CS923 Printer

5059-530

Service Manual

June 27, 2021

www.lexmark.com

P/N 12G3432

Product information

Product name:
Lexmark CS923 printer

Machine type:
5059

Model(s):
530

Edition notice

June 27, 2021

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P/N 12G3432

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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 25 milliwatts operating in the wavelength region of 770–800 or 775–800 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 25 milliwatts fonctionnant dans la plage de longueurs d'onde allant de 770 à 800 ou de 775 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 25 miliwatts, que funciona a la regió de longitud d'ona de 770 a 800 o de 775 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 25 milivatios en una longitud de onda de 770–800 o 775–800 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 25 miliwatts no comprimento de onda de 770 -800 ou 775-800 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 25 milliwatt, funzionante nella regione della lunghezza d'onda dei 770-800 o 775-800 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 25 milliwatt in een golflengtebereik van 770–800 of 775–800 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 I (1) laserprodukter og er andre steder certificeret som et klasse I-laserprodukt i henhold til kravene i IEC 60825-1: 2014.

Klasse I-laserprodukter anses ikke som farlige. Printeren indeholder internt en Klasse IIIb (3b) AlGaAslaser, der nominelt er en 25 milliwatt laser, som fungerer i bølgelængdeområdet 770-800 eller 775–800 nanometer og indbygget i en printhovedenhed, der ikke kan serviceres. 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 DIN EN 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 25 Milliwatt, der im Wellenlängenbereich von 770–800 oder 775–800 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 25 mW, joka toimii 770–800 tai 775–800 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 25 milliwatt, som opererer i bølgelengder på 770–800 eller 775–800 nanometer, inni 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 25 mW som arbetar inom en våglängd på 770–800 eller 775–800 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、770 ～ 800 または 775 ～ 800 ナノメートルの波長で、定格 25 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 770~800 또는 775~800 나노미터 범위의 파장 영역에서 공칭 작동하는 25밀리와트 AlGaAs 레이저인 클래스 IIIb(3b) 레이저가 서비스 불가 프린트헤드 어셈블리에 내장되어 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** 25 毫瓦，其工作波**长**范**围**在 770–800 或 775-800nm 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 770 至 800 或 775 至 800 奈米 (nanometer) 波長範圍**內**運作時通常為 25 毫瓦特 (milliwatt)，且含括在不可修復列印頭組件中。 使用者只要以正確的方法操作及維護保養，並依照先前所述之維修方式進行修護，此印表機與其雷射系統**絕**不會**產**生 I 級以上的放射線，而對人體造成傷害。

Conventions

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

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

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

Different types of caution statements include:

CAUTION—POTENTIAL INJURY: Indicates a risk of injury.

CAUTION—SHOCK HAZARD: Indicates a risk of electrical shock.

CAUTION—HOT SURFACE: Indicates a risk of burn if touched.

CAUTION—TIPPING HAZARD: Indicates a crush hazard.

CAUTION—PINCH HAZARD: Indicates a risk of being caught between moving parts.

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

Symbols used in this machine

 —On

 —Off

 —Standy

 —Ground/earth (Protective bonding terminal)

 —Ground/earth (Protective earthing)

 —Class II equipment

 —Class II equipment with functional earthing

 —Functional earthing

 —Electrostatic discharge (ESD) sensitivity

Safety information

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

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

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

Consignes de sécurité

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

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

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

Informació de seguretat

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

PRECAUCIÓ. PERILL DE DESCÀRREGA ELÈCTRICA: Quan vegeu aquest símbol, indica que hi ha un perill de voltatge elevat en l'àrea del producte on esteu treballant. Desconnecteu el producte abans de començar o tingueu precaució si el producte ha de rebre alimentació per realitzar la tasca.

PRECAUCIÓ. POSSIBLES DANYS: La bateria de liti d'aquest producte no ha estat dissenyada perquè se substitueixi. Hi ha perill d'explosió si no es substitueix correctament la bateria de liti. No recarregueu, desmunteu o incinereu una bateria de liti. Desfeu-vos de les bateries de liti usades d'acord amb les instruccions del fabricant i les regulacions locals.

Información de seguridad

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

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

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

Informações sobre segurança

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

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

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

Informazioni sulla sicurezza

- La sicurezza di questo prodotto è basata sui test e sulle approvazioni del design originale e dei componenti specifici. Il produttore non è responsabile della sicurezza in caso di utilizzo di parti di ricambio non autorizzate.
- Le informazioni di manutenzione per questo prodotto sono state predisposte per essere utilizzate da un tecnico dell'assistenza professionale e non sono state previste per l'uso da parte di altre persone.
- È possibile che vi sia un maggior rischio di scosse elettriche e lesioni personali durante lo smontaggio e la manutenzione di questo prodotto. Il personale dell'assistenza deve comprendere questo rischio e prendere le precauzioni necessarie.

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

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

Informatie over veiligheid

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

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

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

Sikkerhedsoplysninger

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

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

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

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.

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

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

Turvallisuusohjeet

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

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

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

Sikkerhetsinformasjon

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

FORSIKTIG – FARE FOR STØT: Dette symbolet betyr at det er fare for farlig spenning i det området av produktet der du arbeider. Koble fra produktet før du begynner, eller vær forsiktig hvis produktet må ha strøm for å kunne utføre oppgaven.

FORSIKTIG – POTENSIELLE SKADER: Litiumbatteriet i dette produktet er ikke beregnet for å byttes. Det er fare for eksplosjon hvis litiumbatteriet skiftes ut på feil måte. Ikke lad opp, demonter eller destruer et litiumbatteri. Kast brukte litiumbatterier i henhold til produsentens instruksjoner og lokale regelverk.

Säkerhetsinformation

- Säkerheten för denna produkt baseras på tester och godkännanden av ursprungsdesignen och av specifika komponenter. Tillverkaren har inget ansvar vid användning av 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.

VAR FÖRSIKTIG– RISK FÖR ELEKTRISK STÖT: När du ser denna symbol är det risk att det finns farlig spänning i den del av produkten du arbetar med. Koppla från strömmen innan du börjar, eller var försiktig om produkten måste vara strömförsörjd för att uppgiften ska kunna utföras.

VAR FÖRSIKTIG – RISK FÖR SKADA: Litiumbatteriet i produkten är inte utbytbart. Om ett litiumbatteri byts ut på fel sätt finns det risk att det exploderar. Du får inte ladda om, ta isär eller elda upp ett litiumbatteri. Gör dig av med använda litiumbatterier enligt tillverkarens instruktioner och lokala föreskrifter.

安全情報

- 本製品の安全性は、本来の設計、特定コンポーネントの試験、承認に基づいています。承認されていない交換部品をお客様が使用した場合、メーカーは安全性に対して責任を負いません。
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안전 정보

- 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.
- 이 제품의 유지관리 정보는 전문 서비스 요원을 대상으로 하며 다른 사람은 사용할 수 없습니다.
- 제품 분해 및 서비스 중에는 감전 및 상해 위험이 증가할 수 있습니다. 전문 서비스 요원은 이와 같은 위험을 이해하고 필요한 예방 조치를 취해야 합니다.

주의—감전 위험: 이 기호가 표시된 경우 작업 중인 제품 주변에서 위험 전압 위험이 있습니다. 사용 전/후에 전원 코드를 뽑아 두시고 제품에서 작업을 수행하는 데 반드시 전원이 필요한 경우에는 주의하여 사용하십시오.

주의—상해 위험: 이 제품에 들어 있는 리튬 배터리는 교체할 수 없습니다. 리튬 배터리를 잘못 교체하면 폭발할 위험이 있습니다. 리튬 배터리를 충전, 분해하거나 불에 태우지 마십시오. 제조업체의 지침과 지역 규정에 따라 다 쓴 리튬 배터리를 폐기하십시오.

安全信息

- 本产品的安全性以原始设计和特定组件的测试和审批为基础。如果使用未经授权的替换部件，制造商不对安全性负责。
- 本产品的维护信息仅供专业服务人员使用，并不打算由其他人使用。
- 本产品在拆卸和维修时，遭受电击和人员受伤的危险性会增高。专业服务人员对这点必须有所了解，并采取必要的预防措施。

小心—电击危险：当您看到此符号时，在您工作的产品区域内存在危险电压的威胁。在您开始操作之前请拔掉产品电源，如果产品必须接收功率才能执行任务，请务必谨慎操作。

小心—可能的伤害：本产品中的锂电池不可更换。如果不正确更换锂电池，可能会有爆炸危险。不要再充电、拆解或焚烧锂电池。丢弃旧的锂电池时应按照制造商的指导及当地法规进行处理。

安全資訊

- 本產品安全性係以原始設計及特定元件之測試與核准為依據。如有使用未獲授權替換組件之情形者，製造商對安全性概不負責。
- 本產品之維護資訊僅供專業維修人員使用，而非預定由他人使用。
- 拆裝及維修本產品時，有可能造成電擊與人員損傷之危險。專業維修人員應瞭解前項危險並採取必要措施。

請當心—觸電危險：當您看到此符號時，表示您所在產品工作區有危險電壓。開始工作之前，請先拔掉產品電源線，若產品必須接上電源方能執行作業，用電時請務必小心。

請當心—潛在受傷危險性：本產品中的鋰電池原本並不需要予以更換。若未正確更換鋰電池，可能會有爆炸的危險。請勿將鋰電池充電、拆裝或焚燒。請遵照製造商的指示及當地法規，丟棄用過的電池。

General caution statements

CAUTION—POTENTIAL INJURY: To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

⚠ **CAUTION—POTENTIAL INJURY:** To avoid the risk of fire or electrical shock, use only the power cord provided with this product or the manufacturer's authorized replacement.

⚠ **CAUTION—POTENTIAL INJURY:** Do not use this product with extension cords, multioutlet power strips, multioutlet extenders, or UPS devices. The power capacity of these types of accessories can be easily overloaded by a laser printer and may result in a risk of fire, property damage, or poor printer performance.

⚠ **CAUTION—POTENTIAL INJURY:** Only a Lexmark Inline Surge Protector that is properly connected between the printer and the power cord provided with the printer may be used with this product. The use of non-Lexmark surge protection devices may result in a risk of fire, property damage, or poor printer performance.

Change history

Change history

June 28, 2021

- Updated the User attendance messages topic in the Diagnostics and troubleshooting chapter.
- Added the Hard disk failure service check topic in the Diagnostics and troubleshooting chapter. See **“Hard disk failure service check” on page 187**.
- Added the 900 error service check topic in the Diagnostics and troubleshooting chapter. See **“900 error service check” on page 261**.
- Replaced the System software error service check with the 900 error service check topic in the Diagnostics and troubleshooting chapter.
- Updated the Critical information for controller board or control panel replacement topic in the Parts removal chapter. See **“Critical information for controller board or control panel replacement” on page 317**.

December 1, 2020

- Added PN 41X0997 in the Parts catalog chapter.

November 22, 2020

- Updated the following topics in the Diagnostics and troubleshooting chapter:
  - Fuser temperature failure service check
  - Fuser fan failure service check

September 9, 2020

- Updated the Critical information for controller board or control panel replacement topic in the Parts removal chapter.

July 19, 2020

- Added links to video removals in the following removal topics:
  - Control panel board removal
  - Developer unit (Y) removal
  - Developer unit (M) removal
  - Developer unit (C) removal
  - Developer unit (K) removal
  - Duplex transport assembly removal
  - Engine board removal
  - High voltage board removal
  - Induction heater removal
  - Main drive assembly removal
  - Main power supply removal
  - MPF removal

  - Printhead removal
  - Registration transport assembly removal
- Added a link to the Diagnostics menu motor test video in the Motor tests topic in the Service menus chapter.
- Added a link to the Diagnostics menu sensor test video in the Sensor tests topic in the Service menus chapter.
- Added the Toner suction fan removal topic in the Parts removal chapter.

June 15, 2020

- Removed PN 41X2615 from the miscellaneous section of the Parts catalog chapter.

April 13, 2020

- Added the Critical information for controller board or control panel replacement topic in the Parts removal chapter.
- Added the NVRAM error service check topic in the Diagnostics and troubleshooting chapter.
- Added the 953.99 error code in the Diagnostics and troubleshooting chapter.

March 13, 2020

- Added the Entering recovery mode topic in the Service menus chapter.
- Updated the Exit assembly graphic in the Parts catalog chapter.

February 7, 2020

- Updated the Updating the printer firmware topic to include using a USB cable connection option.
- Tray insert removal was added.
- Service checks for resolving tray lift plate errors were updated.
  - Tray 2 lift plate failure service check
  - 2 x 500-sheet tray 3 lift plate failure service check
  - 2 x 500-sheet tray 4 lift plate failure service check
  - Tray 1 lift plate failure service check
- New FRU was added to the Miscellaneous parts catalog—TWN4 USB front reader kit authentication device (41X2615).

December 17, 2019

- Redrive exit guide removal graphic was updated.
- Duplex transport assembly removal was updated.
- Exit assembly removal was updated.

November 14, 2019

- Updated the information in the Resetting the maintenance counter section of the Maintenance chapter.
- Updated the 31.00 error code description in the Diagnostics and troubleshooting chapter.

October 7, 2019

- Added PN 41X2704 in the miscellaneous section of the Parts catalog chapter.
- Added PN 41X2706 in the miscellaneous section of the Parts catalog chapter.

- Added PN 41X2707 in the miscellaneous section of the Parts catalog chapter.

September 5, 2019

- Added the Power-on self test (POST) topic in the Diagnostics and troubleshooting chapter.

August 16, 2019

- Updated the 23y paper jams error code table in the Diagnostics and troubleshooting chapter:

July 1, 2019

- Added the following PNs in the Parts catalog chapter:
  - 41X2686
  - 41X2687
  - 41X2688

November 16, 2018

- Update the Toner cartridge cooling fan failure service check topic in the Diagnostics and troubleshooting chapter.

October 31, 2018

- Update the CMY retract unable to return home failure service check topic in the Diagnostics and troubleshooting chapter.

August 10, 2018

- Added PN 41X2534 in the 2500-sheet tray—Paper transport assembly of the Parts catalog chapter.
- Updated the description of PN 41X1600 in all instances in the Parts catalog chapter.
- Updated the Data security notice topic in the Parts removal chapter.
- Added the 611.0x error codes and service check in the Diagnostics and troubleshooting chapter.
- Updated the Engine board removal topic in the Parts removal chapter.

May 10, 2018

- Updated the 12y error messages table in the Diagnostics and troubleshooting chapter.

April 5, 2018

- Updated the following topics in the Diagnostics and troubleshooting chapter:
  - C developer toner density failure service check
  - M developer toner density failure service check
  - Y developer toner density failure service check
  - K developer toner density failure service check

March 9, 2018

- Added the 6yy error messages and service checks in the Diagnostics and troubleshooting chapter.
- Updated the 9yy error messages and service checks in the Diagnostics and troubleshooting chapter.

November 14, 2017

- Updated the Miscellaneous section in the Parts catalog chapter.

October 11, 2017

- Updated the User attendance messages topics in the Diagnostics and troubleshooting chapter.

September 3, 2017

- Step for disconnecting cables was revised for the right door removal.
- Step for removing screws was revised for the main drive assembly removal.

General information

Printer model configurations

The Lexmark™ CS923de device is a network-capable, color A3 laser printer. This printer has a 4.3-inch touch screen display and supports duplex printing. It is embedded with home screen solutions and applications. All information in this service manual pertains to this model unless explicitly noted.

The printer is available in the following model:

Model	Configurations	Machine type/model number
CS923de	4.3 in. color touch screen display, duplex print, networking, e-Task, hard disk	5059-530

Finding the serial number

Open door A, and then find the serial number at the right side of the printer.

Supported paper sizes, types, and weights

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

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

Paper sizes supported by the printer

Paper size	Dimensions	Standard 500-sheet tray (Tray 1)	Standard 500-sheet tray (Tray 2)	2 x 500-sheet tray	2500-sheet tray	3000-sheet tray	Multipurpose feeder[3]	Two-sided printing
A4	210 x 297 mm (8.3 x 11.7 in.)	✓	✓	✓	✓[2]	✓[2]	✓[2]	✓
A5	148 x 210 mm (5.8 x 8.3 in.)	✓[1]	✓[1]	✓[1]	X	X	✓	✓
A6	105 x 148 mm (4.1 x 5.8 in.)	X	X	X	X	X	✓[1]	✓
JIS B5	182 x 257 mm (7.2 x 10.1 in.)	✓	✓	✓	X	X	✓	✓
Letter	216 x 279 mm (8.5 x 11 in.)	✓	✓	✓	✓[2]	✓[2]	✓	✓
Legal	216 x 356 mm (8.5 x 14 in.)	✓	✓	✓	X	X	✓	✓
Executive	184 x 267 mm (7.3 x 10.5 in.)	✓	✓	✓	X	X	✓	✓
JIS B4	257 x 364 mm (10.12 x 14.33 in.)	✓	✓	✓	X	X	✓	✓
SRA3	320 x 450 mm (12.6 x 17.7 in.)	X	✓[1]	X	X	X	✓[1]	✓
A3	297 x 420 mm (11.69 x 16.54 in.)	✓	✓	✓	X	X	✓	✓
12 x 18	305 x 457 mm (12 x 18 in.)	X	✓[1]	X	X	X	✓[1]	✓
11 x 17	279.4 x 431.8 mm (11 x 17 in.)	✓	✓	✓	X	X	✓	✓

[1] Supported only in short-edge orientation.

[2] Supported only in long-edge orientation.

[3] Supports paper size without *size sensing*.

[4] Supported only if the width is from 139.7 mm (5.5 in.) to 320 mm (12.6 in.), and the length is from 148 mm (5.83 in.) to 458 mm (18 in.).

Note: Banner is supported in the multipurpose feeder only if the width is up to 296.9 mm (11.69 in.), and the length is up to 1219.2 mm (48 in.). Set the paper size to Universal.

Paper size	Dimensions	Standard 500-sheet tray (Tray 1)	Standard 500-sheet tray (Tray 2)	2 x 500-sheet tray	2500-sheet tray	3000-sheet tray	Multipurpose feeder[3]	Two-sided printing
Oficio	216 x 340 mm (8.5 x 13.4 in.)	✓	✓	✓	X	X	✓	✓
Folio	216 x 330 mm (8.5 x 13 in.)	✓	✓	✓	X	X	✓	✓
Statement	140 x 216 mm (5.5 x 8.5 in.)	✓[1]	✓[1]	✓[1]	X	X	✓	✓
Universal	90 x 139.7 mm (3.54 x 5.5 in.) to 320 x 1200 mm (12.6 x 47.24 in.)	✓	✓	✓	X	X	✓	✓[4]
7 3/4 Envelope	98 x 191 mm (3.9 x 7.5 in.)	X	X	X	X	X	✓	X
9 Envelope	98 x 225 mm (3.9 x 8.9 in.)	X	X	X	X	X	✓	X
10 Envelope	105 x 241 mm (4.1 x 9.5 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
C5 Envelope	162 x 229 mm (6.4 x 9 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
Other Envelope	Maximum: 297 x 427.6 mm (11.69 x 16.83 in.)	X	X	X	X	X	✓	X

[1] Supported only in short-edge orientation.

[2] Supported only in long-edge orientation.

[3] Supports paper size without *size sensing*.

[4] Supported only if the width is from 139.7 mm (5.5 in.) to 320 mm (12.6 in.), and the length is from 148 mm (5.83 in.) to 458 mm (18 in.).

Note: Banner is supported in the multipurpose feeder only if the width is up to 296.9 mm (11.69 in.), and the length is up to 1219.2 mm (48 in.). Set the paper size to Universal.

Paper types and weights supported by the printer

The printer engine supports 60–256-g/m^2 (16–68-lb) paper weights.

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

Paper type	Standard 500-sheet tray (Tray 1)	Standard 500-sheet tray (Tray 2)	2 x 500-sheet tray	2500-sheet tray	3000-sheet tray	Multipurpose feeder
Plain Paper[1]	✓	✓	✓	✓	✓	✓
Card Stock	✓	✓	✓	✓	✓	✓
Transparencies[2]	X	X	X	X	X	✓
Recycled[1]	✓	✓	✓	✓	✓	✓
Glossy	✓	✓	✓	✓	✓	✓
Heavy Glossy	✓	✓	✓	✓	✓	✓
Labels	X	X	X	X	X	✓
Bond[1]	✓	✓	✓	✓	✓	✓
Envelope	X	X	X	X	X	✓
Rough Envelope	X	X	X	X	X	✓
Letterhead[1]	✓	✓	✓	✓	✓	✓
Preprinted[1]	✓	✓	✓	✓	✓	✓
Colored Paper[1]	✓	✓	✓	✓	✓	✓
Light Paper[1]	✓	✓	✓	✓	✓	✓
Heavy Paper[1]	✓	✓	✓	✓	✓	✓
Rough Cotton	✓	✓	✓	✓	✓	✓
Custom Type[1]	✓	✓	✓	✓	✓	✓

[1] Paper is supported for two-sided printing.

[2] Print transparencies in batches of only up to 20 to prevent them from sticking together.

Paper sizes, types, and weights supported by the finishers

The printer engine supports 60–256 g/m^2 (16–68-lb) paper weights.

Note: When a finisher is installed, the standard finisher bin becomes the default bin even for print jobs that do not require finishing.

Supported paper sizes

Paper size	Staple finisher	Staple, hole punch finisher bin 1	Staple, hole punch finisher bin 2	Booklet finisher
A6	√[3]	√[3]	X	X
A5	√[3]	√[3]	√[2]	X
JIS B5	√	√	√	X
JIS B4	√	√	√	√
Executive	√	√	√	X
Letter	√	√	√	√
A4	√	√	√	√
Legal	√	√[4]	√	√
12 x 18	√[1]	√[3]	√[1]	√
11 x 17	√	√	√	√
SRA3	√[1]	√[3]	√[1]	√
A3	√	√	√	√
Oficio	√[1]	√[3]	√[3]	X
Folio	√[1]	√[3]	√[3]	X
Statement	√[1]	√[3]	√[3]	X
Universal	√	√[3]	√[1]	√[5]

[1] Paper is supported only if the finisher stacks the paper but does not staple or punch holes in it.

[2] Paper is supported only if the finisher stacks or staples the paper but does not punch holes in it.

[3] Paper is supported but the finisher does not stack, staple, or punch holes in it.

[4] Paper is supported only for two-hole punch.

[5] Paper is supported only if the paper size is between 210 x 279.4 mm (8.27 x 11 in.) and 320 x 457.2 mm (12.6 x 18 in.).

Supported paper types

Paper type	Staple finisher	Staple, hole punch finisher	Booklet finisher
Plain Paper	√	√	√[4]

[1] Print on transparencies by batches of only up to 20 to prevent them from sticking together.

[2] Paper is supported only if the finisher does not staple it.

[3] Paper is supported only if the finisher does not punch holes in it.

[4] Paper is supported only if the finisher staples or folds the paper

[5] Offset is not supported.

Paper type	Staple finisher	Staple, hole punch finisher	Booklet finisher
Card Stock	√[2]	√[2]	X
Transparency[1]	√[C]	√[2,3,5]	X
Recycled	√	√	√[4]
Glossy	√	√	√[4]
Heavy Glossy	√[2]	√[2]	X
Labels	√[2,5]	√[2,3,5]	X
Bond	√	√	√[4]
Envelope	√[2,5]	√[2,3,5]	X
Rough Envelope	√[2]	√[2,3,5]	X
Letterhead	√	√	√[4]
Preprinted	√	√	√[4]
Colored Paper	√	√	√[4]
Light Paper	√	√	√[4]
Heavy Paper	√[2]	√[2]	X
Rough Cotton	√[2]	√[2]	X
Custom Type	√	√	√[4]

[1] Print on transparencies by batches of only up to 20 to prevent them from sticking together.

[2] Paper is supported only if the finisher does not staple it.

[3] Paper is supported only if the finisher does not punch holes in it.

[4] Paper is supported only if the finisher staples or folds the paper

[5] Offset is not supported.

Data security notice

Identifying printer memory

- **Volatile memory**—The printer uses standard random access memory (RAM) to buffer user data temporarily during simple print and copy jobs.
- **Non-volatile memory**—The printer may use two forms of non-volatile memory: EEPROM and NAND (flash memory). Both types are used to store the operating system, printer settings, network information, scanner and bookmark settings, and embedded solutions.

- **Hard disk memory**—Some printers have a hard disk drive installed. The printer hard disk is designed for printer-specific functionality and cannot be used for the long-term storage of data that is not print-related. The hard disk does not provide the capability for users to extract information, create folders, create disk or network file shares, or transfer FTP information directly from a client device. The hard disk can retain buffered user data from complex print jobs, form data, and font data.

The following parts can store memory:

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

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

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase non-volatile memory:

1. From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase** > **Sanitize all information on nonvolatile memory**.
2. Select a setting to adjust.

To erase the hard disk memory:

1. From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase** > **Sanitize all information on hard disk**.
2. Select a setting to adjust.

   Notes:

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

Tools required for service

- Flat-blade screwdrivers, various sizes
- #1 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic
- #2 Phillips screwdriver, magnetic short-blade
- Torx screwdriver (T20 head)
- Needle-nose pliers
- Diagonal side cutters

- Spring hook
- Feeler gauges
- Analog or digital multimeter
- 3-mm ball hex wrench
- Toner vacuum
- Flashlight

Diagnostics and troubleshooting

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—POTENTIAL INJURY: The printer weighs 89–135 kg (195–185 lb) and requires four trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.

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

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Troubleshooting overview

Performing the initial troubleshooting check

- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.
- Make sure that the printer is properly grounded.
- Make sure that the power supply line voltage is within 10% of the rated line voltage.
- Make sure that the printer is securely installed on a level surface in a well-ventilated area.
- Make sure that the temperature and relative humidity are within the specifications. See **"Temperature information" on page 997**.
- 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.

Power-on self test (POST)

As the printer turns 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 POST sequence is not completed successfully, then the printer may post an error message identifying that service may be needed.

Check for correct POST sequence of the printer by observing the following when the printer is turned on:

1. The control panel indicator LED lights up blue with a beep sound.
2. The circular loading screen appears.
3. The Lexmark logo appears.
4. The progress bar loading screen appears.
5. The printer initializes the following components:
   - Printer motors
   - Drive assembly
   - Fan
   - Input tray
   - Input option
   - LED lights
6. The home screen appears.

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.

Horizontal colored lines or banding check

Action	Yes	No
Step 1 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Perform the repeating defects check. See **"Repeating defects check" on page 70**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the affected photoconductor. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the transfer roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Contact the next level of support.	Go to step 14.

Action	Yes	No
Step 14 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical colored lines check

Action	Yes	No
Step 1 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the affected photoconductor. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the transfer roller. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical white lines check

Action	Yes	No
Step 1 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the affected photoconductor. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the transfer roller. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Contact the next level of support.	The problem is solved.

White spots check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Transfer voltage fine adjustment** **b** Adjust the voltage of the affected color. **c** Navigate to **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization**. **d** Touch **Start** beside Image stabilization only. **e** Wait for the test to complete, and then touch **OK**. **f** Perform a print test. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **2nd transfer adjustment** **b** Adjust the voltage of each paper type. **c** Navigate to **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization**. **d** Touch **Start** beside Image stabilization only. **e** Wait for the test to complete, and then touch **OK**. **f** Perform a print test. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the affected photoconductor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the transfer belt. See **“Transfer belt removal” on page 367**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the transfer roller. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Missing color check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Manual toner add** **b** Touch **Start** for each color setting. **c** Check if the following motors run: • Motor (C toner supply) • Motor (M toner supply) • Motor (Y toner supply) • Motor (K toner supply) • Motor (CK toner cartridge) • Motor (MY toner cartridge) Did all the motors run?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Replace the toner supply motor and toner cartridge motor of the affected color. See **"Motor (C toner supply) removal" on page 593**, **"Motor (M toner supply) removal" on page 596**, **"Motor (Y toner supply) removal" on page 599**, **"Motor (K toner supply) removal" on page 517**, **"Motor (CK toner cartridge) removal" on page 591**, or **"Motor (MY toner cartridge) removal" on page 592**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the affected photoconductor. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the developer unit of the affected color. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the toner cartridge relay contact cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the toner cartridge relay contact cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Make sure that the developer toner inlet is properly connected to the toner agitator. **b** Check the toner agitator for proper installation and damage. Is the toner agitator properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the toner agitator. See **"Toner agitator removal" on page 516**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Clear the high voltage developer contact of contamination. **b** Check the high voltage developer contact for proper installation and damage. Is the high voltage developer contact properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the high voltage developer contact. See **"High voltage developer contact removal" on page 622**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Clear the high voltage contact of contamination. **b** Check the high voltage contact for proper installation and damage. Is the high voltage contact properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the high voltage contact. See **"High voltage contact removal" on page 649**. Does the problem remain?	Go to step 20.	The problem is solved.

Action	Yes	No
Step 20 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 22.	Go to step 21.
Step 21 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Mottled prints and dots check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Transfer voltage fine adjustment** **b** Adjust the voltage of the affected color. **c** Navigate to **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization**. **d** Touch **Start** beside Image stabilization only. **e** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the affected photoconductor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the transfer roller. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Blurred print or misaligned color check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Registration adjust** **b** Adjust the setting of the affected paper source. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Color registration adjust** **b** Adjust the setting of the affected color. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Gapping or half color page check

Action	Yes	No
Step 1 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the affected photoconductor. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the transfer roller. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Contact the next level of support.	Go to step 9.
Step 9 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Ghost images check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the affected photoconductor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Clear the high voltage developer contact of contamination. **b** Check the high voltage developer contact for proper installation and damage. Is the high voltage developer contact properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the high voltage developer contact. See **"High voltage developer contact removal" on page 622**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Clear the high voltage contact of contamination. **b** Check the high voltage contact for proper installation and damage. Is the high voltage contact properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the high voltage contact. See **"High voltage contact removal" on page 649**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Contact the next level of support.	Go to step 16.
Step 16 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Color reproduction error check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the affected photoconductor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the transfer roller. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Check the sensor (front toner density) and sensor (rear toner density) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the damaged sensor. See **"Sensor (front toner density) removal" on page 460** or **"Sensor (rear toner density) removal" on page 461**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 20.	Go to step 19.

Action	Yes	No
Step 19 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Repeating defects check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Measure the distance between the repeating marks. Is the distance either 38 mm or 96 mm?	Go to step 5.	Go to step 6.
Step 5 Replace the affected photoconductor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Measure the distance between the repeating marks. Is the distance 63 mm?	Go to step 7.	Go to step 8.
Step 7 Replace the transfer roller. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Measure the distance between the repeating marks. Is the distance 76 mm?	Go to step 9.	Go to step 10.
Step 9 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Measure the distance between the repeating marks. Is the distance 32 mm?	Go to step 11.	Go to step 12.
Step 11 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Measure the distance between the repeating marks. Is the distance 98 mm, 124 mm, or 158 mm?	Go to step 13.	Go to step 14.

Action	Yes	No
Step 13 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 18.
Step 18 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Skewed print check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray paper length guide for proper installation and damage. Is the tray paper length guide properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the tray paper length guide. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Check the tray insert for proper installation and damage. **b** Check the tray paper width guide for proper installation and damage. Is the tray insert and tray paper width guide properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the tray insert. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Clear the printer paper path of obstructions and contamination. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Registration adjust** **b** Adjust the setting of the affected paper source. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Color registration adjust** **b** Adjust the setting of the affected color. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clear the registration transport assembly of obstructions and contamination. **b** Check the registration transport assembly for proper installation and damage. Is the registration transport assembly properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the registration transport assembly. See **"Registration transport assembly removal" on page 432**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Contact the next level of support.	Go to step 15.

Action	Yes	No
Step 15 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner easily rubs off check

Action	Yes	No
Step 1 **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?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size settings in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the paper for texture or rough finish. Is the paper textured or rough?	Go to step 4.	Go to step 5.
Step 4 Replace the textured or rough paper with plain paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove, and then reinstall the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Check the sensor (fuser temperature, font) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 7.
Step 7 Replace the sensor (fuser temperature, font). Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Check the sensor (fuser temperature, rear) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 9.
Step 9 Replace the Sensor (fuser temperature, rear). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat the fuser cable connector on both ends. **b** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the induction heater cable connector on both ends. **b** Check the induction heater for proper installation and damage. Is the induction heater properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the induction heater. See **"Induction heater removal" on page 465**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat the induction heater power supply cable connector on both ends. **b** Check the induction heater power supply for proper installation and damage. Is the induction heater power supply properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the induction heater power supply. See **"Induction heater power supply (IHPS) removal" on page 581**. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 **a** Reseat all cable connectors on the induction heater magnetic erase board. **b** Check the induction heater magnetic erase board for proper installation and damage. Is the induction heater magnetic erase board properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the induction heater magnetic erase board. See **"Induction heater magnetic erase board removal" on page 579**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat all cable connectors on the main power supply. **b** Check the main power supply for proper installation and damage. Is the main power supply properly installed and free of damage?	Contact the next level of support.	Go to step 19.
Step 19 Replace the main power supply. See **"Main power supply removal" on page 356**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Back marking check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the transfer roller. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Blank or white pages check

Action	Yes	No
Step 1 Make sure that all the packing materials on the imaging unit are removed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the affected photoconductor. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the transfer belt. See **“Transfer belt removal” on page 367**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the transfer roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Clear the high voltage contact of contamination. **b** Check the high voltage contact for proper installation and damage. Is the high voltage contact properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the high voltage contact. See **"High voltage contact removal" on page 649**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Clear the high voltage developer contact of contamination. **b** Check the high voltage developer contact for proper installation and damage. Is the high voltage developer contact properly installed and free of damage?	Go to step 15.	Go to step 14.

Action	Yes	No
Step 14 Replace the high voltage developer contact. See **"High voltage developer contact removal" on page 622**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (photoconductor), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 21.	Go to step 18.
Step 18 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the motor. See **"Motor (photoconductor) removal" on page 585**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (developer), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 25.	Go to step 22.
Step 22 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 25.	Go to step 24.
Step 24 Replace the motor. See **"Motor (developer) removal" on page 584**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (transport), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 29.	Go to step 26.
Step 26 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 29.	Go to step 28.

Action	Yes	No
Step 28 Replace the motor. See **"Motor (transport) removal" on page 583**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Go to step 31.	Go to step 30.
Step 30 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Go to step 31.	The problem is solved.
Step 31 Check the main drive assembly for proper installation and damage. Is the main drive assembly properly installed and free of damage?	Go to step 33.	Go to step 32.
Step 32 Replace the main drive assembly. See **"Main drive assembly removal" on page 606**. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 **a** Reseat all cable connectors on the main power supply. **b** Check the main power supply for proper installation and damage. Is the main power supply properly installed and free of damage?	Go to step 35.	Go to step 34.
Step 34 Replace the main power supply. See **"Main power supply removal" on page 356**. Does the problem remain?	Go to step 35.	The problem is solved.
Step 35 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 36.	The problem is solved.

Action	Yes	No
Step 36 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 37.
Step 37 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Blurred fine lines check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the affected photoconductor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Faulty image check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Check the sensor (front toner density) and sensor (rear toner density) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the damaged sensor. See **"Sensor (front toner density) removal" on page 460** or **"Sensor (rear toner density) removal" on page 461**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Transfer voltage fine adjustment** **b** Adjust the voltage of the affected color. **c** Navigate to **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization**. **d** Touch **Start** beside Image stabilization only. **e** Wait for the test to complete, and then touch **OK**. **f** Perform a print test. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the affected photoconductor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the transfer roller. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Foggy background check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Check the sensor (front toner density) and sensor (rear toner density) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the damaged sensor. See **"Sensor (front toner density) removal" on page 460** or **"Sensor (rear toner density) removal" on page 461**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the affected photoconductor. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 18.

Action	Yes	No
Step 18 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Image bleeding check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the transfer roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Light print check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the affected photoconductor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the transfer roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Check the sensor (front toner density) and sensor (rear toner density) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 15.	Go to step 14.

Action	Yes	No
Step 14 Replace the damaged sensor. See **"Sensor (front toner density) removal" on page 460** or **"Sensor (rear toner density) removal" on page 461**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the toner density solenoid for proper installation and damage. Is the toner density solenoid properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the toner density solenoid. See **"Toner density solenoid removal" on page 435**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the toner density solenoid shutter for proper installation and damage. Is the shutter properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the registration transport assembly. See **"Registration transport assembly removal" on page 432**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 21.	The problem is solved.

Action	Yes	No
Step 21 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 23.
Step 23 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Moire image check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Check the sensor (front toner density) and sensor (rear toner density) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the damaged sensor. See **"Sensor (front toner density) removal" on page 460** or **"Sensor (rear toner density) removal" on page 461**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Replace the affected photoconductor. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the transfer roller. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 17.	Go to step 16.

Action	Yes	No
Step 16 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Poor fusing performance check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat the induction heater cable connector on both ends. **b** Check the induction heater for proper installation and damage. Is the induction heater properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the induction heater. See **"Induction heater removal" on page 465**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Reseat all cable connectors on the induction heater magnetic erase board. **b** Check the induction heater magnetic erase board for proper installation and damage. Is the induction heater magnetic erase board properly installed and free of damage?	Got to step 10.	Go to step 9.
Step 9 Replace the induction heater magnetic erase board. See **"Induction heater magnetic erase board removal" on page 579**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat all cable connectors on the noise filter board. **b** Check the noise filter board for proper installation and damage. Is the noise filter board properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the noise filter board. See **"Noise filter board removal" on page 578**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat the induction heater power supply cable connector on both ends. **b** Check the induction heater power supply for proper installation and damage. Is the induction heater power supply properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the induction heater power supply. See **"Induction heater power supply (IHPS) removal" on page 581**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat all cable connectors on the main power supply. **b** Check the main power supply for proper installation and damage. Is the main power supply properly installed and free of damage?	Contact the next level of support.	Go to step 15.

Action	Yes	No
Step 15 Replace the main power supply. See **"Main power supply removal" on page 356**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Uneven gloss check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat the fuser. **b** Clear the fuser of contamination. **c** Reseat the fuser cable connectors on both ends. **d** Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Check the sensor (fuser temperature, front) and sensor (fuser temperature, rear) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the damaged sensor. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the induction heater for proper installation and damage. Is the induction heater properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the induction heater. See **"Induction heater removal" on page 465**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat all cable connectors on the main power supply. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reseat all cable connectors on the induction heater power supply. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 14.

Action	Yes	No
Step 14 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Uneven print density check

Action	Yes	No
Step 1 **a** From the home screen, navigate to: **Settings** > **Device** > **Preferences** **b** Check if the paper type and size settings match the paper type and size loaded on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the following components: • Toner cartridge • Photoconductor • Transfer roller • Transfer belt **b** Use the brush provided to clean the printhead. **c** Clean toner spills inside the printer. **d** Print sample pages. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Test Pages** **e** Check the test pages. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Image stabilization only. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Clean the photoconductor contacts of the affected color. **b** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the affected photoconductor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Clear the transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the transfer roller. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Clean the transfer belt contacts. **b** Check the transfer belt for proper installation and damage. Is the transfer belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat the developer unit of the affected color. **b** Reseat the developer unit cable connector on both ends. **c** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Replace the developer unit of the affected color. See **"Developer unit (Y) removal" on page 523**, **"Developer unit (M) removal" on page 524**, **"Developer unit (C) removal" on page 525**, or **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Check the sensor (front toner density) and sensor (rear toner density) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the damaged sensor. See **"Sensor (front toner density) removal" on page 460** or **"Sensor (rear toner density) removal" on page 461**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the toner density solenoid for proper installation and damage. Is the toner density solenoid properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the toner density solenoid. See **"Toner density solenoid removal" on page 435**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the toner density solenoid shutter for proper installation and damage. Is the shutter properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the registration transport assembly. See **"Registration transport assembly removal" on page 432**. Does the problem remain?	Go to step 19.	The problem is solved.

Action	Yes	No
Step 19 **a** Reseat all cable connectors on the HVPS. **b** Make sure that the HVPS contact springs are properly connected to the HVPS. **c** Check the HVPS for proper installation and damage. Is the HVPS properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the HVPS. See **"High voltage board removal" on page 582**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustment** > **Imaging process adjustments** > **Image stabilization** **b** Touch **Start** beside Initialize + image stabilization. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Paper jams

Avoiding jams

Load paper properly

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

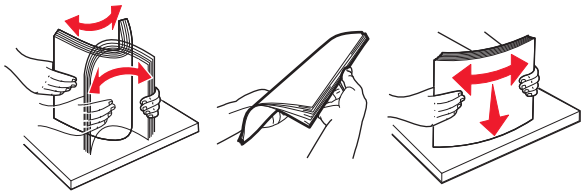
Correct loading of paper	Incorrect loading of paper
	

- 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

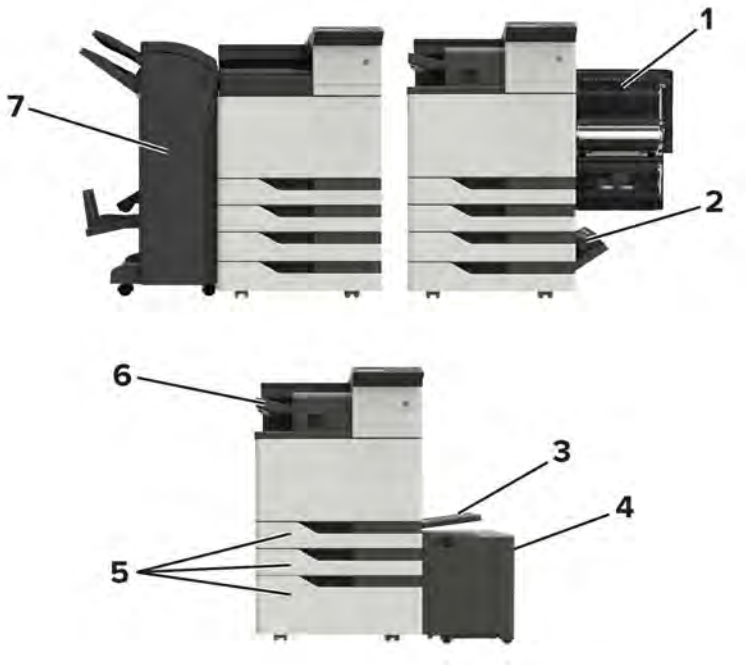
- Use only recommended paper or specialty media.
- Do not load paper that is wrinkled, creased, damp, bent, or curled.
- Flex, fan, and align the paper edges before loading.



- 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 Recovery is set to On or Auto, the printer reprints jammed pages.



	Jam locations
1	Automatic document feeder (ADF)
2	Door C
3	Door D
4	Multipurpose feeder
5	3000-sheet tray
6	2 x 500- or 2500-sheet tray
7	Staple finisher
8	Finisher • Booklet finisher • Staple, hole punch finisher

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 C to remove any paper fragments.

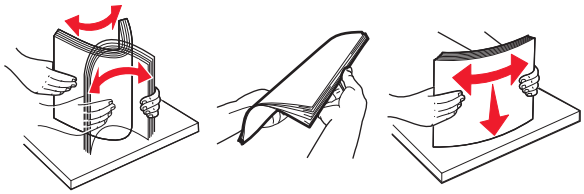
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

Notes:

- Make sure that the door does not hit any cable attached to the printer.
- If a 3000-sheet tray is installed, then slide the tray to the right to open the door.

4 Close the door.

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

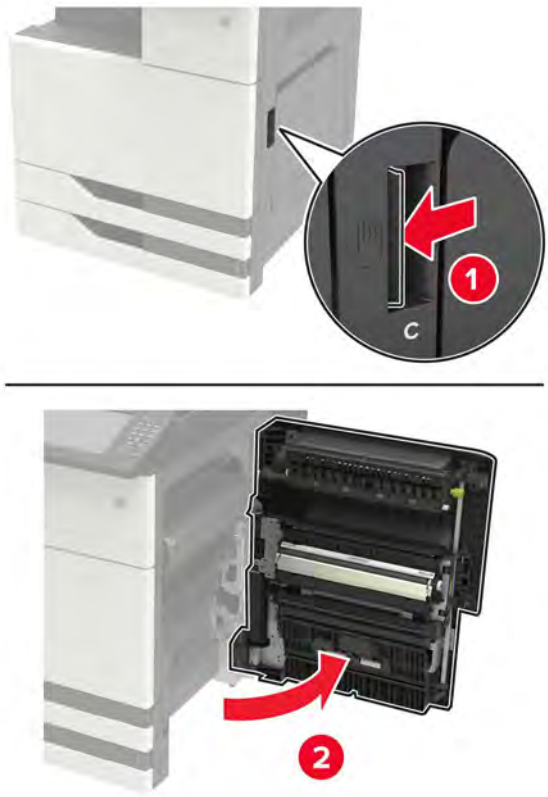


6 Reload paper.

Paper jam in door C

1 Open door C.

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.



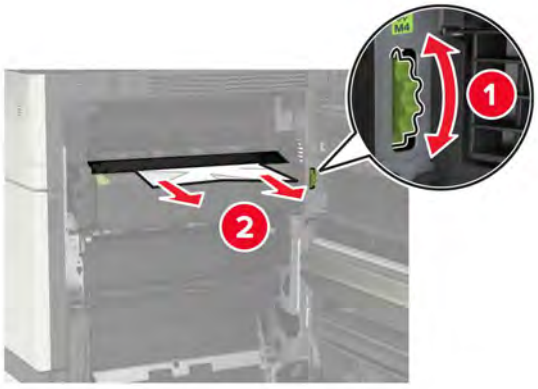
Notes:

- Make sure that the door does not hit any cable attached to the printer.
- If a 3000-sheet tray is installed, then slide the tray to the right to open the door.

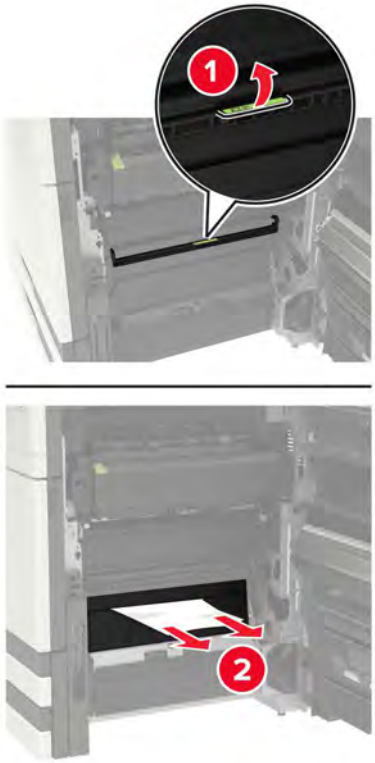
2 Remove the jammed paper from any of the following locations.

Note: Make sure that all paper fragments are removed.

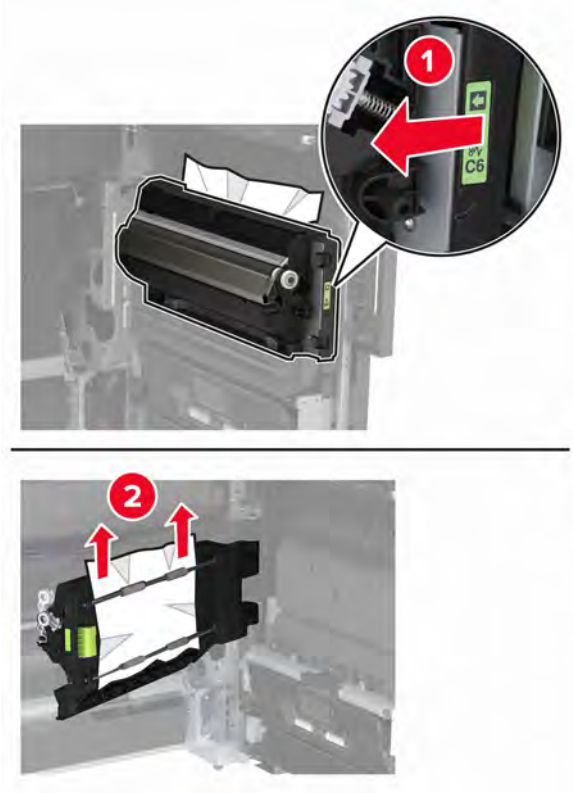
- Fuser area



- Below the fuser area



- Duplex area



- Above the duplex area

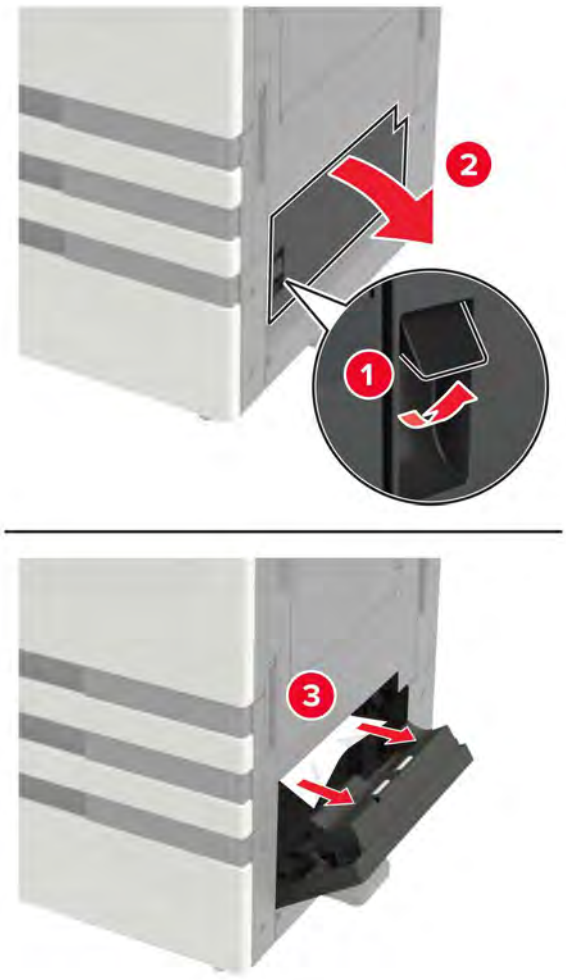
3 Open the standard trays, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.

4 Close the trays, and then close the door.

Paper jam in door D

1 Open door D, and then remove the jammed paper.



Notes:

- If a 3000-sheet tray is installed, then slide the tray to the right to open the door.
- Open door C to make sure that all paper fragments are removed, and then close the door.

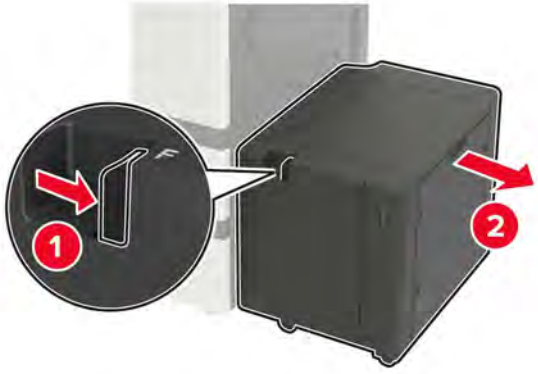
2 Open the optional tray, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.

3 Close the tray, and then close the door.

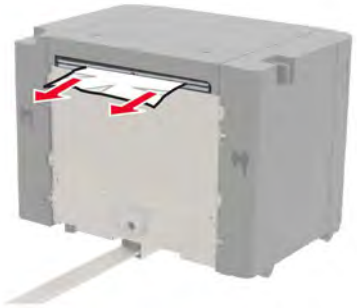
Paper jam in the 3000-sheet tray

1 Slide the 3000-sheet tray.



2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.



3 Open door F, and then remove the jammed paper.

Note: Make sure that all paper fragments are removed.

4 Close the door, and then slide the tray back into place.

200 paper jams

200 paper jam messages

Error code	Description	Action
200.91	The paper remains detected in the printer after the printer is turned on.	See **"Printer static jam service check" on page 119**.
200.91	The paper remains detected in the 2500-sheet tray after the printer is turned on.	See **"2500-sheet tray static jam service check" on page 121**.
200.91	The paper remains detected in the 2 x 500-sheet tray after the printer is turned on.	See **"2 x 500-sheet tray static jam service check" on page 122**.

Error code	Description	Action
200.91	The paper remains detected in the 3000-sheet tray after the printer is turned on.	See **"3000-sheet tray static jam service check" on page 123**.
200.91	The paper remains detected in the 3000-sheet tray after the printer is turned on.	See **"3000-sheet tray static jam service check" on page 123**.
200.93 200.98	The sensor (registration) did not detect the paper fed from tray 2, tray 3, tray 4, or tray 5.	See **"Registration jam service check" on page 127**.

Printer static jam service check

Action	Yes	No
Step 1 **a** Reset the printer. **b** Open all doors and then remove the paper jams and fragments along the printer paper path. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the following sensors: • Sensor (tray 2 transport) • Sensor (registration 1) • Sensor (registration 2) • Sensor (fusing speed) • Sensor (exit) • Sensor (duplex pass through 1) • Sensor (duplex pass through 2) Does the status of the sensors change?	Go to step 5.	Go to step 4.
Step 3 Reseat the cable connector of the affected sensors. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the affected sensors. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 13.

Action	Yes	No
Step 13 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2500-sheet tray static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the 2500-sheet tray from the printer. Does the problem remain?	The problem is not with the 2500-sheet tray. For more information, see **"200 paper jam messages" on page 118**.	Go to step 3.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray sensor tests** **b** Find the sensor (Tray transport). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 4.
Step 4 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the sensor. See **"Sensor (2500-sheet tray transport) removal" on page 745**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.

Action	Yes	No
Step 7 Replace the 2500-sheet tray pick assembly sensor cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the 2500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 9.
Step 9 Replace the controller board. See **"2500-sheet tray controller board removal" on page 731**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the 2 x 500-sheet tray from the printer. Does the problem remain?	The problem is not with the 2 x 500-sheet tray. For more information, see **"200 paper jam messages" on page 118**.	Go to step 3.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 3 transport) and sensor (Tray 4 transport). Do the sensor statuses change while toggling the sensors?	Go to step 8.	Go to step 4.
Step 4 **a** Reseat the cable of the affected sensor, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the 2 x 500-sheet tray 3 or tray 4 pick assembly sensor cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 9.
Step 9 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

3000-sheet tray static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the 3000-sheet tray from the printer. Does the problem remain?	The problem is not with the 3000-sheet tray. For more information, see **"200 paper jam messages" on page 118**.	Go to step 3.

Action	Yes	No
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **3000-sheet tray sensor tests** **b** Find the sensor (Tray paper feed). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 4.
Step 4 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Reinstall or replace the sensor. See **"Sensor (3000-sheet tray feed) removal" on page 793**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the 3000-sheet tray feed sensor cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the 3000-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 9.
Step 9 Replace the controller board. See **"3000-sheet tray controller board removal" on page 794**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher static jam service check

Action	Yes	No
Step 1 **a** Remove the paper jams and fragments along the staple finisher paper path. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove the staple finisher from the printer. Does the problem remain?	The problem is not with the staple finisher. For more information, see the printer service manual.	Go to step 3.
Step 3 **a** Reinstall the staple finisher to the printer. **b** Reseat the staple finisher interface cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (staple finisher paper feed). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 5.
Step 5 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor (staple finisher paper feed). Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (staple finisher tamper paper present). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.

Action	Yes	No
Step 8 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor (staple finisher tamper paper present). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher tamper paper present sensor actuator for proper installation and damage. Is the sensor actuator properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the staple finisher tamper paper present sensor actuator. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the staple finisher paper feed sensor cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the staple finisher paper feed sensor cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the staple finisher interface cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the staple finisher interface cable. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all cable connectors on the staple finisher controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Registration jam service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Event log** > **Display log** **b** Check the error codes. Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)	Go to step 2.	Go to step 7.
Step 2 Make sure that the registration paper path, including the sensors, are free of debris or dust. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the registration sensor actuator for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (registration). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 5.
Step 5 **a** Reseat the registration sensor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor (registration). See **"Sensor (registration) removal" on page 436**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 1** **b** Touch **Start** beside Single. Does the leading edge of the paper reach the sensor (registration)?	Go to step 8.	Go to step 9.

Action	Yes	No
Step 8 Check the registration roller for wear or damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (registration), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 13.	Go to step 10.
Step 10 **a** Reseat the motor cable connector on both ends. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the registration belt for proper tension, and adjust if necessary. **b** Check the registration drive gear and belt for wear or damage, and replace if necessary. See **"Registration drive belt removal" on page 450** and **"Registration drive gear removal" on page 452**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the motor. See **"Motor (registration) removal" on page 602**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Check the feed belts for proper tension, and adjust if necessary. **b** Check the feed gears and belts for wear or damage, and replace if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check if tray 1 is the paper source. Is tray 1 the paper source?	Go to step 16.	Go to step 15.

Action	Yes	No
Step 15 **a** Check the tray 2 transport drive belt for proper tension, and adjust if necessary. **b** Check the tray 2 transport drive gear and belt for wear or damage, and replace if necessary. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Make sure that the feed drive assembly is clear of obstructions. **b** Check the feed drive assembly for proper installation and damage. Is the feed drive assembly properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the feed drive assembly. See **"Feed drive assembly removal" on page 627**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Make sure that the registration transport assembly is clear of obstructions. **b** Check the registration transport assembly for proper installation and damage. Is the registration transport assembly properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Replace the registration transport assembly. See **"Registration transport assembly removal" on page 432**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Make sure that the blue screws and marked screws in the paper path area are tightened. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 26.
Step 26 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

202 paper jams

202 paper jam messages

Error code	Description	Action
202.91	The paper remains detected at the sensor (fuser exit) after the printer is turned on.	See **"Exit jam service check" on page 131**.
202.93	The sensor (fuser exit) did not detect the paper.	
202.95	The paper remains detected at the sensor (fuser exit) during a print job.	

Exit jam service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Event log** > **Display log** **b** Check the error codes. Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)	Go to step 2.	Go to step 8.
Step 2 Make sure that the exit paper path, including the sensors, are free of debris or dust. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser exit sensor actuator for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the sensor (fuser exit) for proper installation and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 7.
Step 5 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (fuser exit). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 **a** Reseat the sensor cable connector on both ends. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor (fuser exit). Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 1** **b** Touch **Start** beside Single. Does the leading edge of the paper reach the fuser?	Go to step 9.	Go to step 10.
Step 9 Check if the leading edge of the paper reaches the sensor (fuser exit). Does the leading edge of the paper reach the sensor?	Go to step 16.	Go to step 15.
Step 10 Check the registration roller for wear or damage, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Make sure that the registration transport assembly is clear of obstructions. **b** Check the registration transport assembly for proper installation and damage. Is the registration transport assembly properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the registration transport assembly. See **"Registration transport assembly removal" on page 432**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Make sure that the registration unit assembly is clear of obstructions. **b** Check the registration unit assembly for proper installation and damage. Is the registration unit assembly properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the registration unit assembly. See **"Registration unit assembly removal" on page 440**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Check the fuser for wear or damage, and replace if necessary. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the paper exit clutch for wear or damage, and replace if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Make sure that the duplex transport assembly is clear of obstructions. **b** Check the duplex transport assembly for proper installation and damage. Is the duplex transport assembly properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Make sure that the exit guide is clear of obstructions. **b** Check the exit guide for proper installation and damage. Is the exit guide properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the exit guide. See **"Exit assembly removal" on page 466**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the diverter solenoid for proper installation and damage. Is the diverter solenoid properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Replace the diverter solenoid. See **"Diverter solenoid removal" on page 483**. Does the problem remain?	Go to step 23.	The problem is solved.

Action	Yes	No
Step 23 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (redrive), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 24.	The problem is solved.
Step 24 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Replace the motor. See **"Motor (redrive) removal" on page 470**. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Make sure that the blue screws and marked screws in the paper path area are tightened. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 30.	Go to step 29.
Step 29 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 30.	The problem is solved.

Action	Yes	No
Step 30 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 31.	The problem is solved.
Step 31 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 32.
Step 32 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

23y paper jams

23y paper jam messages

Error code	Description	Action
230.93	The sensor (duplex pass through 1) did not detect the paper.	See **"Duplex jam service check" on page 135**.
231.94	Skew correction did not complete at the registration roller during a duplex job.	

Duplex jam service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Event log** > **Display log** **b** Check the error codes. Do most of the recent error codes end with a 1? (Example: 241.11, 200.91)	Go to step 2.	Go to step 6.
Step 2 Make sure that the duplex paper path, including the sensors, are free of debris or dust. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the duplex pass through 1 and duplex pass through 2 sensor actuators for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the sensor (duplex pass through 1) and sensor (duplex pass through 2) fo proper installation and damage. Are the sensors properly installed and free of damage?	Go to step 5.	The problem is solved.
Step 5 Replace the damaged sensor. See **"Sensor (duplex pass through 2) removal" on page 448**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 1** **b** Touch **Start** beside Single. Does the leading edge of the paper reach the sensor (duplex pass through 1)?	Go to step 7.	Go to step 8.
Step 7 Check if the leading edge of the paper reaches the sensor (registration). Does the leading edge of the paper reach the sensor?	Go to step 16.	Go to step 14.
Step 8 **a** Check the duplex transport belt for proper tension, and adjust if necessary. **b** Check the duplex transport gear and belt for wear or damage, and replace if necessary. See **"Duplex transport belt removal" on page 376**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Make sure that the duplex transport assembly is clear of obstructions. **b** Check the duplex transport assembly, including its rollers and guides for proper installation and damage. Is the duplex transport assembly properly installed and free of damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Replace the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (duplex transport), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 **a** Reseat the motor cable connector on both ends. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor. See **"Motor (duplex transport) removal" on page 377**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the following components for proper installation and damage: • Registration unit assembly • Lower duplex transport roller • Duplex exit roller Are the components properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the damaged component. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (transport), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 19.	Go to step 17.
Step 17 **a** Reseat the motor cable connector on both ends. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the motor. See **"Motor (transport) removal" on page 583**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 22.	Go to step 21.
Step 21 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 23.	The problem is solved.

Action	Yes	No
Step 23 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 24.
Step 24 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

240 paper jams

240 paper jam messages

Error code	Description	Action
240.83	The MPF lift plate did not move to the correct position.	See **"MPF lift plate failure service check" on page 139**.

MPF lift plate failure service check

Action	Yes	No
Step 1 **a** Make sure that the MPF lift plate, including the cam and gears, are properly installed. **b** Check the plate, including the cam and gears, for damage, and replace if necessary. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Observe the MPF lift plate solenoid. Is it properly working?	Go to step 4.	Go to step 3.
Step 3 **a** Reseat the MPF lift plate solenoid cable connector on both ends. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the MPF lift plate solenoid for wear or damage, and replace if necessary. See **"MPF lift plate solenoid removal" on page 415**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Observe the MPF lift plate clutch gear. Is it working properly?	Go to step 8.	Go to step 6.
Step 6 Check the MPF lift plate clutch gear for proper installation and damage. Is the gear properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the gear. See **"MPF lift plate clutch gear removal" on page 417**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (MPF lift plate). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 9.
Step 9 **a** Reseat the MPF lift plate sensor cable connector on both ends. **b** Check the sensor cable for damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the sensor (MPF lift plate) for proper installation and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the sensor (MPF lift plate). See **"Sensor (MPF lift plate) removal" on page 427**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (feed), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 17.	Go to step 13.
Step 13 **a** Reseat the motor cable connector on both ends. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Check the paper feed belt for proper tension, and adjust if necessary. **b** Check the paper feed gear and belt for wear or damage, and replace if necessary. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the motor. See **"Motor (feed) removal" on page 634**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the paper feed belt for proper installation and damage. Is the belt properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the paper feed belt. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the paper feed gears for proper installation and damage. Are the gears properly installed and free of damage?	Go to step 21.	Go to step 20.

Action	Yes	No
Step 20 Replace the paper feed drive assembly. See **"Feed drive assembly removal" on page 627**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the MPF for proper installation and damage. Is the MPF properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Replace the MPF. See **"MPF removal" on page 389**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 25.
Step 25 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

242 paper jams

242 paper jam messages

Error code	Description	Action
242.93	The sensor (tray 2 transport) did not detect the paper fed from tray 3.	See **"2 x 500-sheet tray 3 jam service check" on page 150**.
242.23	The sensor (tray 2 transport) did not detect the paper fed from tray 2.	See **tray2-feed-jam-service-check-topic**

Tray 2 transport failure service check

Action	Yes	No
Step 1 Clear the printer paper path of obstructions and contamination. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clear the 2500-sheet tray paper path of obstructions and contamination. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**. **b** From the 2500-sheet tray sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (2500-sheet tray transport). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. See **“Sensor (2500-sheet tray transport) removal” on page 745**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (tray 2 transport). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 7.
Step 7 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. See **“Sensor (tray 2 transport) removal” on page 672**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray motor tests** **b** Find the motor (tray feed), and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. Does the motor run?	Go to step 13.	Go to step 10.
Step 10 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the motor. See **"Motor (2500-sheet tray feed) removal" on page 748**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the 2500-sheet tray feed and transport motor belt for proper installation and damage. Is the belt properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the 2500-sheet tray feed and transport motor belt. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the following gears for proper installation and damage: • 2500-sheet tray feed and transport primary gear • 2500-sheet tray feed and transport secondary gear Are the gears properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the damaged gear. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 **a** Clear the 2500-sheet tray transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the 2500-sheet tray transfer roller. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (tray 2 transport), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 23.	Go to step 20.
Step 20 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Replace the motor. See **"Motor (tray 2 transport) removal" on page 640**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Clear the tray 2 transfer roller of contamination. **b** Check the roller for proper installation and damage. Is the roller properly installed and free of damage?	Go to step 25.	Go to step 24.
Step 24 Replace the tray 2 transfer roller. See **"Tray 2 transfer roller removal" on page 705**. Does the problem remain?	Go to step 25.	The problem is solved.

Action	Yes	No
Step 25 Check the following gears for proper installation and damage: • Tray 2 transport gear • Tray 2 feed gear Are the gears properly installed and free of damage?	Go to step 27.	Go to step 26.
Step 26 Replace the damaged gear. See **"Tray 2 transport gear removal" on page 711** or **"Tray 2 vertical transport clutch removal" on page 696**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Check the tray 2 paper feed clutch for proper installation and damage. Is the clutch properly installed and free of damage?	Go to step 29.	Go to step 28.
Step 28 Replace the tray 2 feed clutch. See **"Tray 2 feed clutch removal" on page 694**. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 **a** Reseat all cable connectors on the 2500-sheet tray controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 29.	The problem is solved.
Step 30 Check the 2500-sheet tray controller board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 31.
Step 31 Replace the 2500-sheet tray controller board. See **"2500-sheet tray controller board removal" on page 731**. Does the problem remain?	Contact the next level of support.	The problem is solved.

243–245 paper jams

243 paper jam messages

Error code	Description	Action
243.33	The 2 x 500-sheet tray sensor (tray 3 transport) did not detect the paper.	See **"2 x 500-sheet tray 3 jam service check" on page 150**.
243.33	The 2500-sheet tray sensor (tray 3 transport) did not detect the paper.	See **"2500-sheet tray jam service check" on page 147**.
243.93	The 2 x 500-sheet tray sensor (tray 3 transport) did not detect the paper from tray 4.	See **"2 x 500-sheet tray 3 jam service check" on page 150**.

244–245 paper jam messages

Error code	Description	Action
244.43	The 2 x 500-sheet tray sensor (tray 4 transport) did not detect the paper.	See **"2 x 500-sheet tray 4 jam service check" on page 153**.
245.53	The sensor (3000-sheet tray feed) did not detect the paper.	See **"3000-sheet tray feed jam service check" on page 158**.

2500-sheet tray jam service check

Action	Yes	No
Step 1 Remove the paper jams and fragments along the paper path. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray sensor tests** **b** Find the sensor (Tray feed). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the sensor. See **"Sensor (2500-sheet tray feed) removal" on page 744**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the 2500-sheet tray pick assembly sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** **b** Select Single, and then touch **Start**. Does the leading edge of the paper reach the sensor (2500-sheet tray feed)?	Go to step 17.	Go to step 8.
Step 8 Check the following 2500-sheet tray rollers for damage: **Note:** If the page count is over 50K, then clean the rollers. • Feed roller • Pick roller • Separator roller Are the rollers free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the damaged rollers. See **"2500-sheet tray paper feed assembly removal" on page 751** and **"2500-sheet tray pick assembly removal" on page 753**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray motor tests** > **Tray feed** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 11.

Action	Yes	No
Step 11 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"Motor (2500-sheet tray feed) removal" on page 748**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 15.	Go to step 14.
Step 14 Replace the 2500-sheet tray feed and transport motor cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the following tray 3 components for misalignment, wear, and damage: • 2500-sheet tray feed and transport motor belt • 2500-sheet tray feed and transport primary gear • 2500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the affected components. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray sensor tests** **b** Find the sensor (Tray transport). Does the sensor status change while toggling the sensor?	Go to step 20.	Go to step 18.

Action	Yes	No
Step 18 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the sensor. See **"Sensor (2500-sheet tray transport) removal" on page 745**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the 2500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the controller board. See **"2500-sheet tray controller board removal" on page 731**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 jam service check

Action	Yes	No
Step 1 Remove the paper jams and fragments along the paper path. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 3 feed). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the 2 x 500-sheet tray 3 pick assembly sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 3** **b** Select Single, and then touch **Start**. Does the leading edge of the paper reach the sensor (2 x 500-sheet tray 3 paper feed)?	Go to step 17.	Go to step 8.
Step 8 Check the following tray 3 rollers for damage: **Note:** If the page count is over 50K, then clean the rollers. • Feed roller • Pick roller • Separator roller Are the rollers free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the damaged rollers. See **"2 x 500-sheet tray rollers removal" on page 759**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray motor tests** > **Tray 3 paper feed** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 11.

Action	Yes	No
Step 11 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 15.	Go to step 14.
Step 14 Replace the 2 x 500-sheet tray 3 feed and transport motor cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the following tray 3 components for misalignment, wear, and damage: • 2 x 500-sheet tray feed and transport motor belt • 2 x 500-sheet tray feed and transport primary gear • 2 x 500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the affected components. See **"2 x 500-sheet tray 3 transport belts and gears removal" on page 776**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 3 transport). Does the sensor status change while toggling the sensor?	Go to step 20.	Go to step 18.

Action	Yes	No
Step 18 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 jam service check

Action	Yes	No
Step 1 Remove the paper jams and fragments along the paper path. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 4 feed). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 3.
Step 3 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the 2 x 500-sheet tray 4 pick assembly sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 4** **b** Select Single, and then touch **Start**. Does the leading edge of the paper reach the sensor (2 x 500-sheet tray 4 paper feed)?	Go to step 17.	Go to step 8.
Step 8 Check the following tray 4 rollers for damage: **Note:** If the page count is over 50K, then clean the rollers. • Feed roller • Pick roller • Separator roller Are the rollers free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the damaged rollers. See **"2 x 500-sheet tray rollers removal" on page 759**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray motor tests** > **Tray 4 paper feed** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 11.

Action	Yes	No
Step 11 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the motor. See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 15.	Go to step 14.
Step 14 Replace the 2 x 500-sheet tray 4 feed and transport motor cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the following tray 4 components for misalignment, wear, and damage: • 2 x 500-sheet tray feed and transport motor belt • 2 x 500-sheet tray feed and transport primary gear • 2 x 500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the affected components. See **"2 x 500-sheet tray 4 transport belts and gears removal" on page 777**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 4 transport). Does the sensor status change while toggling the sensor?	Go to step 20.	Go to step 18.

Action	Yes	No
Step 18 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 21.
Step 21 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 transport jam service check

Action	Yes	No
Step 1 Make sure that the paper path between tray 3 and tray 4, including the sensors, are free of debris or dust. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **INPUT TRAY TESTS** > **Feed Tests** > **Tray 4** **b** Check the movement and position of the paper. Does the leading edge of the paper reach the sensor (tray 3 transport)?	Go to step 3.	Go to step 7.
Step 3 Check the sensor (tray 3 transport). Is it free of damage?	Go to step 4.	Go to step 6.

Action	Yes	No
Step 4 Enter the Diagnostics menu, and then navigate to: **SENSOR TESTS** > **PRINTER SENSOR TESTS** > **Tray 3 transport** Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 5.
Step 5 **a** Reseat the sensor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor (tray 3 transport). See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 4 transport roller for damage, and replace if necessary. **Note:** If the page count is over 50K, then clean the rollers. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Enter the Diagnostics menu, and then navigate to: **MOTOR TESTS** > **2 x 500-Sheet Tray Motor Tests** > **Tray 4 transport** Does the motor run?	Go to step 12.	Go to step 9.
Step 9 **a** Reseat the motor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Check the tray 4 transport belt for proper tension, and adjust if necessary. **b** Check the transport gear and belt for wear or damage, and replace if necessary. See **"2 x 500-sheet tray 4 transport belts and gears removal" on page 777**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Replace the motor (2 x 500-sheet tray 4 transport). See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the 2 x 500-sheet tray controller board pins for damage, and replace if necessary. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

3000-sheet tray feed jam service check

Action	Yes	No
Step 1 **a** Open the top door, and then remove the paper jams and fragments along the paper path. **b** Make sure that the 3000-sheet tray is properly installed to the printer. **c** Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Clear the 3000-sheet tray pick, feed, and separator rollers of debris and dust. **b** Check the tray rollers for misalignment, wear, and damage. Are the rollers properly installed and free of wear and damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the affected rollers. See **"3000-sheet tray rollers removal" on page 779**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Clear the 3000-sheet tray transport roller of debris and dust. **b** Check the tray roller for misalignment, wear, and damage. Is the roller properly installed and free of wear and damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reinstall or replace the roller. See **"3000-sheet tray feed roller assembly removal" on page 801**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **3000-sheet tray sensor tests** **b** Find the sensor (Tray upper limit) and sensor (Tray paper feed). Do the sensor statuses change while toggling the sensors?	Go to step 11.	Go to step 7.
Step 7 **a** Reseat the cable CN5 on the 3000-sheet tray controller board. **b** Reseat the cable of the affected sensor, and then clear the sensor of debris and dust. **c** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the affected sensor. See **"Sensor (3000-sheet tray elevator level) removal" on page 792** and **"Sensor (3000-sheet tray feed) removal" on page 793**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 11.	Go to step 10.
Step 10 Replace the 3000-sheet tray feed sensor cable. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **3000-sheet tray motor tests** > **Tray feed** and **Tray transport** **b** Touch **Start**. Do the motors run?	Go to step 14.	Go to step 12.

Action	Yes	No
Step 12 **a** Reseat the cable CN4 on the 3000-sheet tray controller board. **b** Reseat the cable of the affected motor, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the affected motor. See **"3000-sheet tray feed and transport motors removal" on page 800**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the following components for misalignment, wear, and damage: • 3000-sheet tray feed and pick belt • 3000-sheet feed and pick drive gear • 3000-sheet tray feed gear • 3000-sheet tray feed motor idler gear • 3000-sheet tray feed and pick idler gear • 3000-sheet tray feed motor gear • 3000-sheet tray transport roller drive gear Are the belt and gears properly installed and free of wear and damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the affected components. See the following: • **"3000-sheet tray feed and pick belt removal" on page 781** • **"3000-sheet tray pick roller assembly removal" on page 804** • **"3000-sheet tray feed roller assembly removal" on page 801** • **"3000-sheet tray feed and transport motors removal" on page 800** Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Reseat all the cables on the 3000-sheet controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Contact the next level of support.	The problem is solved.

250 paper jams

250 paper jam messages

Error code	Description	Action
250.03	The sensor (registration) did not detect the paper fed from the MPF.	See **"MPF jam service check" on page 161**.
250.04	While feeding from the MPF, the paper did not reach the registration roller in time.	

MPF jam service check

Action	Yes	No
Step 1 Make sure that the MPF paper path, including the sensors, are free of debris or dust. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the MPF paper present sensor actuator for damage, and replace if necessary. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor (MPF paper present). Is it free of damage?	Go to step 4.	Go to step 7.
Step 4 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (MPF paper present). Does the sensor status change while toggling the sensor?	Go to step 5.	Go to step 8.
Step 5 **a** Reseat the MPF paper present sensor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor (MPF paper present). Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Make sure that the MPF lift plate, including the cam and gears, are properly installed. **b** Check the plate, including the cam and gears, for damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Observe the MPF lift plate solenoid. Is it working properly?	Go to step 10.	Go to step 9.
Step 9 **a** Reseat the MPF lift plate solenoid cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the MPF lift plate solenoid, including the actuator for wear or damage, and replace if necessary. See **"MPF lift plate solenoid removal" on page 415**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Observe the MPF lift plate clutch. Is it working properly?	Go to step 13.	Go to step 12.
Step 12 **a** Reseat the MPF lift plate clutch cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the MPF lift plate clutch for damage, and replace if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the sensor (MPF lift plate). Is it free of damage?	Go to step 15.	Go to step 18.

Action	Yes	No
Step 15 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. . **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (MPF lift plate). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 **a** Reseat the MPF lift plate sensor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor (MPF lift plate). Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests**. **b** Find the motor (feed), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 22.	Go to step 19.
Step 19 **a** Reseat the feed motor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 **a** Check the paper feed belt for proper tension, and adjust if necessary. **b** Check the paper feed gear and belt for wear or damage, and replace if necessary. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the motor (feed). See **"Motor (feed) removal" on page 634**. Does the problem remain?	Go to step 22.	The problem is solved.

Action	Yes	No
Step 22 **a** Make sure that the MPF is properly installed. **b** Check the MPF for damage, and replace if necessary. See **"MPF removal" on page 389**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

297 paper jams

297 paper jam messages

Error code	Description	Action
297.17	The paper did not reach the sensor (registration 2) fed from tray 1.	See **"Registration jam service check" on page 127**.

User attendance messages

31–39 user attendance errors

31–39 user attendance messages

Error code	Description	Action
31.00	Missing or unresponsive toner cartridge.	See **"Missing or unresponsive cartridge service check" on page 172**.
	Missing or unresponsive photoconductor.	See **"Missing or unresponsive photoconductor service check" on page 174**.
	Developer unit (K) error.	See **"Developer unit (K) failure service check" on page 171**.
	Developer unit (C) error.	See **"Developer unit (C) failure service check" on page 166**.
	Developer unit (M) error.	See **"Developer unit (M) failure service check" on page 168**.
	Developer unit (Y) error.	See **"Developer unit (Y) failure service check" on page 169**.
31.30	Transfer belt smart chip or sensor communication problem was detected.	See **"Toner cartridge or photoconductor error service check" on page 175**.
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 unit (K) error.	See **"Developer unit (K) failure service check" on page 171**.
31.51	Developer unit (C) error.	See **"Developer unit (C) failure service check" on page 166**.
31.52	Developer unit (M) error.	See **"Developer unit (M) failure service check" on page 168**.
31.53	Developer unit (Y) error.	See **"Developer unit (Y) failure service check" on page 169**.
31.60	Missing or unresponsive K photoconductor.	See **"Missing or unresponsive photoconductor service check" on page 174**.
31.61	Missing or unresponsive C photoconductor.	
31.62	Missing or unresponsive M photoconductor.	
31.63	Missing or unresponsive Y photoconductor.	

Error code	Description	Action
32.40	The third party toner cartridge (K) is unsupported.	See **"Unsupported third party supplies service check" on page 176**.
32.41	The third party toner cartridge (C) is unsupported.	
32.42	The third party toner cartridge (M) is unsupported.	
32.43	The third party toner cartridge (Y) is unsupported.	
32.50	The third party developer (K) is unsupported.	
32.51	The third party developer (C) is unsupported.	
32.52	The third party developer (M) is unsupported.	
32.53	The third party developer (Y) is unsupported.	
32.6	The third party imaging unit/photoconductor (K) is unsupported.	
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.	
35.xx	The printer memory is insufficient to enable Resource Save.	See **"Insufficient memory service check" on page 178**.
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 178**.

Developer unit (C) failure service check

Action	Yes	No
Step 1 Check the developer unit (C) cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 2.	Go to step 4.
Step 2 Make sure that the developer toner inlet is properly connected to the toner agitator. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Clean the developer unit (C) contacts. **b** Reseat the developer unit cable on both ends. **c** Reseat the developer unit. **d** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the developer unit. See **"Developer unit (C) removal" on page 525**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Developer unit (M) failure service check

Action	Yes	No
Step 1 Check the developer unit (M) cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 2.	Go to step 4.
Step 2 Make sure that the developer toner inlet is properly connected to the toner agitator. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Clean the developer unit (M) contacts. **b** Reseat the developer unit cable on both ends. **c** Reseat the developer unit. **d** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the developer unit. See **"Developer unit (M) removal" on page 524**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Developer unit (Y) failure service check

Action	Yes	No
Step 1 Check the developer unit (Y) cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 2.	Go to step 4.
Step 2 Make sure that the developer toner inlet is properly connected to the toner agitator. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Clean the developer unit (Y) contacts. **b** Reseat the developer unit cable on both ends. **c** Reseat the developer unit. **d** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the developer unit. See **"Developer unit (Y) removal" on page 523**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Developer unit (K) failure service check

Action	Yes	No
Step 1 Check the developer unit (K) cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 2.	Go to step 4.
Step 2 Make sure that the developer toner inlet is properly connected to the toner agitator. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Clean the developer unit (K) contacts. **b** Reseat the developer unit cable on both ends. **c** Reseat the developer unit. **d** Check the developer unit for proper installation and damage. Is the developer unit properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the developer unit. See **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Missing or unresponsive cartridge service check

Action	Yes	No
Step 1 **a** Determine the missing or unresponsive toner cartridge. **b** Check if the affected toner cartridge is empty. Is the toner cartridge empty?	Go to step 3.	Go to step 2.
Step 2 **a** Clear the toner cartridge chip of contamination. **b** Make sure that the toner cartridge tip is properly aligned with the toner cartridge contacts. **c** Make sure that the toner cartridge bottle can rotate. **d** Check the toner cartridge for proper installation and damage. Is the toner cartridge properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the affected toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the toner cartridge relay contact cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Replace the toner cartridge relay contact cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the toner cartridge contact of the affected color for proper installation and damage. Is the toner cartridge contact properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the toner cartridge contact. See **"Toner cartridge contact removal" on page 526**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the toner agitator for proper installation and damage. Is the toner agitator properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the toner agitator. See **"Toner agitator removal" on page 516**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Missing or unresponsive photoconductor service check

Action	Yes	No
Step 1 **a** Determine the missing or unresponsive photoconductor. **b** Clear the affected photoconductor chip of contamination. **c** Make sure that the photoconductor chip is properly aligned with the photoconductor relay contact. **d** Check the photoconductor for proper installation and damage. Is the photoconductor properly installed and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the affected photoconductor. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the photoconductor relay contact for proper installation and damage. Is the photoconductor relay contact properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the photoconductor relay contact. See **"Photoconductor relay contact removal" on page 532**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner cartridge or photoconductor error service check

Action	Yes	No
Step 1 **a** Make sure that the toner cartridge and photoconductor unit are properly installed. **b** Make sure that the toner cartridge and photoconductor unit are supported. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Make sure that the photoconductor contact cables are properly connected. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the toner cartridge and photoconductor contacts for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Reseat the cables on the toner agitator assembly. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported third party supplies service check

Action	Yes	No
Step 1 Check if any of the following components are third party supplies: • Toner cartridge • Developer unit • Fuser • Photoconductor • Transfer belt Are any of the components third party supplies?	Go to step 2.	Contact the next level of support.
Step 2 Replace the third party supplies with genuine Lexmark supplies. Does the problem remain?	Contact the next level of support.	The problem is solved.

Mismatched paper size service check

Action	Yes	No
Step 1 **a** Make sure that the tray paper length and width guides are properly installed. **b** Check the guides for wear or damage, and replace if necessary. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 Check the tray paper width and length sensor actuators for damage, and replace if necessary. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the tray paper width and length sensor cables. **b** Check the cables for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Check the sensor (tray paper width) and sensor (tray paper length) for proper installation and damage. **b** Reseat the sensor cable connectors on both ends. Are the sensors properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the damaged sensor. See **"Sensor (tray 1 paper width) removal" on page 618**, **"Sensor (tray 2 paper width) removal" on page 620**, **"Sensor (tray 1 paper length) removal" on page 664**, or **"Sensor (tray 2 paper length) removal" on page 665**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Insufficient memory service check

Action	Yes	No
Step 1 Reset the printer, and then navigate to: **Settings** > **Print** > **Setup** > **Download Target** > **Disk** Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 If applicable, install extra memory card. If applicable, make sure that the additional memory card is properly installed. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Complex page service check

Action	Yes	No
Step 1 Reset the printer, and then navigate to: **Settings** > **Print** > **Setup** > **Download Target** > **Disk** Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 1** > **Single** Does the problem remain?	Go to step 4.	Go to step 3.
Step 3 If applicable, install extra memory card. If applicable, make sure that the additional memory card is properly installed. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

42–59 user attendance errors

42–59 user attendance messages

Error code	Description	Action
42.xx	The cartridge is incompatible due to printer region mismatch.	See **“Toner cartridge or photoconductor error service check” on page 175**.
50.xx	PPDS font error was detected.	See **“PPDS font error service check” on page 179**.
51.xx	The flash memory is defective.	See **“Flash memory failure service check” on page 180**.
52.xx	The flash memory is insufficient.	See **“Insufficient flash memory service check” on page 180**.
53.xx	The flash memory is unformatted.	See **“Flash memory failure service check” on page 180**.
54.xx	The printer was not able to communicate with the network.	See **“Network service check” on page 181**.
55.xx	The internal option installed is unsupported.	See **“Unsupported internal option service check” on page 184**.
56.xx	The parallel port, serial port, or standard USB port is disabled.	See **“Disabled port service check” on page 184**.
58.xx	The disks, trays, or bins installed are too many.	See **“Excess options service check” on page 185**.
59.xx	The input option or output option is incompatible.	See **“Incompatible hardware option service check” on page 186**.

PPDS font error service check

Action	Yes	No
Step 1 Navigate to **Settings** > **Print** > **Layout** > **Print Area** > **Fit to Page**. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Make sure that the font is supported by the memory card. Replace the memory card if necessary. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the controller board pins for damage, and replace if necessary. See **“Controller board removal” on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Flash memory failure service check

Action	Yes	No
Step 1 Navigate to **Settings** > **Print** > **Job Accounting** > **Log Near Full Level**. Make sure that the value is set to maximum. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 If applicable, make sure that the optional memory card is supported. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Make sure that the firmware version is the latest, and update if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Insufficient flash memory service check

Action	Yes	No
Step 1 Navigate to **Settings** > **USB Drive** > **Flash Drive Scan** > **Format Flash**. Does the problem remain?	Go to step 3.	Go to step 2.
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?	Go to step 3.	The problem is solved.
Step 3 If applicable, make sure that the optional memory card is supported. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Make sure that the firmware version is the latest, and update if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Network service check

Note: Before starting this service check, print the network setup page. This page is found under **Settings** > **Reports** > **Network**. Consult the network administrator to make sure that the physical and wireless network settings displayed on the network settings page for the printer are properly configured. If a wireless network is used, then make sure that the printer is in the range of the host computer or wireless access point. Make sure that there is no electronic interference in the wireless network. Have the network administrator check that the printer is using the correct SSID, and wireless security protocols.

Actions	Yes	No
Step 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?	Go to step 2.	The problem is solved.
Step 2 If the network is wireless, check the online status of the printer under Printers and Faxes on the host computer. Delete all print jobs in the print queue. Is the printer online and in Ready state?	Go to step 4.	Go to step 3.
Step 3 Change the printer status to online. Does the problem remain?	Go to step 4.	The problem is solved.
Step 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?	Go to step 9.	Go to step 5.

Actions	Yes	No
Step 5 **Note:** A printer should use a static IP address on a network. Does the LAN use DHCP?	Go to step 6.	Go to step 8.
Step 6 Check the first two segments of the IP address. Does the IP address start with 169.254?	Go to step 7.	Go to step 8.
Step 7 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 8 Reset the address on the printer to match the IP address on the driver. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Have the network administrator check if the printer and computer IP address have identical subnet addresses. Are the subnet addresses the same?	Go to step 11.	Go to step 10.
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?	Go to step 11.	The problem is solved.
Step 11 Is the printer physically connected (Ethernet cable) to the network?	Go to step 12.	Go to step 15.
Step 12 Try using a different Ethernet cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Have the network administrator check the network drop for activity. Is the network drop functioning properly?	Go to step 14.	Contact the network administrator.

Actions	Yes	No
Step 14 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Is the printer on the same wireless network as the other devices?	Go to step 17.	Go to step 16.
Step 16 Assign the correct wireless network to the printer. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Are the other devices on the wireless network communicating properly?	Go to step 18.	Contact the network administrator.
Step 18 Make sure that the wireless card on the controller board is properly installed. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 If there is an attached antenna, check it for damage, and replace if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Make sure that the antenna is properly connected to the wireless card. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the wireless card. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported internal option service check

Action	Yes	No
Step 1 If applicable, make sure that the option cards are supported. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Make sure that the firmware version is the latest, and update if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Disabled port service check

Action	Yes	No
Step 1 **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?	Go to step 2.	The problem is solved.
Step 2 From the home screen, touch **Settings** > **Network/Ports**, and then make sure that the applicable port settings are enabled. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 If applicable, make sure that the option card is supported. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Make sure that the firmware version is the latest, and update if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Excess options service check

Action	Yes	No
Step 1 Reset the printer, and then resend the print job. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 If applicable, make sure that the internal option is supported. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** If applicable, remove all internal options. **b** Reset the printer, and then resend the print job. Does the problem remain?	Go to step 6.	Go to step 4.
Step 4 Check if the number of internal options installed is allowed, and remove the excess option. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check if the number of input options installed is allowed, and remove the excess option. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board pins for damage, and replace if necessary. See **“Controller board removal” on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Incompatible hardware option service check

Action	Yes	No
Step 1 **Warning—Potential Damage:** Do not perform this step if the printer is on. **a** Reseat the hardware option cables. **b** Check the cables for damage, and replace if necessary. Does the problem remain?	Go to step 2.	The problem is solved.
Step 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?	Go to step 3.	The problem is solved.
Step 3 Check the hardware option controller board pins for damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

61–88 user attendance errors

61–88 user attendance messages

Error code	Description	Action
61.xx	The hard disk is defective.	See **"Hard disk failure service check" on page 187**.
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 188**.
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 **"Toner cartridge or photoconductor error service check" on page 175**.
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 **"Toner cartridge or photoconductor error service check" on page 175**.

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 **"Toner cartridge or photoconductor error service check" on page 175**.

Hard disk failure service check

Action	Yes	No
Step 1 Delete unnecessary files. **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?	Go to step 2.	The problem is solved.
Step 2 Make sure that the printer is using the latest firmware version. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **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?	Go to step 4.	The problem is solved.
Step 4 **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?	Go to step 5.	The problem is solved.
Step 5 Check the controller board pins for damage. Are the pins free of damage?	Contact the next level of support.	Go to step 6.
Step 6 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Maintenance kit service check

Action	Yes	No
Warning—Potential Damage: Do not perform this step if the printer is on. **a** Replace the required maintenance kit. **b** Reset the maintenance counter. See **"Resetting the maintenance counter" on page 826**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printer hardware errors

110 errors

110 error messages

Error code	Description	Action
110.31	Motor (polygon) malfunction.	See **"Motor (polygon) failure service check" on page 188**.
110.35	Motor (polygon) malfunction.	
110.70	Printhead driver communication error.	See **"Printhead driver communication error service check" on page 190**.

Motor (polygon) failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (polygon), open the front door or right door, and then touch **Start**. **c** Wait until the Cancel button is replaced with the OK button, and then touch **OK**. **d** Close the front door or right door. Does the motor run?	Go to step 8.	Go to step 2.
Step 2 **a** Reseat all cable connectors on the printhead relay board. **b** Check the printhead relay board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Replace the printhead relay board. See **"Printhead relay board removal" on page 360**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat the printhead FFC on both ends. **b** Check the printhead FFC for proper installation and damage. Is the printhead FFC properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the printhead FFC. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reseat all cable connectors on the image controller board. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reseat all cable connectors on the engine board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Check all cable connectors on the image controller board for proper connection and damage, and replace if necessary. **b** Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 **a** Check all cable connectors on the engine board for proper connection and damage, and replace if necessary. **b** Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printhead driver communication error service check

Action	Yes	No
Step 1 **a** Reseat the printhead FFC connector on both ends. **b** Check the printhead FFC for proper connection and damage. Is the printhead FFC properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the printhad FFC. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat all cable connectors on the printhead relay board. **b** Check the printhead relay board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the printhead relay board. See **"Printhead relay board removal" on page 360**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 9.
Step 9 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

12y errors

12y error messages

Note: If the following error codes appear, then make sure to perform the Reset Engine Service Error first. See **"Reset Engine Service Error" on page 292**.

- 121
- 121.01
- 121.04
- 121.05
- 121.15
- 121.32
- 121.45
- 121.5
- 121.53
- 121.57
- 121.59
- 121.7
- 121.71
- 121.73
- 121.74

Error code	Description	Action
120.80	Motor (fuser) rotation failure.	See **"Motor (fuser) failure service check" on page 193**.
120.82	Motor (fuser) rotation abnormality.	

Error code	Description	Action
121.01	Induction heater communication error.	See **"Induction heater failure service check" on page 201**
121.02	Induction heater power configuration abnormality.	
121.04	Induction heater malfunction (CPU).	
121.05	Induction heater malfunction (monitor).	
121.15	Induction heater power error.	
121.16	Induction heater input voltage power error.	
121.00	The fuser temperature did not reach the required level during warm-up.	See **"Fuser temperature failure service check" on page 204**.
121.32		
121.50		
121.53		
121.57		
121.70		
121.71		
121.73		
121.74		
121.43	Fuser roller pressure did not retract.	See **"Fuser roller failure service check" on page 199**.
121.44		
121.45	Motor (fuser) roller rotation failure.	See **"Motor (fuser) roller failure service check" on page 194**.
125.01	CMY retract abnormal detection.	See **"CMY retract unable to return home failure service check" on page 196**.
125.02		
125.03		
125.04		
125.05		
129.00	K toner to carrier ratio abnormally low.	See **"K developer toner density failure service check" on page 218**.
129.01	K toner to carrier ratio abnormally high.	
129.04	K developer toner to carrier ratio adjustment error.	
129.10	C toner to carrier ratio abnormally low.	See **"C developer toner density failure service check" on page 208**.
129.11	C toner to carrier ratio abnormally high.	
129.14	C developer toner to carrier ratio adjustment error.	
129.20	M toner to carrier ratio abnormally low.	See **"M developer toner density failure service check" on page 211**.
129.21	M toner to carrier ratio abnormally high.	
129.24	M developer toner to carrier ratio adjustment error.	

Error code	Description	Action
129.30	Y toner to carrier ratio abnormally low.	See **"Y developer toner density failure service check" on page 215**.
129.31	Y toner to carrier ratio abnormally high.	
129.34	Y developer toner to carrier ratio adjustment error.	

Motor (fuser) failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (fuser), open the front door or right door, and then touch **Start**. **c** Wait until the Cancel button is replaced with the OK button, and then touch **OK**. **d** Close the front door or right door. Does the motor run?	Go to step 5.	Go to step 2.
Step 2 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the motor. See **"Motor (fuser) removal" on page 609**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Check the following for proper installation and damage: • Fuser drive gearbox • Fuser knob • Fuser transport primary gear • Fuser transport secondary gear • Fuser pressure secondary gear Are the parts properly installed and free of damage?	Go to step 8.	The problem is solved.
Step 8 Replace the damaged parts. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (fuser) roller failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (fuser), open the front door or right door, and then touch **Start**. **c** Wait until the Cancel button is replaced with the OK button, and then touch **OK**. **d** Close the front door or right door. Does the motor run?	Go to step 5.	Go to step 2.

Action	Yes	No
Step 2 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the motor. See **"Motor (fuser) removal" on page 609**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Reseat the fuser cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the following for proper installation and damage: • Fuser drive gearbox • Fuser knob • Fuser transport primary gear • Fuser transport secondary gear • Fuser pressure secondary gear Are the parts properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the damaged parts. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the fuser drive lever for proper installation and damage. Is the fuser drive lever properly installed and free of damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Replace the fuser drive lever. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 14.
Step 14 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

CMY retract unable to return home failure service check

Action	Yes	No
Step 1 Check the transfer belt for proper installation, wear or damage. Reseat the transfer belt. Is the transfer belt properly installed and free of wear or damage?	Go to step 3.	Go to step 2.
Step 2 Replace the transfer belt. See **"Transfer belt removal" on page 367**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (fuser), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 7.	Go to step 4.

Action	Yes	No
Step 4 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the motor. See **"Motor (fuser) removal" on page 609**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (CMY retract). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor (CMY retract). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (CMY retract), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 14.	Go to step 11.
Step 11 Reseat the CMY retract clutch cable. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the CMY retract clutch for proper installation and damage. Is the clutch properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the CMY retract clutch. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check gearbox for proper installation and damage. Is the fuser drive gearbox properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace fuser drive gearbox. See **"Fuser drive gearbox removal" on page 612**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the following components for proper installation and damage: • Fuser drive gearbox • Fuser knob • Fuser transport primary gear • Fuser transport secondary gear • Fuser pressure secondary gear Are the parts properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Replace the damaged parts. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the expansion controller board for proper installation and damage. Is the board free of damage?	Go to step 21.	Go to step 20.

Action	Yes	No
Step 20 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 23.
Step 23 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser roller failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (fuser pressure), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 5.	Go to step 2.
Step 2 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Replace the motor. See **"Motor (fuser pressure) removal" on page 610**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (fuser pressure home). Take note of the status of the sensor. **d** Navigate to **Printer diagnostics & adjustments** > **Motor tests**. **e** Find the motor (fuser pressure) or motor (fuser pressure release), open the front or right door of the printer, and then touch **Start**. **f** Navigate to **Printer diagnostics & adjustments** > **Sensor tests**, and then check the status of the sensor (fuser pressure home). Did the sensor status change?	Go to step 9.	Go to step 6.
Step 6 Reseat the fuser cable connector on both ends. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the following components for proper installation and damage: • Fuser drive gearbox • Fuser knob • Fuser transport primary gear • Fuser transport secondary gear • Fuser pressure secondary gear Are the parts properly installed and free of damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Replace the damaged parts. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Induction heater failure service check

Action	Yes	No
Step 1 Check if the input voltage matches the rated input voltage of the printer. Do the input voltages match?	Go to step 3.	Go to step 2.
Step 2 Use the correct input voltage according to the rated input voltage of the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Enter the Diagnostics menu, and then navigate to: **Printer setup** > **Service engine reset** Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Reseat the fuser cable connector on both ends. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat the induction heater cable connectors on both ends. **b** Check the induction heater for proper installation and damage. Is the induction heater properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the induction heater. See **"Induction heater removal" on page 465**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the following cables for proper connection and damage: • Induction heater power supply cable • Induction heater magnetic erase board cable • Noise filter board cable • Engine board cable Are the cables properly connected and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the damaged cables. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check if the input voltage of the induction heater power supply matches the input voltage of the induction heater. Do the input voltages match?	Go to step 13.	Go to step 12.
Step 12 Replace the induction heater power supply. See **"Induction heater power supply (IHPS) removal" on page 581**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check the induction heater magnetic erase board for proper installation and damage. Is the induction heater magnetic erase board properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the induction heater magnetic erase board. See **"Induction heater magnetic erase board removal" on page 579**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the noise filter board for proper installation and damage. Is the noise filter board properly installed and free of damage?	Go to step 17.	Go to step 16.
Step 16 Replace the noise filter board. See **"Noise filter board removal" on page 578**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Reseat all cable connectors on the main power supply. **b** Check the main power supply for proper installation and damage. Is the main power supply properly installed and free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the main power supply. See **"Main power supply removal" on page 356**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 21.

Action	Yes	No
Step 21 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser temperature failure service check

Action	Yes	No
Step 1 Check if the input voltage matches the rated input voltage of the printer. Do the input voltages match?	Go to step 3.	Go to step 2.
Step 2 Use the correct input voltage according to the rated input voltage of the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **Reset Engine Service Error** **b** Touch **Start**. **c** Wait for the test to complete, and then touch **OK**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Reseat the fuser cable connector on both ends. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the fuser for proper installation and damage. Is the fuser properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the fuser. See **"Fuser removal" on page 464**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the fuser fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Replace the fuser fan. See **"Heater cooling fan removal" on page 531**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the following cables for proper connection and damage: • Induction heater power supply cable • Induction heater magnetic erase board cable • Noise filter board cable • Engine board cable Are the cables properly connected and free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the damaged cables. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Clear the induction heater of contamination. **b** Check the induction heater for proper installation and damage. Is the induction heater properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the induction heater. See **"Induction heater removal" on page 465**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (fuser temperature, rear). Does the sensor status change while toggling the sensor?	Go to step 16.	Go to step 14.
Step 14 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the sensor (fuser temperature, rear). Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (fuser temperature, front). Does the sensor status change while toggling the sensor?	Go to step 19.	Go to step 17.
Step 17 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor (fuser temperature, front). Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the induction heater power supply for proper installation and damage. Is the induction heater power supply properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the induction heater power supply. See **"Induction heater power supply (IHPS) removal" on page 581**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the induction heater magnetic erase board. **b** Check the induction heater magnetic erase board for proper installation and damage. Is the induction heater magnetic erase board properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Replace the induction heater magnetic erase board. See **"Induction heater magnetic erase board removal" on page 579**. Does the problem remain?	Go to step 23.	The problem is solved.

Action	Yes	No
Step 23 **a** Reseat all cable connectors on the noise filter board. **b** Check the noise filter board for proper installation and damage. Is the noise filter board properly installed and free of damage?	Go to step 25.	Go to step 24.
Step 24 Replace the noise filter board. See **"Noise filter board removal" on page 578**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Reseat all cable connectors on the main power supply. **b** Check the main power supply for proper installation and damage. Is the main power supply properly installed and free of damage?	Go to step 27.	Go to step 26.
Step 26 Replace the main power supply. See **"Main power supply removal" on page 356**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 29.
Step 29 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

C developer toner density failure service check

Action	Yes	No
Step 1 Check if the toner cartridge (C) is empty. Is the toner cartridge empty?	Go to step 3.	Go to step 2.
Step 2 **a** Clear the toner cartridge chip of contamination. **b** Make sure that the toner cartridge tip is properly aligned with the toner cartridge contacts. **c** Make sure that the toner cartridge bottle can rotate. d Check the toner cartridge for proper installation and damage. Is the toner cartridge properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge (C). Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (developer), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 8.	Go to step 5.
Step 5 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the motor (developer). See **"Motor (developer) removal" on page 584**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Imaging process adjustment** > **Manual toner add** **b** Touch **Start** beside cyan. **c** Check if the cyan toner supply shaft and toner cartridge turn. Did the the toner supply shaft and toner cartridge turn?	Go to step 12.	Go to step 9.
Step 9 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the motor. See **"Motor (C toner supply) removal" on page 593**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clean the developer (C) contacts. **b** Reseat the developer cable connectors on both ends. **c** Reseat the developer. **d** Check the developer for proper installation and damage. Is the developer (C) properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the developer. See **"Developer unit (C) removal" on page 525**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the toner agitator for proper installation and damage. Is the toner agitator properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the toner agitator. See **"Toner agitator removal" on page 516**. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Check the sensor (toner empty) cable for proper connection and damage. Is the sensor cable properly connected and free of damage?	Go to step 19.	Go to step 17.
Step 17 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (toner empty) removal" on page 527**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the toner cartridge drive for proper installation and damage. Is the toner cartridge drive properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the toner cartridge drive. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 24.	The problem is solved.

Action	Yes	No
Step 24 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the engine board for proper installation and damage. Is the board free of damage?	Contact the next level of support.	The problem is solved.
Step 26 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

M developer toner density failure service check

Action	Yes	No
Step 1 Check if the toner cartridge (M) is empty. Is the toner cartridge empty?	Go to step 3.	Go to step 2.
Step 2 **a** Clear the toner cartridge chip of contamination. **b** Make sure that the toner cartridge tip is properly aligned with the toner cartridge contacts. **c** Make sure that the toner cartridge bottle can rotate. d Check the toner cartridge for proper installation and damage. Is the toner cartridge properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge (M). Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (developer), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 8.	Go to step 5.
Step 5 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the motor (developer). See **"Motor (developer) removal" on page 584**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Imaging process adjustment** > **Manual toner add** **b** Touch **Start** beside Magenta. **c** Check if the magenta toner supply shaft and toner cartridge turn. Did the the toner supply shaft and toner cartridge turn?	Go to step 12.	Go to step 9.
Step 9 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Replace the motor. See **"Motor (M toner supply) removal" on page 596**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clean the developer (M) contacts. **b** Reseat the developer cable connectors on both ends. **c** Reseat the developer. **d** Check the developer for proper installation and damage. Is the developer (M) properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the developer. See **"Developer unit (M) removal" on page 524**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the toner agitator for proper installation and damage. Is the toner agitator properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the toner agitator. See **"Toner agitator removal" on page 516**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the sensor (toner empty) cable for proper connection and damage. Is the sensor cable properly connected and free of damage?	Go to step 19.	Go to step 17.
Step 17 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (toner empty) removal" on page 527**. Does the problem remain?	Go to step 19.	The problem is solved.

Action	Yes	No
Step 19 Check the toner cartridge drive for proper installation and damage. Is the toner cartridge drive properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the toner cartridge drive. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the engine board for proper installation and damage. Is the board free of damage?	Contact the next level of support.	The problem is solved.
Step 26 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Y developer toner density failure service check

Action	Yes	No
Step 1 Check if the toner cartridge (Y) is empty. Is the toner cartridge empty?	Go to step 3.	Go to step 2.
Step 2 **a** Clear the toner cartridge chip of contamination. **b** Make sure that the toner cartridge tip is properly aligned with the toner cartridge contacts. **c** Make sure that the toner cartridge bottle can rotate. d Check the toner cartridge for proper installation and damage. Is the toner cartridge properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge (Y). Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (developer), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 8.	Go to step 5.
Step 5 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the motor (developer). See **"Motor (developer) removal" on page 584**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Imaging process adjustment** > **Manual toner add** **b** Touch **Start** beside yellow. **c** Check if the yellow toner supply shaft and toner cartridge turn. Did the toner supply shaft and toner cartridge turn?	Go to step 12.	Go to step 9.
Step 9 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the motor. See **"Motor (Y toner supply) removal" on page 599**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clean the developer (Y) contacts. **b** Reseat the developer cable connectors on both ends. **c** Reseat the developer. **d** Check the developer for proper installation and damage. Is the developer (Y) properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the developer. See **"Developer unit (Y) removal" on page 523**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the toner agitator for proper installation and damage. Is the toner agitator properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the toner agitator. See **"Toner agitator removal" on page 516**. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 Check the sensor (toner empty) cable for proper connection and damage. Is the sensor cable properly connected and free of damage?	Go to step 19.	Go to step 17.
Step 17 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (toner empty) removal" on page 527**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the toner cartridge drive for proper installation and damage. Is the toner cartridge drive properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the toner cartridge drive. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 24.	The problem is solved.

Action	Yes	No
Step 24 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the engine board for proper installation and damage. Is the board free of damage?	Contact the next level of support.	The problem is solved.
Step 26 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

K developer toner density failure service check

Action	Yes	No
Step 1 Check if the toner cartridge (K) is empty. Is the toner cartridge empty?	Go to step 3.	Go to step 2.
Step 2 **a** Clear the toner cartridge chip of contamination. **b** Make sure that the toner cartridge tip is properly aligned with the toner cartridge contacts. **c** Make sure that the toner cartridge bottle can rotate. d Check the toner cartridge for proper installation and damage. Is the toner cartridge properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge (K). Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (developer), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 8.	Go to step 5.
Step 5 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the motor (developer). See **"Motor (developer) removal" on page 584**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Imaging process adjustment** > **Manual toner add** **b** Touch **Start** beside Black. **c** Check if the black toner cartridge and motor (K toner supply) turns. Did the toner supply shaft and toner cartridge turn?	Go to step 12.	Go to step 9.
Step 9 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 12.	Go to step 11.

Action	Yes	No
Step 11 Replace the motor. See **"Motor (K toner supply) removal" on page 517**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Clean the developer (K) contacts. **b** Reseat the developer cable connectors on both ends. **c** Reseat the developer. **d** Check the developer for proper installation and damage. Is the developer (K) properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the developer. See **"Developer unit (K) removal" on page 526**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the toner agitator for proper installation and damage. Is the toner agitator properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Replace the toner agitator. See **"Toner agitator removal" on page 516**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the sensor (toner empty) cable for proper connection and damage. Is the sensor cable properly connected and free of damage?	Go to step 19.	Go to step 17.
Step 17 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the sensor. See **"Sensor (toner empty) removal" on page 527**. Does the problem remain?	Go to step 19.	The problem is solved.

Action	Yes	No
Step 19 Check the toner cartridge drive for proper installation and damage. Is the toner cartridge drive properly installed and free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the toner cartridge drive. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 24.	Go to step 23.
Step 23 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Check the engine board for proper installation and damage. Is the board free of damage?	Contact the next level of support.	The problem is solved.
Step 26 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

13y errors

137 error messages

Error code	Description	Action
137.83	Motor (developer) failure to turn.	See **"Motor (developer) failure service check" on page 222**.
137.82	Motor (developer) rotation abnormality.	

Motor (developer) failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (developer), open the front door or right door, and then touch **Start**. **c** Wait until the Cancel button is replaced with the OK button, and then touch **OK**. **d** Close the front door or right door. Does the motor run?	Go to step 5.	Go to step 2.
Step 2 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the motor. See **"Motor (developer) removal" on page 584**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Reseat all cable connectors on the LVPS. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

14y errors

142 error messages

Error code	Description	Action
142.83	Motor (photoconductor) failure to turn.	See **"Motor (photoconductor) failure service check" on page 223**.
142.82	Motor (photoconductor) failure to turn.	

Motor (photoconductor) failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (photoconductor), open the front door or right door, and then touch **Start**. **c** Wait until the Cancel button is replaced with the OK button, and then touch **OK**. **d** Close the front door or right door. Does the motor run?	Go to step 5.	Go to step 2.
Step 2 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Replace the motor. See **"Motor (photoconductor) removal" on page 585**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Reseat all cable connectors on the LVPS. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

15y errors

153 error messages

Error code	Description	Action
153.83	Motor (transport) rotation abnormality.	See **"Motor (transport) failure service check" on page 225**.
153.80	Motor (transport) rotation failure.	

Motor (transport) failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (transport), open the front door or right door, and then touch **Start**. **c** Wait until the Cancel button is replaced with the OK button, and then touch **OK**. **d** Close the front door or right door. Does the motor run?	Go to step 5.	Go to step 2.
Step 2 Reseat the motor cable connector on both ends. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the motor. See **"Motor (transport) removal" on page 583**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the main drive assembly for proper installation and damage. Is the main drive assembly properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the main drive assembly. See **"Main drive assembly removal" on page 606**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 9.

Action	Yes	No
Step 9 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

16y errors

16y error messages

Error code	Description	Action
163.83	The tray 3 (2 x 500-sheet tray) feed drive failed.	See **"2 x 500-sheet tray 3 feed failure service check" on page 227**.
163.83	The tray 3 (2500-sheet tray) feed drive failed.	See **"2500-sheet tray feed failure service check" on page 228**.
164.83	The tray 4 (2 x 500-sheet tray) feed drive failed.	See **"2 x 500-sheet tray 4 feed failure service check" on page 229**.
166.73	The tray 2 lift plate did not move to the correct position.	See **"Tray 2 lift plate failure service check" on page 230**.
167.73	The tray 3 (2 x 500-sheet tray) lift plate did not move to the correct position.	See **"2 x 500-sheet tray 3 lift plate failure service check" on page 232**.
167.73	The tray 3 (2500-sheet tray) lift plate did not move to the correct position.	See **"2500-sheet tray lift plate failure service check" on page 234**.
167.83	The tray 3 (2 x 500-sheet tray) transport drive failed.	See **"2 x 500-sheet tray 3 transport failure service check" on page 236**.
167.83	The 2500-sheet tray transfer guide did not move to the correct position.	See **"2500-sheet tray transfer guide motor failure service check" on page 237**.
168.73	The tray 4 (2 x 500-sheet tray) lift plate did not move to the correct position.	See **"2 x 500-sheet tray 4 lift plate failure service check" on page 240**.
168.83	The tray 4 (2 x 500-sheet tray) transport drive failed.	See **"2 x 500-sheet tray 4 transport failure service check" on page 242**.
169.73	The 3000-sheet tray elevator did not move to the correct position.	See **"3000-sheet tray elevator failure service check" on page 243**.

2 x 500-sheet tray 3 feed failure service check

Action	Yes	No
Step 1 Check the following tray 3 components for misalignment, wear, and damage: • 2 x 500-sheet tray feed and transport motor belt • 2 x 500-sheet tray feed and transport primary gear • 2 x 500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 3.	Go to step 2.
Step 2 Reinstall or replace the affected components. See **"2 x 500-sheet tray 3 transport belts and gears removal" on page 776**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the following tray 3 rollers for damage: **Note:** If the page count is over 50K, then clean the rollers. • Feed roller • Pick roller • Separator roller Are the rollers free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the damaged rollers. See **"2 x 500-sheet tray rollers removal" on page 759**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor (2 x 500-sheet tray 3 feed). See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

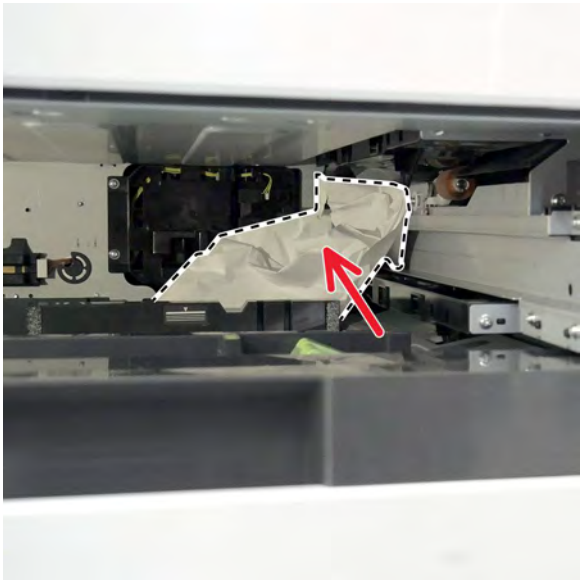
2500-sheet tray feed failure service check

Action	Yes	No
Step 1 Check the following tray 3 components for misalignment, wear, and damage: • 2500-sheet tray feed and transport motor belt • 2500-sheet tray feed and transport primary gear • 2500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 3.	Go to step 2.
Step 2 Reinstall or replace the affected components. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the following 2500-sheet tray rollers for damage: **Note:** If the page count is over 50K, then clean the rollers. • Feed roller • Pick roller • Separator roller Are the rollers free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the damaged rollers. See **"2500-sheet tray paper feed assembly removal" on page 751** and **"2500-sheet tray pick assembly removal" on page 753**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Reinstall or replace the motor (2500-sheet tray feed). See **"Motor (2500-sheet tray feed) removal" on page 748**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the 2500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the controller board. See **"2500-sheet tray controller board removal" on page 731**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 feed failure service check

Action	Yes	No
Step 1 Check the following tray 4 components for misalignment, wear, and damage: • 2 x 500-sheet tray feed and transport motor belt • 2 x 500-sheet tray feed and transport primary gear • 2 x 500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 3.	Go to step 2.
Step 2 Reinstall or replace the affected components. See **"2 x 500-sheet tray 4 transport belts and gears removal" on page 777**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the following tray 4 rollers for damage: **Note:** If the page count is over 50K, then clean the rollers. • Feed roller • Pick roller • Separator roller Are the rollers free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the damaged rollers. See **"2 x 500-sheet tray rollers removal" on page 759**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor (2 x 500-sheet tray 4 feed). See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

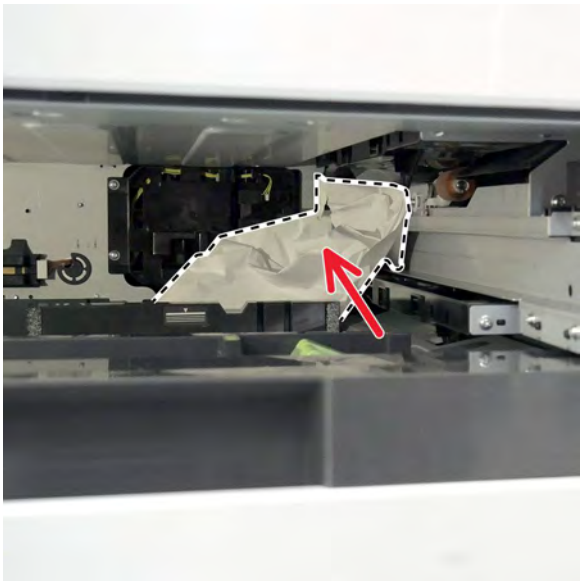
Tray 2 lift plate failure service check

Action	Yes	No
Step 1 **a** Remove tray 2. See **"Tray insert removal" on page 511**. **b** Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.  Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Tray 2 lift** **b** Touch **Start**. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (tray 2 lift) removal" on page 617**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the tray 2 feed cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 2 set actuator for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the actuator. See **"Tray 2 tray set actuator removal" on page 716**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Tray 2 lift plate limit). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 10.
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"Sensor (tray 2 lift plate level) removal" on page 671**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 14.	Go to step 13.
Step 13 Replace the paper feed sensor cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the engine board and its pins for damage. Are the engine board and pins free of damage?	Contact the next level of support.	Go to step 15.

Action	Yes	No
Step 15 Replace the engine board. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 lift plate failure service check

Action	Yes	No
Step 1 **a** Remove tray 3. See **"Tray insert removal" on page 511**. **b** Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.  Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray motor tests** > **Tray 3 lift** **b** Touch **Start**. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Reinstall or replace the motor. See **"Motor (2 x 500-sheet tray lift) removal" on page 764**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.
Step 6 Replace the 2 x 500-sheet tray 3 lift motor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 3 set actuator for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the actuator. See **"2 x 500-sheet tray tray set actuator removal" on page 774**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 3 lift plate limit). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 10.
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 12.	The problem is solved.

Action	Yes	No
Step 12 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 14.	Go to step 13.
Step 13 Replace the 2 x 500-sheet tray 3 pick assembly sensor cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2500-sheet tray lift plate failure service check

Note: Before performing this check, make sure to remove the tray insert, and then clear the paper path of any debris.

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray motor tests** > **Elevator up** or **Elevator down** **b** Touch **Start**. **Note:** Remove tray 1 and tray 2 to observe the motor properly. Does the motor run?	Go to step 6.	Go to step 2.
Step 2 Reseat the motor cables, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the motor. See **"Motor (2500-sheet tray elevator) removal" on page 748**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 6.	Go to step 5.
Step 5 Replace the 2500-sheet tray cable harness. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the main tray elevator coupling and main tray elevator gear for wear and damage. Are the coupling and gear free of wear and damage?	Go to step 8.	Go to step 7.
Step 7 Replace the damaged coupling or gear. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray sensor tests** **b** Find the sensor (Main tray elevator limit) and sensor (Tray elevator home). Do the sensor statuses change while toggling the sensors?	Go to step 13.	Go to step 9.
Step 9 **a** Reseat the cable of the affected sensor, and then clear the sensor of debris and dust. **b** Remove the tray insert, and then check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the affected sensor. See **"Sensor (2500-sheet tray main tray elevator limit) removal" on page 744** and **"Sensor (2500-sheet tray elevator home) removal" on page 735**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Replace the 2500-sheet tray pick assembly sensor cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the 2500-sheet tray elevator home sensor actuator for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the sensor actuator. See **"2500-sheet tray elevator home sensor actuator removal" on page 733**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat all cables on the 2500-sheet tray controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 3 transport failure service check

Action	Yes	No
Step 1 Check the following tray 3 components for misalignment, wear, and damage: • 2 x 500-sheet tray feed and transport motor belt • 2 x 500-sheet tray feed and transport primary gear • 2 x 500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 3.	Go to step 2.
Step 2 Reinstall or replace the affected components. See **"2 x 500-sheet tray 3 transport belts and gears removal" on page 776**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray 3 transport roller for wear and damage. Are the rollers free of wear and damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Replace the roller. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor (2 x 500-sheet tray 3 transport). See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

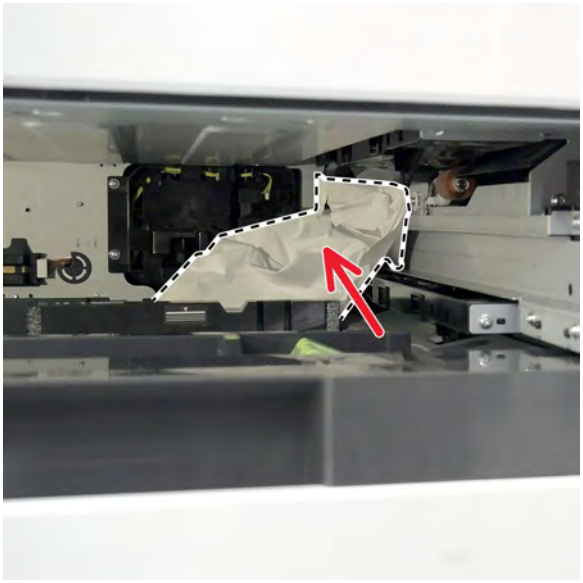
2500-sheet tray transfer guide motor failure service check

Action	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray motor tests** > **Transfer guide home** or **Transfer guide away** **b** Touch **Start**. **Note:** Remove tray 1 and tray 2 to observe the motor properly. Does the motor run?	Go to step 6.	Go to step 2.
Step 2 Reseat the motor cables, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the motor. See **"Motor (2500-sheet tray transfer guide) removal" on page 749**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 6.	Go to step 5.
Step 5 Replace the 2500-sheet tray cable harness. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the following 2500-sheet tray components for misalignment, wear, and damage: • Transfer guide primary gear • Transfer guide secondary gear • Transfer guide belt Are the components properly installed and free of wear and damage?	Go to step 8.	Go to step 7.
Step 7 Replace the affected components. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2500-sheet tray sensor tests** **b** Find the sensor (Tray transfer guide home) and sensor (Tray paper stack transfer). Do the sensor statuses change while toggling the sensors?	Go to step 13.	Go to step 9.
Step 9 **a** Reseat the cable of the affected sensor, and then clear the sensor of debris and dust. **b** Remove the tray insert, and then check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the affected sensor. See **"Sensor (2500-sheet tray transfer guide home) removal" on page 739** and **"Sensor (2500-sheet paper stack transfer) removal" on page 741**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 13.	Go to step 12.
Step 12 Replace the 2500-sheet tray insert sensor cable. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the following sensor actuators for misalignment and damage: • Paper stack transfer sensor actuator • Reserve tray paper limit sensor actuator Are the actuators properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the affected sensor actuator. See **"2500-sheet reserve tray paper limit sensor actuator removal" on page 742**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Reseat all cables on the 2500-sheet tray controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the 2500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 17.
Step 17 Replace the controller board. See **"2500-sheet tray controller board removal" on page 731**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 lift plate failure service check

Action	Yes	No
Step 1 **a** Remove tray 4. See **"Tray insert removal" on page 511**. **b** Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.  Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray motor tests** > **Tray 4 lift** **b** Touch **Start**. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (2 x 500-sheet tray lift) removal" on page 764**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the continuity of the motor cable. Does the cable have continuity?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Replace the 2 x 500-sheet tray 4 lift motor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 4 set actuator for misalignment and damage. Is the actuator properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the actuator. See **"2 x 500-sheet tray tray set actuator removal" on page 774**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **2 x 500-sheet tray sensor tests** **b** Find the sensor (Tray 4 lift plate limit). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 10.
Step 10 **a** Reseat the sensor cable, and then clear the sensor of debris and dust. **b** Check the sensor for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Reinstall or replace the sensor. See **"2 x 500-sheet tray transport assembly sensors removal" on page 773**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the continuity of the sensor cable. Does the cable have continuity?	Go to step 14.	Go to step 13.
Step 13 Replace the 2 x 500-sheet tray 4 pick assembly sensor cable. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

2 x 500-sheet tray 4 transport failure service check

Action	Yes	No
Step 1 Check the following tray 4 components for misalignment, wear, and damage: • 2 x 500-sheet tray feed and transport motor belt • 2 x 500-sheet tray feed and transport primary gear • 2 x 500-sheet tray feed and transport secondary gear Are the belt and gears properly installed and free of wear and damage?	Go to step 3.	Go to step 2.
Step 2 Reinstall or replace the affected components. See **"2 x 500-sheet tray 4 transport belts and gears removal" on page 777**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray 4 transport roller for wear and damage. Are the rollers free of wear and damage?	Go to step 5.	Go to step 4.
Step 4 Replace the roller. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor (2 x 500-sheet tray 4 transport). See **"2 x 500-sheet tray feed and transport motors removal" on page 767**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Check the 2 x 500-sheet tray controller board and its pins for damage. Are the controller board and pins free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the controller board. See **"2 x 500-sheet tray controller board removal" on page 768**. Does the problem remain?	Contact the next level of support.	The problem is solved.

3000-sheet tray elevator failure service check

Action	Yes	No
Step 1 **a** Make sure that the 3000-sheet tray is properly installed to the printer. **b** Reseat the interface cable that is plugged into the 2500- or 2 x 500-sheet tray, and then reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **3000-sheet tray motor tests** > **Tray elevator** **b** Touch **Start**. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 **a** Reseat the cable CN3 on the 3000-sheet tray controller board. **b** Reseat the motor cable, and then check the motor for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (3000-sheet tray elevator) removal" on page 796**. Does the problem remain?	Go to step 5.	The problem is solved.

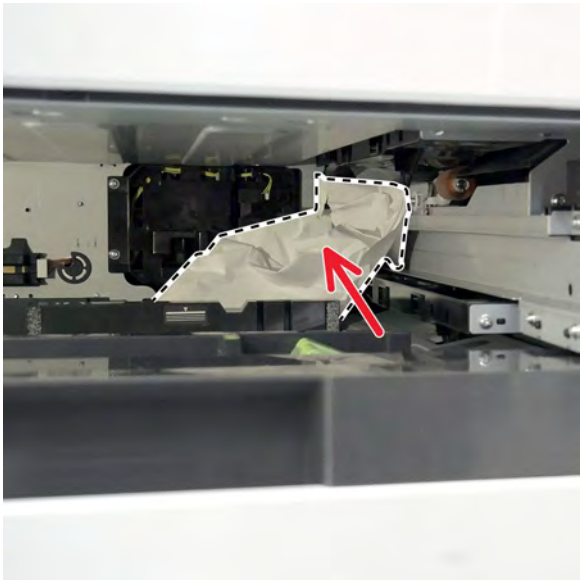
Action	Yes	No
Step 5 **a** Reseat all the cables on the 3000-sheet controller board. **b** If applicable, reseat the junction connectors on the cables. **c** Make sure that the cables do not interfere with moving parts. Does the problem remain?	Contact the next level of support.	The problem is solved.

17y errors

17y error messages

Error code	Description	Action
170.73	The tray 1 lift plate did not move to the correct position.	See **"Tray 1 lift plate failure service check" on page 245**.
171.82	Paper exit fan rotation failure.	See **"Paper exit fan failure service check" on page 248**.
172.82	Main power supply fan rotation failure.	See **"Main power supply fan failure service check" on page 250**.
173.83	Toner cartridge cooling fan rotation failure.	See **"Toner cartridge cooling fan failure service check" on page 249**.
176.83	Fuser exhaust fan rotation failure.	See **"Fuser exhaust fan failure service check" on page 246**.

Tray 1 lift plate failure service check

Action	Yes	No
Step 1 **a** Remove tray 1. See **"Tray insert removal" on page 511**. **b** Make sure that the area inside the printer behind the tray is clear of paper fragments and debris.  Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (tray 1 lift), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 **a** Reseat the tray 1 lift motor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the motor (tray 1 lift). Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Make sure that the tray set actuator is properly installed. **b** Check the actuator for damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the sensor (tray 1 lift plate level). Is it free of damage?	Go to step 7.	Go to step 9.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (tray 1 lift plate level). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 **a** Reseat the tray 1 lift plate level sensor cable. **b** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor (tray 1 lift plate level). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the engine controller board pins for damage, and replace if necessary. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser exhaust fan failure service check

Action	Yes	No
Step 1 Check the cable connections between the fuser exhaust fans and engine board. Are the cables properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cables. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the cables for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the fuser exhaust fans for proper installation and damage. Are the fans properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the fuser exhaust fans. See **"Fuser exhaust fan 1 removal" on page 372** and **"Fuser exhaust fan 2 removal" on page 373**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Paper exit fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the paper exit fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the paper exit fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the paper exit fan. See **"Paper exit fan removal" on page 572**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner cartridge cooling fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the toner cartridge cooling fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Make sure that there is no obstruction between the fan blades. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the toner cartridge cooling fan. See **"Toner cartridge cooling fan removal" on page 661**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Main power supply fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the main power supply fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the main power supply fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the main power supply fan. See **"Main power supply fan removal" on page 353**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

18y errors

18y error messages

Error code	Description	Action
181.83	Fuser fan rotation failure.	See **"Fuser fan failure service check" on page 253**.
182.83	Toner suction fan rotation failure.	See **"Toner suction fan failure service check" on page 252**.
183.83	Transfer belt fan rotation failure.	See **"Transfer belt fan failure service check" on page 255**.

Fuser power supply fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the fuser power supply fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the fuser power supply fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the fuser power supply fan. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Toner suction fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the toner suction fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the toner suction fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the toner suction fan. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the fuser fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the fuser fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the fuser fan. See **"Heater cooling fan removal" on page 531**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Transfer belt fan failure service check

Action	Yes	No
Step 1 Check the cable connection between the power supply fan and engine board. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the transfer belt fan for proper installation and damage. Is the fan properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the transfer belt fan. See **"Transfer belt fan and duct removal" on page 519**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.

Action	Yes	No
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

6yy errors

6yy error messages

Error code	Description	Action
610.01	The image was not ready during a print job from tray 1.	See **"Unready image service check" on page 256**.
610.02	The image was not ready during a print job from tray 2.	
610.03	The image was not ready during a print job from tray 3.	
610.04	The image was not ready during a print job from tray 4.	
611.02 611.03	The image was not ready during a print job to the finisher.	See **"Unready image detected at the finisher service check" on page 257**.

Unready image service check

Action	Yes	No
Step 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?	Go to step 2.	The problem is solved.
Step 2 Enter the Diagnostics menu, and then navigate to: **Input tray quick print** > **Tray 1** > **Single** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **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?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Make sure that the printhead is properly installed. **b** Check the printhead for damage, and replace if necessary. See **"Printhead removal" on page 357**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unready image detected at the finisher service check

Action	Yes	No
Step 1 **a** Reinstall the trays. **b** Make sure that paper is properly seated in the trays. **c** Make sure that the paper guides are properly set. **d** Make sure that the doors are properly closed. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the front door for proper installation and damage, and replace if necessary. See **"Front door removal" on page 487**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the front door switch for proper installation and damage, and replace if necessary. See **"Door switch removal" on page 546**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the right door for proper installation and damage, and replace if necessary. See **"Right door removal" on page 391**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the right door switch for proper installation and damage, and replace if necessary. See **"Right door switch removal" on page 506**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 **a** Clear the sensor (registration) of contamination. **b** Reseat the sensor cable connectors on both ends. **c** Check the sensor for proper installation and damage, and replace if necessary. See **"Sensor (registration) removal" on page 436**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Find the motor (polygon), open the front or right door of the printer, and then touch **Start**. **c** Wait for the test to complete, and then touch **OK**. **d** Close the door. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 **a** Clean the printhead lens. **b** Reseat all printhead cable connectors on both ends. **c** Check the printhead for proper installation and damage. Is the printhead properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the printhead. See **"Printhead removal" on page 357**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 15.
Step 15 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Procedure before starting the 9yy service checks

Retrieve certain information that helps your next level of support in diagnosing the problem before replacing the controller board.

Warning—Potential Damage: Do not replace the controller board unless instructed by your next level of support.

1. Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.
2. Collect the settings from the Menu Settings Page.
3. Collect information from the user.

   Note: Not all of the items are retrievable from the printer that you are working on.

A. Collecting the history information from the SE menu

Note: Make sure that your printer is connected to a network or to a print server.

1. Open a web browser, type **`http://printer_IP_address/se`**, and then press **Enter**.

   Notes:

   - **`printer_IP_address`** is the TCP/IP address of the printer.
   - **`se`** is required to access the printer diagnostic information.
2. Click **History Information**, copy all information, and then save it as a text file.
3. E-mail the text file to your next level of support.

B. Collecting the firmware logs (Fwdebug and logs.tar.gz) from the SE menu

Notes:

- Make sure that your printer is connected to a network or to a print server.

- Some printers are designed to restart automatically after a 9yy error. On these printers, you can retrieve the secondary crash code information using the SE menu.

1. Open a web browser, type **`http://printer_IP_address/se`**, and then press **Enter**.
2. Click **Logs Gzip Compressed**.

   Note: A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.
3. E-mail the logs to your next level of support.

   Note: To download the FWdebug log to a flash drive, see **"General SE Menu" on page 313**.

C. Collecting the settings from the Menu Settings Page

Note: The Menu Settings Page is different for each printer. For more information, see the *User's Guide*. Your next level of support will tell you which page they want to see.

Copying the Menu Settings Page from the Embedded Web Server (EWS)

Note: Make sure that your printer is connected to a network or to a print server.

1. Open a web browser, type **`http://printer_IP_address`**, and then press **Enter**.
2. Click Settings, and then select one of the settings pages from the links shown on the page.
3. Copy all the information, and then save it as a text file.
4. E-mail the text file to your next level of support.

Printing the Menu Settings Page

1. From the home screen, navigate to:

   Reports > **Menu Settings Page**
2. Print the Menu Settings Page, and then use Scan to E-mail to send it to your next level of support.

D. Collecting information from the user

Ask the user for information about the following:

- Print job being run
- Operating system being used
- Print driver being used
- Other information on what was happening when the 9yy error occurred

900 errors

900 error messages

Error code	Description	Action
900.xx	RIP firmware errors.	See **"900 error service check" on page 261**.
900.xx	Option controller board error.	See **"Option controller board failure service check" on page 264**.

Error code	Description	Action
940.01	Engine sub-CPU communication error.	See **"Communication error service check" on page 267**.
940.02	Paper Feed conveying system board communication error.	
940.03	Engine extension board communication error.	
940.04	Engine communication error.	
940.11	Expansion controller board error.	See **"Expansion controller board failure service check" on page 266**.
940.12	Expansion controller board error.	
953.99	NVRAM error.	See **"NVRAM error service check" on page 268**.

900 error service check

Action	Yes	No
Step 1 **a** Perform a POR. **b** Check if a 900.xx error code appears on the display. Does a 900.xx error code appear?	Go to step 4.	Go to step 2.
Step 2 Check if another type of error code appears instead of the 900.xx error code. Does a different error code appear?	Go to step 3.	Go to step 4.
Step 3 See the error code and its service instructions in the printer *Service Manual*. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **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?	Go to step 12.	Go to step 5.
Step 5 **a** From the control panel, navigate to the **Reports** menu. **b** Select **Device Statistics** and **Device Settings**. Does the problem remain?	Go to step 12.	Go to step 6.

Action	Yes	No
Step 6 Check if the printer has a scanner. Does the printer have a scanner?	Go to step 7.	Go to step 8.
Step 7 Using the scanner, perform a one-page copy job in color. Does the problem remain?	Go to step 12.	Go to step 8.
Step 8 **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?	Go to step 9.	Go to step 10.
Step 9 **a** Start the printer in **Invalid engine mode**. See **"Entering invalid engine mode" on page 311**. **b** Check if an **`Invalid Engine Code`** message appears. Does an **`Invalid Engine Code`** message appear?	Go to step 10.	Contact the next level of support.
Step 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?	Go to step 11.	Contact the next level of support.
Step 11 Update the firmware to the latest version. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **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?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Check if a hard disk installed. Is a hard disk installed?	Go to step 14.	Go to step 17.
Step 14 **a** Check for buffered print jobs, and then delete them. See **"Hard disk failure service check" on page 187**. **b** Perform a POR. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Turn off the printer. **b** Uninstall the hard disk drive. **c** Perform a POR. Does the problem remain?	Go to step 17.	Go to step 16.
Step 16 Replace the hard disk. Does the problem remain?	Go to step 17.	The problem is solved.
Step 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?	Go to step 18.	Go to step 21.
Step 18 **a** Turn off the printer. **b** Remove all the installed components. **c** Turn on the printer. Does the problem remain?	Go to step 21.	Go to step 19.

Action	Yes	No
Step 19 **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?	Go to step 20.	The problem is solved.
Step 20 **a** Turn off the printer. **b** Replace the components that caused the error. **c** Turn on the printer. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Option controller board failure service check

Action	Yes	No
Step 1 **a** Reset the printer. **b** Make sure that all cables are properly connected on the engine board and controller board. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Is the board properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Install the latest firmware version. Does the problem remain?	Contact the next level of support.	The problem is solved.

Input and output option error service check

Action	Yes	No
Step 1 **a** Reseat the option interface cable connector on both ends. **b** Trace the cable path going to the controller board for cable disconnection, and reseat if necessary. **c** Check the cable for damage, and replace if necessary. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Reseat all the cables on the option controller board. **b** Check the cables for damage, and replace if necessary. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat all the cables on the option controller board. **b** Check the cables for damage, and replace if necessary. **c** Check the option controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the option controller board. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Make sure that the firmware version is the latest, and update if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Expansion controller board failure service check

Action	Yes	No
Step 1 Enter the Diagnostics menu, and then navigate to: **Printer setup** > **Service engine reset** Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Make sure that the interface cable is properly connected to the finisher and expansion controller board. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat all cable connectors on the expansion controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the expansion controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the expansion controller board. See **"Expansion controller board removal" on page 574**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 8.
Step 8 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Communication error service check

Action	Yes	No
Step 1 Disconnect the output option. Does the problem remain?	Go to step 2.	Go to step 3.
Step 2 Disconnect the input option. Does the problem remain?	Go to step 4.	Go to step 3.
Step 3 Perform the input and output option error service check. See **"Input and output option error service check" on page 265**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Reseat all cable connectors on the image controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the image controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the image controller board. See **"Image controller board removal" on page 522**. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the controller board pins for damage, and replace if necessary. See **"Controller board removal" on page 560**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Check all cable connectors on the engine board for proper connection and damage, and replace if necessary. **b** Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 10.
Step 10 Replace the engine board. See **"Engine board removal" on page 563**. Does the problem remain?	Contact the next level of support.	The problem is solved.

NVRAM error service check

Warning—Potential Damage: To avoid NVRAM mismatch issues, observe the following:

- Replace the control panel or the controller board one at a time. Do no replace them at the same time.
- Do not swap or transfer the control panel or controller board from one printer to another.

For more information, see **"Critical information for controller board or control panel replacement" on page 317**.

Action	Yes	No
Step 1 Check if the control panel was replaced. Was the control panel replaced?	Go to step 2.	Go to step 4.
Step 2 Check if the control panel was replaced with a new and not previously installed control panel. Was the control panel replaced with a new and not previously installed control panel?	Go to step 3.	Contact the next level of support.

Action	Yes	No
Step 3 Check if the printer was booted to the ready state right after the control panel was installed. Was the printer booted to the ready state right after the control panel was installed?	Contact the next level of support.	Go to step 4.
Step 4 **a** Make sure that the control panel FFC cable is properly connected on both ends. **b** Check the cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the control panel FFC cable. See **"Control panel FFC removal" on page 492**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the control panel for damage. Is the control panel free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the control panel with a new and not previously installed control panel. See **"Control panel board removal" on page 491**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check if the controller board was replaced. Was the controller board replaced?	Go to step 9.	Go to step 11.
Step 9 Check if the controller board was replaced with a new and not previously installed controller board. Was the controller board replaced with a new and not previously installed controller board?	Go to step 10.	Contact the next level of support.
Step 10 Check if the printer was booted to the ready state right after the controller board was installed. Was the printer booted to the ready state right after the controller board was installed?	Contact the next level of support.	Go to step 11.

Action	Yes	No
Step 11 **a** Reseat all the cables on the controller board. **b** Check the controller board for damage. Is the controller board free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the controller board with a new and not previously installed controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Other symptoms

Base printer symptoms

Symptom	Action
The printer has no power.	See **"Printer no power service check" on page 270**.
Right door is always detected as open.	See **"Right door always open service check" on page 273**.
Front door is always detected as open.	See **"Close door A service check" on page 274**.
Tray 1 is not detected.	See **"Tray 1 missing service check" on page 276**.
Tray 2 is not detected.	See **"Tray 2 missing service check" on page 278**.
No display on control panel.	See **"No control panel display service check" on page 280**.
Constant five-beep sound.	See **"Five-beep sound service check" on page 281**.
The USB device is not detected.	See **"USB device not detected service check" on page 282**.
Output bin is always detected as empty.	See **"Output bin empty service check" on page 282**.

Printer no power service check

Action	Yes	No
Step 1 **a** Make sure that the input voltage of the power cord matches the rated input voltage of the printer. **b** Check the power cord for proper installation and damage, and replace if necessary. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Check the main power switch for proper installation and damage. **b** Reseat the power switch cable. Is the main power switch properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Replace the main power switch. See **"Main power switch removal" on page 543**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the main power switch cable for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the power supply interface board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the power supply interface board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the power supply interface board. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Reseat all cable connectors on the main power supply. **b** Check the main power supply for proper installation and damage. Is the main power supply properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the main power supply. See **"Main power supply removal" on page 356**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Check the power socket for proper installation and damage. Is the power socket properly installed and free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the power socket. See **"Power socket cable removal" on page 642**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the power socket cable for proper installation and damage. Is the cable properly installed and free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the power socket cable. See **"Power socket cable removal" on page 642**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 16.	Contact the next level of support.
Step 16 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the controller board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 18.
Step 18 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Right door always open service check

Action	Yes	No
Step 1 Check the right door for proper installation and damage. Is the door properly installed and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the right door. See **"Right door removal" on page 391**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the right door switch actuator for proper installation and damage. Is the actuator properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the right door switch actuator. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the following components for proper installation and damage: • Right door upper lock • Right door release handle • Right door middle lock • Right door lock support • Right door lower lock Are the components properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the damaged components. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the right door switch for proper installation and damage. Is the switch properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the right door switch. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 11.	Contact the next level of support
Step 11 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the controller board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 13.
Step 13 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Close door A service check

Action	Yes	No
Step 1 Check the front door and front door actuator for proper installation and damage. Are the door and actuator properly installed and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the front door. See **"Front door removal" on page 487**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the door switch for proper installation and damage. Is the switch properly installed and free of damage?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Replace the door switch. See **"Door switch removal" on page 546**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the door switch cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the door switch cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 9.	Contact the next level of support.
Step 9 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the controller board for proper installation and damage. Is the board properly installed and free of damage?	Contact the next level of support.	Go to step 11.
Step 11 Replace the controller board. See **"Controller board removal" on page 560**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 1 missing service check

Action	Yes	No
Step 1 Check the tray 1 insert for proper installation and damage. Is the tray insert properly installed and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the tray 1 insert. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray 1 lock for proper installation and damage. Is the lock properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the tray 1 lock. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray paper length guide for proper installation and damage. Is the length guide properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the tray paper length guide. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (tray 1 paper length). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. See **“Sensor (tray 1 paper length) removal” on page 664**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (tray 1 paper width). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 11.
Step 11 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the sensor. See **"Sensor (tray 1 paper width) removal" on page 618**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the tray 1 feed cable on both ends. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the tray 1 feed cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 16.	Contact the next level of support.
Step 16 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Tray 2 missing service check

Action	Yes	No
Step 1 Check the tray 2 insert for proper installation and damage. Is tray insert properly installed and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the tray 2 insert. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray 2 lock for proper installation and damage. Is the lock properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the tray 2 lock. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the length guide for proper installation and damage. Is the tray paper length guide properly installed and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the tray paper length guide. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (tray 2 paper length). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. See **"Sensor (tray 2 paper length) removal" on page 665**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (tray 2 paper width). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 11.
Step 11 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the sensor. See **"Sensor (tray 2 paper width) removal" on page 620**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Reseat the tray 2 feed cable on both ends. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 15.	Go to step 14.
Step 14 Replace the tray 2 feed cable. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 16.	Contact the next level of support.
Step 16 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

No control panel display service check

Action	Yes	No
Step 1 **a** Reseat the control panel FFC on both ends. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the control panel FFC. See **"Control panel FFC removal" on page 492**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat the control panel power cable on both ends. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the control panel power cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat all cable connectors on the control panel board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the control panel board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the control panel board. See **"Control panel board removal" on page 491**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 9.	Contact the next level of support.

Action	Yes	No
Step 9 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Five-beep sound service check

Action	Yes	No
Step 1 **a** Reseat the control panel FFC on both ends. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the control panel FFC. See **"Control panel FFC removal" on page 492**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Reseat all cable connectors on the controller panel board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the control panel board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the control panel board. See **"Control panel board removal" on page 491**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 7.	Contact the next level of support.

Action	Yes	No
Step 7 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

USB device not detected service check

Action	Yes	No
Step 1 **a** Reseat the USB extension cable on the controller panel board. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the USB extension cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the controller board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 4.	Contact the next level of support.
Step 4 **a** Reseat all cable connectors on the controller board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Output bin empty service check

Action	Yes	No
Step 1 Check the standard bin exit sensor assembly for proper installation and damage. Is the sensor assembly properly installed and free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the sensor assembly. See **"Standard bin exit assembly removal" on page 499**. Does the problem remain?	Go to step 3.	The problem is solved.

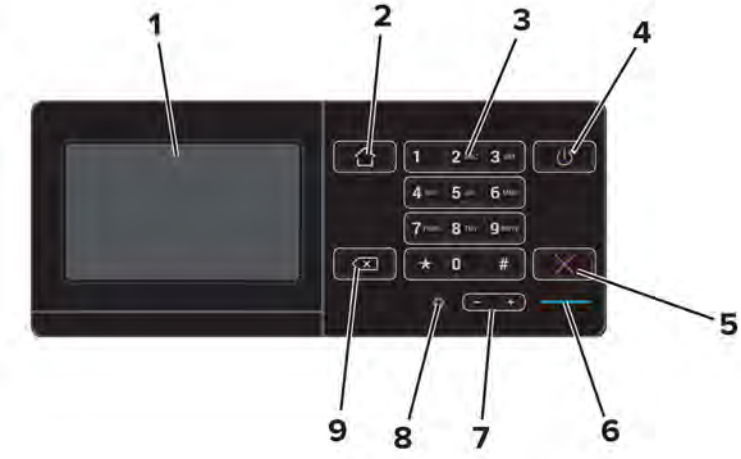
Action	Yes	No
Step 3 Check the redrive exit guide for proper installation and damage. Is the redrive exit guide properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the guide. See **"Redrive exit guide removal" on page 500**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Reseat the redrive exit sensor cable on both ends. **b** Check the cable for proper connection and damage. Is the cable properly connected and free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the cable. See **"Redrive exit sensor cable removal" on page 501**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (redrive exit). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. See **"Sensor (redrive exit) removal" on page 500**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**. **b** From the Sensor tests section, touch **Start**. **c** Find, and then manually toggle the sensor (standard bin exit). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 11.

Action	Yes	No
Step 11 Reseat the sensor cable connector on both ends. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the sensor (standard bin exit). Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the engine board for proper installation and damage. Is the board properly installed and free of damage?	Go to step 14.	Contact the next level of support.
Step 14 **a** Reseat all cable connectors on the engine board. **b** Check all cable connectors for proper connection and damage, and replace if necessary. Does the problem remain?	Contact the next level of support.	The problem is solved.

Service menus

Understanding the printer control panel

Using the control panel



	Use the	To
1	Display	• 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.
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

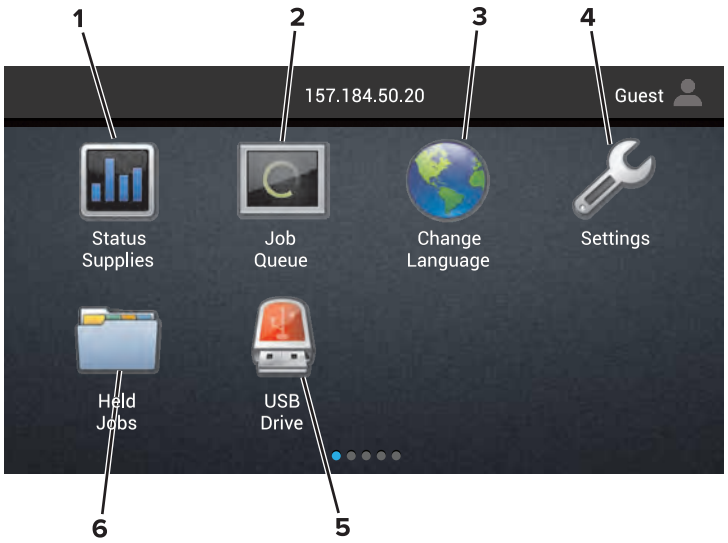
Indicator light	Printer status
Off	The printer is off or in Hibernate mode.
Blue	The printer is ready or processing data.
Red	The printer requires user intervention.

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.

Touch		To
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.

These settings may also appear on the home screen

Touch	To
Bookmarks	Access bookmarks.
App Profiles	Access application profiles.
Lock Device	Prevent users from accessing any printer functions from the home screen.

Menu map

Device

• Preferences • Remote Operator Panel • Notifications • Power Management • Information Sent to Lexmark	• Accessibility • Restore Factory Defaults • Maintenance • Visible Home Screen Icons • About This Printer

Print

• Layout • Finishing • Setup • Quality • Job Accounting • XPS	• PDF • PostScript • PCL • HTML • Image • PPDS

Paper

• Tray Configuration • Media Configuration	• Bin Configuration

Network/Ports

• Network Overview • Wireless • AirPrint • Ethernet • TCP/IP • IPv6 • SNMP • IPSec	• LPD Configuration • HTTP/FTP Settings • ThinPrint • USB • Parallel [x] • Serial • Google Cloud Print • Wi-Fi Direct

USB Drive

Flash Drive Print

Security

• Login Methods • Schedule USB Devices • Security Audit Log • Login Restrictions • Confidential Print Setup	• Disk Encryption • Erase Temporary Data Files • Solutions LDAP Settings • Miscellaneous

Option Card Menu

Note: This setting appears only when an optional card is installed.

Reports

• Menu Settings Page • Device • Print	• Shortcuts • Network

Help

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Troubleshooting

• Print Quality Test Pages	• Advanced Print Quality Test Pages

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 without running the POST tests:

1. Press and hold the **3** and **6** buttons while turning on the printer.
2. Release the buttons when the splash screen appears.

To access the Diagnostics menu from the home screen, press * * **3 6** on the control panel.

Event log

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.

Print log (extended)

This setting lists an extended version of the various printer events.

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

   Event log > **Print log (extended)**
2. Touch **Start**.

Note: The events that appear in the report vary depending on the operational history of the printer.

Display log

This setting shows the panel text that appears when the event occurs.

Enter the Diagnostics menu, and then navigate to:

Event log > **Display log**

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 Test Pages**

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**.

Output bin quick feed

This setting lets you send a test page to the output bins.

1. Enter the Diagnostics menu, and then touch **Output bin quick feed**.
2. Select the output bin for the test page.

   Note: When Standard bin is selected, select either single or continuous test page.

Printer setup

Printed page count (mono)

This setting shows 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 shows 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 shows 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.

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 shows 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 shows the model name of the printer.

1. Enter the Diagnostics menu, and then touch **Printer setup**.
2. View the model name.

Reset Maintenance Counter

This setting resets the selected maintenance count value to zero.

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

   Printer setup > **Reset Maintenance Counter**
2. Select the maintenance kit to reset.

Reset Engine Service Error

This setting clears a service error and restores the engine settings.

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

   Printer setup > **Reset Engine Service Error**
2. Touch **Start**.

Printer diagnostics and adjustments

Sensor tests

Testing the sensor

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 or actuator.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

   Note: For a video demonstration, see **Diagnostics menu sensor test**.

Testing the sensor (fusing pressure home)

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. Run the motor (fusing pressure) or the motor (fusing pressure release). For more information, see **"Motor tests" on page 294**.
4. Find, and then note if the sensor toggled.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Test	Procedure to perform before the test
Tray 1 empty	Remove tray 1.
Tray 1 near empty	
MPF paper length 1	--
MPF paper length 2	
MPF lift plate position	Turn the MPF lift plate cam.
MPF empty	--
Registration	Open door C.
Paper exit	
Fusing speed	
Tray 1 paper feed	
Tray 1 lift plate limit	Remove tray 1.
Duplex pass through 1	--
Duplex pass through 2	Open door C, and then close door C6.
CMY retract	Open door C, and then remove the transfer belt.
Waste toner bottle present	Remove the waste toner bottle.
Waste toner bottle full	
Tray 2 empty	Remove tray 2.
Fusing pressure home	--
Tray 2 near empty	Remove tray 2.
Tray 2 transport	Open door C.
Tray 2 paper feed	
Tray 2 lift plate limit	Remove tray 2.

Motor tests

Enabling safe mode

Note: The motors are activated only in safe mode.

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

   Printer diagnostics & adjustments > **Motor tests**

2. Select any motor, and then open the front door or right door.
3. On the control panel, touch **Start**. The message **`Motor Activated`** and the Cancel button appear.
4. Wait until the Cancel button is replaced with the OK button, and then touch **OK**.
5. Close the front door or right door.

   Safe mode is now enabled.

Testing the motor

Open the door or cover to check whether the motor and the part it drives are properly working. However, make sure first to bypass the door or cover sensor.

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

   Printer diagnostics & adjustments > **Motor tests**

2. Select a motor, and then touch **Start**.

   Notes:

   - If the motor and the part it drives are activated, then the motor is properly working.
   - Some motors are not visible even if all the covers are open.
   - Some motors require automatic deactivation 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, then the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

3. Reset the printer.

   Note: For a video demonstration, see **Diagnostics menu motor test**.

List of motor tests

Test	Procedure to perform before the test	What to check if the motor is properly working
MPF tray lift-up plate elevator down	Open the MPF.	The MPF lift plate moves.
Tray 1 lift	1. Pull tray 1. 2. Open door C. 3. Bypass the sensor at door C. 4. Insert tray 1.	Tray 1 lift plate moves.

Test	Procedure to perform before the test	What to check if the motor is properly working
Tray 2 lift	**1** Pull tray 2. **2** Open door C. **3** Bypass the sensor at door C. **4** Insert tray 2.	Tray 2 lift plate moves.
CMY retract	**1** Remove the transfer module. **2** Bypass the sensor at door C. **3** Insert tray 2.	The fuser gear turns.
Registration	**1** Open door C. **2** Bypass the sensor at door C. **3** Insert tray 2.	The registration roller turns.
Tray 1 paper feed	**1** Open door C. **2** Bypass the sensor at door C.	Tray 1 feeds paper.
Tray 2 paper feed		Tray 2 feeds paper.
Tray 2 vertical transport		Tray 2 vertical transport roller turns.
Polygon	--	The polygon motor emits a sound.
Transport	**1** Open door C. **2** Bypass the sensor at door C.	The transfer module turns.
Fusing	**1** Open door C. **2** Bypass the sensor at door C. **3** Press the fuser drive lever.	The fuser gears turn.
Fusing pressure	**1** Open door C. **2** Bypass the sensor at door C.	Cover C3 moves.
Fusing pressure release		
Developing	**1** Open door A. **2** Remove the waste toner bottle. **3** Remove any photoconductor. **4** Bypass door A switch.	The developer roller turns.
Duplex transport	**1** Open door C. **2** Bypass the sensor at door C.	The duplex roller turns.
Redrive forward		The redrive roller or gears turn.
Redrive reverse		

Memory tests

This setting lets you test or flash the printer memory or test or format the printer hard disk.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Memory tests**

2 Select a setting.

Registration adjust

This setting allows you to adjust the skew, margins, or perform a Quick Test. For more information, see **"Registration adjustment" on page 342**.

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

   Printer diagnostics & adjustments > **Registration adjust**

2. Select a setting to adjust.

Color registration adjustment

This setting lets you adjust the color alignments and to print or reset the default settings. For more information, see **"Color registration adjustment" on page 343**.

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

   Printer diagnostics & adjustments > **Color registration adjustment**

2. Select a setting to adjust.

Imaging process adjustment

This setting lets you adjust the image transfer process. For more information, see **"Imaging process adjustment" on page 346**.

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

   Printer diagnostics & adjustments > **Imaging process adjustment**

2. Select a setting to adjust.

Additional input tray diagnostics

Sensor tests

Testing the sensor

1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**.
2. Select the tray of the sensor that you want to test.
3. Find, and then manually toggle the sensor.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (main tray paper empty, bottom)

1. Enter the Diagnostics menu, and then navigate to touch:

   Additional input tray diagnostics > **2500-sheet tray sensor test**

2. Open the tray.

3 Remove or load the paper from the tray.

4 Close the tray.

5 Find, and then note if the sensor status on the screen toggled.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray elevator home)

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then note the sensor status on the screen.

3 Test the motor (tray elevator up). For more information, see **"Motor tests" on page 302**.

4 Repeat step 1.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

5 Find, and then note if the sensor status on the screen toggled.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray transfer guide home)

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then note if the sensor status on the screen toggled.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

3 Open the tray.

4 Pull the transfer guide away from the home position.

5 Close the tray.

Testing the sensor (main tray near empty)

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then manually toggle the sensor:

a Remove the tray.

b Block the sensor.

c Insert the tray.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray paper stack transfer)

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then manually toggle the sensor:

a Open the tray.

b Make sure that the paper stack transfer actuator always engages the sensor.

c Close the tray.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray set) for the 2500-sheet tray

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then manually toggle the sensor:

a Open the tray.

b Close the tray.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (reserve tray paper empty)

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then manually toggle the sensor:

a Open the tray.

b Remove or load the paper from the tray.

c Close the tray.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (reserve tray paper limit)

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **2500-sheet tray sensor test**

2 Find, and then manually toggle the sensor:

a Open the tray.

b Make sure that the reserve tray paper limit actuator always engages the sensor.

c Close the tray.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray set) for the 3000-sheet tray

1 Enter the Diagnostics menu, and then navigate to touch:

Additional input tray diagnostics > **3000-sheet tray sensor test**

2 Find, and then manually toggle the sensor:

a Disengage the 3000-sheet tray from the printer.

b Insert paper into the exit section.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray upper limit) for the 3000-sheet tray

1. Enter the Diagnostics menu, and then navigate to touch:

   Additional input tray diagnostics > **3000-sheet tray sensor test**

2. Find, and then manually toggle the sensor:
   a. Open door F.
   b. Lift the pick mechanism.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray paper feed)

1. Enter the Diagnostics menu, and then navigate to touch:

   Additional input tray diagnostics > **3000-sheet tray sensor test**

2. Find, and then manually toggle the sensor:
   a. Disengage the 3000-sheet feed.
   b. Insert paper into the exit section.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray 1 near empty)

1. Enter the Diagnostics menu, and then navigate to touch:

   Additional input tray diagnostics > **3000-sheet tray sensor test**

2. Find, and then manually toggle the sensor:
   a. Open door F.
   b. Push the elevator down.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (tray 2 near empty)

1. Enter the Diagnostics menu, and then navigate to touch:

   Additional input tray diagnostics > **3000-sheet tray sensor test**

2. Find, and then manually toggle the sensor:
   a. Open door F.
   b. Push the elevator down.

Notes:

- The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
- If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Testing the sensor (door switch)

1. Enter the Diagnostics menu, and then navigate to touch:

   Additional input tray diagnostics > **3000-sheet tray sensor test**

2. Open or close door F.
3. Find, and then note if the sensor status on the screen toggled.

   Notes:

   - The sensor status on the screen toggles between **1** and **0** when the sensor is properly working.
   - If a sensor test fails, then the test failure may not indicate a failed sensor. Further troubleshooting may be required. Check the boards and cables for possible issues.

List of sensor tests

Test		Procedure to perform before the test
2 x 500-sheet tray sensor test	Tray 3 empty	Remove tray 3.
	Tray 3 near empty	
	Tray 3 transport	Open door D.
	Tray 3 feed **Note:** Use paper to toggle the sensor.	Pull tray 3, and then open door D.
	Tray 3 lift plate limit	Pull tray 3.
	Tray 4 empty	Remove tray 4.
	Tray 4 near empty	
	Tray 4 transport	Open door D.
	Tray 4 feed **Note:** Use paper to toggle the sensor.	Pull tray 4, and then open door D.
	Tray 4 lift plate limit	Pull tray 4.

Test		Procedure to perform before the test
2500-sheet tray sensor test	Main tray paper empty, bottom	--
	Main tray elevator limit	Remove the tray.
	Tray elevator home	--
	Tray transfer guide home	--
	Tray feed **Note:** Use paper to toggle the sensor.	Open door D.
	Tray transport	
	Main tray paper empty, top	Remove the tray.
	Main tray near empty	--
	Tray paper stack transfer	--
	Tray set	--
	Reserve tray paper empty	--
	Reserve tray paper limit	--
3000-sheet tray sensor test	Tray set	--
	Tray upper limit	--
	Tray paper feed	--
	Tray near empty sensor /1	--
	Tray near empty sensor /2	--
	Door switch	--

Motor tests

Enabling safe mode for the 3000-sheet tray

Note: The motors are activated only in safe mode.

1. Enter the Diagnostics menu, and then navigate to:
   Printer diagnostics & adjustments > **Motor tests**
2. Select any motor, and then open the front door or right door.
3. On the control panel, touch **Start**.
   The message **`Motor Activated`** and the Cancel button appear.
4. Wait until the Cancel button is replaced with the OK button, and then touch **OK**.
5. Close the front door or right door.
   Safe mode is now enabled.

Testing the motor

Open the door or cover to check whether the motor and the part it drives are properly working. However, make sure first to bypass the door or cover sensor.

1. Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**.
2. Select the tray of the motor that you want to test.
3. Select the motor, and then touch **Start**.

   Notes:

   - If the motor and the part it drives are activated, then the motor 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.
4. Reset the printer.

List of motor tests

Test		Procedure to perform before the test	What to check if the motor is properly working
2 x 500-sheet tray motor tests	Tray 3 lift	1 Pull out tray 3. 2 Open doors C and D. 3 Bypass the sensors at doors C and D. 4 Insert tray 3.	Tray 3 lift plate moves.
	Tray 4 lift	1 Pull out tray 4. 2 Open doors C and D. 3 Bypass the sensors at doors C and D. 4 Insert tray 4.	Tray 4 lift plate moves.
	Tray 3 paper feed	1 Open doors C and D. 2 Bypass the sensors at doors C and D.	Tray 3 feeds paper.
	Tray 4 paper feed		Tray 4 feeds paper.
	Tray 3 transport		Tray 3 transport roller turns.
	Tray 4 transport		Tray 4 transport roller turns.

Test		Procedure to perform before the test	What to check if the motor is properly working
2500-sheet tray motor tests	Elevator up	1 Pull out the tray, and then it. 2 Open doors C and D.	The elevator moves.
	Elevator down		The elevator is the down position.
	Transfer guide home	1 Pull out the tray. 2 Pull the transfer guide away from the home position.	The transfer guide returns to the home position.
	Transfer guide away	1 Pull out the tray. 2 Make sure that the guide is at the home position. 3 Insert the tray.	The transfer guide moves away from the home position.
	Tray feed	Open door D.	The feed roller turns.
	Tray transport		The transfer roller turns.
3000-Sheet Tray Motor Tests	Tray elevator	Open door F, and then close it.	The elevator moves up.
	Tray feed	Open door F.	The feed roller turns.
	Tray transport	1 Open door F. 2 Make sure that the guide is at the home position. 3 Insert paper into the pick assembly.	The transport roller turns.

Entering the Configuration mode

1 Turn off the printer.

2 Press and hold **2** and **6** while turning on the printer.

Release the buttons when the splash screen appears.

Configuration menu

USB Configuration

This setting enables you to configure the USB settings.

USB PnP

This setting specifies the USB driver mode to improve USB port compatibility with computers.

1 Enter the Configuration mode, and then navigate to:

Configuration Menu > **USB Configuration** > **USB PnP**

2 Select a setting.

USB Scan to Local

This setting determines whether the USB device driver enumerates as a USB simple device (single interface) or as a USB composite device (multiple interfaces).

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **USB Configuration** > **USB Scan to Local**

2. Select a setting.

USB Speed

This setting determines the speed of the USB port.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **USB Configuration** > **USB Speed**

2. Select a setting.

Tray Configuration

Size Sensing

This setting enables the printer to detect the size of the paper loaded in the paper source.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **Tray Configuration** > **Size Sensing**

2. Select a paper source.
3. Select a paper size from each of the following pairs.
   a. Oficio or Folio
   b. Statement or A5
   c. Executive or B5

   Note: The trays cannot distinguish the paper sizes when both are loaded. For example, choose only one between Oficio and Folio.

Tray Linking

This setting enables the printer to link the trays that have the same paper type and paper size settings.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **Tray Configuration** > **Tray Linking**

2. Select a setting.

Show Tray Insert Message

This setting enables the printer to display the **Tray Insert** message after the user inserts a tray.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Tray Configuration** > **Show Tray Insert Message**
2. Select a setting.

Paper Prompts

This setting determines the paper source to which the printer directs a change paper prompt.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Tray Configuration** > **Paper Prompts**
2. Select a setting.

Envelope Prompts

This setting determines the paper source to which the printer directs a change envelope prompt.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Tray Configuration** > **Envelope Prompts**
2. Select a setting.

Action for Prompts

This setting determines which paper source receives paper- or envelope-related change prompts when they occur.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Tray Configuration** > **Action for Prompts**
2. Select a setting.

Reports

Menu Settings Page

This page lists the default value of each menu setting.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **Menu Settings Page**

Event Log

This report tracks the occurrence of various critical events in the printer.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **Event Log**

Event Log Summary

This report shows a summary of Event Log.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **Event Log Summary**

HealthCheck Statistics

This report provides information on the printer status.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Reports** > **HealthCheck Statistics**

Supply Usage And Counters

Clear Supply Usage History

This setting resets the supply usage history (number of pages and days remaining).

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Supply Usage And Counters** > **Clear Supply Usage History**
2. Touch **Start**.

Reset Color Imaging Kit Counter

This setting resets the page counter for the color imaging kit.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Supply Usage And Counters** > **Reset Color Imaging Kit Counter**
2. Touch **Start**.

Tiered Coverage Ranges

This setting enables the printer to count pages according to tiers or ranges based on the amount of color coverage on the printed page.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Supply Usage And Counters** > **Tiered Coverage Ranges**
2. Select a setting to adjust.

Printer Emulations

PPDS Emulation

This setting enables the printer to use the PPDS data stream.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Printer Emulations** > **PPDS Emulation**
2. Select a setting.

Print Configuration

Black Only Mode

This setting forces the printer to always print color content in grayscale.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Print Configuration** > **Black Only Mode**
2. Select a setting.

Color Trapping

This setting enhances the printed output to compensate for misregistration in the printer.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Print Configuration** > **Color Trapping**
2. Select a setting.

Font Sharpening

This setting determines the value below the setting of the high frequency screens used when printing front data.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Print Configuration** > **Font Sharpening**
2. Specify a value.

Device Operations

Quiet Mode

This setting reduces the printer noise when in printing mode.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Quiet Mode**
2. Select a setting.

Panel Menus

This setting enables the printer to show the control panel menus.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Panel Menus**
2. Select a setting.

Custom Supply Levels

This setting specifies the supply levels.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Custom Supply Levels**
2. Select a setting.

Safe Mode

This setting enables the printer to continue offering as much functionality as possible, despite known issues.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Safe Mode**
2. Select a setting.

Minimum Copy Memory

This setting determines the memory allocation for storing copy jobs.

1. Enter the Configuration mode, and then navigate to:
   Configuration Menu > **Device Operations** > **Minimum Copy Memory**
2. Select a setting.

Clear Custom Status

This setting erases all custom messages.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Device Operations** > **Clear Custom Status** > **Start**

Clear all remotely-installed messages

This setting erases all remotely-installed messages.

Enter the Configuration mode, and then navigate to:

Configuration Menu > **Device Operations** > **Clear all remotely-installed messages** > **Start**

Automatically Display Error Screens

This setting automatically shows existing printer-related messages on the home screen after the printer remains inactive.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **Device Operations** > **Automatically Display Error Screens**
2. Select a setting.

Honor orientation on fast path copy

This setting enables the printer to use the Orientation setting under Copy menu when sending quick copy jobs.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **Device Operations** > **Honor orientation on fast path copy**
2. Select a setting.

Automatic Image Stabilization

This setting determines the toner density.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **Device Operations** > **Automatic Image Stabilization**
2. Select a setting.

App Configuration

LES Applications

This setting enables the Lexmark Embedded Solutions (LES) applications.

1. Enter the Configuration mode, and then navigate to:

   Configuration Menu > **App Configuration** > **LES Applications**
2. Select a setting.

Out of Service Erase

Exit Maintenance Menu

This setting exits the Configuration mode and restarts the printer.

Entering invalid engine mode

This mode is used if the machine has invalid code and needs the correct code loaded. After entering this mode, the firmware code can be updated.

1. Turn off the printer.
2. Press and hold the **3**, **4**, and **6** buttons simultaneously.
3. Turn on the printer.
4. Release the buttons after 10 seconds.

Entering Recovery mode

This mode allows the printer to boot from a secondary set of instructions and flash firmware code. While in this mode, you can only flash firmware code through a USB cable directly connected to a PC.

Depending on your printer model, do any of the following:

For LED display

1. Turn off the printer.
2. Open the front door.
3. Press and hold the **Stop** button.
4. Turn on the printer.
5. When all the icons flash, release the button.

For 2-line display

1. Turn off the printer.
2. Press and hold the **OK** and **Back** buttons.
3. Turn on the printer.
4. When the display shows the following icon, release the buttons.

For 2.4-, 4.3-, 7-, and 10-inch displays

1. Turn off the printer.
2. Press and hold the **2**, **7**, and **8** buttons.
3. Turn on the printer.
4. When the display shows the following icon, release the buttons.

For 2.8-inch display

1. Turn off the printer.
2. Open tray 1.
3. Make sure that paper is loaded in tray 1.
4. Turn on the printer.
5. When the display shows the following icon, close tray 1.

Note: If tray 1 is not closed, then the printer will boot normally.

6. A screen with red selection items appears.
   Touch **->** to navigate to Recovery mode.
7. Touch **Boot** or **RECOVERY**.

Service Engineer menu

Entering the Service Engineer (SE) menu

To access the Service Engineer (SE) menu:

1. Turn on the printer.
2. When the home screen appears, press * * **411** on the control panel.

   For 2-line control panels, press the right arrow button twice, press **OK**, and then press the left arrow button.

General SE Menu

Use this menu to view and save a log file to a USB drive.

Enter the Service Engineer (SE) menu, and then touch **General SE Menu**.

Top level menu	Intermediate menu
Capture Logs to USB Drive	N/A
Code Versions	• base: [current value] • dbcs1 fonts: [current value] • dle fonts: [current value] • engine: [current value] • green Micro: [current value] • kernel: [current value] • loader: [current value] • panel: [current value] • recoverybase: [current value] • recoverykernel: [current value] • swap: [current value] • webclient: [current value]
Debug Level	debugLevel: [current value]

Network SE Menu

Enter the Service Engineer (SE) menu, and then touch **Network SE Menu**.

Note: Use these settings as directed by the next level of support.

Top level menu	Intermediate menu
History	• Print History • Mark History
MAC	• Set Card Speed • LAA • Keep Alive

Top level menu	Intermediate menu
NPAP	Print Alerts
TCP/IP	• DHCP Request Options • DHCP Request Null-Terminators • netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode • GARP Interval
Ping Test	• Ping Address • Attempts • Packet Size • Ping • Ping6
Other Actions	• ifconfig • IPtables [Firewall Dump] • IP6tables [Firewall Dump] • IPsec Dump

Parts removal

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.

Removal precautions

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock and to prevent damage to the printer, remove the power cord from the electrical outlet and disconnect all connections to any external devices before you connect or disconnect any cable, electronic board, or assembly.

CAUTION—POTENTIAL INJURY: The printer weighs 89–135 kg (195–185 lb) and requires four trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.

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

CAUTION—PINCH HAZARD: To avoid the risk of a pinch injury, use caution in areas marked with this label. Pinch injuries may occur around moving parts, such as gears, doors, trays, and covers.

Handling ESD-sensitive parts

Many electronic products use parts that are known to be sensitive to electrostatic discharge (ESD). To prevent damage to ESD-sensitive parts, do the following:

- Turn off the printer before removing logic boards.
- Keep the parts in their original packing material until you are ready to install them into the printer.
- Make the least possible movements with your body to prevent an increase of static electricity from clothing fibers, carpets, and furniture.
- Put the ESD wrist strap on your wrist. Connect the wrist band to the system ground point. This action discharges any static electricity in your body to the printer.
- Hold the parts by their edge connector shroud. Do not touch its pins. If you are removing a pluggable module, then use the correct tool.
- If possible, keep all parts in a grounded metal cabinet.
- Do not place the parts on the printer cover or on a metal table. If you need to put down the parts, then put them into their packing material.
- Prevent parts from being accidentally touched by other personnel. Cover the printer when you are not working on it.
- Be careful while working with the parts when cold-weather heating is used. Low humidity increases static electricity.

Critical information for controller board or control panel replacement

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

⚠ **ATTENTION—RISQUE DE BLESSURE :** La batterie lithium de ce produit n'est pas destinée à être remplacée. Il existe un risque d'explosion si une batterie lithium est placée de façon incorrecte. Ne rechargez pas, ne démontez pas et n'incinérez pas une batterie lithium. Mettez les batteries lithium usagées au rebut selon les instructions du fabricant et les réglementations locales.

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

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

Warning—Potential Damage: Observe all precautions when handling ESD sensitive parts. See **"Handling ESD-sensitive parts" on page 316**.

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 323**.

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 error service check" on page 268**

Restoring the printer configuration after replacing the controller board

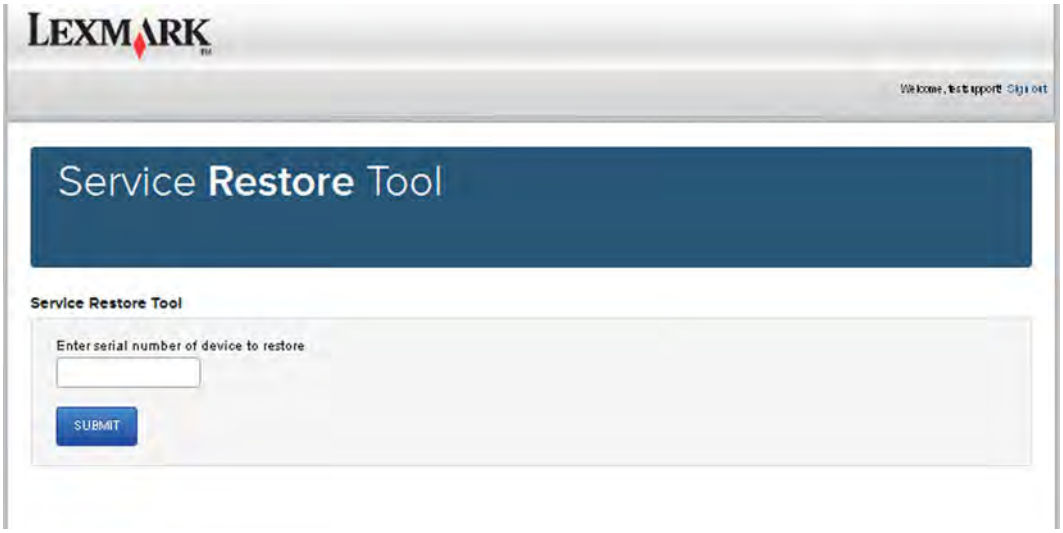
Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

Note: The software bundle contains the latest version of the firmware, applications, and software licenses from the Lexmark Virtual Solutions Center (VSC). The printer firmware may be at a different level from what was used before replacing the controller board.

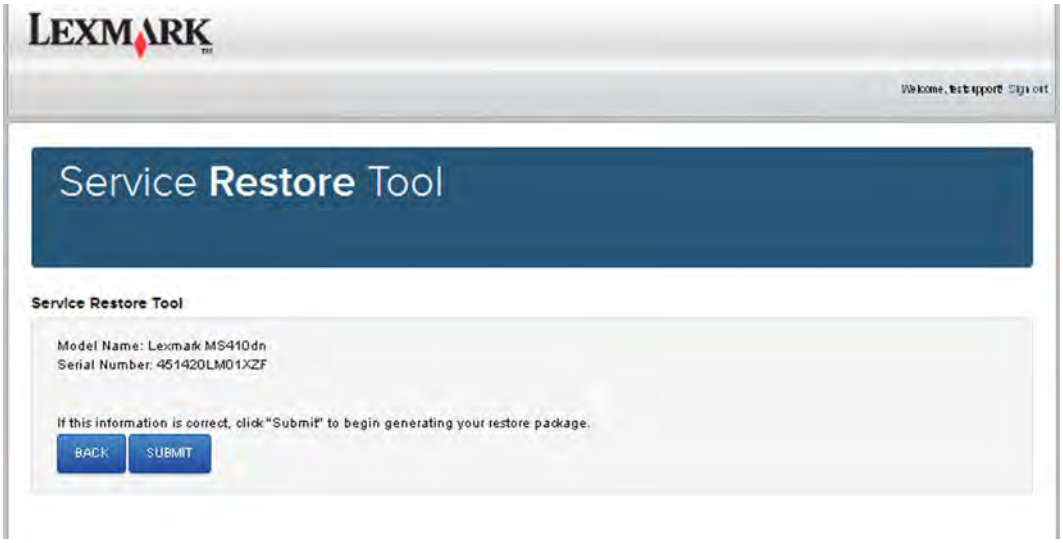
Using the Service Restore Tool

1. Go to **https://cdp.lexmark.com/service-restore-tool/** to access the tool.
2. Log in using your Lexmark or partner login.

   If your login fails, then contact your next level of support.
3. Enter the printer serial number, and then submit the information.

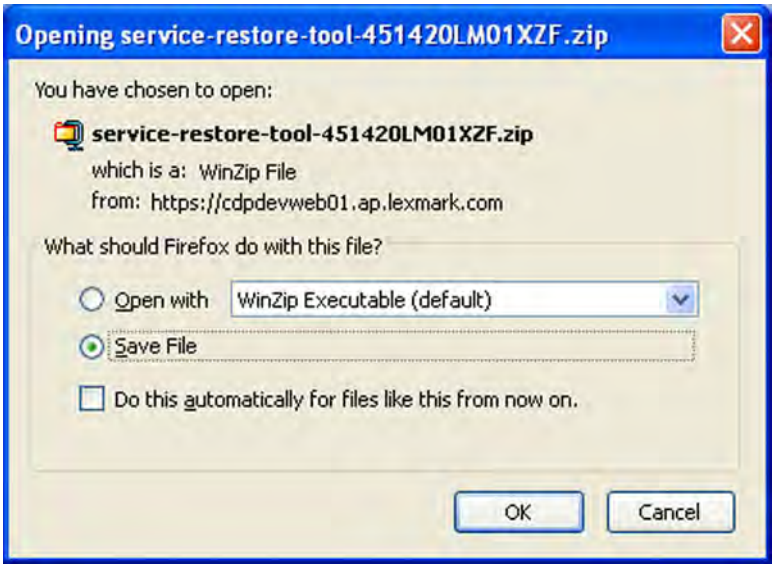


Note: Make sure that the serial number that appears on the verification screen is correct.



4. Save the zip file.

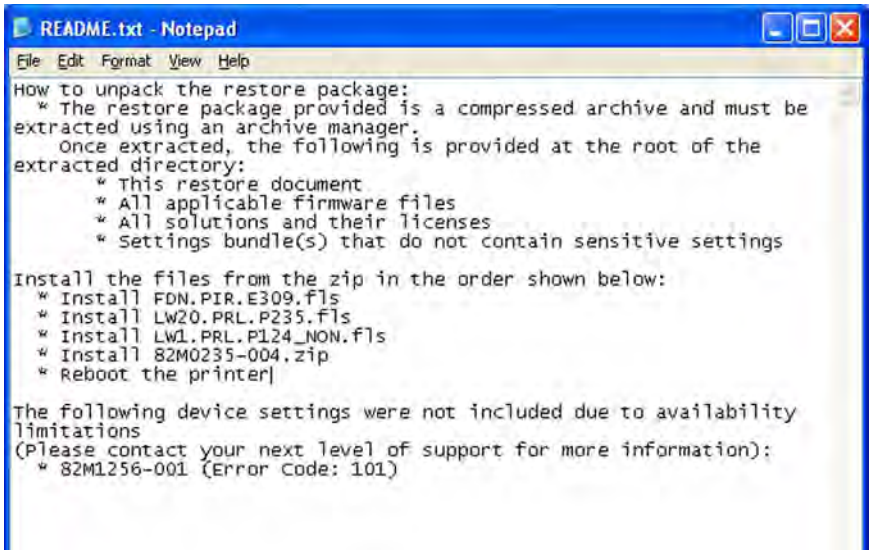
Note: Make sure that the serial number in the zip file matches the serial number of the printer being restored.



5 Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

Notes:

- Perform the install instructions on the *Readme* file in the exact order shown. Restart the printer only if the file says so.
- For more information on how to flash the downloaded files, see **"Updating the printer firmware " on page 321**.
- To load the zip files that are extracted from the Service Restore Tool, see **"Restoring solutions, licenses, and configuration settings" on page 320**.



6 After performing the installation instructions in the *Readme* file, confirm from the customer if all the eSF apps have been installed.

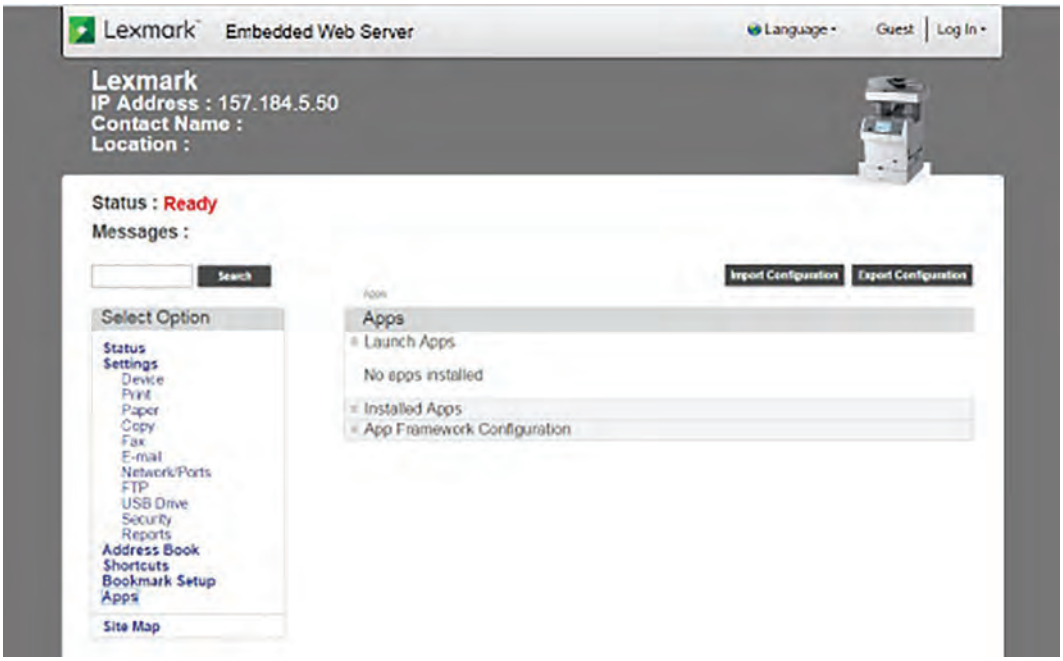
Notes:

- If you are unable to access the administrative menus to verify that the printer is restored, then ask the customer for access rights.
- If a 10.00 error appears after you restart the printer, then contact the next level of support.

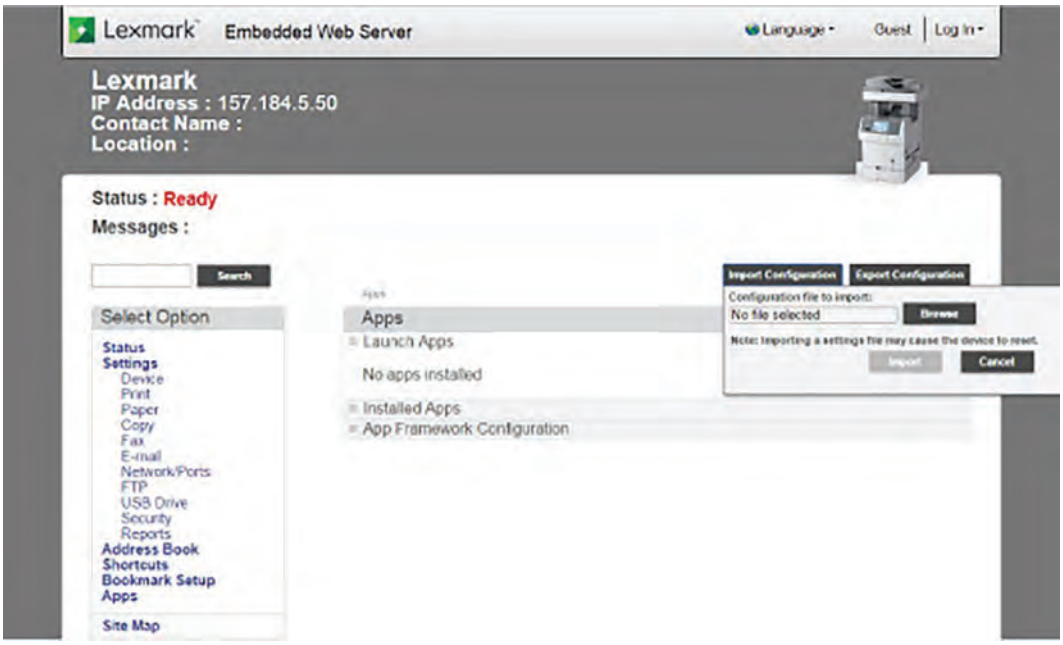
Restoring solutions, licenses, and configuration settings

To load the zip files that are extracted from the Service Restore Tool, do the following:

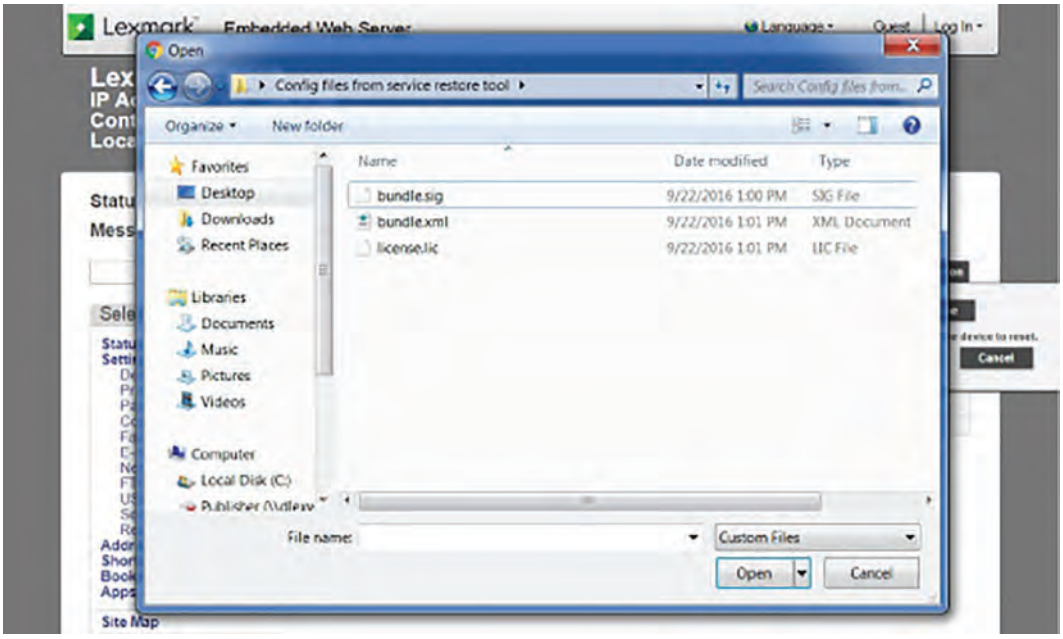
1 Open a web browser, and then type the printer IP address.



2 Click **Import Configuration**, and then click **Browse**.



3 Navigate to the folder where the zip files are extracted from the Service Restore Tool.



4 Select the file to import, and then click **Import**.

5 Repeat step 2 through step 4 for the other files that are included in the extracted zip file.

Updating the printer firmware

Warning—Potential Damage: Before updating the printer firmware, ask the next level of support for the correct code. Using an incorrect code level may damage the printer.

Using a flash drive

Note: The printer must be in ready state to update the firmware.

This option is available only in printer models with front USB port.

1. Insert the flash drive into the USB port.
2. Depending on the printer model, do any of the following:
   - From the control panel, navigate to **USB Menu: Print from USB** > **Accept** or **OK**, and then select the file that you need to flash.
   - Select the firmware file.

Note: Do not turn off the printer while the update is going on.

Using a network computer

Using the File Transfer Protocol (FTP)

Note: The printer must be in ready state to update the firmware.

1. Turn on the printer.
2. Obtain the IP address from the home screen.
3. From the command prompt of a network computer, open an FTP session to the printer IP address.
4. Use a PUT command to place the firmware file on the printer.

   The printer performs a POR sequence and terminates the FTP session.

Using the Embedded Web Server

Note: The printer must be in ready state to update the firmware.

1. Open a web browser, and then type the printer IP address.
2. Click **Settings** > **Device** > **Update Firmware**.
3. Select the file to use.

   The printer performs a POR sequence and terminates the EWS session.

Using a USB cable connection

Note: Make sure that the cable is connected to the rear USB port.

Using USB Flash Utility

1. Go to **support.lexmark.com**, and then download USB Flash Utility.
2. Extract, and then run the utility.
3. Click **Browse Files**, and then browse to the firmware file directory.
4. Select the firmware file.
5. Select the source printer.
6. Click **Start**.

Using USButil

1. Go to **support.lexmark.com**, and then download USButil.
2. Extract, and then drag and drop the firmware file onto the USButil icon.
3. A command prompt window appears briefly.

   Note: Make sure to disconnect other USB devices when using USButil.

Backing up eSF solutions and settings

Note: Export the eSF solutions and settings from the printer before replacing the controller board.

Exporting eSF solutions and settings file

1. Reset the printer into Invalid engine mode. See **"Entering invalid engine mode" on page 311**.
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 311**.
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**.

Understanding the marked or colored screws

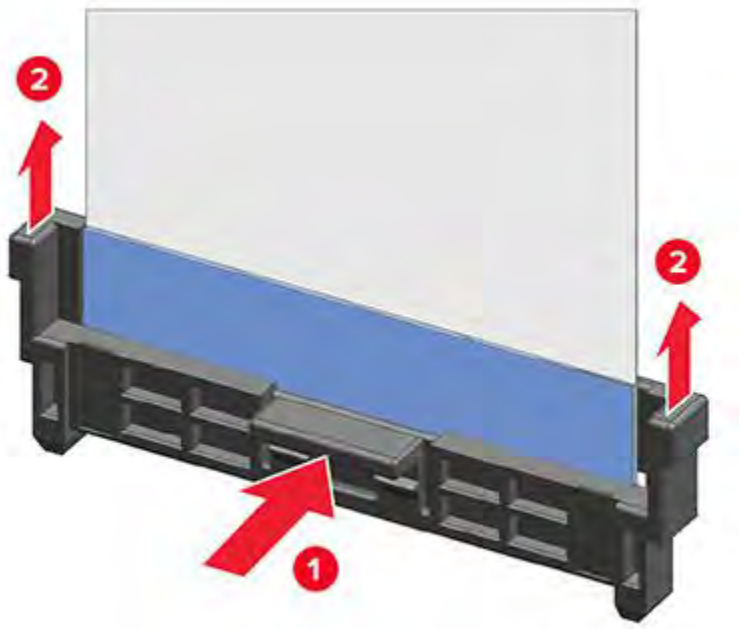
Some parts are secured by screws that are specially marked or colored.

- **Blue or green**—These screws may loosen due to vibrations and loads during use or transport.
- **Red**—These screws secure parts that are difficult to install, adjust, or align. Do not remove or loosen the parts with red screws unless the parts are defective.

  Note: In some cases, the part is secured by multiple screws but only one screw is marked in red. This part should not also be removed or loosened unnecessarily.

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.



Ribbon cable connectors

Zero Insertion Force (ZIF) connectors

These connectors are used on the boards and cards that are installed in the printer.

To avoid damaging the connectors and their cables, observe the following:

- Do not insert the cables where the contacts are facing the locking actuator.
- Do not insert the cables diagonally into the ZIF socket.
- Avoid using a fingernail or sharp object to open the locking actuator.
- Avoid pressing against the cables when opening the locking actuator.

These are the types of the ZIF connectors that are used in this printer:

- Horizontal top contact connector
- Horizontal bottom contact connector
- Vertical mount contact connector
- Horizontal sliding connector

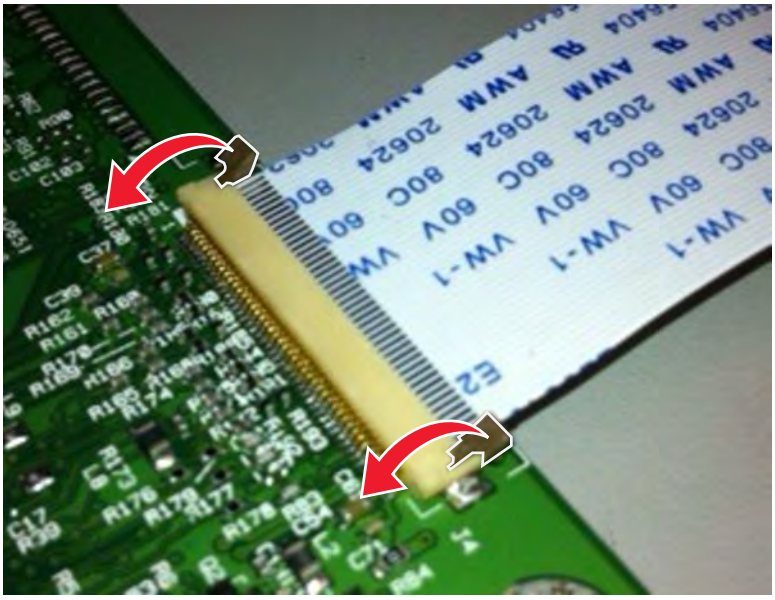
Horizontal top contact connector

This connector uses a back flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, lift or close the two tabs located on each end of the actuator. The two tabs should be moved simultaneously. Do not close the actuator from the center.

Removing the cable

1 Unlock the actuator.



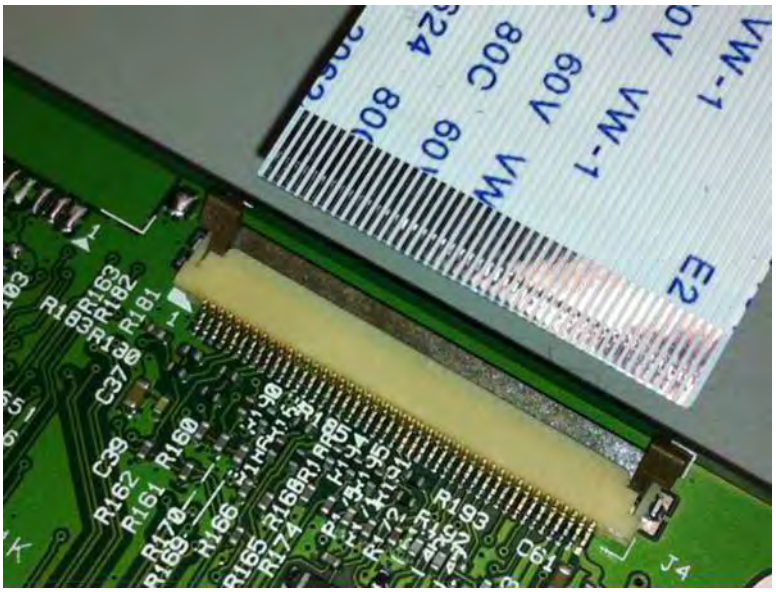
2 Remove the cable.

Inserting the cable

Make sure that the actuator is unlocked before installing the cable. The tabs are vertical when the actuator is locked.

1 Insert the cable on top of the actuator with the contacts facing up.

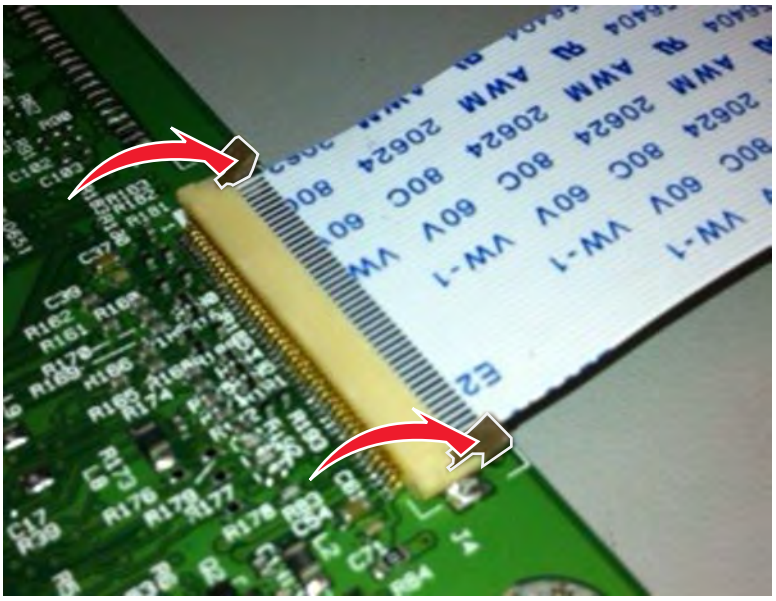
Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.



2 Rotate the locking actuator to the locked position.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.



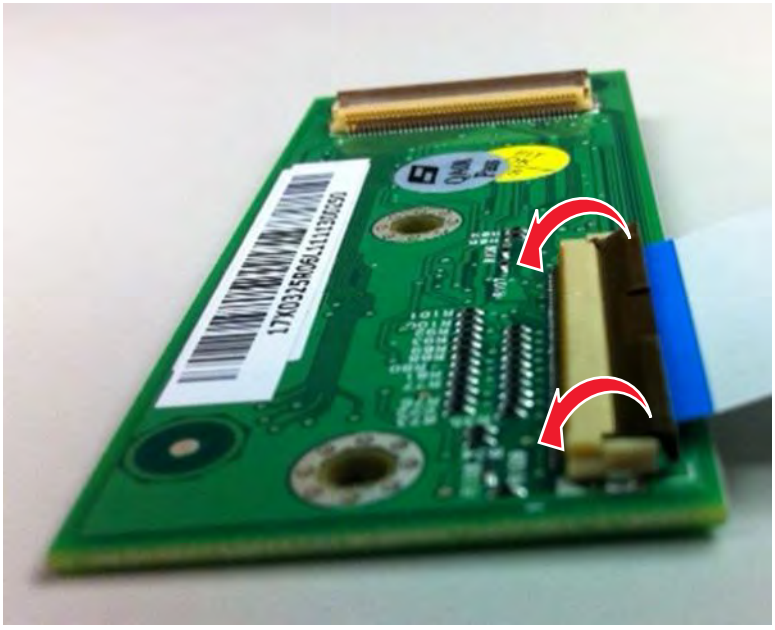
Horizontal bottom contact connector

This connector uses a flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator to avoid damaging the ribbon cable. Do not close the actuator from its ends.

Removing the cable

1 Unlock the actuator.



2 Remove the cable.

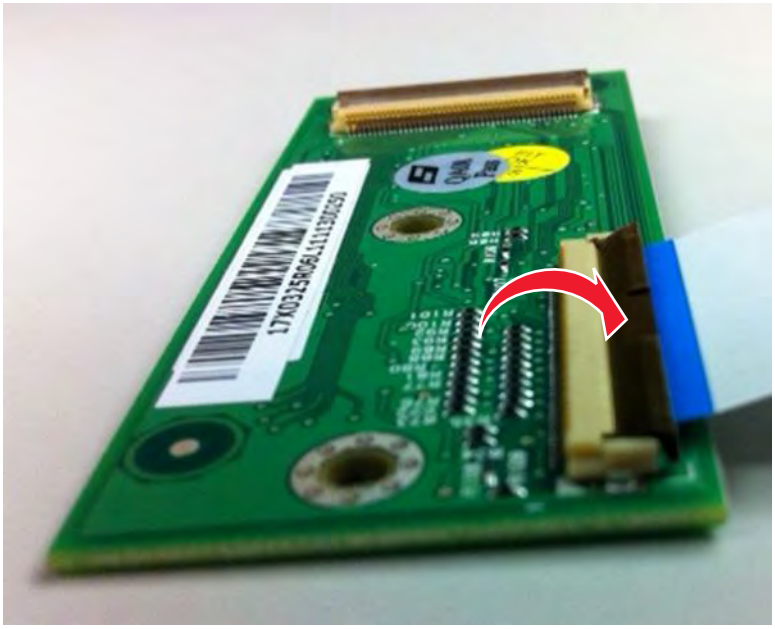
Inserting the cable

1 Make sure that the actuator is in the open position.

2 Insert the cable below the actuator with the contacts facing downward and away from the locking actuator.

Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.

3 Rotate the locking actuator to the locked position.



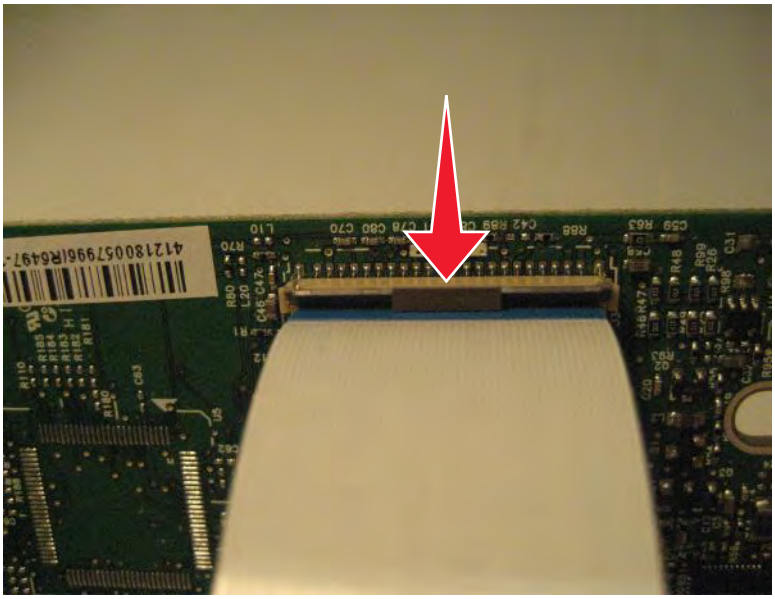
Vertical mount contact connector

This connector uses a back flip locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently lift the center of the actuator using your finger. Do not use a fingernail or screwdriver to open the actuator to avoid damaging the ribbon cable. Do not close the actuator from its ends.

Removing the cable

1 Rotate the locking actuator from the center of the actuator to the unlocked position.



2 Remove the cable.

Inserting the cable

1 Make sure that the locking actuator is in the open position.

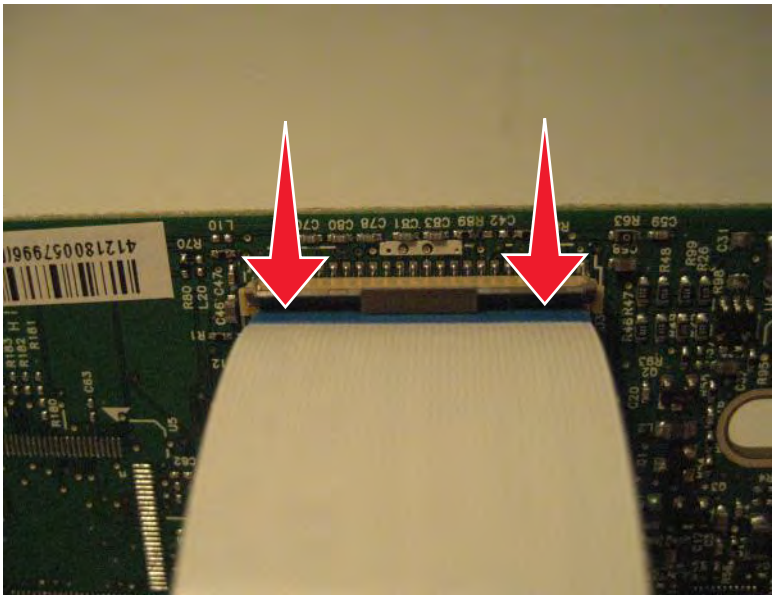
2 Insert the cable on top of the actuator with the contacts facing away from the locking actuator.

Note: Make sure that the cable is installed squarely into the connector to avoid intermittent failures.

3 Rotate the locking actuator to the locked position.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.



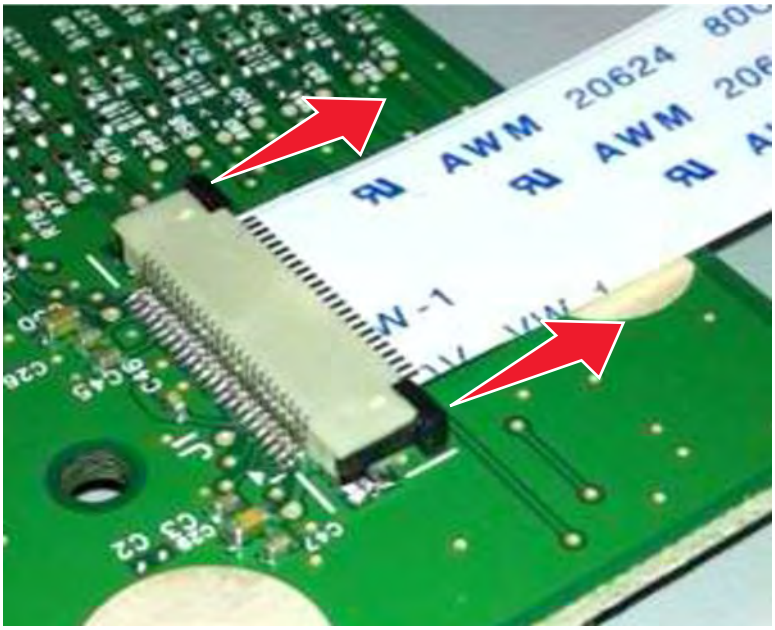
Horizontal sliding contact connector

This connector uses a slide locking actuator to lock the ribbon cable into the ZIF connector.

Warning—Potential Damage: When opening or closing this type of actuator, gently push or pull the two tabs located on each end of the actuator. Do not close the actuator from the center of the actuator. Do not use a screwdriver to open or close the actuator to avoid damage to the cable or connector.

Removing the cable

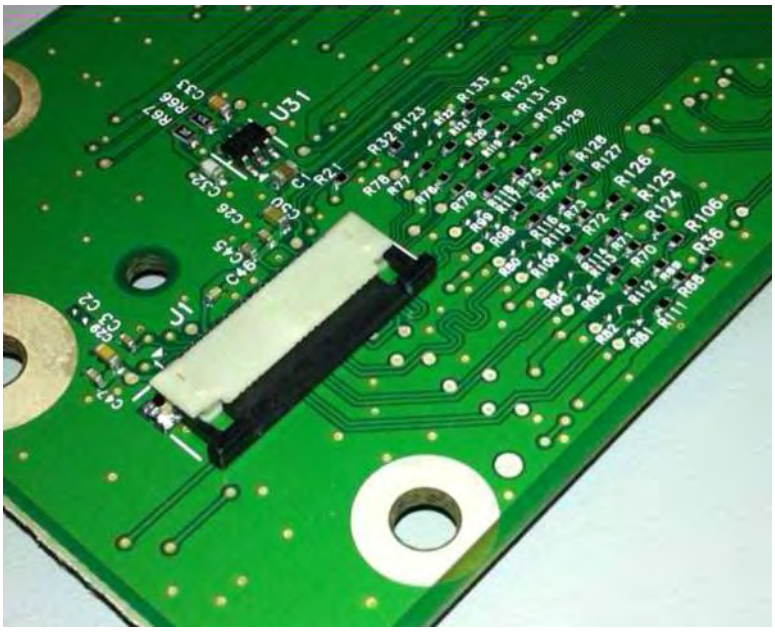
1. Slide the tabs away from the connector.



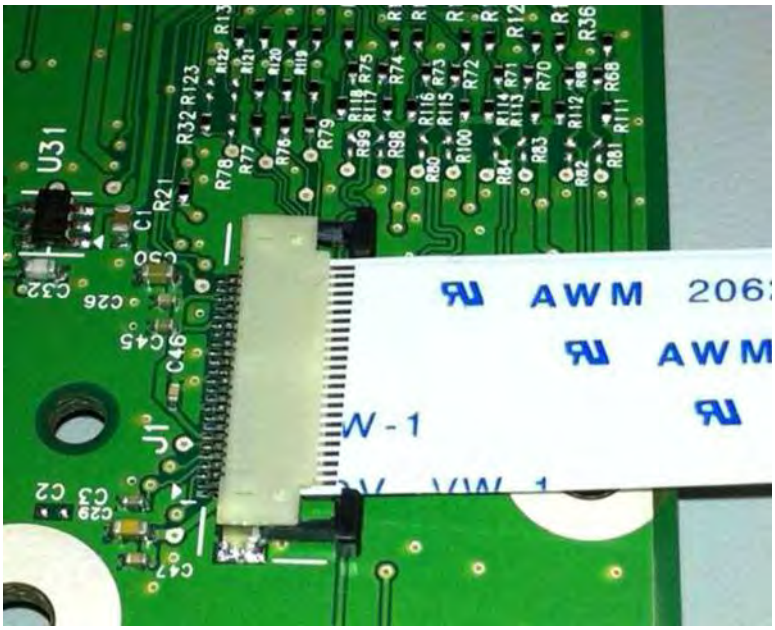
2. Remove the cable.

Inserting the cable

1. Make sure that the locking actuator is in the open position. If you are opening the connector, then pull back the end tabs using equal force to avoid breaking the connector.



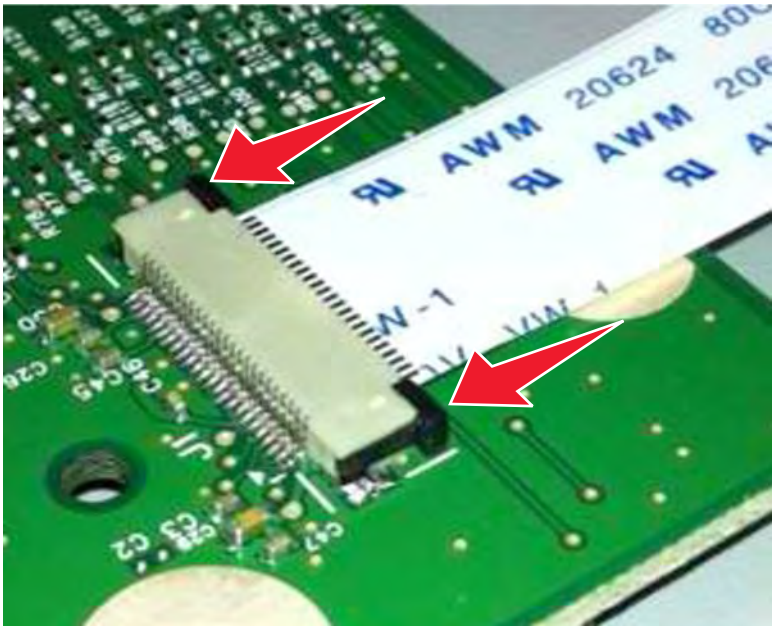
2. Insert the cable on top of the actuator with the contacts facing away from the locking actuator.



3. Slide the locking actuator toward the connector to lock the cable.

Notes:

- Do not move the cable while locking the actuator.
- If the cable moves, open the actuator, reposition the cable, and then close the actuator.

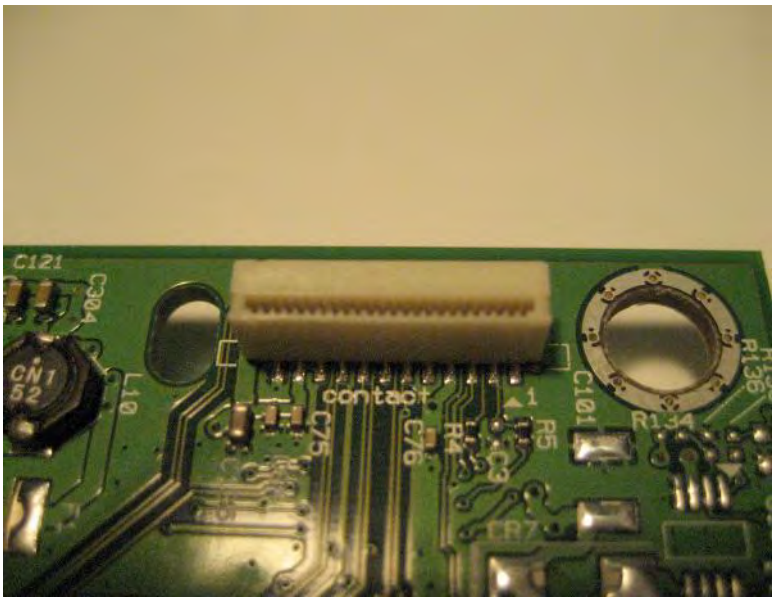


Low insertion force (LIF) connector

Warning—Potential Damage: When installing a cable into an LIF connector, avoid bending the edges of the cables and damaging the contacts on the cables.

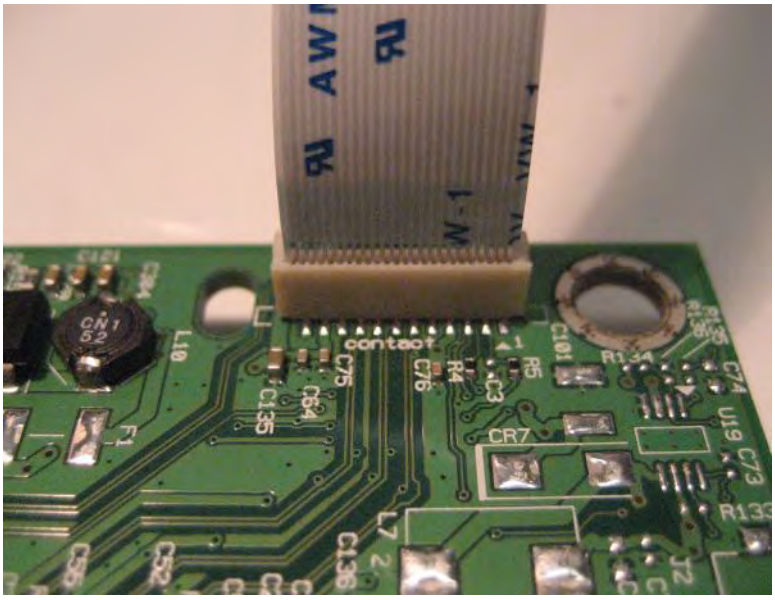
Inserting the cable

1 Make sure that the contacts of the controller board and connectors are on the same side.



2 Insert the cable.

Note: Make sure that the cable is installed straight into the connector to avoid intermittent failures.



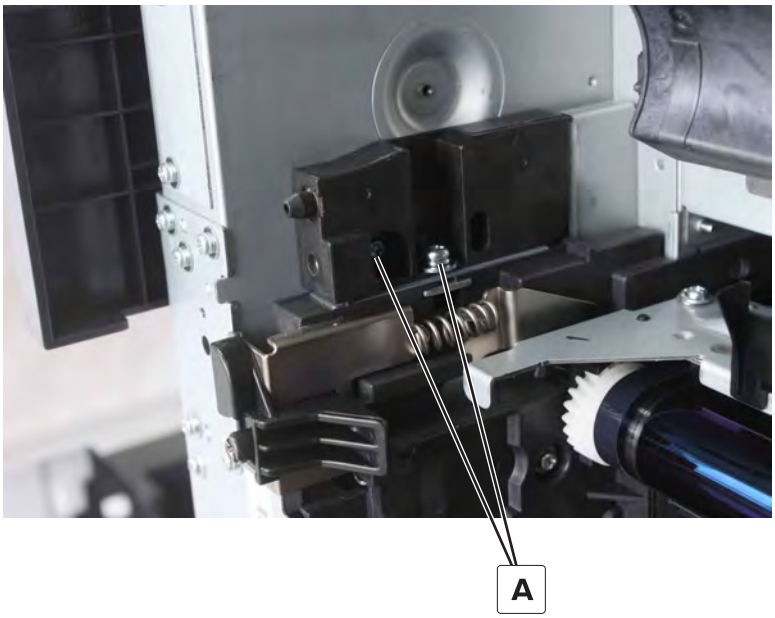
Adjustments

Fuser alignment adjustment

Fuser misalignment may cause wrinkles on the paper. Perform this procedure to align the fuser with the registration unit assembly.

1 Remove the fuser. See **"Fuser removal" on page 464**.

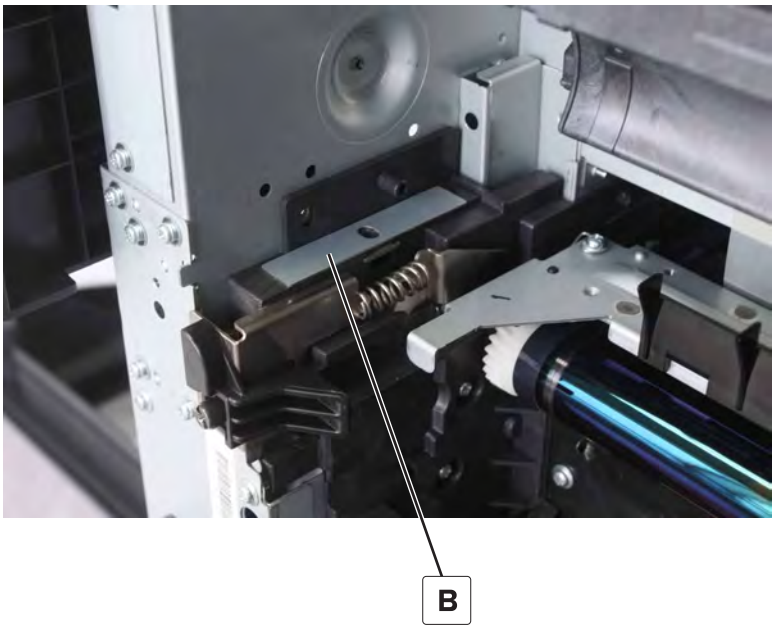
2 Remove the two screws (A), and then remove the fuser mount.



3 Add or decrease the number of plates to adjust the position of the fuser.

Notes:

- A single plate (B) has a thickness of 0.6 mm.
- The default number of plates is 1.



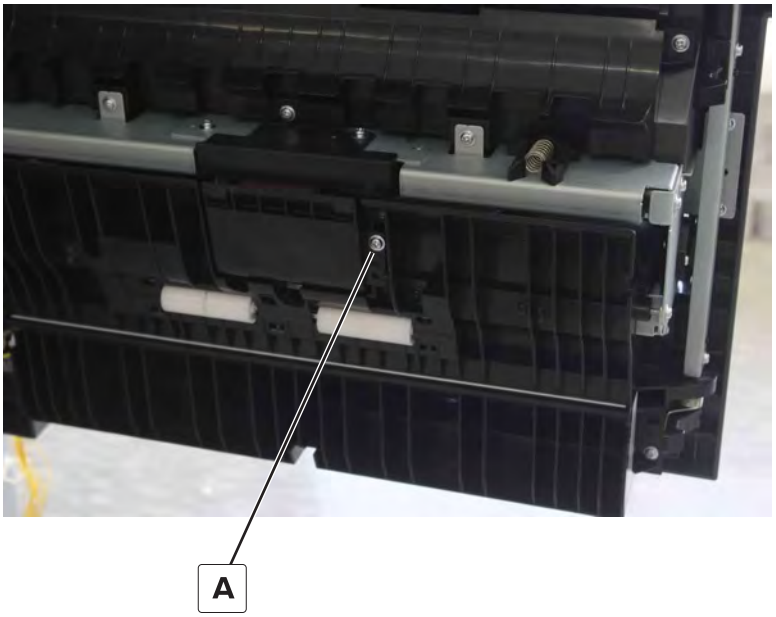
4 Perform a print job to verify the adjustment.

MPF separator roller pressure adjustment

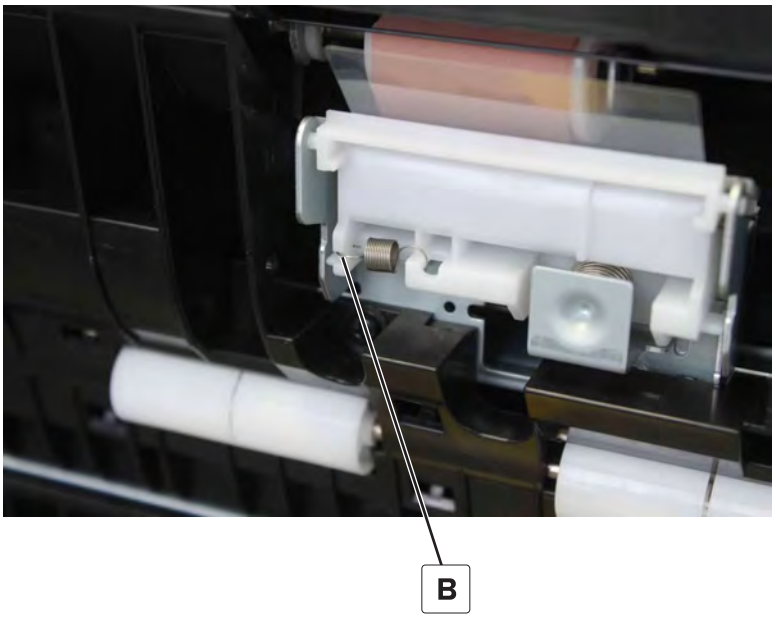
Jams may occur if the improper level of pressure is applied in picking thick paper from the MPF tray. Perform this procedure to adjust the separator roller pressure.

1 Open the right door, remove the screw (A), and then remove the cover.

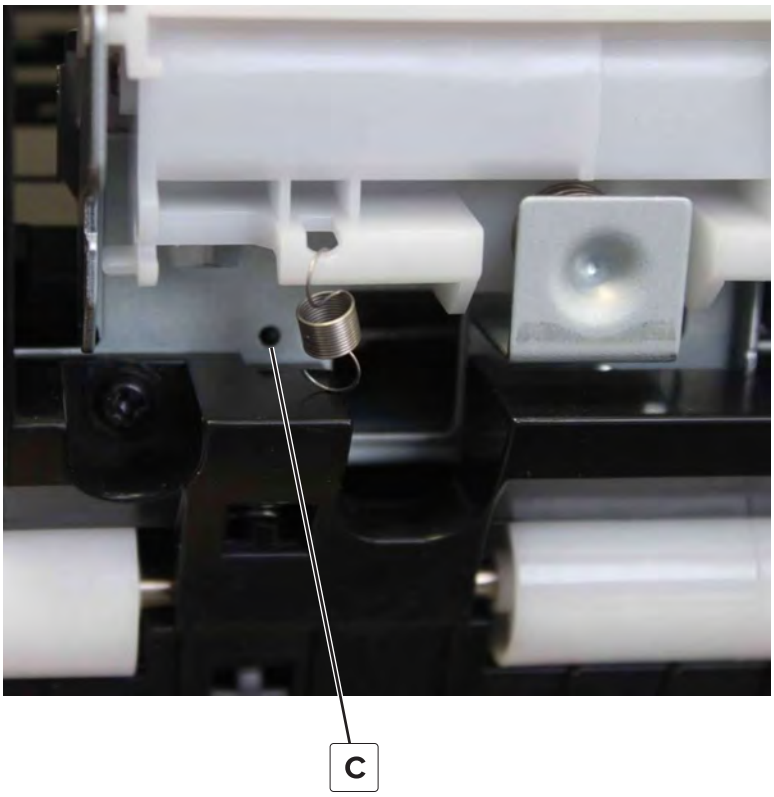
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



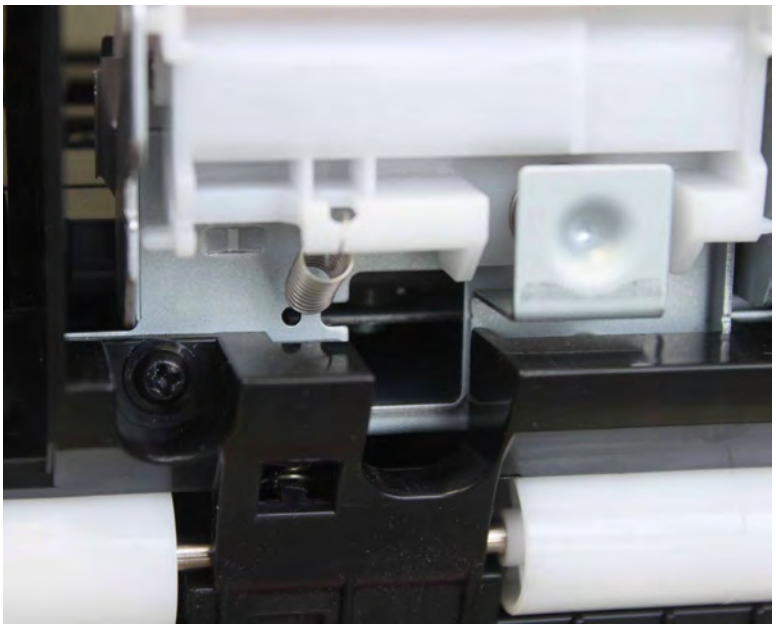
2 Release the hook (B).



3 Attach the hook to the hole (C).



Note: The correct position is shown in the following illustration.



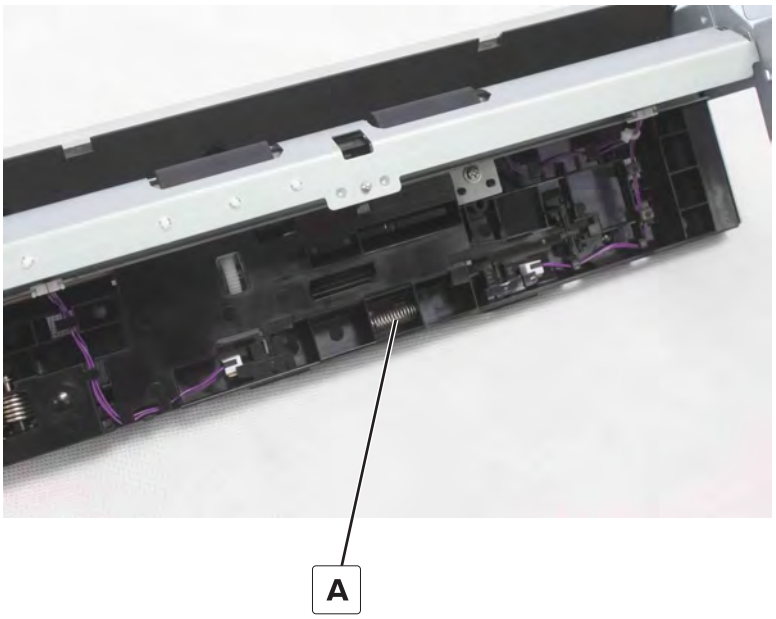
4 Perform a print job to verify the adjustment.

Pick roller pressure adjustment

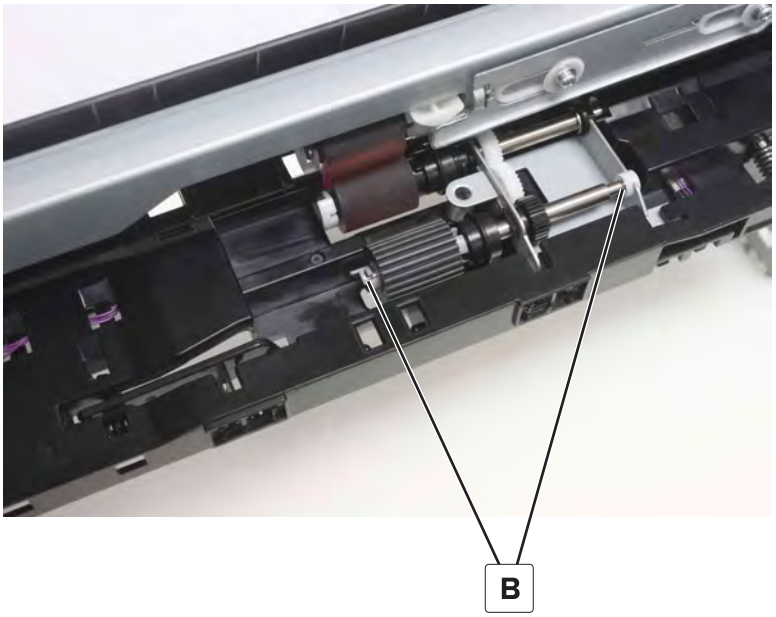
Jams may occur if the improper level of pressure is applied in picking thin paper. Perform this step to increase or decrease the pick roller pressure.

1. Remove the tray 1 and 2 paper feed unit.
2. Remove the replacement spring (A).

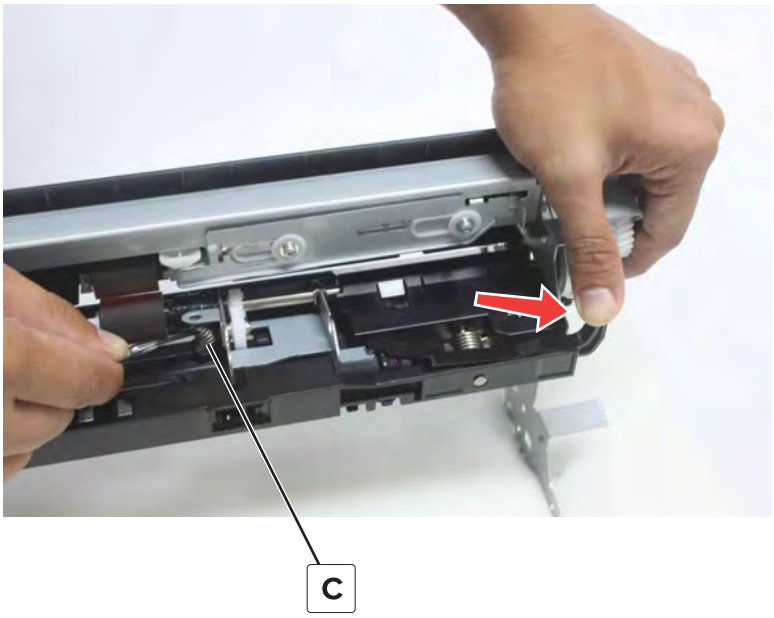
   Note: This spring must have higher or lower tension than the spring it replaces.



3. Release the clips (B), and then remove the pick tire, bushing, and shaft.



4 Press the lever, remove the spring (C), and then install the replacement spring from step 2.



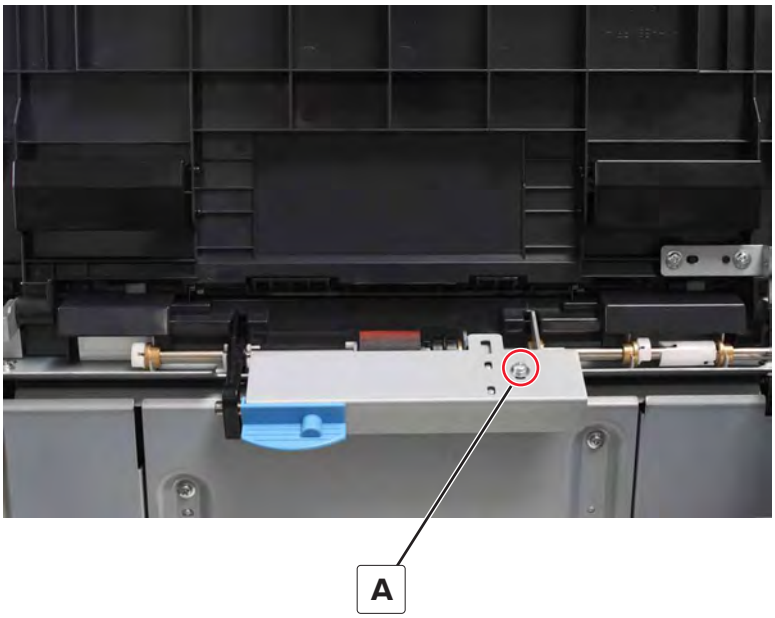
5 Perform a print job to verify the adjustment.

3000-sheet tray pick roller pressure adjustment

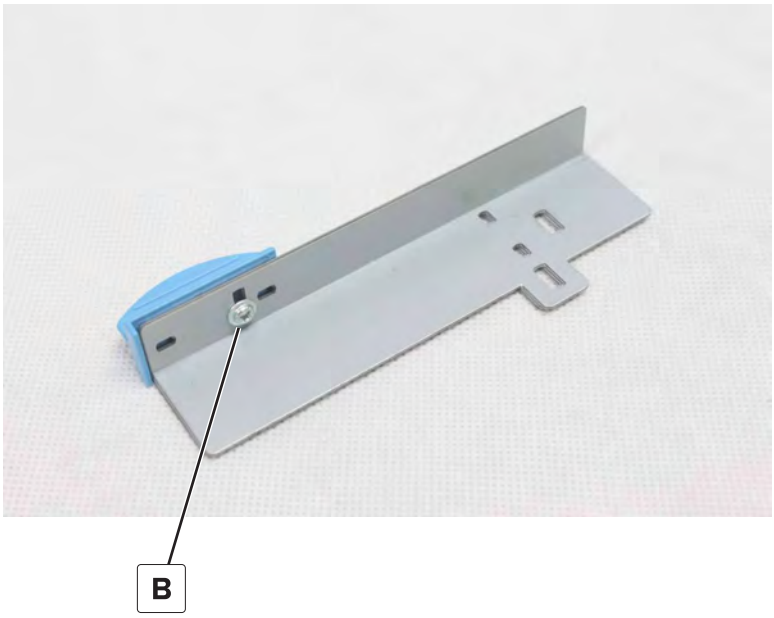
Jams may occur if the improper level of pressure is applied when picking thin paper. Perform this procedure to increase the pick roller pressure.

1 Remove the screw (A), and then remove the plates.

Installation note: Replace this screw with an M3 x 10 mm screw.

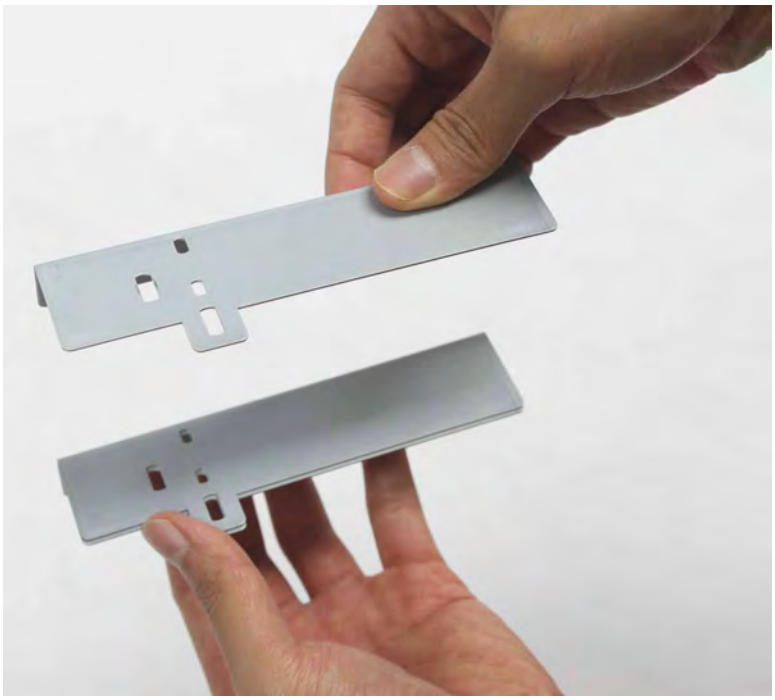


2 Remove the screw (B), and then remove the handle.



3 Add one or more plates.

Note: A total of four plates can be installed.

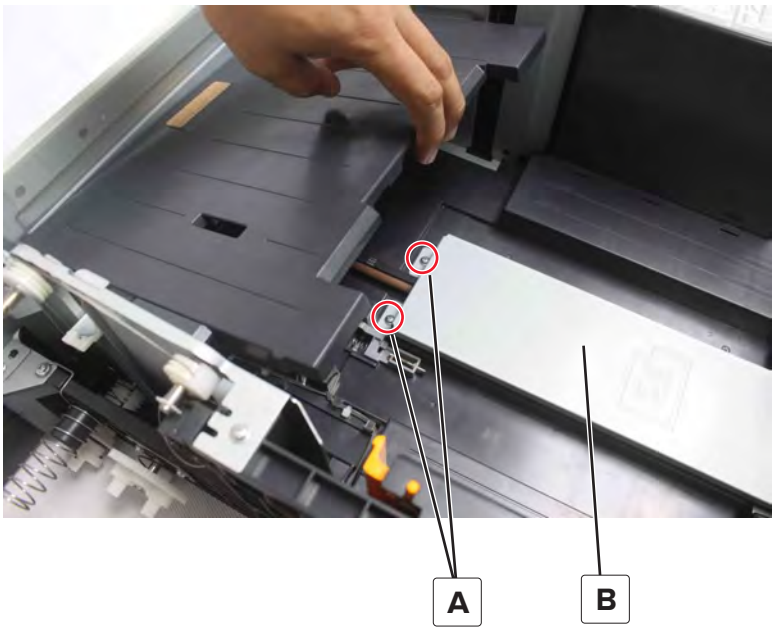


4 Perform a print job to verify the adjustment.

2500-sheet tray transfer guide belt adjustment

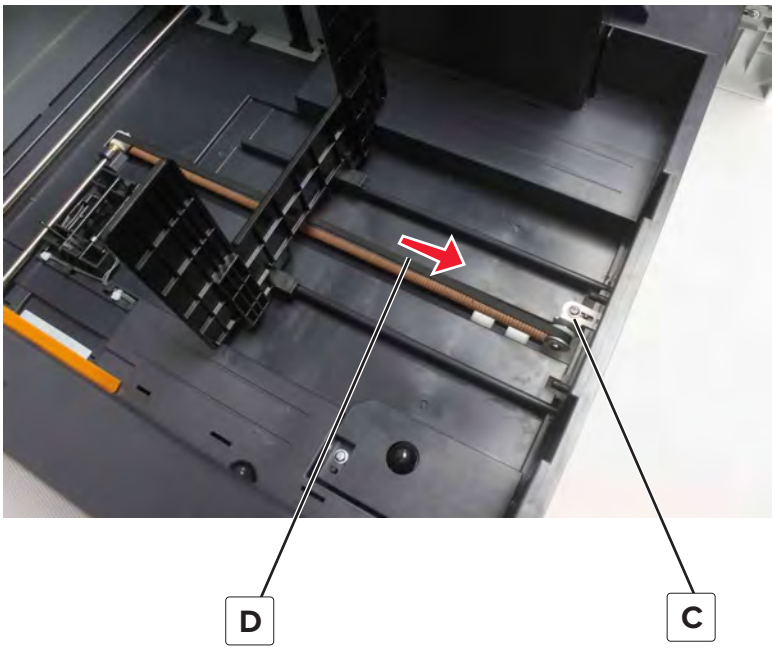
A loose transfer guide belt may cause paper stack transfer failure. Perform this step to correct the transfer guide belt tension.

1. Remove the tray insert.
2. Raise the main tray.
3. Remove the two screws (A), and then remove the belt cover (B).



4. Move the paper stack transfer guide.

5 Loosen the tension screw (C), and then move the belt (D) to adjust.



6 Retighten the tension screw.

Registration adjustment

Image misalignment may occur after printhead replacement. Perform the following procedure to correct the position of the image relative to the paper edges.

Generating a test page for margin alignment

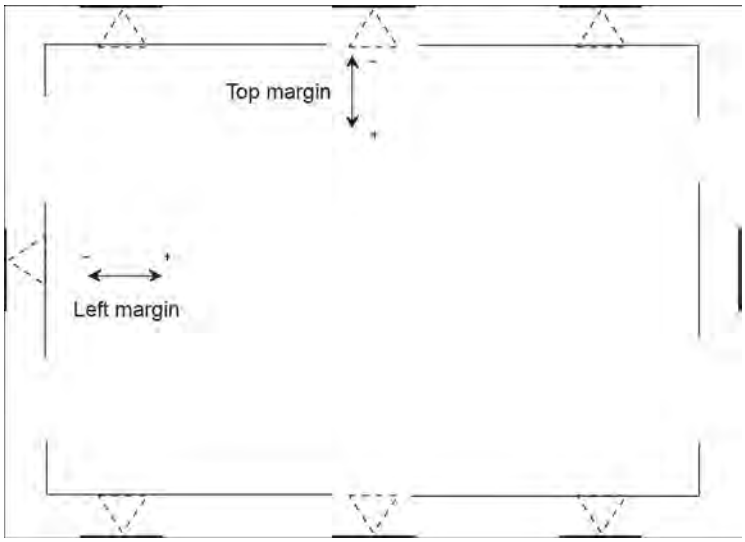
1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Registration adjust**

2 Select a tray, and then navigate to:

Quick test > **Start**

The following test page is generated.



Adjusting the margins

Check if the tips of the arrows touch the edges of the test page.

If the tip of an arrow does not touch the edge, then do the following:

1. Enter the Diagnostics menu, and then navigate to:
   Printer diagnostics & adjustments > **Registration adjust**
2. Select a tray, and then select the margin to adjust.
3. Generate another test page and check the margin alignment.
4. If the problem remains, then repeat steps 1 through 3.

Color registration adjustment

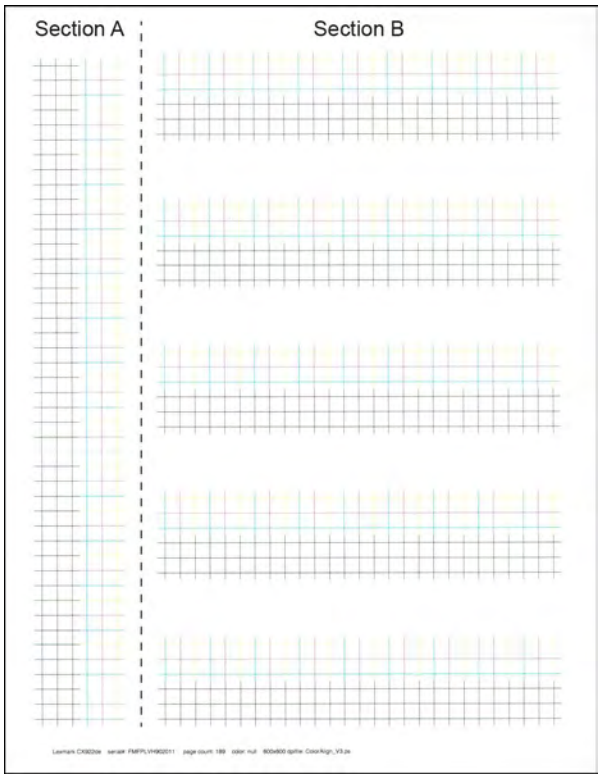
Color misalignment may cause blurred print. Perform the following procedure to align the colors.

Generating a test page for color alignment

Note: Load paper with the long edge entering the printer first.

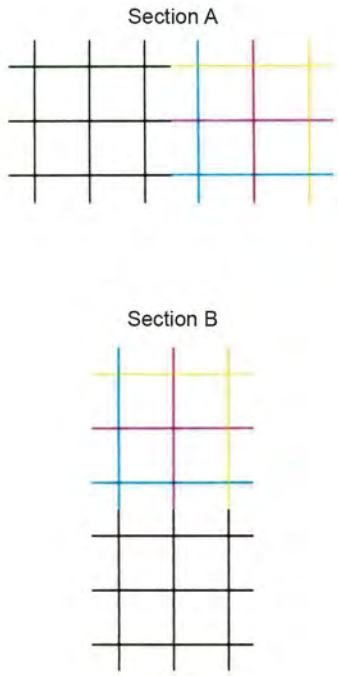
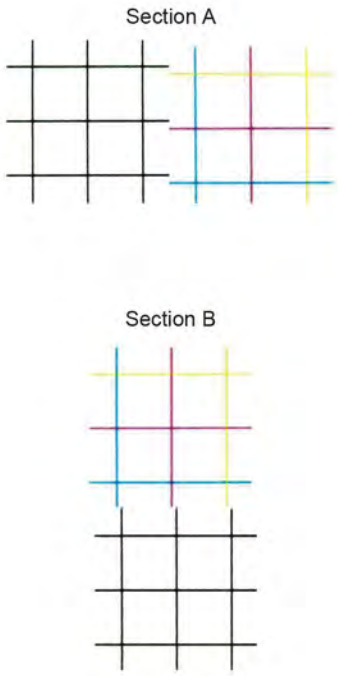
1. Enter the Diagnostics menu, and then navigate to:
   Printer diagnostics & adjustments > **Color registration adjustment**
2. Select a color, and then navigate to:
   Quick test > **Start**

The following test page is generated.



Adjusting the lines

Check if all the lines in the test page are aligned.

Aligned	Not aligned
	

If a line is not aligned, then do the following:

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

   Printer diagnostics & adjustments > **Color registration adjustment**
2. Select the color of the misaligned line.
3. Select the margin that corresponds to the section of the line to adjust.
   - Top margin (all paper type) for section A
   - Left margin (plain paper) for section B
4. Generate another test page and check the color alignment.
5. If the problem remains, then repeat steps 1 through 4.

Imaging process adjustment

Changes in temperature or humidity in the printer may cause problems to the imaging process. Perform the following procedures to fix the imaging issues.

Image stabilization

Perform the following procedure to correct misalignment or tilt in the images.

1. Print sample pages. See **"Advanced Print Quality Samples" on page 290**.
2. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Imaging process adjustment** > **Image stabilization** > **Initialize + image stabilization** > **Start**
3. Repeat step 1.
4. If the problem remains, then repeat steps 2 through 3.

Paper separation adjustment

Perform the following procedure to avoid paper jams and cracks near the top of the print image when doing a two-sided printing.

1. Print sample pages. See **"Advanced Print Quality Samples" on page 290**.
2. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Imaging process adjustment** > **Paper separation adjustment**
3. Adjust the value for each side of the paper.
4. Perform image stabilization. See **"Image stabilization" on page 346**.
5. Repeat step 1.
6. If the problem remains, then repeat steps 2 through 5.

Black density adjustment

Perform the following procedure to adjust the density of the black print image.

1. Print sample pages. See **"Advanced Print Quality Samples" on page 290**.
2. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Imaging process adjustment** > **Black density adjustment**
3. Adjust the density.
4. Perform image stabilization. See **"Image stabilization" on page 346**.
5. Repeat step 1.
6. If the problem remains, then repeat steps 2 through 5.

Voltage adjust

Perform the following procedure to avoid paper jams when printing on nonrecommended paper.

1. Print sample pages. See **"Advanced Print Quality Samples" on page 290**.
2. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Imaging process adjustment** > **Voltage adjust**
3. Adjust the voltage for each side of the paper.
4. Perform image stabilization. See **"Image stabilization" on page 346**.
5. Repeat step 1.
6. If the problem remains, then repeat steps 2 through 5.

Transfer voltage fine adjustment

Perform the following procedure to eliminate white spots or cracks near the edge of the yellow parts of the print image.

1. Print sample pages. See **"Advanced Print Quality Samples" on page 290**.
2. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Imaging process adjustment** > **Transfer voltage fine adjustment**
3. Adjust the voltage for each color.
4. Perform image stabilization. See **"Image stabilization" on page 346**.
5. Repeat step 1.
6. If the problem remains, then repeat steps 2 through 5.

Second transfer adjustment

Perform the following procedure to eliminate roughness in the blue and green parts or white specks in the black parts of the print image.

1. Print sample pages. See **"Advanced Print Quality Samples" on page 290**.
2. Enter the Diagnostics menu, and then navigate to:

   Printer diagnostics & adjustments > **Imaging process adjustment** > **Second transfer adjustment**
3. Adjust the voltage for each paper type.
4. Perform image stabilization. See **"Image stabilization" on page 346**.
5. Repeat step 1.
6. If the problem remains, then repeat steps 2 through 5.

Removal procedures

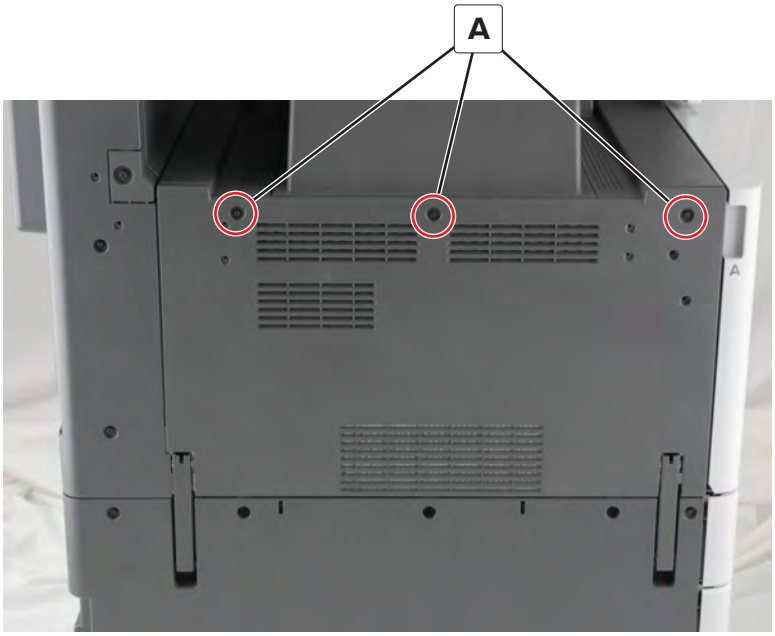
When replacing printer parts, consider the following:

- 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 cover removal

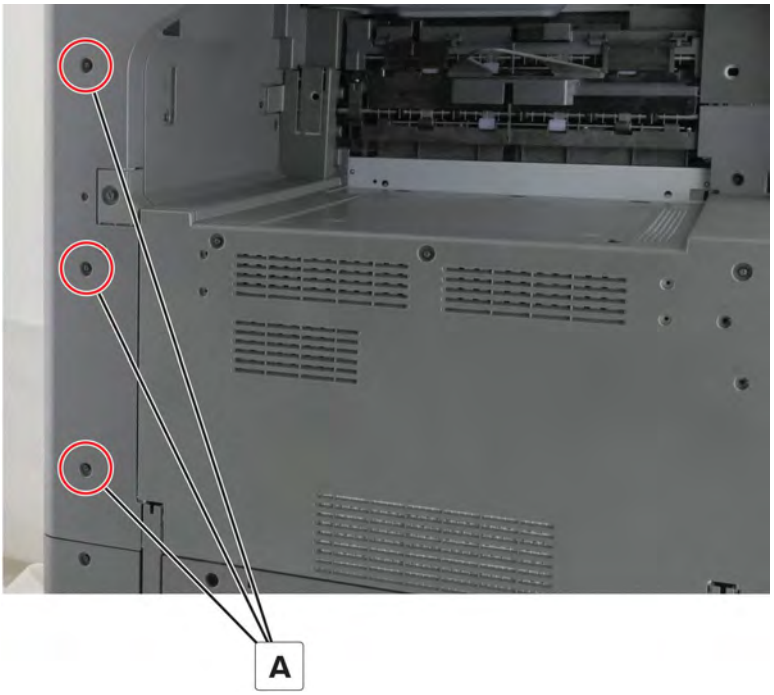
1 Remove the three screws (A).



2 Remove the cover.

Rear left cover removal

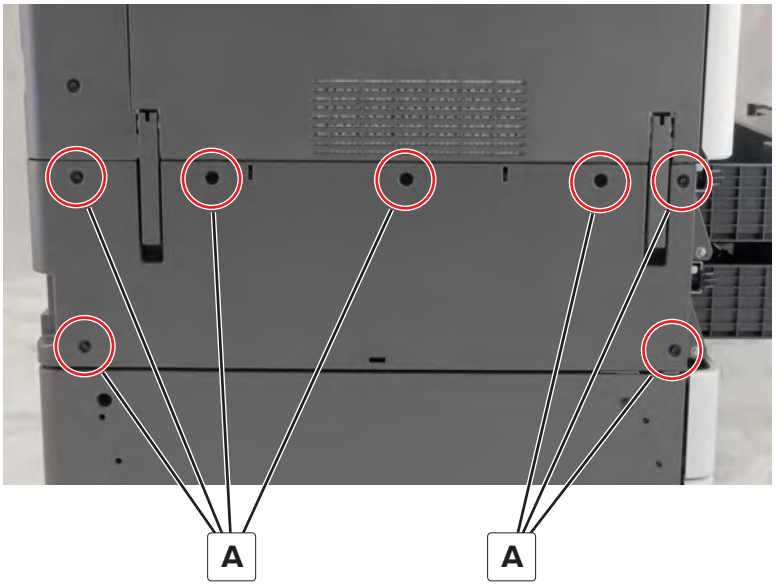
1 Remove the three screws (A).



2 Remove the cover.

Bottom left cover removal

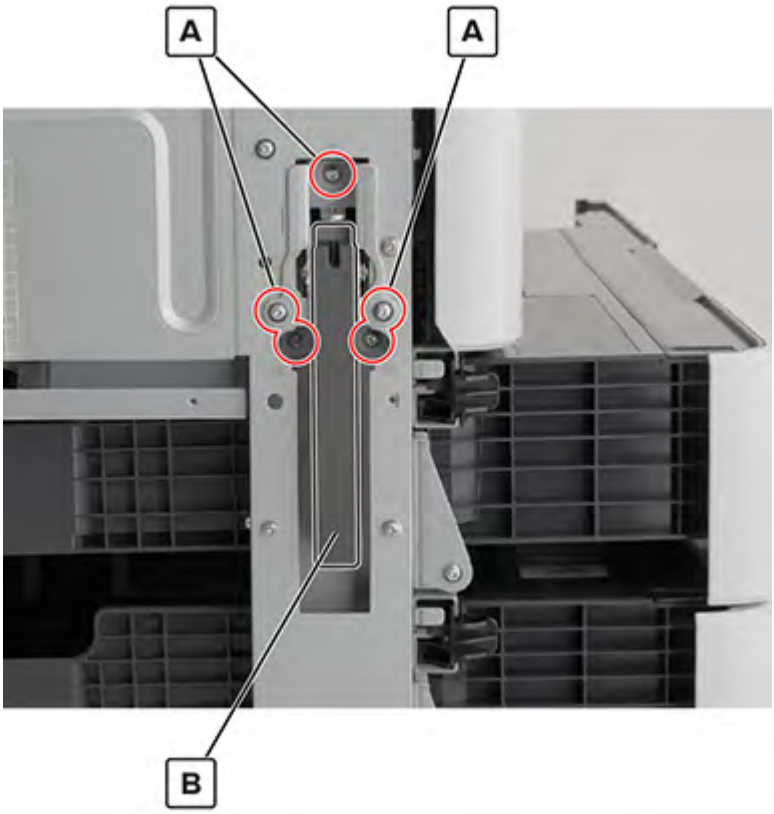
1 Remove the seven screws (A).



2 Remove the cover.

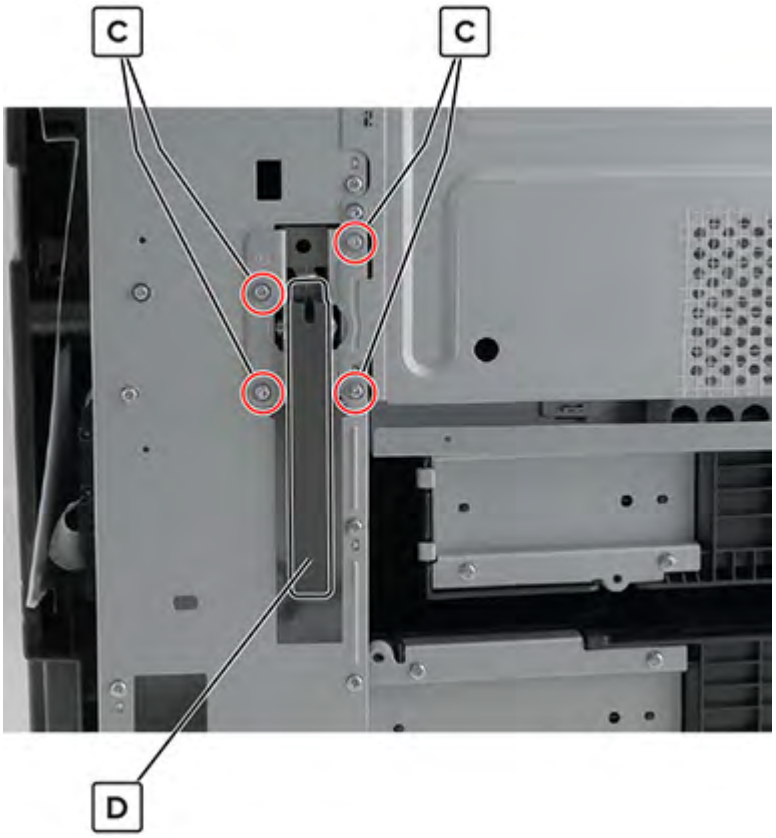
Left handles removal

1. Remove the left cover. See **“Left cover removal” on page 348**.
2. Remove the bottom left cover. See **“Bottom left cover removal” on page 349**.
3. Remove the five screws (A), and then remove the handle (B).



4. Remove the rear left cover. See **“Rear left cover removal” on page 349**.

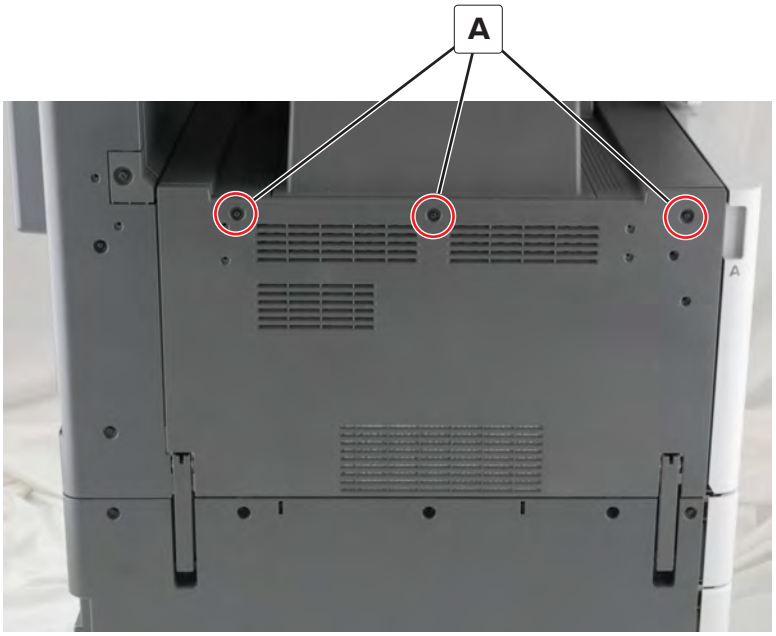
5 Remove the four screws (C), and then remove the handle (D).



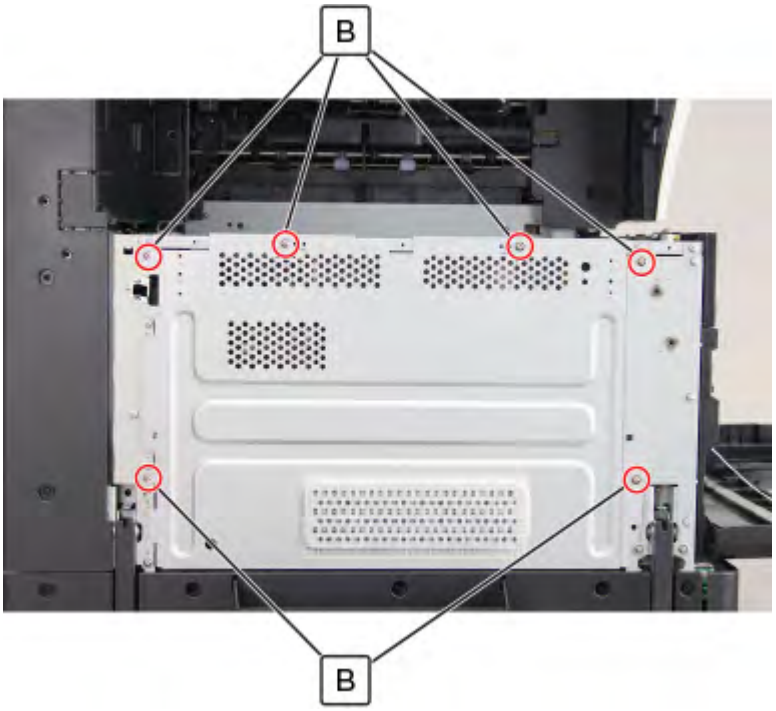
Main power supply shield removal

Note: This is not a FRU.

1 Remove the three screws (A), and then remove the left cover and the standard bin base.

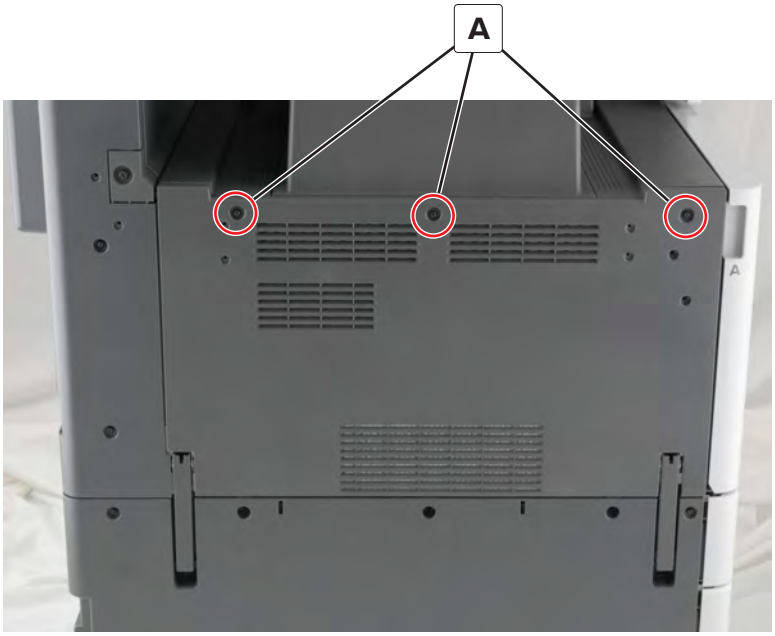


2 Remove the six screws (B), and then remove the shield.

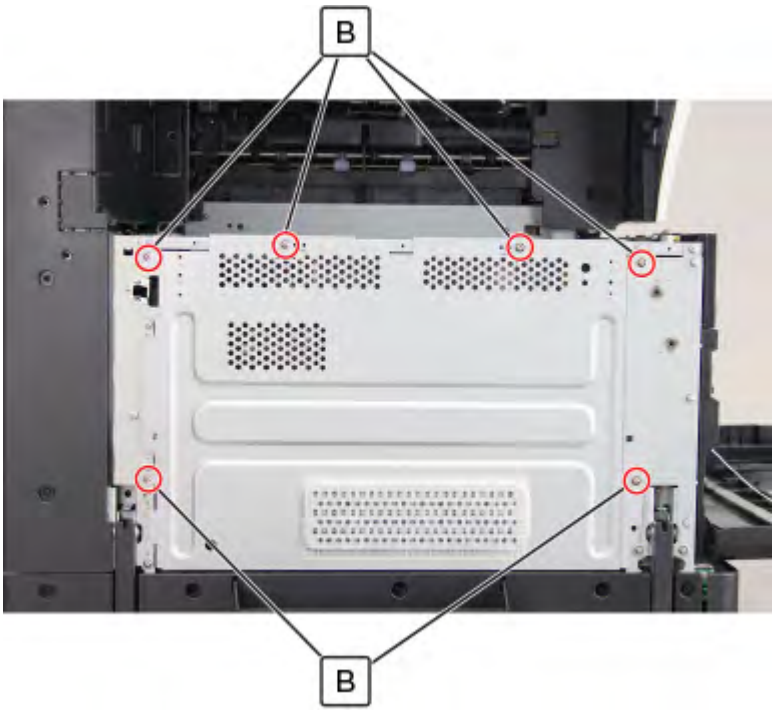


Main power supply fan removal

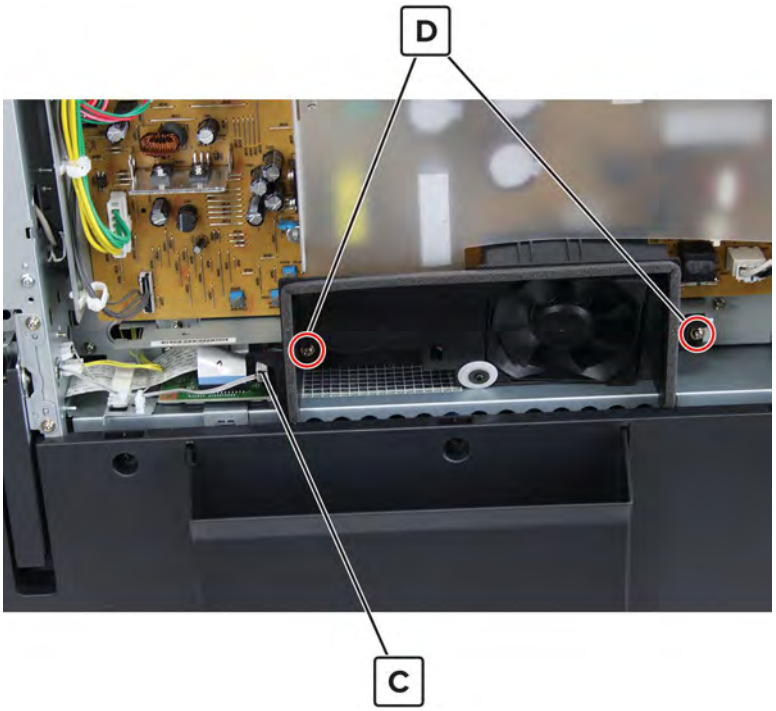
1 Remove the three screws (A), and then remove the left cover and the standard bin base.



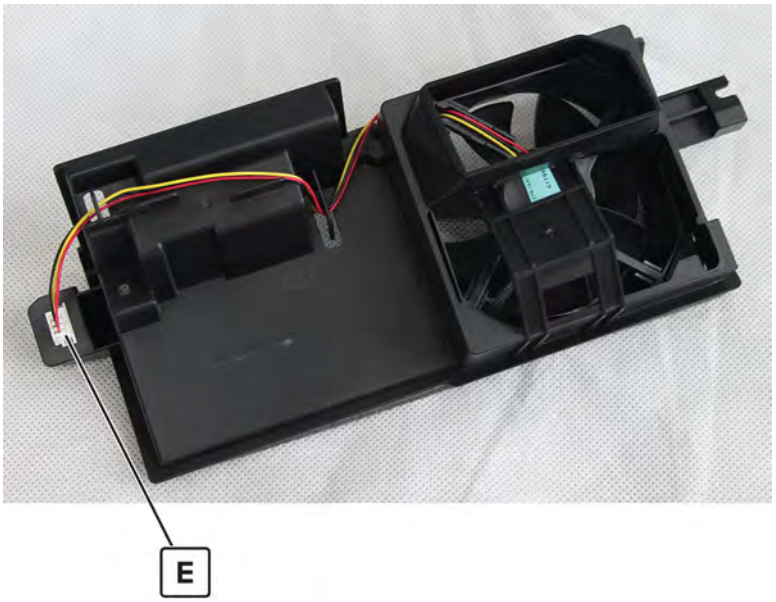
2 Remove the six screws (B), and then remove the main power supply shield.



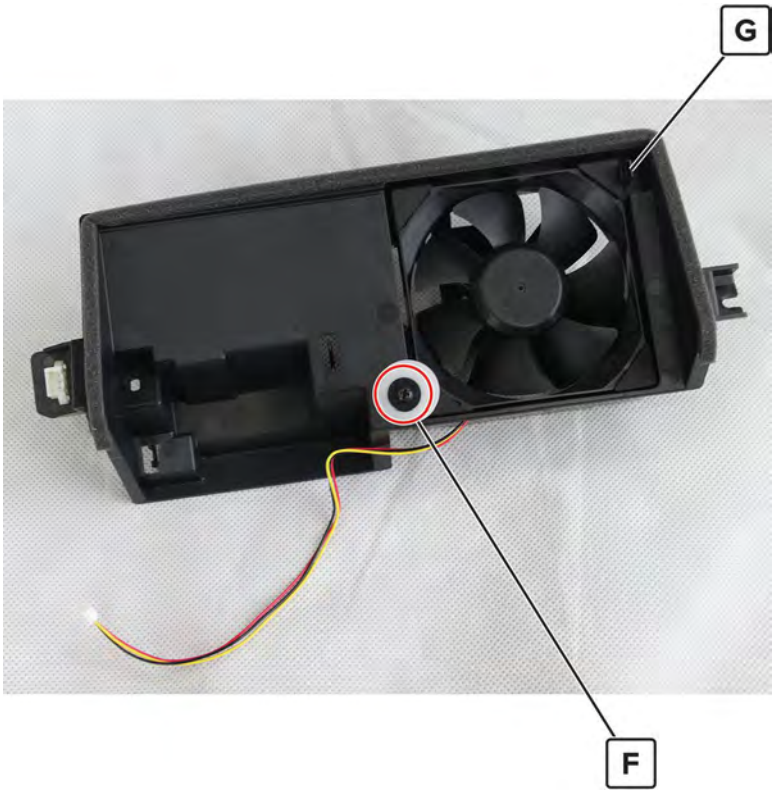
3 Disconnect the cable (C), remove the two screws (D), and then remove the power supply fan duct.



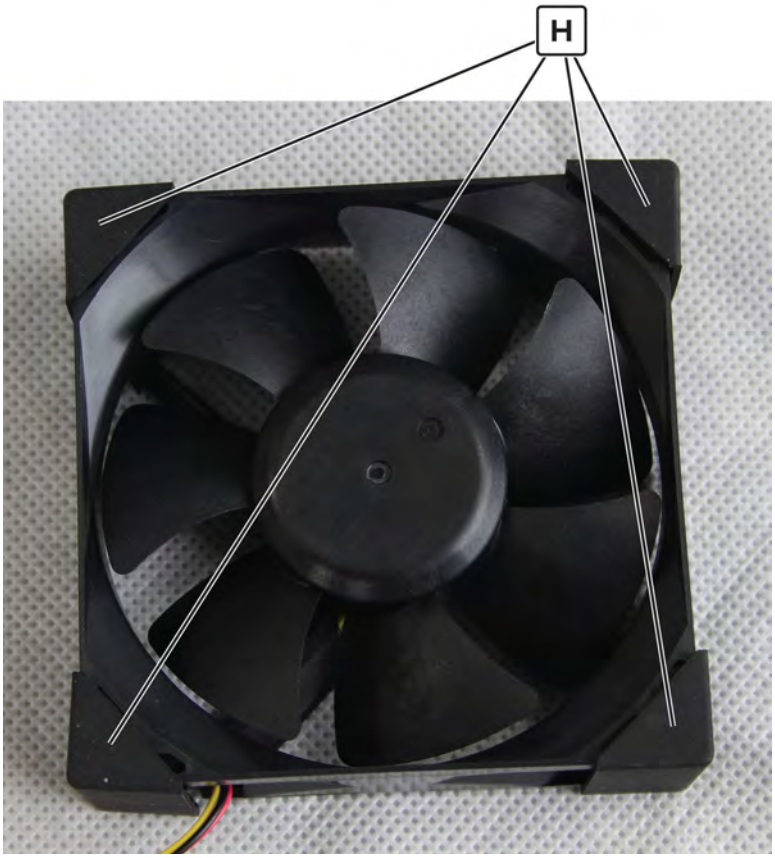
4 Disconnect the cable (E).



5 Remove the screw (F), release the latch (G), and then remove the fan.



6 Remove the four corner dampers (H) from the fan.



Main power supply removal

Note: For a video demonstration, see **Main power supply removal**.

CAUTION—SHOCK HAZARD: The main power supply may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its housing.

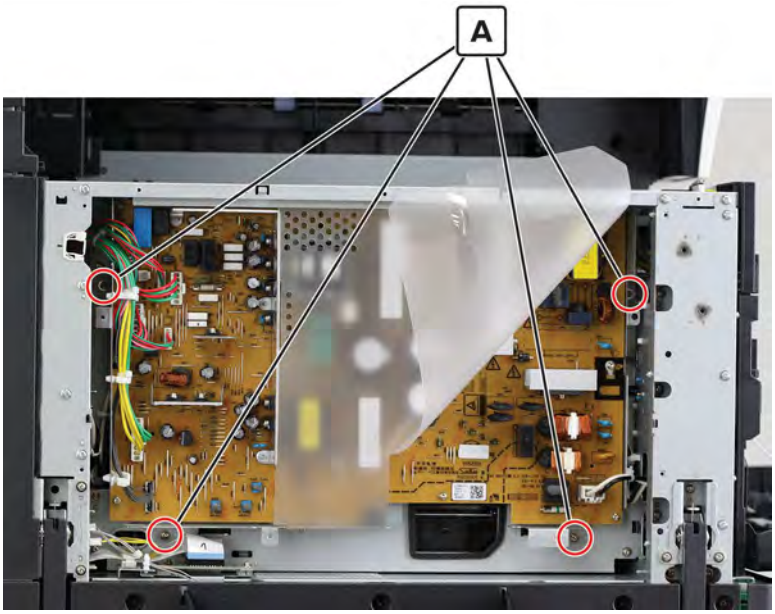
1 Remove the left cover. See **"Left cover removal" on page 348**.

2 Remove the standard bin. See **"Standard bin removal" on page 658**.

3 Remove the standard bin base. See **"Standard bin base removal" on page 658**.

4 Remove the power supply fan duct. See **"Main power supply fan removal" on page 353**.

5 Disconnect all the cables, remove the four screws (A), and then remove the main power supply.



Printhead removal

Note: For a video demonstration, see **Printhead removal**.

1 Remove the left cover. See **"Left cover removal" on page 348**.

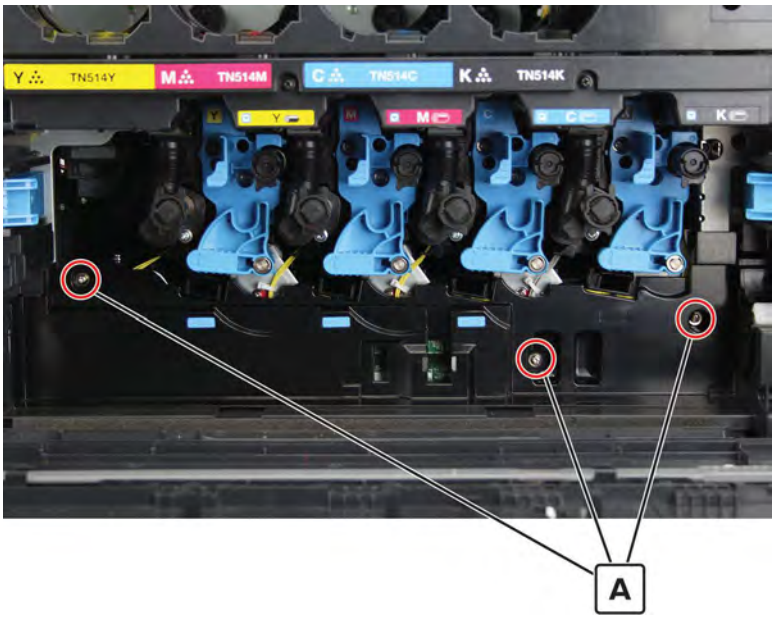
2 Remove the standard bin. See **"Standard bin removal" on page 658**.

3 Remove the standard bin base. See **"Standard bin base removal" on page 658**.

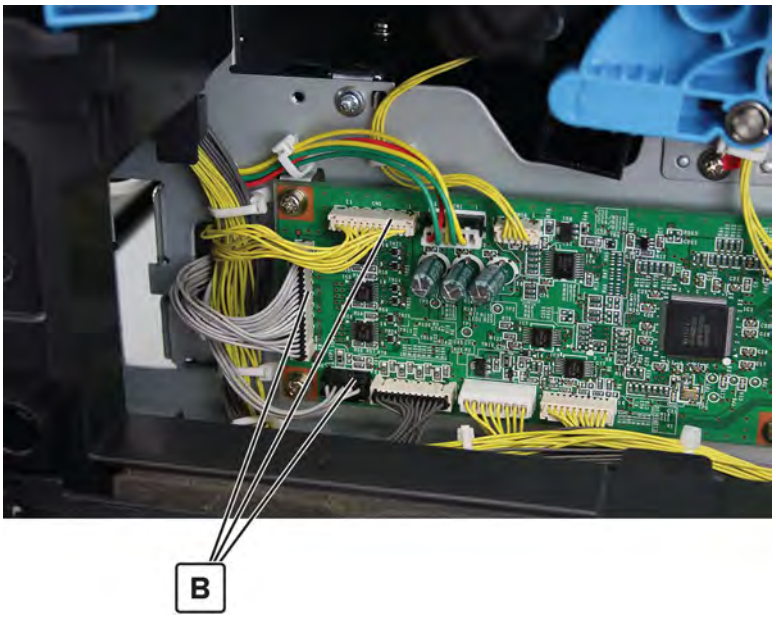
4 Remove the power supply fan duct. See **"Main power supply fan removal" on page 353**.

5 Remove the power supply board bracket. See **"Main power supply removal" on page 356**.

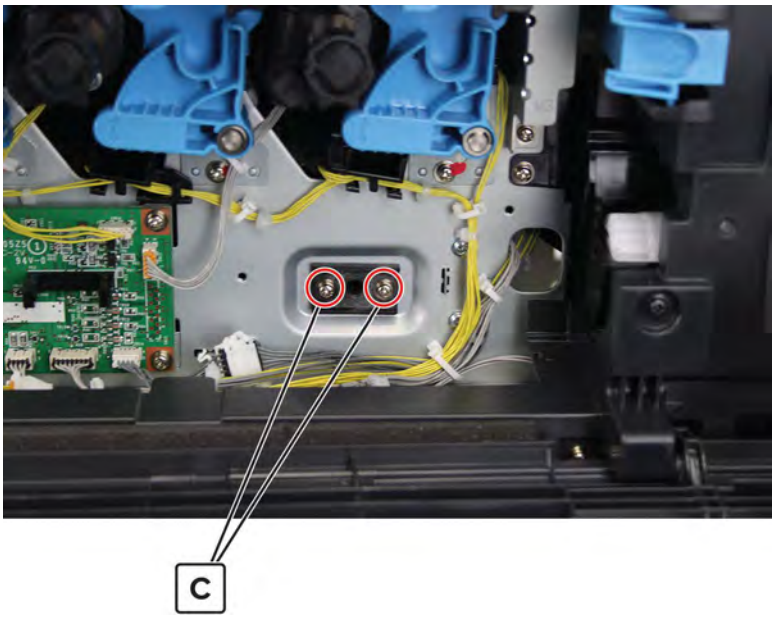
6 Remove the three screws (A), and then remove the front inner cover.



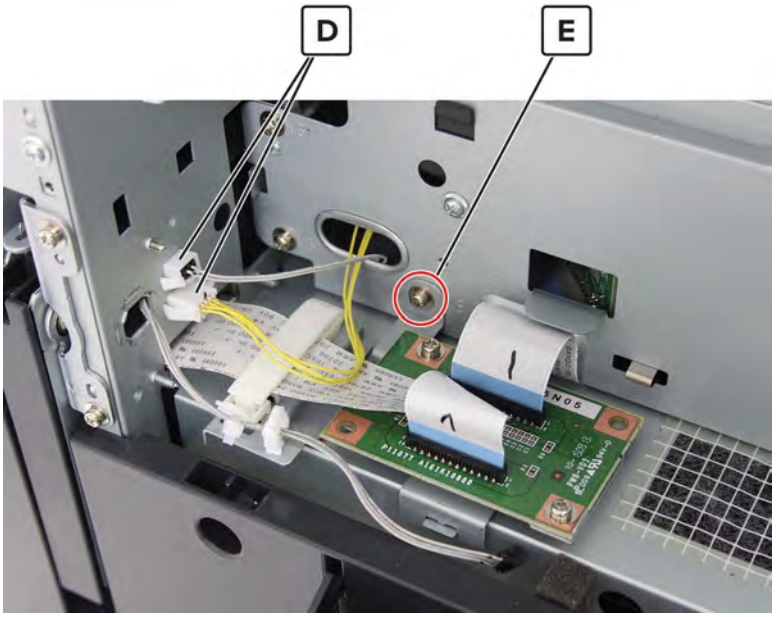
7 Disconnect the cables (B).



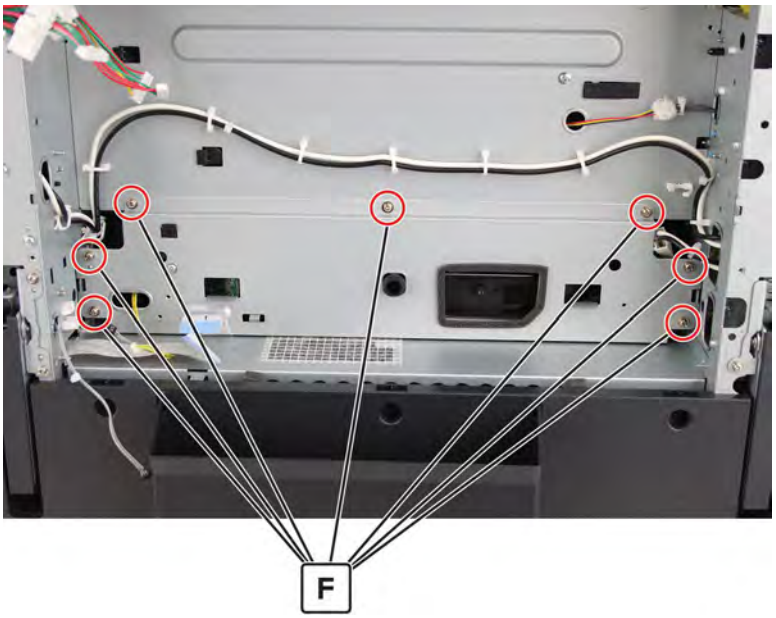
8 Remove the two screws (C).



9 Disconnect the two cables (D), and then remove the screw (E).



10 Remove the seven screws (F), and then remove the bracket.



11 Disconnect the two cables (G), and then remove the printhead.

Printhead relay board removal

1 Remove the left cover. See **"Left cover removal" on page 348**.

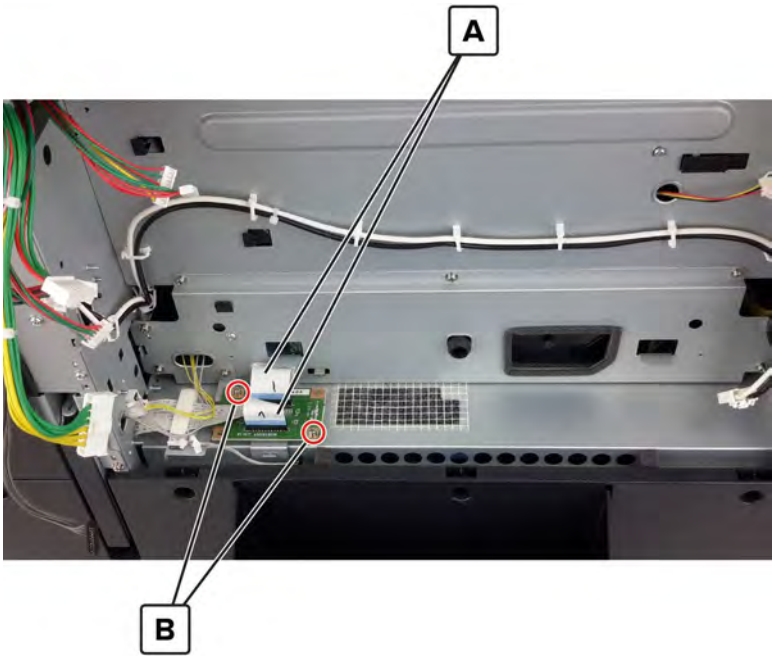
2 Remove the standard bin. See **"Standard bin removal" on page 658**.

3 Remove the standard bin base. See **"Standard bin base removal" on page 658**.

4 Remove the power supply fan duct. See **"Main power supply fan removal" on page 353**.

5 Remove the power supply board bracket. See **"Main power supply removal" on page 356**.

6 Disconnect the two cables (A), and then remove the two screws (B).



7 Remove the board.

Right side removals

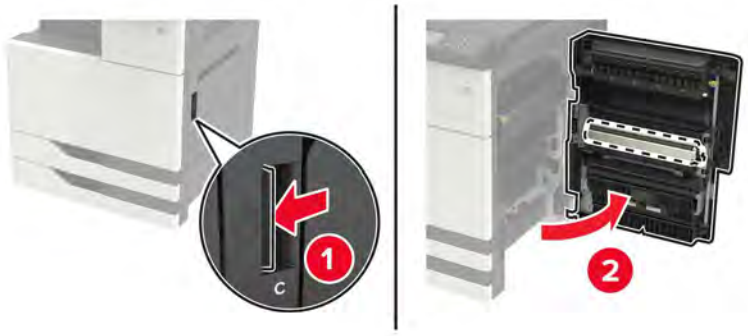
Transfer roller removal

1 Open door C.

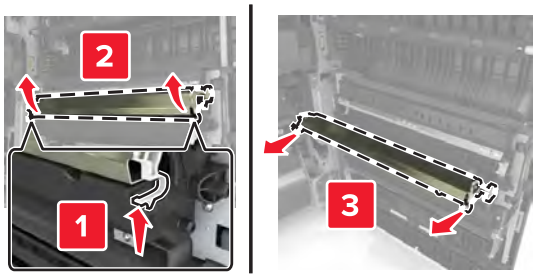
Notes:

- Make sure that the door does not hit any cables attached to the printer.
- If a 3000-sheet tray is installed, then slide the tray to the right to open the door.

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.

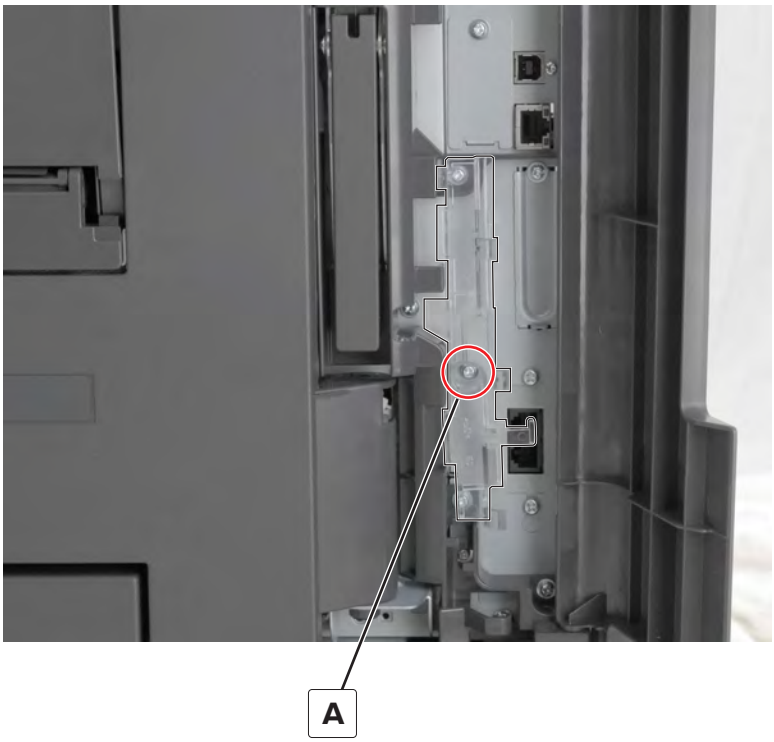


2 Remove the transfer roller.



Port cable guide removal

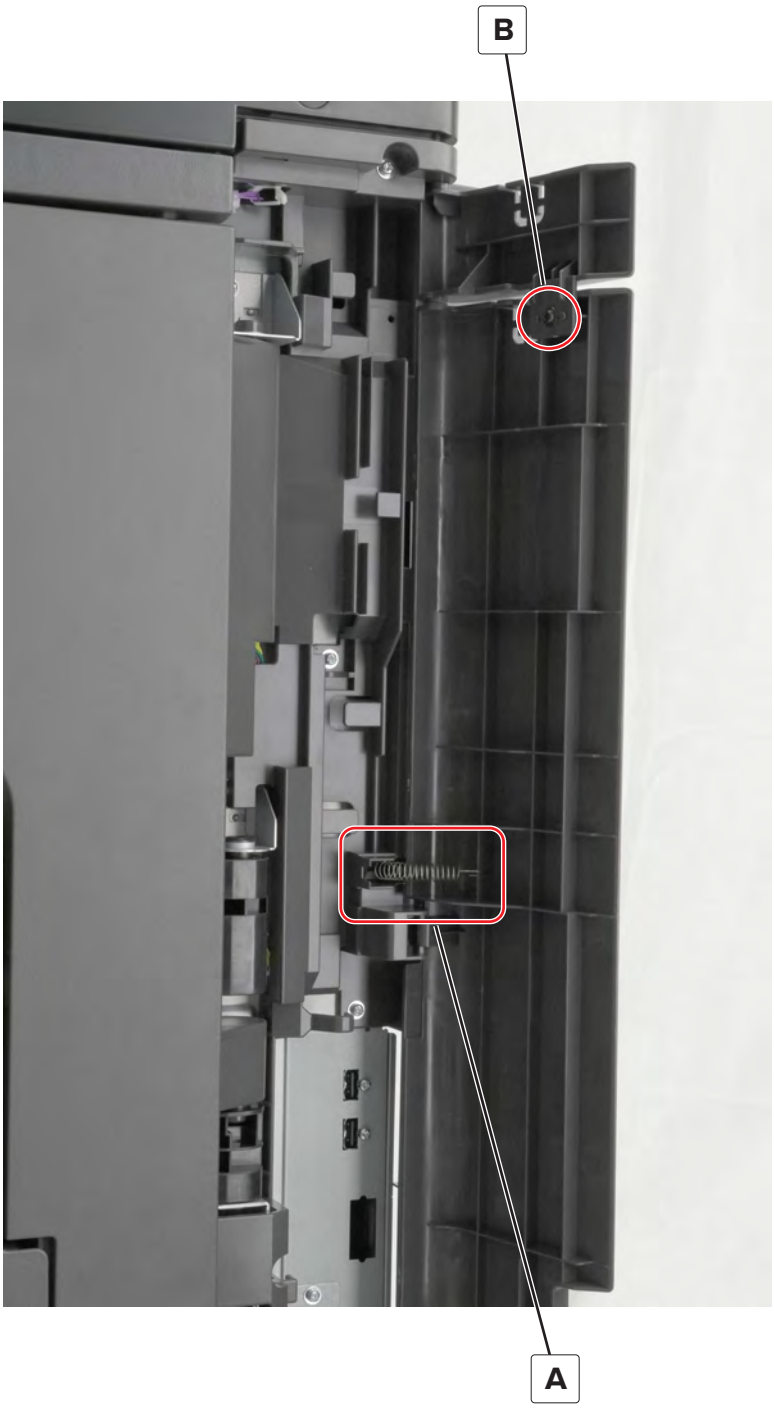
1 Open the port access door, and then remove the screw (A).



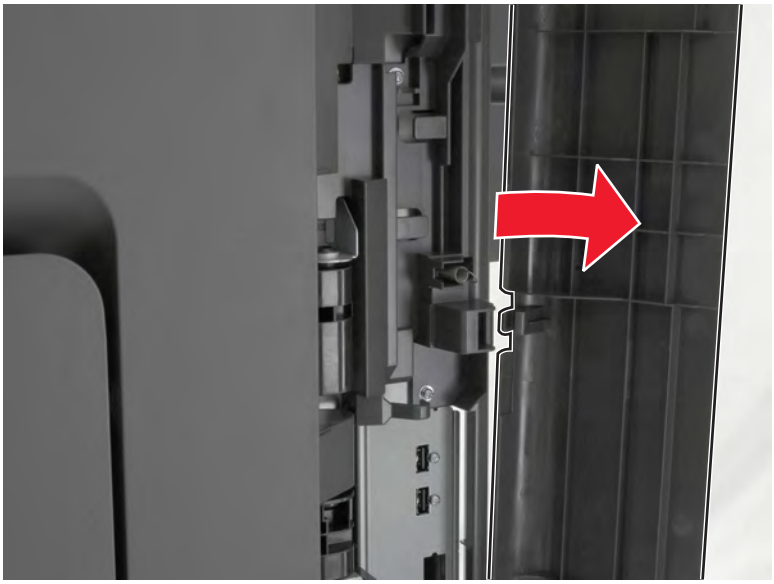
2 Remove the guide.

Port access door removal

1 Open the door, unhook the spring (A), and then remove the screw (B).



2 Release the hinge, and then separate the port access door extension from the port access door.

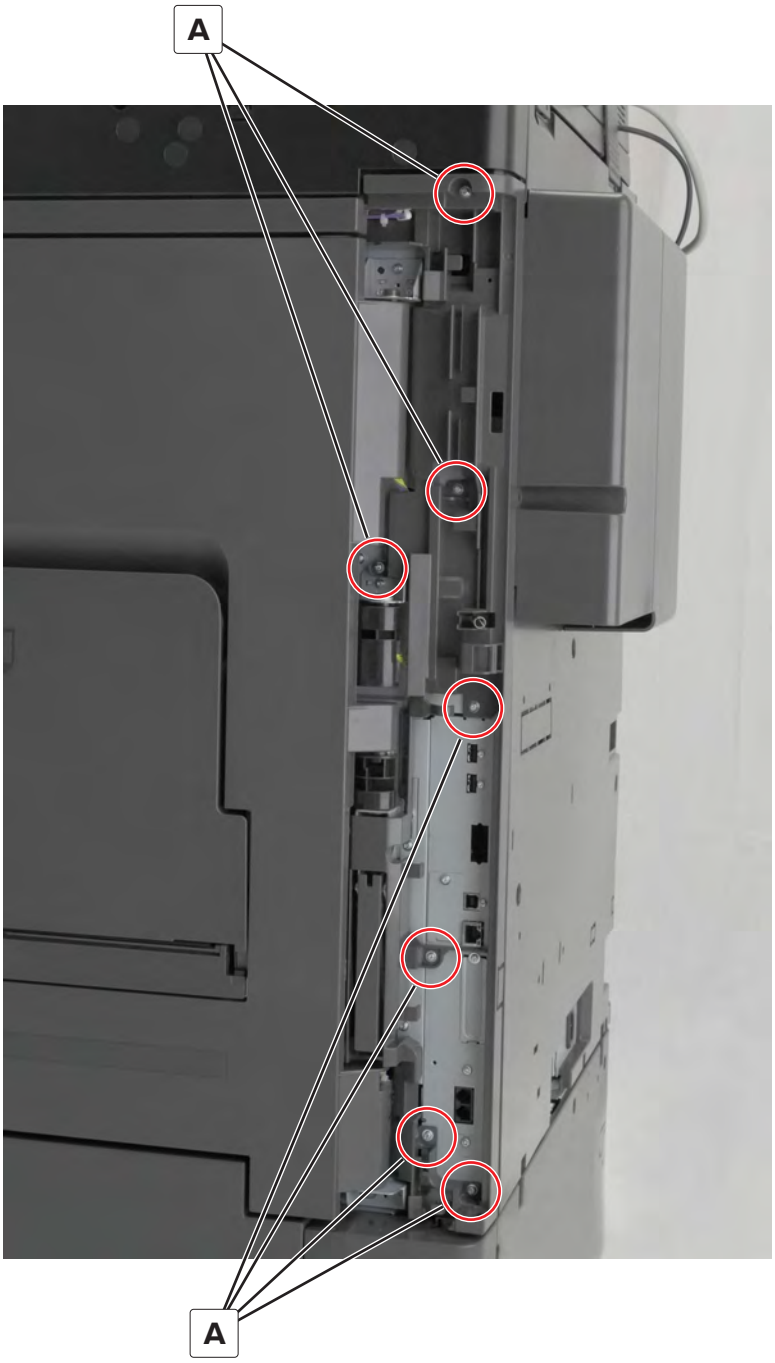


Port mount removal

1 Remove the port access door. See **“Port access door removal” on page 363**.

2 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

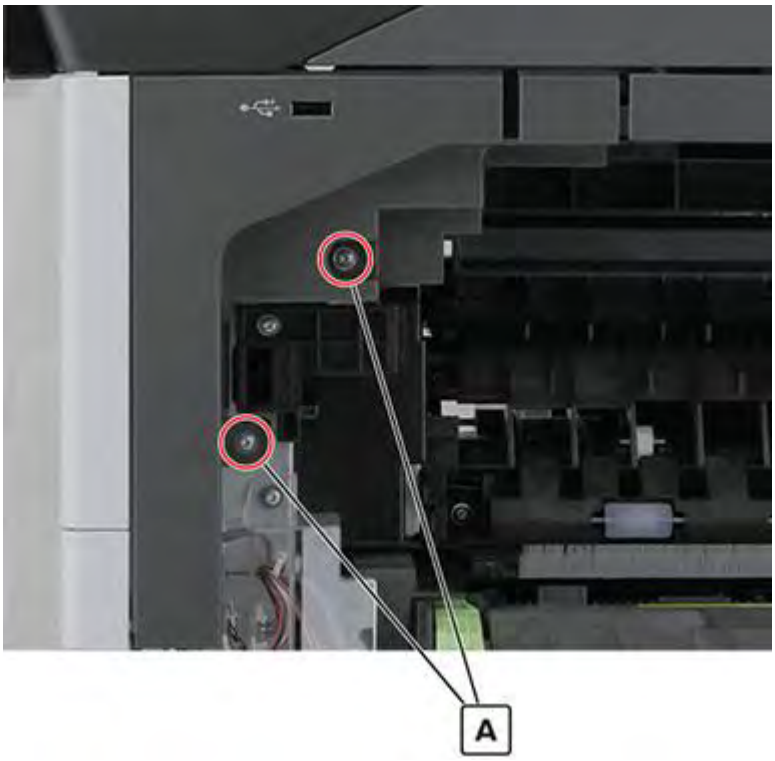
3 Remove the seven screws (A), and then remove the cover.



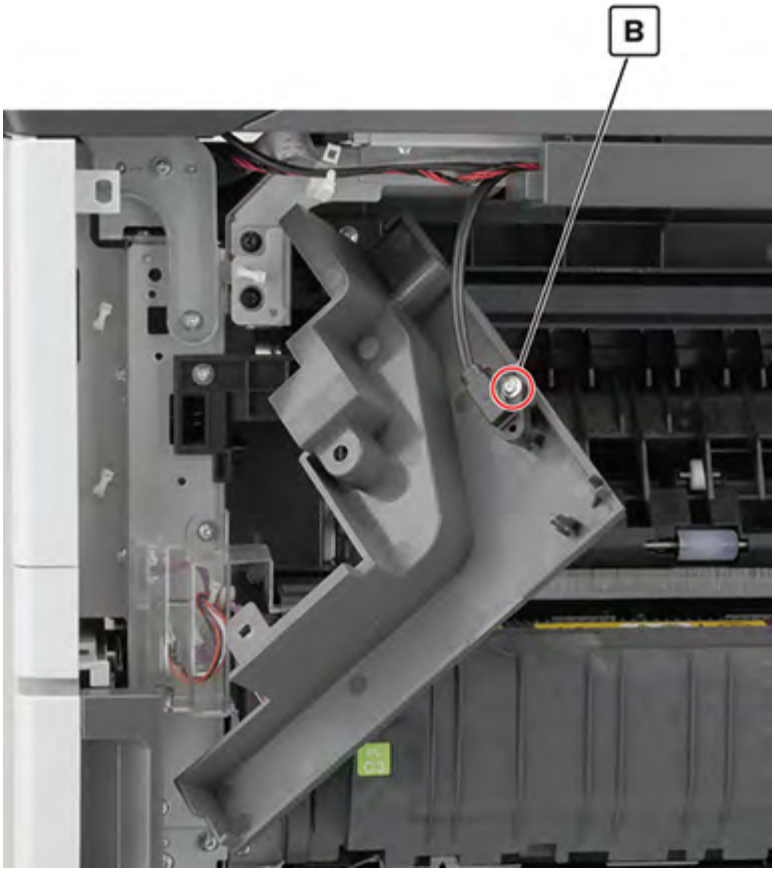
USB port cover removal

1 Open the right door, 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 Remove the screw (B), and then disconnect the USB port.



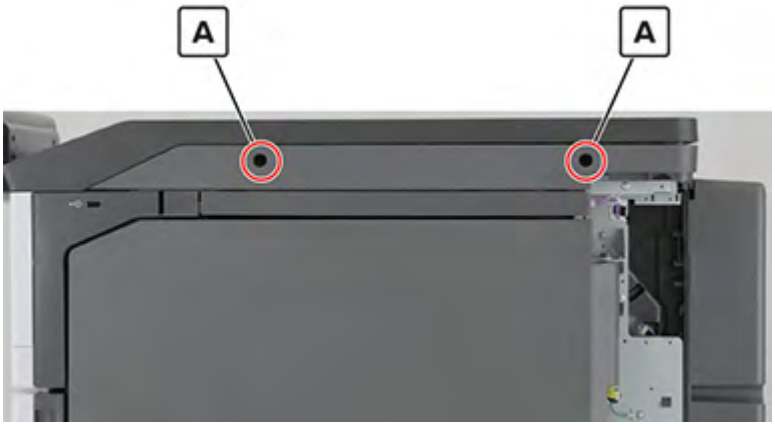
3 Remove the cover.

Top right cover removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port mount. See **"Port mount removal" on page 364**.

3 Remove the two screws (A), and then remove the cover.



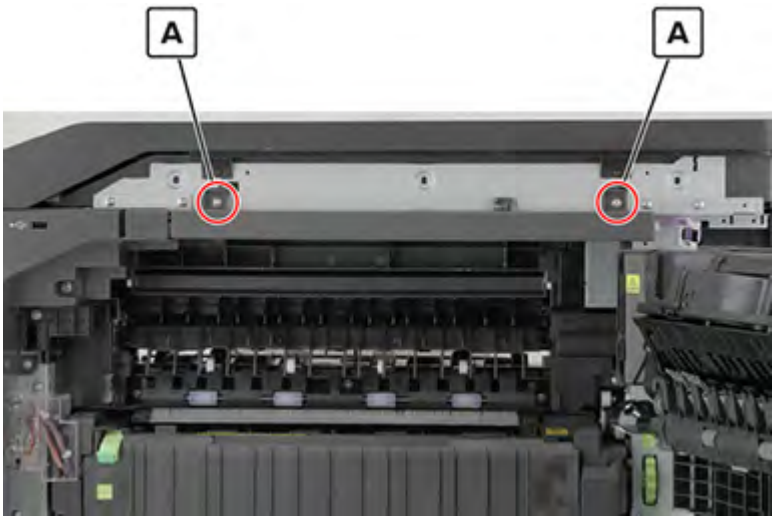
Top right edge cover removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port mount. See **"Port mount removal" on page 364**.

3 Remove the top right cover. See **"Top right cover removal" on page 367**.

4 Remove the two screws (A), and then remove the cover.



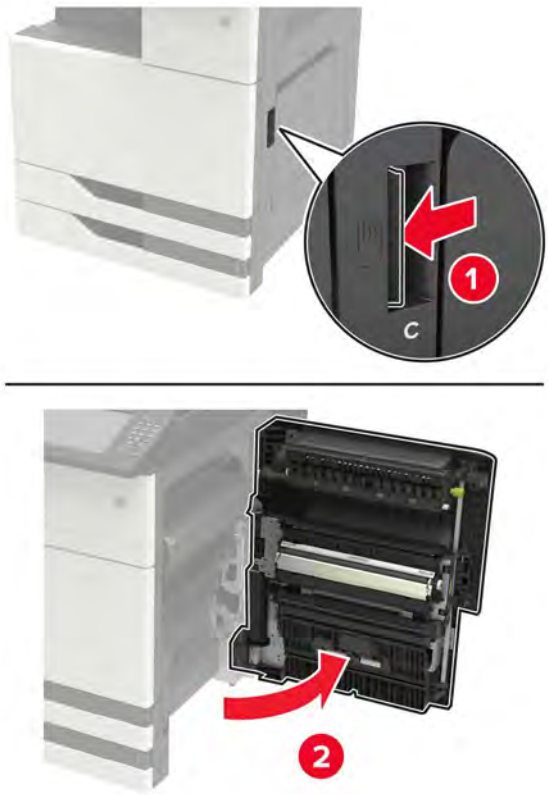
Transfer belt removal

1 Open door C.

Notes:

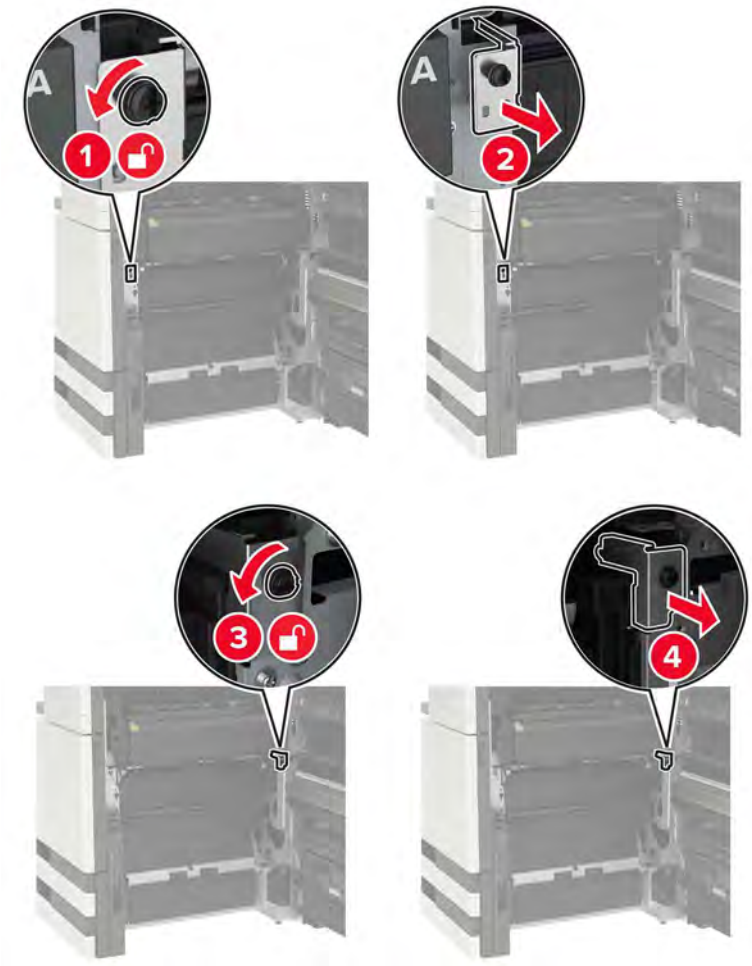
- Make sure that the door does not hit any cable attached to the printer.
- If a 3000-sheet tray is installed, then slide the tray to the right to open the door.

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.

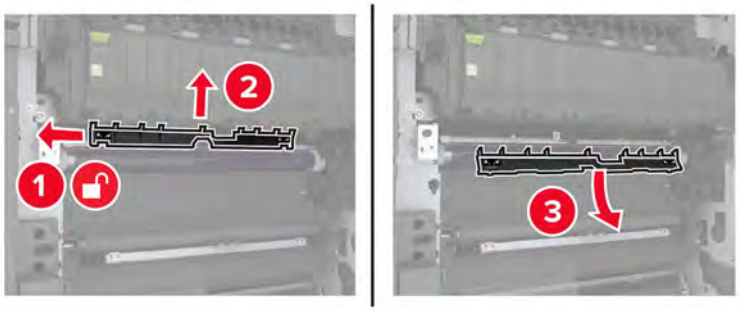


2 Remove the screw, and then remove the door stopper.

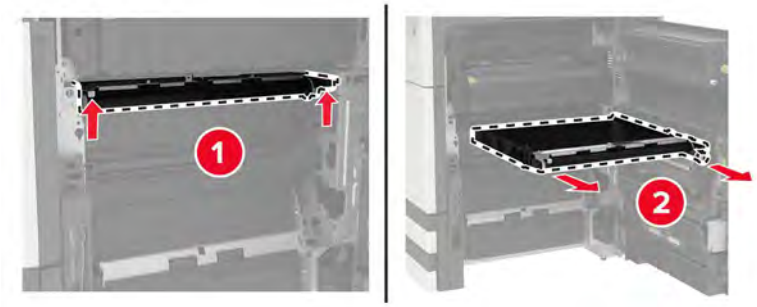
3 Loosen the screws that secure the transfer belt.



4 Remove the transfer belt paper guide.



5 Remove the transfer belt.

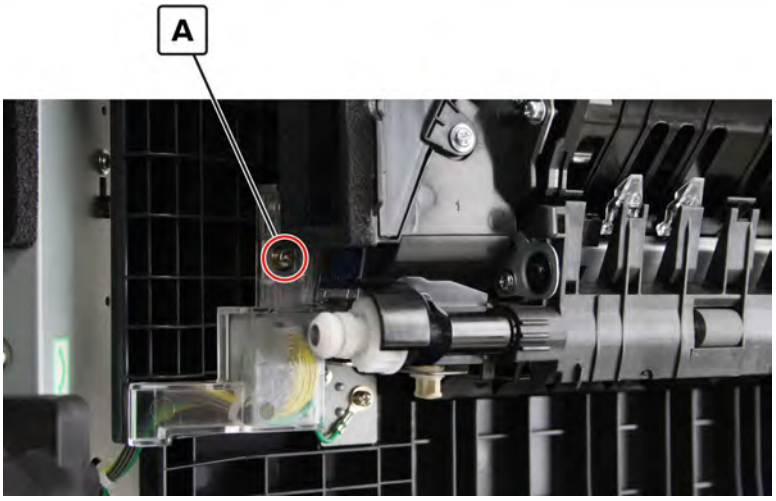


Duplex transport assembly removal

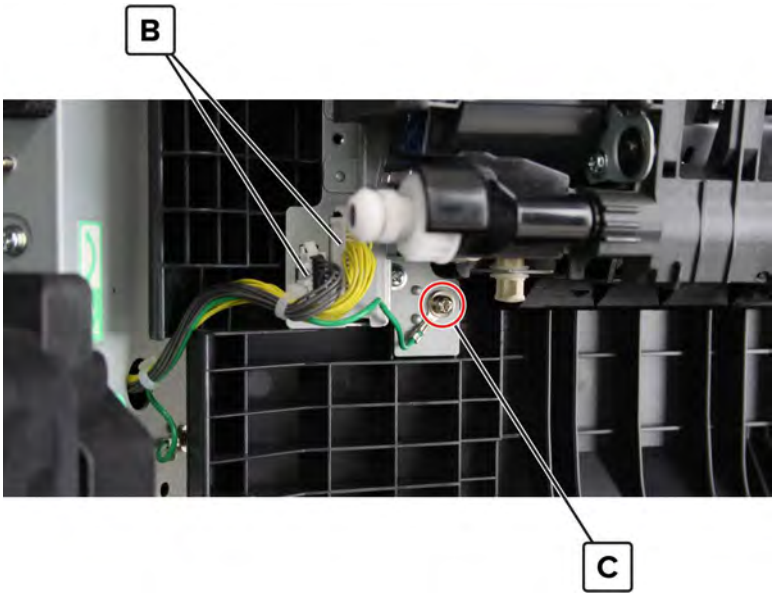
Note: For a video demonstration, see **Duplex transport assembly removal**.

1 Open the right door, remove the screw (A), and then remove the cover.

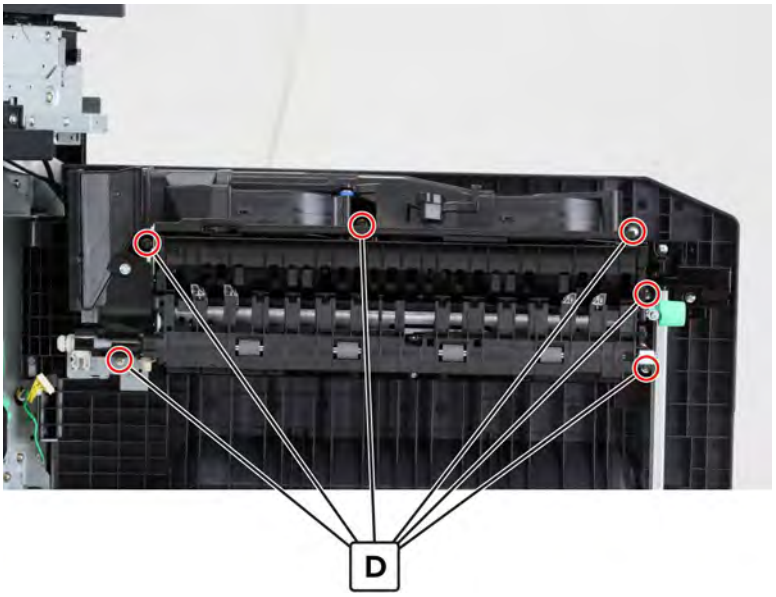
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



2 Disconnect the two cables (B), and then remove the ground screw (C).



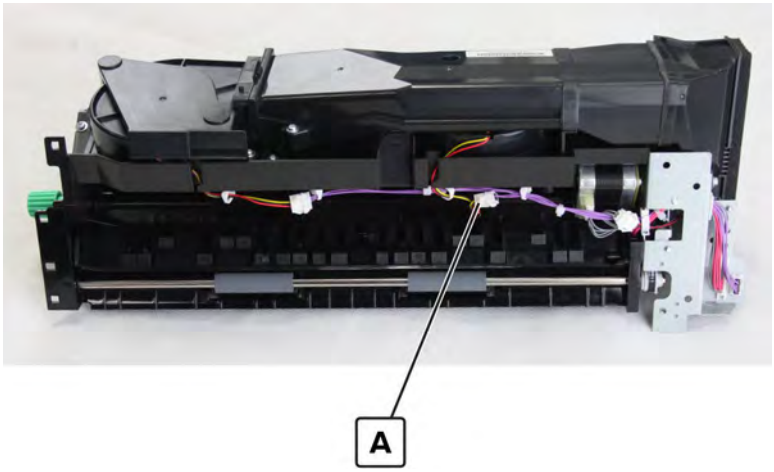
3 Remove the six screws (D), and then remove the duplex transport assembly.



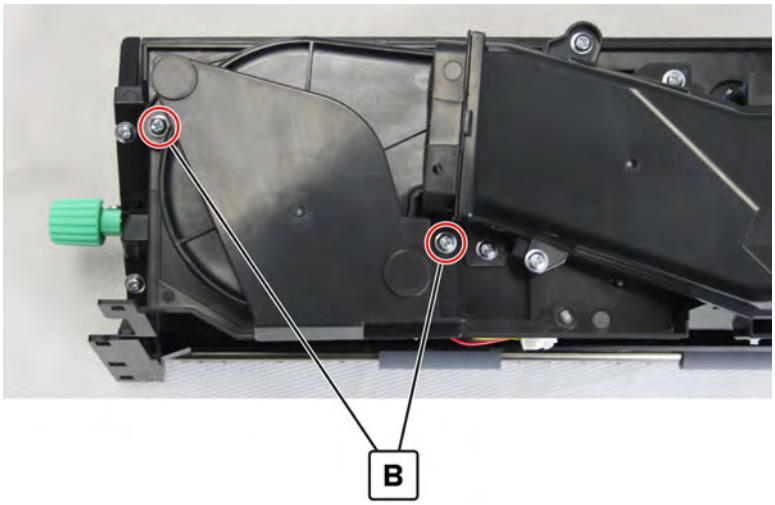
Fuser exhaust fan 1 removal

1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

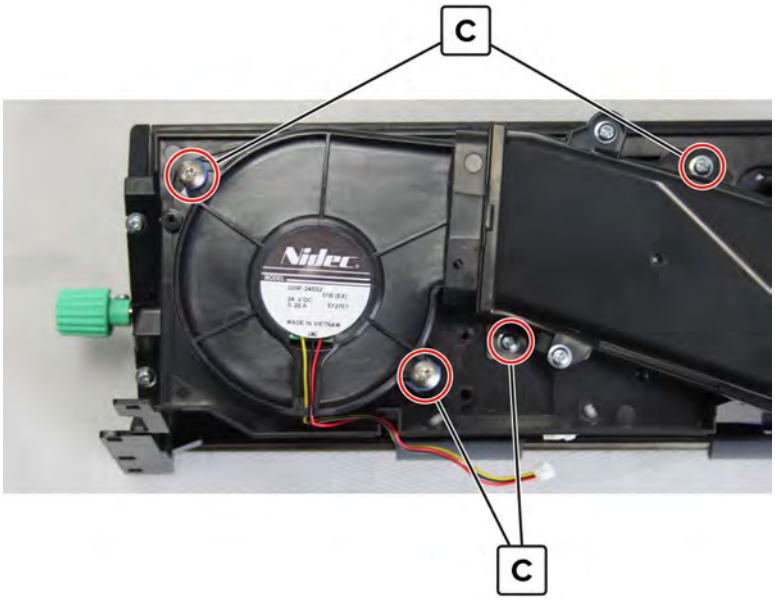
2 Disconnect the cable (A).



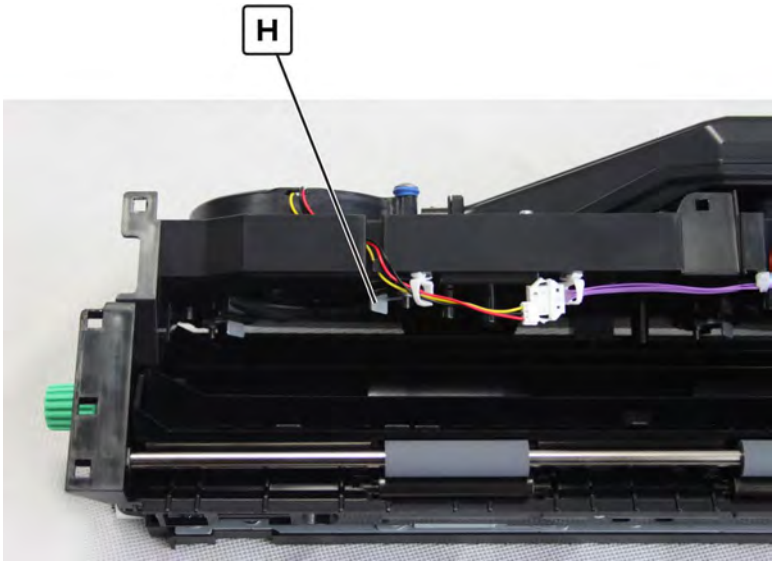
3 Remove the two screws (B), and then remove the cover.



4 Remove the four screws (C), and then remove fan 1.



Warning—Potential Damage: Do not lose the fan bracket (H).

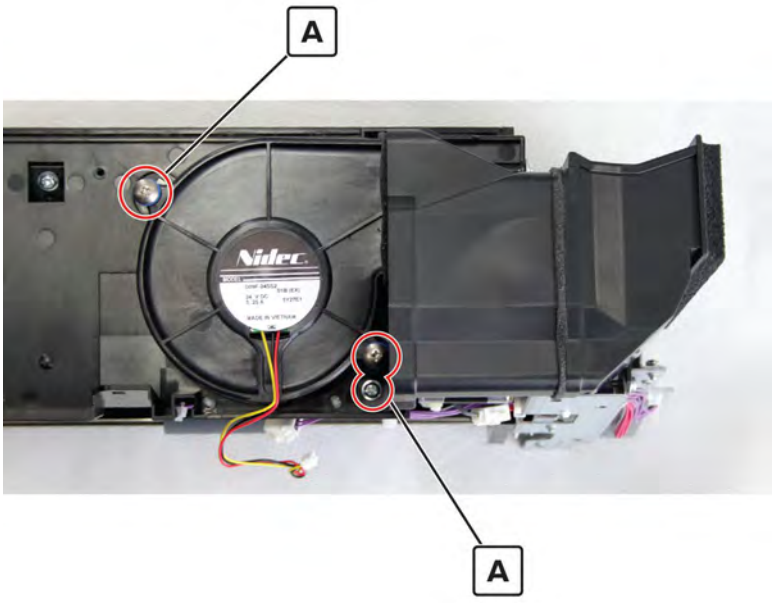


Fuser exhaust fan 2 removal

1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

2 Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.

3 Remove the three screws (A), and then remove fan 2.



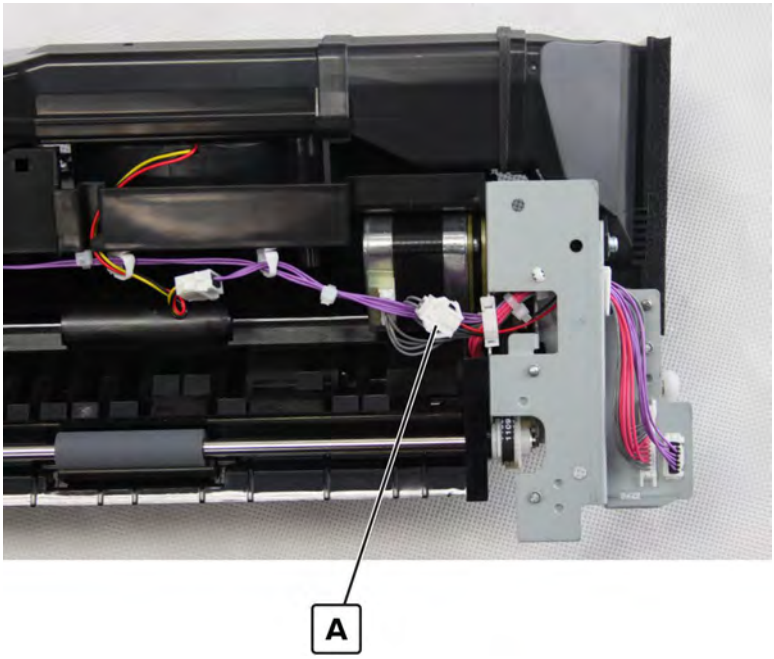
Fuser pressure solenoid removal

1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

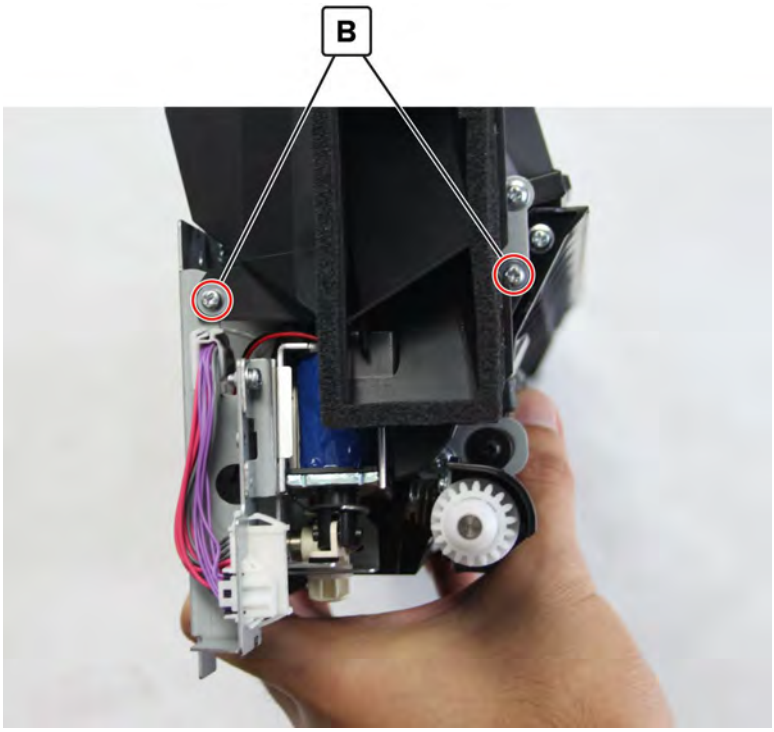
2 Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.

3 Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.

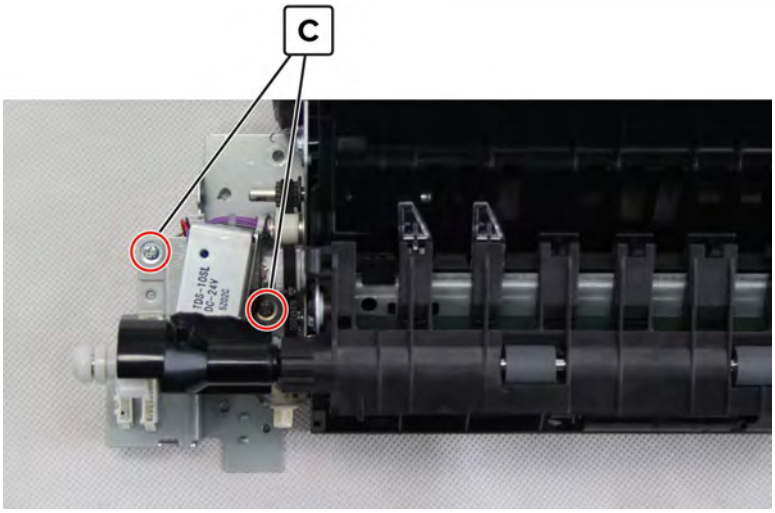
4 Disconnect the cable (A).



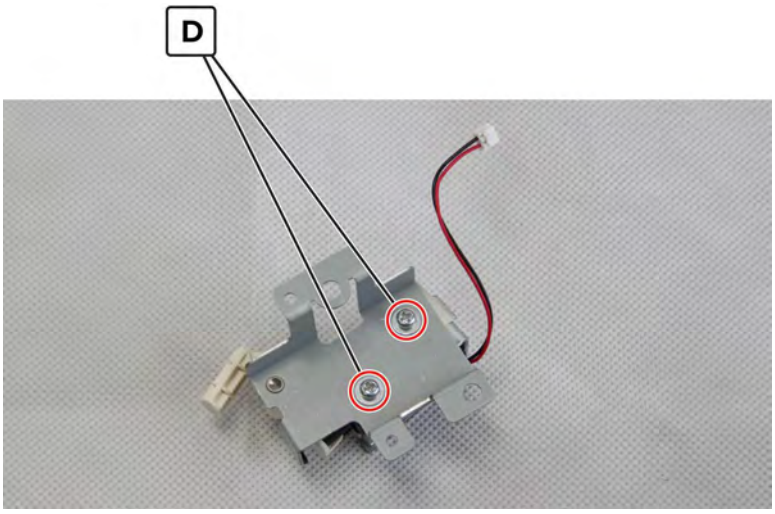
5 Remove the two screws (B), and then remove the duct.



6 Remove the two screws (C), and then remove the solenoid bracket.



7 Remove the two screws (D), and then remove the solenoid.



Duplex transport belt removal

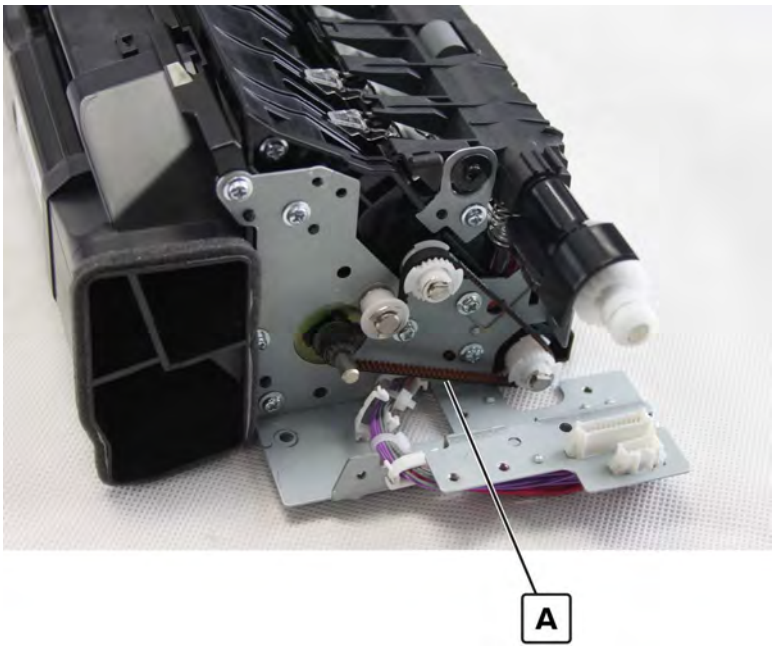
1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

2 Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.

3 Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.

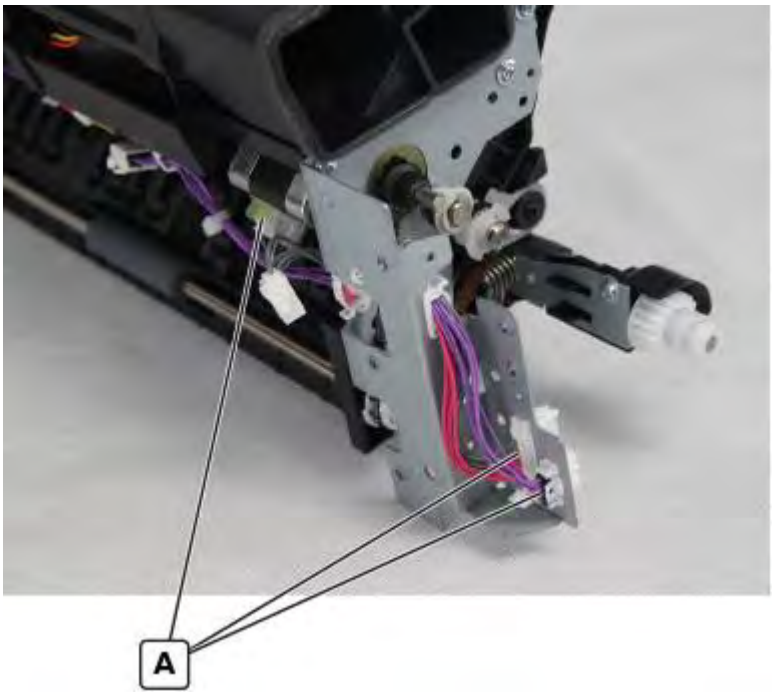
4 Remove the fuser pressure solenoid bracket. See **"Fuser pressure solenoid removal" on page 374**.

5 Remove the belt (A).



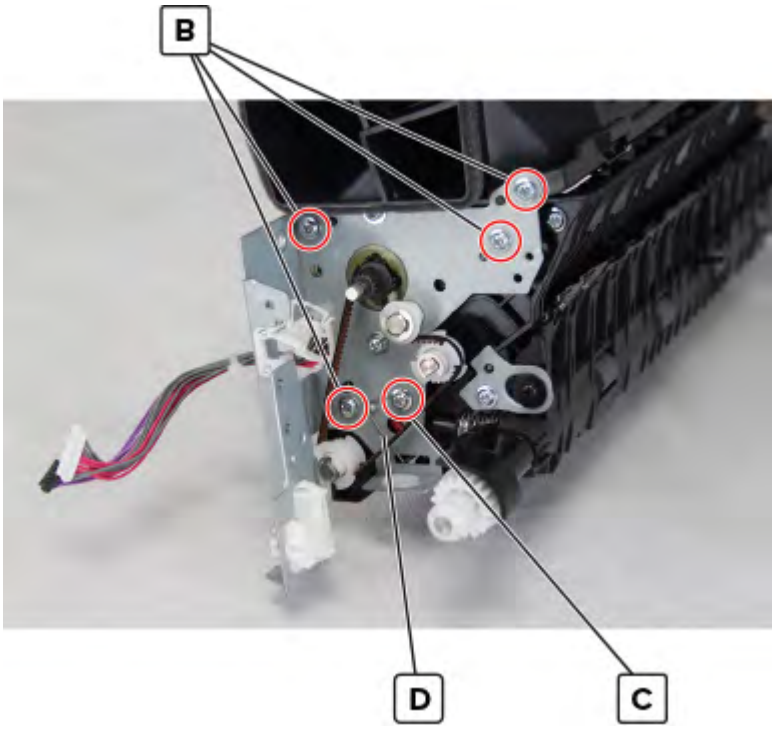
Motor (duplex transport) removal

1. Remove the duplex transport assembly. See **“Duplex transport assembly removal” on page 370**.
2. Remove fuser exhaust fan 1 and its duct. See **“Fuser exhaust fan 1 removal” on page 372**.
3. Remove fuser exhaust fan 2. See **“Fuser exhaust fan 2 removal” on page 373**.
4. Remove the fuser pressure solenoid. See **“Fuser pressure solenoid removal” on page 374**.
5. Disconnect the three cables (A).

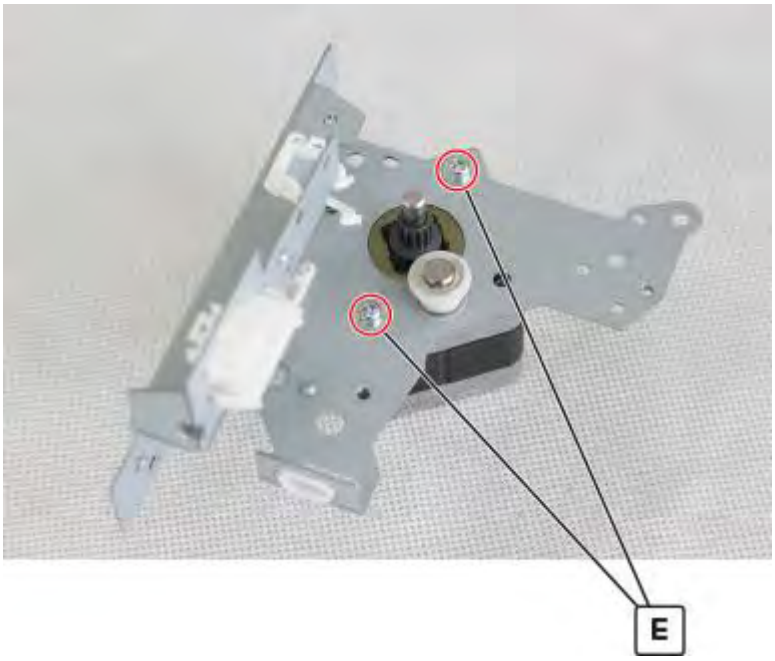


6. Remove the five screws (B and C), and then remove the ground clip (D) and bracket.

   Installation note: Make sure that the ground clip is properly installed.



7 Remove the two screws (E), and then remove the motor.



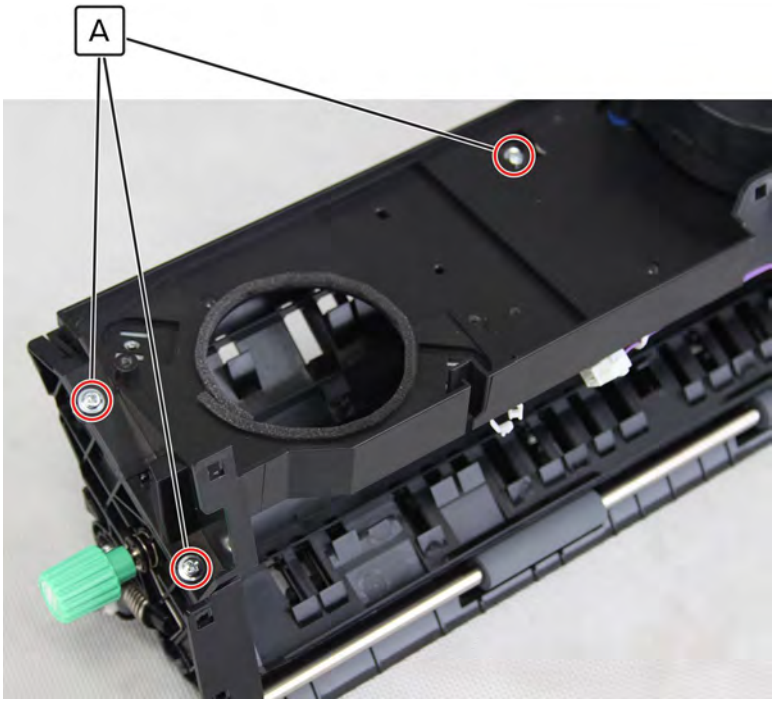
Duplex transport guide removal

1 Remove the duplex transport assembly. See **“Duplex transport assembly removal” on page 370**.

2 Remove fuser exhaust fan 1 and its duct. See **“Fuser exhaust fan 1 removal” on page 372**.

3 Remove fuser exhaust fan 2. See **“Fuser exhaust fan 2 removal” on page 373**.

4 Remove the three screws (A), and then separate the cover from the duplex transport guide.



Sensor (fuser exit) removal

1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

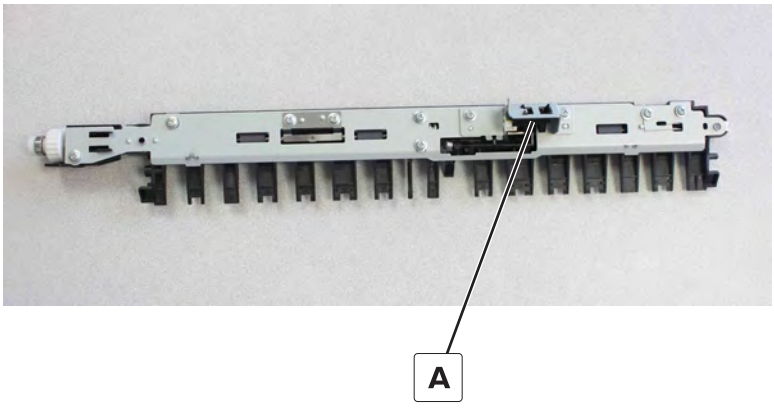
2 Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.

3 Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.

4 Remove the duplex transport guide. See **"Duplex transport guide removal" on page 378**.

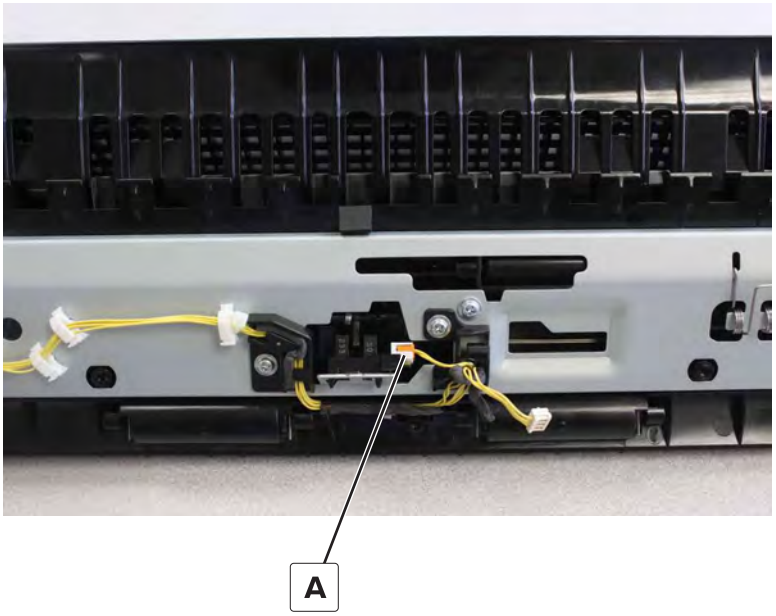
5 Remove the duplex transport diverter assembly. See **"Duplex transport diverter assembly removal" on page 383**.

6 Remove the sensor (A).



Sensor (duplex pass through 1) removal

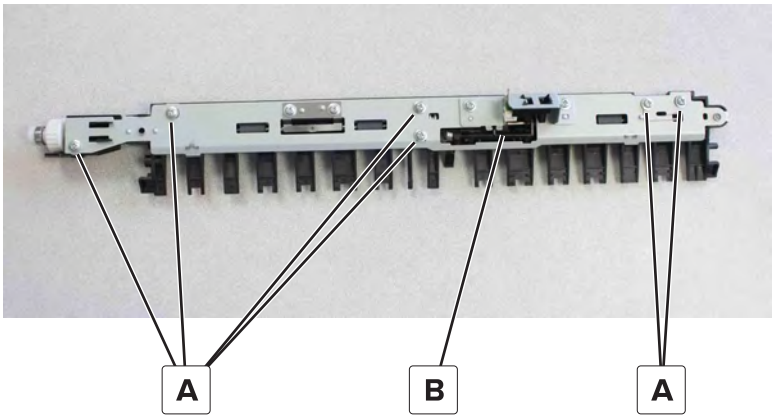
1. Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.
2. Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.
3. Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.
4. Remove the duplex transport guide. See **"Duplex transport guide removal" on page 378**.
5. Remove the duplex transport diverter assembly. See **"Duplex transport diverter assembly removal" on page 383**.
6. Disconnect the cable (A), and then remove the sensor.



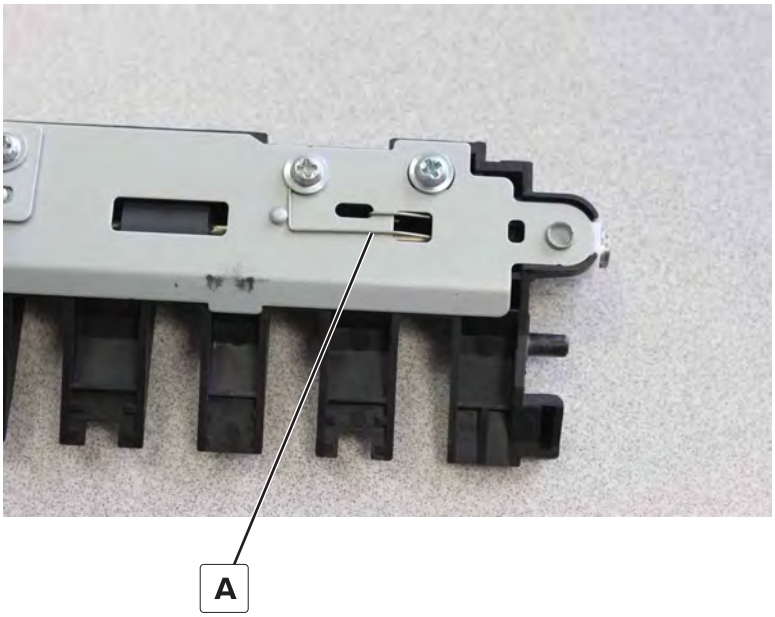
Fuser exit sensor actuator removal

1. Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.
2. Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.
3. Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.
4. Remove the duplex transport guide. See **"Duplex transport guide removal" on page 378**.
5. Remove the duplex transport diverter assembly. See **"Duplex transport diverter assembly removal" on page 383**.

6 Remove the six screws (A), remove the diverter bracket, and then remove the sensor actuator (B).



Installation note: Make sure that the ground retainers (A) are correctly installed.



Duplex redrive diverter gear removal

1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

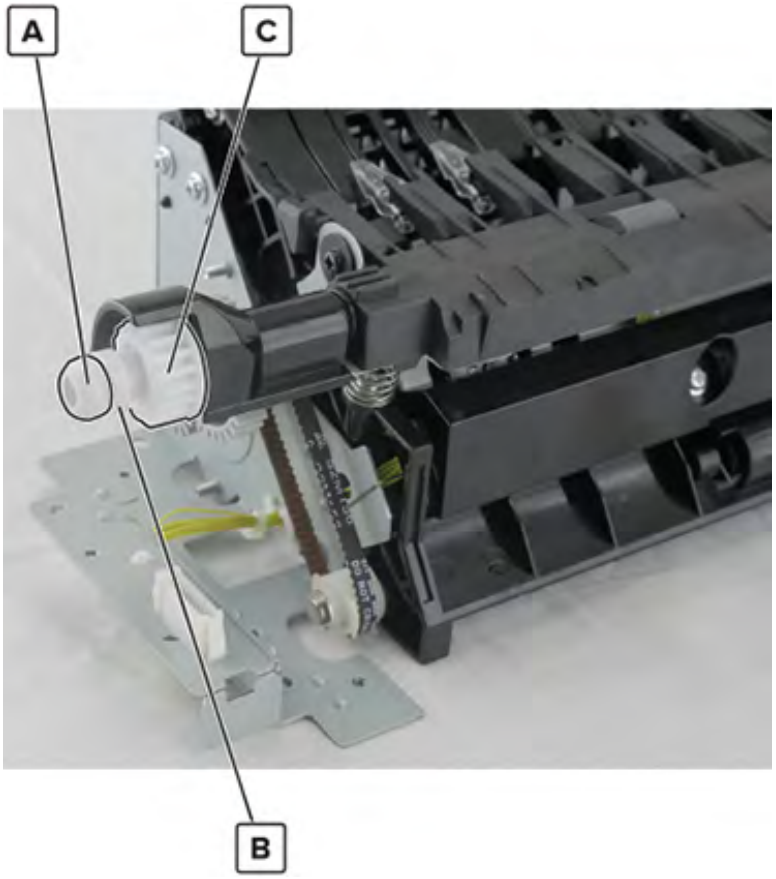
2 Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.

3 Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.

4 Remove the duplex transport guide. See **"Duplex transport guide removal" on page 378**.

5 Remove the E-clip (A), remove the spacer (B), and then remove the gear (C).

Warning—Potential Damage: Do not lose the center pin that locks the gear to the shaft.

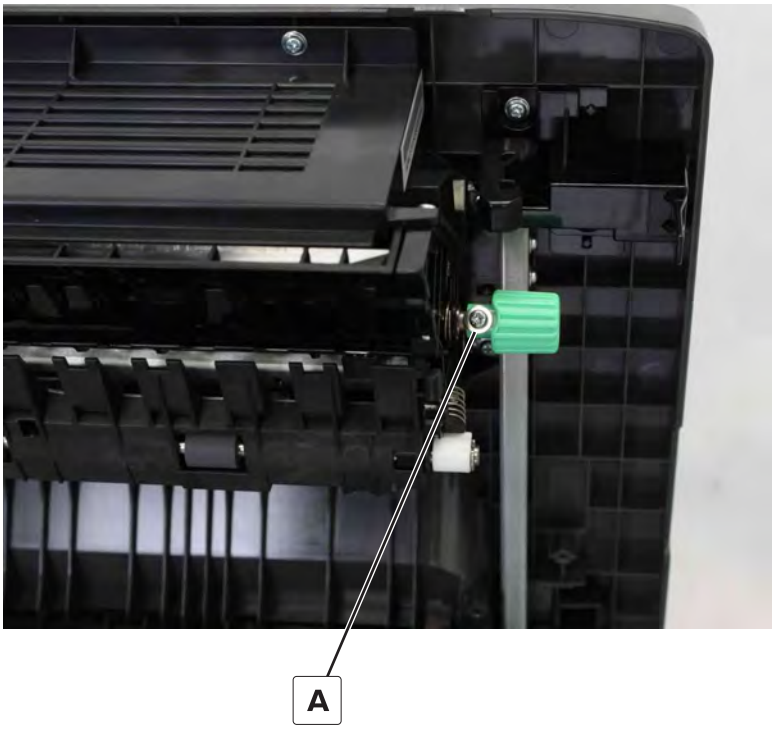

A
C
B

Duplex transport jam removal knob removal

1 Open the right door.

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 knob.



Duplex transport diverter assembly removal

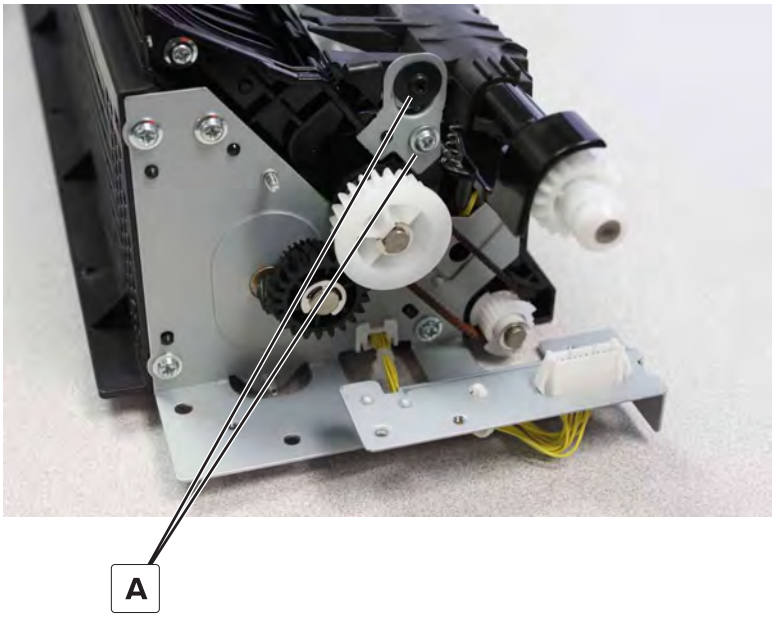
1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

2 Remove fuser exhaust fan 1 and its duct. See **"Fuser exhaust fan 1 removal" on page 372**.

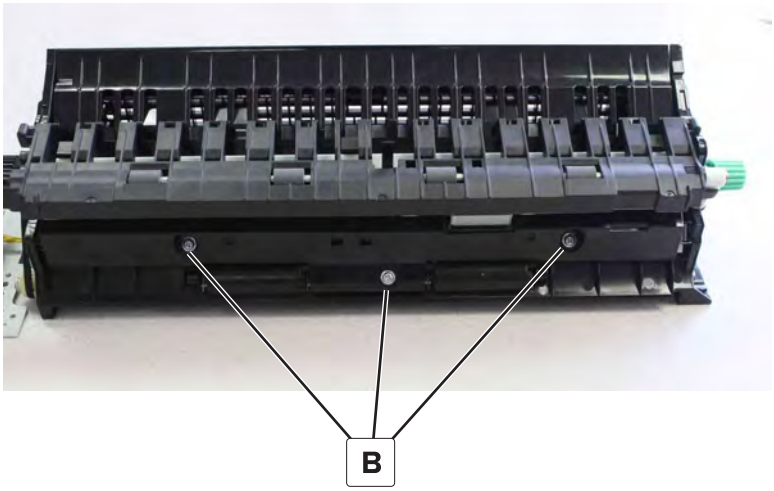
3 Remove fuser exhaust fan 2. See **"Fuser exhaust fan 2 removal" on page 373**.

4 Remove the duplex transport guide. See **"Duplex transport guide removal" on page 378**.

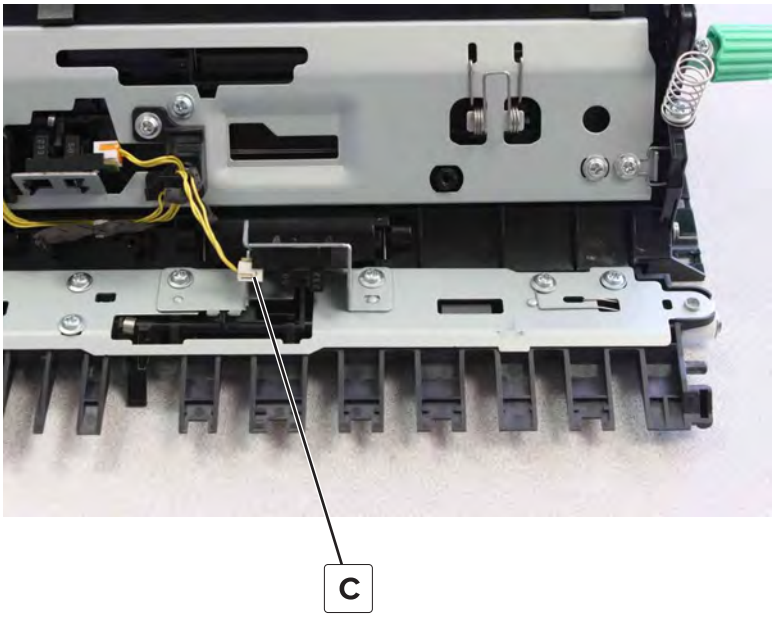
5 Remove the two screws (A), and then remove the bracket.



6 Remove the three screws (B), and then lift the diverter assembly.



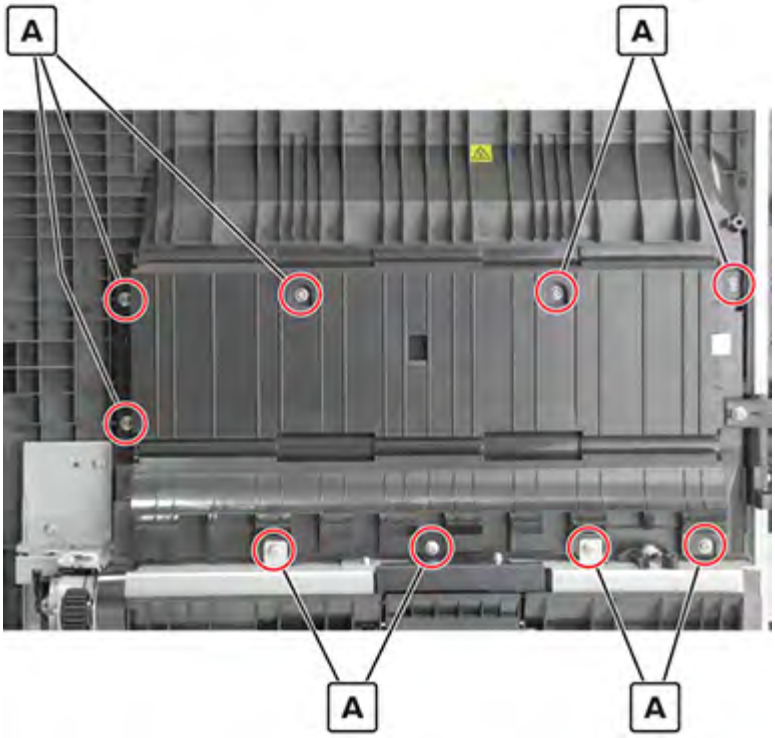
7 Disconnect the cable (C), and then remove the assembly.



Registration door lock removal

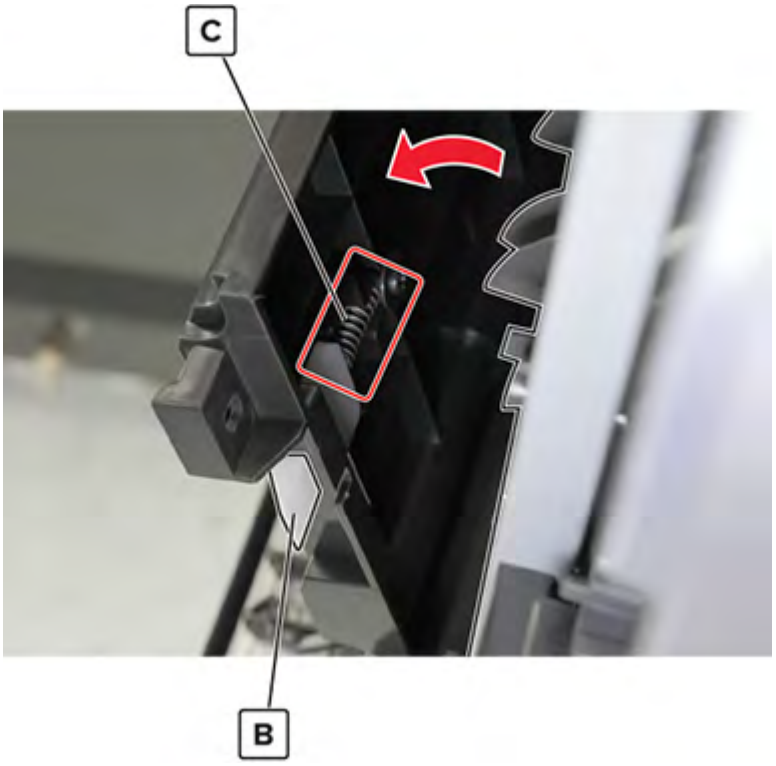
1 Open the right door, and then remove the nine screws (A) behind the registration assembly.

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.



2 Remove the registration door lock cover, and then remove the door lock (B).

Warning—Potential Damage: Do not lose the spring (C).

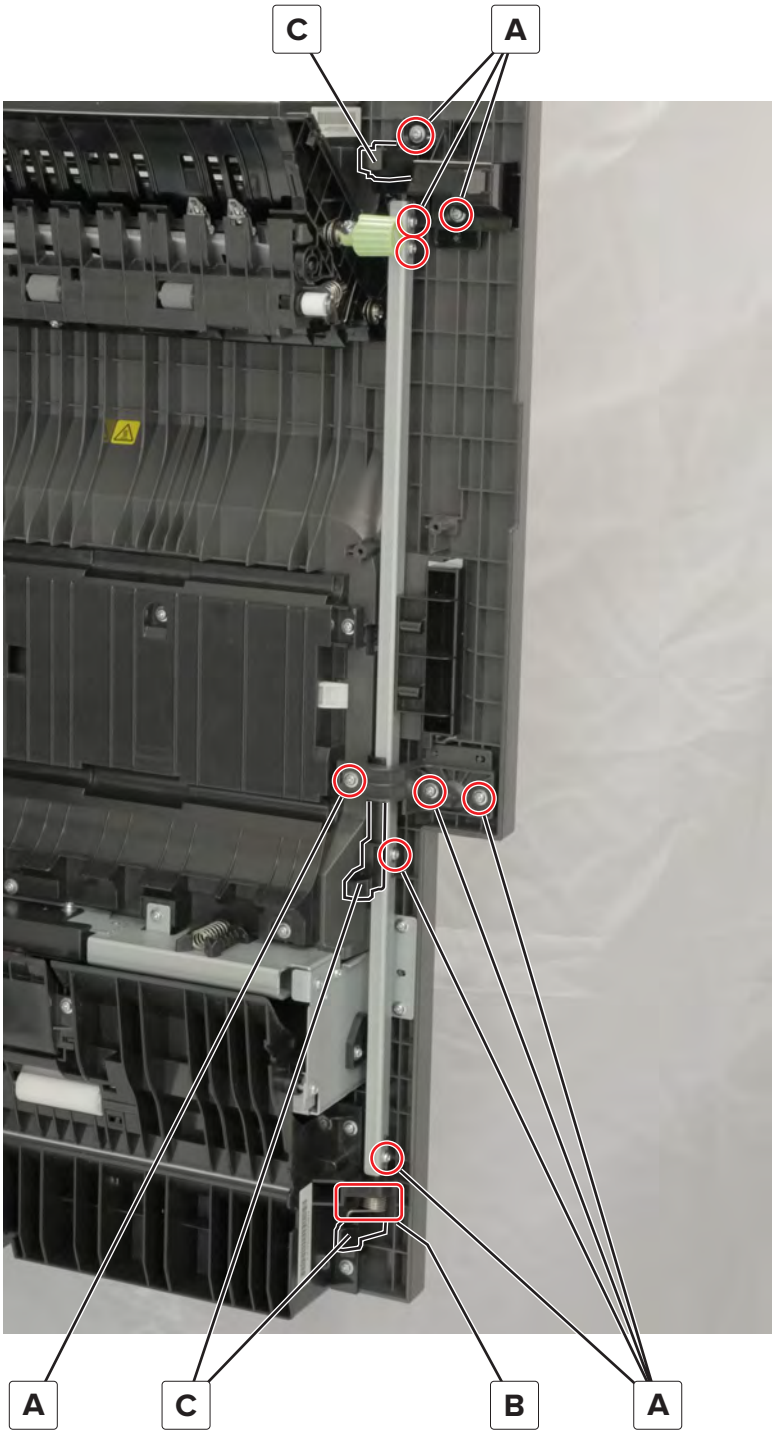


Right door lock removal

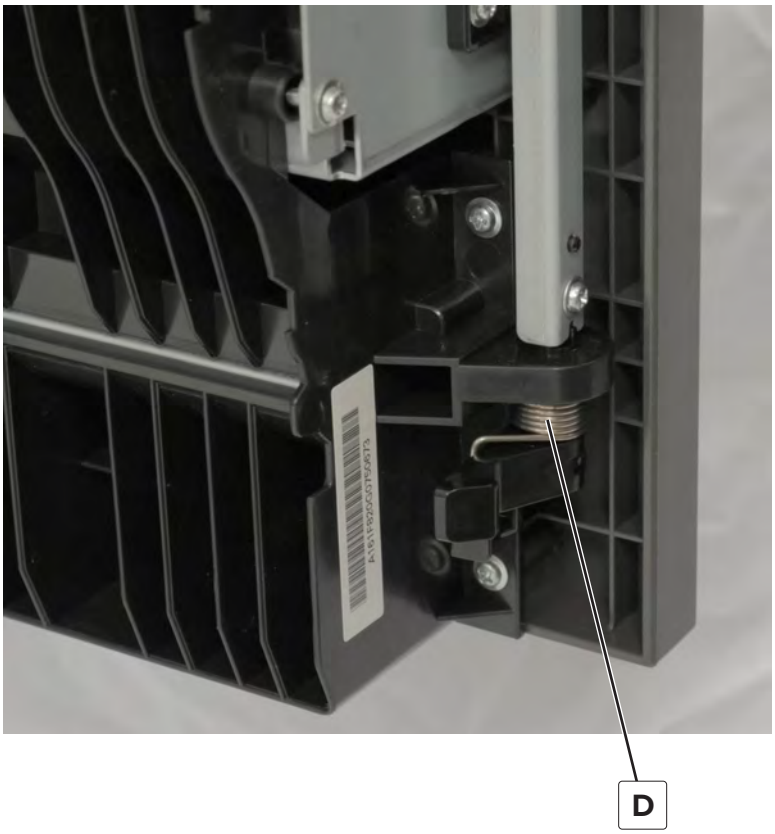
1 Open the right door.

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 nine screws (A), remove the spring (B), and then remove the three locks (C).



Installation note: Make sure that the spring (D) is properly installed.

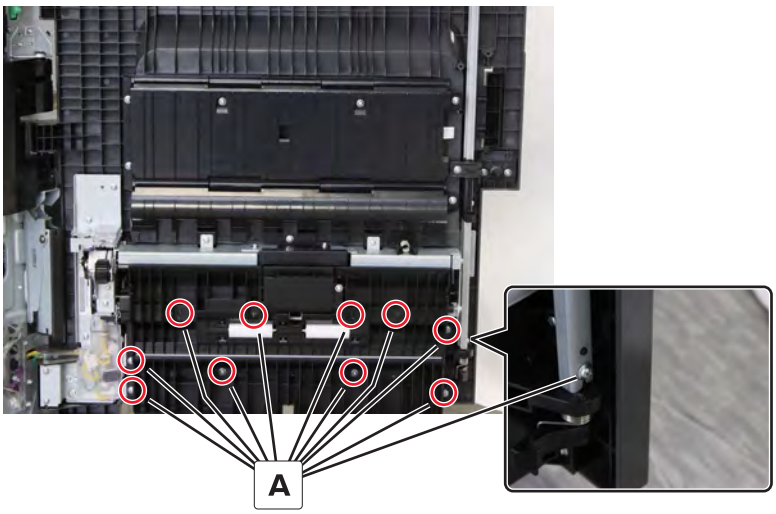


Tray 2 transport guide removal

1 Open the right door.

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 11 screws (A), and then remove the guide.



MPF hinge arm removal

1 Open the MPF tray.

2 Pry the arm to release.

3 Remove the arm.

MPF removal

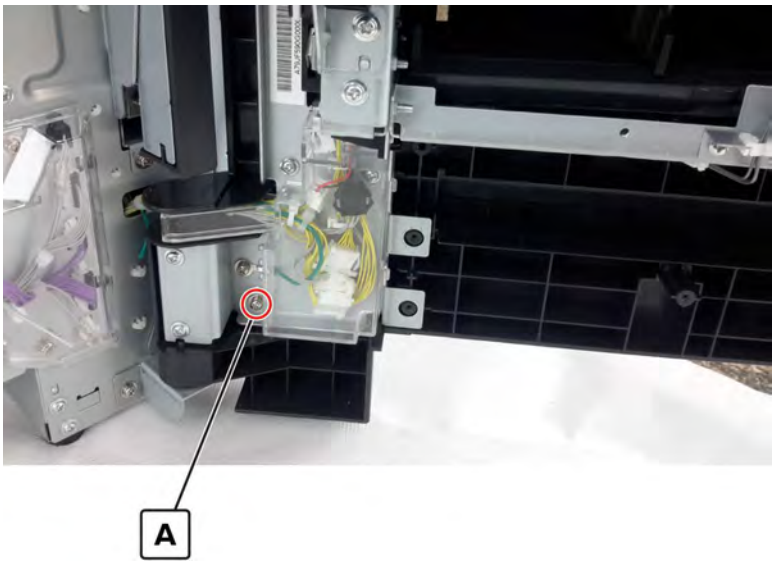
Note: For a video demonstration, see **MPF removal**.

1 Remove the right door lock. See **"Right door lock removal" on page 387**.

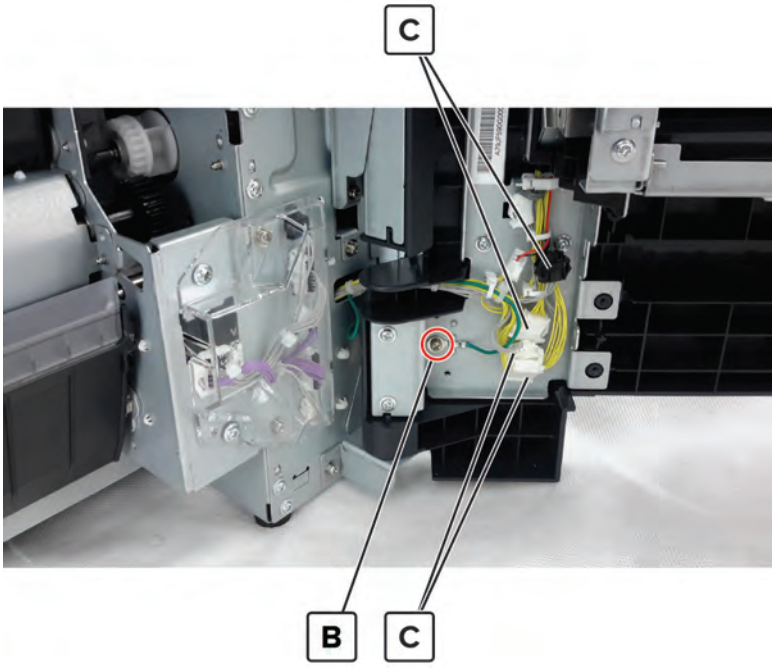
2 Remove tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Open the right door, remove the screw (A), and then remove the cover.

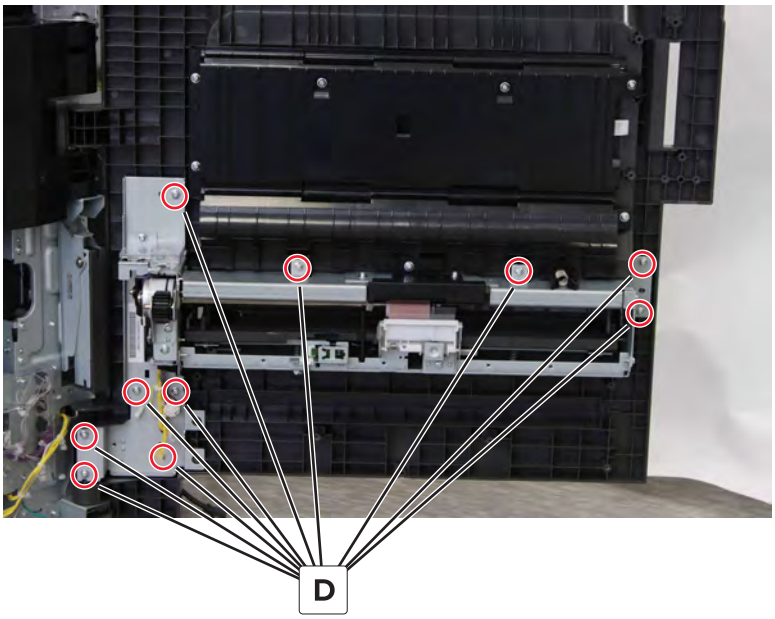
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



4 Remove the ground screw (B), and then disconnect the four cables (C).



5 Remove the 10 screws (D), and then remove the MPF.

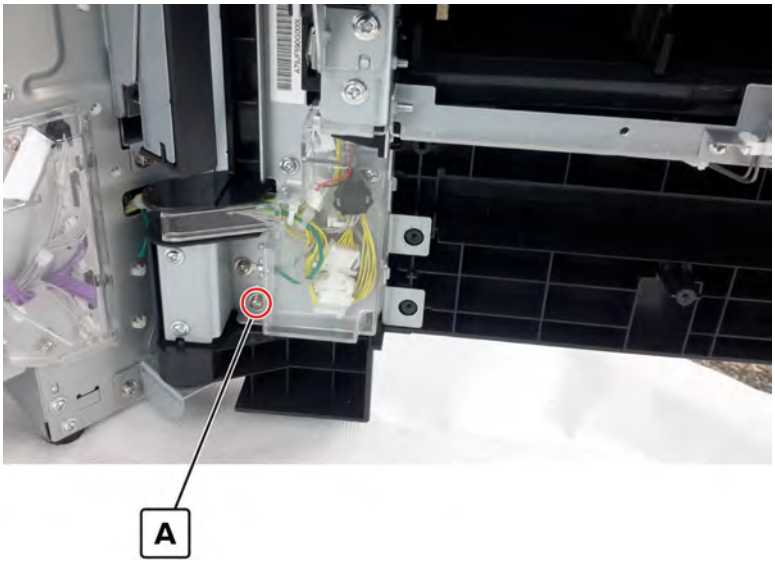


Right door removal

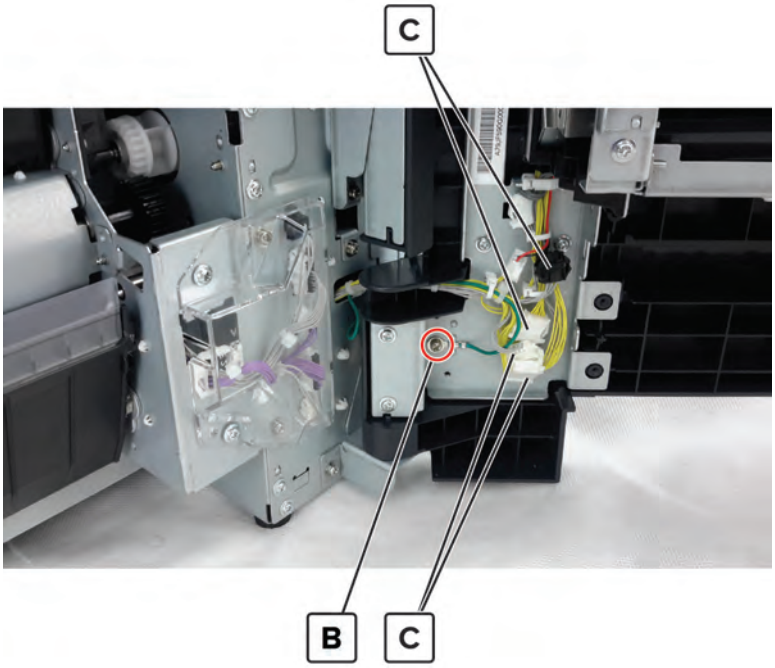
1 Remove the duplex transport assembly. See **"Duplex transport assembly removal" on page 370**.

2 Open the right door, remove the screw (A), and then remove the cover.

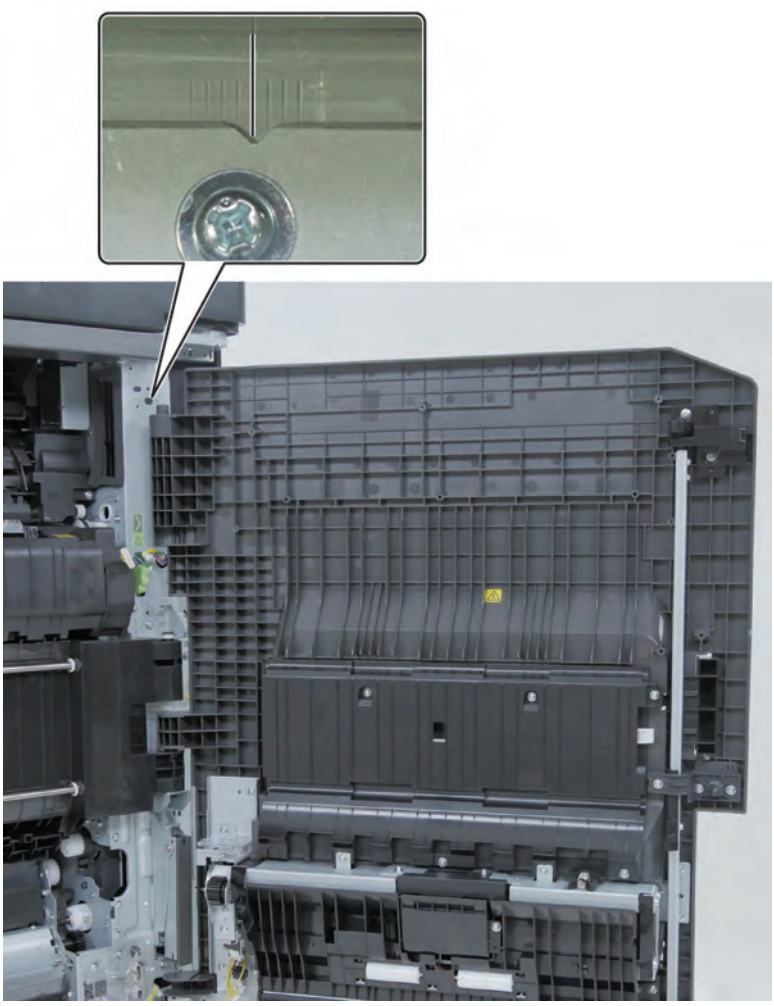
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



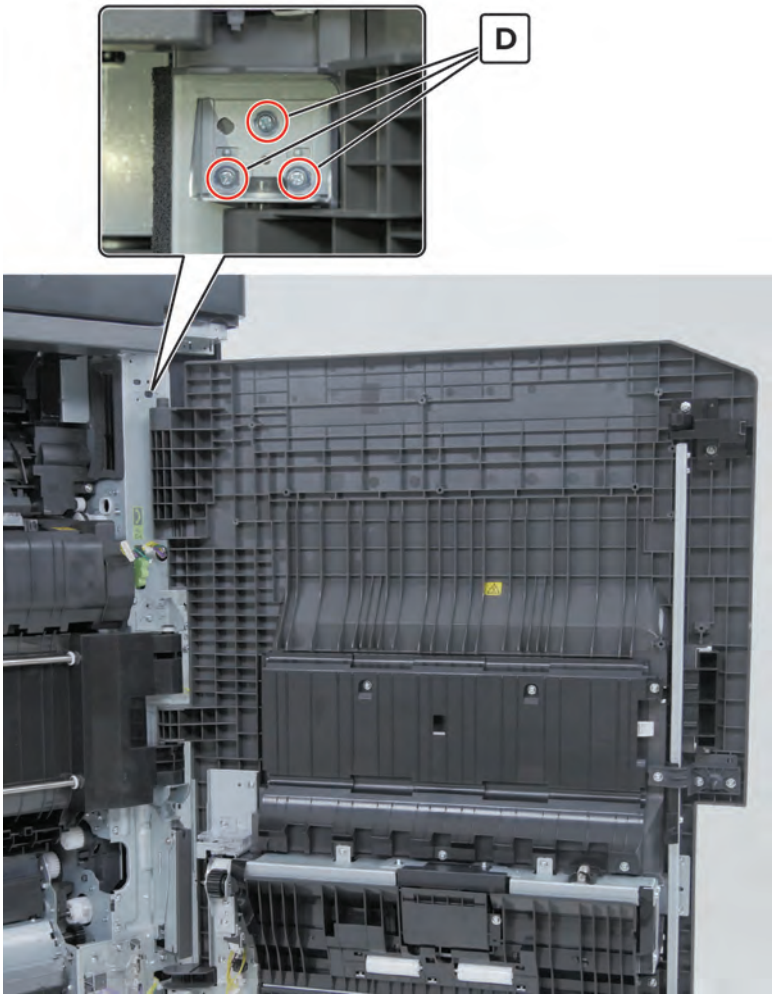
3 Remove the ground screw (B), and then disconnect the four cables (C).



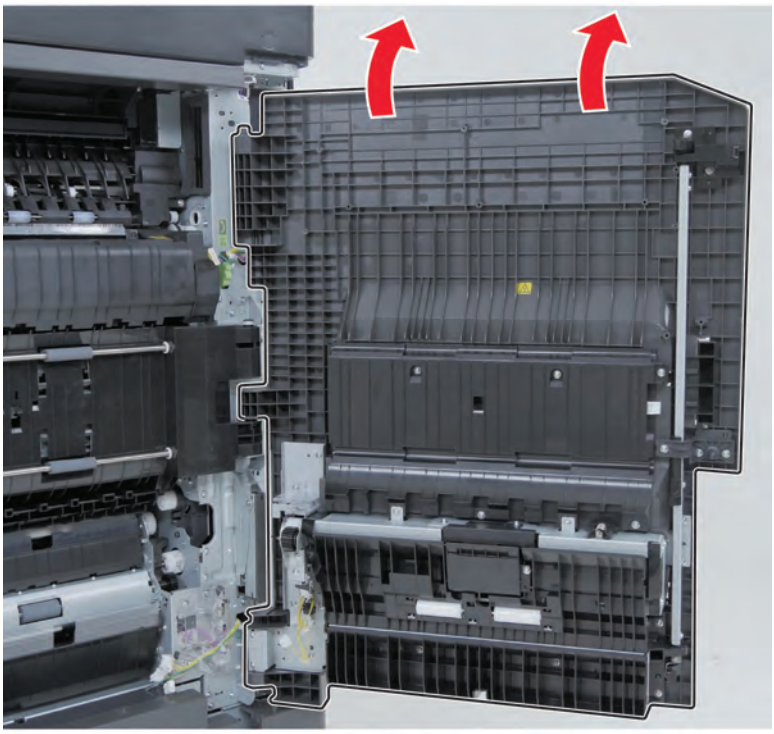
Installation note: Before removing the door, pay attention to the alignment of the door hinge.



4 Remove the three screws (D), and then remove the hinge bracket.



5 Lift the door to release, and then remove it.



6 Remove the registration door lock cover. See **"Registration door lock removal" on page 385**.

7 Remove the right door lock. See **"Right door lock removal" on page 387**.

8 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

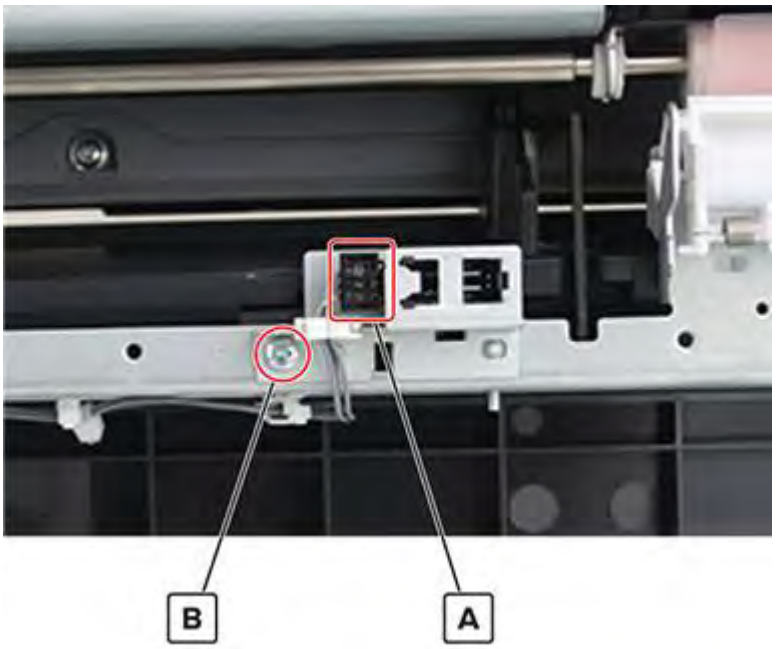
9 Remove the MPF. See **"MPF removal" on page 389**.

The right door remains.

Sensor (MPF paper present) removal

1 Remove tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

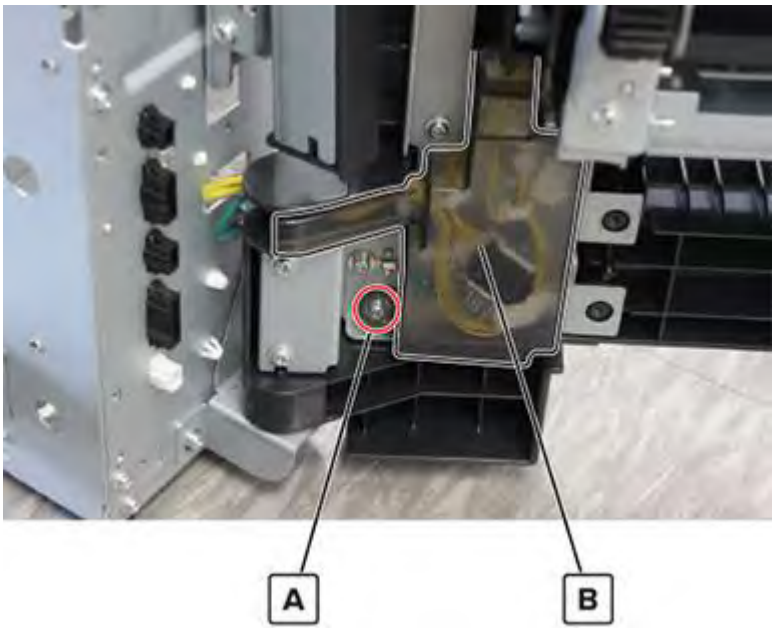
2 Disconnect the cable (A), remove the screw (B), and then remove the sensor from the bracket.



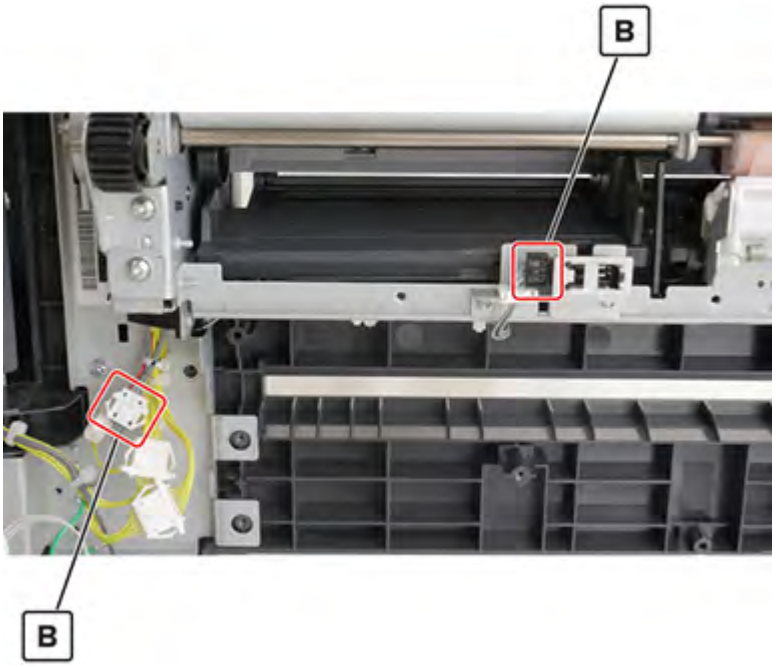
MPF paper present sensor cable removal

1 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

2 Remove the screw (A), and then remove the cable cover (B).



3 Disconnect the two cables (B), and then remove the cables from the cable guides.



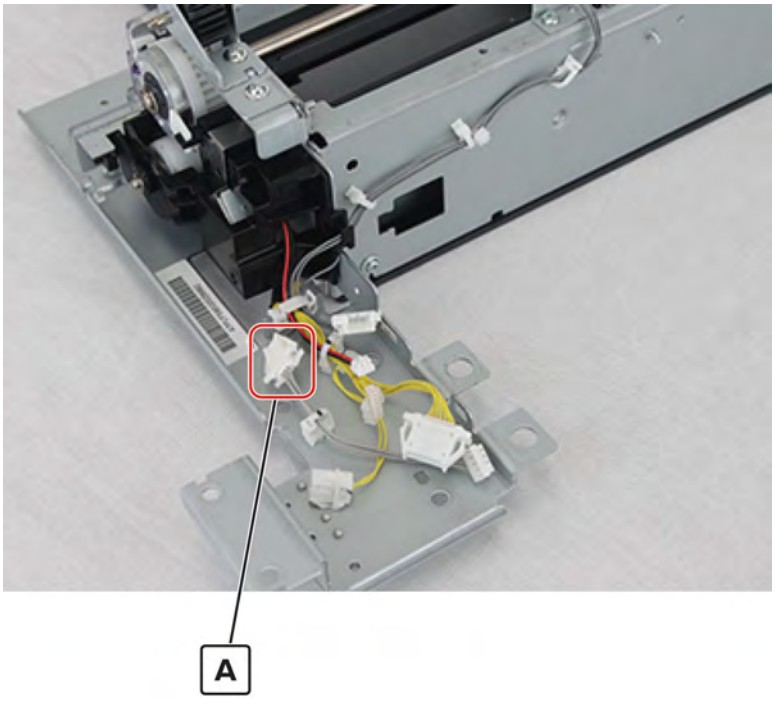
MPF tray removal

1 Remove the right door lock. See **"Right door lock removal" on page 387**.

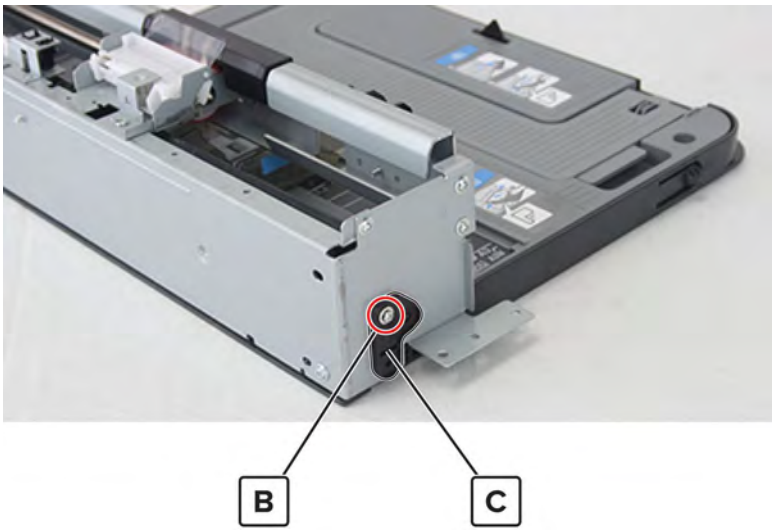
2 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Remove the MPF. See **"MPF removal" on page 389**.

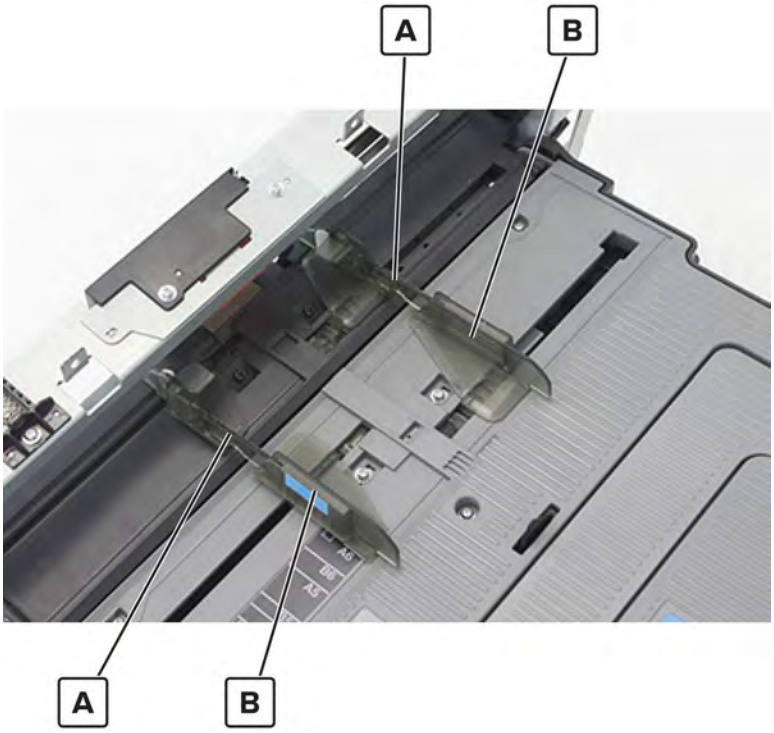
4 Disconnect the cable (A), and then remove the cable from the cable guides.



5 Remove the screw (B), remove the pin (C), and then remove the tray.



Installation note: When reinstalling the tray, make sure that the paper width guide links (A) are properly installed to the paper guides (B).



MPF paper empty flag removal

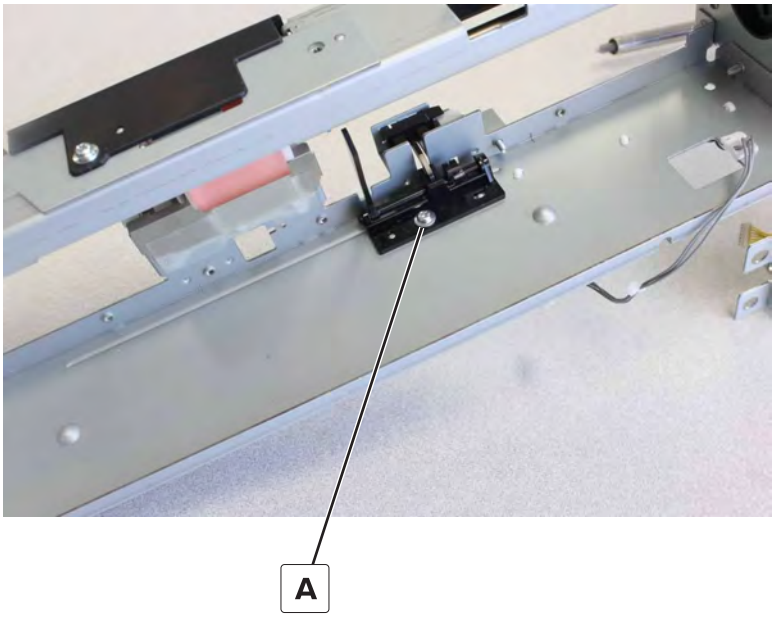
1 Remove the right door lock. See **"Right door lock removal" on page 387**.

2 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Remove the MPF. See **"MPF removal" on page 389**.

4 Remove the MPF tray. See **"MPF tray removal" on page 397**.

5 Remove the screw (A), and then remove the actuator with spring.



Installation note: Make sure that the spring is correctly positioned on the actuator base.

MPF paper width gear removal

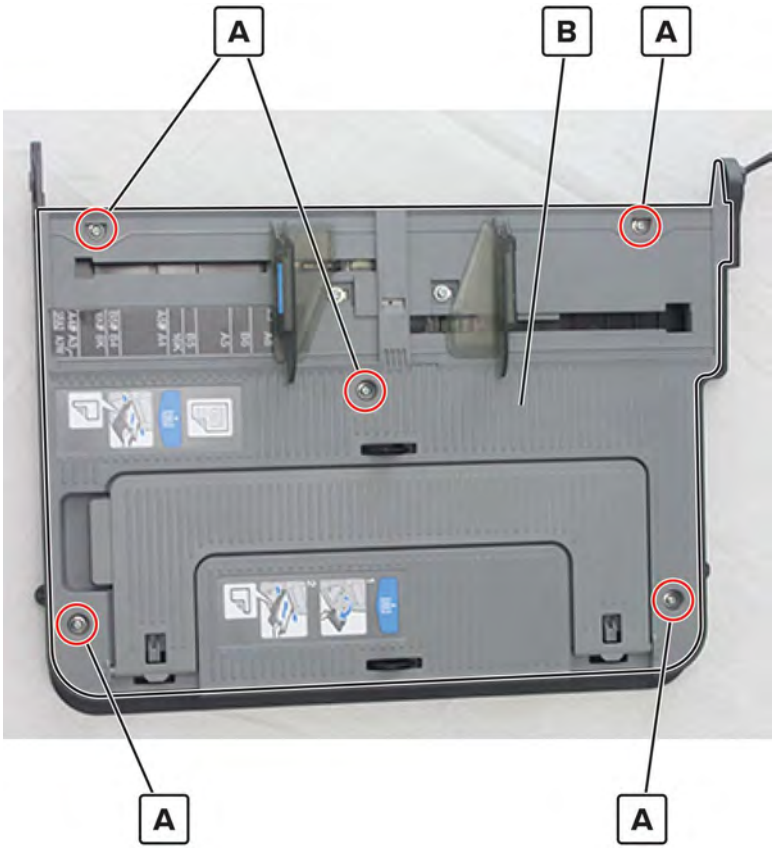
1 Remove the right door lock. See **"Right door lock removal" on page 387**.

2 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Remove the MPF. See **"MPF removal" on page 389**.

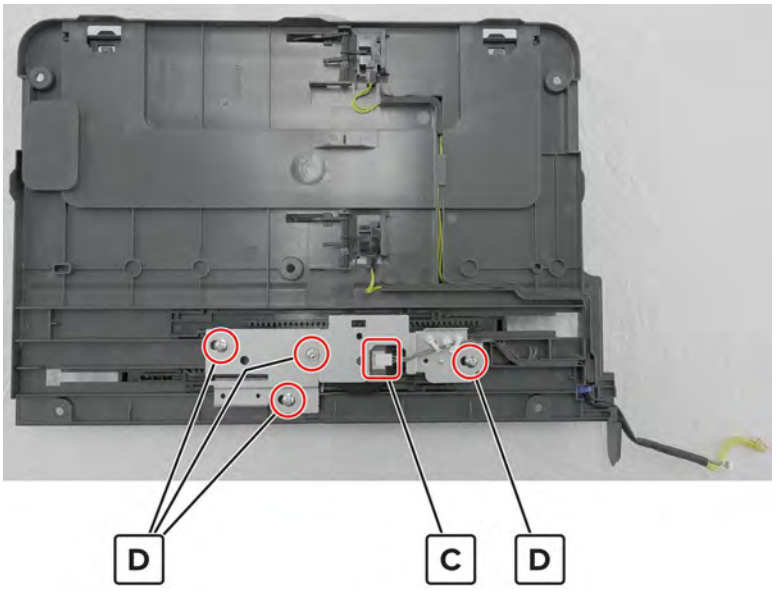
4 Remove the MPF tray. See **"MPF tray removal" on page 397**.

5 Remove the five screws (A), and then remove the cover (B).

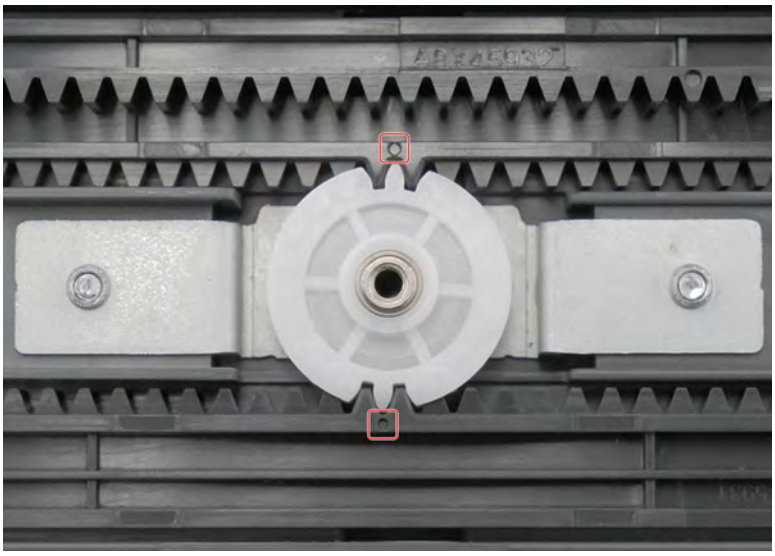


6 Disconnect the cable (C), and then release it from its guides.

7 Remove the four screws (D), and then remove the bracket.

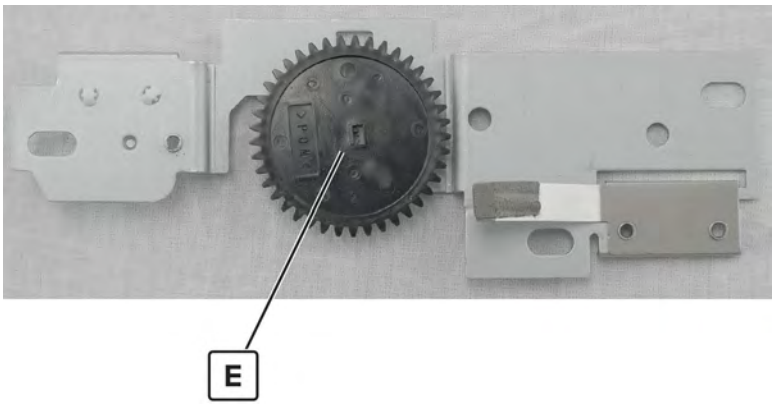


Installation note: Take note of the positions of the gear and dots under the bracket.

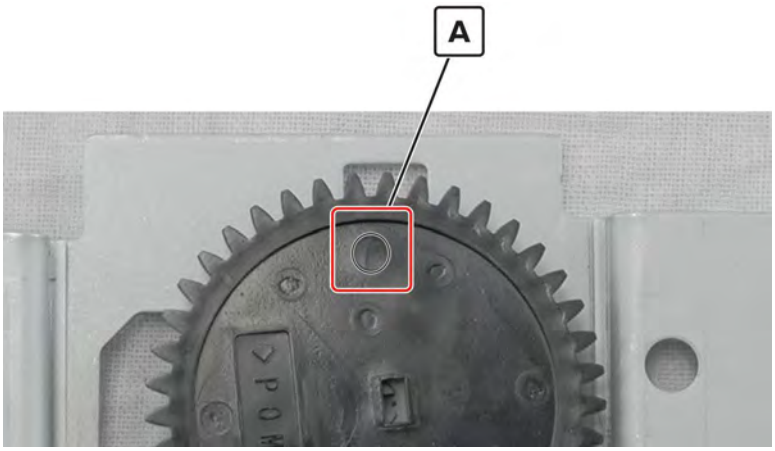


8 Remove the gear (E).

Warning—Potential Damage: Do not turn the gear.

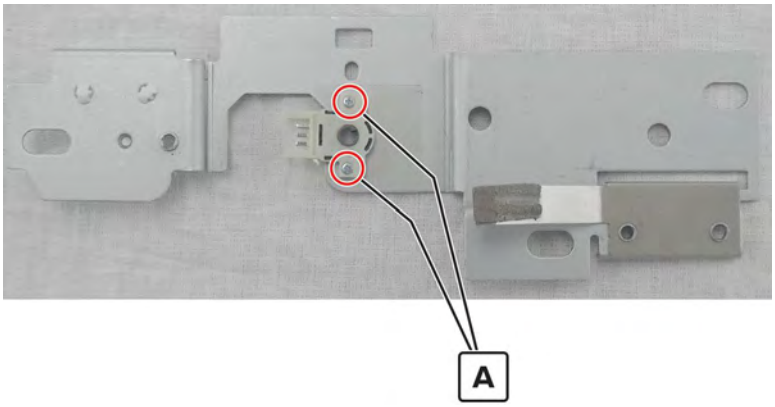


Installation note: Take note of the position of the gear hole (A) relative to the bracket hole behind it.



Sensor (MPF paper width) removal

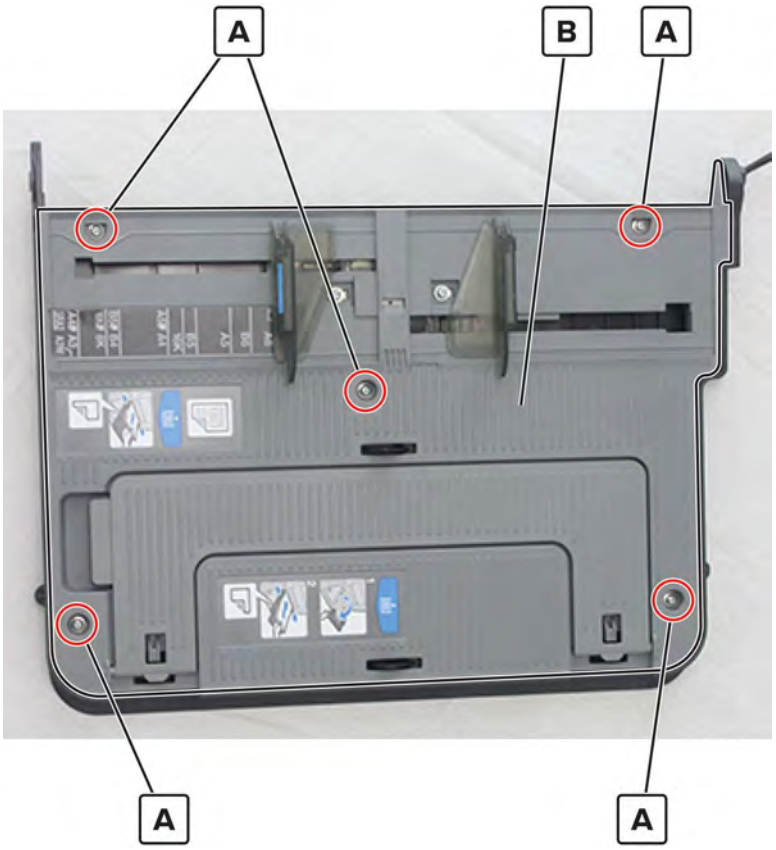
1. Remove the right door lock. See **"Right door lock removal" on page 387**.
2. Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.
3. Remove the MPF. See **"MPF removal" on page 389**.
4. Remove the MPF tray. See **"MPF tray removal" on page 397**.
5. Remove the MPF paper width gear. See **"MPF paper width gear removal" on page 399**.
6. Remove the two screws (A) using a precision screwdriver, and then remove the sensor.



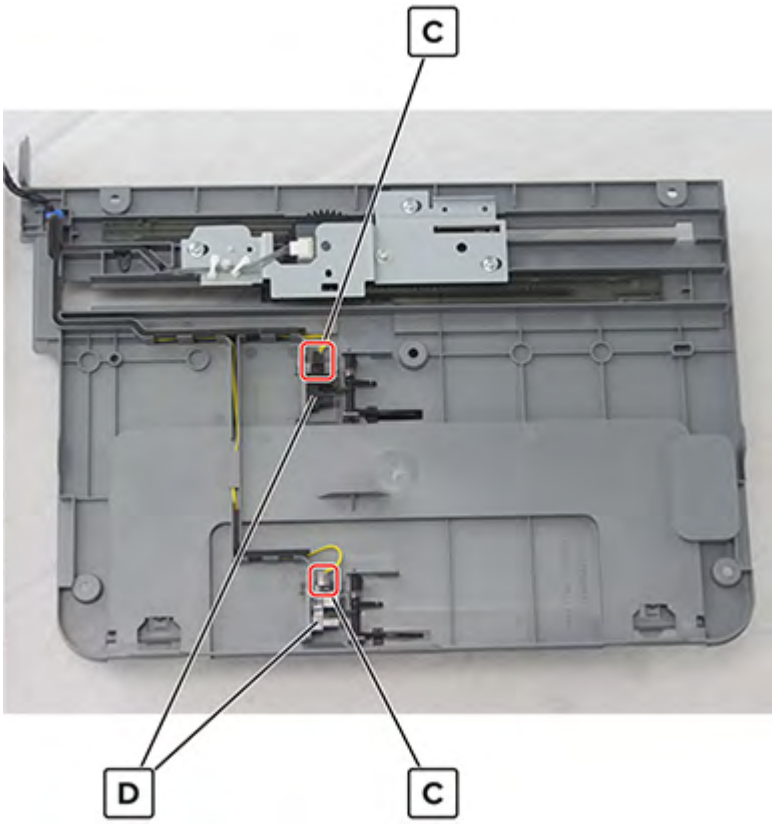
Sensors (MPF paper length) removal

1. Remove the MPF. See **"MPF removal" on page 389**.
2. Remove the MPF tray. See **"MPF tray removal" on page 397**.

3 Remove the five screws (A), and then remove the cover (B).



4 Disconnect the two cables (C), and then remove the sensors (D).



MPF paper guide pinion gear removal

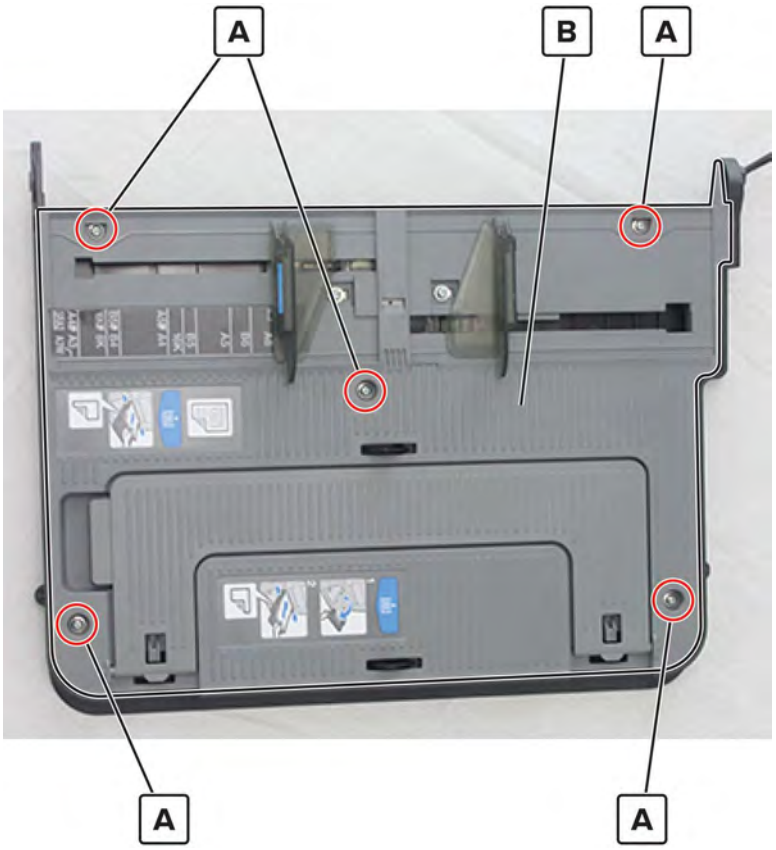
1 Remove the right door lock. See **"Right door lock removal" on page 387**.

2 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Remove the MPF. See **"MPF removal" on page 389**.

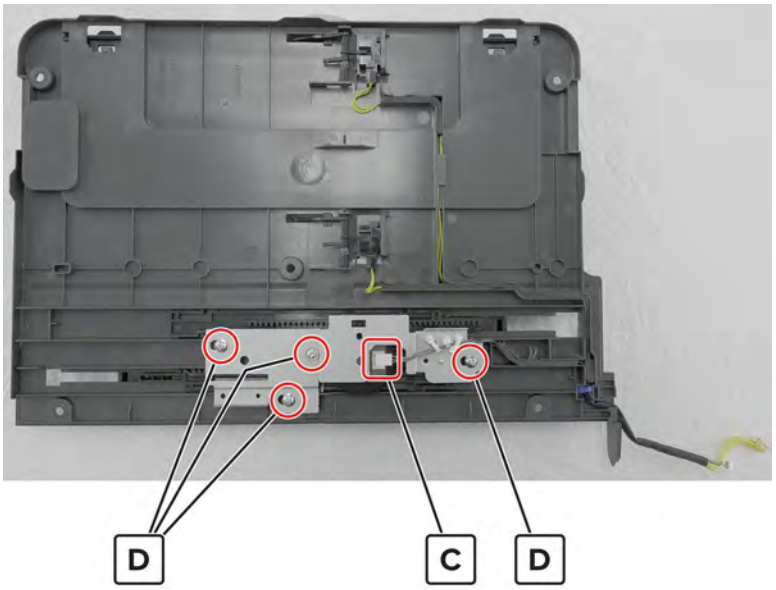
4 Remove the MPF tray. See **"MPF tray removal" on page 397**.

5 Remove the five screws (A), and then remove the cover (B).



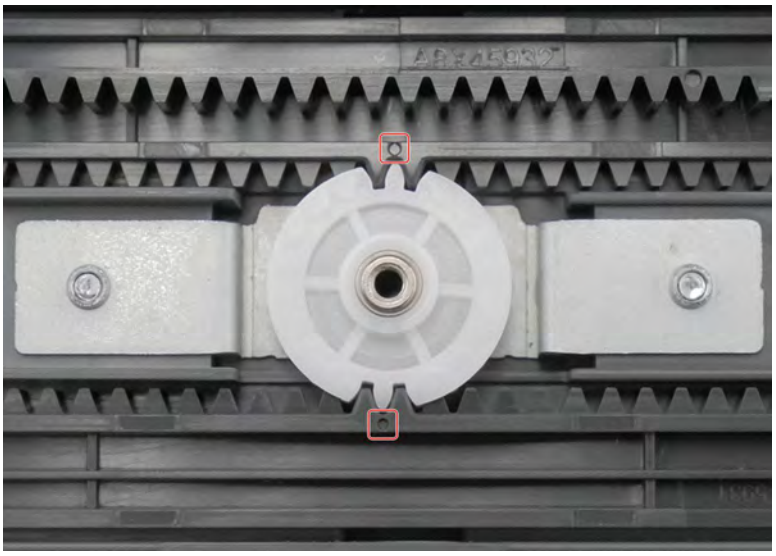
6 Disconnect the cable (C), and then release it from its guides.

7 Remove the four screws (D), and then remove the bracket.



8 Remove the gear under the bracket.

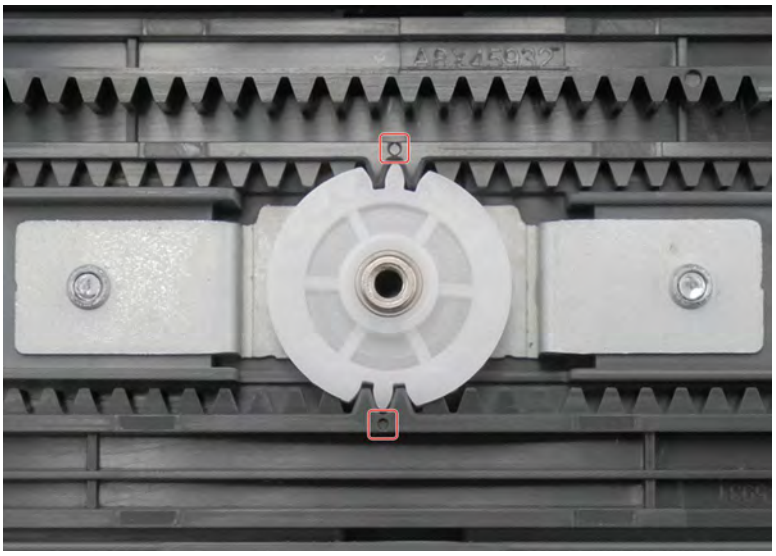
Installation note: Take note of the positions of the gear and dots.



MPF rear paper guide removal

1. Remove the right door lock. See **“Right door lock removal” on page 387**.
2. Remove the tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.
3. Remove the MPF. See **“MPF removal” on page 389**.
4. Remove the MPF tray. See **“MPF tray removal” on page 397**.
5. Remove the MPF paper guide pinion gear. See **“MPF paper guide pinion gear removal” on page 404**.
6. Remove the guide.

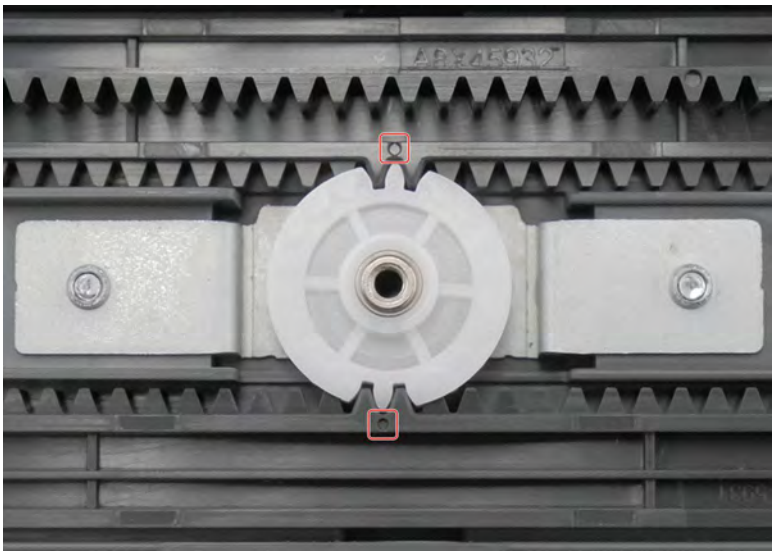
Installation note: Take note of the positions of the gear and dots.



MPF front paper guide removal

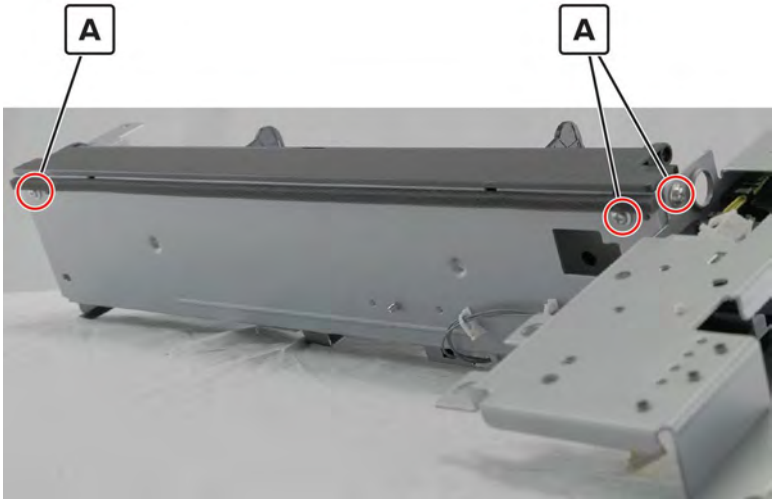
1. Remove the right door lock. See **“Right door lock removal” on page 387**.
2. Remove the tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.
3. Remove the MPF. See **“MPF removal” on page 389**.
4. Remove the MPF tray. See **“MPF tray removal” on page 397**.
5. Remove the MPF paper guide pinion gear. See **“MPF paper guide pinion gear removal” on page 404**.
6. Remove the guide.

Installation note: Take note of the positions of the gear and dots.

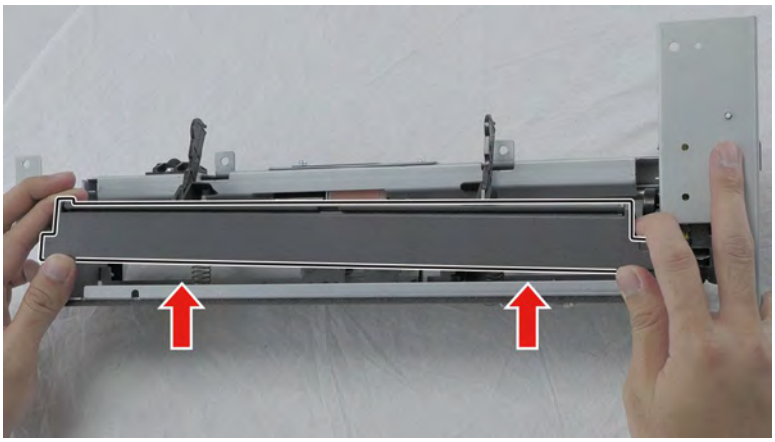


MPF rear paper guide 2 removal

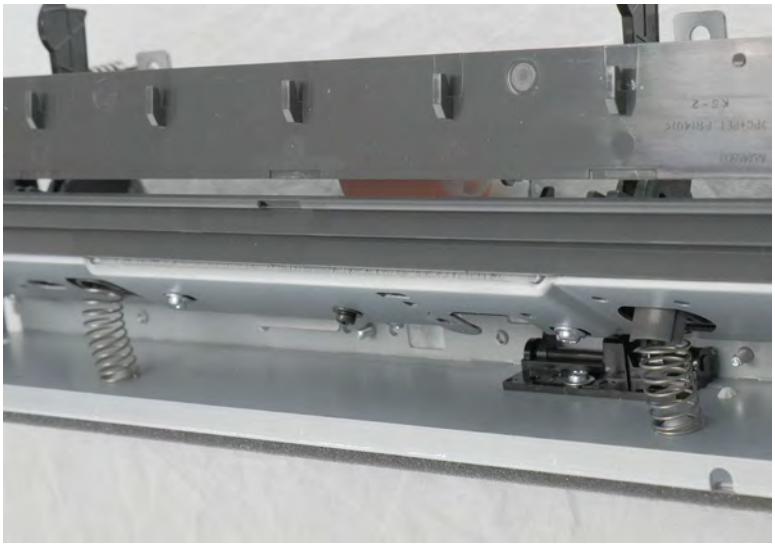
1. Remove the right door lock. See **“Right door lock removal” on page 387**.
2. Remove the tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.
3. Remove the MPF. See **“MPF removal” on page 389**.
4. Remove the MPF tray. See **“MPF tray removal” on page 397**.
5. Remove the three screws (A).



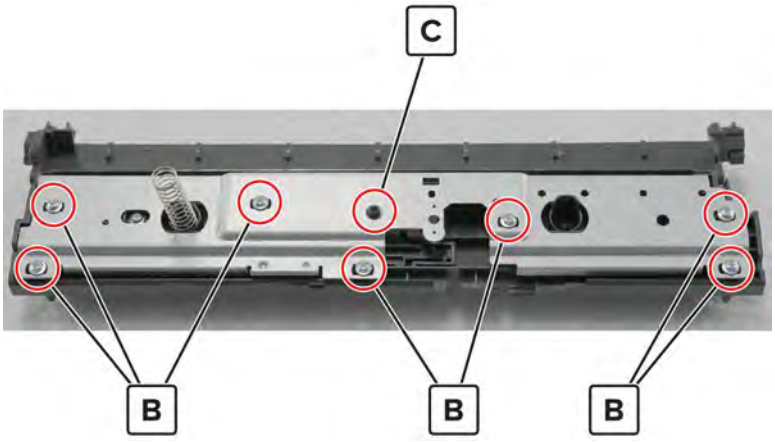
6 Push the cover to release, and then remove it.



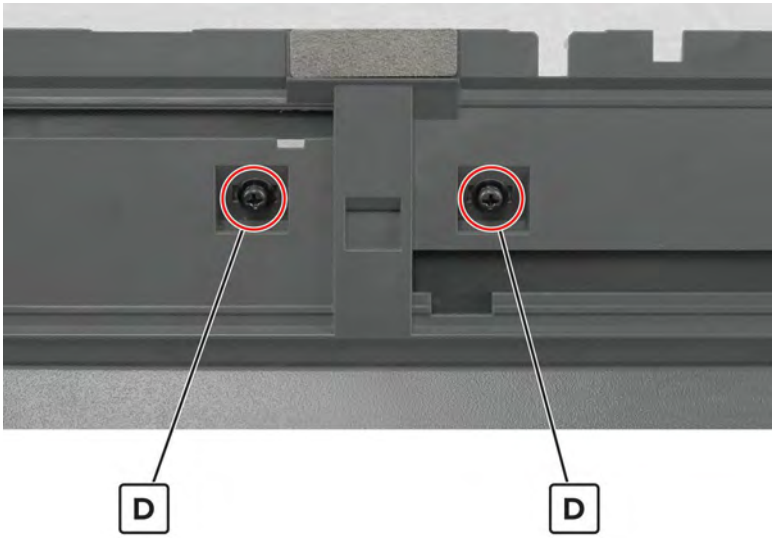
Installation note: Make sure that the springs are aligned.



7 Remove the eight screws (B, C), and then remove the bracket.



8 Remove the two screws (D), and then remove the bracket at the back.



9 Remove the guide.

MPF front paper guide 2 removal

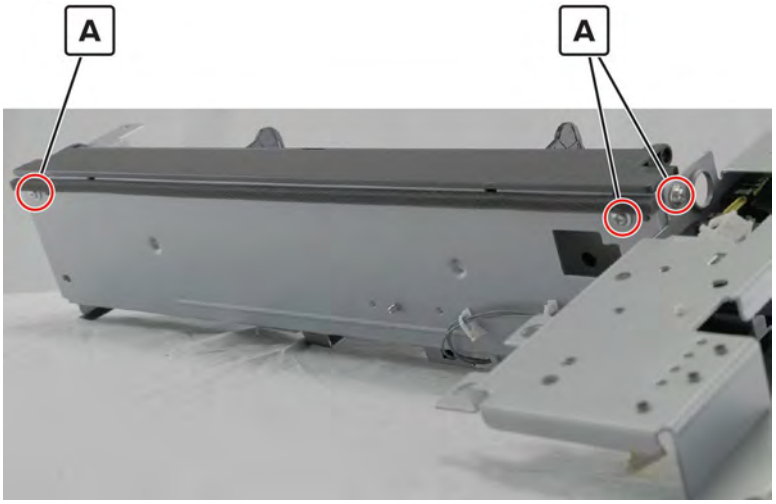
1 Remove the right door lock. See **“Right door lock removal” on page 387**.

2 Remove the tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.

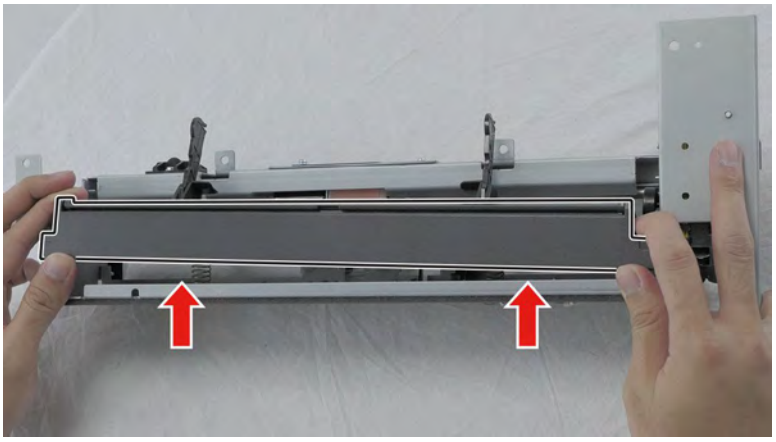
3 Remove the MPF. See **“MPF removal” on page 389**.

4 Remove the MPF tray. See **“MPF tray removal” on page 397**.

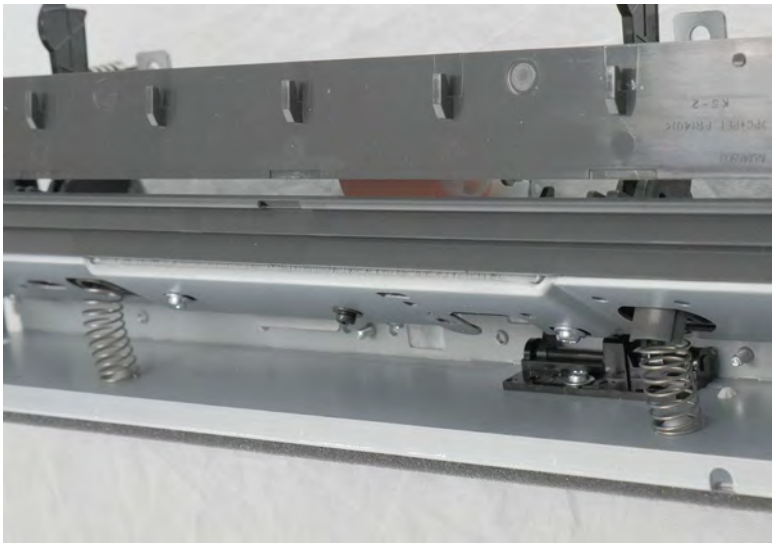
5 Remove the three screws (A).



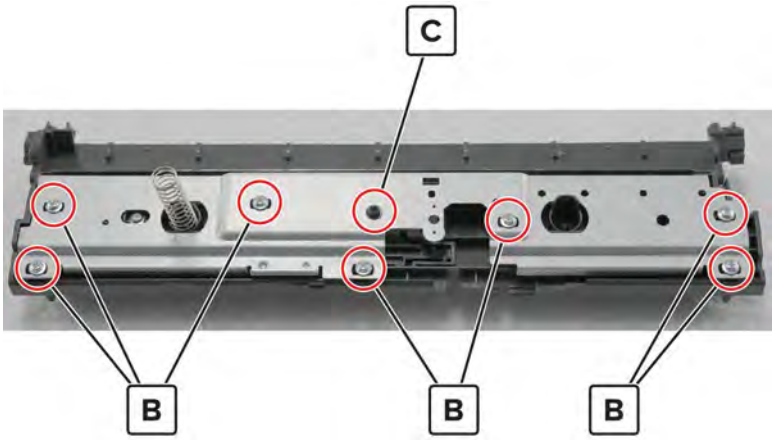
6 Push the cover to release, and then remove it.



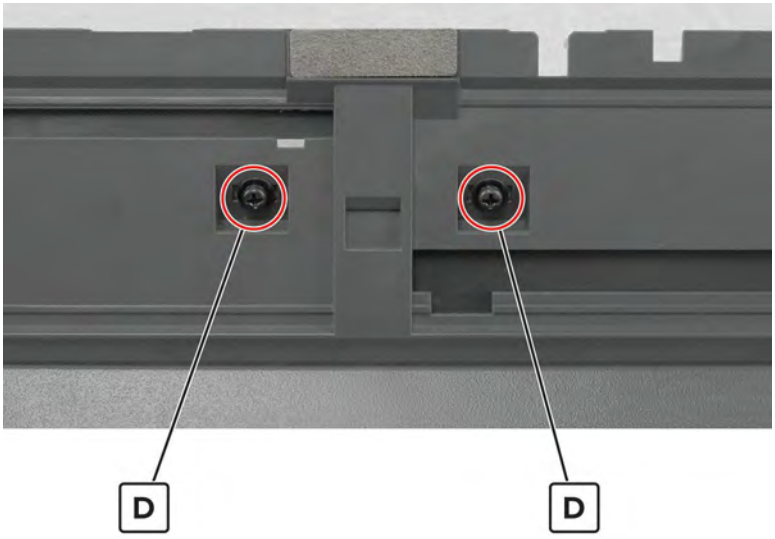
Installation note: Make sure that the springs are aligned.



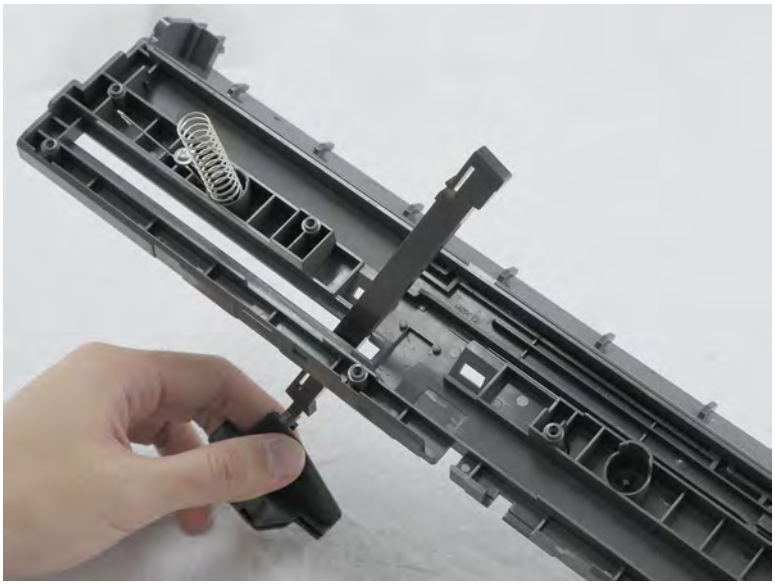
7 Remove the eight screws (B, C), and then remove the bracket.



8 Remove the two screws (D), and then remove the bracket at the back.



9 Remove the guide.

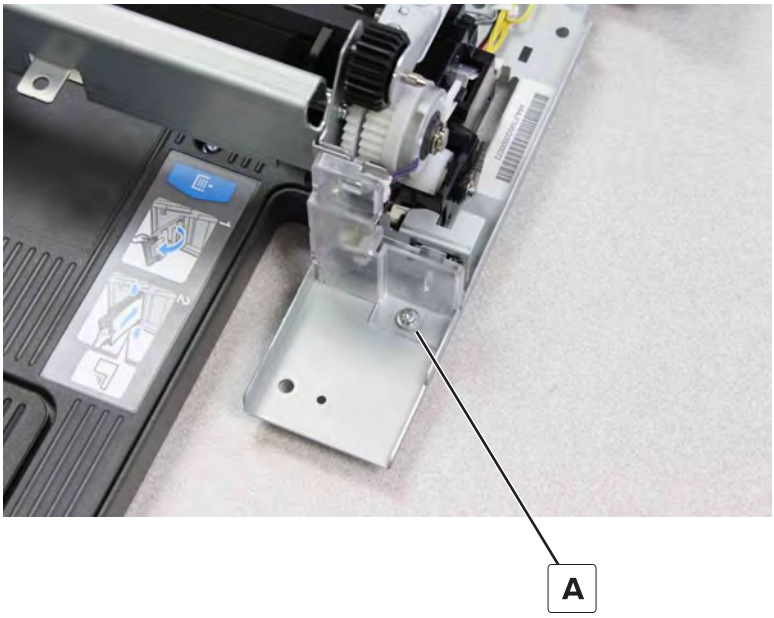


MPF feed clutch removal

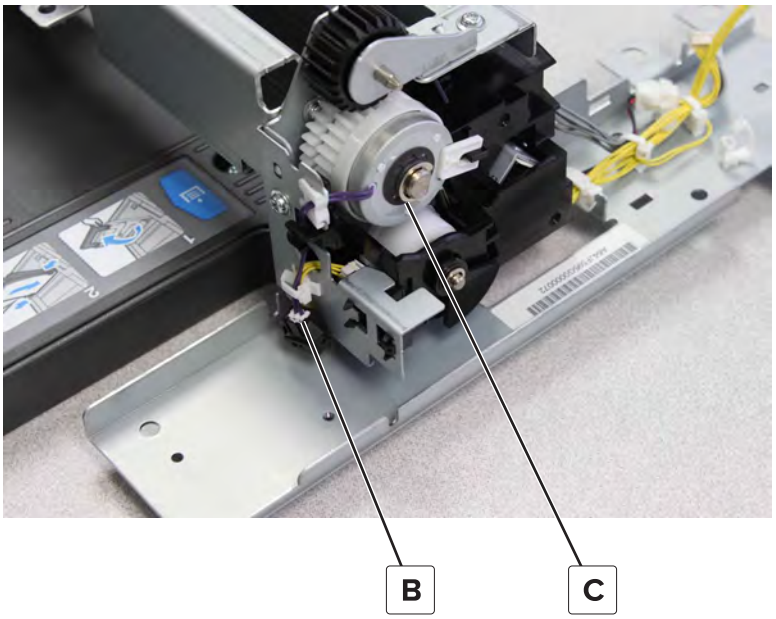
1 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

2 Remove the MPF. See **"MPF removal" on page 389**.

3 Remove the screw (A), and then remove the cover.



4 Disconnect the cable (B), and then release the clip (C).



5 Remove the clutch.

MPF feed clutch gear removal

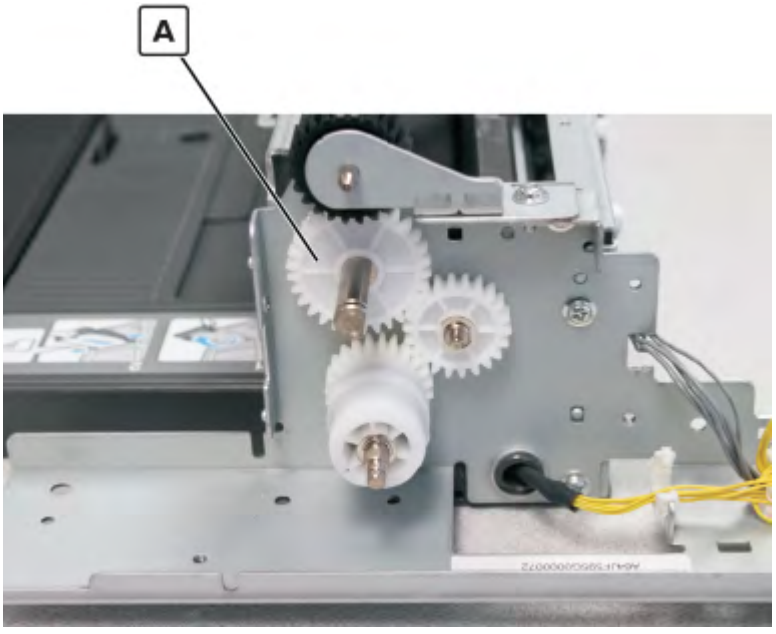
1 Remove tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

2 Remove the MPF. See **"MPF removal" on page 389**.

3 Remove the MPF feed clutch. See **"MPF feed clutch removal" on page 413**.

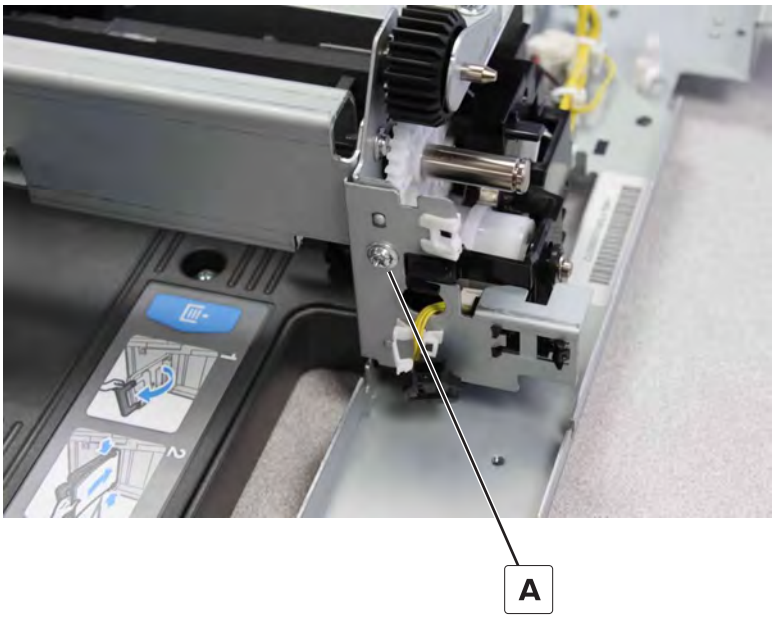
4 Move away the MPF lift plate solenoid. See **"MPF lift plate solenoid removal" on page 415**.

5 Remove the gear (A).

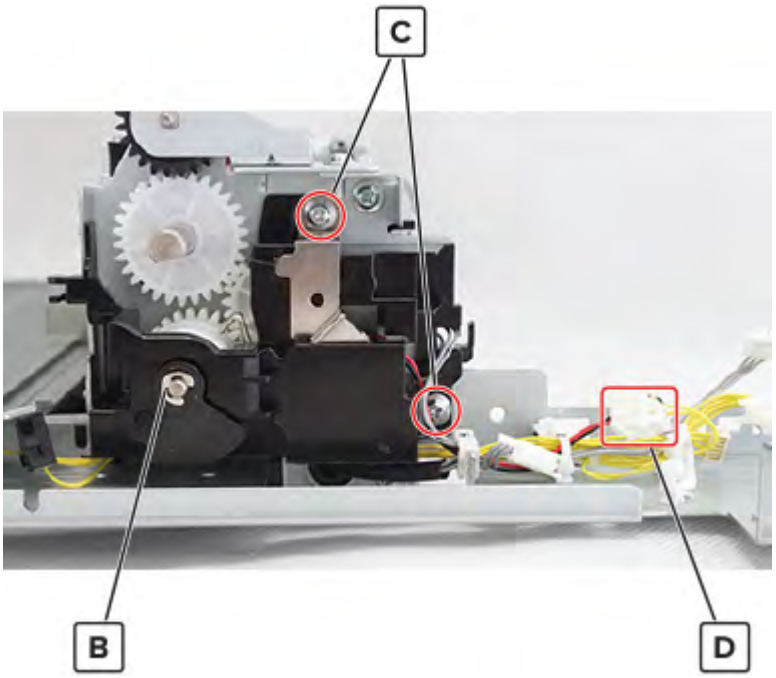


MPF lift plate solenoid removal

1. Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.
2. Remove the MPF. See **"MPF removal" on page 389**.
3. Remove the MPF feed clutch. See **"MPF feed clutch removal" on page 413**.
4. Remove the screw (A), and then move away the bracket.

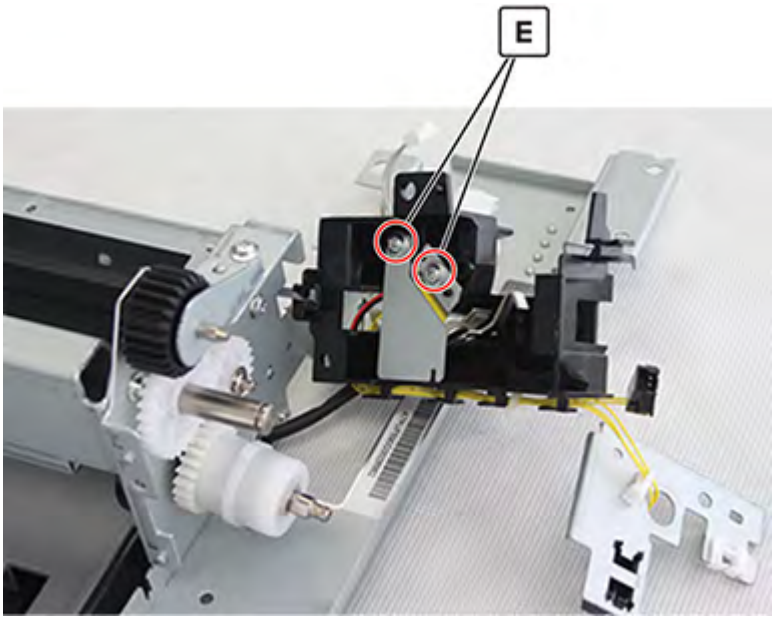


5. Remove the E-clip (B), remove the two screws (C), and then disconnect the cable (D).



6. Remove the bracket.

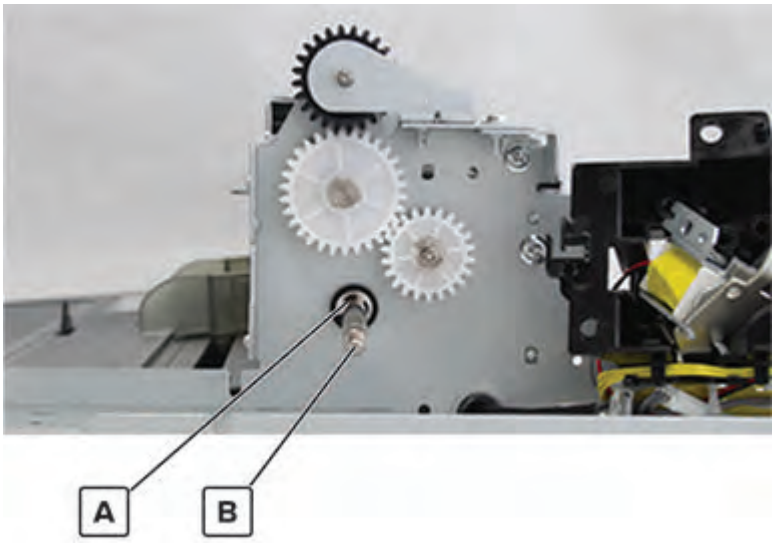
7 Remove the two screws (E), and then remove the solenoid.



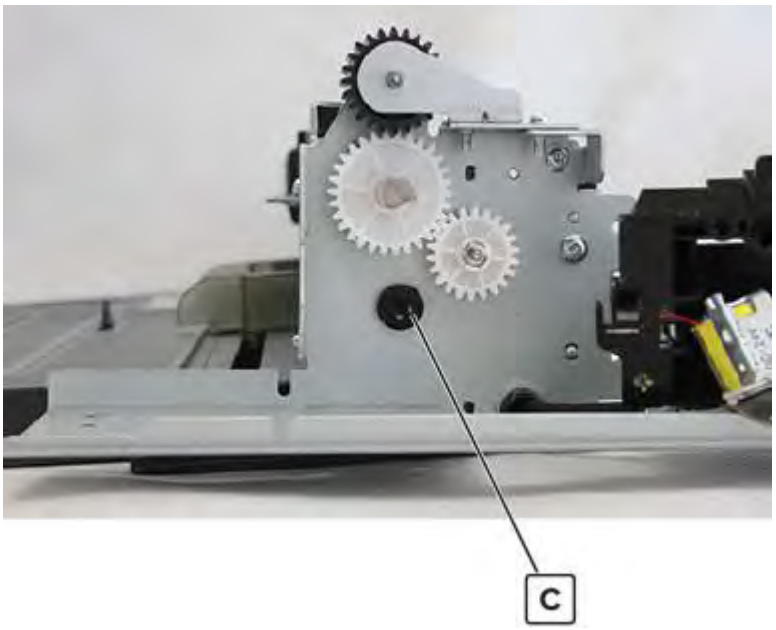
MPF lift plate cam removal

1 Remove the MPF lift plate clutch gear. See **"MPF lift plate clutch gear removal" on page 417**.

2 Remove the E-clip (A) to release the bracket, and then remove the cam (B) from the bracket.



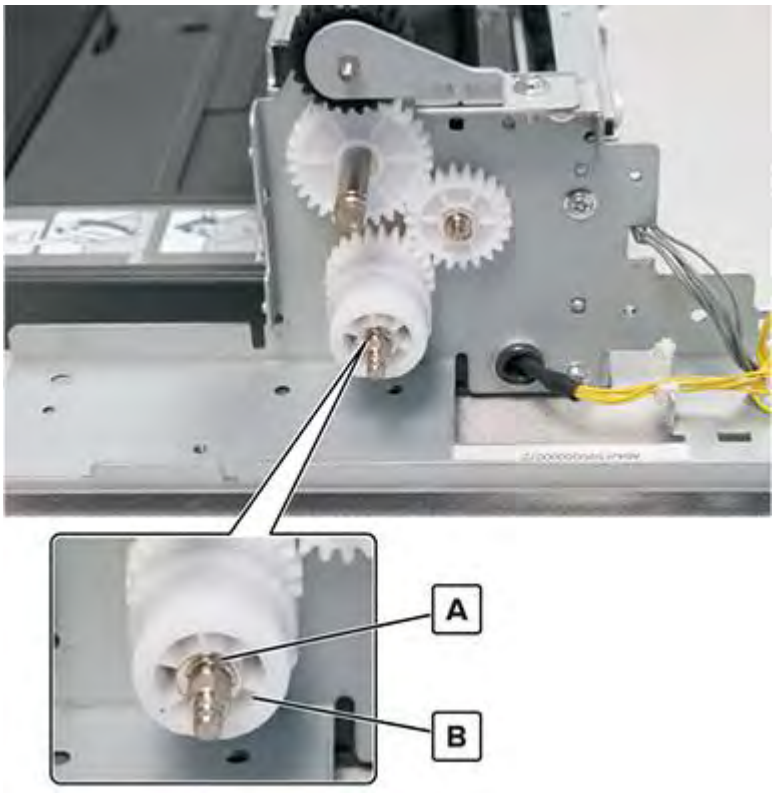
Warning—Potential Damage: Do not lose the bushing (C).



MPF lift plate clutch gear removal

1. Remove tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.
2. Remove the MPF. See **“MPF removal” on page 389**.
3. Remove the MPF feed clutch. See **“MPF feed clutch removal” on page 413**.
4. Move away the MPF lift plate solenoid. See **“MPF lift plate solenoid removal” on page 415**.

5 Remove the E-clip (A), and then remove the gear (B).

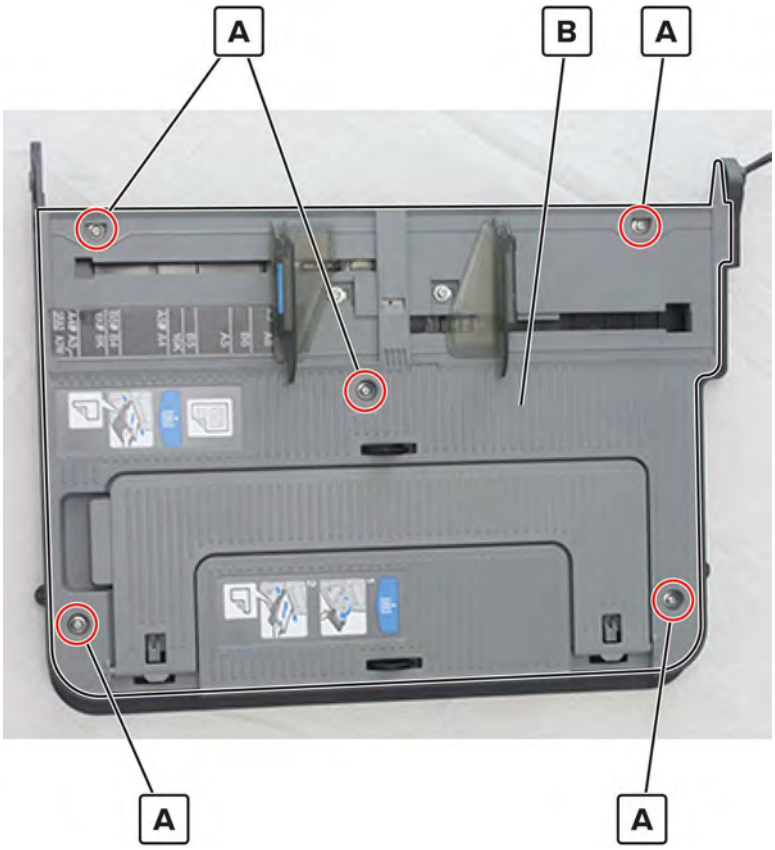


MPF paper length actuators removal

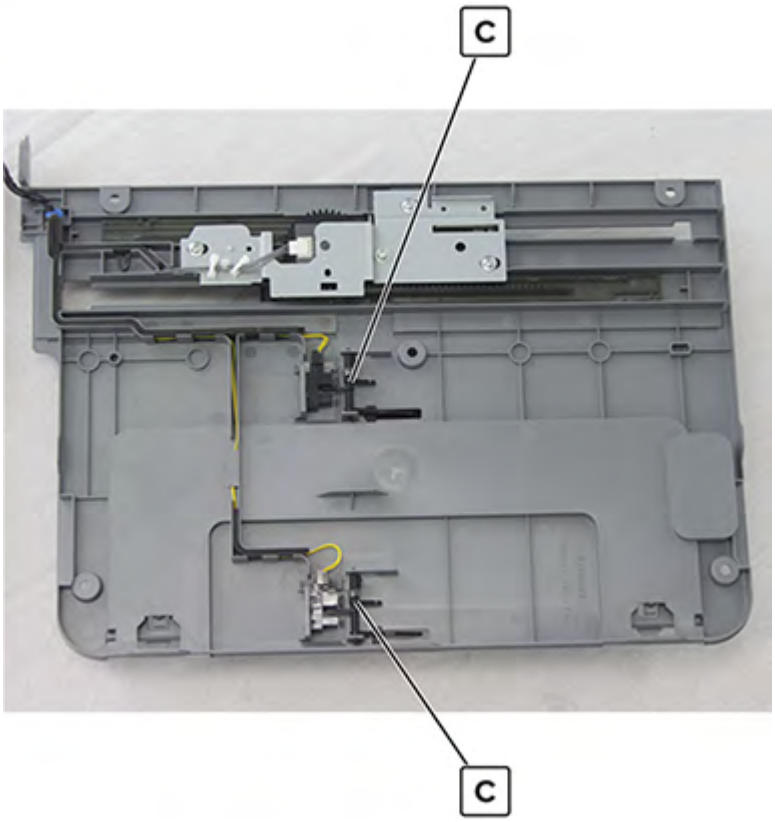
1 Remove the MPF. See **“MPF removal” on page 389**.

2 Remove the MPF tray. See **“MPF tray removal” on page 397**.

3 Remove the five screws (A), and then remove the cover (B).



4 Remove the two actuators (C).



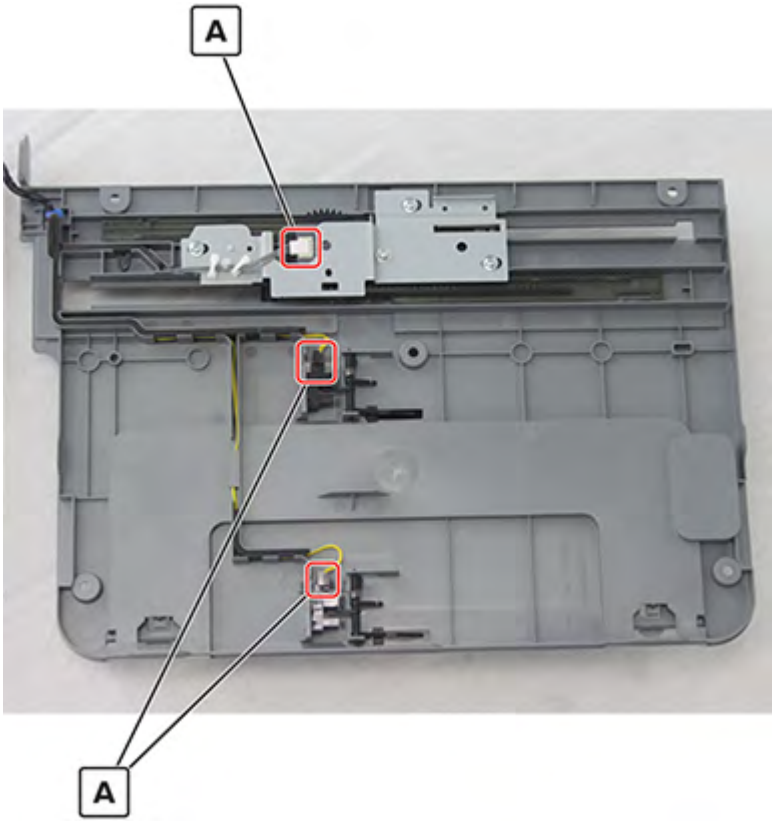
MPF paper size sensor cable removal

1 Remove the MPF. See **"MPF removal" on page 389**.

2 Remove the MPF tray. See **"MPF tray removal" on page 397**.

3 Disconnect the three cables (A), and then remove the cables from the cable guides.

Note: Pay attention to the cable routing.

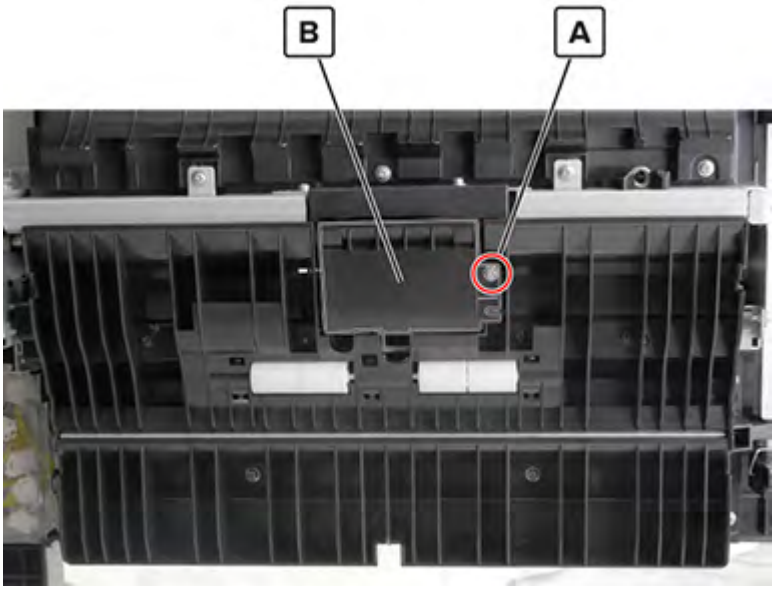


MPF separator access cover removal

1 Open the right door.

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 cover (B).

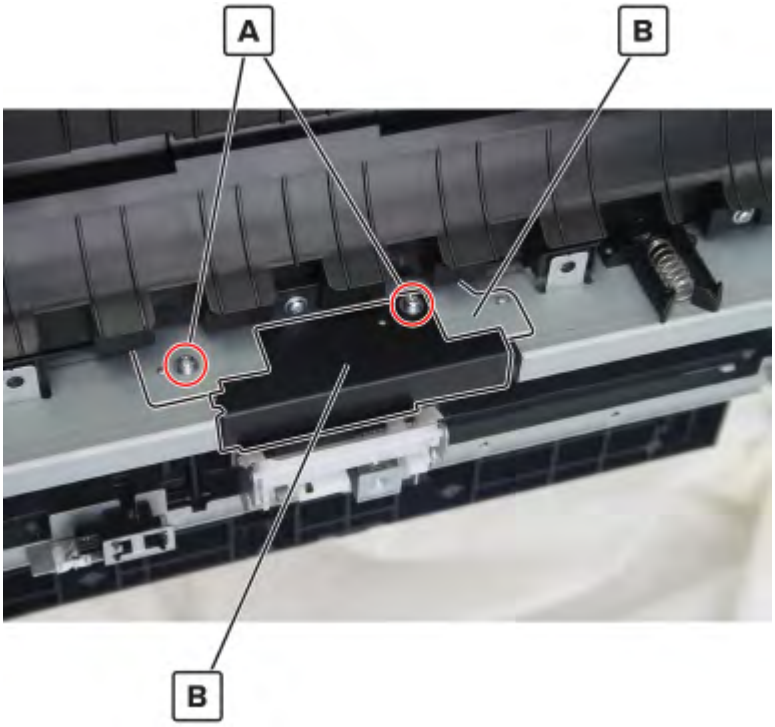


MPF pick roller removal

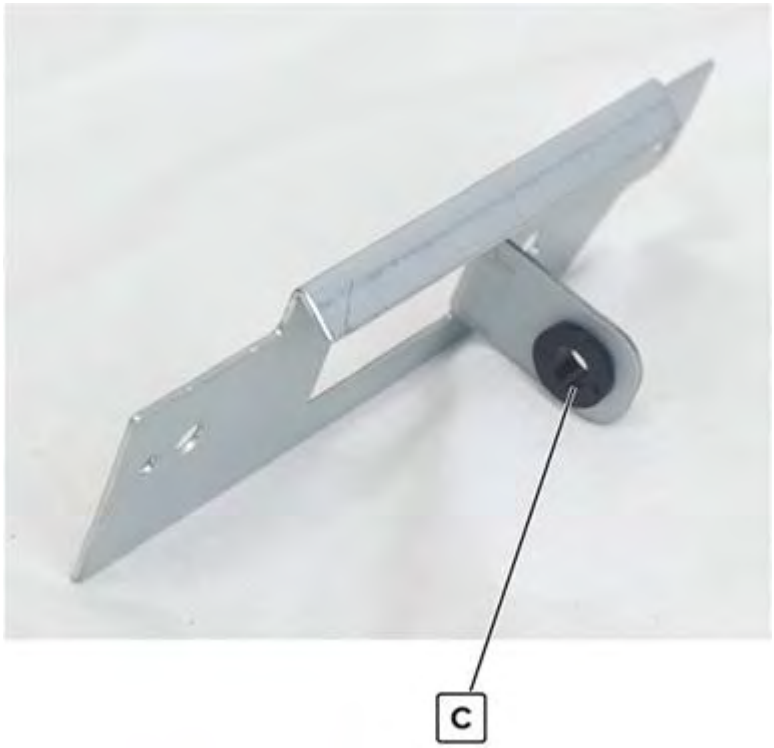
1 Open the right door, and then detach the registration assembly.

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.

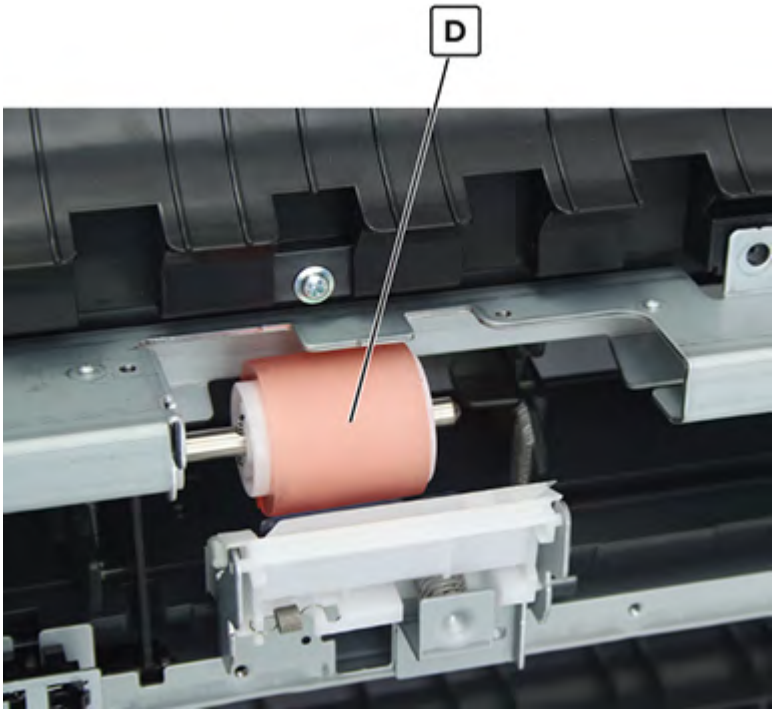
2 Remove the two screws (A), and then remove the two brackets (B).



Warning—Potential Damage: Do not lose the bushing (C).



3 Remove the roller (D).



MPF separator gear removal

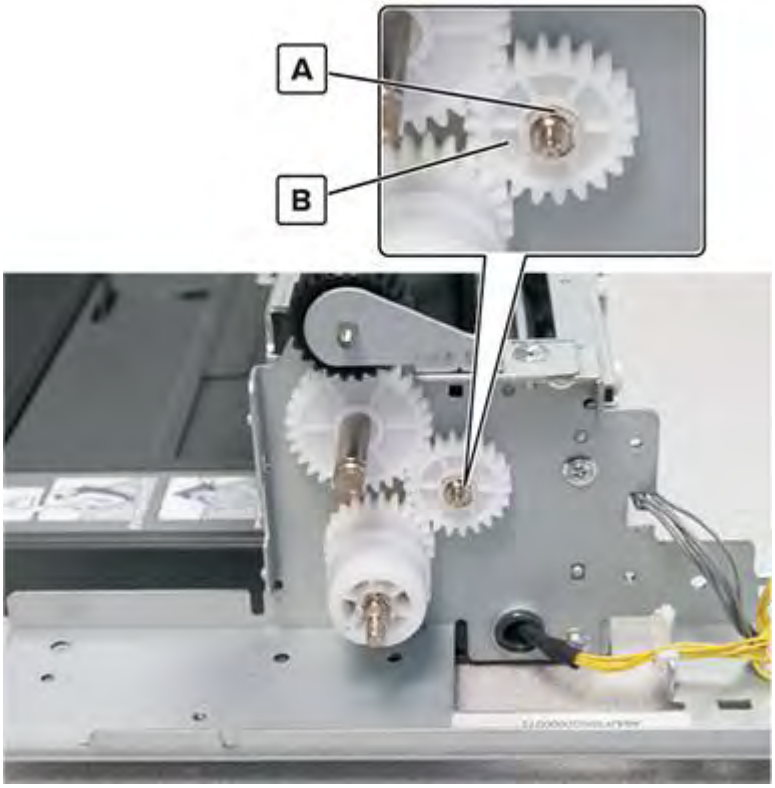
1 Remove tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.

2 Remove the MPF. See **“MPF removal” on page 389**.

3 Remove the MPF feed clutch. See **"MPF feed clutch removal" on page 413**.

4 Move away the MPF lift plate solenoid. See **"MPF lift plate solenoid removal" on page 415**.

5 Remove the E-clip (A), and then remove the gear (B).



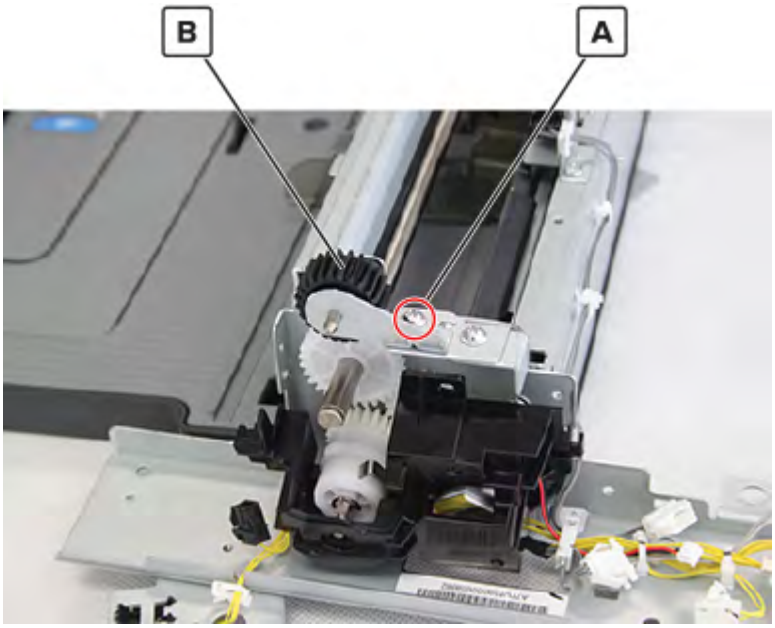
MPF separator idler gear removal

1 Remove tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

2 Remove the MPF. See **"MPF removal" on page 389**.

3 Remove the MPF feed clutch. See **"MPF feed clutch removal" on page 413**.

4 Remove the screw (A), and then remove the gear (B).

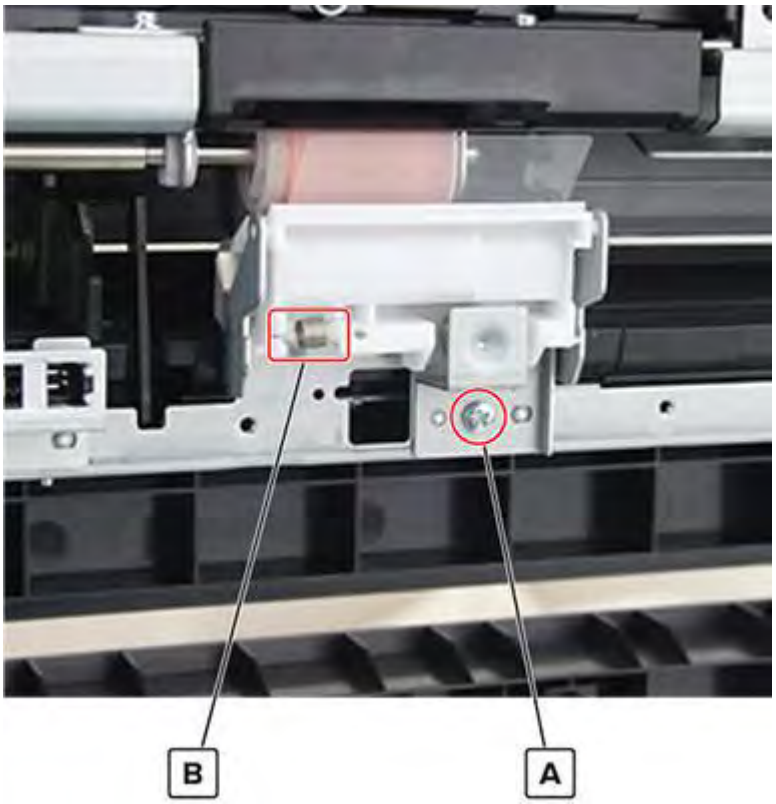


MPF separator roller removal

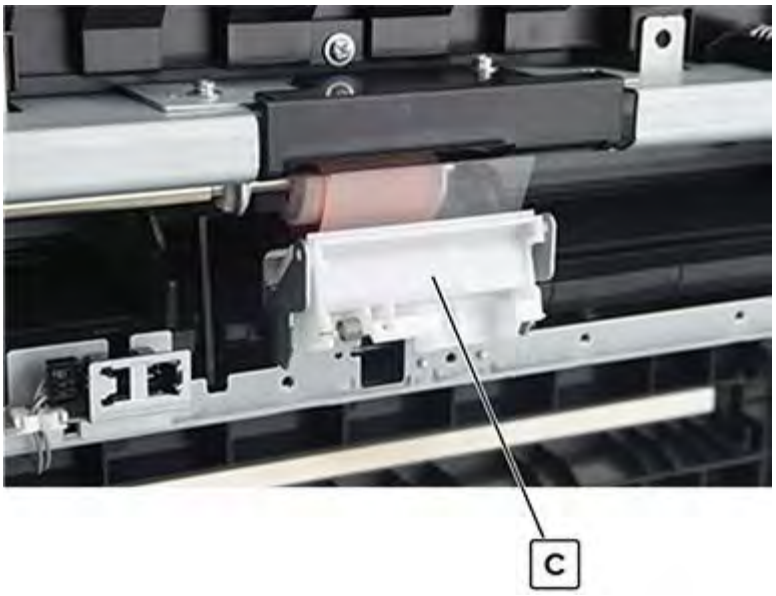
1 Remove tray 2 transport guide. See **“Tray 2 transport guide removal” on page 388**.

2 Remove the screw (A) to remove the bracket and separator spring.

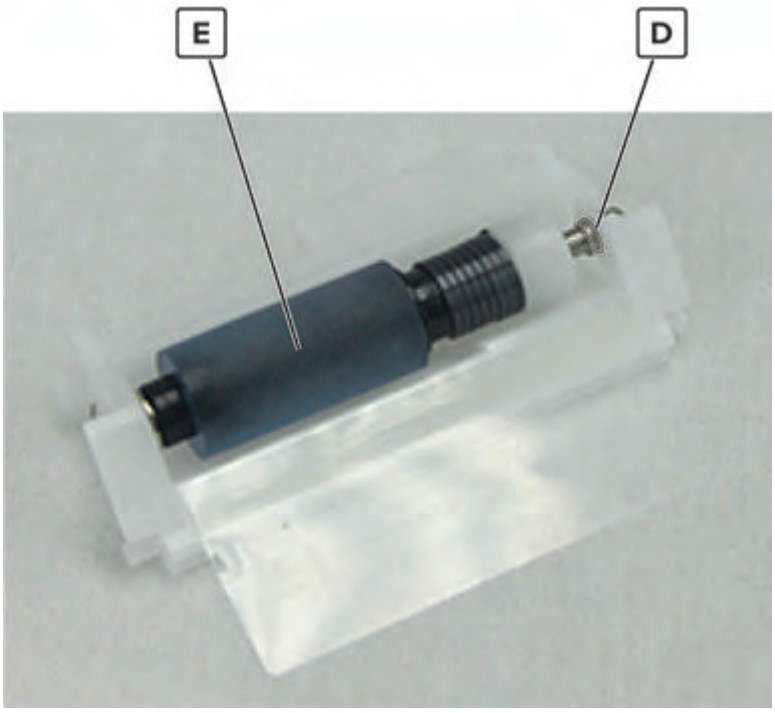
Warning—Potential Damage: Do not lose the spring (B).



3 Remove the separator roller assembly (C).



4 Remove the E-clip (D), and then remove the roller (E).

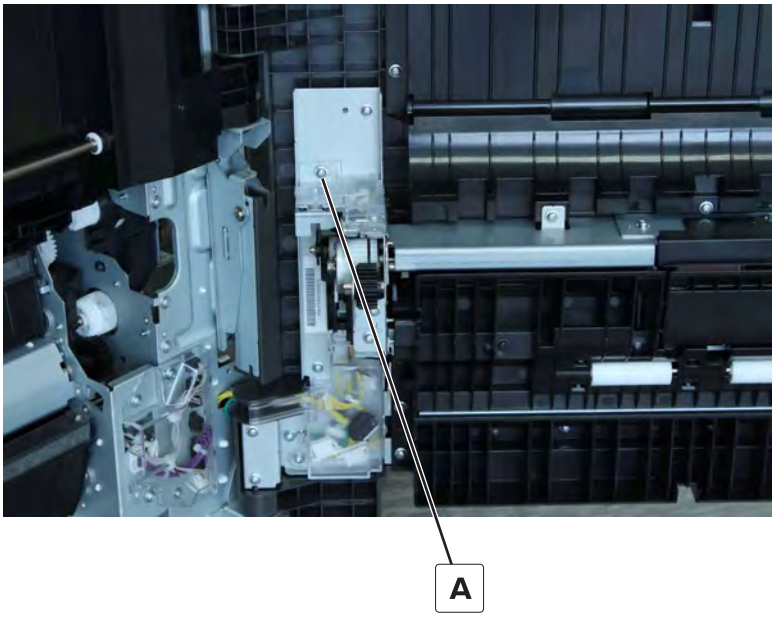


Sensor (MPF lift plate) removal

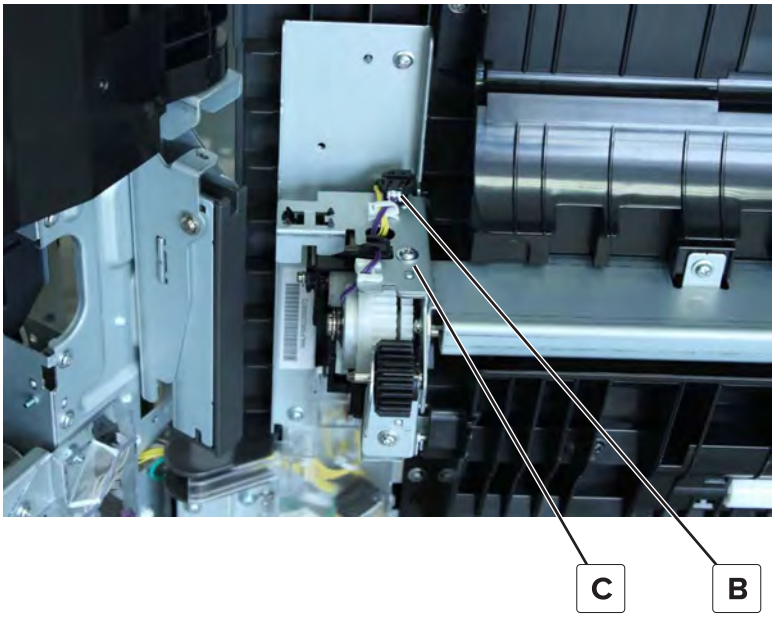
1 Open the right door, and then unlatch the registration unit handle.

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.

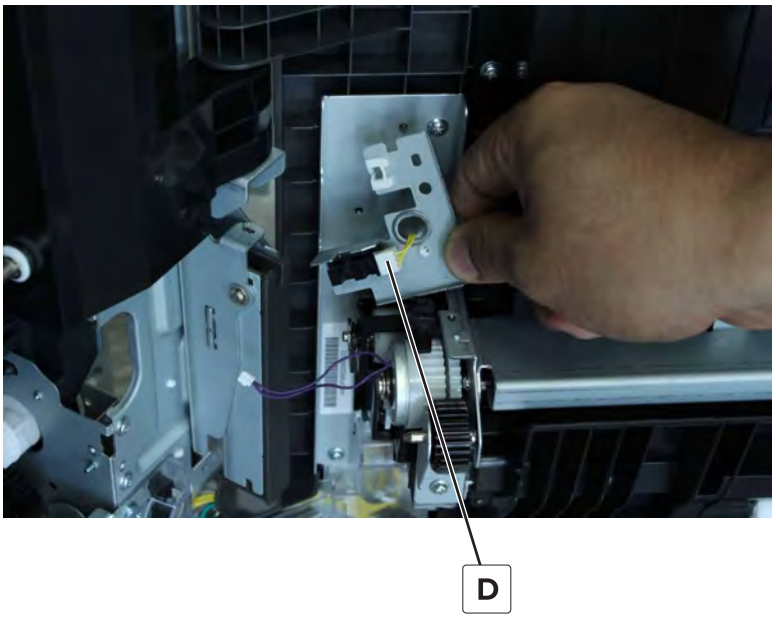
2 Remove the screw (A), and then remove the cover.



3 Disconnect the cable (B), and then remove the screw (C).



4 Lift the bracket, and then disconnect the cable (D).



5 Remove the sensor.

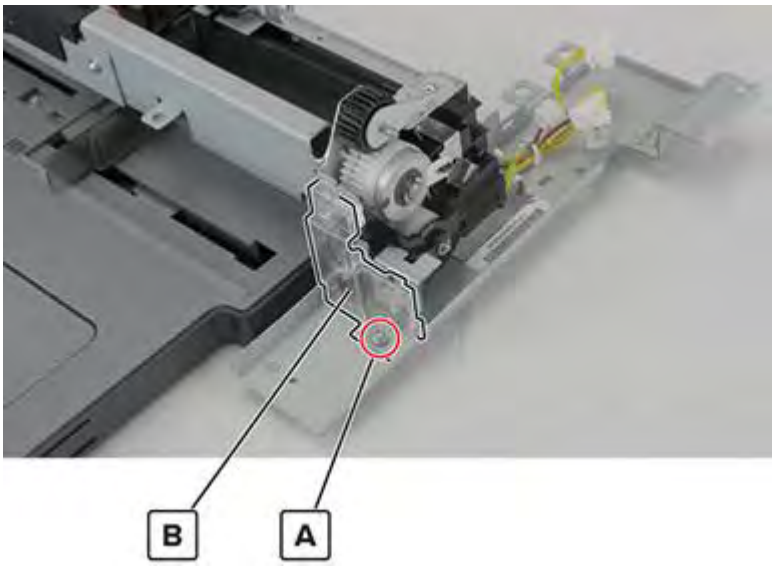
MPF lift plate sensor cable removal

1 Remove the right door lock. See **"Right door lock removal" on page 387**.

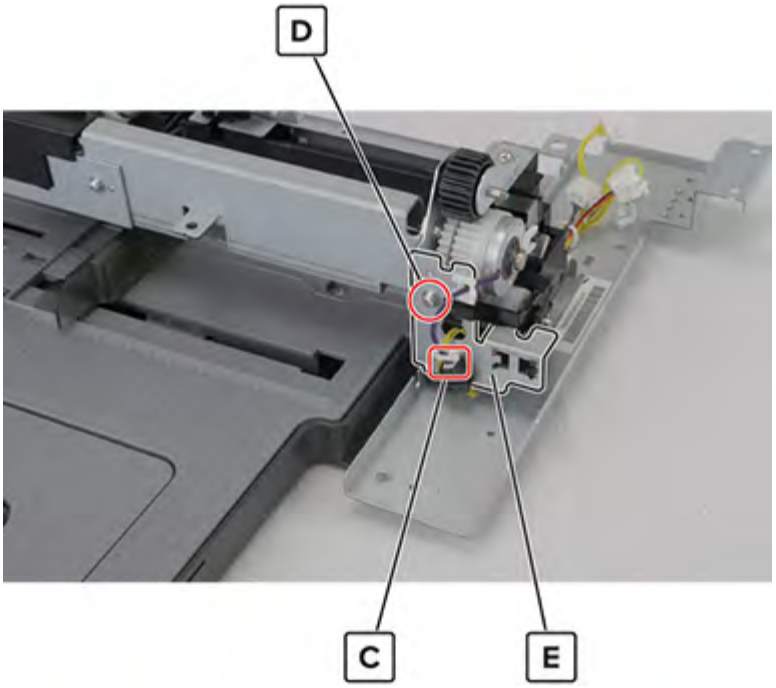
2 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Remove the MPF. See **"MPF removal" on page 389**.

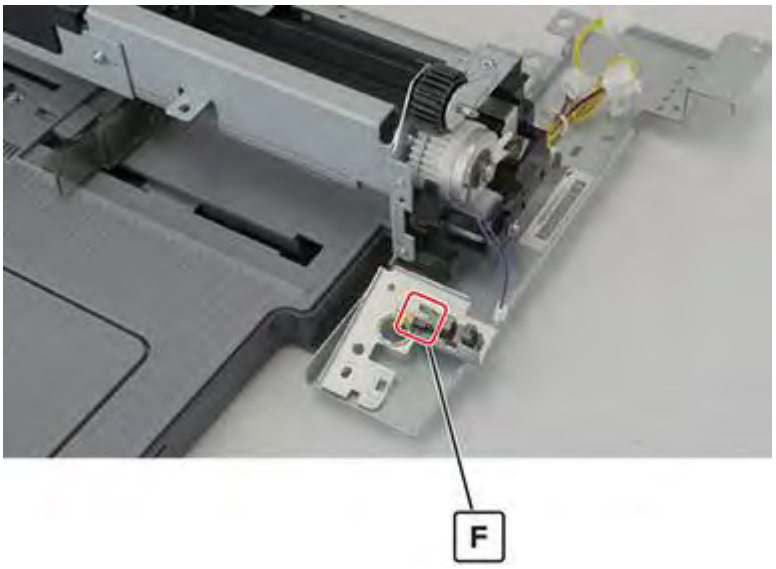
4 Remove the screw (A), and then remove the cover (B).



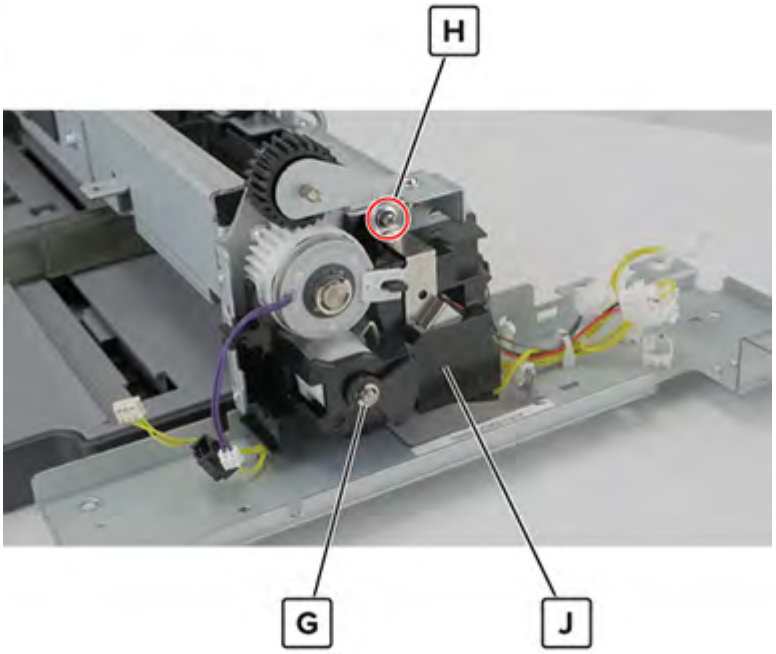
5 Disconnect the cable (C), remove the screw (D), and then remove the bracket (E).



6 Disconnect the cable (F).

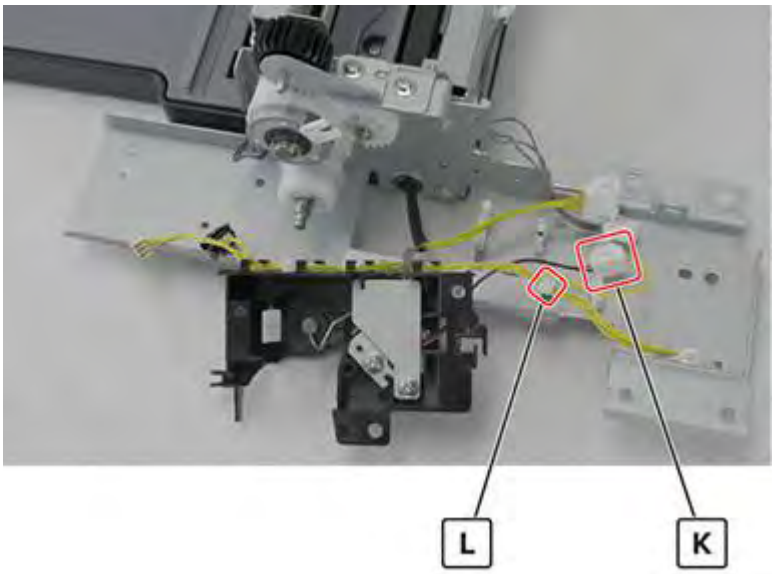


7 Remove the E-clip (G), remove the screw (H), and then remove the bracket (J).



Warning—Potential Damage: Do not lose the ground plate and solenoid actuator.

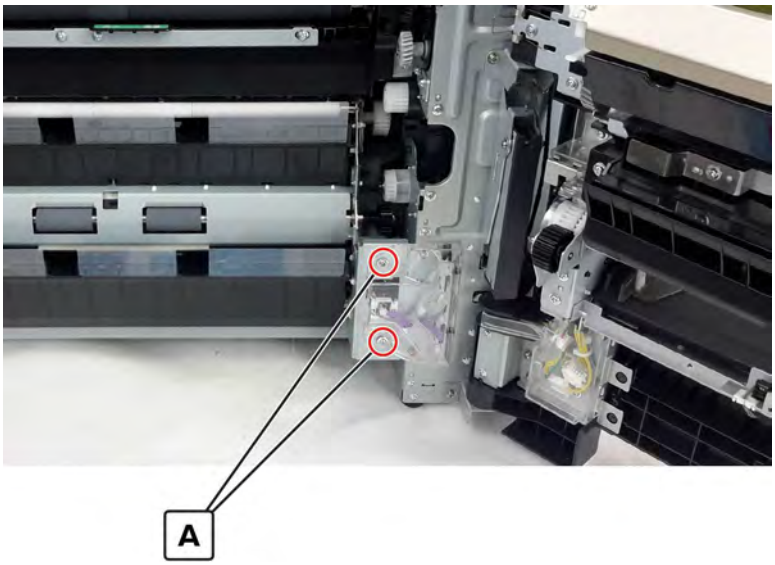
8 Disconnect the cable (K), and then remove the cable (L).



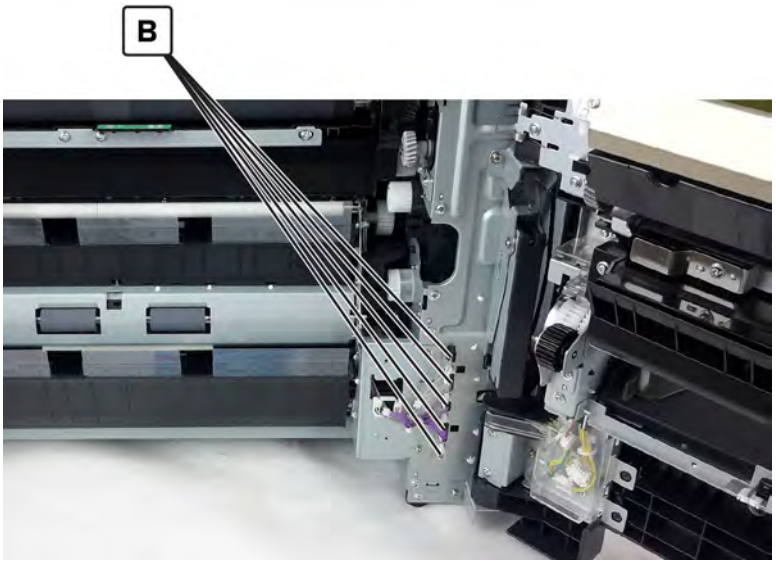
Tray 1 and 2 paper feed unit removal

1 Open the right door, remove the two screws (A), and then remove the cover.

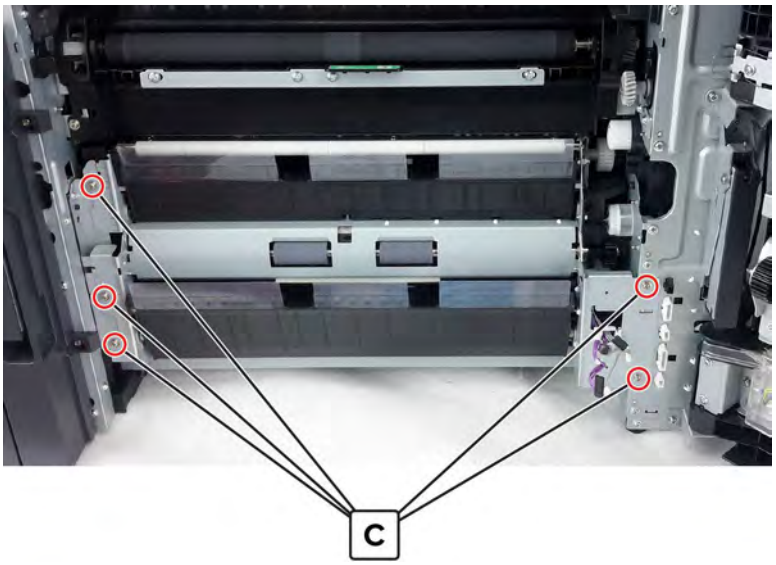
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



2 Open tray 1 and tray 2, and then disconnect the five cables (B).



3 Remove the five screws (C), and then remove the unit.



Registration transport assembly removal

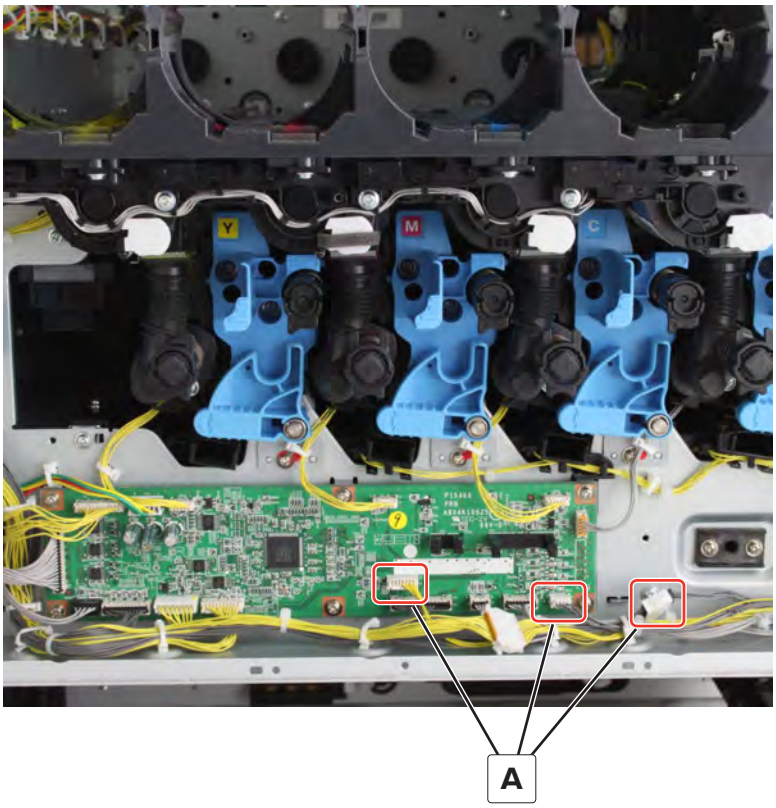
Note: For a video demonstration, see **Registration transport assembly removal**.

1 Remove the front door. See **"Front door removal" on page 487**.

2 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

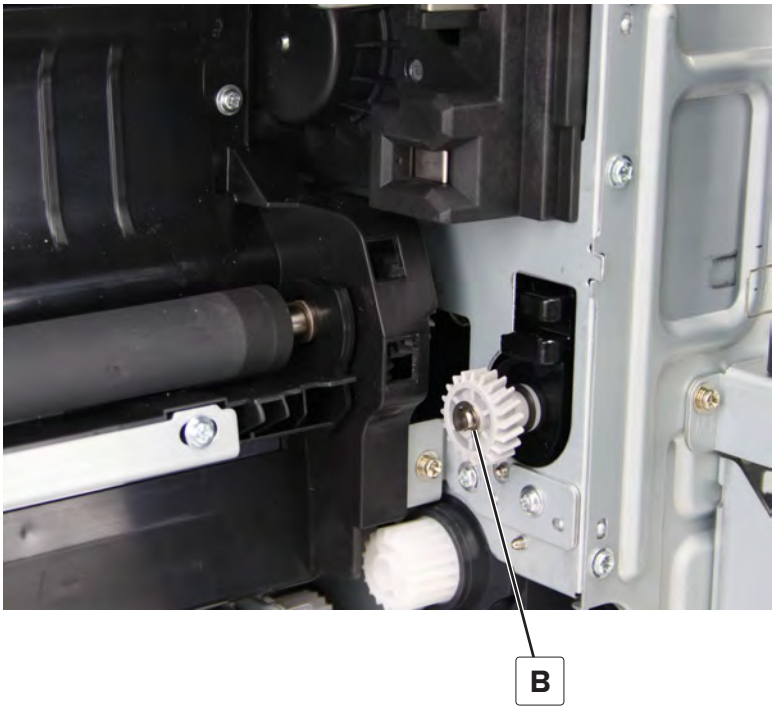
3 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

4 Disconnect the three cables (A).



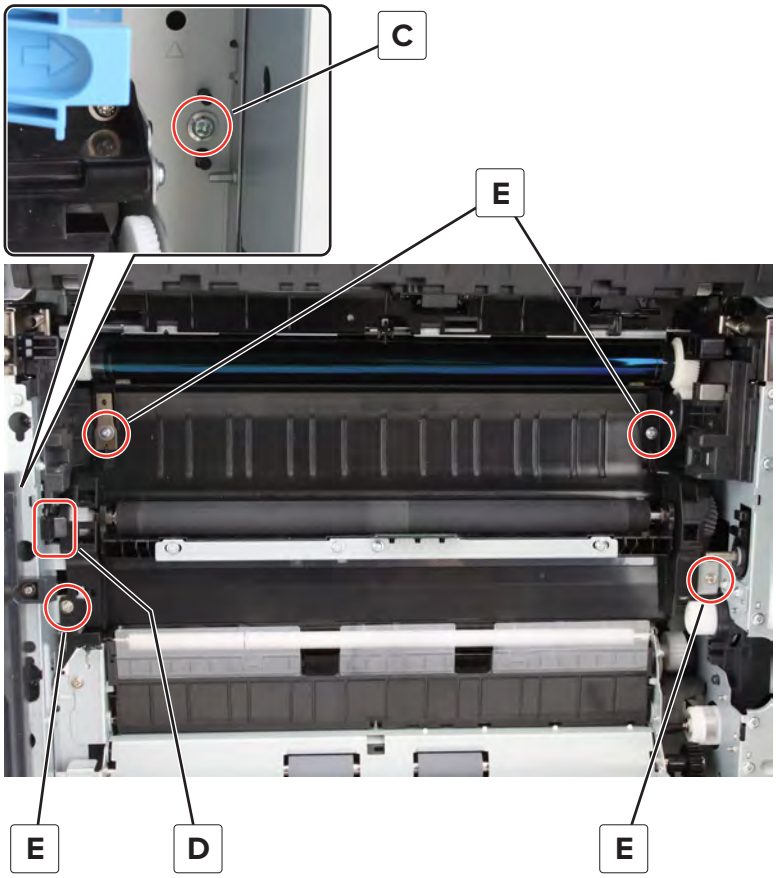
5 Open the right door, remove the E-clip (B), and then remove the gear.

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.



6 Remove the screw (C), and then remove the latch (D).

7 Remove the four screws (E).



8 Remove the assembly.

Sensor (registration humidity) removal

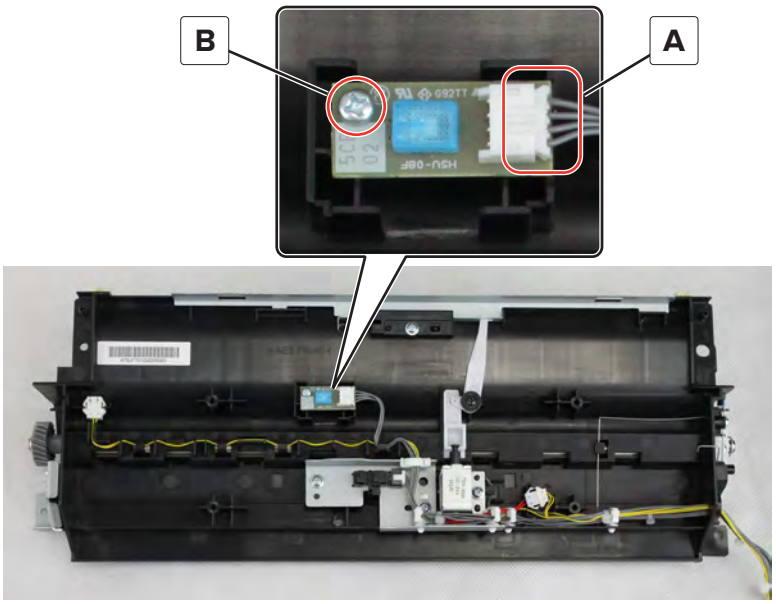
1 Remove the front door. See **“Front door removal” on page 487**.

2 Remove the front inner cover. See **“Front inner cover removal” on page 515**.

3 Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.

4 Remove the registration transport assembly. See **“Registration transport assembly removal” on page 432**.

5 Disconnect the cable (A), and then remove the screw (B).



6 Remove the sensor.

Toner density solenoid removal

1 Remove the front door. See **"Front door removal" on page 487**.

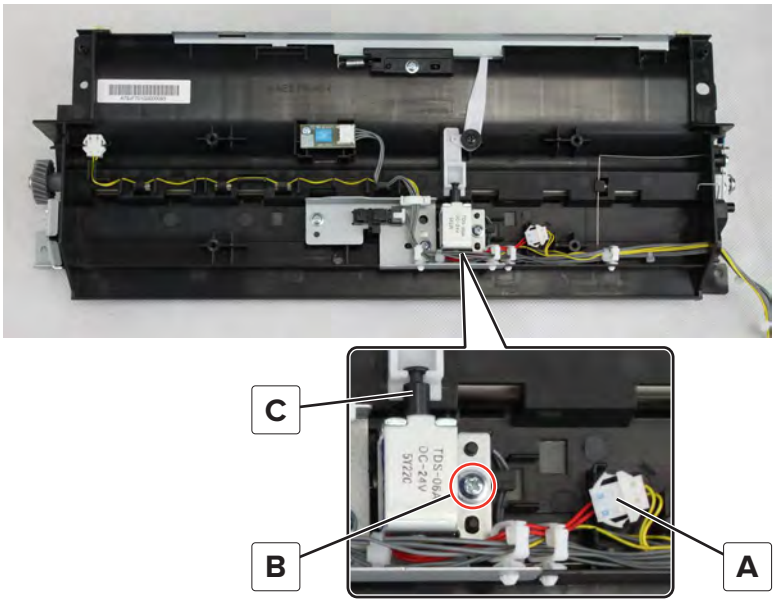
2 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

3 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

4 Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.

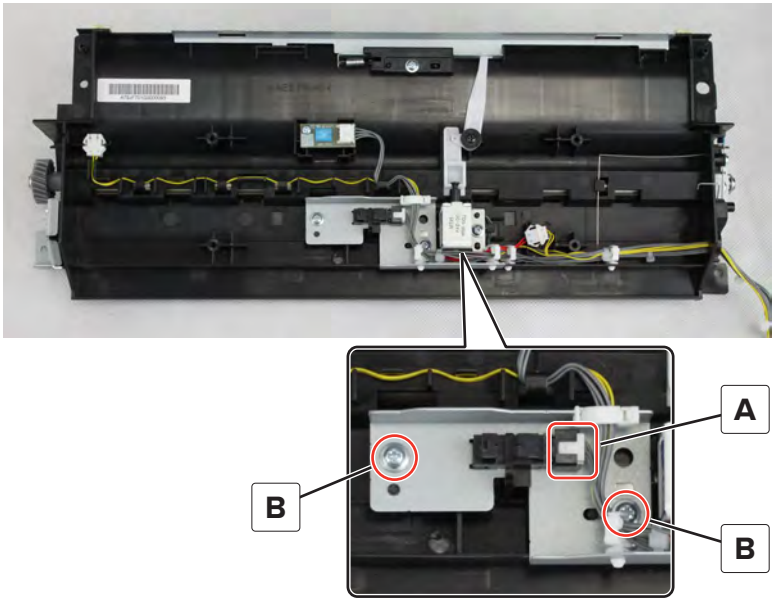
5 Disconnect the cable (A), remove the screw (B), and then remove the solenoid.

Warning—Potential Damage: Do not lose the solenoid plunger (C).



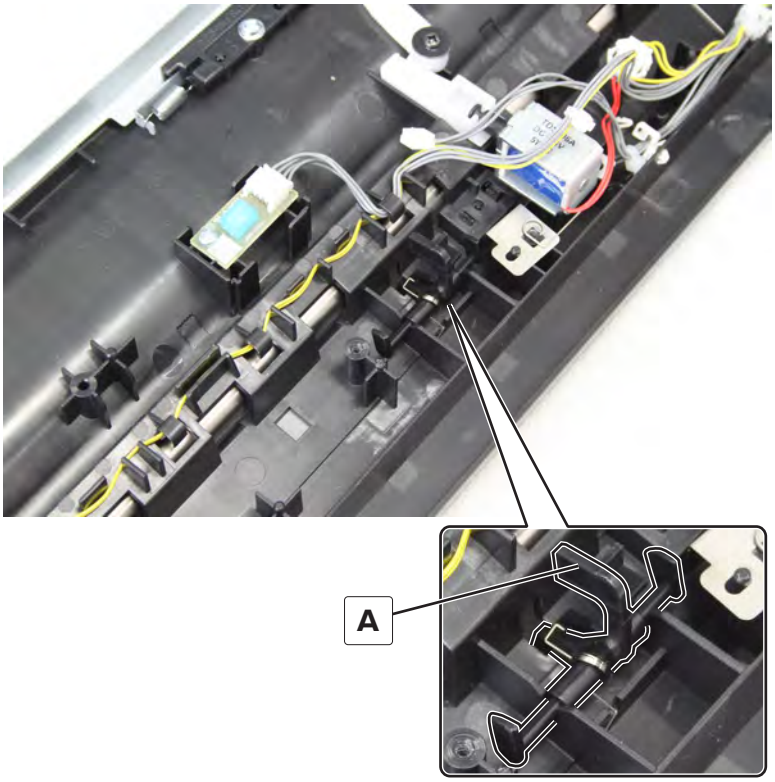
Sensor (registration) removal

1. Remove the front door. See **"Front door removal" on page 487**.
2. Remove the front inner cover. See **"Front inner cover removal" on page 515**.
3. Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.
4. Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.
5. Disconnect the cable (A), and then release it from the sensor bracket.
6. Remove the two screws (B), and then remove the sensor bracket.



7. Remove the sensor.

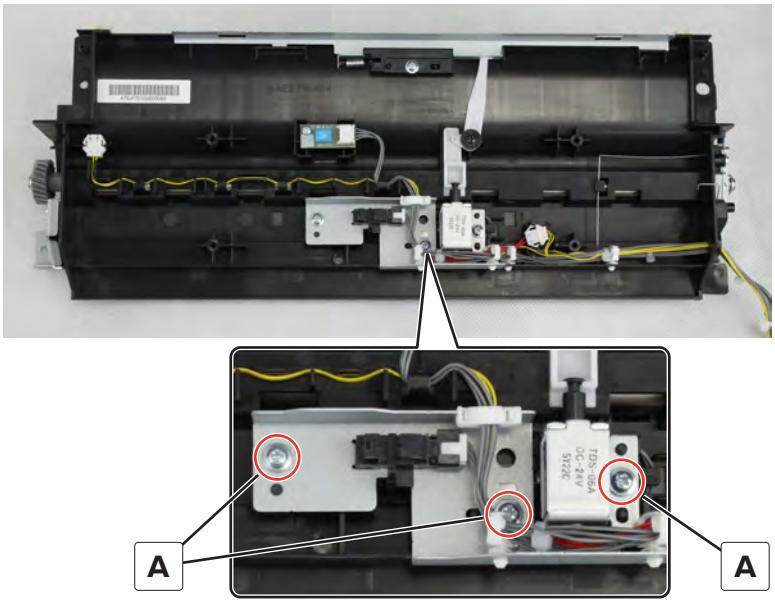
Installation note: Make sure that the sensor actuator (A) is properly installed. Toggle the actuator to check it for proper operation.



Sensor (registration trailing edge) removal

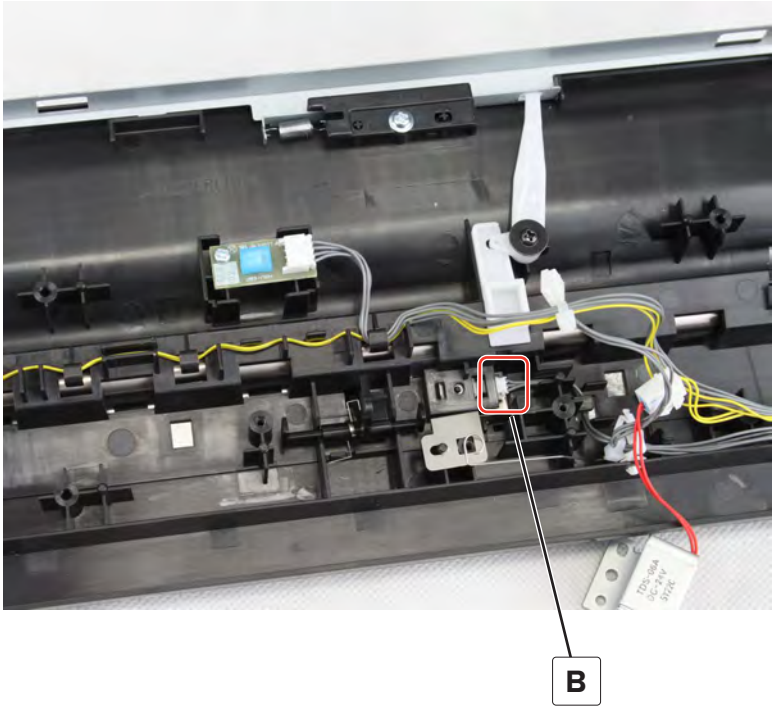
1. Remove the front door. See **"Front door removal" on page 487**.
2. Remove the front inner cover. See **"Front inner cover removal" on page 515**.
3. Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.
4. Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.

5 Release the cables from the sensor bracket, and then remove the three screws (A).



6 Pull the sensor bracket and solenoid.

7 Disconnect the sensor cable (B), and then remove the sensor.



Registration primary gear removal

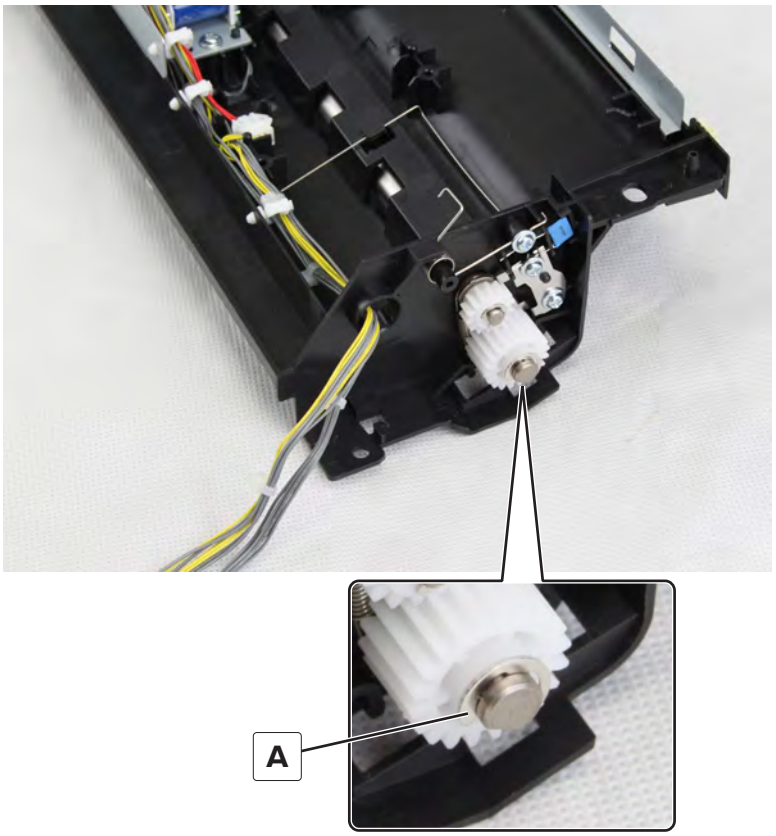
1 Remove the front door. See **"Front door removal" on page 487**.

2 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

3 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

4 Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.

5 Remove the E-clip (A), and then remove the gear.



Registration secondary gear removal

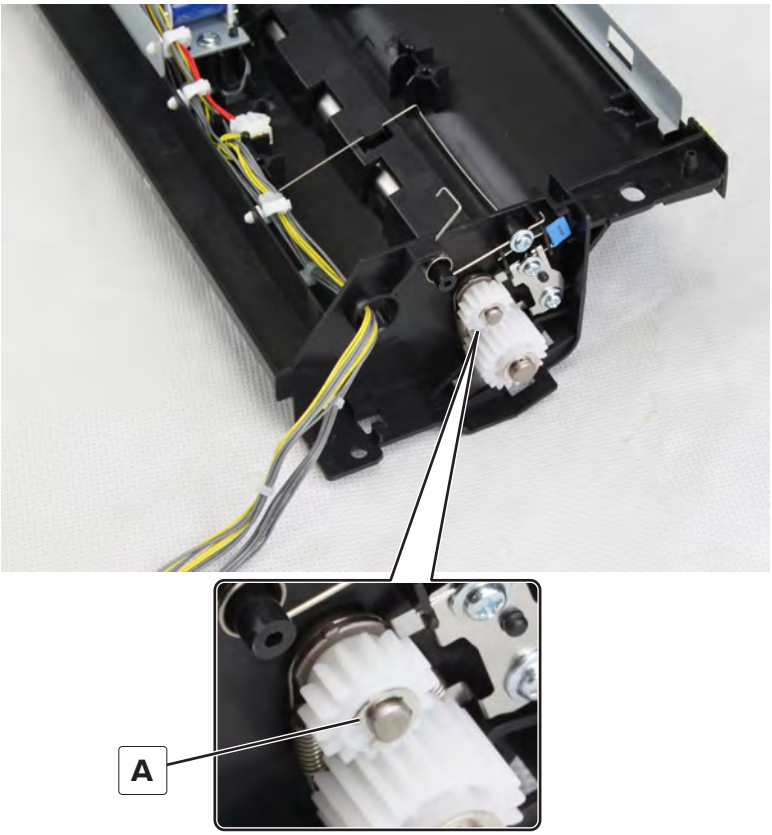
1 Remove the front door. See **"Front door removal" on page 487**.

2 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

3 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

4 Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.

5 Remove the E-clip (A), and then remove the gear.

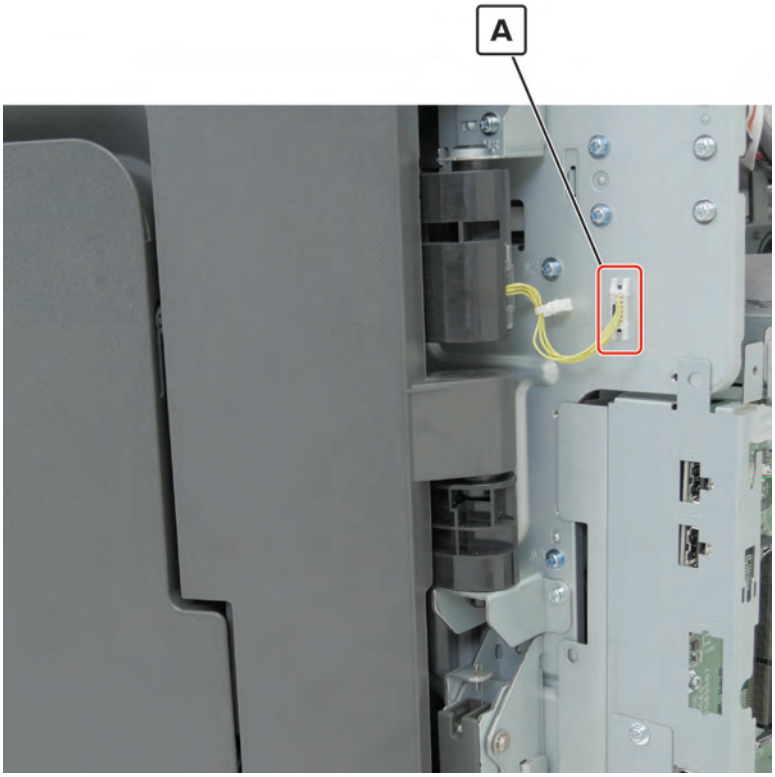


Registration unit assembly removal

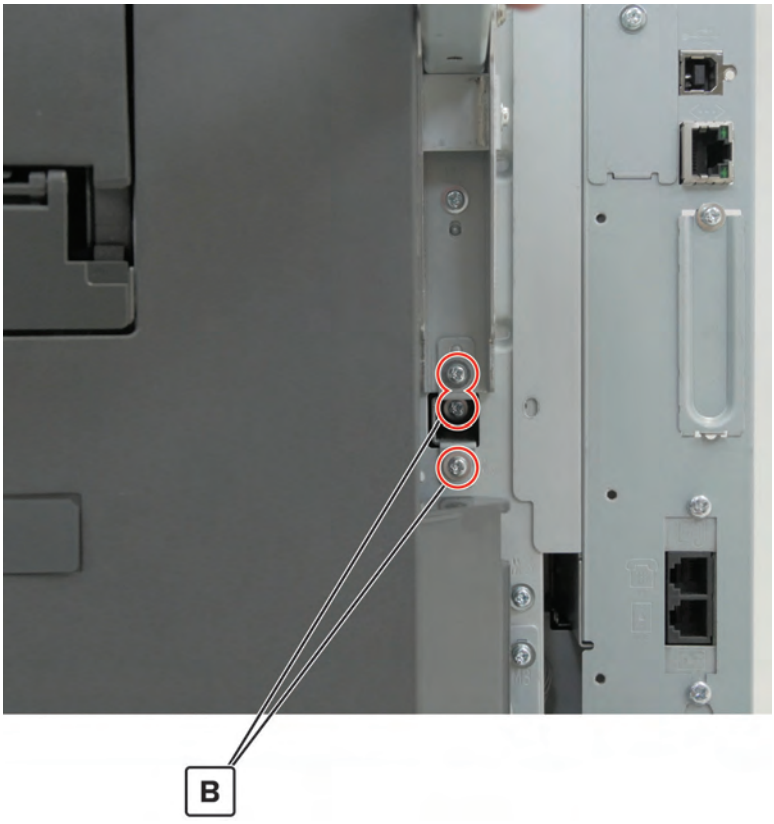
1 Remove the port access door. See **“Port access door removal” on page 363**.

2 Remove the port mount. See **“Port mount removal” on page 364**.

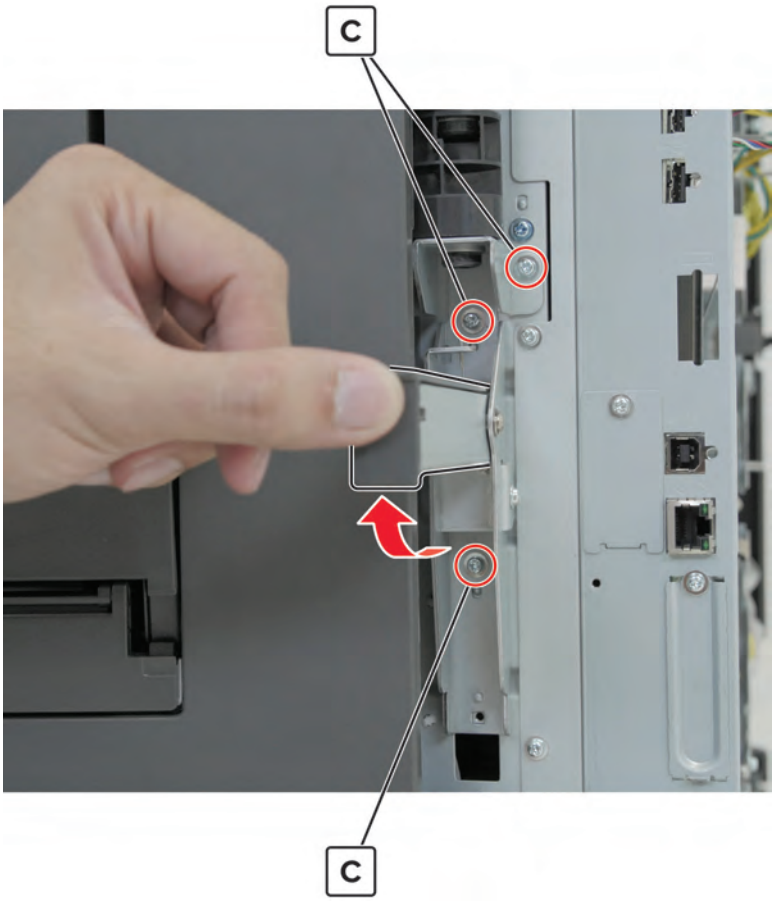
3 Disconnect the cable (A).



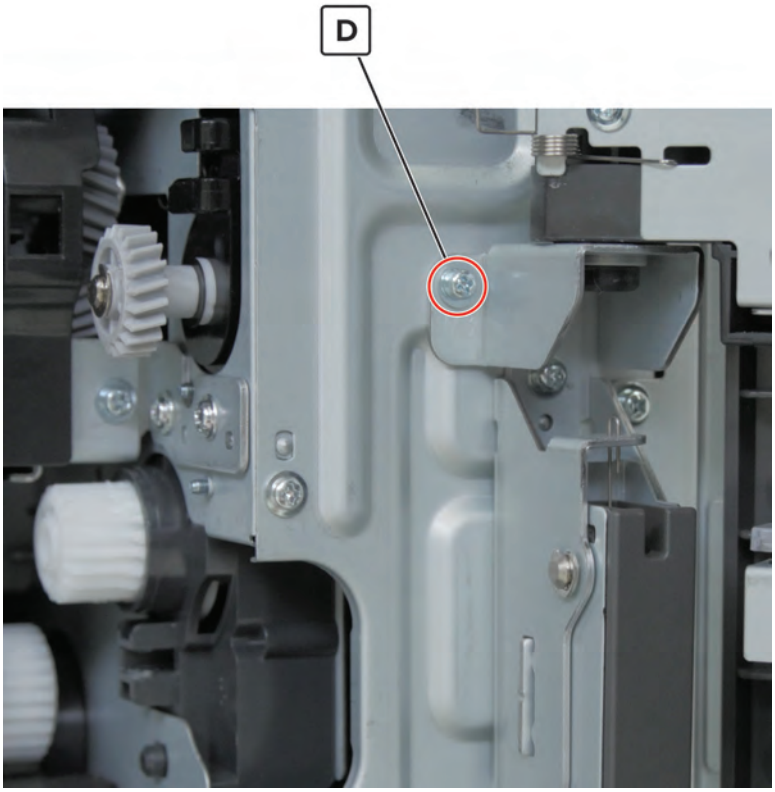
4 Remove the three screws (B), and then remove the bracket.



5 Raise the rear right handle, and then remove the three screws (C).

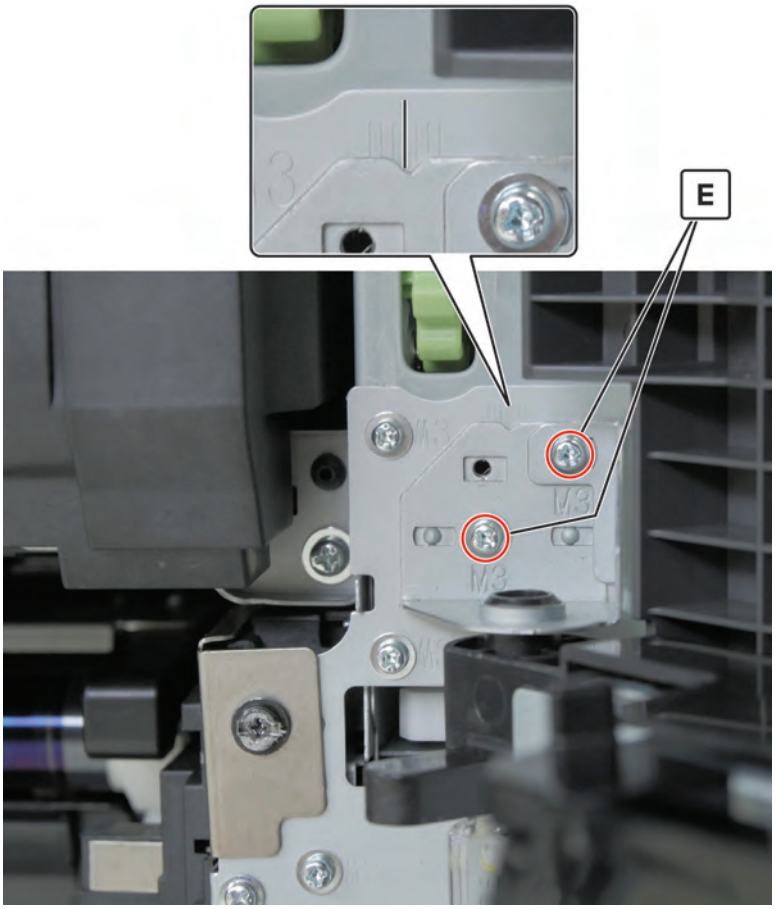


6 Open the right door, remove the screw (D), and then remove the rear right handle.



7 Remove the two screws (E), and then remove the hinge.

Installation note: Pay attention to the original alignment of the hinge bracket.



8 Remove the registration unit assembly.

Registration unit sub-assembly removal

Note: This part is not a FRU.

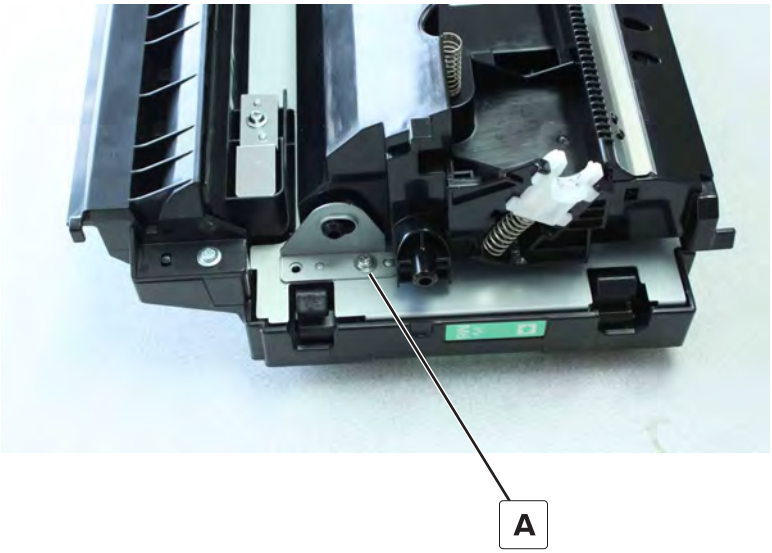
1 Remove the port access door. See **"Port access door removal" on page 363**.

2 Remove the port mount. See **"Port mount removal" on page 364**.

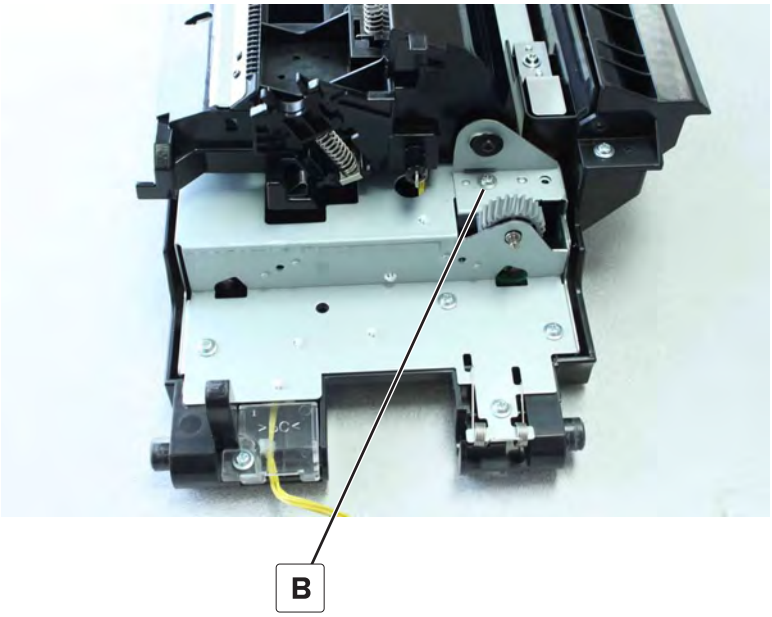
3 Remove the USB port cover. See **"USB port cover removal" on page 365**.

4 Remove the registration unit assembly. See **"Registration unit assembly removal" on page 440**.

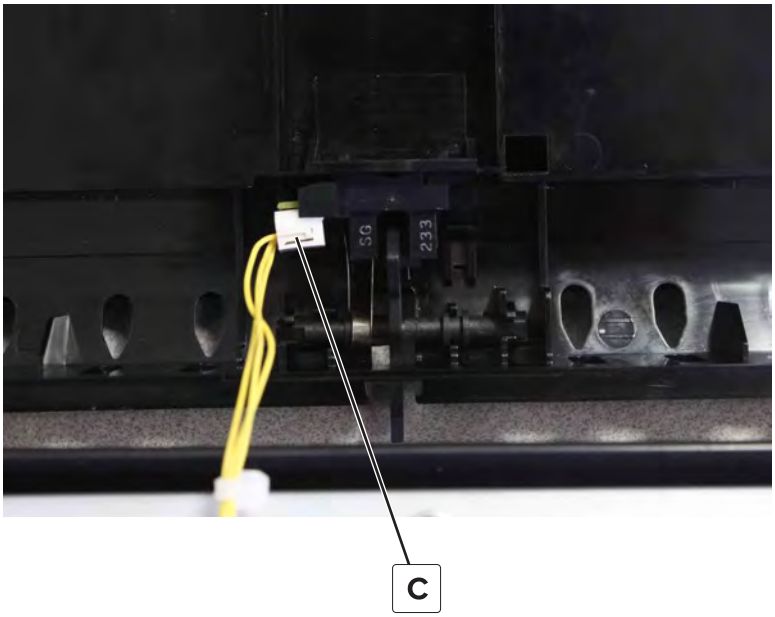
5 Remove the screw (A) from the right bracket.



6 Remove the screw (B) from the left bracket.

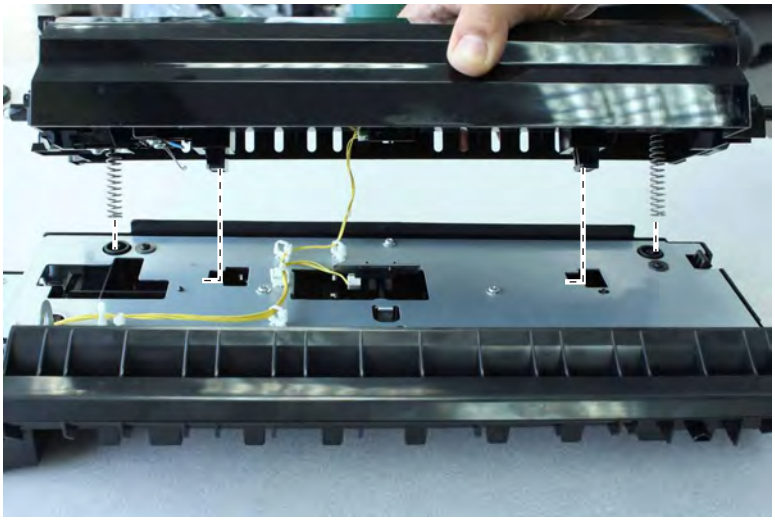


7 Disconnect the cable (C), and then remove the sub-assembly.



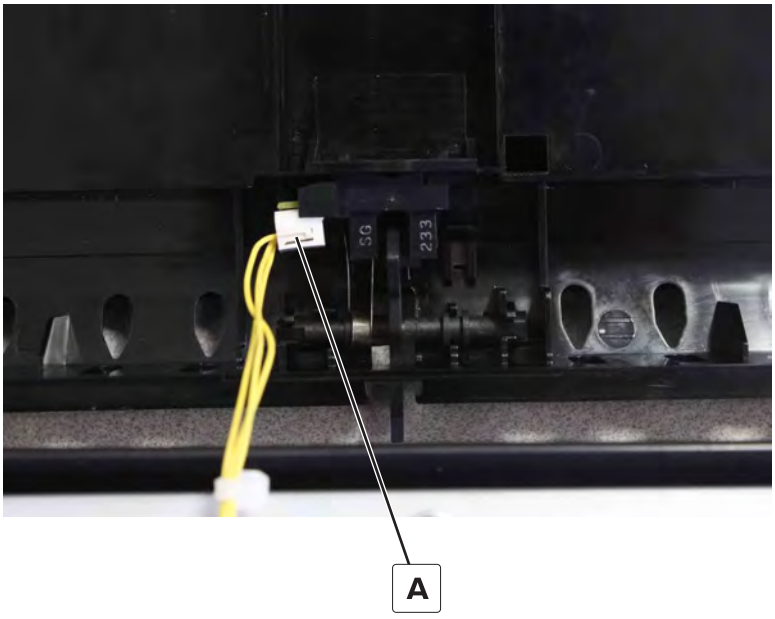
CAUTION—POTENTIAL INJURY: This part has sharp points. To avoid the risk of a laceration injury, use caution when working near it.

Installation note: Align the two springs while pushing down the assembly, and then move the assembly to the left to lock.



Sensor (fusing speed) removal

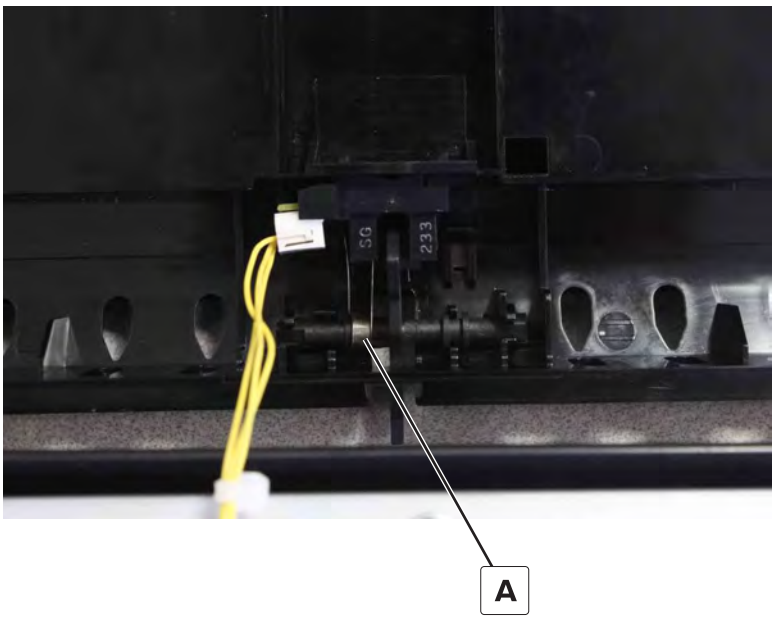
1. Remove the port access door. See **"Port access door removal" on page 363**.
2. Remove the port mount. See **"Port mount removal" on page 364**.
3. Remove the USB port cover. See **"USB port cover removal" on page 365**.
4. Remove the registration unit assembly. See **"Registration unit assembly removal" on page 440**.
5. Remove the registration unit sub-assembly. See **"Registration unit sub-assembly removal" on page 444**.
6. Disconnect the cable (A), and then remove the sensor.



Fusing speed sensor actuator removal

1. Remove the port access door. See **"Port access door removal" on page 363**.
2. Remove the port mount. See **"Port mount removal" on page 364**.
3. Remove the USB port cover. See **"USB port cover removal" on page 365**.
4. Remove the registration unit assembly. See **"Registration unit assembly removal" on page 440**.
5. Remove the registration unit sub-assembly. See **"Registration unit sub-assembly removal" on page 444**.
6. Release the spring (A), and then remove the actuator.

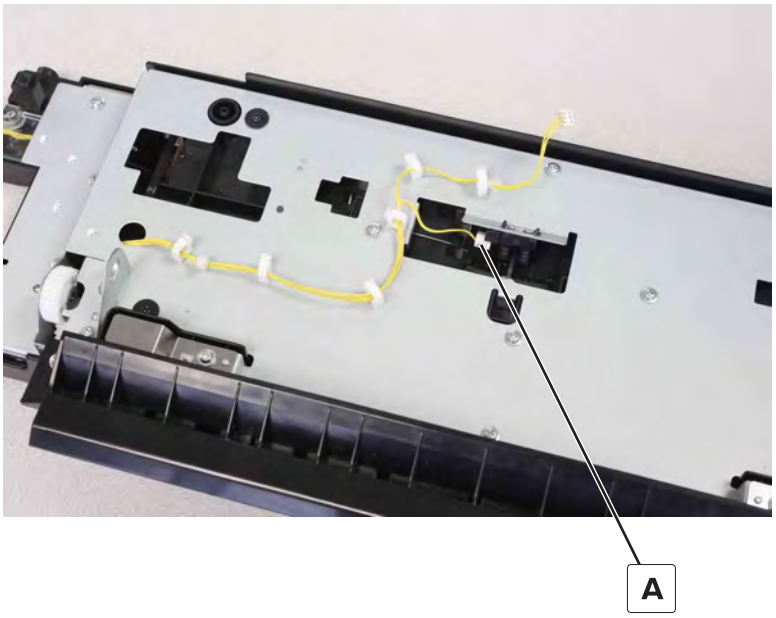
   Installation note: Make sure that the spring (A) is correctly positioned on the actuator base.



Sensor (duplex pass through 2) removal

1. Remove the port access door. See **"Port access door removal" on page 363**.
2. Remove the port mount. See **"Port mount removal" on page 364**.
3. Remove the USB port cover. See **"USB port cover removal" on page 365**.
4. Remove the registration unit assembly. See **"Registration unit assembly removal" on page 440**.
5. Remove the registration unit sub-assembly. See **"Registration unit sub-assembly removal" on page 444**.

6 Disconnect the cable (A), and then remove the sensor.



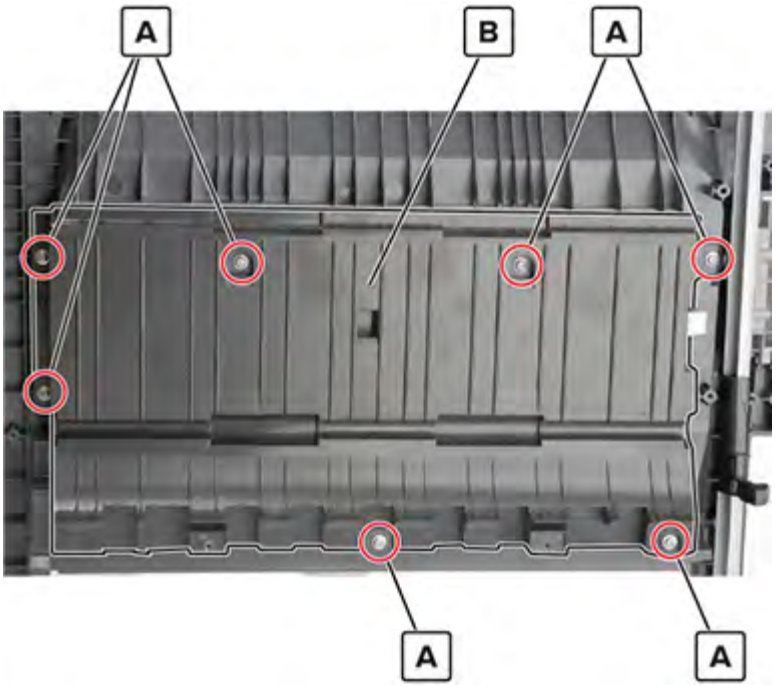
Registration unit lock and spring removal

1 Remove the right door lock. See **"Right door lock removal" on page 387**.

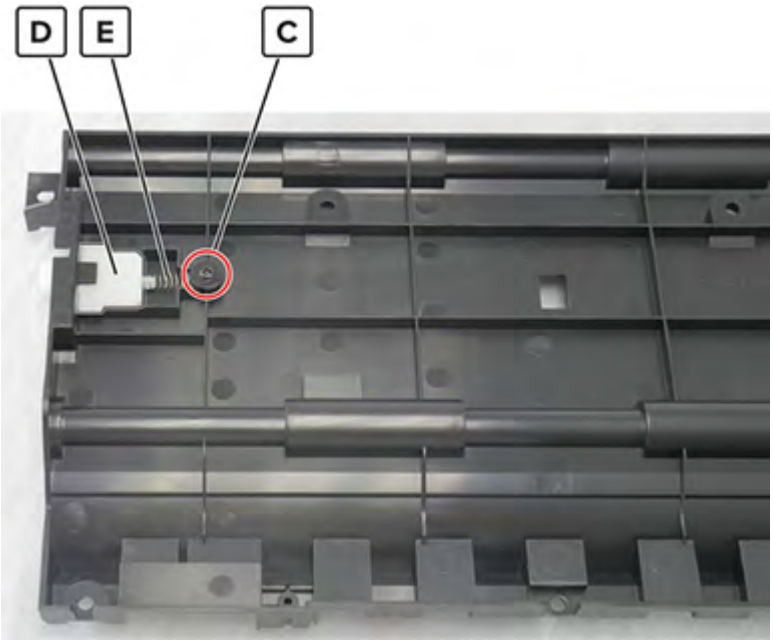
2 Remove the tray 2 transport guide. See **"Tray 2 transport guide removal" on page 388**.

3 Remove the MPF. See **"MPF removal" on page 389**.

4 Remove the seven screws (A), and then remove the paper guide (B).



5 Remove the screw (C), remove the lock (D), and then remove the spring (E).



Registration drive belt removal

1 Remove the port access door. See **“Port access door removal” on page 363**.

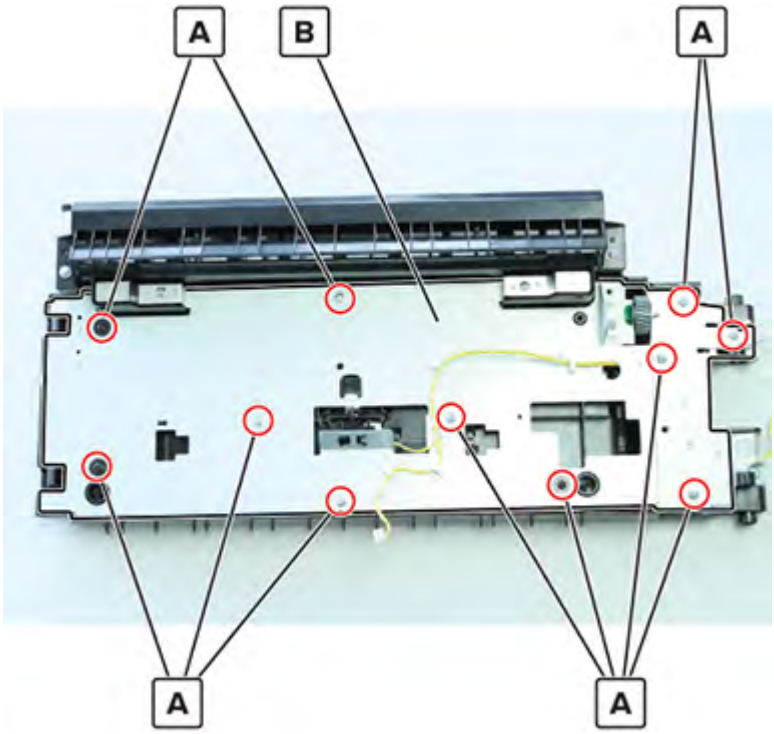
2 Remove the port mount. See **“Port mount removal” on page 364**.

3 Remove the USB port cover. See **“USB port cover removal” on page 365**.

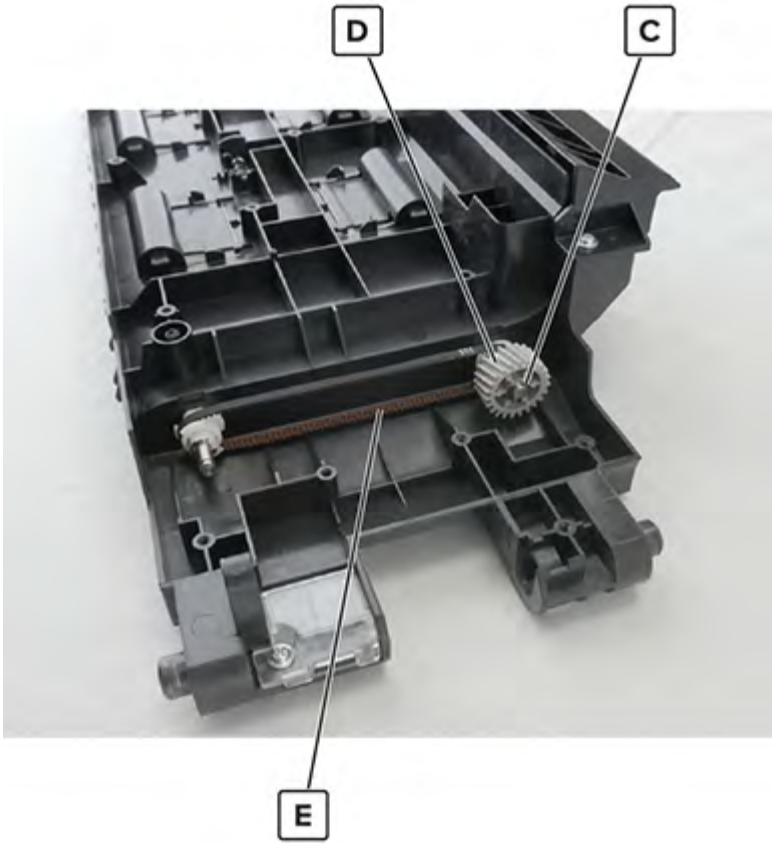
4 Remove the registration unit assembly. See **“Registration unit assembly removal” on page 440**.

5 Remove the registration unit sub-assembly. See **“Registration unit sub-assembly removal” on page 444**.

6 Remove the 11 screws (A), and then remove the plate (B).

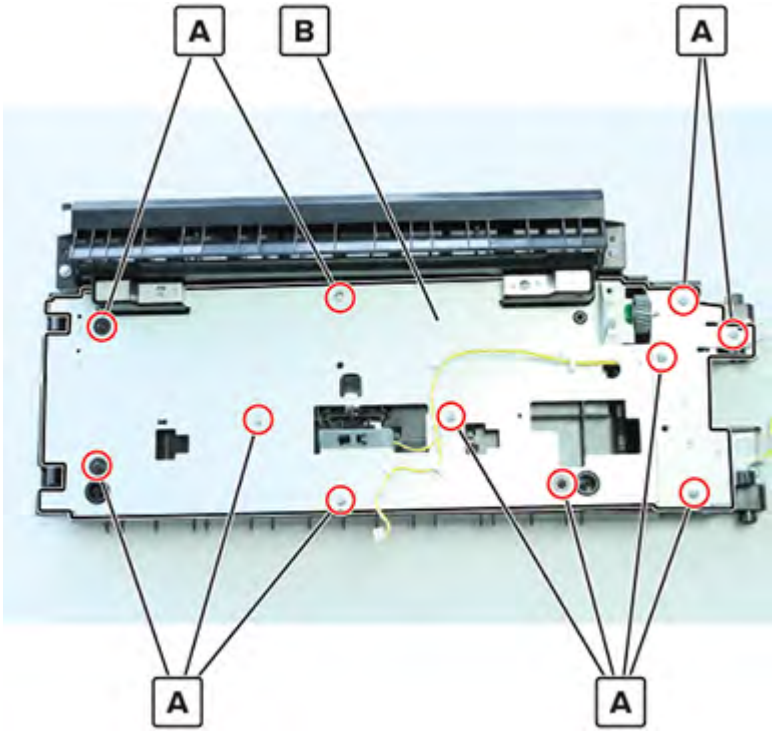


7 Remove the E-clip (C), remove the gear (D), and then remove the belt (E).

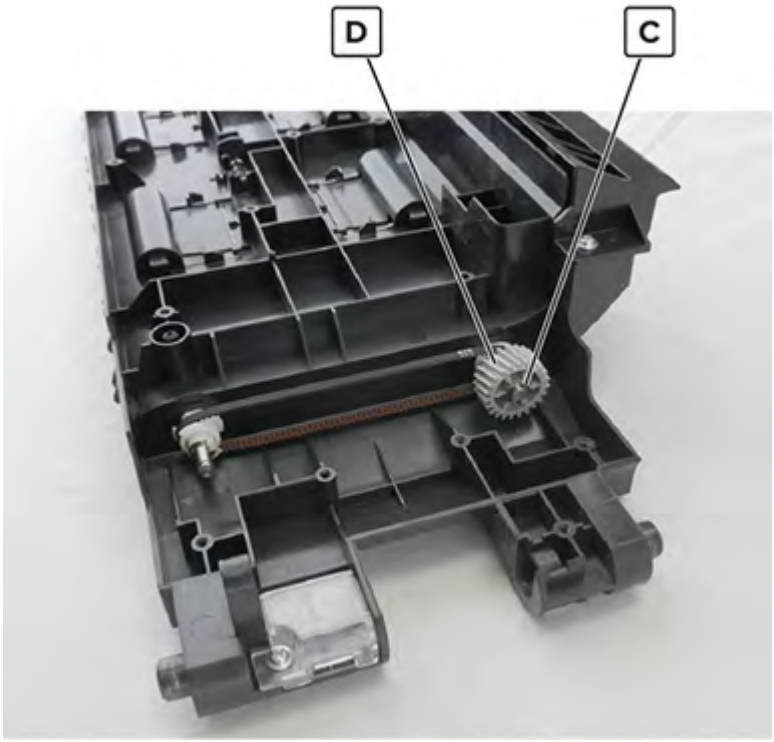


Registration drive gear removal

1. Remove the port access door. See **“Port access door removal” on page 363**.
2. Remove the port mount. See **“Port mount removal” on page 364**.
3. Remove the USB port cover. See **“USB port cover removal” on page 365**.
4. Remove the registration unit assembly. See **“Registration unit assembly removal” on page 440**.
5. Remove the registration unit sub assembly. See **“Registration unit sub-assembly removal” on page 444**.
6. Remove the 11 screws (A), and then remove the plate (B).



7 Remove the E-clip (C), and then remove the gear (D).



Lower registration gear removal

1 Remove the port access door. See **“Port access door removal” on page 363**.

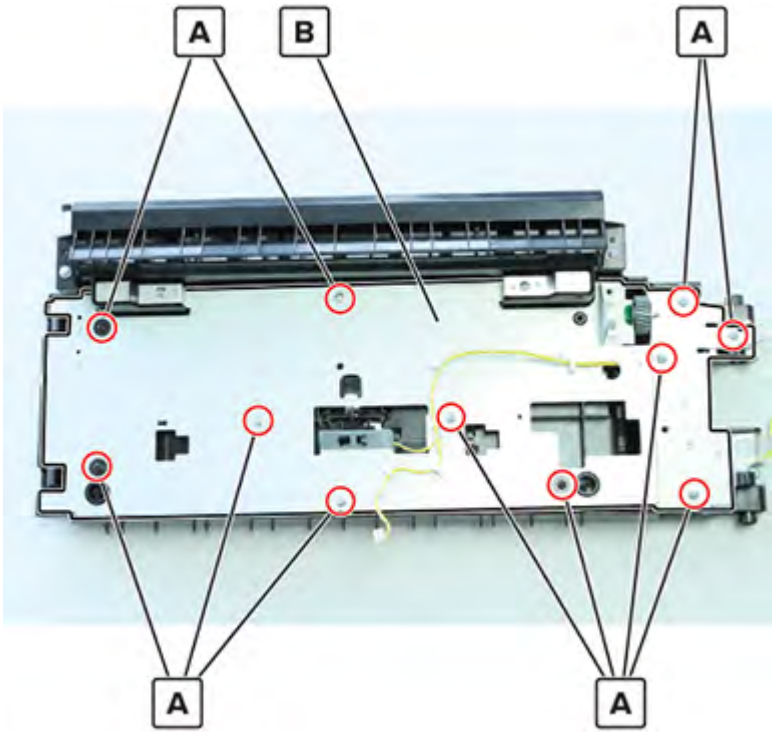
2 Remove the port mount. See **“Port mount removal” on page 364**.

3 Remove the USB port cover. See **“USB port cover removal” on page 365**.

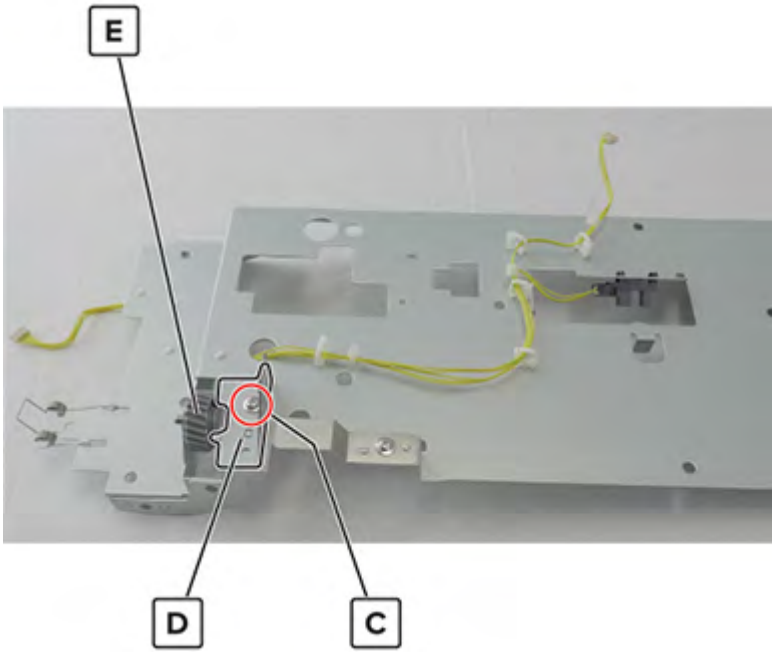
4 Remove the registration unit assembly. See **“Registration unit assembly removal” on page 440**.

5 Remove the registration unit sub assembly. See **“Registration unit sub-assembly removal” on page 444**.

6 Remove the 11 screws (A), and then remove the plate (B).

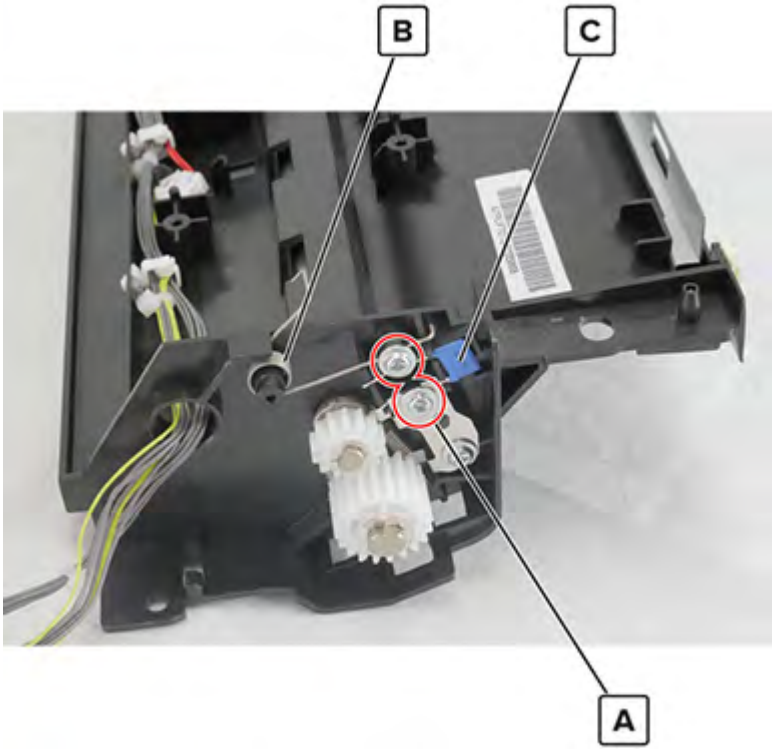


7 Remove the screw (C), remove the bracket (D), and then remove the gear (E).



Registration transport resistor removal

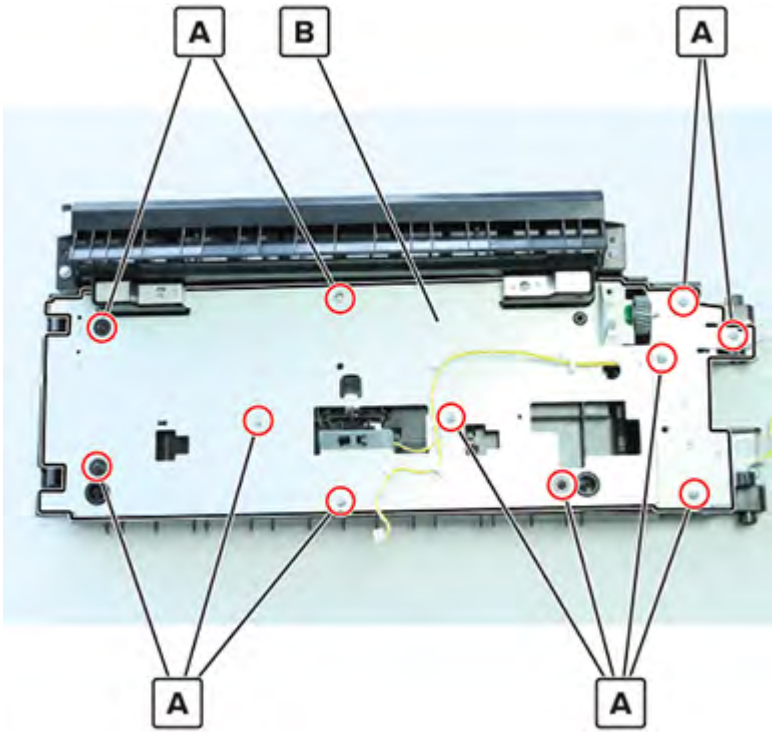
1. Remove the front cover. See **“Waste toner door mount removal” on page 515**.
2. Remove the registration transport assembly. See **“Registration transport assembly removal” on page 432**.
3. Remove the two screws (A), remove the spring (B), and then remove the resistor (C).



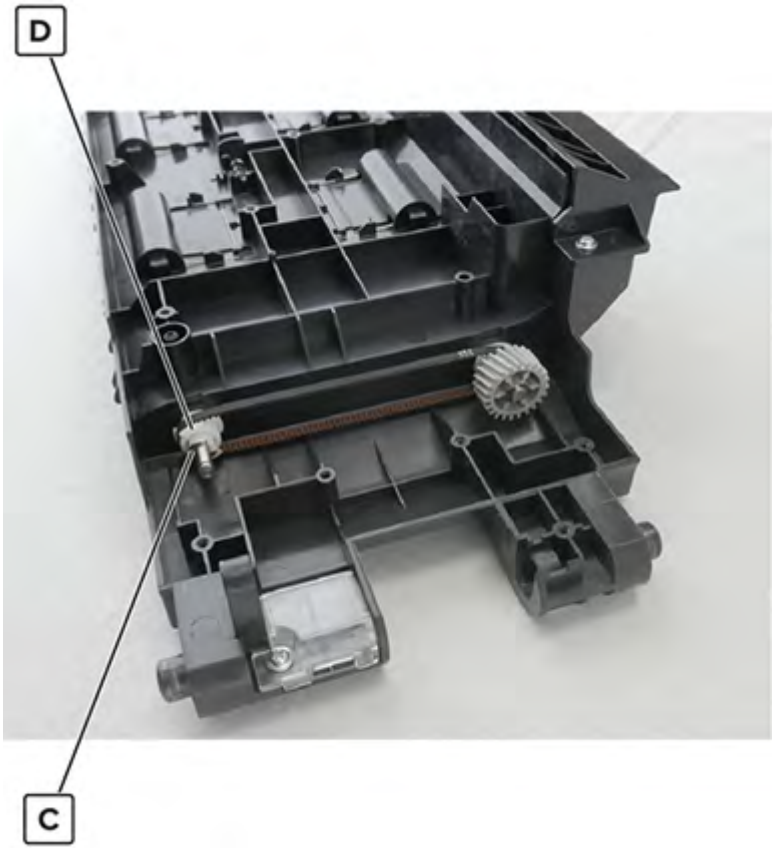
Registration unit gear removal

1. Remove the port access door. See **“Port access door removal” on page 363**.
2. Remove the port mount. See **“Port mount removal” on page 364**.
3. Remove the USB port cover. See **“USB port cover removal” on page 365**.
4. Remove the registration unit assembly. See **“Registration unit assembly removal” on page 440**.
5. Remove the registration unit sub assembly. See **“Registration unit sub-assembly removal” on page 444**.

6 Remove the 11 screws (A), and then remove the plate (B).

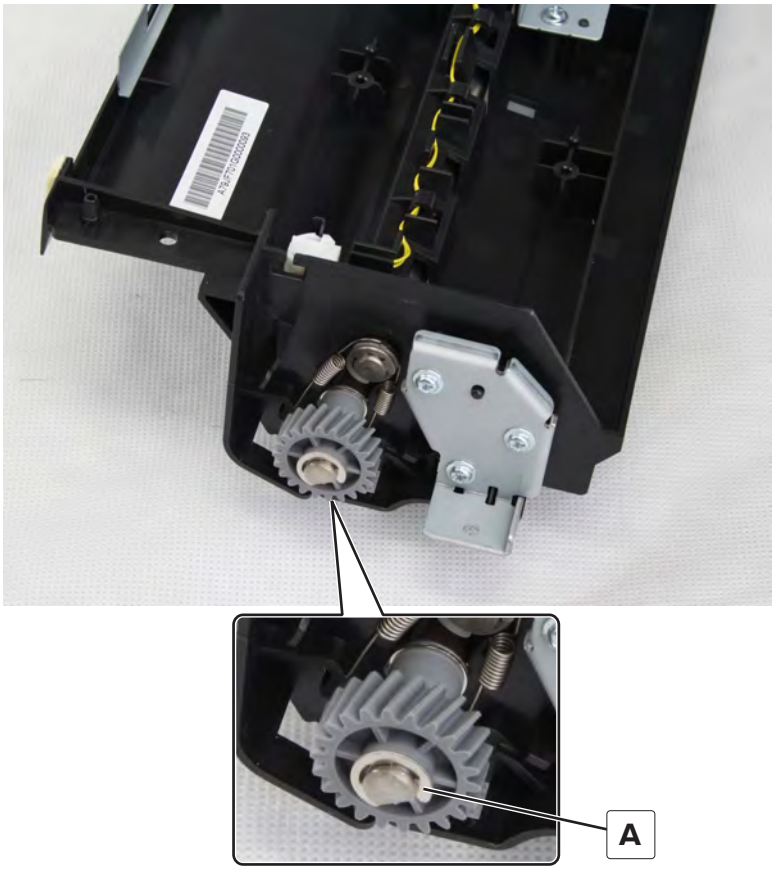


7 Remove the E-clip (C), and then remove the gear (D).



Registration motor gear removal

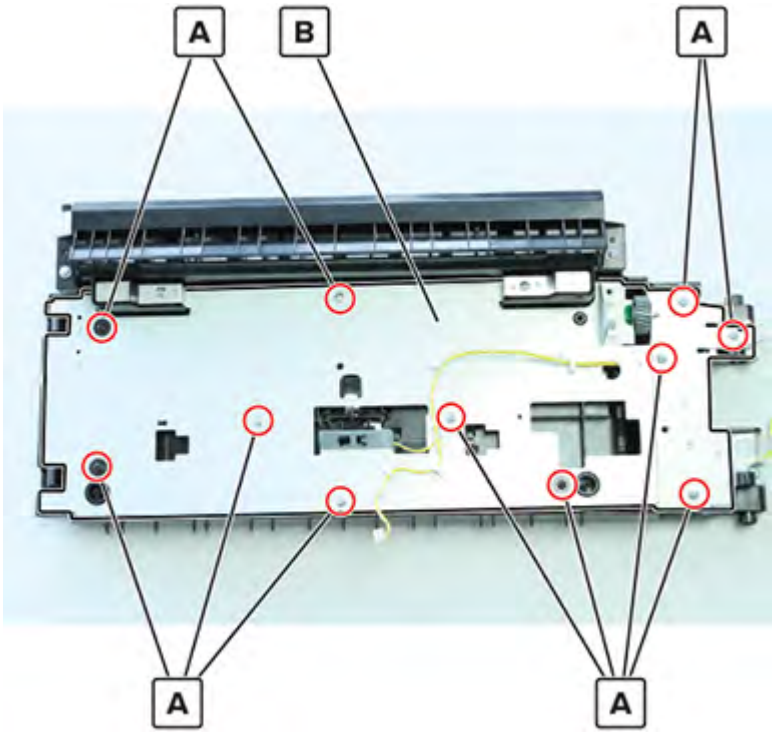
1. Remove the front door. See **“Front door removal” on page 487**.
2. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
3. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
4. Remove the registration transport assembly. See **“Registration transport assembly removal” on page 432**.
5. Remove the E-clip (A), and then remove the gear.



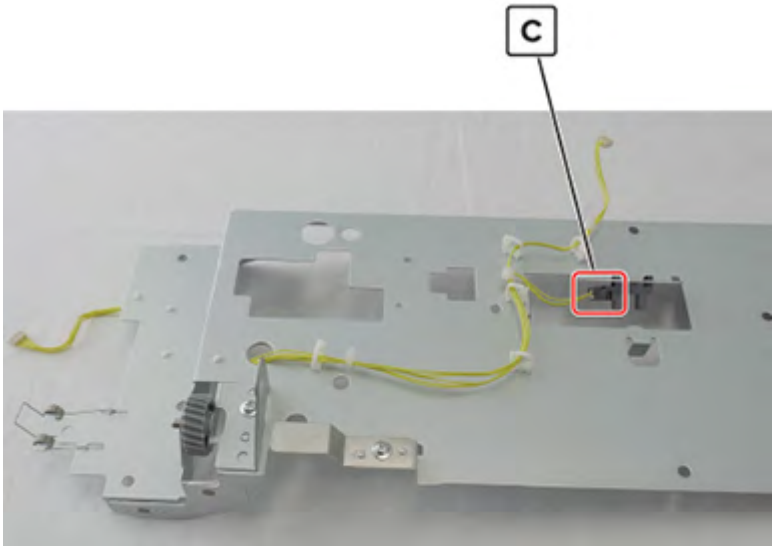
Registration unit sensor cable removal

1. Remove the port access door. See **“Port access door removal” on page 363**.
2. Remove the port mount. See **“Port mount removal” on page 364**.
3. Remove the USB port cover. See **“USB port cover removal” on page 365**.
4. Remove the registration unit assembly. See **“Registration unit assembly removal” on page 440**.
5. Remove the registration unit sub assembly. See **“Registration unit sub-assembly removal” on page 444**.

6 Remove the 11 screws (A), and then remove the plate (B).



7 Disconnect the cable (C), and then remove the cable from the cable guides.



Registration unit handle removal

1 Remove the port access door. See **"Port access door removal" on page 363**.

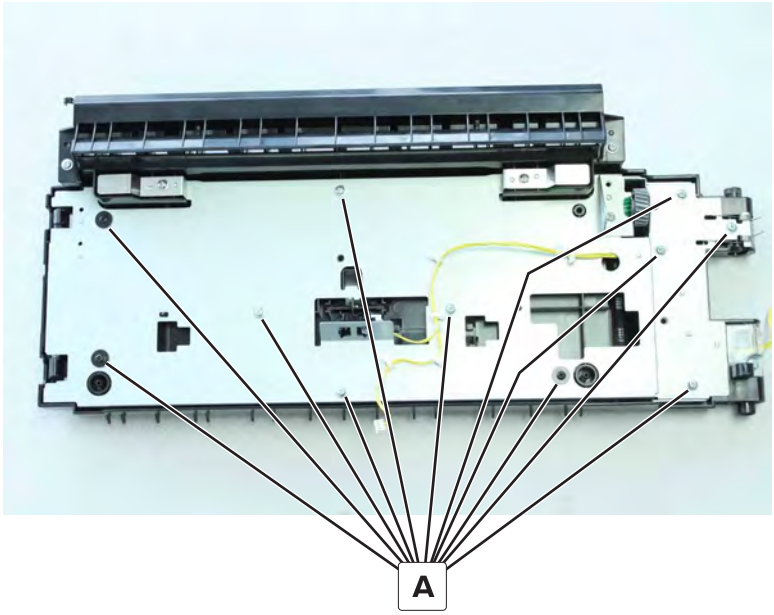
2 Remove the port mount. See **"Port mount removal" on page 364**.

3 Remove the USB port cover. See **"USB port cover removal" on page 365**.

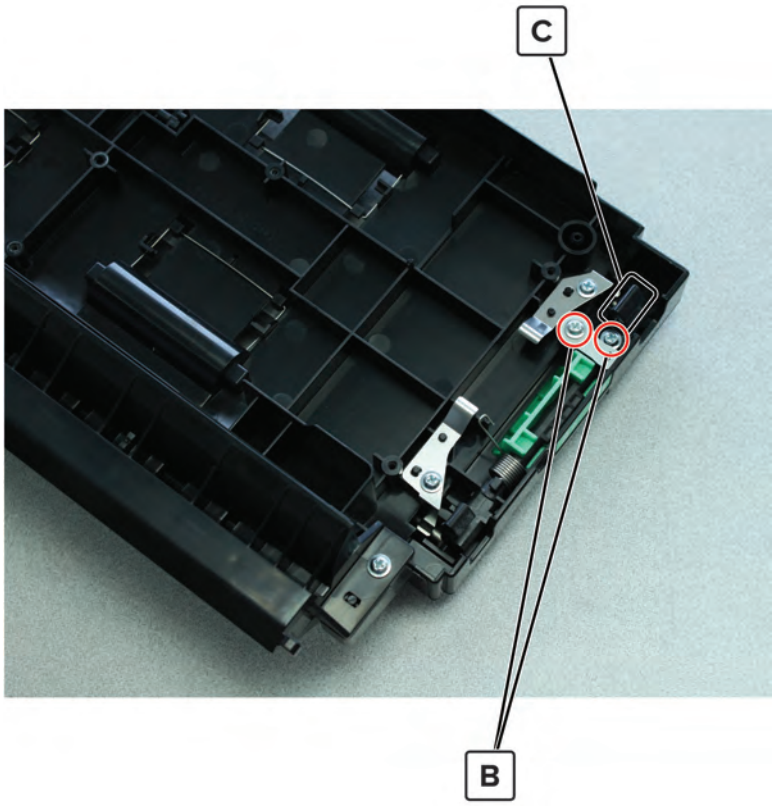
4 Remove the registration unit assembly. See **"Registration unit assembly removal" on page 440**.

5 Remove the registration unit sub-assembly. See **"Registration unit sub-assembly removal" on page 444**.

6 Remove the 11 screws (A), and then remove the plate.



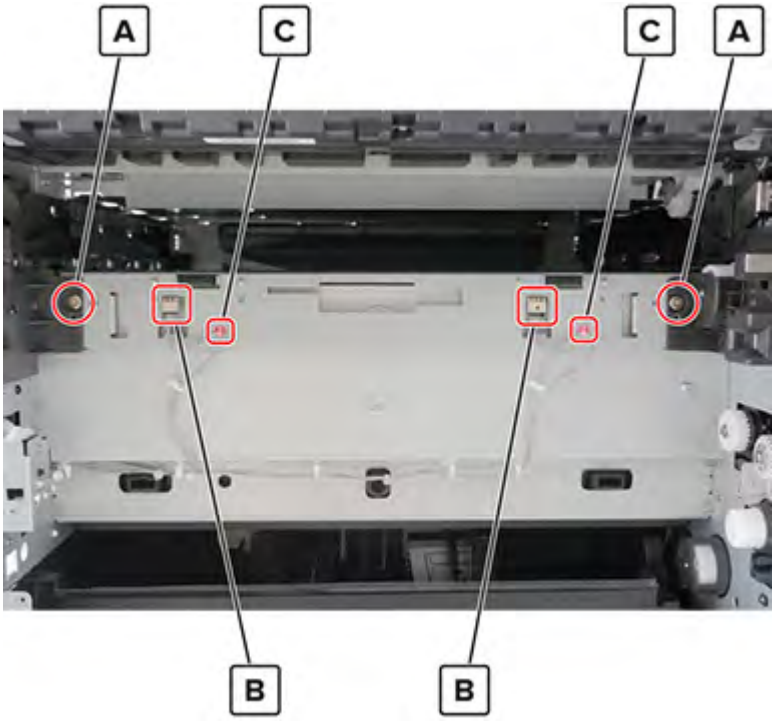
7 Remove the two screws (B), and then remove the registration unit lock (C).



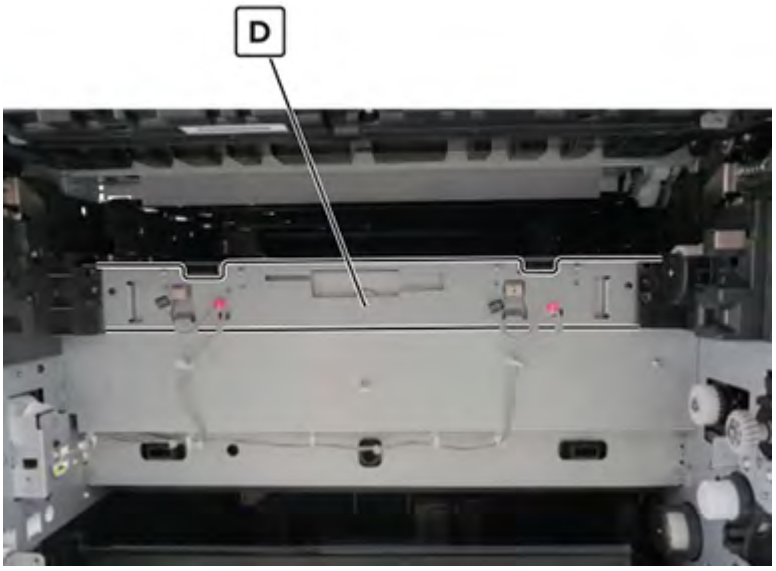
8 Separate the registration unit handle from the registration unit lock shaft.

Sensor (front toner density) removal

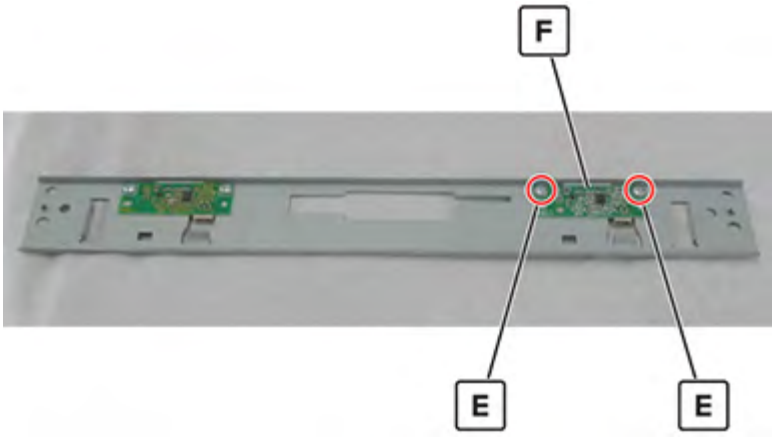
1. Remove the transfer belt. See **“Transfer belt removal” on page 367**.
2. Remove the front door. See **“Front door removal” on page 487**.
3. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
4. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
5. Remove the registration transport assembly. See **“Registration transport assembly removal” on page 432**.
6. Remove the two screws (A), disconnect the two cables (B), and then remove the cables from the cable guides (C).



7 Remove the bracket (D).



8 Remove the two screws (E), and then remove the sensor (F).



Sensor (rear toner density) removal

1 Remove the transfer belt. See **"Transfer belt removal" on page 367**.

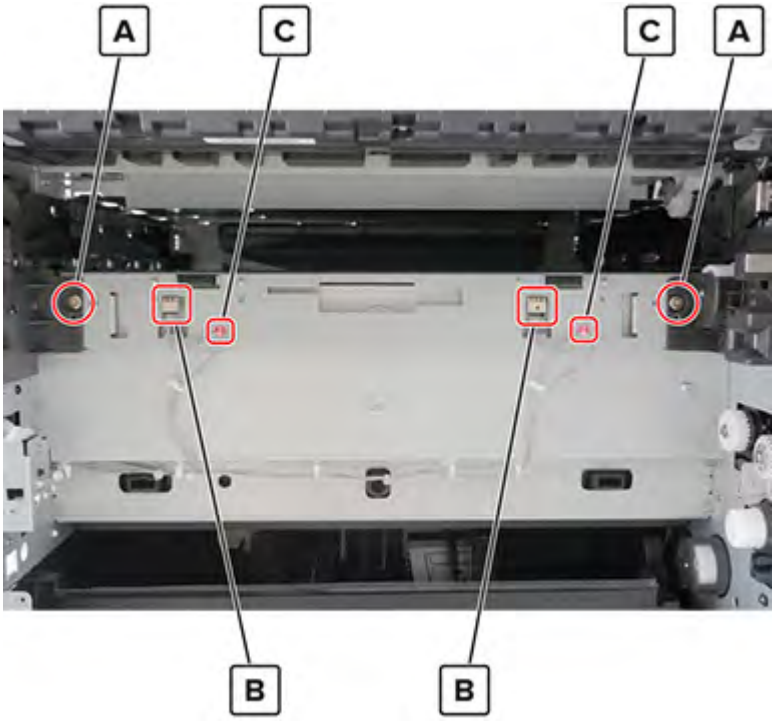
2 Remove the front door. See **"Front door removal" on page 487**.

3 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

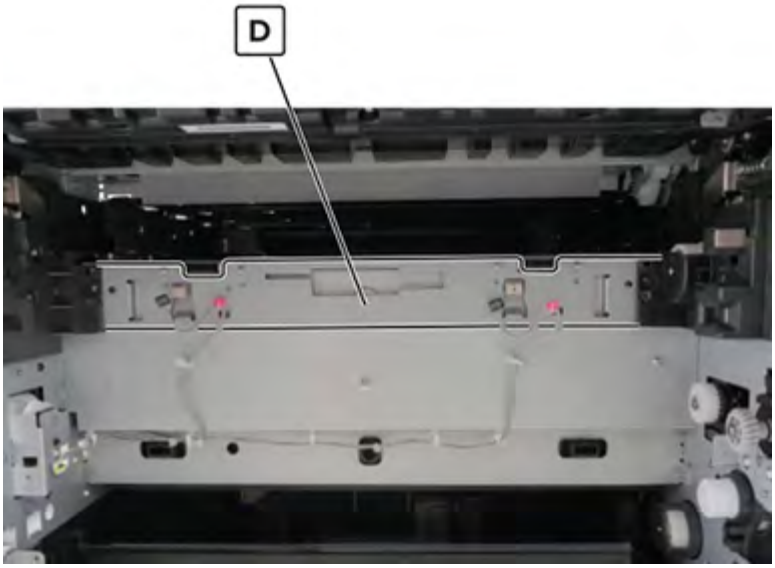
4 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

5 Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.

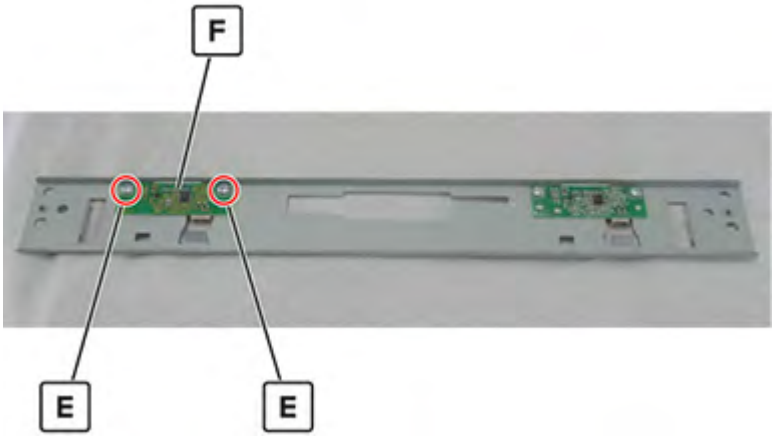
6 Remove the two screws (A), disconnect the two cables (B), and then remove the cables from the cable guides (C).



7 Remove the bracket (D).



8 Remove the two screws (E), and then remove the sensor (F).



Toner density sensor cable removal

1 Remove the transfer belt. See **"Transfer belt removal" on page 367**.

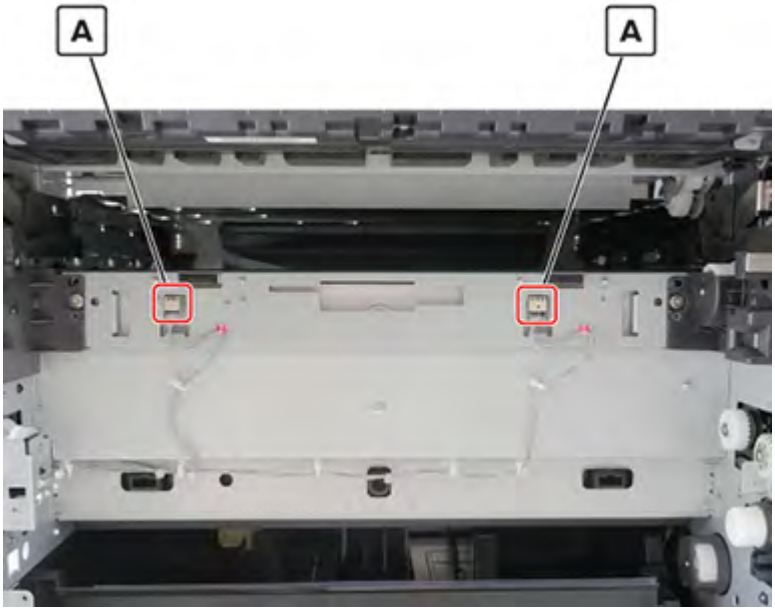
2 Remove the front door. See **"Front door removal" on page 487**.

3 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

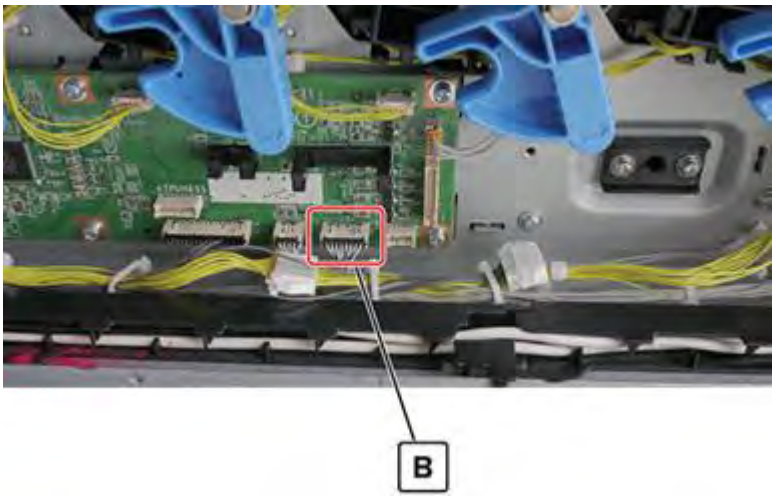
4 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

5 Remove the registration transport assembly. See **"Registration transport assembly removal" on page 432**.

6 Disconnect the two cables (A), and then remove the cables from the cable guides.



7 At the front of the printer, disconnect the cable (B), and then remove the cable from the cable guides.

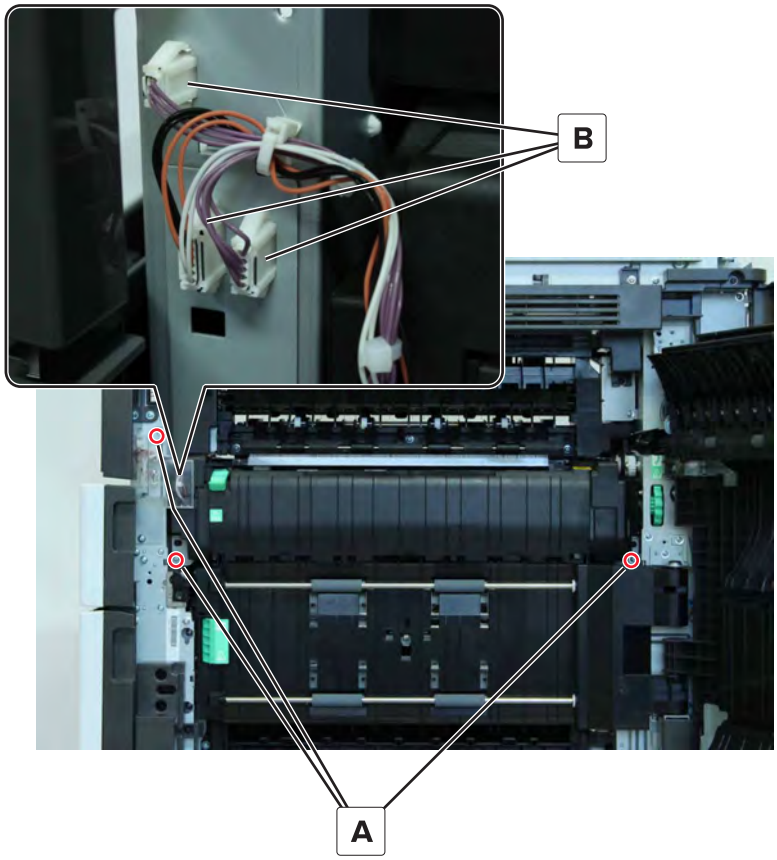


Fuser removal

1 Open the right door.

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 three screws (A), remove the cover, and then disconnect the fuser cables.



3 Remove the fuser.

Induction heater removal

Note: For a video demonstration, see **Induction heater removal**.

1 Remove the filter cover. See **"Filter cover removal" on page 548**.

2 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

3 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

4 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

5 Remove the latch covers. See **"Latch cover removal" on page 552**.

6 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

7 Remove the left cover. See **"Left cover removal" on page 348**.

8 Remove the standard bin. See **"Standard bin removal" on page 658**.

9 Remove the standard bin base. See **"Standard bin base removal" on page 658**.

10 Remove bin side cover 2. See **"Right bin side cover removal" on page 659**.

11 Remove the top corner cover. See **"Top corner cover removal" on page 659**.

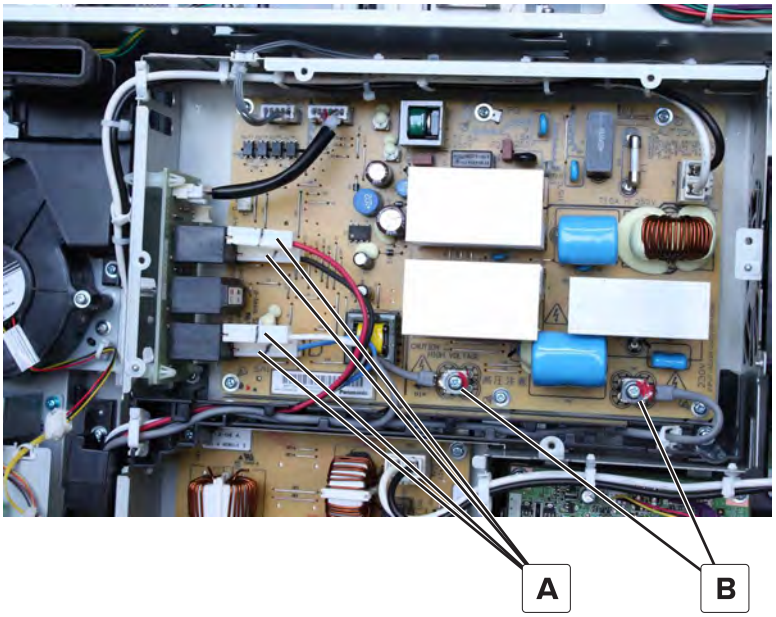
12 Remove bin side cover 1. See **"Bin side cover removal" on page 660**.

13 Remove the fuser. See **"Fuser removal" on page 464**.

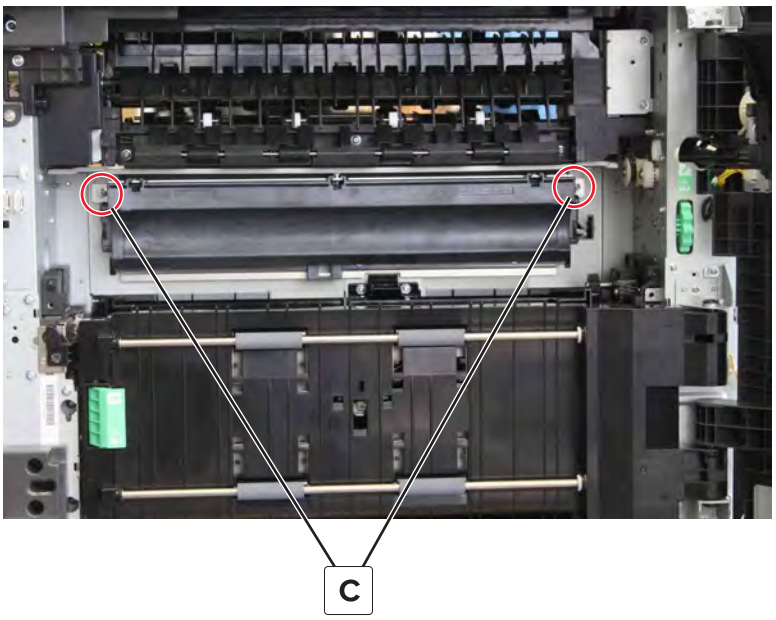
14 Remove the paper exit fan cover. See **"Paper exit fan removal" on page 572**.

15 Remove the IHPS shield. See **"IHPS shield removal" on page 577**.

16 Disconnect the six cables (A).

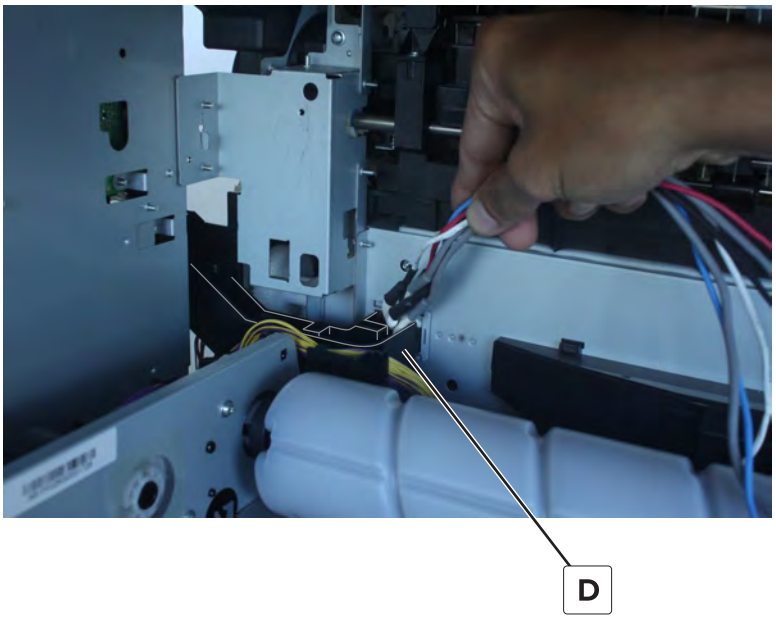


17 Remove the two screws (B).



18 At the back of the heater, release the cables from their guide.

Installation note: Make sure that the cables are properly routed.



19 Remove the heater.

Exit assembly removal

1 Remove the top right cover. See **"Top right cover removal" on page 367**.

2 Remove the top right edge cover. See **"Top right edge cover removal" on page 367**.

3 Remove the speaker bottom cover. See **"Speaker bottom cover removal" on page 487**.

4 Remove the USB port cover. See **“USB port cover removal” on page 365**.

5 Remove the speaker cover. See **“Speaker cover removal” on page 488**.

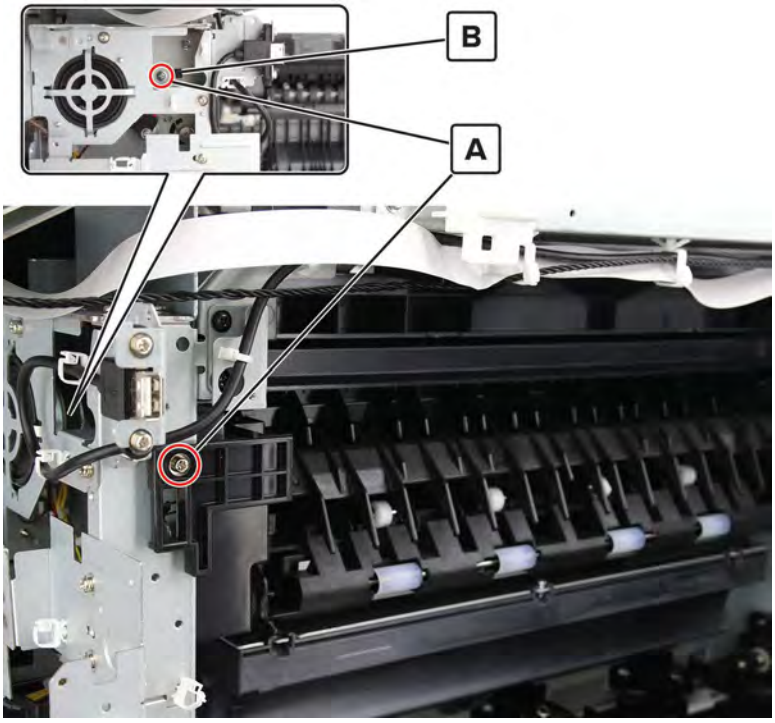
6 Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.

7 Remove the control panel cable guide lower cover. See **“Control panel cable guide lower cover removal” on page 490**.

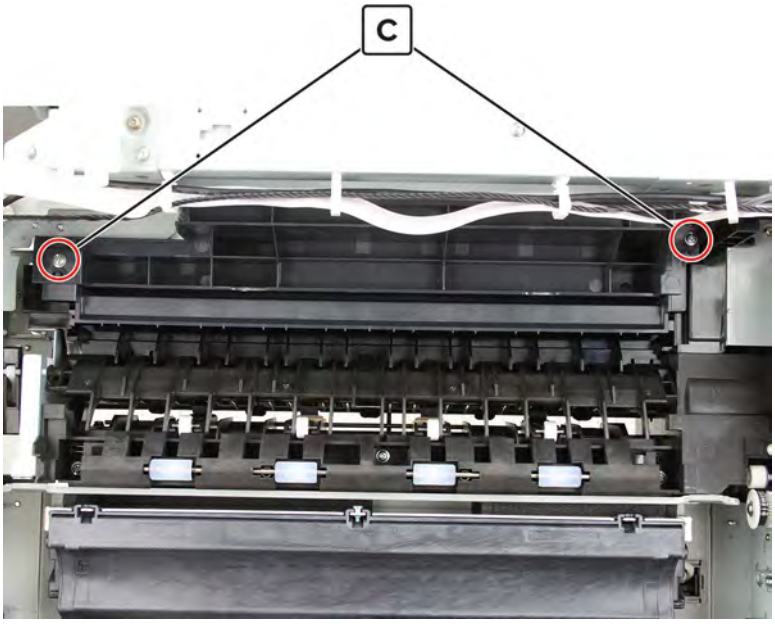
8 Remove the standard bin exit assembly. See **“Standard bin exit assembly removal” on page 499**.

9 Remove the fuser. See **“Fuser removal” on page 464**.

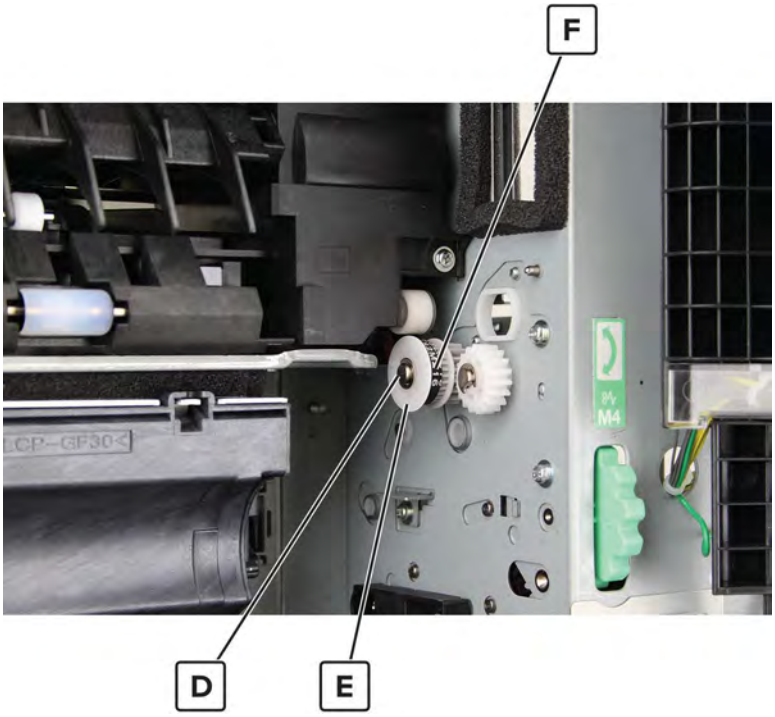
10 Open the right door, remove the two screws (A), release the tab (B), and then remove the cover.



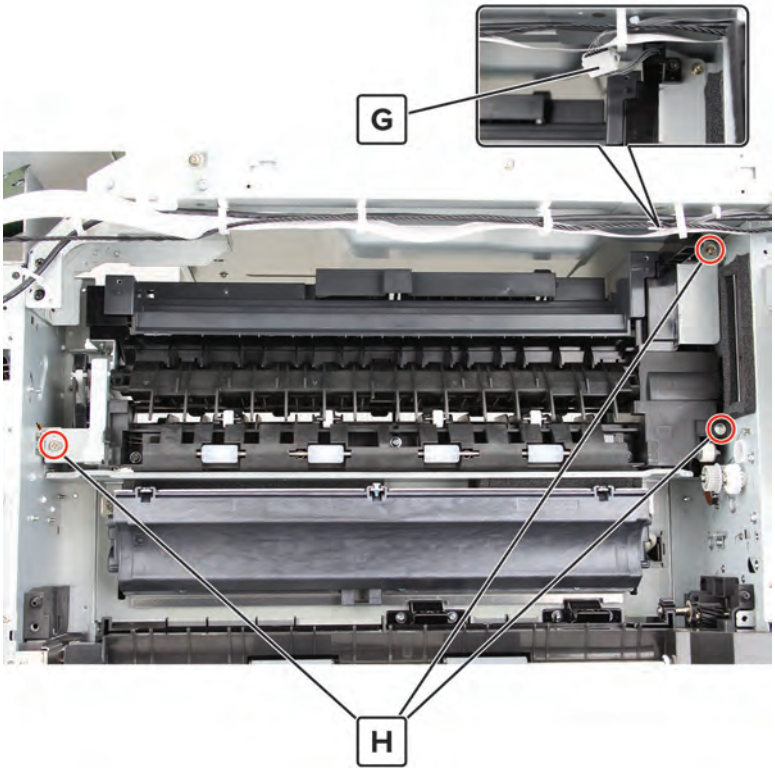
11 Remove the two screws (C), and then remove the exit cover.



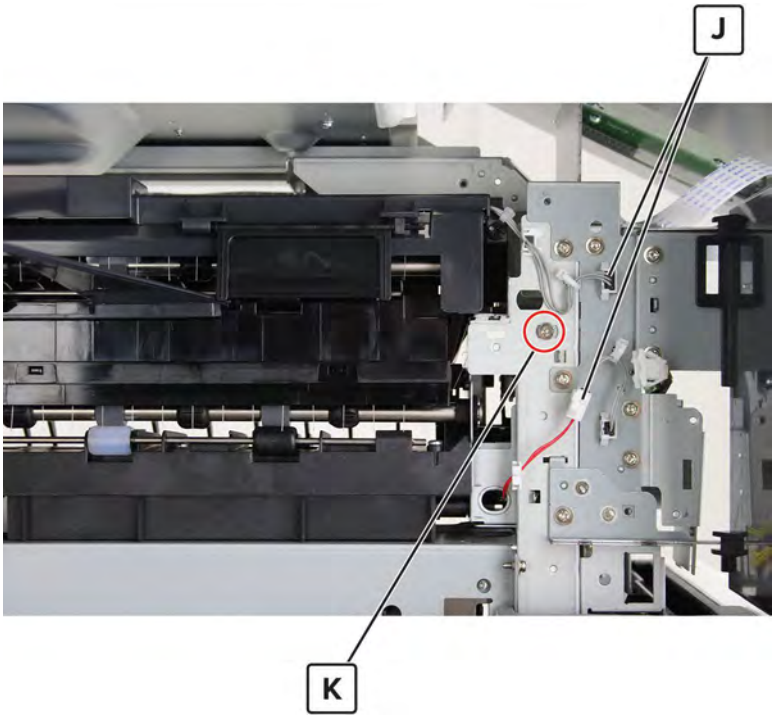
12 Remove the E-clip (D) and bushing (E), release the belt (F), and then remove the gear.



13 Disconnect the cable (G), and then remove the three screws (H).

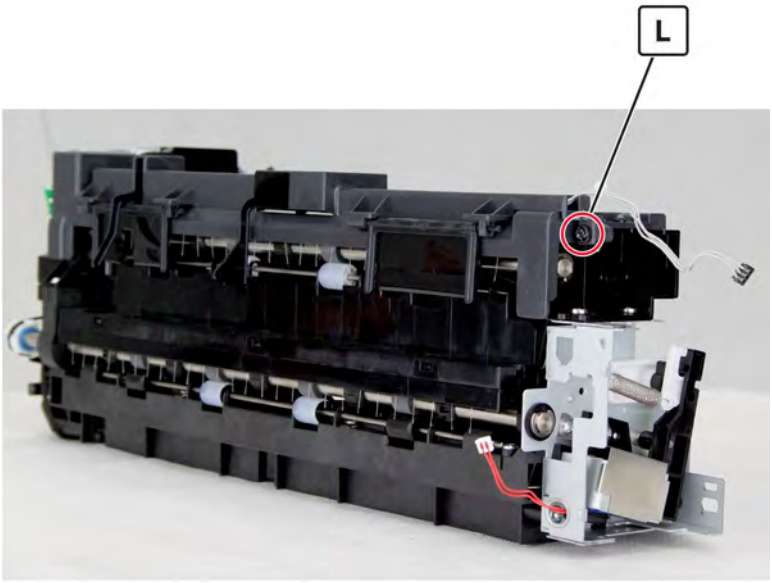


14 Disconnect the two cables (J) behind the exit assembly, and then remove the screw (K).



15 Remove the exit assembly.

16 Remove the screw (L), and then remove the redrive exit guide from the exit assembly.



Motor (redrive) removal

1 Remove the top right cover. See **"Top right cover removal" on page 367**.

2 Remove the top right edge cover. See **"Top right edge cover removal" on page 367**.

3 Remove the speaker bottom cover. See **"Speaker bottom cover removal" on page 487**.

4 Remove the USB port cover. See **"USB port cover removal" on page 365**.

5 Remove the speaker cover. See **"Speaker cover removal" on page 488**.

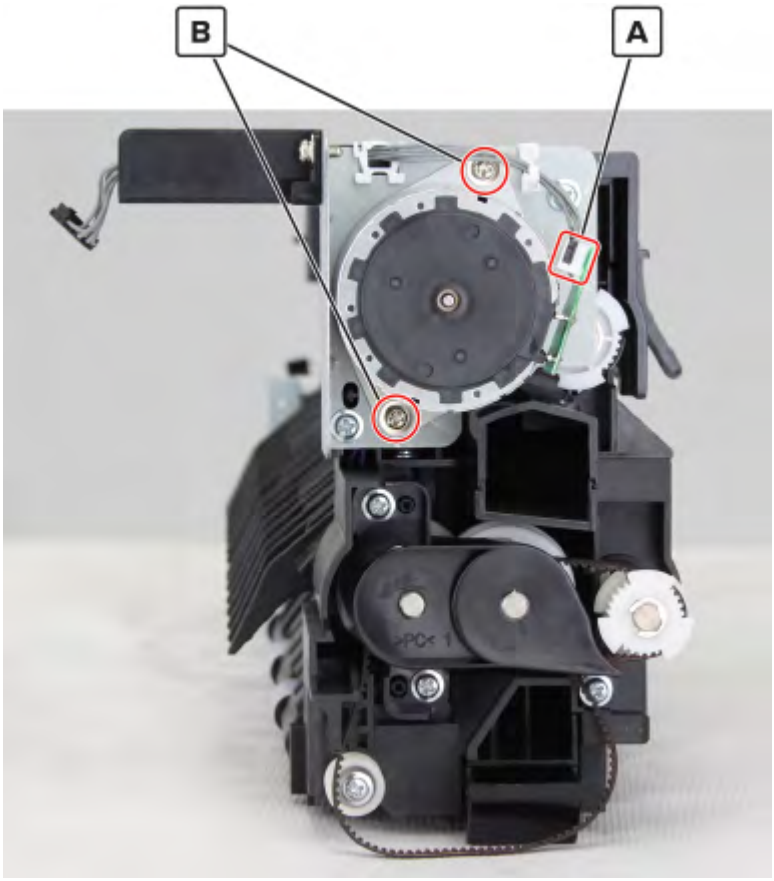
6 Remove the control panel cable guide upper cover. See **"Control panel cable guide upper cover removal" on page 489**.

7 Remove the control panel cable guide lower cover. See **"Control panel cable guide lower cover removal" on page 490**.

8 Remove the fuser. See **"Fuser removal" on page 464**.

9 Remove the exit guide. See **"Exit assembly removal" on page 466**.

10 Disconnect the cable (A), and then remove the two screws (B).



11 Remove the motor.

Redrive belt removal

1 Remove the top right cover. See **“Top right cover removal” on page 367**.

2 Remove the top right edge cover. See **“Top right edge cover removal” on page 367**.

3 Remove the speaker bottom cover. See **“Speaker bottom cover removal” on page 487**.

4 Remove the USB port cover. See **“USB port cover removal” on page 365**.

5 Remove the speaker cover. See **“Speaker cover removal” on page 488**.

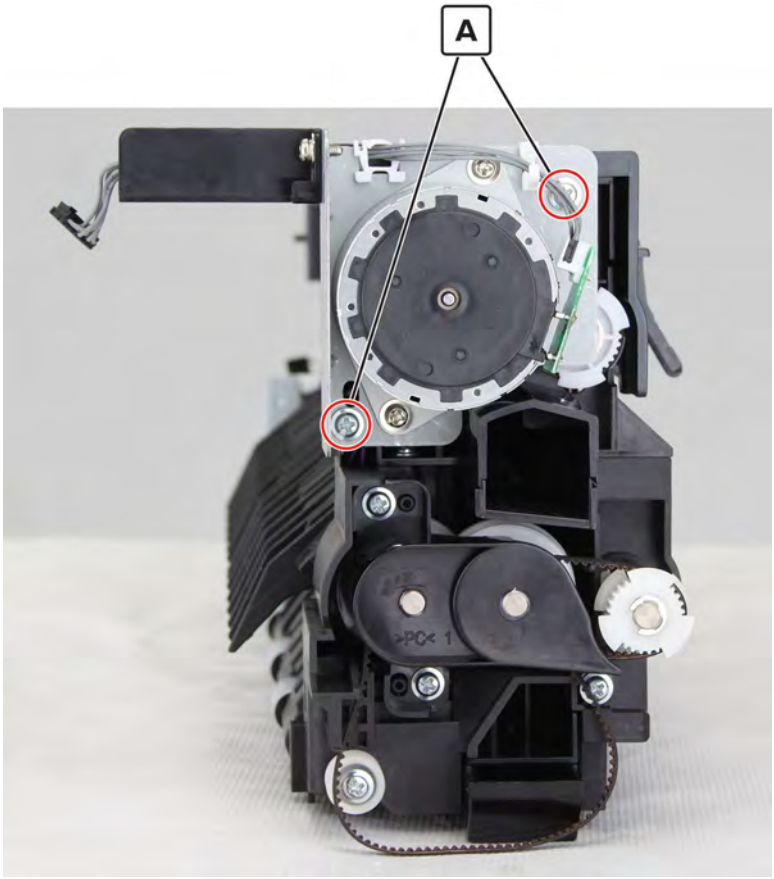
6 Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.

7 Remove the control panel cable guide lower cover. See **“Control panel cable guide lower cover removal” on page 490**.

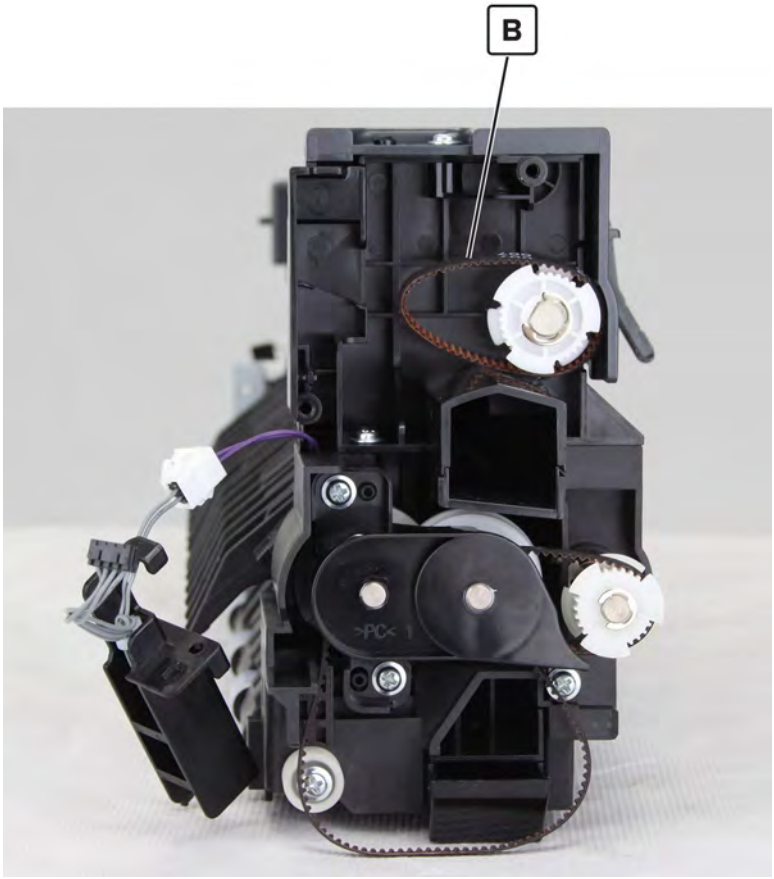
8 Remove the fuser. See **“Fuser removal” on page 464**.

9 Remove the exit guide. See **“Exit assembly removal” on page 466**.

10 Remove the two screws (A), and then pull the bracket.



11 Remove the belt (B).



Redrive pulley gear removal

1 Remove the top right cover. See **"Top right cover removal" on page 367**.

2 Remove the top right edge cover. See **"Top right edge cover removal" on page 367**.

3 Remove the speaker bottom cover. See **"Speaker bottom cover removal" on page 487**.

4 Remove the USB port cover. See **"USB port cover removal" on page 365**.

5 Remove the speaker cover. See **"Speaker cover removal" on page 488**.

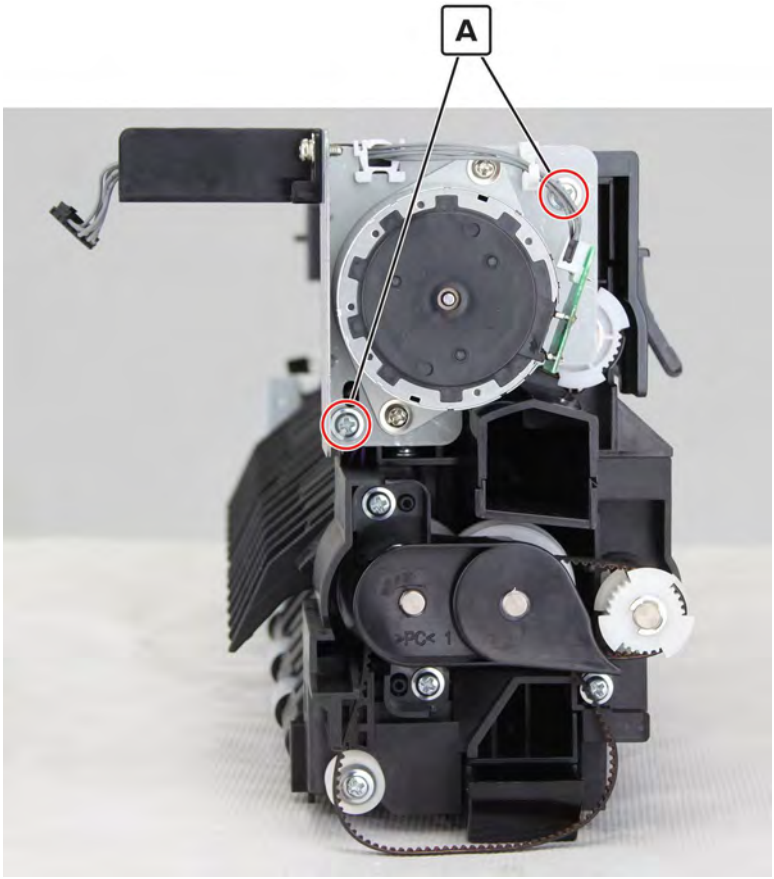
6 Remove the control panel cable guide upper cover. See **"Control panel cable guide upper cover removal" on page 489**.

7 Remove the control panel cable guide lower cover. See **"Control panel cable guide lower cover removal" on page 490**.

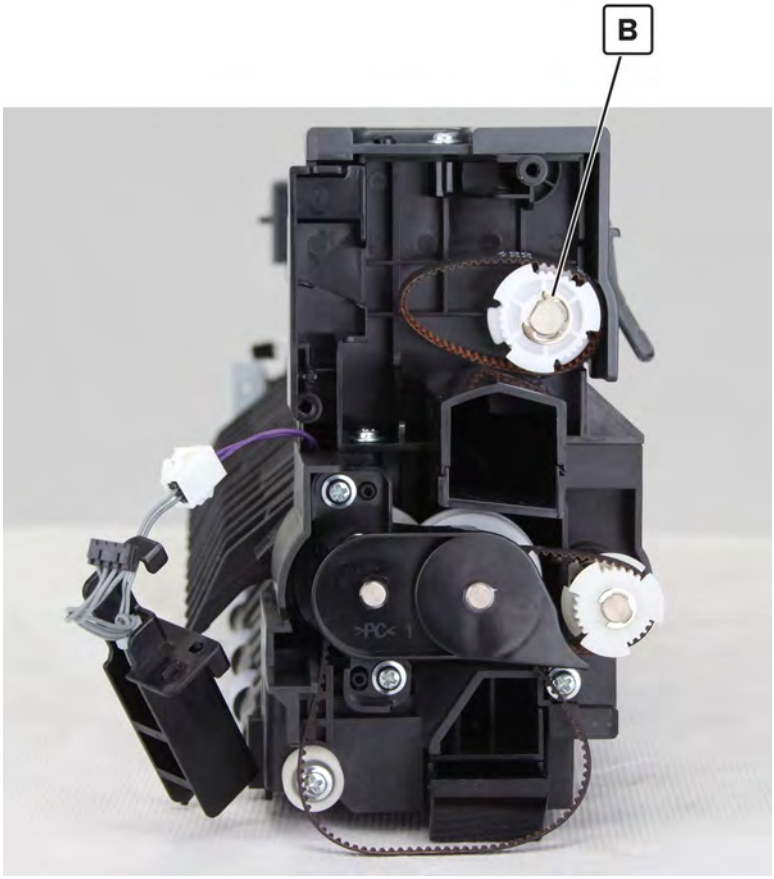
8 Remove the fuser. See **"Fuser removal" on page 464**.

9 Remove the exit guide. See **"Exit assembly removal" on page 466**.

10 Remove the two screws (A), and then pull the bracket.



11 Remove the E-clip (B), and then remove the pulley gear.



Exit clutch gears and belts removal

1 Remove the top right cover. See **“Top right cover removal” on page 367**.

2 Remove the top right edge cover. See **“Top right edge cover removal” on page 367**.

3 Remove the speaker bottom cover. See **“Speaker bottom cover removal” on page 487**.

4 Remove the USB port cover. See **“USB port cover removal” on page 365**.

5 Remove the speaker cover. See **“Speaker cover removal” on page 488**.

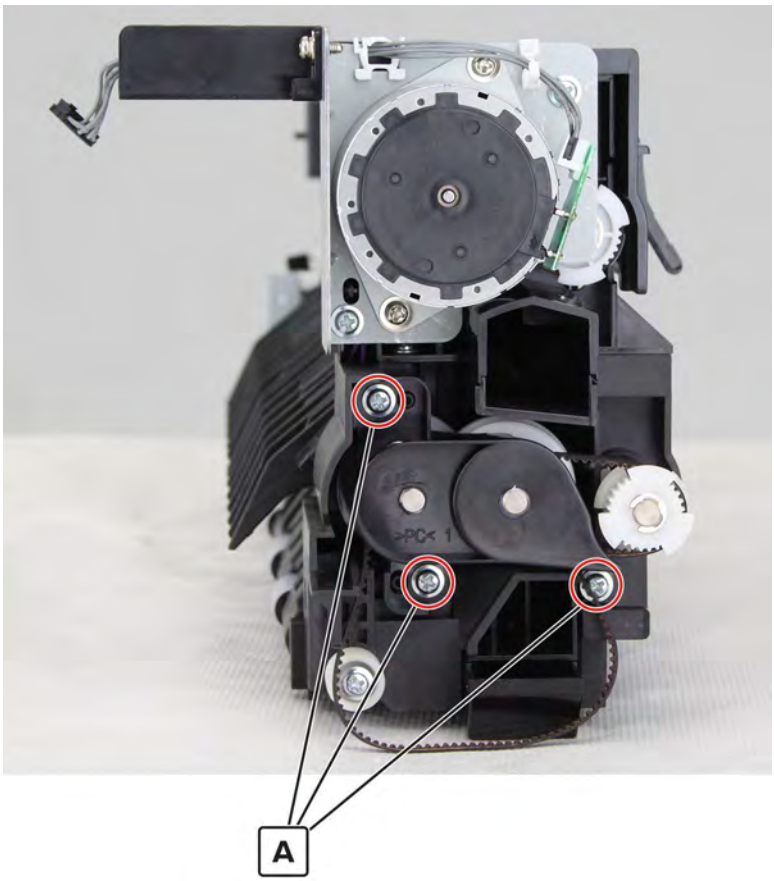
6 Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.

7 Remove the control panel cable guide lower cover. See **“Control panel cable guide lower cover removal” on page 490**.

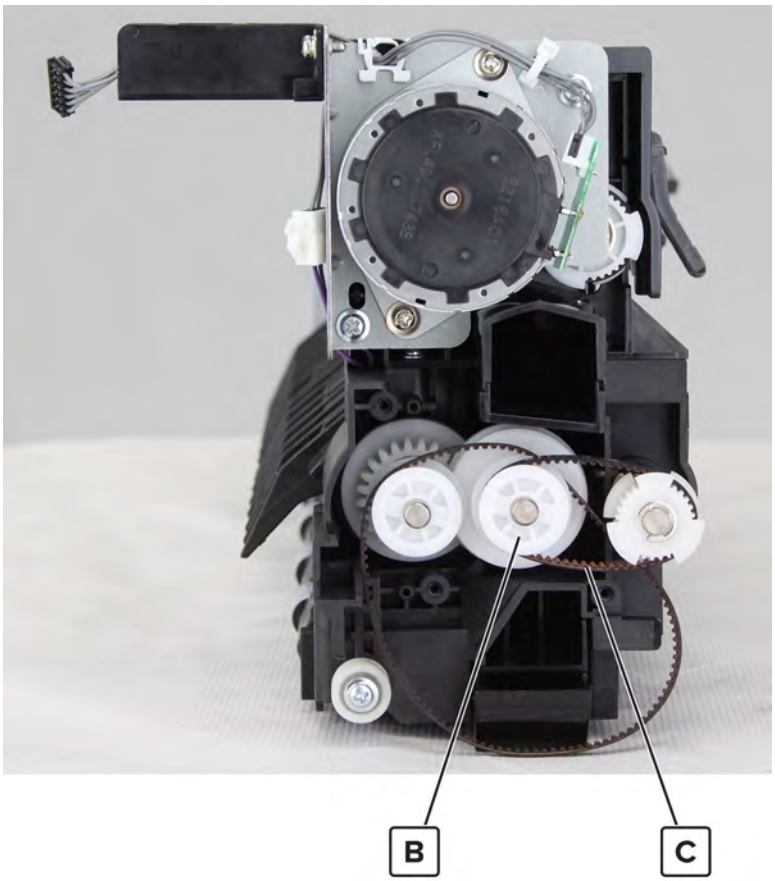
8 Remove the fuser. See **“Fuser removal” on page 464**.

9 Remove the exit guide. See **“Exit assembly removal” on page 466**.

10 Remove the three screws (A), and then remove the cover.

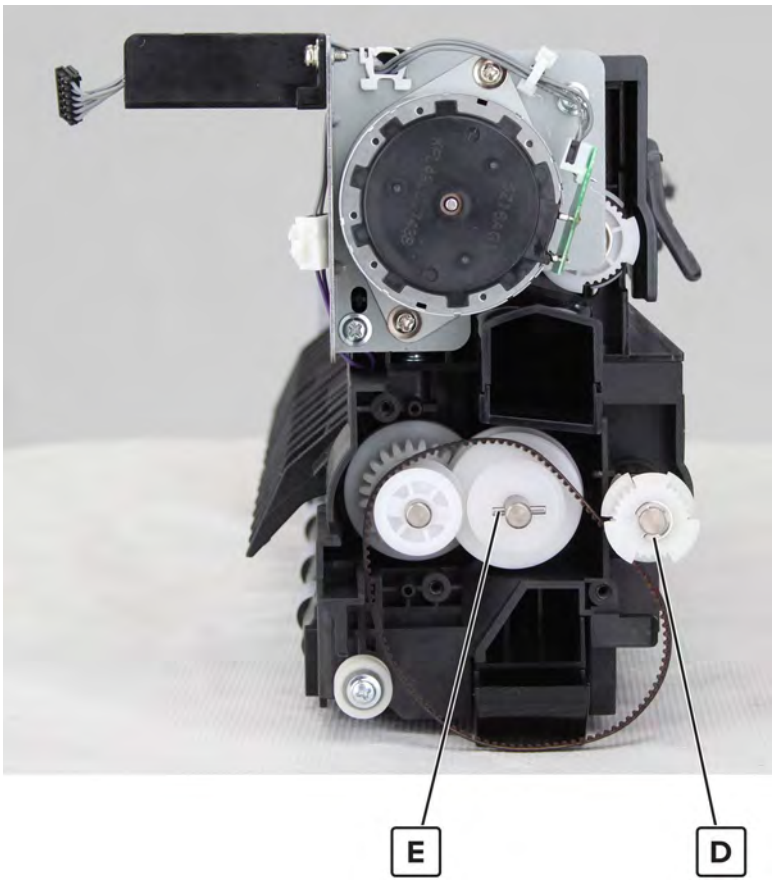


11 Remove exit clutch gear 1 (B) and exit belt 1 (C).



12 Remove the E-clip (D) and pin (E), and then remove exit belt 2, the bushings, and the gears.

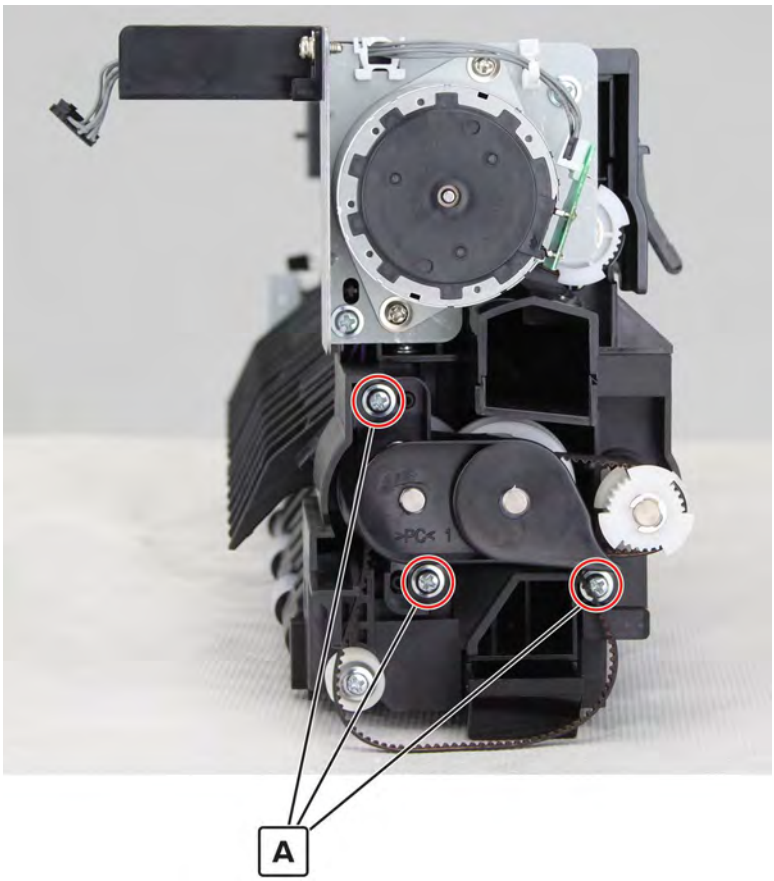
Warning—Potential Damage: Do not lose the pins.



Exit clutch removal

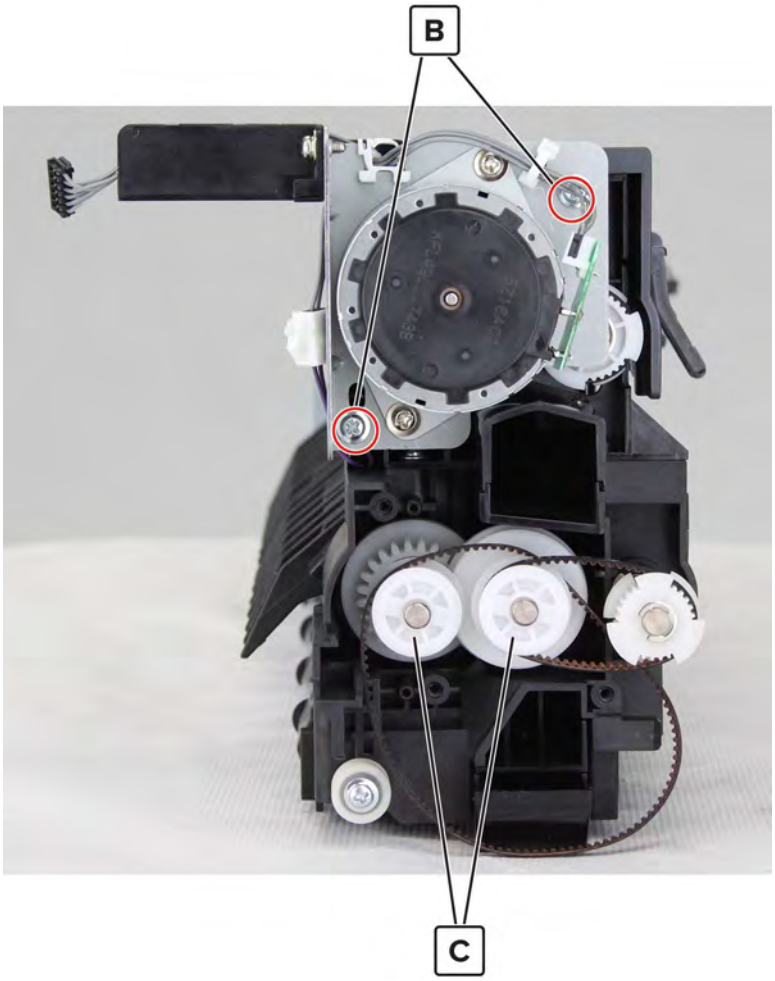
1. Remove the top right cover. See **“Top right cover removal” on page 367**.
2. Remove the top right edge cover. See **“Top right edge cover removal” on page 367**.
3. Remove the speaker bottom cover. See **“Speaker bottom cover removal” on page 487**.
4. Remove the USB port cover. See **“USB port cover removal” on page 365**.
5. Remove the speaker cover. See **“Speaker cover removal” on page 488**.
6. Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.
7. Remove the control panel cable guide lower cover. See **“Control panel cable guide lower cover removal” on page 490**.
8. Remove the fuser. See **“Fuser removal” on page 464**.
9. Remove the exit guide. See **“Exit assembly removal” on page 466**.

10 Remove the three screws (A), and then remove the cover.



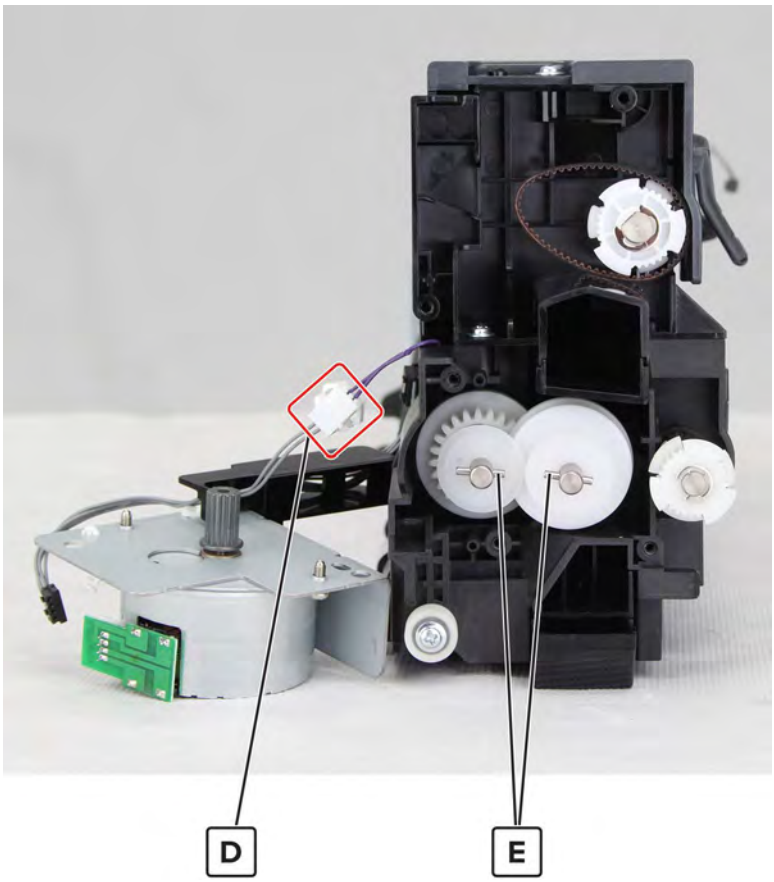
11 Remove the two screws (B), and then pull the bracket.

12 Remove the two gears (C) and their belts.



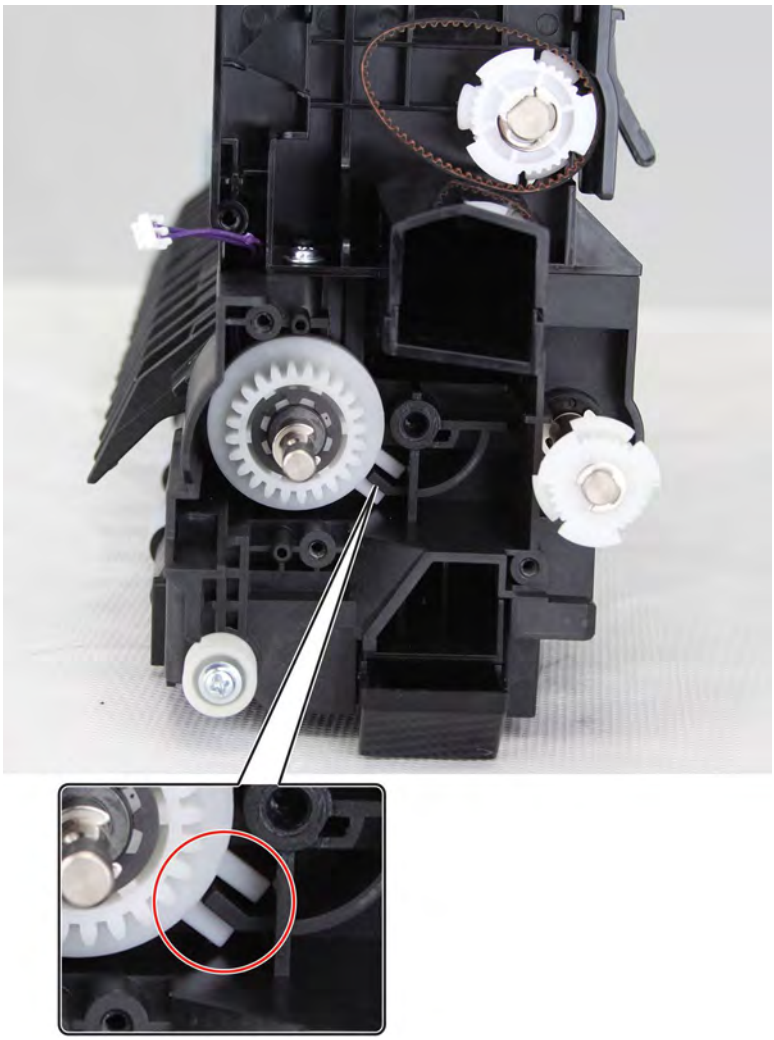
13 Disconnect the cable (D), remove the two pins (E), and then remove the bushings.

Warning—Potential Damage: Do not lose the pins.

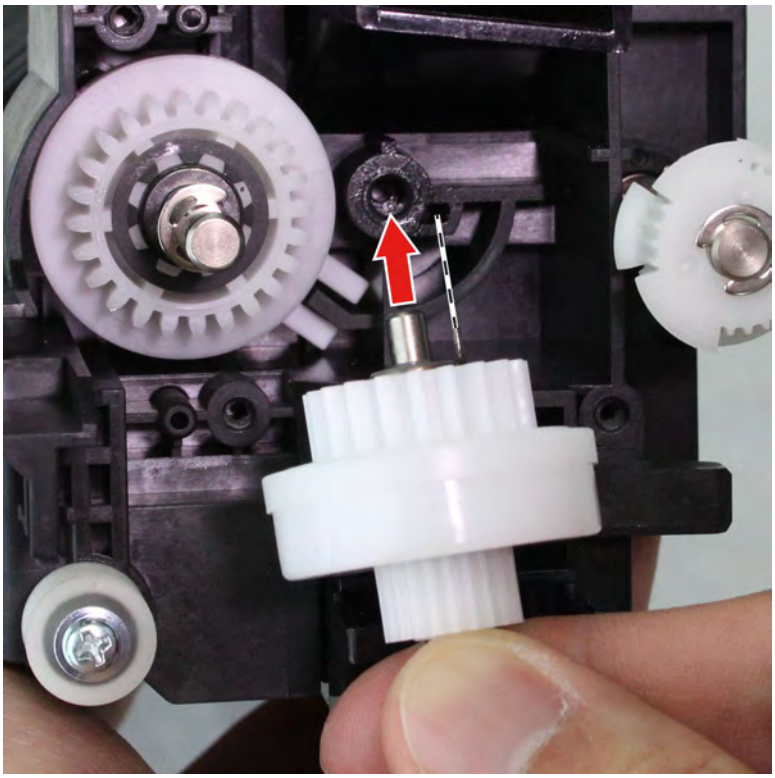


14 Remove the gear, and then remove the clutch.

Installation note: Make sure that the clutch is positioned as shown.



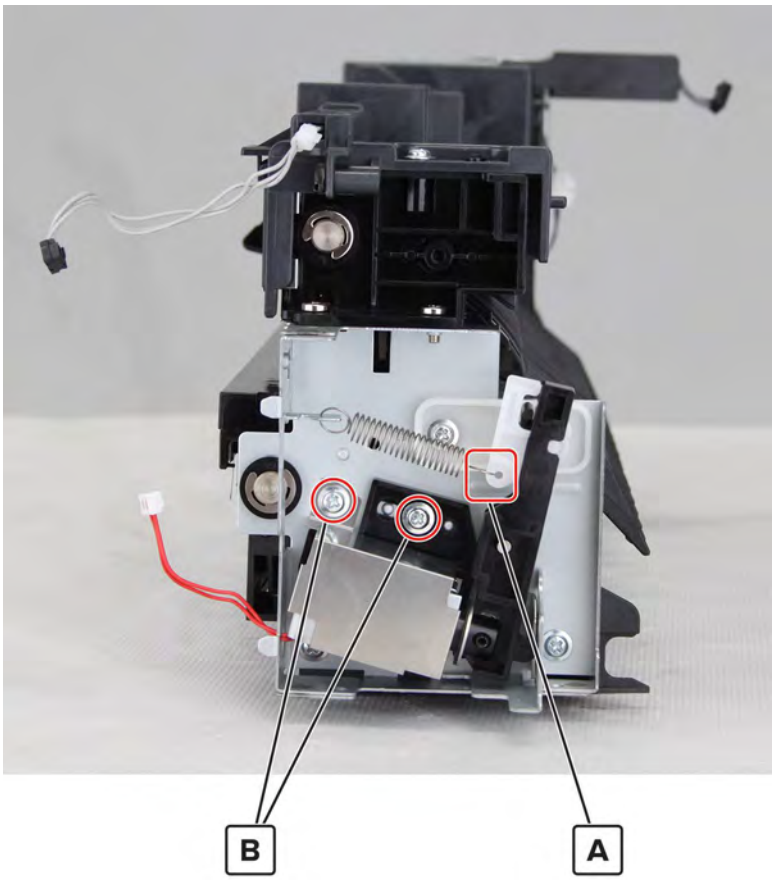
Installation note: Make sure that the gear spring is properly inserted to its slot.



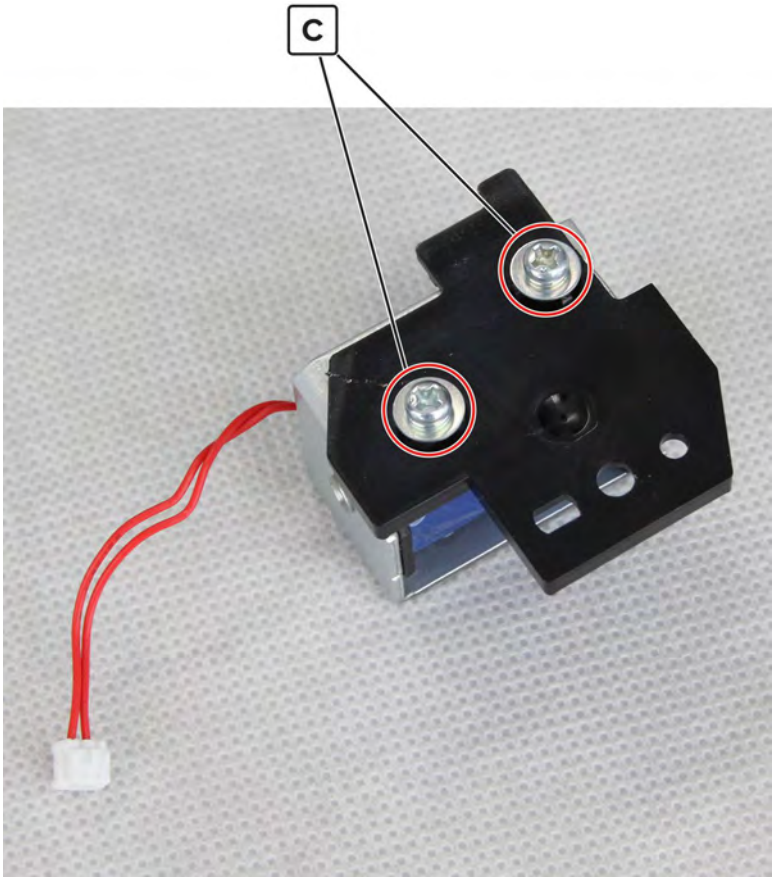
Diverter solenoid removal

1. Remove the top right cover. See **“Top right cover removal” on page 367**.
2. Remove the top right edge cover. See **“Top right edge cover removal” on page 367**.
3. Remove the speaker bottom cover. See **“Speaker bottom cover removal” on page 487**.
4. Remove the USB port cover. See **“USB port cover removal” on page 365**.
5. Remove the speaker cover. See **“Speaker cover removal” on page 488**.
6. Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.
7. Remove the control panel cable guide lower cover. See **“Control panel cable guide lower cover removal” on page 490**.
8. Remove the fuser. See **“Fuser removal” on page 464**.
9. Remove the exit guide. See **“Exit assembly removal” on page 466**.

10 Unhook the spring (A), remove the two screws (B), and then remove the plate and solenoid bracket.



11 Remove the two screws (C), and then remove the solenoid.



Sensor (redrive) removal

1 Remove the top right cover. See **"Top right cover removal" on page 367**.

2 Remove the top right edge cover. See **"Top right edge cover removal" on page 367**.

3 Remove the speaker bottom cover. See **"Speaker bottom cover removal" on page 487**.

4 Remove the USB port cover. See **"USB port cover removal" on page 365**.

5 Remove the speaker cover. See **"Speaker cover removal" on page 488**.

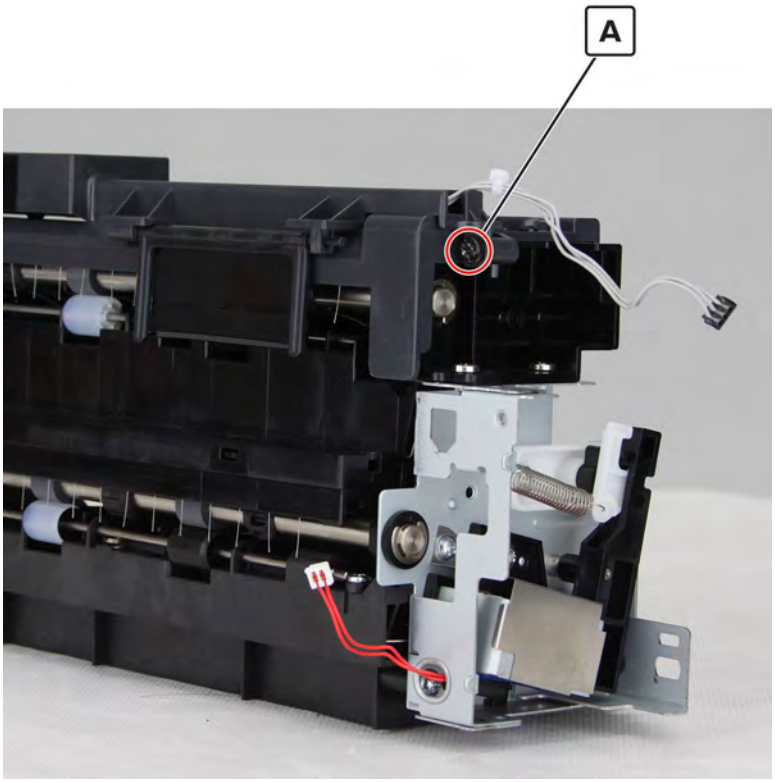
6 Remove the control panel cable guide upper cover. See **"Control panel cable guide upper cover removal" on page 489**.

7 Remove the control panel cable guide lower cover. See **"Control panel cable guide lower cover removal" on page 490**.

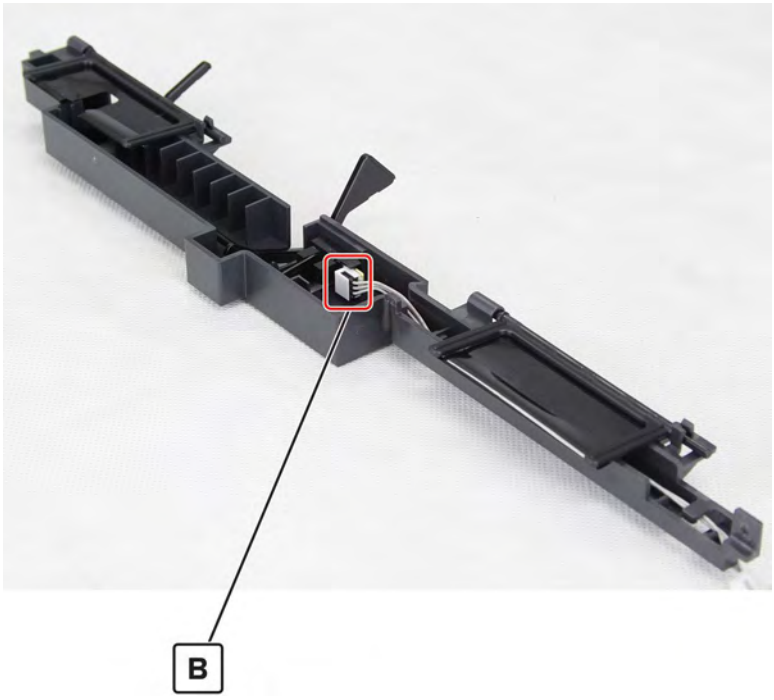
8 Remove the fuser. See **"Fuser removal" on page 464**.

9 Remove the exit guide. See **"Exit assembly removal" on page 466**.

10 Remove the screw (A), and then remove the redrive exit guide.



11 Disconnect the cable (B), and then remove the sensor.



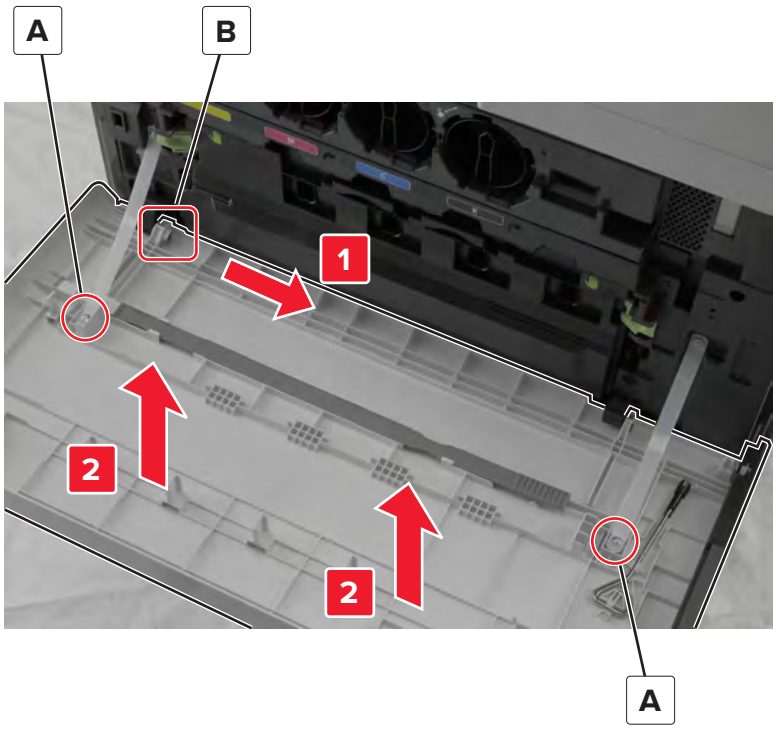
Front side removals

Front door removal

1 Open the front door, and then remove the printhead wiper and screwdriver.

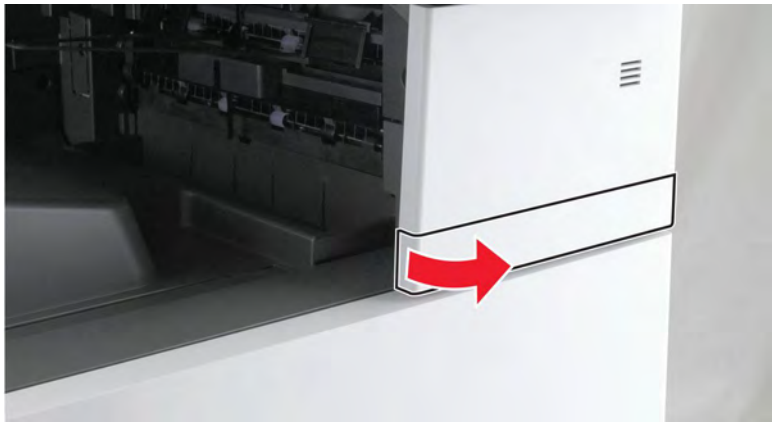
2 Remove the two screws (A).

3 Remove the clip (B), release the hinges, and then remove the door.



Speaker bottom cover removal

1 Release the left side of the cover.



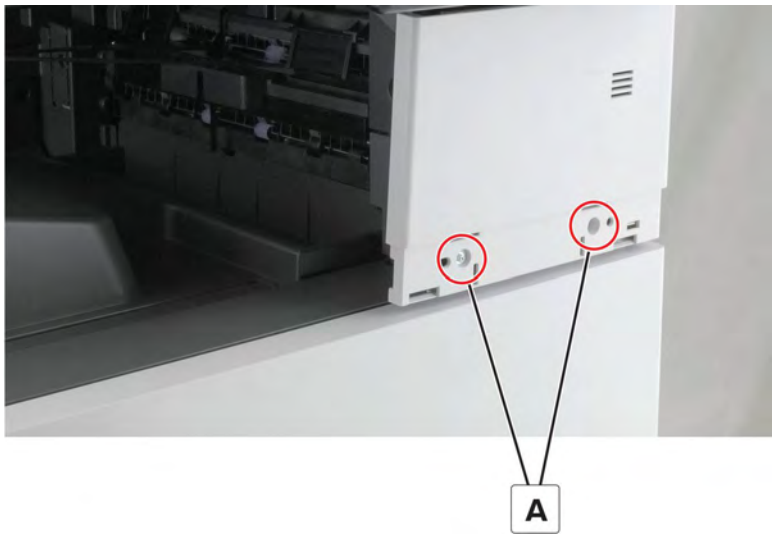
2 Remove the cover.

Speaker cover removal

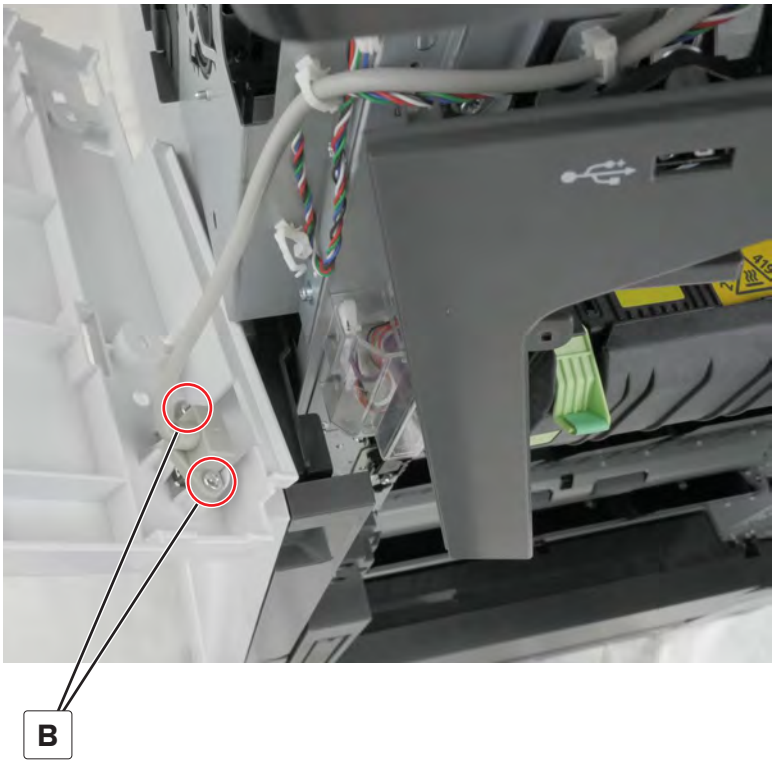
1 Remove the speaker bottom cover. See **“Speaker bottom cover removal” on page 487**.

2 Remove the USB port cover. See **“USB port cover removal” on page 365**.

3 Remove the two screws (A), and then pull the cover.



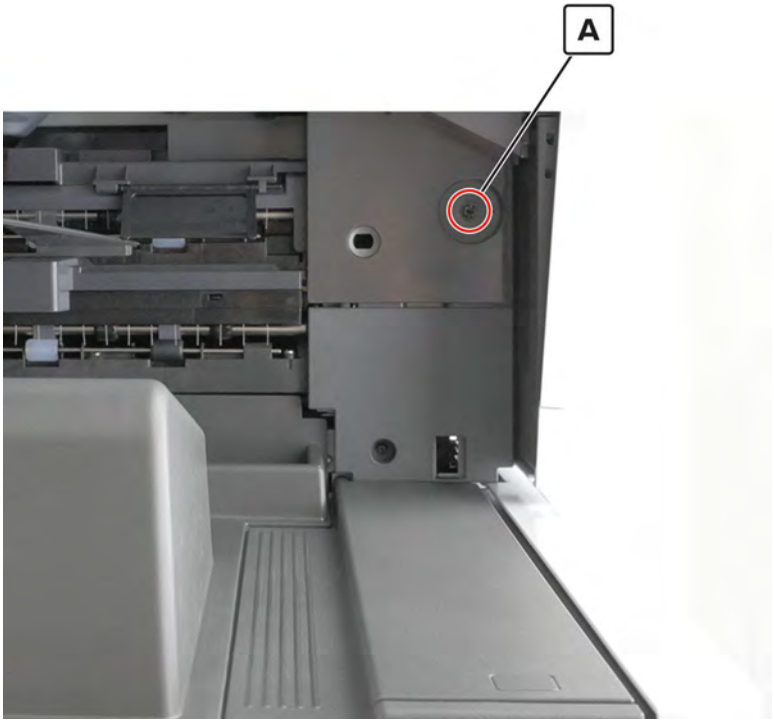
4 At the back of the cover, remove the two screws (B).



5 Remove the cover.

Control panel cable guide upper cover removal

1 Remove the screw (A).

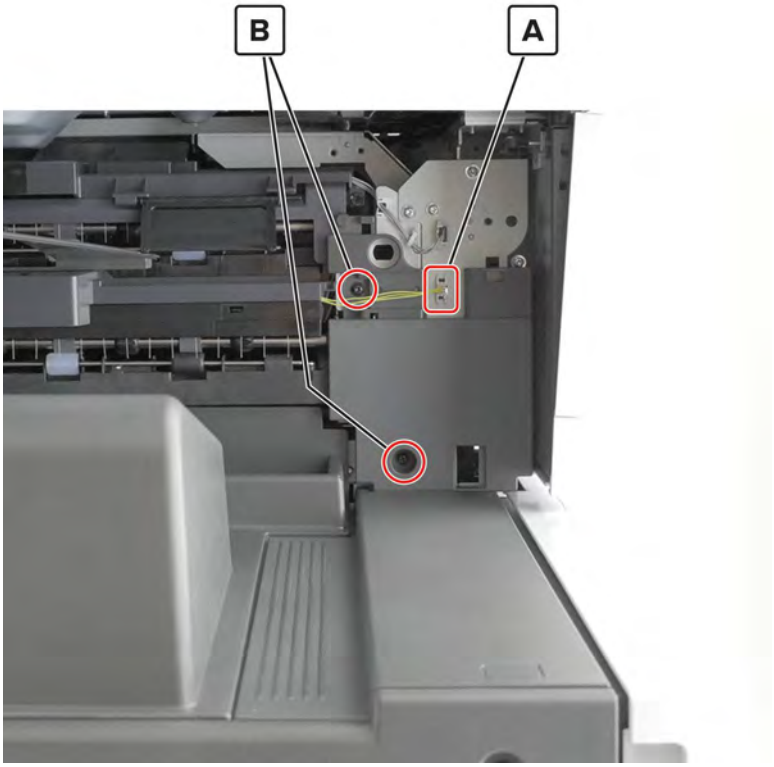


2 Remove the cover.

Control panel cable guide lower cover removal

1 Remove the control panel cable guide upper cover. See **"Control panel cable guide upper cover removal" on page 489**.

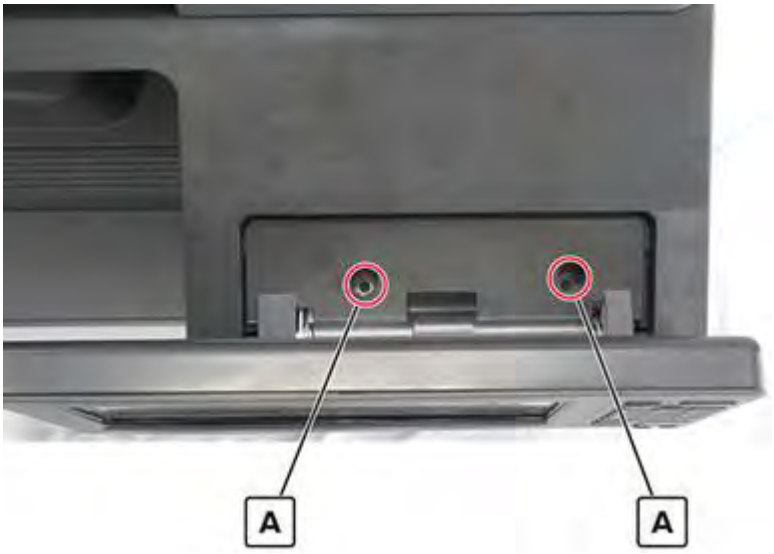
2 Disconnect the cable (A), and then remove the screws (B).



3 Remove the cover.

Control panel support base removal

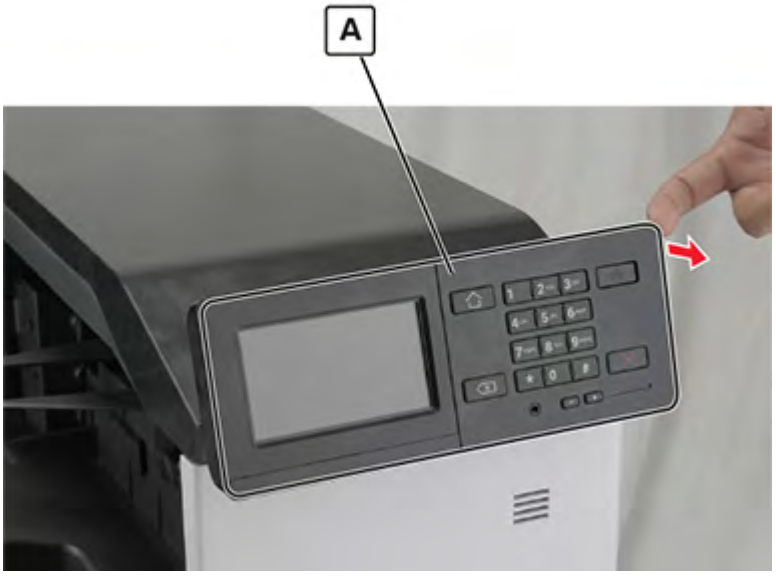
1 Under the control panel, remove the two screws (A).



2 Remove the cover.

Control panel front cover removal

1 Pry the cover (A) to release.



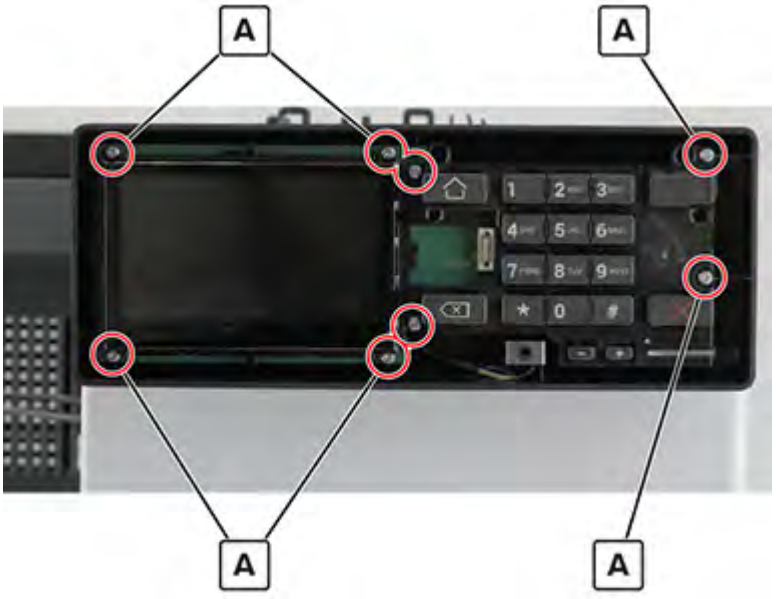
2 Remove the cover.

Control panel board removal

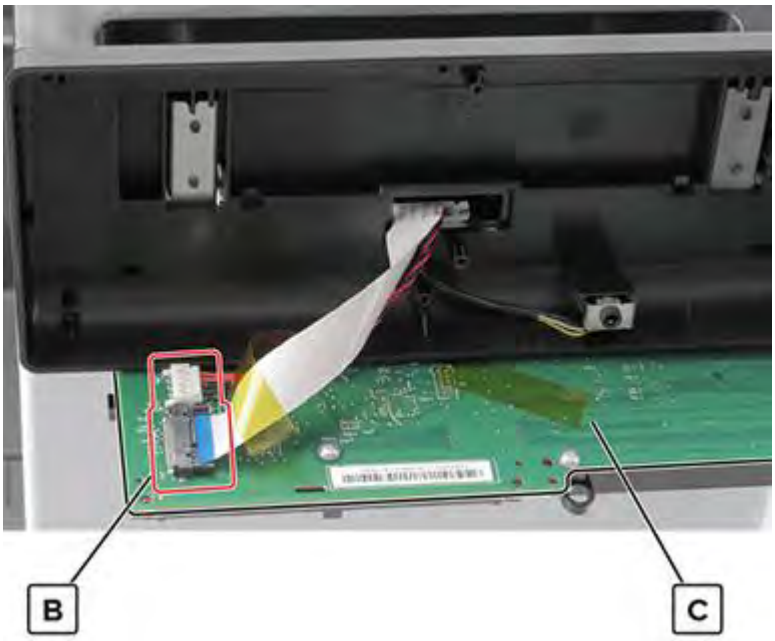
Note: For a video demonstration, see **Control panel board removal**.

1 Remove the control panel front cover. See **"Control panel front cover removal" on page 491**.

2 Remove the eight screws (A).



3 Disconnect the two cables (B), and then remove the board (C).



Control panel FFC removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port mount. See **"Port mount removal" on page 364**.

3 Remove the USB port cover. See **"USB port cover removal" on page 365**.

4 Remove the top right cover. See **"Top right cover removal" on page 367**.

5 Remove the top right edge cover. See **"Top right edge cover removal" on page 367**.

6 Remove the filter cover. See **"Filter cover removal" on page 548**.

7 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

8 Remove the latch covers. See **"Latch cover removal" on page 552**.

9 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

10 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

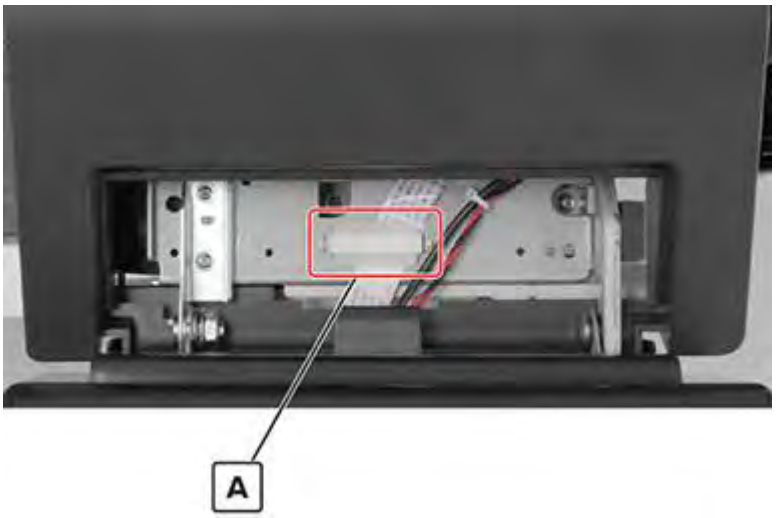
11 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

12 Remove the controller board shield. See **"Controller board shield removal" on page 557**.

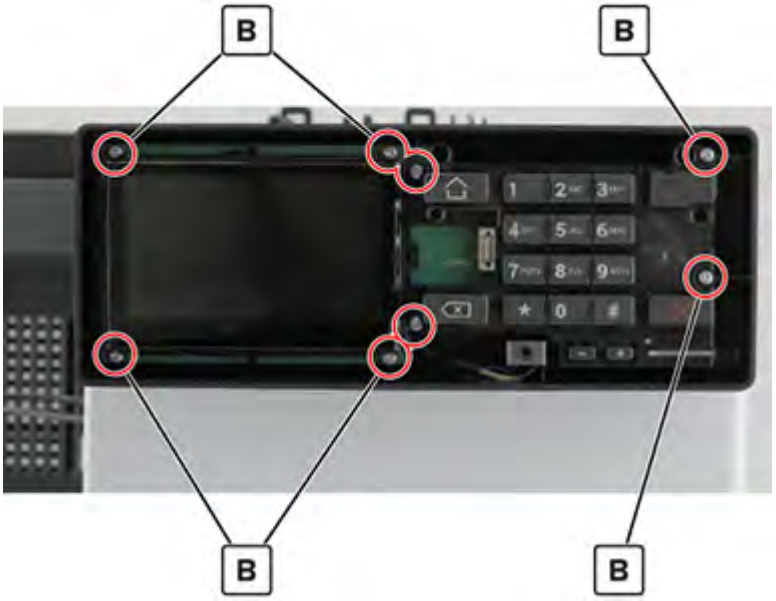
13 Remove the control panel front cover. See **"Control panel front cover removal" on page 491**.

14 Remove the control panel support base. See **"Control panel support base removal" on page 490**.

15 Release the cable guide (A).

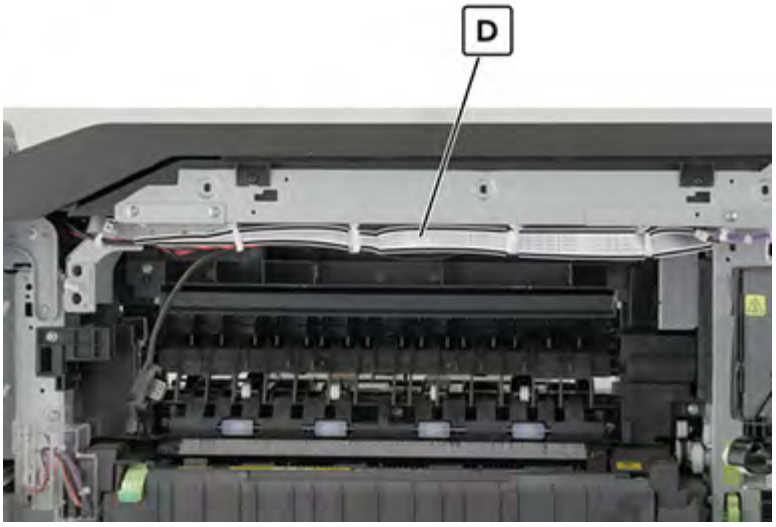


16 Remove the eight screws (B), and then pull the board.

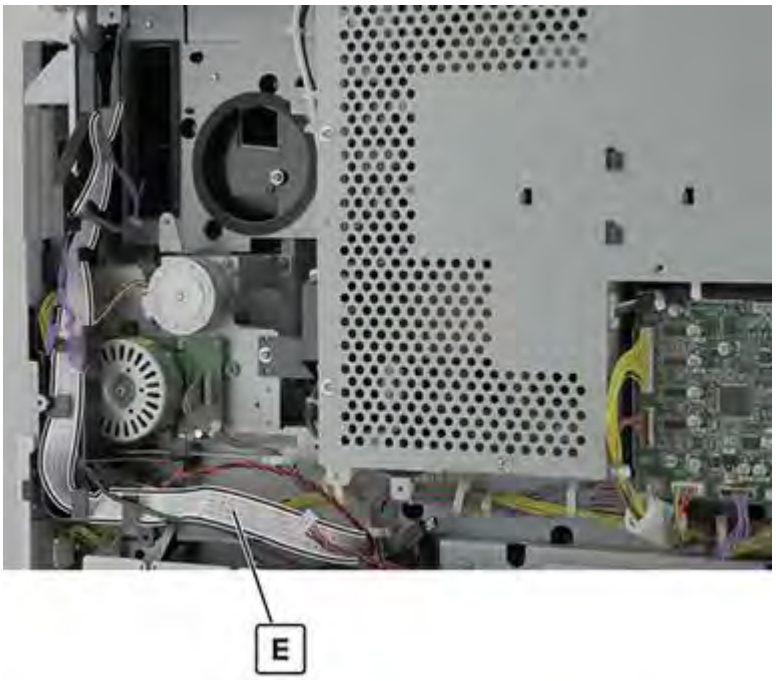


17 Disconnect the cable (C).

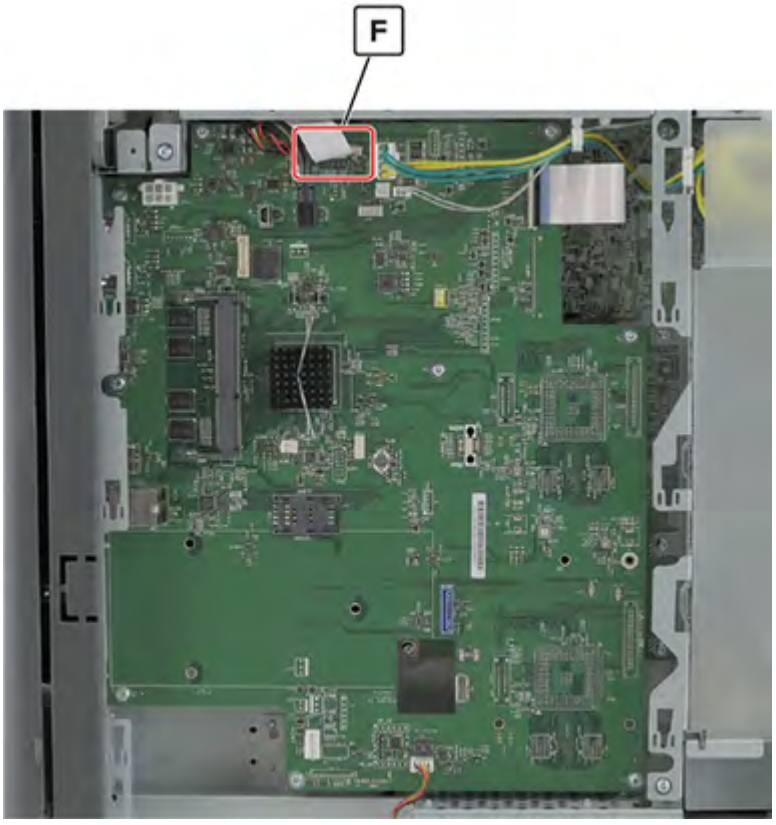
18 From the right side, release the cable (D) from its guides.



19 From the rear side, release the cable (E) from its guides.



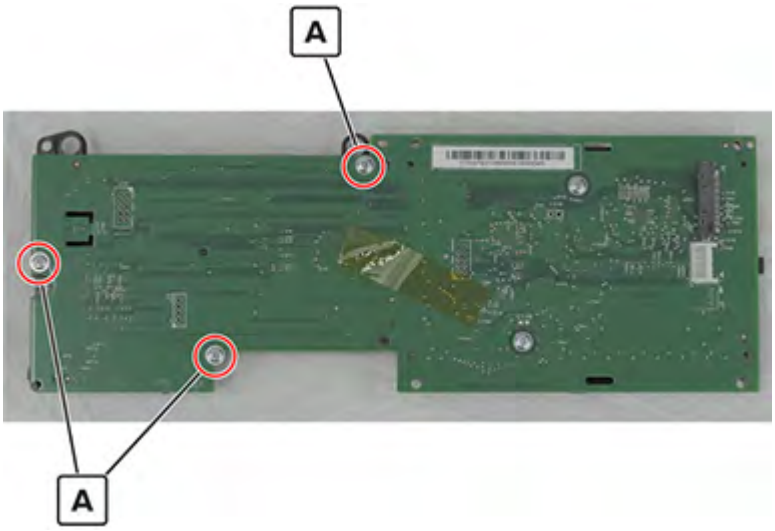
20 Disconnect the cable (F), and then remove it.



Installation note: Make sure that the cable is properly routed.

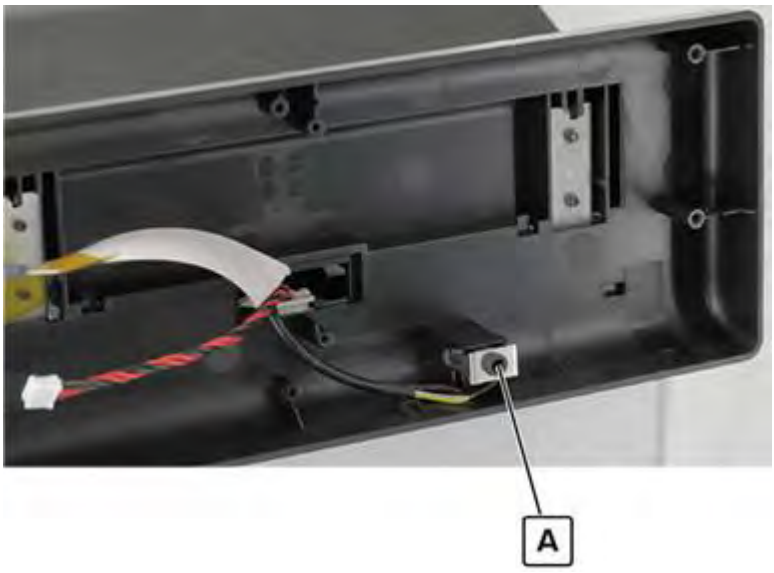
Keypad removal

1. Remove the control panel front cover. See **"Control panel front cover removal" on page 491**.
2. Remove the control panel board. See **"Control panel board removal" on page 491**.
3. Remove the three screws (A) at the back of the board, and then remove the keypad.

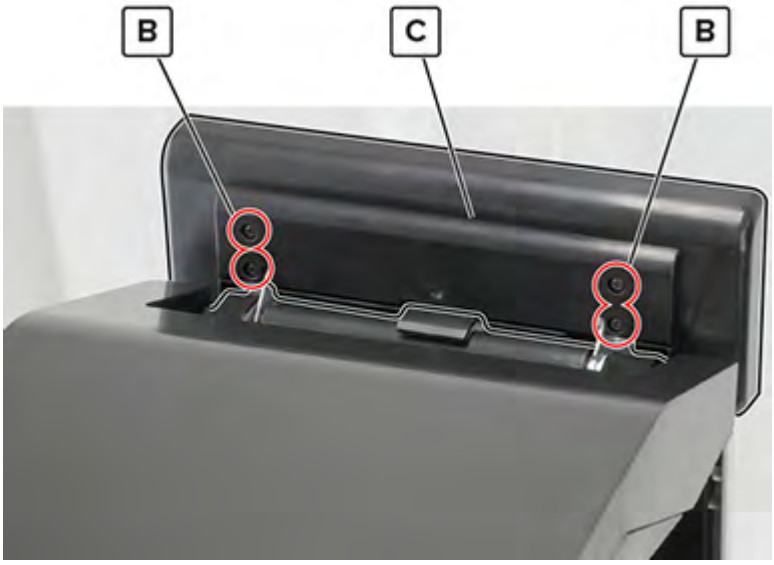


Control panel rear cover removal

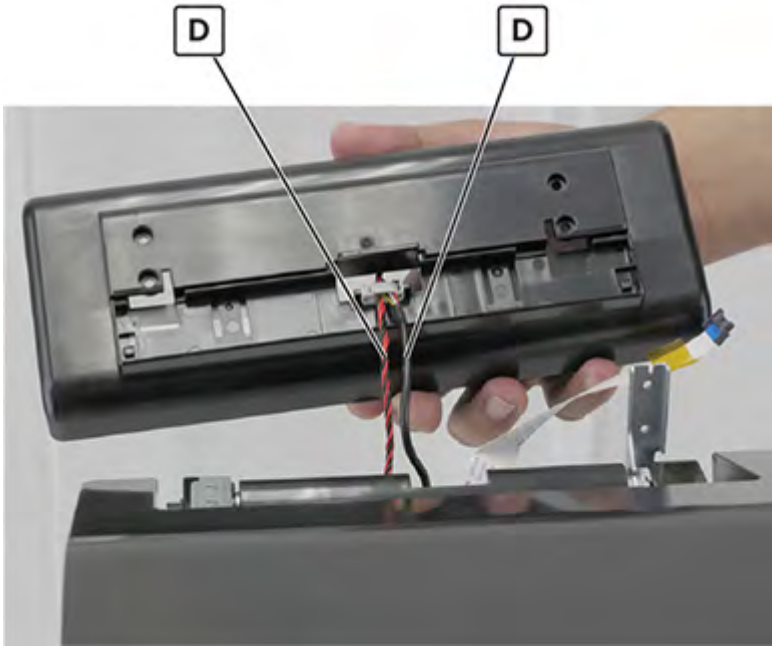
1. Remove the control panel front cover. See **"Control panel front cover removal" on page 491**.
2. Remove the control panel board. See **"Control panel board removal" on page 491**.
3. Remove the headphone jack (A).



4 Remove the four screws (B), and then remove the cover (C).



5 Remove the two cables (D) from the cover.



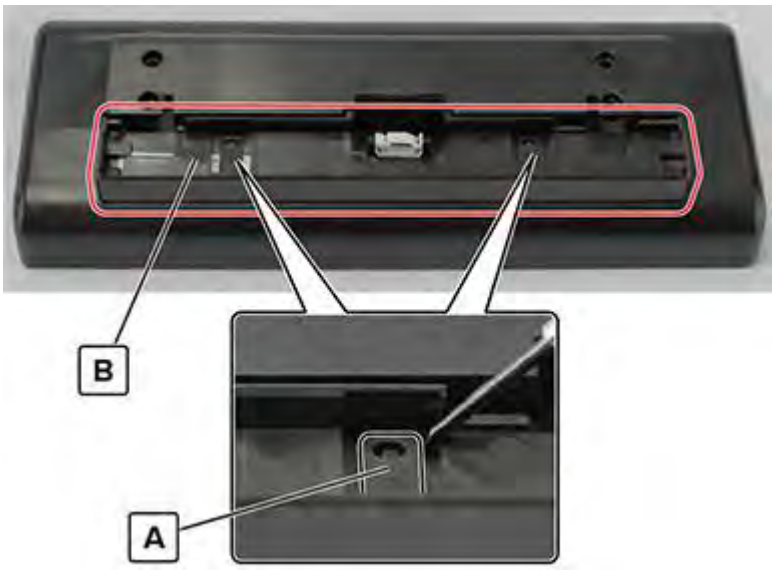
Control panel cable guide cover removal

1 Remove the control panel front cover. See **"Control panel front cover removal" on page 491**.

2 Remove the control panel board. See **"Control panel board removal" on page 491**.

3 Remove the control panel rear cover. See **"Control panel rear cover removal" on page 496**.

4 Release the two latches (A), and then remove the cover (B).



Control panel hinge removal

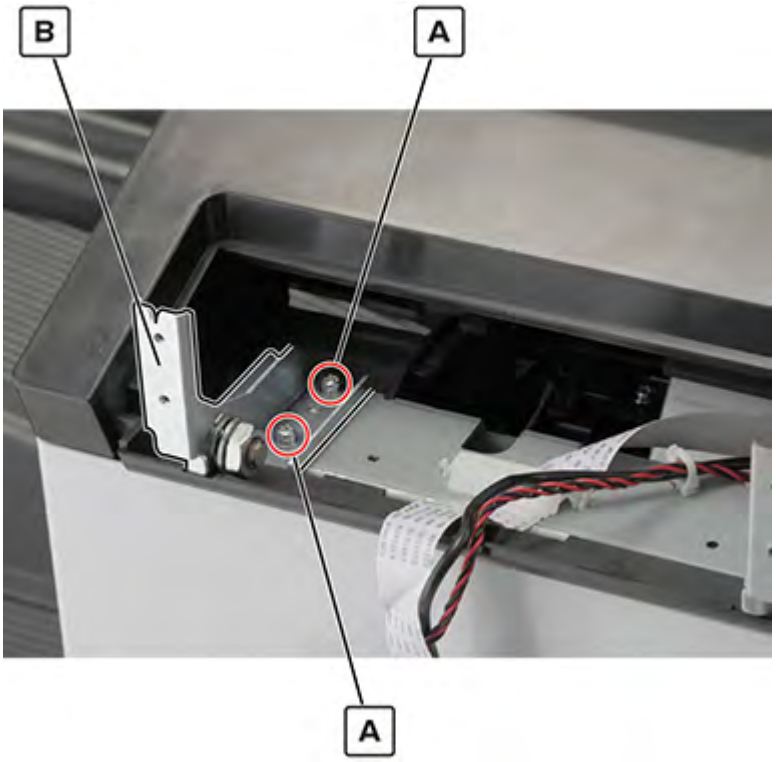
1 Remove the control panel front cover. See **“Control panel front cover removal” on page 491**.

2 Remove the control panel board. See **“Control panel board removal” on page 491**.

3 Remove the control panel rear cover. See **“Control panel rear cover removal” on page 496**.

4 Remove the control panel support base. See **“Control panel support base removal” on page 490**.

5 Remove the two screws (A), and then remove the hinge (B).

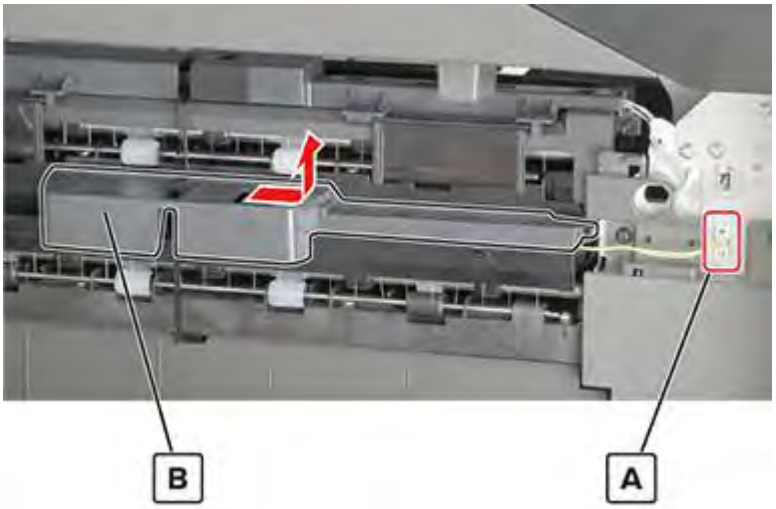


Standard bin exit assembly removal

1 Remove the control panel cable guide upper cover. See **"Control panel cable guide upper cover removal" on page 489**.

2 Remove the standard bin paper bail.

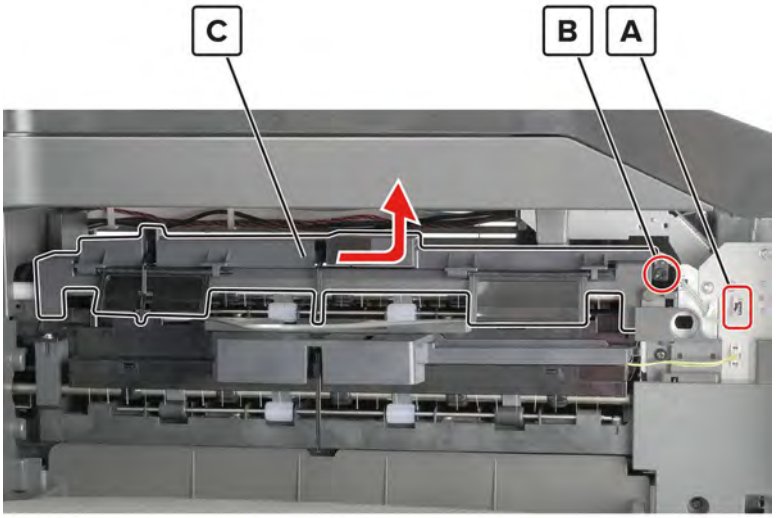
3 Disconnect the cable (A), and then remove the sensor assembly (B).



Redrive exit guide removal

1 Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.

2 Disconnect the cable (A), remove the screw (B), and then remove the redrive exit guide (C).

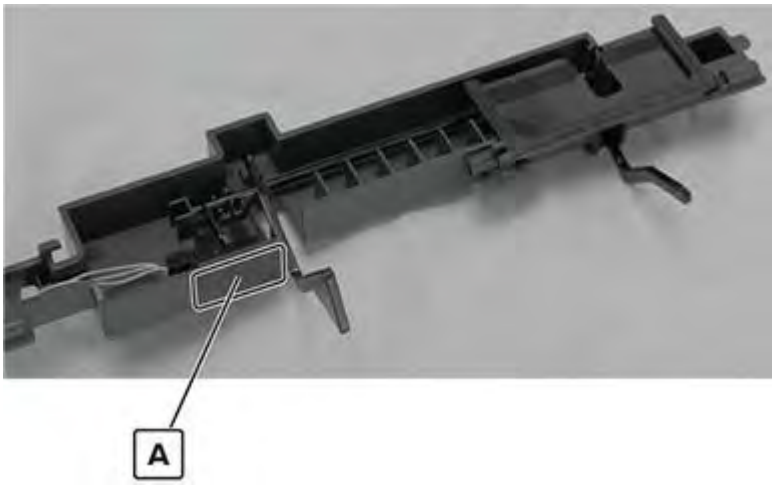


Sensor (redrive exit) removal

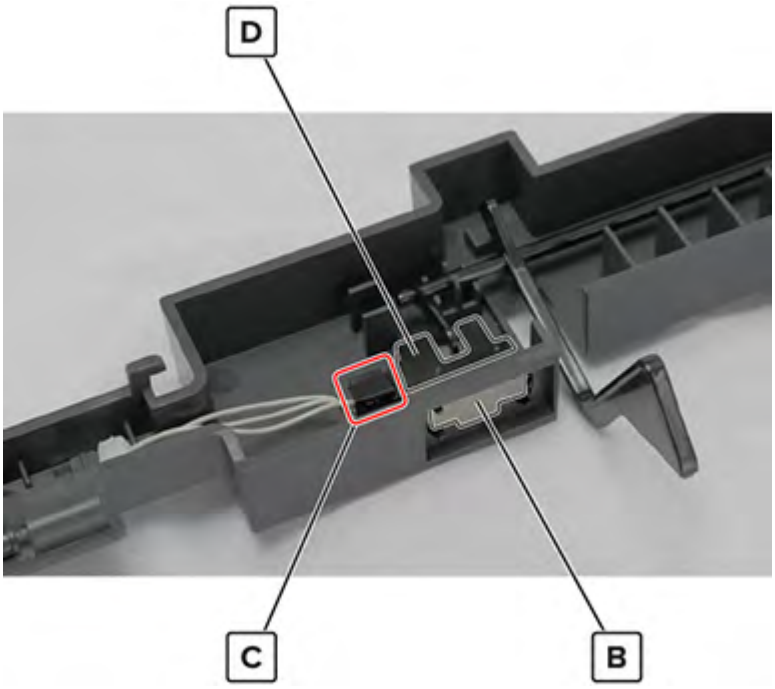
1 Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.

2 Remove the redrive exit guide. See **“Redrive exit guide removal” on page 500**.

3 Remove the Mylar cover (A).



4 Remove the Mylar (B), disconnect the cable (C), and then remove the sensor (D).

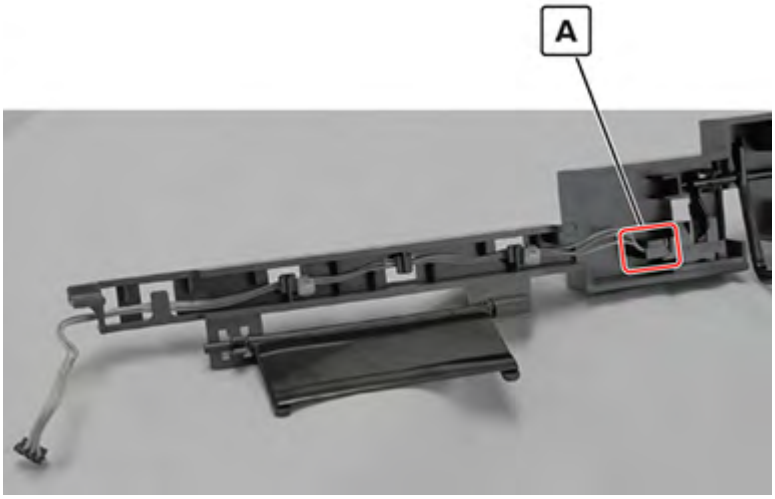


Redrive exit sensor cable removal

1 Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.

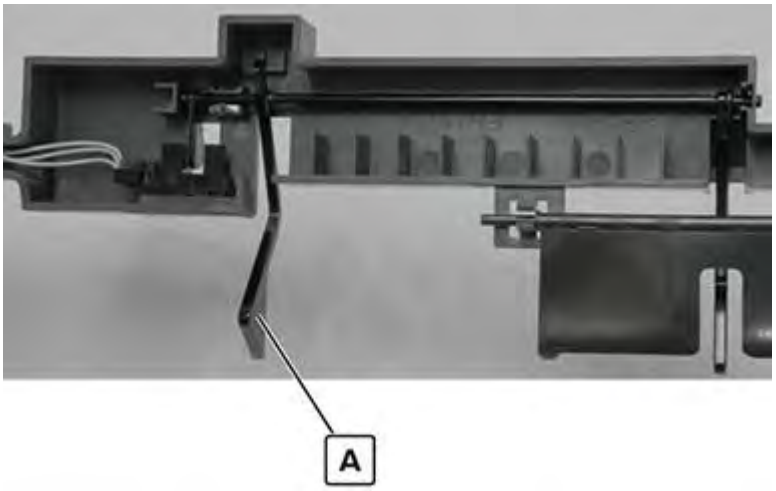
2 Remove the redrive exit guide. See **“Redrive exit guide removal” on page 500**.

3 Disconnect the cable (A), and then remove the cable from the cable guides.



Redrive exit sensor actuator removal

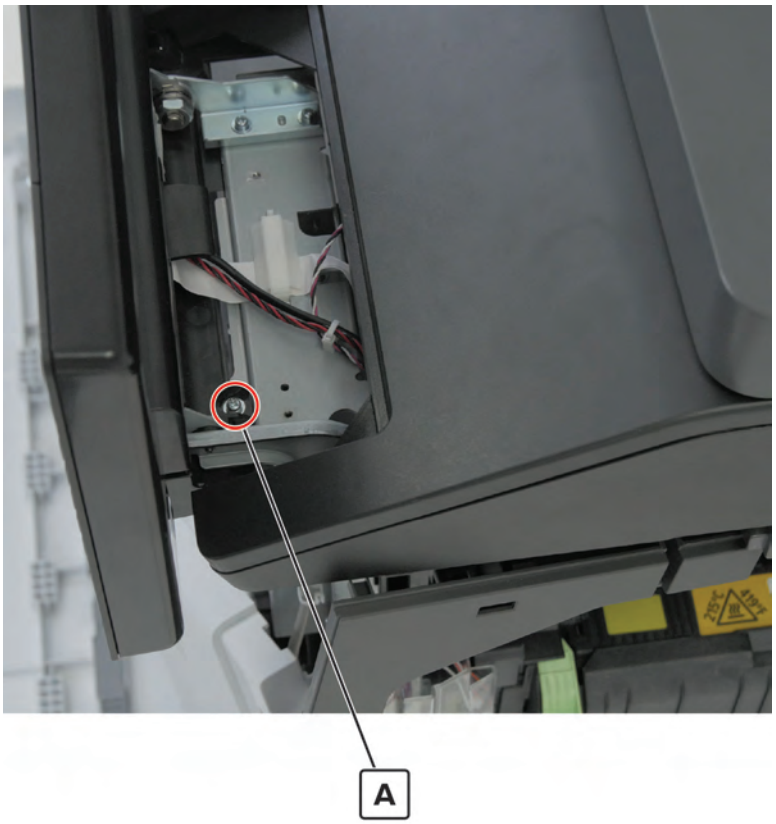
1. Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.
2. Remove the redrive exit guide. See **“Redrive exit guide removal” on page 500**.
3. Remove the actuator (A).



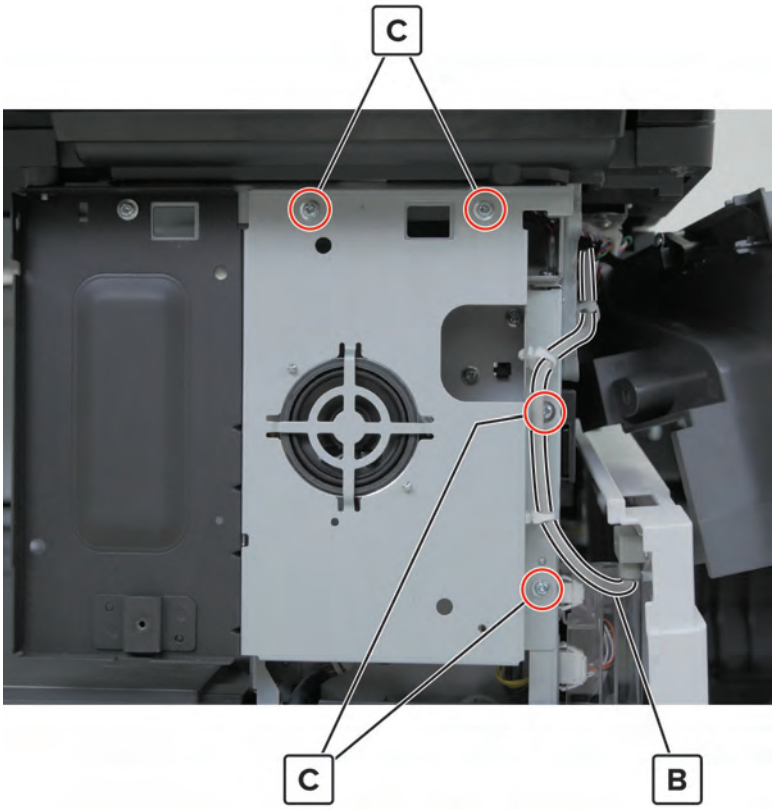
Speaker removal

1. Remove the USB port cover. See **“USB port cover removal” on page 365**.
2. Remove the speaker bottom cover. See **“Speaker bottom cover removal” on page 487**.
3. Remove the speaker cover. See **“Speaker cover removal” on page 488**.
4. Remove the control panel cable guide upper cover. See **“Control panel cable guide upper cover removal” on page 489**.
5. Remove the control panel cable guide lower cover. See **“Control panel cable guide lower cover removal” on page 490**.
6. Remove the control panel support base. See **“Control panel support base removal” on page 490**.

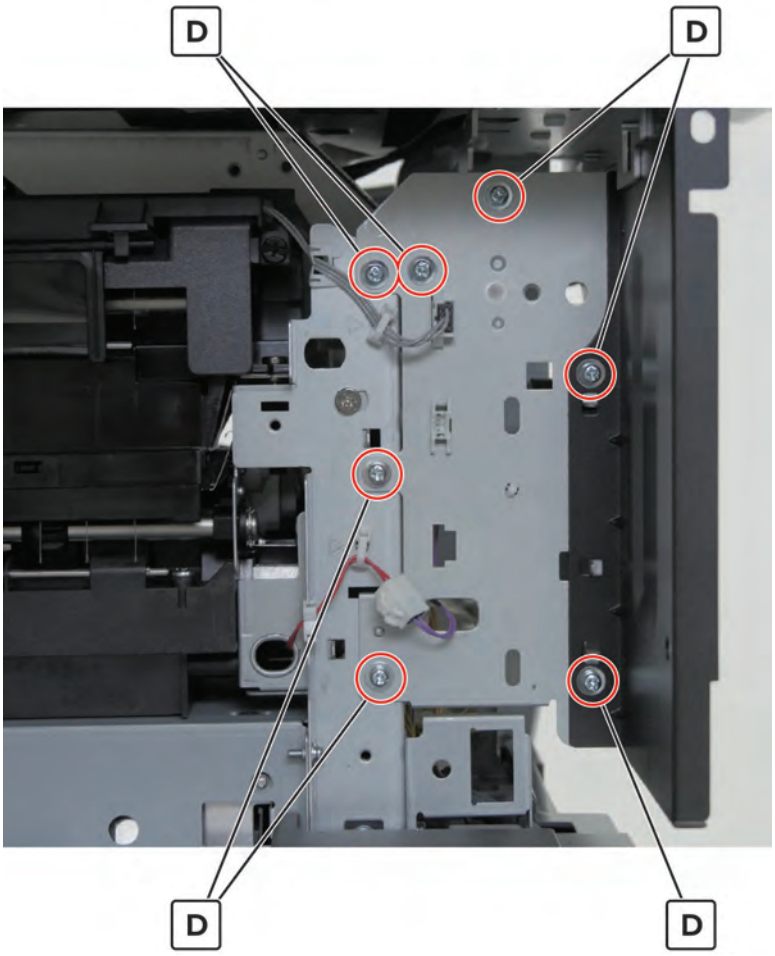
7 Behind the control panel, remove the screw (A).



8 Release the cable (B) from the bracket, and then remove the four screws (C).

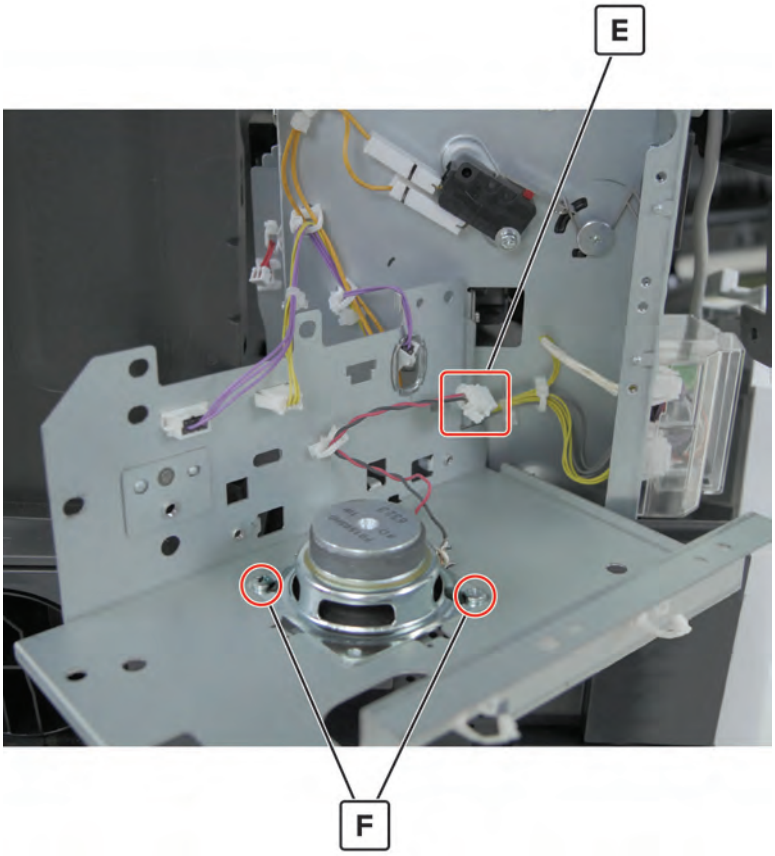


9 Disconnect the cables from the bracket, and then remove the seven screws (D).



10 Pull the bracket, and then disconnect and release the cable (E) from the bracket.

11 Remove the two screws (F), and then remove the speaker.



Right door switch removal

1 Remove the speaker bottom cover. See **"Speaker bottom cover removal" on page 487**.

2 Remove the USB port cover. See **"USB port cover removal" on page 365**.

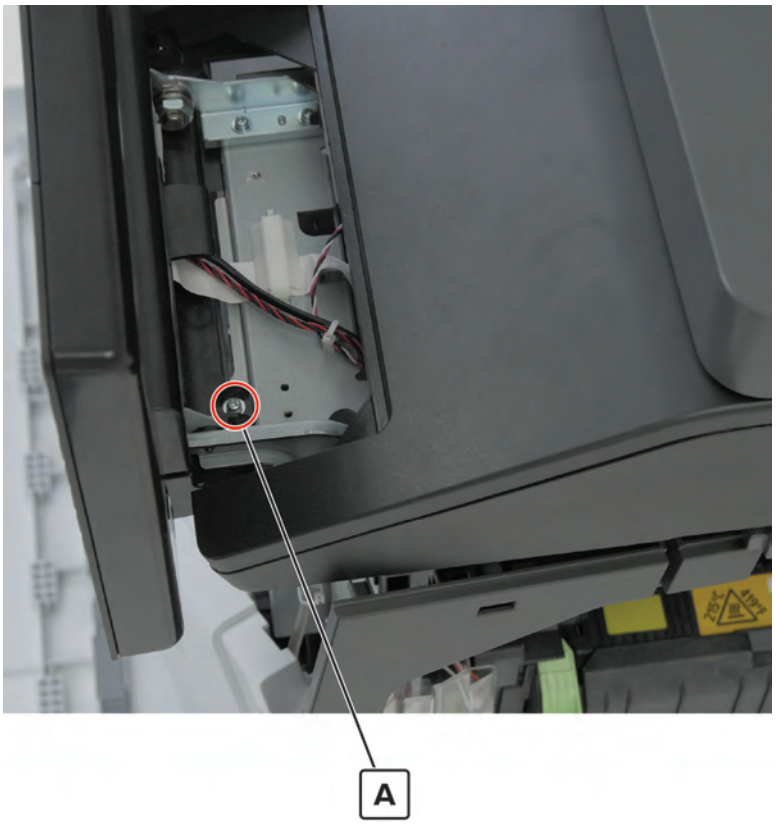
3 Remove the speaker cover. See **"Speaker cover removal" on page 488**.

4 Remove the control panel cable guide upper cover. See **"Control panel cable guide upper cover removal" on page 489**.

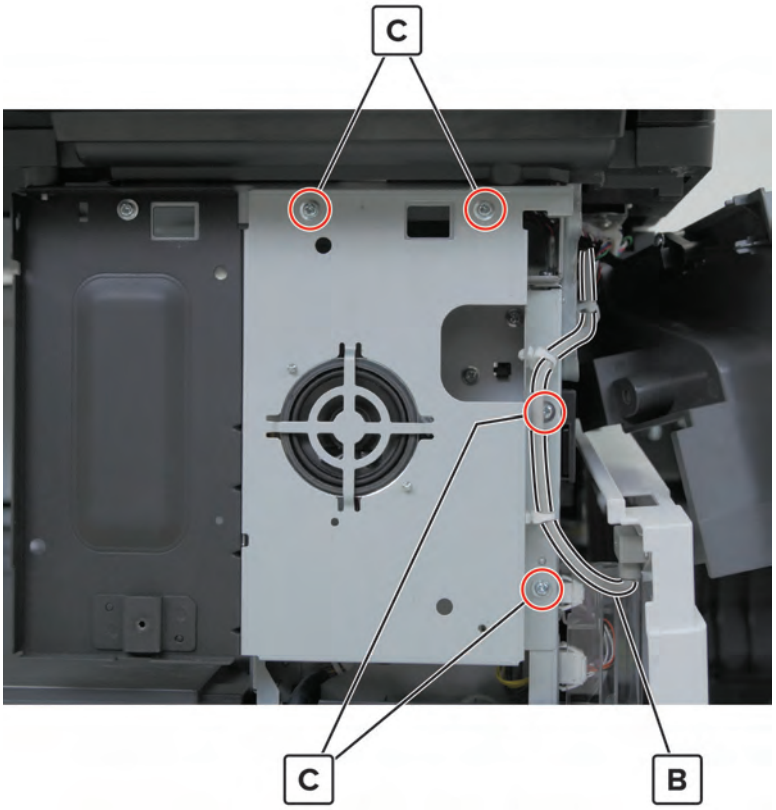
5 Remove the control panel cable guide lower cover. See **"Control panel cable guide lower cover removal" on page 490**.

6 Remove the control panel support base. See **"Control panel support base removal" on page 490**.

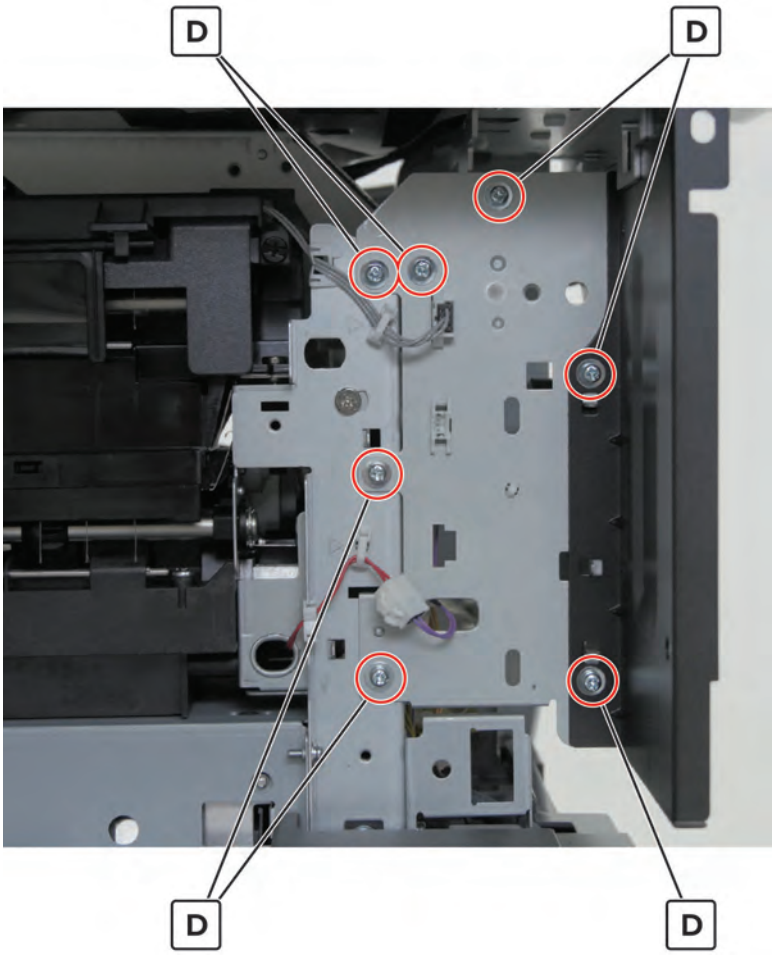
7 Behind the control panel, remove the screw (A).



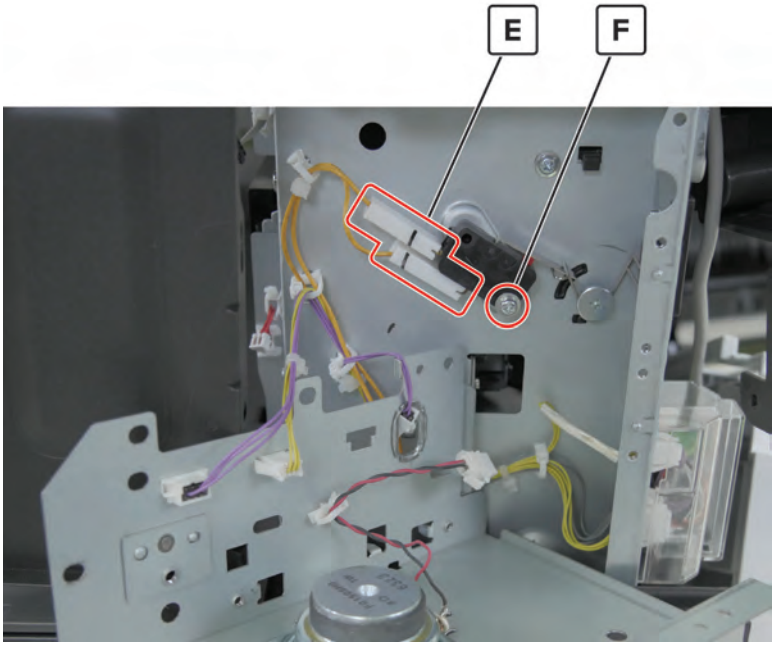
8 Release the cable (B) from the bracket, and then remove the four screws (C).



9 Disconnect the cables from the bracket, and then remove the seven screws (D).

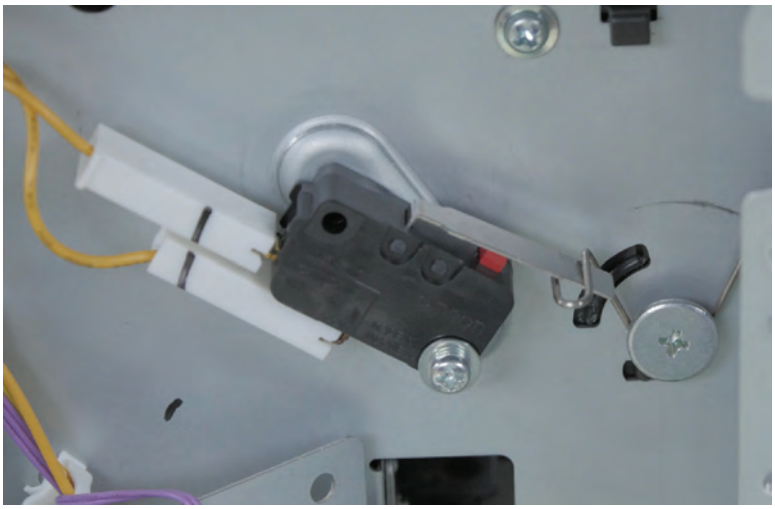


10 Pull the bracket, disconnect the two cables (E), and then remove the screw (F).



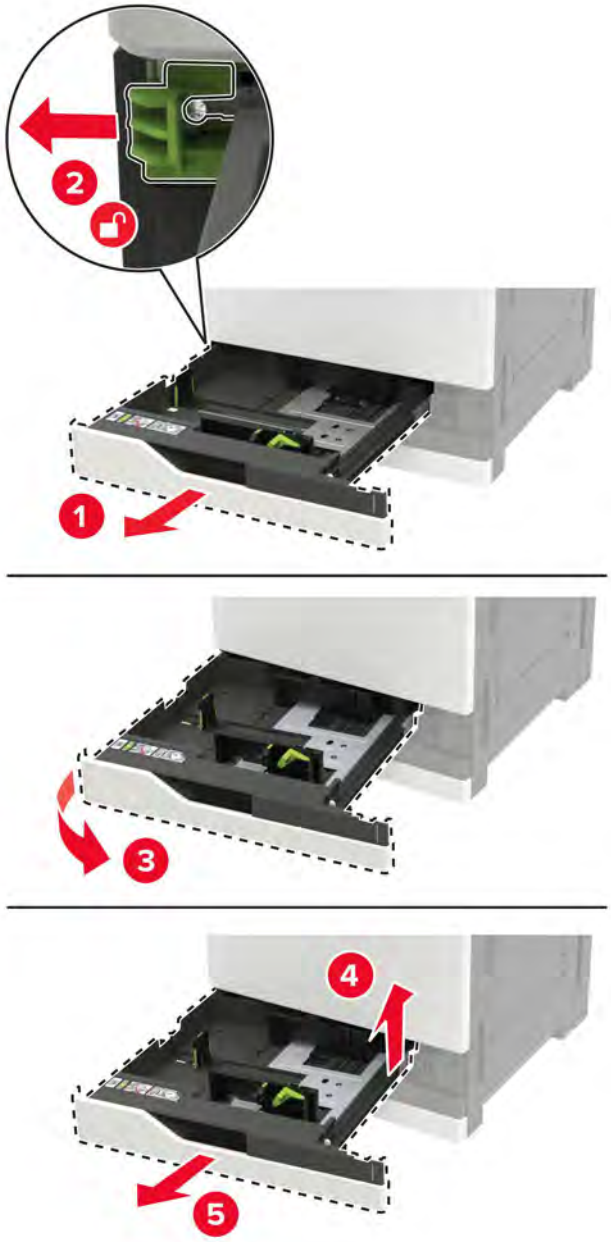
11 Remove the switch.

Installation note: Make sure that the switch lever is properly engaged with its actuator.



Tray insert removal

Remove the tray insert.



Tray 1 and tray 2 stoppers removal

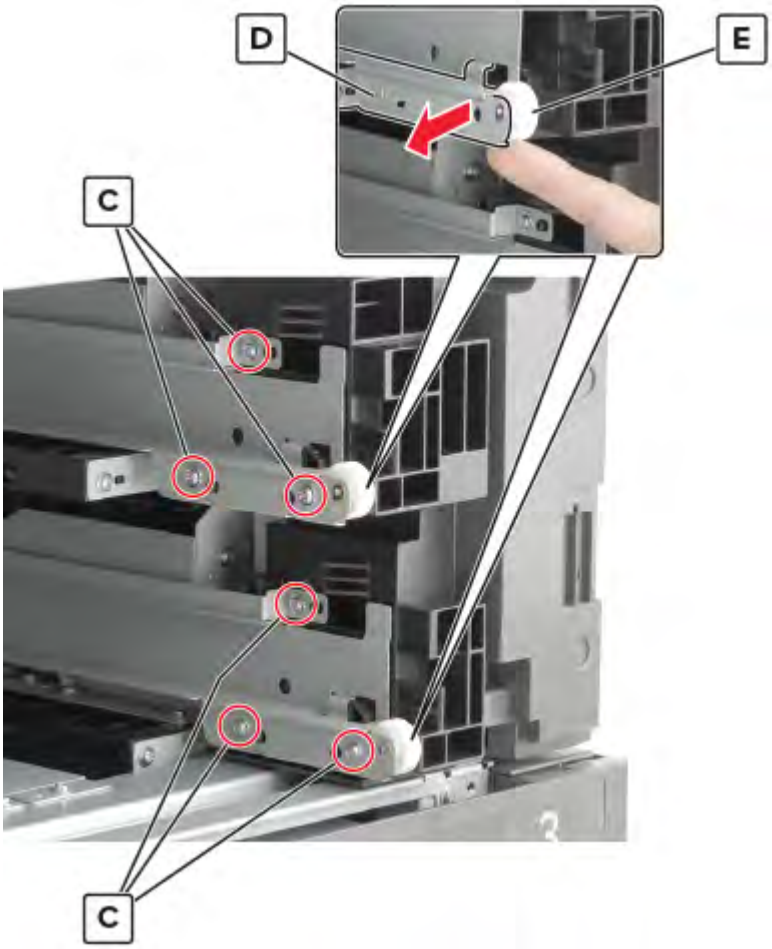
1 Remove the tray 1 and tray 2 inserts. See **“Tray insert removal” on page 511**.

2 Remove the two screws (A), and then remove the two stoppers (B).

Tray 1 and tray 2 rail guide wheels removal

1. Remove the tray 1 and tray 2 inserts. See **“Tray insert removal” on page 511**.
2. Remove the two E-clips (A), and then remove the two rollers (B).

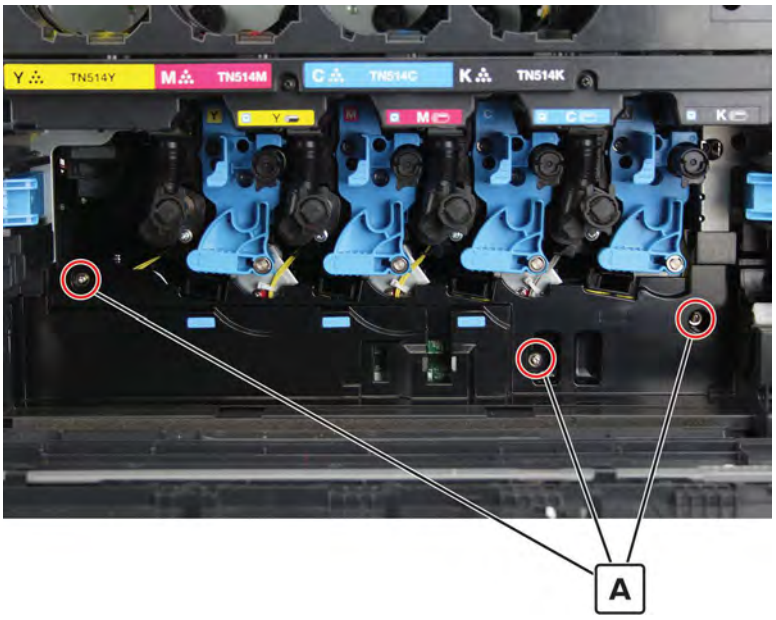
3 Remove the six screws (C), detach the bracket (D) from the frame, and then remove the two wheels (E).



Front inner cover removal

1 Open the front door.

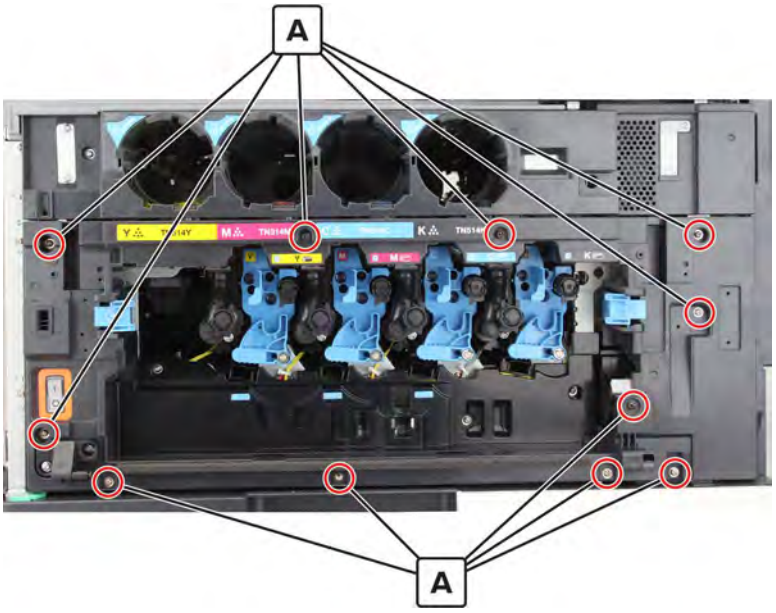
2 Remove the three screws (A), and then remove the cover.



Waste toner door mount removal

1 Remove the front door. See **"Front door removal" on page 487**.

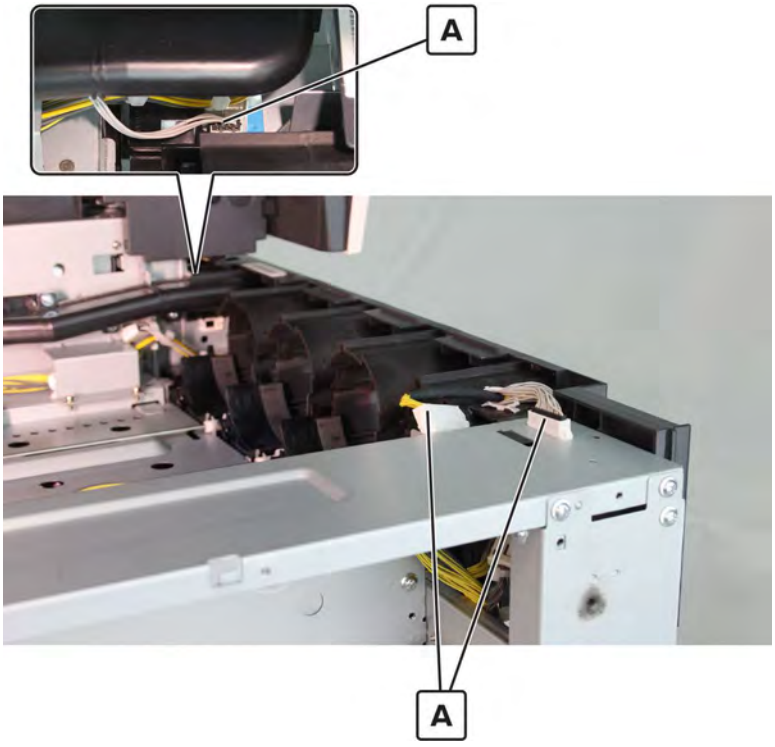
2 Open the front door, and then remove the 11 screws (A).



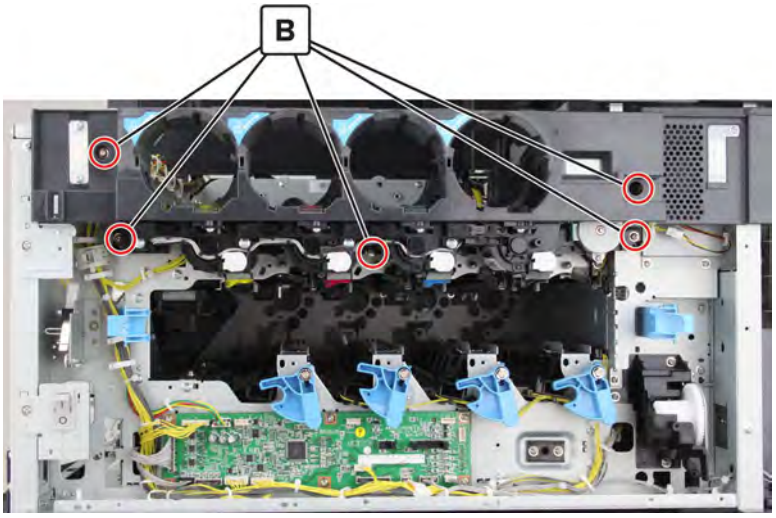
3 Remove the cover.

Toner agitator removal

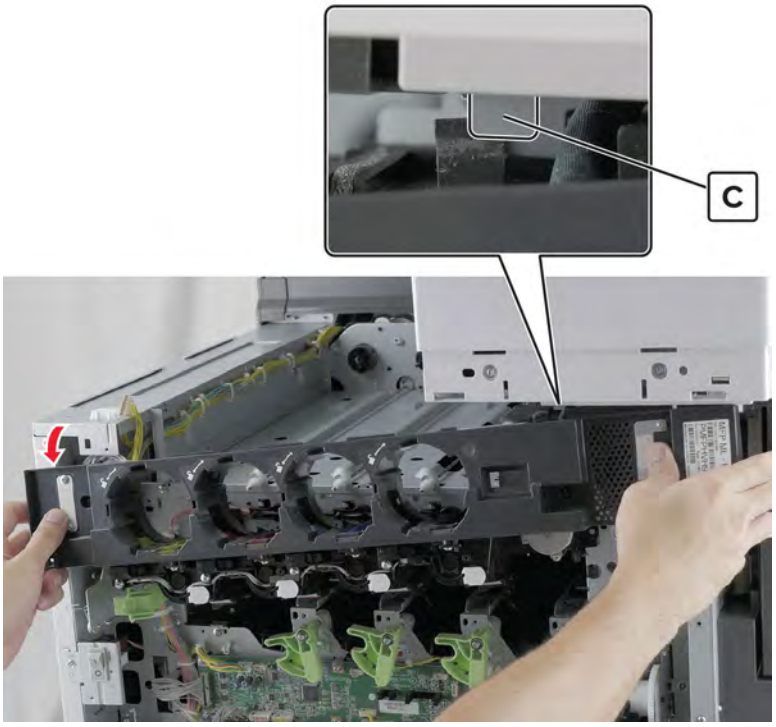
1. Remove the front door. See **“Front door removal” on page 487**.
2. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
3. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
4. Remove the left cover. See **“Left cover removal” on page 348**.
5. Remove the standard bin. See **“Standard bin removal” on page 658**.
6. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
7. Disconnect the three cables (A).



8 Remove the five screws (B).



9 Slightly twist the agitator while pulling it to clear the tab (C).



10 Remove the toner agitator.

Motor (K toner supply) removal

1 Remove the front door. See **“Front door removal” on page 487**.

2 Remove the left cover. See **“Left cover removal” on page 348**.

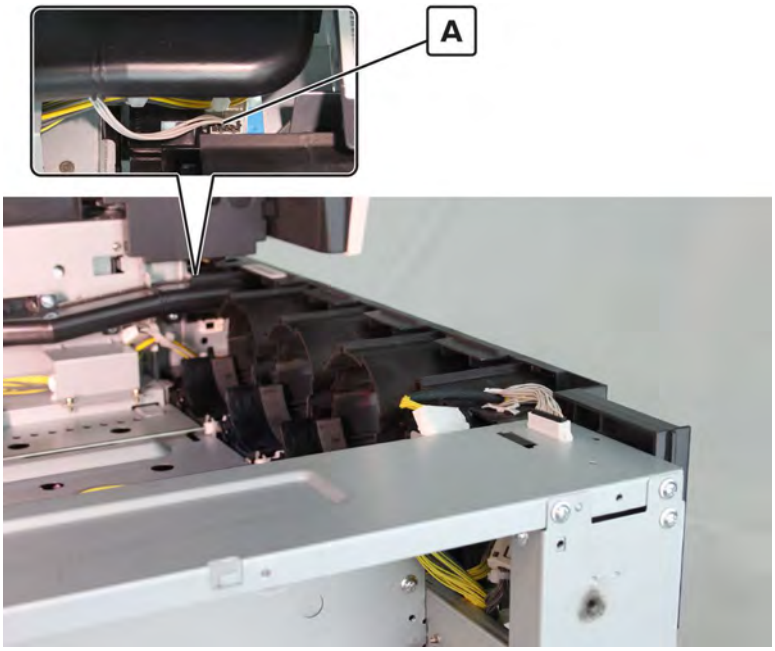
3 Remove the standard bin. See **“Standard bin removal” on page 658**.

4 Remove the standard bin base. See **“Standard bin base removal” on page 658**.

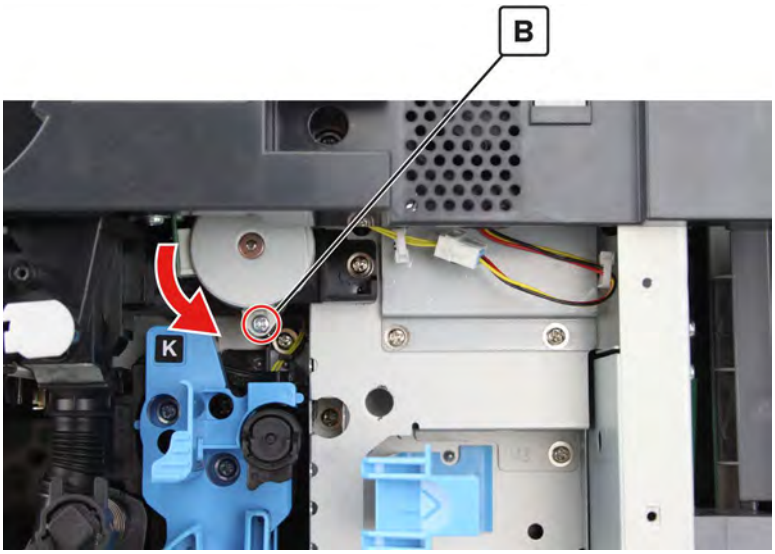
5 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

6 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

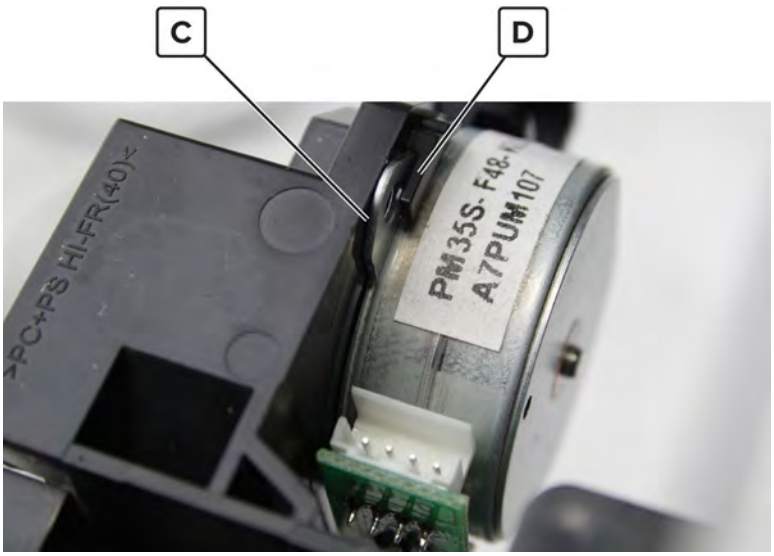
7 Disconnect the cable (A).



8 Remove the screw (B), and then rotate the motor counterclockwise to remove.

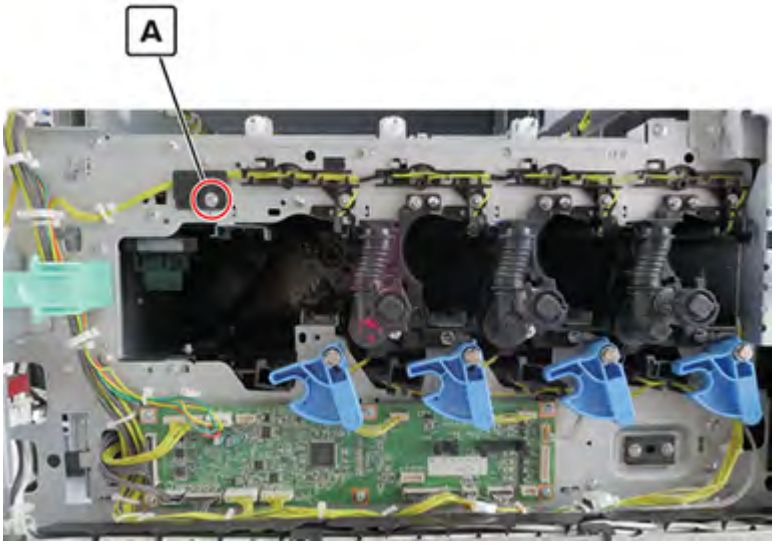


Installation note: Make sure that the tab (C) on the motor is properly aligned to the tab (D) on the agitator assembly.

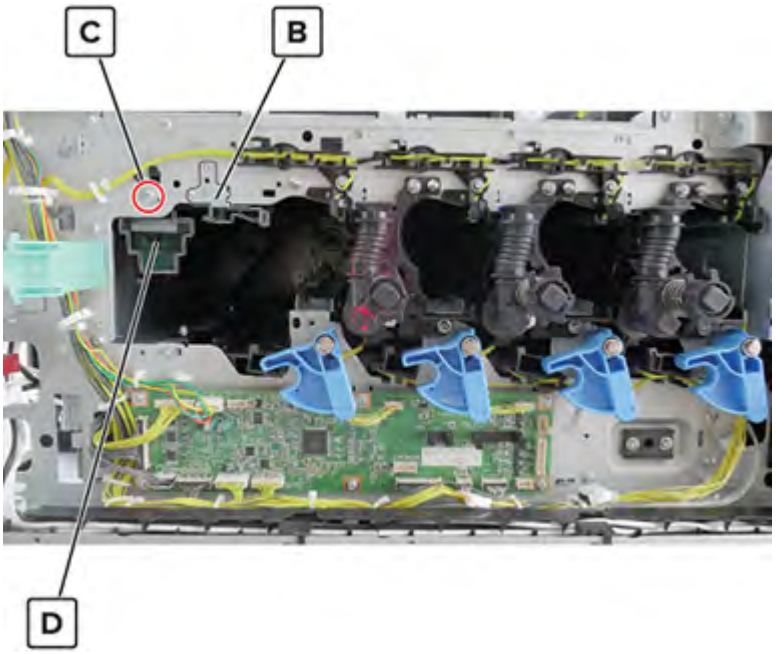


Transfer belt fan and duct removal

1. Remove all the photoconductor units.
2. Remove the front door. See **“Front door removal” on page 487**.
3. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
4. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
5. Remove the standard bin. See **“Standard bin removal” on page 658**.
6. Remove the toner agitator. See **“Toner agitator removal” on page 516**.
7. Remove the Y developer. See **“Developer unit (Y) removal” on page 523**.
8. Remove the screw (A).



9 Remove the rail (B), remove the screw (C), and then remove the duct (D).

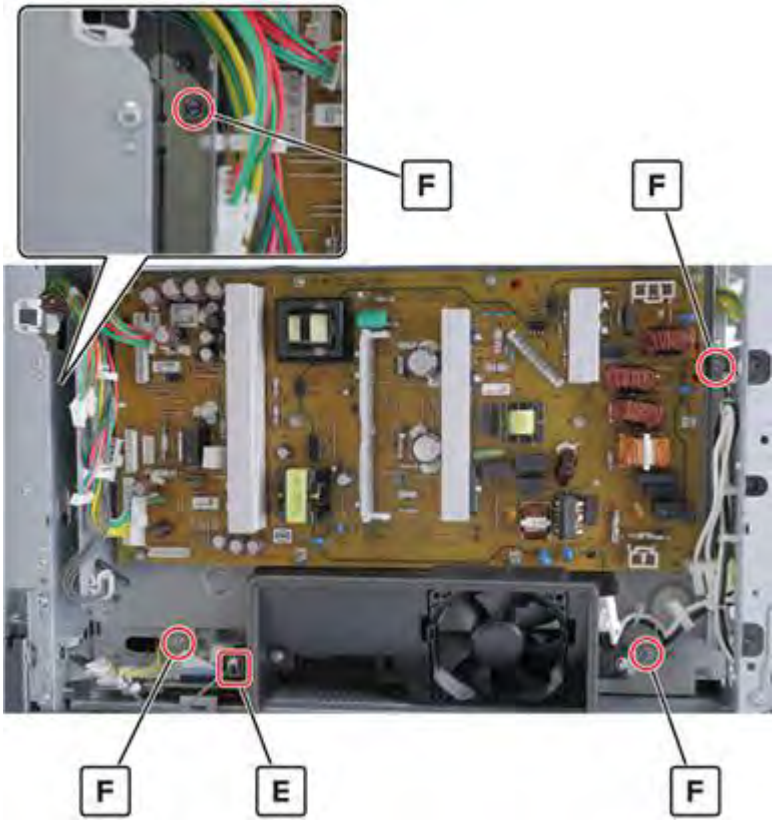


10 Remove the left cover. See **"Left cover removal" on page 348**.

11 Remove the main power supply shield. See **"Main power supply shield removal" on page 352**.

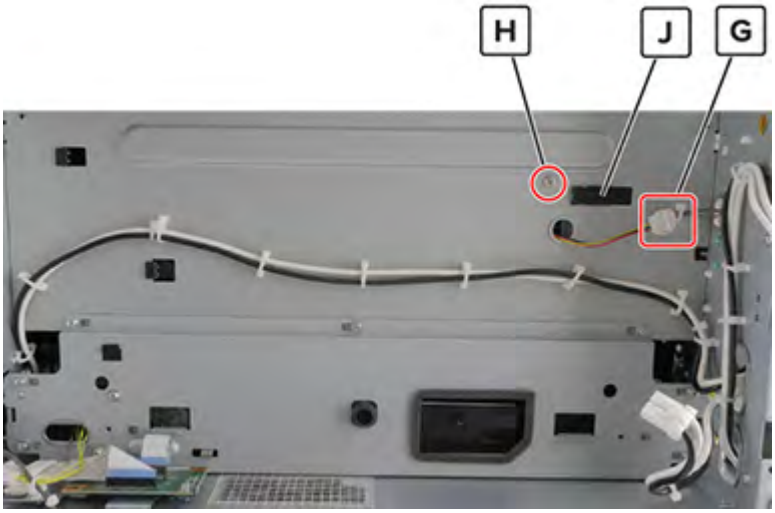
12 Disconnect all cables from the main power supply, disconnect the fan cable (E), and then remove the four screws (F).

CAUTION—SHOCK HAZARD: The main power supply may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its housing.



13 Remove the main power supply.

14 Disconnect the cable (G), remove the screw (H), and then detach the latch (J) to remove the fan duct.



15 Remove the two screws (K), and then remove the fan (L) from the fan duct (M).

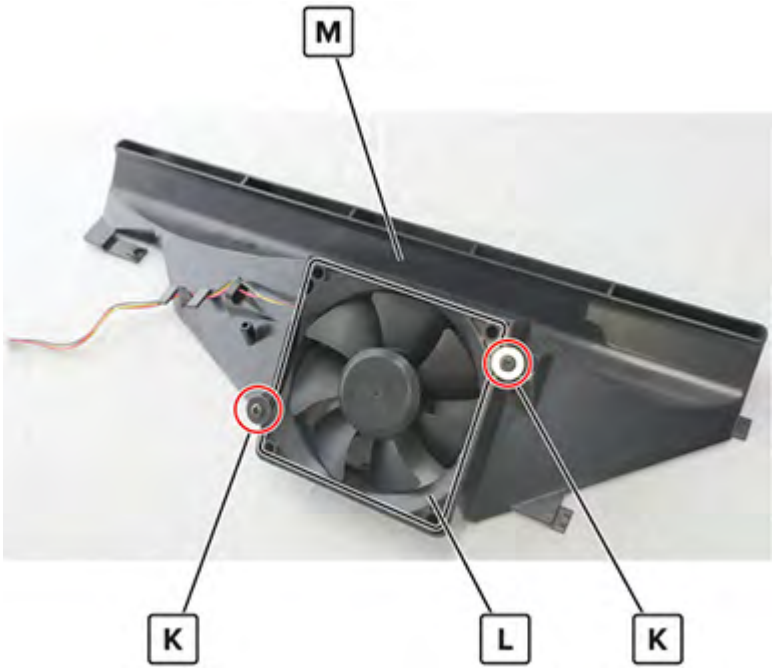
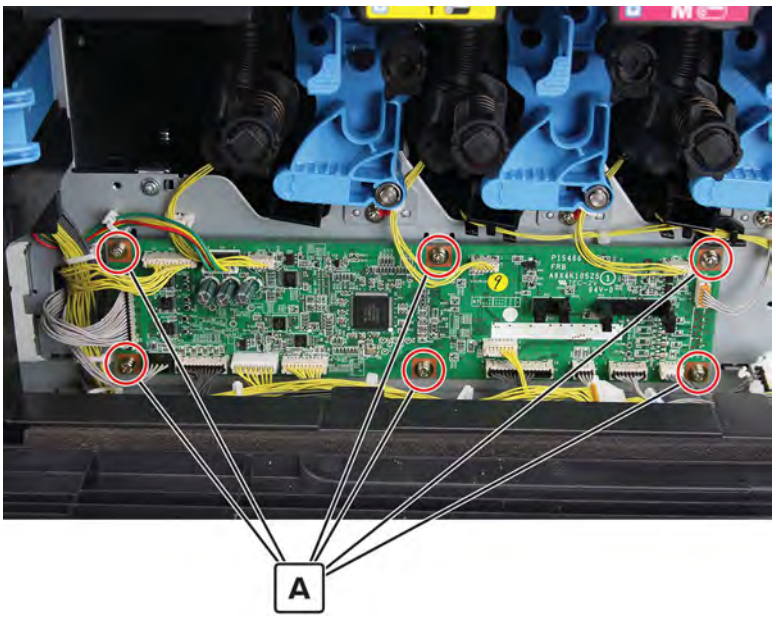


Image controller board removal

1 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

2 Disconnect all the cables, and then remove the six screws (A).



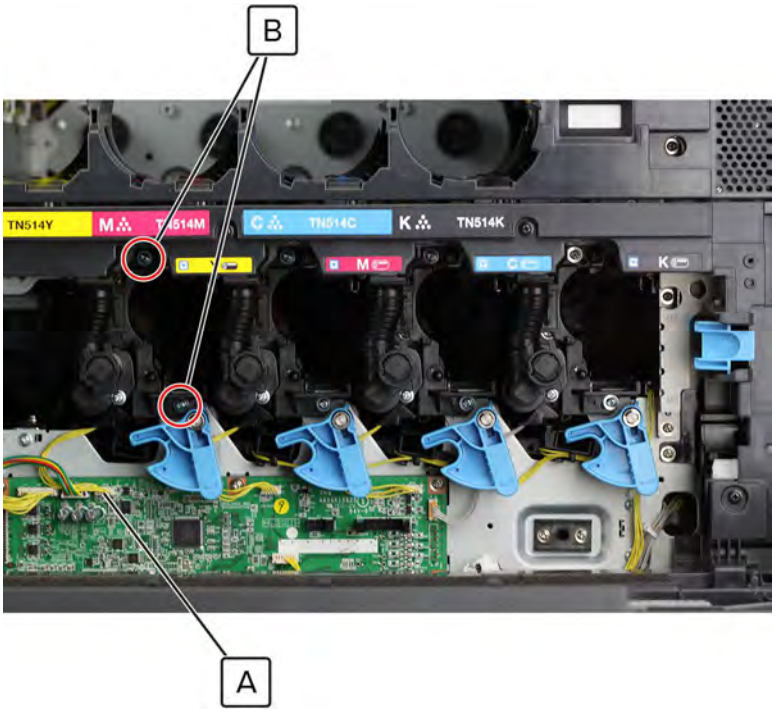
3 Remove the board.

Developer unit (Y) removal

Note: For a video demonstration, see **Developer unit removal**.

1 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

2 Disconnect the cable (A), and then remove the two screws (B).



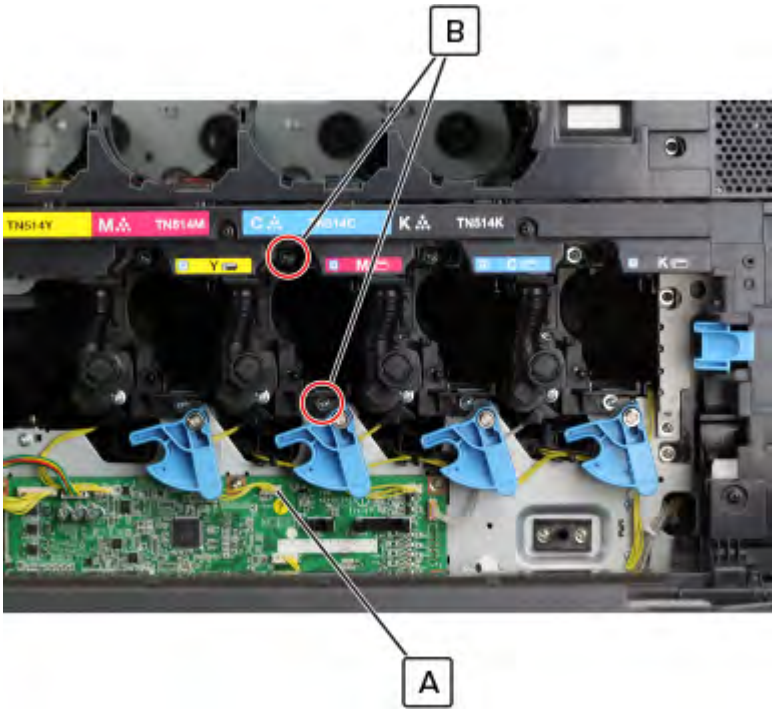
3 Remove the developer.

Developer unit (M) removal

Note: For a video demonstration, see **Developer unit removal**.

1 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

2 Disconnect the cable (A), and then remove the two screws (B).



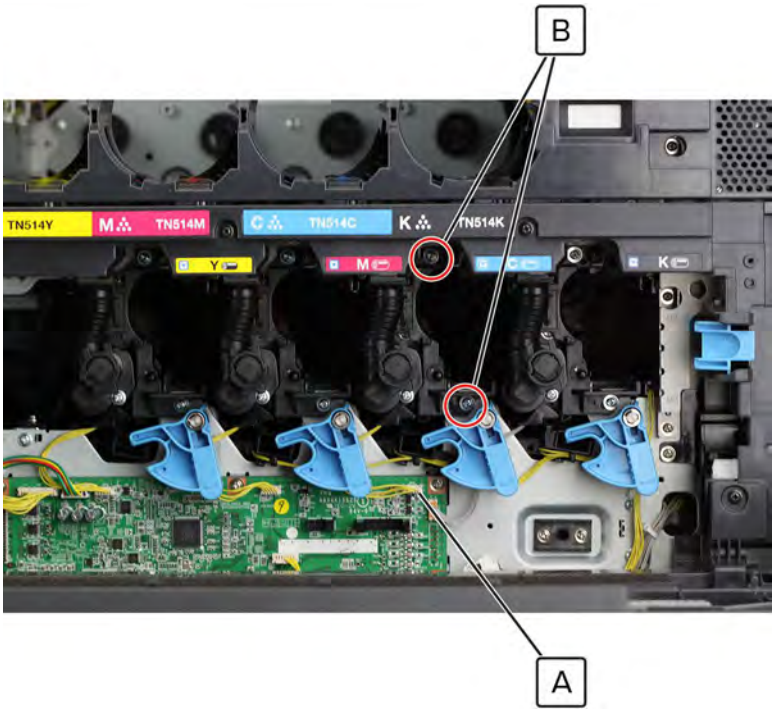
3 Remove the developer.

Developer unit (C) removal

Note: For a video demonstration, see **Developer unit removal**.

1 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

2 Disconnect the cable (A), and then remove the two screws (B).



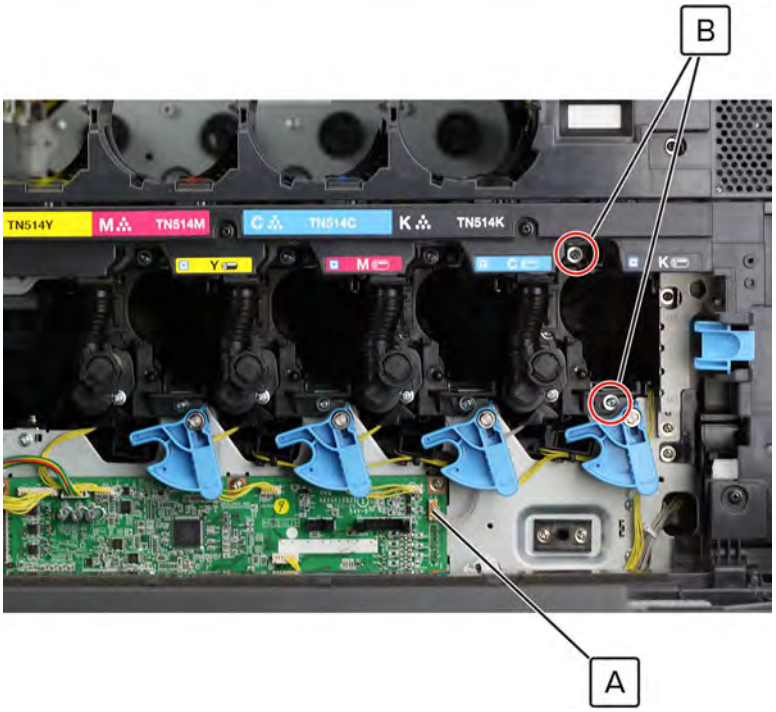
3 Remove the developer.

Developer unit (K) removal

Note: For a video demonstration, see **Developer unit removal**.

1 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

2 Disconnect the cable (A), and then remove the two screws (B).



3 Remove the developer.

Toner cartridge contact removal

1 Remove the front door. See **"Front door removal" on page 487**.

2 Remove the left cover. See **"Left cover removal" on page 348**.

3 Remove the standard bin. See **"Standard bin removal" on page 658**.

4 Remove the standard bin base. See **"Standard bin base removal" on page 658**.

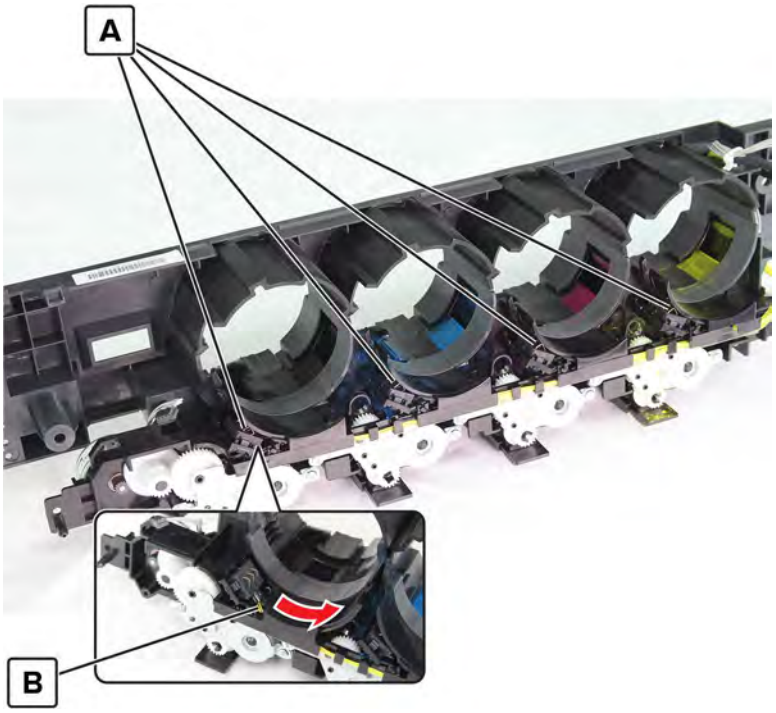
5 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

6 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

7 Remove the toner agitator. See **"Toner agitator removal" on page 516**.

8 Open the appropriate cover to access the contact (A).

9 Release the contact, and then disconnect its cable (B).



10 Remove the contact.

Sensor (toner empty) removal

1 Remove the front door. See **“Front door removal” on page 487**.

2 Remove the left cover. See **“Left cover removal” on page 348**.

3 Remove the standard bin. See **“Standard bin removal” on page 658**.

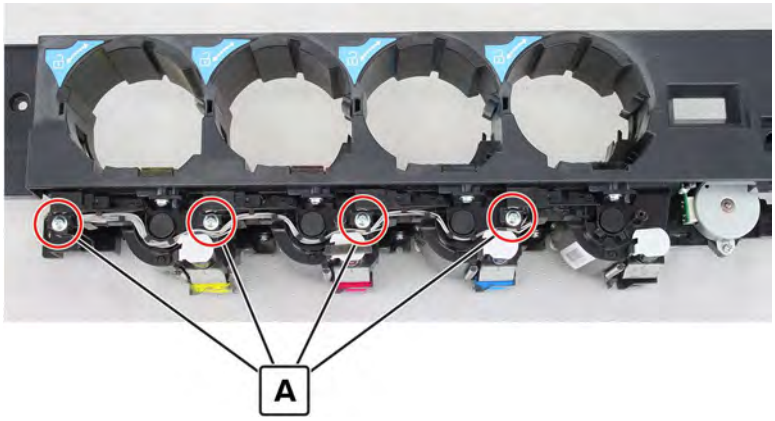
4 Remove the standard bin base. See **“Standard bin base removal” on page 658**.

5 Remove the front inner cover. See **“Front inner cover removal” on page 515**.

6 Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.

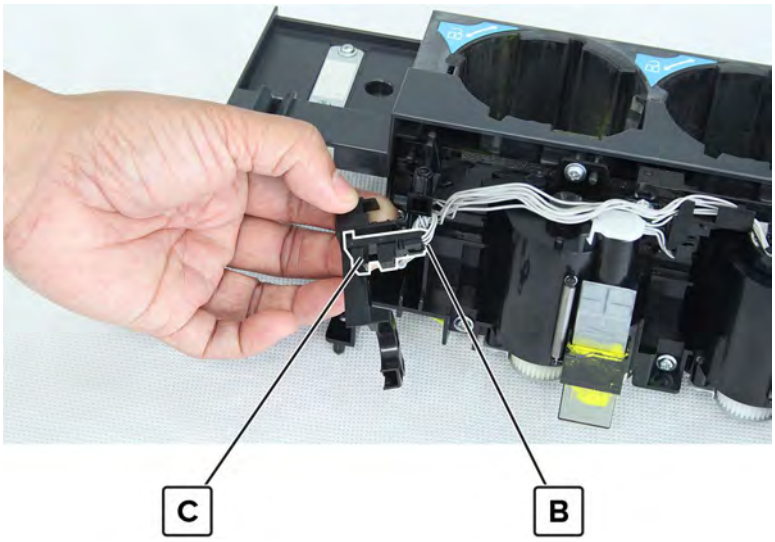
7 Remove the toner agitator. See **“Toner agitator removal” on page 516**.

8 Remove the screw (A) from the appropriate sensor.



9 Release the sensor cable, pull the bracket, and then disconnect the cable (B).

10 Remove the sensor (C).



Photoconductor release lever removal

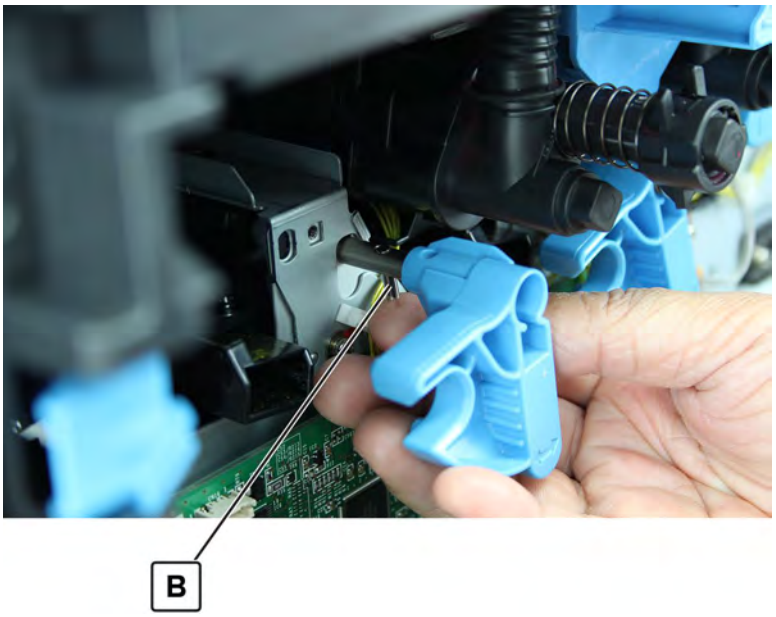
1 Open the front door.

2 Unlock the appropriate lever, and then remove the E-clip (A).

3 Pull the lever, and then remove it.

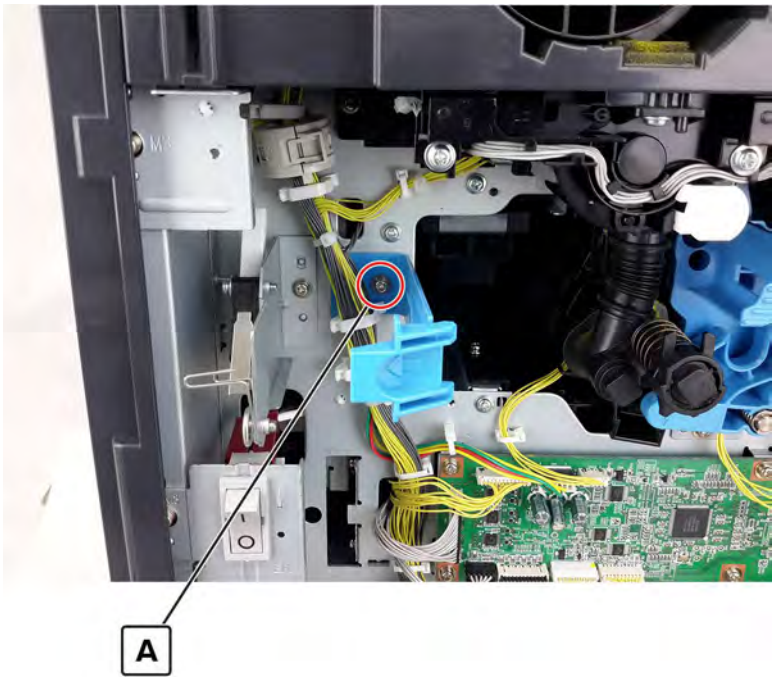
Warning—Potential Damage: Do not lose the pin (B).

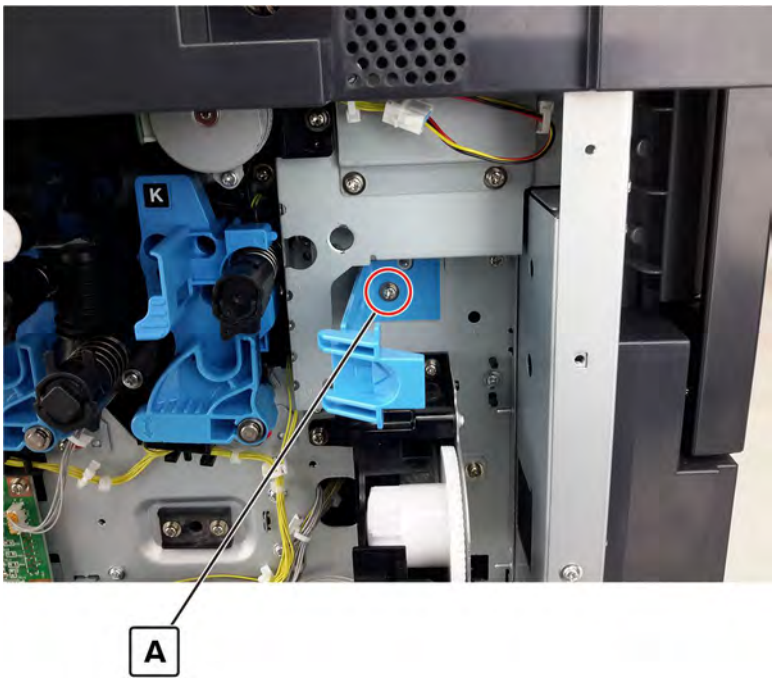
Installation note: Before inserting the lever to the shaft, insert the pin (B) and follow the pin position as shown.



Waste toner bottle latch removal

1. Remove the front door. See **"Front door removal" on page 487**.
2. Remove the front inner cover. See **"Front inner cover removal" on page 515**.
3. Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.
4. Remove the screw (A), and then remove the latch.

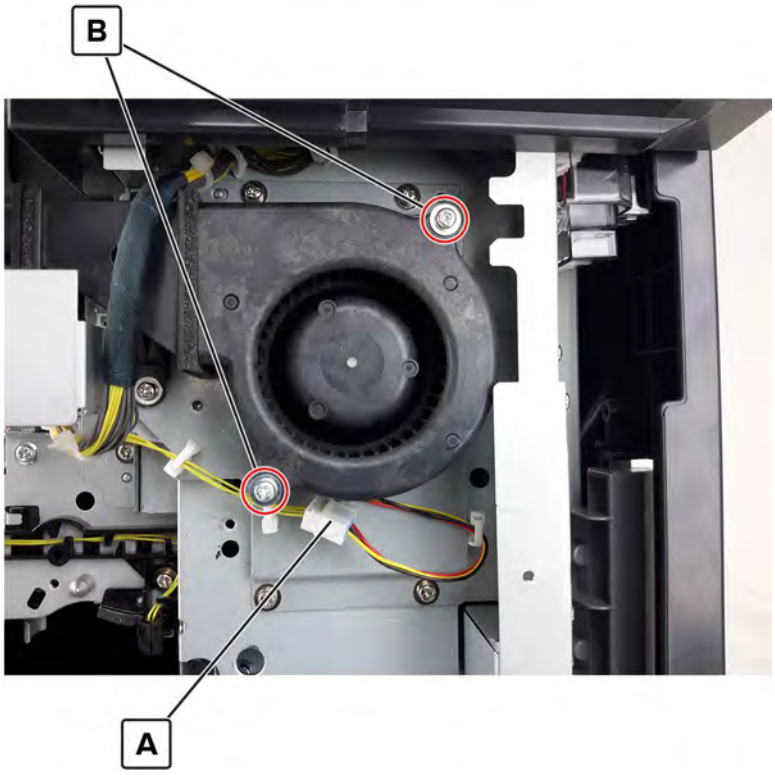




Heater cooling fan removal

1. Remove the front door. See **“Front door removal” on page 487**.
2. Remove the left cover. See **“Left cover removal” on page 348**.
3. Remove the standard bin. See **“Standard bin removal” on page 658**.
4. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
5. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
6. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
7. Remove the toner agitator. See **“Toner agitator removal” on page 516**.

8 Disconnect the cable (A), and then remove the two screws (B).



9 Remove the fan.

Photoconductor relay contact removal

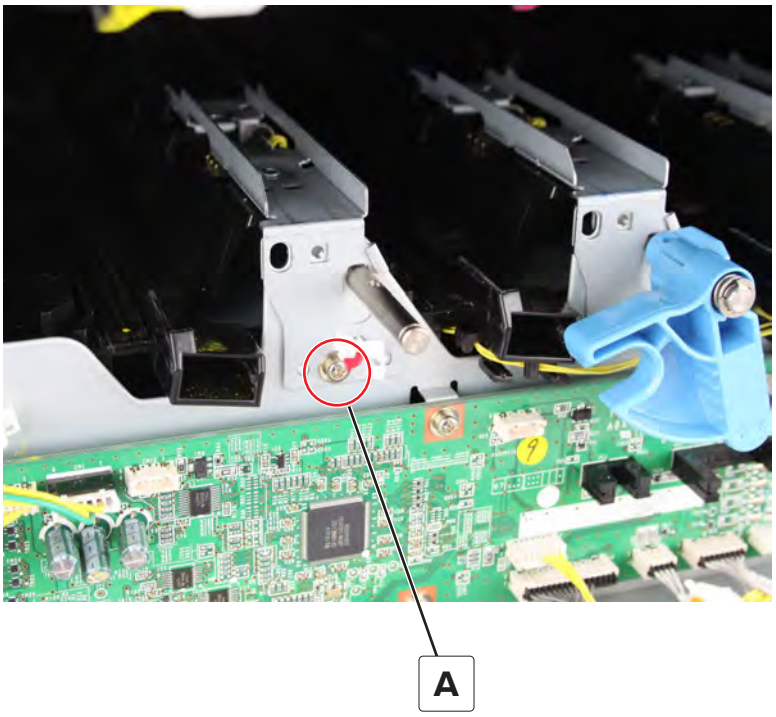
1 Remove the front door. See **"Front door removal" on page 487**.

2 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

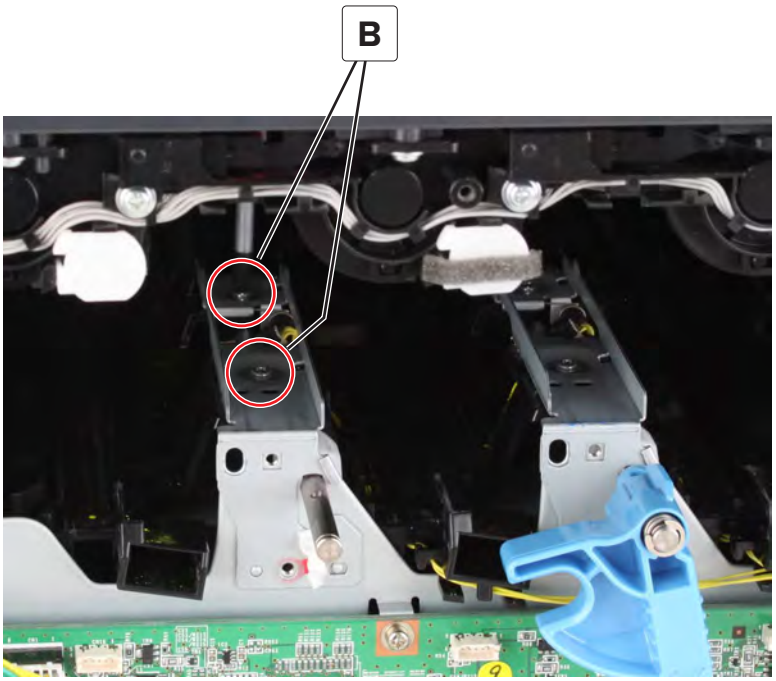
3 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

4 Remove the photoconductor release lever. See **"Photoconductor release lever removal" on page 529**.

5 Remove the screw (A).



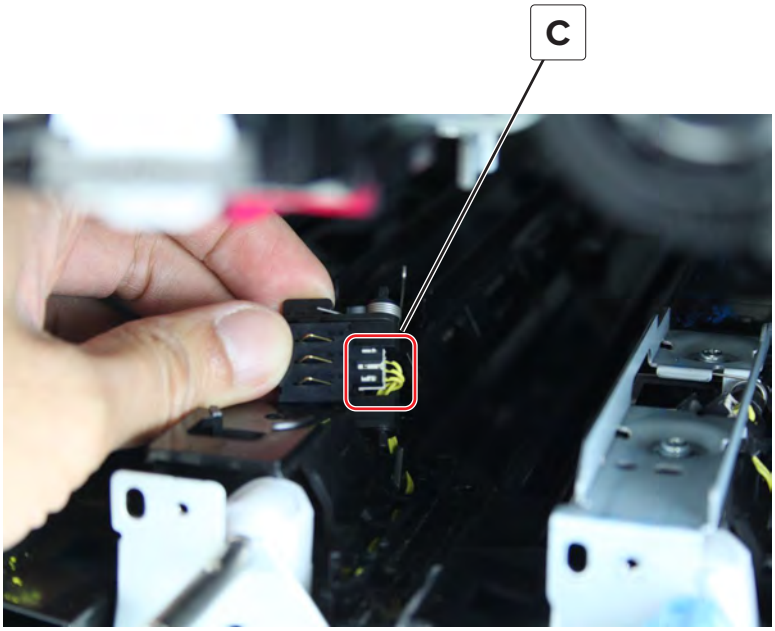
6 Remove the two screws (B).



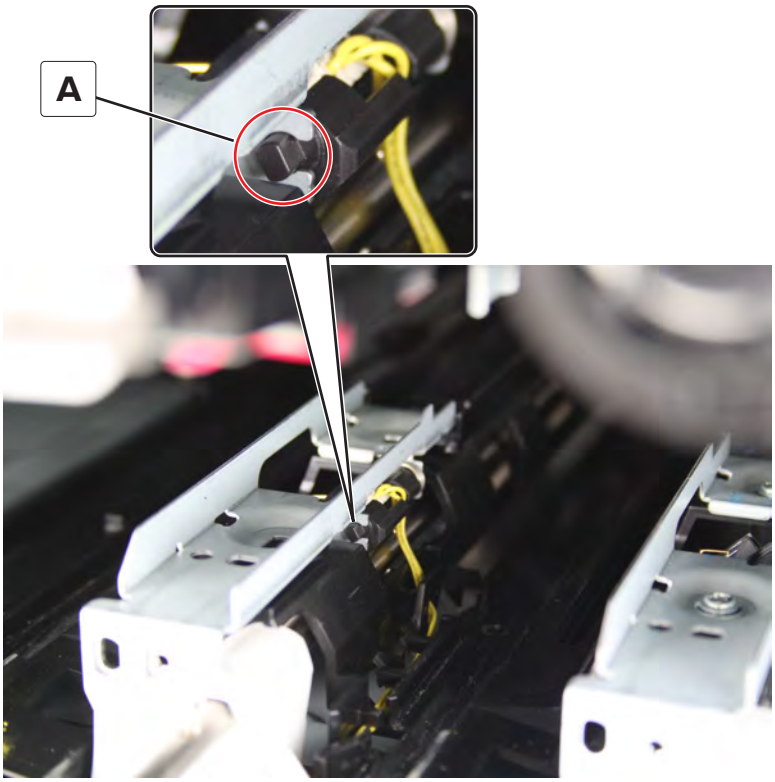
7 Remove the housing, and then separate it from the contact.

Warning—Potential Damage: Do not lose the spring.

8 Disconnect the cable (C), and then remove the contact.



Installation note: Make sure that the pin (A) is properly engaged with its frame joint.

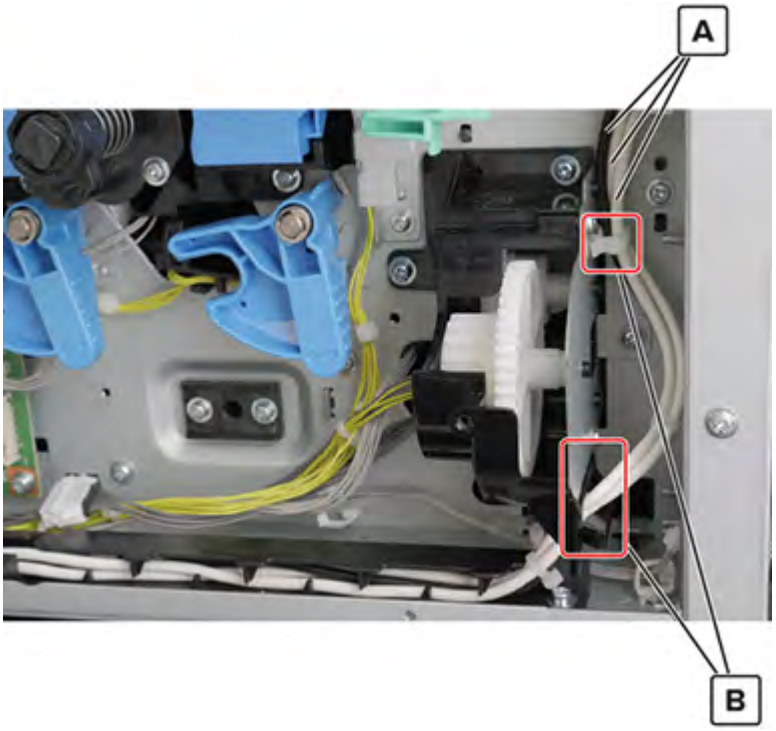


Installation note: Make sure that the spring is properly installed.

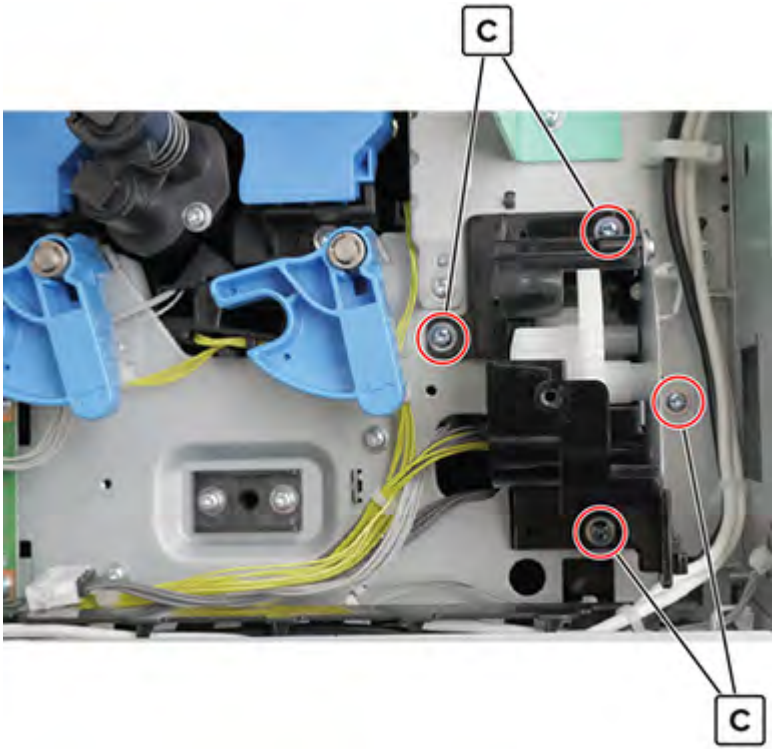
Installation note: Make sure that the cable is properly routed.

Waste toner drive removal

1. Remove the waste toner bottle.
2. Remove the front door. See **“Front door removal” on page 487**.
3. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
4. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
5. Remove the three cables (A) from the two cable guides (B).



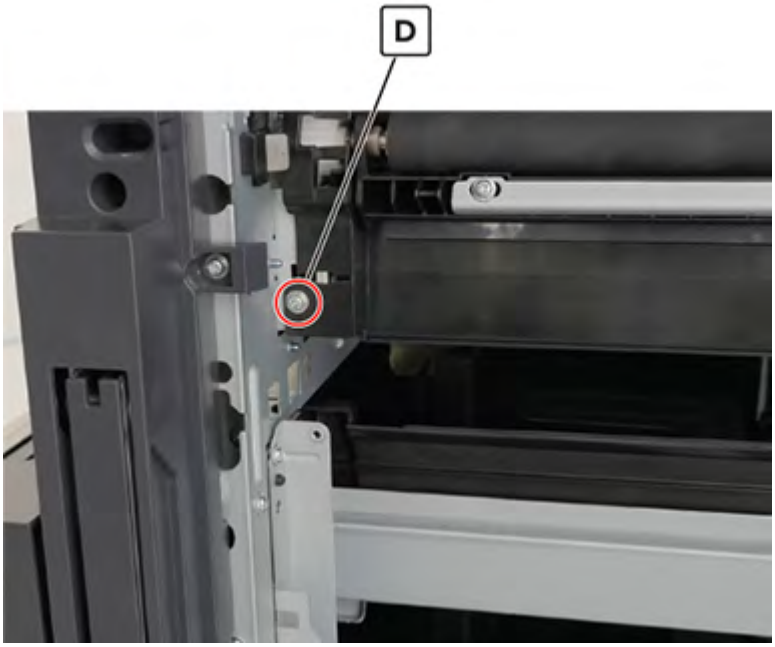
6 Remove the four screws (C).



7 Open the right door.

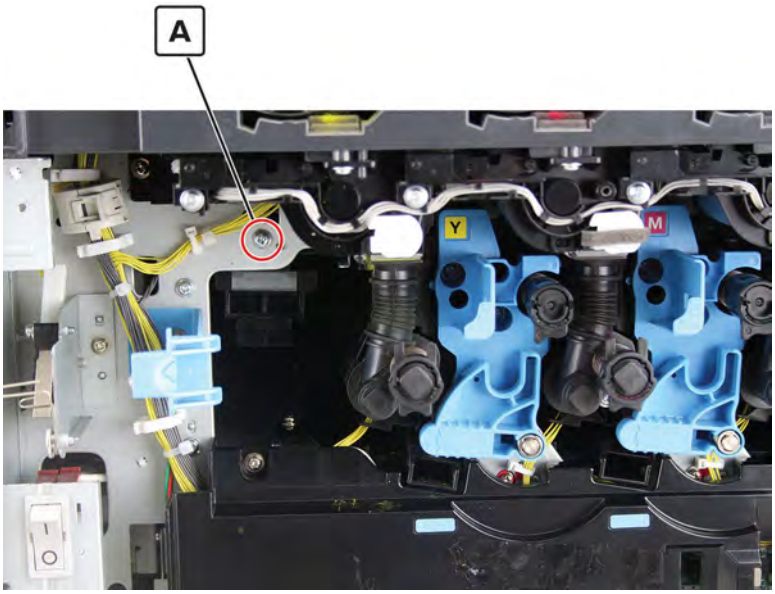
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.

8 Remove the screw (D), and then remove the waste toner drive.



Waste toner duct removal

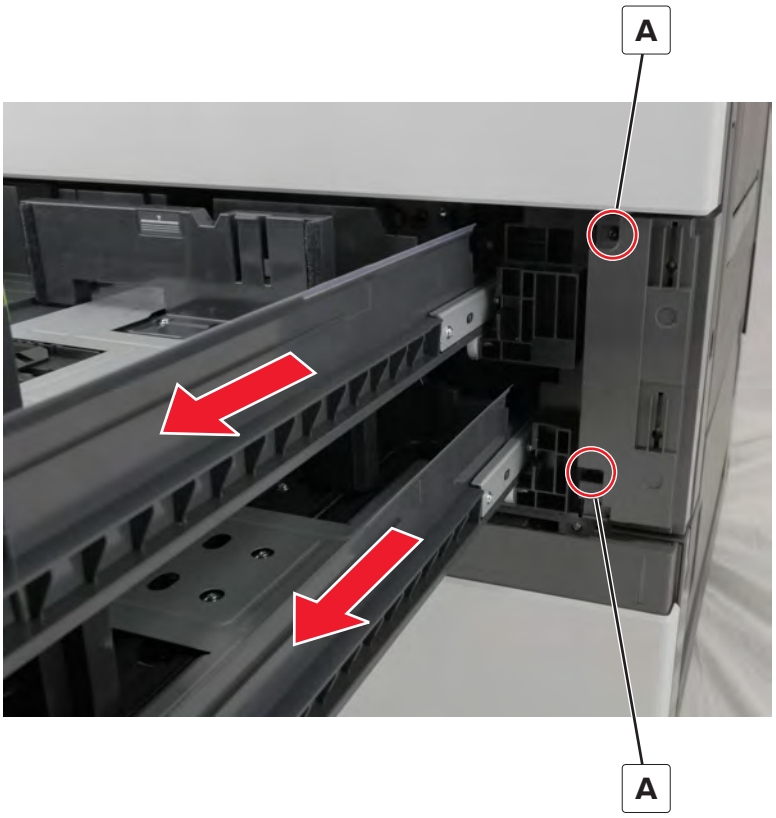
1. Remove the front door. See **“Front door removal” on page 487**.
2. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
3. Remove the photoconductor release lever. See **“Photoconductor release lever removal” on page 529**.
4. Remove the screw (A), and then remove the duct.



Tray empty LED cover removal

1 Open the trays.

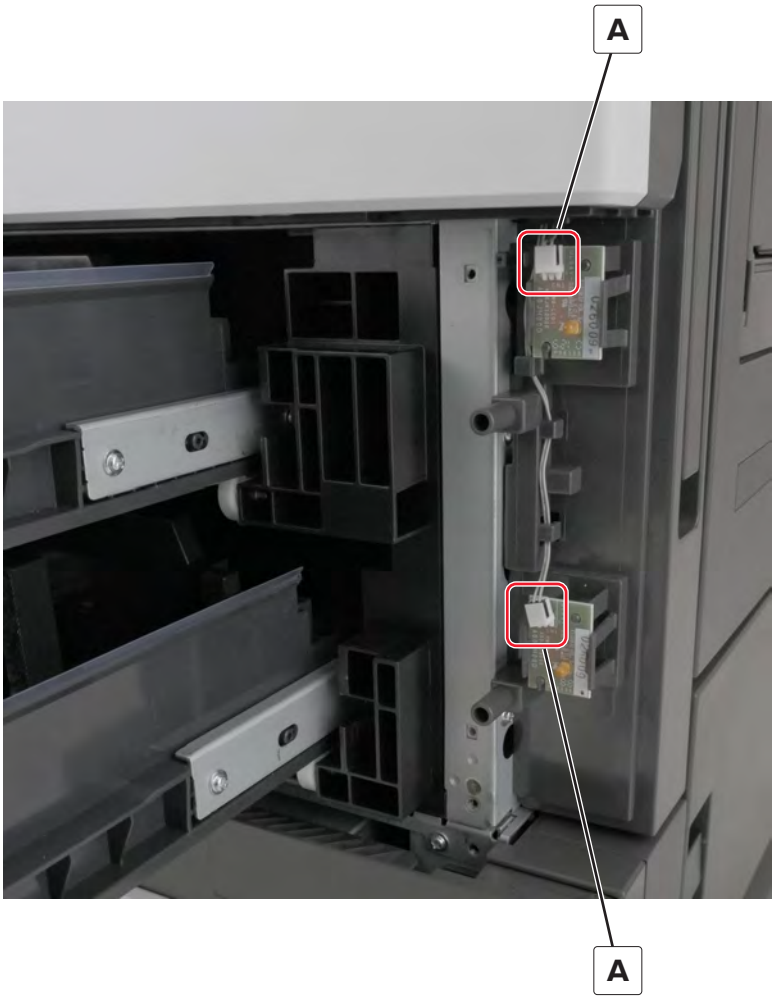
2 Remove the two screws (A), and then remove the cover.



Tray empty LED removal

1 Remove the tray empty LED cover. See **"Tray empty LED cover removal" on page 538**.

2 Disconnect the cable (A), and then remove the LED.

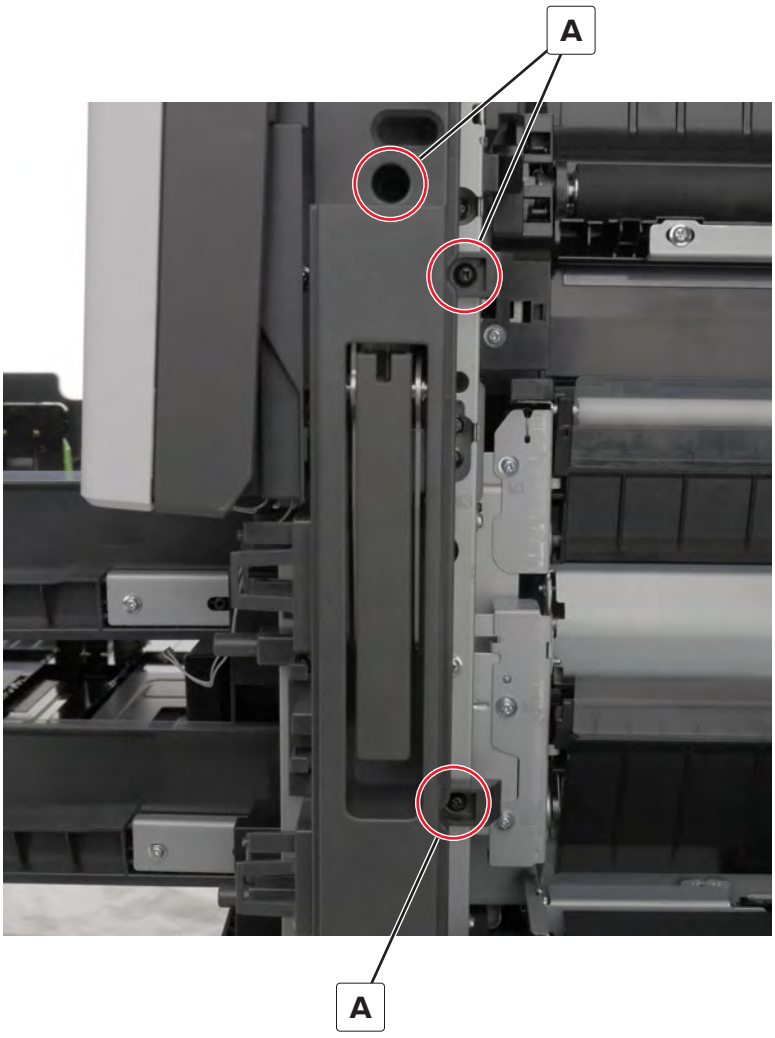


Tray empty LED mount removal

1 Remove the tray empty LED cover. See **"Tray empty LED cover removal" on page 538**.

2 Remove the tray empty LED. See **"Tray empty LED removal" on page 539**.

3 Remove the three screws (A), and then remove the cover.



Tray empty LED cable removal

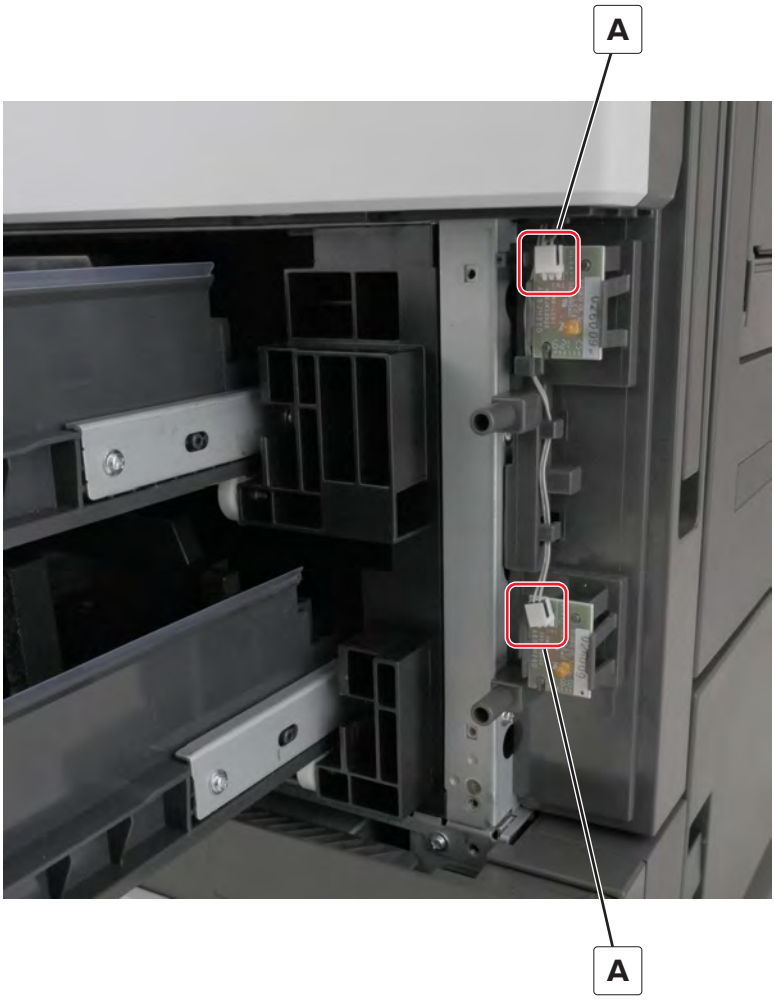
1 Remove the tray empty LED cover. See **"Tray empty LED cover removal" on page 538**.

2 Remove the front door. See **"Front door removal" on page 487**.

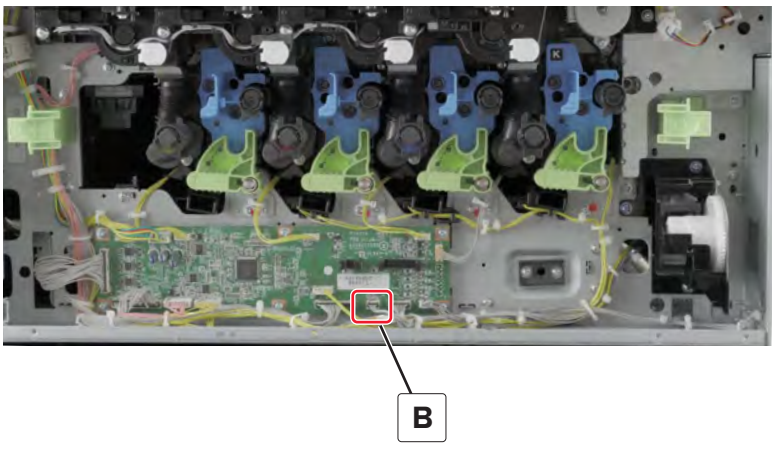
3 Remove the front inner cover. See **"Front inner cover removal" on page 515**.

4 Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.

5 Disconnect the two cables (A).

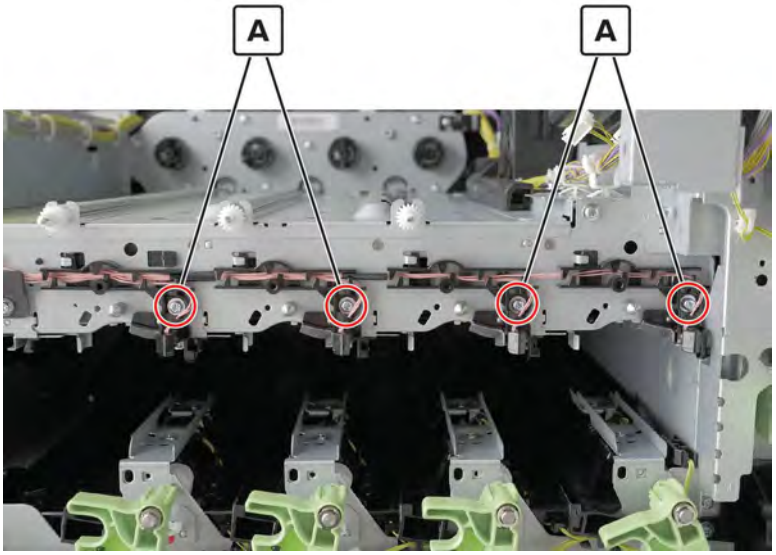


6 Disconnect the cable (B), and then remove it.

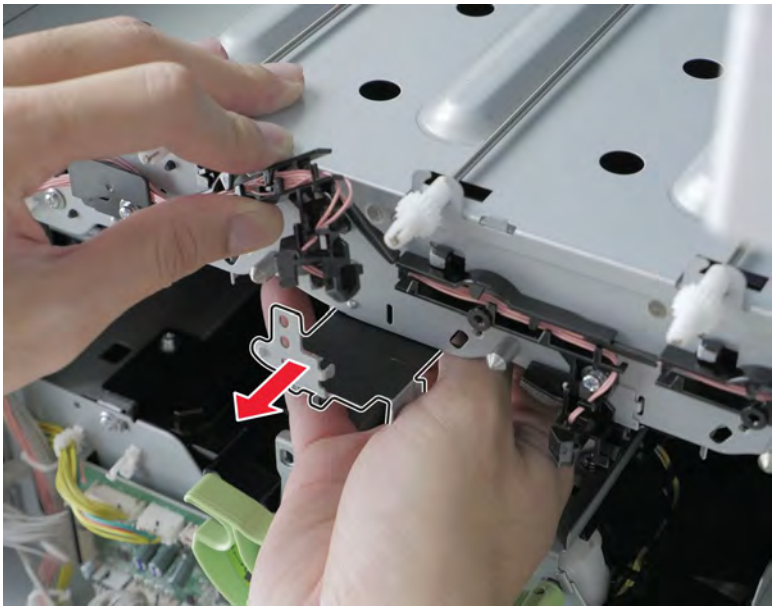


Erase LED removal

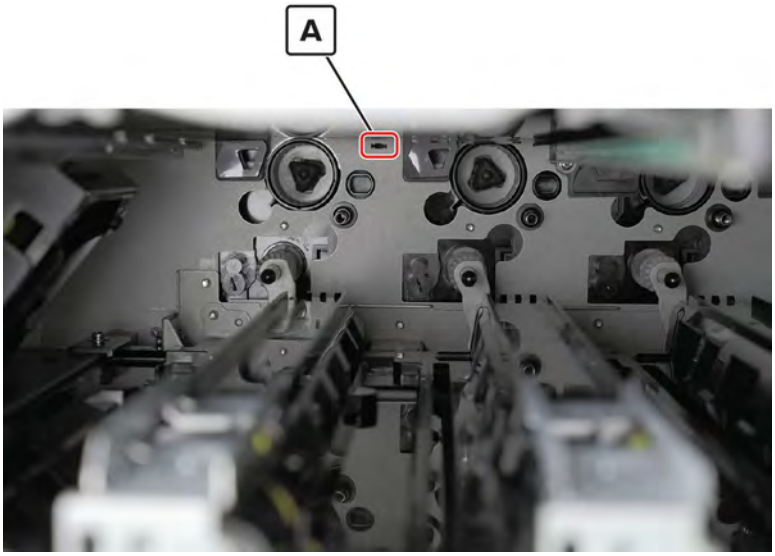
1. Remove the front door. See **“Front door removal” on page 487**.
2. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
3. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
4. Remove the left cover. See **“Left cover removal” on page 348**.
5. Remove the standard bin. See **“Standard bin removal” on page 658**.
6. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
7. Remove the toner agitator. See **“Toner agitator removal” on page 516**.
8. Remove the appropriate screw (A).



9. Move the cable guide out of the way, and then remove the LED.

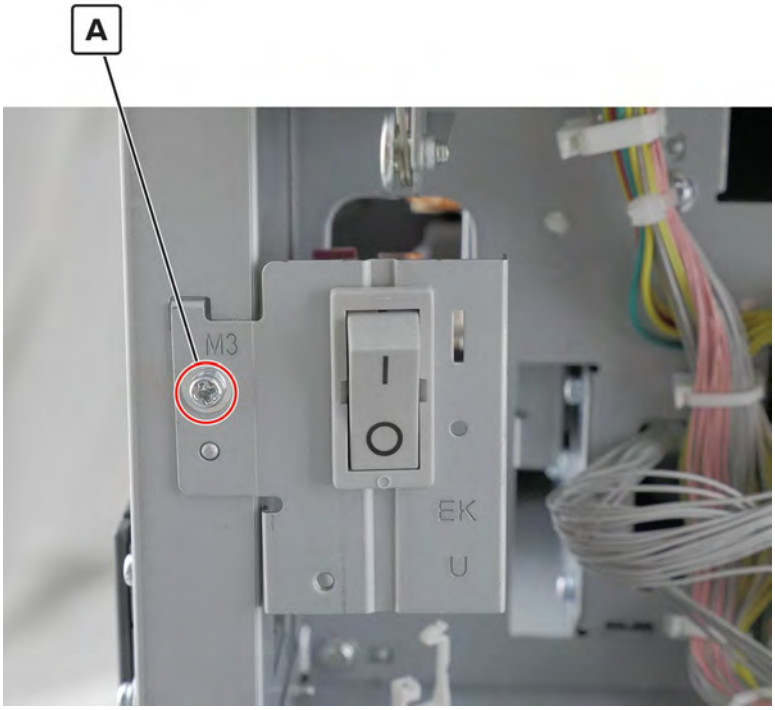


Installation note: Insert the tip of the LED bracket to its slot (A) at the back.



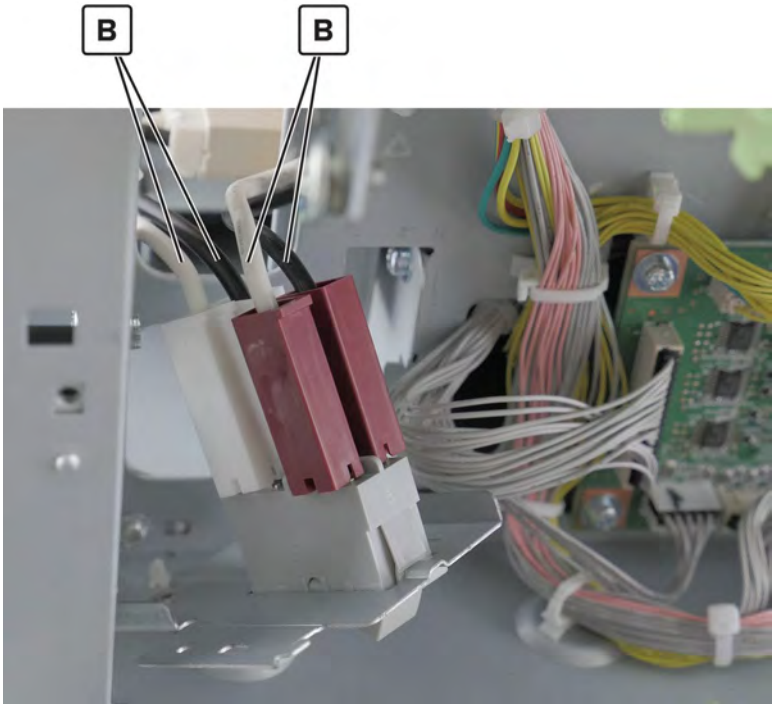
Main power switch removal

1. Remove the front door. See **"Front door removal" on page 487**.
2. Remove the front inner cover. See **"Front inner cover removal" on page 515**.
3. Remove the waste toner door mount. See **"Waste toner door mount removal" on page 515**.
4. Remove the screw (A), and then pull the bracket.



5. Disconnect the four cables (B).

Installation warning: Take note of the proper connections of the white and black cables (B), including the positions of the white and red connectors.



6 Release the switch from the bracket, and then remove it.

Main power switch cable removal

1 Remove the front door. See **“Front door removal” on page 487**.

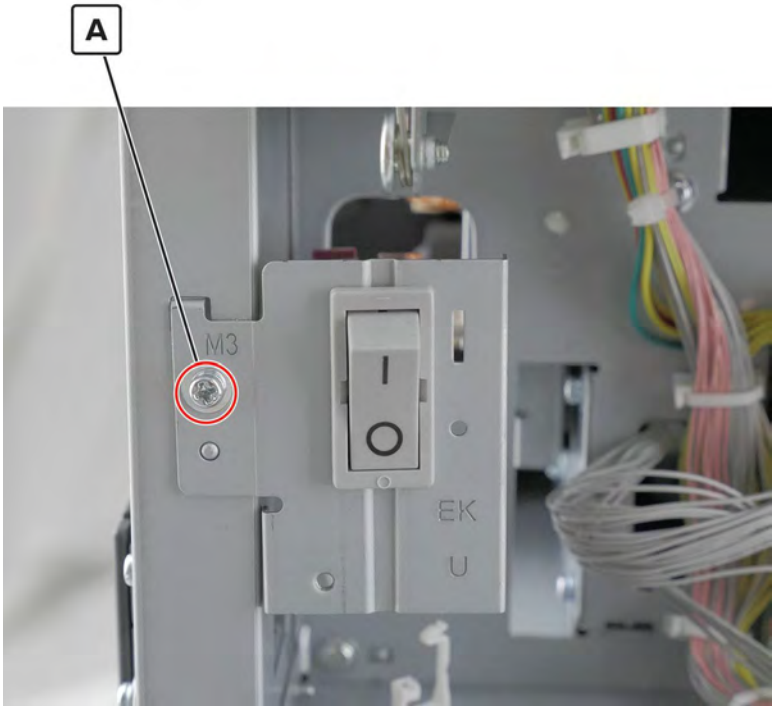
2 Remove the front inner cover. See **“Front inner cover removal” on page 515**.

3 Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.

4 Remove the left cover. See **“Left cover removal” on page 348**.

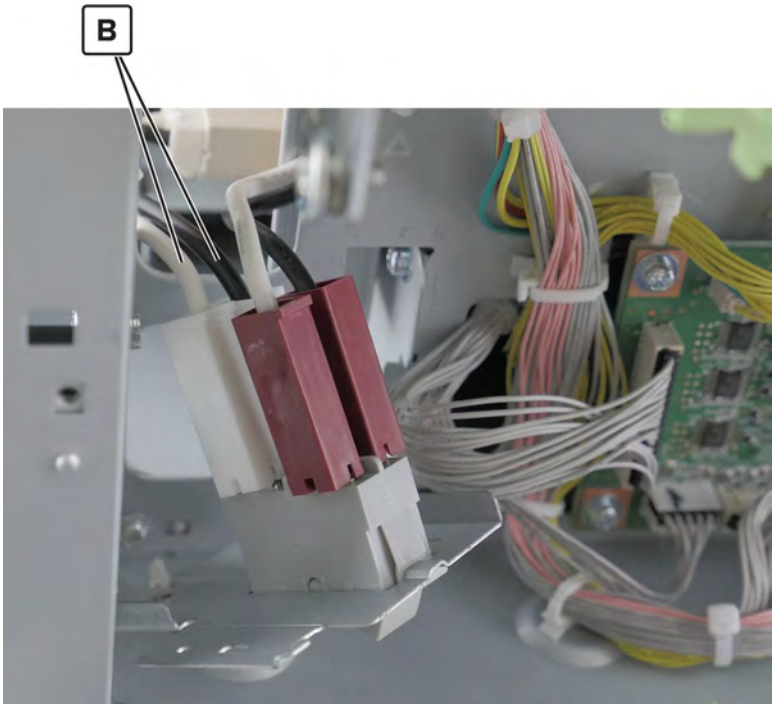
5 Remove the main power supply shield. See **“Main power supply fan removal” on page 353**.

6 Remove the screw (A), and then pull the bracket.

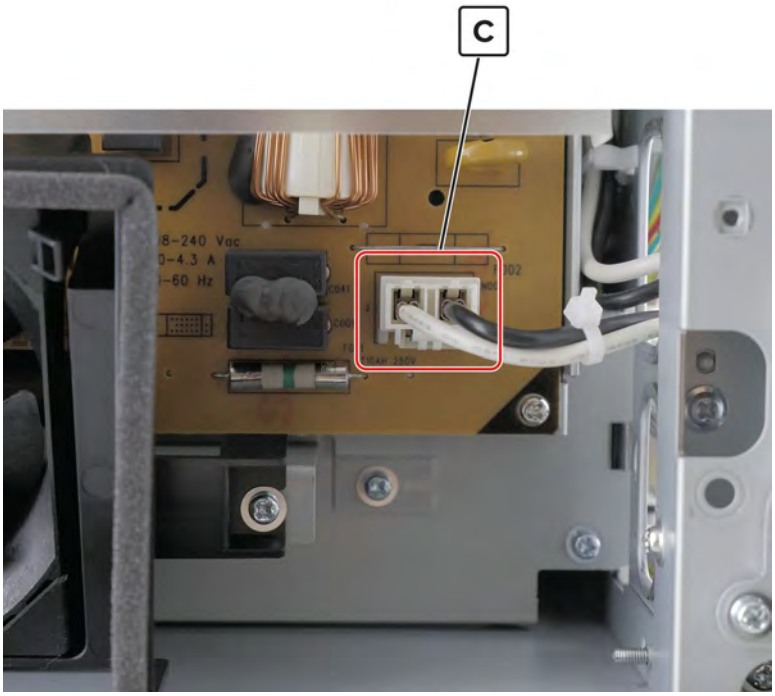


7 Disconnect the two cables (B).

Installation warning: Take note of the proper connections of the white and black cables (B), including the positions of the white and red connectors.



8 From the left side, disconnect the cable (C) from the main power supply.



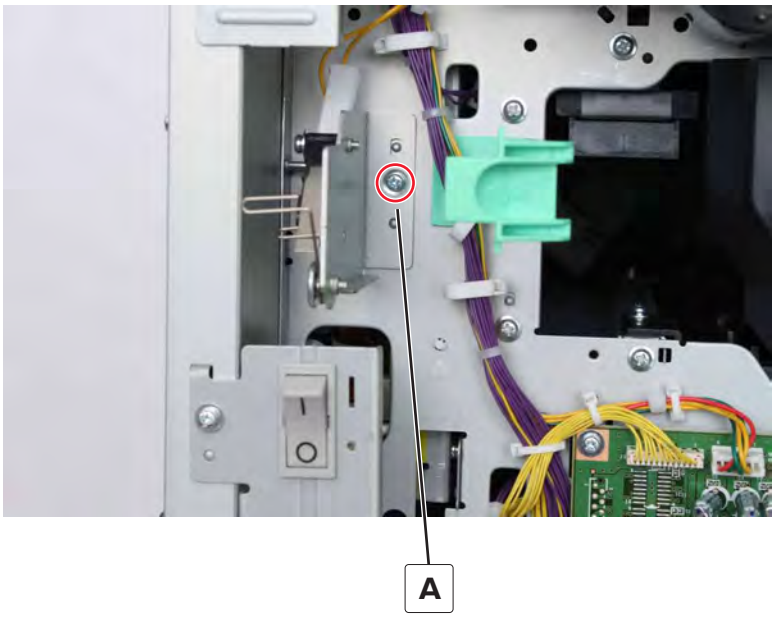
9 Remove the cable.

Door switch removal

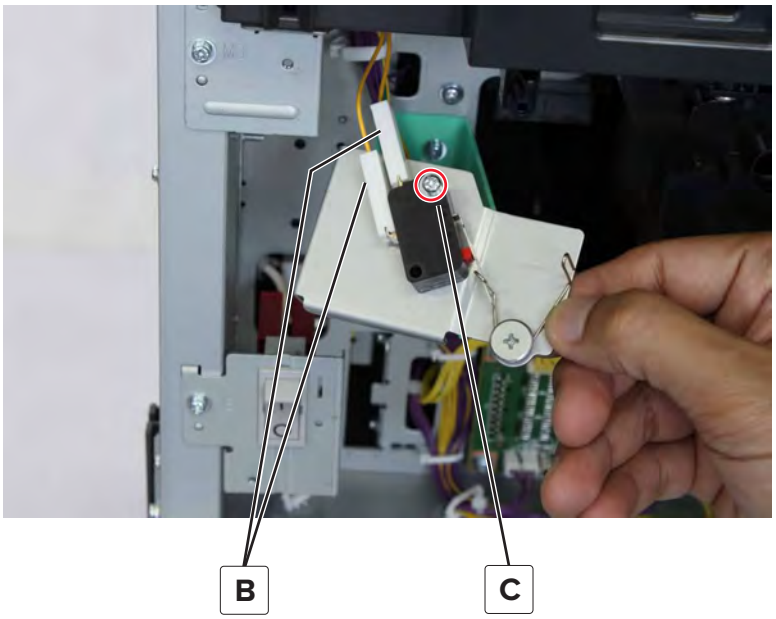
1 Remove the front door. See **“Front door removal” on page 487**.

2 Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.

3 Remove the screw (A), and then move away the bracket.



4 Disconnect the two cables (B), and then remove the screw (C).



5 Release the retainer, and then remove the switch.

Right handles removal

1 Remove the port access door. See **"Port access door removal" on page 363**.

2 Remove the port mount. See **"Port mount removal" on page 364**.

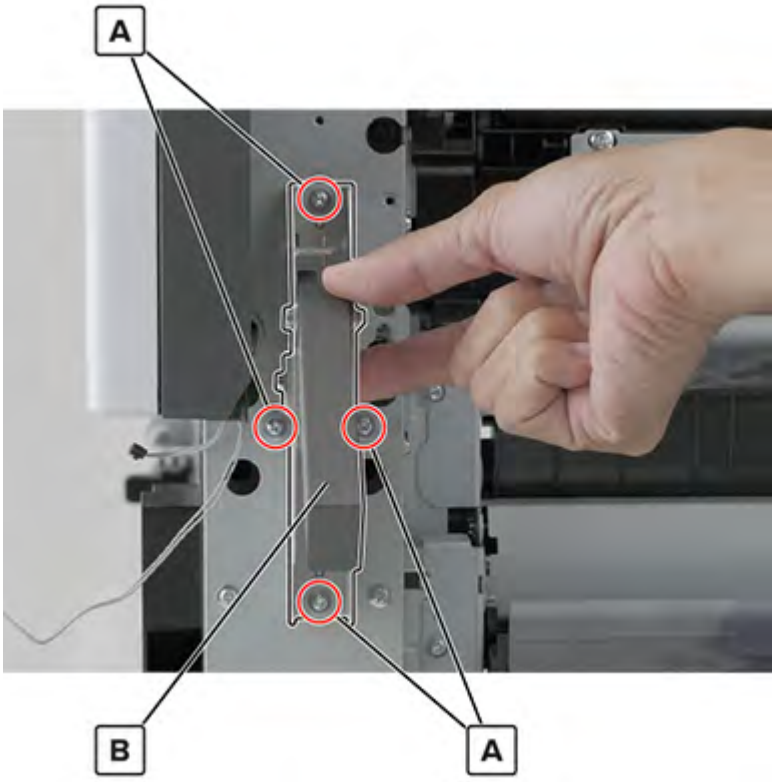
3 Remove the rear right handle. See **"Registration unit assembly removal" on page 440**.

4 Remove the tray empty LED cover. See **"Tray empty LED cover removal" on page 538**.

5 Remove the tray empty LED. See **"Tray empty LED removal" on page 539**.

6 Remove the tray empty LED mount. See **"Tray empty LED mount removal" on page 539**.

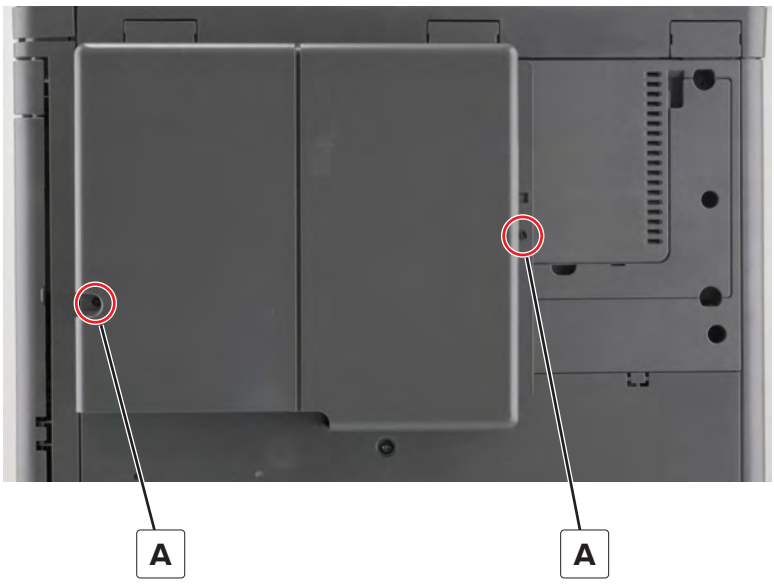
7 Remove the four screws (A), and then remove the front right handle (B).



Rear side removals

Filter cover removal

1 Remove the two screws (A).

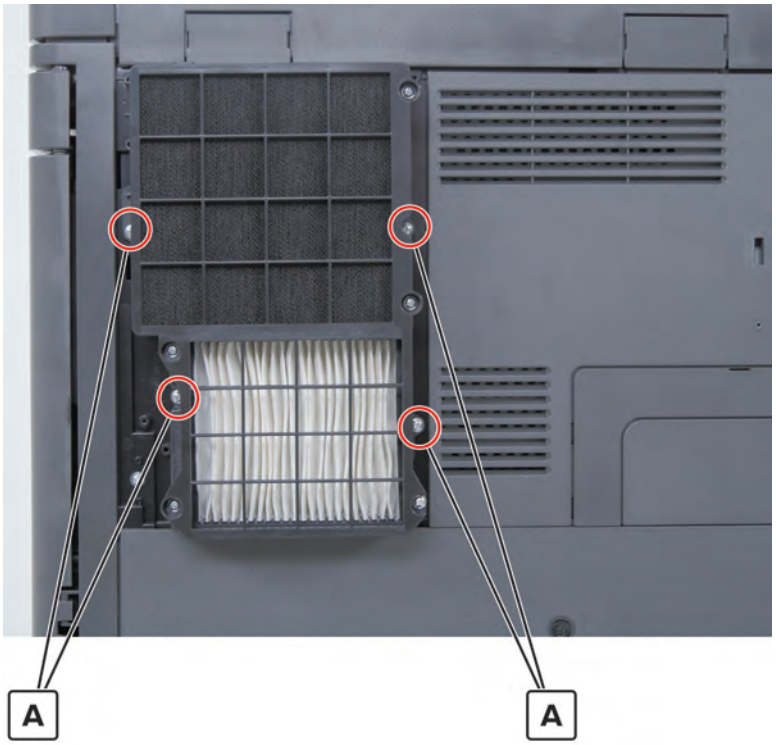


2 Remove the cover.

Exhaust filter removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the four screws (A), and then remove the filter housing.



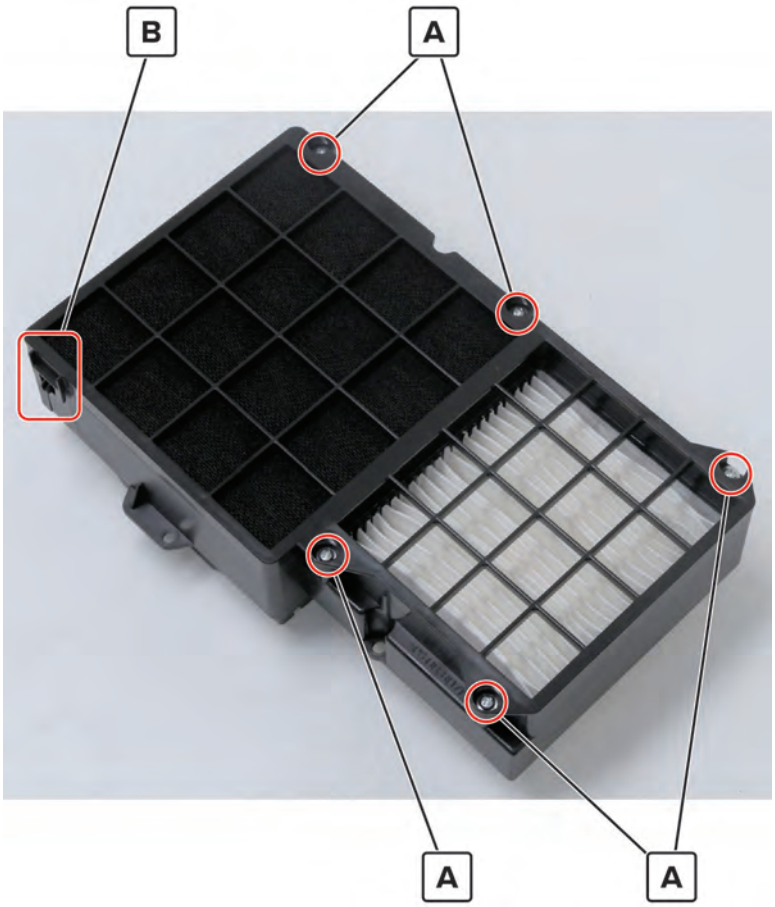
3 Remove exhaust filter 1 (B) or exhaust filter 2 (C).

Odor filter removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the five screws (A), release the latch (B), and then remove the frame.

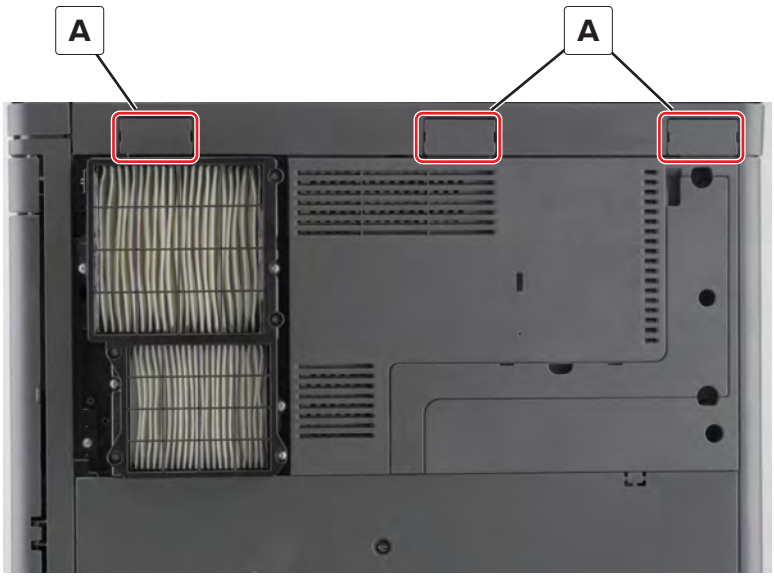


4 Remove the filter under the frame.

Latch cover removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Pry the appropriate cover (A) to release.

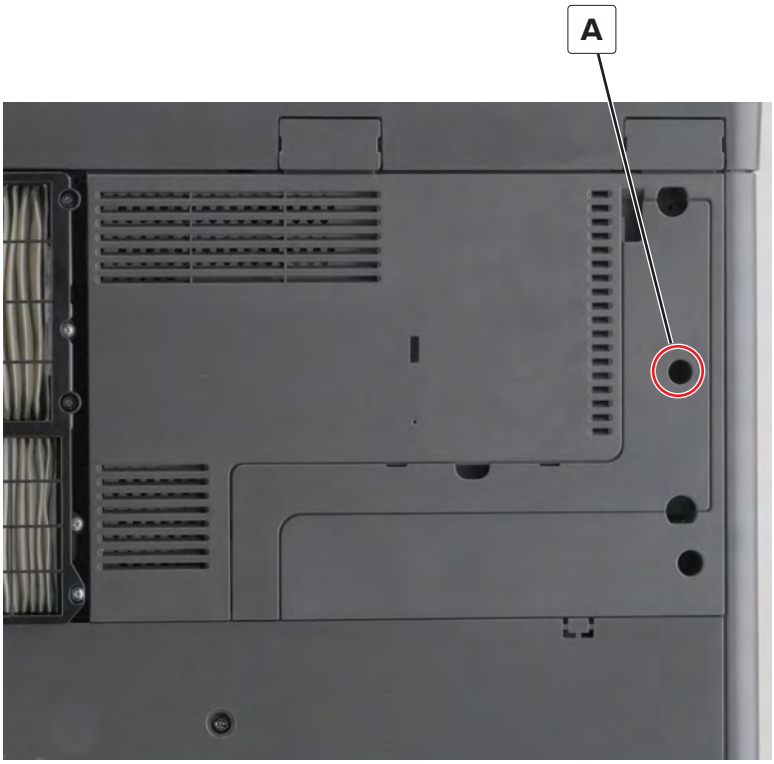


3 Remove the cover.

Scanner interface cable cover removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

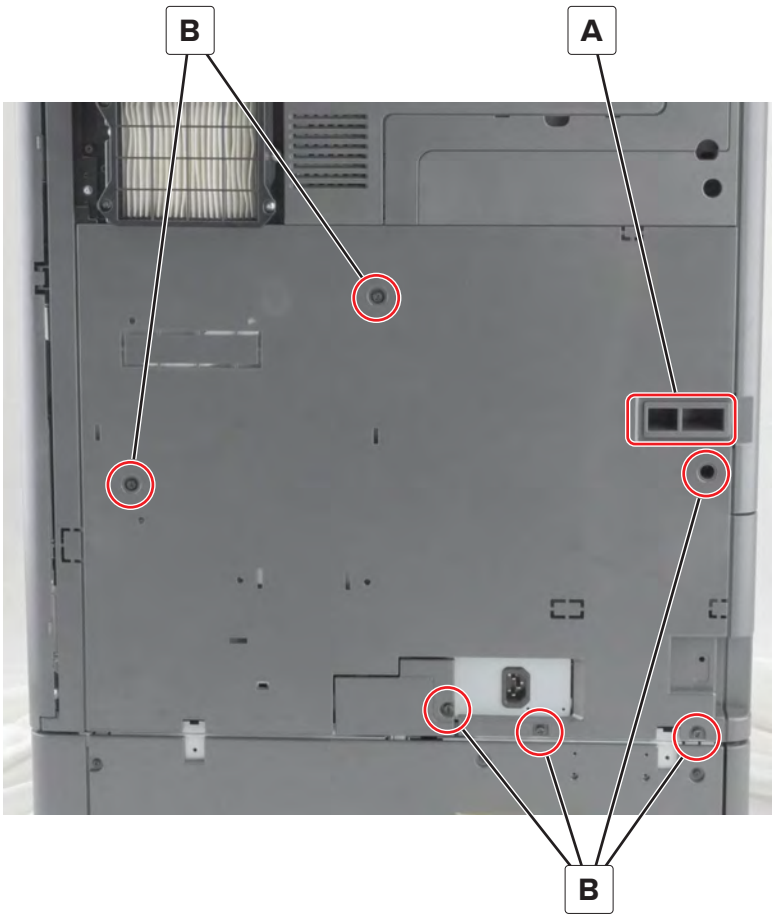
2 Remove the screw (A), and then remove the cover.



Lower rear cover removal

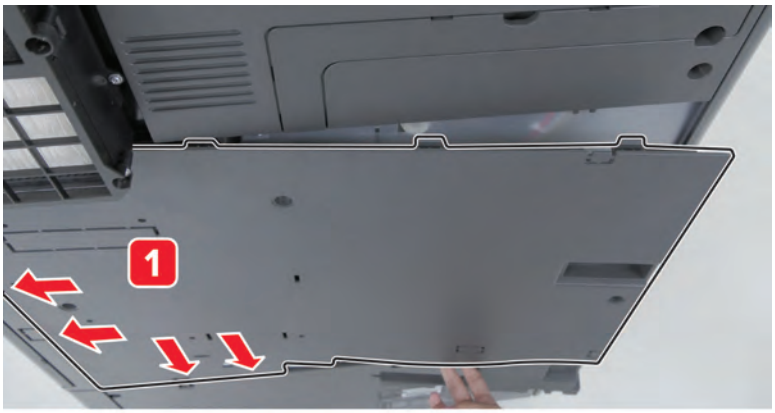
1 Remove the filter cover. See **"Filter cover removal" on page 548**.

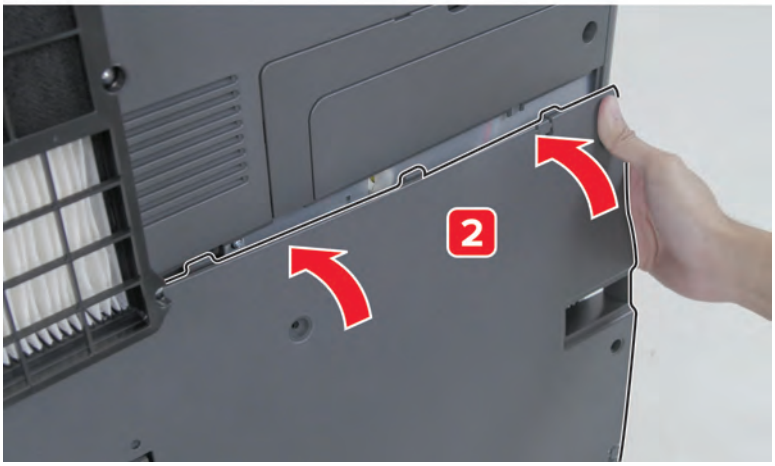
2 Remove the toner exhaust filter (A), and then remove the six screws (B).



3 Remove the option interface cable cover, and then remove the lower rear cover.

Installation note: Align the left half of the cover first, and then slightly bend the right half of the cover to fit.

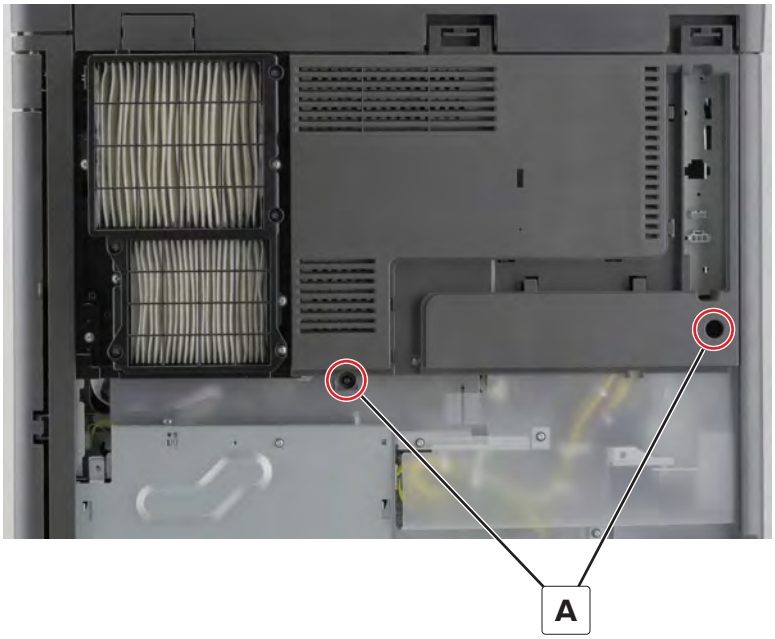




Upper rear cover removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the latch covers. See **“Latch cover removal” on page 552**.
3. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
4. Remove the rear cover. See **“Lower rear cover removal” on page 554**.

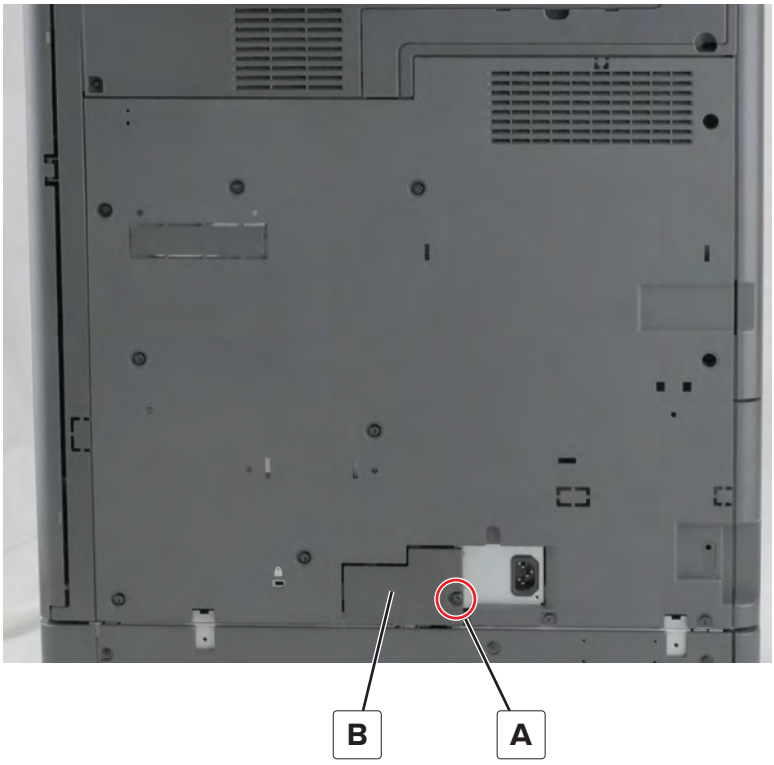
5 Remove the two screws (A), and then remove the cover.



Option interface cable cover removal

1 Remove the screw (A).

2 Remove the cover (B).

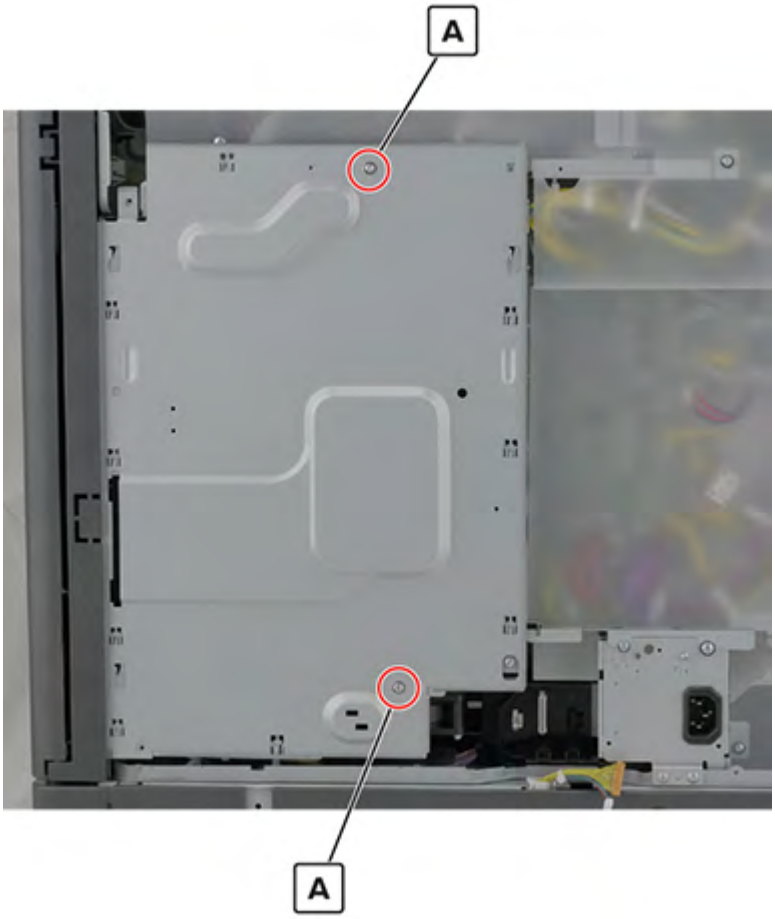


Controller board shield removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

3 Remove the two screws (A).



4 Lift the shield to release, and then remove it.

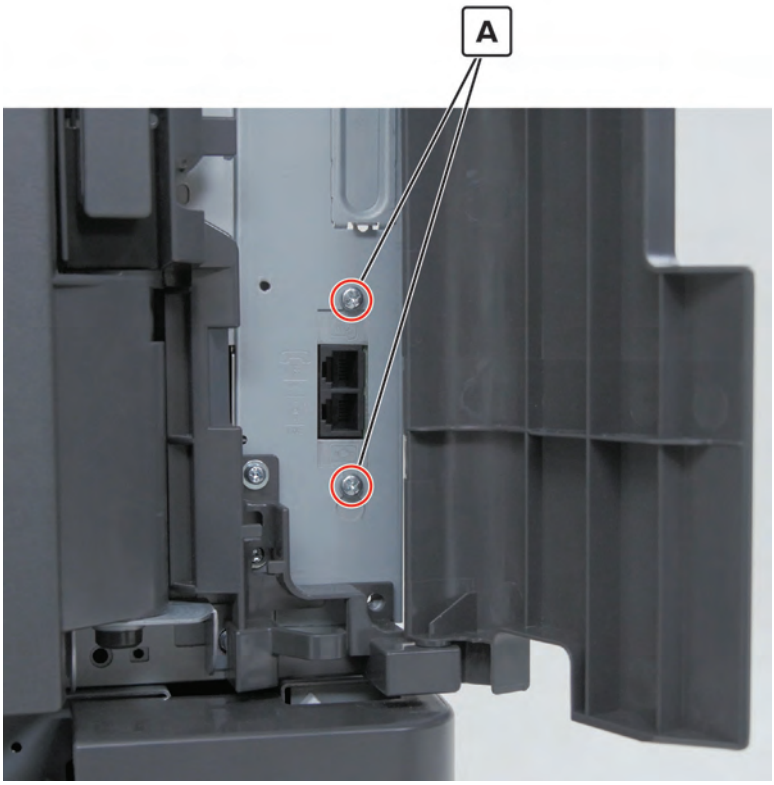
Fax card removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

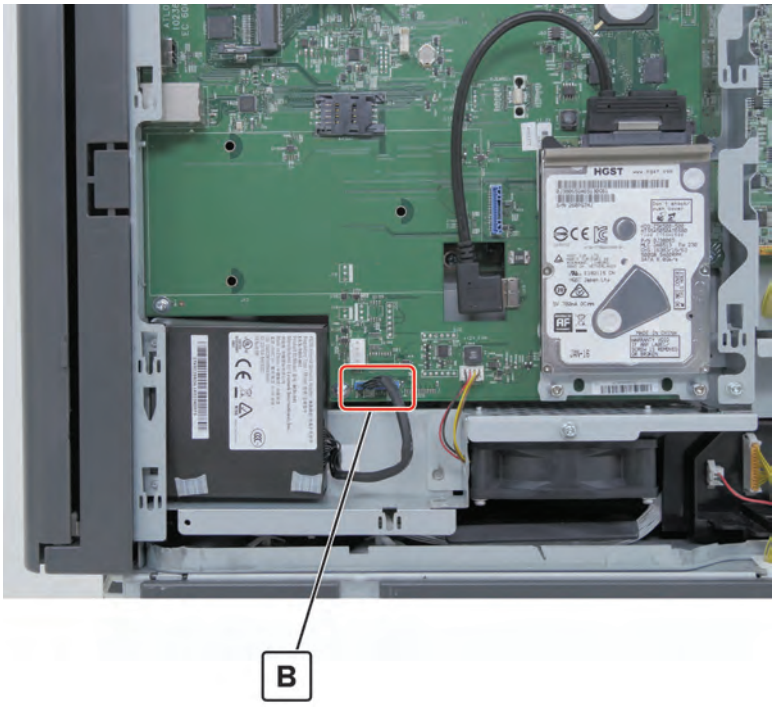
2 Remove the lower rear cover. See **“Lower rear cover removal” on page 554**.

3 Remove the controller board shield. See **“Controller board shield removal” on page 557**.

4 Open the port access door, and then remove the two screws (A).

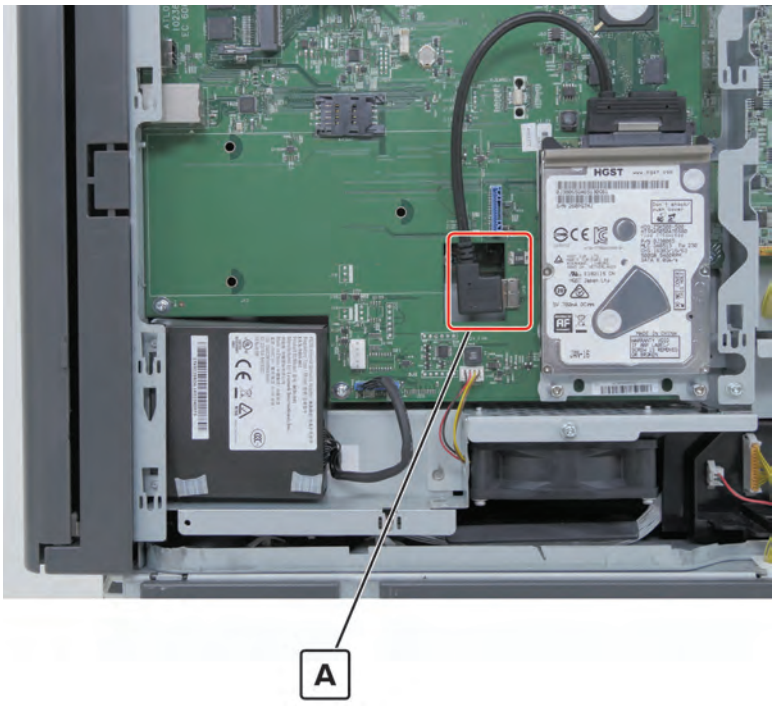


5 Disconnect the cable (B), and then remove the card.



Hard disk removal

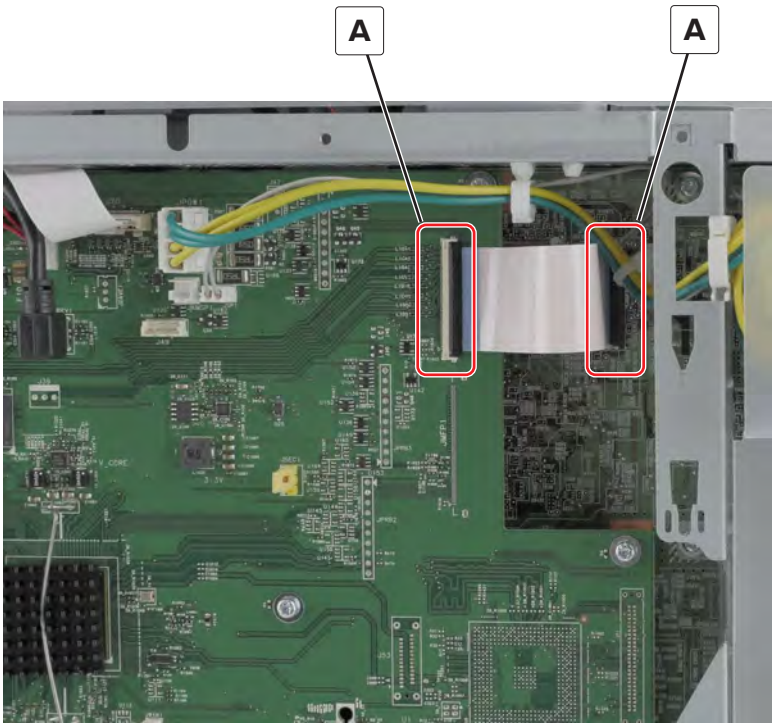
1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the lower rear cover. See **“Lower rear cover removal” on page 554**.
3. Remove the controller board shield. See **“Controller board shield removal” on page 557**.
4. Disconnect the cable (A), and then remove the hard disk.



Controller board upper cable removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
3. Disconnect the connectors (A) from the boards, and then remove the cable.

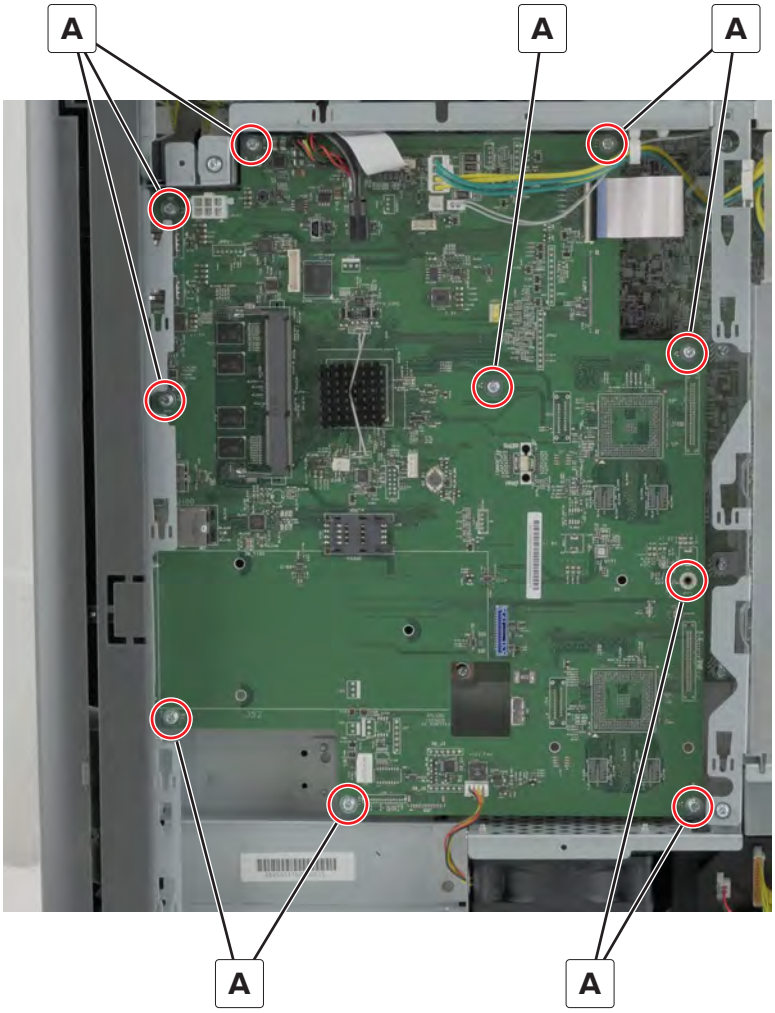
   Warning—Potential Damage: Release the connector latch before pulling the cable.



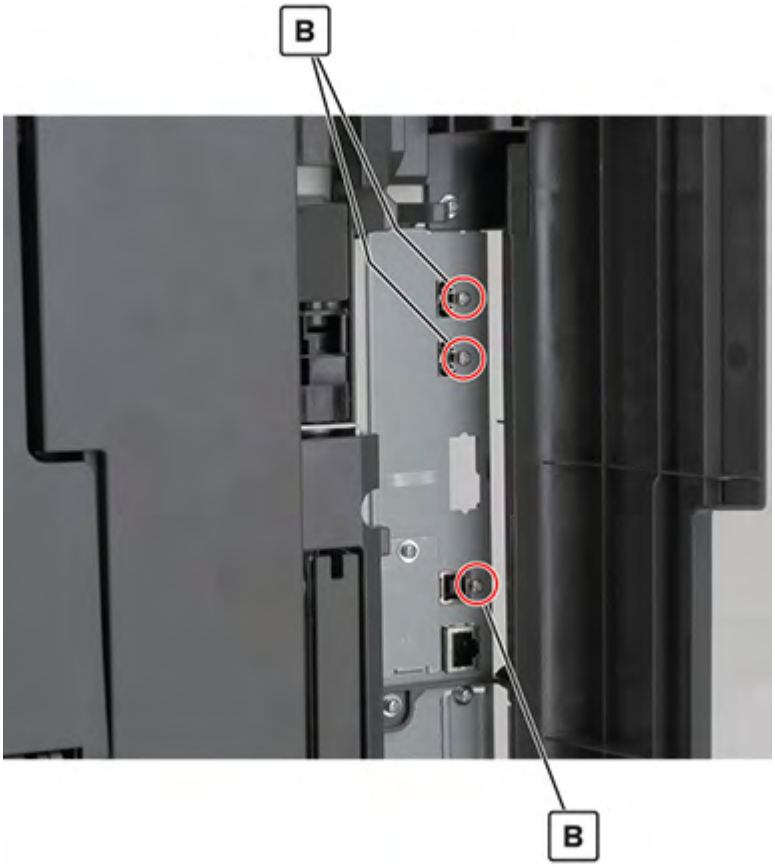
Controller board removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the lower rear cover. See **“Lower rear cover removal” on page 554**.
3. Remove the controller board shield. See **“Controller board shield removal” on page 557**.
4. Disconnect all the cables, and then remove the hard disk.

5 Remove the 10 screws (A).

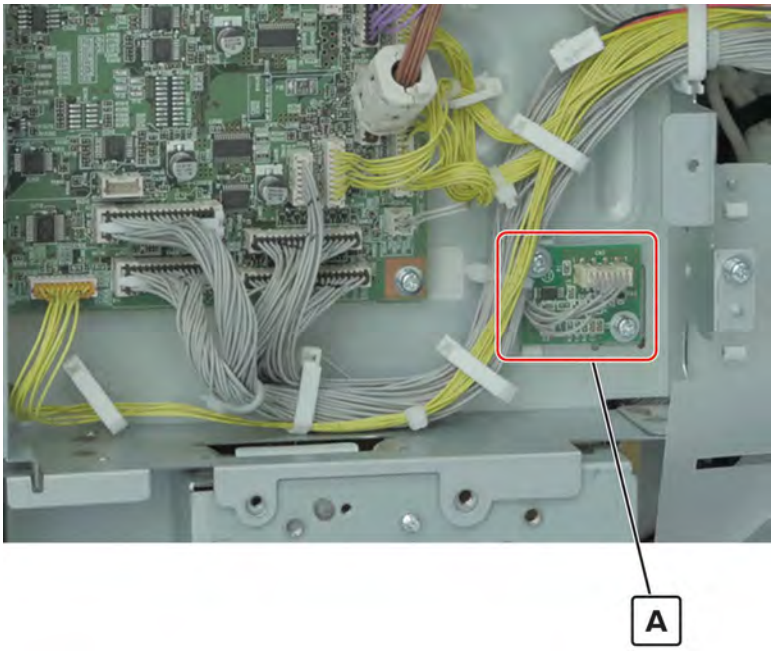


6 Open the port access door, and then remove the three screws (B).



7 Remove the board.

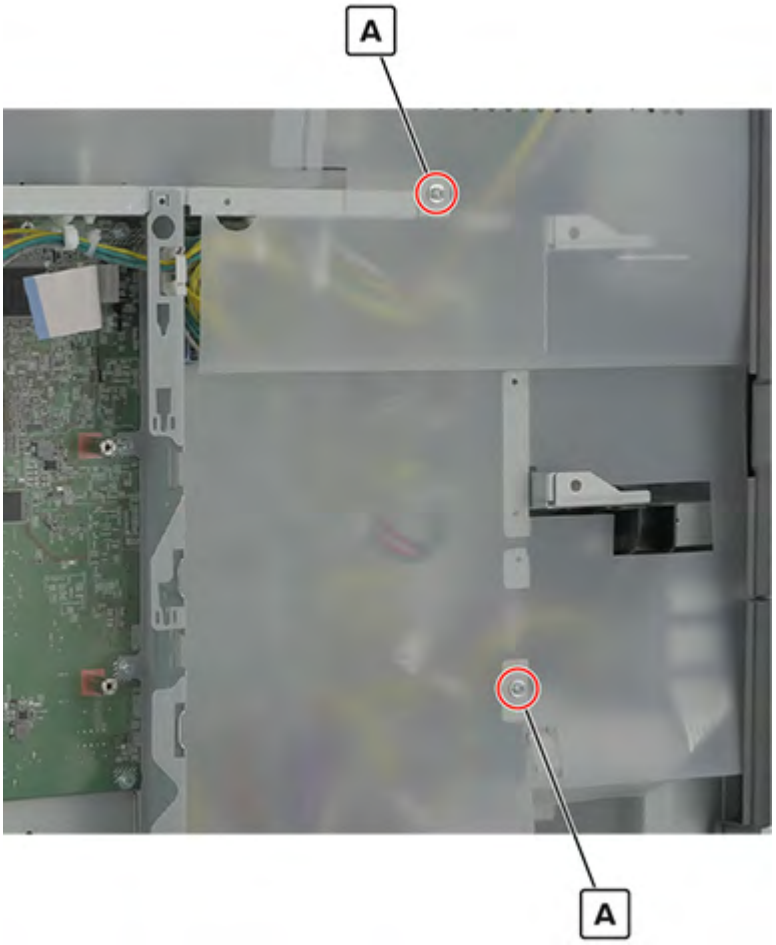
Installation warning: Do not replace the controller board and EEPROM board (A) at the same time.



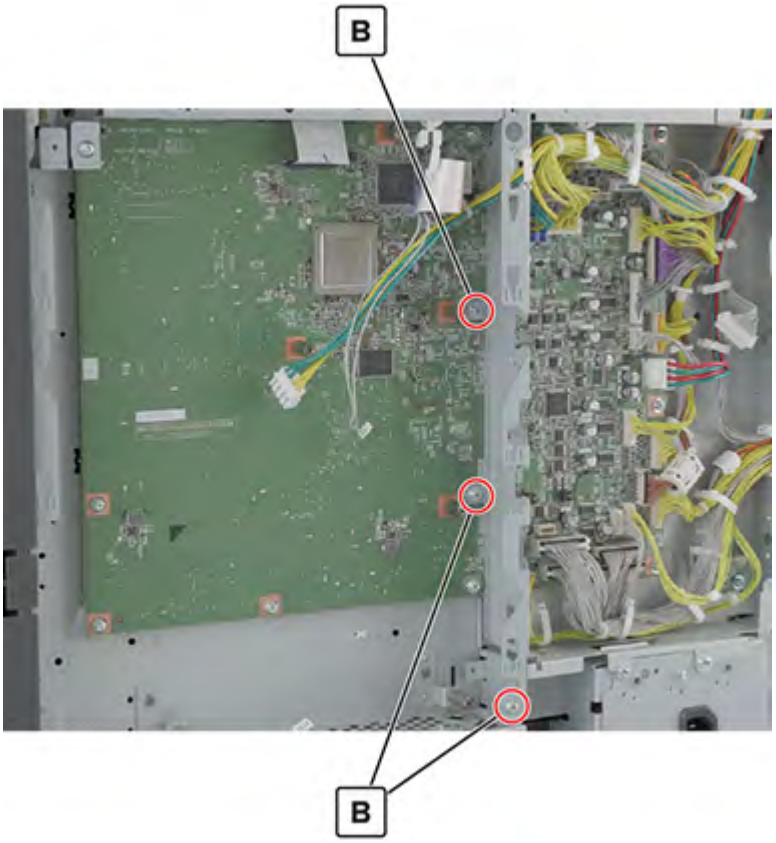
Engine board removal

Note: For a video demonstration, see **Engine board removal**.

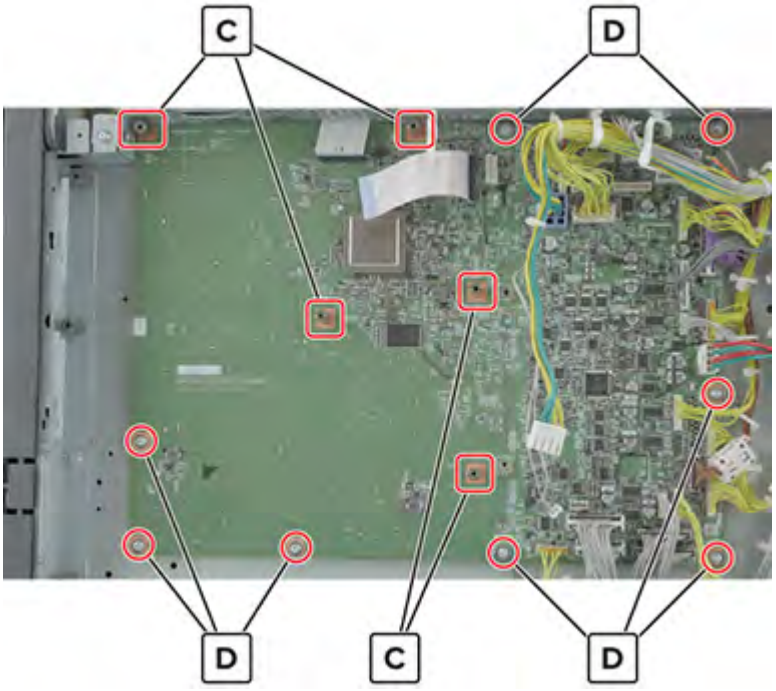
1. Remove the filter cover. See **"Filter cover removal" on page 548**.
2. Remove the port cable guide. See **"Port cable guide removal" on page 362**.
3. Remove the port access door. See **"Port access door removal" on page 363**.
4. Remove the port mount. See **"Port mount removal" on page 364**.
5. Remove the lower rear cover. See **"Lower rear cover removal" on page 554**.
6. Remove the controller board shield. See **"Controller board shield removal" on page 557**.
7. Remove the controller board. See **"Controller board removal" on page 560**.
8. Remove the two screws (A), and then remove the covers.



9 Remove the three screws (B), and then remove the bracket.

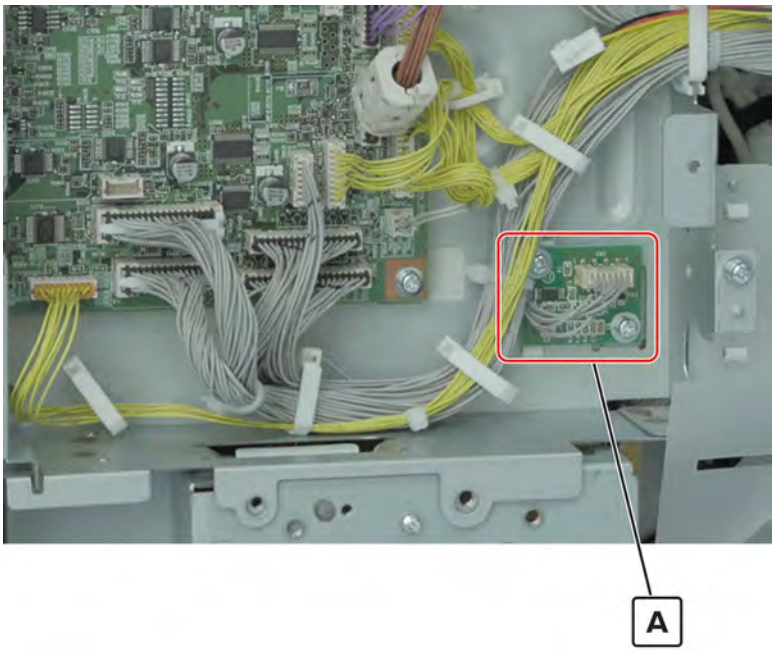


10 Disconnect all the cables, and then remove the five spacers (C) and eight screws (D).



11 Remove the board.

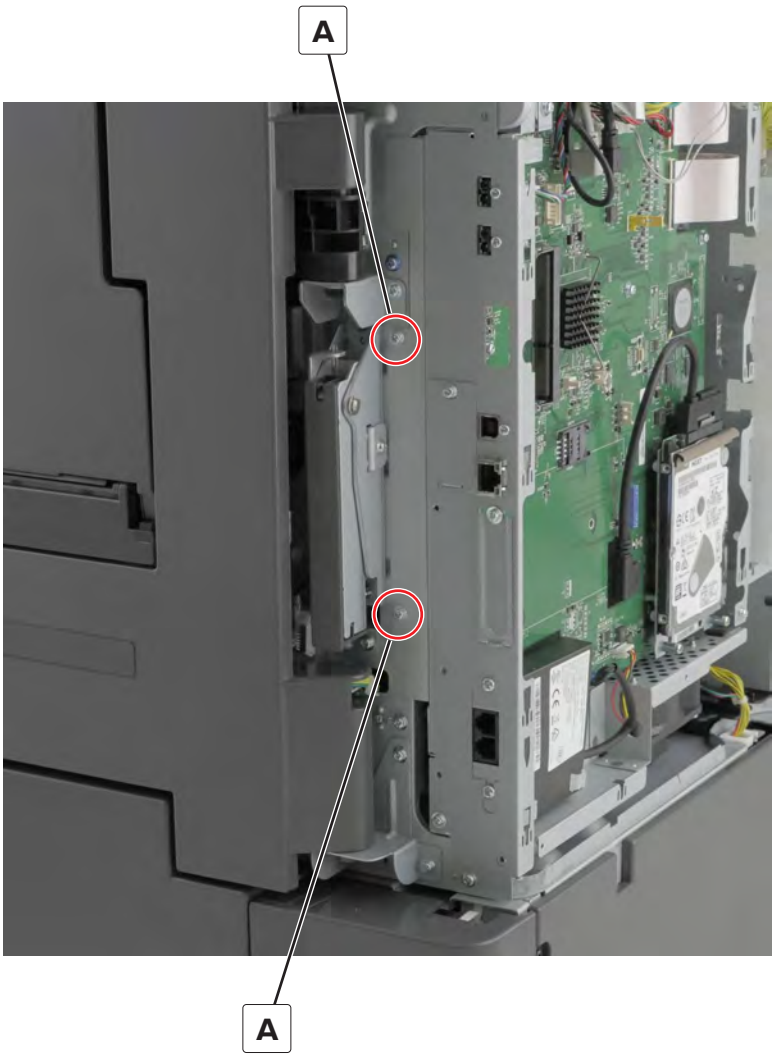
Installation warning: To avoid data corruption, do not remove and install the eMMC and EEPROM (A) from one engine board to another as a method of troubleshooting.



Controller board frame removal

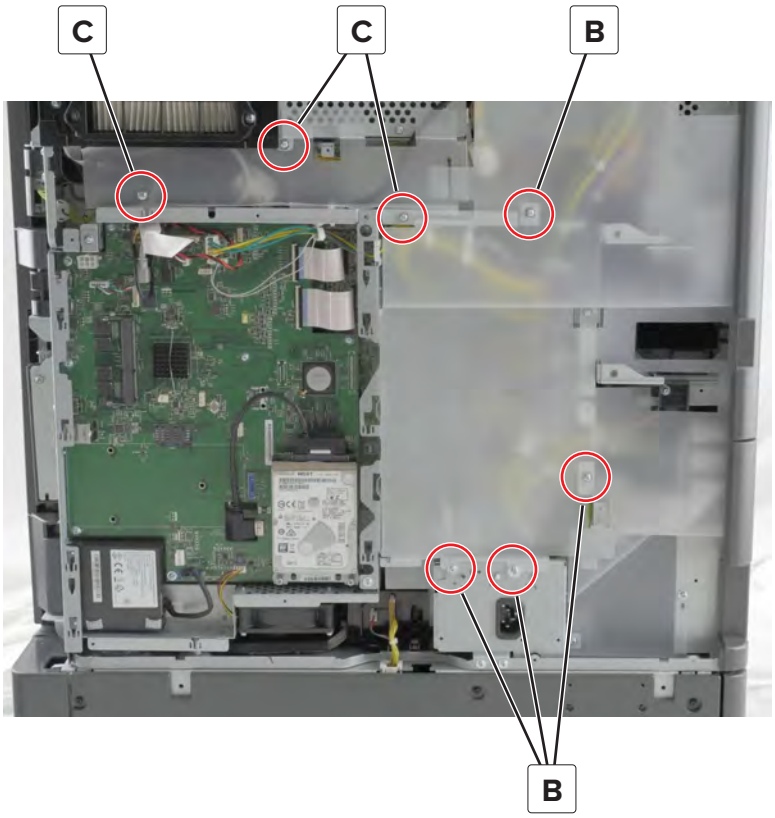
1. Remove the port cable guide. See **"Port cable guide removal" on page 362**.
2. Remove the port access door. See **"Port access door removal" on page 363**.
3. Remove the port mount. See **"Port mount removal" on page 364**.
4. Remove the filter cover. See **"Filter cover removal" on page 548**.
5. Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.
6. Remove the rear cover. See **"Lower rear cover removal" on page 554**.
7. Remove the latch covers. See **"Latch cover removal" on page 552**.
8. Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.
9. Remove the board shield. See **"Controller board shield removal" on page 557**.

10 Remove the two screws (A).

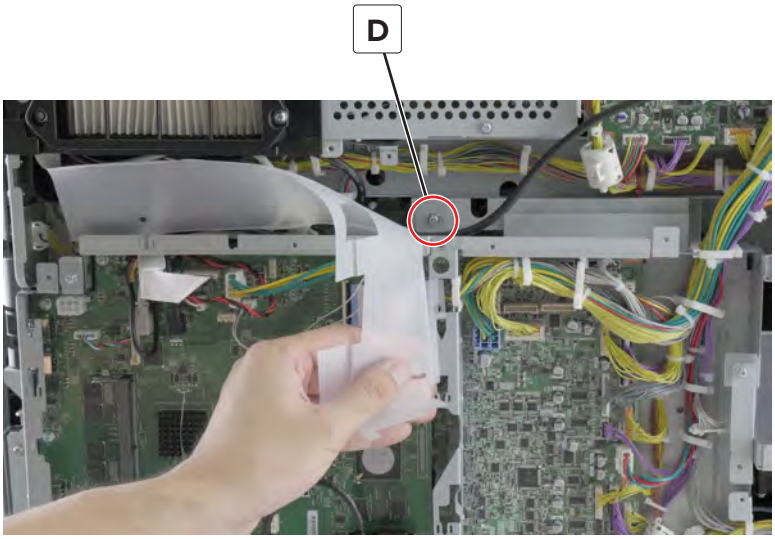


11 Remove the four screws (B), and then remove the white covers.

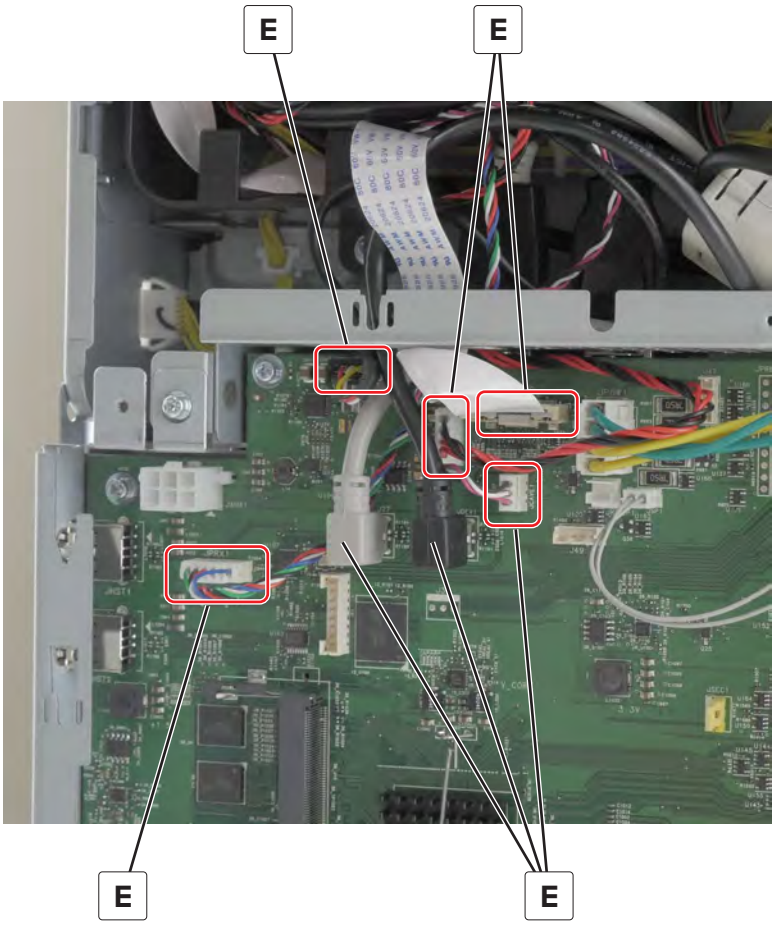
12 Remove the three screws (C) to access the parts behind the cover.



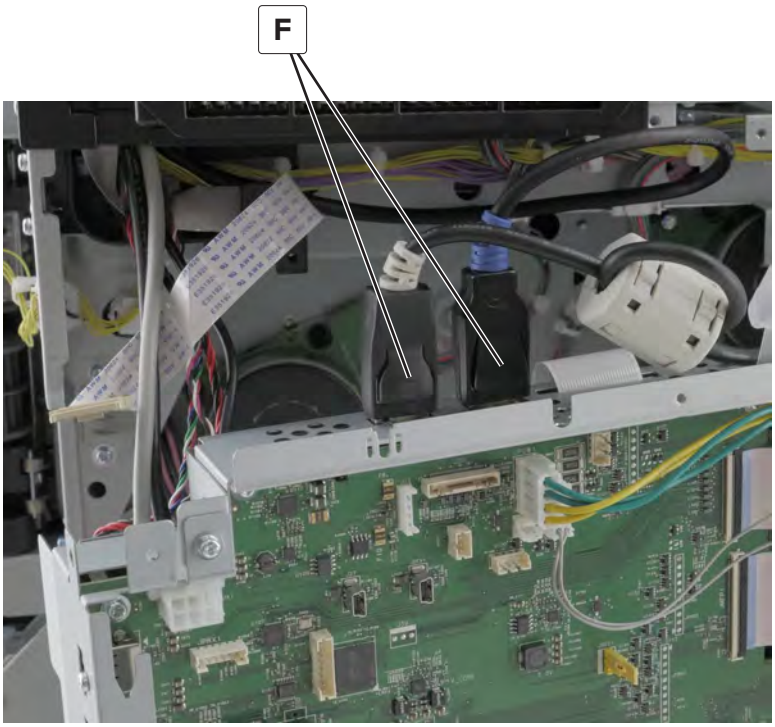
13 Remove the screw (D).



14 Disconnect the seven cables (E), and then release them from the frame.



15 Disconnect the two cables (F).



16 Open the controller board frame.

Printhead FFC removal

1 Remove the left cover. See **“Left cover removal” on page 348**.

2 Remove the rear left cover. See **“Rear left cover removal” on page 349**.

3 Remove the main power supply shield. See **“Main power supply fan removal” on page 353**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

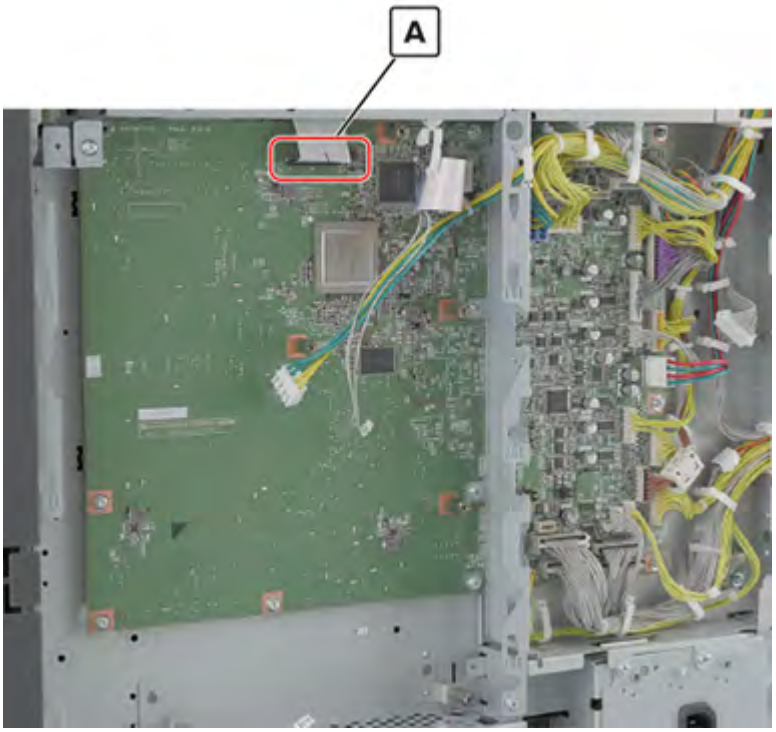
8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the controller board shield. See **“Controller board shield removal” on page 557**.

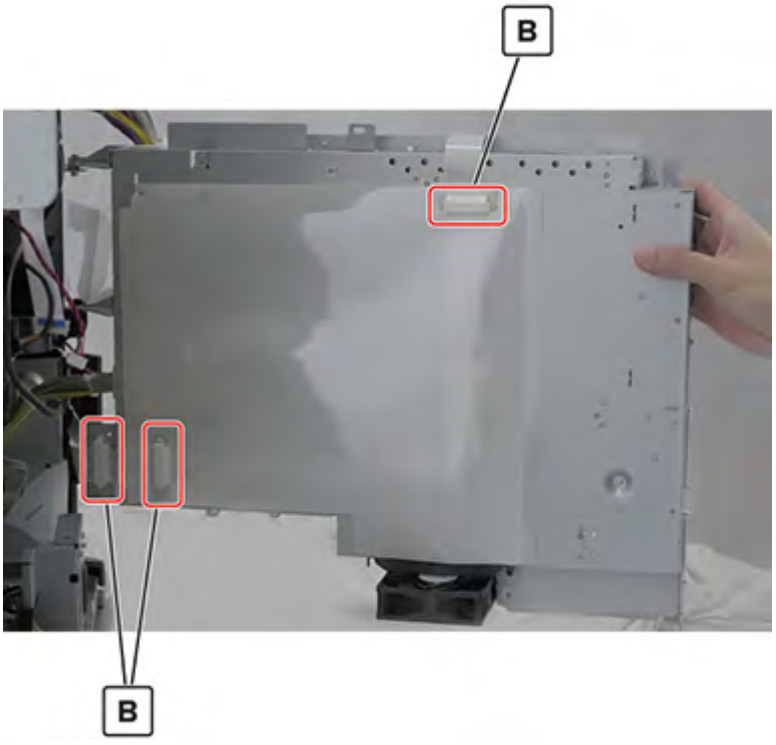
10 Remove the controller board. See **“Controller board removal” on page 560**.

11 Open the controller board frame. See **“Controller board frame removal” on page 565**.

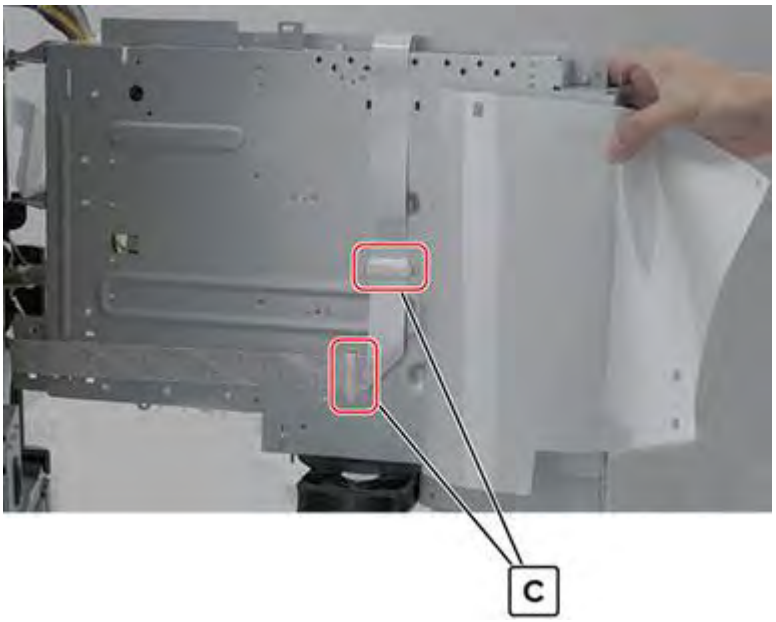
12 Disconnect the cable (A).



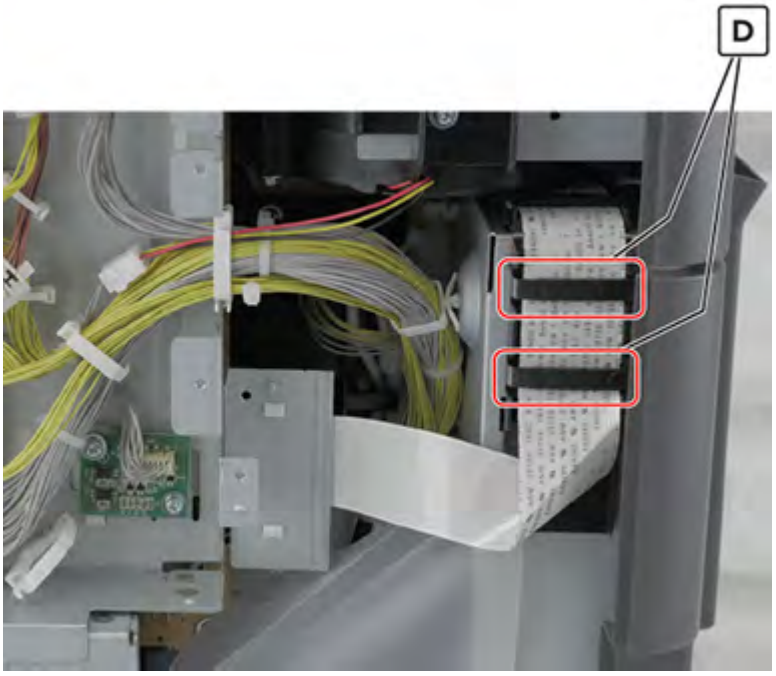
13 Remove the three cable guides (B) at the back of the controller board frame.



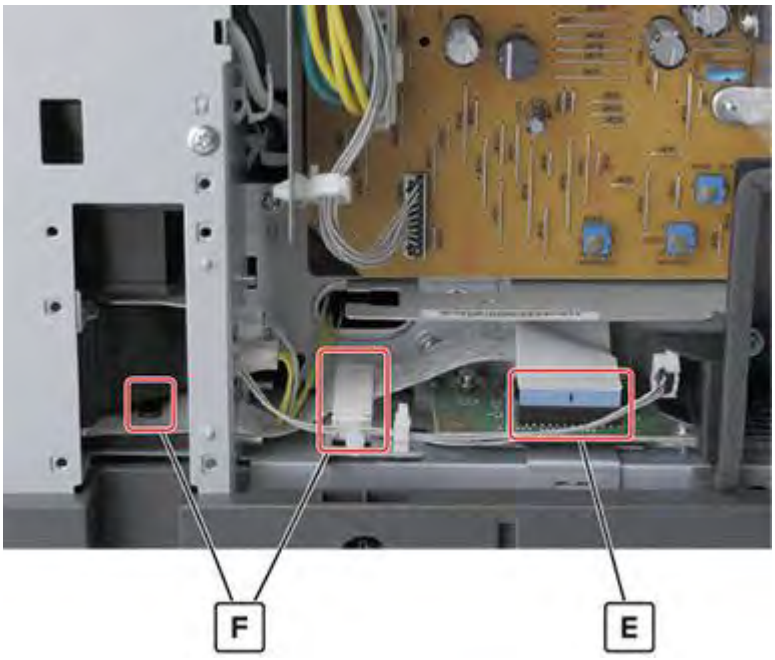
14 Remove the two cable guides (C) behind the insulation sheet.



15 Release the cable guides (D).



16 Disconnect the cable (E) from the left side, and then release it from the guides (F).



17 Remove the cable.

Installation note: Make sure that the cable is properly routed.

Paper exit fan removal

1 Remove the filter cover. See **"Filter cover removal" on page 548**.

2 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

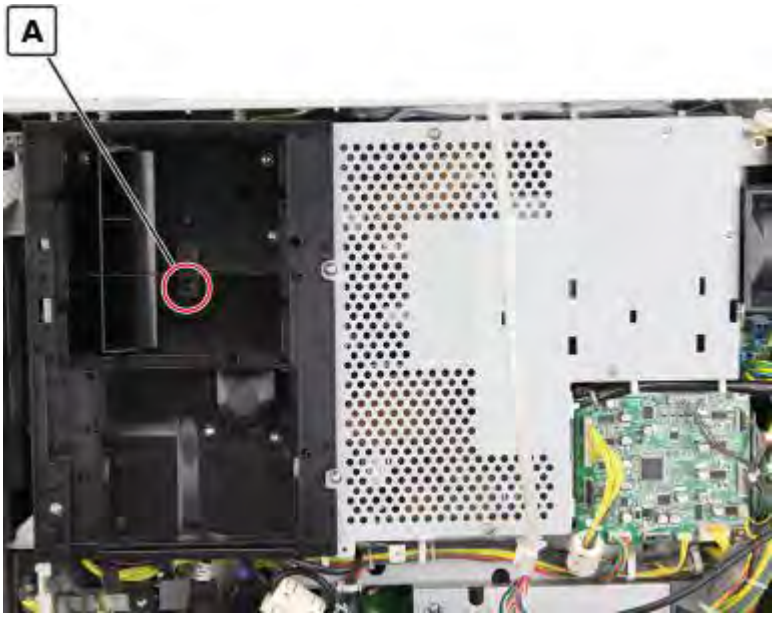
3 Remove the latch covers. See **"Latch cover removal" on page 552**.

4 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

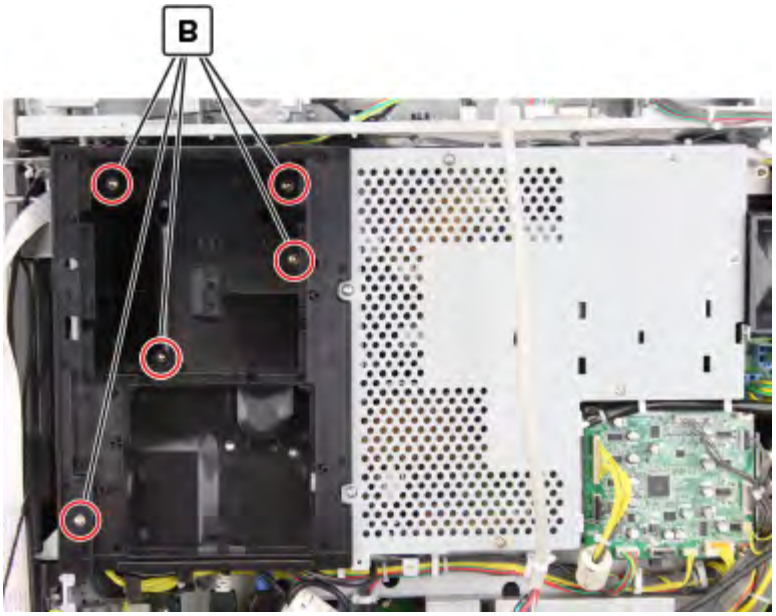
5 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

6 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

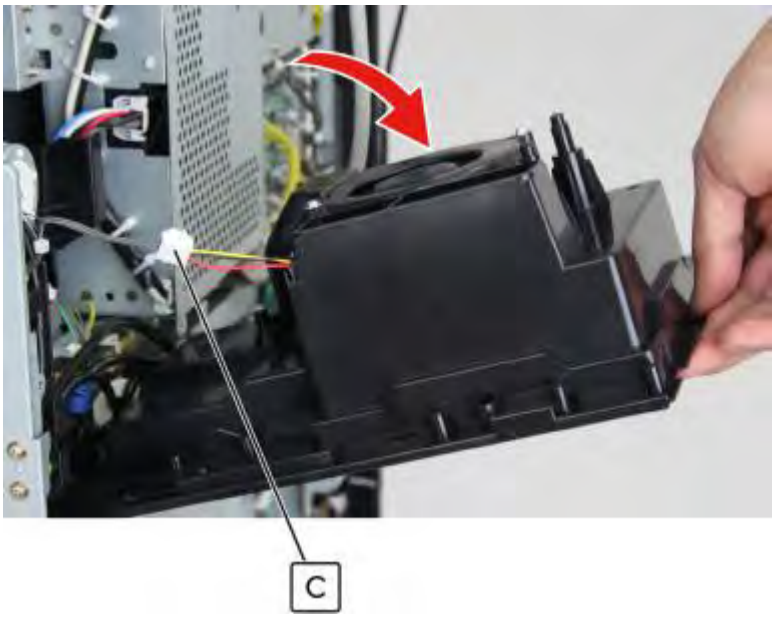
7 Remove the screw (A), and then remove the cover.



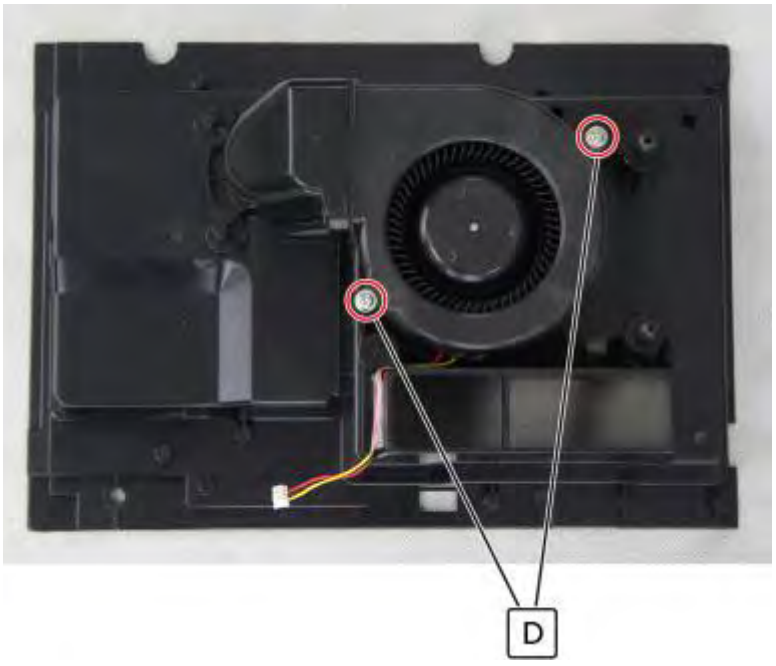
8 Remove the five screws (B).



9 Lower the paper exit fan cover, disconnect the cable (C), and then remove the cover.



10 Remove the two screws (D), and then remove the fan.



Expansion controller board removal

1 Remove the filter cover. See **"Filter cover removal" on page 548**.

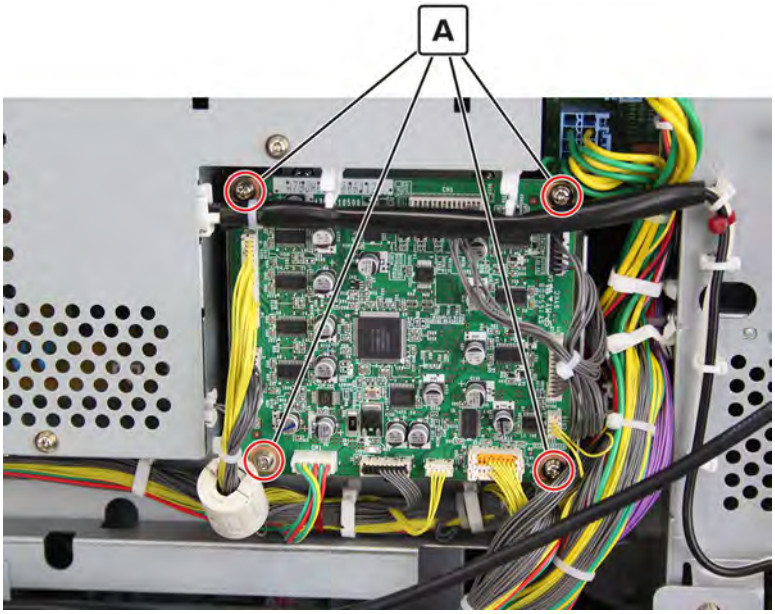
2 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

3 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

4 Remove the latch covers. See **"Latch cover removal" on page 552**.

5 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

6 Disconnect all the cables, and then remove the four screws (A).



7 Remove the board.

Power-saving board removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

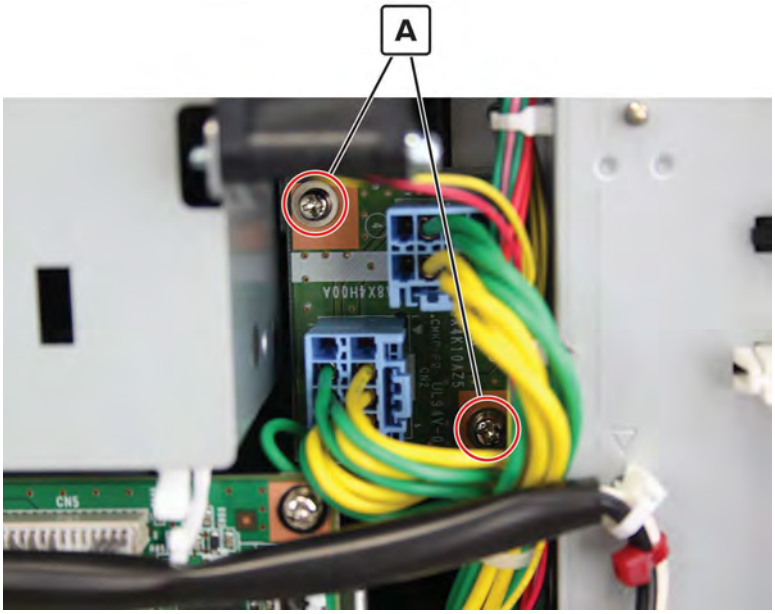
2 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

3 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

4 Remove the latch covers. See **“Latch cover removal” on page 552**.

5 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

6 Disconnect all the cables, and then remove the two screws (A).



7 Remove the board.

Expansion controller board bracket removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

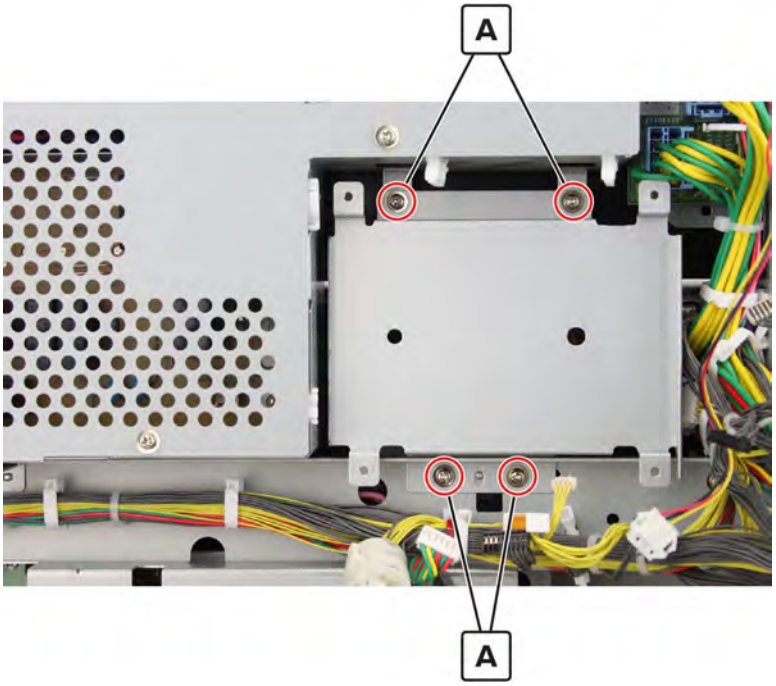
3 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

4 Remove the latch covers. See **“Latch cover removal” on page 552**.

5 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

6 Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.

7 Remove the four screws (A), and then remove the bracket.



IHPS shield removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

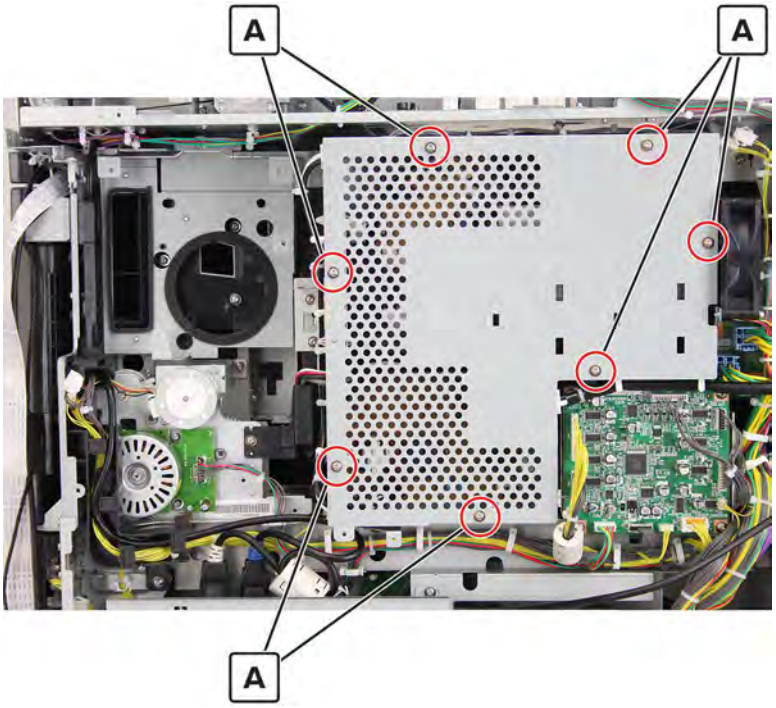
4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the latch covers. See **“Latch cover removal” on page 552**.

6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

8 Remove the seven screws (A).



9 Remove the shield.

Noise filter board removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

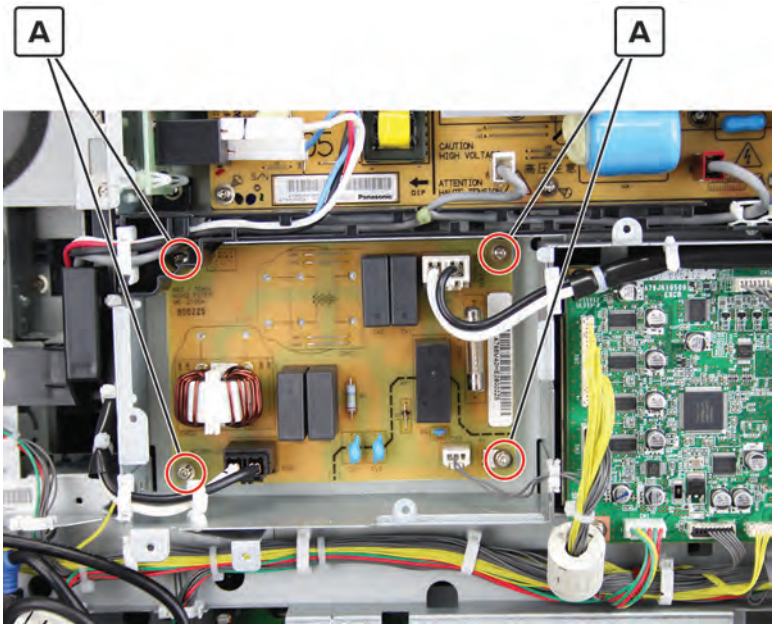
5 Remove the latch covers. See **“Latch cover removal” on page 552**.

6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

8 Remove the IHPS shield. See **“IHPS shield removal” on page 577**.

9 Disconnect all the cables, and then remove the four screws (A).



10 Remove the board.

Induction heater magnetic erase board removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the latch covers. See **“Latch cover removal” on page 552**.

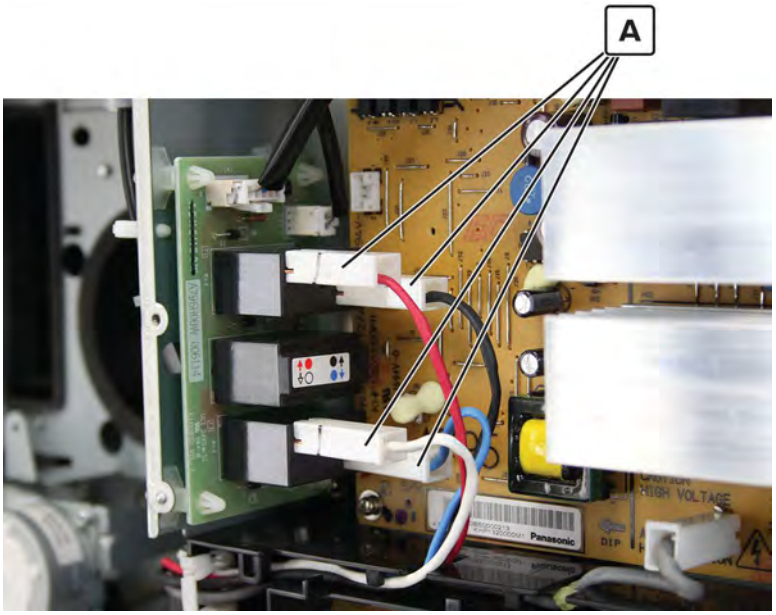
6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

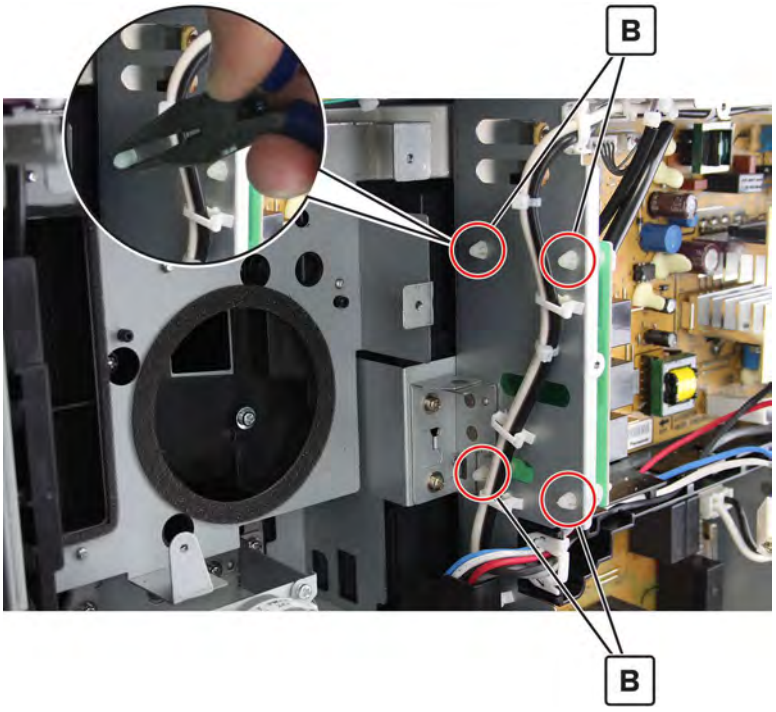
8 Remove the IHPS shield. See **“IHPS shield removal” on page 577**.

9 Disconnect the four cables (A).

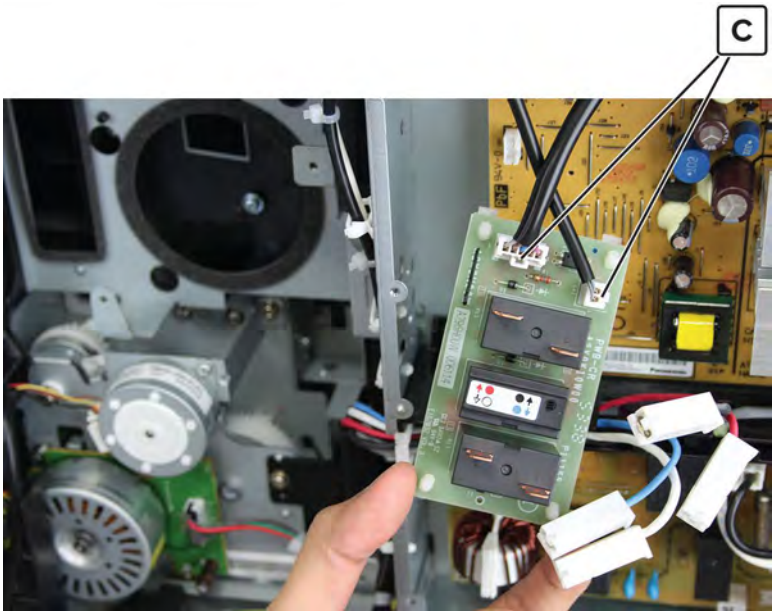
Installation warning: Make sure that the cables are plugged to their corresponding color assignments.



10 Release the four fasteners (B) at the back of the board.



11 Pull the board, and then disconnect the two cables (C).



12 Release the four latches that are still attached to the board.

Induction heater power supply (IHPS) removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the latch covers. See **“Latch cover removal” on page 552**.

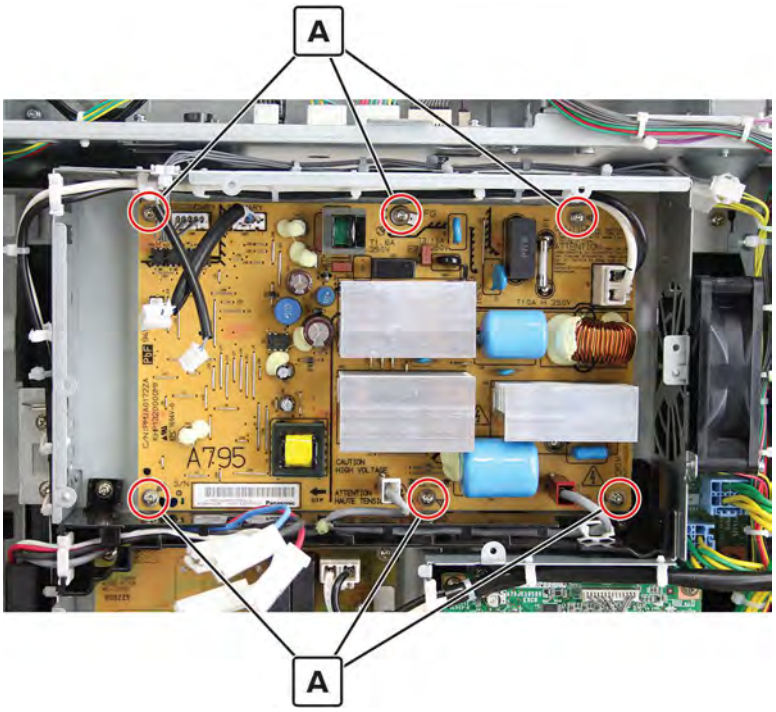
6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

8 Remove the IHPS shield. See **“IHPS shield removal” on page 577**.

9 Remove the induction heater magnetic erase board. See **“Induction heater magnetic erase board removal” on page 579**.

10 Disconnect all the cables, and then remove the six screws (A).



11 Remove the power supply.

High voltage board removal

Note: For a video demonstration, see **High voltage board removal**.

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

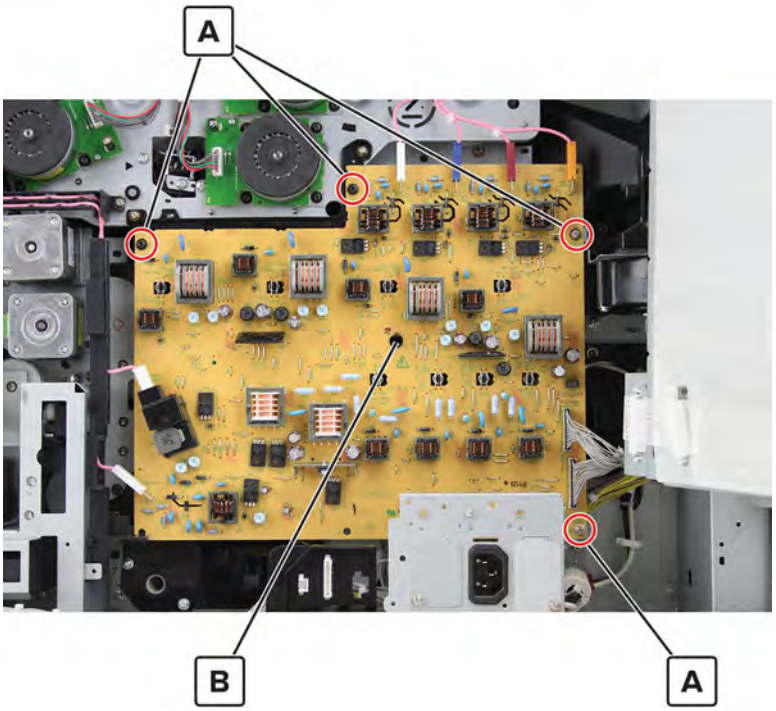
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Disconnect all the cables, and then remove the four screws (A).

Installation warning: Take note of the original connections of the colored cables.

12 Release the center post (B), and then remove the board.



Motor (transport) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

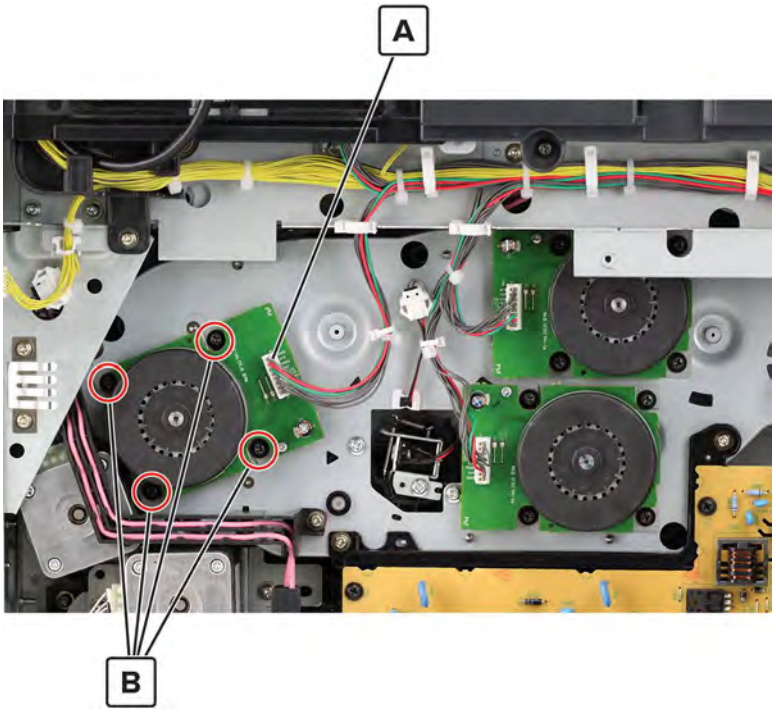
7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Disconnect the cable (A), and then remove the four screws (B).



12 Remove the motor.

Motor (developer) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

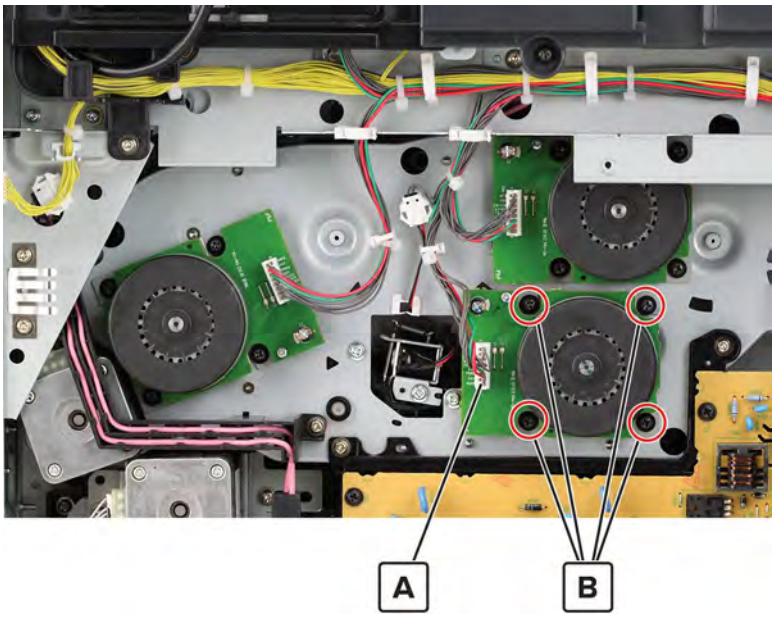
7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Disconnect the cable (A), and then remove the four screws (B).



12 Remove the motor.

Motor (photoconductor) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

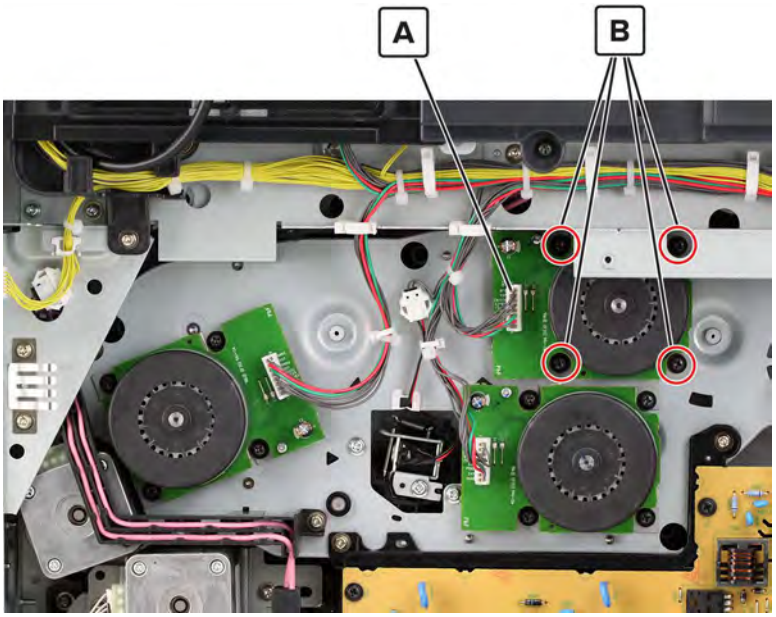
7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Disconnect the cable (A), and then remove the four screws (B).



12 Remove the motor.

Center cable guide bracket removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

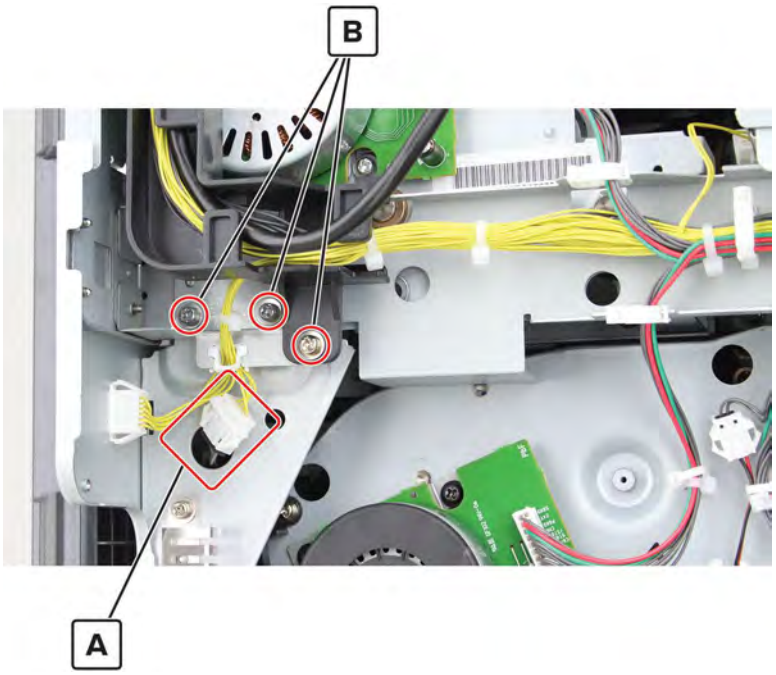
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

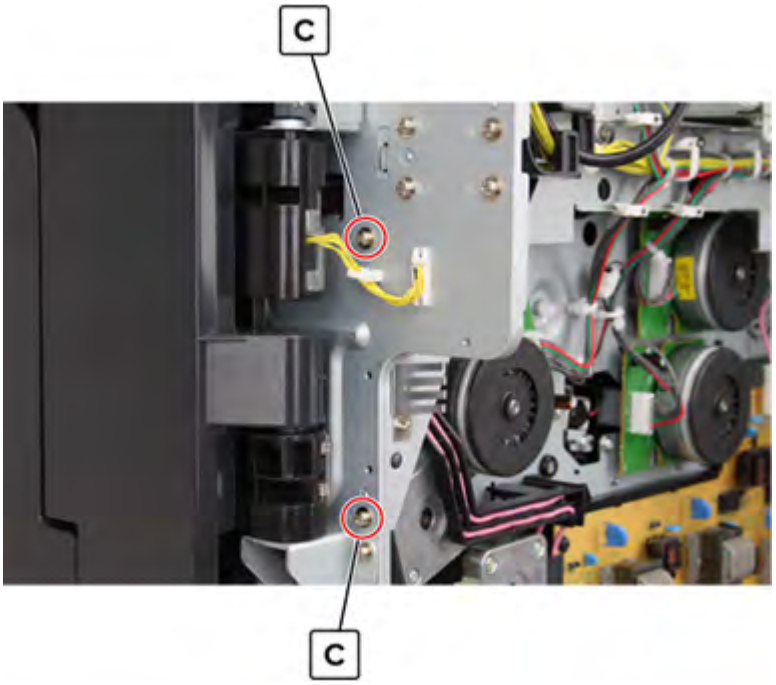
11 Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.

12 Remove the expansion controller board bracket. See **“Expansion controller board bracket removal” on page 576**.

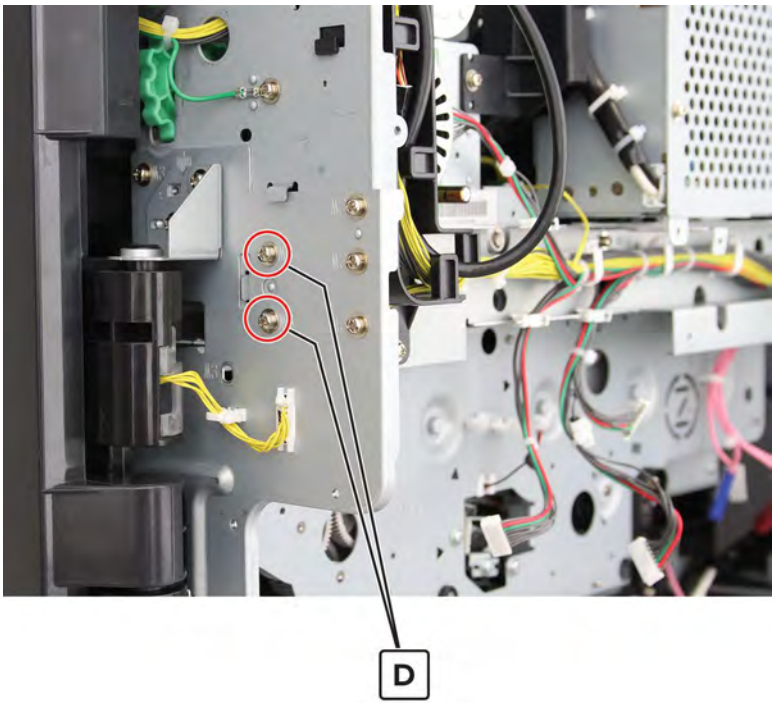
13 Disconnect the cable (A), and then remove the three screws (B).



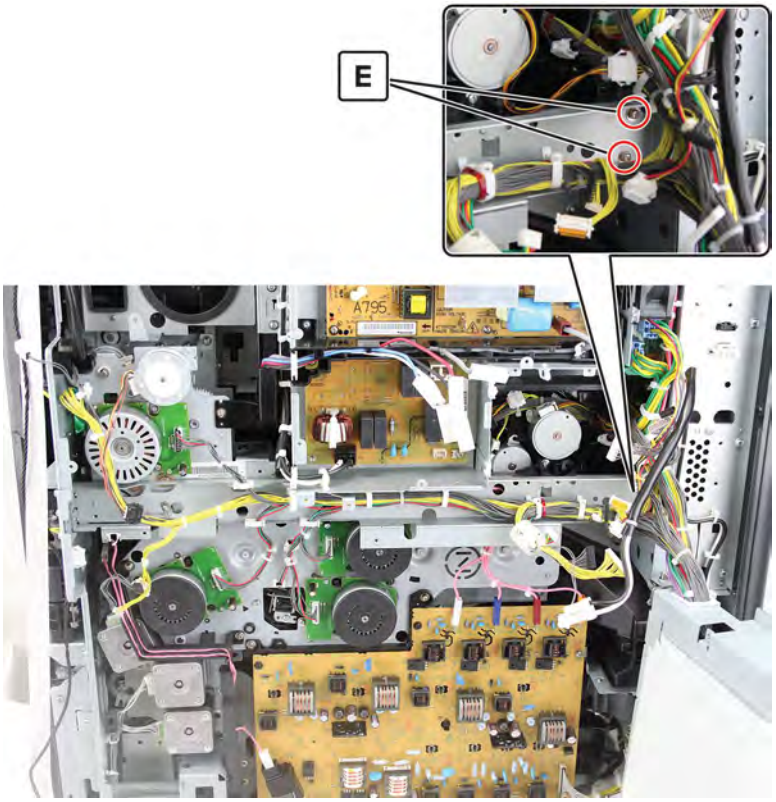
14 Remove the two screws (C) from the left side of the bracket, and then remove the bracket.



15 Remove the two screws (D).



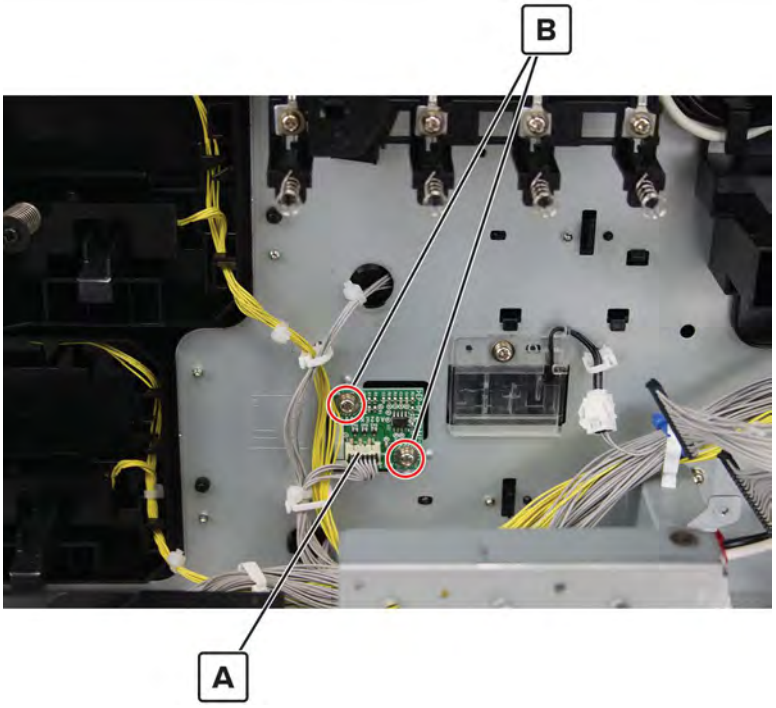
16 Remove the two screws (E), and then release the cables from the bracket.



17 Remove the bracket.

Interconnect board removal

1. Remove the port cable guide. See **“Port cable guide removal” on page 362**.
2. Remove the port access door. See **“Port access door removal” on page 363**.
3. Remove the port mount. See **“Port mount removal” on page 364**.
4. Remove the filter cover. See **“Filter cover removal” on page 548**.
5. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
6. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
7. Remove the latch covers. See **“Latch cover removal” on page 552**.
8. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
9. Remove the board shield. See **“Controller board shield removal” on page 557**.
10. Open the controller board frame. See **“Controller board frame removal” on page 565**.
11. Remove the high voltage board. See **“High voltage board removal” on page 582**.
12. Disconnect the cable (A), and then remove the two screws (B).



13. Remove the board.

IHPS frame removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the filter housing. See **“Exhaust filter removal” on page 549**.
3. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the latch covers. See **“Latch cover removal” on page 552**.

6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

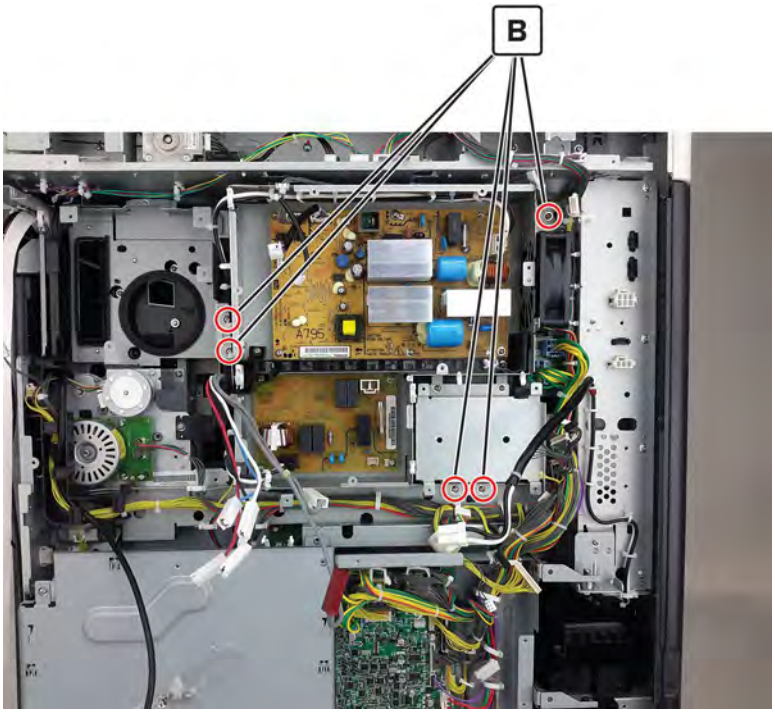
7 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

8 Remove the IHPS shield. See **“IHPS shield removal” on page 577**.

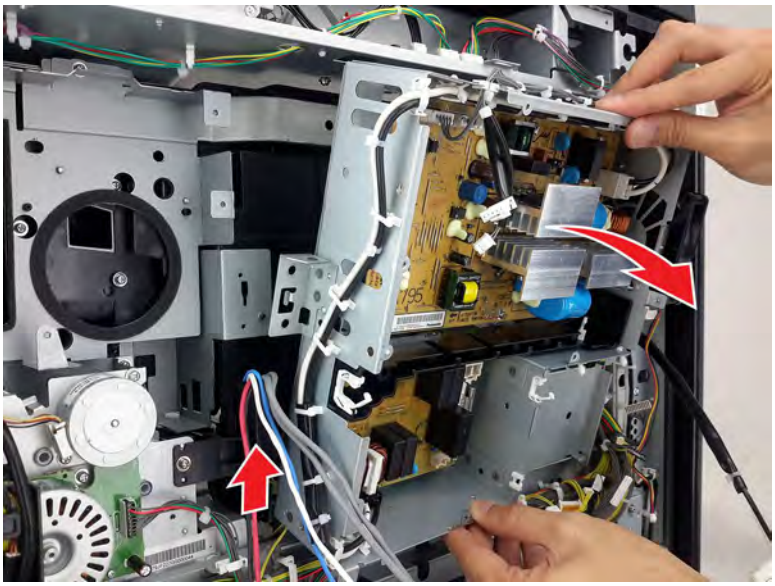
9 Remove the induction heater magnetic erase board. See **“Induction heater magnetic erase board removal” on page 579**.

10 Disconnect the seven cables (A), and then release the cables from the frame.

11 Remove the five screws (B).



12 Remove the frame.



Motor (CK toner cartridge) removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the latch covers. See **“Latch cover removal” on page 552**.

6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the left cover. See **“Left cover removal” on page 348**.

8 Remove the standard bin. See **“Standard bin removal” on page 658**.

9 Remove the standard bin base. See **“Standard bin base removal” on page 658**.

10 Remove bin side cover 2. See **“Right bin side cover removal” on page 659**.

11 Remove the top corner cover. See **“Top corner cover removal” on page 659**.

12 Remove bin side cover 1. See **“Bin side cover removal” on page 660**.

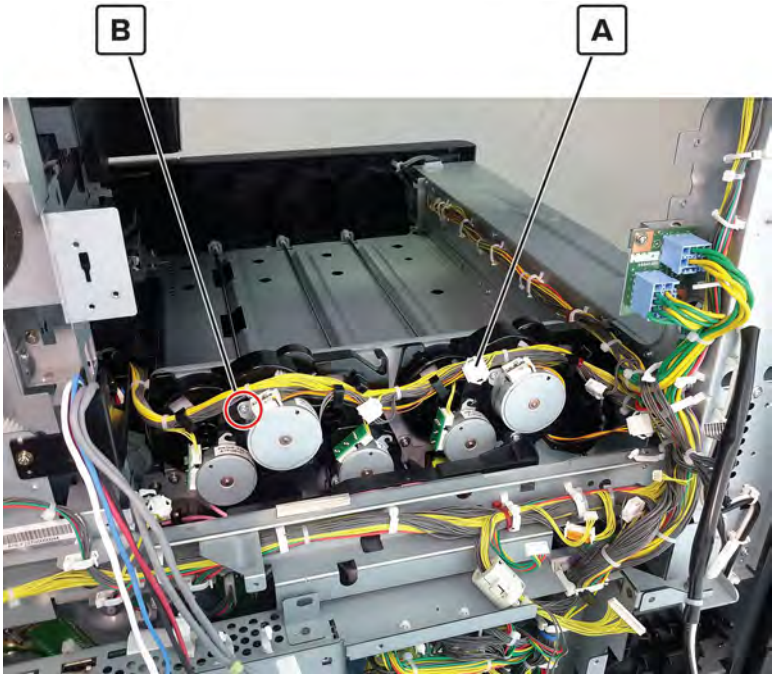
13 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

14 Remove the IHPS shield. See **“IHPS shield removal” on page 577**.

15 Remove the induction heater magnetic erase board. See **“Induction heater magnetic erase board removal” on page 579**.

16 Remove the IHPS frame. See **“IHPS frame removal” on page 589**.

17 Disconnect the cable (A), and then remove the screw (B).



18 Remove the motor.

Motor (MY toner cartridge) removal

1 Remove the filter cover. See **“Filter cover removal” on page 548**.

2 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

3 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

4 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the latch covers. See **“Latch cover removal” on page 552**.

6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the left cover. See **“Left cover removal” on page 348**.

8 Remove the standard bin. See **“Standard bin removal” on page 658**.

9 Remove the standard bin base. See **“Standard bin base removal” on page 658**.

10 Remove bin side cover 2. See **“Right bin side cover removal” on page 659**.

11 Remove the top corner cover. See **“Top corner cover removal” on page 659**.

12 Remove bin side cover 1. See **“Bin side cover removal” on page 660**.

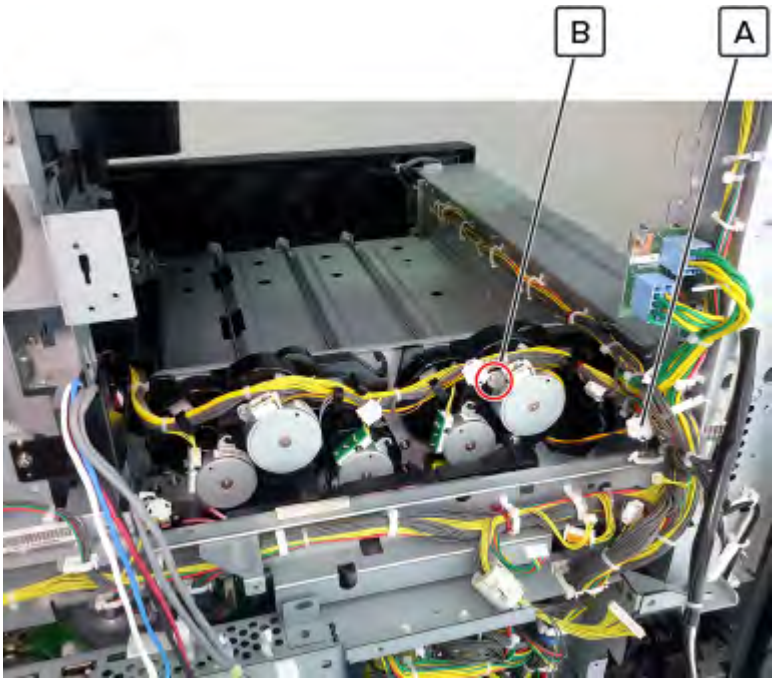
13 Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.

14 Remove the IHPS shield. See **“IHPS shield removal” on page 577**.

15 Remove the induction heater magnetic erase board. See **“Induction heater magnetic erase board removal” on page 579**.

16 Remove the IHPS frame. See **"IHPS frame removal" on page 589**.

17 Disconnect the cable (A), and then remove the screw (B).



18 Remove the motor.

Motor (C toner supply) removal

1 Remove the filter cover. See **"Filter cover removal" on page 548**.

2 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

3 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

4 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

5 Remove the latch covers. See **"Latch cover removal" on page 552**.

6 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

7 Remove the left cover. See **"Left cover removal" on page 348**.

8 Remove the standard bin. See **"Standard bin removal" on page 658**.

9 Remove the standard bin base. See **"Standard bin base removal" on page 658**.

10 Remove bin side cover 2. See **"Right bin side cover removal" on page 659**.

11 Remove the top corner cover. See **"Top corner cover removal" on page 659**.

12 Remove bin side cover 1. See **"Bin side cover removal" on page 660**.

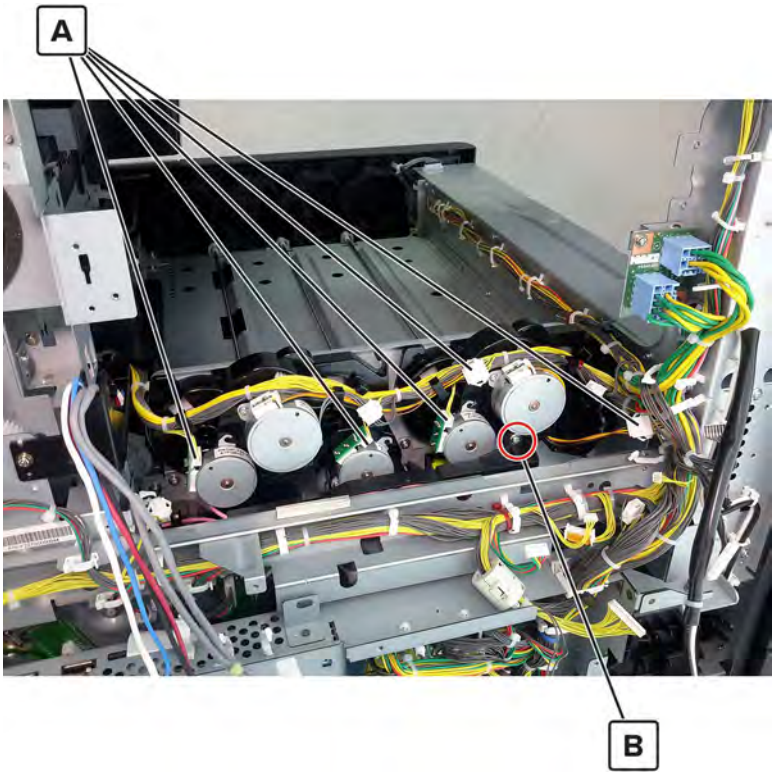
13 Remove the paper exit fan cover. See **"Paper exit fan removal" on page 572**.

14 Remove the IHPS shield. See **"IHPS shield removal" on page 577**.

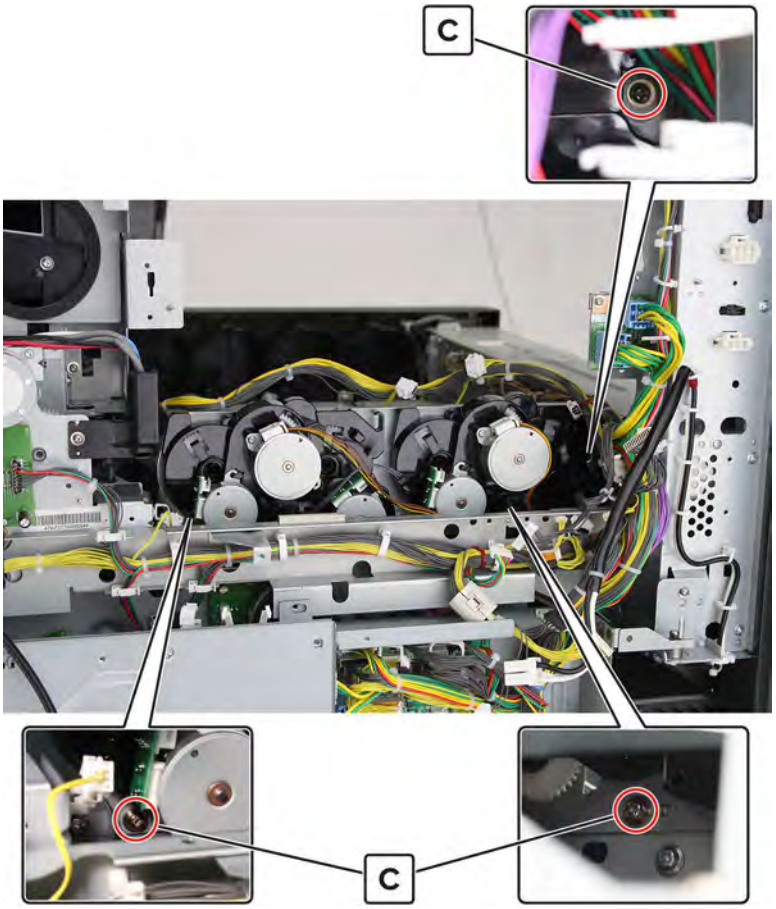
15 Remove the induction heater magnetic erase board. See **"Induction heater magnetic erase board removal" on page 579**.

16 Remove the IHPS frame. See **"IHPS frame removal" on page 589**.

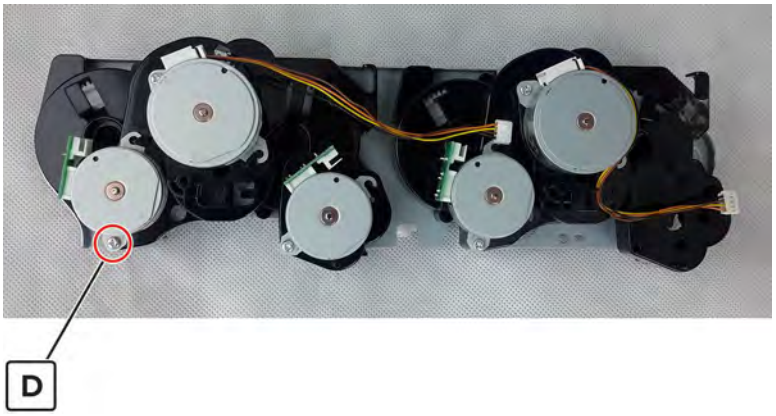
17 Disconnect the motor cables (A), remove the screw (B), and then remove the cover.



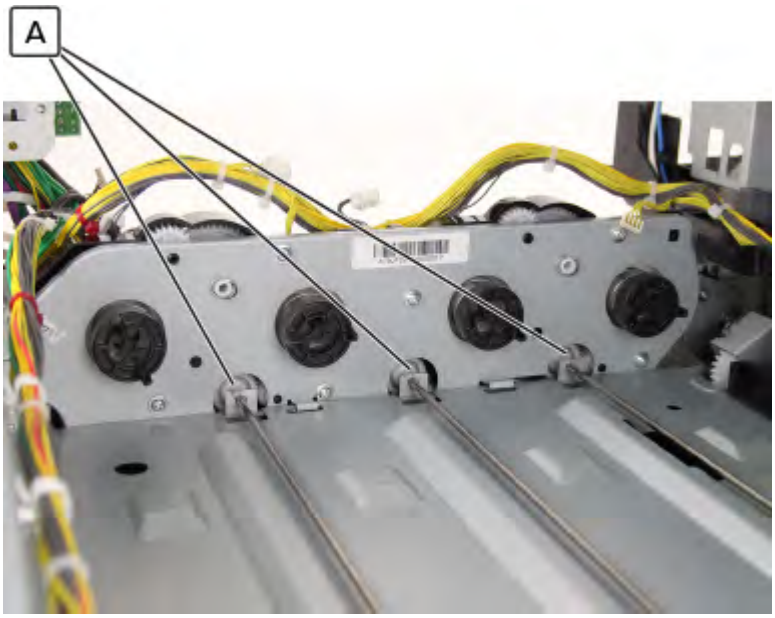
18 Remove the three screws (C), and then remove the toner cartridge drive.



19 Remove the screw (D), and then remove the motor.



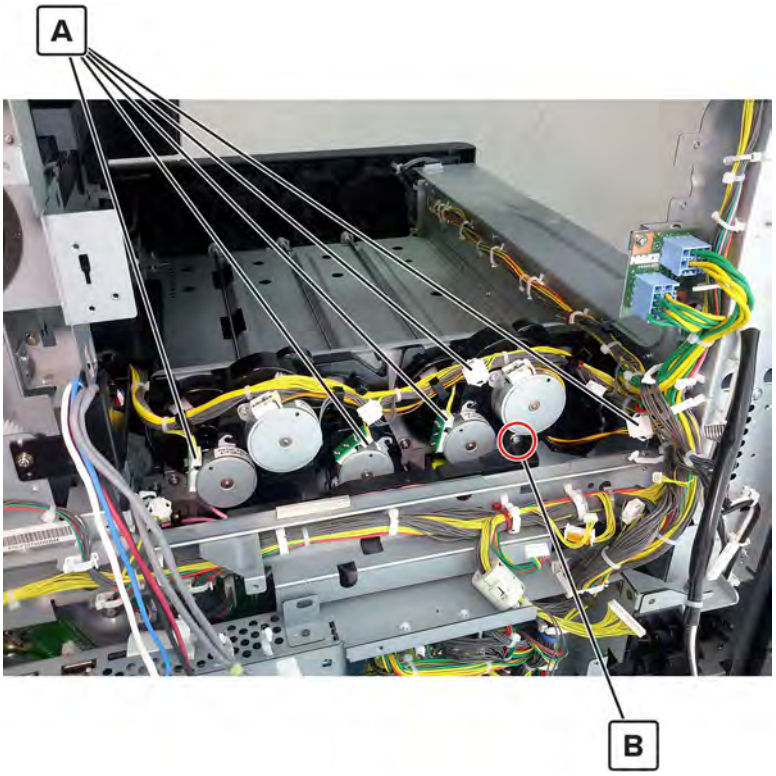
Installation note: Make sure that the shaft gears (A) are properly engaged to the toner cartridge drive.



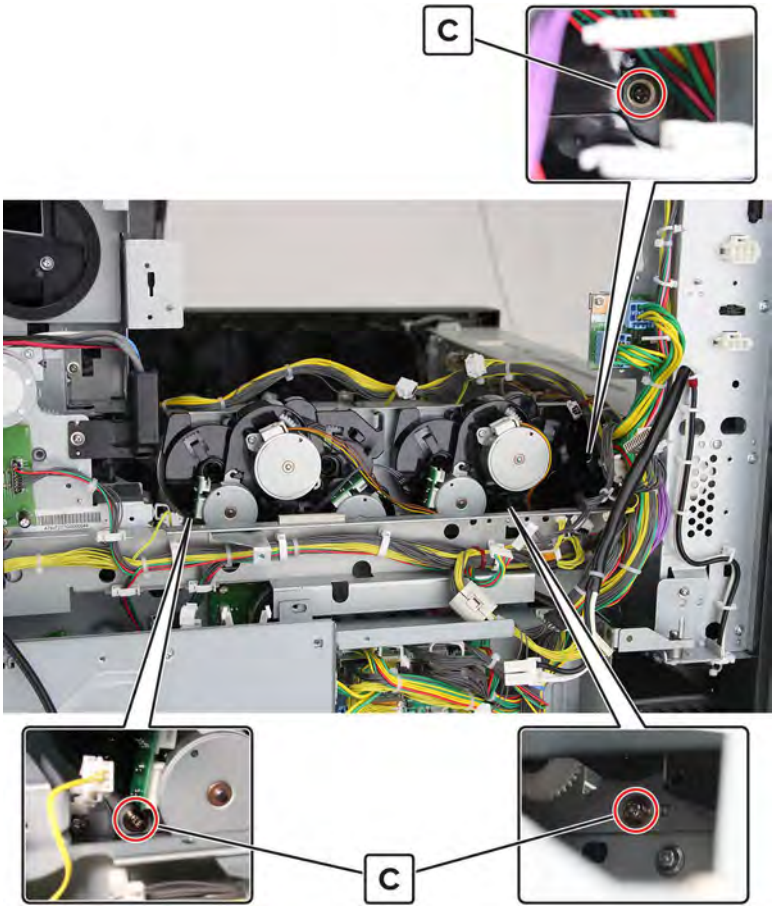
Motor (M toner supply) removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the filter housing. See **“Exhaust filter removal” on page 549**.
3. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
4. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
5. Remove the latch covers. See **“Latch cover removal” on page 552**.
6. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
7. Remove the left cover. See **“Left cover removal” on page 348**.
8. Remove the standard bin. See **“Standard bin removal” on page 658**.
9. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
10. Remove bin side cover 2. See **“Right bin side cover removal” on page 659**.
11. Remove the top corner cover. See **“Top corner cover removal” on page 659**.
12. Remove bin side cover 1. See **“Bin side cover removal” on page 660**.
13. Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.
14. Remove the IHPS shield. See **“IHPS shield removal” on page 577**.
15. Remove the induction heater magnetic erase board. See **“Induction heater magnetic erase board removal” on page 579**.
16. Remove the IHPS frame. See **“IHPS frame removal” on page 589**.

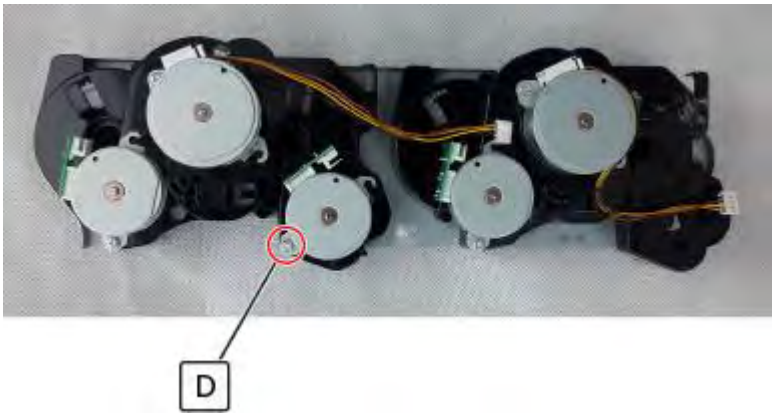
17 Disconnect the motor cables (A), remove the screw (B), and then remove the cover.



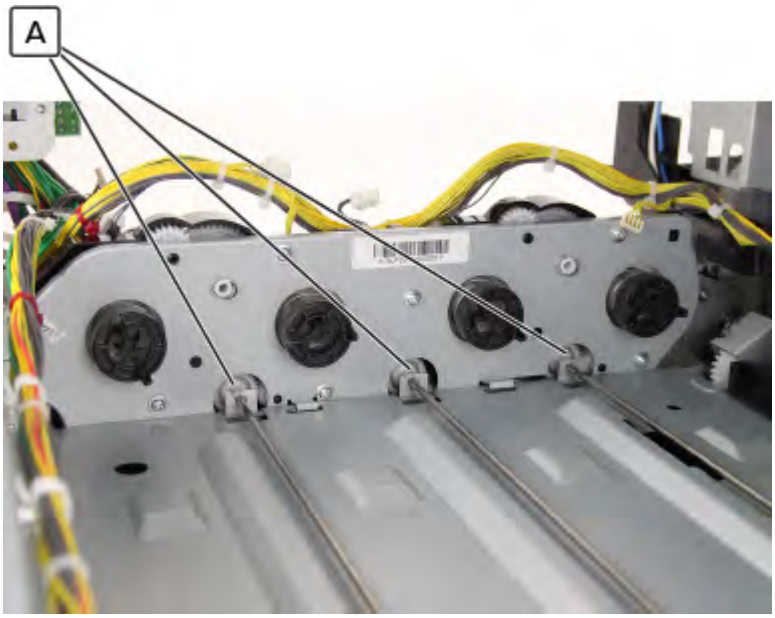
18 Remove the three screws (C), and then remove the toner cartridge drive.



19 Remove the screw (D), and then remove the motor.



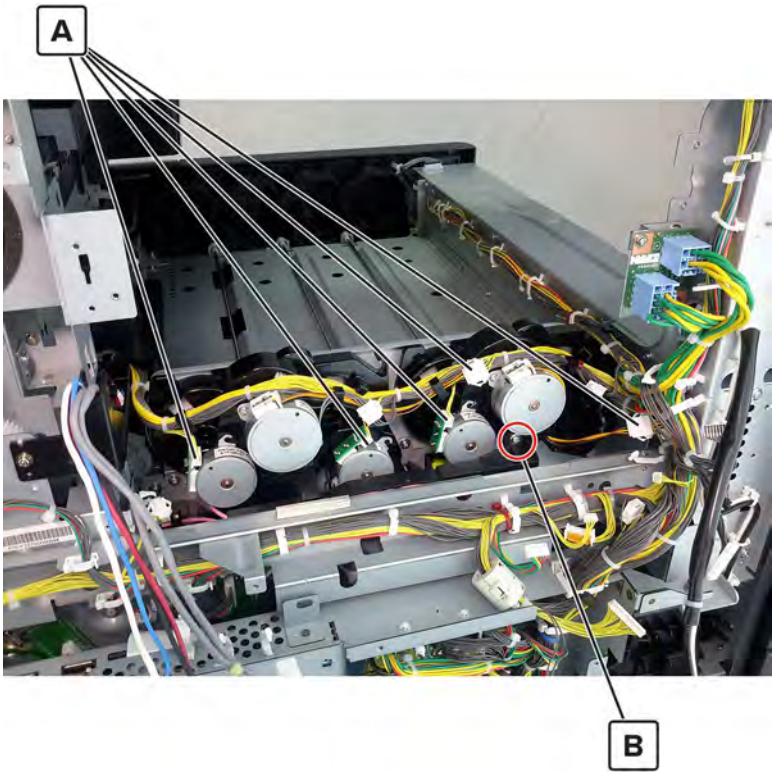
Installation note: Make sure that the shaft gears (A) are properly engaged to the toner cartridge drive.



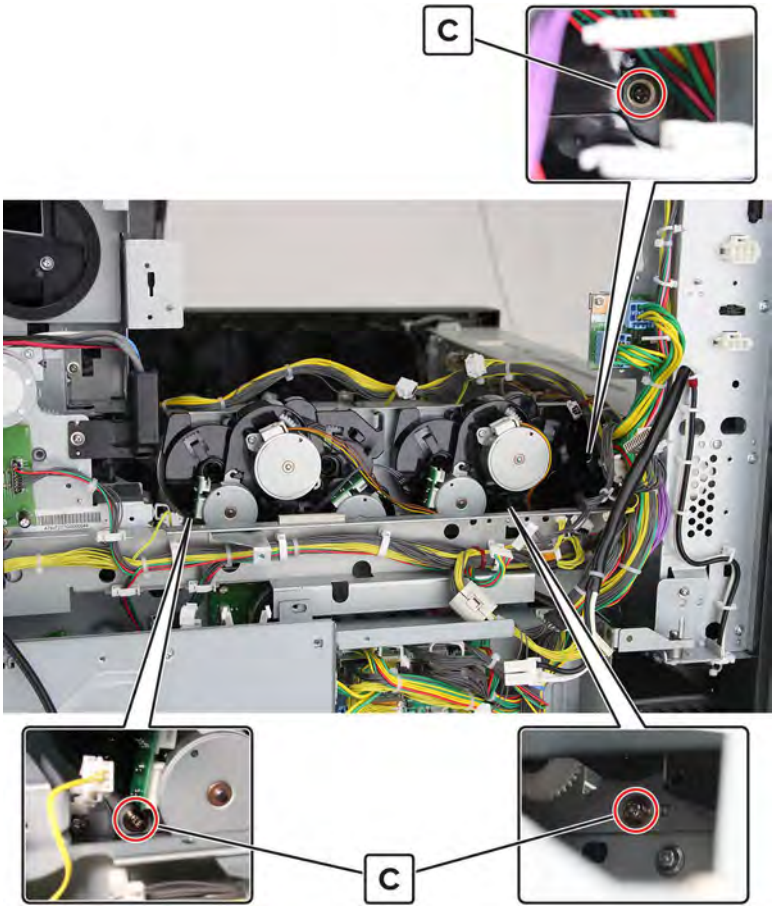
Motor (Y toner supply) removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the filter housing. See **“Exhaust filter removal” on page 549**.
3. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
4. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
5. Remove the latch covers. See **“Latch cover removal” on page 552**.
6. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
7. Remove the left cover. See **“Left cover removal” on page 348**.
8. Remove the standard bin. See **“Standard bin removal” on page 658**.
9. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
10. Remove bin side cover 2. See **“Right bin side cover removal” on page 659**.
11. Remove the top corner cover. See **“Top corner cover removal” on page 659**.
12. Remove bin side cover 1. See **“Bin side cover removal” on page 660**.
13. Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.
14. Remove the IHPS shield. See **“IHPS shield removal” on page 577**.
15. Remove the induction heater magnetic erase board. See **“Induction heater magnetic erase board removal” on page 579**.
16. Remove the IHPS frame. See **“IHPS frame removal” on page 589**.

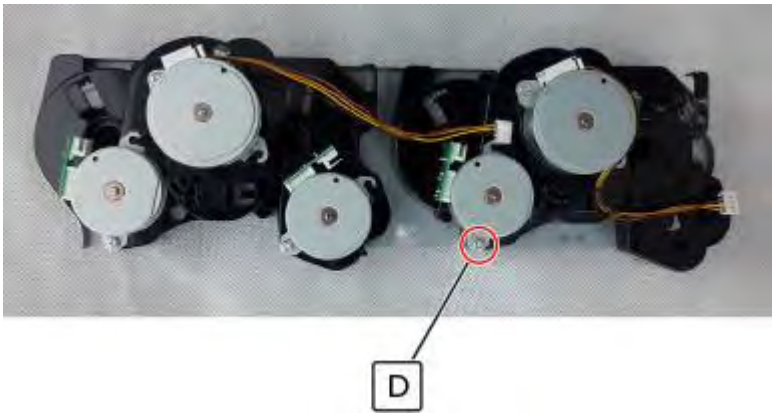
17 Disconnect the motor cables (A), remove the screw (B), and then remove the cover.



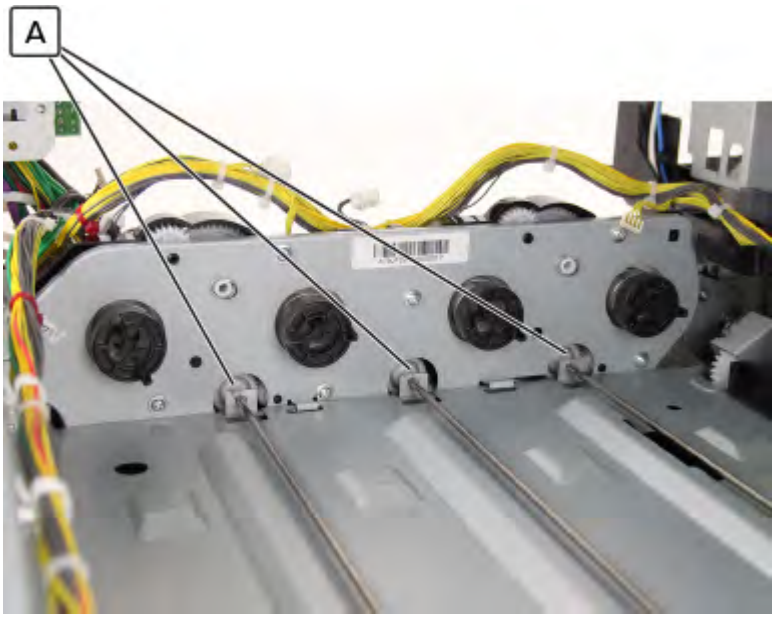
18 Remove the three screws (C), and then remove the toner cartridge drive.



19 Remove the screw (D), and then remove the motor.



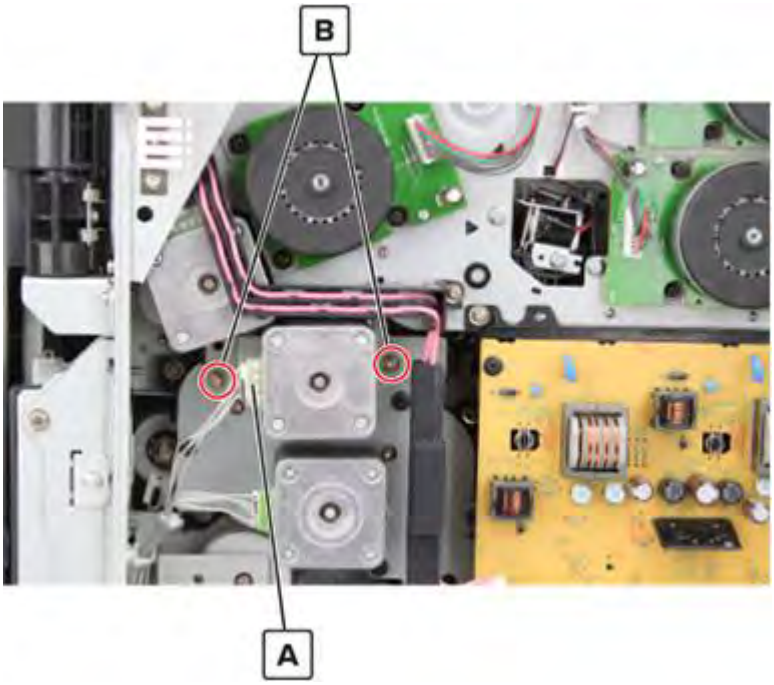
Installation note: Make sure that the shaft gears (A) are properly engaged to the toner cartridge drive.



Motor (registration) removal

1. Remove the port cable guide. See **“Port cable guide removal” on page 362**.
2. Remove the port access door. See **“Port access door removal” on page 363**.
3. Remove the port mount. See **“Port mount removal” on page 364**.
4. Remove the filter cover. See **“Filter cover removal” on page 548**.
5. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
6. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
7. Remove the latch covers. See **“Latch cover removal” on page 552**.
8. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
9. Remove the board shield. See **“Controller board shield removal” on page 557**.
10. Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Disconnect the cable (A), and then remove the two screws (B).



12 Remove the motor.

Motor (duplex transport 2) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

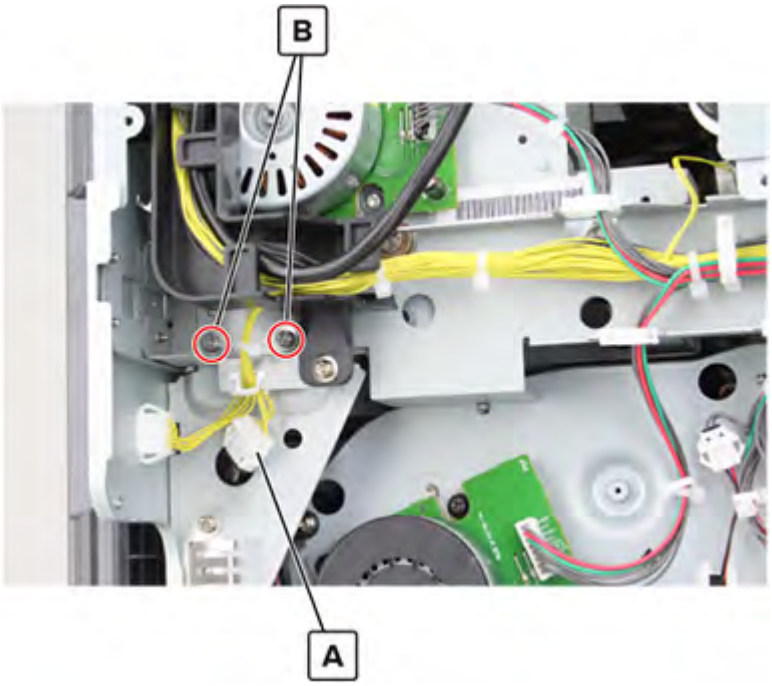
7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

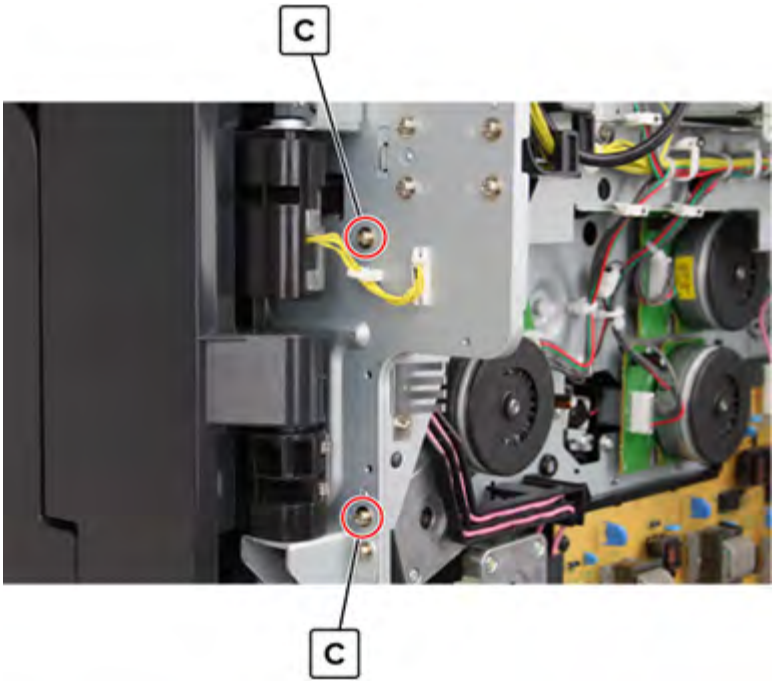
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

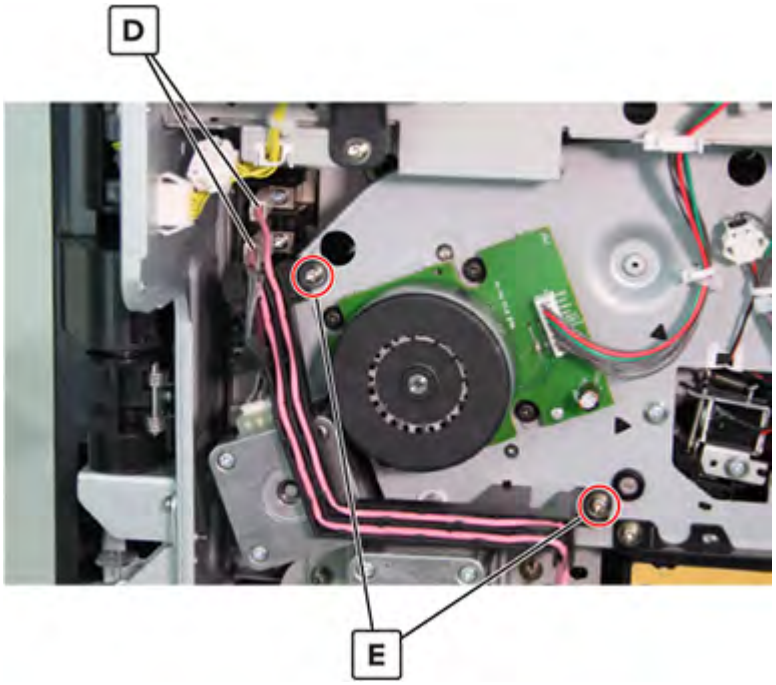
11 Disconnect the cable (A), and then remove the two screws (B).



12 Remove the two screws (C) from the left side, and then remove the bracket.

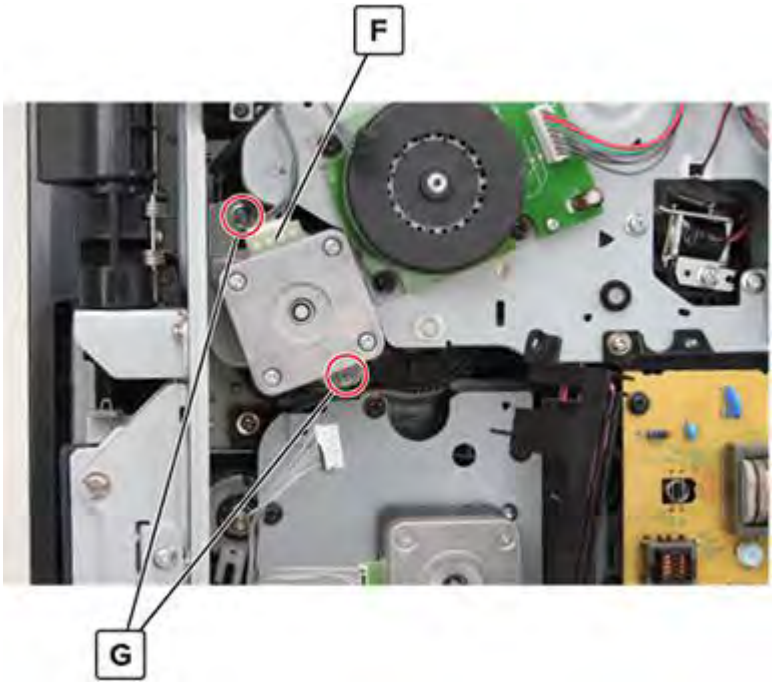


13 Disconnect the two cables (D), remove the two screws (E), and then pull the guide.

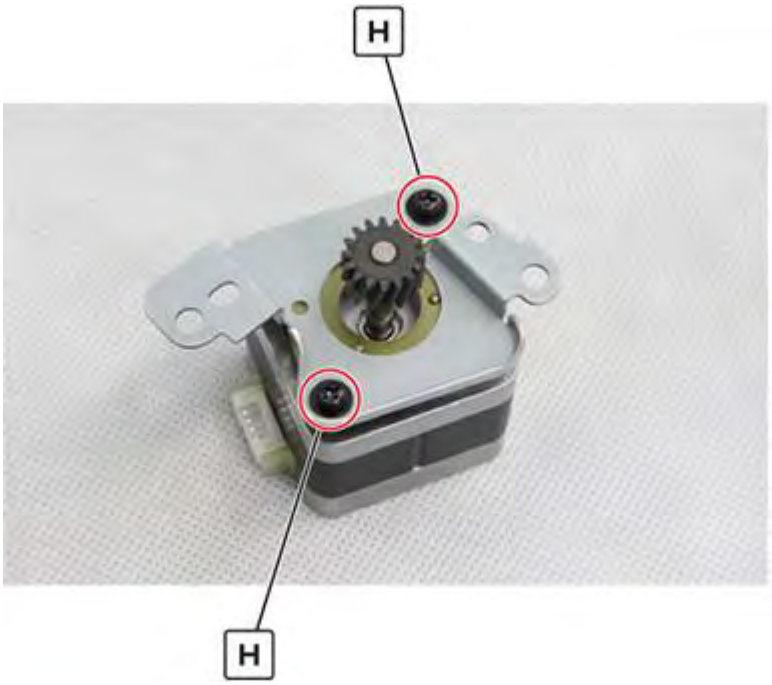


14 Remove the motor (registration). See **"Motor (registration) removal" on page 602**.

15 Disconnect the cable (F), remove the two screws (G), and then remove the bracket.



16 Remove the two screws (H), and then remove the motor.



Main drive assembly removal

Note: For a video demonstration, see **Main drive assembly removal**.

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

6 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

7 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

8 Remove the latch covers. See **"Latch cover removal" on page 552**.

9 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

10 Remove the board shield. See **"Controller board shield removal" on page 557**.

11 Open the controller board frame. See **"Controller board frame removal" on page 565**.

12 Remove the expansion controller board. See **"Expansion controller board removal" on page 574**.

13 Remove the expansion controller board bracket. See **"Expansion controller board bracket removal" on page 576**.

14 Remove the high voltage board. See **"High voltage board removal" on page 582**.

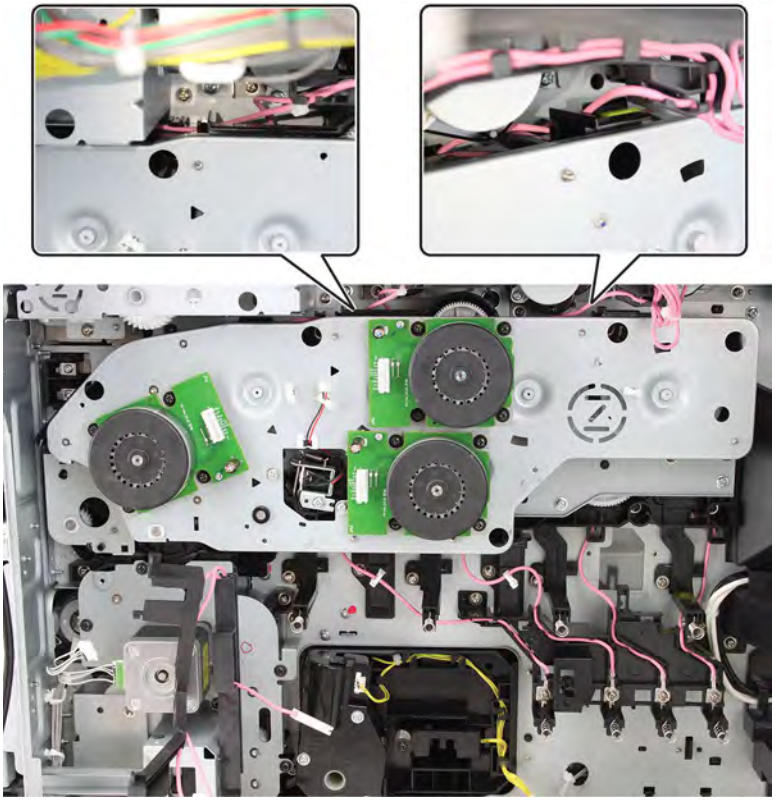
15 Remove the center cable guide bracket. See **"Center cable guide bracket removal" on page 586**.

16 Remove the motor (registration). See **"Motor (registration) removal" on page 602**.

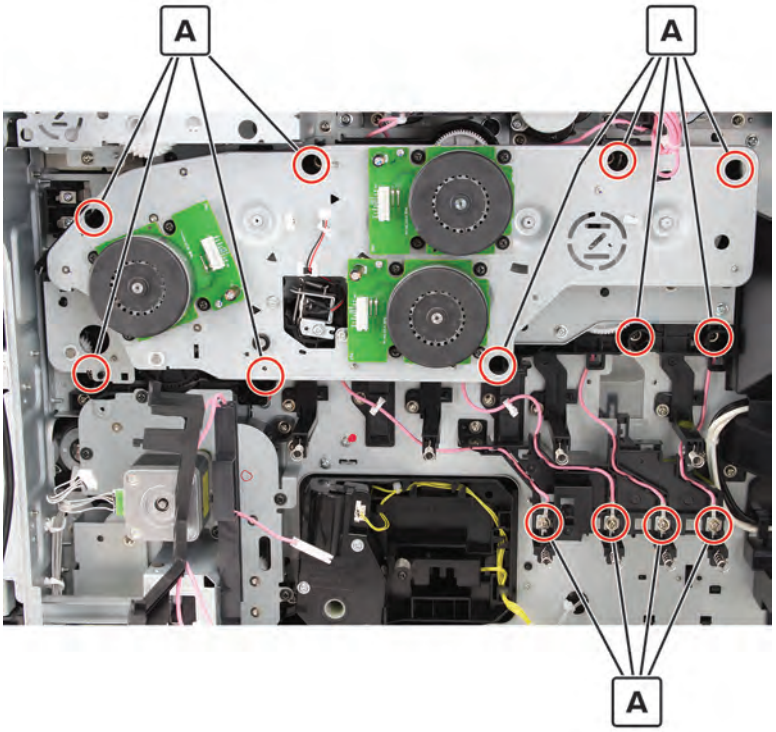
17 Remove the motor (duplex transport 2) bracket. See **"Motor (duplex transport 2) removal" on page 603**.

18 Release the cables from their guides.

Installation note: Make sure that the cables are properly routed.

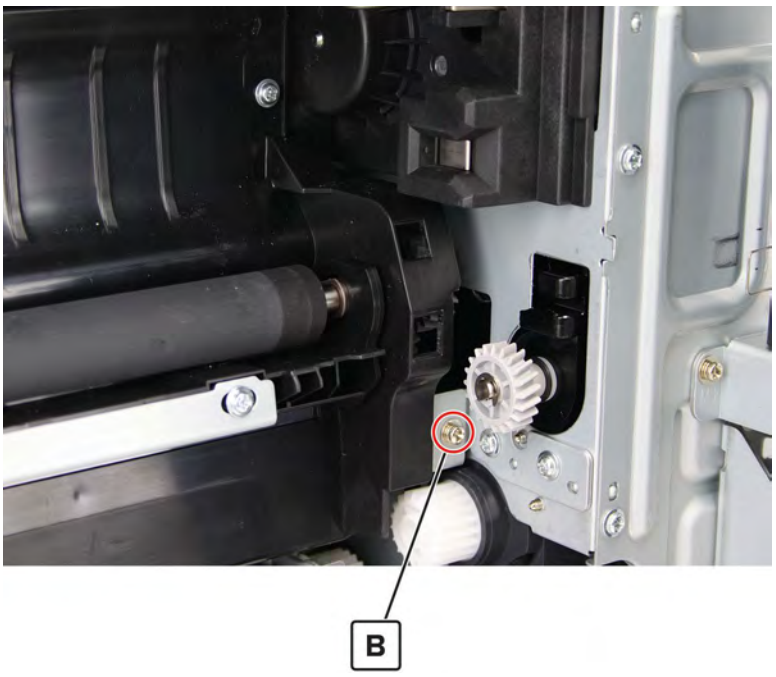


19 Remove the 13 screws (A), and then release the cables from their guides.



20 Open the right door, and then remove the screw (B).

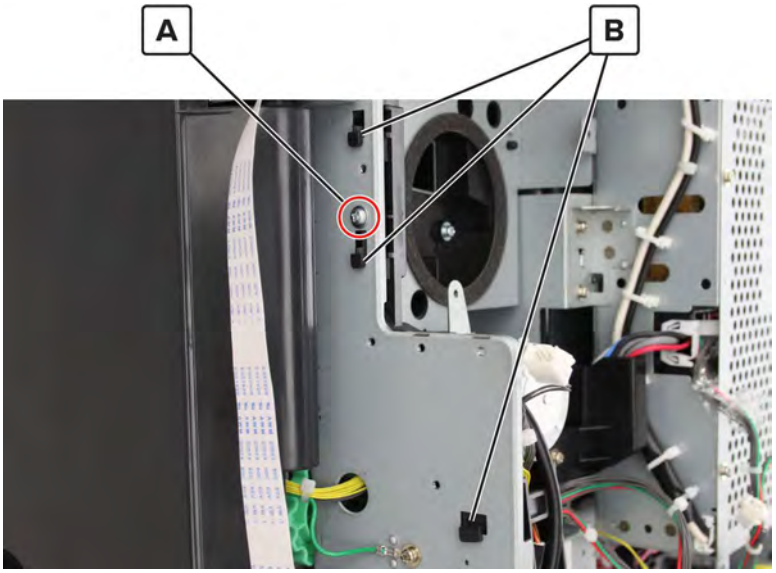
CAUTION—HOT SURFACE: The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.



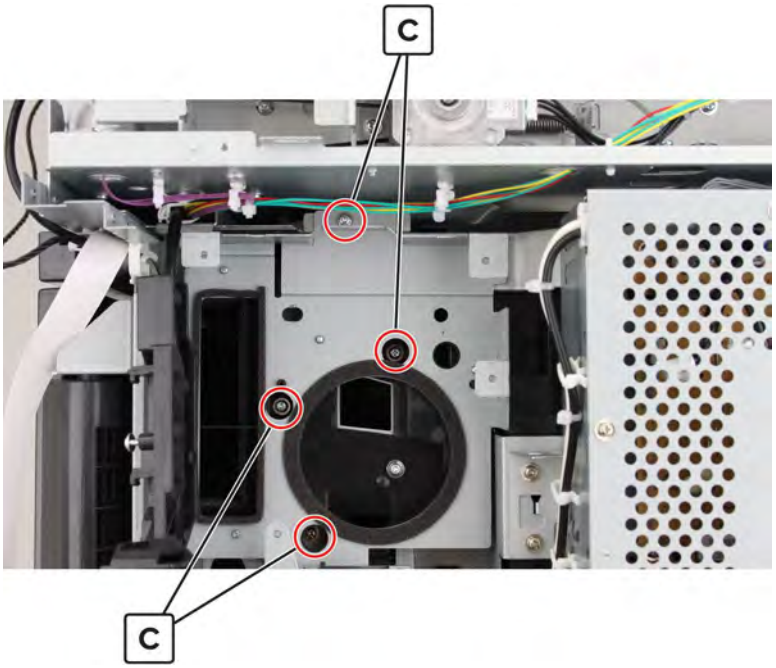
21 Remove the assembly.

Motor (fuser) removal

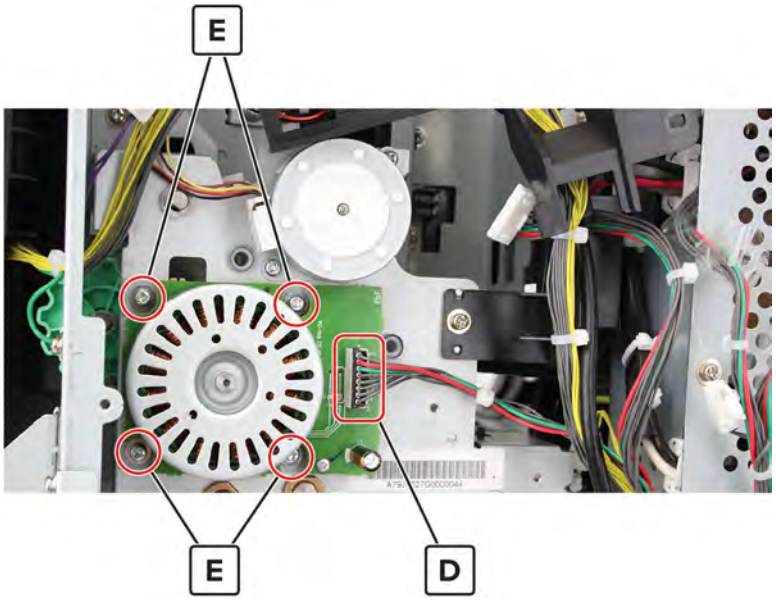
1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the filter housing. See **“Exhaust filter removal” on page 549**.
3. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
4. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
5. Remove the latch covers. See **“Latch cover removal” on page 552**.
6. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
7. Remove the paper exit fan cover. See **“Paper exit fan removal” on page 572**.
8. Remove the screw (A), release the three tabs (B), and then remove the cable guide.



9 Remove the four screws (C), and then remove the duct assembly.



10 Disconnect the cable (D), remove the four screws (E), and then remove the motor.



Motor (fuser pressure) removal

1 Remove the filter cover. See **"Filter cover removal" on page 548**.

2 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

3 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

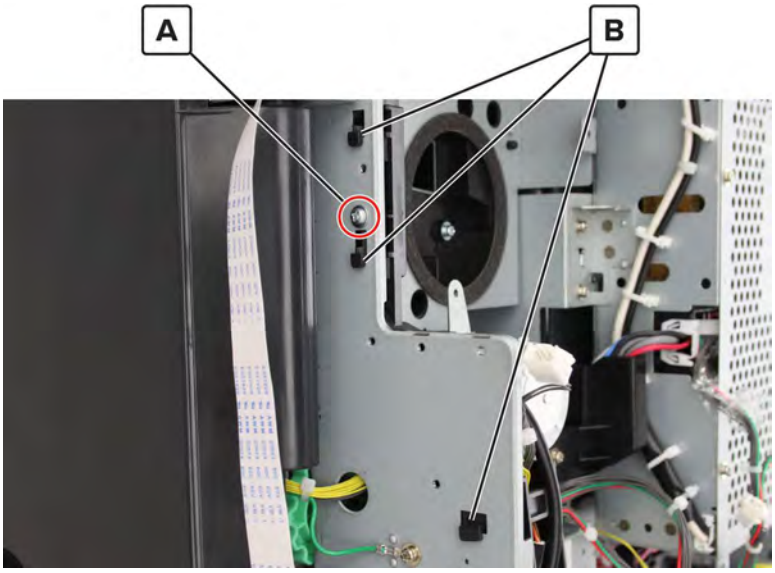
4 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

5 Remove the latch covers. See **"Latch cover removal" on page 552**.

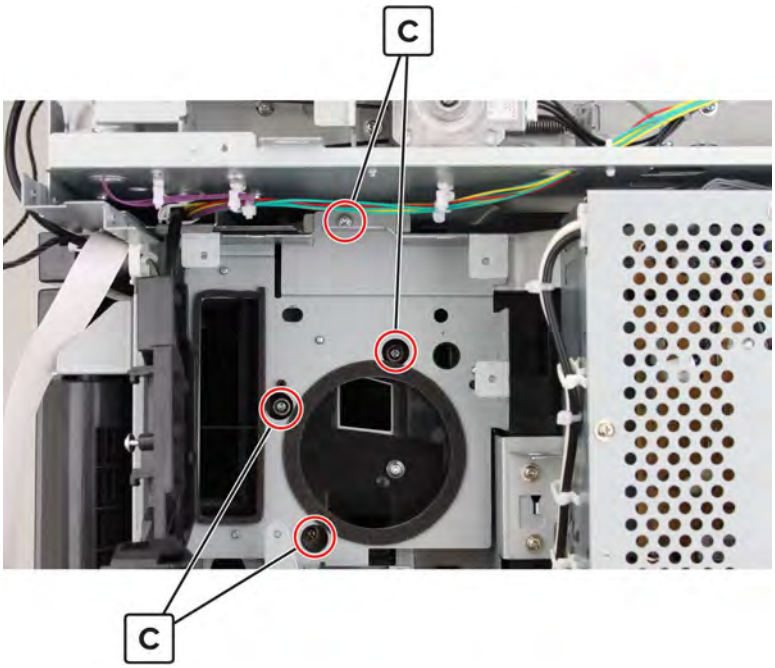
6 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

7 Remove the paper exit fan cover. See **"Paper exit fan removal" on page 572**.

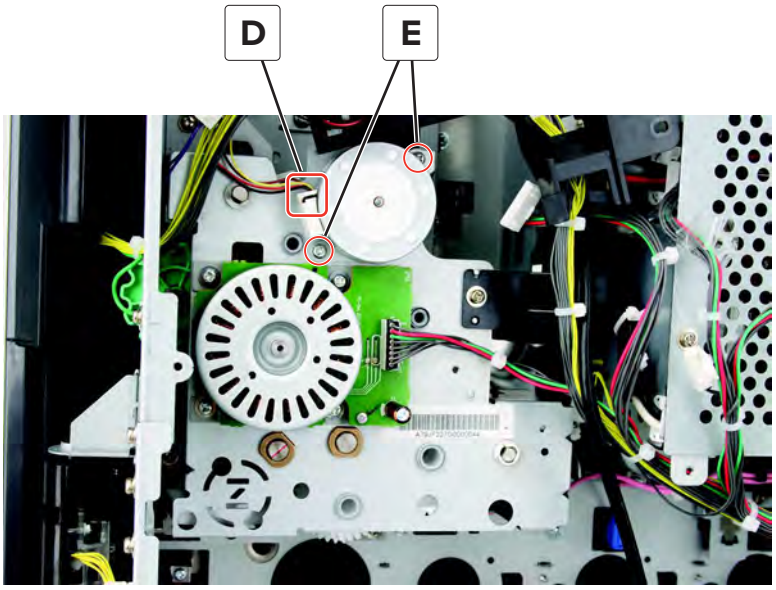
8 Remove the screw (A), release the three tabs (B), and then remove the cable guide.



9 Remove the four screws (C), and then remove the duct assembly.



10 Disconnect the cable (D), remove the two screws (E), and then remove the motor.



Fuser drive gearbox removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

6 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

7 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

8 Remove the latch covers. See **"Latch cover removal" on page 552**.

9 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

10 Remove the board shield. See **"Controller board shield removal" on page 557**.

11 Open the controller board frame. See **"Controller board frame removal" on page 565**.

12 Remove the paper exit fan cover. See **"Paper exit fan removal" on page 572**.

13 Remove the expansion controller board. See **"Expansion controller board removal" on page 574**.

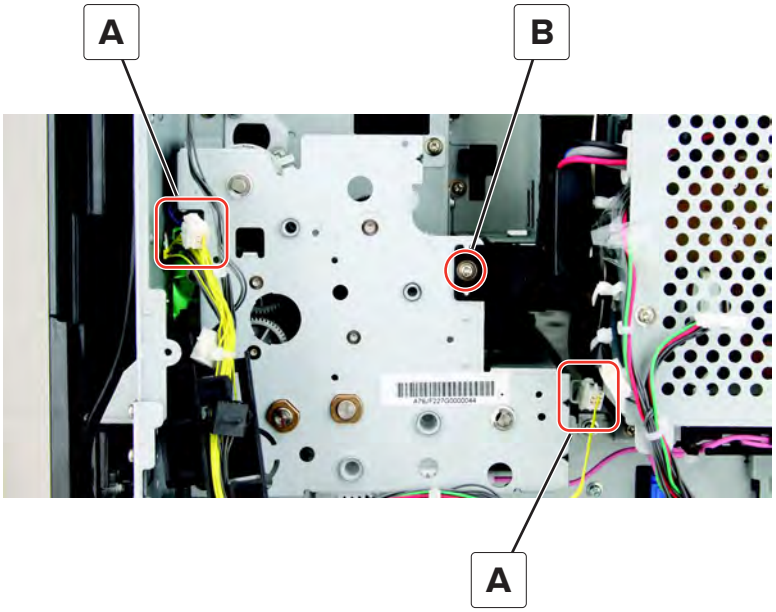
14 Remove the expansion controller board bracket. See **"Expansion controller board bracket removal" on page 576**.

15 Remove the center cable guide bracket. See **"Center cable guide bracket removal" on page 586**.

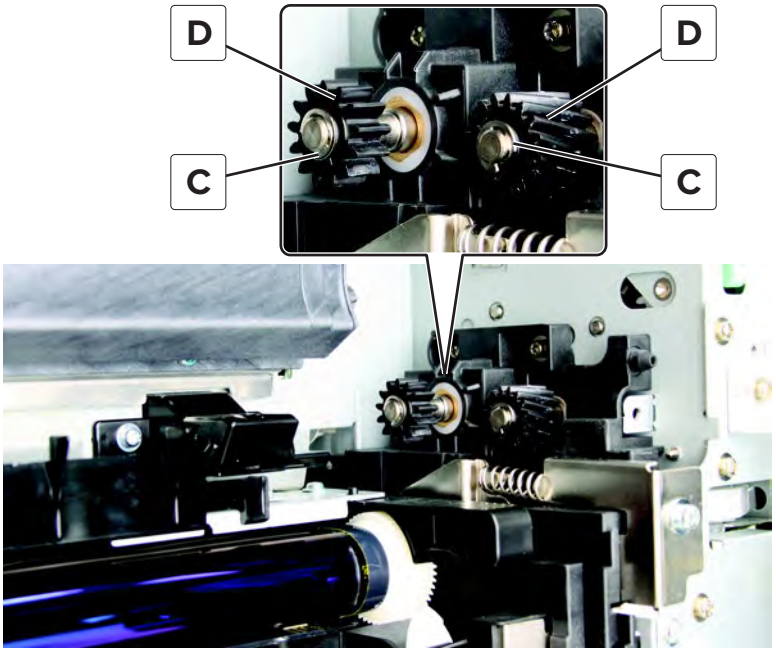
16 Remove the motor (fuser). See **"Motor (fuser) removal" on page 609**.

17 Remove the motor (fuser pressure). See **"Motor (fuser pressure) removal" on page 610**.

18 Disconnect the two connectors (A), and then remove the screw (B).

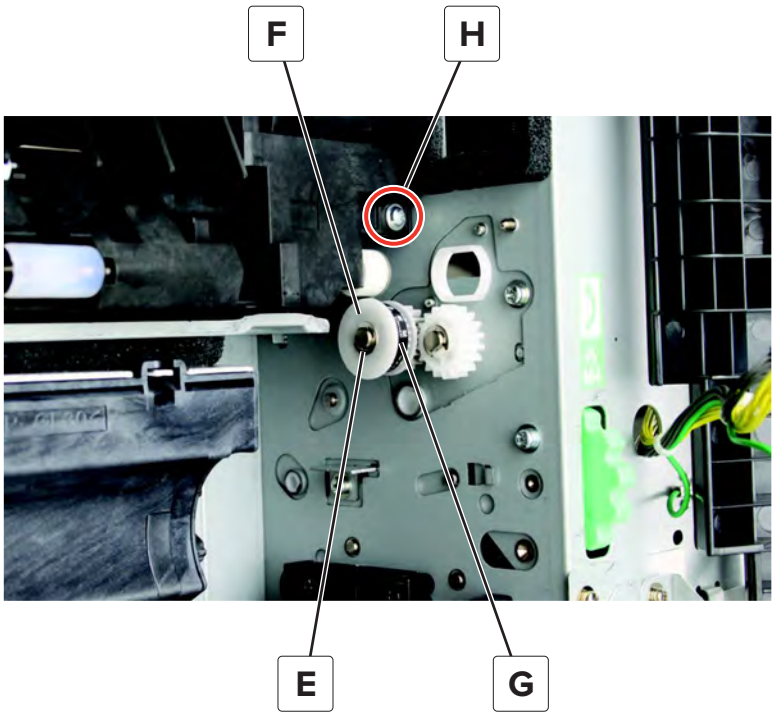


19 Remove the E-clips (C), and then remove the gears (D) on the right side of the printer.

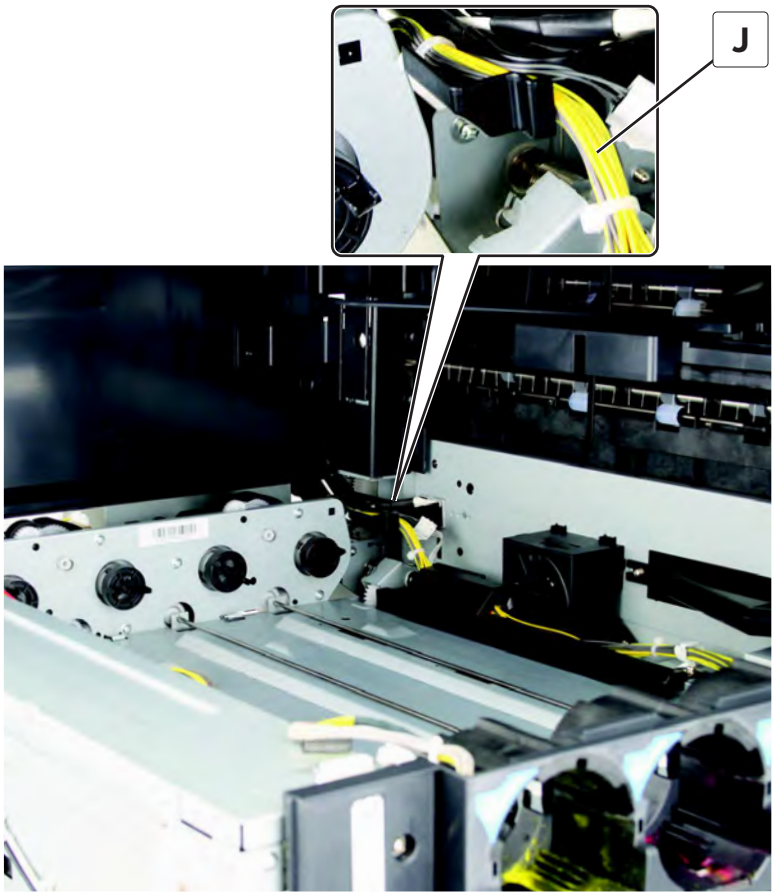


20 Remove the E-clip (E), remove the flange (F), and then remove the belt (G).

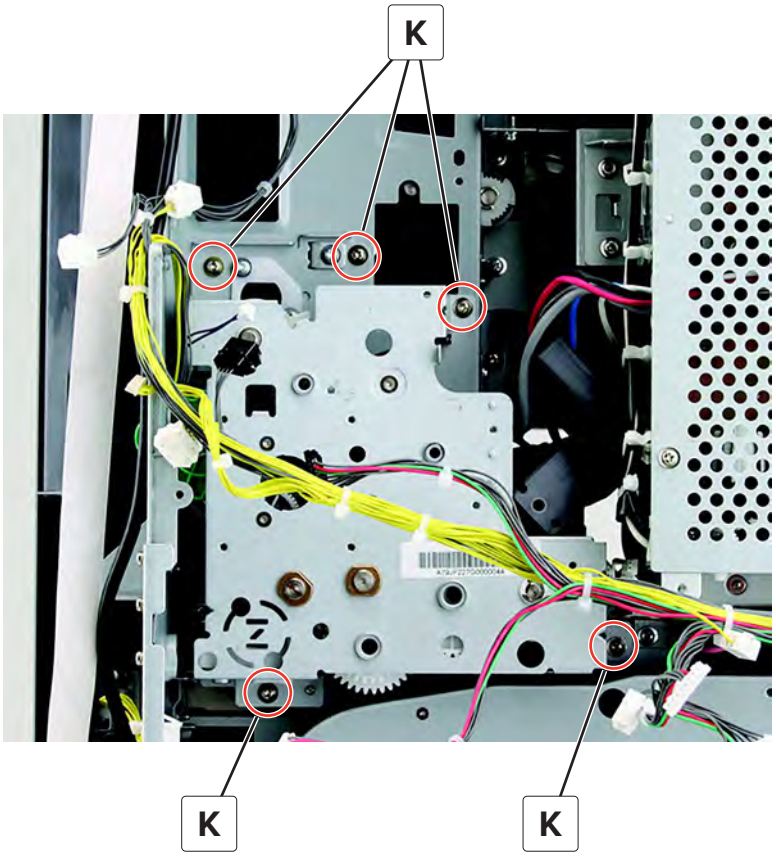
21 Remove the screw (H).



22 Release the cables (J) from the cable guide.



23 Remove the five screws (K), and then remove the gearbox.



Fuser knob removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

6 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

7 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

8 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

9 Remove the board shield. See **"Controller board shield removal" on page 557**.

10 Open the controller board frame. See **"Controller board frame removal" on page 565**.

11 Remove the paper exit fan cover. See **"Paper exit fan removal" on page 572**.

12 Remove the expansion controller board. See **"Expansion controller board removal" on page 574**.

13 Remove the expansion controller board bracket. See **"Expansion controller board bracket removal" on page 576**.

14 Remove the center cable guide bracket. See **"Center cable guide bracket removal" on page 586**.

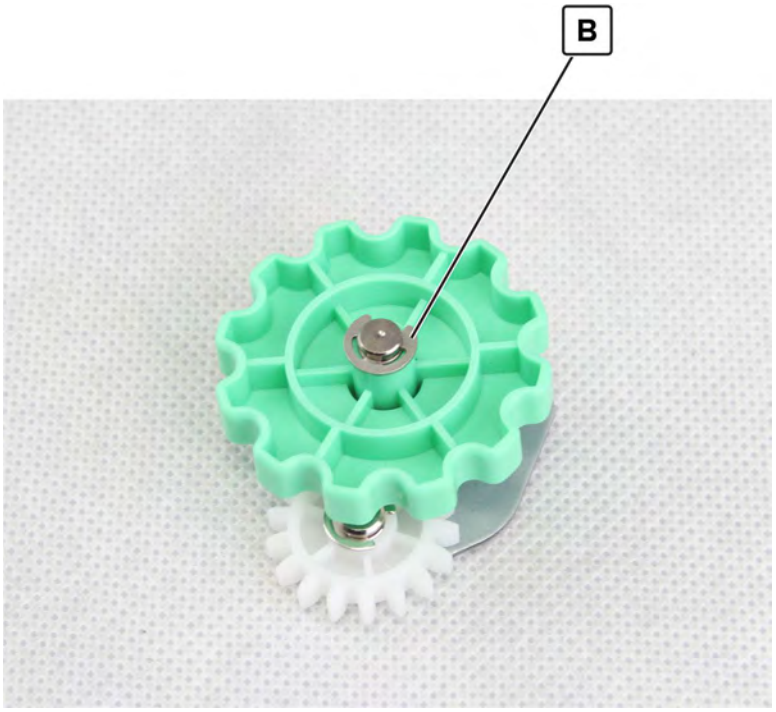
15 Remove the motor (fuser). See **"Motor (fuser) removal" on page 609**.

16 Remove the motor (fuser pressure). See **"Motor (fuser pressure) removal" on page 610**.

17 Remove the fuser drive gearbox. See **"Fuser drive gearbox removal" on page 612**.

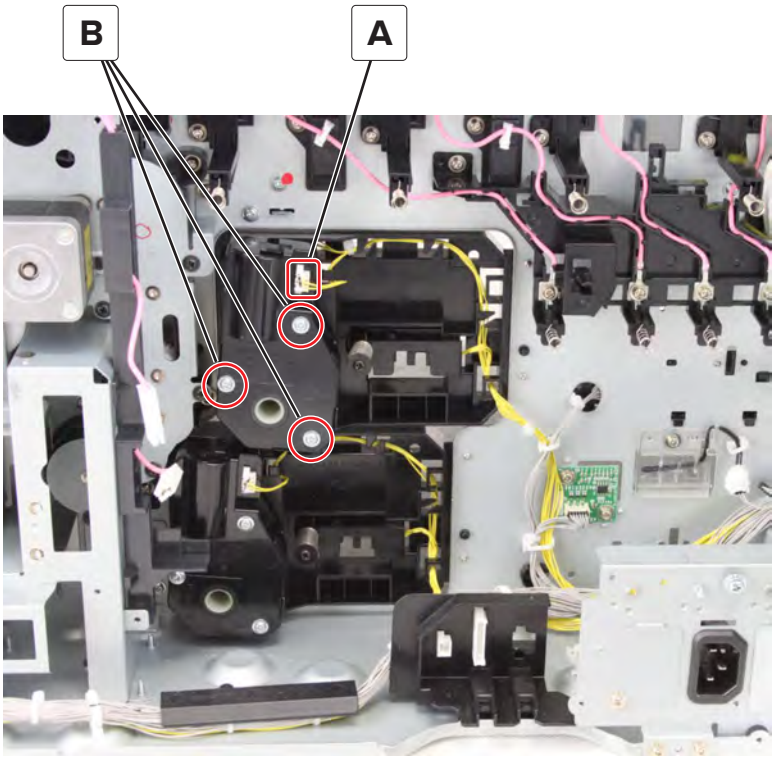
18 Remove the screw (A), and then remove the knob with gear.

19 Remove the E-clip (B), and then remove the knob.



Motor (tray 1 lift) removal

1. Remove the port cable guide. See **"Port cable guide removal" on page 362**.
2. Remove the port access door. See **"Port access door removal" on page 363**.
3. Remove the port mount. See **"Port mount removal" on page 364**.
4. Remove the filter cover. See **"Filter cover removal" on page 548**.
5. Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.
6. Remove the rear cover. See **"Lower rear cover removal" on page 554**.
7. Remove the latch covers. See **"Latch cover removal" on page 552**.
8. Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.
9. Remove the board shield. See **"Controller board shield removal" on page 557**.
10. Open the controller board frame. See **"Controller board frame removal" on page 565**.
11. Remove the high voltage board. See **"High voltage board removal" on page 582**.
12. Disconnect the cable (A), and then remove the three screws (B).



13. Remove the motor.

Motor (tray 2 lift) removal

1. Remove the port cable guide. See **"Port cable guide removal" on page 362**.
2. Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

6 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

7 Remove the latch covers. See **"Latch cover removal" on page 552**.

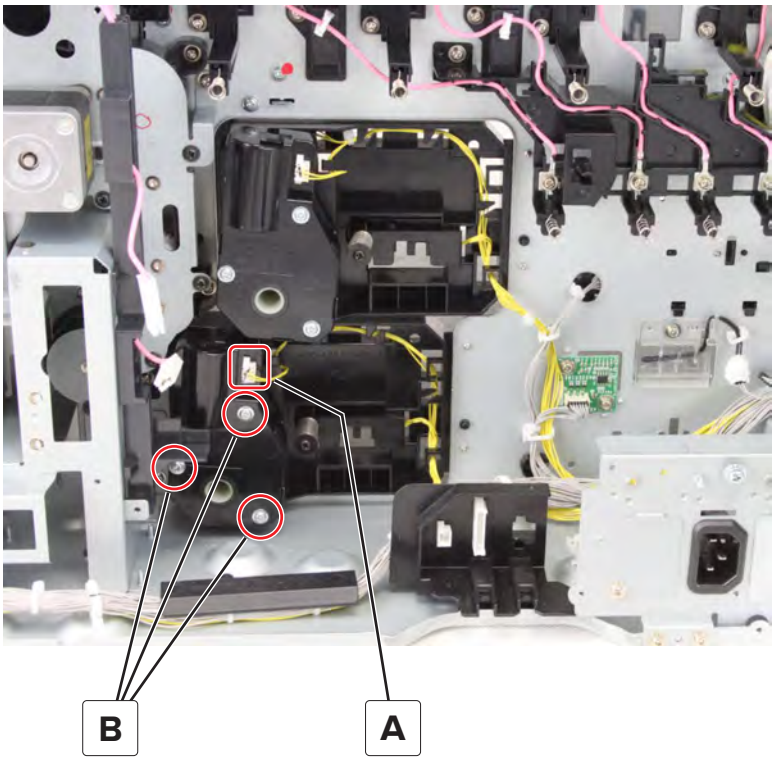
8 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

9 Remove the board shield. See **"Controller board shield removal" on page 557**.

10 Open the controller board frame. See **"Controller board frame removal" on page 565**.

11 Remove the high voltage board. See **"High voltage board removal" on page 582**.

12 Disconnect the cable (A), and then remove the three screws (B).



13 Remove the motor.

Sensor (tray 1 paper width) removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

6 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

7 Remove the latch covers. See **"Latch cover removal" on page 552**.

8 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

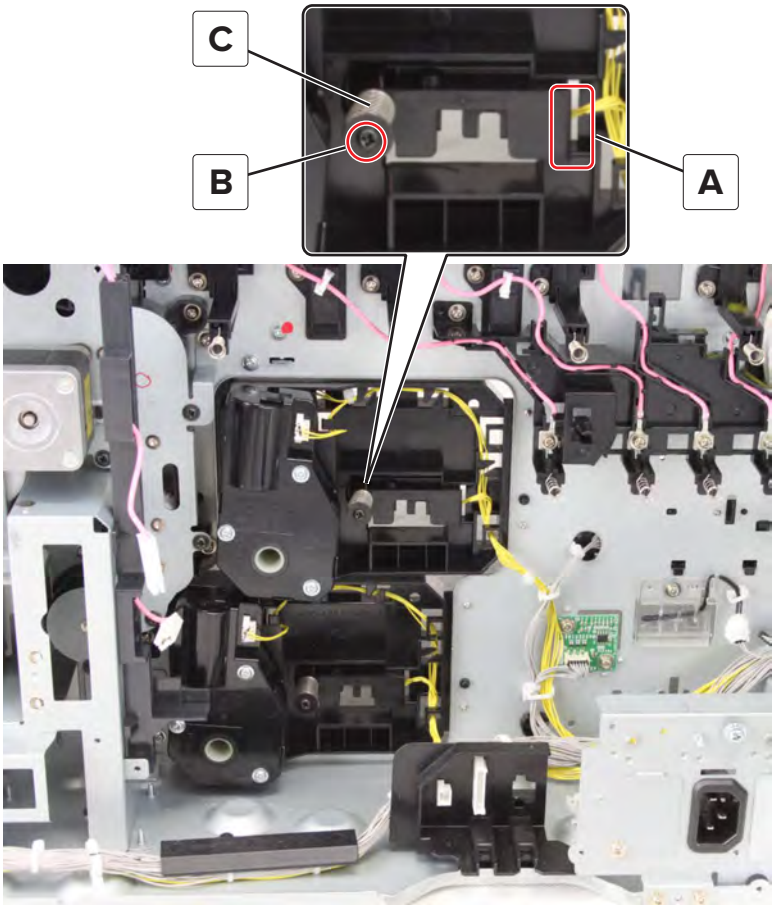
9 Remove the board shield. See **"Controller board shield removal" on page 557**.

10 Open the controller board frame. See **"Controller board frame removal" on page 565**.

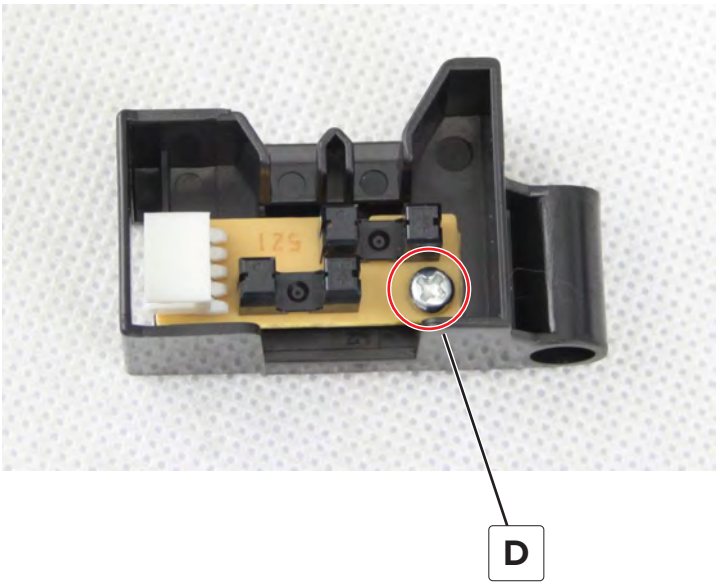
11 Remove the high voltage board. See **"High voltage board removal" on page 582**.

12 Disconnect the cable (A), and then remove the screw (B) and spring (C).

Warning—Potential Damage: Do not lose the spring.



13 Remove the sensor housing, and then remove the screw (D).



14 Remove the sensor.

Sensor (tray 2 paper width) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

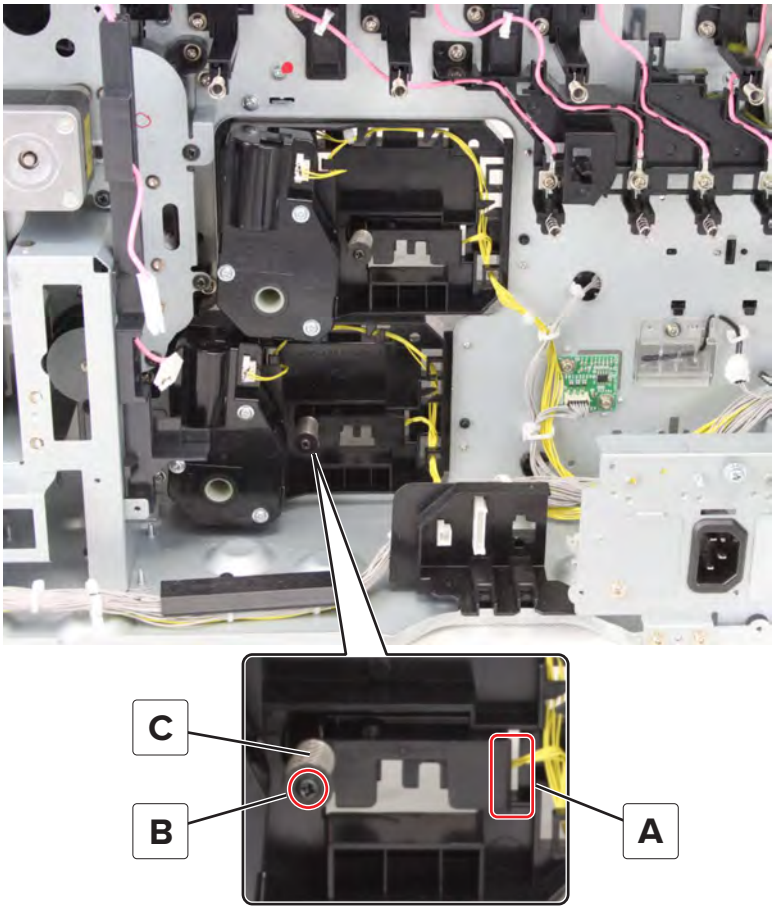
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

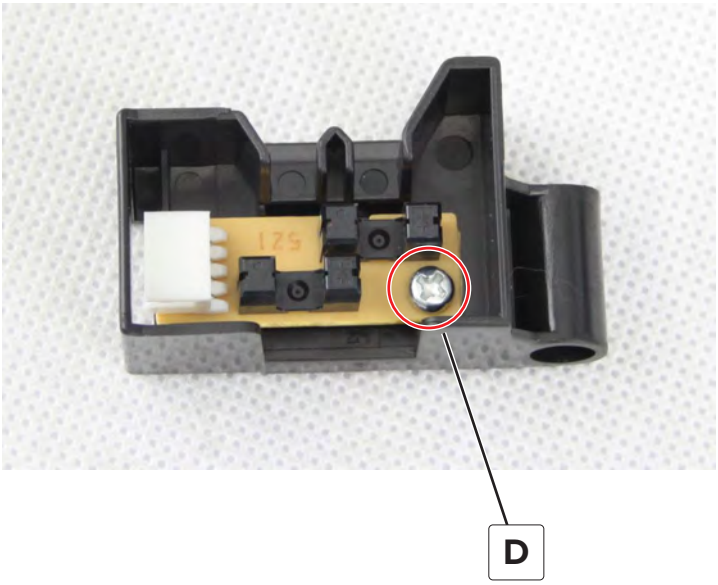
11 Remove the high voltage board. See **“High voltage board removal” on page 582**.

12 Disconnect the cable (A), and then remove the screw (B) and spring (C).

Warning—Potential Damage: Do not lose the spring.



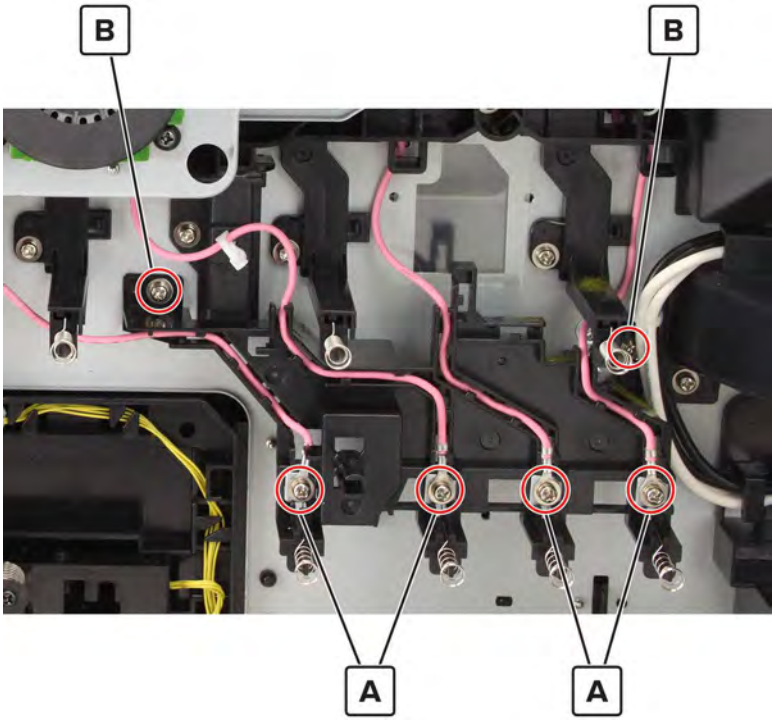
13 Remove the sensor housing, and then remove the screw (D).



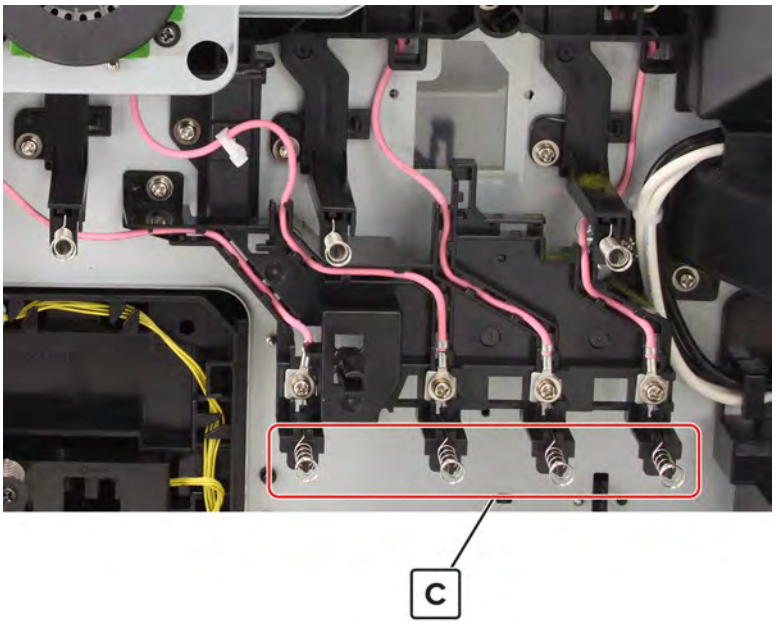
14 Remove the sensor.

High voltage developer contact removal

1. Remove the port cable guide. See **“Port cable guide removal” on page 362**.
2. Remove the port access door. See **“Port access door removal” on page 363**.
3. Remove the port mount. See **“Port mount removal” on page 364**.
4. Remove the filter cover. See **“Filter cover removal” on page 548**.
5. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
6. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
7. Remove the latch covers. See **“Latch cover removal” on page 552**.
8. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
9. Remove the board shield. See **“Controller board shield removal” on page 557**.
10. Open the controller board frame. See **“Controller board frame removal” on page 565**.
11. Remove the high voltage board. See **“High voltage board removal” on page 582**.
12. Remove the four screws (A), and then disconnect the cables.
13. Remove the two screws (B), and then remove the contact.



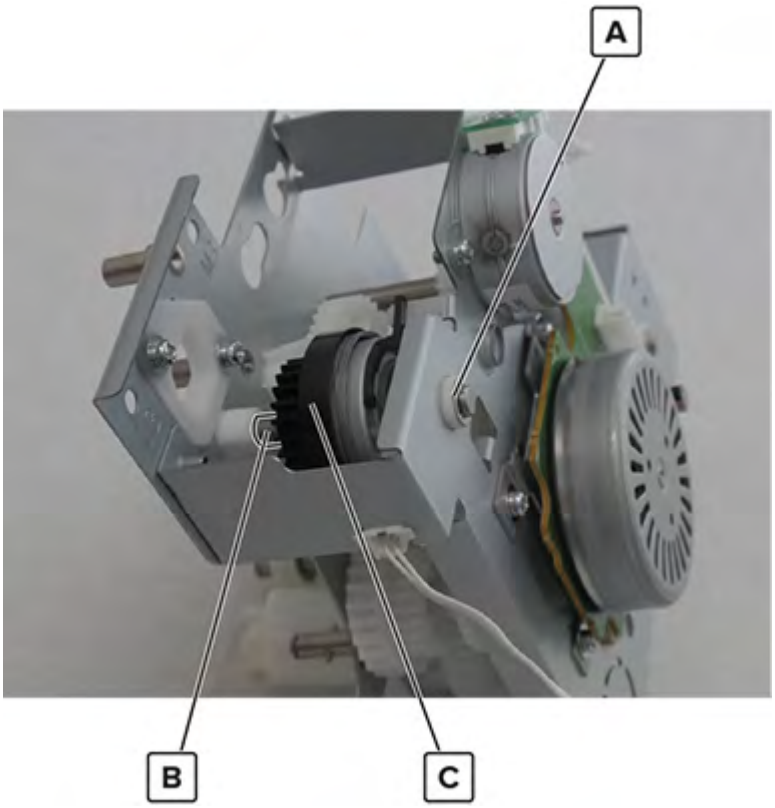
Warning—Potential Damage: Do not lose the contact springs (C).



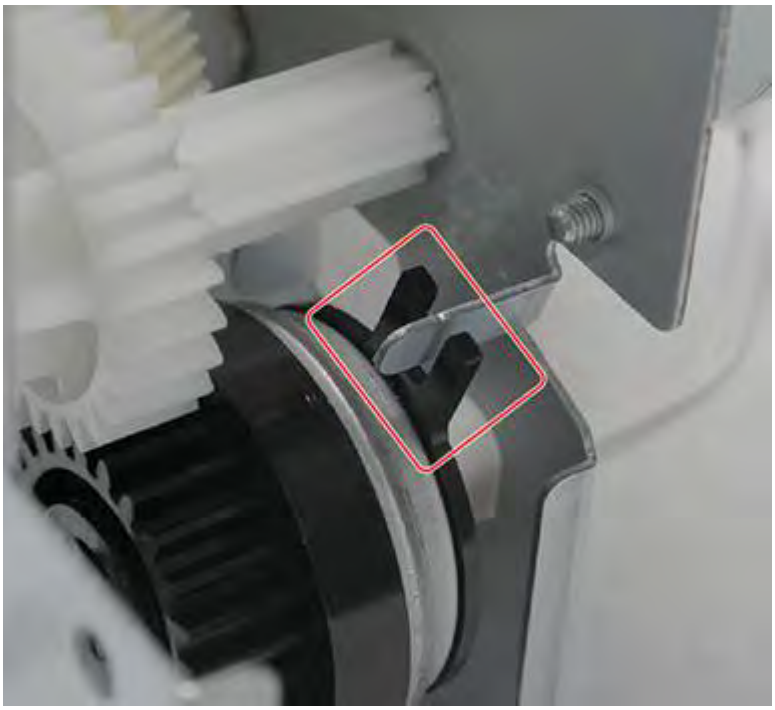
Fuser drive clutch 1 removal

1. Remove the latch covers. See **“Latch cover removal” on page 552**.
2. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
3. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
4. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
5. Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.
6. Remove the center cable guide bracket. See **“Center cable guide bracket removal” on page 586**.
7. Remove the fuser drive gearbox. See **“Fuser drive gearbox removal” on page 612**.

8 Remove the E-clip (A), remove the rod (B), and then remove the clutch (C).

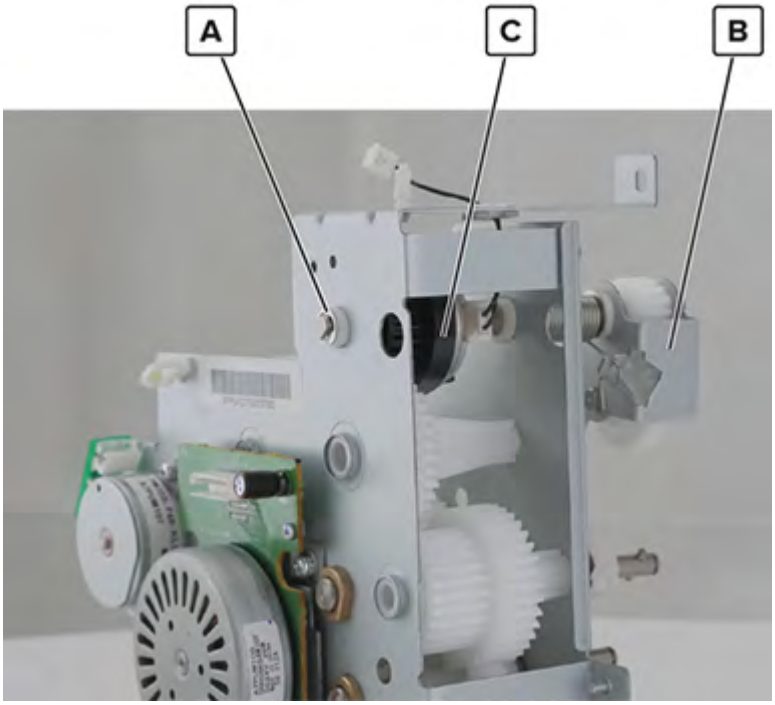


Installation note: Pay attention to the position of the locator pins when reinstalling the clutch.

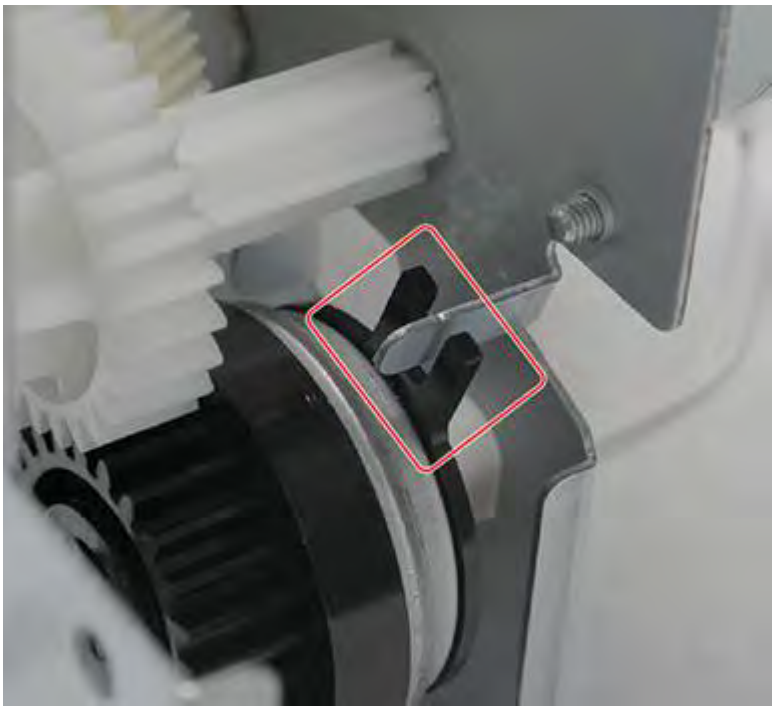


Fuser drive clutch 2 removal

1. Remove the latch covers. See **“Latch cover removal” on page 552**.
2. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
3. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
4. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
5. Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.
6. Remove the center cable guide bracket. See **“Center cable guide bracket removal” on page 586**.
7. Remove the fuser drive gearbox. See **“Fuser drive gearbox removal” on page 612**.
8. Remove the E-clip (A), remove the gear assembly (B), and then remove the clutch (C).



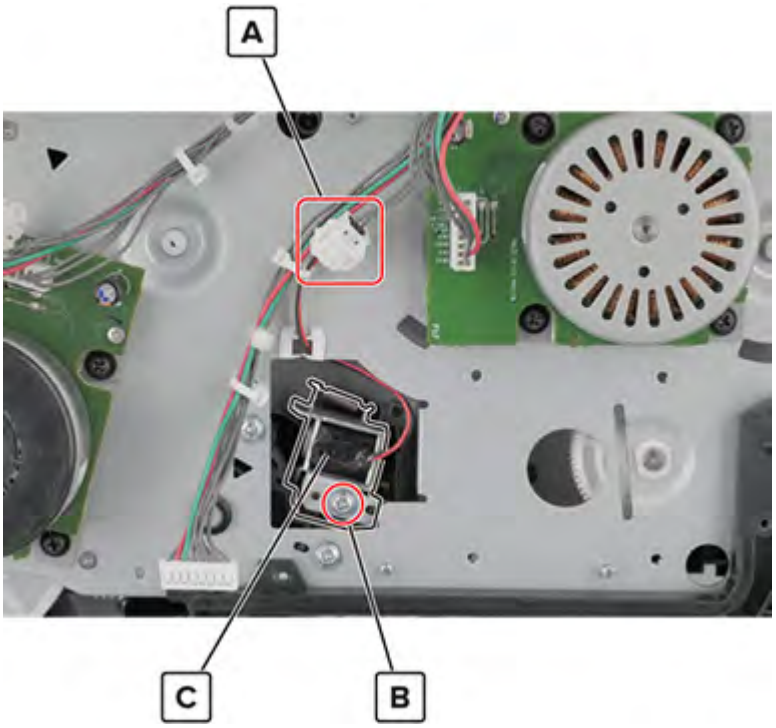
Installation note: Pay attention to the position of the locator pins when reinstalling the clutch.



K developer solenoid removal

1. Remove the port cable guide. See **“Port cable guide removal” on page 362**.
2. Remove the port access door. See **“Port access door removal” on page 363**.
3. Remove the port mount. See **“Port mount removal” on page 364**.
4. Remove the latch covers. See **“Latch cover removal” on page 552**.
5. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
6. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
7. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
8. Open the controller board frame. See **“Controller board frame removal” on page 565**.
9. Remove the motor (transport). See **“Motor (transport) removal” on page 583**.

10 Disconnect the cable (A), remove the screw (B), and then remove the clutch (C).



Feed drive assembly removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

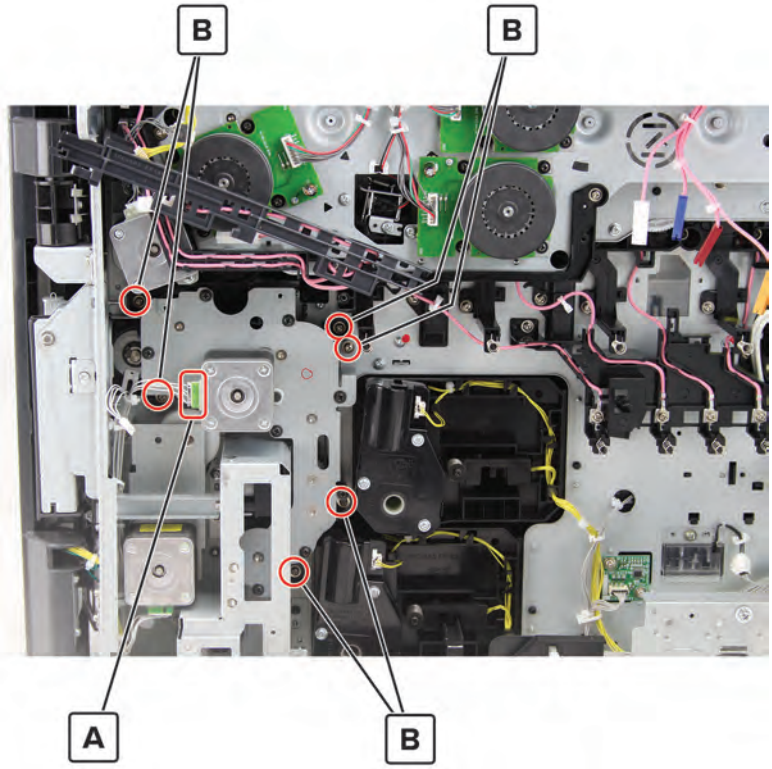
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the high voltage board. See **“High voltage board removal” on page 582**.

12 Remove the motor (registration). See **“Motor (registration) removal” on page 602**.

13 Disconnect the cable (A), and then remove the six screws (B).



14 Remove the assembly.

Sensor (CMY retract) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

6 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

9 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

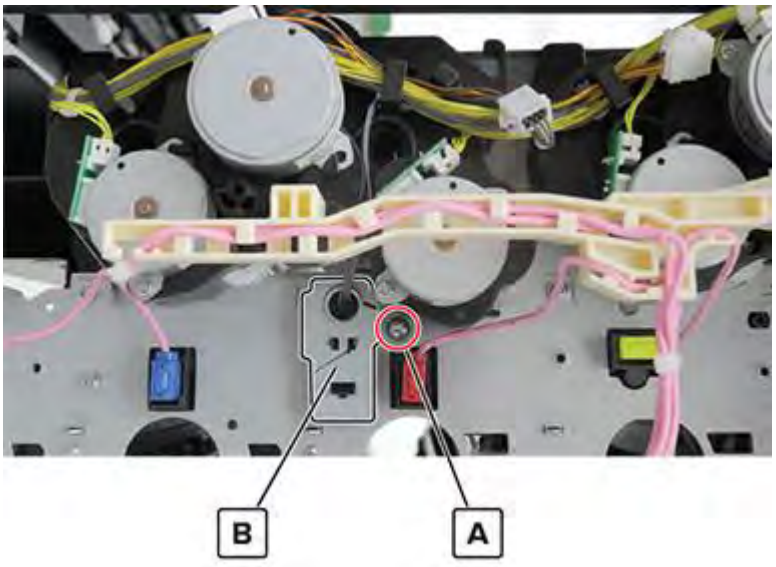
10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.

12 Remove the high voltage board. See **“High voltage board removal” on page 582**.

13 Remove the main drive assembly. See **“Main drive assembly removal” on page 606**.

14 Remove the screw (A), and then remove the bracket (B).



15 Remove the sensor from the bracket.

First transfer pressure sensor cable removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

6 Remove the latch covers. See **“Latch cover removal” on page 552**.

7 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

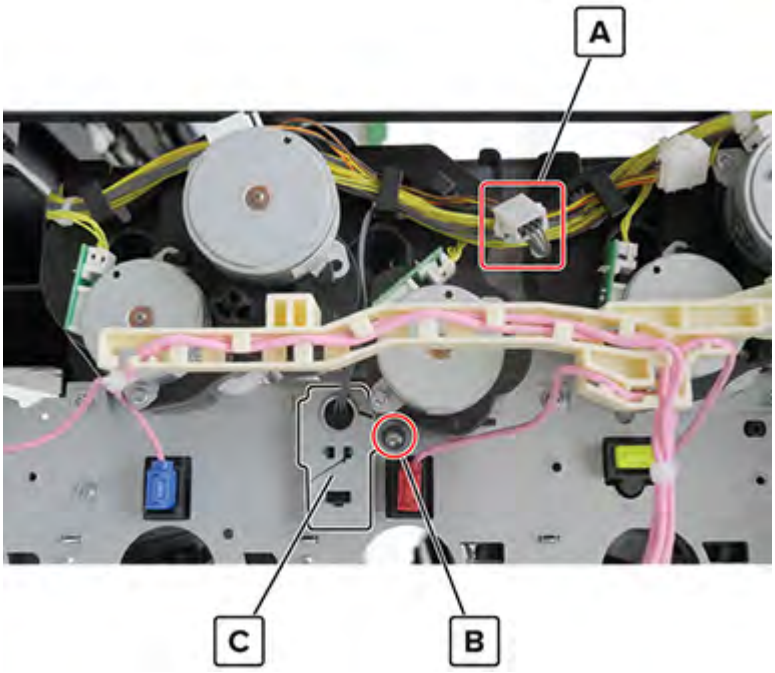
10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.

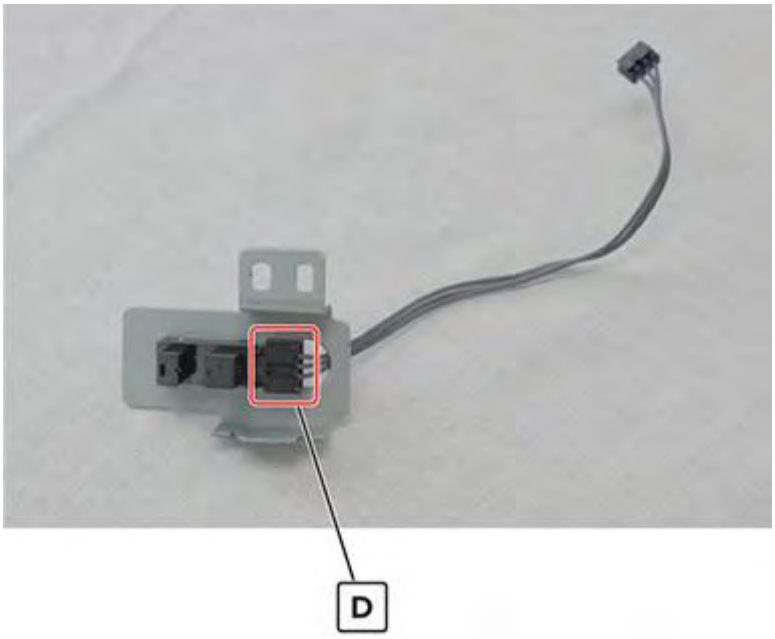
12 Remove the high voltage board. See **“High voltage board removal” on page 582**.

13 Remove the main drive assembly. See **“Main drive assembly removal” on page 606**.

14 Disconnect the cable (A), remove the screw (B), and then remove the bracket (C).



15 Disconnect the cable (D).



Transfer belt charge cable removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the filter housing. See **“Exhaust filter removal” on page 549**.

6 Remove the latch covers. See **“Latch cover removal” on page 552**.

7 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

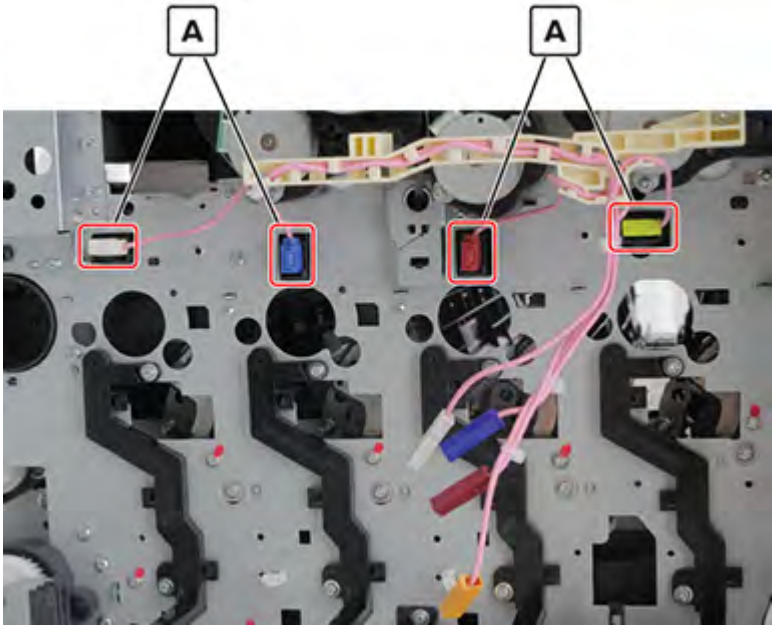
10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the expansion controller board. See **“Expansion controller board removal” on page 574**.

12 Remove the high voltage board. See **“High voltage board removal” on page 582**.

13 Remove the main drive assembly. See **“Main drive assembly removal” on page 606**.

14 Disconnect the four cables (A), and then remove the cables from the cable guides.



High voltage transfer and charge cables removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

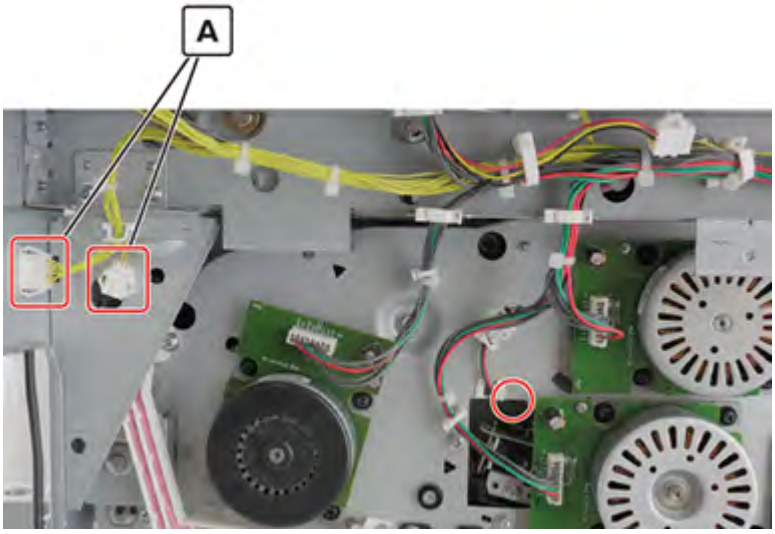
7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

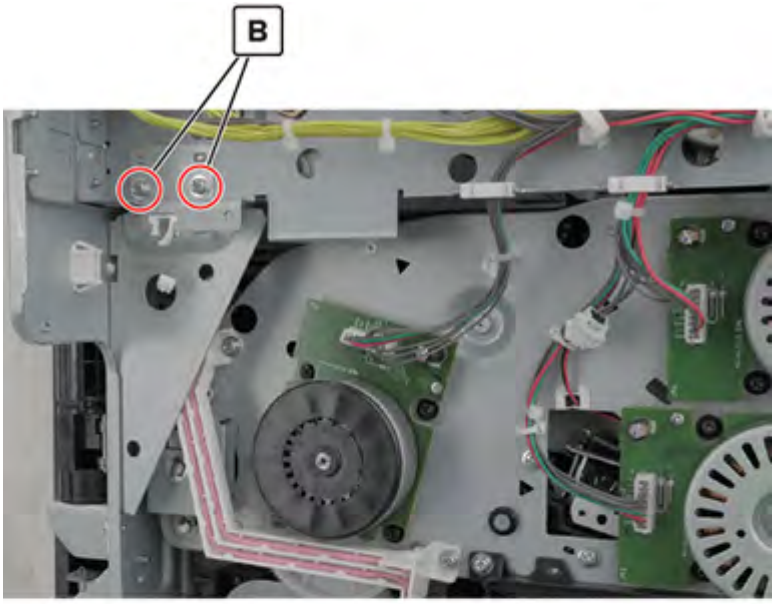
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

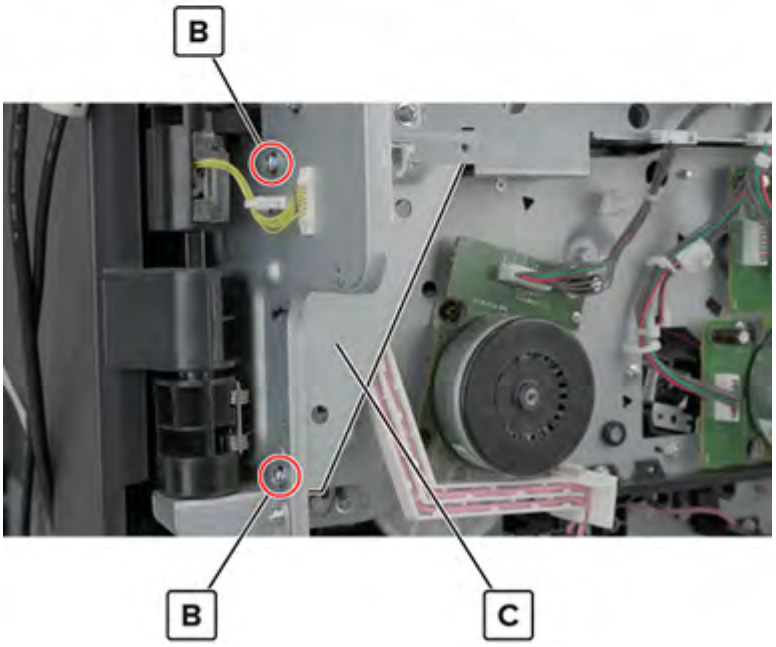
10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Disconnect the two cables (A).

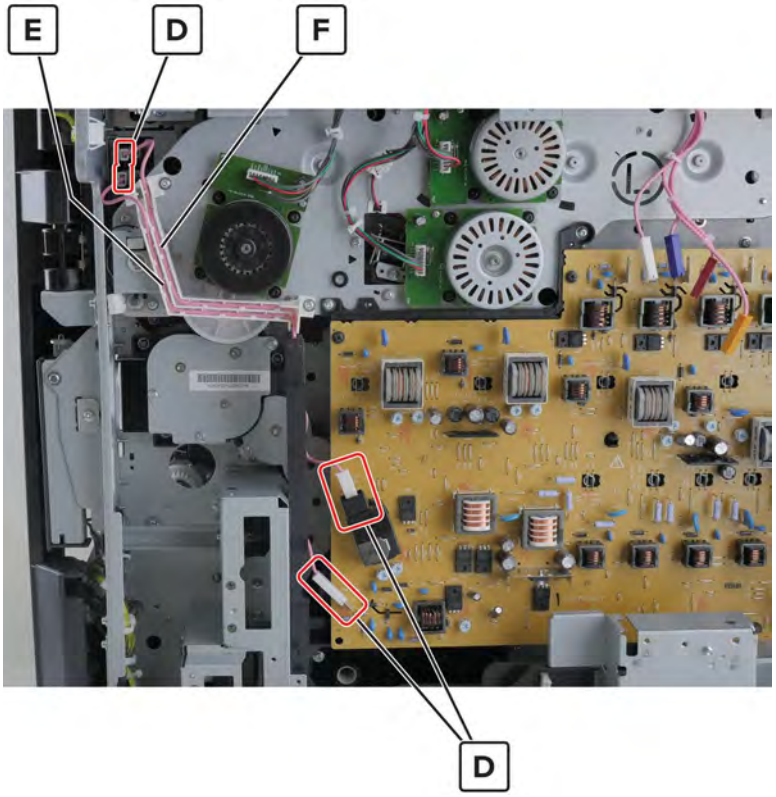


12 Remove the four screws (B), and then remove the bracket (C).





13 Disconnect the four connectors (D), and then remove the high voltage transfer cable (E) and high voltage charge cable (F) from the cable guides.



Motor (feed) removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

6 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

7 Remove the latch covers. See **"Latch cover removal" on page 552**.

8 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

9 Remove the board shield. See **"Controller board shield removal" on page 557**.

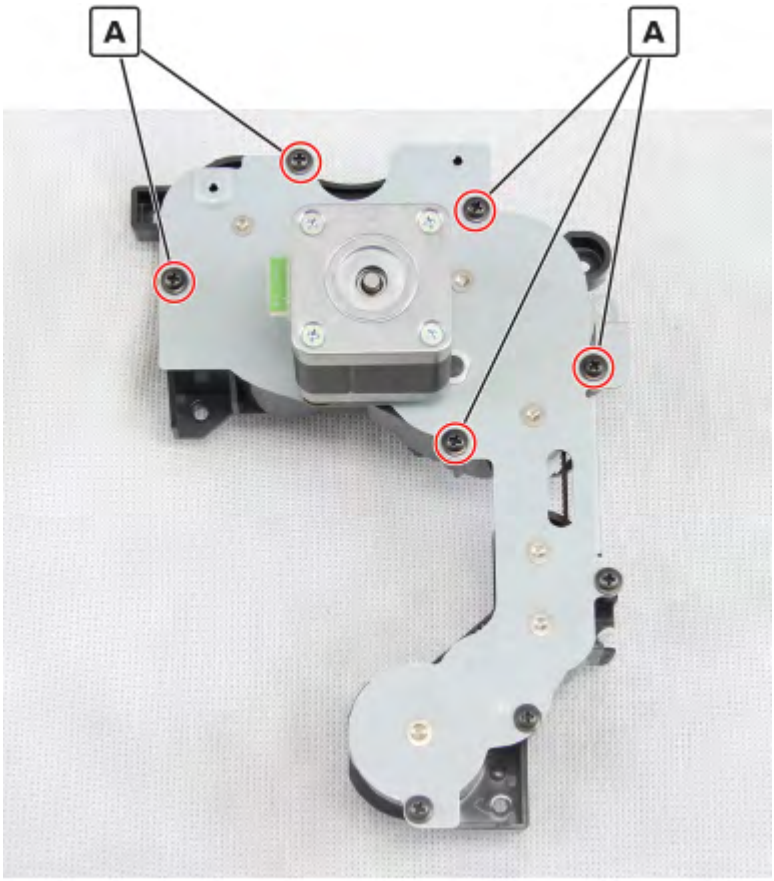
10 Open the controller board frame. See **"Controller board frame removal" on page 565**.

11 Remove the high voltage board. See **"High voltage board removal" on page 582**.

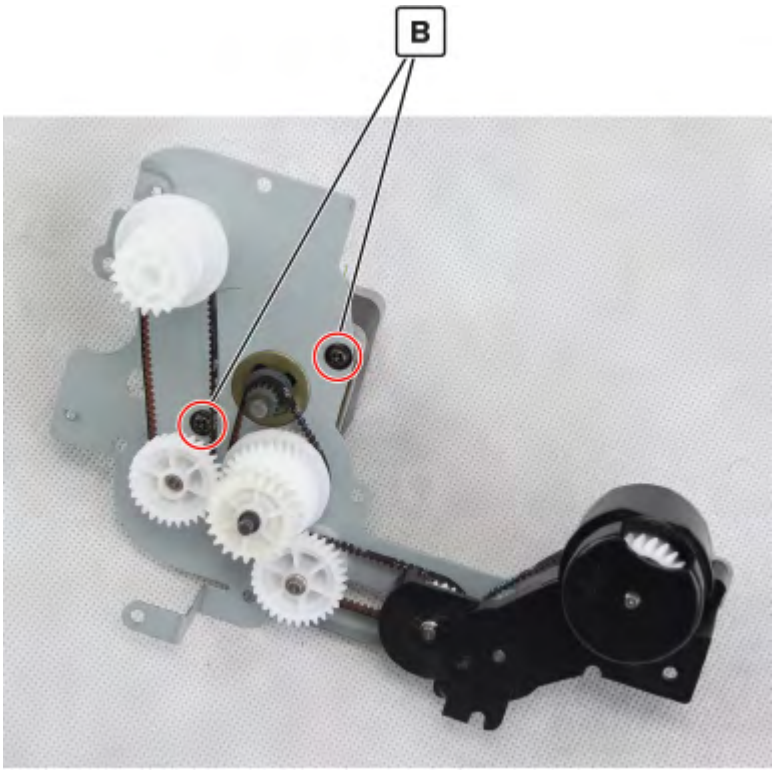
12 Remove the motor (registration). See **"Motor (registration) removal" on page 602**.

13 Remove the feed drive assembly. See **"Feed drive assembly removal" on page 627**.

14 Remove the five screws (A), and then remove the gear cover.



15 Remove the two screws (B), and then remove the motor.



Feed drive belt 1 and belt 2 removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the board shield. See **“Controller board shield removal” on page 557**.

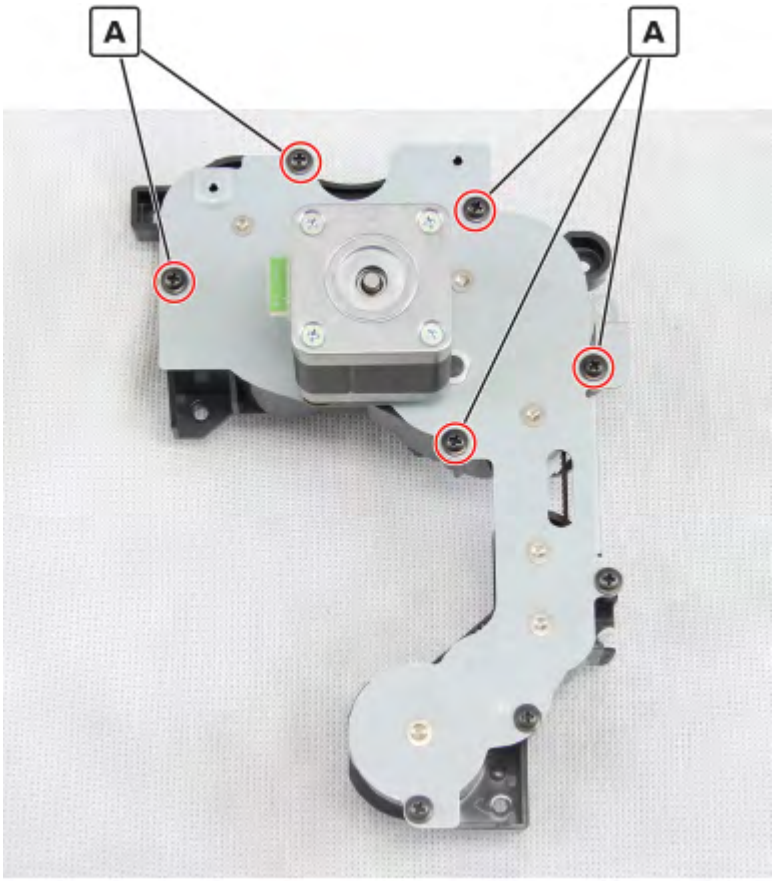
10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the high voltage board. See **“High voltage board removal” on page 582**.

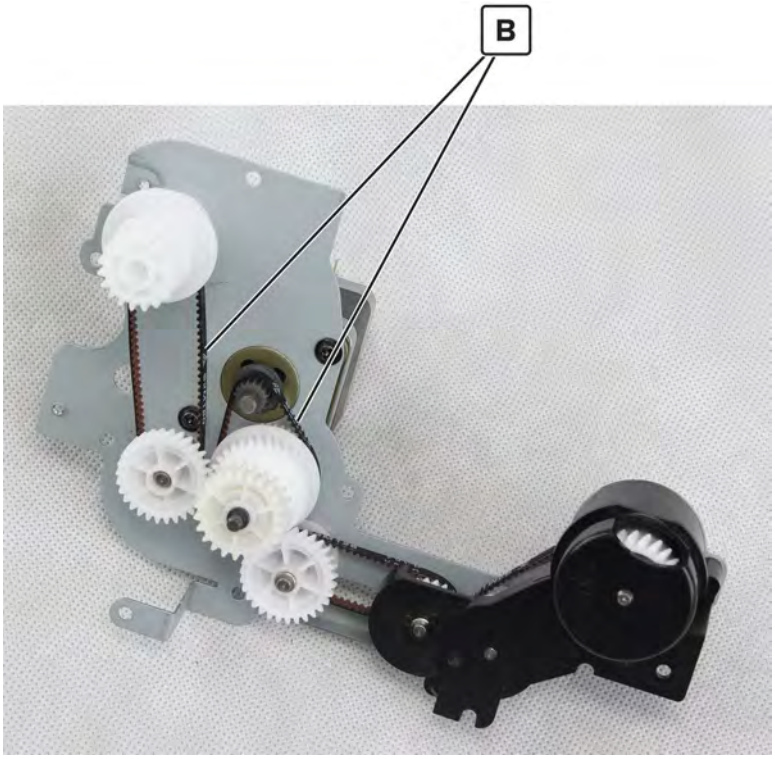
12 Remove the motor (registration). See **“Motor (registration) removal” on page 602**.

13 Remove the feed drive assembly. See **“Feed drive assembly removal” on page 627**.

14 Remove the five screws (A), and then remove the gear cover.



15 Remove the drive gears, and then remove the belts (B).



Feed drive belt 3 and belt 4 removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

9 Remove the board shield. See **“Controller board shield removal” on page 557**.

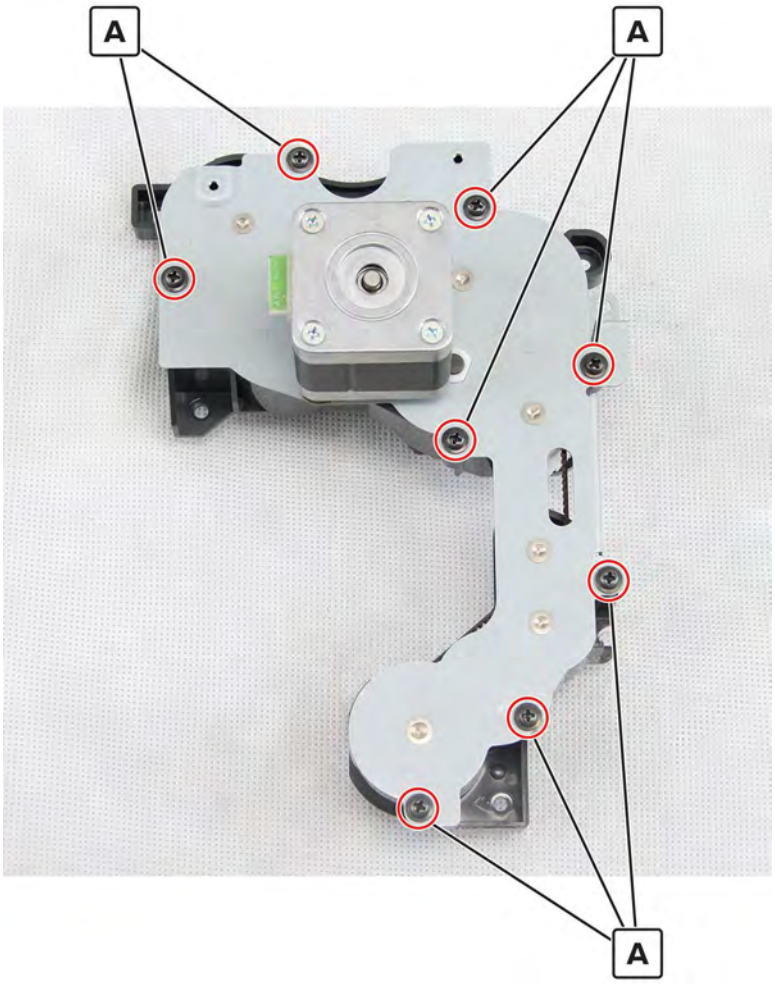
10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the high voltage board. See **“High voltage board removal” on page 582**.

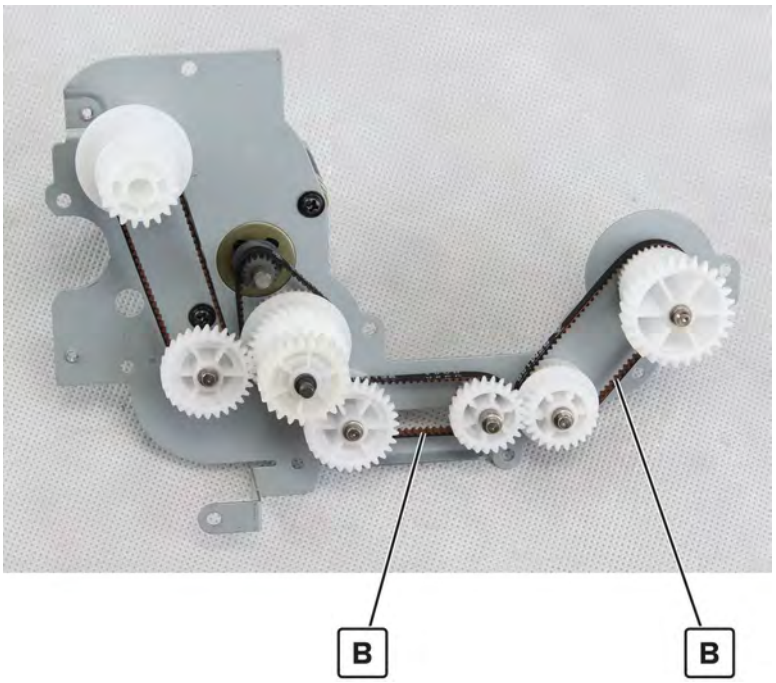
12 Remove the motor (registration). See **“Motor (registration) removal” on page 602**.

13 Remove the feed drive assembly. See **“Feed drive assembly removal” on page 627**.

14 Remove the eights screws (A), and then remove the gear covers.



15 Remove the gears, and then remove the belts (B).



Motor (tray 2 transport) removal

1 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

2 Remove the port access door. See **“Port access door removal” on page 363**.

3 Remove the port mount. See **“Port mount removal” on page 364**.

4 Remove the filter cover. See **“Filter cover removal” on page 548**.

5 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

6 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

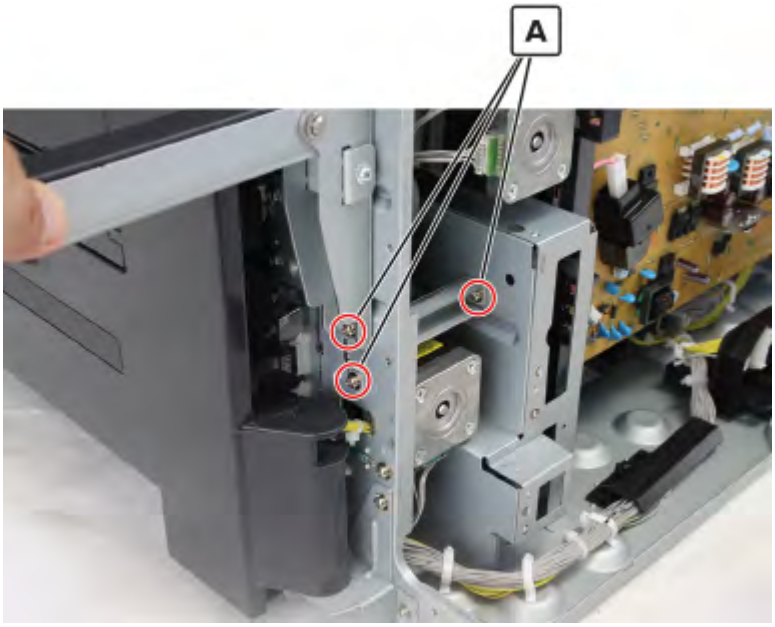
7 Remove the latch covers. See **“Latch cover removal” on page 552**.

8 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

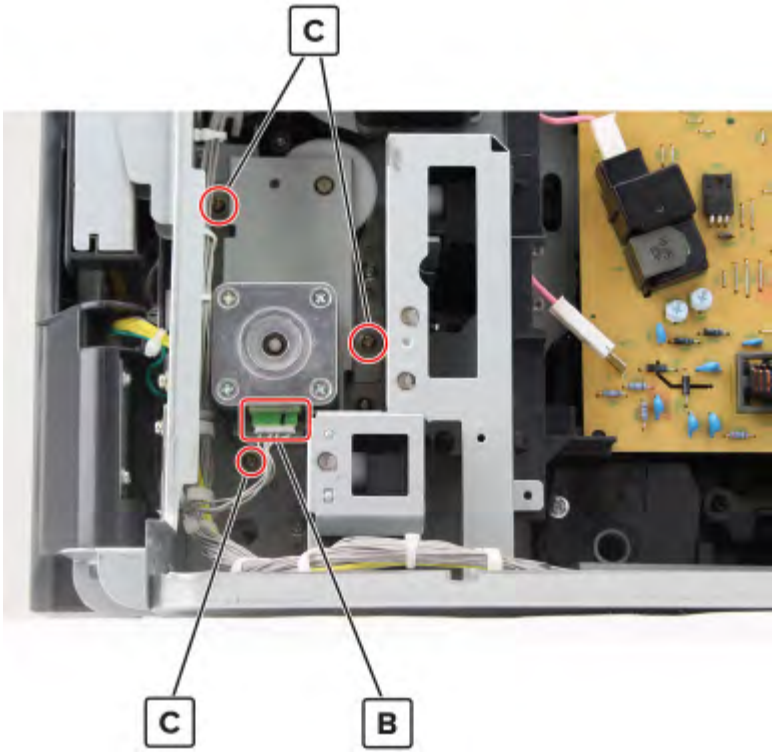
9 Remove the board shield. See **“Controller board shield removal” on page 557**.

10 Open the controller board frame. See **“Controller board frame removal” on page 565**.

11 Remove the three screws (A), and then remove the bracket.



12 Disconnect the cable (B), remove the three screws (C), and then remove the tray 2 transport drive assembly.

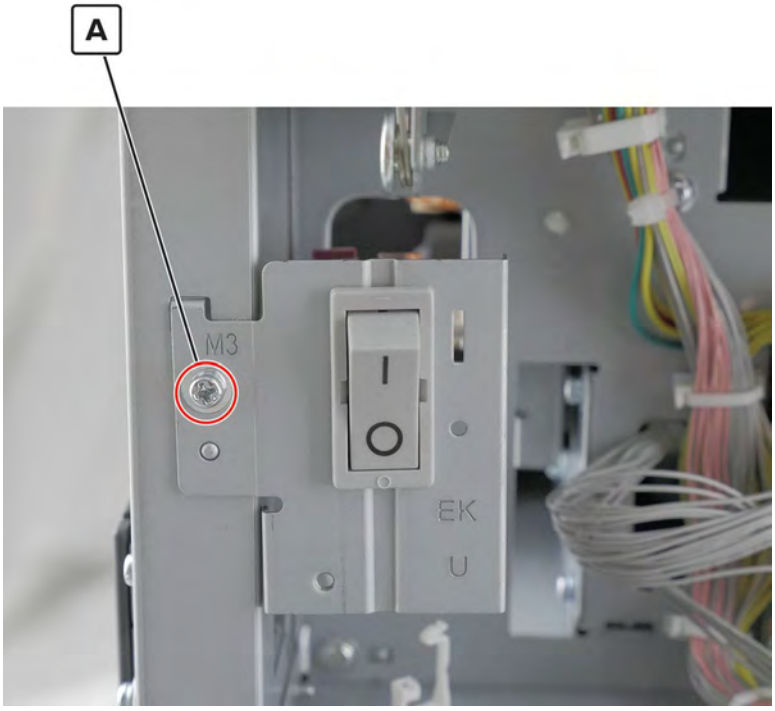


13 Remove the two screws, and then remove the motor.

Power socket cable removal

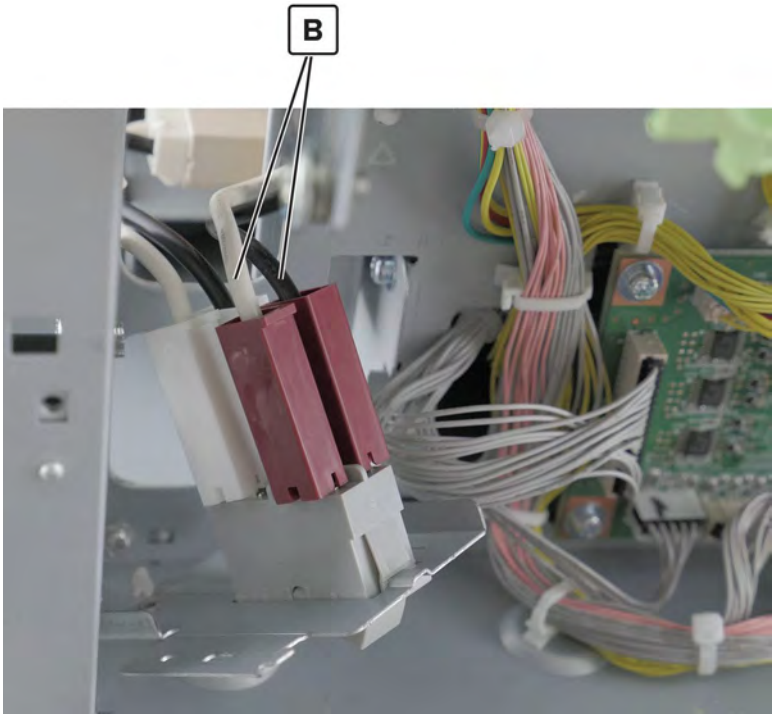
1. Remove the port cable guide. See **“Port cable guide removal” on page 362**.
2. Remove the port access door. See **“Port access door removal” on page 363**.
3. Remove the port mount. See **“Port mount removal” on page 364**.
4. Remove the front door. See **“Front door removal” on page 487**.
5. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
6. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
7. Remove the left cover. See **“Left cover removal” on page 348**.
8. Remove the standard bin. See **“Standard bin removal” on page 658**.
9. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
10. Remove the power supply fan duct. See **“Main power supply fan removal” on page 353**.
11. Remove the power supply board bracket. See **“Main power supply removal” on page 356**.
12. Remove the filter cover. See **“Filter cover removal” on page 548**.
13. Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.
14. Remove the rear cover. See **“Lower rear cover removal” on page 554**.
15. Remove the latch covers. See **“Latch cover removal” on page 552**.
16. Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.
17. Remove the board shield. See **“Controller board shield removal” on page 557**.
18. Open the controller board frame. See **“Controller board frame removal” on page 565**.
19. Remove the high voltage board. See **“High voltage board removal” on page 582**.

20 Remove the screw (A), and then pull the bracket.

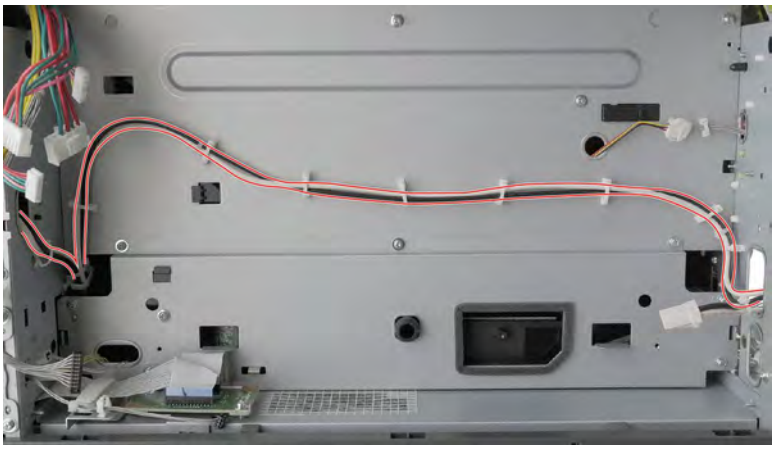


21 Disconnect the two cables (B).

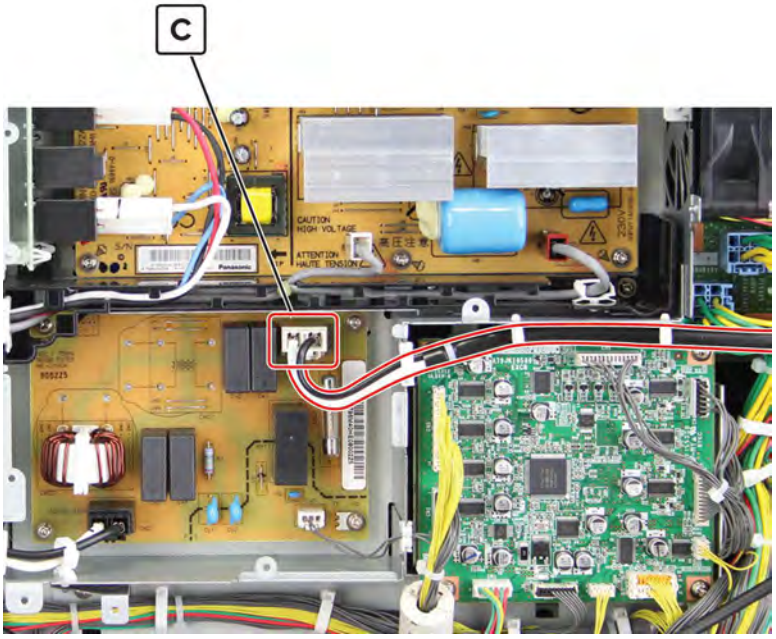
Installation warning: Take note of the proper connections of the white and black cables (B), including the positions of the white and red connectors.



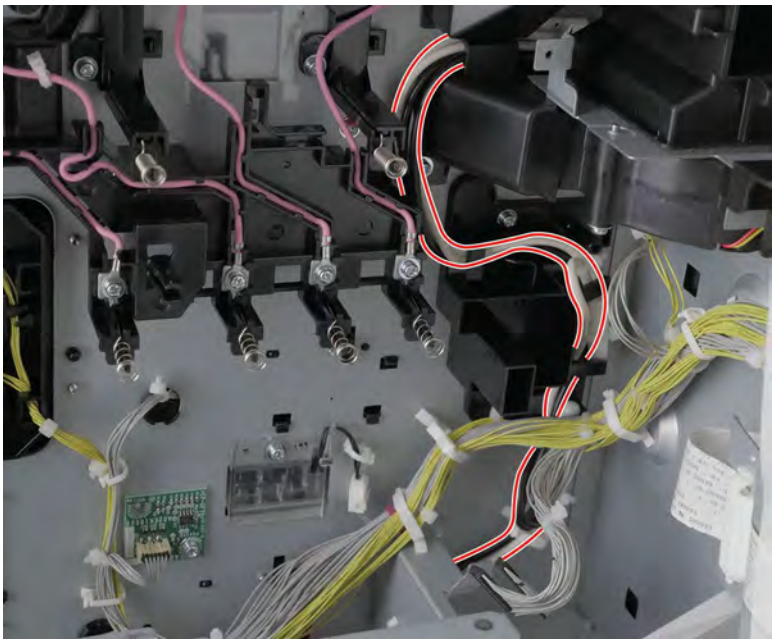
22 Release the cables from their guides.



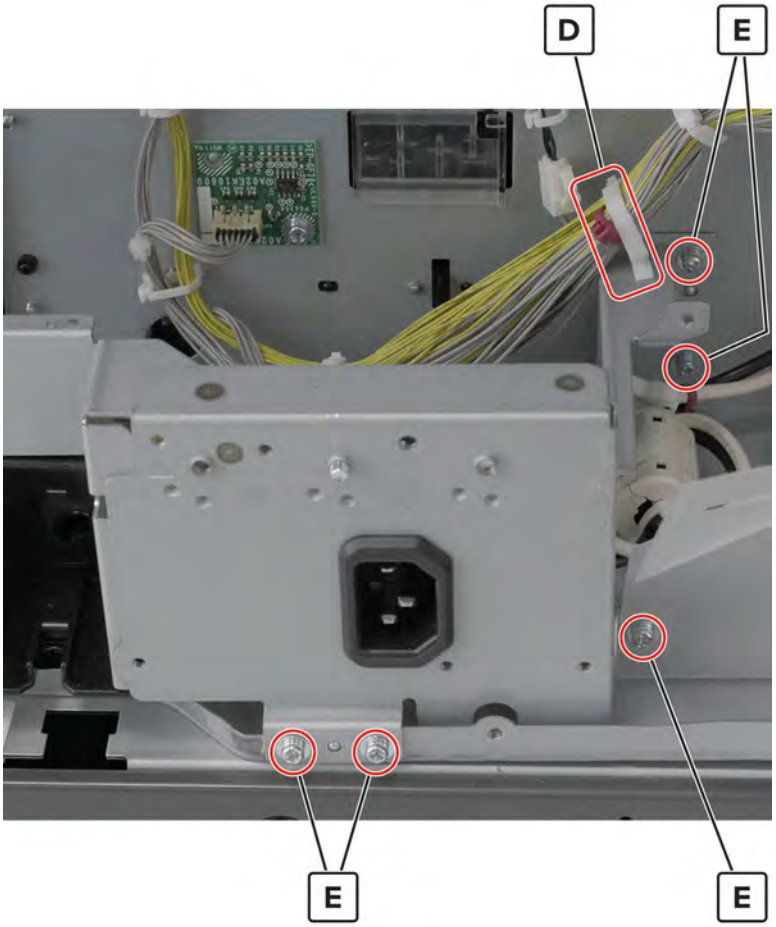
23 Disconnect the cable (C) from the rear side, and then release it from its guides.



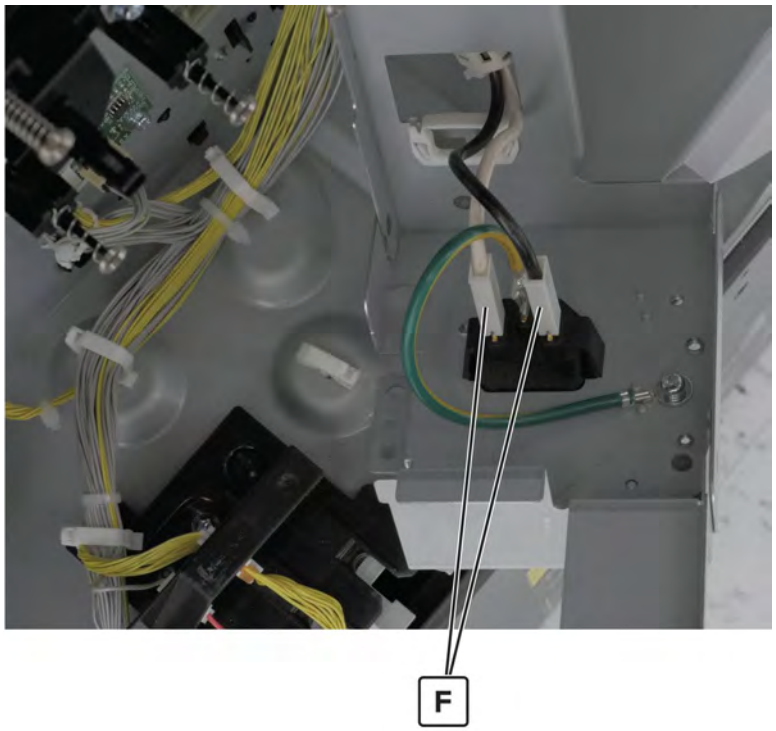
24 Release the cables from their guides.



25 Release the cable guide (D), remove the five screws (E), and then pull the bracket.



26 Disconnect the two cables (F) at the back of the bracket, and then release them from their guides.



27 Remove the cable.

Installation note: Make sure that the cable is properly routed.

Power socket removal

1 Remove the filter cover. See **"Filter cover removal" on page 548**.

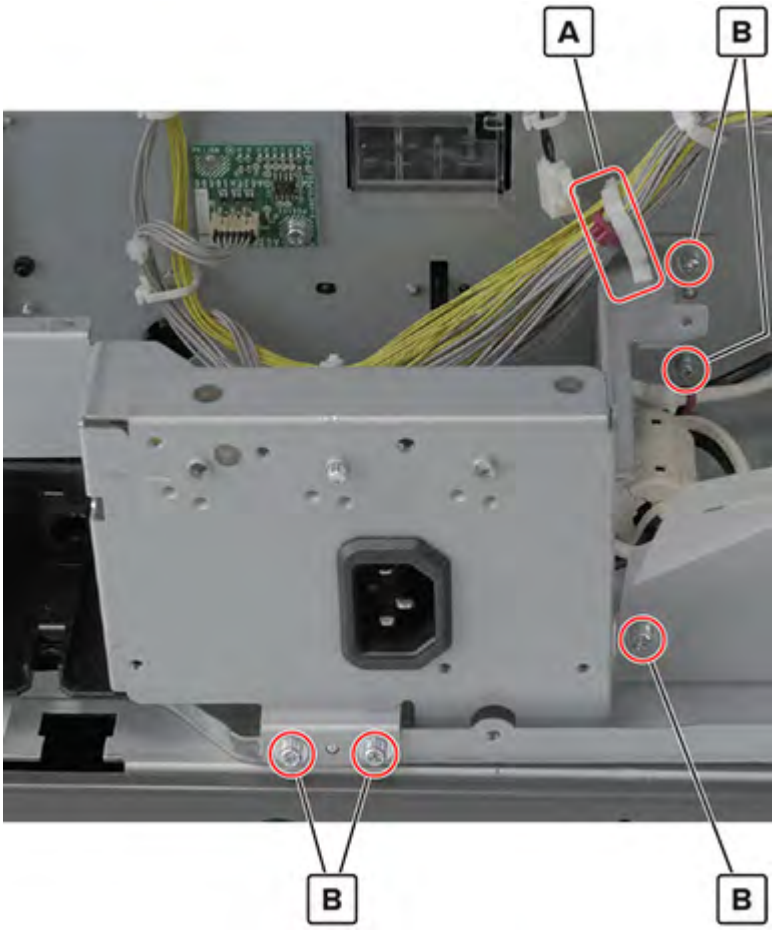
2 Remove the lower rear cover. See **"Lower rear cover removal" on page 554**.

3 Remove the controller board shield. See **"Controller board shield removal" on page 557**.

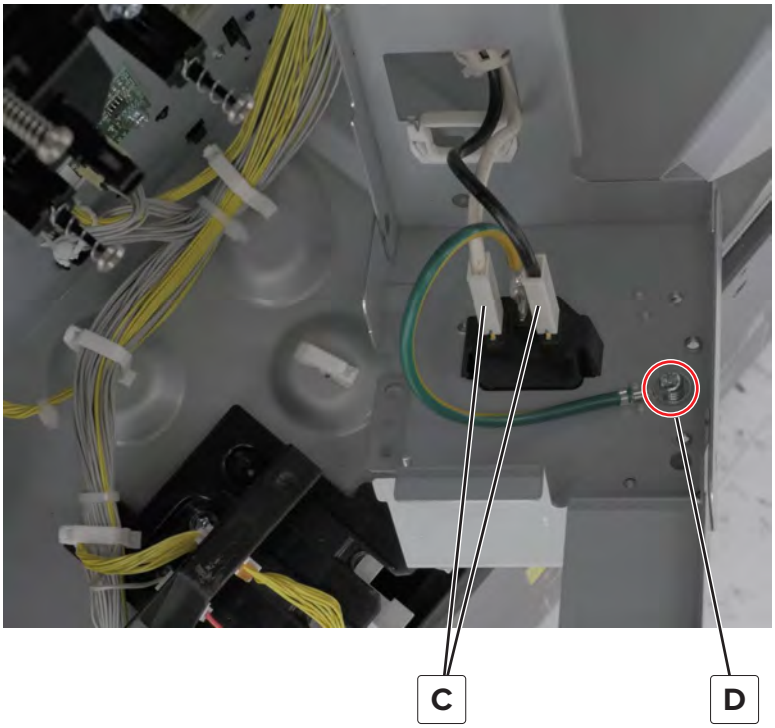
4 Remove the controller board. See **"Controller board removal" on page 560**.

5 Open the controller board frame.

6 Release the cable guide (A), remove the five screws (B), and then pull the mounting plate.



7 Disconnect the two cables (C) at the back of the mounting plate, and then remove the ground screw (D).



8 Remove the socket from the power socket mounting plate.

Sensor (tray 1 and tray 2 paper temperature) removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

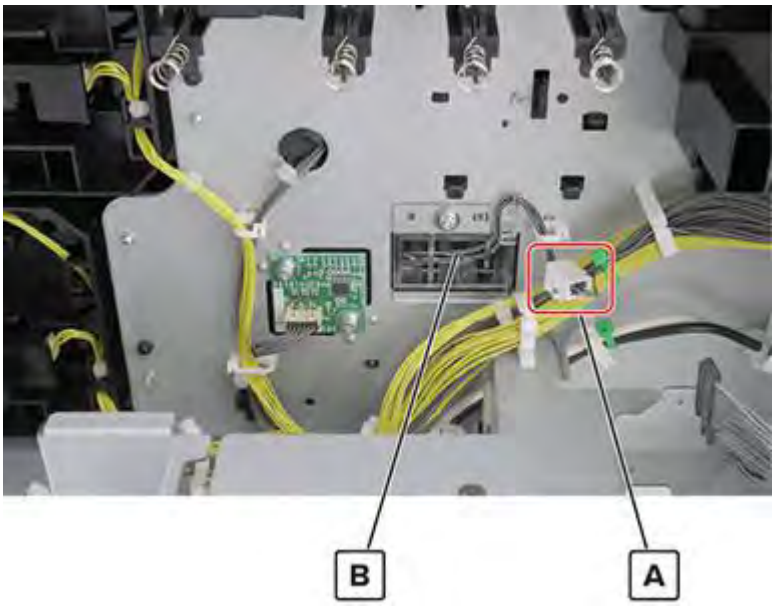
4 Remove the lower rear cover. See **"Lower rear cover removal" on page 554**.

5 Open the controller board frame. See **"Controller board frame removal" on page 565**.

6 Remove the high voltage board. See **"High voltage board removal" on page 582**.

7 Remove the screw (A), and then remove the clear cover.

8 Disconnect the cable (B), and then remove the thermistor (C).



High voltage contact removal

1 Remove the port cable guide. See **"Port cable guide removal" on page 362**.

2 Remove the port access door. See **"Port access door removal" on page 363**.

3 Remove the port mount. See **"Port mount removal" on page 364**.

4 Remove the filter cover. See **"Filter cover removal" on page 548**.

5 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

6 Remove the latch covers. See **"Latch cover removal" on page 552**.

7 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

8 Remove the upper rear cover. See **"Upper rear cover removal" on page 555**.

9 Remove the rear cover. See **"Lower rear cover removal" on page 554**.

10 Open the controller board frame. See **"Controller board frame removal" on page 565**.

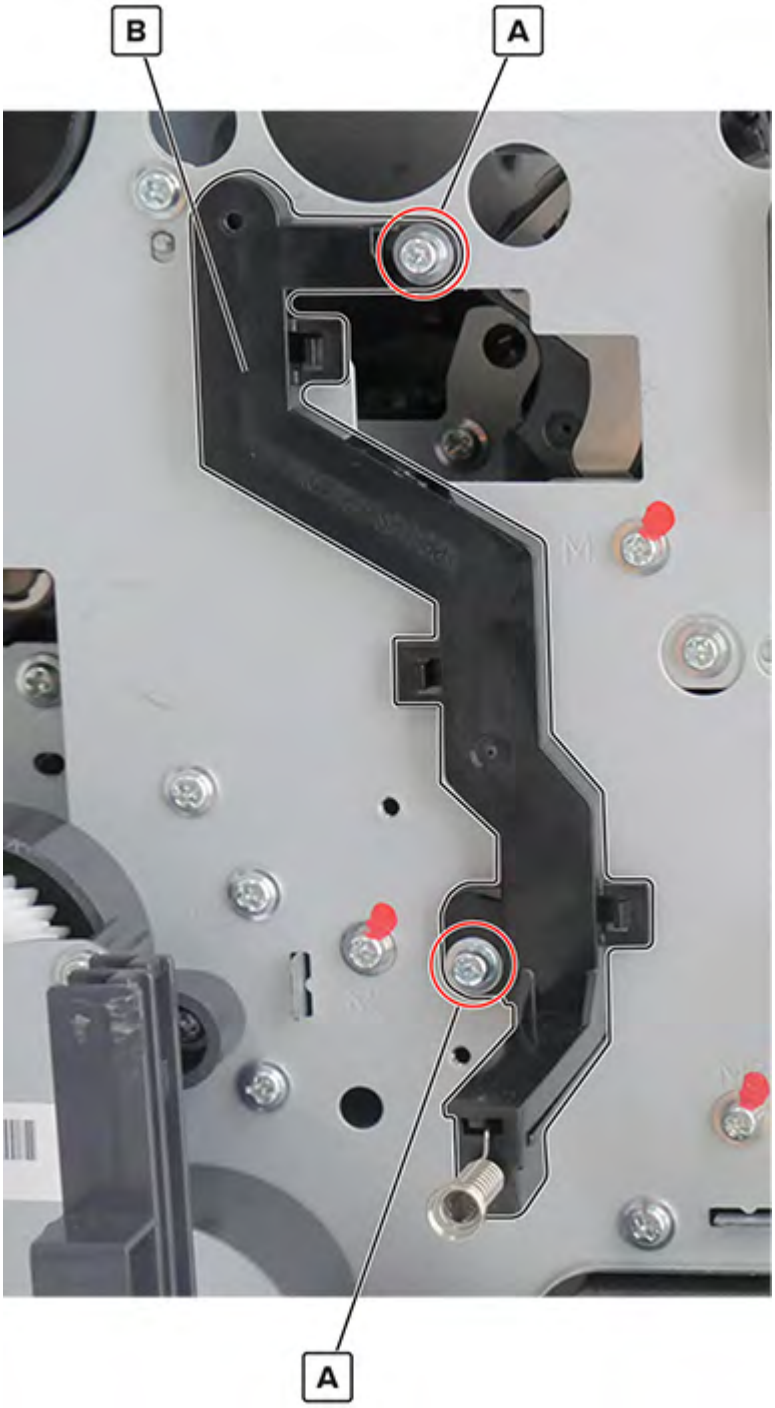
11 Remove the expansion controller board. See **"Expansion controller board removal" on page 574**.

12 Remove the high voltage board. See **"High voltage board removal" on page 582**.

13 Remove the main drive assembly. See **"Main drive assembly removal" on page 606**.

14 Remove the two screws (A), and then remove the contact (B).

Note: There are four contacts. Remove only the damaged contact.



Toner suction fan removal

1. Remove the filter cover. See **“Filter cover removal” on page 548**.
2. Remove the exhaust filter. See **“Exhaust filter removal” on page 549**.
3. Remove the rear left cover. See **“Rear left cover removal” on page 349**.
4. Remove the toner exhaust filter and lower rear cover. See **“Lower rear cover removal” on page 554**.

5 Remove the port cable guide. See **“Port cable guide removal” on page 362**.

6 Remove the port access door. See **“Port access door removal” on page 363**.

7 Remove the port mount. See **“Port mount removal” on page 364**.

8 Remove the scanner interface cable cover. See **“Scanner interface cable cover removal” on page 553**.

9 Remove the latch covers. See **“Latch cover removal” on page 552**.

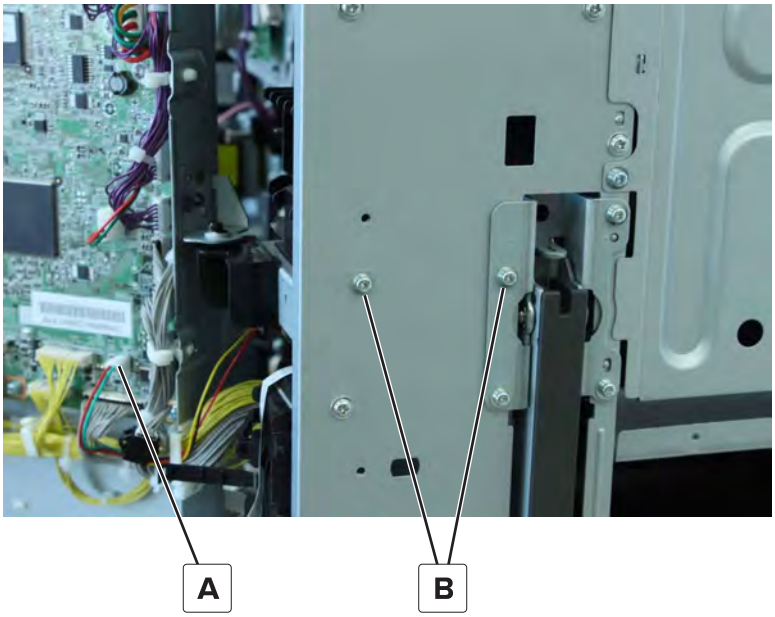
10 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

11 Remove the controller board shield. See **“Controller board shield removal” on page 557**.

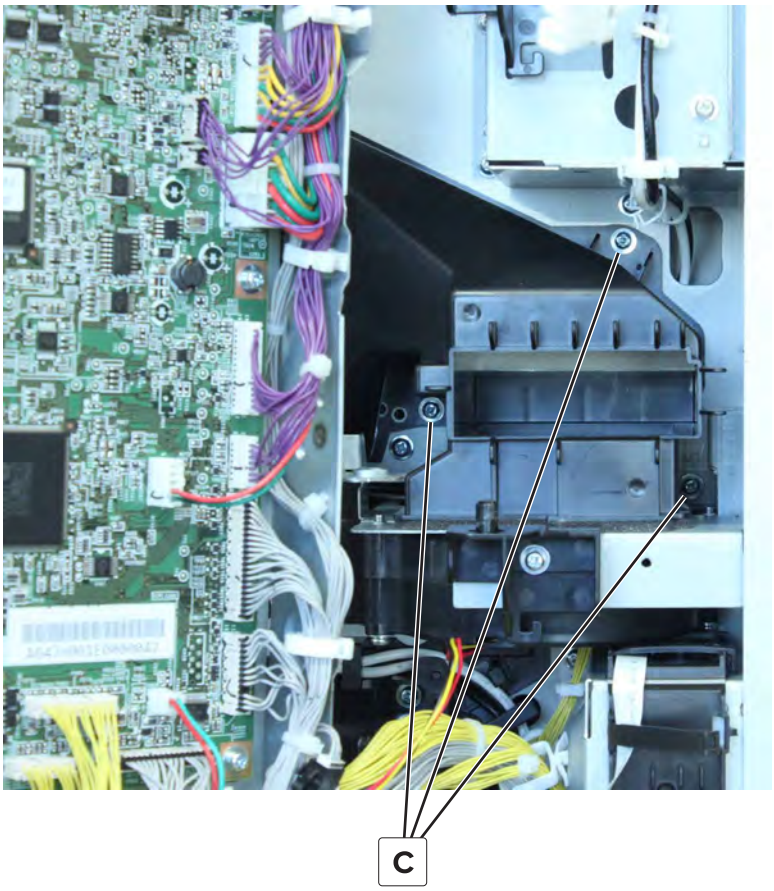
12 Open the controller board frame. See **“Controller board frame removal” on page 565**.

13 Remove the High voltage board. See **“High voltage board removal” on page 582**.

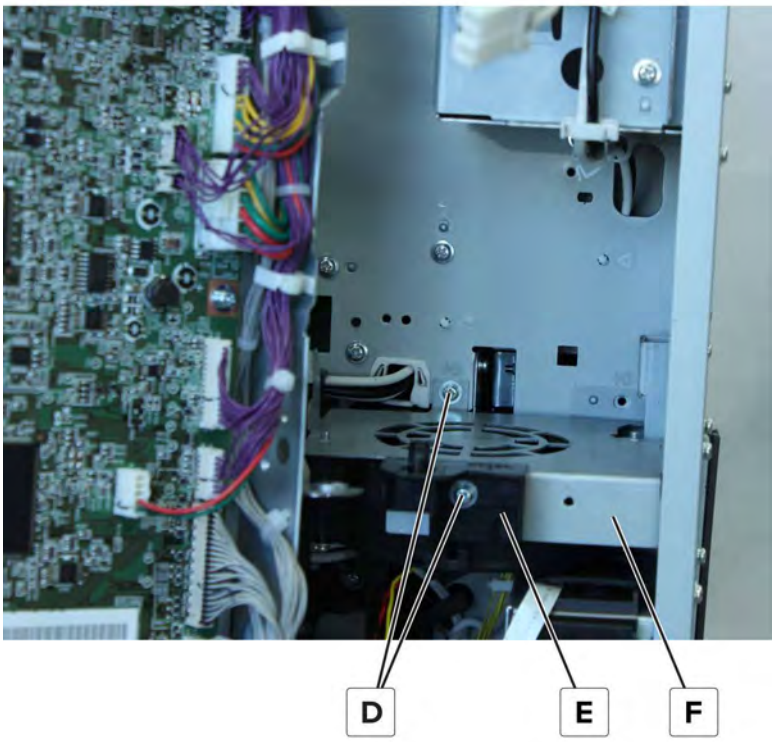
14 Disconnect the cable (A), and then remove the two screws (B).



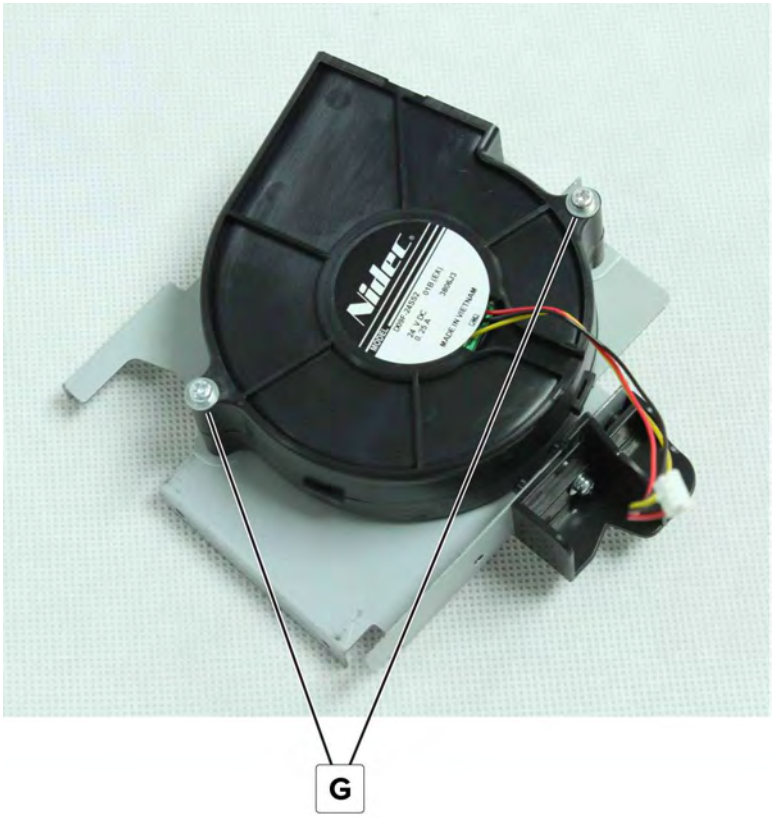
15 Remove the three screws (C), and then remove the fan duct.



16 Remove the two screws (D), release the controller board frame from the hinge (E), and then remove the toner suction fan assembly (F).



17 Remove the two screws (G), and then remove the fan.



Top side removals

Top cover removal

1 Remove the control panel front cover. See **“Control panel front cover removal” on page 491**.

2 Remove the control panel board. See **“Control panel board removal” on page 491**.

3 Remove the control panel rear cover. See **“Control panel rear cover removal” on page 496**.

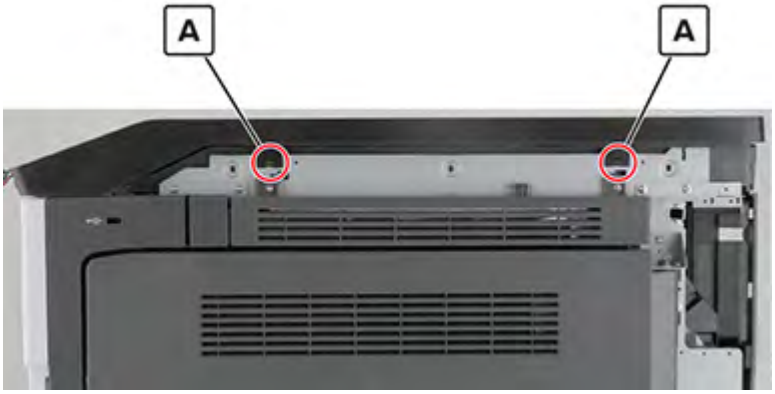
4 Remove the control panel cable guide cover. See **“Control panel cable guide cover removal” on page 497**.

5 Remove the control panel support base. See **“Control panel support base removal” on page 490**.

6 Remove the port mount. See **“Port mount removal” on page 364**.

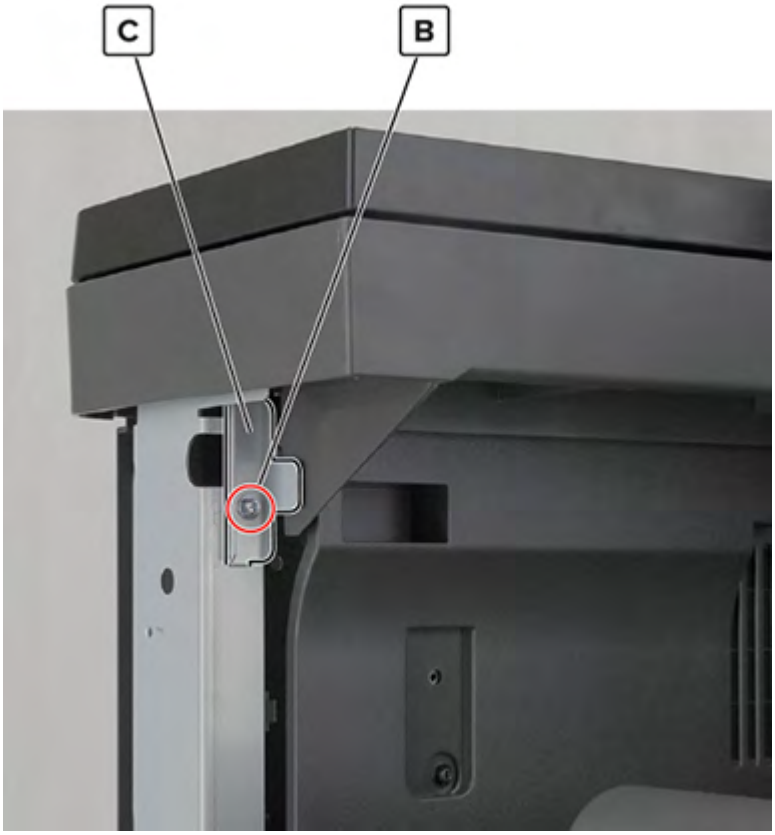
7 Remove the top right cover. See **“Top right cover removal” on page 367**.

8 Remove the two screws (A).

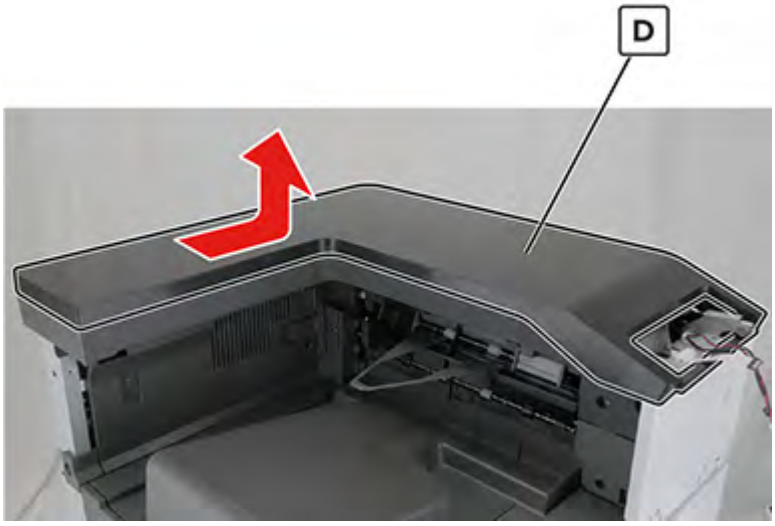


9 Remove the rear left cover. See **"Rear left cover removal" on page 349**.

10 Remove the screw (B), and then remove the bracket (C).



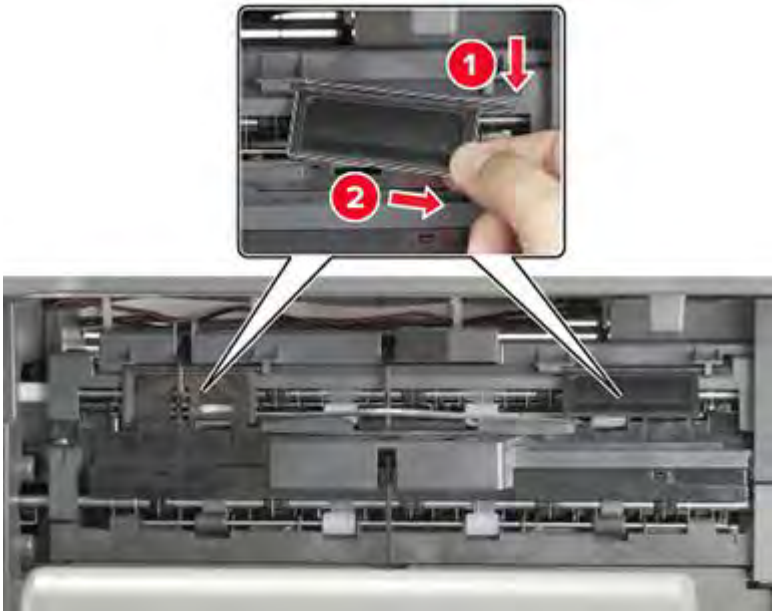
11 Remove the cover (D).



HPT bin paper bail removal

1 Pull down the bail to detach it.

2 Remove the bail.



Top cover support base removal

1 Remove the latch covers. See **"Latch cover removal" on page 552**.

2 Remove the scanner interface cable cover. See **"Scanner interface cable cover removal" on page 553**.

3 Remove the filter cover. See **"Filter cover removal" on page 548**.

4 Remove the filter housing. See **"Exhaust filter removal" on page 549**.

5 Remove the rear cover. See **“Lower rear cover removal” on page 554**.

6 Remove the upper rear cover. See **“Upper rear cover removal” on page 555**.

7 Remove the control panel front cover. See **“Control panel front cover removal” on page 491**.

8 Remove the control panel board. See **“Control panel board removal” on page 491**.

9 Remove the control panel rear cover. See **“Control panel rear cover removal” on page 496**.

10 Remove the control panel cable guide cover. See **“Control panel cable guide cover removal” on page 497**.

11 Remove the control panel support base. See **“Control panel support base removal” on page 490**.

12 Remove the control panel hinge. See **“Control panel hinge removal” on page 498**.

13 Remove the top right cover. See **“Top right cover removal” on page 367**.

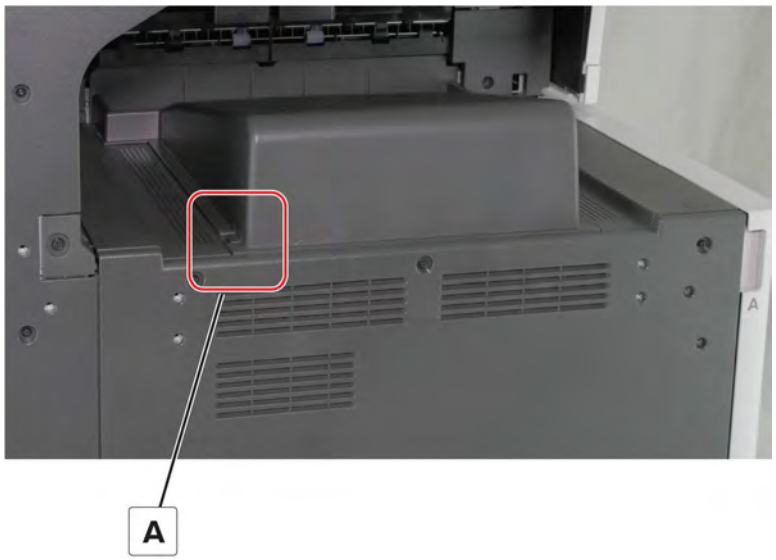
14 Remove the port mount. See **“Port mount removal” on page 364**.

15 Remove the top cover. See **“Top cover removal” on page 654**.

16 Remove the four screws (A), and then remove the support base (B).

Standard bin removal

1 Release the latch (A).



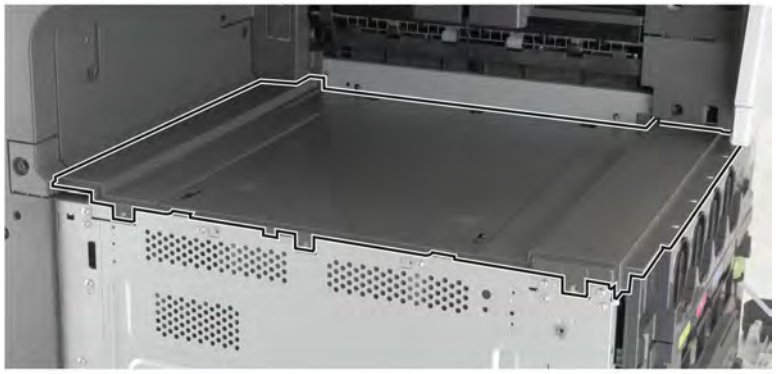
2 Remove the bin.

Standard bin base removal

1 Remove the left cover. See **"Left cover removal" on page 348**.

2 Remove the standard bin. See **"Standard bin removal" on page 658**.

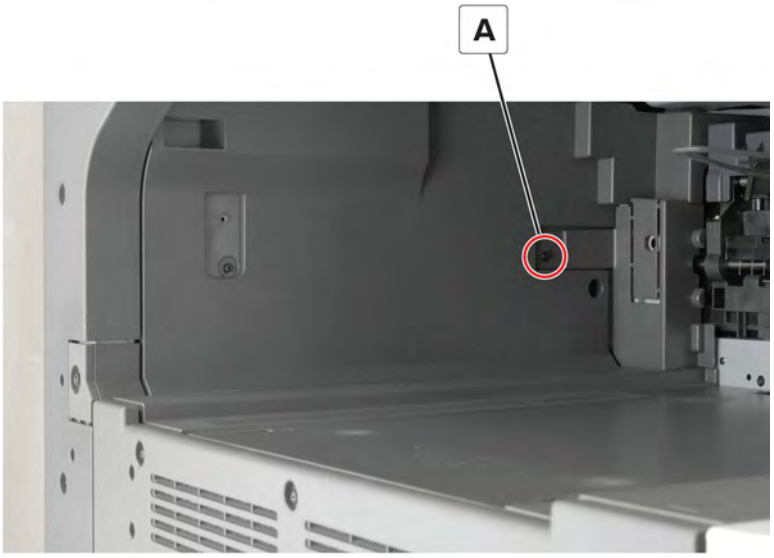
3 Open the front door, and then remove the cover.



Right bin side cover removal

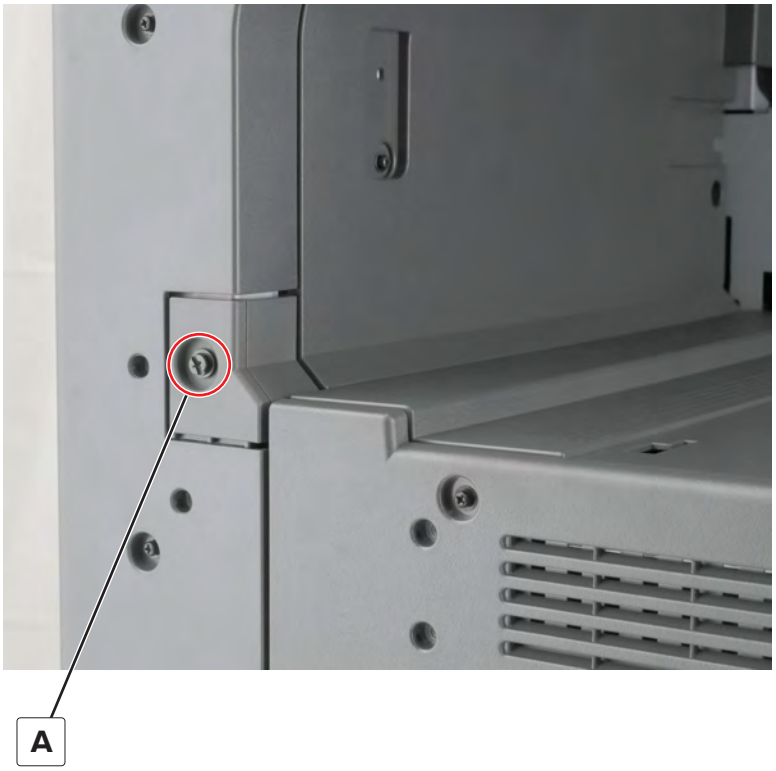
1 Remove the standard bin. See **"Standard bin removal" on page 658**.

2 Remove the screw (A), and then remove the cover.



Top corner cover removal

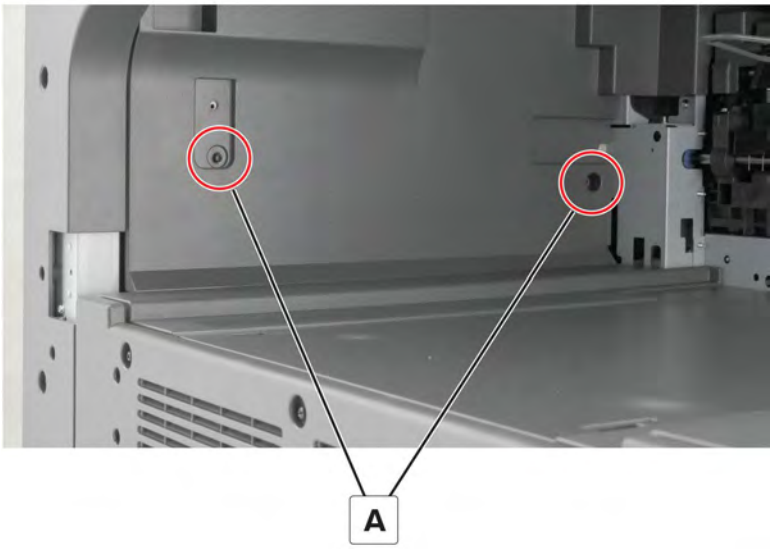
1 Remove the screw (A).



2 Remove the cover.

Bin side cover removal

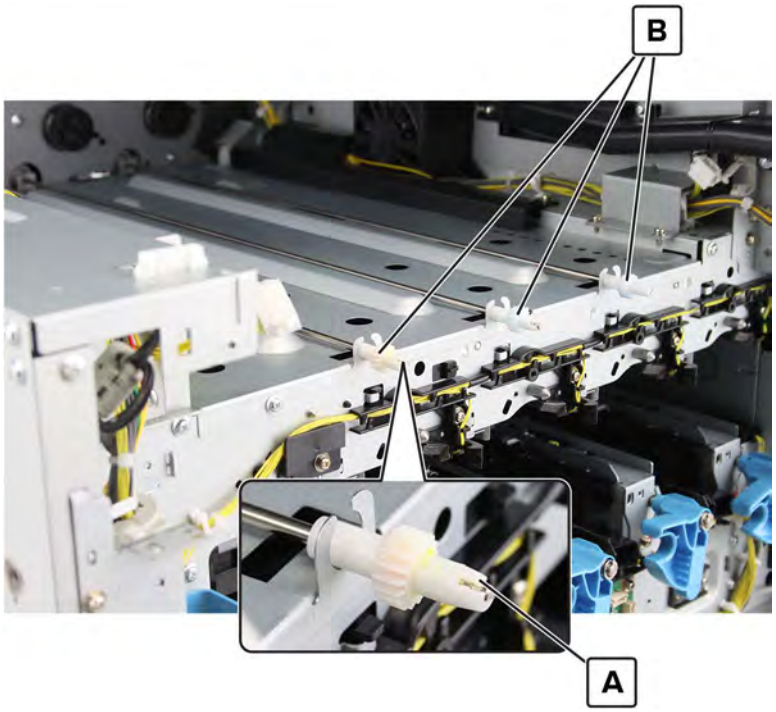
1. Remove the right bin side cover. See **“Right bin side cover removal” on page 659**.
2. Remove the top corner cover. See **“Top corner cover removal” on page 659**.
3. Remove the two screws (A), and then remove the cover.



Toner supply gear 2 removal

1. Remove the front door. See **“Front door removal” on page 487**.
2. Remove the left cover. See **“Left cover removal” on page 348**.
3. Remove the standard bin. See **“Standard bin removal” on page 658**.
4. Remove the standard bin base. See **“Standard bin base removal” on page 658**.
5. Remove the front inner cover. See **“Front inner cover removal” on page 515**.
6. Remove the waste toner door mount. See **“Waste toner door mount removal” on page 515**.
7. Remove the toner agitator. See **“Toner agitator removal” on page 516**.

8 Release the appropriate latch (A), and then remove the gear (B).



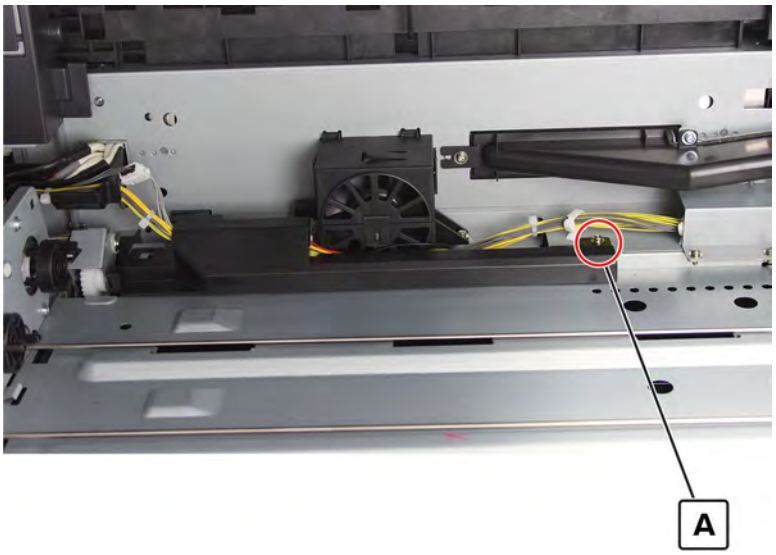
Toner cartridge cooling fan removal

1 Remove the left cover. See "Left cover removal" on page 348.

2 Remove the standard bin. See "Standard bin removal" on page 658.

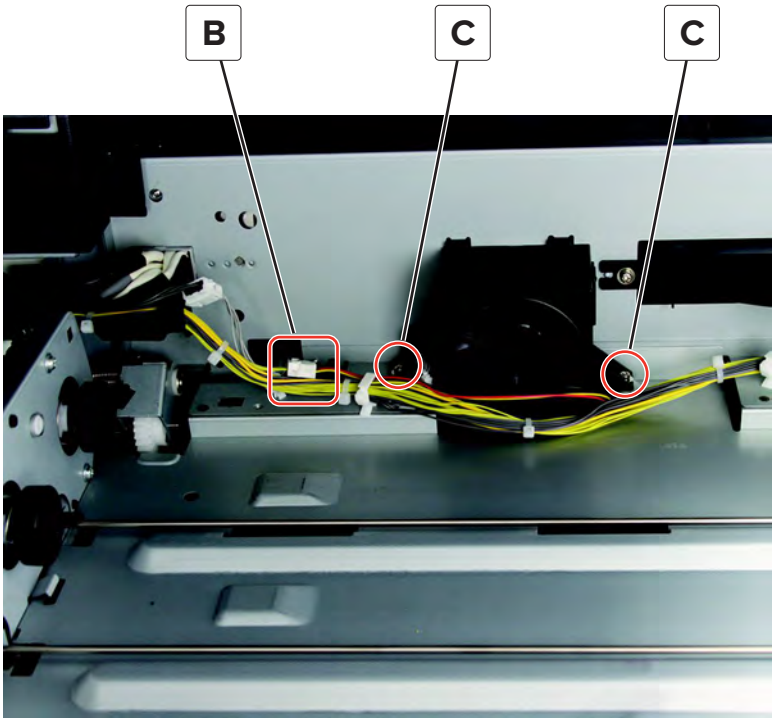
3 Remove the standard bin base. See "Standard bin base removal" on page 658.

4 Remove the screw (A), and then remove the cover.



5 Disconnect the cable (B), and then release it from its guide.

6 Remove the two screws (C), and then remove the fan.



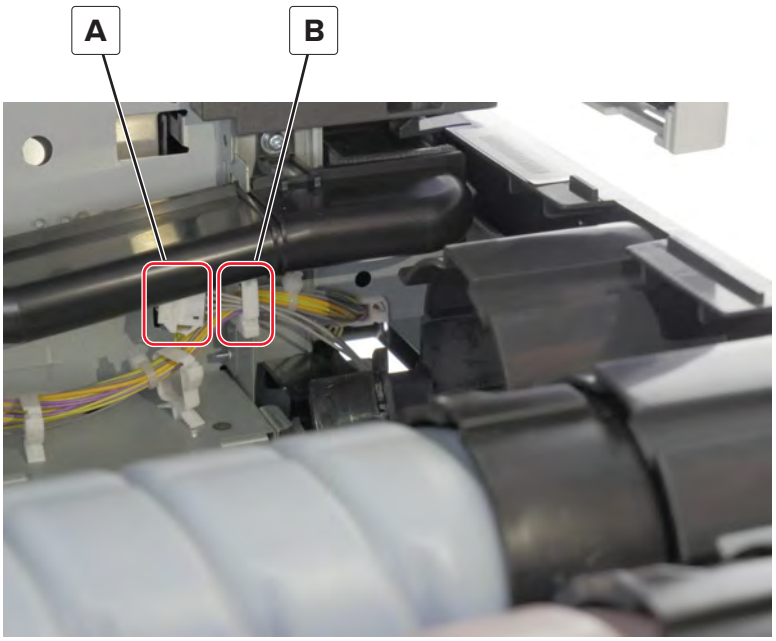
K toner supply motor cable removal

1 Remove the left cover. See **“Left cover removal” on page 348**.

2 Remove the standard bin. See **“Standard bin removal” on page 658**.

3 Remove the standard bin base. See **“Standard bin base removal” on page 658**.

4 Disconnect the cable (A), and then release it from the guide (B).



5 Disconnect the motor cable, and then remove it.

Bottom side removals

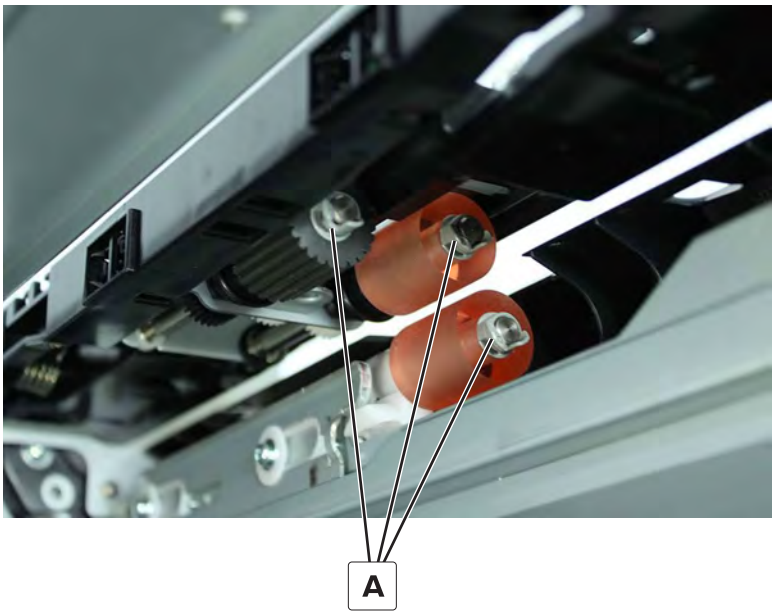
Tray rollers removal

1 Remove tray 1 and tray 2. See **"Tray insert removal" on page 511**.

2 Open the right door.

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.

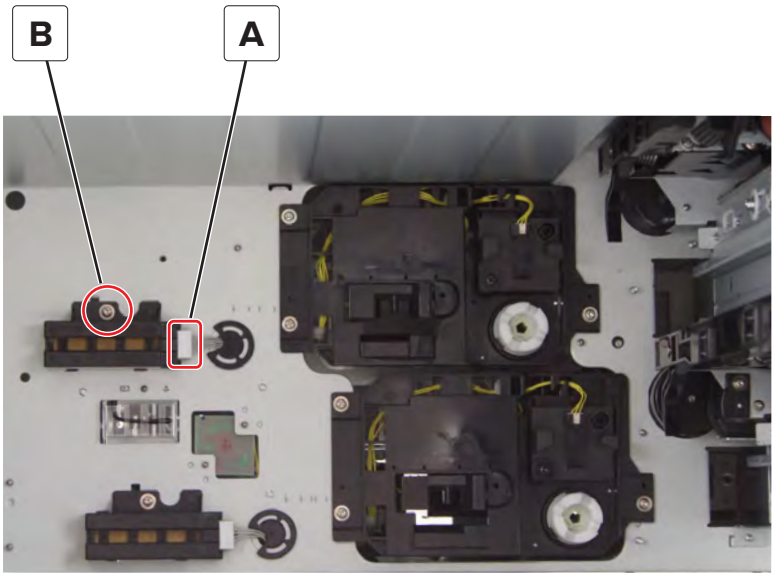
3 Release the appropriate clip (A), and then remove the pick roller, feed roller, or separator roller.



Sensor (tray 1 paper length) removal

1 Remove tray 1 and tray 2. See **"Tray insert removal" on page 511**.

2 Disconnect the cable (A), and then remove the screw (B).

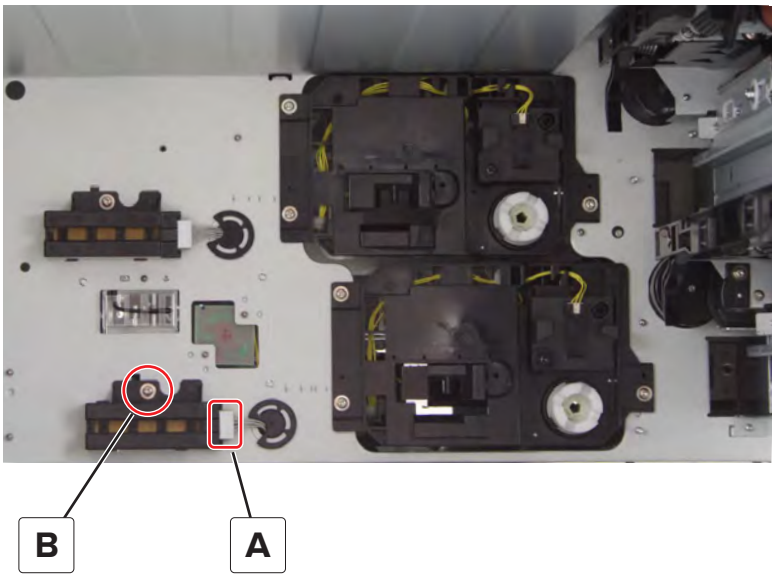


3 Remove the sensor housing, and then remove the sensor.

Sensor (tray 2 paper length) removal

1 Remove tray 1 and tray 2. See **"Tray insert removal" on page 511**.

2 Disconnect the cable (A), and then remove the screw (B).

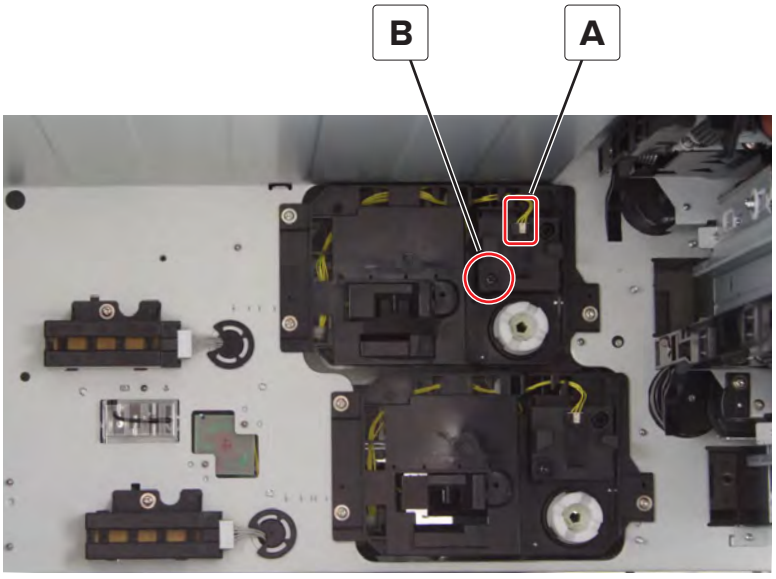


3 Remove the sensor housing, and then remove the sensor.

Sensor (tray 1 near empty) removal

1 Remove tray 1 and tray 2. See **"Tray insert removal" on page 511**.

2 Disconnect the cable (A), and tshen remove the screw (B).



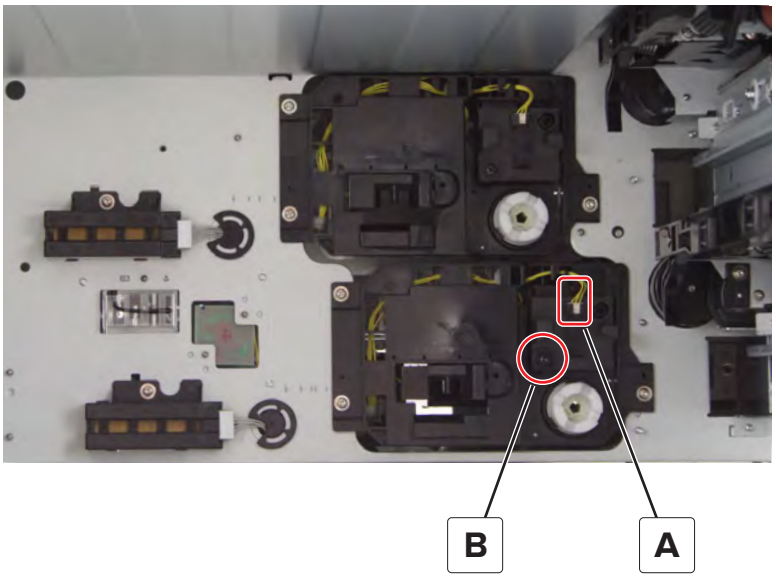
3 Remove the sensor housing, and then remove the sensor.

Warning—Potential Damage: Do not lose the spring.

Sensor (tray 2 near empty) removal

1 Remove tray 1 and tray 2. See **"Tray insert removal" on page 511**.

2 Disconnect the cable (A), and then remove the screw (B).



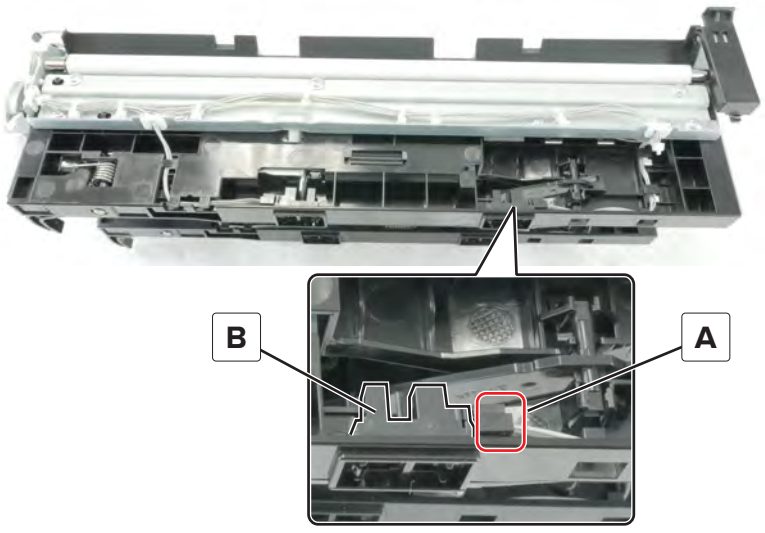
3 Remove the sensor housing, and then remove the sensor.

Warning—Potential Damage: Do not lose the spring.

Sensor (tray 1 empty) removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

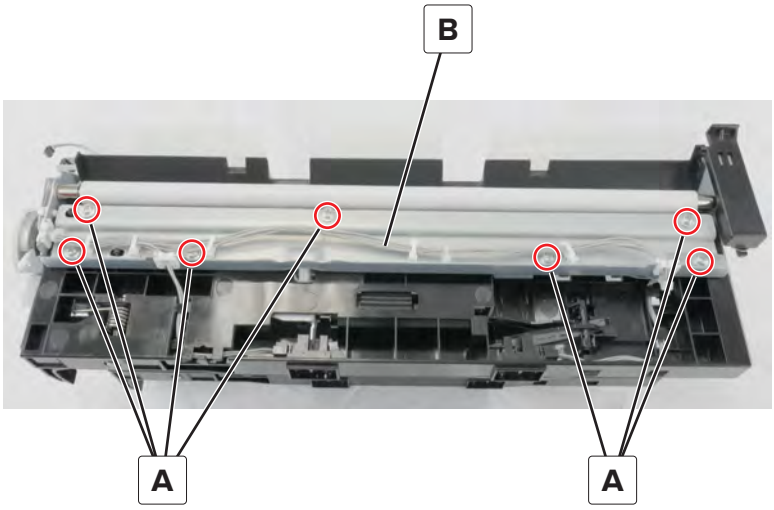
2 Disconnect the cable (A), and then remove the sensor (B).



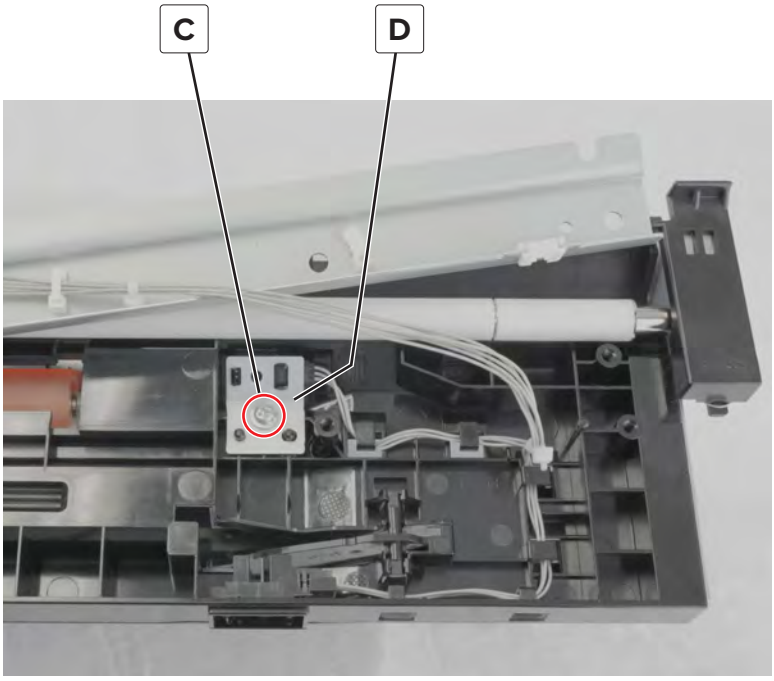
Sensor (tray 1 feed) removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

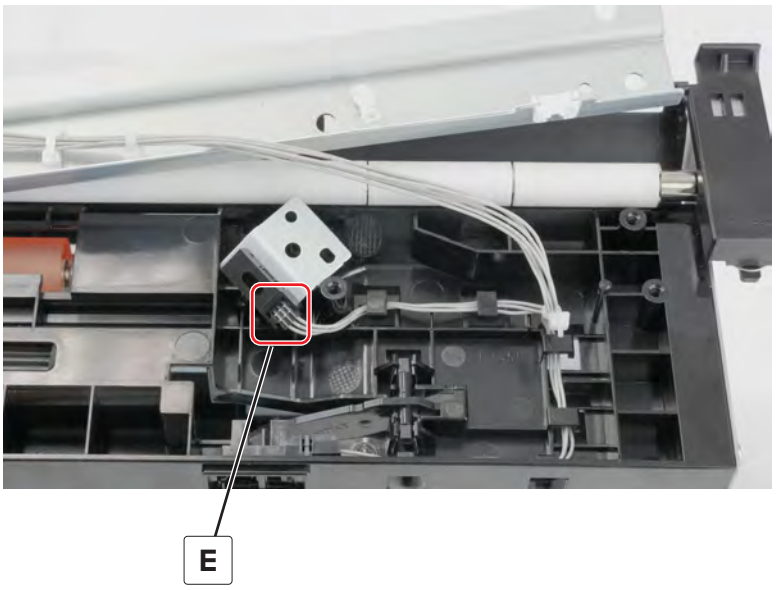
2 Remove the seven screws (A), and then remove the cable (B) from the cable guides.



3 Remove the screw (C), and then remove the bracket (D).



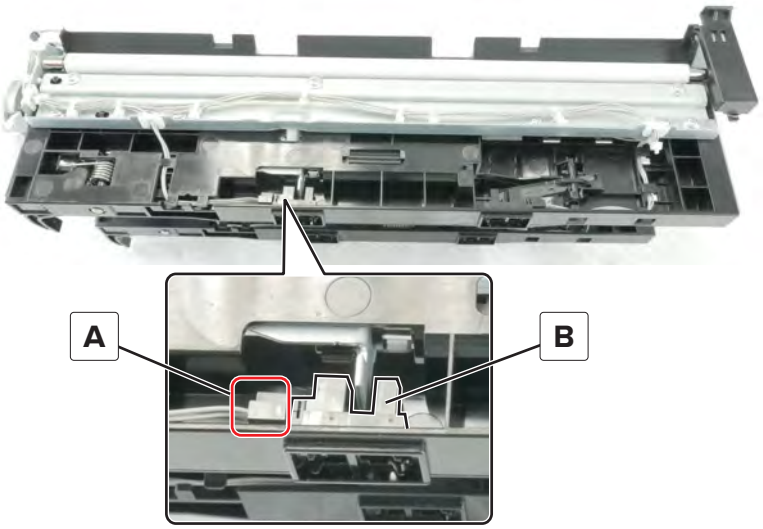
4 Disconnect the cable (E), and then remove the sensor from the bracket.



Sensor (tray 1 lift plate level) removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

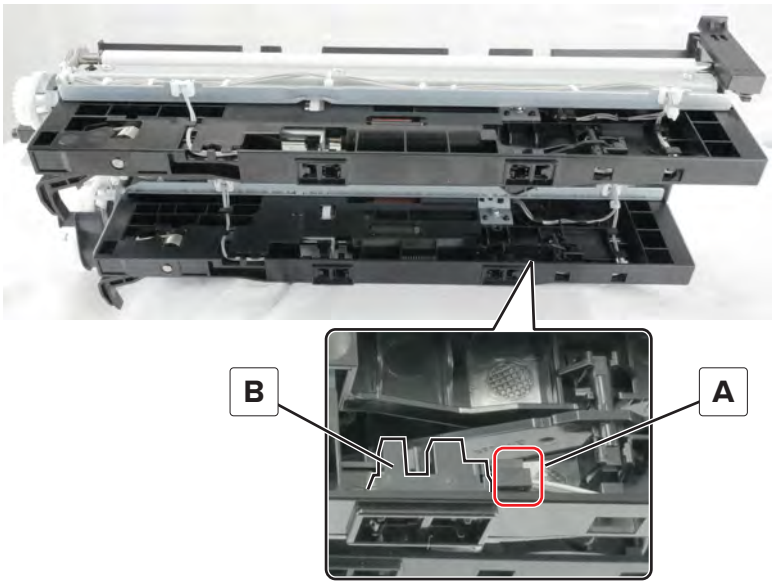
2 Disconnect the cable (A), and then remove the sensor (B).



Sensor (tray 2 empty) removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Disconnect the cable (A), and then remove the sensor (B).

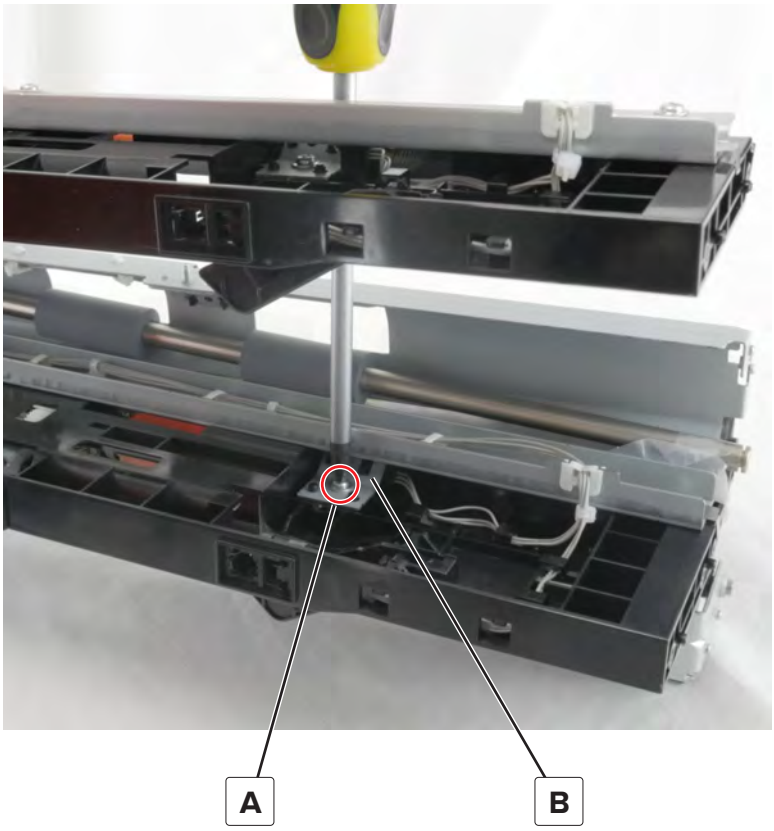


Sensor (tray 2 feed) removal

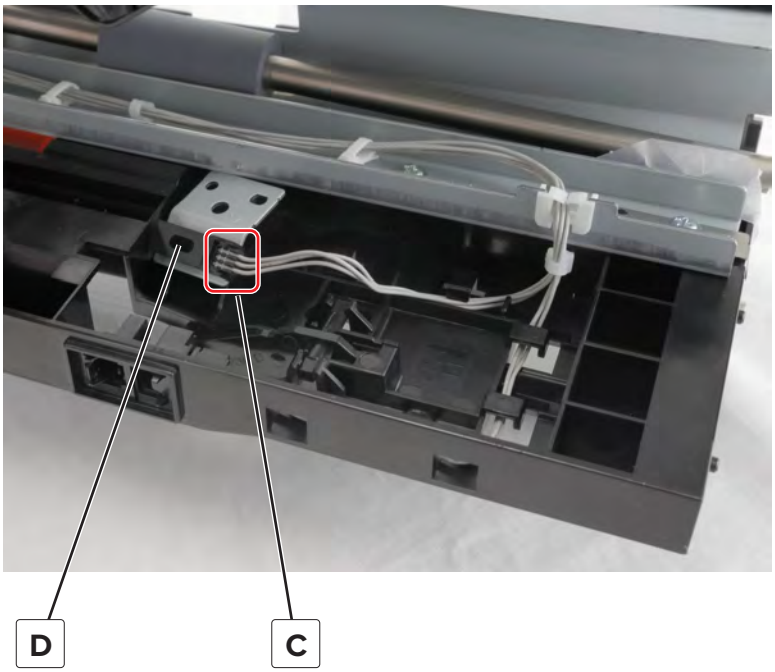
1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the tray 1 separator and transport guide assembly. See **"Tray 1 separator and transport guide assembly removal" on page 686**.

3 Remove the screw (A), and then remove the bracket (B).



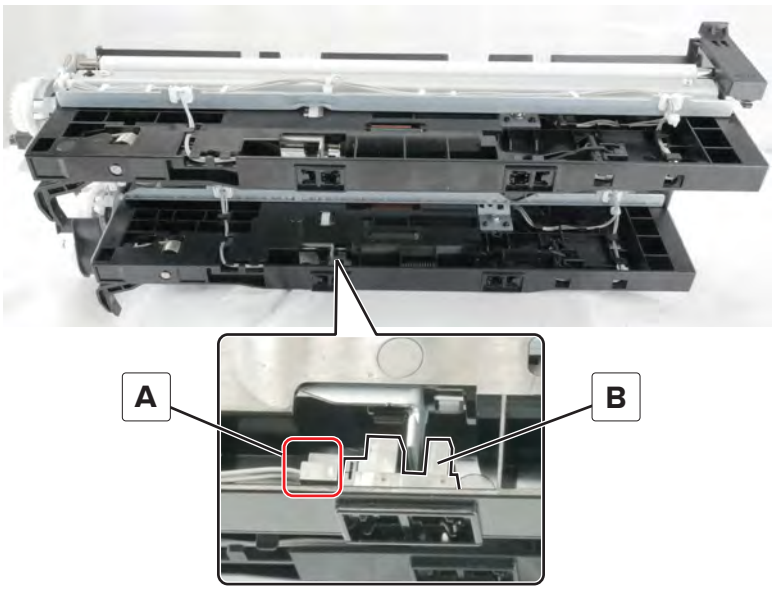
4 Disconnect the cable (C), and then remove the sensor (D).



Sensor (tray 2 lift plate level) removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

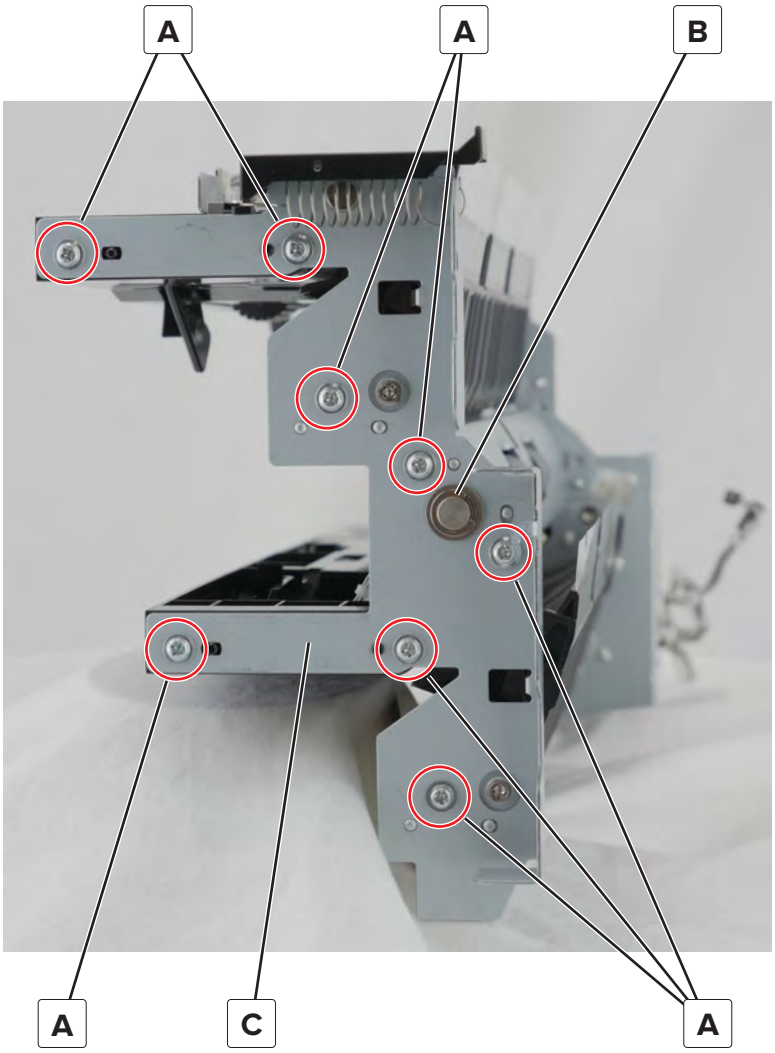
2 Disconnect the cable (A), and then remove the sensor (B).



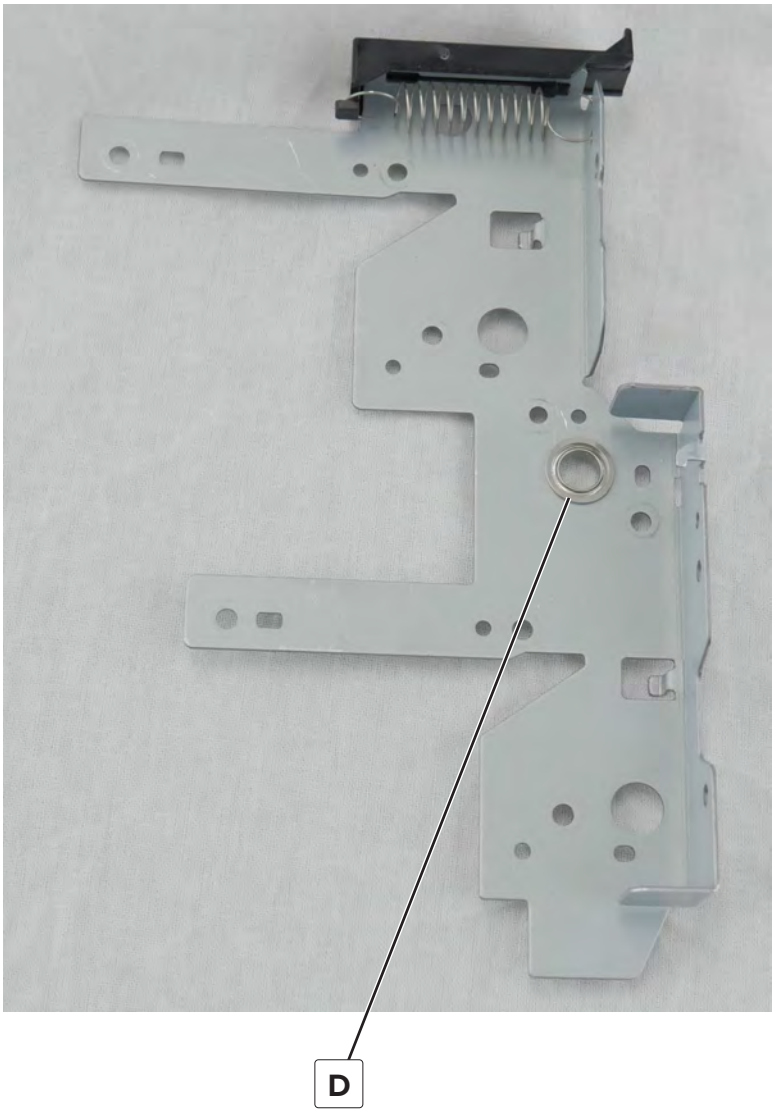
Sensor (tray 2 transport) removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the eight screws (A), remove the E-clip (B), and then remove the bracket (C).



Warning—Potential Damage: Do not lose the bushing (D).



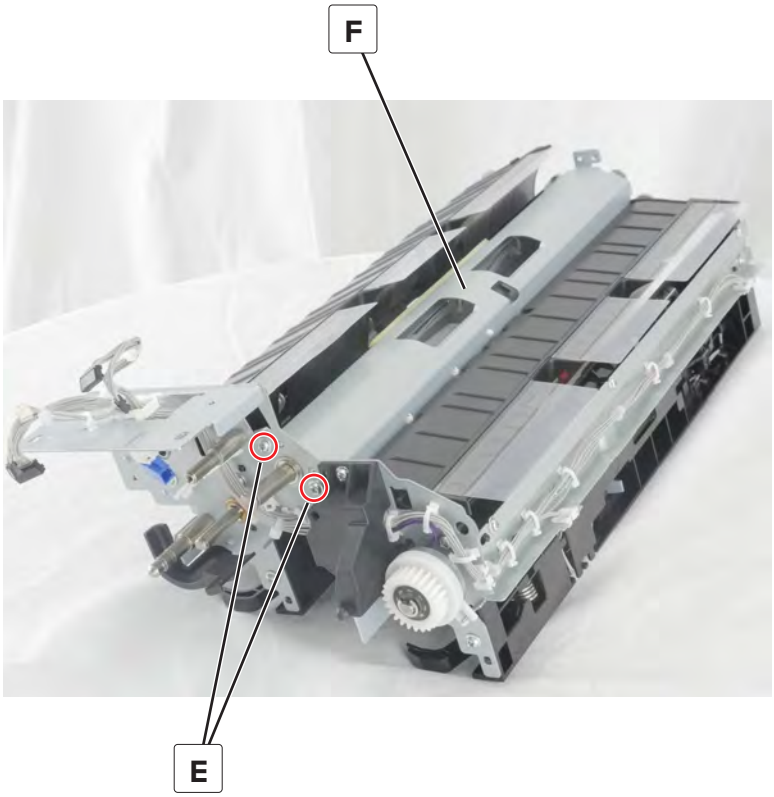
3 Remove the tray 2 transport gear. See **“Tray 2 transport gear removal” on page 711**.

4 Remove the tray 2 feed gear. See **“Tray 2 vertical transport clutch removal” on page 696**.

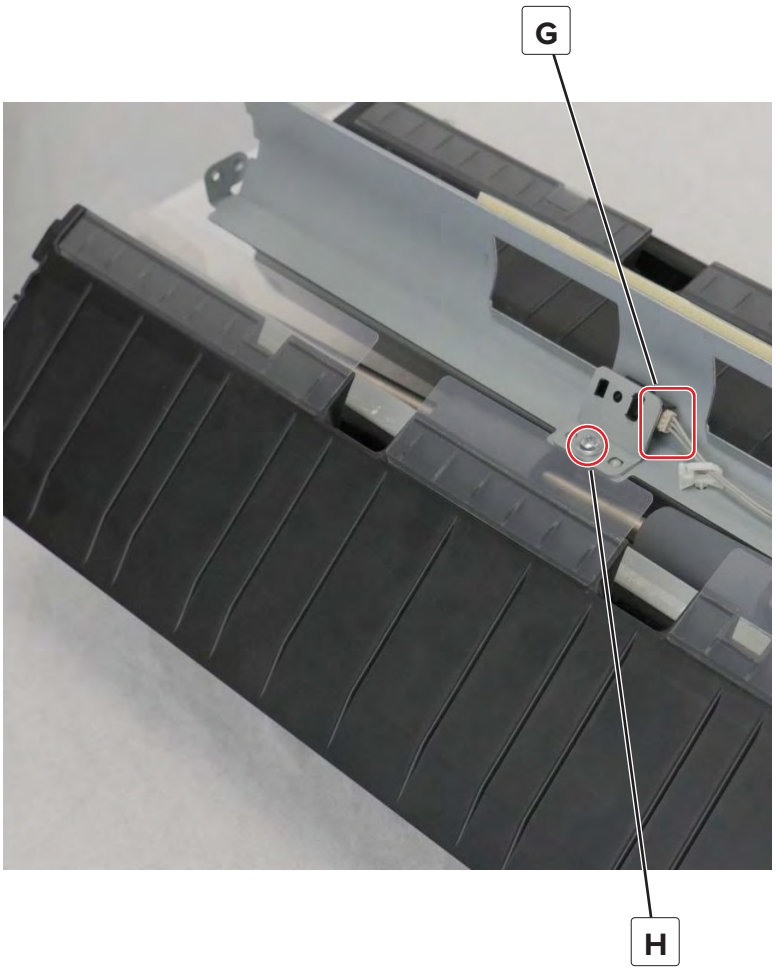
5 Remove the tray 2 transport clutch. See **“Tray 2 transport clutch removal” on page 709**.

6 Remove the tray 2 feed clutch. See **“Tray 2 feed clutch removal” on page 694**.

7 Remove the two screws (E), and then turn over the bracket (F).



8 Disconnect the cable (G), and then remove the screw (H).

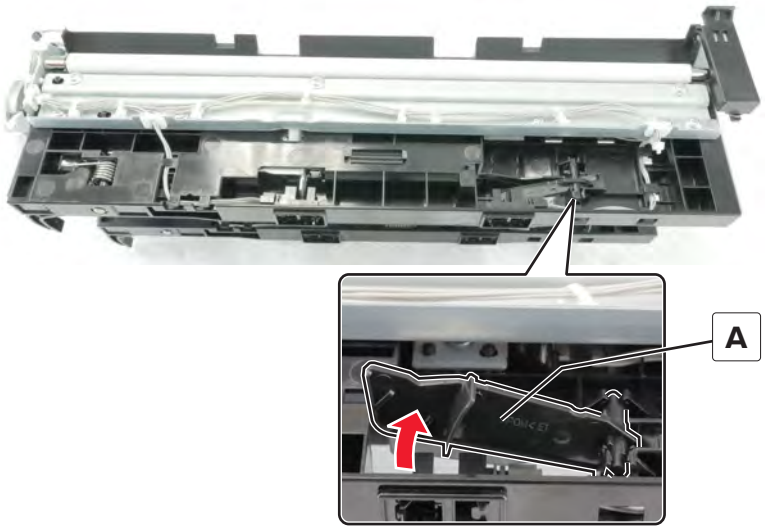


9 Remove the sensor from the bracket.

Tray 1 empty sensor actuator removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

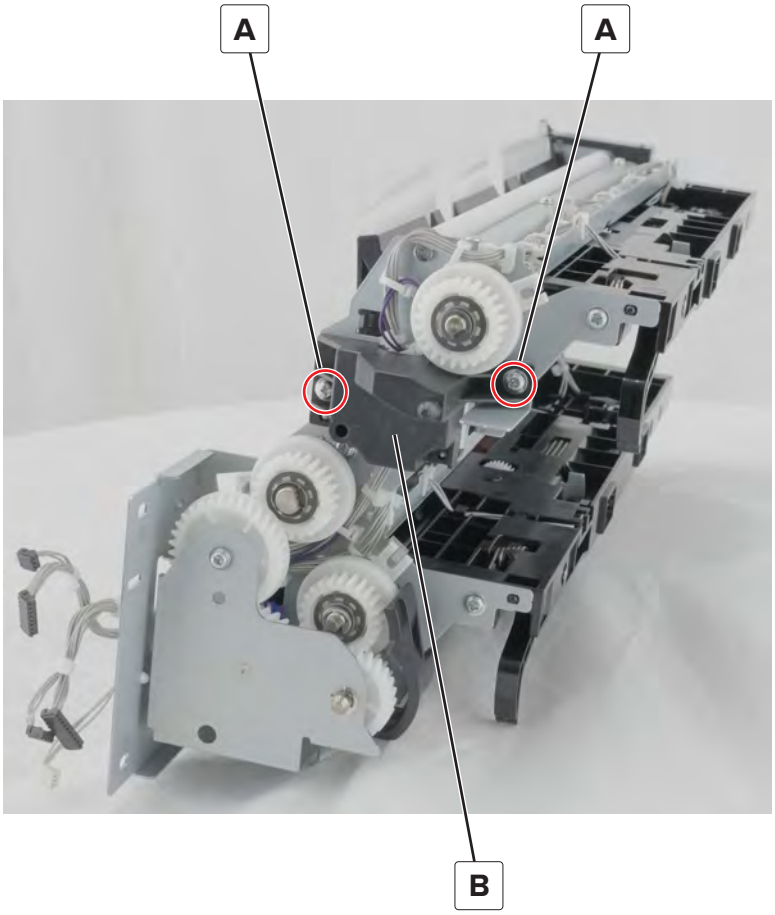
2 Remove the actuator (A).



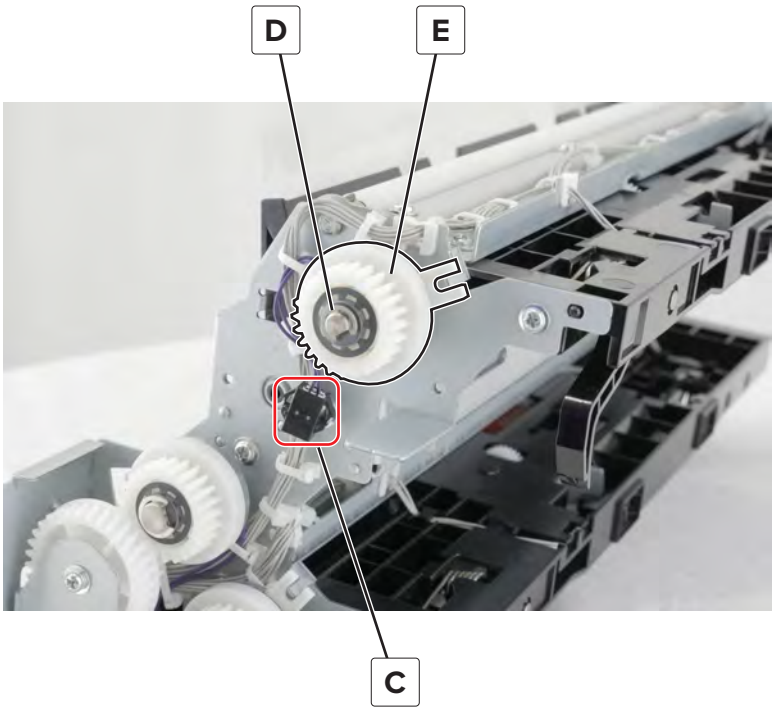
Tray 1 feed clutch removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the two screws (A), and then remove the bracket (B).



3 Disconnect the cable (C), remove the E-clip (D), and then remove the clutch (E).



Installation note: Pay attention to the position of the tab locator on the clutch.

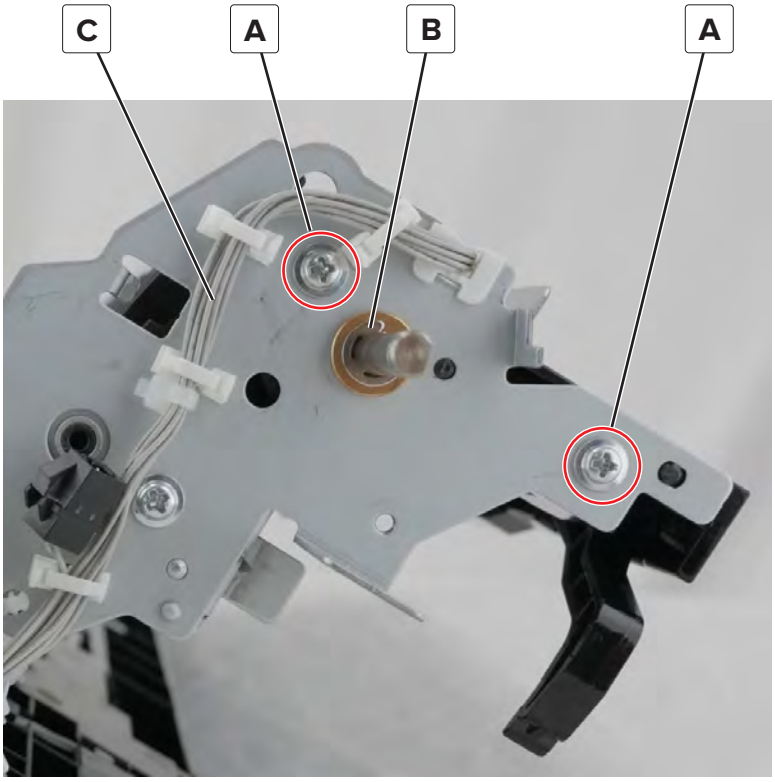
Tray 1 feed roller clutch removal

1. Remove the tray 1 pick roller.
2. Remove the tray 1 feed roller.
3. Remove the tray 1 separator roller.
4. Remove the clutch (A).

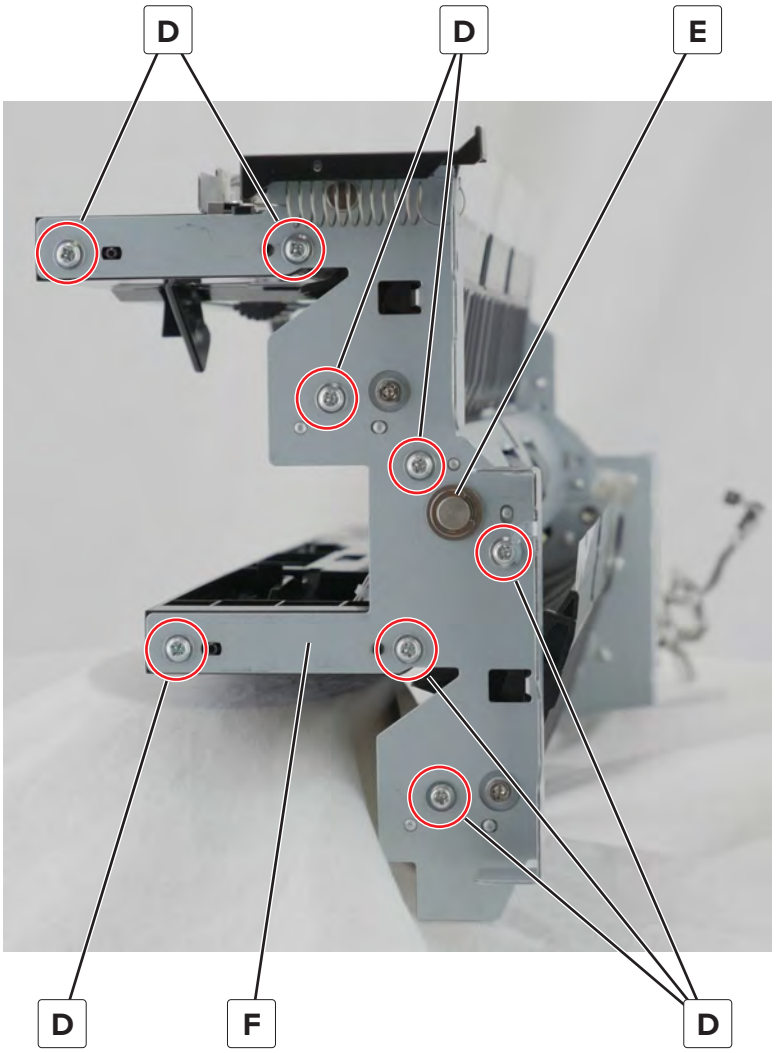
Tray 1 feed unit removal

1. Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.
2. Remove the tray 1 feed clutch. See **"Tray 1 feed clutch removal" on page 677**.
3. Remove the tray 2 transport gear. See **"Tray 2 transport gear removal" on page 711**.
4. Remove the tray 2 transport clutch. See **"Tray 2 transport clutch removal" on page 709**.

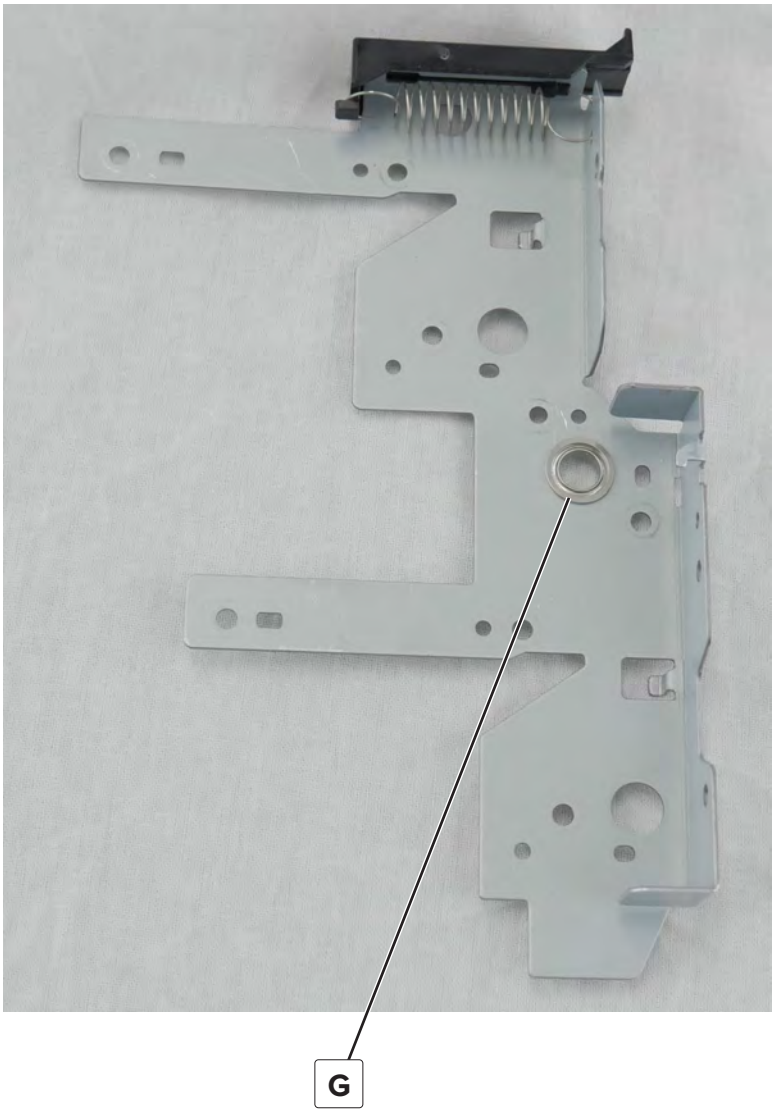
5 Remove the two screws (A), remove the E-clip (B), and then remove the cable (B) from the cable guides on the right side of the frame.



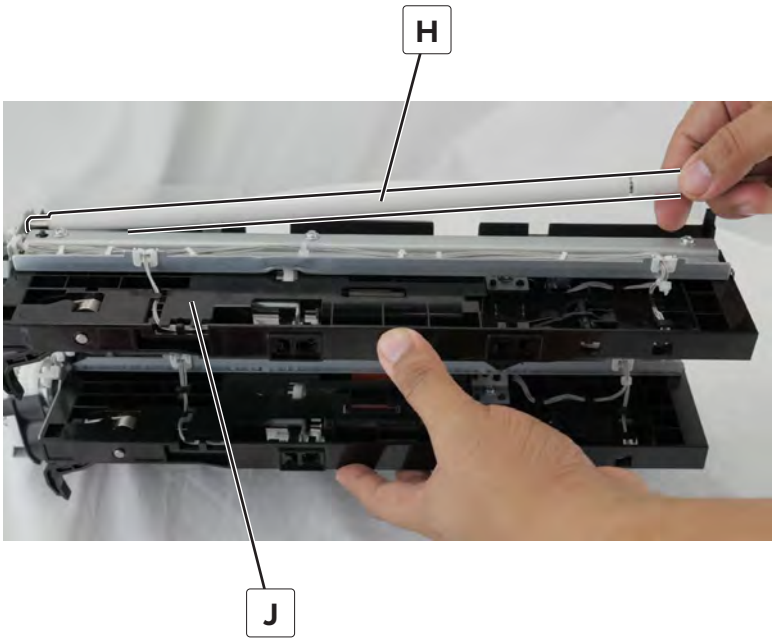
6 Remove the eight screws (D), remove the E-clip (E), and then remove the bracket (F).



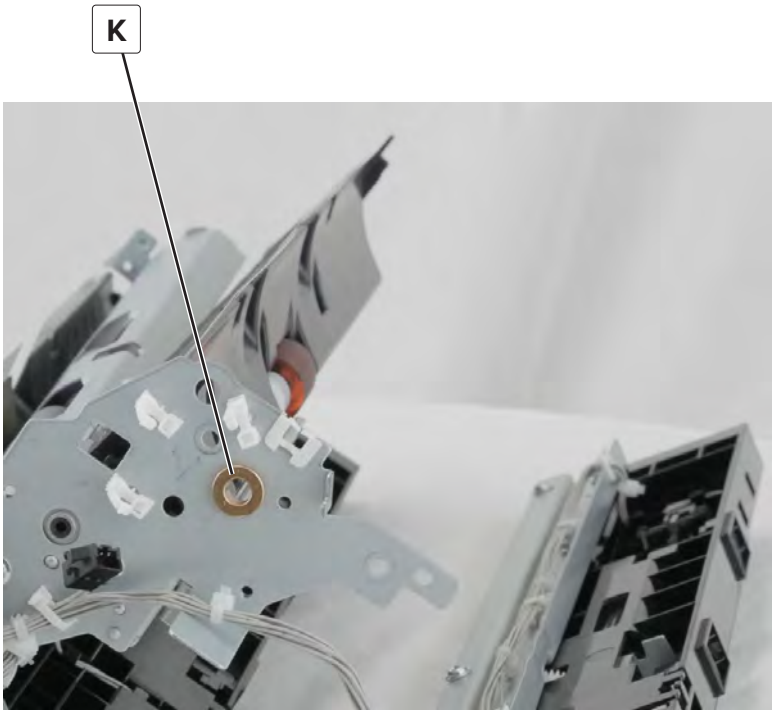
Warning—Potential Damage: Do not lose the bushing (G).


G

7 Remove the tray 1 transport roller (H), and then remove the unit (J).



Warning—Potential Damage: Do not lose the bushing (K).



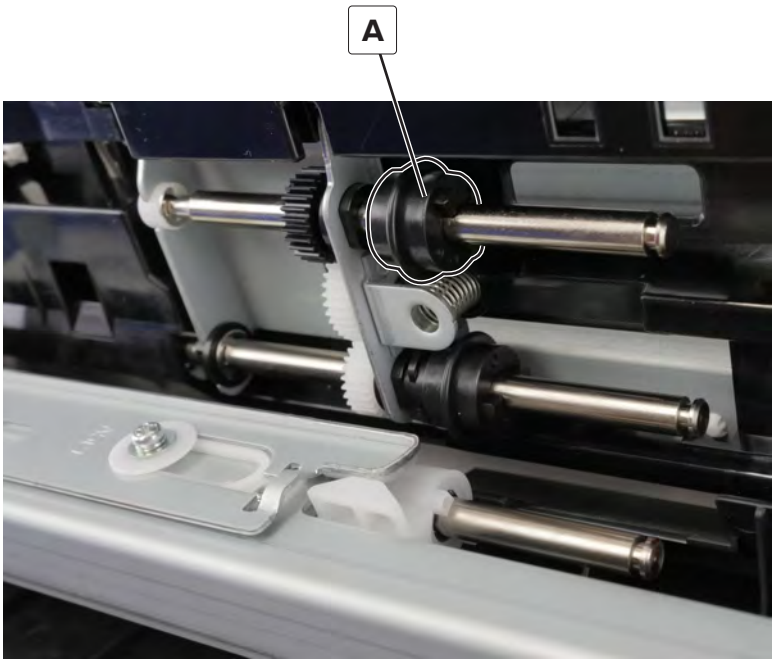
Tray 1 pick roller clutch removal

1 Remove the tray 1 pick roller.

2 Remove the tray 1 feed roller.

3 Remove the tray 1 separator roller.

4 Remove the clutch (A).



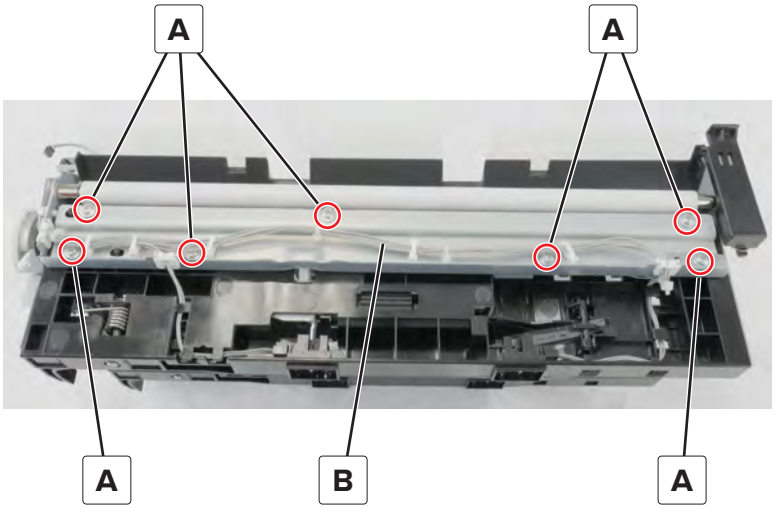
Tray 1 feed unit cable removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

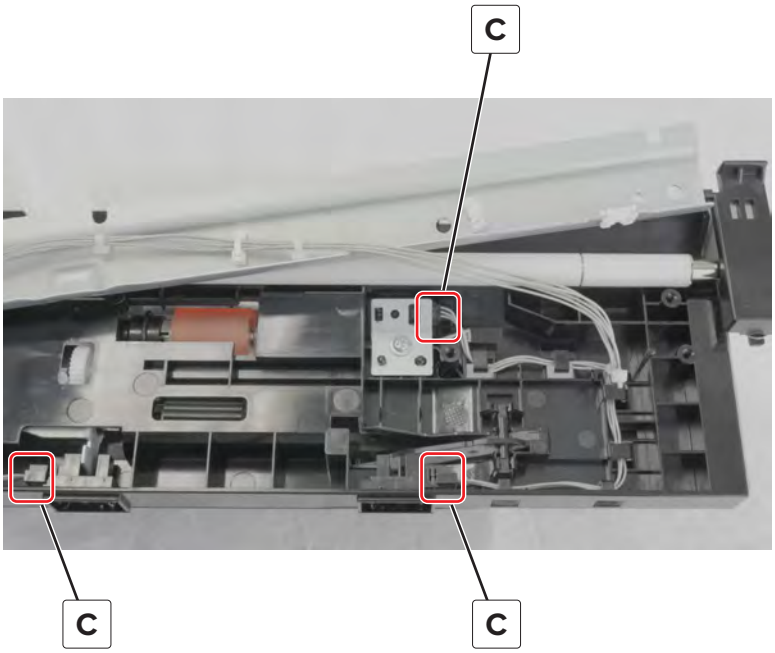
2 Remove the tray 1 feed clutch. See **"Tray 1 feed clutch removal" on page 677**.

3 Remove the tray 2 transport gear. See **"Tray 2 transport gear removal" on page 711**.

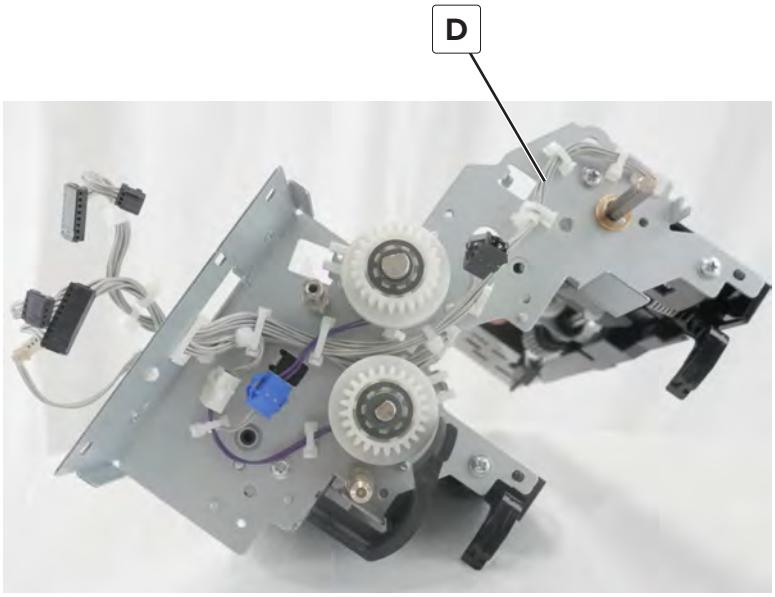
4 Remove the seven screws (A), and then remove the cable (B) from the cable guides.



5 Disconnect the three cables (C), and then remove the cable from the cable guides.



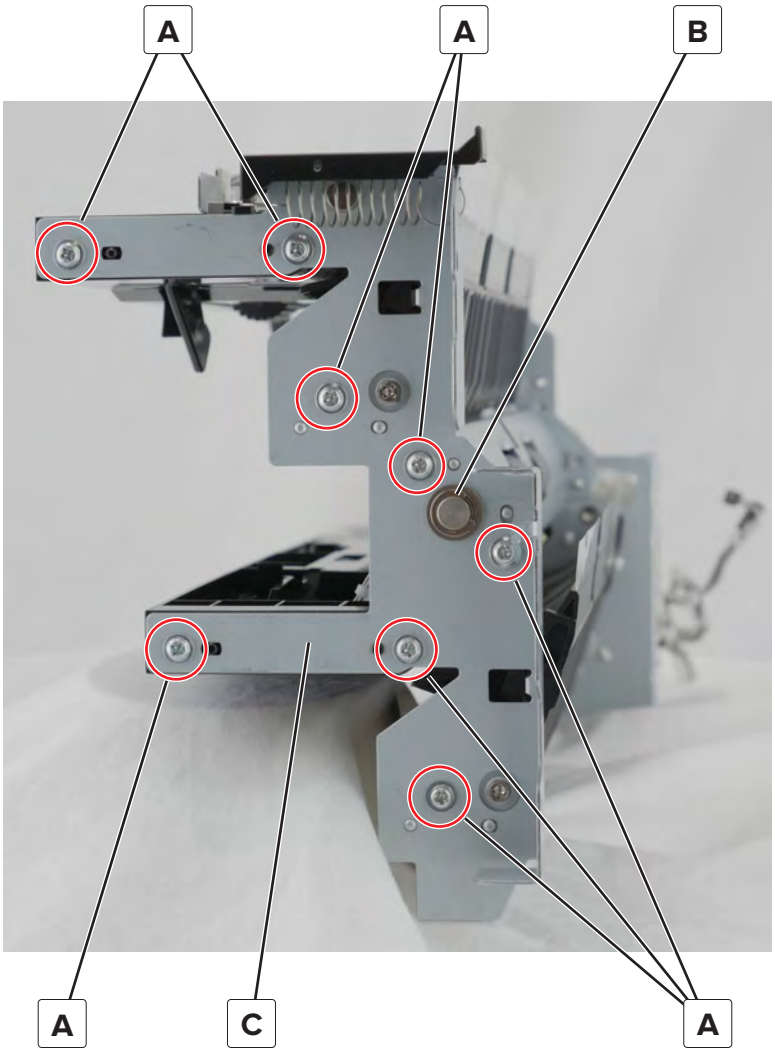
6 Remove the cable (D) from the cable guides.



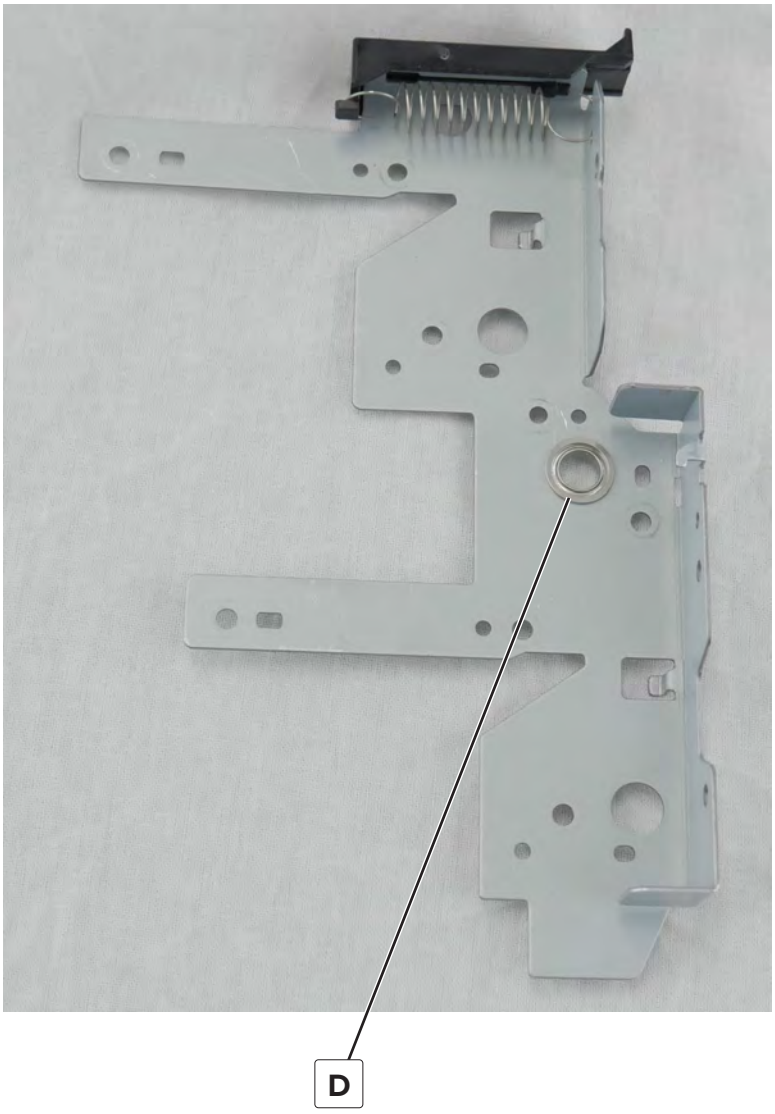
Tray 1 separator and transport guide assembly removal

1 Remove the tray 1 and tray 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the eight screws (A), remove the E-clip (B), and then remove the bracket (C).

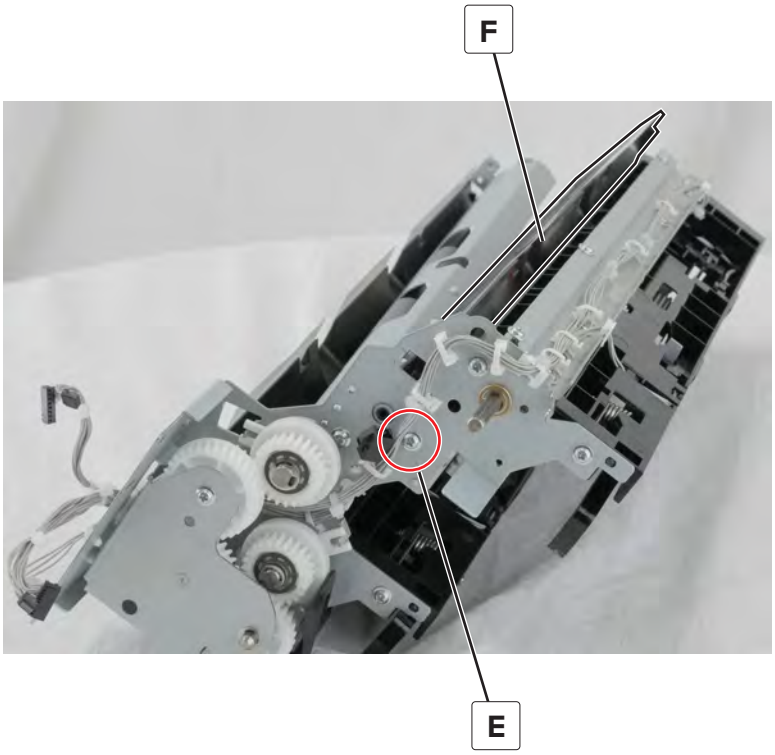


Warning—Potential Damage: Do not lose the bushing (D).



3 Remove the tray 1 feed clutch. See **"Tray 1 feed clutch removal" on page 677**.

4 Remove the screw (E), and then remove the assembly (F).

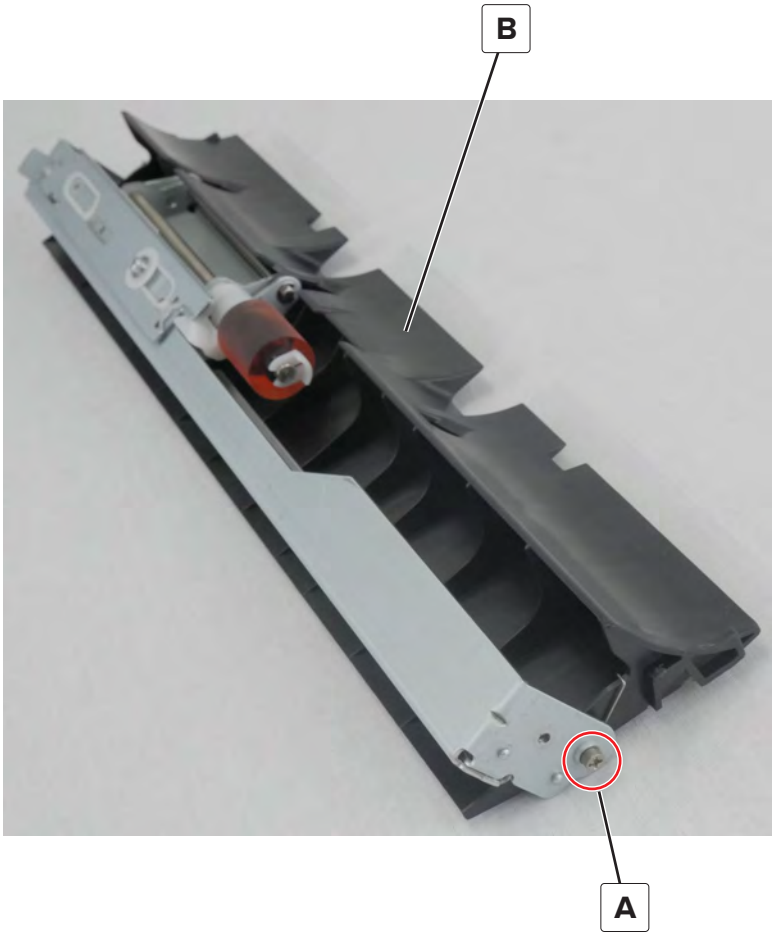


Tray 1 separator assembly removal

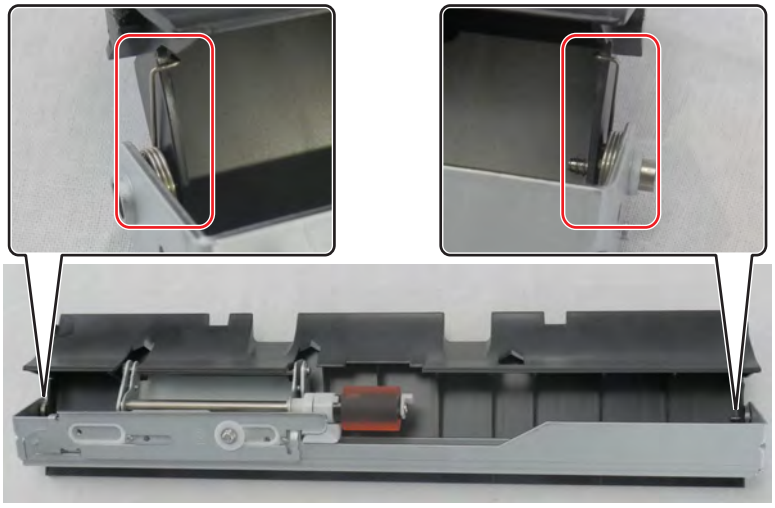
1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the tray 1 separator and transport guide assembly. See **"Tray 1 separator and transport guide assembly removal" on page 686**.

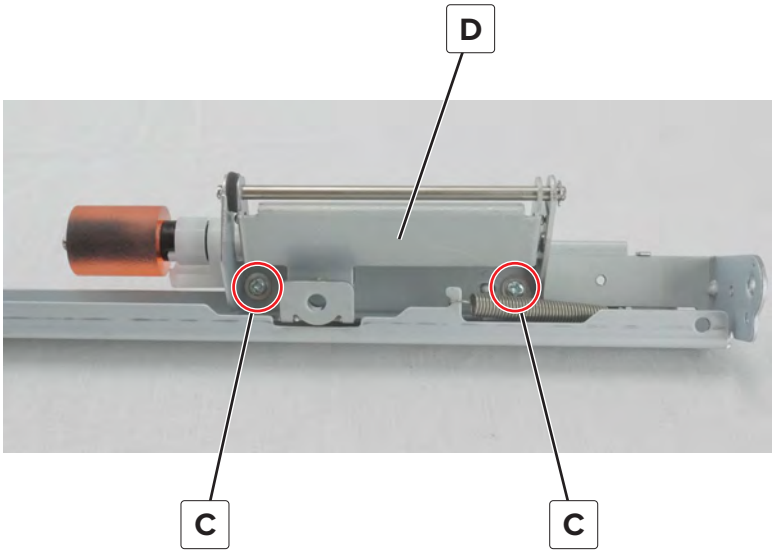
3 Remove the screw (A), and then remove the feed guide (B).



Installation note: Pay attention to the position of the two springs.



4 Remove the two screws (C), and then remove the separator assembly (D).



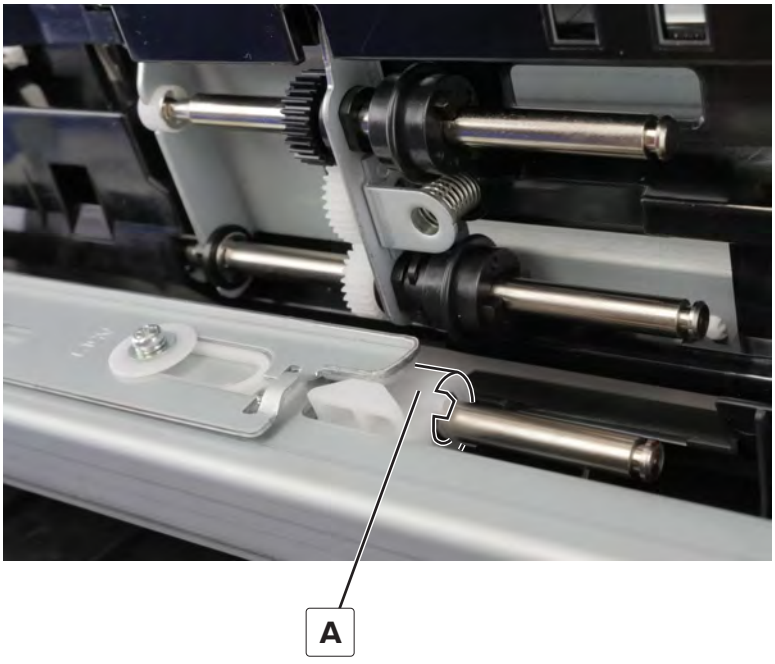
Tray separator roller clutch removal

1 Remove the tray pick roller.

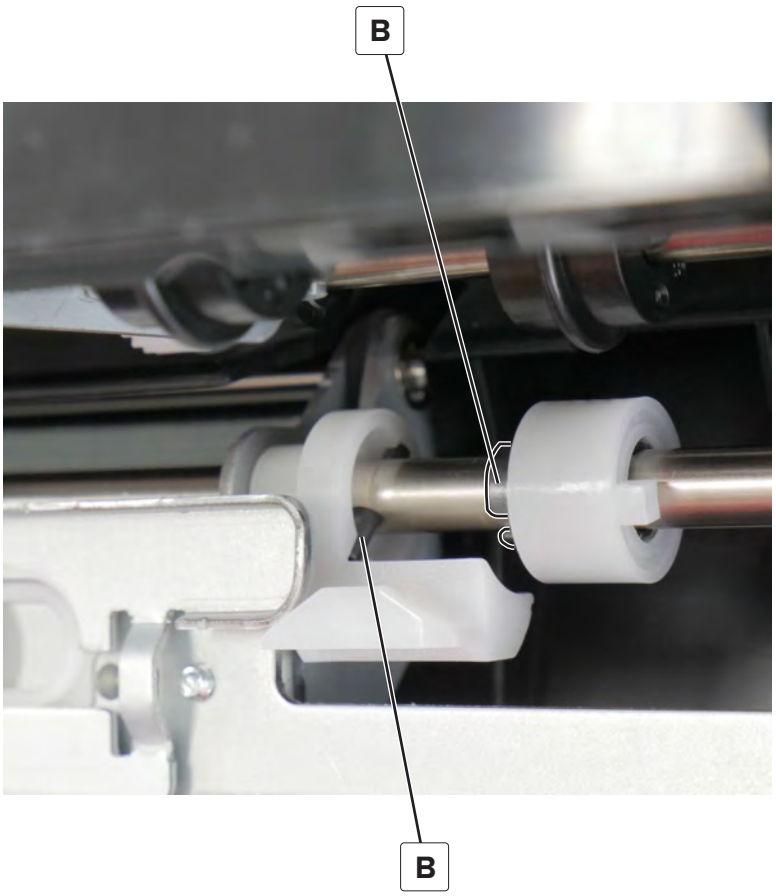
2 Remove the tray feed roller.

3 Remove the tray separator roller.

4 Remove the clutch (A).



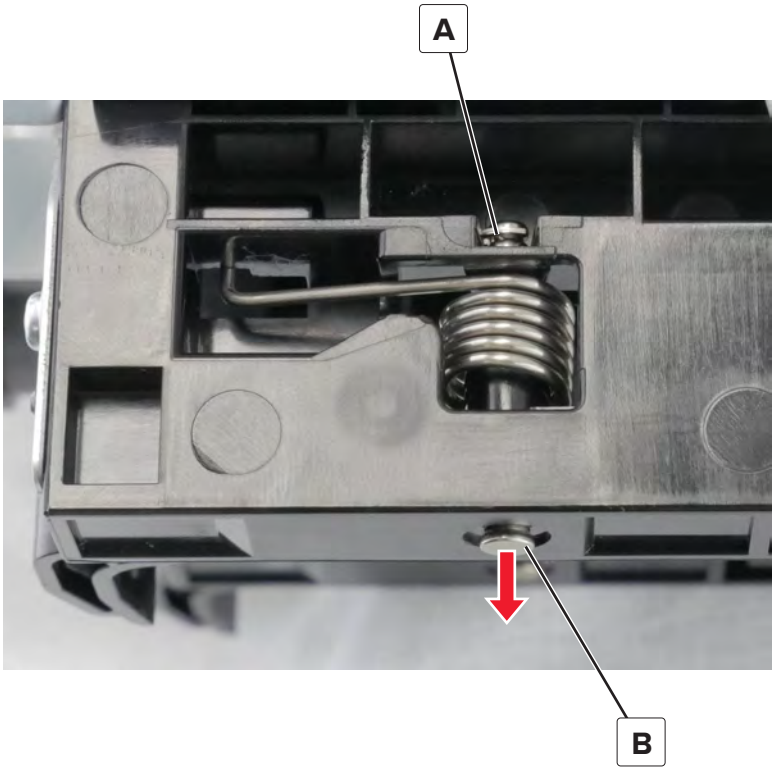
Installation note: Pay attention to the position of the locator pins (B).


B
B

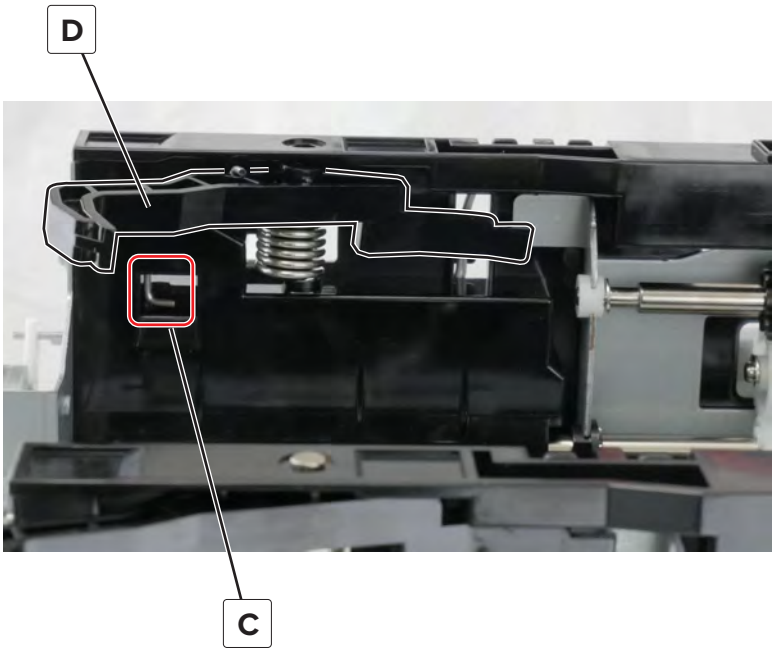
Tray 1 tray set actuator removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

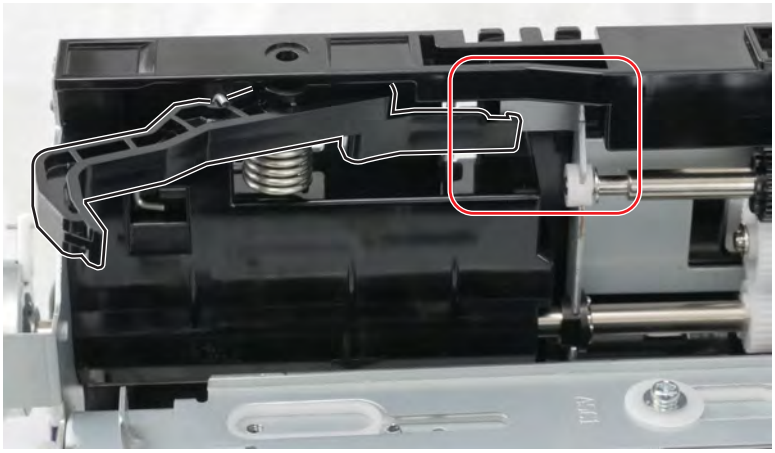
2 Remove the E-clip (A), and then remove the shaft (B).



3 Unhook the spring (C), and then remove the actuator (D).

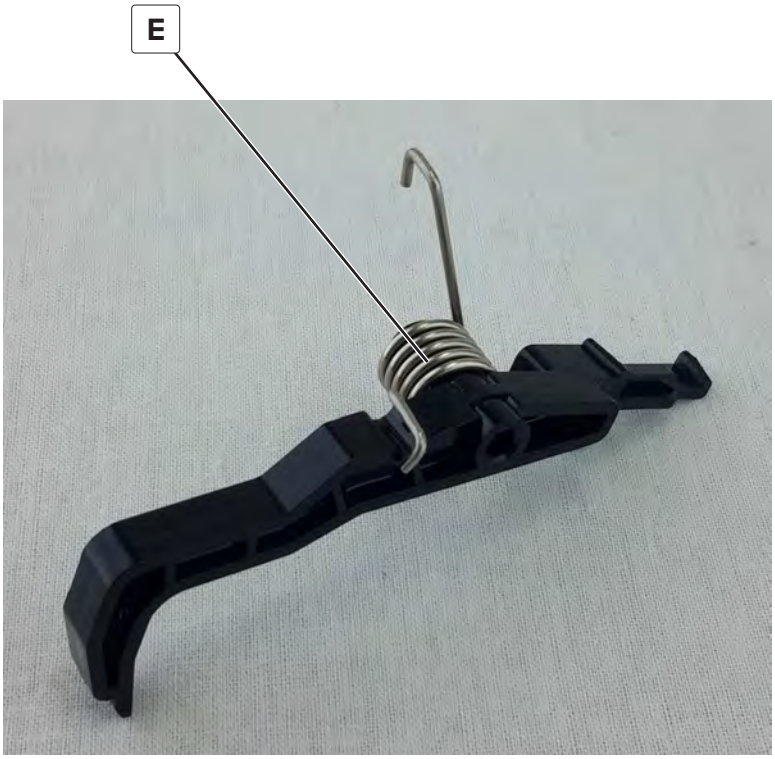


Installation note: Pay attention to the position of the actuator.



4 Remove the spring (E).

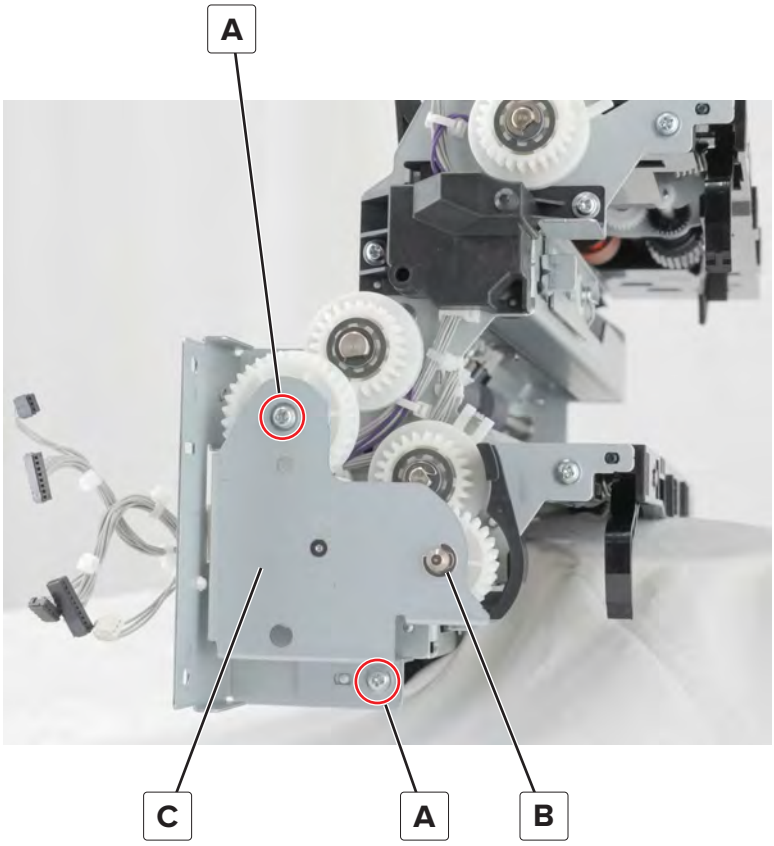
Installation note: Pay attention to the position of the spring.



Tray 2 feed clutch removal

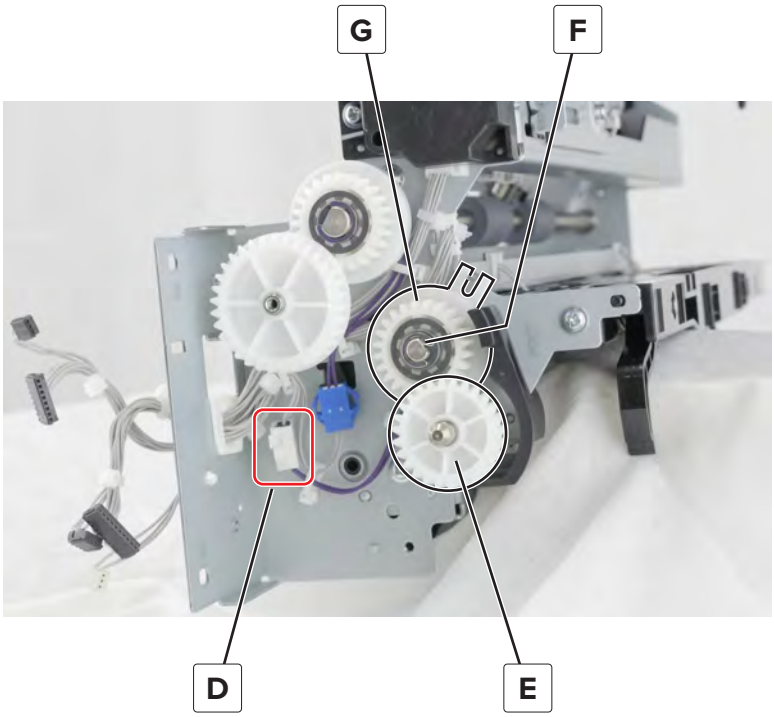
1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the two screws (A), remove the E-clip (B), and then remove the bracket (C).



3 Disconnect the cable (D), and then remove the gear (E).

4 Remove the E-clip (F), and then remove the clutch (G).

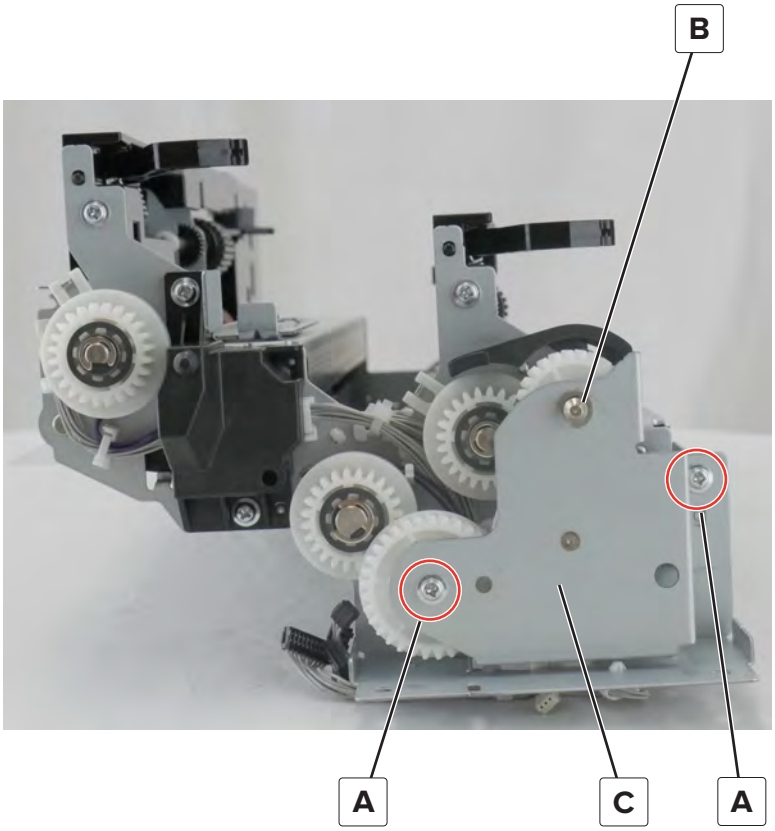


Installation note: Pay attention to the position of the tab locator on the clutch.

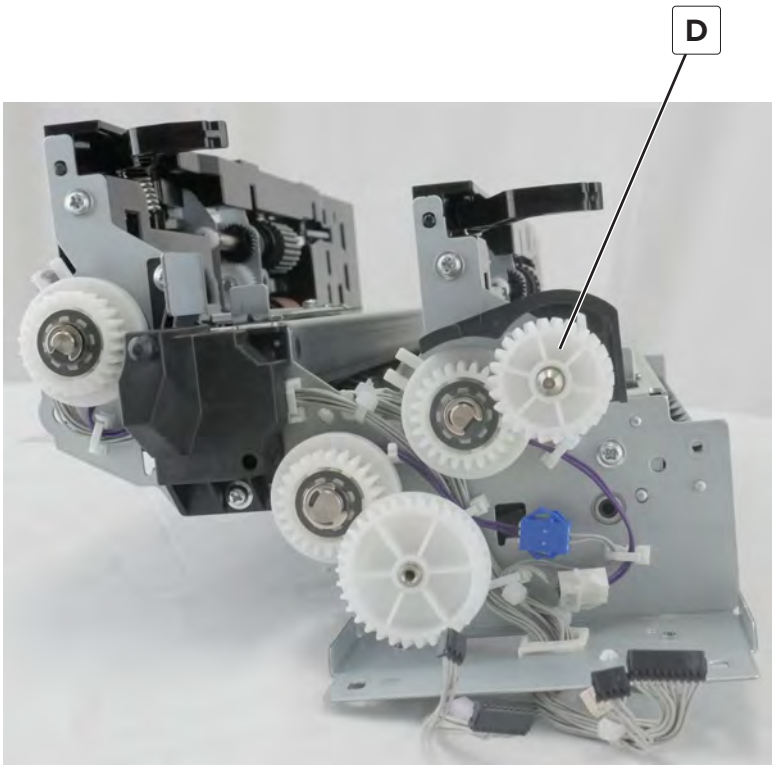
Tray 2 vertical transport clutch removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the two screws (A), remove the E-clip (B), and then remove the bracket (C).



3 Remove the clutch (D).



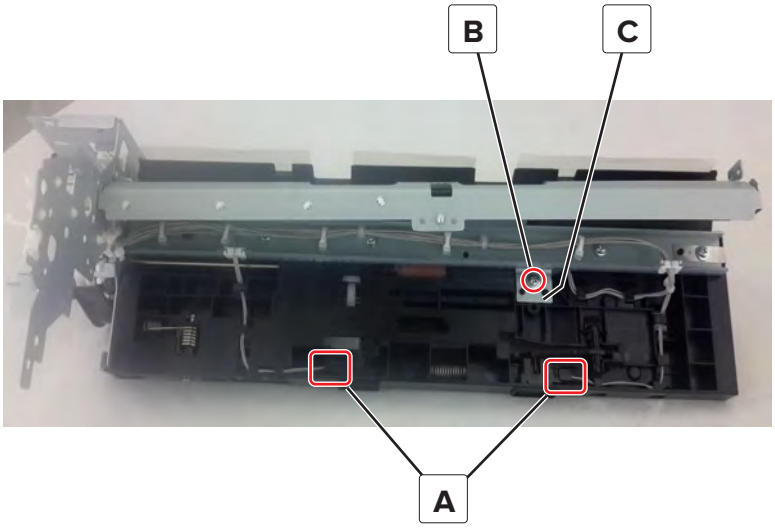
Tray 2 feed unit cable removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

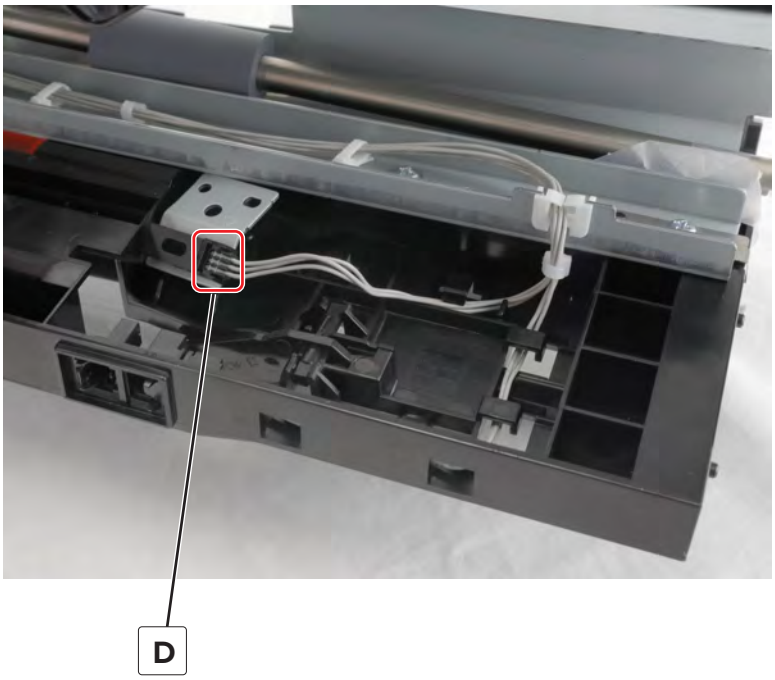
2 Remove the tray 1 feed unit. See **"Tray 1 feed unit removal" on page 679**.

3 Remove the tray 1 separator and transport guide assembly. See **"Tray 1 separator and transport guide assembly removal" on page 686**.

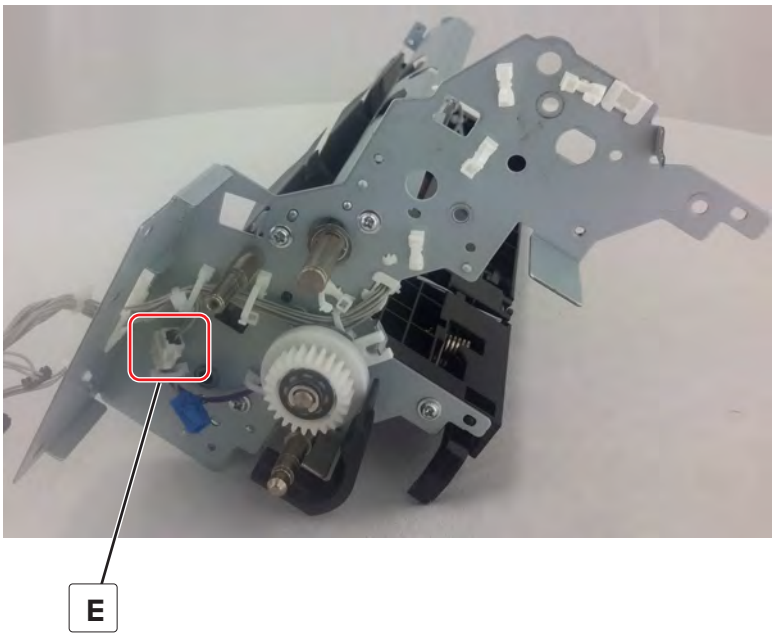
4 Disconnect the two cables (A), remove the screw (B), and then remove the bracket (C).



5 Disconnect the cable (D), and then remove the cable from the cable guides.



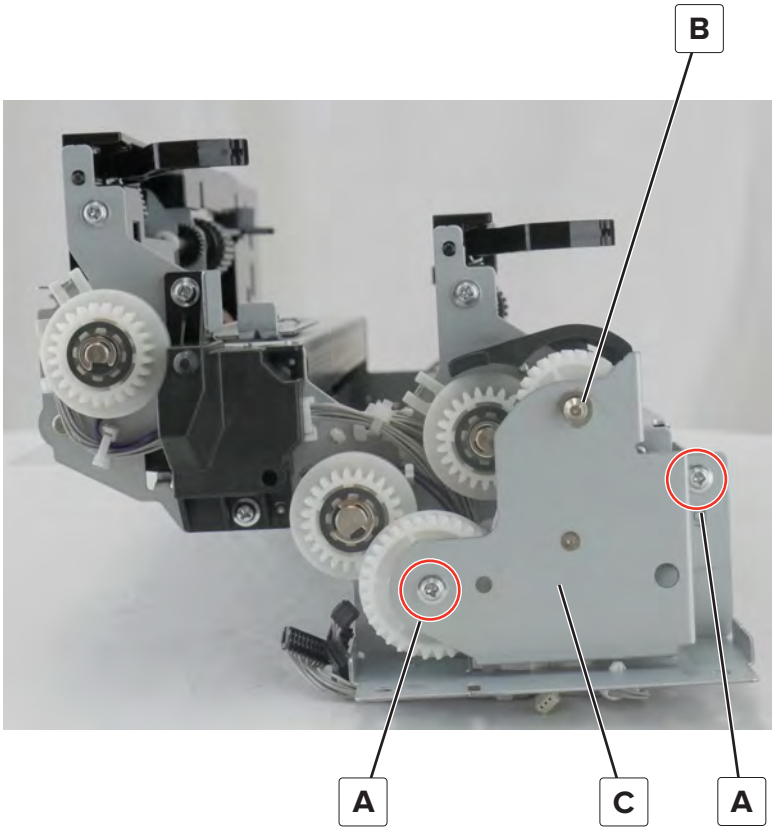
6 Disconnect the cable (E), and then remove the cable from the cable guides.



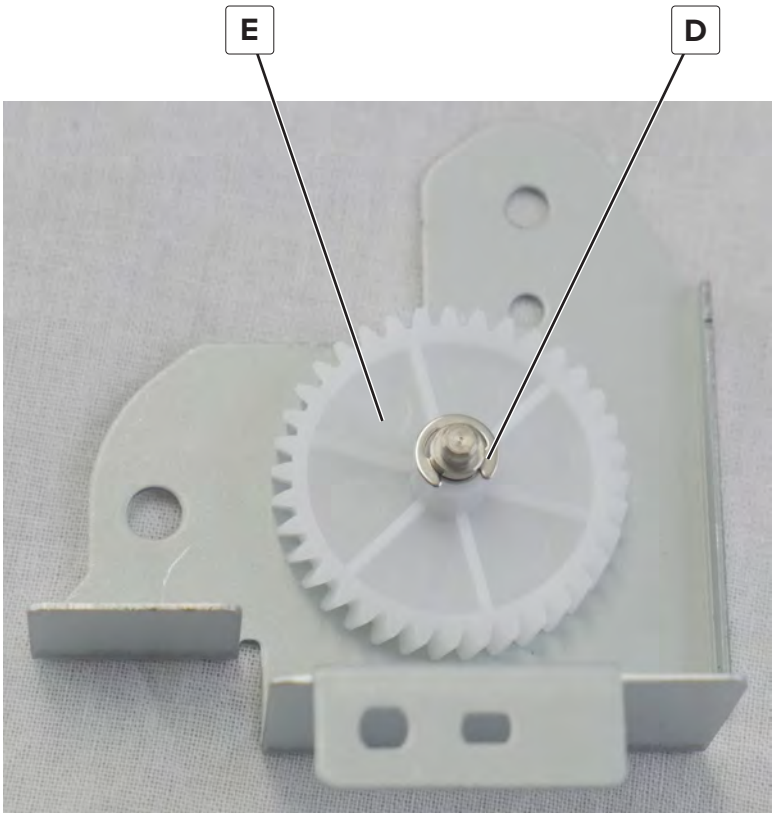
Tray 2 idler gear removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the two screws (A), remove the E-clip (B), and then remove the bracket (C).



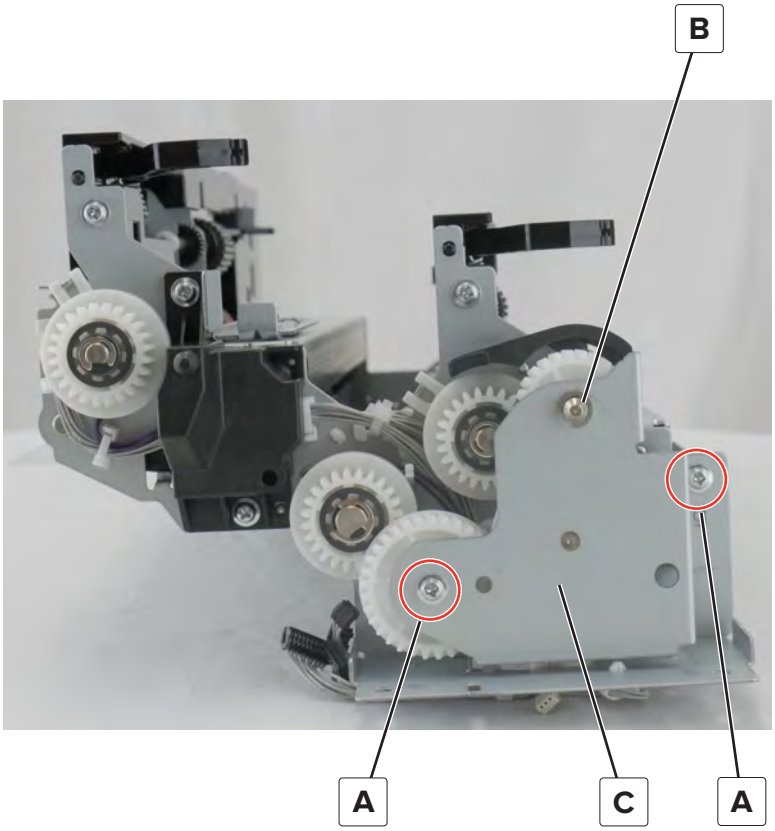
3 Remove the E-clip (D), and then remove the gear (E).



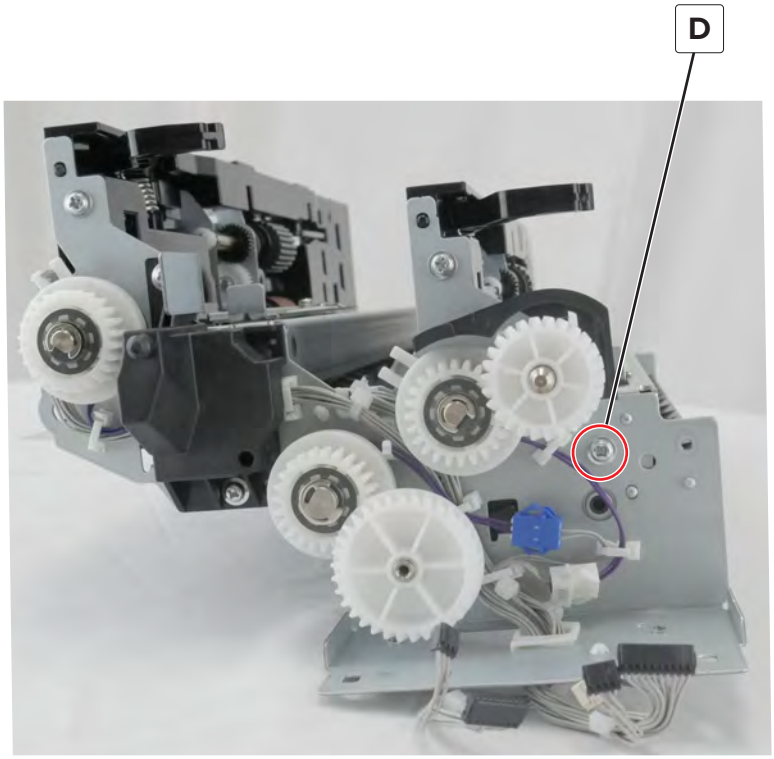
Tray 2 separator assembly removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

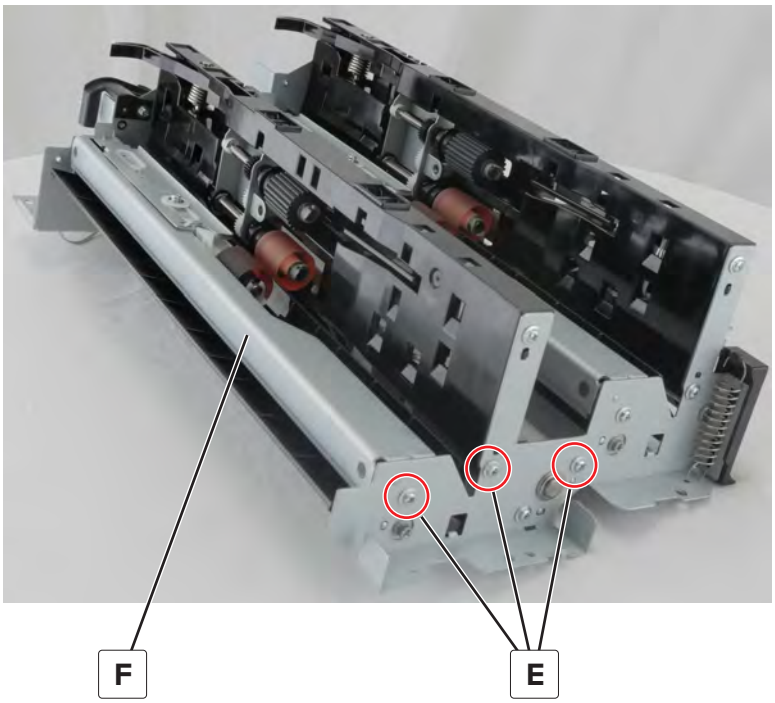
2 Remove the two screws (A), remove the E-clip (B), and then remove the bracket (C).



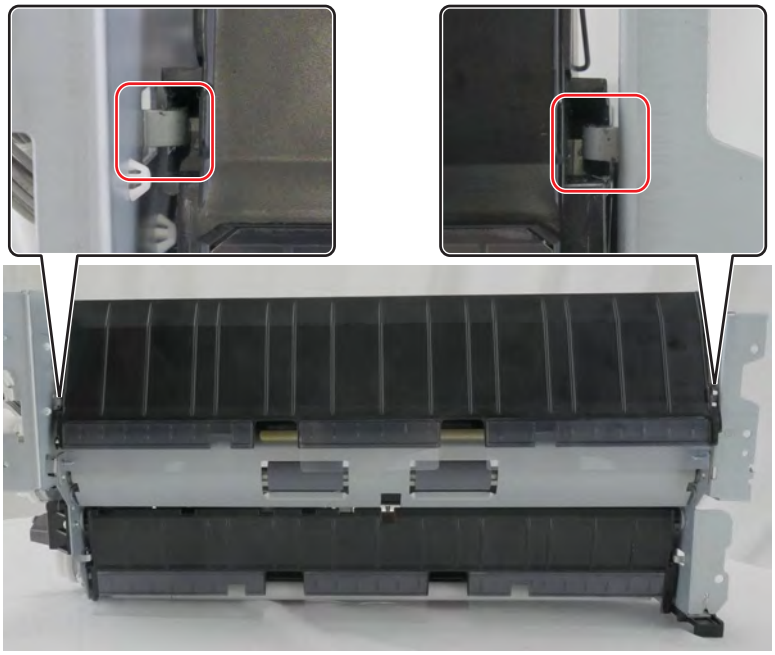
3 Remove the screw (D).



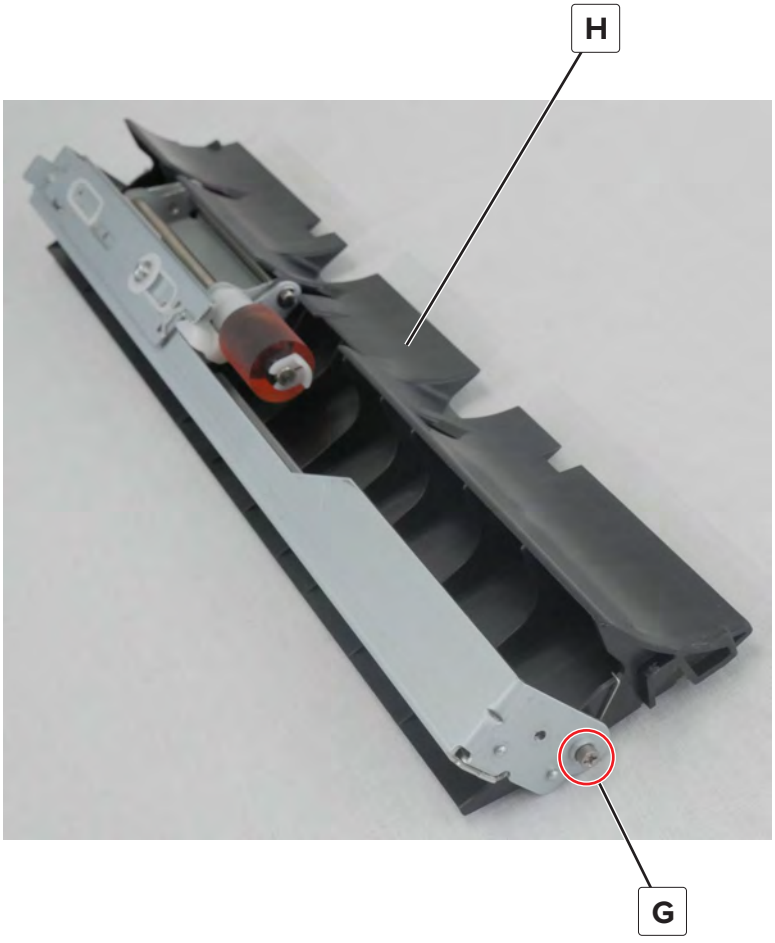
4 Remove the three screws (E), and then remove the transport guide (F).



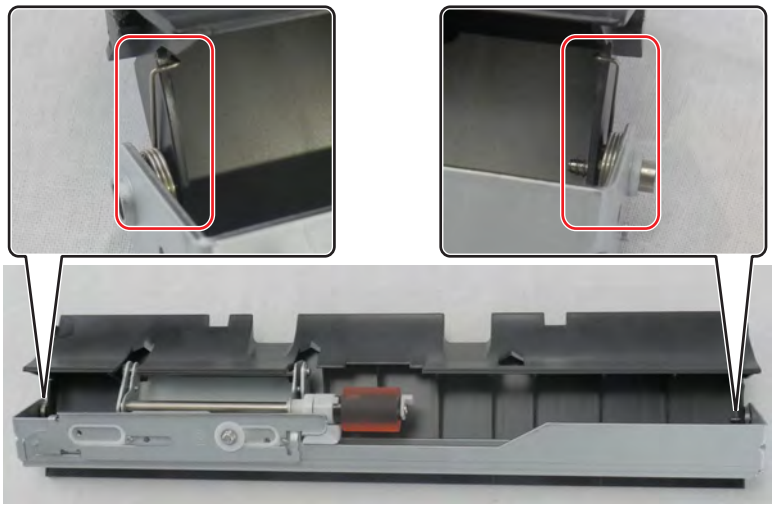
Installation note: Pay attention to the position of the two tabs on the feed guide.



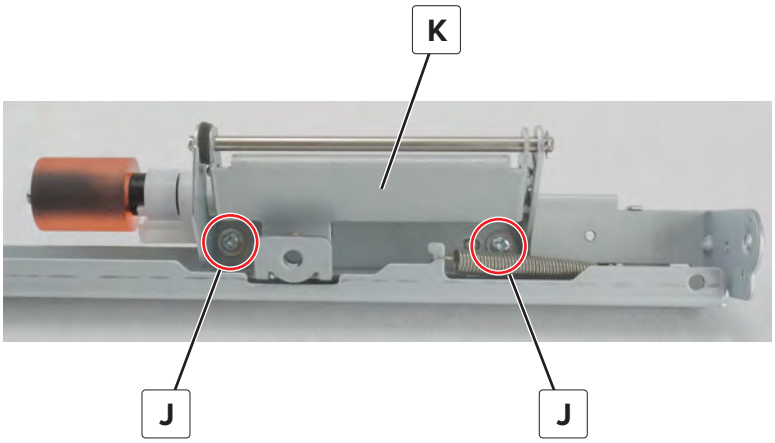
5 Remove the screw (G), and then remove the feed guide (H).



Installation note: Pay attention to the position of the two springs.



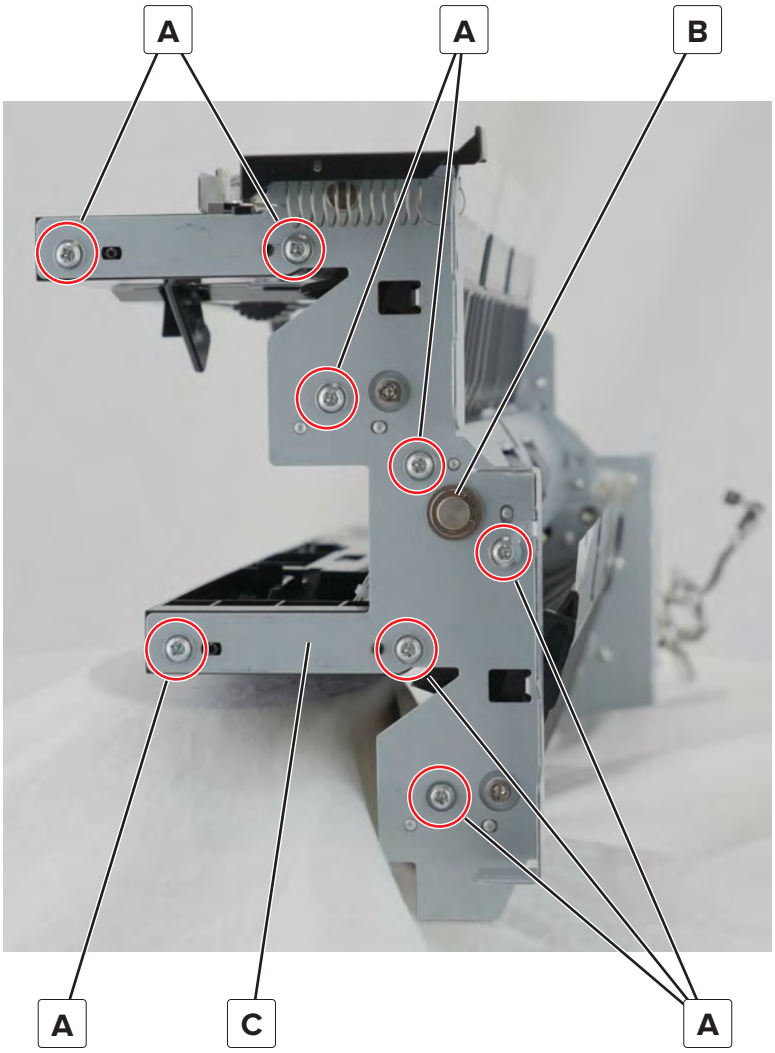
6 Remove the two screws (J), and then remove the separator assembly (K).



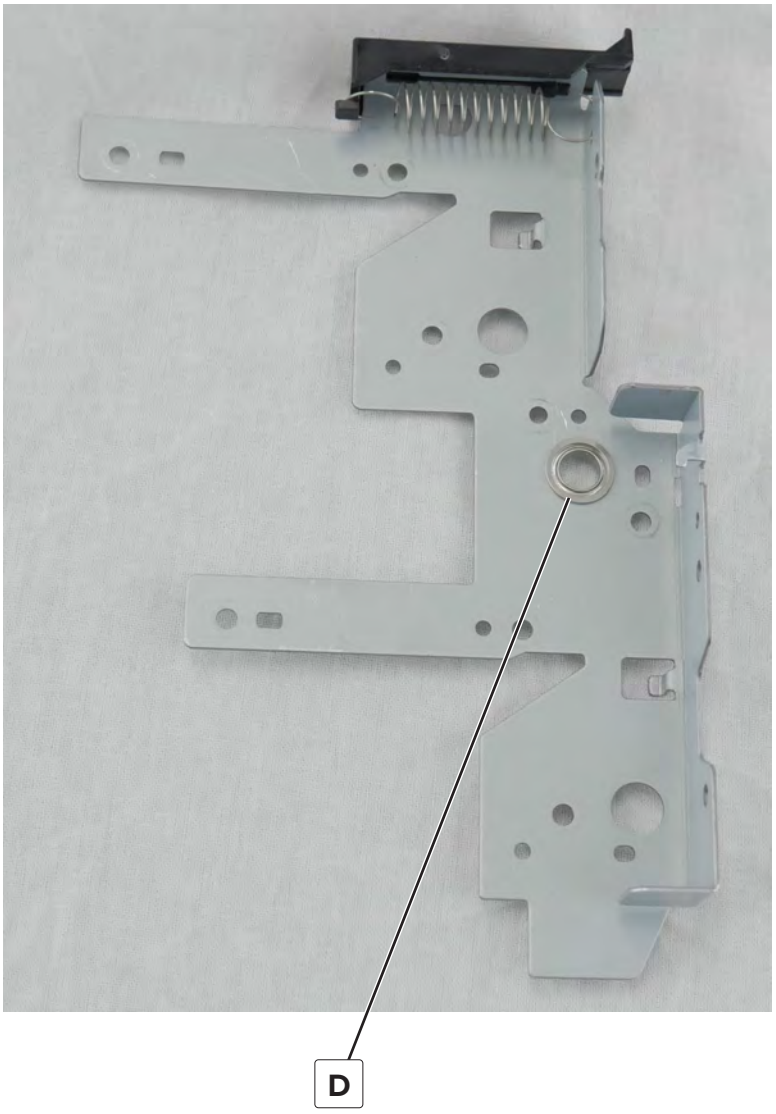
Tray 2 transfer roller removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the eight screws (A), remove the E-clip (B), and then remove the bracket (C).



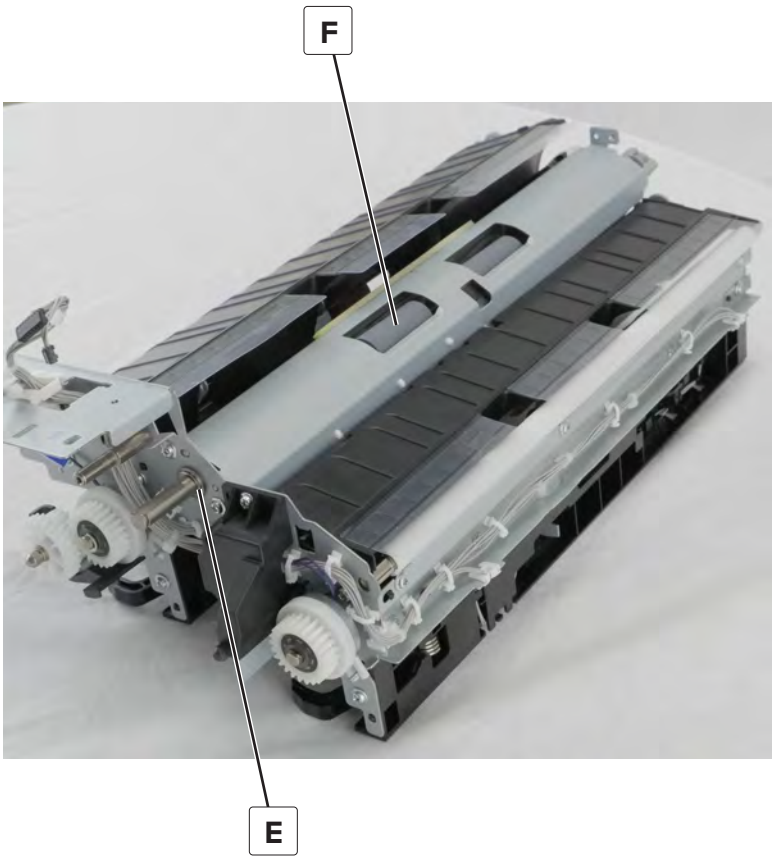
Warning—Potential Damage: Do not lose the bushing (D).



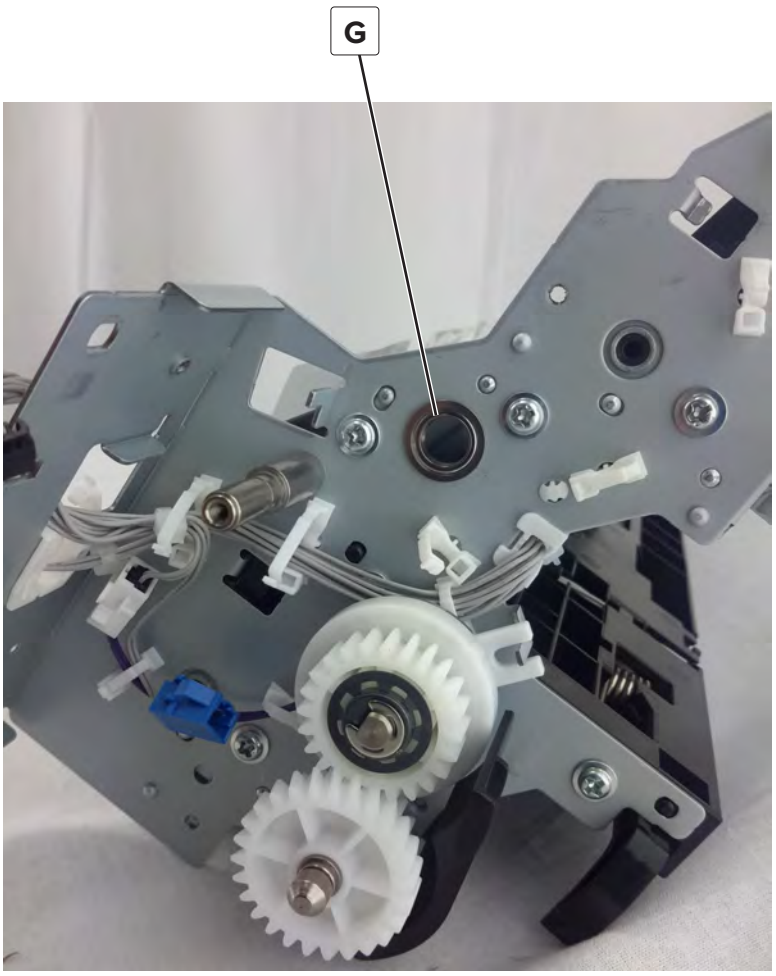
3 Remove the tray 2 transport gear. See **“Tray 2 transport gear removal” on page 711**.

4 Remove the tray 2 transport clutch. See **“Tray 2 transport clutch removal” on page 709**.

5 Remove the E-clip (E), and then remove the roller (F).



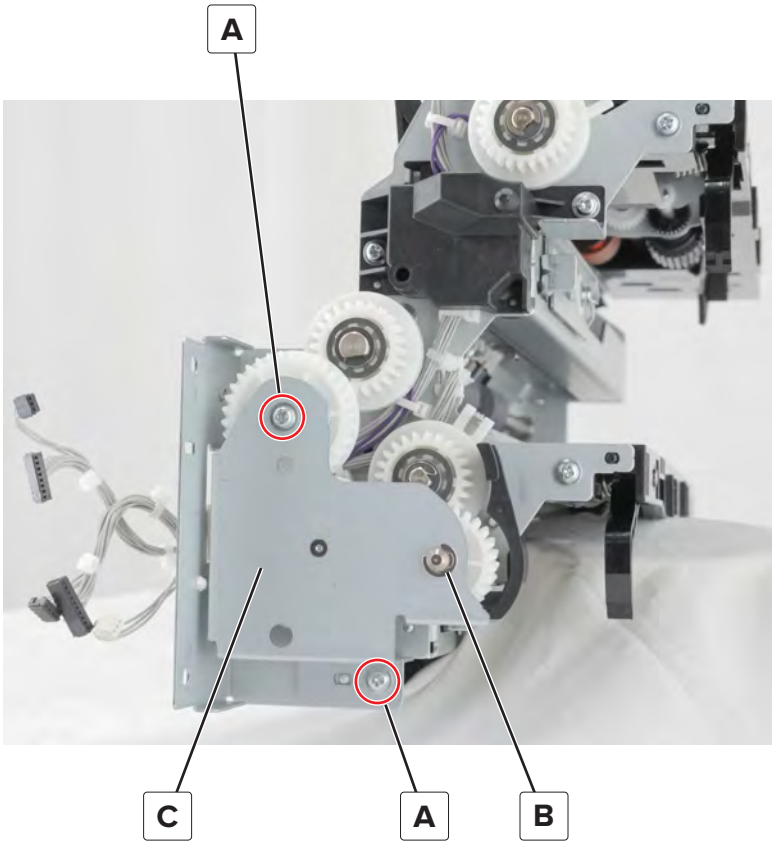
Warning—Potential Damage: Do not lose the bushing (G).


G

Tray 2 transport clutch removal

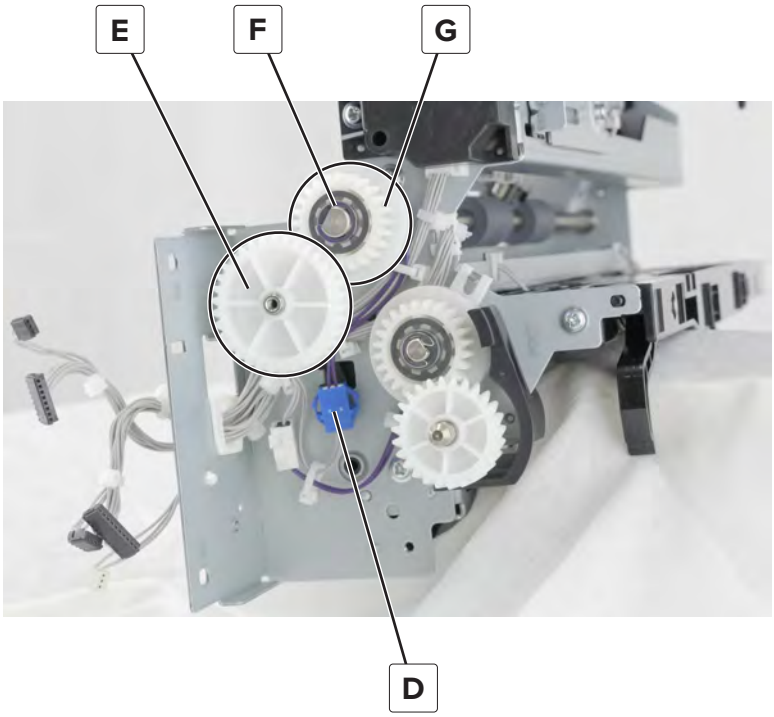
1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the two screws (A), remove the E-clip (B), and then remove the bracket (C).



3 Disconnect the cable (D), and then remove the gear (E).

4 Remove the E-clip (F), and then remove the clutch (G).

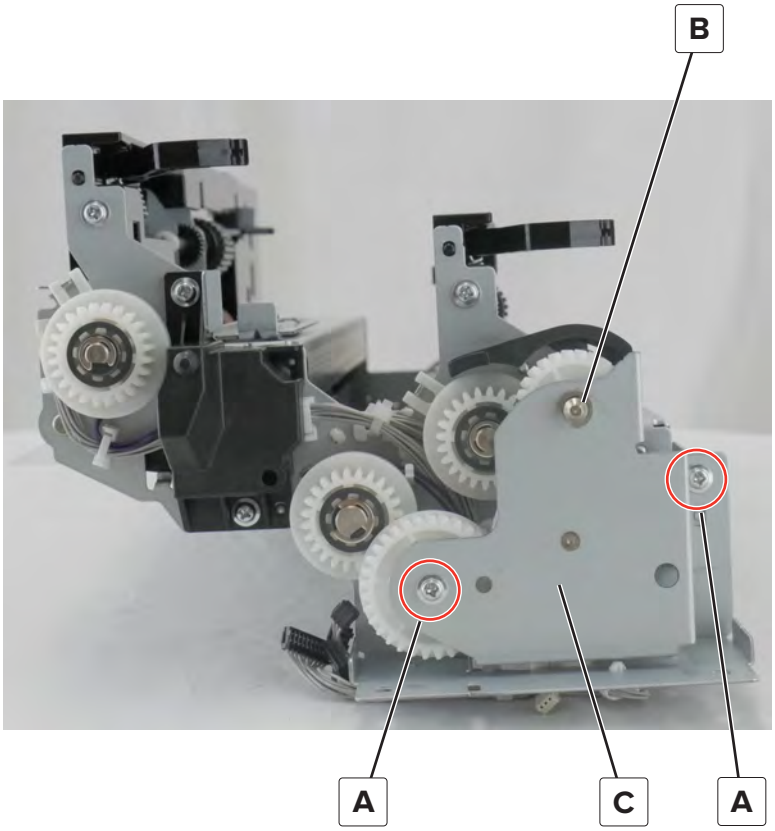


Installation note: Pay attention to the position of the tab locator on the clutch.

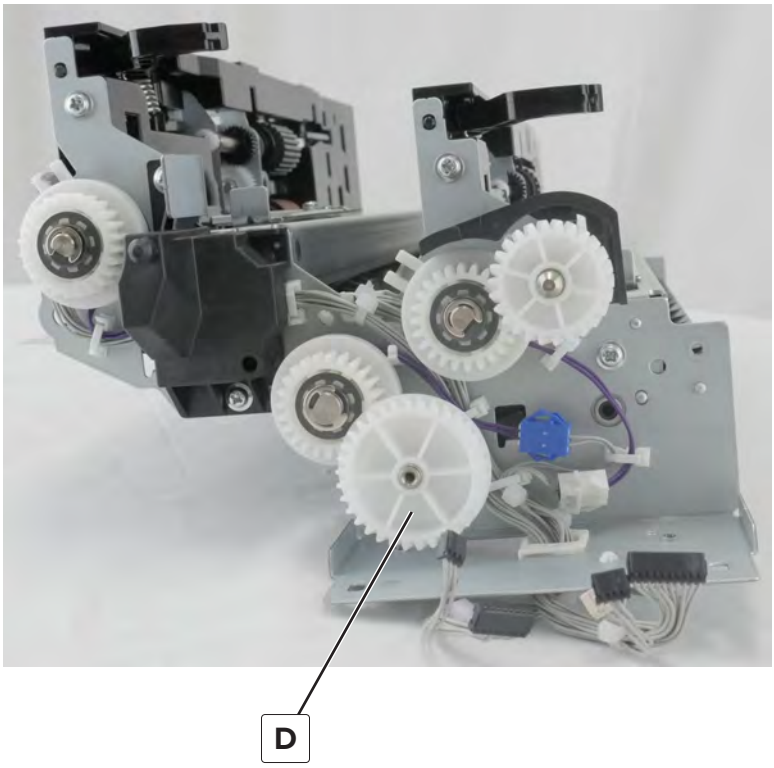
Tray 2 transport gear removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the two screws (A), remove the E-clip (B), and then remove the bracket (C).



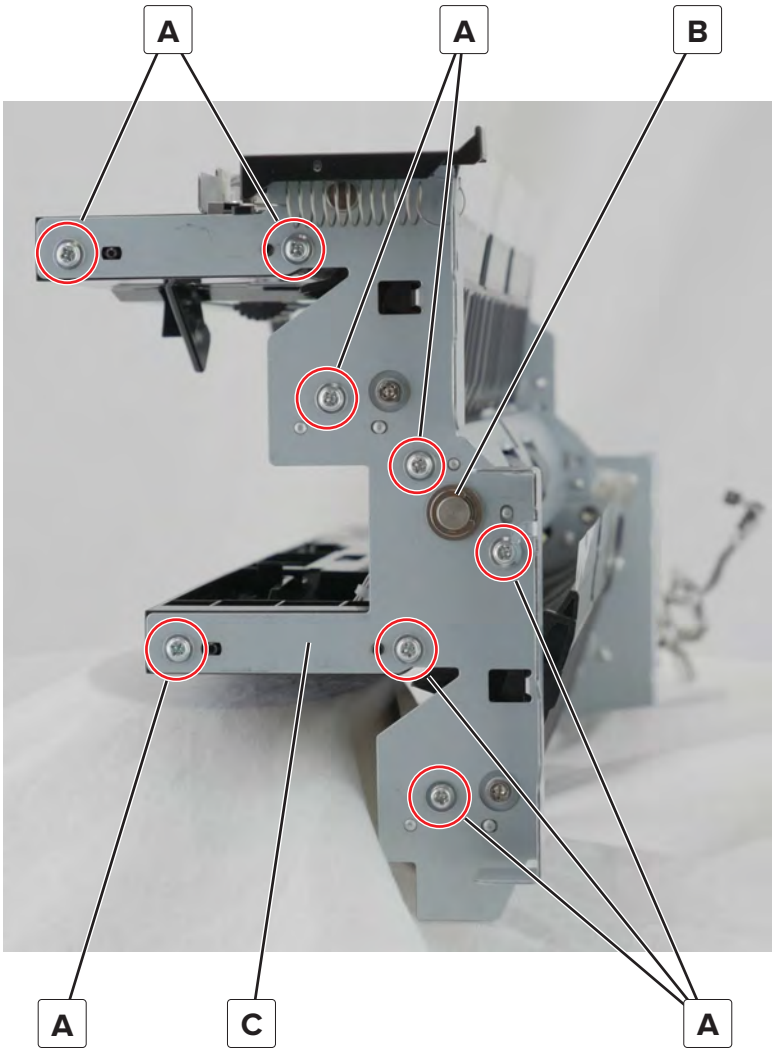
3 Remove the gear (D).



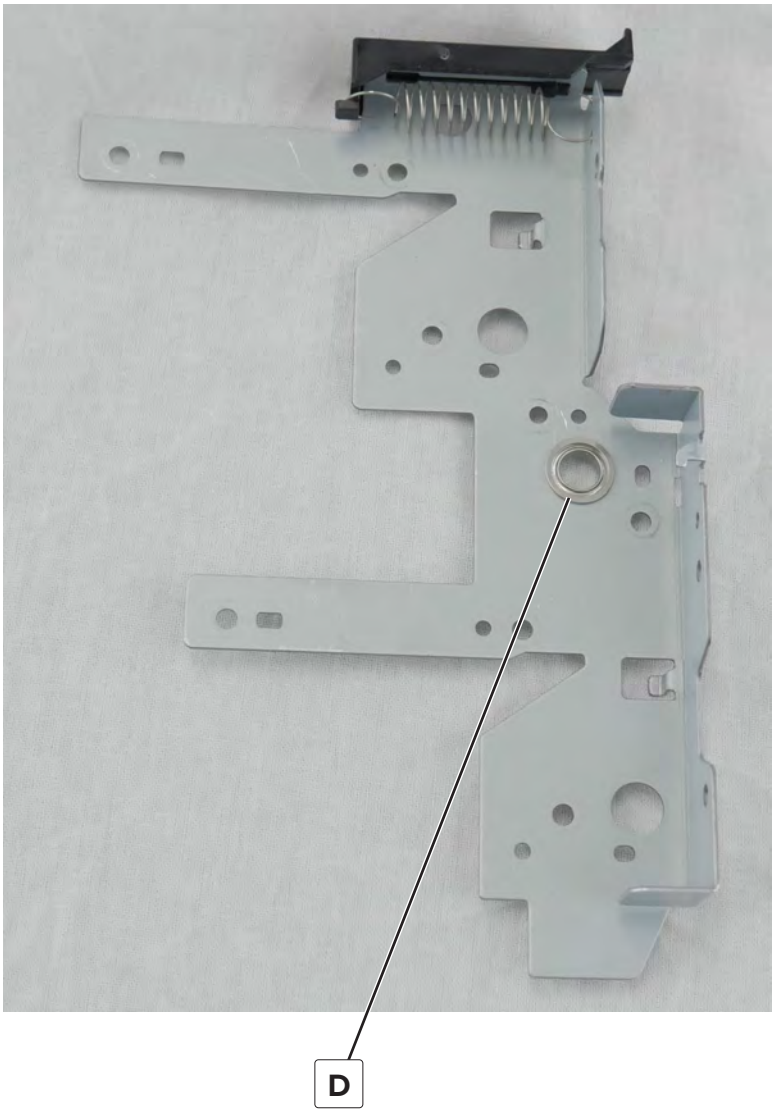
Tray 2 transport sensor cable removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

2 Remove the eight screws (A), remove the E-clip (B), and then remove the bracket (C).



Warning—Potential Damage: Do not lose the bushing (D).



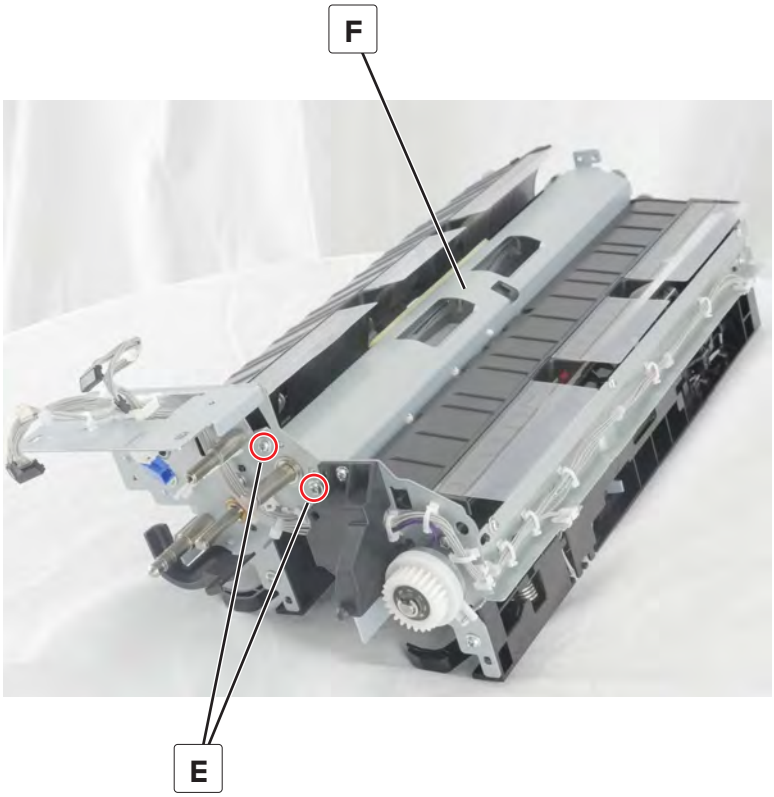
3 Remove the tray 2 transport gear. See **“Tray 2 transport gear removal” on page 711**.

4 Remove the tray 2 feed gear. See **“Tray 2 vertical transport clutch removal” on page 696**.

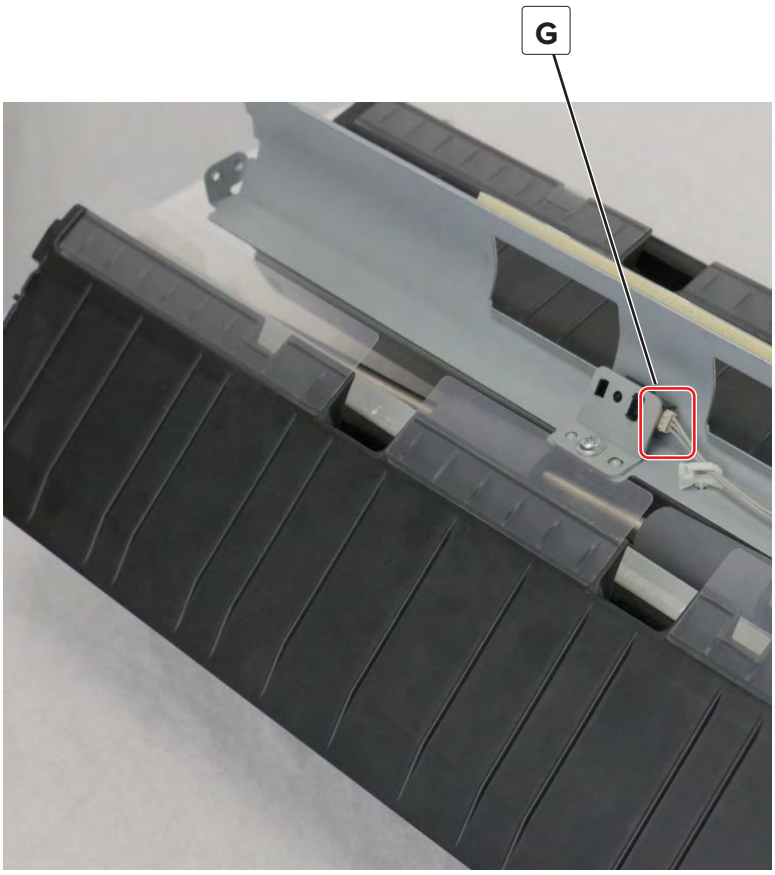
5 Remove the tray 2 transport clutch. See **“Tray 2 transport clutch removal” on page 709**.

6 Remove the tray 2 feed clutch. See **“Tray 2 feed clutch removal” on page 694**.

7 Remove the two screws (E), and then turn over the bracket (F).



8 Disconnect the cable (G), and then remove the cable from the cable guides.



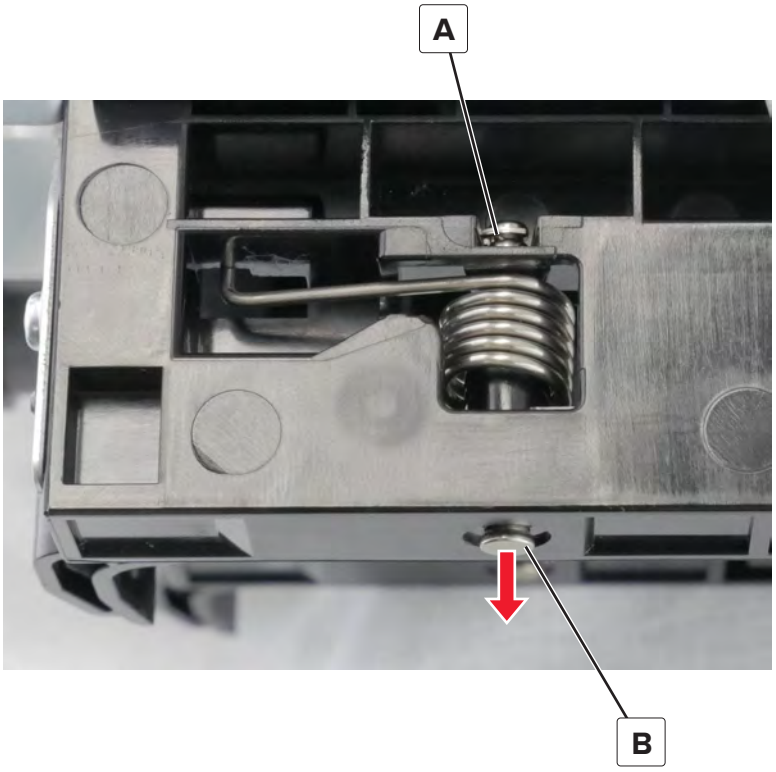
Tray 2 tray set actuator removal

1 Remove the tray 1 and 2 paper feed unit. See **"Tray 1 and 2 paper feed unit removal" on page 431**.

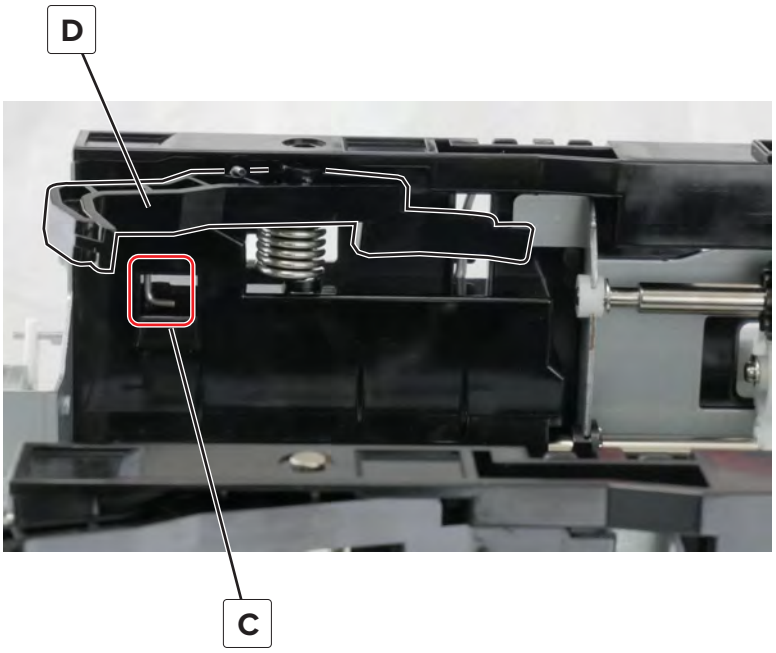
2 Remove the tray 1 feed unit. See **"Tray 1 feed unit removal" on page 679**.

3 Remove the tray 1 separator and transport guide assembly. See **"Tray 1 separator and transport guide assembly removal" on page 686**.

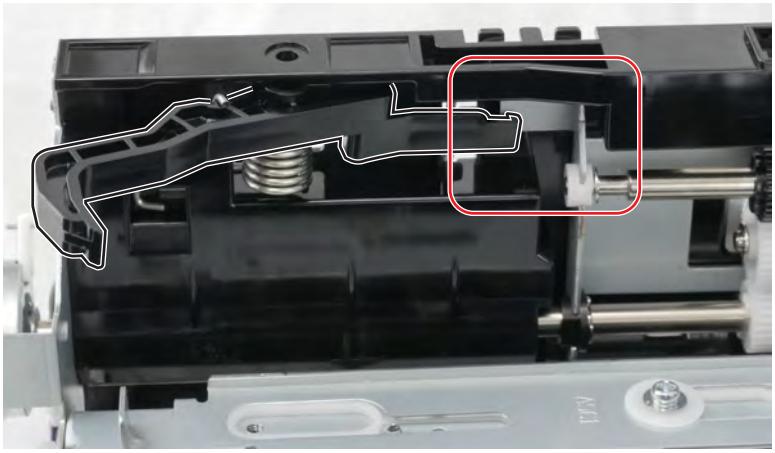
4 Remove the E-clip (A), and then remove the shaft (B).



5 Unhook the spring (C), and then remove the actuator (D).

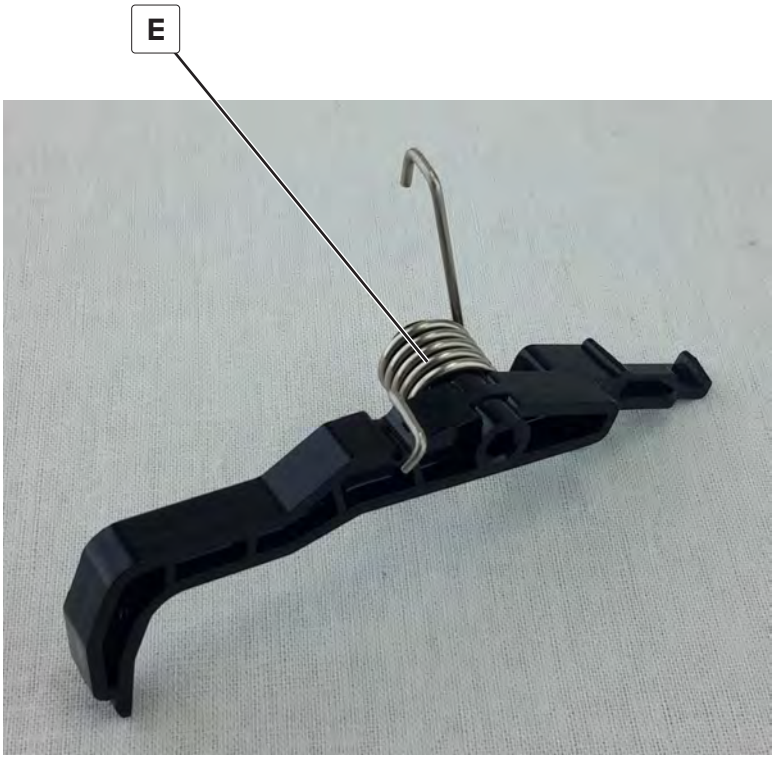


Installation note: Pay attention to the position of the actuator.



6 Remove the spring (E).

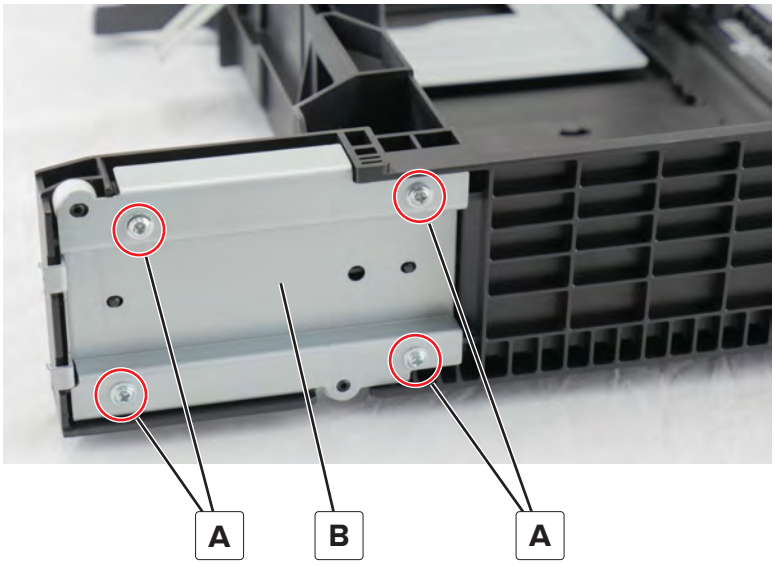
Installation note: Pay attention to the position of the spring.



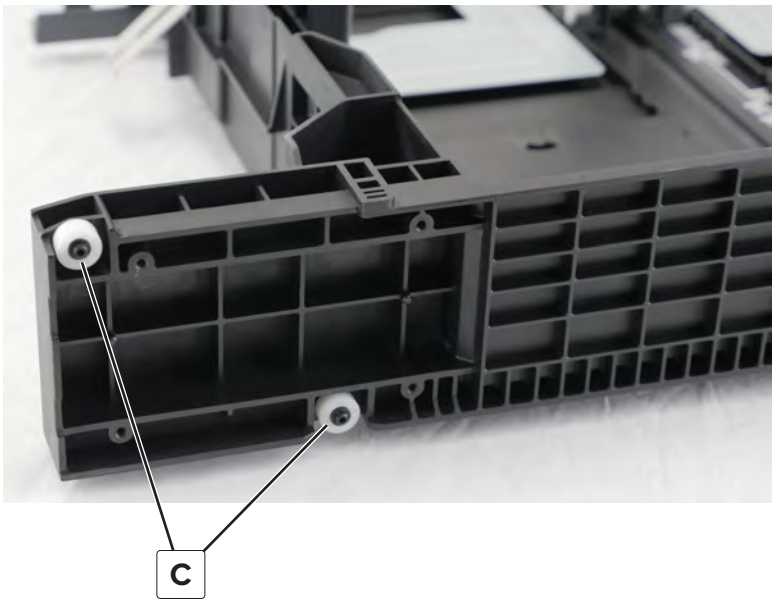
Tray insert guide wheels removal

1 Remove the tray insert. See **“Tray insert removal” on page 511**.

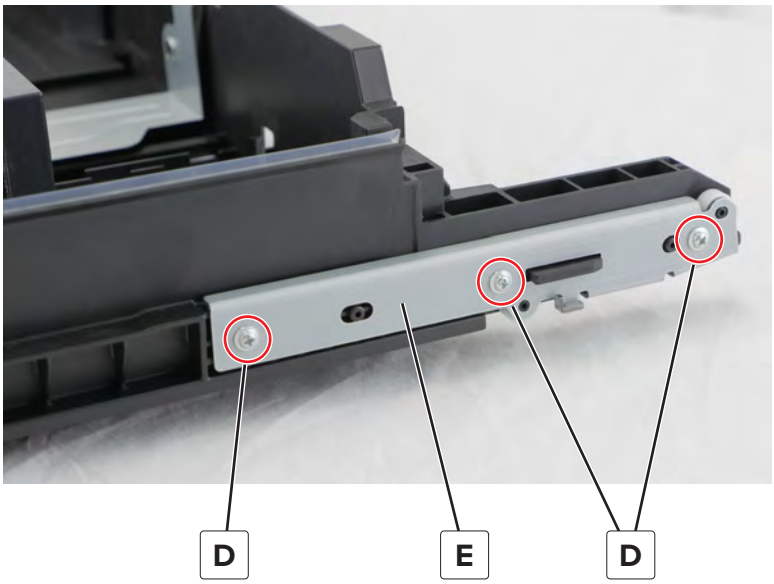
2 Remove the four screws (A), and then remove the bracket (B).



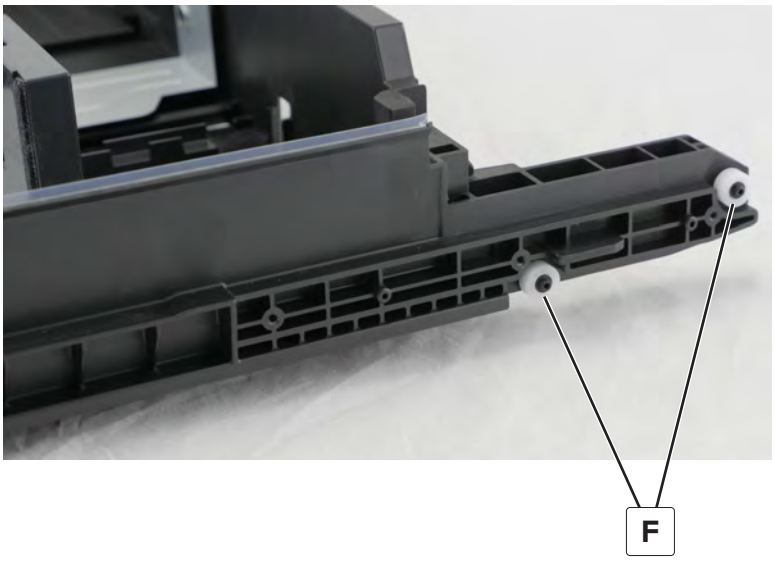
3 Remove the two rollers (C).



4 Remove the three screws (D), and then remove the bracket (E).



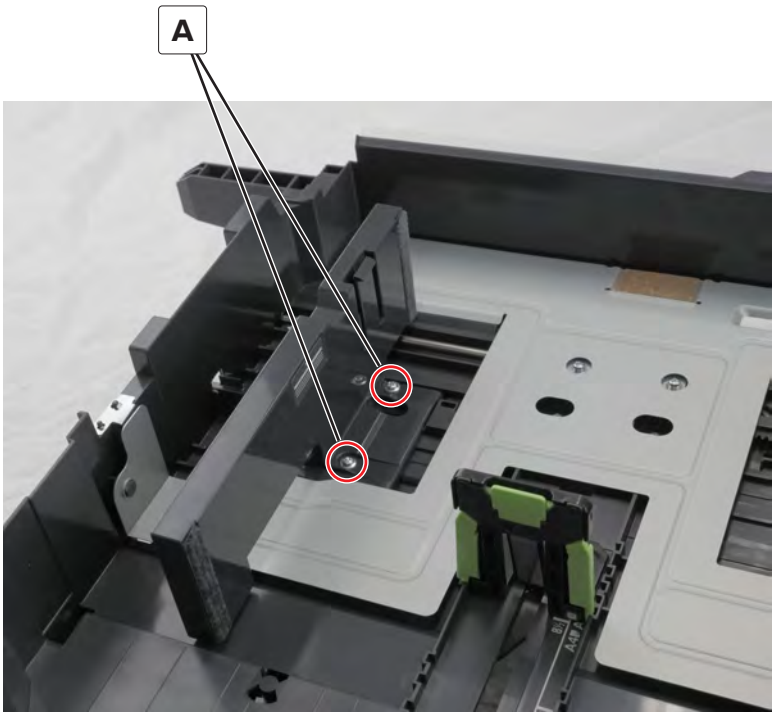
5 Remove the two rollers (F).



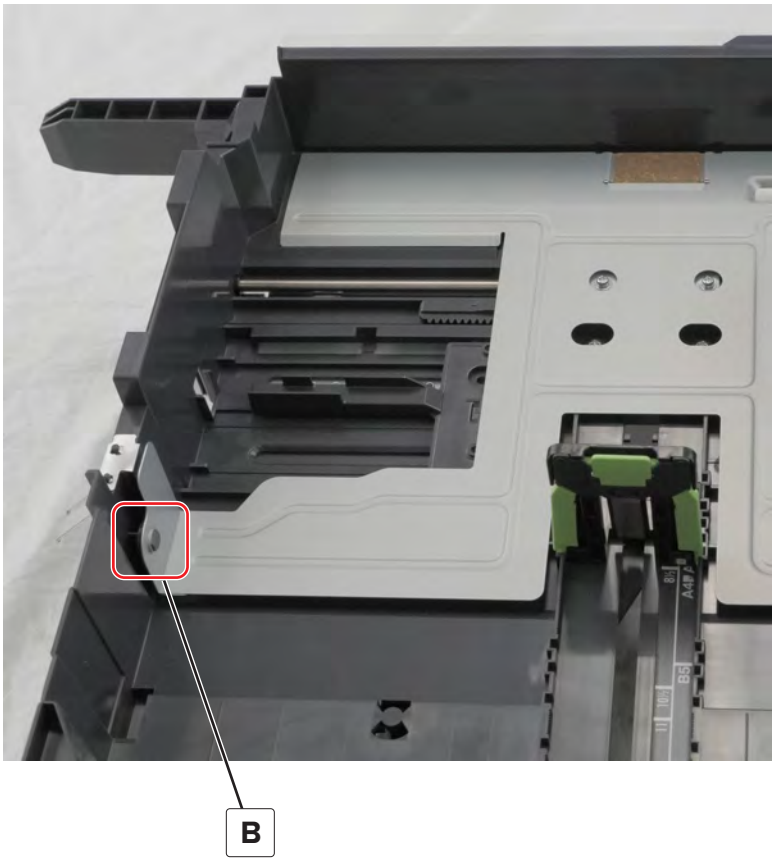
Tray near empty sensor actuator removal

1 Remove the tray insert. See **“Tray insert removal” on page 511**.

2 Remove the two screws (A), and then remove the guide.

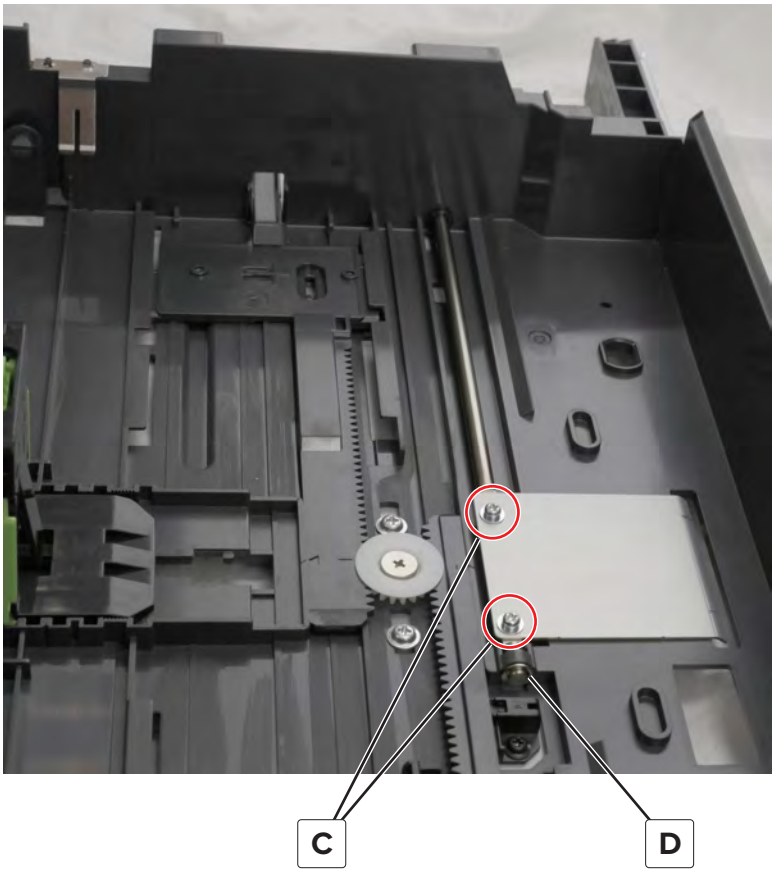


3 Release the hinge (B), and then remove the plate.



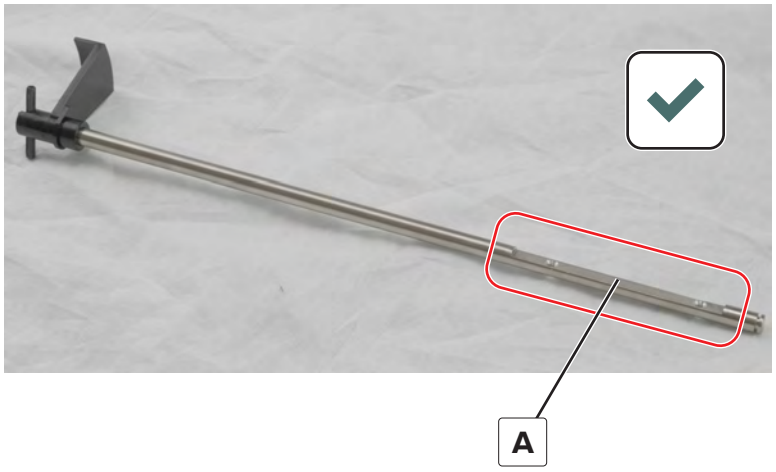
4 Remove the two screws (C), and then remove the plate.

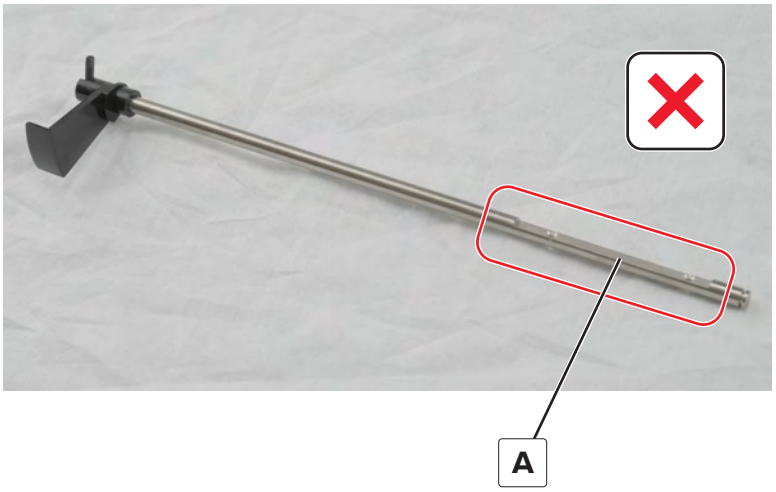
5 Remove the E-clip (D), and then remove the shaft.



6 Remove the actuator.

Installation note: Install the actuator as shown. Take note of the position of the actuator and the flat section (A) of the shaft.





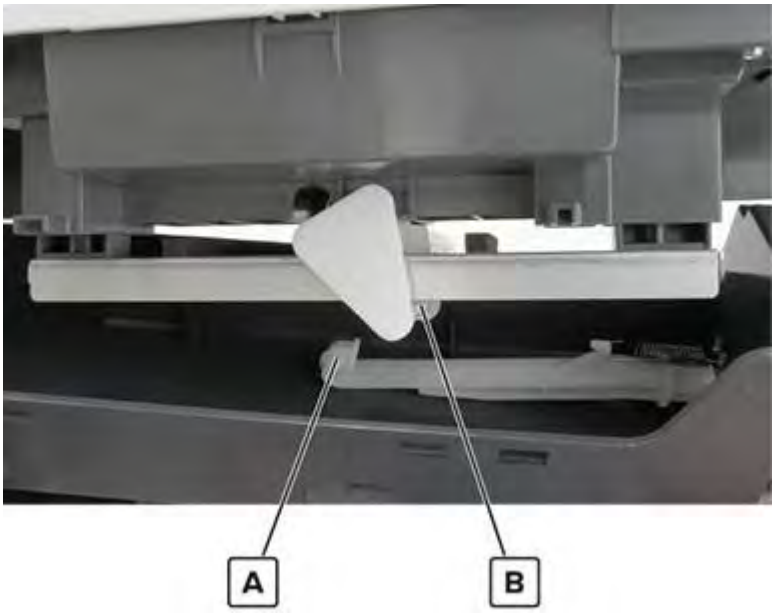
Tray lock removal

1 Remove the tray insert. See **“Tray insert removal” on page 511**.

2 Under the tray, remove the two screws (A).

3 Press and hold the lock, release the tabs, and then remove the cover.

Installation note: Make sure that the lock hook (A) is fastened to the bar (B).

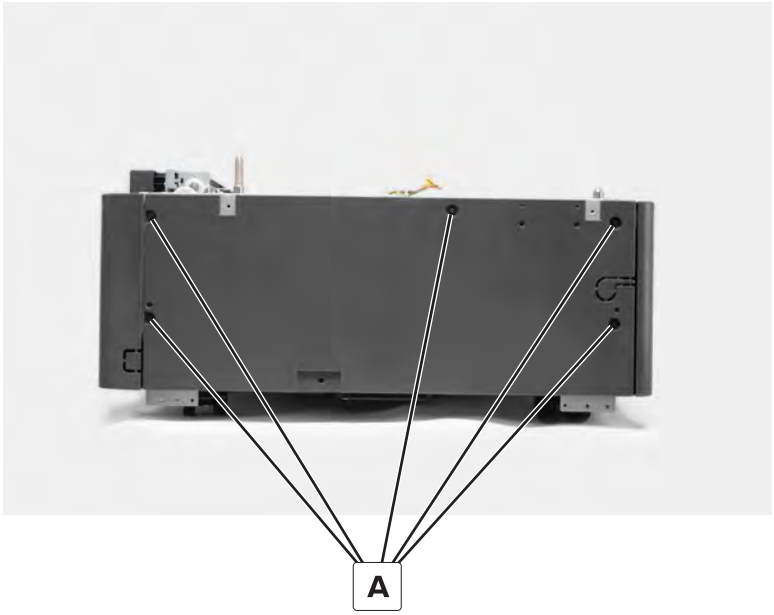


4 Unhook the spring from the lock, and then remove the lock.

2500-sheet tray removals

2500-sheet tray rear cover removal

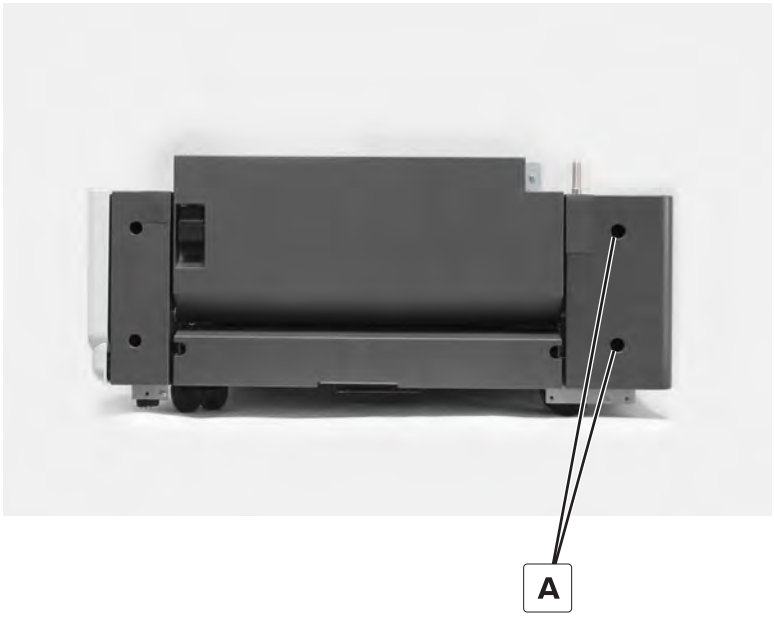
1 Remove the five screws (A).



2 Remove the cover.

2500-sheet tray rear right cover removal

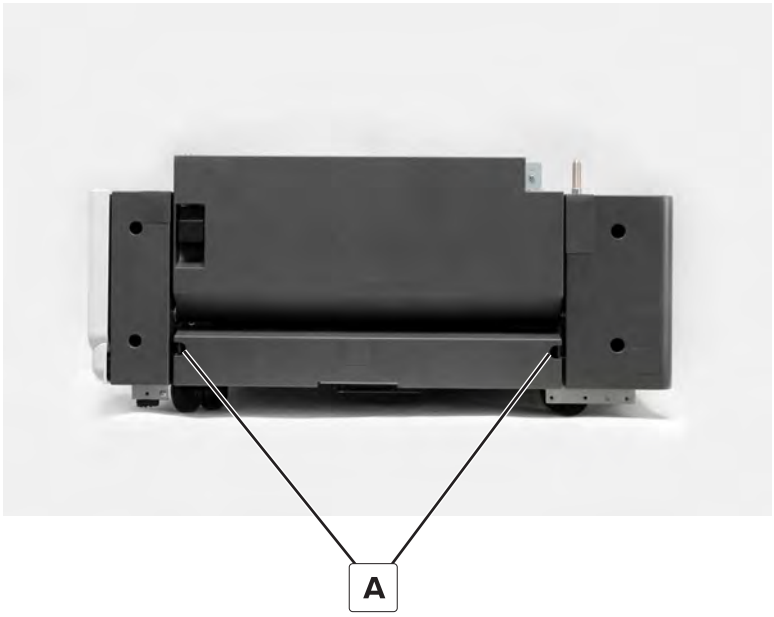
1 Remove the two screws (A).



2 Remove the cover.

2500-sheet tray lower right cover removal

1 Remove the two screws (A).

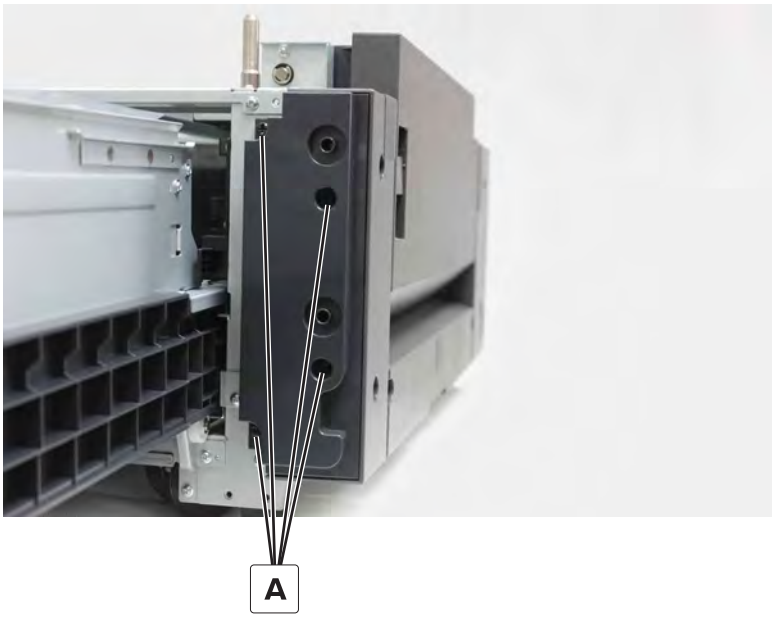


2 Remove the cover.

2500-sheet tray LED cover removal

1 Open the tray.

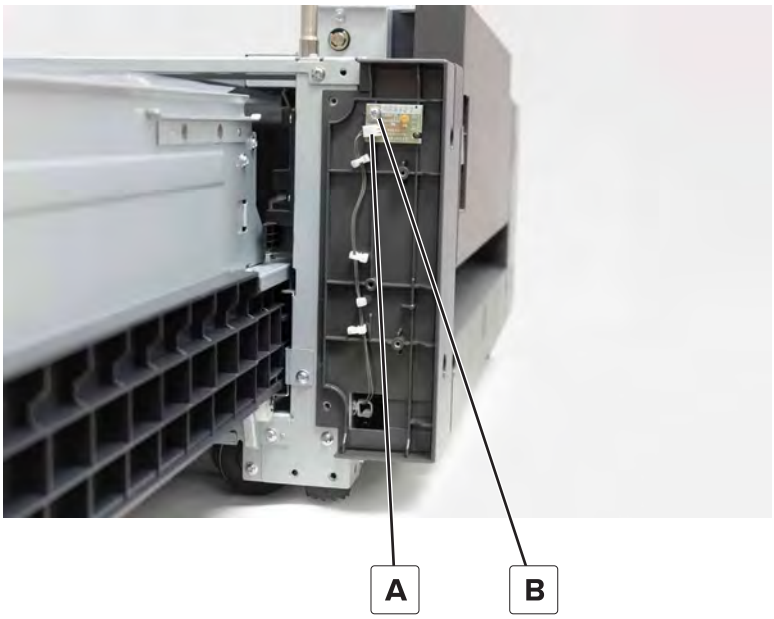
2 Remove the four screws (A), and then remove the cover.



2500-sheet tray empty LED removal

1 Remove the 2500-sheet tray LED cover. See **"2500-sheet tray LED cover removal" on page 727**.

2 Disconnect the cable (A), and then remove the screw (B).

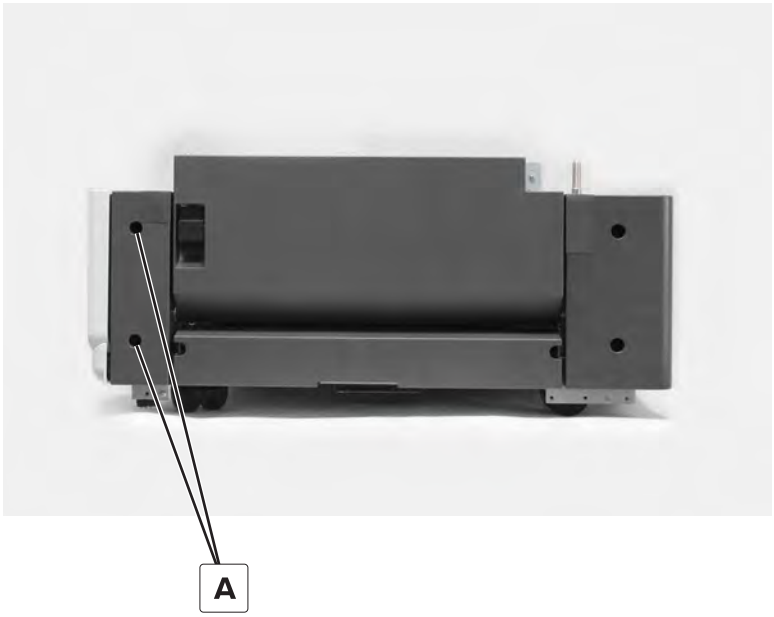


3 Remove the LED.

2500-sheet tray front right cover removal

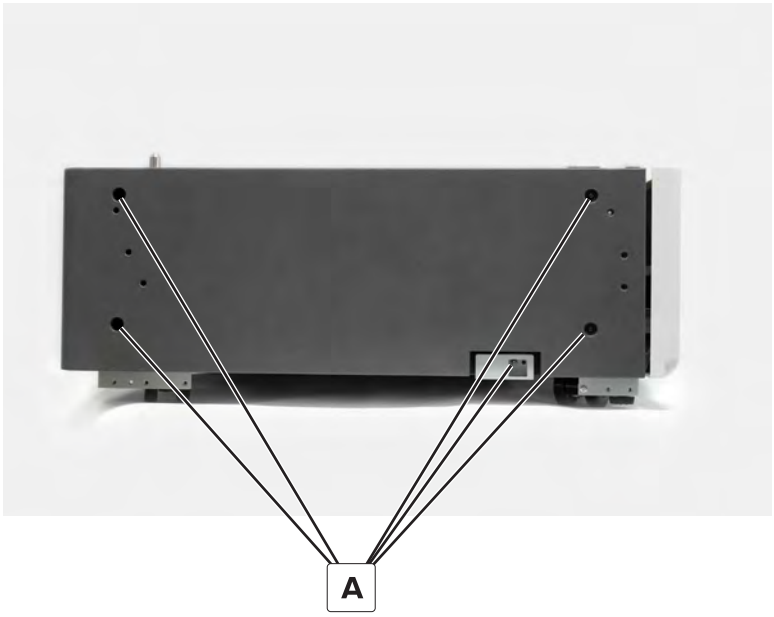
1 Remove the 2500-sheet tray LED cover. See **"2500-sheet tray LED cover removal" on page 727**.

2 Remove the two screws (A), and then remove the cover.



2500-sheet tray left cover removal

1 Remove the five screws (A).

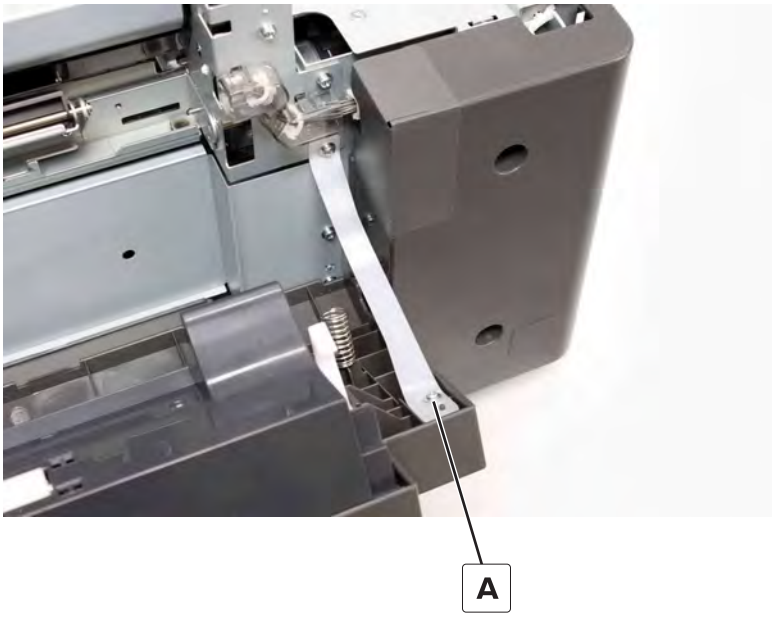


2 Remove the cover.

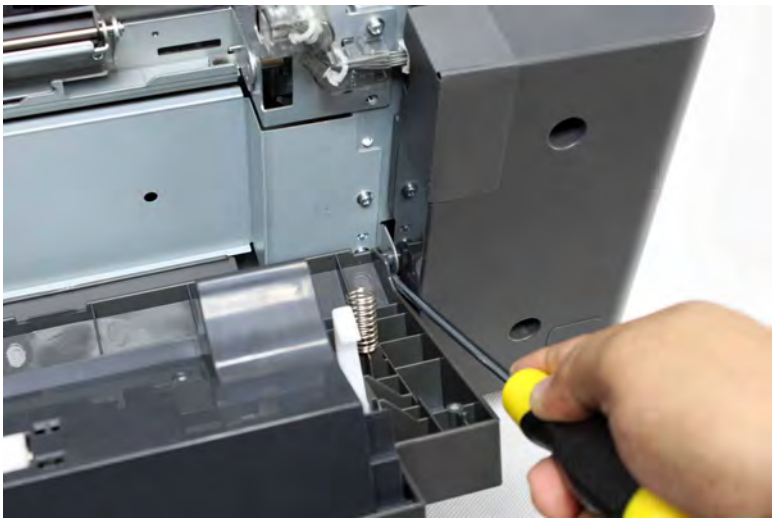
2500-sheet tray jam access cover removal

1 Open the jam access cover.

2 Remove the screw (A).



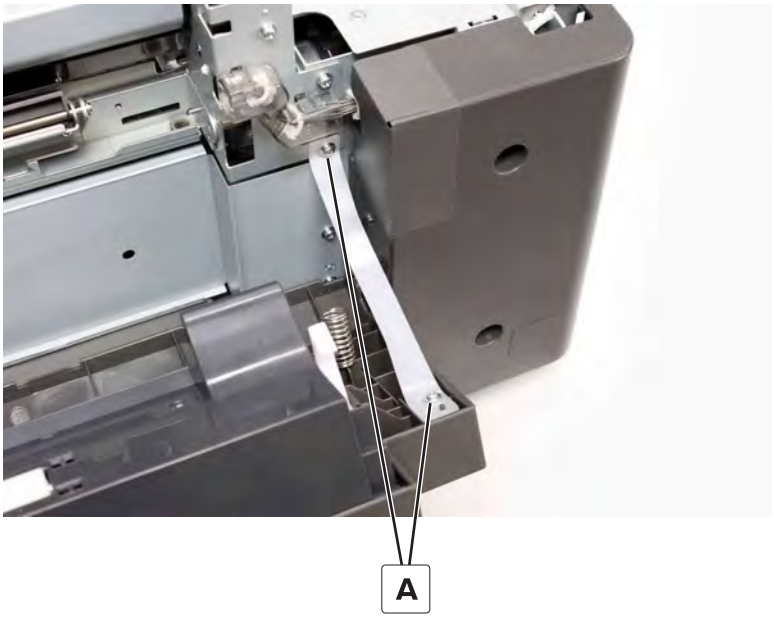
3 Pry the right hinge to release, and then remove the cover.



2500-sheet tray jam access door strap removal

1 Open the jam access cover.

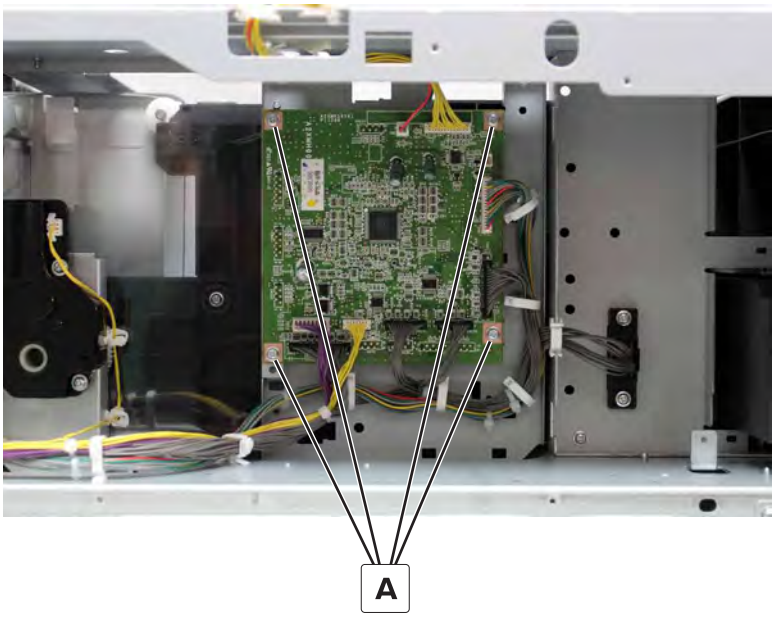
2 Remove the two screws (A), and then remove the strap.



2500-sheet tray controller board removal

1 Remove the tray rear cover. See **"2500-sheet tray rear cover removal" on page 726**.

2 Disconnect the cables, and then remove the four screws (A).

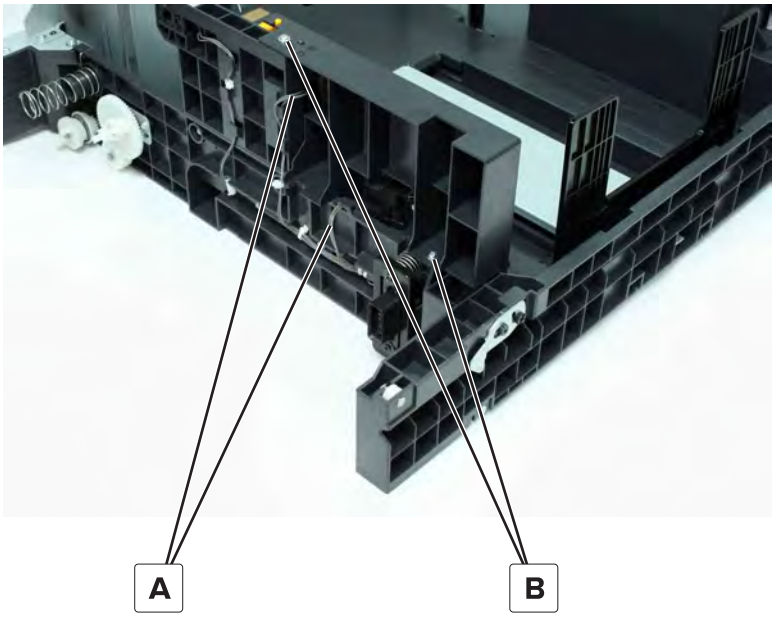


3 Remove the controller board.

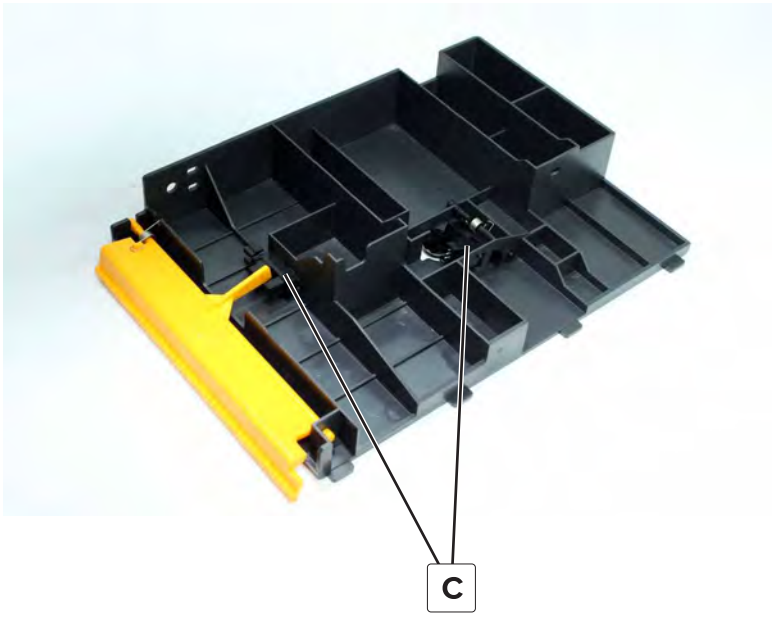
2500-sheet tray division board removal

1 Remove the tray insert.

2 Disconnect the two cables (A), and then remove the two screws (B).



3 Remove the division board, and then remove the sensors (C).



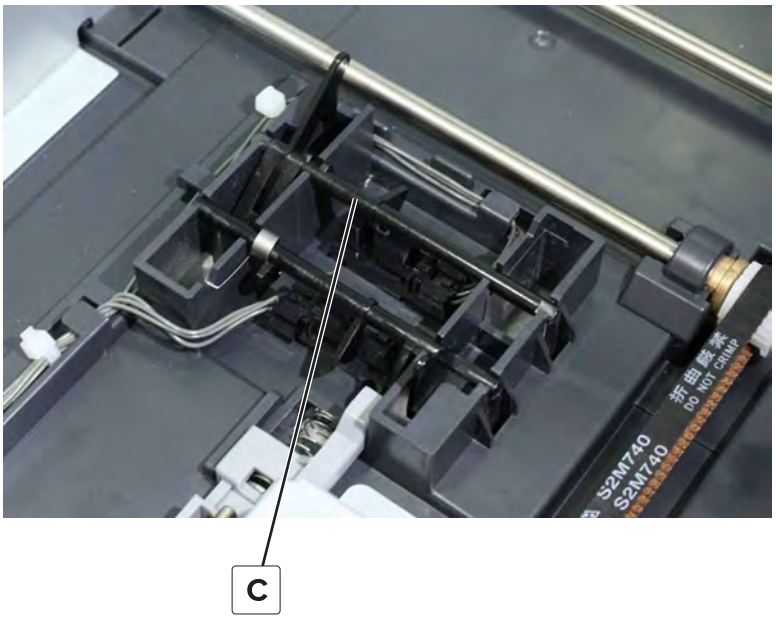
Installation note: Install the sensors on the new division board.

2500-sheet tray main tray empty sensor bottom actuator removal

1 Remove the tray insert.

2 Slightly raise the main tray.

3 Remove the actuator (C).



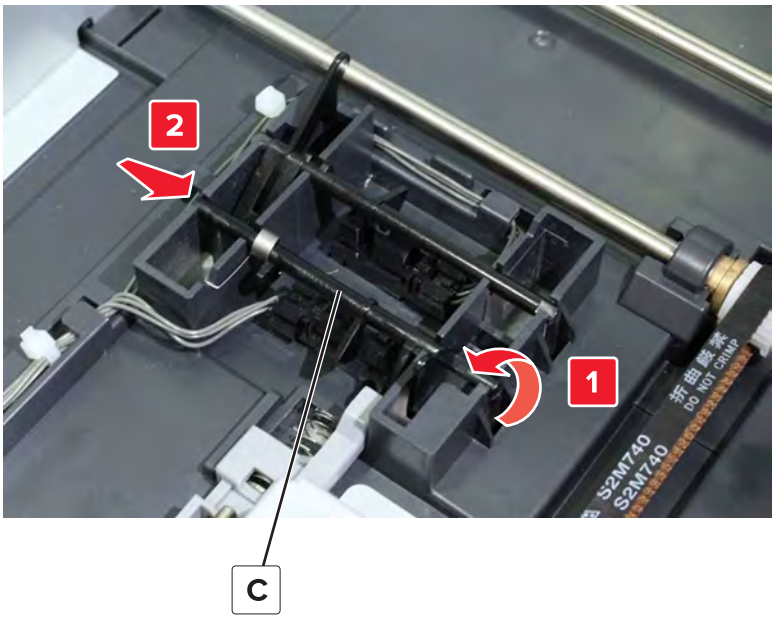
2500-sheet tray elevator home sensor actuator removal

1 Remove the tray insert.

2 Slightly raise the main tray.

3 Rotate the actuator (C) until it is in the upright position, and then slide out to remove.

Note: Take note of the position of the spring on the actuator.



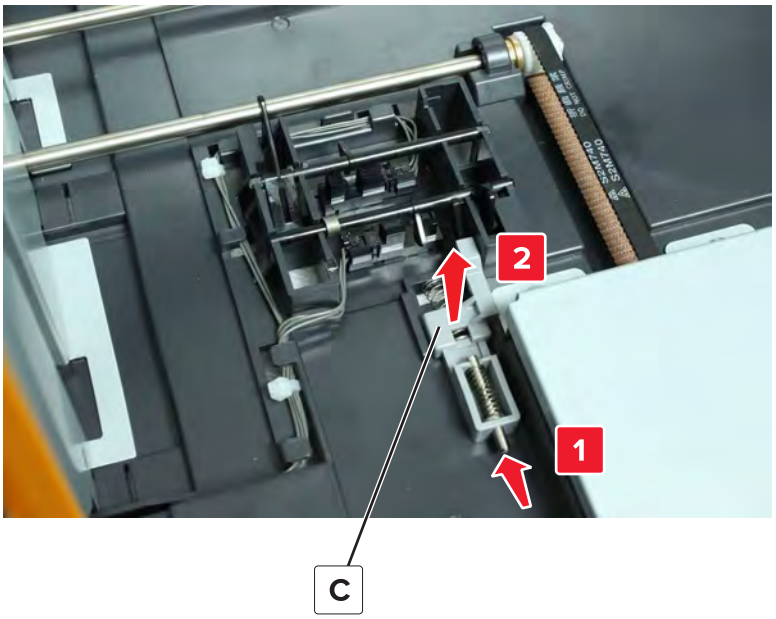
2500-sheet tray transfer guide stop removal

1 Remove the tray insert.

2 Slightly raise the main tray.

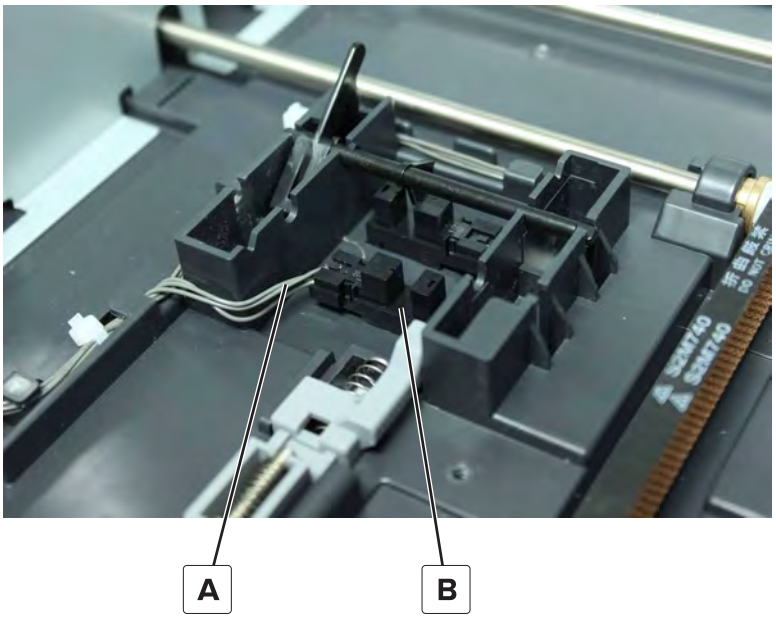
3 Remove the actuator (C).

Note: Do not lose the spring on the actuator.



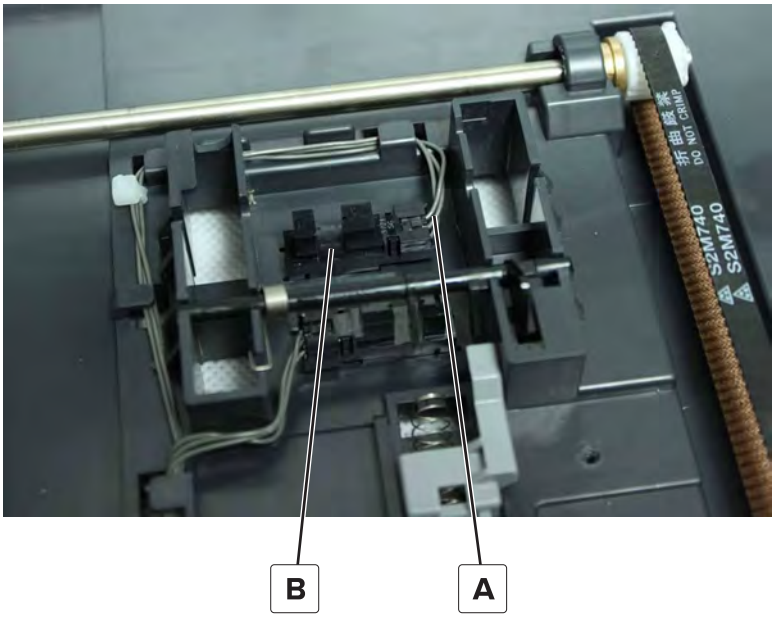
Sensor (2500-sheet tray elevator home) removal

1. Remove the tray insert.
2. Remove the 2500-sheet tray elevator home sensor actuator. See **"2500-sheet tray elevator home sensor actuator removal" on page 733**.
3. Disconnect the cable (A), and then remove the sensor (B).



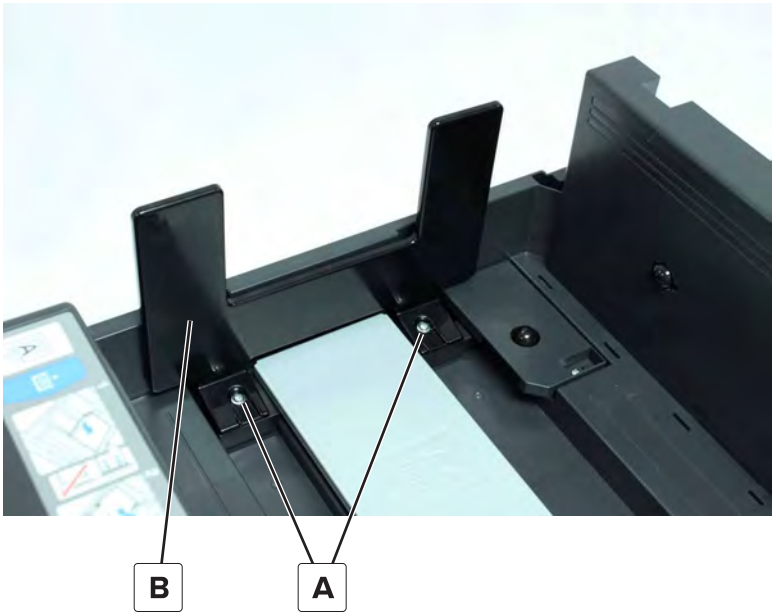
Sensor (2500-sheet tray main tray empty, bottom) removal

1. Remove the tray insert.
2. Remove the 2500-sheet tray empty sensor bottom actuator. See **"2500-sheet tray main tray empty sensor bottom actuator removal" on page 732**.
3. Disconnect the cable (A), and then remove the sensor (B).



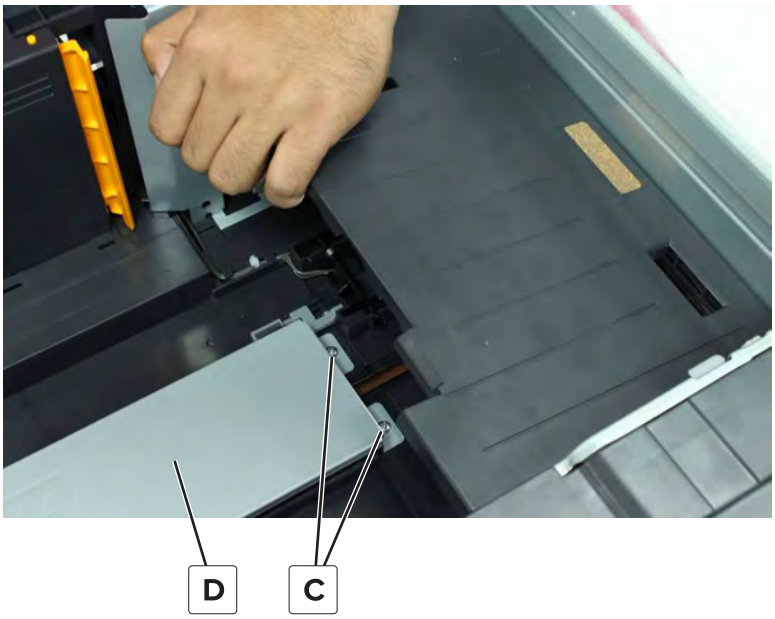
2500-sheet tray paper stack transfer guide removal

1. Remove the tray insert.
2. Remove the two screws (A), and then remove the paper stack transfer guide (B).

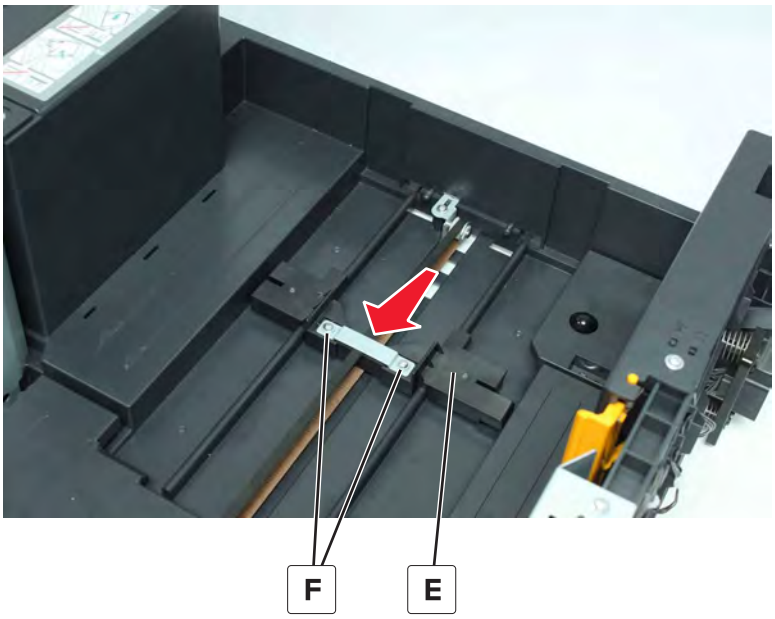


3 Raise the main tray, and then remove the two screws (C).

4 Remove the sub-tray plate (D).



5 Move the paper stack transfer guide base (E), and then remove the two screws (F).

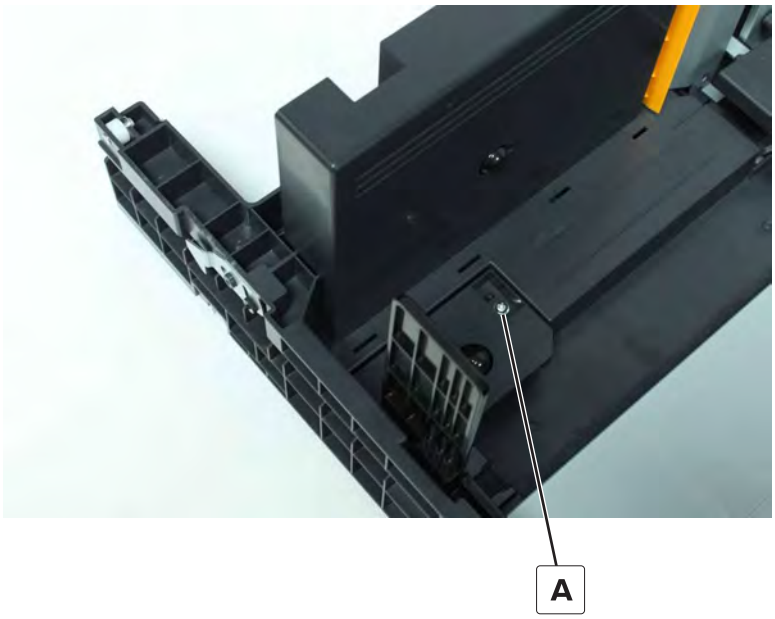


6 Remove the bracket, and then remove the guide base.

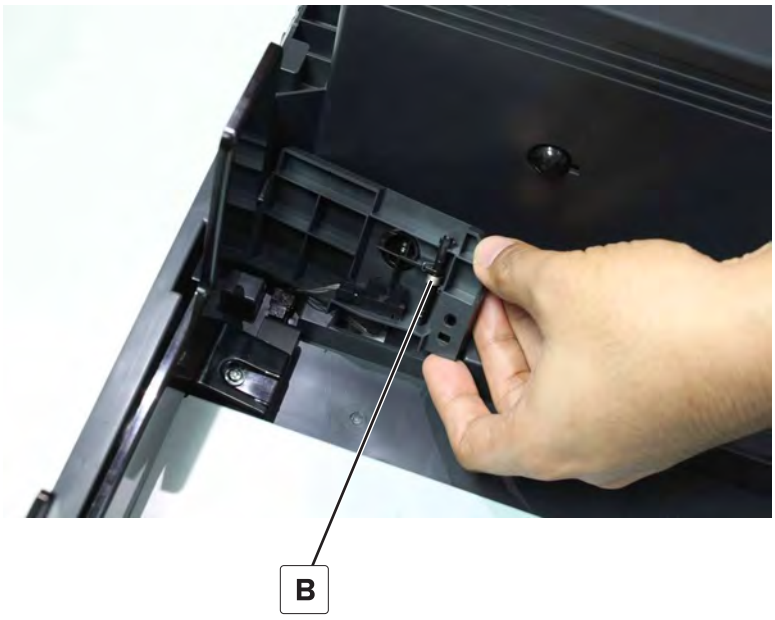
2500-sheet reserve tray empty sensor actuator removal

1 Remove the tray insert.

2 Remove the screw (A).



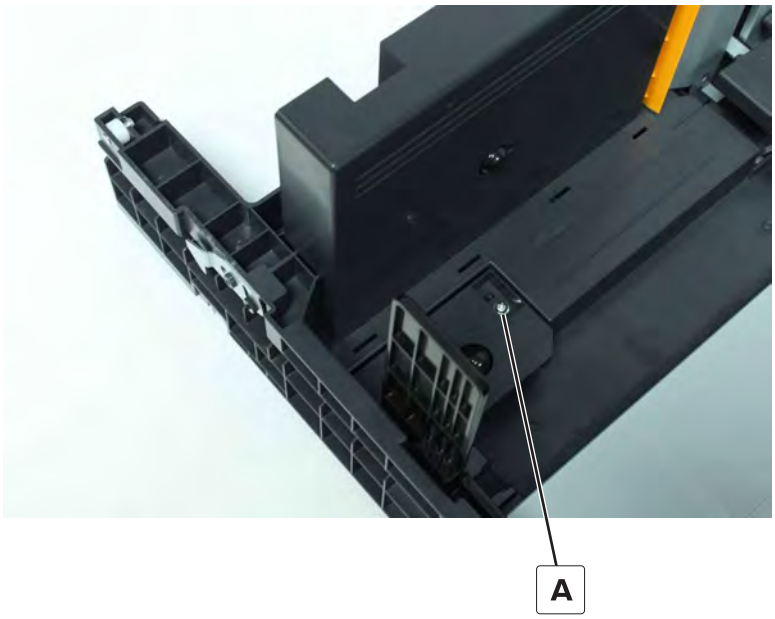
3 Swing open the sensor cover, and then remove the actuator (B).



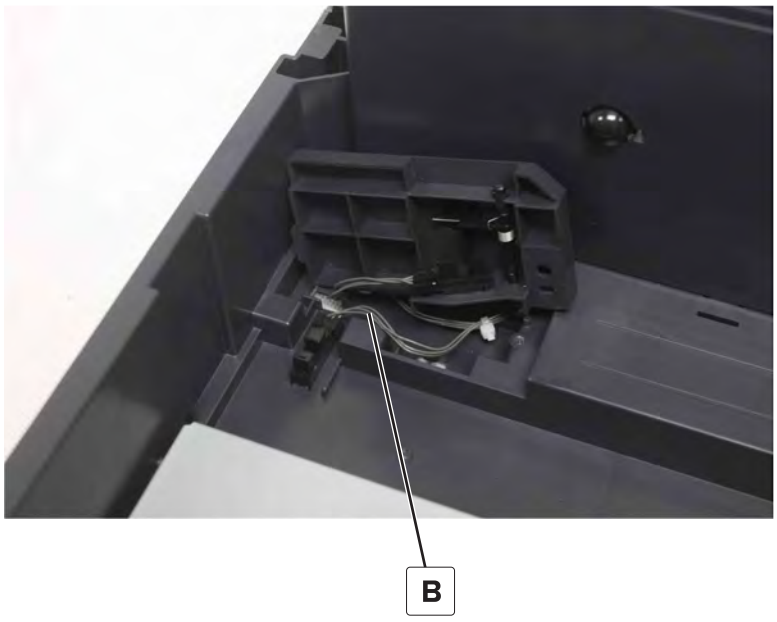
Sensor (2500-sheet tray transfer guide home) removal

1 Remove the tray insert.

2 Remove the screw (A).



3 Swing open the cover, and then disconnect the cable (B).

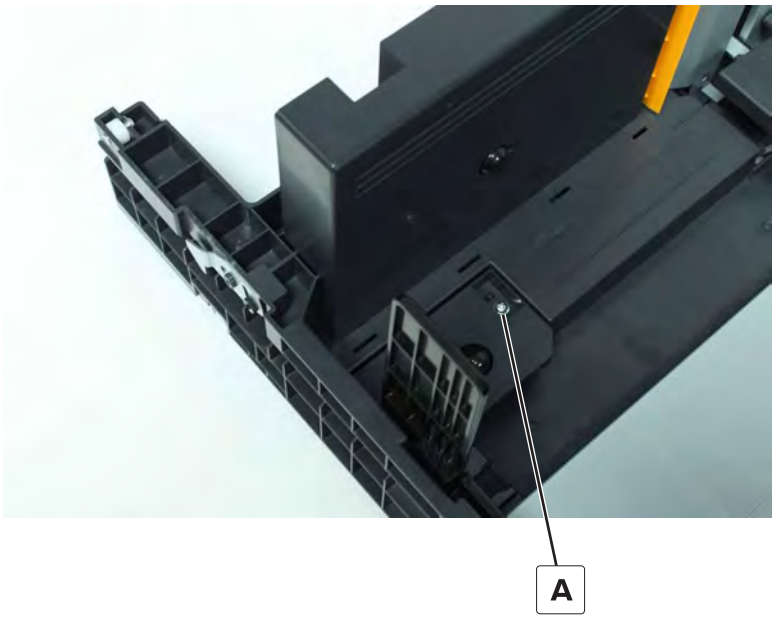


4 Remove the sensor.

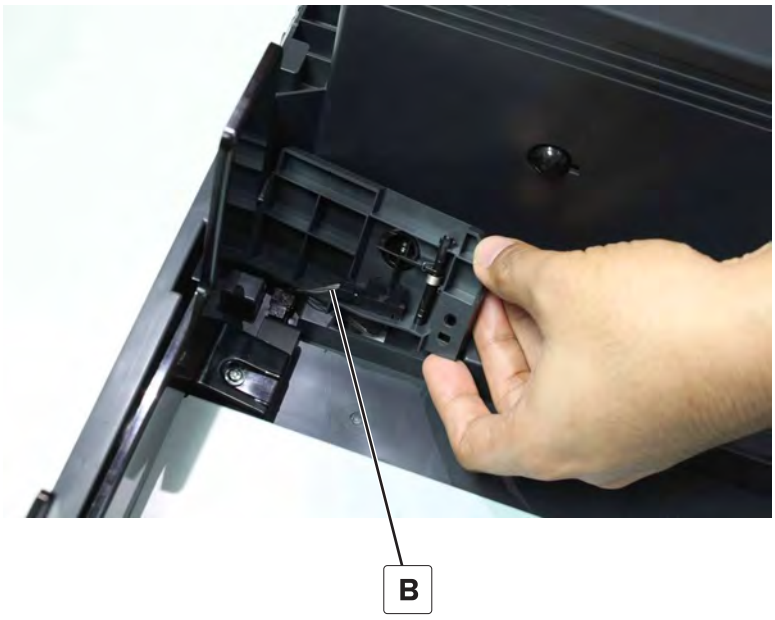
Sensor (2500-sheet tray reserve tray empty) removal

1 Remove the tray insert.

2 Remove the screw (A).



3 Swing open the cover, and then disconnect the cable (B).

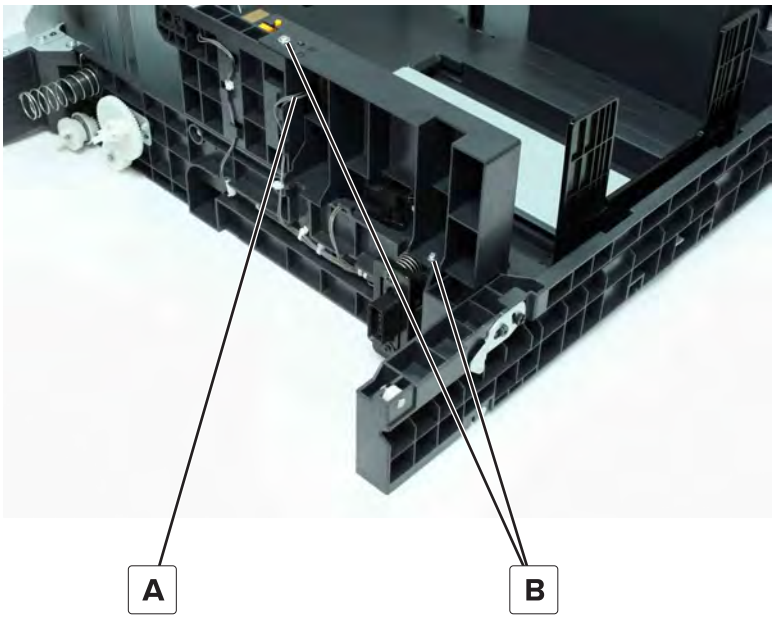


4 Remove the sensor.

Sensor (2500-sheet paper stack transfer) removal

1 Remove the tray insert.

2 Disconnect the cable (A), and then remove the two screws (B).

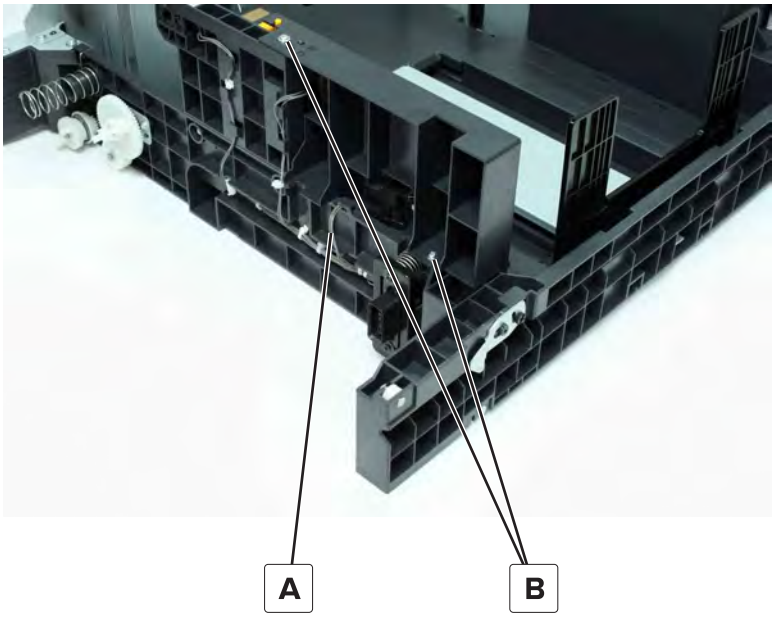


3 Remove the sensor from its housing on the division board.

Sensor (2500-sheet tray reserve tray paper limit) removal

1 Remove the tray insert.

2 Disconnect the cable (A), and then remove the two screws (B).

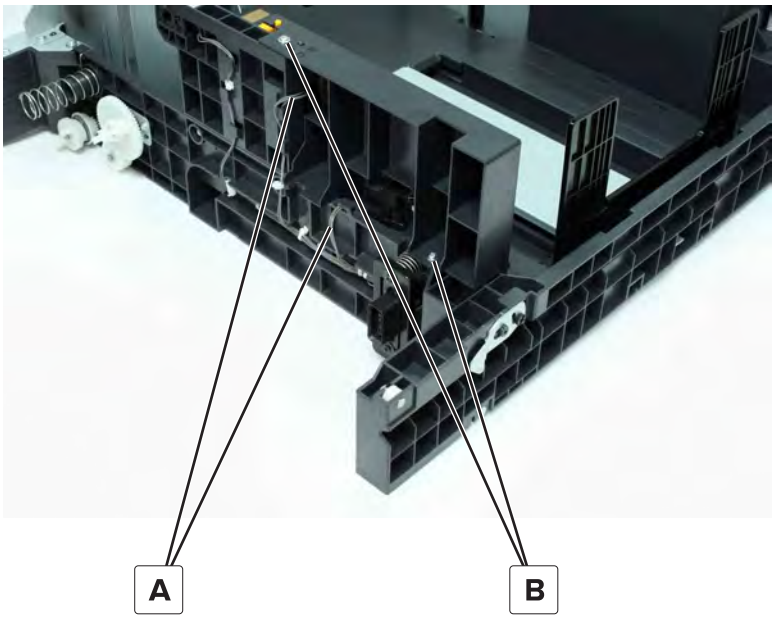


3 Remove the sensor.

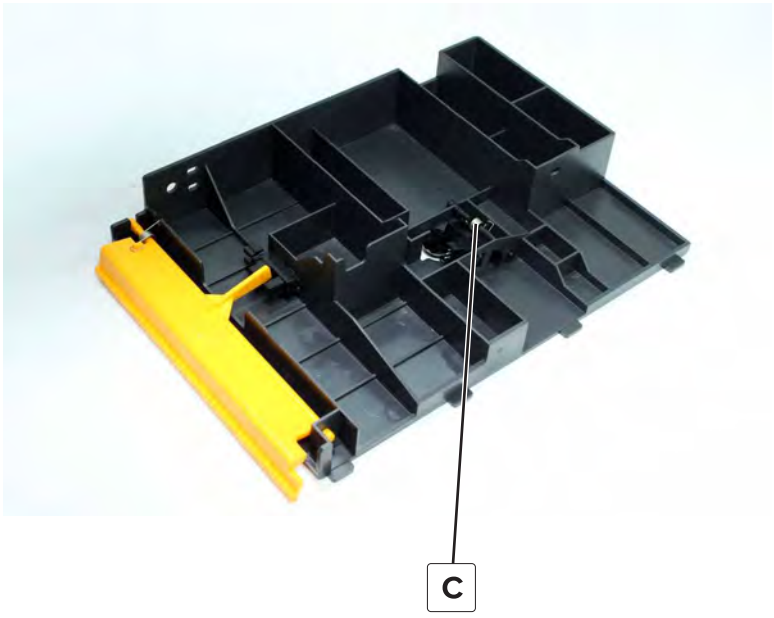
2500-sheet reserve tray paper limit sensor actuator removal

1 Remove the tray insert.

2 Disconnect the two cables (A), and then remove the two screws (B).



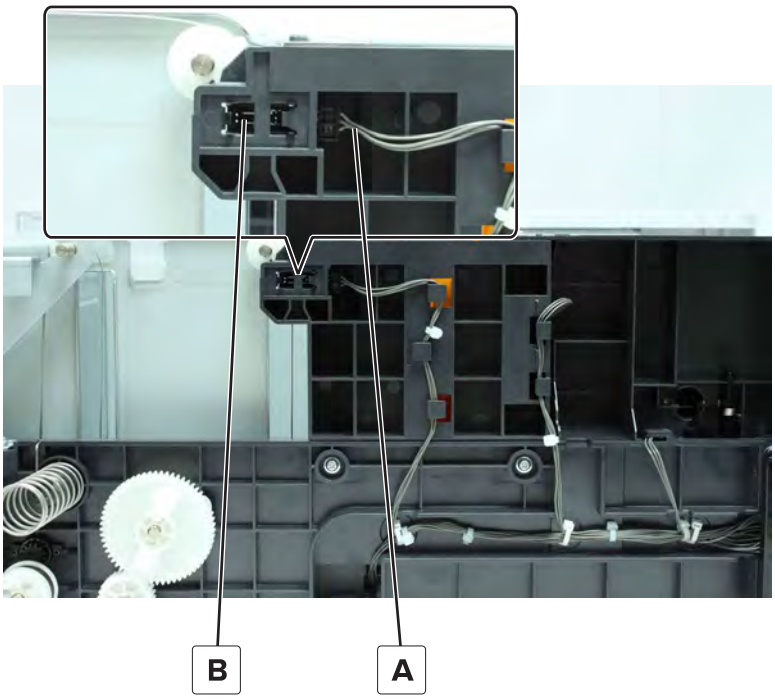
3 Remove the division board, and then remove the actuator (C).



Sensor (2500-sheet tray main tray near empty) removal

1 Remove the tray insert.

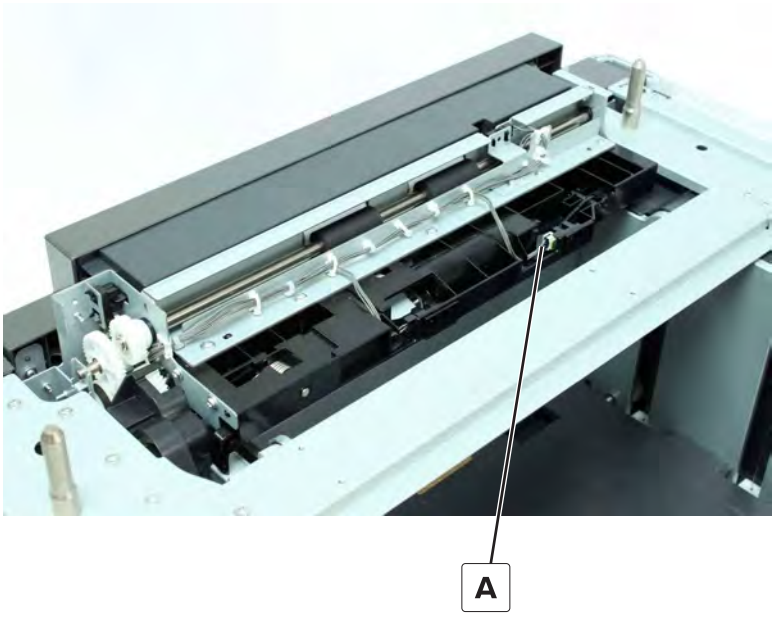
2 Disconnect the cable (A), and then remove the sensor (B).



Sensor (2500-sheet tray main tray empty, top) removal

1 Disconnect the cable (A).

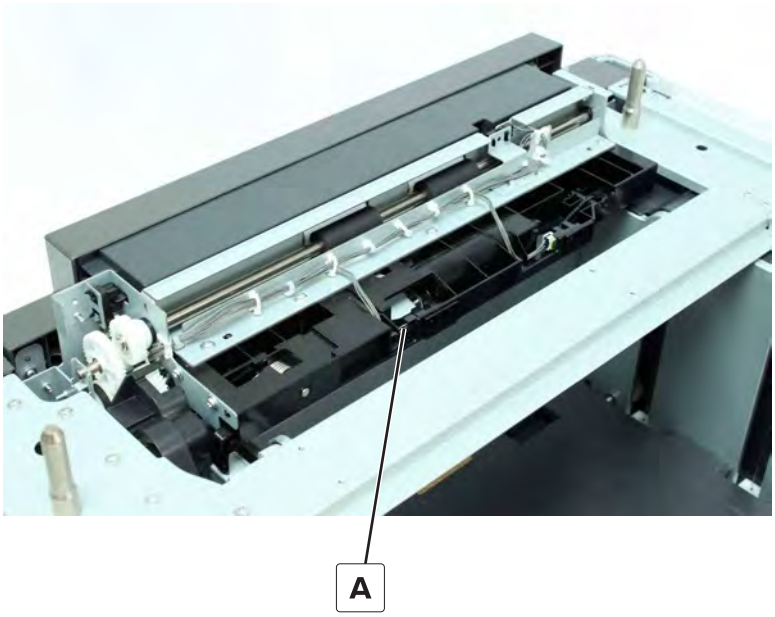
2 Remove the sensor.



Sensor (2500-sheet tray main tray elevator limit) removal

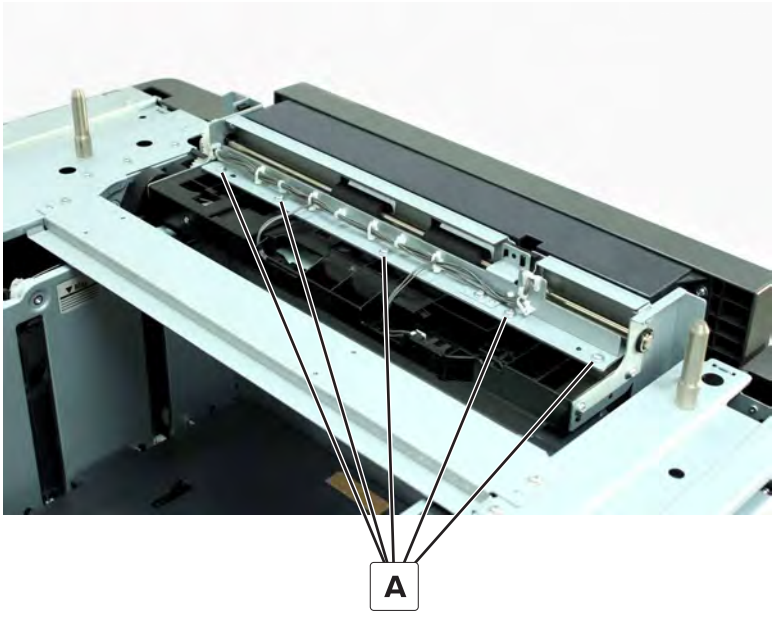
1 Disconnect the cable (A).

2 Remove the sensor.



Sensor (2500-sheet tray feed) removal

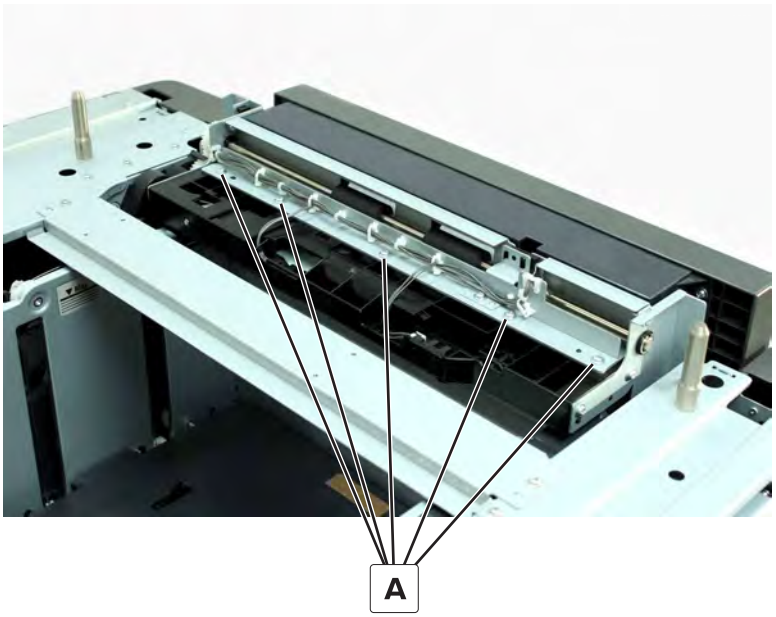
1 Remove the five screws (A).



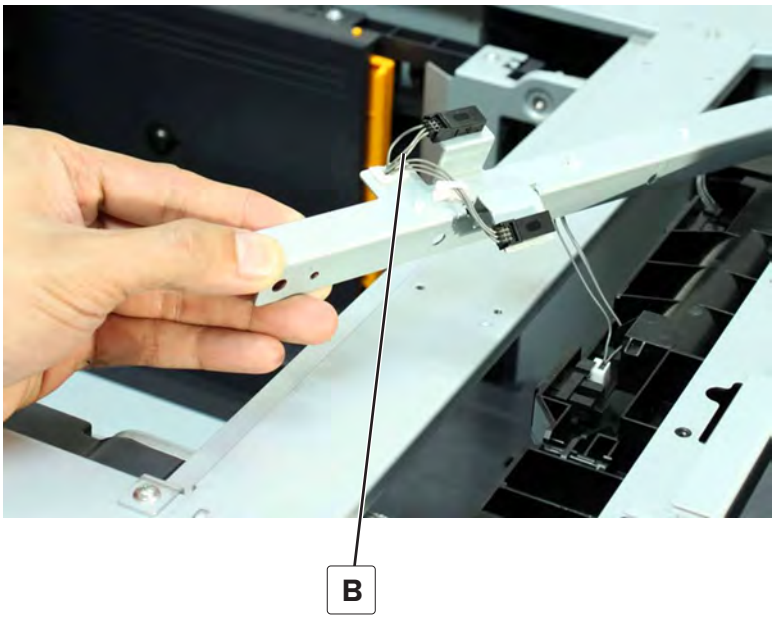
2 Disconnect the cable (B), and then remove the sensor.

Sensor (2500-sheet tray transport) removal

1 Remove the five screws (A).

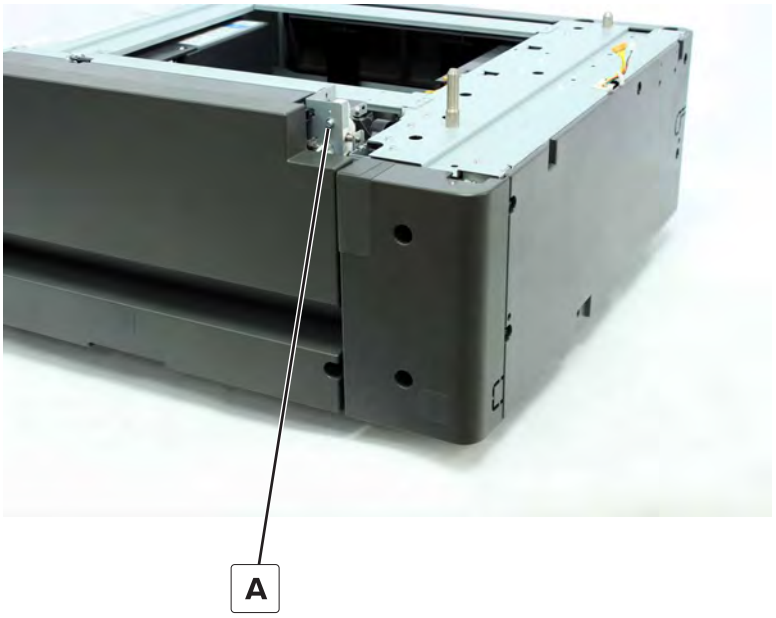


2 Disconnect the cable (B), and then remove the sensor.

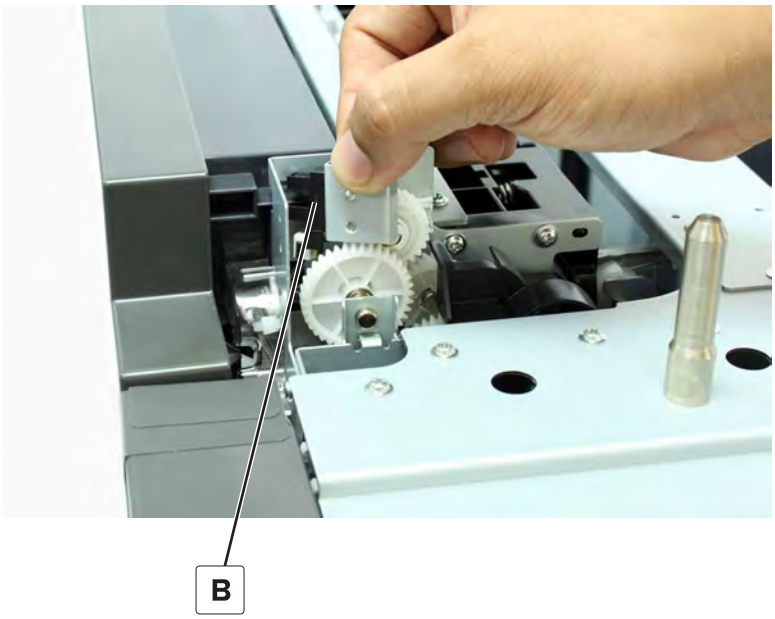


Sensor (2500-sheet tray jam access door) removal

1 Remove the screw (A), and then remove the sensor mount.



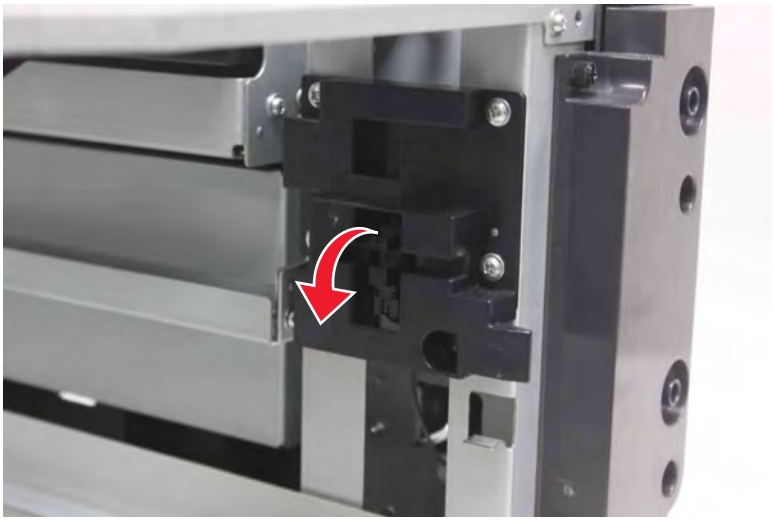
2 Disconnect the sensor (B) from the cable.



Sensor (2500-sheet tray set) removal

1 Remove the tray insert.

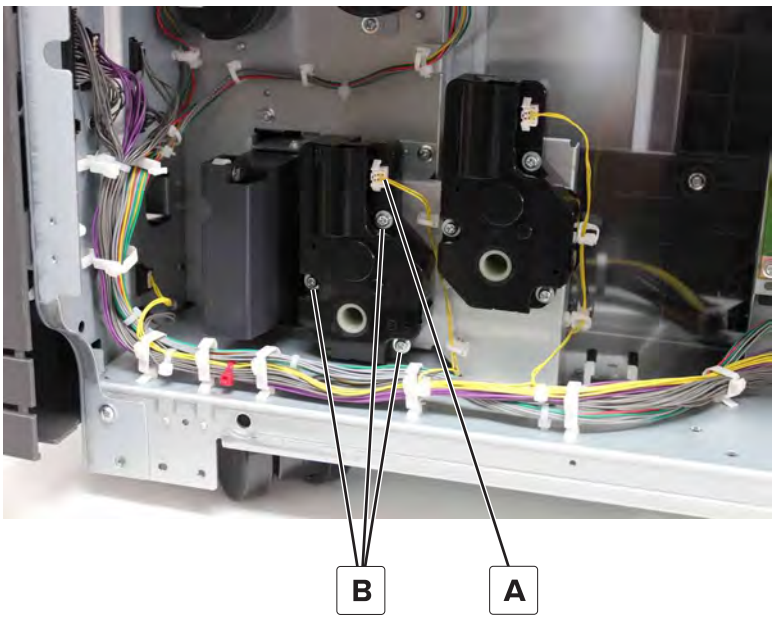
2 Remove the sensor, and then disconnect the sensor cable.



Motor (2500-sheet tray elevator) removal

1 Remove the rear cover. See **"2500-sheet tray rear cover removal" on page 726**.

2 Disconnect the cable (A), and then remove the three screws (B).

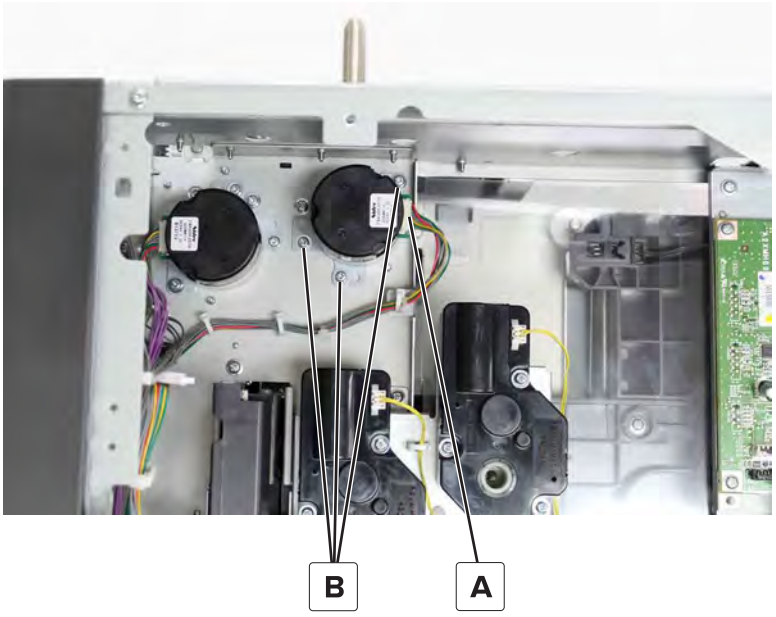


3 Remove the motor.

Motor (2500-sheet tray feed) removal

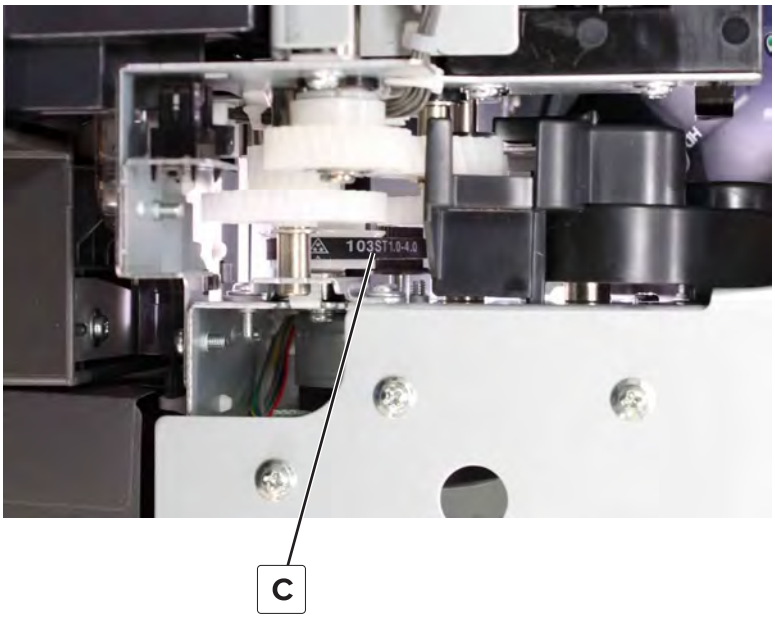
1 Remove the rear cover. See **"2500-sheet tray rear cover removal" on page 726**.

2 Disconnect the cable (A), and then remove the three screws (B).



3 Remove the motor.

Note: Make sure that the feed motor belt (C) remains attached to the gear.

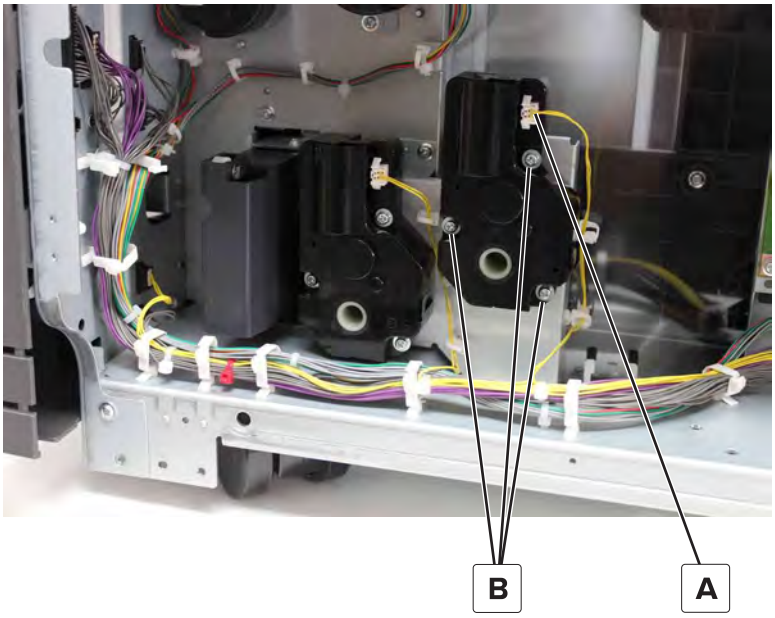


Installation note: Make sure that the feed motor belt is installed properly before installing the feed motor.

Motor (2500-sheet tray transfer guide) removal

1 Remove the rear cover. See **"2500-sheet tray rear cover removal" on page 726**.

2 Disconnect the cable (A), and then remove the three screws (B).

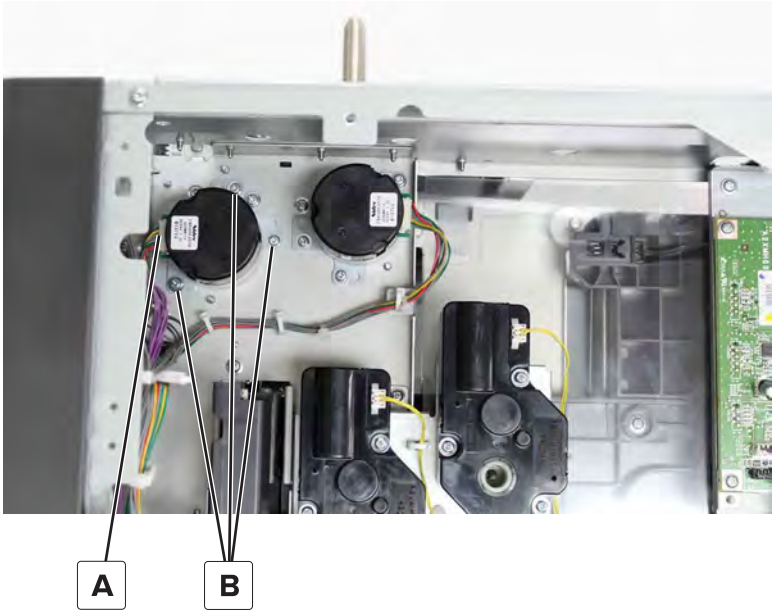


3 Remove the motor.

Motor (2500-sheet tray transport) removal

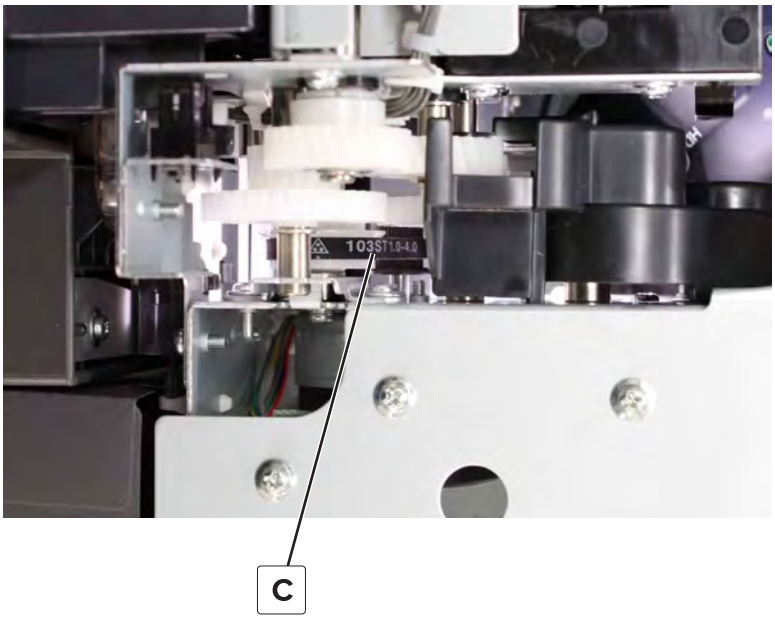
1 Remove the 2500-sheet tray rear cover. See **"2500-sheet tray rear cover removal" on page 726**.

2 Disconnect the cable (A), and then remove the three screws (B).



3 Remove the motor.

Note: Make sure that the belt (C) remains on the gear.

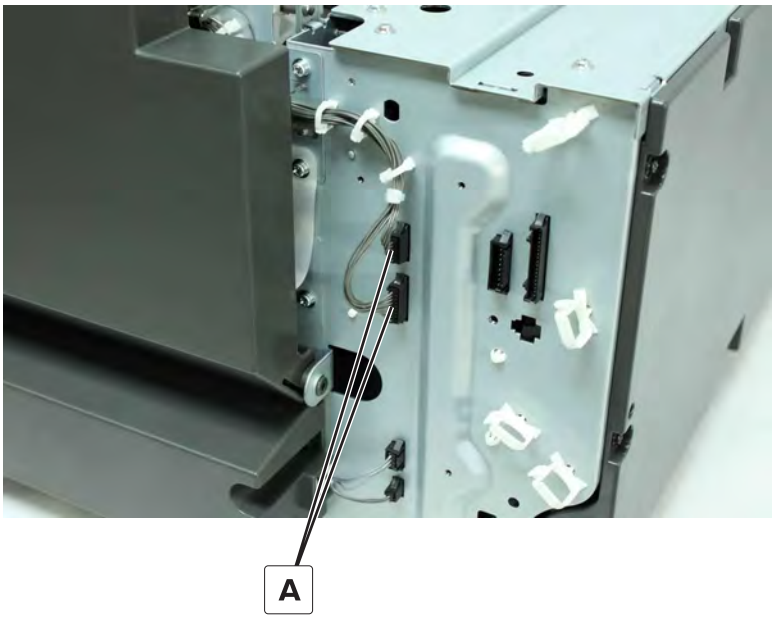


Installation note: Make sure that the belt is installed properly before reinstalling the transport motor.

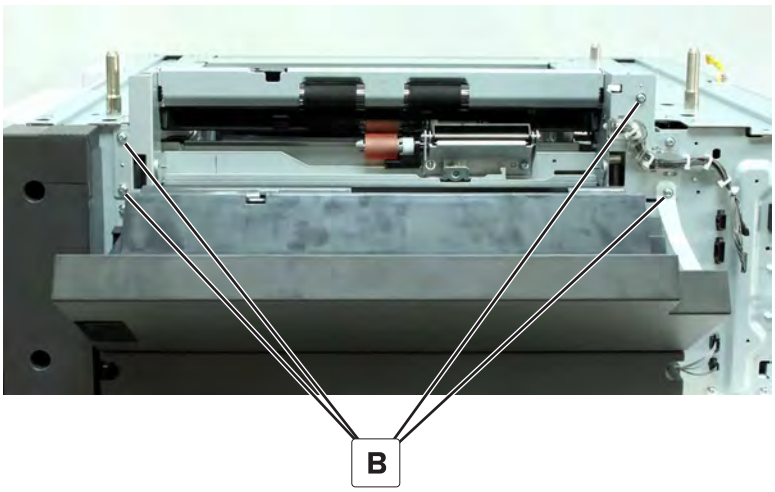
2500-sheet tray paper feed assembly removal

1 Open the rear right cover. See **"2500-sheet tray rear right cover removal" on page 726**.

2 Disconnect the two cables (A).



3 Remove the four screws (B), and then remove the paper feed assembly.

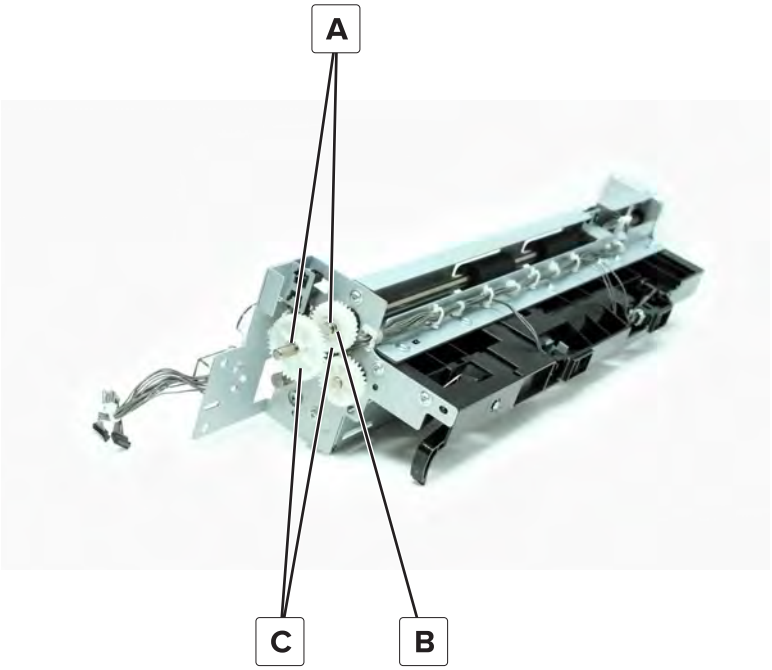


2500-sheet tray transport roller removal

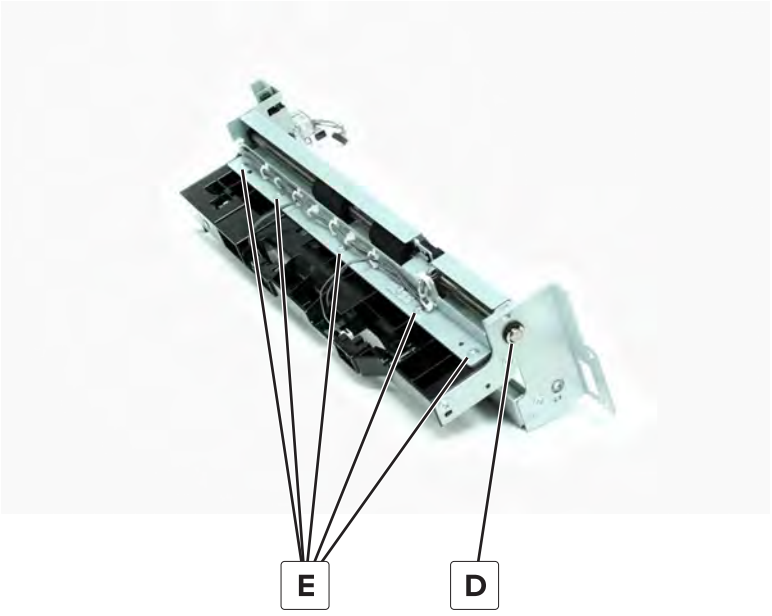
1 Remove the rear right cover. See **"2500-sheet tray rear right cover removal" on page 726**.

2 Remove the paper feed assembly. See **"2500-sheet tray paper feed assembly removal" on page 751**.

3 Remove the two clips (A), washer (B), and two gears (C) on the right side of the paper feed assembly.



4 Remove the clip on the left side (D), and then remove the five screws (E).



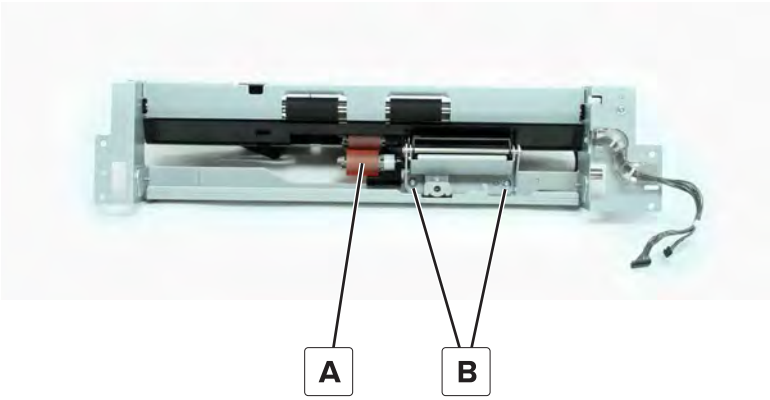
5 Remove the roller.

2500-sheet tray vertical media transport guide assembly removal

1 Remove the rear right cover. See **"2500-sheet tray rear right cover removal" on page 726**.

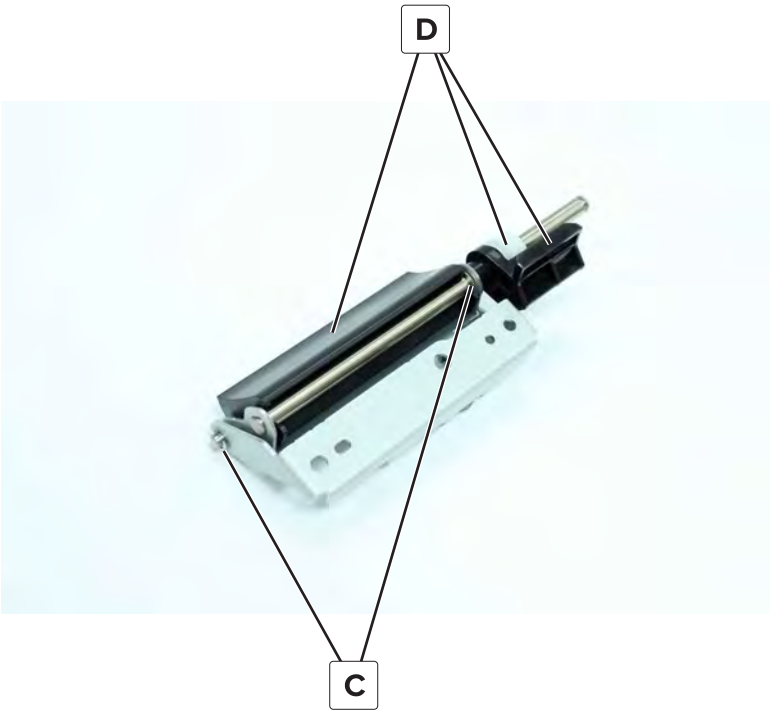
2 Remove the paper feed assembly. See **"2500-sheet tray paper feed assembly removal" on page 751**.

3 Remove the roller (A), and then remove the two screws (B).



4 Remove the two clips (C), and then remove the two shafts from the bracket.

5 Remove the vertical media transport guide assembly (D) from the shafts.



2500-sheet tray pick assembly removal

1 Remove the 2500-Sheet Tray rear right cover. See **"2500-sheet tray rear right cover removal" on page 726**.

2 Remove the 2500-Sheet Tray paper feed assembly. See **"2500-sheet tray paper feed assembly removal" on page 751**.

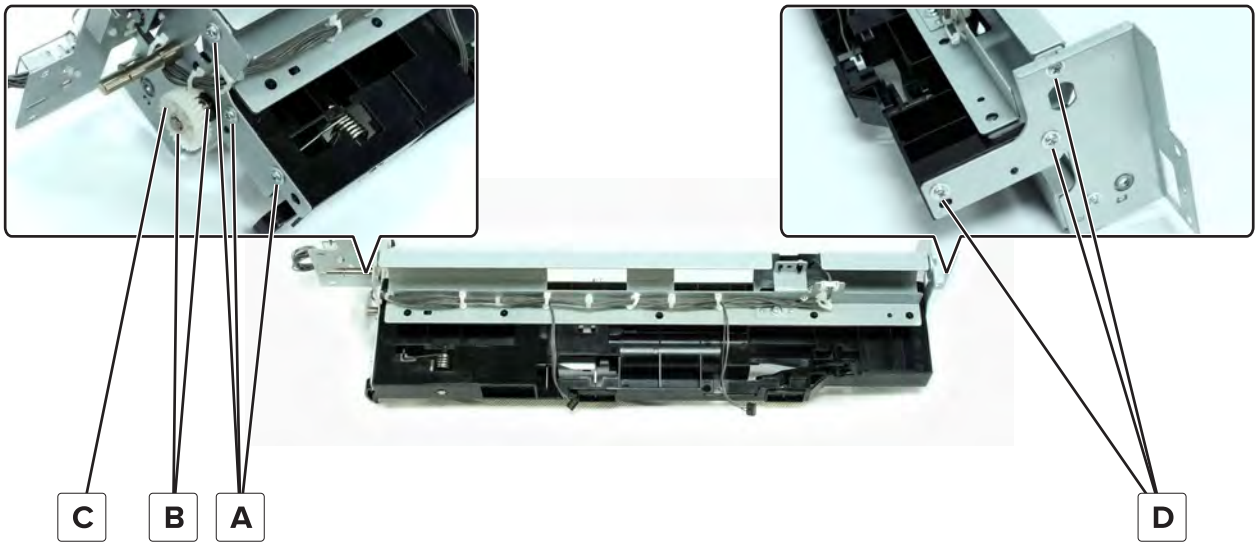
3 Remove the sensor (2500-sheet tray main tray elevator limit). See **"Sensor (2500-sheet tray main tray elevator limit) removal" on page 744**.

4 Remove the sensor (2500-sheet tray main tray empty, top). See **"Sensor (2500-sheet tray main tray empty, top) removal" on page 743**.

5 Remove the 2500-sheet tray transport roller. See **"2500-sheet tray transport roller removal" on page 751**.

6 Remove the three screws (A), two clips (B), and gear (C).

7 Remove the three screws (D), and then remove the pick assembly.

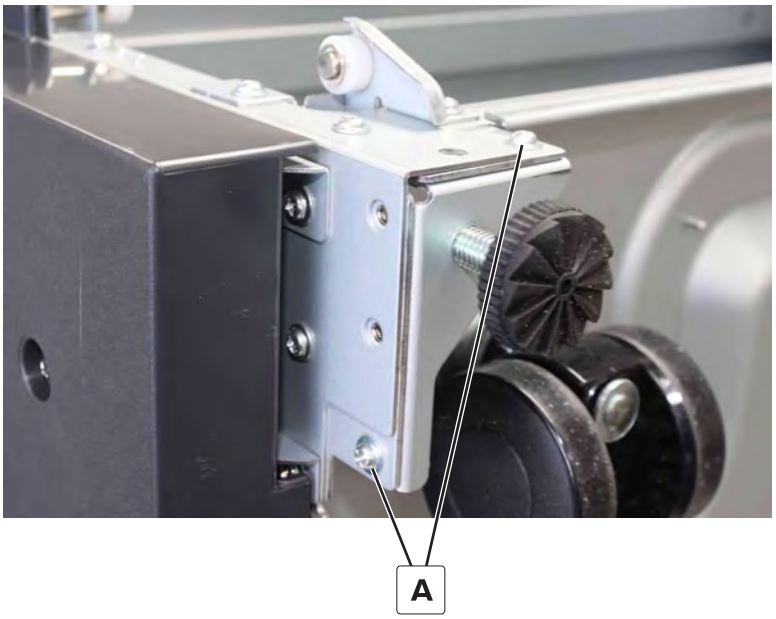


2500-sheet tray stopper removal

1 Position the tray on its side.

2 Select a stopper.

3 Remove the two screws (A), and then remove the stopper.

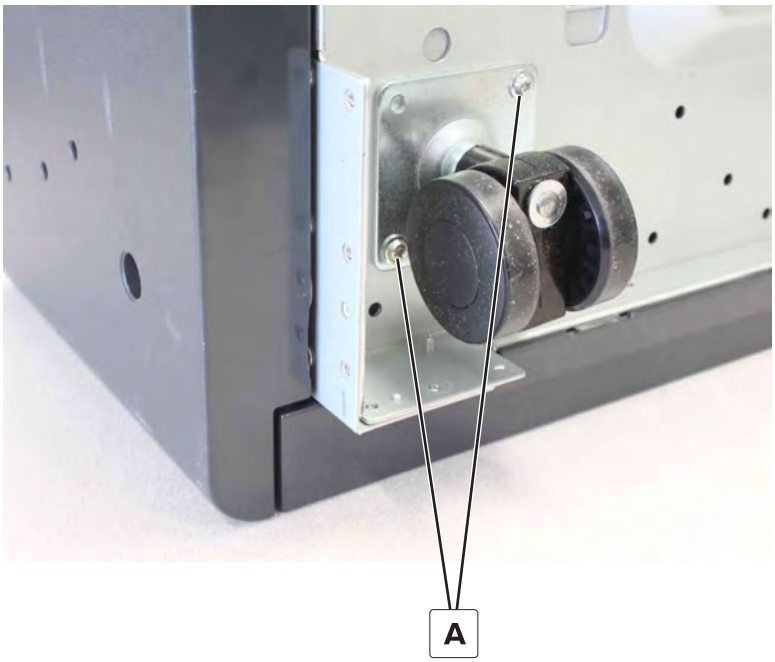


2500-sheet tray caster wheel removal

1 Position the tray on its side.

2 Select a caster.

3 Remove the two screws (A), and then remove the caster.



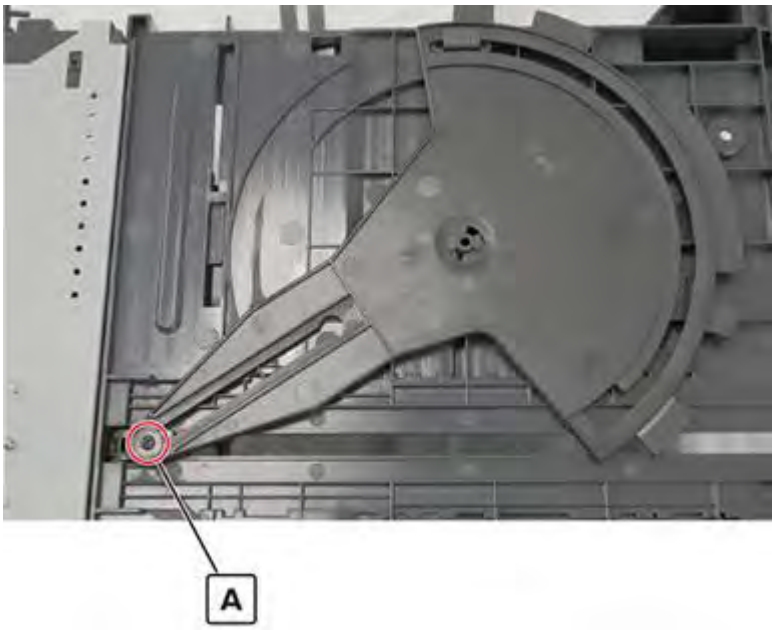
2 x 500-sheet tray removals

Paper length sensor actuator removal

1 Remove the tray insert. See **"Tray insert removal" on page 511**.

2 Move the guide to its farthest position.

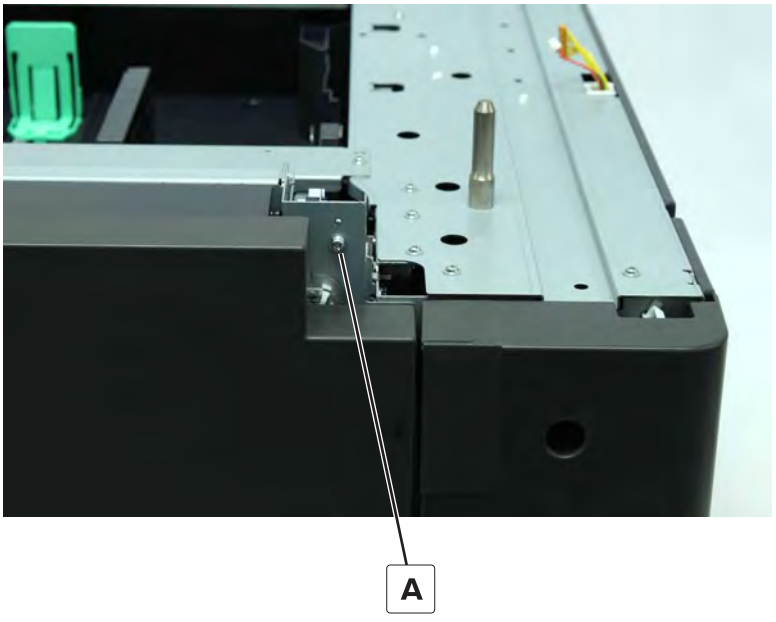
3 Under the tray, remove the screw (A).



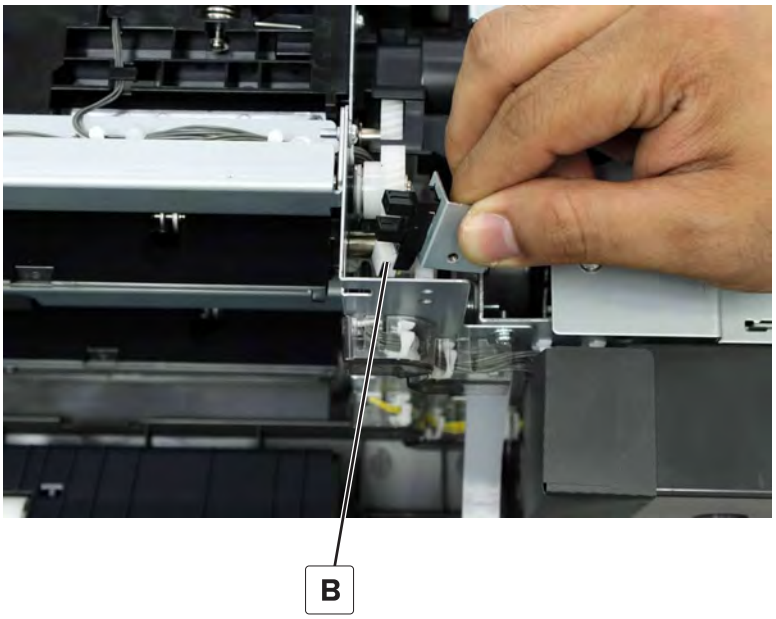
4 Remove the sensor actuator.

Sensor (2 x 500-sheet tray jam access door) removal

1 Remove the screw (A), and then remove the sensor bracket.



2 Disconnect the cable (B), and then remove the sensor.



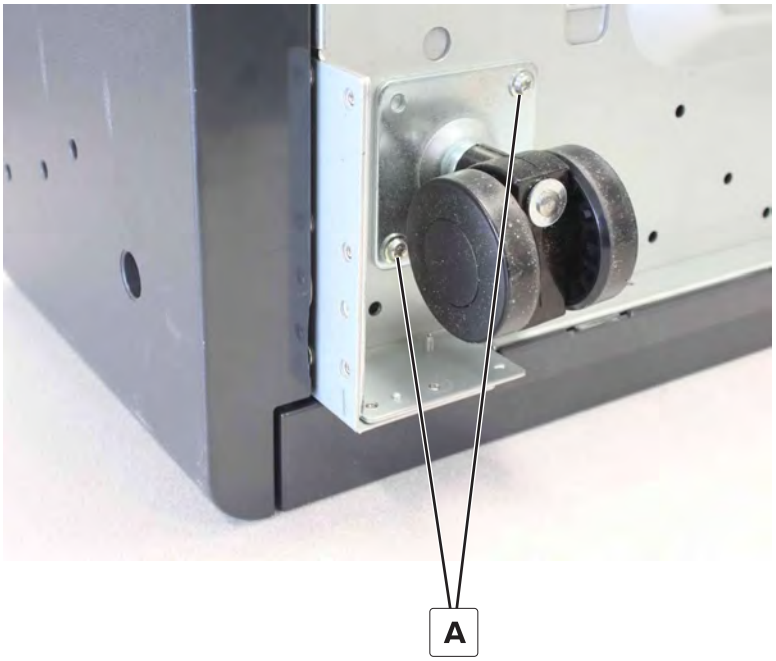
3 Remove the sensor from the bracket.

2 x 500-sheet tray caster wheel removal

1 Position the tray on its side.

2 Select a caster.

3 Remove the two screws (A), and then remove the caster.

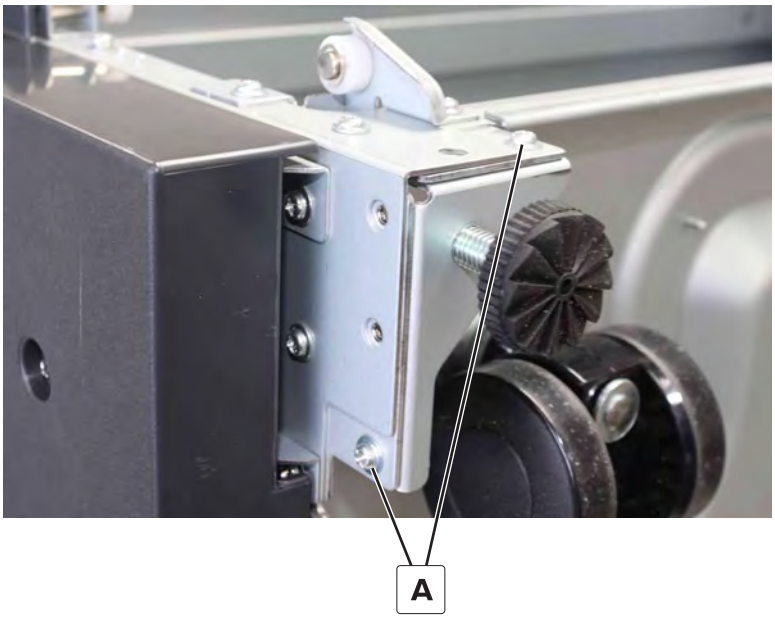


Printer rubber stopper removal

1 Position the tray on its side.

2 Select a stopper.

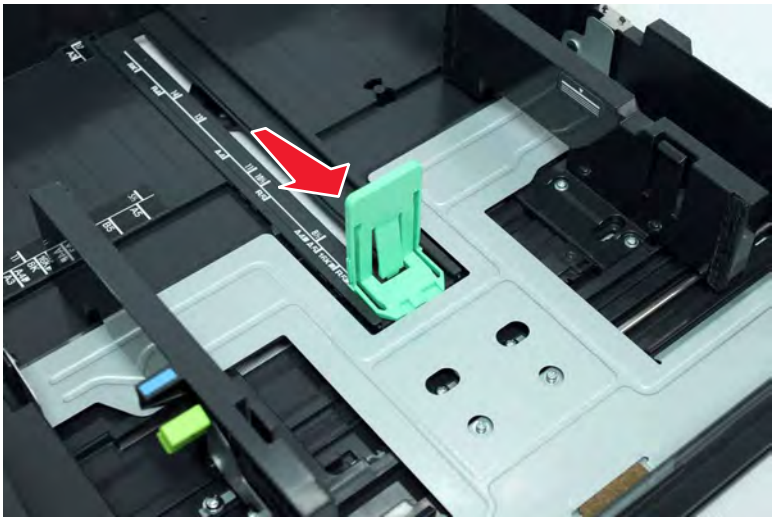
3 Remove the two screws (A), and then remove the stopper.



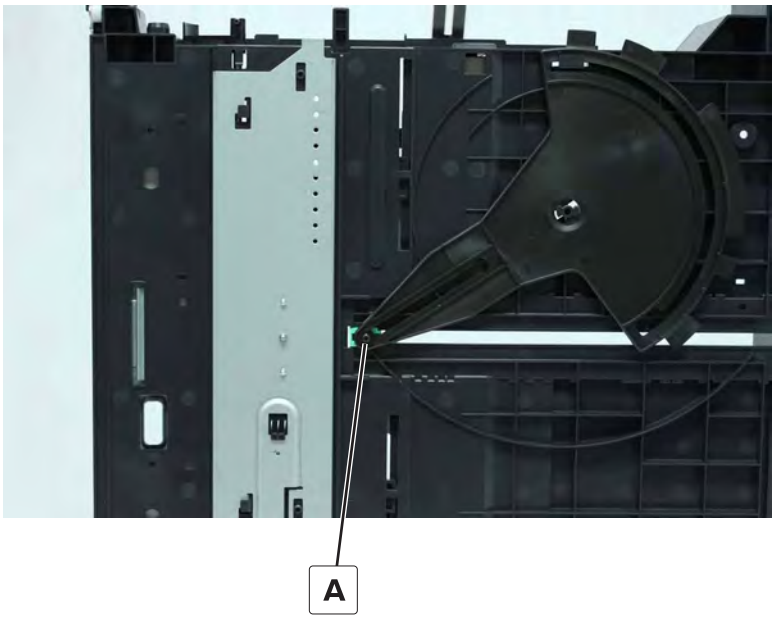
Tray insert paper length guide removal

1 Remove the tray insert. See **“Tray insert removal” on page 511**.

2 Move the guide to the shortest paper length setting.



3 Remove the screw (A).



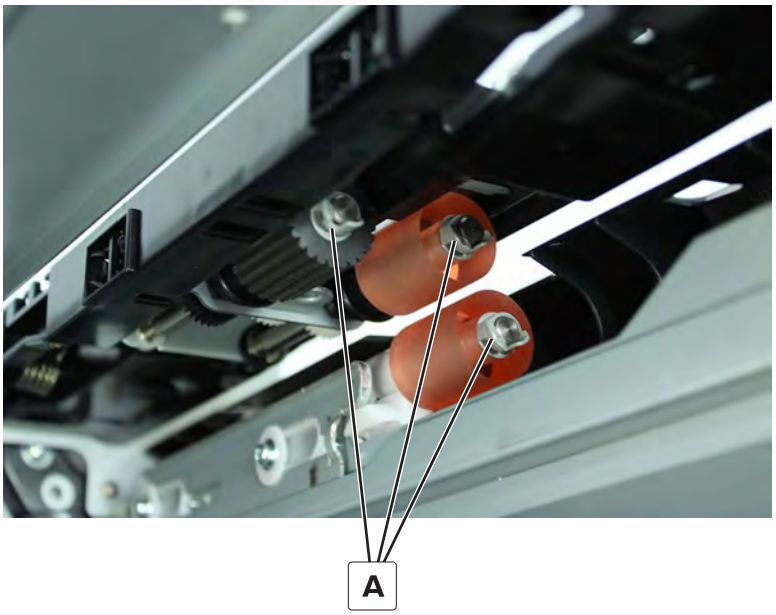
4 Raise the lift plate, move the length guide slightly under the lift plate, and then remove the guide.

2 x 500-sheet tray rollers removal

1 Remove the tray inserts. See **"Tray insert removal" on page 511**.

2 Open the jam access door.

3 Release the three clips (A), and then remove the rollers.

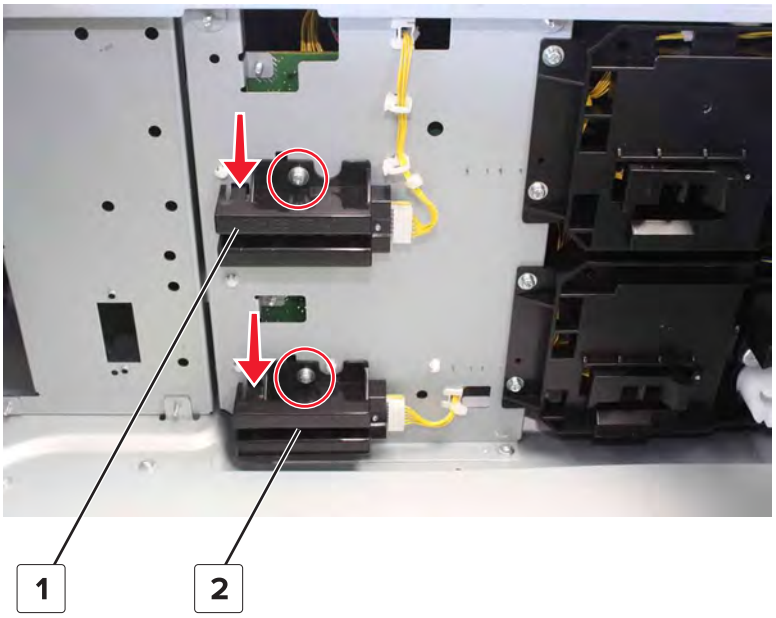


Sensor (2 x 500-sheet tray paper length) removal

1 Remove the tray inserts. See **"Tray insert removal" on page 511**.

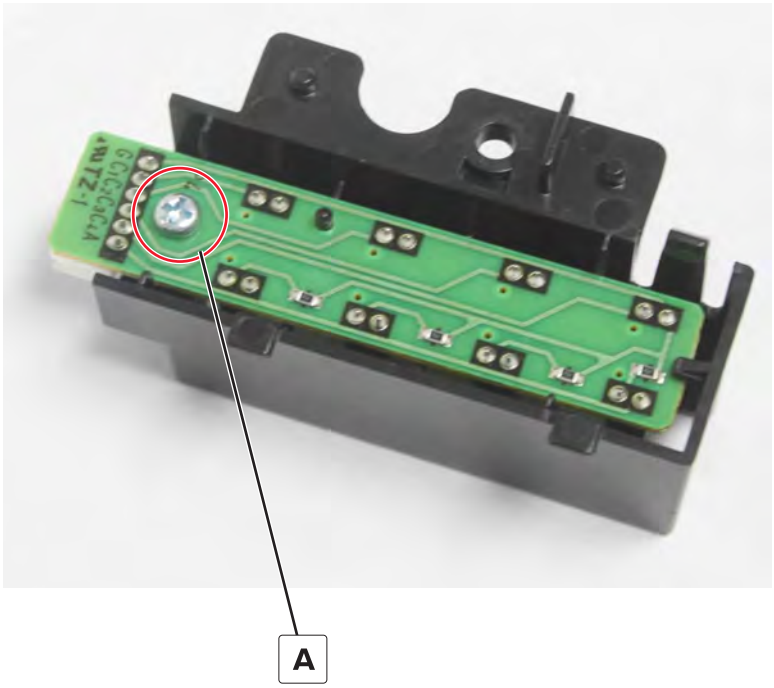
2 Disconnect the cable from the sensor.

3 Remove the screw, press the latch, and then remove the sensor holder.



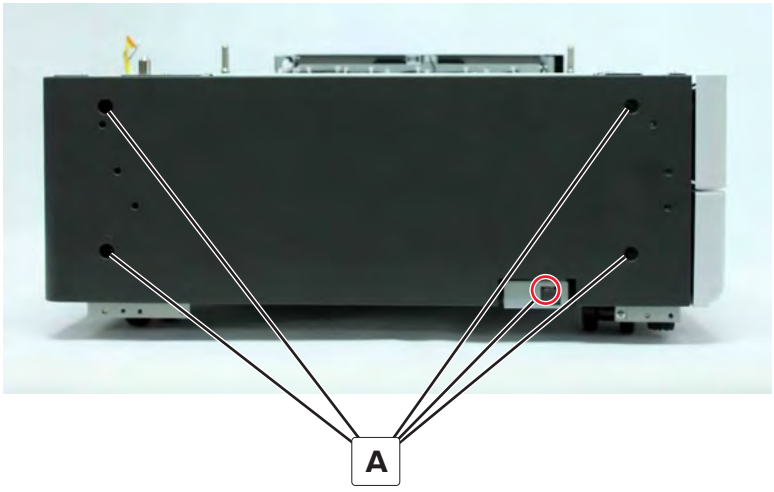
#	Part
1	Sensor (2 x 500 sheet tray 3 paper length)
2	Sensor (2 x 500 sheet tray 4 paper length)

4 Remove the screw (A), and then remove the sensor.



2 x 500-sheet tray left cover removal

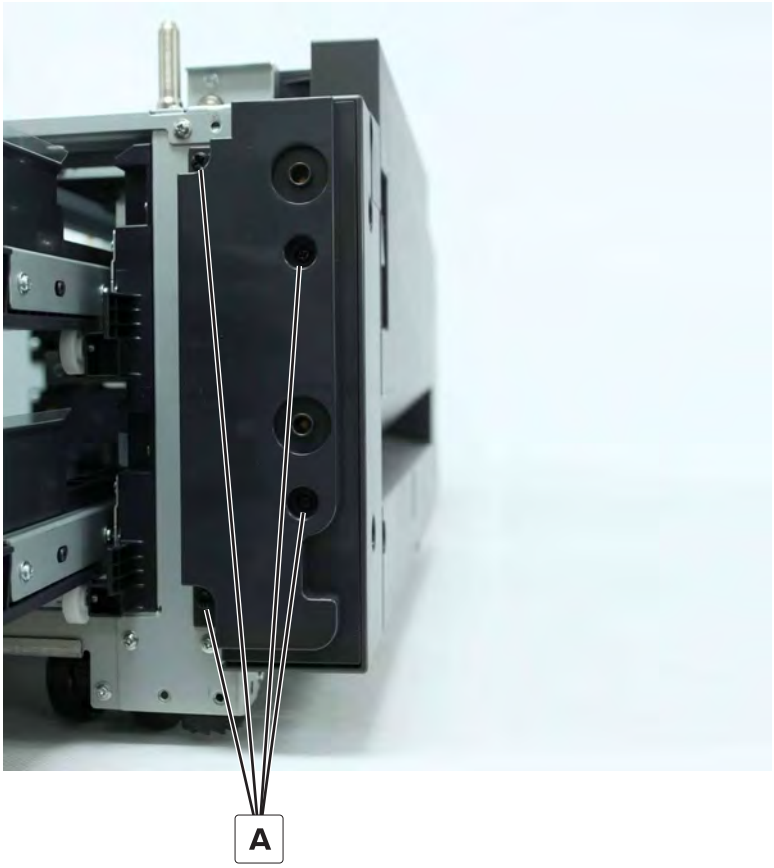
1 Remove the five screws (A).



2 Remove the cover.

2 x 500-sheet tray empty LED cover removal

1 Remove the four screws (A).



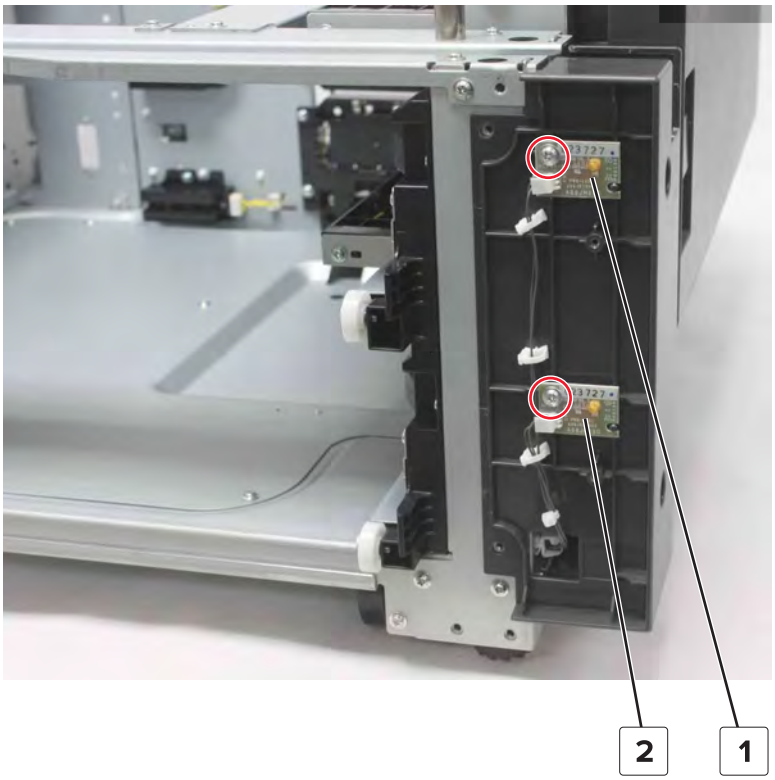
2 Remove the cover.

2 x 500-sheet tray empty LED removal

1 Remove the tray empty LED cover. See **“2 x 500-sheet tray empty LED cover removal” on page 762**.

2 Disconnect the cable.

3 Remove the screw, and then remove the LED.



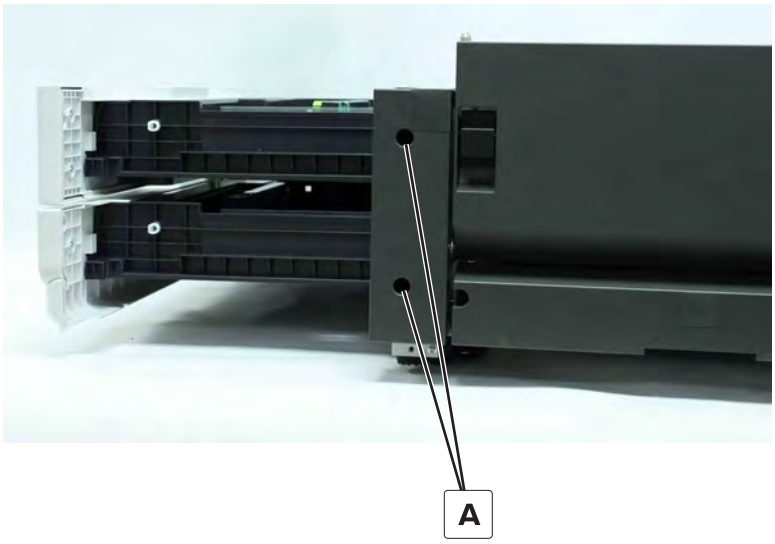
#	Part
1	Tray 3 tray empty LED
2	Tray 4 tray empty LED

2 x 500-sheet tray empty LED mount removal

1 Remove the tray empty LED cover. See **"2 x 500-sheet tray empty LED cover removal" on page 762**.

2 Remove the tray 3 and tray 4 empty LEDs. See **"2 x 500-sheet tray empty LED removal" on page 762**.

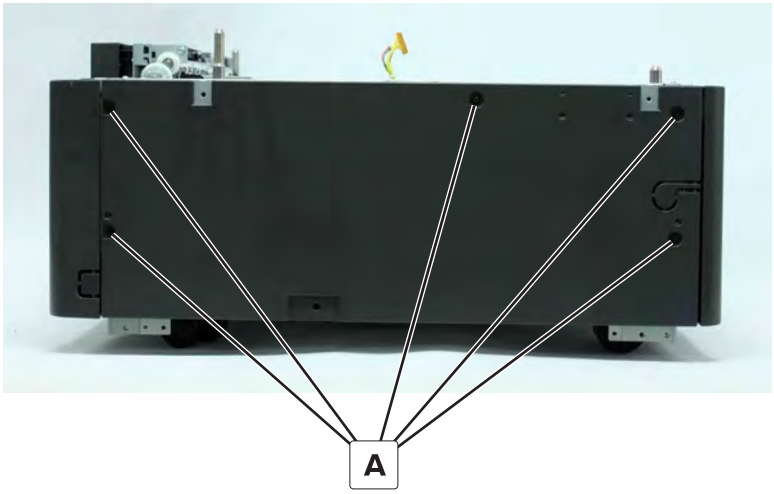
3 Remove the two screws (A), and then remove the cover.



4 Remove all the cable holders from the cover.

2 x 500-sheet tray rear cover removal

1 Remove the five screws (A).



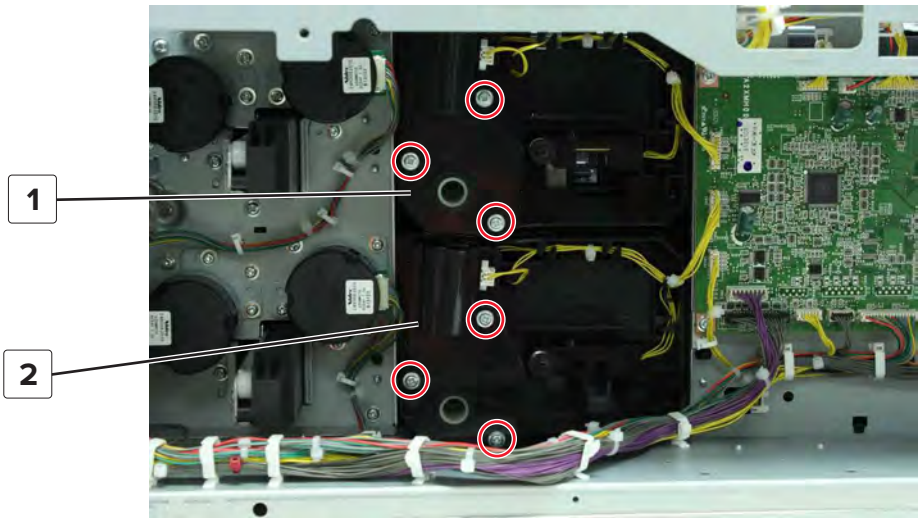
2 Remove the cover.

Motor (2 x 500-sheet tray lift) removal

1 Remove the rear cover. See **“2 x 500-sheet tray rear cover removal” on page 764**.

2 Disconnect the cable from the motor.

3 Remove the three screws, and then remove the motor.

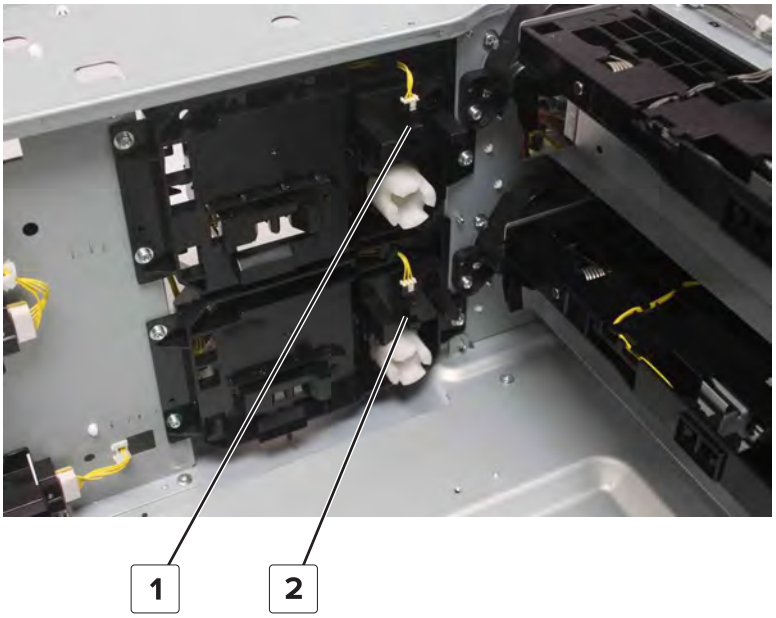


#	Part
1	Motor (2 x 500-sheet tray 3 lift)
2	Motor (2 x 500-sheet tray 4 lift)

Sensor (2 x 500-sheet tray near empty) removal

1 Remove the tray inserts. See **"Tray insert removal" on page 511**.

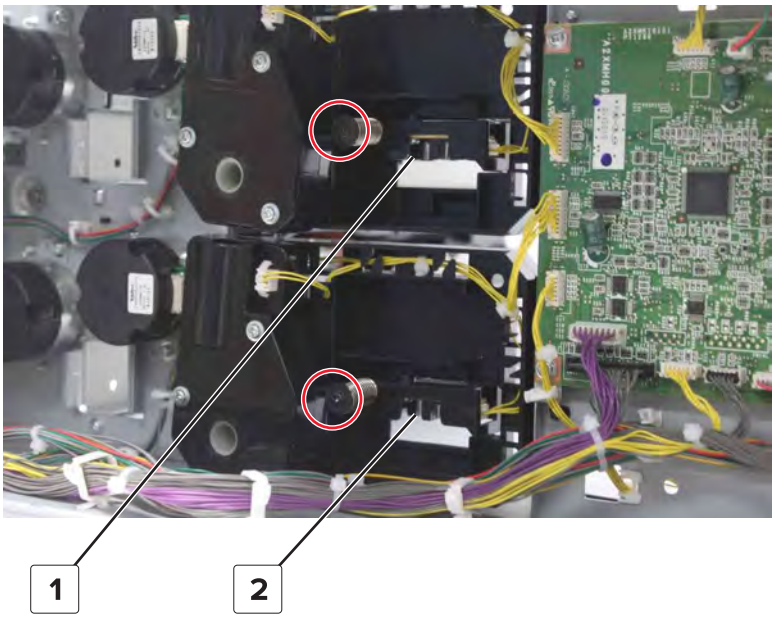
2 Disconnect the cable from the sensor, and then remove the sensor.



#	Part
1	Sensor (2 x 500-sheet tray 3 near empty)
2	Sensor (2 x 500-sheet tray 4 near empty)

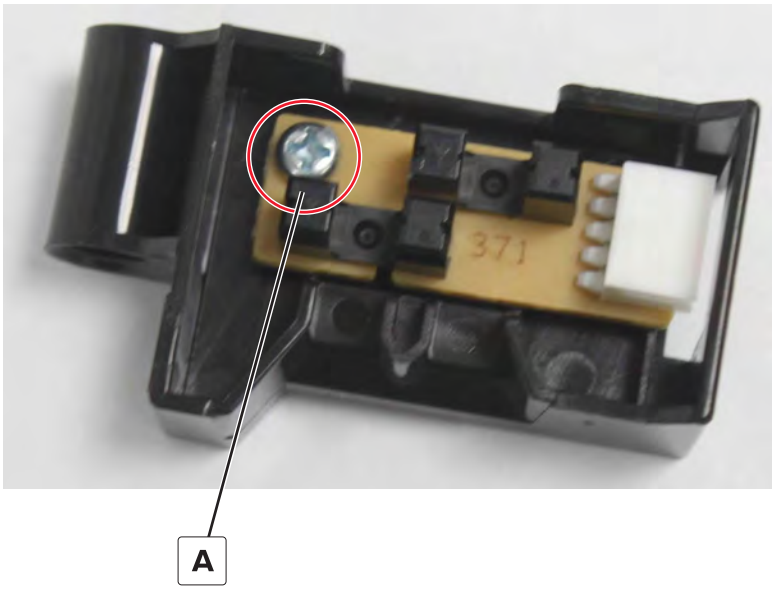
Sensor (2 x 500-sheet tray paper width) removal

1. Remove the rear cover. See **"2 x 500-sheet tray rear cover removal" on page 764**.
2. Remove the screw.
3. Disconnect the cable from the sensor, and then remove the sensor holder.



#	Part
1	Sensor (2 x 500-sheet tray 3 paper width)
2	Sensor (2 x 500-sheet tray 4 paper width)

4 Remove the screw (A), and then remove the sensor.



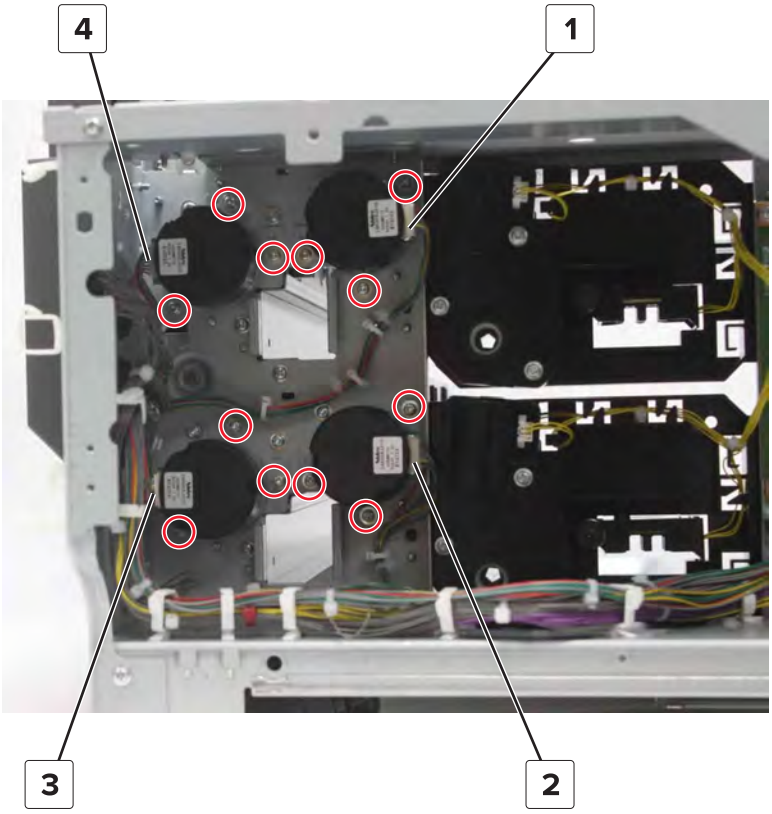
Installation note: Toggle the sensor to make sure that it bounces back.

2 x 500-sheet tray feed and transport motors removal

1 Remove the rear cover. See **“2 x 500-sheet tray rear cover removal” on page 764**.

2 Disconnect the cable from the motor.

3 Remove the three screws, and then remove the motor.



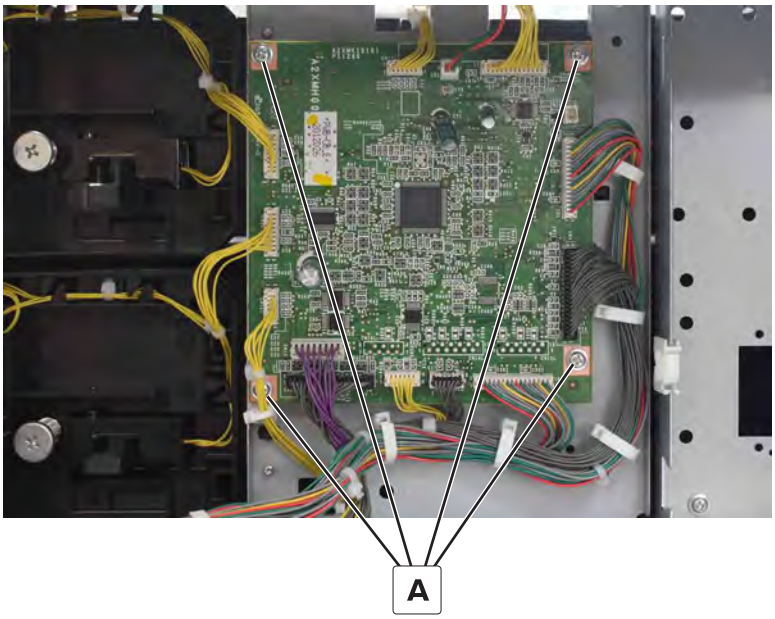
#	Part
1	Motor (2 x 500-sheet tray 3 feed)
2	Motor (2 x 500-sheet tray 4 feed)
3	Motor (2 x 500-sheet tray 4 transport)
4	Motor (2 x 500-sheet tray 3 transport)

2 x 500-sheet tray controller board removal

1 Remove the rear cover. See **“2 x 500-sheet tray rear cover removal” on page 764**.

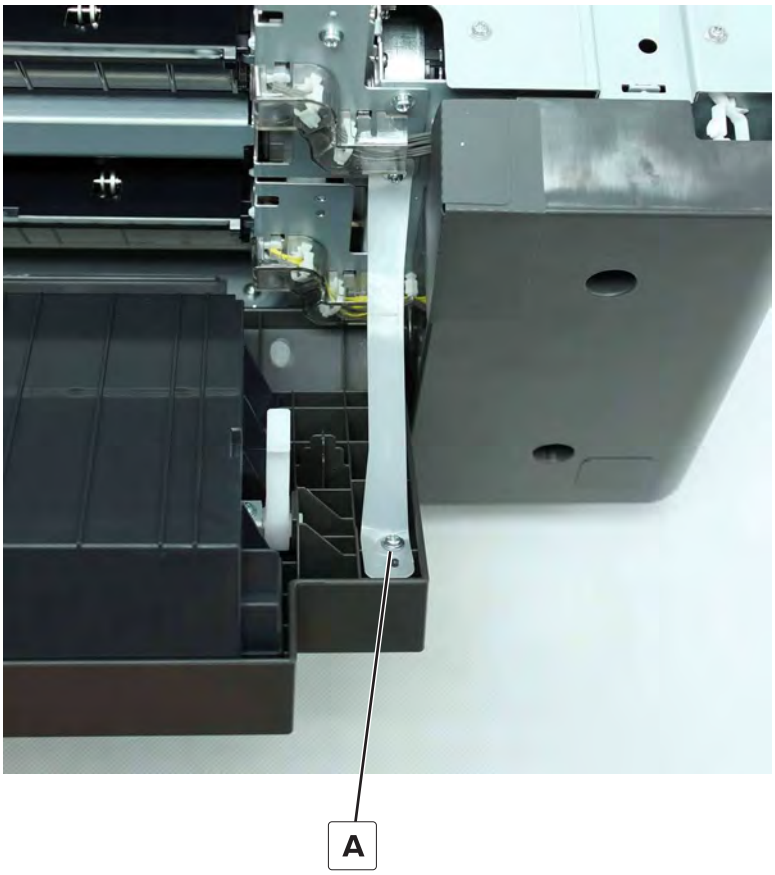
2 Disconnect all the cables from the board.

3 Remove the four screws (A), and then remove the board.

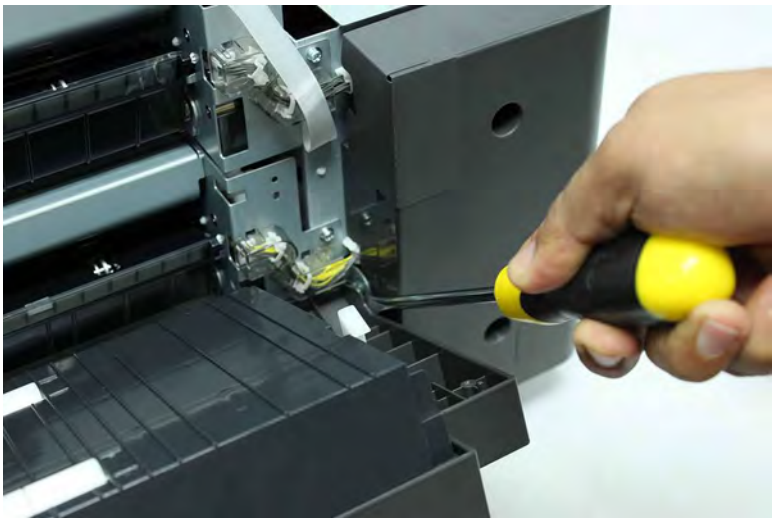


2 x 500-sheet tray jam access door removal

1 Open the door, and then remove the screw (A).

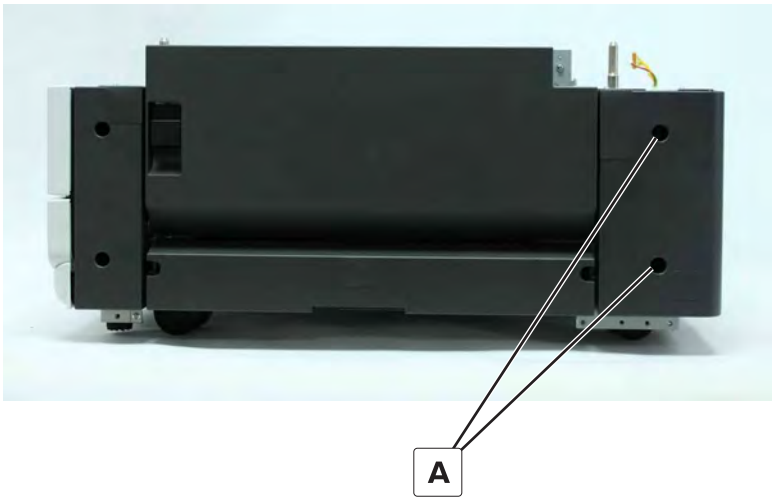


2 Pry to release the hinge, and then remove the cover.



2 x 500-sheet tray rear right cover removal

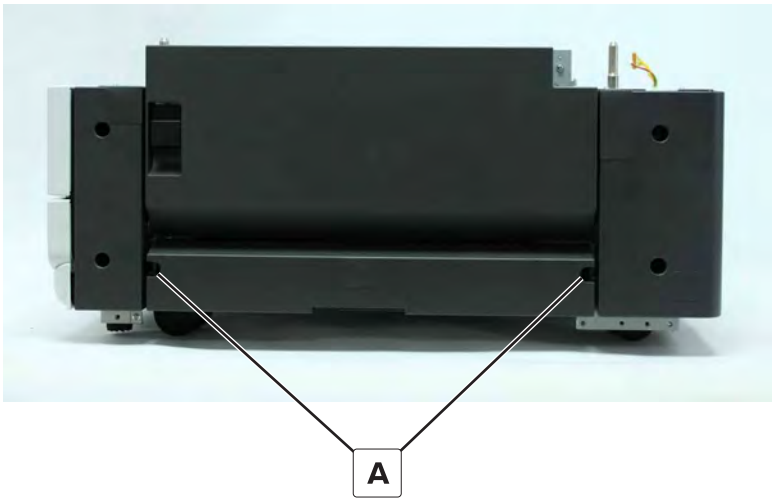
1 Remove the two screws (A).



2 Remove the cover.

2 x 500-sheet tray bottom right cover removal

1 Remove the two screws (A).



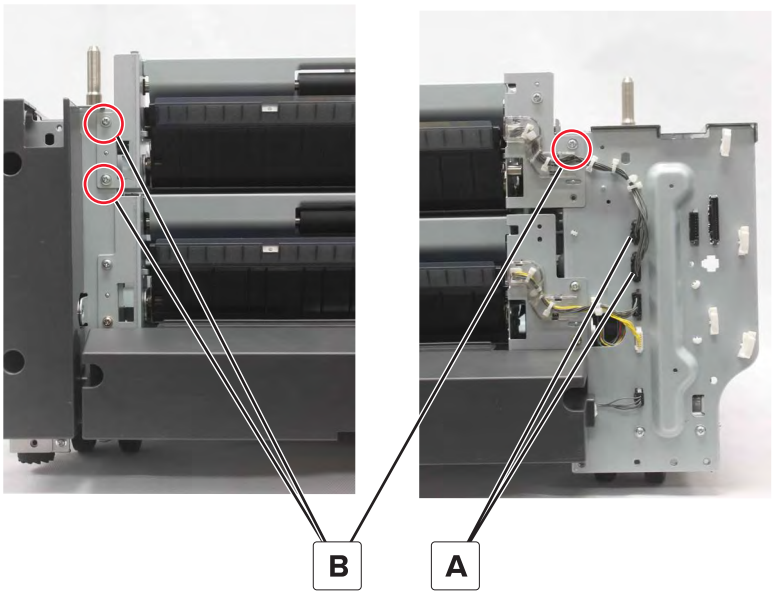
2 Remove the cover.

2 x 500-sheet tray 3 transport assembly removal

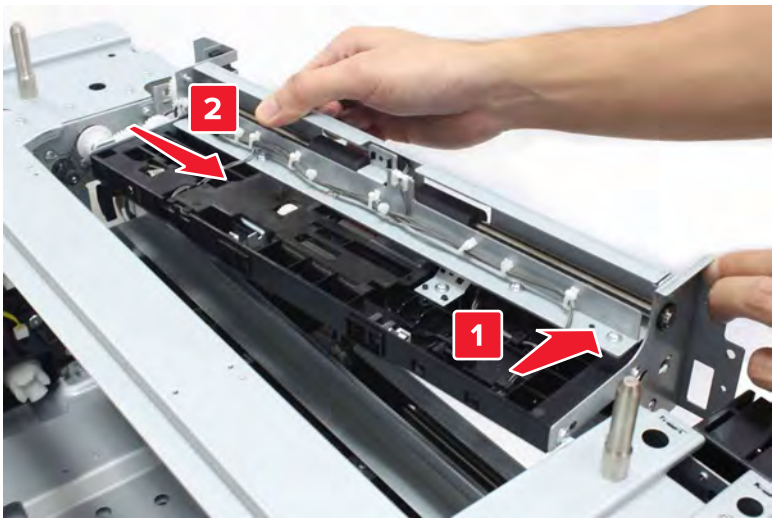
1 Remove the rear right cover. See **"2 x 500-sheet tray rear right cover removal" on page 770**.

2 Remove the jam access door. See **"2 x 500-sheet tray jam access door removal" on page 769**.

3 Disconnect the two cables (A), and then remove the three screws (B).



4 Remove the assembly.



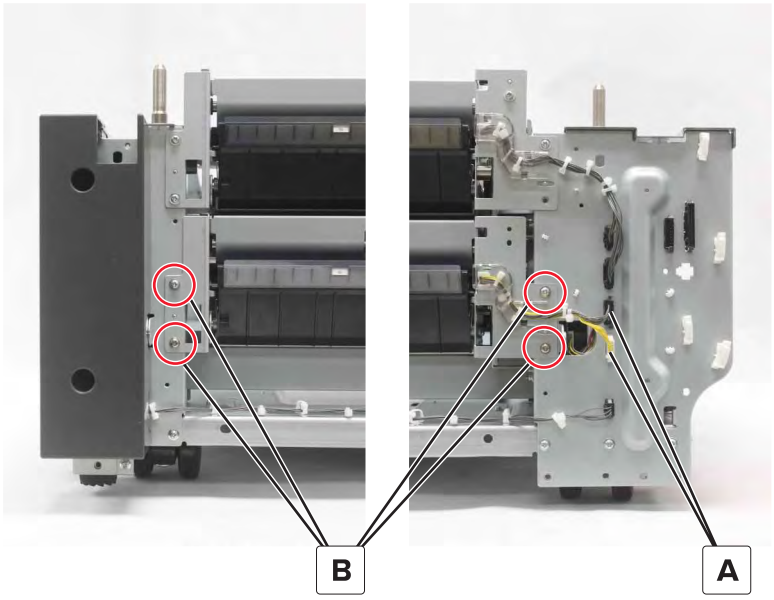
2 x 500-sheet tray 4 transport assembly removal

1 Remove the rear right cover. See "2 x 500-sheet tray rear right cover removal" on page 770.

2 Remove the jam access door. See "2 x 500-sheet tray jam access door removal" on page 769.

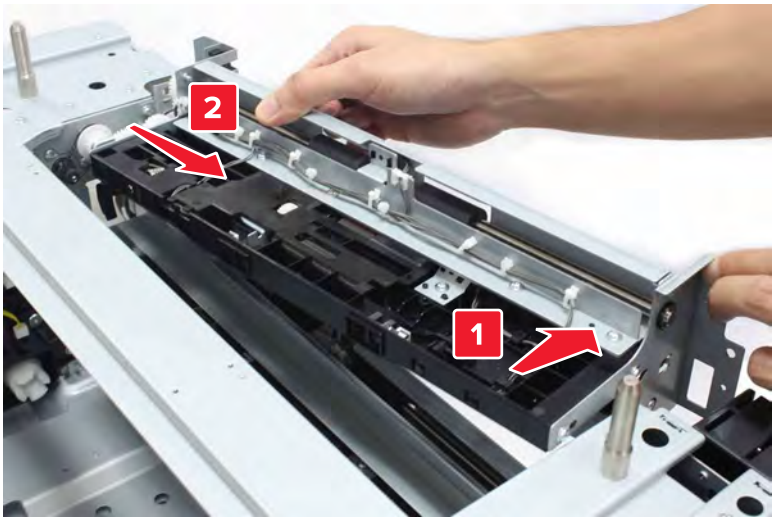
3 Remove the bottom right cover. See "2 x 500-sheet tray bottom right cover removal" on page 771.

4 Disconnect the two cables (A), and then remove the four screws (B).



5 Remove the assembly.

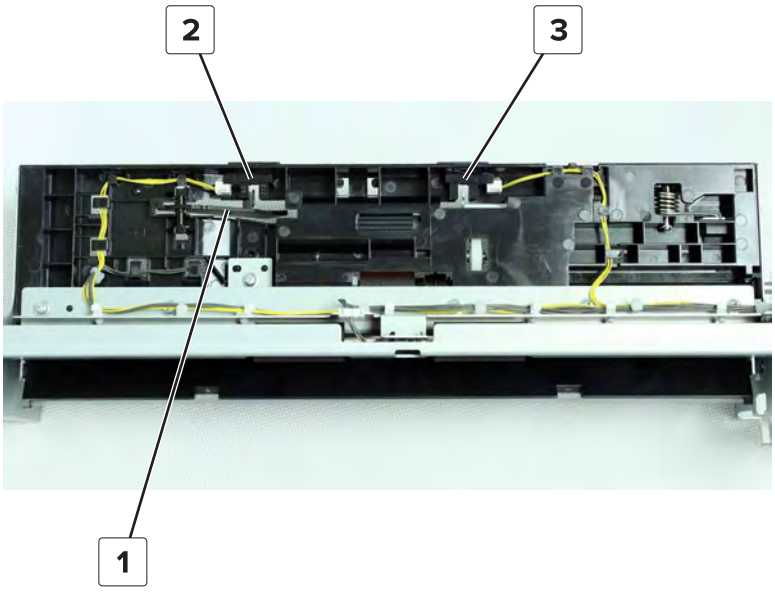
Note: The following illustration shows the tray 3 transport assembly. The same movements apply when removing the tray 4 transport assembly.

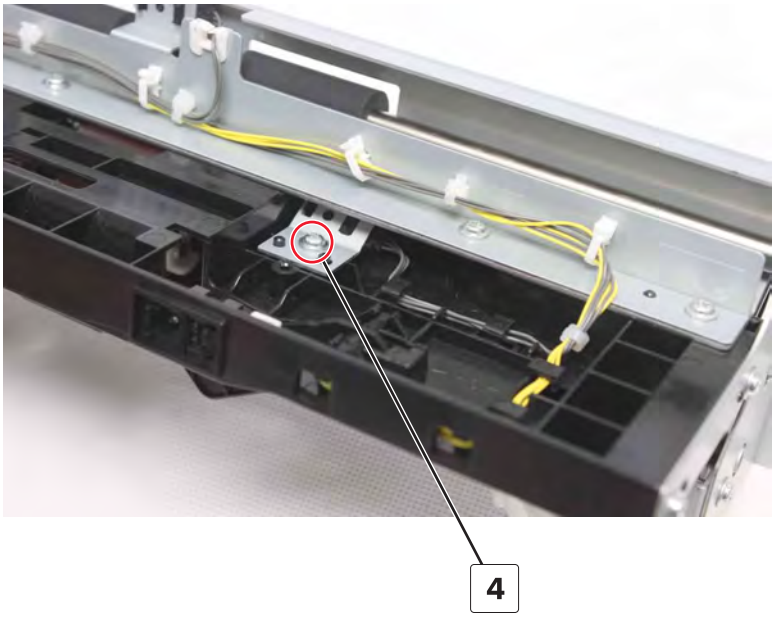


2 x 500-sheet tray transport assembly sensors removal

Note: The following procedure begins with the tray 4 transport assembly sensors. If you are removing the tray 3 transport assembly sensors, then go directly to step 5.

1. Remove the rear right cover. See **"2 x 500-sheet tray rear right cover removal" on page 770**.
2. Remove the jam access door. See **"2 x 500-sheet tray jam access door removal" on page 769**.
3. Remove the bottom right cover. See **"2 x 500-sheet tray bottom right cover removal" on page 771**.
4. Remove the tray 4 transport assembly. See **"2 x 500-sheet tray 4 transport assembly removal" on page 772**.
5. Remove the appropriate FRU.



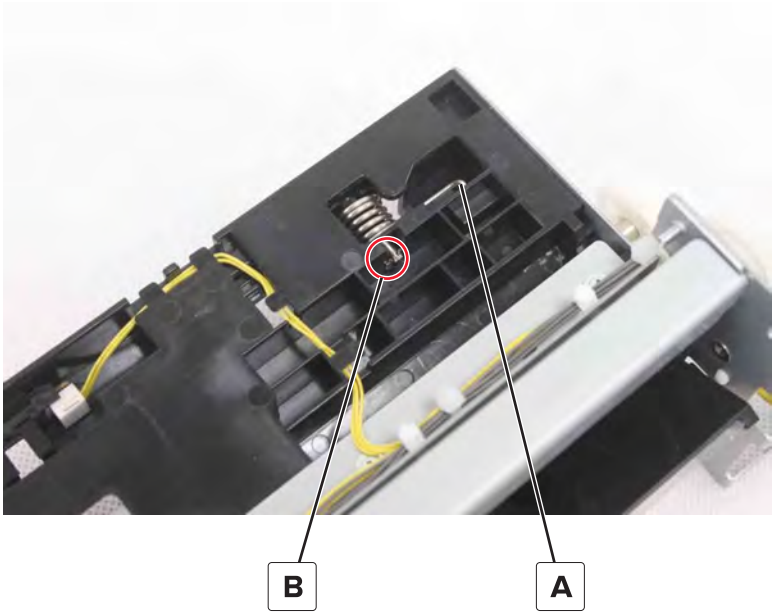


#	Part
1	2 x 500-sheet tray empty sensor actuator
2	Sensor (2 x 500-sheet tray empty)
3	Sensor (2 x 500-sheet tray lift plate level)
4	Sensor (2 x 500-sheet tray feed) **Note:** Remove the screw, remove the sensor bracket, and then remove the sensor.

2 x 500-sheet tray tray set actuator removal

1. Remove the rear right cover. See **"2 x 500-sheet tray rear right cover removal" on page 770**.
2. Remove the jam access door. See **"2 x 500-sheet tray jam access door removal" on page 769**.
3. Remove the bottom right cover. See **"2 x 500-sheet tray bottom right cover removal" on page 771**.
4. Remove the tray 3 or tray 4 transport assembly. See **"2 x 500-sheet tray 3 transport assembly removal" on page 771** or **"2 x 500-sheet tray 4 transport assembly removal" on page 772**.
5. Release the spring (A).

6 Remove the clip (B).



7 Remove the shaft, and then remove the actuator.

Sensor (2 x 500-sheet tray transport) removal

Note: The following procedure begins with the tray 4 sensor. If you are removing the tray 3 sensor, then go directly to step 5.

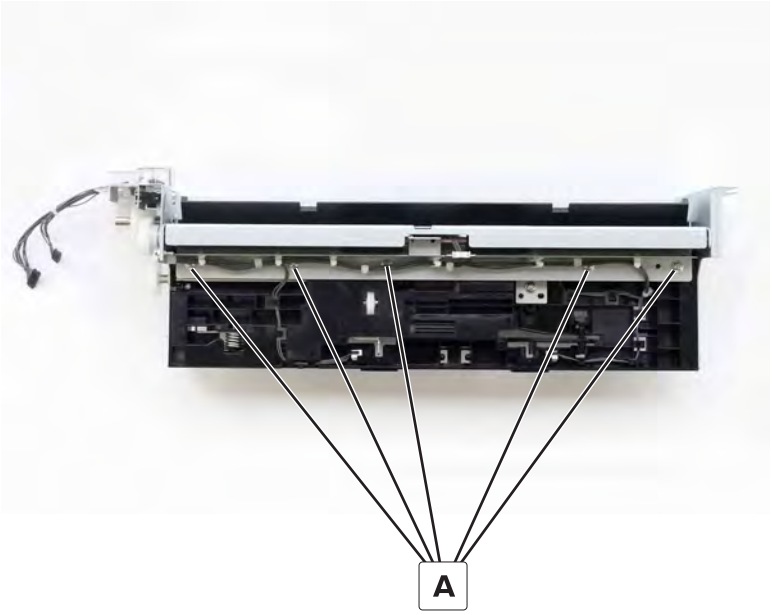
1 Remove the rear right cover. See **"2 x 500-sheet tray rear right cover removal" on page 770**.

2 Remove the jam access door. See **"2 x 500-sheet tray jam access door removal" on page 769**.

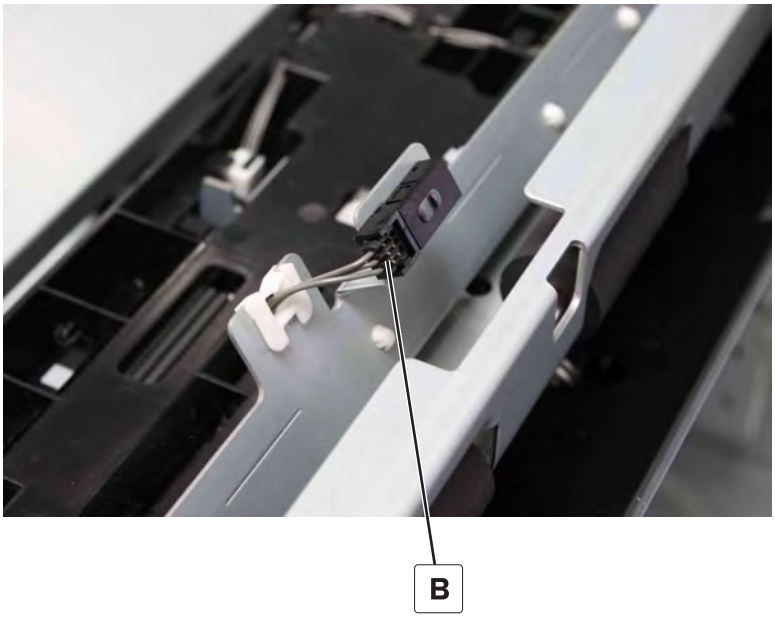
3 Remove the bottom right cover. See **"2 x 500-sheet tray bottom right cover removal" on page 771**.

4 Remove the tray 4 transport assembly. See **"2 x 500-sheet tray 4 transport assembly removal" on page 772**.

5 Remove the five screws (A).



6 Disconnect the cable (B), and then remove the sensor.



2 x 500-sheet tray 3 transport belts and gears removal

1 Remove the rear right cover. See **“2 x 500-sheet tray rear right cover removal” on page 770**.

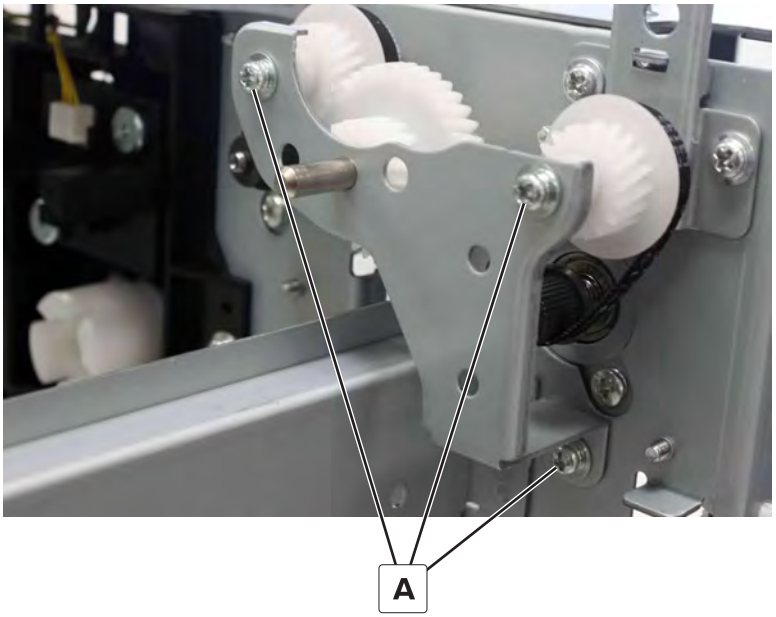
2 Remove the jam access door. See **“2 x 500-sheet tray jam access door removal” on page 769**.

3 Remove the bottom right cover. See **“2 x 500-sheet tray bottom right cover removal” on page 771**.

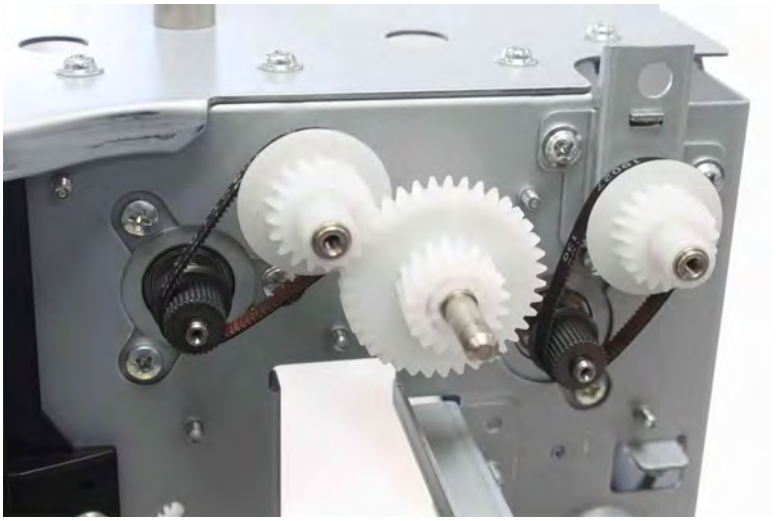
4 Remove the tray 3 transport assembly. See **“2 x 500-sheet tray 3 transport assembly removal” on page 771**.

5 Remove the tray 4 transport assembly. See **“2 x 500-sheet tray 4 transport assembly removal” on page 772**.

6 Remove the three screws (A), and then remove the bracket.



7 Remove the three gears and two belts.



2 x 500-sheet tray 4 transport belts and gears removal

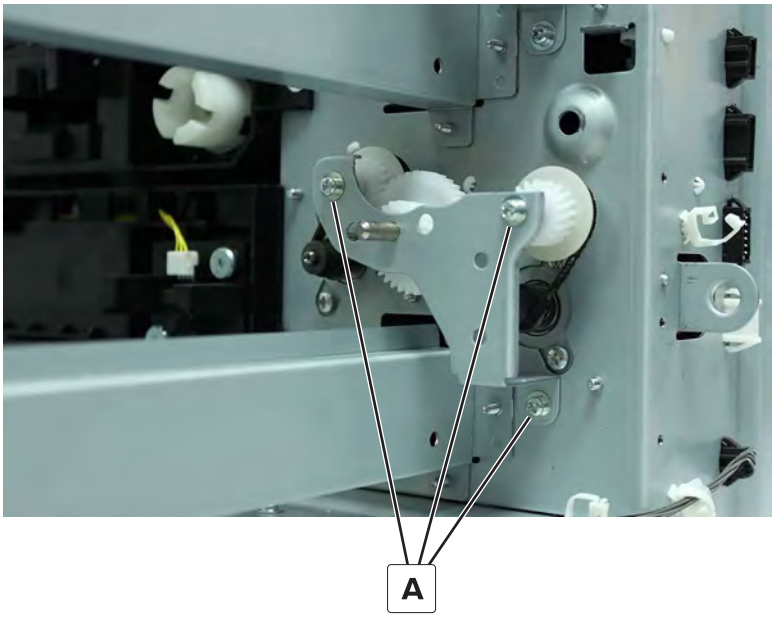
1 Remove the rear right cover. See **“2 x 500-sheet tray rear right cover removal” on page 770**.

2 Remove the jam access door. See **“2 x 500-sheet tray jam access door removal” on page 769**.

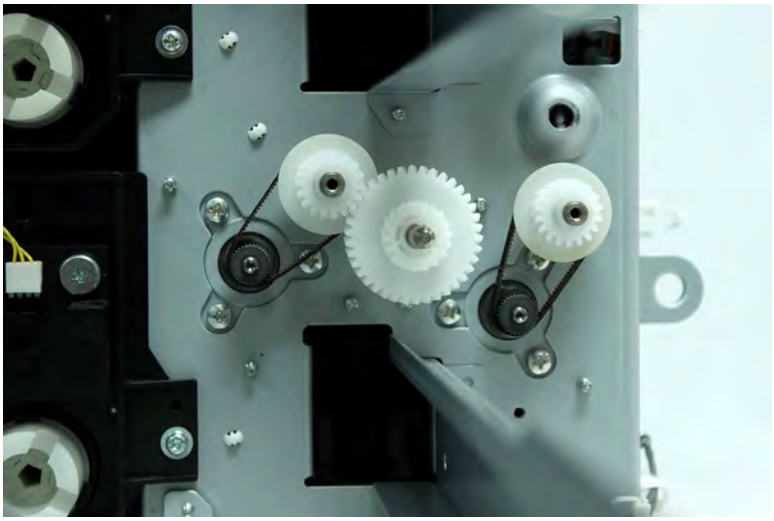
3 Remove the bottom right cover. See **“2 x 500-sheet tray bottom right cover removal” on page 771**.

4 Remove the tray 4 transport assembly. See **“2 x 500-sheet tray 4 transport assembly removal” on page 772**.

5 Remove the three screws (A), and then remove the bracket.



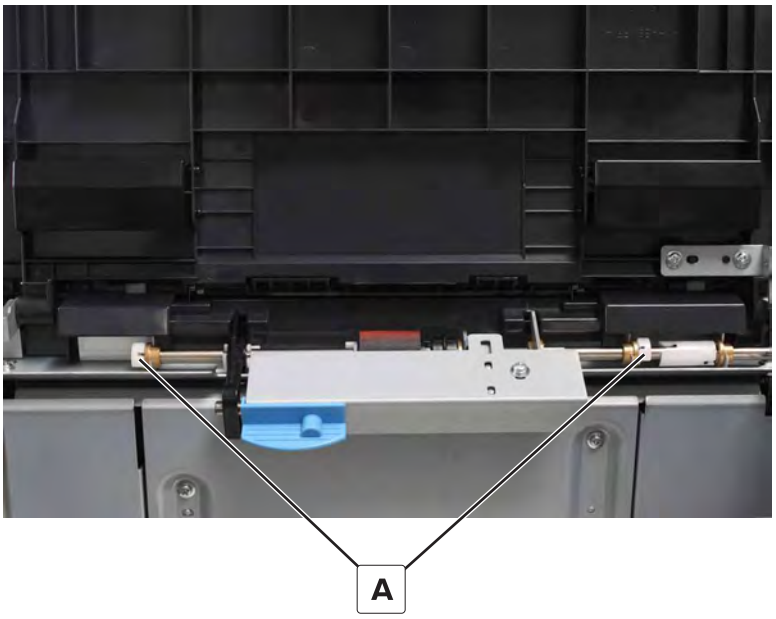
6 Remove the three gears and two belts.



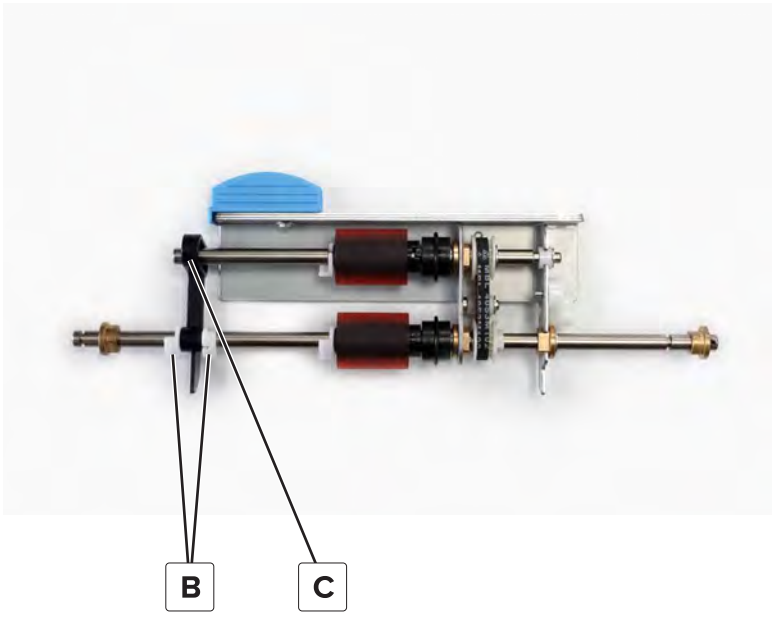
3000-sheet tray removals

3000-sheet tray rollers removal

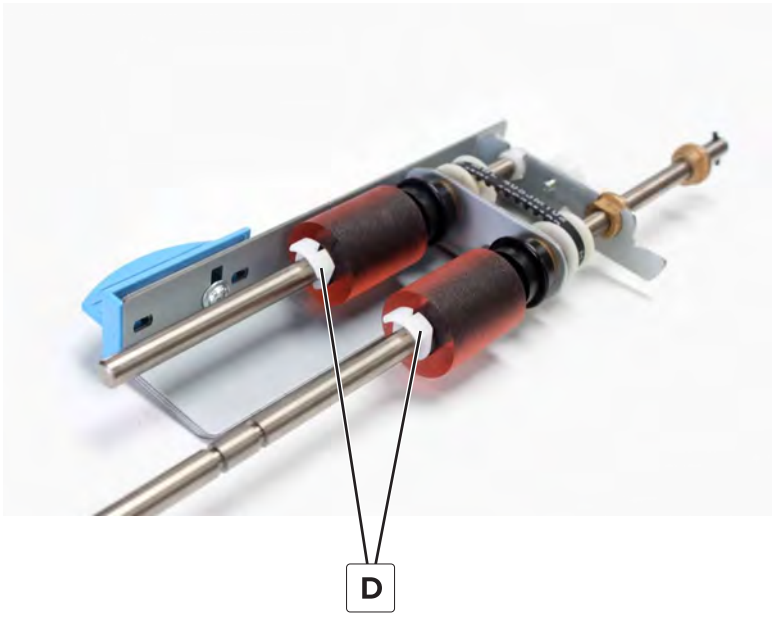
1 Remove the two clips (A), and then remove the bushings.



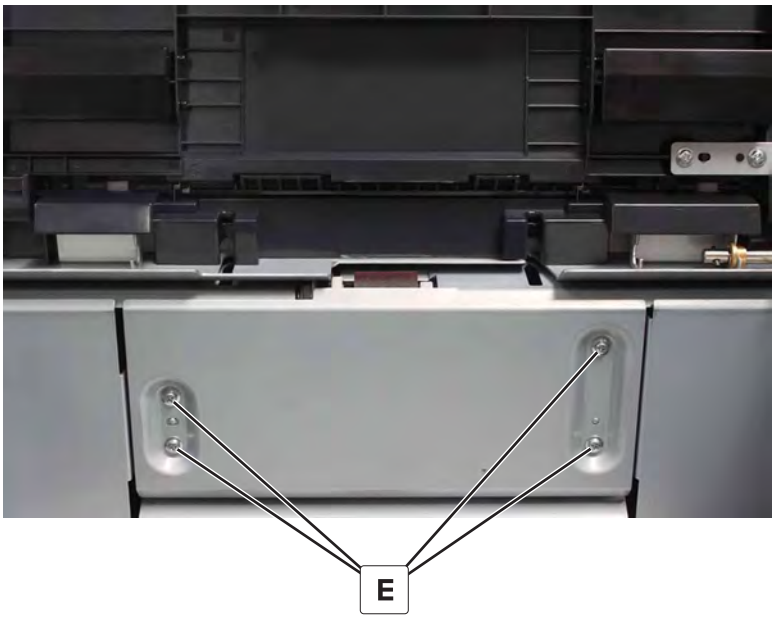
2 Remove the two clips (B), and then remove the actuator (C).



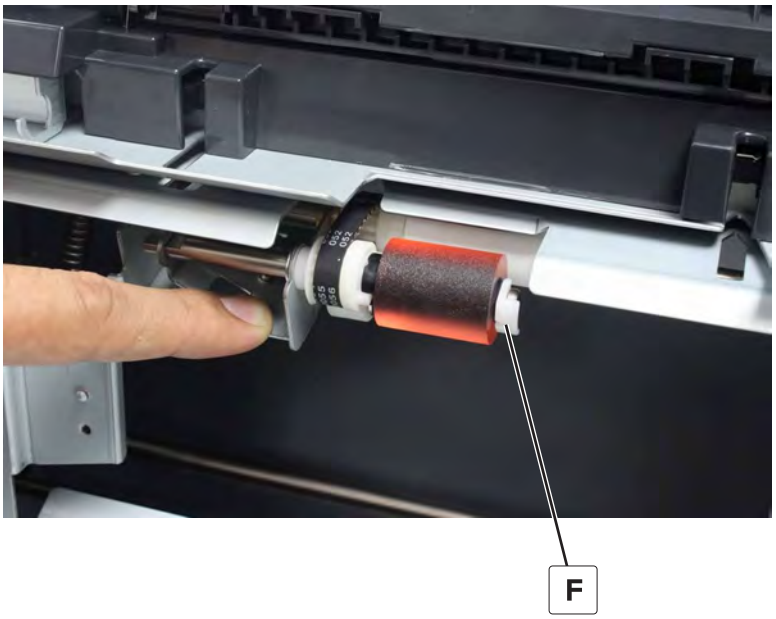
3 Remove the two clips (D), and then remove the feed and pick rollers.



4 Remove the four screws (E), and then remove the cover.



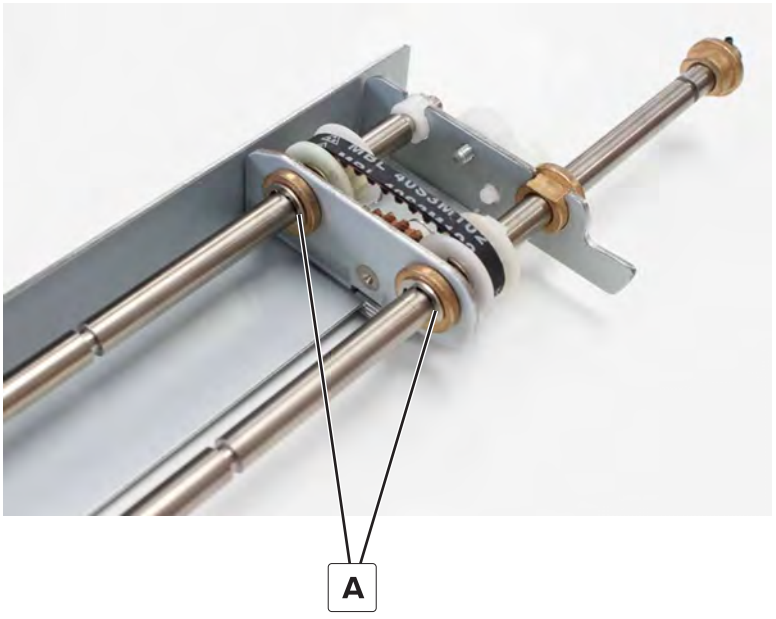
5 Remove the clip (F), and then remove the roller.



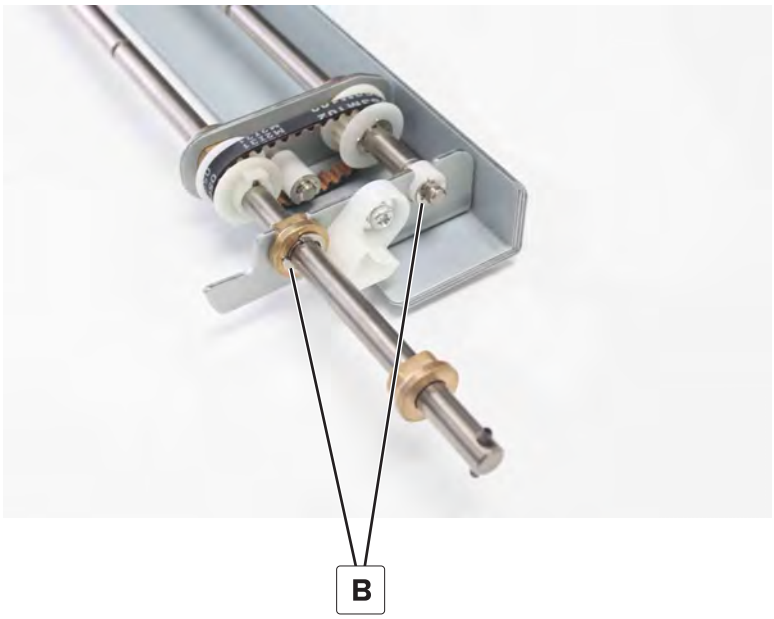
3000-sheet tray feed and pick belt removal

1 Remove the feed and pick rollers. See **“3000-sheet tray rollers removal” on page 779**.

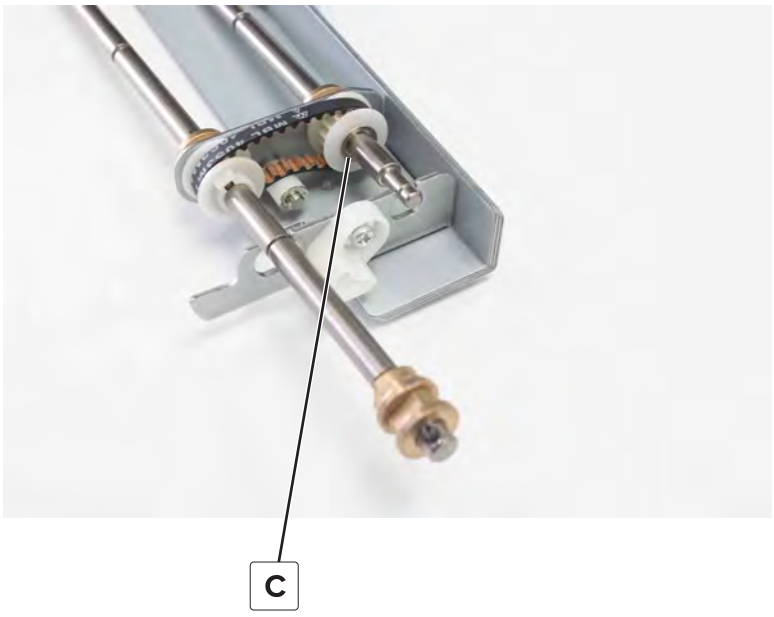
2 Remove the two clips (A), and then remove the bushings.



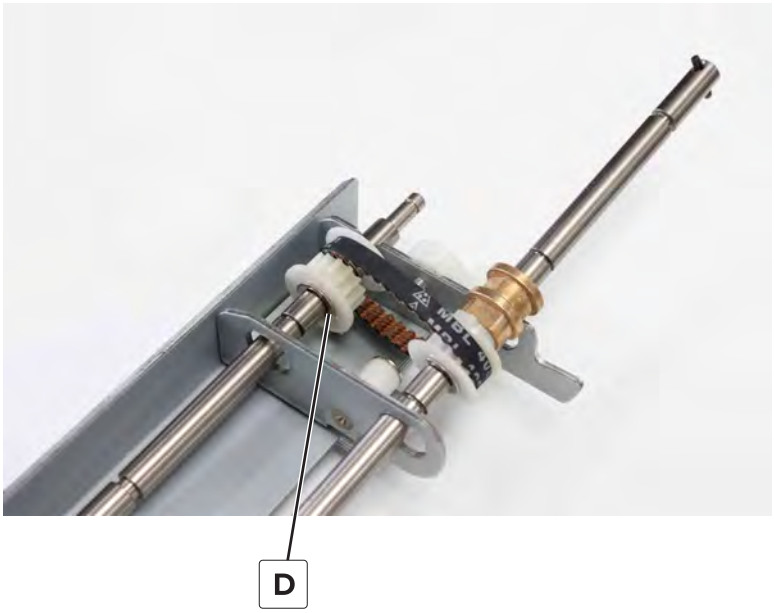
3 Remove the two clips (B), and then remove the two bushings.



4 Remove the clip (C).

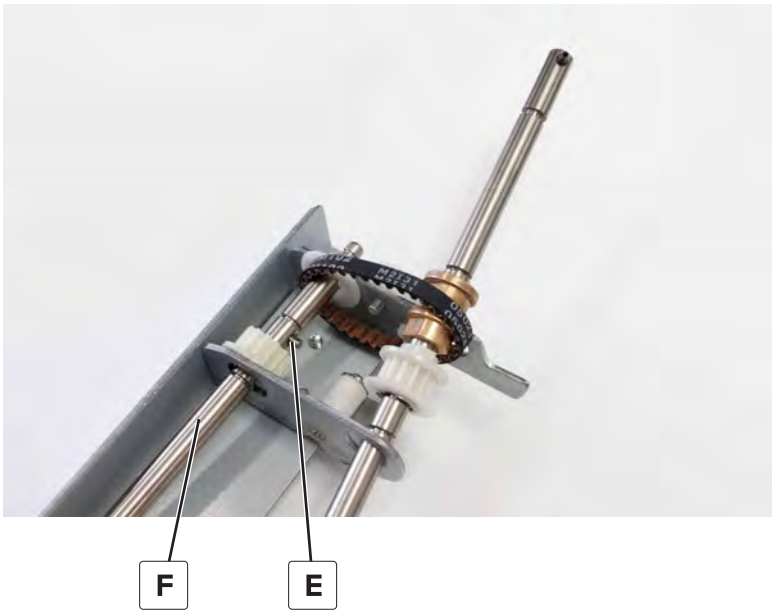


5 Remove the clip (D).



6 Remove the pin (E).

7 Pull out the shaft (F), and then remove the belt.



3000-sheet tray caster wheel removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Depending on the caster, remove the front cover or the rear cover. See **“3000-sheet tray front cover removal” on page 786** or **“3000-sheet tray rear cover removal” on page 787**.

3 Remove the nut (A), and then remove the caster.

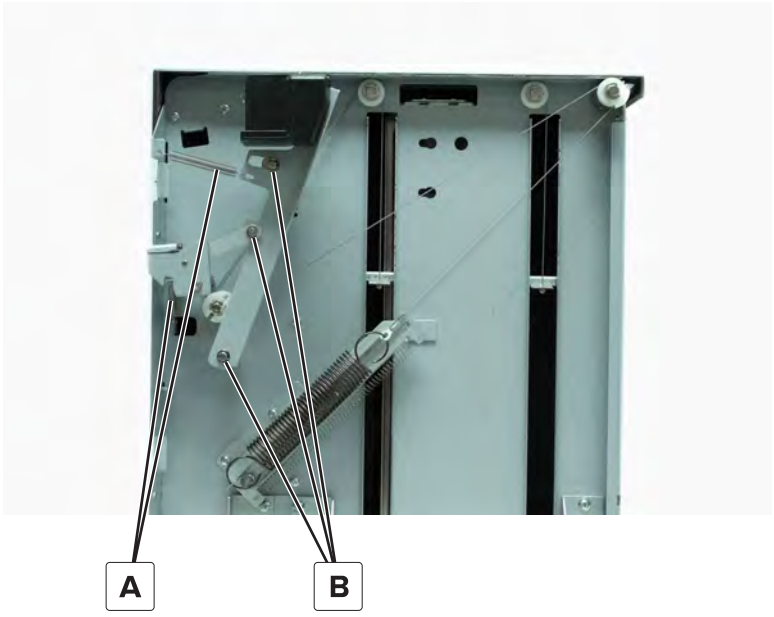
3000-sheet tray release handle removal

1 Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.

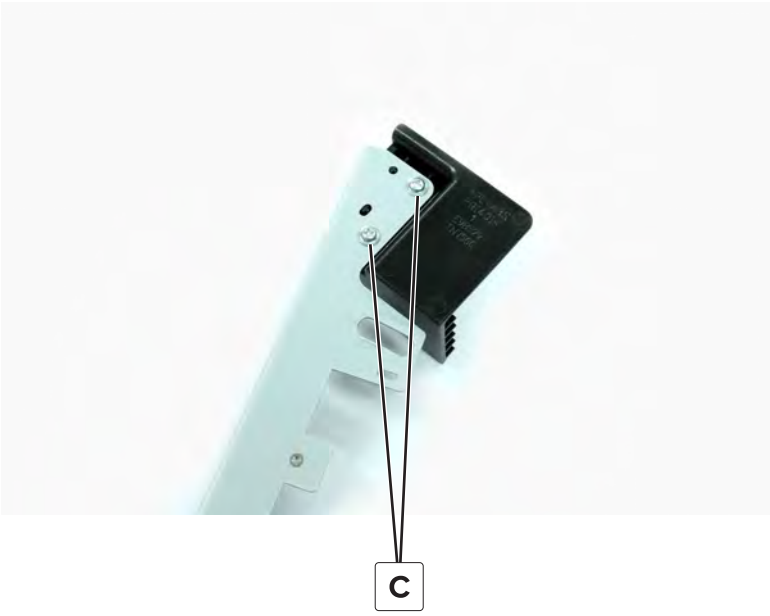
2 Remove the front cover. See **"3000-sheet tray front cover removal" on page 786**.

3 Disconnect the two springs (A).

4 Remove the three clips (B), and then remove the link.

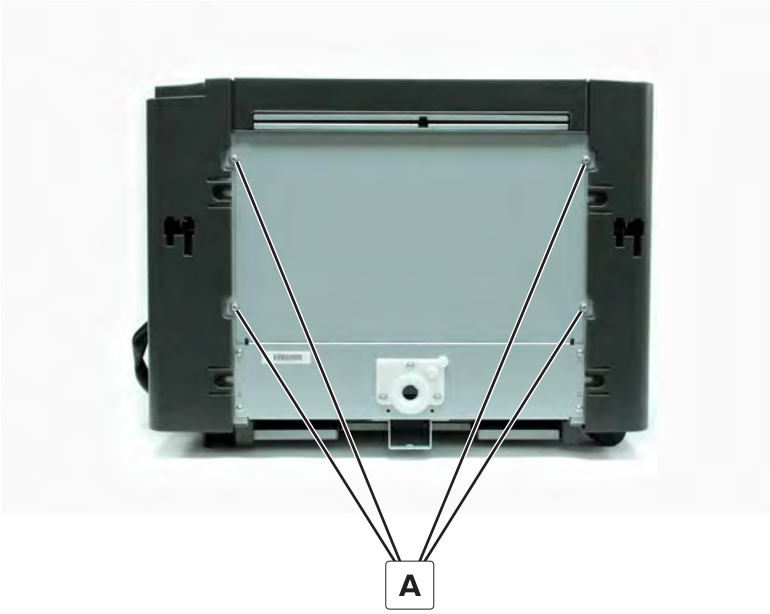


5 Remove the two screws (C), and then remove the handle.



3000-sheet tray left cover removal

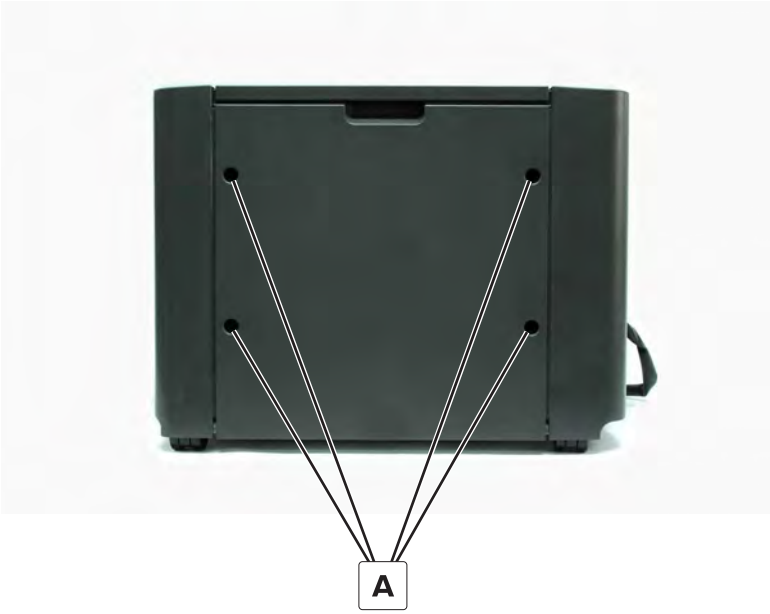
1 Remove the four screws (A).



2 Remove the cover.

3000-sheet tray right cover removal

1 Remove the four screws (A).



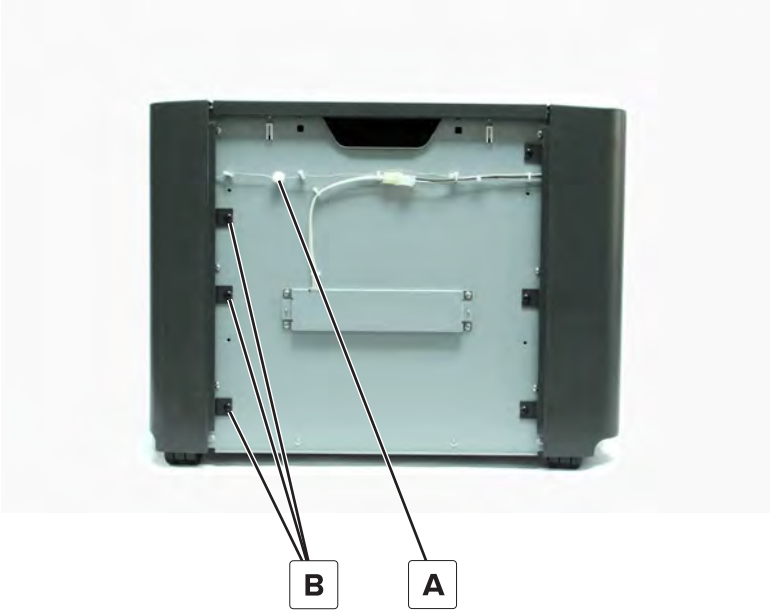
2 Remove the cover.

3000-sheet tray front cover removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Disconnect the cable (A), and then remove it from the cable clips.

3 Remove the three screws (B).

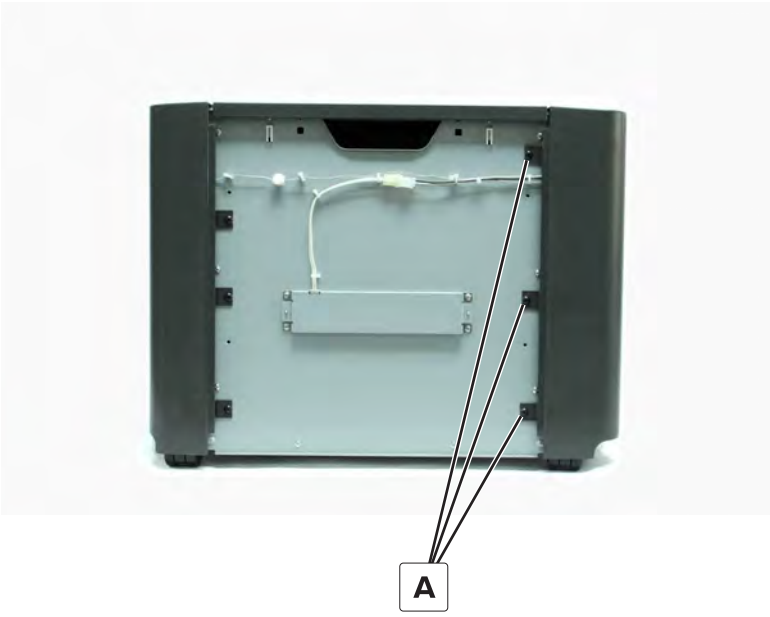


4 Remove the two screws (C), and then remove the cover.

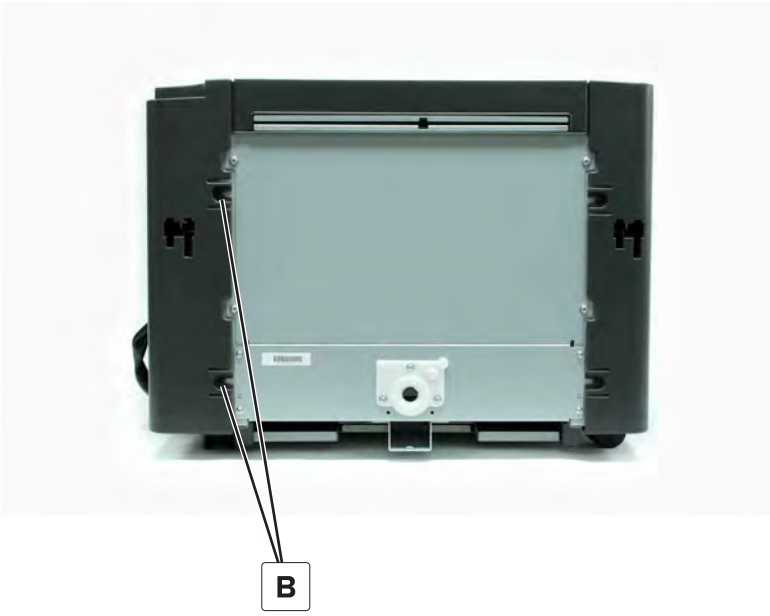
3000-sheet tray rear cover removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Remove the three screws (A).



3 Remove the two screws (B).



4 Remove the two screws (C).

5 Remove the plate, and then remove the cover.

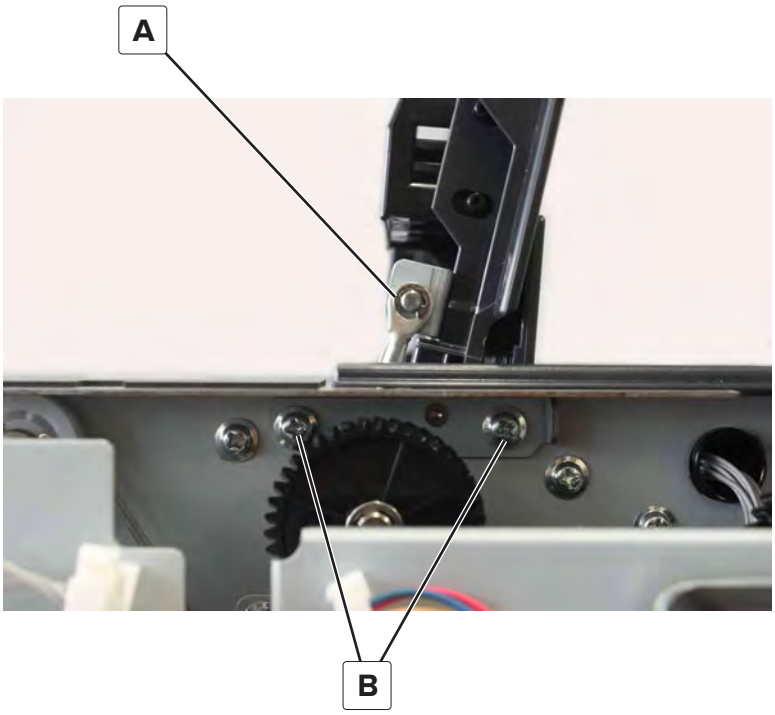
3000-sheet tray door removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.

3 Remove the clip (A), and then disconnect the cable.

4 Remove the two screws (B), and then remove the bracket.



5 Remove the door.

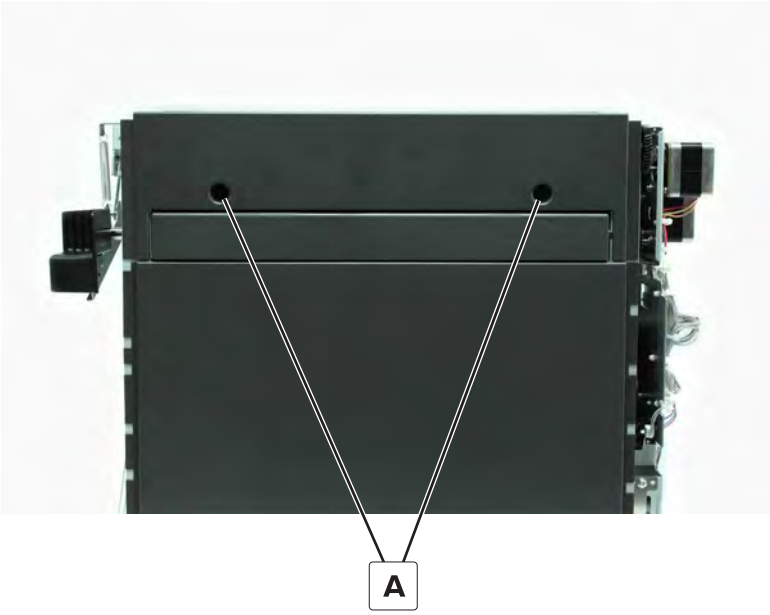
3000-sheet tray left top cover removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Remove the front cover. See **“3000-sheet tray front cover removal” on page 786**.

3 Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.

4 Remove the two screws (A), and then remove the cover.

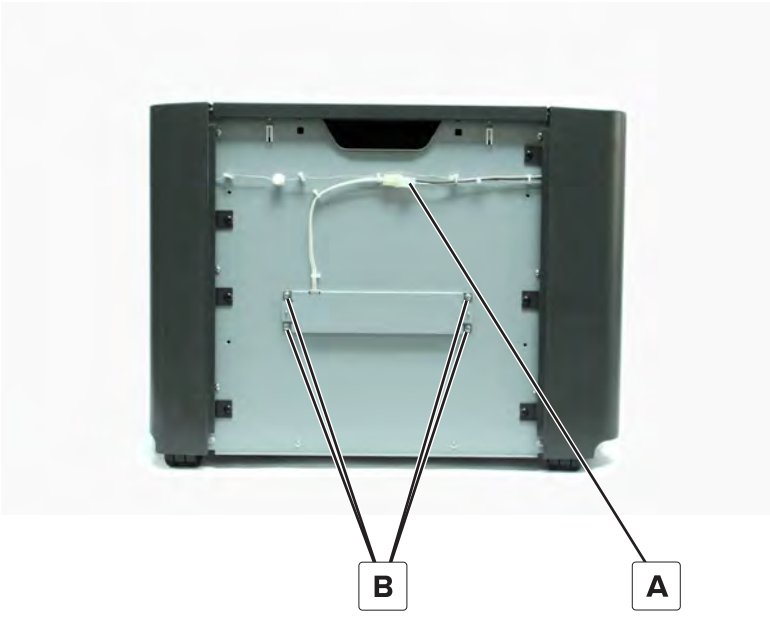


Dehumidifier removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

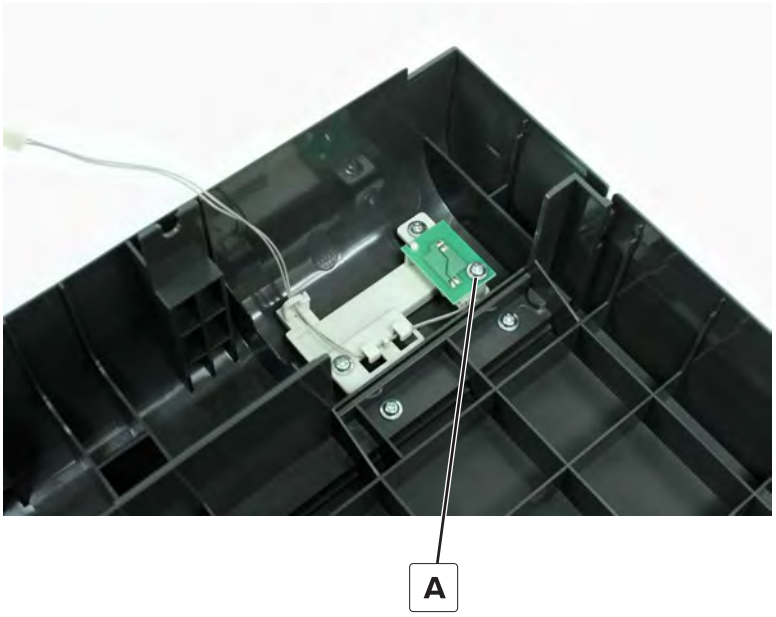
2 Disconnect the cable (A).

3 Remove the four screws (B), and then remove the dehumidifier.



3000-sheet tray empty LED removal

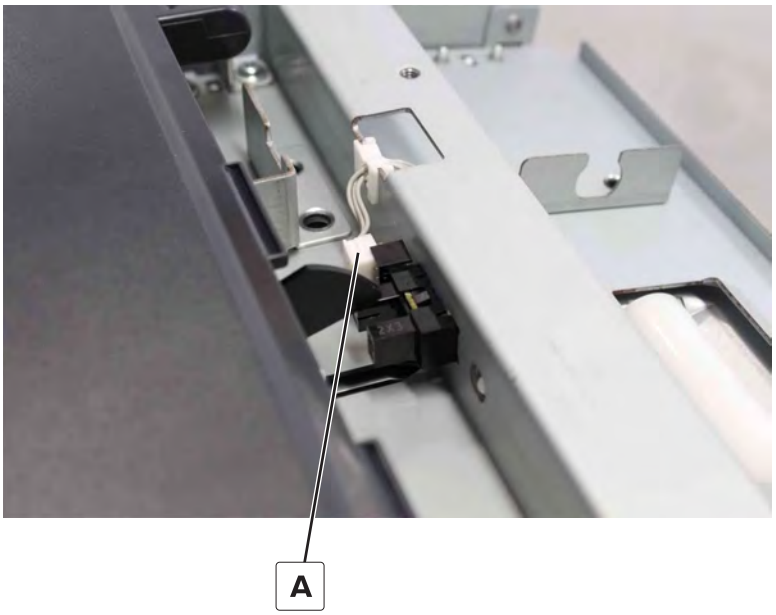
1. Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.
2. Remove the front cover. See **“3000-sheet tray front cover removal” on page 786**.
3. Remove the screw (A), and then remove the LED.



Sensor (3000-sheet tray empty) removal

1. Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.
2. Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.
3. Remove the left top cover. See **“3000-sheet tray left top cover removal” on page 789**.

4 Disconnect the cable (A), and then remove the sensor.



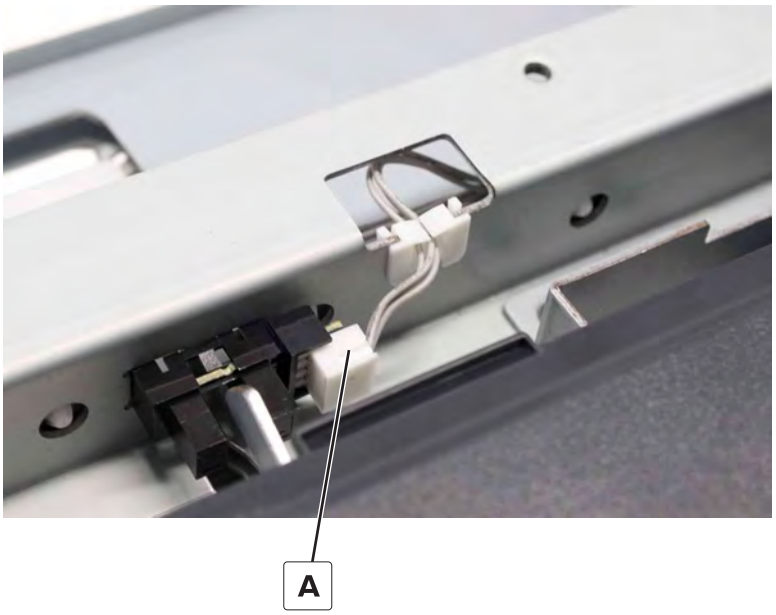
Sensor (3000-sheet tray elevator level) removal

1 Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.

2 Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.

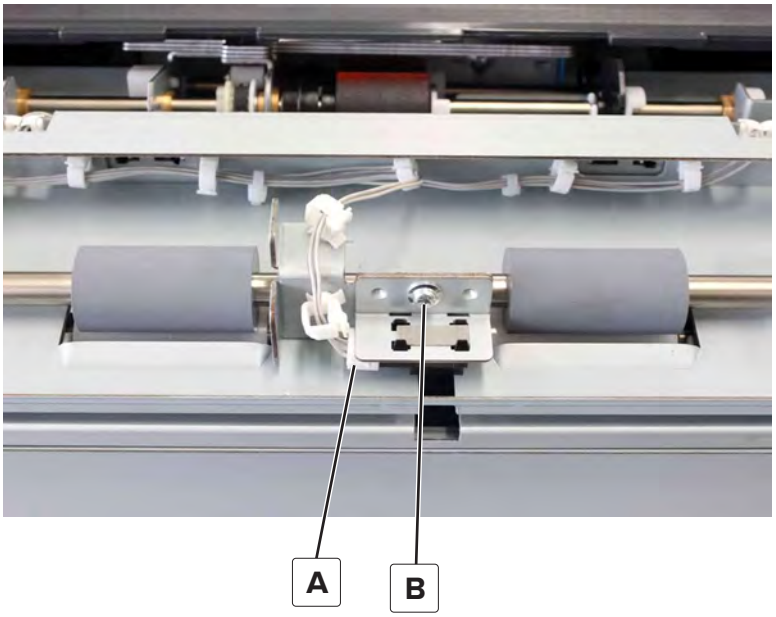
3 Remove the left top cover. See **"3000-sheet tray left top cover removal" on page 789**.

4 Disconnect the cable (A), and then remove the sensor.

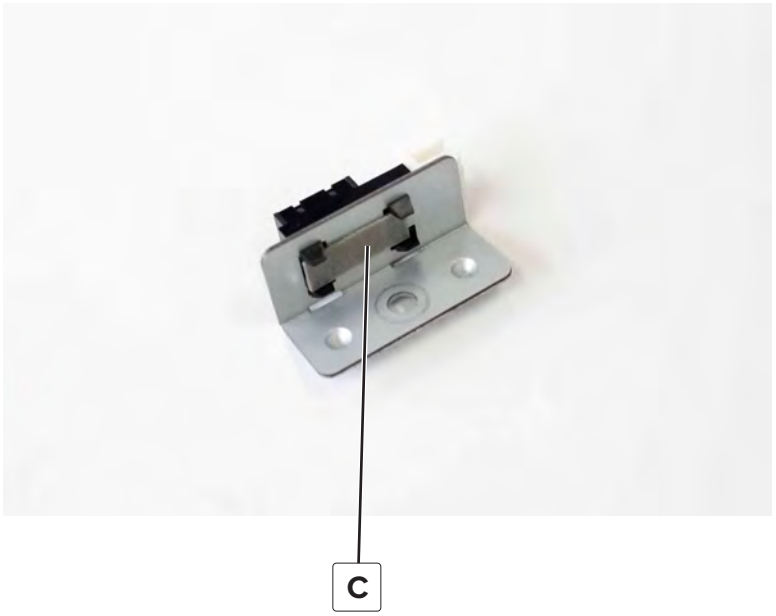


Sensor (3000-sheet tray feed) removal

1. Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.
2. Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.
3. Remove the front cover. See **“3000-sheet tray front cover removal” on page 786**.
4. Remove the left top cover. See **“3000-sheet tray left top cover removal” on page 789**.
5. Disconnect the cable (A).
6. Remove the screw (B), and then remove the bracket.



7. Remove the adhesive (C), and then remove the sensor.

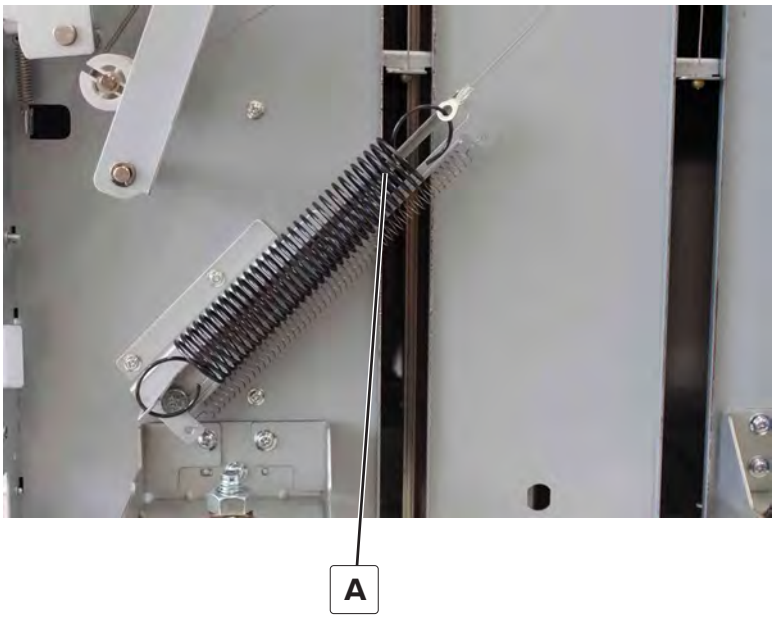


3000-sheet tray elevator spring removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Remove the front cover. See **“3000-sheet tray front cover removal” on page 786**.

3 Remove the spring (A).



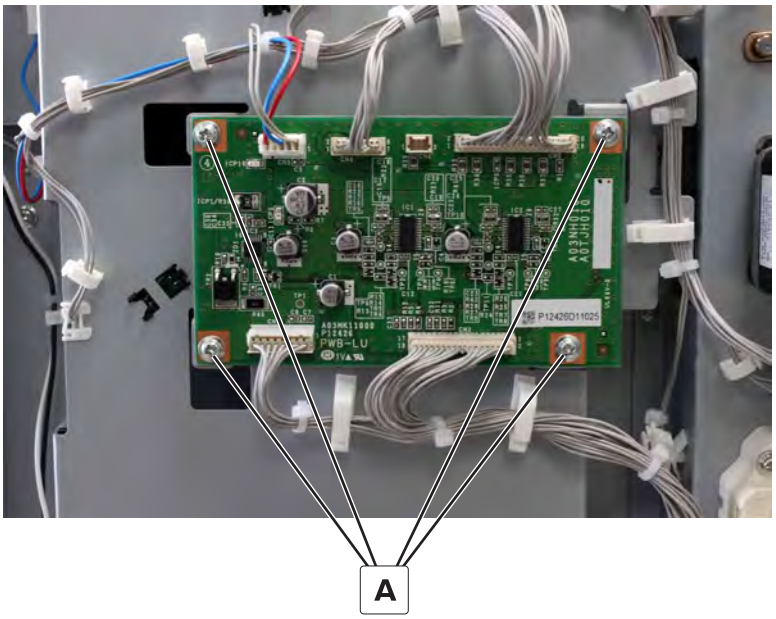
3000-sheet tray controller board removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.

3 Disconnect all the cables from the board.

4 Remove the four screws (A), and then remove the board.



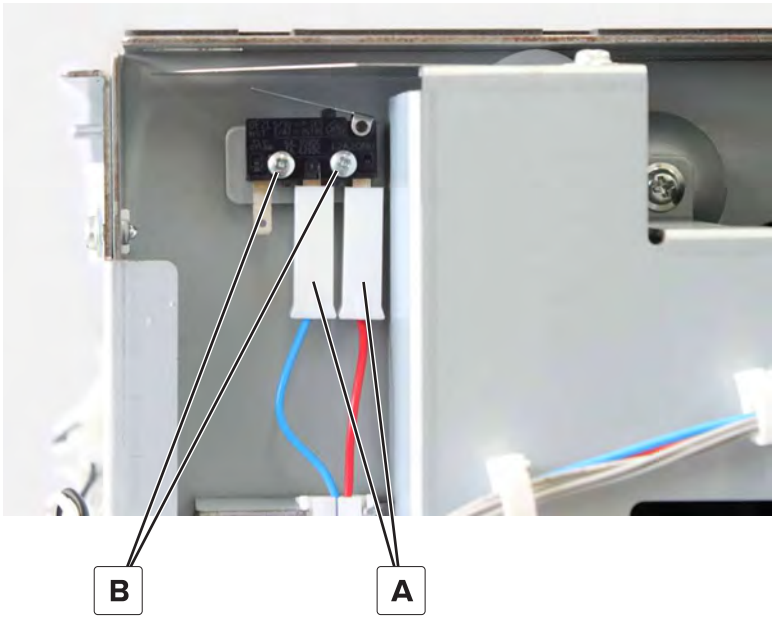
3000-sheet tray door switch removal

1 Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.

2 Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.

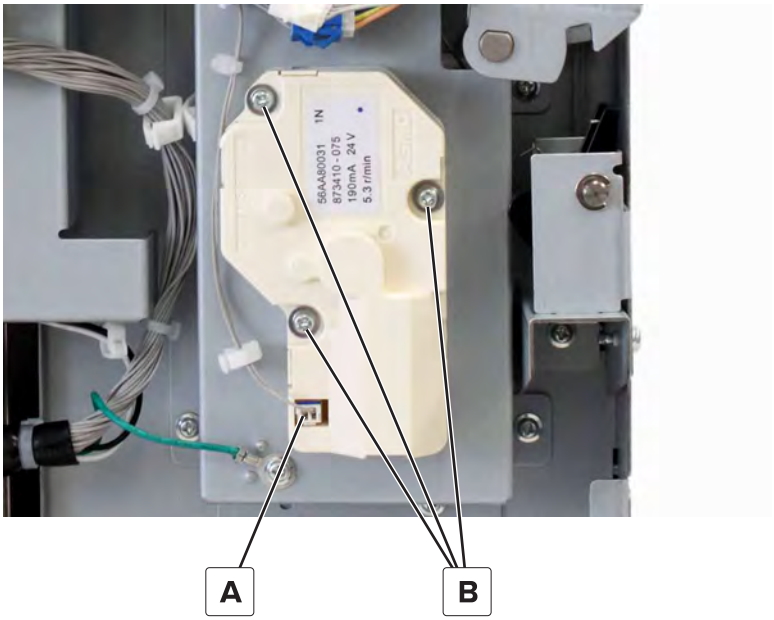
3 Disconnect the two cables (A).

4 Remove the two screws (B), and then remove the switch.



Motor (3000-sheet tray elevator) removal

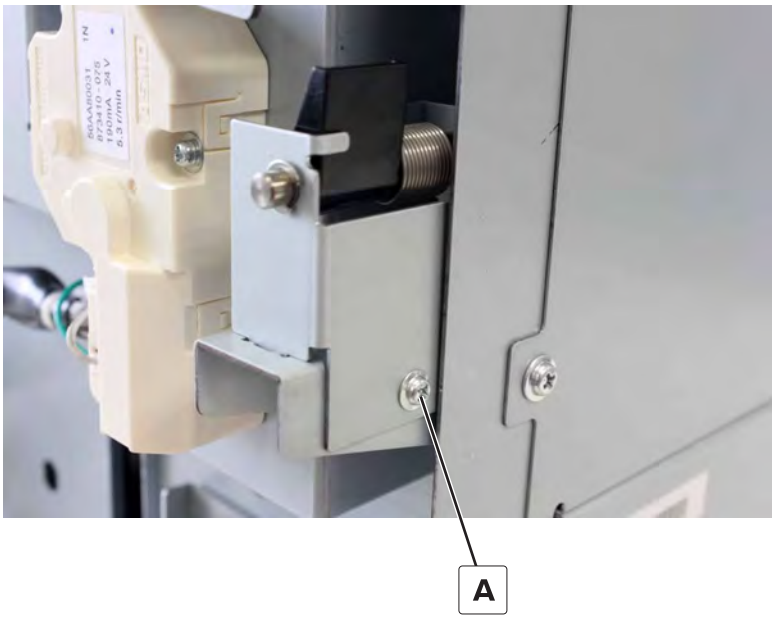
1. Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.
2. Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.
3. Disconnect the cable (A).
4. Remove the three screws (B), and then remove the motor.



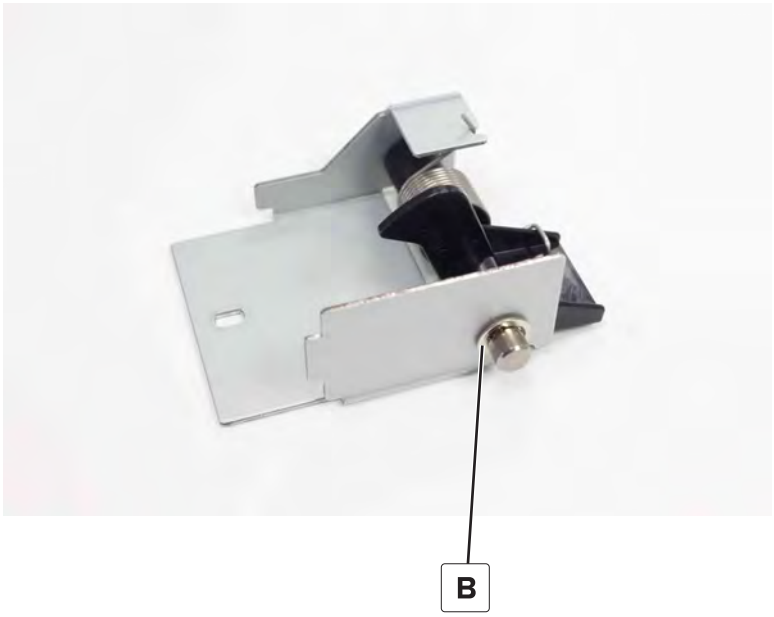
3000-sheet tray set sensor actuator removal

1. Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.
2. Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.

3 Remove the screw (A), and then remove the bracket.



4 Remove the clip (B).



5 Remove the shaft, and then remove the actuator.

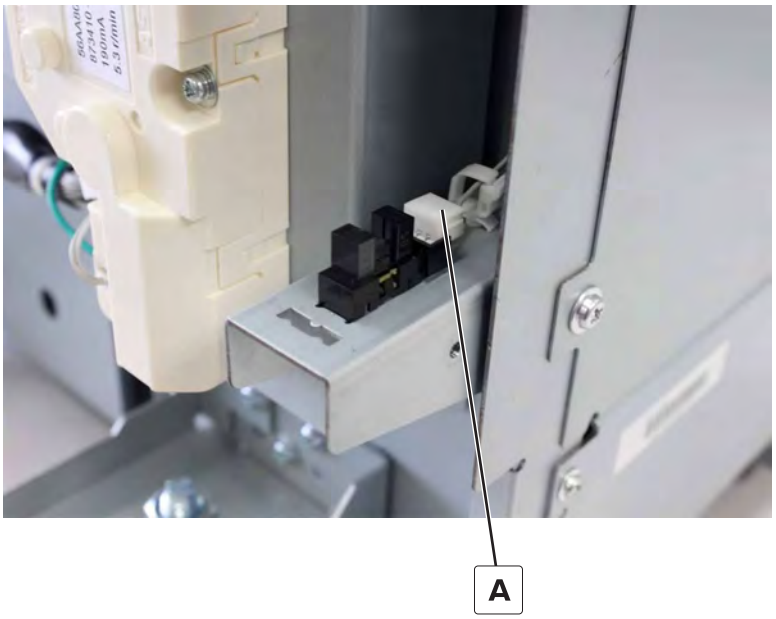
Sensor (3000-sheet tray set) removal

1 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

2 Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.

3 Remove the tray set sensor actuator. See **“3000-sheet tray set sensor actuator removal” on page 796**.

4 Disconnect the cable (A), and then remove the sensor.



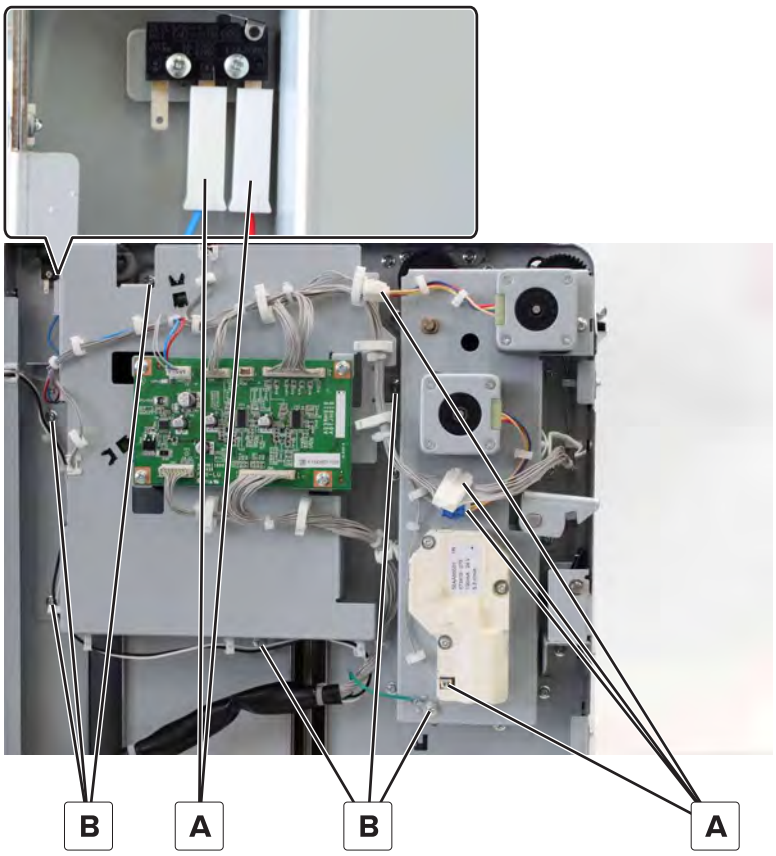
Sensor (3000-sheet tray near empty) removal

1 Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.

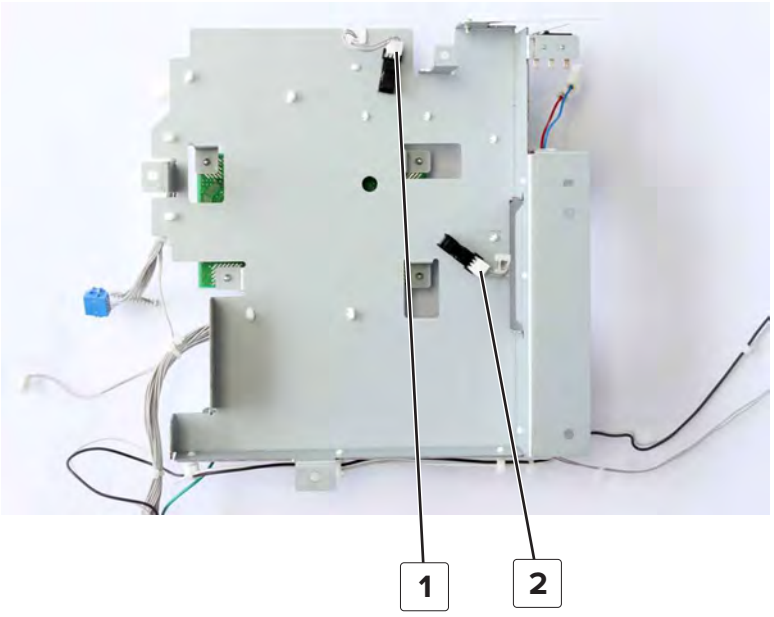
2 Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.

3 Disconnect the six cables (A).

4 Remove the six screws (B), and then remove the bracket.



5 Disconnect the cable, and then remove the sensor.

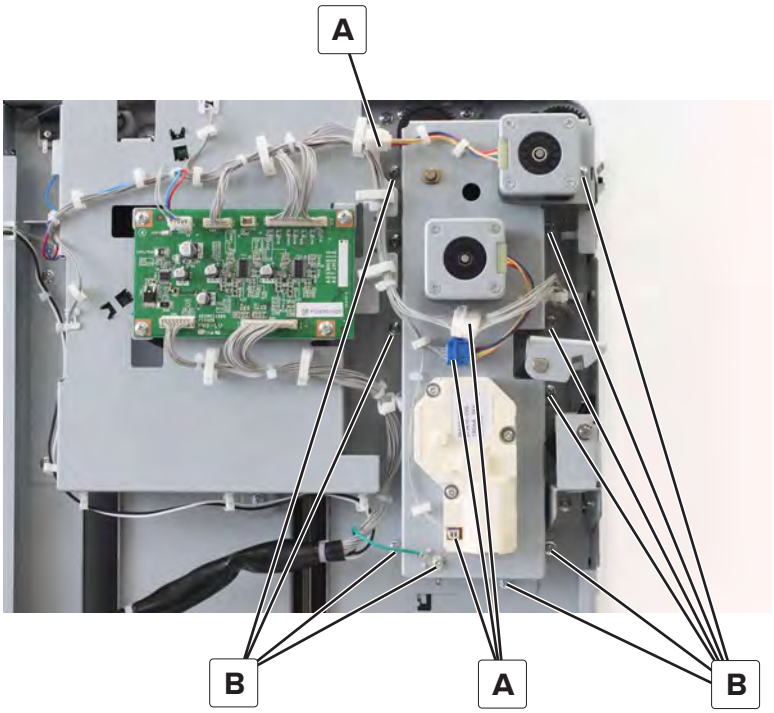


#	Part
1	Sensor (3000-sheet tray near empty 1)
2	Sensor (3000-sheet tray near empty 2)

Motor bracket removal

Note: This part is not a FRU.

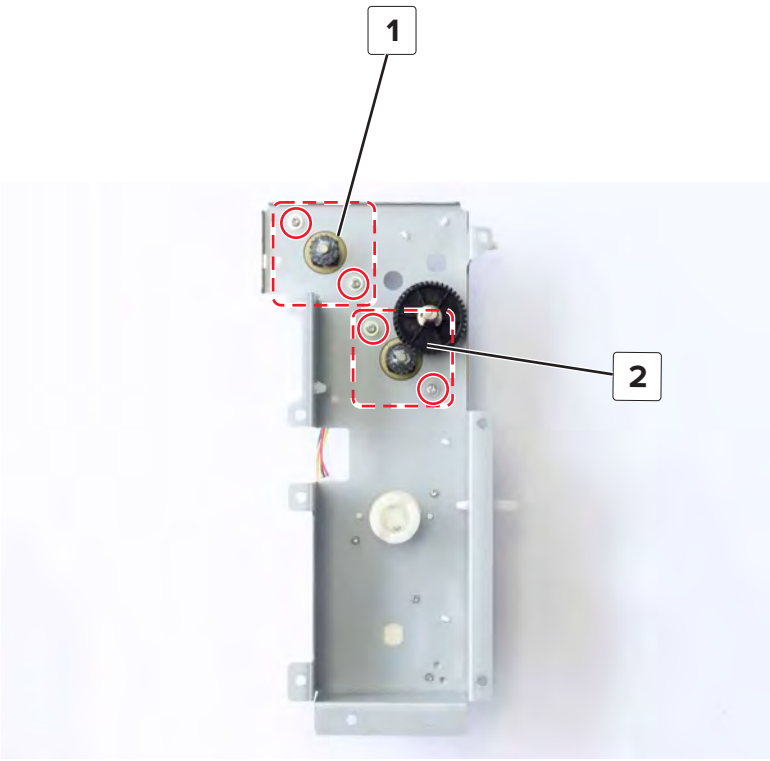
1. Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.
2. Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.
3. Disconnect the four cables (A).
4. Remove the ten screws (B), and then remove the bracket.



3000-sheet tray feed and transport motors removal

1. Remove the right cover. See **"3000-sheet tray right cover removal" on page 786**.
2. Remove the rear cover. See **"3000-sheet tray rear cover removal" on page 787**.
3. Remove the motor bracket. See **"Motor bracket removal" on page 800**.

4 Remove the two screws, and then remove the motor.



#	Part
1	Motor (3000-sheet tray transport)
2	Motor (3000-sheet tray feed)

3000-sheet tray feed roller assembly removal

1 Remove the left cover. See **“3000-sheet tray left cover removal” on page 785**.

2 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

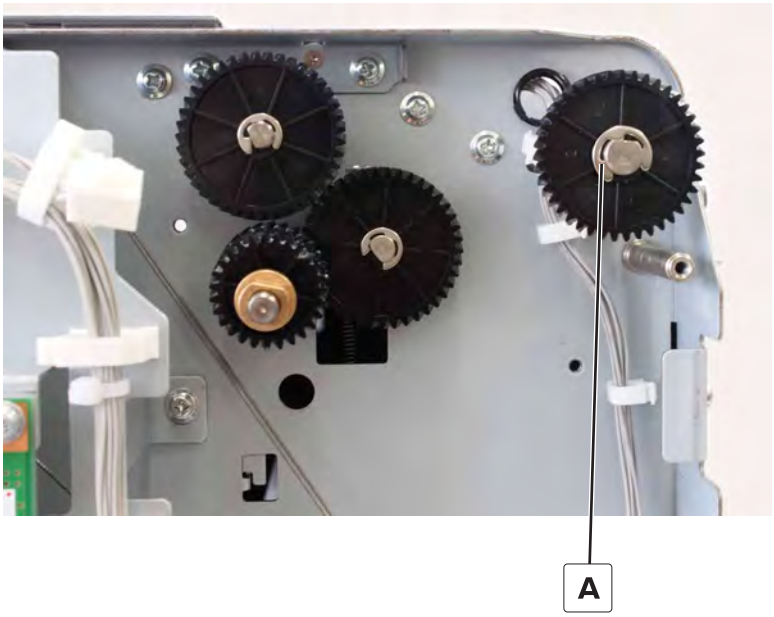
3 Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.

4 Remove the front cover. See **“3000-sheet tray front cover removal” on page 786**.

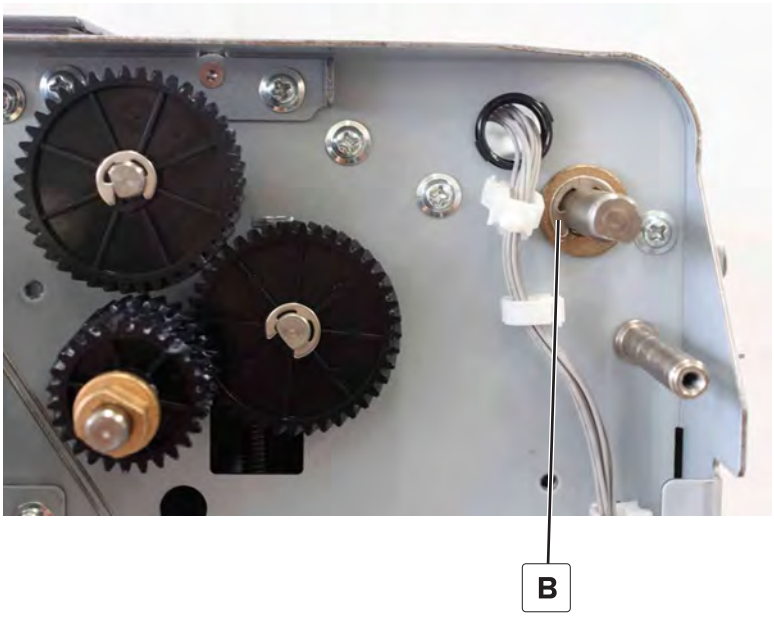
5 Remove the left top cover. See **“3000-sheet tray left top cover removal” on page 789**.

6 Remove the motor bracket. See **“Motor bracket removal” on page 800**.

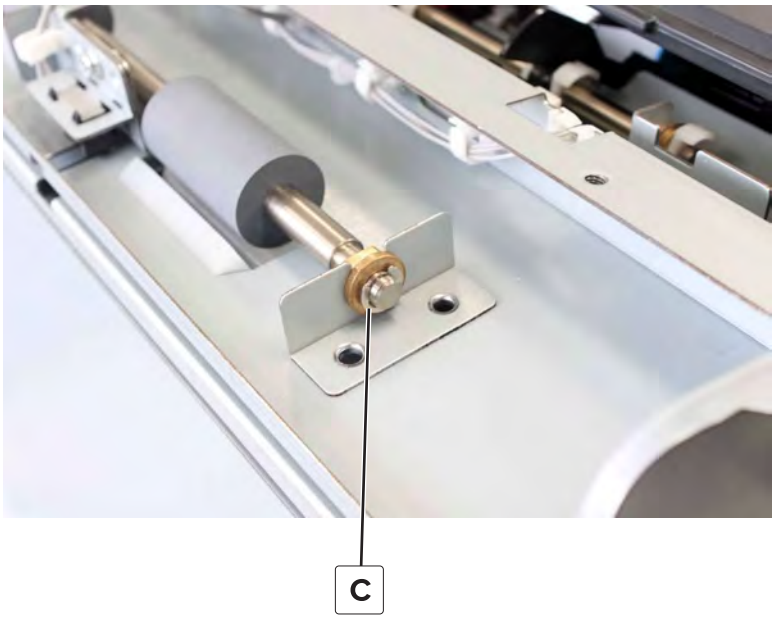
7 Remove the clip (A), and then remove the gear.



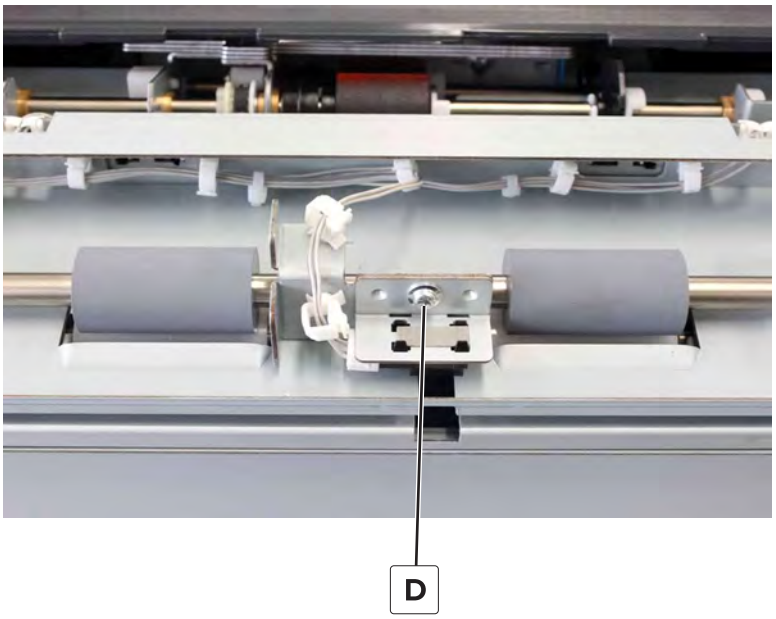
8 Remove the clip (B), and then remove the bushing.



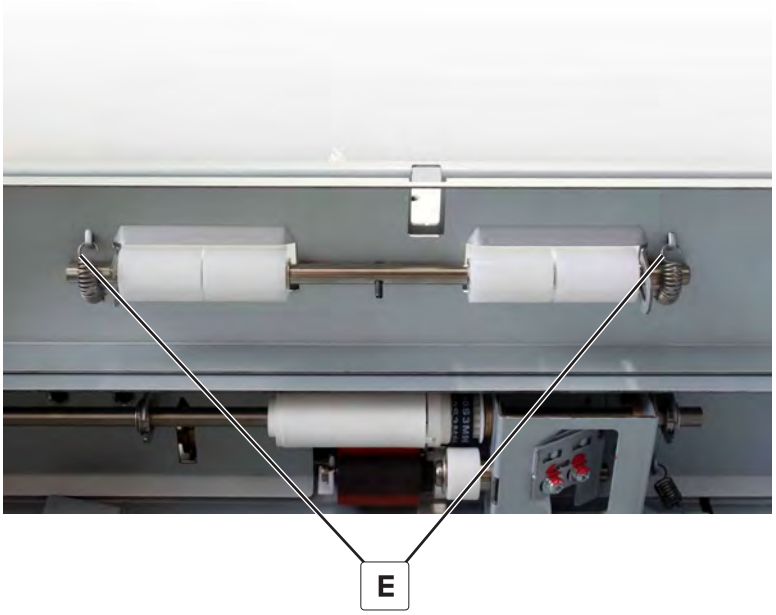
9 From the other end of the shaft, remove the clip (C), and then remove the bushing.



10 Remove the screw (D), remove the sensor bracket, and then remove the transport roller.



11 From under the assembly, remove the two springs (E), and then remove the roller.



3000-sheet tray pick roller assembly removal

1 Remove the left cover. See **“3000-sheet tray left cover removal” on page 785**.

2 Remove the right cover. See **“3000-sheet tray right cover removal” on page 786**.

3 Remove the rear cover. See **“3000-sheet tray rear cover removal” on page 787**.

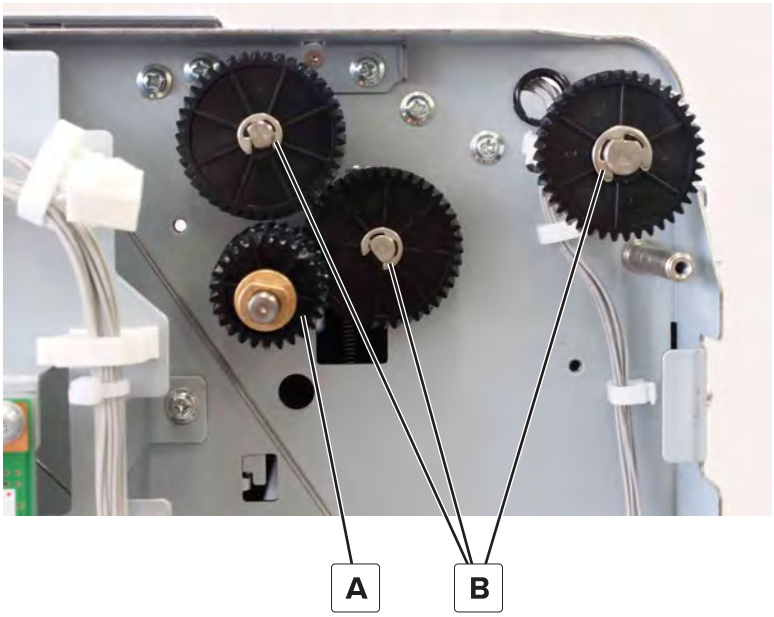
4 Remove the top door. See **“3000-sheet tray door removal” on page 788**.

5 Remove the left top cover. See **“3000-sheet tray left top cover removal” on page 789**.

6 Remove the motor bracket. See **“Motor bracket removal” on page 800**.

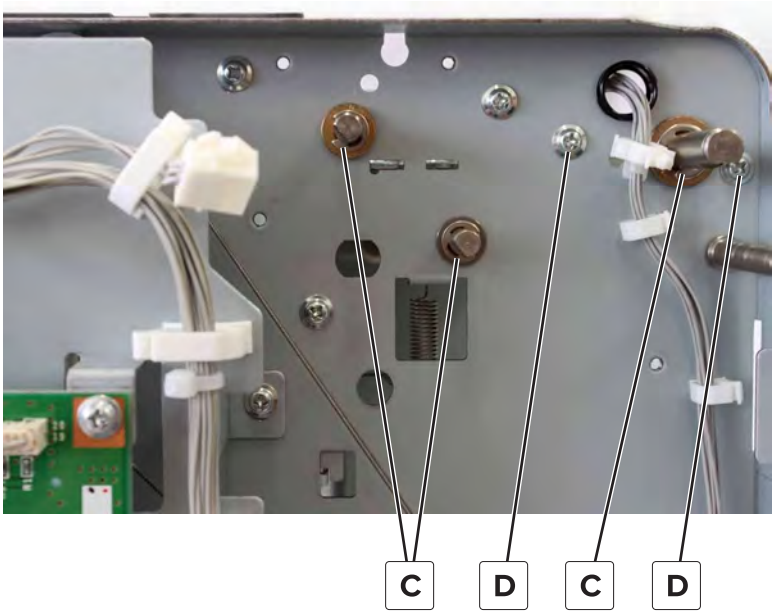
7 Remove the gear shaft (A).

8 Remove the three clips (B), and then remove the three gears.

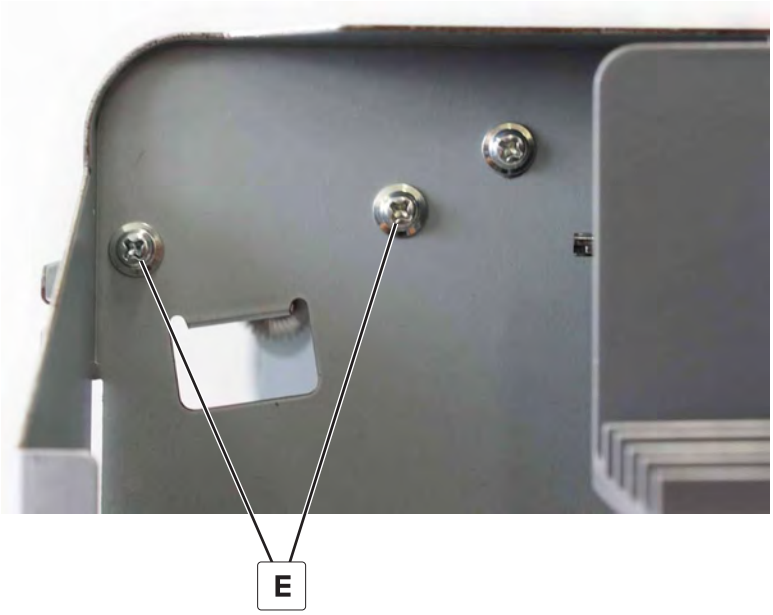


9 Remove the three clips (C), and then remove the three bushings.

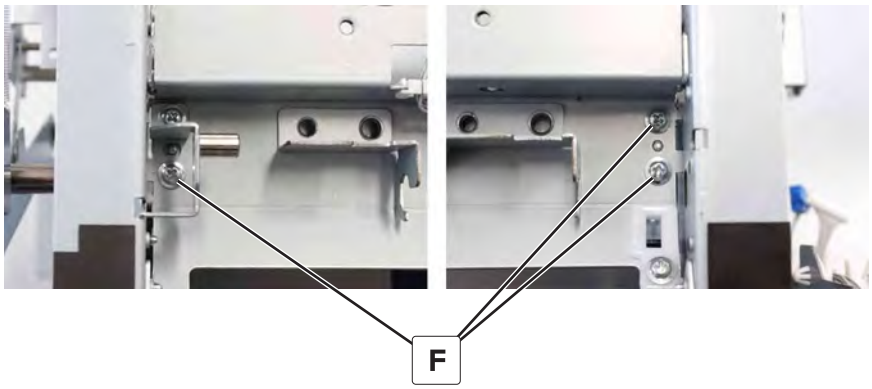
10 Remove the two screws (D).



11 Remove the two screws (E), and then dislodge the bracket.

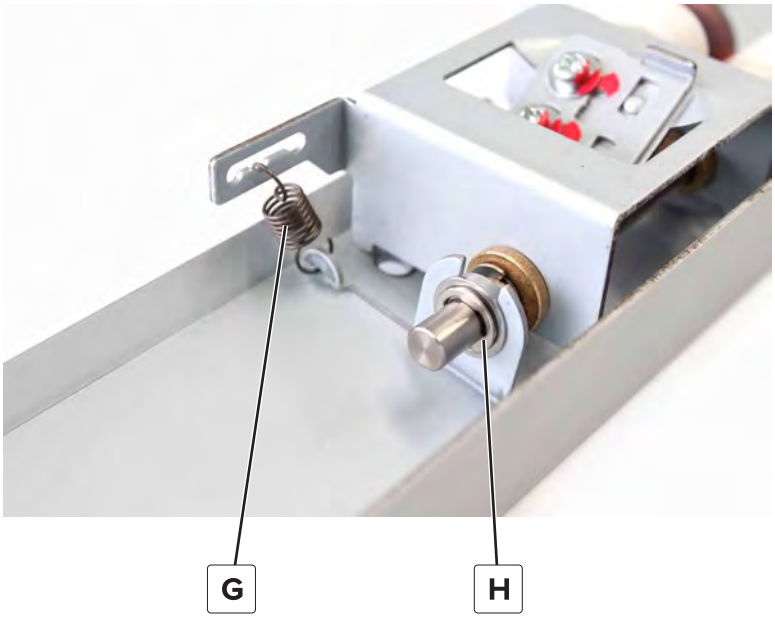


12 Remove the three screws (F), and then remove the assembly.



13 Disconnect the spring (G).

14 Remove the clip (H), and then remove the bushing.

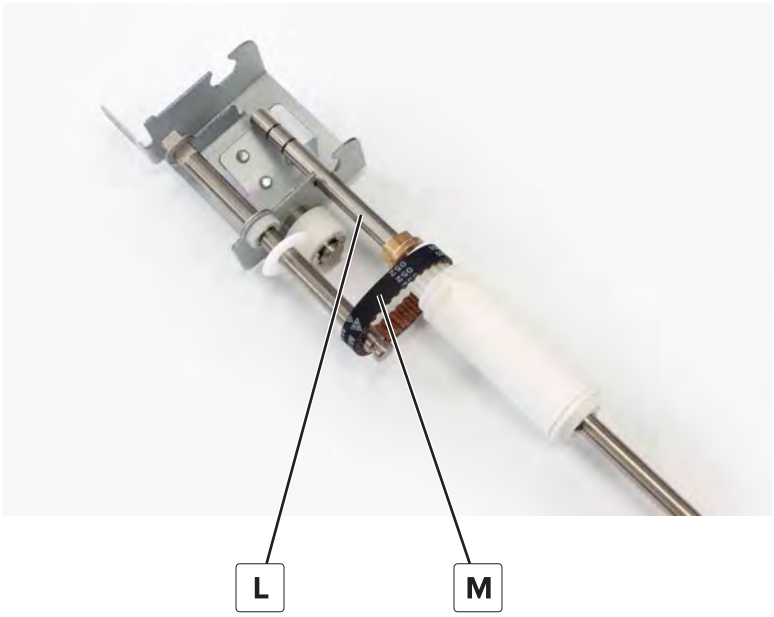


15 Remove the pick roller assembly from the bracket.

16 Remove the clip (J), and then remove the separator roller and the gear.

17 Remove the clip (K), and then remove the bushing.

18 Remove the shaft (L), and then remove the separator belt (M).



Component locations

Printer configurations

Note: Make sure to configure the printer on a flat, sturdy, and stable surface.

Basic model

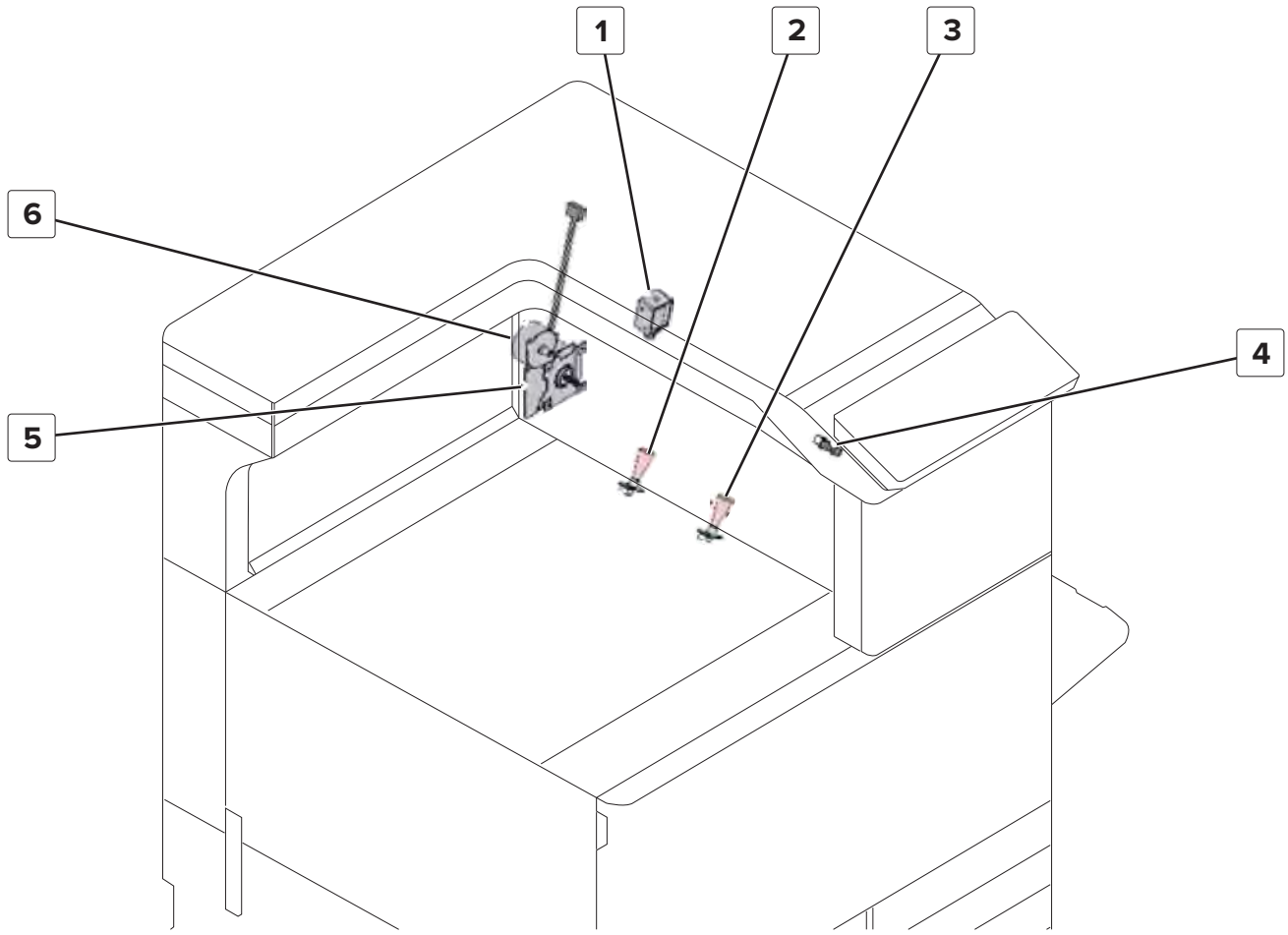
1	Control panel
2	Multipurpose feeder
3	Standard 2 x 500-sheet tray
4	Standard bin

Configured model

CAUTION—TIPPING HAZARD: Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, see **www.lexmark.com/multifunctionprinters**.

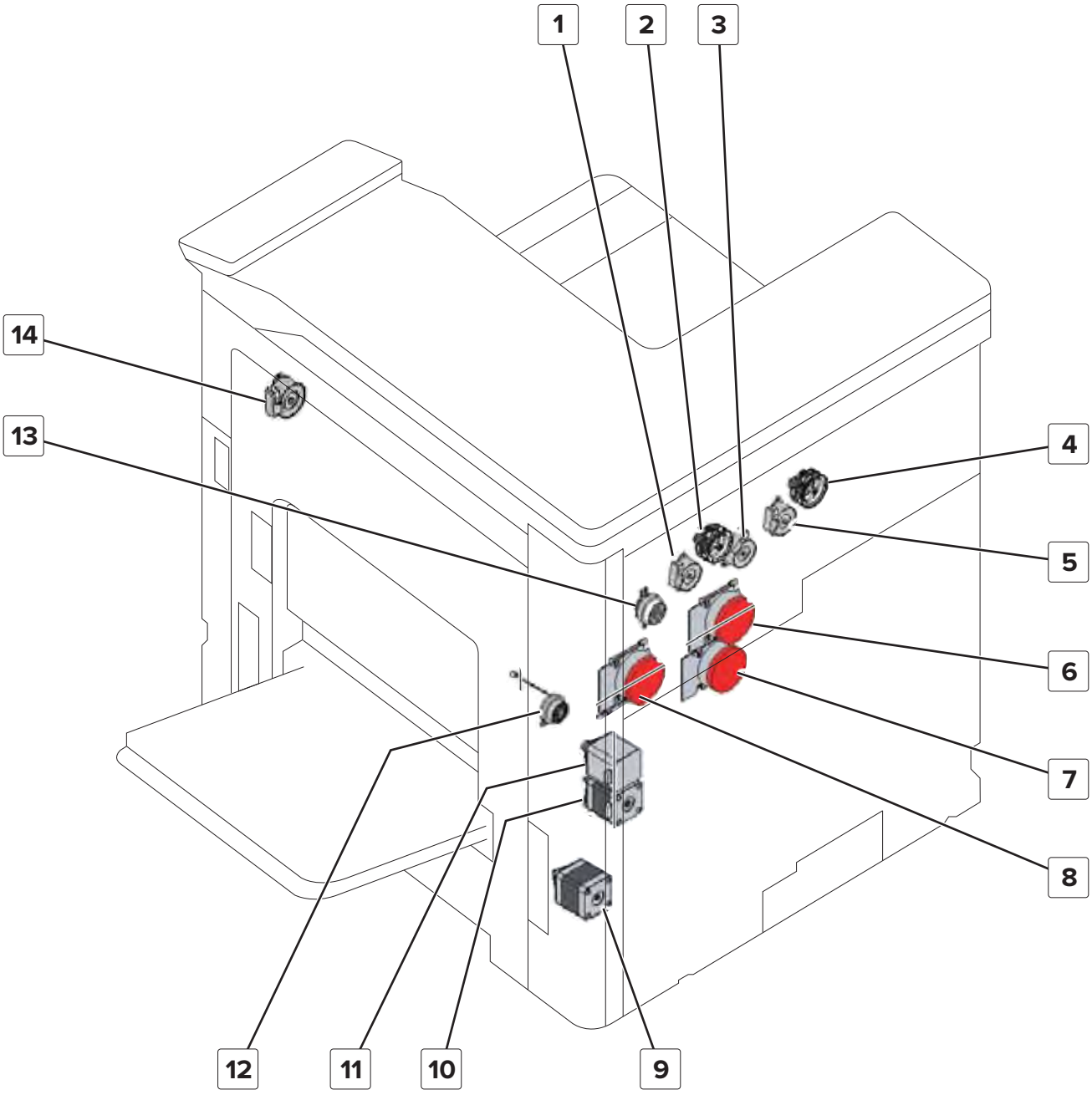
1	Staple finisher **Notes:** • This option is not supported if another finisher is installed. • This option is supported only in some printer models.
2	Optional 3000-sheet tray **Note:** This option is supported only if another optional tray is installed.
3	Optional 2 x 500-sheet tray
4	Optional 2500-sheet tray
5	Finisher • Staple, hole punch finisher • Booklet finisher

Fusing and paper exit section



#	Part name
1	Duplex transport solenoid
2	Sensor (fusing temperature, rear)
3	Sensor (fusing temperature, front)
4	Sensor (fuser exit)
5	Motor (fuser)
6	Motor (fuser pressure)

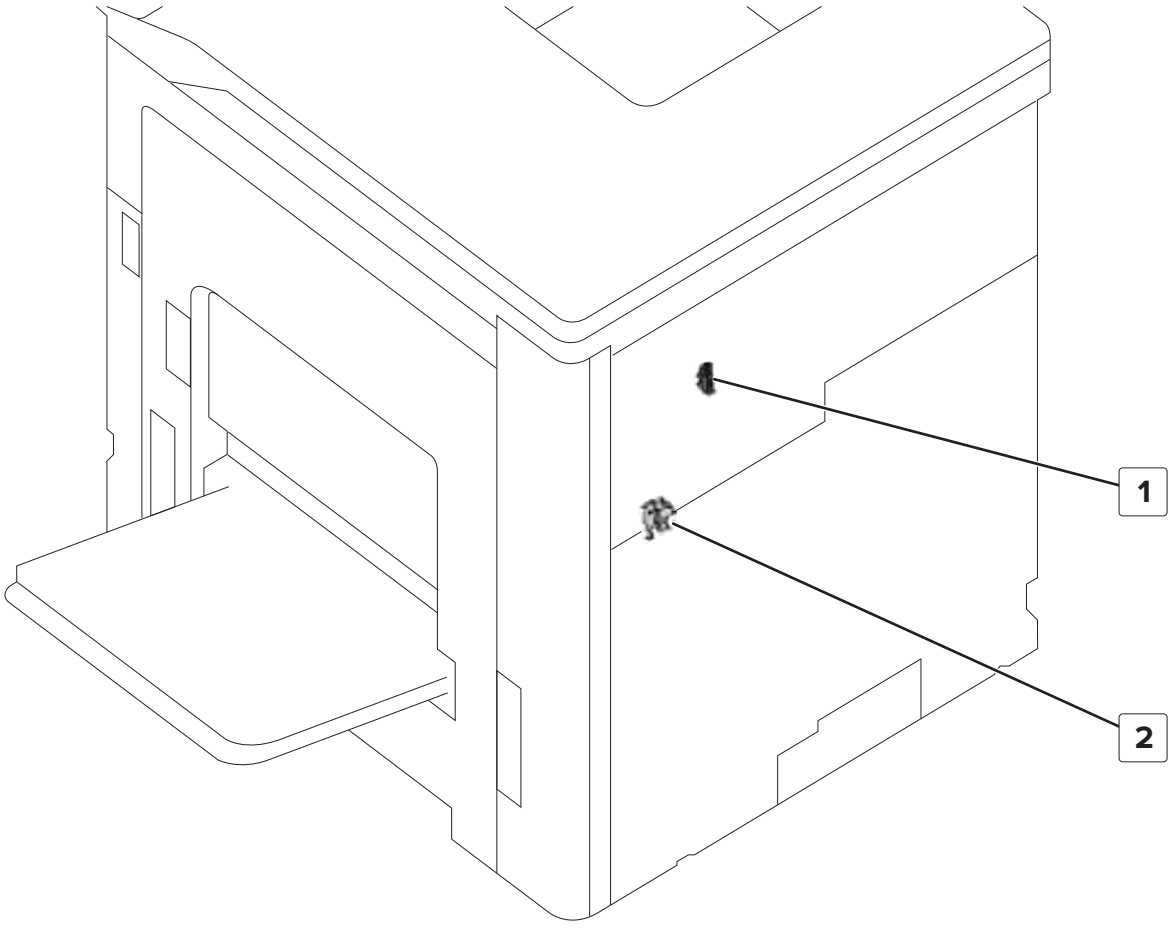
Rear 1



#	Part name
1	Motor (C toner supply)
2	Motor (CK toner cartridge)
3	Motor (M toner supply)
4	Motor (MY toner cartridge)
5	Motor (Y toner supply)

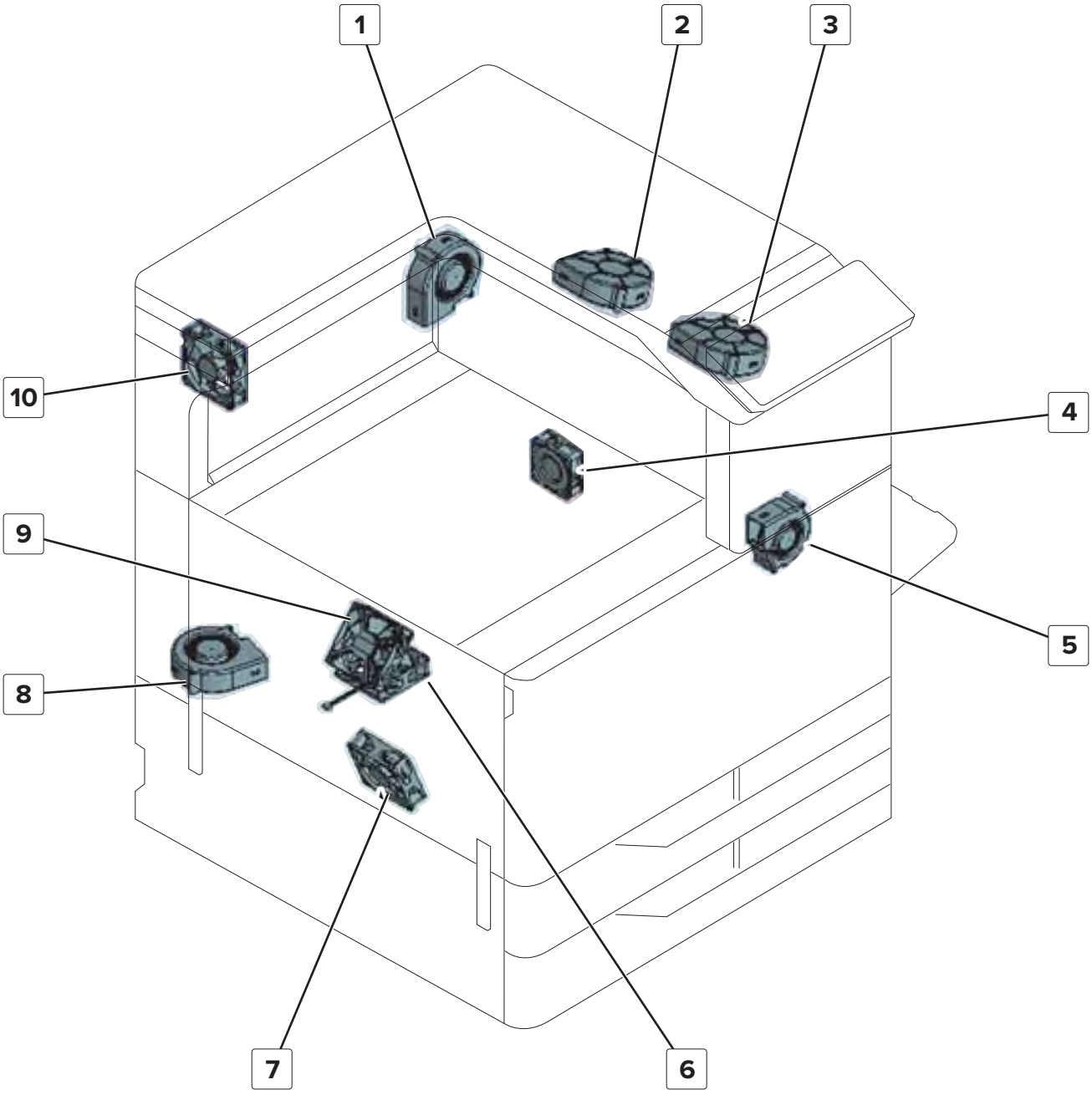
#	Part name
6	Motor (photoconductor)
7	Motor (developer)
8	Motor (transport)
9	Motor (tray 2 transport)
10	Motor (feed)
11	Motor (registration)
12	Registration clutch
13	CMY retract clutch
14	Motor (K toner supply)

Rear 2



#	Part name
1	Sensor (CMY retract)
2	K developer solenoid

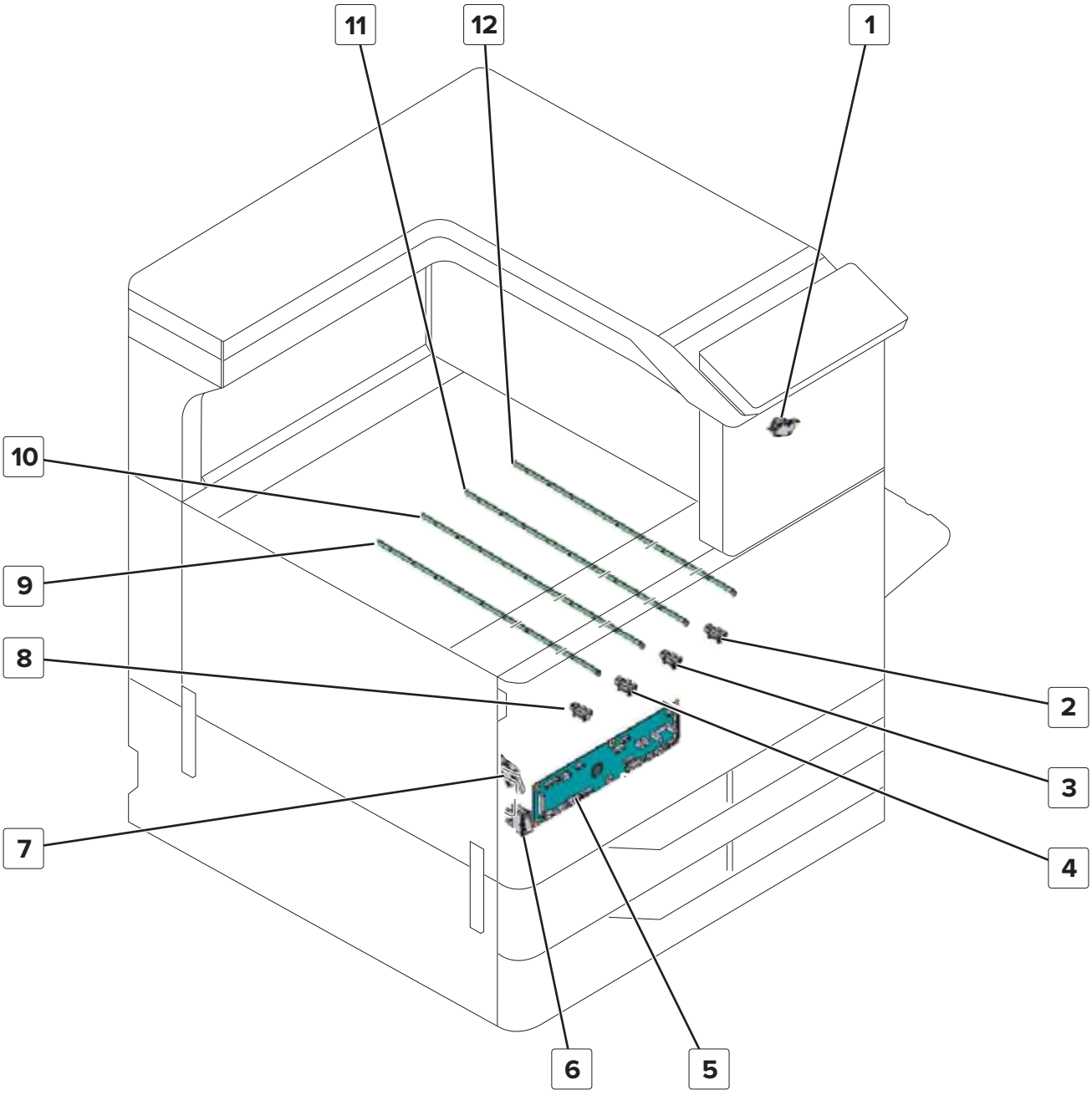
Fans



#	Part name
1	Paper exit fan
2	Fuser exhaust fan 2
3	Fuser exhaust fan 1
4	Toner cartridge fan
5	IH coil cooling fan

#	Part name
6	Controller board fan
7	Main power supply fan
8	Toner suction fan
9	Transfer belt fan
10	Fuser power supply fan

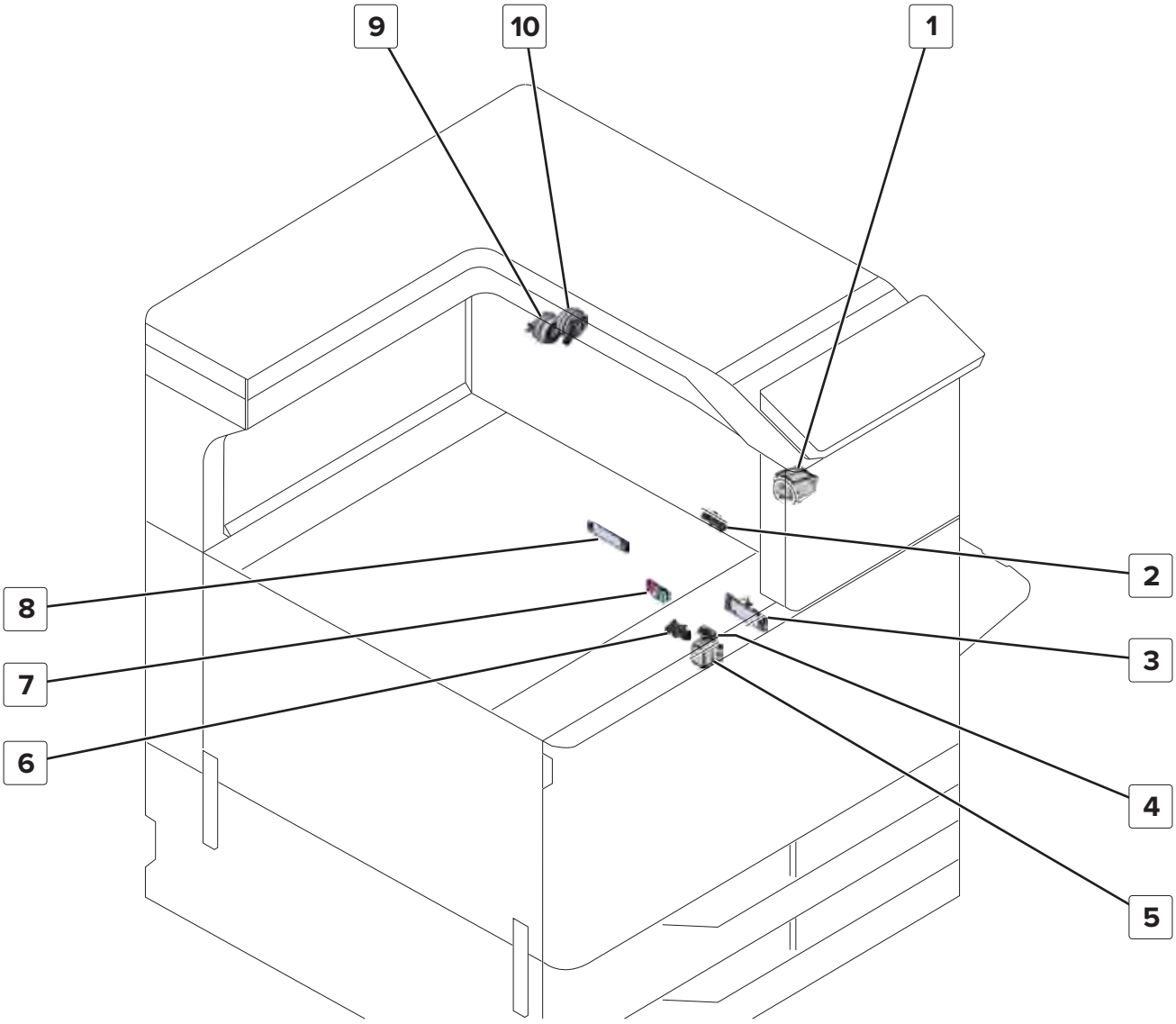
Toner cartridge section



#	Part name
1	Right door switch
2	Sensor (C toner present)
3	Sensor (M toner present)
4	Sensor (Y toner present)
5	Image controller board

#	Part name
6	Main power switch
7	Door switch
8	Sensor (K toner present)
9	Erase LED (Y)
10	Erase LED (M)
11	Erase LED (C)
12	Erase LED (K)

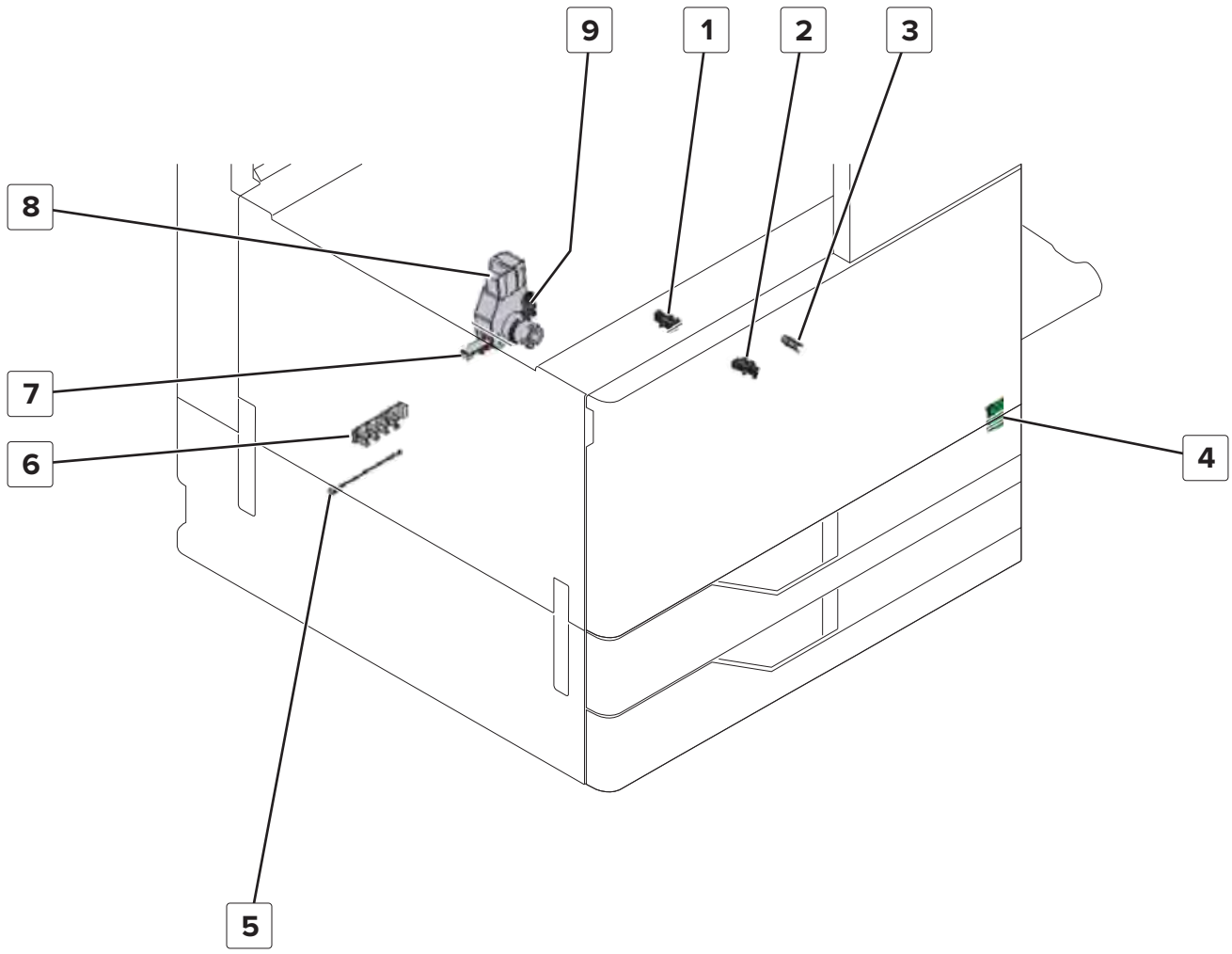
Registration



#	Part name
1	Diverter solenoid
2	Sensor (fusing speed)
3	Sensor (front toner density)
4	Sensor (registration 2)
5	Toner density solenoid
6	Sensor (registration)
7	Sensor (registration humidity)

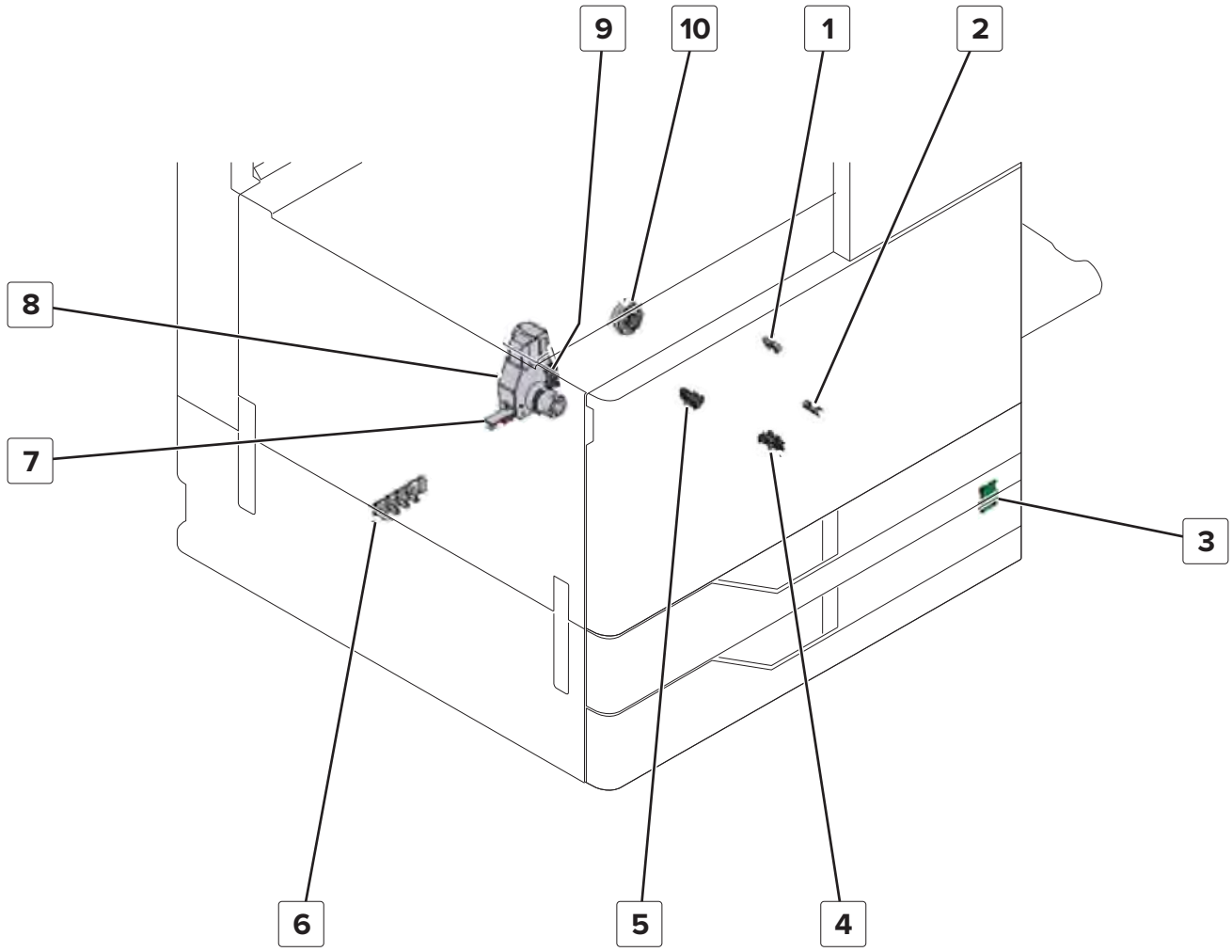
#	Part name
8	Sensor (rear toner density)
9	Paper exit clutch
10	Paper exit deceleration clutch

Tray 1



#	Part name
1	Sensor (tray 1 lift plate level)
2	Sensor (tray 1 empty)
3	Sensor (tray 1 feed)
4	Tray 1 empty indicator board
5	Sensor (tray 1 and 2 temperature)
6	Sensor (tray 1 paper length)
7	Sensor (tray 1 paper width)
8	Motor (tray 1 lift)
9	Sensor (tray 1 near empty)

Tray 2

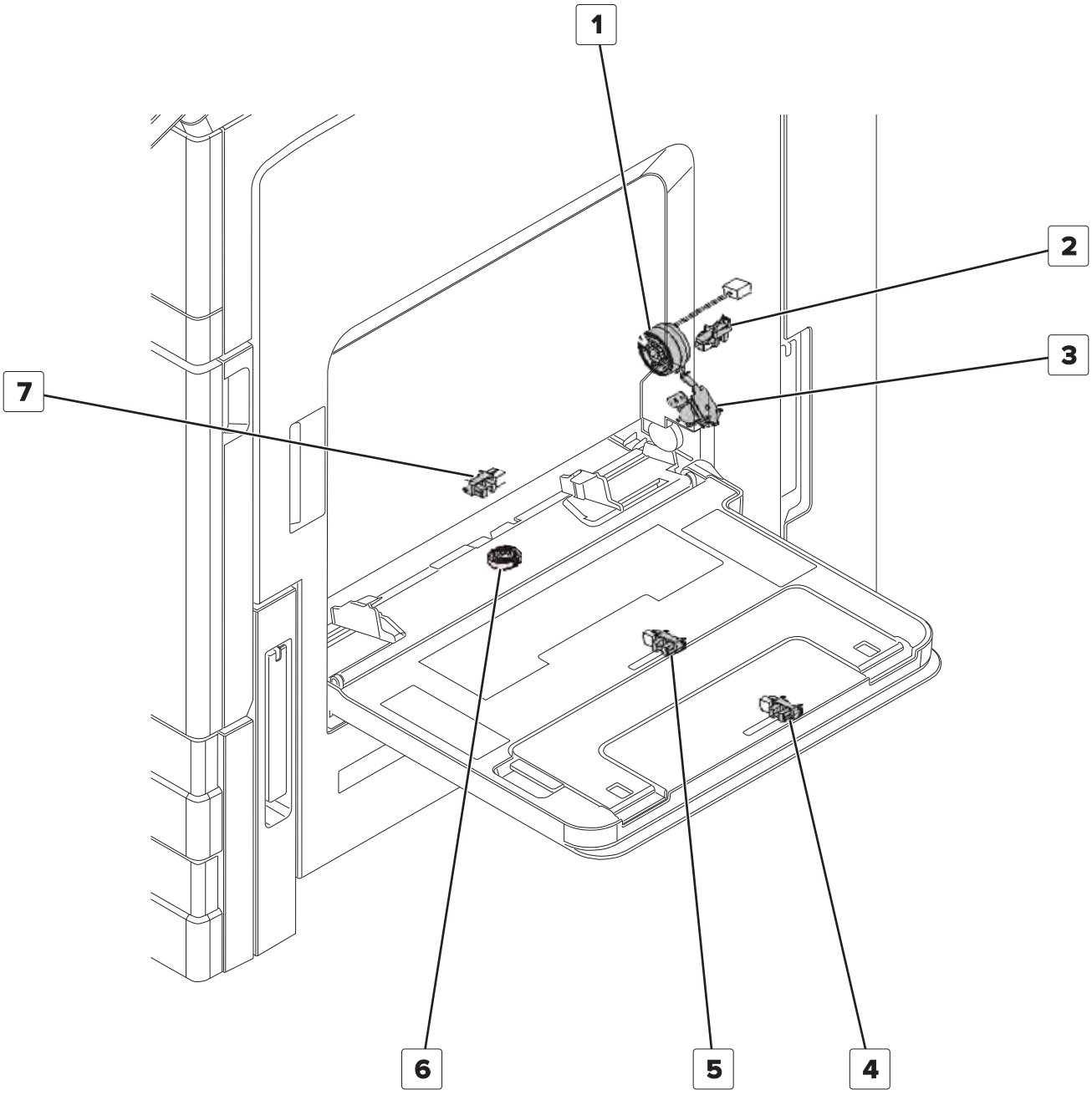


#	Part name
1	Sensor (tray 2 transport)
2	Sensor (tray 2 feed)
3	Tray 2 empty indicator board
4	Sensor (tray 2 empty)
5	Sensor (tray 2 lift plate level)

Component locations

#	Part name
6	Sensor (tray 2 paper length)
7	Sensor (tray 2 paper width)
8	Motor (tray 2 lift)
9	Sensor (tray 2 near empty)
10	Tray 2 paper feed clutch

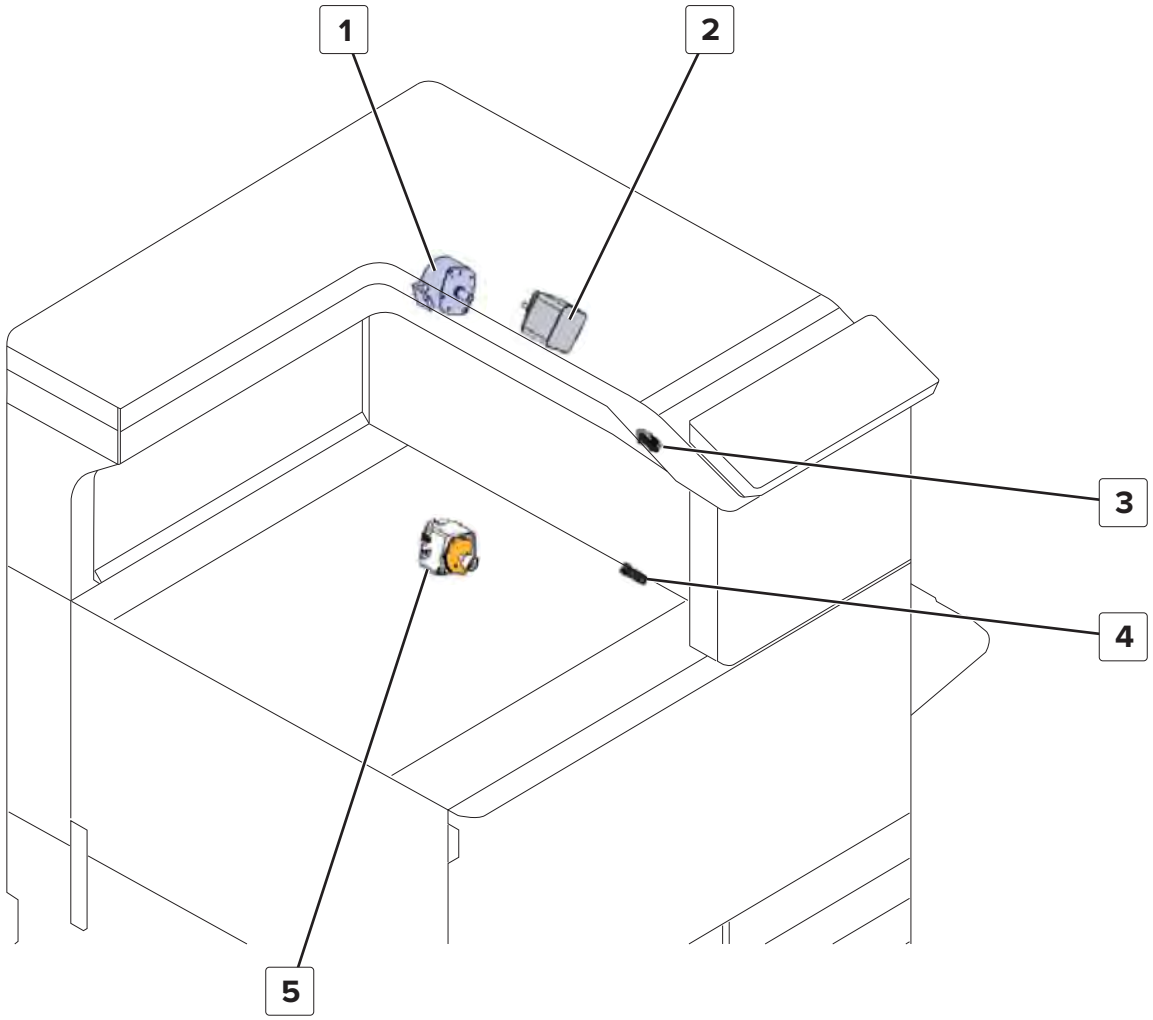
MPF



#	Part name
1	MPF feed clutch
2	Sensor (MPF lift plate)
3	MPF lift plate solenoid
4	Sensor (MPF paper length 2)
5	Sensor (MPF paper length 1)

#	Part name
6	Sensor (MPF paper width)
7	Sensor (MPF paper present)

Duplex



#	Part name
1	Motor (redrive)
2	Motor (duplex transport)
3	Sensor (duplex pass through 1)
4	Sensor (duplex pass through 2)
5	Motor (duplex)

Maintenance

Inspection guide

Use this guide in identifying the parts that must be inspected, cleaned, or replaced based on the page count.

If any unsafe condition exists, find out how serious the hazard is and if you can continue before you correct the hazard.

As you service the printer, check for the following:

- Damaged, missing, or altered parts, especially in the area of the power switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top and power supply covers
- Possible safety exposure from any non-Lexmark attachments

Use the following table to determine when to inspect the following parts:

Part	Toner (replacement: 5K, 10K, 20K, 30K, 38K)	Photoconductor (replacement: 125K)	Developer (replacement: 600K)	Waste toner box (replacement: 90K)	300K maintenance kit
Printhead					
Printhead window	Clean	Clean	Clean	Clean	Clean

Part	Every 50K	Every 200K	Every 300K	Every 600K	Every 720K
Fuser					
Fuser	--	--	--	--	Replace and reset the fuser maintenance kit.
Induction heater	--	--	--	--	Clean after replacing the fuser.

Part	Every 50K	Every 200K	Every 300K	Every 600K
Add-in image transfer				
Waste toner bottle area	Clean	--	--	--
Toner filter	--	--	Replace and reset the 300K maintenance kit.	--
Add-in developer				
Developer (K)	--	--	--	Replace the developer.
Developer (CMY)	--	--	--	Replace the developer.
HCF				

Part	Every 50K	Every 200K	Every 300K	Every 600K
Pick and feed roller	Clean using a damp cloth.	--	Replace and reset the 300K HCF maintenance kit.	--
MPF				
Pick and feed roller	Clean using a damp cloth.	Replace and reset the 200K MPF maintenance kit.	--	--

Scheduled maintenance

An 80.xx error occurs when the printer reaches a preset number of page counts. Install the appropriate maintenance kit to maintain the print quality and reliability of the printer. Reset the maintenance counter after replacing the maintenance kit.

Maintenance kits

Part number	Maintenance kit	Contents
41X1977	200K MPF maintenance kit	• 40X9615—MPF separator roller • 40X9995—MPF feed roller
41X1874	300K HCF tray rollers maintenance kit	• 41X1874—3000-sheet tray feed roller • 41X1874—3000-sheet tray pick roller • 41X1874—3000-sheet tray separator roller
41X2090	300K Transfer belt maintenance kit	• 41X1459—Transfer belt assembly • 41X1484—Transfer roller • 41X1600—Pick and feed roller • 41X1537—Toner exhaust filter
41X1594	600K CMY developer maintenance kit	• 41X1595—Developer unit (C) • 41X1596—Developer unit (M) • 41X1597—Developer unit (Y)
41X1598	600K Black developer maintenance kit	41X1598—Developer unit (K)
41X1505	720K Fuser maintenance kit	41X1505—Fuser

Resetting the maintenance counter

Notes:

- Always reset the maintenance counter after installing the maintenance kit.
- Follow the inspection guide in the Maintenance chapter of the service manual.
- To access the Diagnostics menu from the home screen, press * * **3 6** using the numeric keypad on the control panel.

Page count	Service menu location
200K (MPF)	Diagnostics menu > Printer setup > Reset Maintenance Counter > MPF roller maintenance kit reset
300K (Transfer belt)	Settings > Device > Maintenance > Configuration Menu > Supply Usage And Counters > 300K Maintenance Kit Reset
300K (HCF)	Diagnostics menu > Printer setup > Reset Maintenance Counter > HCF Roller Maintenance Kit Reset
600K (Fuser)	Diagnostics menu > Printer setup > Reset Maintenance Counter > Fuser Maintenance Kit Reset
600K (Developer)	Auto reset happens when a new developer is installed.

Cleaning printer parts

Cleaning the printer

CAUTION—SHOCK HAZARD: To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

Notes:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1. Turn off the printer, and then unplug the power cord from the electrical outlet.
2. Remove paper from the standard bin and multipurpose feeder.
3. Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.
4. Wipe the outside of the printer with a damp, soft, lint-free cloth.

   Notes:

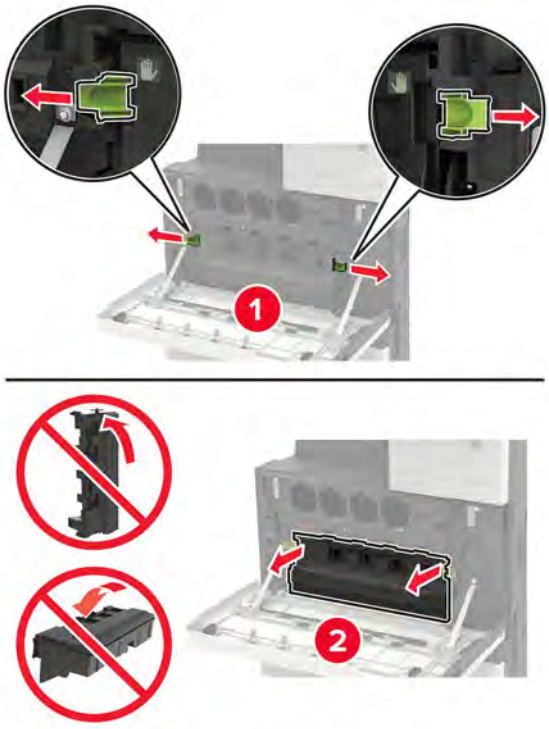
   - Do not use household cleaners or detergents, as they may damage the finish of the printer.
   - Make sure that all areas of the printer are dry after cleaning.
5. Connect the power cord to the electrical outlet, and then turn on the printer.

   CAUTION—POTENTIAL INJURY: To avoid the risk of fire or electrical shock, connect the power cord to an appropriately rated and properly grounded electrical outlet that is near the product and easily accessible.

Cleaning the printhead lens

1 Open door A.

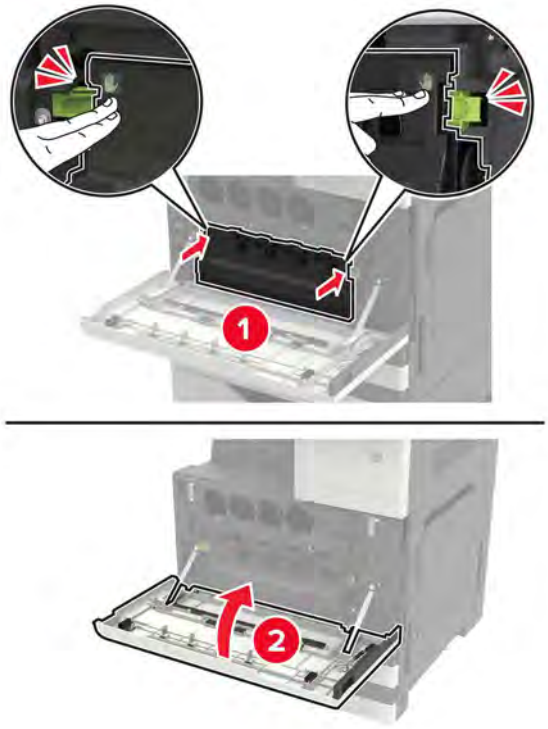
2 Remove the waste toner bottle.



3 Using the printhead wiper, clean the printhead lens.

4 Insert the wiper back into place.

5 Insert the waste toner bottle, and then close the door.



Parts catalog

Legend

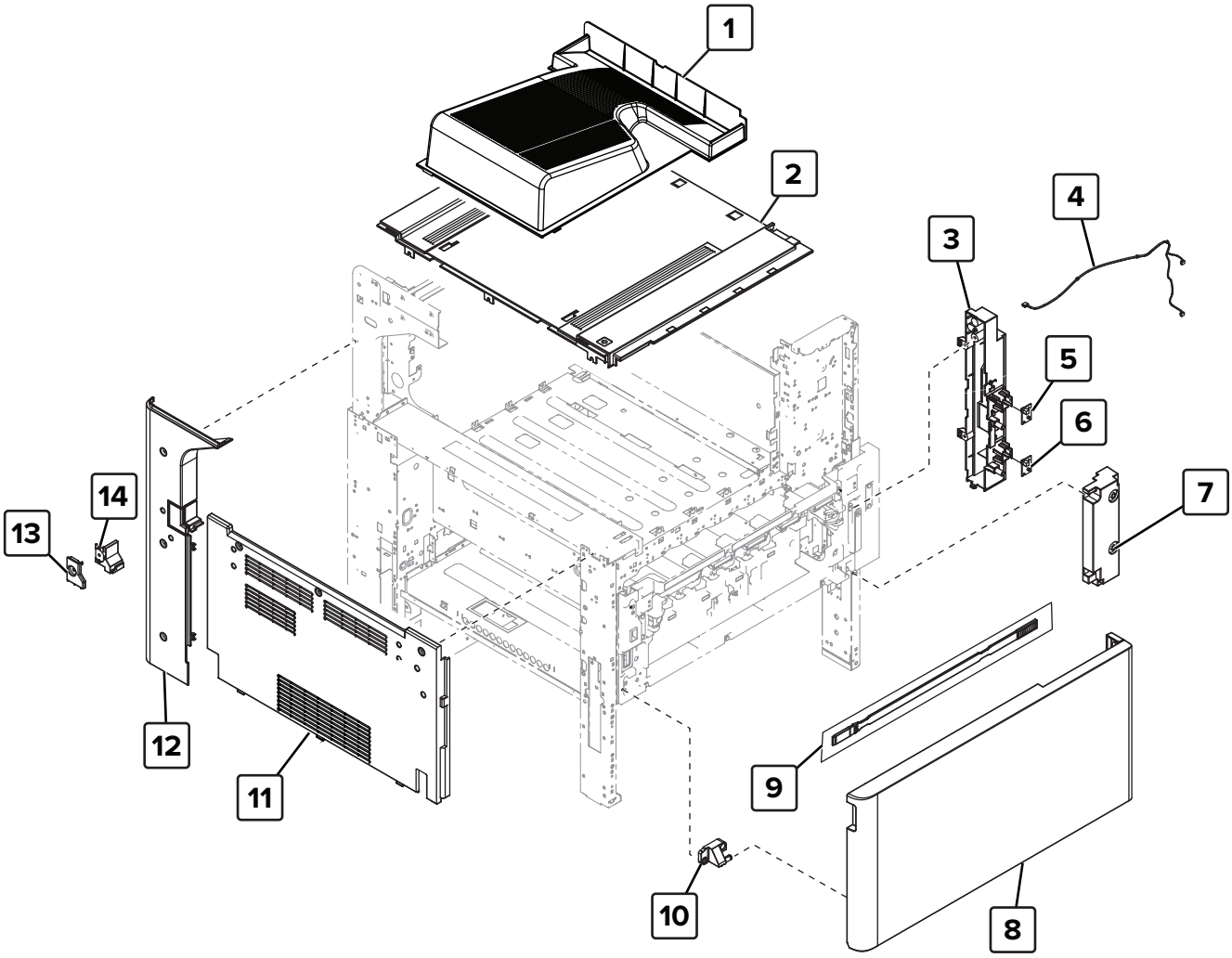
The following column headings are used in the parts catalog:

- **Asm-index**—Identifies the item in the illustration
- **P/N**—Identifies the part number of a FRU
- **Units/mach**—Refers to the number of units in a printer
- **Units/opt**—Refers to the number of units in an option
- **Units/FRU**—Refers to the number of units in a FRU
- **Description**—A brief description of the part

The following abbreviations are used in the parts catalog:

- **NS** (not shown) in the Asm-index column indicates that the part is procurable but is not shown in the illustration.
- **PP** (parts packet) in the Description column indicates that the part is contained in a parts packet.

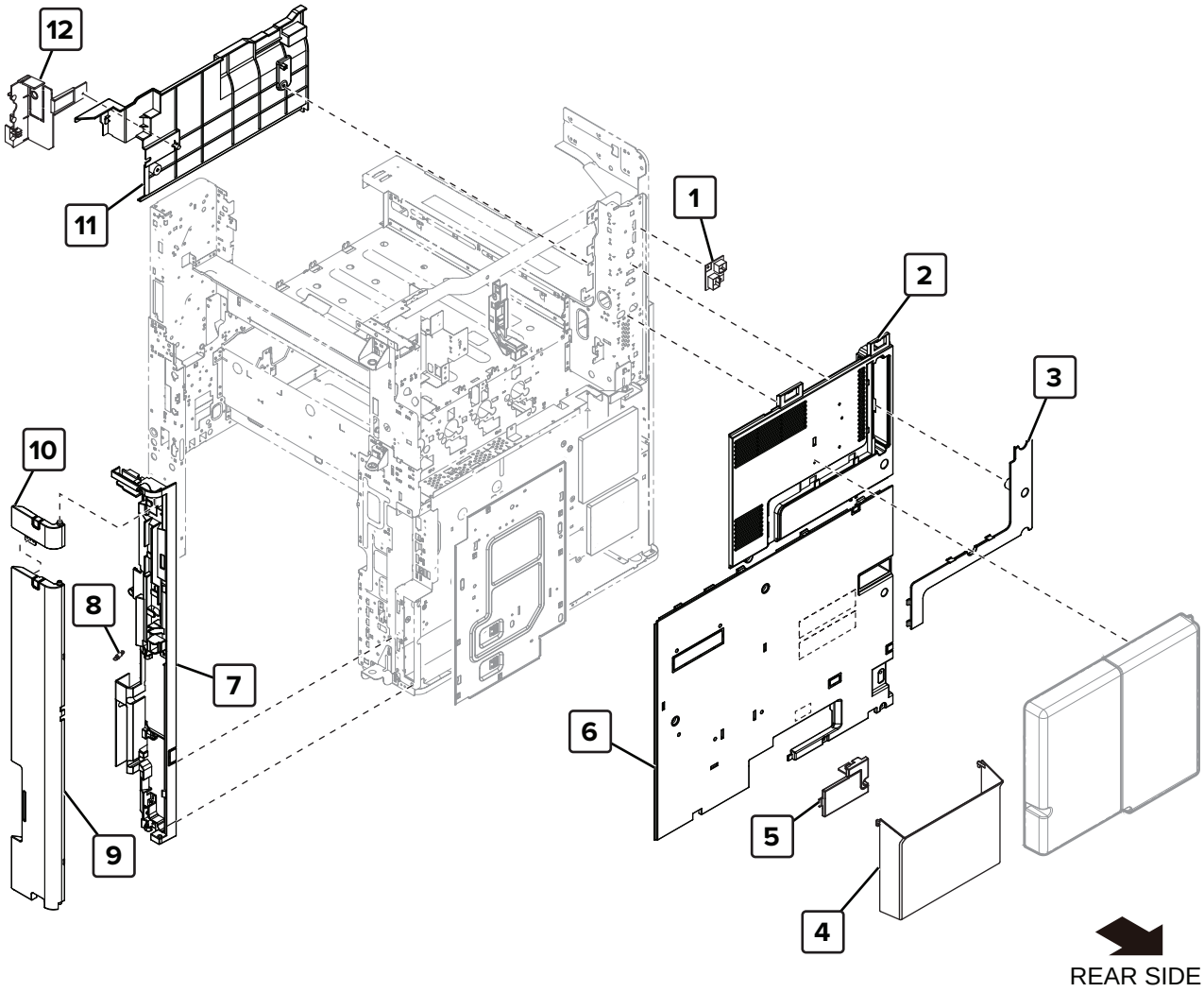
Assembly 1: Covers 1



Assembly 1: Covers 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1942	1	1	Standard bin	“Standard bin removal” on page 658
2	41X1414	1	1	Standard bin base	“Standard bin base removal” on page 658
3	40X9758	1	1	Tray empty board mount	“Tray empty LED mount removal” on page 539
4	40X8901	1	1	Tray empty LED cable	“Tray empty LED cable removal” on page 540
5	40X8903	1	1	Tray 1 empty LED	“Tray empty LED removal” on page 539
6	40X8903	1	1	Tray 2 empty LED	“Tray empty LED removal” on page 539
7	41X1416	1	1	Tray empty LED cover	“Tray empty LED cover removal” on page 538
8	41X1565	1	1	Front door	“Front door removal” on page 487
9	41X2004	1	1	Printhead wiper	“Front door removal” on page 487
10	40X9761	1	1	Bottom front door hinge	--
11	41X1793	1	1	Left cover	“Left cover removal” on page 348
12	40X8899	1	1	Rear left cover	“Rear left cover removal” on page 349
13	41X1944	1	1	Top left corner cover 1	“Top corner cover removal” on page 659
14	41X1943	1	1	Top left corner cover 2	“Top corner cover removal” on page 659

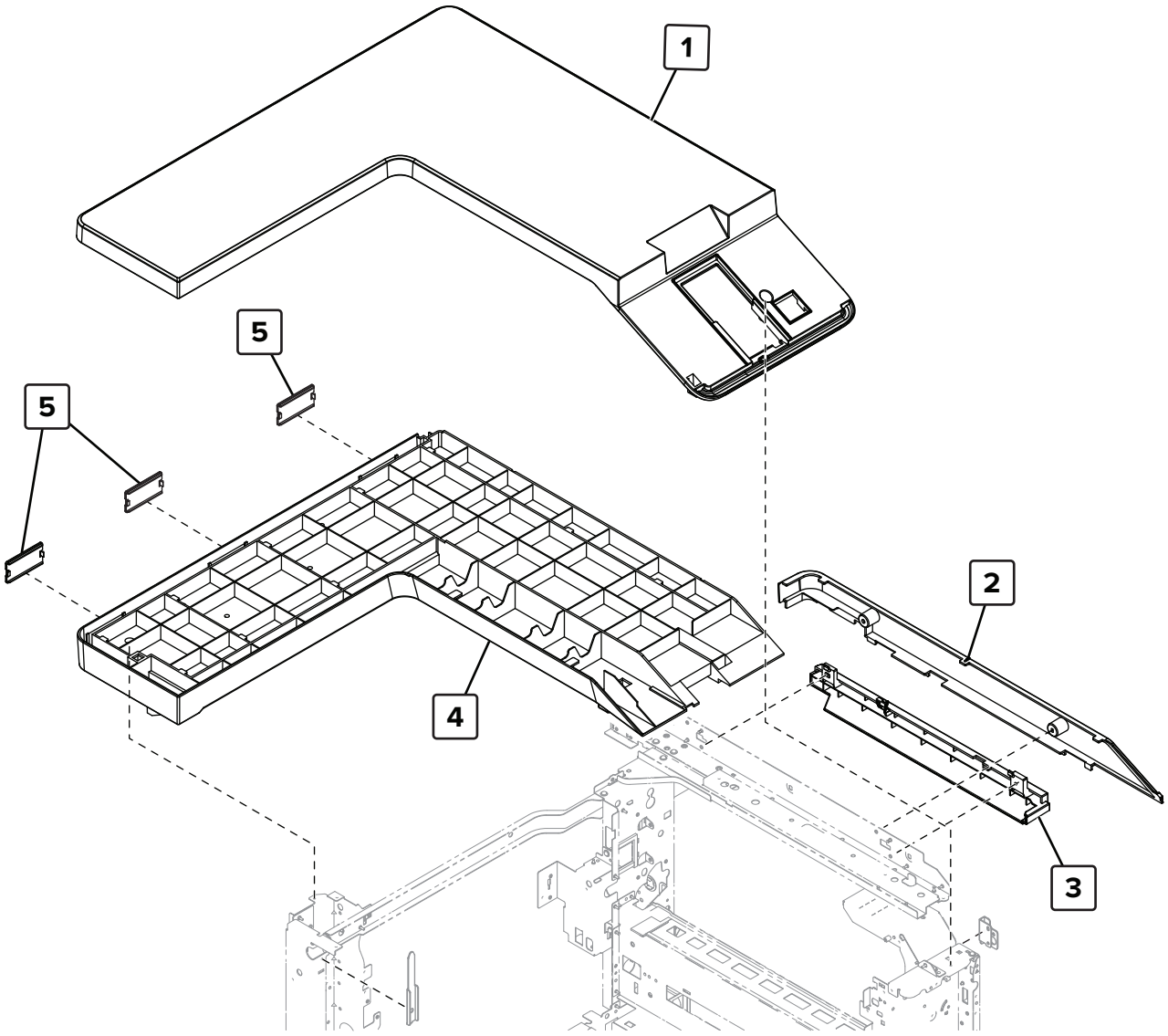
Assembly 2: Covers 2



Assembly 2: Covers 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1827	1	1	Power supply interface board	“Power-saving board removal” on page 575
2	41X1421	1	1	Upper rear cover	“Upper rear cover removal” on page 555
3	41X1422	1	1	Scanner interface cable cover	“Scanner interface cable cover removal” on page 553
4	41X1927	1	1	Document holder	--
5	41X1926	1	1	Option interface cable cover	“Option interface cable cover removal” on page 556
6	41X1423	1	1	Rear cover	“Lower rear cover removal” on page 554
7	41X1425	1	1	Port mount	“Port mount removal” on page 364
8	41X1824	1	1	Port mount cover spring	--
9	41X1426	1	1	Port access door	“Port access door removal” on page 363
10	41X1427	1	1	Port access door extension	“Port access door removal” on page 363
11	41X1428	1	1	Bin side cover	“Bin side cover removal” on page 660
12	41X1429	1	1	Right Bin side cover	“Right bin side cover removal” on page 659

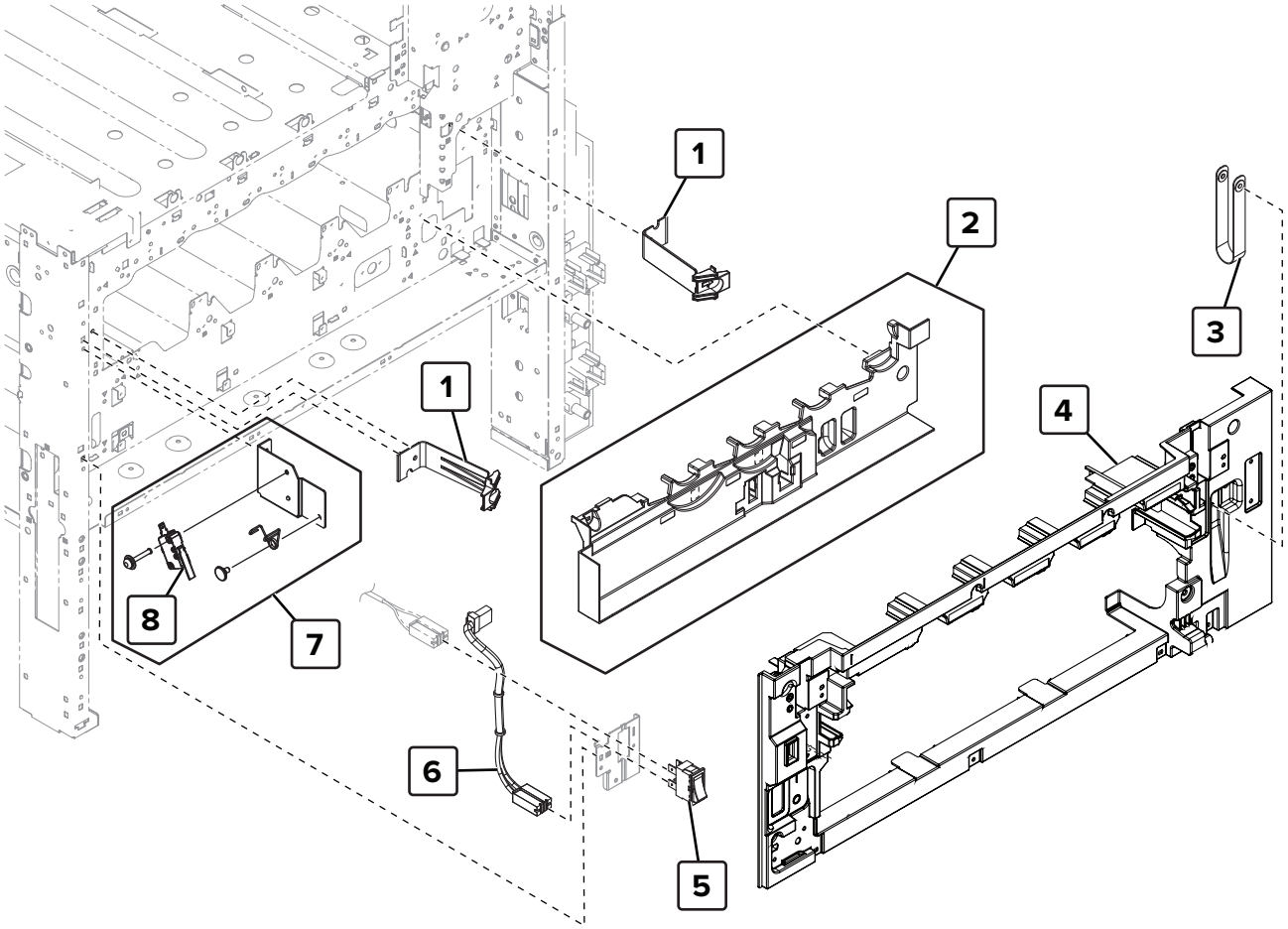
Assembly 3: Covers 3



Assembly 3: Covers 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1949	1	1	Top cover	“Top cover removal” on page 654
2	41X1950	1	1	Top right cover	“Top right cover removal” on page 367
3	41X1435	1	1	Top right edge cover	“Top right edge cover removal” on page 367
4	41X1951	1	1	Top cover support base	“Top cover support base removal” on page 656
5	41X1952	3	1	Latch cover	“Latch cover removal” on page 552

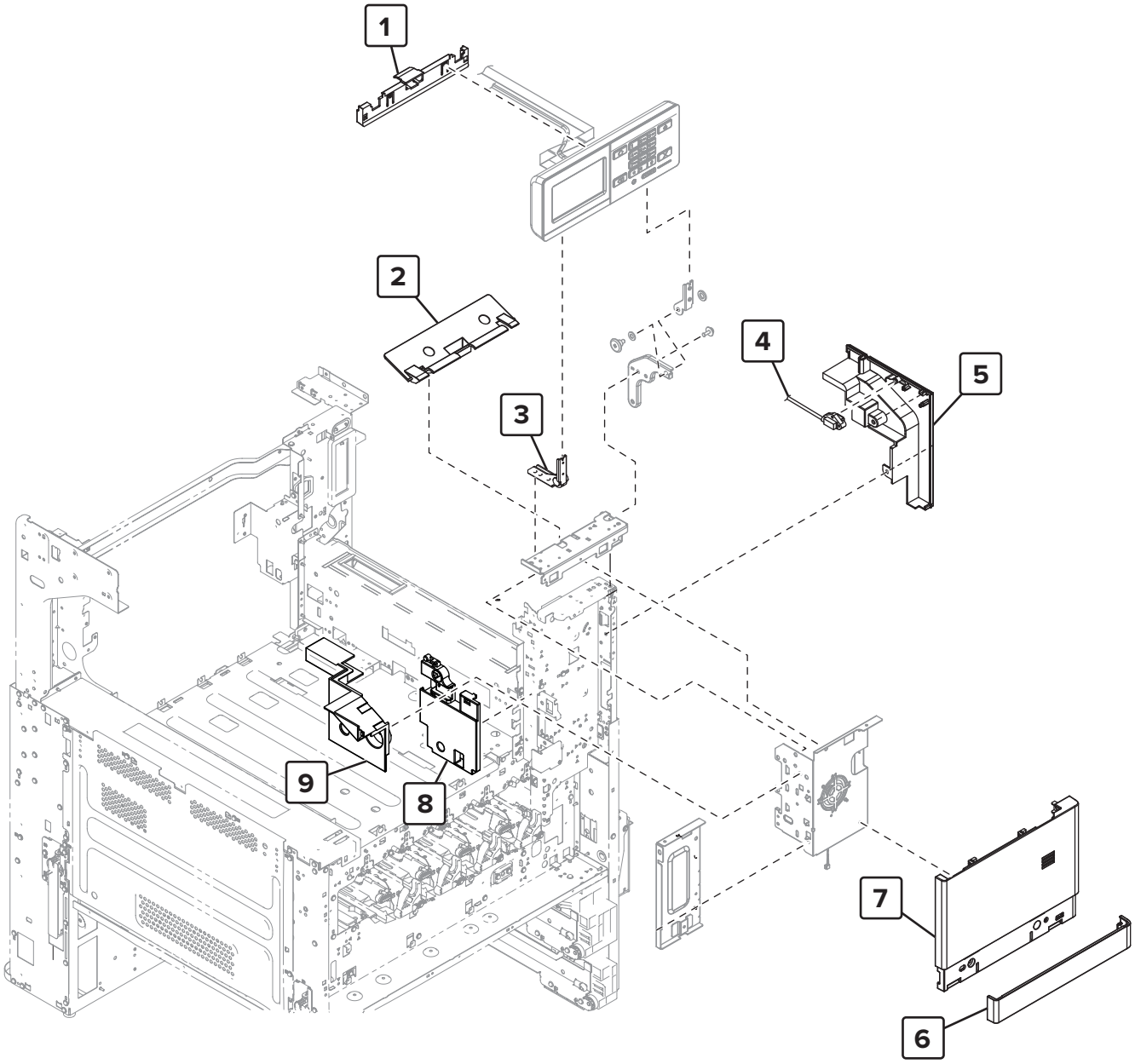
Assembly 4: Inner covers



Assembly 4: Inner covers

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8915	2	1	Waste toner bottle latch	“Waste toner bottle latch removal” on page 530
2	41X1431	1	1	Front inner cover	“Front inner cover removal” on page 515
3	40X8919	1	1	Lower front door strap	--
4	41X1566	1	1	Waste toner door mount	“Waste toner door mount removal” on page 515
5	40X8917	1	1	Main power switch	“Main power switch removal” on page 543
6	41X1432	1	1	Main power switch cable	“Main power switch cable removal” on page 544
7	40X9963	1	1	Front door switch	“Door switch removal” on page 546
8	40X9527	1	1	Door switch	“Door switch removal” on page 546

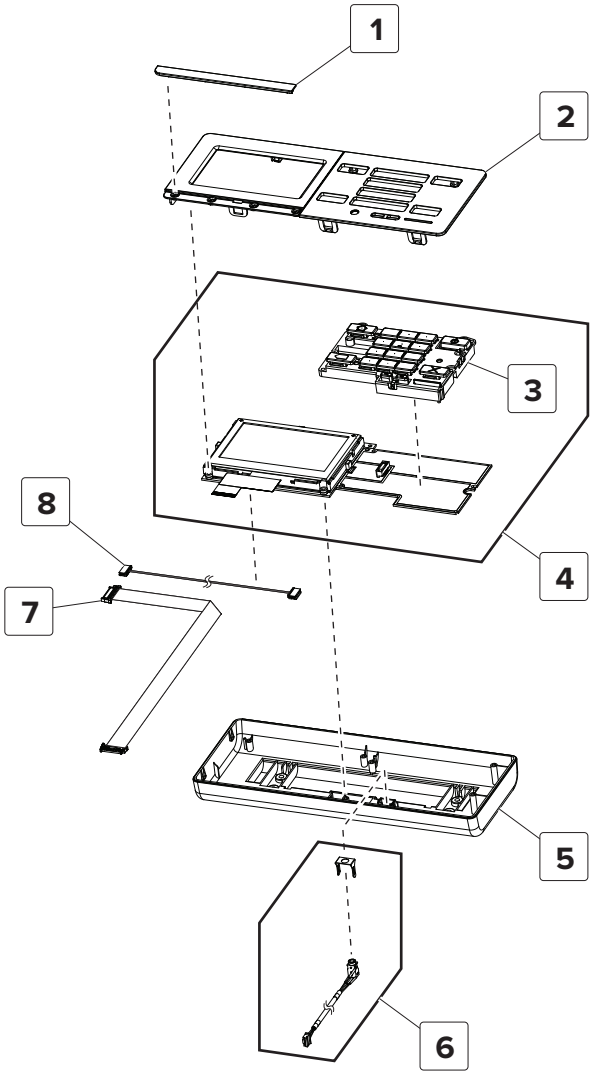
Assembly 5: Control panel 1



Assembly 5: Control panel 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1922	1	1	Control panel cable guide cover	“Control panel cable guide cover removal” on page 497
2	41X1921	1	1	Control panel support base	“Control panel support base removal” on page 490
3	41X1948	1	1	Control panel hinge	“Control panel hinge removal” on page 498
4	41X1923	1	1	USB extension cable	--
5	41X1762	1	1	USB port cover	“USB port cover removal” on page 365
6	41X1764	1	1	Speaker bottom cover	“Speaker bottom cover removal” on page 487
7	41X1763	1	1	Speaker cover	“Speaker cover removal” on page 488
8	40X9967	1	1	Control panel cable guide lower cover	“Control panel cable guide lower cover removal” on page 490
9	41X1765	1	1	Control panel cable guide upper cover	“Control panel cable guide upper cover removal” on page 489
NS	41X2111	1	1	Speaker	“Speaker removal” on page 502

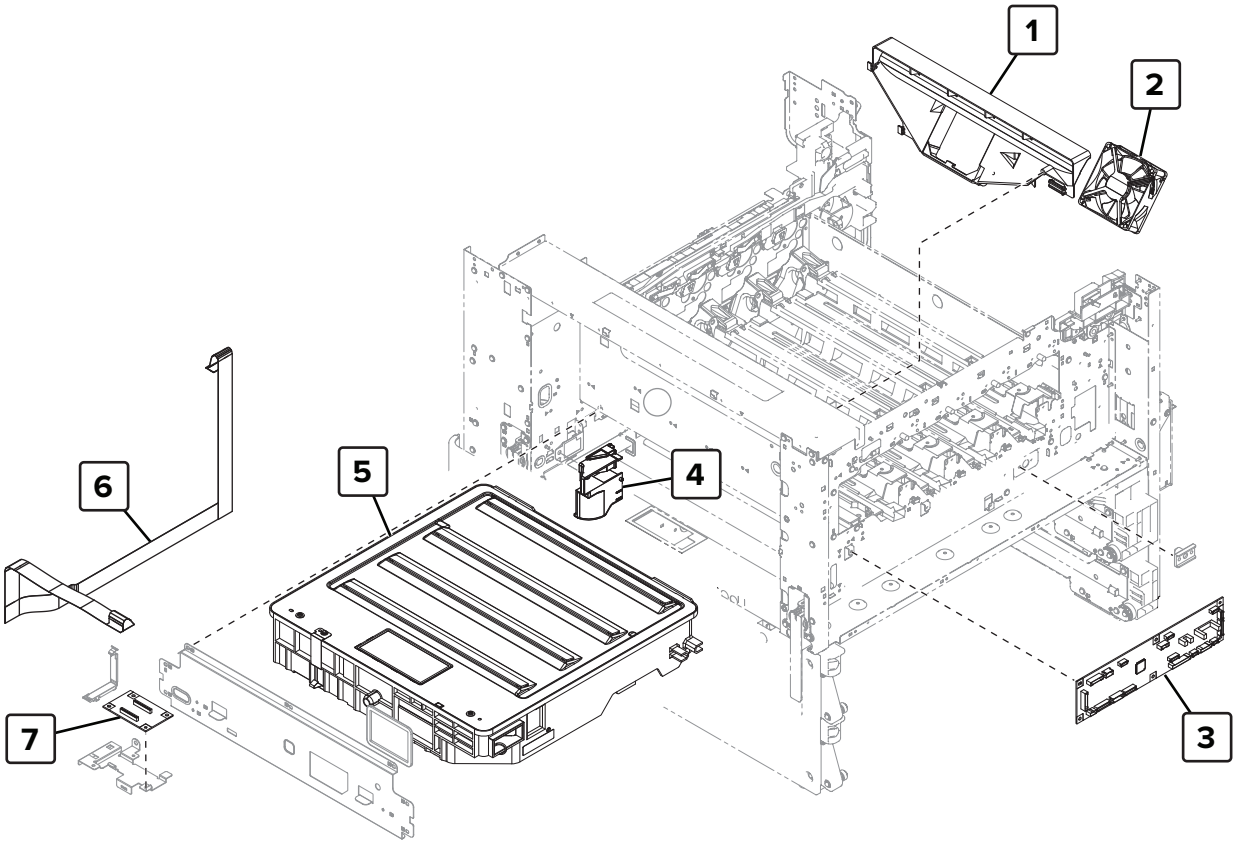
Assembly 6: Control panel 2



Assembly 6: Control panel 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2084	1	1	Model plate	--
2	41X1467	1	1	4.3 in. control panel front cover	“Control panel front cover removal” on page 491
3	41X0191	1	1	4.3 in. control panel button kit	“Keypad removal” on page 496
4	41X0050	1	1	4.3 in. control panel board	“Control panel board removal” on page 491
5	41X1473	1	1	4.3 in. control panel support base	“Control panel support base removal” on page 490
6	41X1478	1	1	Headphone jack	--
7	41X1483	1	1	4.3 in. control panel FFC	“Control panel FFC removal” on page 492
8	41X1487	1	1	4.3 in. control panel power cable	--

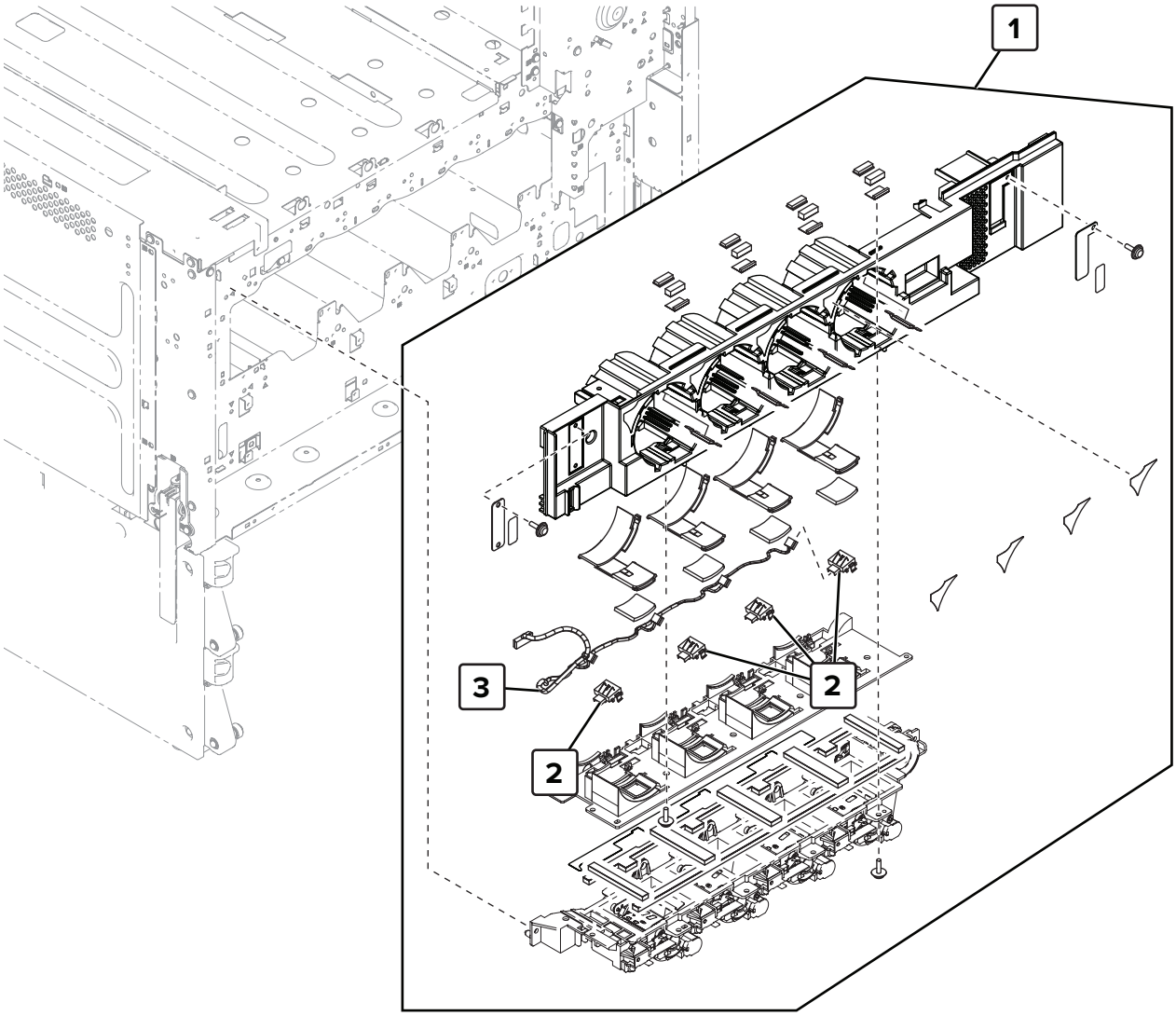
Assembly 7: Printhead



Assembly 7: Printhead

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1447	1	1	Transfer belt duct	“Transfer belt fan and duct removal” on page 519
2	40X8945	1	1	Transfer belt fan	“Transfer belt fan and duct removal” on page 519
3	41X1567	1	1	Image controller board	“Image controller board removal” on page 522
4	41X1415	1	1	Toner filter duct	--
5	41X1448	1	1	Printhead	“Printhead removal” on page 357
6	41X1450	1	1	Printhead FFC	“Printhead FFC removal” on page 569
7	41X1449	1	1	Printhead relay board	“Printhead relay board removal” on page 360

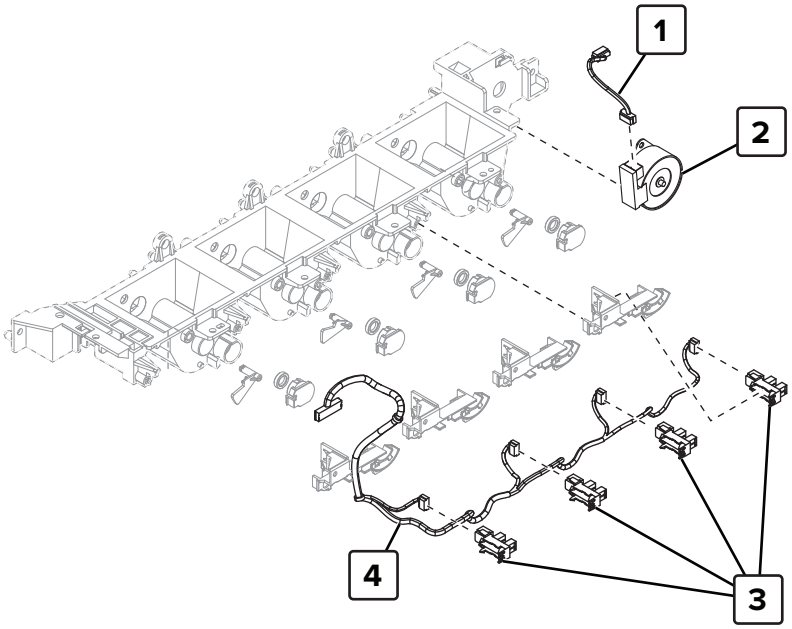
Assembly 8: Toner supply 1



Assembly 8: Toner supply 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1451	1	1	Toner agitator	“Toner agitator removal” on page 516
2	40X8962	4	1	Toner cartridge contact	“Toner cartridge contact removal” on page 526
3	41X1619	1	1	Toner cartridge relay contact cable	--

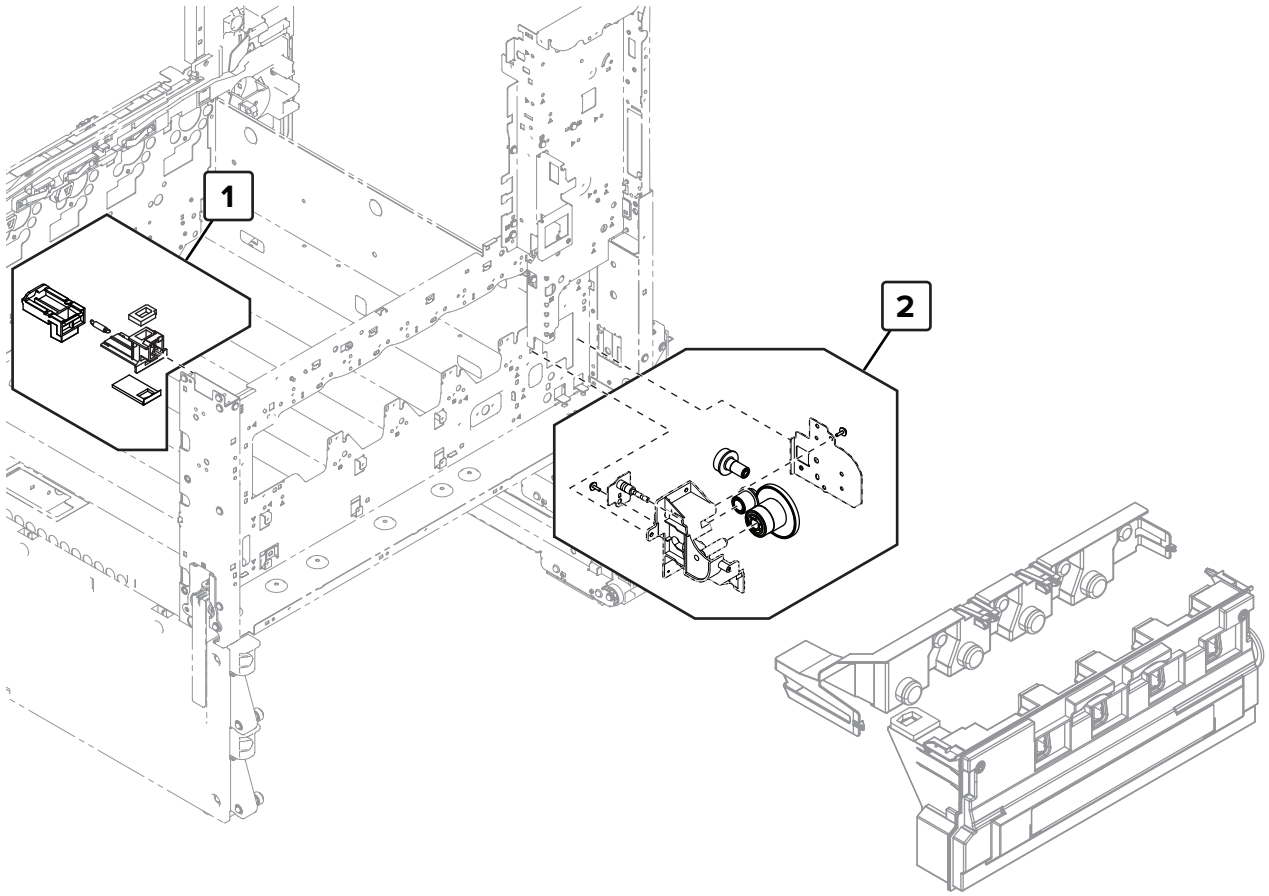
Assembly 9: Toner supply 2



Assembly 9: Toner supply 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8957	1	1	Toner supply motor cable	“K toner supply motor cable removal” on page 662
2	41X1452	1	1	Motor (K toner supply)	“Motor (K toner supply) removal” on page 517
3	41X1391	4	1	Sensor (toner empty)	“Sensor (toner empty) removal” on page 527
4	41X1453	1	1	Toner empty sensor cable	--

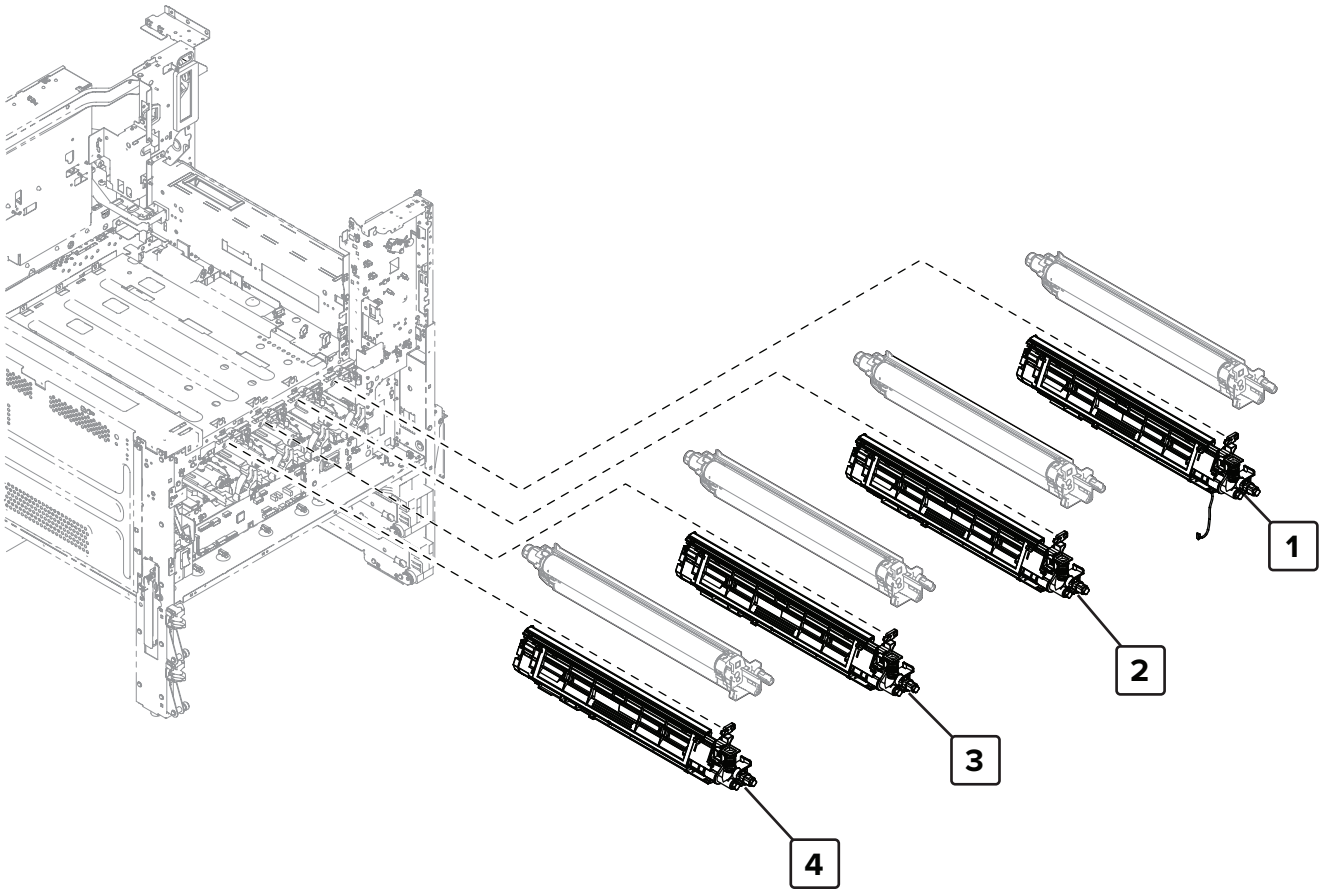
Assembly 10: Waste toner



Assembly 10: Waste toner

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8959	1	1	Waste toner duct	“Waste toner duct removal” on page 537
2	41X1455	1	1	Waste toner drive	“Waste toner drive removal” on page 535

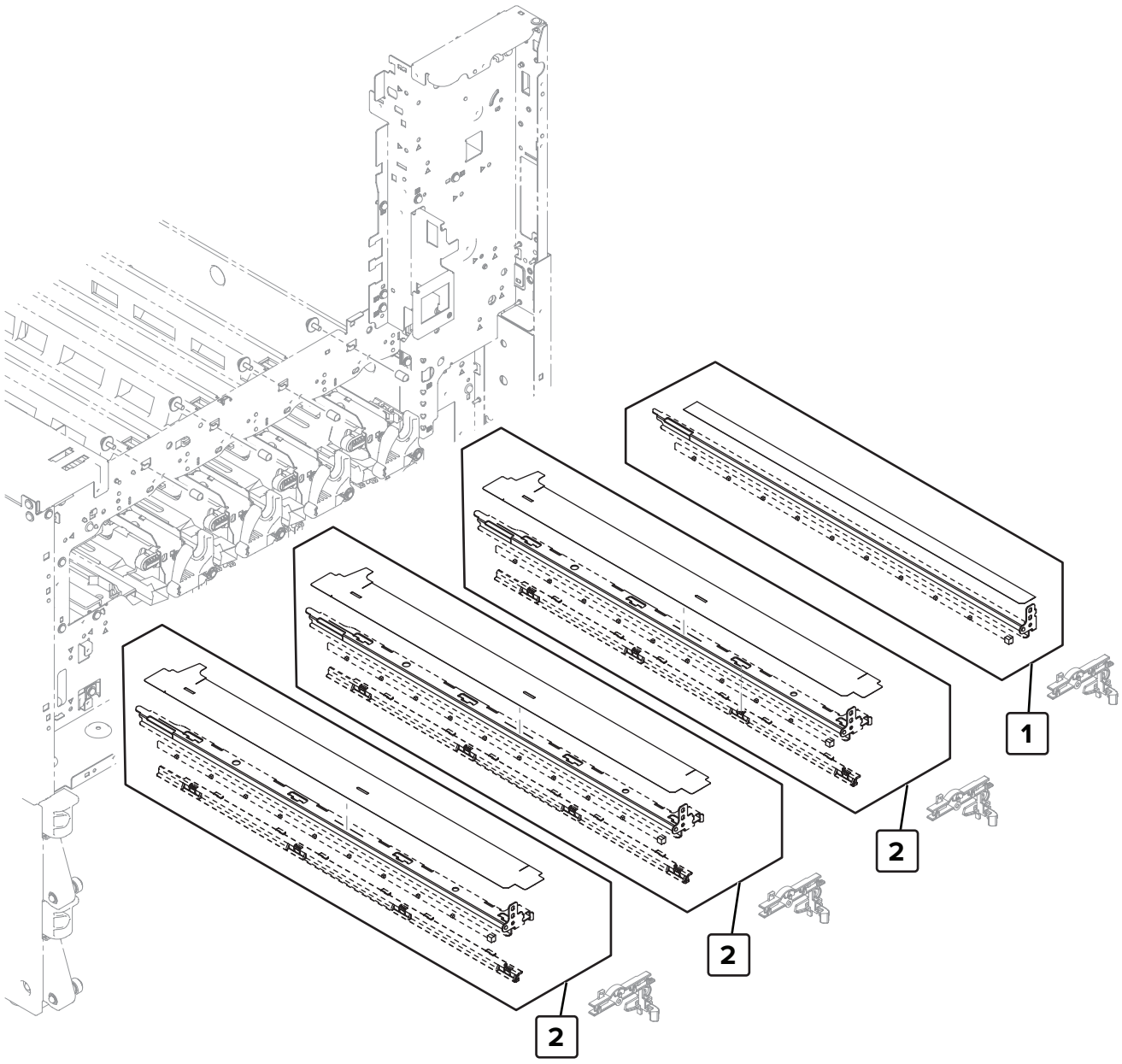
Assembly 11: Developer



Assembly 11: Developer

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1598	1	1	Developer unit (K)	“Developer unit (K) removal” on page 526
2	41X1595	1	1	Developer unit (C)	“Developer unit (C) removal” on page 525
3	41X1596	1	1	Developer unit (M)	“Developer unit (M) removal” on page 524
4	41X1597	1	1	Developer unit (Y)	“Developer unit (Y) removal” on page 523

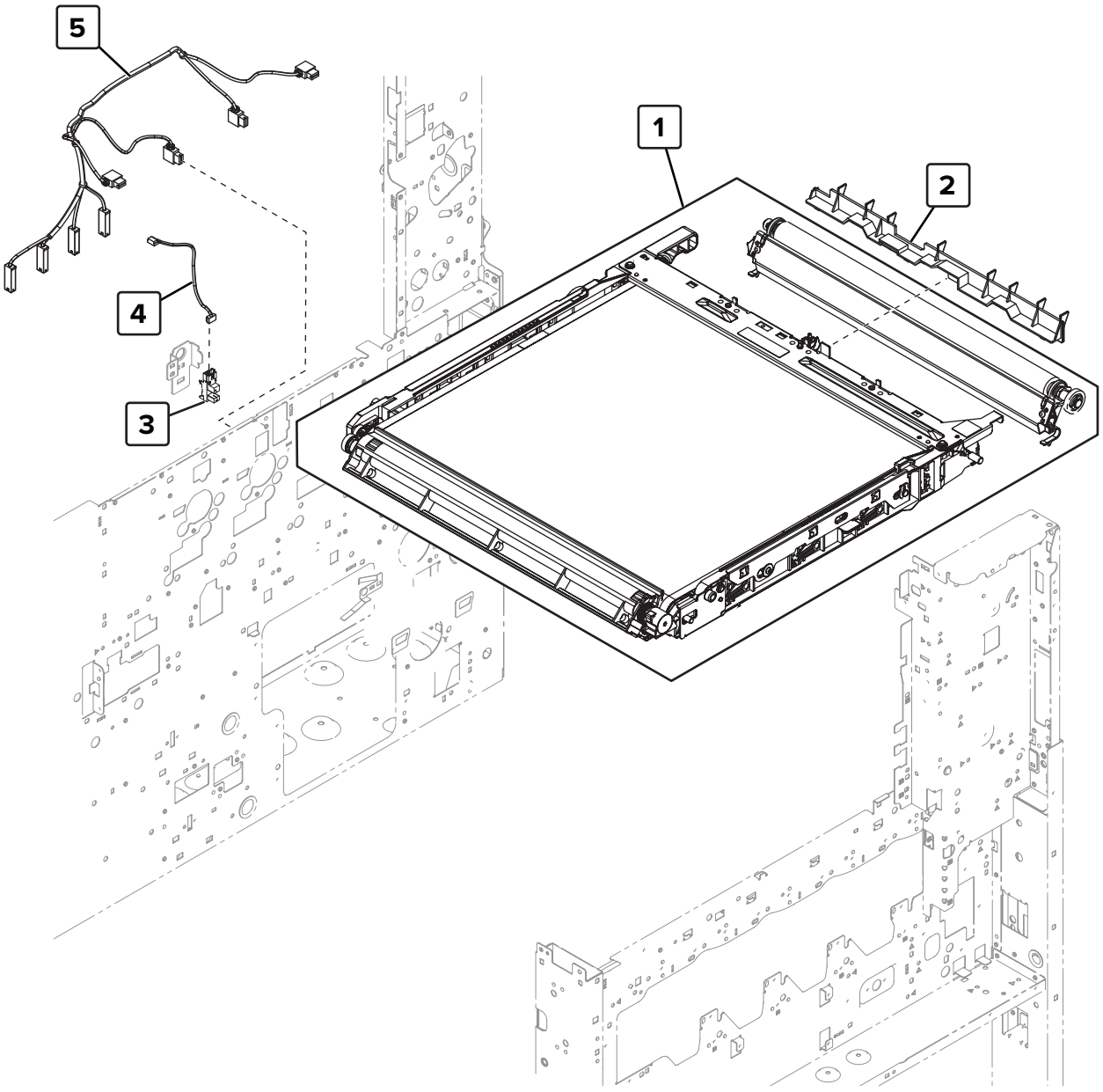
Assembly 12: Eraser



Assembly 12: Eraser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1457	1	1	Erase LED (K)	“Erase LED removal” on page 542
2	41X1456	3	1	Erase LED (CMY)	“Erase LED removal” on page 542

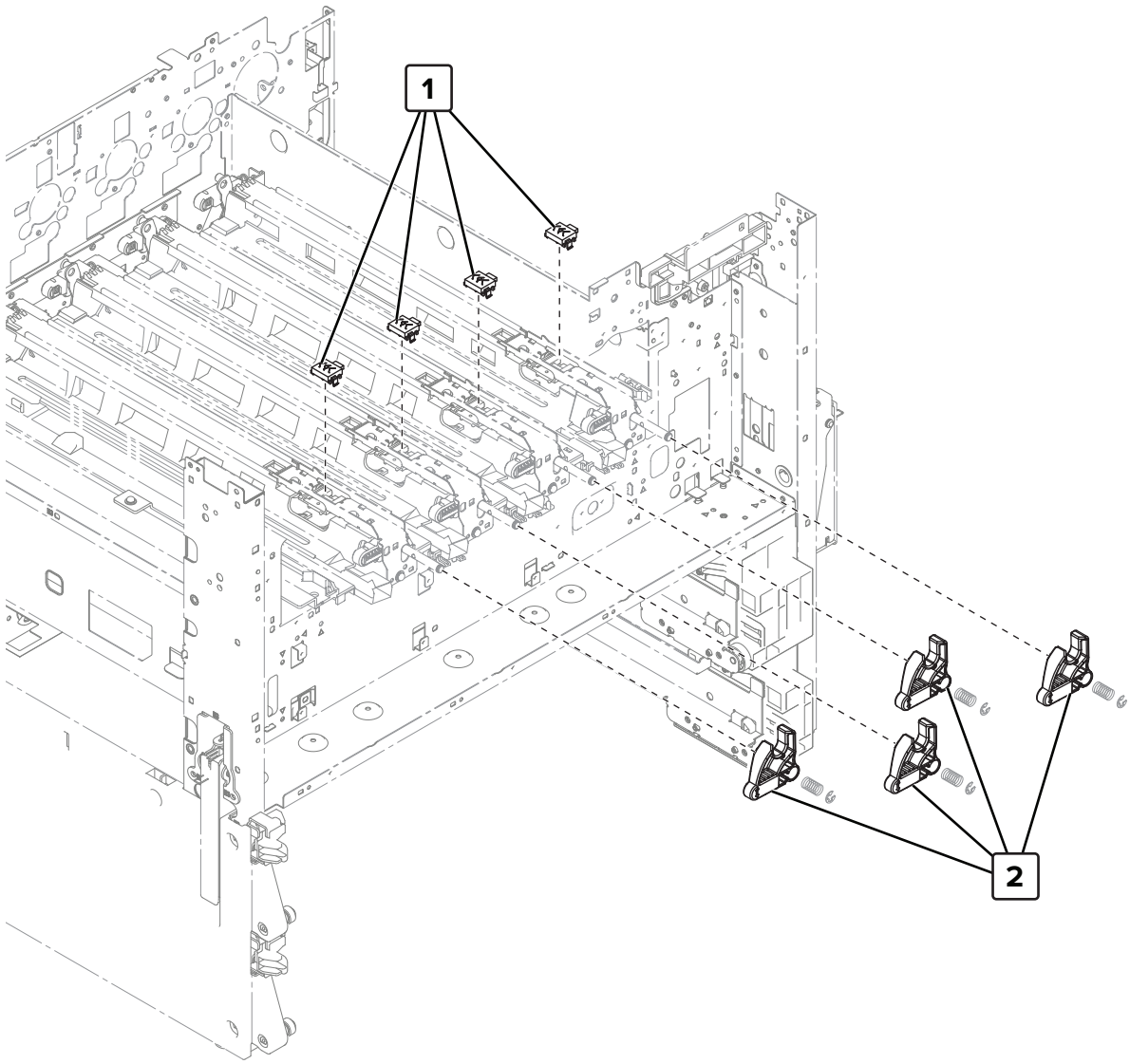
Assembly 13: Transfer belt



Assembly 13: Transfer belt

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1459	1	1	Transfer belt	“Transfer belt removal” on page 367
2	41X1460	1	1	Transfer belt paper guide	“Transfer belt removal” on page 367
3	41X1444	1	1	Sensor (CMY retract)	“Sensor (CMY retract) removal” on page 628
4	41X1461	1	1	First transfer pressure sensor cable	“First transfer pressure sensor cable removal” on page 629
5	41X1462	1	1	Transfer belt charge cable	“Transfer belt charge cable removal” on page 630

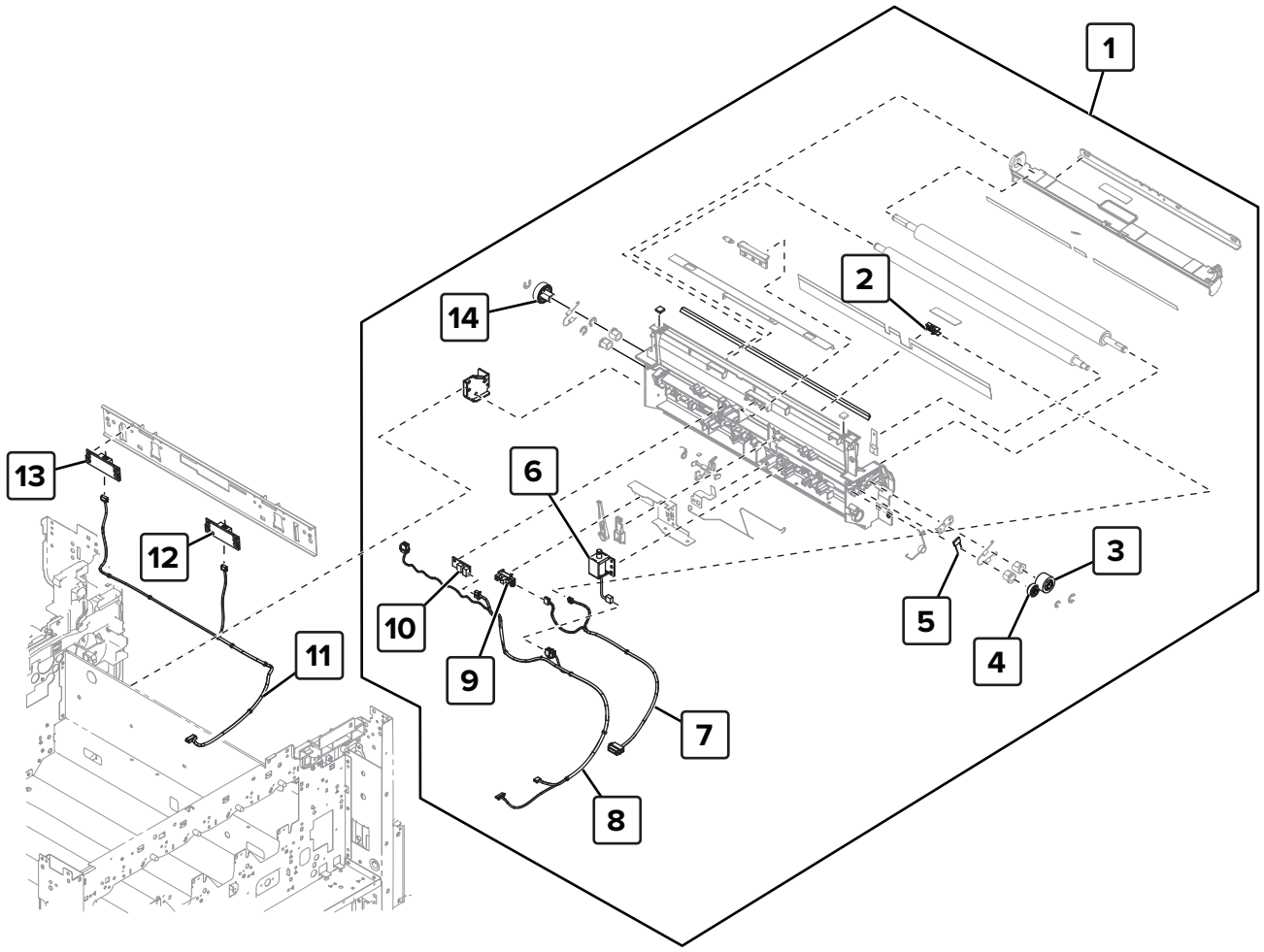
Assembly 14: Photoconductor



Assembly 14: Photoconductor

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8962	4	1	Photoconductor relay contact	“Photoconductor relay contact removal” on page 532
2	40X9978	4	1	Photoconductor release lever	“Photoconductor release lever removal” on page 529

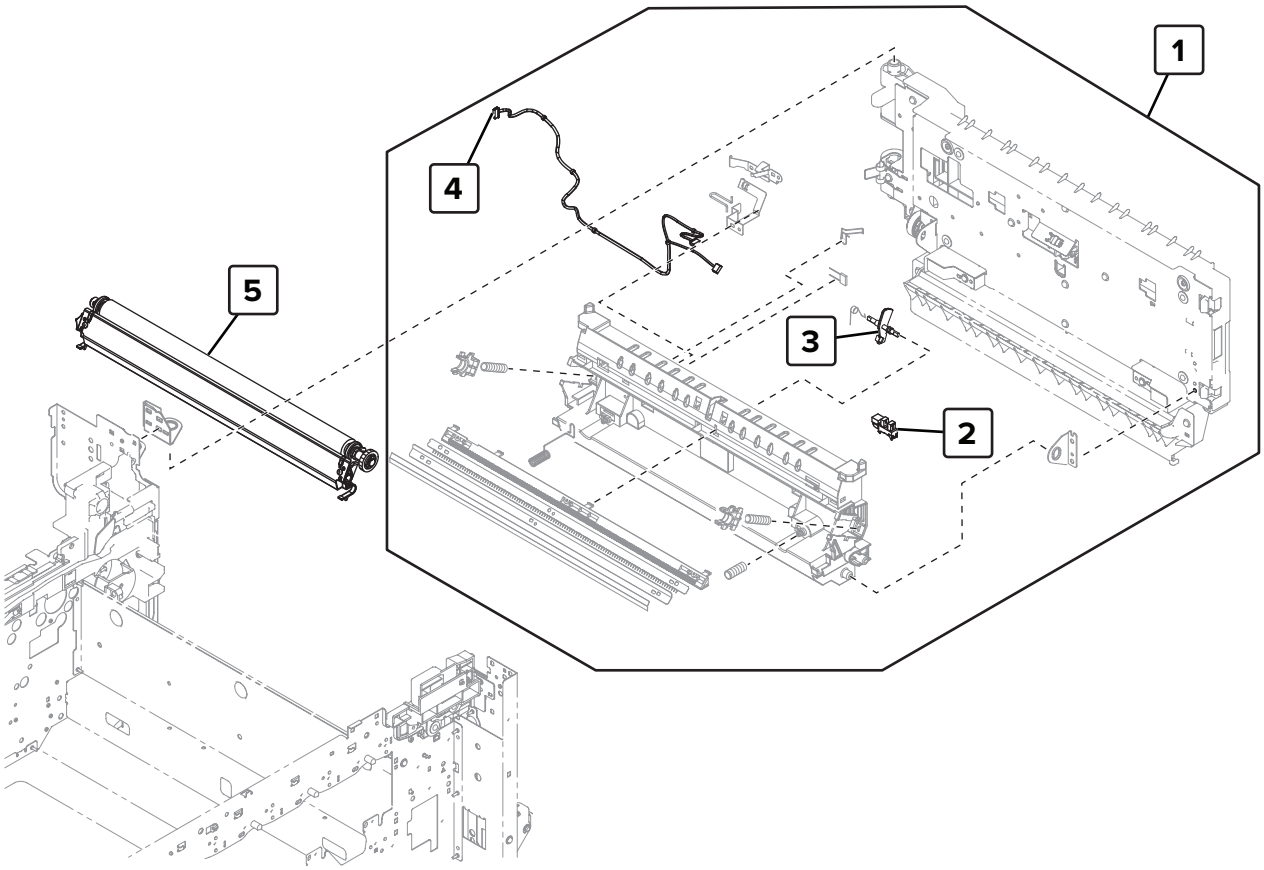
Assembly 15: Registration transport



Assembly 15: Registration transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1761	1	1	Registration transport assembly	“Registration transport assembly removal” on page 432
2	40X8968	1	1	Sensor (registration 2)	--
3	40X9706	1	1	Registration primary gear	“Registration primary gear removal” on page 438
4	40X9707	1	1	Registration secondary gear	“Registration secondary gear removal” on page 439
5	40X9009	1	1	Registration transport resistor	“Registration transport resistor removal” on page 455
6	40X8998	1	1	Toner density solenoid	“Toner density solenoid removal” on page 435
7	41X1480	1	1	Registration unit sensor cable	“Registration unit sensor cable removal” on page 457
8	41X1479	1	1	Humidity sensor cable	--
9	41X1391	1	1	Sensor (registration)	“Sensor (registration) removal” on page 436
10	41X1477	1	1	Sensor (registration humidity)	“Sensor (registration humidity) removal” on page 434
11	41X1482	1	1	Toner density sensor cable	“Toner density sensor cable removal” on page 463
12	41X1476	1	1	Sensor (front toner density)	“Sensor (front toner density) removal” on page 460
13	40X8999	1	1	Sensor (rear toner density)	“Sensor (rear toner density) removal” on page 461
14	41X1575	1	1	Registration gear	--

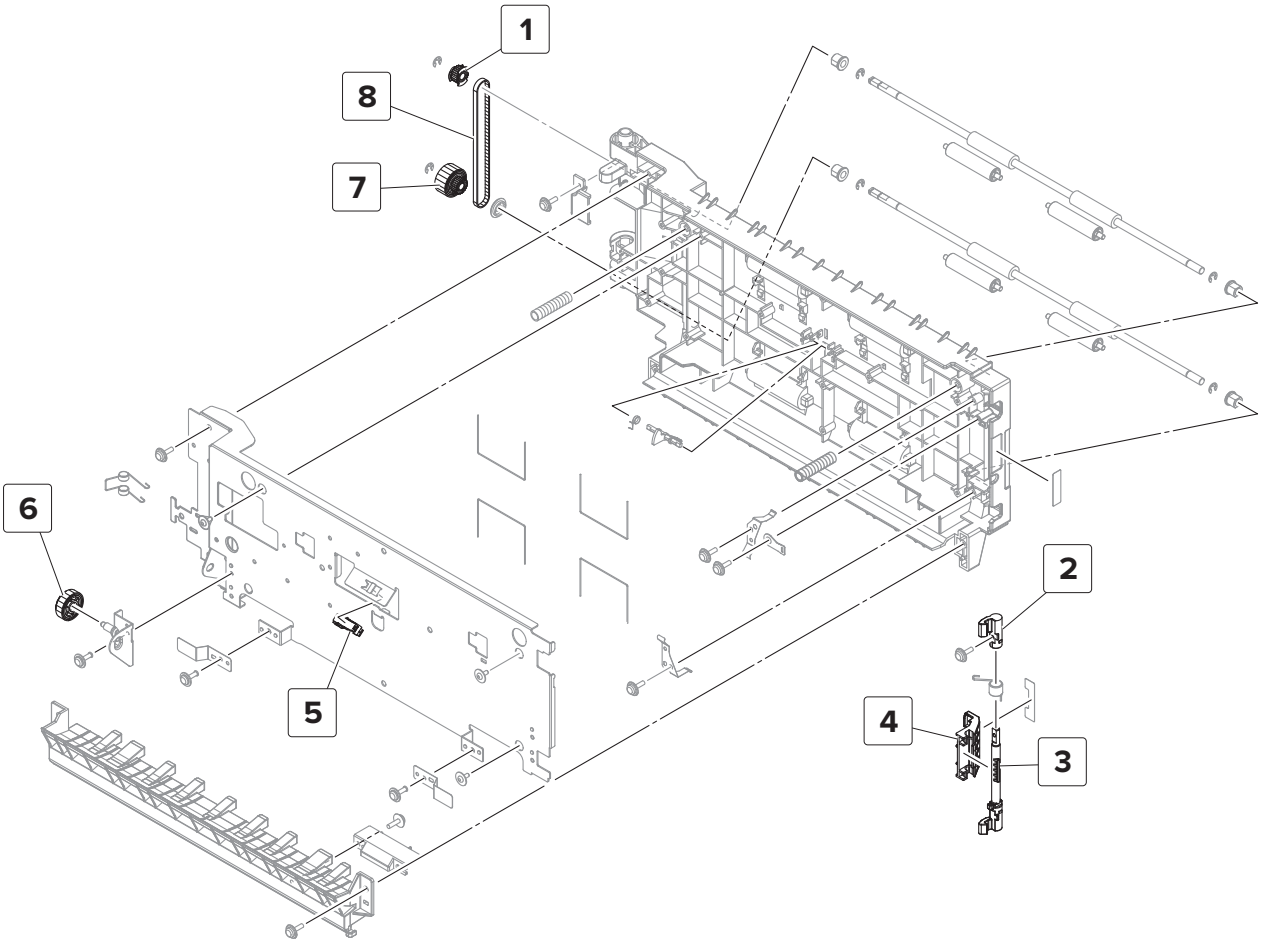
Assembly 16: Transfer



Assembly 16: Transfer

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1485	1	1	Registration unit assembly	“Registration unit assembly removal” on page 440
2	41X1391	1	1	Sensor (fusing speed)	“Sensor (fusing speed) removal” on page 447
3	41X1931	1	1	Fusing speed sensor actuator	“Fusing speed sensor actuator removal” on page 448
4	40X9990	1	1	Fusing speed sensor cable	--
5	41X1484	1	1	Transfer roller	“Transfer roller removal” on page 361

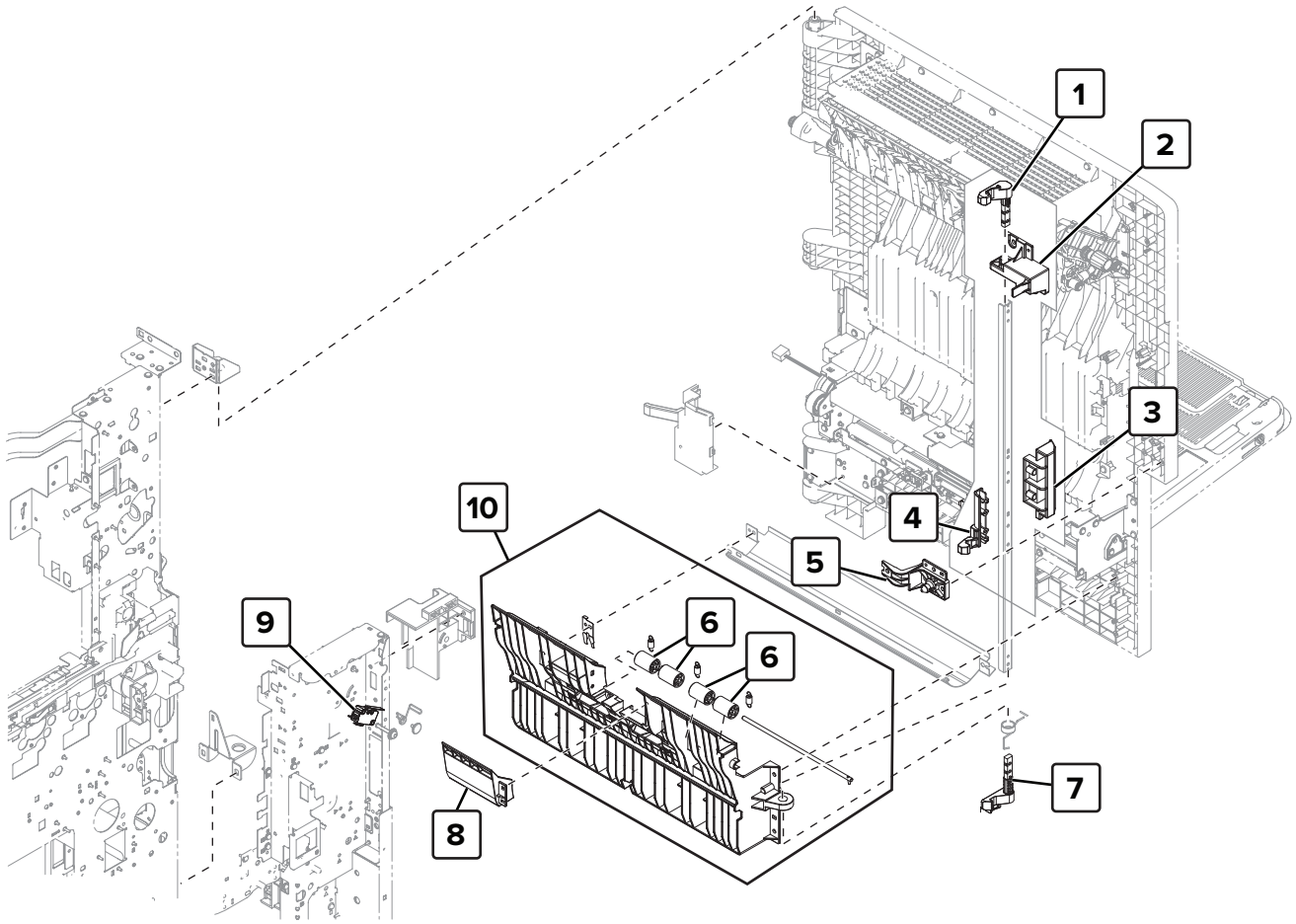
Assembly 17: Registration unit



Assembly 17: Registration unit

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9012	1	1	Registration unit gear	“Registration unit gear removal” on page 455
2	40X9992	1	1	Registration unit lock	“Registration unit handle removal” on page 458
3	40X9993	1	1	Registration unit lock shaft	“Registration unit handle removal” on page 458
4	40X9994	1	1	Registration unit handle	“Registration unit handle removal” on page 458
5	41X1391	1	1	Sensor (duplex pass through 2)	“Sensor (duplex pass through 2) removal” on page 448
6	40X9710	1	1	Lower registration gear	“Lower registration gear removal” on page 453
7	40X9991	1	1	Registration drive gear	“Registration drive gear removal” on page 452
8	40X9013	1	1	Registration drive belt	“Registration drive belt removal” on page 450

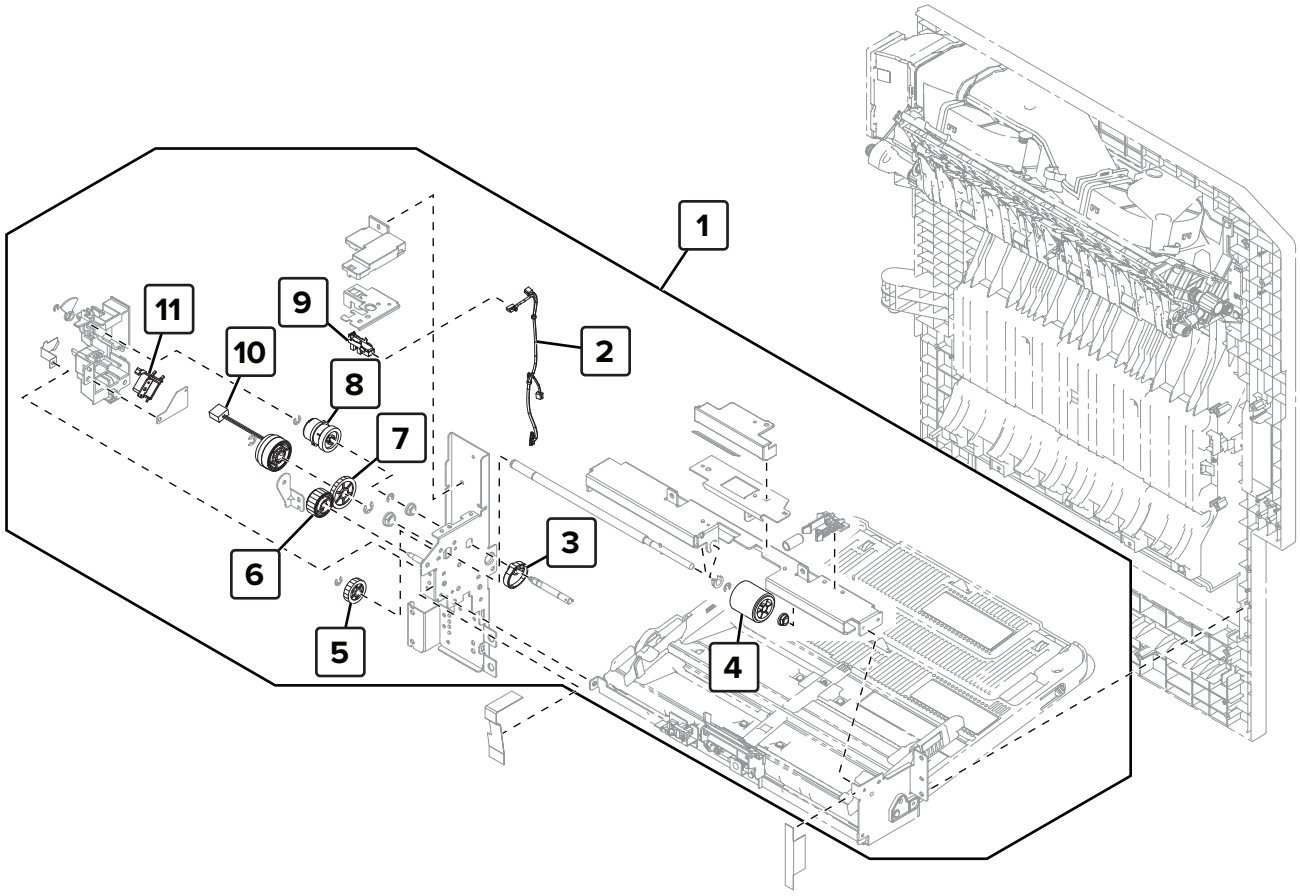
Assembly 18: Right door transport



Assembly 18: Right door transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9019	1	1	Right door upper lock	“Right door lock removal” on page 387
2	40X9020	1	1	Right door switch actuator	“Right door lock removal” on page 387
3	41X1488	1	1	Right door release handle	“Right door lock removal” on page 387
4	40X9712	1	1	Right door middle lock	“Right door lock removal” on page 387
5	40X9715	1	1	Right door lock support	“Right door lock removal” on page 387
6	40X8973	4	1	Tray 2 transport guide rollers	--
7	40X9713	1	1	Right door lower lock	“Right door lock removal” on page 387
8	41X1772	1	1	MPF separator access cover	“MPF separator access cover removal” on page 421
9	40X9527	1	1	Right door switch	“Right door switch removal” on page 506
10	41X1576	1	1	Tray 2 transport guide	“Tray 2 transport guide removal” on page 388

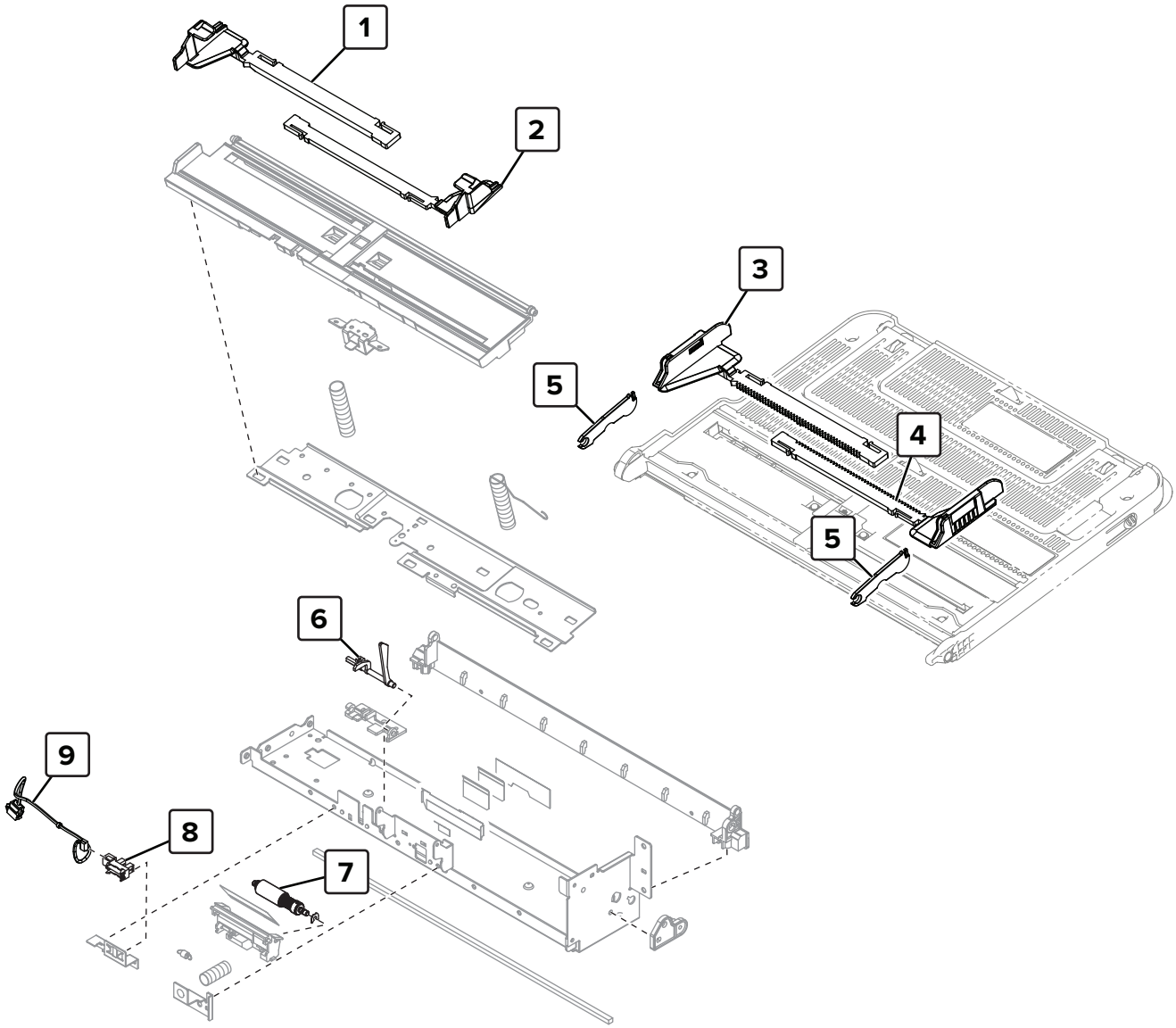
Assembly 19: MPF 1



Assembly 19: MPF 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1490	1	1	MPF	“MPF removal” on page 389
2	40X9716	1	1	MPF lift plate sensor cable	“MPF lift plate sensor cable removal” on page 428
3	40X9996	1	1	MPF lift plate cam	“MPF lift plate cam removal” on page 416
4	40X9995	1	1	MPF pick roller	“MPF pick roller removal” on page 422
5	40X9022	1	1	MPF separator gear	“MPF separator gear removal” on page 423
6	40X9718	1	1	MPF separator idler gear	“MPF separator idler gear removal” on page 424
7	40X9719	1	1	MPF feed clutch gear	“MPF feed clutch gear removal” on page 414
8	40X9720	1	1	MPF lift plate clutch gear	“MPF lift plate clutch gear removal” on page 417
9	41X1391	1	1	Sensor (MPF lift plate)	“Sensor (MPF lift plate) removal” on page 427
10	40X9023	1	1	MPF feed clutch	“MPF feed clutch removal” on page 413
11	41X1489	1	1	MPF lift plate solenoid	“MPF lift plate solenoid removal” on page 415

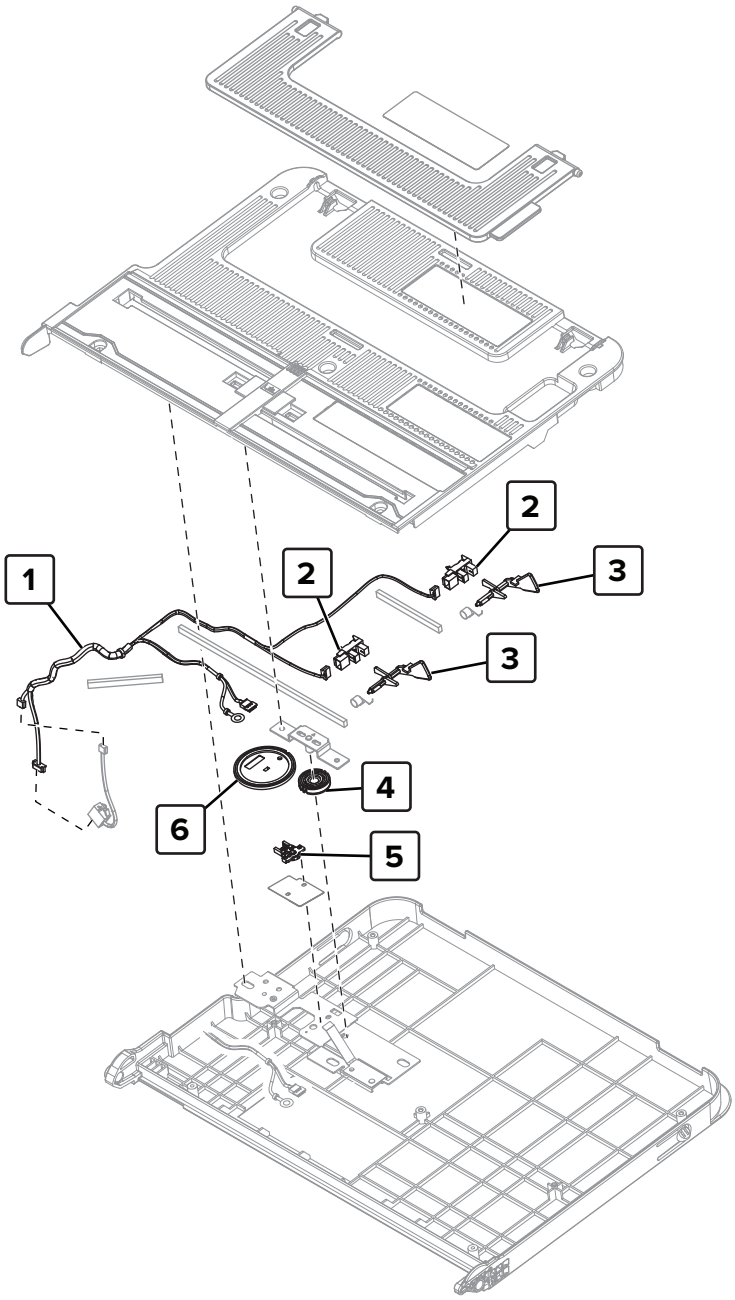
Assembly 20: MPF 2



Assembly 20: MPF 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1577	1	1	MPF rear paper guide 2	“MPF rear paper guide 2 removal” on page 408
2	41X1578	1	1	MPF front paper guide 2	“MPF front paper guide 2 removal” on page 410
3	41X1492	1	1	MPF rear paper guide	“MPF rear paper guide removal” on page 406
4	41X1579	1	1	MPF front paper guide	“MPF front paper guide removal” on page 407
5	41X1491	2	1	MPF hinge arm	“MPF hinge arm removal” on page 389
6	41X1495	1	1	MPF paper empty flag	“MPF paper empty flag removal” on page 398
7	40X9615	1	1	MPF separator roller	“MPF separator roller removal” on page 425
8	41X1391	1	1	Sensor (MPF paper present)	“Sensor (MPF paper present) removal” on page 396
9	41X1493	1	1	MPF paper present sensor cable	“MPF paper present sensor cable removal” on page 396

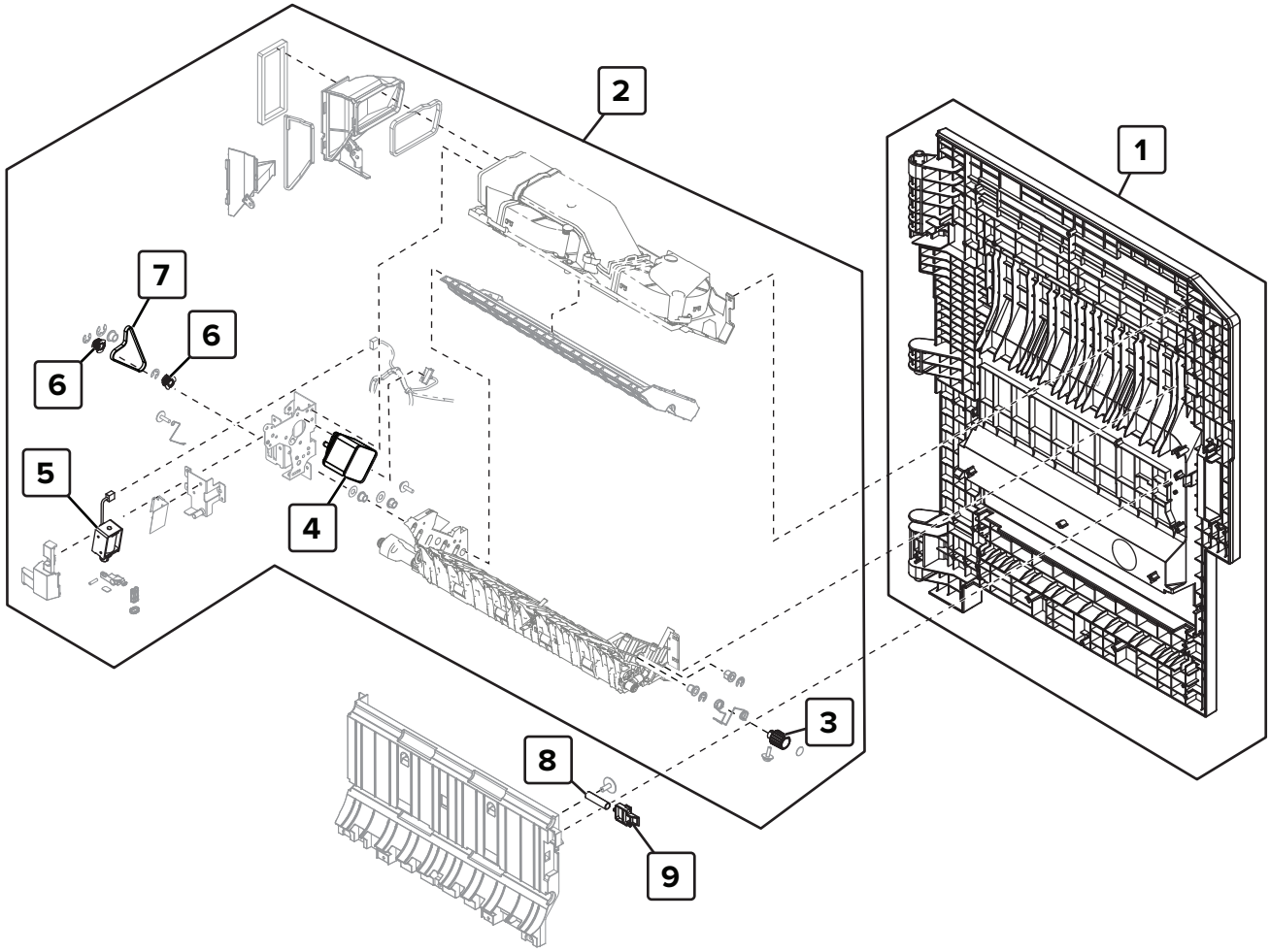
Assembly 21: MPF 3



Assembly 21: MPF 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1498	1	1	MPF paper size sensor cable	**“MPF paper size sensor cable removal” on page 420**
2	41X1391	2	1	Sensors (MPF paper length)	**“Sensors (MPF paper length) removal” on page 402**
3	40X9026	2	1	MPF paper length actuators	**“MPF paper length actuators removal” on page 418**
4	41X1580	1	1	MPF paper guide pinion gear	**“MPF paper guide pinion gear removal” on page 404**
5	40X9030	1	1	Sensor (MPF paper width)	**“Sensor (MPF paper width) removal” on page 402**
6	41X1497	1	1	MPF paper width gear	**“MPF paper width gear removal” on page 399**

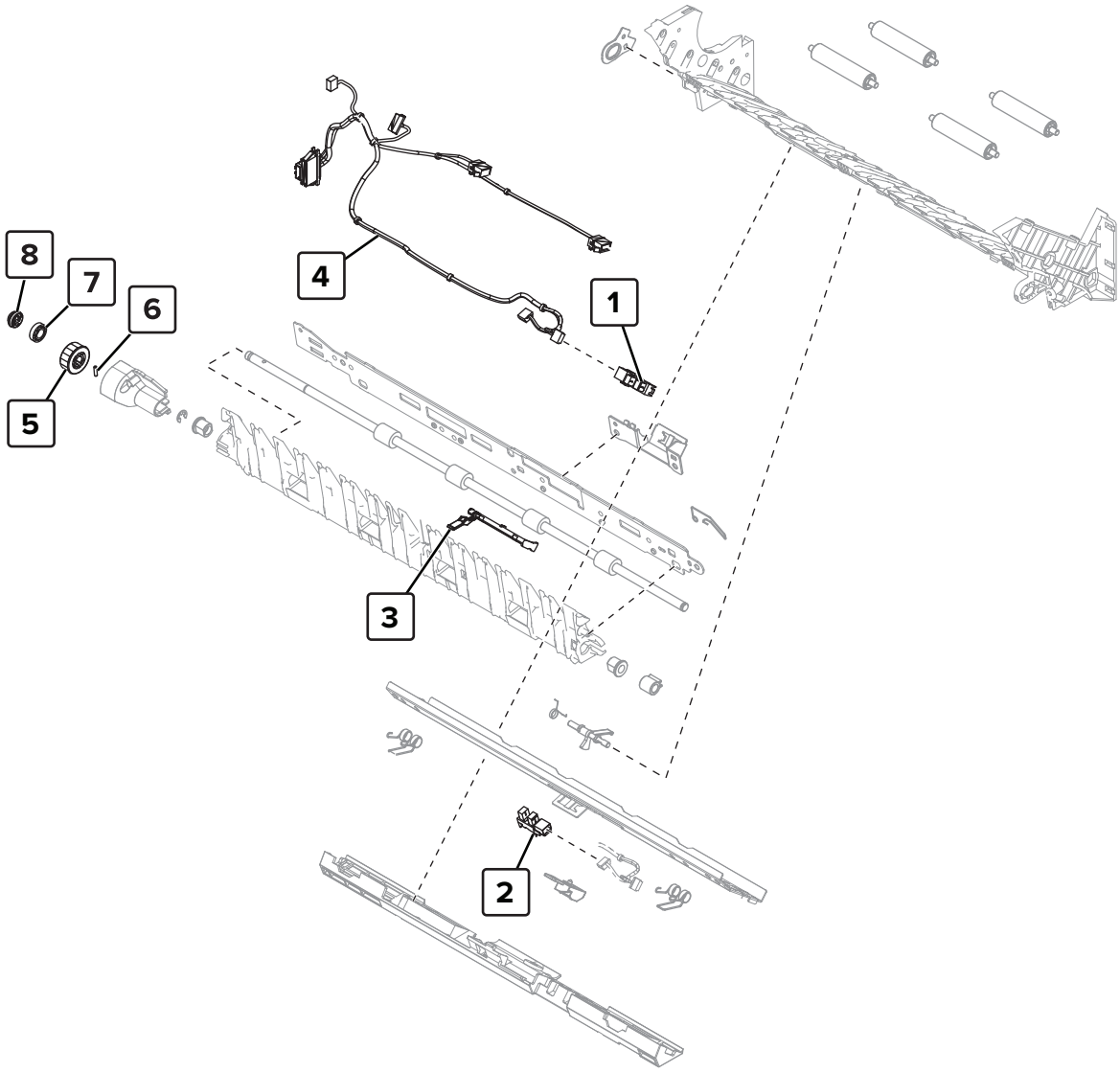
Assembly 22: Duplex 1



Assembly 22: Duplex 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1581	1	1	Right door	“Right door removal” on page 391
2	41X1773	1	1	Duplex transport assembly	“Duplex transport assembly removal” on page 370
3	40X9998	1	1	Duplex transport jam removal knob	“Duplex transport jam removal knob removal” on page 383
4	41X1499	1	1	Motor (duplex transport)	“Motor (duplex transport) removal” on page 377
5	41X1564	1	1	Fuser pressure solenoid	“Fuser pressure solenoid removal” on page 374
6	40X9012	2	1	Duplex transport gear	--
7	41X1563	1	1	Duplex transport belt	“Duplex transport belt removal” on page 376
8	41X1814	1	1	Registration unit spring	“Registration unit lock and spring removal” on page 449
9	41X1932	1	1	Registration unit lock	“Registration unit lock and spring removal” on page 449

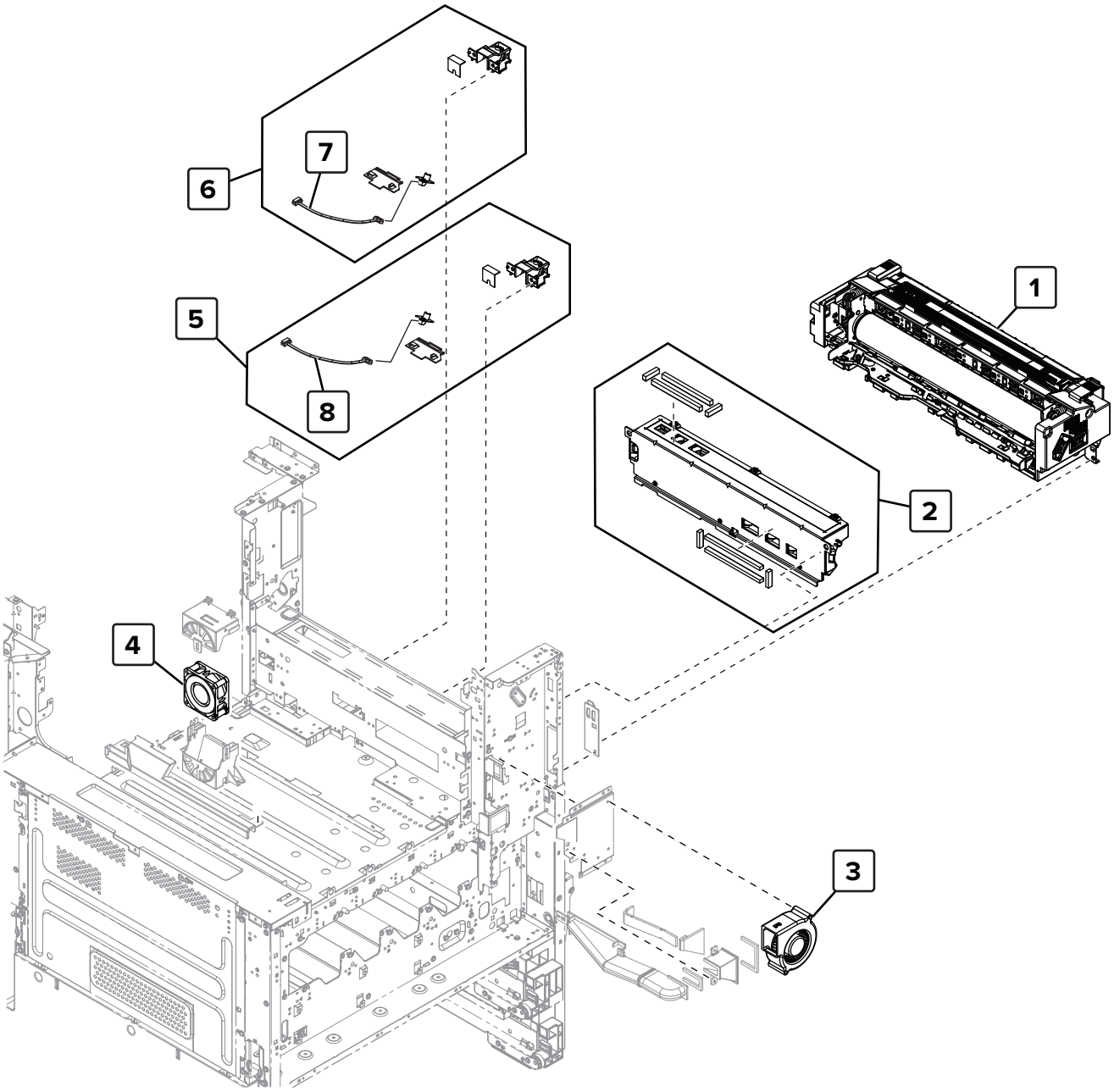
Assembly 23: Duplex 2



Assembly 23: Duplex 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1391	1	1	Sensor (fuser exit)	“Sensor (fuser exit) removal” on page 379
2	41X1391	1	1	Sensor (duplex pass through 1)	“Sensor (duplex pass through 1) removal” on page 380
3	40X9039	1	1	Fuser exit sensor actuator	“Fuser exit sensor actuator removal” on page 380
4	41X1501	1	1	Fuser exit sensor cable	--
5	40X9215	1	1	Duplex redrive diverter gear	“Duplex redrive diverter gear removal” on page 381
6	41X2688	1	1	Duplex pin	--
7	41X2687	1	1	Duplex washer	--
8	41X2686	1	1	Duplex lock washer	--

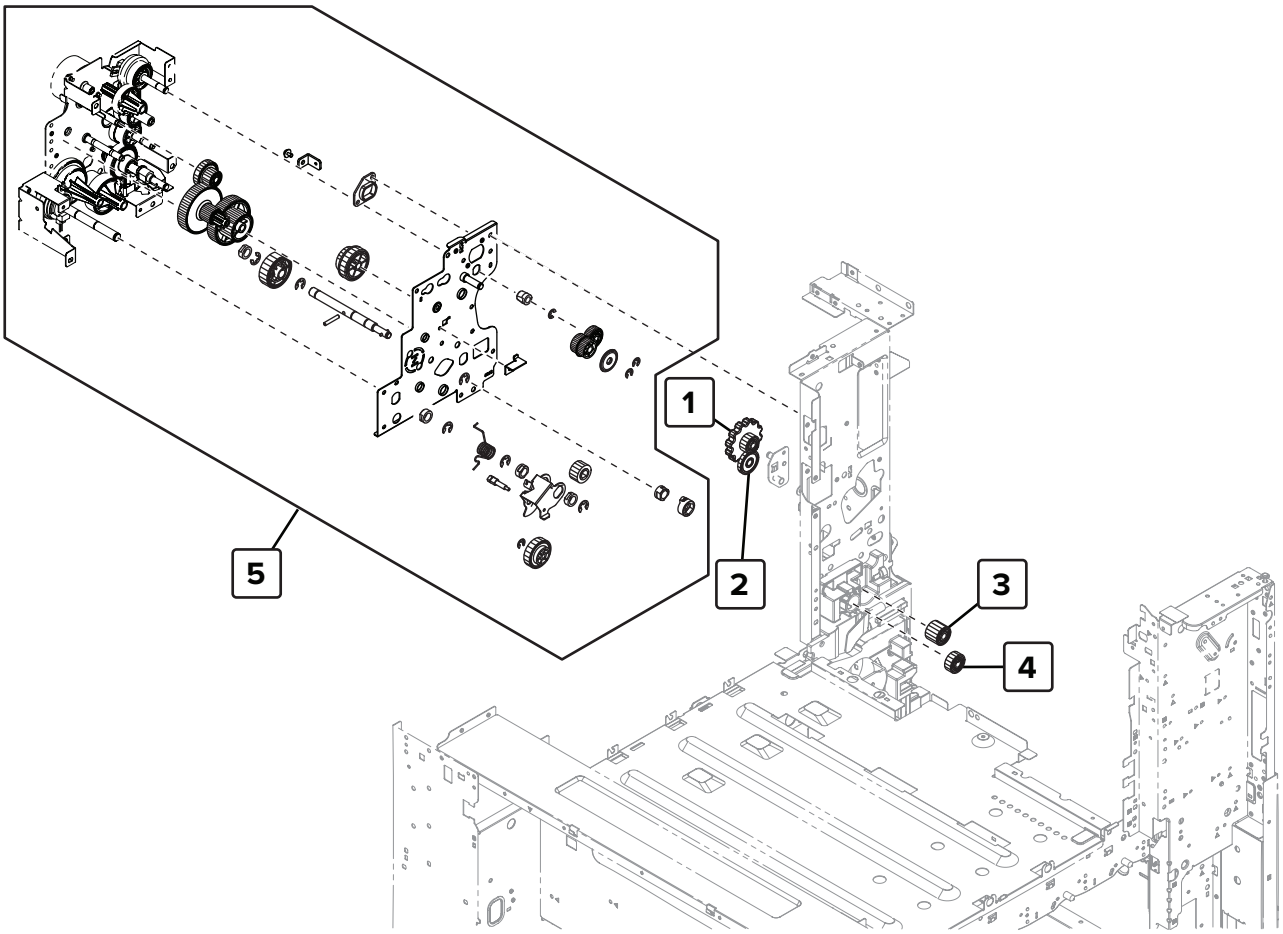
Assembly 24: Fuser



Assembly 24: Fuser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1505	1	1	Fuser	“Fuser removal” on page 464
2	41X1582	1	1	Induction heater, 100 V to 120 V	“Induction heater removal” on page 465
2	41X1583	1	1	Induction heater, 200 V to 230 V	“Induction heater removal” on page 465
3	41X1506	1	1	Heater cooling fan	“Heater cooling fan removal” on page 531
4	41X1504	1	1	Toner cartridge cooling fan	“Toner cartridge cooling fan removal” on page 661
5	41X1769	1	1	Sensor (fuser temperature, font)	--
6	41X1769	1	1	Sensor (fuser temperature, rear)	--
7	40X9049	1	1	Fuser temperature sensor cable, rear	--
8	40X9049	1	1	Fuser temperature sensor cable, front	--

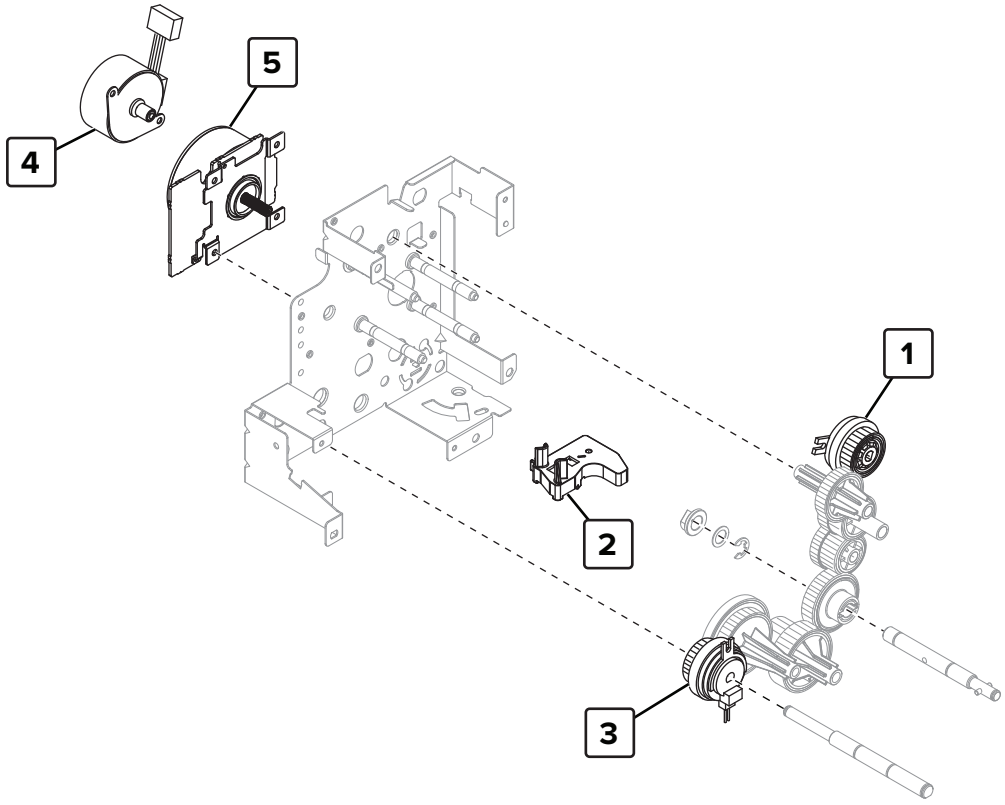
Assembly 25: Fuser drive 1



Assembly 25: Fuser drive 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9729	1	1	Fuser knob	“Fuser knob removal” on page 615
2	40X9730	1	1	Fuser pressure secondary gear	--
3	40X9731	1	1	Fuser transport primary gear	--
4	40X9732	1	1	Fuser transport secondary gear	--
5	41X1533	1	1	Fuser drive gearbox	“Fuser drive gearbox removal” on page 612

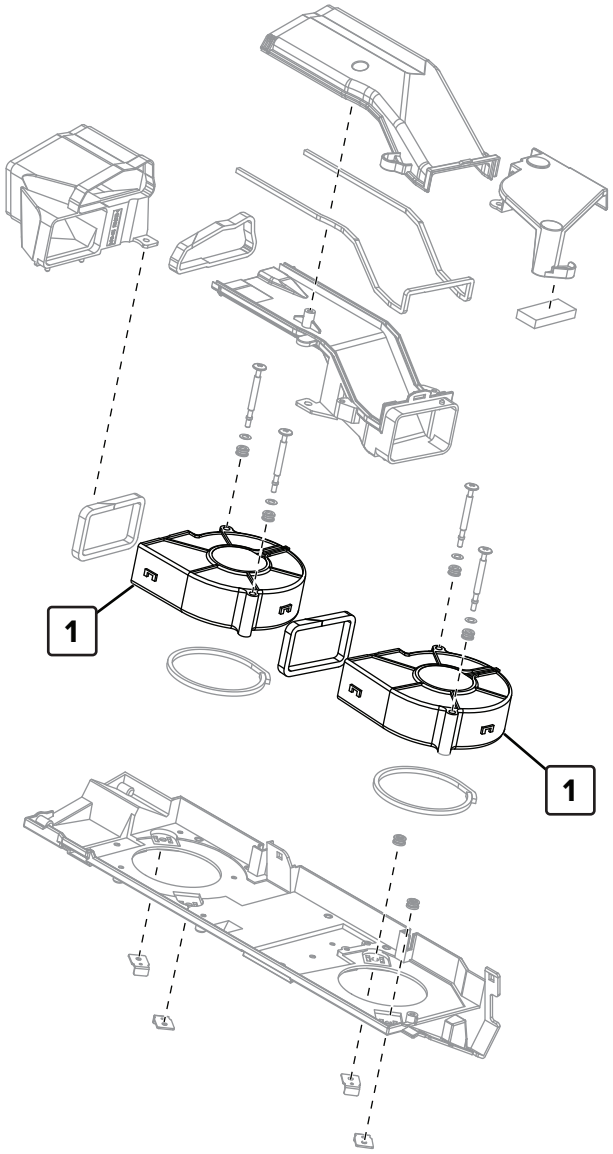
Assembly 26: Fuser drive 2



Assembly 26: Fuser drive 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8971	1	1	Paper exit clutch	--
2	41X1536	1	1	Fuser drive lever	--
3	41X1535	1	1	CMY retract clutch	--
4	40X9179	1	1	Motor (fuser pressure)	**“Motor (fuser pressure) removal” on page 610**
5	41X1534	1	1	Motor (fuser)	**“Motor (fuser) removal” on page 609**

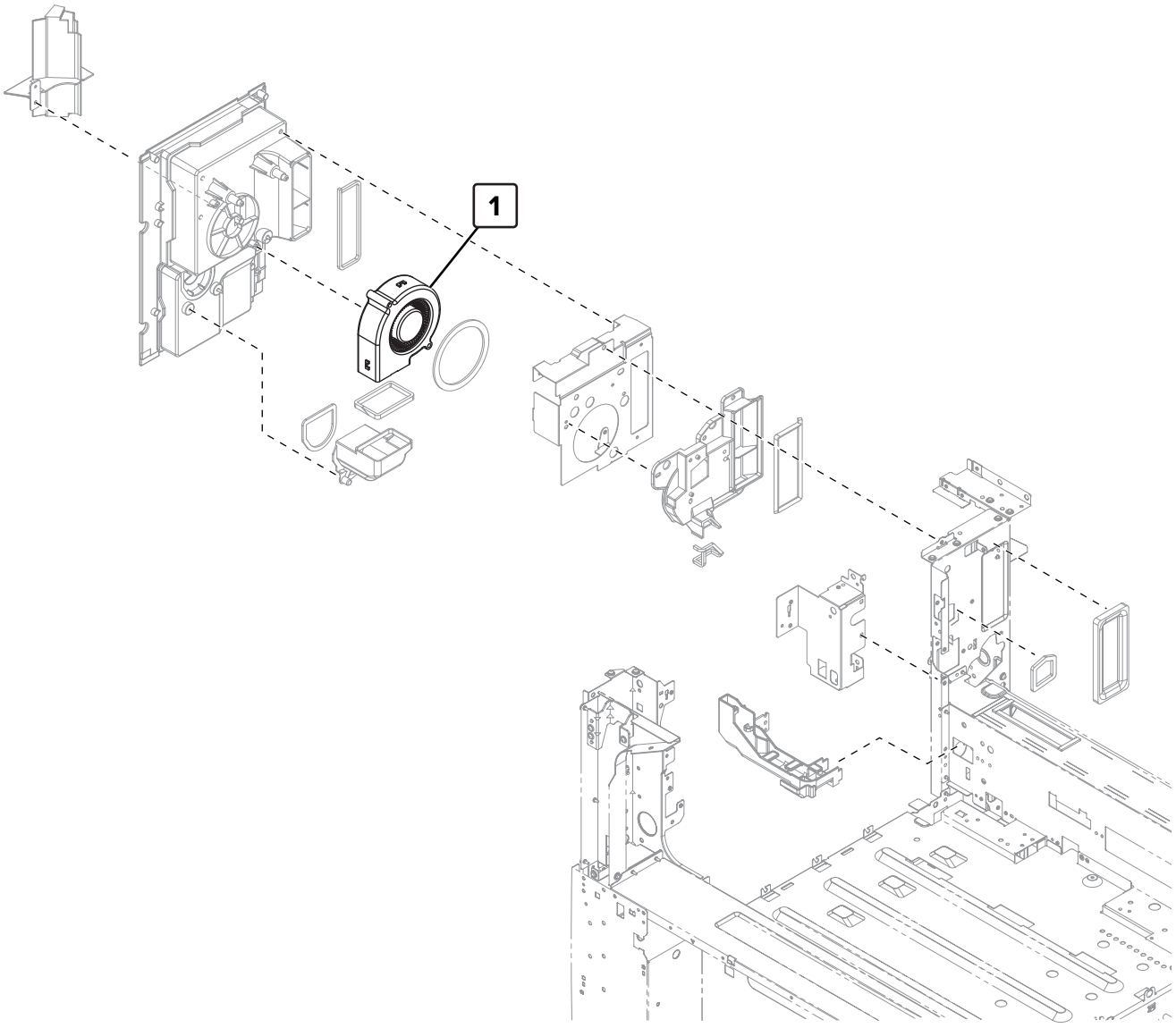
Assembly 27: Fuser exhaust fan



Assembly 27: Fuser exhaust fan

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8859	2	1	Fuser exhaust fan	“Fuser exhaust fan 1 removal” on page 372 “Fuser exhaust fan 2 removal” on page 373

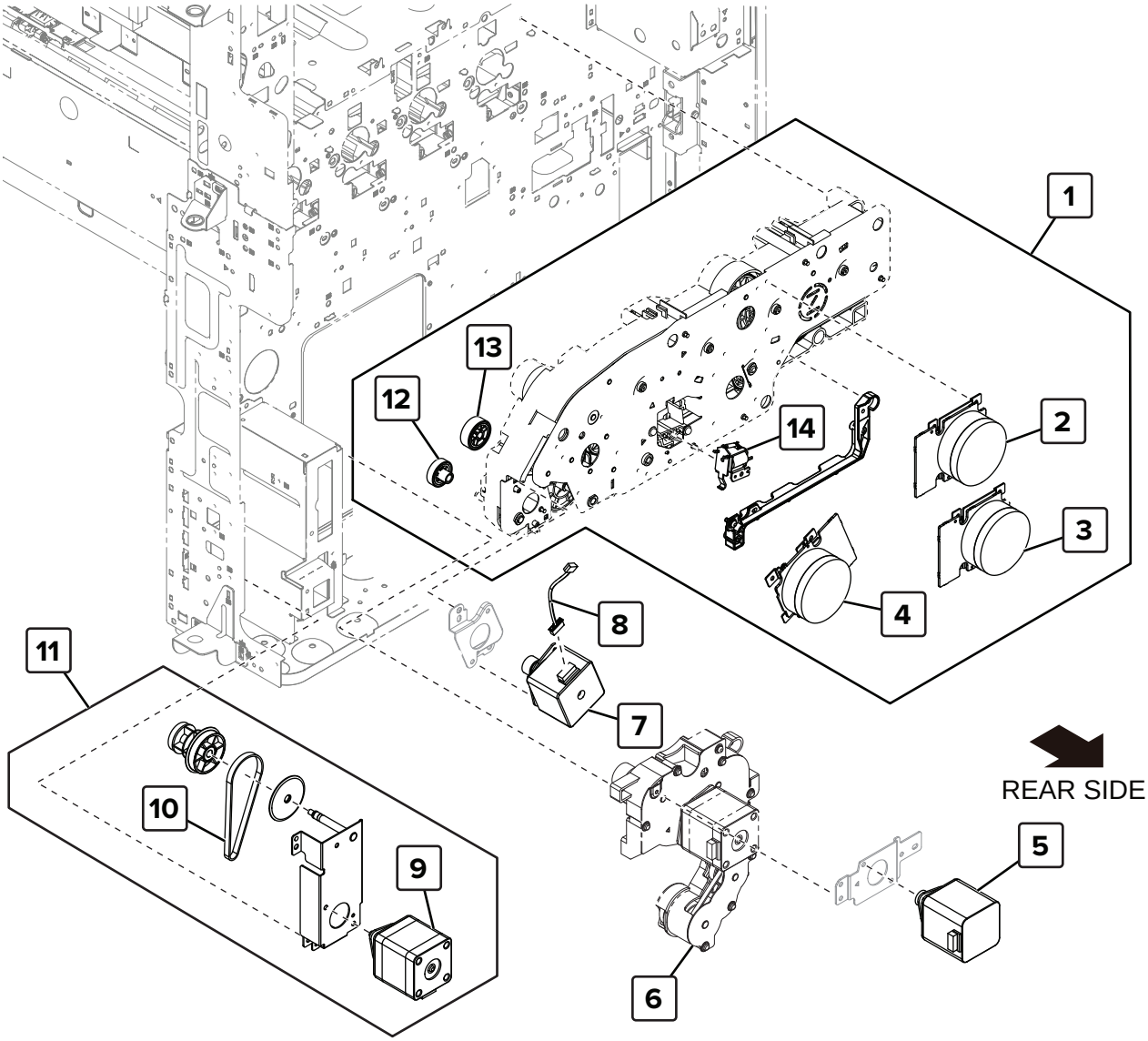
Assembly 28: Paper exit fan



Assembly 28: Paper exit fan

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8859	1	1	Paper exit fan	“Paper exit fan removal” on page 572

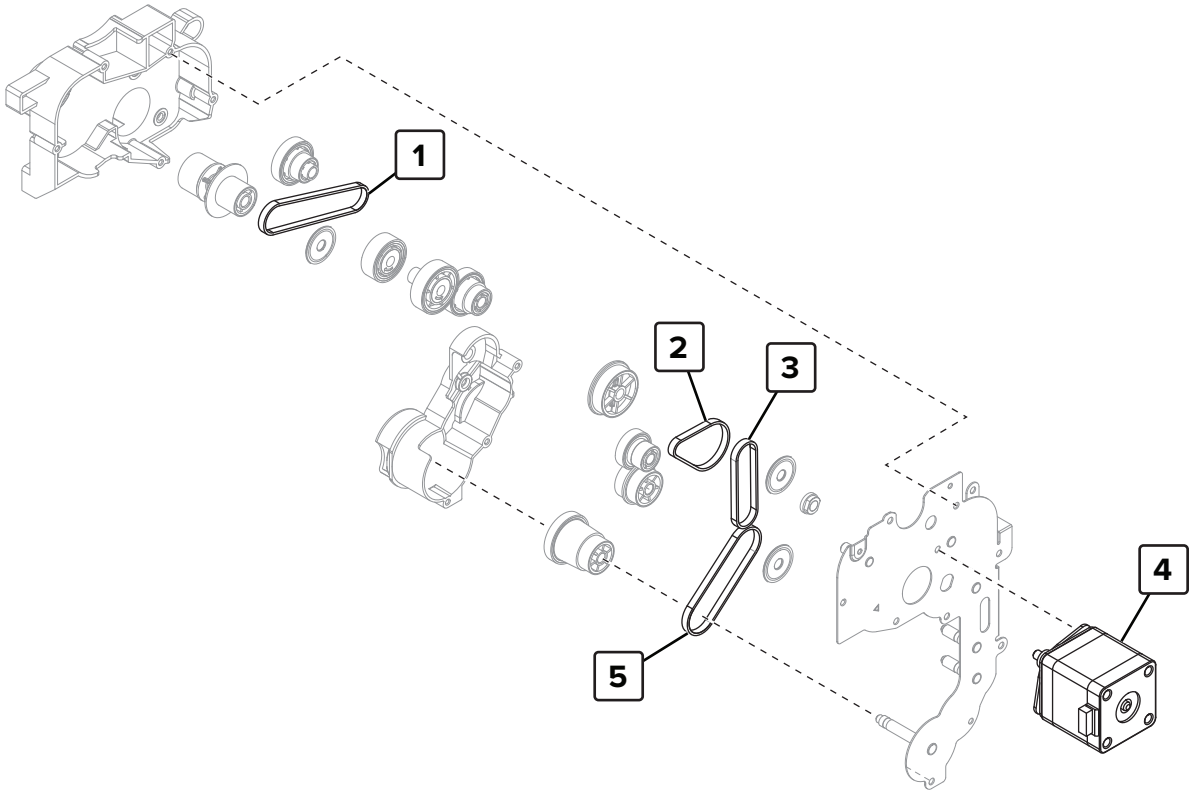
Assembly 29: Main and feed drive



Assembly 29: Main and feed drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1522	1	1	Main drive assembly	“Main drive assembly removal” on page 606
2	41X1520	1	1	Motor (photoconductor)	“Motor (photoconductor) removal” on page 585
3	41X1521	1	1	Motor (developer)	“Motor (developer) removal” on page 584
4	41X1520	1	1	Motor (transport)	“Motor (transport) removal” on page 583
5	41X1517	1	1	Motor (registration)	“Motor (registration) removal” on page 602
6	41X1516	1	1	Feed drive assembly	“Feed drive assembly removal” on page 627
7	41X1775	1	1	Motor (duplex transport 2)	“Motor (duplex transport 2) removal” on page 603
8	41X1515	1	1	Duplex transport motor cable	--
9	40X9170	1	1	Motor (tray 2 transport)	“Motor (tray 2 transport) removal” on page 640
10	40X9639	1	1	Tray 2 transport drive belt	“Motor (tray 2 transport) removal” on page 640
11	40X9728	1	1	Tray 2 transport drive assembly	“Motor (tray 2 transport) removal” on page 640
12	40X9725	1	1	Duplex transport clutch gear	--
13	41X1518	1	1	Transport motor gear	--
14	41X1519	1	1	K developer solenoid	“K developer solenoid removal” on page 626

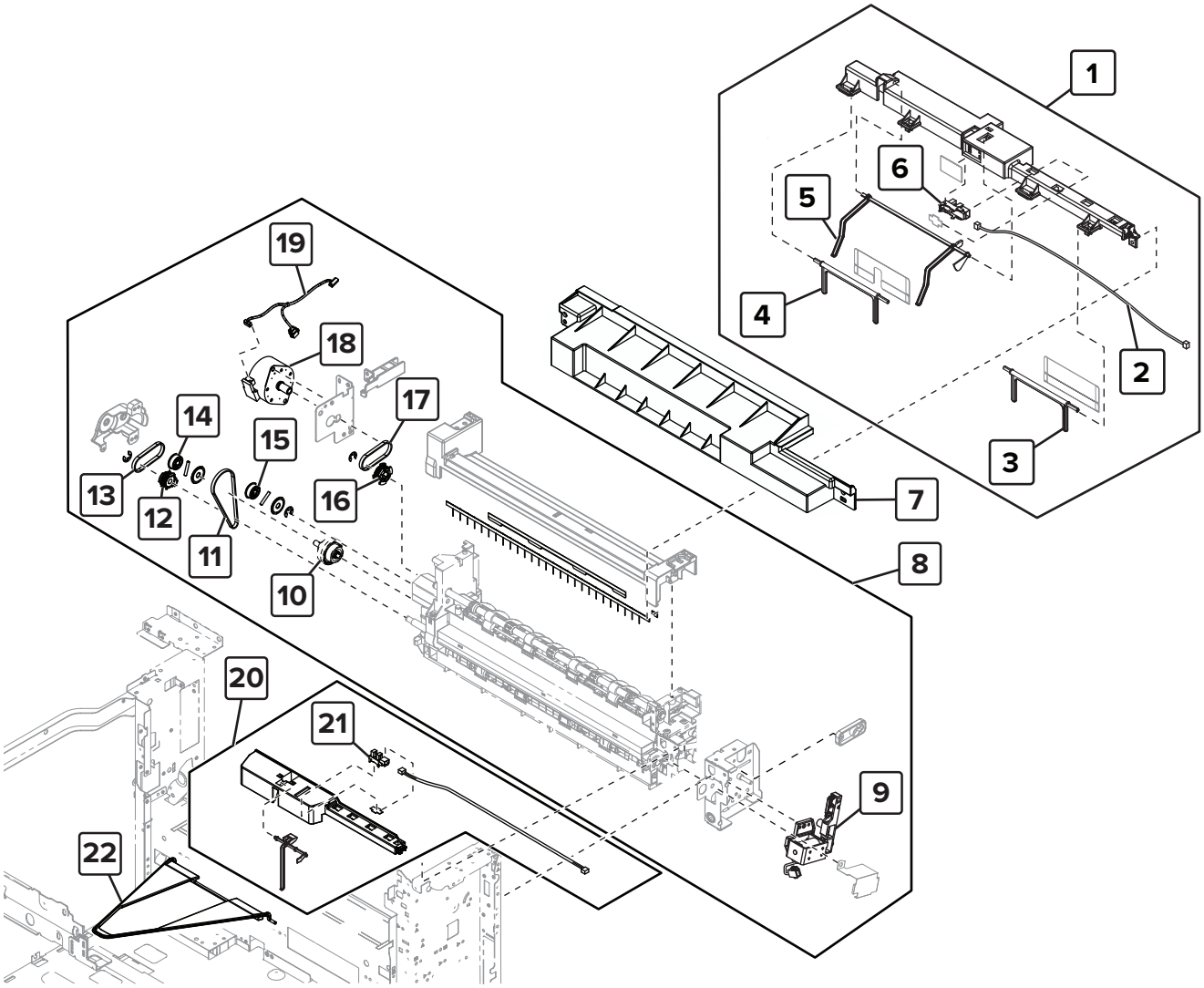
Assembly 30: Feed drive assembly



Assembly 30: Feed drive assembly

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1523	1	1	Feed drive belt 1	**“Feed drive belt 1 and belt 2 removal” on page 636**
2	41X1524	1	1	Feed drive belt 2	**“Feed drive belt 1 and belt 2 removal” on page 636**
3	41X1525	1	1	Feed drive belt 3	**“Feed drive belt 3 and belt 4 removal” on page 638**
4	40X9170	1	1	Motor (feed)	**“Motor (feed) removal” on page 634**
5	41X1526	1	1	Feed drive belt 4	**“Feed drive belt 3 and belt 4 removal” on page 638**

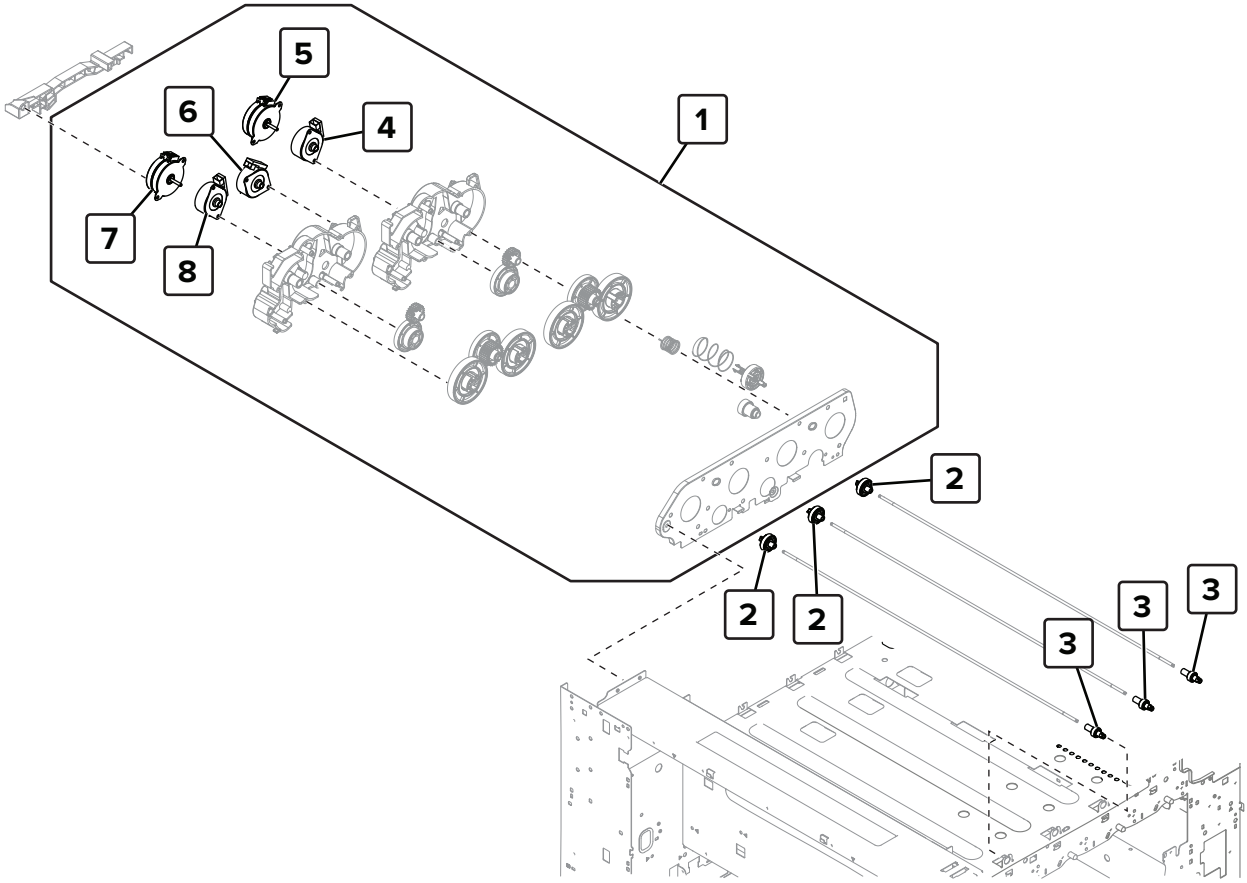
Assembly 31: Exit



Assembly 31: Exit

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1934	1	1	Redrive exit guide	“Redrive exit guide removal” on page 500
2	40X9644	1	1	Redrive exit sensor cable	“Redrive exit sensor cable removal” on page 501
3	40X9042	1	1	HPT bin paper bail	“HPT bin paper bail removal” on page 656
4	40X9042	1	1	HPT bin paper bail	“HPT bin paper bail removal” on page 656
5	40X9714	1	1	Redrive exit sensor actuator	“Redrive exit sensor actuator removal” on page 502
6	41X1444	1	1	Sensor (redrive exit)	“Sensor (redrive exit) removal” on page 500
7	41X1584	1	1	Exit cover	“Exit assembly removal” on page 466
8	41X1585	1	1	Exit assembly	“Exit assembly removal” on page 466
9	41X1514	1	1	Diverter solenoid	“Diverter solenoid removal” on page 483
10	40X8971	1	1	Exit clutch	“Exit clutch removal” on page 478
11	41X1510	1	1	Exit belt 2	“Exit clutch gears and belts removal” on page 475
12	41X1509	1	1	Exit clutch gear 3	“Exit clutch gears and belts removal” on page 475
13	41X1513	1	1	Exit belt 1	“Exit clutch gears and belts removal” on page 475
14	41X1508	1	1	Exit clutch gear 1	“Exit clutch gears and belts removal” on page 475
15	41X1508	1	1	Exit clutch gear 2	“Exit clutch gears and belts removal” on page 475
16	41X1511	1	1	Redrive pulley gear	“Redrive pulley gear removal” on page 473
17	41X1513	1	1	Redrive belt	“Redrive belt removal” on page 471
18	41X1512	1	1	Motor (redrive)	“Motor (redrive) removal” on page 470
19	41X1507	1	1	Redrive motor cable	--
20	41X1935	1	1	Standard bin exit assembly	“Standard bin exit assembly removal” on page 499
21	41X1444	1	1	Sensor (standard bin exit)	--
22	40X8974	1	1	Standard bin paper bail	--

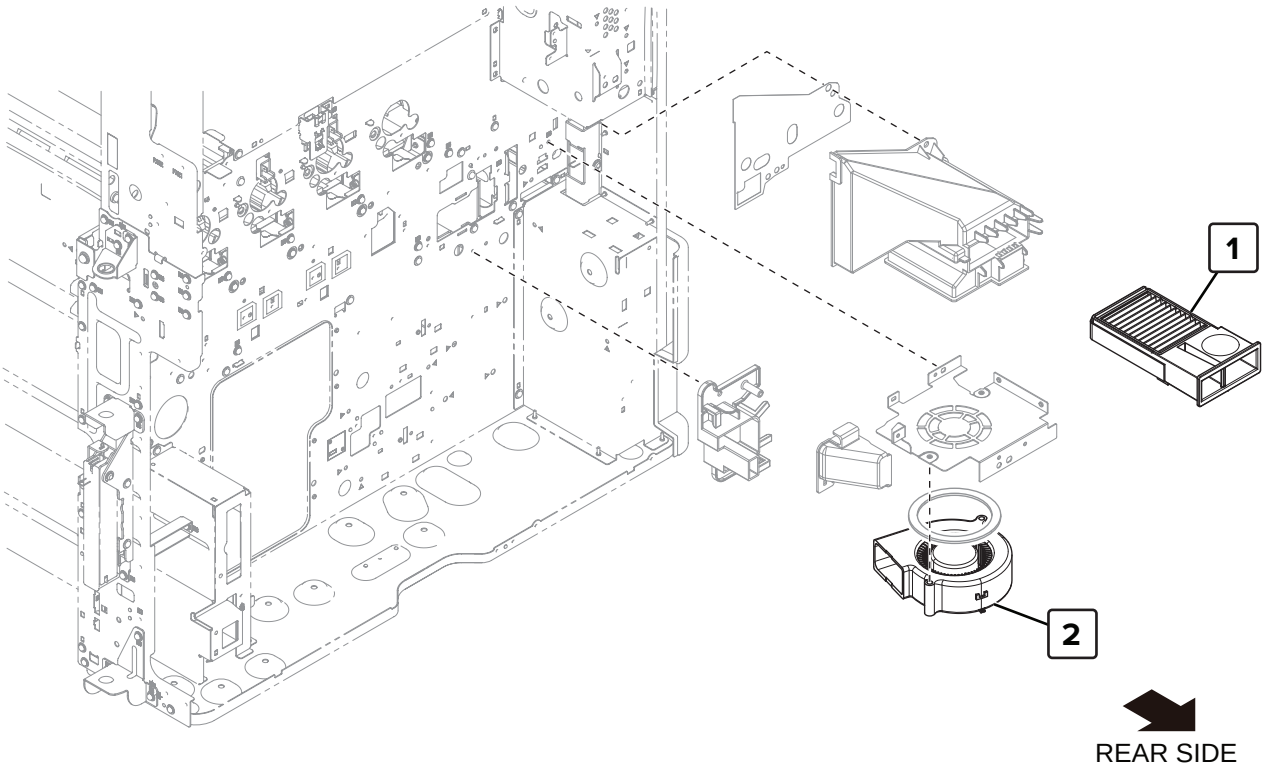
Assembly 32: Toner cartridge drive



Assembly 32: Toner cartridge drive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1531	1	1	Toner cartridge drive	“Motor (C toner supply) removal” on page 593
2	41X1529	3	1	Toner supply gear 1	--
3	41X1530	3	1	Toner supply gear 2	“Toner supply gear 2 removal” on page 660
4	41X1452	1	1	Motor (C toner supply)	“Motor (C toner supply) removal” on page 593
5	41X1527	1	1	Motor (CK toner cartridge)	“Motor (CK toner cartridge) removal” on page 591
6	41X1452	1	1	Motor (M toner supply)	“Motor (M toner supply) removal” on page 596
7	41X1527	1	1	Motor (MY toner cartridge)	“Motor (MY toner cartridge) removal” on page 592
8	41X1452	1	1	Motor (Y toner supply)	“Motor (Y toner supply) removal” on page 599

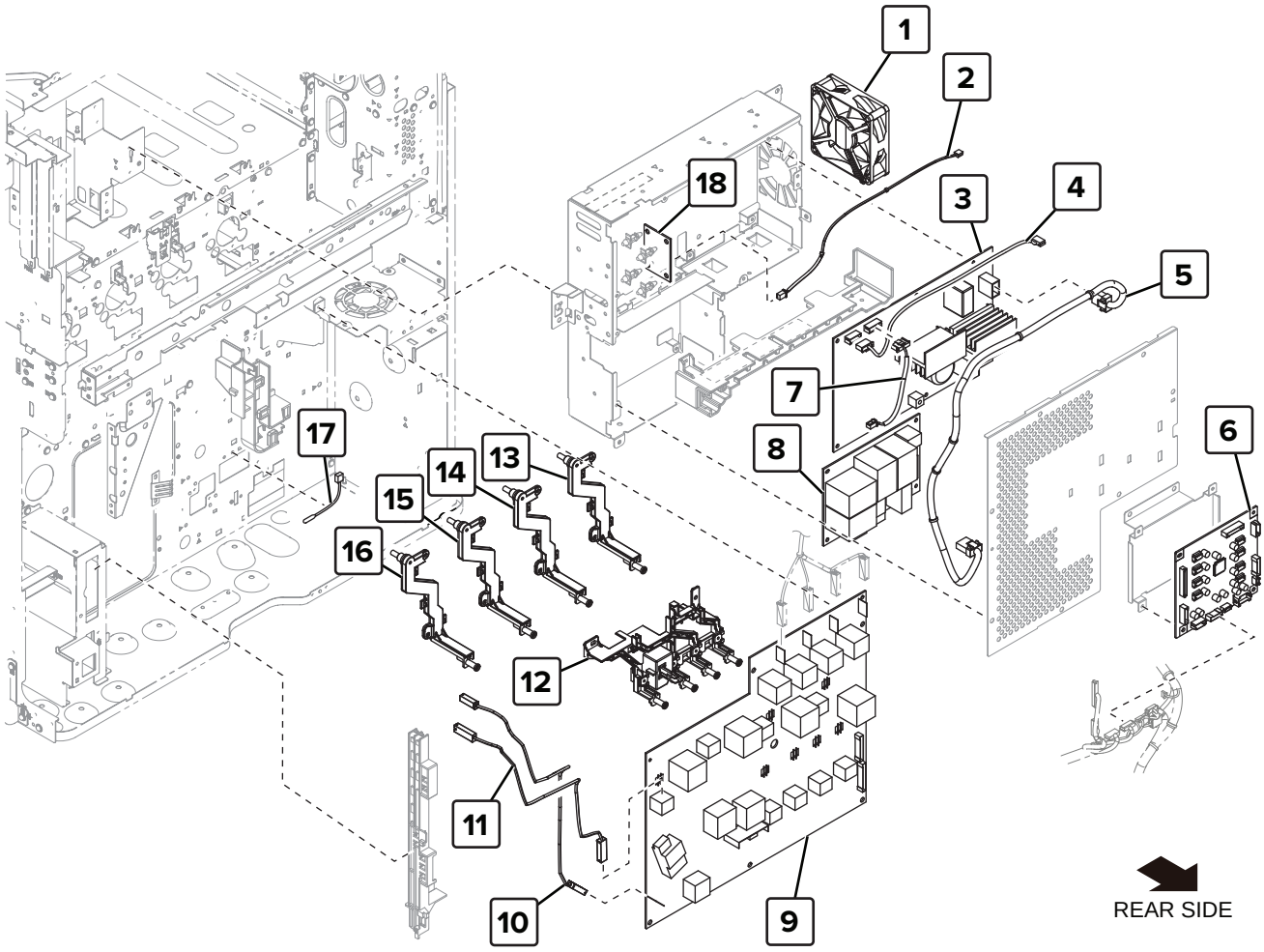
Assembly 33: Toner filter



Assembly 33: Toner filter

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1537	1	1	Toner exhaust filter	“Lower rear cover removal” on page 554
2	40X8859	1	1	Toner suction fan	--

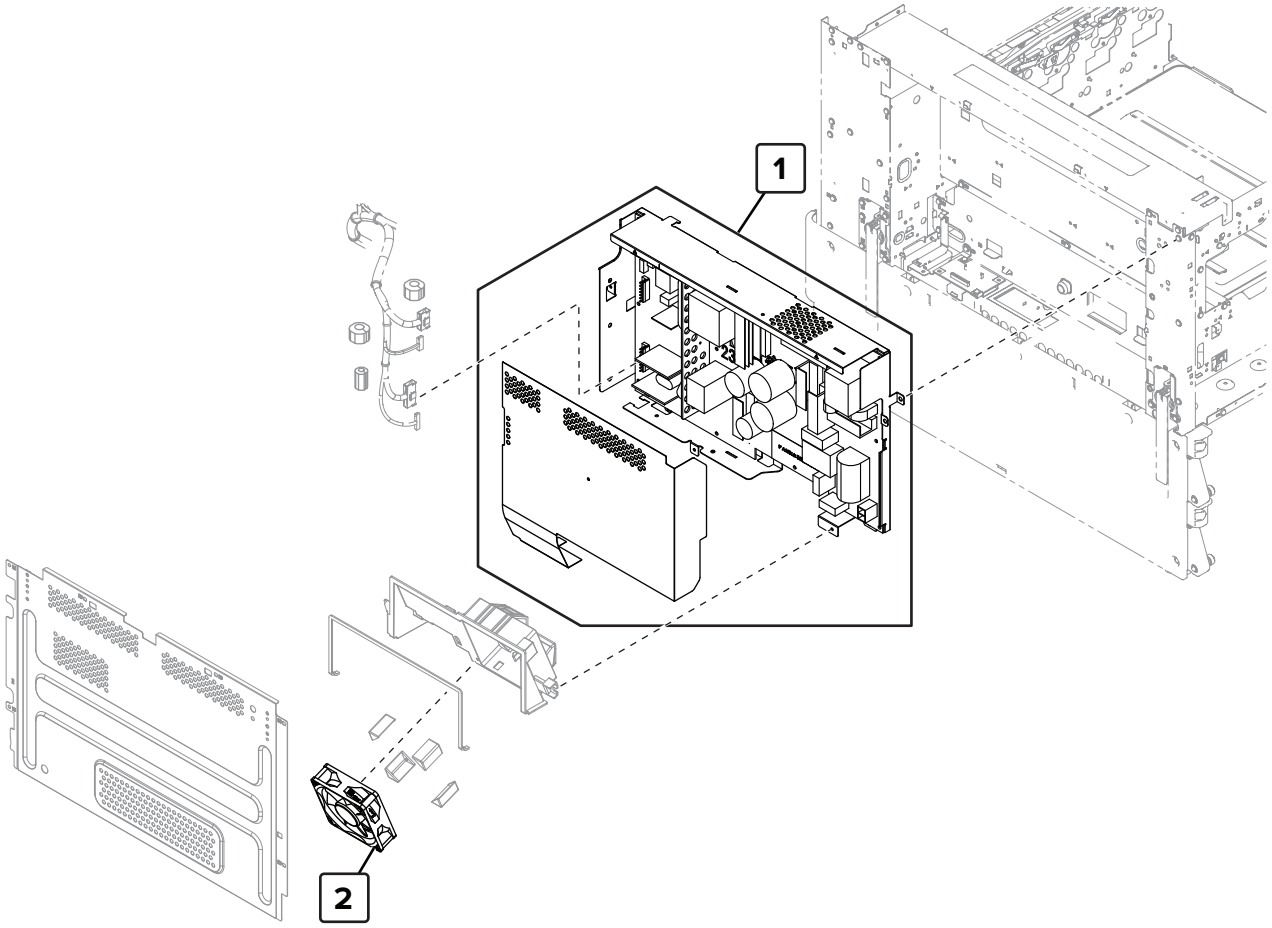
Assembly 34: High voltage



Assembly 34: High voltage

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8945	1	1	Fuser power supply fan	--
2	41X1549	1	1	Induction heater magnetic erase cable	--
3	41X1542	1	1	Induction heater power supply, 230 V	"Induction heater power supply (IHPS) removal" on page 581
3	41X1543	1	1	Induction heater power supply, 120 V	"Induction heater power supply (IHPS) removal" on page 581
4	40X9736	1	1	Induction heater power supply cable	--
5	41X1546	1	1	Noise filter board cable	--
6	41X1547	1	1	Expansion controller board	"Expansion controller board removal" on page 574
7	40X9735	1	1	Induction heater magnetic erase board cable	--
8	41X1544	1	1	Noise filter board, 120 V	"Noise filter board removal" on page 578
8	41X1545	1	1	Noise filter board, 230 V	"Noise filter board removal" on page 578
9	41X1541	1	1	High voltage board	"High voltage board removal" on page 582
10	40X9194	1	1	High voltage charge cable	"High voltage transfer and charge cables removal" on page 631
11	40X9733	1	1	High voltage transfer cable	"High voltage transfer and charge cables removal" on page 631
12	41X1540	1	1	High voltage developer contact	"High voltage developer contact removal" on page 622
13	41X1539	1	1	High voltage contact (Y)	"High voltage contact removal" on page 649
14	41X1539	1	1	High voltage contact (M)	"High voltage contact removal" on page 649
15	41X1539	1	1	High voltage contact (C)	"High voltage contact removal" on page 649
16	41X1539	1	1	High voltage contact (K)	"High voltage contact removal" on page 649
17	40X9190	1	1	Sensor (tray 1 and tray 2 paper temperature)	"Sensor (tray 1 and tray 2 paper temperature) removal" on page 648
18	41X1548	1	1	Induction heater magnetic erase board	"Induction heater magnetic erase board removal" on page 579

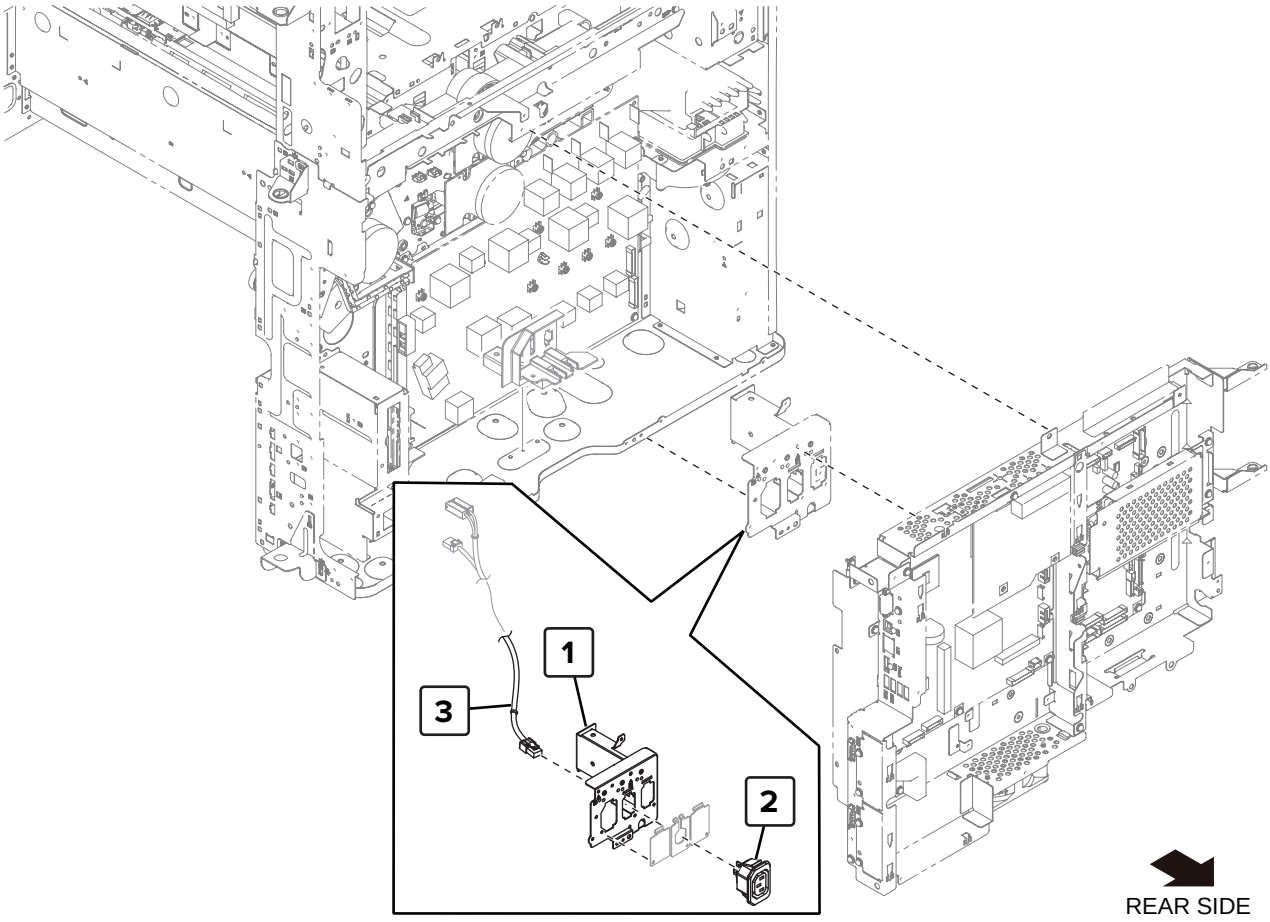
Assembly 35: Main power supply



Assembly 35: Main power supply

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1550	1	1	Main power supply, 220 V	**“Main power supply removal” on page 356**
1	41X1599	1	1	Main power supply, 120 V	**“Main power supply removal” on page 356**
2	40X8945	1	1	Main power supply fan	**“Main power supply fan removal” on page 353**

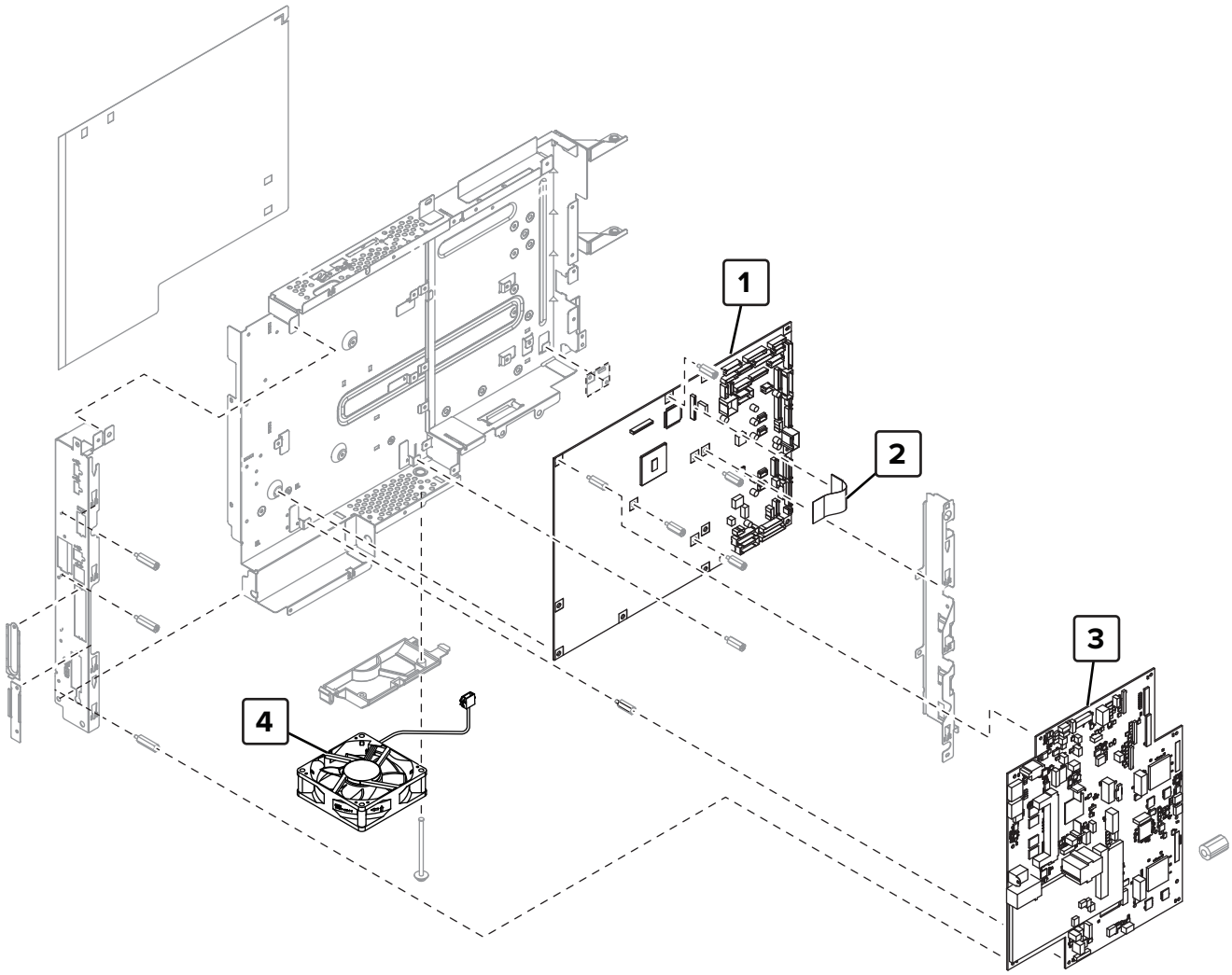
Assembly 36: Electrical 1



Assembly 36: Electrical 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1586	1	1	Power socket mounting plate	“Power socket removal” on page 646
2	40X9741	1	1	Power socket	“Power socket removal” on page 646
3	41X1552	1	1	Power socket cable	“Power socket cable removal” on page 642

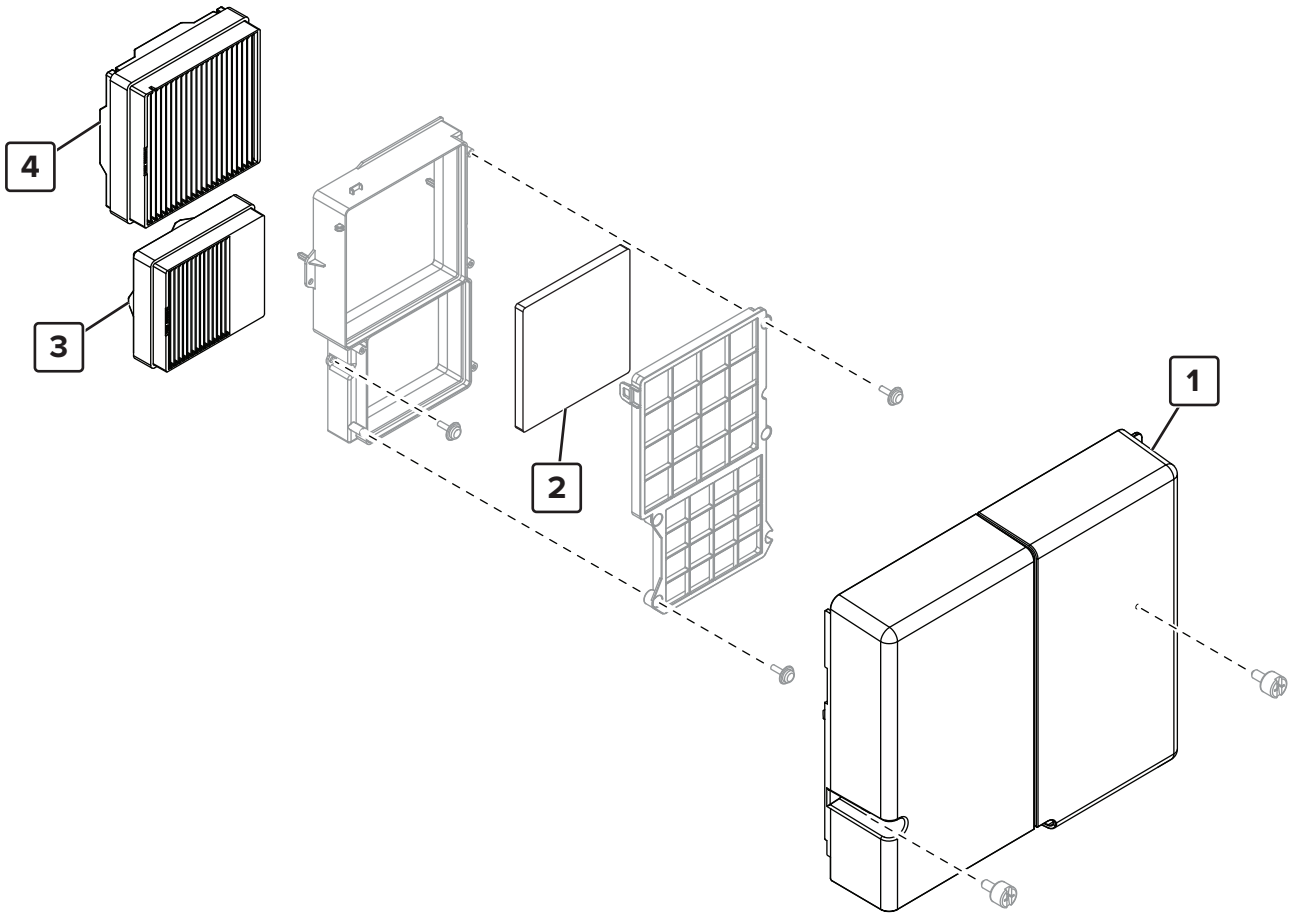
Assembly 37: Electrical 2



Assembly 37: Electrical 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1970	1	1	Engine board	“Engine board removal” on page 563
2	41X1879	1	1	Controller board upper cable	“Controller board upper cable removal” on page 559
3	41X1376	1	1	Controller board	“Controller board removal” on page 560
4	40X9209	1	1	Controller board fan	--

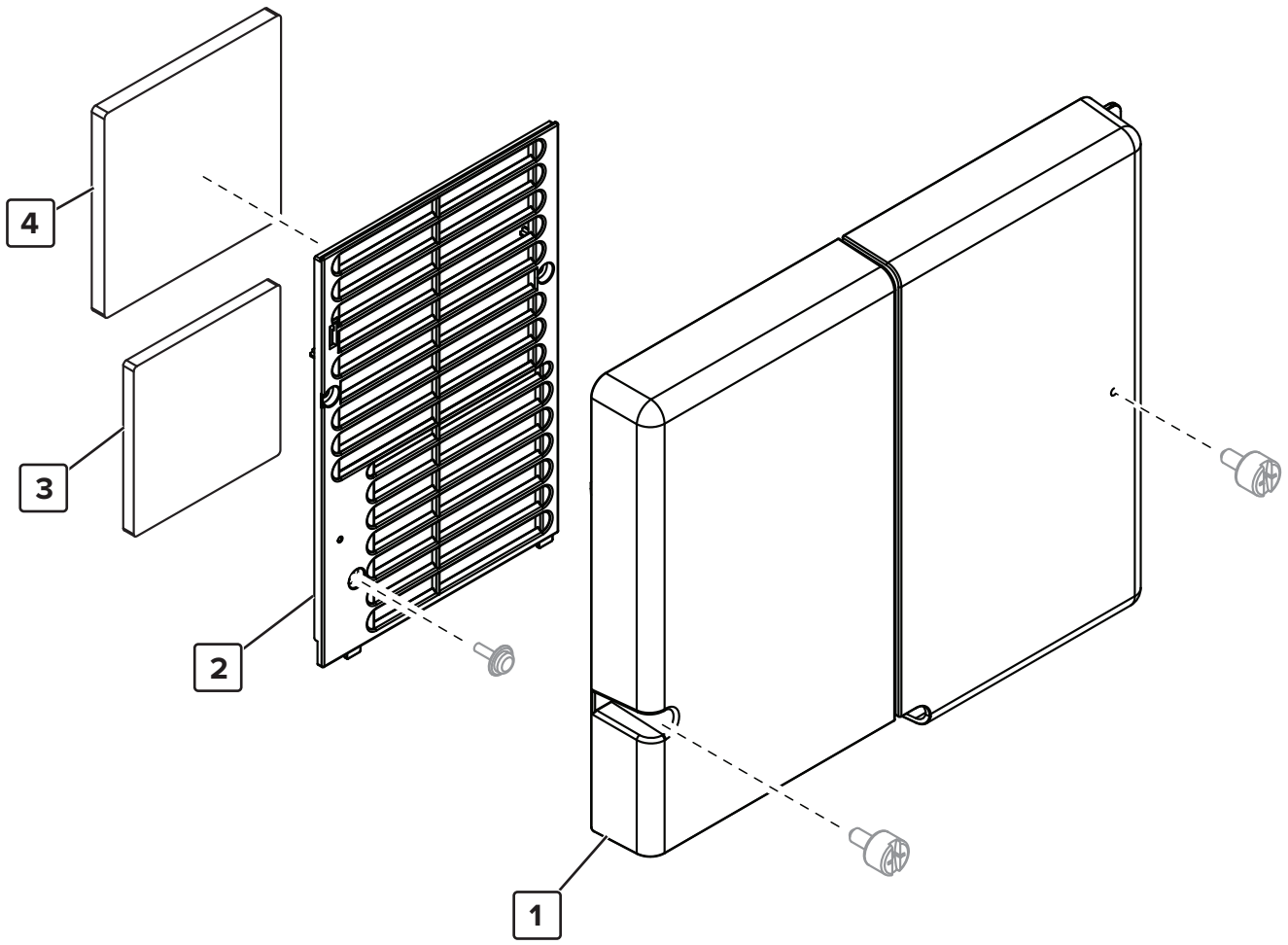
Assembly 38: Filters 1



Assembly 38: Filters 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1940	1	1	Filter cover	“Filter cover removal” on page 548
2	41X2012	1	1	Odor filter	“Odor filter removal” on page 550
3	41X1939	1	1	Exhaust filter 2	“Exhaust filter removal” on page 549
4	41X1938	1	1	Exhaust filter 1	“Exhaust filter removal” on page 549

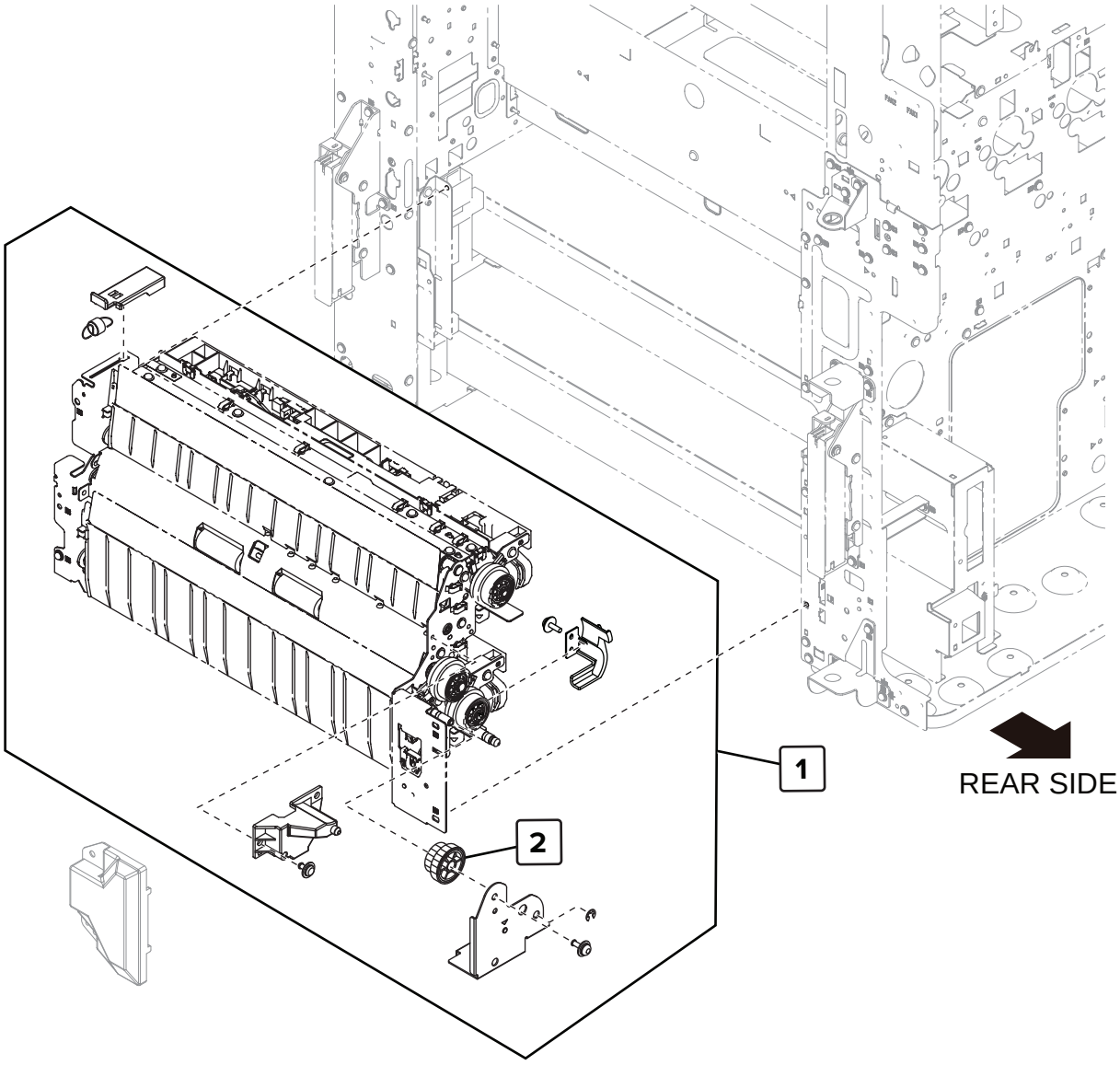
Assembly 39: Filters 2



Assembly 39: Filters 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X2011	1	1	Filter cover	“Filter cover removal” on page 548
2	41X2010	1	1	Exhaust cover	--
3	41X2028	1	1	Odor filter (China)	“Odor filter removal” on page 550
4	41X2012	1	1	Odor filter (EU and US)	“Odor filter removal” on page 550

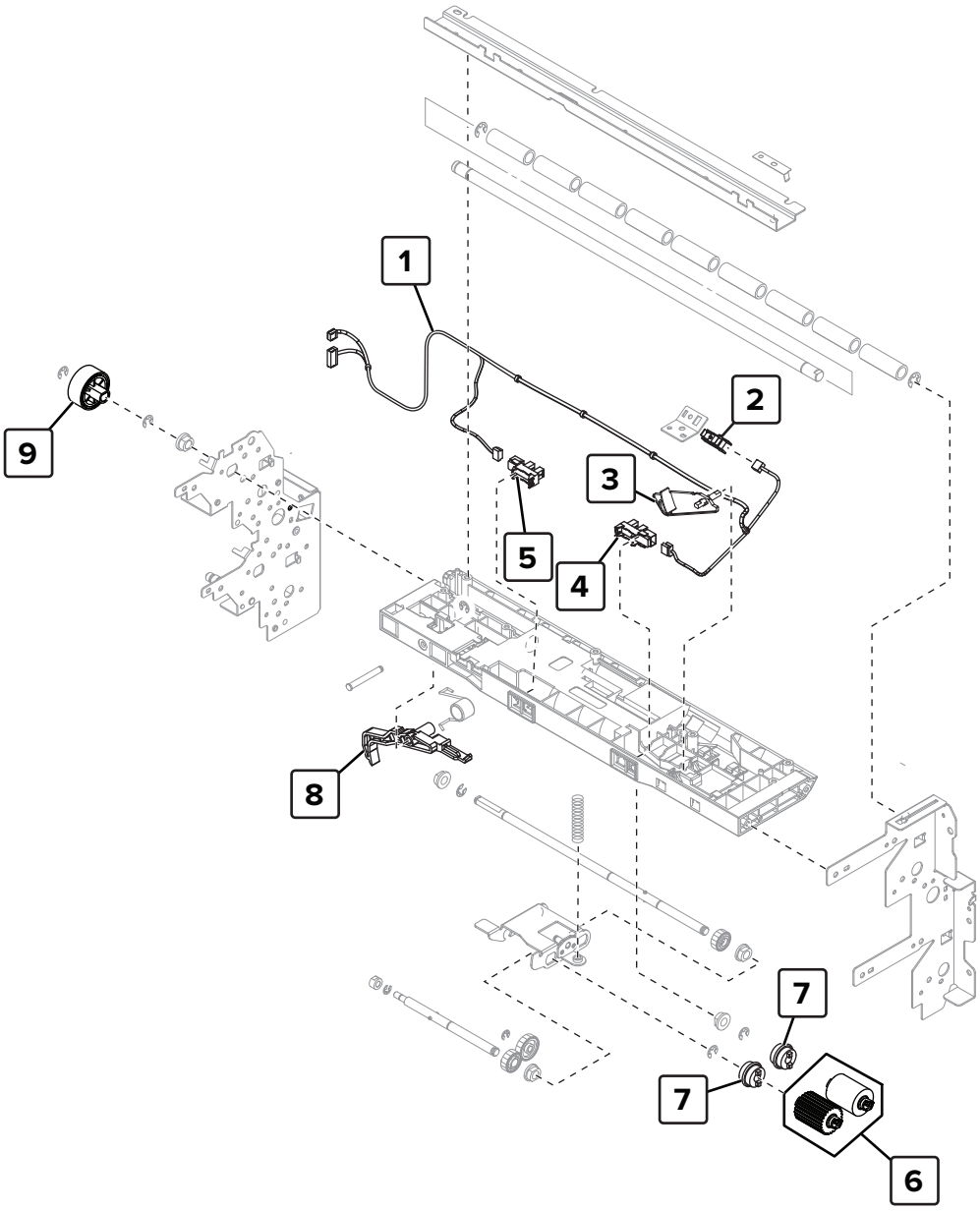
Assembly 40: Tray 1 and tray 2 transport



Assembly 40: Tray 1 and tray 2 transport

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1463	1	1	Tray 1 and tray 2 paper feed unit	“Tray 1 and 2 paper feed unit removal” on page 431
2	40X9980	1	1	Tray 2 transport gear	“Tray 2 transport gear removal” on page 711

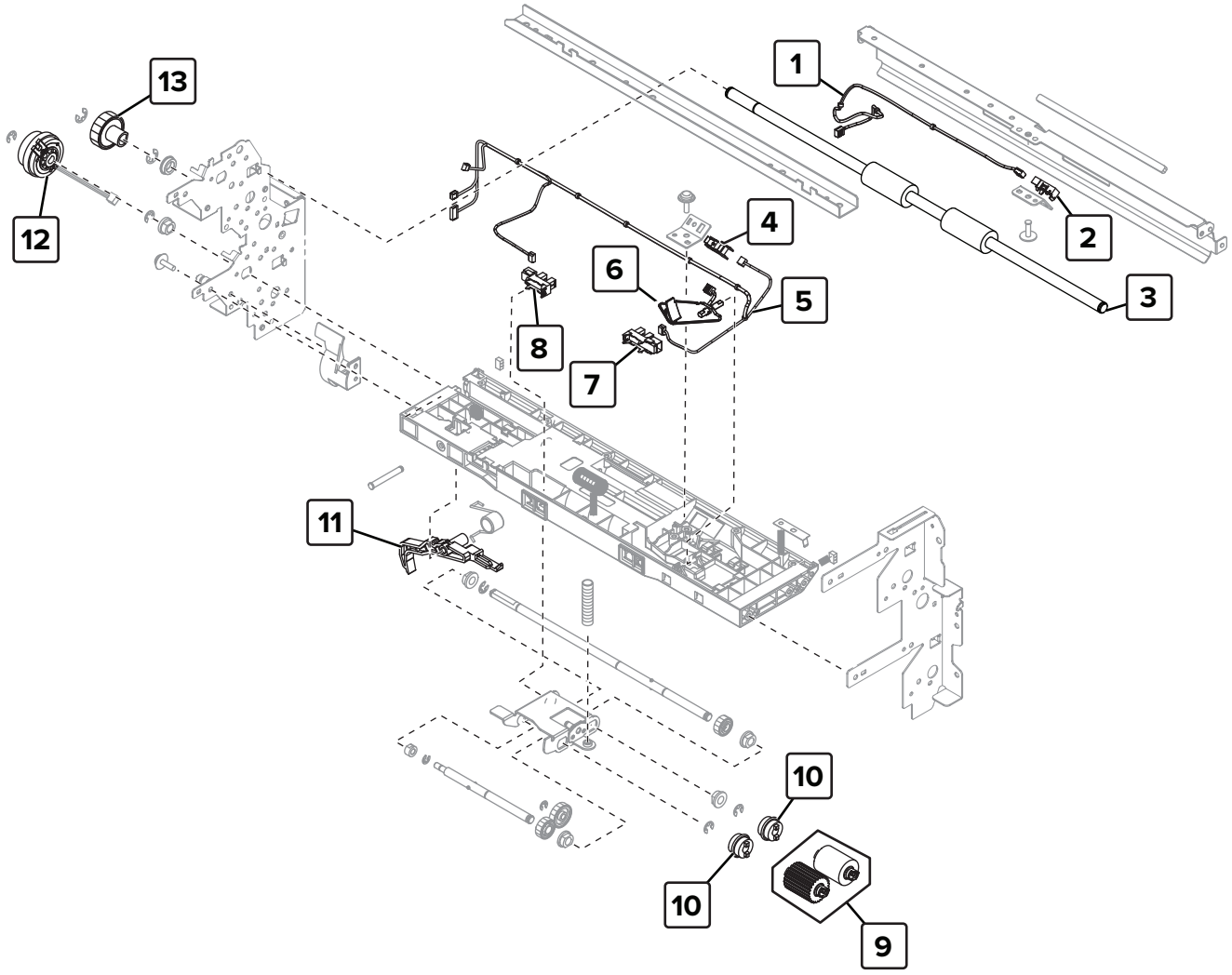
Assembly 41: Tray 1 feed



Assembly 41: Tray 1 feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1466	1	1	Tray 1 feed unit sensor cable	“Tray 1 feed unit cable removal” on page 684
2	40X8968	1	1	Sensor (tray 1 feed)	“Sensor (tray 1 feed) removal” on page 667
3	40X9899	1	1	Tray 1 empty sensor actuator	“Tray 1 empty sensor actuator removal” on page 676
4	41X1391	1	1	Sensor (tray 1 empty)	“Sensor (tray 1 empty) removal” on page 666
5	41X1391	1	1	Sensor (tray 1 lift plate level)	“Sensor (tray 1 lift plate level) removal” on page 668
6	41X1600	2	1	Tray 1 pick and feed rollers **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	“Tray rollers removal” on page 663
7	40X9981	2	1	Tray 1 pick and feed roller clutch	“Tray 1 pick roller clutch removal” on page 683 “Tray 1 feed roller clutch removal” on page 679
8	40X9982	1	1	Tray 1 tray set actuator	“Tray 1 tray set actuator removal” on page 692
9	41X1465	1	1	Tray 1 feed clutch	“Tray 1 feed clutch removal” on page 677

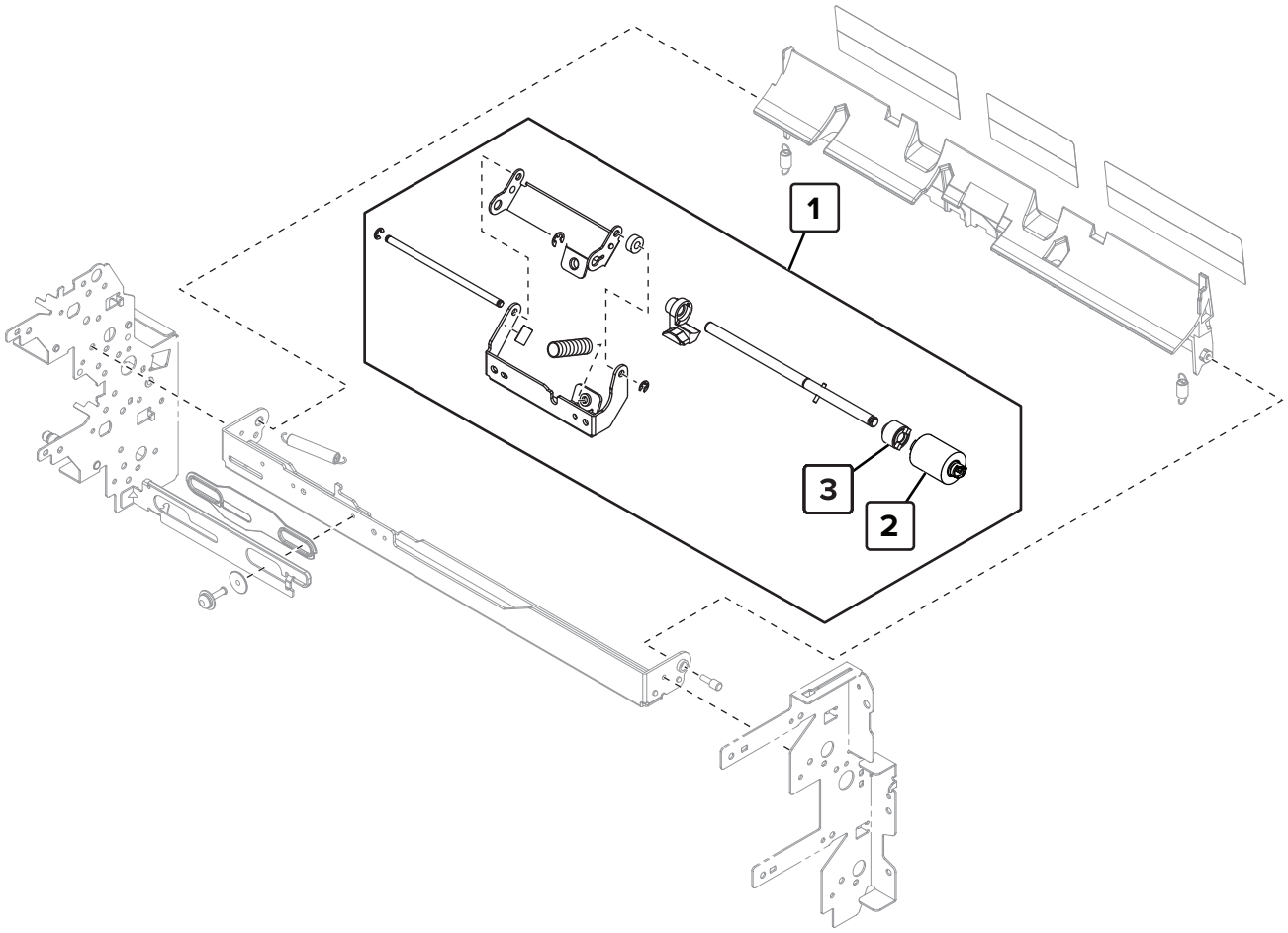
Assembly 42: Tray 2 feed



Assembly 42: Tray 2 feed

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9984	1	1	Tray 2 transport sensor cable	“Tray 2 transport sensor cable removal” on page 713
2	40X8968	1	1	Sensor (tray 2 transport)	“Sensor (tray 2 transport) removal” on page 672
3	40X9983	1	1	Tray 2 transfer roller	“Tray 2 transfer roller removal” on page 705
4	40X8968	1	1	Sensor (tray 2 feed)	“Sensor (tray 2 feed) removal” on page 669
5	40X9987	1	1	Tray 2 feed unit sensor cable	--
6	40X9899	1	1	Tray 2 empty sensor actuator	--
7	41X1391	1	1	Sensor (tray 2 empty)	“Sensor (tray 2 empty) removal” on page 669
8	41X1391	1	1	Sensor (tray 2 lift plate level)	“Sensor (tray 2 lift plate level) removal” on page 671
9	41X1600	2	1	Tray 2 pick and feed rollers **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	“Tray rollers removal” on page 663
10	40X9981	2	1	Tray 2 pick and feed roller clutch	--
11	40X9982	1	1	Tray 2 tray set actuator	“Tray 2 tray set actuator removal” on page 716
12	40X8971	1	1	Tray 2 feed clutch	“Tray 2 feed clutch removal” on page 694
13	41X1468	1	1	Tray 2 vertical transport clutch	“Tray 2 vertical transport clutch removal” on page 696

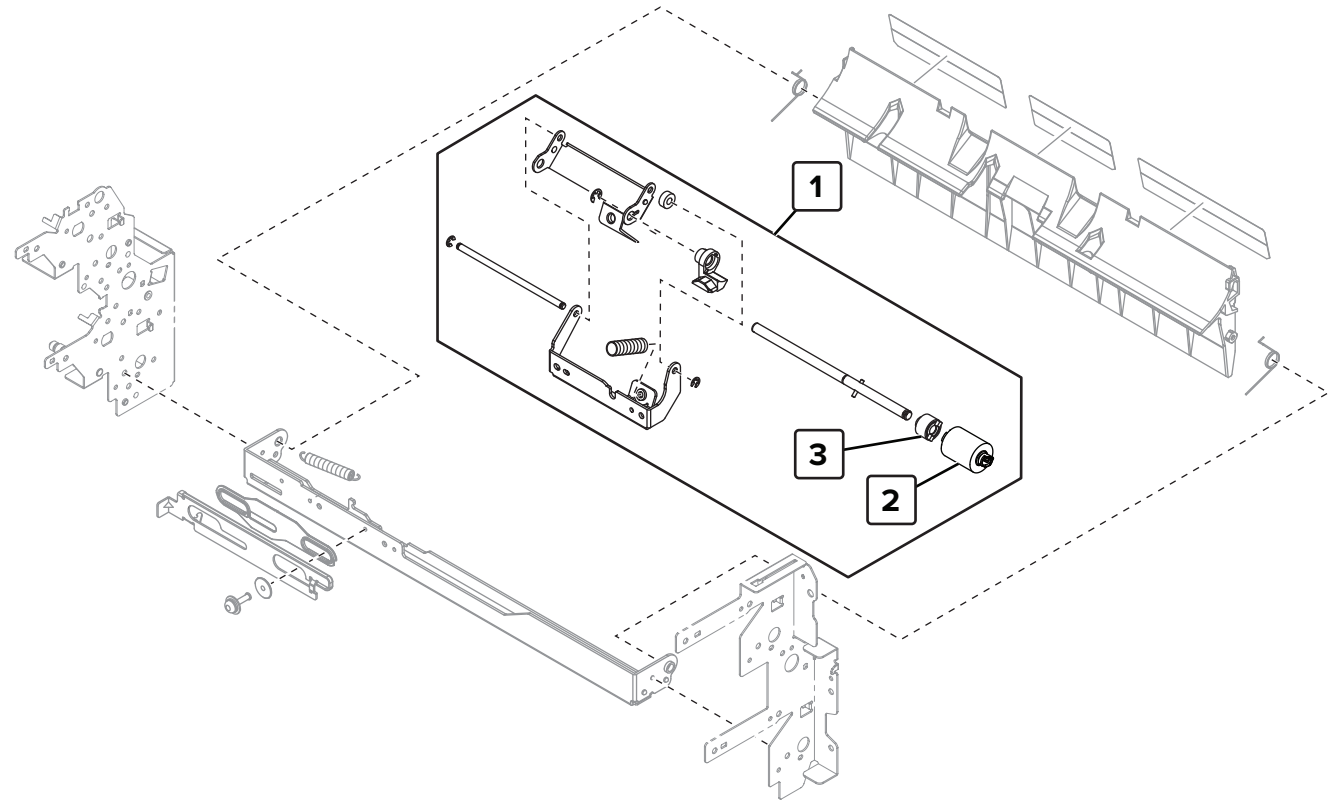
Assembly 43: Tray 1 separator



Assembly 43: Tray 1 separator

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9927	1	1	Tray 1 separator assembly	“Tray 1 separator assembly removal” on page 688
2	41X1600	1	1	Tray rollers **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	“Tray rollers removal” on page 663
3	40X9455	1	1	Tray 1 separator roller clutch	“Tray separator roller clutch removal” on page 690

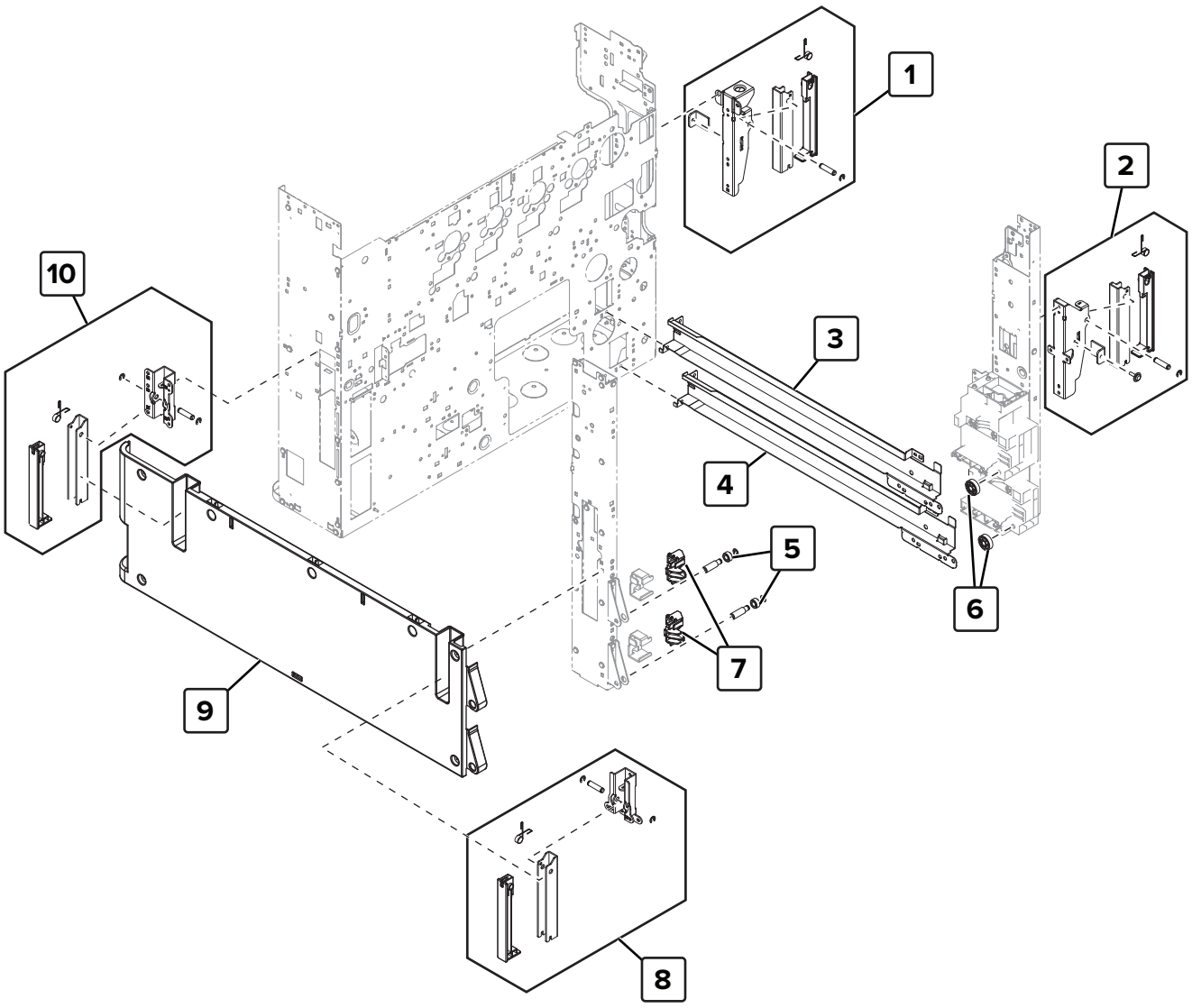
Assembly 44: Tray 2 separator



Assembly 44: Tray 2 separator

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X9927	1	1	Tray 2 separator assembly	**“Tray 2 separator assembly removal” on page 701**
2	41X1600	1	1	Tray rollers **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	**“Tray rollers removal” on page 663**
3	40X9455	1	1	Tray 2 separator roller clutch	**“Tray separator roller clutch removal” on page 690**

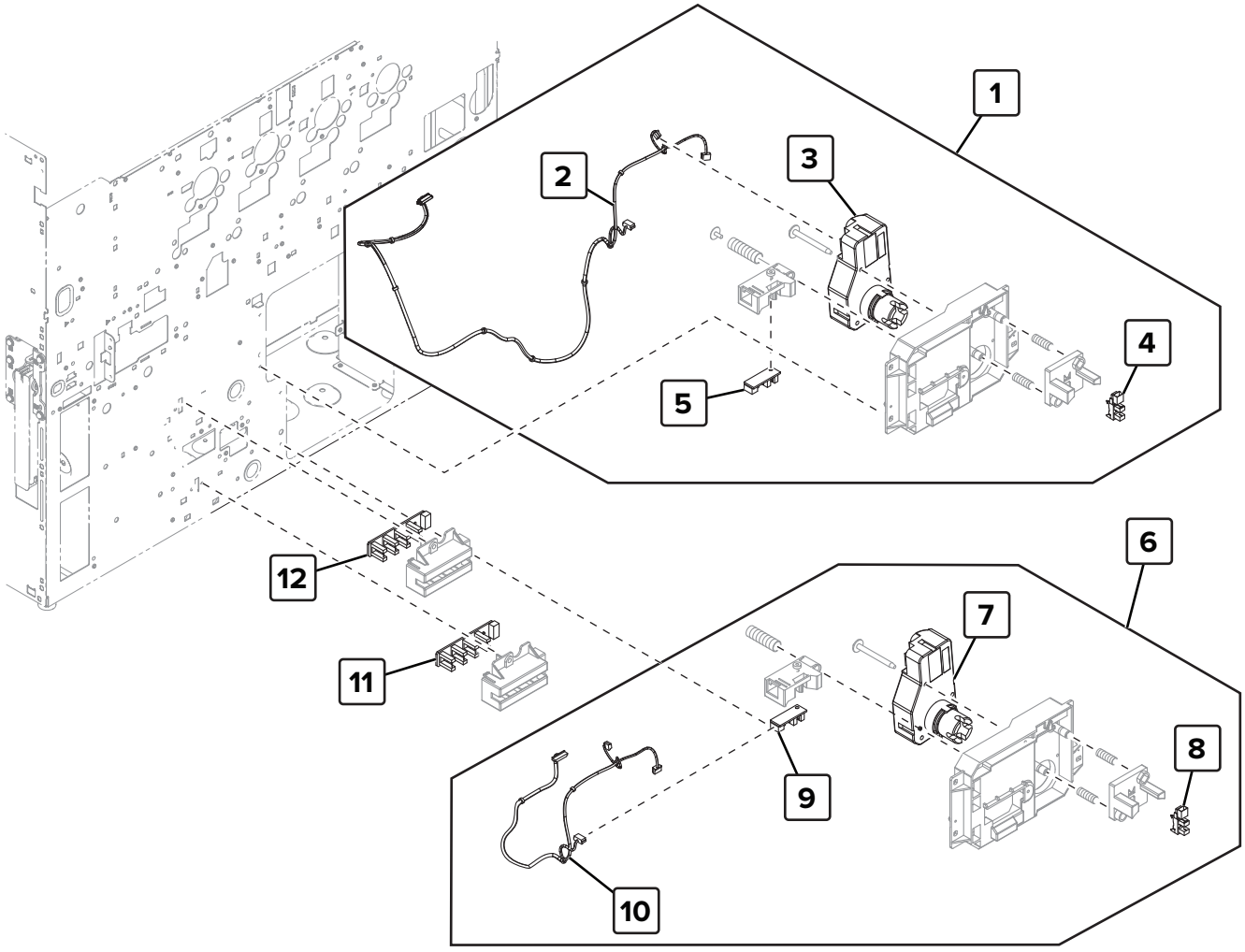
Assembly 45: Tray rail



Assembly 45: Tray rail

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X8978	1	1	Right handles, rear	“Right handles removal” on page 547
2	40X8977	1	1	Right handles, front	“Right handles removal” on page 547
3	40X8982	1	1	Tray 1 rail	--
4	40X8982	1	1	Tray 2 rail	--
5	40X9305	2	1	Tray 1 and tray 2 rail guide wheels, left	“Tray 1 and tray 2 rail guide wheels removal” on page 513
6	40X8981	2	1	Tray 1 and tray 2 rail guide wheels, right	“Tray 1 and tray 2 rail guide wheels removal” on page 513
7	41X1999	2	1	Tray 1 and tray 2 stoppers	“Tray 1 and tray 2 stoppers removal” on page 512
8	40X8979	1	1	Left handles, rear	“Left handles removal” on page 350
9	41X1569	1	1	Bottom left cover	“Bottom left cover removal” on page 349
10	40X8980	1	1	Left handles, front	“Left handles removal” on page 350

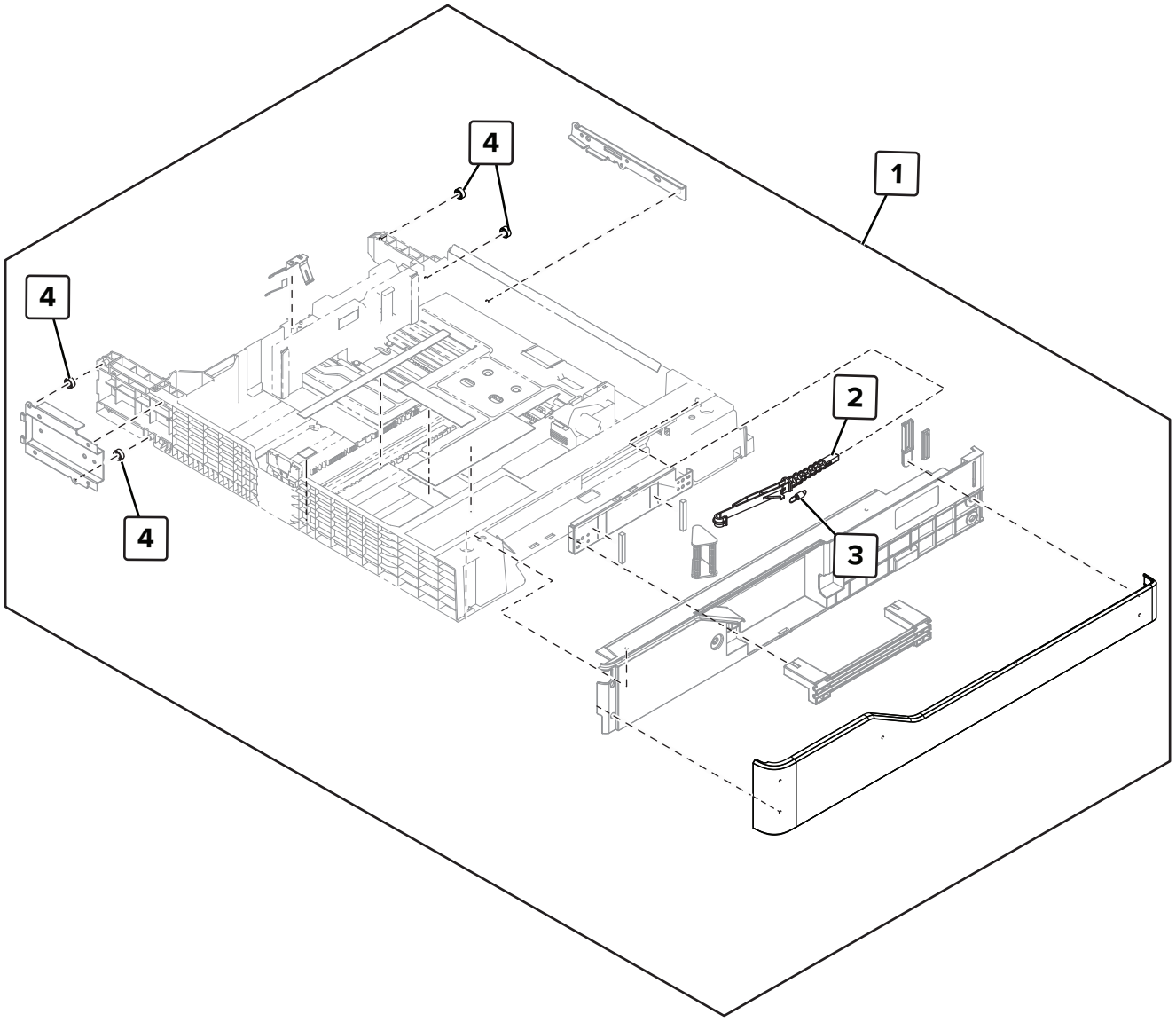
Assembly 46: Tray paper detection



Assembly 46: Tray paper detection

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1771	1	1	Tray 1 size sensing assembly	--
2	41X1471	1	1	Tray 1 feed cable	--
3	40X8987	1	1	Motor (tray 1 lift)	**“Motor (tray 1 lift) removal” on page 617**
4	41X1391	1	1	Sensor (tray 1 near empty)	**“Sensor (tray 1 near empty) removal” on page 665**
5	40X8989	1	1	Sensor (tray 1 paper width)	**“Sensor (tray 1 paper width) removal” on page 618**
6	41X1928	1	1	Tray 2 size sensing assembly	--
7	40X8987	1	1	Motor (tray 2 lift)	**“Motor (tray 2 lift) removal” on page 617**
8	41X1391	1	1	Sensor (tray 2 near empty)	**“Sensor (tray 2 near empty) removal” on page 666**
9	40X8989	1	1	Sensor (tray 2 paper width)	**“Sensor (tray 2 paper width) removal” on page 620**
10	41X1472	1	1	Tray 2 feed unit cable	**“Tray 2 feed unit cable removal” on page 697**
11	40X8985	1	1	Sensor (tray 2 paper length)	**“Sensor (tray 2 paper length) removal” on page 665**
12	40X8985	1	1	Sensor (tray 1 paper length)	**“Sensor (tray 1 paper length) removal” on page 664**

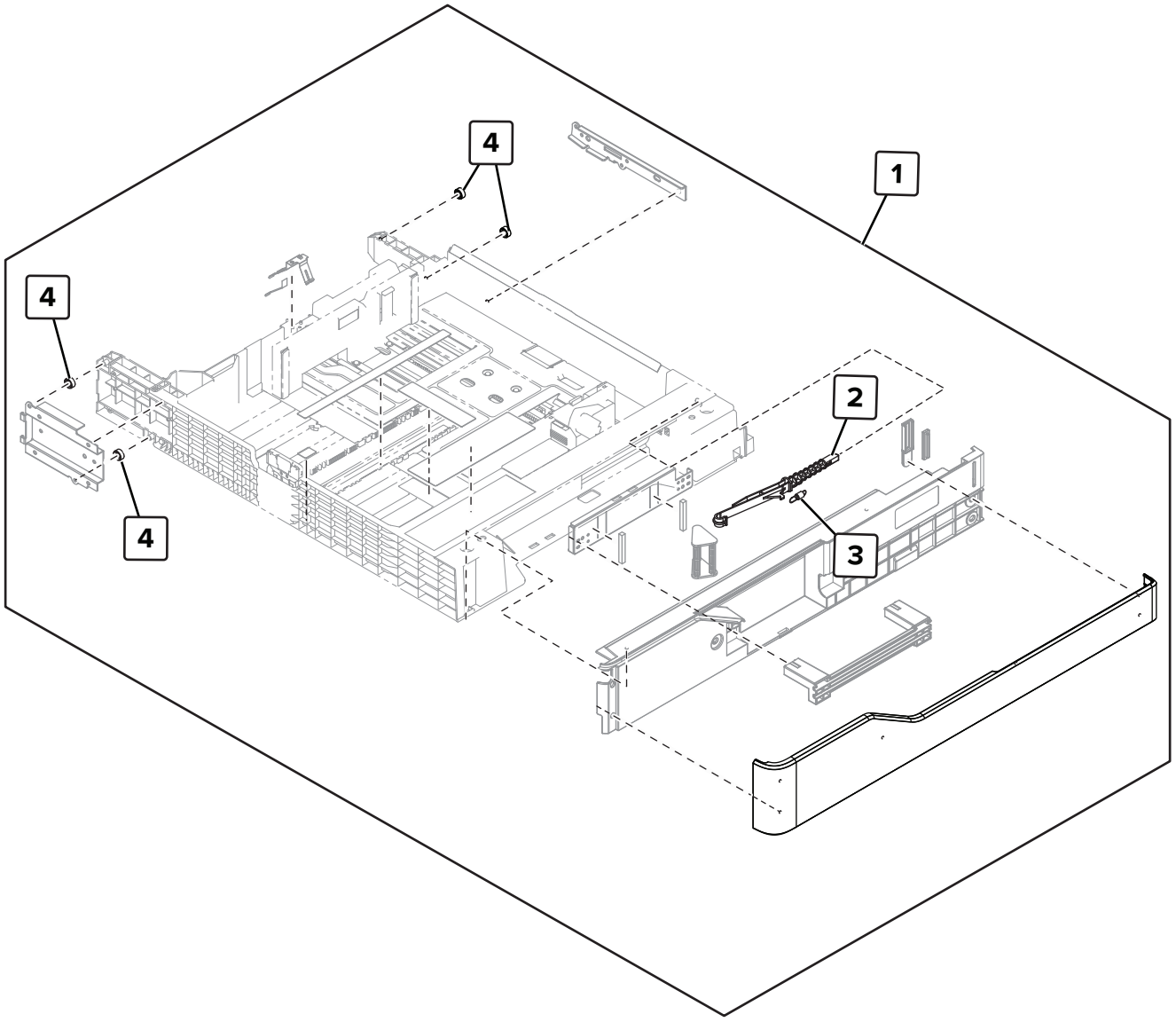
Assembly 47: 500-sheet tray—Tray 1



Assembly 47: 500-sheet tray—Tray 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1474	1	1	Tray 1 insert	“Tray insert removal” on page 511
2	41X1929	1	1	Tray lock	“Tray lock removal” on page 724
3	40X9895	1	1	Tray 1 pulling coil spring	--
4	40X9305	4	1	Tray 1 tray insert guide wheels	“Tray insert guide wheels removal” on page 719

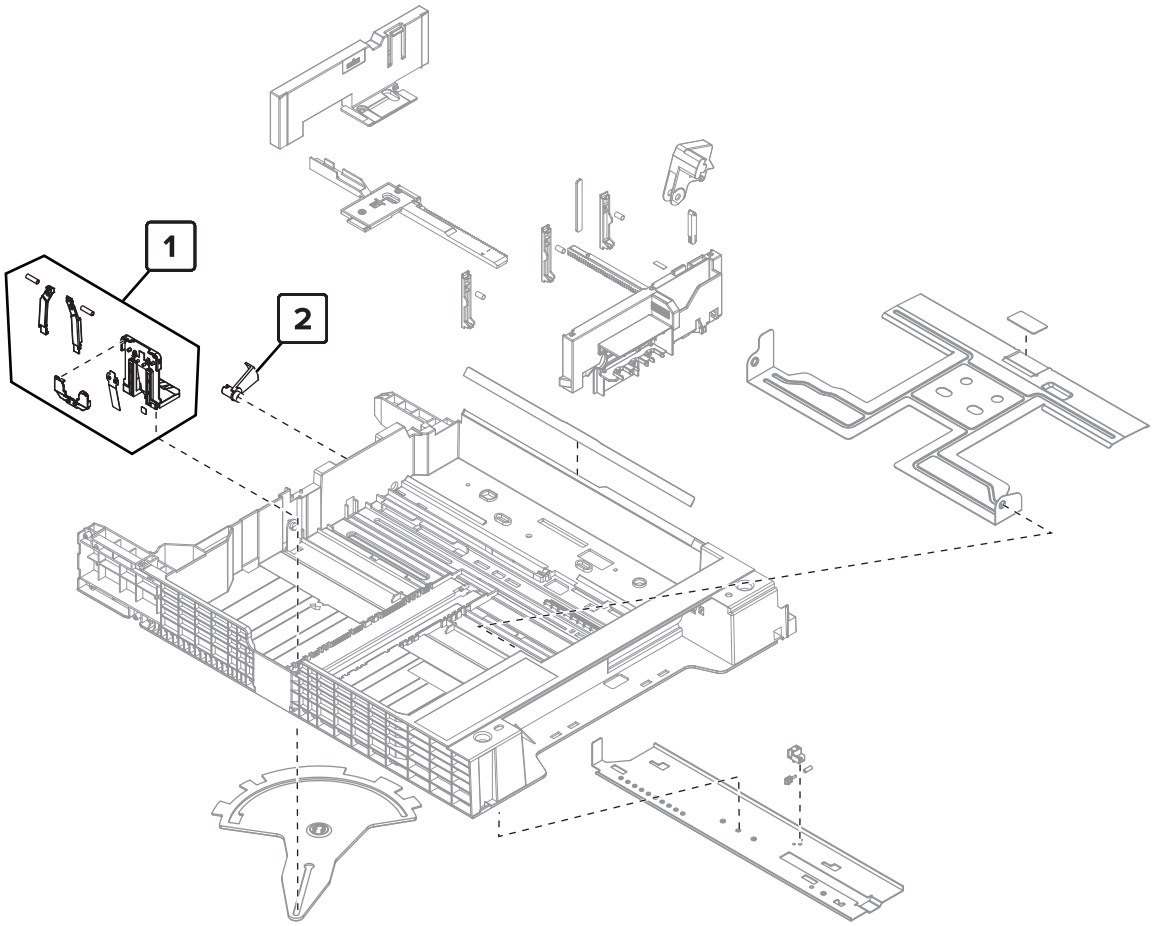
Assembly 48: 500-sheet tray—Tray 2



Assembly 48: 500-sheet tray—Tray 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1475	1	1	Tray 2 insert	“Tray insert removal” on page 511
2	40X9304	1	1	Tray lock	“Tray lock removal” on page 724
3	40X9895	1	1	Tray 2 pulling coil spring	--
4	40X9305	4	1	Tray 2 tray insert guide wheels	“Tray insert guide wheels removal” on page 719

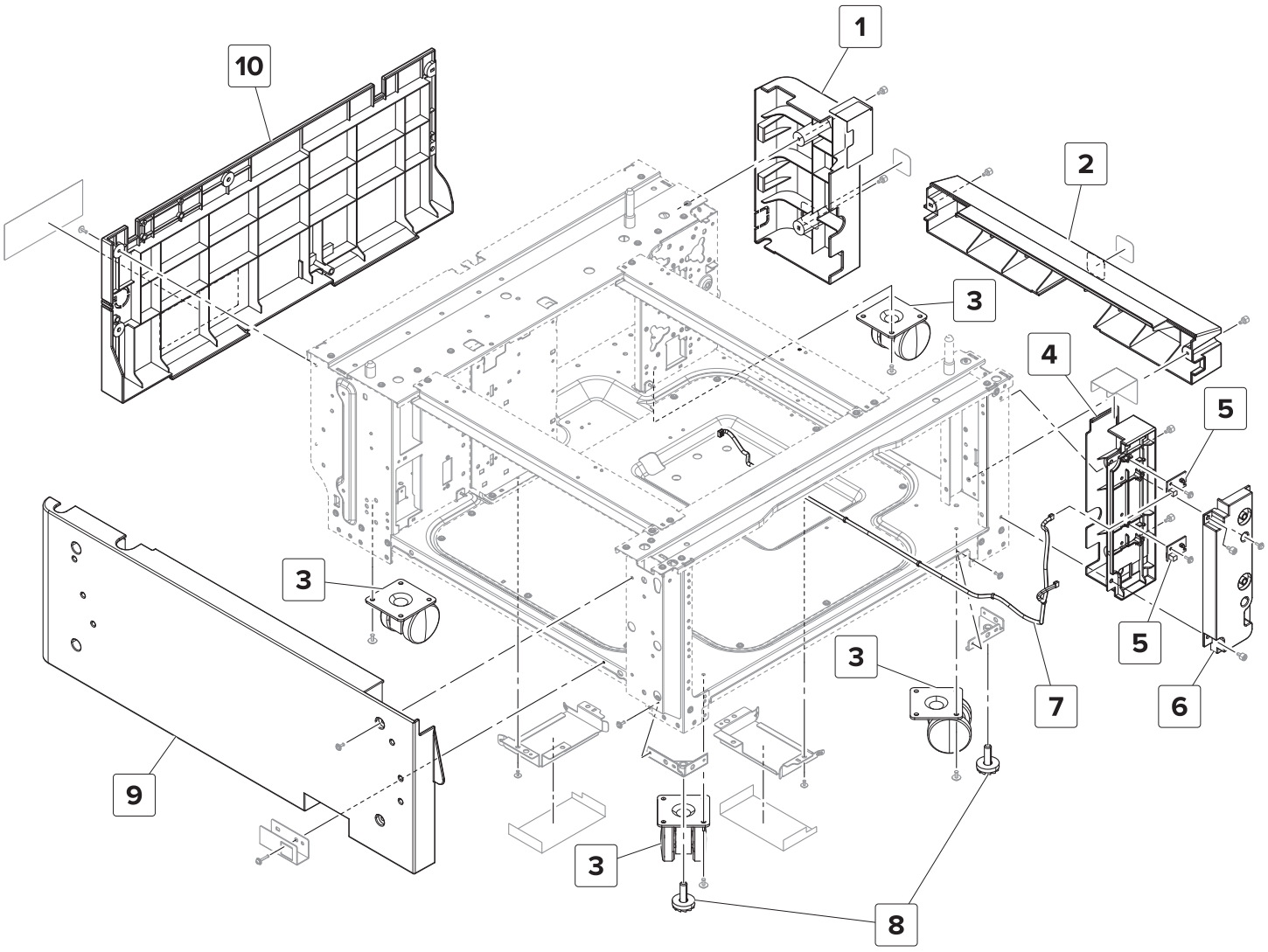
Assembly 49: 500-sheet tray—Tray 1 or tray 2



Assembly 49: 500-sheet tray—Tray 1 or tray 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X1562	1	1	Tray insert paper length guide	“Tray insert paper length guide removal” on page 758
2	40X9308	1	1	Tray near empty sensor actuator	“Tray near empty sensor actuator removal” on page 721

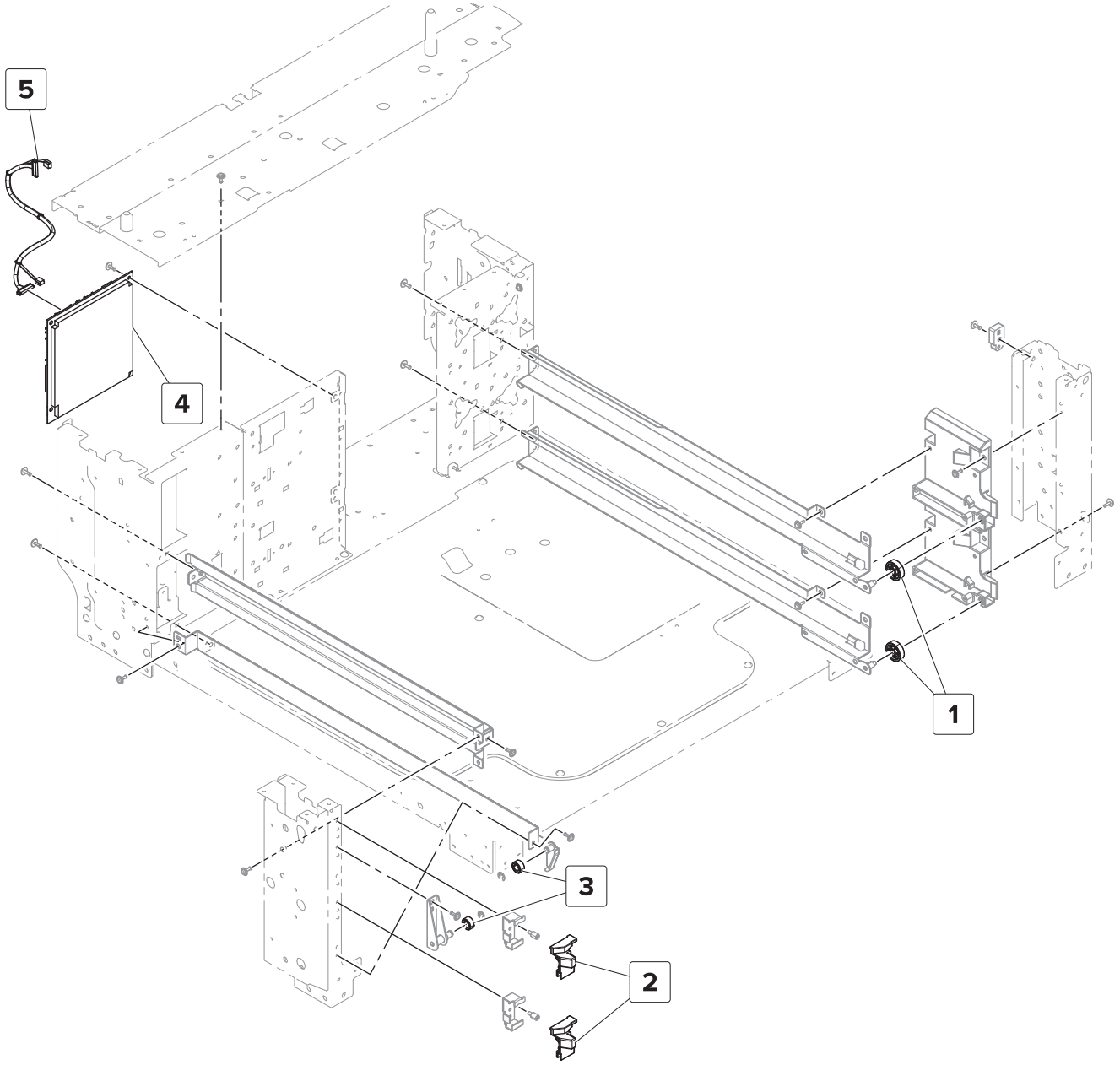
Assembly 50: 2 x 500-sheet tray—Covers



Assembly 50: 2 x 500-sheet tray—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9779	1	1	2 x 500-sheet tray rear right cover	“2 x 500-sheet tray rear right cover removal” on page 770
2	40X9285	1	1	2 x 500-sheet tray bottom right cover	“2 x 500-sheet tray bottom right cover removal” on page 771
3	40x9282	4	1	2 x 500-sheet tray caster wheel	“2 x 500-sheet tray caster wheel removal” on page 757
4	41X1963	1	1	2 x 500-sheet tray empty LED mount	“2 x 500-sheet tray empty LED mount removal” on page 763
5	40X8903	2	1	2 x 500-sheet tray empty LED	“2 x 500-sheet tray empty LED removal” on page 762
6	41X1962	1	1	2 x 500-sheet tray empty LED cover	“2 x 500-sheet tray empty LED cover removal” on page 762
7	40X9289	1	1	2 x 500-sheet tray empty LED cable	--
8	40x9283	1	1	Printer rubber stopper	“Printer rubber stopper removal” on page 758
9	40X9281	1	1	2 x 500-sheet tray left cover	“2 x 500-sheet tray left cover removal” on page 761
10	40X9280	1	1	2 x 500-sheet tray rear cover	“2 x 500-sheet tray rear cover removal” on page 764

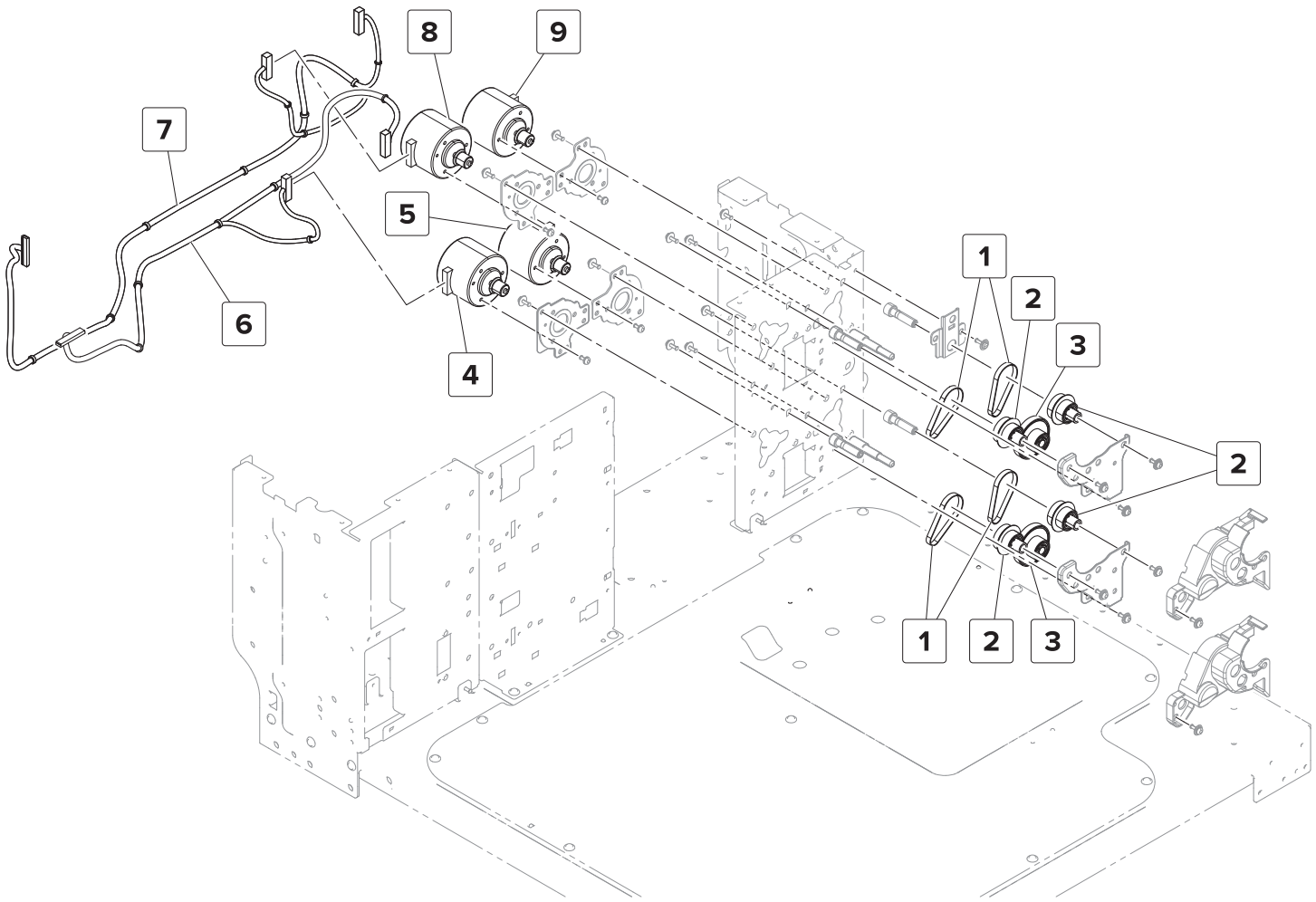
Assembly 51: 2 x 500-sheet tray—Frame



Assembly 51: 2 x 500-sheet tray—Frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8981	2	1	2 x 500-sheet tray right rail guide wheel	--
2	41X1955	2	1	2 x 500-sheet tray insert stopper	--
3	40X9305	2	1	2 x 500-sheet tray left rail guide wheel	--
4	40X9290	1	1	2 x 500-sheet tray controller board	**“2 x 500-sheet tray controller board removal” on page 768**
5	40X9783	1	1	2 x 500-sheet tray interface cable	--

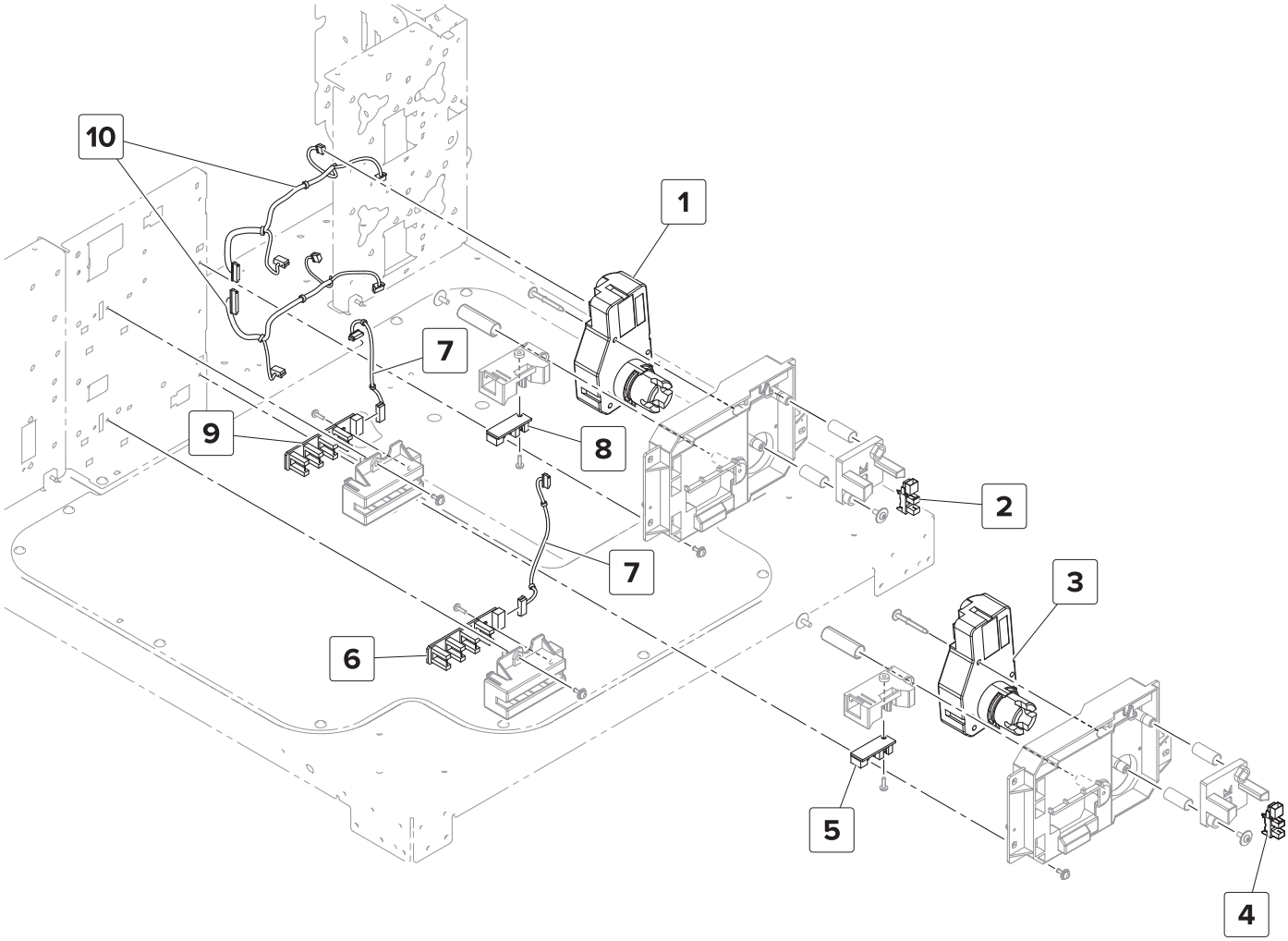
Assembly 52: 2 x 500-sheet tray—Paper feed



Assembly 52: 2 x 500-sheet tray—Paper feed

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9294	4	1	2 x 500-sheet tray feed and transport motor belt	**“2 x 500-sheet tray 3 transport belts and gears removal” on page 776** **“2 x 500-sheet tray 4 transport belts and gears removal” on page 777**
2	40X9891	4	1	2 x 500-sheet tray feed and transport primary gear	**“2 x 500-sheet tray 3 transport belts and gears removal” on page 776** **“2 x 500-sheet tray 4 transport belts and gears removal” on page 777**
3	40X9295	2	1	2 x 500-sheet tray feed and transport secondary gear	**“2 x 500-sheet tray 3 transport belts and gears removal” on page 776** **“2 x 500-sheet tray 4 transport belts and gears removal” on page 777**
4	40X9293	1	1	Motor (2 x 500-sheet tray 4 feed)	**“2 x 500-sheet tray feed and transport motors removal” on page 767**
5	40X9293	1	1	Motor (2 x 500-sheet tray 4 transport)	**“2 x 500-sheet tray feed and transport motors removal” on page 767**
6	40X9774	1	1	2 x 500-sheet tray 4 feed and transport motor cable	--
7	40X9882	1	1	2 x 500-sheet tray 3 feed and transport motor cable	--
8	40X9293	1	1	Motor (2 x 500-sheet tray 3 feed)	**“2 x 500-sheet tray feed and transport motors removal” on page 767**
9	40X9293	1	1	Motor (2 x 500-sheet tray 3 transport)	**“2 x 500-sheet tray feed and transport motors removal” on page 767**

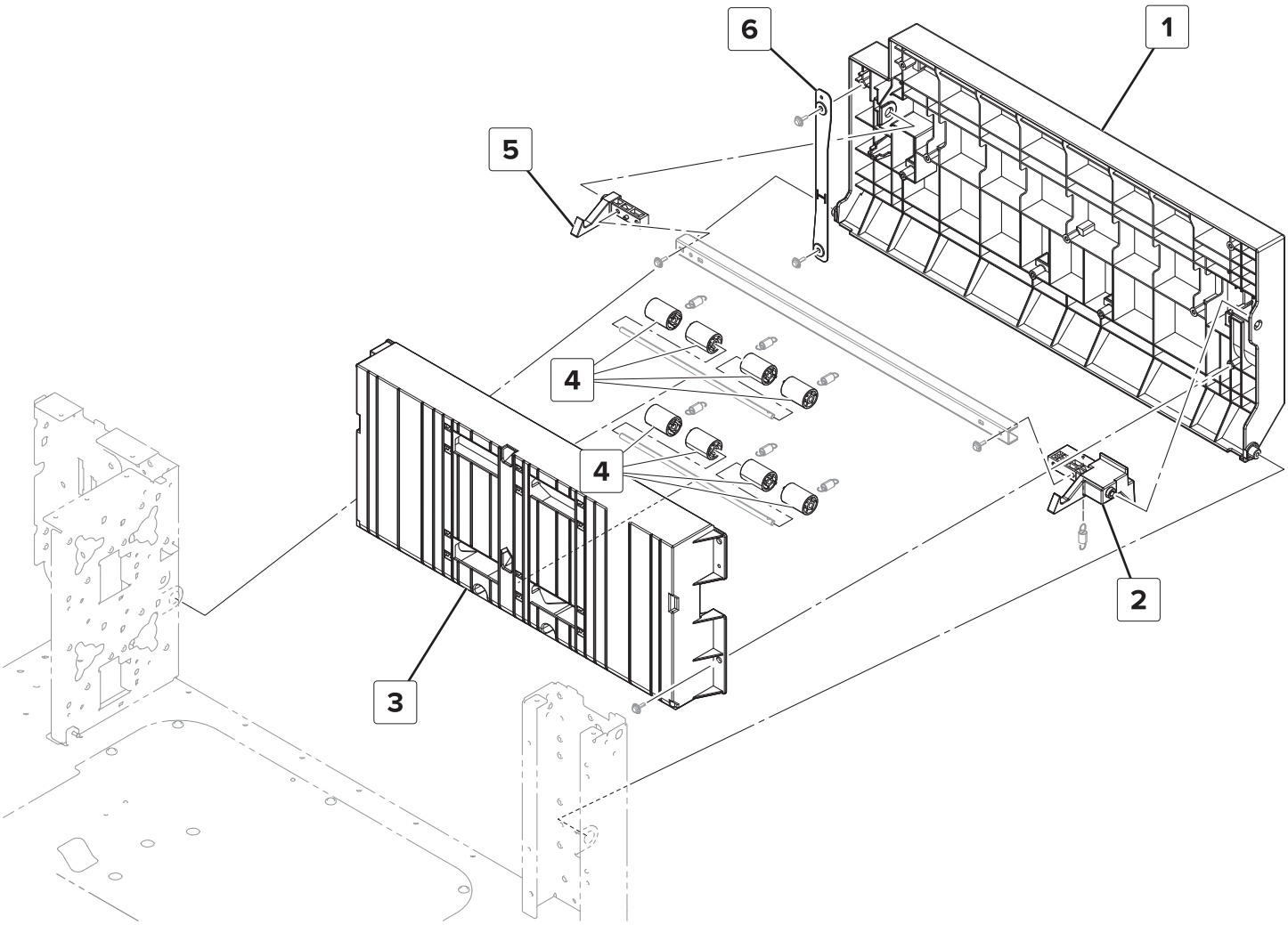
Assembly 53: 2 x 500-sheet tray—Paper size detection



Assembly 53: 2 x 500-sheet tray—Paper size detection

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8987	1	1	Motor (2 x 500-sheet tray 3 lift)	**“Motor (2 x 500-sheet tray lift) removal” on page 764**
2	41X1391	1	1	Sensor (2 x 500-sheet tray 3 near empty)	**“Sensor (2 x 500-sheet tray near empty) removal” on page 765**
3	40X8987	1	1	Motor (2 x 500-sheet tray 4 lift)	**“Motor (2 x 500-sheet tray lift) removal” on page 764**
4	41X1391	1	1	Sensor (2 x 500-sheet tray 4 near empty)	**“Sensor (2 x 500-sheet tray near empty) removal” on page 765**
5	40X8989	1	1	Sensor (2 x 500-sheet tray 4 paper width)	**“Sensor (2 x 500-sheet tray paper width) removal” on page 766**
6	40X8985	1	1	Sensor (2 x 500-sheet tray 4 paper length)	**“Sensor (2 x 500-sheet tray paper length) removal” on page 760**
7	40X9775	2	1	2 x 500 sheet tray paper length sensor cable	--
8	40X8989	1	1	Sensor (2 x 500-sheet tray 3 paper width)	**“Sensor (2 x 500-sheet tray paper width) removal” on page 766**
9	40X8985	1	1	Sensor (2 x 500-sheet tray 3 paper length)	**“Sensor (2 x 500-sheet tray paper length) removal” on page 760**
10	40X9889	2	1	2 x 500 sheet tray lift motor cable	--

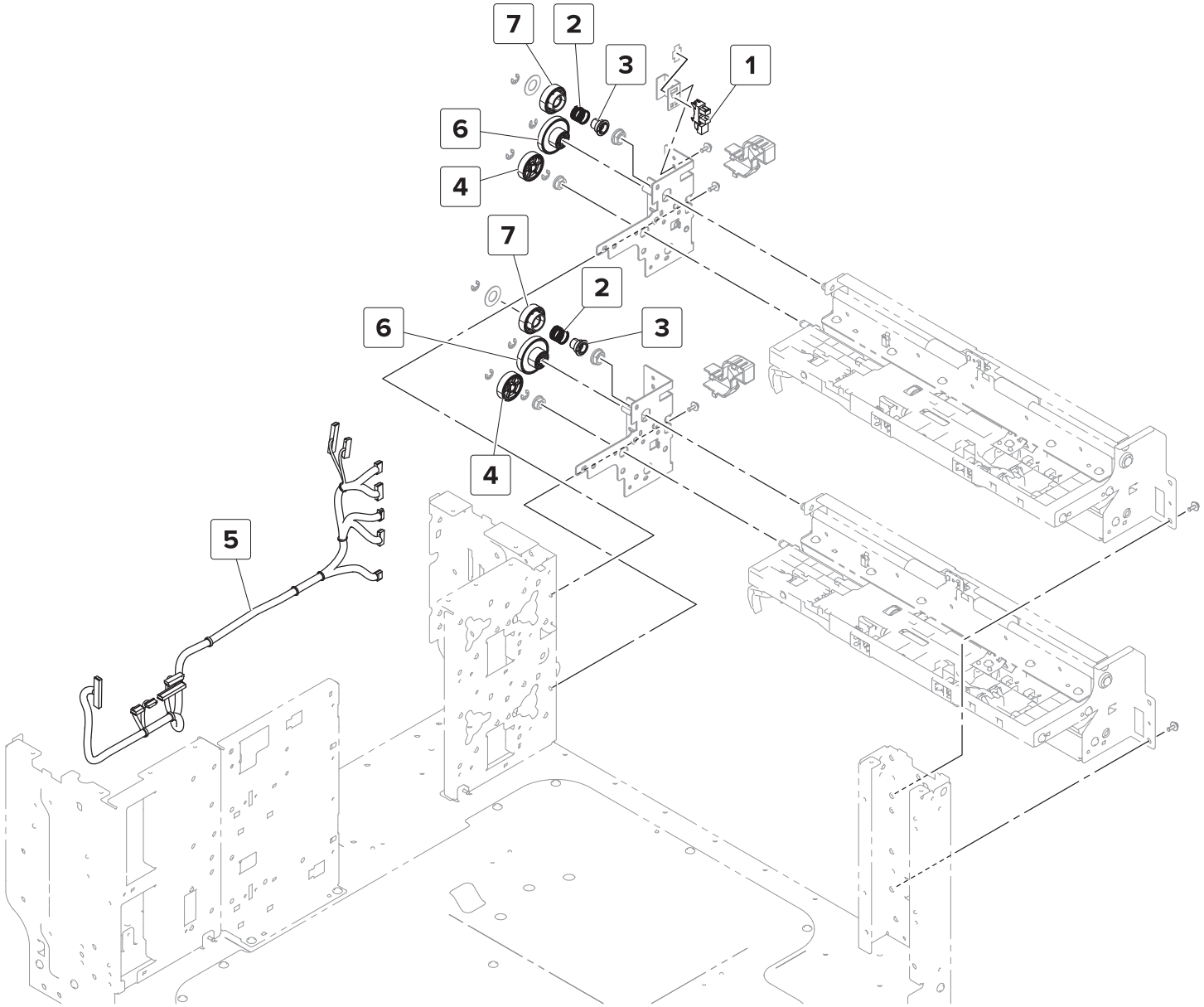
Assembly 54: 2 x 500-sheet tray—Paper transport



Assembly 54: 2 x 500-sheet tray—Paper transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1018	1	1	2 x 500-sheet tray jam access door	--
2	41X1019	1	1	2 x 500-sheet tray jam access latch left	--
3	41X1020	1	1	2 x 500-sheet tray paper guide	--
4	40X8973	8	1	Transport idler roller	--
5	41X1021	1	1	2 x 500-sheet tray jam access latch right	--
6	40X9908	1	1	2 x 500-sheet tray jam access door strap	--

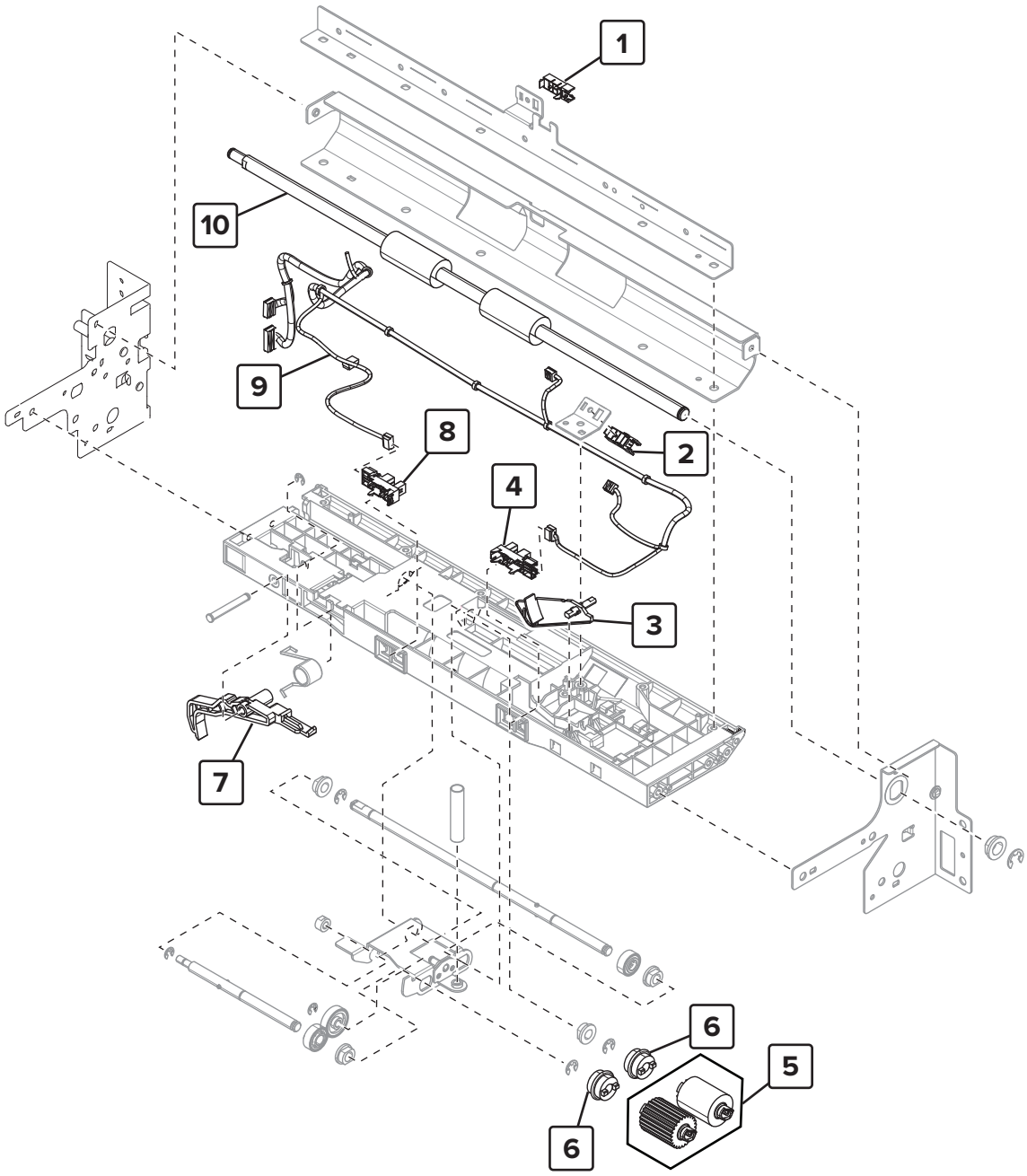
Assembly 55: 2 x 500-sheet tray—Paper pick 1



Assembly 55: 2 x 500-sheet tray—Paper pick 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1444	1	1	Sensor (2 x 500-sheet tray jam access door)	**"Sensor (2 x 500-sheet tray jam access door) removal" on page 756**
2	40X9892	2	1	2 x 500-sheet tray transport gear spring	--
3	40X9893	2	1	2 x 500-sheet tray transport gear bushing	--
4	40X9894	2	1	2 x 500-sheet tray feed primary gear	--
5	40X9890	1	1	2 x 500-sheet tray cable harness	--
6	40X9295	2	1	2 x 500-sheet tray feed secondary gear	--
7	40X9298	2	1	2 x 500-sheet tray transport gear	--

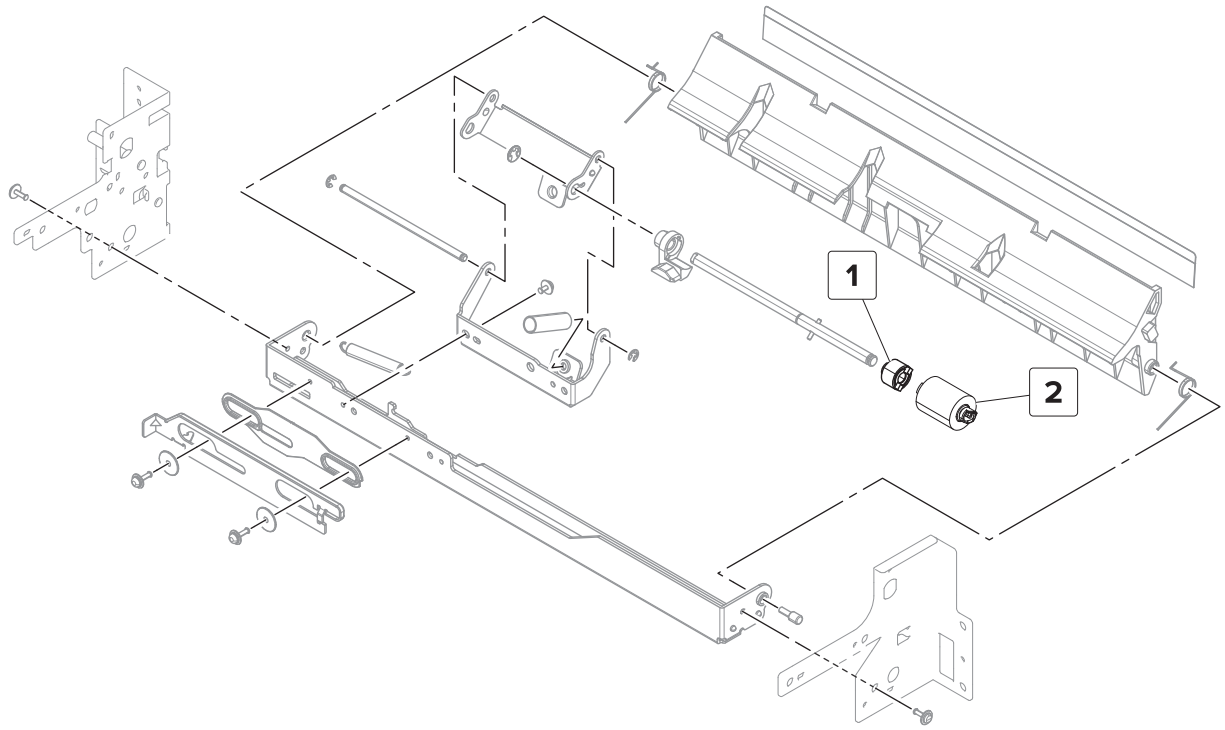
Assembly 56: 2 x 500-sheet tray—Paper pick 2



Assembly 56: 2 x 500-sheet tray—Paper pick 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X8968	2	1	Sensor (2 x 500-sheet tray transport)	"Sensor (2 x 500-sheet tray transport) removal" on page 775
2	40X8968	2	1	Sensor (2 x 500-sheet tray feed)	"2 x 500-sheet tray transport assembly sensors removal" on page 773
3	40X9899	2	1	2 x 500-sheet tray empty sensor actuator	"2 x 500-sheet tray transport assembly sensors removal" on page 773
4	41X1391	2	1	Sensor (2 x 500-sheet tray empty)	"2 x 500-sheet tray transport assembly sensors removal" on page 773
5	41X1600	2	1	Feed and pick rollers **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	"2 x 500-sheet tray rollers removal" on page 759
6	40X9981	4	1	Roller clutch	--
7	40X9982	2	1	2 x 500-sheet tray set actuator	--
8	41X1391	2	1	Sensor (2 x 500-sheet tray lift plate level)	"2 x 500-sheet tray transport assembly sensors removal" on page 773
9	40X9316	1	1	2 x 500-sheet tray 3 pick assembly sensor cable	--
9	40X9300	1	1	2 x 500-sheet tray 4 pick assembly sensor cable	--
10	40X9299	2	1	2 x 500-sheet tray transport roller	--

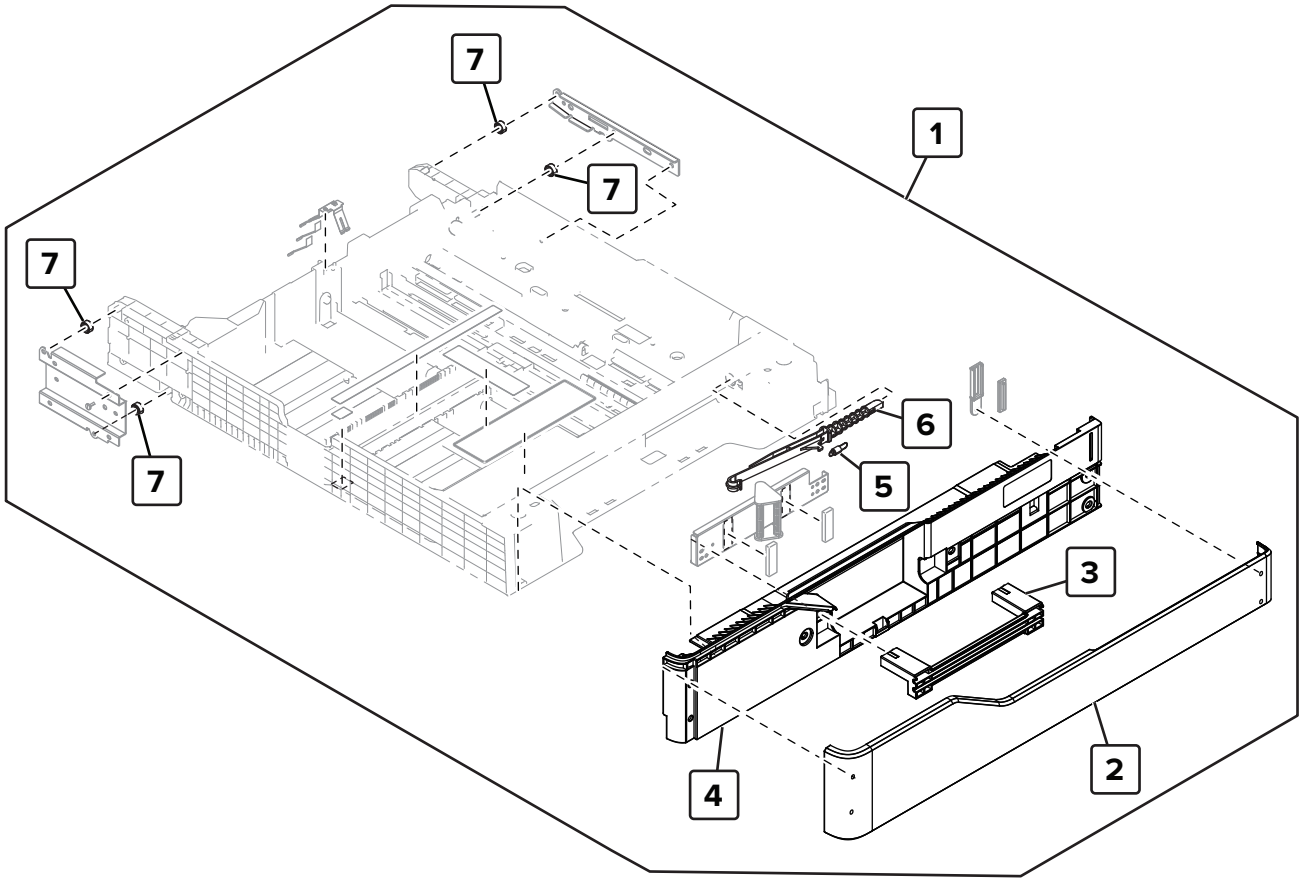
Assembly 57: 2 x 500-sheet tray—Paper pick 3



Assembly 57: 2 x 500-sheet tray—Paper pick 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9455	2	1	Separator clutch	--
2	41X1600	2	1	Separator roller **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	**“2 x 500-sheet tray rollers removal” on page 759**

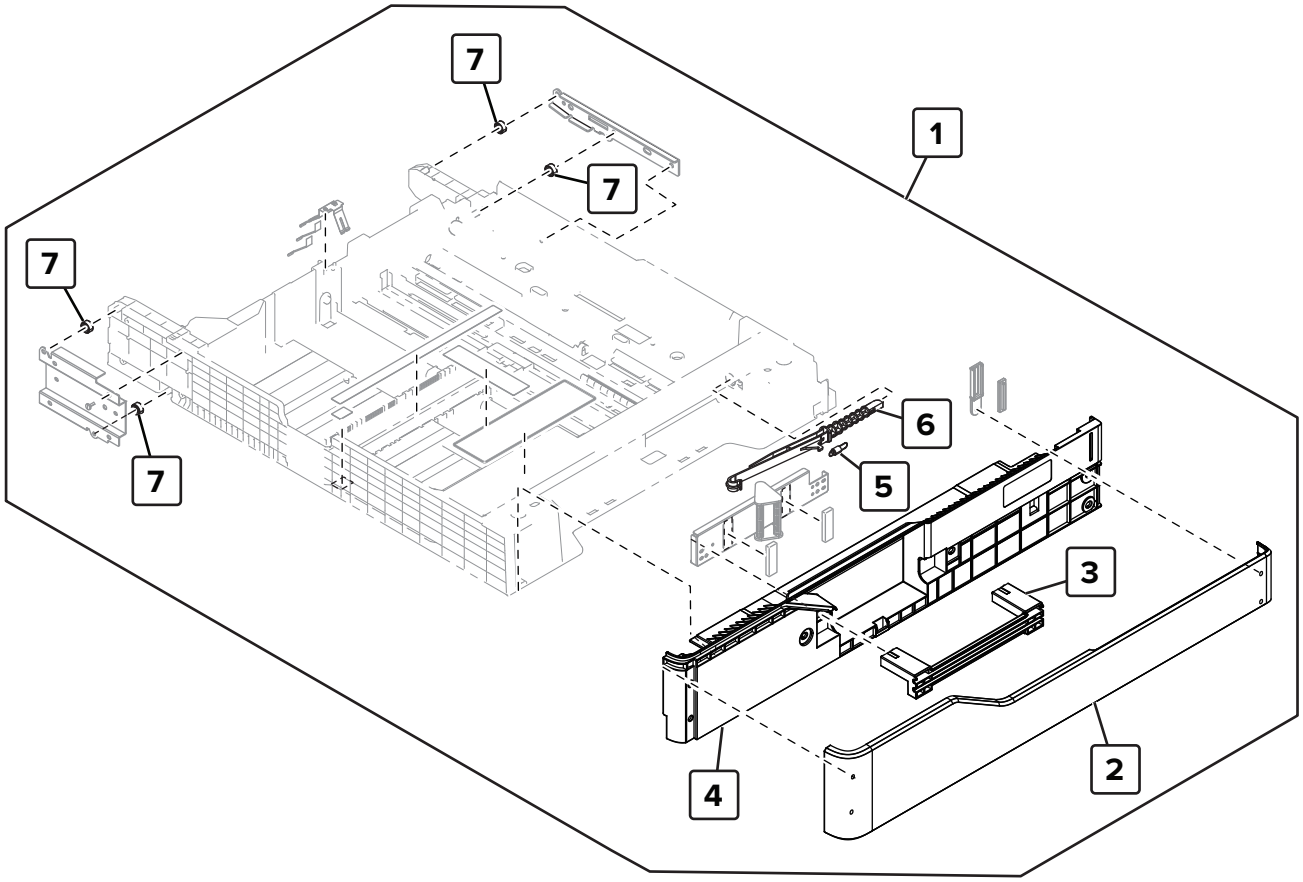
Assembly 58: 2 x 500-sheet tray—Tray 3



Assembly 58: 2 x 500-sheet tray—Tray 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1957	1	1	Tray 3 insert	“Tray insert removal” on page 511
2	41X1958	1	1	Tray 3 front cover	“Tray lock removal” on page 724
3	41X1959	1	1	Tray handle	--
4	41X1956	1	1	Tray 3 inner front cover	--
5	40X9895	1	1	Pulling coil spring	--
6	40X9304	1	1	Tray lock	“Tray lock removal” on page 724
7	40X9305	4	1	Tray insert guide wheel	--

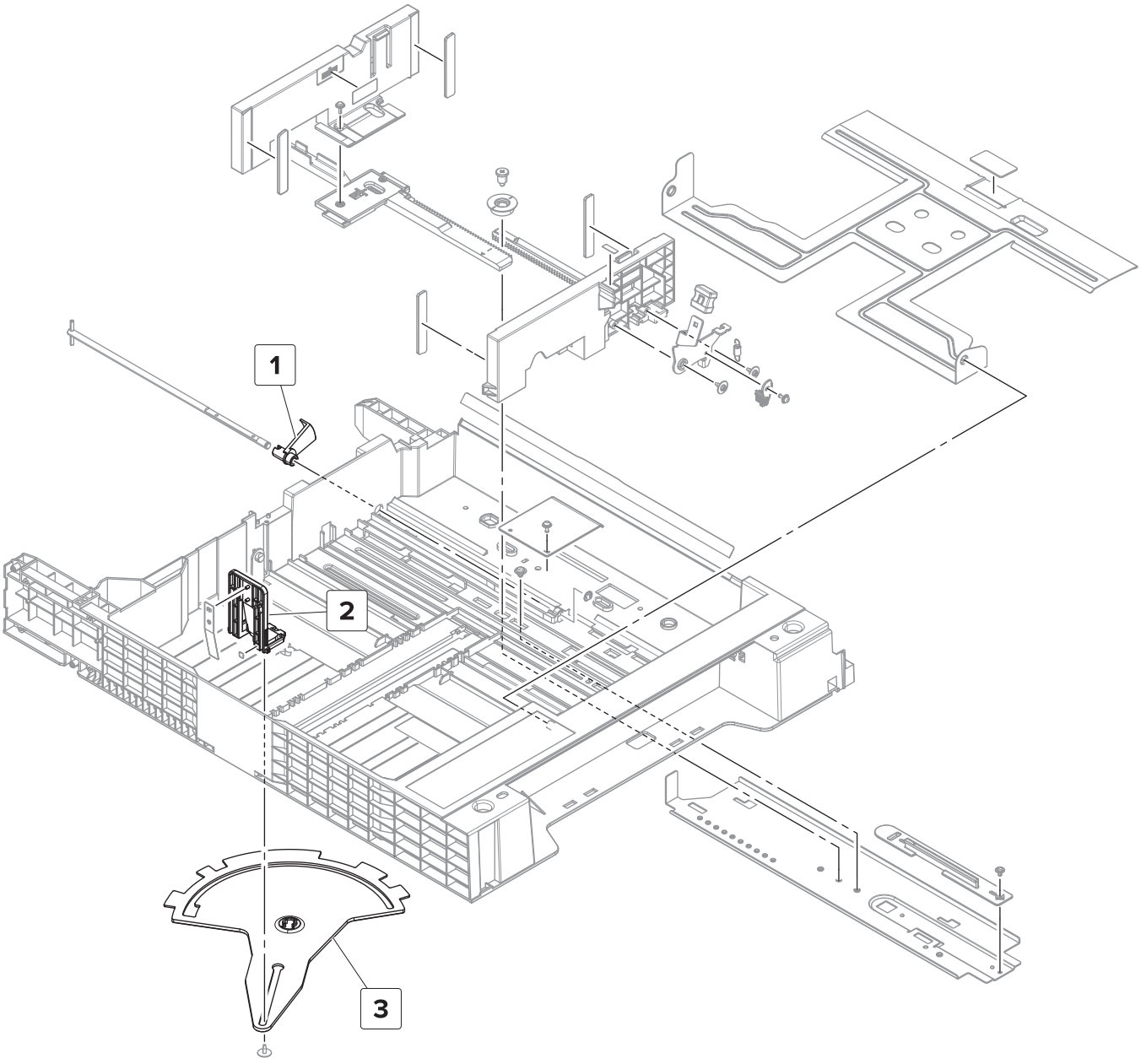
Assembly 59: 2 x 500-sheet tray—Tray 4



Assembly 59: 2 x 500-sheet tray—Tray 4

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1961	1	1	Tray 4 insert	“Tray insert removal” on page 511
2	41X1958	1	1	Tray 4 front cover	“Tray lock removal” on page 724
3	41X1959	1	1	Tray handle	--
4	41X1960	1	1	Tray 4 inner front cover	--
5	40X9895	1	1	Pulling coil spring	--
6	40X9304	1	1	Tray lock	“Tray lock removal” on page 724
7	40X9305	4	1	Tray insert guide wheel	--

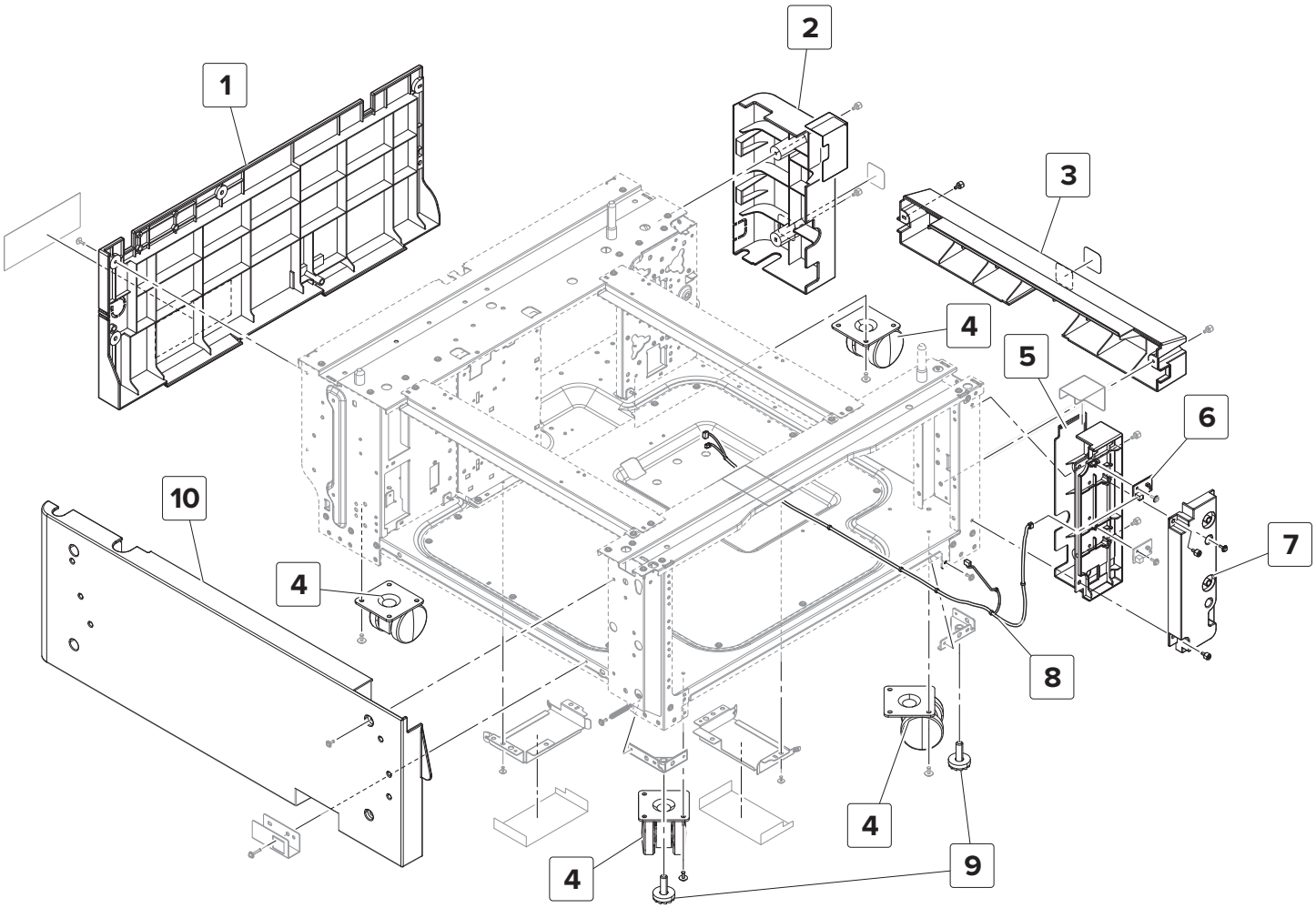
Assembly 60: 2 x 500-sheet tray—Tray 3 and tray 4 frame



Assembly 60: 2 x 500-sheet tray—Tray 3 and tray 4 frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9308	2	1	2 x 500-sheet tray near empty sensor actuator	--
2	41X1562	2	1	Tray insert paper length guide	**“Tray insert paper length guide removal” on page 758**
3	40X9309	2	1	2 x 500-tray insert paper length sensor actuator	--

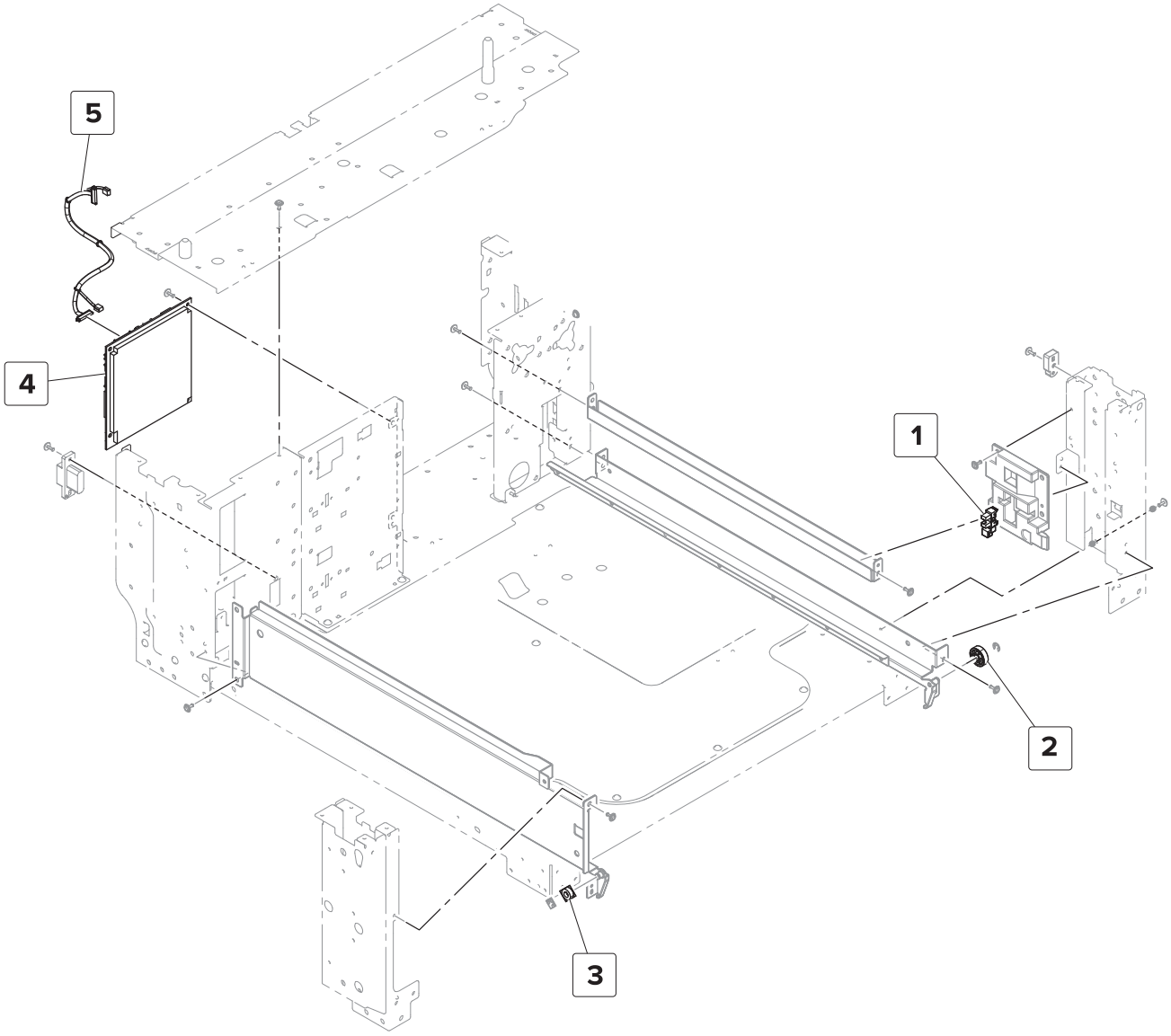
Assembly 61: 2500-sheet tray—Covers



Assembly 61: 2500-sheet tray—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9280	1	1	2500-sheet tray rear cover	**“2500-sheet tray rear cover removal” on page 726**
2	40X9779	1	1	2500-sheet tray rear right cover	**“2500-sheet tray rear right cover removal” on page 726**
3	40X9285	1	1	2500-sheet tray bottom right cover	**“2500-sheet tray lower right cover removal” on page 727**
4	40X9282	4	1	Caster wheel	**“2500-sheet tray caster wheel removal” on page 755**
5	41X1963	1	1	2500-sheet tray LED mount	--
6	40X8903	1	1	Tray empty LED	**“2500-sheet tray empty LED removal” on page 728**
7	41X1962	1	1	2500-sheet tray LED cover	**“2500-sheet tray LED cover removal” on page 727**
8	40X9782	1	1	Tray empty LED cable	--
9	40X9283	2	1	Tray stopper	**“2500-sheet tray stopper removal” on page 754**
10	40X9281	1	1	2500-sheet tray left cover	**“2500-sheet tray left cover removal” on page 729**

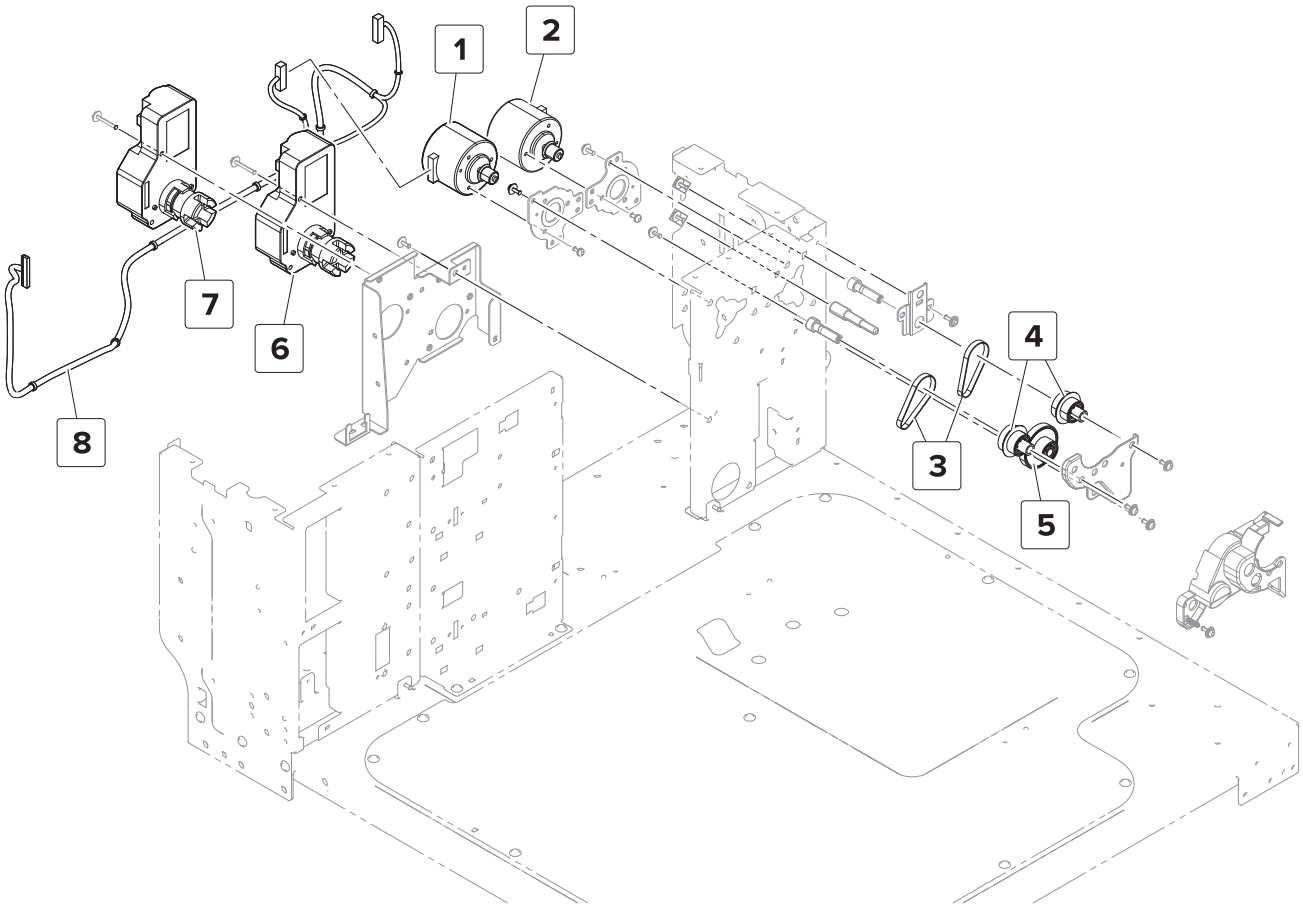
Assembly 62: 2500-sheet tray—Frame



Assembly 62: 2500-sheet tray—Frame

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1391	1	1	Sensor (2500-sheet tray set)	“Sensor (2500-sheet tray set) removal” on page 747
2	40X8981	1	1	Tray rail guide wheel	--
3	40X9784	1	1	Tray insert guide wheel	--
4	40X9785	1	1	2500-sheet tray controller board	“2500-sheet tray controller board removal” on page 731
5	40X9783	1	1	2500-sheet tray interface cable	--

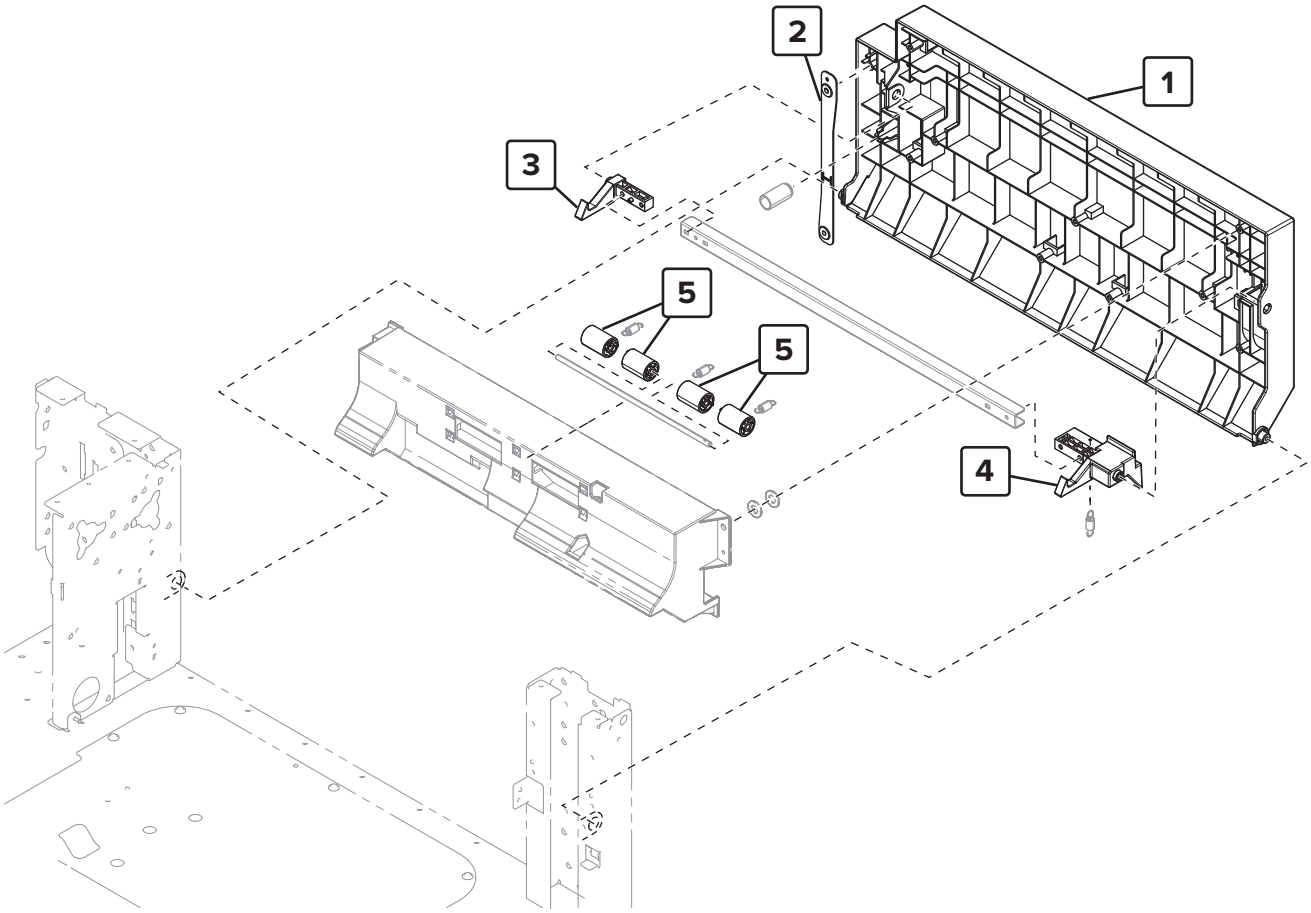
Assembly 63: 2500-sheet tray—Paper feed



Assembly 63: 2500-sheet tray—Paper feed

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9293	1	1	Motor (2500-sheet tray feed)	**“Motor (2500-sheet tray feed) removal” on page 748**
2	40X9293	1	1	Motor (2500-sheet tray transport)	**“Motor (2500-sheet tray transport) removal” on page 750**
3	40X9294	2	1	2500-sheet tray feed and transport motor belt	--
4	40X9891	2	1	2500-sheet tray feed and transport primary gear	--
5	40X9295	1	1	2500-sheet tray feed and transport secondary gear	--
6	40X9896	1	1	Motor (2500-sheet tray elevator)	**“Motor (2500-sheet tray elevator) removal” on page 748**
7	40X9896	1	1	Motor (2500-sheet tray transfer guide)	**“Motor (2500-sheet tray transfer guide) removal” on page 749**
8	40X9882	1	1	2500-sheet tray feed and transport motor cable	--

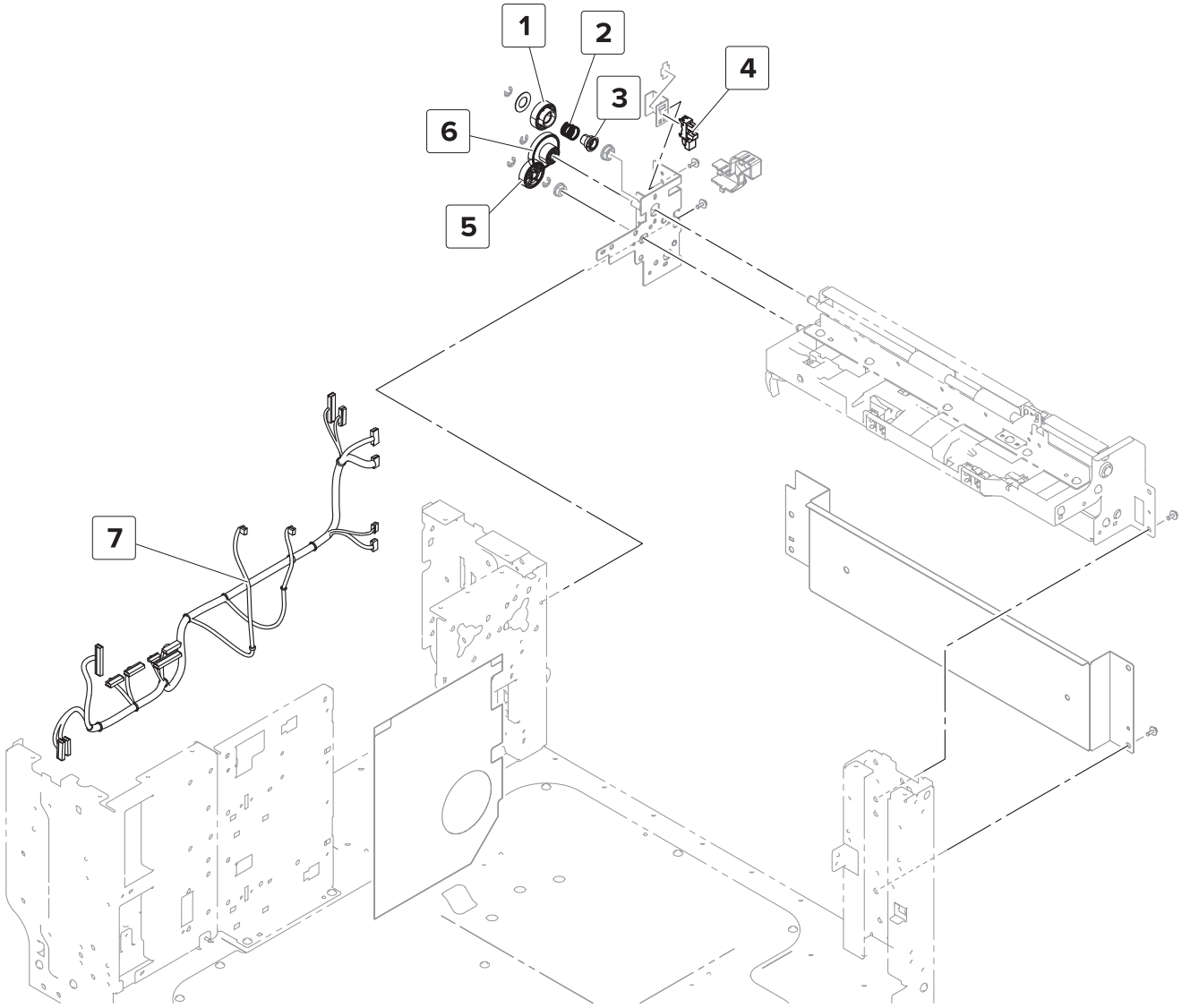
Assembly 64: 2500-sheet tray—Paper transport



Assembly 64: 2500-sheet tray—Paper transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1018	1	1	2500-sheet tray door	--
2	40X9908	1	1	2500-sheet tray jam access door strap	**“2500-sheet tray jam access door strap removal” on page 730**
3	41X1021	1	1	2500-sheet tray door latch right	--
4	41X1019	1	1	2500-sheet tray door latch left	--
5	40X8973	4	1	Transport idler roller	--
NS	41X2534	1	1	2500-sheet tray jam door paper guide	--

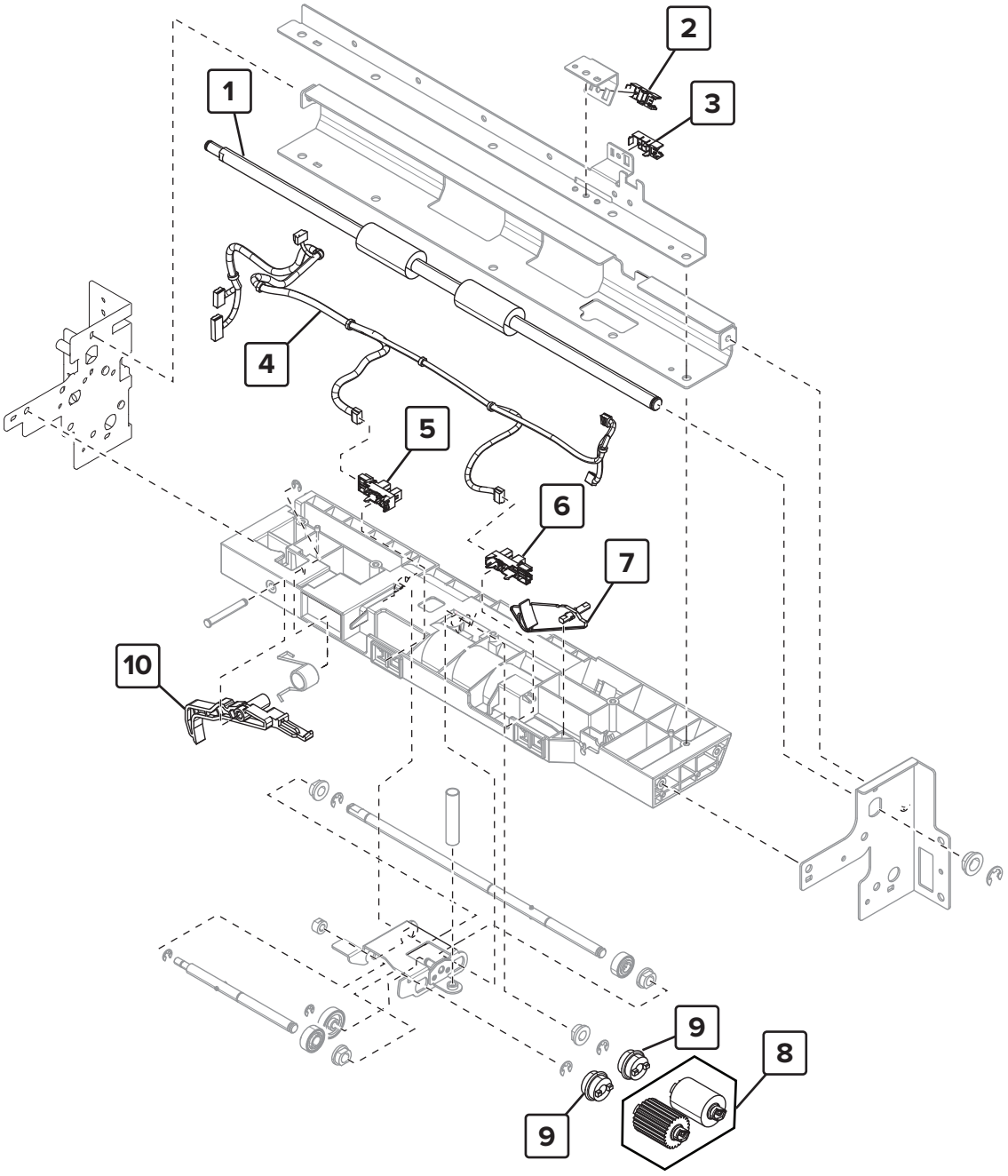
Assembly 65: 2500-sheet tray—Paper pick 1



Assembly 65: 2500-sheet tray—Paper pick 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9298	1	1	2500-sheet tray transport gear	--
2	40X9892	1	1	2500-sheet tray transport gear spring	--
3	40X9893	1	1	2500-sheet tray transport gear bushing	--
4	41X1444	1	1	Sensor (2500-sheet tray jam access door)	**"Sensor (2500-sheet tray jam access door) removal" on page 746**
5	40X9894	1	1	2500-sheet tray feed primary gear	--
6	40X9295	1	1	2500-sheet tray feed secondary gear	--
7	40X9786	1	1	2500-sheet tray cable harness	--

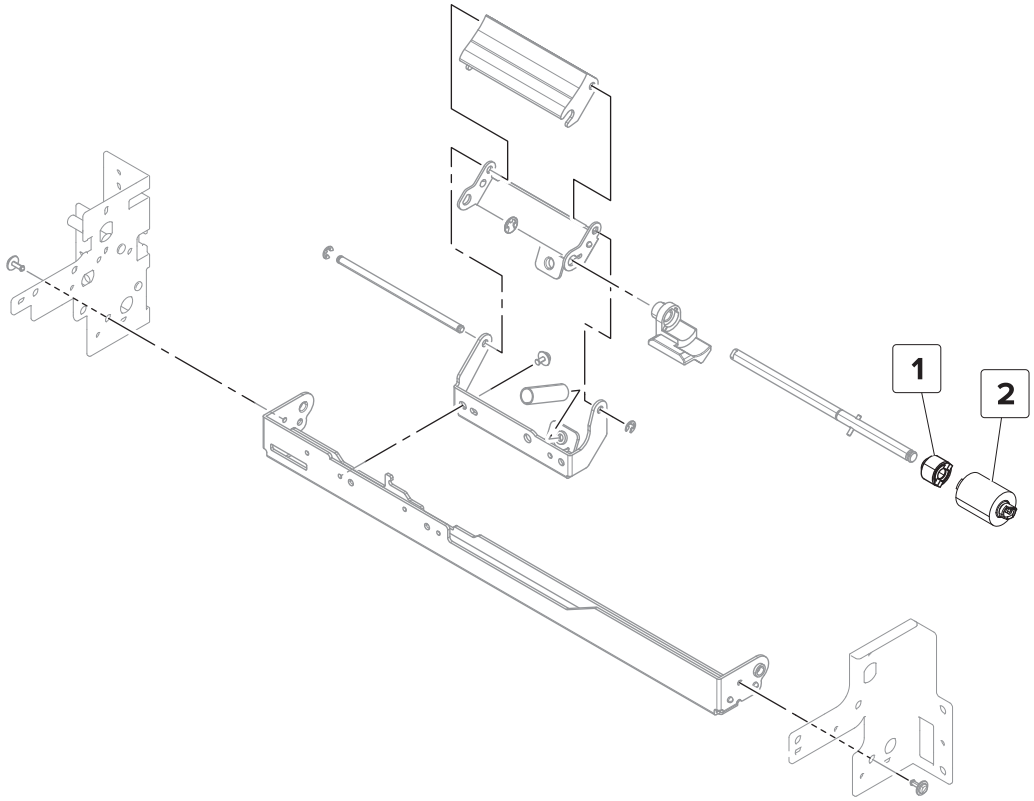
Assembly 66: 2500-sheet tray—Paper pick 2



Assembly 66: 2500-sheet tray—Paper pick 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9299	1	1	2500-sheet tray transport roller	“2500-sheet tray transport roller removal” on page 751
2	40X8968	1	1	Sensor (2500-sheet tray feed)	“Sensor (2500-sheet tray feed) removal” on page 744
3	40X8968	1	1	Sensor (2500-sheet tray transport)	“Sensor (2500-sheet tray transport) removal” on page 745
4	40X9787	1	1	2500-sheet tray pick assembly sensor cable	--
5	41X1391	1	1	Sensor (2500-sheet tray main tray elevator limit)	“Sensor (2500-sheet tray main tray elevator limit) removal” on page 744
6	41X1391	1	1	Sensor (2500-sheet tray main tray empty, top)	“Sensor (2500-sheet tray main tray empty, top) removal” on page 743
7	40X9899	1	1	2500-sheet tray main tray top empty actuator	--
8	41X1600	2	1	Feed and pick rollers **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	--
9	40X9981	2	1	Roller clutch	--
10	40X9982	1	1	2500-sheet tray tray set actuator	--

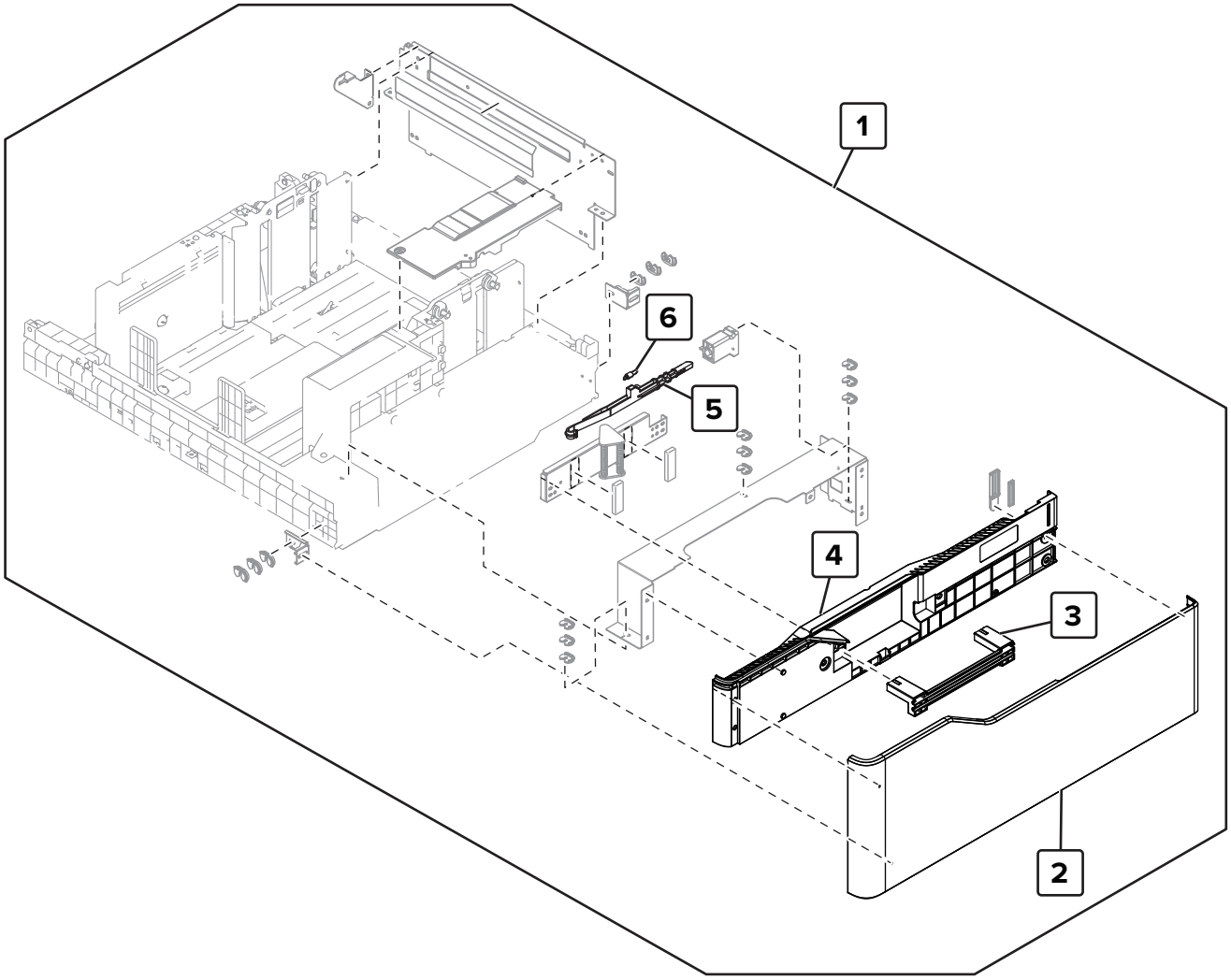
Assembly 67: 2500-sheet tray—Paper pick 3



Assembly 67: 2500-sheet tray—Paper pick 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9455	1	1	Separator clutch	--
2	41X1600	1	1	Separator roller **Note:** This contains the following rollers: • Pick roller • Feed roller • Separator roller	--

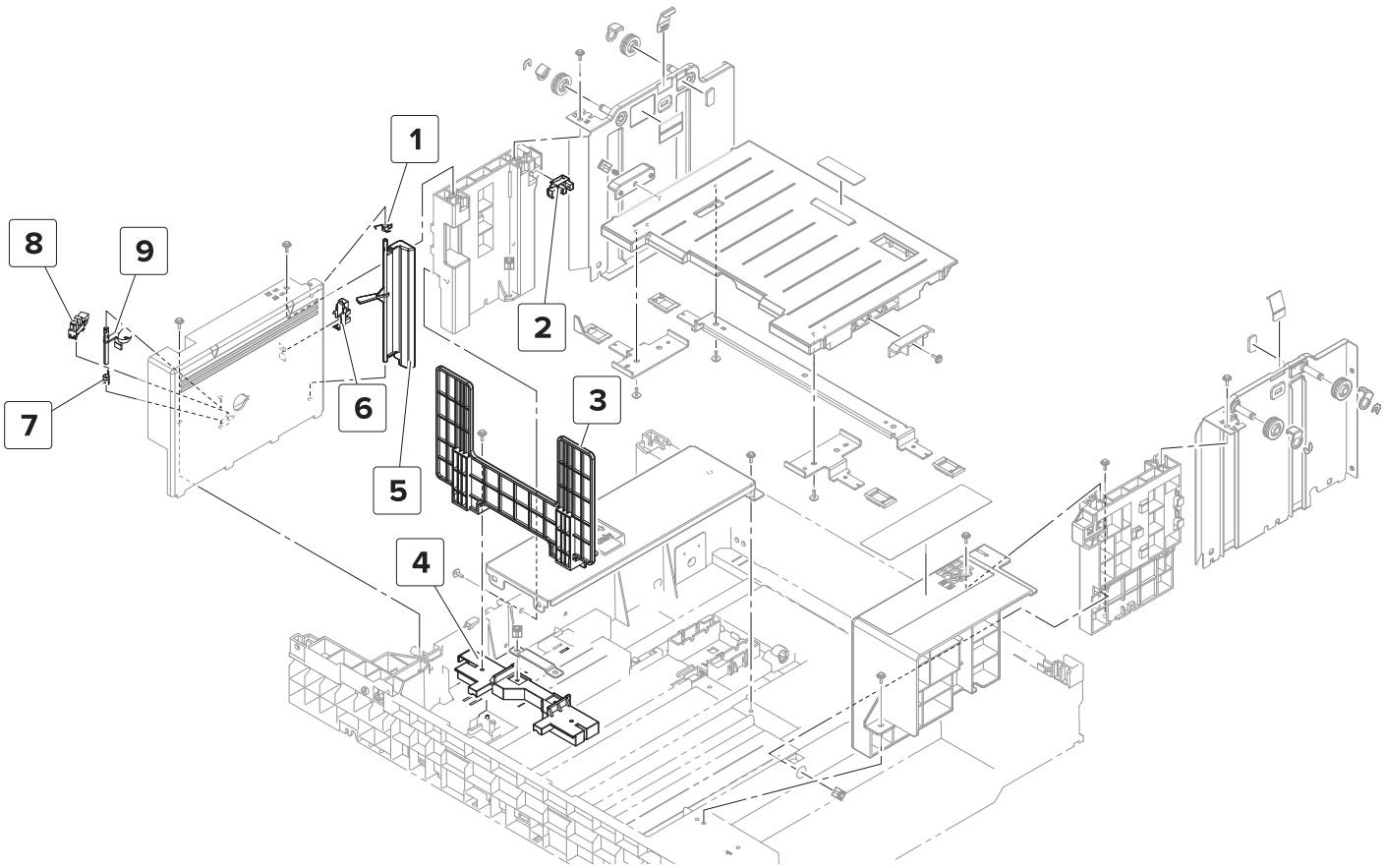
Assembly 68: 2500-sheet tray—Tray insert 1



Assembly 68: 2500-sheet tray—Tray insert 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X1967	1	1	2500-sheet tray insert, A4	--
1	41X1966	1	1	2500-sheet tray insert, Letter	--
2	41X1964	1	1	2500-sheet tray front cover	--
3	41X1959	1	1	2500-sheet tray handle	--
4	41X1965	1	1	2500-sheet tray inner front cover	--
5	40X9788	1	1	2500-sheet tray lock lever	--
6	40X9895	1	1	Pulling coil spring	--

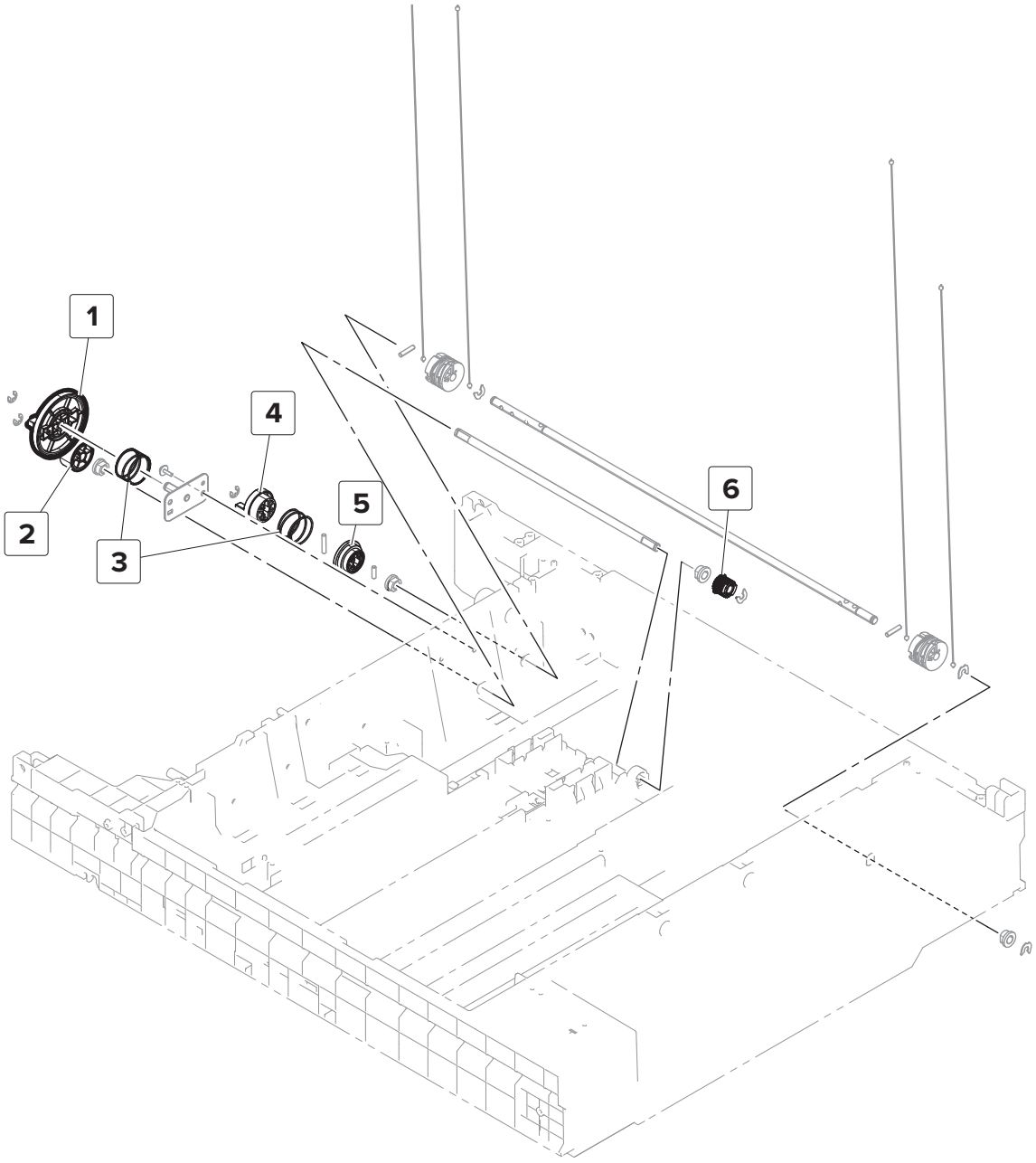
Assembly 69: 2500-sheet tray—Tray insert 2



Assembly 69: 2500-sheet tray—Tray insert 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9794	1	1	Paper stack transfer sensor actuator spring	--
2	41X1391	1	1	Sensor (main tray near empty)	**“Sensor (2500-sheet tray main tray near empty) removal” on page 743**
3	40X9792	1	1	Paper stack transfer guide	**“2500-sheet tray paper stack transfer guide removal” on page 736**
4	40X9791	1	1	Paper stack transfer guide base	**“2500-sheet tray paper stack transfer guide removal” on page 736**
5	40X9263	1	1	Paper stack transfer sensor actuator	--
6	41X1391	1	1	Sensor (paper stack transfer)	**“Sensor (2500-sheet paper stack transfer) removal” on page 741**
7	40X9883	1	1	Reserve tray paper limit sensor actuator spring	--
8	41X1391	1	1	Sensor (reserve tray paper limit)	**“Sensor (2500-sheet tray reserve tray paper limit) removal” on page 741**
9	40X9900	1	1	Reserve tray paper limit sensor actuator	**“2500-sheet reserve tray paper limit sensor actuator removal” on page 742**

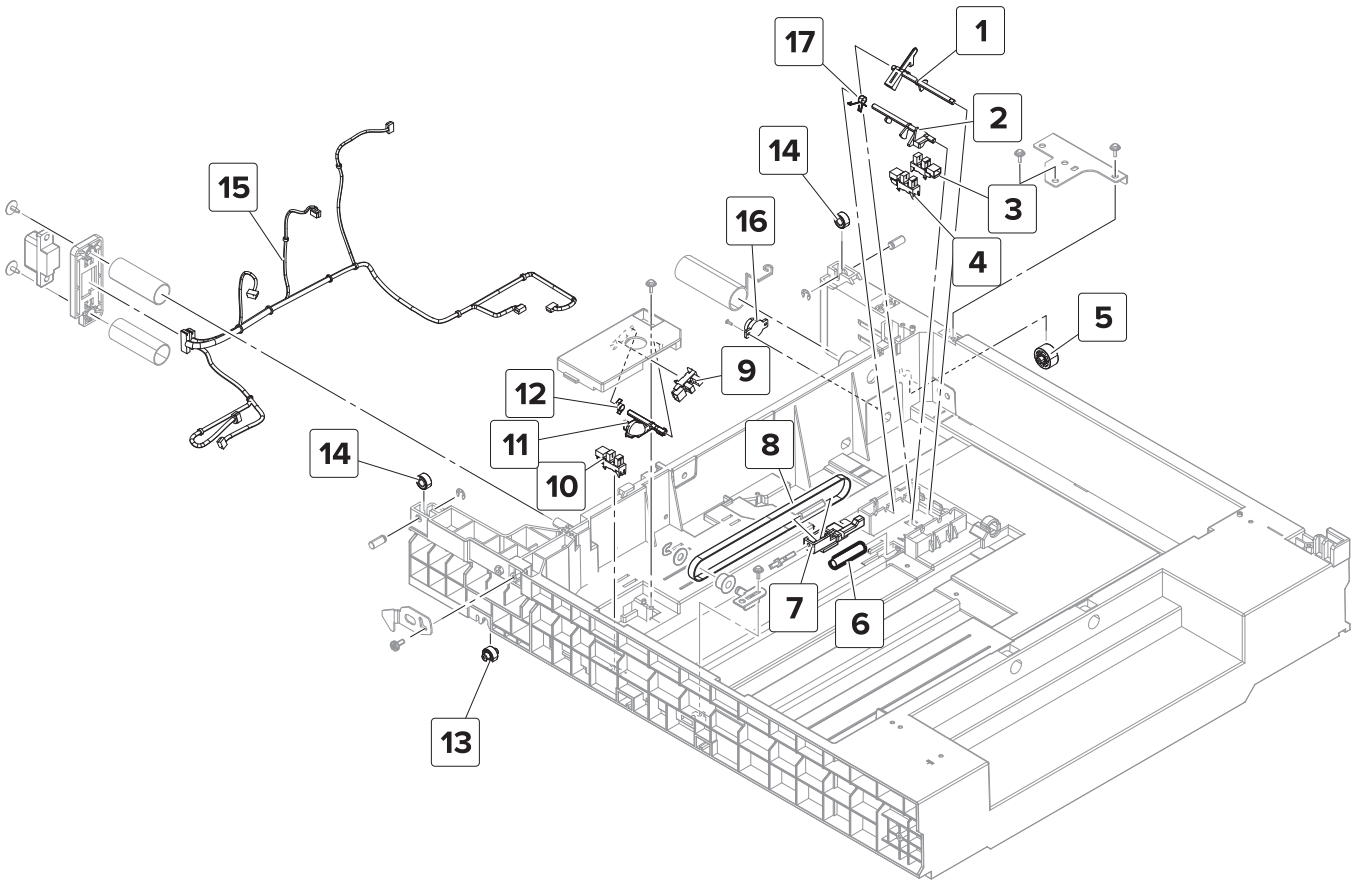
Assembly 70: 2500-sheet tray—Tray insert 3



Assembly 70: 2500-sheet tray—Tray insert 3

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9796	1	1	Transfer guide primary gear	--
2	40X9798	1	1	Main tray elevator coupling	--
3	40X9901	2	1	Main tray elevator gear spring	--
4	40X9902	1	1	Main tray elevator gear	--
5	40X9797	1	1	Transfer guide primary gear spring	--
6	40X9795	1	1	Transfer guide secondary gear	--

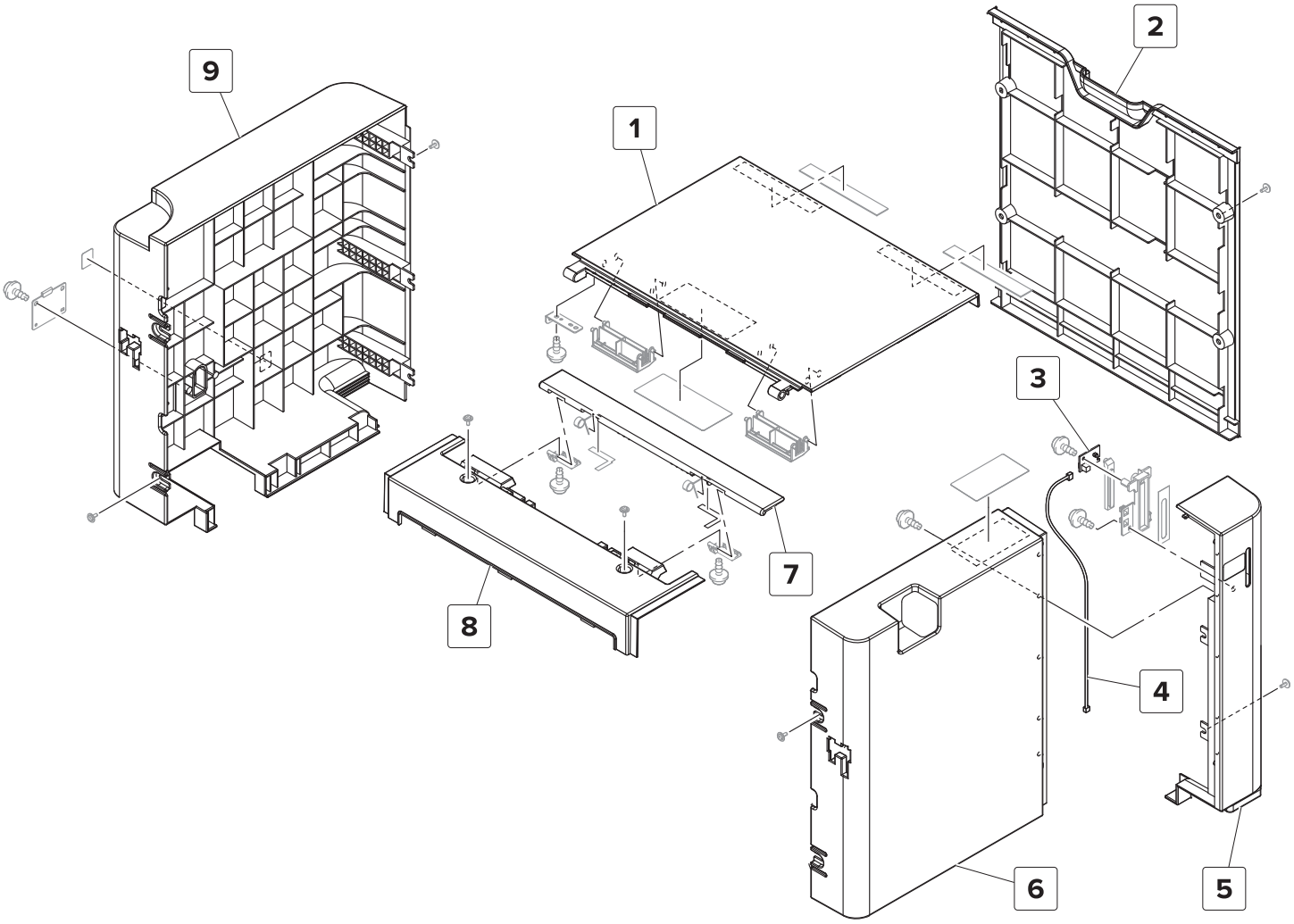
Assembly 71: 2500-sheet tray—Tray insert 4



Assembly 71: 2500-sheet tray—Tray insert 4

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9802	1	1	2500-sheet tray main tray empty sensor bottom actuator	“2500-sheet tray main tray empty sensor bottom actuator removal” on page 732
2	40X9801	1	1	2500-sheet tray elevator home sensor actuator	“2500-sheet tray elevator home sensor actuator removal” on page 733
3	41X1391	1	1	Sensor (main tray empty, bottom)	“Sensor (2500-sheet tray main tray empty, bottom) removal” on page 736
4	41X1391	1	1	Sensor (2500-sheet tray elevator home)	“Sensor (2500-sheet tray elevator home) removal” on page 735
5	40X9799	1	1	Tray insert bottom right guide wheel	--
6	40X9804	1	1	2500-sheet tray transfer guide stop spring	--
7	40X9803	1	1	2500-sheet tray transfer guide stop	“2500-sheet tray transfer guide stop removal” on page 734
8	40X9808	1	1	Transfer guide belt	--
9	41X1391	1	1	Sensor (reserve tray empty)	“Sensor (2500-sheet tray reserve tray empty) removal” on page 740
10	41X1391	1	1	Sensor (2500-sheet tray transfer guide home)	“Sensor (2500-sheet tray transfer guide home) removal” on page 739
11	40X9900	1	1	Reserve tray empty sensor actuator	“2500-sheet reserve tray empty sensor actuator removal” on page 738
12	40X9883	1	1	Reserve tray empty sensor actuator spring	“2500-sheet reserve tray empty sensor actuator removal” on page 738
13	40X9805	1	1	Tray insert bottom left guide wheel	--
14	40X9305	2	1	Tray insert guide wheel	--
15	40X9809	1	1	2500-sheet tray tray insert sensor cable	--
16	40X9806	1	1	2500-sheet tray elevator damper	--
17	40X9800	1	1	2500-sheet tray elevator home sensor actuator spring	--

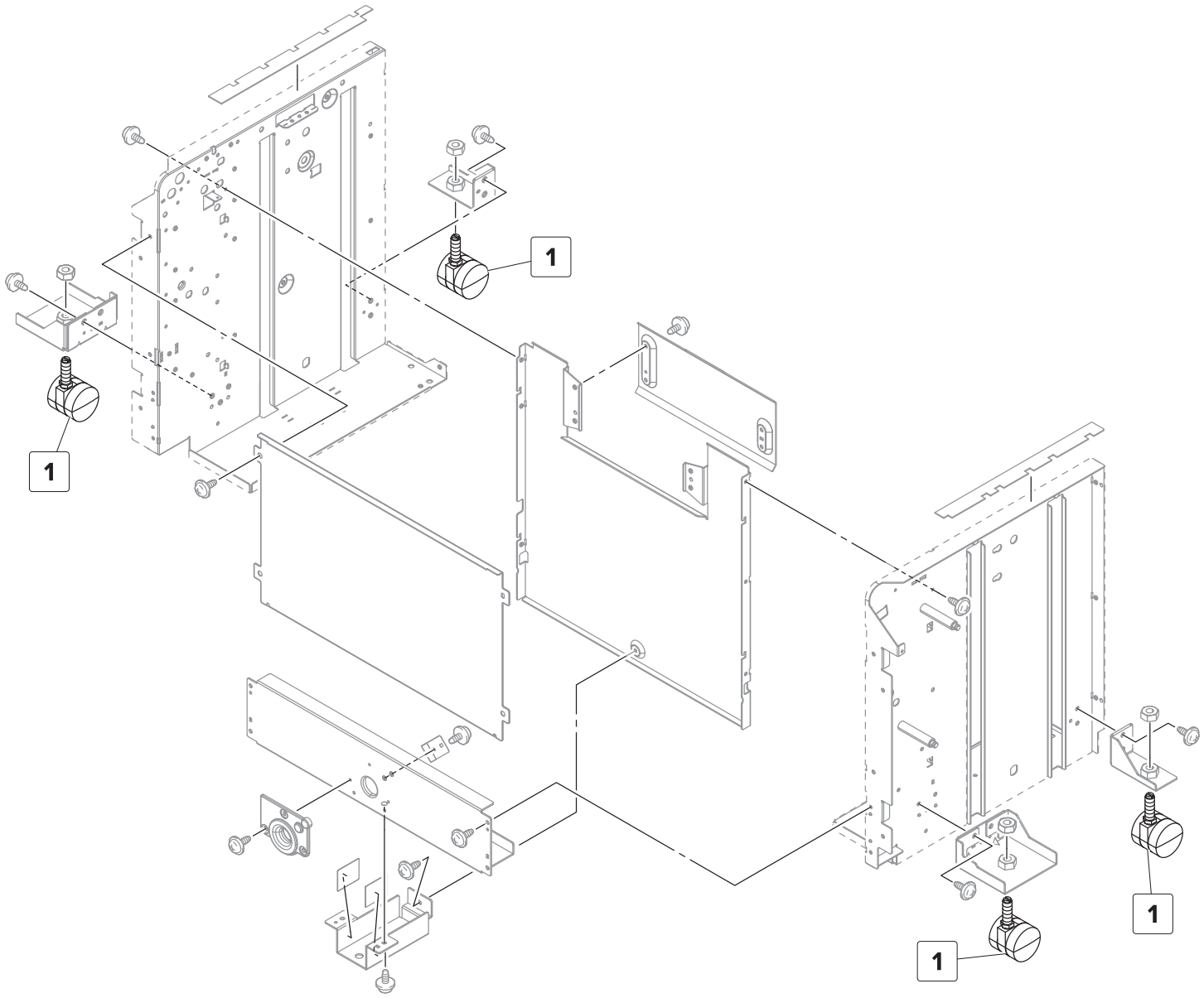
Assembly 72: 3000-sheet tray—Covers



Assembly 72: 3000-sheet tray—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9260	1	1	3000-sheet tray top door	“3000-sheet tray door removal” on page 788
2	40X9255	1	1	3000-sheet tray right cover	“3000-sheet tray right cover removal” on page 786
3	40X8903	1	1	3000-sheet tray empty LED	“3000-sheet tray empty LED removal” on page 791
4	40X9257	1	1	3000-sheet tray empty LED cable	--
5	40X9884	1	1	3000-sheet tray empty LED cover	“3000-sheet tray front cover removal” on page 786
6	40X9256	1	1	3000-sheet tray front cover	“3000-sheet tray front cover removal” on page 786
7	40X9259	1	1	3000-sheet tray slit cover	--
8	40X9765	1	1	3000-sheet tray left top cover	“3000-sheet tray left top cover removal” on page 789
9	40X9258	1	1	3000-sheet tray rear cover	“3000-sheet tray rear cover removal” on page 787

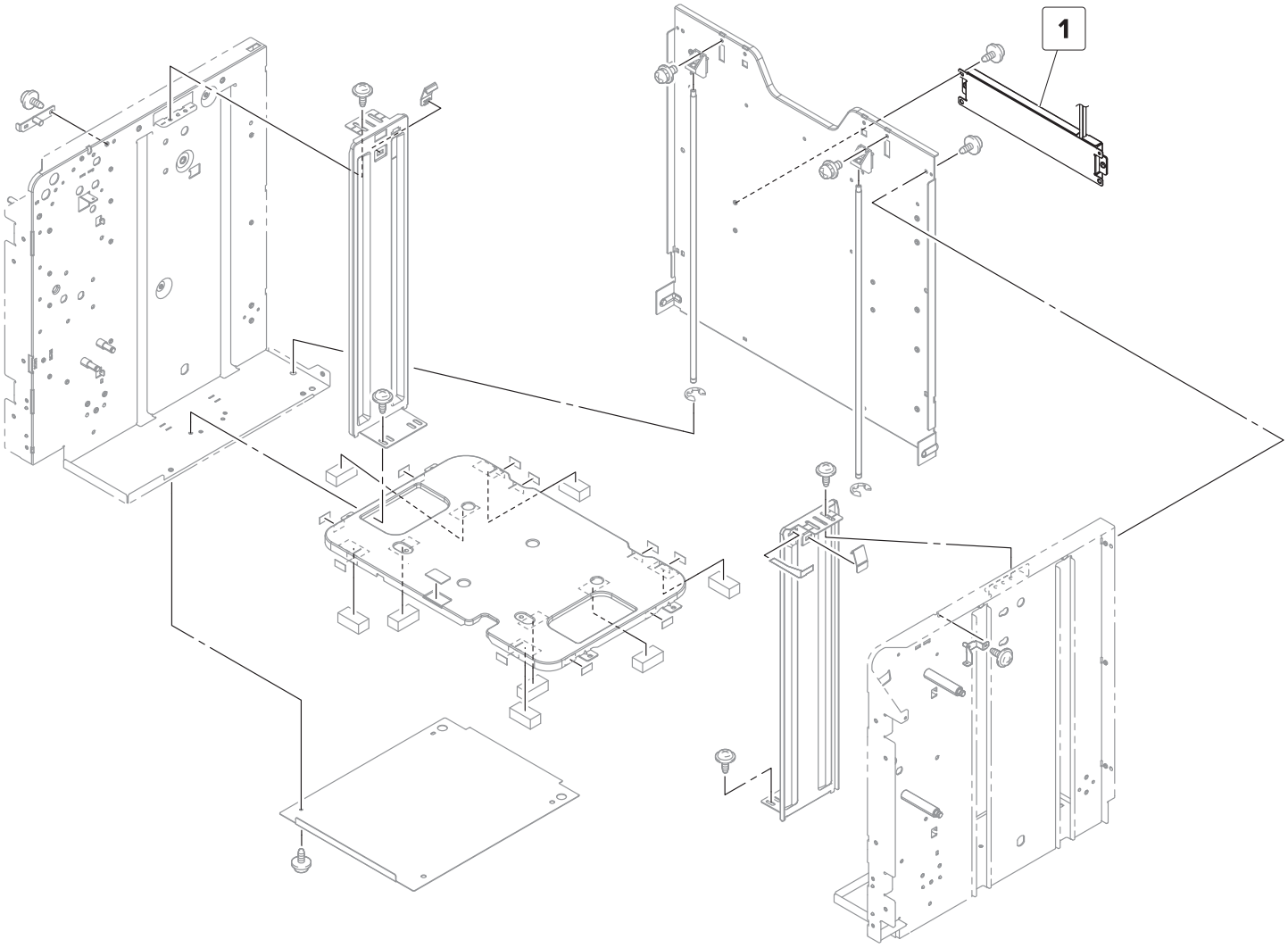
Assembly 73: 3000-sheet tray—Frame 1



Assembly 73: 3000-sheet tray—Frame 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9279	4	1	3000-sheet tray caster wheel	“3000-sheet tray caster wheel removal” on page 783

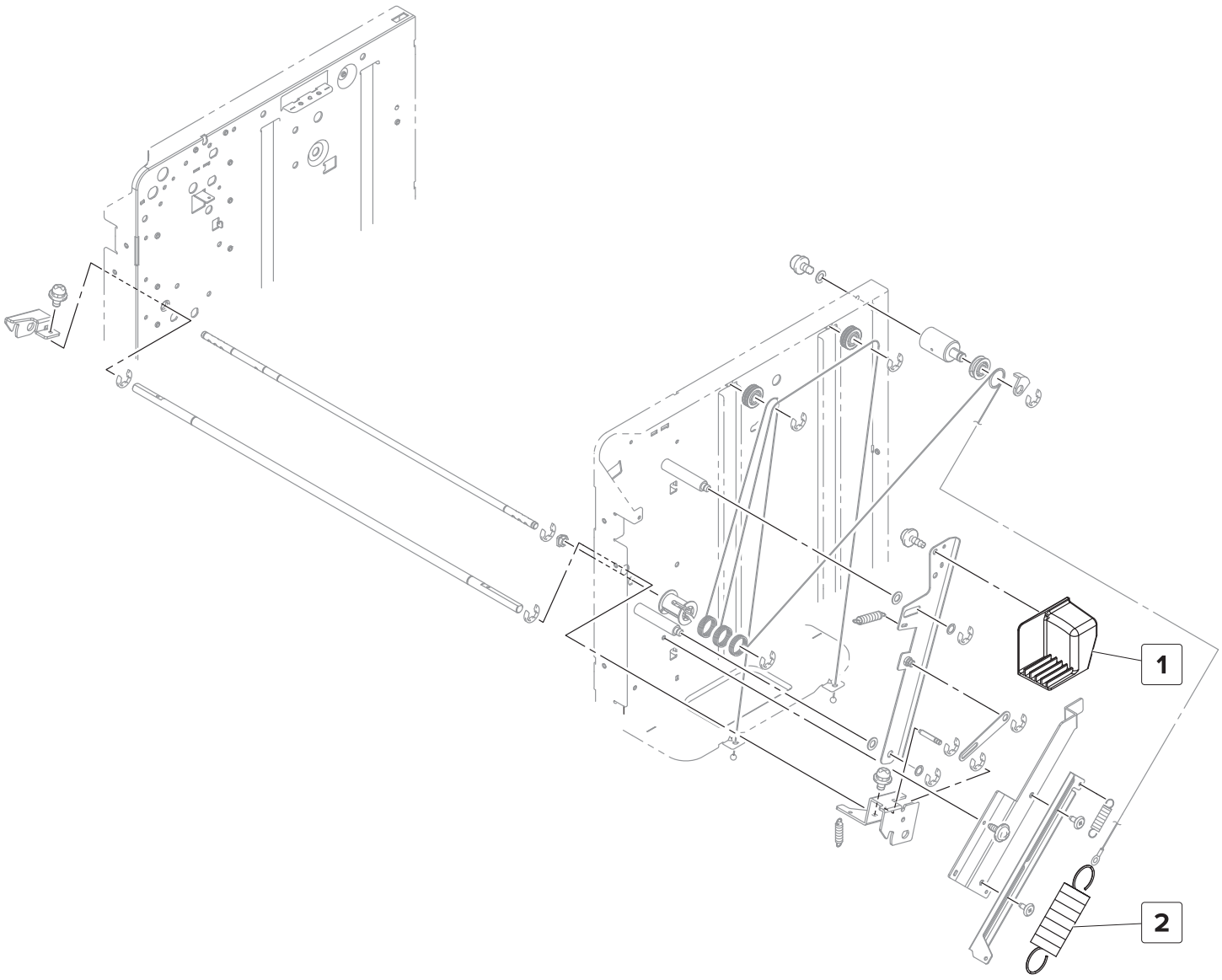
Assembly 74: 3000-sheet tray—Frame 2



Assembly 74: 3000-sheet tray—Frame 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9261	1	1	Dehumidifier	“Dehumidifier removal” on page 790

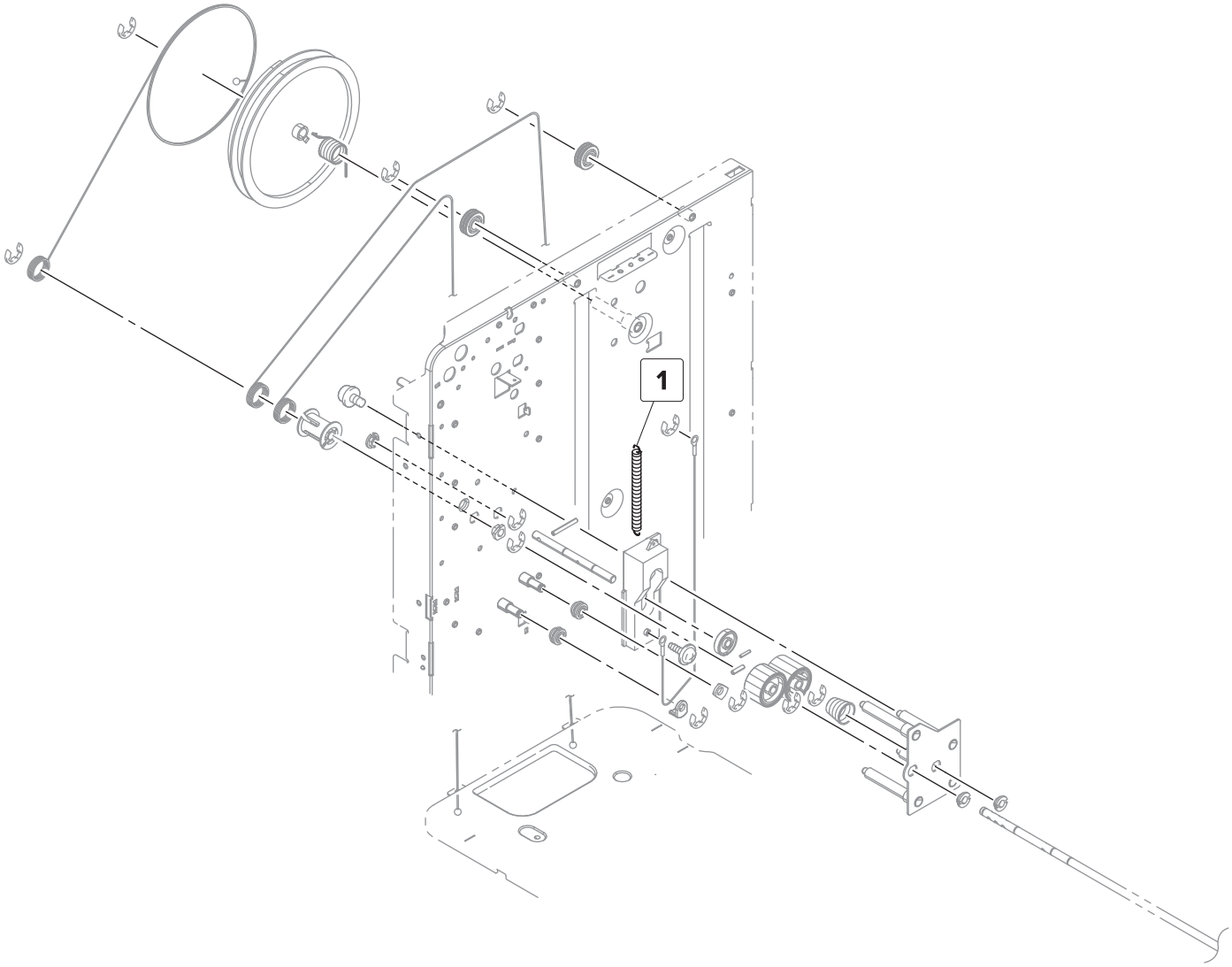
Assembly 75: 3000-sheet tray—Elevator front section



Assembly 75: 3000-sheet tray—Elevator front section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9275	1	1	3000-sheet tray release handle	“3000-sheet tray release handle removal” on page 784
2	40X9276	1	1	3000-sheet tray elevator spring	“3000-sheet tray elevator spring removal” on page 794

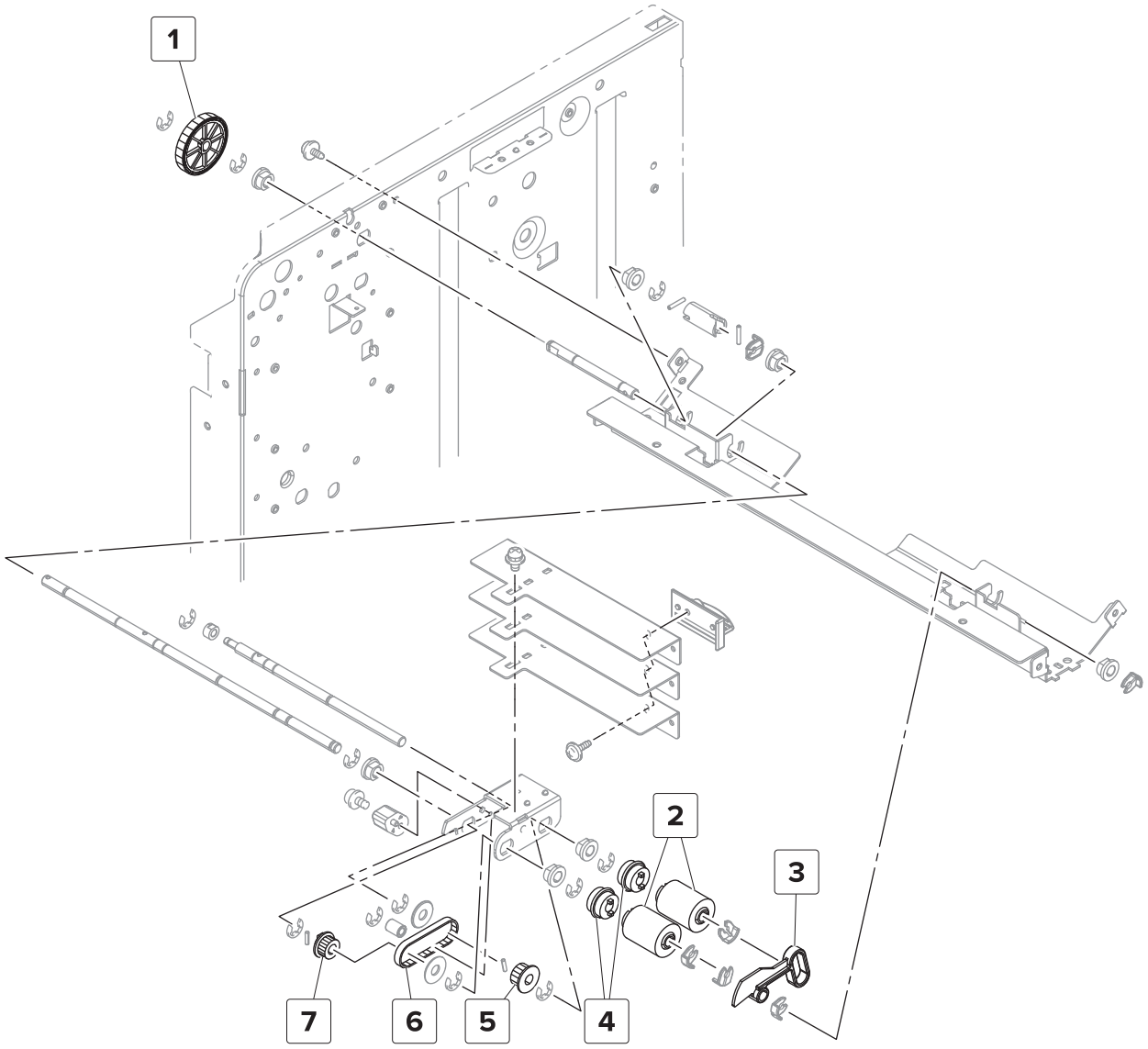
Assembly 76: 3000-sheet tray—Elevator rear section



Assembly 76: 3000-sheet tray—Elevator rear section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9277	1	1	3000-sheet tray elevator release spring	--

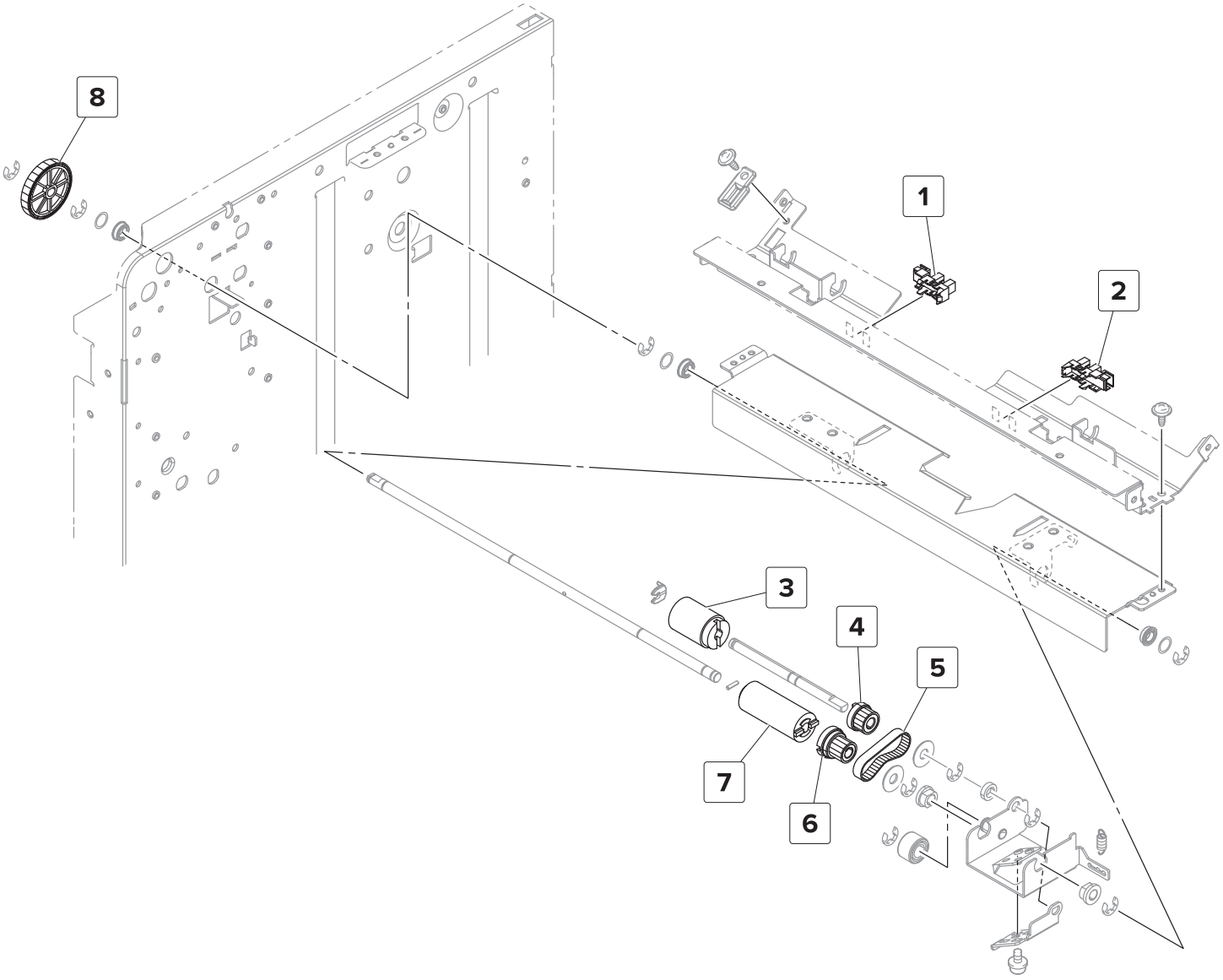
Assembly 77: 3000-sheet tray—Paper feed 1



Assembly 77: 3000-sheet tray—Paper feed 1

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9886	1	1	3000-sheet tray feed and pick drive gear	“3000-sheet tray pick roller assembly removal” on page 804
2	41X1874	2	1	Feed and pick roller	“3000-sheet tray rollers removal” on page 779
3	40X9881	1	1	3000-sheet tray empty sensor actuator	“3000-sheet tray rollers removal” on page 779
4	40X9297	2	1	3000-sheet tray roller clutch	“3000-sheet tray rollers removal” on page 779
5	40X9048	1	1	3000-sheet tray pick gear	“3000-sheet tray feed and pick belt removal” on page 781
6	40X9268	1	1	3000-sheet tray feed and pick belt	“3000-sheet tray feed and pick belt removal” on page 781
7	40X9772	1	1	3000-sheet tray feed gear	“3000-sheet tray feed and pick belt removal” on page 781

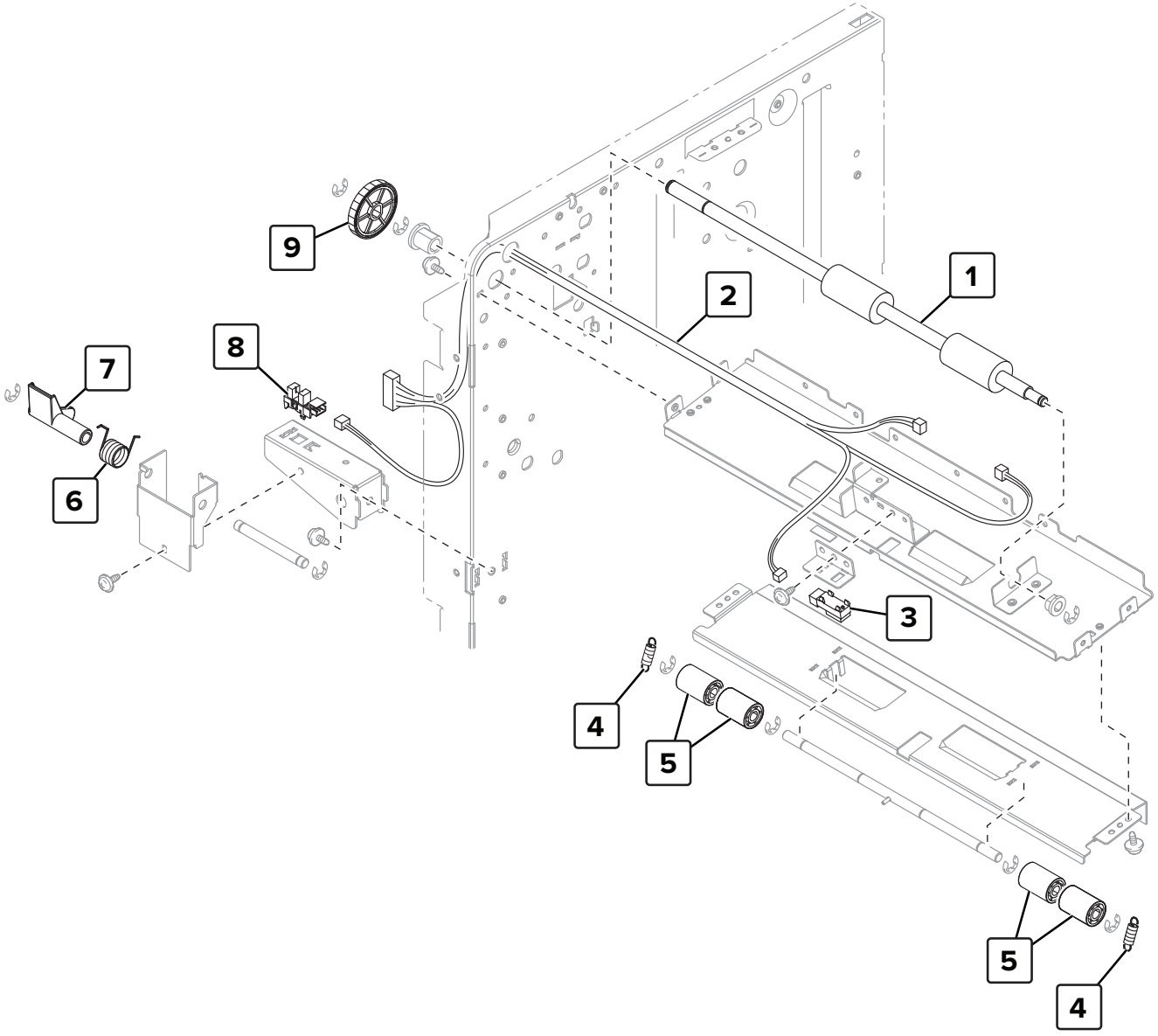
Assembly 78: 3000-sheet tray—Paper feed 2



Assembly 78: 3000-sheet tray—Paper feed 2

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9880	1	1	Sensor (3000-sheet tray elevator level)	“Sensor (3000-sheet tray elevator level) removal” on page 792
2	40X9880	1	1	Sensor (3000-sheet tray empty)	“Sensor (3000-sheet tray empty) removal” on page 791
3	41X1874	1	1	3000-sheet tray separator roller	“3000-sheet tray feed roller assembly removal” on page 801
4	40X9887	1	1	3000-sheet tray separator roller secondary gear	“3000-sheet tray feed roller assembly removal” on page 801
5	40X9271	1	1	3000-sheet tray separator belt	“3000-sheet tray feed roller assembly removal” on page 801
6	40X9773	1	1	3000-sheet tray separator roller primary gear	“3000-sheet tray feed roller assembly removal” on page 801
7	40X9888	1	1	3000-sheet tray separator roller clutch	“3000-sheet tray feed roller assembly removal” on page 801
8	40X9886	1	1	3000-sheet tray separator roller drive gear	“3000-sheet tray feed roller assembly removal” on page 801

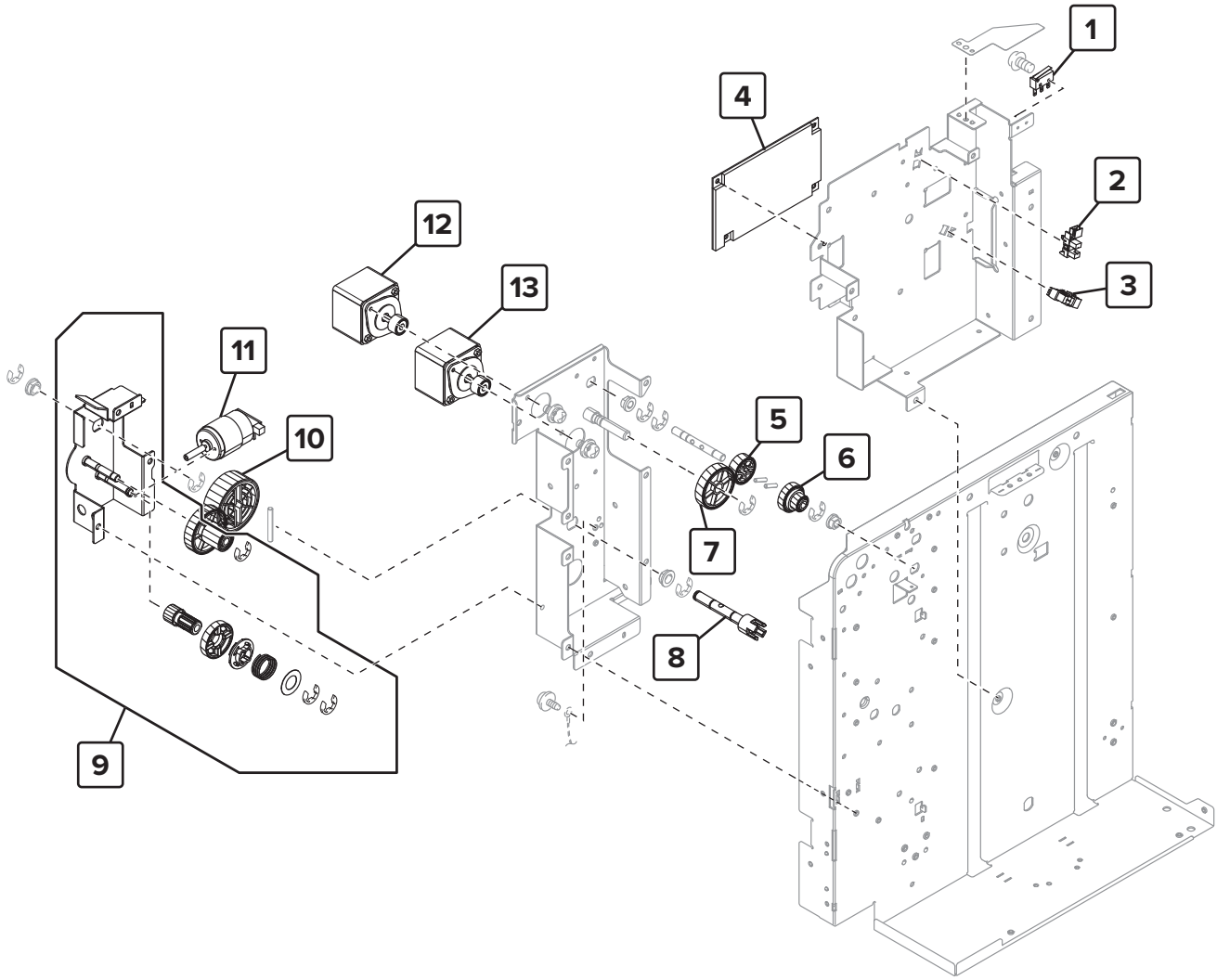
Assembly 79: 3000-sheet tray—Paper transport



Assembly 79: 3000-sheet tray—Paper transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9273	1	1	3000-sheet tray transport roller	“3000-sheet tray feed roller assembly removal” on page 801
2	40X8929	1	1	3000-sheet tray feed sensor cable	--
3	40X9885	1	1	Sensor (3000-sheet tray feed)	“Sensor (3000-sheet tray feed) removal” on page 793
4	40X9770	1	1	3000-sheet tray transport idler roller spring	--
5	40X9771	4	1	3000-sheet tray transport idler roller	“3000-sheet tray feed roller assembly removal” on page 801
6	40X9373	1	1	3000-sheet tray set sensor actuator spring	“3000-sheet tray set sensor actuator removal” on page 796
7	40X9040	1	1	3000-sheet tray set sensor actuator	“3000-sheet tray set sensor actuator removal” on page 796
8	40X9880	1	1	Sensor (3000-sheet tray set)	“Sensor (3000-sheet tray set) removal” on page 797
9	40X9769	1	1	3000-sheet tray transport roller drive gear	“3000-sheet tray feed roller assembly removal” on page 801

Assembly 80: 3000-sheet tray—Drive section



Assembly 80: 3000-sheet tray—Drive section

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	40X9266	1	1	3000-sheet tray door switch	--
2	40X9880	1	1	Sensor (3000-sheet tray near empty 1)	--
3	40X9880	1	1	Sensor (3000-sheet tray near empty 2)	--
4	41X2009	1	1	3000-sheet tray controller board	--
5	40X9767	1	1	3000-sheet tray feed motor idler gear	--
6	40X9766	1	1	3000-sheet tray feed and pick idler gear	--
7	40X9768	1	1	3000-sheet tray feed motor gear	--
8	41X2008	1	1	3000-sheet tray elevator drive shaft	--
9	41X2005	1	1	3000-sheet tray elevator drive	--
10	41X2007	1	1	3000-sheet tray elevator drive gear	--
11	41X2006	1	1	Motor (3000-sheet tray elevator drive)	--
12	40X9269	1	1	Motor (3000-sheet tray transport)	--
13	40X9269	1	1	Motor (3000-sheet tray feed)	--

Assembly 81: 3000-sheet tray—Wiring

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
NS	40X9202	1	1	3000-sheet tray controller board cable	--
NS	40X9698	1	1	3000-sheet tray interface cable	--

Assembly 82: Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0997	1	1	Authentication device, contact front	--
NS	40X9934	1	1	Hard disk drive, 500 GB	--
NS	41X1372	1	1	Wireless network card	--
NS	40X7854	1	1	Fax card	--
NS	40X4819	1	1	RS-232C serial adapter	--
NS	40X4823	1	1	1284-B THCK parallel adapter	--
NS	40X9652	1	1	Fiber gigabit ISP adapter	--
NS	41X0028	1	1	DDR3 RAM, 2 GB	--
NS	40X1368	1	1	USB cable	--
NS	41X1010	1	1	Flash memory, 256 MB	--
NS	40X8568	1	1	Font card, Korean	--
NS	40X8556	1	1	Font card, Traditional Chinese	--
NS	40X8557	1	1	Font card, Simplified Chinese	--
NS	40X8569	1	1	Font card, Japanese	--
NS	41X1002	1	1	Forms and barcode card	--
NS	41X1006	1	1	PRESCRIBE card	--
NS	41X1004	1	1	IPDS SCS TNE card	--
NS	40X1367	1	1	Parallel cable	--
NS	40X1766	1	1	Power cord, Bolivia and Peru	--
NS	40X0303	1	1	Power cord, China	--
NS	40X0259	1	1	Power cord, Brazil	--
NS	40X0301	1	1	Power cord, Australia and New Zealand	--
NS	40X1774	1	1	Power cord, Denmark	--
NS	40X1767	1	1	Power cord, Europe	--
NS	40X7229	1	1	Power cord, India	--
NS	40X1792	1	1	Power cord, Korea	--
NS	40X1773	1	1	Power cord, South Africa	--
NS	40X0288	1	1	Power cord, Argentina	--
NS	40X0275	1	1	Power cord, Israel	--
NS	40X0273	1	1	Power cord, Italy	--
NS	40X0270	1	1	Power cord, Japan	--
NS	40X0271	1	1	Power cord, UK	--
NS	40X1772	1	1	Power cord, Switzerland	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	40X1791	1	1	Power cord, Taiwan	--
NS	40X7104	1	1	Power cord, US and Canada	--
NS	41X2704	1	1	Cable assembly 1 (CX922, CX923, CX924, XC9245, XC9255, XC9265, CS923) **Note:** Refer to the wiring diagrams to know which connectors are included.	--
NS	41X2706	1	1	Cable assembly 3 (CX922, CX923, CX924, XC9245, XC9255, XC9265, CS923) **Note:** Refer to the wiring diagrams to know which connectors are included.	--
NS	41X2707	1	1	Cable assembly 2 SFP (CS923 **Note:** Refer to the wiring diagrams to know which connectors are included.	--

Printer specifications

Power consumption

Product power consumption

Model	Operating mode						
	Print	Copy	Scan	Ready	Sleep	Hibernate	Off
CS923	1050 W	N/A	N/A	200 W	2.2 W	0.2 W	0 W

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. Go to **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):	15

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 and to install hardware options.

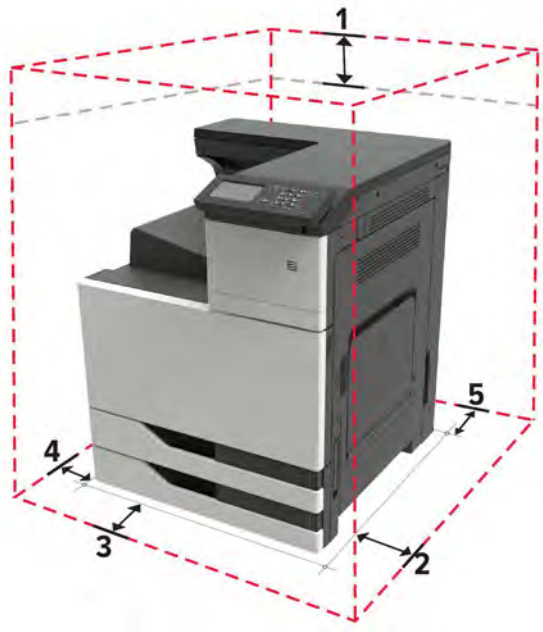
- Set up the printer near an electrical outlet.

  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—SHOCK HAZARD: To avoid the risk of electrical shock, do not place or use this product near water or wet locations.
- 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 30°C (50 to 86°F)
Storage temperature	-10 to 40°C (14 to 104°F)

- Allow the following recommended amount of space around the printer for proper ventilation:



1	Top	150 mm (5.9 in.)
2	Right side	400 mm (15.70 in.)
3	Front	444.5 mm (17.50 in.)
4	Left side	120 mm (4.80 in.)
5	Rear	120 mm (4.80 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	One-sided: 53 Two-sided: 54
Ready	26

Values are subject to change. See **www.lexmark.com** for current values.

Temperature information

Ambient operating temperature	10 to 30°C (50 to 86°F)
Shipping temperature	-10 to 40°C (14 to 104°F)

Storage temperature and relative humidity	-10 to 40°C (14 to 104°F) 15 to 85% RH

Options and features

Some of the options may not be available in every country or region.

Available internal options

- Memory card
  - DDR3 DIMM
  - Flash memory
    - Fonts
  - Application cards
    - Forms and Bar Code
    - PRESCRIBE
    - IPDS
- Lexmark Internal Solutions Port (ISP)
  - MarkNet™ N8370 Wi-Fi option
  - IEEE 1284-B Parallel Card
  - RS-232C Serial Card

Input/output configurations and capacities

Input sources

Printer model	Number of standard trays	Maximum number of optional trays*	Maximum number of trays
CS923de	3	3	6
* The printer can support a maximum of three optional trays in one configuration.			

Input capacities

Printer model	500-sheet trays	Multipurpose feeder	Total standard capacity	Maximum input capacity
CS923de	1000	150	1150	6650

Input capacity by paper and source

Source		Minimum supported standard size	Maximum supported standard size	Supported custom width (mm)	Supported custom length (mm)	Paper basis weight (g/m^2)	Paper capacity[1]
500-sheet trays	Trays 1, 3, and 4	A5 short edge first	• A3 short edge first • 11 x 17 short edge first	139.7–297	182–431.8	60–256	500 per tray
	Tray 2		• SRA3 short edge first • 12 x 18 short edge first		320–457.2		500
2500-sheet tray	Tray 3	• A4 long edge first • Letter long edge first		N/A			2500
MPF[2]	MPF tray	• Postcard • Envelope	• SRA3 short edge first • 12 x 18 short edge first • Banner	90–320	139.7–1200		150
3000-sheet tray	Trays 4 and 5	• A4 long edge first • Letter long edge first		N/A			3000

[a] Paper capacity means 20-lb xerographic paper at ambient environment per sheet.

[b] The MPF can support up to 125 transparencies, 81 card stock sheets, 75 labels, 25 envelopes.

Supported output options

- Staple finisher
- Staple, hole punch finisher
- Booklet maker

Theory of operation

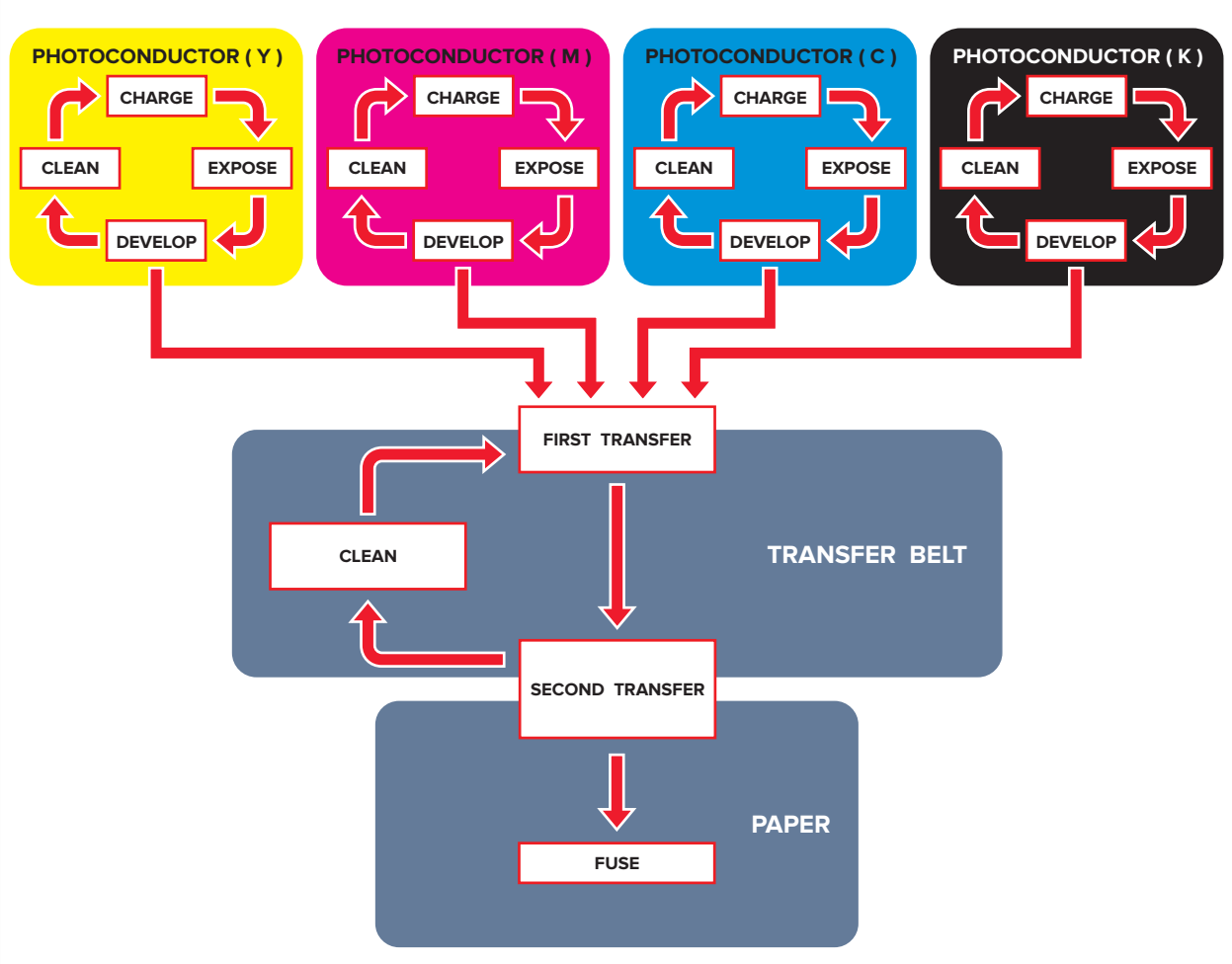
Printer control

The raster image processor (RIP) code performs system responsibilities such as computer connection, LAN, ISP attachments, and bitmap generation. The engine code performs tasks related to the operation of the electrical and mechanical device systems such as motors, lasers, power supplies, and fusers. The NVRAMs are located on the controller board and control panel. Replacement of either the controller board or control panel will pull or mirror NVRAM data from each other.

Print cycle operation

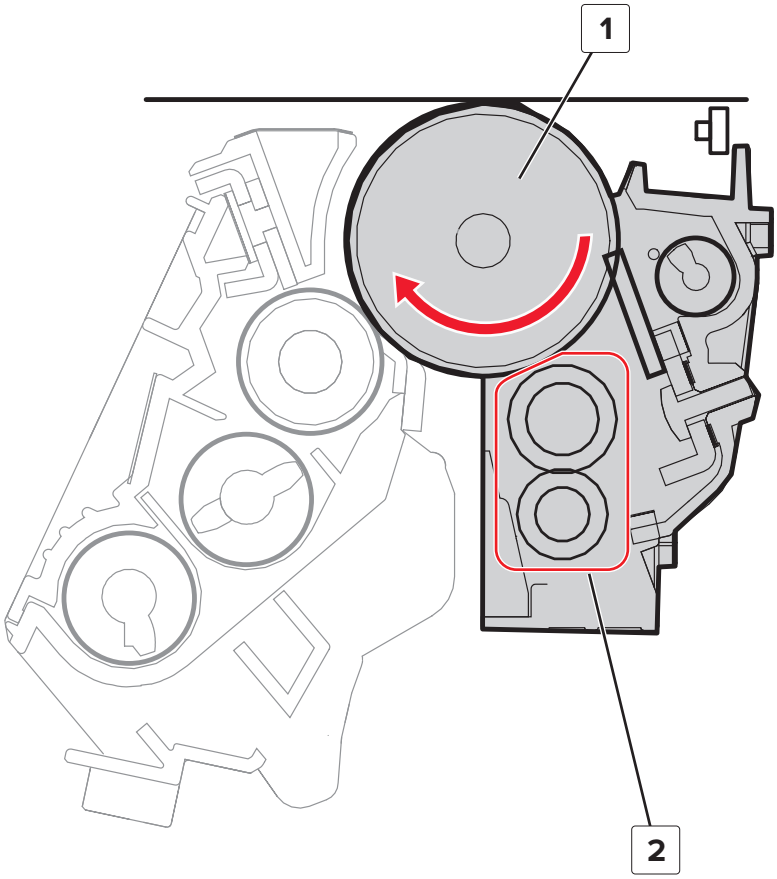
Print cycle

Flowchart



Charge

A uniform negative electrical charge is applied to the surface of the photoconductor roller. The photoconductive properties of the surface material allow it to hold the charge as long as it is not exposed to light.



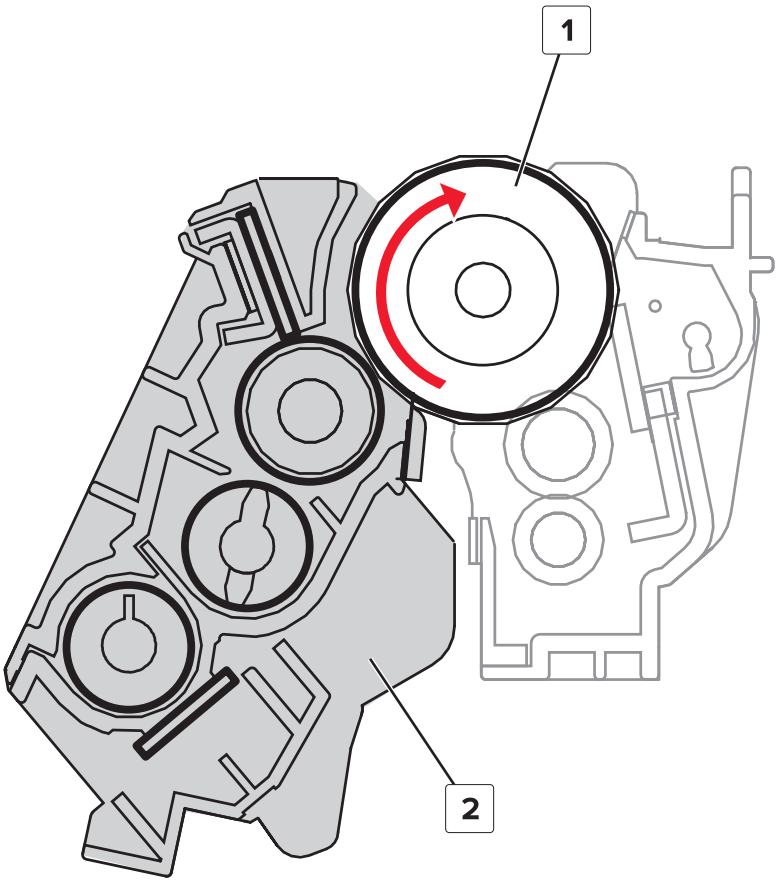
#	Part
1	Photoconductor roller
2	Charge source

Expose

The printhead emits the light that hits the surface of the photoconductor. The light turns on or off coinciding with the digital image that is printed. The light causes areas of the photoconductor surface to lose its charge resulting in a relative opposite polarity.

Develop

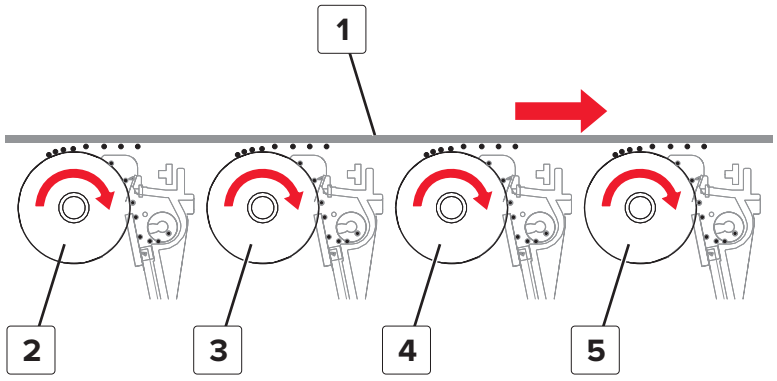
The developer feeds the toner from the toner cartridge to the photoconductor. The difference in charge causes the toner particles to attract to the areas of the photoconductor exposed to light.



#	Part
1	Photoconductor roller
2	Developer

First transfer

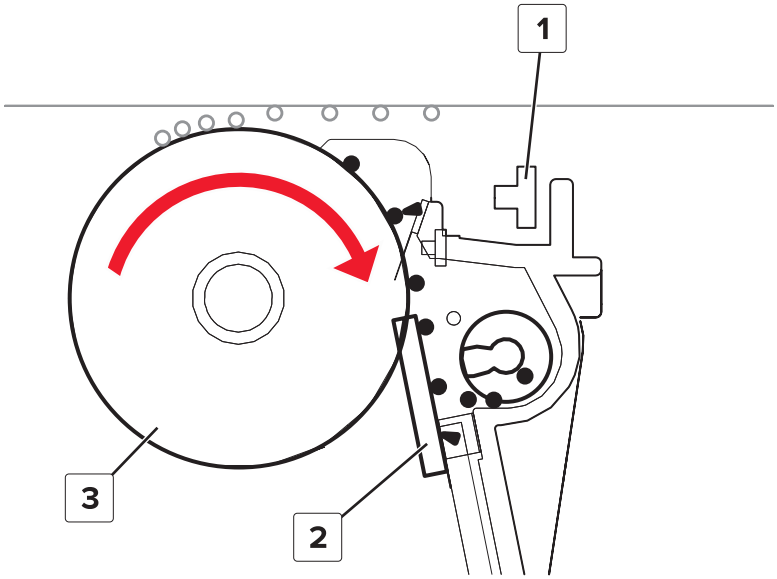
The developed image transfers from the photoconductor rollers to the transfer belt. Due to relative opposite polarities, the transfer belt pressed against the photoconductors attracts the toner onto its surface.



#	Part
1	Transfer belt
2	Y photoconductor
3	M photoconductor
4	C photoconductor
5	K photoconductor

Clean (photoconductor)

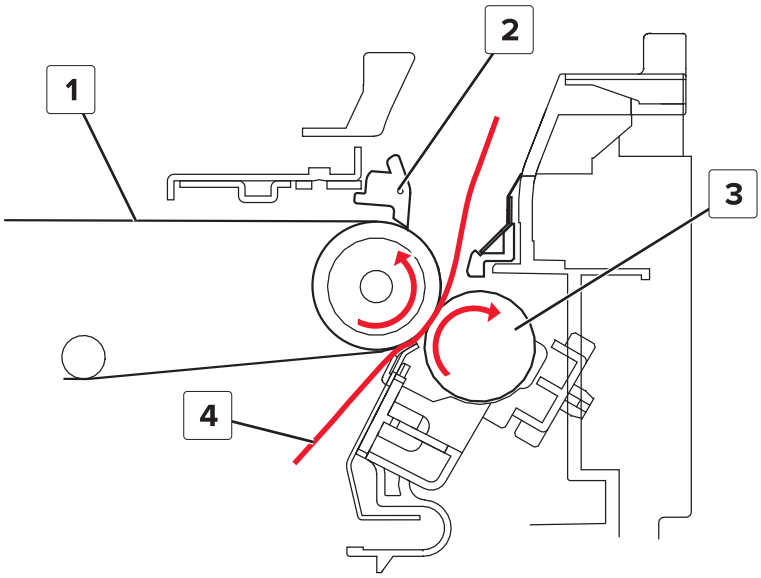
The erase LED emits light that neutralizes the remaining charge on the photoconductor surface. As a result, the toner loosens or separates from the photoconductor. A cleaning blade scrapes off the remaining toner. The cycle (charge, expose, develop, first transfer, clean) repeats until the whole image is transferred to the transfer belt.



#	Part
1	Erase LED
2	Cleaning blade
3	Photoconductor roller

Second transfer

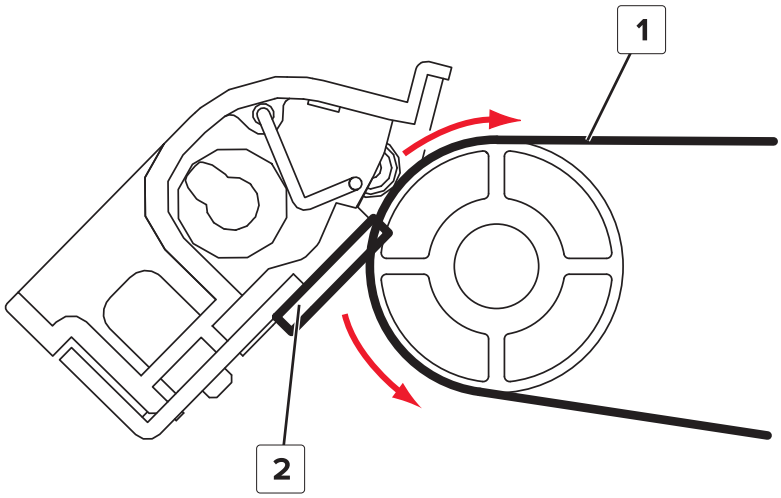
The whole image from the transfer belt is transferred again, this time onto the paper. The paper, which is pressed between the transfer belt and transfer roller, attracts the toner to its surface. As the paper moves up, a separator guide prevents it from entering the top side of the transfer belt.



#	Part
1	Transfer belt
2	Separator guide
3	Transfer roller
4	Paper

Clean (transfer belt)

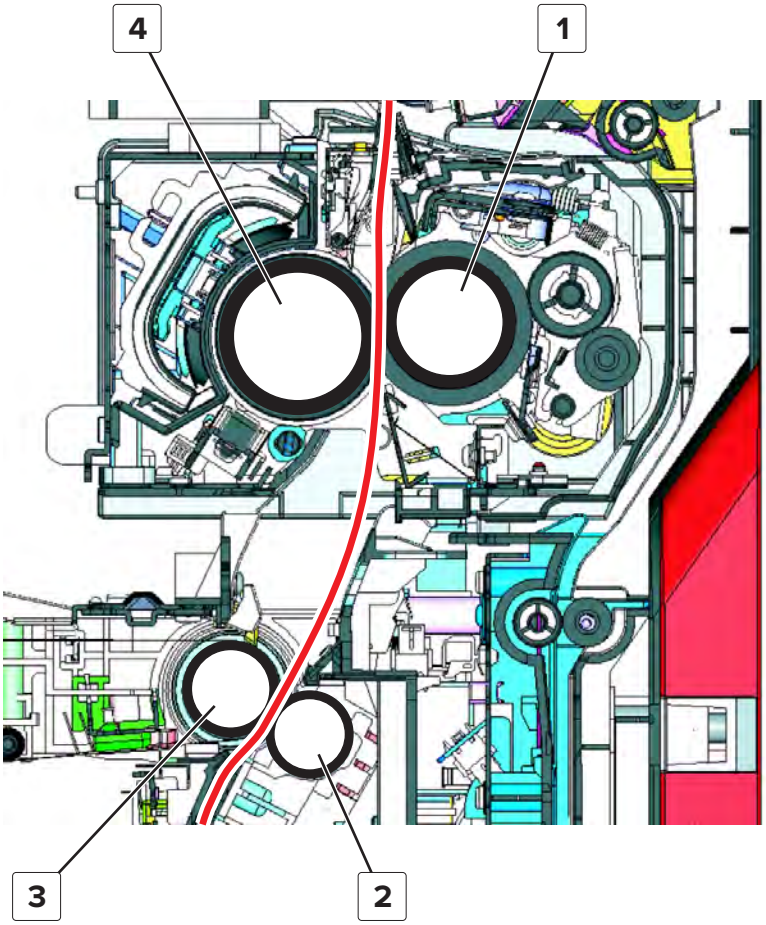
Some residual toner stick to the surface of the transfer belt. To prevent contamination on the next image, a cleaning blade scrapes off the toner from the transfer belt surface. Waste toner from the transfer belt and photoconductor is transported to the waste toner bottle. The cycle (first transfer, second transfer, clean) repeats for the succeeding print jobs.



#	Part
1	Transfer belt
2	Cleaning blade

Fuse

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, 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.



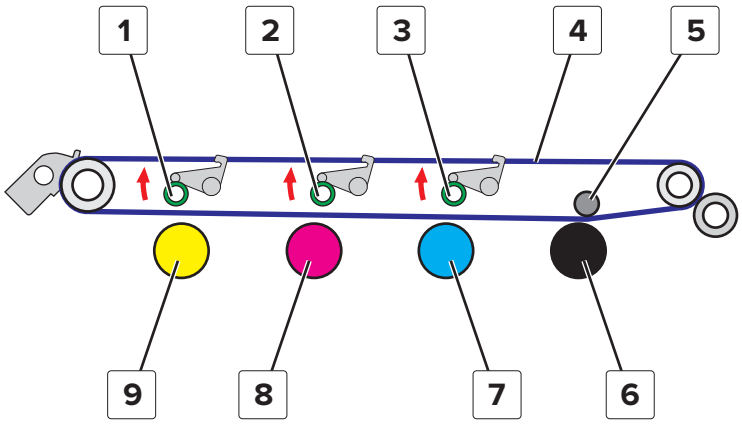
#	Part
1	Pressure roller
2	Transfer roller
3	Transfer belt
4	Heat roller

Print mode control

The Y, M, and C transfer rollers have pressure mechanisms which allow the rollers to raise, or press the transfer belt against the photoconductor. The K transfer roller does not have a pressure mechanism.

Black mode

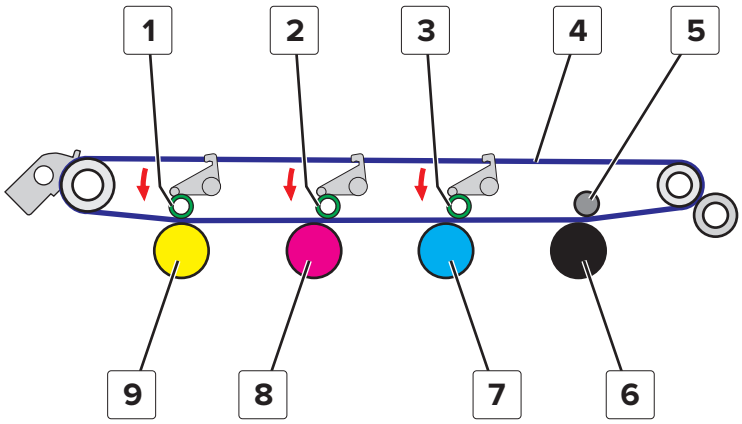
The Y, M, and C transfer rollers are raised, and the transfer belt is retracted from the Y, M, and C photoconductors. Only the K transfer roller presses the transfer belt against the photoconductor.



#	Part
1	Y transfer roller
2	M transfer roller
3	C transfer roller
4	Transfer belt
5	K transfer roller
6	K photoconductor
7	C photoconductor
8	M photoconductor
9	Y photoconductor

Color mode

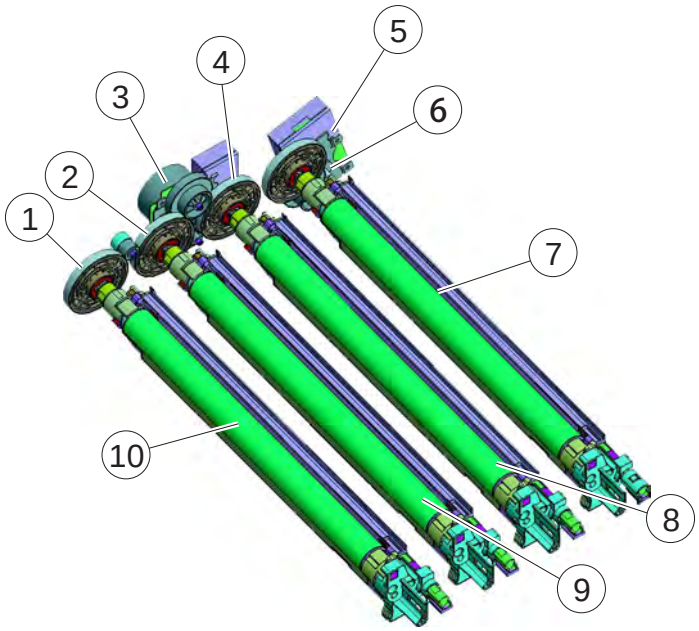
The Y, M, and C transfer roller pressure mechanisms are engaged. All transfer rollers press the transfer belt against the photoconductors.



#	Part
1	Y transfer roller
2	M transfer roller
3	C transfer roller
4	Transfer belt
5	K transfer roller
6	K photoconductor
7	C photoconductor
8	M photoconductor
9	Y photoconductor

Photoconductor drive

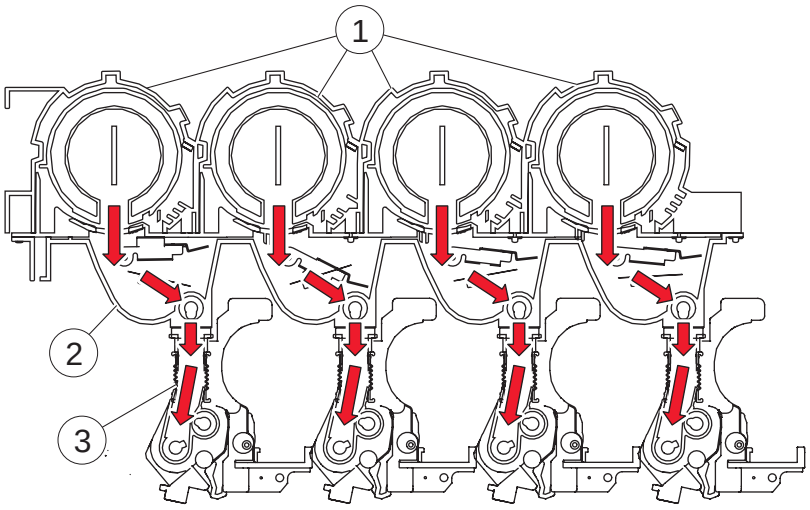
Two independent motors are used in the photoconductor drive mechanism to suppress incorrect color registration and uneven pitch. The motor (photoconductor) drives the C, M, and Y photoconductor drums and augers. The motor (transport) drives the K photoconductor drum and auger.



#	Part
1	Y photoconductor drive gear
2	M photoconductor drive gear
3	Motor (photoconductor)
4	C photoconductor drive gear
5	Motor (transport)
6	K photoconductor drive gear
7	K photoconductor drum
8	C photoconductor drum
9	M photoconductor drum
10	Y photoconductor drum

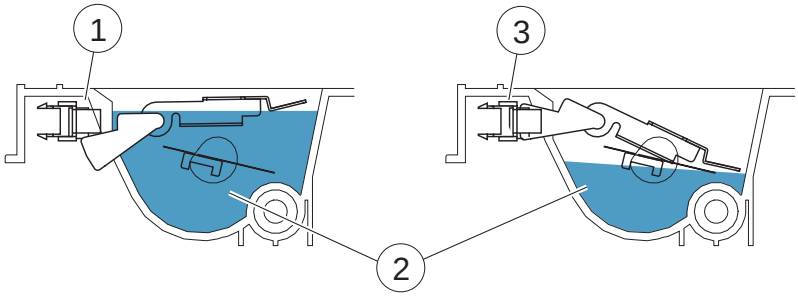
Toner refill drive

The toner cartridge supplies toner to the toner hopper. The toner hopper supplies toner to the developer unit through the toner replenishing pipe.



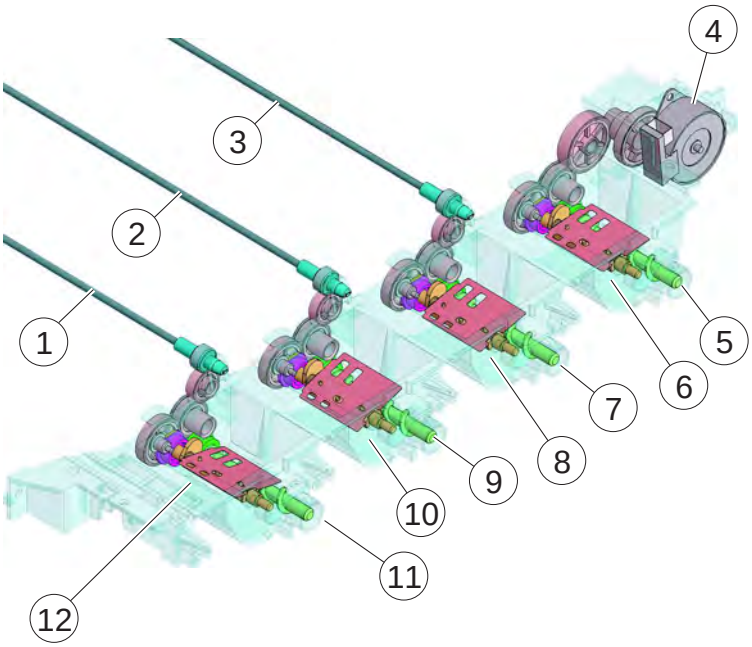
#	Part
1	Toner cartridge
2	Toner hopper
3	Toner replenishing pipe

The toner hopper of each color has a sensor (toner empty). When toner is low in the toner hopper, the sensor (toner empty) is triggered. The motor (toner cartridge) turns for a predetermined period to supply toner to the toner hopper.



#	Part
1	Sensor (toner empty) off
2	Toner
3	Sensor (toner empty) on

The motor (toner supply) of each color drives the toner conveying screw and toner agitating blade. The toner agitating blade rotates to agitate toner in the toner hopper. The toner conveying screw rotates to replenish the developer unit with toner.



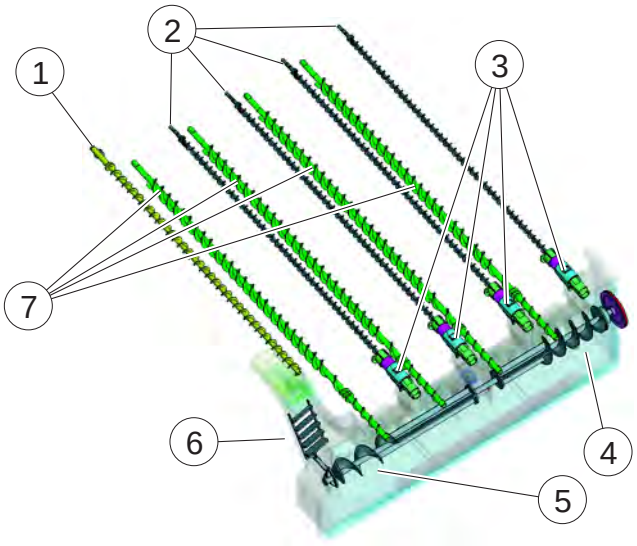
#	Part
1	Y motor (toner supply) drive
2	M motor (toner supply) drive
3	C motor (toner supply) drive
4	K motor (toner supply)
5	K toner conveying screw
6	K toner agitating blade
7	C toner conveying screw
8	C toner agitating blade
9	M toner conveying screw
10	M toner agitating blade
11	Y toner conveying screw
12	Y toner agitating blade

Waste toner drive

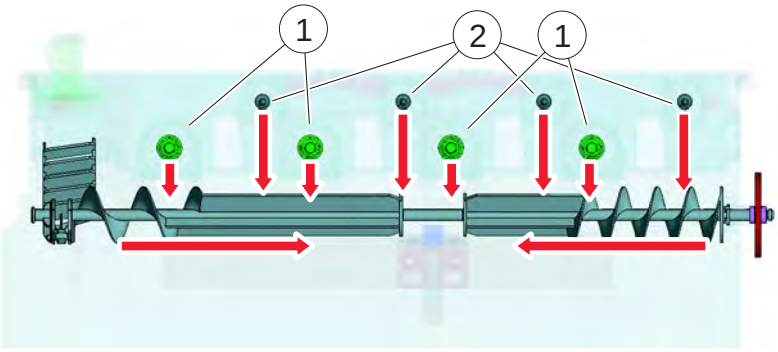
Cleaning blades remove toner residue from the photoconductor drums and transfer belt. The residue are transported to the waste toner bottle through the toner collecting screws and ports.

Inside the waste toner bottle, a toner agitating blade moves up and down as the screw rotates to prevent the toner from stagnating. The waste toner bottle collecting screw 1 evenly distributes stagnant toner into the central portion of the bottle. The waste toner bottle collecting screw 2 evenly distributes toner conveyed from the transfer belt into the central portion of the bottle.

Note: The toner agitating blade is dedicated to the transfer belt toner collecting port only.



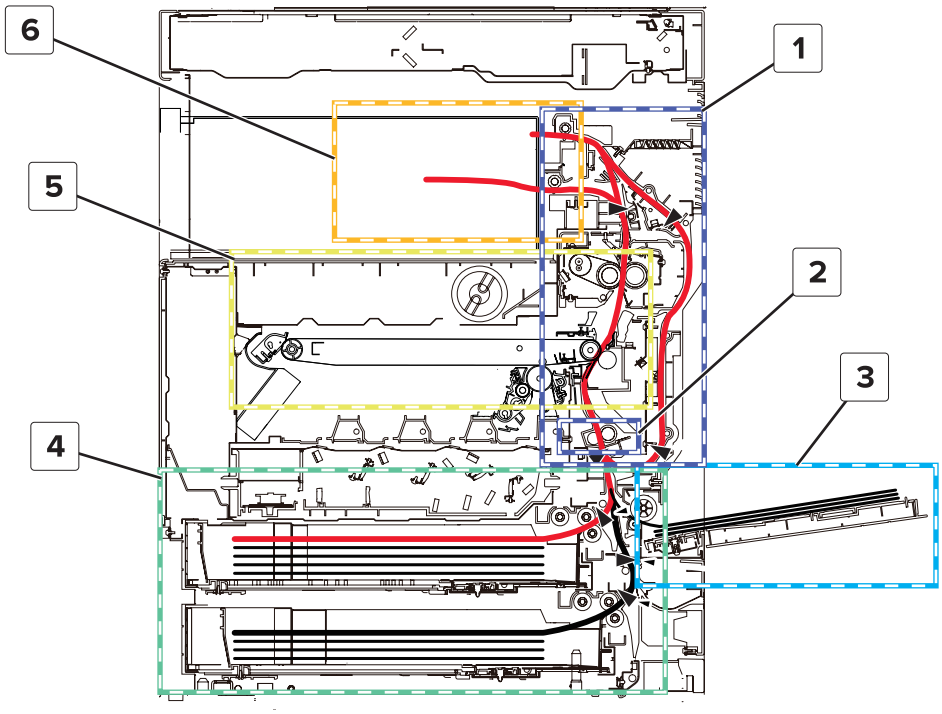
#	Part
1	Toner collecting screw (transfer belt)
2	Toner collecting screw (Y,M,C,K)
3	Toner collecting port (Y,M,C,K)
4	Waste toner bottle collecting screw 1
5	Waste toner bottle collecting screw 2
6	Toner agitating blade
7	Toner supply screw (developer unit)



#	Part
1	Developer unit toner collecting ports
2	Photoconductor drum toner collecting ports

Printer operation

Printer paper path

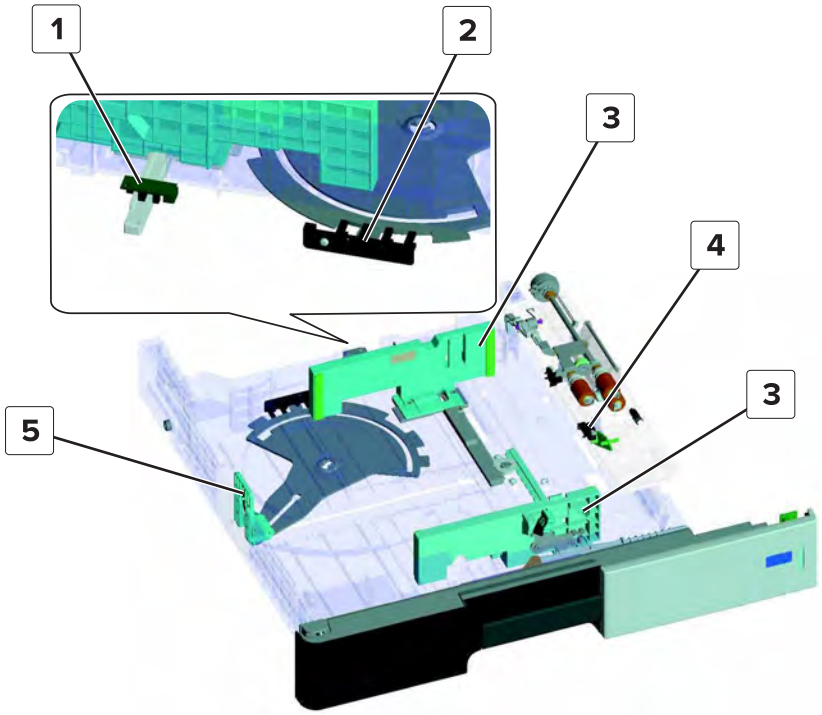


#	Part
1	Duplex section
2	Registration section
3	MPF section
4	Tray section
5	Print section
6	Exit section

Tray section

Paper presence and size detection

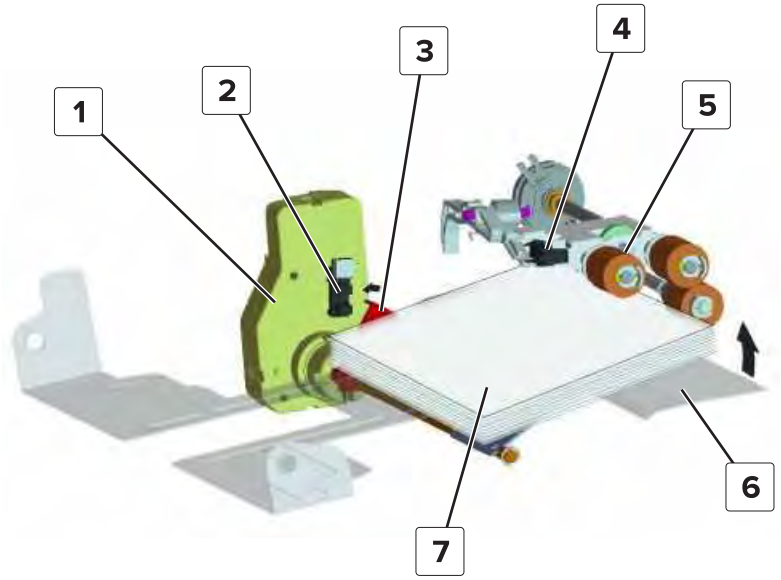
The sensor (tray empty) detects if the tray is empty. The positions of the guides determine the dimensions of the paper. The sensor (paper width) and sensor (paper length) detect the position of the guides.



#	Part
1	Sensor (tray paper width)
2	Sensor (tray paper length)
3	Tray insert paper width guides
4	Sensor (tray empty)
5	Tray insert paper length guide

Paper lift

During feed, the lift plate raises the paper until the paper comes into contact with the pick roller. The sensor (lift plate level) detects if the pick roller is sufficiently engaged with the paper. The motor (lift) controls the movement of the lift plate. As the amount of paper lessens, the lift plate also continues to move up. When the tray is almost empty, the actuator triggers the sensor (near empty).



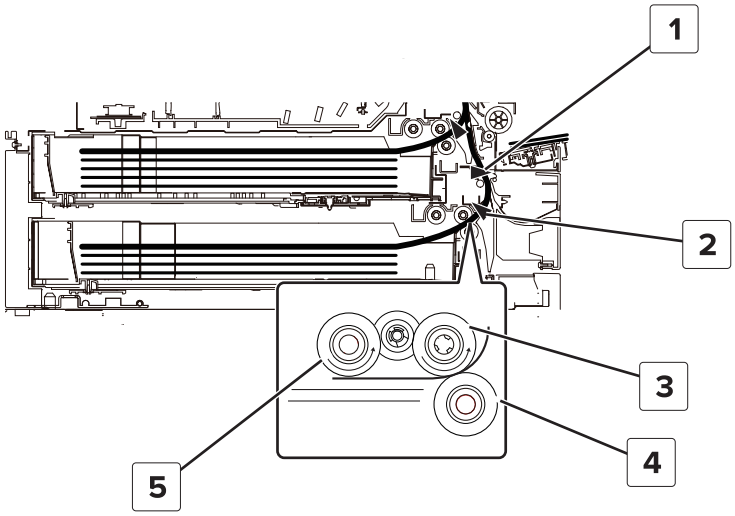
#	Part
1	Motor (lift)
2	Sensor (near empty)
3	Actuator
4	Sensor (lift plate level)
5	Pick roller
6	Lift plate
7	Paper

Paper feed

The pick roller pushes the topmost sheet to the feed roller. The separator roller makes sure that only one sheet is fed at a time.

For tray 1, the feed roller moves the paper directly to the registration section. For trays 2 to 4, paper is fed from the feed roller to the transport rollers before going into the registration section.

The motor (paper feed) controls the pick, feed, and separator rollers. The motor (transport) drives the roller that moves the paper upward to the registration section. The sensor (paper feed) and sensor (pass through) detect the position of the paper.



#	Part
1	Sensor (pass through)
2	Sensor (paper feed)
3	Feed roller
4	Separator roller
5	Pick roller

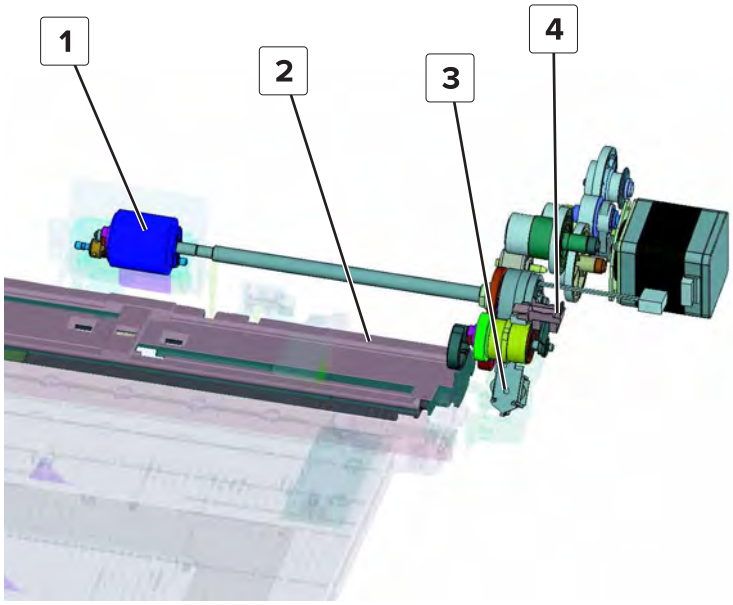
MPF section

Paper presence detection

The sensor (MPF empty) detects if the tray is empty.

Paper lift

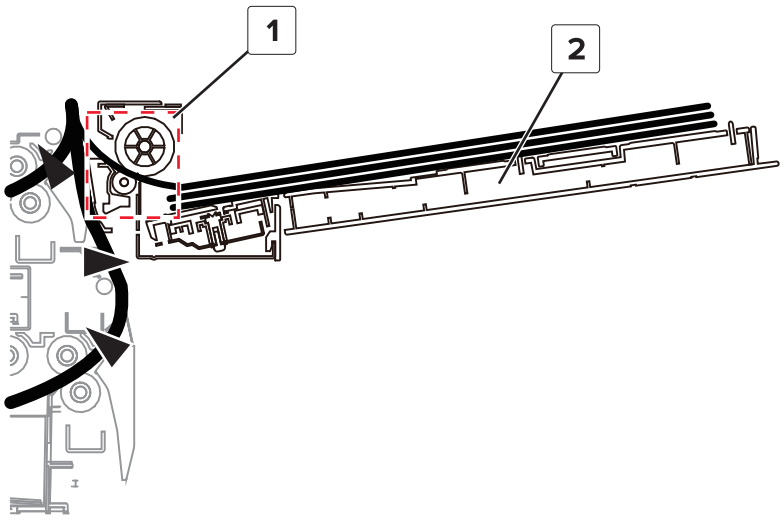
During feed, the lift plate pushes up to engage the paper with the pick roller. The movement of the lift plate is controlled by the MPF pick solenoid and is detected by the sensor (MPF lift plate).



#	Part
1	MPF pick roller
2	Lift plate
3	MPF pick solenoid
4	Sensor (MPF lift plate)

Paper feed

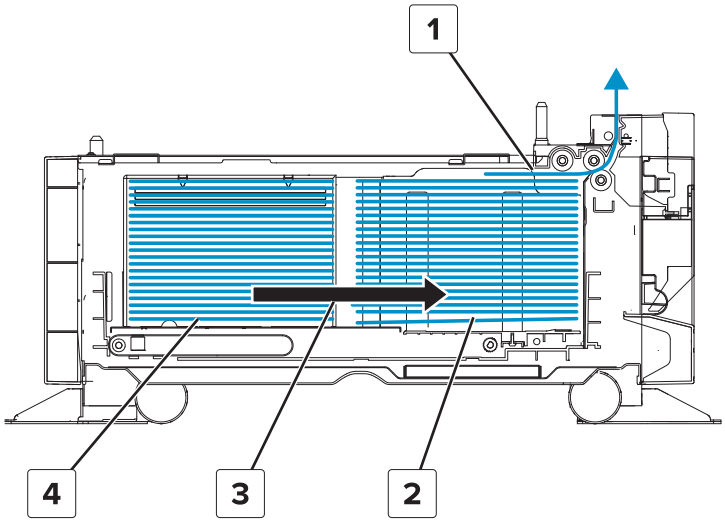
The MPF pick assembly moves the paper from the MPF tray to the registration section.



#	Part
1	MPF pick assembly
2	MPF tray

2500-sheet tray section

Paper path

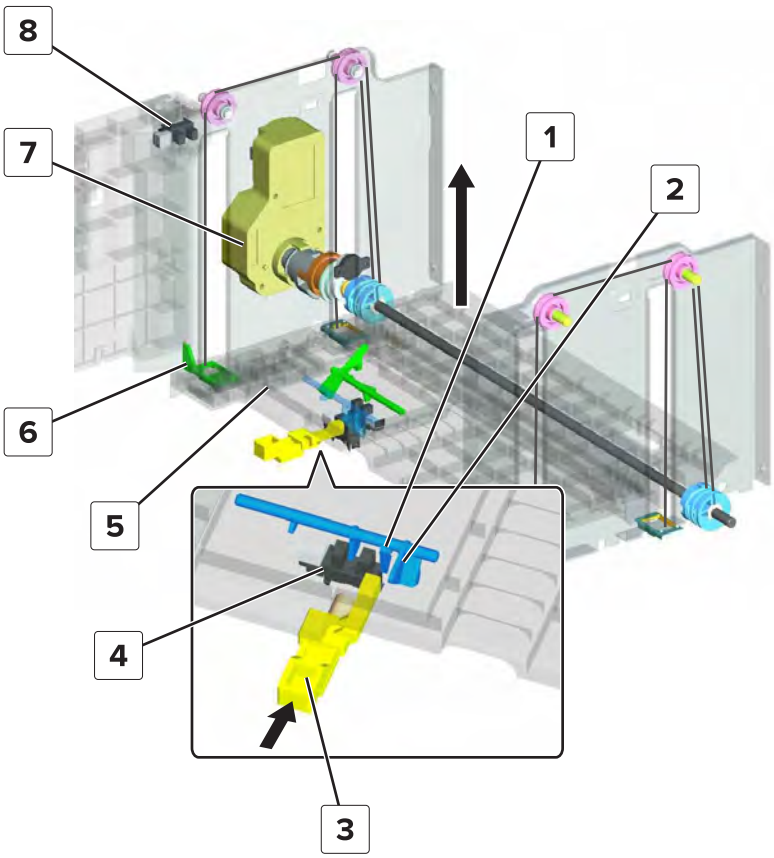


#	Part
1	Paper feed from main tray
2	Main tray
3	Paper transfer movement from reserve tray to main tray
4	Reserve tray

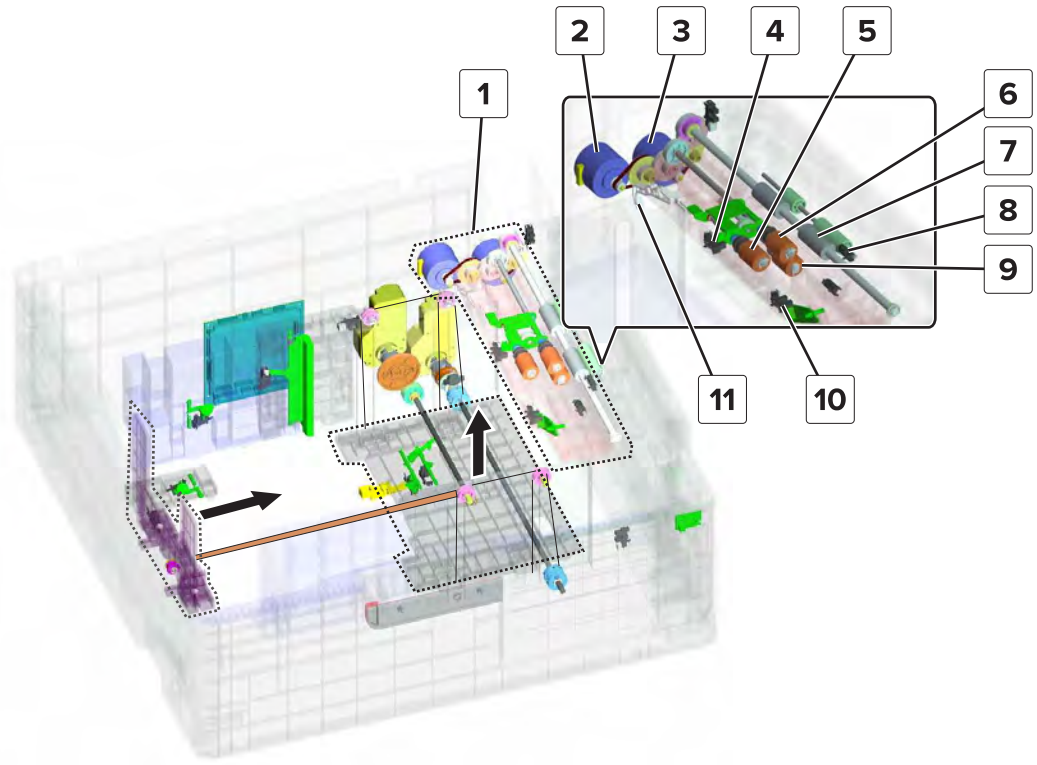
Paper feed mechanism

When the drawer is inserted, the lever is triggered to lower the pick roller. The motor (2500-sheet tray elevator) drives and raises the main tray until the paper is engaged with the pick roller. When the pick roller is engaged with the paper, the sensor (2500-sheet tray main tray elevator limit) detects the uppermost sheet.

The motor (2500-sheet tray feed) drives the pick, feed, and separator rollers to pick up and feed a sheet of paper into the vertical transport roller. The pick roller pushes the sheet to the feed roller and the separator roller makes sure that only one sheet is fed at a time. As paper passes though the transport roller, the sensor (2500-sheet tray transport) detects it. The motor (2500-sheet tray transport) then drives the transport roller to transport the paper into the printer.



#	Part
1	Shifter stop detection actuator
2	Lower limit detection actuator
3	Transfer guide stop lever
4	Sensor (2500-sheet tray elevator home)
5	Main tray
6	Near empty detection actuator
7	Motor (2500-sheet tray elevator)
8	Sensor (2500-sheet tray main tray near empty)

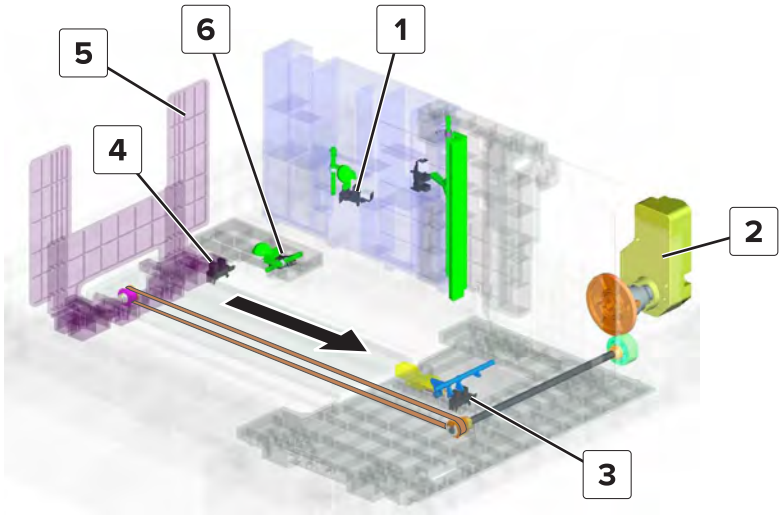


#	Part
1	Paper feed section
2	Motor (2500-sheet tray feed)
3	Motor (2500-sheet tray transport)
4	Sensor (2500-sheet tray main tray elevator limit)
5	Pick roller
6	Feed roller
7	Transport roller
8	Sensor (2500-sheet tray transport)
9	Separator roller
10	Sensor (2500-sheet tray main tray paper empty, top)
11	Lever

The main tray continues to move up as the amount of paper decreases. The near empty detection actuator triggers the sensor (2500-sheet tray main tray near empty) when the main tray is almost empty. When the sensor (2500-sheet tray main tray empty, top) detects an empty main tray, the motor (2500-sheet tray elevator) lowers the main tray. The sensor (2500-sheet tray elevator home) detects when the main tray is at its lowest position.

The sensor (2500-sheet tray reserve tray paper limit) and sensor (2500-sheet tray reserve tray paper empty) detect the amount of paper left on the reserve tray. If the main tray is empty while the reserve tray is loaded with paper, then the paper stack on the reserve tray is moved to the main tray. The motor (2500-sheet tray transfer guide) moves the transfer guide, pushing the paper stack into the main tray until the sensor (2500-sheet tray elevator home) is triggered. The motor (2500-sheet tray transfer guide) then drives the transfer guide to return to its home position.

If the reserve tray is empty when paper in the main tray runs out, then the main tray is not lowered. The main tray lowers only when the drawer is removed.

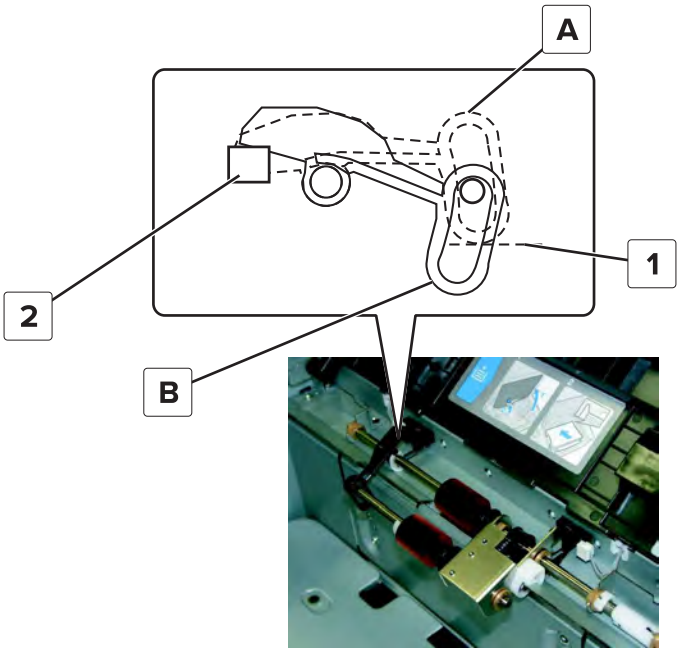


#	Part
1	Sensor (2500-sheet tray reserve tray paper limit)
2	Motor (2500-sheet tray transfer guide)
3	Sensor (2500-sheet tray elevator home)
4	Sensor (2500-sheet tray transfer guide home)
5	Transfer guide
6	Sensor (2500-sheet tray reserve tray paper empty)

3000-sheet tray section

Paper presence detection

The sensor (tray empty) detects if the tray is empty. The sensor remains covered when paper is in the tray. When the tray is empty, the actuator lowers to unblock the sensor.

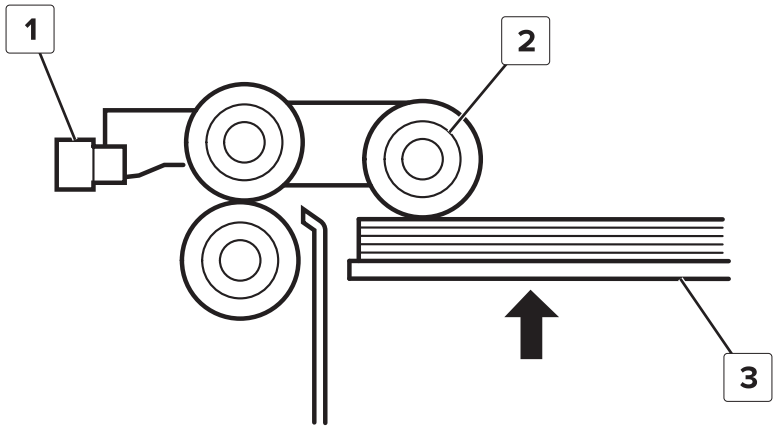


#	Part
1	Paper
2	Sensor (tray empty)
A	Actuator position (with paper)
B	Actuator position (without paper)

Paper lift

During feed, the elevator plate raises the paper until the paper comes into contact with the pick roller. The sensor (elevator level) detects if the pick roller is sufficiently engaged with the paper. The motor (elevator) controls the movement of the elevator plate.

As the amount of paper lessens, the elevator plate continues to move up. When the tray is almost empty, the sensors (paper low 1 and paper low 2) are unblocked. If the tray is full, then the sensor (paper low 1) is blocked and the sensor (paper low 2) is unblocked.



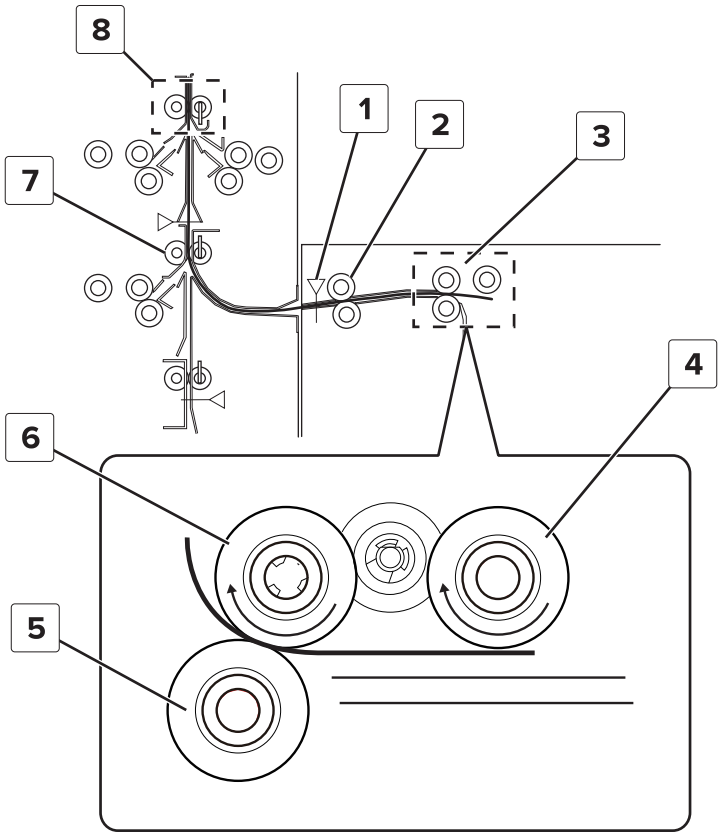
#	Part
1	Sensor (elevator level)
2	Pick roller
3	Elevator plate

Paper feed and transport

The pick roller pushes the topmost sheet to the feed roller. The separator roller makes sure that only one sheet is fed at a time.

The paper is fed from the pick assembly to the transport rollers before going to the registration section. For more information, see **“Registration section” on page 1024**.

The motor (feed) controls the pick, feed, and separator rollers. The motor (transport) drives the transport roller to pass the paper to the tray 2 transport roller. The sensor (feed) detects when paper passes through the transport roller.



#	Part
1	Sensor (feed)
2	Transport roller
3	Pick assembly
4	Pick roller
5	Separator roller

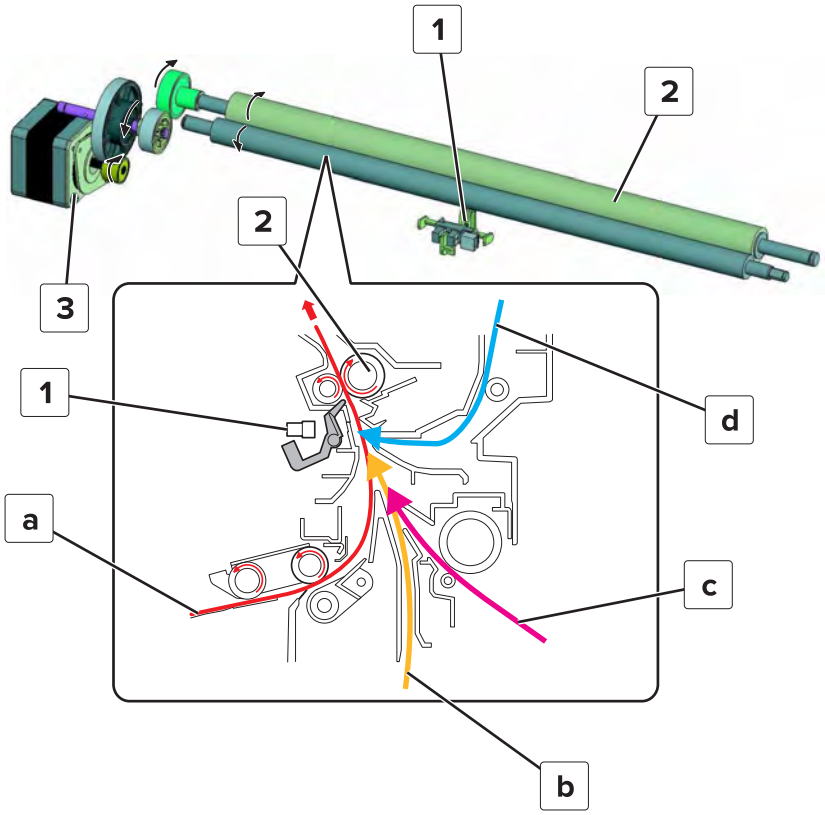
#	Part
6	Feed roller
7	Tray 2 transport roller
8	Registration section

Registration section

Depending on the print job, the registration section receives paper from the tray, MPF, or duplex section.

As paper enters the registration roller, the sensor (registration) detects its presence. Skew adjustments are made on the registration roller to align the leading edge of the paper.

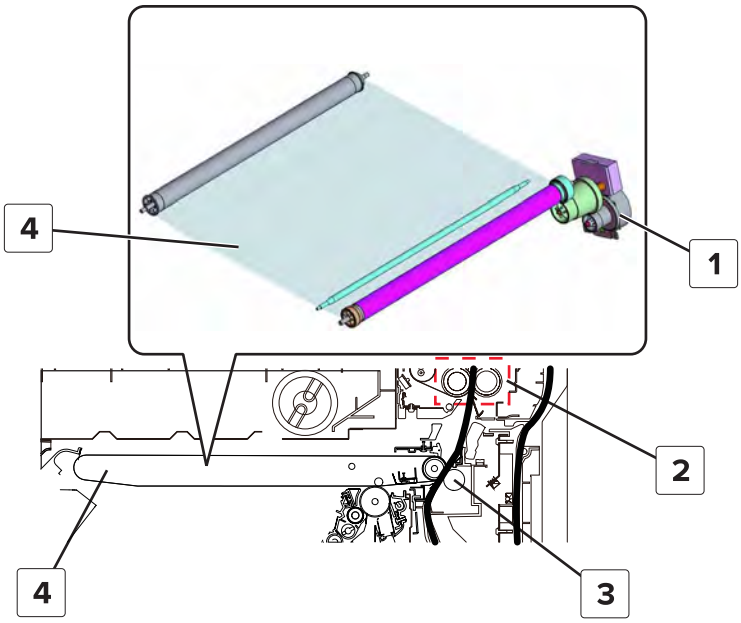
The motor (registration) drives the registration roller, passing the paper to the print section.



#	Part
1	Sensor (registration)
2	Registration roller
3	Motor (registration)
a	Paper path from tray 1
b	Paper path from trays 2–4 and 3000-sheet tray
c	Paper path from the MPF section
d	Paper path from the duplex section

Print section

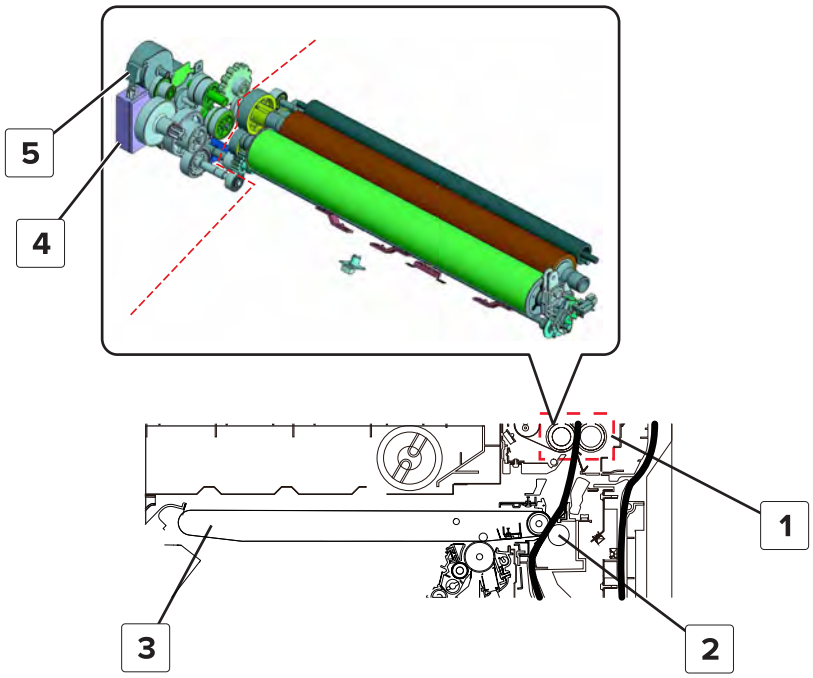
Toner from the transfer belt is transferred to the paper. For more information, see **"Second transfer" on page 1004**. The rotation of the transfer belt and transfer roller is controlled by the motor (developer).



#	Part
1	Motor (developer)
2	Fuser
3	Transfer roller
4	Transfer belt

After the second transfer, the paper is passed to the fuser. For more information, see **"Fuse" on page 1006**.

The motor (fuser pressure) controls the pressure that is exerted on the paper. The motor (fuser) controls the movement of the paper from the fuser to the exit section.



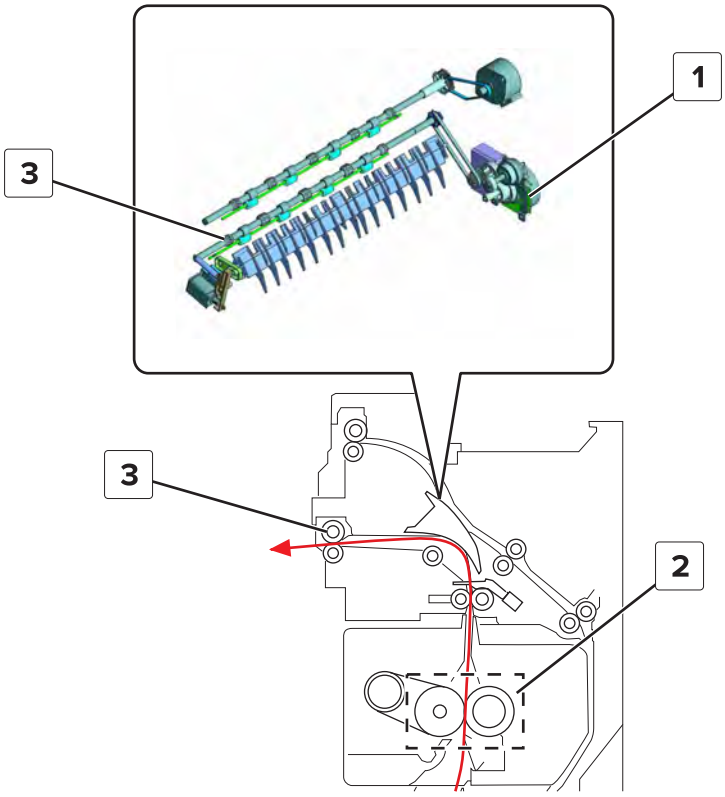
#	Part
1	Fuser
2	Transfer roller
3	Transfer belt
4	Motor (fuser)
5	Motor (fuser pressure)

Exit section

Exit roller path

Paper moves from the fuser to the exit roller. The motor (fuser) drives the exit roller to push out the printed paper to the standard bin.

Note: For finishing and folding jobs, the printed paper also moves along the path of the exit roller.

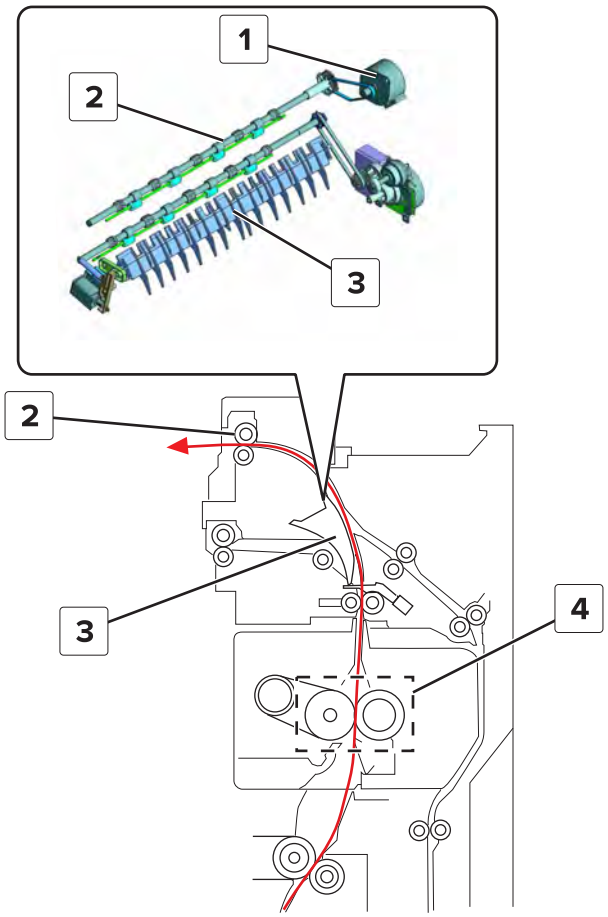


#	Part
1	Motor (fuser)
2	Fuser
3	Exit roller

Redrive roller path

If a paper transport is on the printer during a standard print job, then paper exits on top of the paper transport.

As paper moves up from the fuser, the diverter closes the path to the exit roller and opens the path to the redrive roller. The motor (redrive) controls the redrive roller, which exits the printed paper.



#	Part
1	Motor (redrive)
2	Redrive roller
3	Diverter
4	Fuser

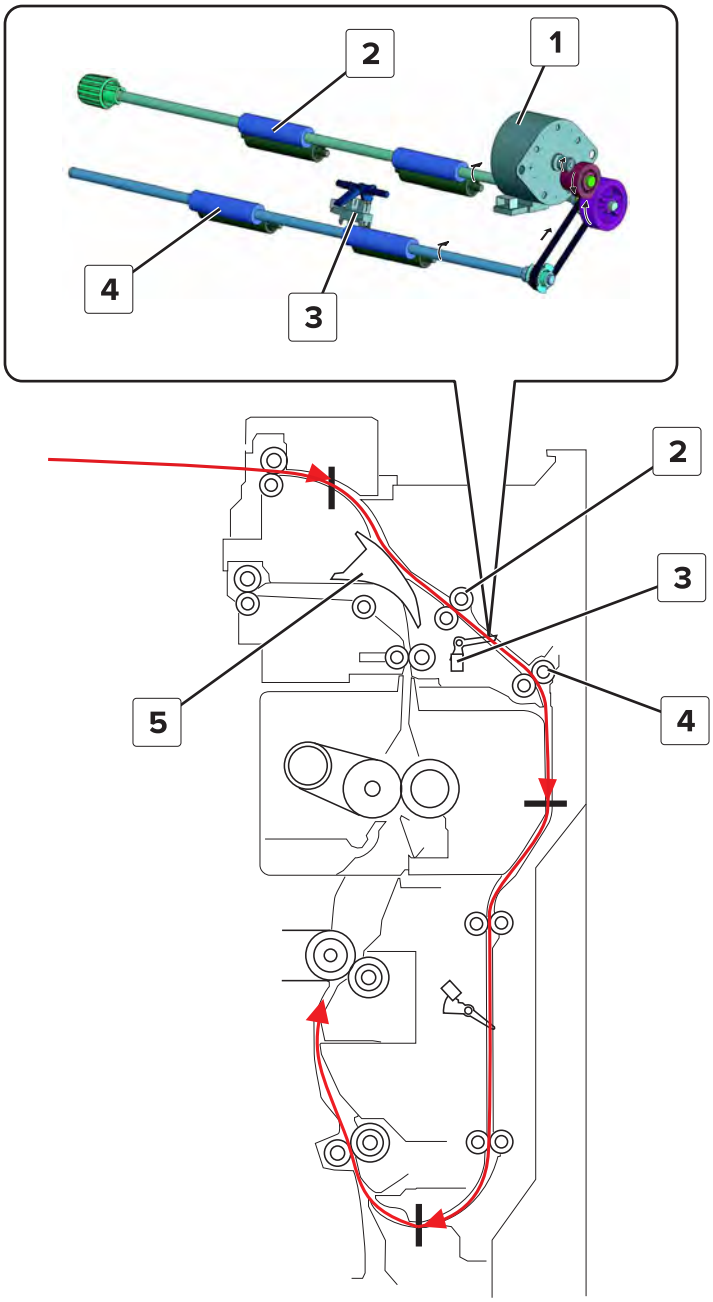
Duplex section

Upper duplex transport

For a duplex print job, the paper is fed back to print on the other side.

The redrive roller, which is driven by the motor (redrive), reverses its rotation to feed paper back to the printer. The path to the fuser section is closed by the diverter so that the paper moves along the duplex path.

As paper moves down passing the duplex entrance roller and the upper duplex transport roller, the sensor (duplex pass through 1) detects the position of the paper. The motor (duplex transport) drives the duplex entrance roller and upper duplex transport roller.



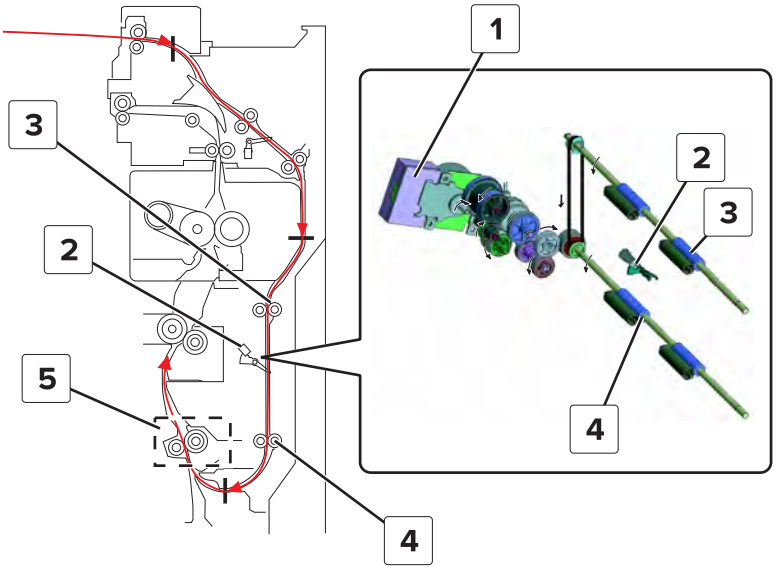
#	Part
1	Motor (redrive)
2	Duplex entrance roller
3	Sensor (duplex pass through 1)
4	Upper duplex transport roller
5	Diverter

Lower duplex transport

The paper continues to move down to the lower duplex transport roller and duplex exit roller.

The sensor (duplex pass through 2) detects the position of the paper. The motor (transport) drives the lower duplex transport roller and duplex exit roller.

The paper then travels to the registration section to be printed on its other side. For more information, see **"Registration section" on page 1024**.



#	Part
1	Motor (transport)
2	Sensor (duplex pass through 2)
3	Lower duplex transport roller
4	Duplex exit roller
5	Registration section

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

Index

Numerics

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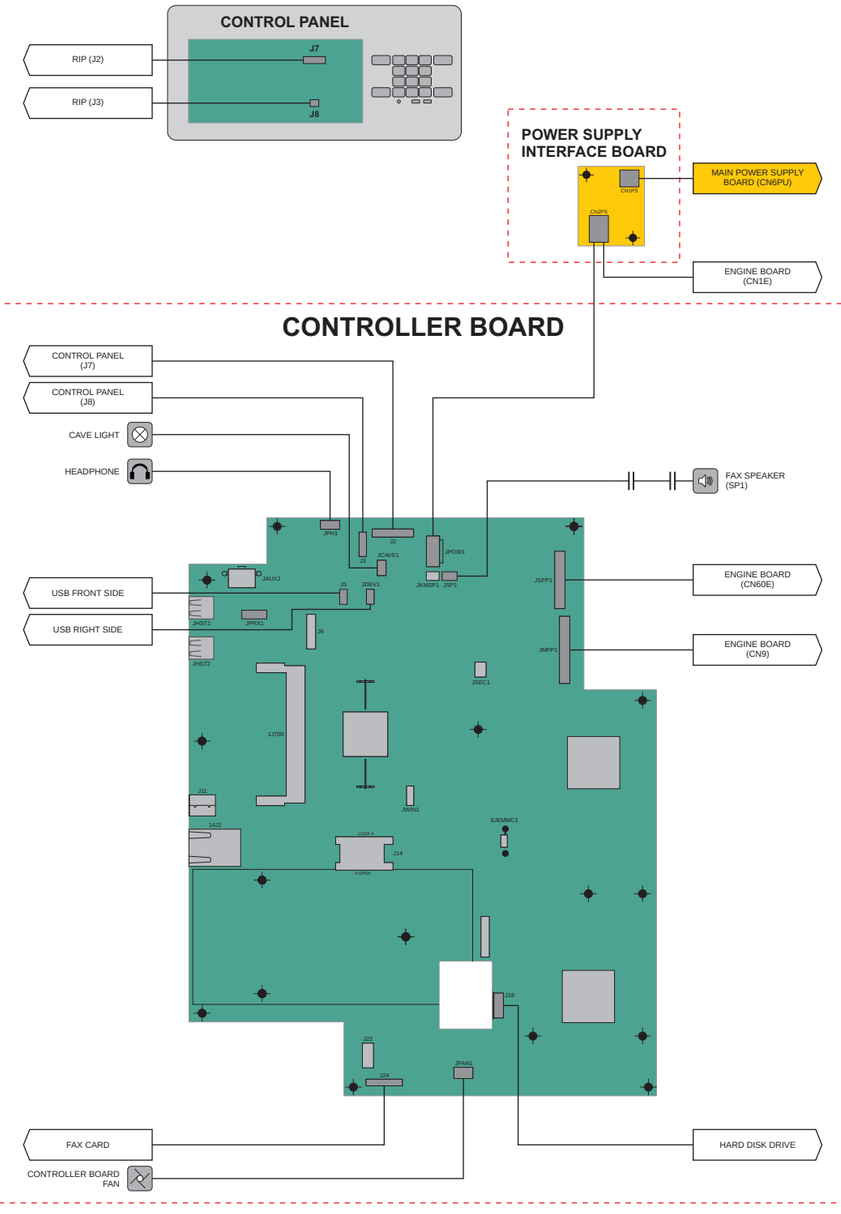
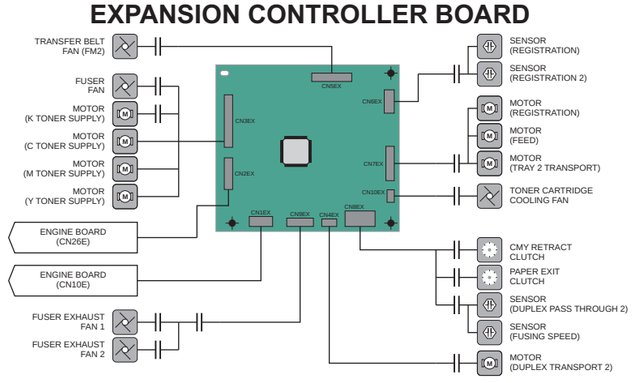
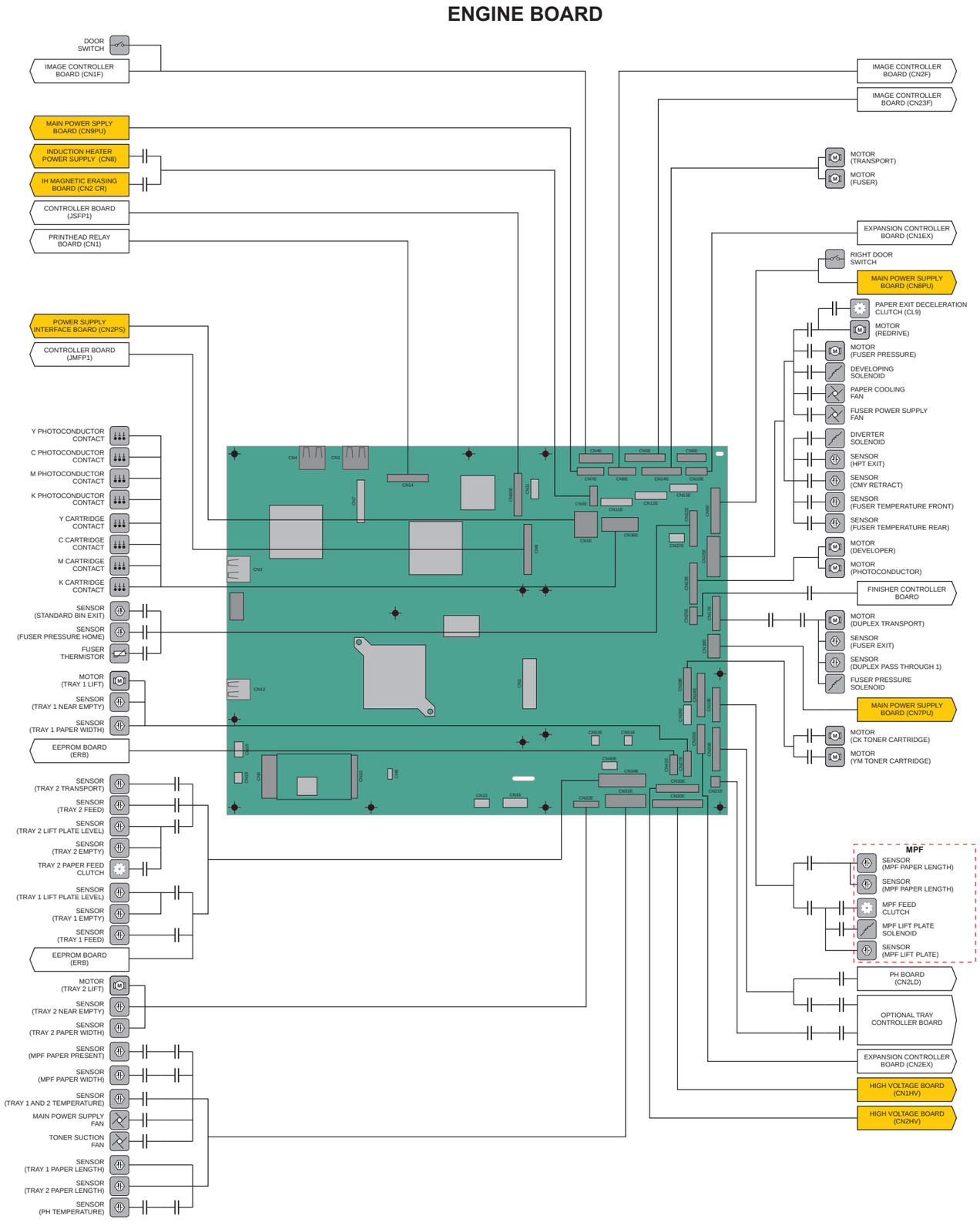
CS923 BOARD CONNECTIONS
WIRING DIAGRAM

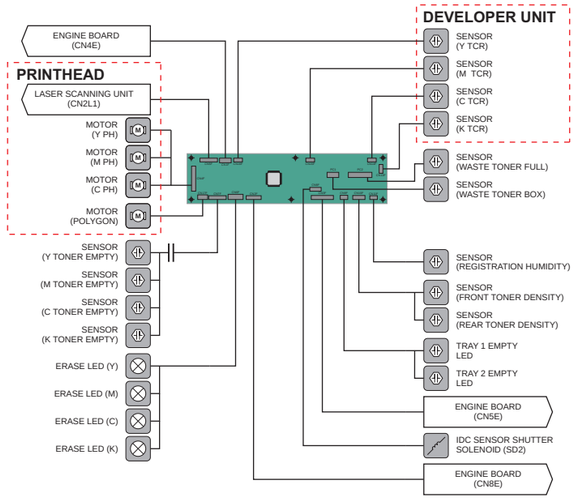




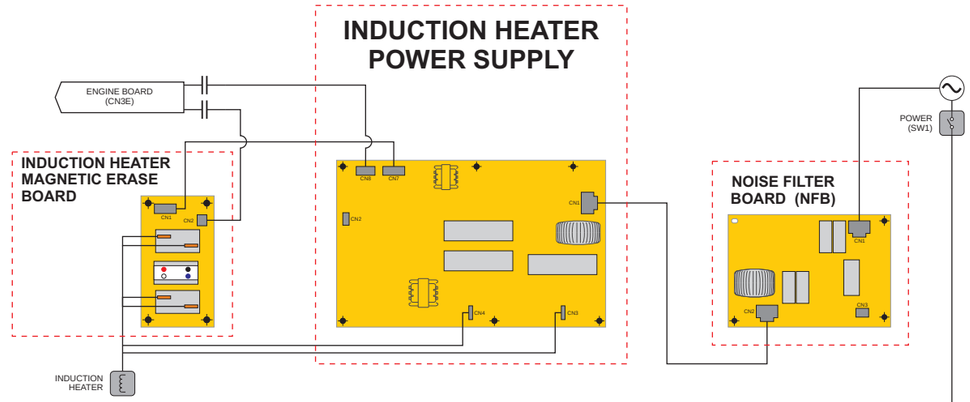


CS923 BOARD CONNECTIONS
WIRING DIAGRAM

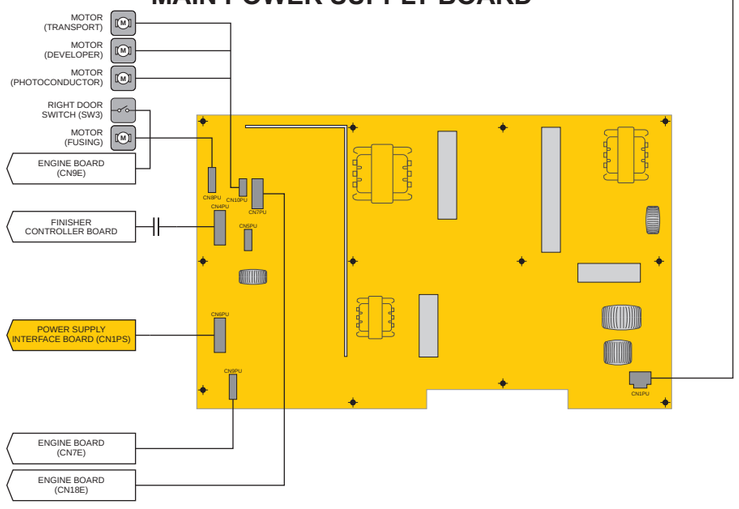
IMAGE CONTROLLER BOARD



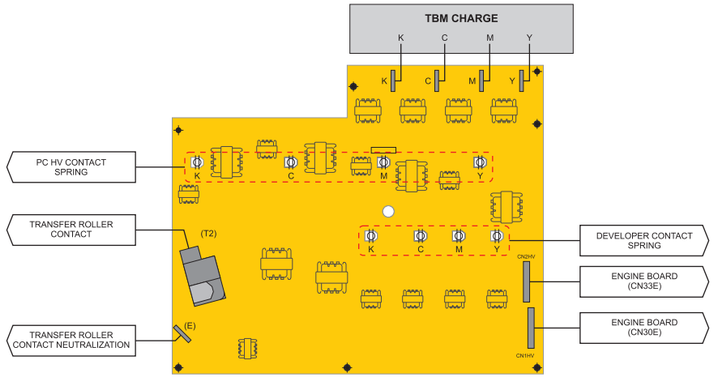
INDUCTION HEATER POWER SUPPLY

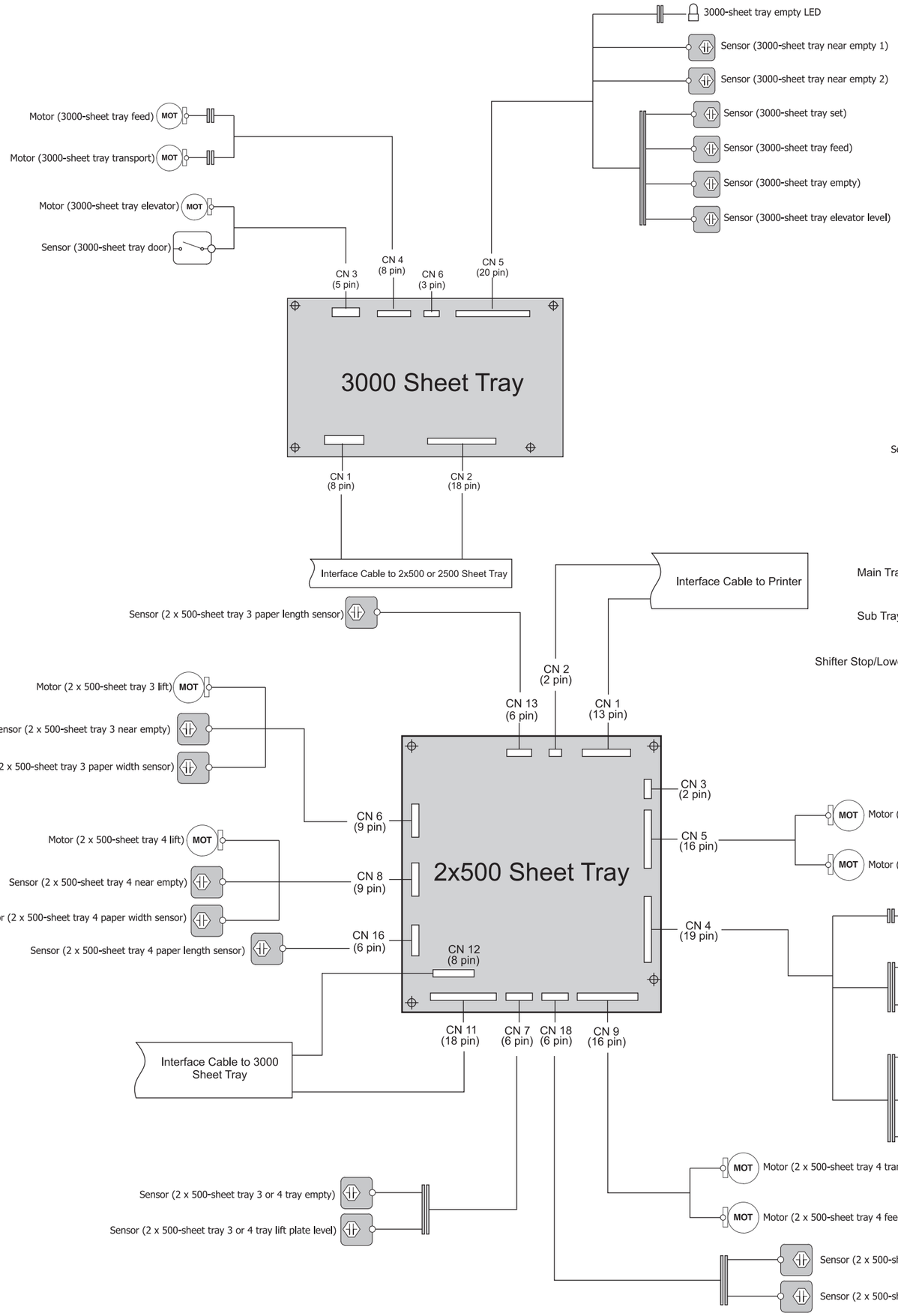


MAIN POWER SUPPLY BOARD



HIGH VOLTAGE BOARD




3000-sheet tray empty LED
Sensor (3000-sheet tray near empty 1)
Sensor (3000-sheet tray near empty 2)
Sensor (3000-sheet tray set)
Sensor (3000-sheet tray feed)
Sensor (3000-sheet tray empty)
Sensor (3000-sheet tray elevator level)
Motor (3000-sheet tray feed)
Motor (3000-sheet tray transport)
Motor (3000-sheet tray elevator)
Sensor (3000-sheet tray door)
MOT
CN 3 (5 pin)
CN 4 (8 pin)
CN 6 (3 pin)
CN 5 (20 pin)
3000 Sheet Tray
CN 1 (8 pin)
CN 2 (18 pin)
Interface Cable to 2x500 or 2500 Sheet Tray
Interface Cable to Printer
Sensor (2 x 500-sheet tray 3 paper length sensor)
CN 2 (2 pin)
CN 13 (6 pin)
CN 1 (13 pin)
Motor (2 x 500-sheet tray 3 lift)
Sensor (2 x 500-sheet tray 3 near empty)
Sensor (2 x 500-sheet tray 3 paper width sensor)
CN 6 (9 pin)
CN 3 (2 pin)
CN 5 (16 pin)
CN 4 (19 pin)
CN 8 (9 pin)
CN 16 (6 pin)
CN 12 (8 pin)
2x500 Sheet Tray
Motor (2 x 500-sheet tray 4 lift)
Sensor (2 x 500-sheet tray 4 near empty)
Sensor (2 x 500-sheet tray 4 paper width sensor)
Sensor (2 x 500-sheet tray 4 paper length sensor)
Motor (2 x 500-sheet tray 3 transport)
Motor (2 x 500-sheet tray 3 feed)
2 x 500-sheet tray paper empty LED
2 x 500-sheet tray paper empty LED
Sensor (2 x 500-sheet tray 3 or 4 transport)
Sensor (2 x 500-sheet tray 3 or 4 feed)
Sensor (2 x 500-sheet tray jam access door)
Sensor (2 x 500-sheet tray 3 or 4 tray empty)
Sensor (2 x 500-sheet tray 3 or 4 tray lift plate level)
CN 11 (18 pin)
CN 7 (6 pin)
CN 18 (6 pin)
CN 9 (16 pin)
Interface Cable to 3000 Sheet Tray
Sensor (2 x 500-sheet tray 3 or 4 tray empty)
Sensor (2 x 500-sheet tray 3 or 4 tray lift plate level)
Motor (2 x 500-sheet tray 4 transport)
Motor (2 x 500-sheet tray 4 feed)
Sensor (2 x 500-sheet tray 3 or 4 feed)
Sensor (2 x 500-sheet tray 3 or 4 transport)
Interface Cable To Printer
CN 2 (2 pin)
CN 1 (13 pin)
2500 Tray
CN 3 (2 pin)
CN 5 (16 pin)
CN 4 (17 pin)
CN 12 (8 pin)
Interface Cable To 300 Sheet Tray
CN 11 (18 pin)
CN 10 (7 pin)
CN 14 (12 pin)
CN 15 (10 pin)
Motor (2500-sheet tray feed)
Motor (2500-sheet tray transport)
Tray empty LED
Sensor (2500-sheet tray transport)
Sensor (2500-sheet tray feed)
Sensor (2500-sheet tray jam access door)
2500-sheet tray Sensor (2500-sheet tray main tray paper empty, top)
Sensor (2500-sheet tray main tray elevator limit)
Sensor (main tray empty, bottom)
Sensor (reserve tray empty)
Sensor (transfer guide home)
Main Tray Empty Paper Sensor
Sub Tray Paper Empty Sensor
Shifter Stop/Lower Limit Position Sensor
Shifter Home Sensor
Sensor (main tray near empty)
Sensor (paper stack transfer)
Sensor (reserve tray paper limit)

Sensor (staple finisher staple unit carriage home)
Sensor (staple finisher upper exit roller)
Sensor (Staple finisher elevator home)
Sensor (staple finisher paper feed)
Staple finisher lock switch
CN 999 (7 pin)
CN 111 (4 pin)
CN 110 (12 pin)
CN 106 (3 pin)
CN 112 (15 pin)
CN 119 (2 pin)
CN 120 (17 pin)
Staple Finisher
CN 104 (3 pin)
CN 105 (6 pin)
CN 109 (14 pin)
CN 108 (6 pin)
Staple finisher interface cable
Motor (staple finisher exit)
Motor (staple finisher upper exit)
Motor (staple finisher aligner)
Staple finisher exit roller solenoid
Motor (staple finisher elevator)
Staple finisher stack clamp solenoid
CN 101 (4 pin)
CN 102 (17 pin)
CN 103 (8 pin)
CN 121 (17 pin)
Stapler Interface Board
CN 122 (17 pin)
CN 123 (17 pin)
Staple finisher staple unit
Motor (staple finisher staple unit carriage)
Motor (staple finisher transport)
CN 101
Sensor (staple finisher tamper paper present)
Sensor (staple finisher front tamper home)
Sensor (staple finisher rear tamper home)
Motor (staple finisher front tamper)
Motor (staple finisher rear tamper)
CN 102
Sensor (staple finisher bin level)
Sensor (staple finisher bin stack height)
Staple finisher bin stack height solenoid

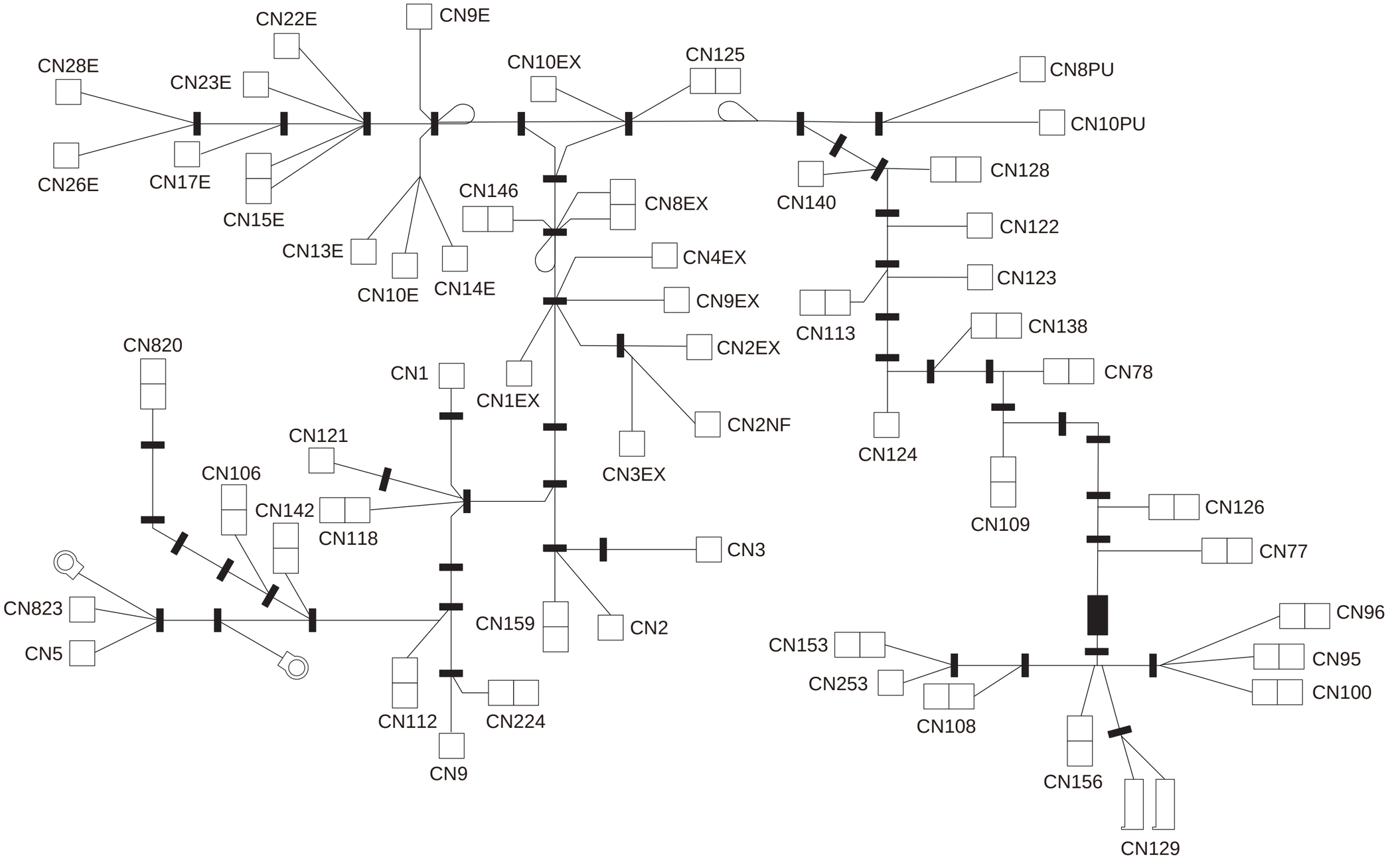
Puncher
Sensor (HPT feed)
Sensor (HPT door)
Motor (HPT transport)
J6
Motor (SHPF aligner)
Sensor (SHPF booklet gate)
Sensor (SHPF top door)
J5
Sensor (SHPF compiler feed roller release)
Sensor (SHPF entrance)
Sensor (SHPF paddle home)
Sensor (SHPF front tamper home)
Sensor (SHPF top bin full, receive)
Sensor (SHPF diverter cam)
Motor (SHPF paddle)
Motor (SHPF front tamper)
Motor (SHPF compiler feed roller release)
J4 (32pin)
J5 (16 pin)
J6 (10 pin)
J7 (17 pin)
Staple Hole Punch Finisher
SW 2 (8pin)
SW 1 (10 pin)
J3 (2pin)
J2 (3pin)
J1 (6pin)
J16 (4pin)
J15 (10 pin)
Booklet Finisher
Sensor (SHPF front door)
Printer

Sensor (SHPF elevator position)
Sensor (SHPF rear tamper home)
Sensor (SHPF top bin exit)
Sensor (SHPF compiler feed)
J9
Motor (SHPF elevator)
Motor (SHPF transport)
Motor (SHPF feed)
J9 (24 pin)
J10 (2 pin)
Motor (SHPF elevator bin stack limit switch)
Motor (SHPF staple unit carriage)
Sensor (SHPF staple unit carriage home)
Sensor (SHPF staple unit carriage center)
SHPF staple unit
J11 (24 pin)
Motor (SHPF rear tamper)
J12 (16 pin)
Ejector
J13 (13 pin)
J14 (24 pin)
Sensor (SHPF eject clamp position)
Motor (SHPF compiler eject)
Motor (SHPF compiler pre-eject)
Sensor (SHPF compiler eject)
Sensor (SHPF compiler pre-eject)
Sensor (SHPF eject clamp home)
J14
Sensor (SHPF elevator bin stack height, transmit)
Sensor (SHPF elevator bin stack height, receive)
Sensor (SHPF elevator bin rear stack height)
Sensor (SHPF elevator bin front stack height)
Sensor (SHPF elevator bin stack height actuator arm control)
Motor (SHPF elevator bin stack height)
Sensor (SHPF elevator bin full)
Sensor (HPBF bin empty, receive)
Sensor (HPBF bin empty, transmit)

Sensor (booklet maker decurl)
Motor (booklet maker decurl)
Motor (booklet maker transport)
J5
Booklet maker staple unit
Sensor (booklet maker transport)
J4 (13 pin)
J6 (4 pin)
Booklet Maker
J5 (11pin)
J7 (13pin)
J2 (6 pin)
J10 (9 pin)
J11 (20 pin)
J1 (4 pin)
J3 (4 pin)
J8 (14 pin)
J9 (10 pin)
Sensor (booklet maker tamper paper present)
Motor (booklet maker tamper)
Sensor (booklet maker tamper home)
Sensor (bifold knife home)
Motor (booklet maker aligner)
Sensor (booklet maker aligner home)
Booklet maker aligner solenoid
Motor (bifold knife)
Motor (bifold roller)
Sensor (booklet maker fold exit)
Sensor (trifold guide home)
Motor (trifold guide)
SHPF controller board
Sensor (booklet maker paddle home)
Motor (booklet maker paddle)
Sensor (bifold guide home)
Motor (bifold guide)

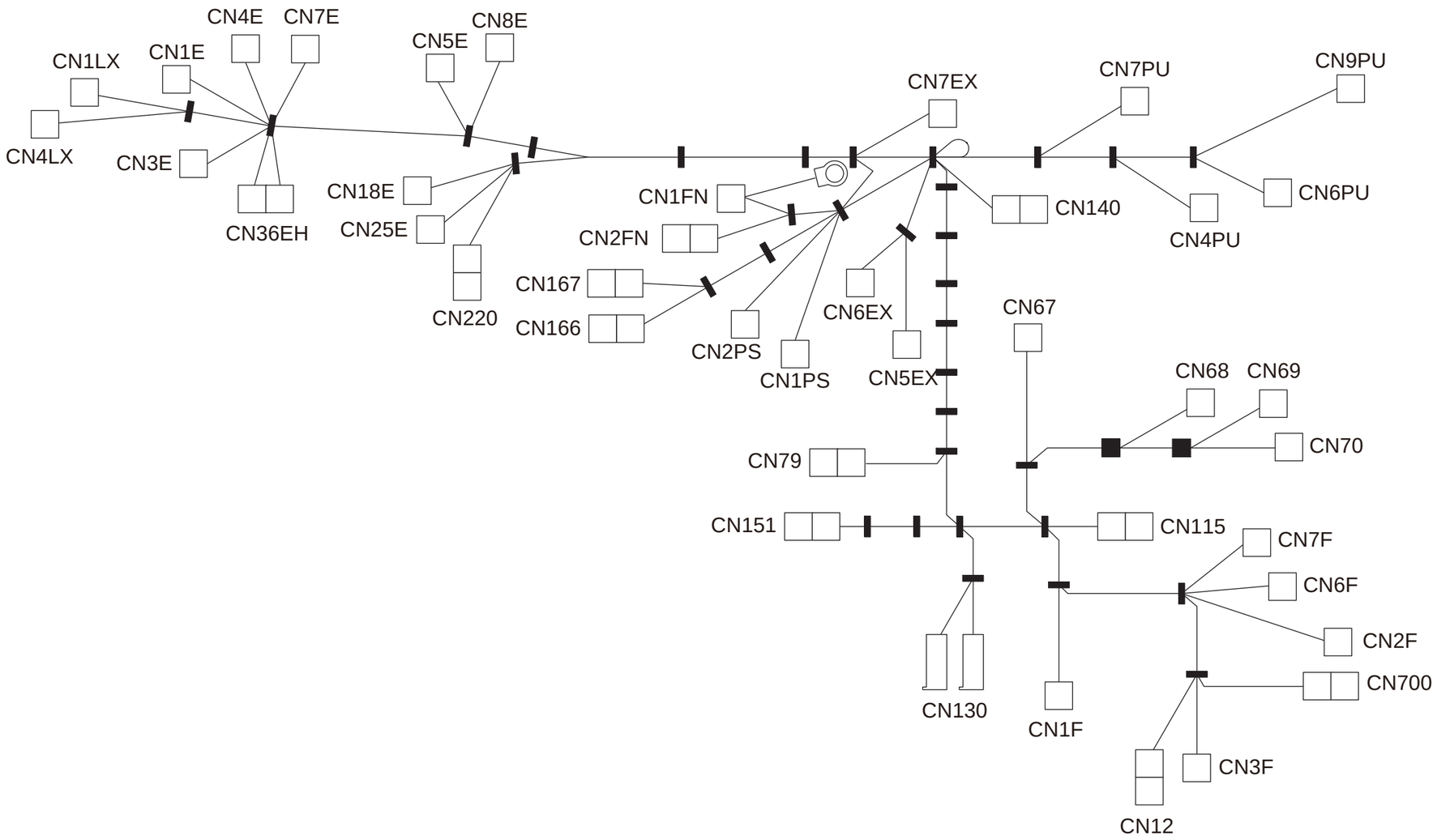
CX922, CX923, CX924, XC9245, XC9255, XC9265, CS923

CABLE ASSEMBLY 1



CS923

CABLE ASSEMBLY 2 SFP



CX922, CX923, CX924,
XC9245, XC9255, XC9265, CS923

CABLE ASSEMBLY 3