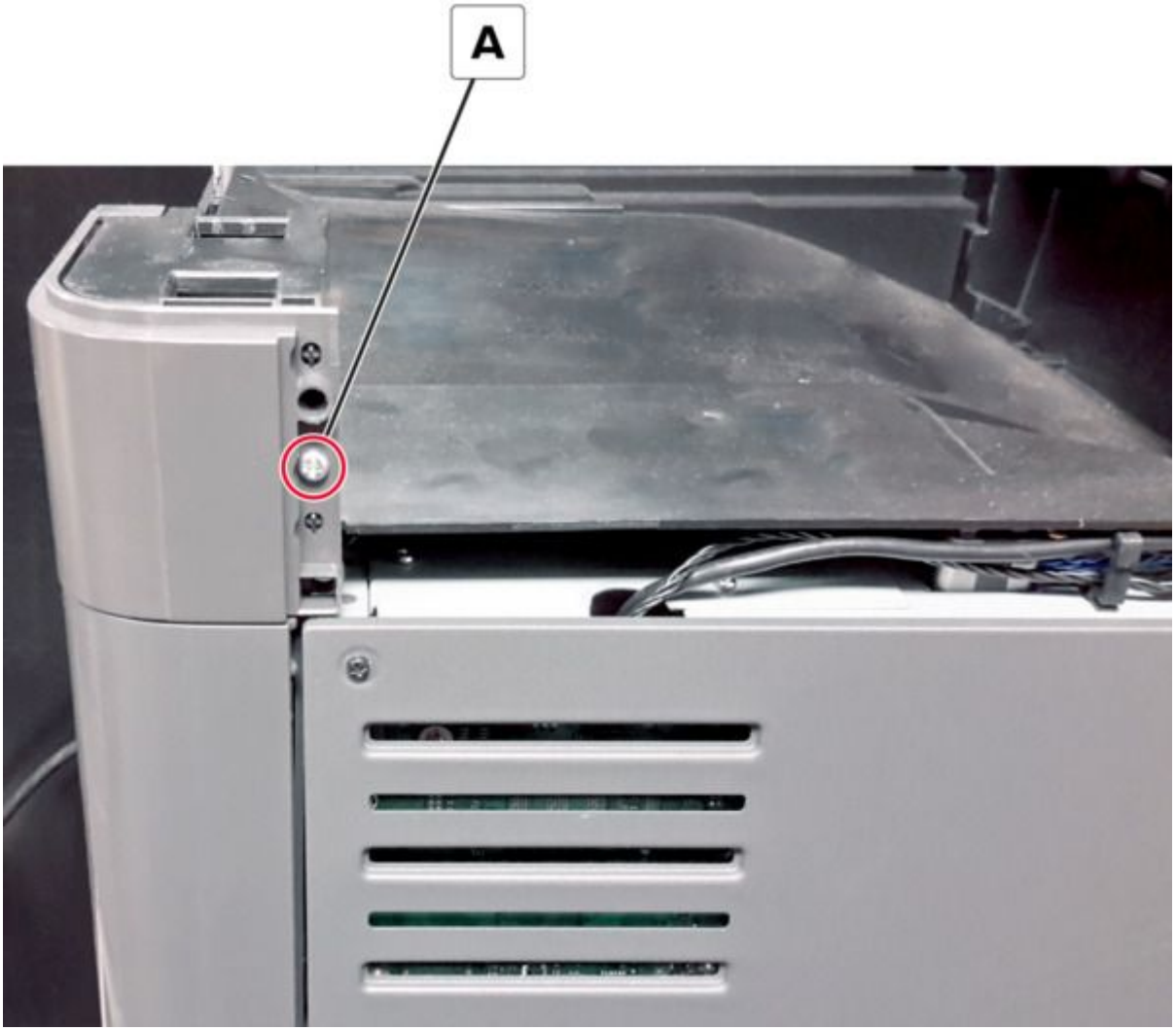
Vent cover removal

1. Pry the bottom edge of the cover to release.

2. Remove the cover.

Rear corner cover removal

1. Remove the standard bin insert cover. See Standard bin insert cover removal on page 742.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. 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 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the six screws (A) from the right side.
5. Remove the screw (B) from the rear side.

A
B
A

6. Open door A, and then remove the screw (C).

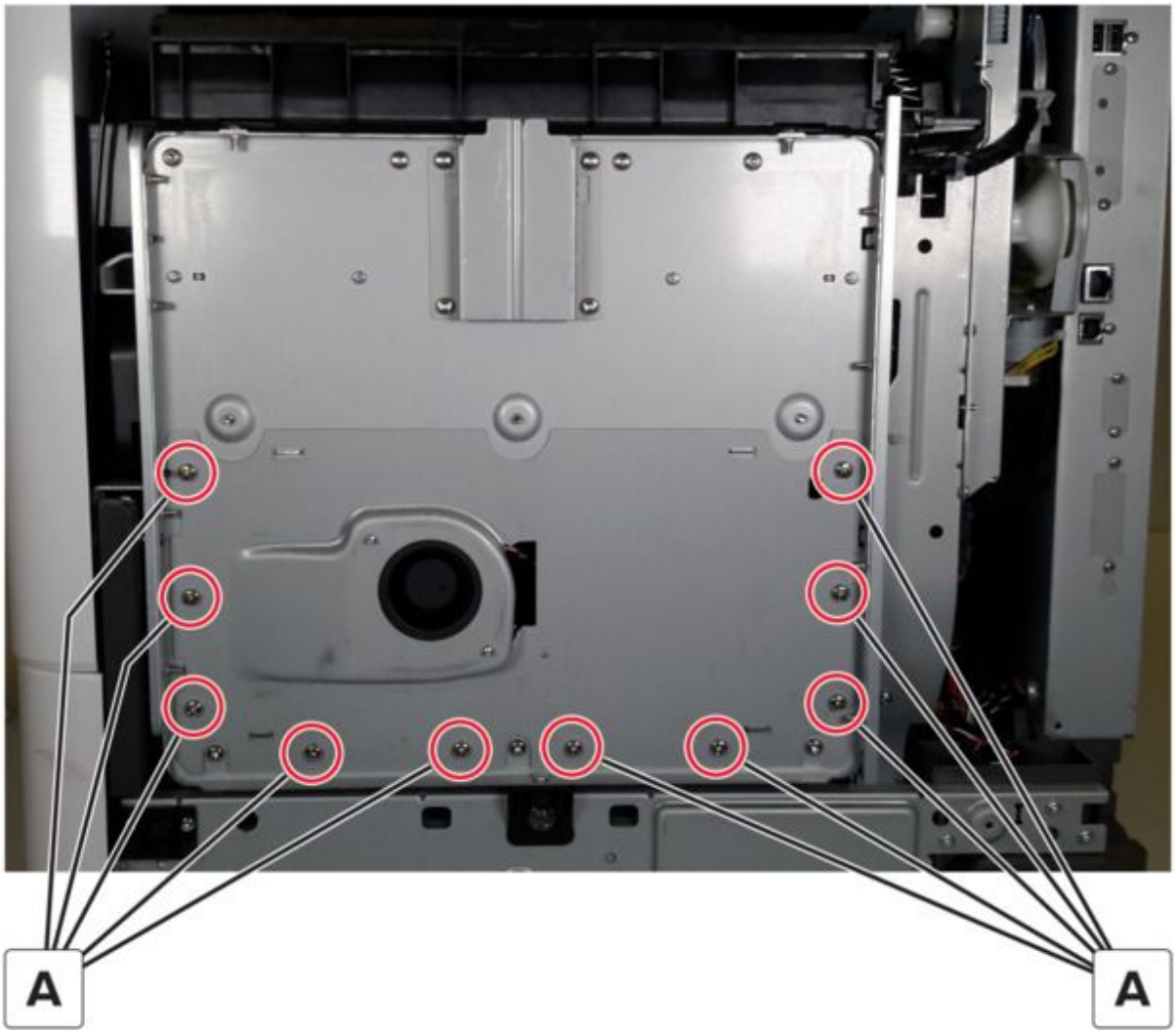
7. Raise the handhold (D), and then remove the right cover (E).

E
2
D

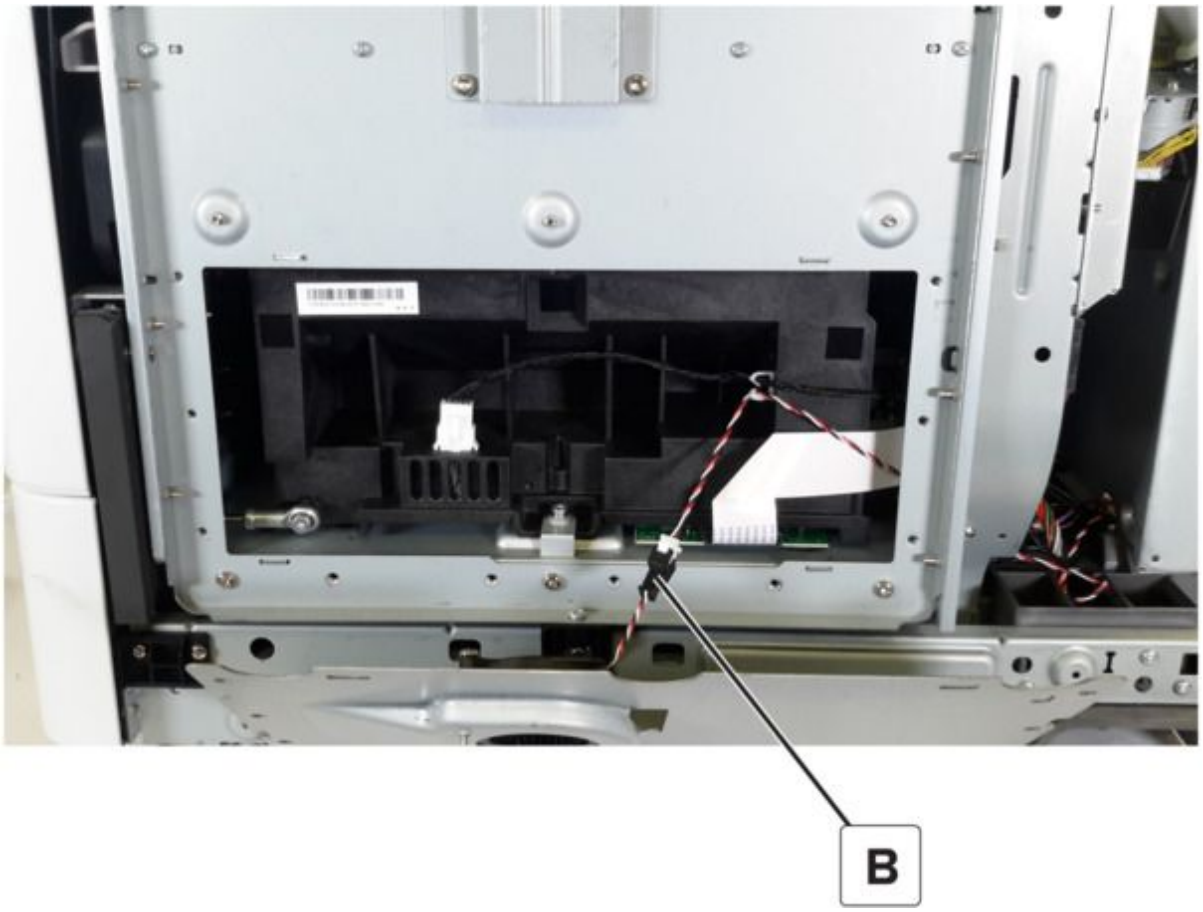
Printhead fan removal

> **Note:** For a video demonstration, see Printhead fan removal.

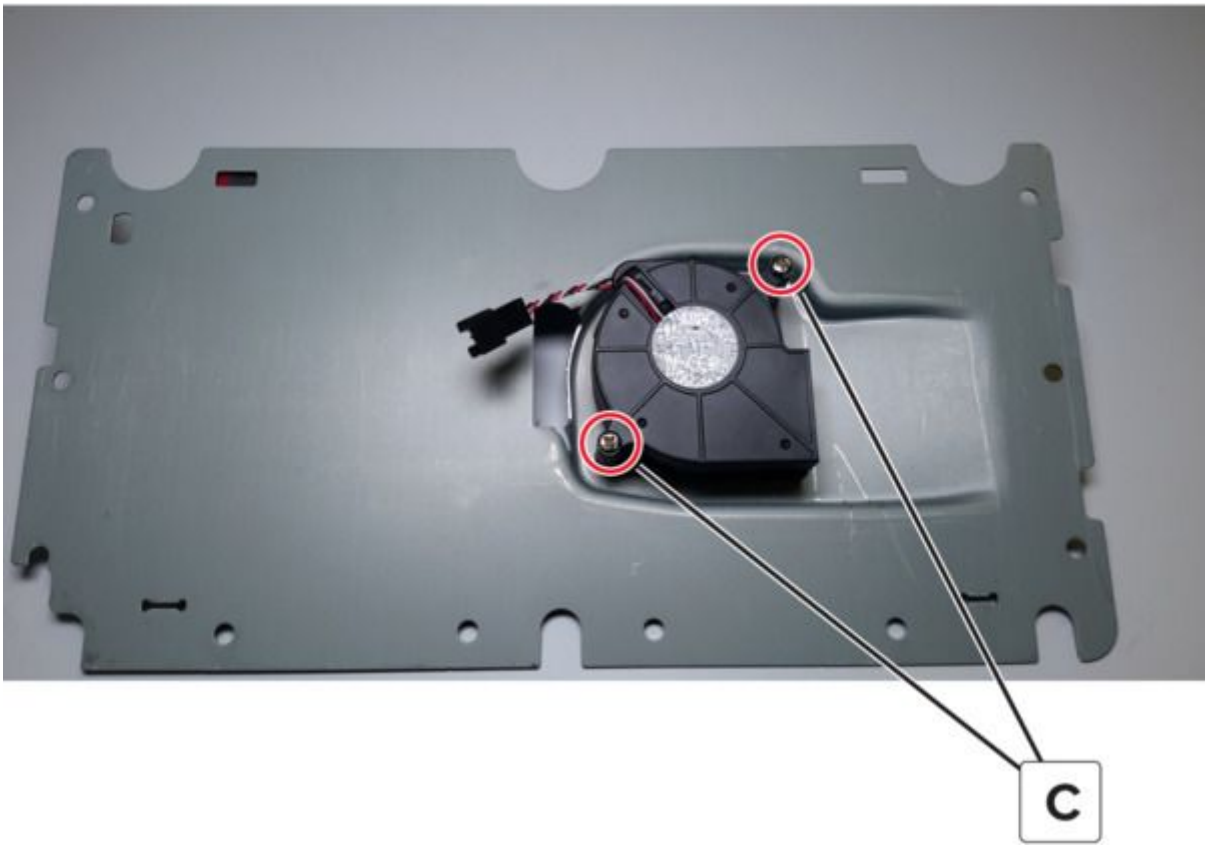
1. Remove the right cover. See .Right cover removal on page 624
2. Remove the 10 screws (A), and then pull the inner right cover.



3. Disconnect the cable (B).



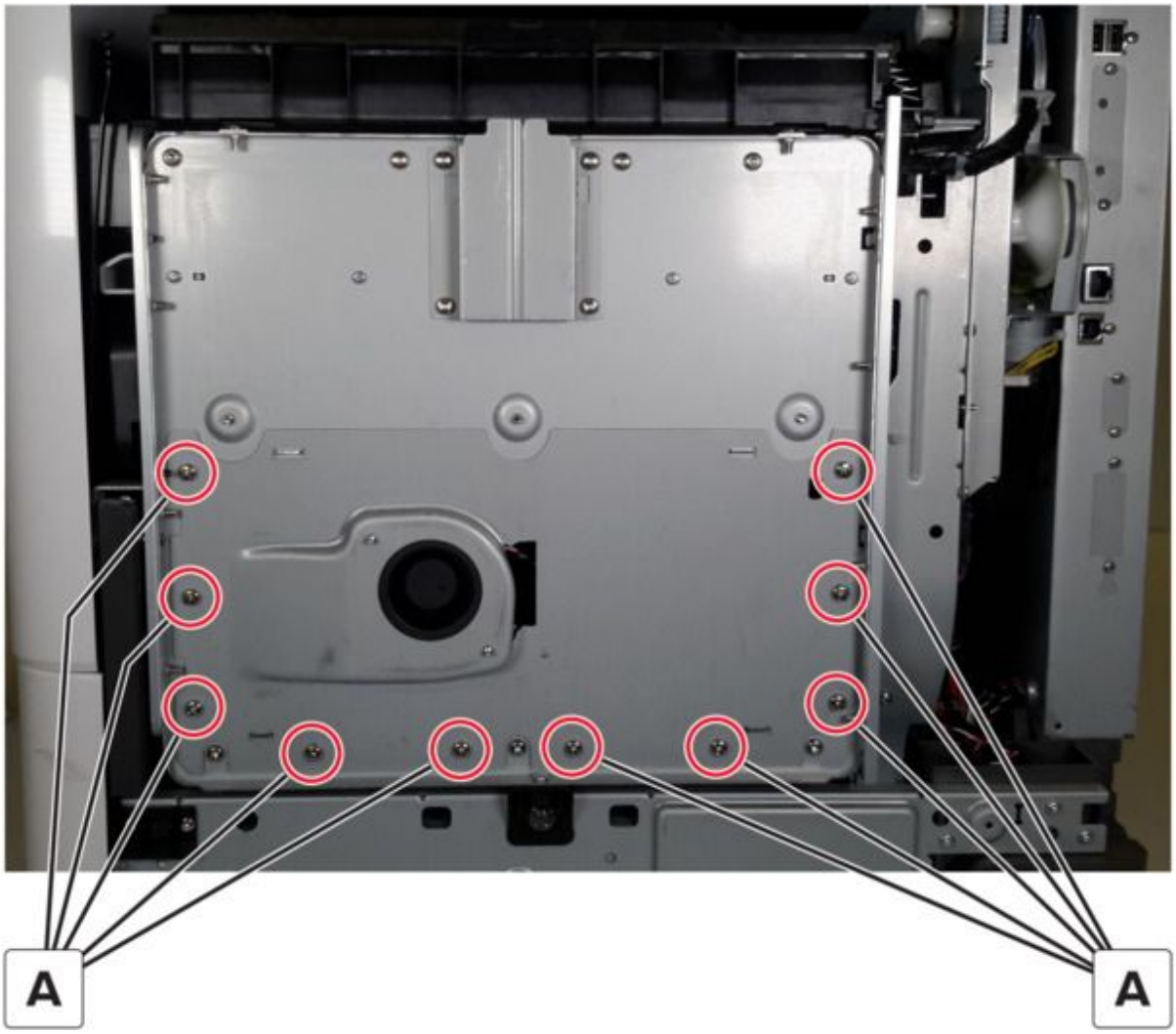
4. Remove the two screws (C), and then remove the fan.



Printhead removal

> **Note:** For a video demonstration, see Printhead removal.

1. Remove the right cover. See .Right cover removal on page 624
2. Remove the 10 screws (A).



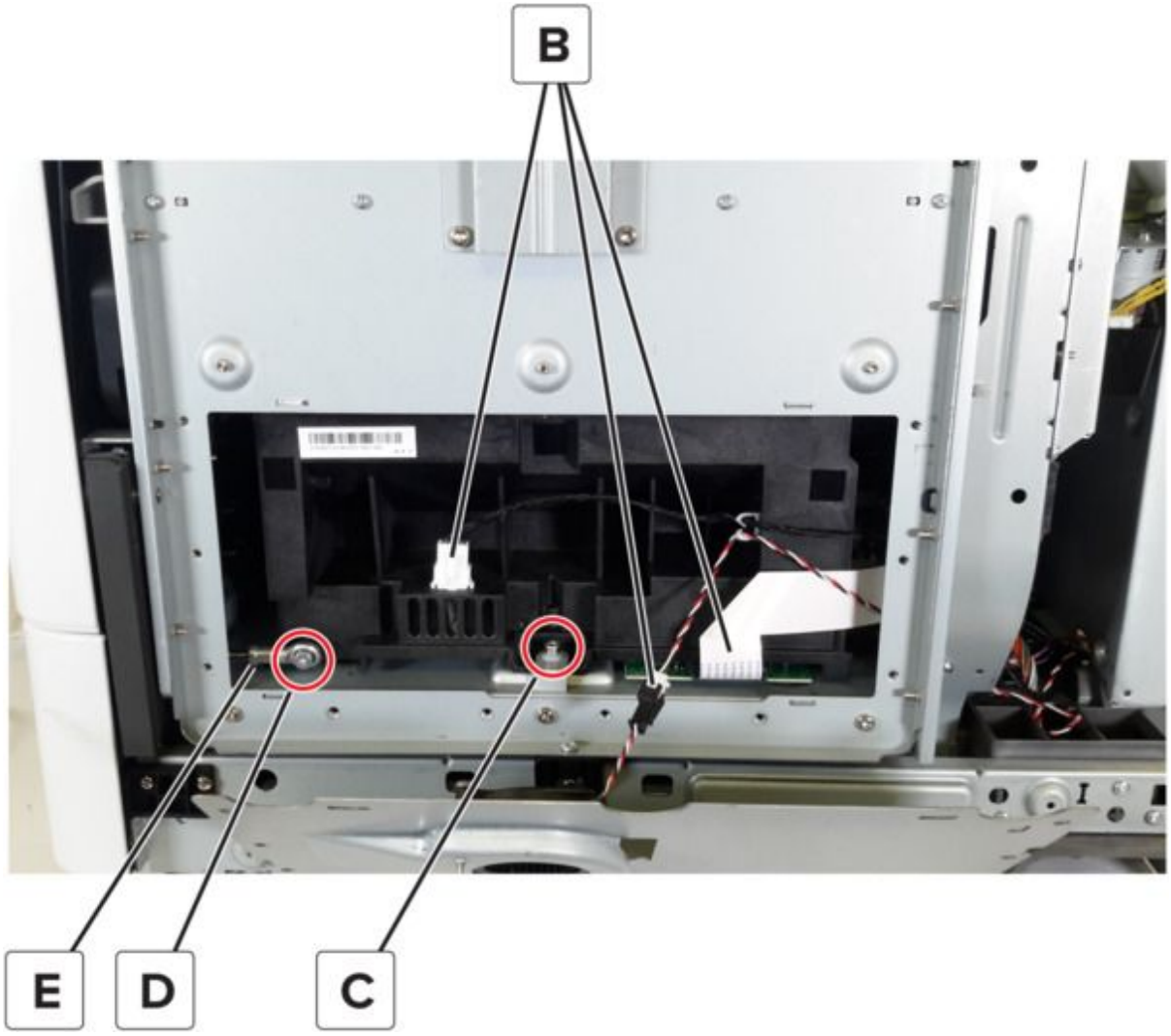
3. Pull the plate, and then disconnect the cables (B).

> **Warning—Potential Damage**
> Do not yank the ribbon cable. See Disconnecting ribbon cables on page 570.

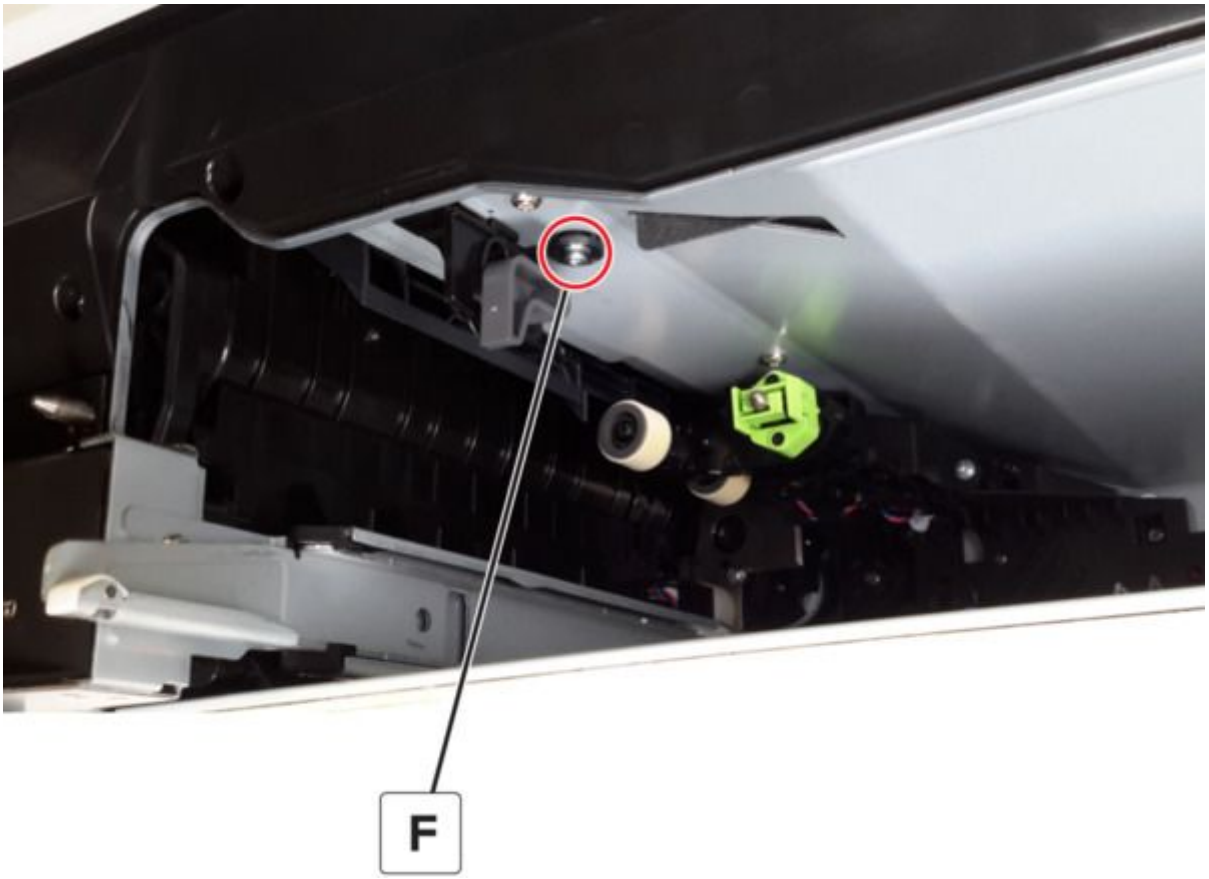
4. Remove the screw (C), and then remove the bracket.
5. Remove the screw (D).

Warning—Potential Damage
Do not change the position of the adjuster link (E).

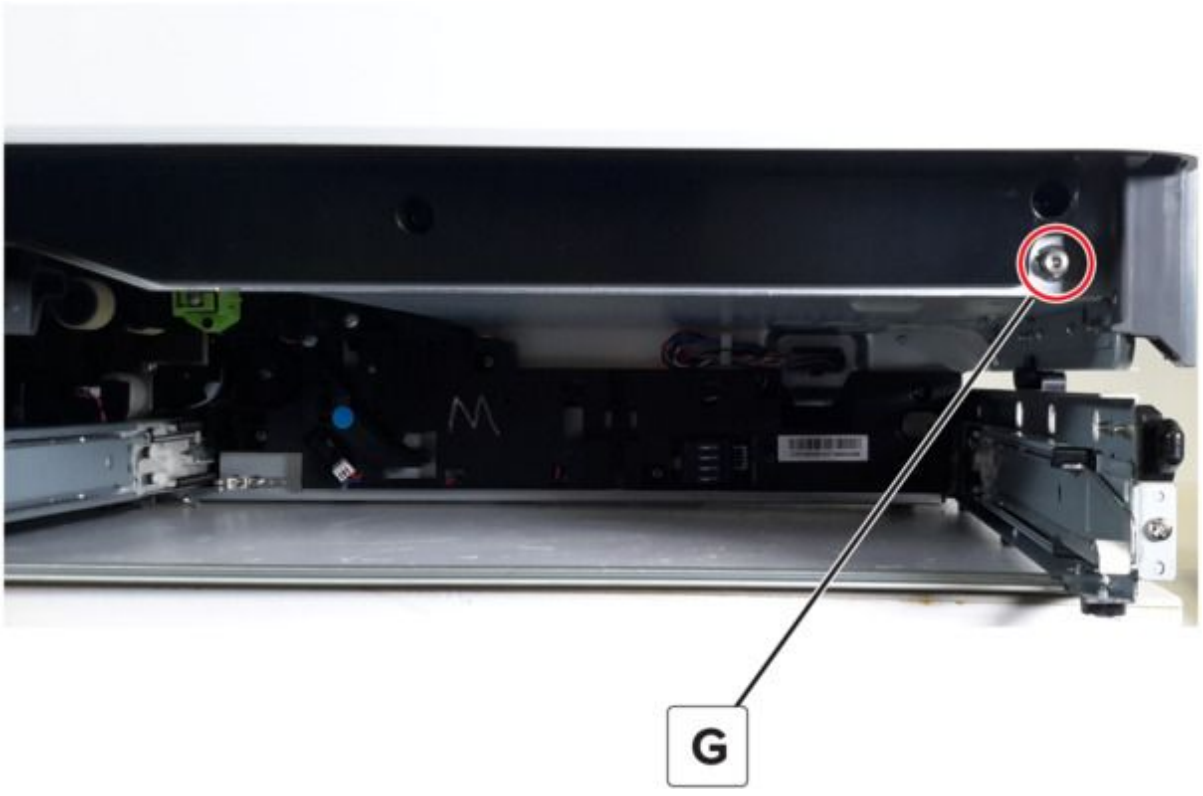
Installation Warning
Do not overtighten the adjuster link screw.



6. Release the cables from the cable guide.
7. Remove tray 1, and then remove the screw (F).

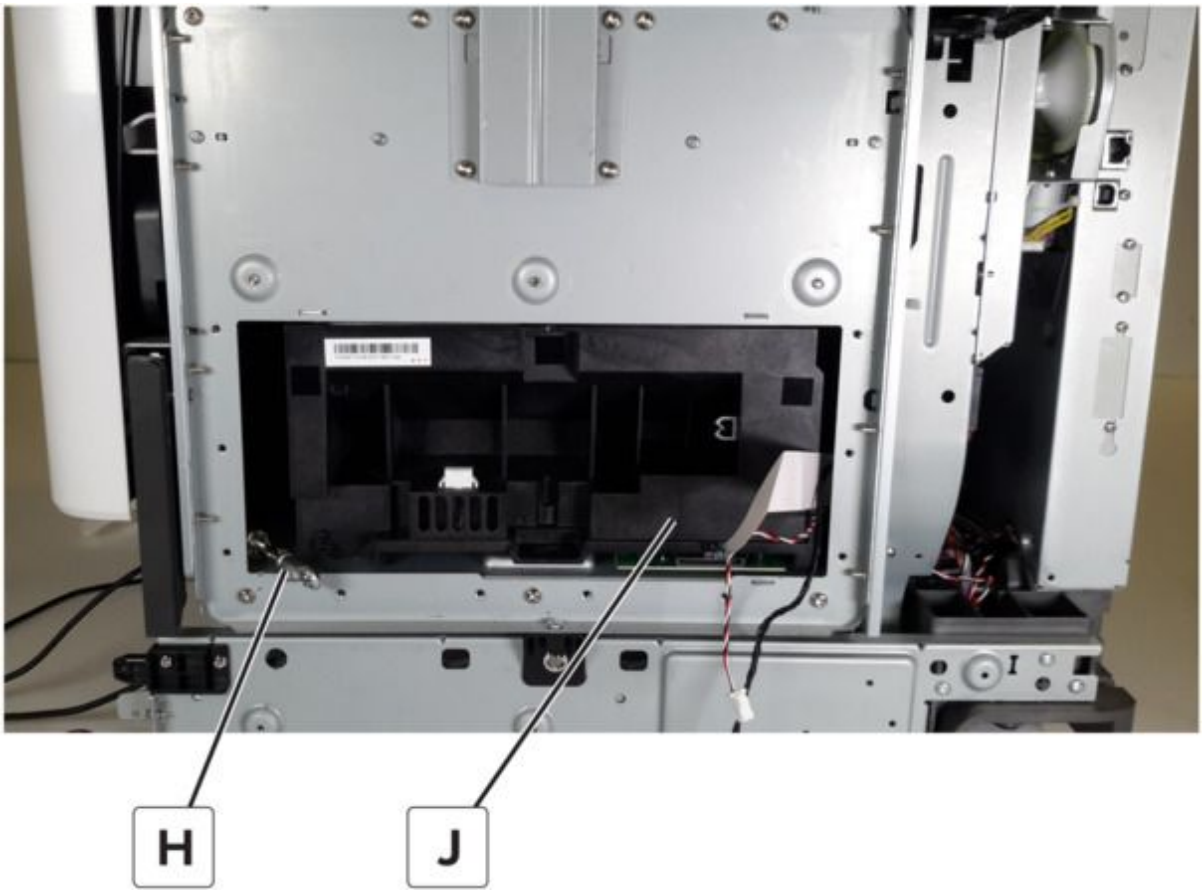


8. Release the E-clip (G).



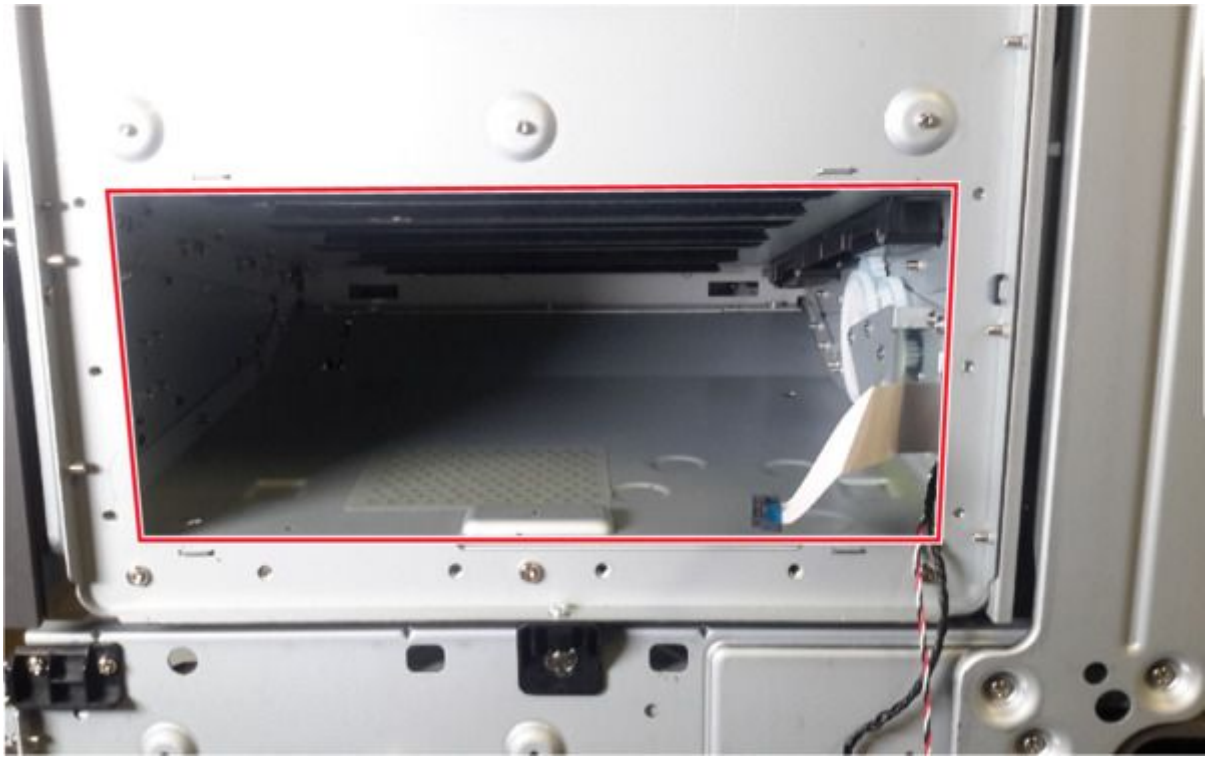
9. Remove the adjuster assembly (H), and then carefully remove the printhead (J).

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.

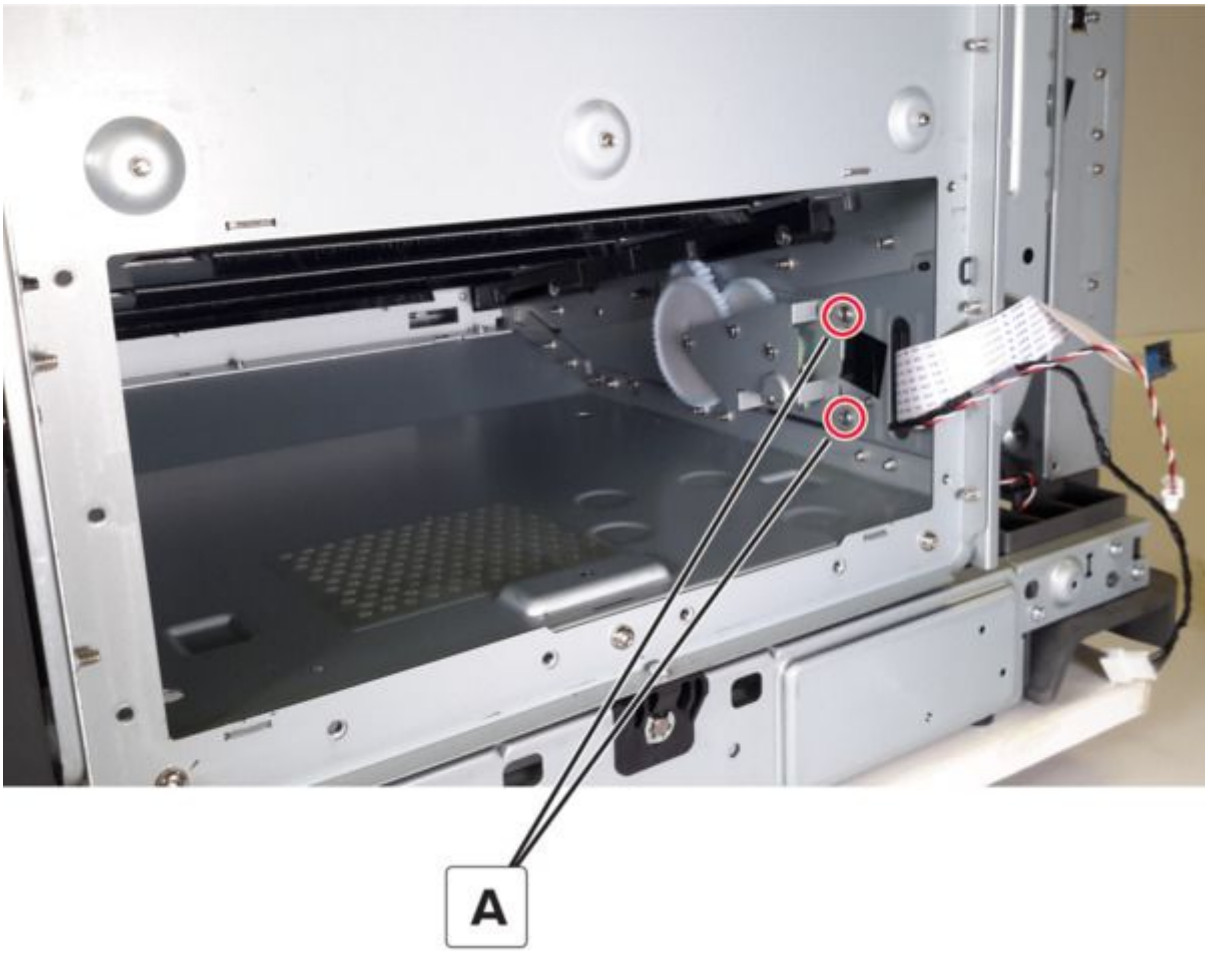


Installation Note

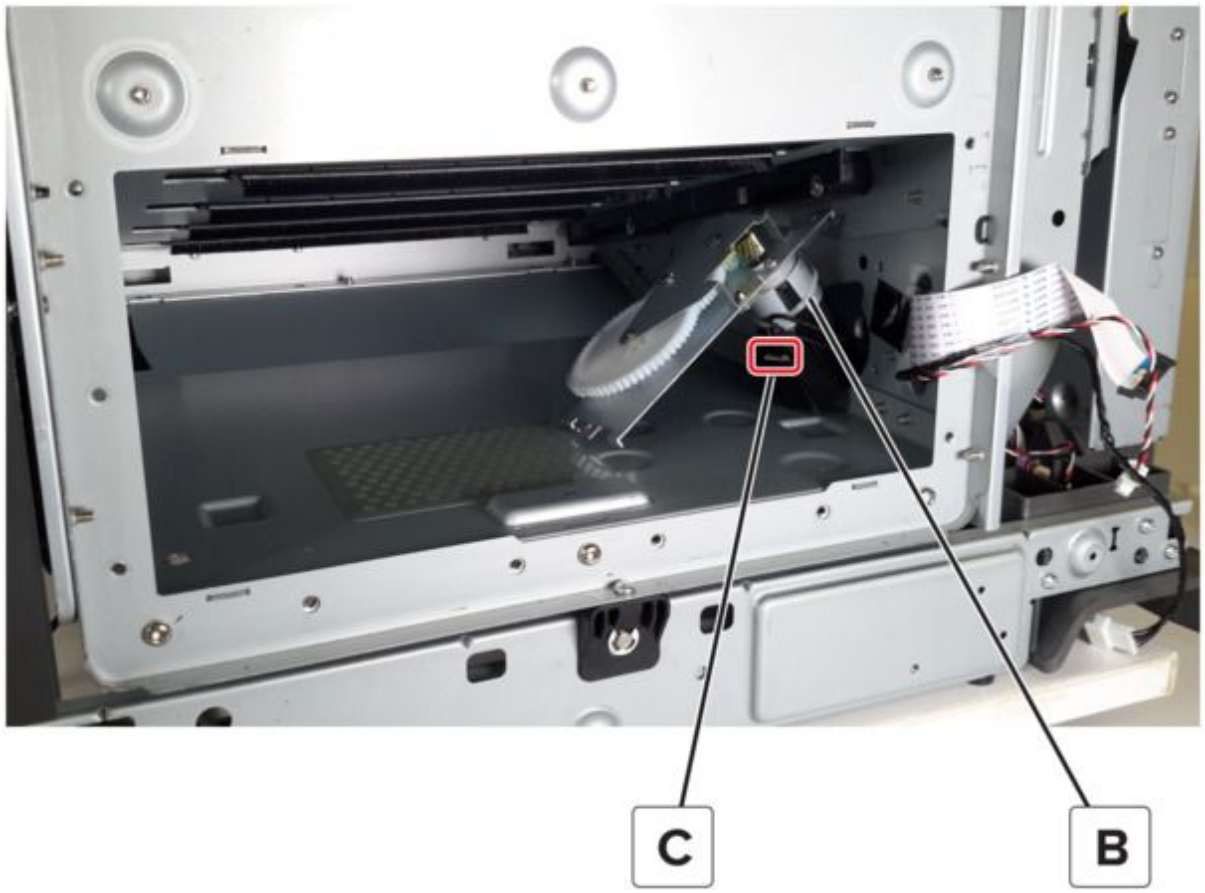
1. Perform the printhead alignment adjustment. See Printhead alignment adjustment on page 570.
2. Perform the registration adjustment. See Registration adjustment on page 577.

Motor (printhead wiper) removal

1. Remove the right cover. See .Right cover removal on page 624
2. Remove the printhead. See Printhead removal on page 630.
3. Remove the two screws (A).



4. Pull the bracket, cut the cable tie (B), and then disconnect the cable (C).



5. Remove the motor.

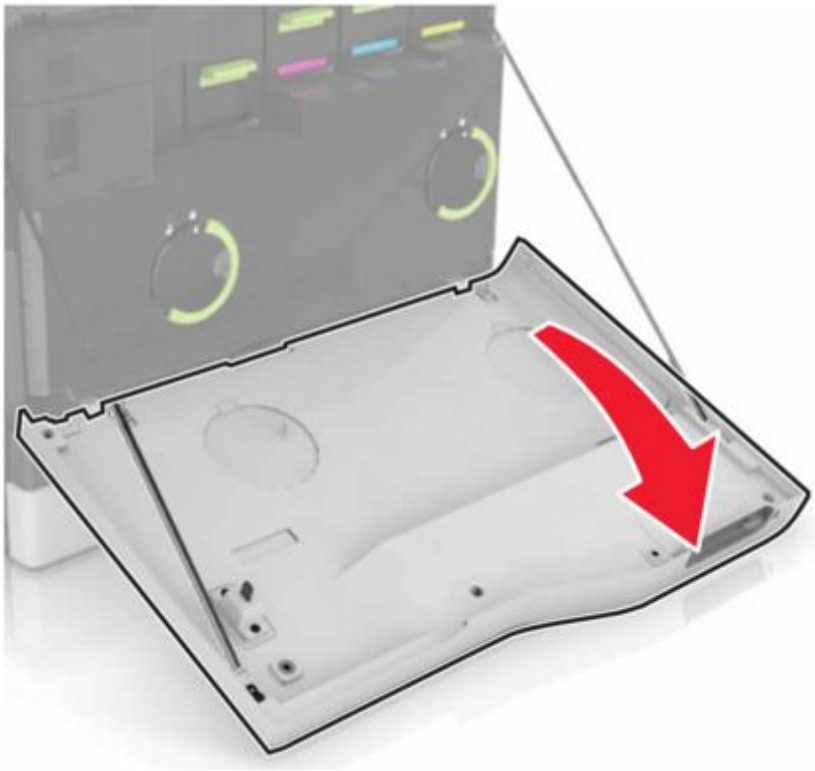
> **Installation Note**
> Make sure that the dust cover and cable tie are reinstalled.

> **Installation Note**
> Make sure that the motor tabs hook behind the frame slots.

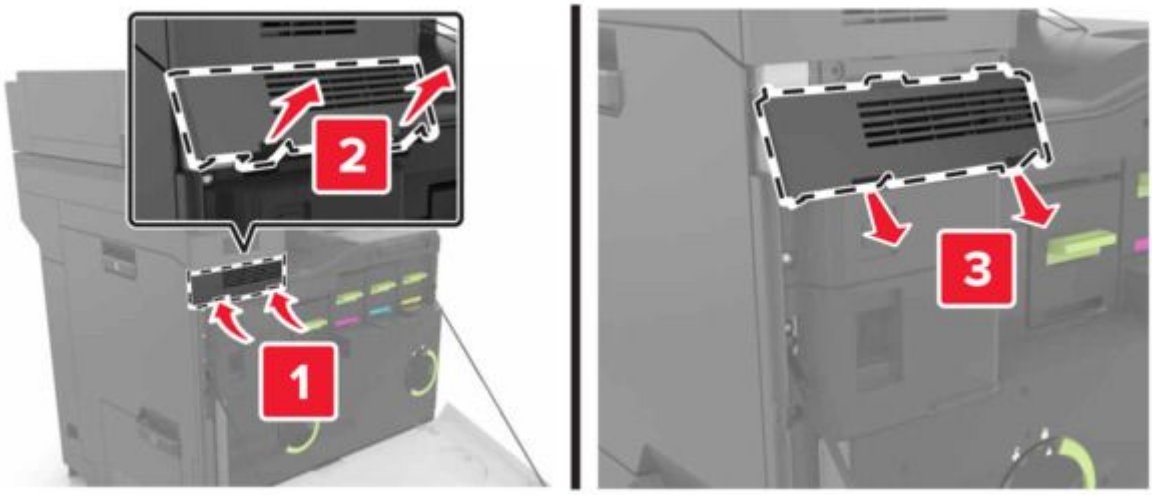
Front side removals

Keyboard attach cover removal

1. Open door A.



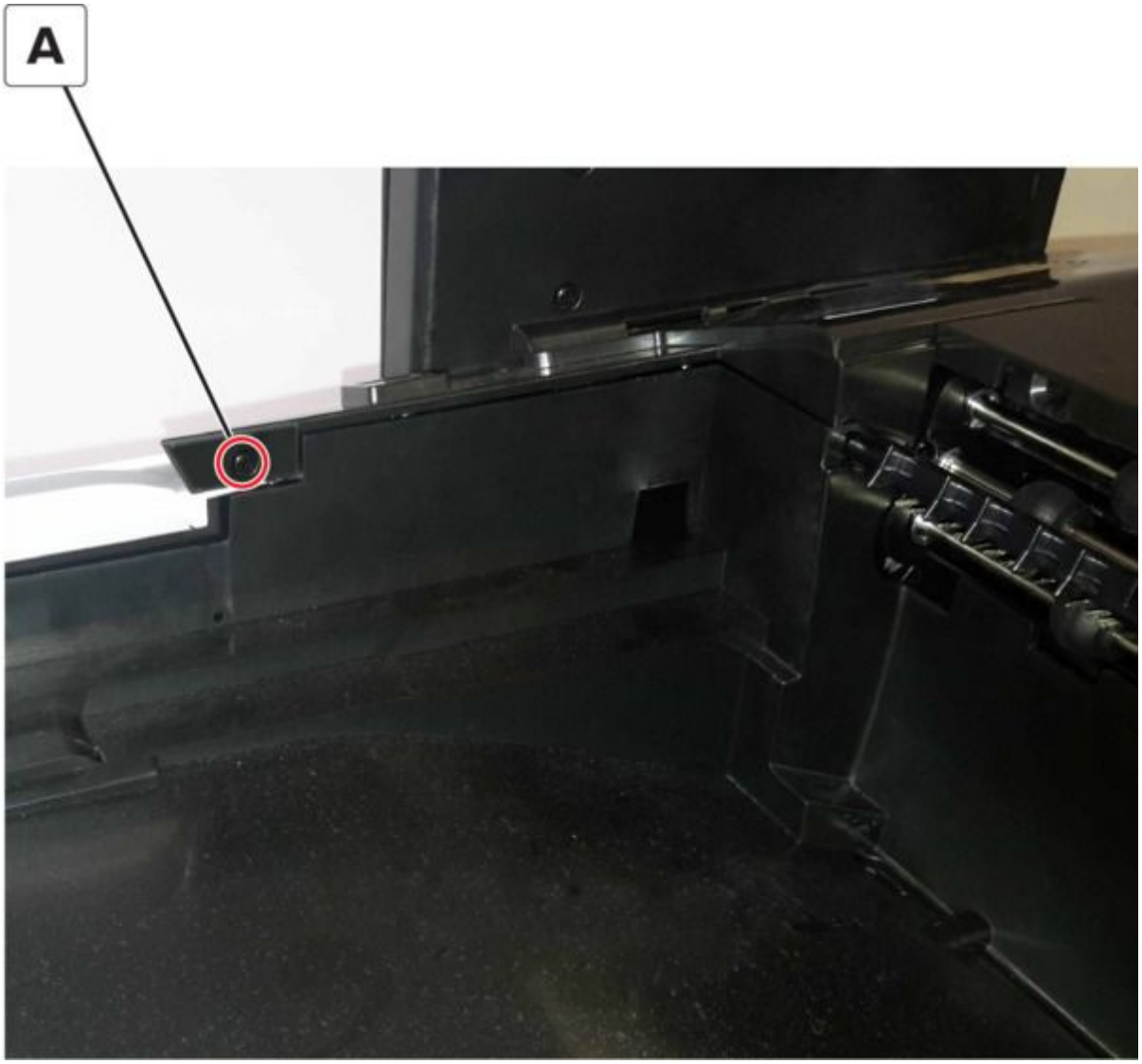
2. Remove the cover.

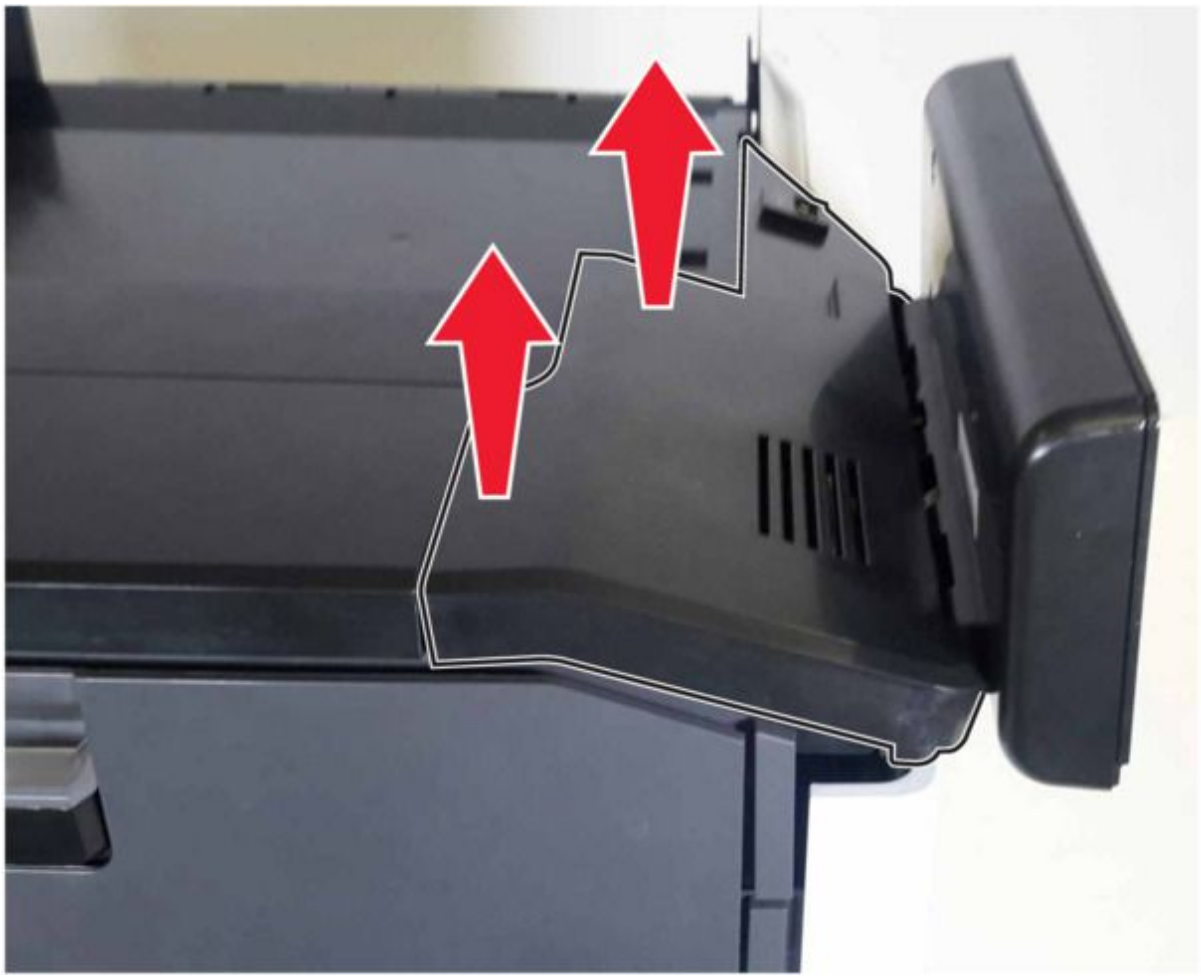


Control panel support cover removal

1. Lift the control panel.

2. Remove the standard bin insert cover. See Standard bin insert cover removal on page 742.
3. Remove the screw (A), and then gently lift and detach the cover from the printer.

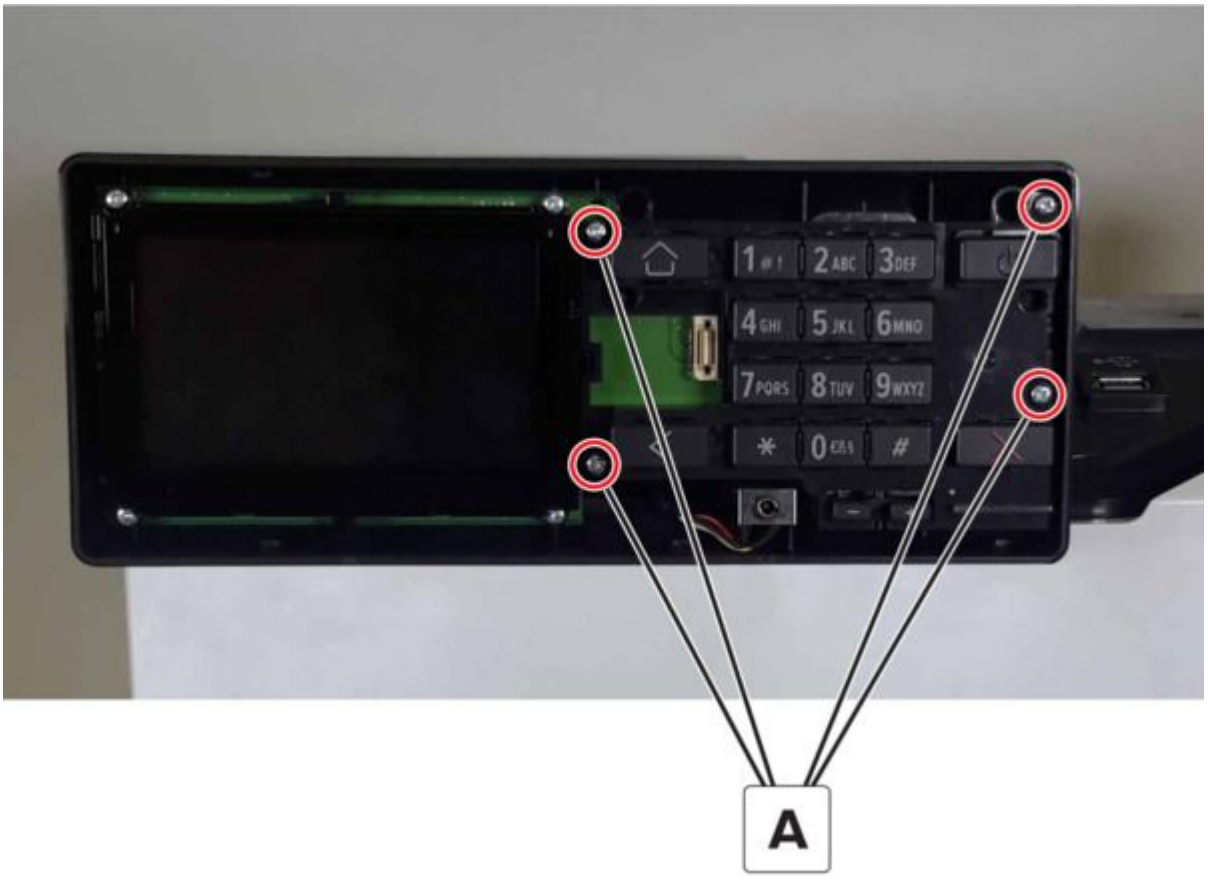

A



Control panel button kit removal

1. Remove the bezel.

2. Remove the four screws (A).



3. Remove the control panel buttons.

Control panel board removal

Critical information for controller board or control panel board replacement

> **Warning—Potential Damage**
> 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 temporarily use the replacement part.

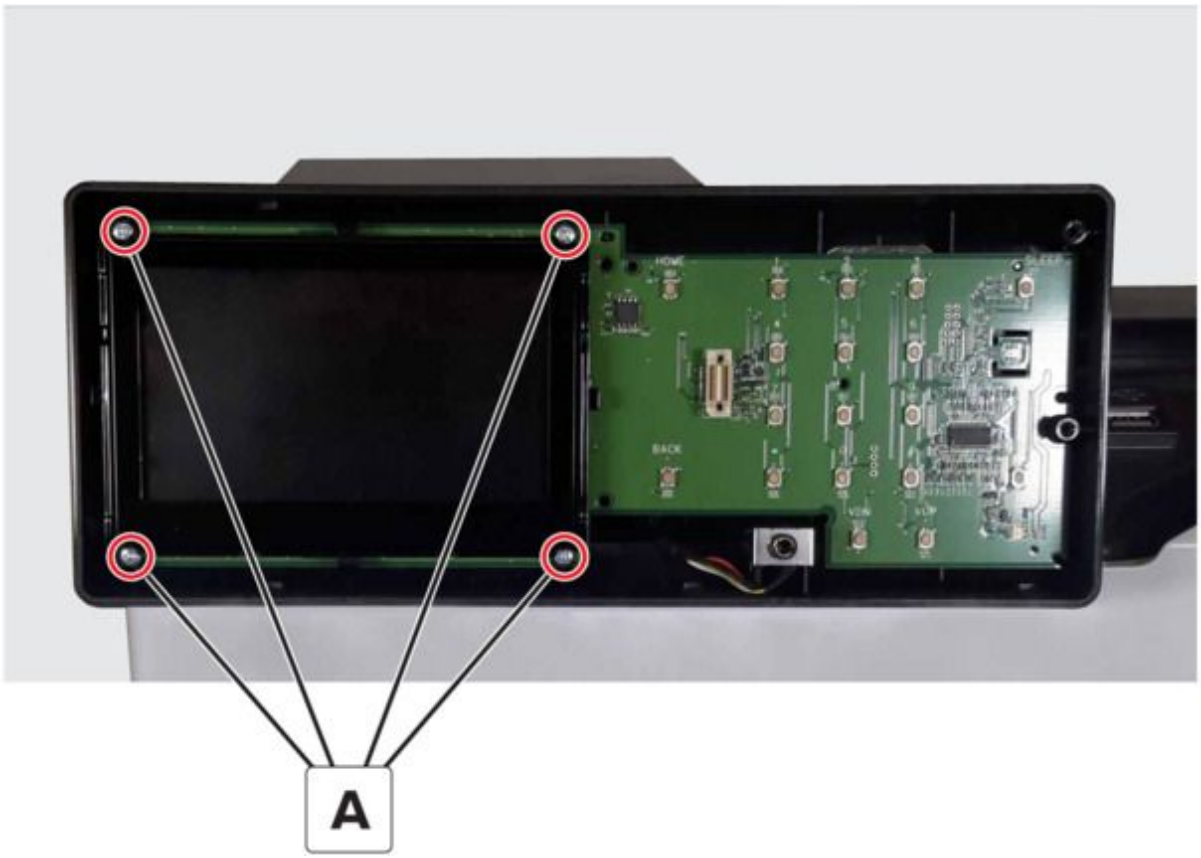
   > **Warning—Potential Damage**
   > Some printers will perform a POR automatically if the Diagnostics Menu is not opened within five seconds. If a POR is performed at this point, then the replacement part can no longer be used in another printer and must be returned to the manufacturer.

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 492

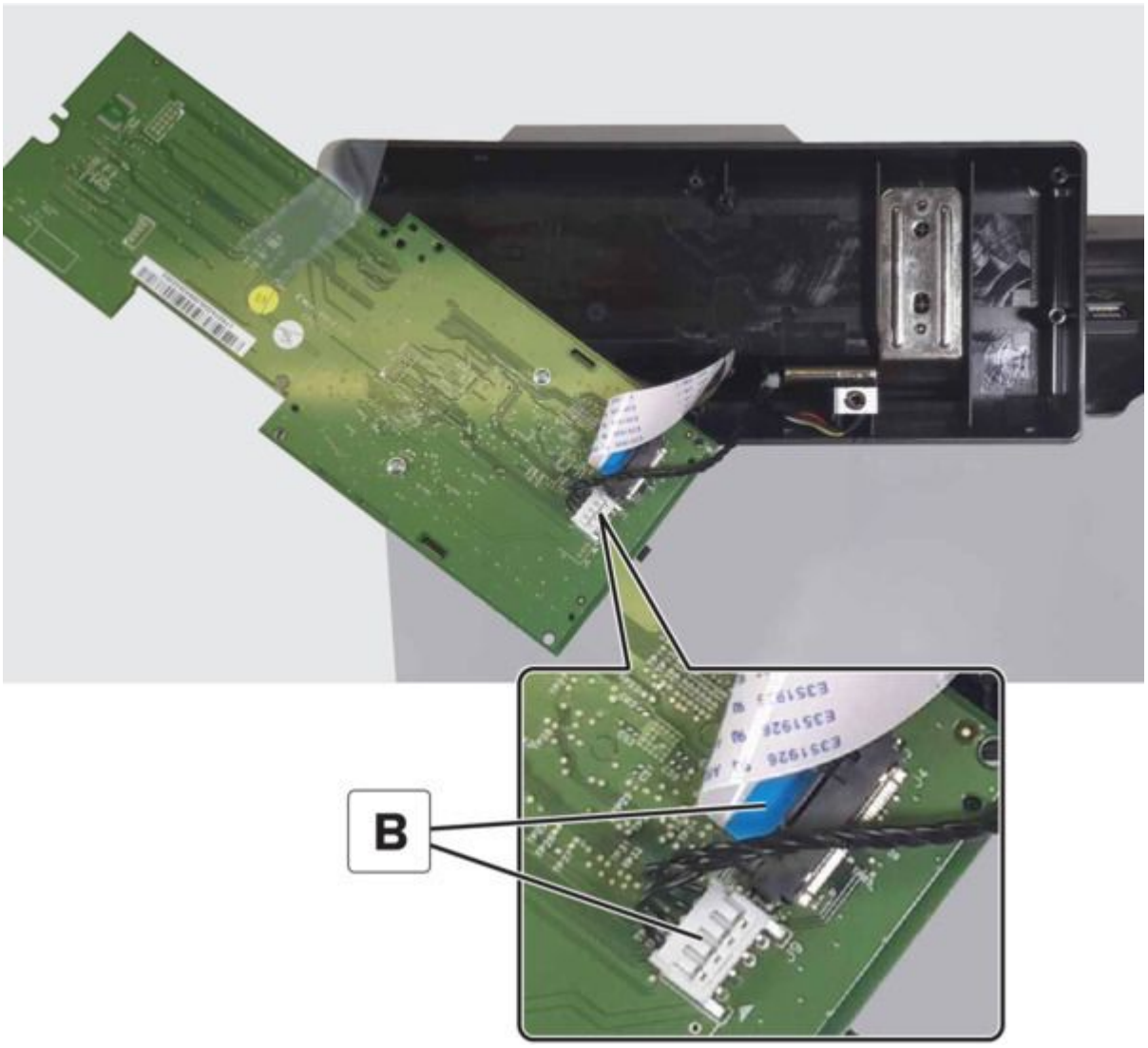
Removal procedure

1. Remove the control panel button assembly. See Control panel button kit removal on page 640.
2. Remove the four screws (A).



3. Disconnect the two cables (B).

> **Warning—Potential Damage**
> Do not yank or wiggle the ribbon cable. See Disconnecting ribbon cables on page 570.



4. Remove the board.

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.

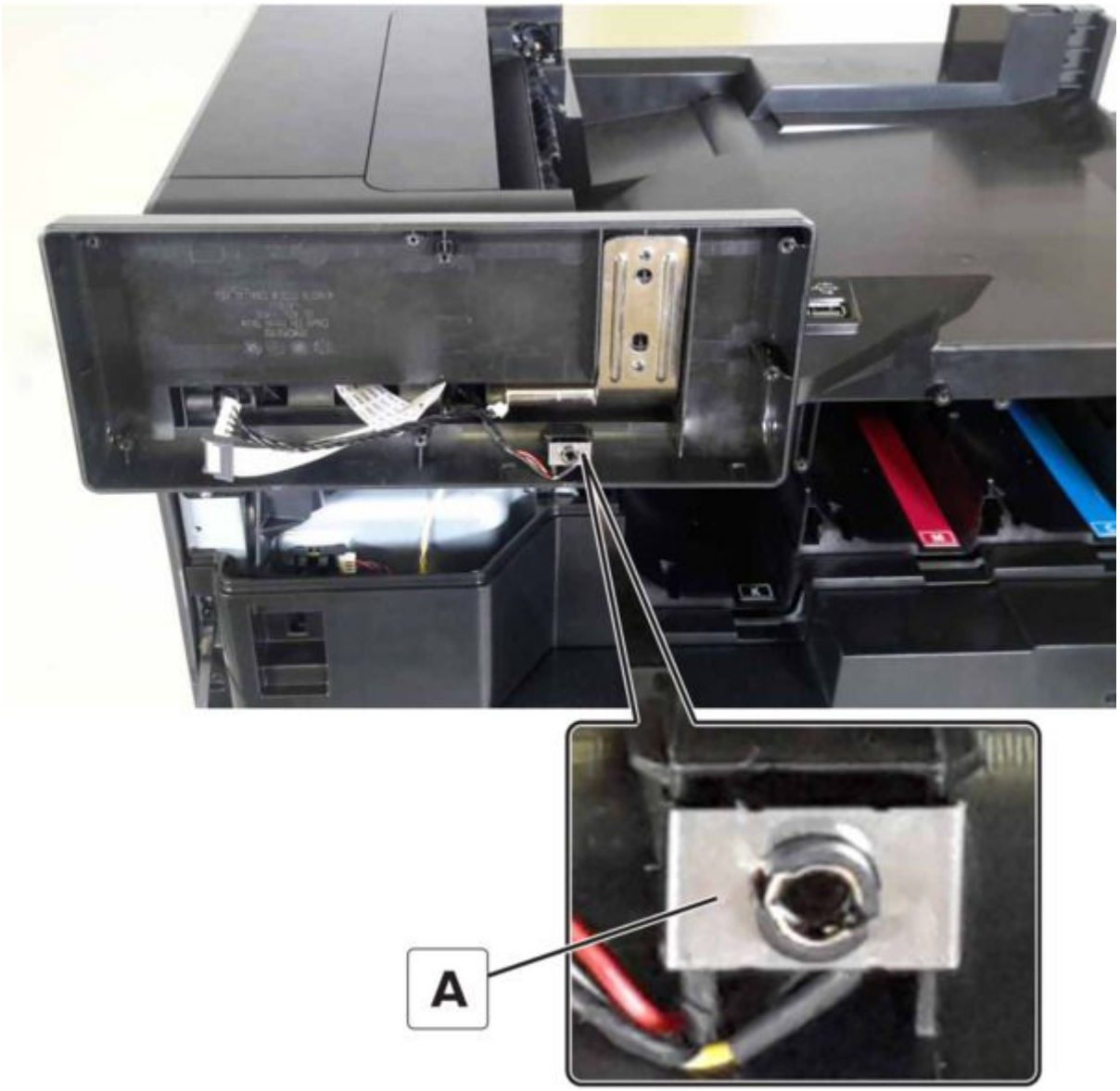
2. Enter the Diagnostics Menu. The Diagnostics Menu allows you to temporarily use the replacement part.

> **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.

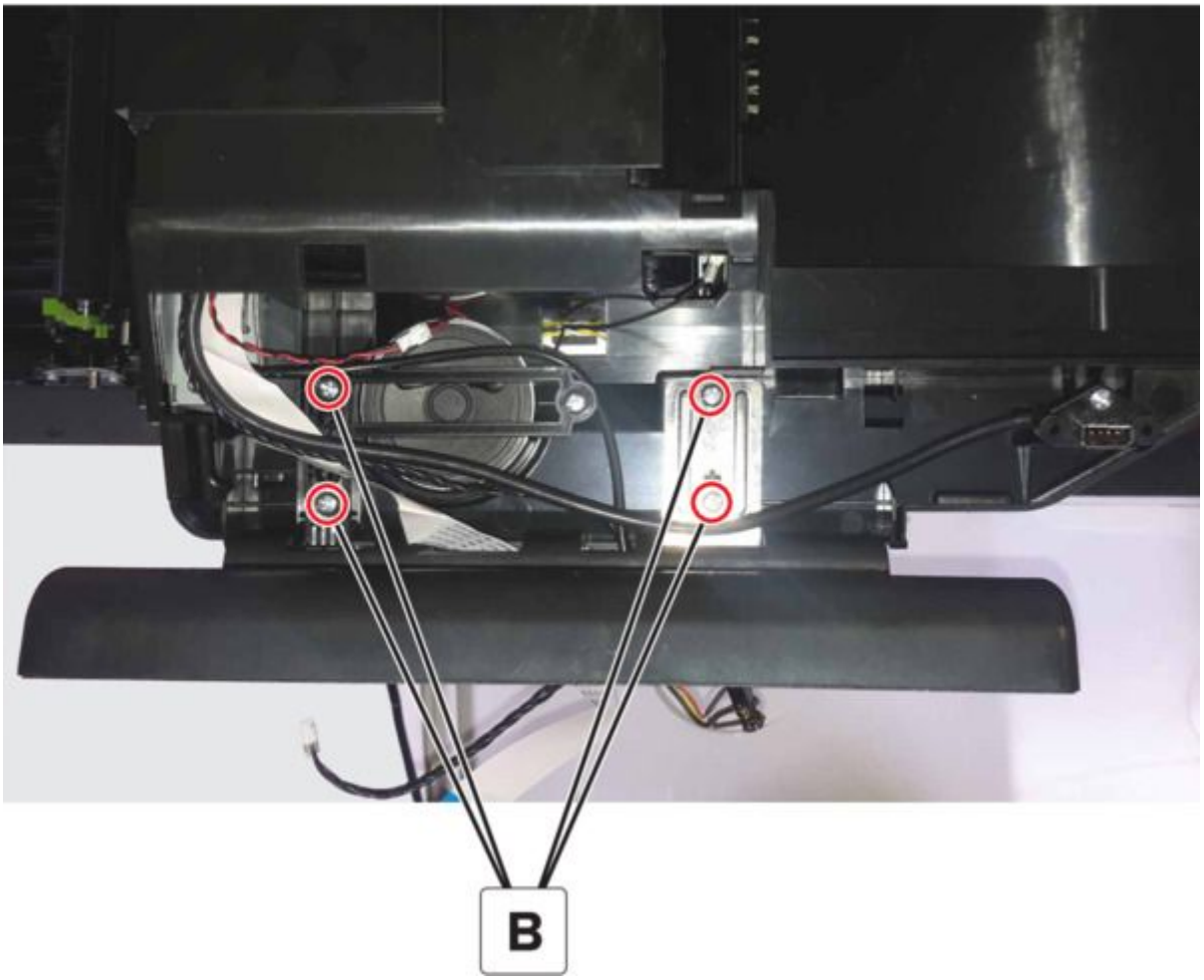
3. Use the Diagnostics Menu to test the replacement part. Do a feed test to check if the problem is resolved.
    - If the problem is not resolved—Turn off the printer, and then reinstall the old part.
    - If the problem is resolved—Perform a POR.
    - If NVRAM error occurs during the replacement, go to NVRAM mismatch failure service check on page 492

Removal procedure

1. Remove the control panel support cover. See Control panel support cover removal on page 637.
2. Remove the control panel button kit. See Control panel button kit removal on page 640.
3. Remove the control panel board. See Control panel board removal on page 642.
4. Detach the retainer (A).



5. Remove the four screws (B).

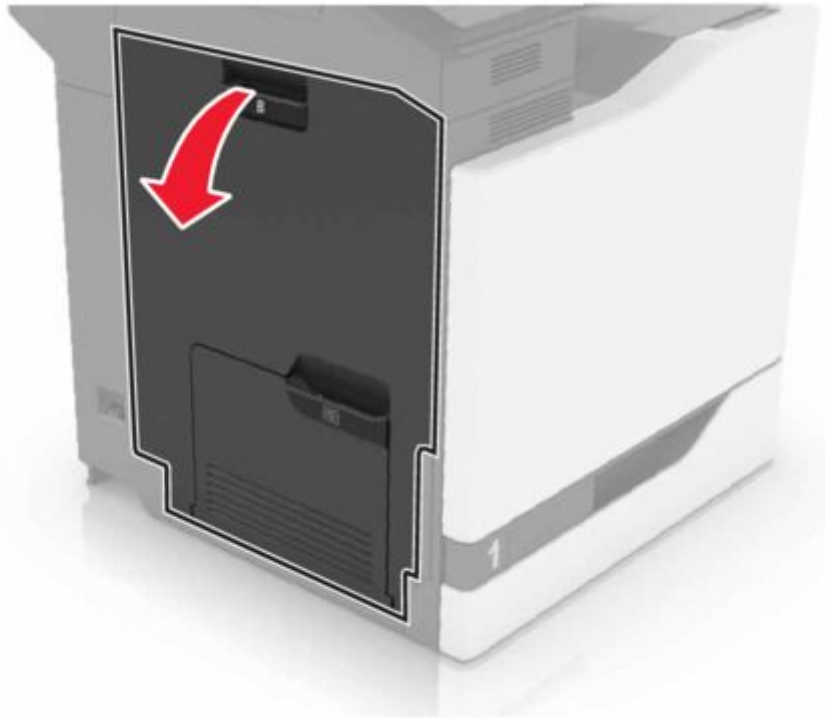


6. Remove the support.

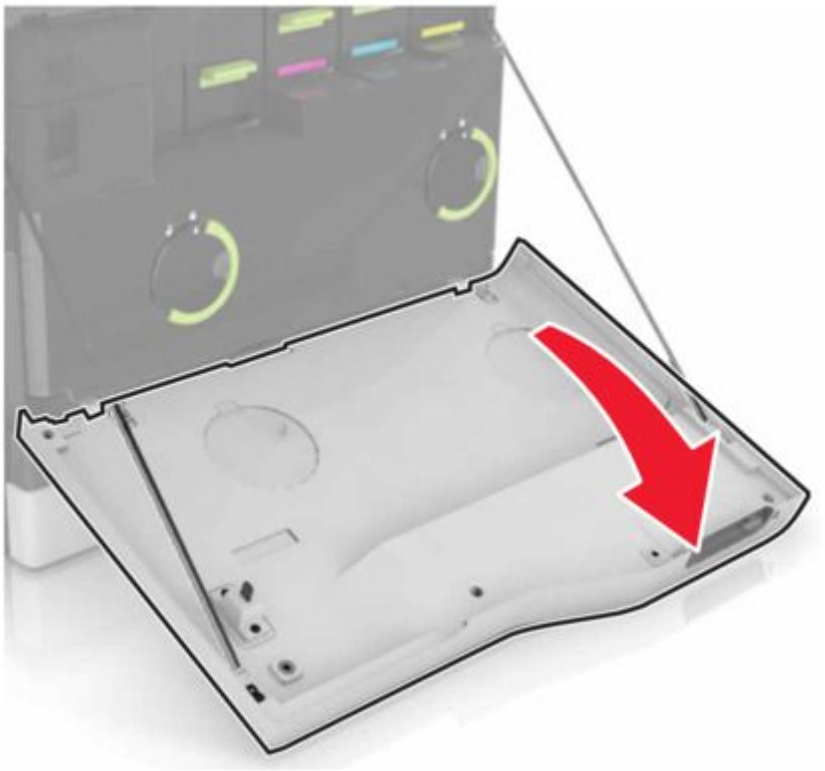
Waste toner bottle removal

1. Open door B.

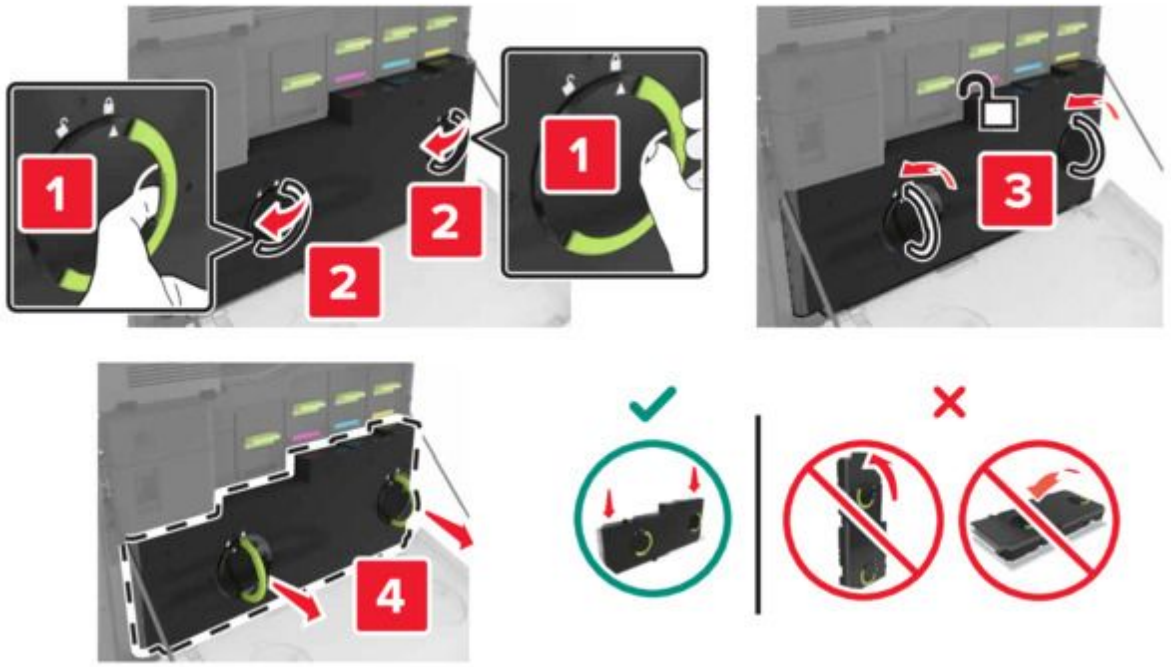
> **CAUTION—HOT SURFACE**
> The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



2. Open door A.



3. Remove the waste toner bottle.

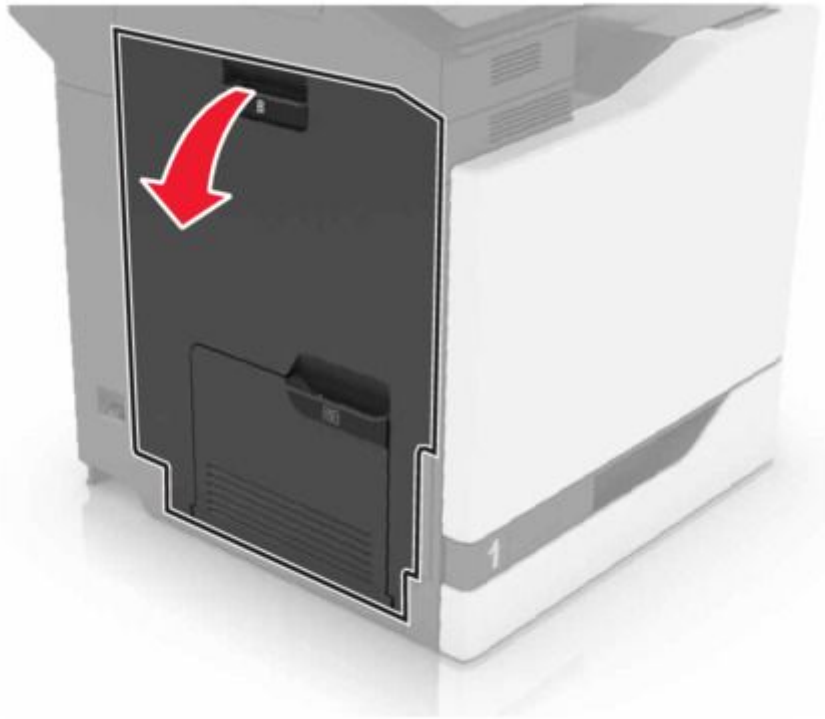


Developer unit and photoconductor unit removal

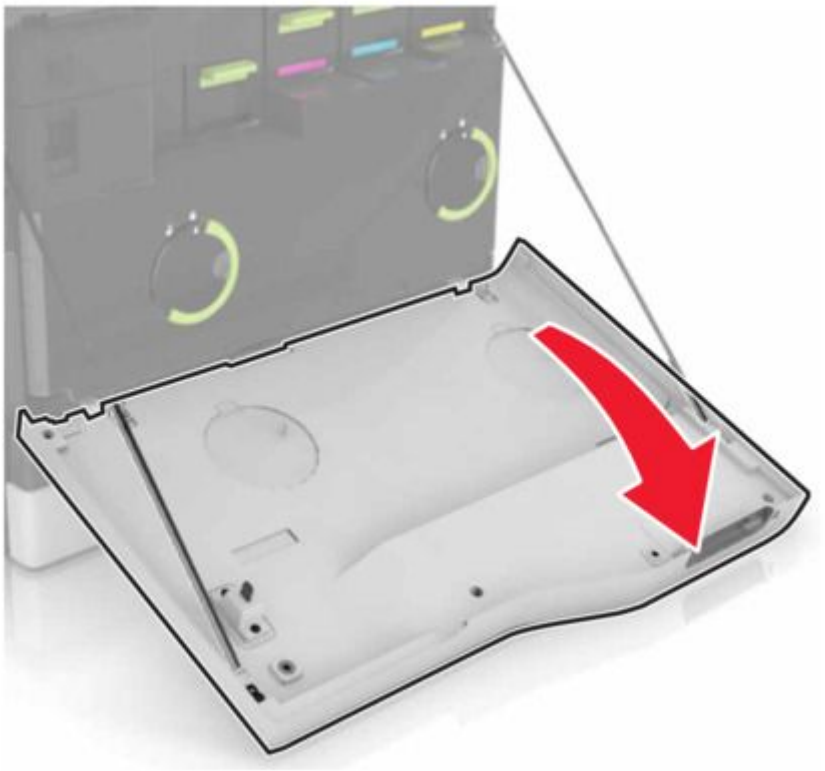
Note: For a video demonstration, see PC unit/developer door removal.

1. Open door B.

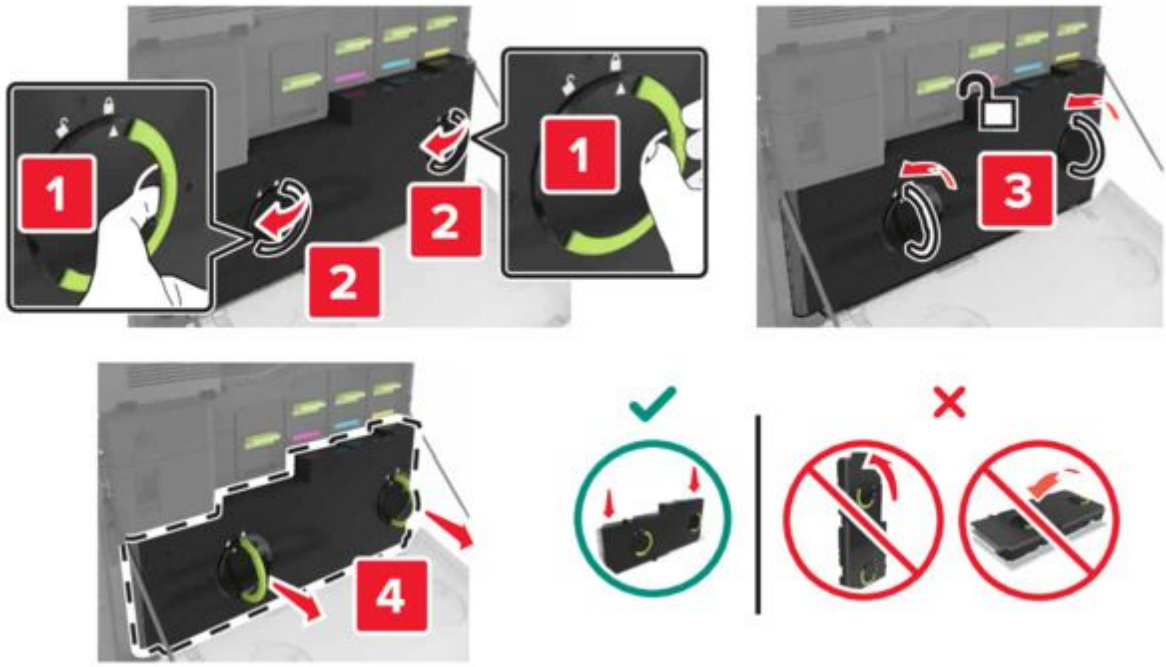
CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



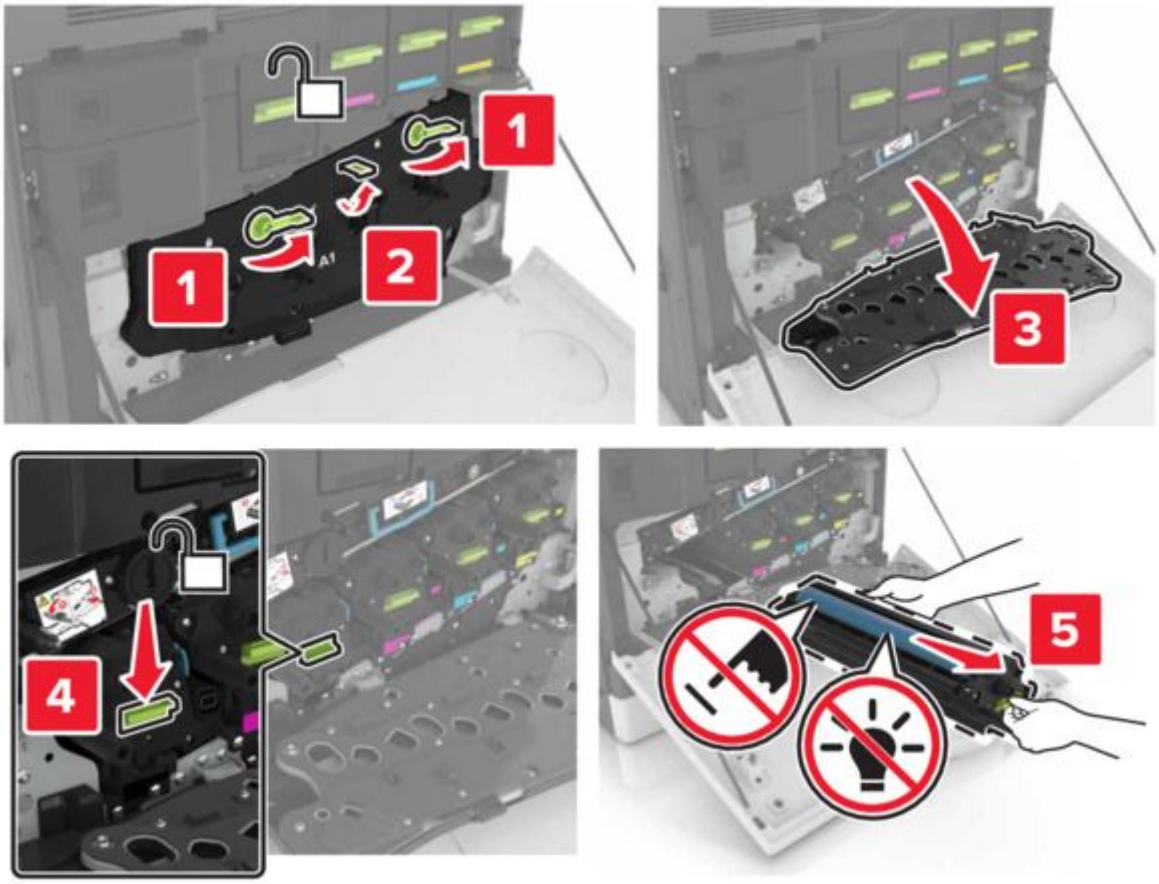
2. Open door A.



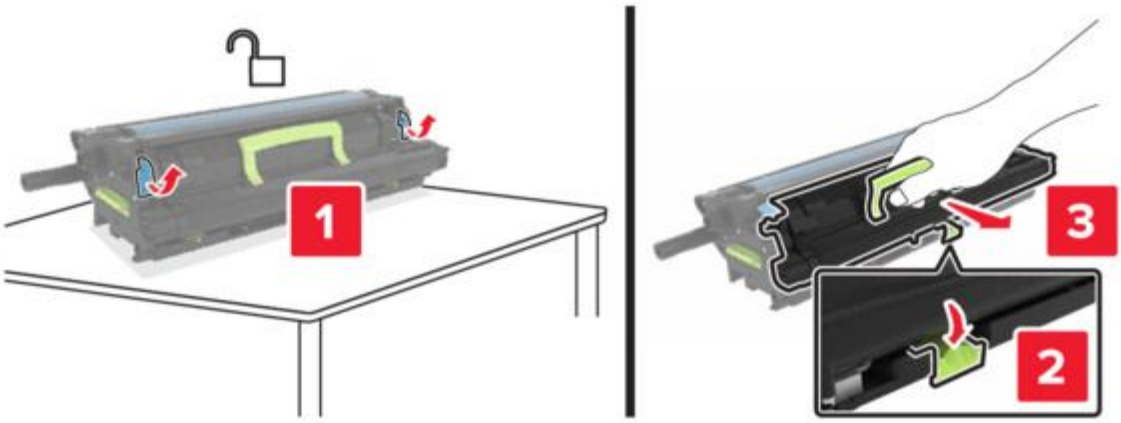
3. Remove the waste toner bottle.



4. Remove the developer and PC unit combo.

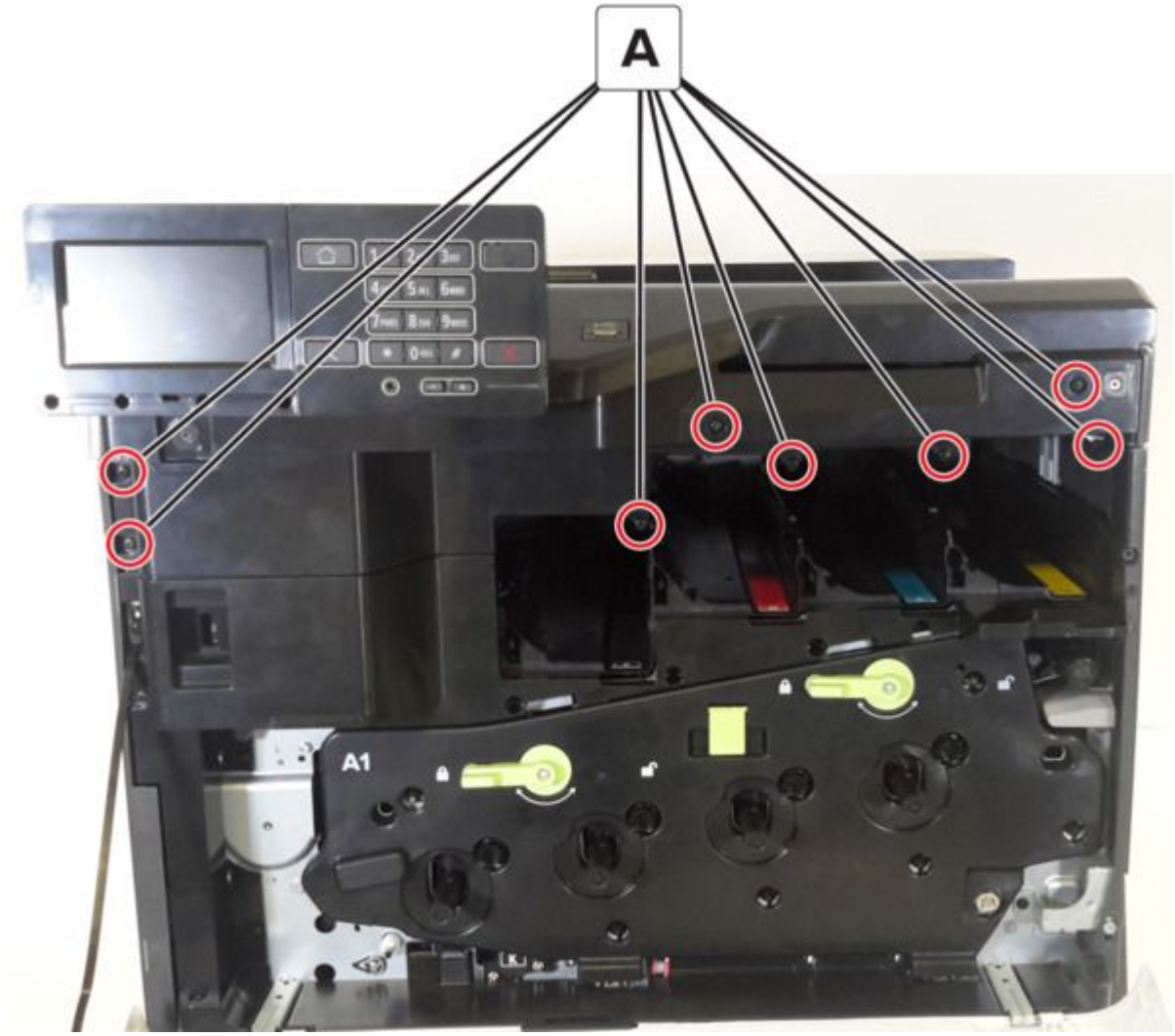


5. Remove the developer unit from the photoconductor unit.



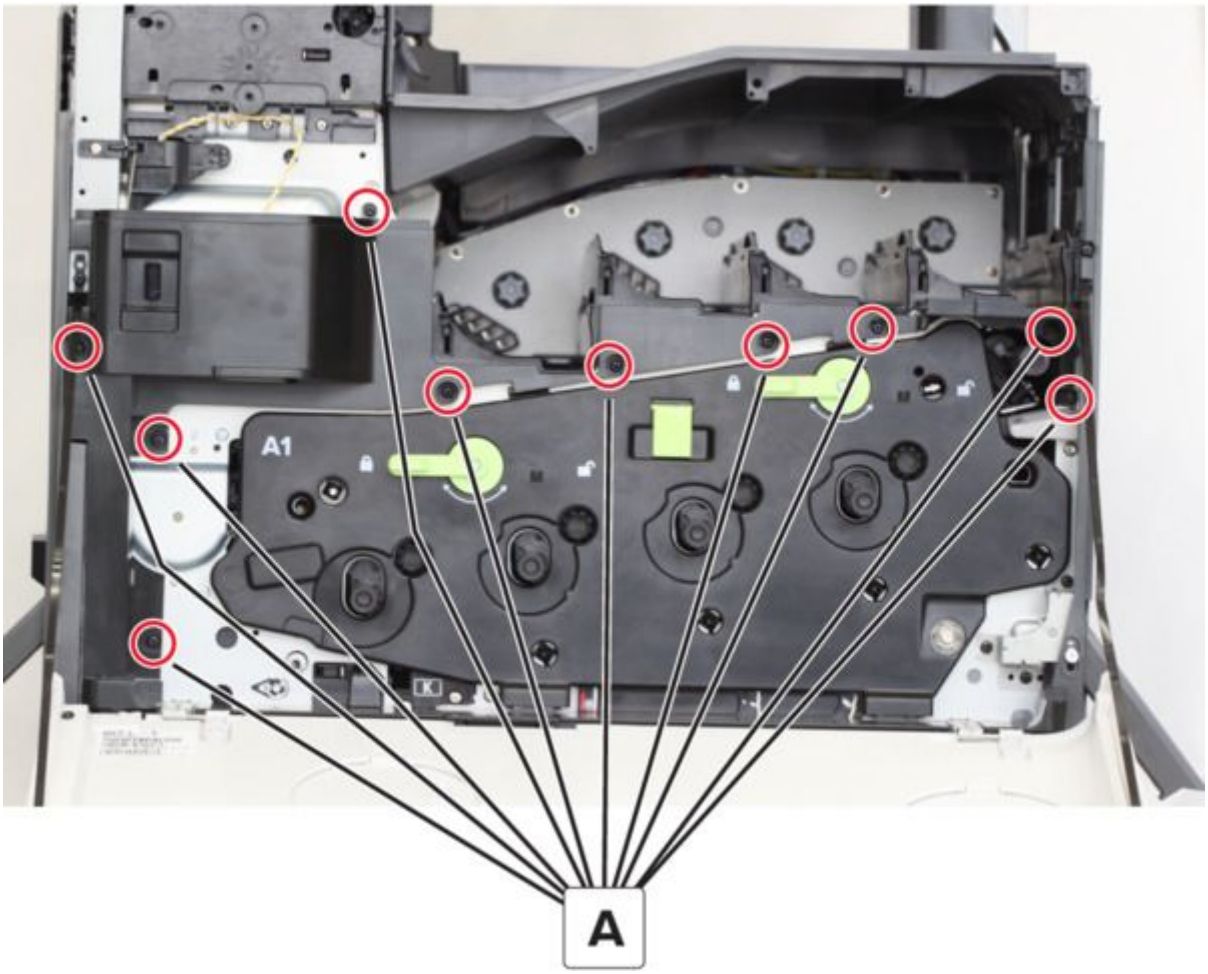
Inner upper cover removal

1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the eight screws (A), and then remove the cover.

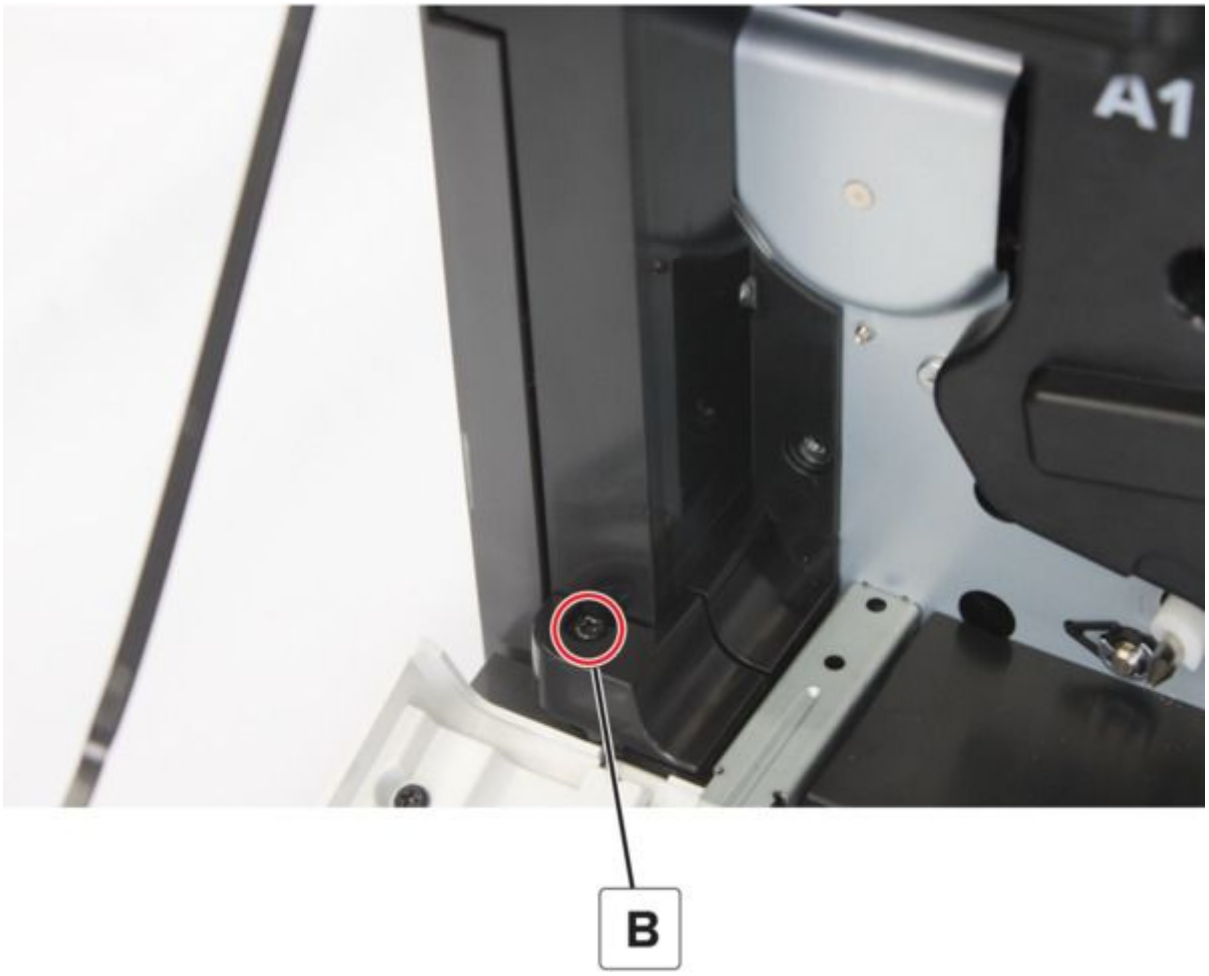


Inner lower cover removal

1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the inner upper cover. See .Inner upper cover removal on page 652
3. Remove the 10 screws (A).



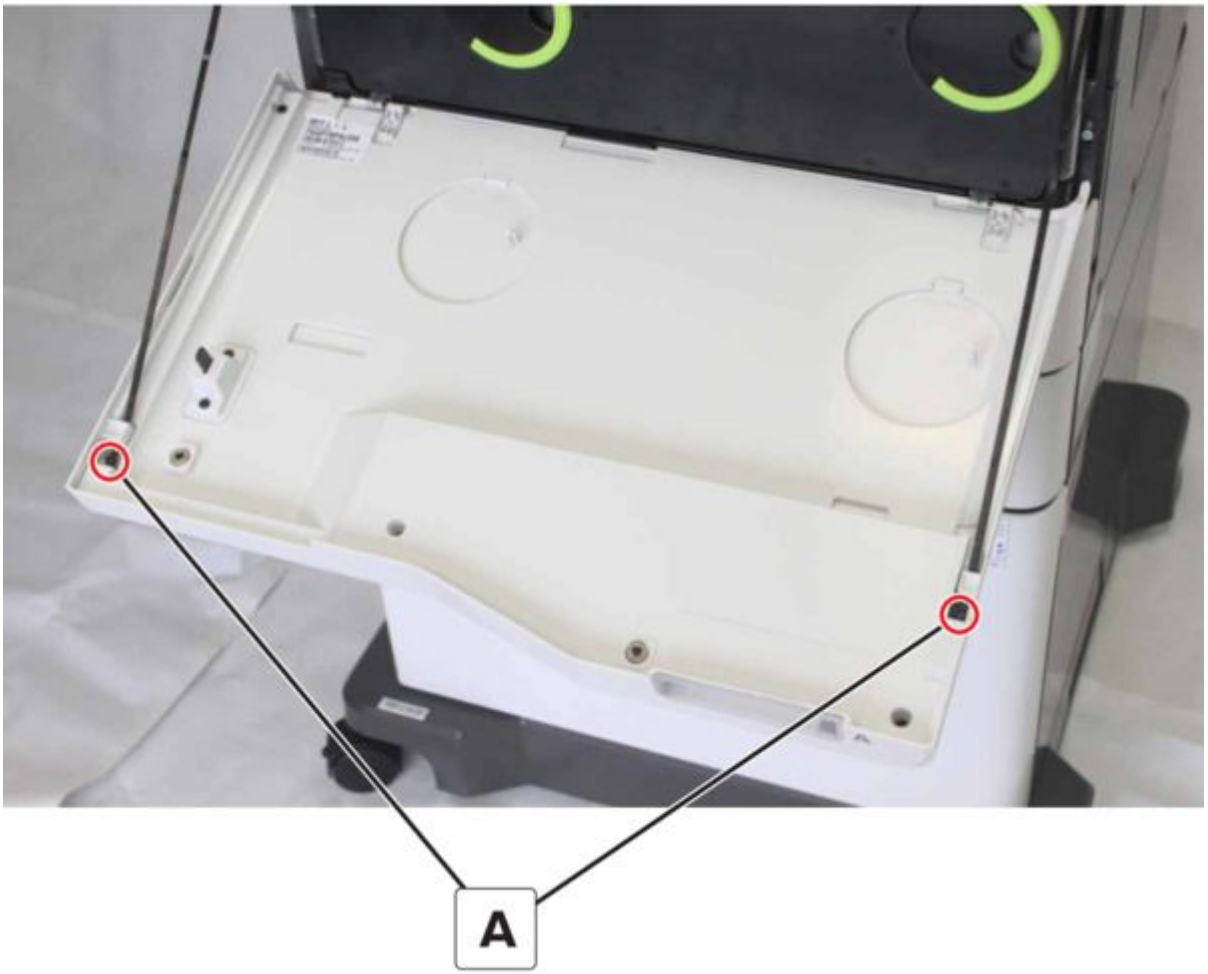
4. Remove the screw (B), and then remove the connector cover.



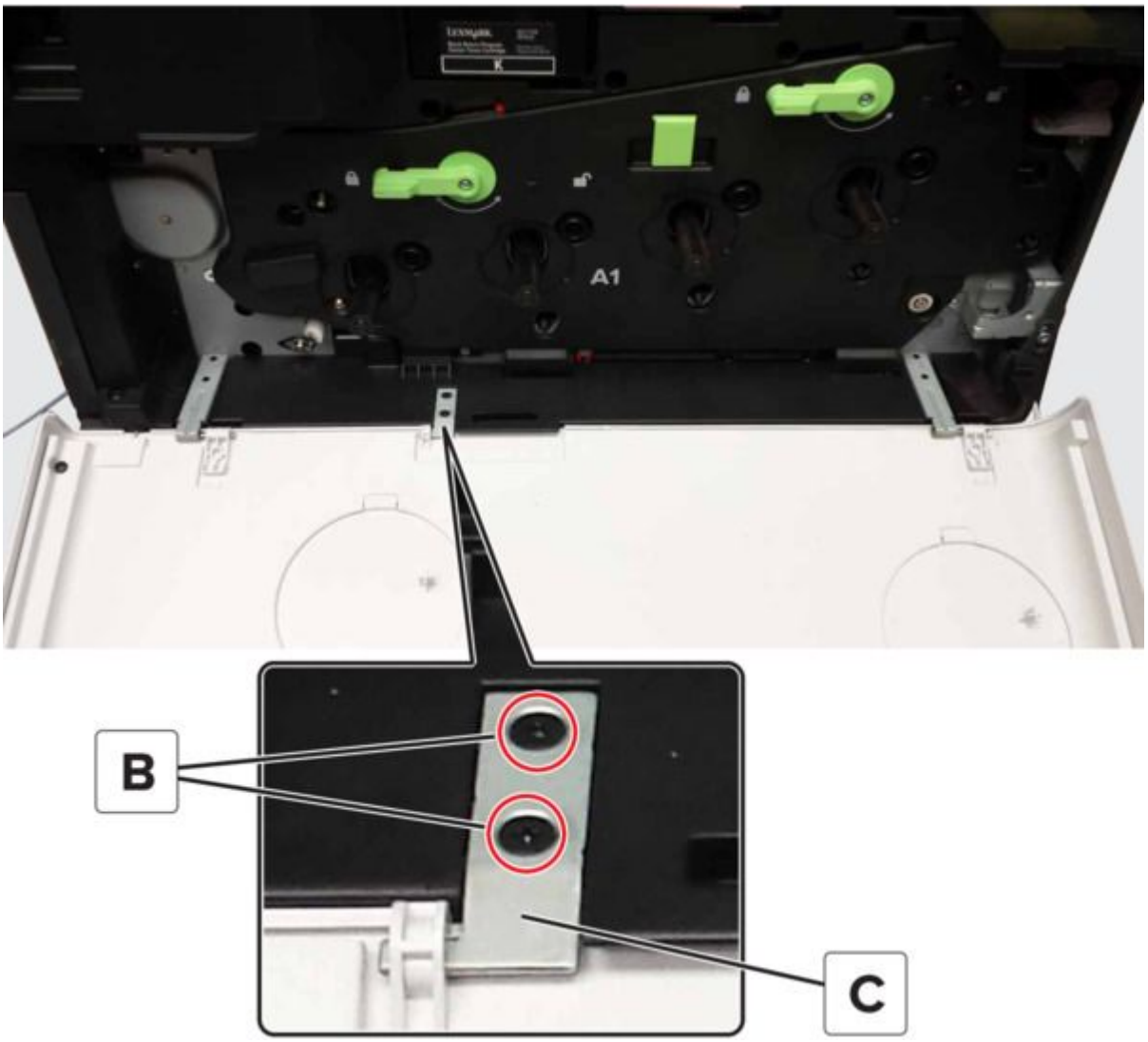
5. Remove the cover.

Front door removal

1. Open the door, and then remove the two screws (A).



2. Remove the two screws (B) and the bracket (C).

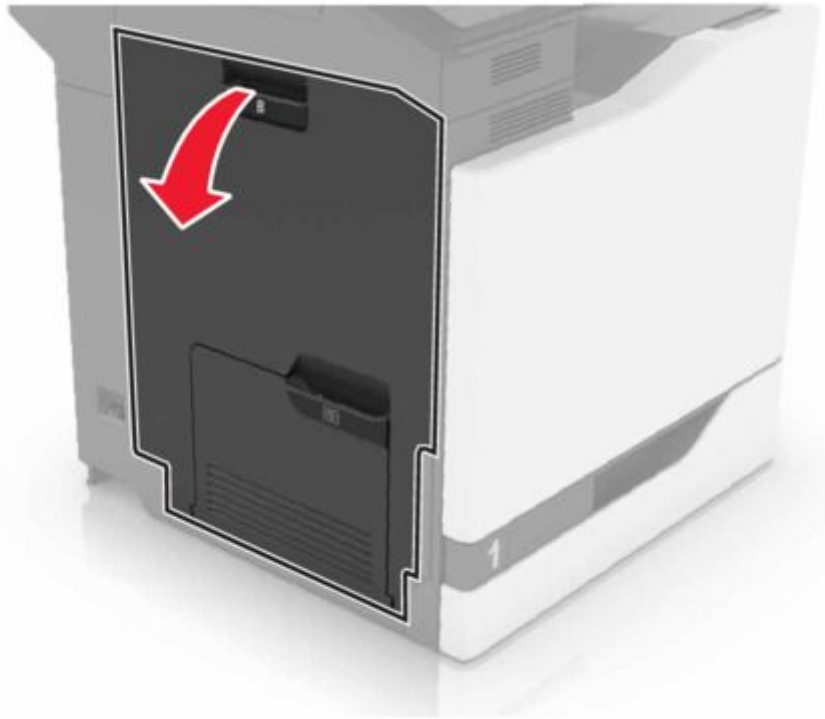


3. Move the door to the right to remove it.

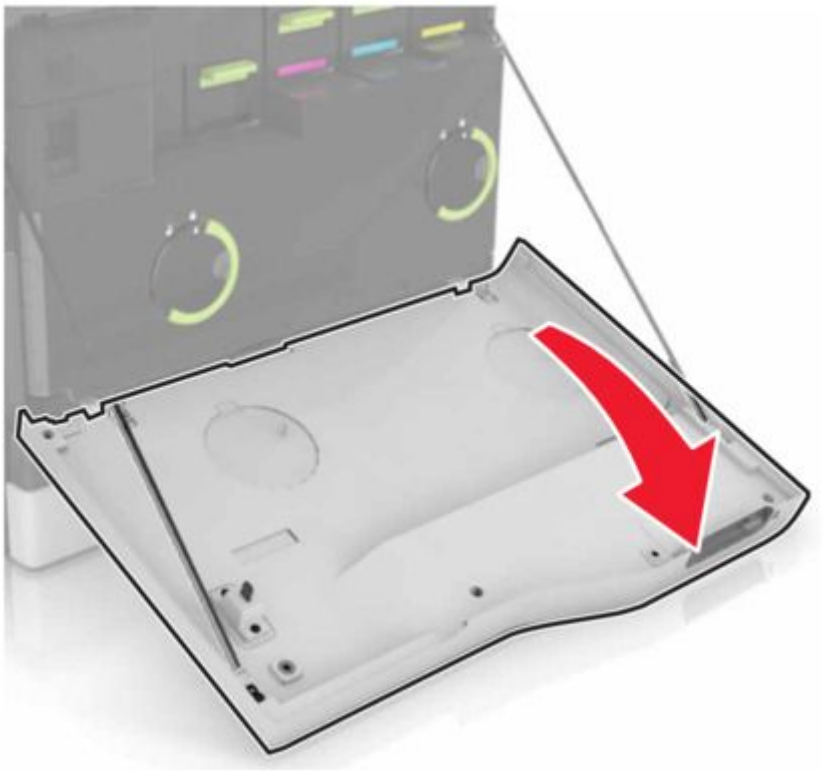
Transfer belt removal

1. Open door B.

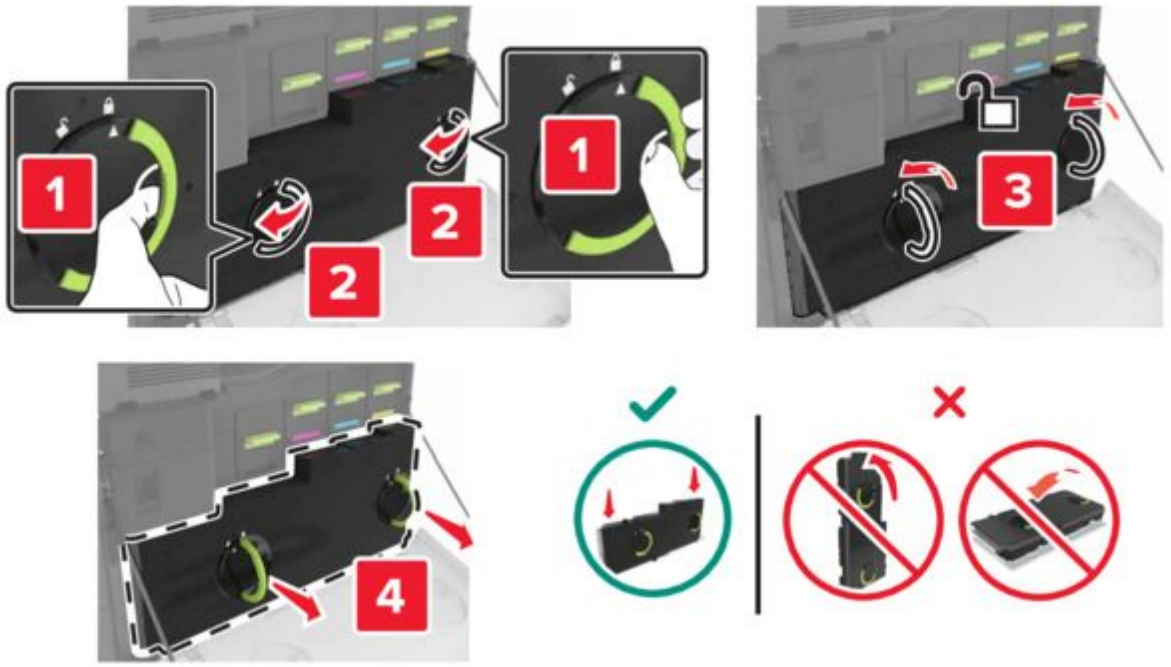
CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



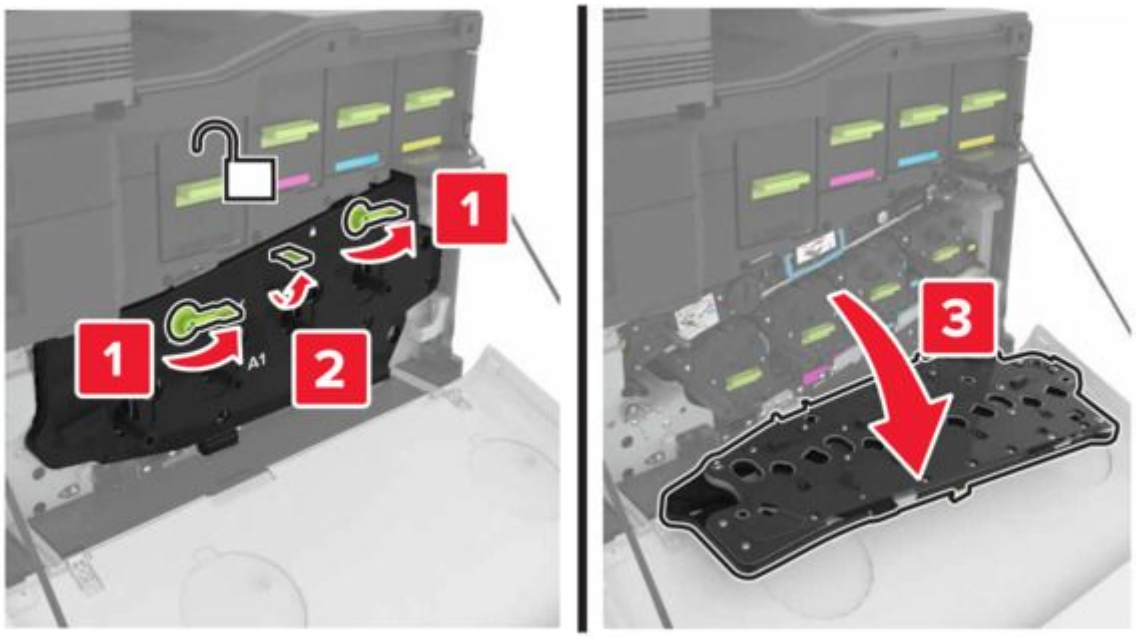
2. Open door A.



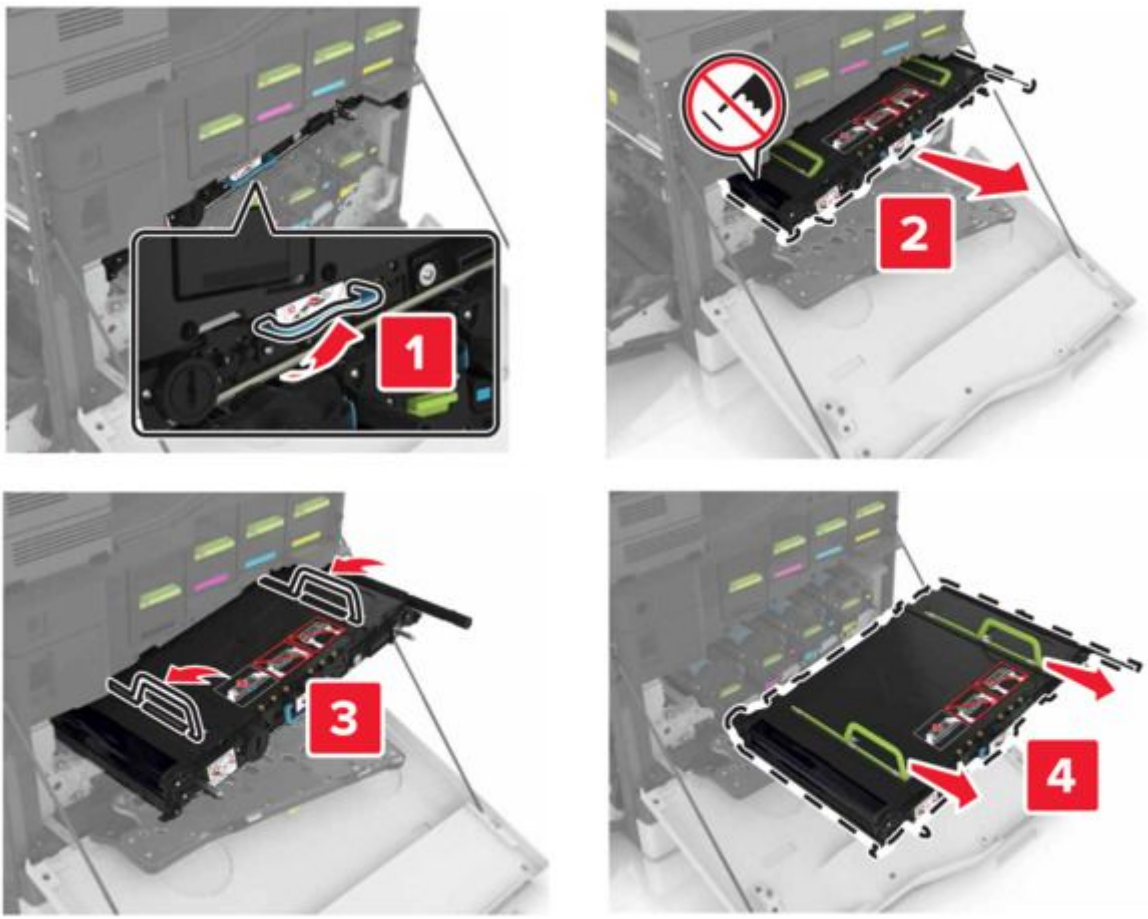
3. Remove the waste toner bottle.



4. Open door A1.

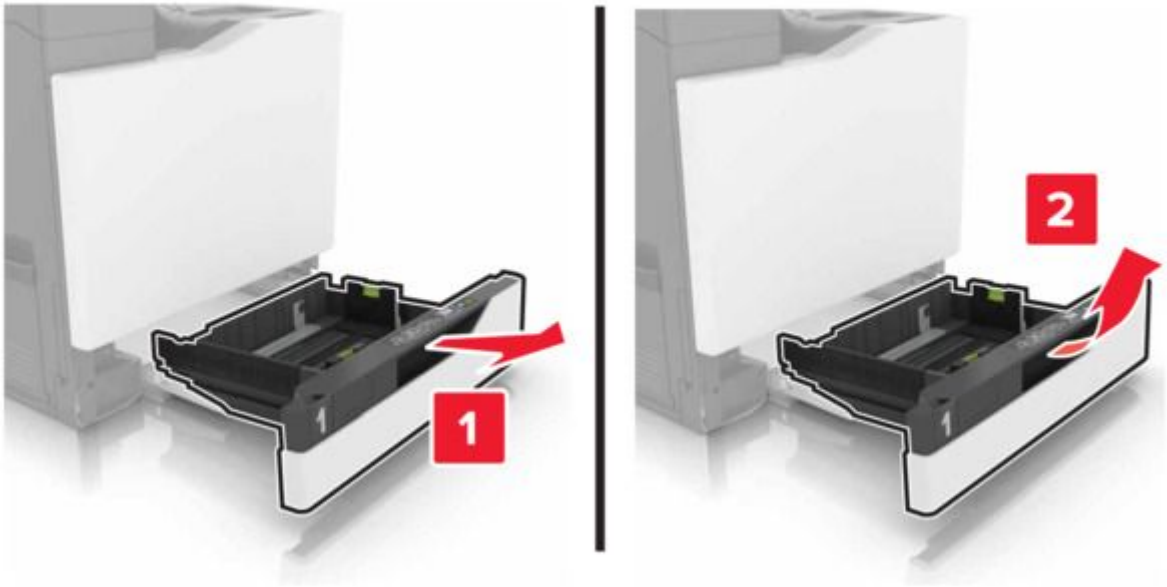


5. Remove the transfer belt.

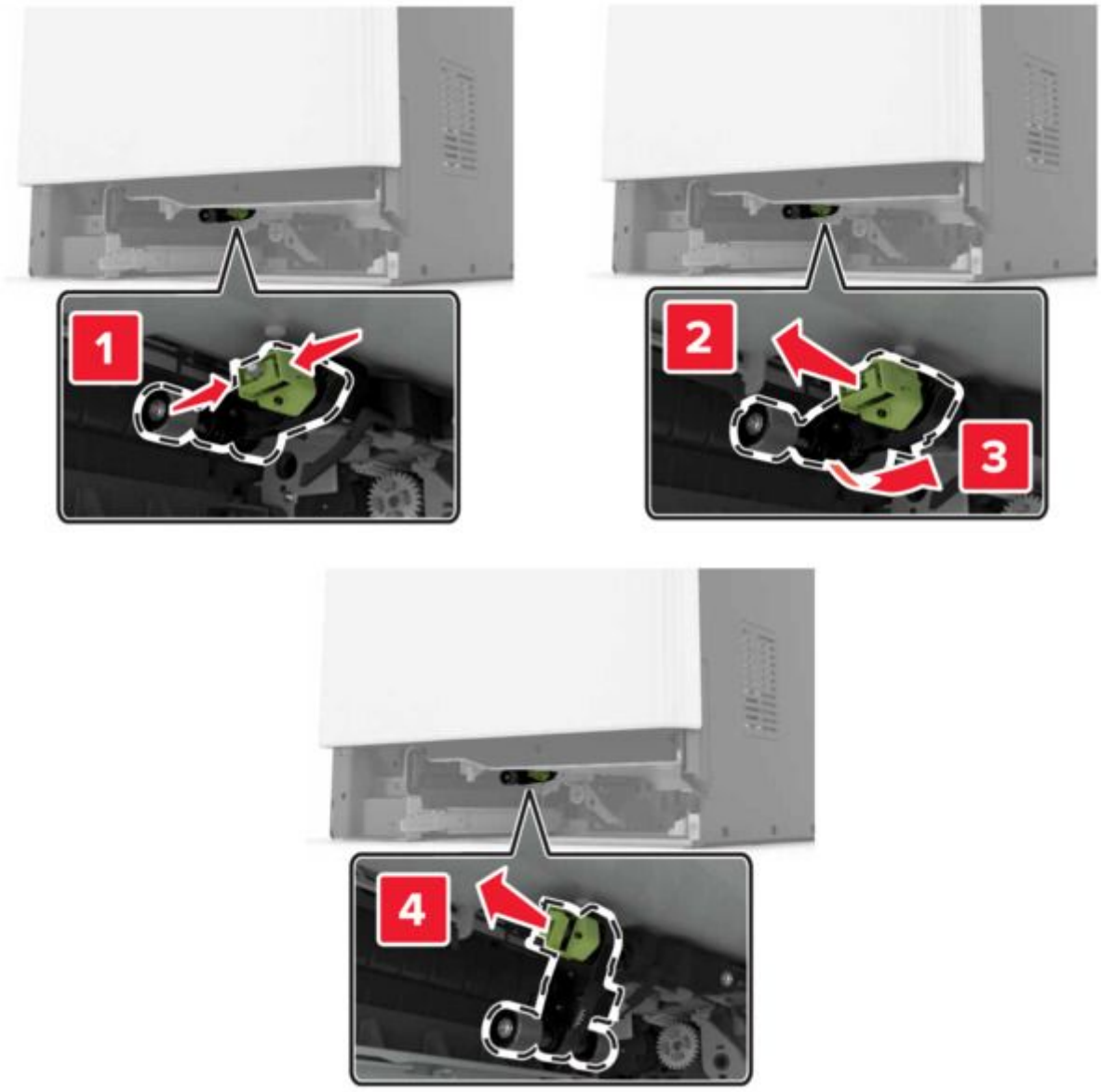


Pick roller removal

1. Remove the tray.

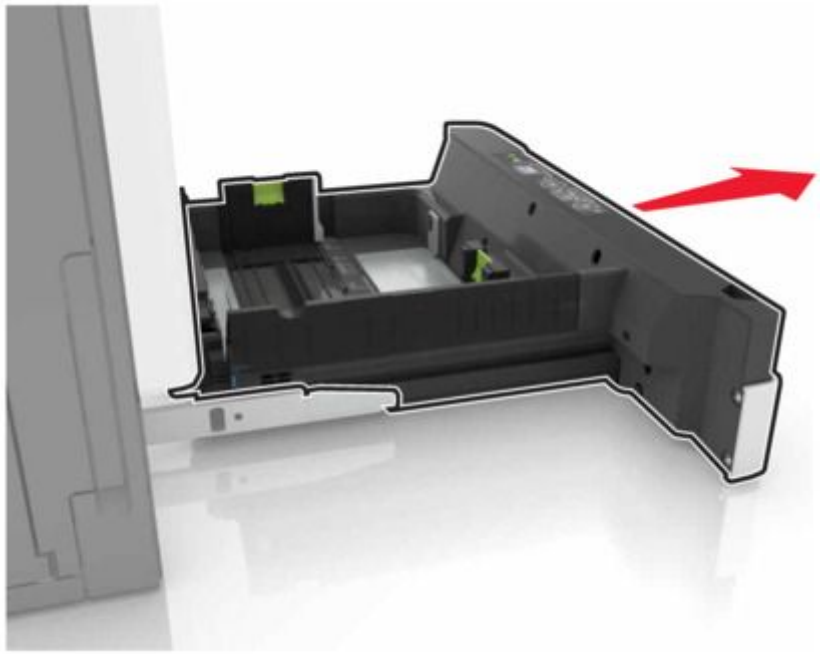


2. Remove the pick roller.

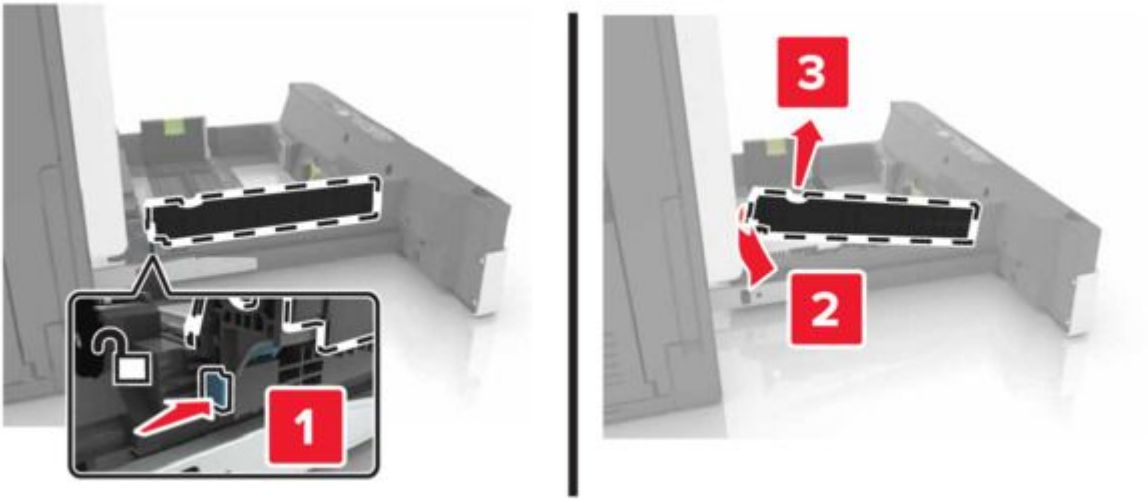


Separator pad removal

1. Pull out the tray.

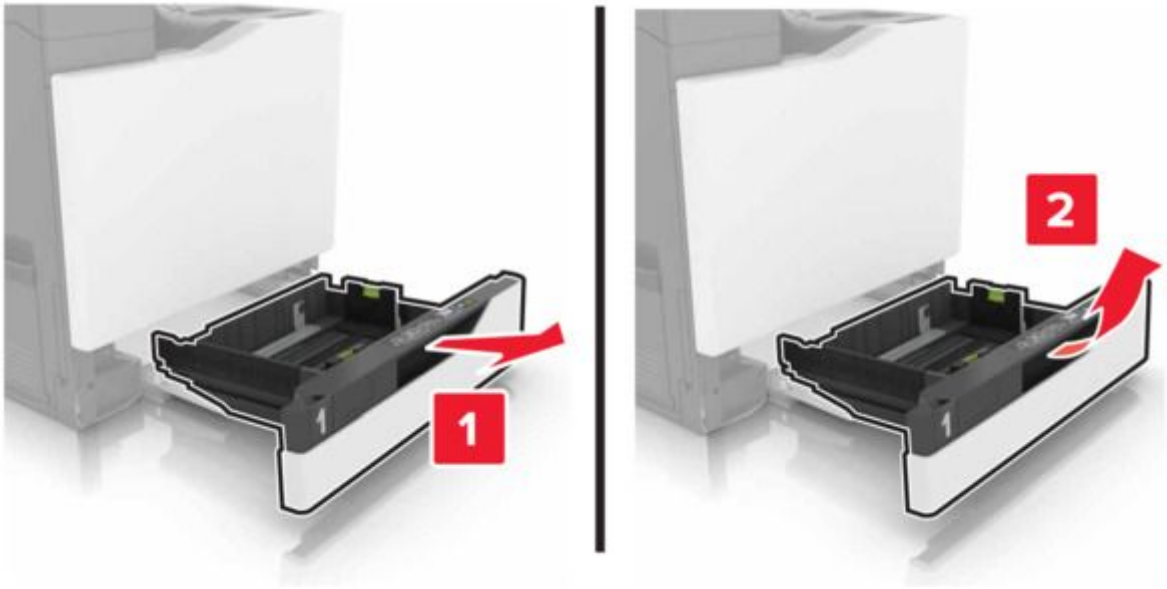


2. Remove the separator pad.

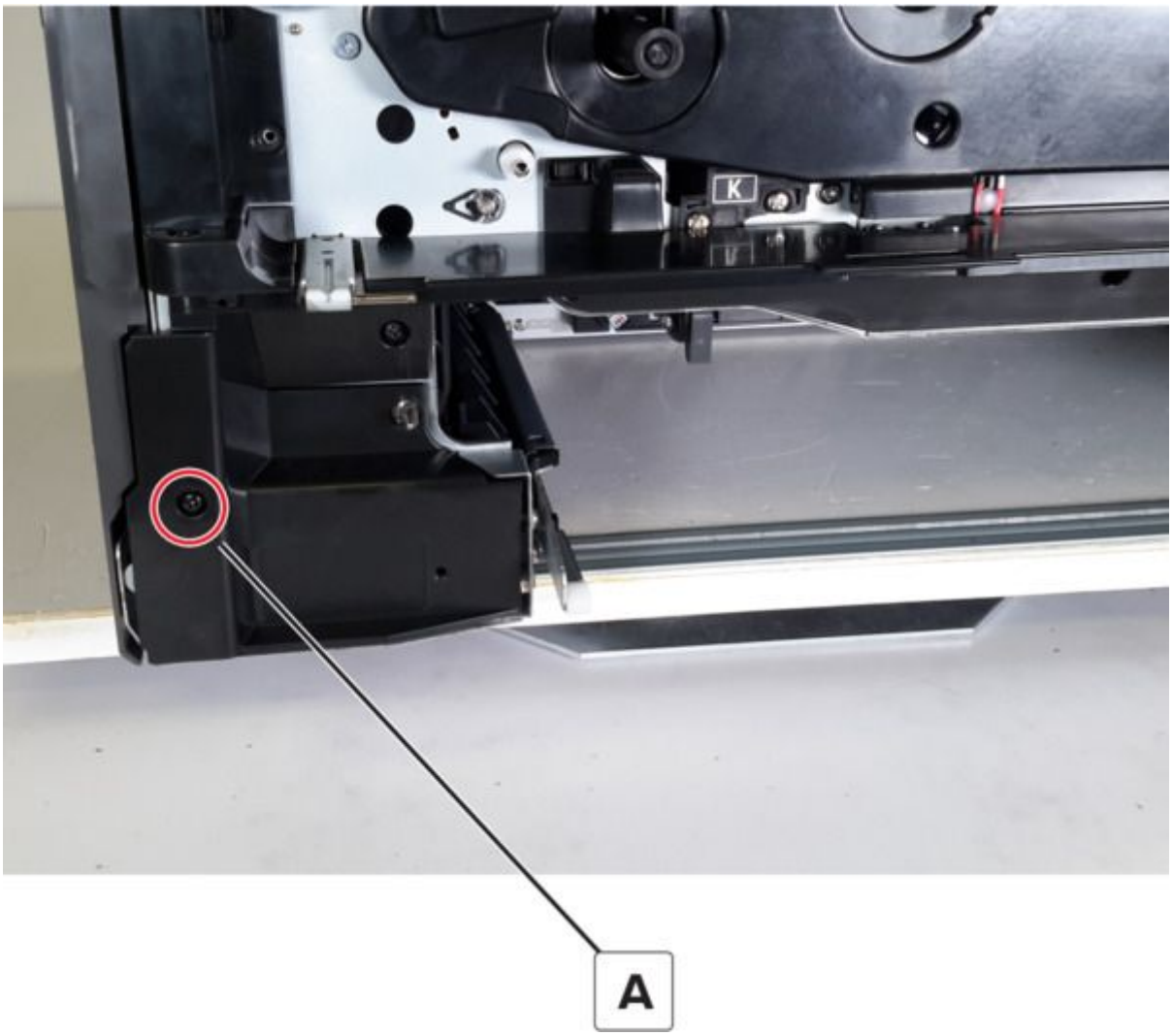


Door rod cover removal

1. Remove tray 1.

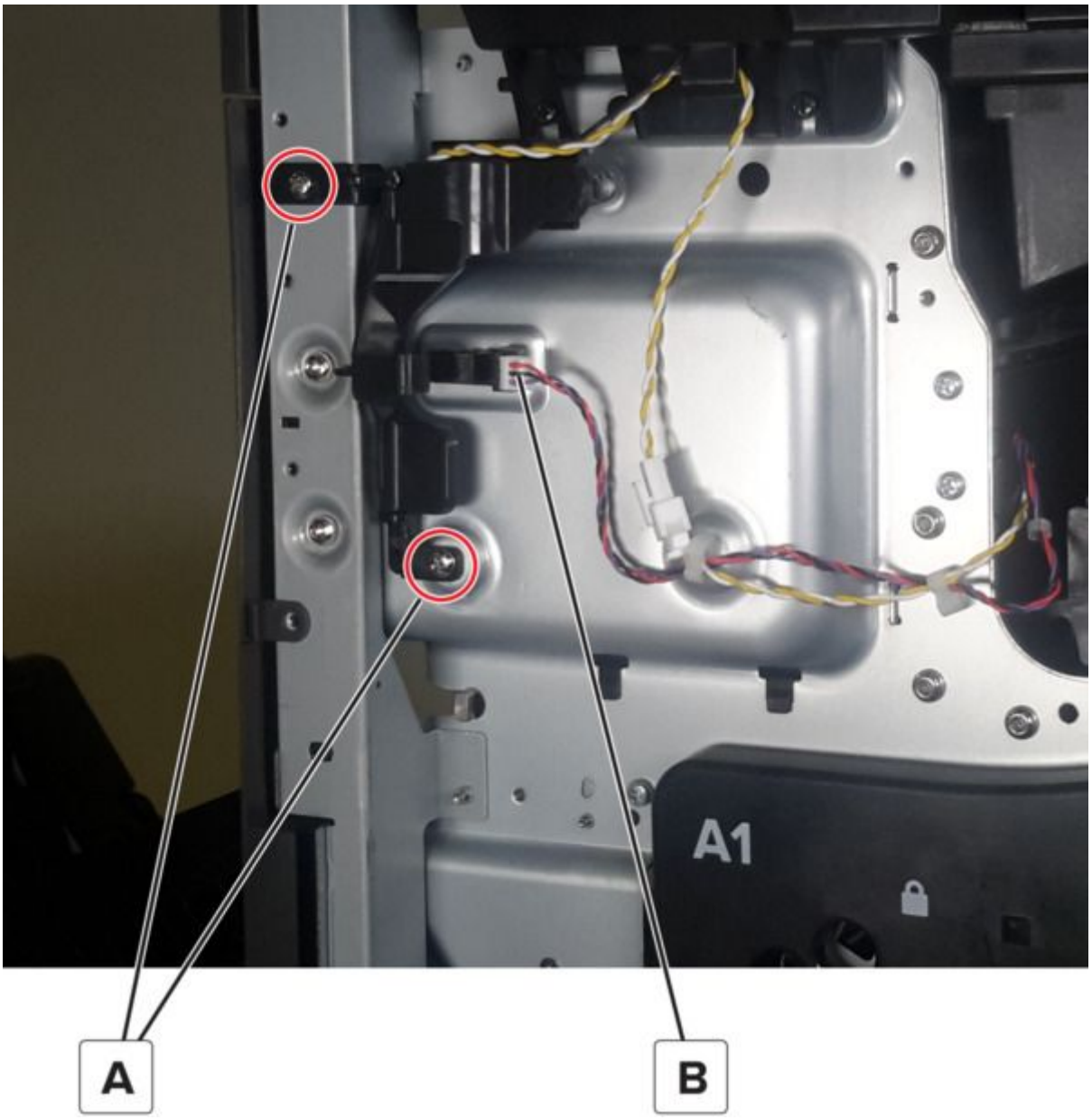


2. Remove the screw (A), and then remove the cover.



Sensor (door interlock) removal

1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the inner upper cover. See .Inner upper cover removal on page 652
3. Remove the inner lower cover. See Inner lower cover removal on page 653.
4. Remove the two screws (A), and then remove the actuator.
5. Disconnect the cable (B), and then remove the sensor.

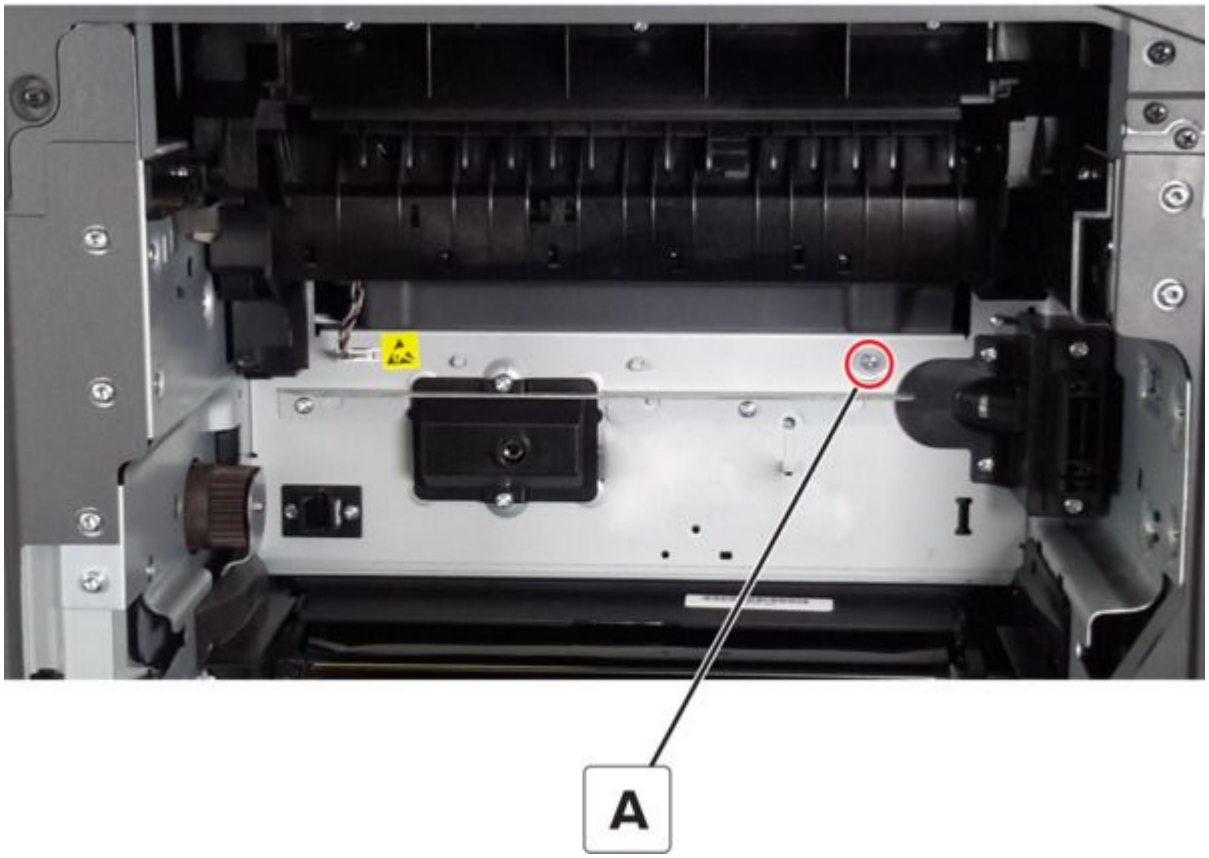


HVPS fan removal

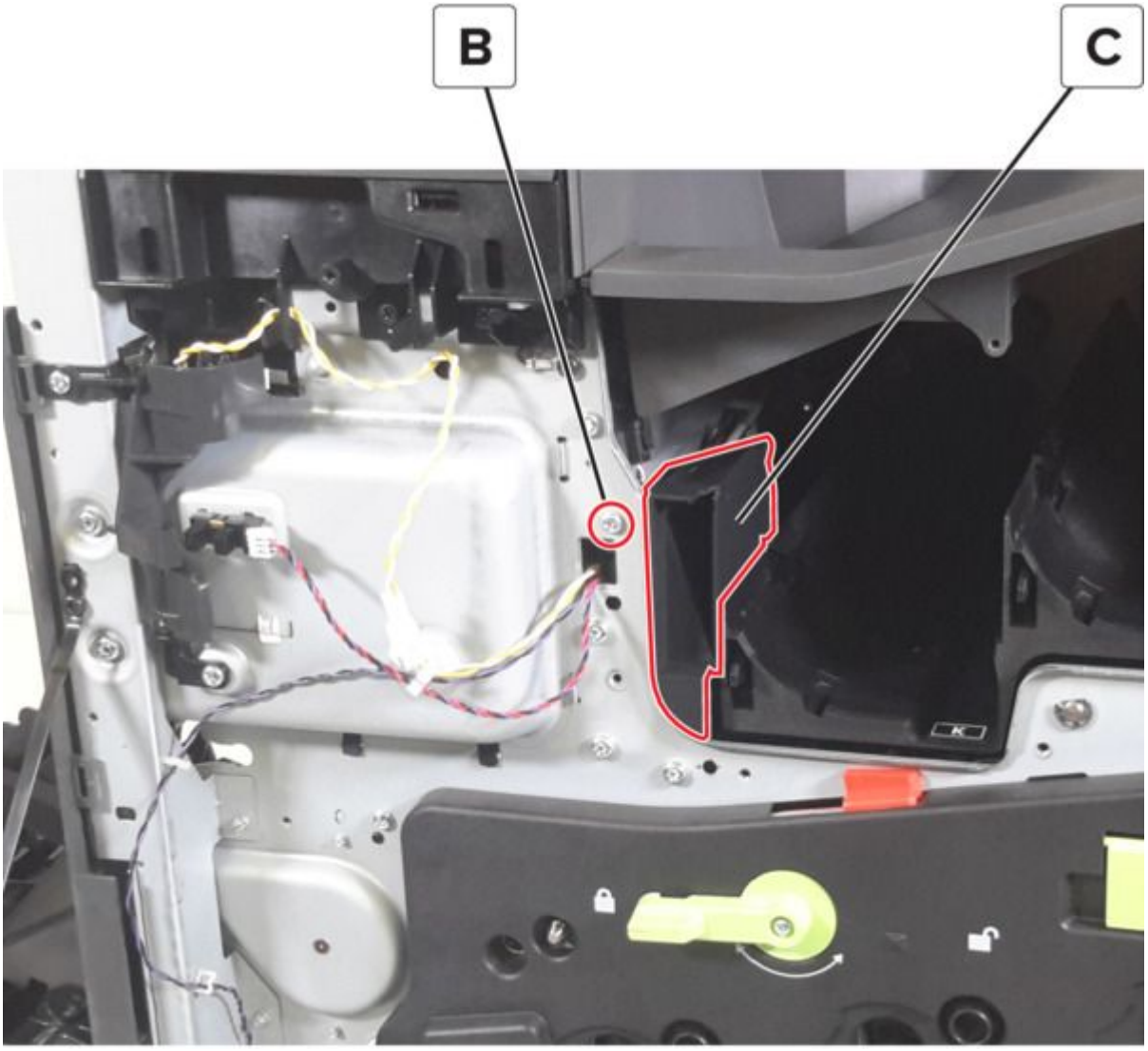
> **Note:** For a video demonstration, see HVPS fan removal.

1. Open door B, and then remove the screw (A).

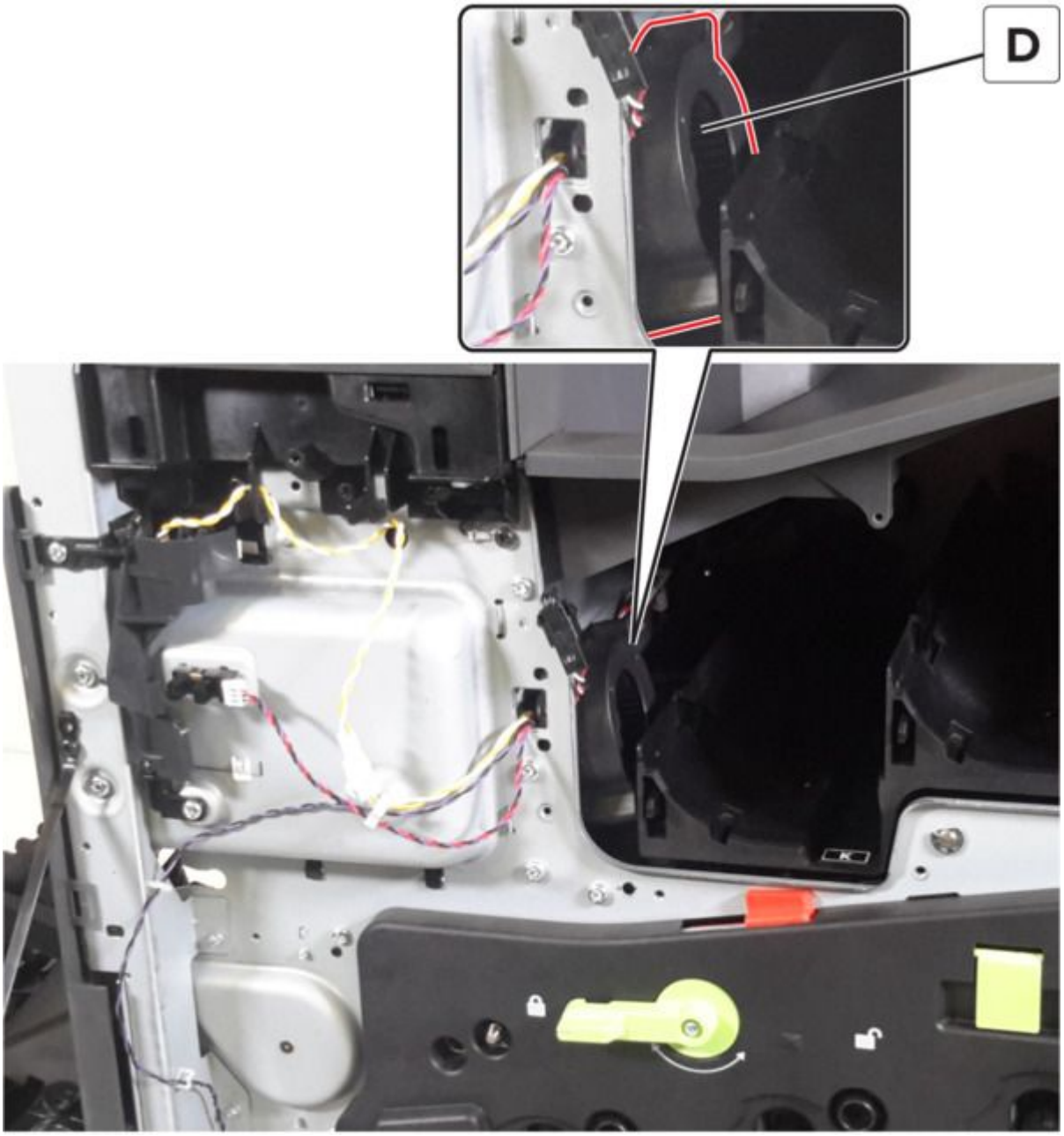
CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



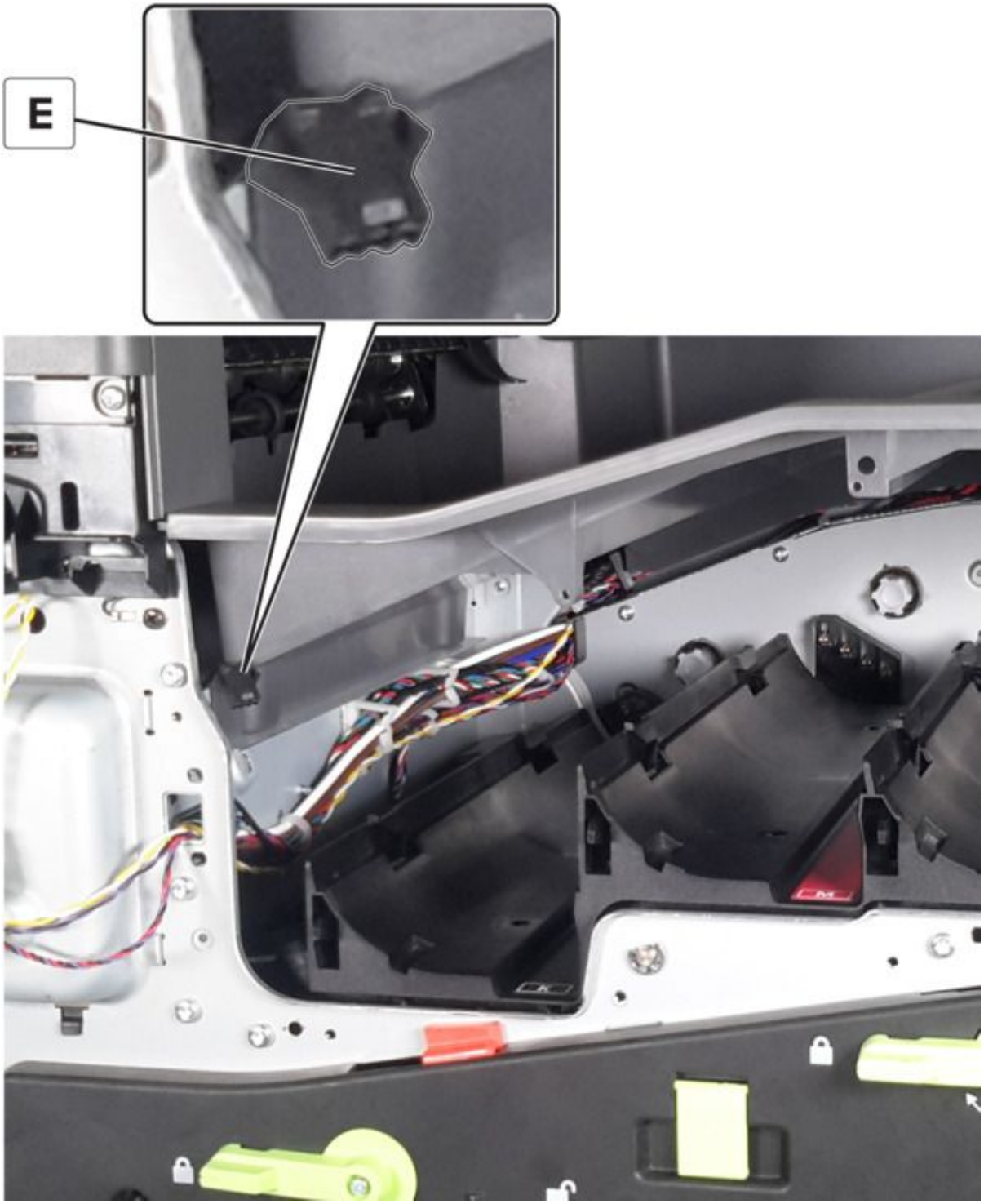
2. Open door A.
3. Remove the inner upper cover. See .Inner upper cover removal on page 652
4. Remove the inner lower cover. See Inner lower cover removal on page 653.
5. Remove the screw (B) and the duct (C).



6. Remove the fan (D).



7. Disconnect the cable (E).

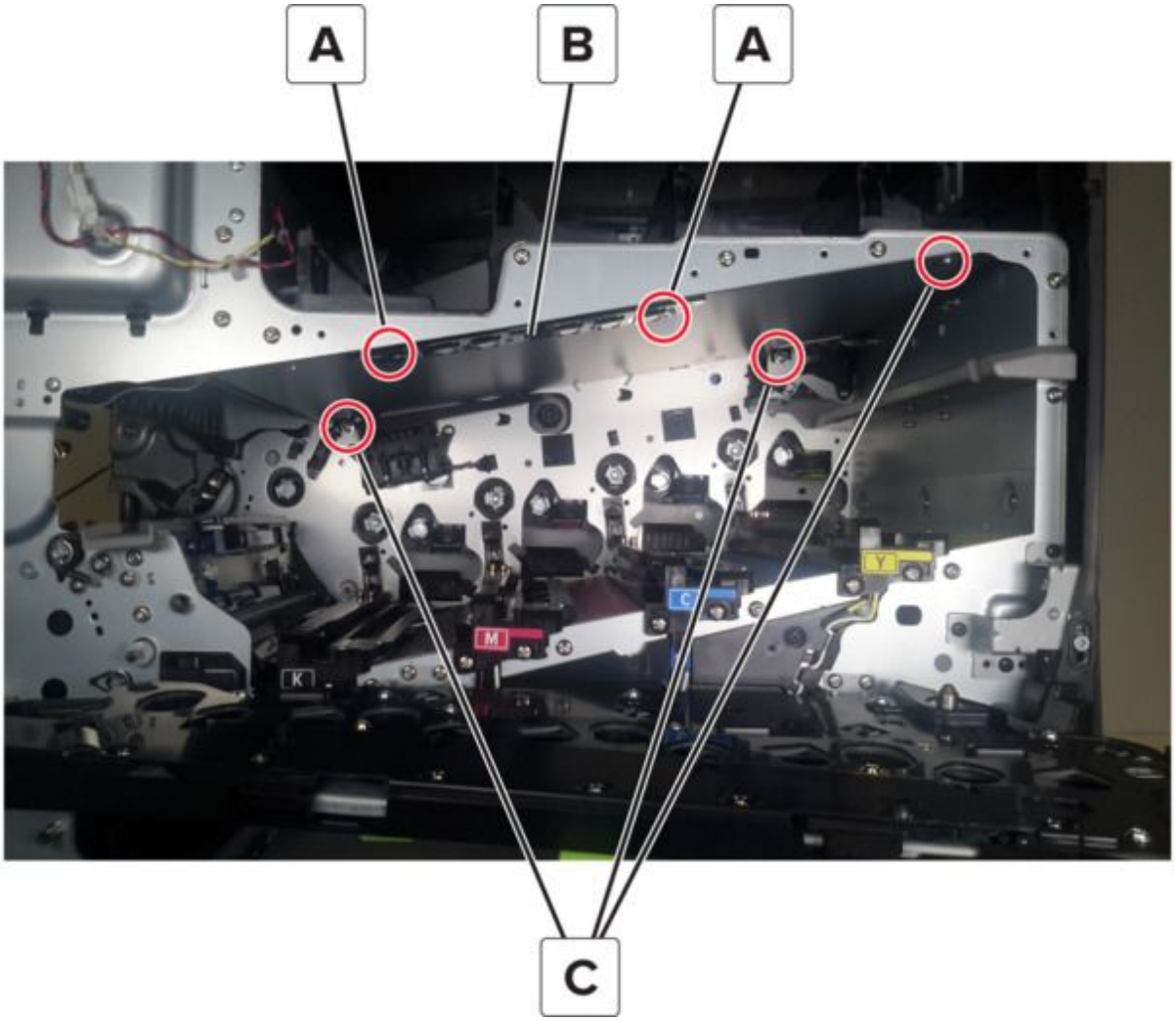


Main HVPS removal

> **Note:** For a video demonstration, see Main HVPS removal.

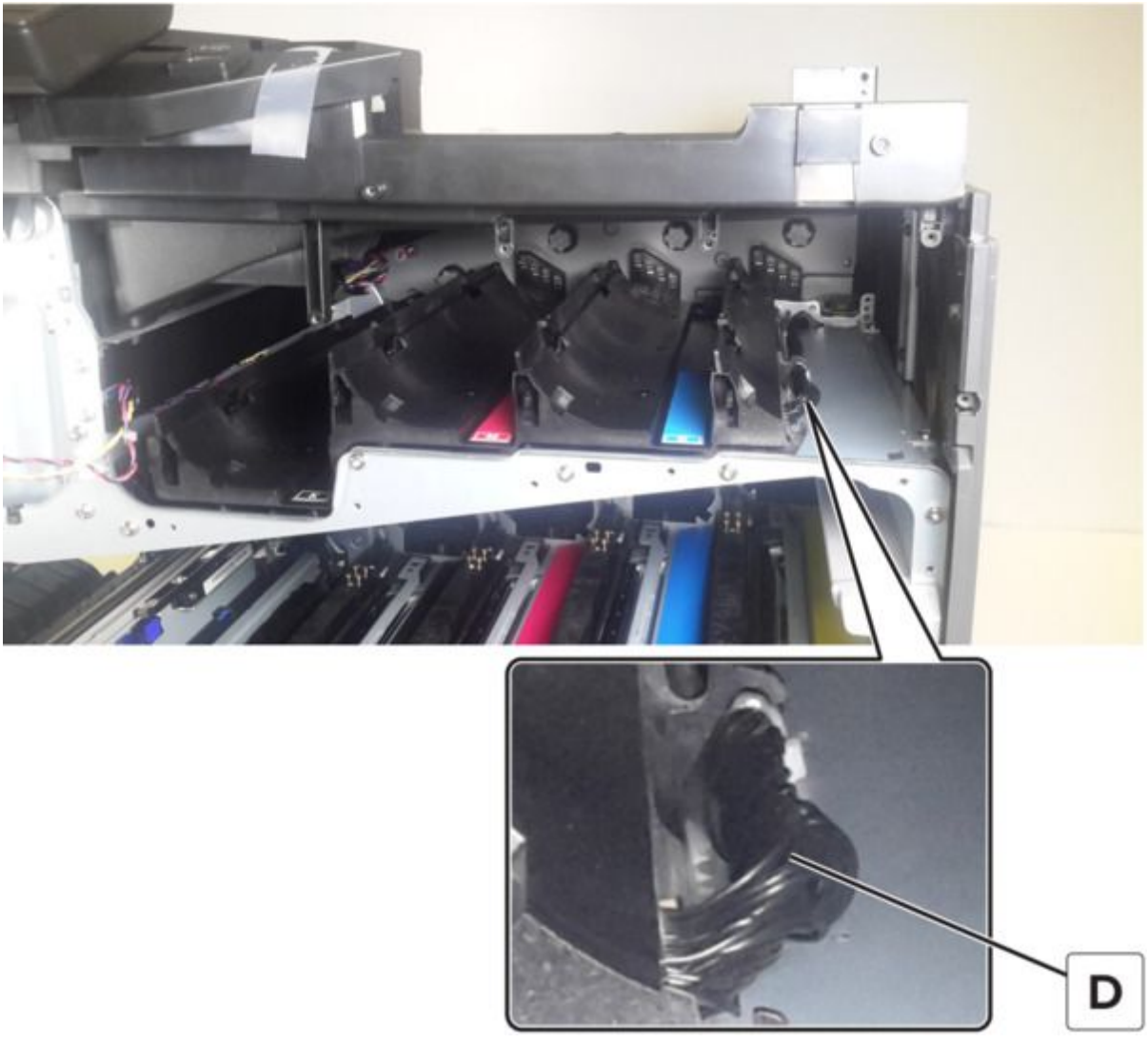
1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the inner upper cover. See .Inner upper cover removal on page 652
3. Remove the inner lower cover. See Inner lower cover removal on page 653.

4. Remove the HVPS fan. See HVPS fan removal on page 663.
5. Remove the two screws (A), and then remove the bezel (B).
6. Remove the three screws (C).



7. Remove the toner cartridge guide.

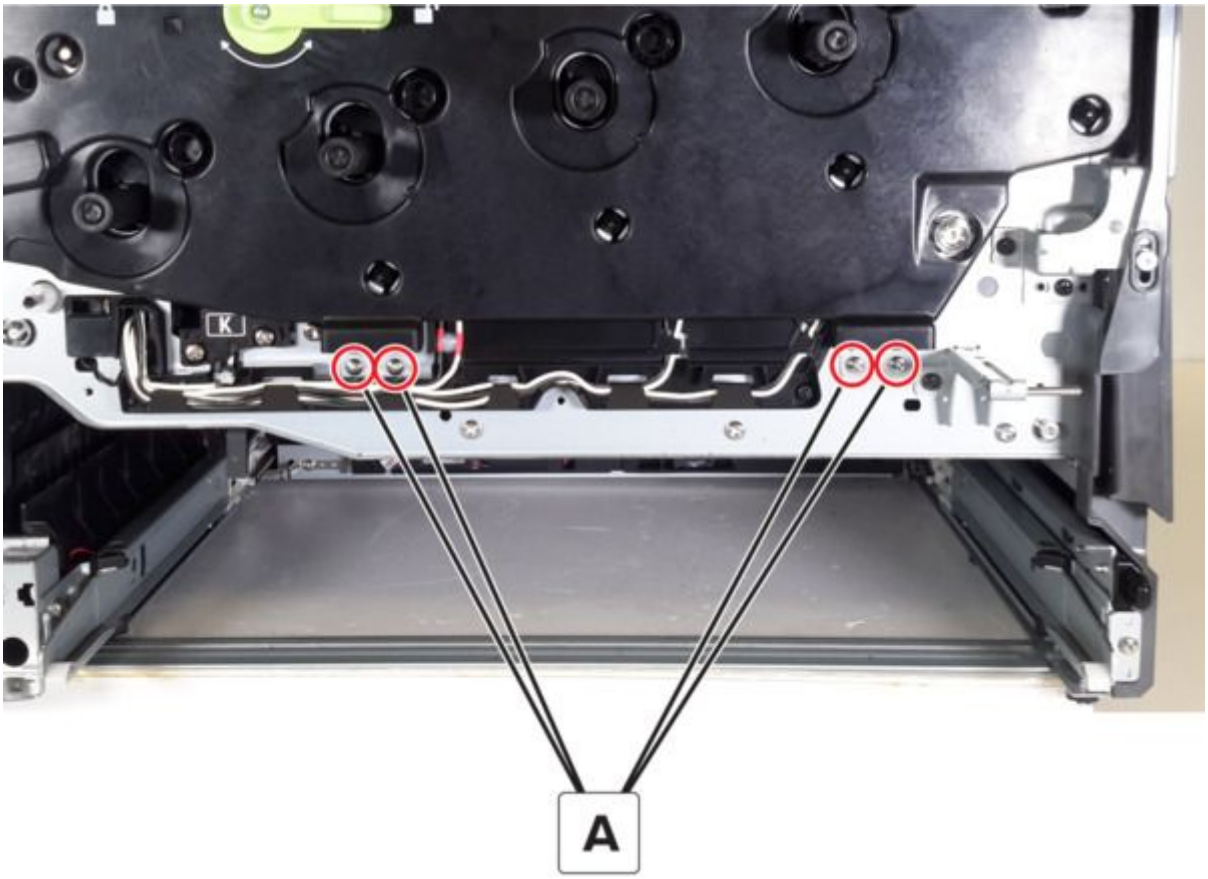
8. Disconnect the cable (D).



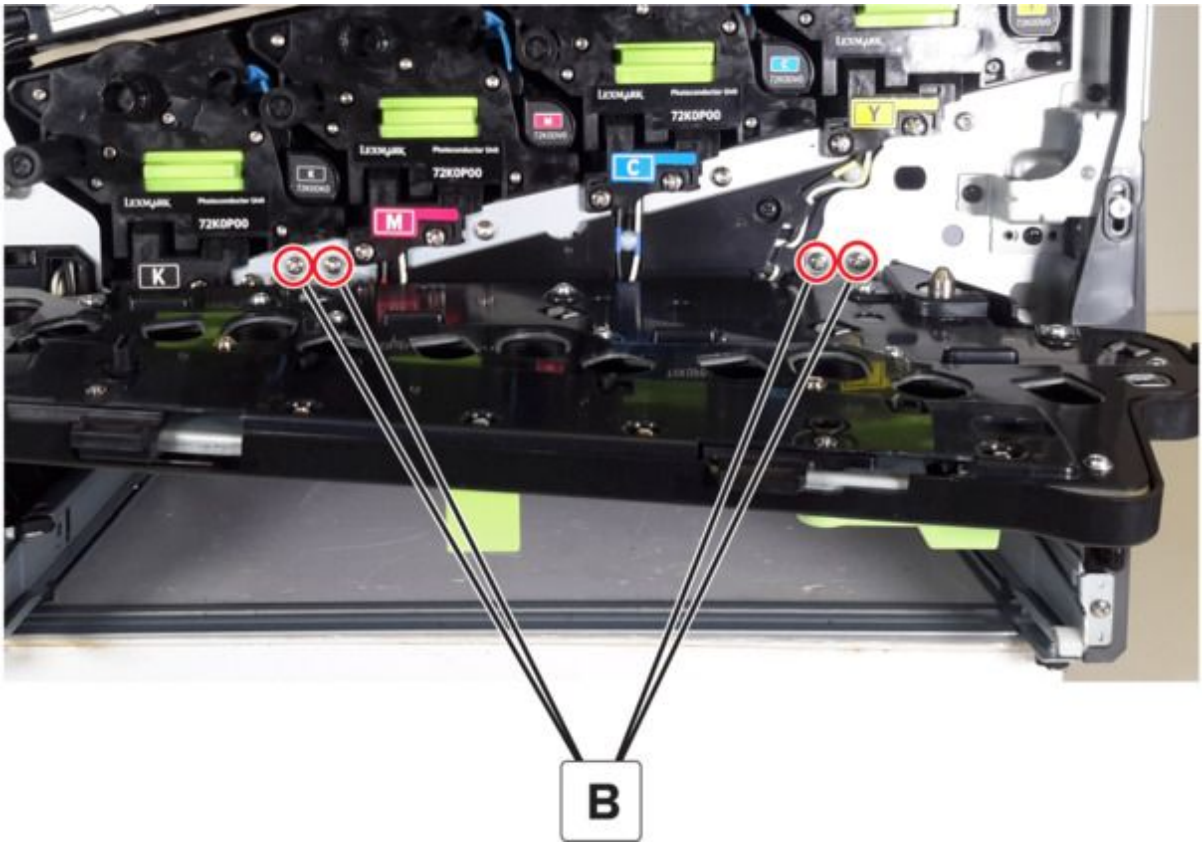
9. Lift the rear end of the HVPS to release, and then remove the HVPS.

PC unit/developer door removal

1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the inner upper cover. See .Inner upper cover removal on page 652
3. Remove the inner lower cover. See Inner lower cover removal on page 653.
4. Remove the front door. See .Front door removal on page 654
5. Remove the four screws (A).

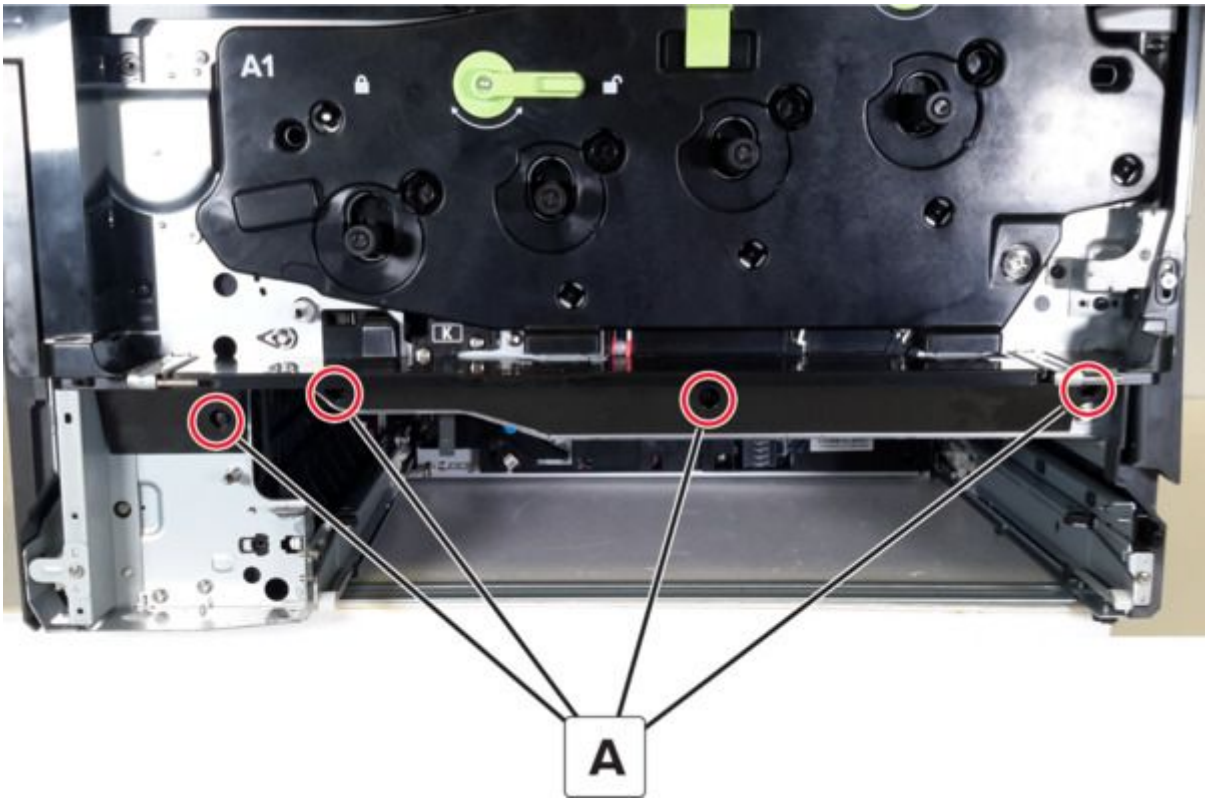


6. Open door A1, remove the four screws (B), and then remove the door.



Lower front cover removal

1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the inner upper cover. See .Inner upper cover removal on page 652
3. Remove the inner lower cover. See Inner lower cover removal on page 653.
4. Remove the front door. See .Front door removal on page 654
5. Remove the door rod cover. See Door rod cover removal on page 661.
6. Remove the four screws (A), and then remove the cover.

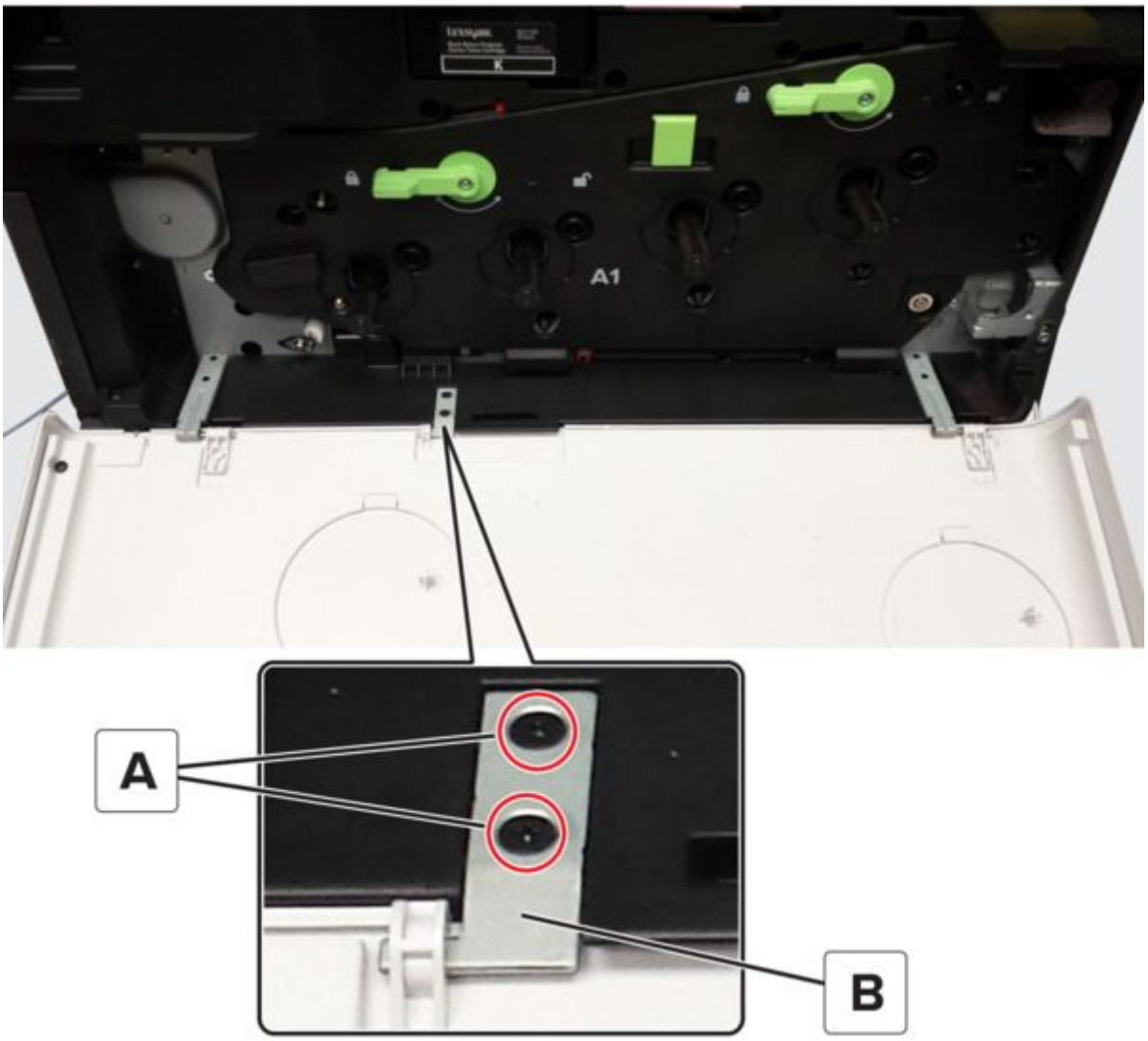


Sensor (waste toner bottle present) and bracket removal

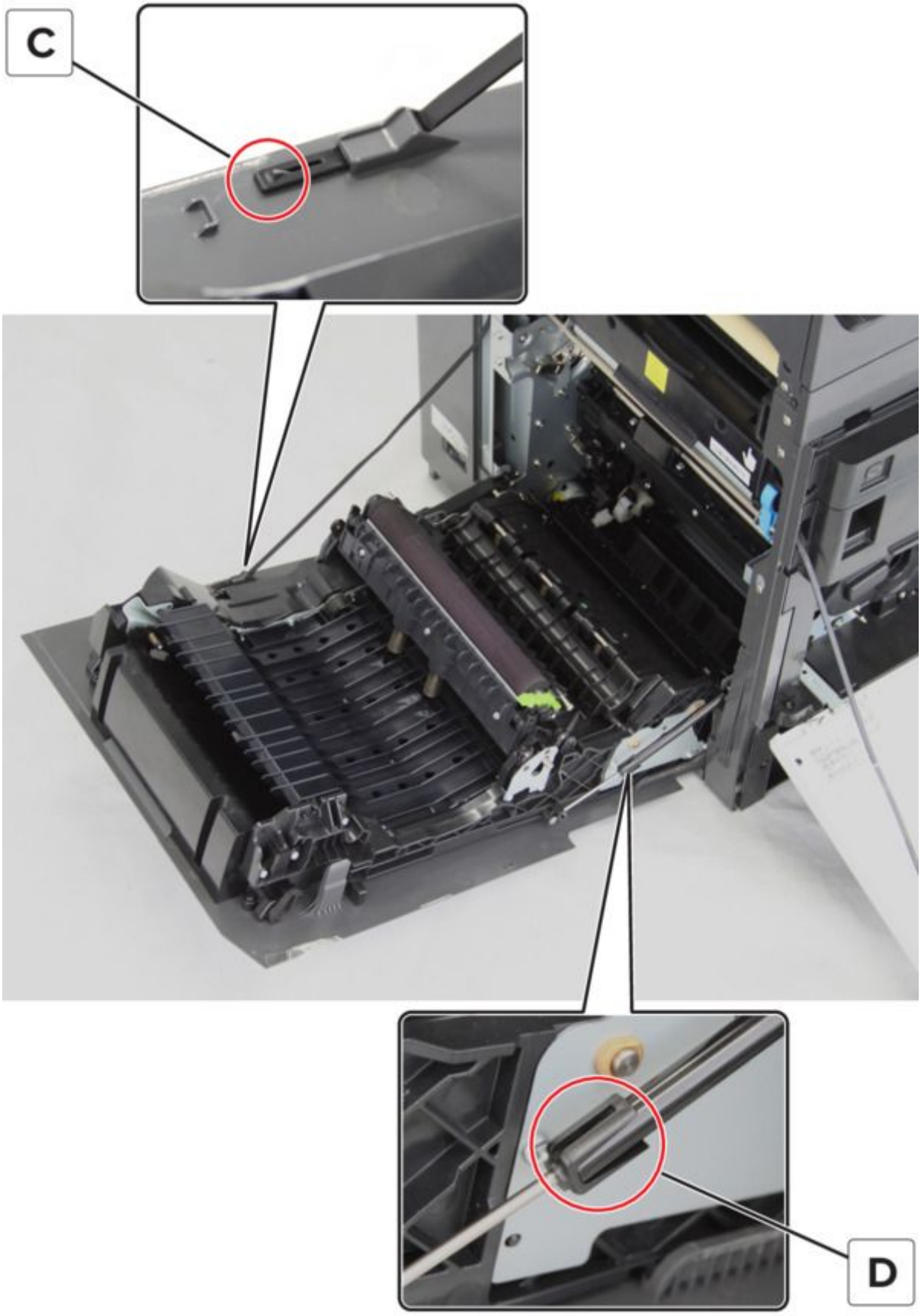
1. Remove the waste toner bottle. See Waste toner bottle removal on page 647.
2. Remove the black developer and PC unit combo. See Developer unit and photoconductor unit removal on page 649.
3. Remove tray 1, and then open door A and door B.

> **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.

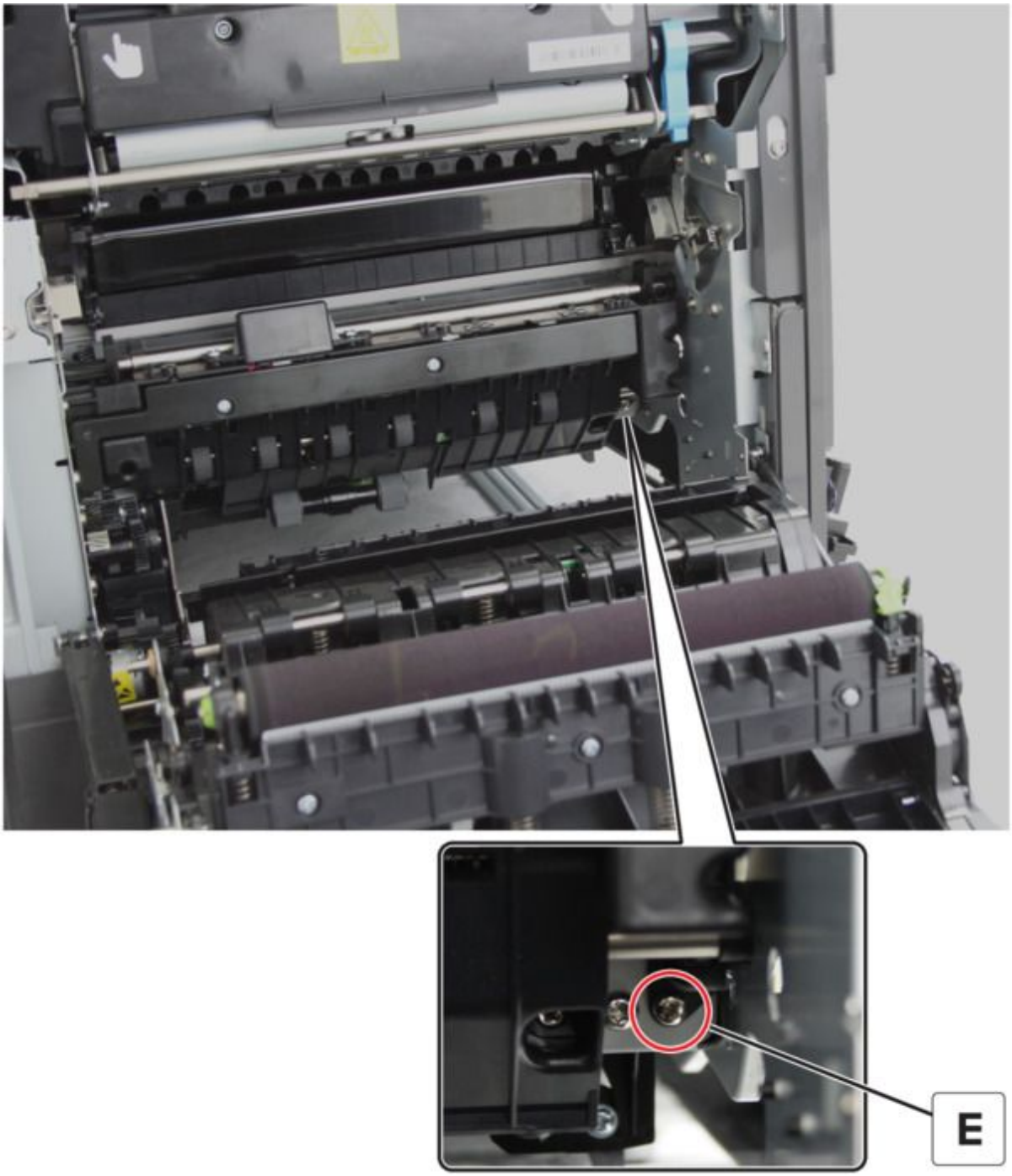
4. Remove the two screws (A), and then remove the bracket (B).



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 661.
7. Remove the lower front cover. See Lower front cover removal on page 671.
8. Disconnect the support strap (C), and then release the retainer (D) to disconnect the door support.

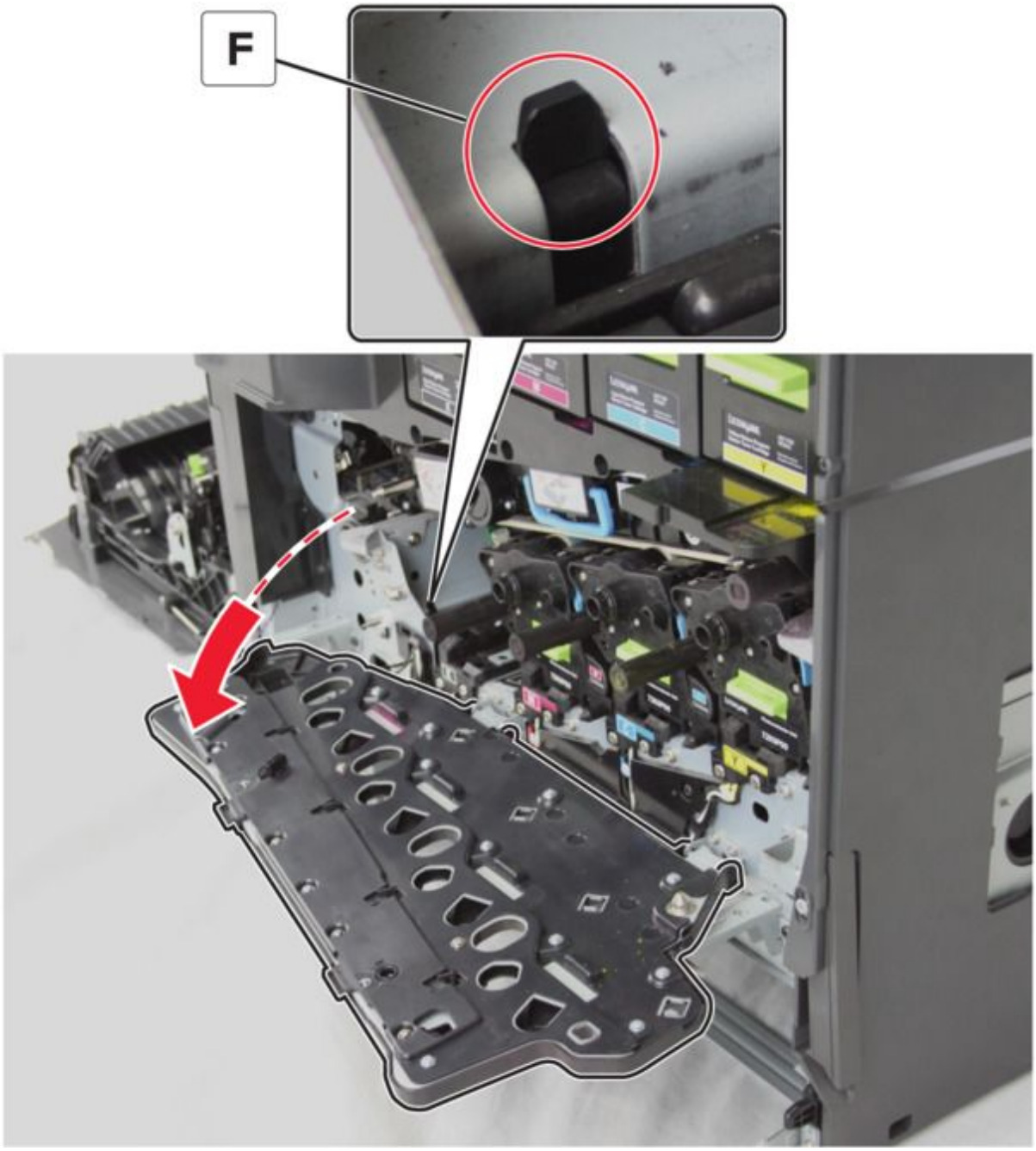


9. From the left side, remove the screw (E).

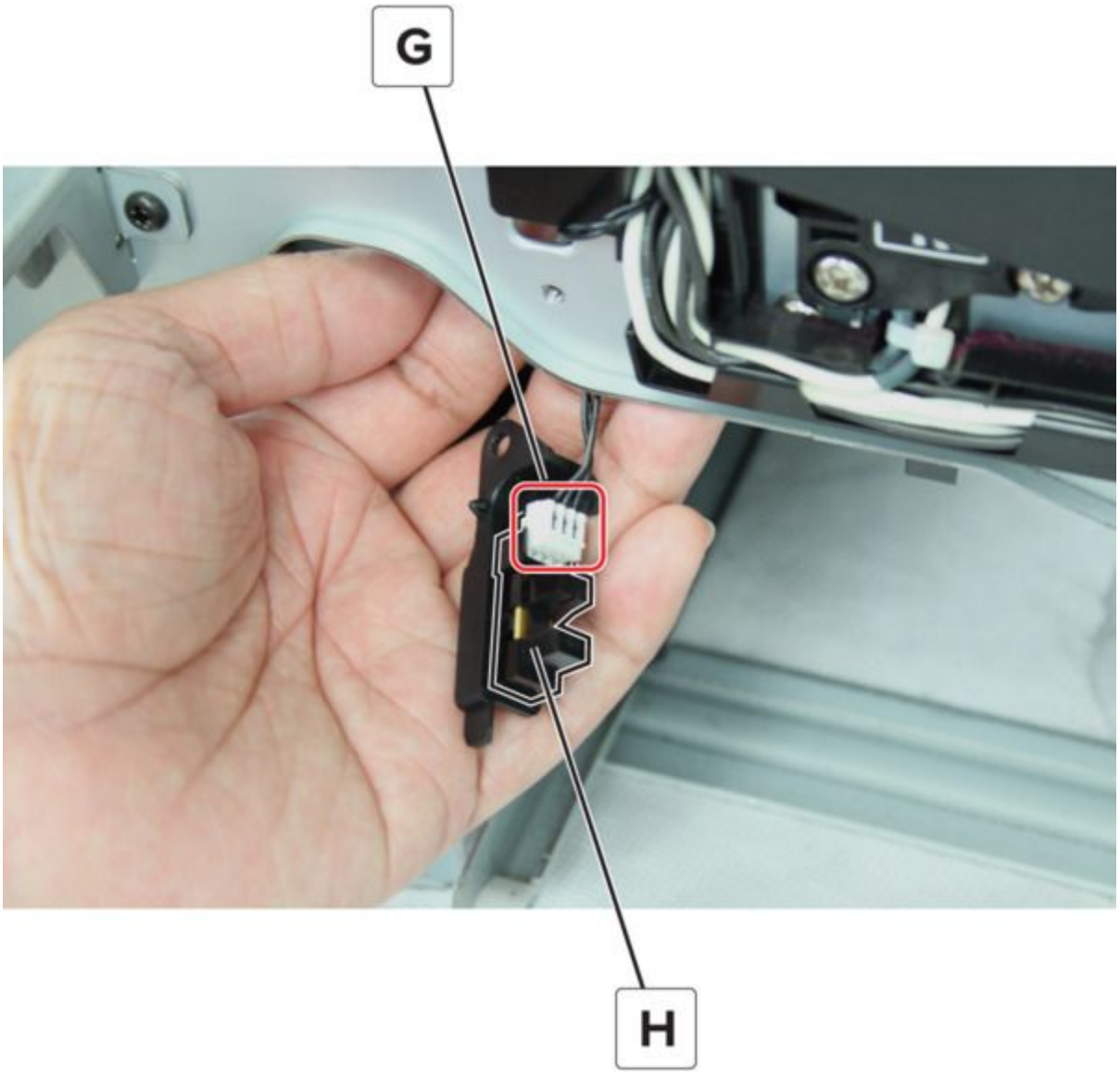


10. From the front side, pull the sensor cable to allow more slack.

11. Open door A1, and then dislodge the sensor bracket (F) while pulling it down from the left side.



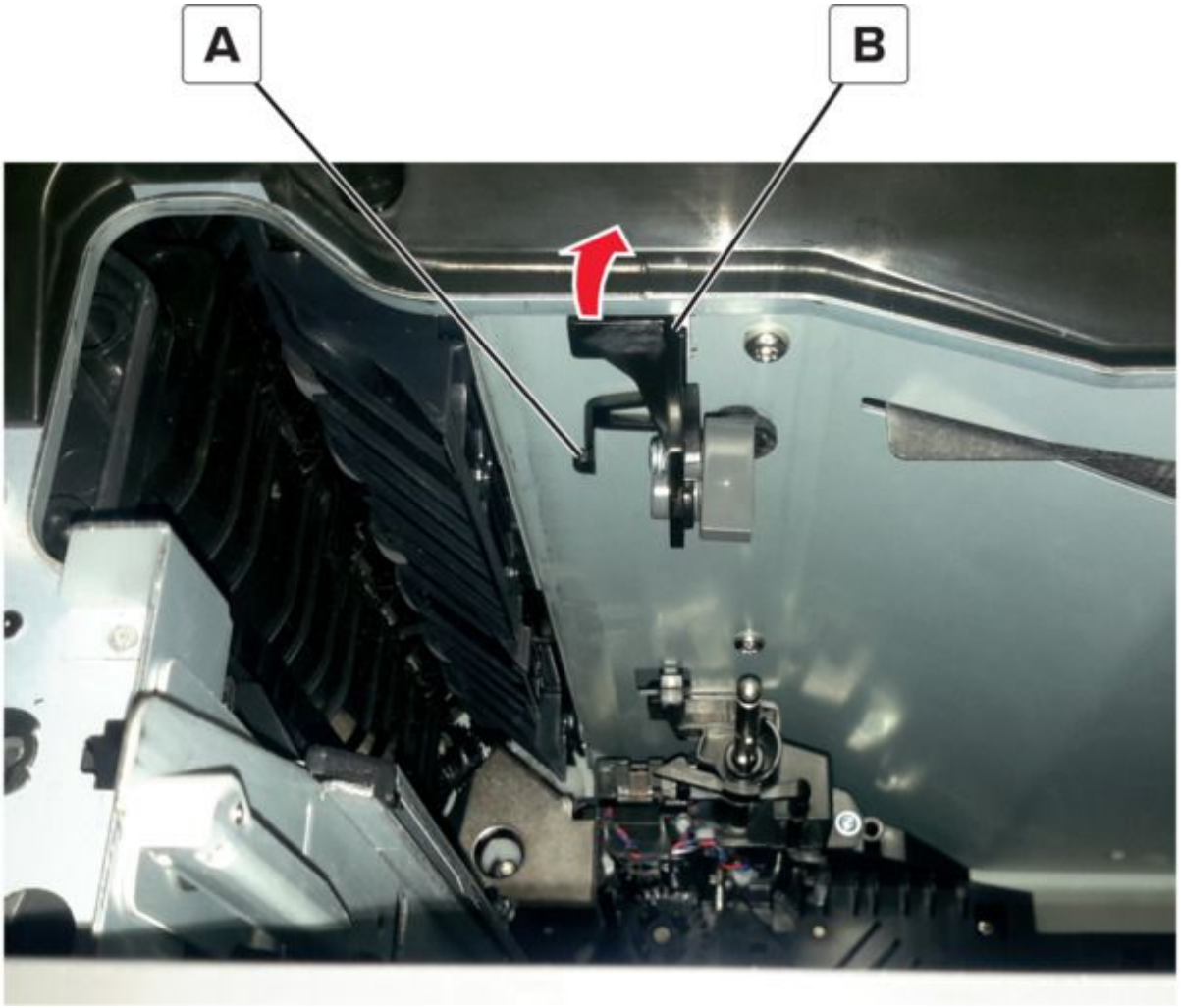
12. Disconnect the cable (G), and then separate the sensor (H) from the bracket.



Paper feeder removal

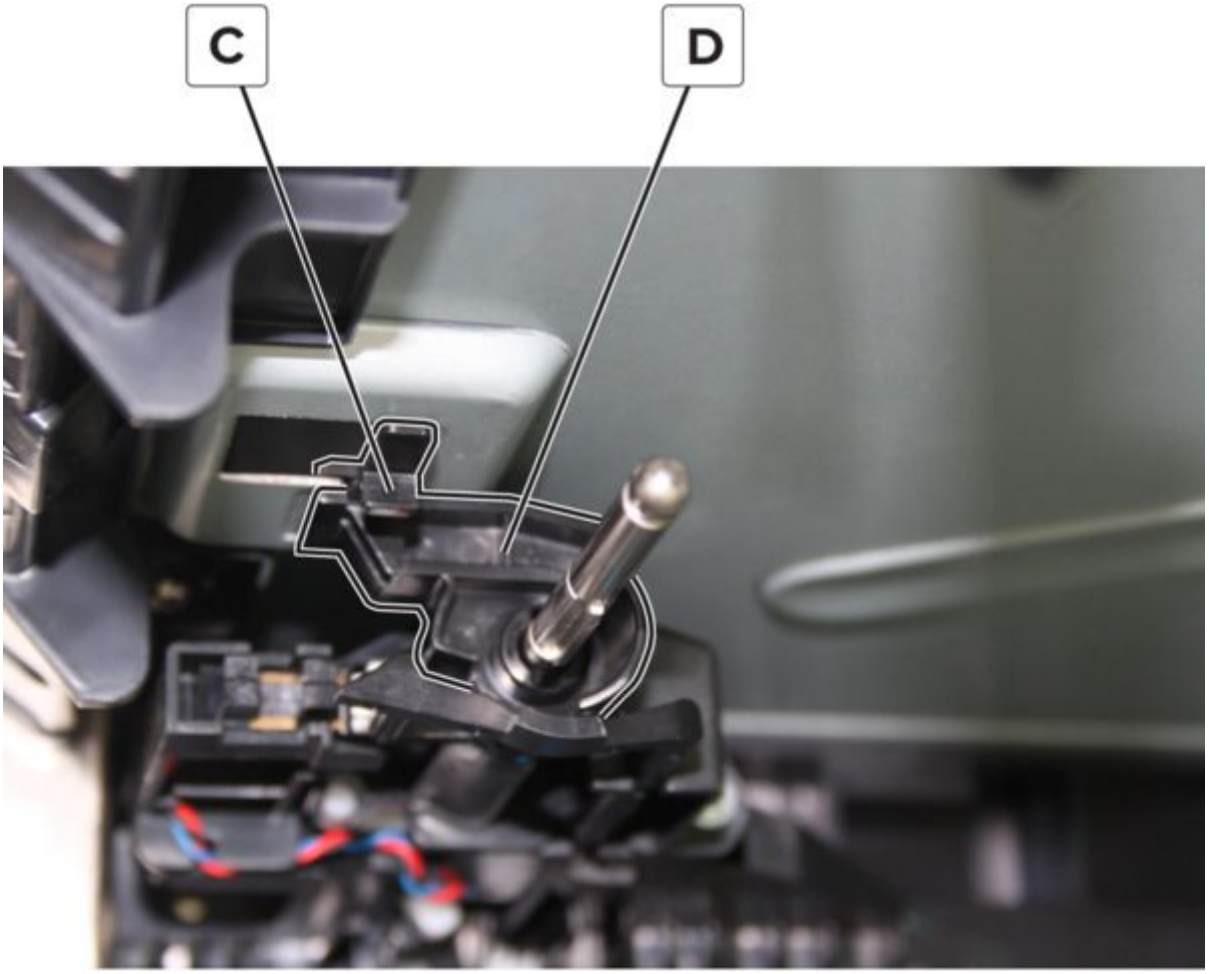
> **Note:** For a video demonstration, see Paper feeder removal.

1. Remove the pick roller. See Pick roller removal on page 659.
2. Press and hold the latch (A), and then rotate and remove the paper stopper (B).

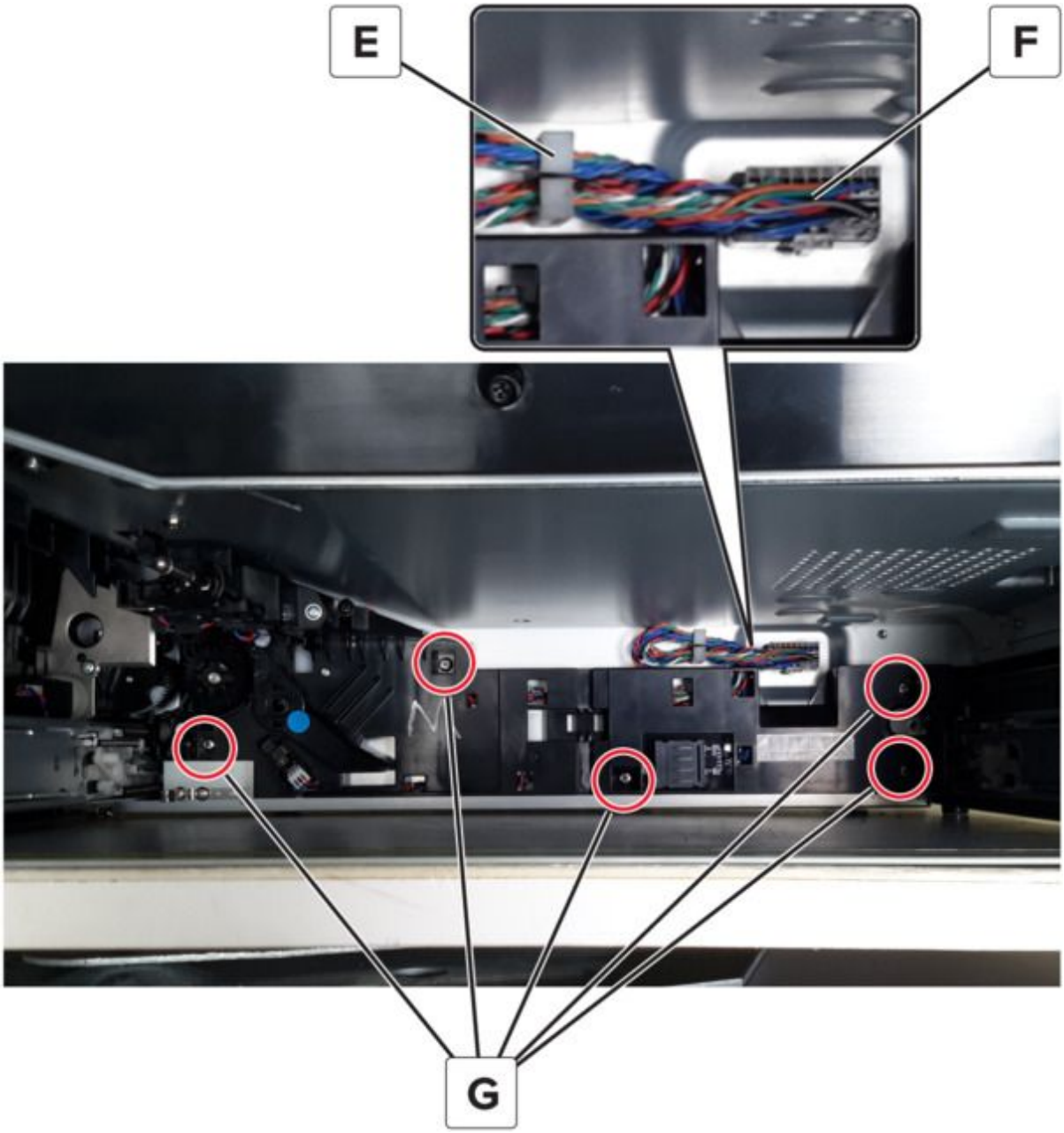


3. Lower the latch (C) to release, and then remove the feeder bearing (D).

> **Note:** The shaft may need to be slightly rotated to align it with the hole on the feeder bearing.



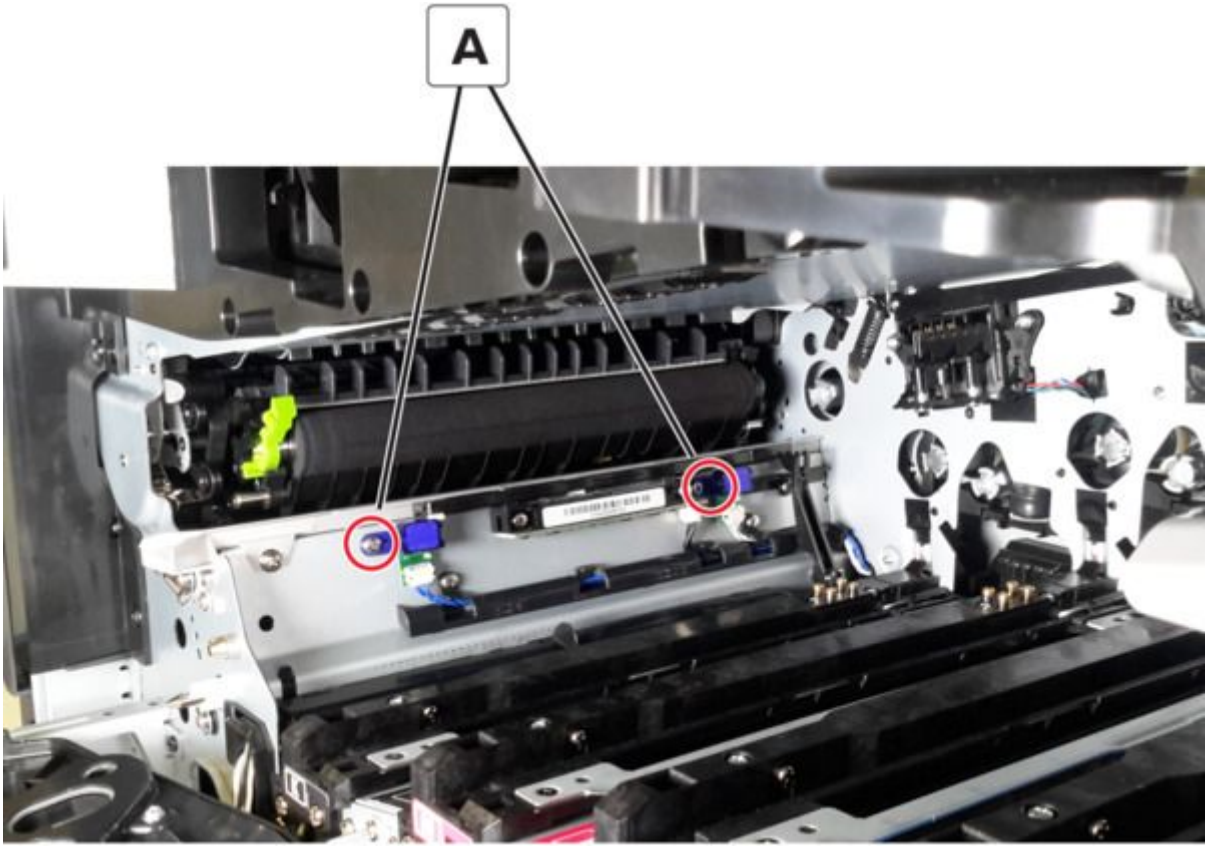
4. Release the cable from its guide (E), and then disconnect it (F).
5. Remove the five screws (G).



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 656.
3. Remove the screw (A) from the appropriate sensor.

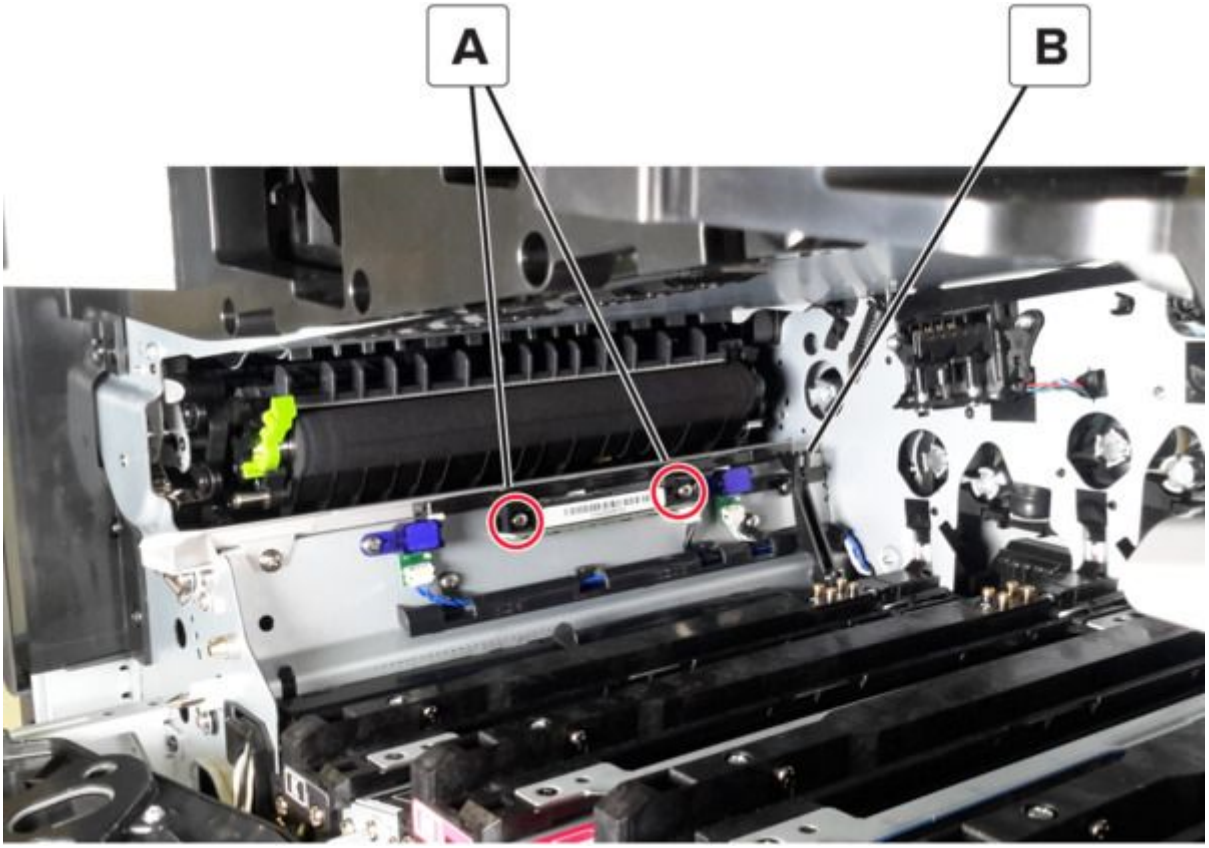


4. Disconnect, and then remove the sensor.

Sensor (TPS) removal

1. Remove the developer and PC unit combos.
2. Remove the transfer belt. See Transfer belt removal on page 656.
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.

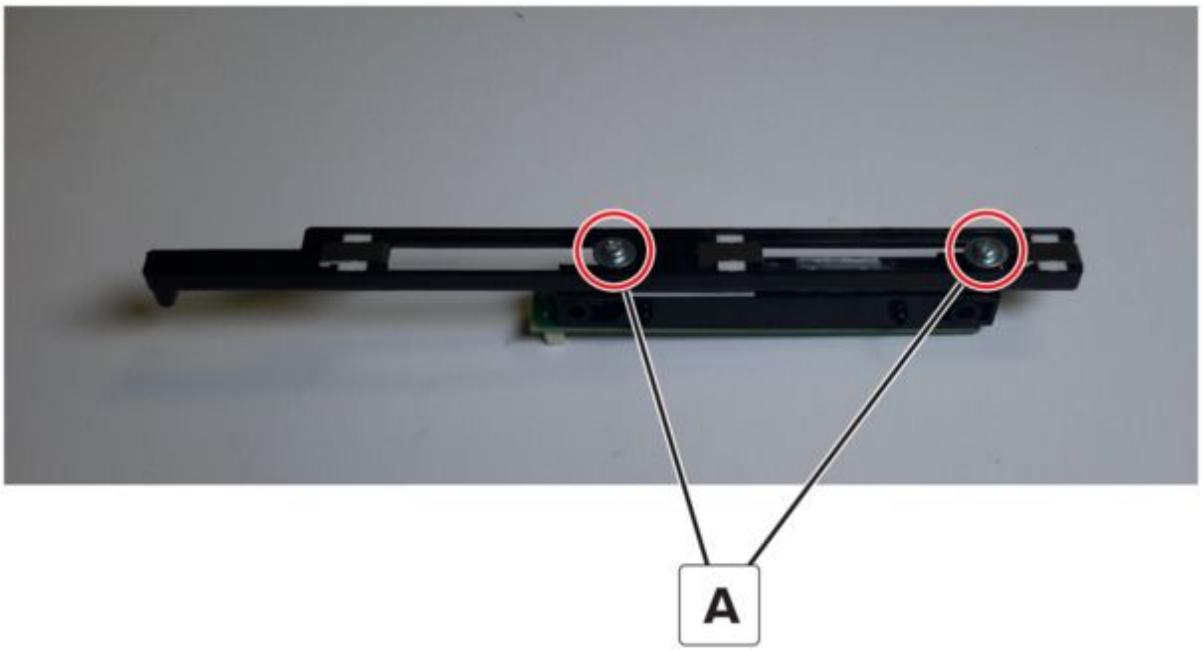


4. Disconnect, and then remove the sensor.

> **Warning—Potential Damage**
> Press the latch on the connector to unlock. Do not pull the connector without unlocking it.

TPS sensor wiper removal

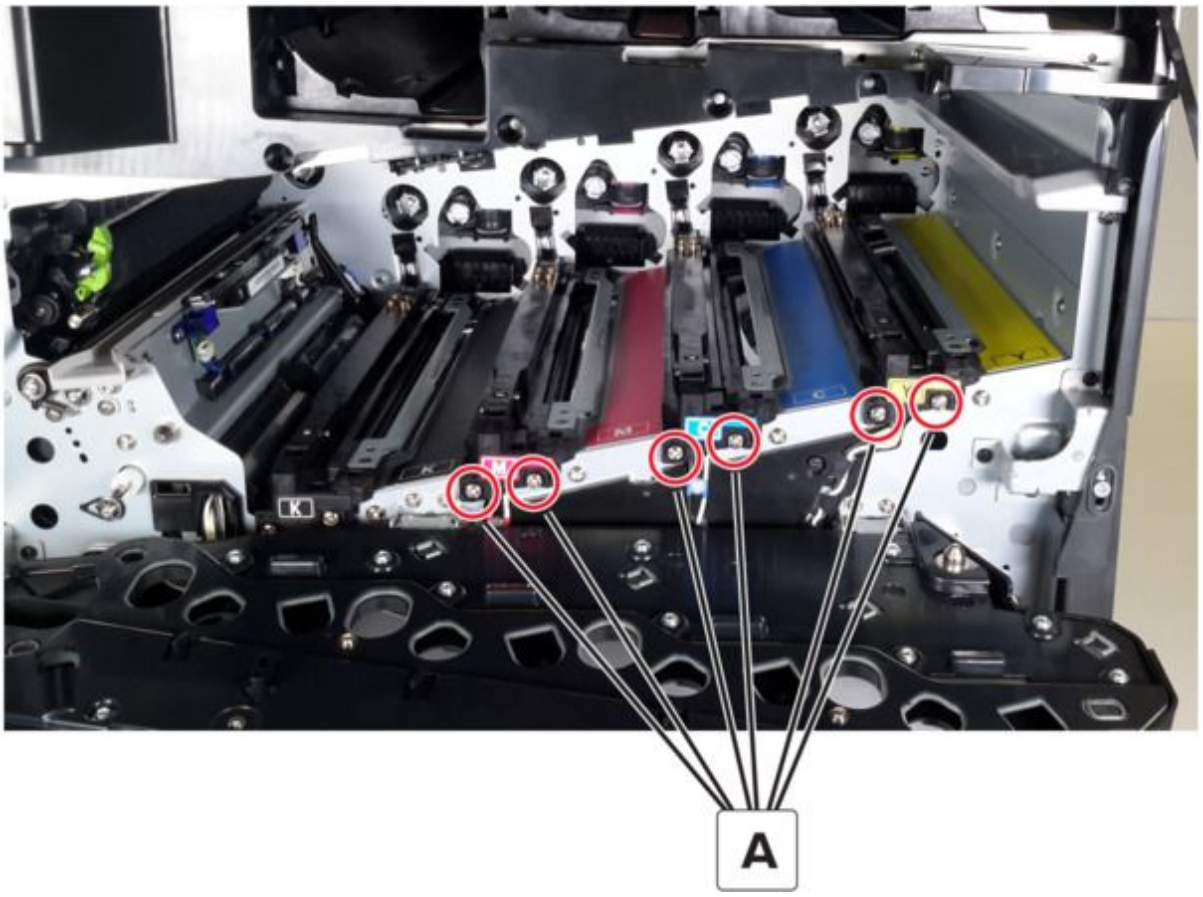
1. Remove the developer and PC unit combos.
2. Remove the transfer belt. See Transfer belt removal on page 656.
3. Remove the sensor (TPS). See Sensor (TPS) removal on page 682.
4. Remove the two screws (A), and then remove the wiper.



Developer/PC unit CMY wiper rail removal

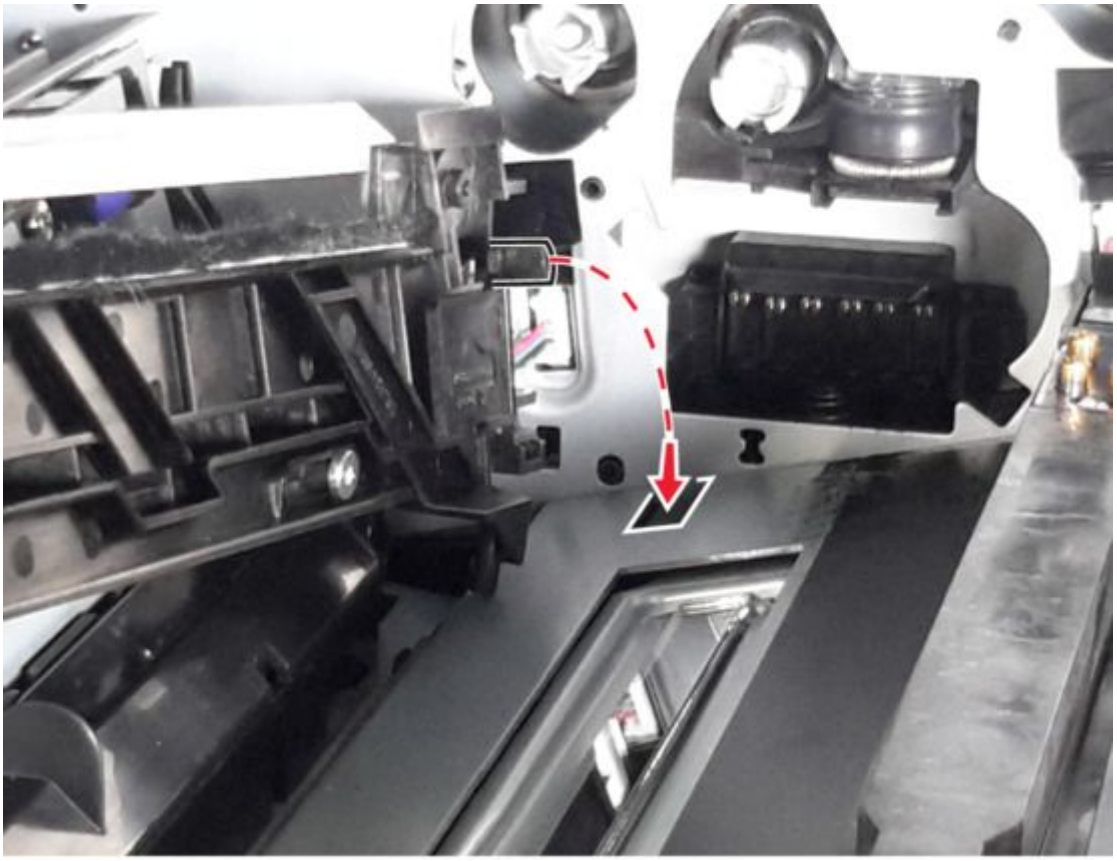
Note: For a video demonstation, see Developer/PC unit CMY wiper rail removal.

1. Remove the developer and PC unit combos.
2. Remove the transfer belt. See Transfer belt removal on page 656.
3. Remove the two screws (A) from the appropriate wiper rail.



4. Disconnect, and then remove the wiper rail.

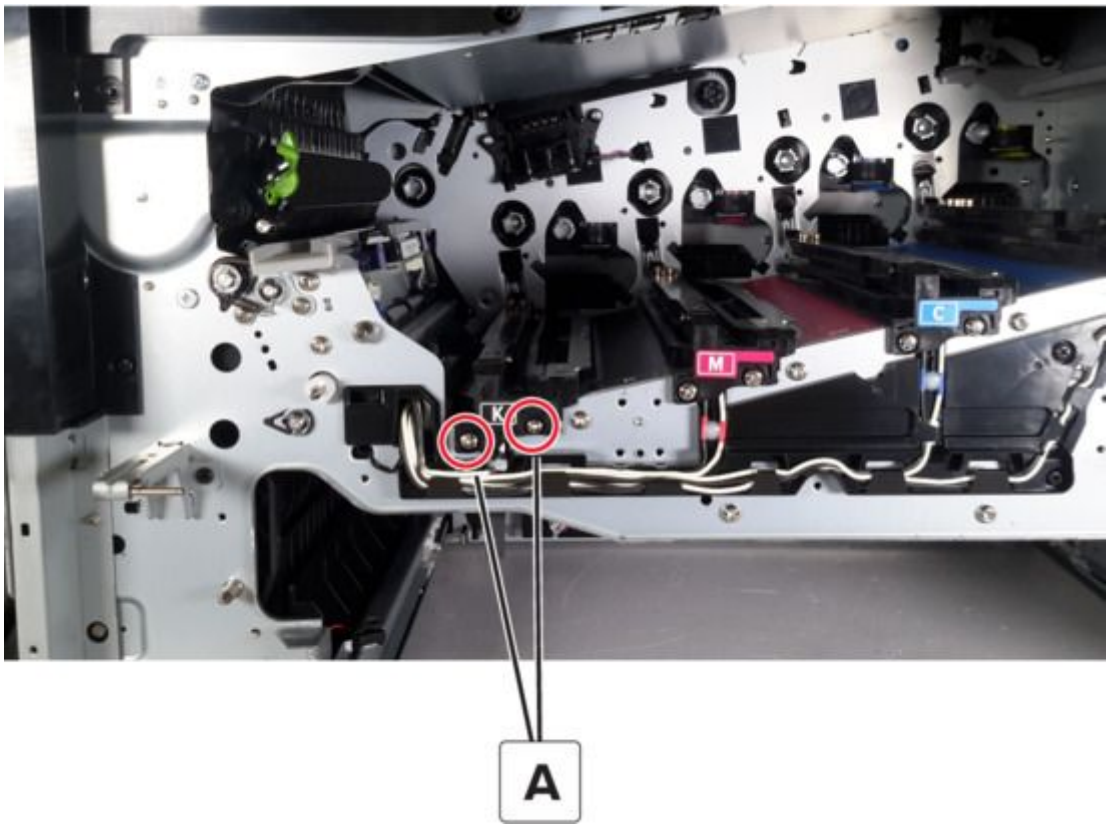
> **Installation Warning**
> Align the peg with the slot, or damage may occur.



Developer/PC unit K wiper rail removal

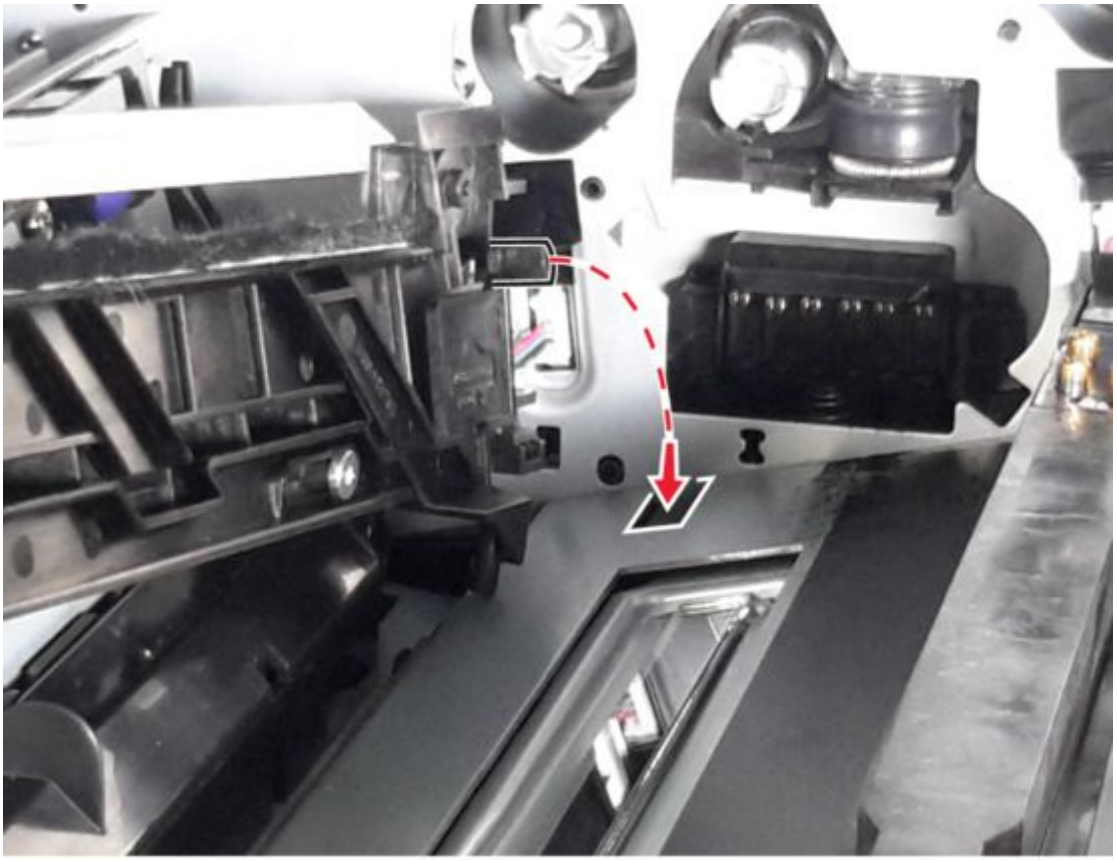
> **Note:** For a video demonstration, see Developer/PC unit K wiper rail removal.

1. Remove the developer and PC unit combos.
2. Remove the transfer belt. See Transfer belt removal on page 656.
3. Remove the PC unit/developer door. See PC unit/developer door removal on page 670.
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.

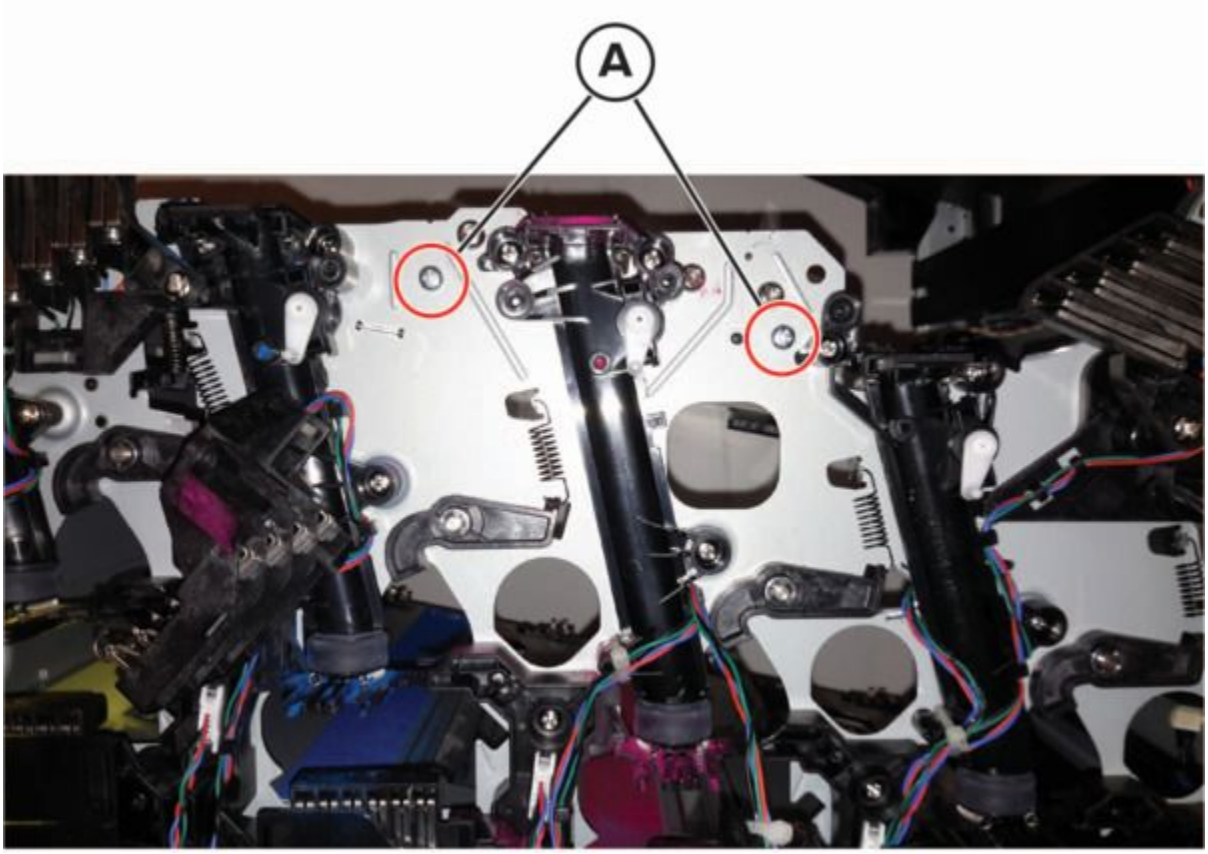


Developer roll power contact removal

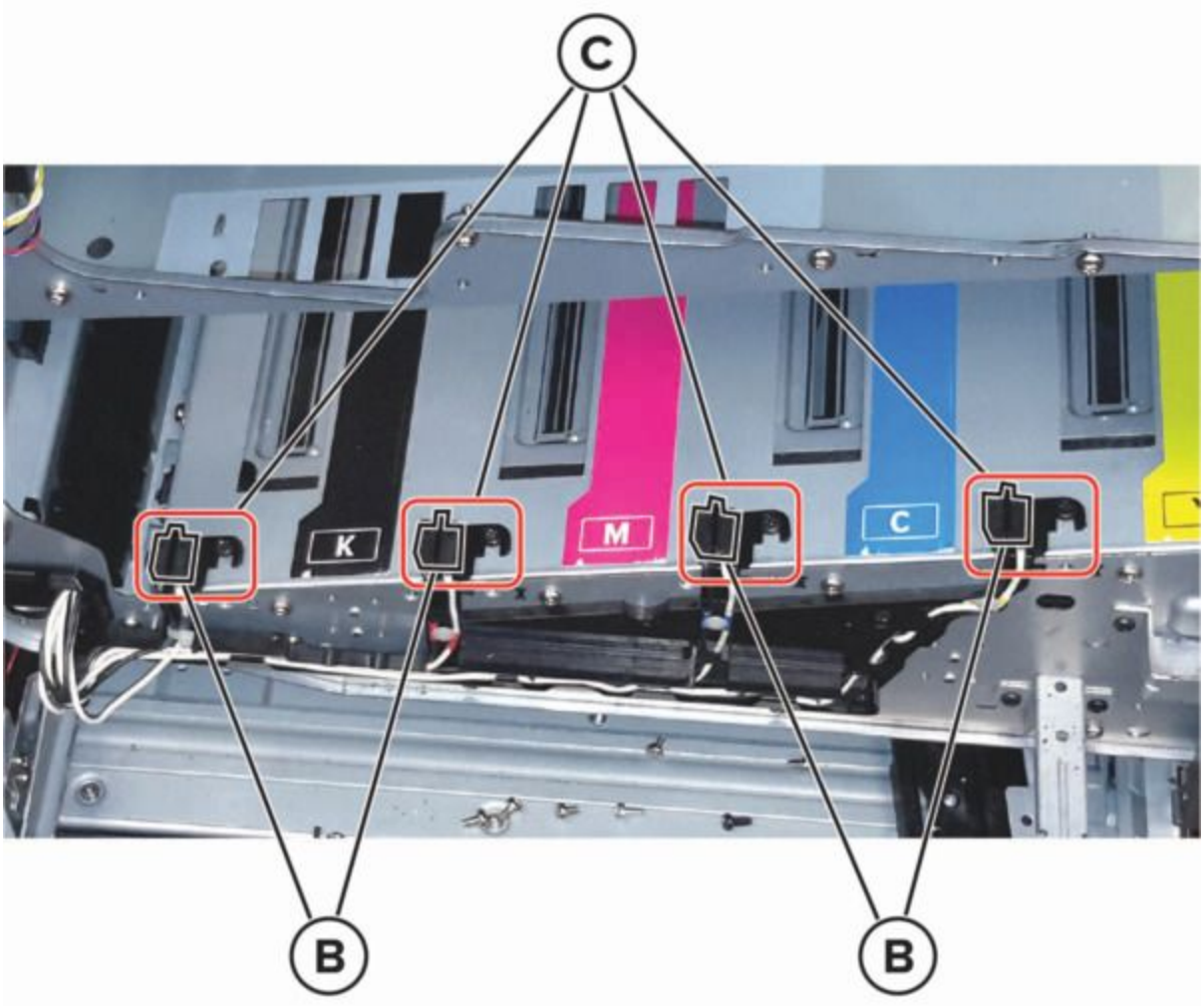
> **Warning—Potential Damage**
> Pay attention to the cable routing to avoid damage.

1. Remove the keyboard attach cover. See Keyboard attach cover removal on page 636.
2. Remove the inner upper cover. See Inner upper cover removal on page 652.
3. Remove the inner lower cover. See Inner lower cover removal on page 653.
4. Remove the HVPS fan. See HVPS fan removal on page 663.
5. Remove the developer and PC unit combos. See Developer unit and photoconductor unit removal on page 649.
6. Remove the transfer belt. See Transfer belt removal on page 656.
7. Remove the front door. See Front door removal on page 654.
8. Remove the lower front cover. See Lower front cover removal on page 671.
9. Remove the PC unit/developer door. See PC unit/developer door removal on page 670.
10. Remove the main HVPS. See Main HVPS removal on page 667.
11. Remove the developer/PC unit CMY wiper rail. See Developer/PC unit CMY wiper rail removal on page 684.
12. Remove the rear lower cover. See Rear lower cover removal on page 692.
13. Remove the rear upper cover. See Rear upper cover removal on page 695.
14. Remove the rear corner cover. See Rear corner cover removal on page 623.
15. Remove the right cover. See Right cover removal on page 624.

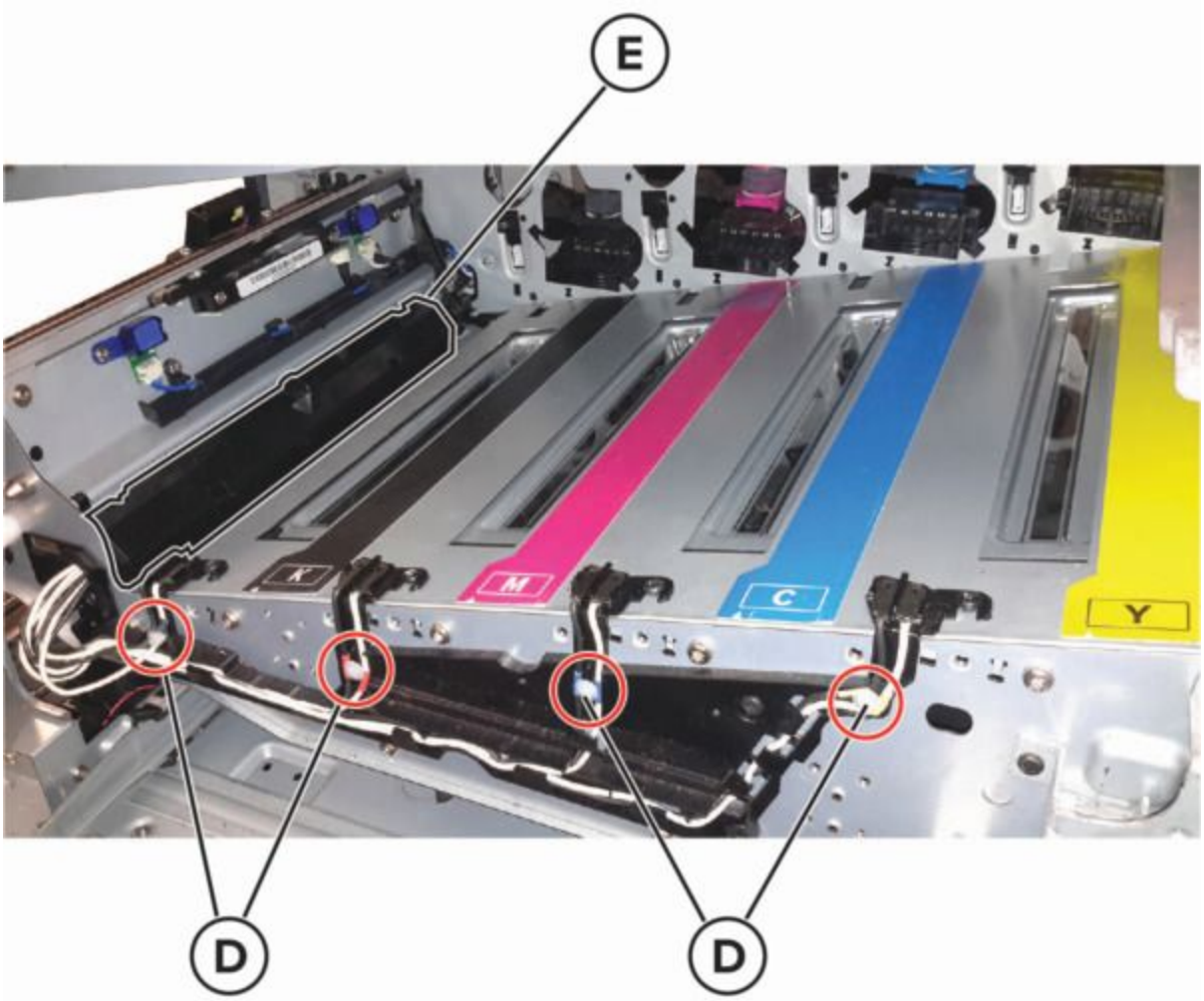
16. Remove the controller board cover. See Controller board cover removal on page 691.
17. Remove the left upper cover. See Left upper cover removal on page 580.
18. Remove the rear left cover. See Rear left cover removal on page 693.
19. Remove the controller board cage. See Controller board cage removal on page 714.
20. Remove the LVPS cage. See LVPS cage removal on page 710.
21. Remove the main fan duct. See Main fan duct removal on page 720.
22. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.
23. Remove the fuser/transfer belt motor gearbox. See Fuser/transfer belt motor gearbox removal on page 730.
24. Remove the cyan and magenta toner cartridge contacts. See Toner cartridge contact removal on page 737.
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 Note

1. Make sure that the cables are properly routed and replaced.
2. Make sure to collect and bundle the excess cables under the cover (E).

Rear side removals

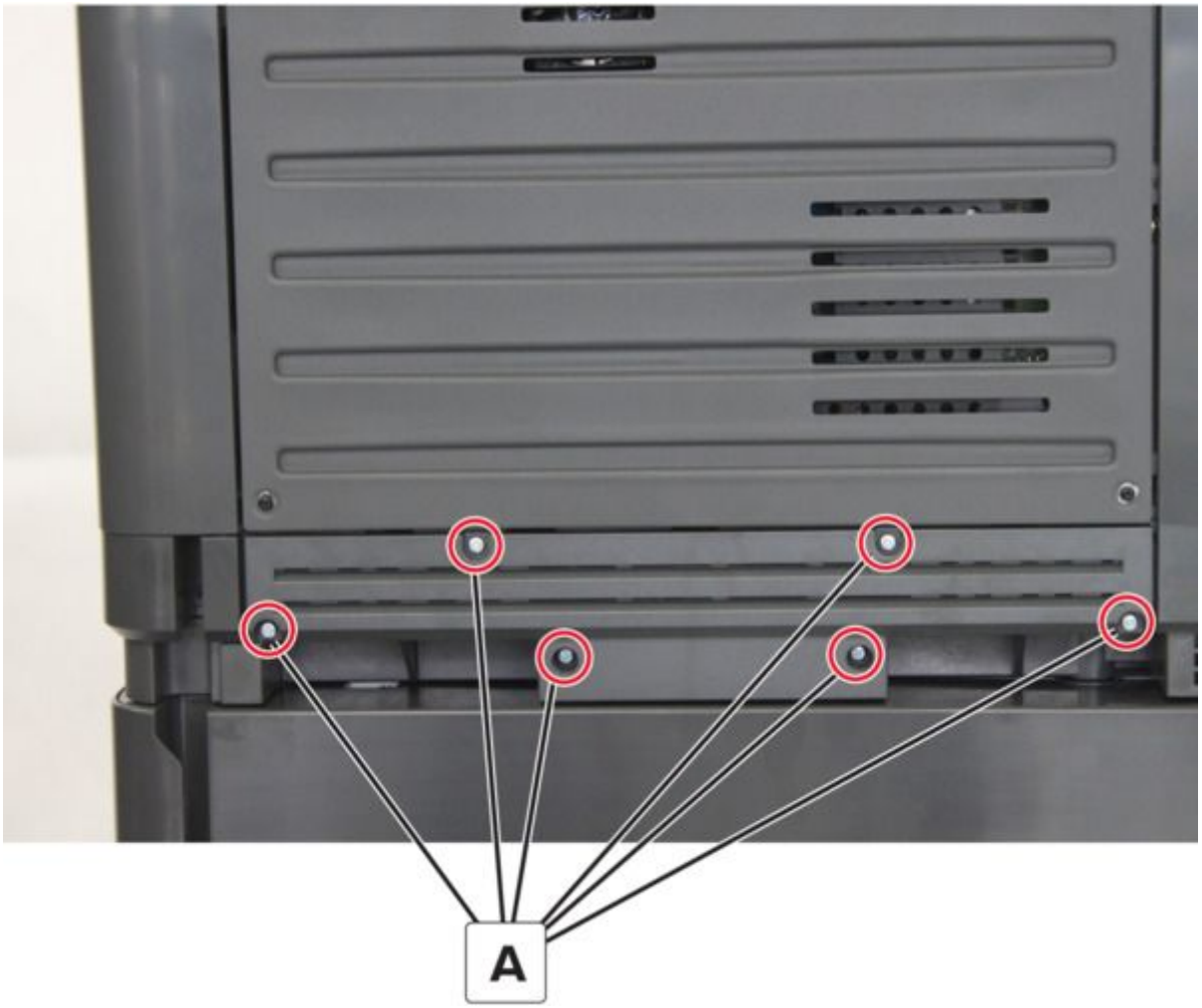
Controller board cover removal

1. Remove the four screws (A).

2. Remove the cover.

Rear lower cover removal

1. Remove the six screws (A).

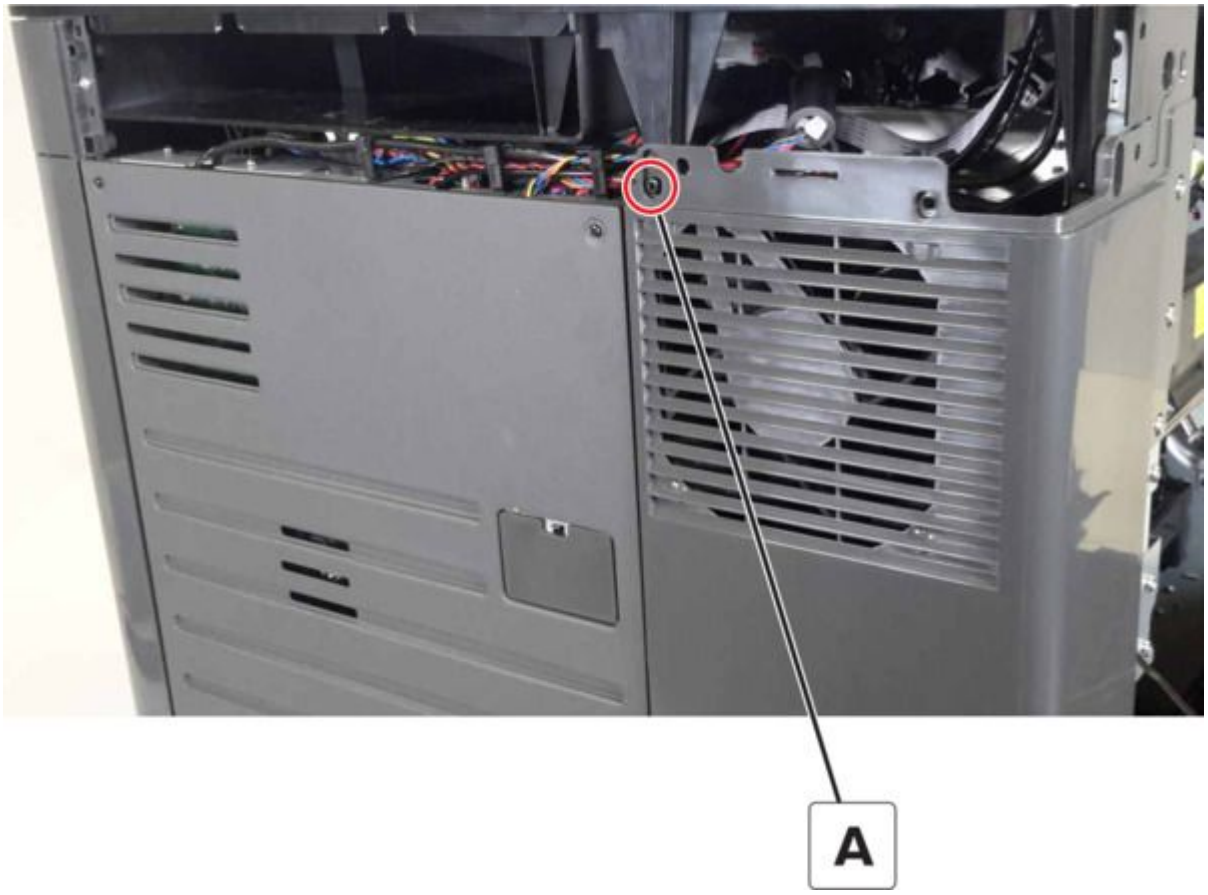


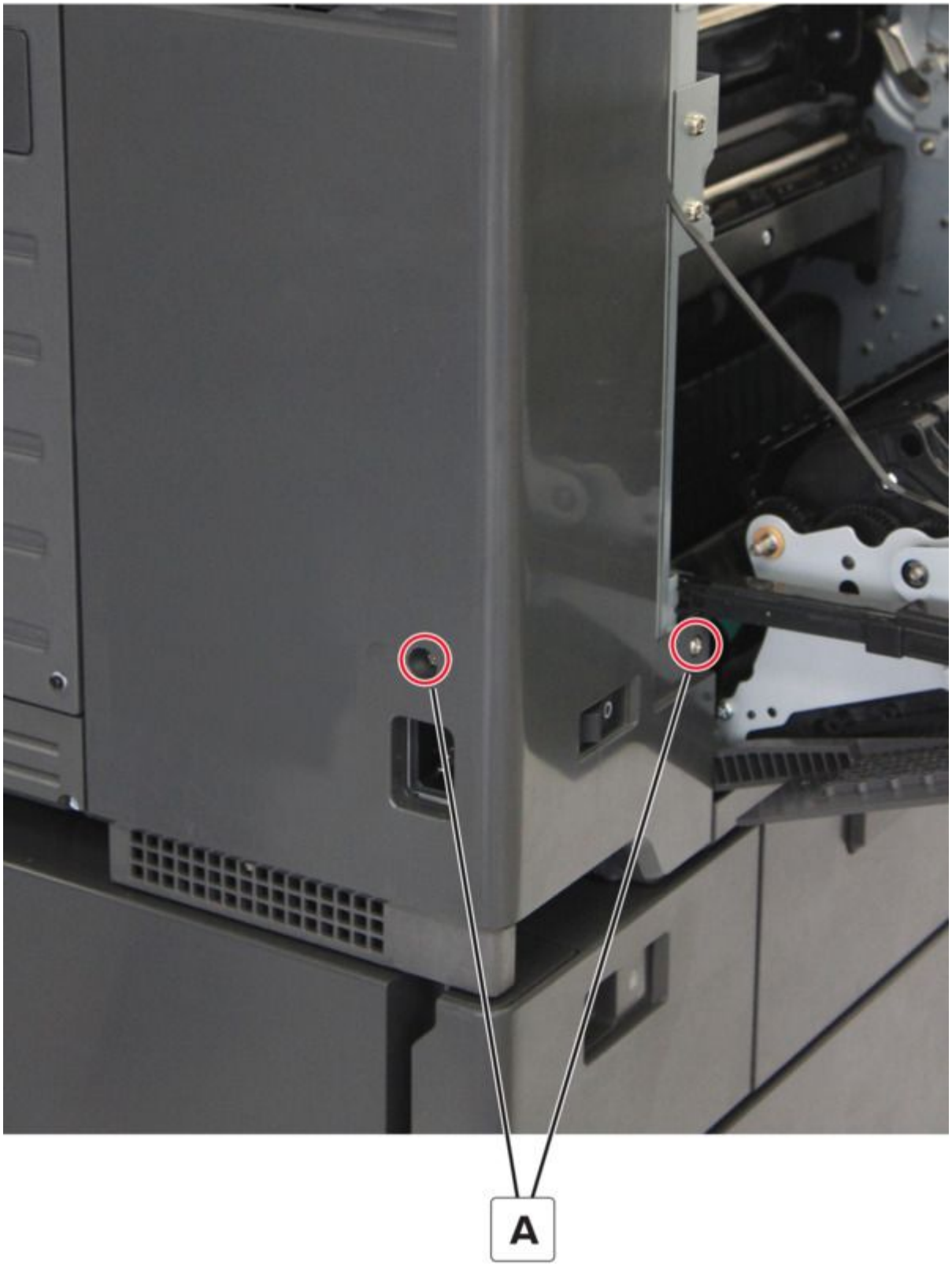
2. Remove the cover.

Rear left cover removal

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the left upper cover. See Left upper cover removal on page 580.
4. 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.

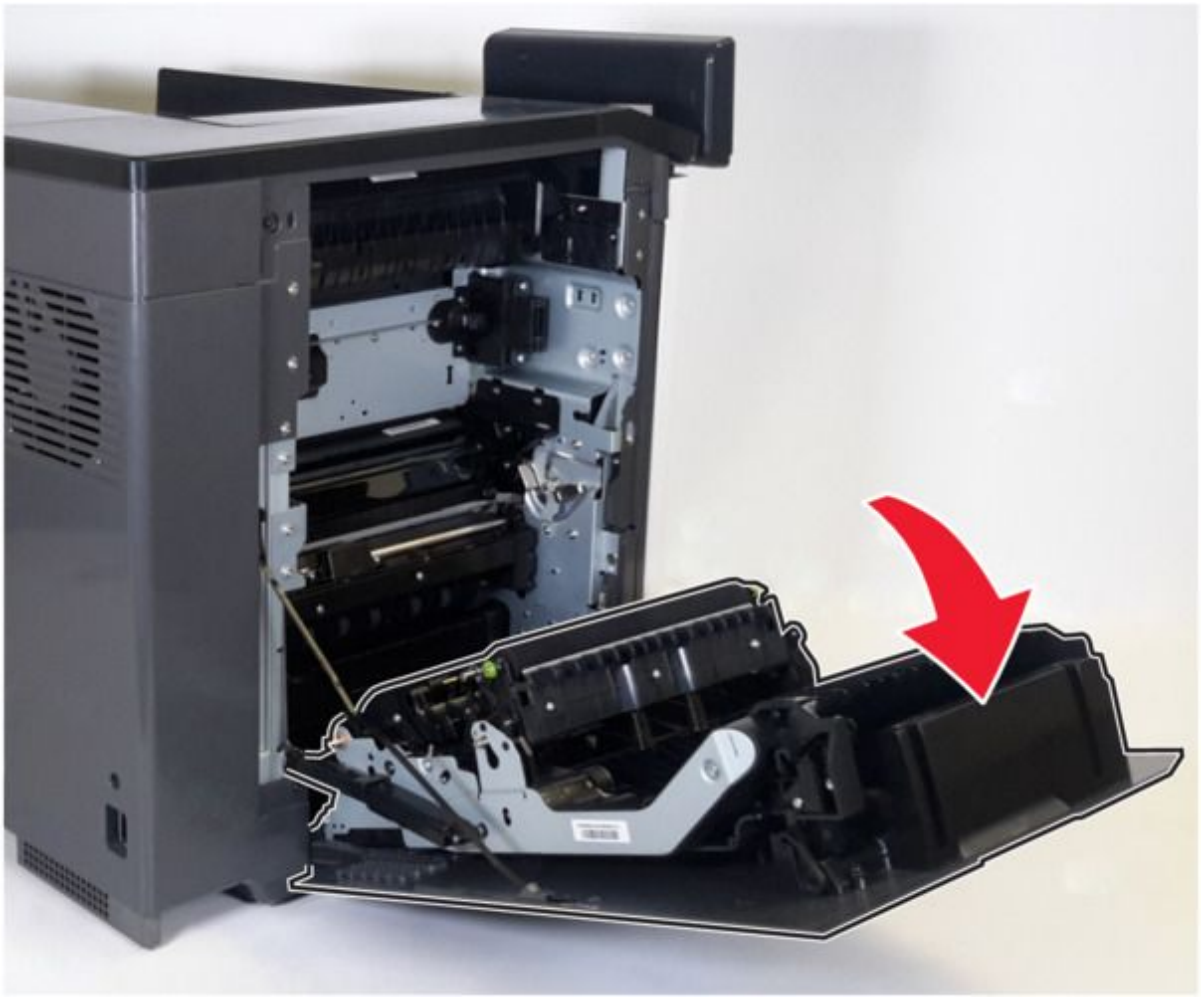

A



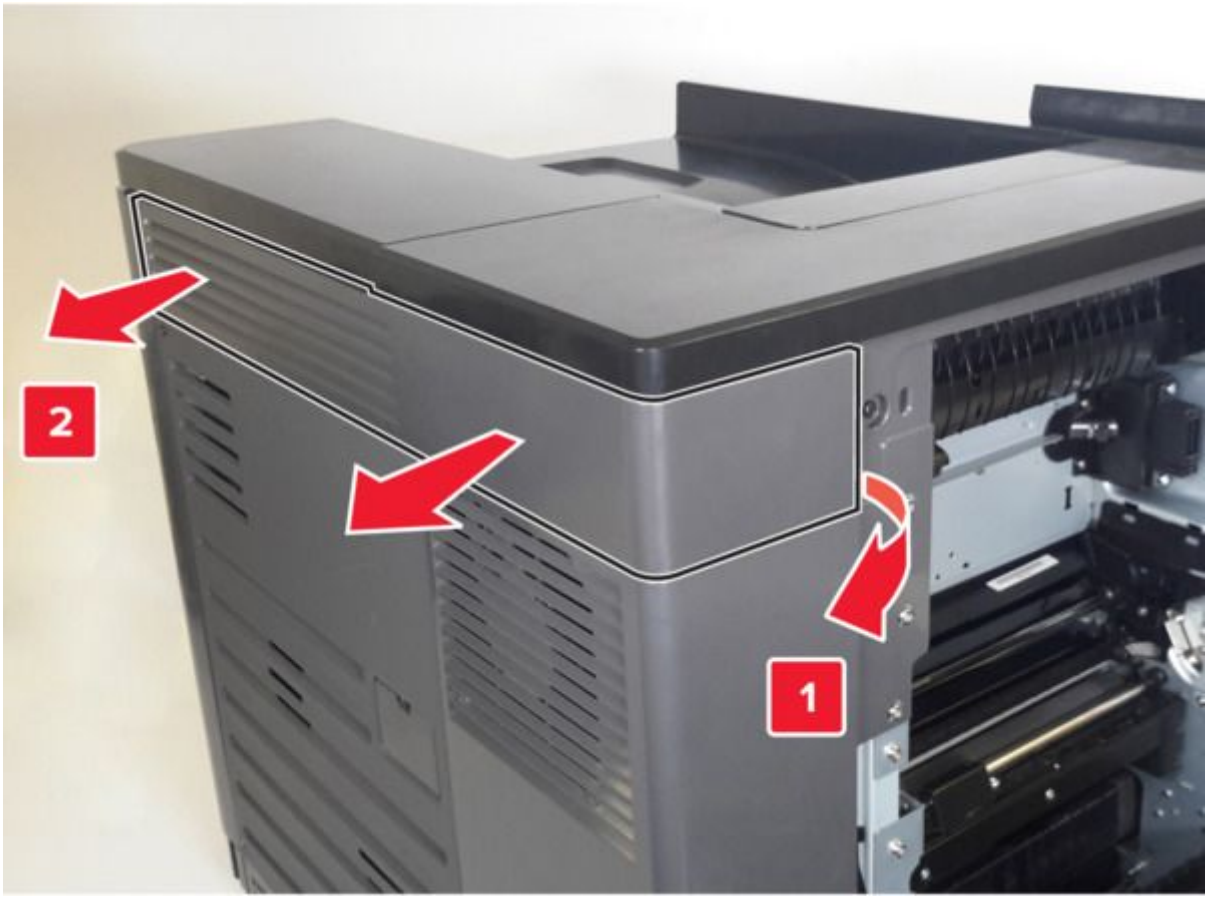
5. Remove the cover.

Rear upper cover removal

1. Open door B.



2. Remove the cover.

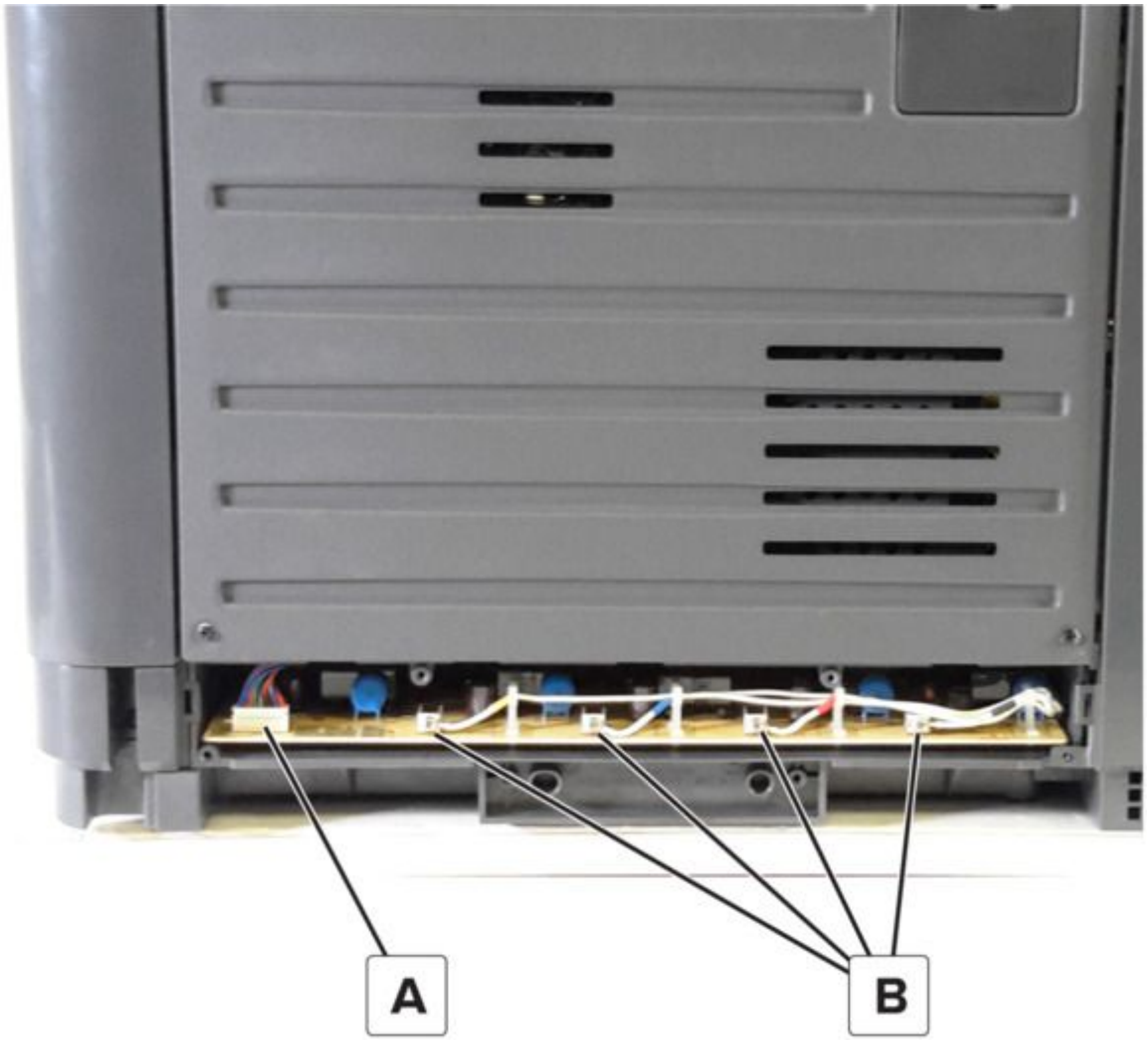


Charge roller HVPS removal

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
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.

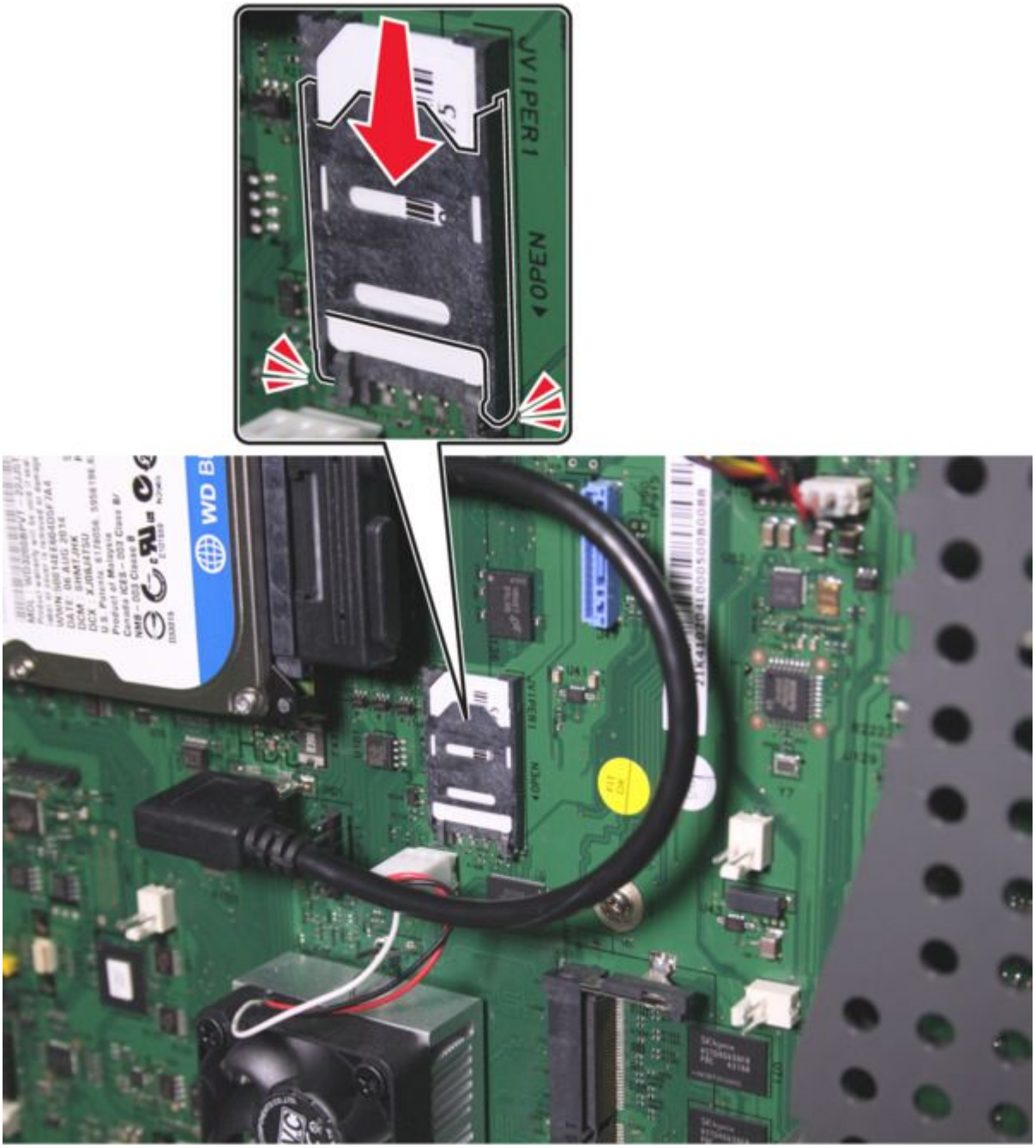


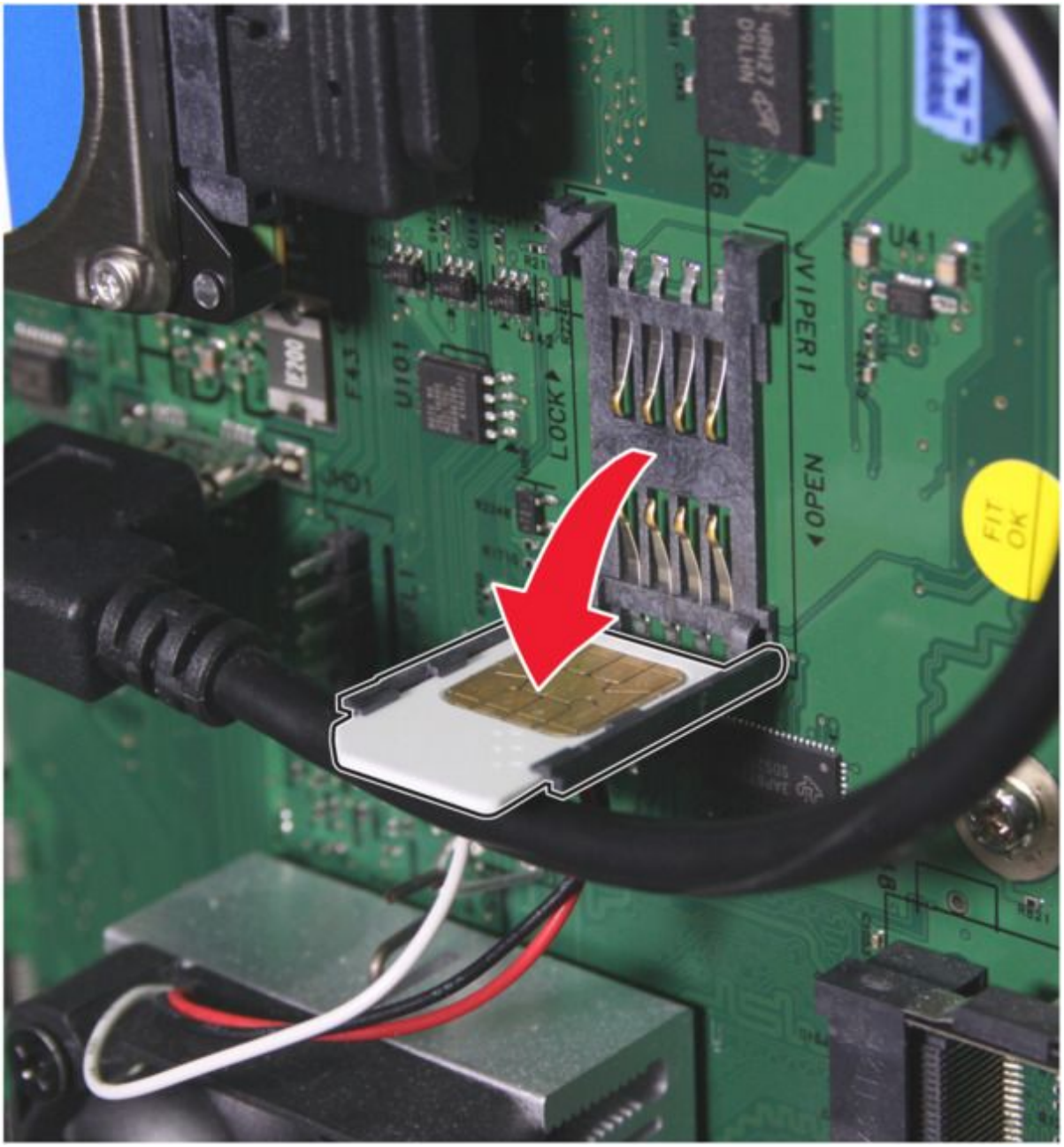
3. Remove the HVPS.

Controller board SIM removal

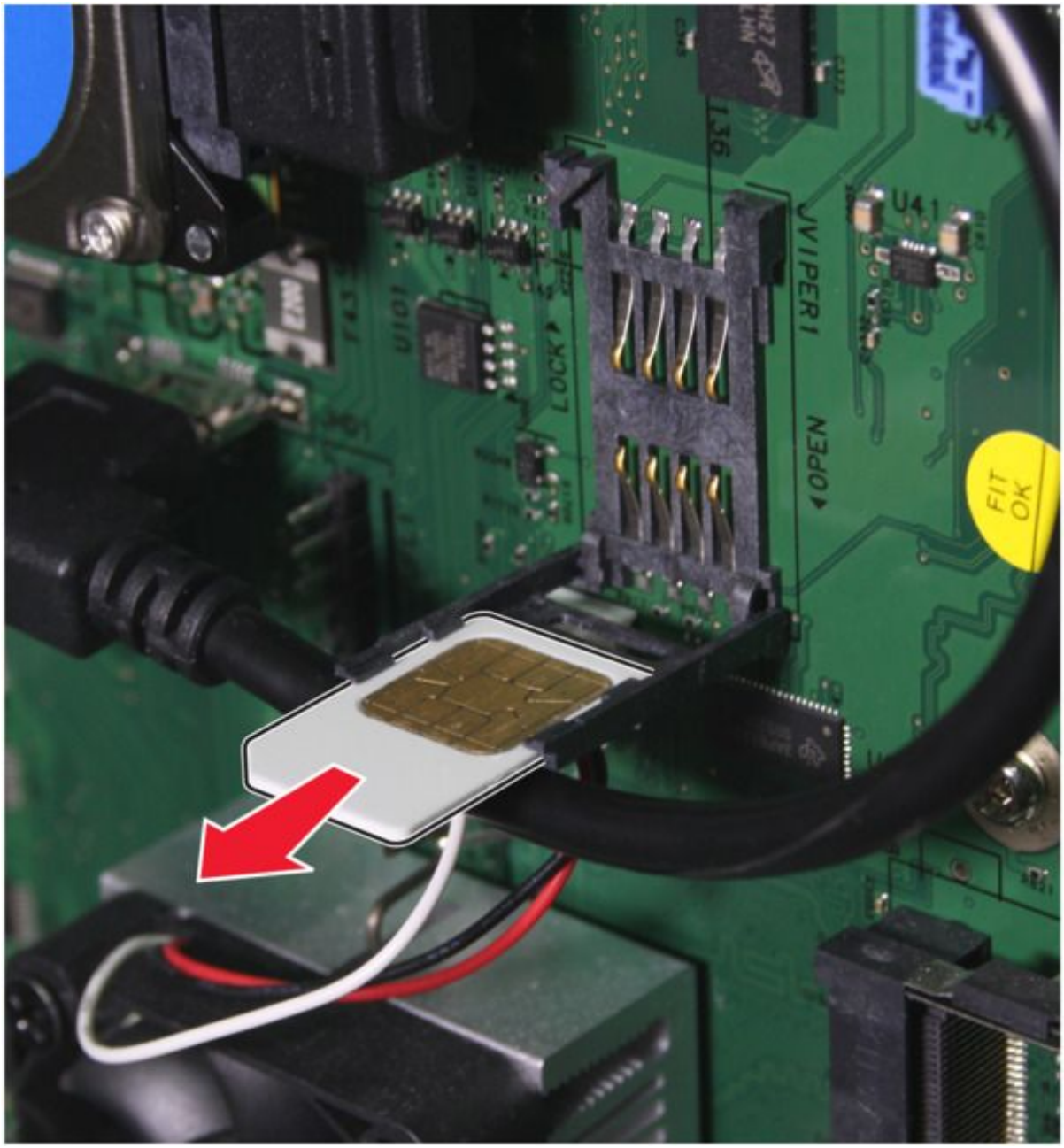
> **Note:** The printer controller board may contain a Secure Element SIM. This SIM contains software and security settings that are unique to the printer. The SIM must be transferred from the old controller board to the new controller board.

1. Remove the controller board cover. See Controller board cover removal on page 691.
2. Slide the SIM lock to the open position.


JVIPER1
OPEN



3. Remove the SIM.



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 492

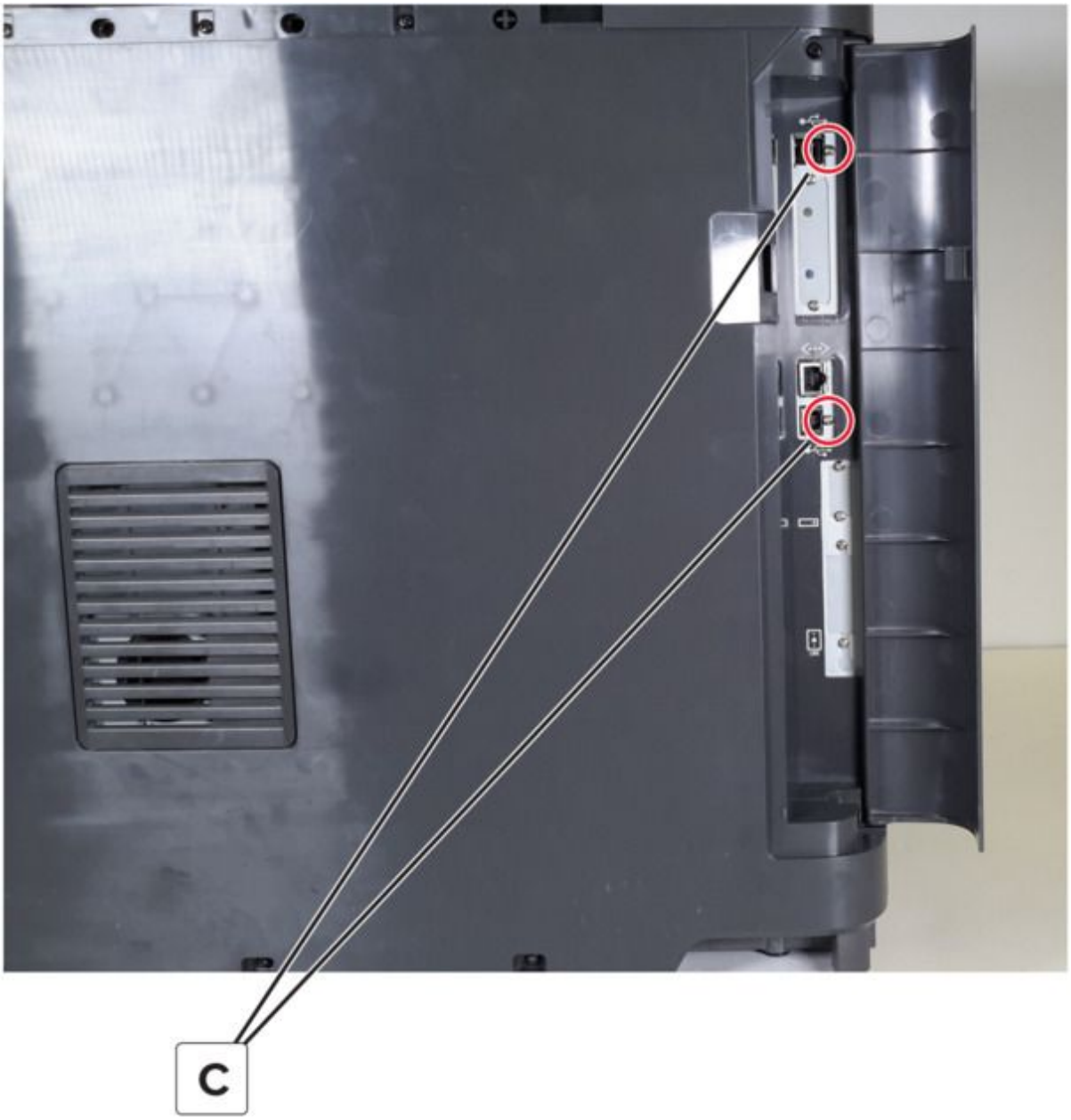
Removal procedure

1. Remove the controller board cover. See Controller board cover removal on page 691.
2. Disconnect all the cables from the board.

   Warning—Potential Damage
   Do not yank the ribbon cables. See Disconnecting ribbon cables on page 570.

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.

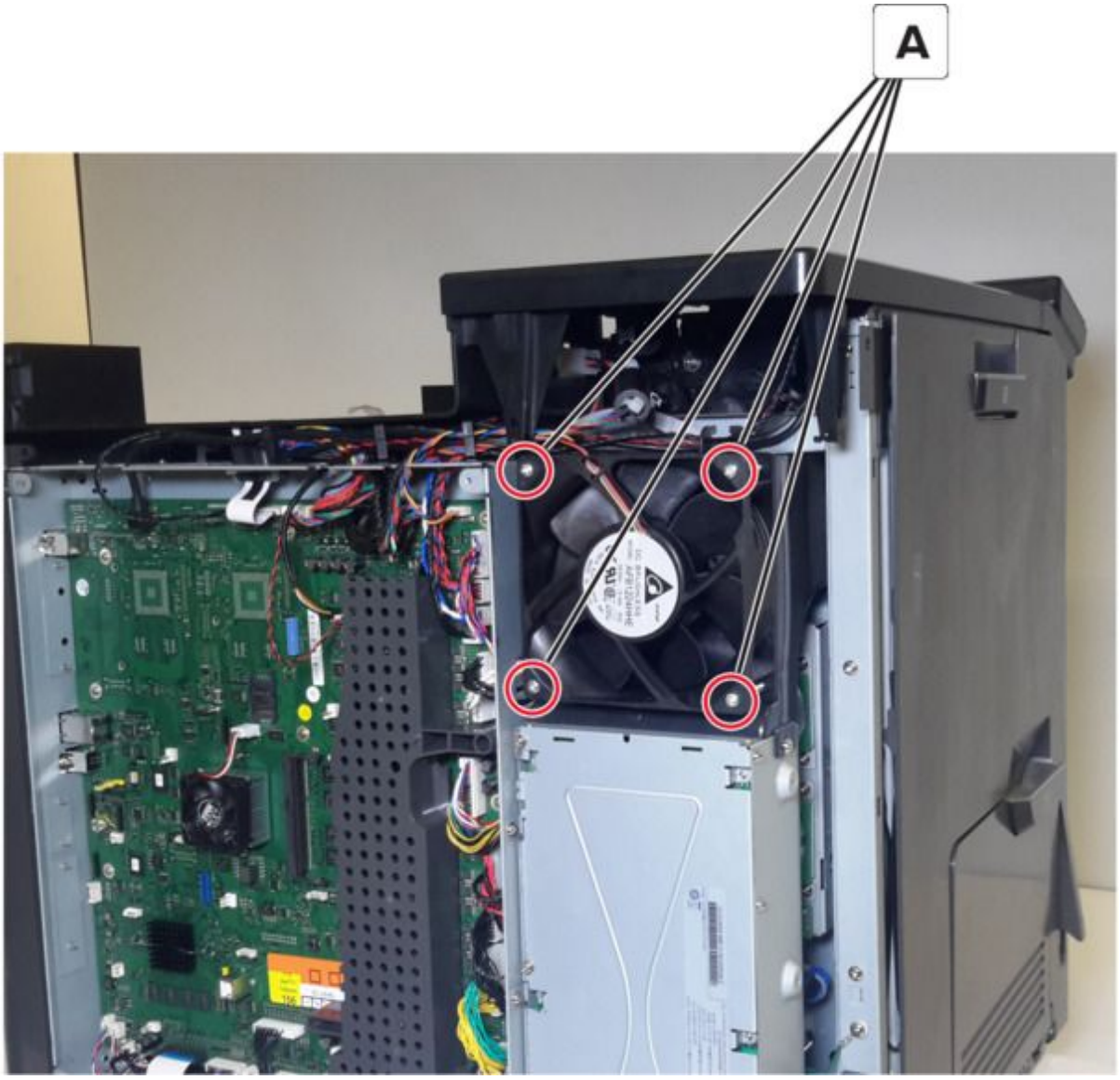
> **Installation Note**
> Make sure that the shield is reinstalled after replacing the board.

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 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See .Rear upper cover removal on page 695
4. Remove the left upper cover. See .Left upper cover removal on page 580

5. Remove the rear left cover. See .Rear left cover removal on page 693
6. Disconnect the cable JF1 from the controller board, and then remove the four screws (A).



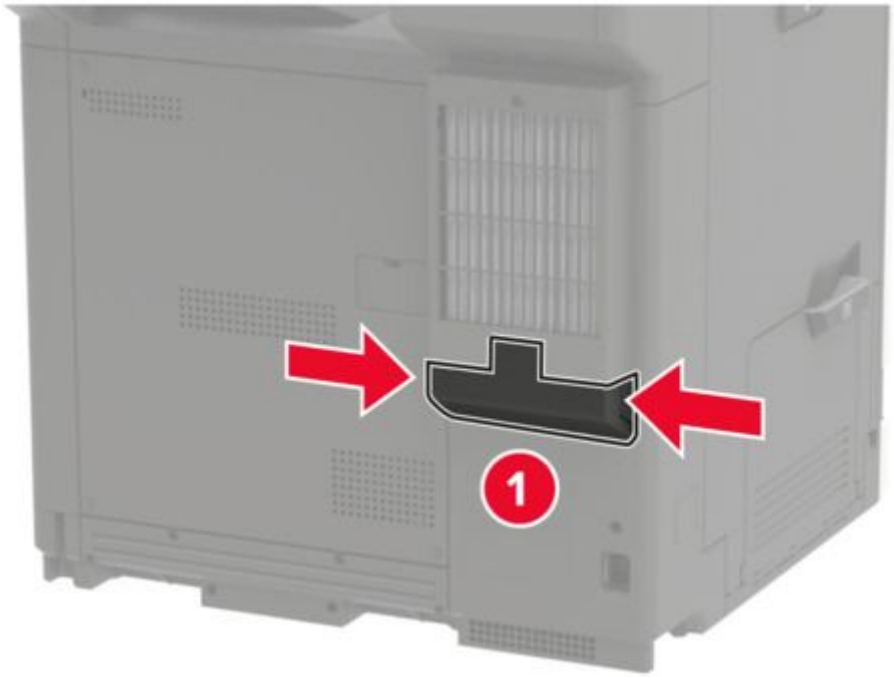
> **Note:** Take note of the correct fan direction and position.

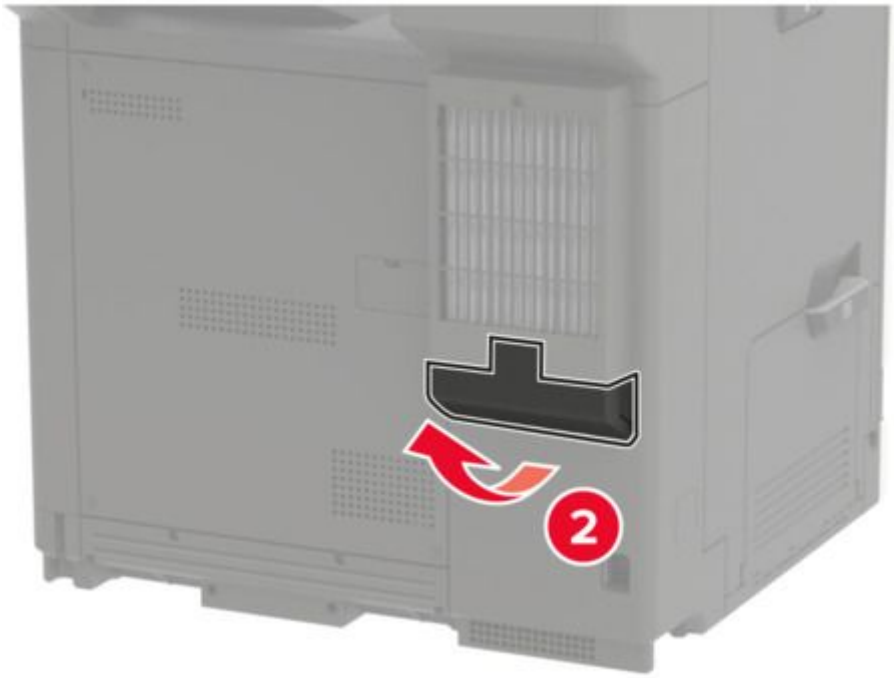
7. Remove the fan.

> **Installation Note**
> Route the cables through the guides properly.

HEPA filter removal

1. Open the filter door.





2. Remove the filter.

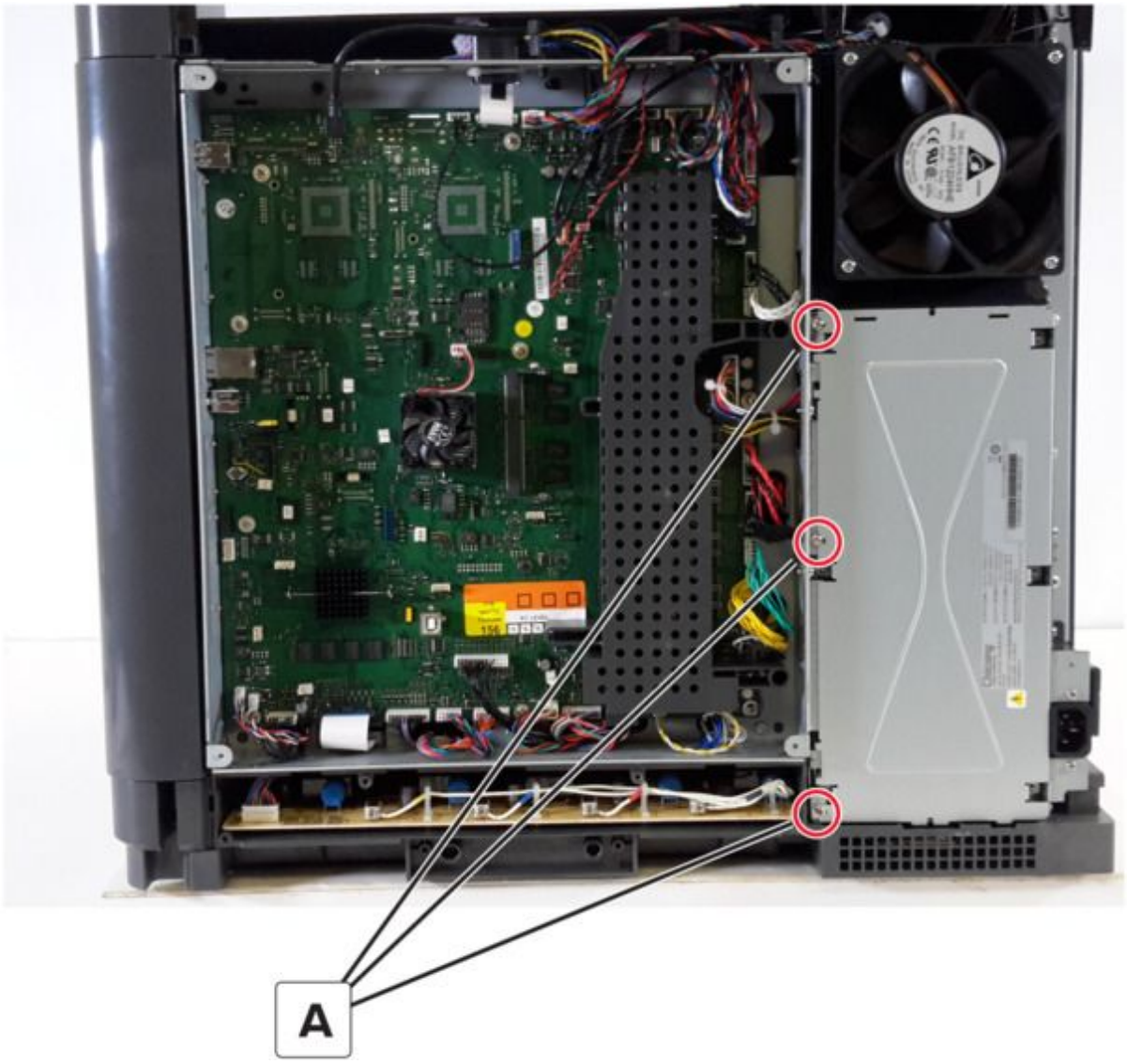
Installation Note
Make sure to reset the HEPA filter counter after replacing the filter. See Resetting the HEPA filter counter on page 940.

LVPS removal

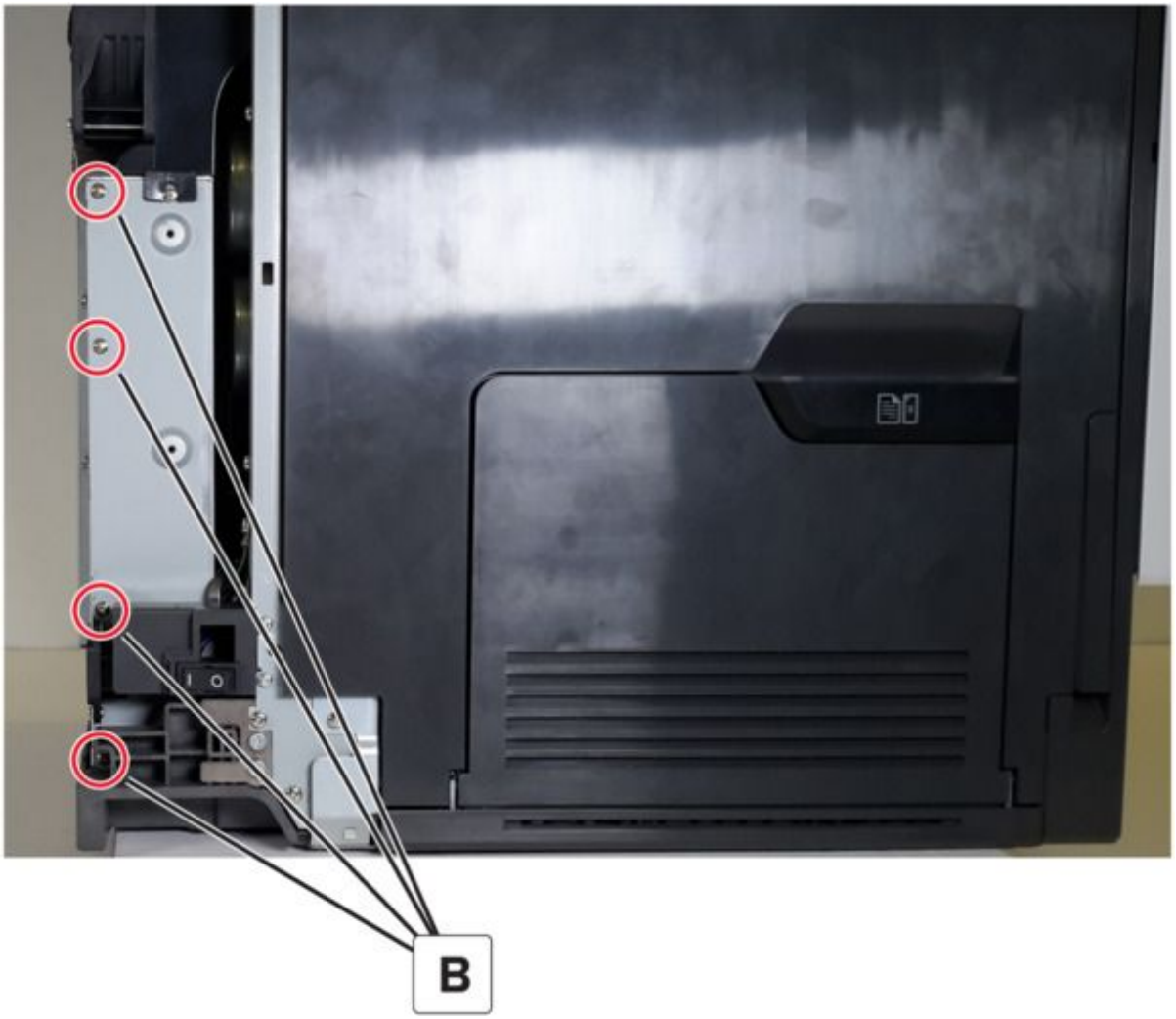
Note: For a video demonstration, see LVPS removal.

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 691.
4. Remove the rear lower cover. See Rear lower cover removal on page 692.
5. Remove the rear upper cover. See .Rear upper cover removal on page 695
6. Remove the left upper cover. See .Left upper cover removal on page 580
7. Remove the rear left cover. See .Rear left cover removal on page 693
8. Disconnect the cable JLVPS1 from the controller board, and then remove the three screws (A).



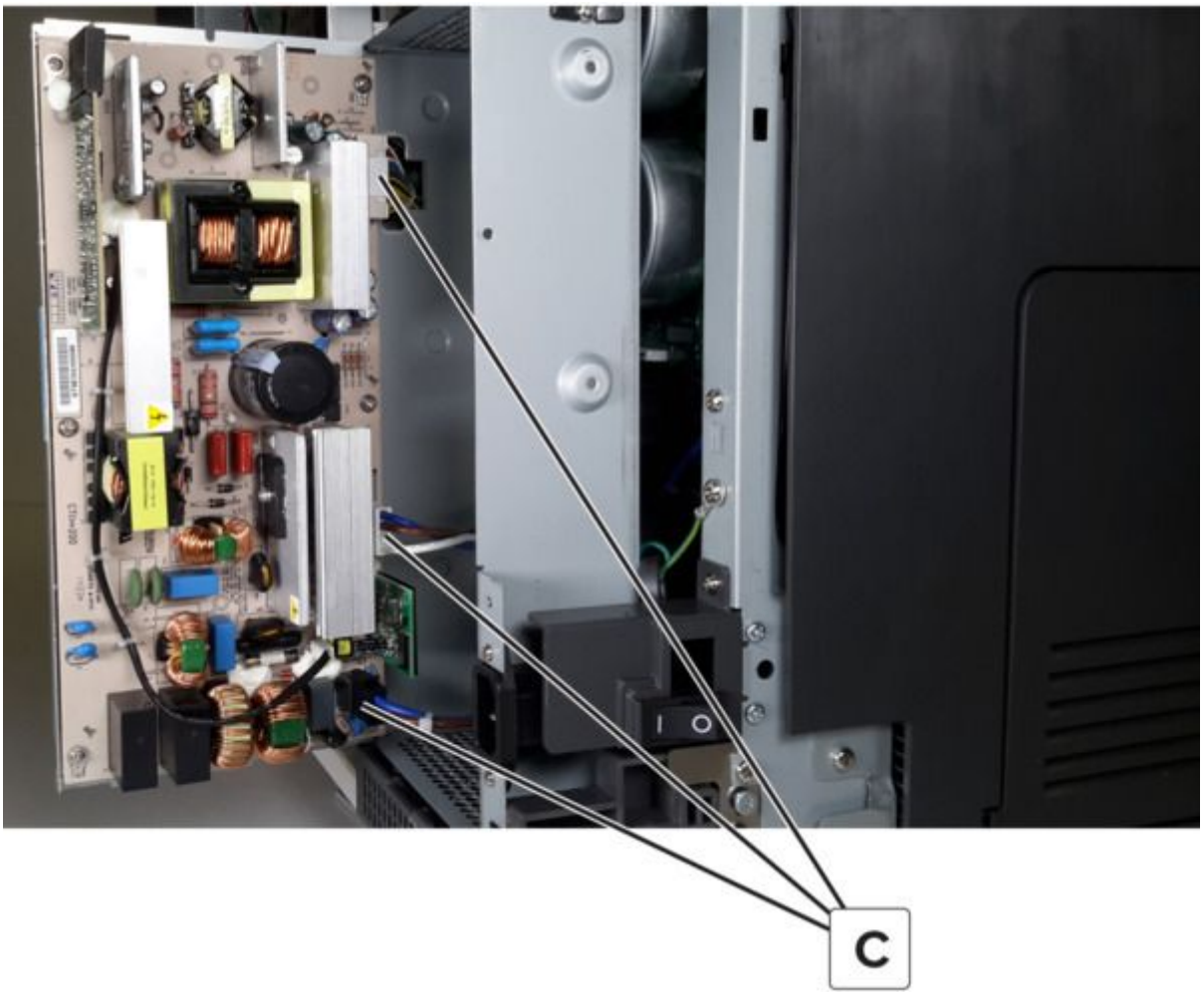
9. Remove the four screws (B) from the side, and then carefully open the LVPS.



10. Disconnect the three cables (C), and then remove the LVPS.

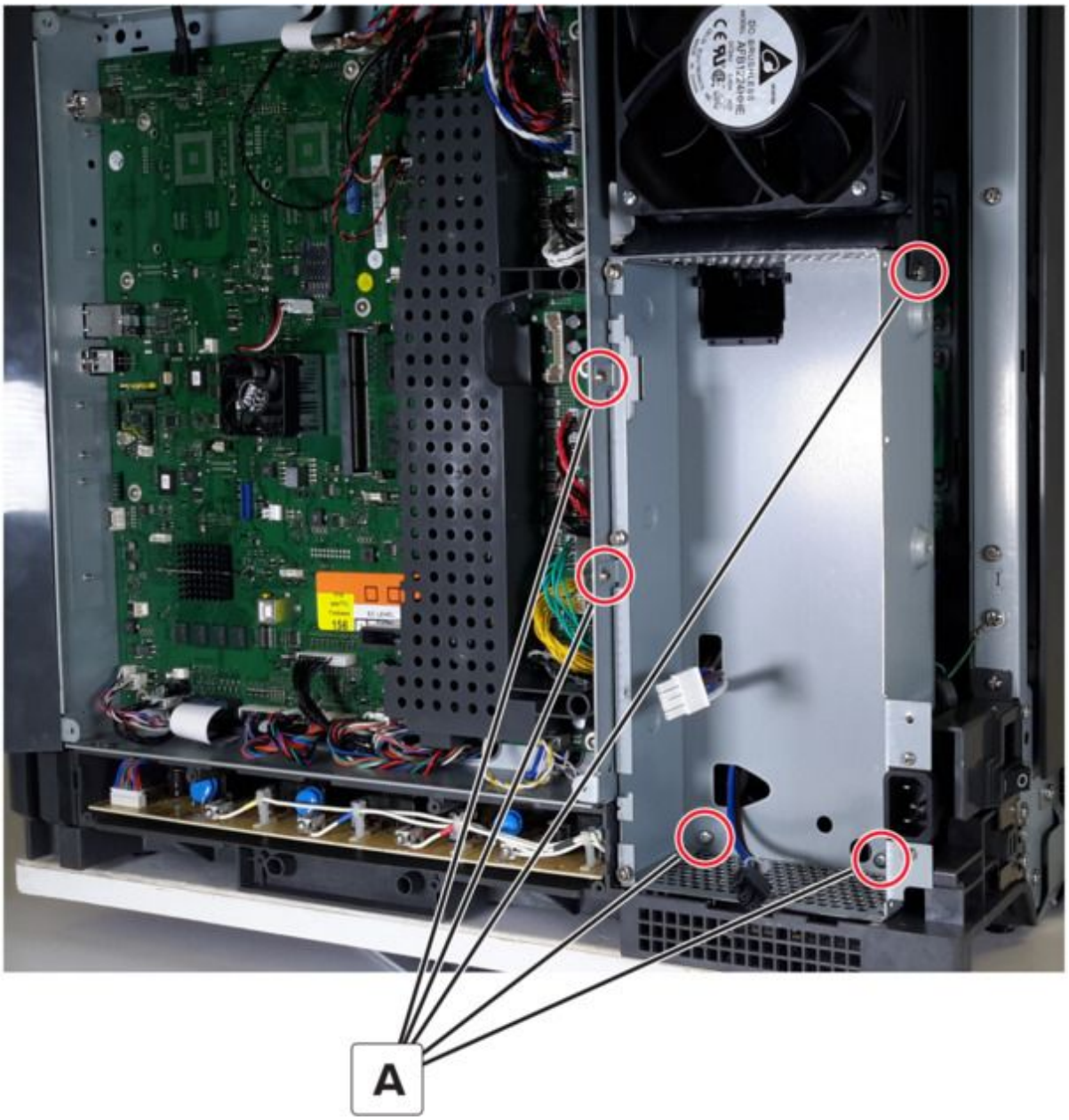
CAUTION—SHOCK HAZARD
The LVPS may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its outer edges.

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 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See Rear upper cover removal on page 695.
4. Remove the left upper cover. See Left upper cover removal on page 580.
5. Remove the rear left cover. See Rear left cover removal on page 693.
6. Remove the LVPS. See LVPS removal on page 707.
7. Remove the seven screws (A).



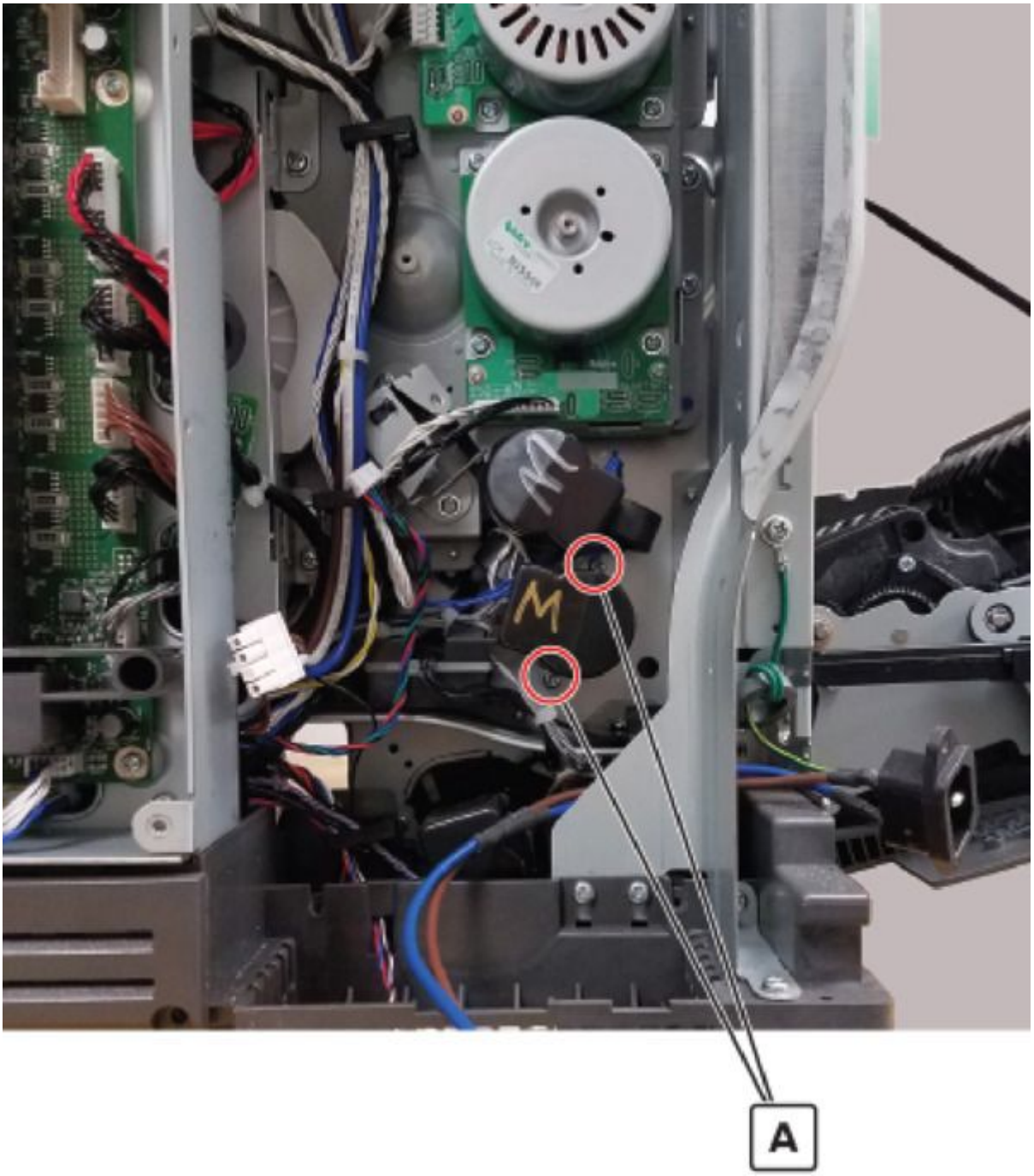
8. Remove the cage.

> **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 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See .Rear upper cover removal on page 695
4. Remove the left upper cover. See .Left upper cover removal on page 580
5. Remove the rear left cover. See .Rear left cover removal on page 693

6. Remove the LVPS. See LVPS removal on page 707.
7. Remove the LVPS cage. See .LVPS cage removal on page 710
8. Remove the two screws (A) securing the motor to the frame.

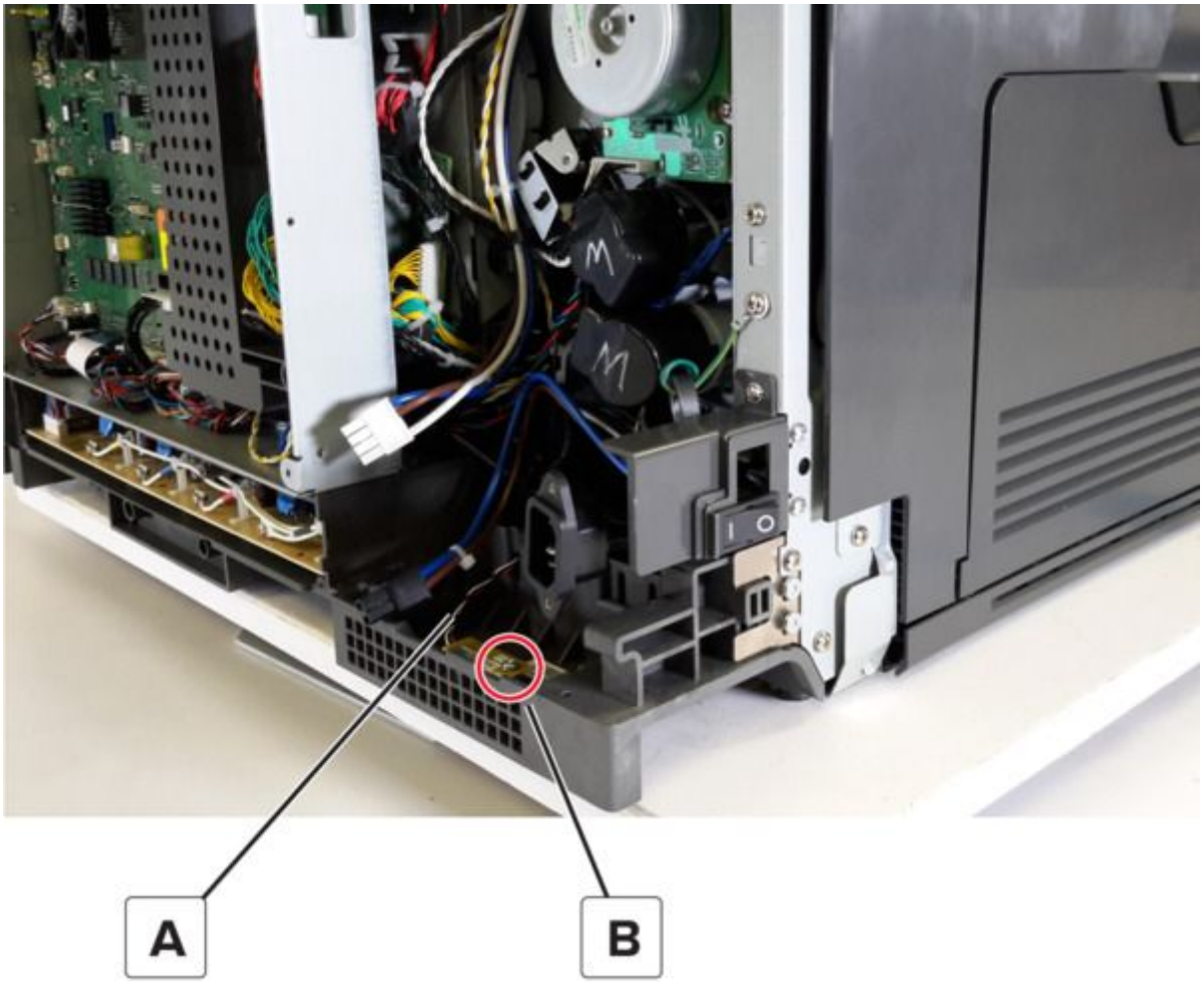


9. Remove the motor.
10. Cut the plastic wire tie (B).

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 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See .Rear upper cover removal on page 695
4. Remove the left upper cover. See .Left upper cover removal on page 580
5. Remove the rear left cover. See .Rear left cover removal on page 693
6. Remove the LVPS. See LVPS removal on page 707.
7. Remove the LVPS cage. See .LVPS cage removal on page 710
8. Disconnect the cable (A), and then remove the screw (B).



9. Remove the weather station.

Controller board cage removal

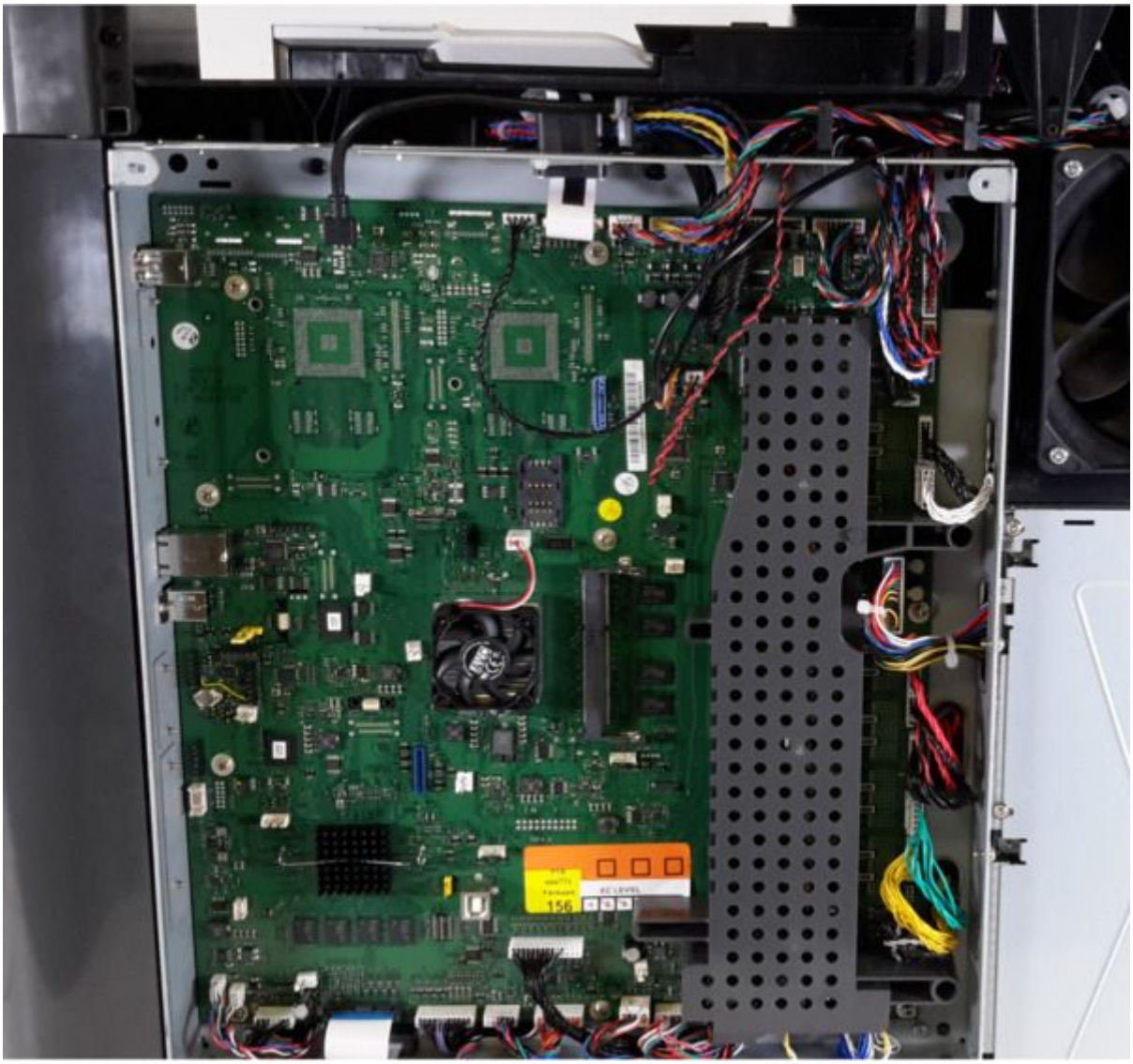
> **Note:** This part is not a FRU.

1. Remove the controller board cover. See Controller board cover removal on page 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See Rear upper cover removal on page 695.
4. Remove the left upper cover. See Left upper cover removal on page 580.
5. Remove the rear left cover. See Rear left cover removal on page 693.
6. Disconnect all the cables from the board, and then remove the seven screws (A).

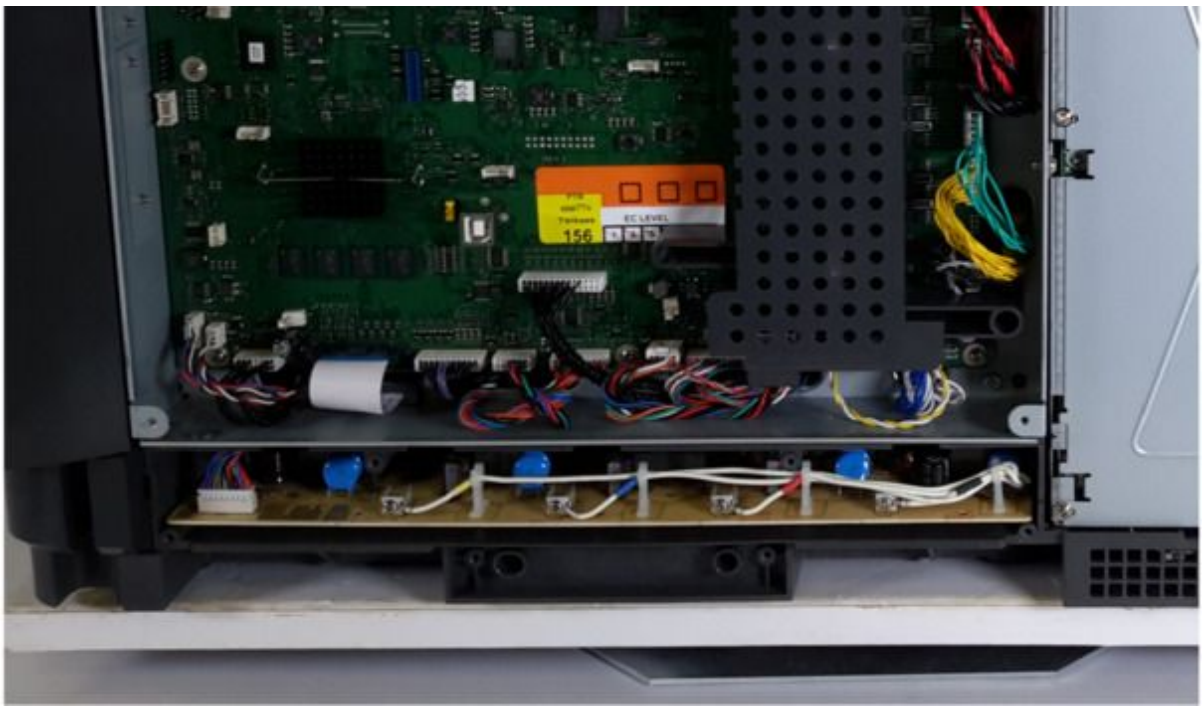
7. Release the cables from the controller board cage, and then remove the cage.

Installation Note
Route the cables to its appropriate holes and guides properly.

- Top side

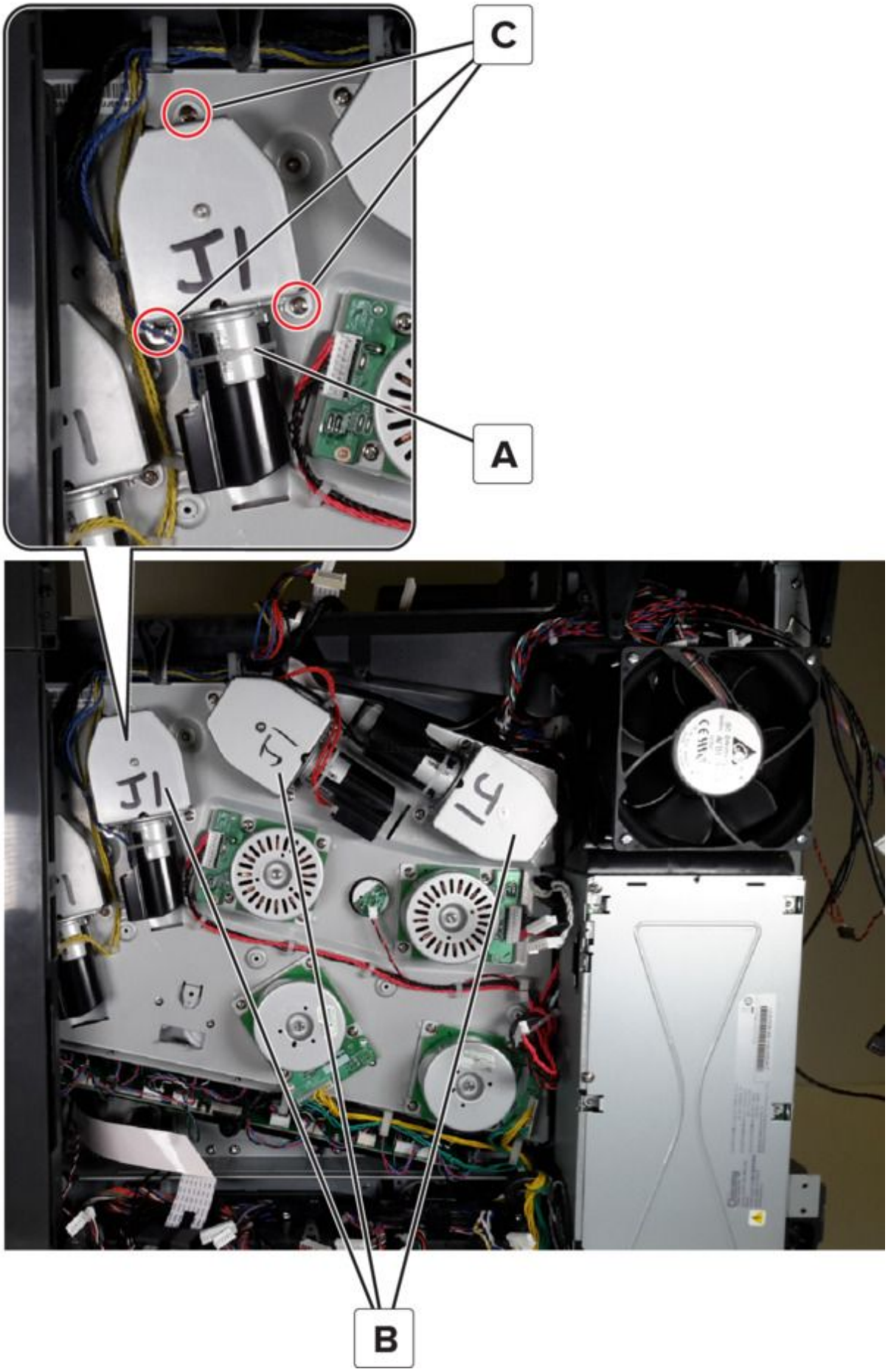


- Bottom side



Toner add motor gearbox (K, C, and M) removal

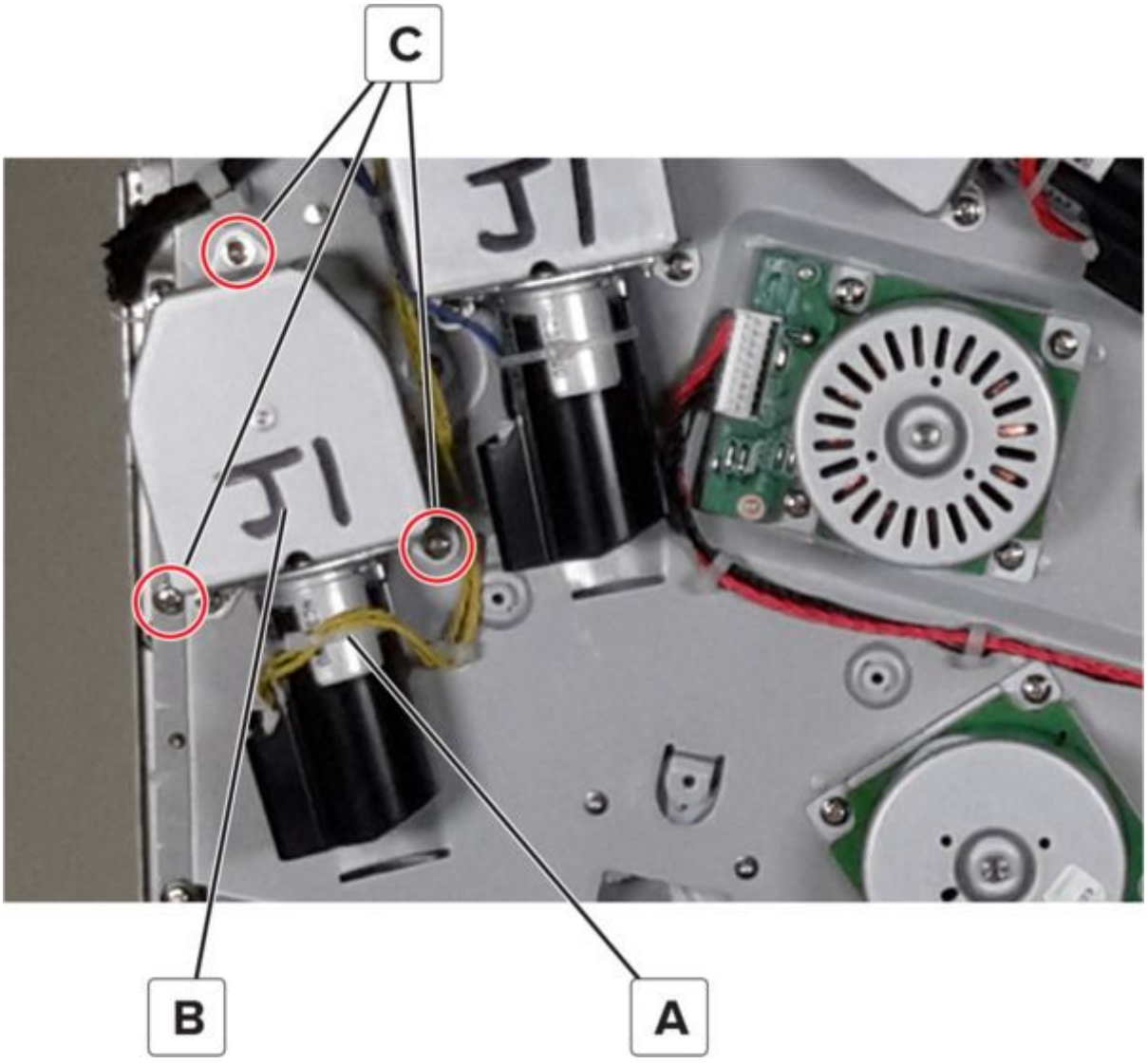
1. Remove the controller board cover. See Controller board cover removal on page 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See .Rear upper cover removal on page 695
4. Remove the left upper cover. See .Left upper cover removal on page 580
5. Remove the rear left cover. See .Rear left cover removal on page 693
6. Remove the controller board cage. See .Controller board cage removal on page 714
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.


C
A
B

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 691.
2. Remove the rear lower cover. See Rear lower cover removal on page 692.
3. Remove the rear upper cover. See Rear upper cover removal on page 695.
4. Remove the left upper cover. See Left upper cover removal on page 580.
5. Remove the rear left cover. See Rear left cover removal on page 693.
6. Remove the rear corner cover. See Rear corner cover removal on page 623.
7. Remove the controller board cage. See Controller board cage removal on page 714.
8. Remove the right cover. See Right cover removal on page 624.
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.



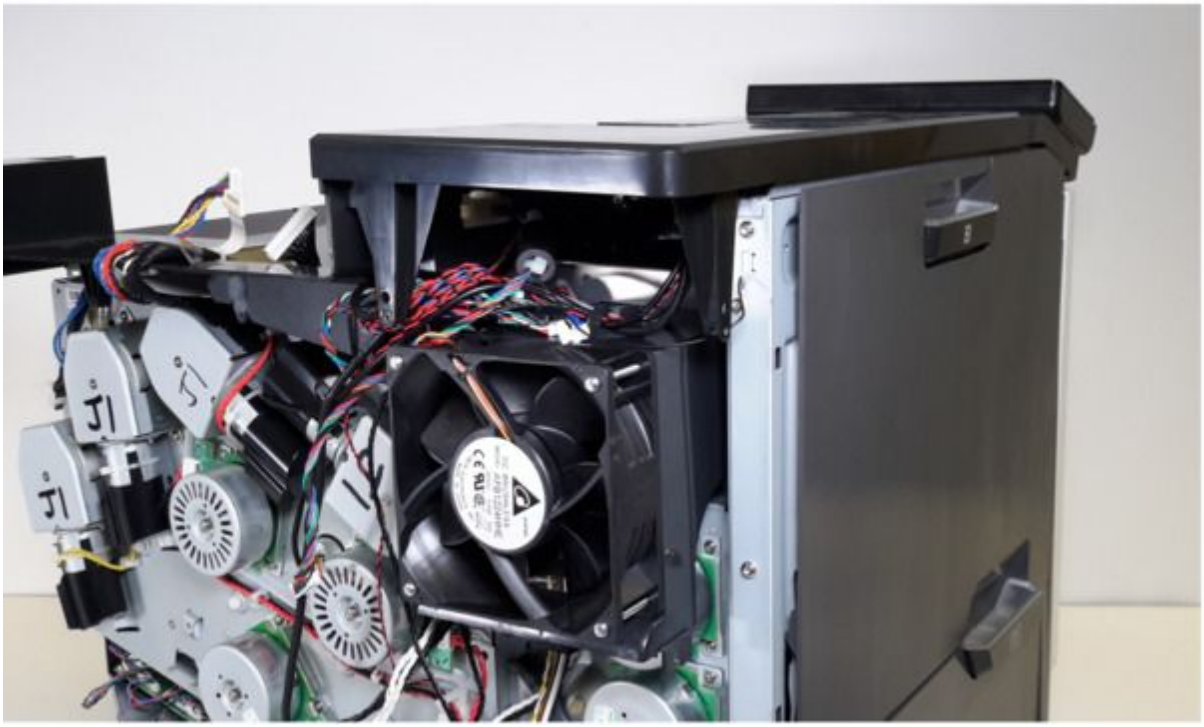
Installation Note
Make sure to replace the cable tie, and reinstall the motor cover.

Main fan duct removal

1. Open door B, and then remove the fuser.

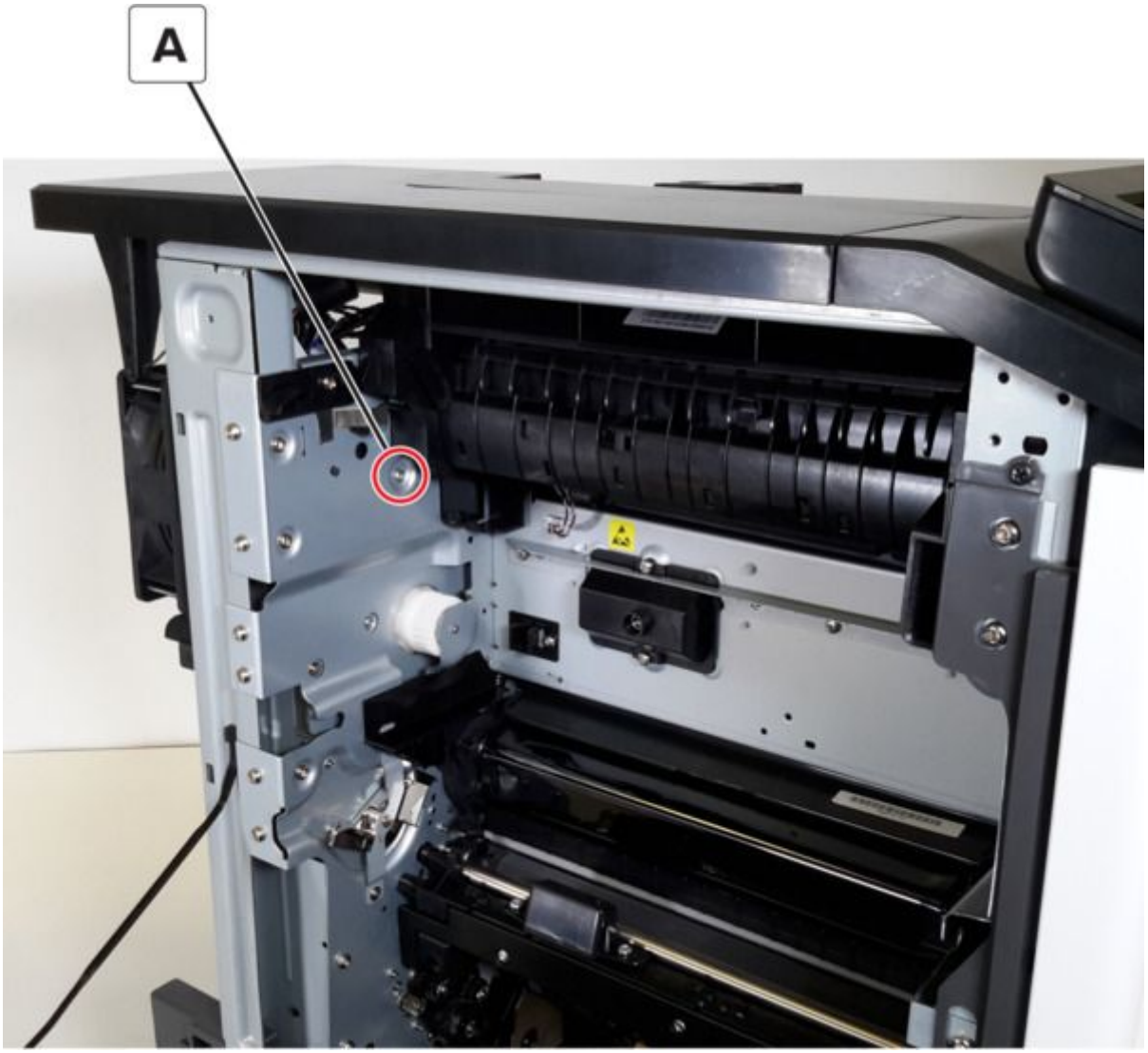
CAUTION—HOT SURFACE
The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

2. Remove the controller board cover. See Controller board cover removal on page 691.
3. Remove the rear lower cover. See Rear lower cover removal on page 692.
4. Remove the rear upper cover. See Rear upper cover removal on page 695.
5. Remove the left upper cover. See Left upper cover removal on page 580.
6. Remove the rear left cover. See Rear left cover removal on page 693.
7. Remove the controller board cage. See Controller board cage removal on page 714.
8. Release the cables from the fan duct.



9. Remove the two screws securing the main fan.
10. Allow the fan to carefully hang by the wire.
11. 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.

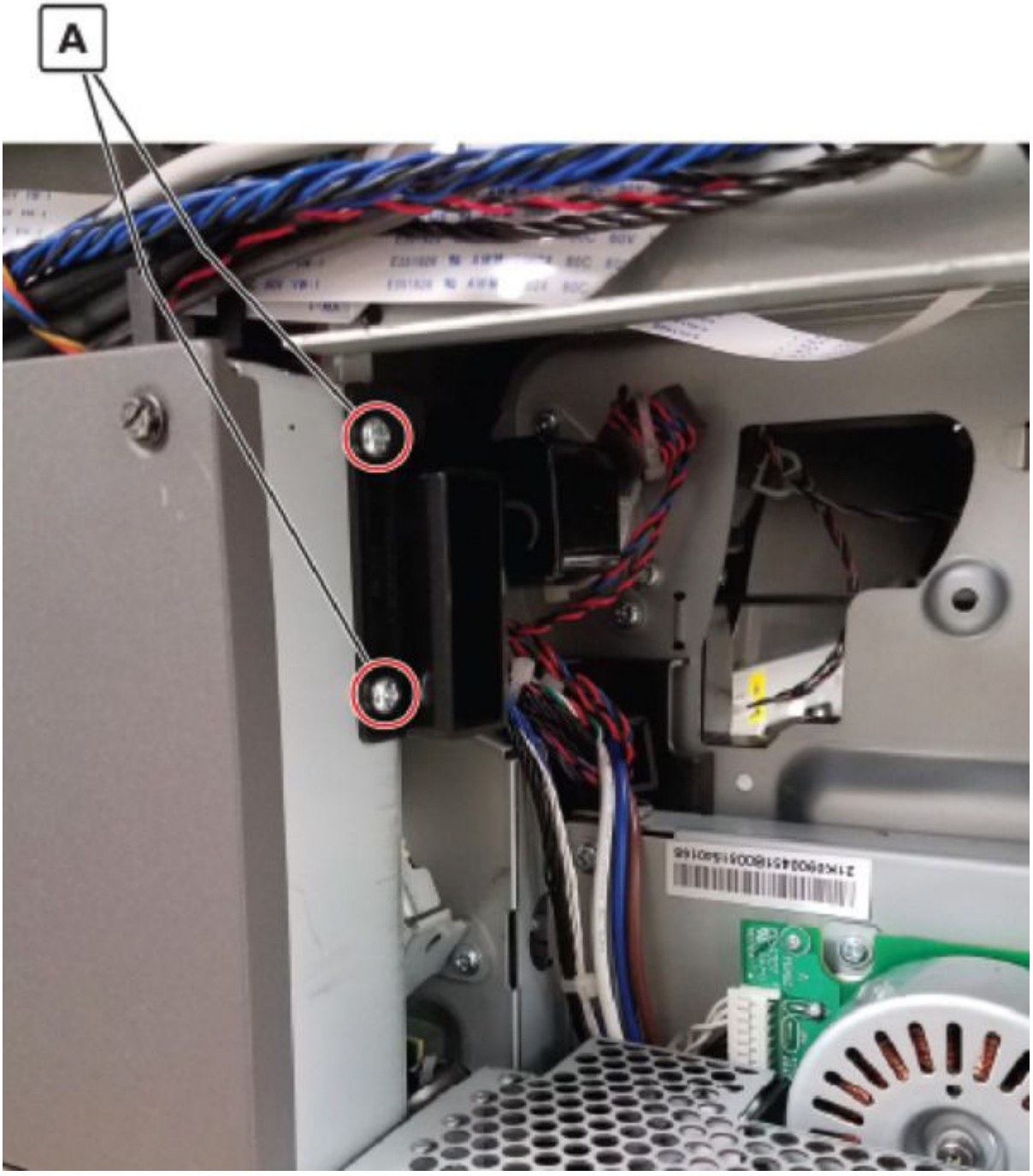


12. Remove the main fan duct.

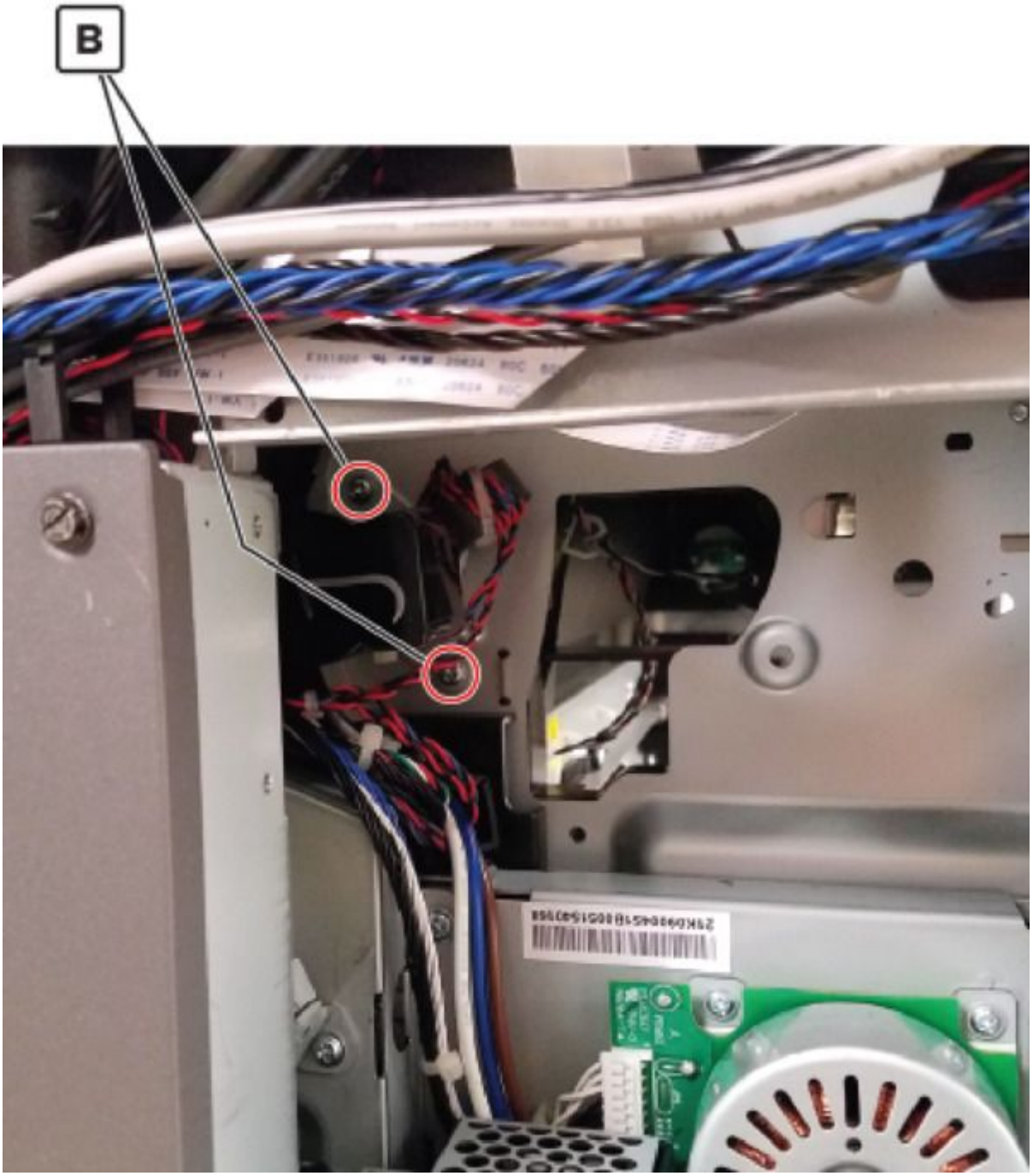
Motor (redrive) removal

1. Remove the fuser. See Fuser removal on page 581.
2. Remove the controller board cover. See Controller board cover removal on page 691.
3. Remove the rear lower cover. See Rear lower cover removal on page 692.
4. Remove the rear upper cover. See .Rear upper cover removal on page 695
5. Remove the left upper cover. See .Left upper cover removal on page 580
6. Remove the rear left cover. See .Rear left cover removal on page 693
7. Remove the controller board cage. See .Controller board cage removal on page 714
8. Remove the main fan duct. See .Main fan duct removal on page 720

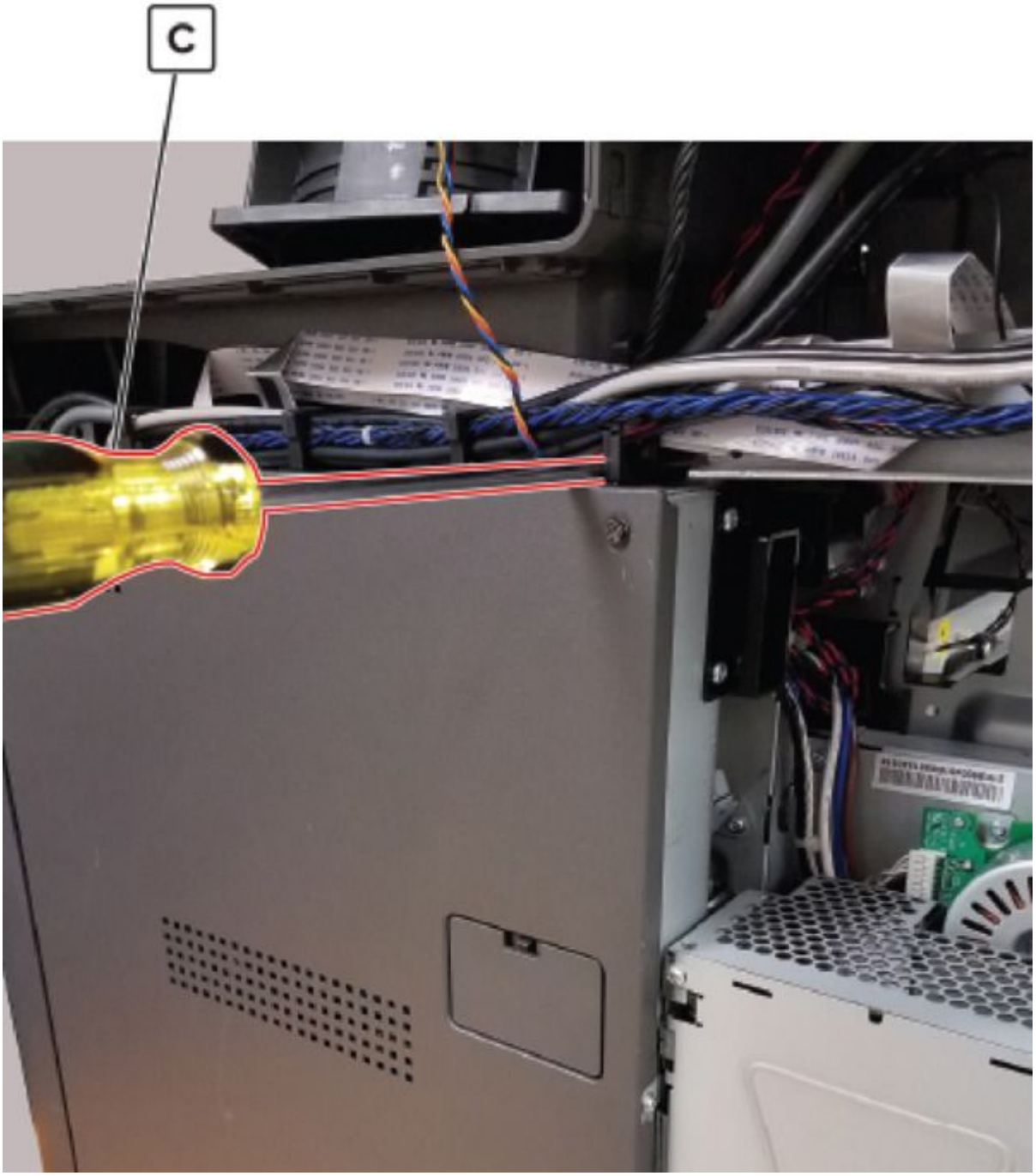
9. Remove the two screws (A) securing the small duct to the frame.



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.

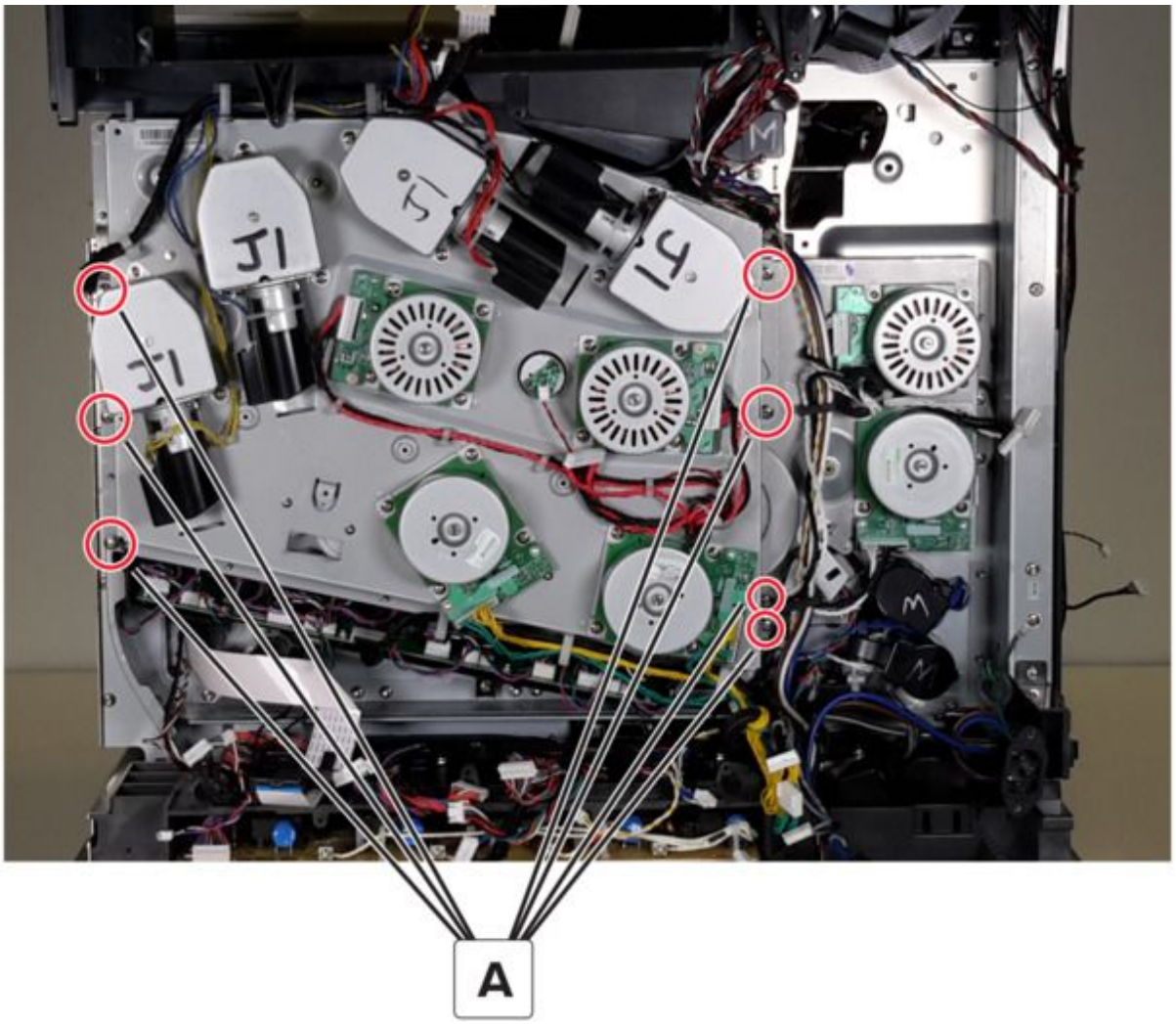
EP, developer, toner add gearbox removal

> **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 692.

3. Remove the rear upper cover. See Rear upper cover removal on page 695.
4. Remove the rear corner cover. See Rear corner cover removal on page 623.
5. Remove the right cover. See Right cover removal on page 624.
6. Remove the controller board cover. See Controller board cover removal on page 691.
7. Remove the left upper cover. See Left upper cover removal on page 580.
8. Remove the rear left cover. See Rear left cover removal on page 693.
9. Remove the controller board cage. See Controller board cage removal on page 714.
10. Remove the LVPS cage. See LVPS cage removal on page 710.
11. Remove the main fan duct. See Main fan duct removal on page 720.
12. Remove the seven screws (A), and then release the cables from the cable guides.

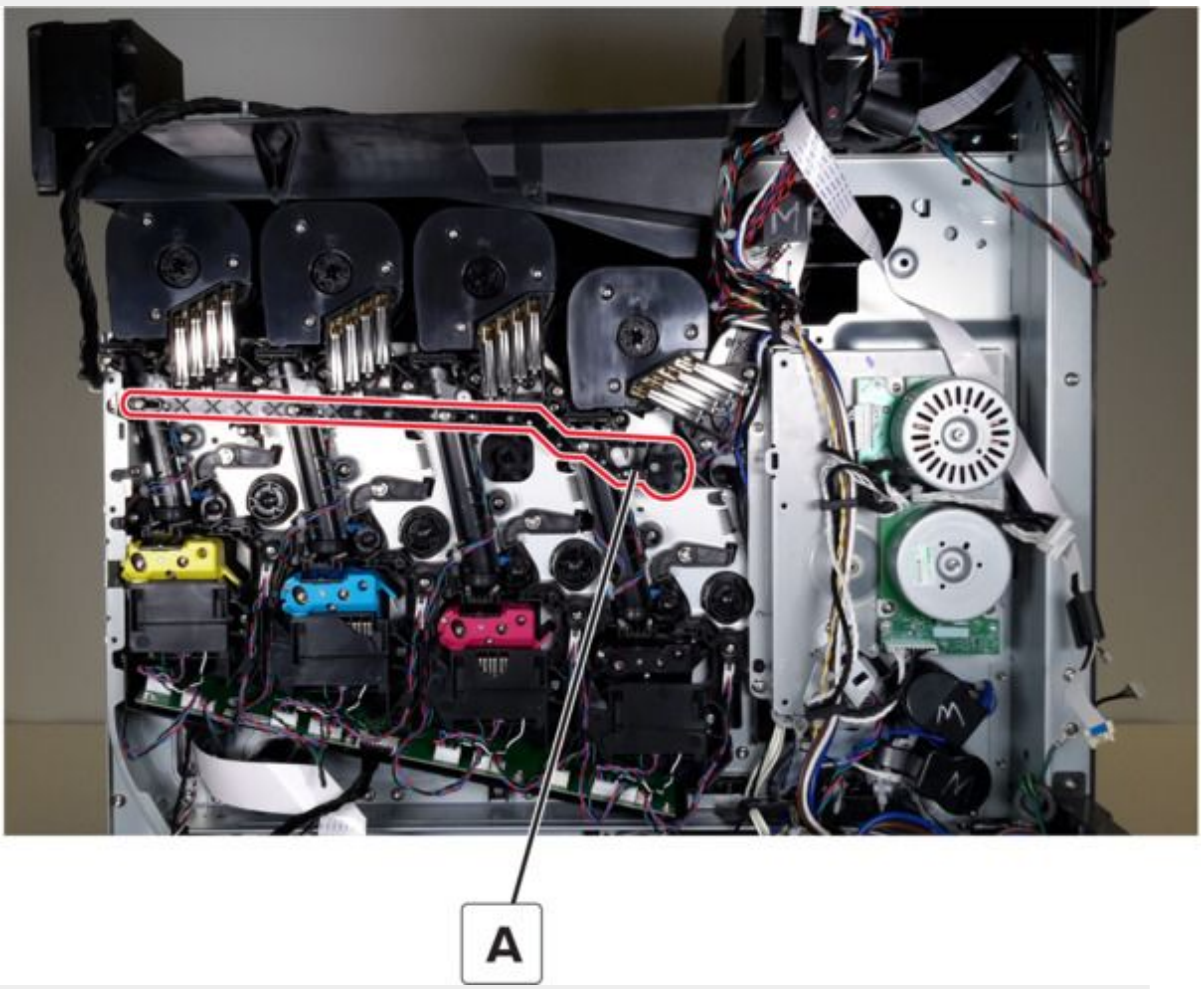
> **Warning—Potential Damage**
> The flat cable is fragile. Be careful when detaching the cable from the gearbox.



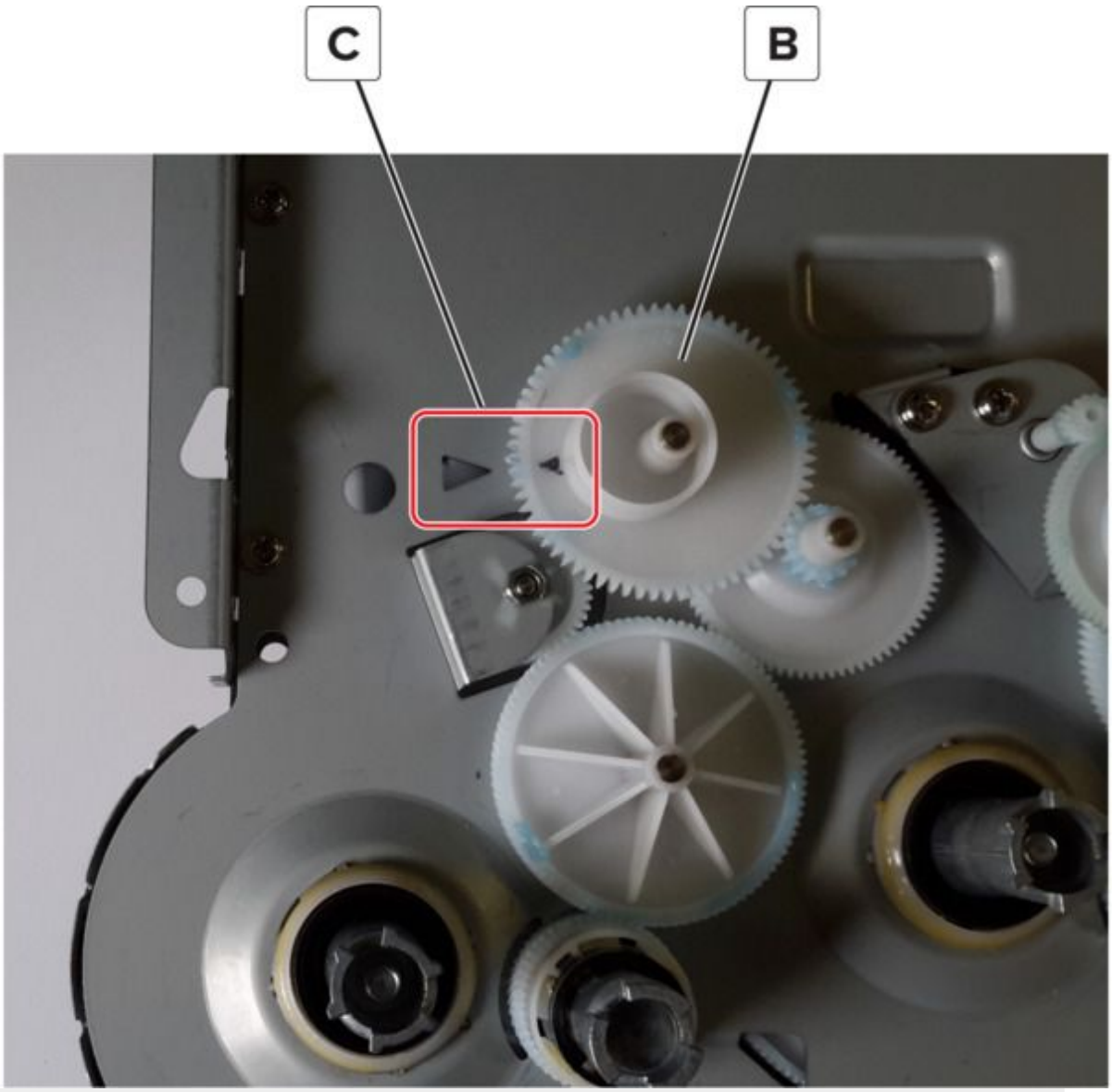
13. Remove the gearbox.

Installation Note

1. Position the toner supply actuator (A) as far to the right as possible.

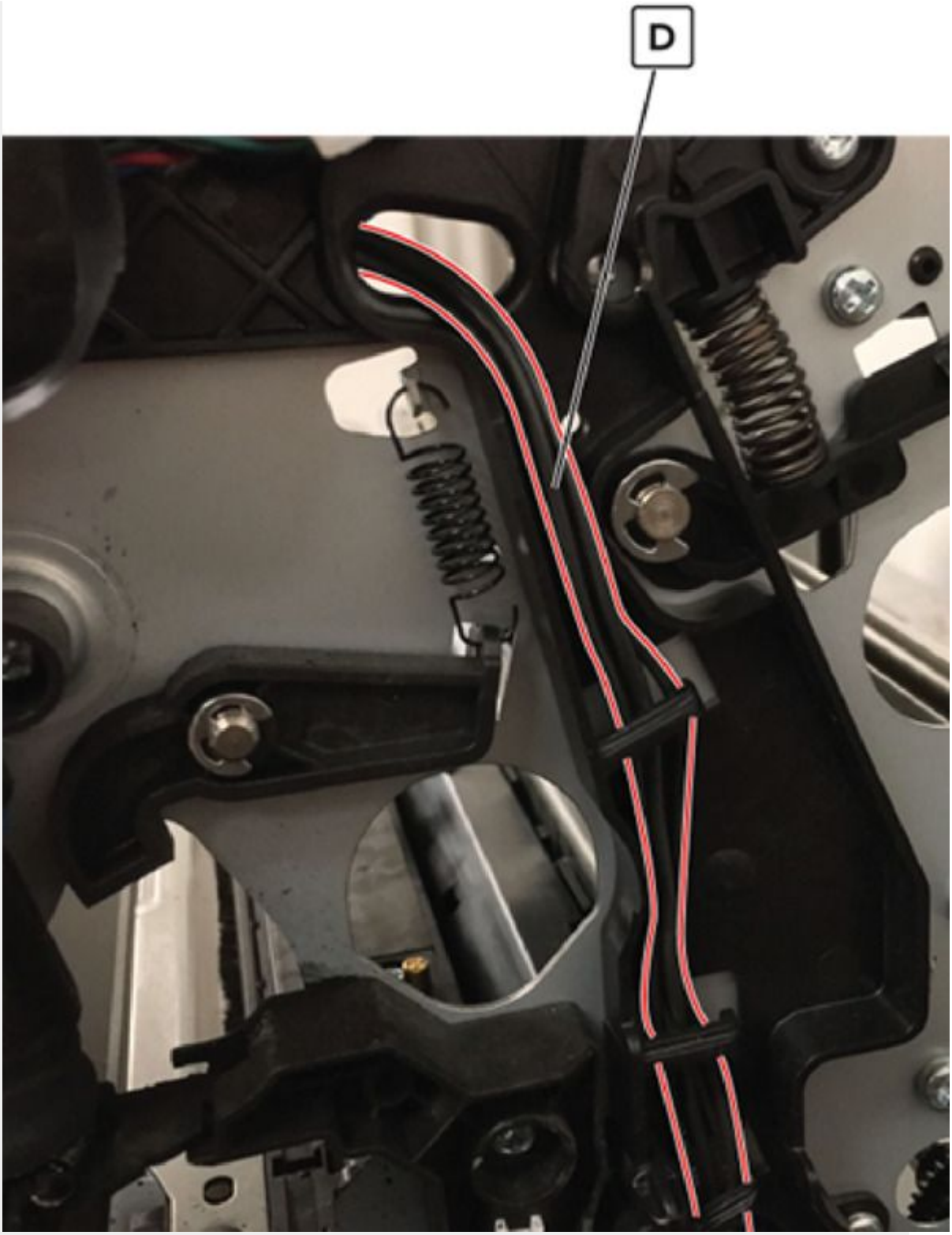


2. Take note of the correct position of the cam gear (B). Make sure that the arrow indicators (C) align.



3. 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.

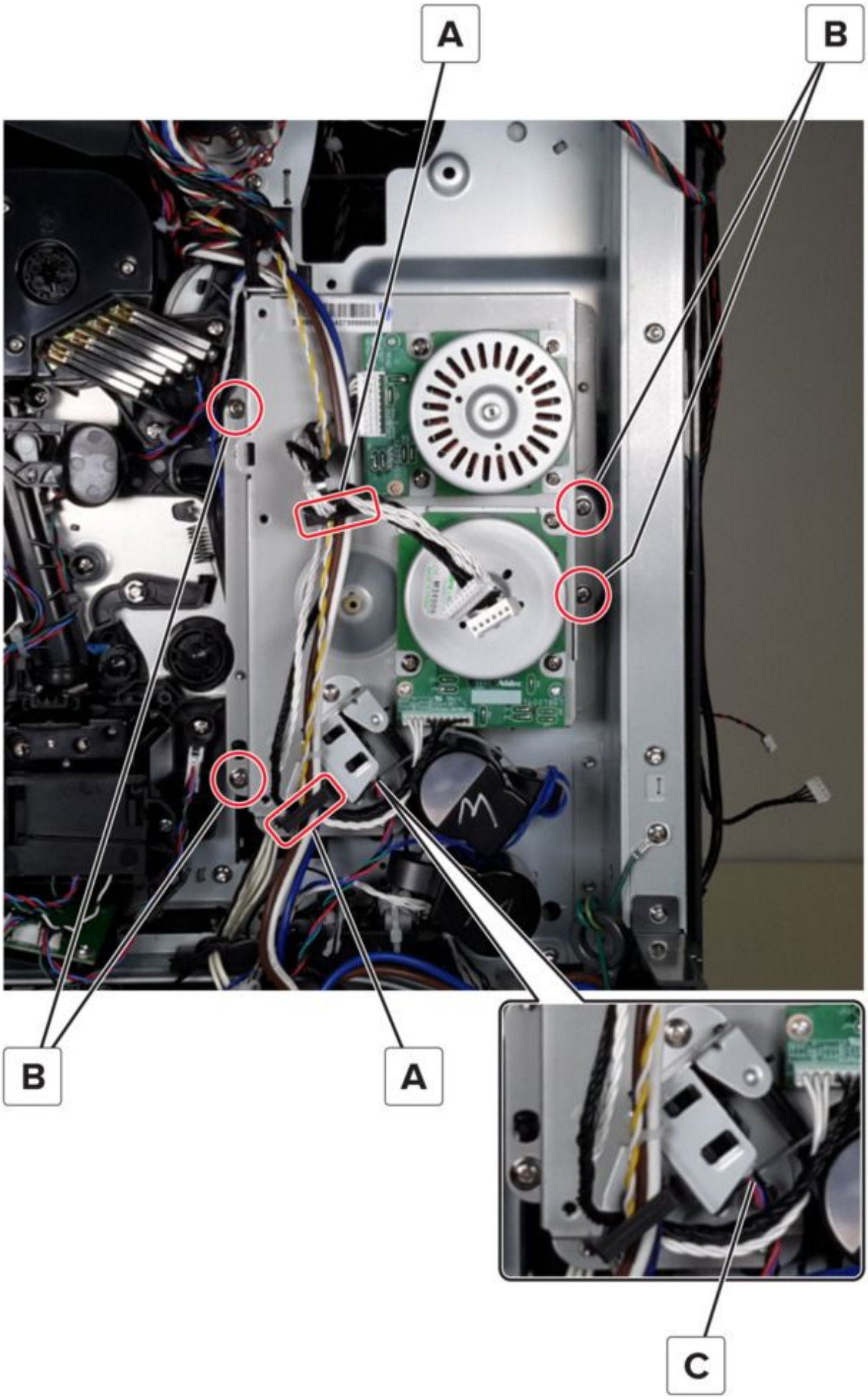


4. Align the bottom edge of the gearbox first, and then swing up to align the cam gear to the toner supply actuator.
5. Route the cables properly.

Fuser/transfer belt motor gearbox removal

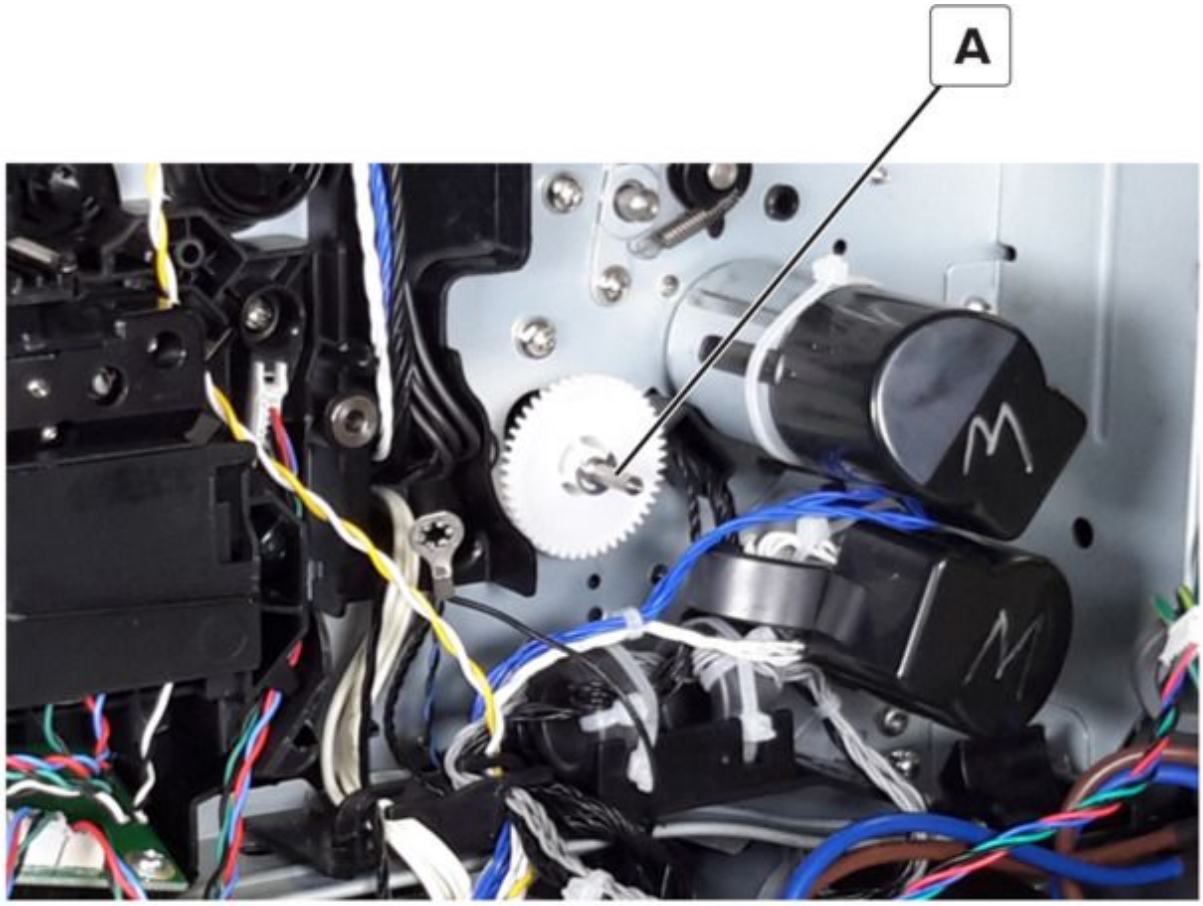
> **Note:** For a video demonstration, see Fuser/transfer belt motor gearbox removal.

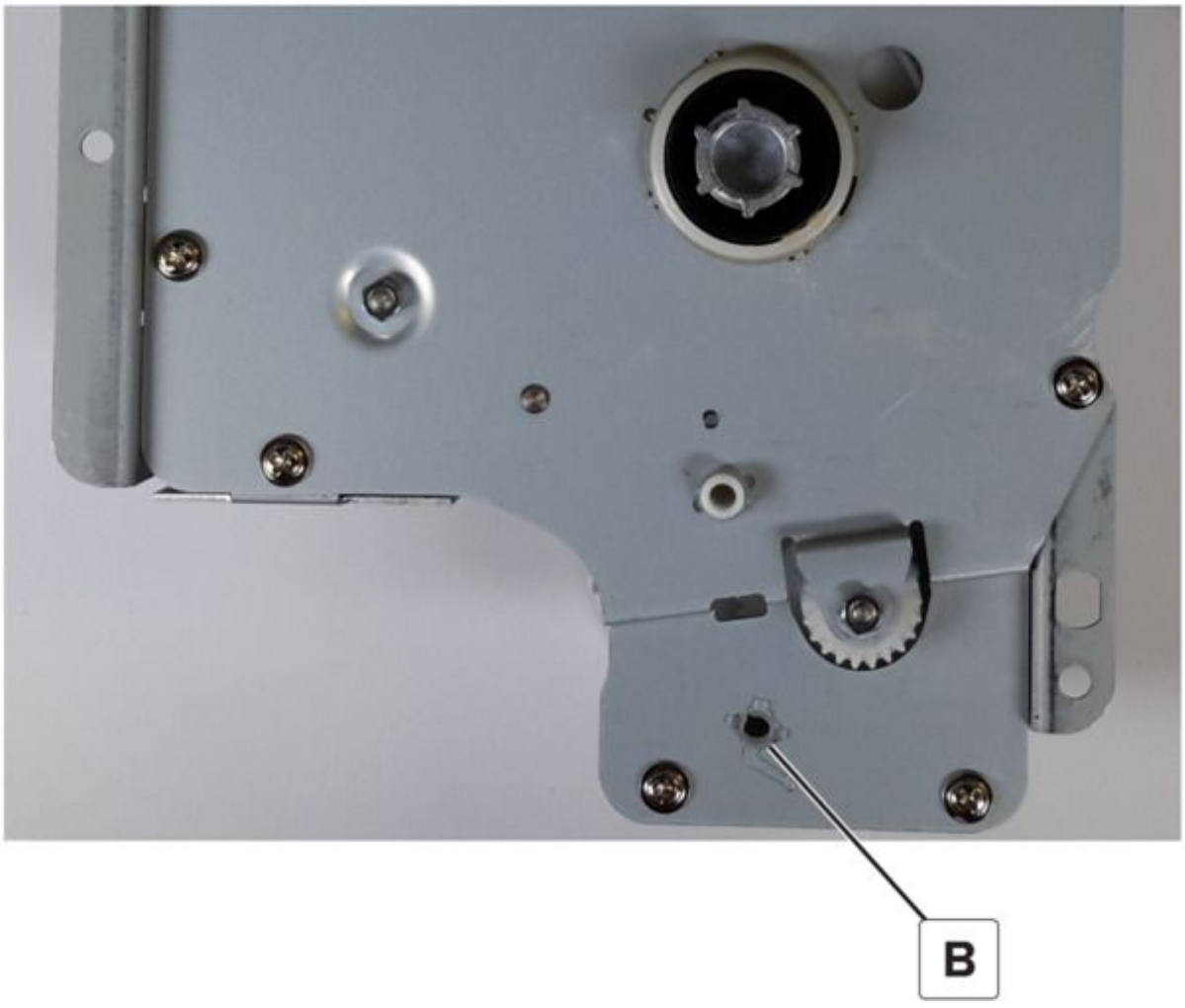
1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the right cover. See Right cover removal on page 624.
5. Remove the controller board cover. See Controller board cover removal on page 691.
6. Remove the left upper cover. See Left upper cover removal on page 580.
7. Remove the controller board cage. See Controller board cage removal on page 714.
8. Remove the LVPS cage. See LVPS cage removal on page 710.
9. Remove the main fan duct. See Main fan duct removal on page 720.
10. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.
11. Release the cables from the cable guides (A).
12. Remove the four screws (B), and then disconnect the sensor cable (C).


A
B
B
A
C

13. Remove the gearbox.

> **Installation Note**
> Insert the waste toner shaft (A) into the bushing (B) on the gearbox.

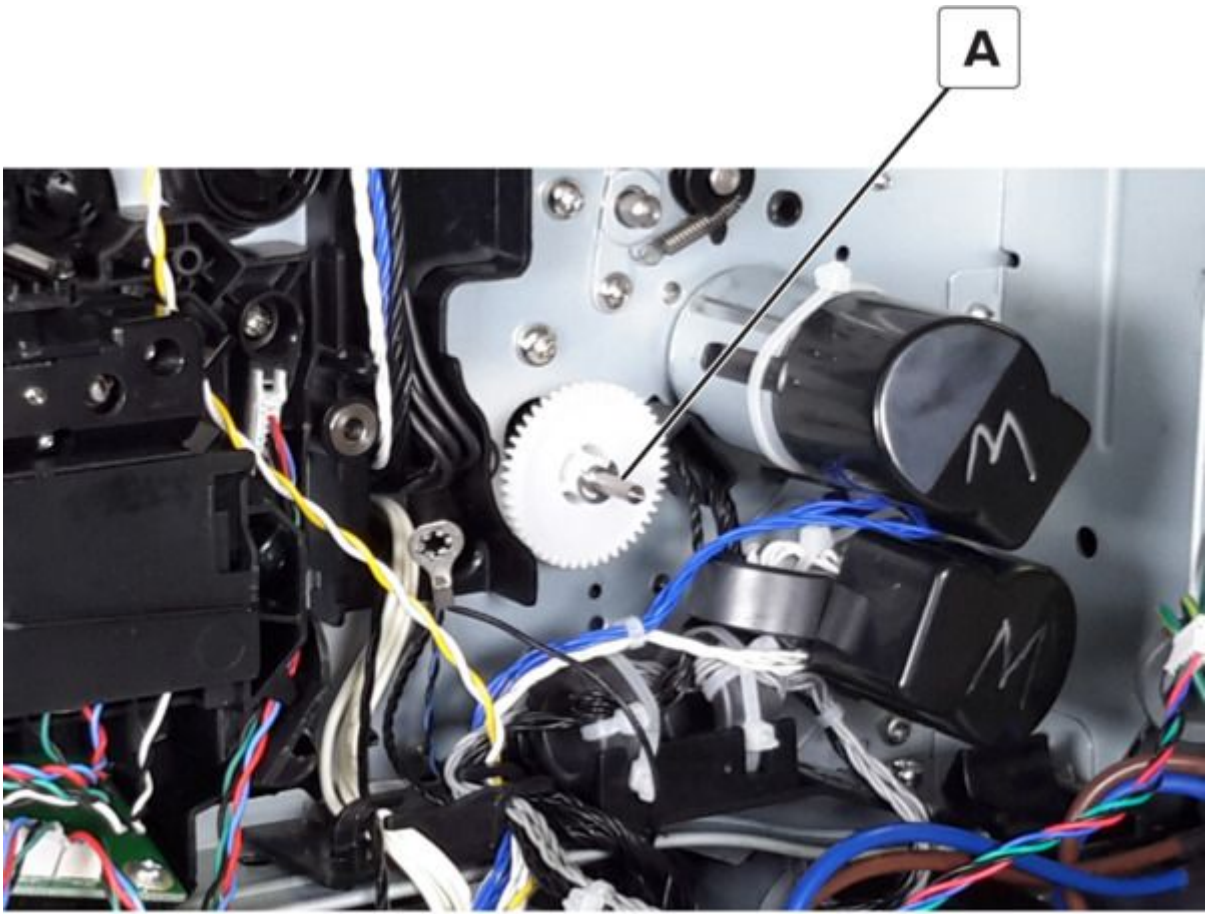

A


B

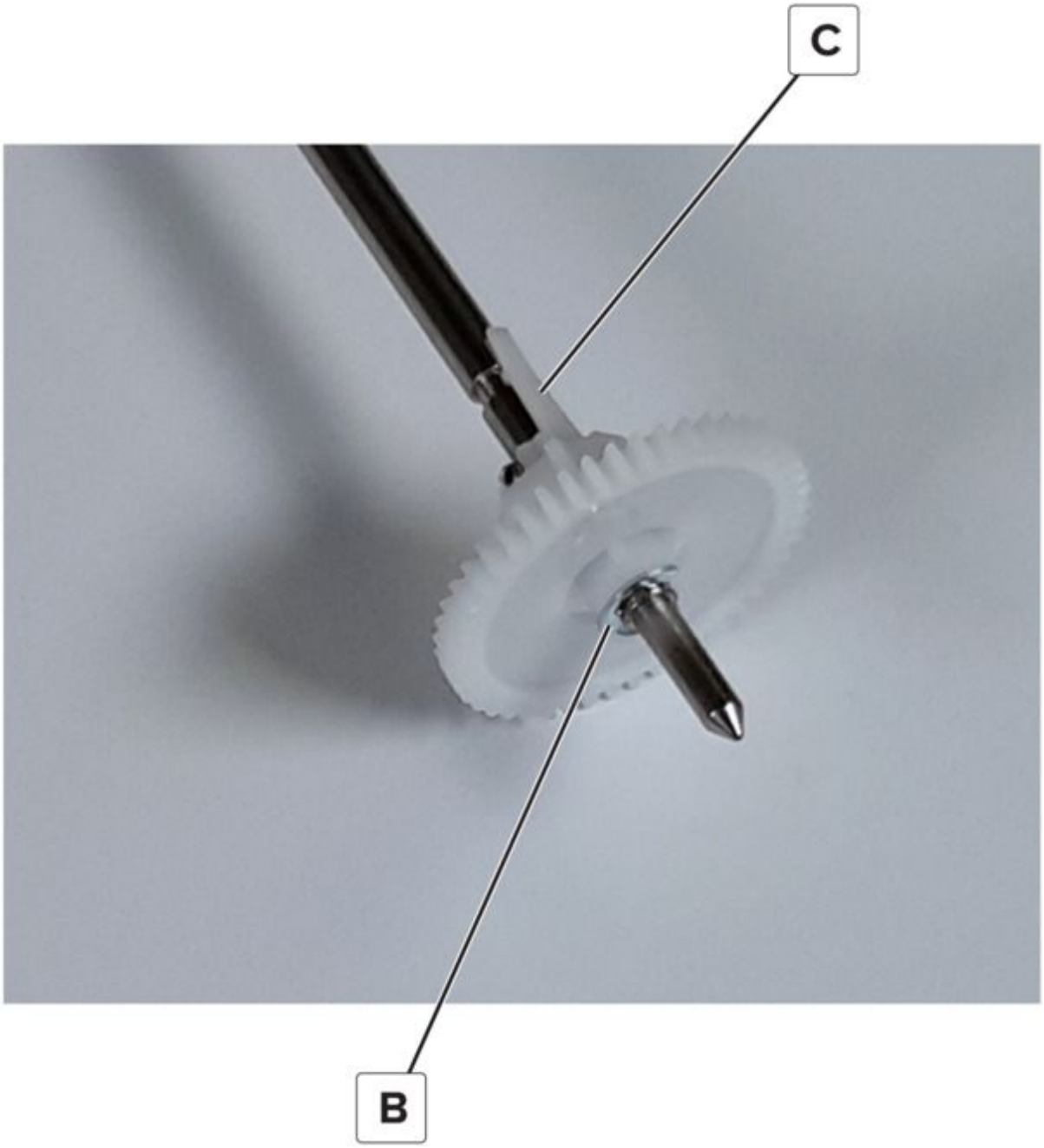
Waste toner gear removal

> **Note:** For a video demonstration, see Waste toner gear removal.

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the right cover. See Right cover removal on page 624.
5. Remove the controller board cover. See Controller board cover removal on page 691.
6. Remove the left upper cover. See Left upper cover removal on page 580.
7. Remove the rear left cover. See Rear left cover removal on page 693.
8. Remove the controller board cage. See Controller board cage removal on page 714.
9. Remove the LVPS cage. See LVPS cage removal on page 710.
10. Remove the main fan duct. See Main fan duct removal on page 720.
11. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.
12. Remove the fuser/transfer belt motor gearbox. See Fuser/transfer belt motor gearbox removal on page 730.
13. Pull out the waste toner shaft (A).



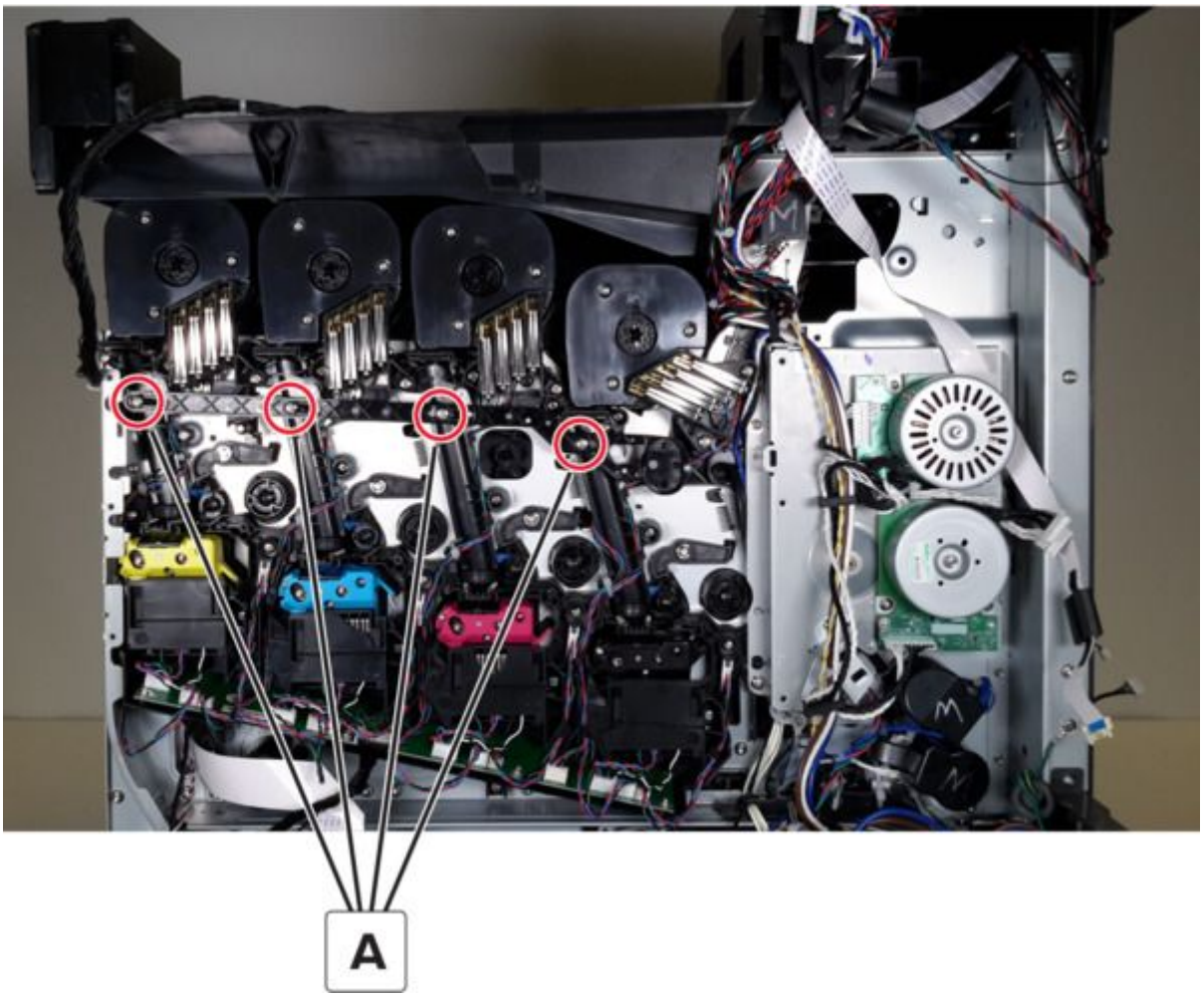
14. Remove the E-clip (B), release the latch (C), and then remove the gear.



Toner supply actuator removal

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the right cover. See Right cover removal on page 624.
5. Remove the controller board cover. See Controller board cover removal on page 691.
6. Remove the left upper cover. See Left upper cover removal on page 580.
7. Remove the rear left cover. See Rear left cover removal on page 693.
8. Remove the controller board cage. See Controller board cage removal on page 714.
9. Remove the LVPS cage. See LVPS cage removal on page 710.
10. Remove the main fan duct. See Main fan duct removal on page 720.

11. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.
12. Remove the four screws (A), and then remove the actuator.

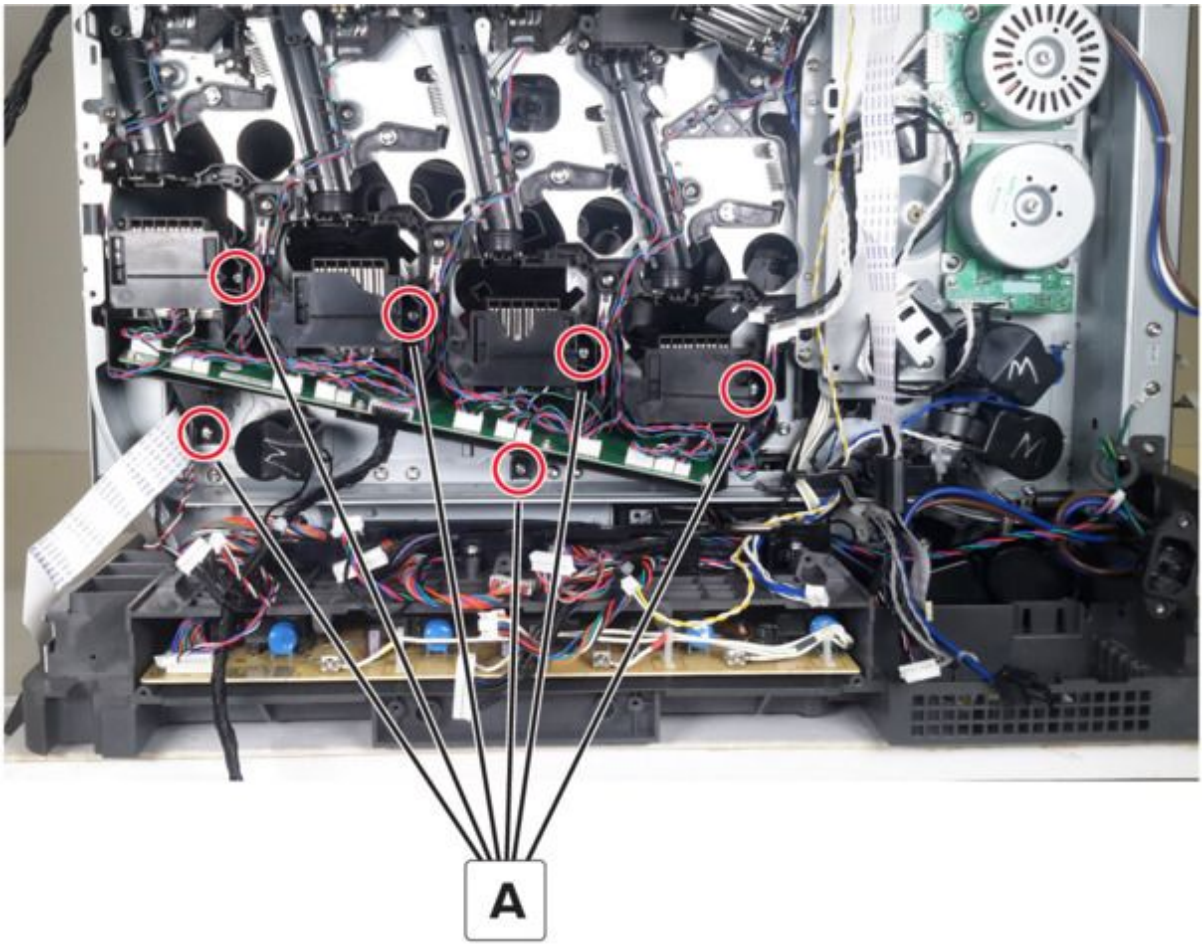


Smart chip interface board removal

> **Note:** For a video demonstration, see Smart chip interface board removals.

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the right cover. See Right cover removal on page 624.
5. Remove the controller board cover. See Controller board cover removal on page 691.
6. Remove the left upper cover. See Left upper cover removal on page 580.
7. Remove the rear left cover. See Rear left cover removal on page 693.
8. Remove the controller board cage. See Controller board cage removal on page 714.
9. Remove the LVPS cage. See LVPS cage removal on page 710.
10. Remove the main fan duct. See Main fan duct removal on page 720.
11. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.

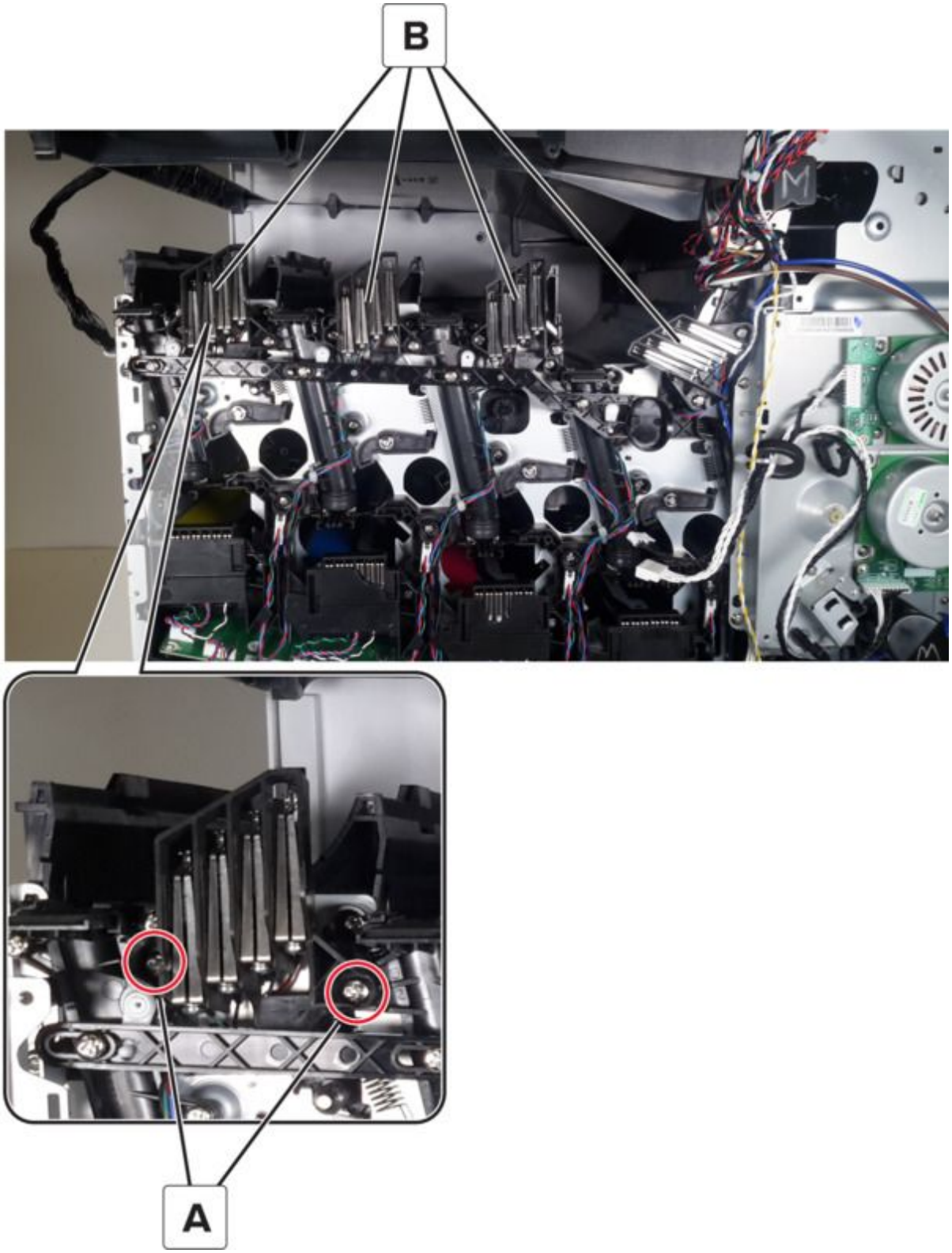
12. Disconnect, and then release all the cables from their guides.
13. Remove the six screws (A), and then remove the board.



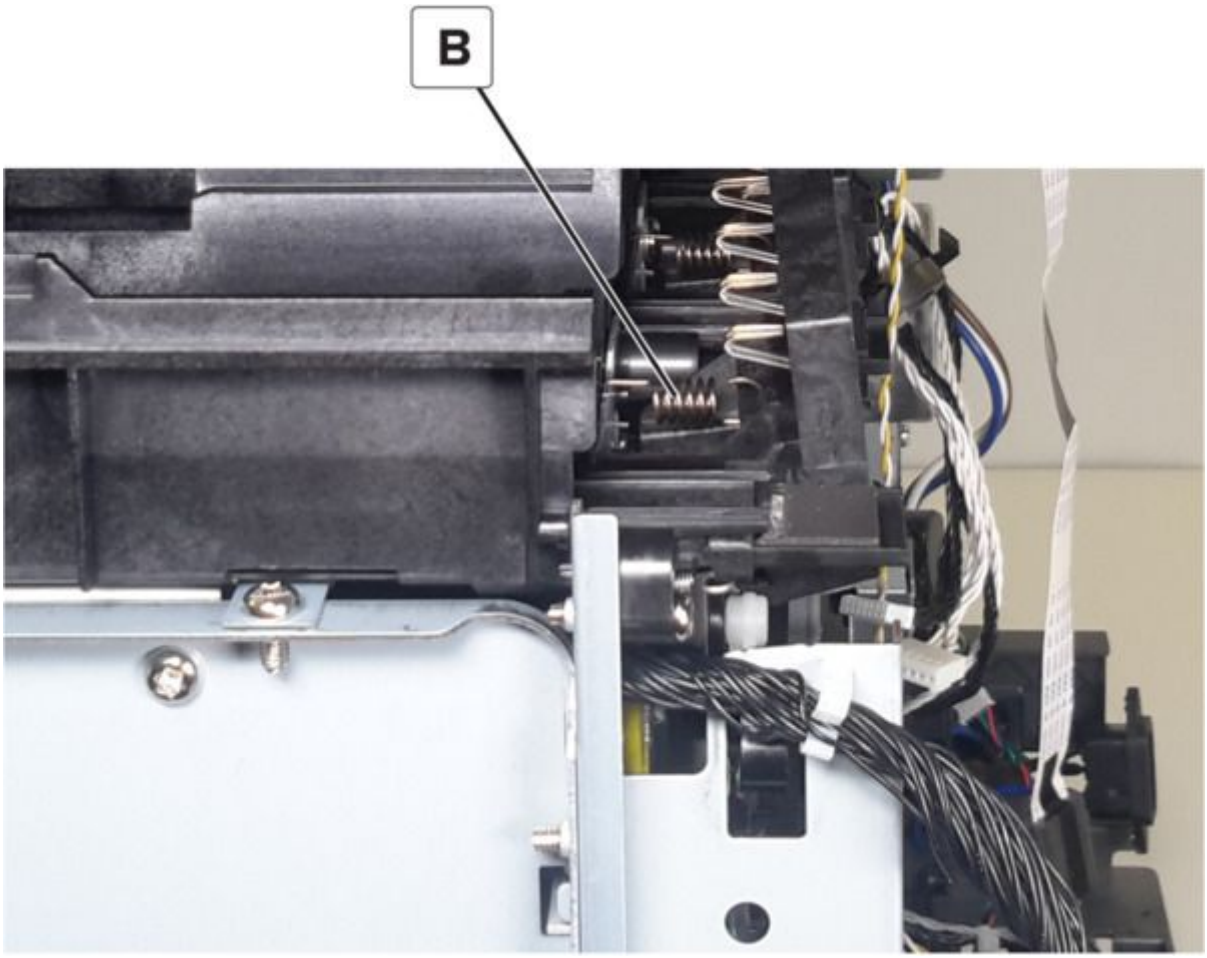
Toner cartridge contact removal

> **Note:** For a video demonstration, see Toner cartridge contact removal.

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the right cover. See Right cover removal on page 624.
5. Remove the controller board cover. See Controller board cover removal on page 691.
6. Remove the left upper cover. See Left upper cover removal on page 580.
7. Remove the rear left cover. See Rear left cover removal on page 693.
8. Remove the controller board cage. See Controller board cage removal on page 714.
9. Remove the LVPS cage. See LVPS cage removal on page 710.
10. Remove the main fan duct. See Main fan duct removal on page 720.
11. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.
12. Remove the two screws (A) from the appropriate contact (B).



13. Pull the contact, and then disconnect the spring (B).



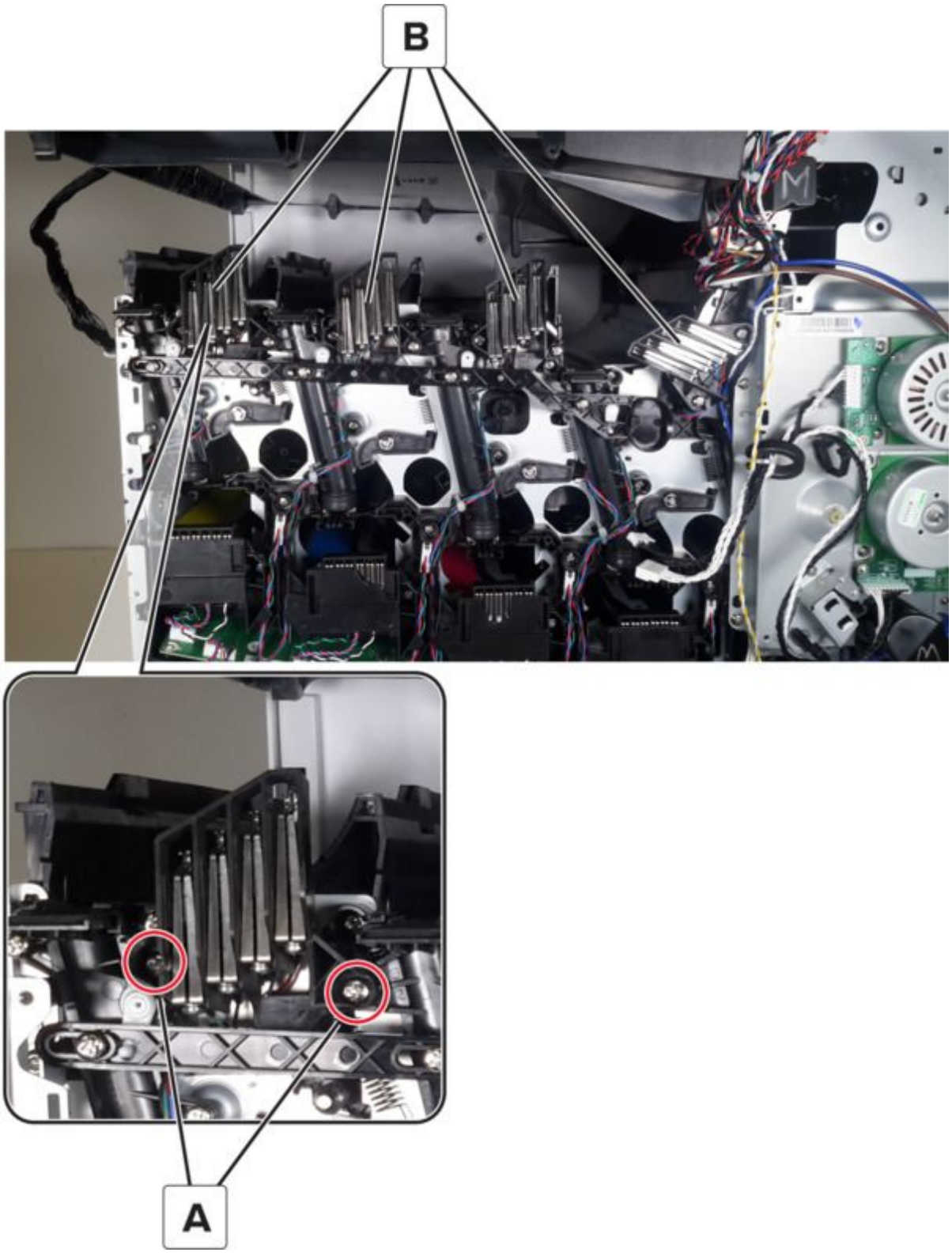
14. Release the contact cable from the cable guides.
15. Disconnect the contact cable from the smart chip board.
16. Remove the contact.

Toner add tube removal

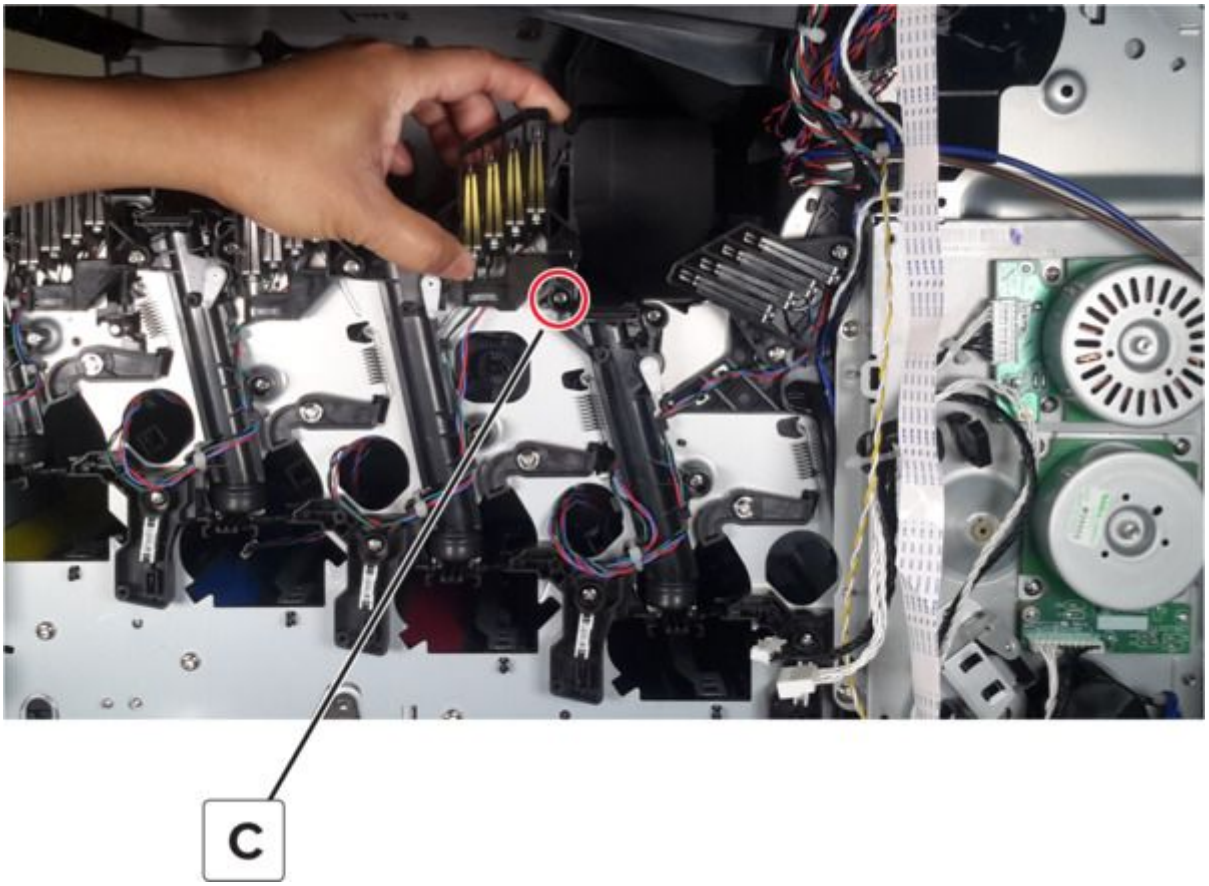
> **Note:** For a video demonstration, see Toner add tube removal.

1. Remove the rear lower cover. See Rear lower cover removal on page 692.
2. Remove the rear upper cover. See Rear upper cover removal on page 695.
3. Remove the rear corner cover. See Rear corner cover removal on page 623.
4. Remove the right cover. See Right cover removal on page 624.
5. Remove the controller board cover. See Controller board cover removal on page 691.
6. Remove the left upper cover. See Left upper cover removal on page 580.
7. Remove the rear left cover. See Rear left cover removal on page 693.
8. Remove the controller board cage. See Controller board cage removal on page 714.
9. Remove the LVPS cage. See LVPS cage removal on page 710.
10. Remove the main fan duct. See Main fan duct removal on page 720.
11. Remove the EP, developer, toner add gearbox. See EP, developer, toner add gearbox removal on page 725.

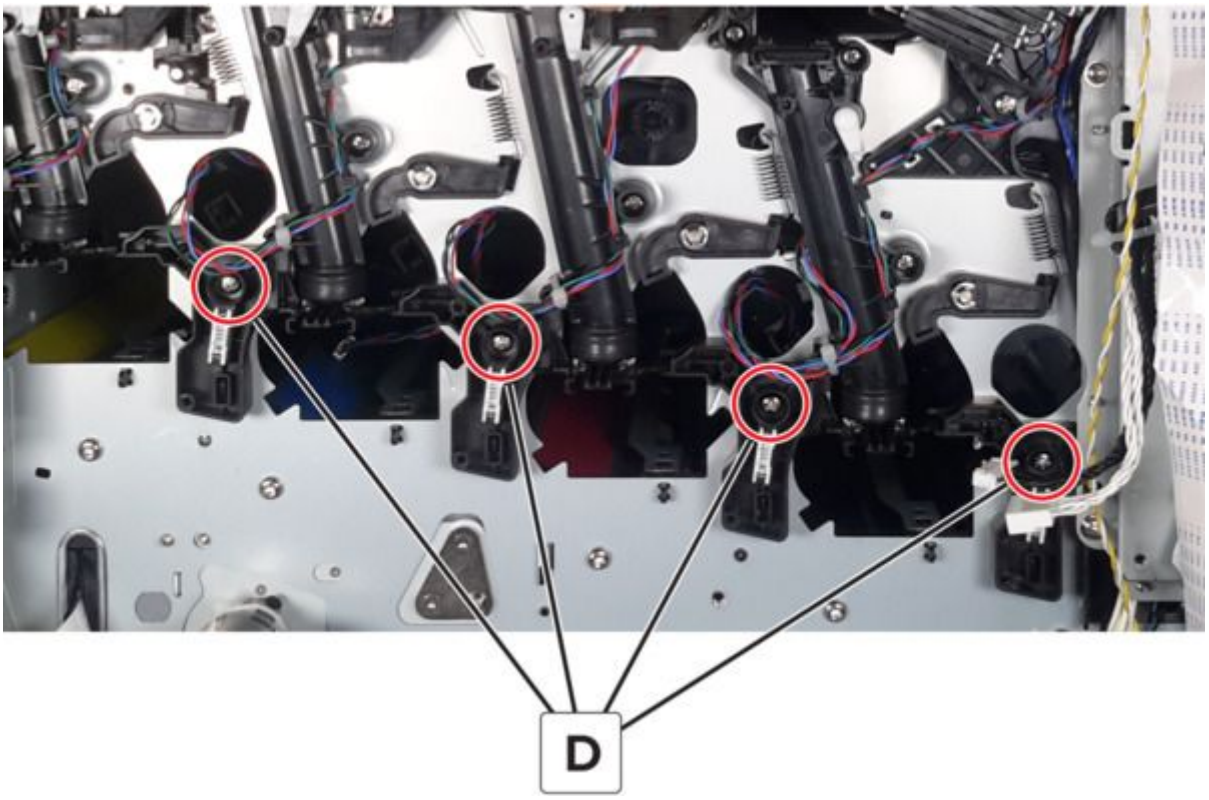
12. Remove the two screws (A) from the appropriate contact (B).



13. Carefully lift the contact, and then remove the screw (C) under it.

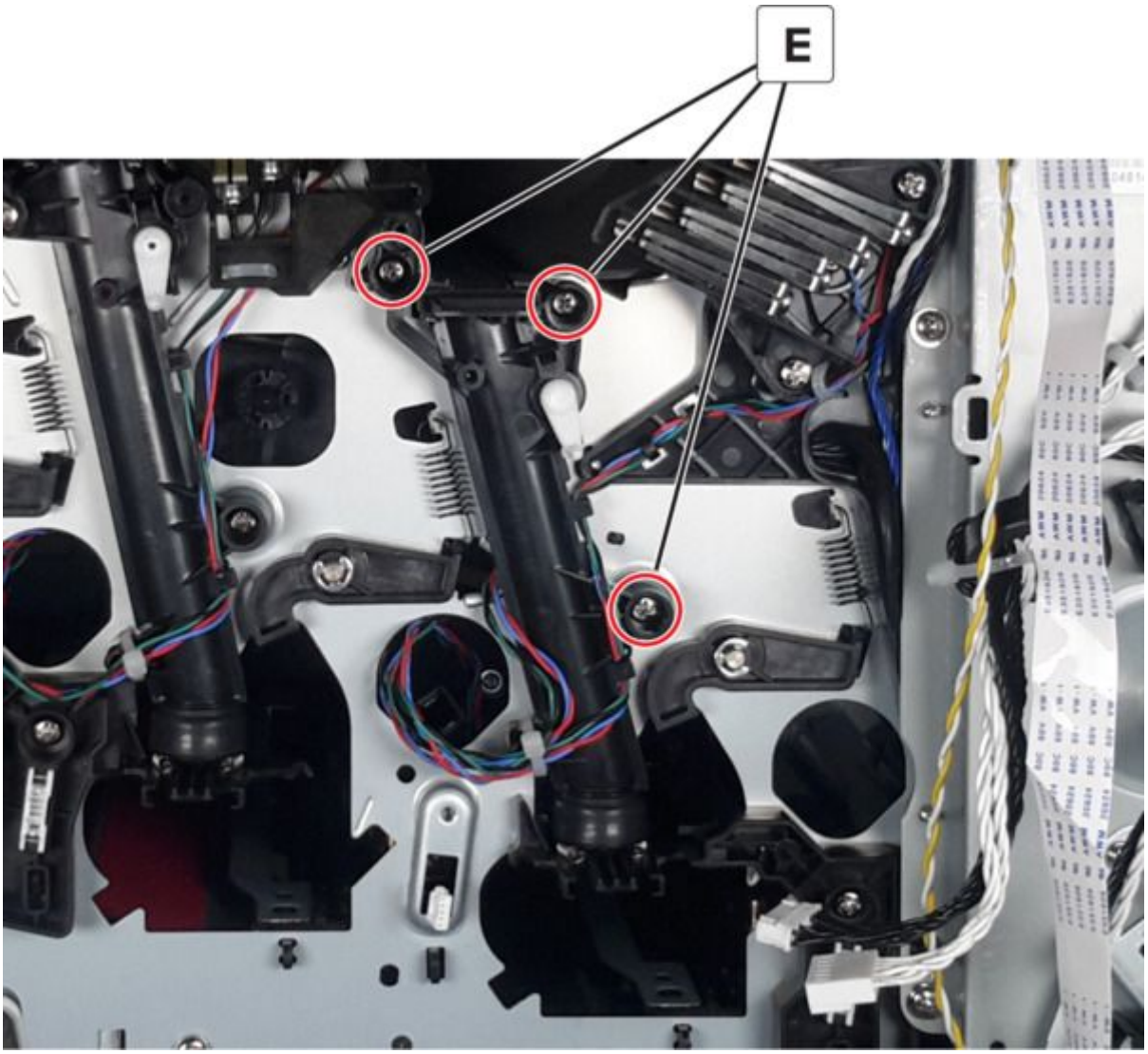


14. Release the appropriate cables from the cable guides.
15. Remove the appropriate screw (D), and then carefully remove the toner port retainer.



16. Remove the three screws (E), and then remove the appropriate tube.

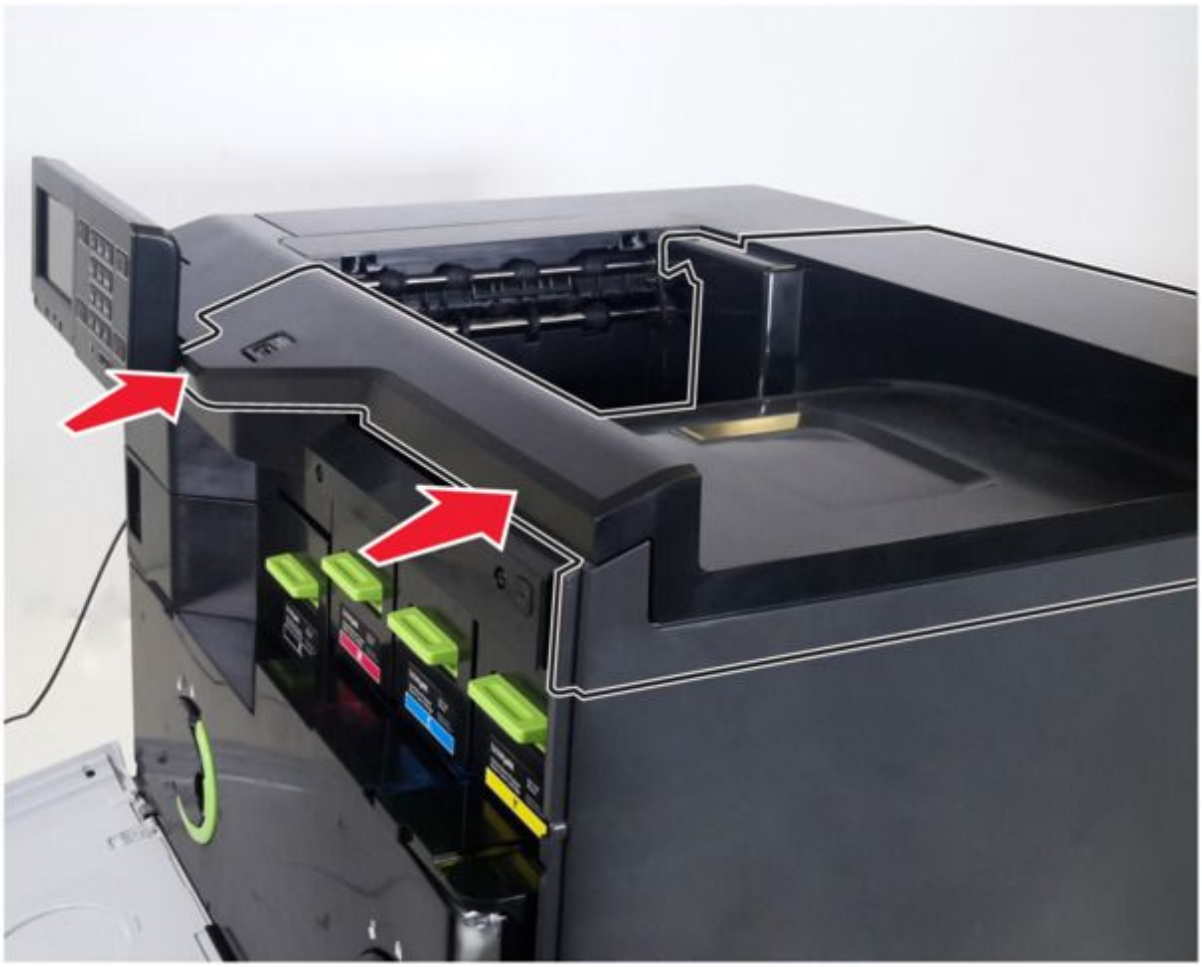
Warning—Potential Damage
The tube is fragile. Do not disconnect the tube from the nozzle.

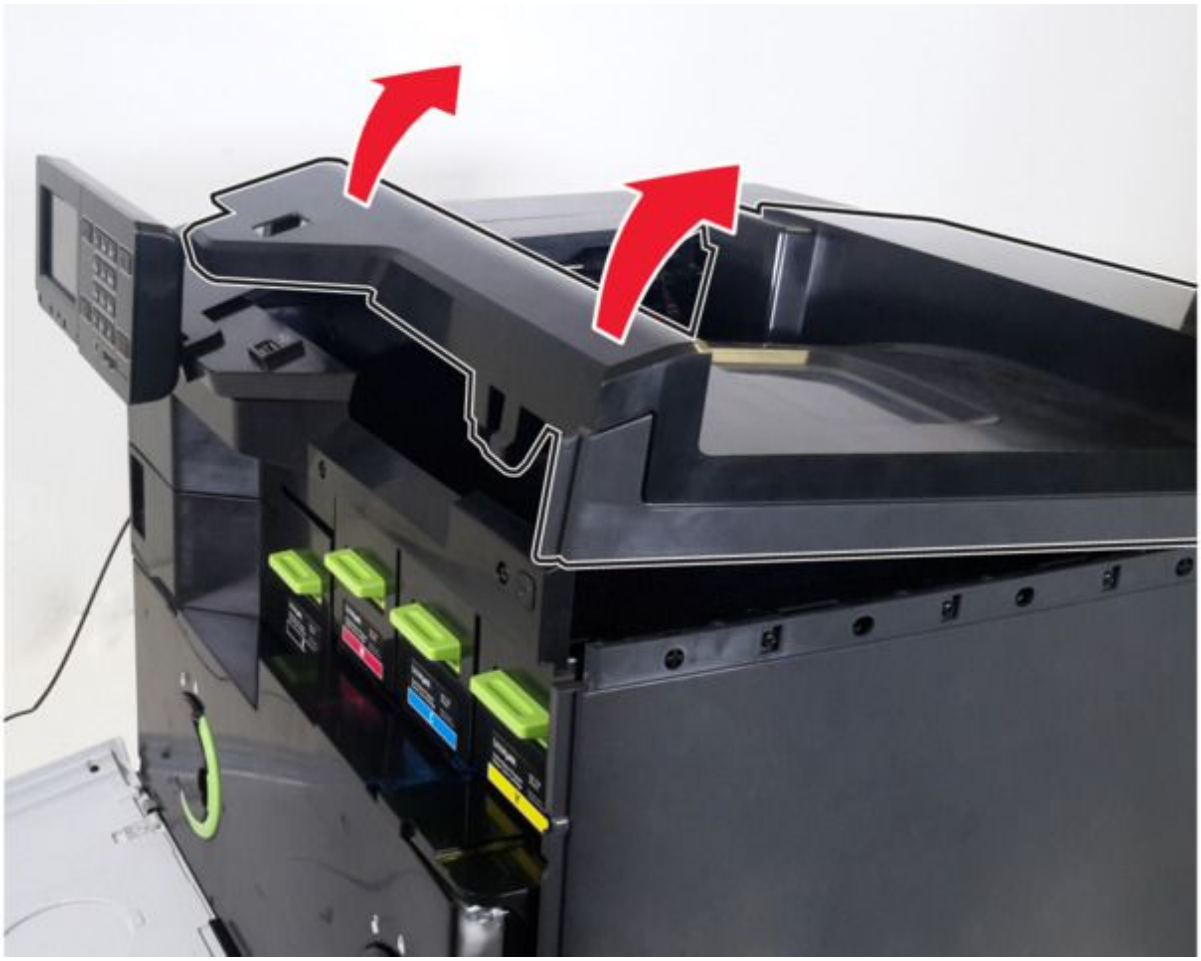


Top side removals

Standard bin insert cover removal

1. Open door A.
2. Push the cover to release the latches, and then lift the cover to detach it.





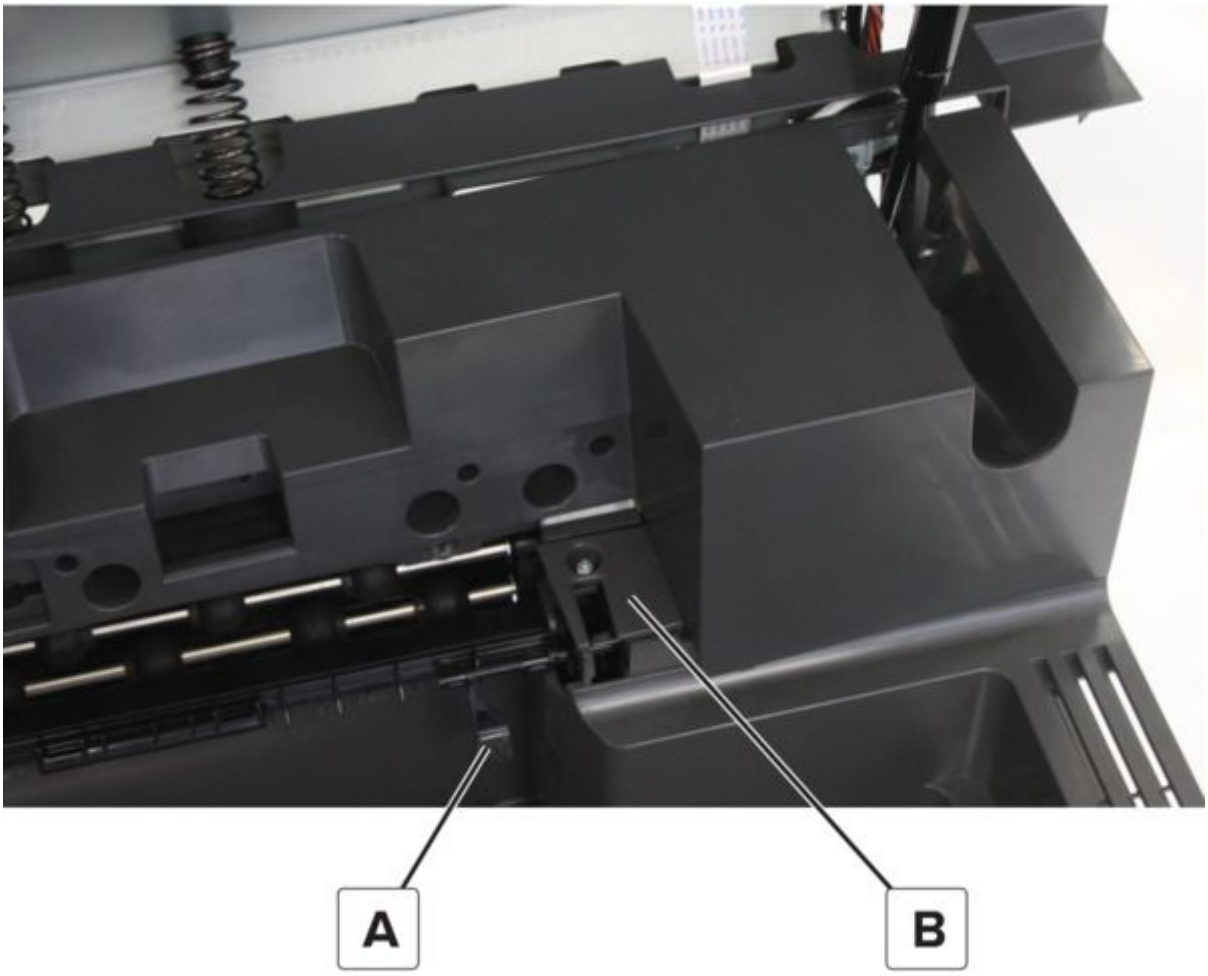
3. Remove the cover.

Sensor cover removal

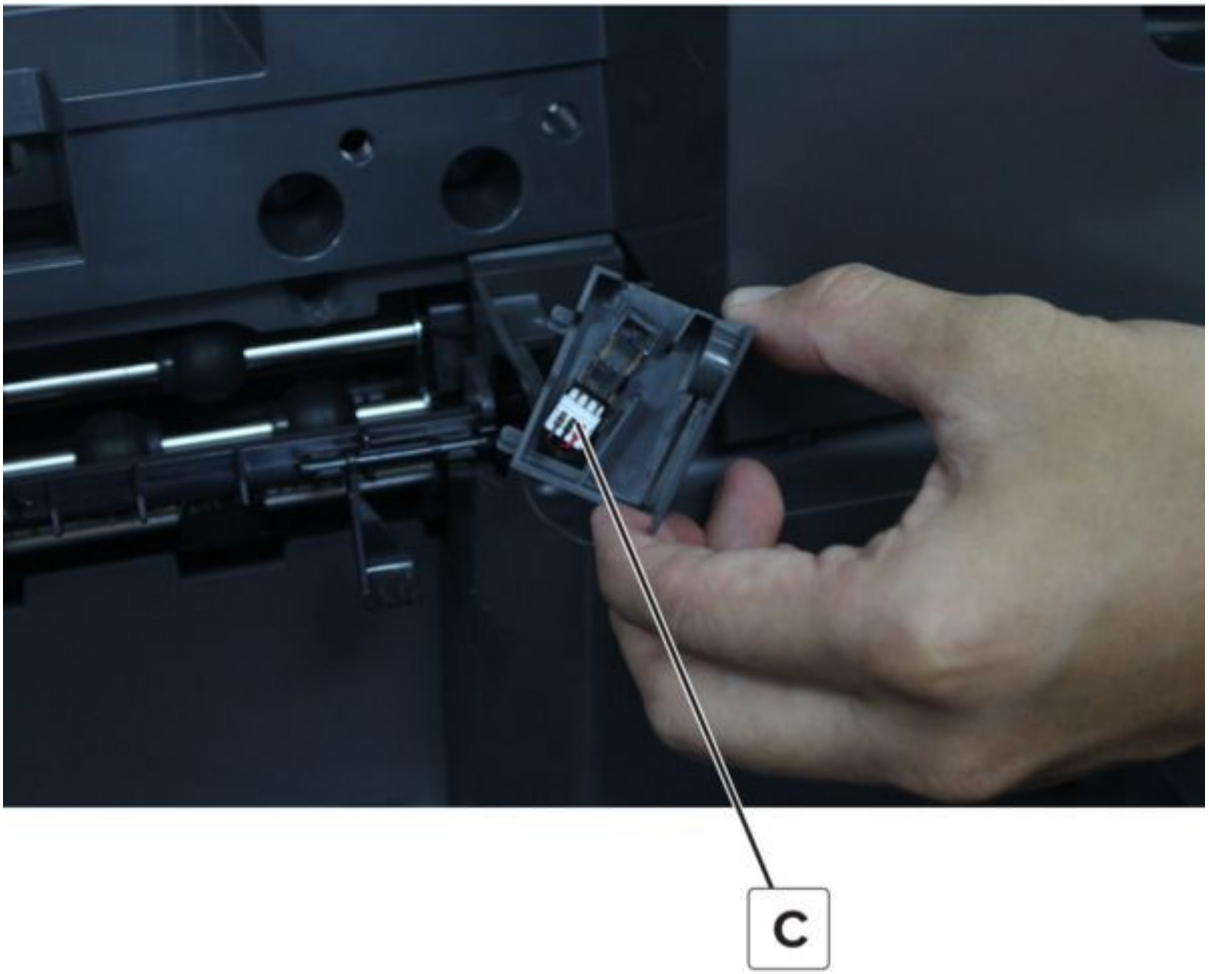
1. Open door C, and then remove the screw.

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

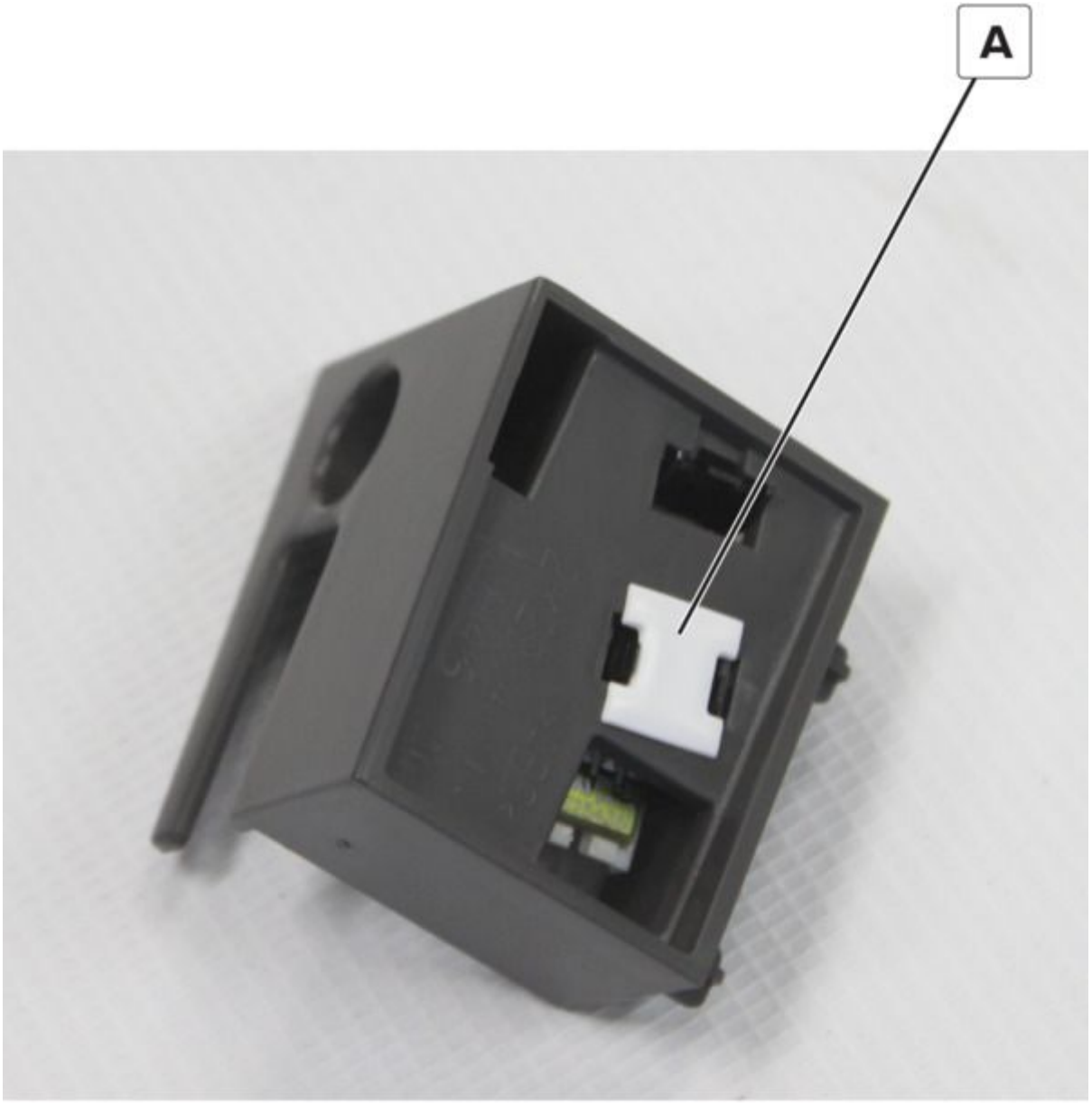
2. Lift the flag (A) to release, and then lift the cover (B).



3. Disconnect the cable (C), and then remove the sensor.



Installation Note
Reinstall the strip (A) to secure the sensor latches properly.



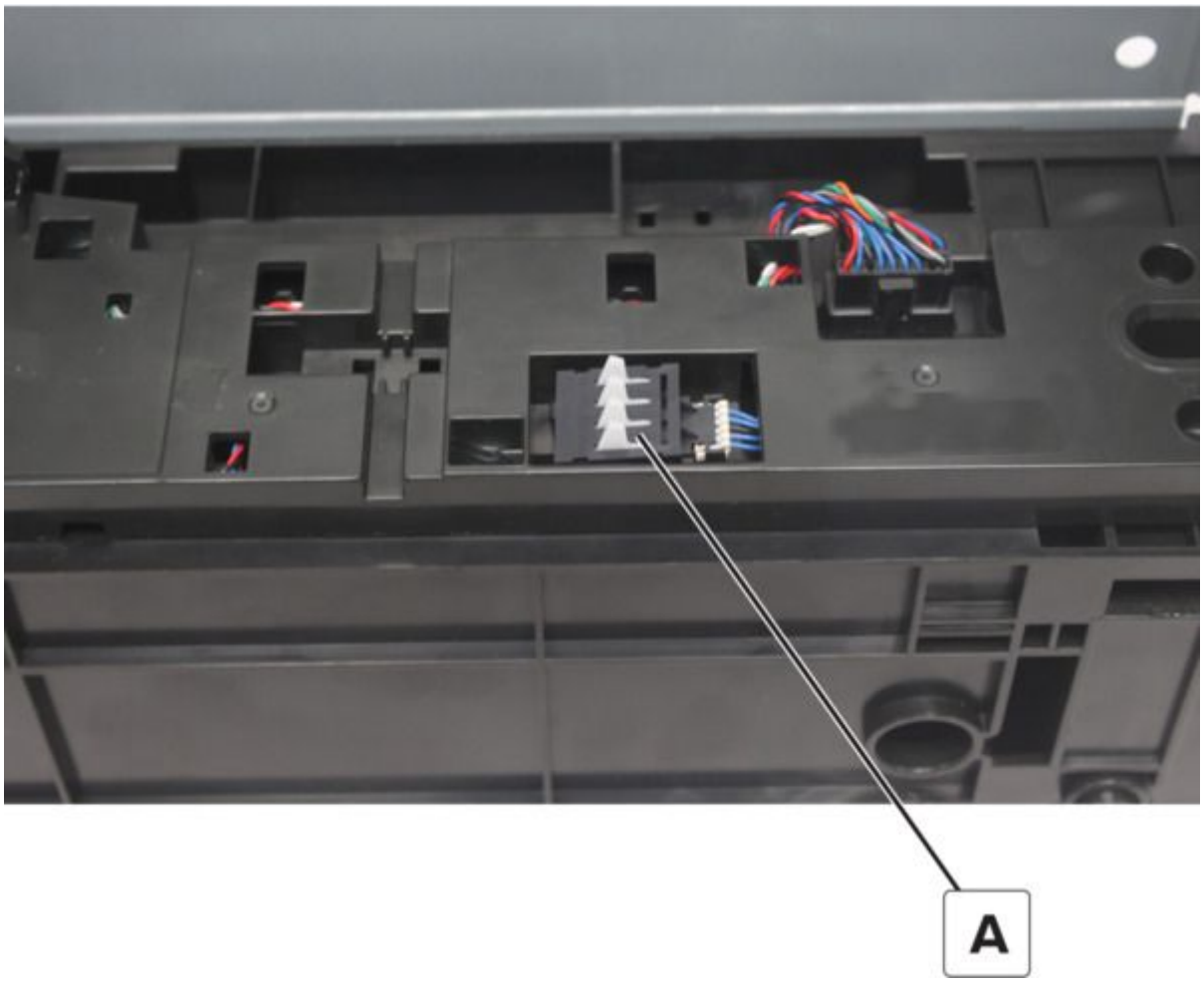
550-sheet tray removals

550-sheet tray media size sensor actuators removal

1. Remove the tray insert.
2. Pry, and then remove the actuators.

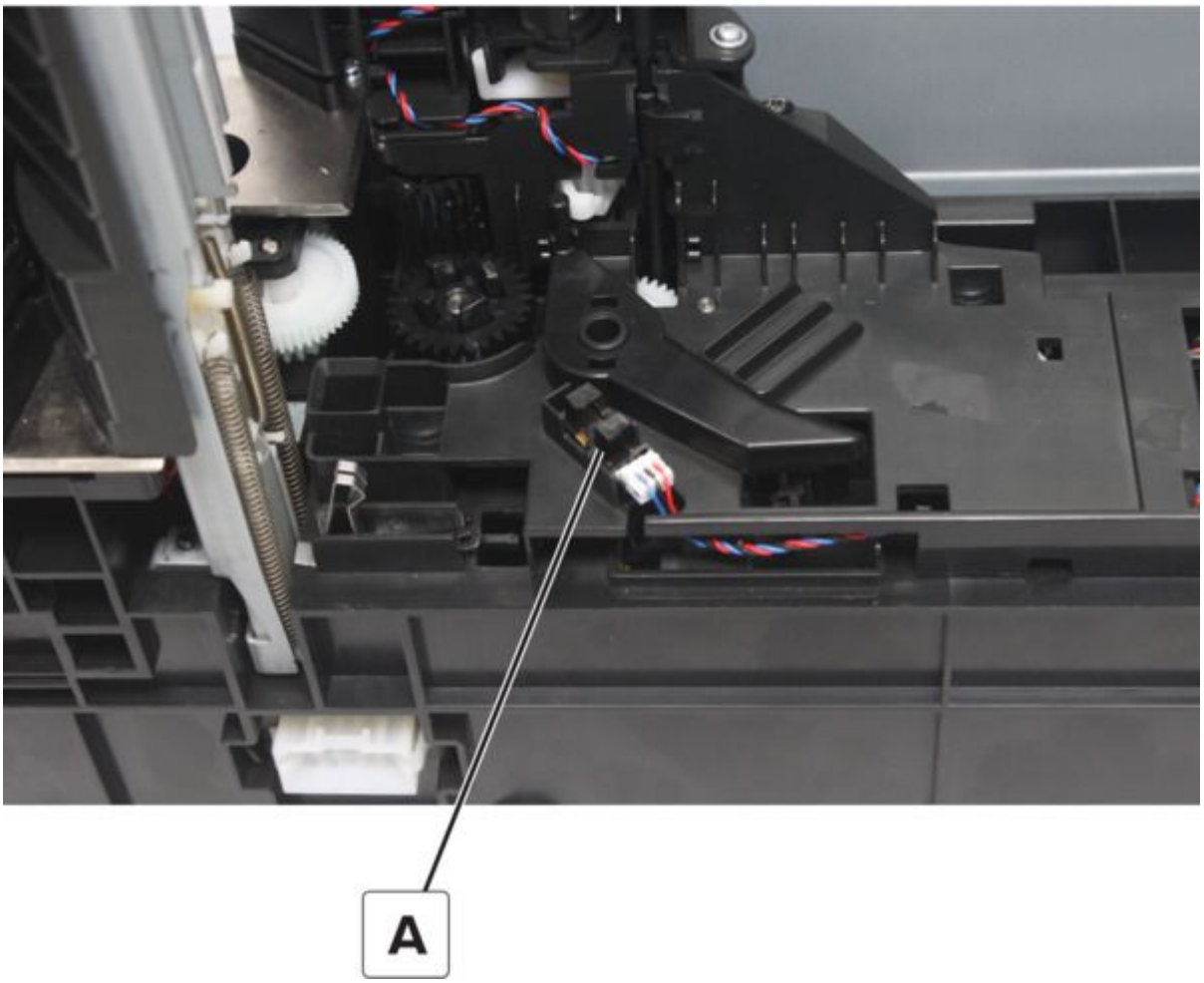
Sensor (550-sheet tray media size) removal

1. Remove the tray insert.
2. Remove the sensor (A), and then disconnect the cable from the sensor.



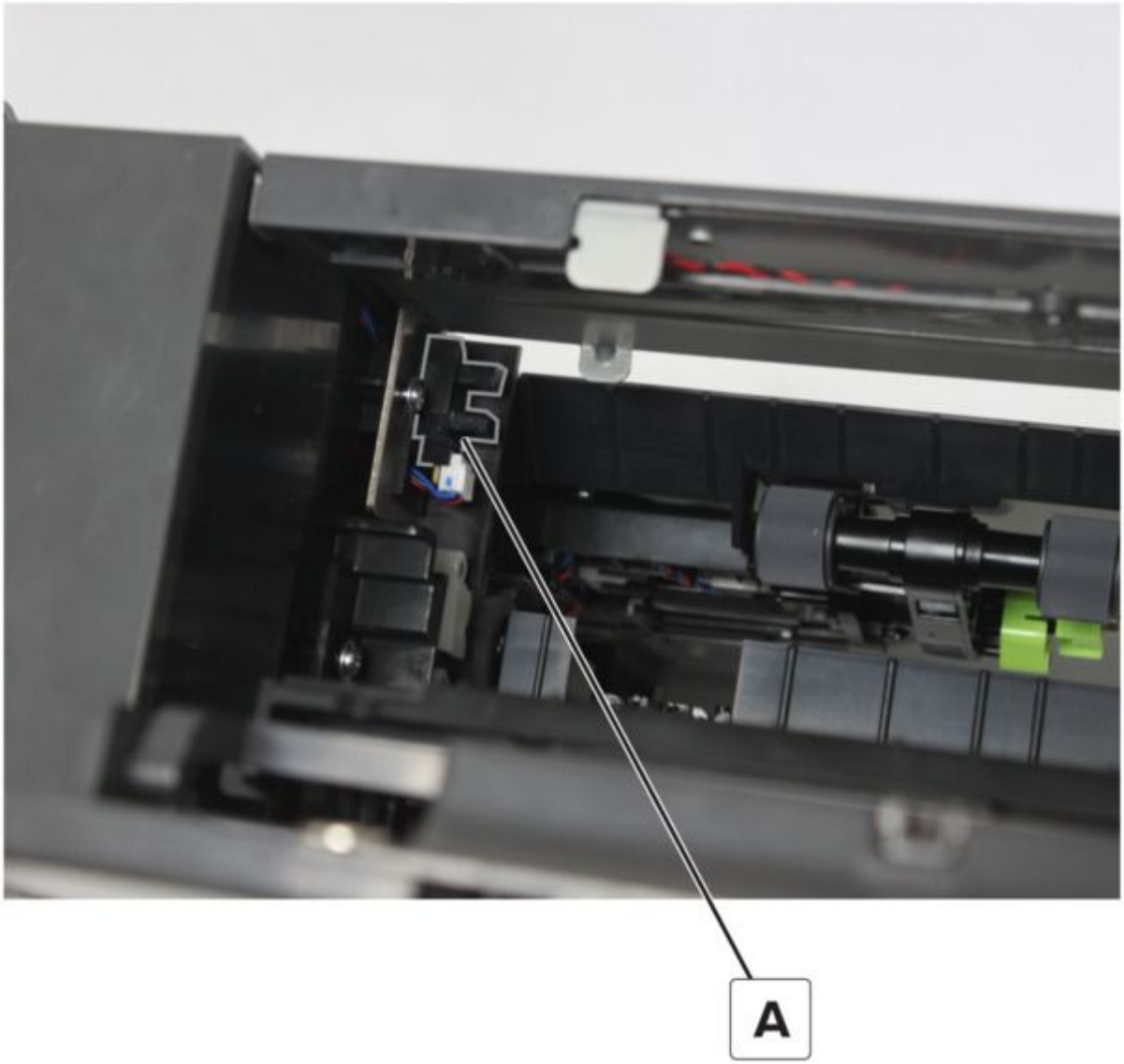
Sensor (550-sheet tray media low) removal

1. Remove the tray insert.
2. Remove the sensor (A), and then disconnect the cable from the sensor.



Sensor (550-sheet tray jam door)

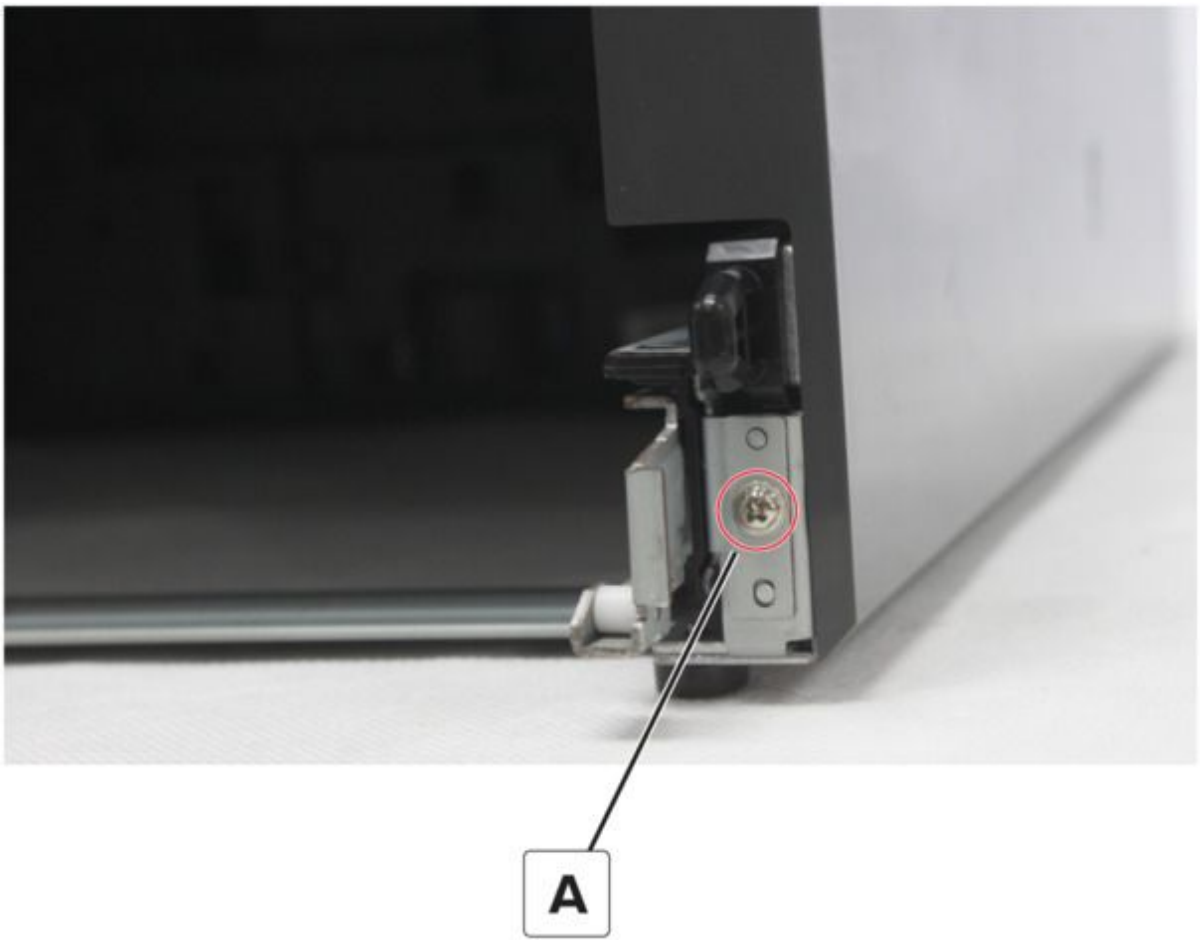
1. Open the jam door.
2. Remove the sensor (A), and then disconnect the cable from the sensor.



550-sheet tray right rail removal

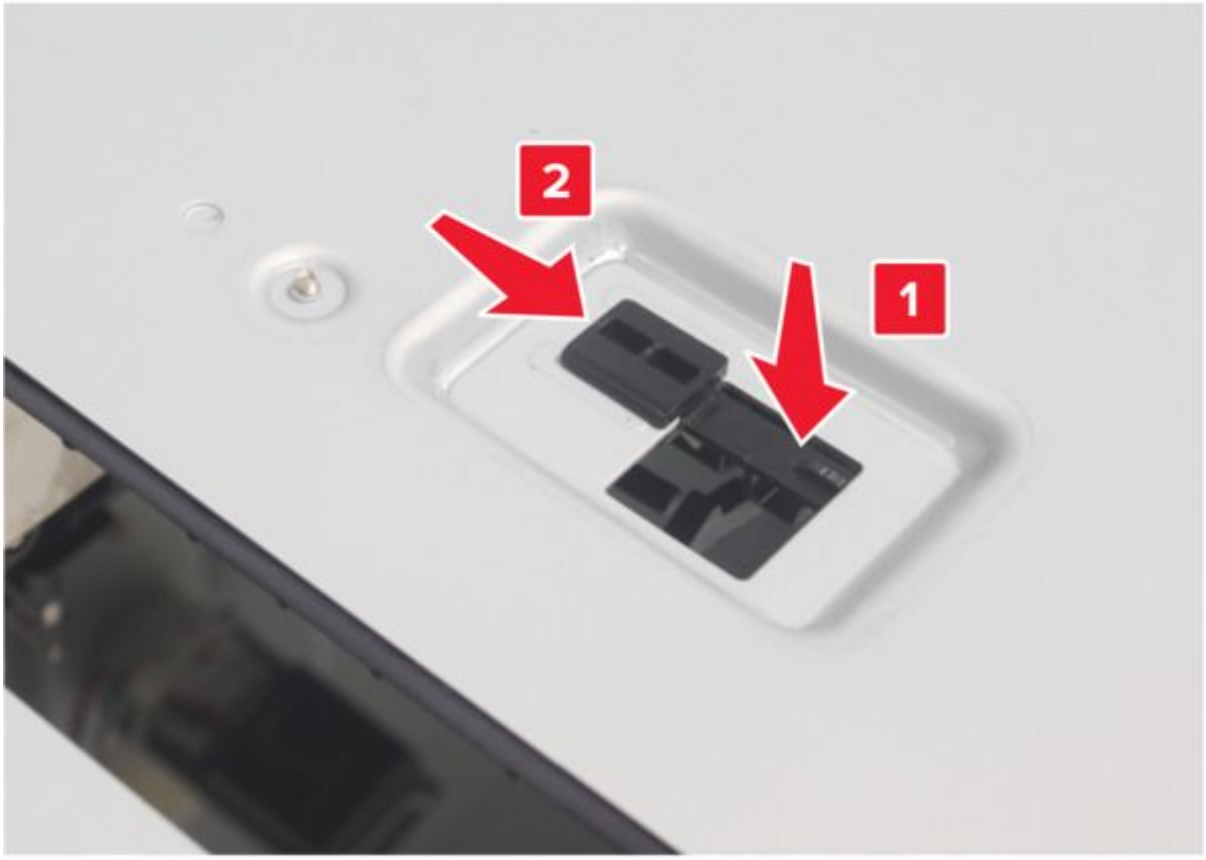
> **Note:** For a video demonstration, see 550-sheet tray rail removal.

1. Remove the tray insert.
2. Remove the screw (A), and then remove the rail.

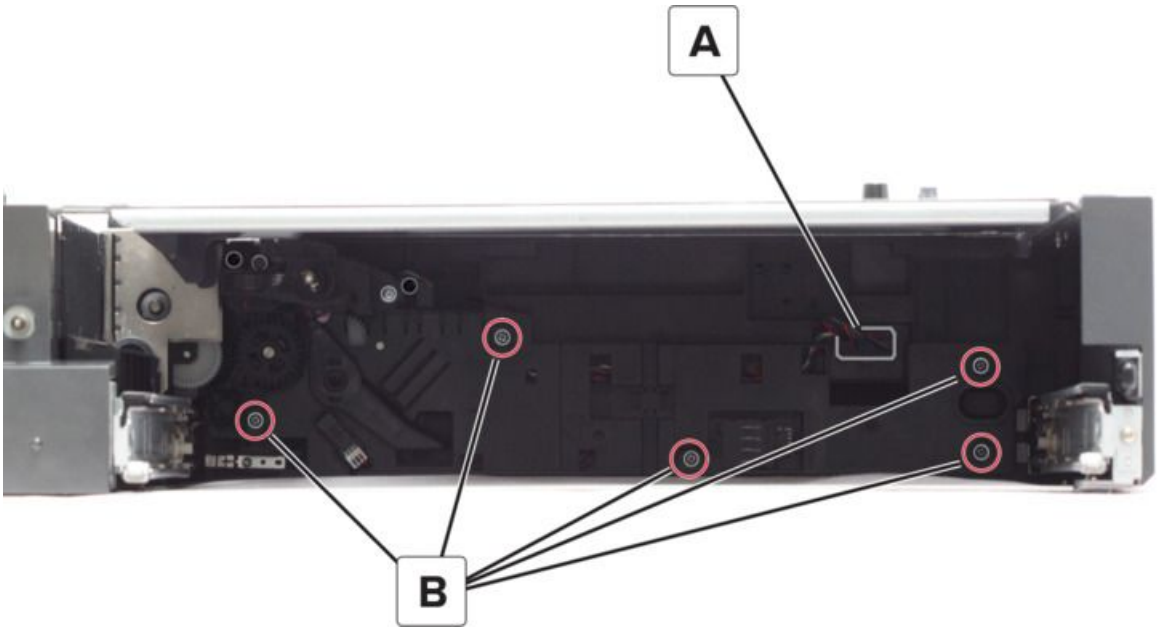


550-sheet tray paper feeder removal

1. Remove the tray insert.
2. Remove the pick roller.
3. Press, and then slide to remove the bracket.



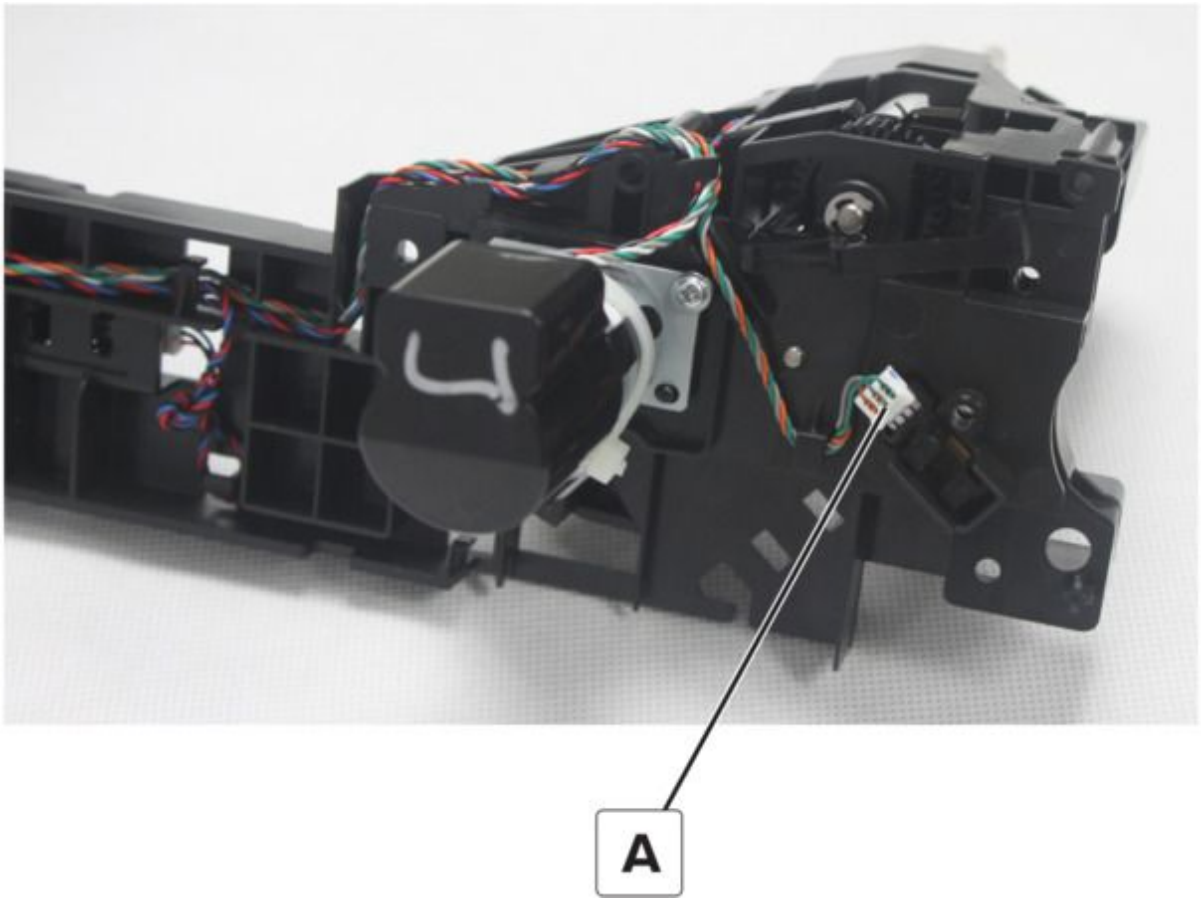
4. Disconnect the cable (A), and then remove the five screws (B).



5. Remove the feeder.

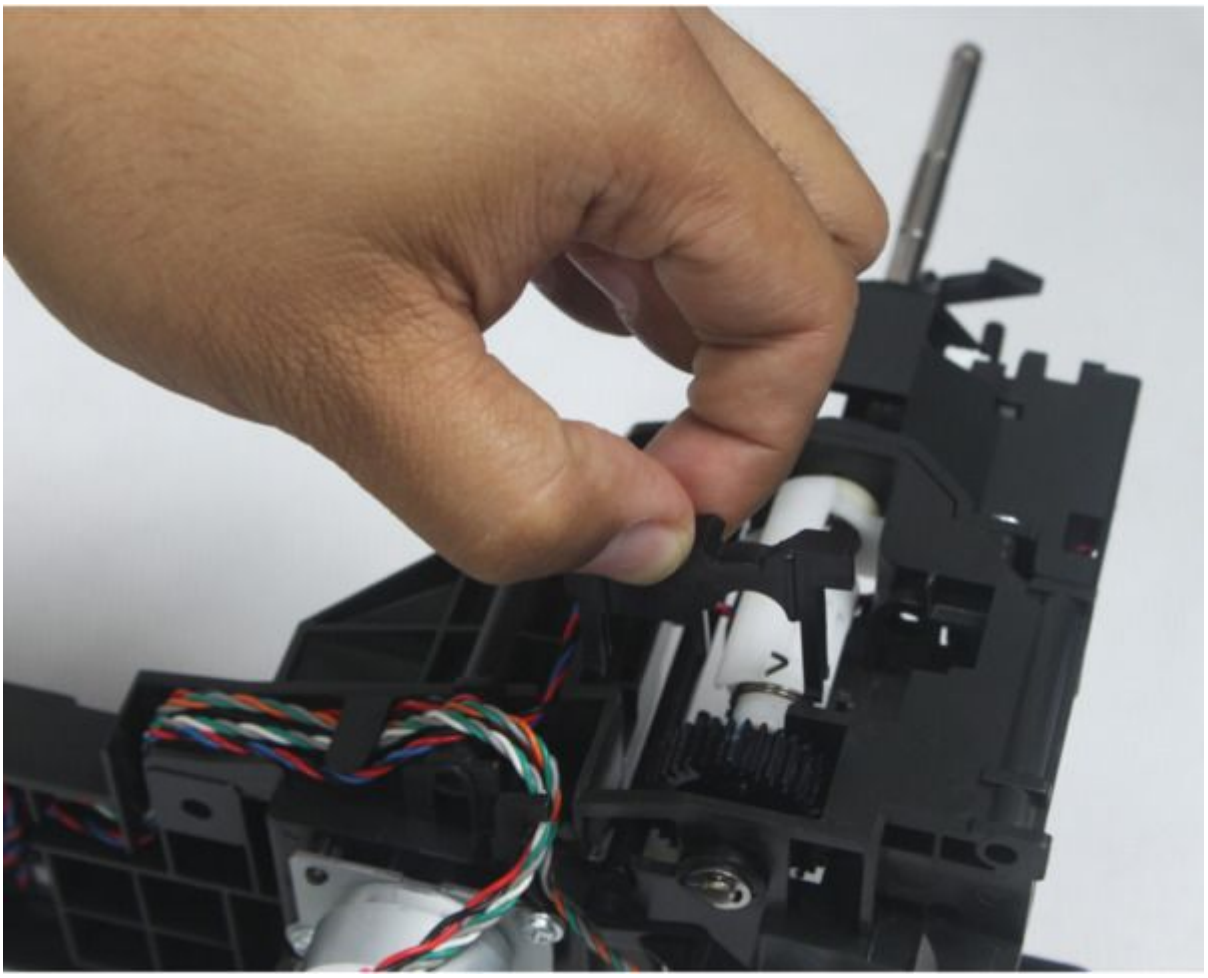
Sensor (550-sheet tray media out) removal

1. Remove the tray insert.
2. Remove the paper feeder. See 550-sheet tray paper feeder removal on page 752.
3. Disconnect the cable (A), and then remove the sensor.

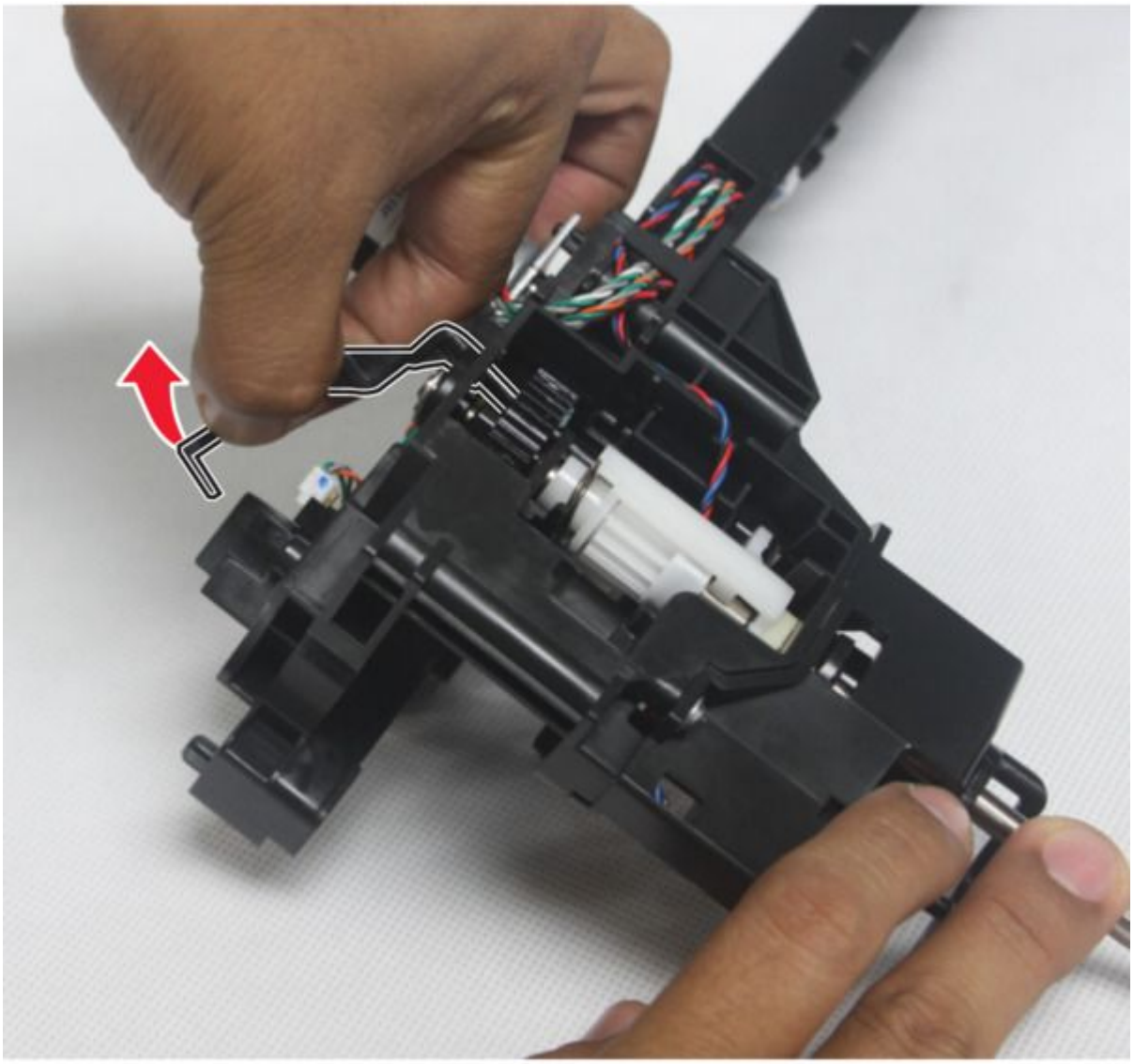


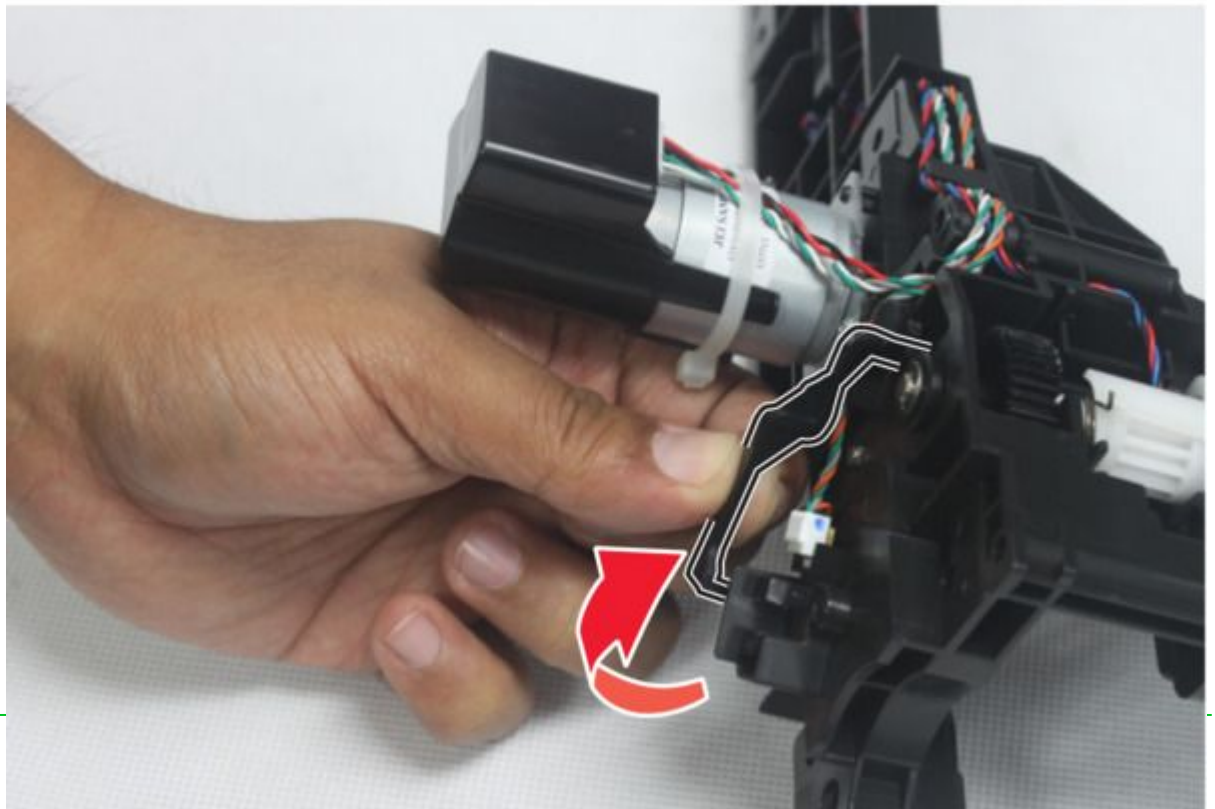
550-sheet tray media out sensor actuator removal

1. Remove the tray insert.
2. Remove the paper feeder. See 550-sheet tray paper feeder removal on page 752.
3. Remove the bracket.

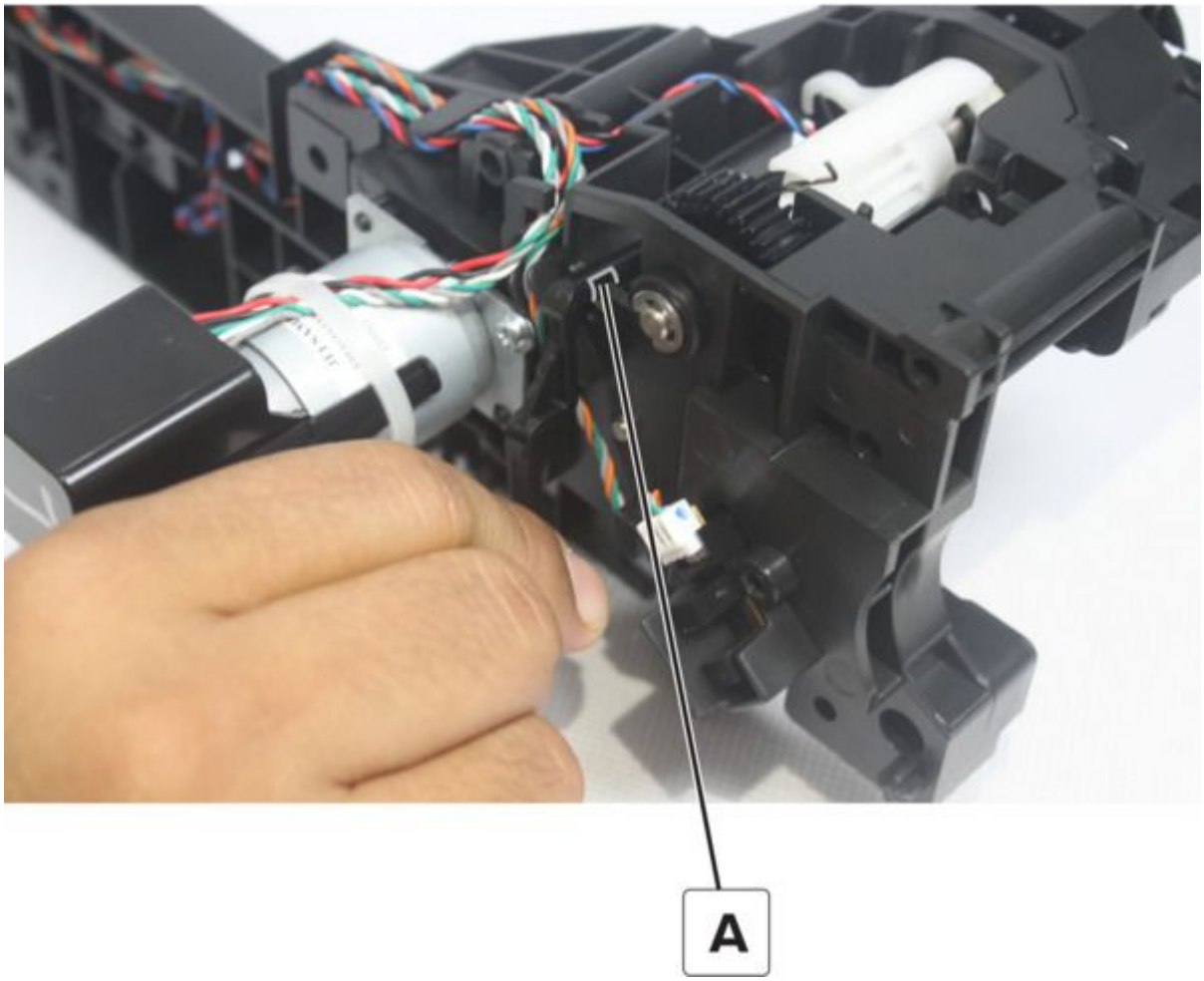


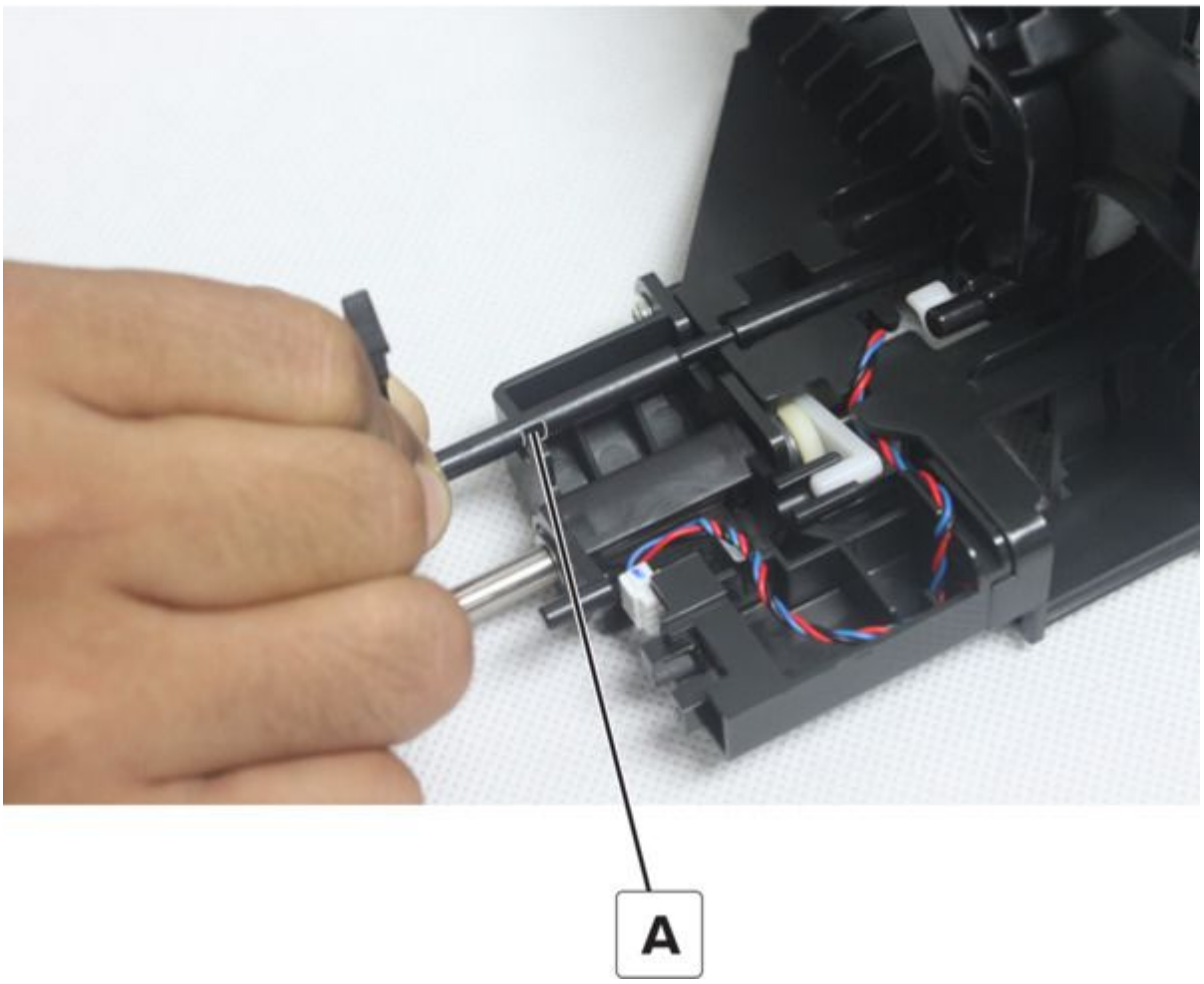
4. Move the actuator away, and then behind the sensor.





5. Rotate the actuator to align the two notches (A) with the slots.

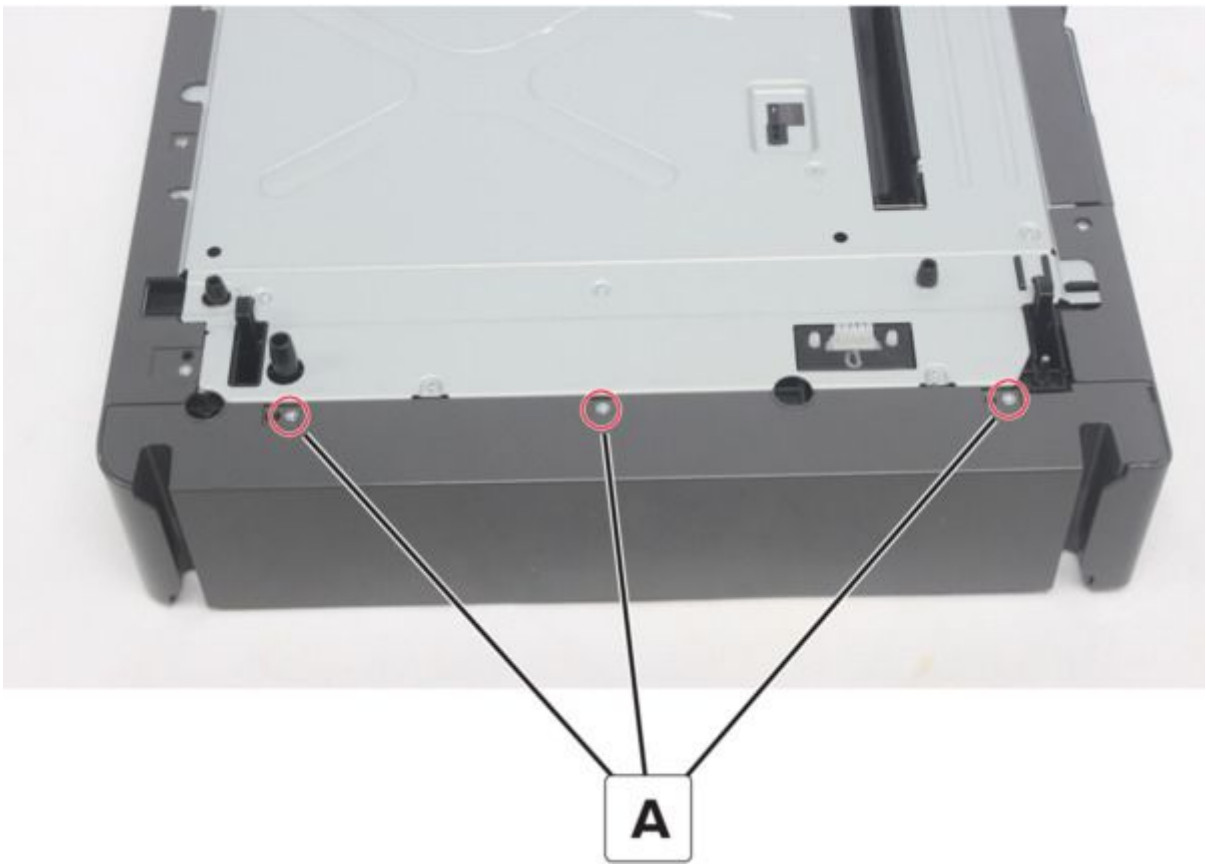




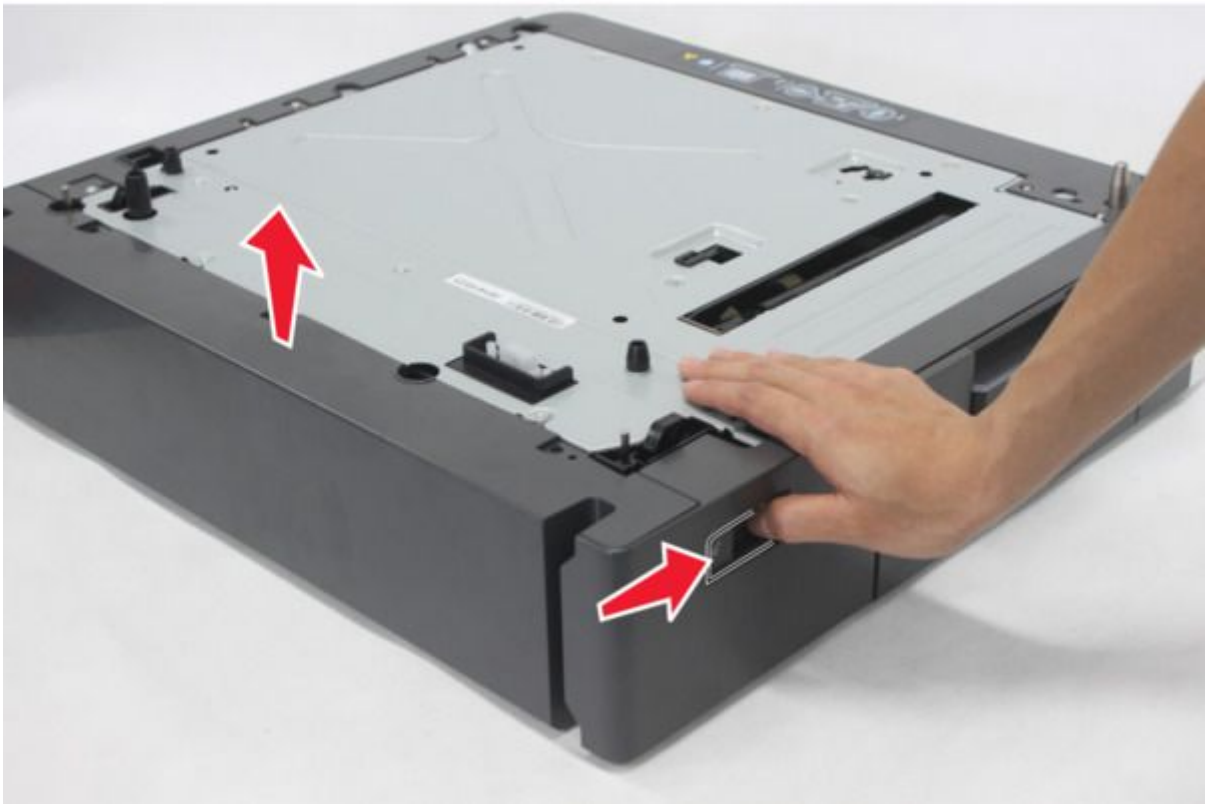
6. Remove the actuator.

550-sheet tray rear cover removal

1. Remove the three screws (A).

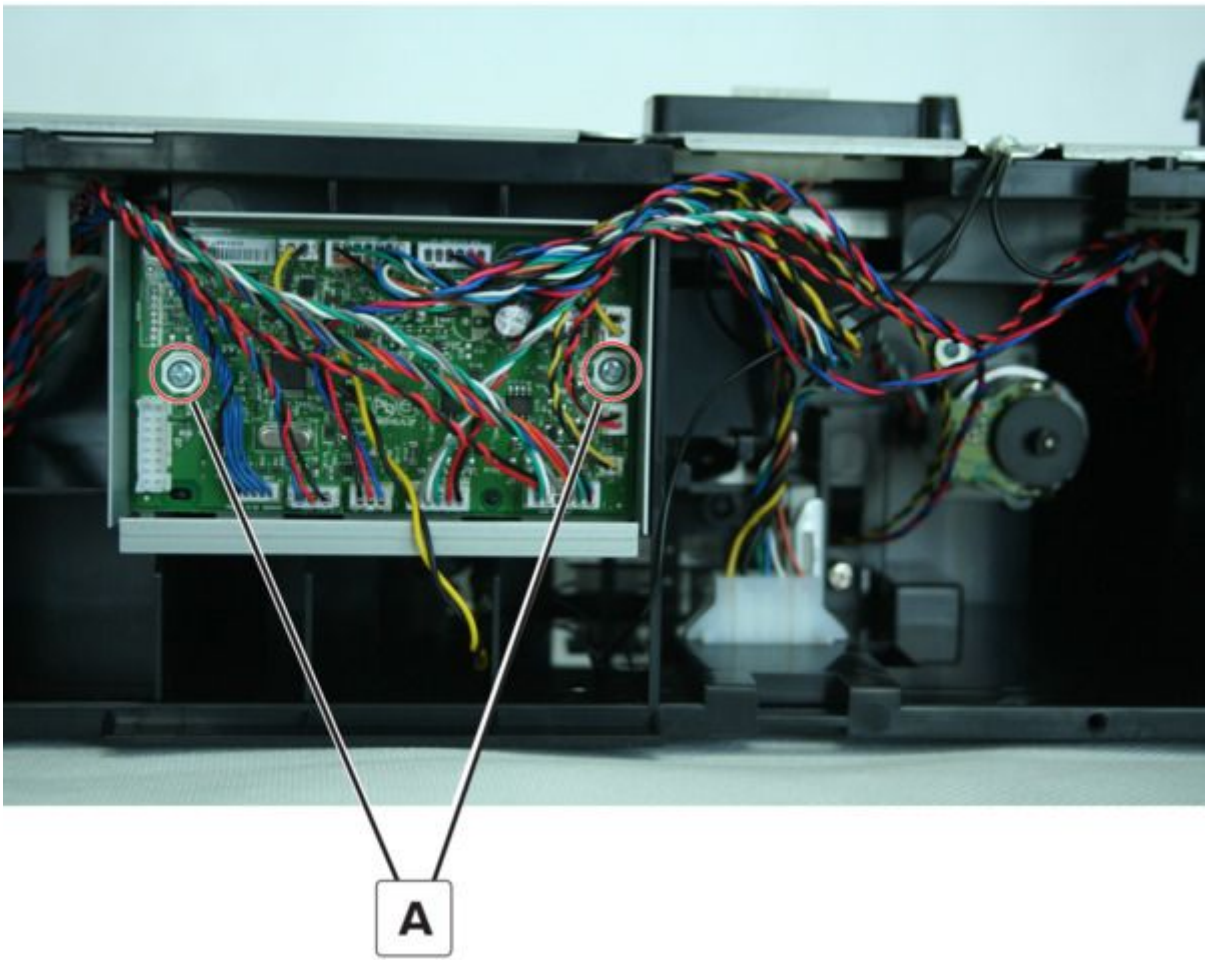


2. Slide and hold the latch to the right, and then remove the cover.



550-sheet tray controller board removal

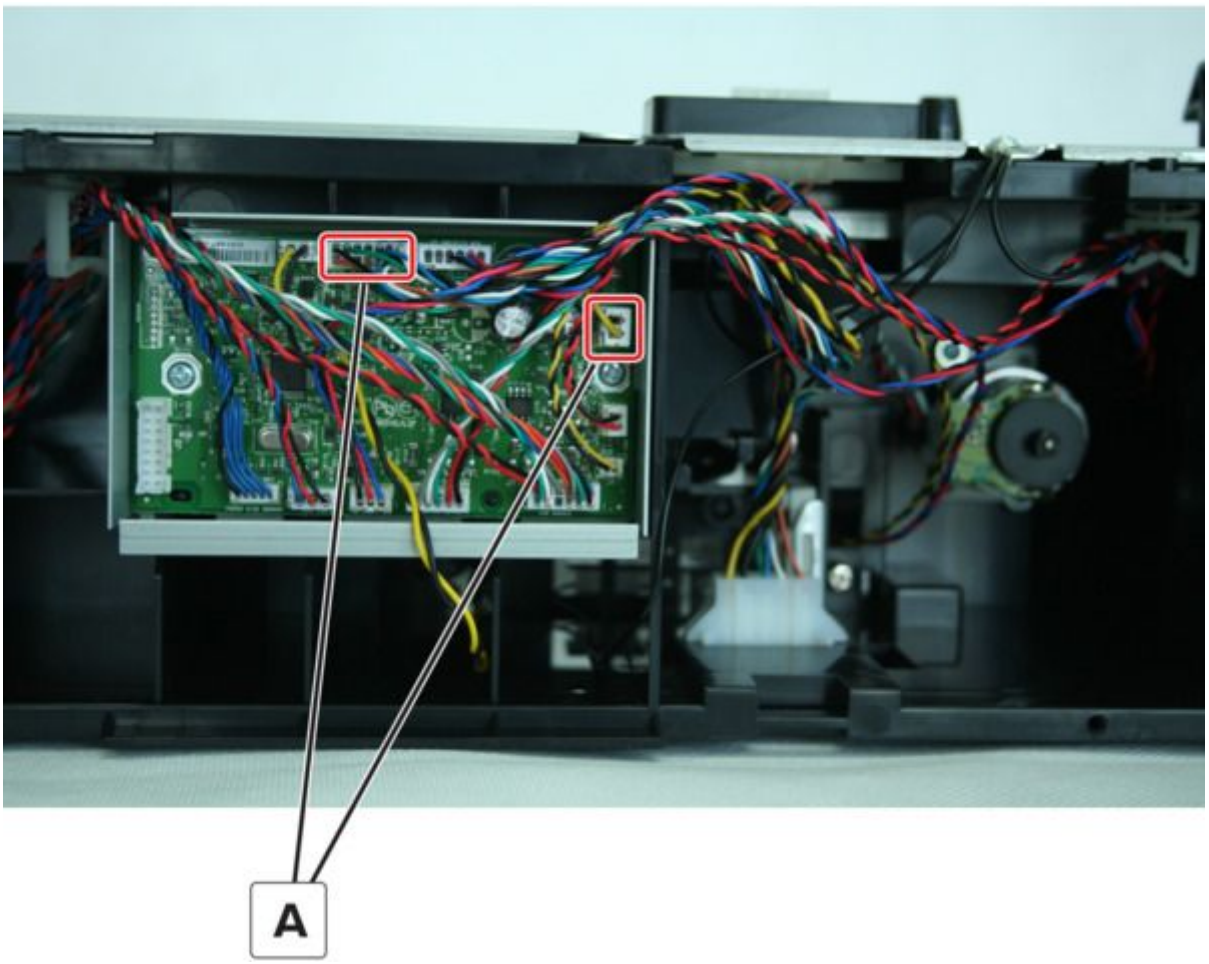
1. Remove the rear cover. See 550-sheet tray rear cover removal on page 758.
2. Disconnect the cables, and then remove the two screws (A).



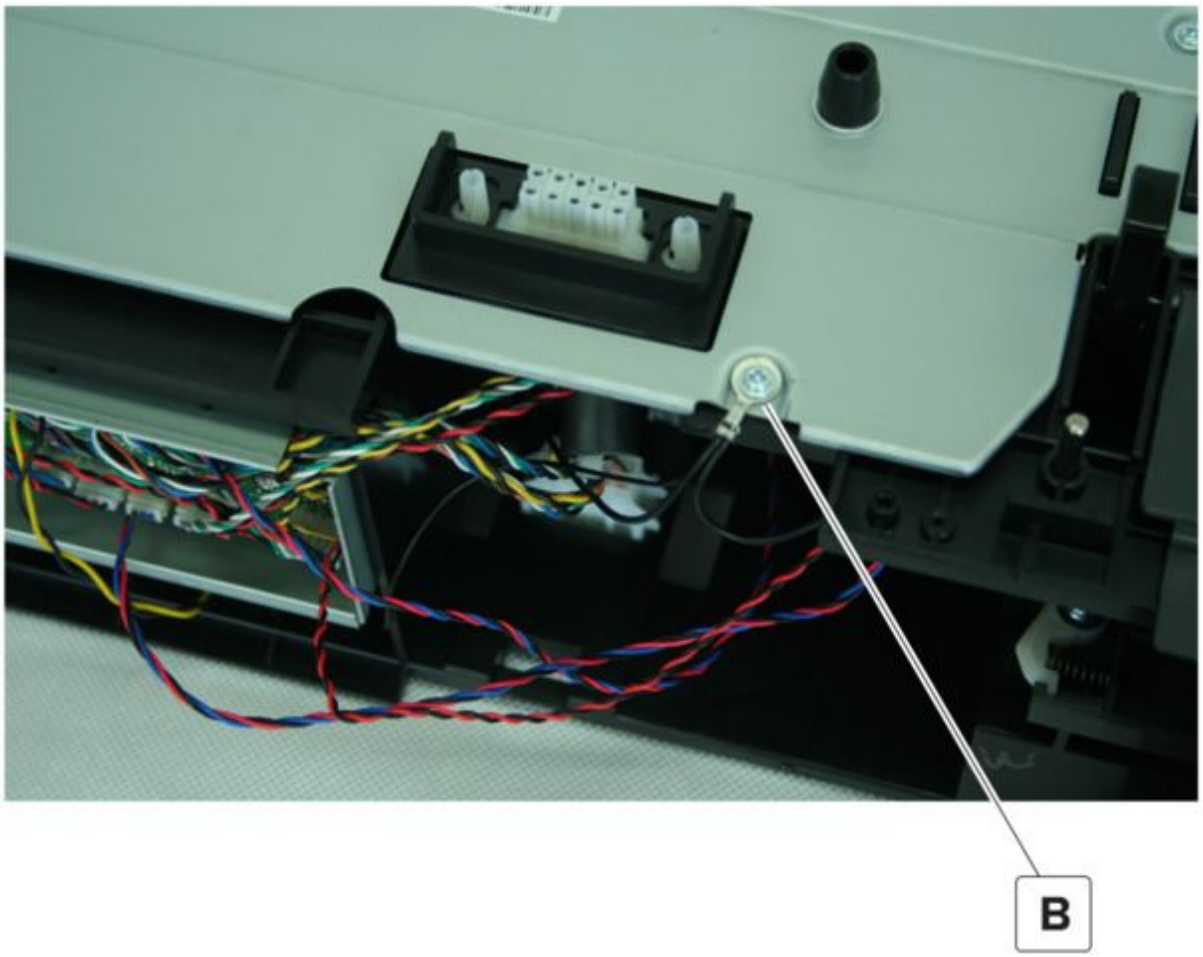
3. Remove the controller board.

550-sheet tray interface cable removal

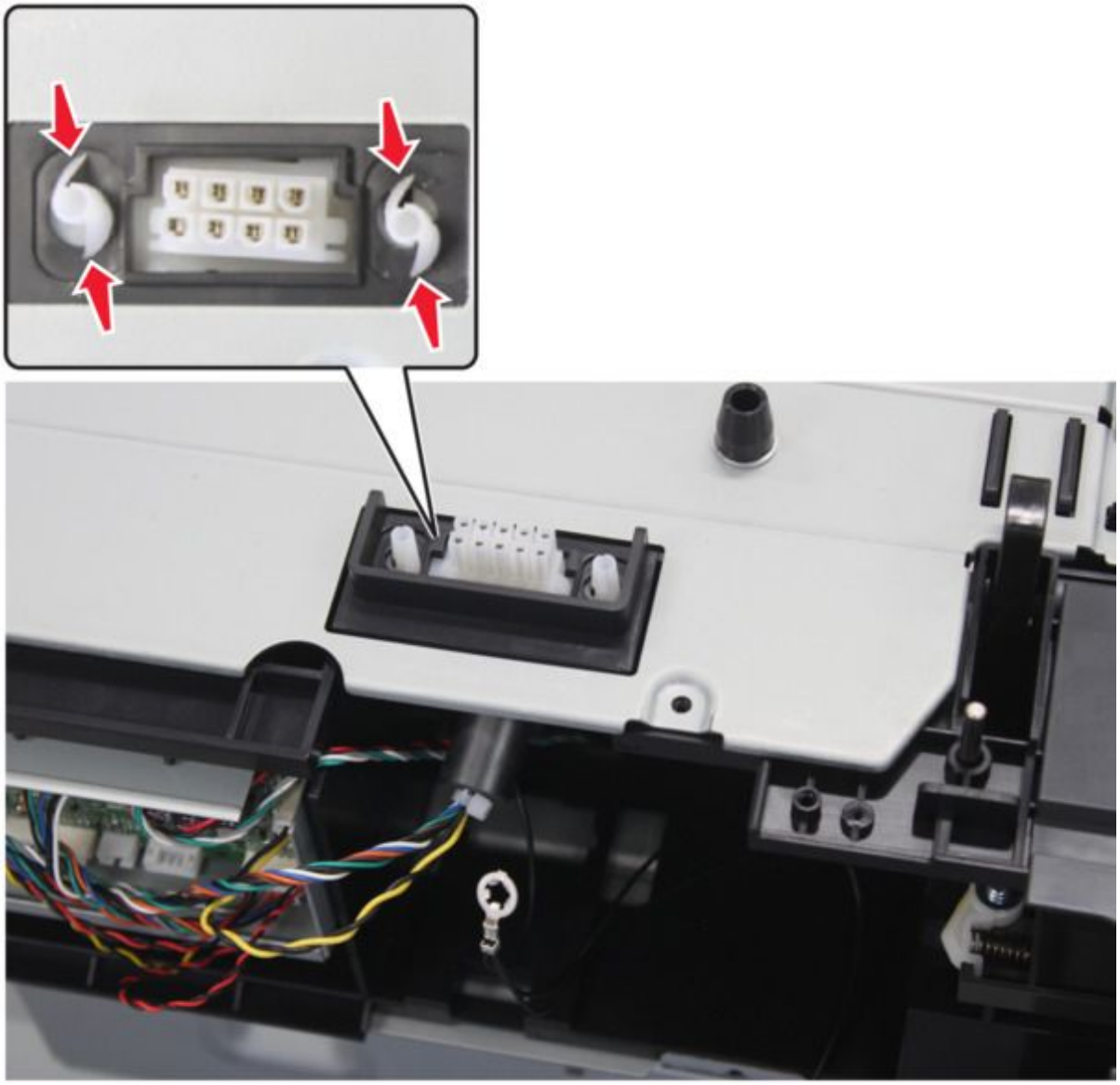
1. Remove the tray insert.
2. Remove the rear cover. See 550-sheet tray rear cover removal on page 758.
3. Disconnect the two cables (A) from the controller board.



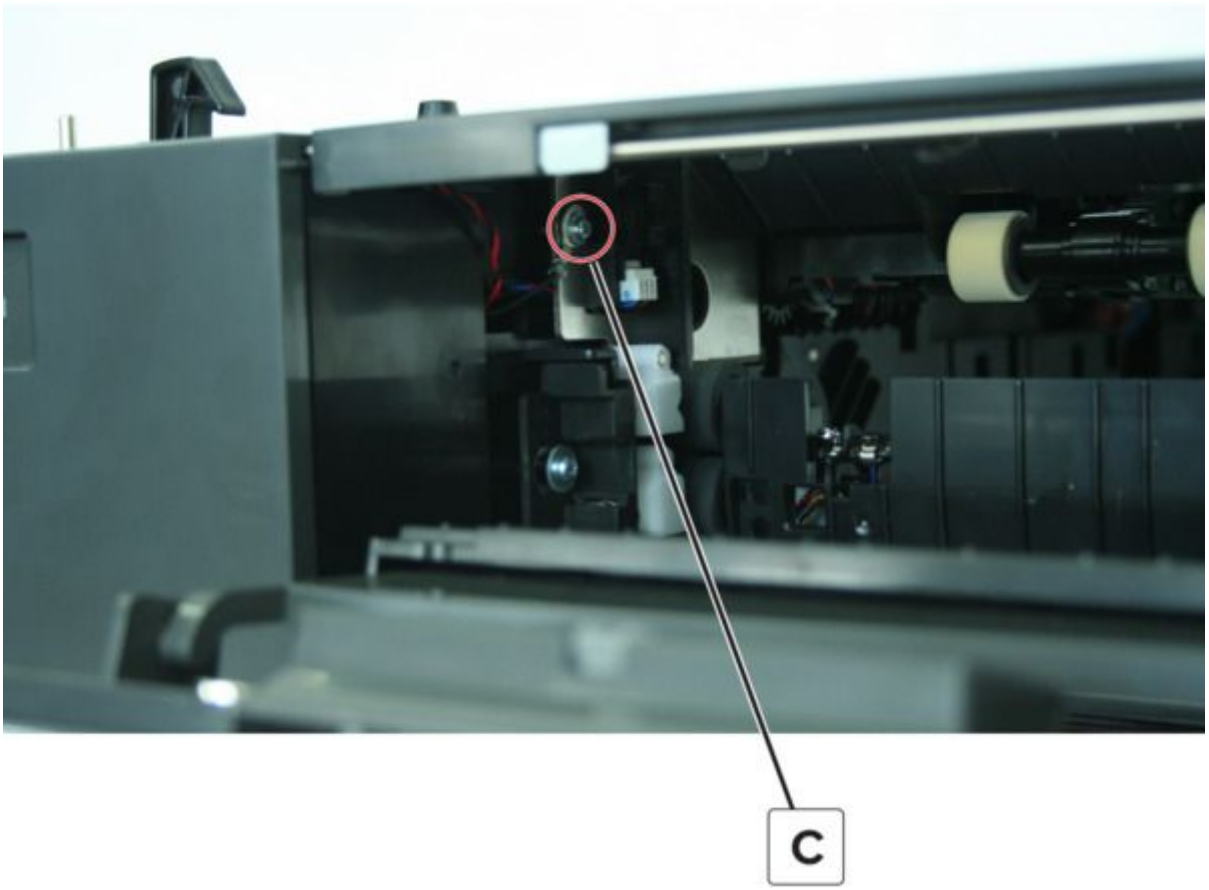
4. Remove the screw (B), and then remove the ground cable.



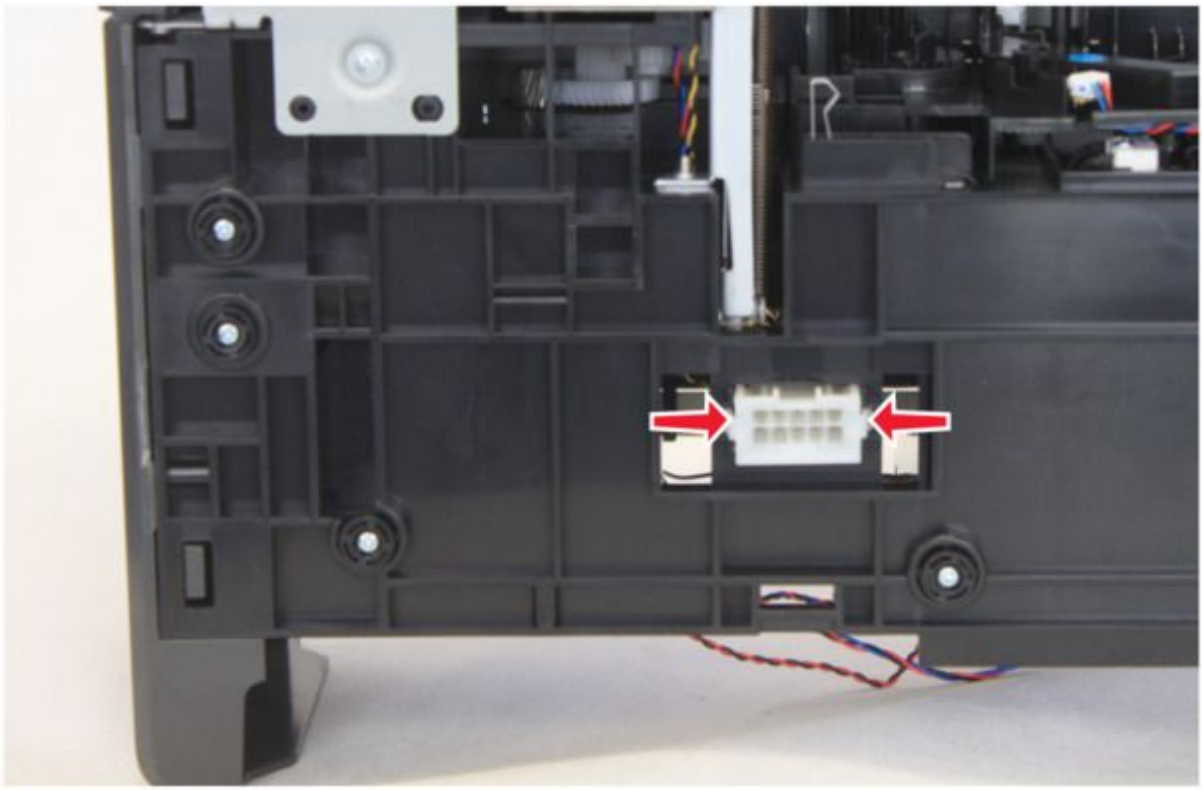
5. Using needle-nose pliers, remove the top interface cable.



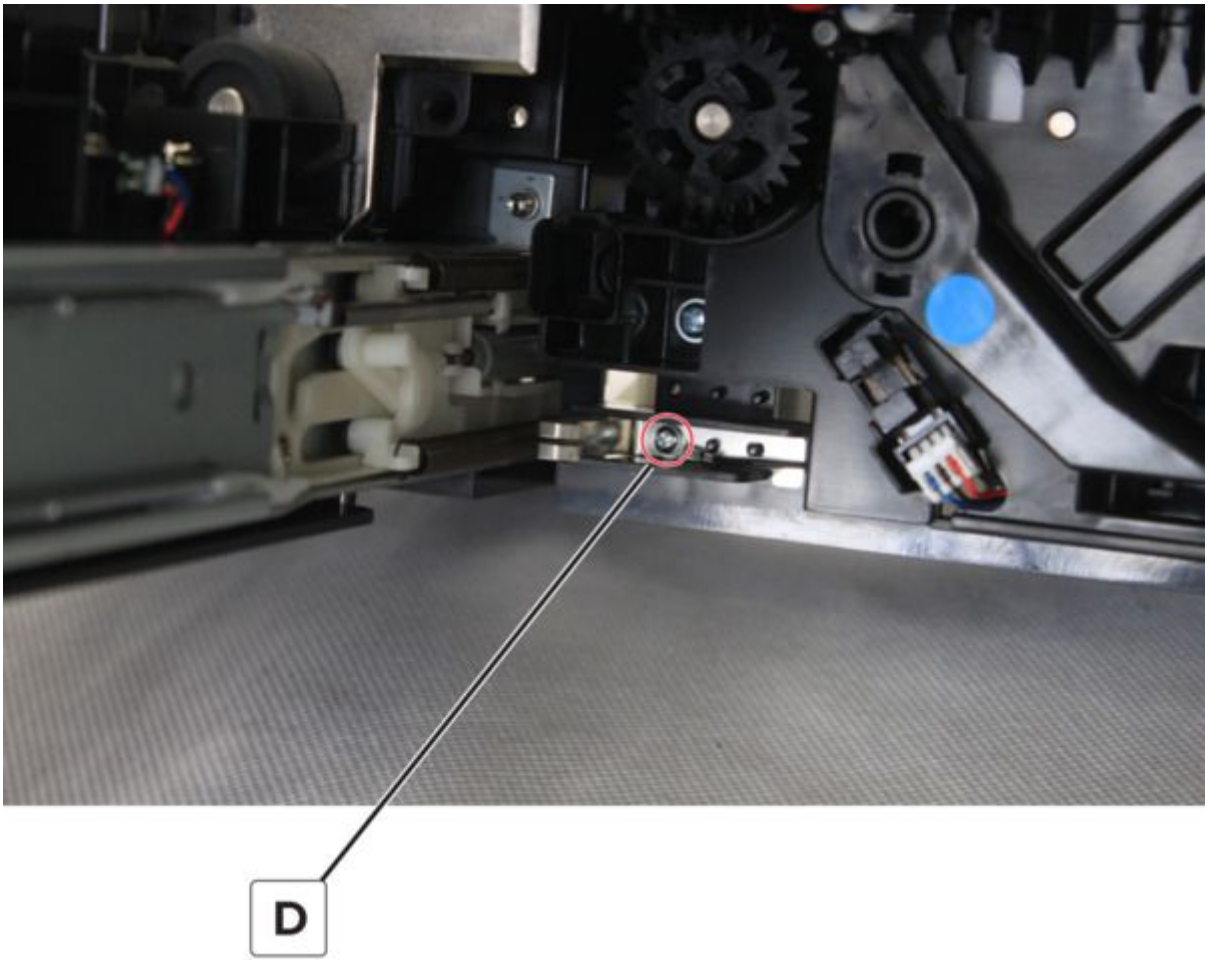
6. Open the jam door.
7. Remove the screw (C), and then remove the ground cable.



8. Remove the bottom interface cable.

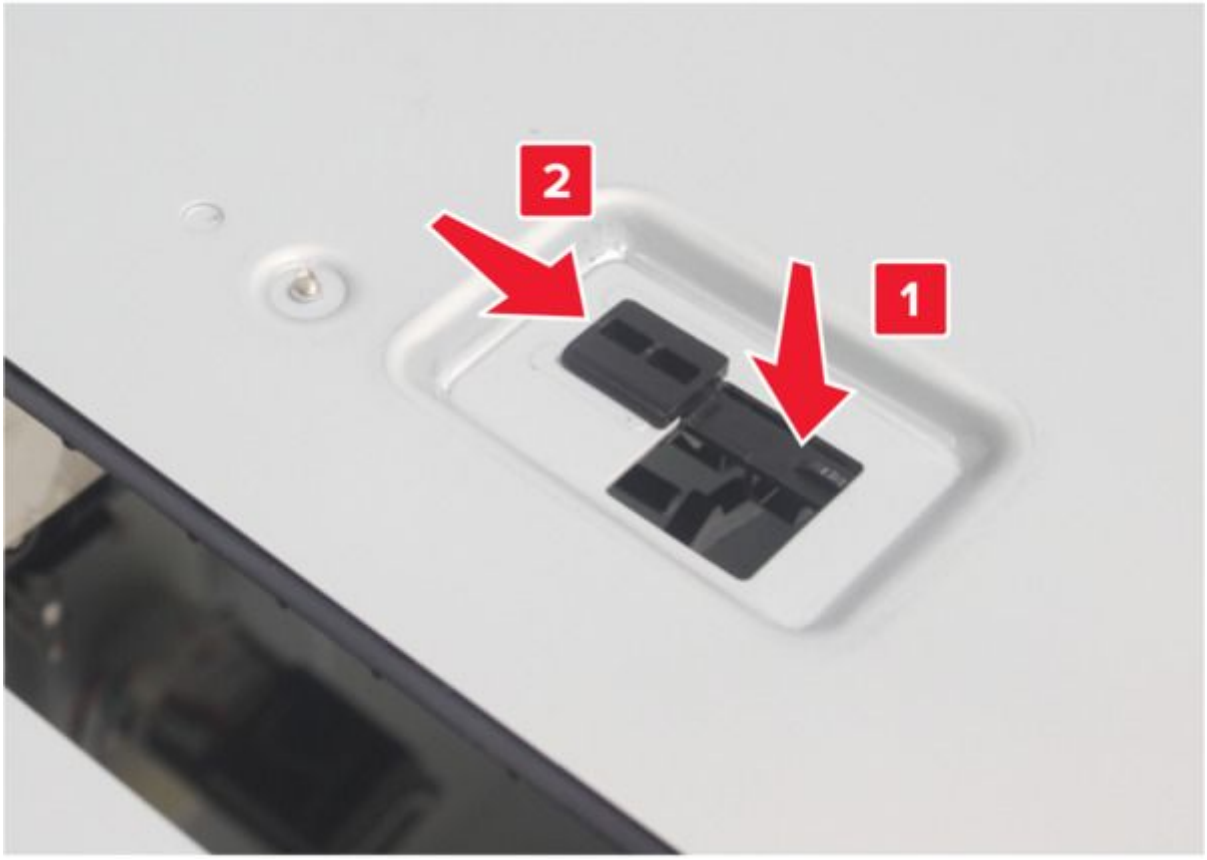


9. Remove the screw (D), and then remove the ground cable.

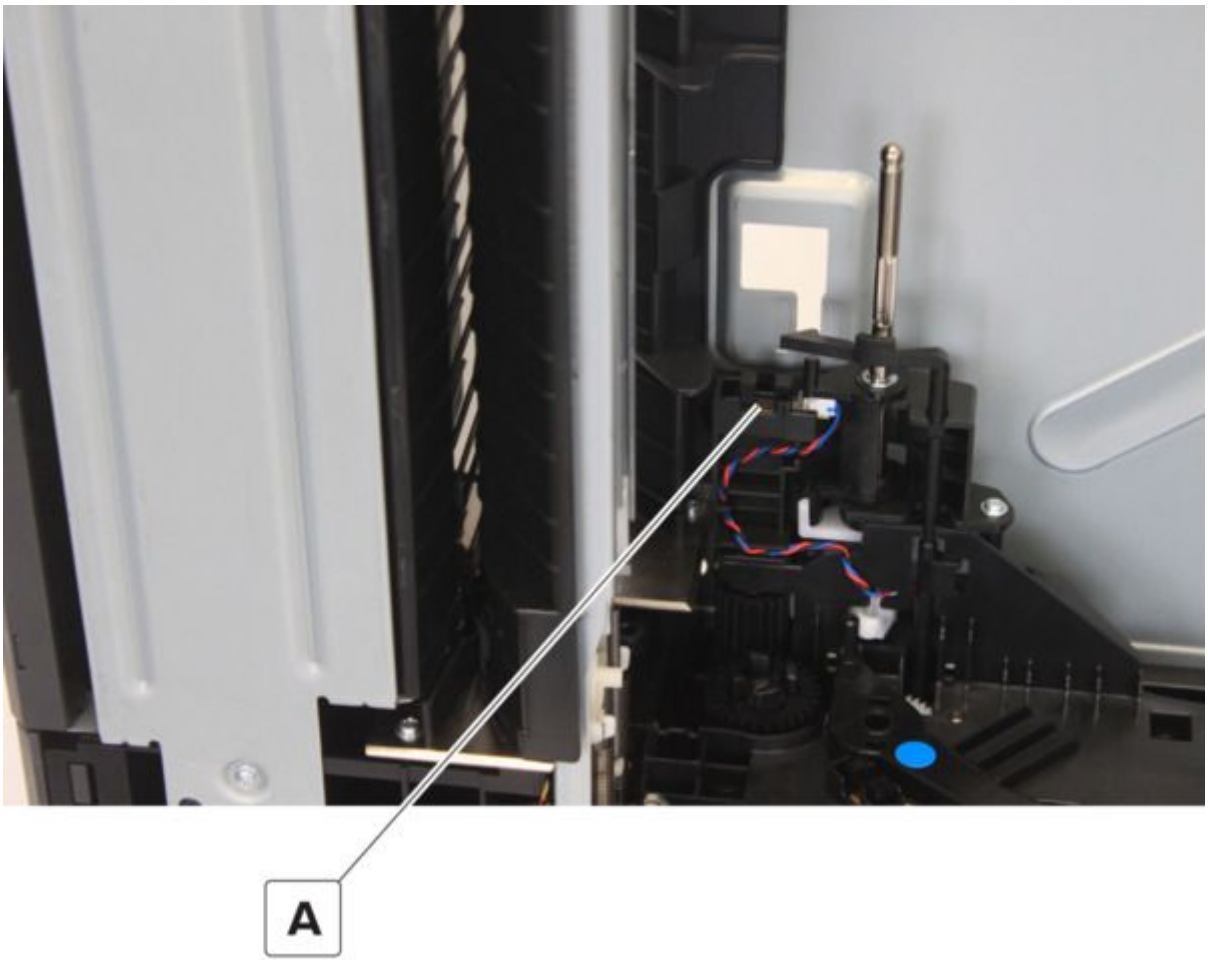


Sensor (550-sheet tray pick roller index) removal

1. Remove the tray insert.
2. Remove the pick roller assembly.
3. Press, and then slide to remove the bracket.



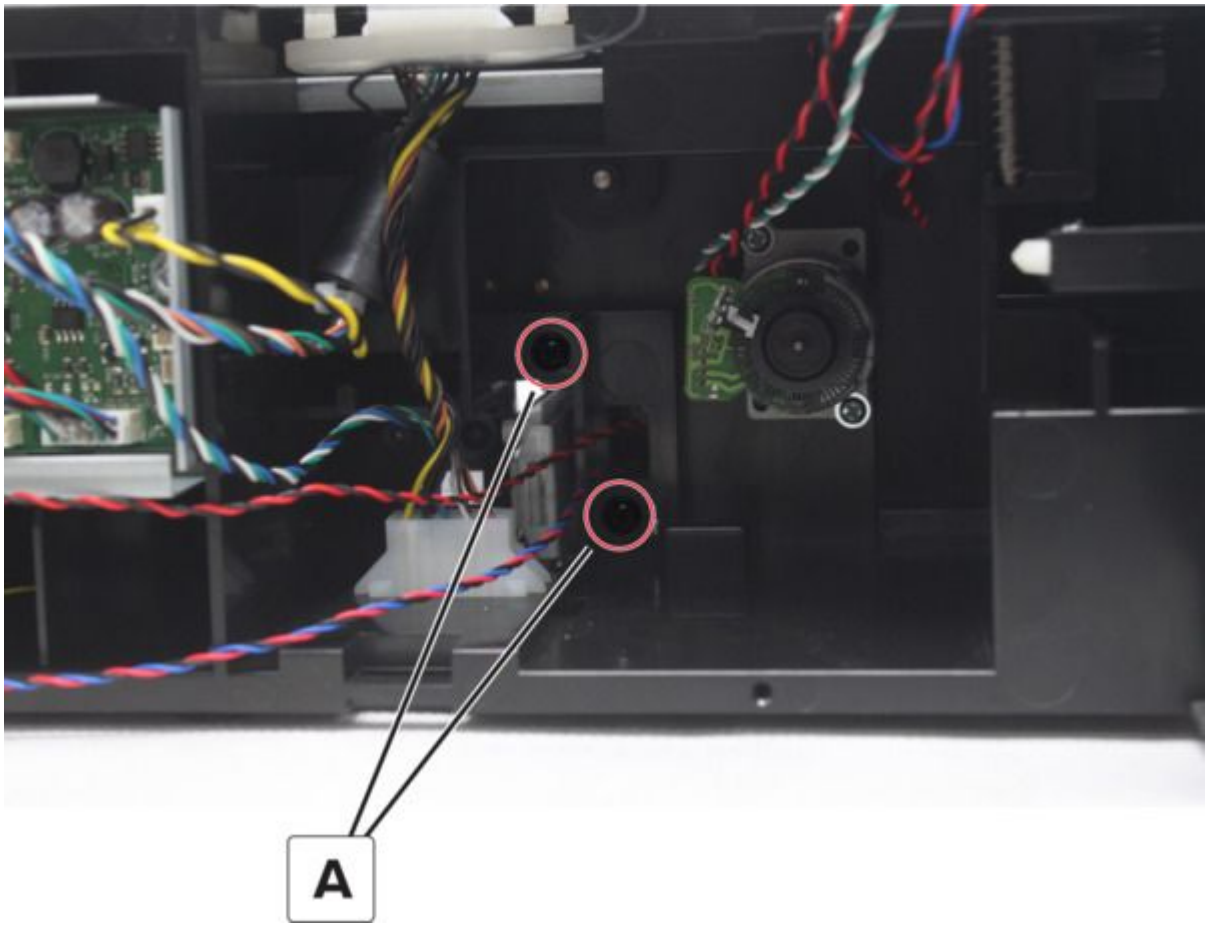
4. Remove the sensor (A), and then remove the cable.



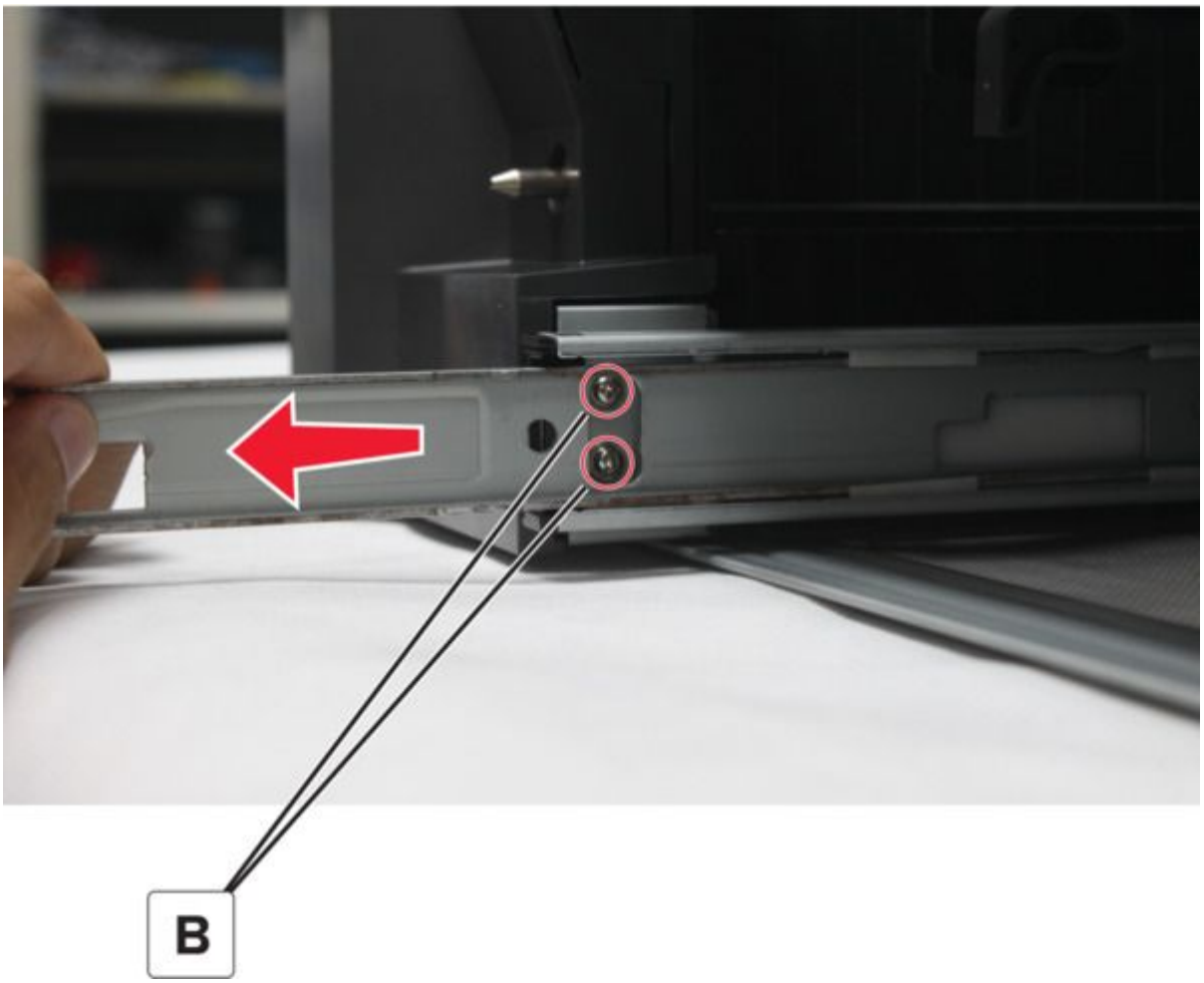
550-sheet tray left rail removal

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 758.
3. Remove the two screws (A).

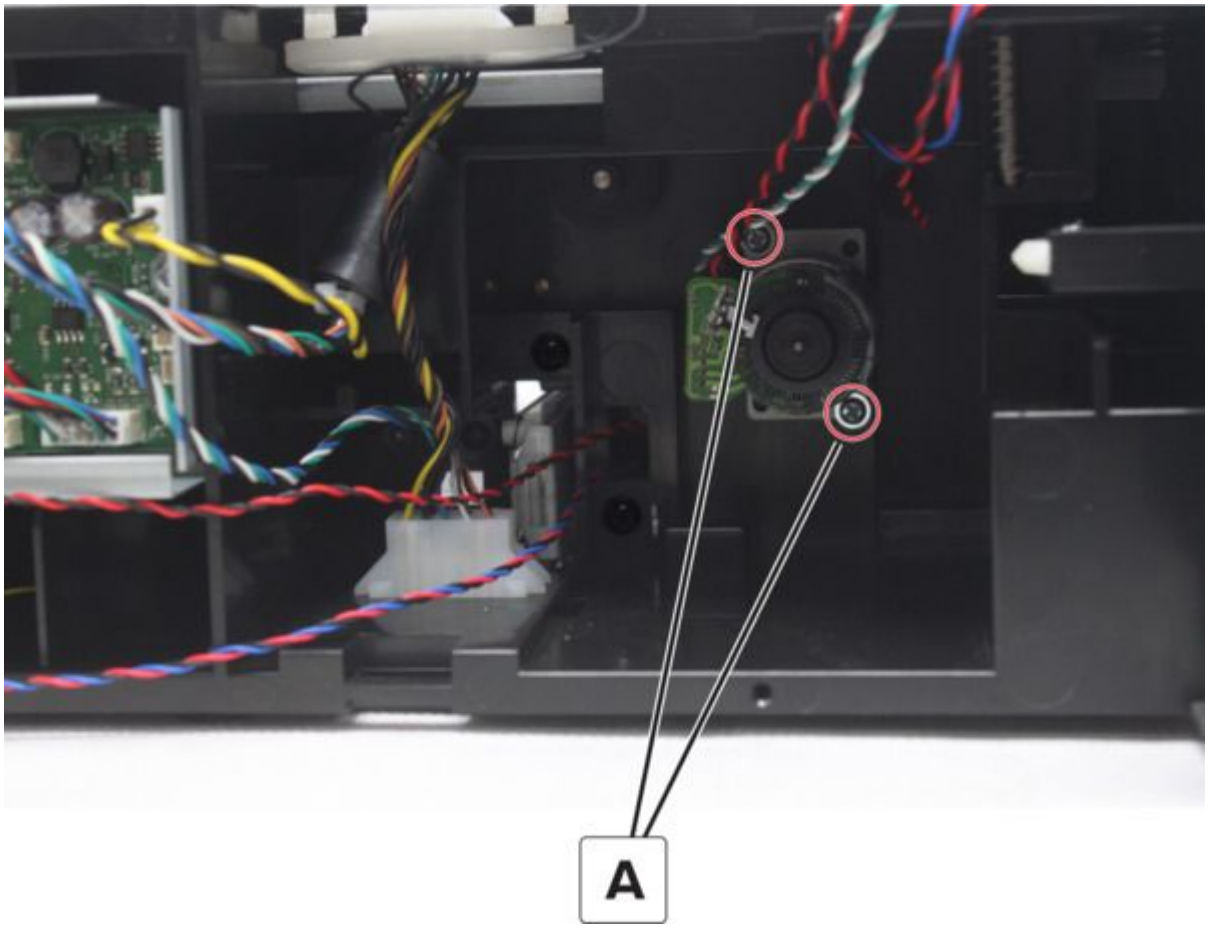


4. Remove the two screws (B), and then remove the rail.



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 758.
3. Remove the two screws (A), and then remove the motor.

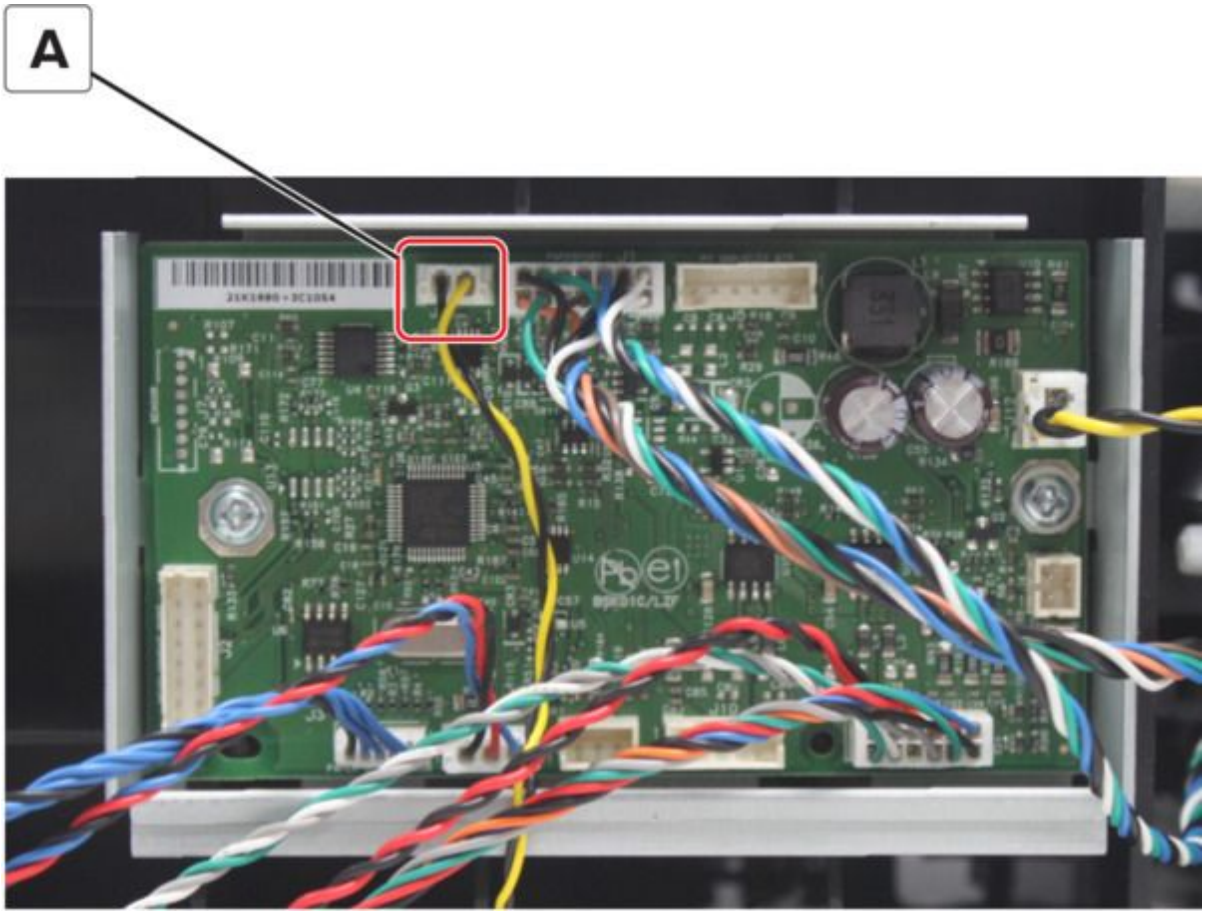


4. Disconnect the cable from the motor.
5. Remove the two screws (B), and then remove the bracket.

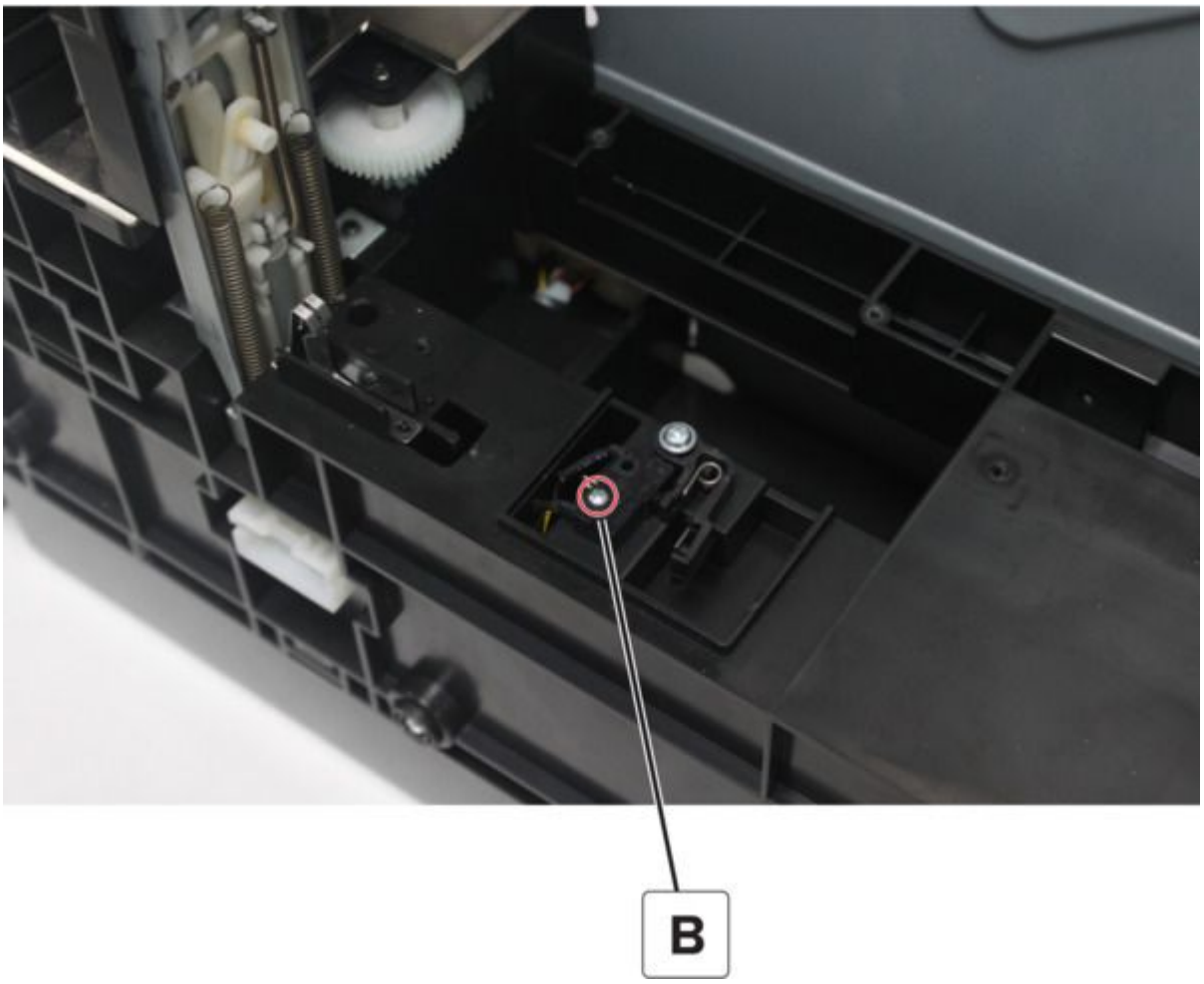
> **Note:** Pay attention to the type of bracket used.

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 758.
3. Remove the paper feeder. See 550-sheet tray paper feeder removal on page 752.
4. Disconnect the cable (A) from the controller board.



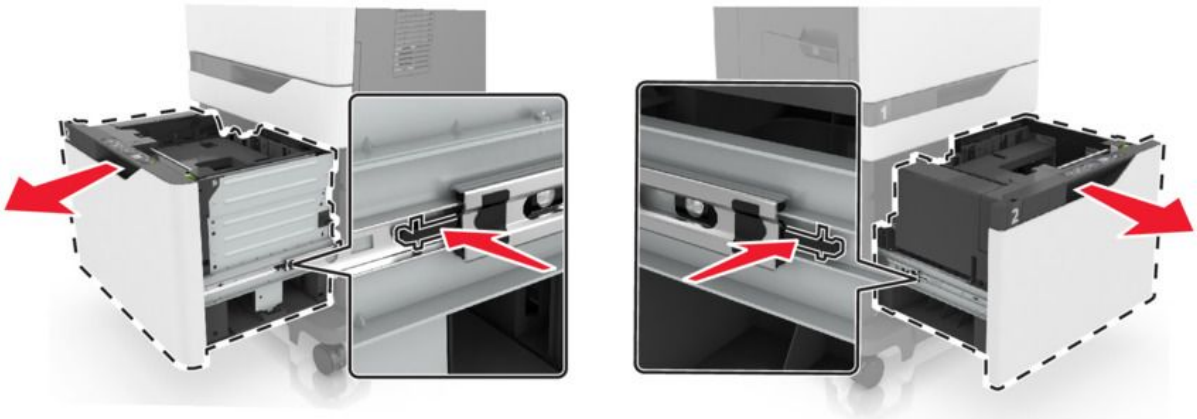
5. Remove the screw (B), and then remove the switch.



2200-sheet tray removals

2200-sheet tray insert removal

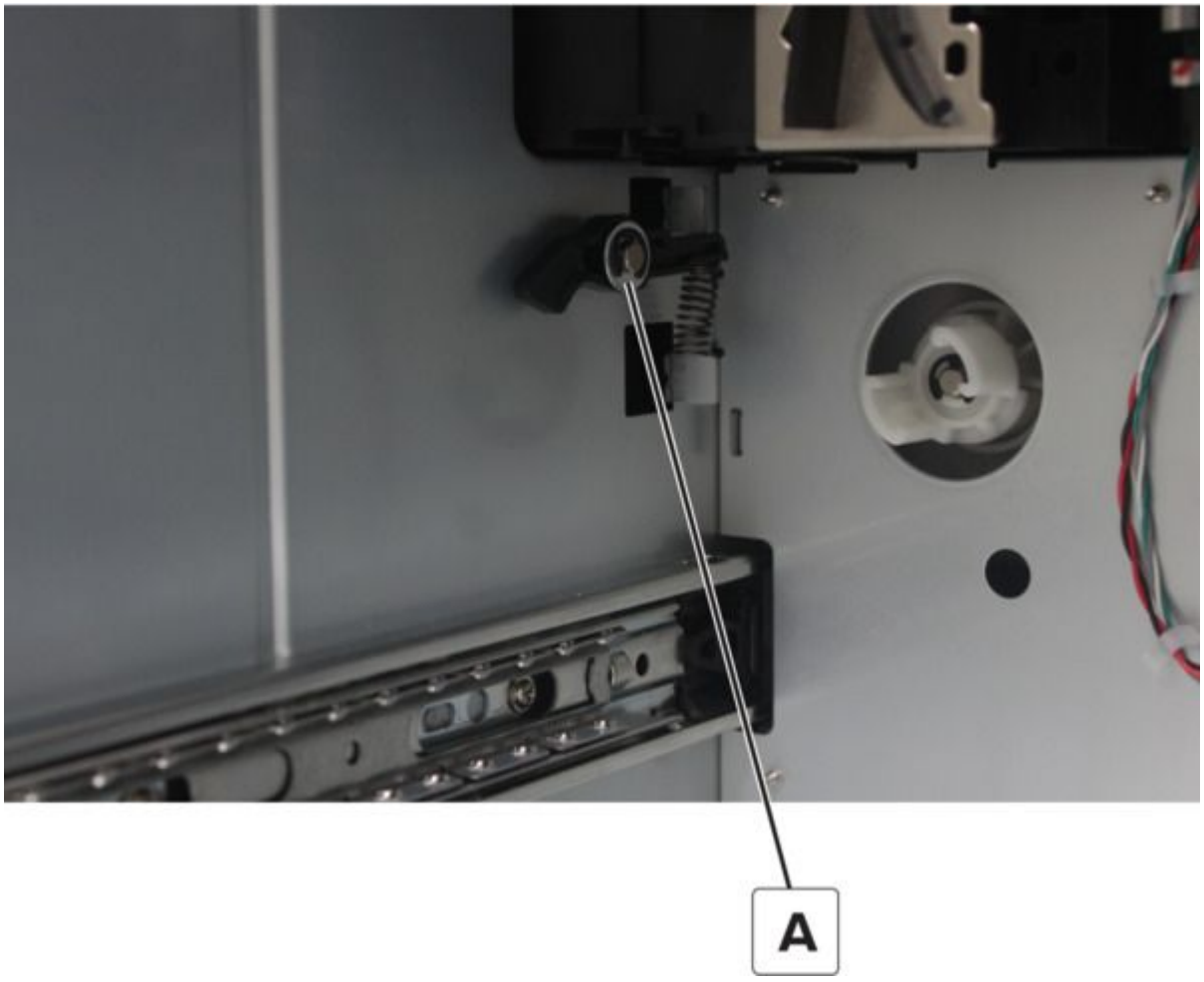
1. Fully extend the tray, and then press the left and right latches to release the tray.



2. Remove the tray.

Bell crank removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the clip (A), and then remove the washer.



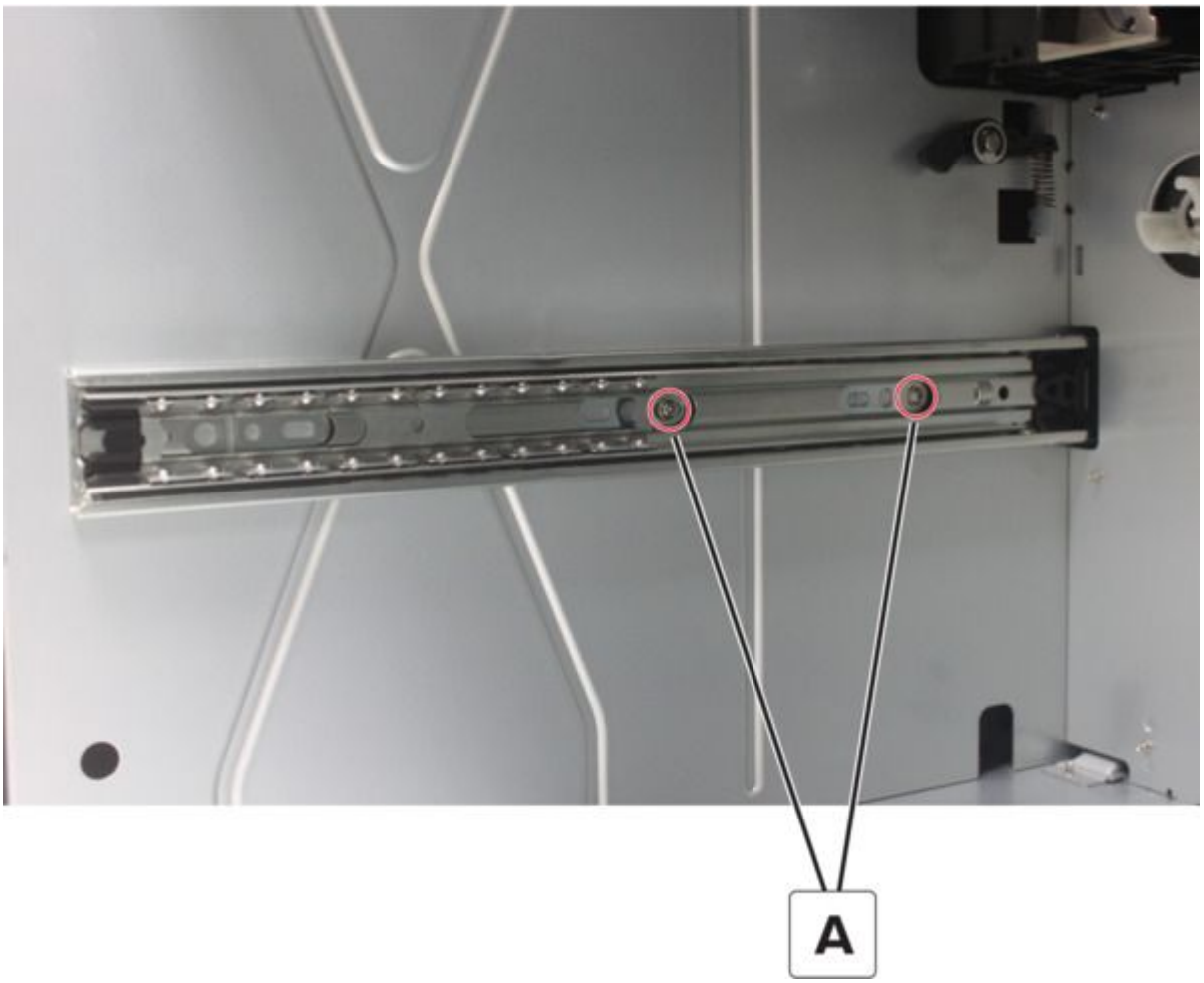
3. Remove the bell crank and spring.

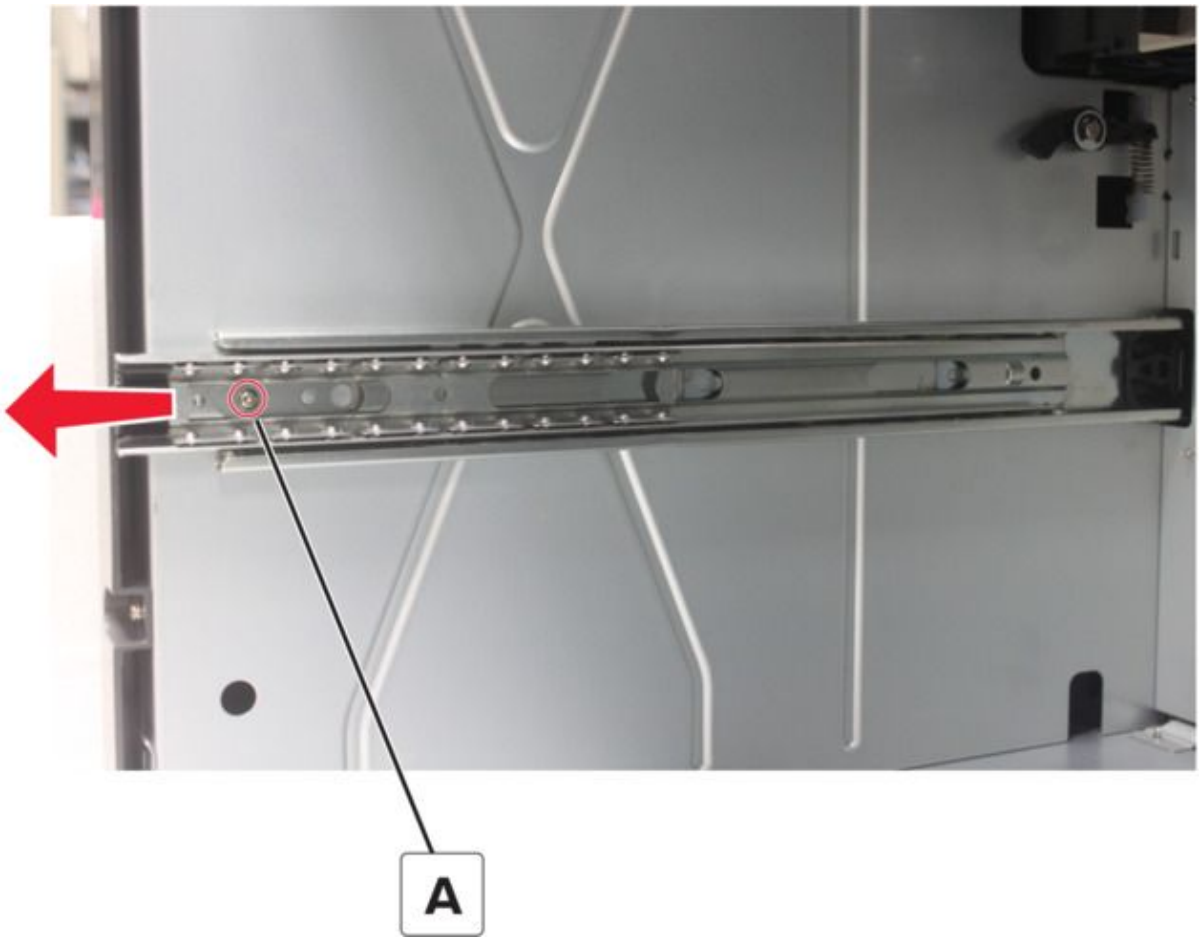
> **Note:** The same steps apply when removing the other crank.

2200-sheet tray rail removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the three screws (A).

> **Note:** Move the rail to the front to show the third screw.


A

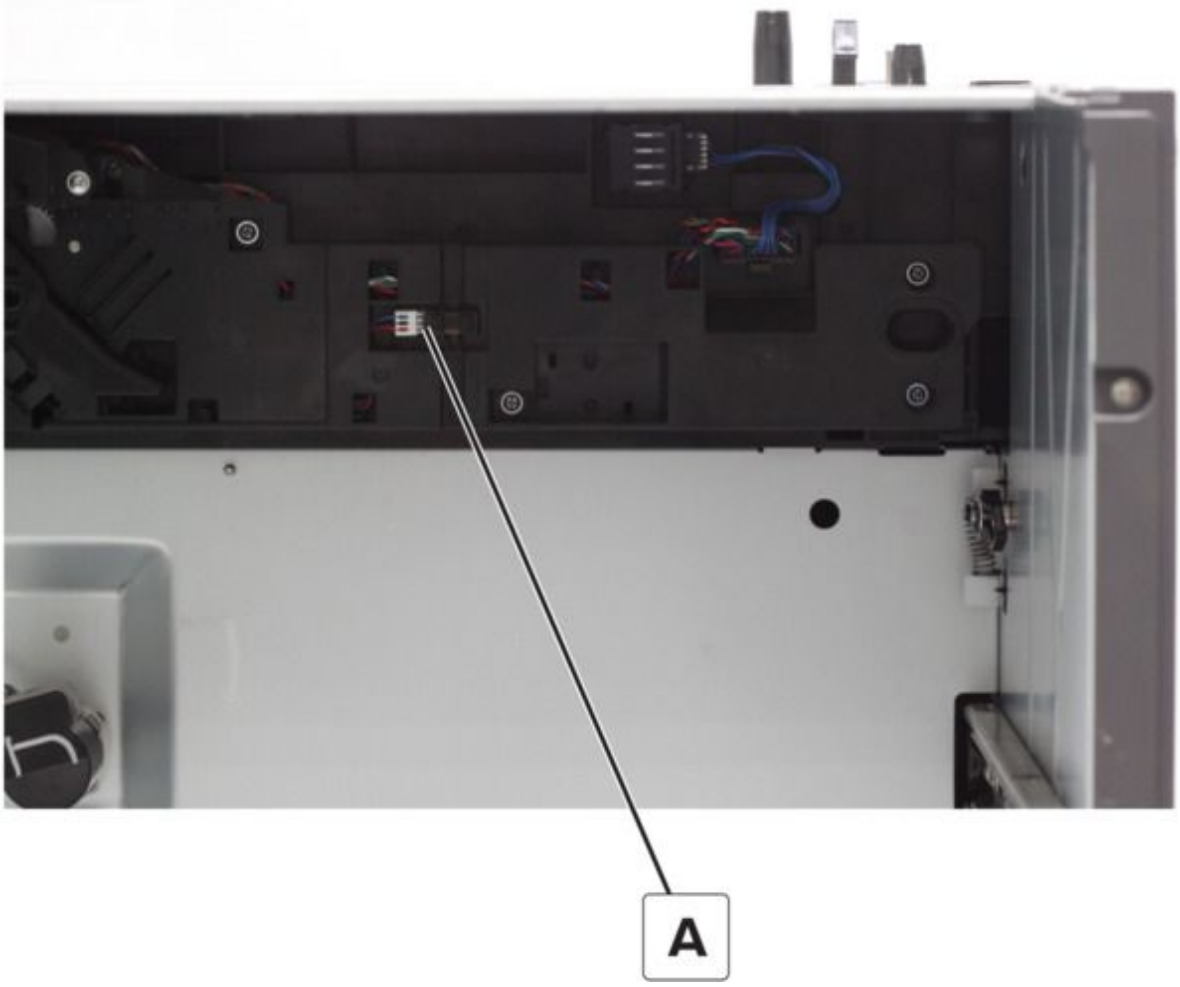


3. Remove the rail.

> **Note:** The same steps apply when removing the other rail.

Sensor (2200-sheet tray media low) removal

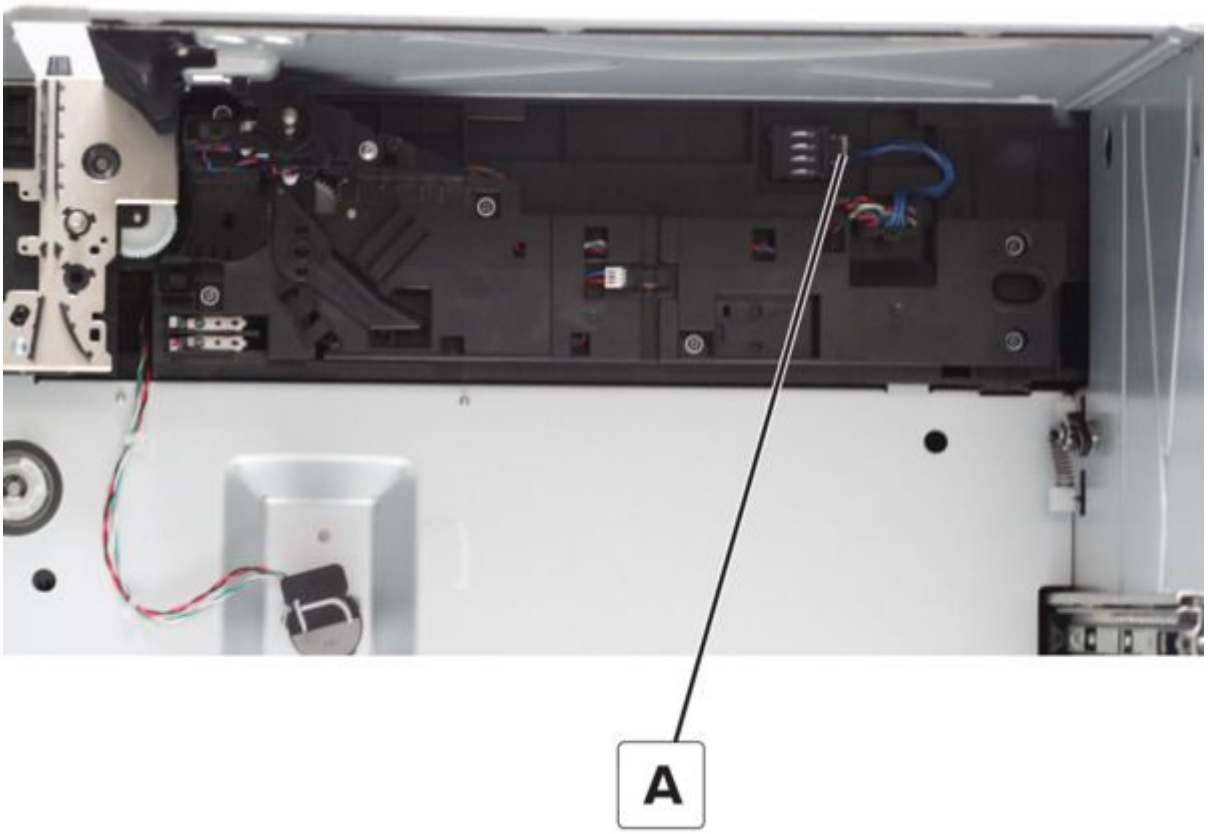
1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the sensor (A).



3. Disconnect the cable from the sensor.

Sensor (2200-sheet tray media size) removal

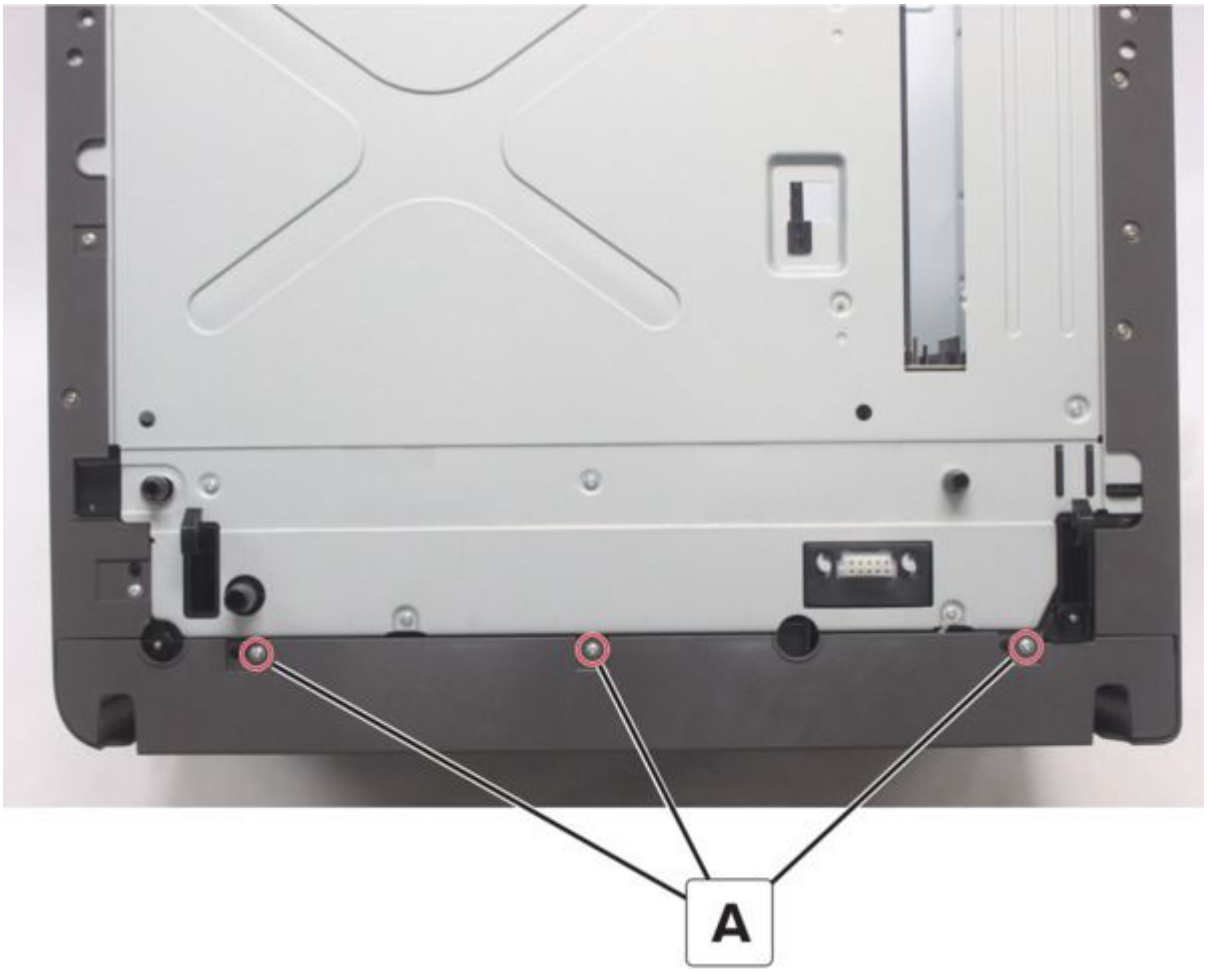
1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Disconnect the cable (A).



3. Remove the sensor.

2200-sheet tray rear cover removal

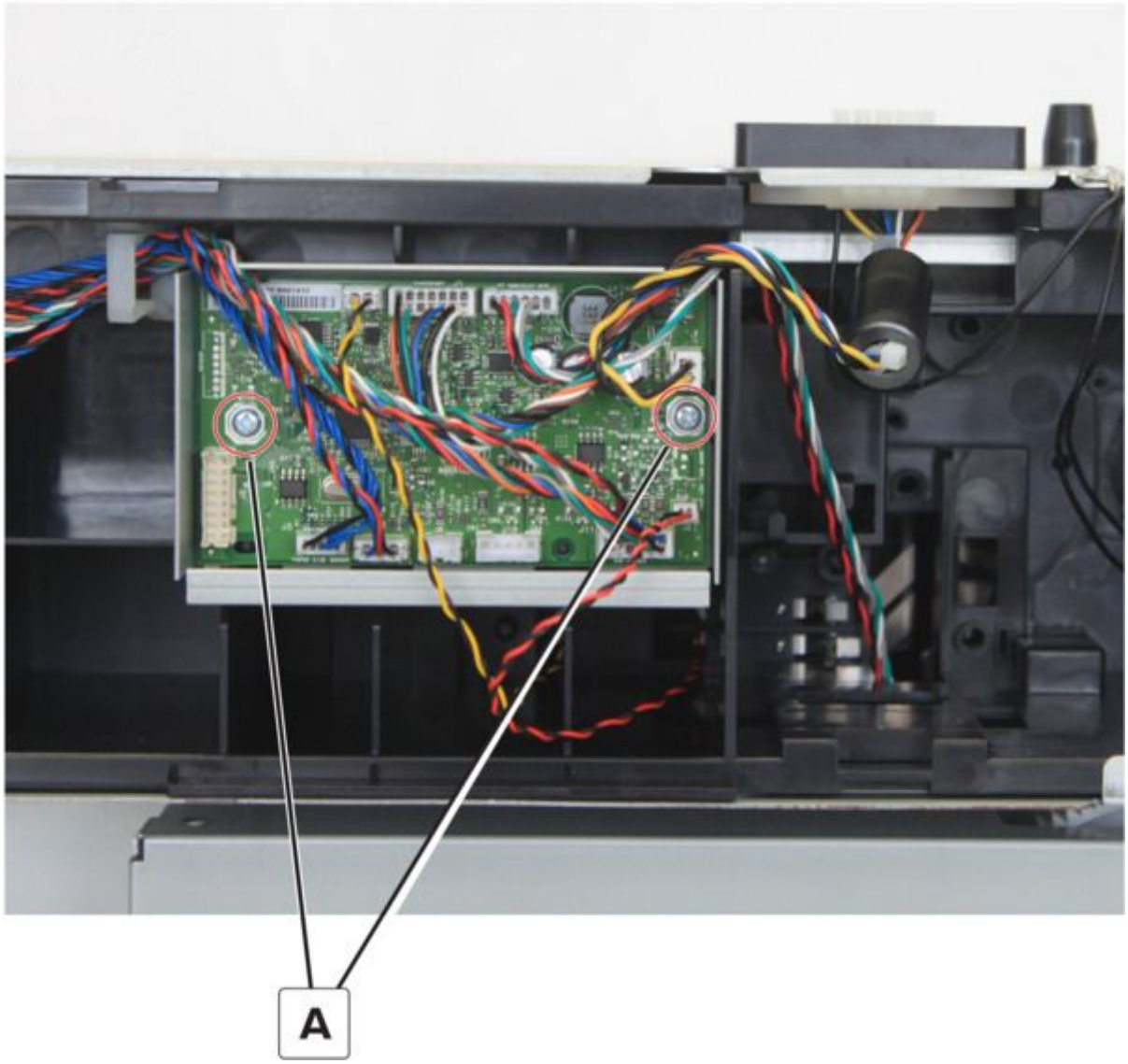
1. Remove the three screws (A).



2. Remove the cover.

2200-sheet tray controller board removal

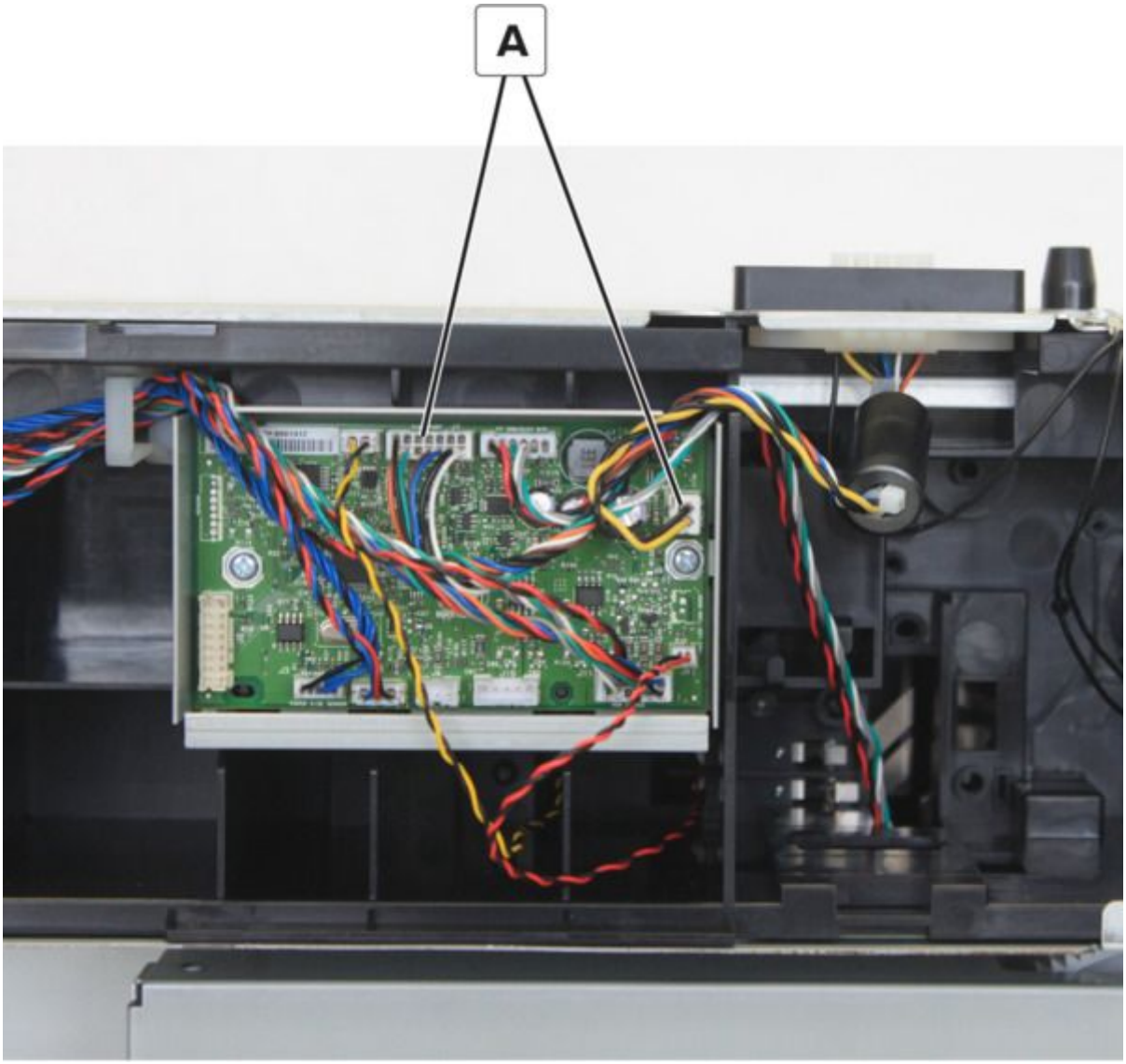
1. Remove the tray rear cover. See 2200-sheet tray rear cover removal on page 777.
2. Disconnect the cables, and then remove the two screws (A).



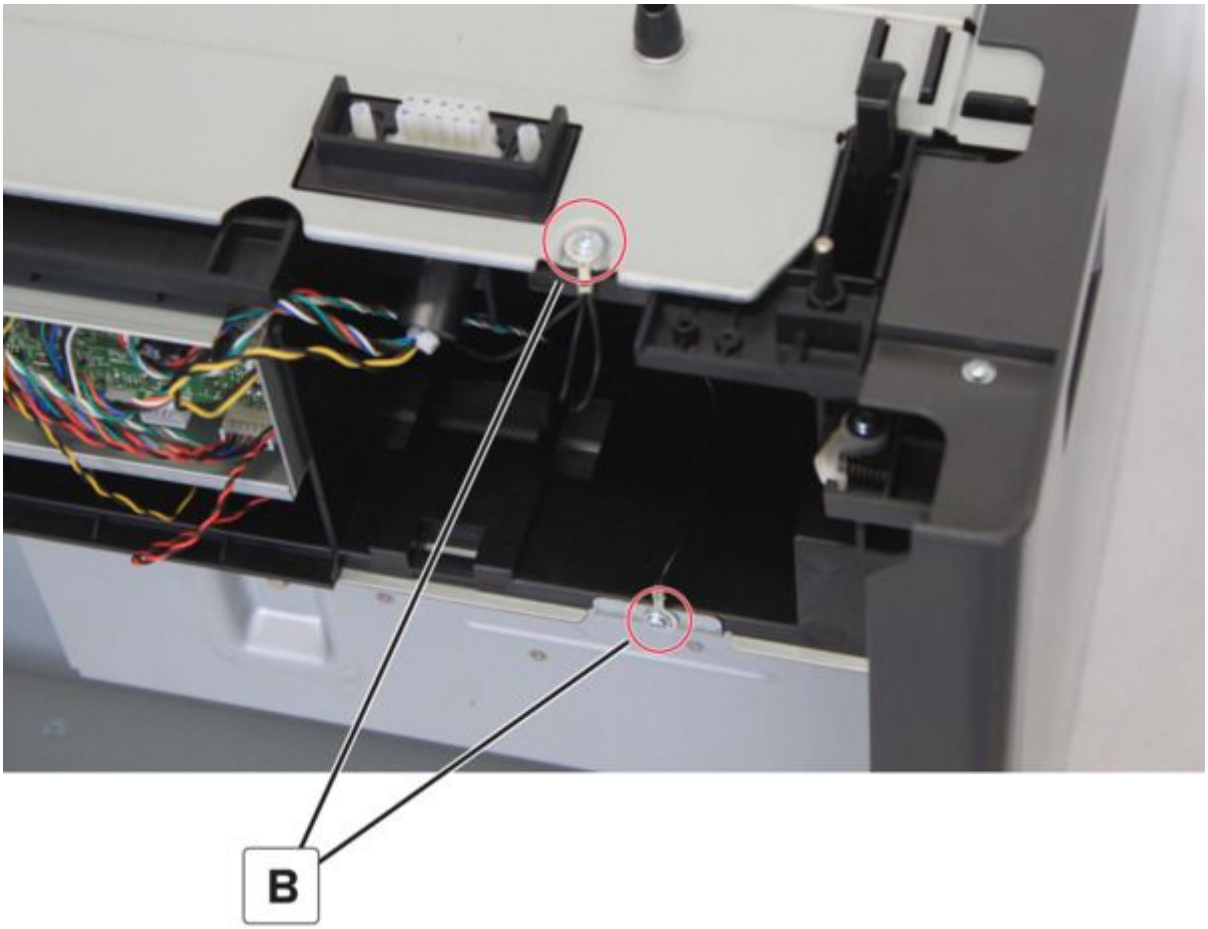
3. Remove the controller board.

2200-sheet tray interface cable removal

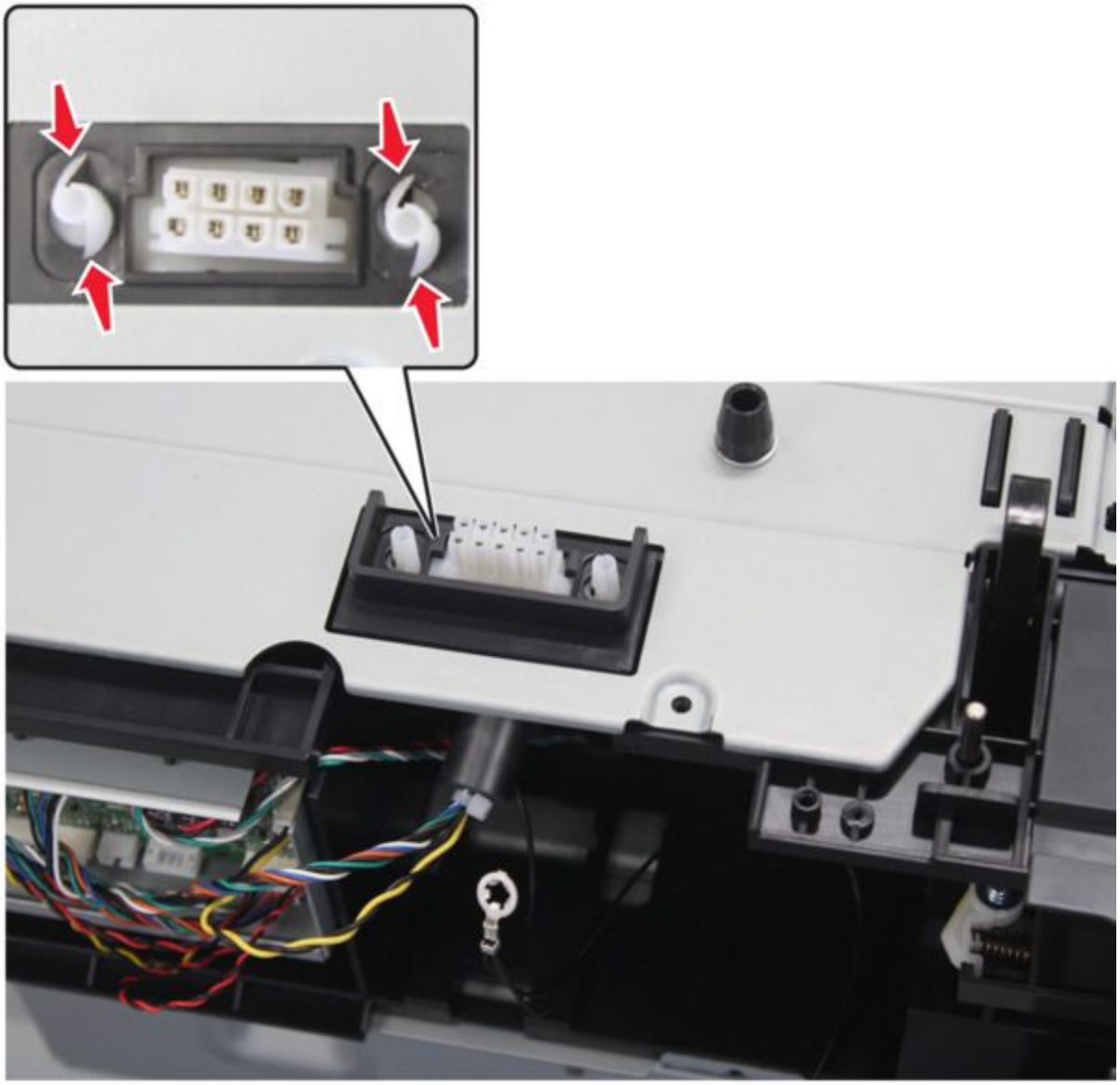
1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the tray rear cover. See 2200-sheet tray rear cover removal on page 777.
3. Disconnect the two cables (A).



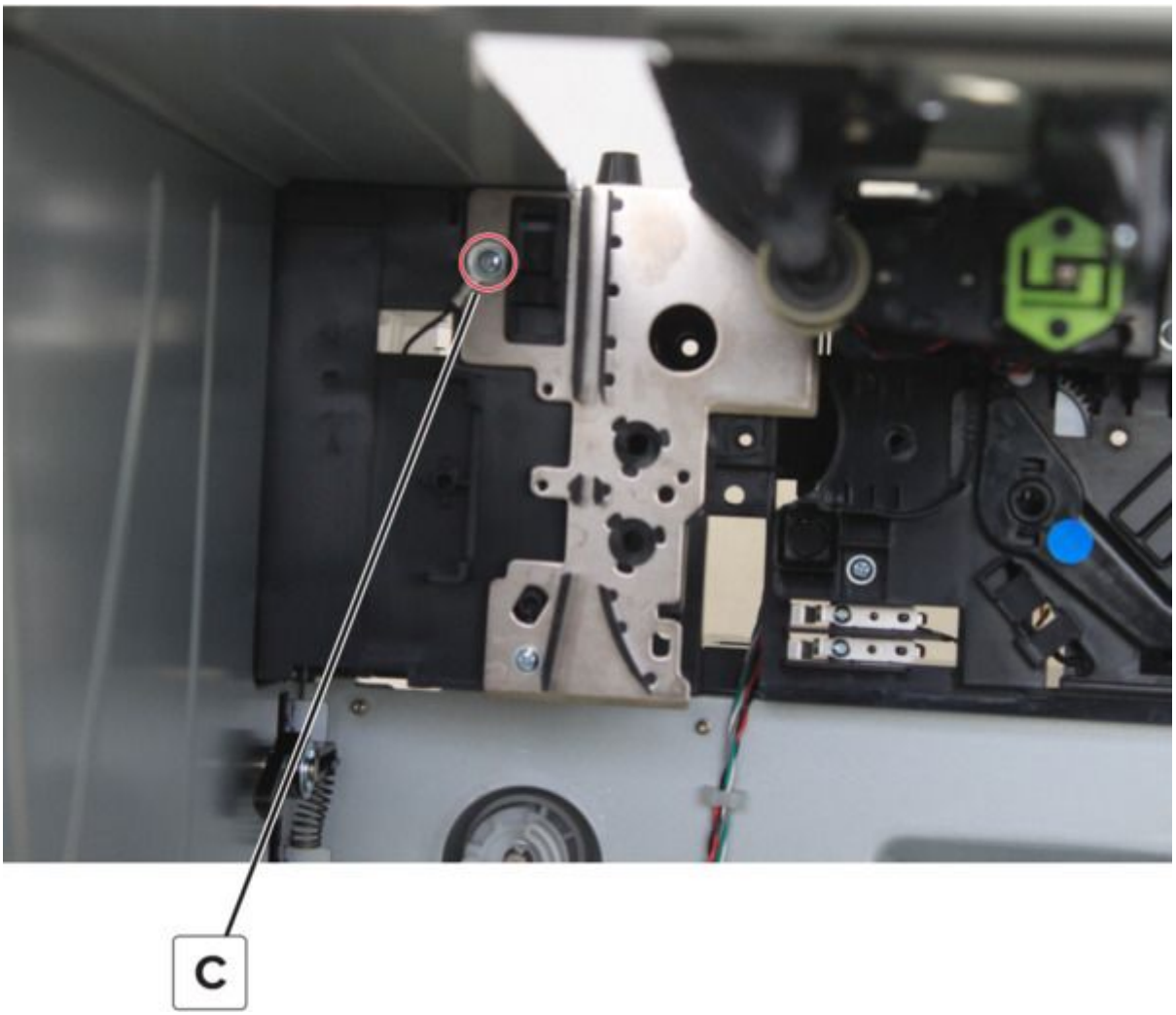
4. Remove the two screws (B), and then remove the ground cable.



5. Using needle-nose pliers, remove the interface cable.

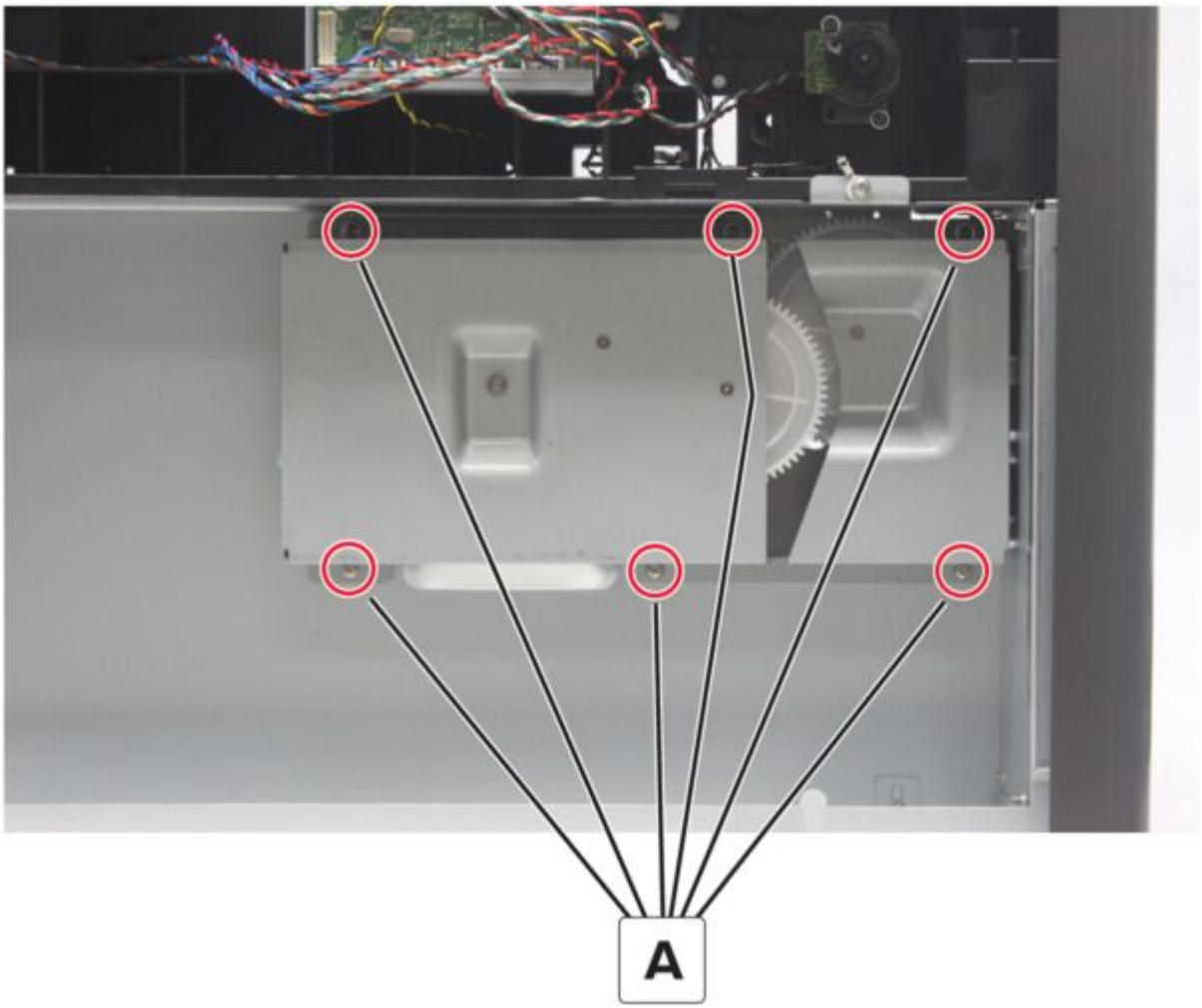


6. Remove the screw (C), and then remove the ground cable.

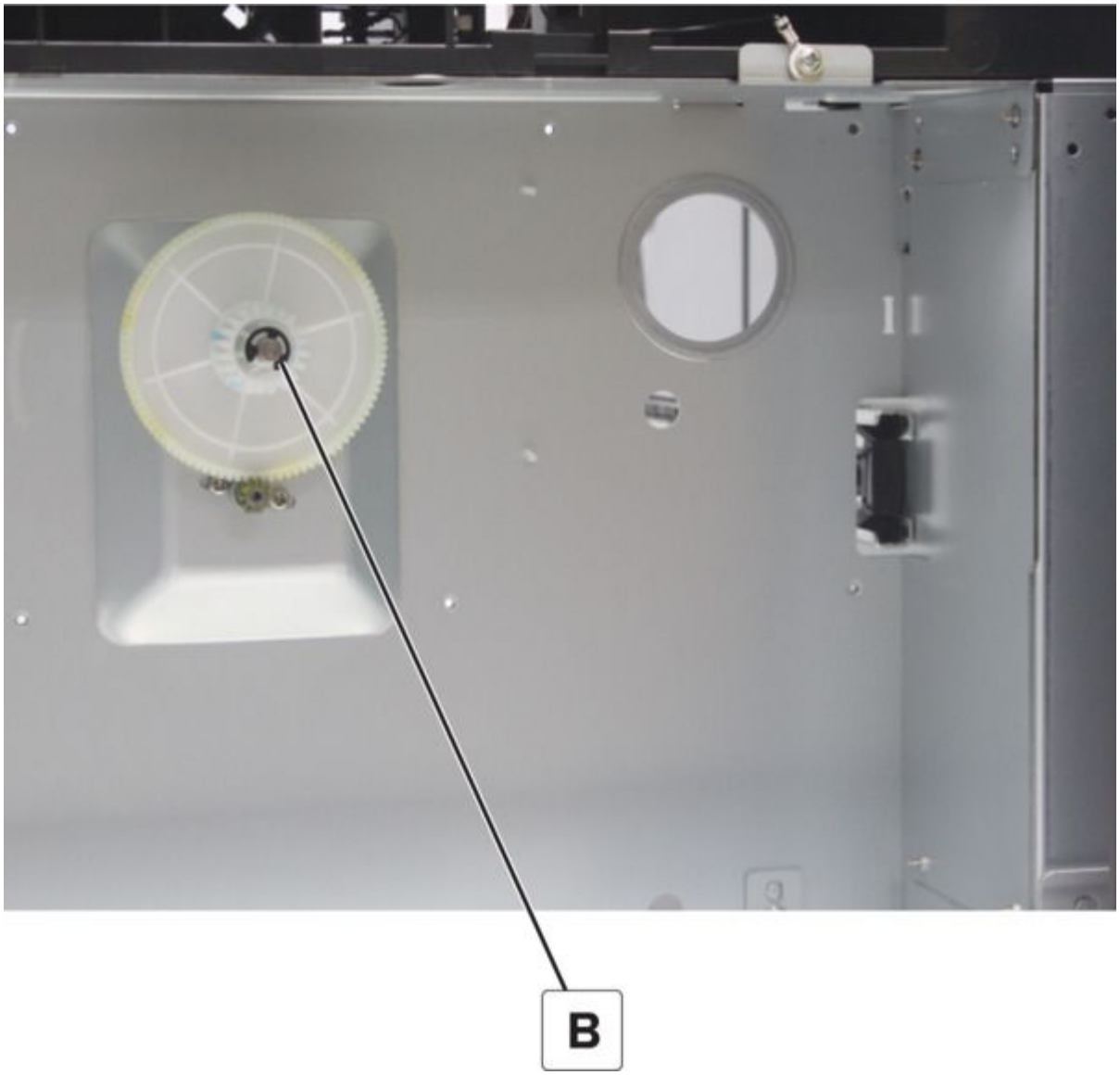


2200-sheet tray elevator gears removal

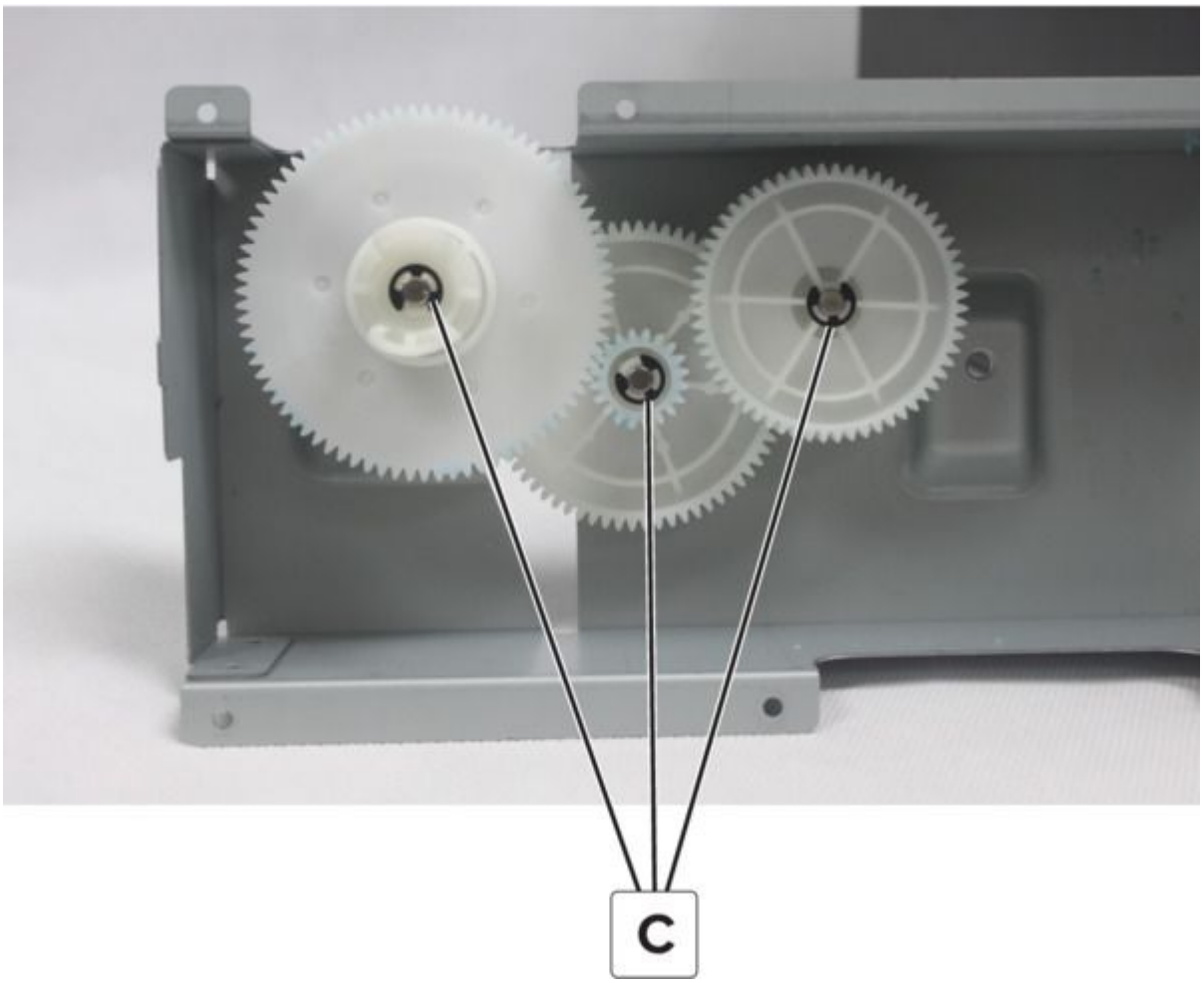
1. Remove the rear cover. See 2200-sheet tray rear cover removal on page 777.
2. Remove the six screws (A), and then remove the gear bracket.



3. Remove the clip (B), and then remove the gear.

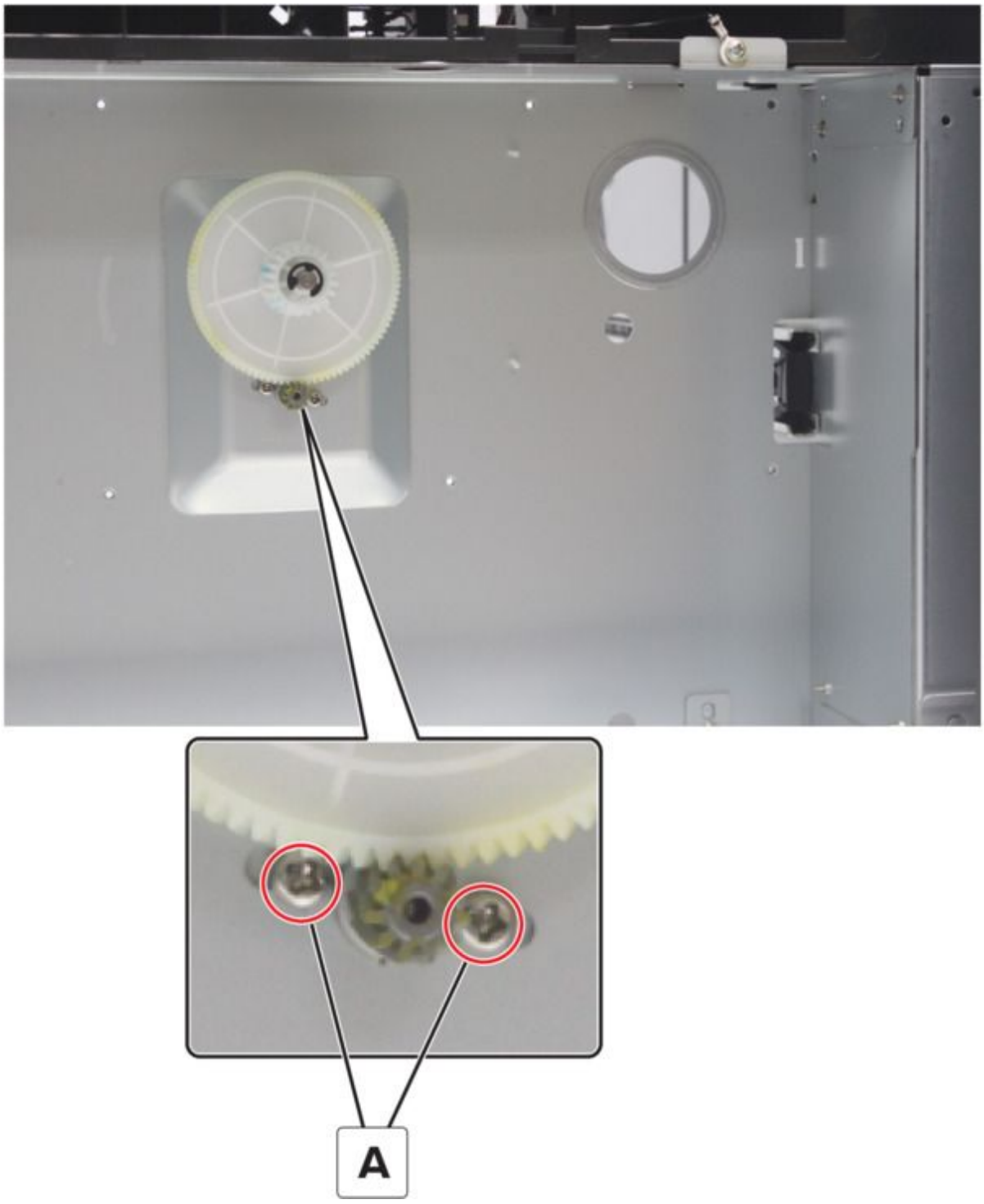


4. Remove the three clips (C), and then remove the gears.



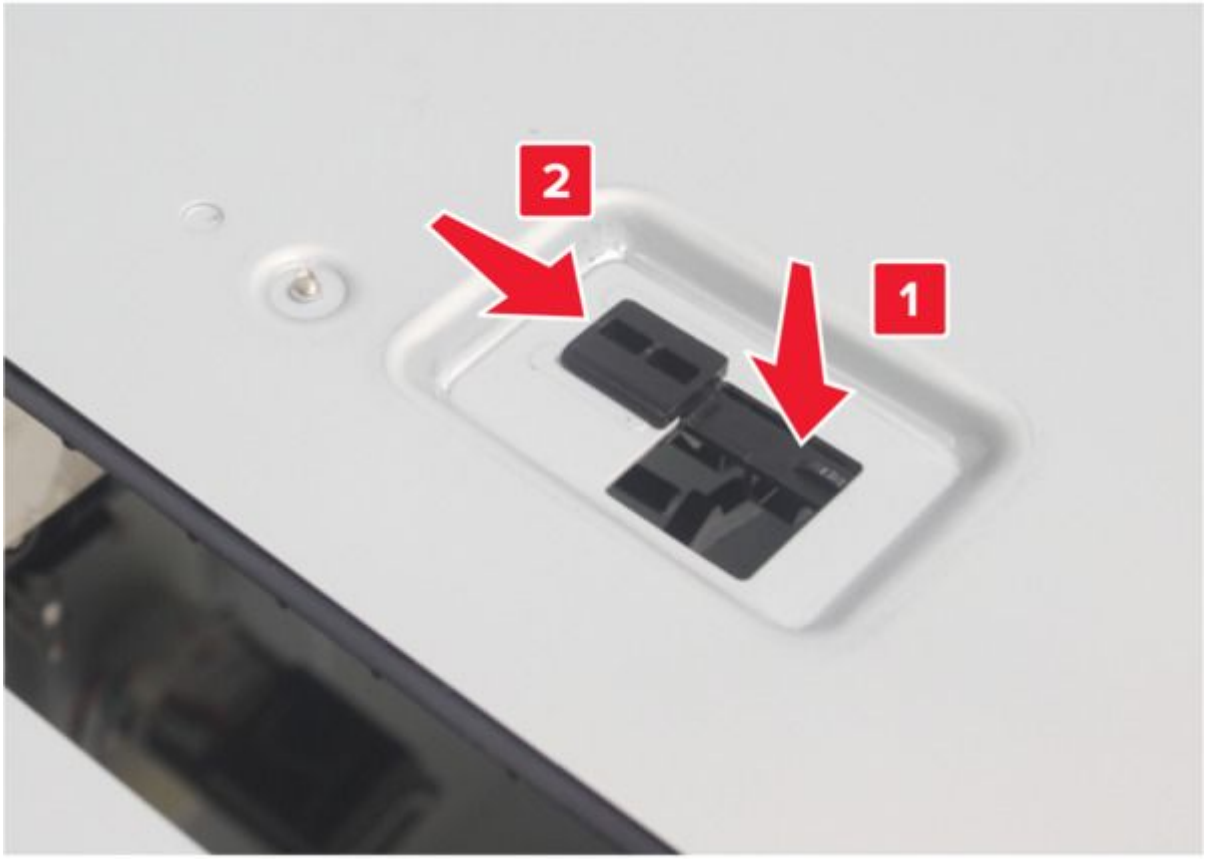
Motor (2200-sheet tray elevator) removal

1. Remove the rear cover. See 2200-sheet tray rear cover removal on page 777.
2. Remove the elevator gear bracket. See 2200-sheet tray elevator gears removal on page 783.
3. Disconnect the cable.
4. Remove the two screws (A), and then remove the motor.

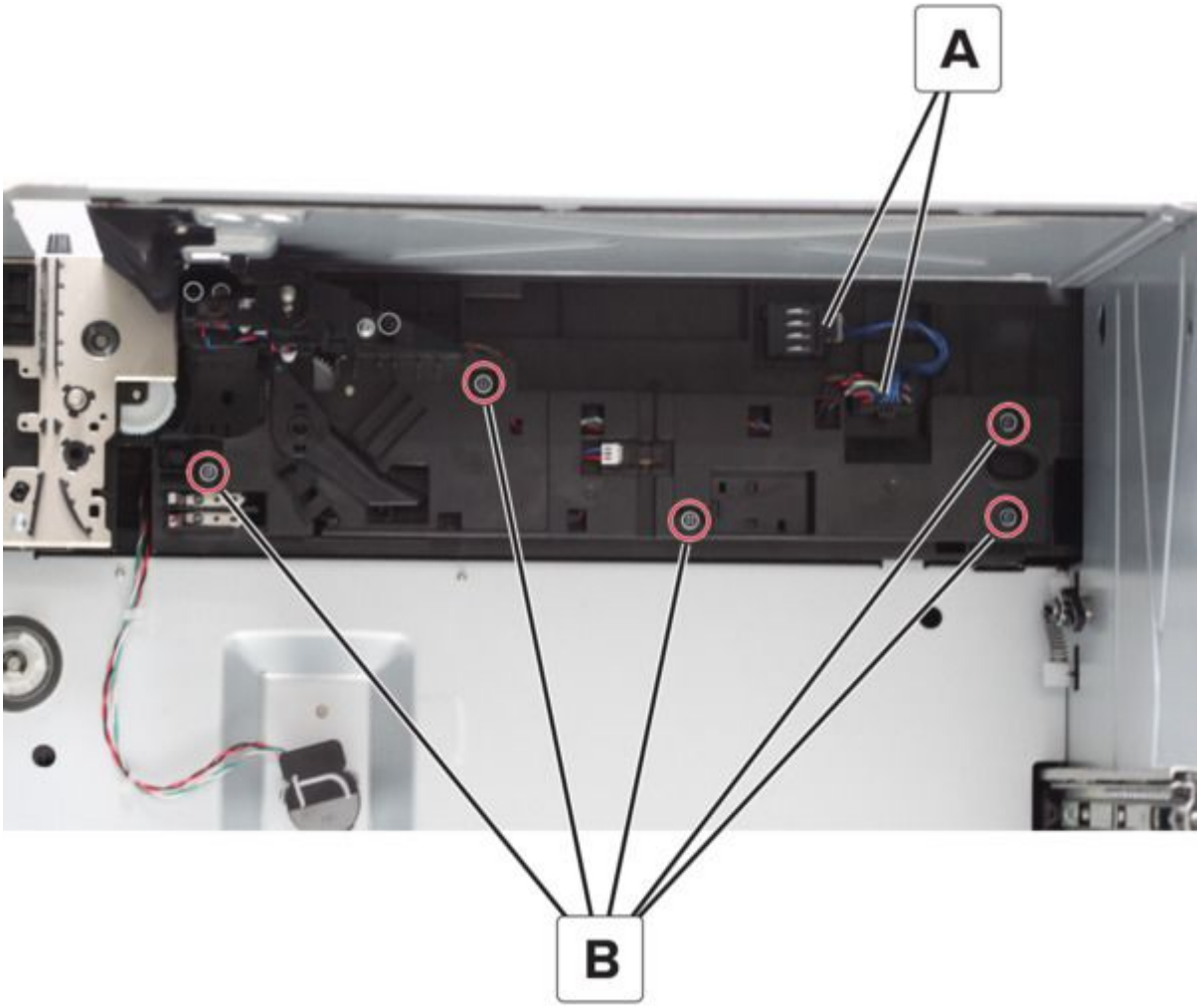


2200-sheet tray paper feeder removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Press, and then slide to remove the bracket.

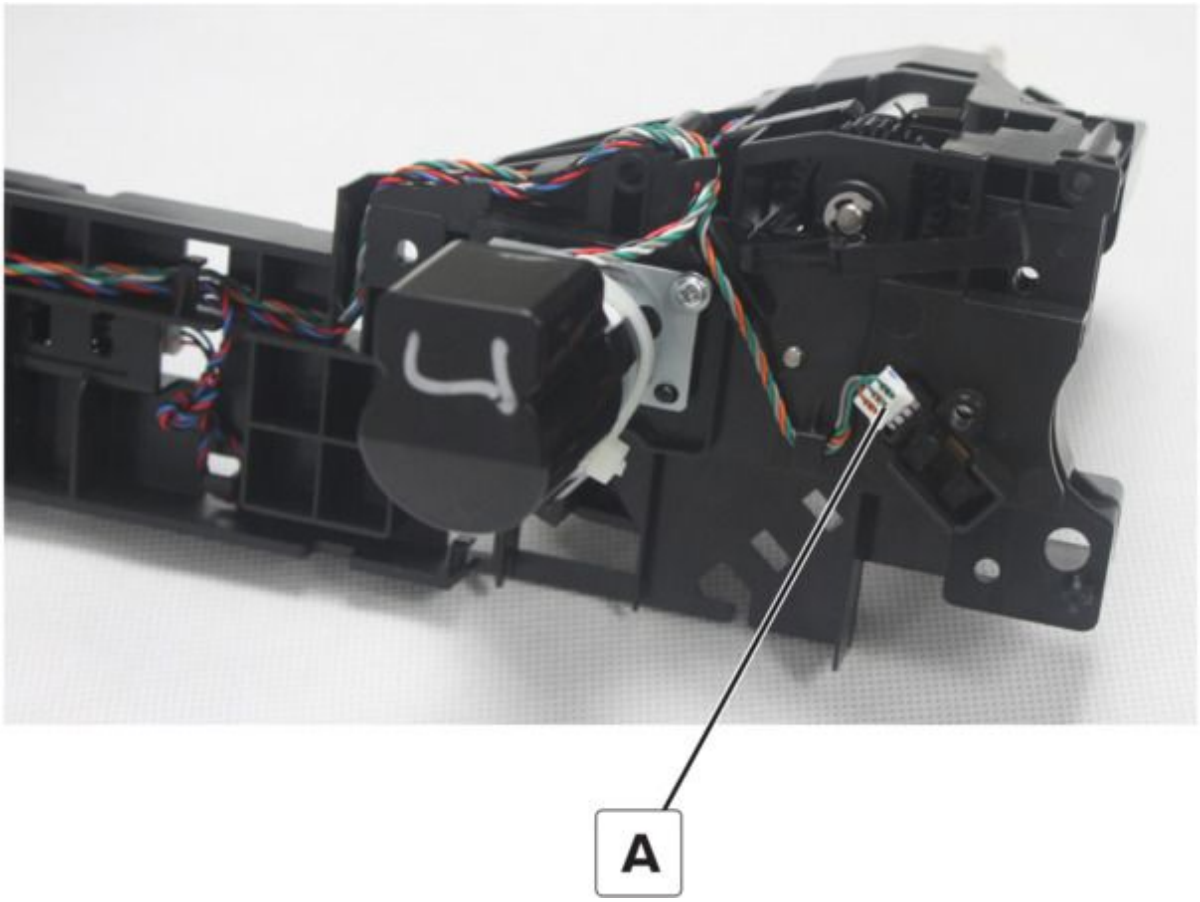


3. Disconnect the two cables (A).
4. Remove the five screws (B), and then remove the feeder.



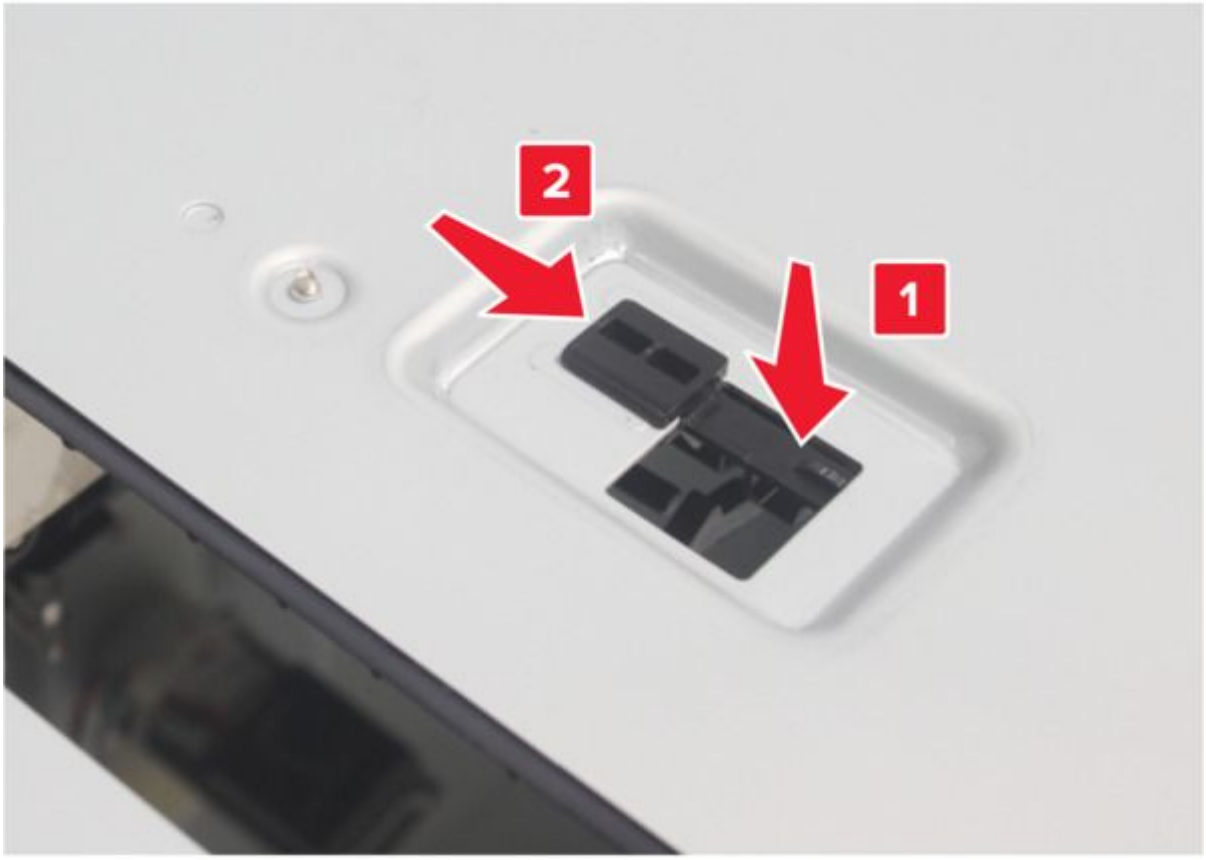
Sensor (2200-sheet tray media out) removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the paper feeder. See 2200-sheet tray paper feeder removal on page 787.
3. Disconnect the cable (A), and then remove the sensor.

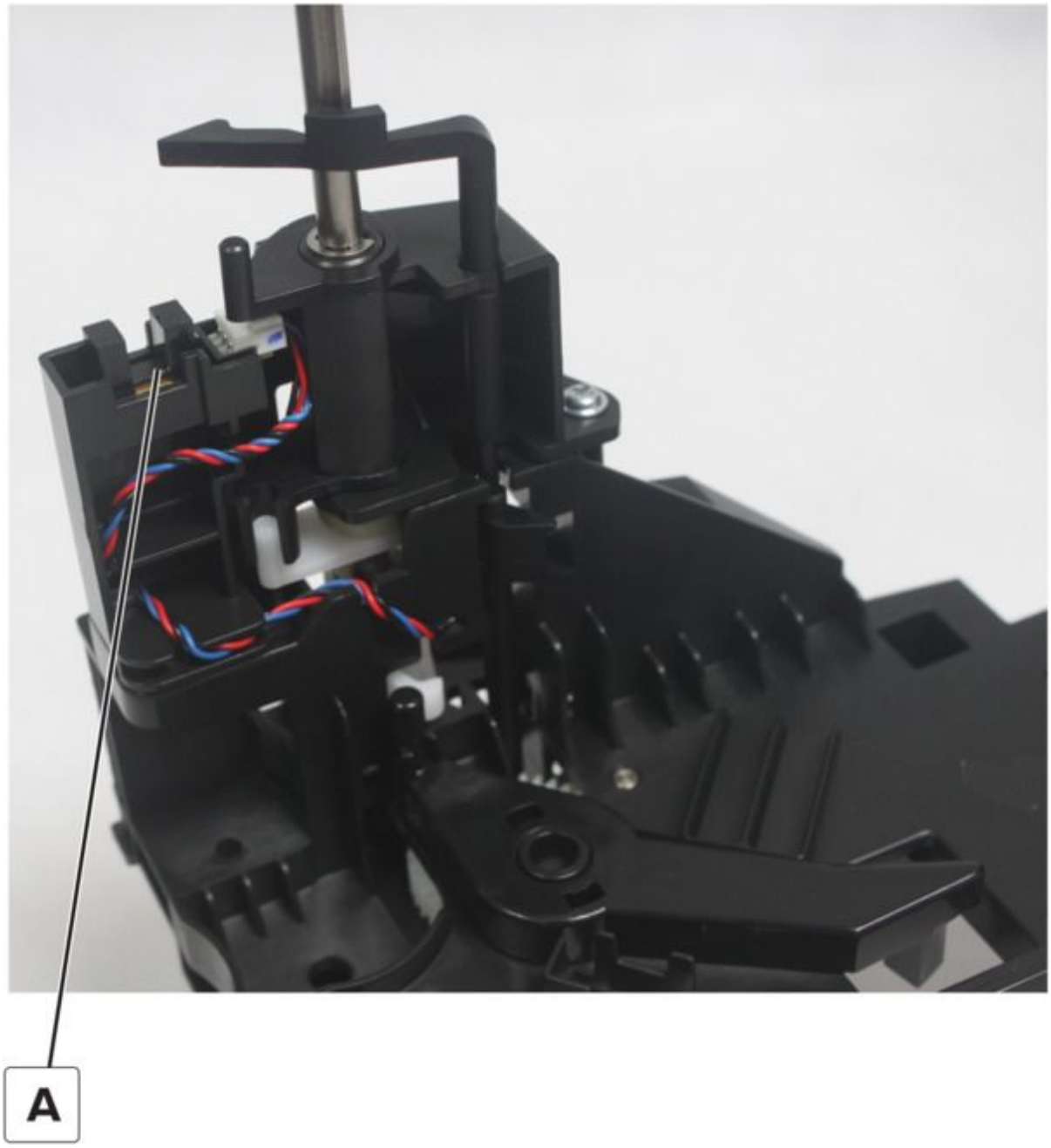


Sensor (2200-sheet tray pick roller index) removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the paper feeder. See 2200-sheet tray paper feeder removal on page 787.
3. Remove the pick roller.
4. Remove the bracket.

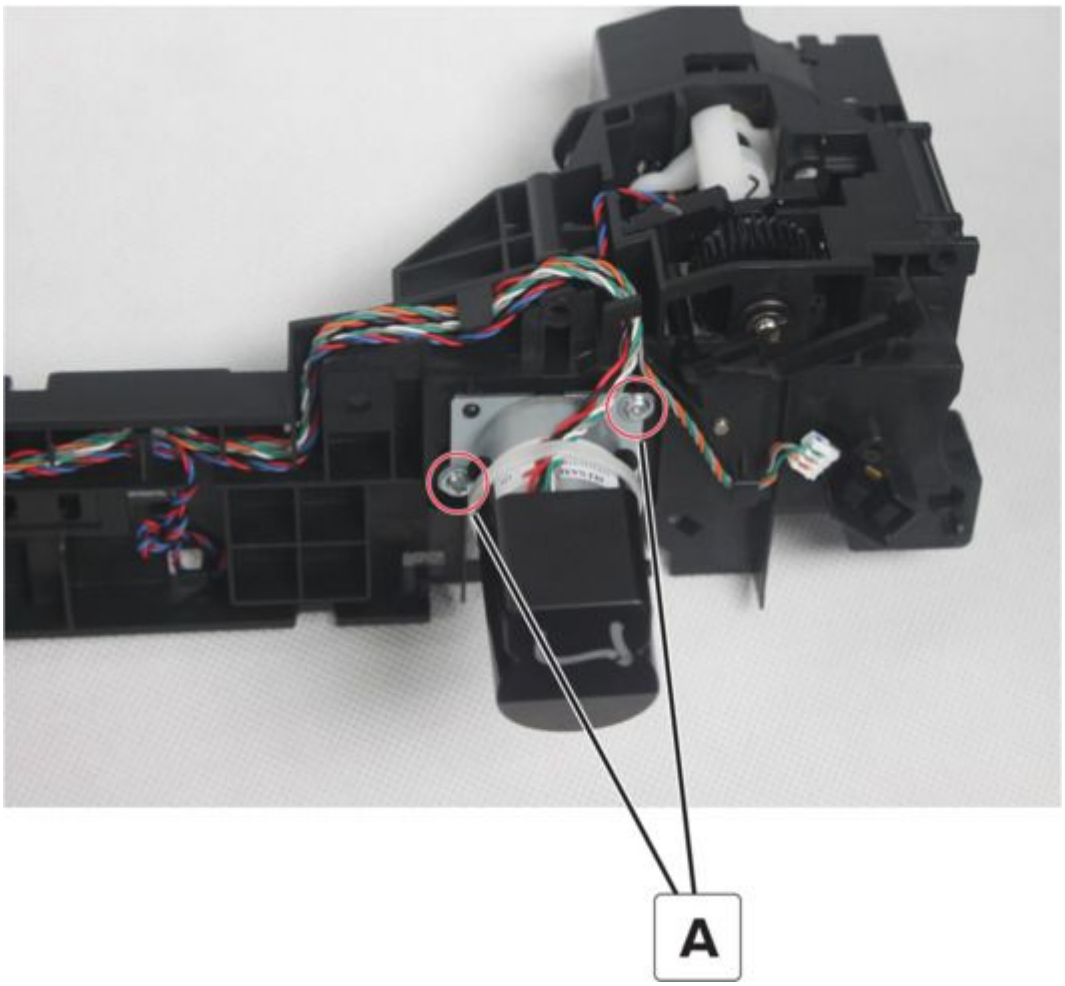


5. Remove the sensor (A), and then disconnect the cable.

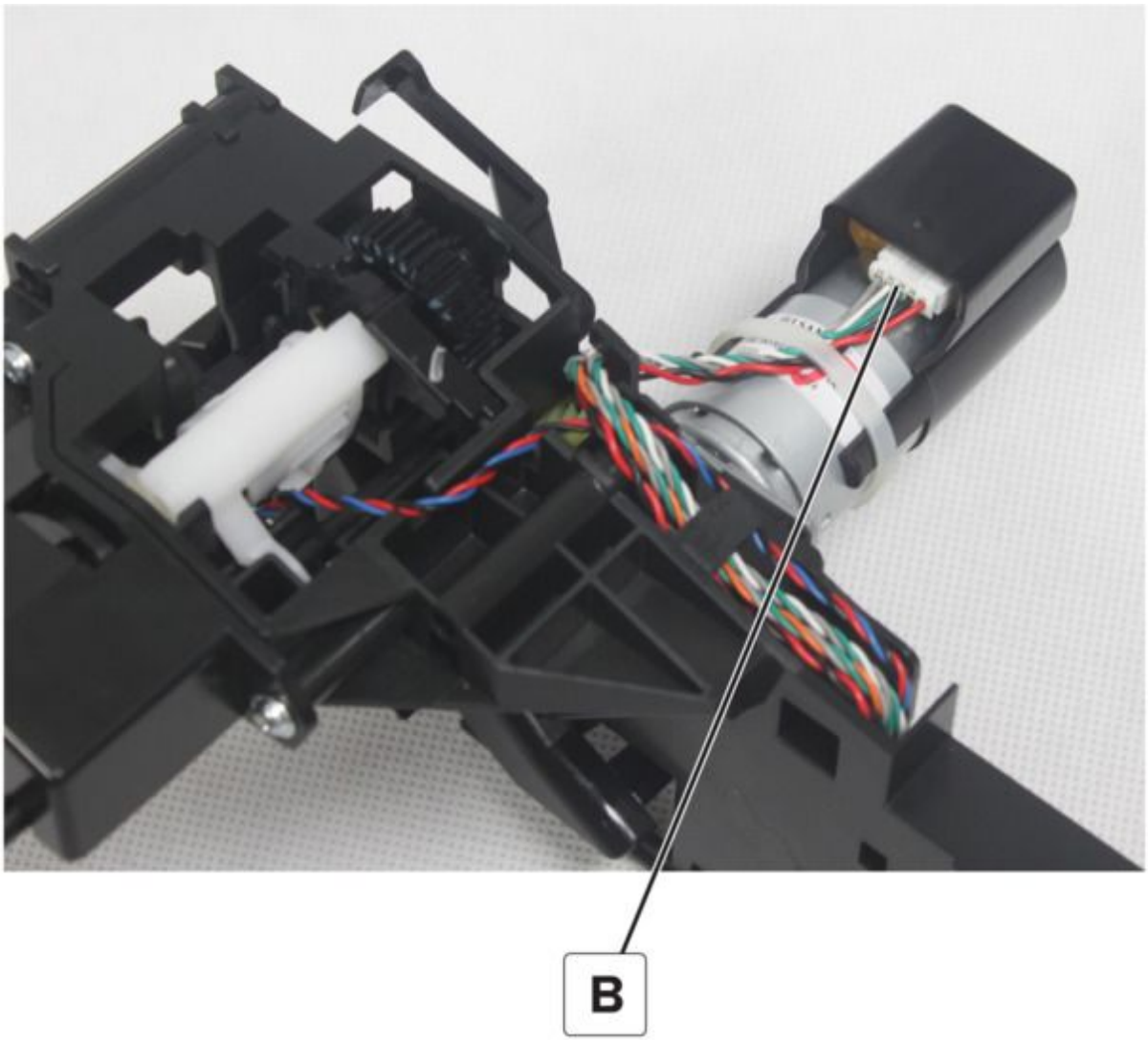


Motor (2200-sheet tray pick) removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the paper feeder. See 2200-sheet tray paper feeder removal on page 787.
3. Remove the two screws (A).



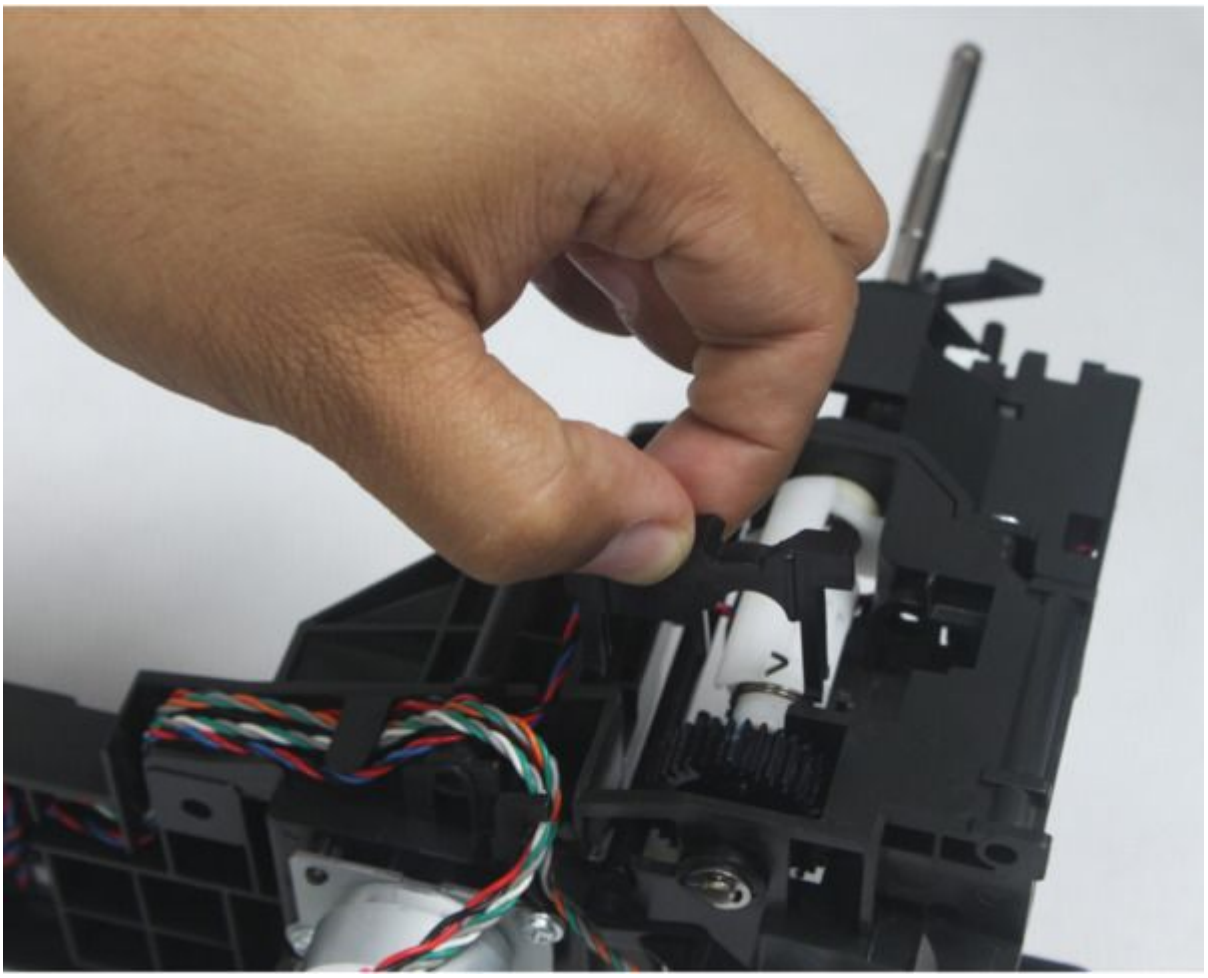
4. Cut the zip tie, disconnect the cable (B), and then remove the motor.



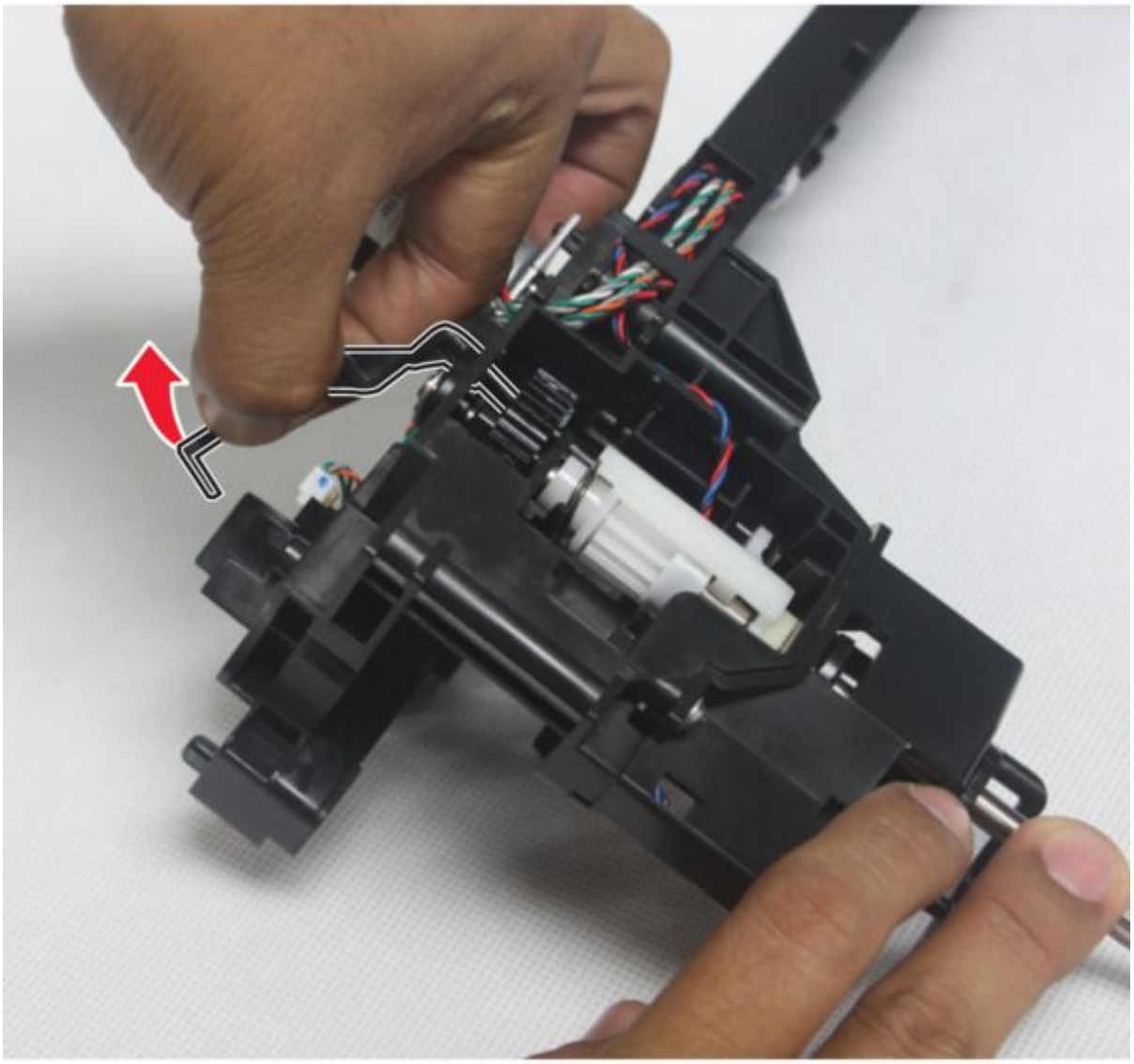
5. Remove the cover from the motor.

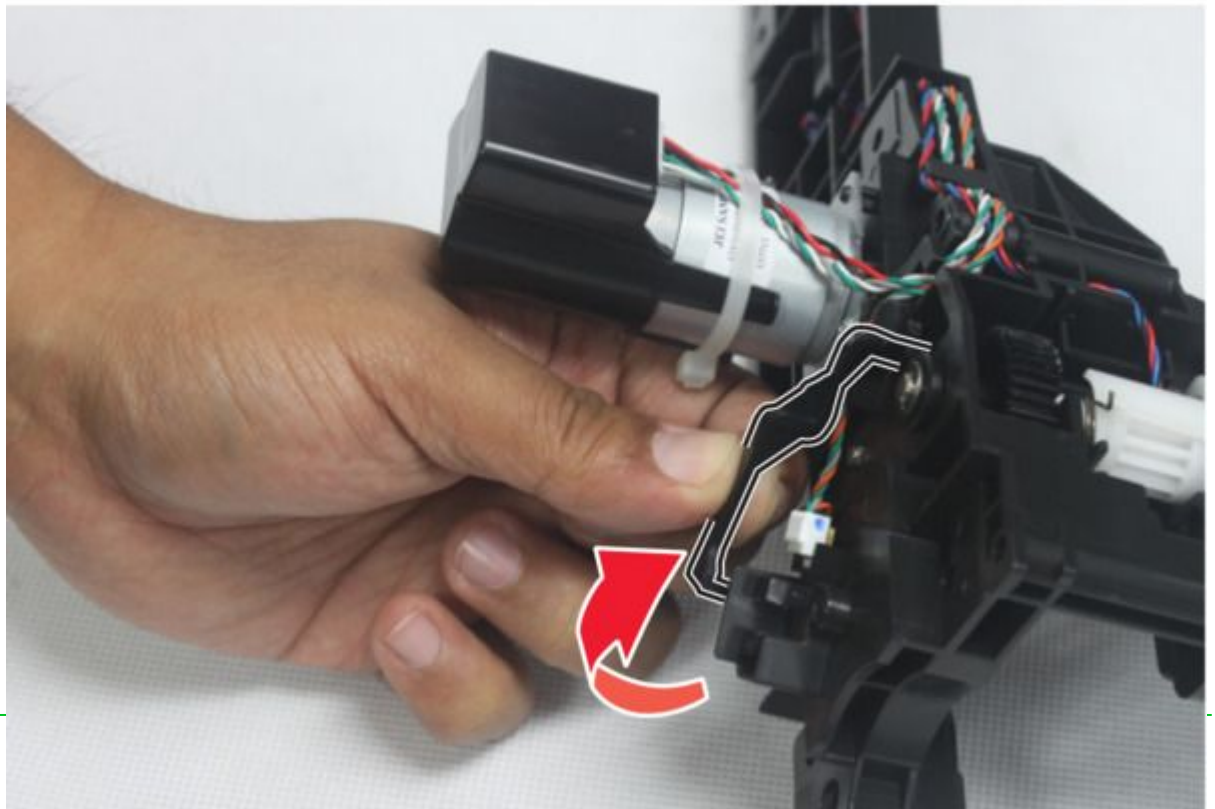
2200-sheet tray media out sensor actuator removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the paper feeder. See 2200-sheet tray paper feeder removal on page 787.
3. Remove the bracket.

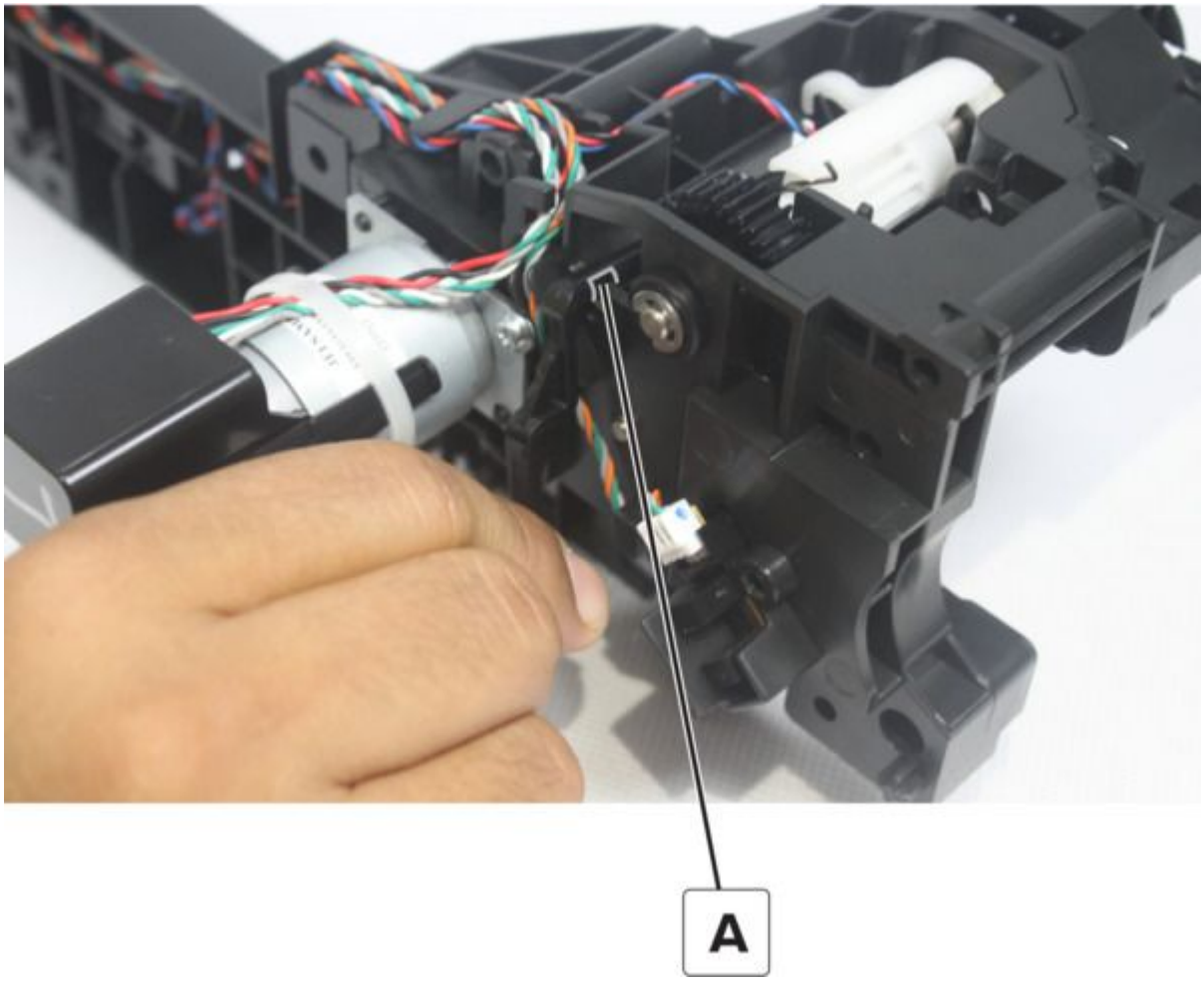


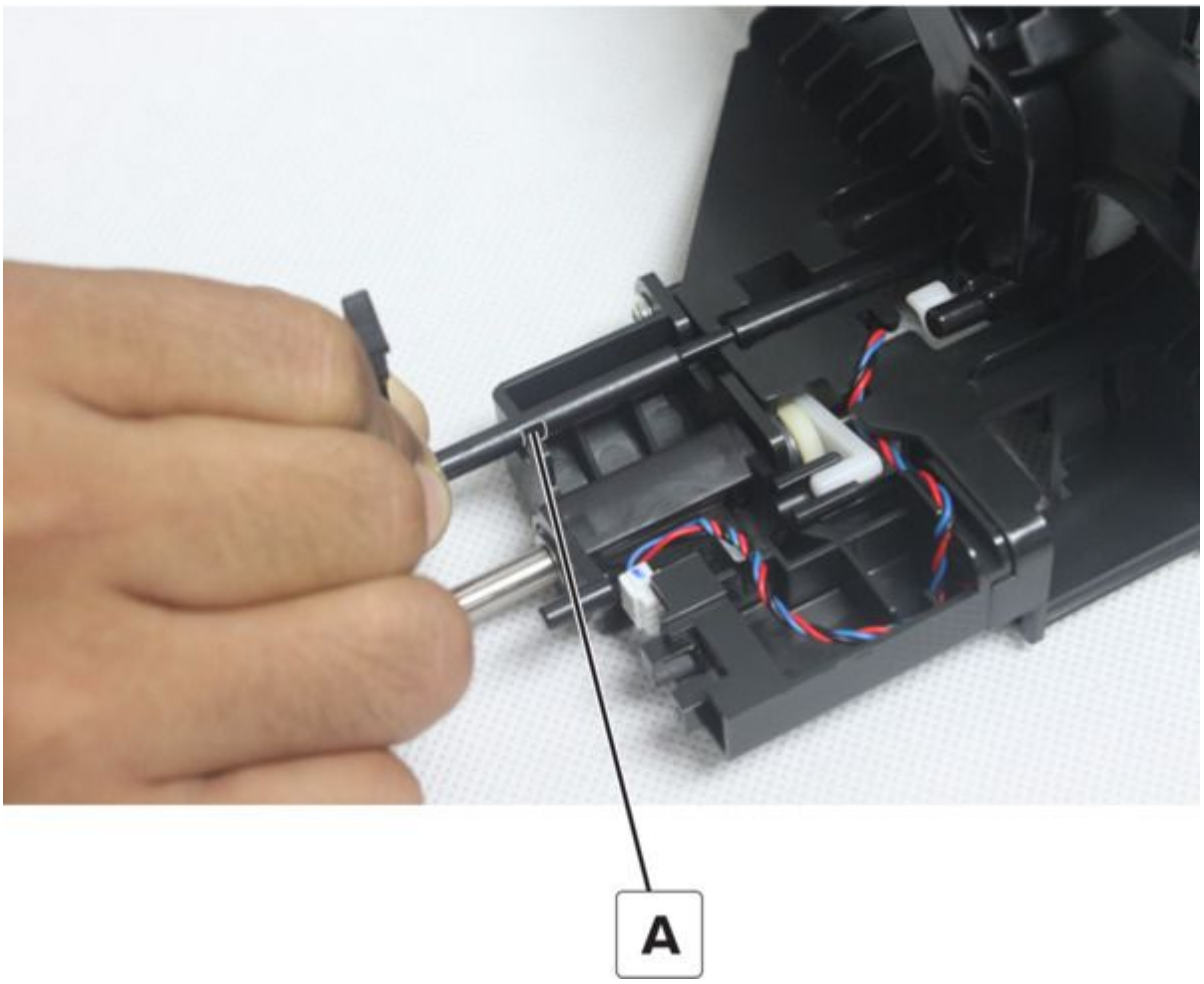
4. Move the actuator away, and then behind the sensor.





5. Rotate the actuator to align the two notches (A) with the slots.

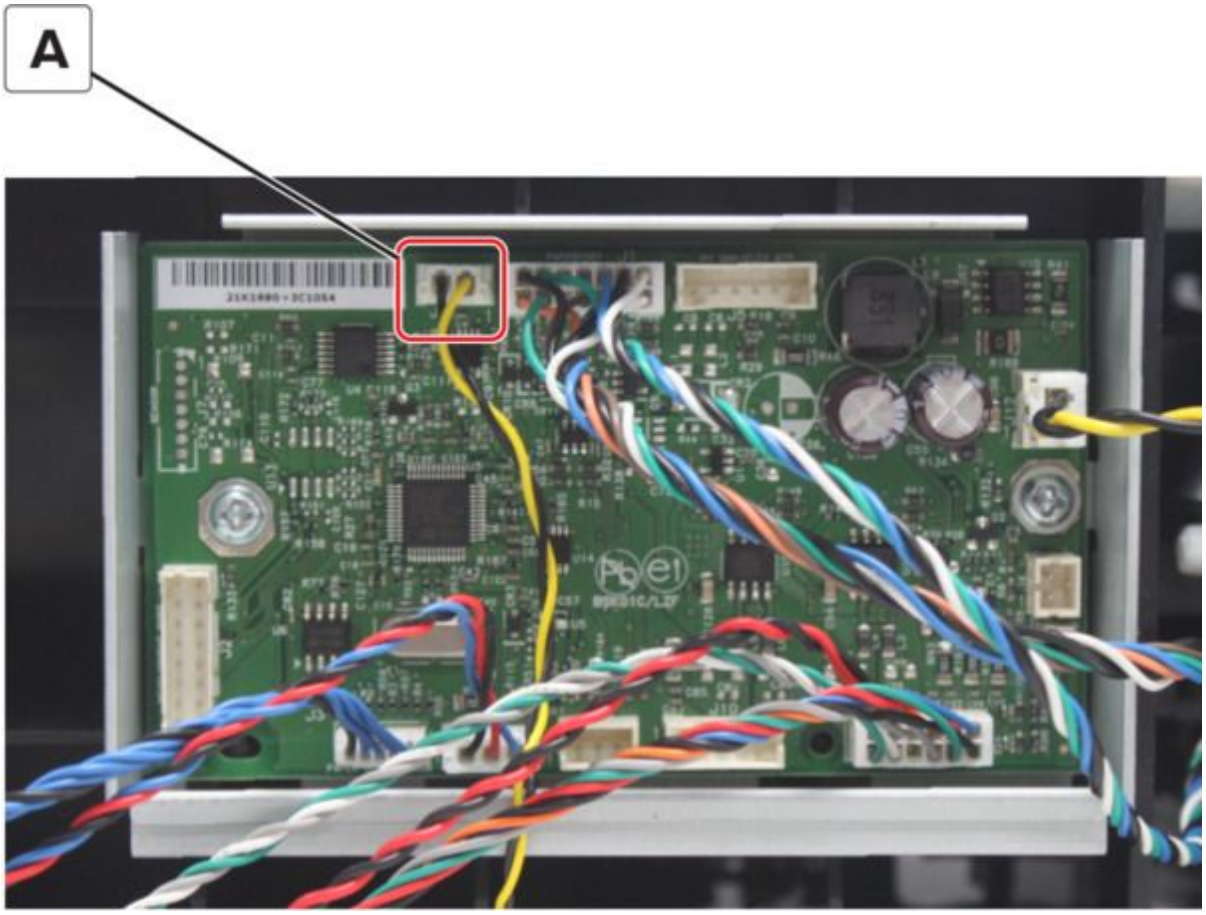




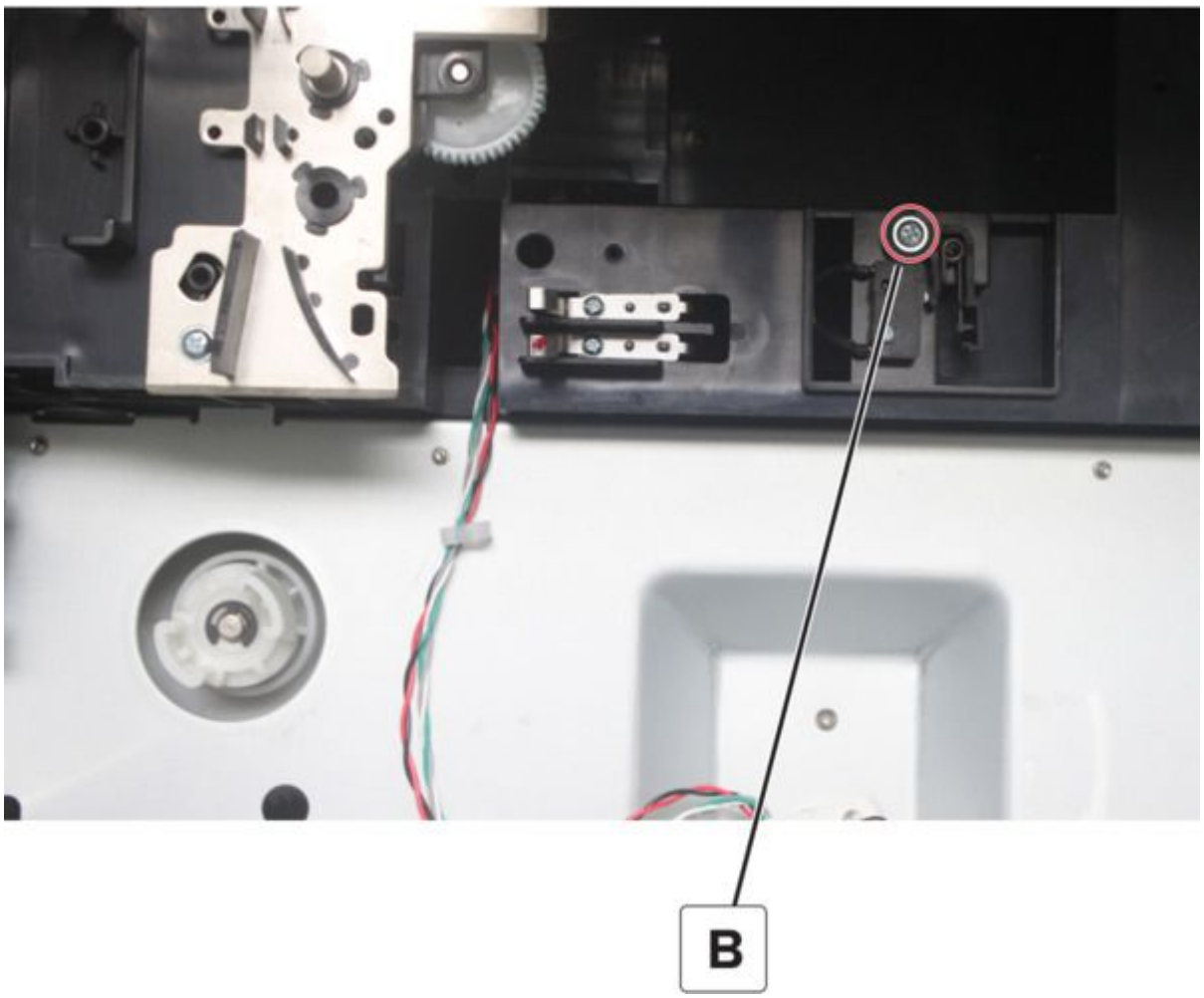
6. Remove the actuator.

2200-sheet tray wake up switch removal

1. Remove the tray insert. See 2200-sheet tray insert removal on page 772.
2. Remove the paper feeder. See 2200-sheet tray paper feeder removal on page 787.
3. Remove the rear cover. See 2200-sheet tray rear cover removal on page 777.
4. Disconnect the cable (A).



5. Remove the screw (B), and then remove the switch.



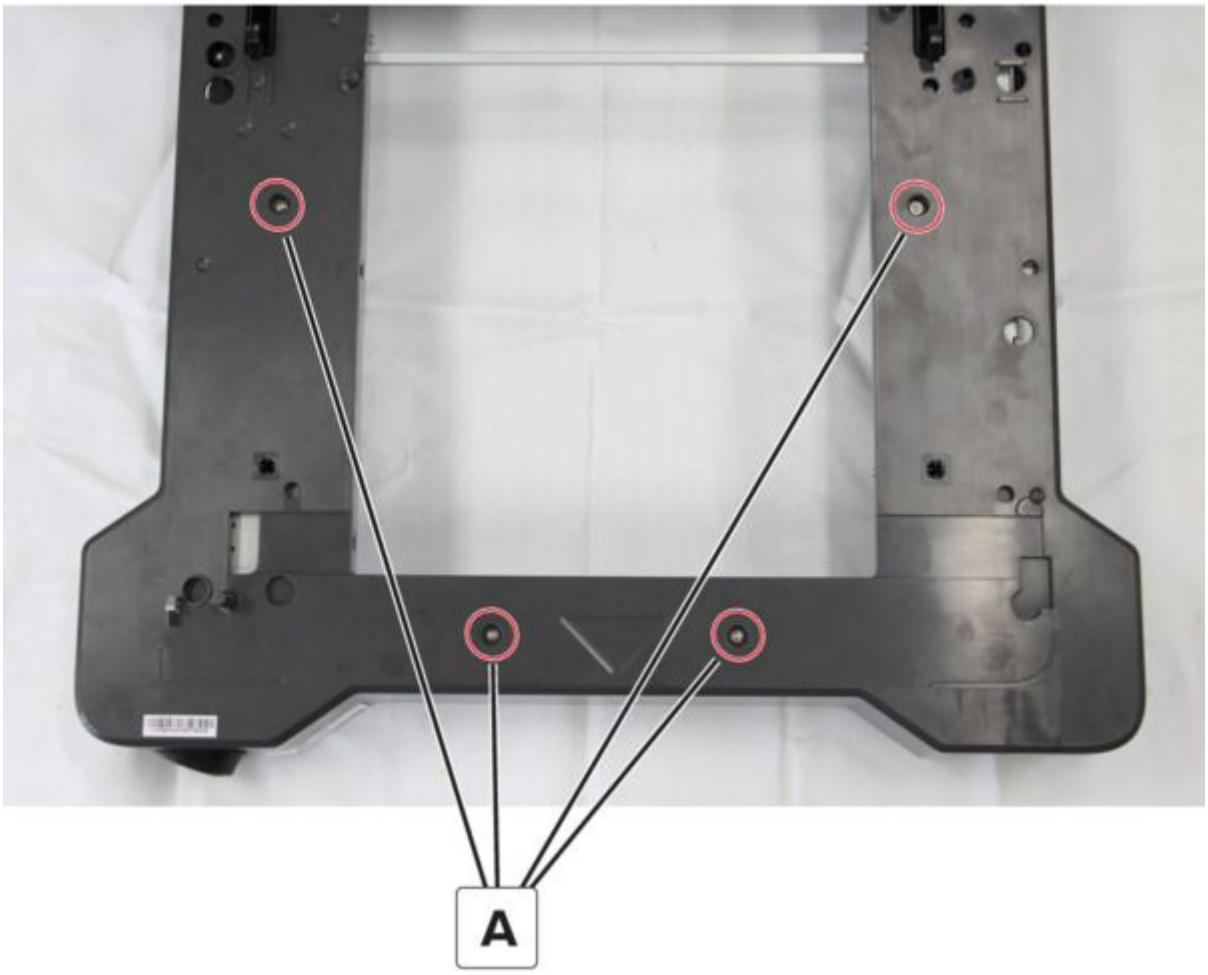
Caster base removals

Locking caster removal

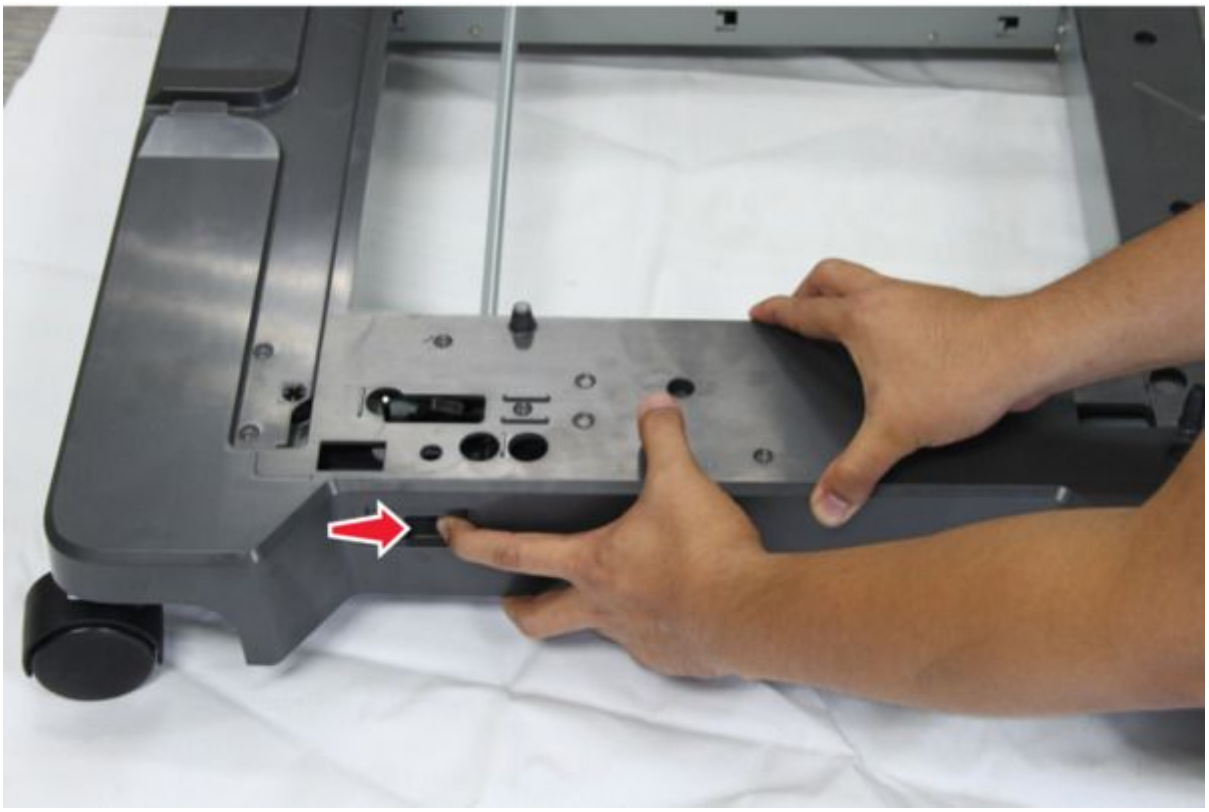
1. Slide the latch to the right to unlock, and then remove the printer base or input option from the caster base.

> **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).

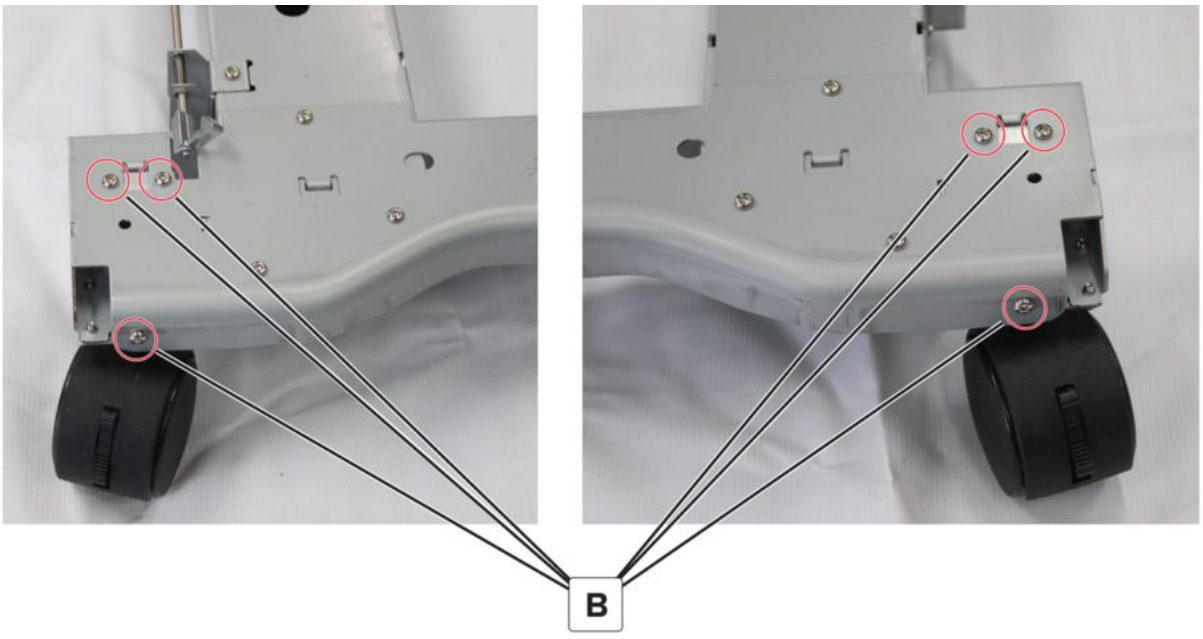


3. Slide the latch to the right, and then remove the caster base cover.



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.



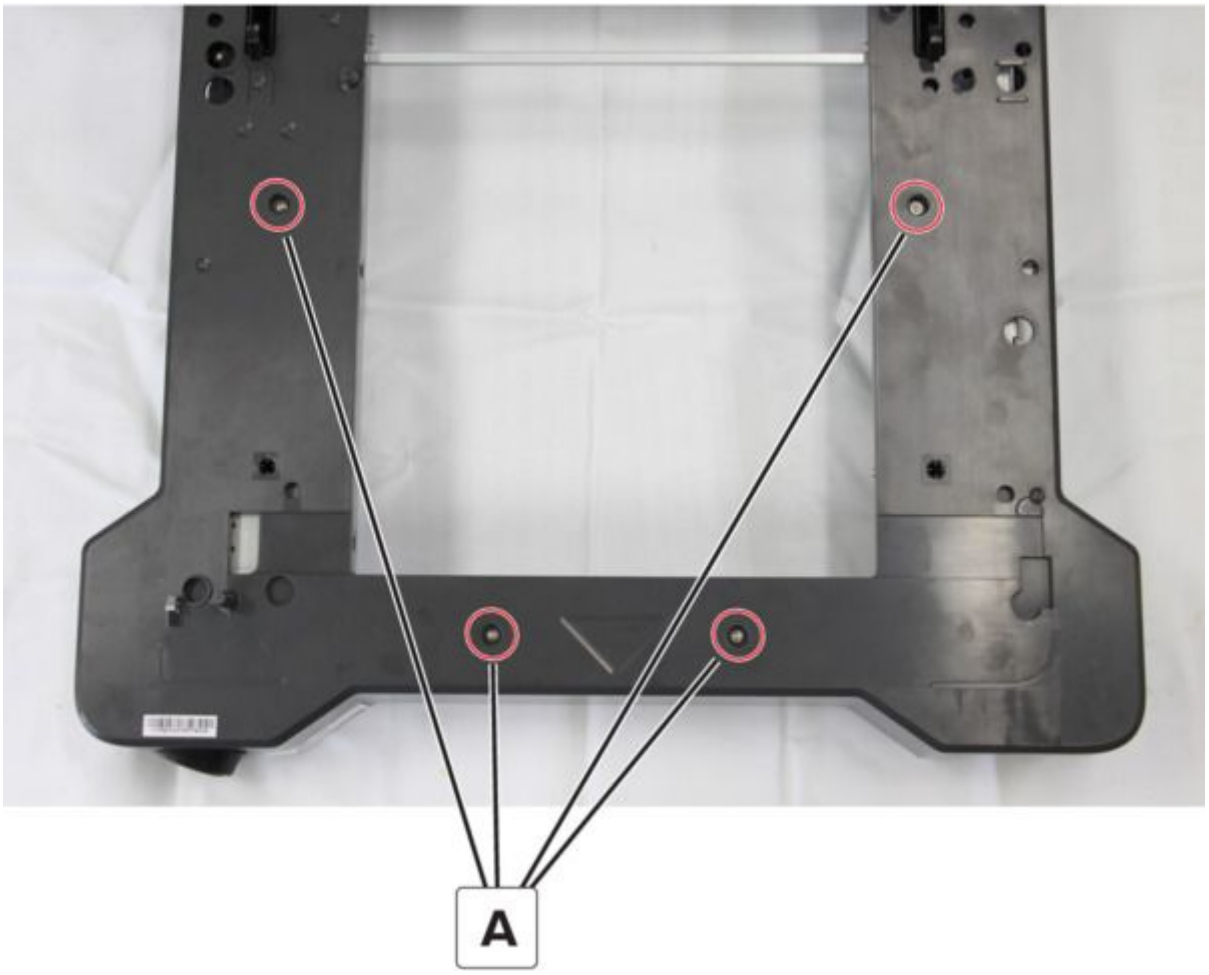
Installation Note
When installing the left or right locking caster, make sure to position the caster and the screws as shown.

Non-locking caster removal

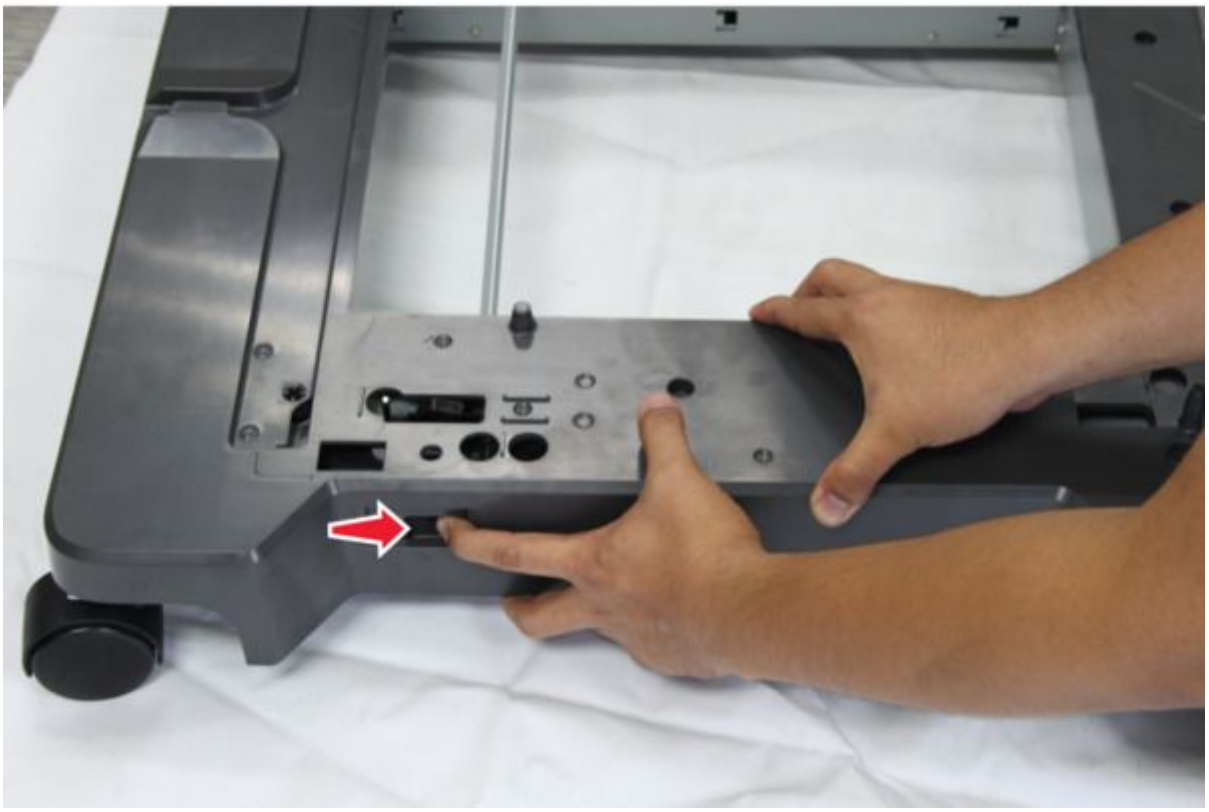
1. Slide the latch to the right to unlock, and then remove the printer base or input option from the caster base.

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).

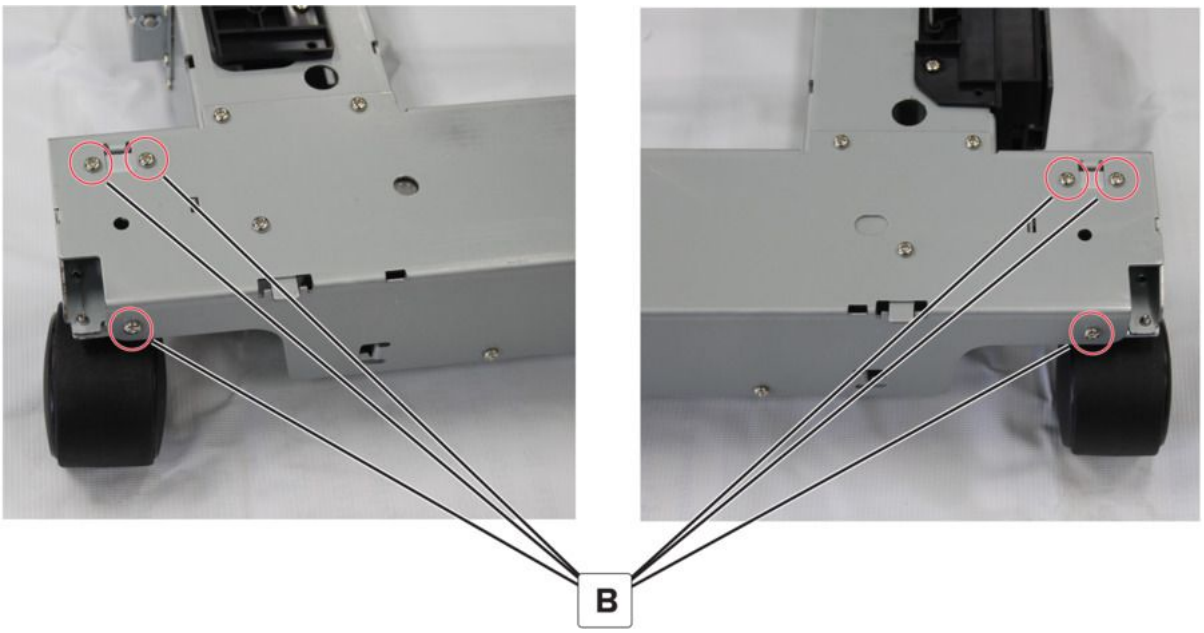


3. Slide the latch to the right, and then remove the caster base cover.

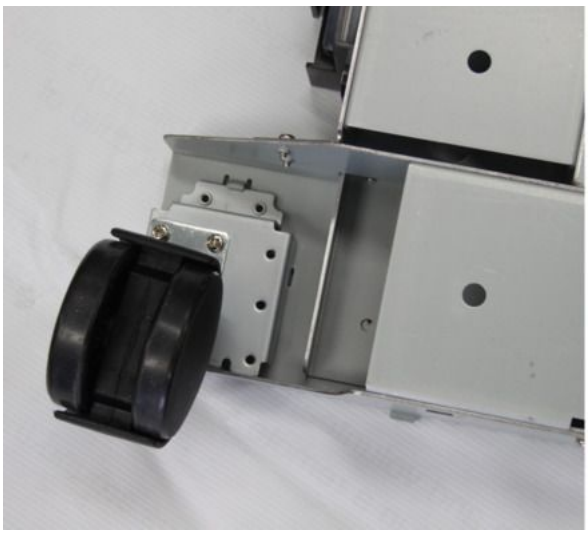


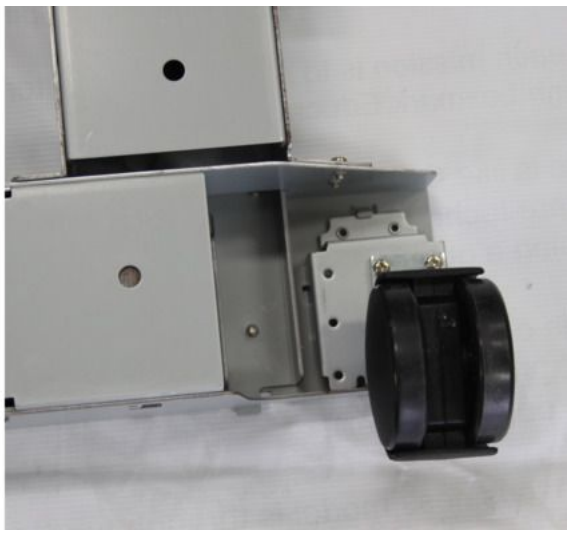
4. Remove the three screws (B), and then remove the non-locking caster.

> **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 caster, make sure to position the screws as shown.

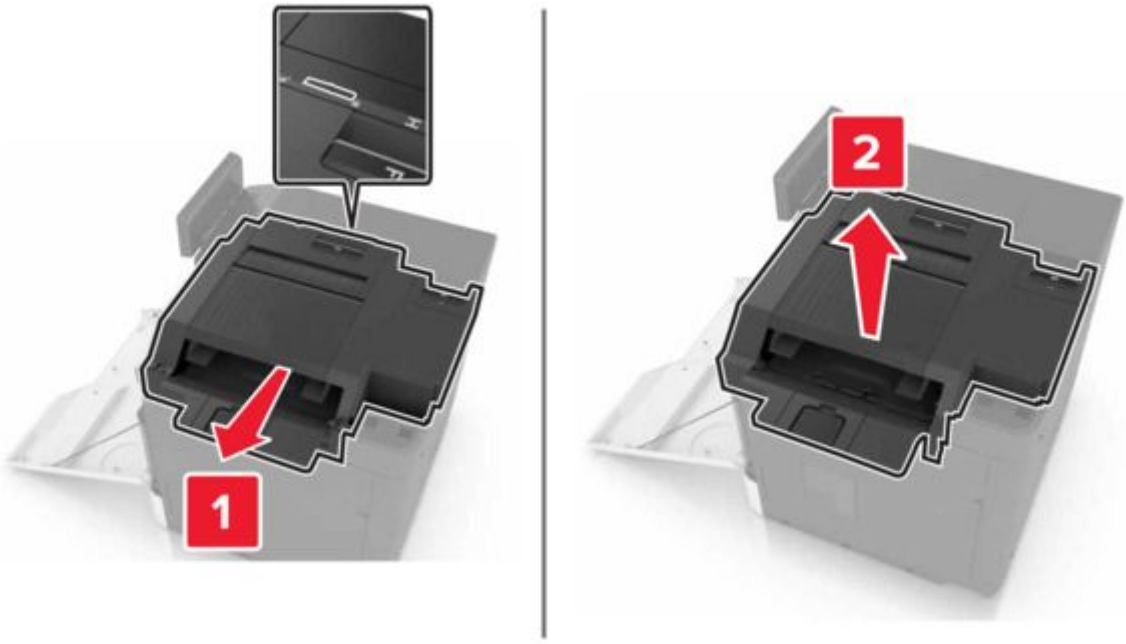




Staple finisher removals

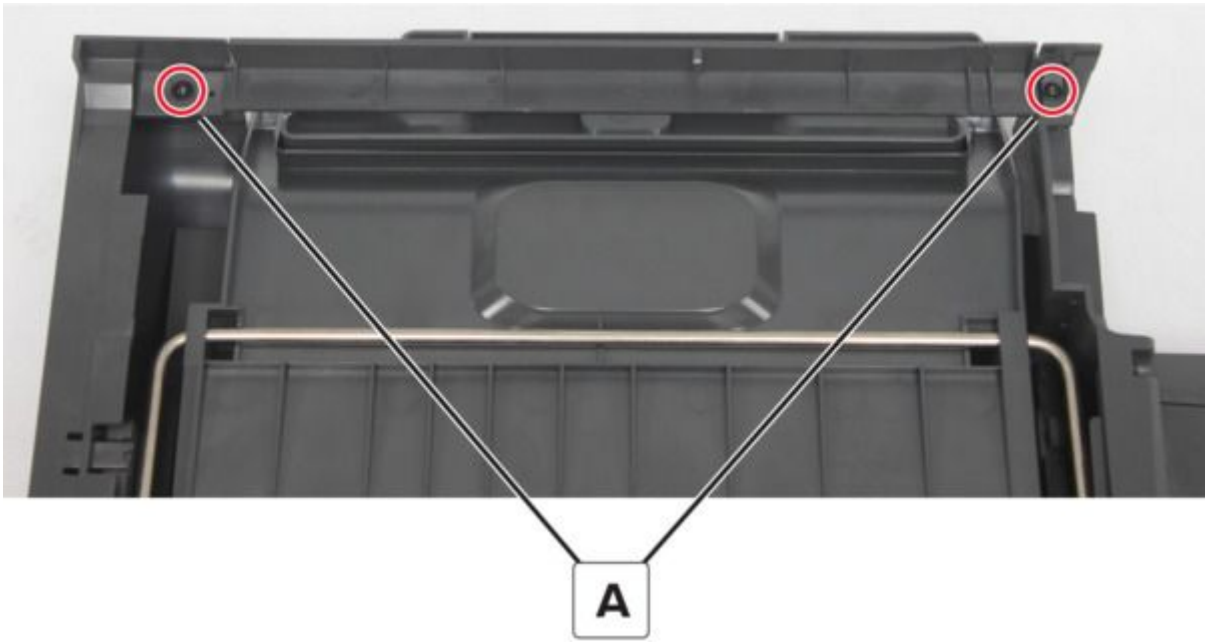
Staple finisher removal

1. Unlock handle H.
2. Remove the staple finisher.



Staple finisher right cover removal

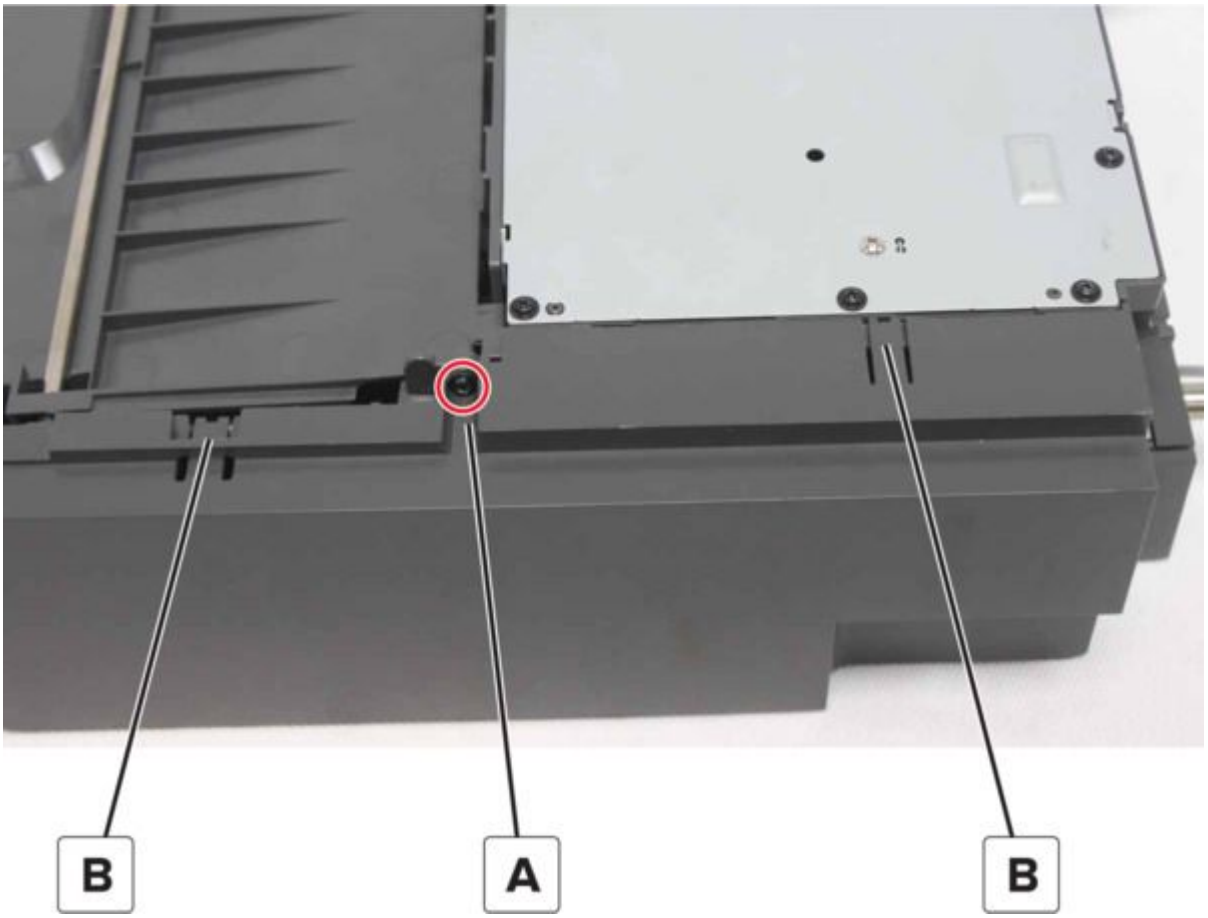
1. Remove the staple finisher. See Staple finisher removal on page 806
2. Place the staple finisher on its top side, and then remove the two screws (A).



3. Remove the cover.

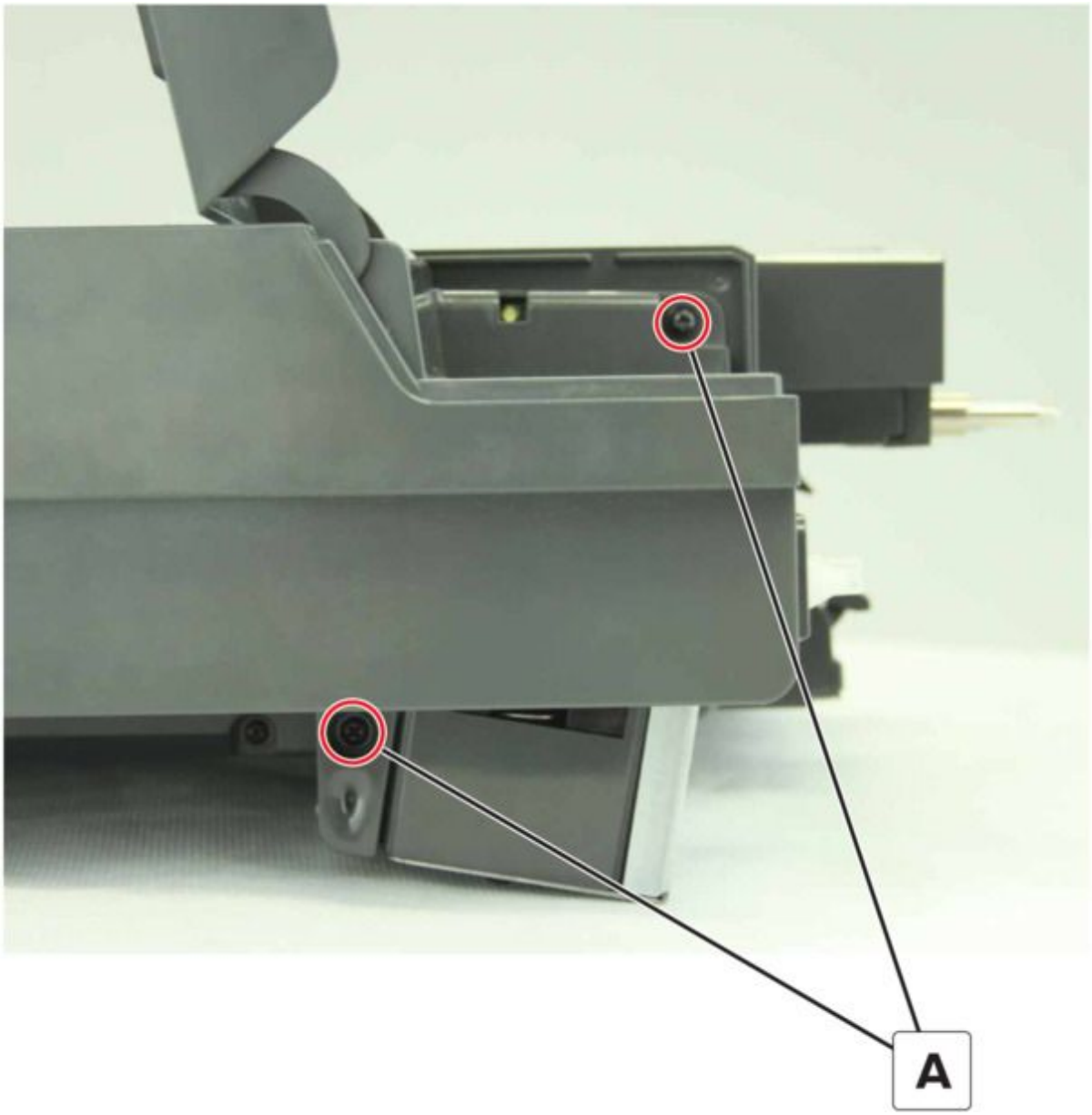
Staple finisher front cover removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the screw (A).
3. Release the two latches (B), and then remove the cover.



Staple finisher rear cover removal

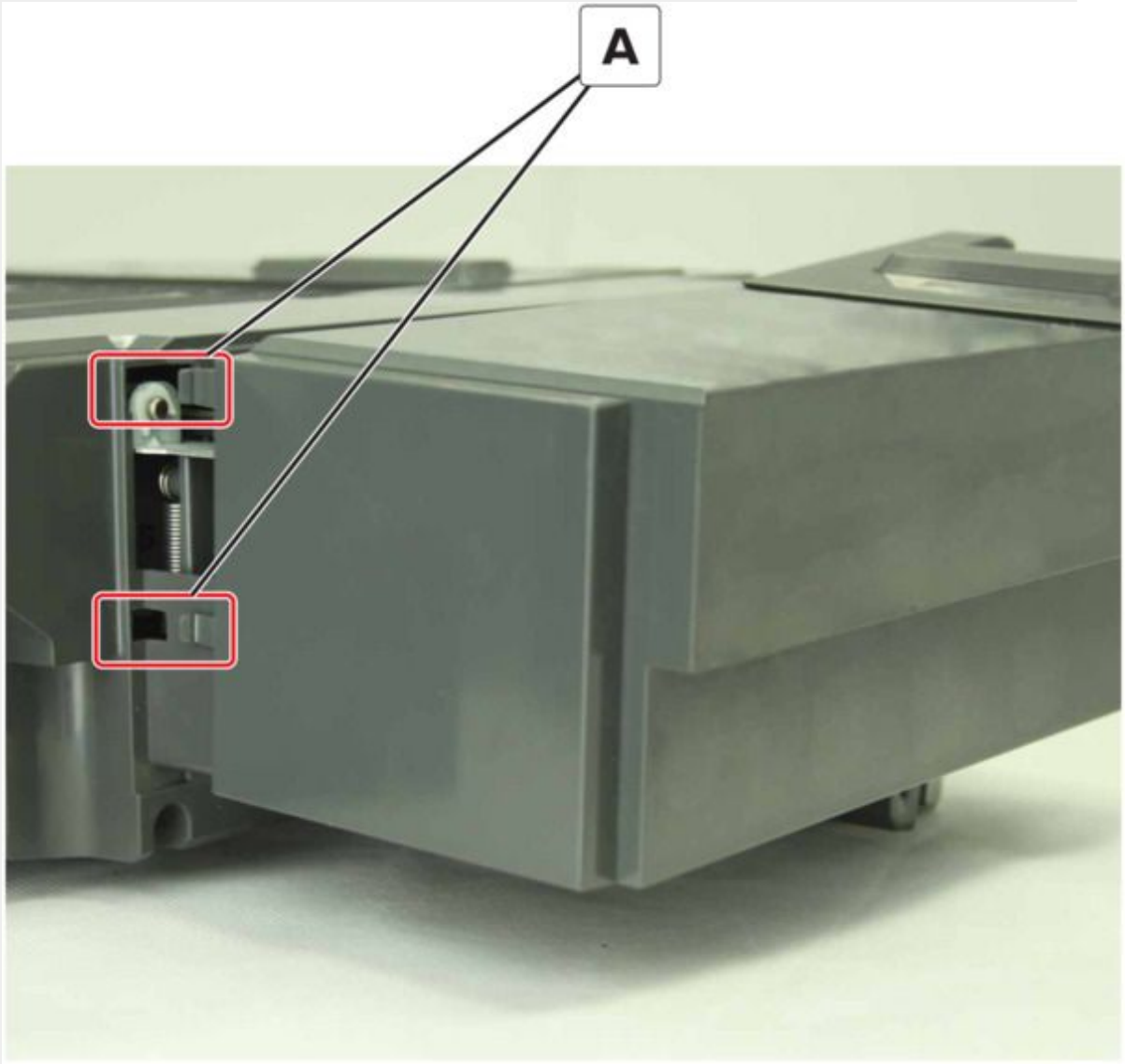
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Open the staple cartridge door, and then remove the two screws (A).



3. Swing out the cover to remove.

Installation Note

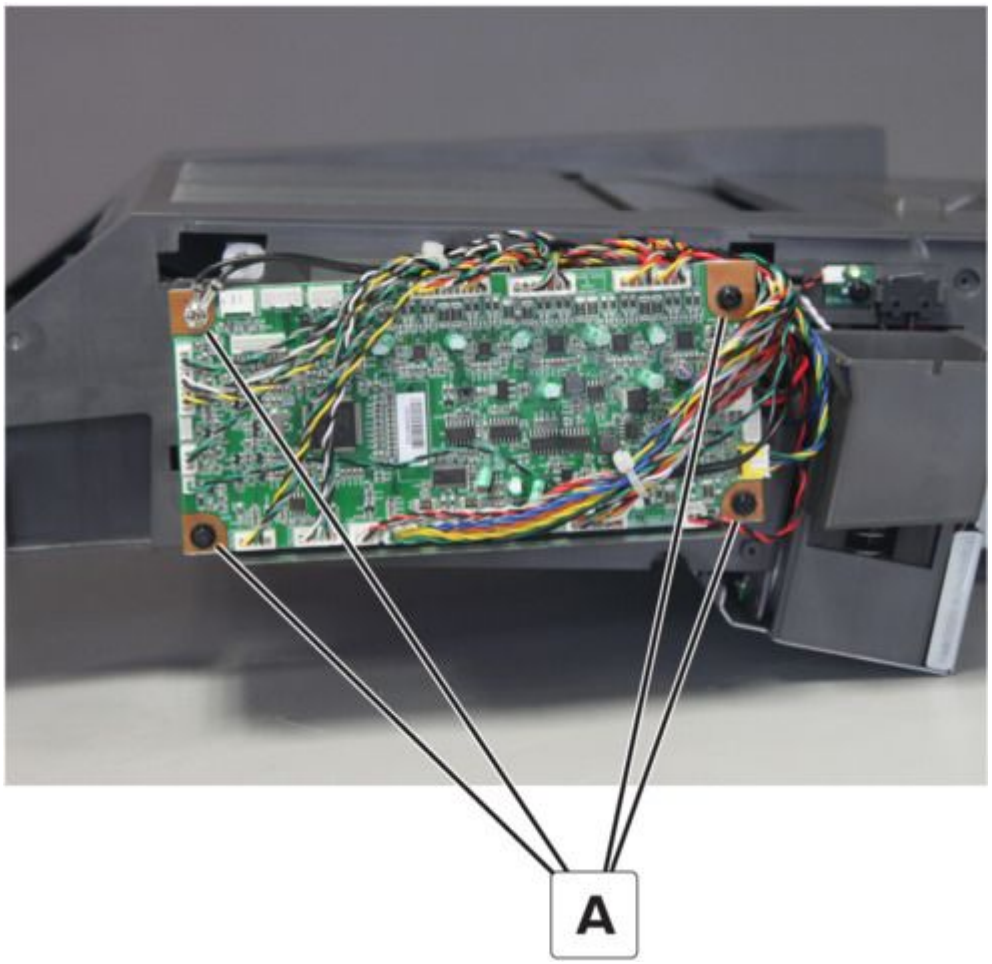
1. Make sure to align the two tabs (A).



2. Make sure that the pin is aligned with the hole on the staple cartridge door arm.

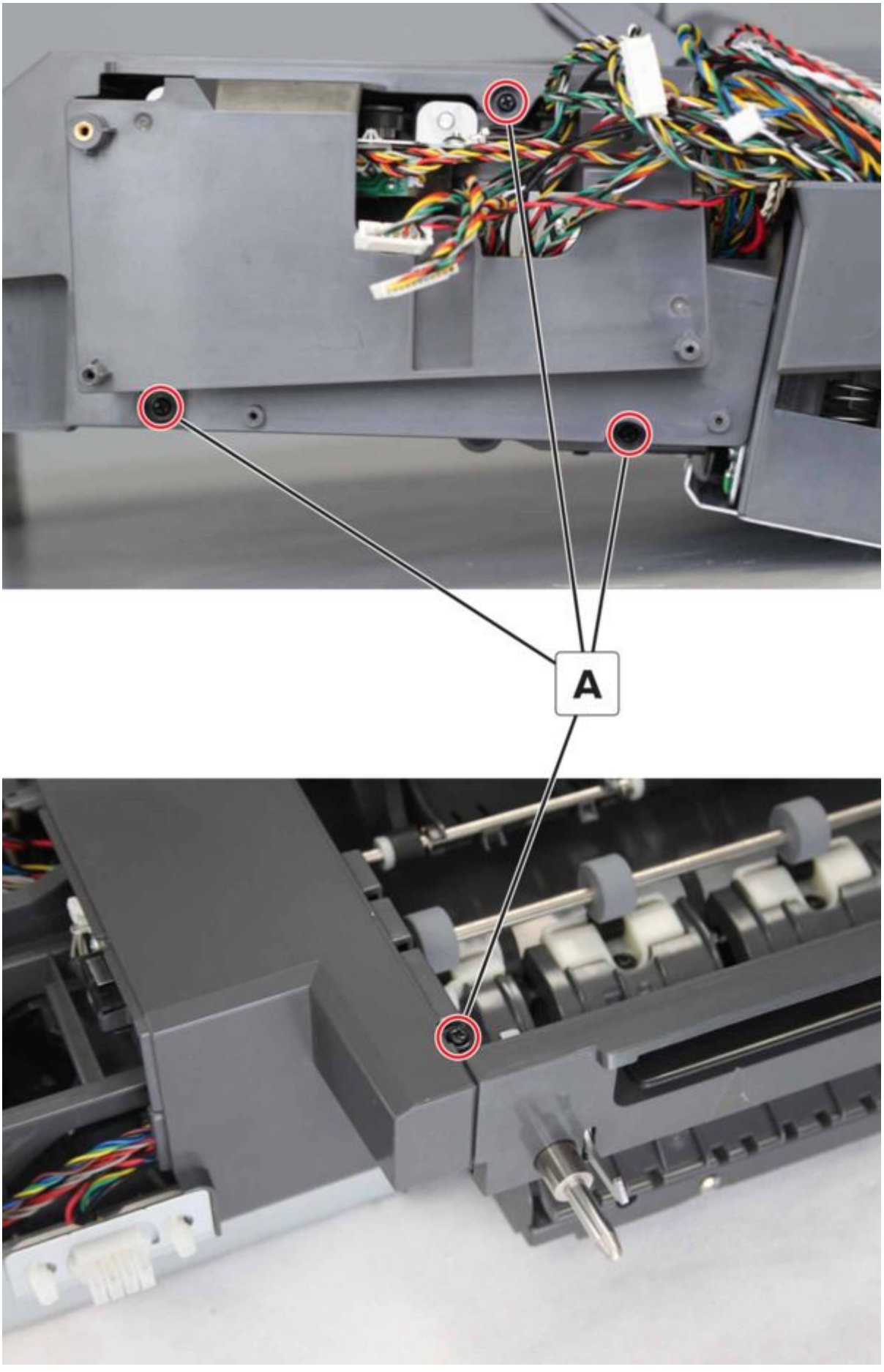
Staple finisher controller board removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Disconnect the cables, and then remove the four screws (A).



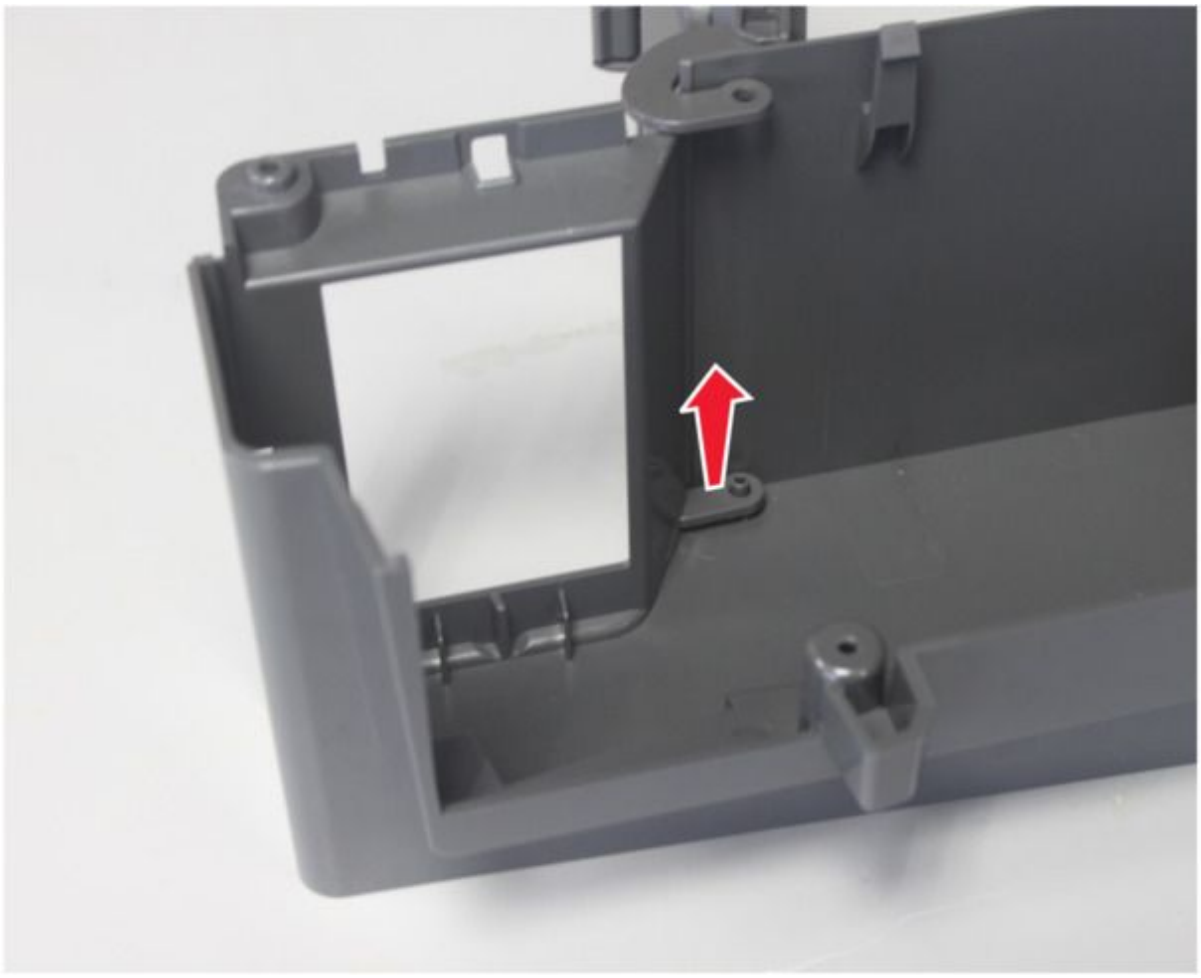
Staple finisher inner rear cover removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the controller board. See Staple finisher controller board removal on page 812.
4. Remove the screws (A), and then remove the cover.


A

Staple finisher staple cartridge door removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Release the arm from the pin, and then remove the door.



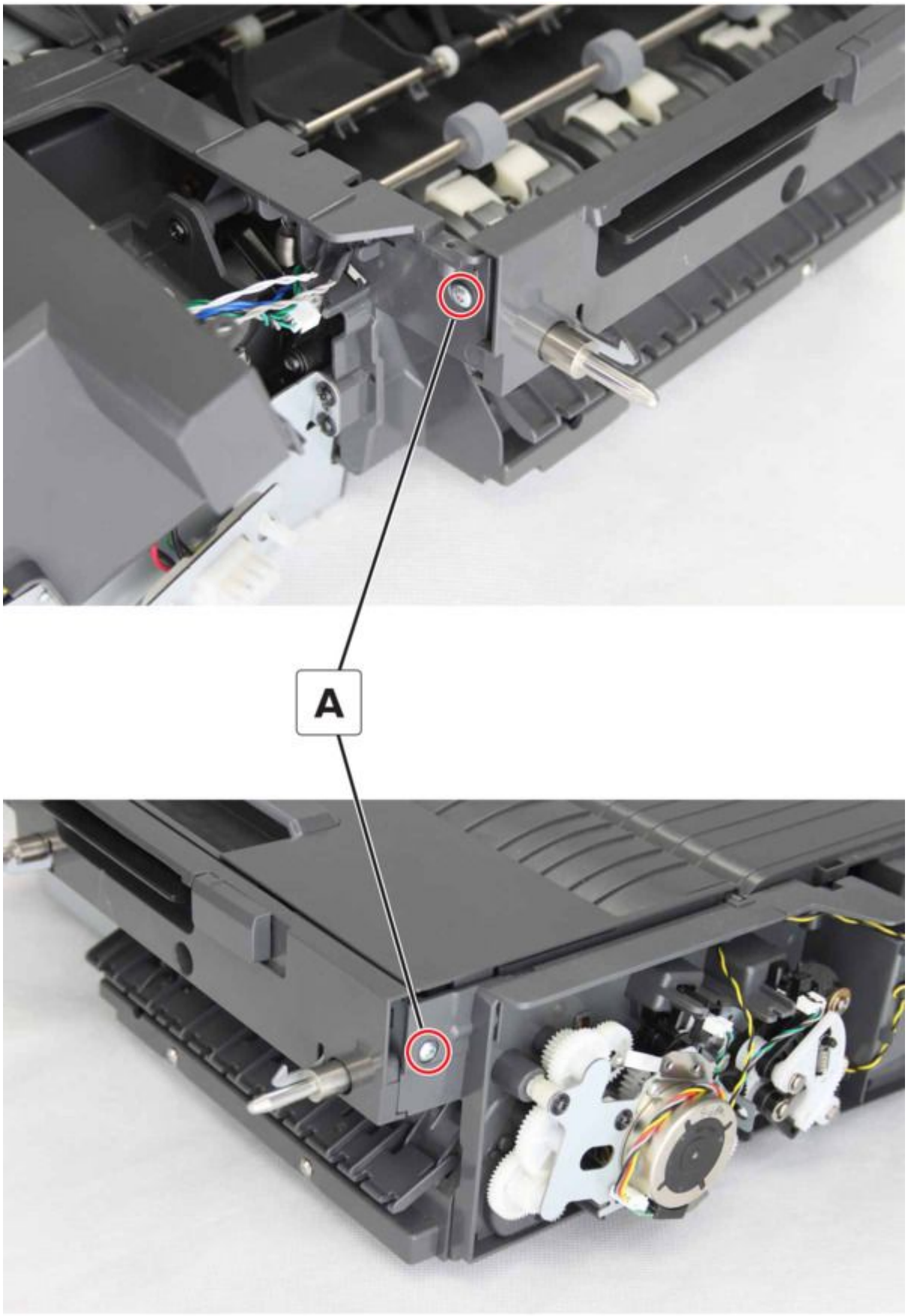
Staple finisher jam access door removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the door.

Installation Note
When installing the door, insert the pin into the hole first.

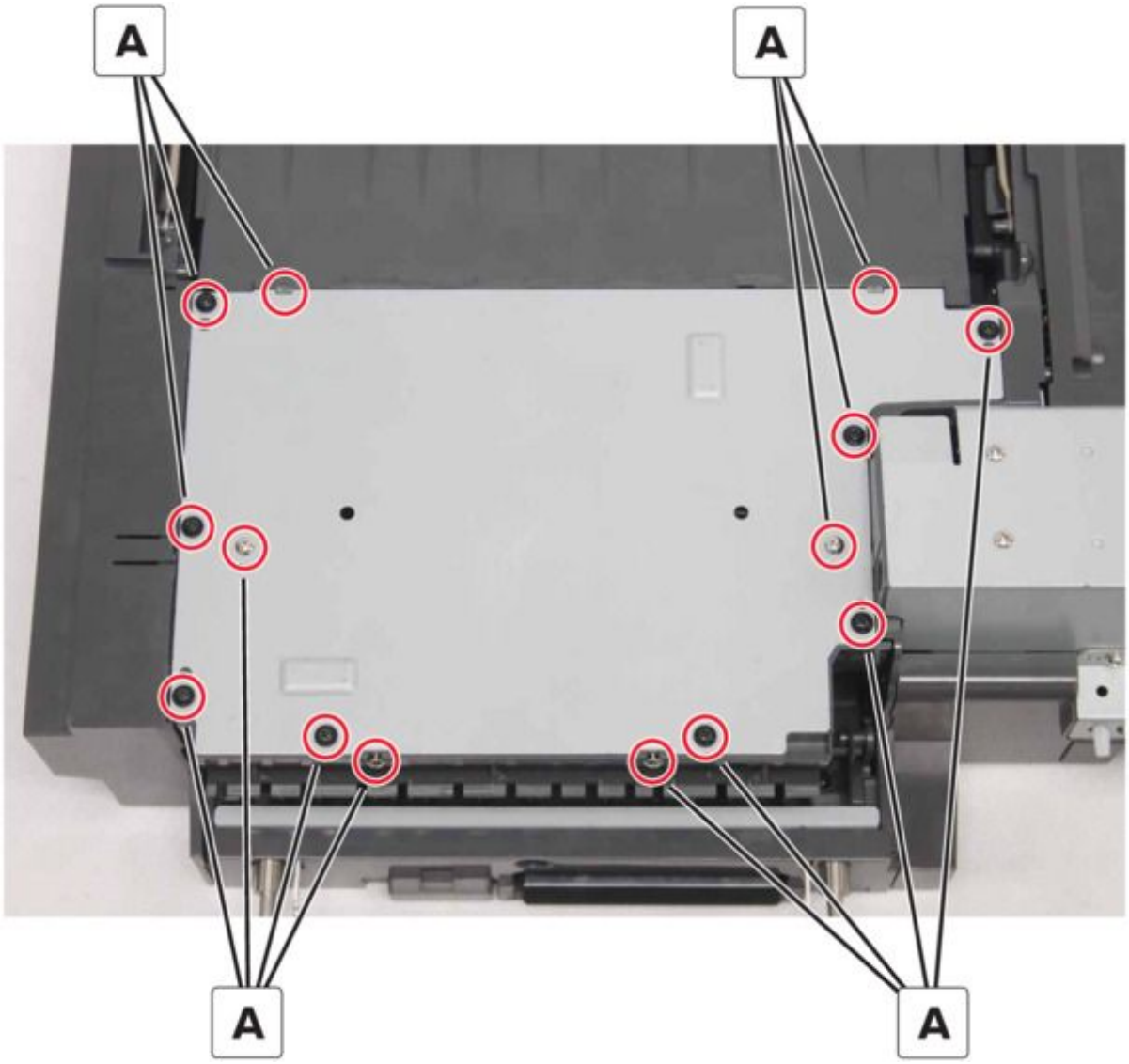
Staple finisher lock assembly removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Set aside the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Open the jam access door.
5. Remove the two screws (A), and then remove the assembly.


A

Staple finisher bottom cover removal

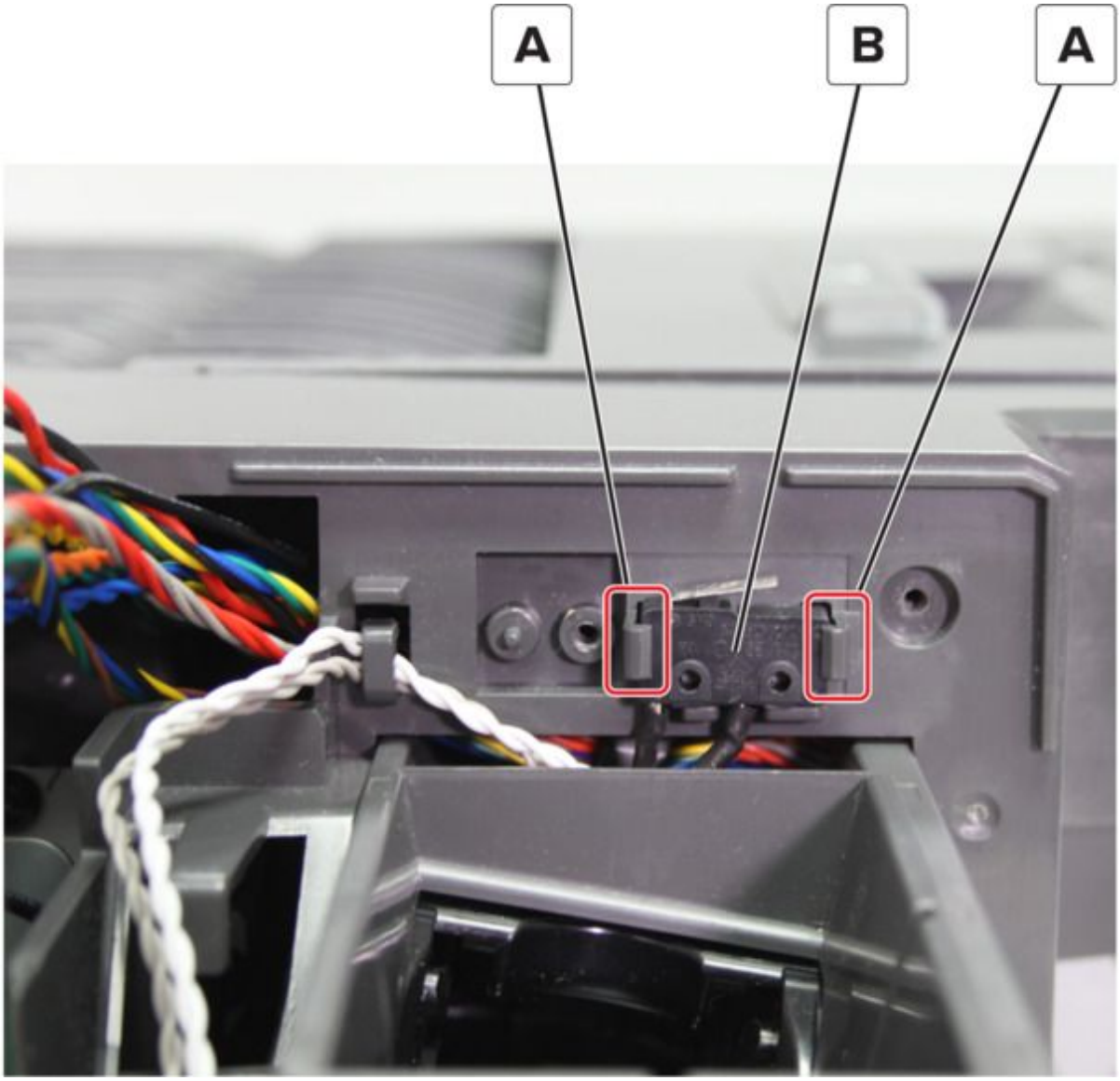
1. Remove the 14 screws (A).



2. Remove the cover.

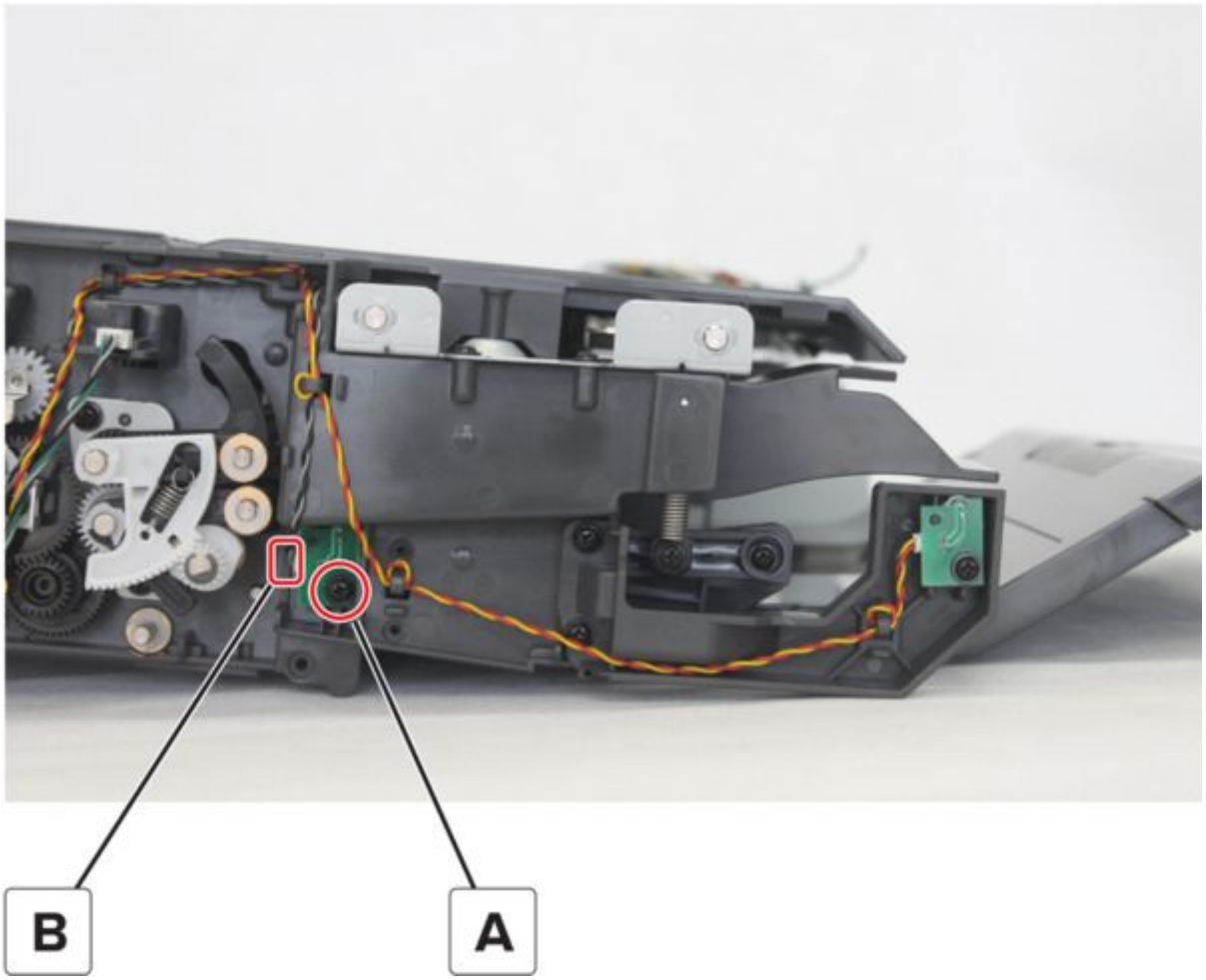
Staple finisher staple cartridge door switch removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Release the latches (A), and then remove the switch (B).

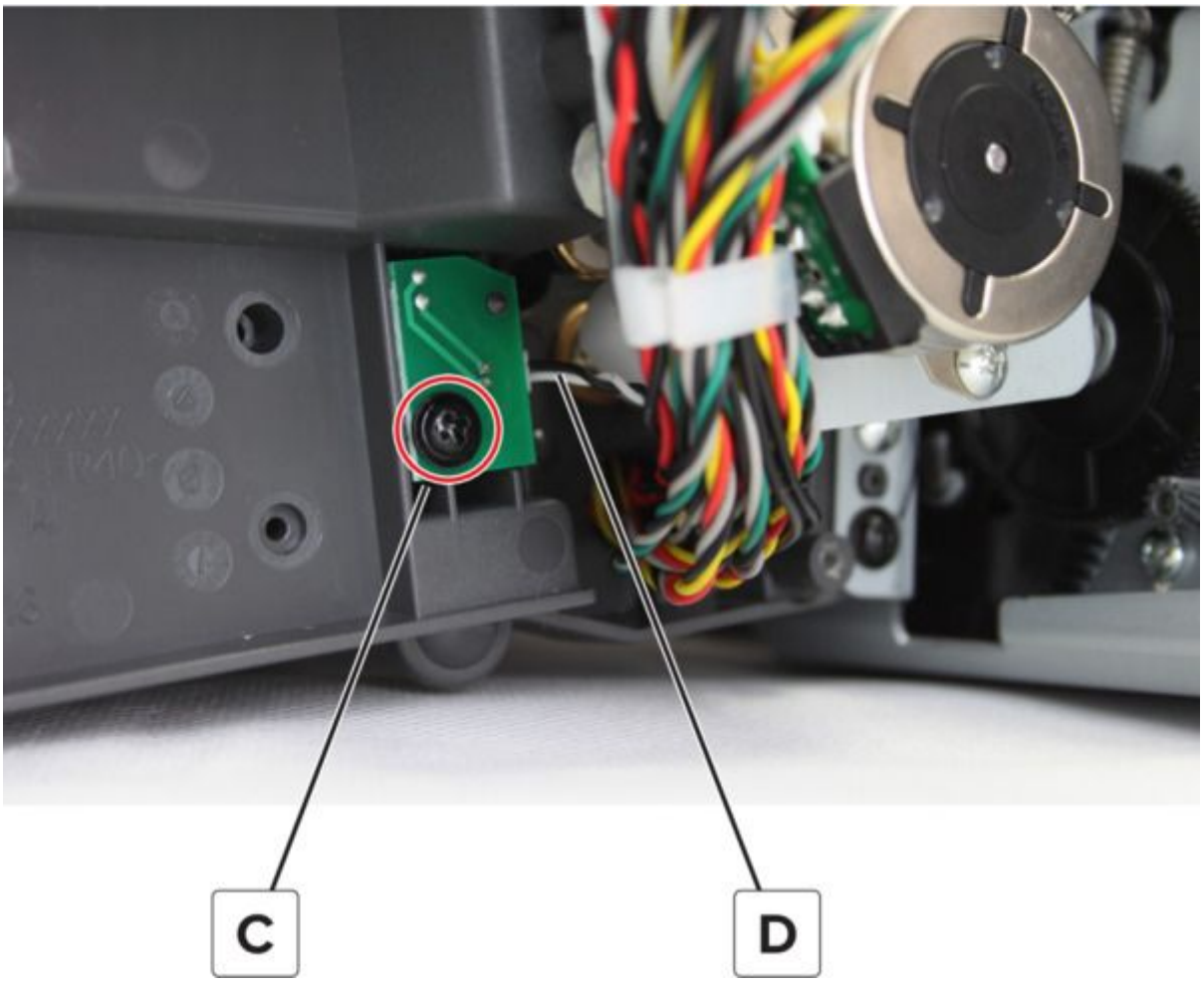


Sensor (staple finisher lower bin full) removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the screw (A), and then remove the sensor (staple finisher front lower bin full—transmitter).
3. Disconnect the cable (B).

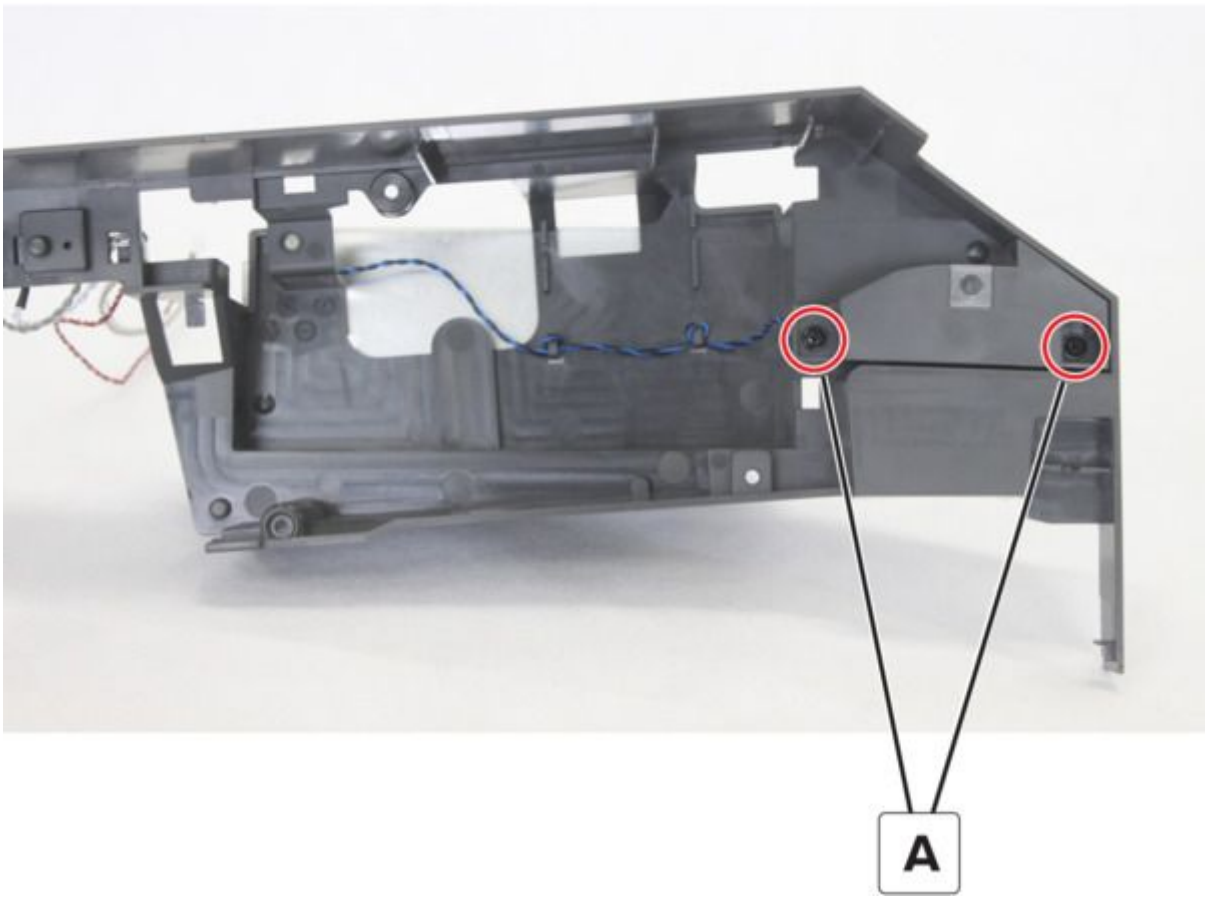


4. Remove the rear cover. See .Staple finisher rear cover removal on page 808
5. Remove the controller board. See Staple finisher controller board removal on page 812.
6. Set aside the inner rear cover.
7. Remove the screw (C), and then remove the sensor (staple finisher rear lower bin full—transmitter).
8. Disconnect the cable (D).

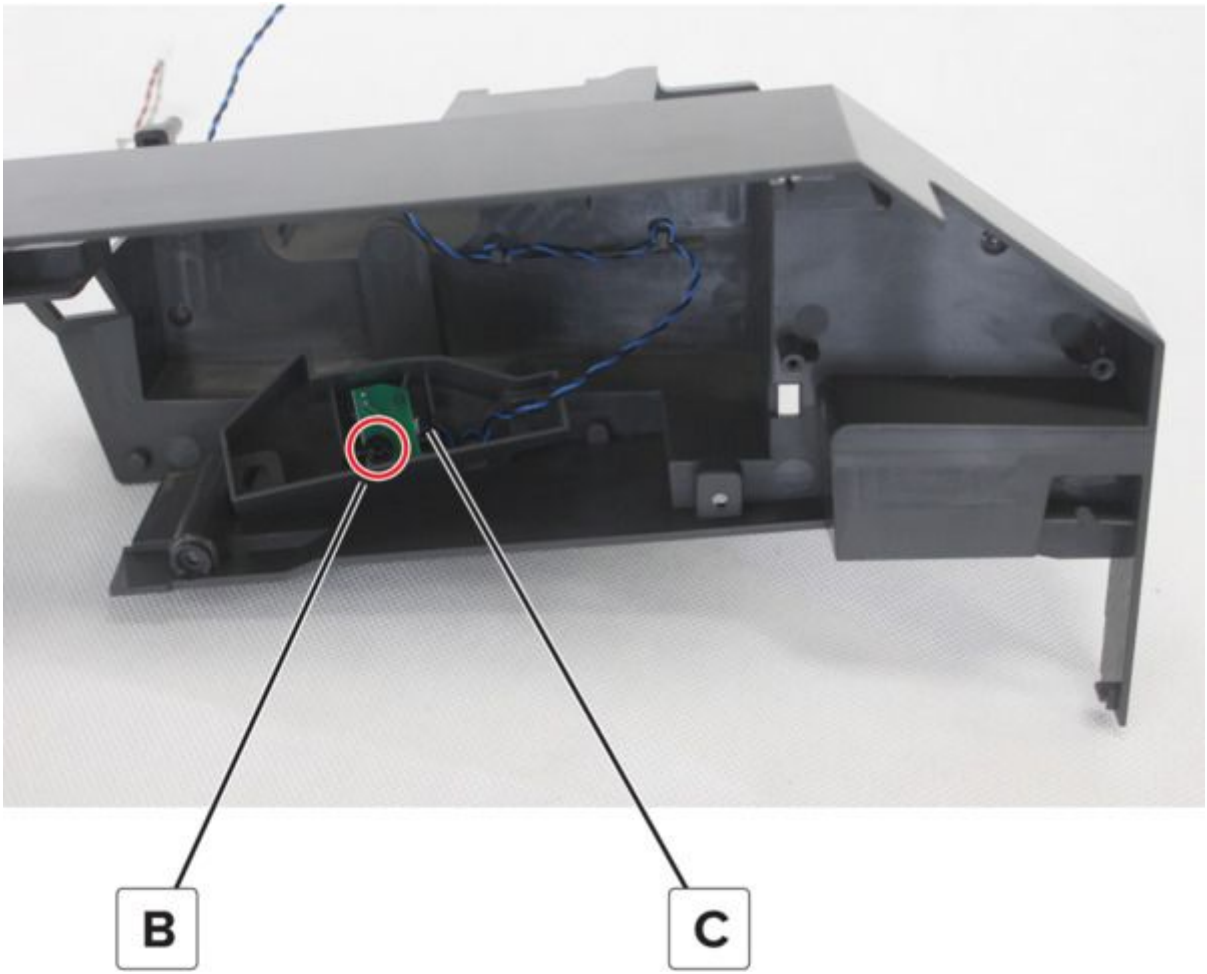


Sensor (staple finisher upper bin full) removal

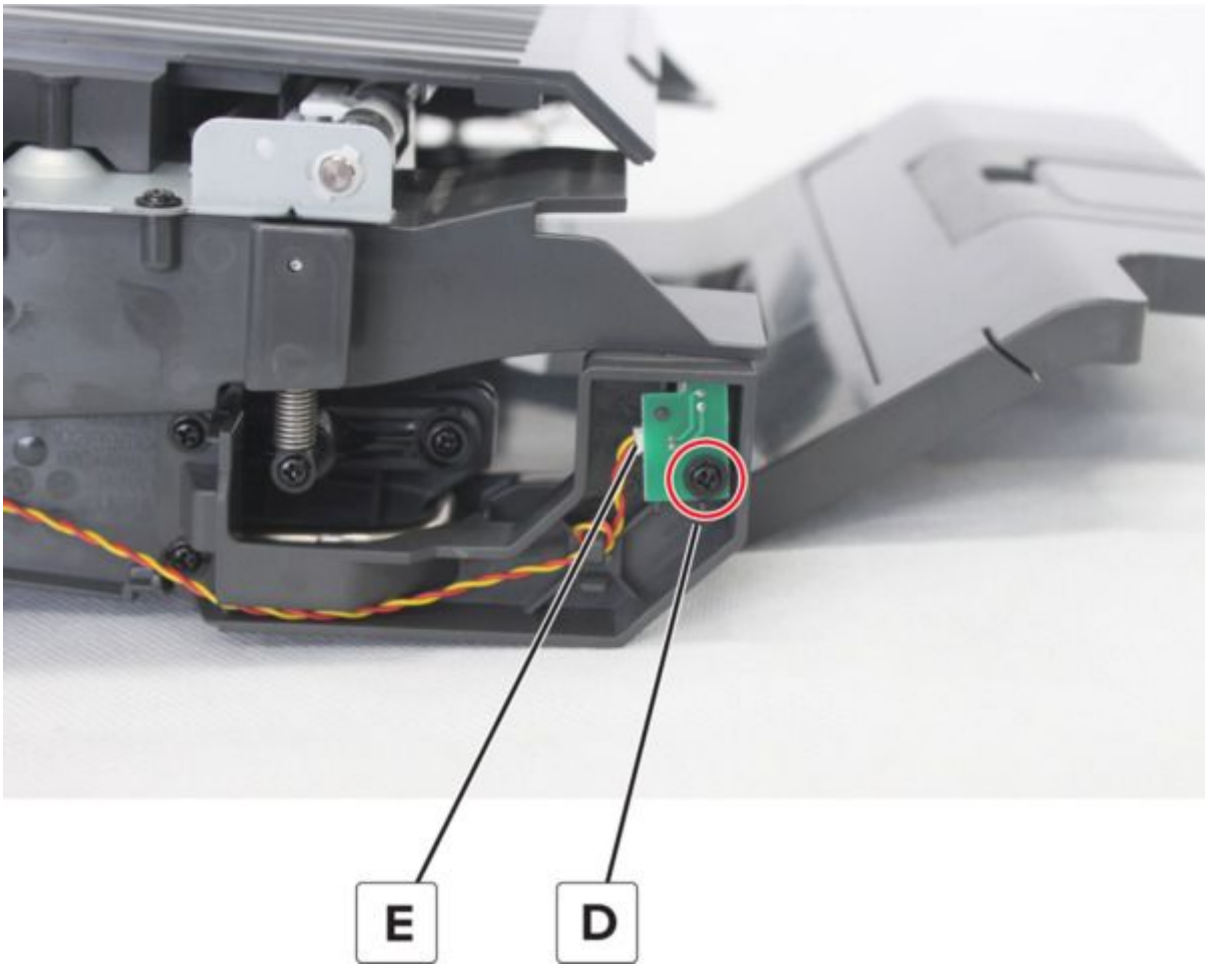
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the controller board. See Staple finisher controller board removal on page 812.
4. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
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).



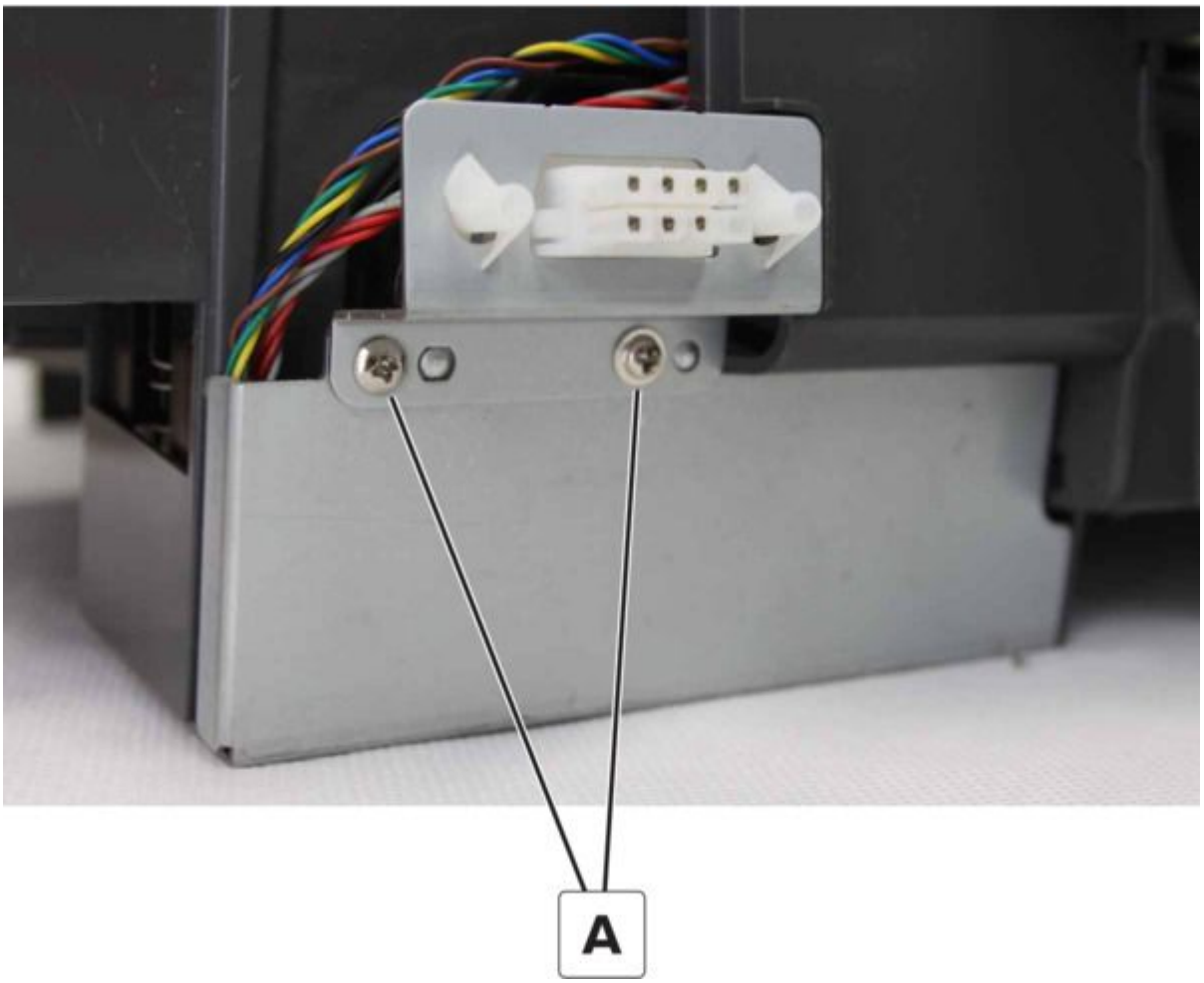
7. Remove the front cover. See .Staple finisher front cover removal on page 807
8. Remove the screw (D), and then disconnect the cable (E).



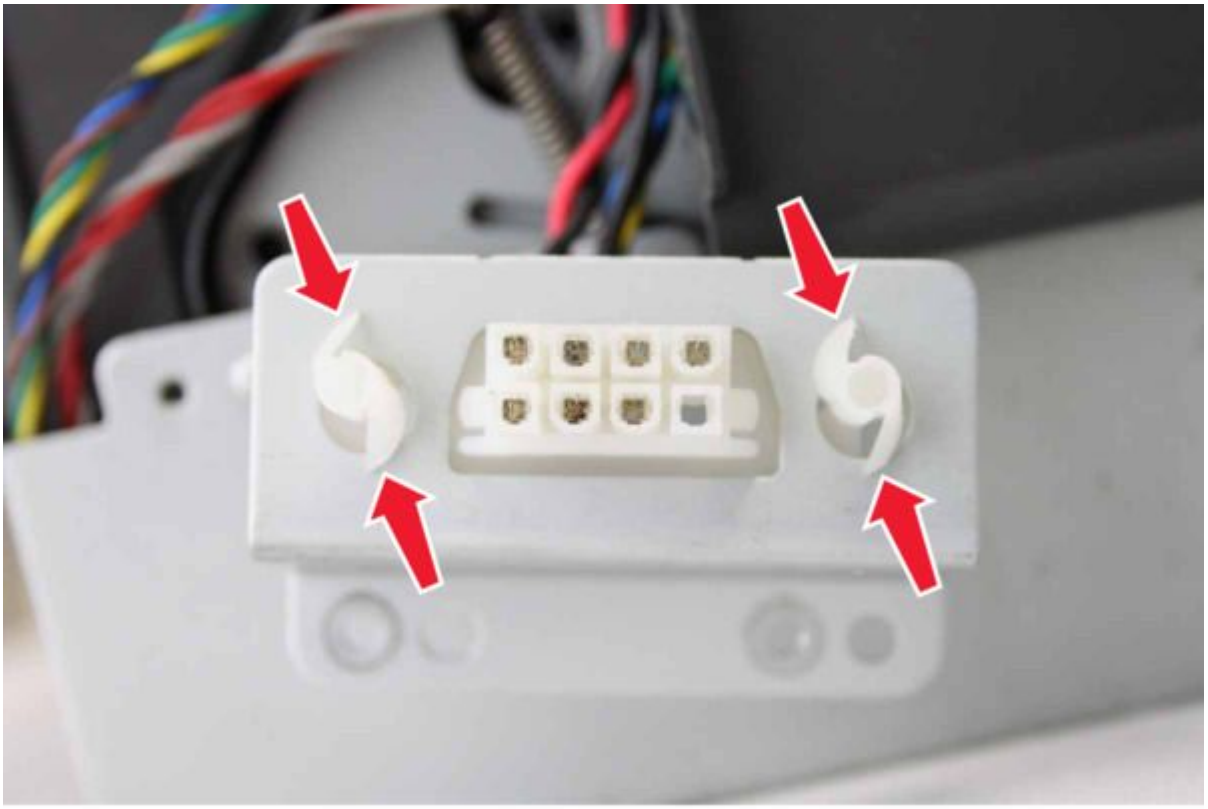
9. Remove the sensor (staple finisher front upper bin full—receiver).

Staple finisher interface cable removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the two screws (A).



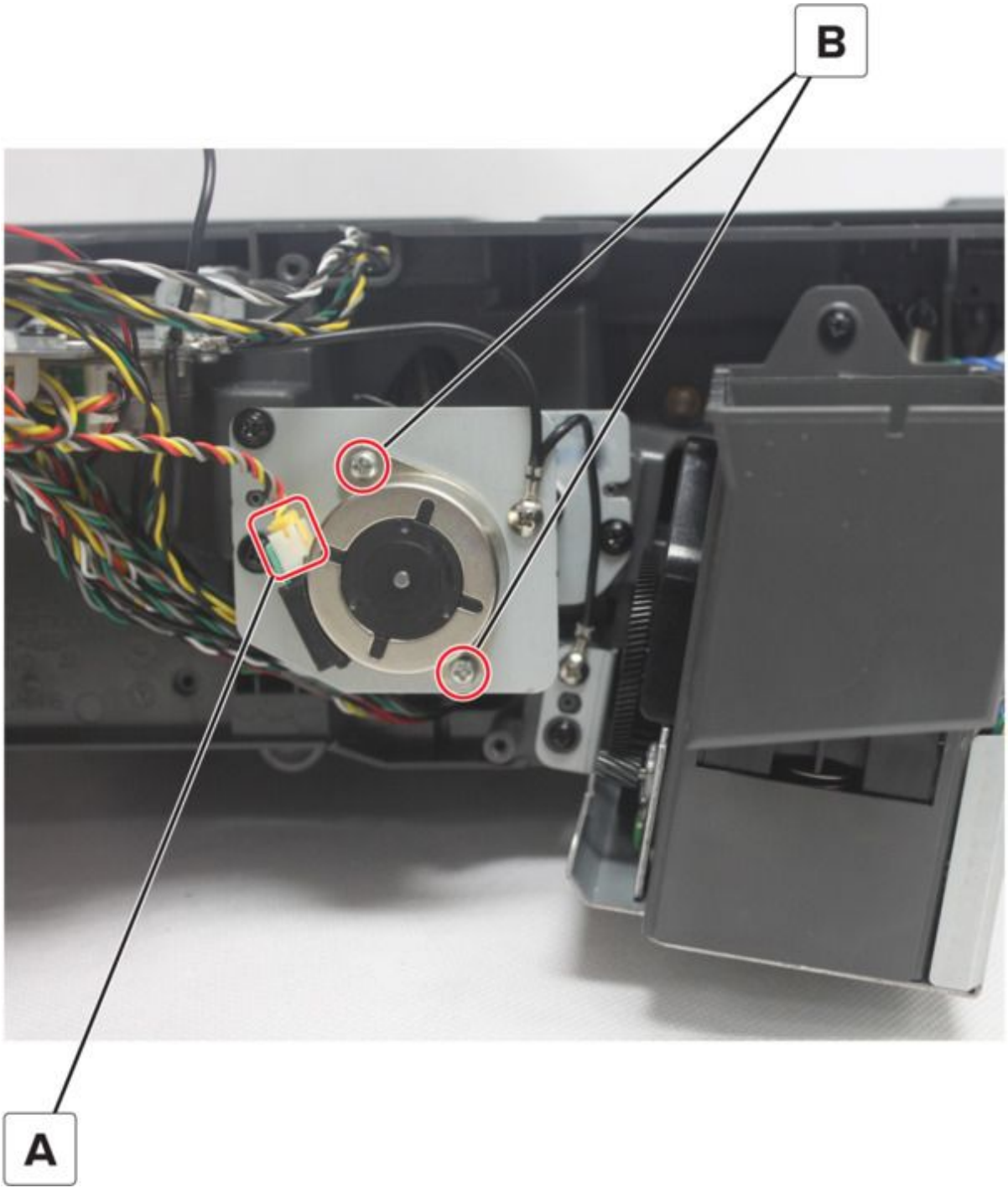
4. Using needle-nose pliers, disconnect the cable.



5. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
6. Disconnect the other end of the cable from the controller board.

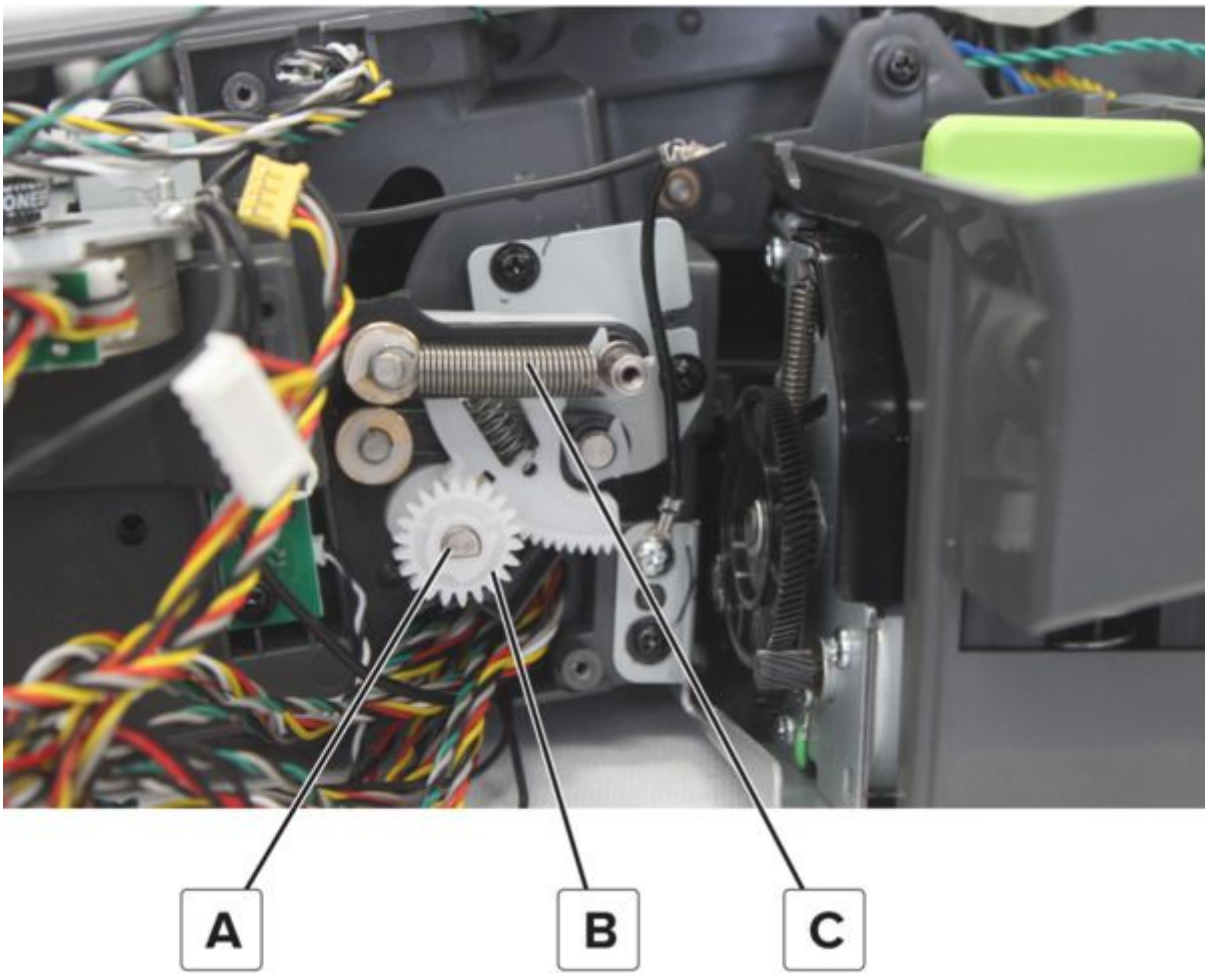
Motor (staple finisher upper exit roller) removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the controller board. See Staple finisher controller board removal on page 812.
4. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
5. Disconnect the cable (A).
6. Remove the two screws (B), and then remove the motor.

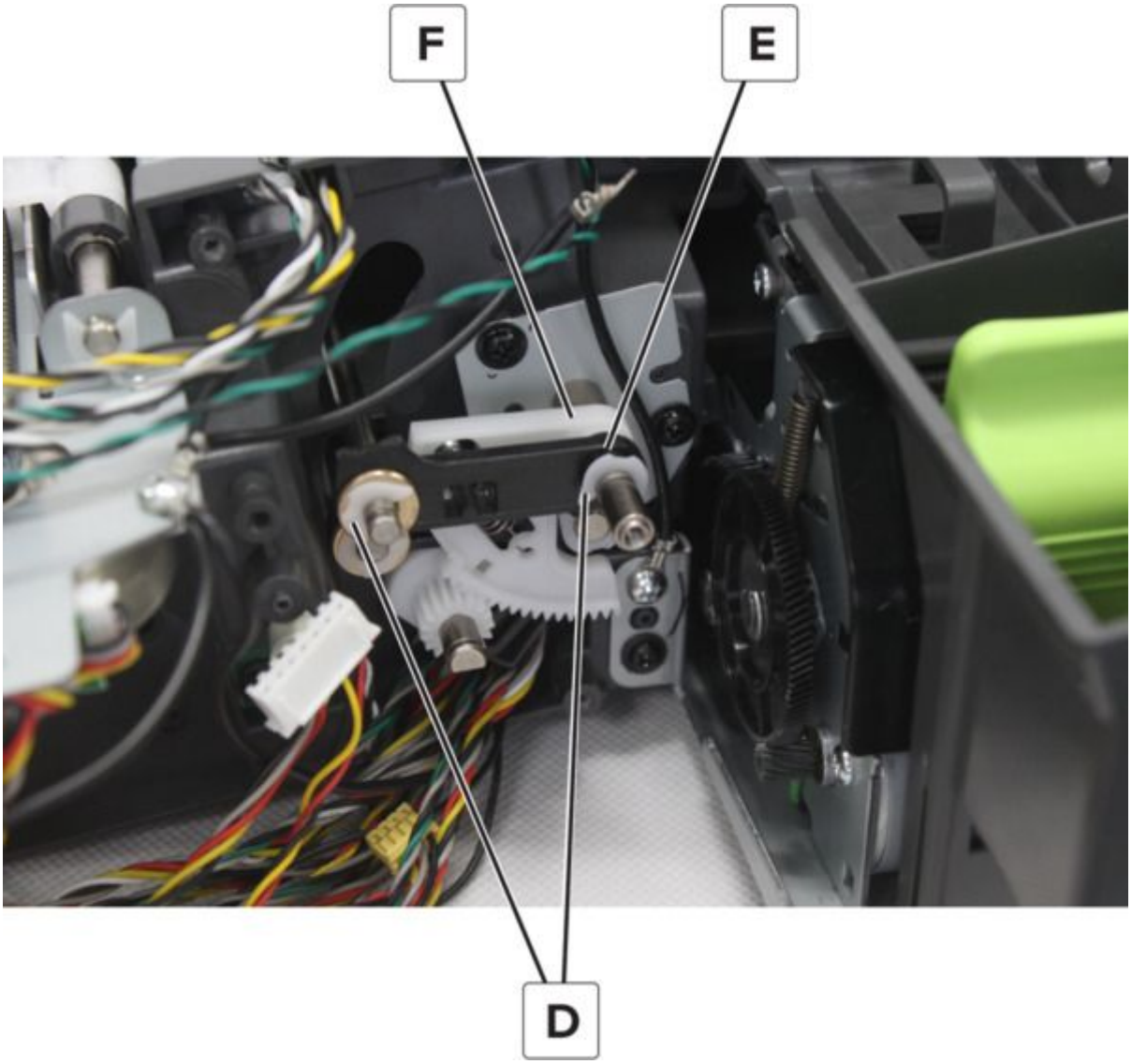


Staple finisher rear upper position exit roller gears removal

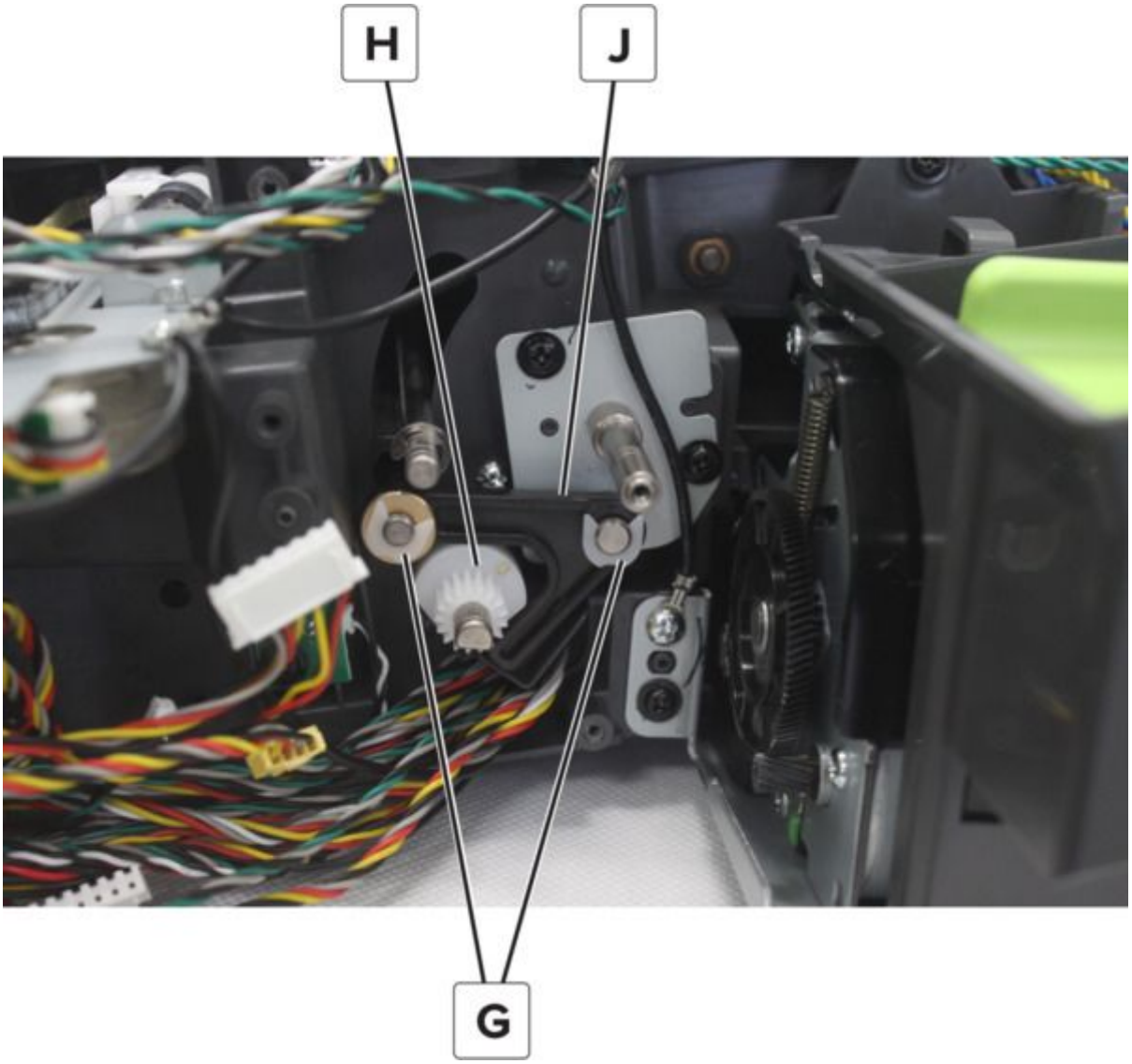
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the controller board. See Staple finisher controller board removal on page 812.
4. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
5. Remove the upper exit motor. See Motor (staple finisher upper exit roller) removal on page 826.
6. Remove the clip (A) and the gear (B), and then remove the spring (C).



7. Remove the two clips (D) and the bushing, remove the lever (E), and then remove the gear (F).

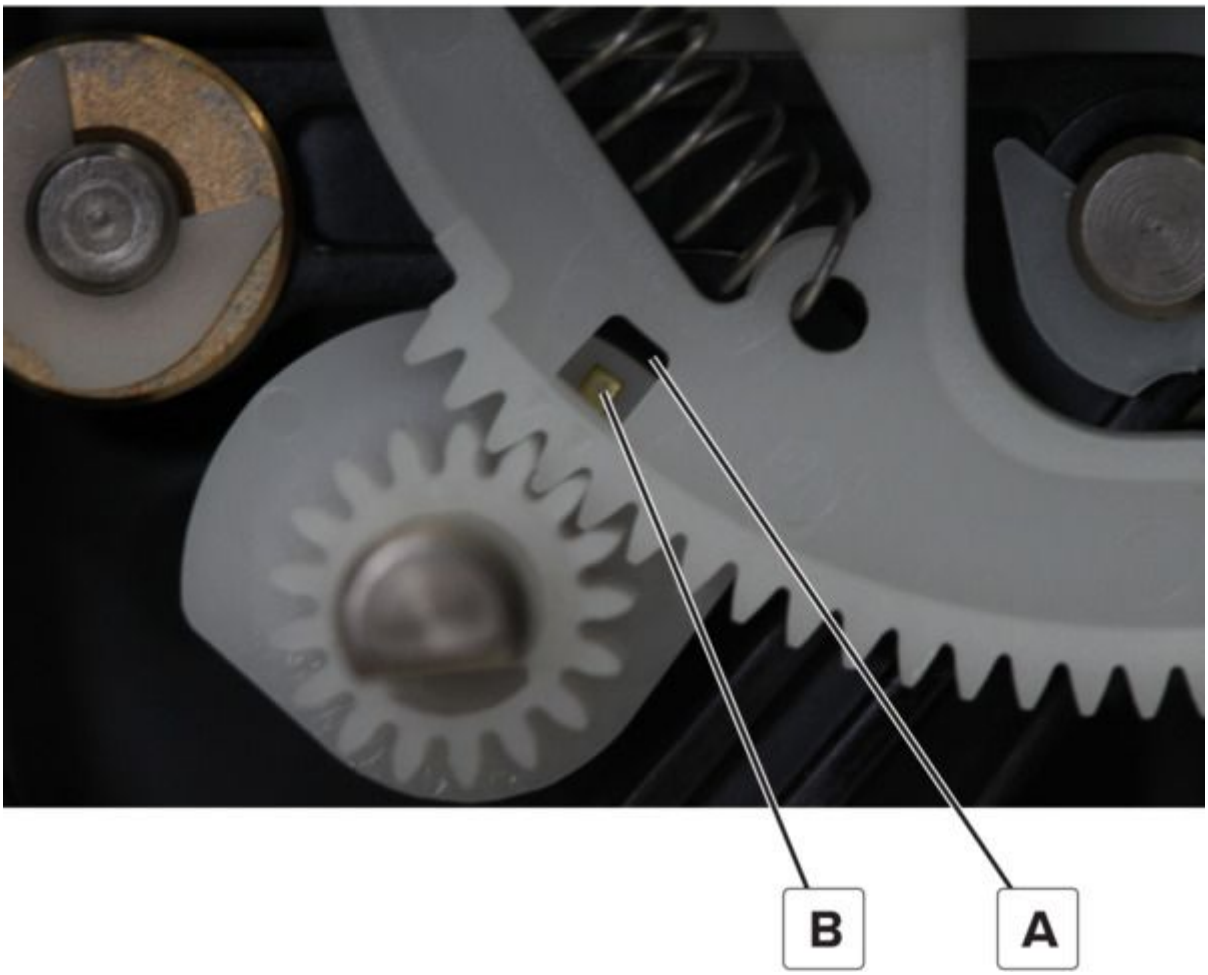


8. Remove the two clips (G), and then remove the bushing.
9. Remove the cam (H), and then remove the lever (J).



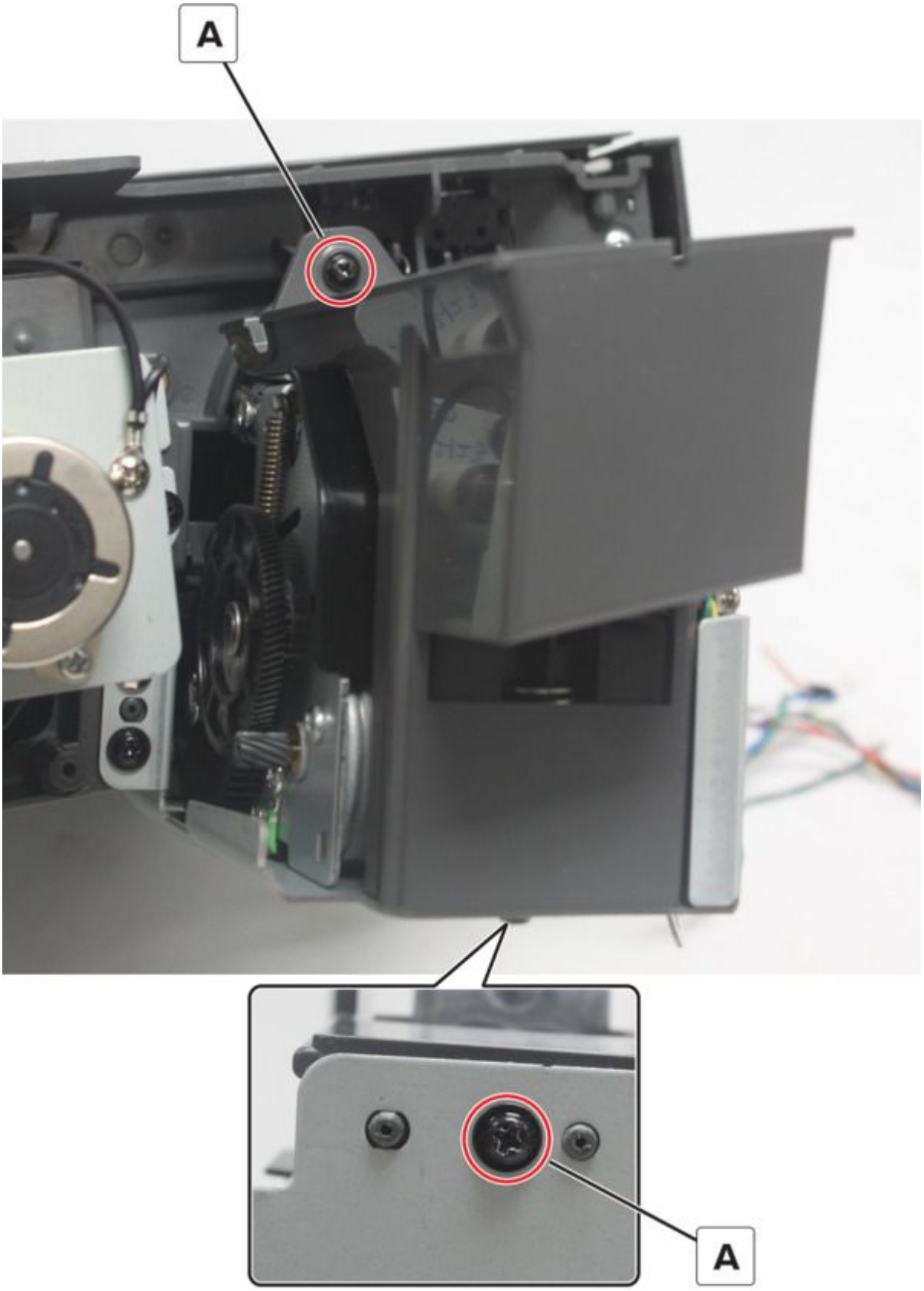
10. Remove the gear.

Installation Note
Make sure that the hole (A) aligns with the gold, rectangular marker (B).



Staple finisher staple unit ejector removal

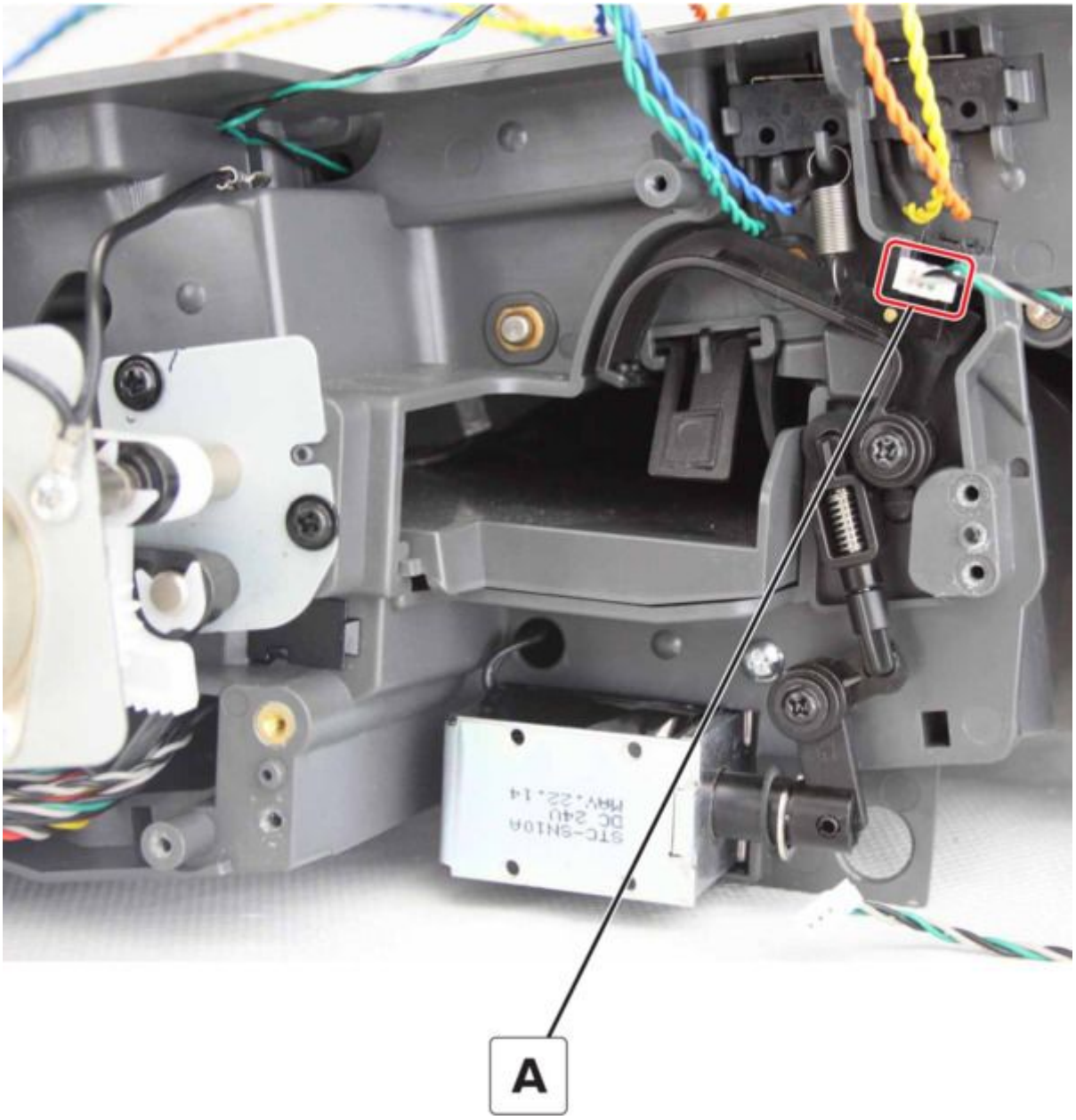
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Set aside the cables from the top of the ejector.
5. Remove the two screws (A), and then remove the ejector.



Sensor (staple finisher stack clamp) removal

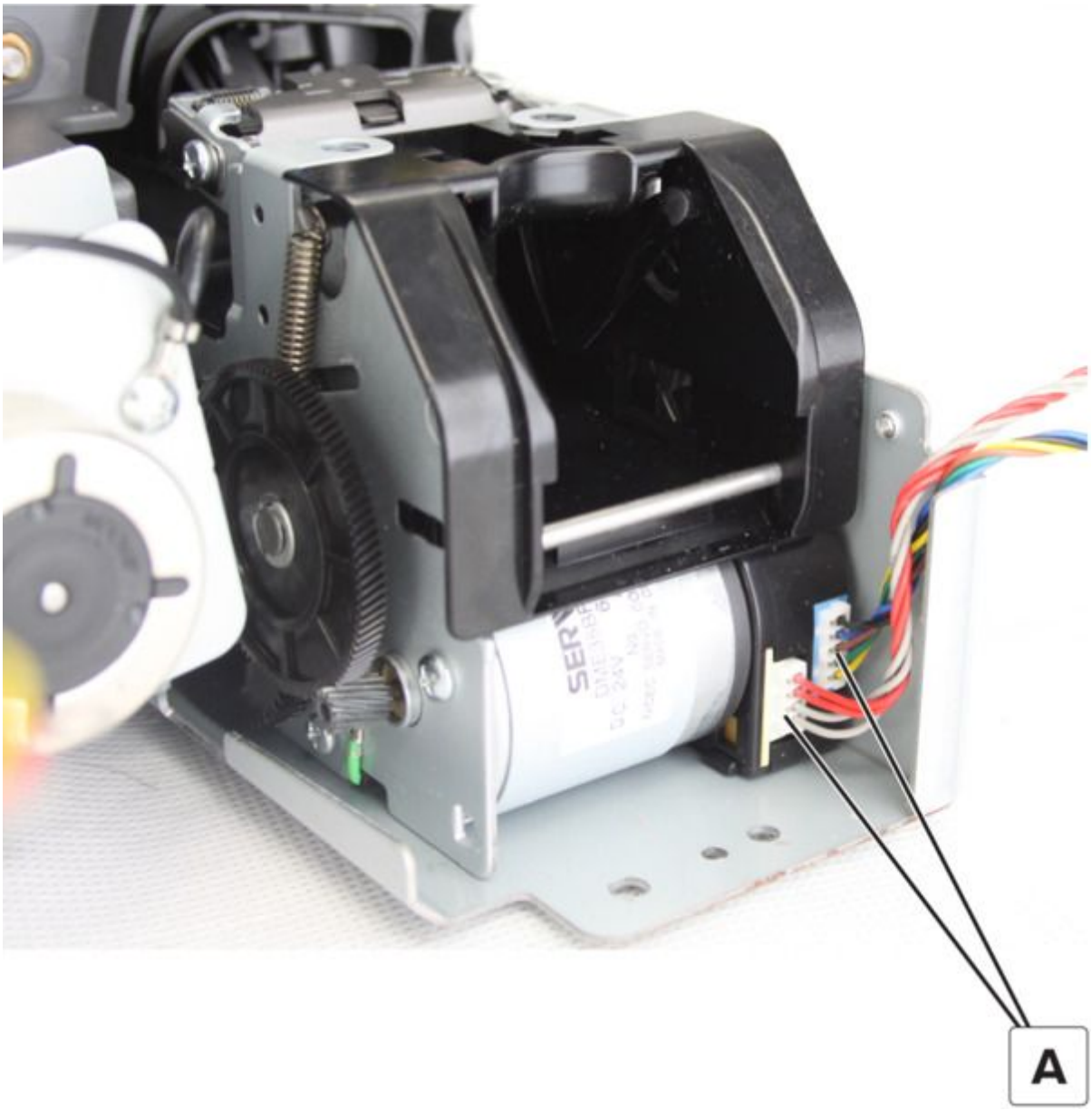
1. Remove the rear cover. See .Staple finisher rear cover removal on page 808

2. Remove the controller board. See Staple finisher controller board removal on page 812.
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the ejector. See Staple finisher staple unit ejector removal on page 831.
5. Push down the stack clamp, remove the adhesive, and then remove the sensor (A).

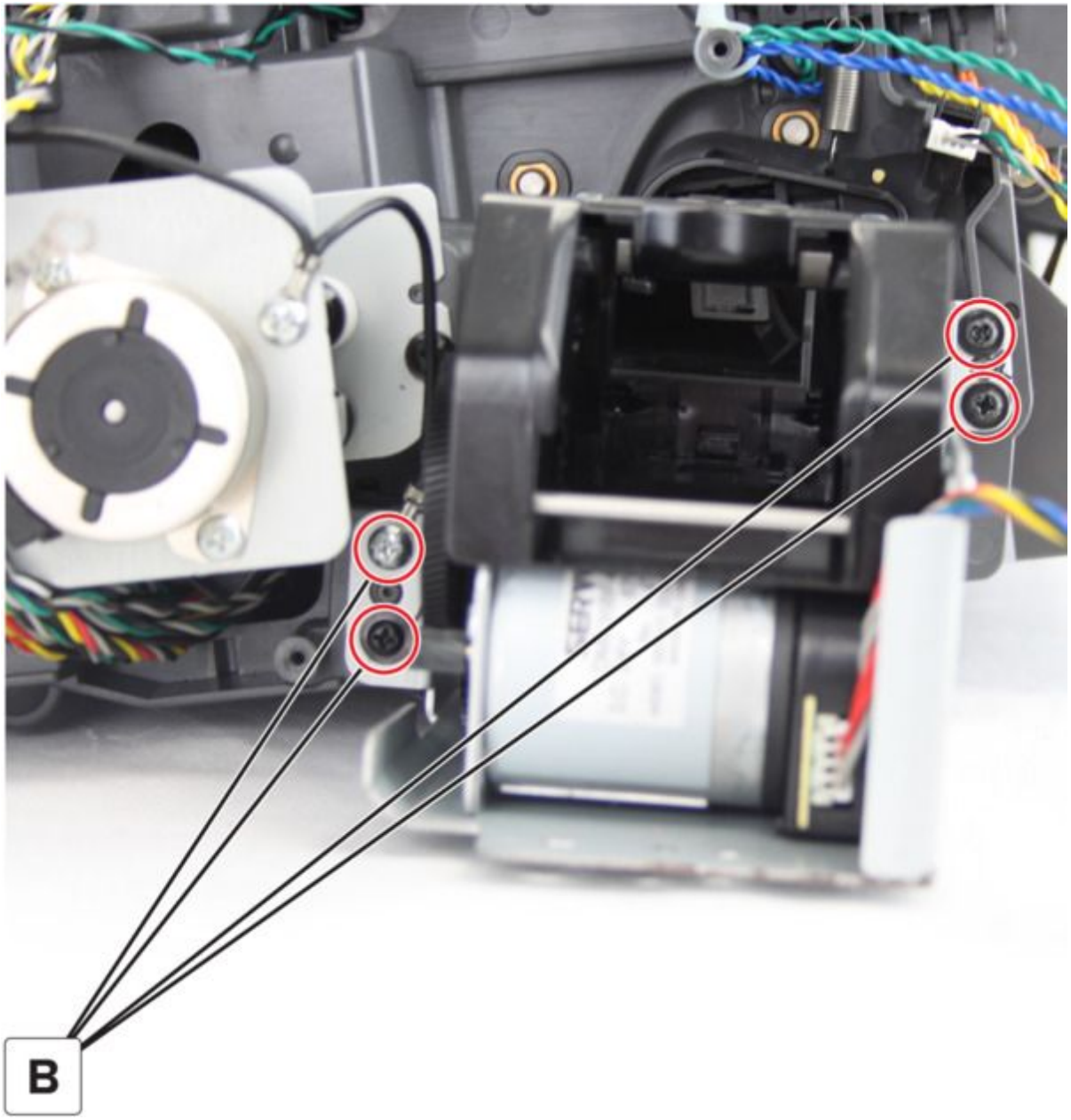


Staple finisher staple unit removal

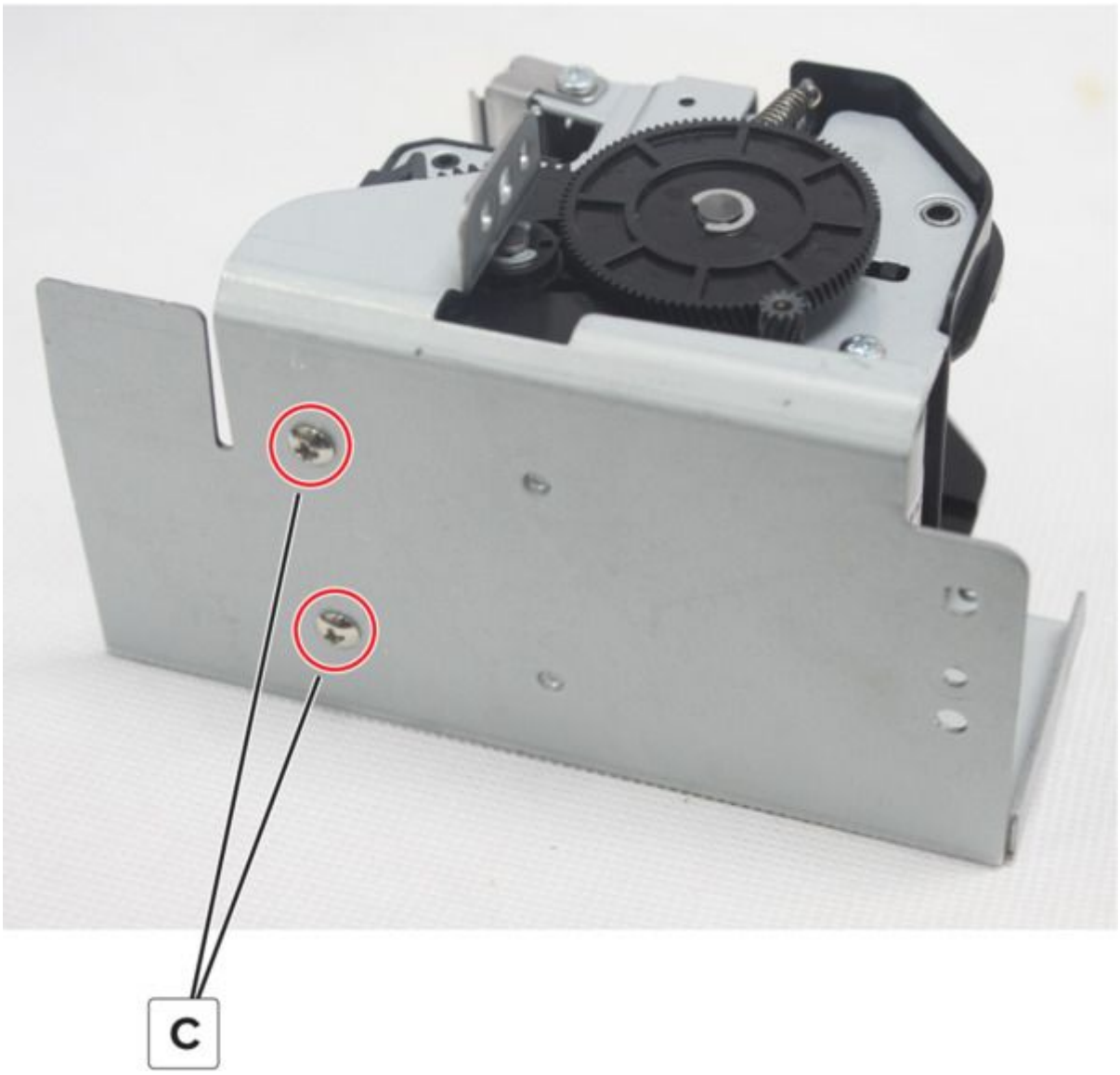
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the ejector. See Staple finisher staple unit ejector removal on page 831.
5. Disconnect the two cables (A).



6. Remove the four screws (B), and then remove the bracket.



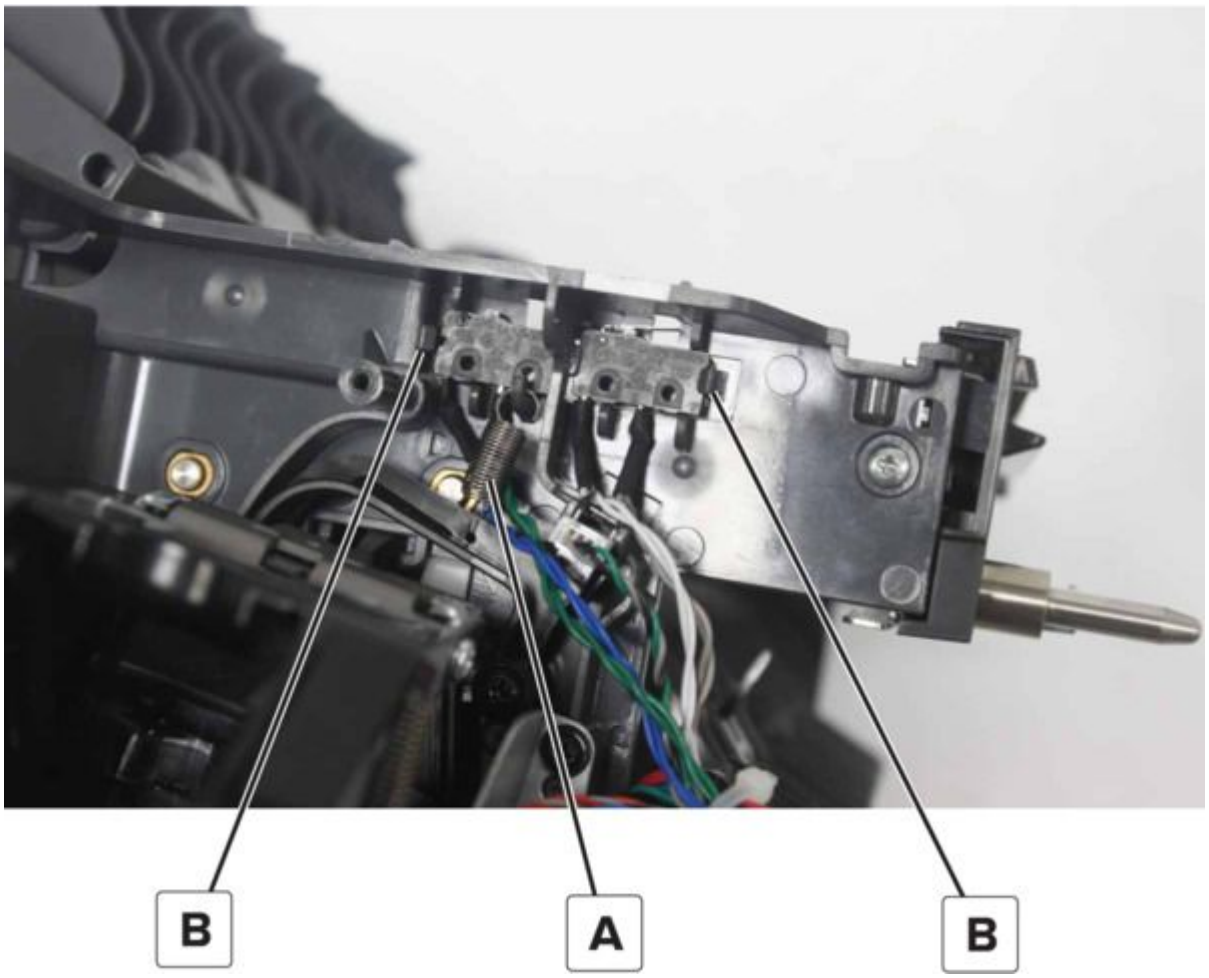
7. Remove the two screws (C), and then remove the staple unit.



Staple finisher jam door switches removal

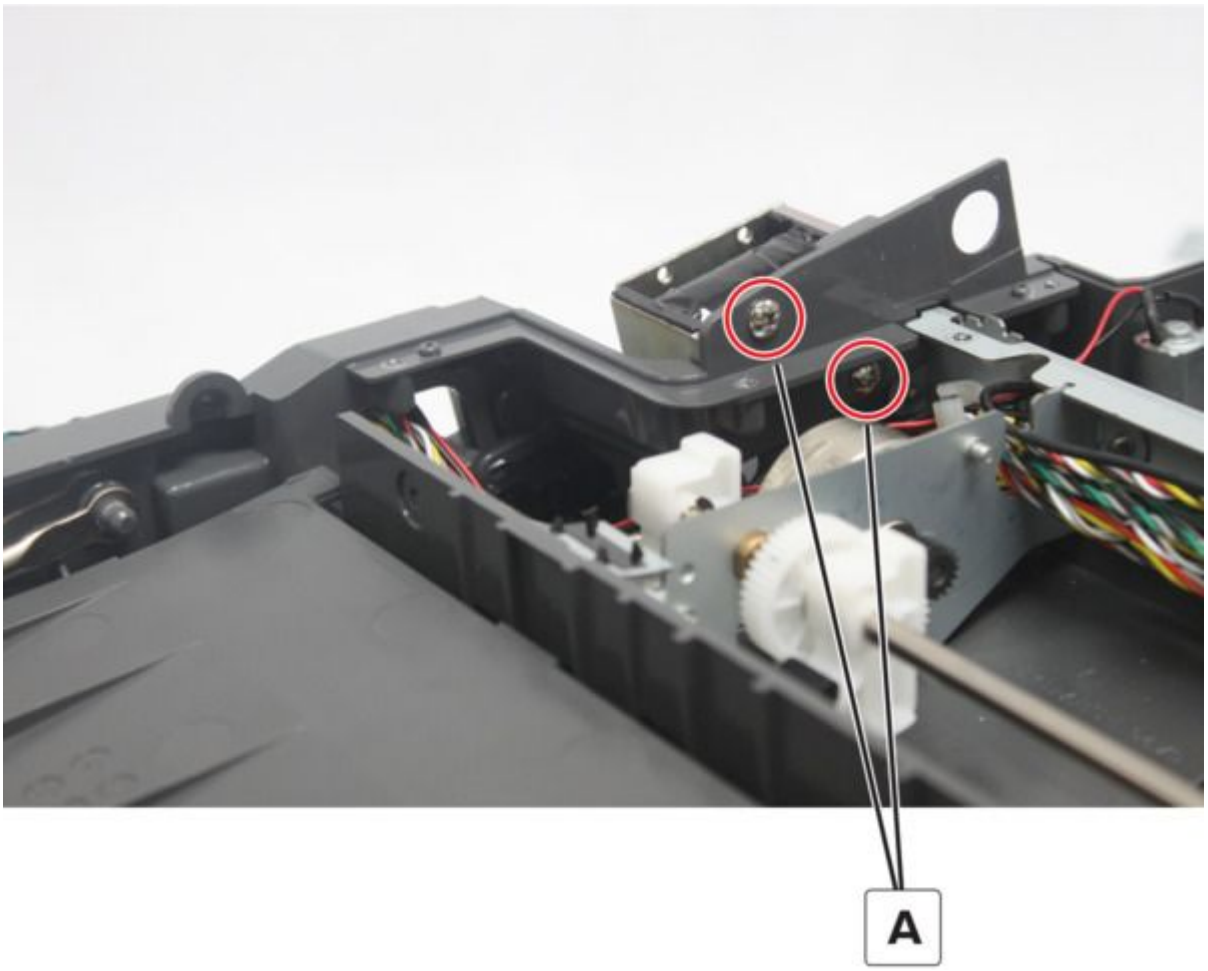
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the controller board. See Staple finisher controller board removal on page 812.
4. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
5. Remove the ejector. See Staple finisher staple unit ejector removal on page 831.
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.

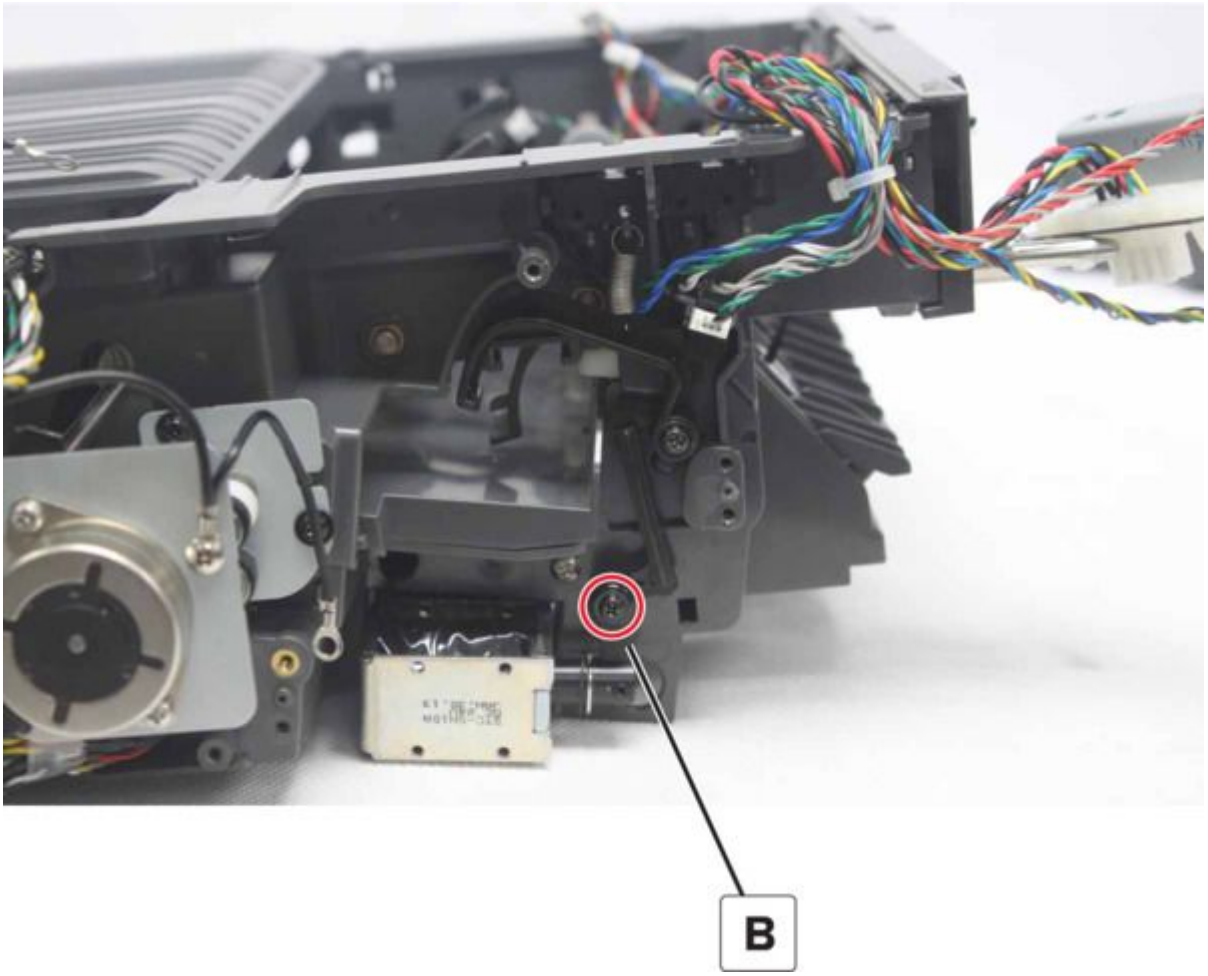


Staple finisher stack clamp solenoid removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the ejector. See Staple finisher staple unit ejector removal on page 831.
5. Remove the staple unit bracket. See Staple finisher staple unit removal on page 833.
6. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
7. Remove the two screws (A).

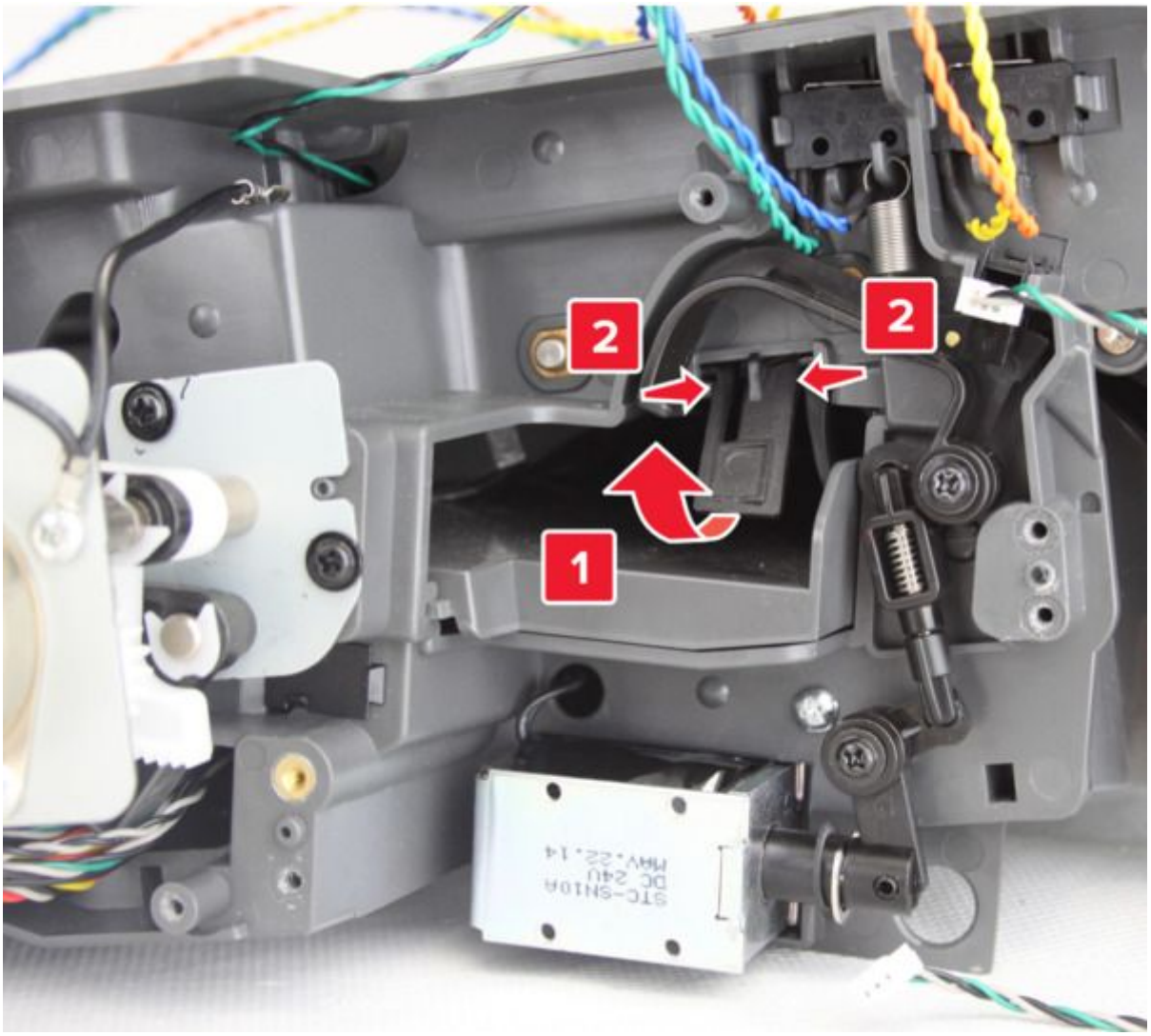


8. Remove the screw (B), and then remove the solenoid.

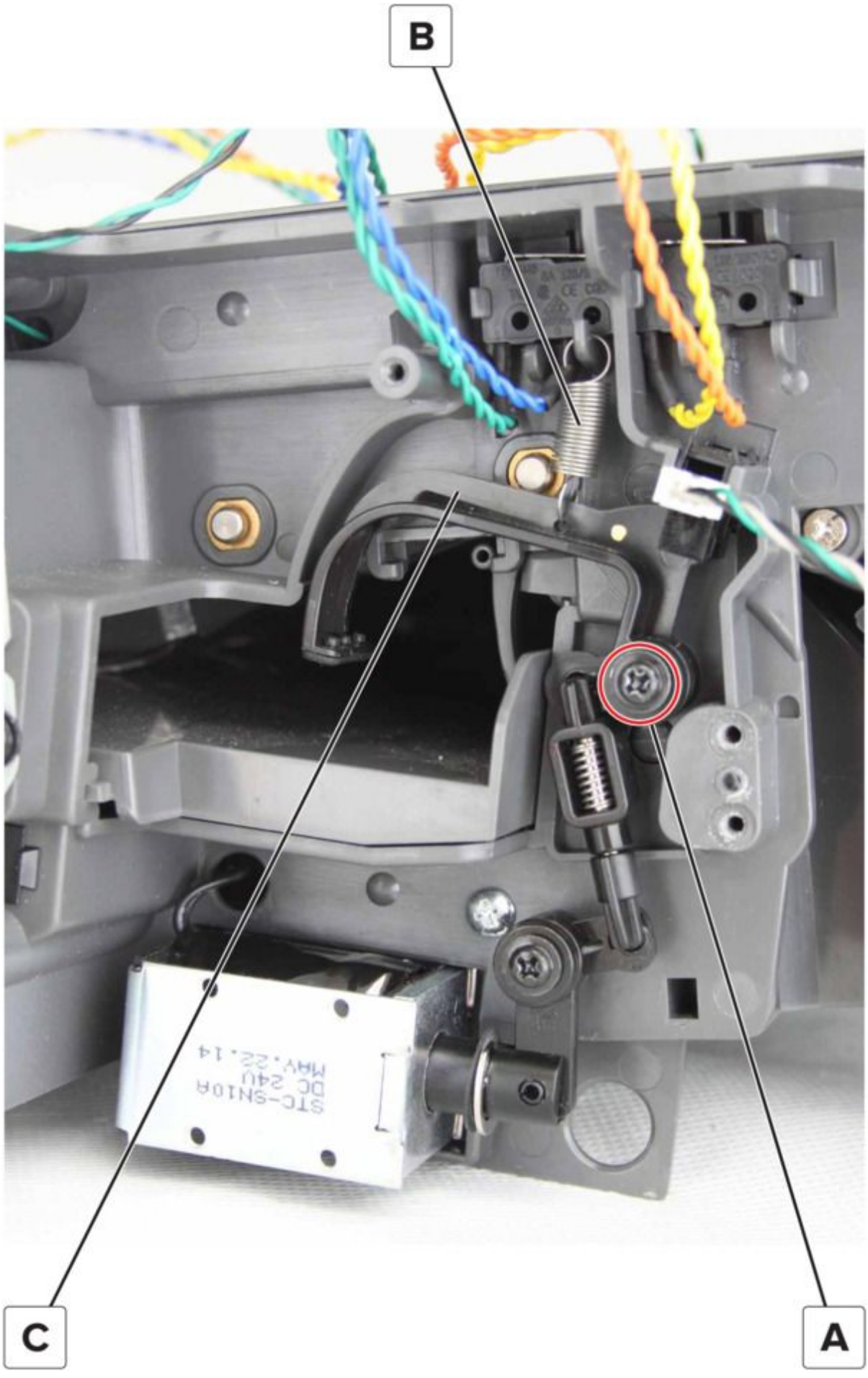


Staple finisher stack clamp removal

1. Remove the rear cover. See .Staple finisher rear cover removal on page 808
2. Remove the controller board. See Staple finisher controller board removal on page 812.
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Set aside the staple unit. See Staple finisher staple unit removal on page 833.
5. Remove the staple unit bail.



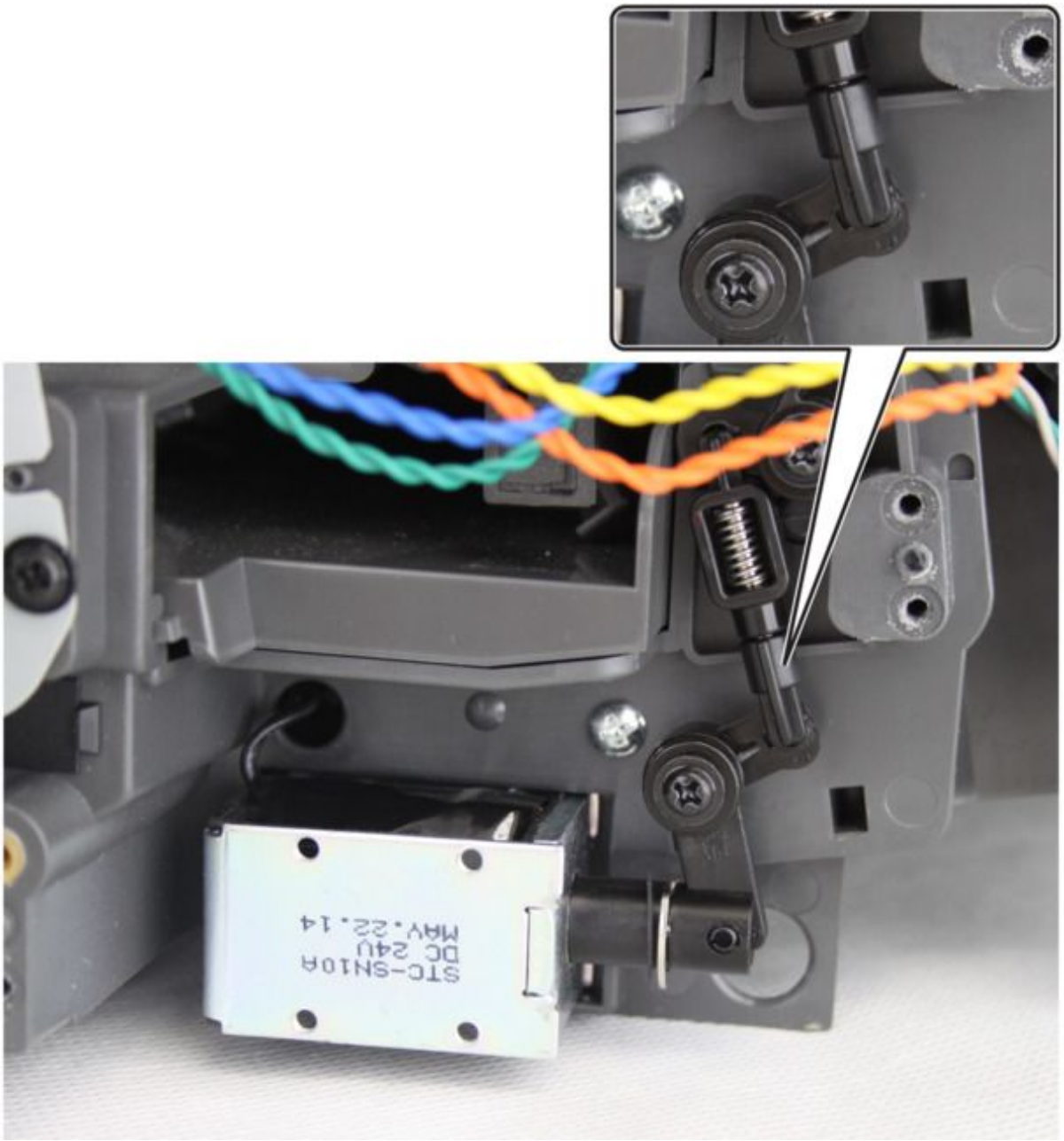
6. Remove the screw (A), remove the spring (B), and then push down the clamp (C).


B
C
A

7. Remove the stack clamp solenoid. See Staple finisher stack clamp solenoid removal on page 837.
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.

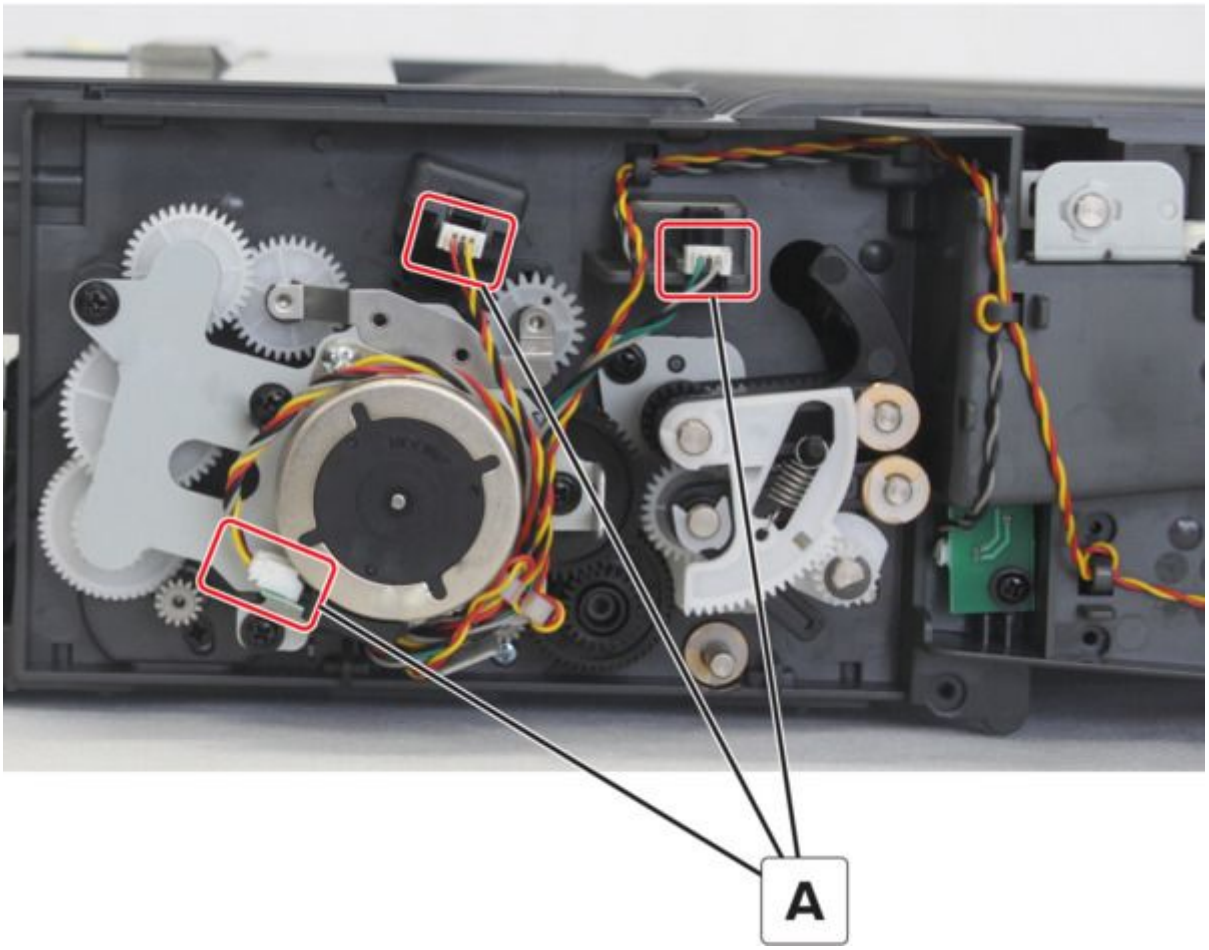
Motor (staple finisher aligner paddle) removal

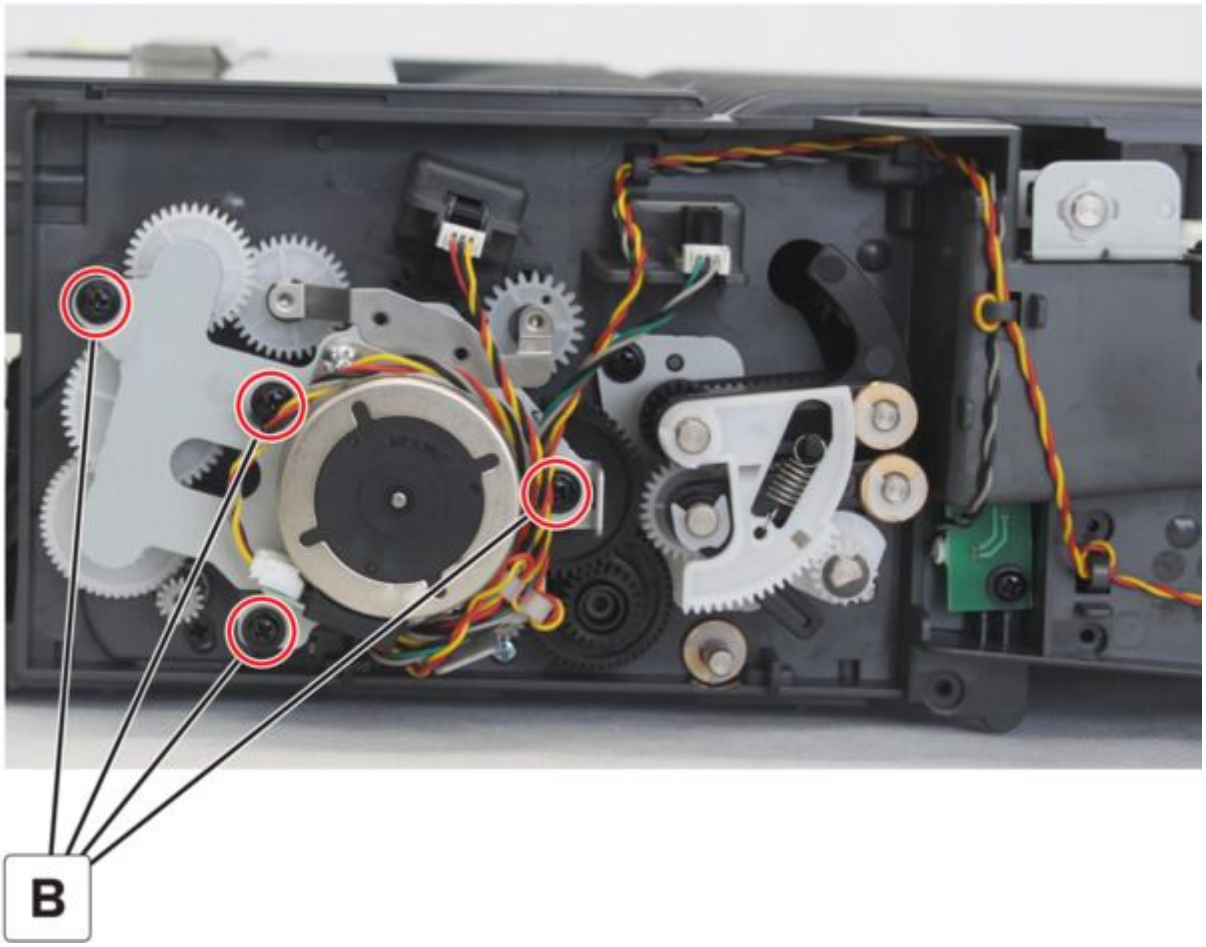
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Set aside the cables, and then remove the four screws (A).

3. Remove the motor from the bracket.

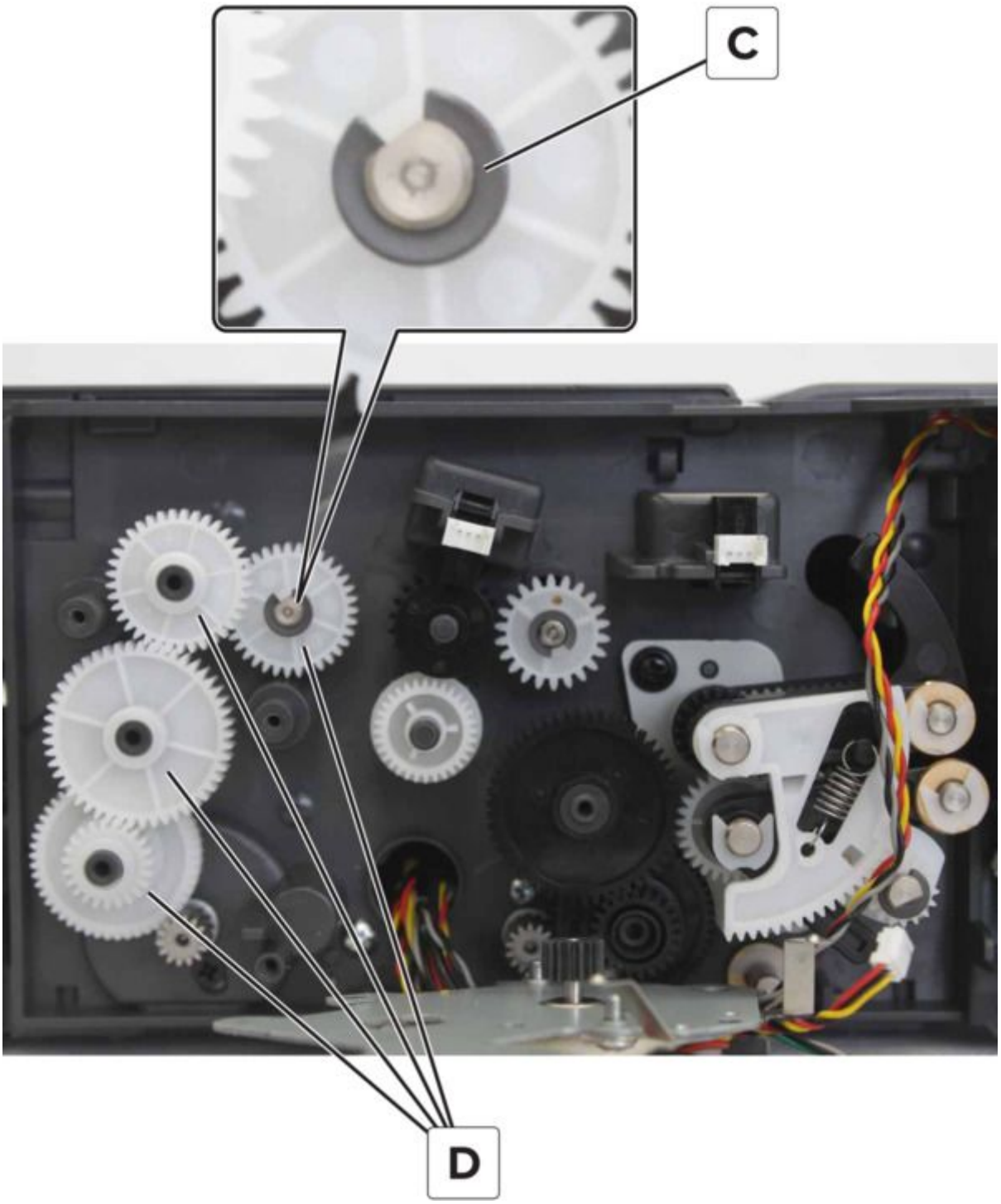
Staple finisher transport gears removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Disconnect the three cables (A), and then remove the four screws (B).


A

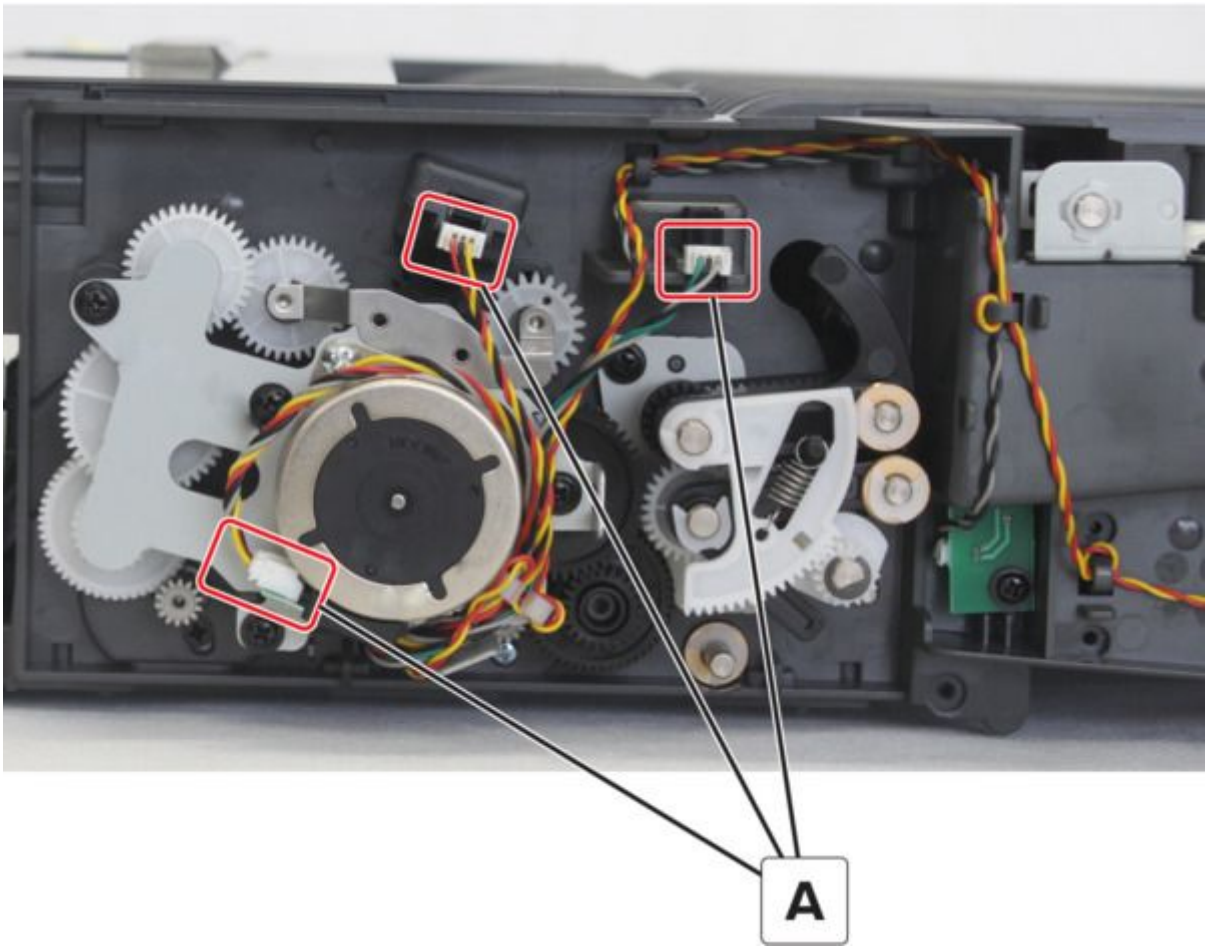


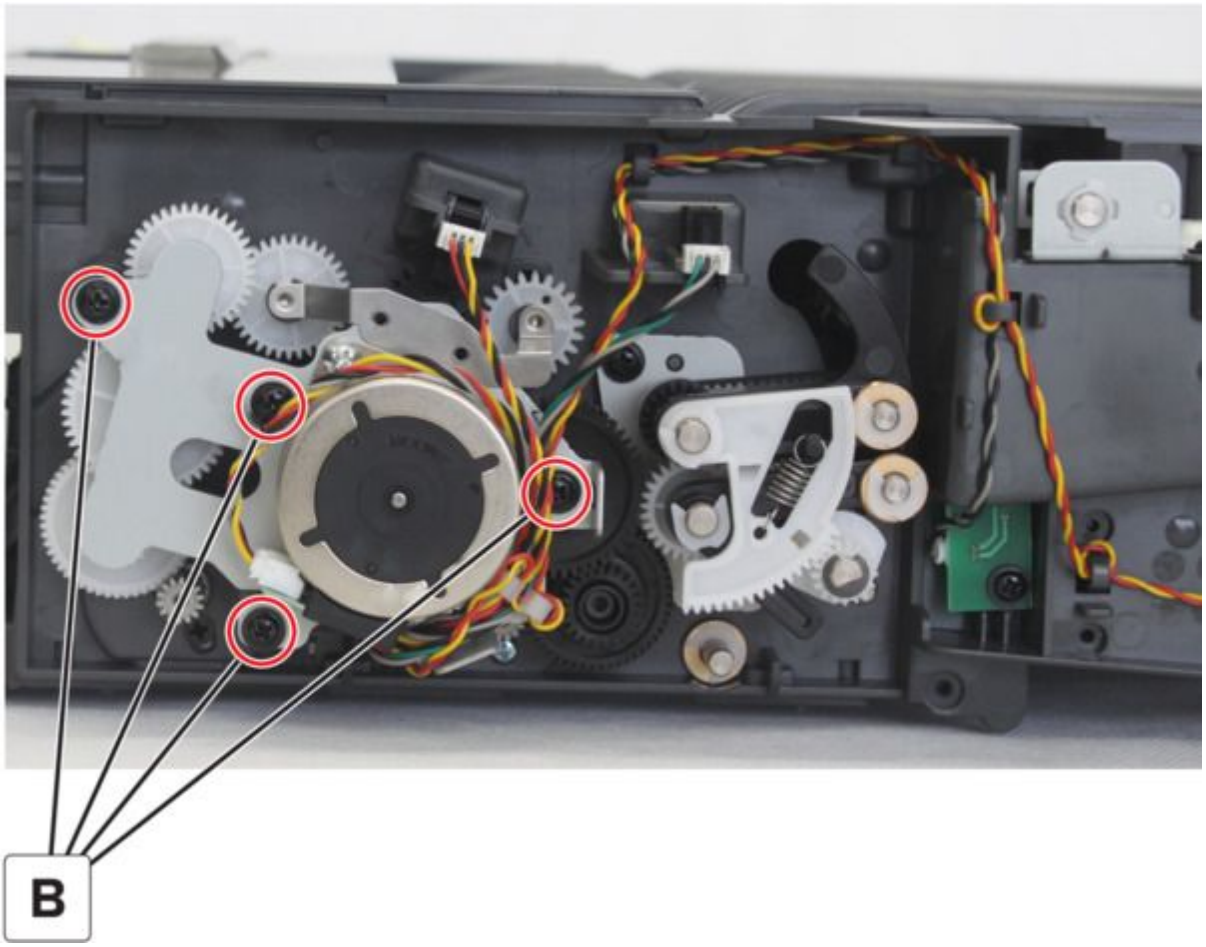
3. Set aside the aligner paddle motor and the bracket.
4. Remove the clip (C), and then remove the four gears (D).



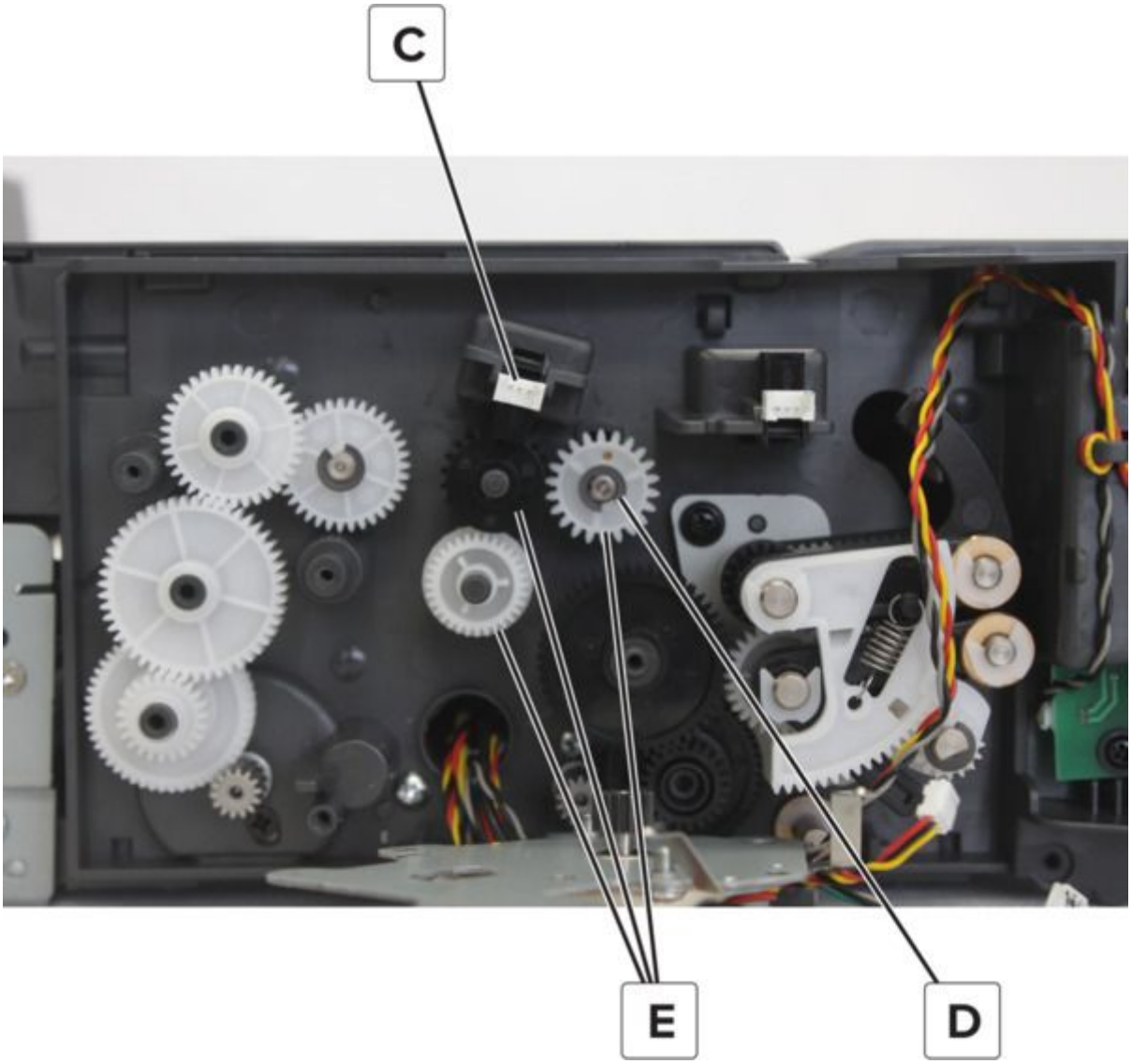
Staple finisher aligner paddle gears removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Disconnect the three cables (A), and then remove the four screws (B).


A

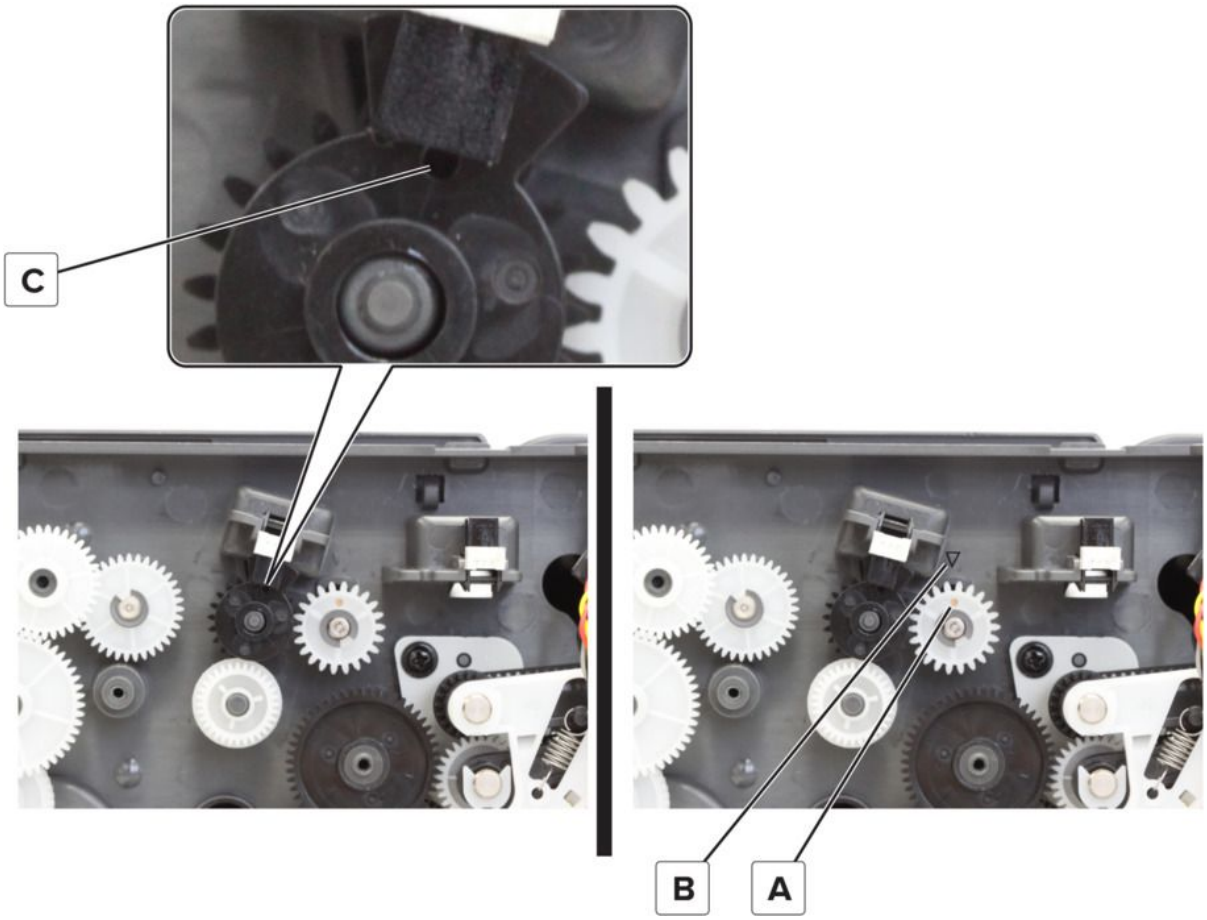


3. Set aside the aligner paddle motor and bracket.
4. Remove the sensor (staple finisher aligner paddle) (C), and then remove the clip (D).
5. Remove the three gears (E).



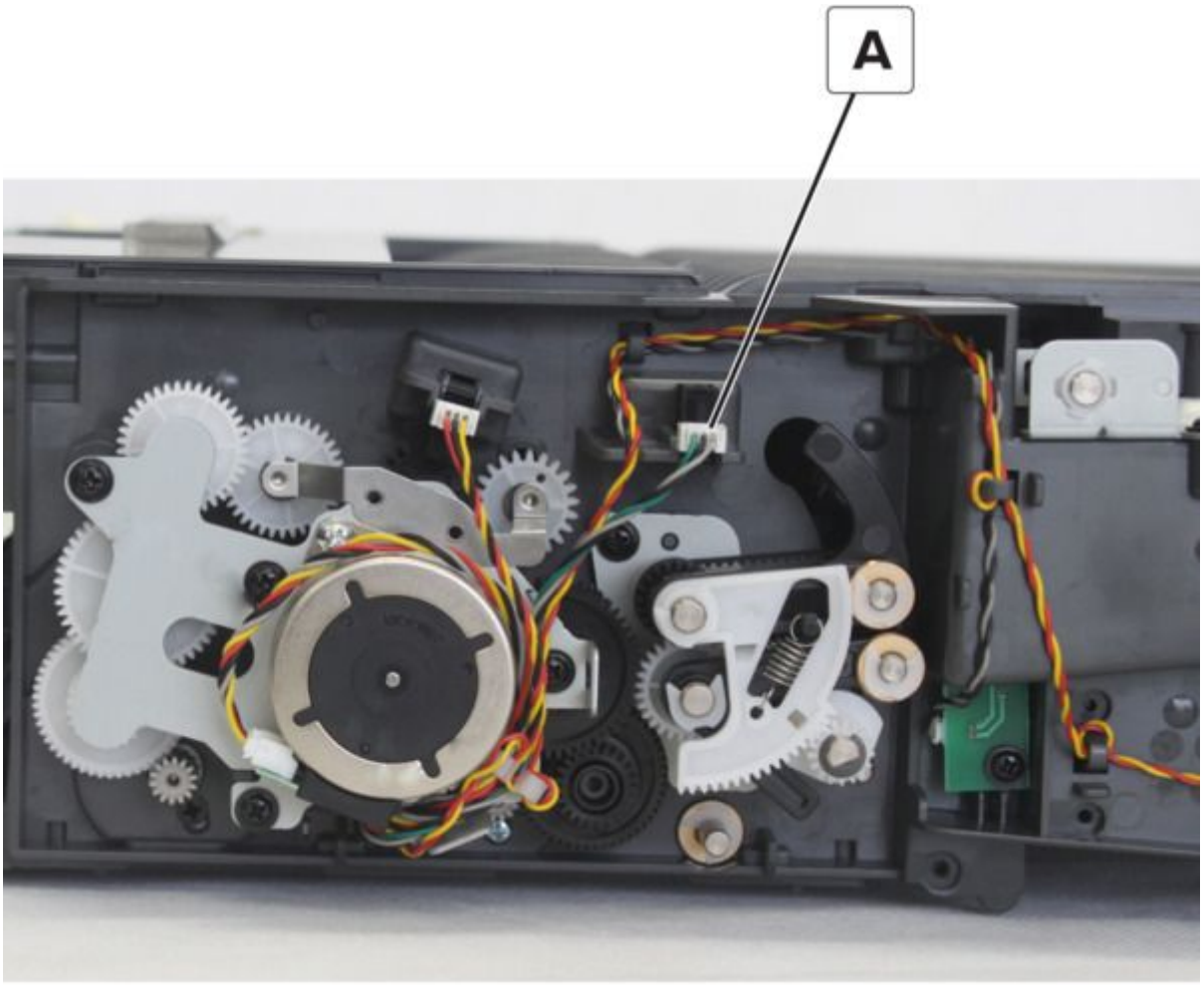
Installation Note

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.



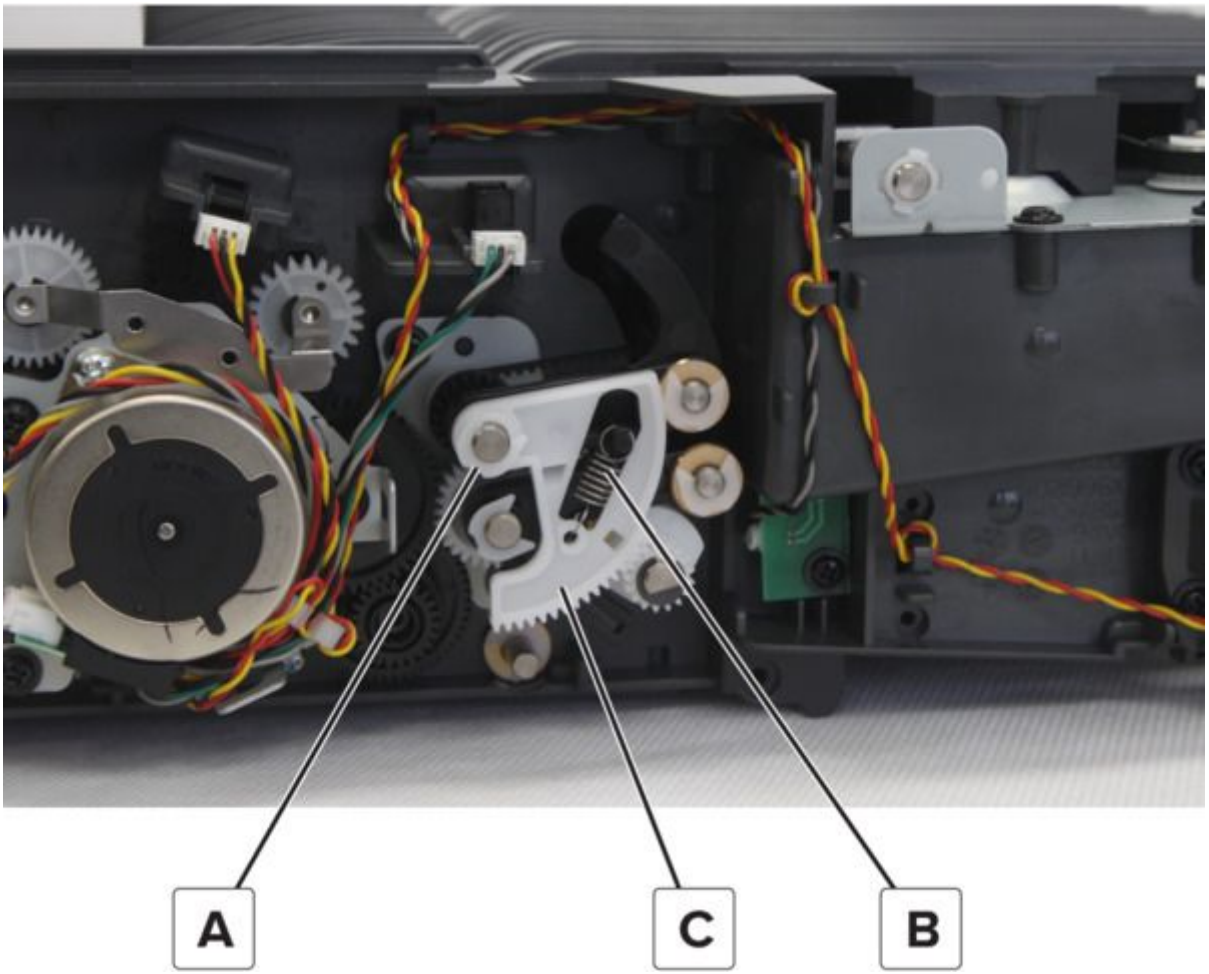
Sensor (staple finisher upper exit roller) removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Disconnect the cable (A), and then remove the sensor.

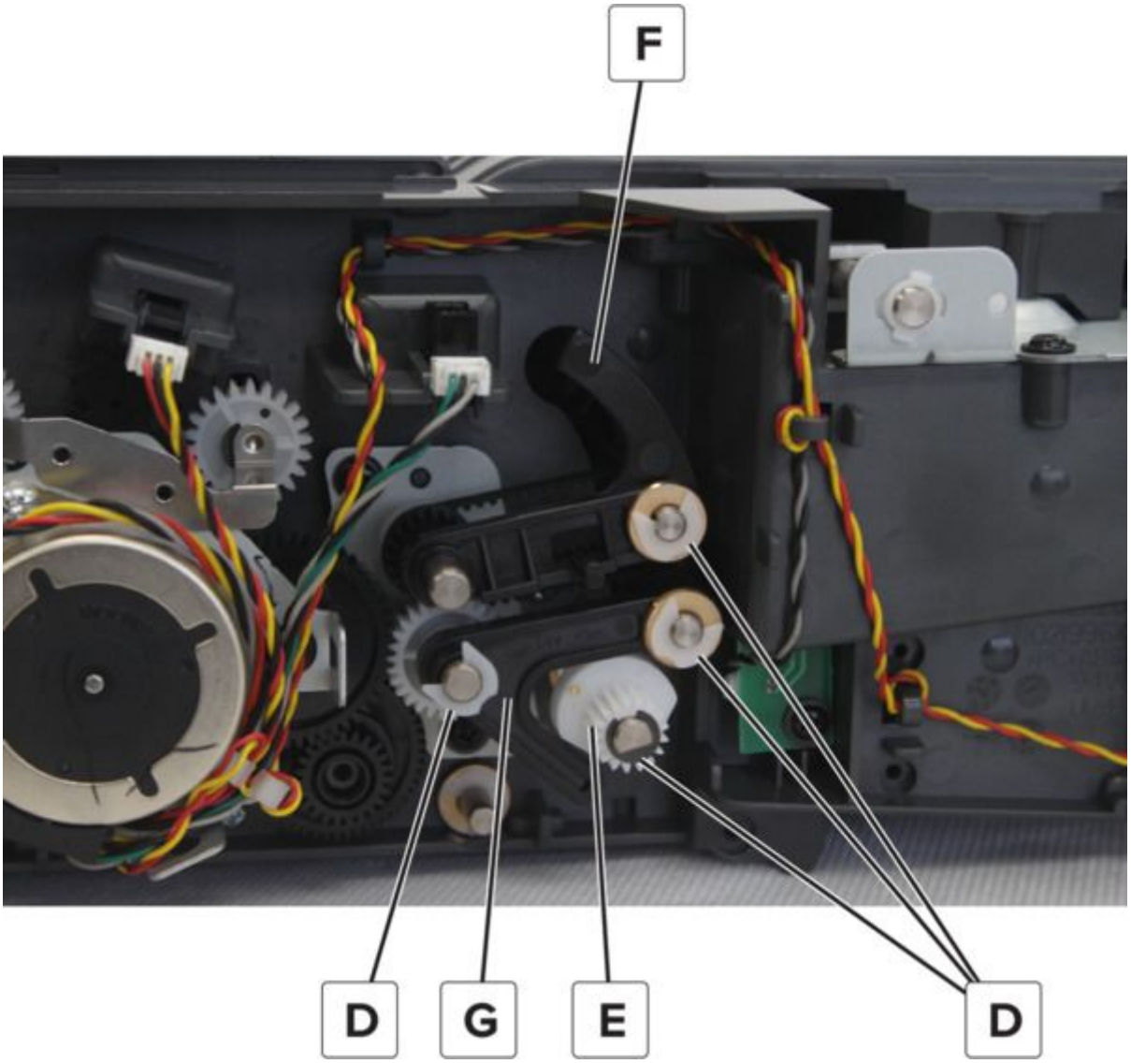


Staple finisher front upper position exit roller gears removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the clip (A), and then remove the spring (B).
3. Remove the gear (C).

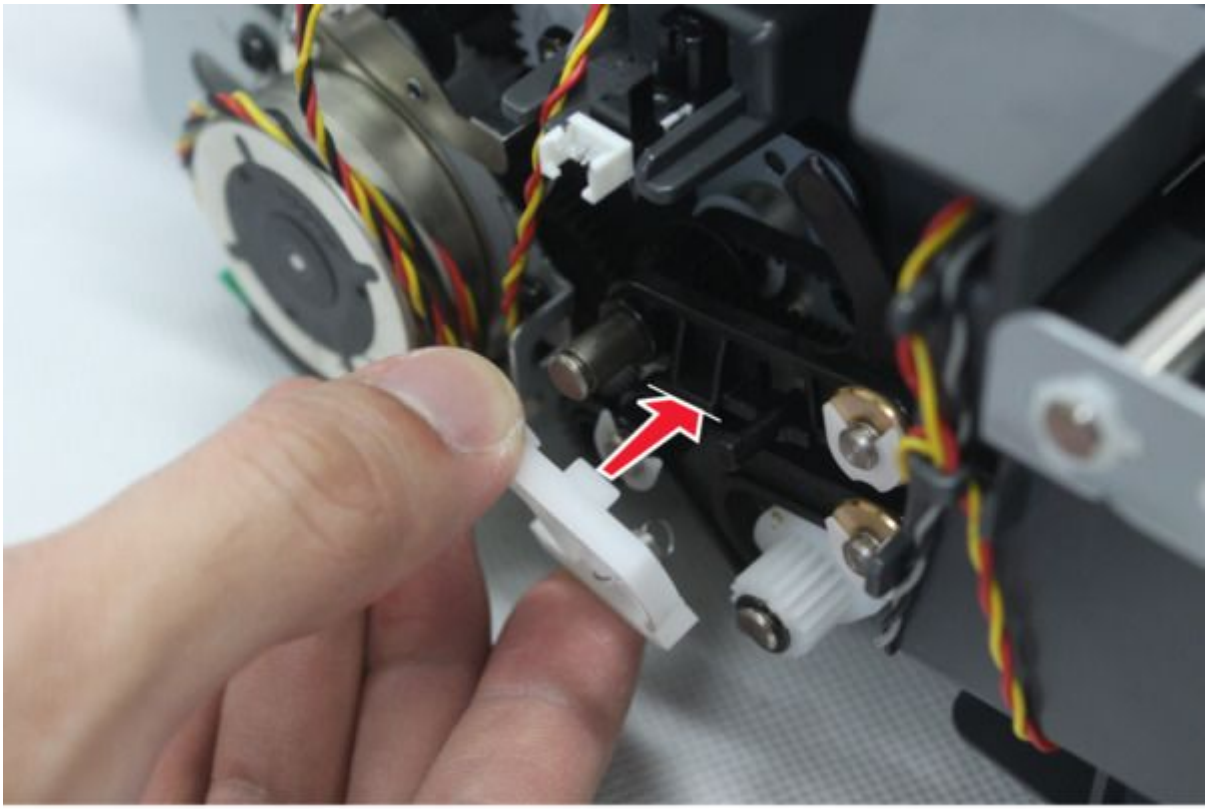


4. Remove the remaining four clips (D) and the bushings, and then remove the gear (E).
5. Remove the actuator (F), and then remove the lever (G).

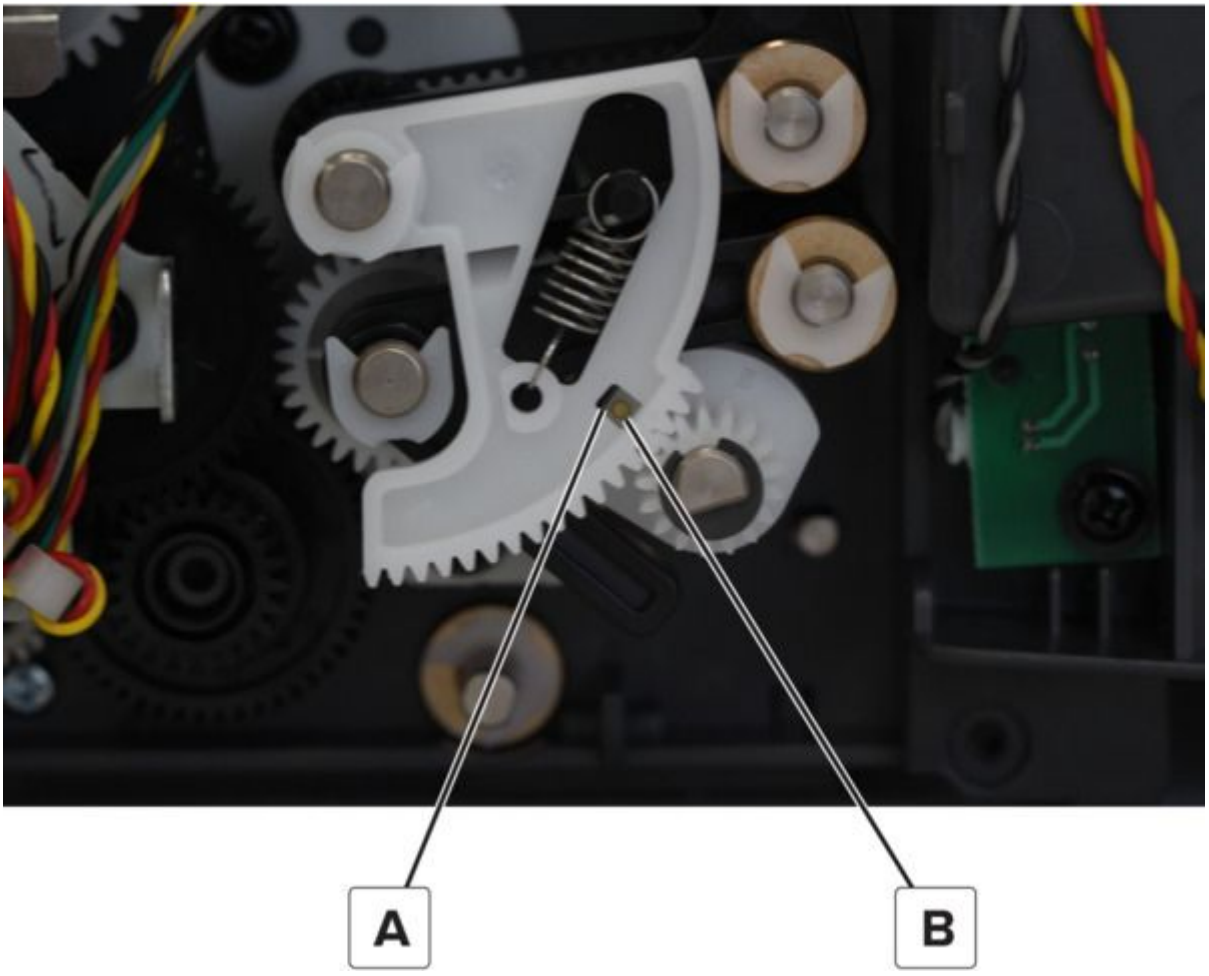


When installing the gears, make sure:

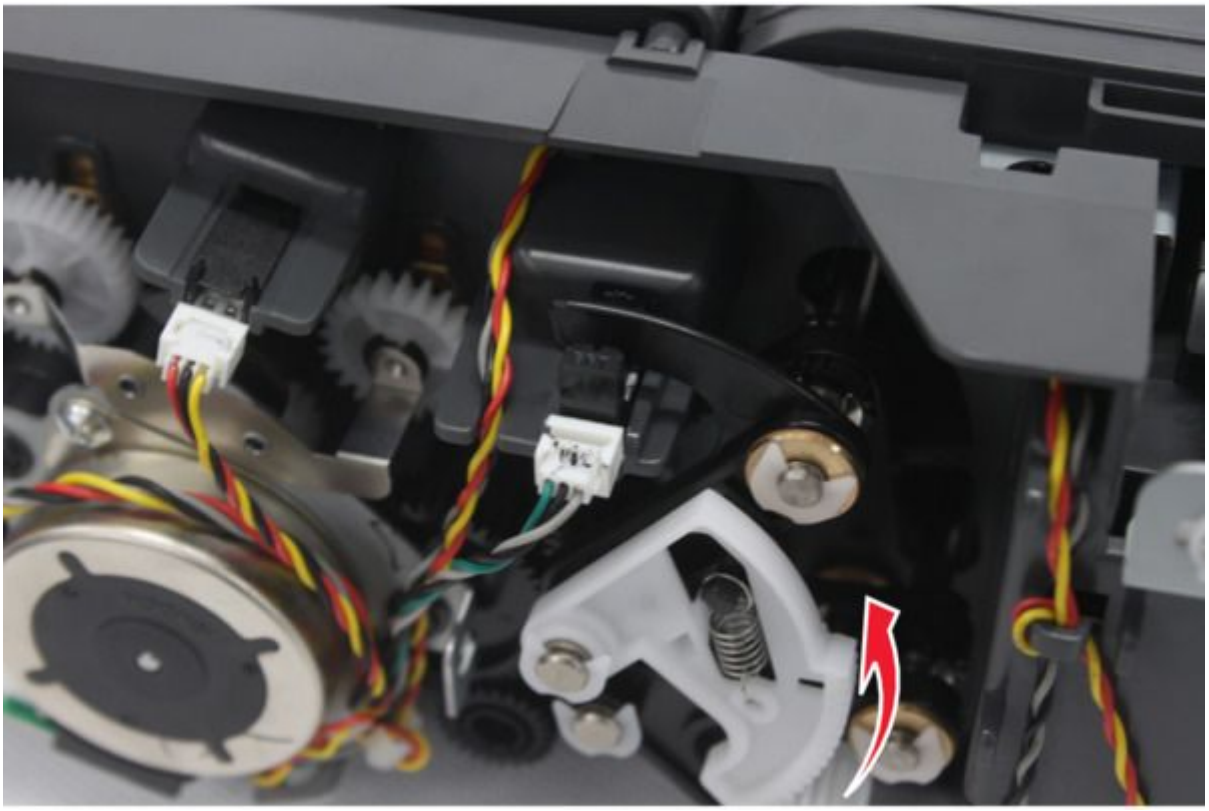
- That the tab on the gear is under the actuator.



- That the hole (A) aligns with the gold, circle marker (B).

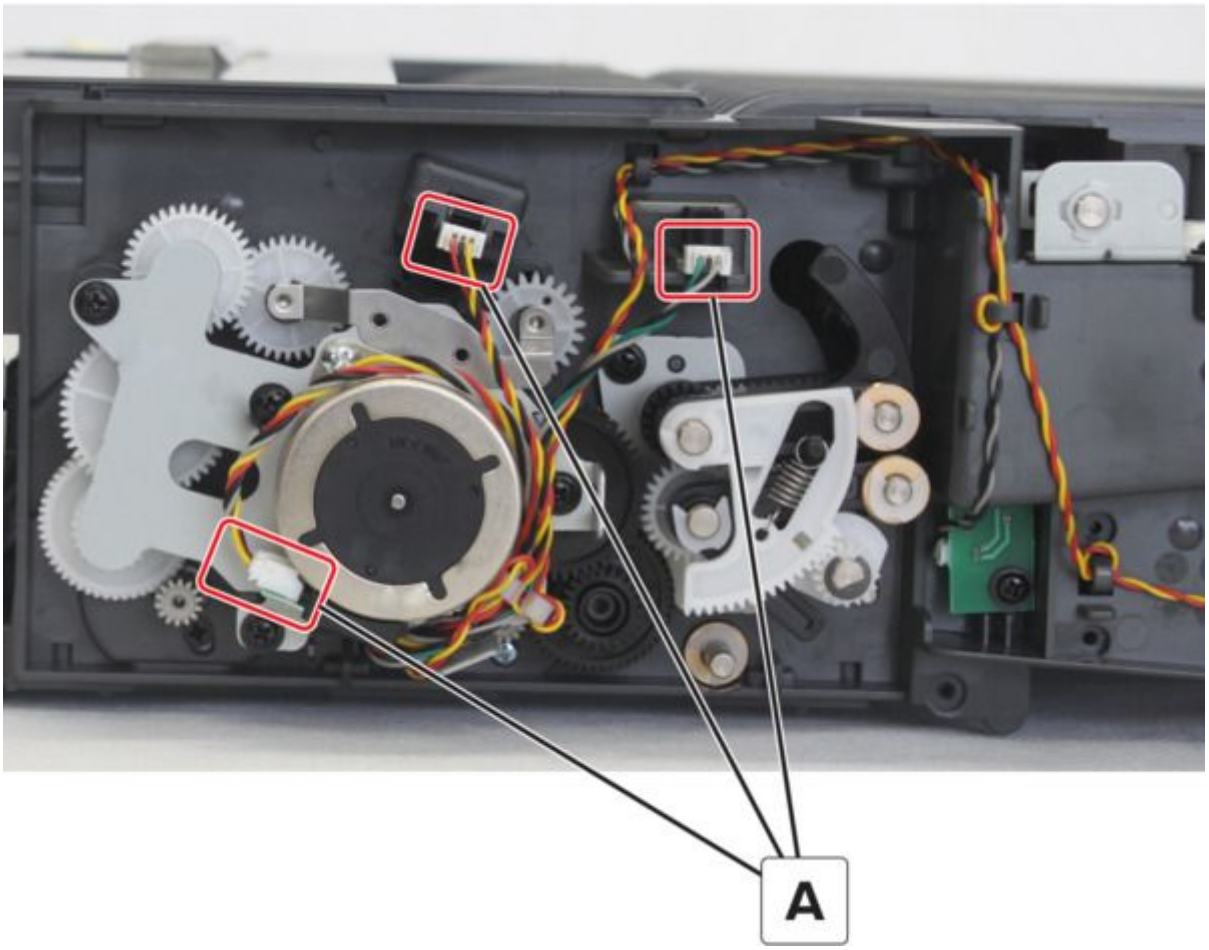


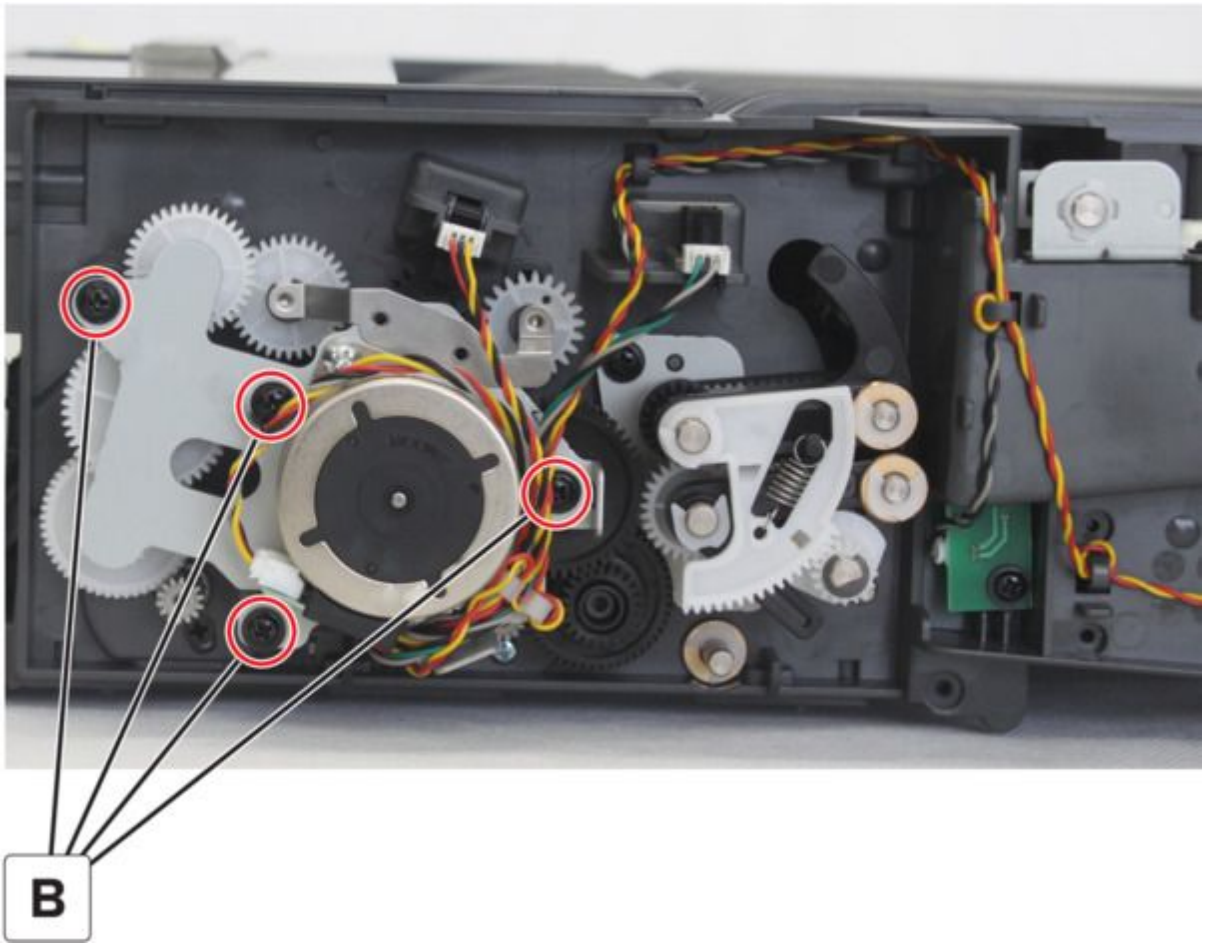
- To lift the gear to check if the actuator covers the sensor.



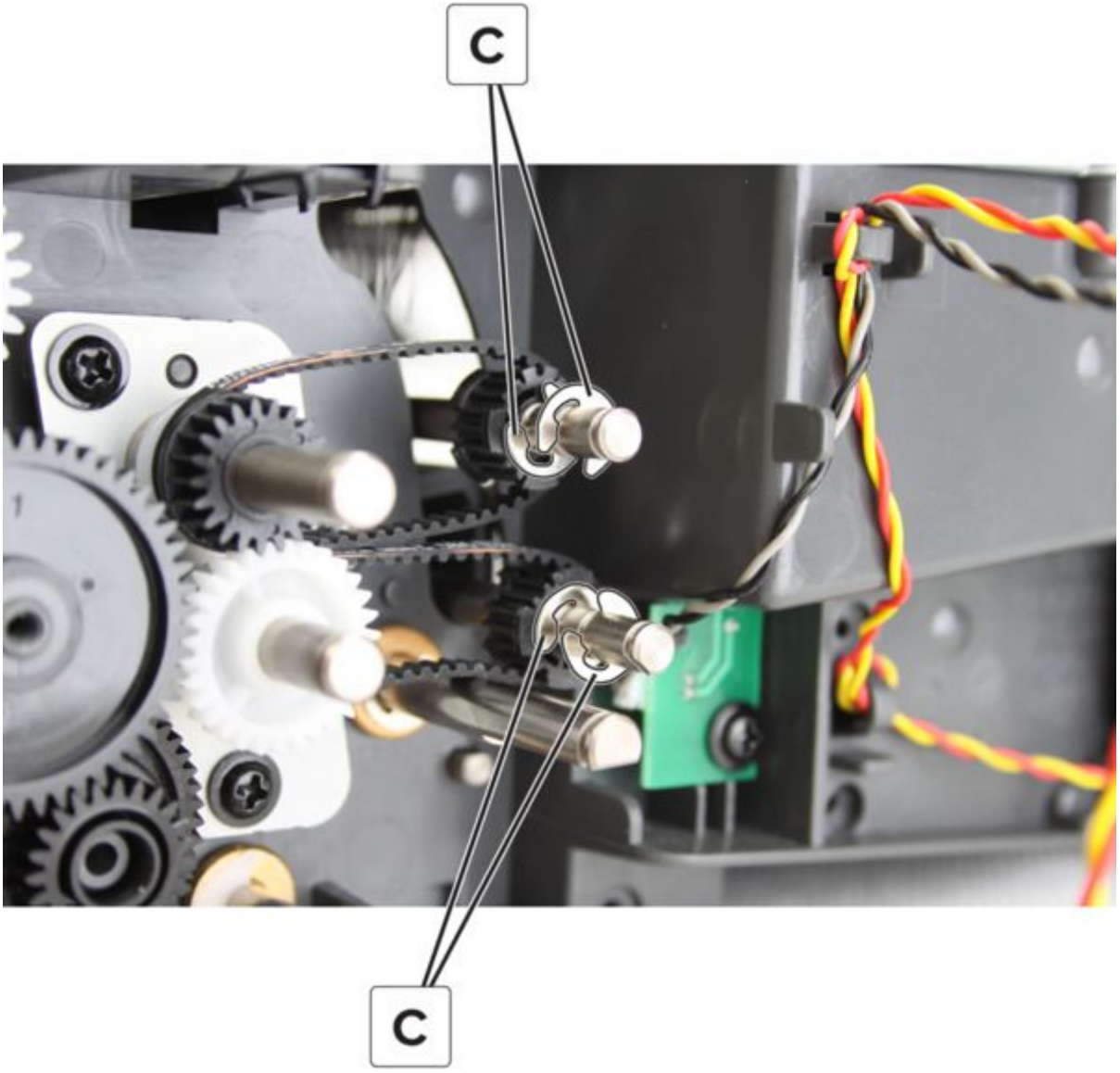
Staple finisher exit gears removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Disconnect the three cables (A), and then remove the four screws (B).

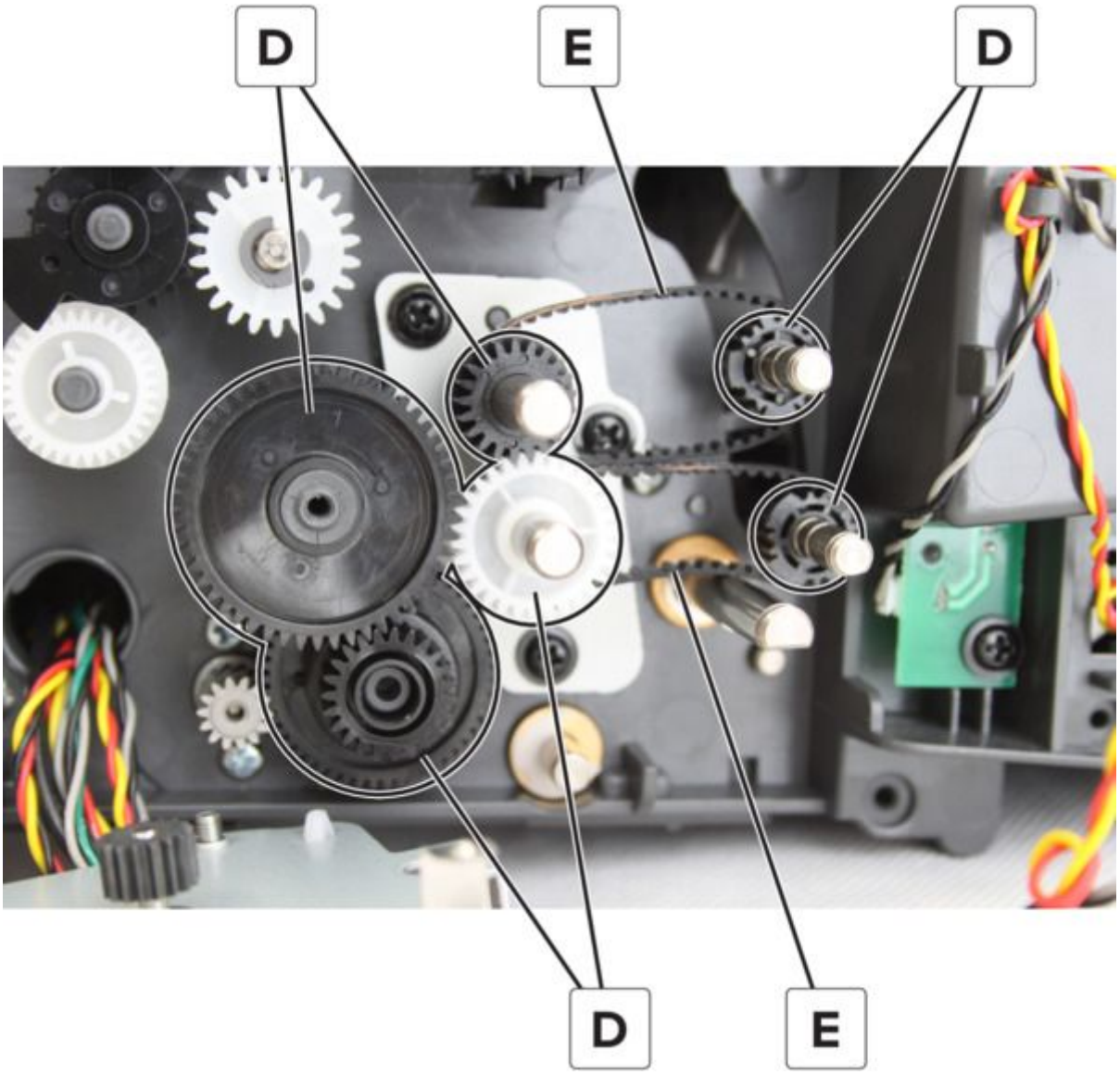

A



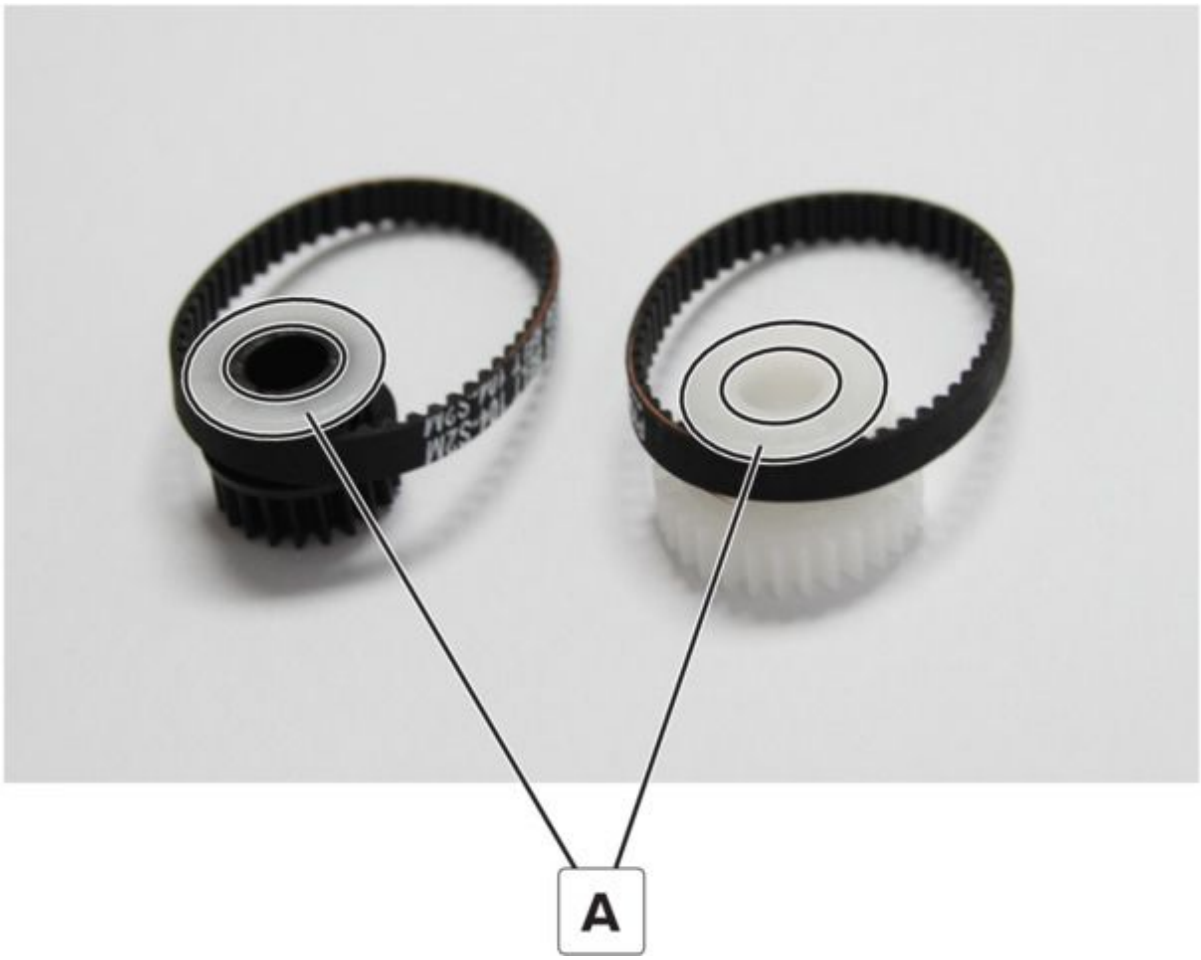
3. Set aside the aligner paddle motor and bracket.
4. Remove the front upper position exit roller gears. See Staple finisher front upper position exit roller gears removal on page 851.
5. Remove the four clips (C).



6. Remove the six exit gears (D), and then remove the two exit roller belts (E).

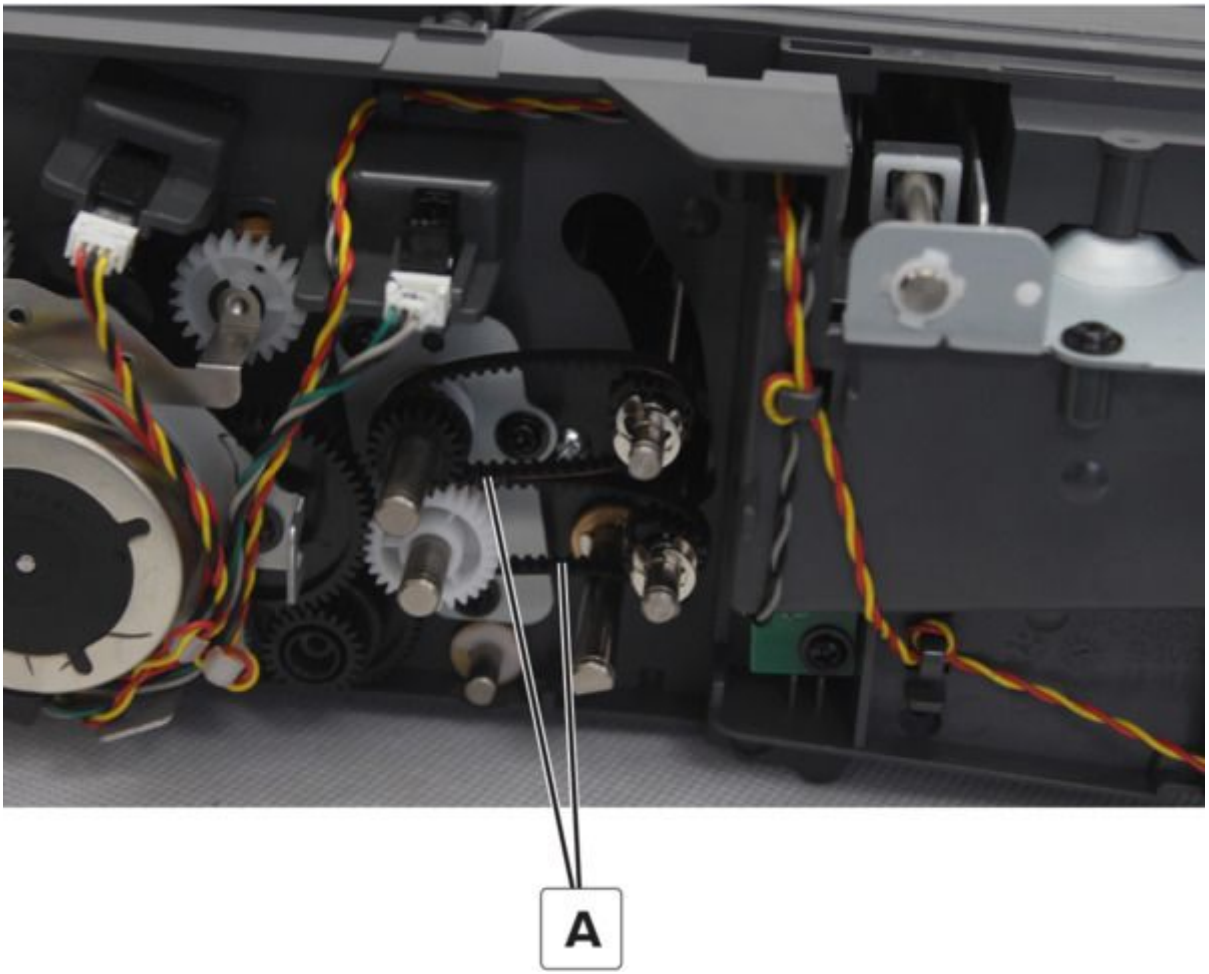


Installation Note
Make sure that the washers (A) are installed together with the belts.



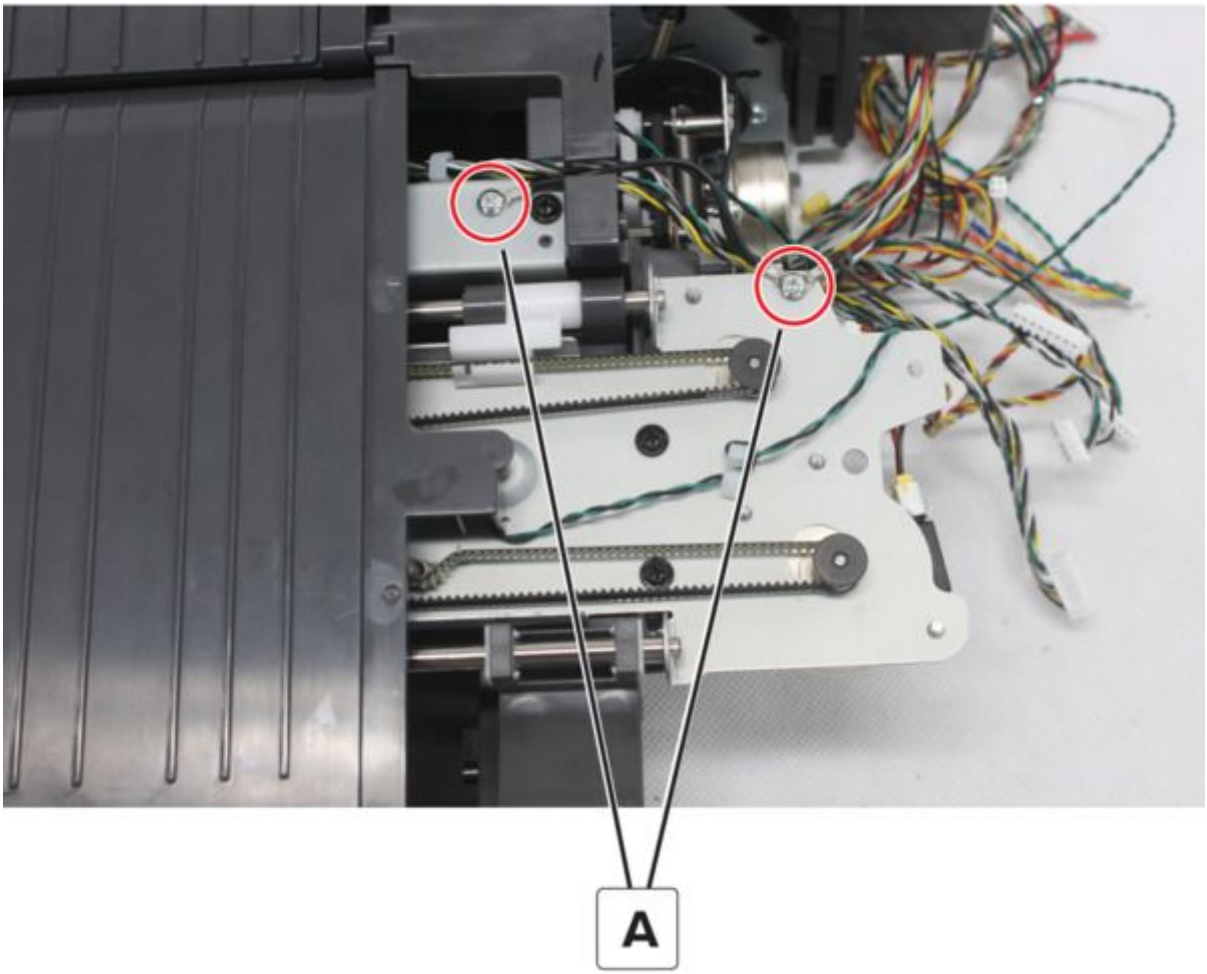
Staple finisher exit roller belts removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the front cover. See .Staple finisher front cover removal on page 807
3. Remove the upper position exit roller gears. See Staple finisher front upper position exit roller gears removal on page 851.
4. Remove the two belts (A).

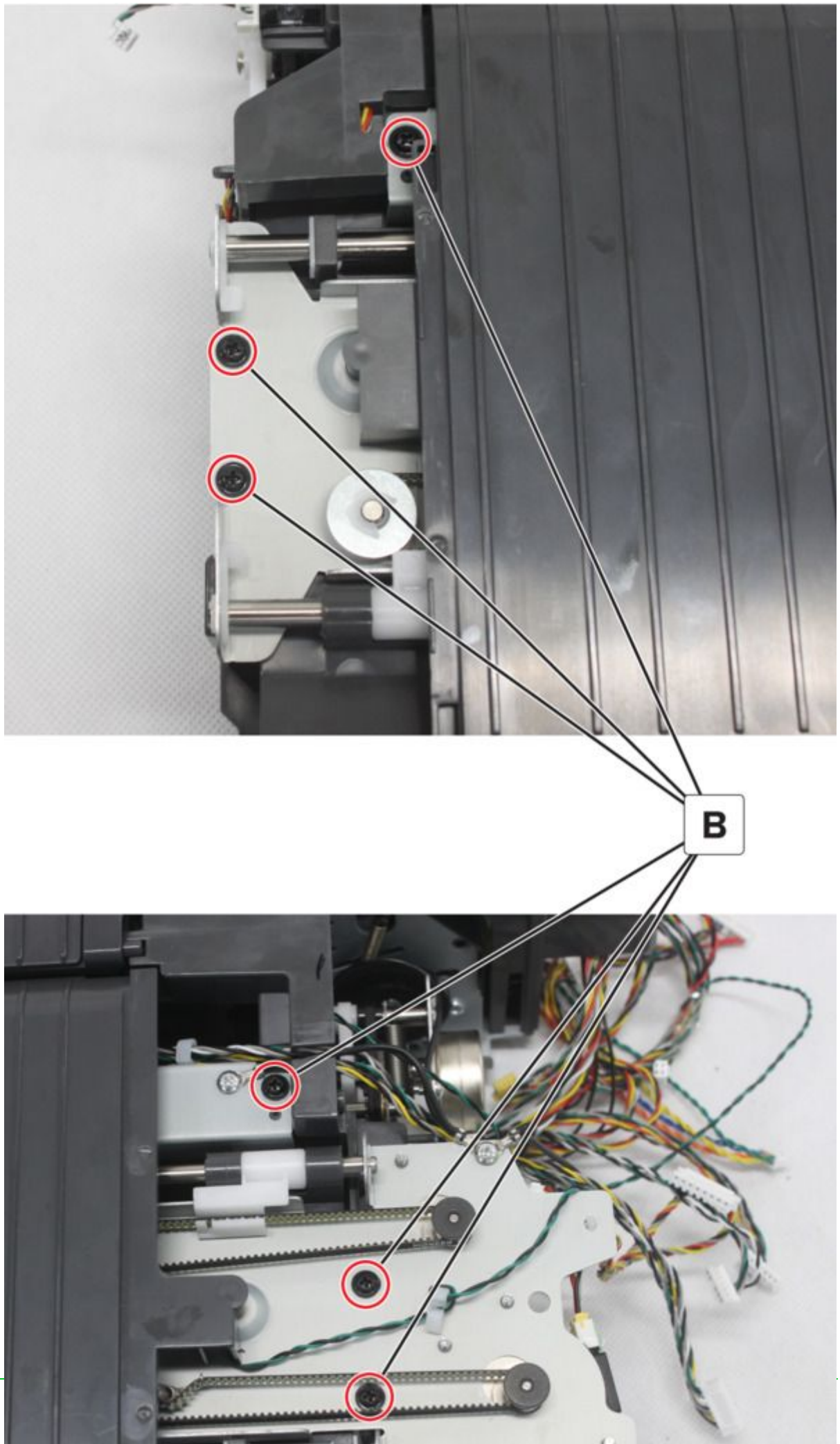


Staple finisher tamper assembly removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the front cover. See .Staple finisher front cover removal on page 807
5. Remove the two screws (A), and then set aside the cables.



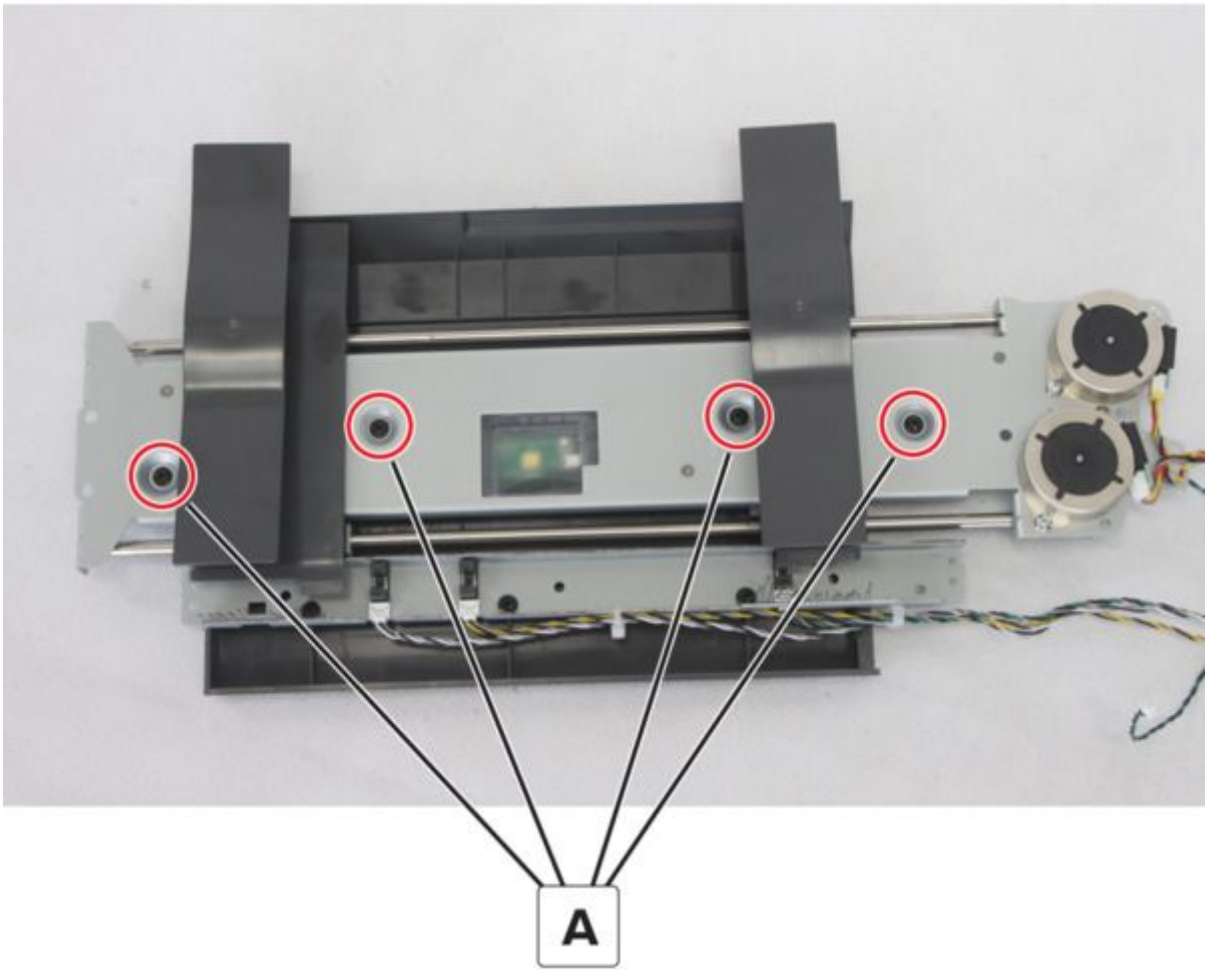
6. Remove the six screws (B).


B

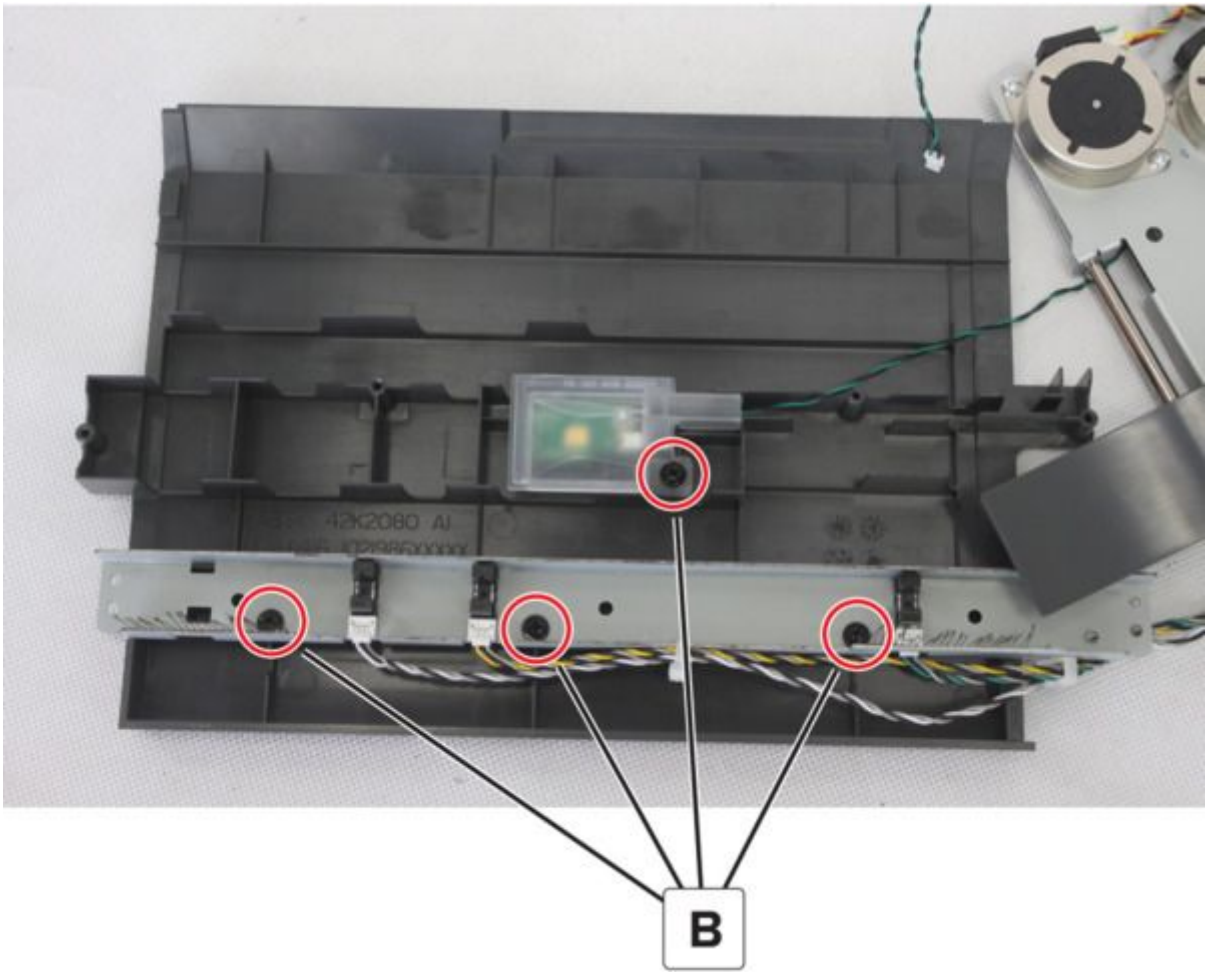
7. Set aside the cable, and then pull up the assembly.

Staple finisher tamper top cover removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the front cover. See .Staple finisher front cover removal on page 807
5. Remove the tamper assembly. See Staple finisher tamper assembly removal on page 861.
6. Remove the four screws (A), and then separate the top cover from the tamper.

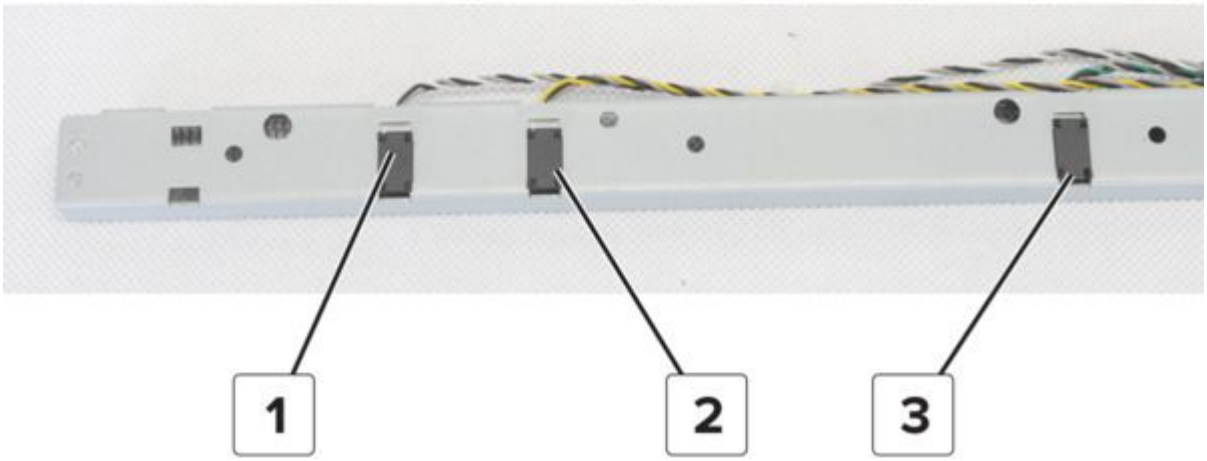


7. Remove the four screws (B), and then remove the cave light and the metal bracket.



Sensor (staple finisher tamper position) removal

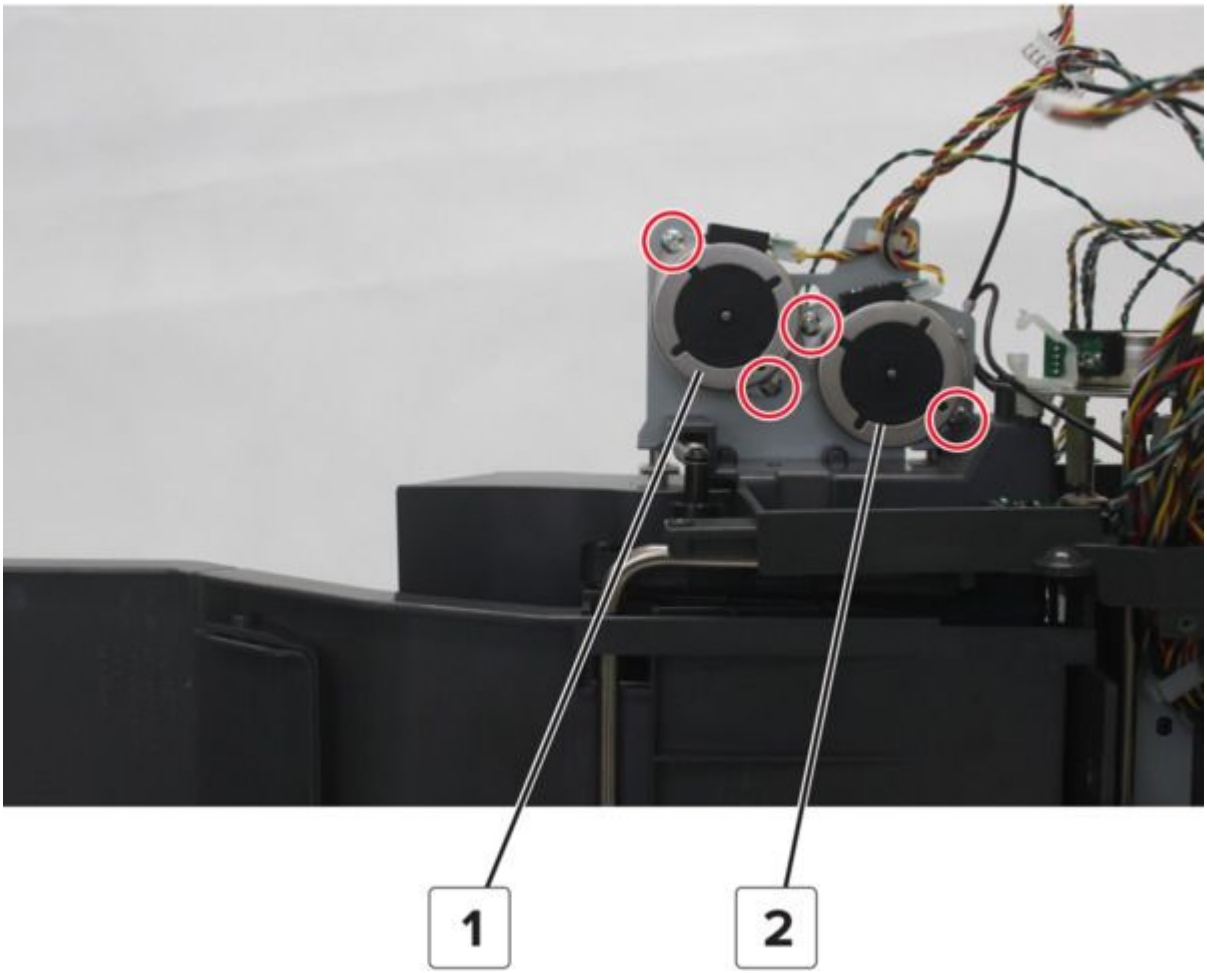
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the front cover. See .Staple finisher front cover removal on page 807
5. Remove the tamper assembly. See Staple finisher tamper assembly removal on page 861.
6. Remove the tamper top cover. See Staple finisher tamper top cover removal on page 864.
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)

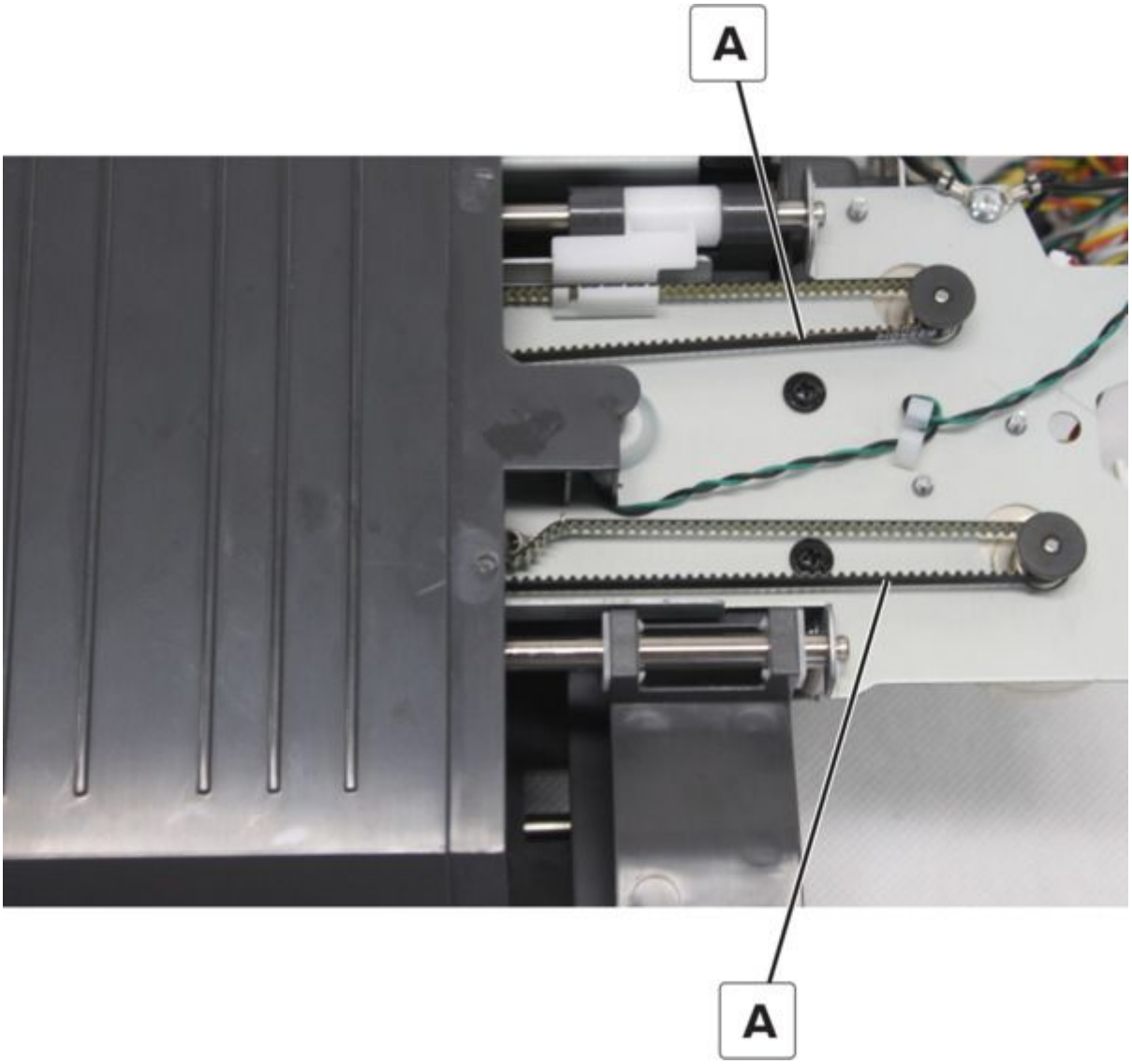
Motor (staple finisher tamper) removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See Staple finisher right cover removal on page 807.
3. Remove the controller board. See Staple finisher controller board removal on page 812.
4. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
5. From the rear or front tamper motor, remove the two screws.



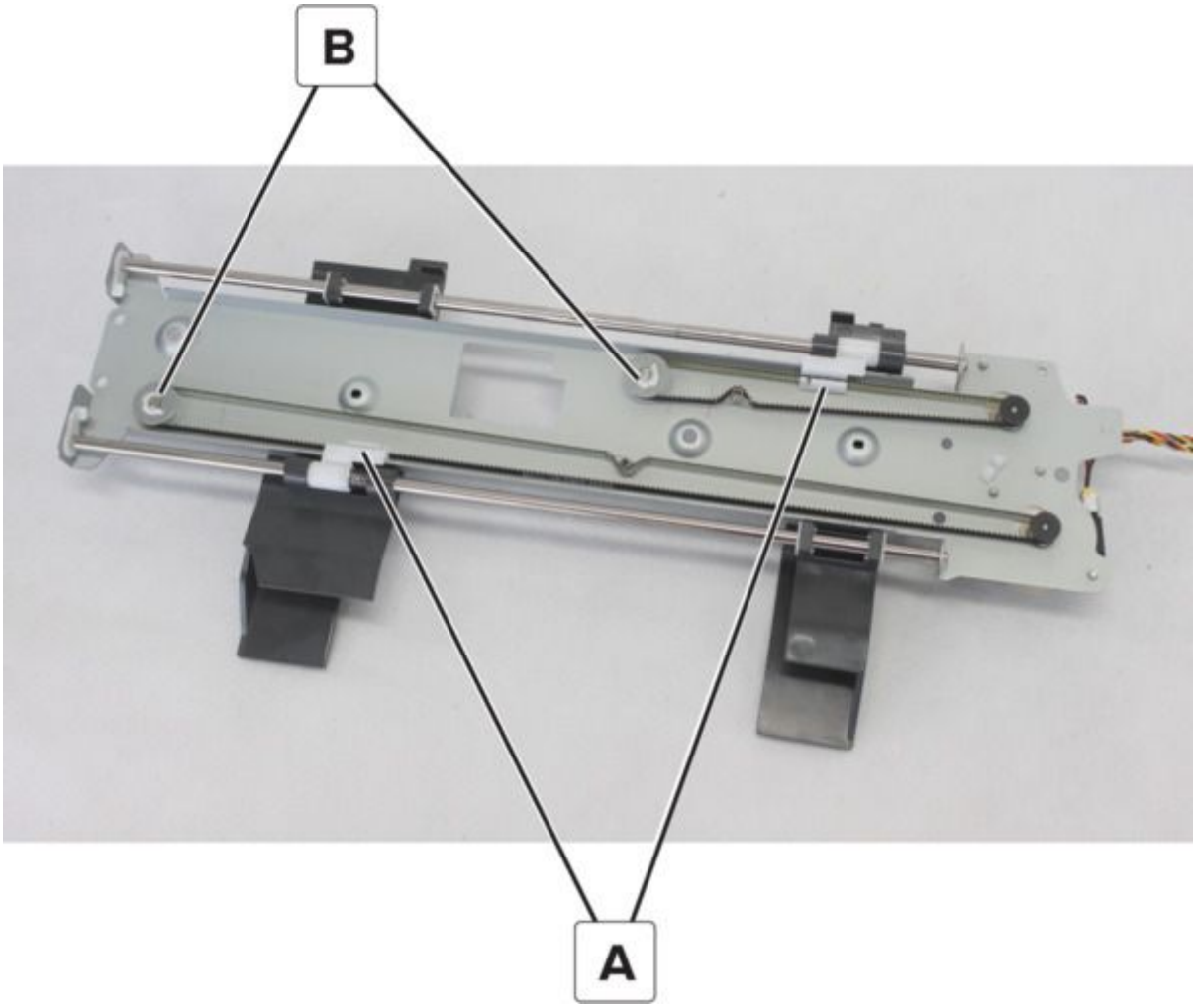
1	Motor (staple finisher front tamper)
2	Motor (staple finisher rear tamper)

6. Release the rear or front tamper belt (A) from the gear, and then remove the motor.



Staple finisher tamper belts removal

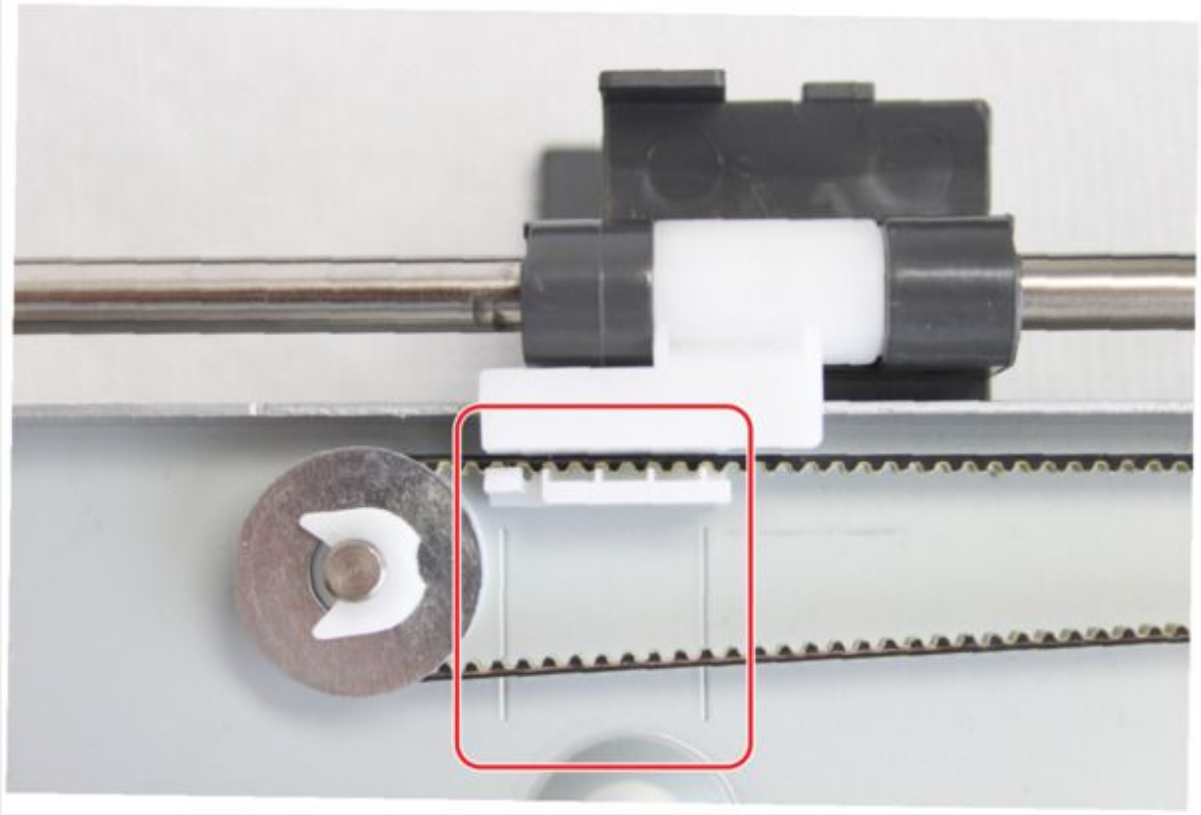
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the front cover. See .Staple finisher front cover removal on page 807
5. Remove the tamper assembly. See Staple finisher tamper assembly removal on page 861.
6. Remove the tamper top cover. See Staple finisher tamper top cover removal on page 864.
7. Release the belt from the belt holder (A).
8. Remove the clip (B), and then remove the washer.



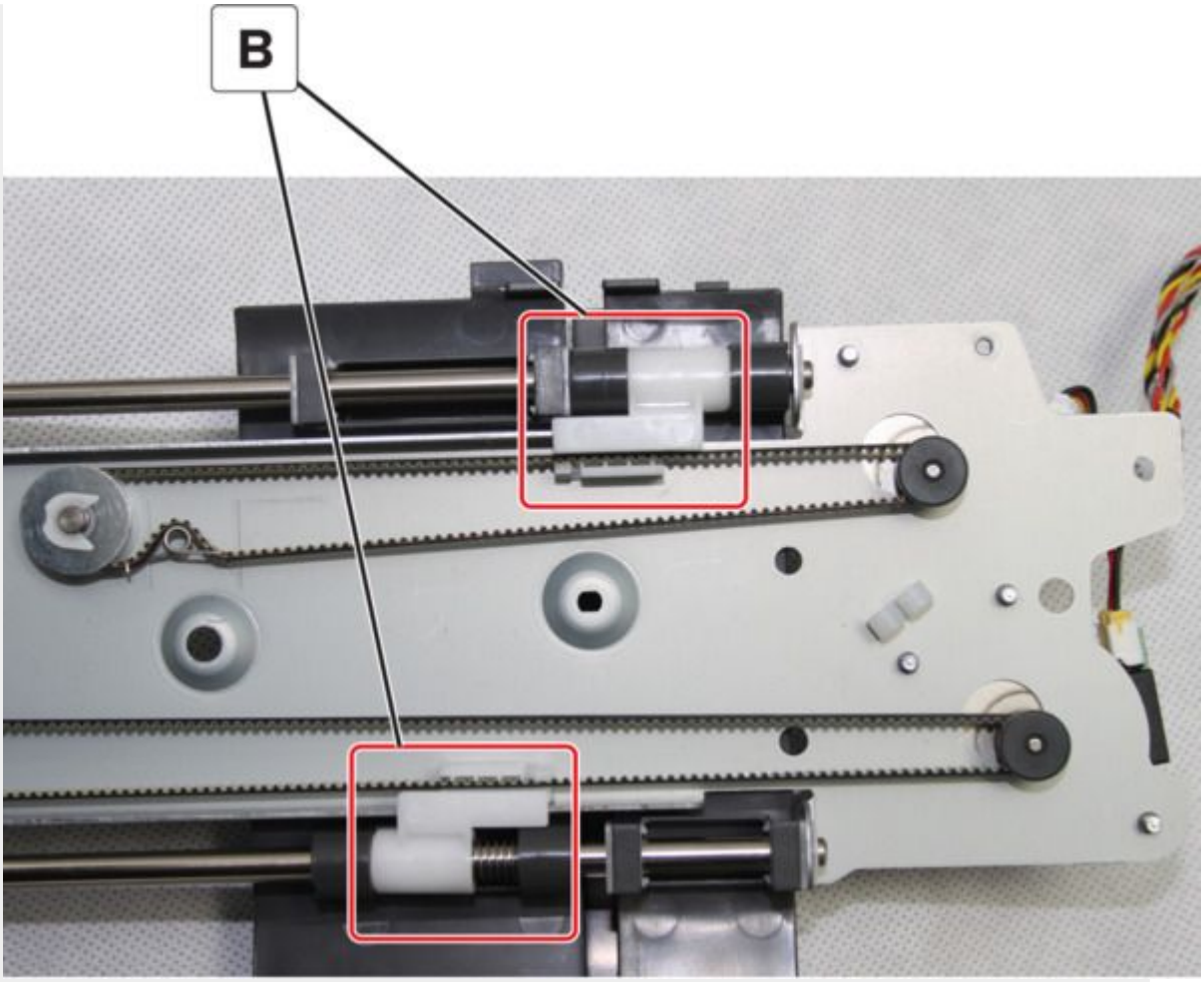
9. Remove the belt.

Installation Note

1. Move the tampers (A) to the right.
2. Align the edges of the spring with the markings on the plate.

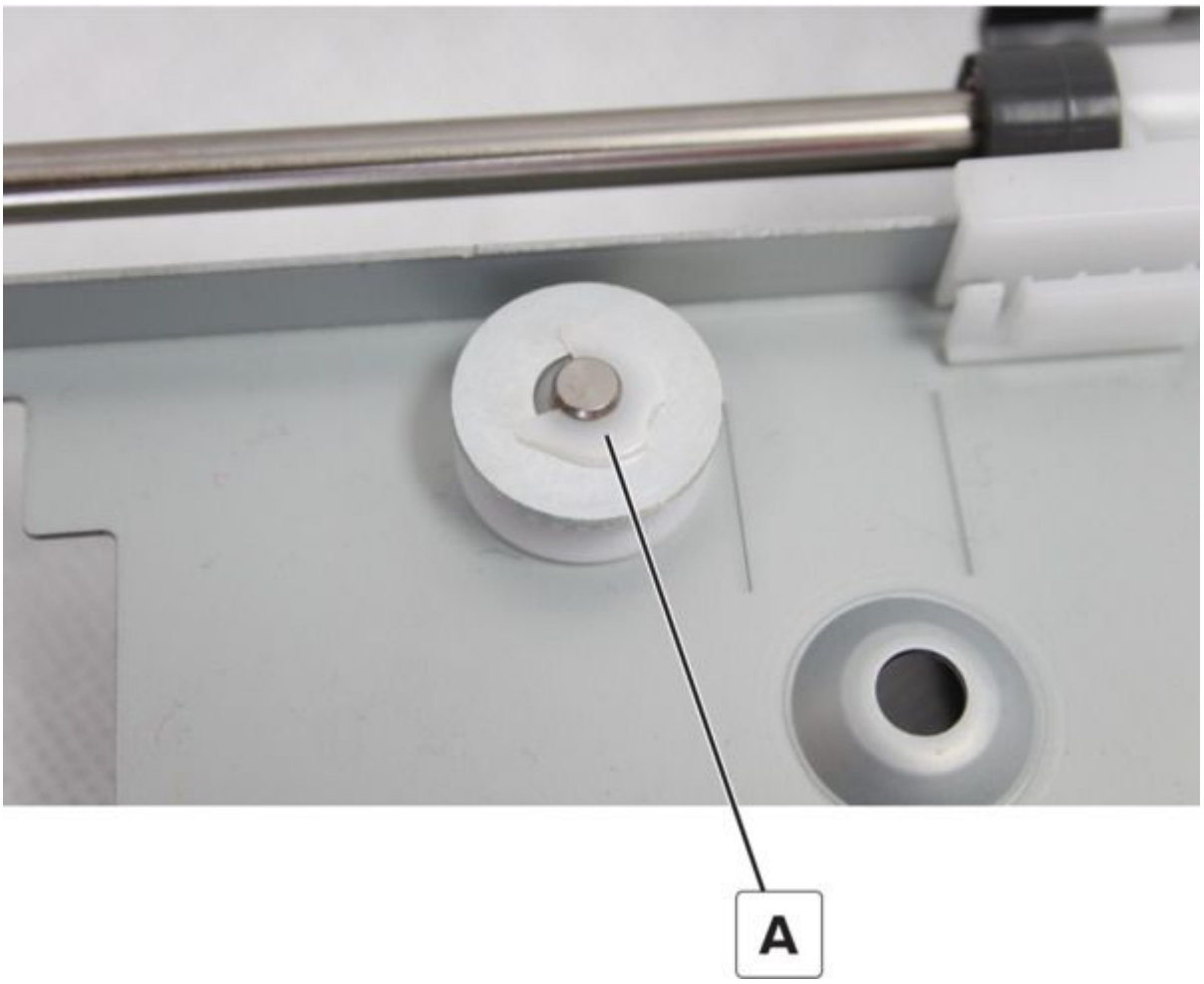


3. Insert the belt into the belt holder (B).



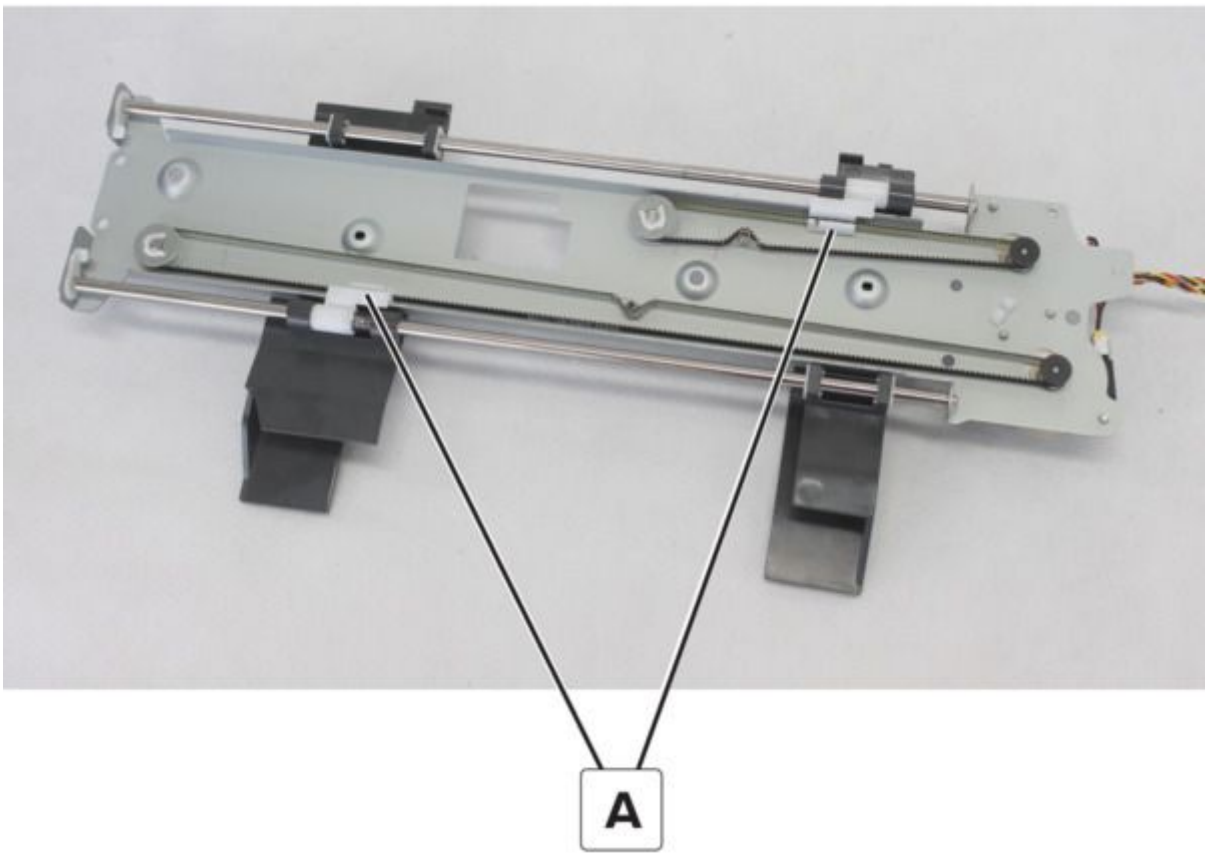
Staple finisher tamper pulley gear removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the front cover. See .Staple finisher front cover removal on page 807
5. Remove the tamper assembly. See Staple finisher tamper assembly removal on page 861.
6. Remove the tamper top cover. See Staple finisher tamper top cover removal on page 864.
7. Remove the tamper belts. See Staple finisher tamper belts removal on page 868.
8. Remove the clip (A), and then remove the gear.

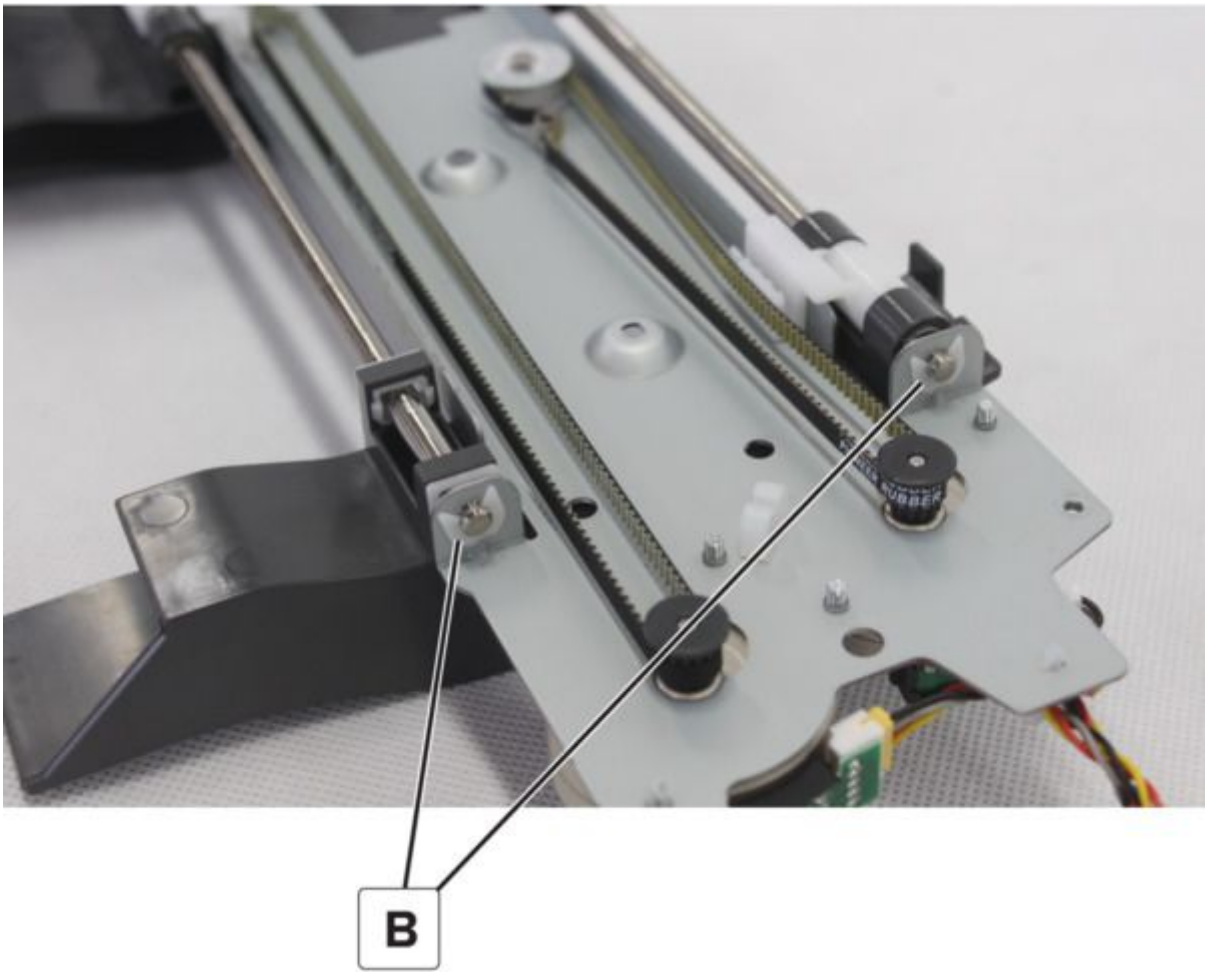


Staple finisher tamper removal

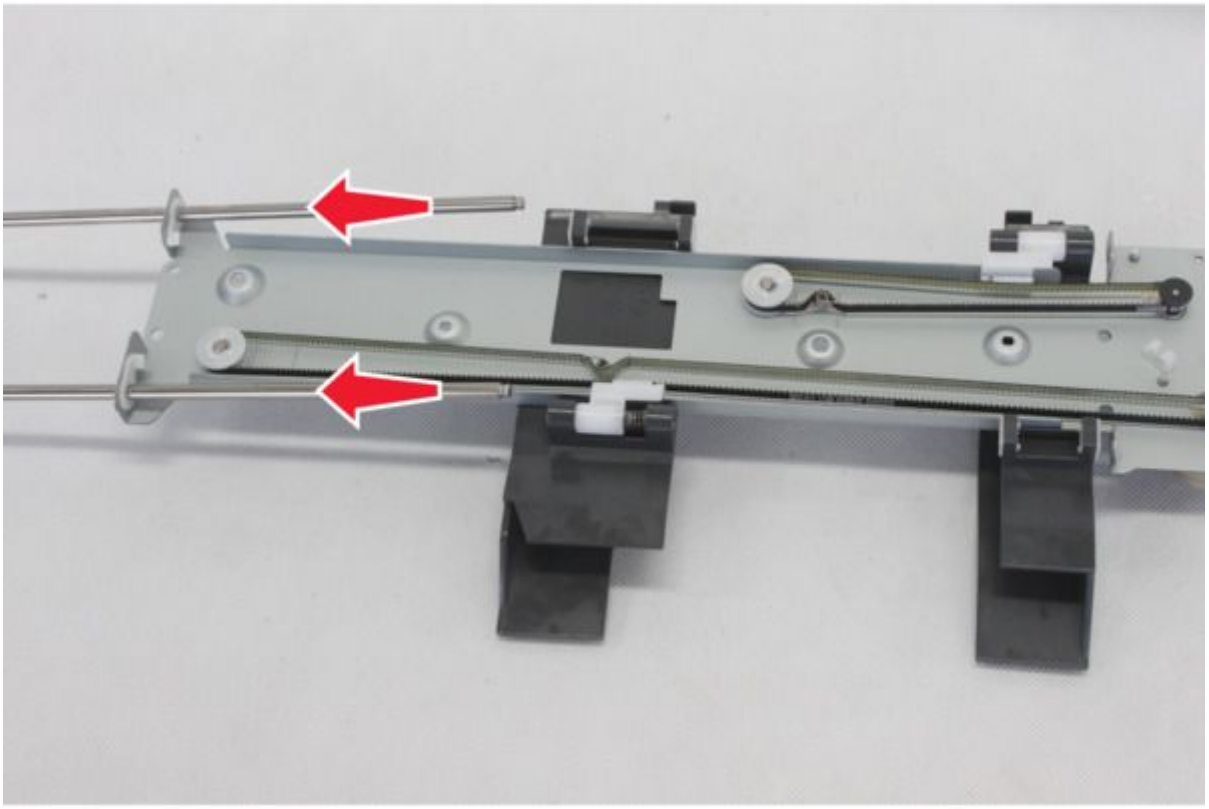
1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the front cover. See .Staple finisher front cover removal on page 807
5. Remove the tamper assembly. See Staple finisher tamper assembly removal on page 861.
6. Release the belts from the holders (A).



7. Remove the two clips (B).



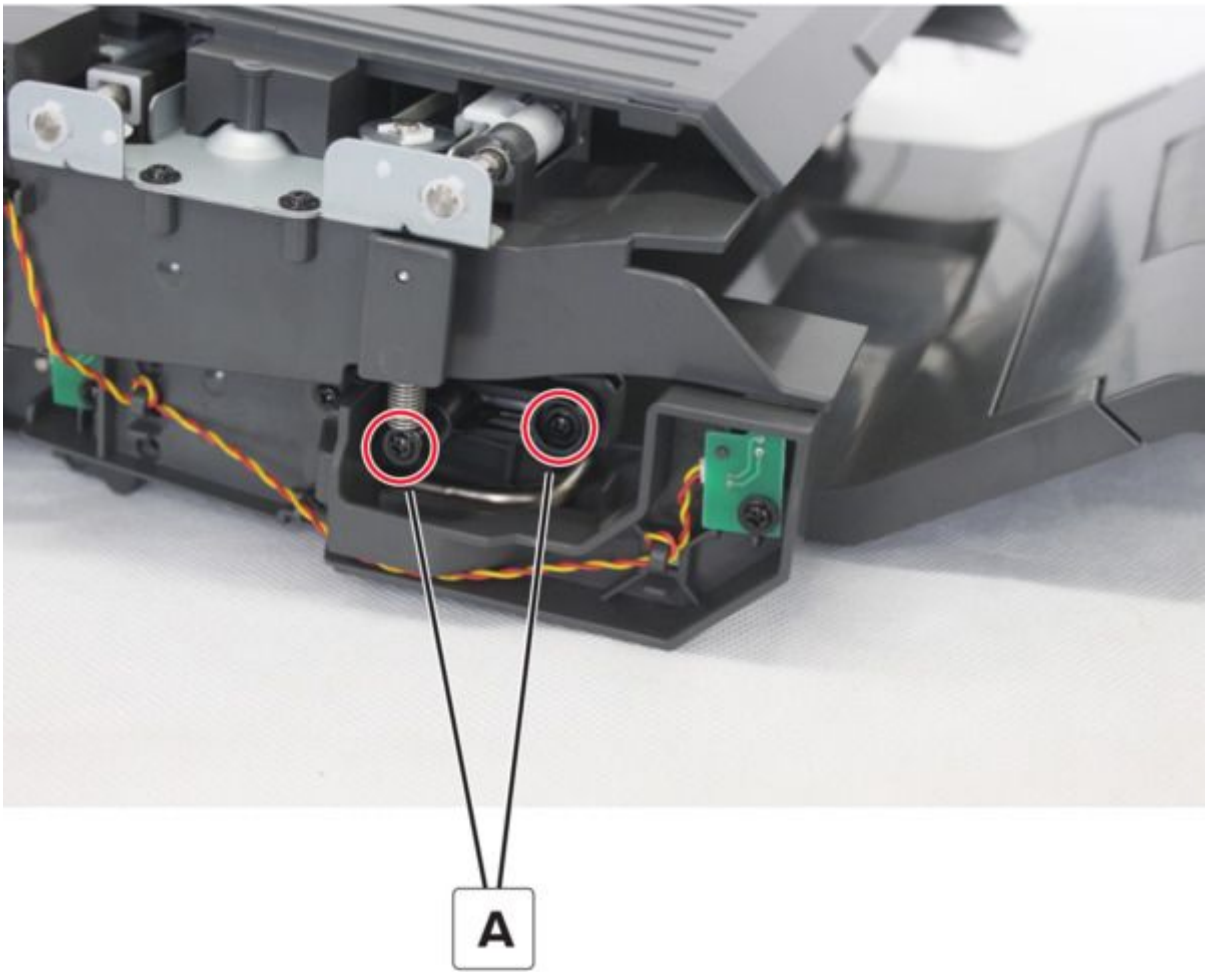
8. Remove the shafts.



9. Remove the holder, and then remove the spring.

Staple finisher bin link removal

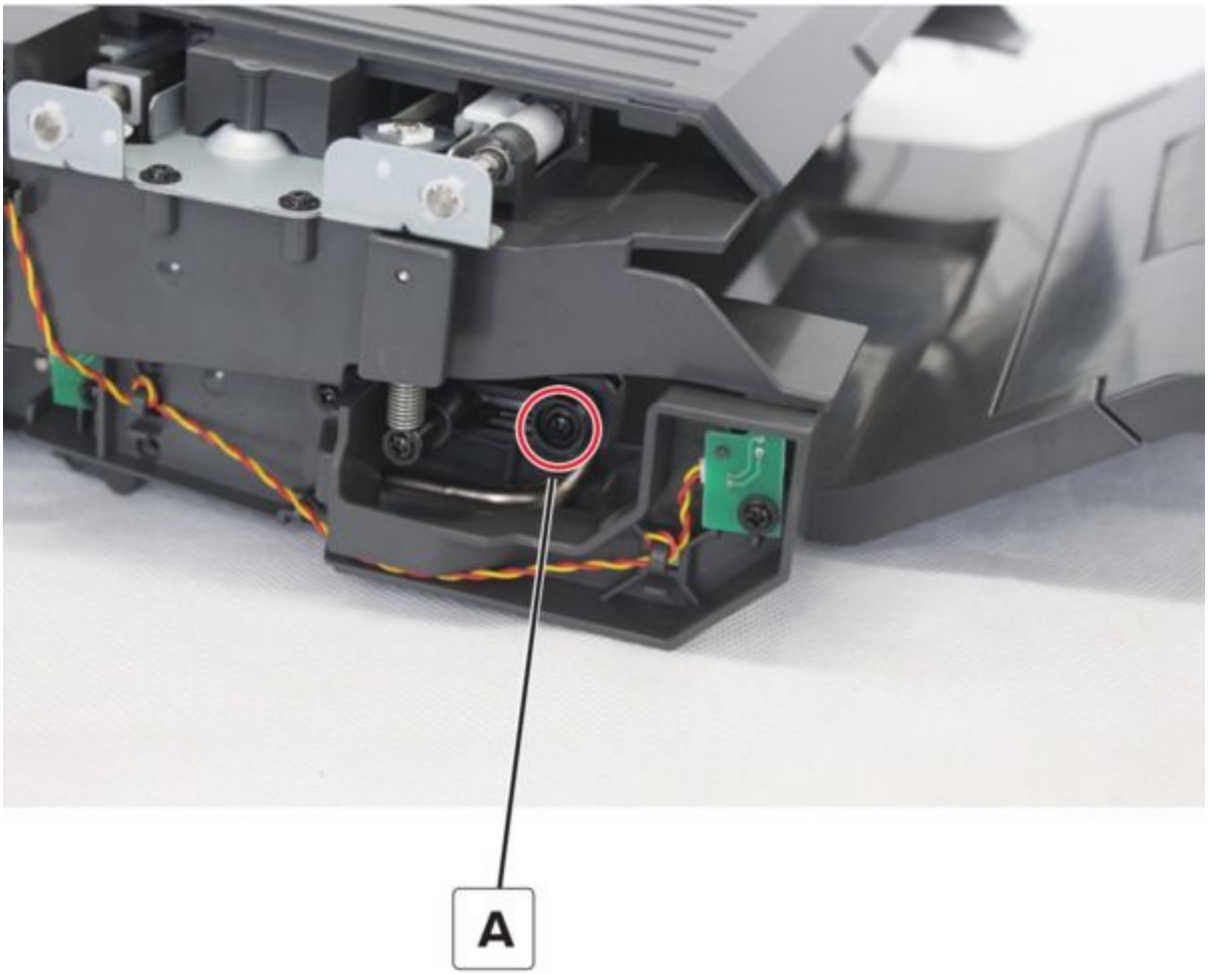
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Set aside the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the two screws (A), and then release the spring. Do the same for the two screws and the spring on the other side.



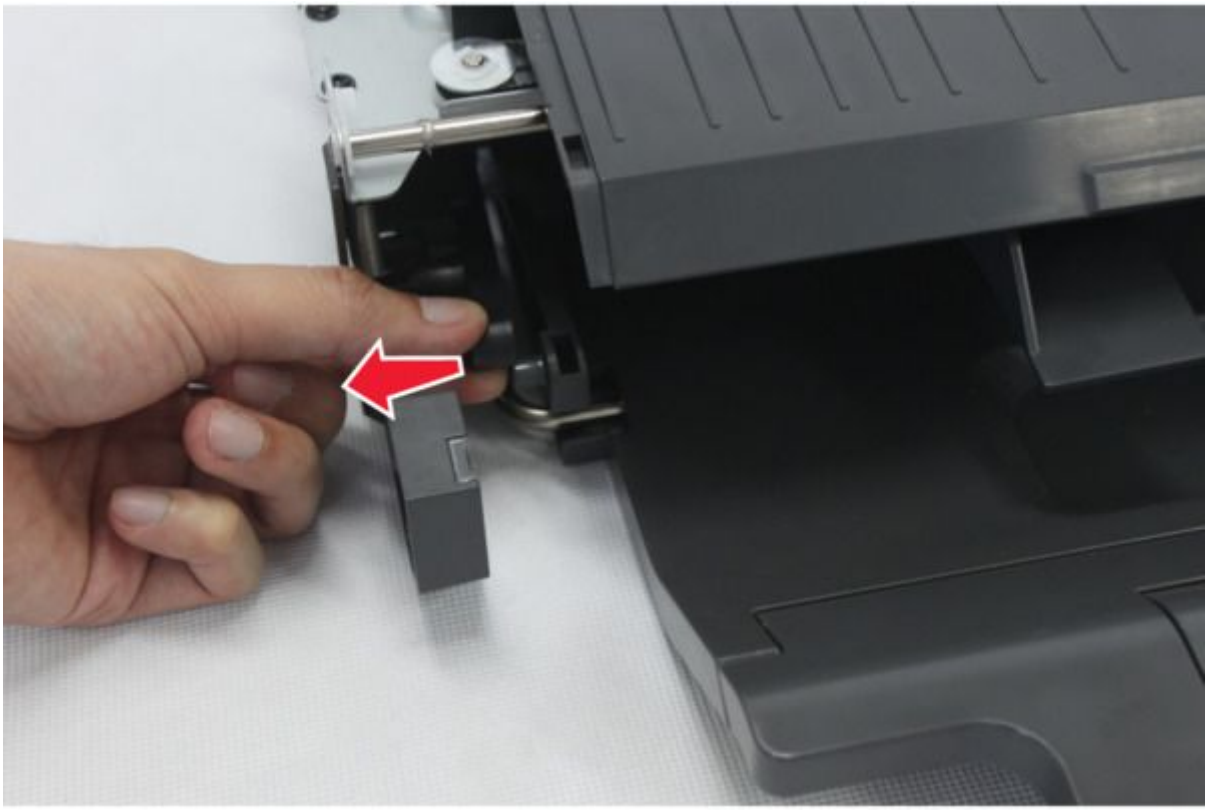
5. Remove the screw (B), and then remove the link from both sides of the finisher.

Staple finisher bin removal

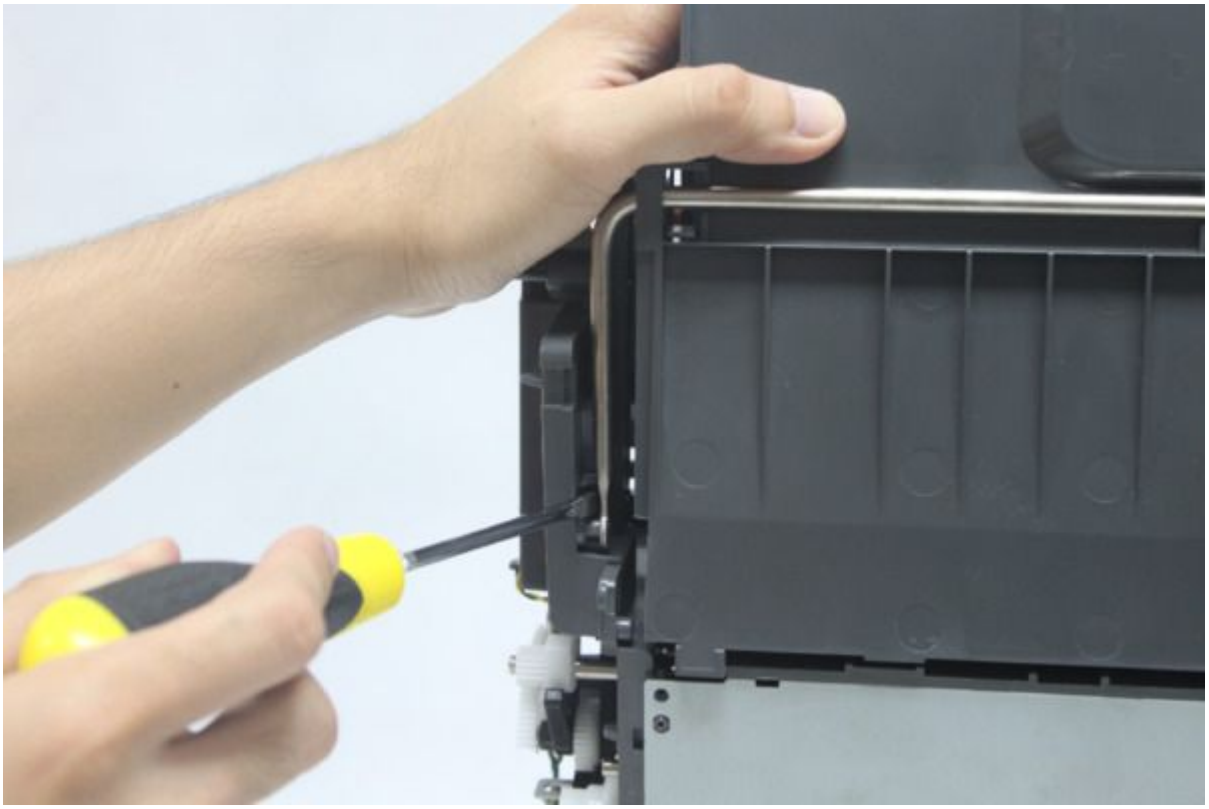
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Set aside the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the screw (A), and then release the spring. 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.

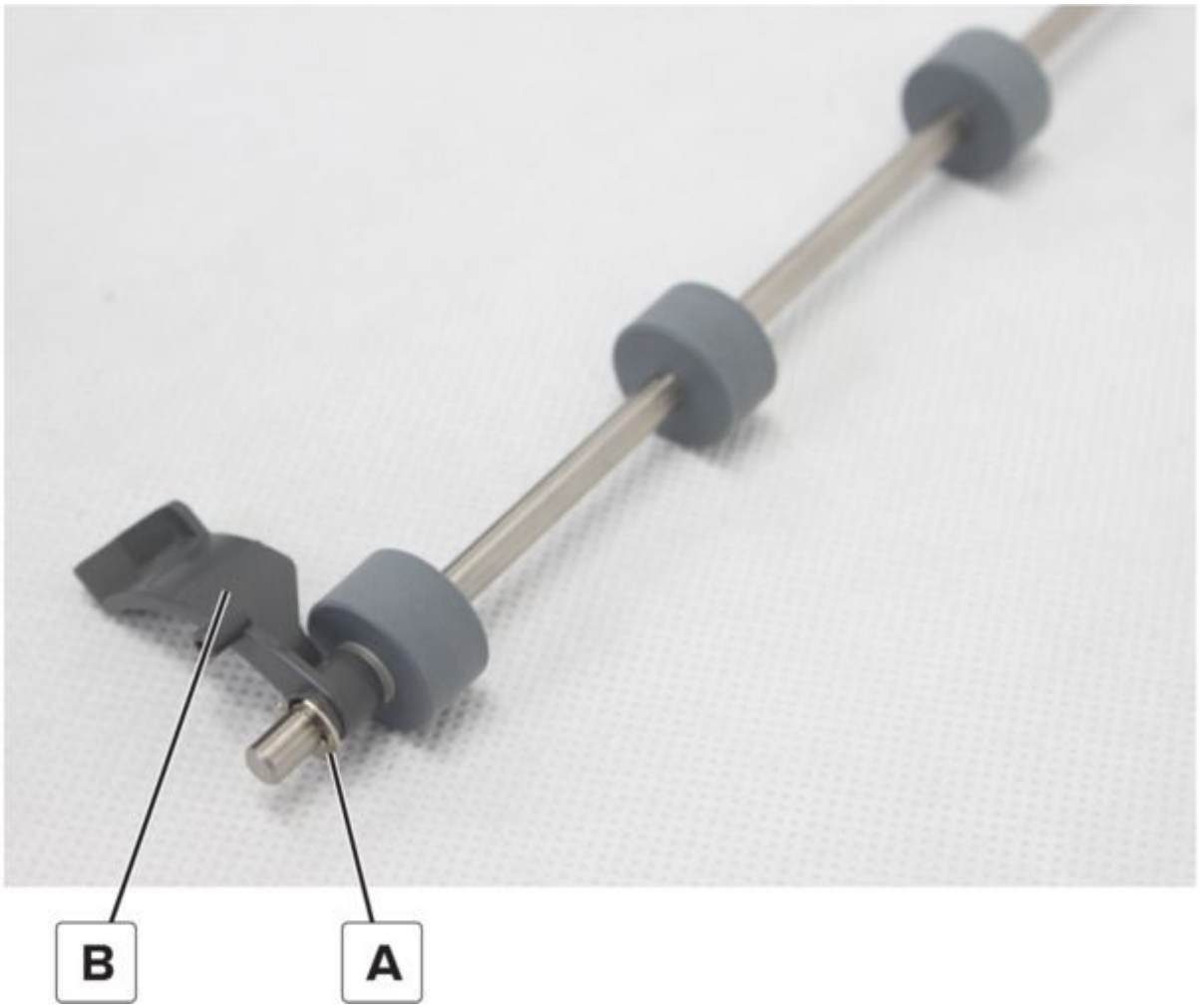


6. Release both sides of the bin support bar, and then remove the bin.

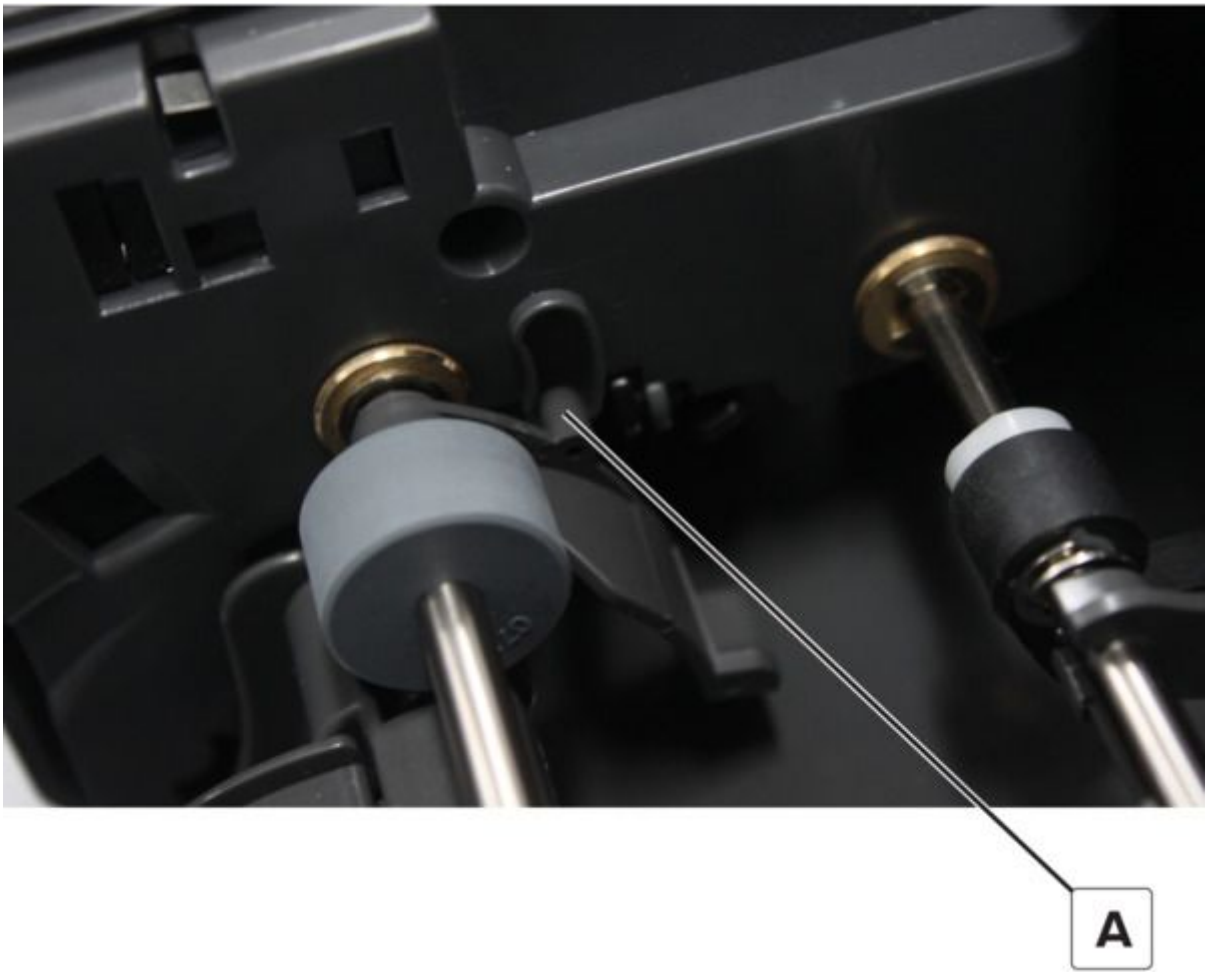


Staple finisher compiler paper guide removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the compiler feed roller. See Staple finisher compiler feed roller removal on page 880.
3. Remove the clip (A), and then remove the guide (B).

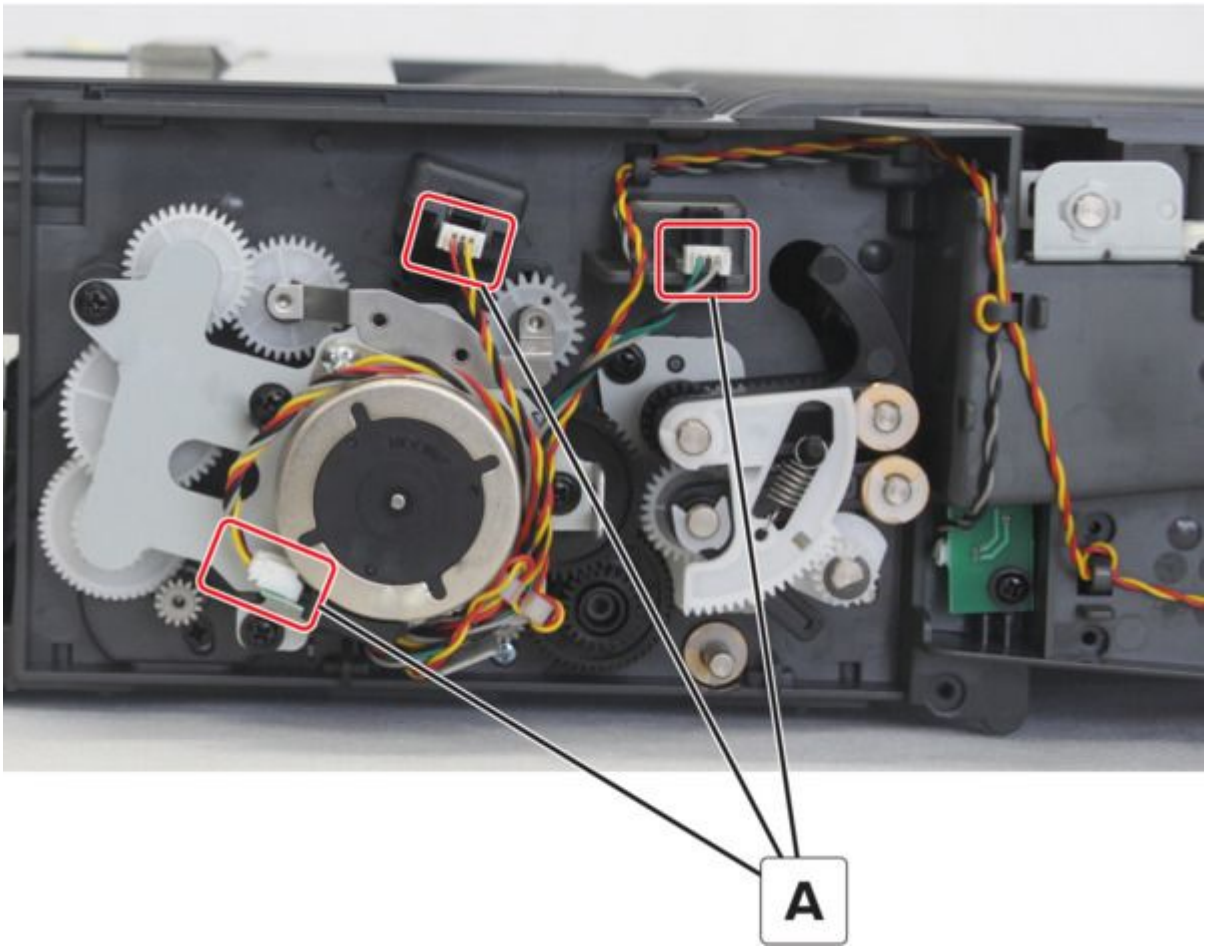


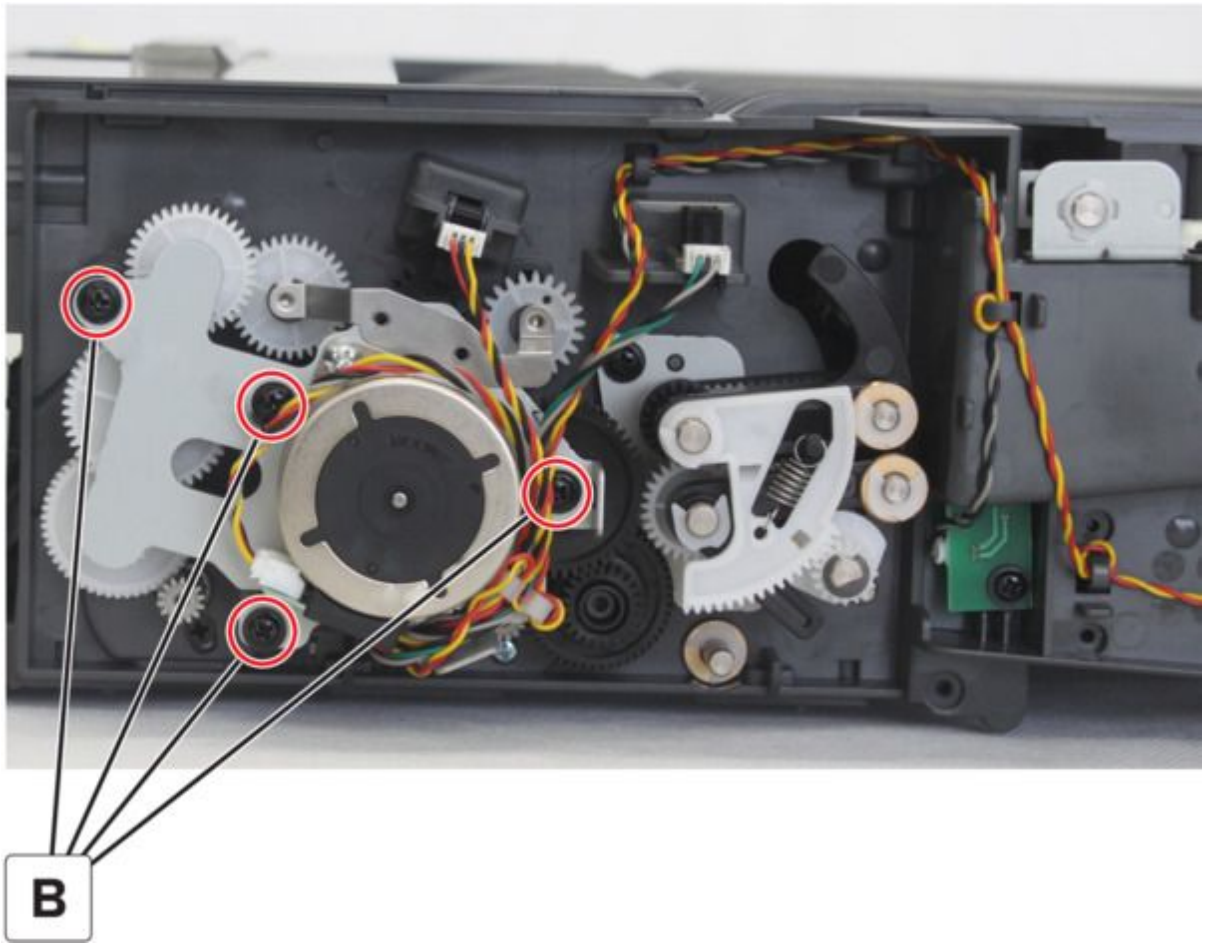
Installation Note
Make sure that the tab (A) is inside the slot.



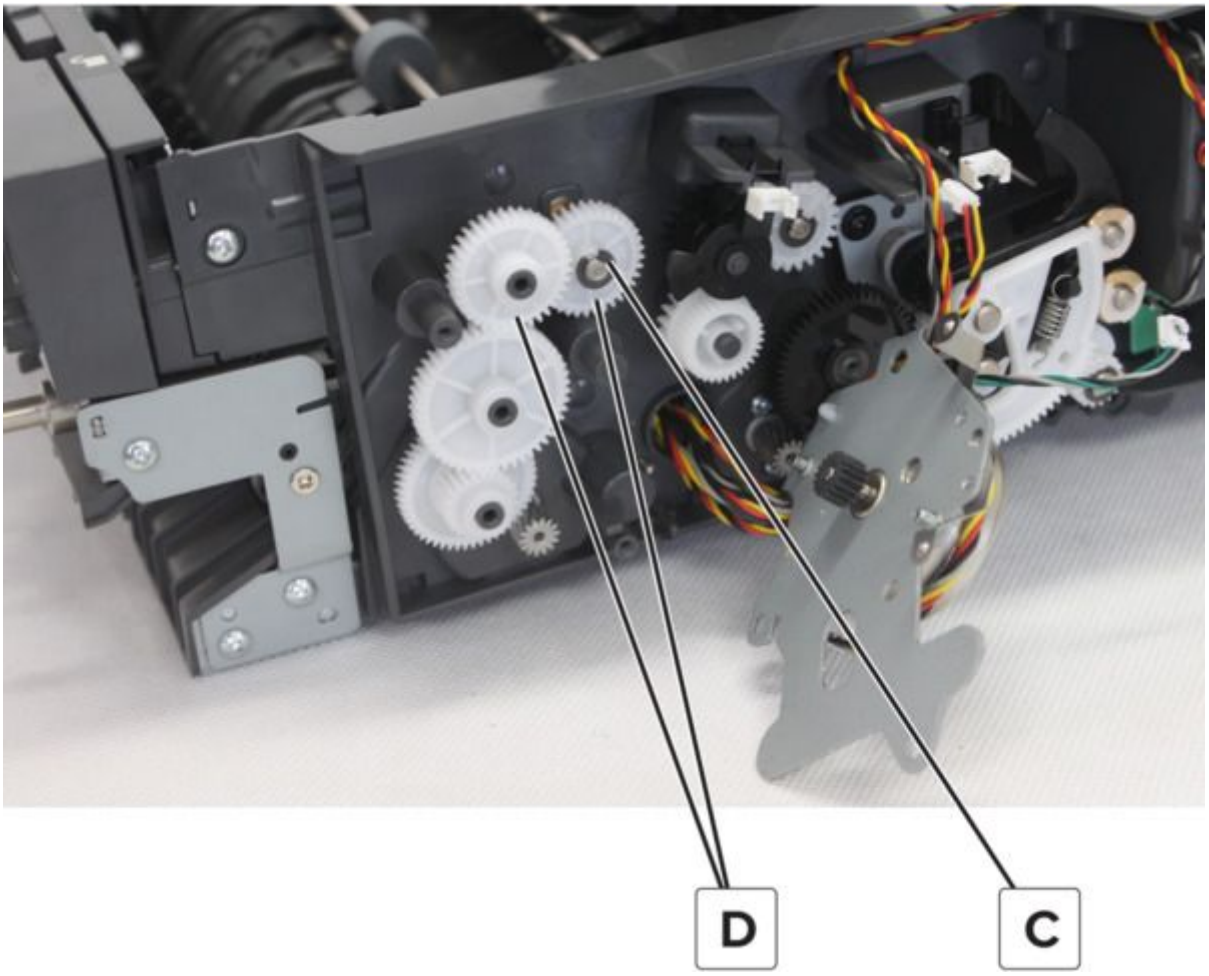
Staple finisher compiler feed roller removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Disconnect the three cables (A), and then remove the four screws (B).

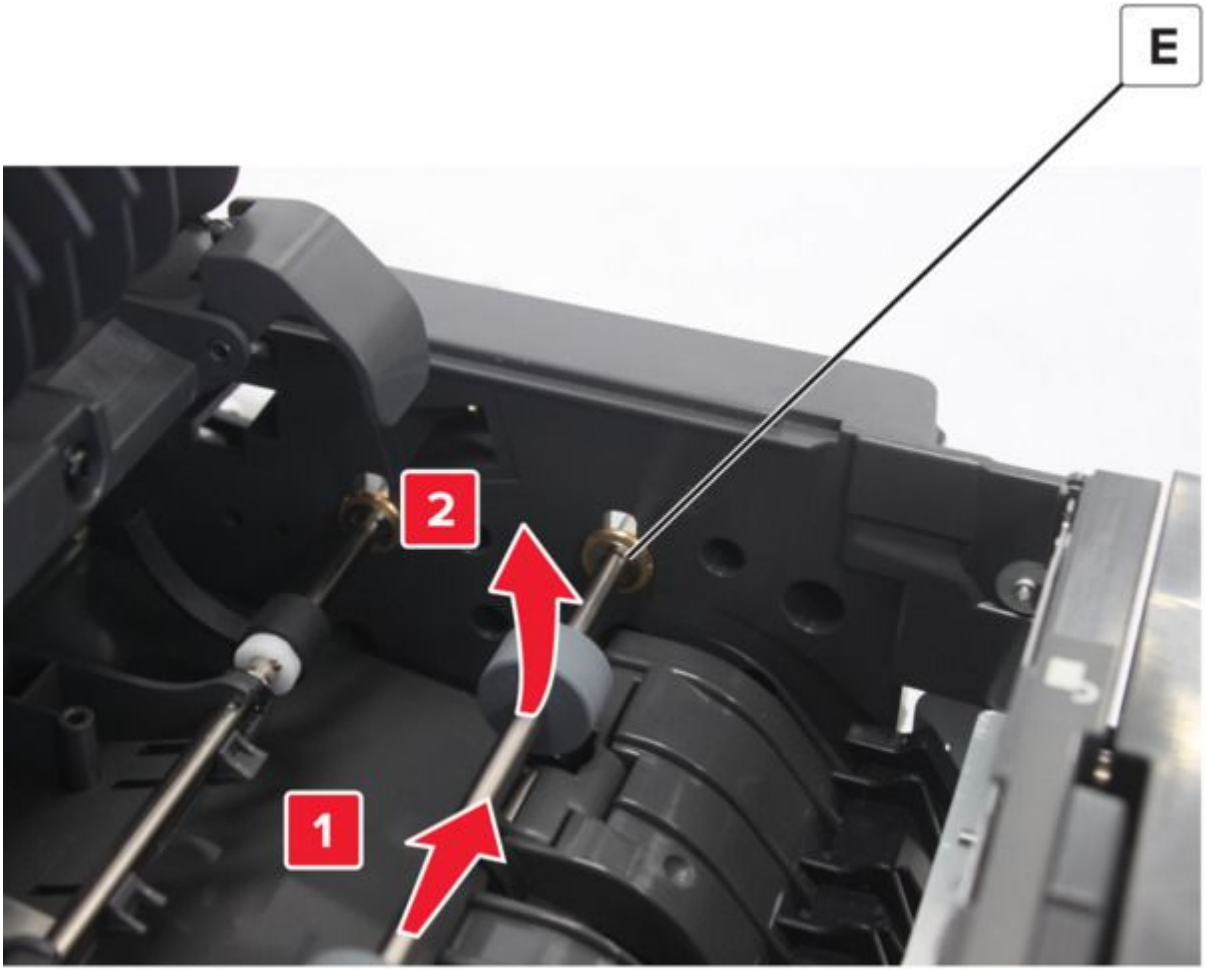

A



3. Set aside the aligner paddle motor and bracket.
4. Remove the clip (C), and then remove the two gears (D).

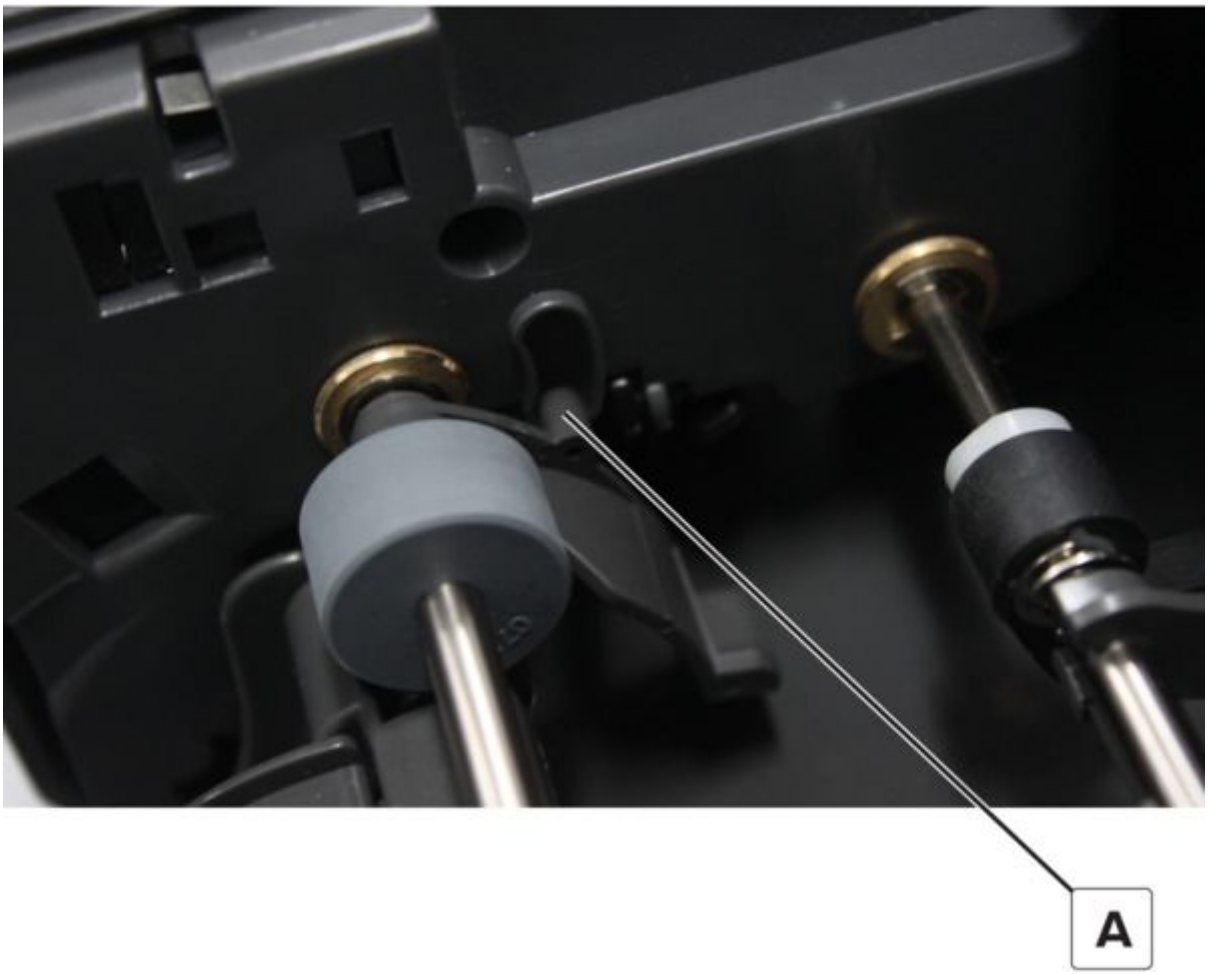


5. Remove the clip (E).
6. Push, and then swing out to remove the roller.



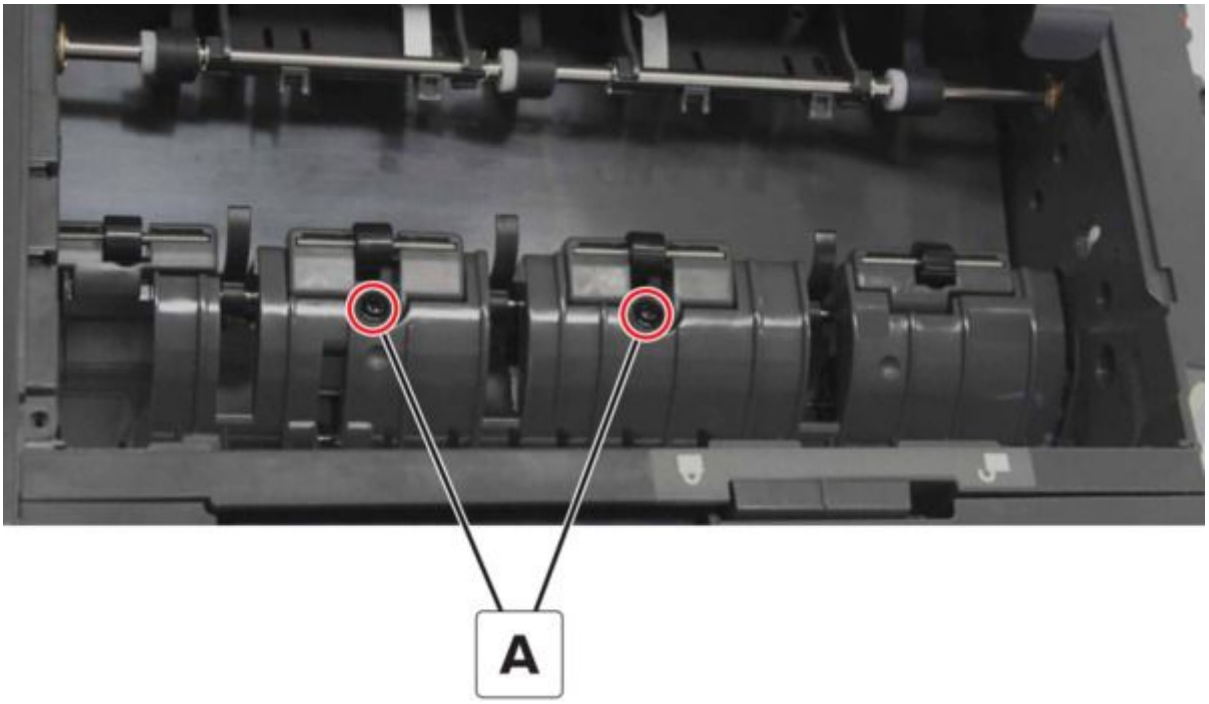
7. Remove the compiler paper guide. See Staple finisher compiler paper guide removal on page 878.

Installation Note
Make sure that the tab (A) is inside the slot.

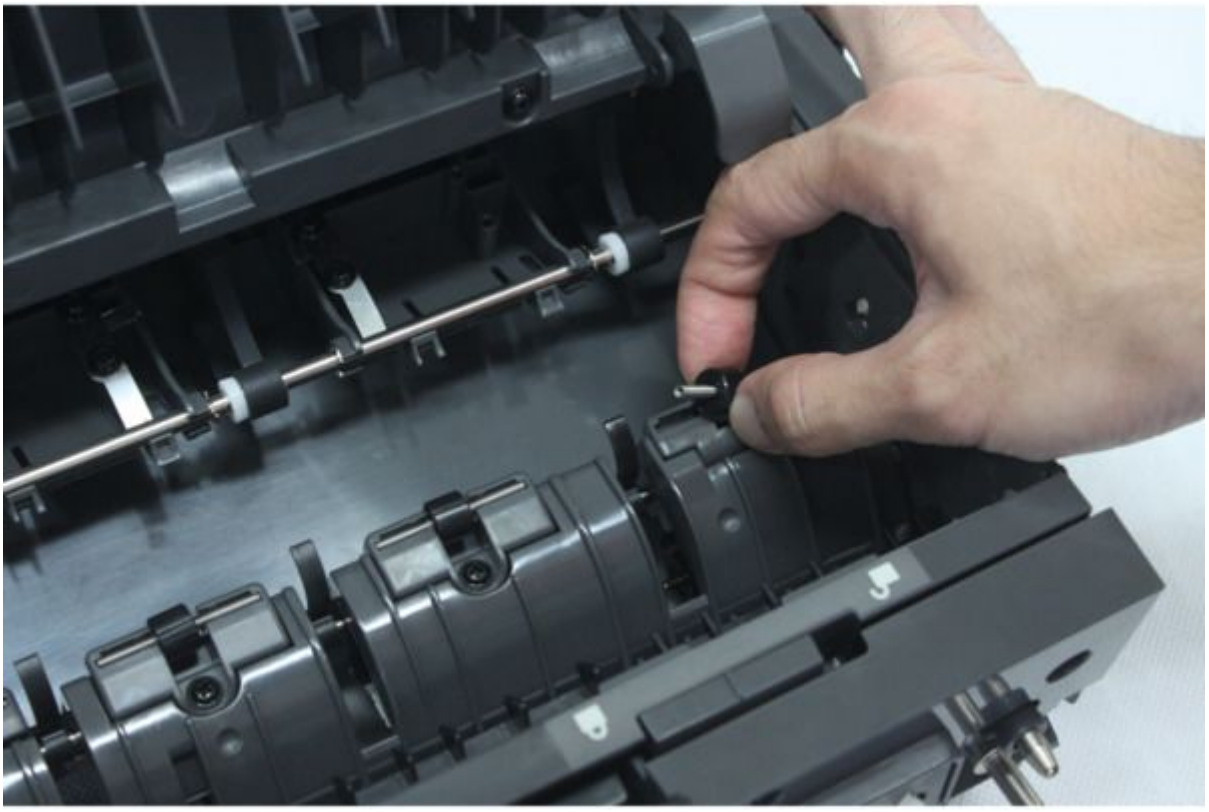


Staple finisher compiler feed idler removal

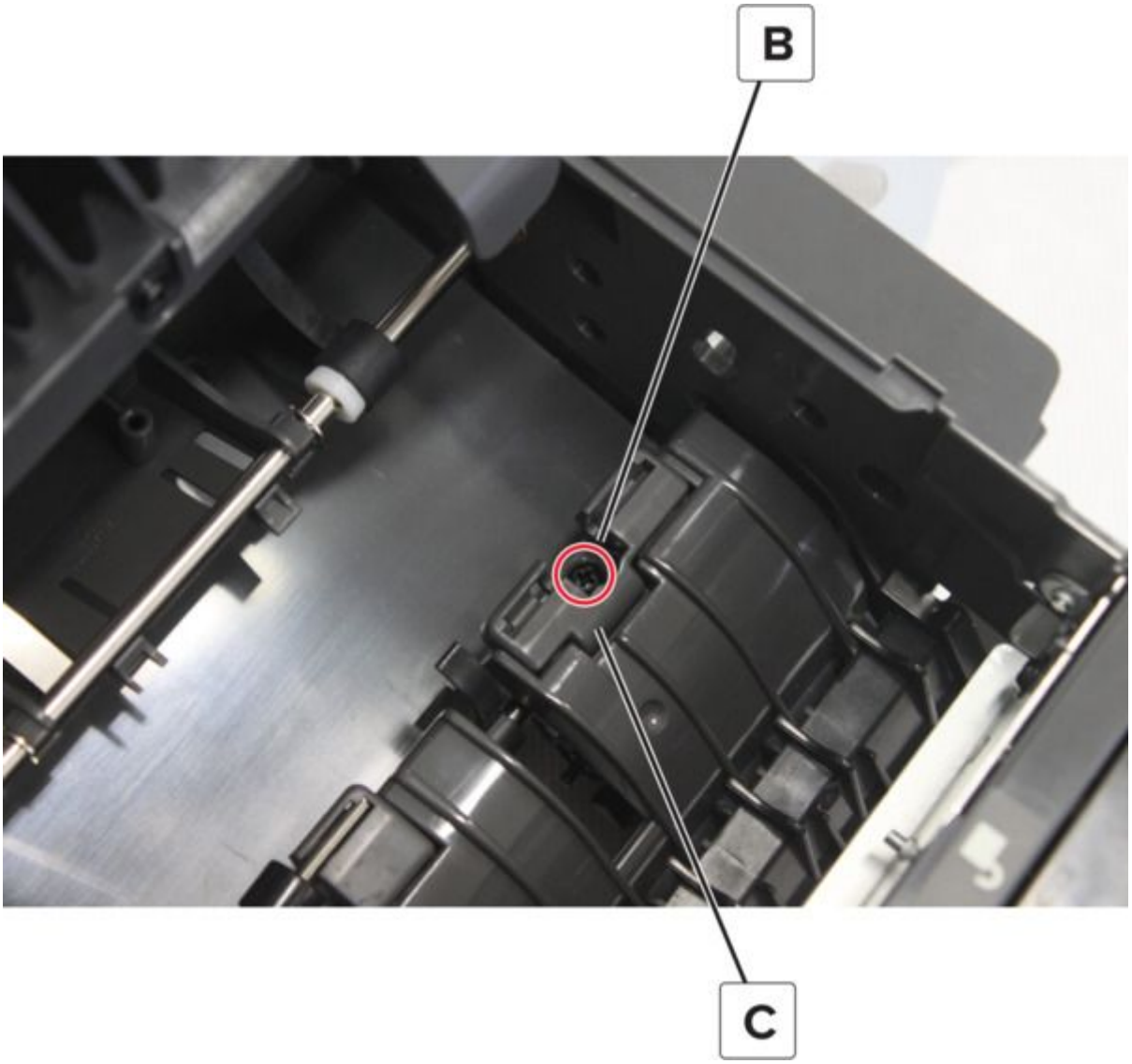
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the compiler feed roller. See Staple finisher compiler feed roller removal on page 880.
3. Remove the two screws (A).



4. Remove the roller, and then remove the spring.

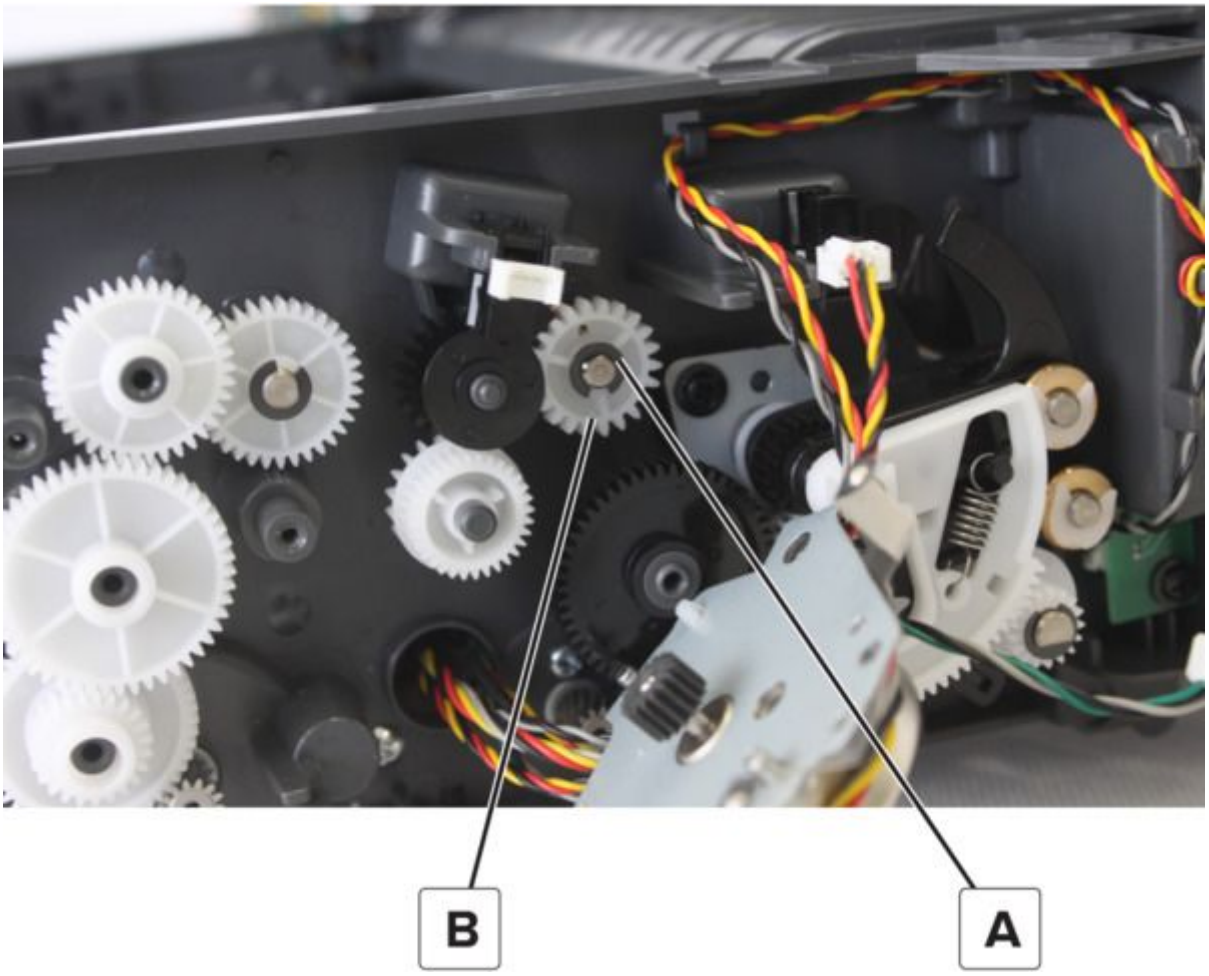


5. Remove the screw (B), and then remove the holder (C).

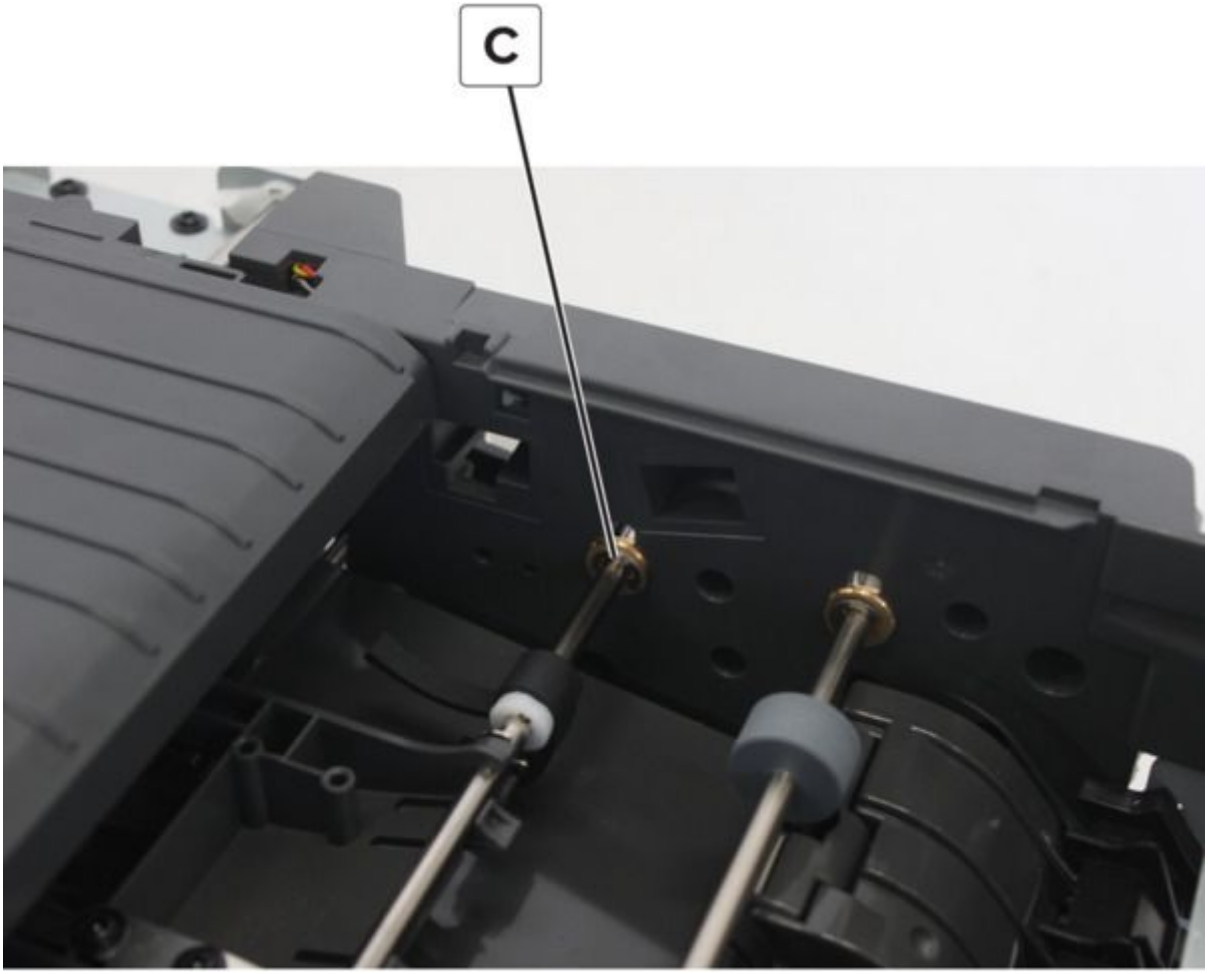


Staple finisher aligner paddle and upper paper guide removal

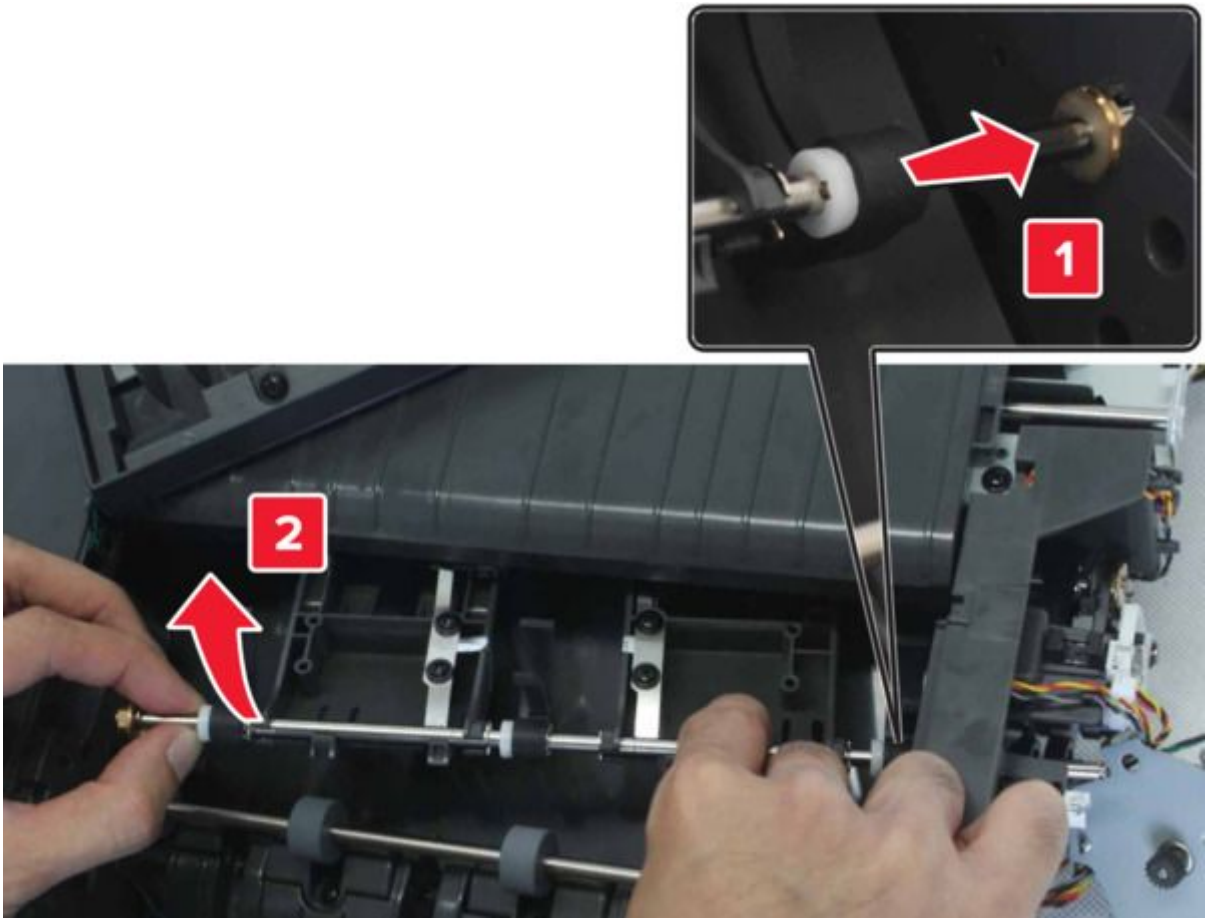
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the paddle motor and bracket. See Motor (staple finisher aligner paddle) removal on page 842.
3. Remove the clip (A), and then remove the gear (B).



4. Set aside Door F.
5. Remove the clip (C).

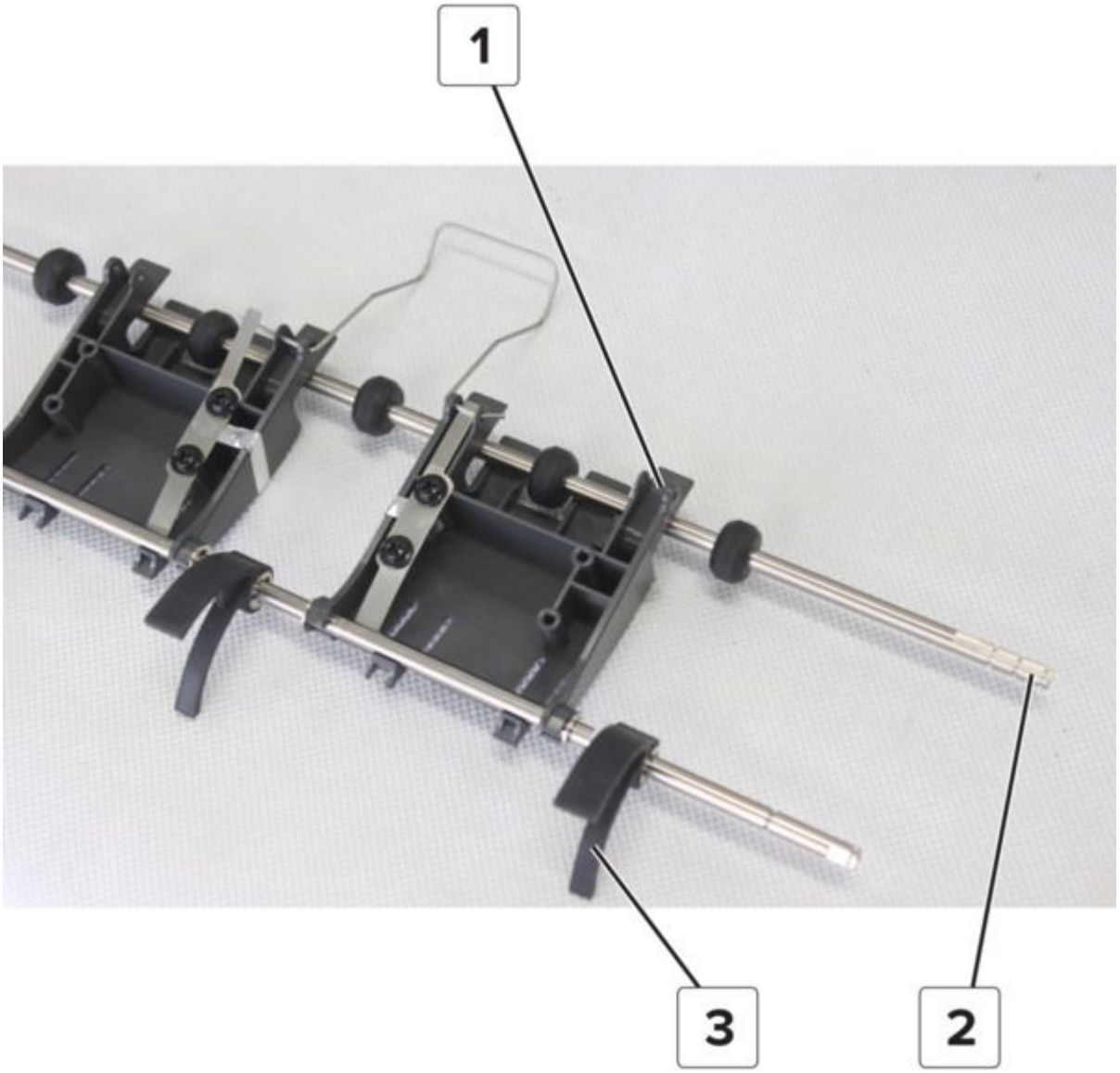


6. Remove the paddle.



7. Remove the upper paper guide.

Installation Note
Pay attention to the correct position of the upper exit roller and paddle.

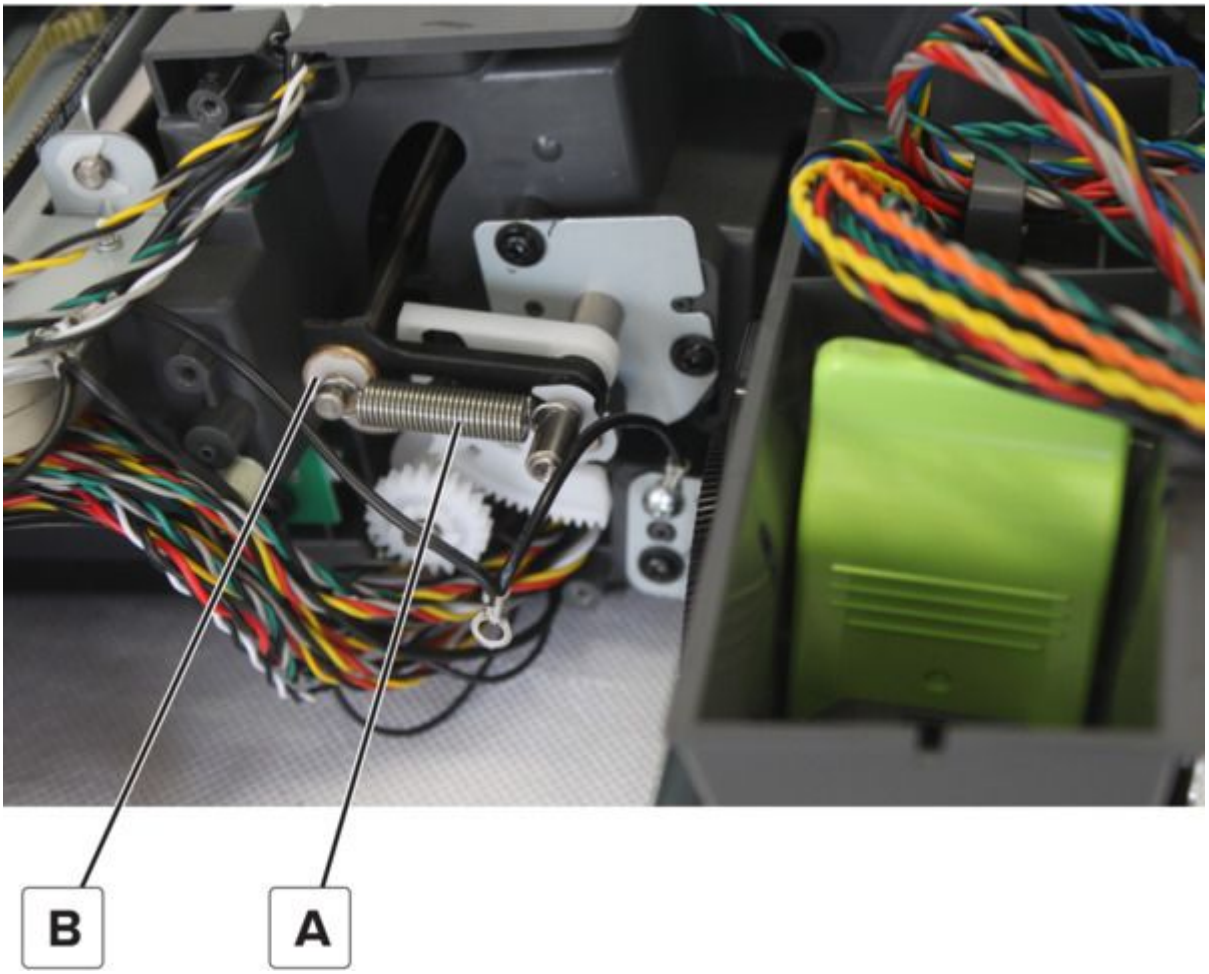


1	Staple finisher upper paper guide
2	Staple finisher upper exit roller
3	Staple finisher aligner paddle

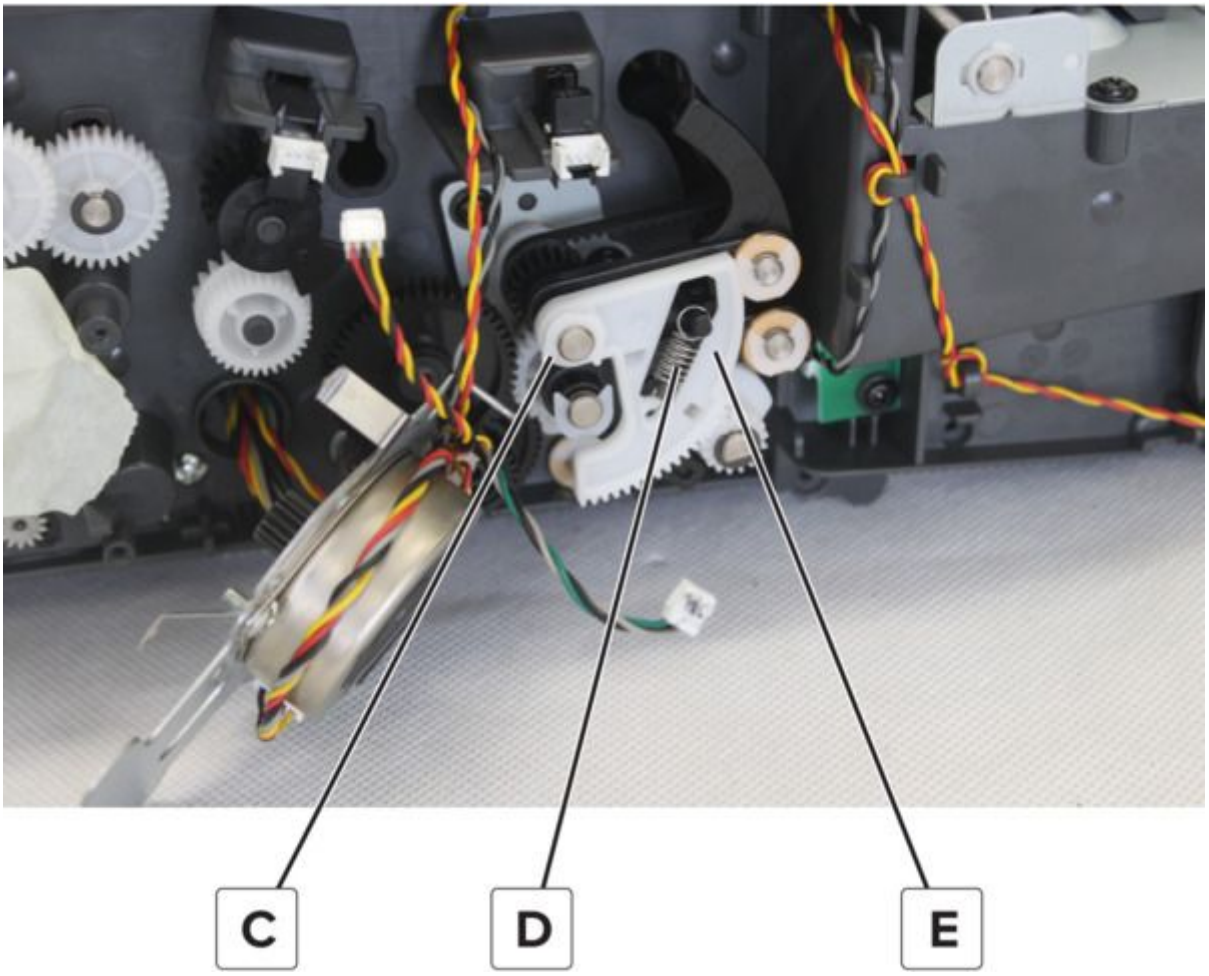
Staple finisher upper exit roller removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the paddle motor and bracket. See Motor (staple finisher aligner paddle) removal on page 842.
3. Remove the paddle. See Staple finisher aligner paddle and upper paper guide removal on page 887.
4. Remove the rear cover. See .Staple finisher rear cover removal on page 808
5. Remove the controller board. See Staple finisher controller board removal on page 812.
6. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.

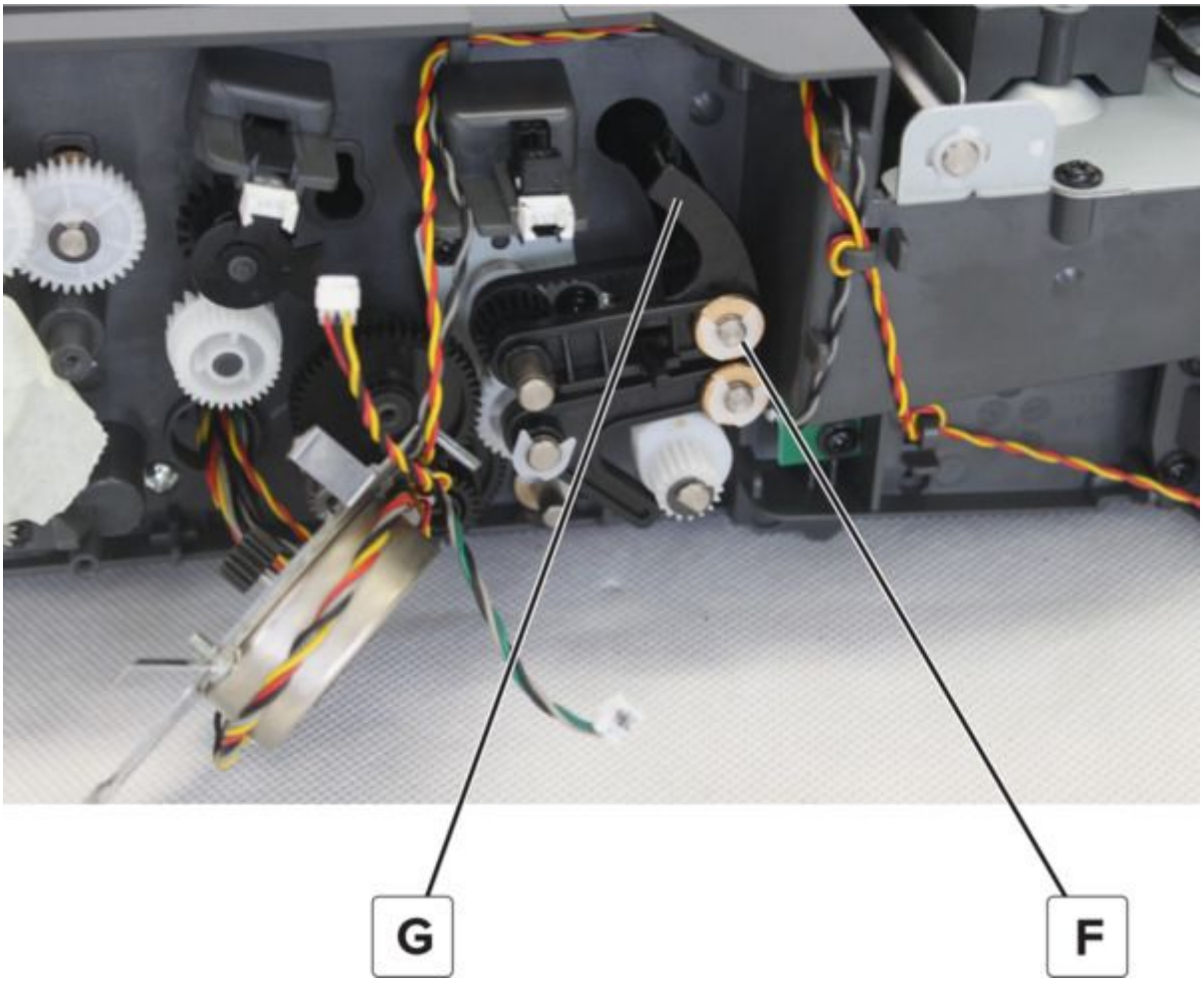
7. Remove the motor (staple finisher upper exit roller). See Motor (staple finisher upper exit roller) removal on page 826.
8. Set aside the spring (A), and then remove the clip (B) and bushing.



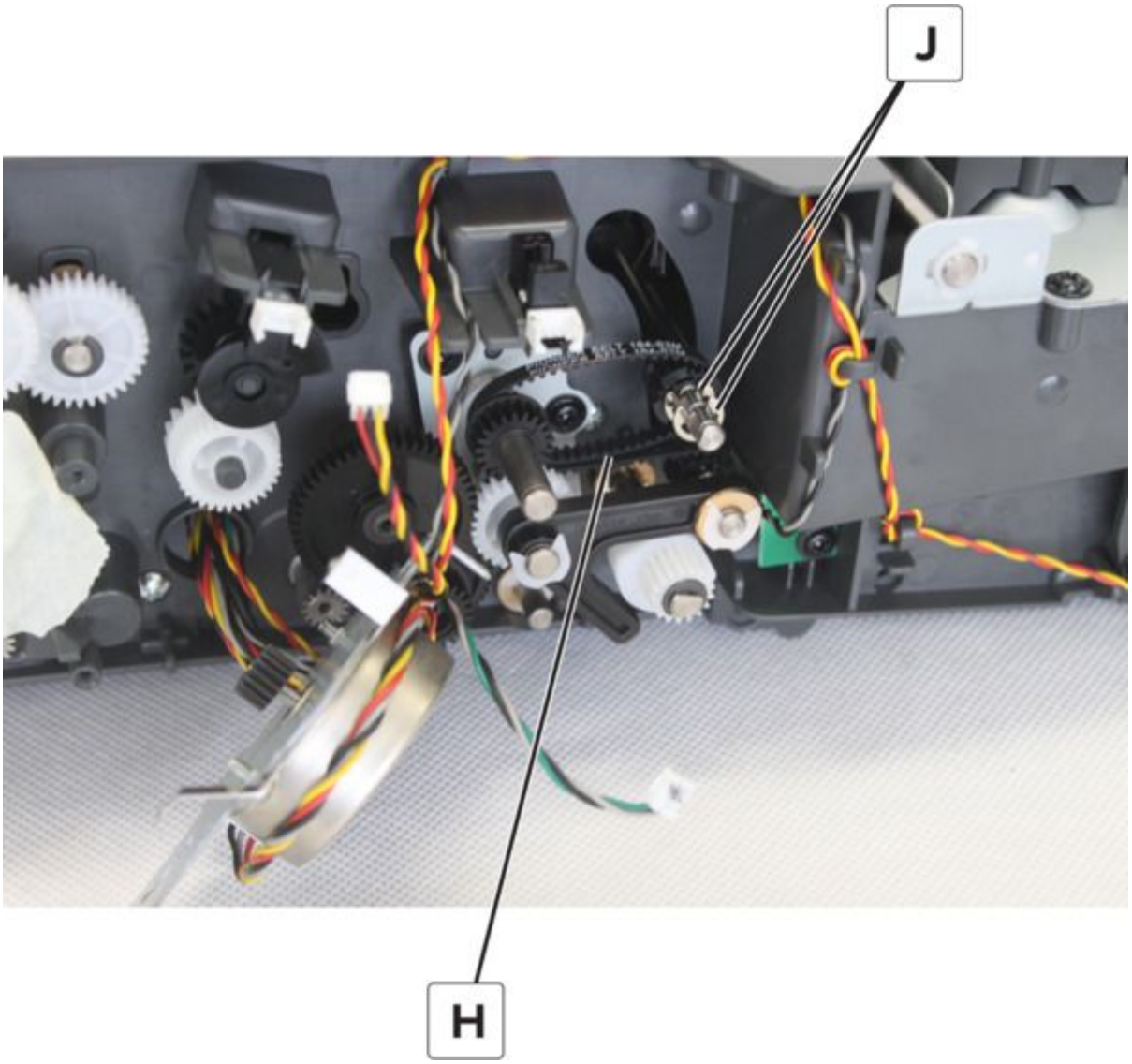
9. Remove the clip (C), release the spring (D), and then remove the gear (E).



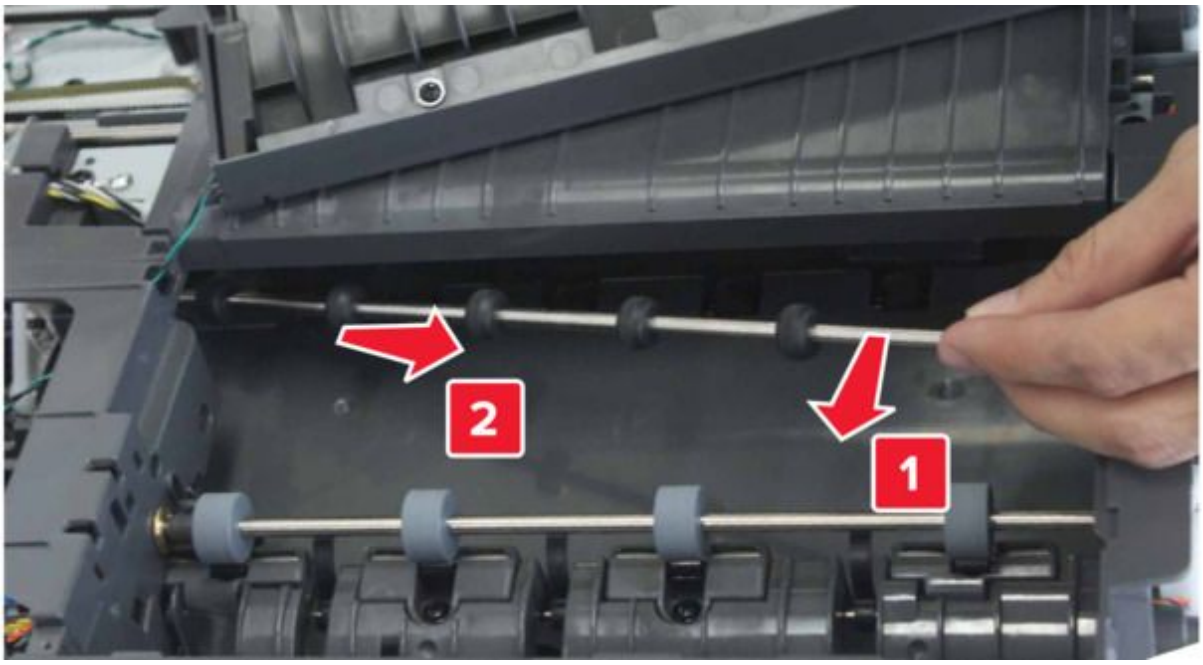
10. Remove the clip (F) and the bushing, and then remove the flag (G).



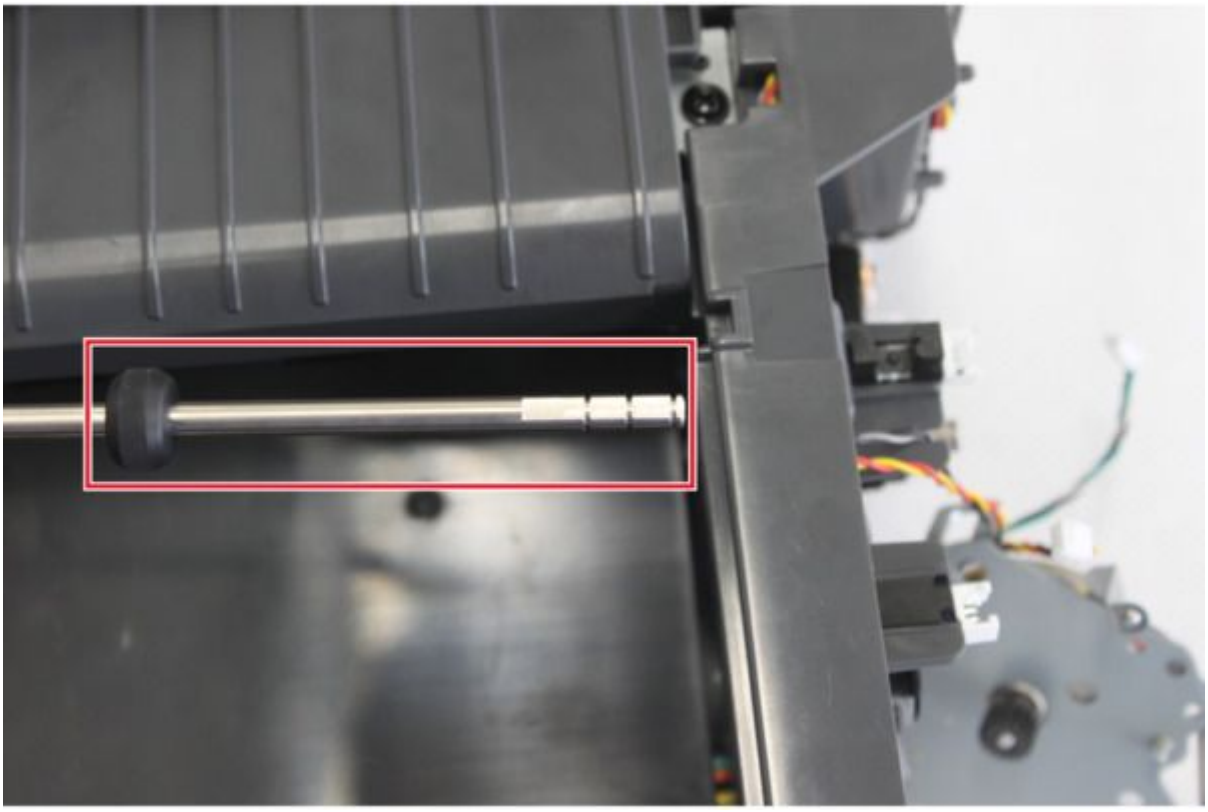
11. Detach the belt (H), remove the two clips (J), and then remove the gear.



12. Remove the exit roller.



Installation Note
Make sure that this side of the exit roller is installed into the front.

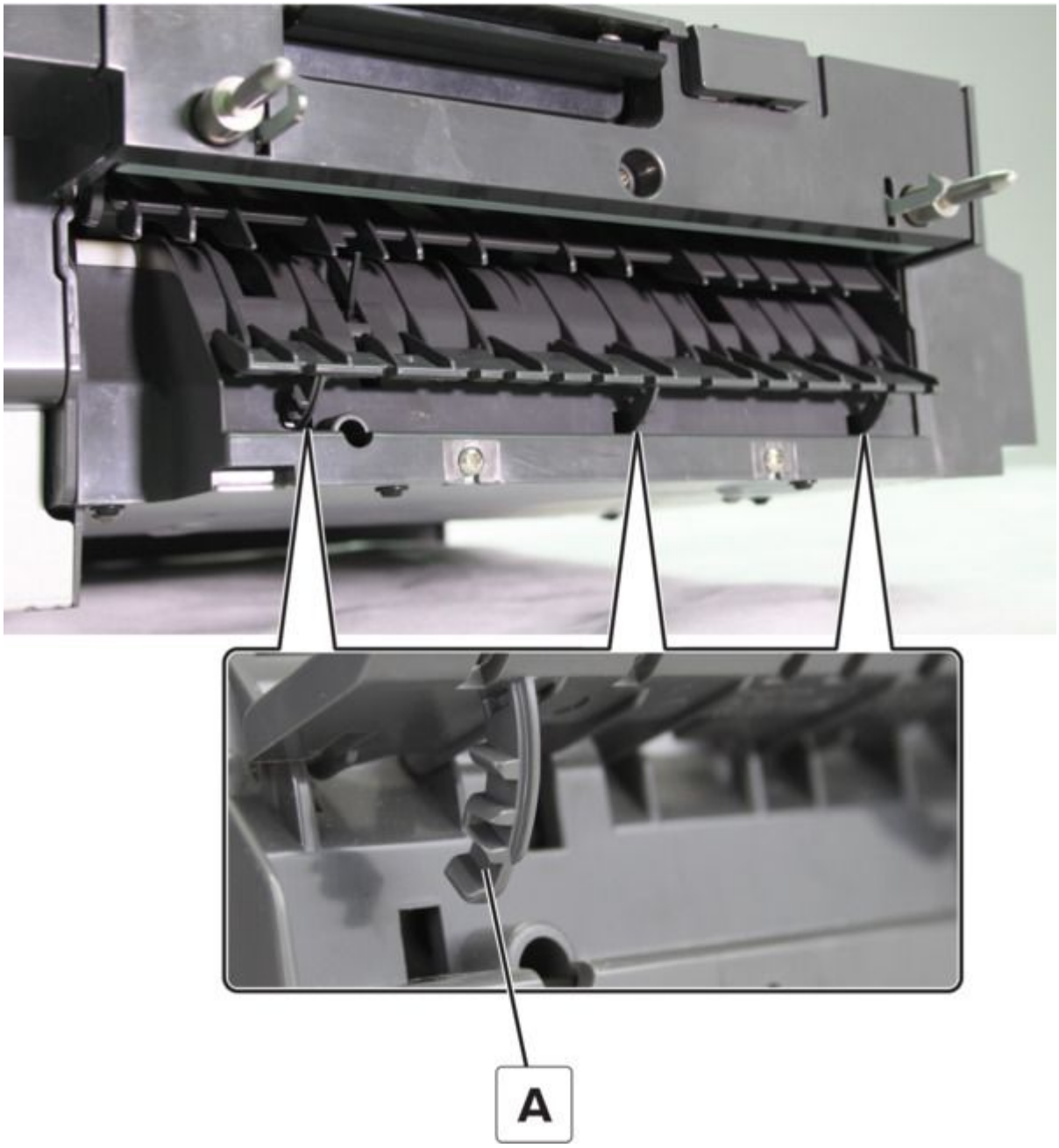


Staple finisher entrance paper guide removal

1. Release the three latches.

2. Release the four pins, and then remove the paper guide.

Installation Note
Secure the guide on the first set of slots (A).

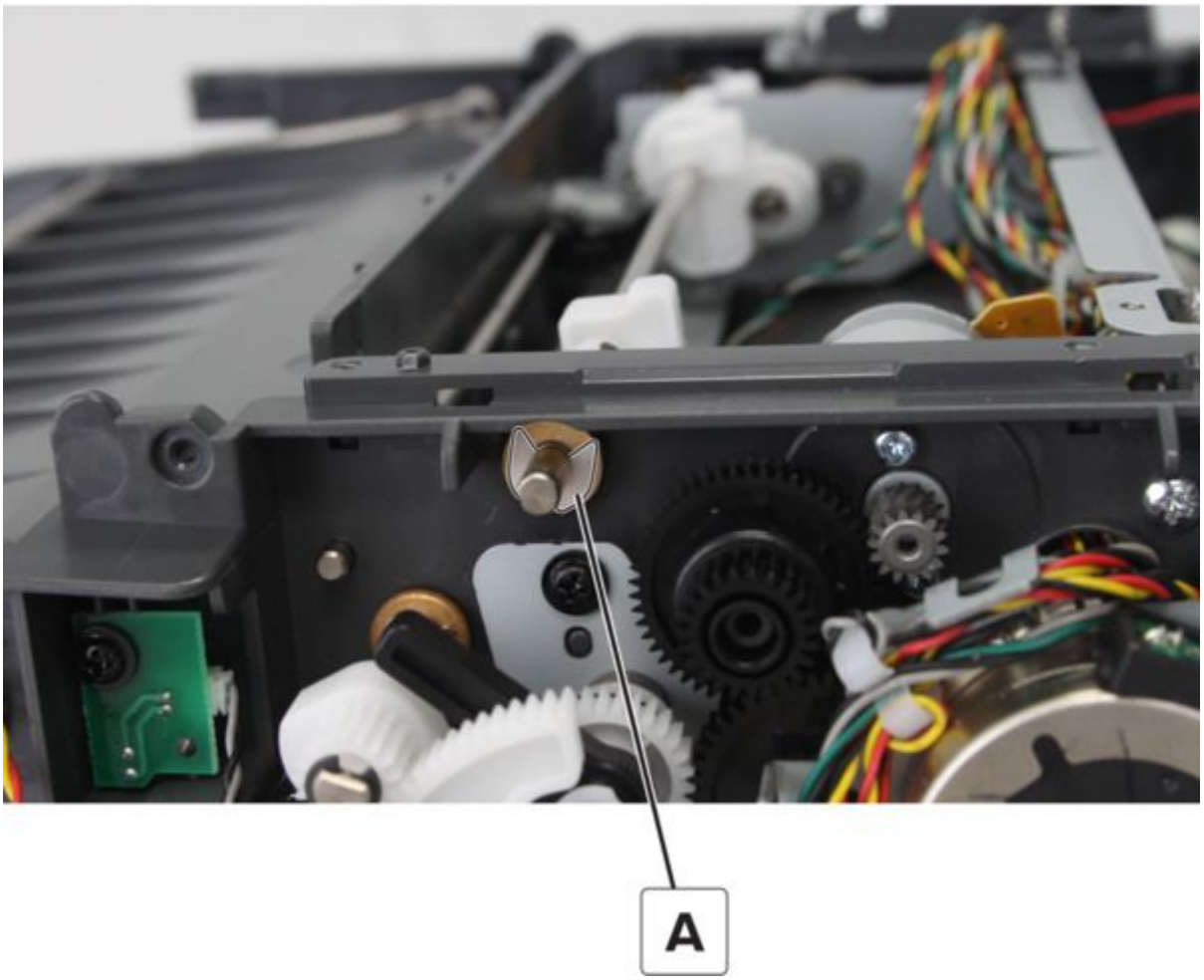


Staple finisher bin clamp assembly removal

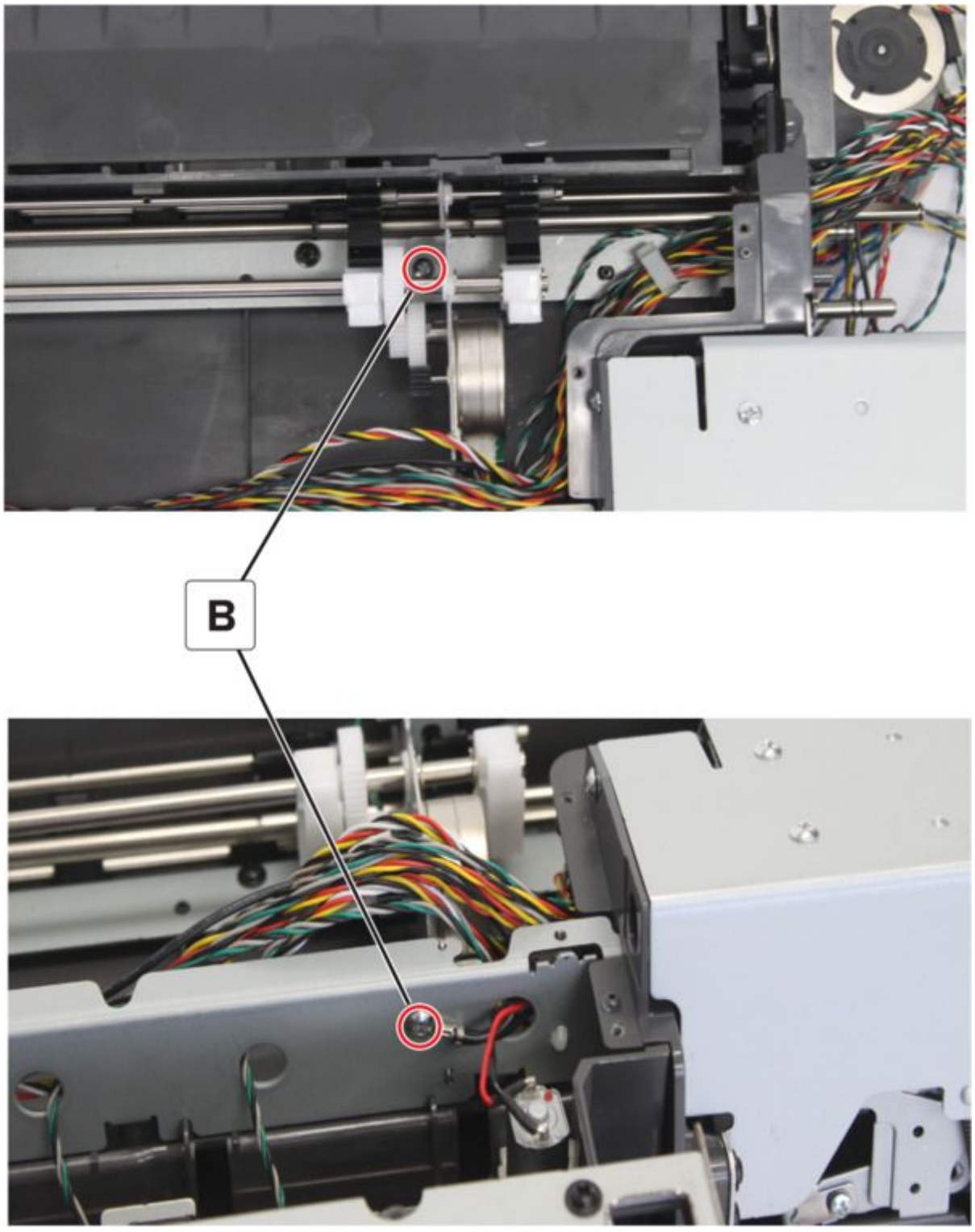
Note: For a video demonstration, see Staple finisher bin clamp assembly removal.

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818

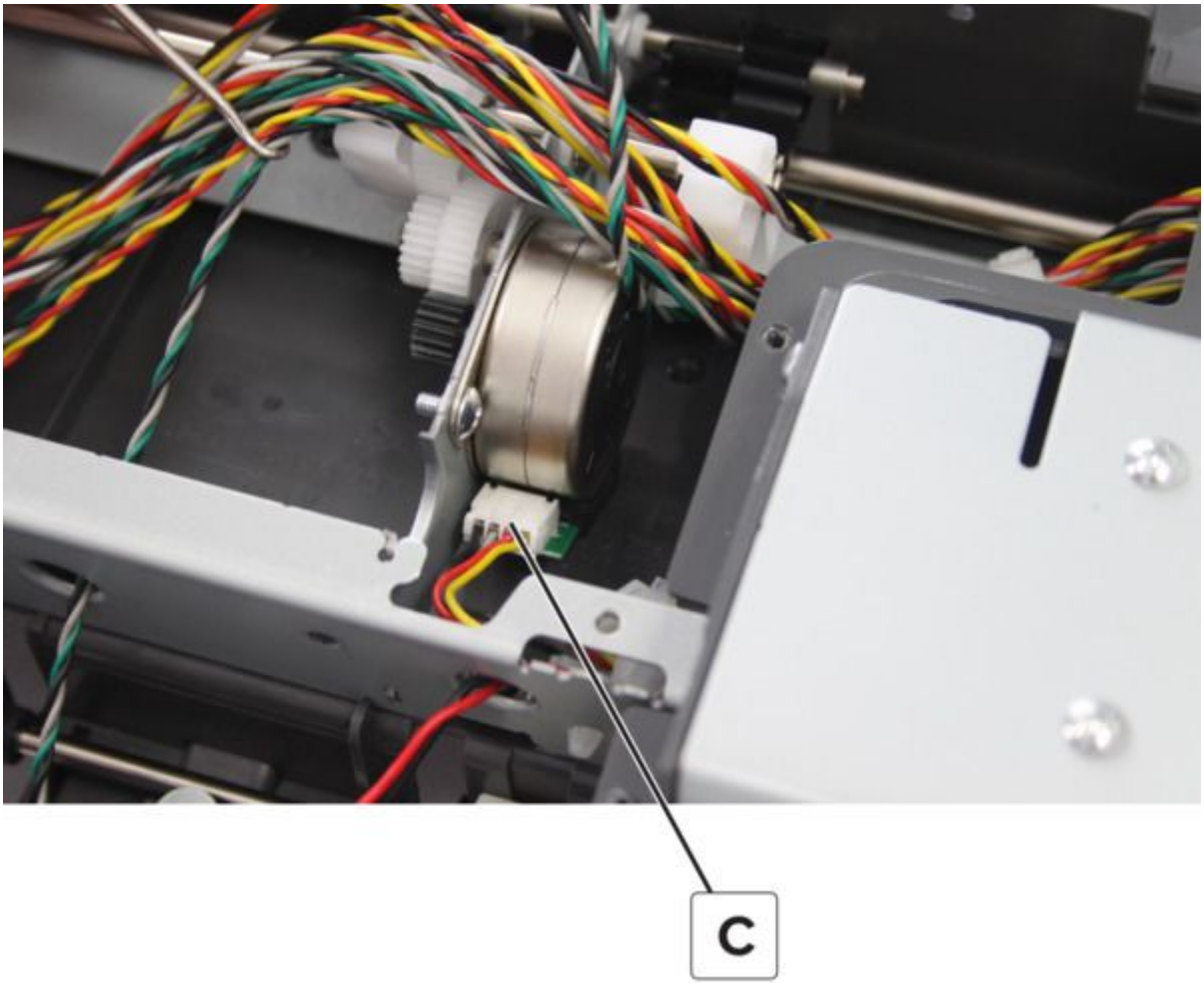
3. Remove the sensor (staple finisher bin clamp). See Sensor (staple finisher bin clamp) removal on page 908.
4. Remove the clip (A) and the bushing.



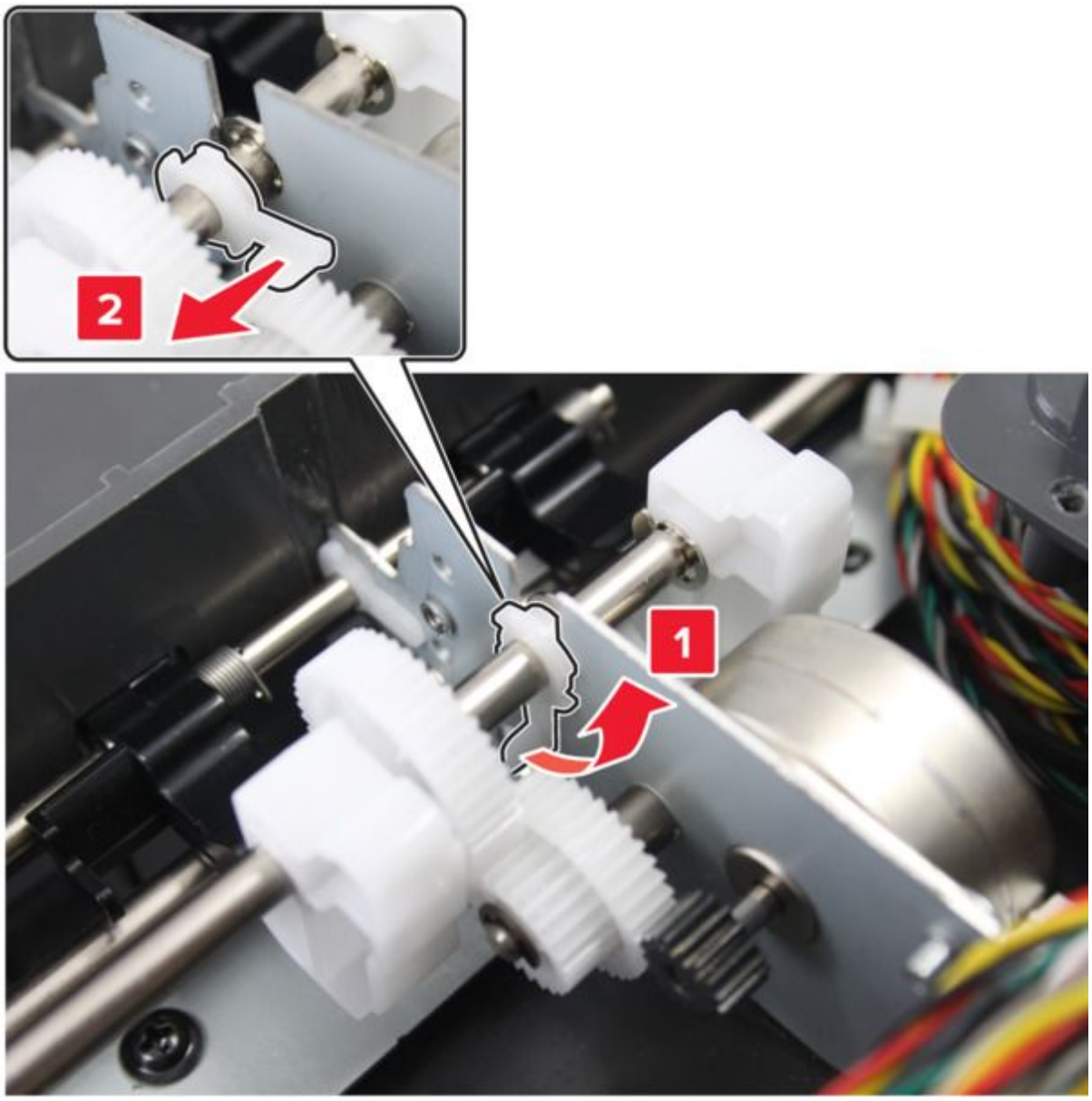
5. Remove the two screws (B).



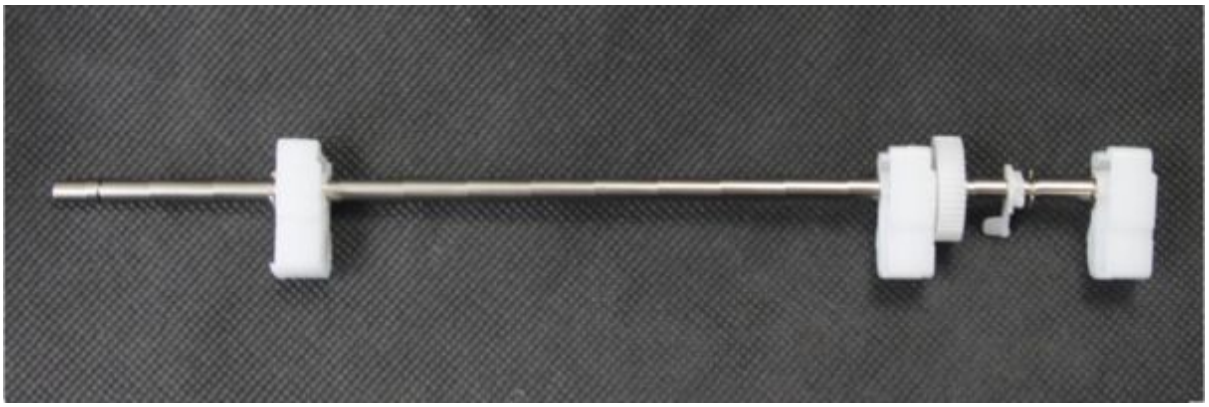
6. Disconnect the cable (C).



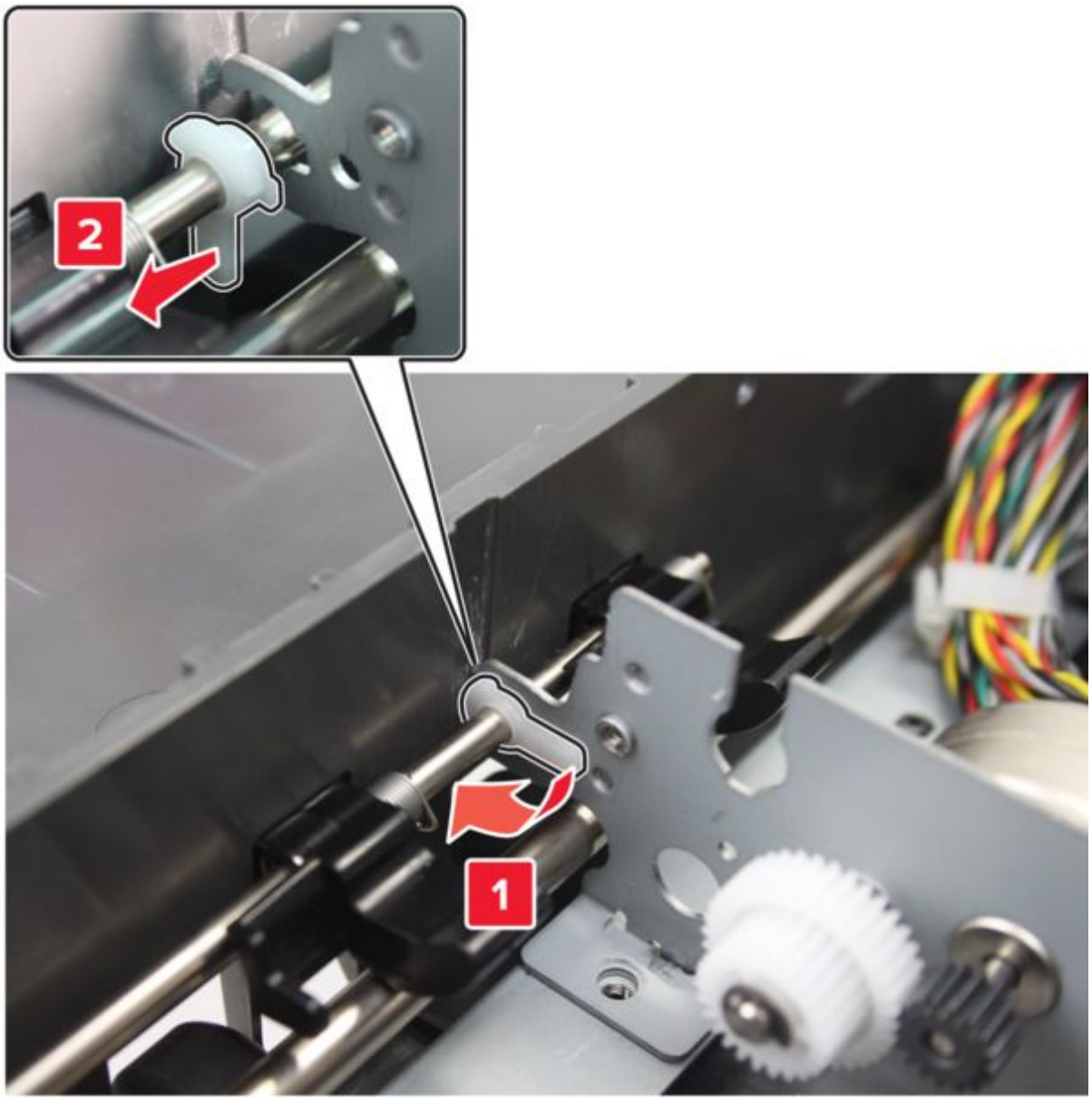
7. Pry the retainer counterclockwise to unlock, and then loosen it.



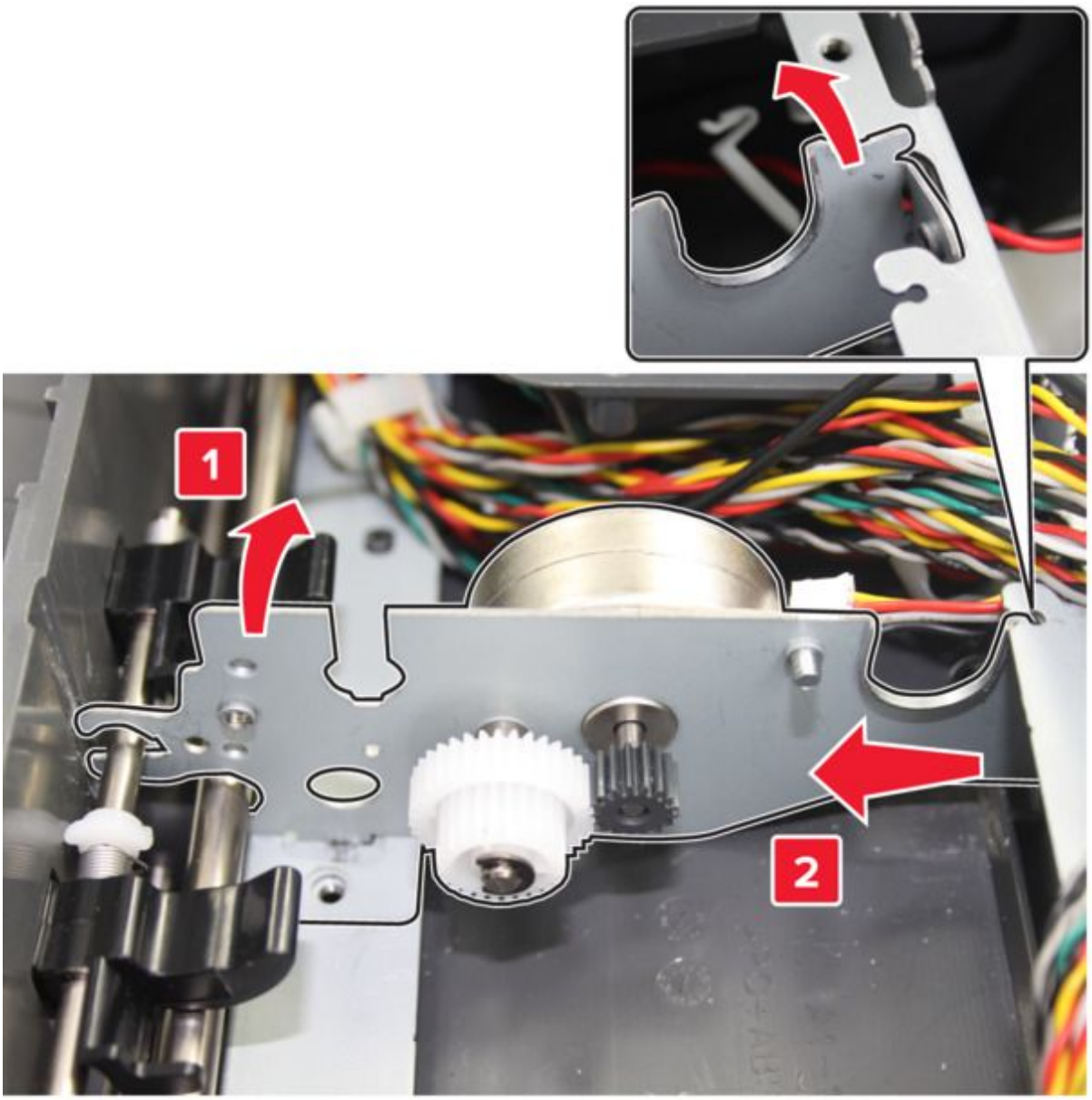
8. Remove the cam gear assembly.

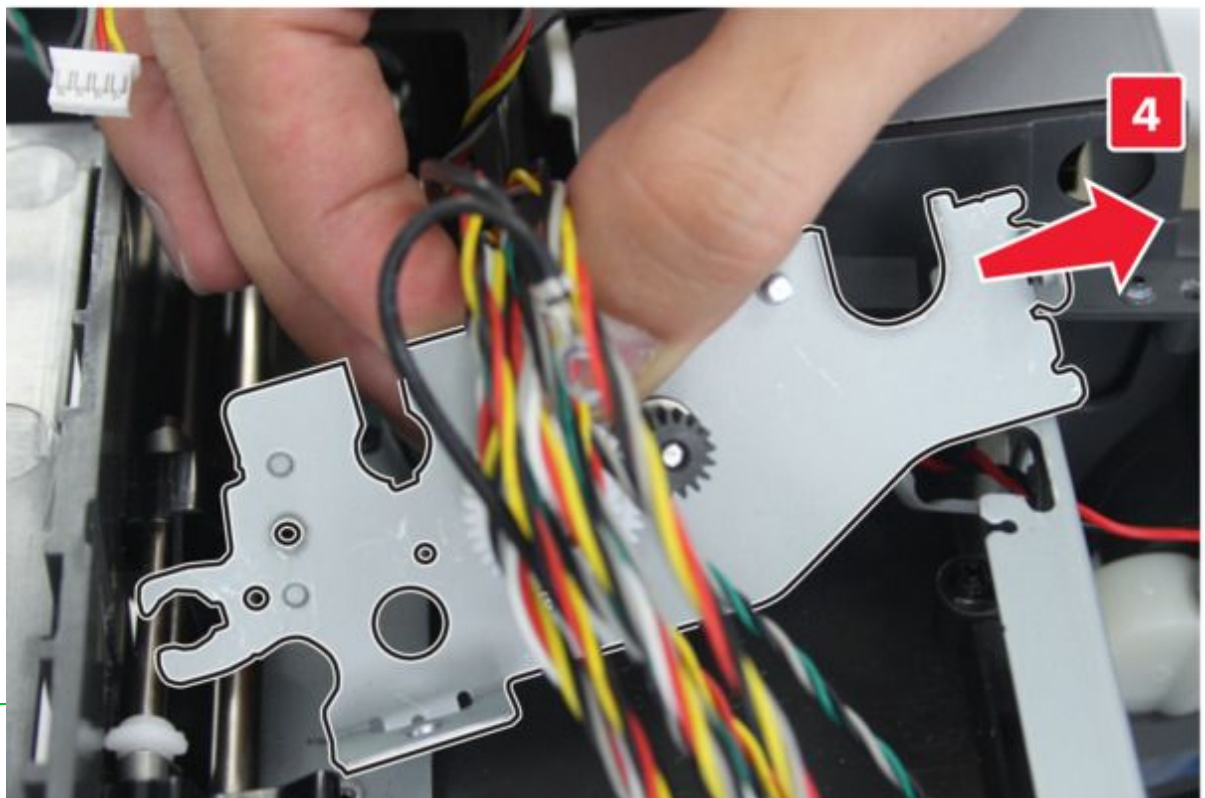


9. Pry the retainer clockwise to unlock, and then loosen it.



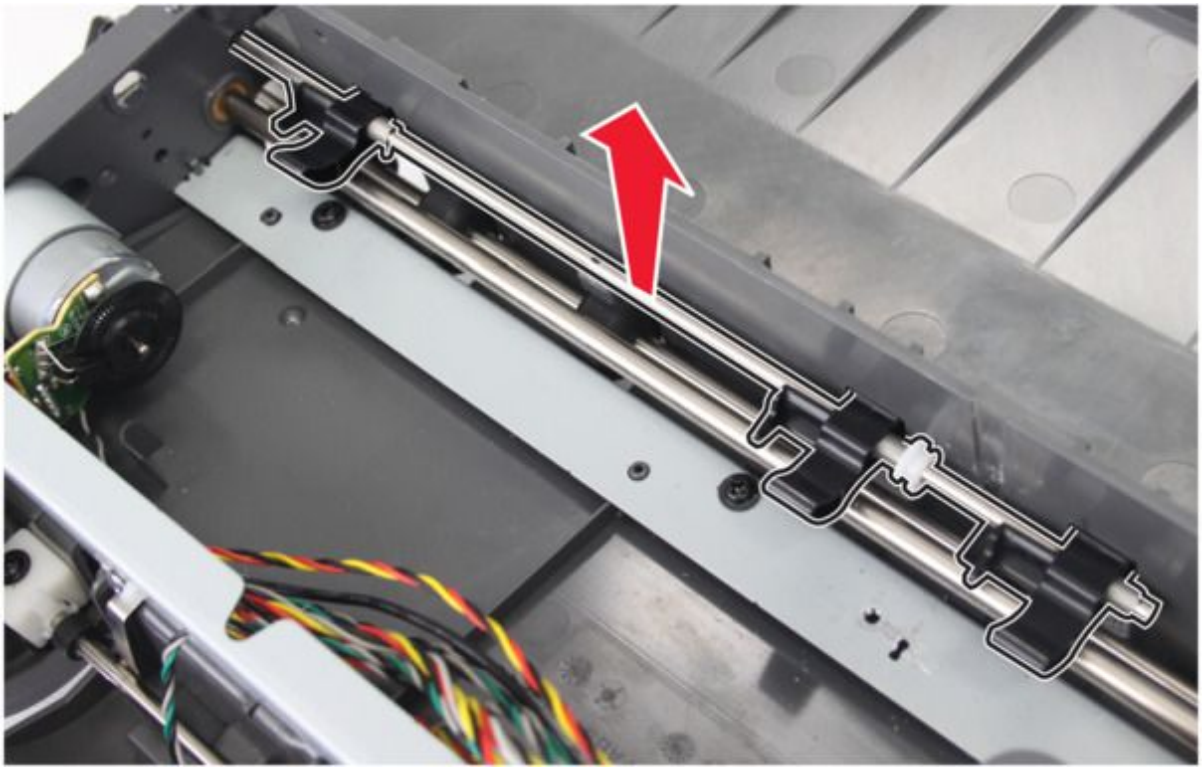
10. Release, and then remove the bracket.


1
2


4

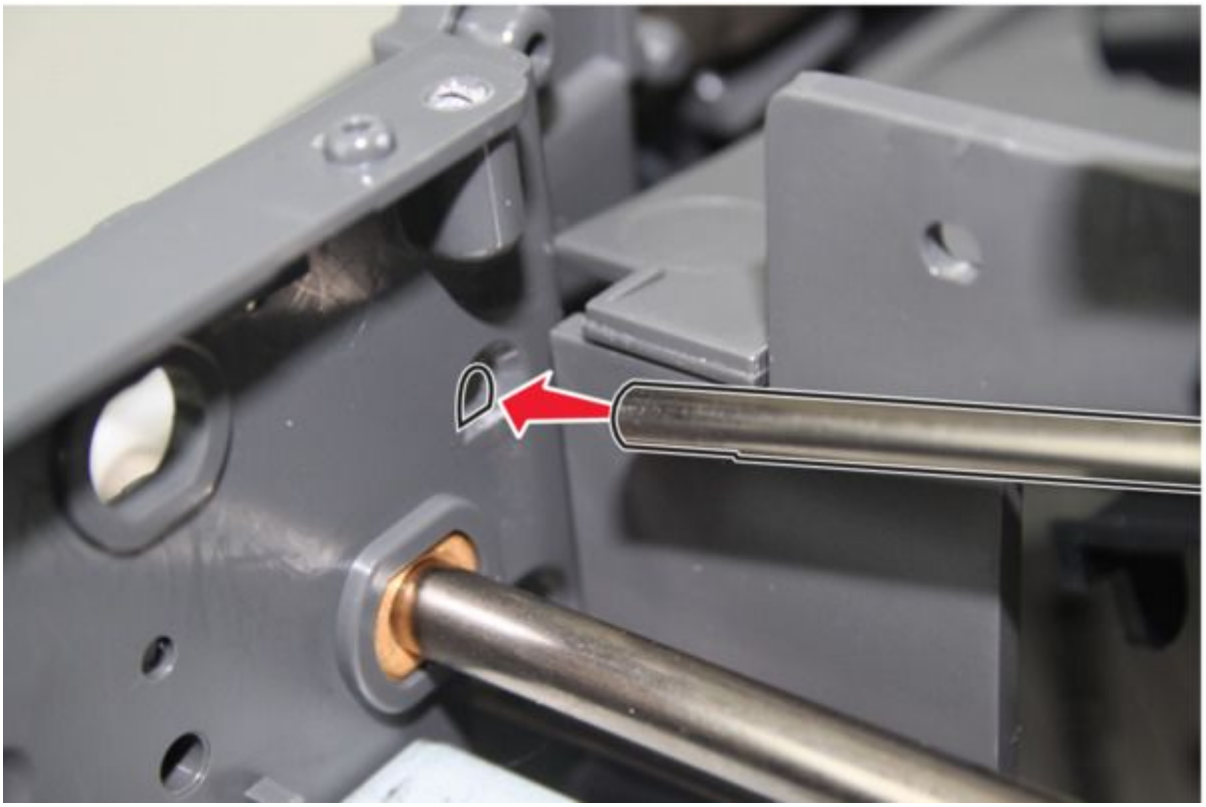
11. Remove the bin clamp.

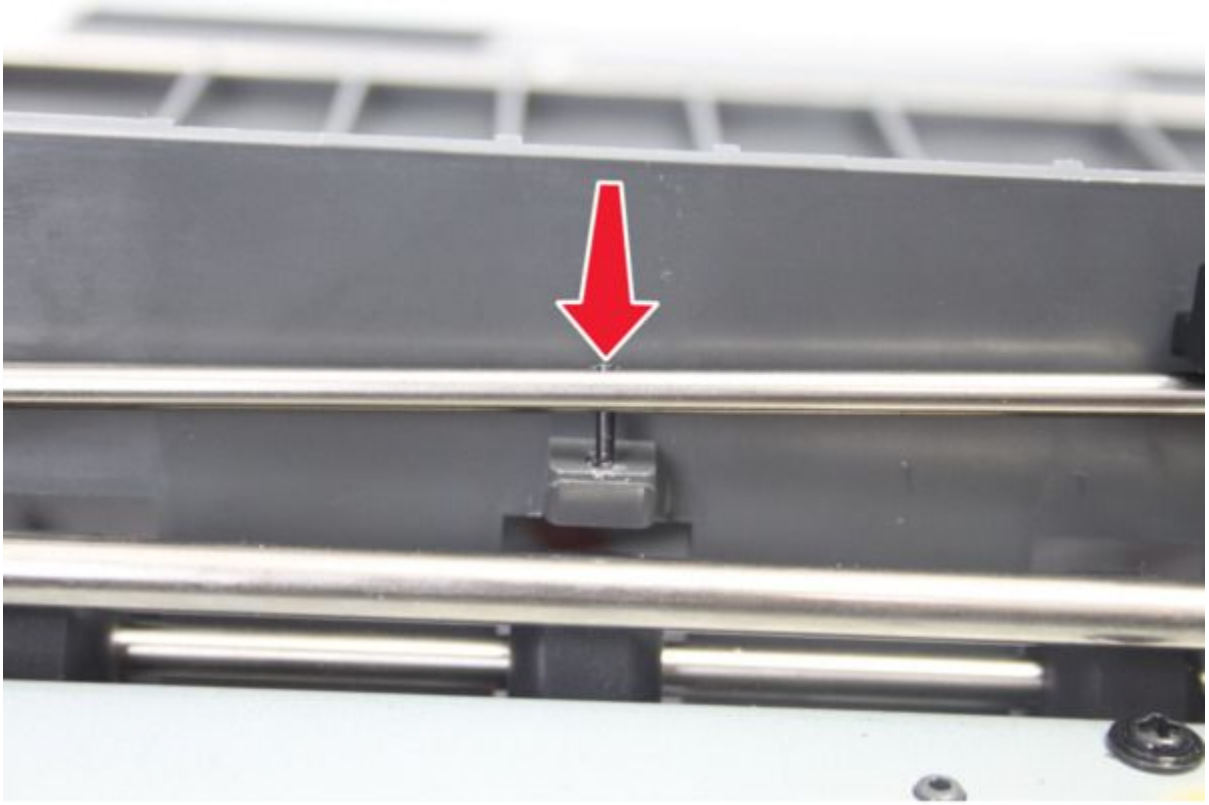
> **Note:** Pay attention to the default position of the arms.



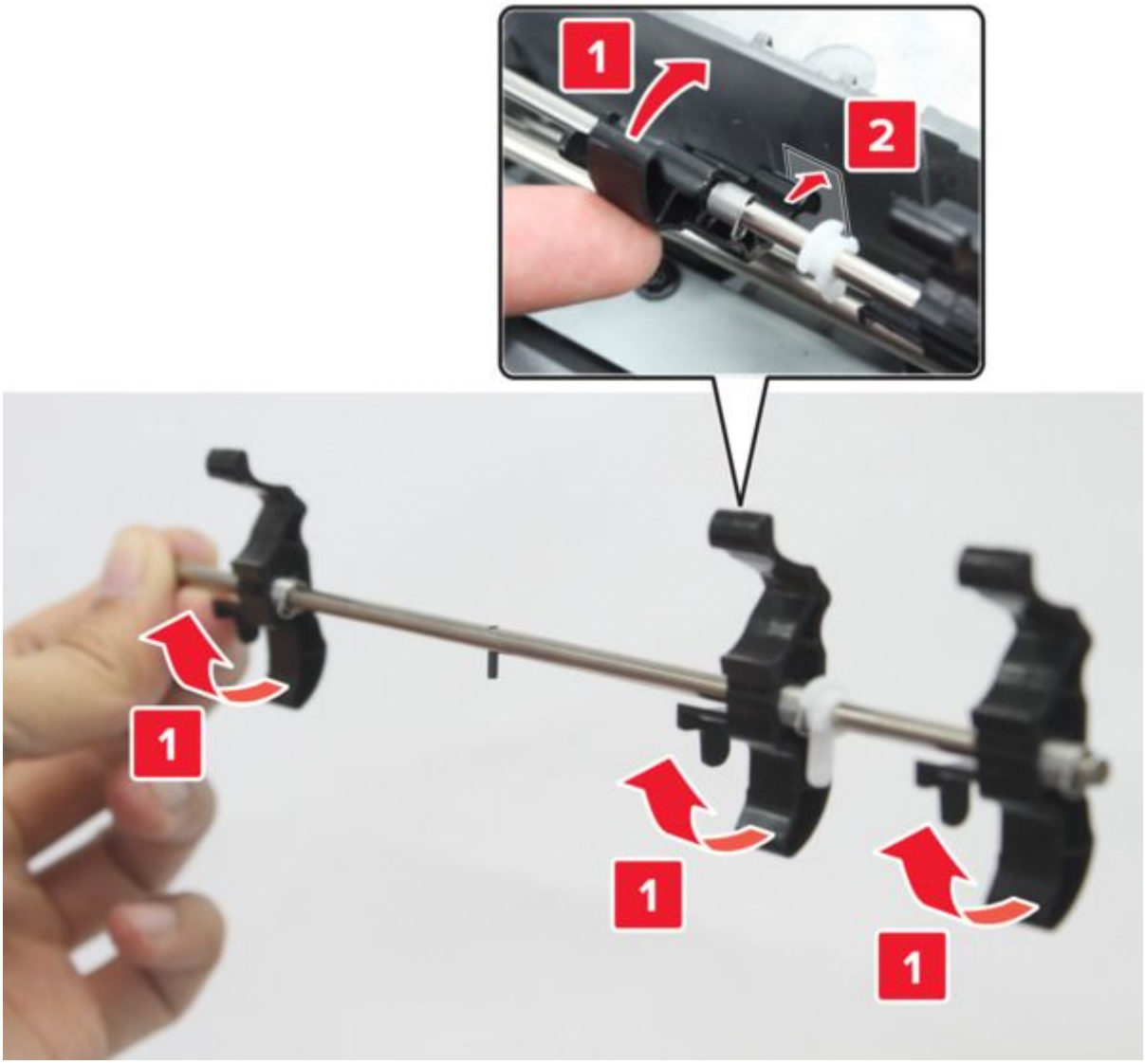
When installing the bin clamp:

- 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.

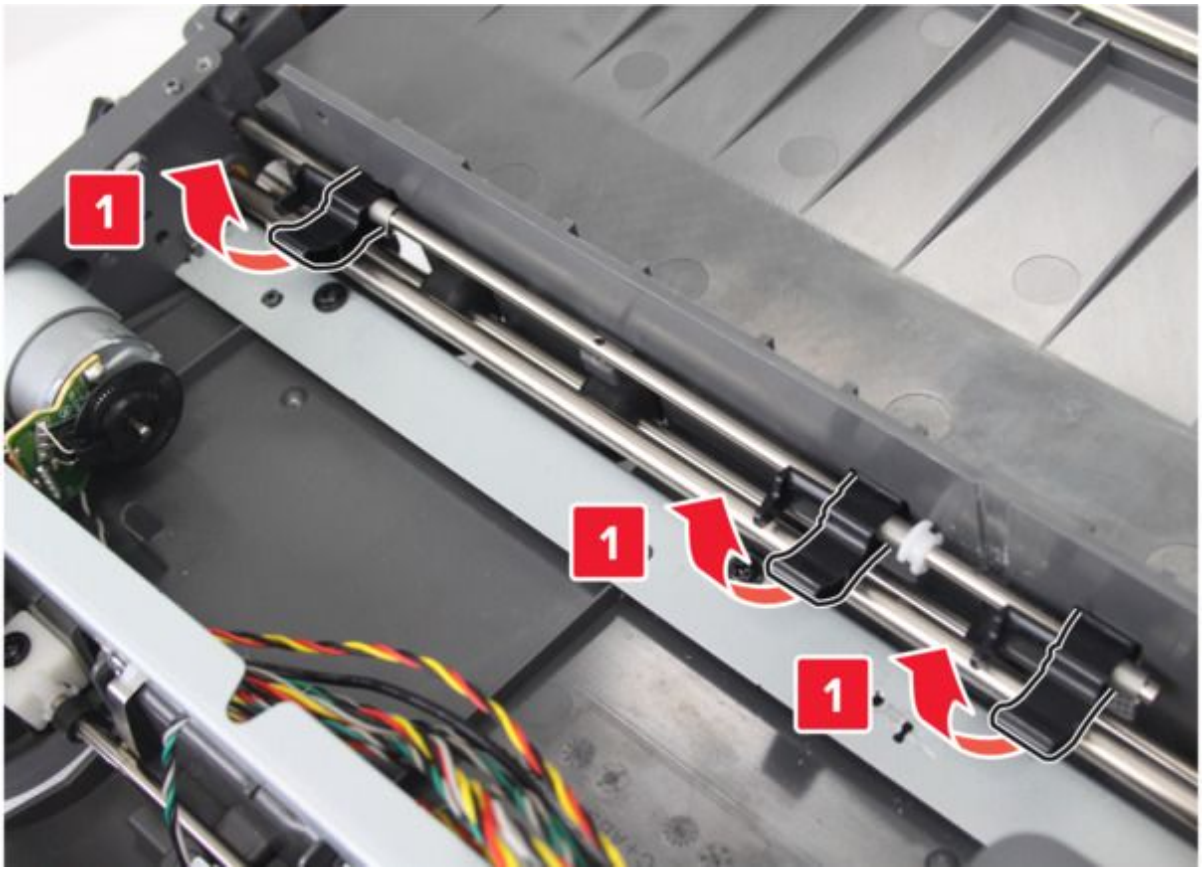




- With the pin placed facedown, turn the arm clockwise until the other side of the arm is aligned with the hole, and then insert the arm.



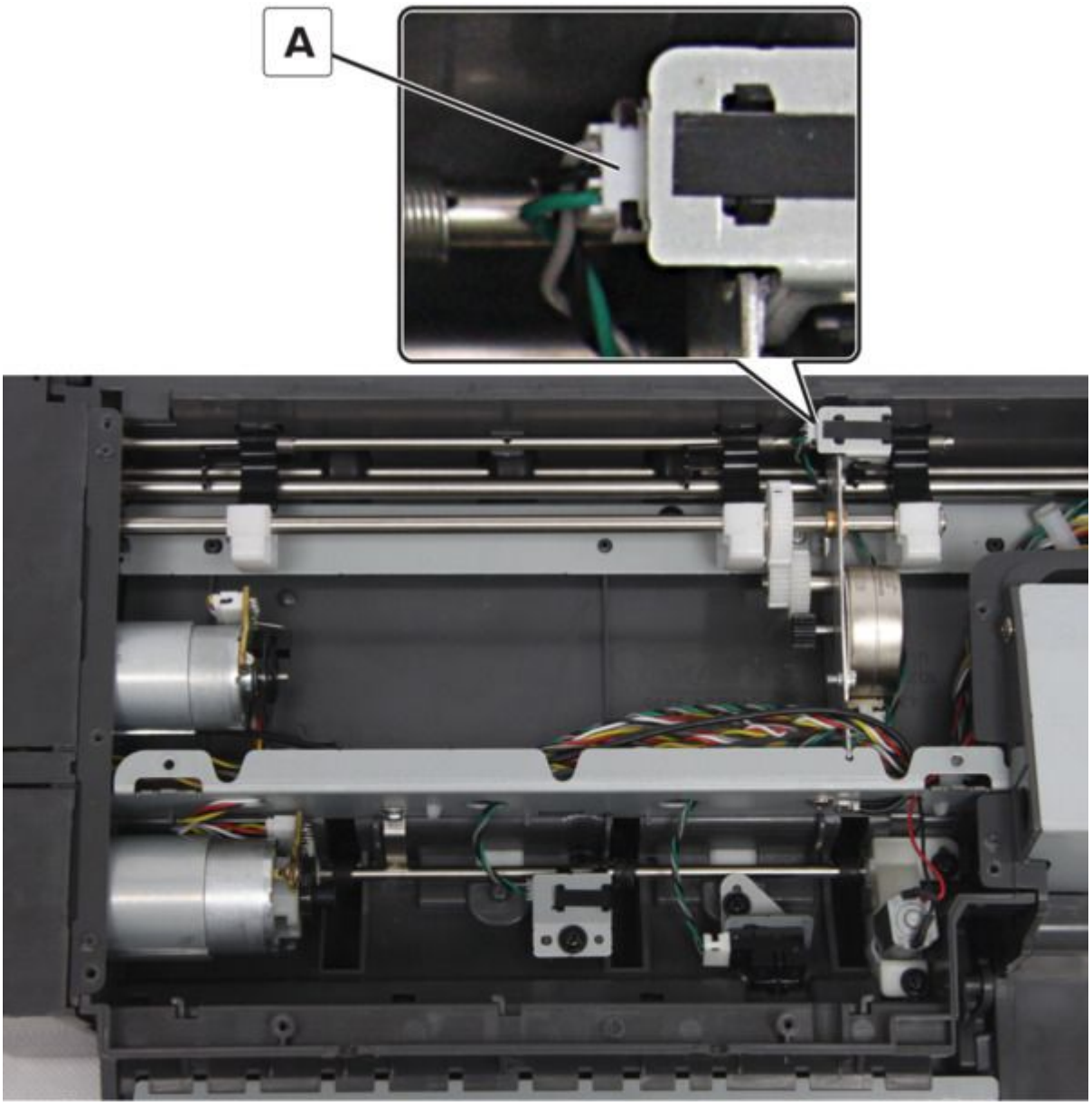
- Raise the arm, and then release it. If the arm goes back to the original position, and with a tension load, then it is properly installed.



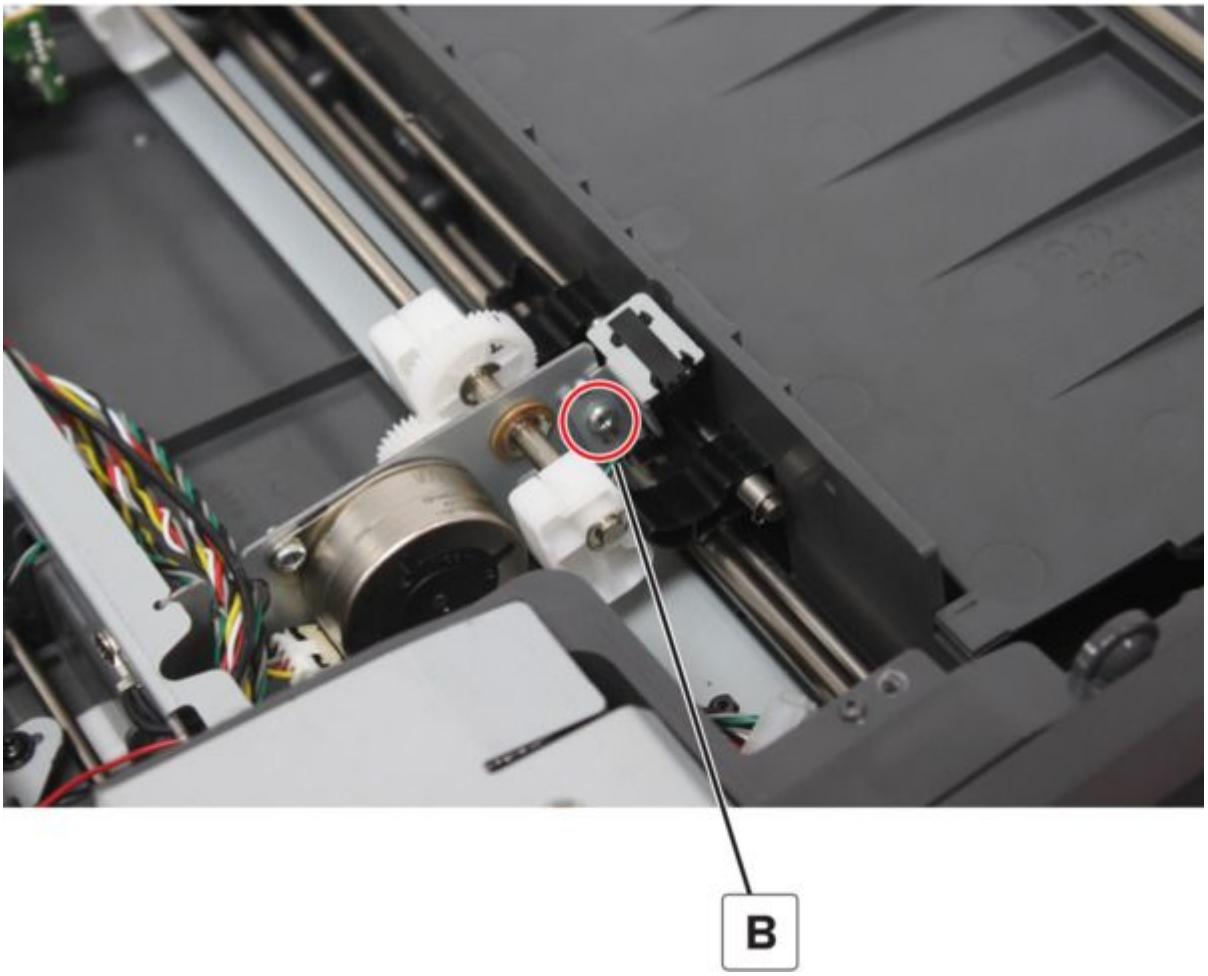
Note: For a video demonstration, see the *CS82x and CX8xx Staple finisher staple bin clamp assembly removal* at infoserve.lexmark.com/videos/stfin_bin_clamp_asm_removal.html.

Sensor (staple finisher bin clamp) removal

1. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
2. Disconnect the cable (A).



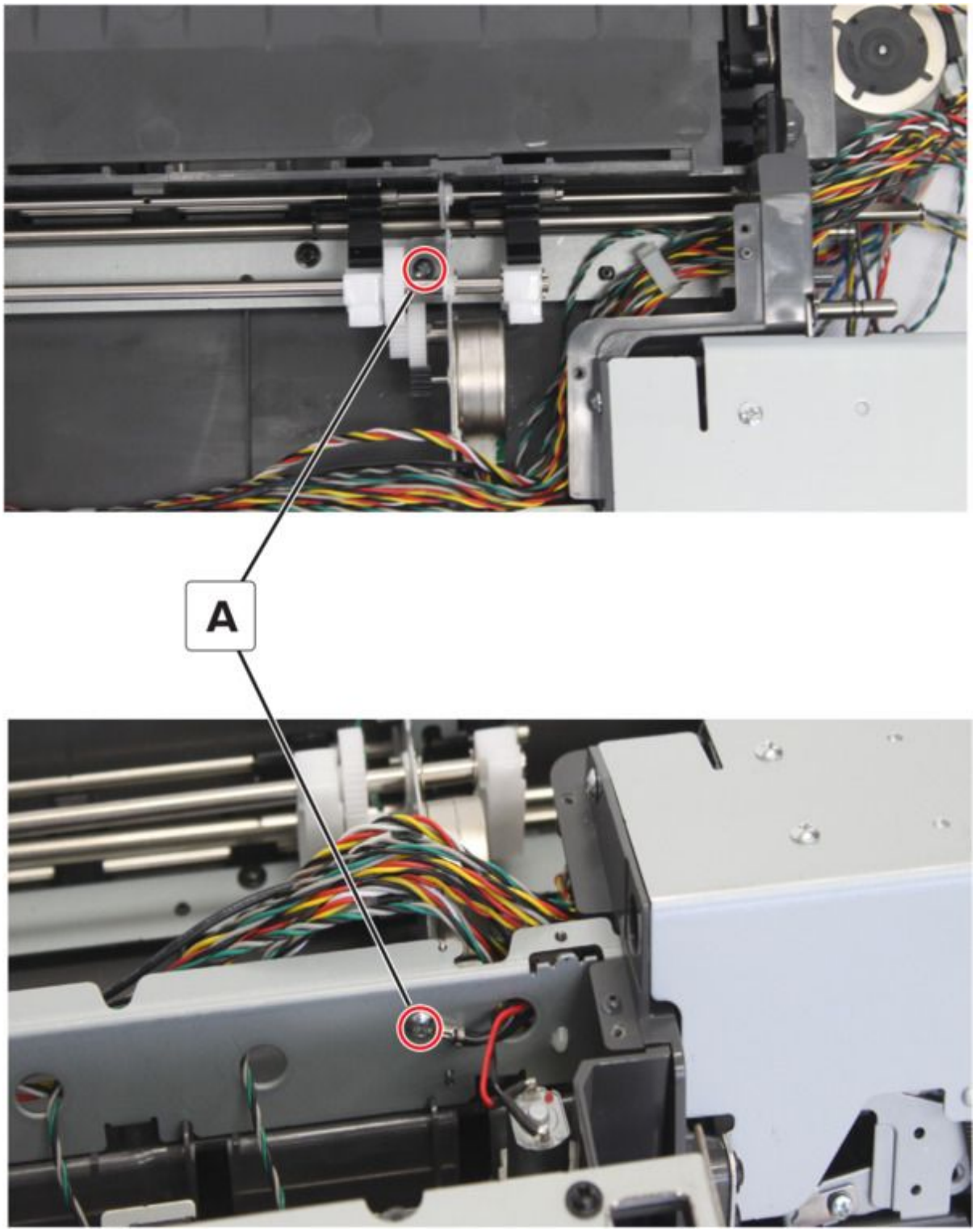
3. Remove the screw (B), and then remove the bracket.



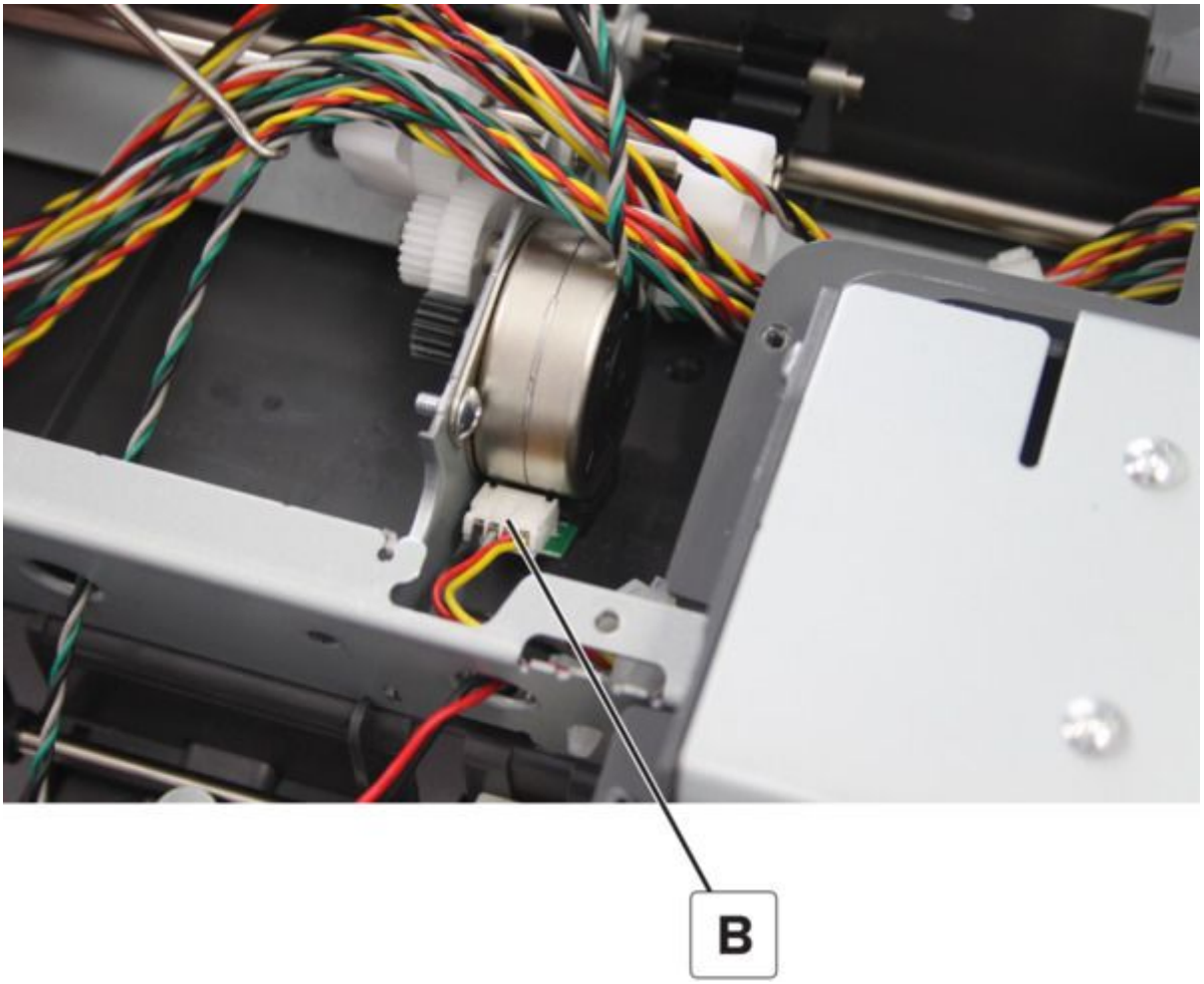
4. Remove the adhesive, and then remove the sensor.

Motor (staple finisher bin clamp) removal

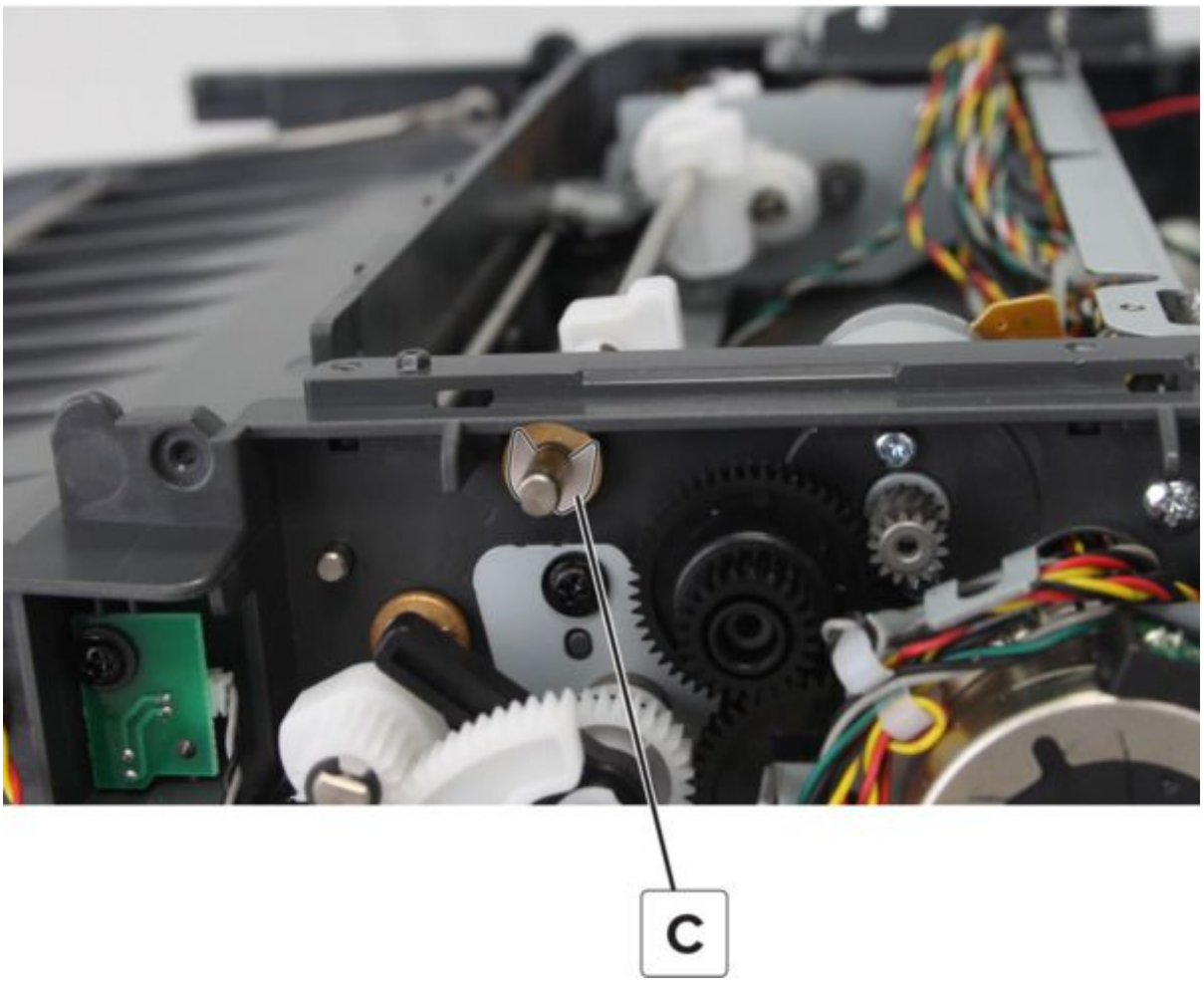
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the sensor (staple finisher bin clamp). See Sensor (staple finisher bin clamp) removal on page 908.
3. Remove the two screws (A).



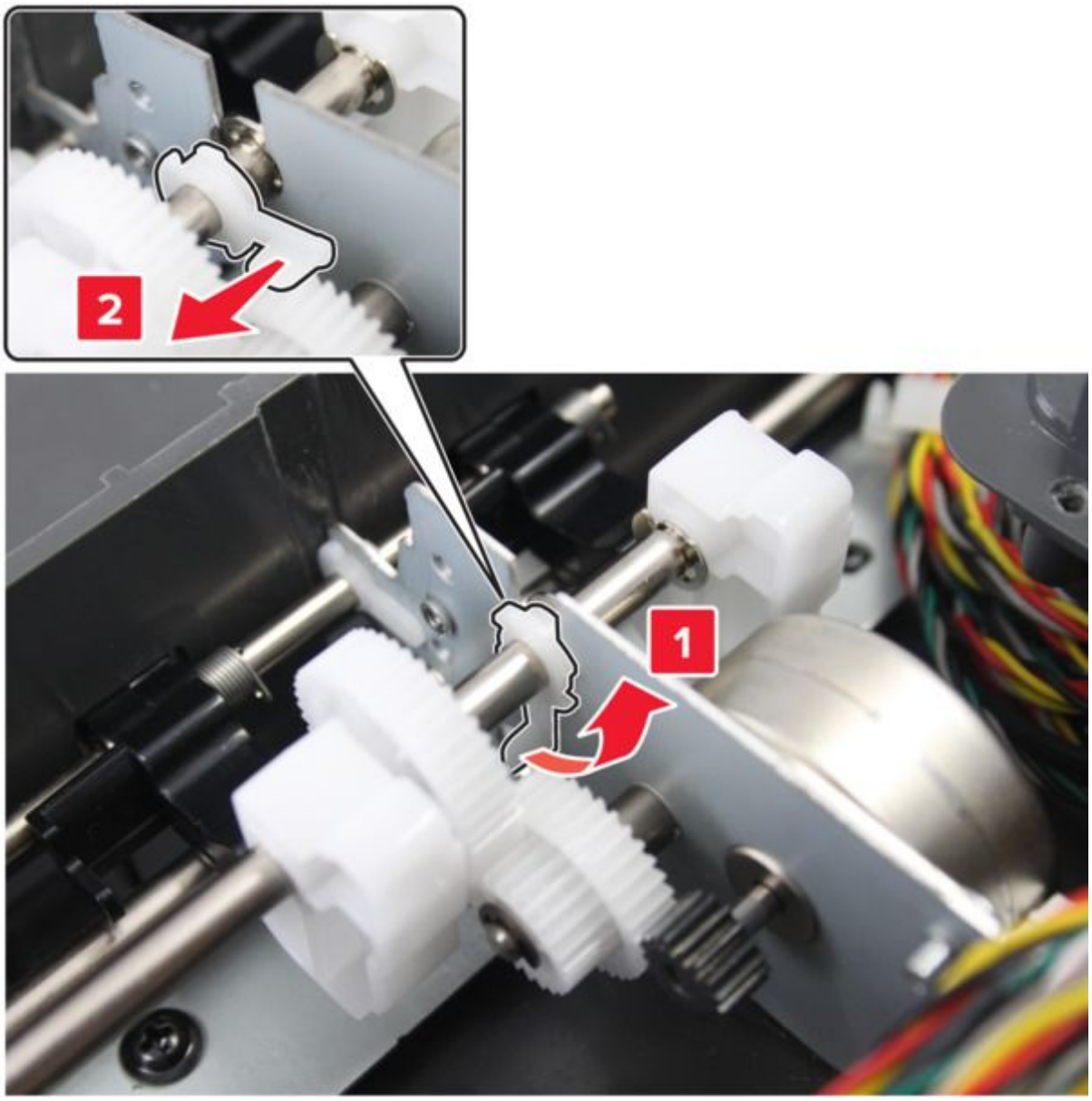
4. Disconnect the cable (B).



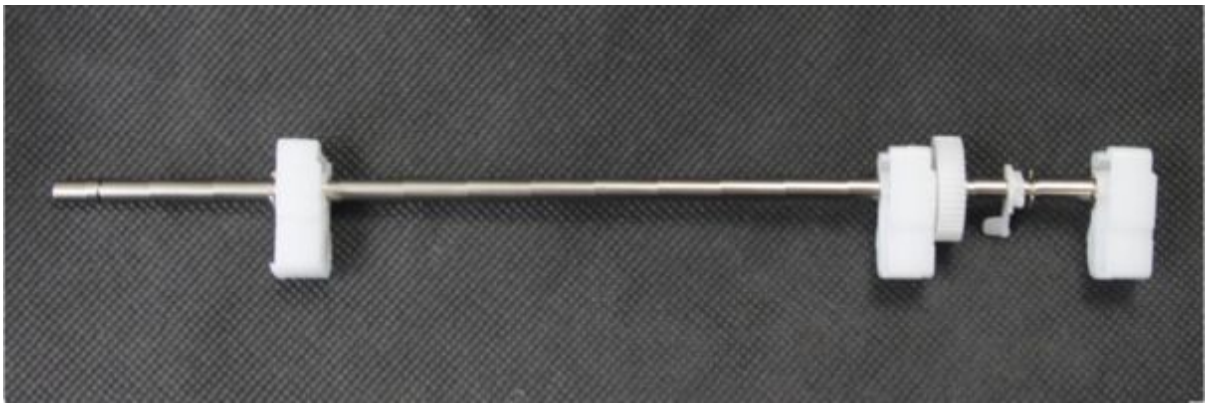
5. Remove the clip (C) and the bushing.



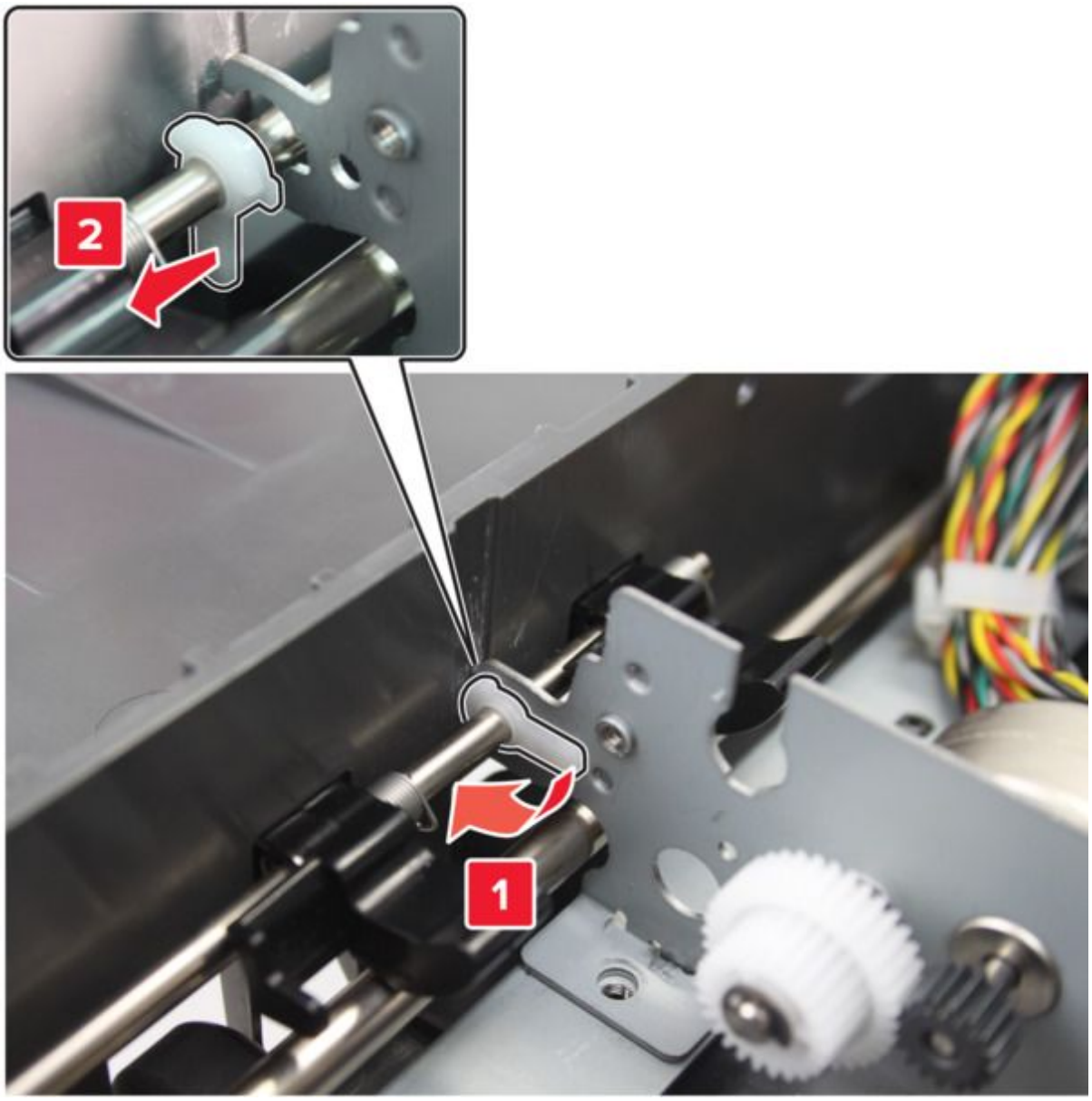
6. Pry the retainer counterclockwise to unlock, and then loosen it.



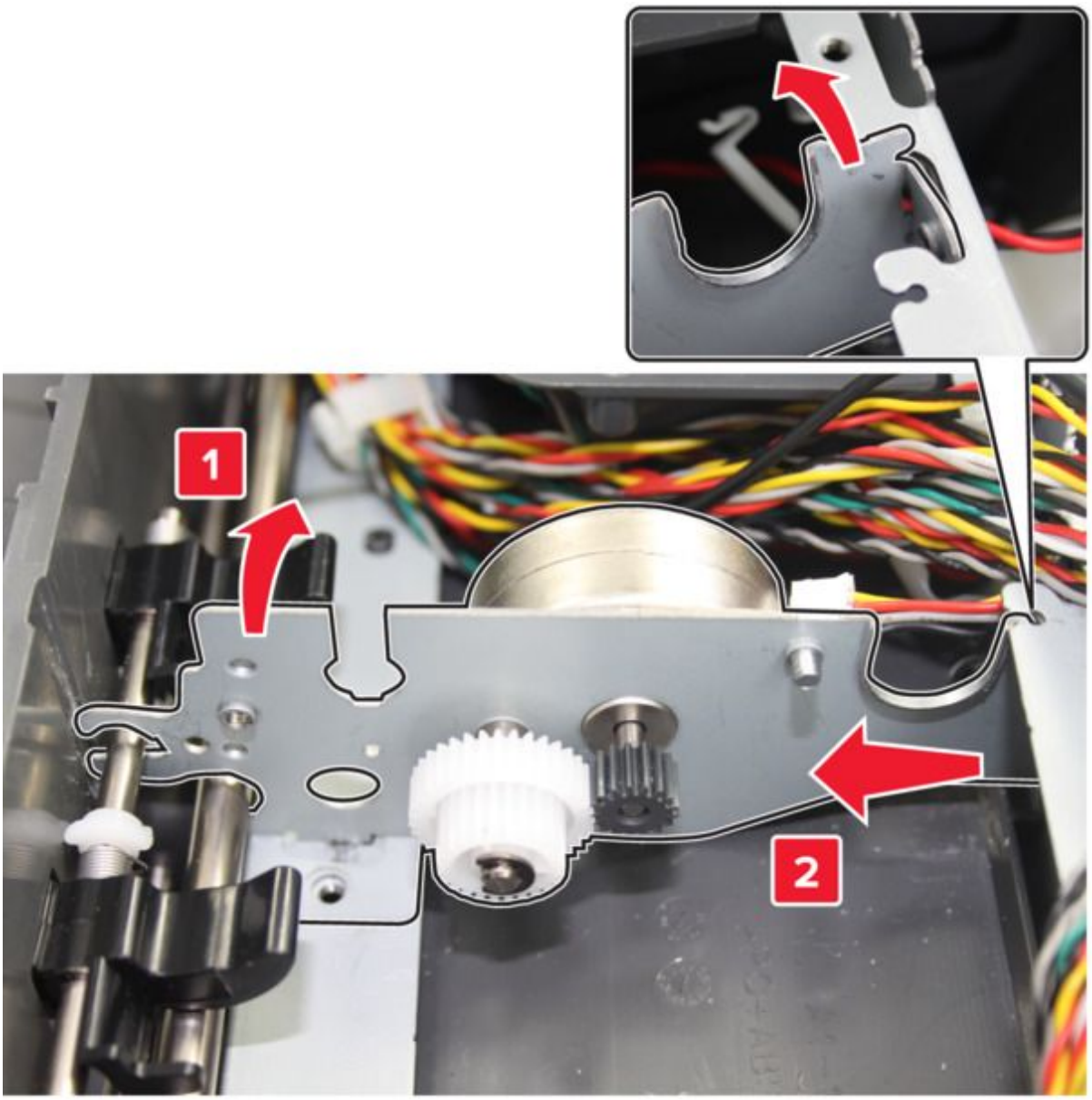
7. Remove the cam gear assembly.

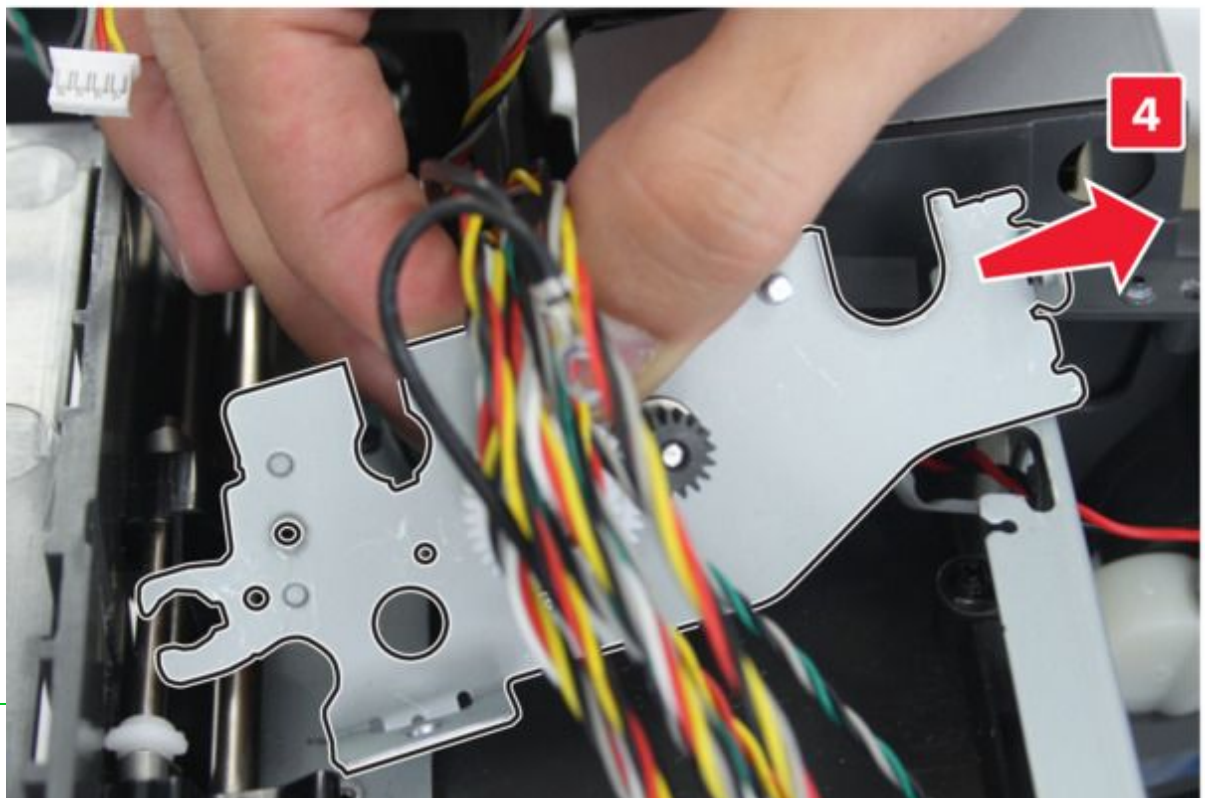


8. Pry the retainer clockwise to unlock, and then loosen it.

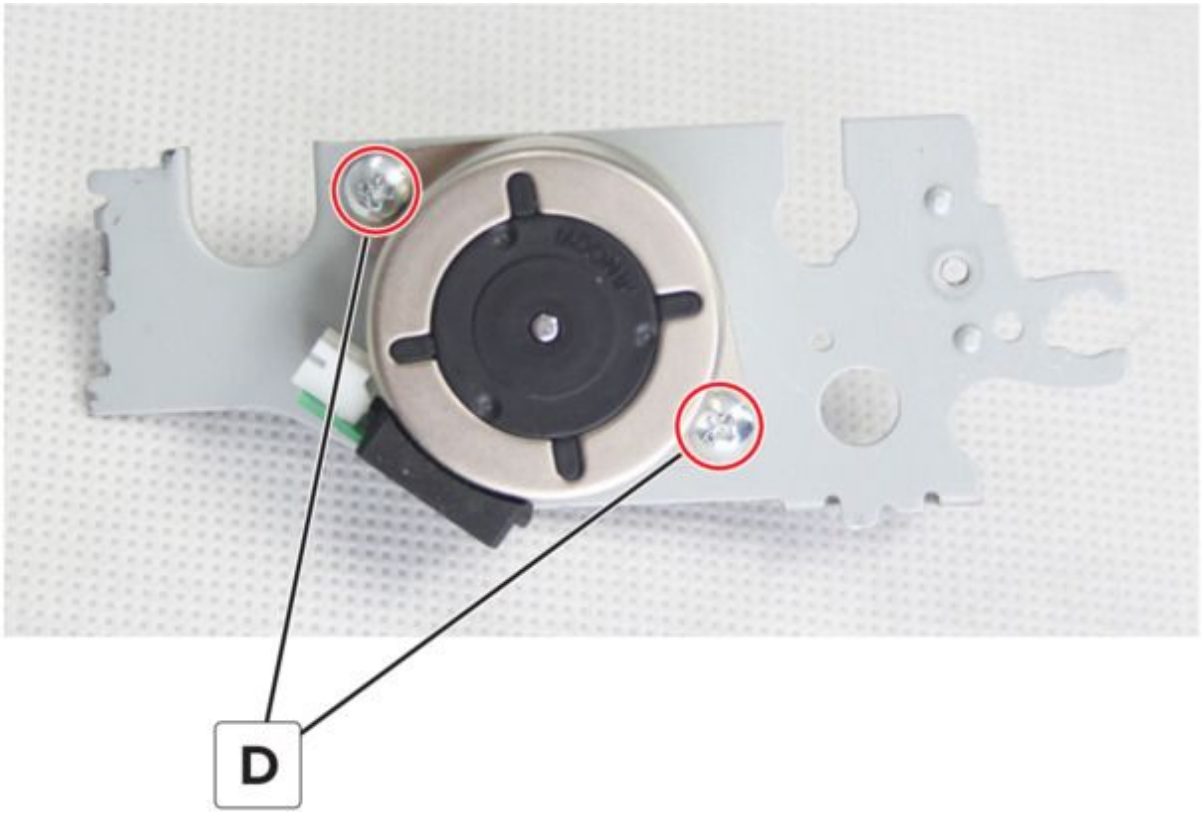


9. Release, and then remove the bracket.


1
2

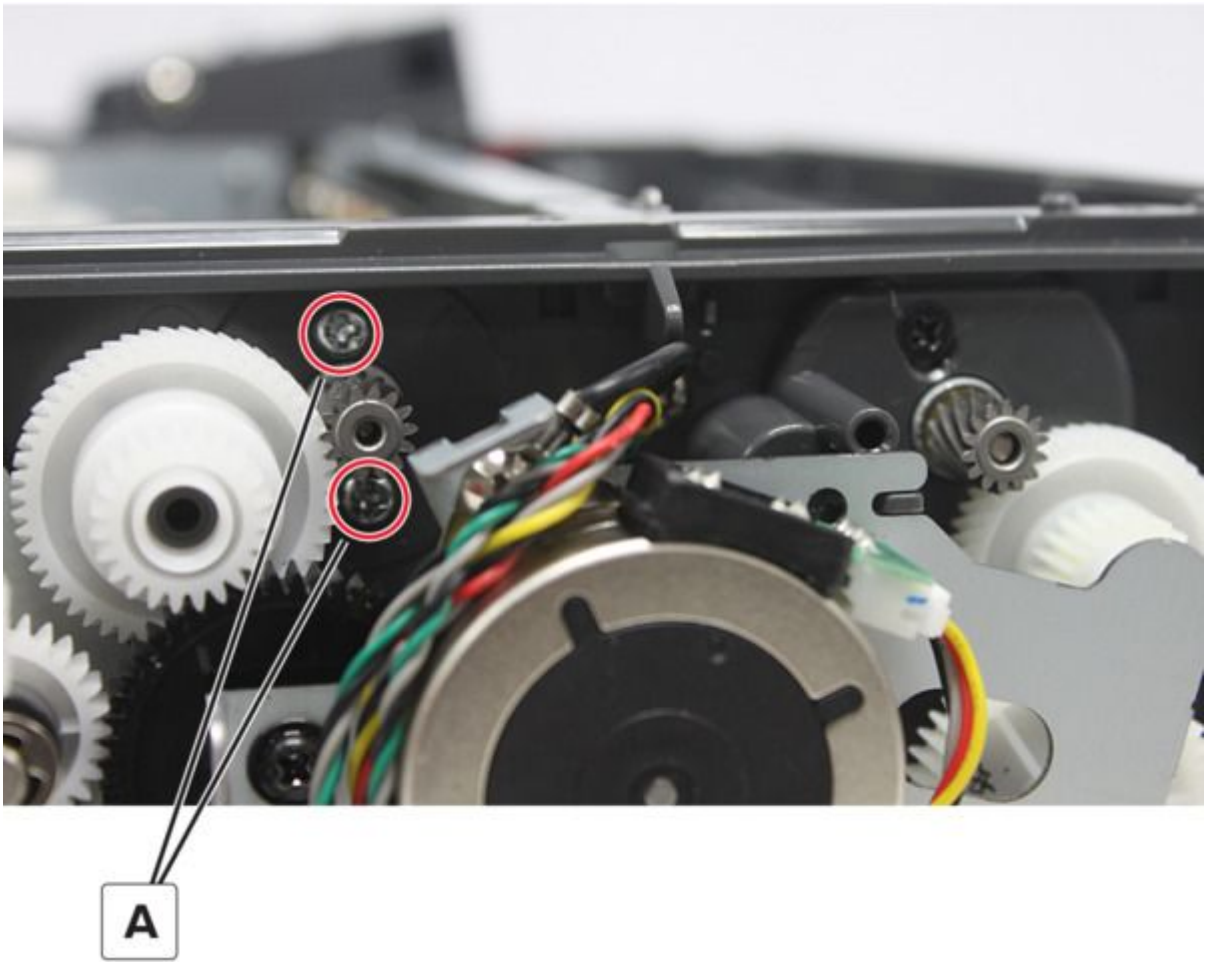

4

10. Remove the two screws (D), and then remove the motor.



Motor (staple finisher exit) removal

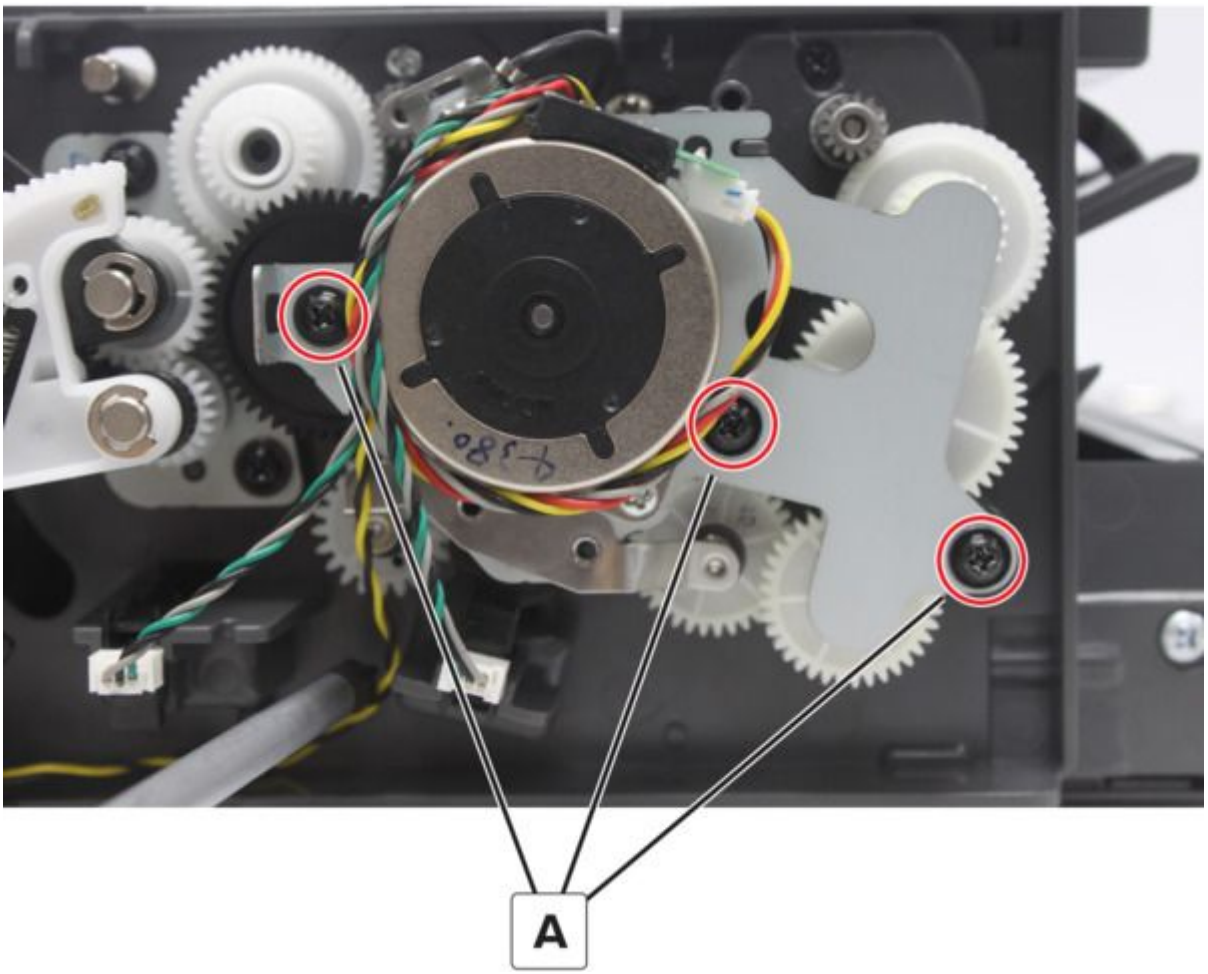
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
3. Remove the two screws (A).



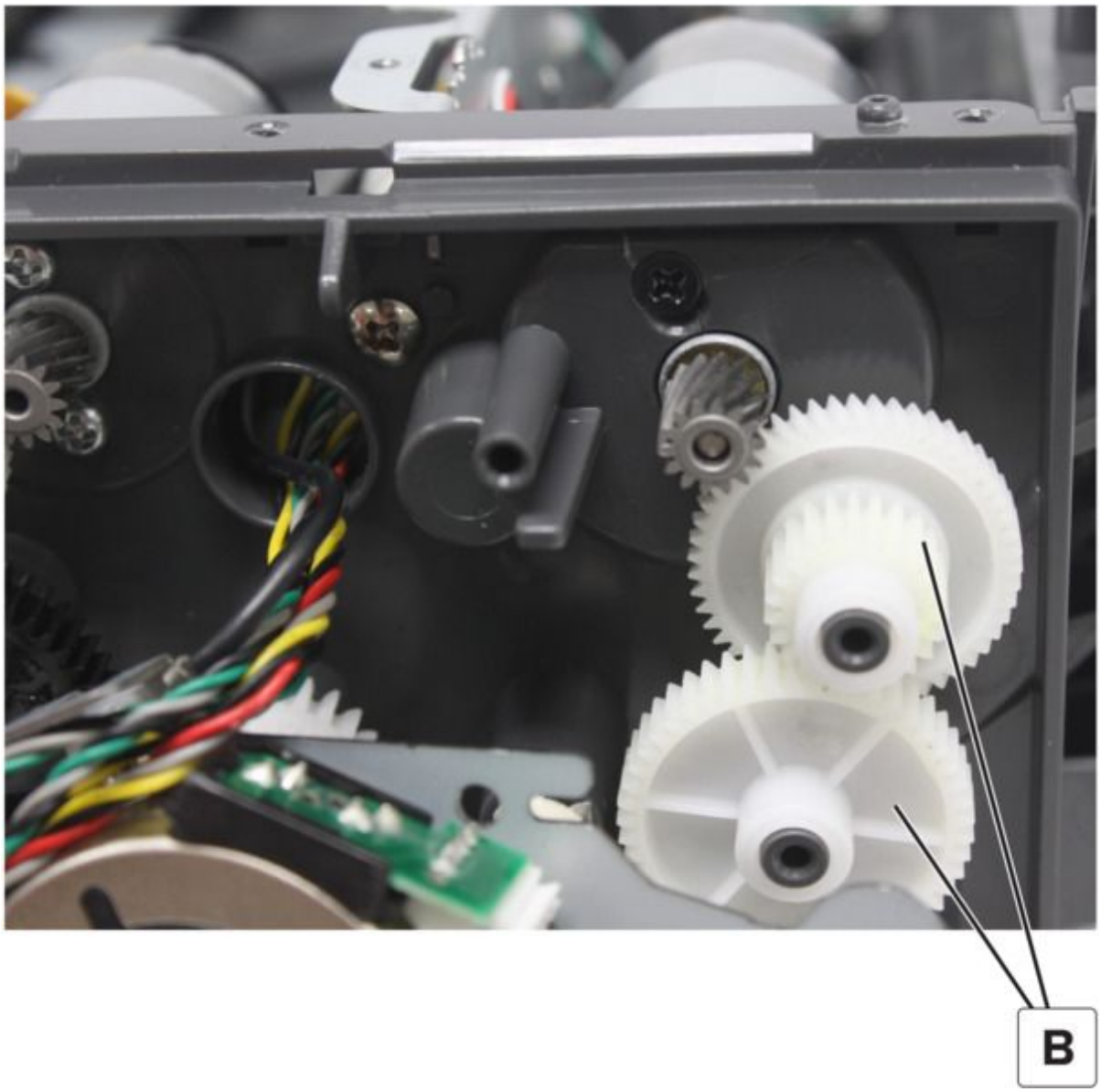
4. Remove the motor, and then disconnect the cable from the motor.

Motor (staple finisher transport) removal

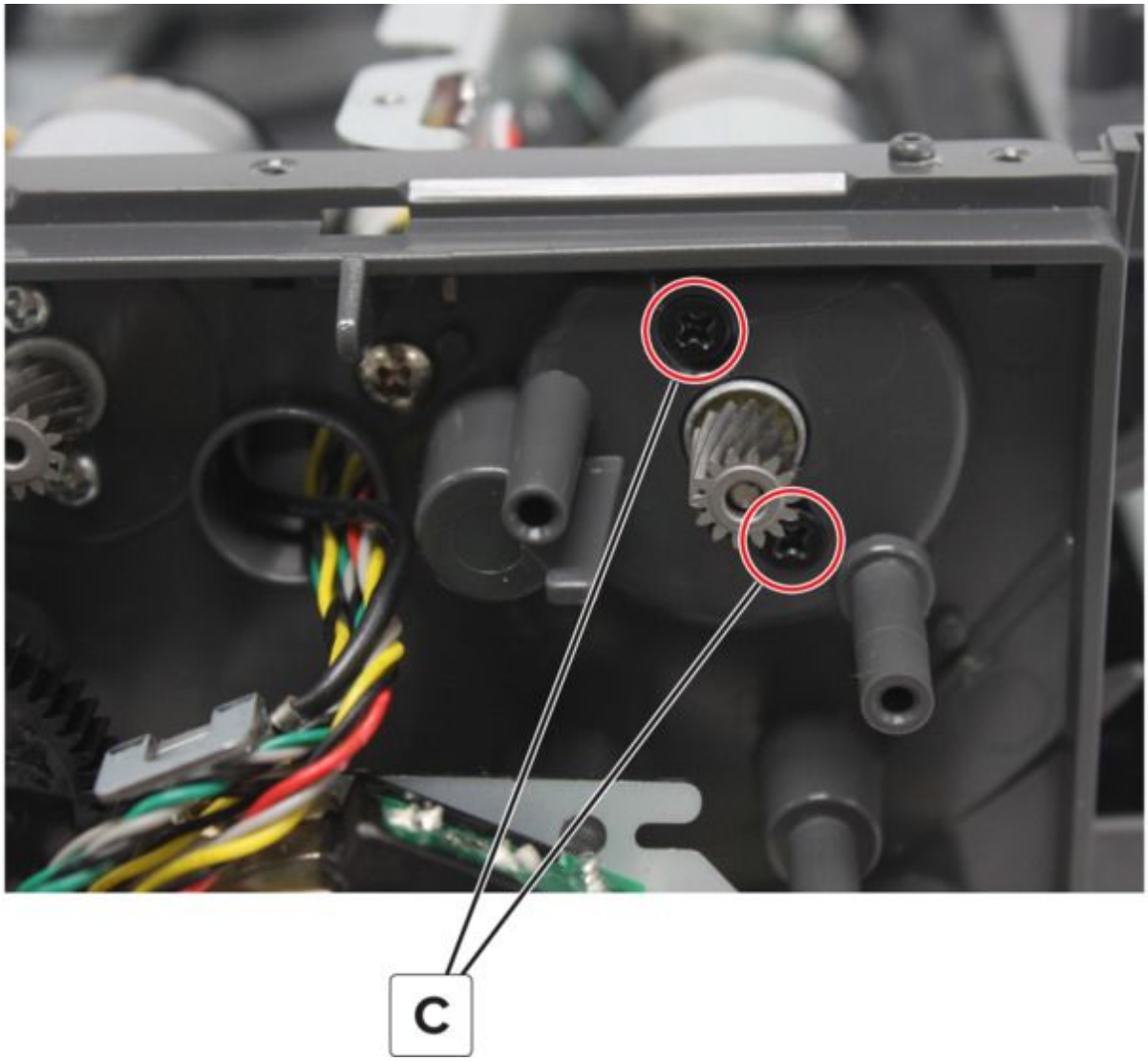
1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
3. Remove the three screws (A), and then set aside the bracket.



4. Remove the two gears (B).



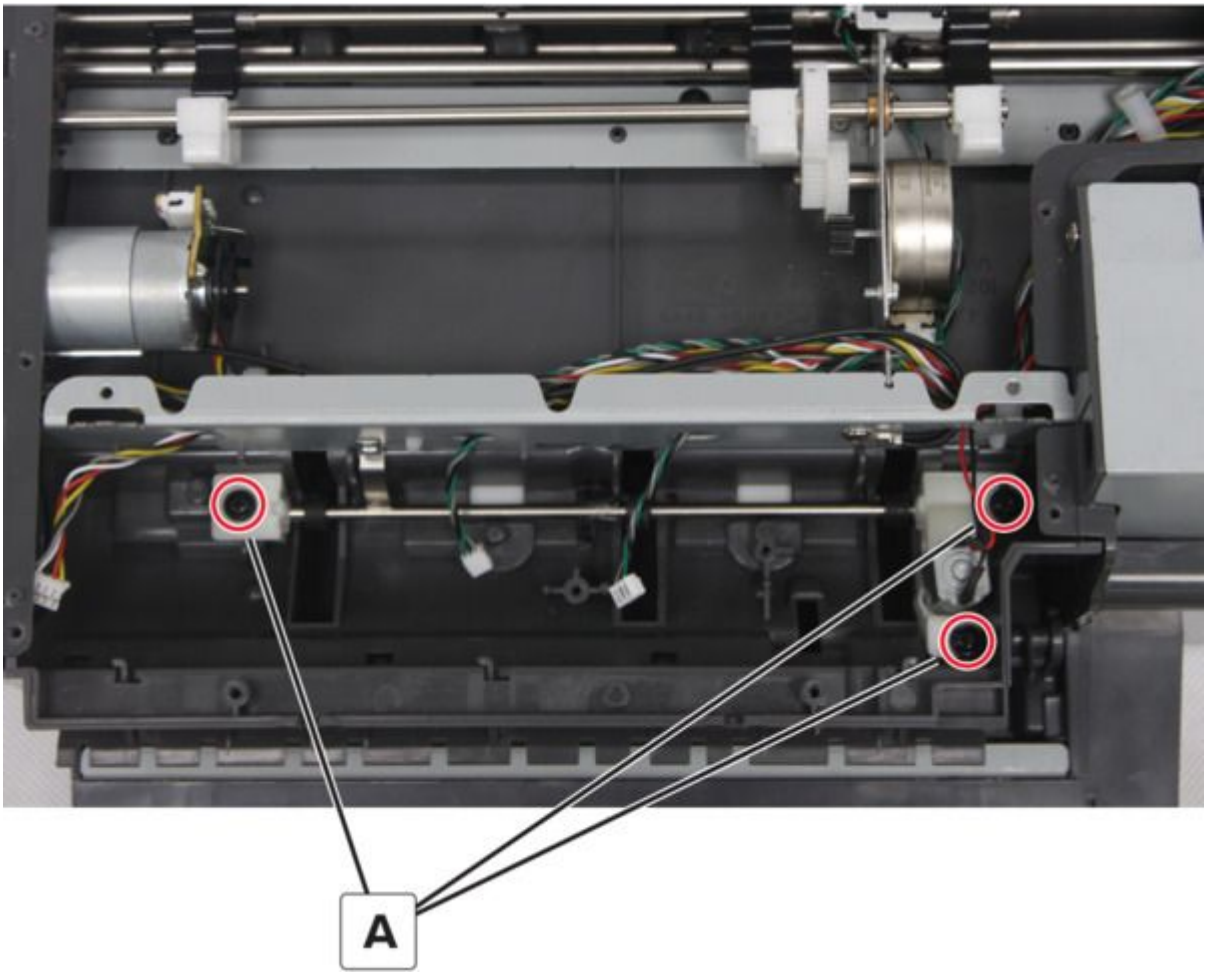
5. Remove the two screws (C), and then remove the motor.



6. Disconnect the cable from the motor.

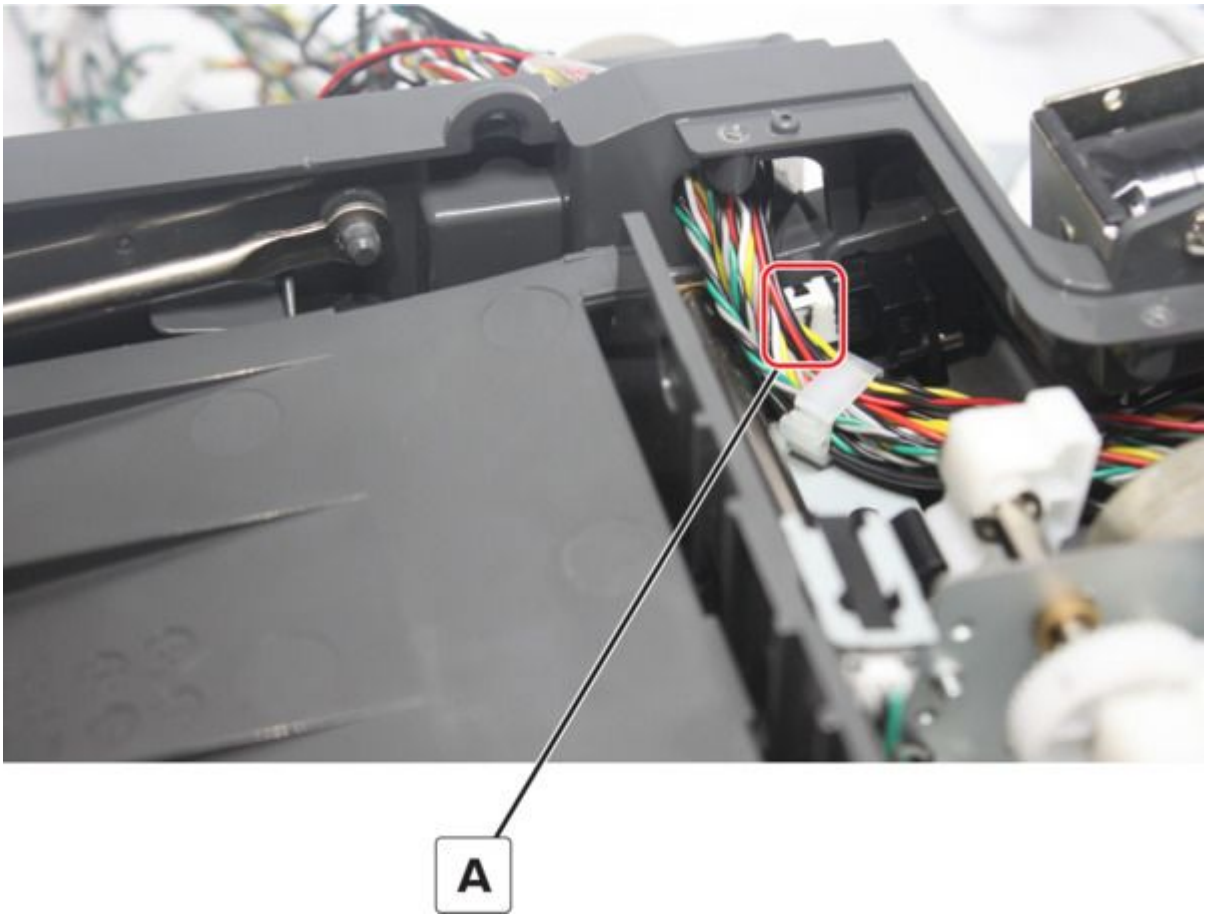
Staple finisher decurl assembly removal

1. Remove the front cover. See .Staple finisher front cover removal on page 807
2. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
3. Remove the sensor (staple finisher decurl). See Sensor (staple finisher decurl) removal on page 924.
4. Remove the sensor (staple finisher transport). See Sensor (staple finisher transport) removal on page 925.
5. Remove the motor (staple finisher transport). See Motor (staple finisher transport) removal on page 918.
6. Disconnect the decurl motor cable from the controller board, and then unroute the cable.
7. Remove the three screws (A), and then remove the assembly.

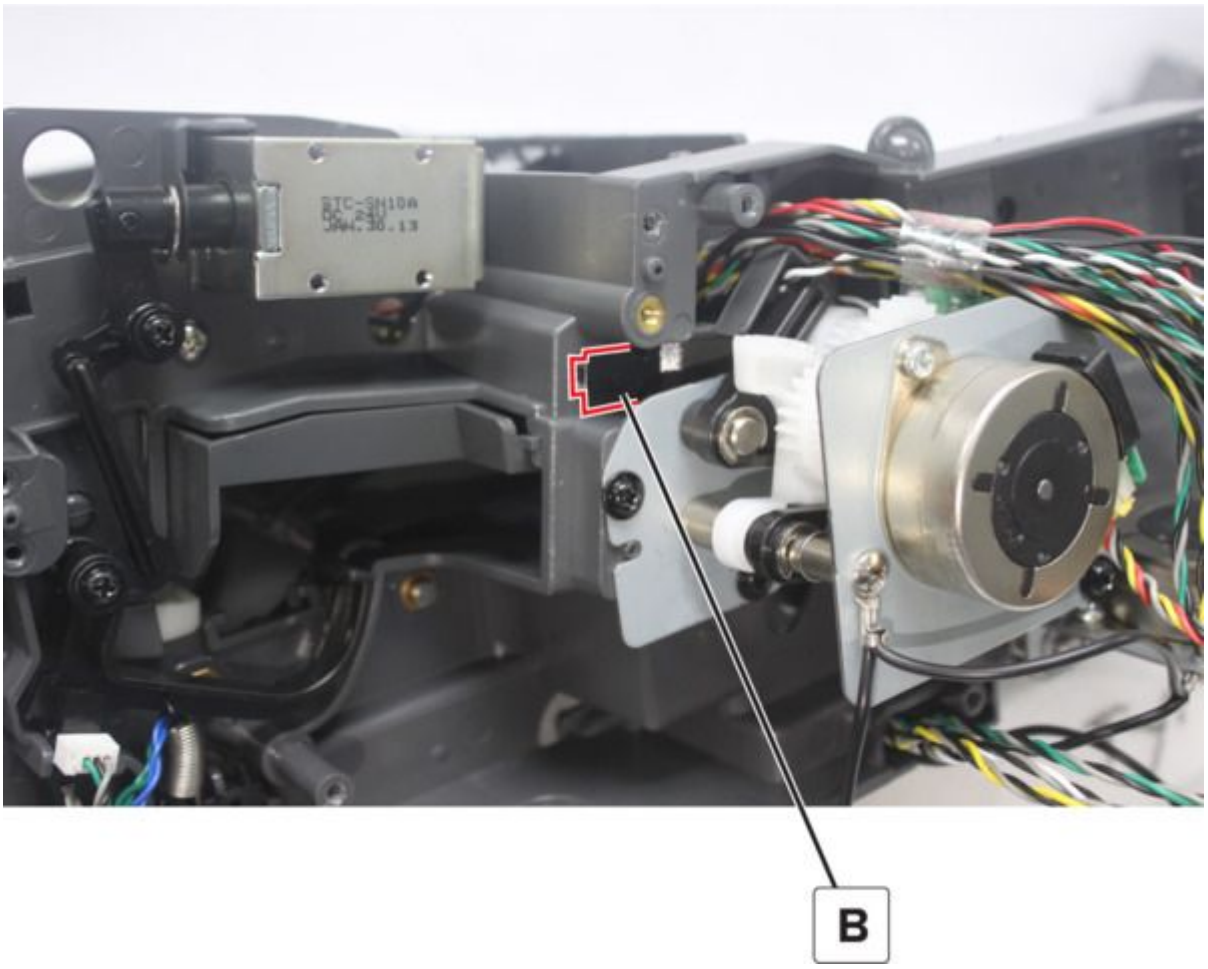


Sensor (staple finisher staple unit paper present) removal

1. Remove the right cover. See Staple finisher right cover removal on page 807.
2. Remove the rear cover. See .Staple finisher rear cover removal on page 808
3. Remove the inner rear cover. See Staple finisher inner rear cover removal on page 813.
4. Remove the ejector. See Staple finisher staple unit ejector removal on page 831.
5. Remove the staple unit bracket. See Staple finisher staple unit removal on page 833.
6. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
7. Disconnect the cable (A).

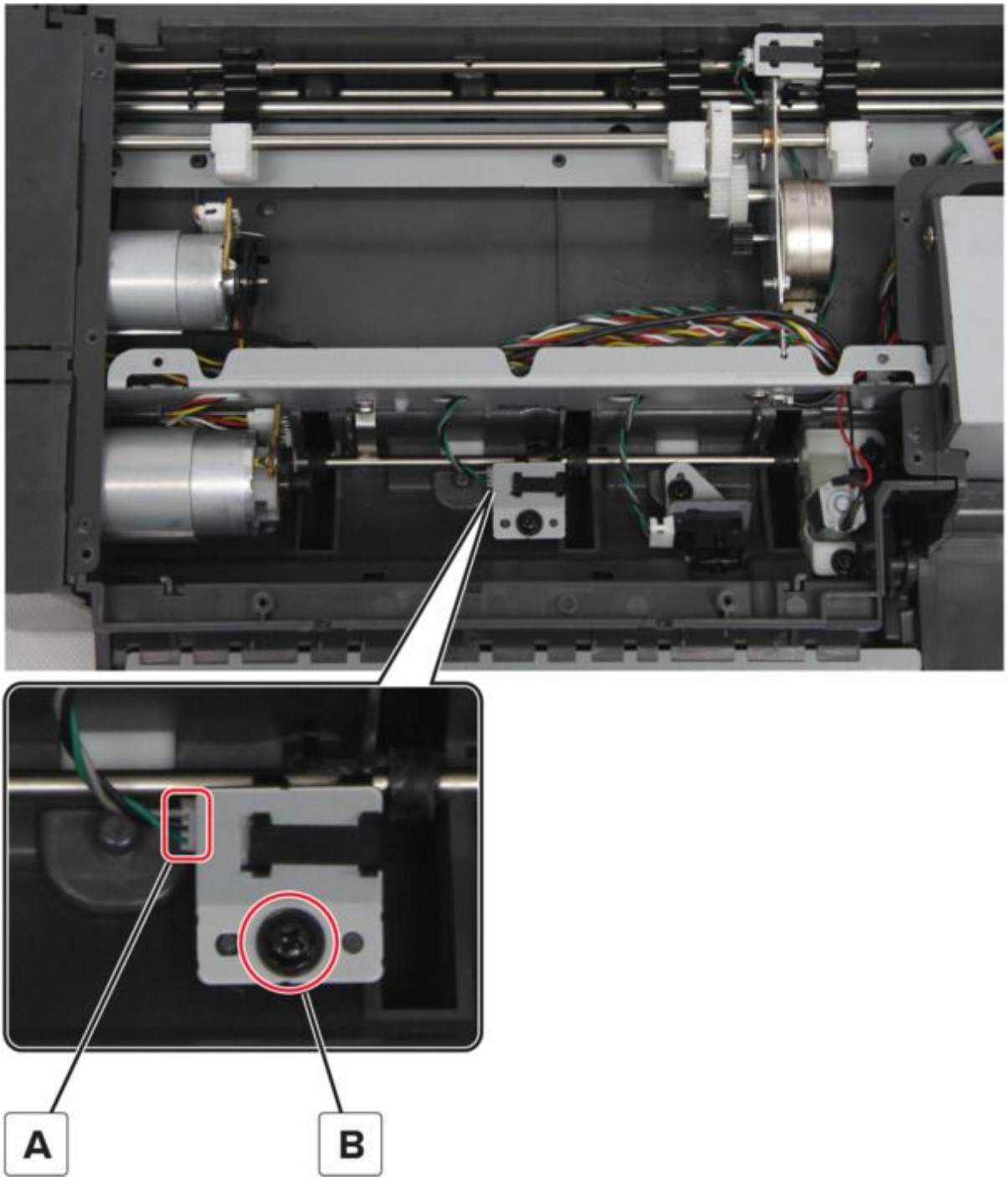


8. Remove the adhesive (B), and then remove the sensor.



Sensor (staple finisher decurl) removal

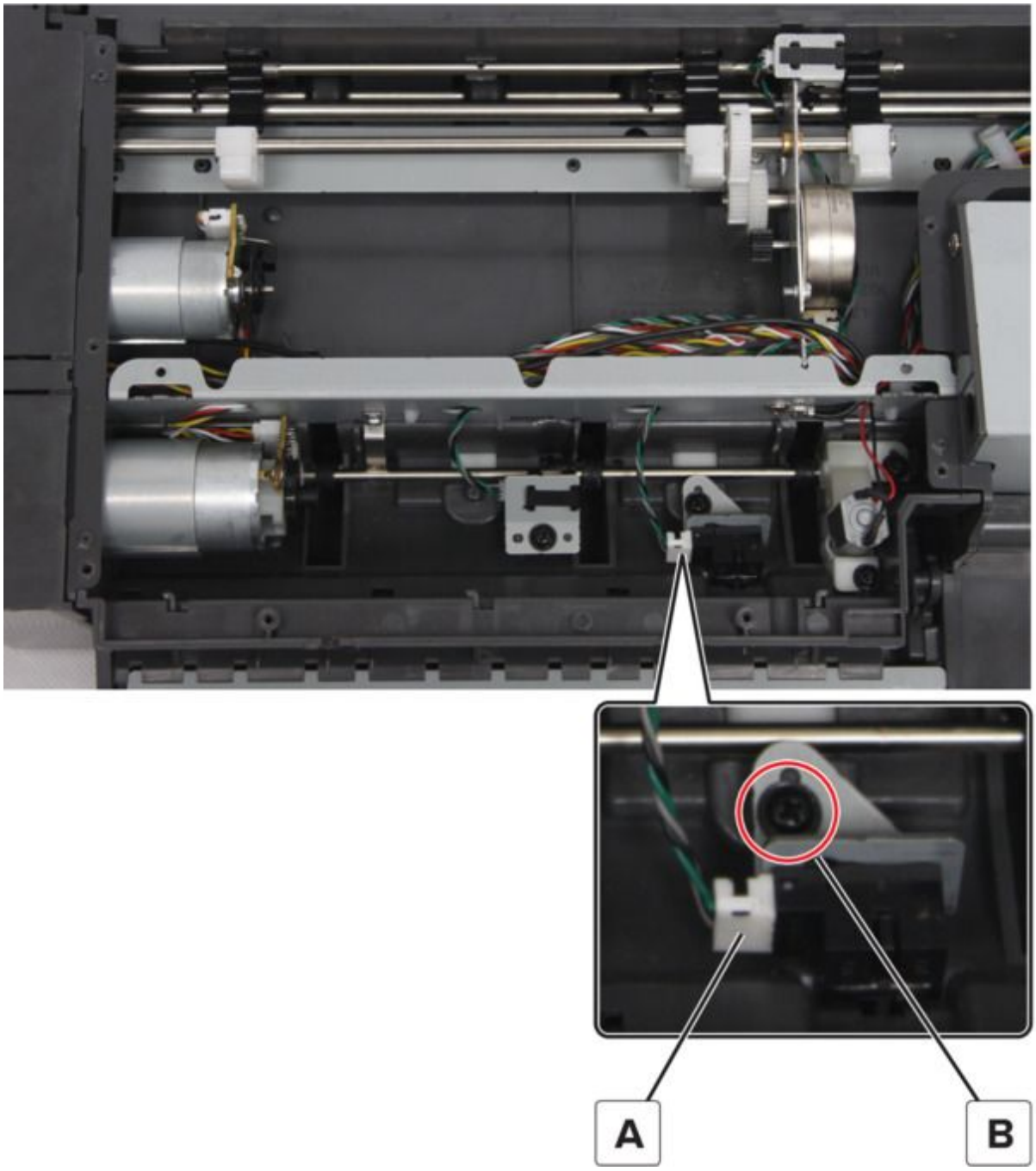
1. Remove the bottom cover. See .Staple finisher bottom cover removal on page 818
2. Disconnect the cable (A).
3. Remove the screw (B), and then remove the bracket.



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 818
2. Disconnect the cable (A).
3. Remove the screw (B), and then remove the bracket.



4. Remove the adhesive, and then remove the sensor.

Component locations

Printer configurations

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.

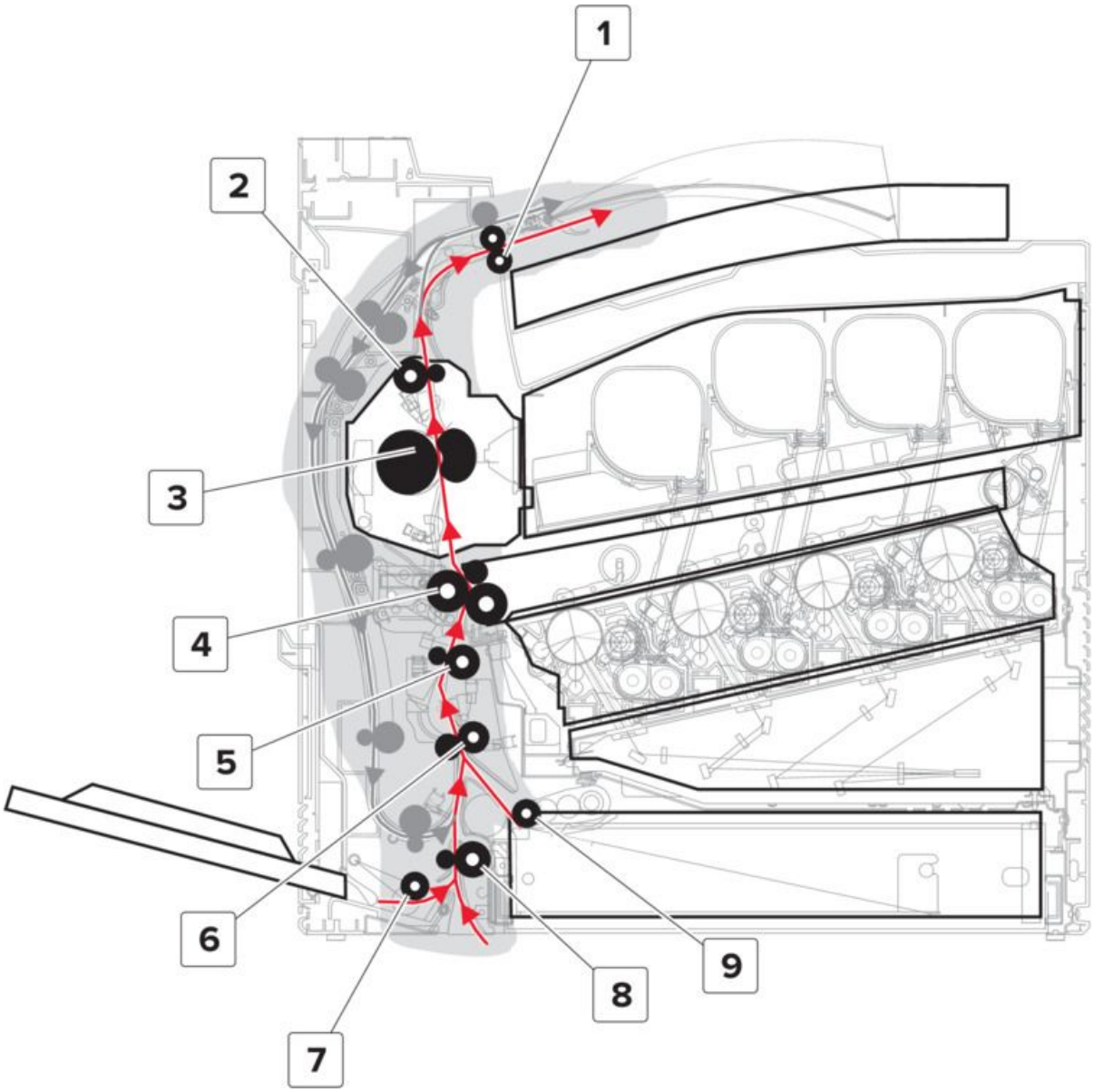
CAUTION—TIPPING HAZARD
Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, contact the place where you purchased the printer.

You can configure your printer by adding three optional 550-sheet trays or an optional 2200-sheet tray.

1	Control panel
2	Staple finisher
3	Standard bin
4	Standard 550-sheet tray
5	Optional 550-sheet trays
6	Optional 2200-sheet tray
7	Multipurpose feeder

Printer roller locations

Standard path rollers



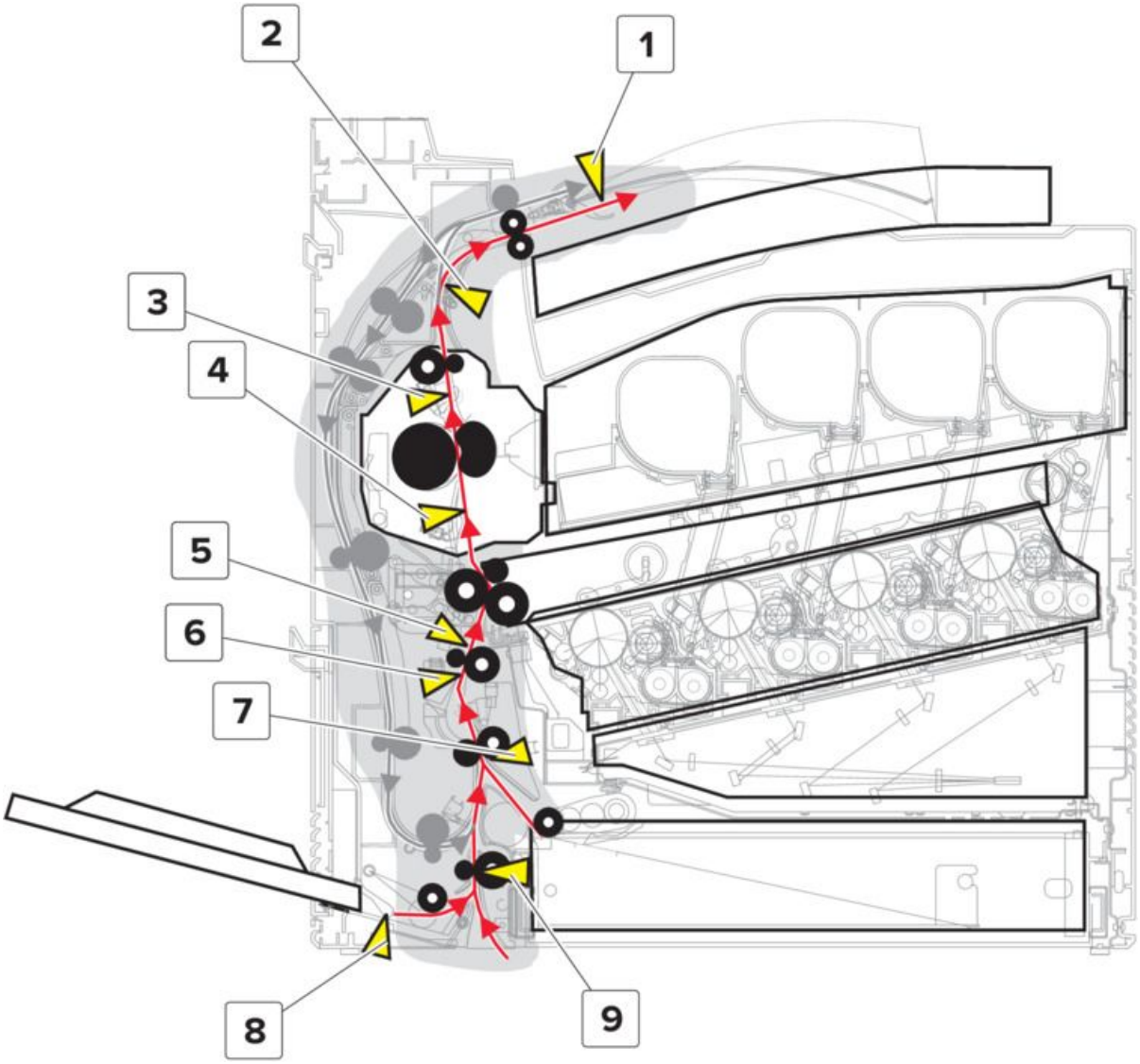
1	Media exit roller
2	Fuser decurler roller
3	Fuser heat belt
4	2nd transfer roller
5	Deskew roller
6	Isolation roller
7	MPF pick roller
8	MPF/pass-through roller
9	Tray 1 pick roller

Duplex path rollers

1	Duplex exit roller
2	Duplex path rollers
3	Isolation roller

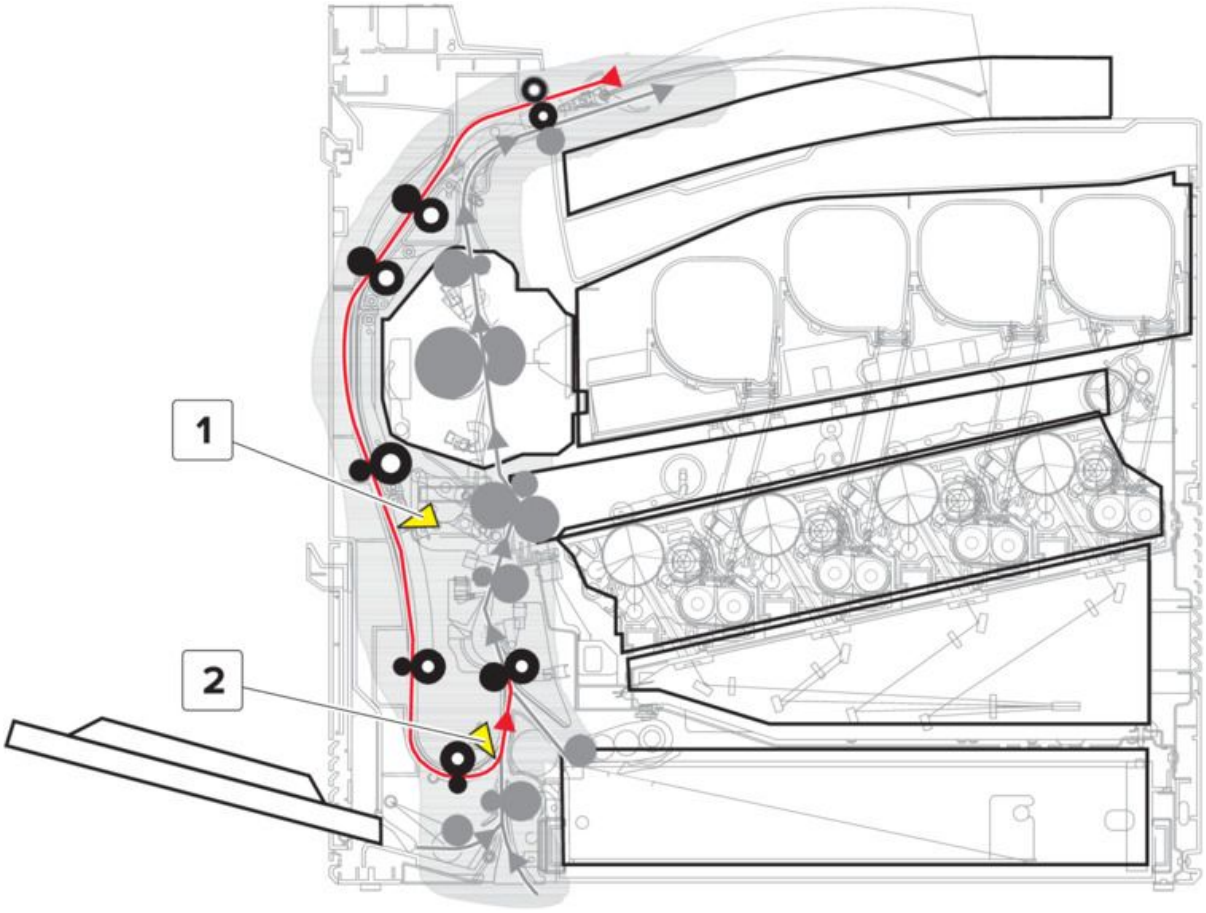
Printer sensor locations

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)

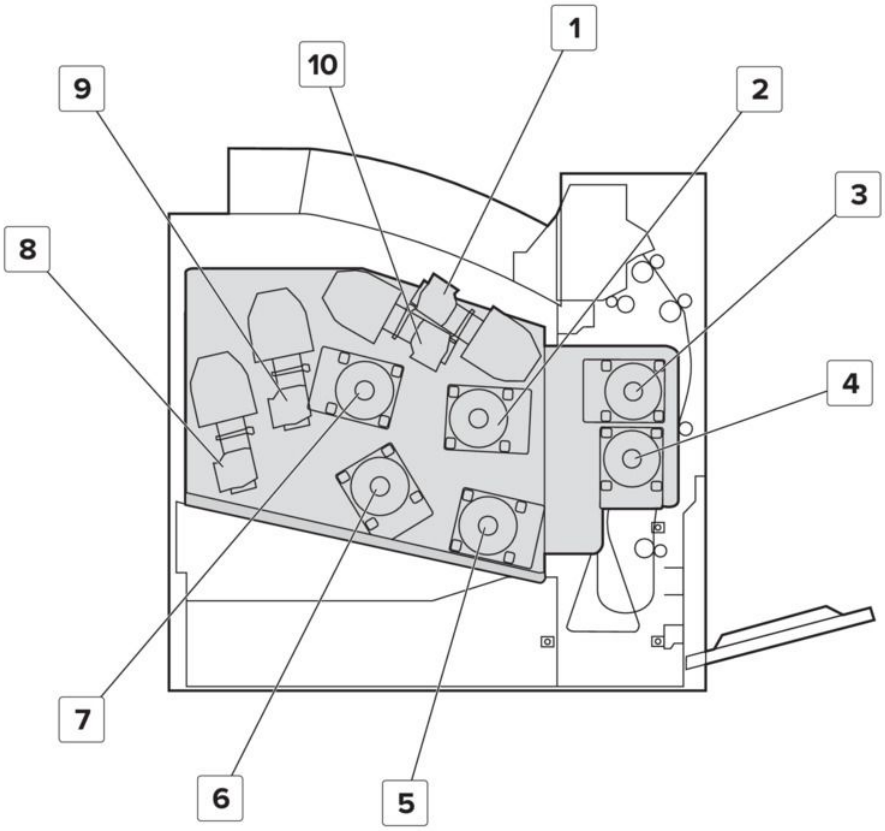
Duplex path sensors



1	Sensor (duplex path 1)
2	Sensor (duplex path 2)

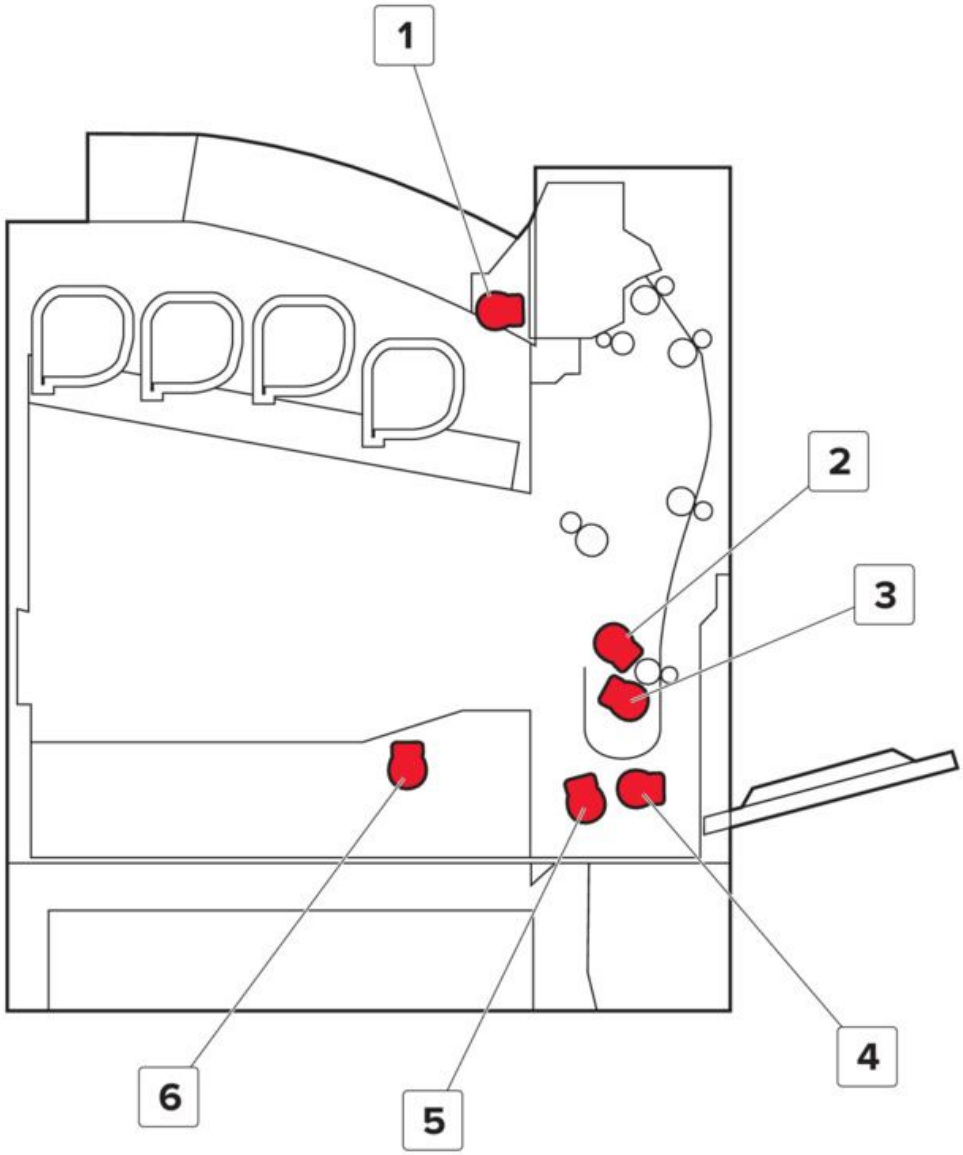
Printer motor locations

Print engine motors—Rear



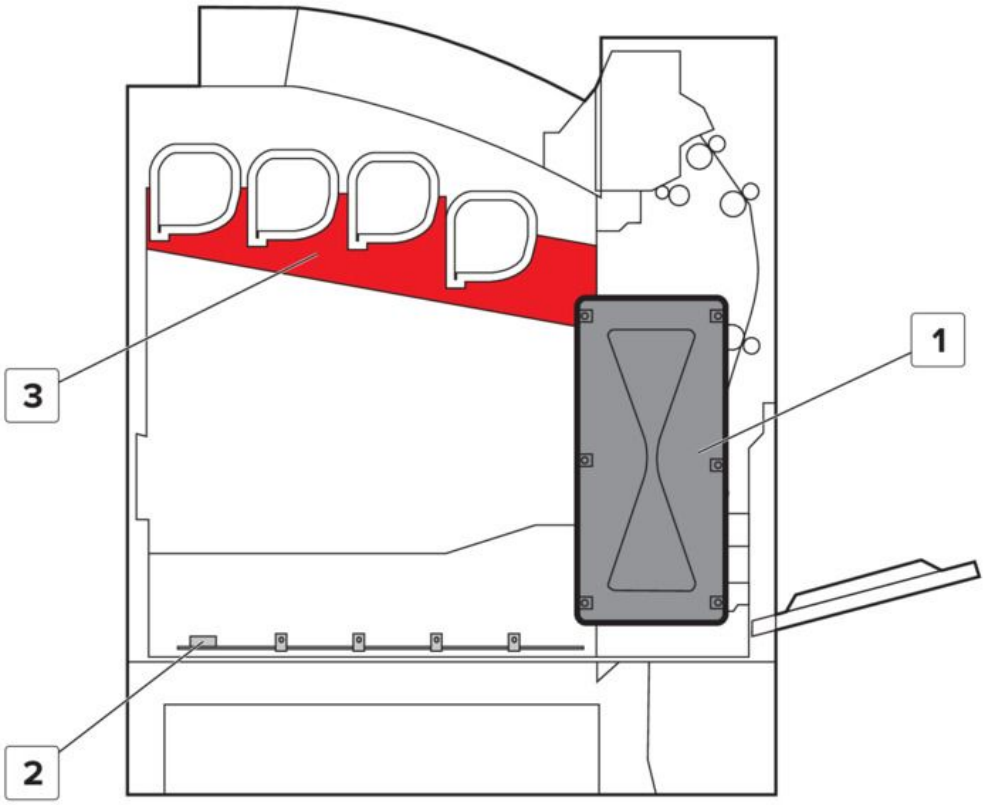
1	Motor (K toner add)
2	Motor (K developer)
3	Motor (fuser)
4	Motor (transfer belt)
5	Motor (K photoconductor)
6	Motor (CMY photoconductors)
7	Motor (CMY developers)
8	Motor (Y toner add)
9	Motor (C toner add)
10	Motor (M toner add)

Paper path motors—Rear



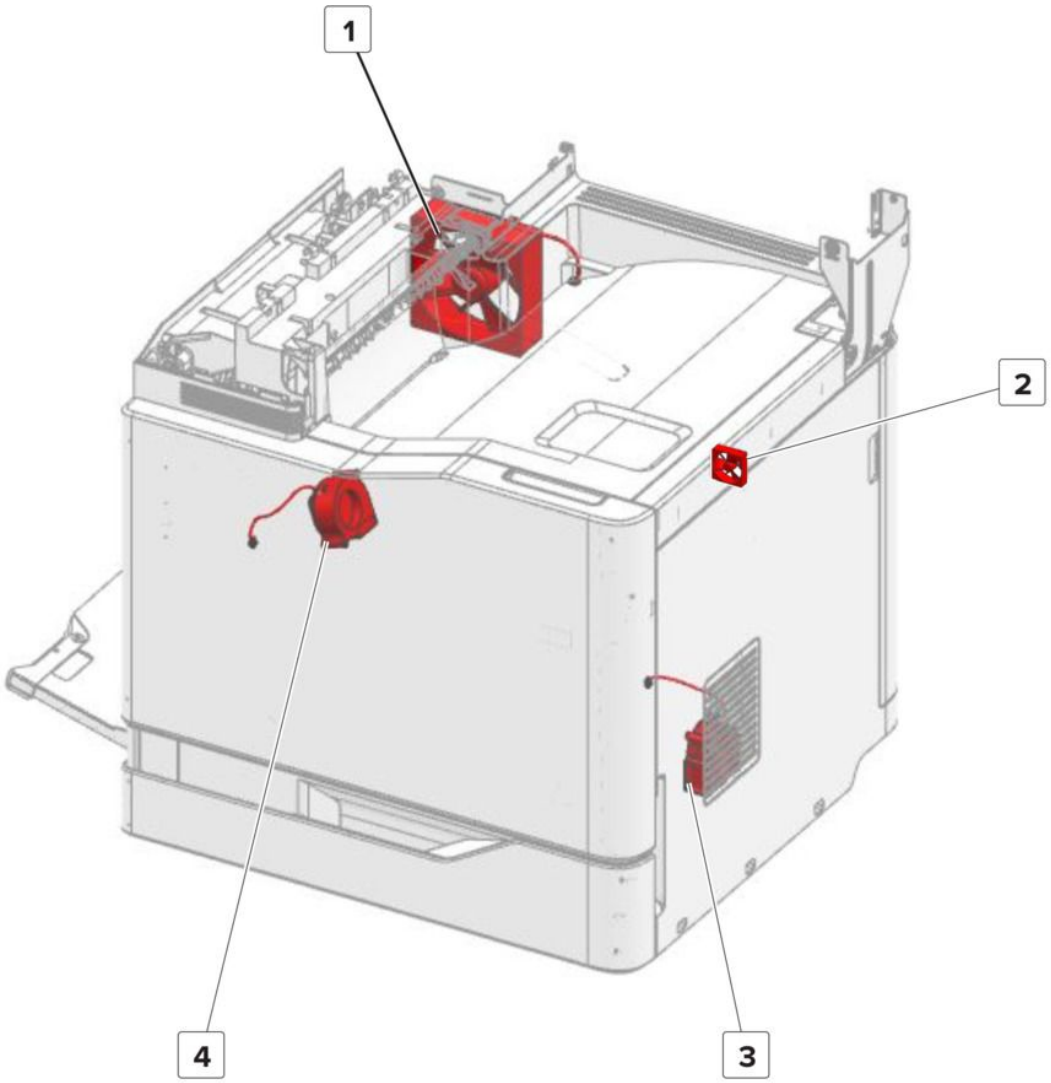
1	Motor (redrive)
2	Motor (deskew)
3	Motor (duplex)
4	Motor (MPF pick)
5	Motor (isolation)
6	Motor (tray 1 pick)

Power supply locations—Rear



1	LVPS
2	Charge roller HVPS
3	Main HVPS

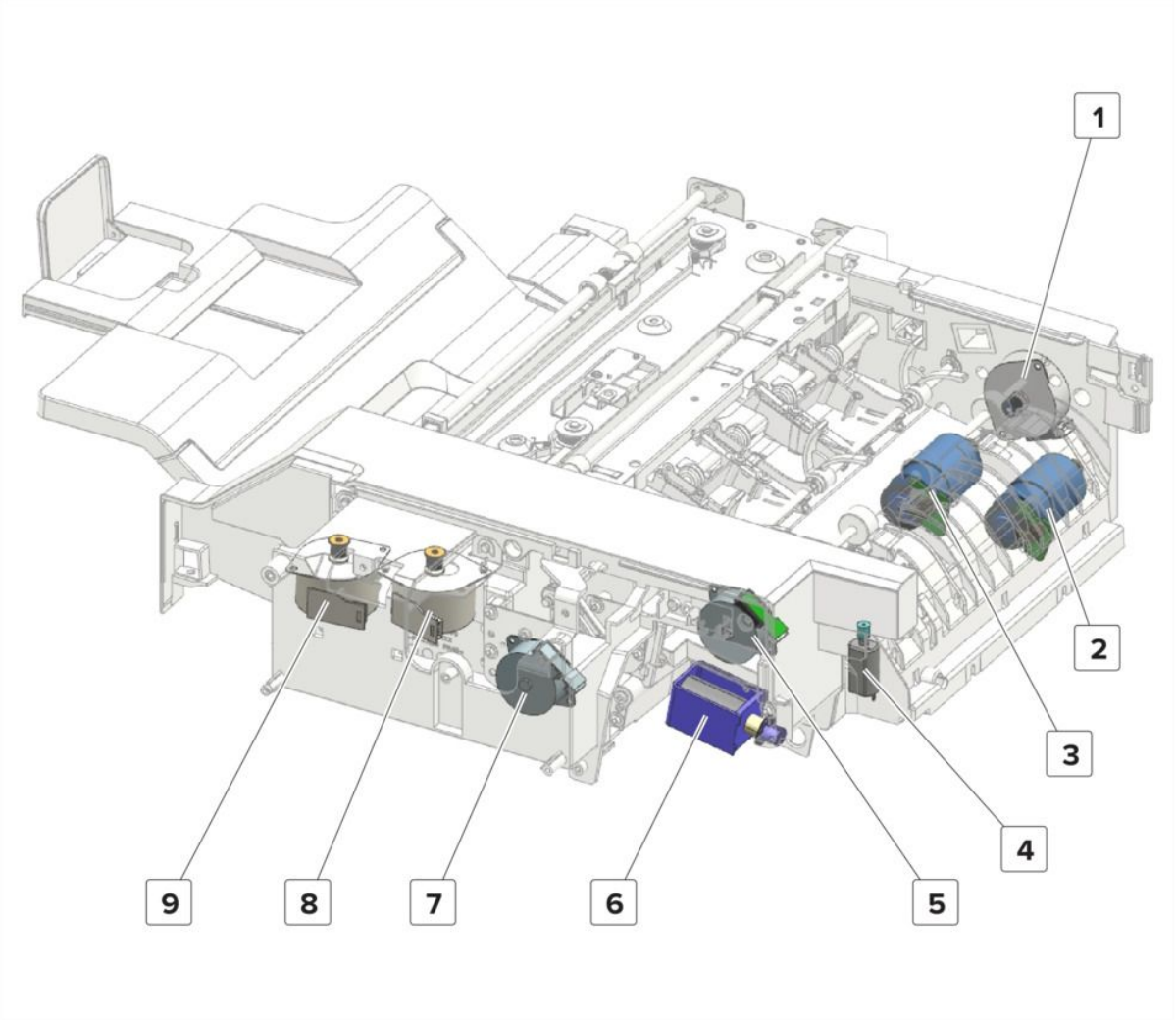
Printer fan locations



1	Main fan
2	Controller board fan
3	Printhead fan
4	HVPS fan

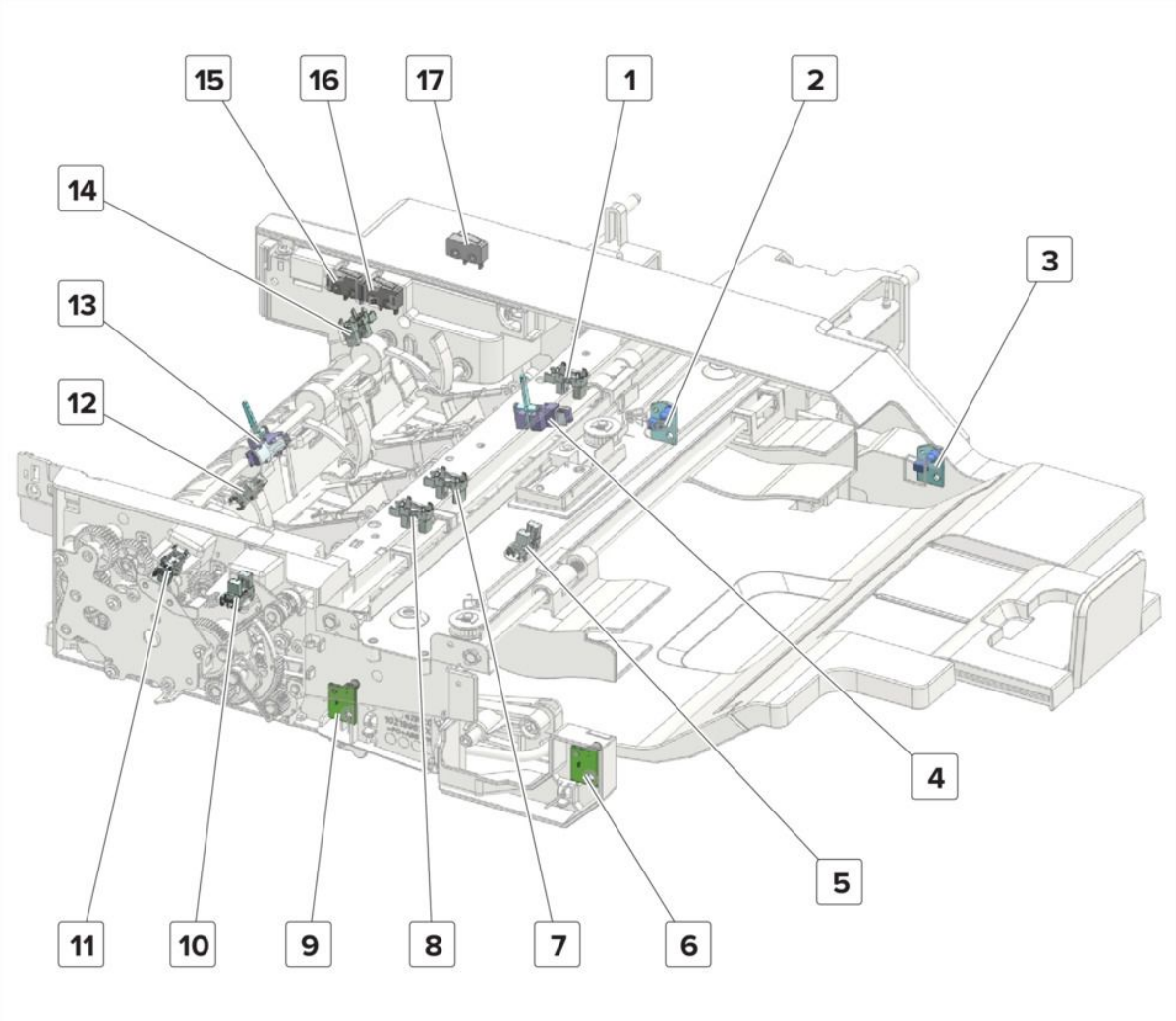
Staple finisher locations

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)

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)
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

Maintenance

Scheduled maintenance

Maintenance kits

Part number and kit	Contents
41X0927—300K Combo fuser and transfer module maintenance kit, 100 V	• 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	• 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	• 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

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 the 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.

Note:

- 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.

   Note:
   - 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.

Parts catalog

Legend

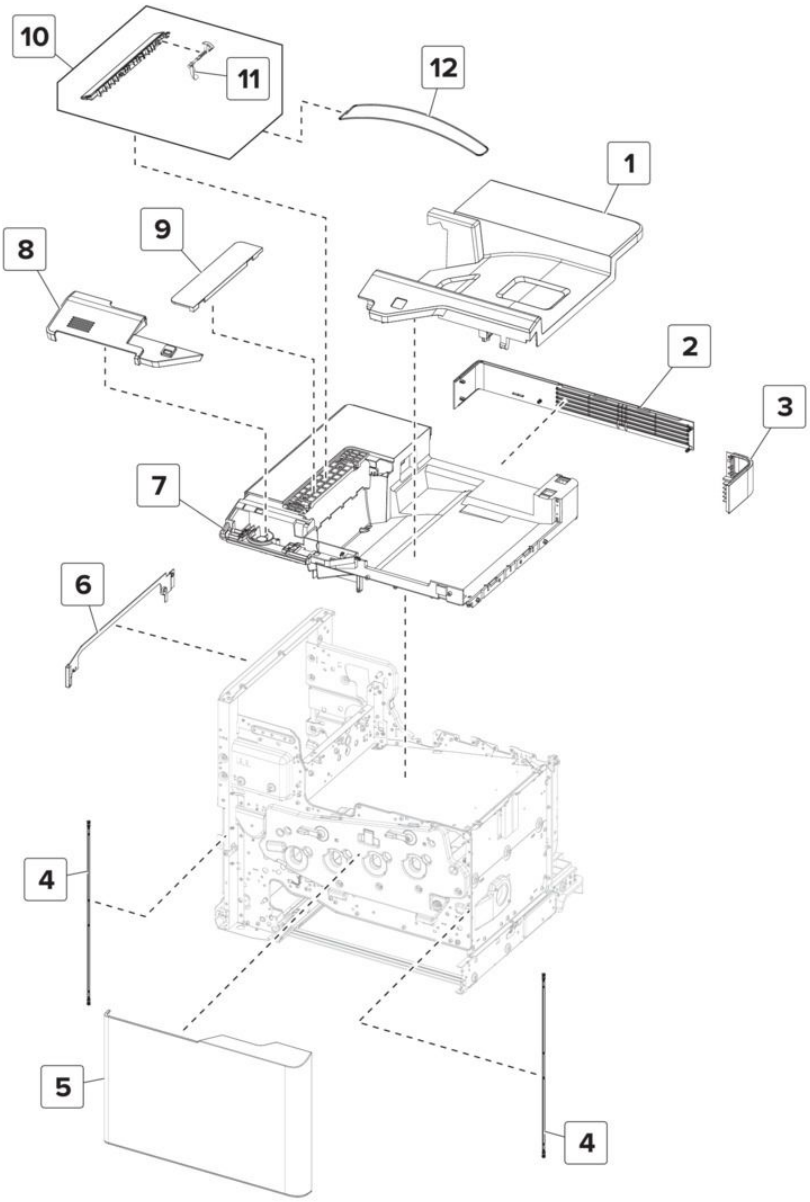
The following column headings are used in the parts catalog:

- **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.

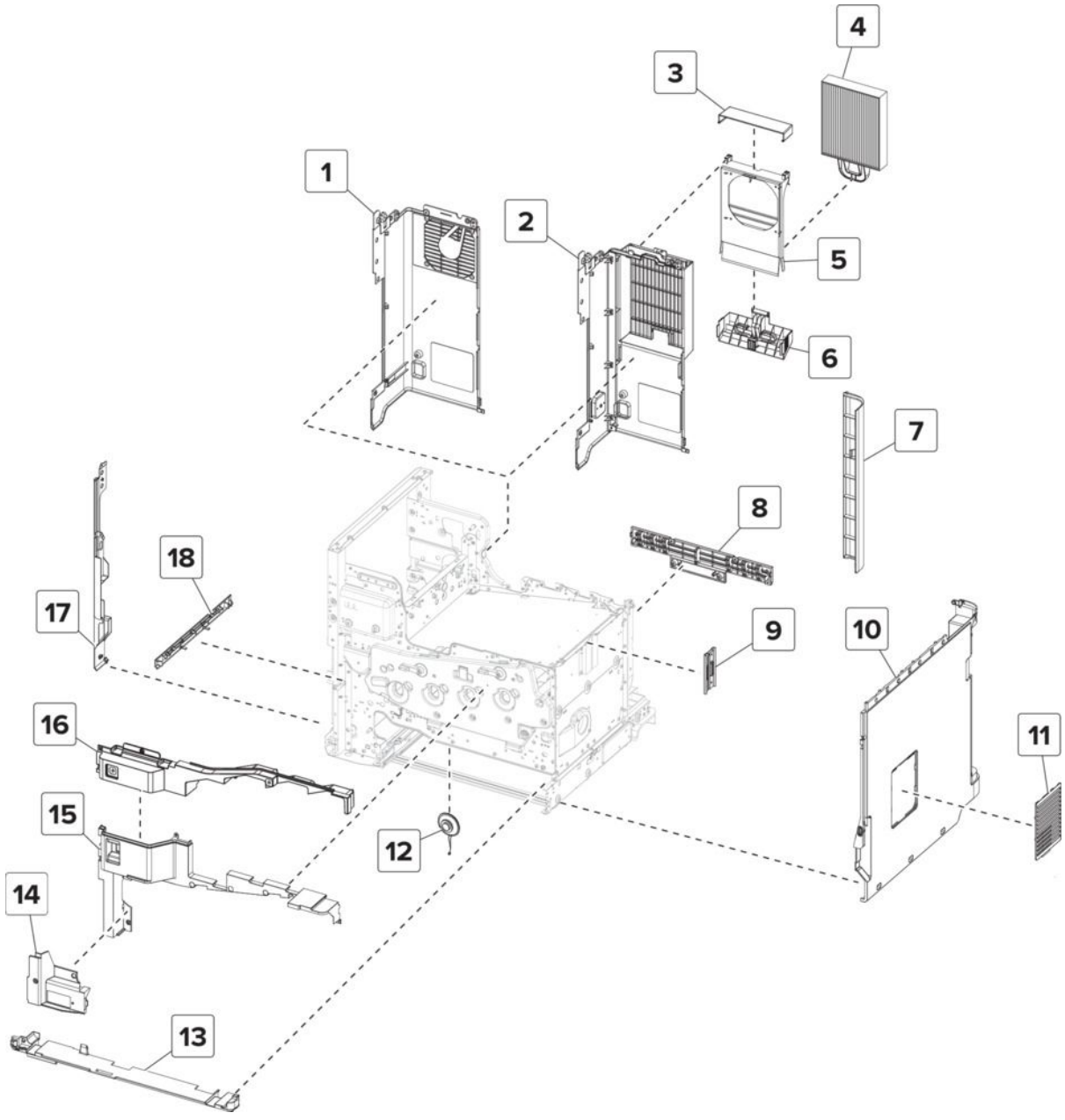
Covers 1



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0183	1	1	Standard bin insert cover	Standard bin insert cover removal on page 742
2	41X0185	1	1	Rear upper cover	Rear upper cover removal on page 695
3	41X0186	1	1	Rear corner cover	--
4	41X0780	1	1	Front door strap	--
5	41X0192	1	1	Front door	Front door removal on page 654
6	41X0187	1	1	Left spacer	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
7	41X0182	1	1	Standard bin cover	--
8	41X0188	1	1	Control panel support cover	Control panel support cover removal on page 637
9	41X0184	1	1	Redrive cover	--
10	41X0212	1	1	Static brush and bin full actuator	--
11	41X1737	1	1	Bin full actuator	--
12	41X0716	1	1	Stacking bail	--

Covers 2

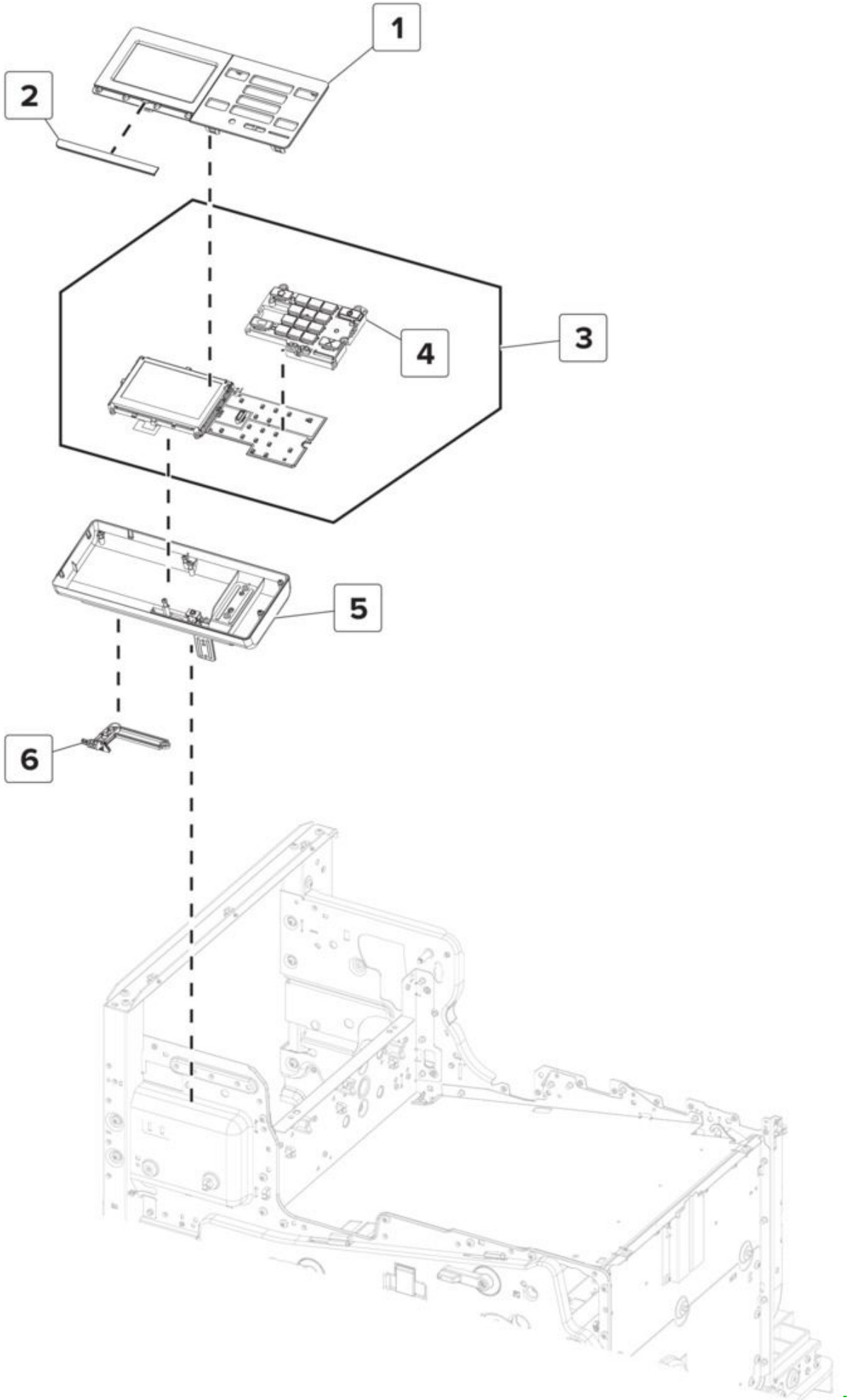


Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0089	1	1	Rear left cover	Rear left cover removal on page 693

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
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 693
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 705
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.	--

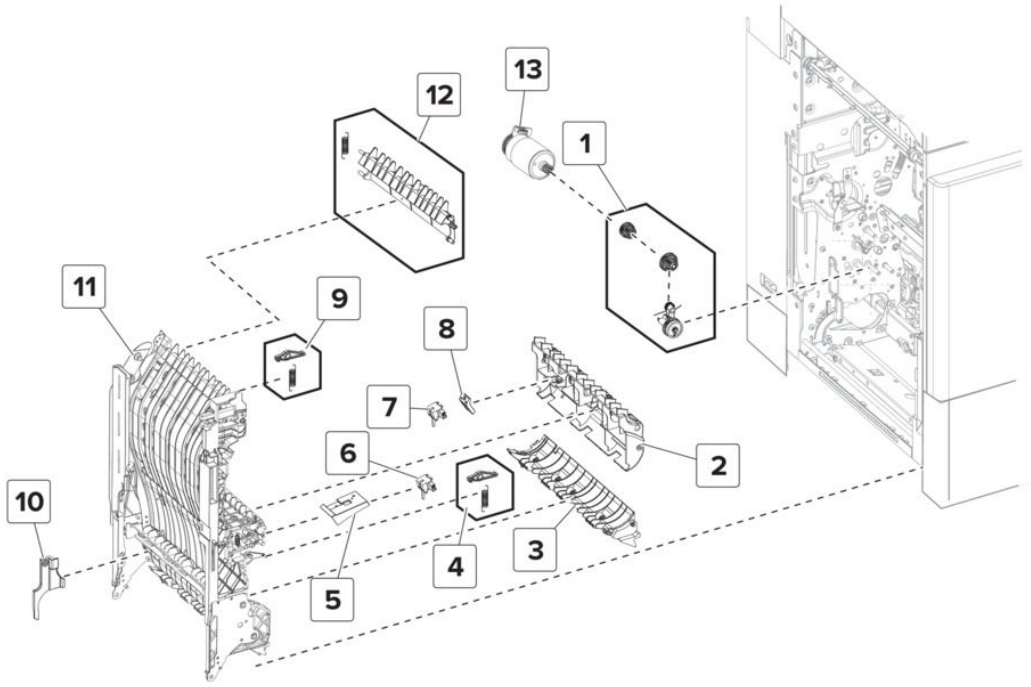
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
7	41X0099	1	1	Connector access cover	--
8	41X0088	1	1	Rear lower cover	Rear lower cover removal on page 692
9	41X0070	1	1	Right cover bracket	--
10	41X0092	1	1	Right cover	Right cover removal on page 624
11	41X0090	1	1	Vent cover	Vent cover removal on page 622
12	40X9079	1	1	Audio speaker	--
13	41X0094	1	1	Lower front cover	Lower front cover removal on page 671
14	41X0097	1	1	Door rod cover	Door rod cover removal on page 661
15	41X0093	1	1	Inner lower cover	Inner lower cover removal on page 653
16	41X5026	1	1	Inner upper cover	Inner upper cover removal on page 652
17	41X0091	1	1	Left front cover	--
18	41X0096	1	1	Left lower cover	--

Control panel


1
2
3
4
5
6

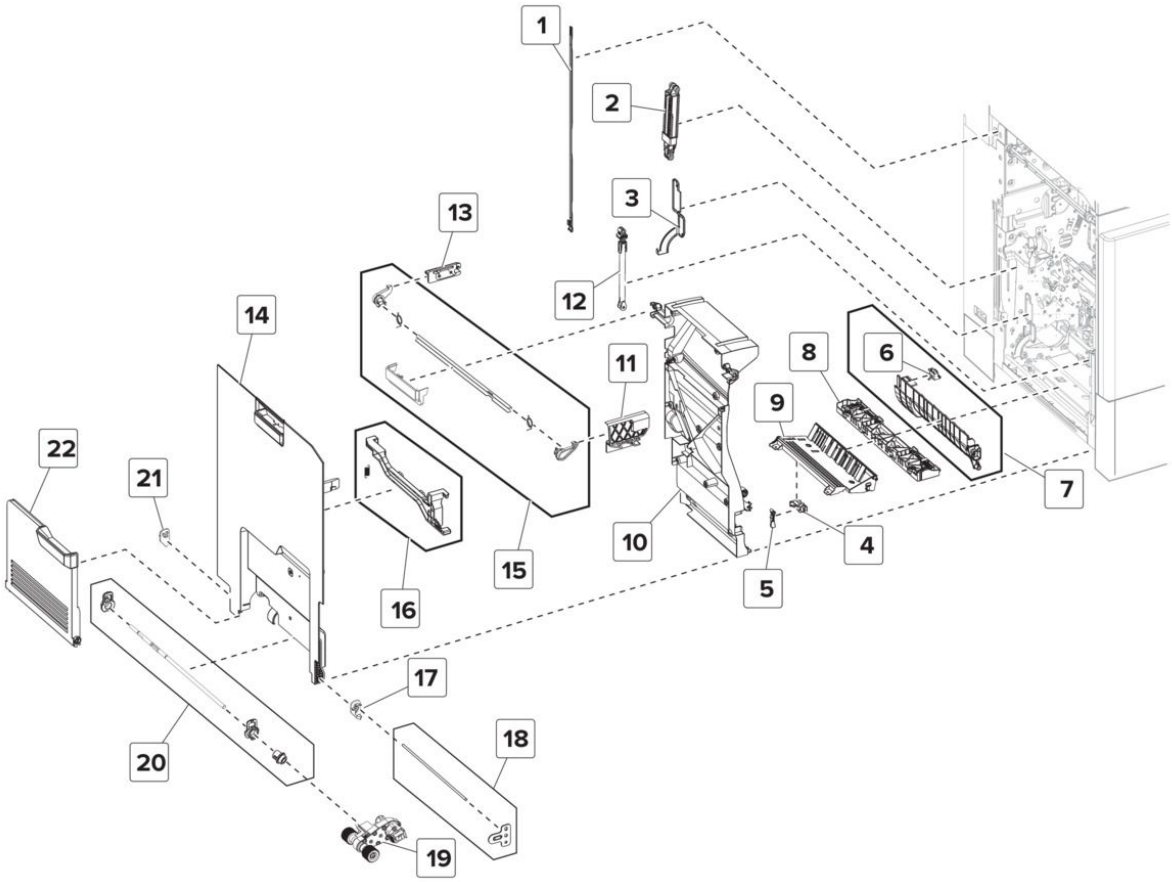
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0542	1	1	4.3-inch control panel front cover	--
2	41X0898	1	1	Bezel (CS820)	--
2	41X2041	1	1	Bezel (CS827)	--
2	41X0899	1	1	Bezel (C6160)	--
3	41X0050	1	1	Board, control panel	Control panel board removal on page 642
4	41X0191	1	1	Button kit, 4.3-inch control panel	Control panel button kit removal on page 640
5	41X0541	1	1	Control panel	Control panel removal on page 644
6	41X0189	1	1	Pivot, control panel	--

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 584
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 592
11	41X0105	1	1	Duplex	Left door, duplex, and MPF removal on page 594
12	41X0122	1	1	Duplex upper guide	--
13	41X0140	1	1	Motor (duplex)	Motor (duplex) removal

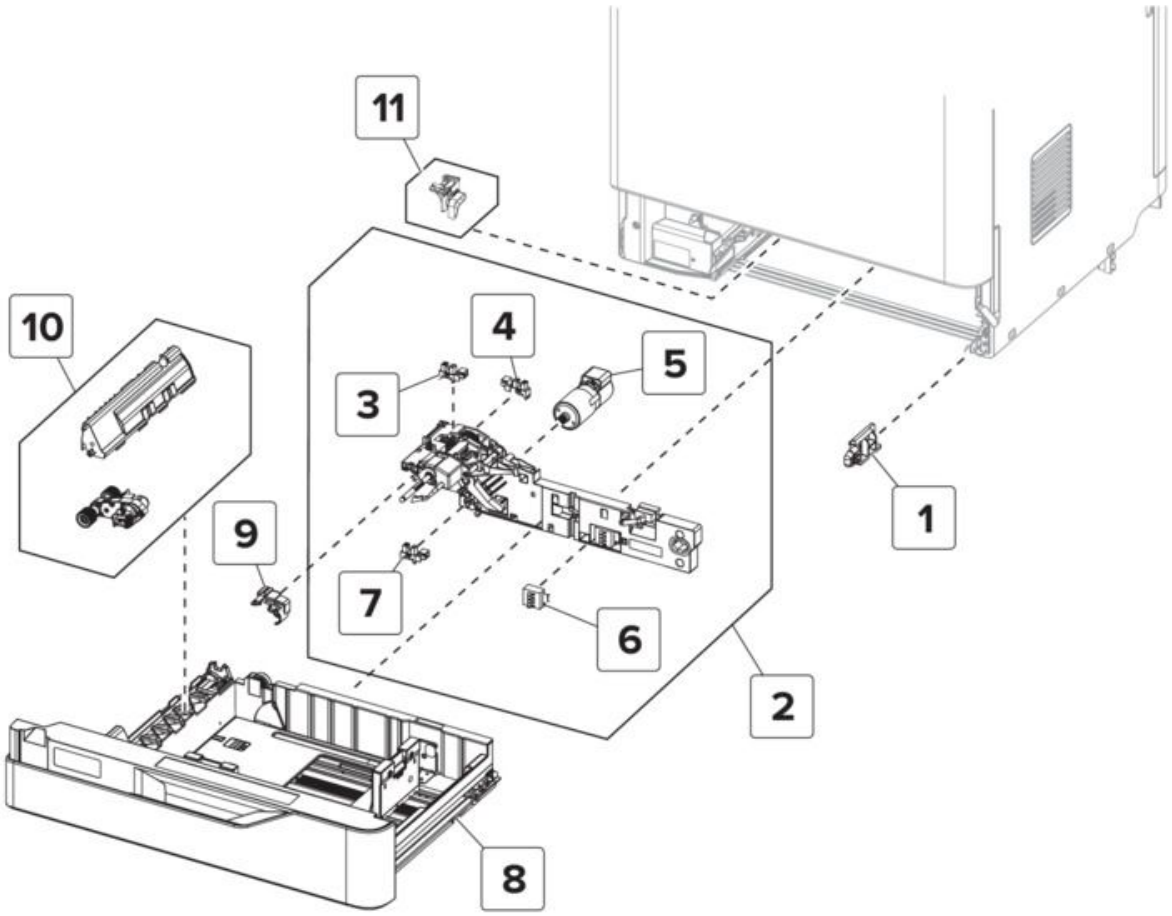
Left door



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 613
7	41X0120	1	1	Deflector with sensor (MPF/pass-through)	Sensor (MPF/pass-through) with deflector removal on page 613
8	41X0172	1	1	MPF tray stop	MPF tray stop removal on page 605
9	41X0119	1	1	MPF pick guide	MPF pick guide removal on page 603
10	41X0124	1	1	Left door paper guide	--
11	41X0081	1	1	Left door front catch	--

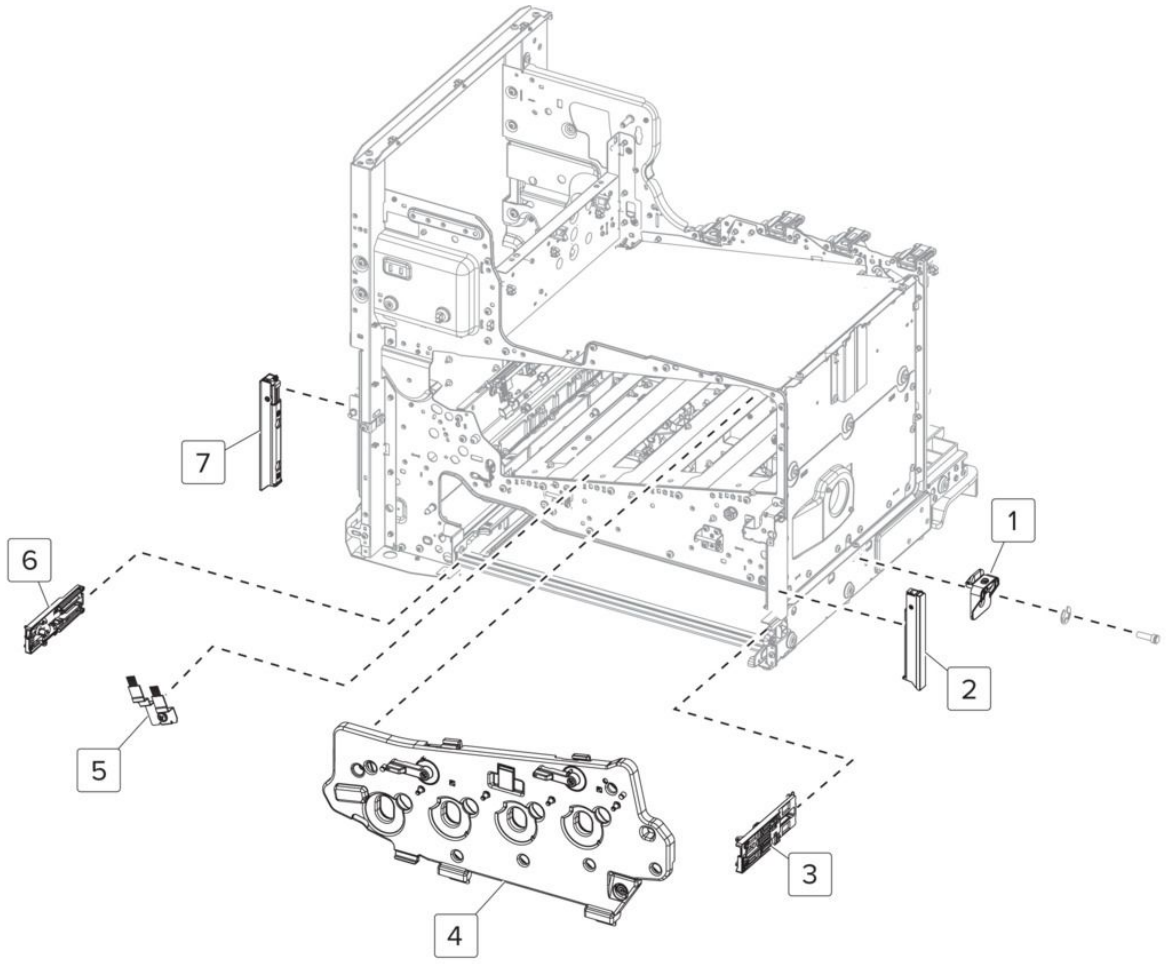
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
12	41X0100	1	1	Left door damper	--
13	41X0080	1	1	Left door rear catch	--
14	41X0101	1	1	Left door	Left door, duplex, and MPF removal on page 594
15	41X0136	1	1	Left door release latch	--
16	41X0135	1	1	Duplex release latch	Duplex release latch removal on page 585
17	41X0059	1	1	MPF tray front actuator	--
18	41X0250	1	1	Left door rod	Door rod cover removal on page 661
19	41X0956	1	1	Pick roller	MPF pick roller removal on page 601
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 594

Feeder



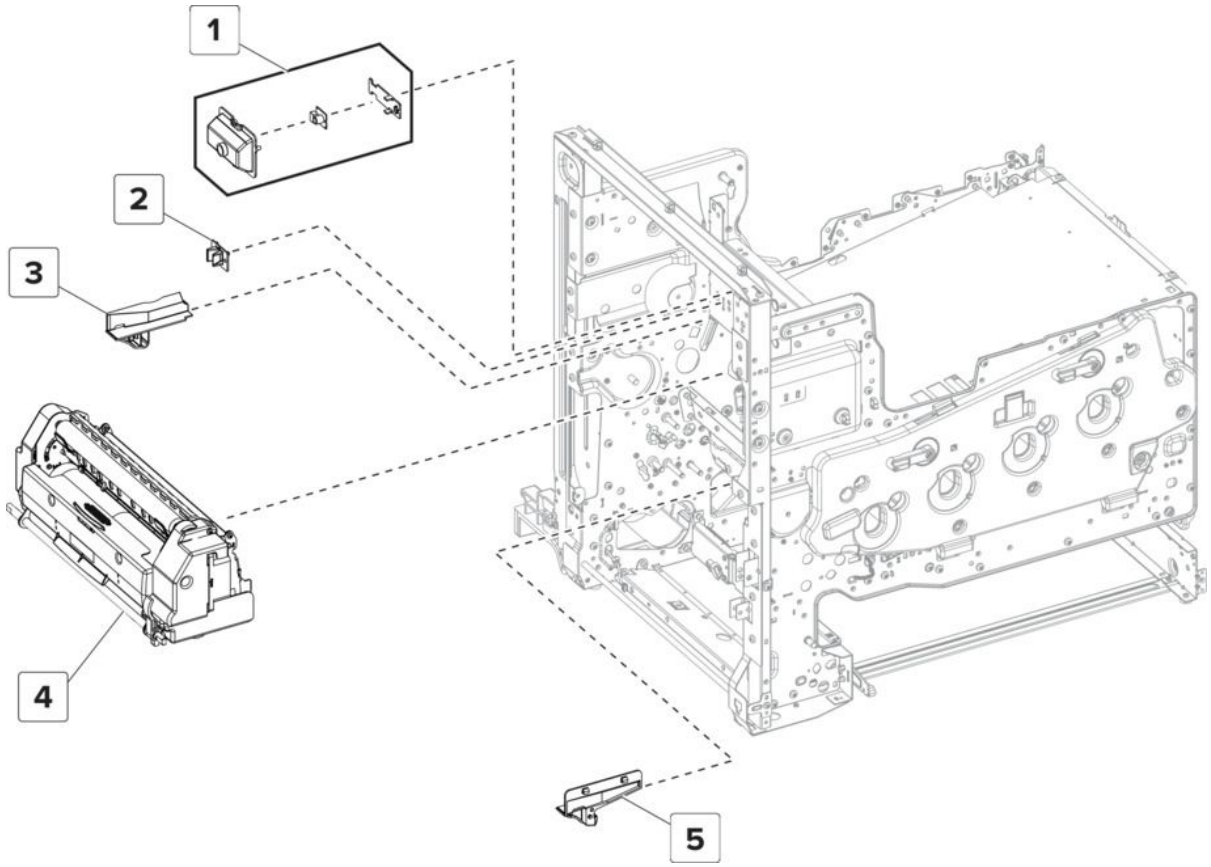
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0129	1	1	Paper tray guide	--
2	41X0106	1	1	Paper feeder	Paper feeder removal on page 678
3	41X0684	1	1	Sensor (pick roller index)	--
4	41X0684	1	1	Sensor (media out)	--
5	41X0140	1	1	Motor (pick)	--
6	40X7911	1	1	Sensor (media size)	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 678
10	41X0999	1	1	Pick roller and separator pad	Pick roller removal on page 659
11	41X1033	1	1	Paper overfill stop	--

Frame



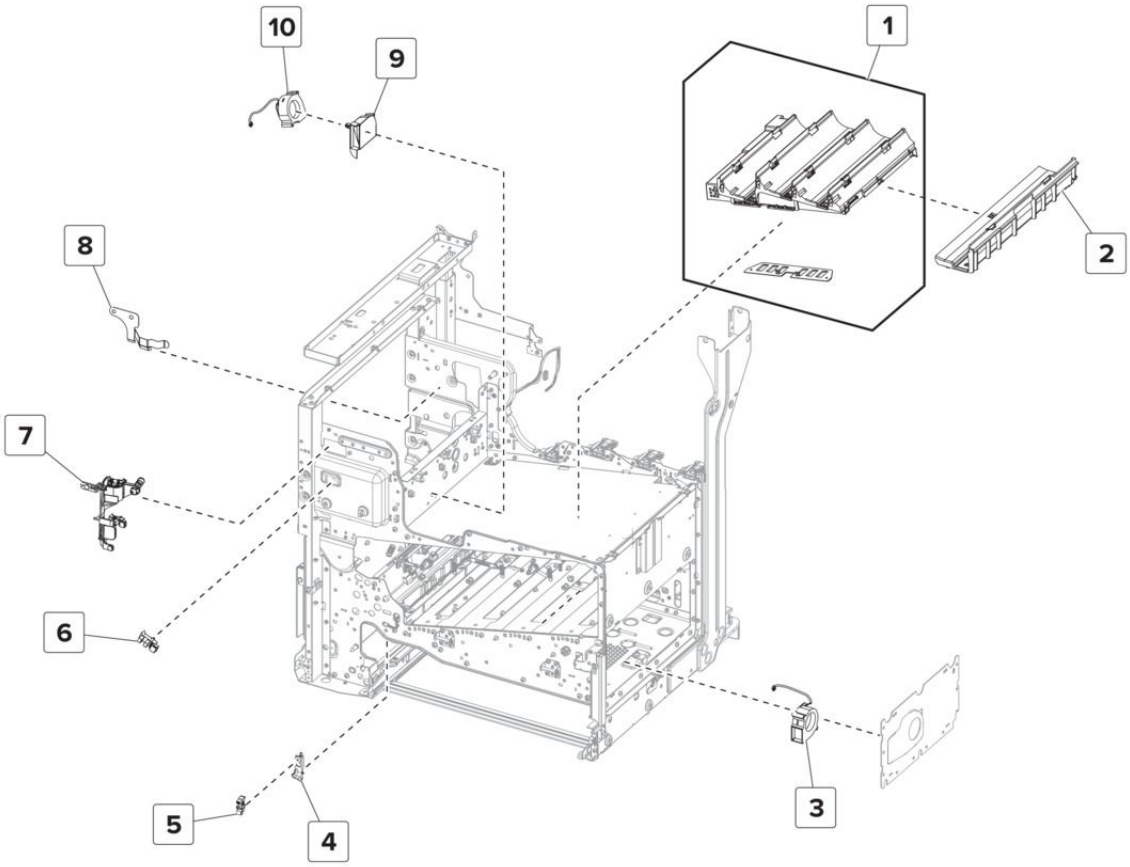
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0074	1	1	Frame connector bracket	--
2	41X0131	1	1	Right handle	--
3	41X0991	1	1	Tray close rail, right	--
4	41X0103	1	1	PC unit/developer door	Developer unit and photoconductor unit removal on page 649
5	41X1975	1	1	Grounding plate	--
6	41X0992	1	1	Tray close rail, left	--
7	41X0130	1	1	Left handle	--

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 581
4	41X0246	1	1	Fuser (115 V)	Fuser removal on page 581
4	41X0247	1	1	Fuser (230 V)	Fuser removal on page 581
5	41X0125	1	1	Fuser front loading guide	--

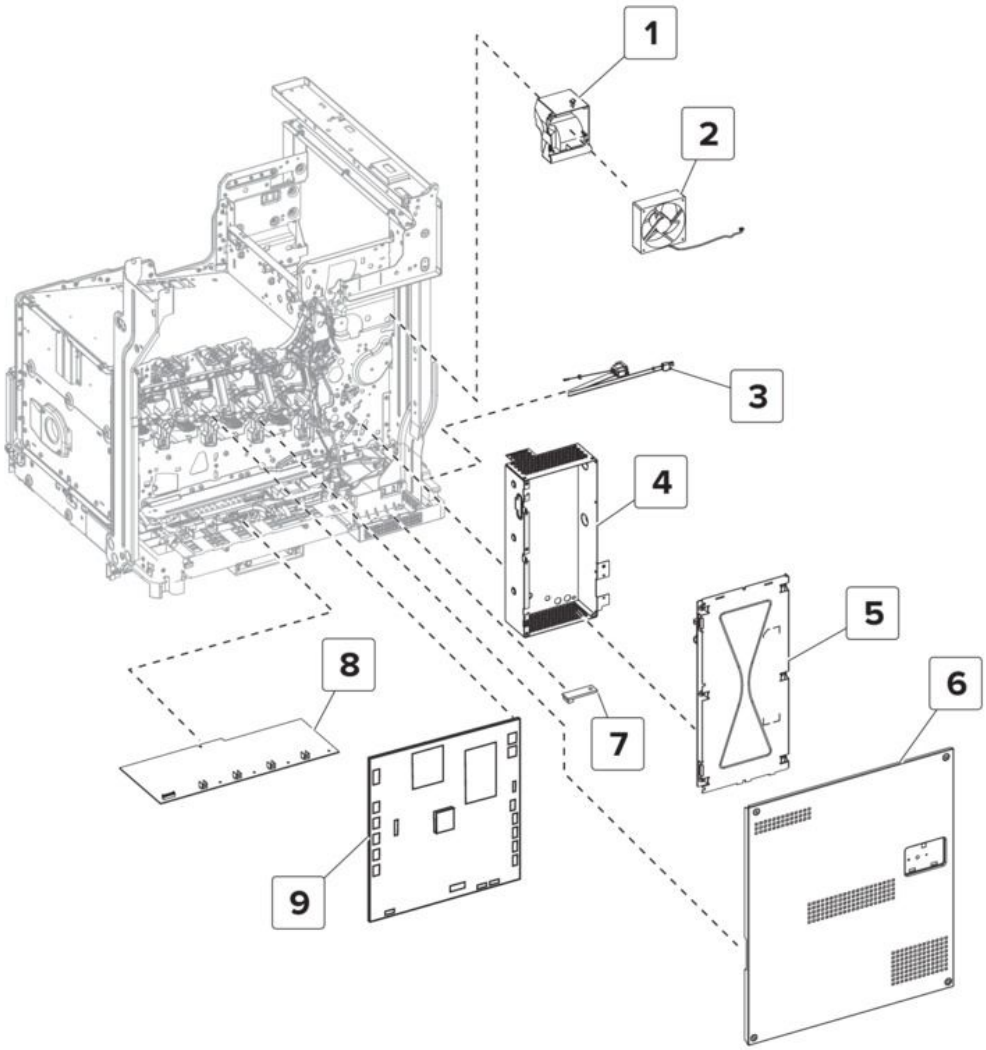
Electronics—Front



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0143	1	1	Main HVPS	Main HVPS removal on page 667
2	41X0117	1	1	Toner cartridge guide	--
3	41X0975	1	1	Printhead fan	Printhead fan removal on page 628
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 663
7	41X0162	1	1	Door interlock actuator	--
8	41X0141	1	1	Grounding plate	--
9	41X0973	1	1	Fan duct	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
10	41X0974	1	1	HVPS fan	HVPS fan removal on page 663

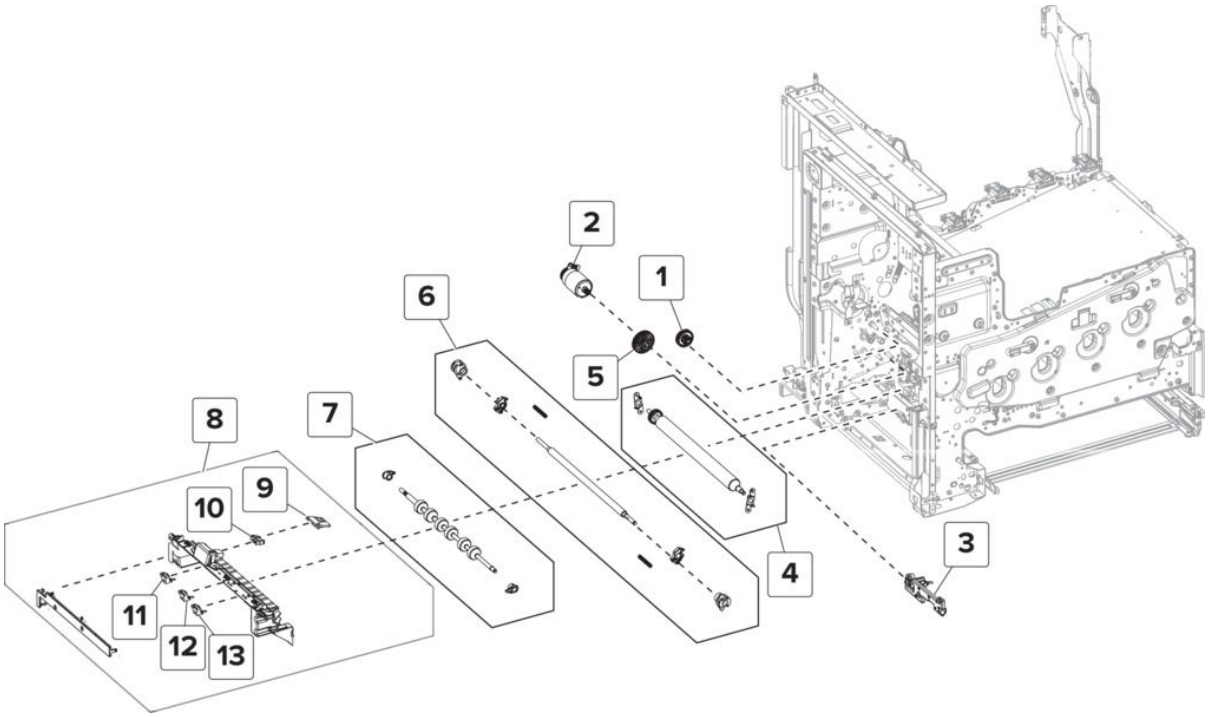
Electronics—Rear



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0104	1	1	Main fan duct	Main fan duct removal on page 720
2	41X0954	1	1	Main fan	Main fan removal on page 704

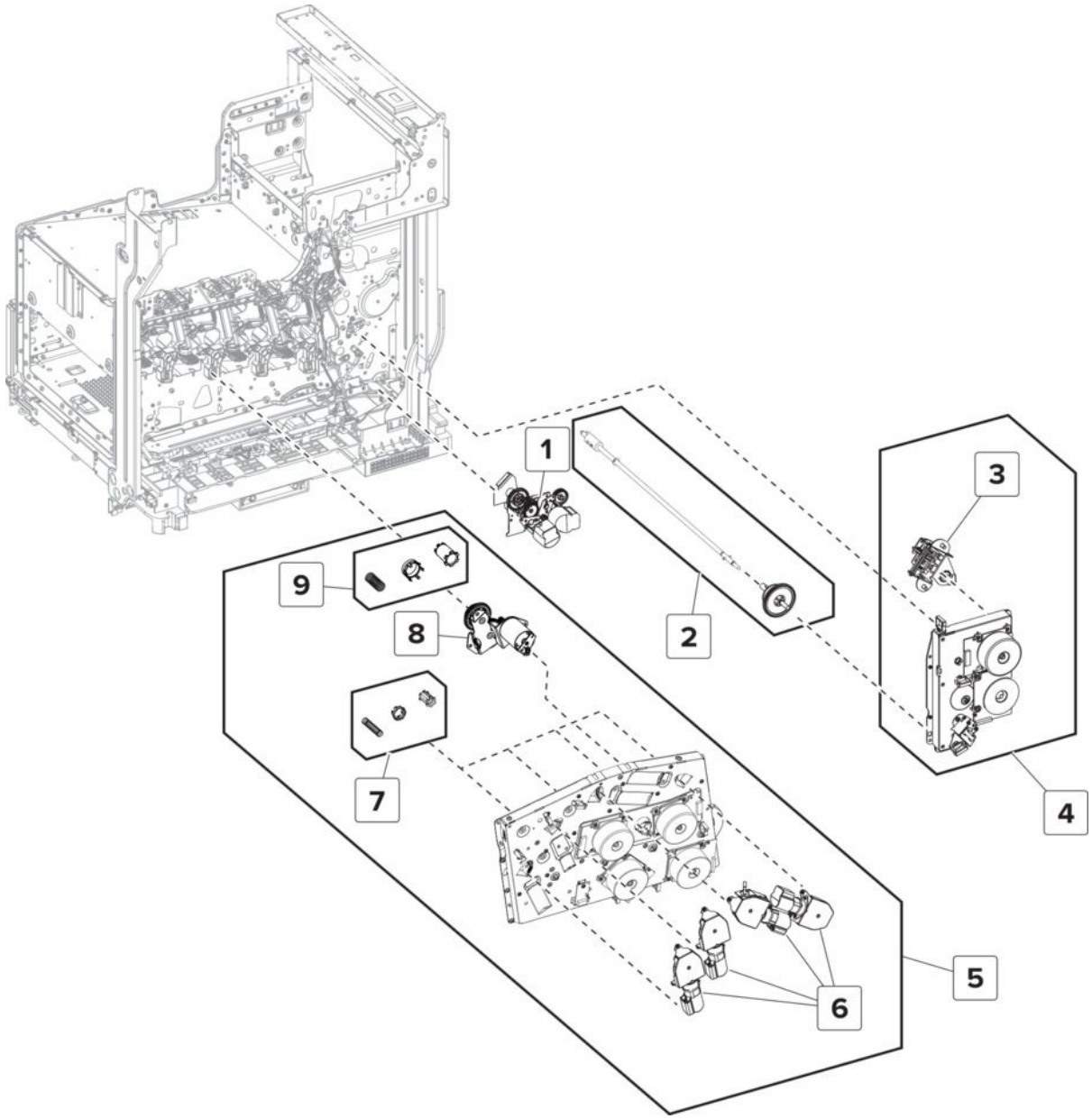
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
2	41X2539	1	1	HEPA main fan **Note:** This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	Main fan removal on page 704
3	41X0260	1	1	AC power input cable	--
4	41X0244	1	1	LVPS cage	LVPS cage removal on page 710
5	41X0242	1	1	LVPS	LVPS removal on page 707
6	41X0087	1	1	Controller board cover	Controller board cover removal on page 691
7	41X0785	1	1	Weather station	Weather station removal on page 713
8	41X0241	1	1	Charge roller HVPS	Charge roller HVPS removal on page 697
9	41X0368	1	1	Controller board	Controller board removal on page 701

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 612
4	41X0155	1	1	Deskew roller	Deskew roller removal
5	41X0107	1	1	Isolation roller gear	Isolation roller gear removal on page 621
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 588
9	41X2278	1	1	Sensor aperture	--
10	40X7779	1	1	Sensor (deskew roller exit)	Sensor (deskew roller exit) removal on page 606
11	41X0914	1	1	Sensor (deskew roller entry)	--
12	41X0914	1	1	Sensor (narrow media)	--
13	41X0914	1	1	Sensor (near narrow media)	--

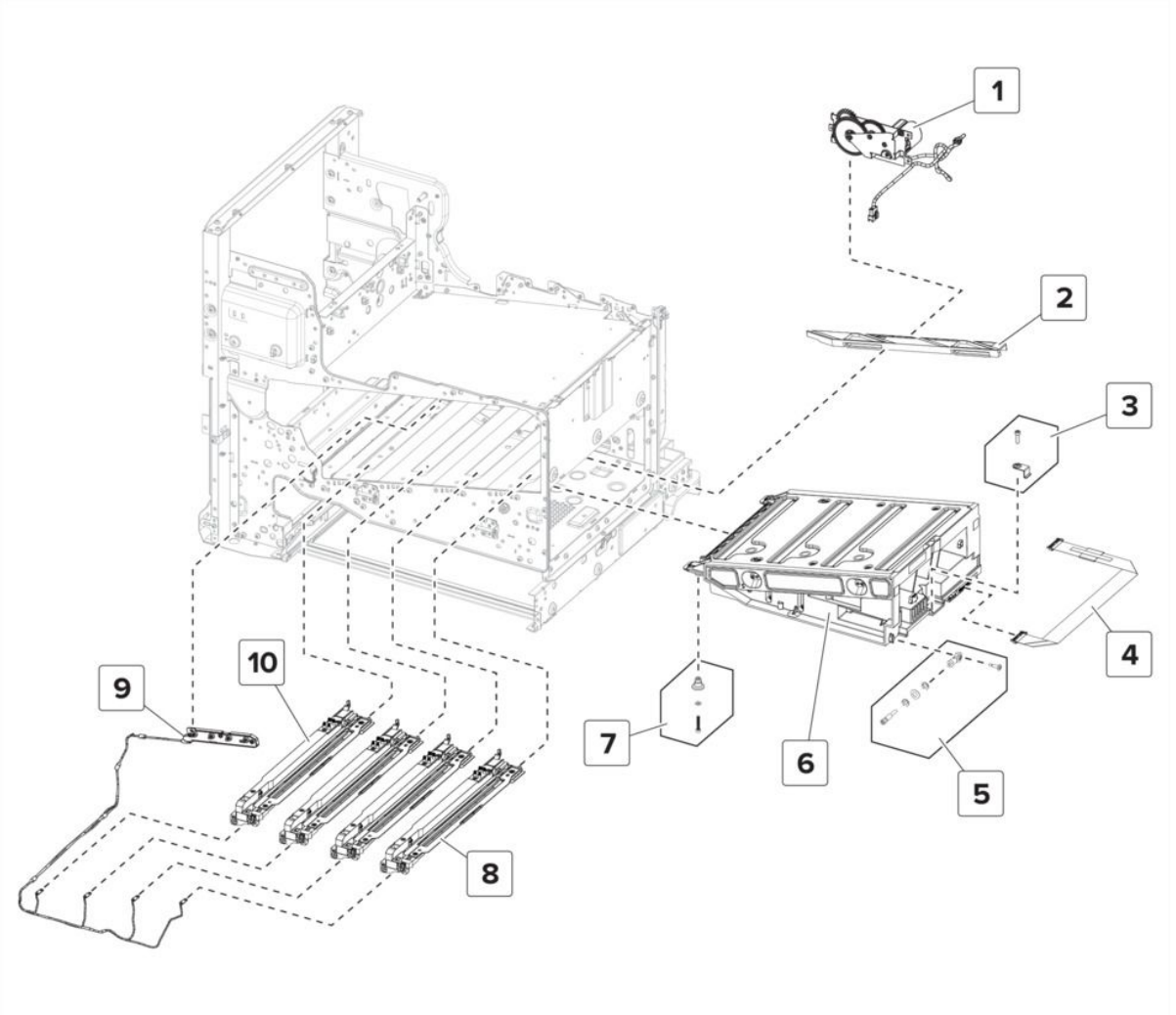
Motors



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 615
2	41X0109	1	1	Waste toner gear and shaft	Waste toner gear removal on page 734
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 730
5	41X0112	1	1	EP, developer, toner add gearbox	EP, developer, toner add gearbox removal on page 725

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
6	41X0113	3	1	Toner add motor gearbox (K, C, and M)	Toner add motor gearbox (K, C, and M) removal on page 717
6	41X0113	3	1	Toner add motor gearbox (Y)	Toner add motor gearbox (Y) removal on page 719
7	41X1976	4	3	Toner cartridge drive coupling	--
8	41X0114	1	1	Motor (black only retract)	--
9	41X2905	1	3	Black only retract coupling	--

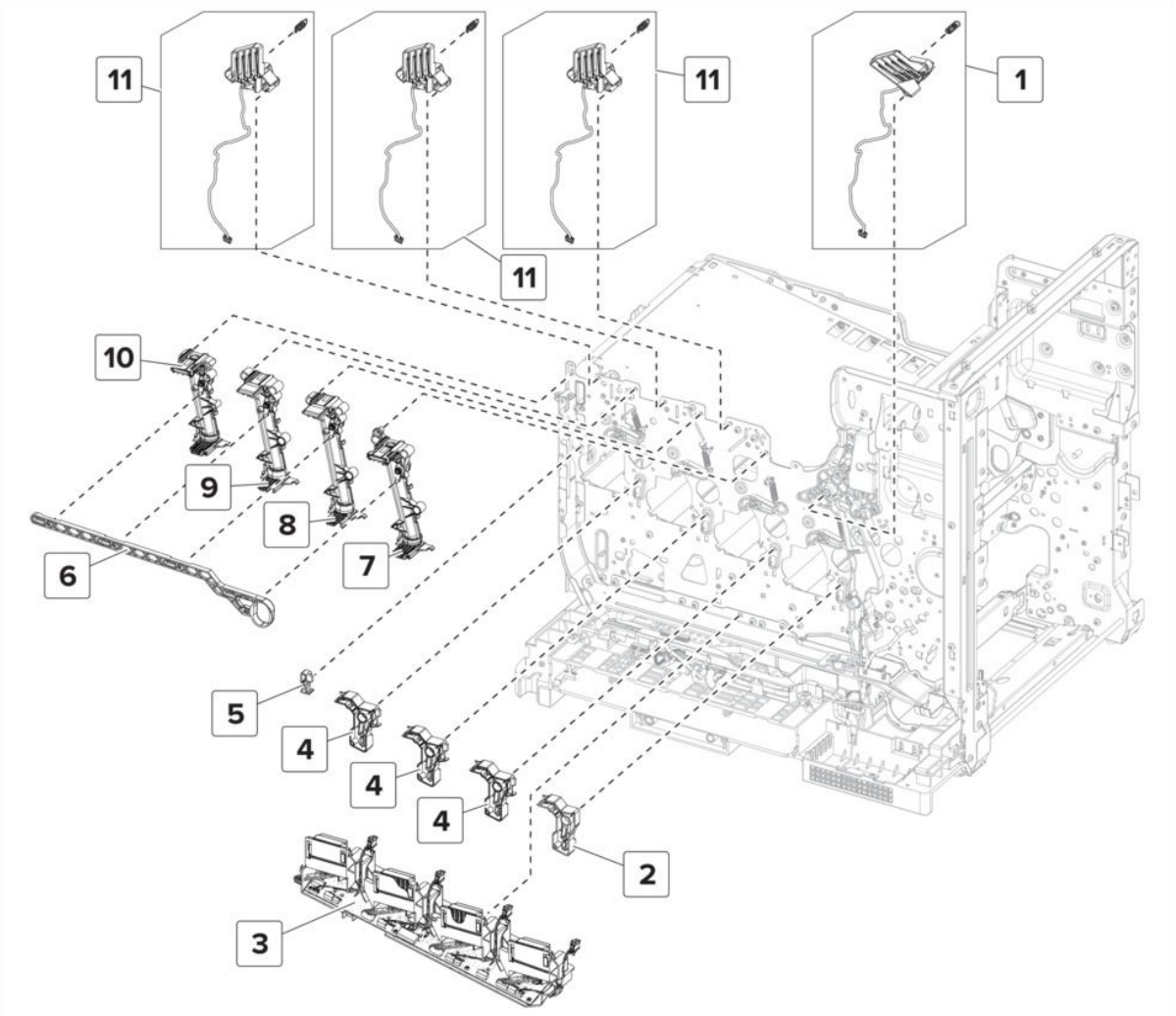
Printhead



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0139	1	1	Motor (printhead wiper)	Motor (printhead wiper) removal on page 634
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 630
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 684
9	41X0086	1	1	Developer roll power contact	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
10	41X0146	1	1	Developer/PC unit K wiper rail	Developer/PC unit K wiper rail removal on page 686

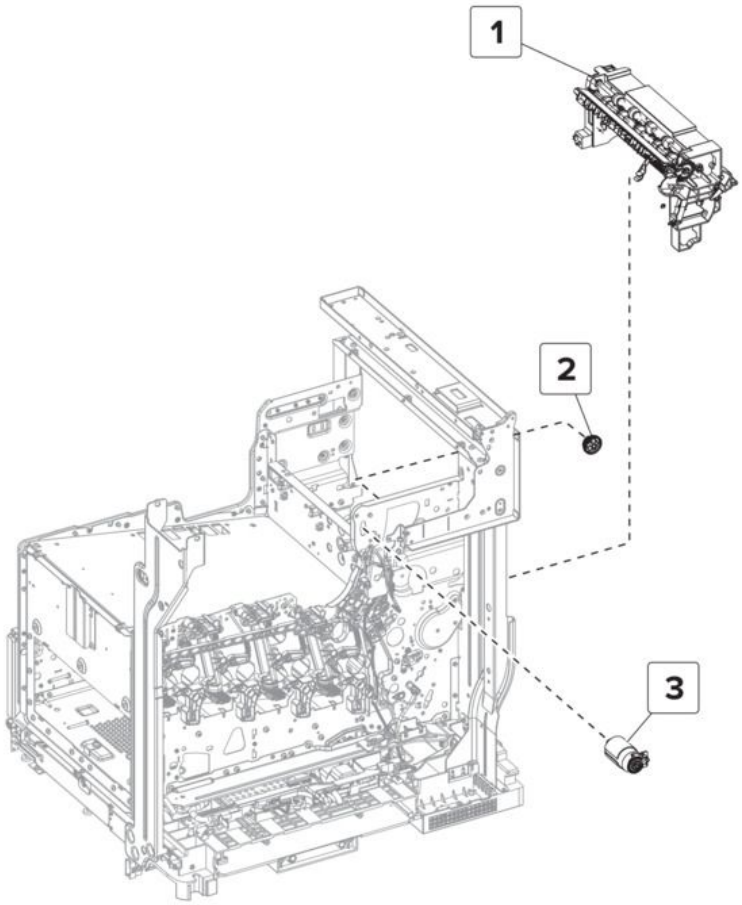
Toner supply



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 737
2	41X0152	1	1	Toner port retainer (K)	--
3	41X0069	1	1	Smart chip interface board	Smart chip interface board removal on page 736
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 735
7	41X0180	1	1	Toner add tube (K)	Toner add tube removal on page 739
8	41X0178	1	1	Toner add tube (M)	Toner add tube removal on page 739

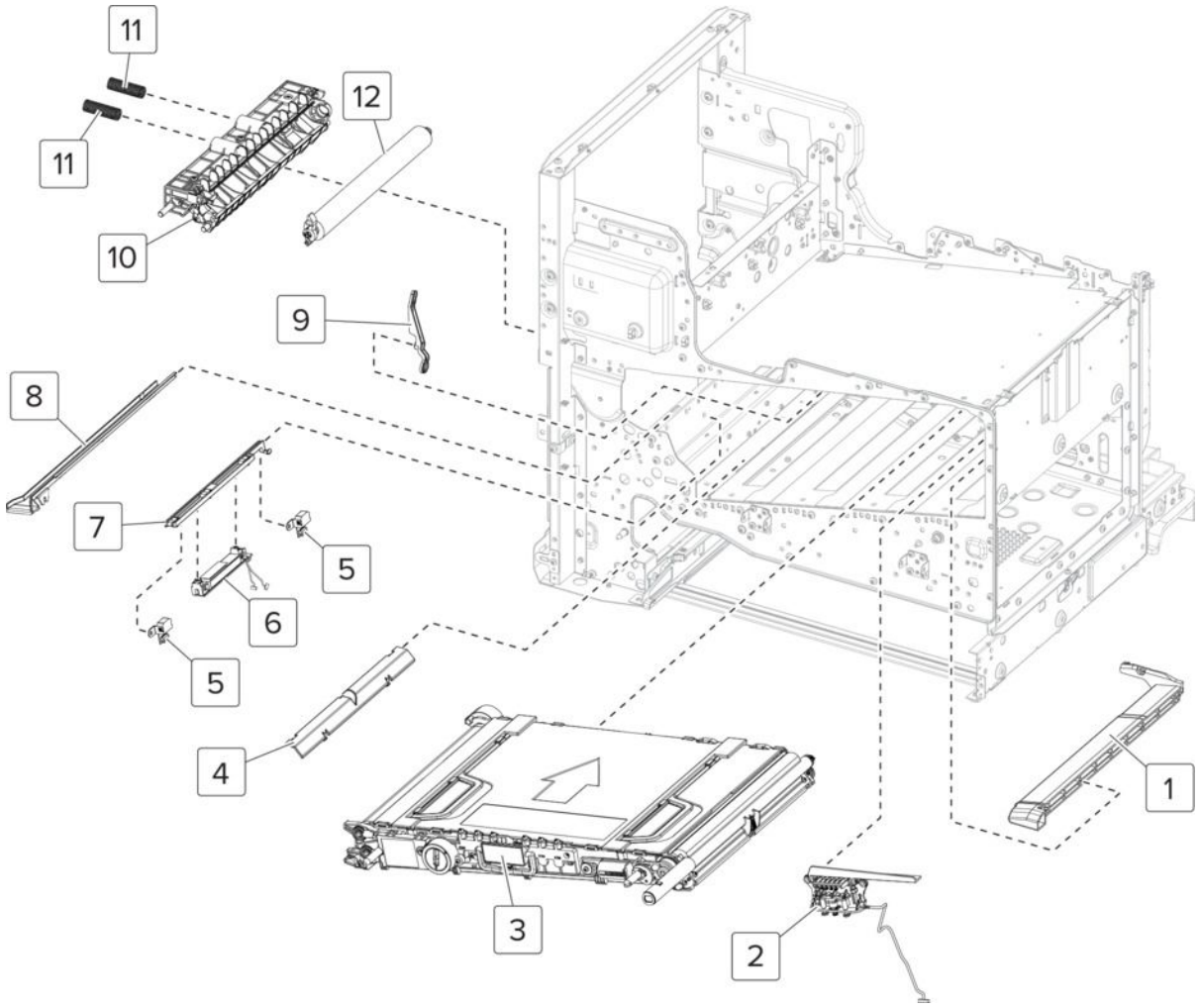
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
9	41X0177	1	1	Toner add tube (C)	Toner add tube removal on page 739
10	41X0179	1	1	Toner add tube (Y)	Toner add tube removal on page 739
11	41X0083	3	1	Toner cartridge contact (CMY)	Toner cartridge contact removal on page 737

Redrive



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0148	1	1	Redrive	Redrive removal on page 608
2	41X0110	1	1	Redrive gear	Redrive gear removal on page 611
3	41X0451	1	1	Motor (redrive)	Motor (redrive) removal

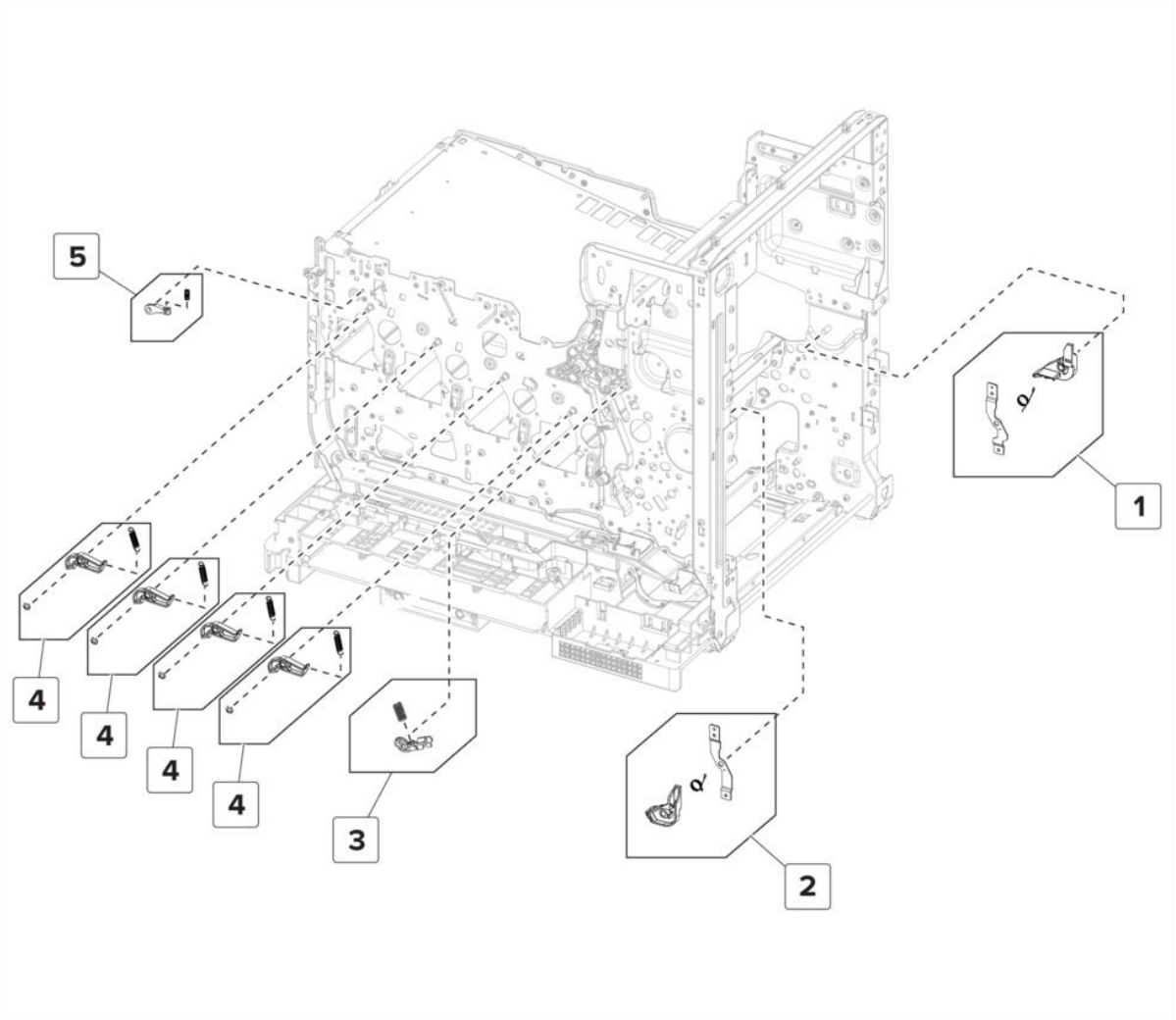
Transfer—Front



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 656
4	41X0095	1	1	Wiring cover	--
5	41X0161	2	1	Sensor (auto alignment)	Sensor (auto alignment) removal on page 681
6	41X0160	1	1	Sensor (TPS)	Sensor (TPS) removal on page 682
7	41X0181	1	1	TPS sensor wiper	TPS sensor wiper removal on page 683
8	41X0118	1	1	Transfer belt left guide	--
9	41X0057	1	1	TPS wiper actuator	--
10	41X0079	1	1	Transfer roller housing	--

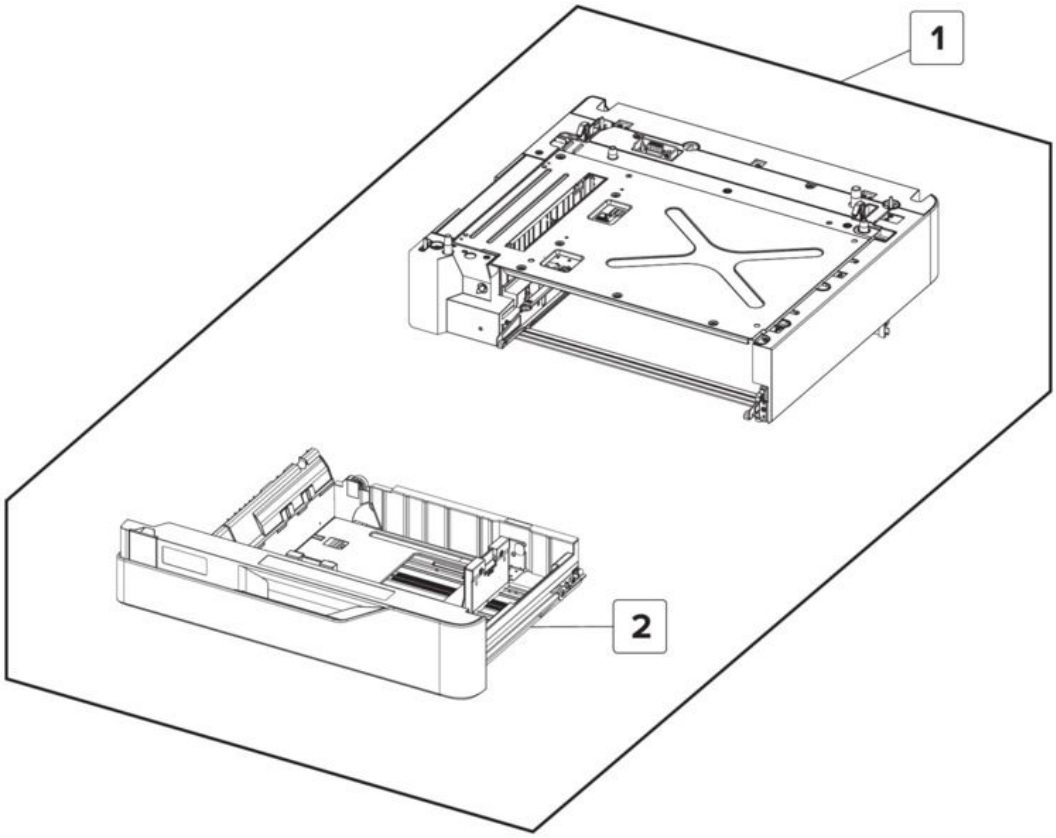
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
11	41X0171	2	1	Transfer roller carriage spring	--
12	41X0154	2	1	Transfer roller	Transfer roller removal on page 583

Transfer—Rear



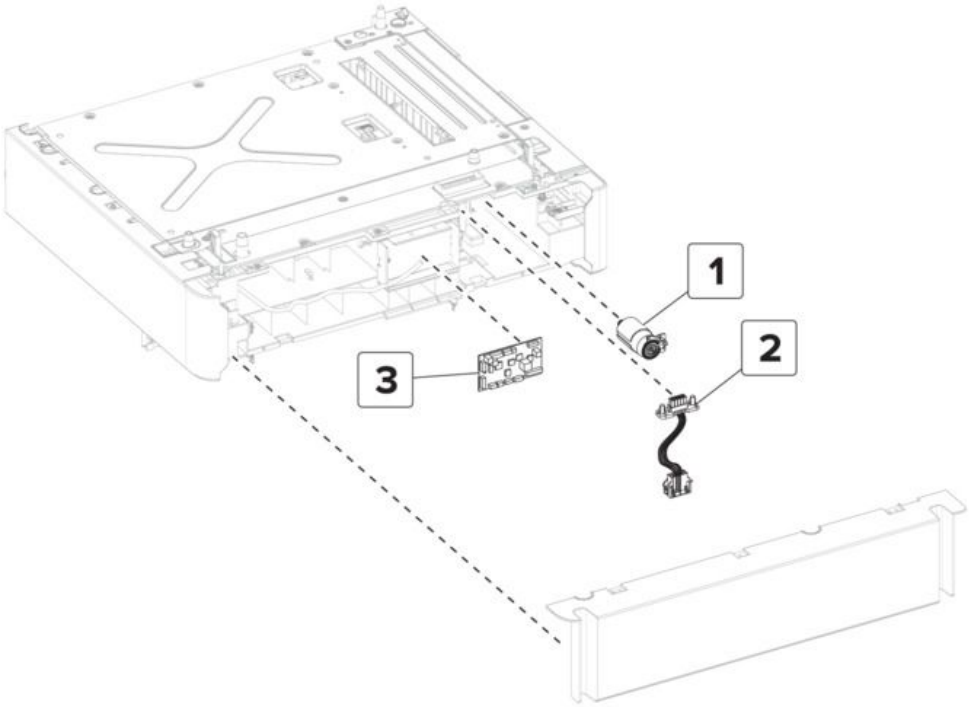
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0137	1	1	Transfer roller front latch	--
2	41X0138	1	1	Transfer roller rear latch	--
3	41X0064	1	1	Transfer belt left bias arm	--
4	41X0062	4	1	Hold down arm	--
5	41X0063	1	1	Transfer belt right bias arm	--

550-sheet tray



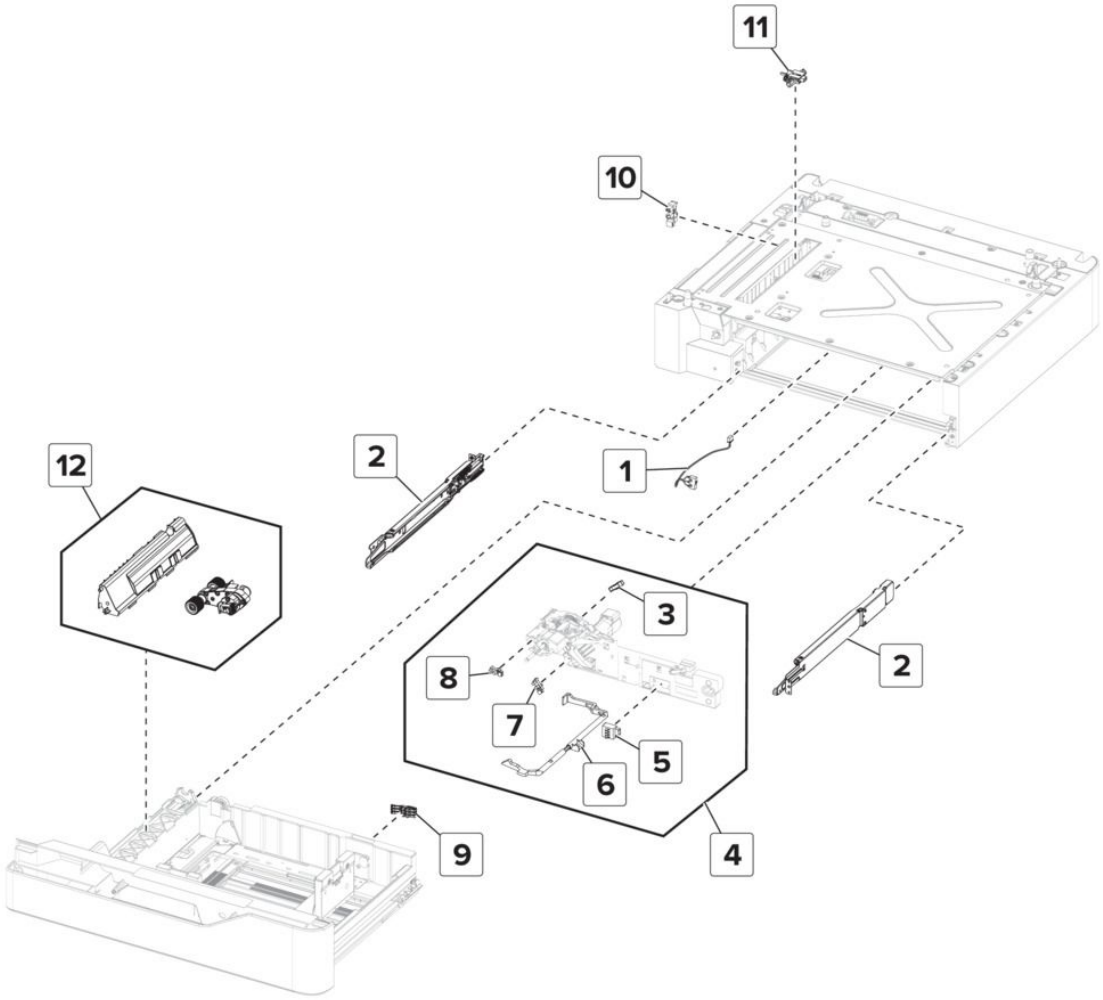
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0326	1	1	550-sheet tray	--
2	41X0175	1	1	550-sheet tray insert	--

550-sheet tray—Rear



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0451	1	1	Motor (550-sheet tray pass-through)	Motor (550-sheet tray pass-through) removal on page 768
2	41X0336	1	1	550-sheet tray interface cable	550-sheet tray interface cable removal on page 760
3	41X0331	1	1	550-sheet tray controller board	550-sheet tray controller board removal on page 760

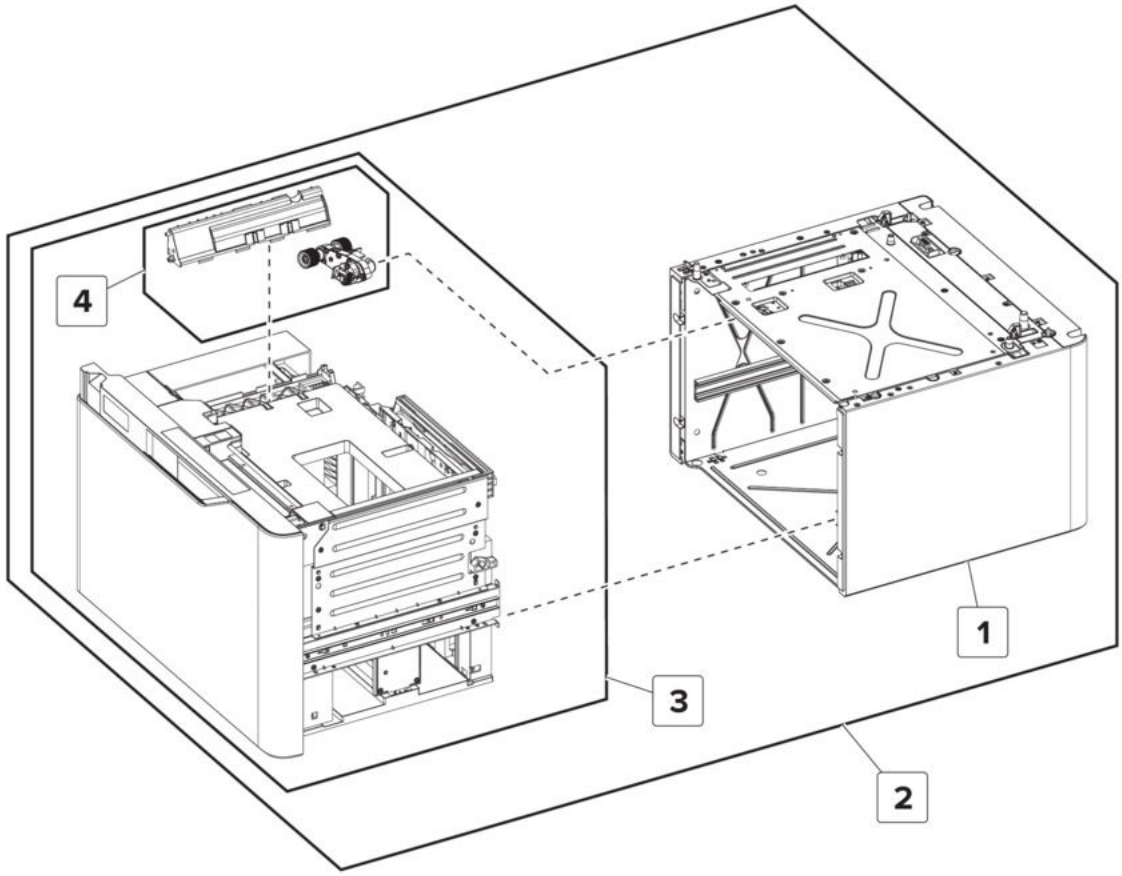
550-sheet tray—Front



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0335	1	1	550-sheet tray wake-up switch	550-sheet tray wake up switch removal on page 770
2	41X0342	1	1	550-sheet tray rails	550-sheet tray right rail removal on page 751 550-sheet tray left rail removal on page 767
3	41X0684	1	1	Sensor (550-sheet tray media out)	Sensor (550-sheet tray media out) removal on page 753
4	41X0106	1	1	550-sheet tray paper feeder	550-sheet tray paper feeder removal on page 752
5	40X7911	1	1	Sensor (550-sheet tray media size)	Sensor (550-sheet tray media size) removal on page 748
6	41X0338	1	1	550-sheet tray media out sensor actuator	Sensor (550-sheet tray media out) removal on page 753

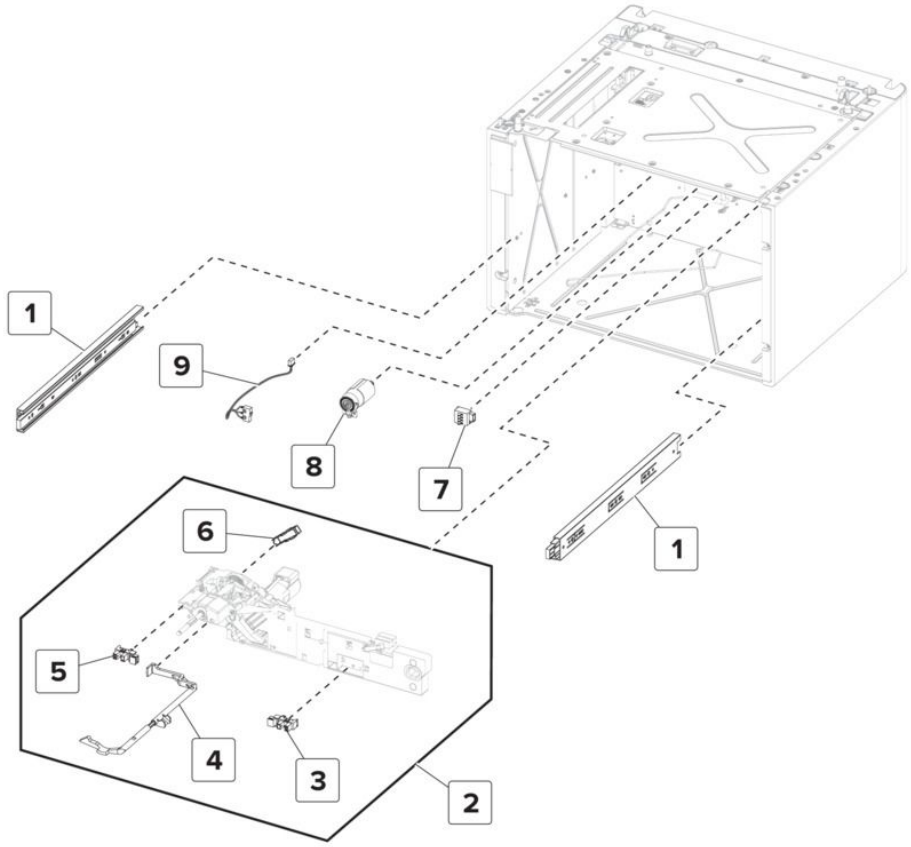
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
7	41X0684	1	1	Sensor (550-sheet tray media low)	Sensor (550-sheet tray media low) removal on page 749
8	41X0684	1	1	Sensor (550-sheet tray pick roller index)	Sensor (550-sheet tray pick roller index) removal on page 765
9	40X8541	1	1	550-sheet tray media size sensor actuators	550-sheet tray media size sensor actuators removal on page 747
10	41X0684	1	1	Sensor (550-sheet tray jam door)	Sensor (550-sheet tray jam door) on page 750
11	41X0951	1	1	Sensor (550-sheet tray pass-through)	--
12	41X0999	1	1	Pick roller and separator pad	Pick roller removal on page 659

2200-sheet tray



Asm-index	P/N	Units/mach	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 772
4	41X0999	1	1	Pick roller and separator pad	--

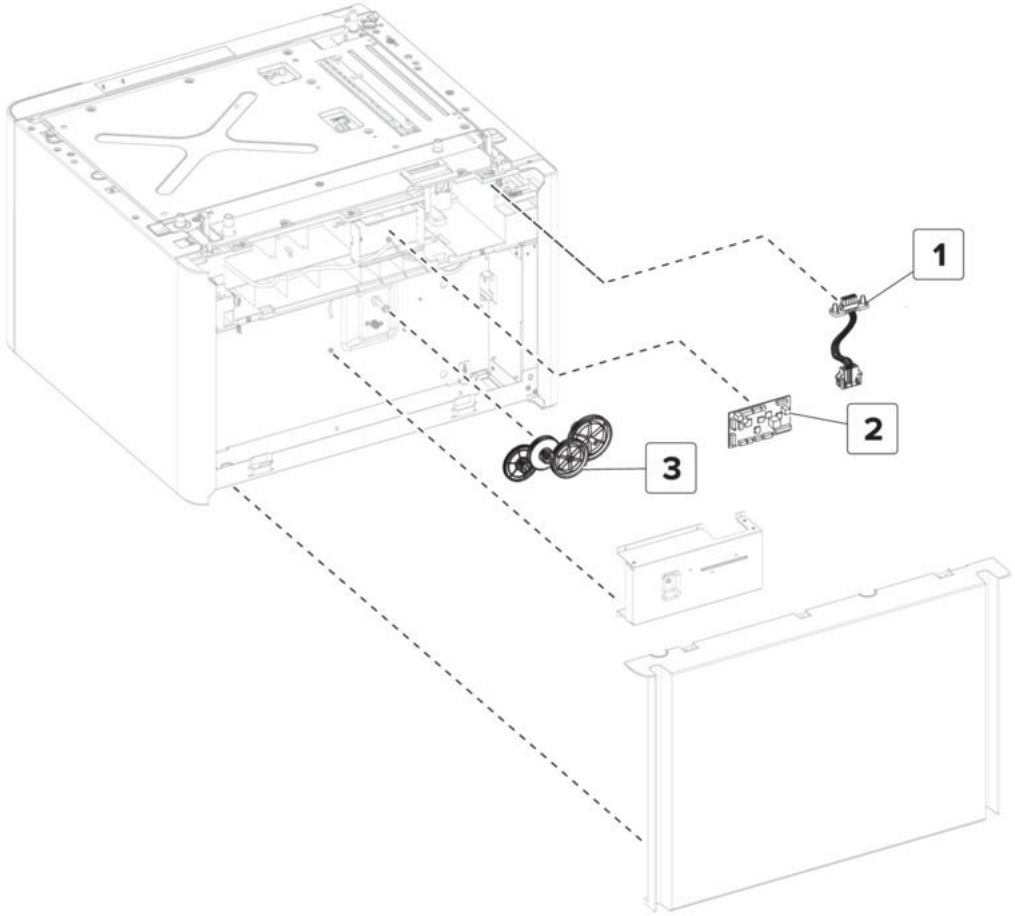
2200-sheet tray—Front



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0343	2	2	2200-sheet tray rails	2200-sheet tray rail removal on page 773
2	41X0369	1	1	2200-sheet tray paper feeder	2200-sheet tray paper feeder removal on page 787
3	41X0684	1	1	Sensor (2200-sheet tray media low)	Sensor (2200-sheet tray media low) removal on page 775
4	41X0338	1	1	2200-sheet tray media out sensor actuator	2200-sheet tray media out sensor actuator removal on page 794
5	41X0684	1	1	Sensor (2200-sheet tray pick roller index)	Sensor (2200-sheet tray pick roller index) removal on page 790
6	41X0684	1	1	Sensor (2200-sheet tray media out)	Sensor (2200-sheet tray media out) removal on page 789

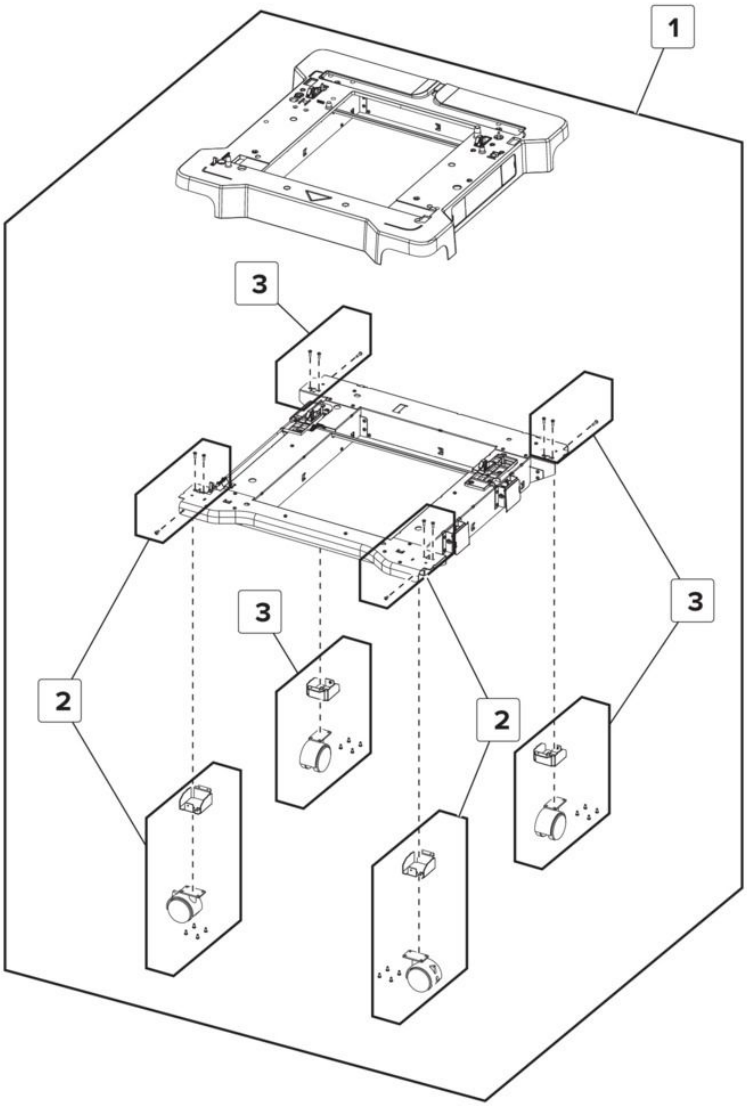
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
7	40X7911	1	1	Sensor (2200-sheet tray media size)	Sensor (2200-sheet tray media size) removal on page 776
8	41X0140	1	1	Lift motor	Motor (2200-sheet tray elevator) removal on page 786
9	41X0335	1	1	2200-sheet tray wake up switch	2200-sheet tray wake up switch removal on page 798

2200-sheet tray—Rear



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0337	1	1	2200-sheet tray interface cable	2200-sheet tray interface cable removal on page 779
2	41X0332	1	1	2200-sheet tray controller board	2200-sheet tray controller board removal on page 778
3	41X0351	1	1	2200-sheet tray elevator gears	2200-sheet tray elevator gears removal on page 783

Caster base



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0762	1	1	Caster base	--
2	41X0774	2	1	Caster base locking caster	Locking caster removal on page 800
3	41X0775	2	1	Caster base non-locking caster	Locking caster removal on page 800

Cables

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0890	1	1	Paper feed cables parts pack • 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	N/A
NS	41X0891	1	1	Motor cables parts pack • 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	N/A
NS	41X0892	1	1	HVPS cables parts pack • Charge roller HVPS cable • Wiper/printhead mirror motor cable • Main HVPS cable • White high voltage charge wires	N/A

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0893	1	1	LVPS cables parts kit • AC power cable • LVPS/controller board cable • Fuser power cable	N/A
NS	41X0894	1	1	Miscellaneous cables parts pack • Waste toner bottle present sensor cable • Door interlock switch cable • Ground cable • Flat flex ground cable • Smartchip interface board cable	N/A
NS	41X1630	1	1	Control panel cables kit • Control panel FFC cable (SFP) • Control panel FFC cable (MFP) • Display cable	--
NS	41X0895	1	1	Miscellaneous control panel cables kit • Proximity sensor cable (MFP) • Speaker extension cable • Headphone cable (MFP) • Keyboard USB cable	--
NS	41X0896	1	1	Options interface cables parts kit • Input option cable • Output option cable (SFP) • Output option cable (MFP)	N/A

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0950	1	1	Optional tray cables parts pack • Separator motor cable • Paper feeder extension cable • Paper feeder cable	N/A

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: • 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: • 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: • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads • Filter	--

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	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
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	--
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)	--

Miscellaneous

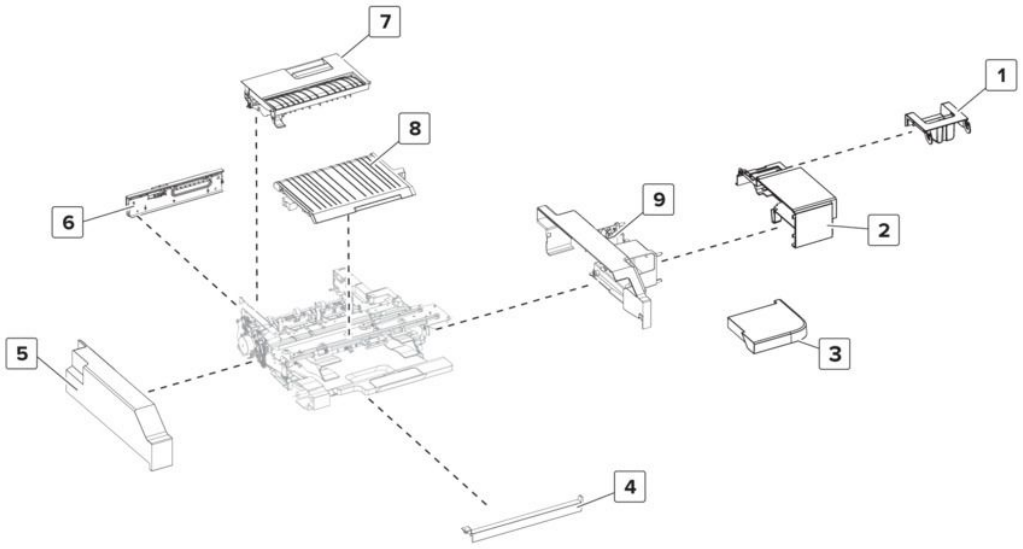
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2093	1	1	Envelope tray	--
NS	40X8671	1	1	Cover, Removable HDD kit	--
NS	40X9934	1	1	Hard disk drive, SATA	--
NS	40X8737	1	1	Authentication device, RFID	--
NS	41X1372	1	1	MarkNet N8370 Wireless Print Server Interface card	--
NS	40X9652	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	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
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	--
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	--

Staple finisher option

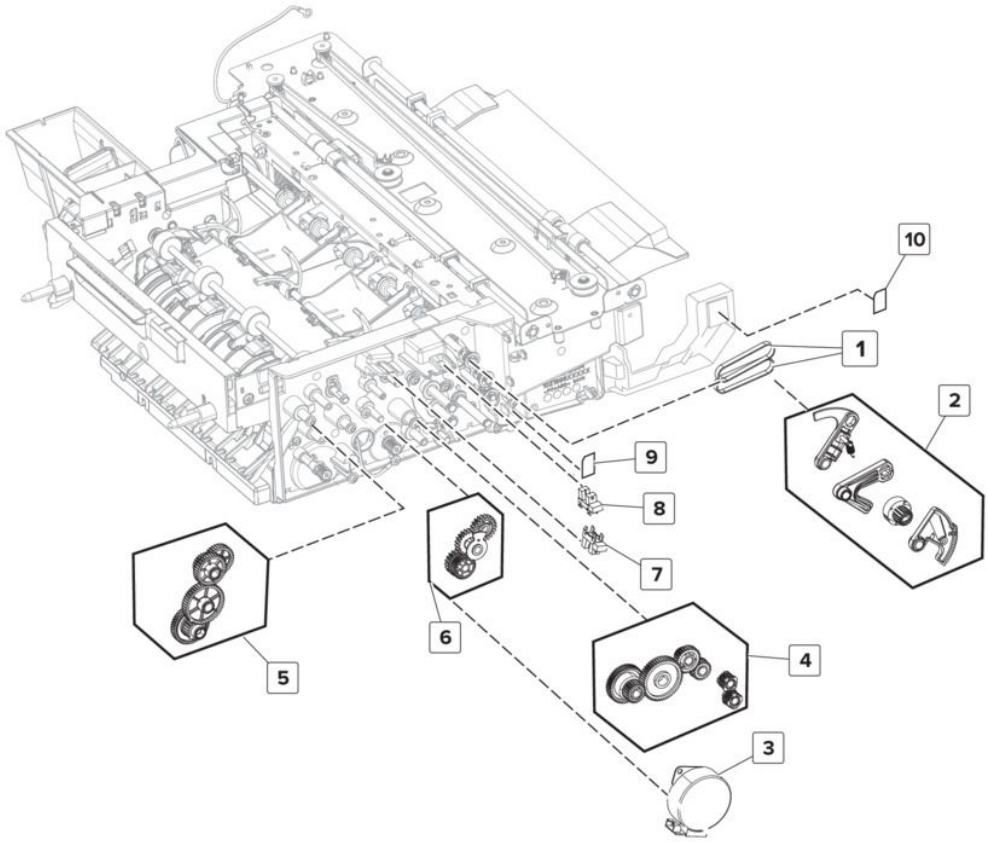
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0746	1	1	Staple finisher option	--

Staple finisher—Covers



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0531	1	1	Staple finisher staple cartridge door	Staple finisher staple cartridge door removal on page 815
2	41X0495	1	1	Staple finisher rear cover	Staple finisher rear cover removal on page 808
3	41X0933	1	1	Staple finisher cover	--
4	41X0493	1	1	Staple finisher right cover	Staple finisher right cover removal on page 807
5	41X0494	1	1	Staple finisher front cover	Staple finisher front cover removal on page 807
6	41X0520	1	1	Staple finisher lock assembly	Staple finisher lock assembly removal on page 816
7	41X0498	1	1	Staple finisher jam door	Staple finisher jam access door removal on page 815
8	41X0507	1	1	Staple finisher top cover	Staple finisher tamper top cover removal on page 864
9	41X0497	1	1	Staple finisher inner rear cover	Staple finisher inner rear cover removal on page 813

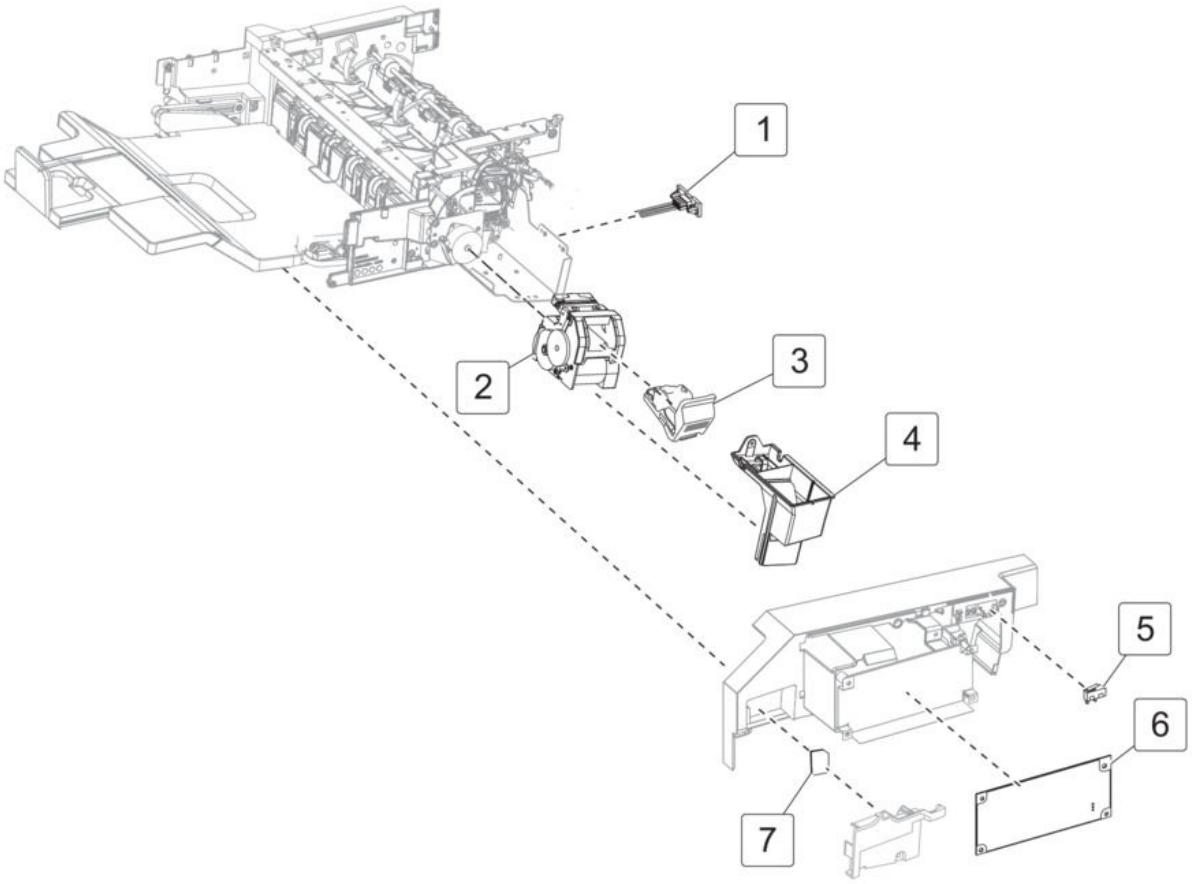
Staple finisher—Front



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0521	2	1	Staple finisher exit roller belts	Staple finisher exit roller belts removal on page 860
2	41X0516	1	1	Staple finisher front upper exit roller position gears	Staple finisher front upper position exit roller gears removal on page 851
3	40X8753	1	1	Motor (staple finisher aligner paddle)	Motor (staple finisher aligner paddle) removal on page 842
4	41X0514	1	1	Staple finisher exit gears	Staple finisher exit gears removal on page 855
5	41X0512	1	1	Staple finisher transport gears	Staple finisher transport gears removal on page 843
6	41X0513	1	1	Staple finisher aligner paddle gears	Staple finisher aligner paddle gears removal on page 846
7	40X7301	1	1	Sensor (staple finisher aligner paddle)	Staple finisher aligner paddle gears removal on page 846

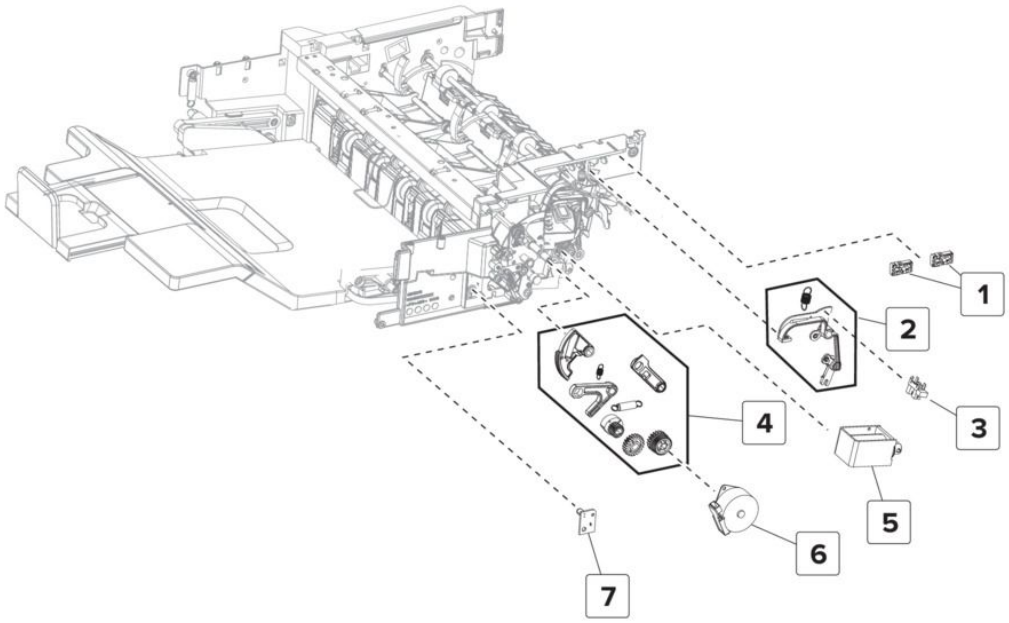
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
8	40X7301	1	1	Sensor (staple finisher upper exit roller)	Sensor (staple finisher upper exit roller) removal on page 850
9	41X0504	1	1	Sensor (staple finisher front lower bin full)	Sensor (staple finisher lower bin full) removal on page 819
10	41X0504	1	1	Sensor (staple finisher front upper bin full)	Sensor (staple finisher upper bin full) removal on page 821

Staple finisher—Electrical



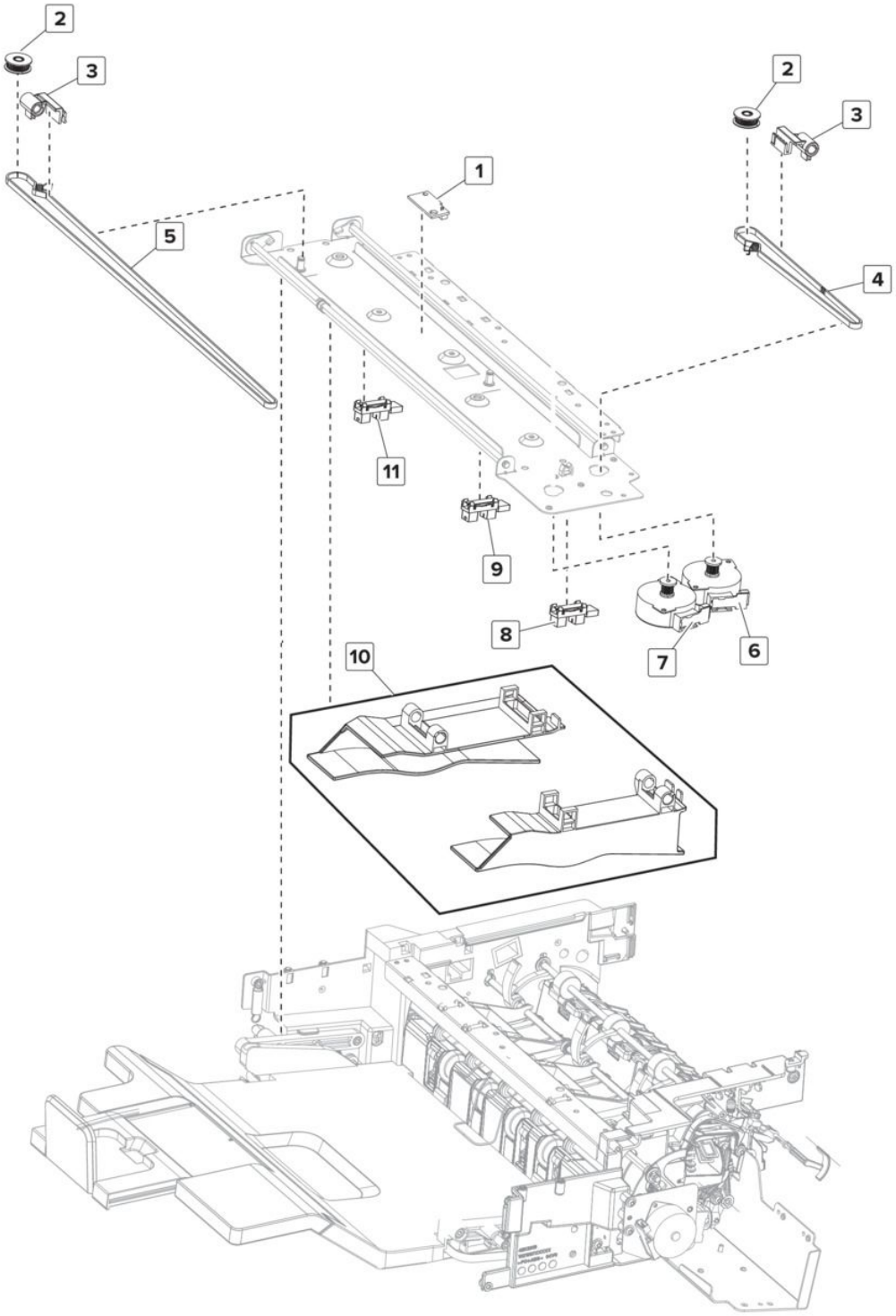
Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0506	1	1	Staple finisher interface cable	Staple finisher interface cable removal on page 824
2	41X0501	1	1	Staple finisher staple unit	Staple finisher staple unit removal on page 833
3	41X0530	1	1	Staple finisher staple cartridge holder	--
4	41X0500	1	1	Staple finisher staple cartridge ejector	Staple finisher staple unit ejector removal on page 831
5	41X0499	1	1	Staple finisher staple cartridge door switch	Staple finisher staple cartridge door switch removal on page 818
6	41X0496	1	1	Staple finisher controller board	Staple finisher controller board removal on page 812
7	41X0504	1	1	Sensor (staple finisher rear lower bin full)	Sensor (staple finisher lower bin full) removal on page 819
NS	41X0783	1	1	Staple finisher cable parts pack	--

Staple finisher—Rear



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0505	2	1	Staple finisher jam door switch	Staple finisher jam door switches removal on page 836
2	41X0503	1	1	Staple finisher stack clamp	Staple finisher stack clamp removal on page 839
3	40X7301	1	1	Sensor (staple finisher stack clamp)	Staple finisher stack clamp removal on page 839
4	41X0784	1	1	Staple finisher rear upper exit roller position gears	Staple finisher rear upper position exit roller gears removal on page 827
5	41X0502	1	1	Staple finisher stack clamp solenoid	Staple finisher stack clamp solenoid removal on page 837
6	40X8256	1	1	Motor (staple finisher upper exit roller)	Motor (staple finisher upper exit roller) removal on page 826
7	41X0504	1	1	Sensor (staple finisher rear upper bin full)	Sensor (staple finisher upper bin full) removal on page 821

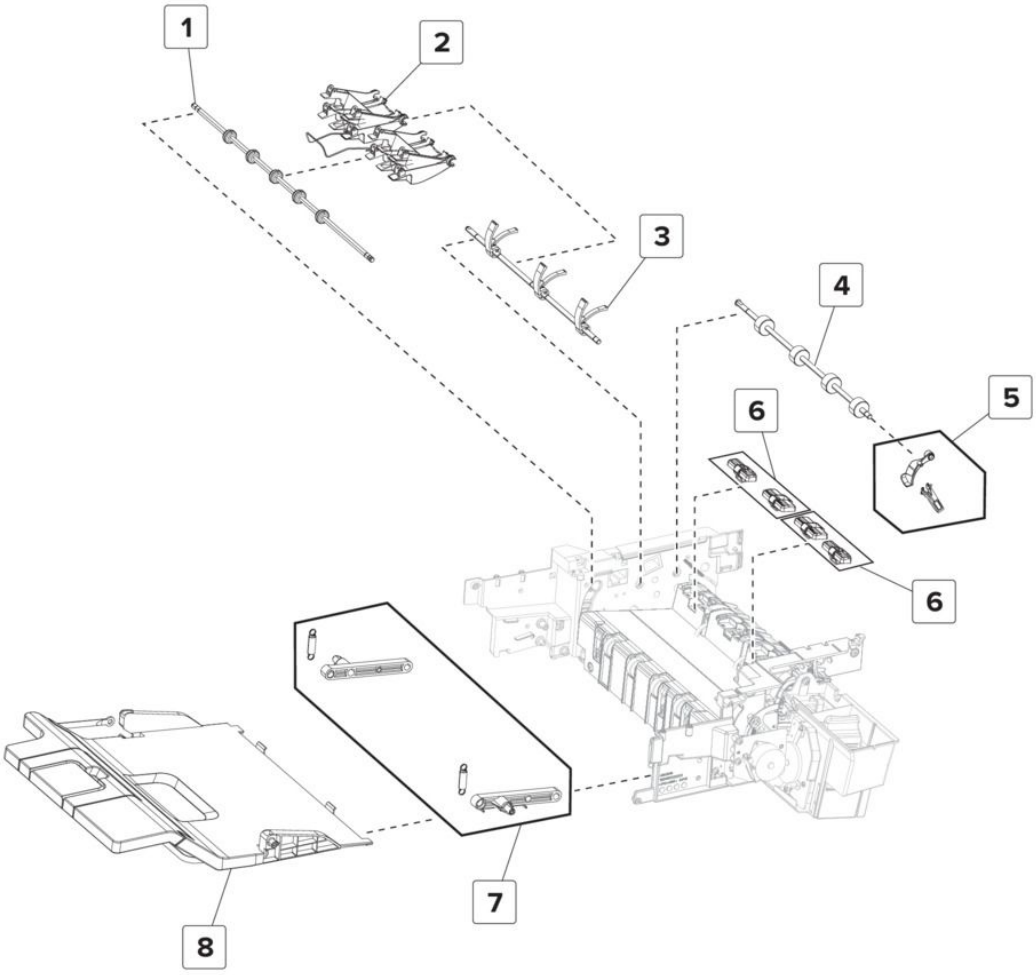
Staple finisher—Tamper



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0778	1	1	Staple finisher cave light	Staple finisher tamper top cover removal on page 864
2	41X0776	1	1	Staple finisher tamper pulley gears	Staple finisher tamper pulley gear removal on page 871

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
3	41X0508	1	1	Staple finisher tamper belt holders	Staple finisher tamper removal on page 872
4	41X0535	1	1	Staple finisher rear tamper belt	Staple finisher tamper belts removal on page 868
5	41X0534	1	1	Staple finisher front tamper belt	Staple finisher tamper belts removal on page 868
6	40X8211	1	1	Motor (staple finisher rear tamper)	Staple finisher tamper removal on page 872
7	40X8211	1	1	Motor (staple finisher front tamper)	Staple finisher tamper removal on page 872
8	40X7301	1	1	Sensor (staple finisher rear tamper home)	Sensor (staple finisher tamper position) removal on page 865
9	40X7301	1	1	Sensor (staple finisher narrow media tamper)	Sensor (staple finisher tamper position) removal on page 865
10	41X0509	1	1	Staple finisher tampers	Staple finisher tamper removal on page 872
11	40X7301	1	1	Sensor (staple finisher front tamper home)	Sensor (staple finisher tamper position) removal on page 865

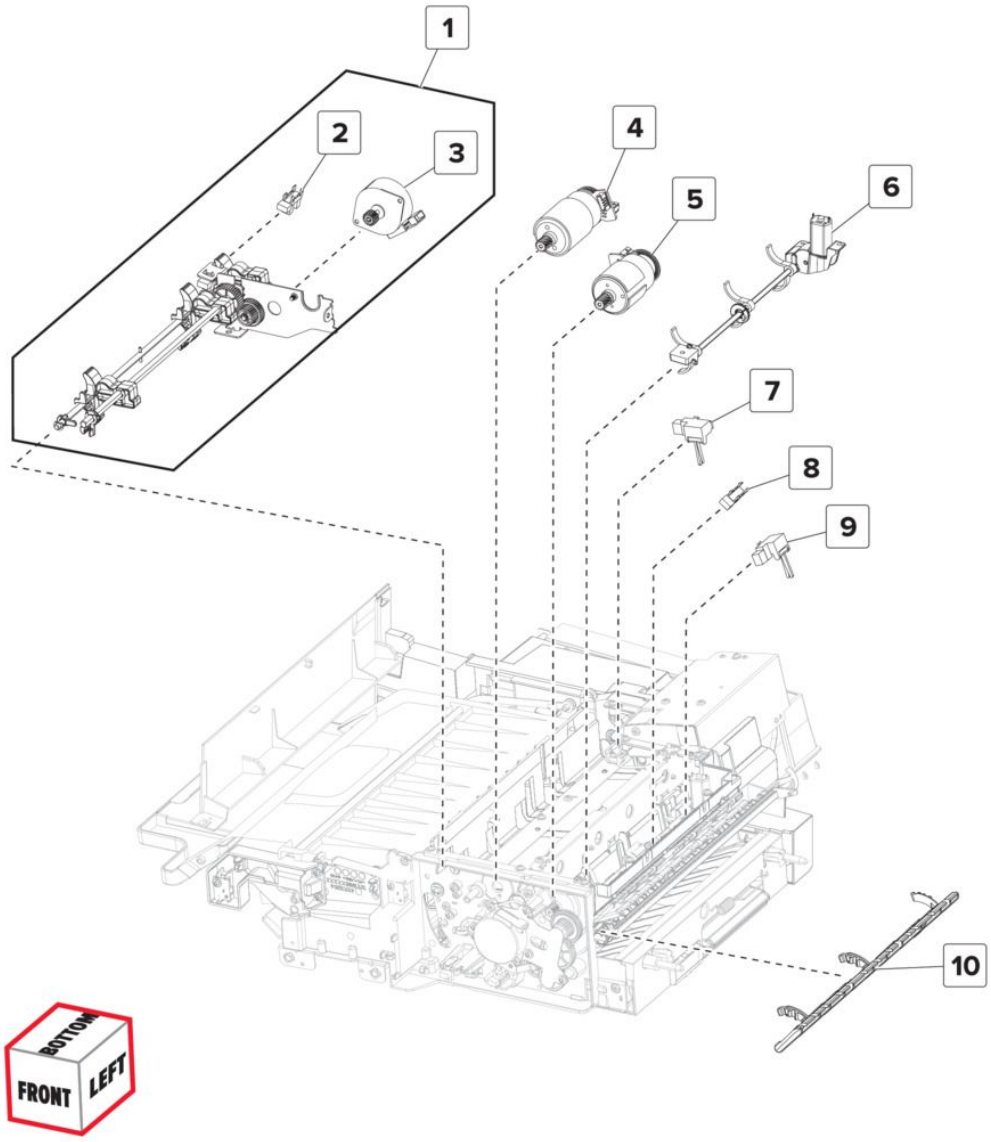
Staple finisher—Transport



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0515	1	1	Staple finisher upper exit roller	Staple finisher upper exit roller removal on page 891
2	41X0519	1	1	Staple finisher upper paper guide	Staple finisher aligner paddle and upper paper guide removal on page 887
3	41X0518	1	1	Staple finisher aligner paddle	Staple finisher aligner paddle and upper paper guide removal on page 887
4	41X0517	1	1	Staple finisher compiler feed roller	Staple finisher compiler feed roller removal on page 880
5	41X0525	1	1	Staple finisher compiler paper guide	Staple finisher compiler paper guide removal on page 878

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
6	41X0526	2	1	Staple finisher compiler feed idler	Staple finisher compiler feed idler removal on page 885
7	41X0527	1	1	Staple finisher bin link	Staple finisher bin link removal on page 875
8	41X0528	1	1	Staple finisher bin	Staple finisher bin removal on page 876

Staple finisher—Bottom



Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0532	1	1	Staple finisher bin clamp assembly	Staple finisher bin clamp assembly removal on page 898
2	40X7301	1	1	Sensor (staple finisher bin clamp)	Sensor (staple finisher bin clamp) removal on page 908
3	40X8256	1	1	Motor (staple finisher bin clamp)	Motor (staple finisher bin clamp) removal on page 910
4	41X0529	1	1	Motor (staple finisher exit)	Motor (staple finisher exit) removal on page 917

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
5	41X0529	1	1	Motor (staple finisher transport)	Motor (staple finisher transport) removal on page 918
6	41X0523	1	1	Staple finisher decurl paddle	Staple finisher decurl assembly removal on page 921
7	40X8745	1	1	Sensor (staple finisher staple unit paper present)	Sensor (staple finisher staple unit paper present) removal on page 922
8	40X7301	1	1	Sensor (staple finisher decurl)	Sensor (staple finisher decurl) removal on page 924
9	40X8745	1	1	Sensor (staple finisher transport)	Sensor (staple finisher transport) removal on page 925
10	41X0511	1	1	Staple finisher entrance paper guide	Staple finisher entrance paper guide removal on page 896
NS	41X0786	1	1	Staple finisher screw parts pack	--
NS	41X0787	1	1	Staple finisher plastic clip	--

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.	800 (one-sided); 765 (two-sided)
Copy	The product is generating hard-copy output from hard-copy original documents.	N/A
Scan	The product is scanning hard-copy documents.	N/A
Ready	The product is waiting for a print job.	80 (higher power usage); 55 (lower power usage)
Sleep Mode	The product is in a high-level energy-saving mode.	2.9
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 (in minutes):	1

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.

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:

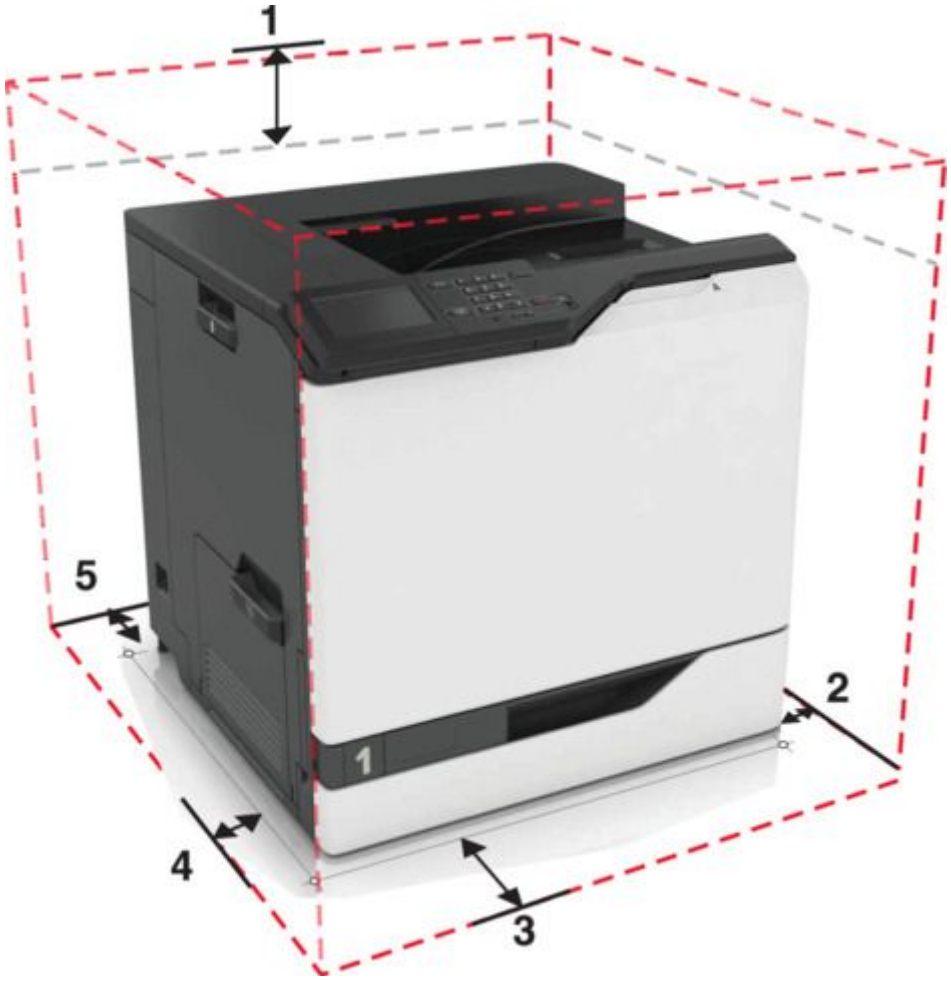
- Set up the printer near a properly grounded and easily accessible electrical outlet with correct voltage and current capability.
- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable 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	305 mm (12.0 in.)
2	Right side	610 mm (24.0 in.)
3	Front	102 mm (4.0 in.)
4	Left side	152mm (6.0 in.)
5	Rear	381 mm (15.0 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.

1-meter average sound pressure, dBA	
Printing	56 (one-sided); 57 (two-sided)
Ready	14

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	-10 to 40°C (14 to 104°F)
Storage temperature and relative humidity	-10 to 40°C (14 to 104°F) 8 to 80% RH

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.

Options and features

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
- Internal solutions port (ISP)

> **Note:** Some options are available only in some printer models. For more information, contact the place where you purchased the printer.

Media handling options

Some options may not be available for all models.

1	Standard 550-sheet tray
2	Optional 550-sheet tray
3	Optional 2200-sheet tray
4	Multipurpose feeder
5	Staple finisher

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.)

Item	Height	Width	Depth
2200-sheet tray (installed)	359 mm (14.13 in.)	558.8 mm (22 in.)	522.4 mm (20.6 in.)

Input/output configurations and capacities

Printer model	Number of standard trays	Maximum number of optional trays	Maximum number of trays
CS820de, CS827de	2	4	6
CS820dte	3	4	6
CS820dtfe	3	4	6

* Maximum of four optional trays are supported at one time.

Printer model	550-sheet tray	Multipurpose feeder	Total standard capacity	Maximum input capacity
CS820de, CS827de	550	100	650	4500
CS820dte	1100	100	1200	4500
CS820dtfe	1100	100	1200	4500

Printer model	Standard bin (printer top)	Standard bin with staple finisher installed	Maximum output capacity
CS820de, CS827de	500	300	500
CS820dte	500	300	500
CS820dtfe	N/A	300	300

* Only one output option can be installed in any CS820 and CS827 model.

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)

Source	Paper	Stack height	Approximate reference capacity
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.	
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)	
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.

Installing optional trays

CAUTION—POTENTIAL INJURY
The printer weights 61–84 kg (135–185 lb) and requires three or more trained personnel to lift it safely.

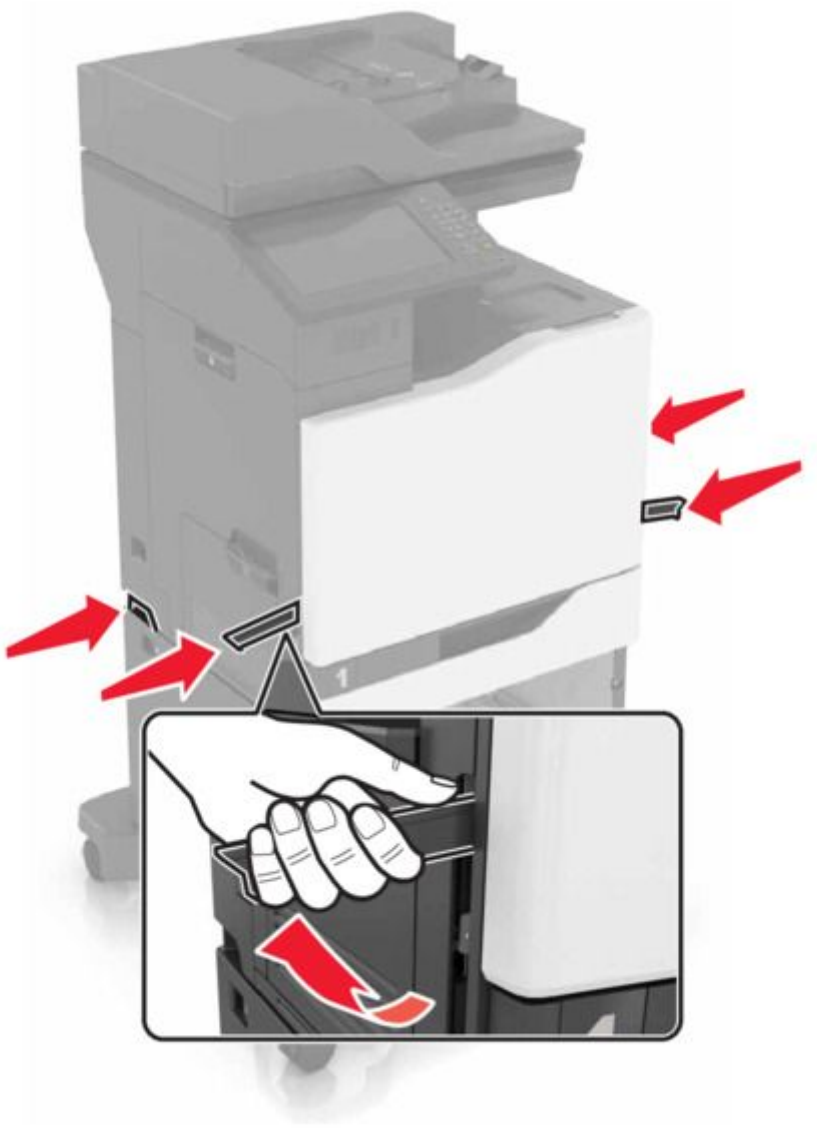
CAUTION—SHOCK HAZARD
To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into 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.

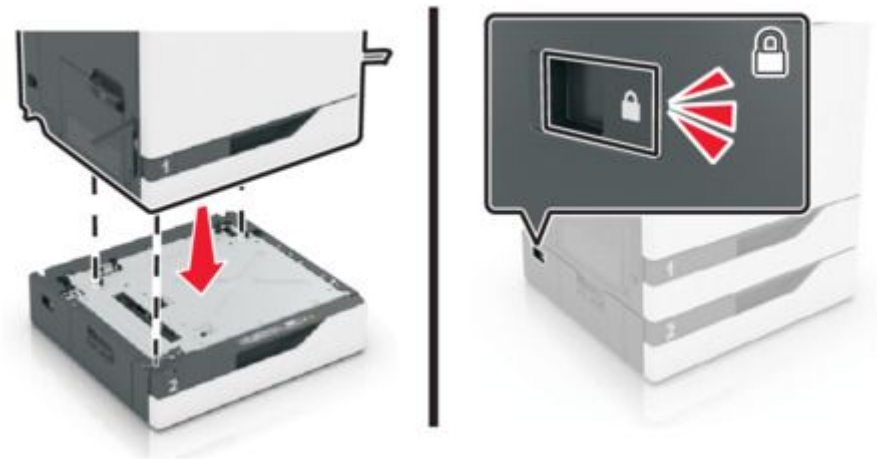
CAUTION—TIPPING HAZARD
Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, see www.lexmark.com/multifunctionprinters.

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, contact the place where you purchased the printer.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet, and then from the printer.
3. Unpack the optional tray, and then remove all packing material.
4. Lift the printer using the side and rear handles.



5. Align the printer with the optional tray, and then lower the printer until it clicks into place.



6. Connect the power cord to the electrical outlet, and then turn on the printer.

Note: If necessary, manually add the tray in the print driver to make it available for print jobs. For more information, see Adding available options in the print driver on page 1010.

Adding available options in the print driver

For Windows users

1. Open the printers folder.
2. Select the printer you want to update, and then do the following:
    - For Windows 7 or later, select **Printer properties**.
    - For earlier versions, select **Properties**.
3. Navigate to the Configuration tab, and then select **Update Now - Ask Printer**.
4. Apply the changes.

For Macintosh users

1. From System Preferences in the Apple menu, navigate to your printer, and then select **Options & Supplies**.
2. Navigate to the list of hardware options, and then add any installed options.
3. Apply the changes.

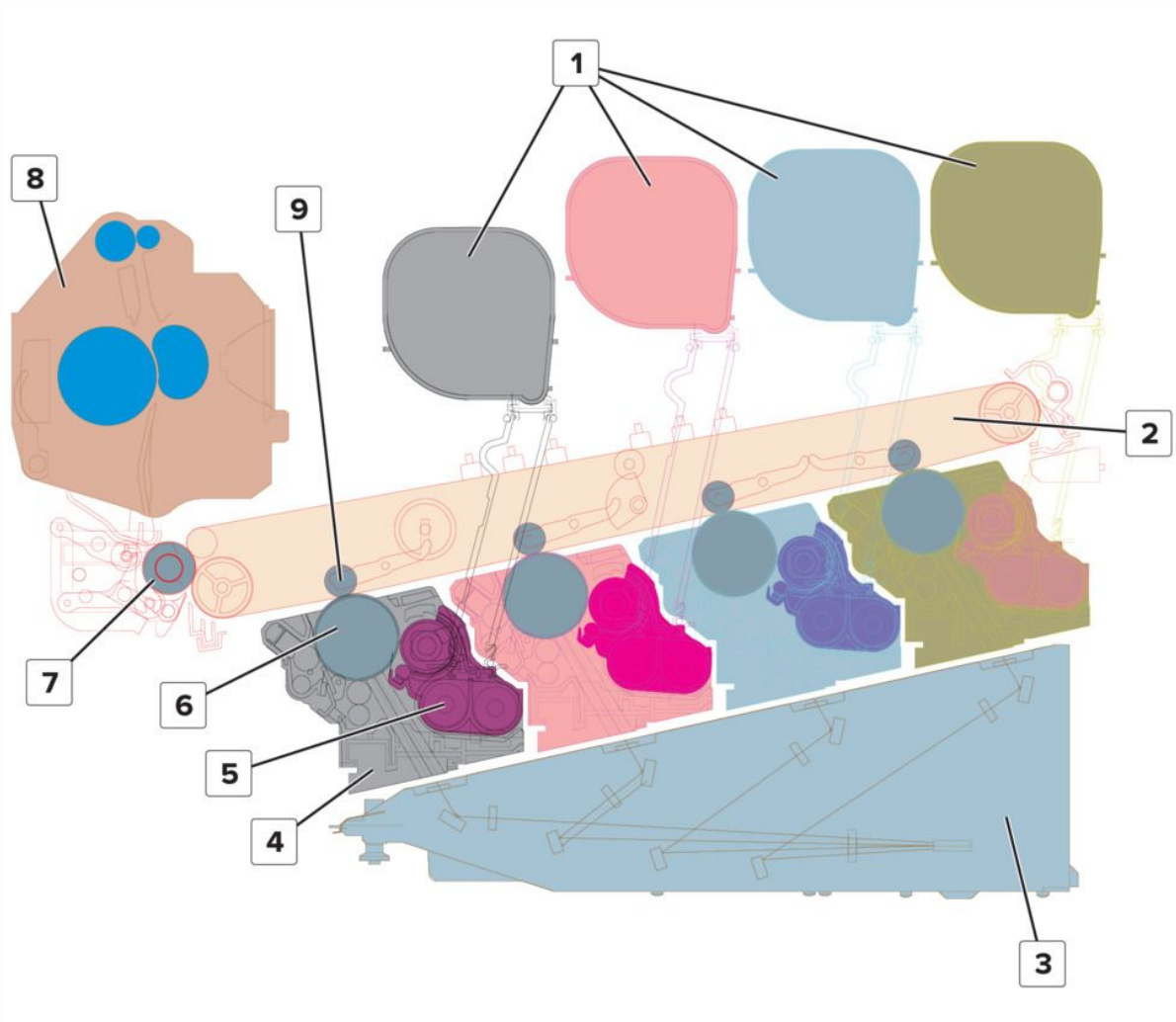
Theory of operation

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

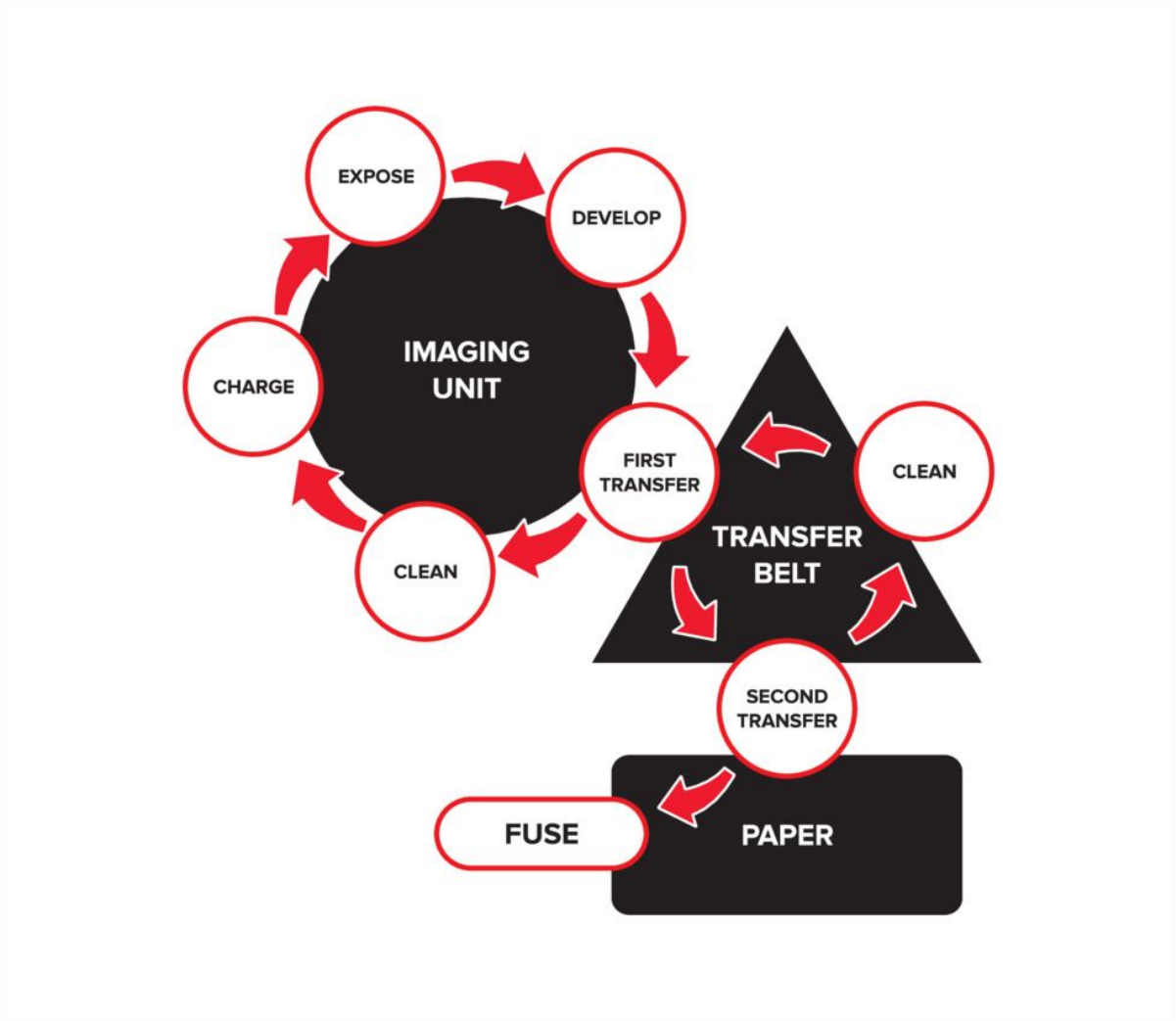


1	Toner cartridges (K, M, C, Y)
2	Transfer belt
3	Printhead

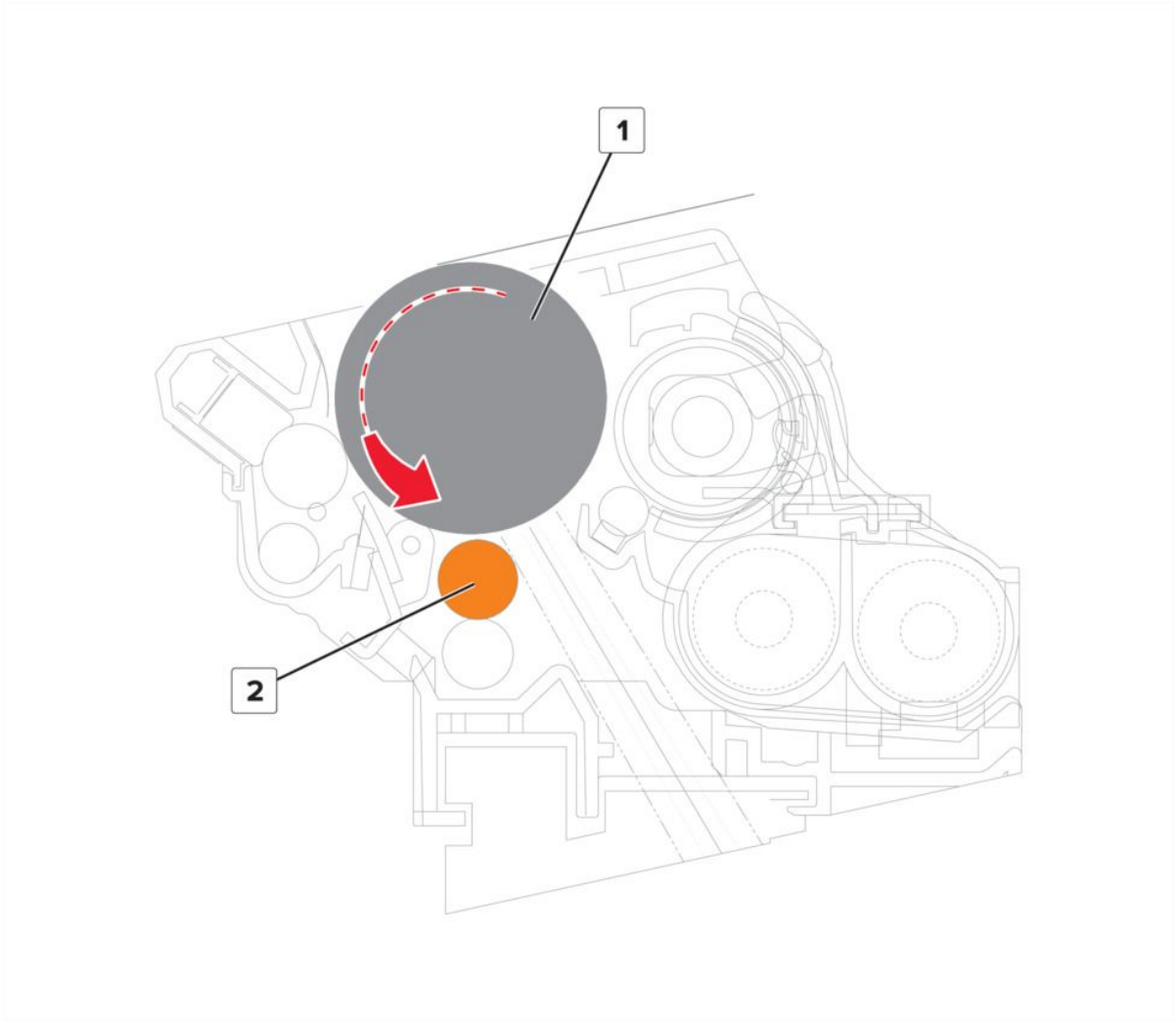
4	Imaging unit
5	Developer unit
6	Photoconductor unit
7	Second transfer roller
8	Fuser
9	First transfer roller

Electrophotographic (EP) process

Flowchart



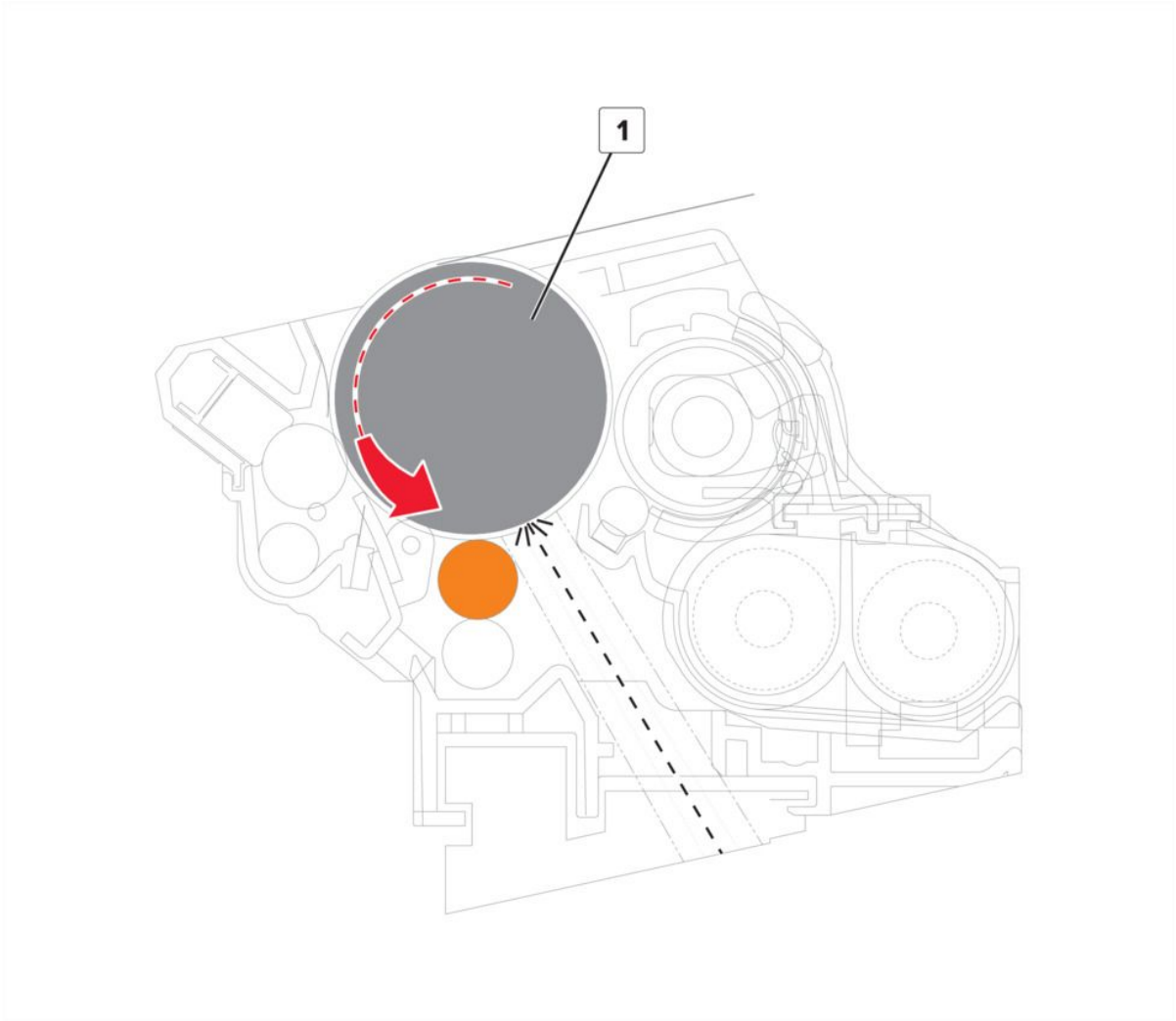
Charge



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.

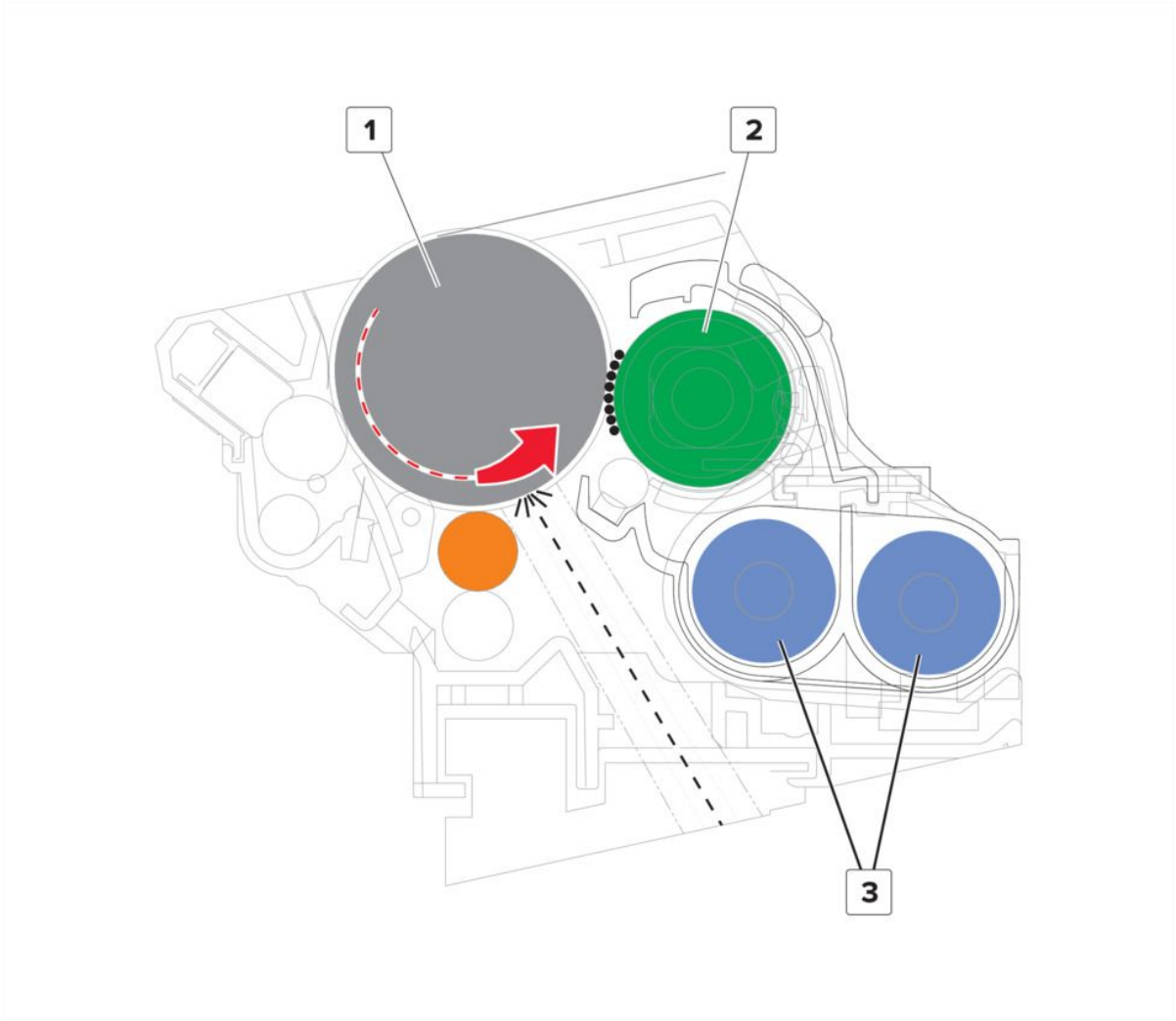
Expose



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.

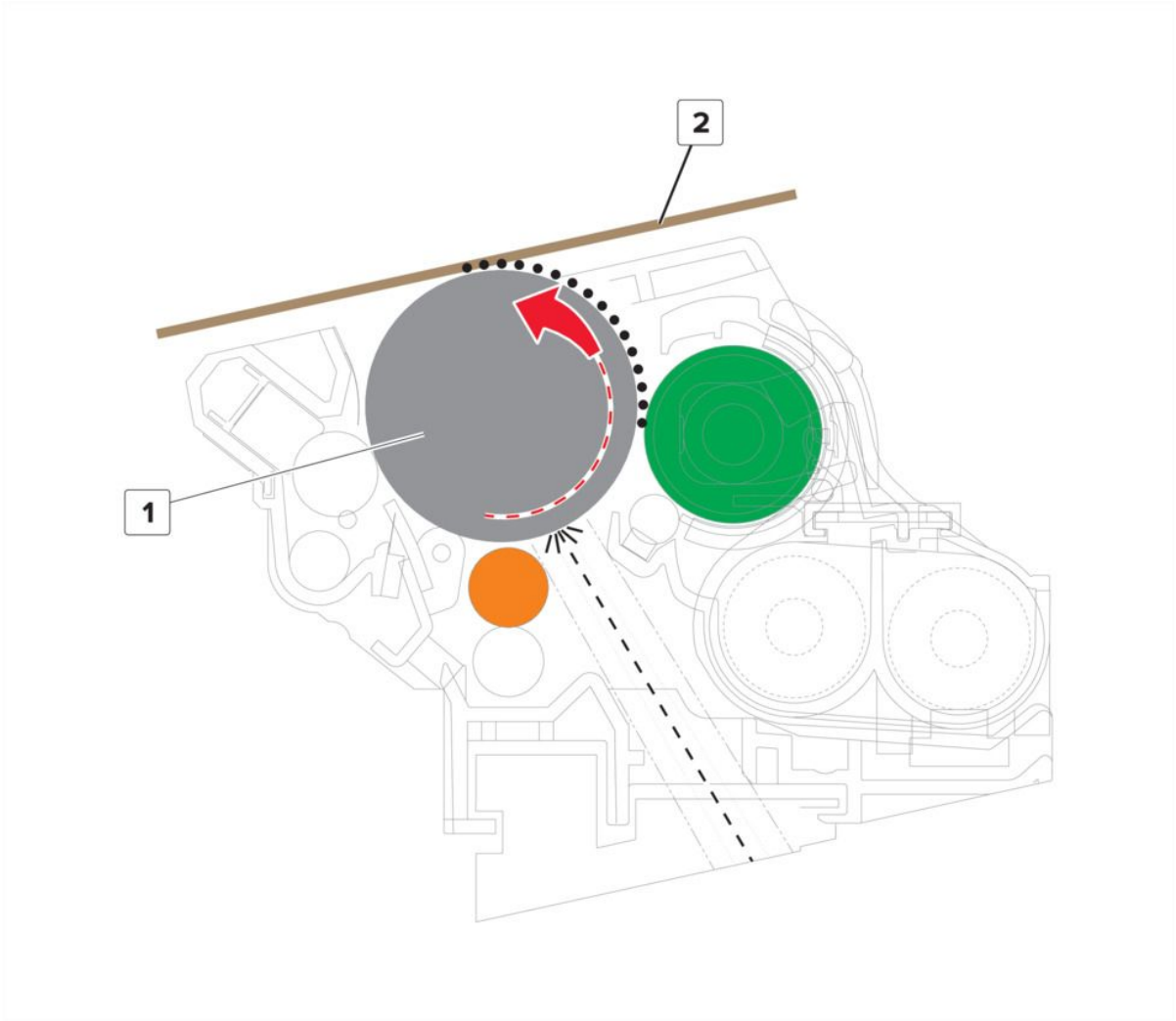
Develop



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.

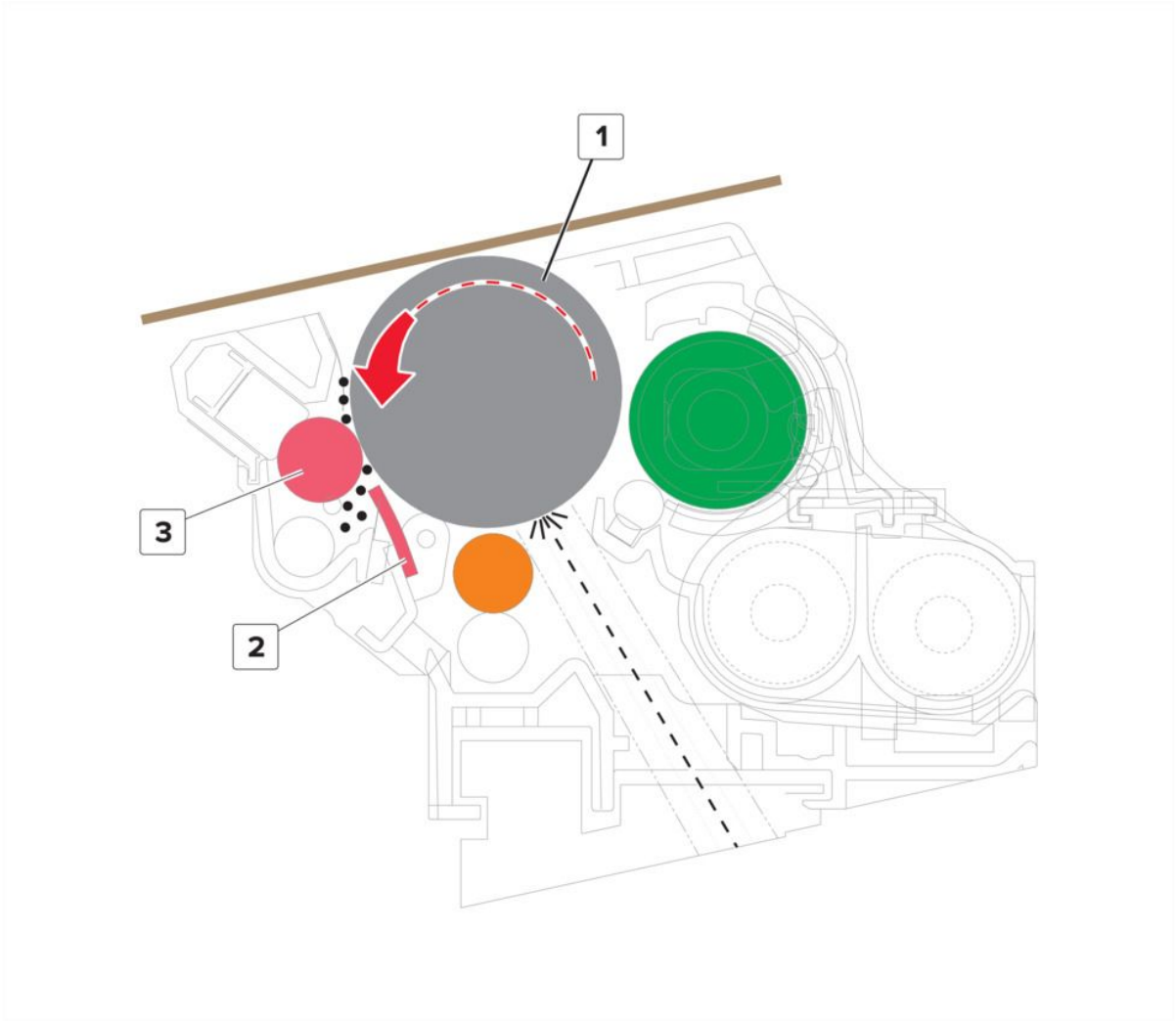
First transfer



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.

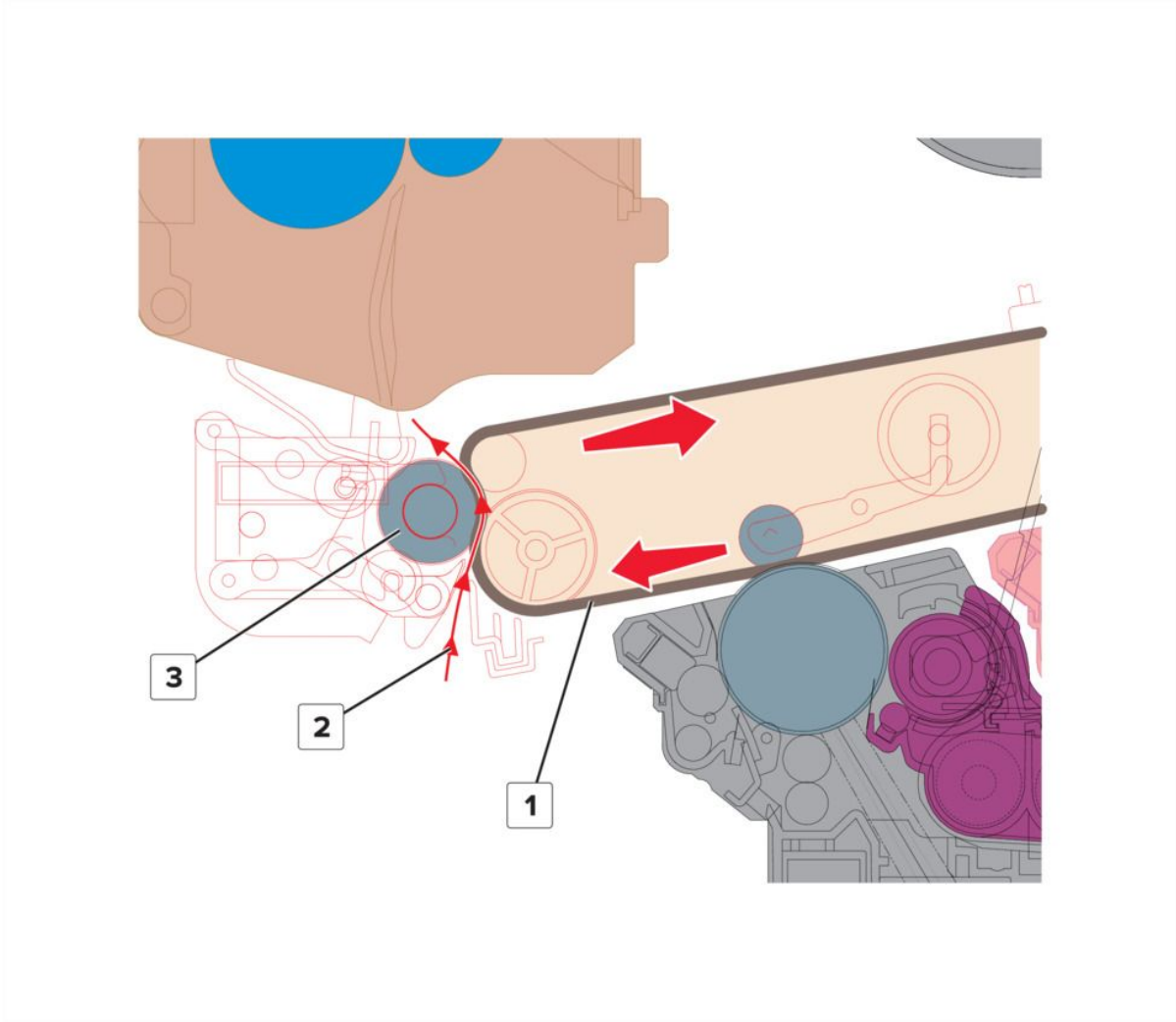
Clean (photoconductor)



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.

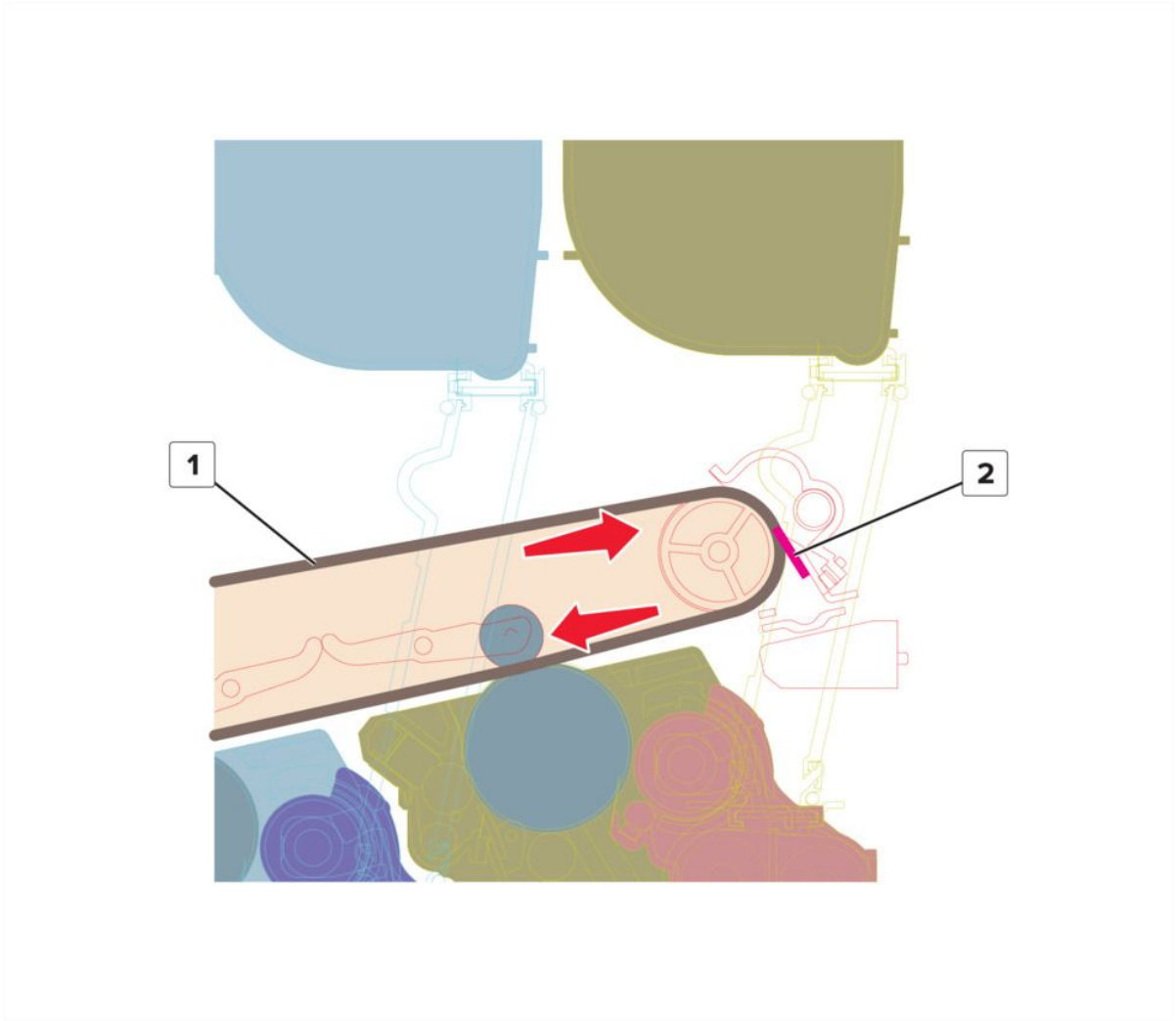
Second transfer



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.

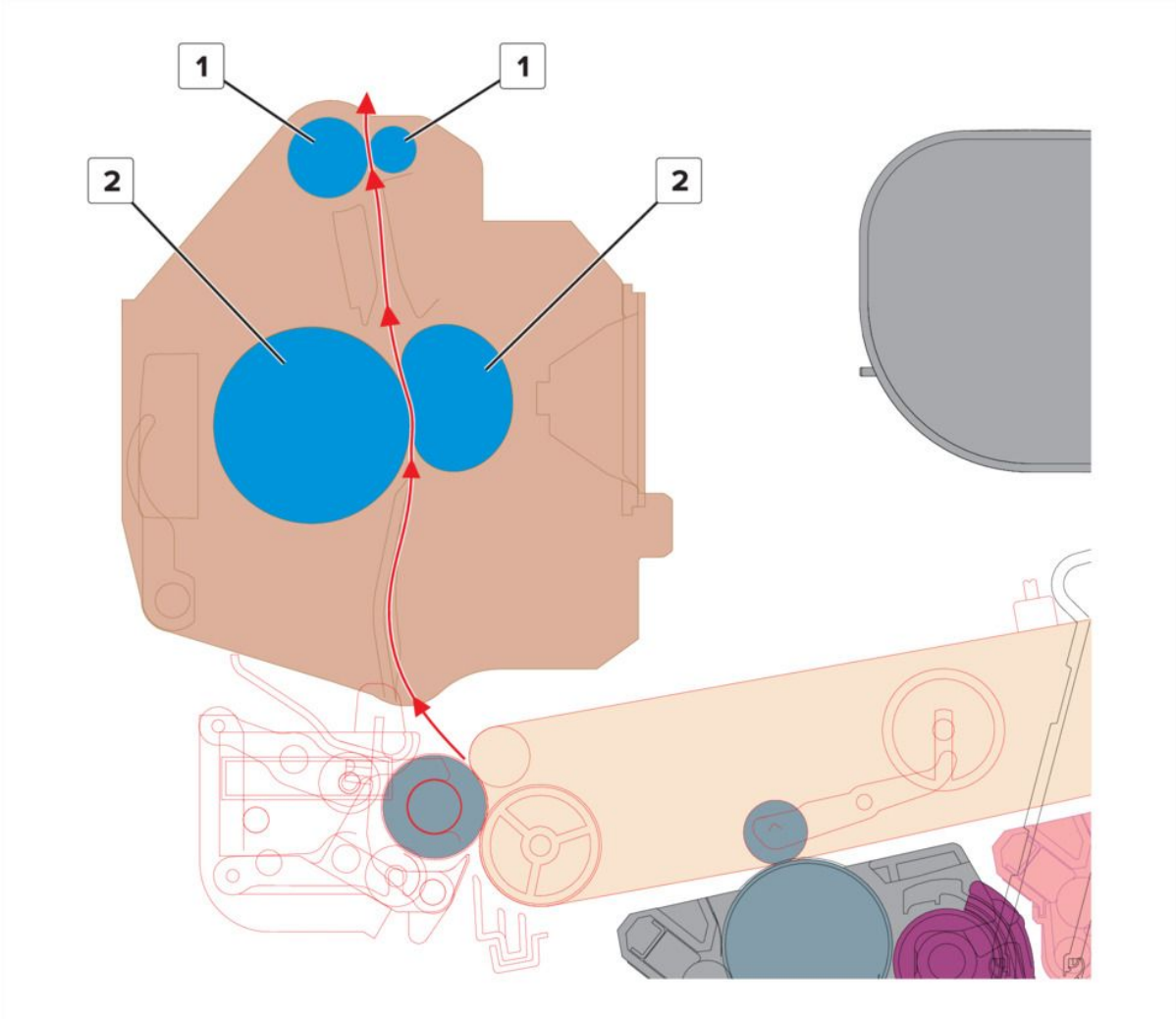
Clean (transfer belt)



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.

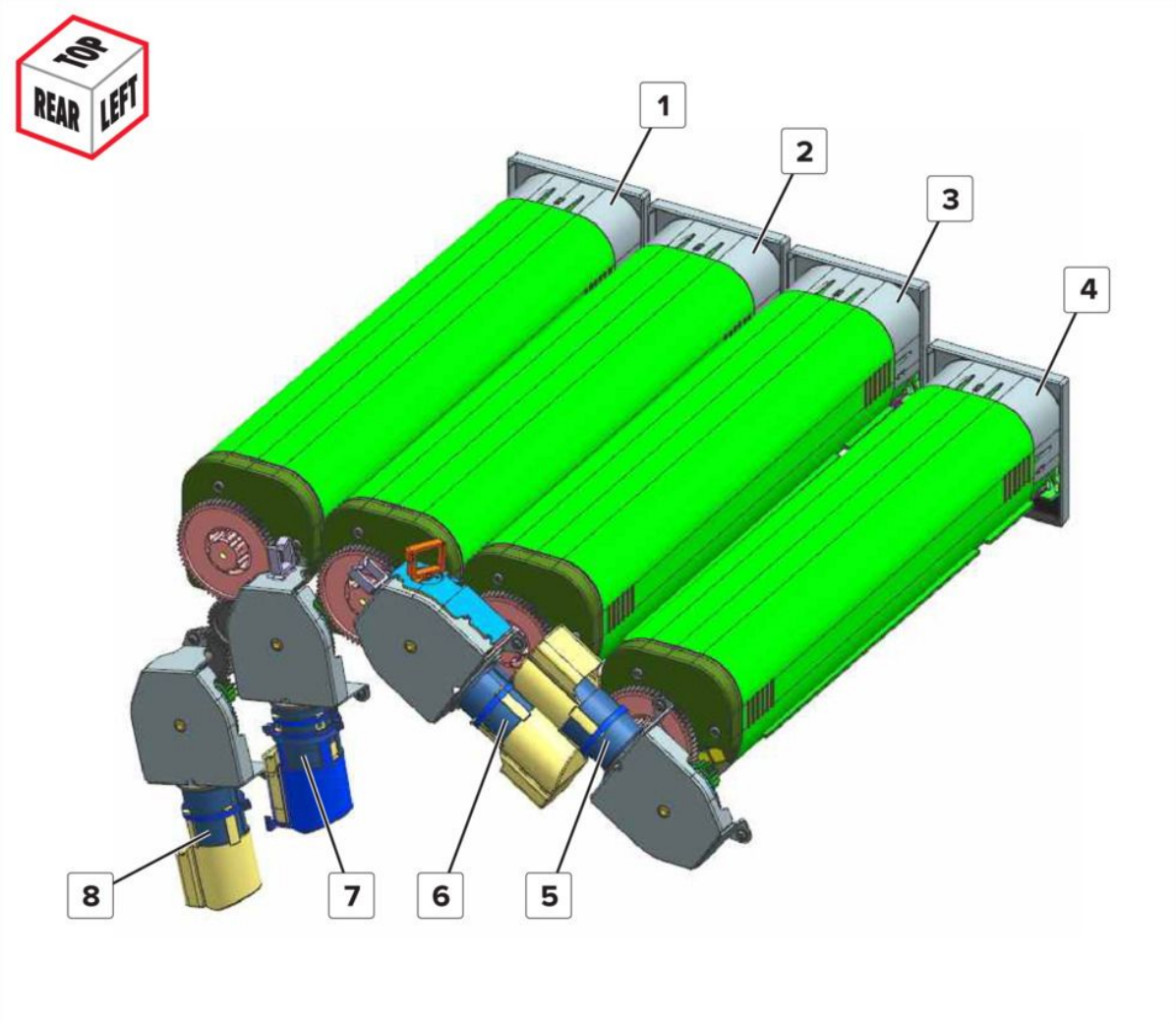
Fuse



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.

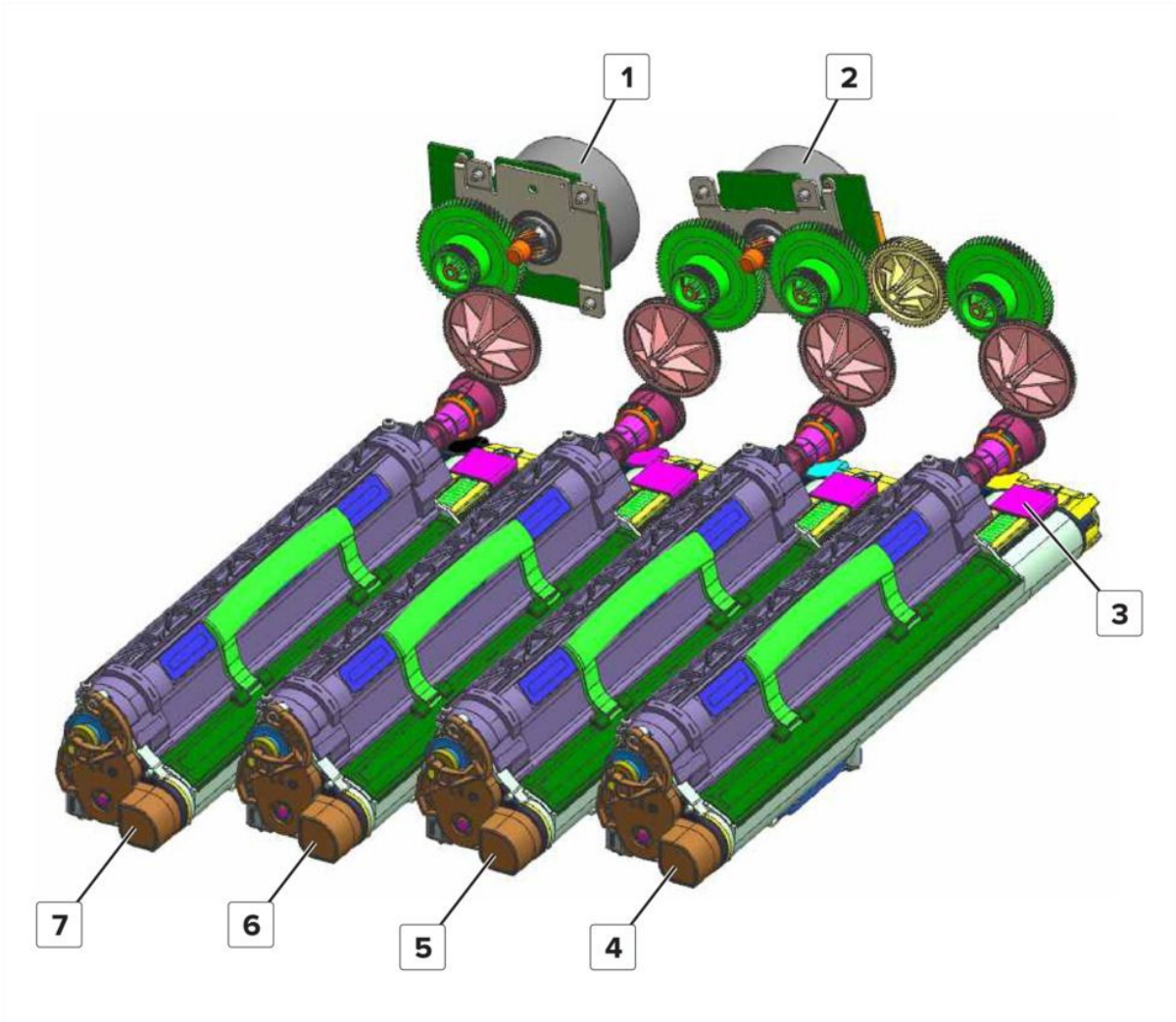
Fresh toner delivery drive



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.

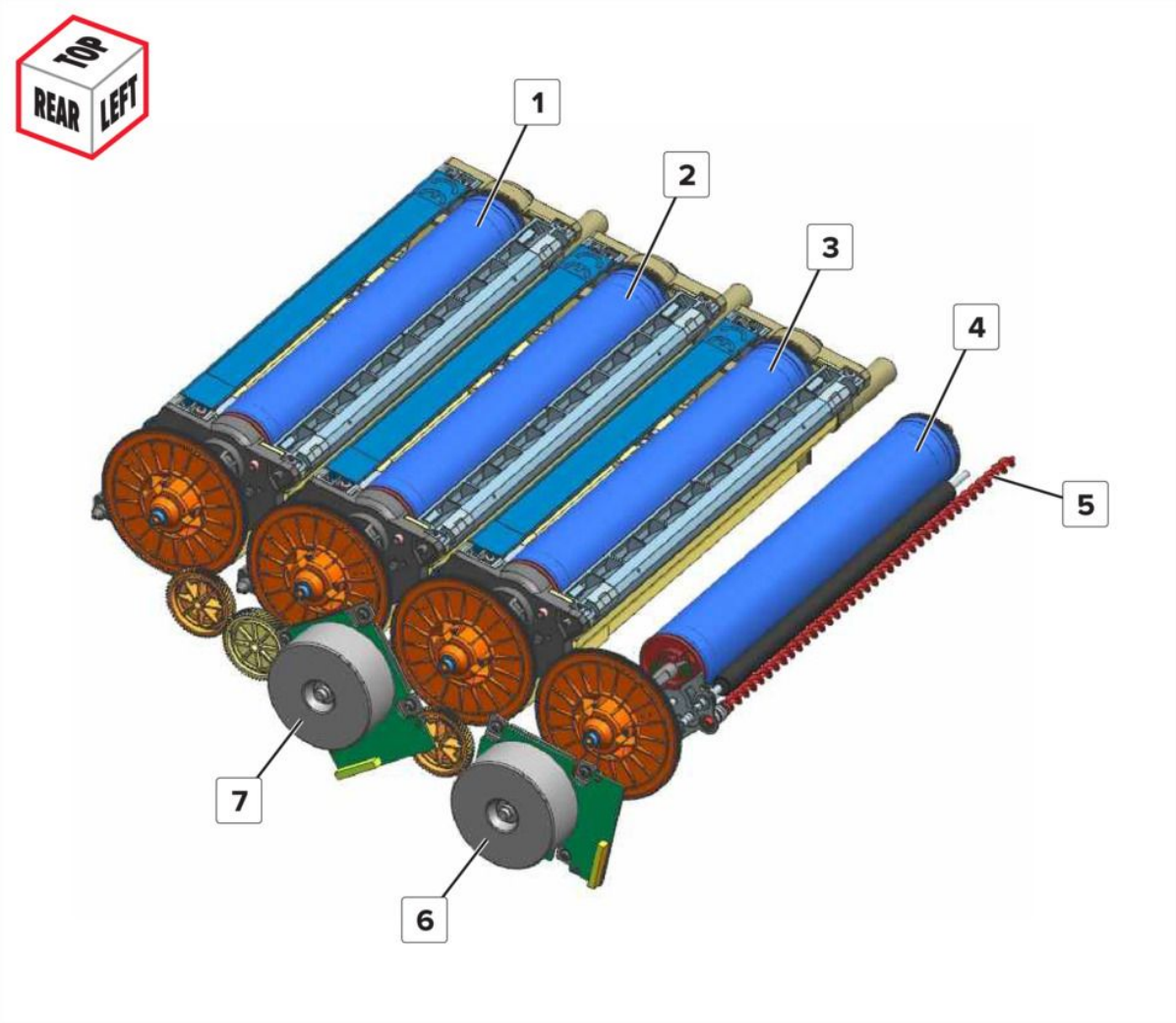
Developer drive



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.

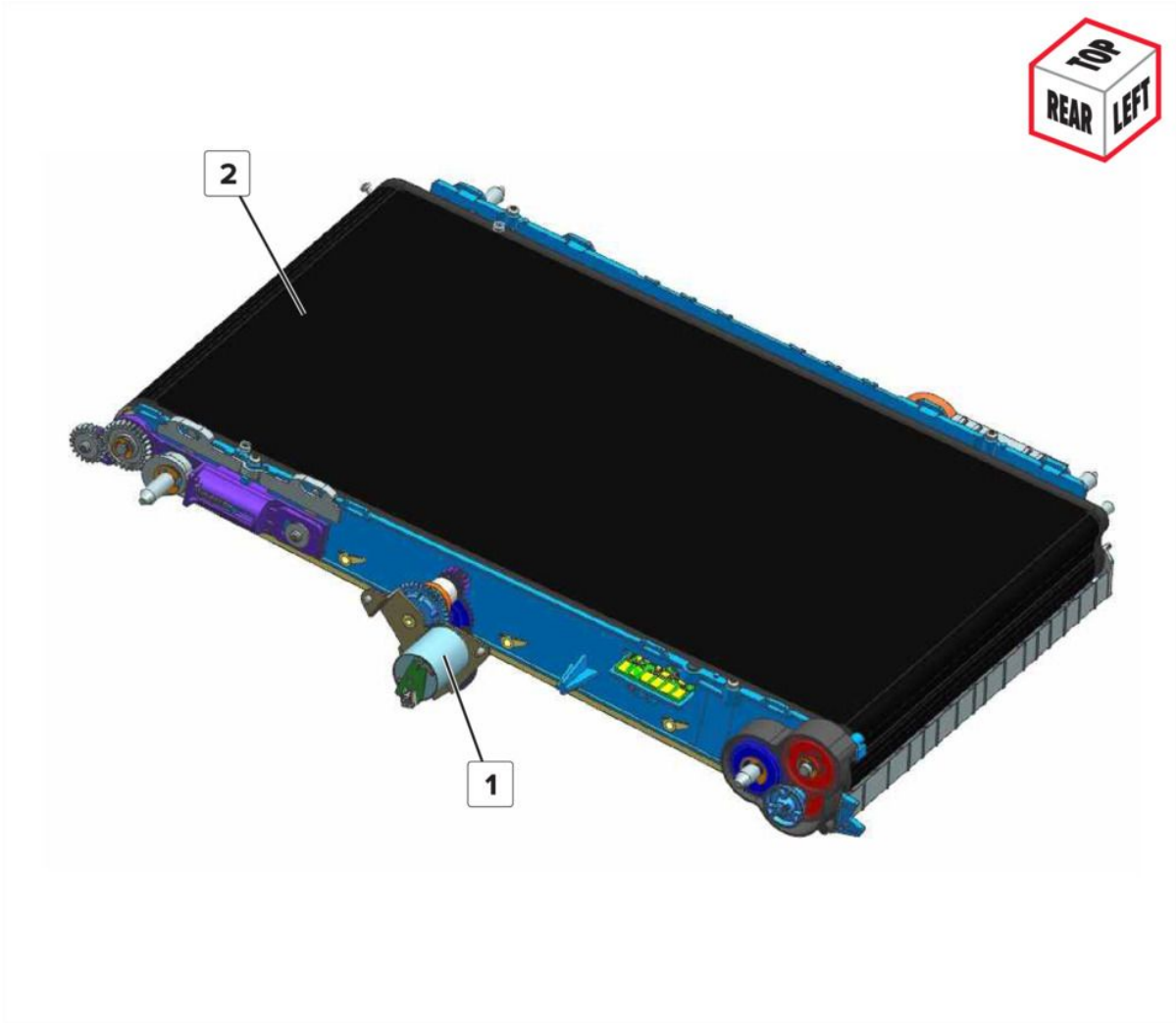
Photoconductor drive



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.

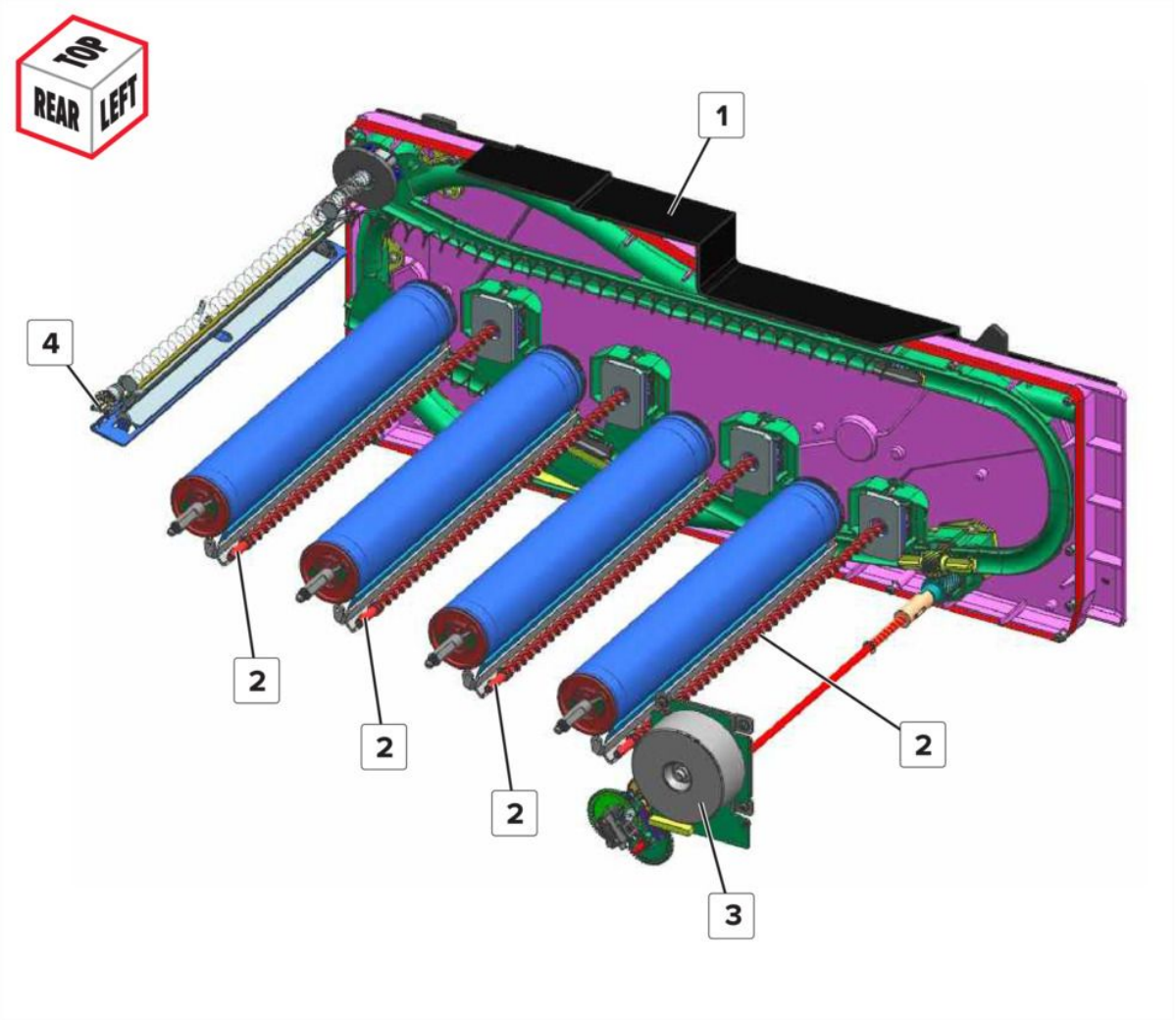
Black only retract (BOR) drive



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.

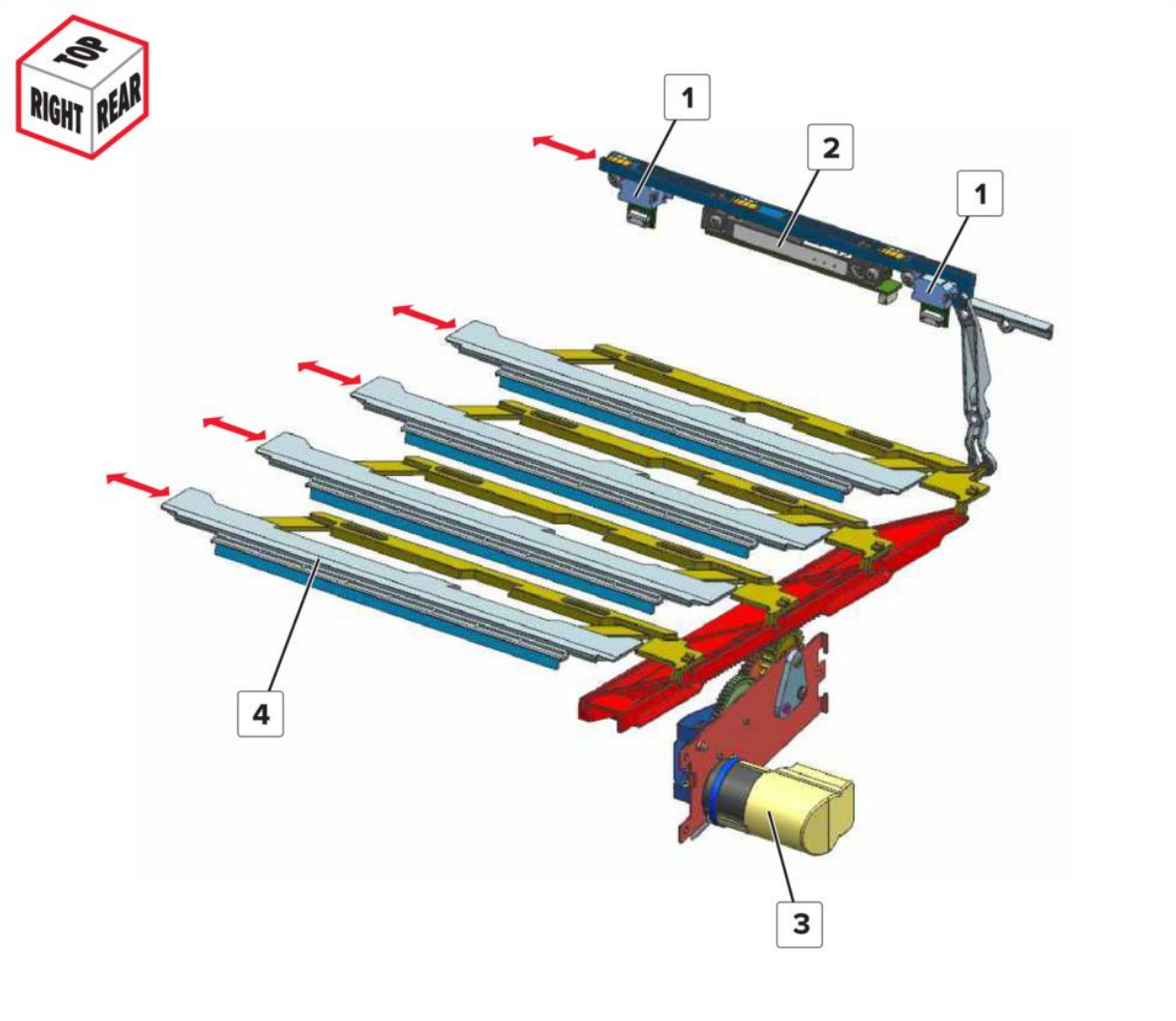
Waste toner delivery drive



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

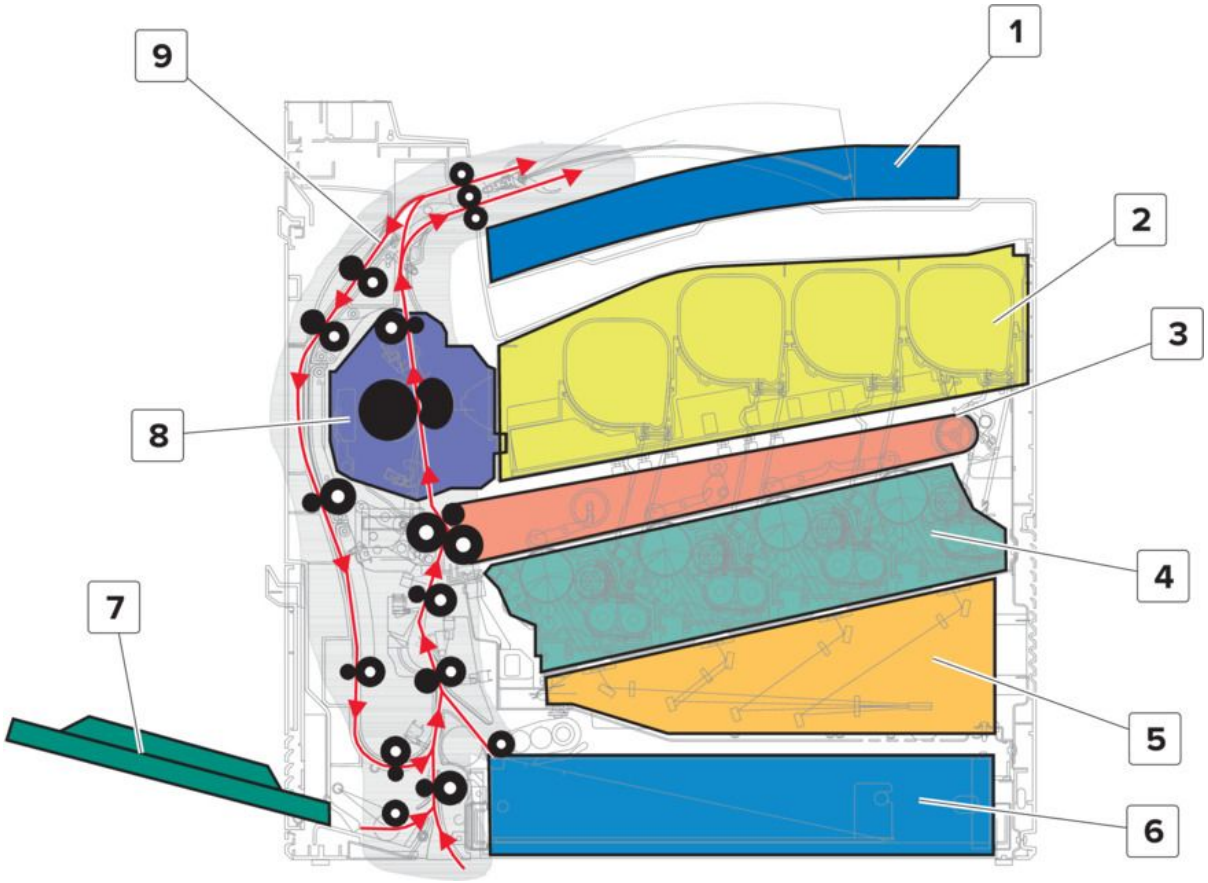
The printhead lenses are cleaned by wiper brushes so that they are free from contamination. At the same time, the sensor (TPS) and the sensors (auto alignment) are also cleaned.

> **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

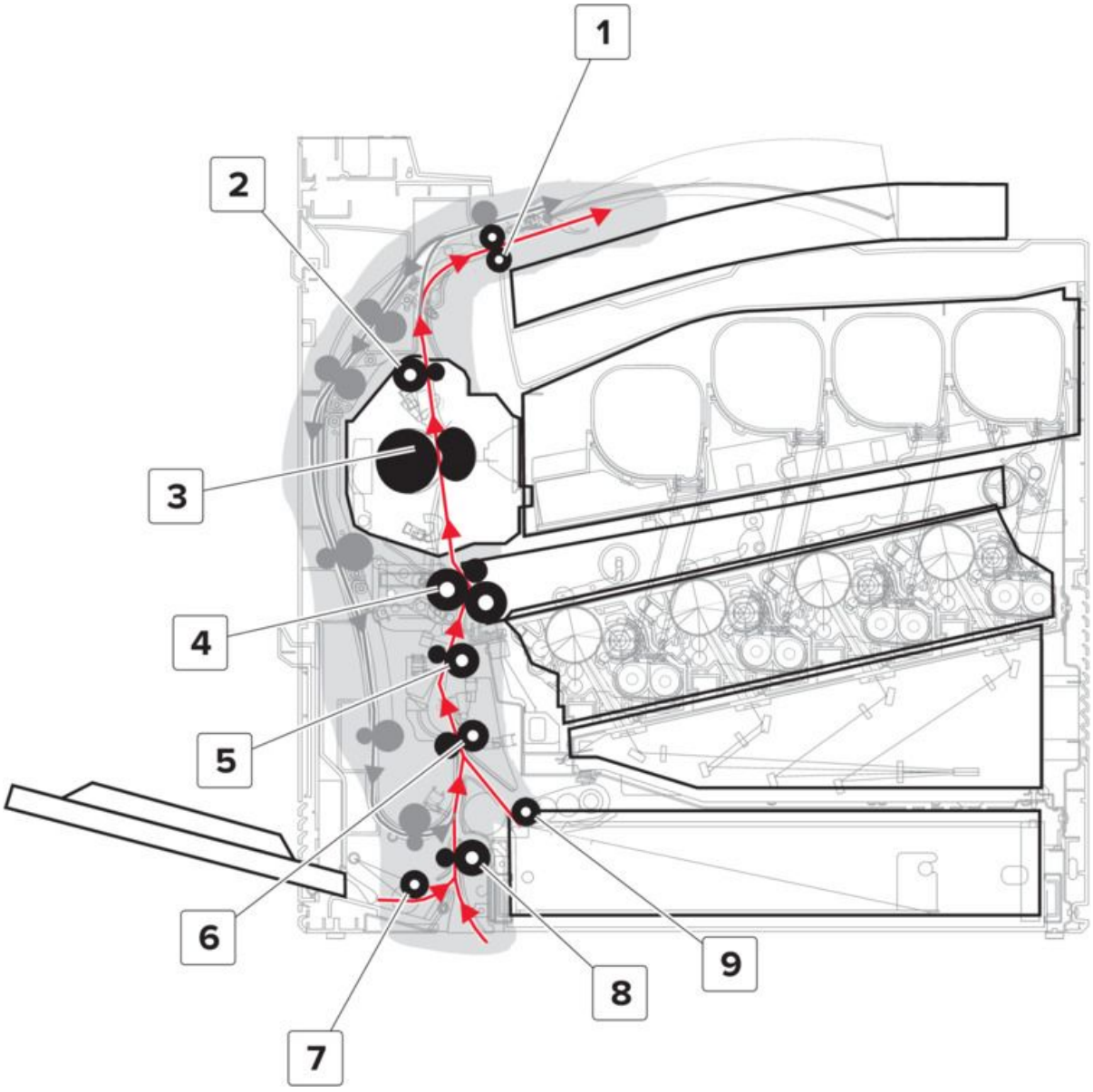
Printer sections



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

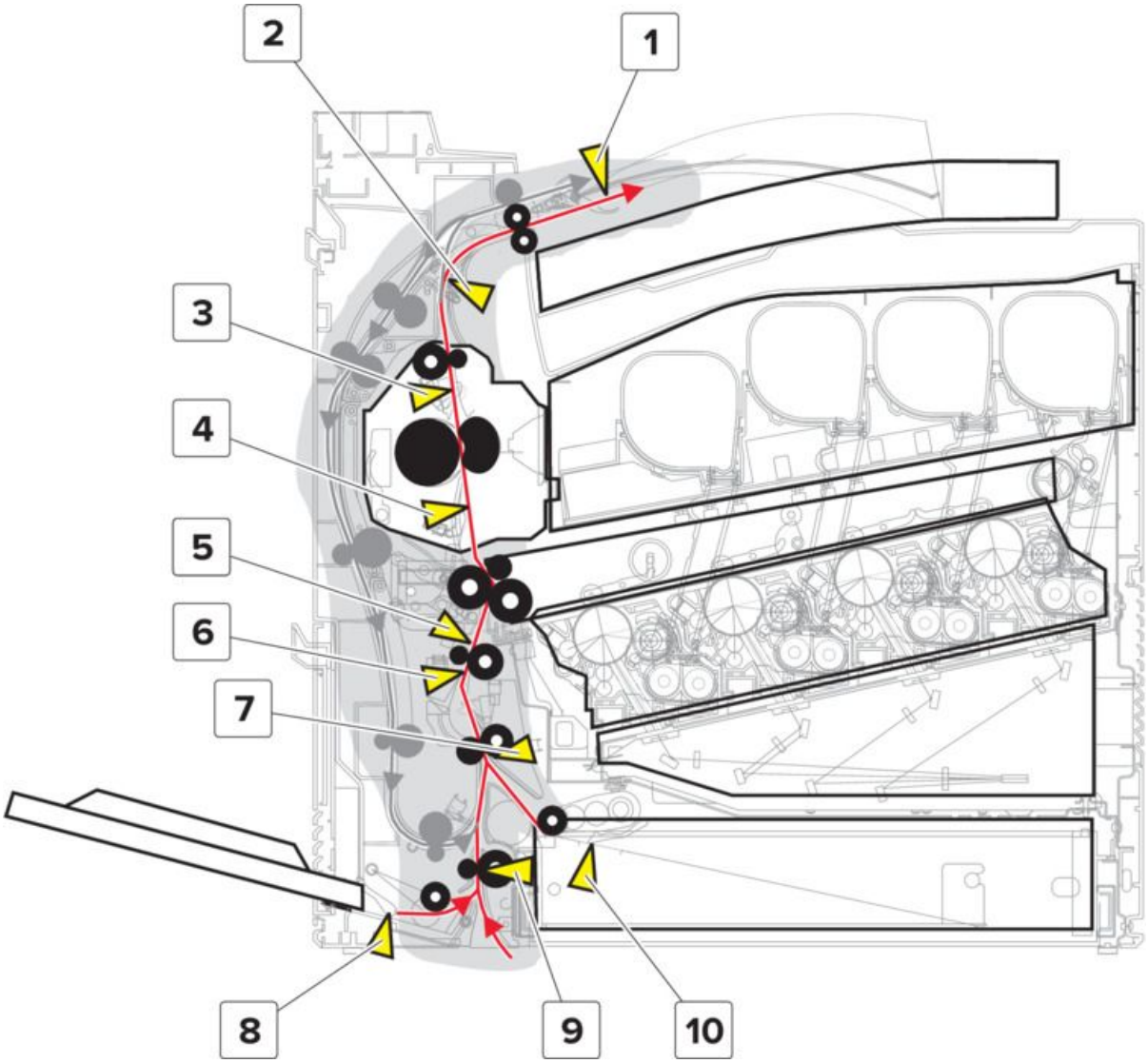
1	Duplex exit roller
2	Duplex path rollers
3	Isolation roller

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

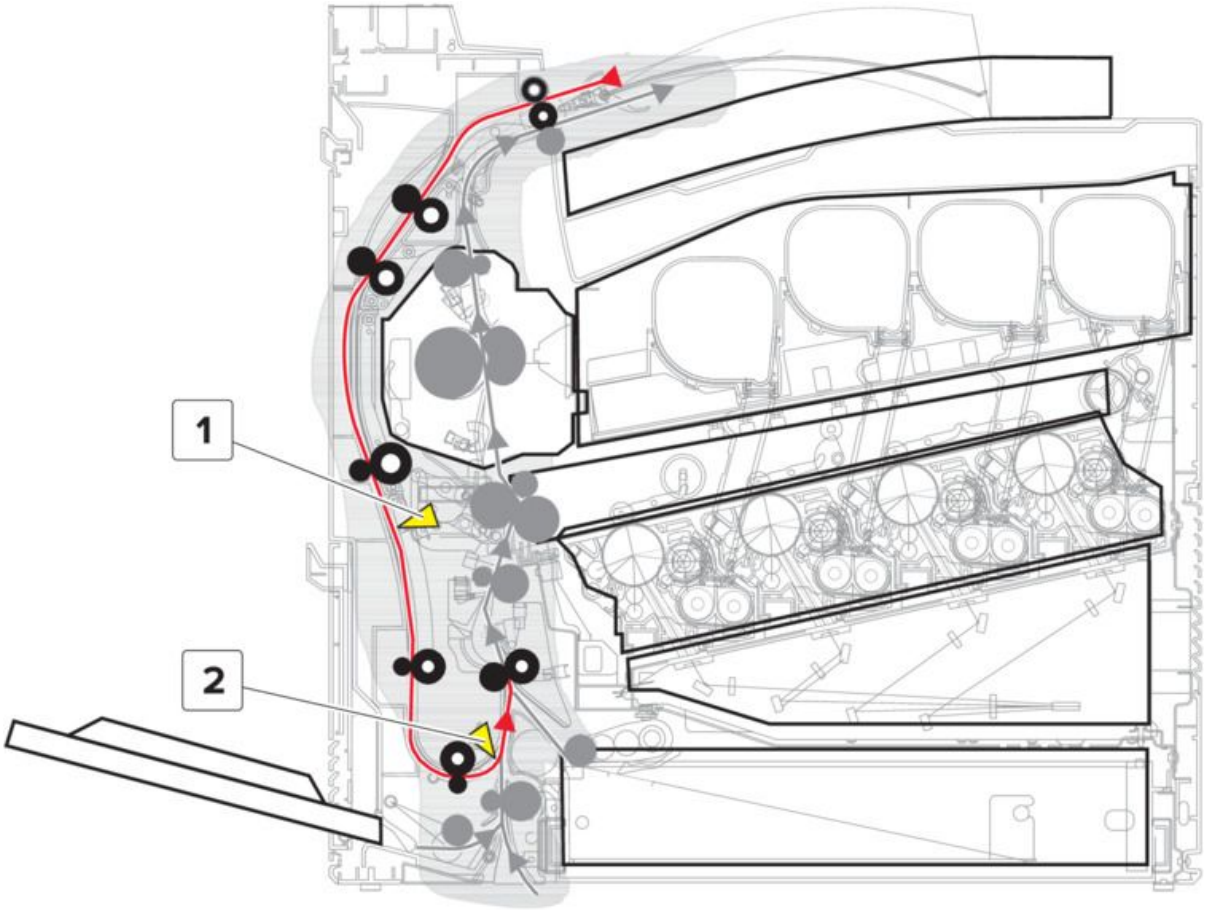
Standard print job



#	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.

#	Sensor	Function
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.

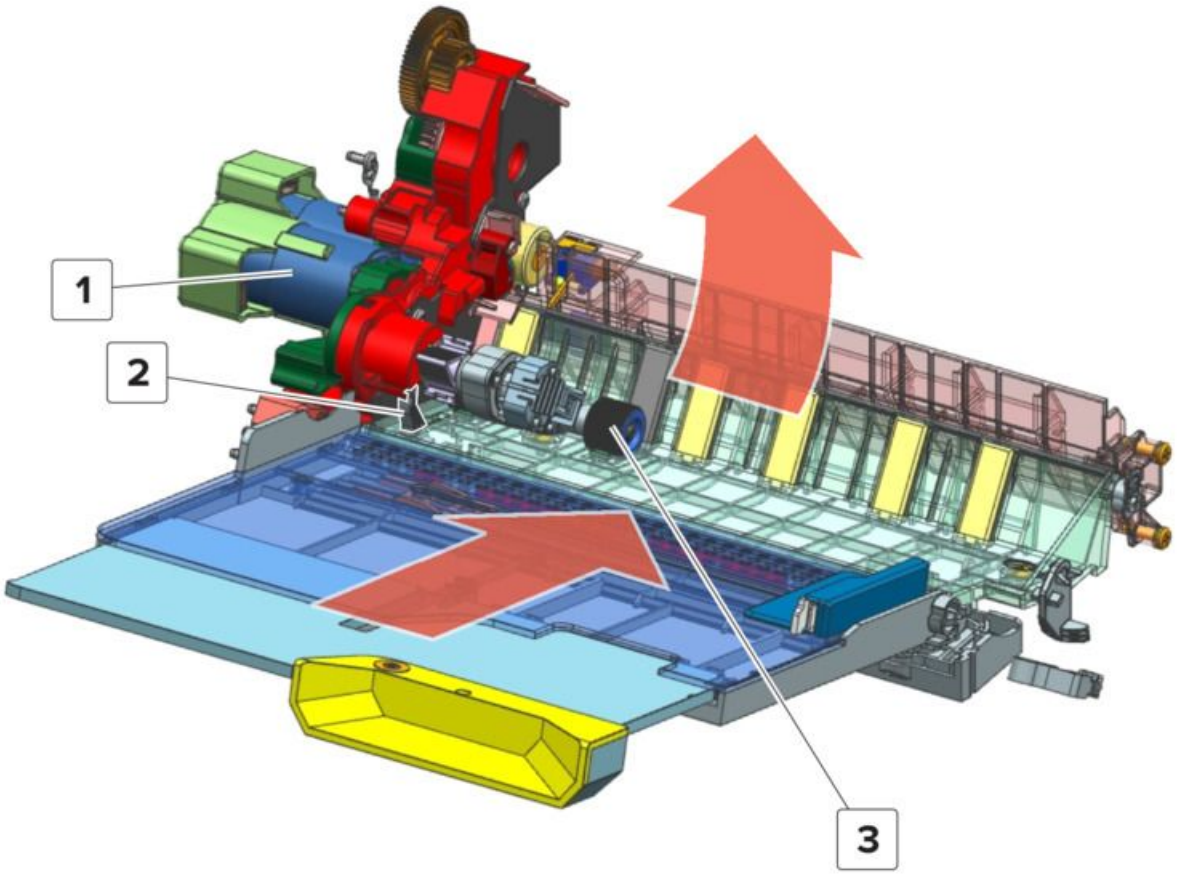
Duplex print job



1	Sensor (duplex path 1)
2	Sensor (duplex path 2)

Two sensors detect the paper traveling along the duplex path.

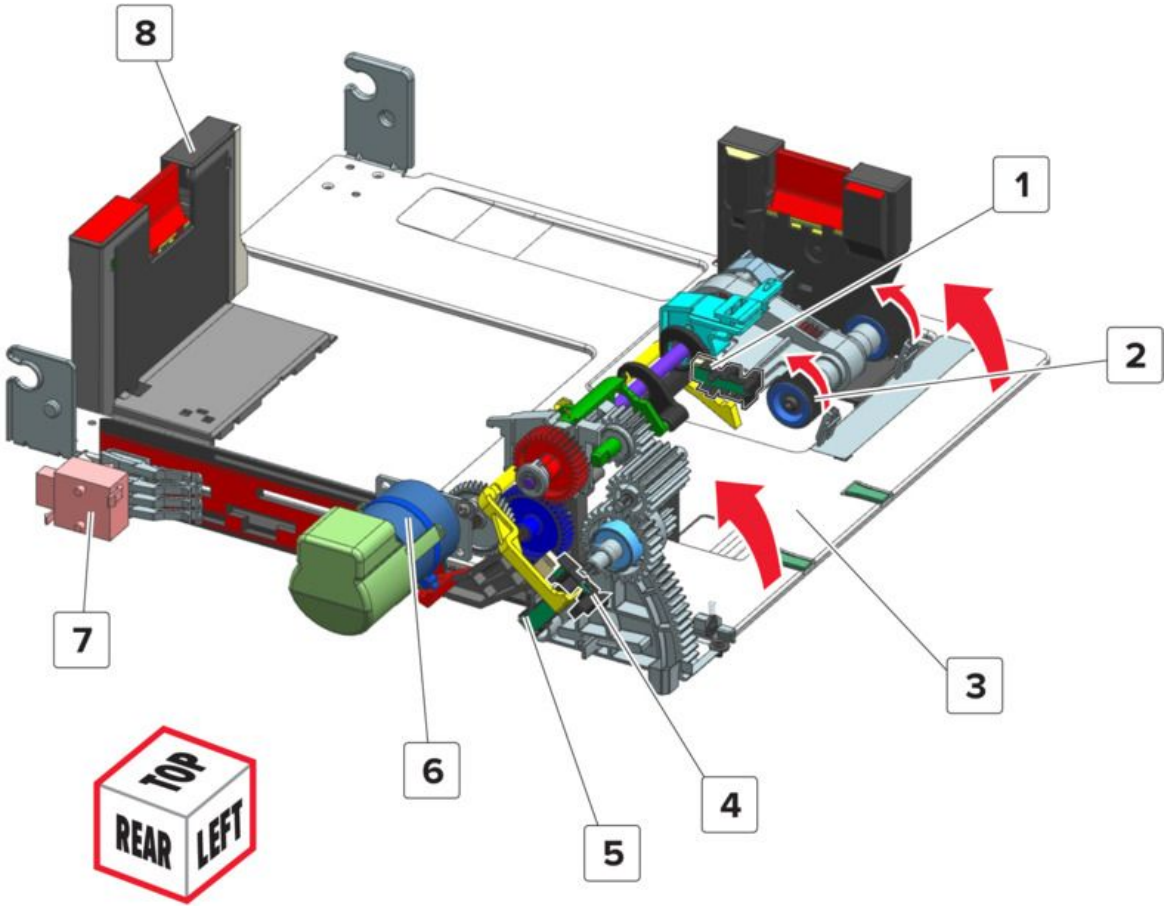
MPF pick drive



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.

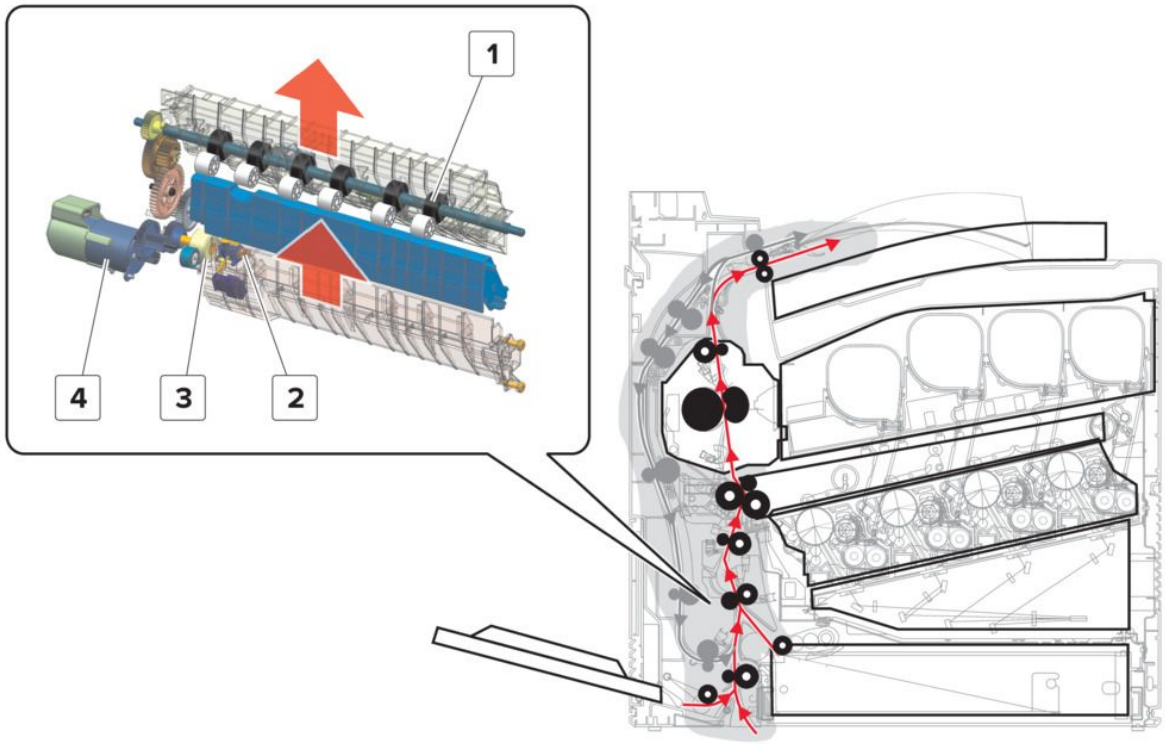
Tray 1 lift and pick drive



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.

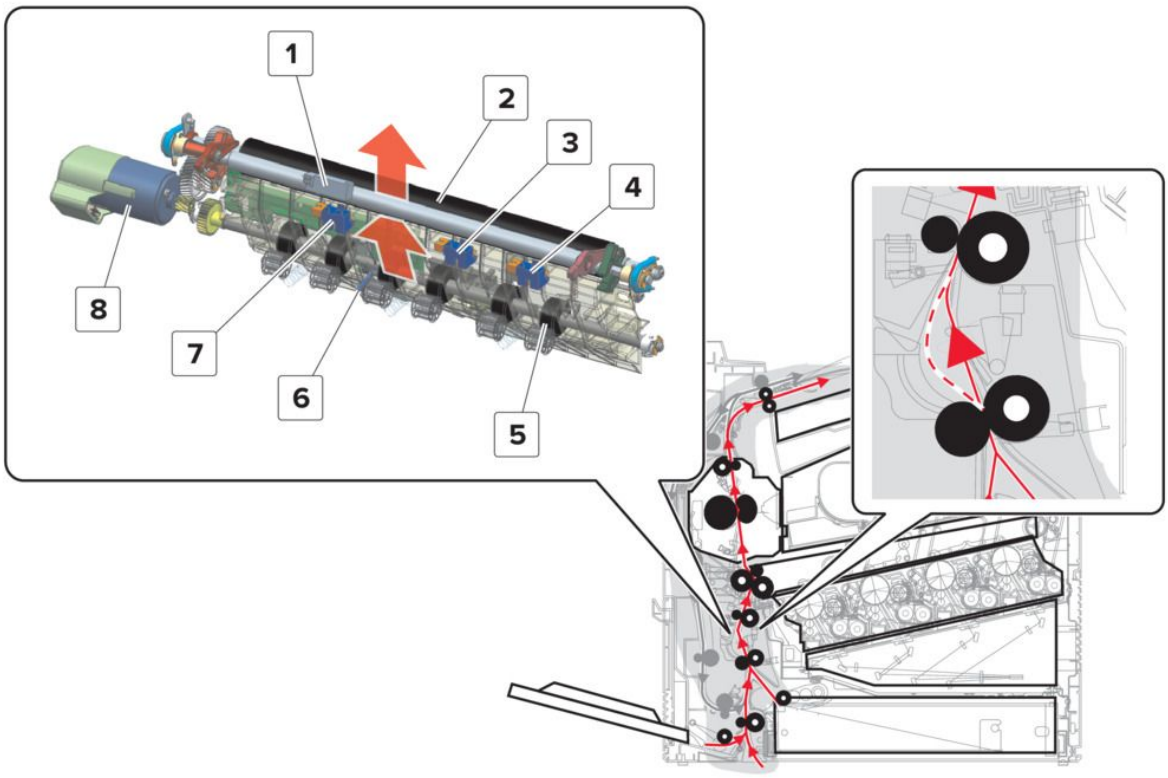
MPF/pass-through and isolation drive



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.

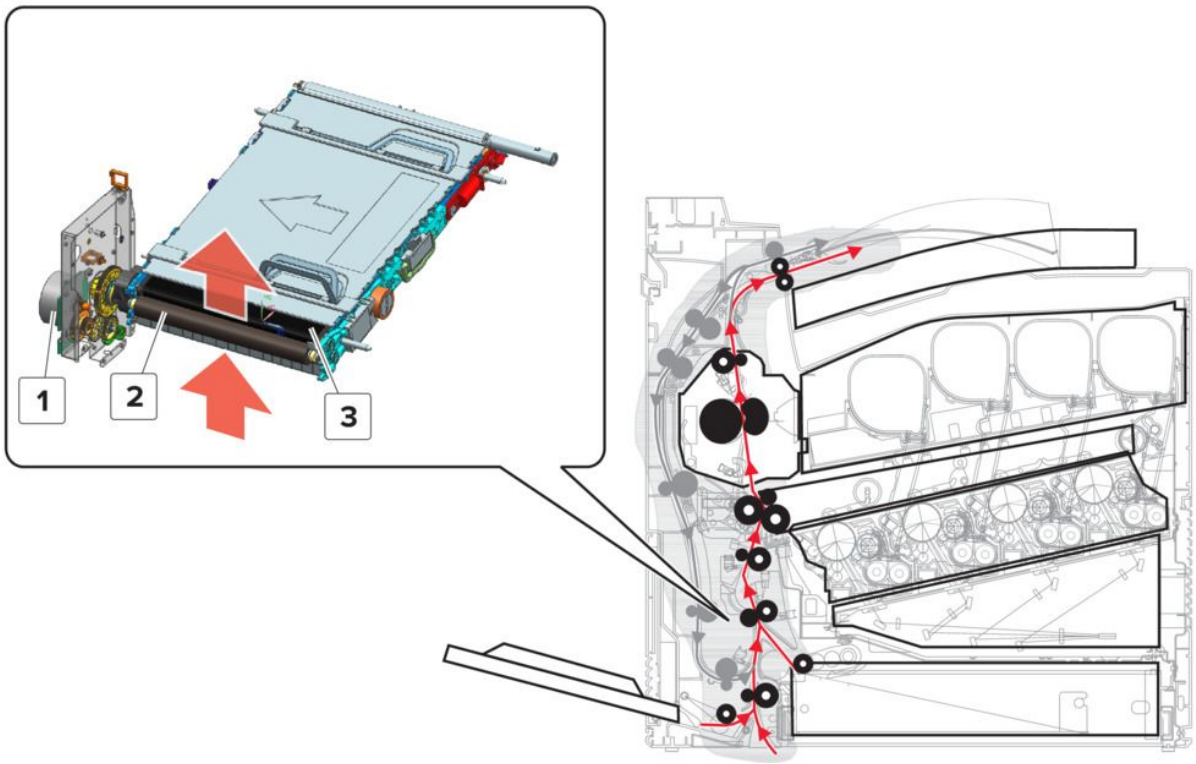
Registration drive



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.

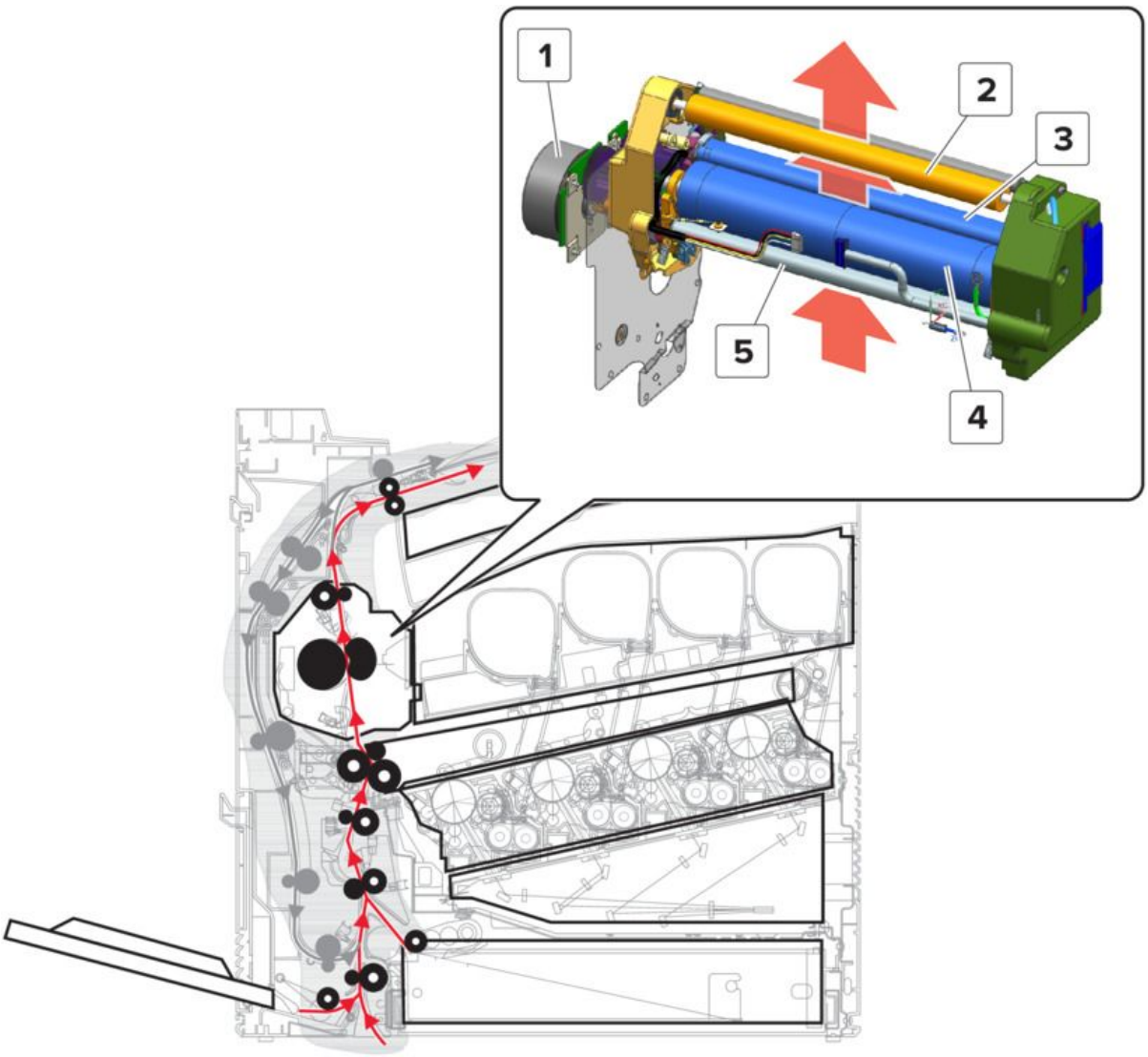
Transfer belt drive



1	Motor (transfer belt)
2	2nd transfer roller
3	Transfer belt

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.

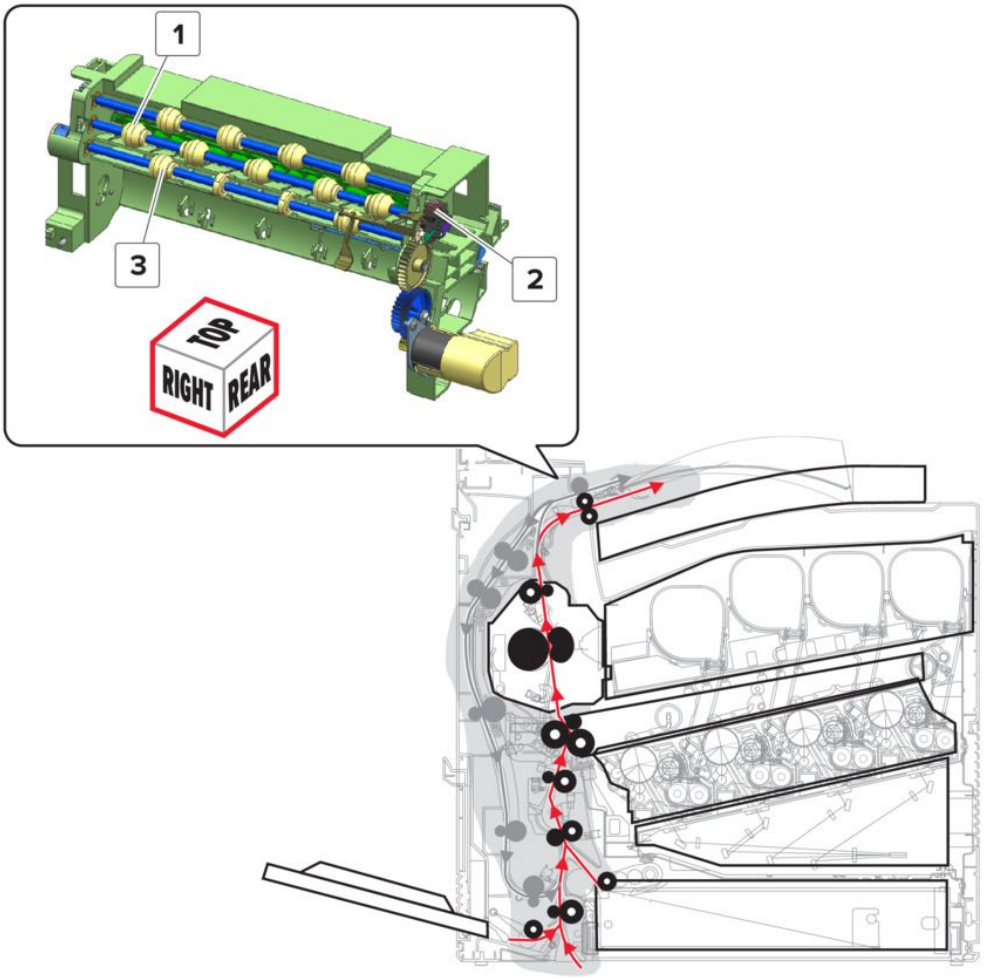
Fuser drive



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

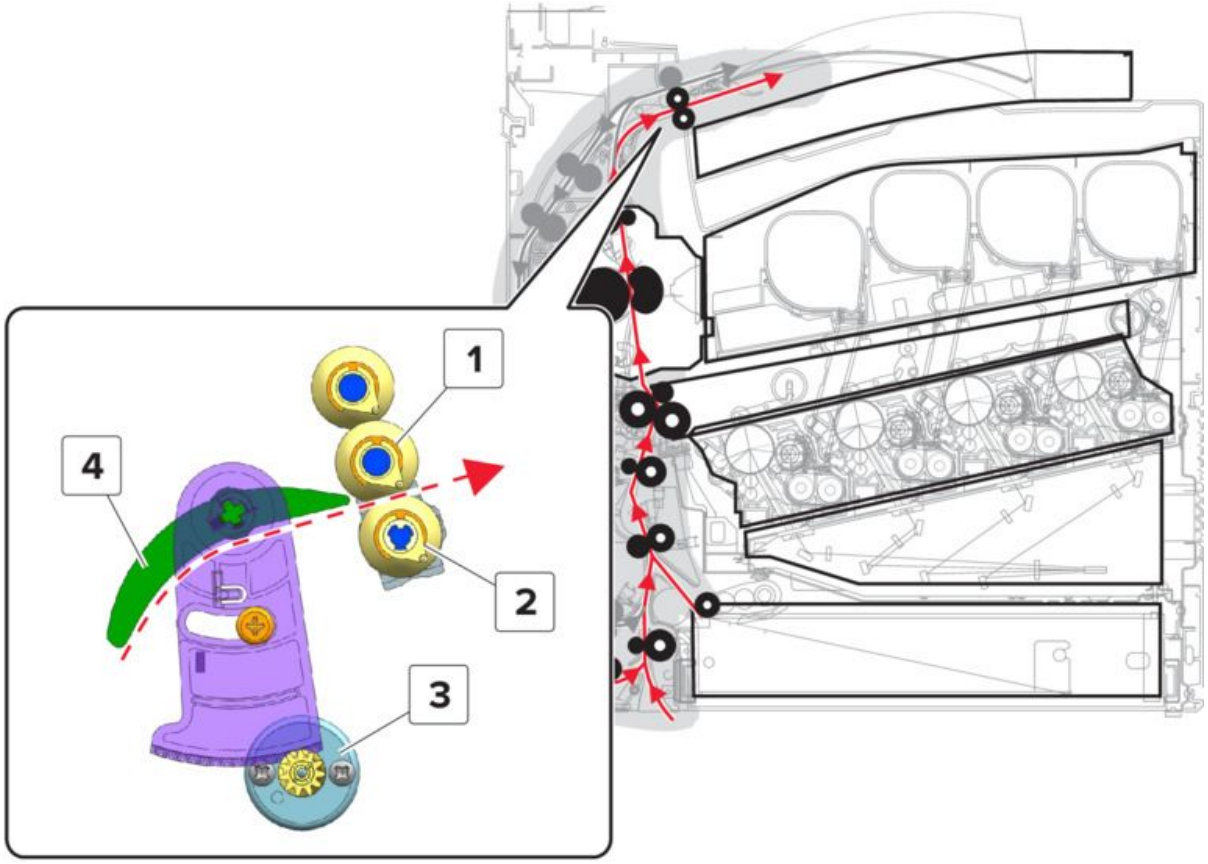


1	Duplex exit roller
2	Sensor (bin full)
3	Media exit roller

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

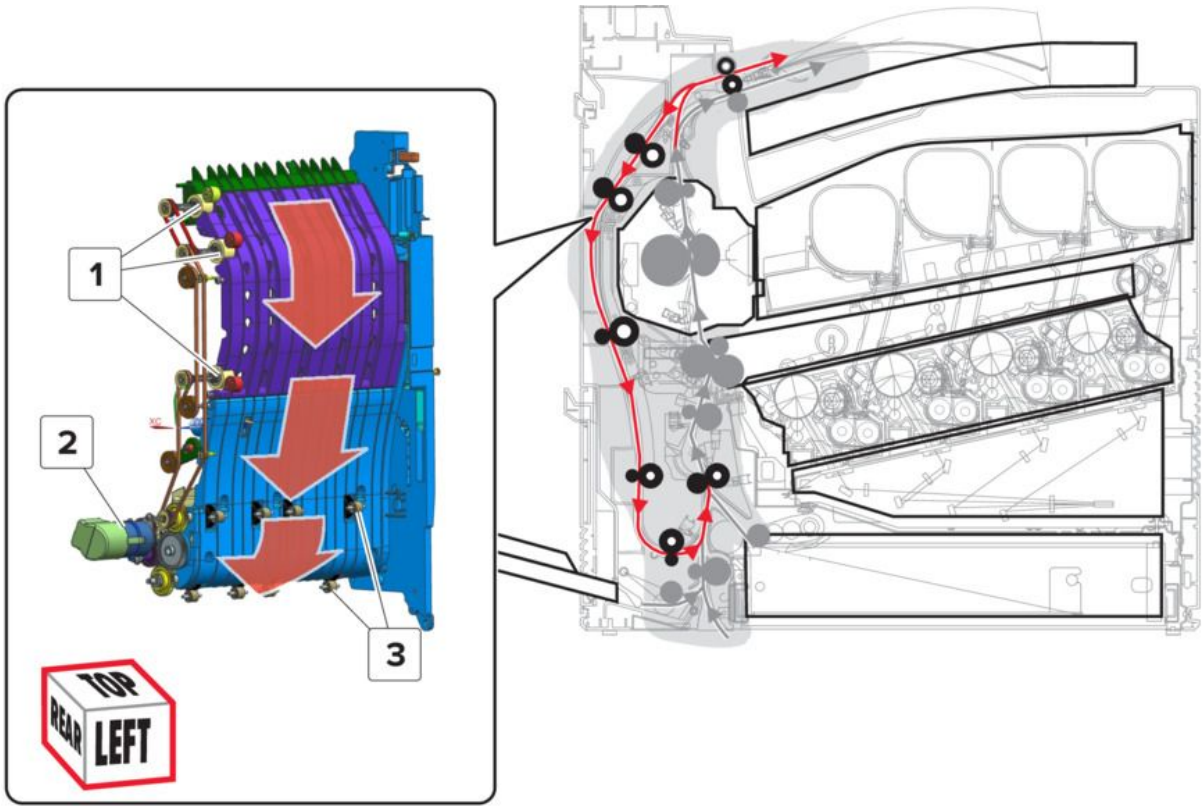
1	Duplex exit roller
2	Media exit roller
3	Motor (duplex diverter)
4	Duplex diverter

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

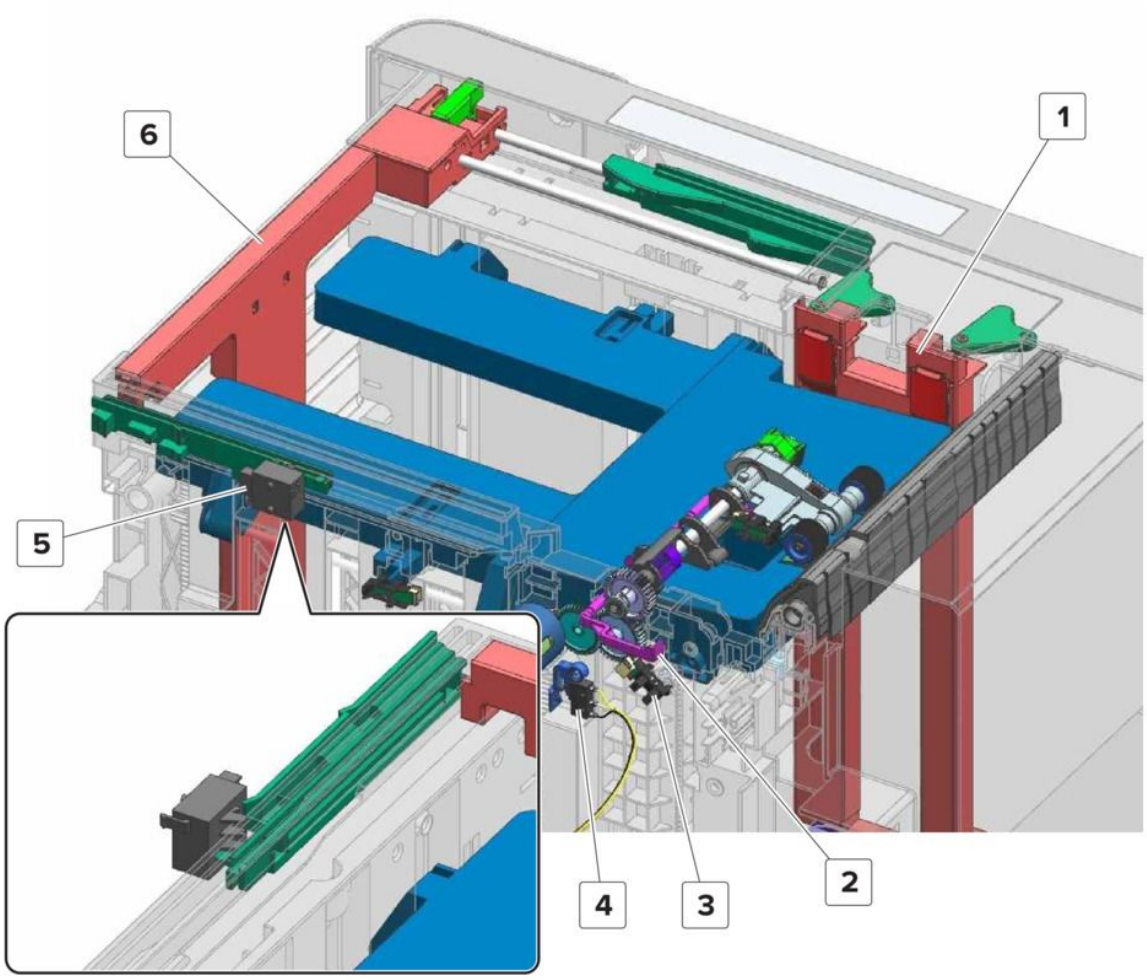


1	Upper duplex path rollers
2	Motor (duplex)
3	Lower duplex path rollers

Paper fed from the duplex exit roller travels along the duplex path rollers and reenters the isolation roller.
The motor (duplex) drives the rollers.

2200-sheet tray operation

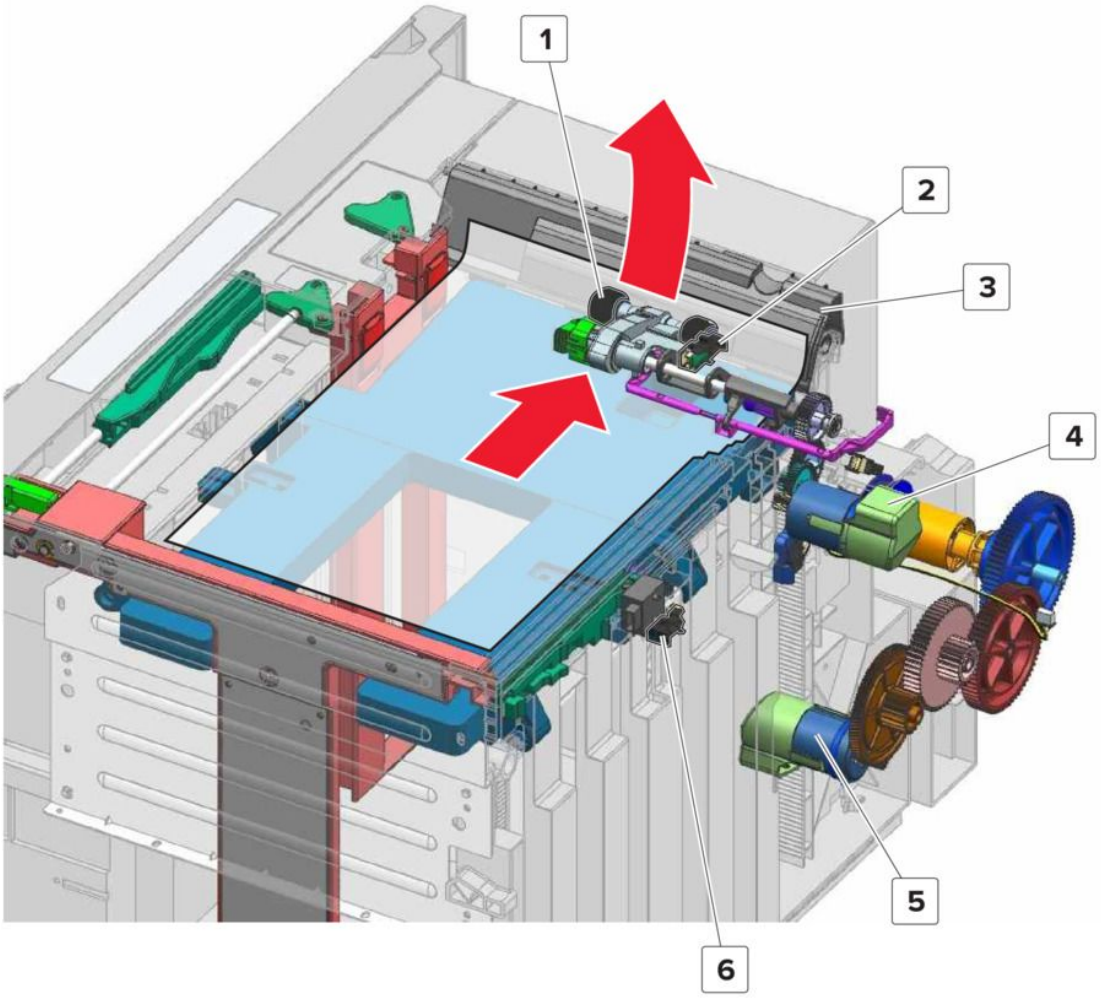
Paper presence and size detection



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

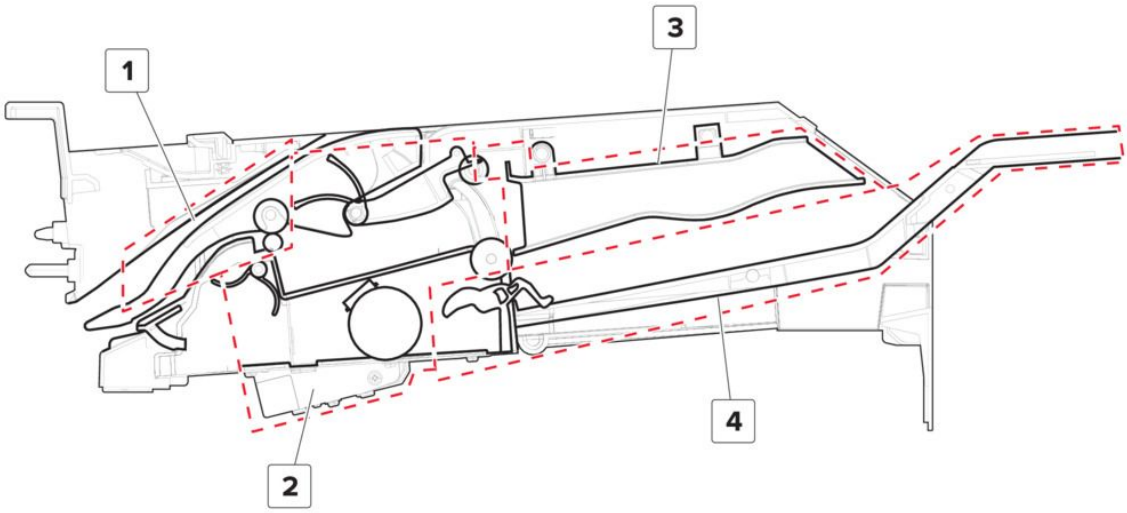


1	2200-sheet tray pick roller
2	Sensor (2200-sheet tray pick roller index)
3	2200-sheet tray separator pad
4	Motor (2200-sheet tray pick)
5	Motor (2200-sheet tray lift)
6	Sensor (2200-sheet tray media low)

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.

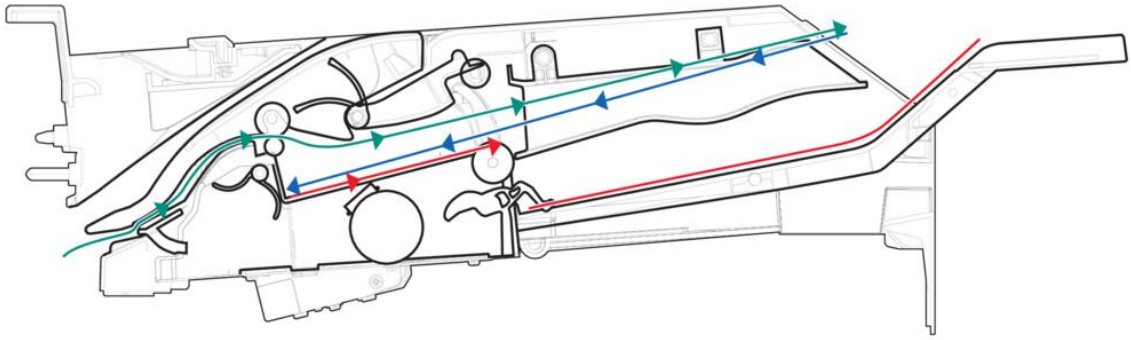
Staple finisher operation

Staple finisher sections



1	Feed section
2	Compiler section
3	Tamper section
4	Bin section

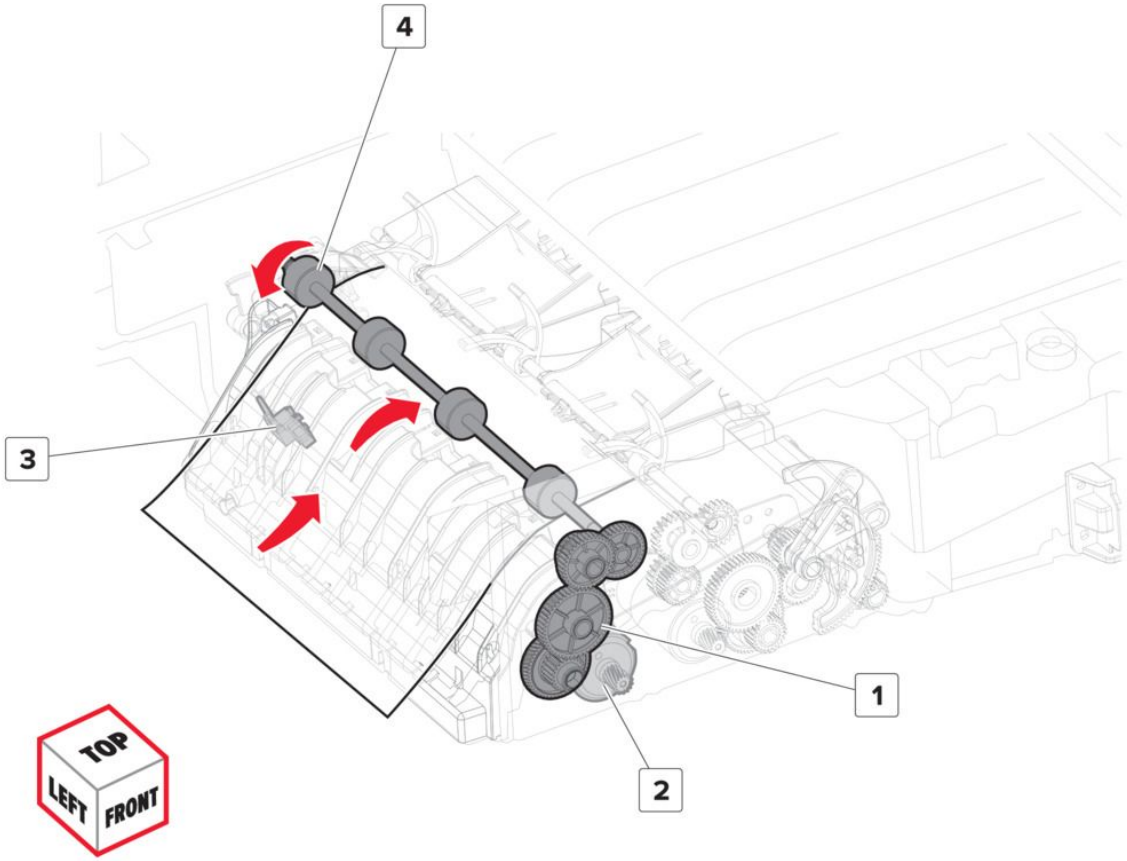
Paper path



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.

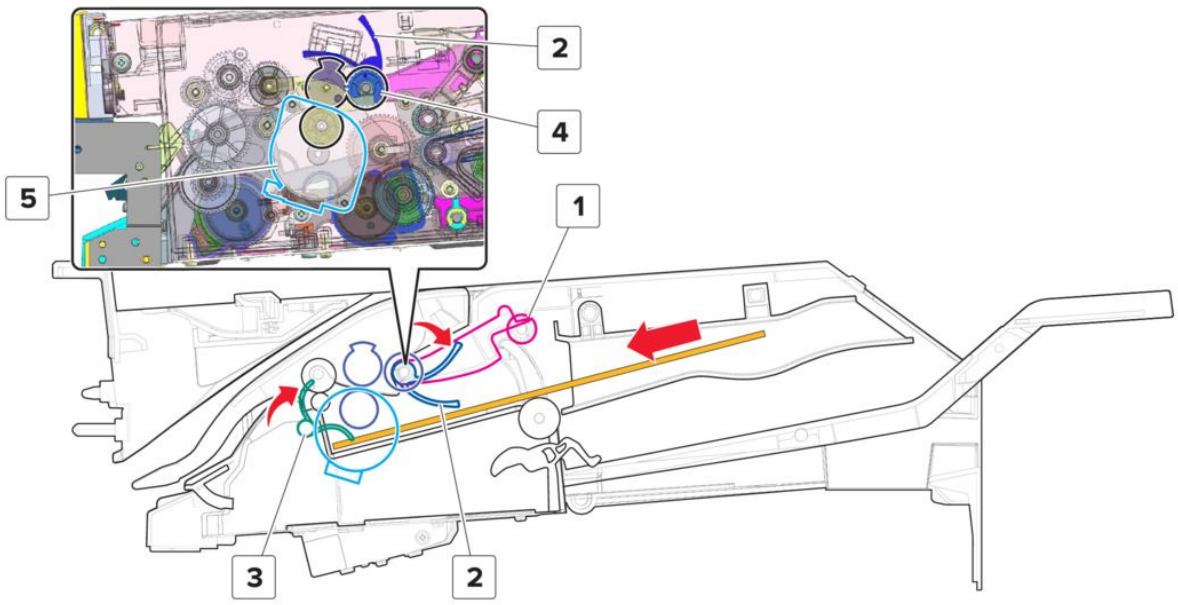
Staple finisher feed section



1	Transport gears
2	Motor (staple finisher transport)
3	Sensor (staple finisher transport)
4	Transport roller

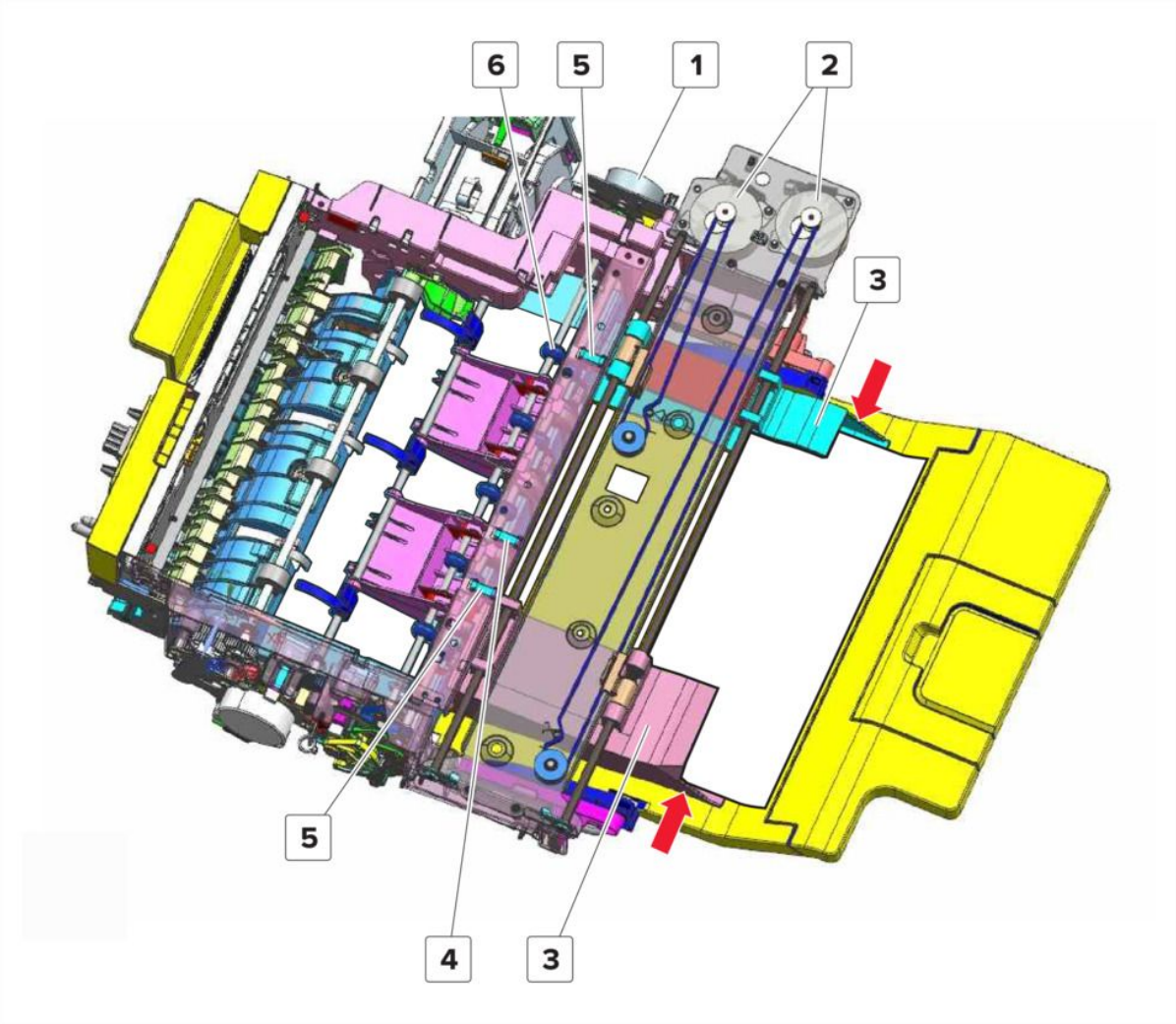
The feed section receives the paper from the printer, and the sensor (staple finisher transport) detects the paper entering the finisher. The motor (staple finisher transport) drives the transport roller to feed the paper to the compiler section.

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)

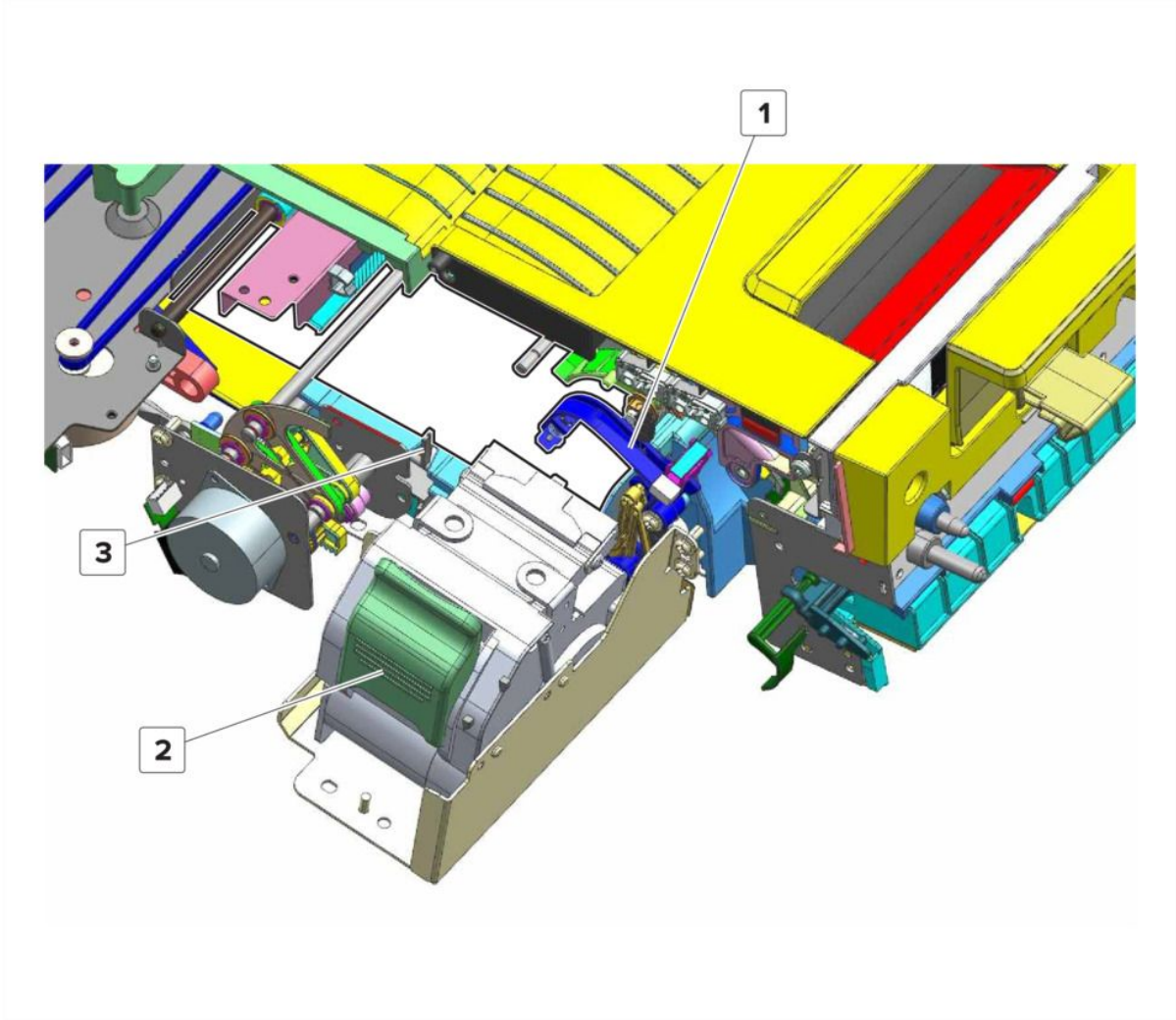
As the paper enters the compiler section, the motor (staple finisher aligner paddle) drives the aligner paddles. These paddles push the paper to the compiler wall, aligning the short edge. The decurl paddles rotate to push the paper on the compiler tray.



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.

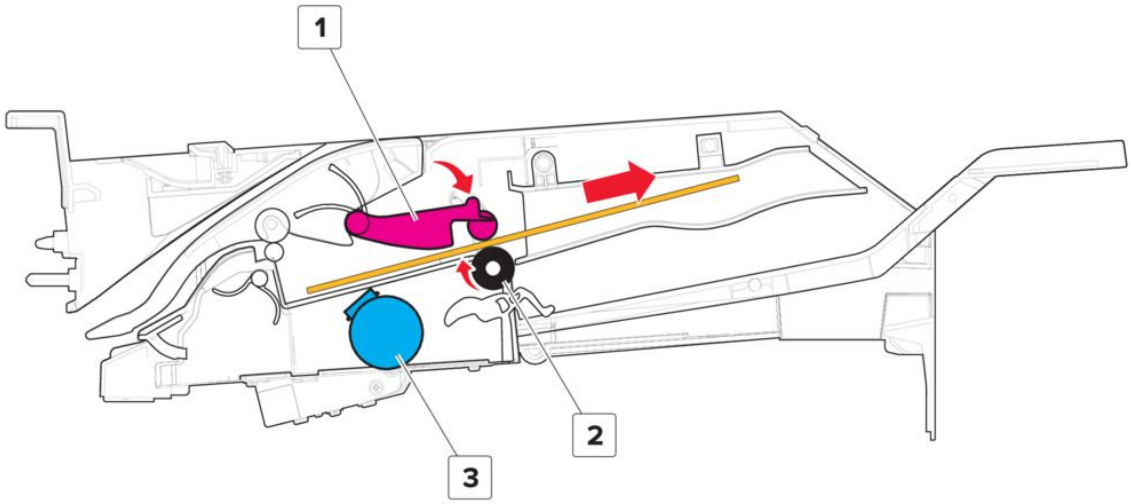
Offset and stapling operation



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.

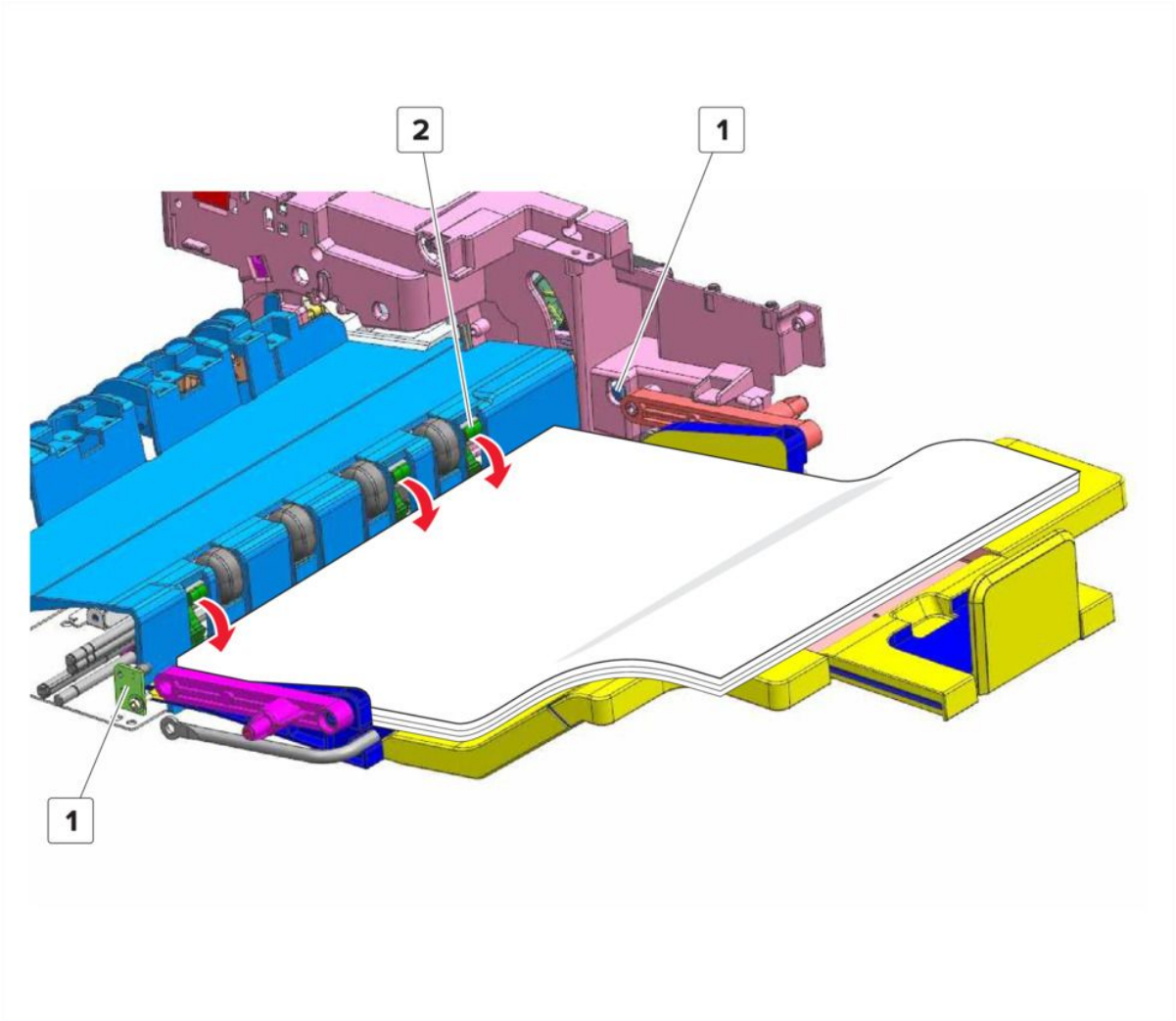
Compiler section exit



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.

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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