CX820, CX827, XC6152 MFPs

7563-136, -137, -196, -197

Service Manual

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Product information

Product name:
Lexmark CX820, CX827, XC6152 MFPs

Machine type:
7563

Model(s):
136, 137, 196, 197

Edition notice

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P/N 12G3413

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Notices, conventions, and safety information

Laser notice

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

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

Avis relatif à l'utilisation du laser

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

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

Notificació del làser

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

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

Aviso de láser

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

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

Aviso sobre laser

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

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

Avvertenze sui prodotti laser

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

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

Laserinformatie

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

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

Lasererklæring

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

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

Laser-Hinweis

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

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

Laserilmoitus

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

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

Lasermerknad

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

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

Meddelande om laser

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

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

レーザーについて

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

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

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

레이저 고지사항

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

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

激光注意事项

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

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

雷射聲明

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

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

Conventions

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

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

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

Different types of caution statements include:

⚠ **CAUTION—POTENTIAL INJURY:** Indicates a risk of injury.

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

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

⚠ **CAUTION—TIPPING HAZARD:** Indicates a crush hazard.

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

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

Safety information

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

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

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

Consignes de sécurité

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

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

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

Informació de seguretat

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

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

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

Información de seguridad

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

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

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

Informações sobre segurança

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

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

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

Informazioni sulla sicurezza

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

- Le informazioni di manutenzione per questo prodotto sono state predisposte per essere utilizzate da un tecnico dell'assistenza professionale e non sono state previste per l'uso da parte di altre persone.

- È possibile che vi sia un maggior rischio di scosse elettriche e lesioni personali durante lo smontaggio e la manutenzione di questo prodotto. Il personale dell'assistenza deve comprendere questo rischio e prendere le precauzioni necessarie.

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

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

Informatie over veiligheid

- De veiligheid van dit product is gebaseerd op testen en goedkeuringen van het oorspronkelijke ontwerp en specifieke onderdelen. De fabrikant is niet verantwoordelijk voor de veiligheid bij gebruik van ongeautoriseerde vervangende onderdelen.

- De informatie over het onderhoud van dit product is opgesteld voor gebruik door een professionele onderhoudsmonteur en is niet bedoeld voor gebruik door anderen.

- Tijdens demontage en onderhoud van dit product bestaat mogelijk een hoger risico op elektrische schokken en lichamelijk letsel. Professionele onderhoudsmonteurs dienen op de hoogte te zijn van dit risico en de noodzakelijke voorzorgsmaatregelen te nemen.

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

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

Sikkerhedsoplysninger

- Sikkerheden for dette produkt er baseret på afprøvning og godkendelser af det oprindelige design og specifikke komponenter. Producenten er ikke ansvarlig for sikkerhed i tilfælde af brug af uautoriserede dele til udskiftning.

- Vedligeholdelsesoplysninger om dette produkt er udarbejdet til brug af en kvalificeret servicetekniker og er ikke beregnet til at blive brugt af andre.

- Der kan være en forøget risiko for elektrisk stød eller personskade ved afmontering og service af dette produkt. Professionelt servicepersonale bør forstå denne risiko og tage nødvendige forholdsregler.

⚠ **FORSIGTIG - ELEKTRISK STØD:** Når du ser dette symbol, er der risiko for elektrisk spænding i nærheden af produktet, hvor du arbejder. Tag 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.

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- 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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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

January 30, 2019

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

November 4, 2018

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

October 9, 2018

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

September 7, 2018

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

July 5, 2018

- FRU 41X0015 (Adapter, N8360 ISP + NFC/BLE DualBand) was deleted from the Miscellaneous Parts catalog.
- FRU 41X0023 (MarkNet 8360 Wireless, NFC) was added to the Miscellaneous Parts catalog.

May 23, 2018

Added the CX827 model in the following topics:

- Printer model configurations in the General information section
- Input/output configurations and capacities in the Options and features section
- Wiring diagram

May 2, 2018

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

April 4, 2018

- Updated the Resetting the maintenance counter topic under the Maintenance chapter with the following information:
  – Updated the menu path for the Separator pad and pick roller counter reset.
  – Added instructions on how to reset the ADF maintenance kit counter.
- Updated the wiring diagram for the printer to indicate that JPS1 is not a connector for the CX820 and XC6152 models.

January 23, 2018

- Added 666.84 in the printer hardware errors.

January 9, 2018

- Updated the graphic and table in Covers 1 assembly in the parts catalog chapter to remove PN 41X0204.

December 15, 2017

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

October 17, 2017

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

September 29, 2017

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

September 8, 2017

- Revised the "Flatbed scanner removal" topic of the group "ADF and flatbed removals" of the "Parts removal" chapter.

August 7, 2017

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

July 11, 2017

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

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

June 27, 2017

- Added "CX827" in the cover.
- Added "CX827de" in the introduction to the "General information" chapter.
- Added 41X2042 to the topic "Control panel" in the "Parts catalog" chapter.

May 23, 2017

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

March 30, 2017

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

March 8, 2017

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

March 1, 2017

- Changed the description for **33.50z** to "Non-Lexmark black developer".
- Added a warning statement to the following removals (regarding possible damage to the MPF/pass-through sensor cable if not routed away from the moving rollers).
    - **"Sensor (MPF/pass-through) with deflector removal" on page 497**
    - **"Reference edge motor gearbox removal" on page 498**
- Created the following removals:
    - **"Motor (duplex) removal" on page 572**
    - **"Motor (deskew) removal" on page 484**
    - **"Motor (redrive) removal" on page 581**
- Revised **"Main fan duct removal" on page 579** and **"EP, developer, toner add gearbox removal" on page 583**.

February 7, 2017

- Added the topic "Non-Lexmark supply" in the "Diagnostic information" chapter.
- Revised the following topics in the "Diagnostic information" chapter:
  - Motor (deskew) failure service check
  - Motor (duplex) failure service check
  - Motor (isolation) failure service check
  - Motor (MPF pick) failure service check
  - 31–39 user attendance messages
  - Procedure before starting the 9yy service checks
- Revised the following topics in the "Repair information" chapter:
  - Control panel removal
  - Controller board removal
- Revised the following topics in the "Parts catalog" chapter:
  - Control panel
  - Electronics 2—Rear

January 16, 2017

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

January 4, 2017

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

November 28, 2016

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

October 21, 2016

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

October 4, 2016

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

October 3, 2016

- Paper jams error codes (2YY) were revised.
  - 200 paper jam messages
  - 202 paper jam messages
  - 212 paper jam messages
  - 213 paper jam messages
  - 231 paper jam messages
  - 232 paper jam messages
  - 240 paper jam messages
  - 241 paper jam messages
  - 242 paper jam messages
  - 243 paper jam messages
  - 244 paper jam messages
  - 245 paper jam messages
- The 621.42 error code was added to the 6YY errors.
- Fuser contamination service check (new) was added.
- Bin full actuator (41X1738) was added to the Covers 1 parts catalog.

September 4, 2016

- ADF 6 parts catalog was revised.
  - 40X7592—Sensor (ADF media exit) was added.
  - Part numbers of sensor (ADF top door interlock) and sensor (ADF bottom door interlock) were changed from 41X0570 to 40X7592.
- Cables parts catalog was revised.
  - 41X1630—Control panel cables kit was added.
  - 41X0895 description was revised from Control panel cables kit to Miscellaneous control panel cables kit.
- New error codes (680.10 and 680.20) were added to the 6yy errors.

August 11, 2016

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

August 2, 2016

- Note for updating firmware and step for checking the sensor (ADF deskew) was added to the 281 paper jams diagnostic information.
  - Sensor (ADF pick) static jam service check
  - Sensor (ADF pick): Paper failed to clear service check
  - Sensor (ADF pick): Paper failed to pick service check
- Revisions were made on the Base printer symptoms section.
  - Base printer symptoms table was updated.
  - Printer thumping noise service check was added.
  - Unresponsive control panel service check was added.
- New removals were added to the Repair information.
  - Waste toner bottle removal
  - Sensor (waste toner bottle present) and bracket removal
- Installation note for aligning the motor was added to the Motor (printhead wiper) removal.
- Updated **"Motor (MPF pick) jam service check" on page 189** to include the checking of the sensor actuator (MPF media present) for possible misalignment or damage.
- Updated **"Scanner disabled (automatic) service check" on page 380** to detail the "Configuration Menu" method of resolving the error.
- Updated **"Maintenance kits" on page 775** to assign this PN to the ADF separator roller: 41X0360.
- Updated **"ADF 3" on page 823** to change the description for 41X0360 from "ADF separator roller and cover" to "ADF separator roller".

July 21, 2016

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

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

June 29, 2016

- A video link was added to the Staple finisher bin clamp assembly removal.
- Printer hardware errors (1YY) were revised.
  - – 100–101 error messages
  - – 121 error messages
  - – 126 error messages
  - – 127–128 error messages
  - – 168 error messages
  - – 169 error messages
  - – 171–179 error messages
  - – Main HVPS undetected service check (new topic)
  - – Charge roller HVPS undetected service check (new topic)
- Sensor (ADF multifeed) calibration was added to the Adjustments section. Cross-references pointing to the calibration topic have also been added to the sensor (ADF multifeed) removals.
- Updated the left door assembly to change the descriptions and PNs for callouts 2 and 12.
- Added PN 40X9934 in the Parts catalog chapter.

May 23, 2016

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

May 3, 2016

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

April 18, 2016

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

March 31, 2016

- Updated the Feeder Parts catalog to change the PN for paper overfill stop to 41X1033.
- Added PN 41X0901 for model plate (XC6152).
- PN 41X7762 was changed to 40X7762 (right hinge).
- Deleted 41X0930 (maintenance kit). Added transfer roller to the list of items that are part of the supported maintenance kits.
- FRU 41X0930—300K Roller Maintenance kit was removed from the Maintenance kits parts catalog.

March 15, 2016

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

March 11, 2016

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

February 22, 2016

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

February 9, 2016

- FRU part number 41X0975—Main fan was replaced with 41X0954 on the Electronics—Rear Parts catalog.
- Electronics—Front Parts catalog was revised.
  - FRU part number 41X0954—Printhead fan was replaced with 41X0975.
  - FRU part number 41X0162—Sensor (door interlock) was replaced with 41X0684.
  - FRU part name Switch (left door interlock) was replaced with Door interlock actuator.
- Art was revised on the Covers 1 Parts catalog.

General information

Printer model configurations

The Lexmark™ CX820 and XC6152 printers are network-capable, multifunction laser printers that print color print jobs. The control panel is touch-sensitive and lets the user adjust the viewing angle. All information in this service manual pertains to all models unless explicitly noted.

The printers are available in the following models:

Model name	Configuration / description	Machine type / model number
CX820de, CX827de	Network, duplex, 7" e-Task touch screen	7563-136
CX820dtfe	Network, duplex, 7" e-Task touch screen, two optional 550-sheet trays, caster base	7563-137
XC6152de	Network, duplex, 7" e-Task touch screen	7563-196
XC6152dtfe	Network, duplex, 7" e-Task touch screen, two optional 550-sheet trays, caster base	7563-197
N/A	2200-sheet tray	0563-HCI
N/A	550-sheet tray	0563-550
N/A	Staple finisher	0563-ILS
N/A	Caster base	9045-076

Finding the serial number

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

Paper and specialty media guide

Notes:

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

Supported paper sizes, types, and weights

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

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

Supported paper sizes

Supported input sizes

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

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

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

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

General information

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

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

Supported output sizes

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

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

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

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

Supported paper types

Supported input types

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

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

* This option supports up to 176 g/m^2 of card stock weight.

[†] Card stock that weighs more than 176 g/m^2 is supported only in one-sided printing using the standard 550-sheet tray.

Supported output types

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

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

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

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

Supported paper weights

Paper type	Standard 550-sheet tray	2200-sheet tray	Multipurpose feeder
Plain Paper[a,b]	60–176 g/m² (16–47 lb)[c]	60–120 g/m² (16–32 lb)	60–176 g/m² (16–47 lb)
Banner Paper	N/A	N/A	90–105 g/m² (24–28 lb)
Glossy	88–176 g/m² (60–120 lb)	N/A	88–176 g/m² (60–120 lb)
Card stock	88–300 g/m² (60–192 lb)	N/A	163–176 g/m² (90–120 lb)
Labels	88–300 g/m² (60–192 lb)	N/A	199–220 g/m² (53–59 lb)

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

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

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

Paper type	Standard 550-sheet tray	2200-sheet tray	Multipurpose feeder
Envelopes	N/A	N/A	60–105 g/m² (16–28 lb)

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

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

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

Supported card stock

Paper type	Grain direction	Paper weight			
		Standard tray	Optional 550-sheet tray	Multipurpose feeder	Two-sided printing
Index Bristol	Grain long	300 g/m² (166 lb)	163 g/m² (90 lb)	163 g/m² (90 lb)	163 g/m² (90 lb)
	Grain short	300 g/m² (166 lb)	199 g/m² (110 lb)	199 g/m² (110 lb)	199 g/m² (110 lb)
Tag	Grain long	300 g/m² (184 lb)	163 g/m² (100 lb)	163 g/m² (100 lb)	163 g/m² (100 lb)
	Grain short	300 g/m² (184 lb)	203 g/m² (125 lb)	203 g/m² (125 lb)	203 g/m² (125 lb)
Cover	Grain long	300 g/m² (110 lb)	176 g/m² (65 lb)	176 g/m² (65 lb)	176 g/m² (65 lb)
	Grain short	300 g/m² (110 lb)	218 g/m² (80 lb)	218 g/m² (80 lb)	218 g/m² (80 lb)

Supported labels

Label type	Width and length	Weight	Thickness	Smoothness
Paper	76 x 216 mm (3 x 8.5 in.)[a]	Up to 180 g/m² (48 lb)	0.13–0.20 mm (0.005-0.0008 in.)	50–300 Sheffield[b]
Dual web		Up to 180 g/m² (48 lb)		
Polyester		Up to 220 g/m² (59 lb)		
Vinyl		Up to 300 g/m² (92 lb)		
Integrated forms	N/A	Up to 175 g/m² (47 lb)[c]	N/A	N/A

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

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

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

Letterhead orientation

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

Notes:

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

Paper guidelines

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

Paper characteristics

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

Weight

The trays can feed paper weights from 60 to 176 g/m^2 (16 to 47 lb) grain long paper. Paper lighter than 60 g/m^2 (16 lb) may not be stiff enough to feed properly, and may cause jams.

Curl

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

Smoothness

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

Moisture content

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

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

Grain direction

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

For 60–176 g/m^2 (16–47-lb) paper, grain long paper is recommended.

Fiber content

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

Selecting paper

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

To help avoid paper jams and poor print quality:

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

Selecting preprinted forms and letterhead

- Use grain long for 60–176-g/m^2 (16–47-lb) paper.
- Use only forms and letterhead printed using an offset lithographic or engraved printing process.
- Avoid paper with rough or heavily textured surfaces.
- Use inks that are not affected by the resin in toner. Inks that are oxidation-set or oil-based generally meet these requirements; latex inks might not.
- Print samples on preprinted forms and letterheads considered for use before buying large quantities. This determines whether or not the ink in the preprinted form or letterhead will affect print quality.
- When in doubt, contact your paper supplier.

Using recycled paper and other office papers

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

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

- Amount of post-consumer waste (Lexmark tests up to 100% post-consumer waste content.)
- Temperature and humidity conditions (Testing chambers simulate climates from all over the world.)
- Moisture content (Business papers should have low moisture: 4–5%.)
- Bending resistance and proper stiffness means optimum feeding through the printer.
- Thickness (impacts how much can be loaded into a tray)
- Surface roughness (measured in Sheffield units, impacts print clarity and how well toner fuses to the paper)
- Surface friction (determines how easily sheets can be separated)
- Grain and formation (impacts curling, which also influences the mechanics of how the paper behaves as it moves through the printer)
- Brightness and texture (look and feel)

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

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

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

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

1 Minimize paper consumption.

2 Be selective about the origin of wood fiber. Buy from suppliers who carry certifications such as the Forestry Stewardship Council (FSC) or the Program for the Endorsement of Forest Certification (PEFC). These certifications guarantee that the paper manufacturer uses wood pulp from forestry operators that employ environmentally and socially responsible forest management and restoration practices.

3 Choose the most appropriate paper for printing needs: normal 75 or 80 g/m^2 certified paper, lower weight paper, or recycled paper.

Unacceptable paper examples

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

- Chemically treated papers used to make copies without carbon paper, also known as *carbonless papers*
- Preprinted papers with chemicals that may contaminate the printer
- Preprinted papers that can be affected by the temperature in the printer fuser

- Preprinted papers that require a registration (the precise location on the page) greater than ± 2.3 mm (± 0.9 in.), such as optical character recognition (OCR) forms. In some cases, registration can be adjusted with a software application to successfully print on these forms.)
- Coated papers (erasable bond), synthetic papers, thermal papers
- Rough-edged, rough or heavily textured surface papers or curled papers
- Recycled papers that fail EN12281:2002 (European testing)
- Paper weighing less than 60 g/m^2 (16 lb)
- Multiple part forms or documents

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

Storing paper

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

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

Using specialty media

Tips on using card stock

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

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

Tips on using envelopes

- From the printer control panel, set the paper size, type, texture, and weight in the Paper menu to match the envelopes loaded in the tray.
- Print samples on the envelopes being considered for use before buying large quantities.
- Use envelopes designed specifically for laser printers.
- For best performance, use envelopes made from 90-g/m^2 (24-lb) paper or 25% cotton.

- Use only new envelopes from undamaged packages.
- To optimize performance and minimize jams, do not use envelopes that:
  – Have excessive curl or twist.
  – Are stuck together or damaged in any way.
  – Have windows, holes, perforations, cutouts, or embossing.
  – Have metal clasps, string ties, or folding bars.
  – Have an interlocking design.
  – Have postage stamps attached.
  – Have any exposed adhesive when the flap is in the sealed or closed position.
  – Have bent corners.
  – Have rough, cockle, or laid finishes.
- Adjust the width guides to fit the width of the envelopes.
- Before loading the envelopes on the tray, flex the stack of envelopes back and forth to loosen them, and then fan them. Straighten the edges on a level surface.

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

Tips on using labels

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

Tips on using letterhead

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

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

Data security notice

Identifying printer memory

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

The following parts can store memory:

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

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

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase non-volatile memory:

1 From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase**.

2 Select the **Sanitize all information on nonvolatile memory** check box, and then touch **ERASE**.

3 Follow the instructions on the display.

To erase the hard disk memory:

1 From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase**.

2 Select the **Sanitize all information on hard disk** check box, and then touch **ERASE**.

3 Follow the instructions on the display.

Notes:

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

Tools required for service

- Flat-blade screwdrivers, various sizes

- #1 Phillips screwdriver, magnetic

- #2 Phillips screwdriver, magnetic

- #2 Phillips screwdriver, magnetic short-blade

- Needle-nose pliers

- Diagonal side cutters

- Spring hook

- Feeler gauges

- Analog or digital multimeter

- 3-mm ball hex wrench

- Toner vacuum

- Flashlight

Diagnostics and troubleshooting

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

⚠ **CAUTION—POTENTIAL INJURY:** The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.

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

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

Troubleshooting overview

Performing the initial troubleshooting check

- With the power cord unplugged from the electrical outlet, check if the cord is free from breakage, short circuits, disconnected wires, or incorrect connections.

- Make sure that the printer is properly grounded.

- Make sure that the power supply line voltage is within 10% of the rated line voltage.

- Make sure that the printer is securely installed on a level surface in a well-ventilated area.

- Make sure that the temperature and relative humidity are within the specifications. See **"Temperature information" on page 876**.

- Avoid locations that:
  - Generate ammonia gas
  - Are exposed to direct sunlight
  - Are near open flames
  - Are dusty

- Make sure that the recommended paper for this printer is used.

- Do a test print with paper from a newly opened package, and then check the result.

Fixing print quality issues
- **"Initial print quality check" on page 52**
- **"Blank or white pages, or one color missing check" on page 53**
- **"Dark print check" on page 56**

Initial print quality check

Before troubleshooting print problems, perform the following:

- Make sure that the printer is located in an area that follows the recommended operating environment and power requirement specifications.

- Check the status of supplies. Replace supplies that are low or empty.

- Load 20‑lb plain letter or A4 paper. Make sure that the paper guides are properly set and locked. From the control panel, set the paper size and type to match the paper loaded in the tray.

- Print and keep the menu settings page. The original menu settings page is used to restore the custom settings if necessary.

- Make sure that the Print resolution and Toner darkness on the menu settings page are set to their default values.

- Check the transfer roller, toner cartridge, and transfer belt for damage, and replace if necessary.

- Print the advanced print quality samples to see if the problem remains. Use tray 1 to test print quality problems. Look for variations in the print from what is expected.

- Make sure that the correct print driver is used to prevent print problems. If the wrong print driver is installed, then incorrect characters could print and the copy may not fit the page correctly.

Blank or white pages, or one color missing check

Actions	Yes	No
Step 1 **a** Remove the transfer belt. **b** Check if the cable shield end of the transfer belt contact is touching the black only retract coupler. Does the transfer belt contact interfere with the BOR coupler?	Go to step 2.	Go to step 3.
Step 2 Reinstall, repair, or replace the transfer belt contact. Does the problem remain?	Go to step 5.	The problem is solved.
Step 3 Check the cable for proper connection. • Check the controller board socket JVD01. • Check the cable connected to the printhead. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** From the home screen, touch **Settings** > **Device** > **Notifications** > **Show Supply Estimates**. **b** Check the remaining life of the photoconductor units and developer units. Is the photoconductor unit or developer unit near or at its end of life?	Go to step 6.	Go to step 7.
Step 6 Replace the appropriate photoconductor unit or developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 7.	The problem is solved.

Actions	Yes	No
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color missing?	Go to step 8.	Go to step 7.
Step 8 Check the contacts of the photoconductor unit and developer unit of the affected color. Are the contacts clean?	Go to step 10.	Go to step 9.
Step 9 Clean the contacts. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Do the following: • If the missing color is cyan, magenta, or yellow, then replace the appropriate developer unit. • If the missing color is black, then replace the black developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. 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** Select the developer unit of the affected color, and then touch **Start**. Do the developer unit drive couplers rotate?	Go to step 13.	Go to step 12.
Step 12 Replace the EP/developer/toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Remove the main HVPS, and then clean its contacts. See **"Main HVPS removal" on page 541**. **b** Reinstall the main HVPS. Does the problem remain?	Go to step 14.	The problem is solved.

Actions	Yes	No
Step 14 Replace the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the continuity of the main HVPS cable. Does the cable have continuity?	Go to step 17.	Go to step 16.
Step 16 Replace the cable. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics** Let the cleaning operation run for three minutes. **b** From the home screen, touch **Settings** > **Reports** > **Print Quality Pages**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 **a** Turn off the printer to let the printhead shutters remain open. **b** Remove the developer and PC combos, and then clean the printhead lenses using a lint-free cloth. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the motor (printhead wiper) for damage. Is the motor free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the motor. See **"Motor (printhead wiper) removal" on page 514**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the printhead wiper actuator rack for misalignment and damage. Is the actuator rack properly engaged with the printhead wipers, and is it free of damage?	Go to step 23.	Go to step 22.

Actions	Yes	No
Step 22 Reinstall or replace the printhead wiper actuator rack. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Replace the printhead. See **"Printhead removal" on page 511**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Dark print check

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

Actions	Yes	No
Step 4 Perform color alignment adjustment on all colors. See **"Color alignment adjust" on page 443**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform the Toner patch sensing service check. See **"Toner patch sensing service check" on page 413**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the main HVPS for proper connection. • Check the main HVPS connector. • Check the main HVPS socket JHVPS1 on the controller board. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the continuity of the main HVPS cable. Does the cable have continuity?	Go to step 10.	Go to step 9.
Step 9 Replace the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the electrical contacts of the developer/PC unit wiper rail of the affected color. Are the contacts stuck or damaged?	Go to step 11.	Go to step 11.
Step 11 Repair or replace the developer/PC unit wiper rail. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the electrical contacts of the transfer belt. Are the pins stuck or damaged?	Go to step 13.	Go to step 14.

Actions	Yes	No
Step 13 Repair the pins or replace the transfer belt contacts. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Ghost images check

Actions	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color affected on the ghost images?	Go to step 2.	Go to step 3.
Step 2 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the transfer belt for traces of residual toner. Is the transfer belt free of residual toner?	Go to step 5.	Go to step 4.
Step 4 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 5.	The problem is solved.

Actions	Yes	No
Step 5 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Gray or colored background check

Actions	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page for background. Is only one color producing the background?	Go to step 2.	Go to step 4.
Step 2 **a** From the home screen, touch **Settings** > **Device** > **Notifications** > **Show Supply Estimates**. **b** Check the remaining life of the photoconductor units and developer units. Is the photoconductor unit or developer unit near or at its end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the appropriate photoconductor unit or developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the waste toner bottle. Is the waste toner bottle full?	Go to step 5.	Go to step 6.
Step 5 Replace the waste toner bottle. Does the problem remain?	Go to step 6.	The problem is solved.

Actions	Yes	No
Step 6 Check the transfer roller for misalignment, wear, and damage. Is the transfer roller properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the transfer roller. See **"Transfer roller removal" on page 478**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the transfer belt for misalignment, wear, and damage. Is the transfer belt properly installed and free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the main HVPS for proper connection. • Check the main HVPS connector. • Check the main HVPS socket JHVPS1 on the controller board. Is the cable properly connected?	Go to step 12.	Go to step 11.
Step 11 Reseat the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the continuity of the main HVPS cable. Does the cable have continuity?	Go to step 14.	Go to step 13.
Step 13 Replace the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the charge roller HVPS for proper connection. • Check the charge roller HVPS connector. • Check the charge roller HVPS socket JHVPS2 on the controller board. Is the cable properly connected?	Go to step 16.	Go to step 15.

Actions	Yes	No
Step 15 Reseat the cable. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the continuity of the charge roller HVPS cable. Does the cable have continuity?	Go to step 18.	Go to step 17.
Step 17 Replace the cable. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Remove, and then reinstall the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Replace the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Remove, and then reinstall the charge roller HVPS. See **"Charge roller HVPS removal" on page 560**. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the charge roller HVPS. See **"Charge roller HVPS removal" on page 560**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Horizontal dark lines check

ABCDE
ABCDE
ABCDE

Actions	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page for dark lines. Does the line repeat within a test page?	Go to step 2.	Go to step 3.
Step 2 Perform the Repeating defects service check. See **"Repeating defects check" on page 84**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the pages right after the defective page. Does the defect repeat after two consecutive normal pages (A3 or letter) have been printed?	Go to step 4.	The problem is solved.
Step 4 Check the transfer belt for contamination. Is the transfer belt free of contamination?	Go to step 6.	Go to step 5.
Step 5 Clean the transfer belt. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Light print check

ABC
DEF

Actions	Yes	No
Step 1 **a** From the home screen, touch **Settings** > **Print** > **Quality** > **Color saver**. **b** Set Color saver to Off. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Update the firmware to the latest version. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** From the home screen, touch **Settings** > **Print** > **Quality** > **Toner Darkness**. **b** Check the darkness setting value. Is the darkness setting too low?	Go to step 4.	Go to step 5.
Step 4 Adjust the darkness setting to the proper value. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color producing light print?	Go to step 6.	Go to step 15.
Step 6 Check the toner cartridge of the affected color for proper installation. • Make sure that there are no packing material still on it. • Check for misalignment. Is the toner cartridge properly installed?	Go to step 8.	Go to step 7.

Actions	Yes	No
Step 7 Reinstall the toner cartridge. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the affected toner cartridge. • Check the shutter. **Note:** The toner cartridge shutter slides open to supply toner to the developer unit. • Check if the cartridge is empty. Is the toner cartridge filled and properly working?	Go to step 10.	Go to step 9.
Step 9 Repair the shutter or replace the toner cartridge. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the developer unit of the affected color for proper installation. Is the developer unit properly installed?	Go to step 12.	Go to step 11.
Step 11 Reinstall the developer unit. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** **b** Select the motor (toner add) of the affected color, and then touch **Start**. Does the motor run?	Go to step 15.	Go to step 13.
Step 13 Check the motor cable JBTLM1 on the controller board for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the motor. Does the problem remain?	Go to step 15.	The problem is solved.

Actions	Yes	No
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics** Let the cleaning operation run for three minutes. **b** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Turn off the printer to let the printhead shutters remain open. **b** Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the main HVPS for proper connection. • Check the main HVPS connector. • Check the main HVPS socket JHVPS1 on the controller board. Is the cable properly connected?	Go to step 19.	Go to step 18.
Step 18 Reseat the cable. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the continuity of the main HVPS cable. Does the cable have continuity?	Go to step 21.	Go to step 20.
Step 20 Replace the cable. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Check the electrical contacts of the developer/PC unit wiper rail of the affected color. Are the contacts stuck or damaged?	Go to step 23.	Go to step 22.

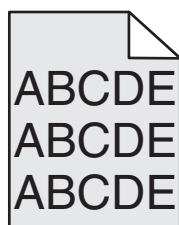| Actions	Yes	No
Step 22 Repair or replace the developer/PC unit wiper rail. See **"Developer/PC unit CMY wiper rail removal" on page 553** or **"Developer/PC unit K wiper rail removal" on page 554**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Check the electrical contacts of the transfer belt. Are the pins stuck or damaged?	Go to step 24.	Go to step 25.
Step 24 Repair the pins or replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Replace the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Mottled print and dots check

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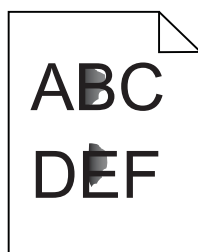
Actions	Yes	No
Step 1 **a** From the home screen, touch **Settings** > **Device** > **Preferences**. **b** Check if the paper type and size settings match the paper type and size set on the tray. Do the settings match?	Go to step 3.	Go to step 2.
Step 2 Change the paper size and type, or adjust the size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

Actions	Yes	No
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 Check the printer for toner contamination. Is the printer free of leaked toner?	Go to step 7.	Go to step 6.
Step 6 Remove the leaked toner. - Using a toner vacuum, clean the printer and remove all traces of leaked toner. - Print several pages to clear the remaining traces of toner from the imaging components. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** From the home screen, touch **Settings** > **Device** > **Notifications** > **Show Supply Estimates**. **b** Check the remaining life of the photoconductor units and developer units. Is the photoconductor unit or developer unit near or at its end of life?	Go to step 8.	Go to step 9.
Step 8 Replace the appropriate photoconductor unit or developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color producing mottled print and dots?	Go to step 10.	Go to step 11.

Actions	Yes	No
Step 10 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Print crooked or skewed check
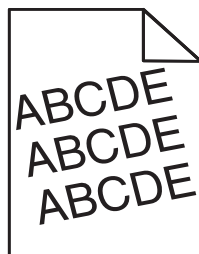
Actions	Yes	No
Step 1 Check the positions of the guides on all the trays. Adjust the guides to match the size of the paper. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the deskew roller for contamination and damage. Is the roller free of contamination and damage?	Go to step 4.	Go to step 3.
Step 3 Clean or replace the deskew roller. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Perform the printhead alignment adjustment. See **"Printhead alignment adjustment" on page 469**. Does the problem remain?	Go to step 5.	The problem is solved.

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

Solid color or black images check

Actions	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color producing the solid color image?	Go to step 2.	Go to step 4.
Step 2 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Replace the developer unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the charge roller HVPS for proper connection. • Check the charge roller HVPS connector. • Check the charge roller HVPS socket JHVPS2 on the controller board. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the continuity of the charge roller HVPS cable. Does the cable have continuity?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the high voltage connectors on the charge roller HVPS for proper connection. Are the connectors properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the high voltage connectors. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the charge roller HVPS. See **"Charge roller HVPS removal" on page 560**. Does the problem remain?	Go to step 11.	The problem is solved.

Actions	Yes	No
Step 11 Check the cable for proper connection. • Check the controller board socket JVD01. • Check the cable connected to the printhead. Is the cable properly connected?	Contact the next level of support.	Go to step 12.
Step 12 Reseat the cable. Does the problem remain?	Contact the next level of support.	The problem is solved.

Text or images cut off check

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

Toner easily rubs/flakes off check

Actions	Yes	No
Step 1 a From the home screen, touch **Settings** > **Device** > **Preferences**. b Make sure that the paper type and size settings match with the paper type and size set on the tray. Does the problem remain?	Go to step 2.	The problem is solved.

Actions	Yes	No
Step 2 Check the paper for texture or rough finish. Is the paper textured or rough?	Go to step 3.	Go to step 4.
Step 3 Replace the textured or rough paper with plain paper. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove, and then reinstall the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** From the home screen, touch **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Reports** > **Event Log**. **b** Check the log history for fuser error codes. Are there fuser error codes on the event log?	Go to step 7.	Go to step 8.
Step 7 Perform the service check for the error code found. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the LVPS. See **"LVPS removal" on page 568**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Uneven print density check

Actions	Yes	No
Step 1 Load paper from a fresh package. **Note:** Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color producing uneven print density?	Go to step 3.	Go to step 4.
Step 3 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove, and then reinstall the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove, and then reinstall the transfer roller. See **"Transfer roller removal" on page 478**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the transfer roller. See **"Transfer roller removal" on page 478**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical dark lines or streaks check

Actions	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color producing the vertical lines or streaks?	Go to step 2.	Go to step 3.
Step 2 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical white lines or voids check

Actions	Yes	No
Step 1 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page and check the colors affected. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics** Let the cleaning operation run for three minutes. **b** From the home screen, touch **Settings** > **Reports** > **Print Quality Pages**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Turn off the printer to let the printhead shutters remain open. **b** Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Replace the developer unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the printhead. See **"Printhead removal" on page 511**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Blurred print or misaligned color check
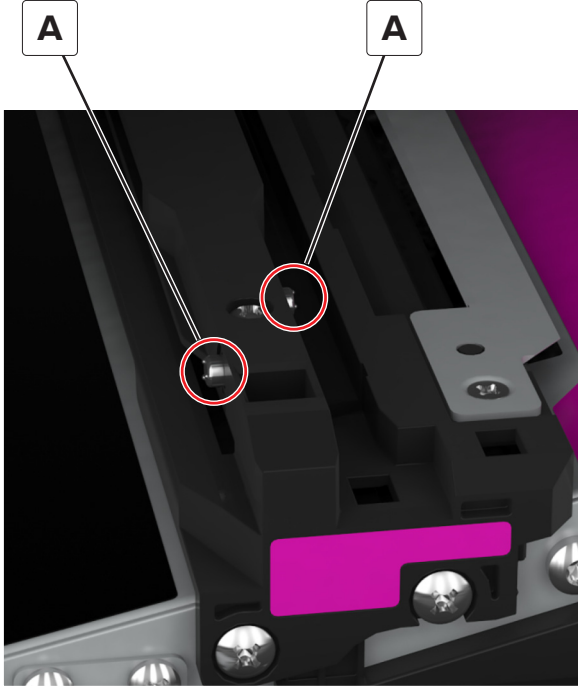
Actions	Yes	No
Step 1 **a** From the home screen, touch **Settings** > **Print Quality Pages**. **b** Check the test page. Is only one color blurred or misaligned?	Go to step 2.	Go to step 3.
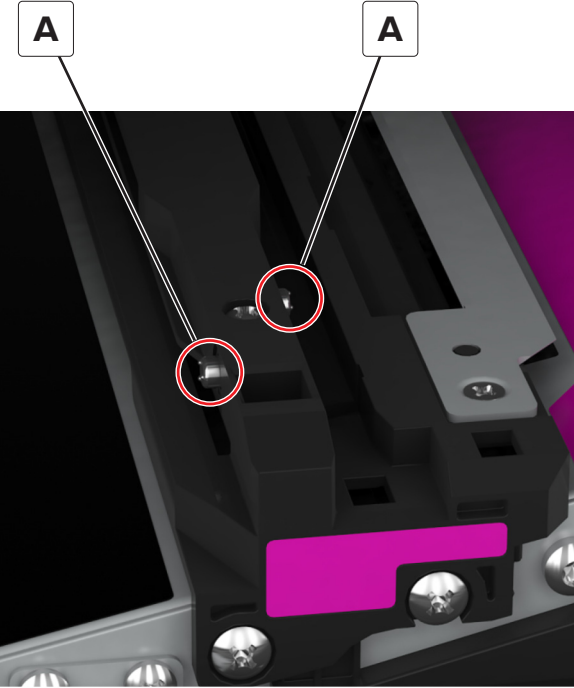
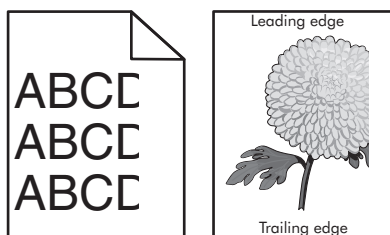| Actions	Yes	No
Step 2 Perform color alignment adjustment on the misaligned color. See **"Color alignment adjust" on page 443**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Perform color alignment adjustment on all colors. See **"Color alignment adjust" on page 443**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Perform the Auto alignment service check. See **"Auto alignment service check" on page 410**. Does the problem remain?	Go to step 5.	The problem is solved.

Step 5
 	
a Enter the Diagnostics menu, and then navigate to:
 	
   Printer setup > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics**
   Let the cleaning operation run for three minutes.
b Enter the Diagnostics menu, and then navigate to:
 	
   Advanced Print Quality Samples > **Advanced Print Quality Samples**
 	
Does the problem remain?
	Go to step 6.	The problem is solved.

Step 6 **a** Turn off the printer to let the printhead shutters remain open. **b** Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the EP/Developer/toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the printhead. See **"Printhead removal" on page 511**. Does the problem remain?	Go to step 9.	The problem is solved.

Actions	Yes	No
Step 9 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Gritty print check

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

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

Actions	Yes	No
Step 8 Press the charge contacts (A) to check if they actuate freely. Do the contacts actuate freely?	Go to step 10.	Go to step 9.
Step 9 Replace the developer/PC unit wiper rail of the affected color. See **"Developer/PC unit K wiper rail removal" on page 554** or **"Developer/PC unit CMY wiper rail removal" on page 553**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the developer unit and photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 11.	The problem is solved.

Actions	Yes	No
Step 11 Check the test page for the following print quality issues, and then resolve the issues found. • If there are solid color or black images, then see **"Solid color or black images check" on page 69**. • If there are one or more missing colors, then see **"Blank or white pages, or one color missing check" on page 53**. • If there are horizontal dark lines, then see **"Horizontal dark lines check" on page 62**. • If there is image banding, then see **"Image banding check" on page 80**. • If there is dark print, then see **"Dark print check" on page 56**. • If there is gray or colored background, then see **"Gray or colored background check" on page 59**. • If there is light print, then see **"Light print check" on page 63**. • If there are mottled print and dots, then see **"Mottled print and dots check" on page 66**. • If there is blurred print or misaligned color, then see **"Blurred print or misaligned color check" on page 75**. • If there are image voids, then see **"Image void (process direction) check" on page 82**. Does the problem remain?	Contact the next level of support.	The problem is solved.

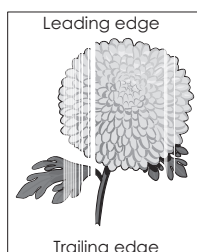## Image banding check

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

Actions	Yes	No
Step 3 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove, and then reinstall the transfer roller. See **"Transfer roller removal" on page 478**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove, and then reinstall the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the transfer roller. See **"Transfer roller removal" on page 478**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Image void (process direction) check

Actions	Yes	No
Step 1 Load paper from a fresh package. **Note:** Paper may absorb moisture due to high humidity. Store paper in its original wrapper until it is ready to be used. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics** Let the cleaning operation run for three minutes. **b** From the home screen, touch **Settings** > **Reports** > **Print Quality Pages**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Turn off the printer to let the printhead shutters remain open. **b** Remove the developer and PC unit combos, and then clean the printhead lenses using a lint-free cloth. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (printhead wiper) for damage. Is the motor free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the motor. See **"Motor (printhead wiper) removal" on page 514**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the printhead wiper actuator rack for misalignment and damage. Is the actuator rack properly engaged with the printhead wipers, and is it free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the printhead wiper actuator rack. Does the problem remain?	Go to step 8.	The problem is solved.

Actions	Yes	No
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** **b** Check the test page. Is only one color affected?	Go to step 9.	Go to step 10.
Step 9 Replace the photoconductor unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the transfer belt for contamination. Is the transfer belt free of contamination?	Go to step 12.	Go to step 11.
Step 11 Clean the transfer belt. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Random marks check

Actions	Yes	No
Step 1 Check the printer for toner contamination. Is the printer free of leaked toner?	Go to step 3.	Go to step 2.
Step 2 Remove the leaked toner. • Using a toner vacuum, clean the printer and remove all traces of leaked toner. • Print several pages to clear the remaining traces of toner from the developer units and PC units. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Check the developer and PC unit combo for contamination. Is the developer and PC unit combo free of contamination?	Go to step 5.	Go to step 4.
Step 4 Clean or replace the developer and PC unit combo. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the developer units for contamination. Is the developer unit free of contamination?	Go to step 7.	Go to step 6.
Step 6 Replace the contaminated developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the transfer belt for contamination. Is the transfer belt free of contamination?	Contact the next level of support.	Go to step 8.
Step 8 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Repeating defects check

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

Action	Yes	No
Step 4 Replace the developer unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 5 Measure the distance between the repeating marks. Is the distance between the marks either 125.7 mm, or 35.4 mm?	Go to step 6.	Go to step 7.
Step 6 Replace the developer unit of the affected color. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 7 Measure the distance between the repeating marks. Is the distance between the marks 78.5 mm?	Go to step 8.	Go to step 9.
Step 8 Replace the transfer roller. See **"Transfer roller removal" on page 478**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 9 Measure the distance between the repeating marks. Is the distance between the marks either 96.6 mm or 127.6 mm?	Go to step 10.	Go to step 11.
Step 10 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 11 Measure the distance between the repeating marks. Is the distance between the marks either 47.1 mm or 90 mm?	Go to step 13.	Go to step 12.
Step 12 Check the marks that appear on a multi-page print job. Do the marks appear on every other page?	Go to step 13.	Contact the next level of support.

Action	Yes	No
Step 13 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fixing scan quality issues

Dark image quality (using the ADF or scanner) check

Actions	Yes	No
Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 51**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Clean the ADF glass and the scanner glass. For more information, go to **"Cleaning the scanner" on page 777**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 a Open the ADF bottom door (door E). b In door E, clear the ADF glasspad of contamination or dust. For more information, go to **"Cleaning the scanner" on page 777**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the ADF glass pad for contamination. Is the glass pad free of contamination?	Go to step 7.	Go to step 6.

Actions	Yes	No
Step 6 Clean the ADF glass pad. For more information, go to **"Cleaning the scanner" on page 777**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Open door E. **b** In door E, check the ADF glasspad for contamination. Is the glasspad free of contamination?	Go to step 9.	Go to step 8.
Step 8 Clean the ADF glass pad in door E. For more information, go to **"Cleaning the scanner" on page 777**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Replace the appropriate CCDM. **b** Perform a scan-to-print test using both the ADF and scanner unit assemblies. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the printer controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Vertical lines (process direction using the ADF) check

Actions	Yes	No
Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 51**. Does the problem remain?	Go to step 3.	The problem is solved.

Actions	Yes	No
Step 3 Check the ADF glass for contamination or damage. Is the glass free of contamination and damage?	Go to step 5.	Go to step 4.
Step 4 Clean the glass or replace the ADF top cover. For more information, go to **"Cleaning the scanner" on page 777**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Open the ADF bottom door (door E). **b** In door E, clean the ADF glass of contamination or dust. For more information, go to **"Cleaning the scanner" on page 777**. **c** Perform a scan-to-print test using the ADF or scanner unit assembly. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 634**. **b** Perform a scan-to-print test using both the ADF and scanner unit assemblies. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Replace the printer controller board. See **"Controller board removal" on page 564**. **b** Perform a scan-to-print test using both the ADF and scanner unit assemblies. Does the problem remain?	Contact the next level of support.	The problem is solved.

Spots (using the flatbed scanner) check

Actions	Yes	No
Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 51**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the scanner glass on the scanner unit assembly for contamination or damage. Is the glass free of contamination and damage?	Go to step 5.	Go to step 4.
Step 4 Clean the scanner glass or replace the ADF top cover. For more information, go to **"Cleaning the scanner" on page 777**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Open the ADF bottom door (door E). **b** In door E, clear the ADF glass of contamination or dust. **c** Perform a scan-to-print test using both the ADF and scanner unit assemblies. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 634**. **b** Perform a scan-to-print test using both the ADF and scanner unit assemblies. Does the problem remain?	Go to step 7.	The problem is solved.

Actions	Yes	No
Step 7 **a** Replace the printer controller board. See **"Controller board removal" on page 564**. **b** Perform a scan-to-print test using both the ADF and scanner unit assemblies. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF skew check

Actions	Yes	No
Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 51**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check if the printer is placed in a flat, sturdy, and stable surface. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the caster base casters for damage. Are the casters free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the damaged caster. See **"Locking caster removal" on page 678** or **"Non-locking caster removal" on page 681**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Properly load the document into the ADF tray and ensure that all guides are correctly set. Does the problem remain?	Go to step 7.	The problem is solved.

Actions	Yes	No
Step 7 Clear the paper path in the ADF of any obstructions. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Open, and then properly close the following ADF covers and door: • Left cover • Top cover • Top door assembly Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the ADF pick roller for wear or damage. Is the roller free of wear or damage?	Go to step 11.	Go to step 10.
Step 10 Replace the ADF pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 11 Check the ADF separator roller for wear or damage. Is the roller free of wear or damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the ADF separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Media damage (using the ADF) check

Actions	Yes	No
Step 1 Isolate the scanner system by printing the advanced print quality samples directly from the printer. Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Is the scan defect seen on the print quality samples?	Go to step 2.	Go to step 3.
Step 2 Identify, and then resolve the print quality defect. See **"Fixing print quality issues" on page 51**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Properly load the document into the ADF tray and ensure that all guides are correctly set. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Clear the paper path in the ADF of any obstructions. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Open, and then properly close the following ADF covers and door: • Left cover • Top cover • Top door assembly Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the ADF pick roller for wear or damage. Is the roller free of wear or damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the ADF pick roller. See **"ADF maintenance kit removal" on page 604**. 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
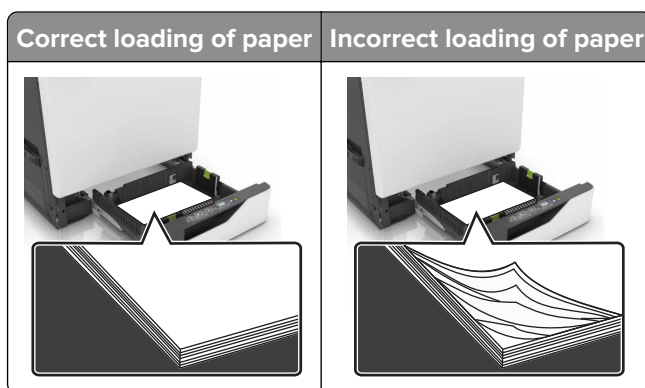
- Do not load or remove a tray while the printer is printing.
- Do not load too much paper. Make sure that the stack height is below the maximum paper fill indicator.
- Do not slide paper into the tray. Load paper as shown in the illustration.
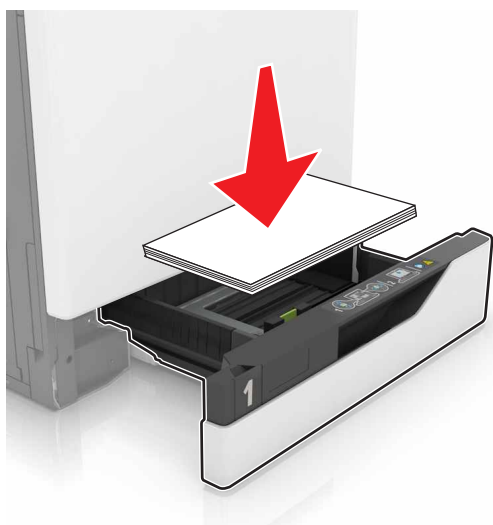
- Make sure that the paper guides are positioned correctly and are not pressing tightly against the paper or envelopes.
- Push the tray firmly into the printer after loading paper.

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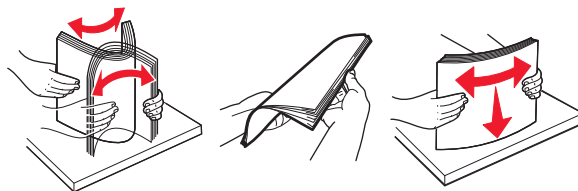
- Do not use paper that has been cut or trimmed by hand.
- Do not mix paper sizes, weights, or types in the same tray.
- Make sure that the paper size and type are set correctly on the computer or printer control panel.
- Store paper according to manufacturer recommendations.

Identifying jam locations

Notes:

- When Jam Assist is set to On, the printer flushes blank pages or pages with partial prints after a jammed page has been cleared. Check your printed output for blank pages.
- When Jam Recovery is set to On or Auto, the printer reprints jammed pages.
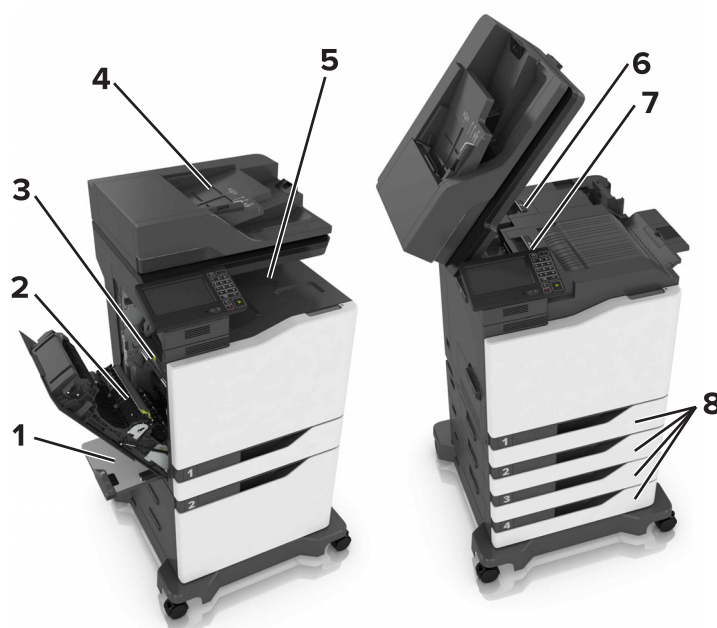
	Jam locations
1	Multipurpose feeder
2	Duplex unit
3	Fuser
4	Automatic document feeder (ADF)
5	Standard bin

	Jam locations
6	Door G
7	Door F
8	Trays

Paper jam in trays

1 Pull out the tray.

2 Remove the jammed paper.

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

3 Insert the tray.

4 Open the tray cover.

5 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

6 Close the tray cover.

Paper jam in the multipurpose feeder

1 Remove paper from the multipurpose feeder.

2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.
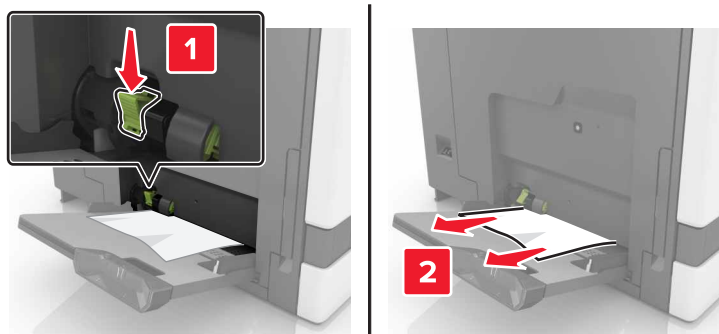
3 Open door B, and then remove any paper fragments.

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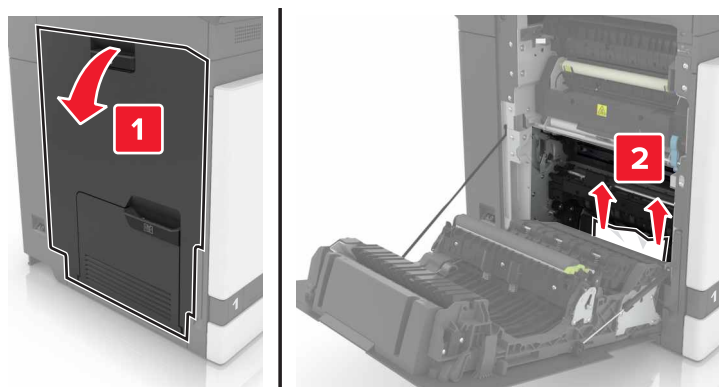
4 Close door B.

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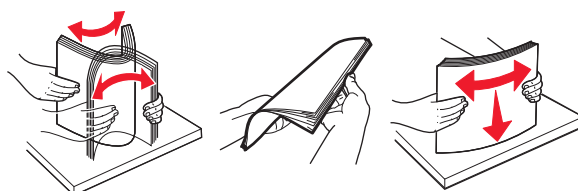
6 Reload paper.

Paper jam in the automatic document feeder

1 Remove all original documents from the ADF tray.

2 Open door D.
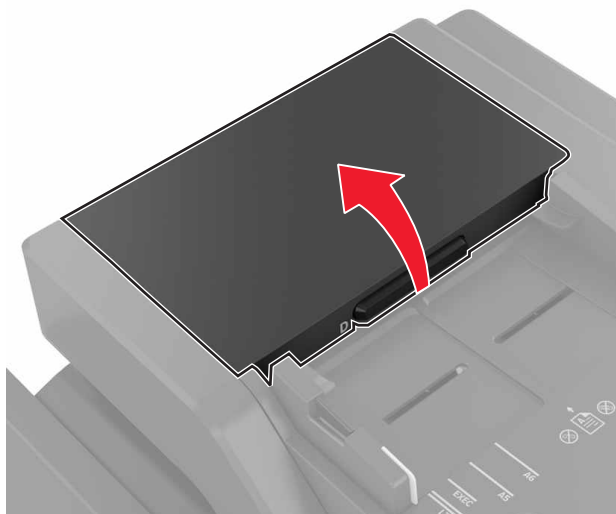
3 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.

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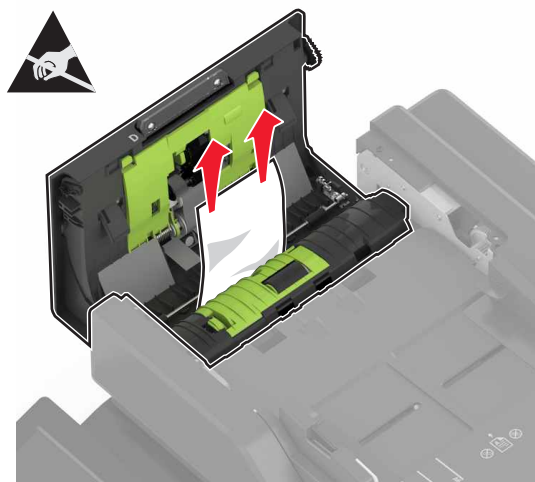
4 Close door D.

5 Open the scanner cover.

6 Open door E.
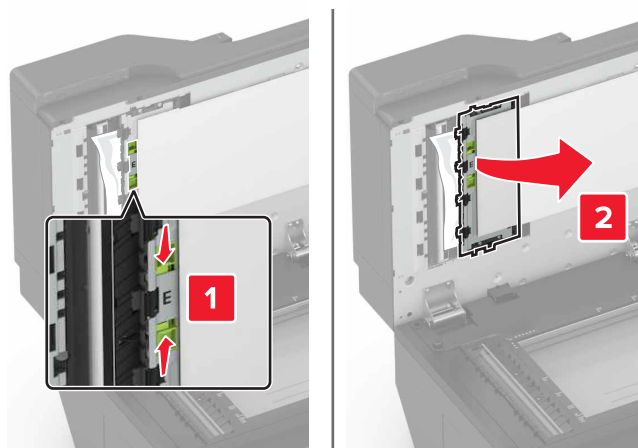
7 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.
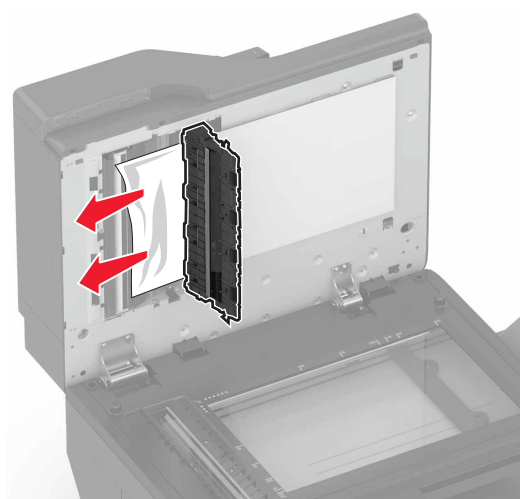
8 Close door E and the scanner cover.

Paper jam in the standard bin

1 Remove the jammed paper.
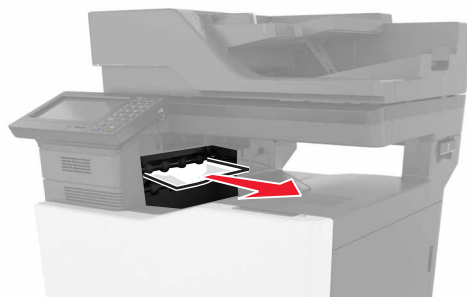
   Note: Make sure that all paper fragments are removed.

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

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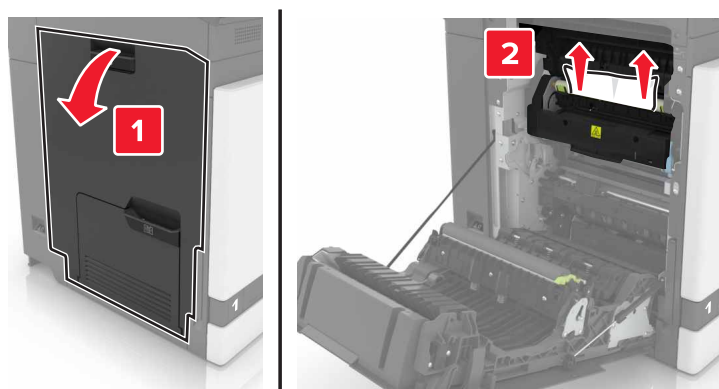
3 Close door B.

Paper jam in door B

Paper jam in the fuser

1 Open door B.

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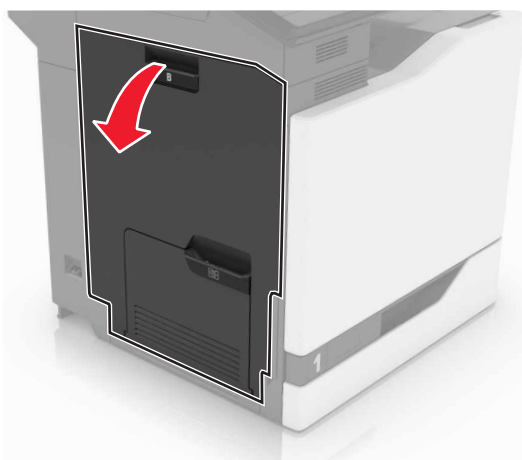
2 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.
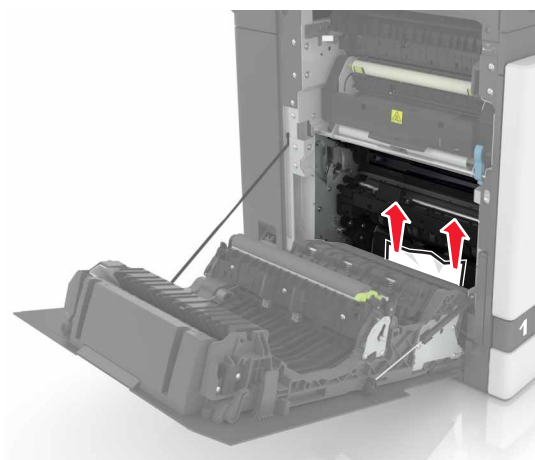
3 Open the fuser access door.
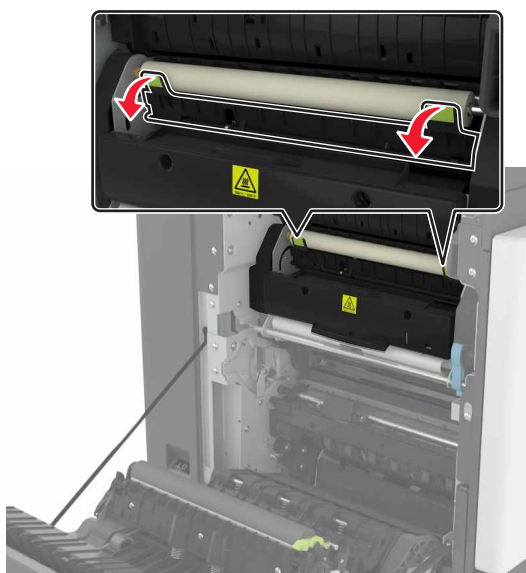
4 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.
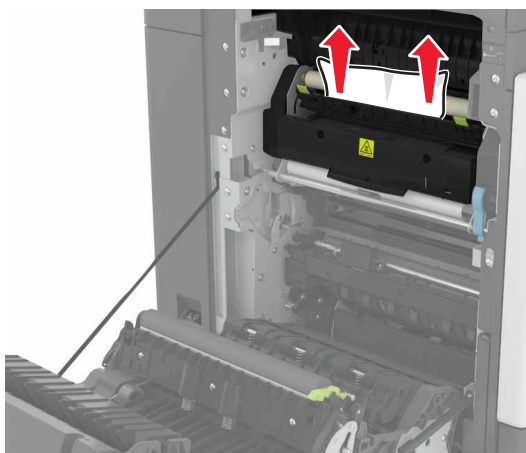
5 Close door B.

Paper jam in the duplex unit

1 Open door B.

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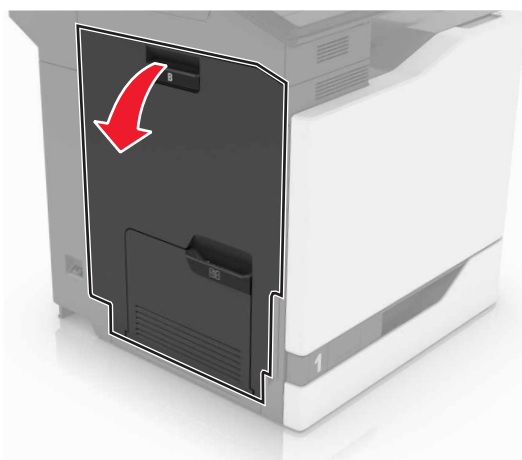
2 Remove the jammed paper.

    Note: Make sure that all paper fragments are removed.
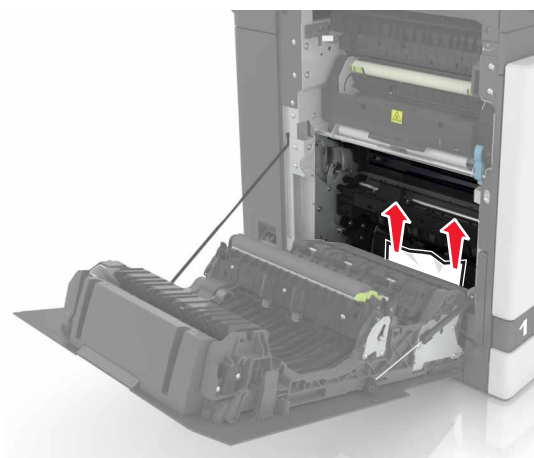
3 Open the duplex cover.
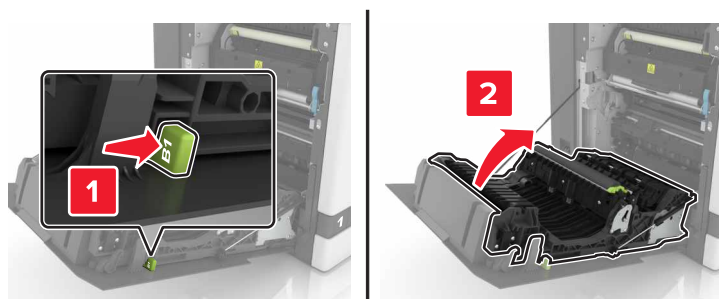
4 Remove the jammed paper.

    Note: Make sure that all paper fragments are removed.
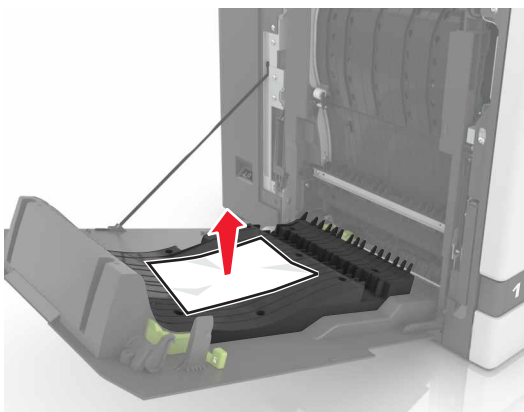
5 Close the duplex cover and door B.

Paper jam in the finisher bin

1 Remove the jammed paper.

  Note: Make sure that all paper fragments are removed.
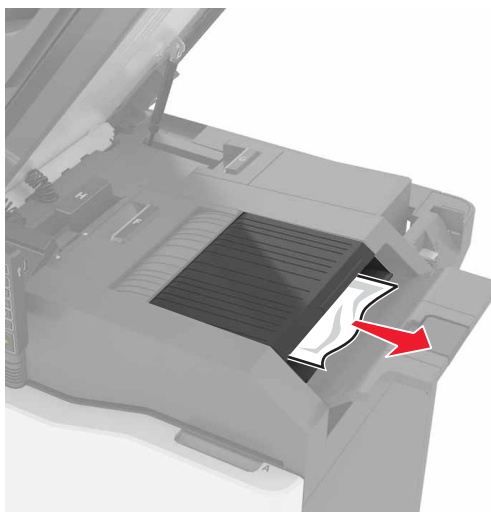
2 Open door C.
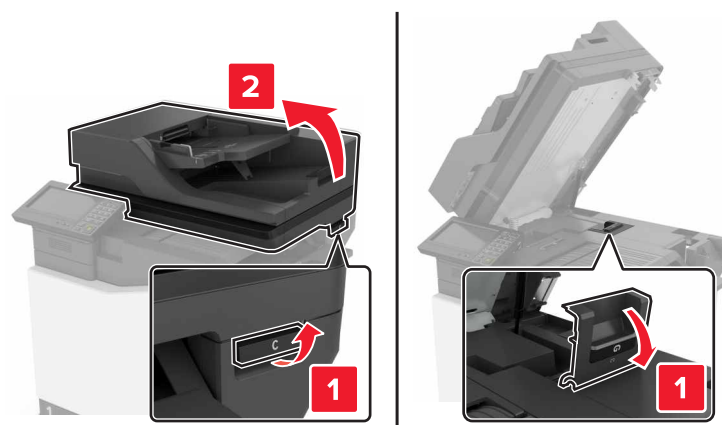
3 Open door F.
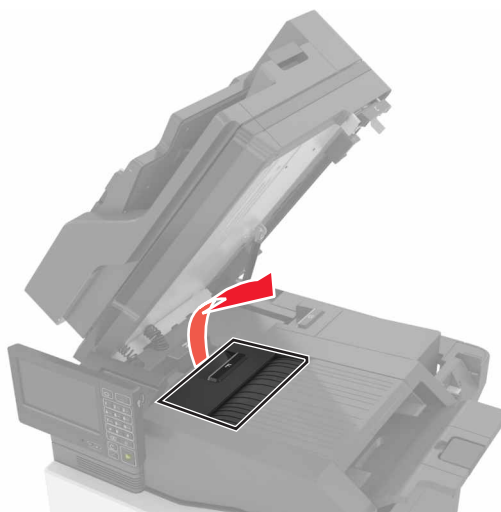
4 Remove the jammed paper.

Note: Make sure that all paper fragments are removed.
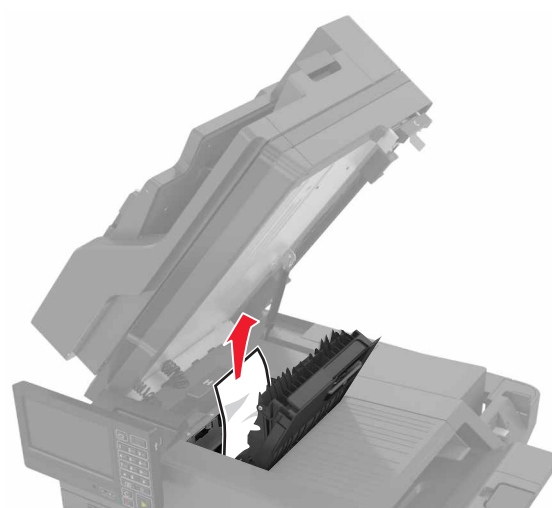
5 Close doors F and C.

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

Staple jam in door G

1 Open door C.
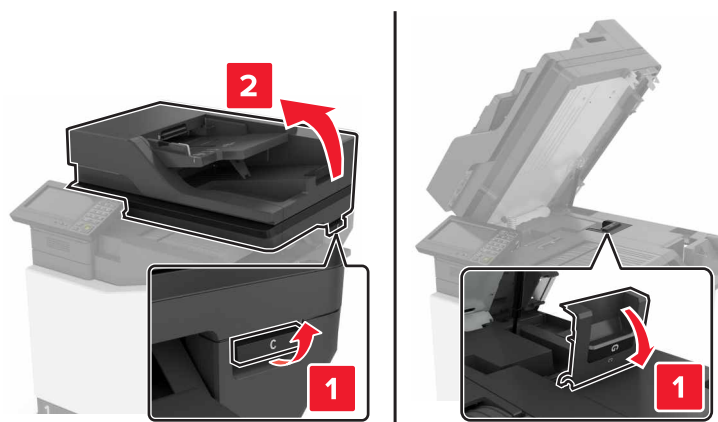
2 Open door G.
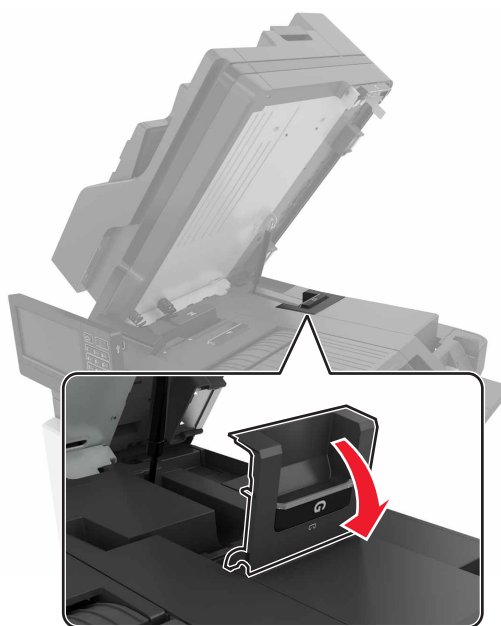
3 Pull out the staple cartridge holder.
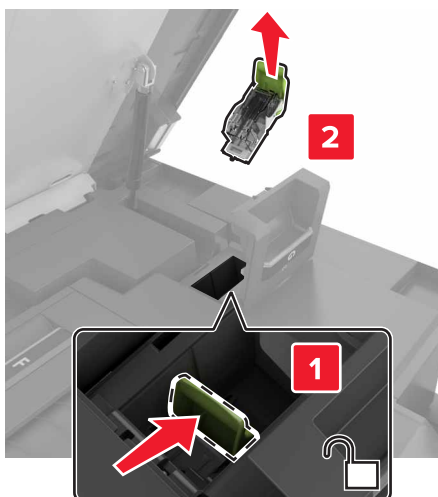
4 Lift the staple guard, remove the loose staples, and then remove the partial slab of staples so only the full slabs remain.
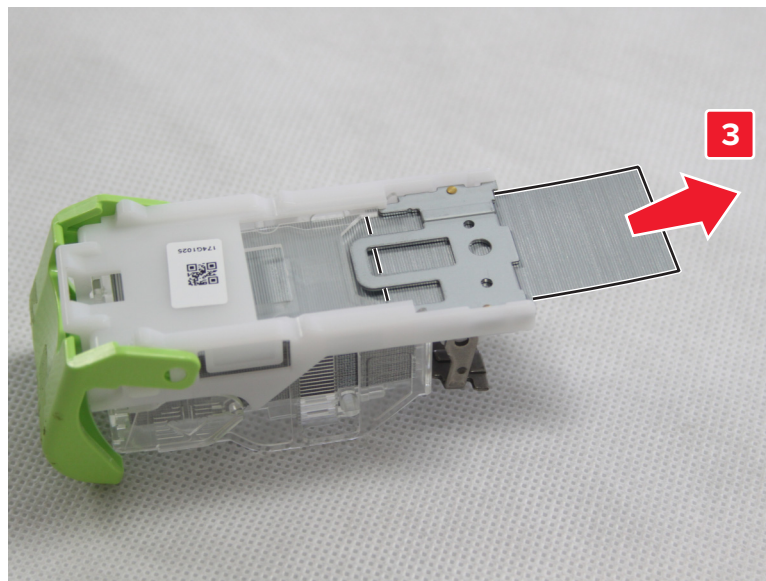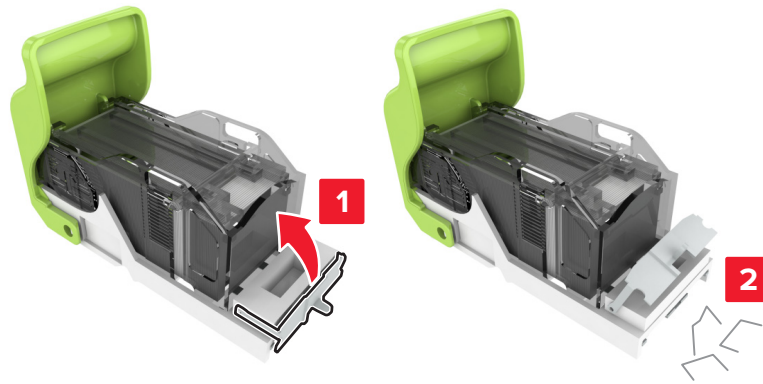
5 Close the staple guard.

6 Insert the staple cartridge holder.
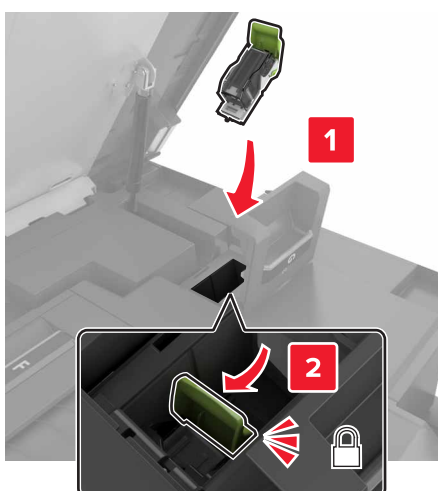
7 Close doors G and C.

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

200 paper jams

200 paper jam messages

Error code	Description	Action
200.05	Paper fed from the MPF never cleared the sensor (input).	See **"Sensor (input): Paper failed to clear service check" on page 111**.
200.12	Paper fed from tray 1 was detected earlier than expected at the sensor (input).	See **"Sensor (input): Paper arrived too early service check" on page 111**.
200.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected.	See **"Sensor (input): Paper cleared too early service check" on page 132**.

Error code	Description	Action
200.15	Paper fed from tray 1 never cleared the sensor (input).	See **"Sensor (input): Paper failed to clear service check" on page 111**.
200.16	Paper fed from tray 1 was picked but it never arrived at the sensor (input).	See **"Sensor (input): Tray 1 failed to pick service check" on page 113**.
200.22	Paper fed from tray 2 was detected earlier than expected at the sensor (input).	See **"Sensor (input): Paper arrived too early service check" on page 111**.
200.23	Paper fed from tray 2 jammed at the sensor (input). Paper did not reach the sensor (input).	See **"Sensor (input): Paper (tray 2) failed to arrive service check" on page 115**.
200.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected.	See **"Sensor (input): Paper cleared too early service check" on page 132**.
200.25	Paper fed from tray 2 never cleared the sensor (input).	See **"Sensor (input): Paper failed to clear service check" on page 111**.
200.32	Paper fed from tray 3 was detected earlier than expected at the sensor (input).	See **"Sensor (input): Paper arrived too early service check" on page 111**.
200.33	Paper fed from tray 3 jammed at the sensor (input). Paper did not reach the sensor (input).	See **"Sensor (input): Paper (tray 3) failed to arrive service check" on page 118**.
200.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected.	See **"Sensor (input): Paper cleared too early service check" on page 132**.
200.35	Paper fed from tray 3 never cleared the sensor (input).	See **"Sensor (input): Paper failed to clear service check" on page 111**.
200.42	Paper fed from tray 4 was detected earlier than expected at the sensor (input).	See **"Sensor (input): Paper arrived too early service check" on page 111**.
200.43	Paper fed from tray 4 jammed at the sensor (input). Paper did not reach the sensor (input).	See **"Sensor (input): Paper (tray 4) failed to arrive service check" on page 121**.
200.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected.	See **"Sensor (input): Paper cleared too early service check" on page 132**.
200.45	Paper fed from tray 4 never cleared the sensor (input).	See **"Sensor (input): Paper failed to clear service check" on page 111**.
200.52	Paper fed from tray 5 was detected earlier than expected at the sensor (input).	See **"Sensor (input): Paper arrived too early service check" on page 111**.
200.53	Paper fed from tray 5 jammed at the sensor (input). Paper did not reach the sensor (input).	See **"Sensor (input): Paper (tray 5) failed to arrive service check" on page 126**.
200.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected.	See **"Sensor (input): Paper cleared too early service check" on page 132**.
200.55	Paper fed from tray 5 never cleared the sensor (input).	See **"Sensor (input): Paper failed to clear service check" on page 111**.
200.56	Paper fed from tray 5 was picked but it never arrived at the sensor (input).	See **"Sensor (input): Paper (tray 5) failed to arrive service check" on page 126**.
200.91	Paper remains detected at the sensor (input) after the printer is turned on.	See **"Sensor (input) static jam service check" on page 133**.

Sensor (input): Paper arrived too early service check

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

Sensor (input): Paper failed to clear service check

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size 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 Check the paper condition in the tray. Is the paper crumpled or damaged?	Go to step 4.	Go to step 5.
Step 4 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 7.	Go to step 6.
Step 6 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 8.
Step 8 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. See **"Sensor (input) removal" on page 496**. 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** > **Isolation** **b** Touch **Start**. Does the motor run?	Go to step 13.	Go to step 11.
Step 11 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 12.	The problem is solved.

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

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

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

Action	Yes	No
Step 8 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the tray 1 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 13.	Go to step 12.
Step 12 Reinstall the pick roller assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the paper path along the tray exit. Is the paper path free of fragments and contamination?	Go to step 15.	Go to step 14.
Step 14 Clean the paper path. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 17.	The problem is solved.

Diagnostics and troubleshooting

Action	Yes	No
Step 17 Replace the sensor. See **"Sensor (input) removal" on page 496**. 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** > **Pick (tray 1)** **b** Touch **Start**. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the motor. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Perform a print job. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the tray 1 paper feeder. See **"Paper feeder removal" on page 550**. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 3 Check tray 2 for overfilling. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper condition in tray 2. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 2 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the tray 2 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 13.	Go to step 12.

Action	Yes	No
Step 12 Reinstall the pick roller assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the paper path along the tray 2 exit. Is the paper path free of fragments and contamination?	Go to step 15.	Go to step 14.
Step 14 Clean the paper path. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor. See **"Sensor (input) removal" on page 496**. 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** > **Sensor tests** **b** Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 21.	Go to step 19.
Step 19 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. 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** > **Isolation** **b** Touch **Start**. Does the motor run?	Go to step 24.	Go to step 22.
Step 22 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Replace the motor (isolation). Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 5 Check tray 3 for overfilling. Is the tray overfilled?	Go to step 6.	Go to step 7.
Step 6 Remove the excess paper from the tray. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the paper condition in tray 3. Is the paper crumpled or damaged?	Go to step 8.	Go to step 9.
Step 8 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the tray 3 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the condition of the tray 3 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 13.	Go to step 12.
Step 12 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Check the pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 15.	Go to step 14.

Action	Yes	No
Step 14 Reinstall the pick roller assembly. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the paper path along the tray 3 exit. Is the paper path free of fragments and contamination?	Go to step 17.	Go to step 16.
Step 16 Clean the paper path. 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** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 20.	Go to step 18.
Step 18 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Replace the sensor. See **"Sensor (input) removal" on page 496**. 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 & adjustments** > **Sensor tests** **b** Find the sensor (MPF/pass through). Does the sensor status change while toggling the sensor?	Go to step 23.	Go to step 21.
Step 21 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. 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** > **Isolation** b Touch **Start**. Does the motor run?	Go to step 26.	Go to step 24.
Step 24 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 Replace the motor (isolation). Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 5 Check the tray 3 paper path. Is the paper path free of fragments and contamination?	Go to step 7.	Go to step 6.
Step 6 Clean the paper path. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check tray 4 for overfilling. Is the tray overfilled?	Go to step 8.	Go to step 9.
Step 8 Remove the excess paper from the tray. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the paper condition in tray 4. Is the paper crumpled or damaged?	Go to step 10.	Go to step 11.
Step 10 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the tray 4 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 13.	Go to step 12.
Step 12 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the condition of the tray 4 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 15.	Go to step 14.
Step 14 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 **a** Check the pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 17.	Go to step 16.
Step 16 Reinstall the pick roller assembly. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the paper path along the tray 4 exit. Is the paper path free of fragments and contamination?	Go to step 19.	Go to step 18.
Step 18 Clean the paper path. 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** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 22.	Go to step 20.
Step 20 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the sensor. See **"Sensor (input) removal" on page 496**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (MPF/pass through). Does the sensor status change while toggling the sensor?	Go to step 25.	Go to step 23.

Action	Yes	No
Step 23 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 28.	Go to step 26.
Step 26 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Replace the sensor. Does the problem remain?	Go to step 28.	The problem is solved.
Step 28 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 31.	Go to step 29.
Step 29 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 Replace the sensor. Does the problem remain?	Go to step 31.	The problem is solved.

Action	Yes	No
Step 31 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Isolation** **b** Touch **Start**. Does the motor run?	Go to step 34.	Go to step 32.
Step 32 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 Replace the motor (isolation). Does the problem remain?	Go to step 34.	The problem is solved.
Step 34 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 2)** **b** Touch **Start**. Does the motor run?	Go to step 37.	Go to step 35.
Step 35 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 36.	The problem is solved.
Step 36 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 37.	The problem is solved.
Step 37 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 3)** **b** Touch **Start**. Does the motor run?	Go to step 40.	Go to step 38.

Action	Yes	No
Step 38 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 39.	The problem is solved.
Step 39 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 40.	The problem is solved.
Step 40 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 7 Check the tray 4 paper path. Is the paper path free of fragments and contamination?	Go to step 9.	Go to step 8.
Step 8 Clean the paper path. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check tray 5 for overfilling. Is the tray overfilled?	Go to step 10.	Go to step 11.
Step 10 Remove the excess paper from the tray. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the paper condition in tray 5. Is the paper crumpled or damaged?	Go to step 12.	Go to step 13.
Step 12 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the tray 5 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Check the condition of the tray 5 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 17.	Go to step 16.
Step 16 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 17.	The problem is solved.

Action	Yes	No
Step 17 **a** Check the pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 19.	Go to step 18.
Step 18 Reinstall the pick roller assembly. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the paper path along the tray 5 exit. Is the paper path free of fragments and contamination?	Go to step 21.	Go to step 20.
Step 20 Clean the paper path. 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 & adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 24.	Go to step 22.
Step 22 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Replace the sensor. See **"Sensor (input) removal" on page 496**. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (MPF/pass through). Does the sensor status change while toggling the sensor?	Go to step 27.	Go to step 25.

Action	Yes	No
Step 25 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 26.	The problem is solved.
Step 26 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 30.	Go to step 28.
Step 28 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 29.	The problem is solved.
Step 29 Replace the sensor. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 33.	Go to step 31.
Step 31 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 32.	The problem is solved.
Step 32 Replace the sensor. Does the problem remain?	Go to step 33.	The problem is solved.

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

Action	Yes	No
Step 41 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 42.	The problem is solved.
Step 42 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 3)** **b** Touch **Start**. Does the motor run?	Go to step 45.	Go to step 43.
Step 43 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 44.	The problem is solved.
Step 44 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 45.	The problem is solved.
Step 45 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 4)** **b** Touch **Start**. Does the motor run?	Go to step 48.	Go to step 46.
Step 46 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 47.	The problem is solved.
Step 47 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 48.	The problem is solved.
Step 48 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (input): Paper cleared too early service check

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray for overfilling. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper condition in the tray. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. 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** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 9.	The problem is solved.
Step 8 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. See **"Sensor (input) removal" on page 496**. Does the problem remain?	Go to step 10.	The problem is solved.

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

Sensor (input) static jam service check

Action	Yes	No
Step 1 Check the paper path for partially fed or jammed paper. Is the paper path free of partially fed or jammed paper?	Go to step 3.	Go to step 2.
Step 2 Remove the partially fed or jammed paper. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: 　**Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. See **"Sensor (input) removal" on page 496**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Diagnostics and troubleshooting

202 paper jams

202 paper jam messages

Error code	Description	Action
202.02	Paper fed from the MPF was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper arrived too early service check" on page 136**.
202.03	Paper fed from the MPF never arrived at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to arrive service check" on page 137**.
202.04	Paper fed from the MPF cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit): Paper cleared too early service check" on page 139**.
202.05	Paper fed from the MPF never cleared the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to clear service check" on page 140**.
202.07	Paper fed from the MPF never cleared the sensor (fuser exit).	
202.12	Paper fed from tray 1 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper arrived too early service check" on page 136**.
202.13	Paper fed from tray 1 never arrived at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to arrive service check" on page 137**.
202.14	Paper fed from tray 1 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit): Paper cleared too early service check" on page 139**.
202.15	Paper fed from tray 1 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to clear service check" on page 140**.
202.22	Paper fed from tray 2 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper arrived too early service check" on page 136**.
202.23	Paper fed from tray 2 never arrived at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to arrive service check" on page 137**.
202.24	Paper fed from tray 2 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit): Paper cleared too early service check" on page 139**.
202.25	Paper fed from tray 2 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to clear service check" on page 140**.
202.32	Paper fed from tray 3 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper arrived too early service check" on page 136**.
202.33	Paper fed from tray 3 never arrived at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to arrive service check" on page 137**.
202.34	Paper fed from tray 3 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit): Paper cleared too early service check" on page 139**.
202.35	Paper fed from tray 3 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to clear service check" on page 140**.
202.42	Paper fed from tray 4 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper arrived too early service check" on page 136**.

Error code	Description	Action
202.43	Paper fed from tray 4 never arrived at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to arrive service check" on page 137**.
202.44	Paper fed from tray 4 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit): Paper cleared too early service check" on page 139**.
202.45	Paper fed from tray 4 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to clear service check" on page 140**.
202.52	Paper fed from tray 5 was detected earlier than expected at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper arrived too early service check" on page 136**.
202.53	Paper fed from tray 5 never arrived at the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to arrive service check" on page 137**.
202.54	Paper fed from tray 5 cleared the sensor (fuser exit) earlier than expected.	See **"Sensor (fuser exit): Paper cleared too early service check" on page 139**.
202.55	Paper fed from tray 5 never cleared the sensor (fuser exit).	See **"Sensor (fuser exit): Paper failed to clear service check" on page 140**.
202.91	Paper remains detected at the sensor (fuser exit) after the printer is turned on.	See **"Sensor (fuser exit) static jam service check" on page 141**.

Sensor (fuser buckle) static jam service check

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

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

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

Action	Yes	No
Step 1 Check the paper path just before the fuser for paper jams and fragments. Is the paper path free of fragments and contamination?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser rollers for damage. Are the rollers free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
Step 1 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser for obstructions. Is the fuser free of obstructions?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions in the fuser area. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the fuser for damage and life expiration. Is the fuser damaged or has reached end of life?	Go to step 6.	Go to step 7.
Step 6 Replace the fuser. See **"Fuser removal" on page 477**. 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** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Check the transfer belt for damage. Is the transfer belt damaged?	Go to step 11.	Go to step 13.
Step 11 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Fuser** **b** Touch **Start**. Does the motor run?	Go to step 15.	Go to step 13.
Step 13 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the motor. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Transfer belt** **b** Touch **Start**. Does the motor run?	Go to step 18.	Go to step 16.
Step 16 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the motor. Does the problem remain?	Go to step 18.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check the fuser rollers for damage. Are the rollers free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** b Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
Step 1 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the fuser for obstructions. Is the fuser free of obstructions?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions on the fuser. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 6.	Go to step 7.
Step 6 Replace the fuser. See **"Fuser removal" on page 477**. 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** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 10.	The problem is solved.

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

Sensor (fuser exit) static jam service check

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

Action	Yes	No
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Fuser exit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

212 paper jams

212 paper jam messages

Error code	Description	Action
212.02	Paper fed from the MPF was detected earlier than expected at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper arrived too early service check" on page 144**.
212.03	Paper fed from the MPF never arrived at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to arrive service check" on page 144**.
212.04	Paper fed from the MPF cleared the sensor (deskew roller entry) earlier than expected.	See **"Sensor (deskew roller entry): Paper cleared too early service check" on page 146**.
212.05	Paper fed from the MPF never cleared the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to clear service check" on page 146**.
212.12	Paper fed from tray 1 was detected earlier than expected at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper arrived too early service check" on page 144**.
212.13	Paper fed from tray 1 never arrived at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to arrive service check" on page 144**.

Error code	Description	Action
212.14	Paper fed from tray 1 cleared the sensor (deskew roller entry) earlier than expected.	See **"Sensor (deskew roller entry): Paper cleared too early service check" on page 146**.
212.15	Paper fed from tray 1 never cleared the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to clear service check" on page 146**.
212.22	Paper fed from tray 2 was detected earlier than expected at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper arrived too early service check" on page 144**.
212.23	Paper fed from tray 2 never arrived at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to arrive service check" on page 144**.
212.24	Paper fed from tray 2 cleared the sensor (deskew roller entry) earlier than expected.	See **"Sensor (deskew roller entry): Paper cleared too early service check" on page 146**.
212.25	Paper fed from tray 2 never cleared the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to clear service check" on page 146**.
212.32	Paper fed from tray 3 was detected earlier than expected at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper arrived too early service check" on page 144**.
212.33	Paper fed from tray 3 never arrived at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to arrive service check" on page 144**.
212.34	Paper fed from tray 3 cleared the sensor (deskew roller entry) earlier than expected.	See **"Sensor (deskew roller entry): Paper cleared too early service check" on page 146**.
212.35	Paper fed from tray 3 never cleared the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to clear service check" on page 146**.
212.42	Paper fed from tray 4 was detected earlier than expected at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper arrived too early service check" on page 144**.
212.43	Paper fed from tray 4 never arrived at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to arrive service check" on page 144**.
212.44	Paper fed from tray 4 cleared the sensor (deskew roller entry) earlier than expected.	See **"Sensor (deskew roller entry): Paper cleared too early service check" on page 146**.
212.45	Paper fed from tray 4 never cleared the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to clear service check" on page 146**.
212.52	Paper fed from tray 5 was detected earlier than expected at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper arrived too early service check" on page 144**.
212.53	Paper fed from tray 5 never arrived at the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to arrive service check" on page 144**.
212.54	Paper fed from tray 5 cleared the sensor (deskew roller entry) earlier than expected.	See **"Sensor (deskew roller entry): Paper cleared too early service check" on page 146**.

Error code	Description	Action
212.55	Paper fed from tray 5 never cleared the sensor (deskew roller entry).	See **"Sensor (deskew roller entry): Paper failed to clear service check" on page 146**.
212.91	Paper remains detected at the sensor (deskew roller entry) after the printer is turned on.	See **"Sensor (deskew roller entry) static jam service check" on page 148**.

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

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

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

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

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

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

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size 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 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (Deskew roller entry). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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** > **Motor tests** > **Deskew** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (deskew roller entry) static jam service check

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

213 paper jams

213 paper jam messages

Error code	Description	Action
213.03	Paper fed from the MPF never arrived at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to arrive service check" on page 150**.
213.05	Paper fed from the MPF never cleared the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to clear service check" on page 152**.
213.12	Paper fed from tray 1 was detected earlier than expected at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper arrived too early service check" on page 150**.

Error code	Description	Action
213.13	Paper fed from tray 1 never arrived at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to arrive service check" on page 150**.
213.14	Paper fed from tray 1 cleared the sensor (deskew roller exit) earlier than expected.	See **"Sensor (deskew roller exit): Paper cleared too early service check" on page 152**.
213.15	Paper fed from tray 1 never cleared the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to clear service check" on page 152**.
213.22	Paper fed from tray 2 was detected earlier than expected at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper arrived too early service check" on page 150**.
213.23	Paper fed from tray 2 never arrived at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to arrive service check" on page 150**.
213.24	Paper fed from tray 2 cleared the sensor (deskew roller exit) earlier than expected.	See **"Sensor (deskew roller exit): Paper cleared too early service check" on page 152**.
213.25	Paper fed from tray 2 never cleared the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to clear service check" on page 152**.
213.32	Paper fed from tray 3 was detected earlier than expected at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper arrived too early service check" on page 150**.
213.33	Paper fed from tray 3 never arrived at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to arrive service check" on page 150**.
213.34	Paper fed from tray 3 cleared the sensor (deskew roller exit) earlier than expected.	See **"Sensor (deskew roller exit): Paper cleared too early service check" on page 152**.
213.35	Paper fed from tray 3 never cleared the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to clear service check" on page 152**.
213.42	Paper fed from tray 4 was detected earlier than expected at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper arrived too early service check" on page 150**.
213.43	Paper fed from tray 4 never arrived at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to arrive service check" on page 150**.
213.44	Paper fed from tray 4 cleared the sensor (deskew roller exit) earlier than expected.	See **"Sensor (deskew roller exit): Paper cleared too early service check" on page 152**.
213.45	Paper fed from tray 4 never cleared the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to clear service check" on page 152**.
213.52	Paper fed from tray 5 was detected earlier than expected at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper arrived too early service check" on page 150**.
213.53	Paper fed from tray 5 never arrived at the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to arrive service check" on page 150**.
213.54	Paper fed from tray 5 cleared the sensor (deskew roller exit) earlier than expected.	See **"Sensor (deskew roller exit): Paper cleared too early service check" on page 152**.
213.55	Paper fed from tray 5 never cleared the sensor (deskew roller exit).	See **"Sensor (deskew roller exit): Paper failed to clear service check" on page 152**.

Error code	Description	Action
213.91	Paper remains detected at the sensor (deskew roller exit) after the printer is turned on.	See **"Sensor (deskew roller exit) static jam service check" on page 154**.

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

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

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

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

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

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

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

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

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

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

Sensor (deskew roller exit) static jam service check

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

230 paper jams

230 paper jam messages

Error code	Description	Action
230.03	Paper fed from the MPF never arrived at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to arrive service check" on page 157**.
230.05	Paper fed from the MPF never cleared the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to clear service check" on page 160**.
230.12	Paper fed from tray 1 was detected earlier than expected at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper arrived too early service check" on page 157**.
230.13	Paper fed from tray 1 never arrived at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to arrive service check" on page 157**.
230.14	Paper fed from tray 1 cleared the sensor (duplex path 1) earlier than expected.	See **"Sensor (duplex path 1): Paper cleared too early service check" on page 160**.
230.15	Paper fed from tray 1 never cleared the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to clear service check" on page 160**.
230.22	Paper fed from tray 2 was detected earlier than expected at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper arrived too early service check" on page 157**.
230.23	Paper fed from tray 2 never arrived at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to arrive service check" on page 157**.
230.24	Paper fed from tray 2 cleared the sensor (duplex path 1) earlier than expected.	See **"Sensor (duplex path 1): Paper cleared too early service check" on page 160**.
230.25	Paper fed from tray 2 never cleared the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to clear service check" on page 160**.
230.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper arrived too early service check" on page 157**.
230.33	Paper fed from tray 3 never arrived at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to arrive service check" on page 157**.
230.34	Paper fed from tray 3 cleared the sensor (duplex path 1) earlier than expected.	See **"Sensor (duplex path 1): Paper cleared too early service check" on page 160**.
230.35	Paper fed from tray 3 never cleared the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to clear service check" on page 160**.
230.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper arrived too early service check" on page 157**.
230.43	Paper fed from tray 4 never arrived at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to arrive service check" on page 157**.
230.44	Paper fed from tray 4 cleared the sensor (duplex path 1) earlier than expected.	See **"Sensor (duplex path 1): Paper cleared too early service check" on page 160**.

Error code	Description	Action
230.45	Paper fed from tray 4 never cleared the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to clear service check" on page 160**.
230.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper arrived too early service check" on page 157**.
230.53	Paper fed from tray 5 never arrived at the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to arrive service check" on page 157**.
230.54	Paper fed from tray 5 cleared the sensor (duplex path 1) earlier than expected.	See **"Sensor (duplex path 1): Paper cleared too early service check" on page 160**.
230.55	Paper fed from tray 5 never cleared the sensor (duplex path 1).	See **"Sensor (duplex path 1): Paper failed to clear service check" on page 160**.
230.91	Paper remains detected at the sensor (duplex path 1) after the printer is turned on.	See **"Sensor (duplex path 1) static jam service check" on page 162**.

Sensor (redrive buckle) static jam service check

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

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

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

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

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

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

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Duplex path 1). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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** > **Motor tests** > **Duplex diverter** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the redrive. See **"Redrive removal" on page 495**. 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** > **Redrive** **b** Touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Replace the redrive. See **"Redrive removal" on page 495**. 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 & adjustments** > **Motor tests** > **Duplex** **b** Touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.
Step 15 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Check the duplex drive gears for damage. Is the duplex drive gears free of damage?	Go to step 19.	Go to step 18.
Step 18 Replace the duplex drive gears. See **"Duplex drive gears removal" on page 479**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Check the duplex assembly for damaged gears, belts, and rollers. Is the duplex assembly free of damage?	Go to step 21.	Go to step 20.
Step 20 Replace the duplex assembly. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size 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 Check the redrive area for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the duplex path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 7.	Go to step 6.
Step 6 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (Duplex path 1). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. 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** > **Duplex** **b** Touch **Start**. Does the motor run?	Go to step 13.	Go to step 11.
Step 11 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 12.	The problem is solved.

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

Sensor (duplex path 1) static jam service check

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

231 paper jams

231 paper jam messages

Error code	Description	Action
231.03	Paper fed from the MPF never arrived at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to arrive service check" on page 165**.
231.05	Paper fed from the MPF never cleared the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to clear service check" on page 167**.
231.12	Paper fed from tray 1 was detected earlier than expected at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper arrived too early service check" on page 164**.
231.13	Paper fed from tray 1 never arrived at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to arrive service check" on page 165**.
231.14	Paper fed from tray 1 cleared the sensor (duplex path 2) earlier than expected.	See **"Sensor (duplex path 2): Paper cleared too early service check" on page 166**.
231.15	Paper fed from tray 1 never cleared the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to clear service check" on page 167**.
231.22	Paper fed from tray 2 was detected earlier than expected at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper arrived too early service check" on page 164**.
231.23	Paper fed from tray 2 never arrived at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to arrive service check" on page 165**.
231.24	Paper fed from tray 2 cleared the sensor (duplex path 2) earlier than expected.	See **"Sensor (duplex path 2): Paper cleared too early service check" on page 166**.
231.25	Paper fed from tray 2 never cleared the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to clear service check" on page 167**.
231.32	Paper fed from tray 3 was detected earlier than expected at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper arrived too early service check" on page 164**.
231.33	Paper fed from tray 3 never arrived at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to arrive service check" on page 165**.
231.34	Paper fed from tray 3 cleared the sensor (duplex path 2) earlier than expected.	See **"Sensor (duplex path 2): Paper cleared too early service check" on page 166**.
231.35	Paper fed from tray 3 never cleared the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to clear service check" on page 167**.
231.42	Paper fed from tray 4 was detected earlier than expected at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper arrived too early service check" on page 164**.
231.43	Paper fed from tray 4 never arrived at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to arrive service check" on page 165**.
231.44	Paper fed from tray 4 cleared the sensor (duplex path 2) earlier than expected.	See **"Sensor (duplex path 2): Paper cleared too early service check" on page 166**.

Error code	Description	Action
231.45	Paper fed from tray 4 never cleared the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to clear service check" on page 167**.
231.52	Paper fed from tray 5 was detected earlier than expected at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper arrived too early service check" on page 164**.
231.53	Paper fed from tray 5 never arrived at the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to arrive service check" on page 165**.
231.54	Paper fed from tray 5 cleared the sensor (duplex path 2) earlier than expected.	See **"Sensor (duplex path 2): Paper cleared too early service check" on page 166**.
231.55	Paper fed from tray 5 never cleared the sensor (duplex path 2).	See **"Sensor (duplex path 2): Paper failed to clear service check" on page 167**.
231.91	Paper remains detected at the sensor (duplex path 2) after the printer is turned on.	See **"Sensor (duplex path 2) static jam service check" on page 168**.

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

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

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

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

Action	Yes	No
Step 9 Check the duplex drive gears for damage. Is the duplex drive gears free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the duplex drive gears. See **"Duplex drive gears removal" on page 479**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the duplex assembly for damaged gears, belts, and rollers. Is the duplex assembly free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the duplex assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the duplex path for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. 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** > **Sensor tests** b Find the sensor (Duplex path 2). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.

Action	Yes	No
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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** > **Motor tests** > **Isolation** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (duplex path 2) static jam service check

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

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

232 paper jams

232 paper jam messages

Error code	Description	Action
232.03	Paper fed from the MPF never arrived at the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to arrive service check" on page 170**.
232.04	Paper fed from the MPF cleared the sensor (input) earlier than expected during a duplex print job.	See **"Sensor (input): Paper (duplex job) cleared too early service check" on page 172**.
232.05	Paper fed from the MPF never cleared the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to clear service check" on page 173**.
232.13	Paper fed from tray 1 never arrived at the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to arrive service check" on page 170**.
232.14	Paper fed from tray 1 cleared the sensor (input) earlier than expected during a duplex print job.	See **"Sensor (input): Paper (duplex job) cleared too early service check" on page 172**.
232.15	Paper fed from tray 1 never cleared the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to clear service check" on page 173**.
232.23	Paper fed from tray 2 never arrived at the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to arrive service check" on page 170**.

Error code	Description	Action
232.24	Paper fed from tray 2 cleared the sensor (input) earlier than expected during a duplex print job.	See **"Sensor (input): Paper (duplex job) cleared too early service check" on page 172**.
232.25	Paper fed from tray 2 never cleared the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to clear service check" on page 173**.
232.33	Paper fed from tray 3 never arrived at the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to arrive service check" on page 170**.
232.34	Paper fed from tray 3 cleared the sensor (input) earlier than expected during a duplex print job.	See **"Sensor (input): Paper (duplex job) cleared too early service check" on page 172**.
232.35	Paper fed from tray 3 never cleared the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to clear service check" on page 173**.
232.43	Paper fed from tray 4 never arrived at the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to arrive service check" on page 170**.
232.44	Paper fed from tray 4 cleared the sensor (input) earlier than expected during a duplex print job.	See **"Sensor (input): Paper (duplex job) cleared too early service check" on page 172**.
232.45	Paper fed from tray 4 never cleared the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to clear service check" on page 173**.
232.53	Paper fed from tray 5 never arrived at the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to arrive service check" on page 170**.
232.54	Paper fed from tray 5 cleared the sensor (input) earlier than expected during a duplex print job.	See **"Sensor (input): Paper (duplex job) cleared too early service check" on page 172**.
232.55	Paper fed from tray 5 never cleared the sensor (input) during a duplex print job.	See **"Sensor (input): Paper (duplex job) failed to clear service check" on page 173**.

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

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

Action	Yes	No
Step 4 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (input) removal" on page 496**. 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** > **Motor tests** > **Duplex** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the duplex drive gears for damage. Is the duplex drive gears free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the duplex drive gears. See **"Duplex drive gears removal" on page 479**. Does the problem remain?	Go to step 13.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check the duplex rollers for damage. Are the rollers free of damage?	Go to step 3.	Go to step 2.
Step 2 Replace the duplex. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. See **"Sensor (input) removal" on page 496**. Does the problem remain?	Go to step 6.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the duplex path for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (Input). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (input) removal" on page 496**. 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** > **Motor tests** > **Deskew** b Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Perform a print job. 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
240.05	Paper fed from the MPF cleared the sensor (MPF/pass-through) later than expected.	See **"Sensor (MPF/pass-through): Paper failed to clear service check" on page 183**.
240.06	Paper fed from the MPF was picked but it never arrived at the sensor (MPF/pass-through).	See **"MPF failed to pick service check" on page 184**.
240.25	Paper fed from tray 2 cleared the sensor (MPF/pass-through) later than expected.	See **"Sensor (MPF/pass-through): Paper failed to clear service check" on page 183**.
240.26	Paper fed from tray 2 was picked but it never arrived at the sensor (MPF/pass-through).	See **"Sensor (MPF/pass-through): Tray 2 failed to pick service check" on page 186**.
240.27	Paper fed from tray 2 never cleared the sensor (MPF/pass-through).	See **"Sensor (MPF/pass-through): Paper failed to clear service check" on page 183**.
240.33	Paper fed from tray 3 was picked but it never arrived at the sensor (MPF/pass-through).	See **"Sensor (MPF/pass-through): Paper (tray 3) failed to arrive service check" on page 175**.

Error code	Description	Action
240.35	Paper fed from tray 3 cleared the sensor (MPF/pass-through) later than expected.	See **"Sensor (MPF/pass-through): Paper failed to clear service check" on page 183**.
240.43	Paper fed from tray 4 was picked but it never arrived at the sensor (MPF/pass-through).	See **"Sensor (MPF/pass-through): Paper (tray 4) failed to arrive service check" on page 177**.
240.45	Paper fed from tray 4 cleared the sensor (MPF/pass-through) later than expected.	See **"Sensor (MPF/pass-through): Paper failed to clear service check" on page 183**.
240.53	Paper fed from tray 5 was picked but it never arrived at the sensor (MPF/pass-through).	See **"Sensor (MPF/pass-through): Paper (tray 5) failed to arrive service check" on page 179**.
240.55	Paper fed from tray 5 cleared the sensor (MPF/pass-through) later than expected.	See **"Sensor (MPF/pass-through): Paper failed to clear service check" on page 183**.
240.82	The motor (MPF pick) has stalled.	See **"Motor (MPF pick) jam service check" on page 189**.
240.83	The motor (MPF pick) has stalled.	
240.84	The motor (MPF pick) has stalled.	
240.91	Paper remains detected at the sensor (MPF/pass-through) after the printer is turned on.	See **"Sensor (MPF/pass-through) static jam service check" on page 190**.

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

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

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. 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** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 9.
Step 9 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. 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** > **Motor tests** > **Pass-through (tray 2)** **b** Touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 7 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. 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** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 9.
Step 9 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. 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** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 2)** **b** Touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.

Action	Yes	No
Step 15 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. 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** > **Motor tests** > **Pass-through (tray 3)** **b** Touch **Start**. Does the motor run?	Go to step 20.	Go to step 18.
Step 18 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 3 Check the tray 3 paper path guides for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the tray 4 paper path guides for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 7.	Go to step 6.
Step 6 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 10.	Go to step 8.
Step 8 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. 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** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 11.
Step 11 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 12.	The problem is solved.

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

Action	Yes	No
Step 20 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 3)** **b** Touch **Start**. Does the motor run?	Go to step 25.	Go to step 23.
Step 23 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 25.	The problem is solved.
Step 25 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 4)** **b** Touch **Start**. Does the motor run?	Go to step 28.	Go to step 26.
Step 26 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 27.	The problem is solved.
Step 27 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 28.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the paper path for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. 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** > **Sensor tests** **b** Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. 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** > **Motor tests** > **Isolation** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

MPF failed to pick service check

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

Action	Yes	No
Step 5 Check the paper condition in the MPF tray. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the condition of the MPF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Replace the pick roller. See **"MPF pick roller removal" on page 490**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the paper path along the MPF tray exit. Is the paper path free of fragments and contamination?	Go to step 11.	Go to step 10.
Step 10 Clean the paper path. 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** > **Sensor tests** b Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. Does the problem remain?	Go to step 14.	The problem is solved.

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

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

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

Action	Yes	No
Step 5 Check the paper condition in tray 2. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 2 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the tray 2 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the paper path along the tray 2 exit. Is the paper path free of fragments and contamination?	Go to step 13.	Go to step 12.
Step 12 Clean the paper path. 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 & adjustments** > **Sensor tests** **b** Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 16.	Go to step 14.

Action	Yes	No
Step 14 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 2)** **b** Touch **Start**. Does the motor run?	Go to step 19.	Go to step 17.
Step 17 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the motor. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Perform a print job. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the tray 2 paper feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (MPF pick) jam service check

Action	Yes	No
Step 1 Check the sensor actuator (MPF media present) for misalignment or damage. Is the actuator misaligned or damaged?	Go to step 2.	Go to step 3.
Step 2 Repair or replace the actuator. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the MPF tray for overfilling. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper condition in the MPF tray. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the paper path along the tray exit. Is the paper path free of fragments and contamination?	Go to step 9.	Go to step 8.
Step 8 Clean the paper path. 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** > **MPF pick** b Touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.

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

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

Action	Yes	No
Step 1 Check the paper path for paper jams and fragments. Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** b Find the sensor (MPF/pass-through). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**. Does the problem remain?	Go to step 6.	The problem is solved.

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

241 paper jams

241 paper jam messages

Error code	Description	Action
241.82	The motor (tray 1 pick) has stalled.	See **"Motor (tray 1 pick) jam service check" on page 191**.
241.83	The motor (tray 1 pick) has stalled.	
241.84	The motor (tray 1 pick) has stalled.	

Motor (tray 1 pick) jam service check

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

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

242 paper jams

242 paper jam messages

Error code	Description	Action
242.31	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 3 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 203**.
242.32	Paper fed from tray 3 was detected earlier than expected at the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Paper arrived too early service check" on page 194**.
242.34	Paper fed from tray 3 cleared the sensor (tray 2 pass-through) earlier than expected.	See **"Sensor (tray 2 pass-through): Paper cleared too early service check" on page 197**.
242.35	Paper fed from tray 3 did not clear the sensor (tray 2 pass-through) in time.	See **"Sensor (tray 2 pass-through): Paper failed to clear service check" on page 198**.
242.36	Paper fed from tray 3 was picked but it never arrived at the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Tray 3 failed to pick service check" on page 199**.
242.37	Paper fed from tray 3 never cleared the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Paper failed to clear service check" on page 198**.

Error code	Description	Action
242.41	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 4 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 203**.
242.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Paper arrived too early service check" on page 194**.
242.43	Paper fed from tray 4 never arrived at the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Paper failed to arrive service check" on page 195**.
242.44	Paper fed from tray 4 cleared the sensor (tray 2 pass-through) earlier than expected.	See **"Sensor (tray 2 pass-through): Paper cleared too early service check" on page 197**.
242.45	Paper fed from tray 4 did not clear the sensor (tray 2 pass-through) in time.	See **"Sensor (tray 2 pass-through): Paper failed to clear service check" on page 198**.
242.47	Paper fed from tray 4 never cleared the sensor (tray 2 pass-through).	
242.51	Paper remains detected at the sensor (tray 2 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 2 pass-through) static jam service check" on page 203**.
242.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Paper arrived too early service check" on page 194**.
242.53	Paper fed from tray 5 never arrived at the sensor (tray 2 pass-through).	See **"Sensor (tray 2 pass-through): Paper failed to arrive service check" on page 195**.
242.54	Paper fed from tray 5 cleared the sensor (tray 2 pass-through) earlier than expected.	See **"Sensor (tray 2 pass-through): Paper cleared too early service check" on page 197**.
242.55	Paper fed from tray 5 did not clear the sensor (tray 2 pass-through) in time.	See **"Sensor (tray 2 pass-through): Paper failed to clear service check" on page 198**.
242.57	Paper fed from tray 5 never cleared the sensor (tray 2 pass-through).	
242.72	The motor (tray 2 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
242.72	The motor (tray 2 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
242.73	The motor (tray 2 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
242.73	The motor (tray 2 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
242.74	The motor (tray 2 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
242.74	The motor (tray 2 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.

Error code	Description	Action
242.75	The motor (tray 2 pass-through) ran too fast.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
242.75	The motor (tray 2 elevator) ran too fast.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
242.82	The motor (tray 2 pick) has stalled.	See **"Motor (tray 2 pick) jam service check" on page 202**.
242.83	The motor (tray 2 pick) has stalled.	
242.84	The motor (tray 2 pick) has stalled.	
242.85	The motor (tray 2 pick) ran too fast.	
242.91	Paper remains detected at the sensor (tray 2 pass-through) after the printer is turned on.	See **"Sensor (tray 2 pass-through) static jam service check" on page 203**.
242.92	Paper was detected earlier than expected at the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through): Paper arrived too early service check" on page 194**.
242.93	Paper never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through): Paper failed to arrive service check" on page 195**.
242.94	Paper cleared the sensor (tray 2 pass-through) earlier than expected. Paper source is undetermined.	See **"Sensor (tray 2 pass-through): Paper cleared too early service check" on page 197**.
242.95	Paper did not clear the sensor (tray 2 pass-through) in time. Paper source is undetermined.	See **"Sensor (tray 2 pass-through): Paper failed to clear service check" on page 198**.
242.96	Paper was picked but it never arrived at the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through): Tray 3 failed to pick service check" on page 199**.
242.97	Paper never cleared the sensor (tray 2 pass-through). Paper source is undetermined.	See **"Sensor (tray 2 pass-through): Paper failed to clear service check" on page 198**.

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

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

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

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

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

Action	Yes	No
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 9.	Go to step 7.
Step 7 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the sensor. 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** > **Motor tests** > **Pass-through (tray 3)** **b** Touch **Start**. Does the motor run?	Go to step 12.	Go to step 10.
Step 10 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the source tray guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the tray paper path guides for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** b Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 2)** b Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 5 Check the paper condition in tray 3. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 3 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the tray 3 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the paper path along the tray 3 exit. Is the paper path free of fragments and contamination?	Go to step 13.	Go to step 12.
Step 12 Clean the paper path. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 2)). Does the sensor status change while toggling the sensor?	Go to step 16.	Go to step 14.

Action	Yes	No
Step 14 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the sensor. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 3)** **b** Touch **Start**. Does the motor run?	Go to step 19.	Go to step 17.
Step 17 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 Replace the tray 3 paper feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 2 pick) jam service check

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

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

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

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

243 paper jams

243 paper jam messages

Error code	Description	Action
243.41	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 4 is the paper source.	See **"Sensor (tray 3 pass-through) static jam service check" on page 214**.
243.42	Paper fed from tray 4 was detected earlier than expected at the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through): Paper arrived too early service check" on page 206**.
243.43	Paper fed from tray 4 never arrived at the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through): Paper failed to arrive service check" on page 206**.
243.44	Paper fed from tray 4 cleared the sensor (tray 3 pass-through) earlier than expected.	See **"Sensor (tray 3 pass-through): Paper cleared too early service check" on page 210**.
243.45	Paper fed from tray 4 did not clear the sensor (tray 3 pass-through) in time.	See **"Sensor (tray 3 pass-through): Paper failed to clear service check" on page 212**.
243.46	Paper fed from tray 4 was picked but it never arrived at the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through): Tray 4 failed to pick service check" on page 208**.
243.47	Paper fed from tray 4 never cleared the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through): Paper failed to clear service check" on page 212**.
243.51	Paper remains detected at the sensor (tray 3 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 3 pass-through) static jam service check" on page 214**.
243.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through): Paper arrived too early service check" on page 206**.
243.53	Paper fed from tray 5 never arrived at the sensor (tray 3 pass-through).	See **"Sensor (tray 3 pass-through): Paper failed to arrive service check" on page 206**.
243.54	Paper fed from tray 5 cleared the sensor (tray 3 pass-through) earlier than expected.	See **"Sensor (tray 3 pass-through): Paper cleared too early service check" on page 210**.
243.55	Paper fed from tray 5 did not clear the sensor (tray 3 pass-through) in time.	See **"Sensor (tray 3 pass-through): Paper failed to clear service check" on page 212**.
243.57	Paper fed from tray 5 never cleared the sensor (tray 3 pass-through).	
243.72	The motor (tray 3 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
243.72	The motor (tray 3 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
243.73	The motor (tray 3 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.

Error code	Description	Action
243.73	The motor (tray 3 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
243.74	The motor (tray 3 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
243.74	The motor (tray 3 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
243.75	The motor (tray 3 pass-through) ran too fast.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
243.75	The motor (tray 3 elevator) ran too fast.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
243.82	The motor (tray 3 pick) has stalled.	See **"Motor (tray 3 pick) jam service check" on page 213**.
243.83	The motor (tray 3 pick) has stalled.	
243.84	The motor (tray 3 pick) has stalled.	
243.85	The motor (tray 3 pick) ran too fast.	
243.91	Paper remains detected at the sensor (tray 3 pass-through) after the printer is turned on.	See **"Sensor (tray 3 pass-through) static jam service check" on page 214**.
243.92	Paper was detected earlier than expected at the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through): Paper arrived too early service check" on page 206**.
243.93	Paper never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through): Paper failed to arrive service check" on page 206**.
243.94	Paper cleared the sensor (tray 3 pass-through) earlier than expected. Paper source is undetermined.	See **"Sensor (tray 3 pass-through): Paper cleared too early service check" on page 210**.
243.95	Paper did not clear the sensor (tray 3 pass-through) in time. Paper source is undetermined.	See **"Sensor (tray 3 pass-through): Paper failed to clear service check" on page 212**.
243.96	Paper was picked but it never arrived at the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through): Tray 4 failed to pick service check" on page 208**.
243.97	Paper never cleared the sensor (tray 3 pass-through). Paper source is undetermined.	See **"Sensor (tray 3 pass-through): Paper failed to clear service check" on page 212**.

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

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

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

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

Action	Yes	No
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pass-through (tray 4)** **b** Touch **Start**. Does the motor run?	Go to step 9.	Go to step 7.
Step 7 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray 4 guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check tray 4 for overfilling. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper condition in tray 4. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 4 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the tray 4 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the tray 4 pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 13.	Go to step 12.
Step 12 Reinstall the pick roller assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the paper path along the tray 4 exit. Is the paper path free of fragments and contamination?	Go to step 15.	Go to step 14.
Step 14 Clean the paper path. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 3)). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 4)** **b** Touch **Start**. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the motor. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the tray 4 paper feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

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

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

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

Action	Yes	No
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 3 pick) jam service check

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

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

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

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

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

244 paper jams

244 paper jam messages

Error code	Description	Action
244.51	Paper remains detected at the sensor (tray 4 pass-through) although the printer is idle. Tray 5 is the paper source.	See **"Sensor (tray 4 pass-through) static jam service check" on page 224**.
244.52	Paper fed from tray 5 was detected earlier than expected at the sensor (tray 4 pass-through).	See **"Sensor (tray 4 pass-through): Paper arrived too early service check" on page 216**.
244.54	Paper fed from tray 5 cleared the sensor (tray 4 pass-through) earlier than expected.	See **"Sensor (tray 4 pass-through): Paper cleared too early service check" on page 217**.
244.55	Paper fed from tray 5 did not clear the sensor (tray 4 pass-through) in time.	See **"Sensor (tray 4 pass-through): Paper failed to clear service check" on page 218**.
244.56	Paper fed from tray 5 was picked but it never arrived at the sensor (tray 4 pass-through).	See **"Sensor (tray 4 pass-through): Tray 5 failed to pick service check" on page 220**.
244.57	Paper fed from tray 5 never cleared the sensor (tray 4 pass-through).	See **"Sensor (tray 4 pass-through): Paper failed to clear service check" on page 218**.
244.72	The motor (tray 4 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
244.72	The motor (tray 4 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
244.73	The motor (tray 4 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
244.73	The motor (tray 4 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
244.74	The motor (tray 4 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
244.74	The motor (tray 4 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.

Error code	Description	Action
244.75	The motor (tray 4 pass-through) ran too fast.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
244.75	The motor (tray 4 elevator) ran too fast.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
244.82	The motor (tray 4 pick) has stalled.	See **"Motor (tray 4 pick) jam service check" on page 222**.
244.83	The motor (tray 4 pick) has stalled.	
244.84	The motor (tray 4 pick) has stalled.	
244.85	The motor (tray 4 pick) ran too fast.	
244.91	Paper remains detected at the sensor (tray 4 pass-through) after the printer is turned on.	See **"Sensor (tray 4 pass-through) static jam service check" on page 224**.
244.92	Paper was detected earlier than expected at the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through): Paper arrived too early service check" on page 216**.
244.94	Paper cleared the sensor (tray 4 pass-through) earlier than expected. Paper source is undetermined.	See **"Sensor (tray 4 pass-through): Paper cleared too early service check" on page 217**.
244.95	Paper did not clear the sensor (tray 4 pass-through) in time. Paper source is undetermined.	See **"Sensor (tray 4 pass-through): Paper failed to clear service check" on page 218**.
244.96	Paper was picked but it never arrived at the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through): Tray 5 failed to pick service check" on page 220**.
244.97	Paper never cleared the sensor (tray 4 pass-through). Paper source is undetermined.	See **"Sensor (tray 4 pass-through): Paper failed to clear service check" on page 218**.

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

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

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

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

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

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray 5 guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size 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 Check the tray paper path guides for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 5.	Go to step 4.
Step 4 Remove the paper jams and fragments. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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** > **Motor tests** > **Pass-through (tray 4)** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 11.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check if the paper size matches the size set on the tray 5 guides. Does the paper size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check tray 5 for overfilling. Is the tray overfilled?	Go to step 4.	Go to step 5.
Step 4 Remove the excess paper from the tray. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the paper condition in tray 5. Is the paper crumpled or damaged?	Go to step 6.	Go to step 7.
Step 6 Replace the crumpled or damaged paper. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tray 5 separator pad for misalignment and damage. Is the separator pad properly installed and free of damage?	Go to step 9.	Go to step 8.
Step 8 Reinstall or replace the separator pad. See **"Separator pad removal" on page 536**. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Check the condition of the tray 5 pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Replace the pick roller. See **"Pick roller removal" on page 534**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the tray 5 pick roller for proper installation. **b** Fully press the pick roller assembly upward to make sure the mounting latches are properly engaging the slot on the shaft. Is the pick roller assembly properly installed?	Go to step 13.	Go to step 12.
Step 12 Reinstall the pick roller assembly. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the paper path along the tray 5 exit. Is the paper path free of fragments and contamination?	Go to step 15.	Go to step 14.
Step 14 Clean the paper path. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** **b** Find the sensor (Pass-through (tray 4)). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor. Does the problem remain?	Go to step 18.	The problem is solved.

Action	Yes	No
Step 18 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 5)** b Touch **Start**. Does the motor run?	Go to step 21.	Go to step 19.
Step 19 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Replace the motor. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Perform a print job. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the tray 5 paper feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Perform a print job. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 4 pick) jam service check

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

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

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

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

245 paper jams

245 paper jam messages

Error code	Description	Action
245.72	The motor (tray 5 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
245.72	The motor (tray 5 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
245.73	The motor (tray 5 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.

Error code	Description	Action
245.73	The motor (tray 5 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
245.74	The motor (tray 5 pass-through) has stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
245.74	The motor (tray 5 elevator) has stalled.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
245.75	The motor (tray 5 pass-through) ran too fast.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
245.75	The motor (tray 5 elevator) ran too fast.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
245.82	The motor (tray 5 pick) has stalled.	See **"Motor (tray 5 pick) jam service check" on page 225**.
245.83	The motor (tray 5 pick) has stalled.	
245.84	The motor (tray 5 pick) has stalled.	
245.85	The motor (tray 5 pick) ran too fast.	

Motor (tray 5 pick) jam service check

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

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

280 paper jams

280 paper jam messages

Error code	Description	Action
280.11	Paper remains detected at the sensor (ADF 1st scan) after the printer is turned on.	See **"Sensor (ADF 1st scan) static jam service check" on page 227**.
280.13	Paper never arrived at the sensor (ADF 1st scan).	See **"Sensor (ADF 1st scan): Paper failed to arrive service check" on page 227**.
280.15	Paper never cleared the sensor (ADF 1st scan).	See **"Sensor (ADF 1st scan): Paper failed to clear service check" on page 229**.

Sensor (ADF 1st scan) static jam service check

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

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

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

Action	Yes	No
Step 3 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 5.	Go to step 4.
Step 4 Clean or replace the pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 5 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the feed belt. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 7 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Enter the Diagnostics menu, and then navigate to: 　**Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF 1st scan). Does the sensor status change while toggling the sensor?	Go to step 12.	Go to step 10.
Step 10 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 11.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.

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

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

281 paper jams

281 paper jam messages

Error code	Description	Action
281.11	Paper remains detected at the sensor (ADF pick) after the printer is turned on.	See **"Sensor (ADF pick) static jam service check" on page 231**.
281.15	Paper never cleared the sensor (ADF pick).	See **"Sensor (ADF pick): Paper failed to clear service check" on page 232**.
281.16	Paper never arrived at the sensor (ADF pick).	See **"Sensor (ADF pick): ADF failed to pick service check" on page 235**.

Sensor (ADF pick) static jam service check

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

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

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

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 11.	Go to step 9.
Step 9 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF pick** **b** Touch **Start**. Does the motor run?	Go to step 14.	Go to step 12.
Step 12 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the motor. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check if the document size matches the size set on the ADF tray guides. Does the document size match the size set on the tray?	Go to step 3.	Go to step 2.
Step 2 Change the paper size or adjust the size setting in the tray. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF tray guides for damage. Are the tray guides free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the ADF tray. See **"ADF tray removal" on page 608**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 7.	Go to step 6.
Step 6 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips and staples. Is the paper path free of obstructions and contaminations?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Remove the obstructions and contaminations. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Clean or replace the pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 11 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 13.	Go to step 12.
Step 12 Clean or replace the feed belt. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 13 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 15.	Go to step 14.
Step 14 Clean or replace the separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.

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

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

282 paper jams

282 paper jam messages

Error code	Description	Action
282.11	Paper remains detected at the sensor (ADF exit) after the printer is turned on.	See **"Sensor (ADF exit) static jam service check" on page 238**.
282.13	Paper never arrived at the sensor (ADF exit).	See **"Sensor (ADF exit): Paper failed to arrive service check" on page 239**.
282.15	Paper never cleared the sensor (ADF exit).	See **"Sensor (ADF exit): Paper failed to clear service check" on page 241**.

Sensor (ADF exit) static jam service check

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

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 7 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the feed belt. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 9 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Clean or replace the separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF media exit). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.

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

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

283 paper jams

283 paper jam messages

Error code	Description	Action
283.11	Paper remains detected at the sensor (ADF deskew) after the printer is turned on.	See **"Sensor (ADF deskew) static jam service check" on page 243**.
283.13	Paper never arrived at the sensor (ADF deskew).	See **"Sensor (ADF deskew): Paper failed to arrive service check" on page 244**.
283.15	Paper never cleared the sensor (ADF deskew).	See **"Sensor (ADF deskew): Paper failed to clear service check" on page 247**.

Sensor (ADF deskew) static jam service check

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

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 7 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the feed belt. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 9 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.
Step 10 Clean or replace the separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF deskew). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor. 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: **Scanner diagnostics** > **Motor tests** > **ADF deskew** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

284 paper jams

284 paper jam messages

Error code	Description	Action
284.11	Paper remains detected at the sensor (ADF 2nd scan) after the printer is turned on.	See **"Sensor (ADF 2nd scan) static jam service check" on page 249**.
284.13	Paper never arrived at the sensor (ADF 2nd scan).	See **"Sensor (ADF 2nd scan): Paper failed to arrive service check" on page 249**.
284.15	Paper never cleared the sensor (ADF 2nd scan).	See **"Sensor (ADF 2nd scan): Paper failed to clear service check" on page 252**.

Sensor (ADF 2nd scan) static jam service check

Action	Yes	No
Step 1 Check the ADF paper path for paper jams and fragments Is the paper path free of jams and fragments?	Go to step 3.	Go to step 2.
Step 2 Remove the paper jams and fragments. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** b Find the sensor (ADF 2nd scan). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. See **"Sensor (ADF 2nd scan) removal" on page 625**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Contact the next level of support.	The problem is solved.

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces ot tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the condition of the ADF pick roller. Is the pick roller free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 7 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.
Step 8 Clean or replace the feed belt. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 9 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Clean or replace the separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF 2nd scan). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. See **"Sensor (ADF 2nd scan) removal" on page 625**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.
Step 15 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Replace the motor. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 18.	The problem is solved.

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

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

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips, and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF 2nd scan). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Replace the sensor. See **"Sensor (ADF 2nd scan) removal" on page 625**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF transport** **b** Touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the ADF controller board. Does the problem remain?	Contact the next level of support.	The problem is solved.

288–289 paper jams

288–289 paper jam messages

Error code	Description	Action
288.10	Jam is detected at the sensor (ADF multi-feed detect).	See **"Sensor (ADF multi-feed detect) jam service check" on page 254**.
289.01	The scanner controller communication failed.	See **"Scanner communication failure service check" on page 378**.

Sensor (ADF multi-feed detect) jam service check

Action	Yes	No
Step 1 Check the original document: • Check the document for contaminations such as pieces of tape, paper clips, and staples. • Check the document for damage such as creases, tears, holes, and excess wear. Is the original document free of contaminations and damage?	Go to step 3.	Go to step 2.
Step 2 **a** Remove the contaminations or replace the damaged original document. **b** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Scanner quick feed** Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF paper path for paper fragments and contaminations such as pieces of tape, paper clips and staples. Is the paper path free of obstructions and contaminations?	Go to step 5.	Go to step 4.
Step 4 Remove the obstructions and contaminations. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the condition of the ADF feed belt. Is the feed belt free from excess wear, contamination, and damage?	Go to step 7.	Go to step 6.
Step 6 Clean or replace the feed belt. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 7 Check the condition of the ADF separator roller. Is the separator roller free from excess wear, contamination, and damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Clean or replace the separator roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Load an undamaged document into the ADF tray, and then perform a copy job. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the sensor (ADF multi-feed detect). Does the problem remain?	Contact the next level of support.	The problem is solved.

42y paper jams

42y paper jam messages

Error code	Description	Action
420.11	The media, with the leading edge on the compiler section, remains detected by sensor (staple finisher transport) during warm-up sequence.	See **"Staple finisher compiler section jam service check" on page 257**.
420.11	The media, with the leading edge on the upper exit area, remains detected by sensor (staple finisher transport) during warm-up sequence.	See **"Staple finisher upper exit area jam service check" on page 260**.
420.12	The media reached the sensor (staple finisher transport) sooner than the specified time.	See **"Staple finisher compiler section jam service check" on page 257**.
420.13	The media is late reaching the sensor (staple finisher transport) within the specified time.	
420.15	The media reached the sensor (staple finisher transport) but did not clear it within the specified time.	
420.51	The motor (staple finisher transport) does not turn off.	
420.54	The motor (staple finisher transport) fails to achieve expected speed.	
420.55	The motor (staple finisher transport) runs too fast.	
421.13	The sensor (staple finisher front tamper home) was not covered at the specified time.	See **"Sensor (staple finisher front tamper home) jam service check" on page 276**.
421.15	The sensor (staple finisher front tamper home) was not cleared within the specified time.	

Error code	Description	Action
422.13	The sensor (staple finisher rear tamper home) was not covered at the specified time.	See **"Sensor (staple finisher rear tamper home) jam service check" on page 266**.
422.15	The sensor (staple finisher rear tamper home) was not cleared within the specified time.	
423.13	The sensor (staple finisher upper exit roller) was not covered within the specified time.	See **"Staple finisher exit jam service check" on page 403**.
423.15	The sensor (staple finisher upper exit roller) remains covered after the specified time.	
423.51	The motor (staple finisher upper exit roller) does not turn off.	
423.54	The motor (staple finisher upper exit roller) fails to achieve expected speed.	
423.55	The motor (staple finisher upper exit roller) runs too fast.	
424.13	The staple finisher paddle fails to reach home at the specified time.	See **"Staple finisher paddle jam service check" on page 268**.
424.15	The staple finisher paddle fails to leave home at the specified time.	
425.13	Staple finisher bin clamp fails to reach home at the specified time.	See **"Staple finisher bin clamp jam service check" on page 270**.
425.15	Staple finisher bin clamp fails to leave home at the specified time.	
426.13	The motor (staple finisher aligner paddle) fails to reach home at the specified time.	See **"Staple finisher decurl assembly service check" on page 272**.
426.15	The motor (staple finisher aligner paddle) fails to reach home at the specified time.	
426.51	The motor (staple finisher aligner paddle) does not turn off.	
426.54	The motor (staple finisher aligner paddle) fails to achieve expected speed.	
426.55	The motor (staple finisher aligner paddle) runs too fast.	
428.13	The staple head fails to reach home at the specified time.	See **"Staples Low [83] service check" on page 432**.
428.15	The staple head fails to leave home at the specified time.	

Error code	Description	Action
429.11	The media remains detected by the sensor (staple finisher staple unit paper present) after power-on.	See **"Staple finisher stapler throat jam service check" on page 273**.
429.13	The sensor (staple finisher staple unit paper present) does not detect the media within the specified time.	
429.14	The sensor (staple finisher staple unit paper present) was not covered by the media during stapling.	
429.15	The media does not leave the sensor (staple finisher staple unit paper present) within the specified time.	

Staple finisher compiler section jam service check

Action	Yes	No
Step 1 **a** Clear the paper path of any jams or obstructions. **b** Make sure that the jam access door is properly closed. **c** Reset the printer, and then reseat the finisher. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit** **b** Find the sensor (Transport). Does the sensor status change while toggling the sensor?	Go to step 4.	Go to step 3.
Step 3 **a** Check the sensor (staple finisher transport) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher transport) removal" on page 759**. **b** Reseat the sensor connector on both ends. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the staple finisher entrance paper guide for proper installation and damage, and replace if necessary. See **"Staple finisher entrance paper guide removal" on page 740**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Check the staple finisher jam access door for proper installation and damage, and replace if necessary. See **"Staple finisher jam access door removal" on page 688**. **b** Make sure that the door is properly closed. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the staple finisher compiler paper guide for proper installation and damage, and replace if necessary. See **"Staple finisher compiler paper guide removal" on page 729**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Transport), and then touch **Start**. Does the motor run?	Go to step 9.	Go to step 8.
Step 8 **a** Check the motor (staple finisher transport) for damage, and replace if necessary. See **"Motor (staple finisher transport) removal" on page 754**. **b** Check the motor for proper installation. **c** Reseat the motor connector on both ends. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the staple finisher transport gears for proper installation and damage, and replace if necessary. See **"Staple finisher transport gears removal" on page 709**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Check the compiler feed roller for proper installation. **b** Check the roller for wear or damage, and replace if necessary. See **"Staple finisher compiler feed roller removal" on page 730**. **c** Manually turn the roller and make sure that the compiler feed idler rolls with the roller. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Check the compiler feed idler for proper installation and damage, and replace if necessary. See **"Staple finisher compiler feed idler removal" on page 732**. **b** Manually turn the mating roller and make sure that the idler rolls with the roller. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Check the staple finisher aligner paddle for wear or damage, and replace if necessary. See **"Staple finisher aligner paddle and upper paper guide removal" on page 734**. **b** Manually turn the paddle to check for proper operation. **c** Check the paddle for proper installation. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Aligner paddle), and then touch **Start**. Does the motor run?	Go to step 16.	Go to step 15.
Step 15 **a** Check the motor (staple finisher aligner paddle) for damage, and replace if necessary. See **"Motor (staple finisher aligner paddle) removal " on page 708**. **b** Check the motor for proper installation. **c** Reseat the connector on both ends. Does the problem remain?	Go to step 16.	The problem is solved.

Action	Yes	No
Step 16 **a** Check the staple finisher aligner paddle gears for damage, and replace if necessary. See **"Staple finisher aligner paddle gears removal" on page 710**. **b** Check the gears for proper alignment and installation. **c** Check the actuator for damage, and replace if necessary. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher upper exit area jam service check

Action	Yes	No
Step 1 **a** Clear the paper path of any jams or obstructions. **b** Check if the jam access door is properly closed. **c** Reset the printer, and then reseat the finisher. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the staple finisher jam access door for proper installation and damage. Is the door properly installed and free of damage?	Go to step 4.	Go to step 3.
Step 3 Reinstall or replace the door. See **"Staple finisher jam access door removal" on page 688**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the staple finisher upper paper guide for proper installation and damage. Is the paper guide properly installed and free of damage?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reinstall or replace the paper guide. See **"Staple finisher aligner paddle and upper paper guide removal" on page 734**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Move the tampers from the side to the center, and then clear the area of any obstructions. **b** Check the tampers for proper installation and damage. Are the tampers properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the tampers. See **"Staple finisher tamper removal" on page 725**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Transport), and then touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor (staple finisher transport) for proper installation and damage. Make sure to reseat the motor connector on both ends. Is the motor properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the motor. See **"Motor (staple finisher transport) removal" on page 754**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the staple finisher transport gears for proper installation and damage. Are the gears properly installed and free of damage?	Go to step 14.	Go to step 13.

Action	Yes	No
Step 13 Reinstall or replace the gears. See **"Staple finisher transport gears removal" on page 709**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the compiler feed roller for proper installation and damage. Manually turn the roller and make sure that the compiler feed idler rolls with the roller. Is the roller properly installed and free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the roller. See **"Staple finisher compiler feed roller removal" on page 730**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the compiler feed idler for proper installation and damage. Manually turn the mating roller and make sure that the idler rolls with the roller. Is the idler properly installed and free of damage?	Go to step 18.	Go to step 17.
Step 17 Reinstall or replace the idler. See **"Staple finisher compiler feed idler removal" on page 732**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the staple finisher aligner paddle for proper installation and wear or damage. Make sure to manually turn the paddle to check for proper operation. Is the paddle properly installed and free of damage?	Go to step 20.	Go to step 19.
Step 19 Reinstall or replace the paddle. See **"Staple finisher aligner paddle and upper paper guide removal" on page 734**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 a Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** b Find the motor (Aligner paddle), and then touch **Start**. Does the motor run?	Go to step 23.	Go to step 21.

Action	Yes	No
Step 21 Check the motor for proper installation and damage. Make sure to reseat the motor connector on both ends. Is the motor properly installed and free of damage?	Go to step 23.	Go to step 22.
Step 22 Reinstall or replace the motor. See **"Motor (staple finisher aligner paddle) removal " on page 708**. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Compile and staple section** **b** Find the sensor (Aligner paddle). Does the sensor status change while toggling the sensor?	Go to step 26.	Go to step 24.
Step 24 Check the sensor for proper installation and damage, and replace if necessary. Make sure to reseat the sensor connector on both ends. Is the sensor properly installed and free of damage?	Go to step 26.	Go to step 25.
Step 25 Reinstall or replace the sensor. See **"Staple finisher aligner paddle gears removal" on page 710**. Does the problem remain?	Go to step 26.	The problem is resolved.
Step 26 **a** Check the staple finisher aligner paddle gears for damage, and replace if necessary. See **"Staple finisher aligner paddle gears removal" on page 710**. **b** Check the gears for proper alignment and installation. **c** Check the actuator for damage, and replace if necessary. Does the problem remain?	Go to step 27.	The problem is resolved.
Step 27 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Upper exit), and then touch **Start**. Does the motor run?	Go to step 30.	Go to step 28.

Action	Yes	No
Step 28 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 30.	Go to step 29.
Step 29 Reinstall or replace the motor. See **"Motor (staple finisher upper exit roller) removal" on page 696**. Does the problem remain?	Go to step 30.	The problem is solved.
Step 30 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** **b** Find the sensor (Upper exit roller). Does the sensor status change while toggling the sensor?	Go to step 33.	Go to step 31.
Step 31 Check the sensor for proper installation and damage. Make sure to reseat the sensor connector on both ends. Is the sensor properly installed and free of damage?	Go to step 33.	Go to step 32.
Step 32 Reinstall or replace the sensor. See **"Sensor (staple finisher upper exit roller) removal" on page 712**. Does the problem remain?	Go to step 33.	The problem is solved.
Step 33 **a** Check the staple finisher front upper exit roller position gears for proper installation and damage, and replace if necessary. See **"Staple finisher front upper position exit roller gears removal" on page 713**. **b** Check the actuator and lever for proper installation and damage, and replace if necessary. **c** Make sure that the springs are properly installed. **d** Check if the roller goes up and down after moving the gears. **e** Lift the gear to check if the actuator covers the sensor. Does the problem remain?	Go to step 34.	The problem is solved.

Action	Yes	No
Step 34 **a** Check the staple finisher rear upper exit roller position gears and lever for proper installation and damage, and replace if necessary. See **"Staple finisher rear upper position exit roller gears removal" on page 697**. **b** Check if the roller goes up and down after moving the gears. Does the problem remain?	Go to step 35.	The problem is solved.
Step 35 **a** Check the staple finisher upper exit roller for proper installation and damage, and replace if necessary. See **"Staple finisher upper exit roller removal" on page 736**. **b** Check if the roller goes up and down after moving the gears. Does the problem remain?	Go to step 36.	The problem is solved.
Step 36 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Exit), and then touch **Start**. Does the motor run?	Go to step 39.	Go to step 37.
Step 37 Check the motor for proper installation and damage. Is the motor properly installed and free of damage?	Go to step 39.	Go to step 38.
Step 38 Reinstall or replace the motor. See **"Motor (staple finisher exit) removal" on page 754**. Does the problem remain?	Go to step 39.	The problem is solved.
Step 39 Check the exit gears for proper alignment and installation. Are the gears properly aligned or installed?	Go to step 41.	Go to step 40.
Step 40 Realign or reinstall the exit gears. Does the problem remain?	Go to step 41.	The problem is solved.
Step 41 Check the exit gears for damage. Are the gears free of damage?	Go to step 43.	Go to step 42.

Action	Yes	No
Step 42 Replace the gears. See **"Staple finisher exit gears removal" on page 715**. Does the problem remain?	Go to step 43.	The problem is solved.
Step 43 Check the exit roller belts for proper installation and damage. Are the belts properly installed or free of damage?	Go to step 45.	Go to step 44.
Step 44 Reinstall or replace the belts. See **"Staple finisher exit roller belts removal" on page 717**. Does the problem remain?	Go to step 45.	The problem is solved.
Step 45 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 46.	The problem is solved.
Step 46 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (staple finisher rear tamper home) jam service check

Action	Yes	No

Step 1
a Check and clear the following areas of any jams and obstructions:
   • Jam door
   • Output bin
   • Paper path
   • Staple finisher tamper area
b Move the staple finisher tampers from the side to the center, and then back to their original positions.
c Reset the printer, and then reseat the staple finisher.
 	
Does the problem remain?
	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Tamper front and rear), and then touch **Start**. Does the motor run?	Go to step 4.	Go to step 3.
Step 3 **a** Check the motor (staple finisher rear tamper) for proper installation and damage, and replace if necessary. See **"Motor (staple finisher tamper) removal" on page 721**. **b** Reseat the connector on both ends. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Tamper sensors** **b** Find the sensor (Rear tamper home). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 5.
Step 5 **a** Check the sensor (staple finisher rear tamper home) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher tamper position) removal" on page 720**. **b** Reseat the connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the cables for cuts or damages, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the tamper for proper installation and damage, and replace if necessary. See **"Staple finisher tamper removal" on page 725**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Check the rear tamper belt holder for proper installation and damage, and replace if necessary. See **"Staple finisher tamper belts removal" on page 722**. **b** Check the rear tamper belt for proper alignment. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Check the rear tamper belt for proper installation and damage, and replace if necessary. See **"Staple finisher tamper belts removal" on page 722**. **b** Check the spring for proper installation. **c** Check the belt for proper alignment. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the tamper gears for proper installation and damage, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher paddle jam service check

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

Action	Yes	No
Step 3 Check the sensor (staple finisher aligner paddle) for proper installation and damage, and replace if necessary. See **"Staple finisher aligner paddle gears removal" on page 710**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 a Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** b Find the motor (Aligner paddle), and then touch **Start**. Does the motor run?	Go to 6.	Go to step 5.
Step 5 Check the motor (staple finisher rear tamper home) for proper installation and damage, and replace if necessary. See **"Motor (staple finisher aligner paddle) removal " on page 708**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 a Check the staple finisher aligner paddle gears for proper installation and damage, and replace if necessary. See **"Staple finisher aligner paddle gears removal" on page 710**. b Check the actuator for damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 a Check the staple finisher aligner paddle for any wear or damage, and replace if necessary. See **"Staple finisher aligner paddle and upper paper guide removal" on page 734**. b Manually turn the aligner paddle to check it for proper operation. c Check the aligner paddle for proper installation. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher bin clamp jam service check

Action	Yes	No
Step 1 **a** Clear the staple finisher bin. **b** Clear the paper path of any obstruction. **c** 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: **Output device diagnostics** > **Motor tests** **b** Find the motor (Bin clamp), and then touch **Start**. Does the motor run?	Go to step 4.	Go to step 3.
Step 3 **a** Check the motor (staple finisher bin clamp) for damage, and replace if necessary. See **"Motor (staple finisher bin clamp) removal" on page 749**. **b** Check the motor for proper installation. **c** Reseat the motor connector on both ends. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** **b** Find the sensor (Tray holder arm). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 **a** Check the sensor (staple finisher bin clamp) for damage, and replace if necessary. See **"Sensor (staple finisher bin clamp) removal" on page 748**. **b** Check the sensor for proper installation. **c** Reseat the sensor connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Check the staple finisher bin arms for damage, and replace if necessary. See **"Staple finisher bin clamp assembly removal" on page 741**. **b** Clear the bin arms of any obstructions. **c** Check the bin arms for proper installation and alignment. **d** Manually actuate the arm to check for proper function. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Check the staple finisher bin for damage, and replace if necessary. See **"Staple finisher bin removal" on page 727**. **b** Manually push, and then release the bin to check if it goes back to its original position. **c** Clear the bin of any obstructions. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Check the staple finisher bin link for damage, and replace if necessary. See **"Staple finisher bin link removal" on page 726**. **b** Check the links and the spring for proper installation. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reseat all cable connectors in the controller board, and then reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher decurl assembly service check

Action	Yes	No
Step 1 **a** Reset the printer. **b** Reseat the staple finisher. **c** Clear the paper path of any obstructions. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Compile and staple section** **b** Find the sensor (Decurl). Does the sensor status change while toggling the sensor?	Go to step 4.	Go to step 3.
Step 3 **a** Check the sensor (staple finisher decurl) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher decurl) removal" on page 758**. **b** Reseat the connector on both ends. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Decurl), and then touch **Start**. Does the motor run?	Go to step 6.	Go to step 5.
Step 5 **a** Check the motor (staple finisher decurl) for proper installation and damage, and replace if necessary. See **"Staple finisher decurl assembly removal" on page 756**. **b** Reseat the end of the connector that is on the controller board. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Replace the staple finisher decurl paddle. See **"Staple finisher decurl assembly removal" on page 756**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reseat all cable connectors in the controller board, and then reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher stapler throat jam service check

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

Action	Yes	No
Step 3 **a** Check the sensor (staple finisher staple unit paper present) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher staple unit paper present) removal" on page 757**. **b** Reseat the connector on both ends. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple finisher** > **Transport and exit section** **b** Find the sensor (Upper exit roller). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 5.
Step 5 **a** Check the sensor for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher upper exit roller) removal" on page 712**. **b** Reseat the connector on both ends. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Exit assembly), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 7.
Step 7 **a** Check the motor for proper installation and damage, and replace if necessary. See **"Motor (staple finisher upper exit roller) removal" on page 696**. **b** Reseat the connector on both ends. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Check the staple finisher upper paper guide for proper installation and damage, and replace if necessary. See **"Staple finisher aligner paddle and upper paper guide removal" on page 734**. **b** Check the paper guide bail for proper installation and damage, and replace if necessary. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Check the staple finisher front upper exit roller position gears for proper installation and damage, and replace if necessary. See **"Staple finisher front upper position exit roller gears removal" on page 713**. **b** Check the actuator and lever for proper installation and damage, and replace if necessary. **c** Make sure that the springs are properly installed. **d** Check if the roller goes up and down after moving the gears. **e** Lift the gear to check if the actuator covers the sensor. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the staple finisher rear upper exit roller position gears and lever for proper installation and damage, and replace if necessary. See **"Staple finisher rear upper position exit roller gears removal" on page 697**. **b** Check if the roller goes up and down after moving the gears. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Check the staple finisher upper exit roller for proper installation and damage, and replace if necessary. See **"Staple finisher upper exit roller removal" on page 736**. **b** Check if the roller goes up and down after moving the gears. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the controller board for damage, and replace if necessary. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

43y paper jams

430–439 paper jam messages

Error code	Description	Action
430.19	Stapler head fails to prime.	See **"Staples Low [83] service check" on page 432**.
431.xx	Staple supply is low.	
436.13	The media fails to cover the sensor (staple finisher front tamper home) within the specified time.	See **"Sensor (staple finisher front tamper home) jam service check" on page 276**.
436.15	The media fails to leave the sensor (staple finisher front tamper home) within the specified time.	
439.19	Page ID mismatch.	See **"Staple finisher engine error service check" on page 278**.

Sensor (staple finisher front tamper home) jam service check

Action	Yes	No

Step 1
a Clear the following areas of any jams or obstructions:
   • Jam door
   • Finisher bin
   • Paper path
   • Staple finisher tamper area
b Move the tampers from one side to another, and then back to the original position.
c Reset the printer, and then reseat the staple finisher.
 	
Does the problem remain?
	Go to step 2.	The problem is solved.

Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Tamper front and rear), and then touch **Start**. Does the motor run?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 **a** Check the motor (staple finisher front tamper home) for proper installation and damage, and replace if necessary. See **"Motor (staple finisher tamper) removal" on page 721**. **b** Reseat the connector on both ends of the motor. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Tamper sensors** **b** Find the sensor (Front tamper home). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 5.
Step 5 **a** Check the sensor (staple finisher front tamper home) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher tamper position) removal" on page 720**. **b** Reseat the connector on both ends of the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Move the tampers from one side to another, and then make sure that the tamper area is free from any obstructions. **b** Check the tampers for any damages, and replace if necessary. See **"Staple finisher tamper removal" on page 725**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Check the tamper belt holder for damages, and replace if necessary. See **"Staple finisher tamper removal" on page 725**. **b** Check the tamper belt holder for proper installation. Make sure that the front tamper belt is properly aligned. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 **a** Check the staple finisher tamper belt for damage, and replace if necessary. See **"Staple finisher tamper belts removal" on page 722**. **b** Check the belts for proper installation. Make that the spring and the holder are properly aligned. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Check the stapler finisher tamper pulley gears for damage, and replace if necessary. See **"Staple finisher tamper pulley gear removal" on page 724**. **b** Make sure that the gears are properly installed. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reseat all connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher engine error service check

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

Action	Yes	No
Step 3 Check the motor for proper installation and damage. Is the motor properly installed or free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (staple finisher transport) removal" on page 754**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit** **b** Find the sensor (Transport). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 6.
Step 6 Check the sensor and the flag for proper installation and damage. Is the sensor and the flag properly installed or free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the sensor and the flag. See **"Sensor (staple finisher transport) removal" on page 759**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Aligner paddle), and then touch **Start**. Does the motor run?	Go to step 11.	Go to step 9.
Step 9 Check the motor for proper installation and damage. Is the motor properly installed or free of damage	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the motor. See **"Motor (staple finisher aligner paddle) removal " on page 708**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** **b** Find the sensor (Upper exit roller). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor for proper installation and damage. Is the sensor properly installed or free of damage?	Go to step 14.	Go to step 13.
Step 13 Reinstall or replace the sensor. See **"Sensor (staple finisher upper exit roller) removal" on page 712**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Upper exit), and then touch **Start**. Does the motor run?	Go to step 17.	Go to step 15.
Step 15 Check the motor for proper installation and damage. Is the motor properly installed or free of damage?	Go to step 17.	Go to step 16.
Step 16 Reinstall or replace the motor. See **"Motor (staple finisher upper exit roller) removal" on page 696**. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Exit), and then touch **Start**. Does the motor run?	Go to step 20.	Go to step 18.
Step 18 Check the motor for proper installation and damage. Is the motor properly installed or free of damage?	Go to step 20.	Go to step 19.

Action	Yes	No
Step 19 Reinstall or replace the motor. See **"Motor (staple finisher exit) removal" on page 754**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the upper exit roller for proper installation and damage. Make sure that the roller can move up and down. Is the roller properly installed or free of damage?	Go to step 22.	Go to step 21.
Step 21 Reinstall or replace the roller. See **"Staple finisher upper exit roller removal" on page 736**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Check the cables for any cuts or damage, and replace if necessary. Does the problem remain?	Go to step 23.	The problem is solved.
Step 23 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 24.	The problem is solved.
Step 24 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

User attendance messages

Non-Lexmark supply

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

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

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

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

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

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

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

1 From the control panel, navigate to:

Settings > **Device** > **Maintenance** > **Configuration Menu** > **Supply Usage And Counters**

2 Select the part or supply to reset, and then select **Start**.

3 Read the warning message, and then select **Continue**.

4 Press and hold **X** and **#** simultaneously for 15 seconds to clear the message.

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

31–39 user attendance errors

31–39 user attendance messages

Note: For 33.xxz messages, see **"Non-Lexmark supply" on page 281**.

Error code	Description	Action
31.30	Transfer belt smart chip or sensor communication problem was detected.	See **"Supplies smart chip error service check" on page 284**.
31.40	Toner cartridge (K) smart chip or sensor communication problem was detected.	
31.41	Toner cartridge (C) smart chip or sensor communication problem was detected.	
31.42	Toner cartridge (M) smart chip or sensor communication problem was detected.	
31.43	Toner cartridge (Y) smart chip or sensor communication problem was detected.	
31.50	Developer (K) smart chip or sensor communication problem was detected.	
31.51	Developer (C) smart chip or sensor communication problem was detected.	
31.52	Developer (M) smart chip or sensor communication problem was detected.	
31.53	Developer (Y) smart chip or sensor communication problem was detected.	

Error code	Description	Action
31.60	Imaging unit/photoconductor (K) smart chip or sensor communication problem was detected.	See **"Supplies smart chip error service check" on page 284**.
31.61	Imaging unit/photoconductor (C) smart chip or sensor communication problem was detected.	
31.62	Imaging unit/photoconductor (M) smart chip or sensor communication problem was detected.	
31.63	Imaging unit/photoconductor (Y) smart chip or sensor communication problem was detected.	
31.80	Fuser/maintenance kit smart chip or sensor communication problem was detected.	
32.40	The third party toner cartridge (K) is unsupported.	See **"Unsupported third party supply service check" on page 286**.
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.	
32.60	The third party imaging unit/photoconductor (K) is unsupported.	See **"Unsupported third party supply service check" on page 286**.
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.	

Error code	Description	Action
33.40z	Non-Lexmark black cartridge. The smart chip contents have been manipulated by a third party manufacturer.	See **"Cartridge or photoconductor error service check" on page 287**.
33.41z	Non-Lexmark cyan cartridge. The smart chip contents have been manipulated by a third party manufacturer.	
33.42z	Non-Lexmark magenta cartridge. The smart chip contents have been manipulated by a third party manufacturer.	
33.43z	Non-Lexmark yellow cartridge. The smart chip contents have been manipulated by a third party manufacturer.	
33.50z	Non-Lexmark black developer. The smart chip contents have been manipulated by a third party manufacturer.	
33.64z	Non-Lexmark color imaging unit. The smart chip contents have been manipulated by a third party manufacturer.	
34.xx	Incorrect paper size was detected.	See **"Mismatched paper size service check" on page 287**.
35.xx	The printer memory is insufficient to enable Resource Save.	See **"Insufficient memory service check" on page 288**.
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 289**.

Z codes:

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

Supplies smart chip error service check

Action	Yes	No
Step 1 Check whether the following supplies installed are genuine. • Transfer belt • Toner cartridge • Developer • Photoconductor • Imaging unit Are the parts genuine and supported Lexmark units?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Install genuine Lexmark supplies. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the following supplies for proper installation. • Transfer belt • Toner cartridge • Developer • Photoconductor • Imaging unit Are the parts properly installed?	Go to step 5.	Go to step 4.
Step 4 Reinstall the supply. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Remove the supply, and then install a different unit. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the socket JDISTR1 on the controller board for proper connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the electrical contacts and cables of the following supplies for damage. • Transfer belt • Toner cartridge • Developer • Photoconductor • Imaging unit Are the contacts and their cables free of damage?	Go to step 10.	Go to step 9.

Action	Yes	No
Step 9 Replace the contact. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the RIP firmware version. Does the RIP firmware have the latest version?	Go to step 12.	Go to step 11.
Step 11 Update the RIP firmware. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the printer firmware version. Does the printer firmware have the latest version?	Contact the next level of support.	Go to step 14.
Step 14 Update the printer firmware. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unsupported third party supply service check

Action	Yes	No
Step 1 Check whether third party supplies are used. • toner cartridge • developer and PC unit combo • fuser Are third party supplies used?	Go to step 2.	Contact the next level of support.
Step 2 Replace the third party supply (toner cartridge, imaging unit, or fuser) with a genuine Lexmark part. Does the problem remain?	Contact the next level of support.	The problem is solved.

Cartridge or photoconductor error service check

Action	Yes	No
Step 1 **a** Make sure that the cartridge or photoconductor unit is installed. **b** Check if the cartridge or photoconductor unit is supported, and replace if necessary. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Make sure that the cartridge or photoconductor unit is properly installed. **b** Make sure that the cartridge or photoconductor cables are properly connected. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the cartridge or photoconductor contacts for damage, and replace if necessary. 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 564**. 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 tray paper 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.
Step 2 Check the paper width and paper length sensor actuators for damage, and replace if necessary. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 **a** Reseat the paper width and paper 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 Check the paper width and paper length sensors 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, and replace if necessary. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Insufficient memory service check

Action	Yes	No
Step 1 **a** Perform a POR. **b** From the home screen, 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 an extra memory card. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the controller board pins for damage. Are the pins free of damage?	Contact the next level of support.	Go to step 4.
Step 4 Replace the controller board. See **"Controller board removal" on page 564**. 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 564**. 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 **"Cartridge or photoconductor error service check" on page 287**.
43.40	Toner cartridge (B) falling paddle error was detected.	See **"Toner cartridge paddle error service check" on page 290**.
43.41	Toner cartridge (C) falling paddle error was detected.	
43.42	Toner cartridge (M) falling paddle error was detected.	
43.43	Toner cartridge (Y) falling paddle error was detected.	
50.xx	PPDS font error was detected.	See **"PPDS font error service check" on page 291**.
51.xx	The flash memory is defective.	See **"Flash memory failure service check" on page 292**.

Error code	Description	Action
52.xx	The flash memory is insufficient.	See **"Insufficient flash memory service check" on page 292**.
53.xx	The flash memory is unformatted.	See **"Flash memory failure service check" on page 292**.
54.xx	The printer was not able to communicate with the network.	See **"Network service check" on page 293**.
55.xx	The internal option installed is unsupported.	See **"Unsupported internal option service check" on page 296**.
56.xx	The parallel port, serial port, or standard USB port is disabled.	See **"Disabled port service check" on page 296**.
58.xx	The disks, trays, or bins installed are too many.	See **"Excess options service check" on page 297**.
59.xx	The input option or output option is incompatible.	See **"Incompatible hardware option service check" on page 298**.

Toner cartridge paddle error service check

Action	Yes	No
Step 1 Check the toner cartridge of the affected color for proper installation. • Make sure that there are no packing material still on it. • Check for misalignment. Is the toner cartridge properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the toner cartridge. 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** Select the motor (toner add) of the affected color, and then touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable JBTLM1 on the controller board for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the drive coupler between the affected toner add motor and cartridge for damage and misalignment. Does the drive coupler properly engage with the cartridge and is it free of damage?	Contact the next level of support.	Go to step 7.
Step 7 Replace the affected toner add motor. Does the problem remain?	Contact the next level of support.	The problem is solved.

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 564**. 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 564**. 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 564**. 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.

Diagnostics and troubleshooting

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 564**. 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 564**. 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 564**. 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 564**. 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 564**. 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 299**.
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 300**.
84.xx	A photoconductor unit end of life error was detected: • The photoconductor unit life is low, nearly low, or very low. • The photoconductor unit needs to be replaced.	See **"Cartridge or photoconductor error service check" on page 287**.
85.xx	A developer unit end of life error was detected: • The developer unit life is low, nearly low, or very low. • The developer unit needs to be replaced.	See **"Cartridge or photoconductor error service check" on page 287**.

Error code	Description	Action
88.xx	A toner cartridge end of life error was detected: • The toner cartridge supply is low, nearly low, or very low. • The toner cartridge needs to be replaced.	See **"Cartridge or photoconductor error service check" on page 287**.

Hard disk failure service check

Action	Yes	No
Step 1 Delete unnecessary files. • From the home screen, navigate to **Settings** > **Device** > **Maintenance** > **Out-of-Service Erase** > **Erase Hard Disk** > **Sanitize all information on hard disk** > **Erase downloads** > **Delete now**. • From the home screen, navigate to **Settings** > **Maintenance** > **Configuration Menu** > **Disk Configuration** > **Jobs on Disk** > **Delete**. 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 564**. 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 775**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printer hardware errors

10y errors

100–101 error messages

Error code	Description	Action
100.01	Engine software error was detected.	See **"Weather station failure service check" on page 302**.
101.20	Tray 2 product ID is invalid.	See **"Invalid input option type or ID is detected service check" on page 301**.
101.21	Tray 2 controller board ID is invalid.	
101.22	The input option type is invalid.	
101.30	Tray 3 product ID is invalid.	
101.31	Tray 3 controller board ID is invalid.	
101.32	The input option type is invalid.	See **"Invalid input option type or ID is detected service check" on page 301**.
101.40	Tray 4 product ID is invalid.	
101.41	Tray 4 controller board ID is invalid.	
101.42	The input option type is invalid.	
101.50	Tray 5 product ID is invalid.	
101.51	Tray 5 controller board ID is invalid.	
101.52	The input option type is invalid.	

Invalid input option type or ID is detected service check

Action	Yes	No
Step 1 **a** Make sure that the latest firmware is installed. **b** Make sure that the options configuration is supported. See the *Printer, Option, and Stand Compatibility Guide*. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the interface cable for proper connection, and reseat if necessary. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the interface cable for damage. Is the cable free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the cable. See **"550-sheet tray interface cable removal" on page 654** or **"2200-sheet tray interface cable removal" on page 666**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the interface cable of the printer and adjacent options for damage. Is the cable free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the input option controller board. See **"550-sheet tray controller board removal" on page 654** or **"2200-sheet tray controller board removal" on page 665**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Weather station failure service check

Action	Yes	No
Step 1 Check the cable JWTHR1 on the controller board for proper connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the weather station cable for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Contact the next level of support.	The problem is solved.
Step 5 Replace the weather station. See **"Weather station removal" on page 574**. Does the problem remain?	Contact the next level of support.	The problem is solved.

110 errors

110 error messages

Error code	Description	Action
110.20	Printhead error (mirror motor lock is asserted) was detected before the motor was turned on.	See **"Printhead failure service check" on page 303**.
110.21	No printhead power (+5V) when the laser servo started.	
110.31	Printhead error (no first Hysnc) was detected.	
110.32	Printhead error (lost first Hysnc) was detected.	
110.33	Printhead error (lost first Hysnc) was detected during servo.	
110.34	Printhead error (mirror motor lost lock) was detected.	
110.35	Printhead error (mirror motor no first lock) was detected.	
110.36	Printhead error (mirror motor never stabilized) was detected.	
110.41	Printhead NVRAM read failure occurred.	
110.70	Printhead NVRAM values were incorrect.	
110.91	Printhead timing error was detected.	
110.92	Printhead NVRAM checksum mismatch occurred.	

Printhead failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board sockets JWPR1 and JVD01 connections. Are the cables properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cables. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the printhead connections. Is the printhead properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cables. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the printhead cables for damage. Are the cables free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the printhead. See **"Printhead removal" on page 511**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

120–126 errors

120 error messages

Error code	Description	Action
120.80	Motor (fuser) did not turn on.	See **"Motor (fuser) failure service check" on page 308**.
120.81	Motor (fuser) did not turn off.	
120.82	The motor (fuser) speed did not ramp up to the required level.	
120.83	The motor (fuser) stalled.	
120.84	The motor (fuser) ran too slow.	
120.85	The motor (fuser) ran too fast.	

121 error messages

Error code	Description	Action
121.00	Fuser did not reach the required temperature (during warmup).	See **"Fuser failure service check" on page 310**.
121.01	During an attempt to heat up, the fuser was not detected.	
121.02	Fuser went over the required temperature (during EWC/Line voltage detection).	
121.03	Fuser hardware and driver are mismatched.	
121.04	During an attempt to heat up, the fuser relay was open and the microcontroller was not reporting an error.	
121.05	During an attempt to heat up, the fuser relay was open and the microcontroller was reporting an error.	
121.09	Fuser did not reach the required temperature for motors (not applicable to standby mode).	

Error code	Description	Action
121.10	Fuser did not reach the required temperature (during start of EWC/Line voltage detection).	See **"Fuser failure service check" on page 310**.
121.11	Fuser reached the required temperature (during final EWC/Line voltage detection) too late.	
121.12	Fuser did not reach the required temperature (during final EWC/Line voltage detection).	
121.13	Fuser reached the required temperature (during final EWC/Line voltage detection) too fast.	
121.15	Power of fuser heater is too high.	
121.16	Power of fuser heater is too low.	
121.17	Fuser heater error (runaway on LV machine) was detected.	
121.18	Fuser heater error (runaway on HV machine) was detected.	
121.22	Open fuser relay was detected.	See **"Fuser failure service check" on page 310**.
121.25	After line voltage detection, control did not roll over to steady state in time.	
121.28	Fuser did not reach the required temperature (during EP warmup).	
121.32	Fuser did not reach the required temperature (on 100% power).	
121.33	Fuser did not reach the required temperature (while page is in fuser).	
121.34	Fuser did not reach the required temperature (during steady state control).	
121.36	Open fuser relay was detected with very cold or unknown ambient temperature.	
121.38	Fuser UBER defect was detected. Belt to heater temperature delta is too high.	
121.41	Fuser mechanism failed to detect the expected cam sensor transition.	See **"Fuser failure service check" on page 310**.
121.42	Fuser gate time has increased out of control.	

Error code	Description	Action
121.50	Fuser went over the required temperature (during global overtemp check).	See **"Fuser failure service check" on page 310**.
121.52	Main thermistor temperature is out of range.	
121.53	Main thermistor temperature change rate is out of range.	
121.54	Secondary thermistor temperature is out of range.	
121.55	Secondary thermistor temperature change rate is out of range.	
121.56	Middle thermistor temperature is out of range.	
121.57	Middle thermistor temperature change rate is out of range.	
121.58	Edge thermistor temperature is out of range.	
121.59	Edge thermistor temperature change rate is out of range.	
121.60	Belt contact thermistor temperature is out of range.	See **"Fuser failure service check" on page 310**.
121.61	Belt contact thermistor temperature change rate is out of range.	
121.62	Belt non-contact thermistor 1 temperature is out of range.	
121.63	Belt non-contact thermistor 1 temperature change rate is out of range.	
121.64	Belt non-contact thermistor 2 temperature is out of range.	
121.65	Belt non-contact thermistor 2 temperature change rate is out of range.	
121.66	Narrow media thermistor temperature is out of range.	
121.67	Narrow media thermistor temperature change rate is out of range.	
121.70	Heater resistance is too high.	See **"Fuser failure service check" on page 310**.
121.71	Open fuser main heater thermistor was detected.	
121.72	Open fuser secondary heater thermistor was detected.	
121.73	Open fuser middle heater thermistor was detected.	
121.74	Open fuser edge thermistor was detected.	

Error code	Description	Action
121.81	Open fuser backup roll thermistor was detected.	See **"Fuser failure service check" on page 310**.
121.82	Open fuser second backup roll thermistor was detected.	
121.84	Non-contact BUR sensor is missing.	
121.86	Backup roller thermistor 1 temperature is out of range.	
121.87	Backup roller thermistor 1 temperature change rate is out of range.	
121.88	Backup roller thermistor 2 temperature is out of range.	
121.89	Backup roller thermistor 2 temperature change rate is out of range.	
121.90	Non-contact backup roller thermistor temperature is out of range.	
121.91	Non-contact backup roller thermistor temperature change rate is out of range.	

126 error messages

Error code	Description	Action
126.06	LVPS 25V line error was detected.	See **"LVPS failure service check" on page 311**.
126.07	LVPS 5V rail was down during power-on.	
126.10	No line frequency was detected.	
126.11	Line frequency has gone outside the operating range.	

Motor (fuser) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the fuser for damage and life expiration. Is the fuser damaged or has it reached end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 a Remove the fuser, and then manually turn the fuser drive gears. b Check the movement of the gears. Does the fuser drive gear properly turn?	Go to step 6.	Go to step 5.
Step 5 Replace the fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board sockets JFIS1 and JFIP1 connections. Are the cables properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the motor (fuser) connections. Is the motor properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (fuser) cables for damage. Are the cables free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cables. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the fuser/transfer belt motor gearbox. See **"Fuser/transfer belt motor gearbox removal" on page 586**. Does the problem remain?	Go to step 14.	The problem is solved.

Action	Yes	No
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Fuser failure service check

Action	Yes	No
Step 1 Check the fuser for proper installation. Is the fuser properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the fuser. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Remove the fuser, and then install a different fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the controller board socket JFSR1 connection. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the LVPS. See **"LVPS removal" on page 568**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the fuser cables for damage. Are the cables free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the LVPS. See **"LVPS removal" on page 568**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

LVPS failure service check

Action	Yes	No
Step 1 Check the fuser for proper installation. Is the fuser properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the fuser. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Remove the fuser, and then install a different fuser. See **"Fuser removal" on page 477**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the controller board sockets JFSR1 and CN1 connections. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the LVPS. See **"LVPS removal" on page 568**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the LVPS cables for damage. Are the cables free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the cables. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the LVPS. See **"LVPS removal" on page 568**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

127–128 errors

127–128 error messages

Error code	Description	Action
127.01	The main HVPS was not detected.	See **"Main HVPS undetected service check" on page 313**.
127.02	The charge roller HVPS was not detected.	See **"Charge roller HVPS undetected service check" on page 314**.
128.00	Toner patch sensor error was detected.	See **"Sensor (TPS) failure service check" on page 315**.

Main HVPS undetected service check

Action	Yes	No
Step 1 Check the controller board socket JHVPS1 connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the main HVPS cable. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Replace the main HVPS. See **"Main HVPS removal" on page 541**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Charge roller HVPS undetected service check

Action	Yes	No
Step 1 Check the controller board socket JHVPS2 connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the charge roller HVPS cable. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the charge roller HVPS. See **"Charge roller HVPS removal" on page 560**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (TPS) failure service check

Action	Yes	No
Step 1 Check the cable JTPS1 on the controller board for proper connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor (TPS) cable for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Perform the Toner patch sensing service check. Does the problem remain?	Contact the next level of support.	The problem is solved.

13y errors

130–137 error messages

Error code	Description	Action
130.80	The motor (printhead wiper) did not turn on.	See **"Motor (printhead wiper) failure service check" on page 316**.
130.81	The motor (printhead wiper) did not turn off.	
130.82	The motor (printhead wiper) speed did not ramp up to the required level.	
130.83	The motor (printhead wiper) stalled.	
130.84	The motor (printhead wiper) ran too slow.	
130.85	The motor (printhead wiper) ran too fast.	

Error code	Description	Action
136.80	The motor (K developer) did not turn on.	See **"Motor (K developer) failure service check" on page 317**.
136.81	The motor (K developer) did not turn off.	
136.82	The motor (K developer) speed did not ramp up to the required level.	
136.83	The motor (K developer) stalled.	
136.84	The motor (K developer) ran too slow.	
136.85	The motor (K developer) ran too fast.	
137.80	The motor (CMY developers) did not turn on.	See **"Motor (CMY developers) failure service check" on page 319**.
137.81	The motor (CMY developers) did not turn off.	
137.82	The motor (CMY developers) speed did not ramp up to the required level.	
137.83	The motor (CMY developers) stalled.	
137.84	The motor (CMY developers) ran too slow.	
137.85	The motor (CMY developers) ran too fast.	

Motor (printhead wiper) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JWPR1 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (printhead wiper) connection. Is the motor properly connected?		
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Check the motor (printhead wiper) cables for damage. Are the cables free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (printhead wiper). See **"Motor (printhead wiper) removal" on page 514**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (K developer) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the K developer unit for damage and life expiration. Is the developer unit damaged or has it reached end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 **a** Remove the K developer unit, and then manually turn the developer drive gear. **b** Check the movement of the gear. Does the developer drive gear properly turn?	Go to step 6.	Go to step 5.
Step 5 Replace the developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board socket JMAG1 connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the motor (K developer) connection. Is the motor properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (K developer) cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 Replace the EP/developer/toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (CMY developers) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the CMY developer units for damage and life expiration. Are the developer units damaged or have they reached end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the affected developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the CMY developer units, and then manually turn the developer drive gears. **b** Check the movement of the gears. Do the developer drive gears properly turn?	Go to step 6.	Go to step 5.
Step 5 Replace the affected developer unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 6.	The problem is solved.

Diagnostics and troubleshooting

Action	Yes	No
Step 6 Check the controller board socket JMAG1 connection. Is the cable properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the motor (CMY developers) connection. Is the motor properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (CMY developers) cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the EP/developer/toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

14y errors

141–149 error messages

Error code	Description	Action
141.80	The motor (K photoconductor) did not turn on.	See **"Motor (K photoconductor) failure service check" on page 322**.
141.81	The motor (K photoconductor) did not turn off.	
141.82	The motor (K photoconductor) speed did not ramp up to the required level.	
141.83	The motor (K photoconductor) stalled.	
141.84	The motor (K photoconductor) ran too slow.	
141.85	The motor (K photoconductor) ran too fast.	
142.80	The motor (CMY photoconductors) did not turn on.	See **"Motor (CMY photoconductors) failure service check" on page 324**.
142.81	The motor (CMY photoconductors) did not turn off.	
142.82	The motor (CMY photoconductors) speed did not ramp up to the required level.	
142.83	The motor (CMY photoconductors) stalled.	
142.84	The motor (CMY photoconductors) ran too slow.	
142.85	The motor (CMY photoconductors) ran too fast.	
145.80	The motor (CMY photoconductors) did not turn on.	See **"Motor (black only retract) failure service check" on page 326**.
145.81	The motor (CMY photoconductors) did not turn off.	
145.82	The motor (CMY photoconductors) speed did not ramp up to the required level.	
145.83	The motor (CMY photoconductors) stalled.	
145.84	The motor (CMY photoconductors) ran too slow.	
145.85	The motor (CMY photoconductors) ran too fast.	
147.80	The motor (deskew) did not turn on.	See **"Motor (deskew) failure service check" on page 327**.
147.81	The motor (deskew) did not turn off.	
147.82	The motor (deskew) speed did not ramp up to the required level.	
147.83	The motor (deskew) stalled.	
147.84	The motor (deskew) ran too slow.	
147.85	The motor (deskew) ran too fast.	

Error code	Description	Action
148.80	The motor (duplex diverter) did not turn on.	See **"Motor (duplex diverter) failure service check" on page 328**.
148.81	The motor (duplex diverter) did not turn off.	
148.82	The motor (duplex diverter) speed did not ramp up to the required level.	
148.83	The motor (duplex diverter) stalled.	
148.84	The motor (duplex diverter) ran too slow.	
148.85	The motor (duplex diverter) ran too fast.	
149.80	The motor (redrive) did not turn on.	See **"Motor (redrive) failure service check" on page 330**.
149.81	The motor (redrive) did not turn off.	
149.82	The motor (redrive) speed did not ramp up to the required level.	
149.83	The motor (redrive) stalled.	
149.84	The motor (redrive) ran too slow.	
149.85	The motor (redrive) ran too fast.	

Motor (K photoconductor) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the K photoconductor unit for damage and life expiration. Is the photoconductor unit damaged or has it reached end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the photoconductor unit. See **"Repeating defects check" on page 84**. Does the problem remain?	Go to step 4.	The problem is solved.

Step 4
  a Remove the K photoconductor unit, and then manually turn the photoconductor drive gear.
  b Check the movement of the gear.
 	
Does the photoconductor drive gear properly turn?
	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Replace the photoconductor unit. See **"Repeating defects check" on page 84**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board sockets JPCS1 and JPCP1 connections. Are the cables properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cables. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the motor (K photoconductor) connection. Is the motor properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (K photoconductor) cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the EP/developer/toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.

Action	Yes	No
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (CMY photoconductors) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the CMY photoconductor units for damage and life expiration. Are the photoconductor units damaged or have they reached end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the affected photoconductor unit. See **"Developer unit and photoconductor unit removal" on page 524**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the CMY developer units, and then manually turn the developer drive gears. **b** Check the movement of the gears. Do the developer drive gears properly turn?	Go to step 6.	Go to step 5.
Step 5 Replace the affected developer unit. See **"Developer unit and photoconductor unit removal" on page 524** Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board sockets JPCS1 and JPCP1 connections. Are the cables properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cables. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the motor (CMY photoconductors) connection. Is the motor properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (CMY photoconductors) cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the EP/developer/toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (black only retract) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMAG1 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (black only retract) connection. Is the motor properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (black only retract) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (black only retract). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.
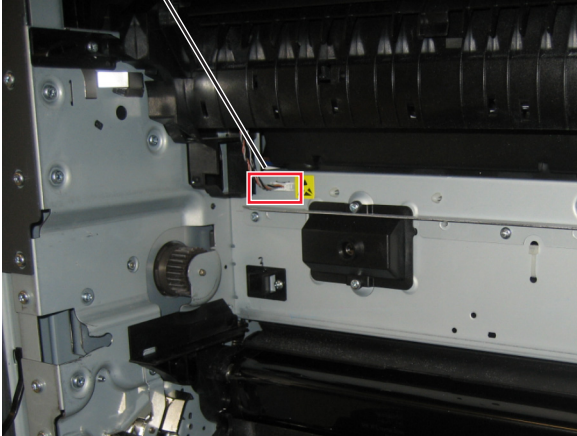
Motor (deskew) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMTR3 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (deskew) connection. Is the motor properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (deskew) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Replace the motor (deskew). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (duplex diverter) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMTR1 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (duplex diverter) connection. Is the motor properly connected?	Go to step 5.	Go to step 6.

Action	Yes	No
Step 5 **a** Remove the fuser. See **"Fuser removal" on page 477**. **b** Check the in-line cable (A) connection. **A** Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the motor (duplex diverter) cable for damage. Is the cable free of damage?	Go to step 9.	Go to step 8.
Step 8 Replace the cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the redrive. See **"Redrive removal" on page 495**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Reset the printer. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (redrive) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMTR1 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (redrive) connection. Is the motor properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (redrive) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (redrive). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

15y errors

150–158 error messages

Error code	Description	Action
150.80	The motor (duplex) did not turn on.	See **"Motor (duplex) failure service check" on page 333**.
150.81	The motor (duplex) did not turn off.	
150.82	The motor (duplex) speed did not ramp up to the required level.	
150.83	The motor (duplex) stalled.	
150.84	The motor (duplex) ran too slow.	
150.85	The motor (duplex) ran too fast.	
151.80	The motor (transfer belt) did not turn on.	See **"Motor (transfer belt) failure service check" on page 334**.
151.81	The motor (transfer belt) did not turn off.	
151.82	The motor (transfer belt) speed did not ramp up to the required level.	
151.83	The motor (transfer belt) stalled.	
151.84	The motor (transfer belt) ran too slow.	
151.85	The motor (transfer belt) ran too fast.	

Error code	Description	Action
153.80	The motor (isolation) did not turn on.	See **"Motor (isolation) failure service check" on page 336**.
153.81	The motor (isolation) did not turn off.	
153.82	The motor (isolation) speed did not ramp up to the required level.	
153.83	The motor (isolation) stalled.	
153.84	The motor (isolation) ran too slow.	
153.85	The motor (isolation) ran too fast.	
155.80	The motor (K toner add) did not turn on.	See **"Motor (K toner add) failure service check" on page 337**.
155.81	The motor (K toner add) did not turn off.	
155.82	The motor (K toner add) speed did not ramp up to the required level.	
155.83	The motor (K toner add) stalled.	
155.84	The motor (K toner add) ran too slow.	
155.85	The motor (K toner add) ran too fast.	
156.80	The motor (C toner add) did not turn on.	See **"Motor (C toner add) failure service check" on page 340**.
156.81	The motor (C toner add) did not turn off.	
156.82	The motor (C toner add) speed did not ramp up to the required level.	
156.83	The motor (C toner add) stalled.	
156.84	The motor (C toner add) ran too slow.	
156.85	The motor (C toner add) ran too fast.	
157.80	The motor (M toner add) did not turn on.	See **"Motor (M toner add) failure service check" on page 342**.
157.81	The motor (M toner add) did not turn off.	
157.82	The motor (M toner add) speed did not ramp up to the required level.	
157.83	The motor (M toner add) stalled.	
157.84	The motor (M toner add) ran too slow.	
157.85	The motor (M toner add) ran too fast.	
158.80	The motor (Y toner add) did not turn on.	See **"Motor (Y toner add) failure service check" on page 345**.
158.81	The motor (Y toner add) did not turn off.	
158.82	The motor (Y toner add) speed did not ramp up to the required level.	
158.83	The motor (Y toner add) stalled.	
158.84	The motor (Y toner add) ran too slow.	
158.85	The motor (Y toner add) ran too fast.	

Motor (duplex) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMTR3 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (duplex) connection. Is the motor properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (duplex) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (duplex). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (transfer belt) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the transfer belt for damage and life expiration. Is the transfer belt damaged or has it reached end of life?	Go to step 3.	Go to step 4.
Step 3 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Remove the transfer belt, and then manually turn the transfer belt drive gears. **b** Check the movement of the gears. Do the drive gears properly turn?	Go to step 6.	Go to step 5.
Step 5 Replace the transfer belt. See **"Transfer belt removal" on page 531**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the controller board sockets JFIP1 and JFIS1 connections. Are the cables properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cables. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Check the motor (transfer belt) connection. Is the motor properly connected?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (transfer belt) cable for damage. Is the cable free of damage?	Go to step 12.	Go to step 11.
Step 11 Replace the cable. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the fuser/transfer belt motor gearbox. See **"Fuser/transfer belt motor gearbox removal" on page 586**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (isolation) failure service check
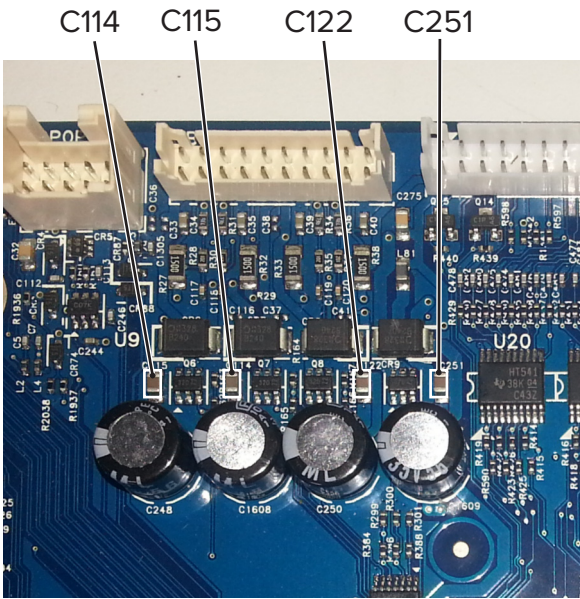
Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMTR2 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (isolation) connection. Is the motor properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (isolation) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the MPF and the reference edge motor gearbox. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (K toner add) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the K toner cartridge, and then manually turn the drive gear. **b** Check the movement of the gear. Does the drive gear properly turn?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (K toner add) cable for proper connection. • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (K toner add) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (K toner add). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 On the upper part of the controller board, check the K toner add capacitor C251 for damage. **Note:** Blown capacitors may look deformed or bulged. C114 C115 C122 C251 Is the capacitor free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (C toner add) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the C toner cartridge, and then manually turn the drive gear. **b** Check the movement of the gear. Does the drive gear properly turn?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (C toner add) cable for proper connection. • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
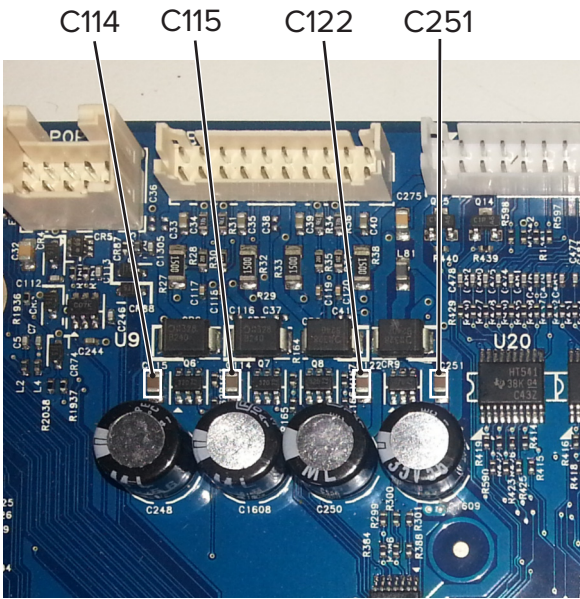
Action	Yes	No
Step 6 Check the motor (C toner add) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (C toner add). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 On the upper part of the controller board, check the C toner add capacitor C114 for damage. **Note:** Blown capacitors may look deformed or bulged. Is the capacitor free of damage?	Contact the next level of support.	Go to step 12.

Action	Yes	No
Step 12 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (M toner add) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the M toner cartridge, and then manually turn the drive gear. **b** Check the movement of the gear. Does the drive gear properly turn?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (M toner add) cable for proper connection. • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. Is the cable properly connected?	Go to step 6.	Go to step 5.

Action	Yes	No
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (M toner add) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (M toner add). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 On the upper part of the controller board, check the M toner add capacitor C122 for damage. **Note:** Blown capacitors may look deformed or bulged. C114 C115 C122 C251 Is the capacitor free of damage?	Contact the next level of support.	Go to step 12.
Step 12 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (Y toner add) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Remove the Y toner cartridge, and then manually turn the drive gear. **b** Check the movement of the gear. Does the drive gear properly turn?	Go to step 4.	Go to step 3.
Step 3 Replace the toner cartridge. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (Y toner add) cable for proper connection. • Check the connector on the motor. • Check the connector JBTLM1 on the controller board. Is the cable properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Check the motor (Y toner add) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (Y toner add). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 On the upper part of the controller board, check the Y toner add capacitor C115 for damage. **Note:** Blown capacitors may look deformed or bulged. C114 C115 C122 C251 Is the capacitor free of damage?	Contact the next level of support.	Go to step 12.

Action	Yes	No
Step 12 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

160–161 errors

160–161 error messages

Error code	Description	Action
160.80	The motor (MPF pick) did not turn on.	See **"Motor (MPF pick) failure service check" on page 347**.
160.81	The motor (MPF pick) did not turn off.	
160.82	The motor (MPF pick) speed did not ramp up to the required level.	
160.83	The motor (MPF pick) stalled.	
160.84	The motor (MPF pick) ran too slow.	
160.85	The motor (MPF pick) ran too fast.	
161.80	The motor (tray 1 pick) did not turn on.	See **"Motor (tray 1 pick) failure service check" on page 349**.
161.81	The motor (tray 1 pick) did not turn off.	
161.82	The motor (tray 1 pick) speed did not ramp up to the required level.	
161.83	The motor (tray 1 pick) stalled.	
161.84	The motor (tray 1 pick) ran too slow.	
161.85	The motor (tray 1 pick) ran too fast.	

Motor (MPF pick) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JMTR2 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.

Action	Yes	No
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor (MPF pick) connection. Is the motor properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (MPF pick) cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the motor (MPF pick). Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 1 pick) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the controller board socket JTRAY1 connection. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Remove tray 1, and then check the paper feeder connection. Is the feeder properly connected?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (tray 1 pick) connection. Is the motor properly connected?	Go to step 8.	Go to step 7.
Step 7 Reseat the cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the motor (tray 1 pick) cable for damage. Is the cable free of damage?	Go to step 10.	Go to step 9.
Step 9 Replace the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Remove the tray 1 paper feeder, and then check for developer carrier contamination in the pick motor. Is the pick motor free of contamination?	Go to step 13.	Go to step 12.
Step 12 **a** Using an approved toner vacuum, clean the pick roller of developer carrier contamination. **b** Remove the plastic cap from the pick motor, and then clean the encoder wheel and sensor. **c** Reset the printer. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the tray 1 paper feeder. See **"Paper feeder removal" on page 550**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

162–165 errors

162–165 error messages

Error code	Description	Action
162.80	The motor (tray 2 pick) did not turn on.	See **"Motor (tray 2 pick) failure service check" on page 351**.
162.81	The motor (tray 2 pick) did not turn off.	
162.82	The motor (tray 2 pick) speed did not ramp up to the required level.	
162.83	The motor (tray 2 pick) stalled.	
162.84	The motor (tray 2 pick) ran too slow.	
162.85	The motor (tray 2 pick) ran too fast.	

Error code	Description	Action
163.80	The motor (tray 3 pick) did not turn on.	See **"Motor (tray 3 pick) failure service check" on page 352**.
163.81	The motor (tray 3 pick) did not turn off.	
163.82	The motor (tray 3 pick) speed did not ramp up to the required level.	
163.83	The motor (tray 3 pick) stalled.	
163.84	The motor (tray 3 pick) ran too slow.	
163.85	The motor (tray 3 pick) ran too fast.	
164.80	The motor (tray 4 pick) did not turn on.	See **"Motor (tray 4 pick) failure service check" on page 353**.
164.81	The motor (tray 4 pick) did not turn off.	
164.82	The motor (tray 4 pick) speed did not ramp up to the required level.	
164.83	The motor (tray 4 pick) stalled.	
164.84	The motor (tray 4 pick) ran too slow.	
164.85	The motor (tray 4 pick) ran too fast.	
165.80	The motor (tray 5 pick) did not turn on.	See **"Motor (tray 5 pick) failure service check" on page 354**.
165.81	The motor (tray 5 pick) did not turn off.	
165.82	The motor (tray 5 pick) speed did not ramp up to the required level.	
165.83	The motor (tray 5 pick) stalled.	
165.84	The motor (tray 5 pick) ran too slow.	
165.85	The motor (tray 5 pick) ran too fast.	

Motor (tray 2 pick) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connections between the motor (tray 2 pick) and controller board. Is the motor properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the motor (tray 2 pick) cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 2 pick). Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654** or **"2200-sheet tray controller board removal" on page 665**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 3 pick) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connections between the motor (tray 3 pick) and controller board. Is the motor properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the motor (tray 3 pick) cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 3 pick). Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654** or **"2200-sheet tray controller board removal" on page 665**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 4 pick) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connections between the motor (tray 4 pick) and controller board. Is the motor properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the motor (tray 4 pick) cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 4 pick). Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 5 pick) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connections between the motor (tray 5 pick) and controller board. Is the motor properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the motor (tray 5 pick) cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the motor (tray 5 pick). Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654**. Does the problem remain?	Contact the next level of support.	The problem is solved.

166–169 errors

166 error messages

Error code	Description	Action
166.70	The motor (tray 2 elevator) does not turn on.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
166.71	The motor (tray 2 elevator) does not turn off.	
166.72	The motor (tray 2 elevator) fails to achieve the required speed.	
166.73	The motor (tray 2 elevator) fails during operation.	
166.74	The motor (tray 2 elevator) fails to reach the required speed.	
166.75	The motor (tray 2 elevator) runs faster than the required speed.	

Error code	Description	Action
166.80	The motor (tray 2 pass-through) does not turn on.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
166.81	The motor (tray 2 pass-through) does not turn off.	
166.82	The motor (tray 2 pass-through) fails to achieve the required speed.	
166.83	The motor (tray 2 pass-through) fails during operation.	
166.84	The motor (tray 2 pass-through) fails to reach the required speed.	
166.85	The motor (tray 2 pass-through) runs faster than the required speed.	

167 error messages

Error code	Description	Action
167.70	The motor (tray 3 elevator) does not turn on.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
167.71	The motor (tray 3 elevator) does not turn off.	
167.72	The motor (tray 3 elevator) fails to achieve the required speed.	
167.73	The motor (tray 3 elevator) fails during operation.	
167.74	The motor (tray 3 elevator) fails to reach the required speed.	
167.75	The motor (tray 3 elevator) runs faster than the required speed.	
167.80	The motor (tray 3 pass-through) does not turn on.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
167.81	The motor (tray 3 pass-through) does not turn off.	
167.82	The motor (tray 3 pass-through) fails to achieve the required speed.	
167.83	The motor (tray 3 pass-through) fails during operation.	
167.84	The motor (tray 3 pass-through) fails to reach the required speed.	
167.85	The motor (tray 3 pass-through) runs faster than the required speed.	

168 error messages

Error code	Description	Action
168.70	The motor (tray 4 elevator) does not turn on.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
168.71	The motor (tray 4 elevator) does not turn off.	
168.72	The motor (tray 4 elevator) fails to achieve the required speed.	
168.73	The motor (tray 4 elevator) fails during operation.	
168.74	The motor (tray 4 elevator) fails to reach the required speed.	
168.75	The motor (tray 4 elevator) runs faster than the required speed.	
168.80	The motor (tray 4 pass-through) does not turn on.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
168.81	The motor (tray 4 pass-through) does not turn off.	
168.82	The motor (tray 4 pass-through) fails to achieve the required speed.	
168.83	The motor (tray 4 pass-through) fails during operation.	
168.84	The motor (tray 4 pass-through) fails to reach the required speed.	
168.85	The motor (tray 4 pass-through) runs faster than the required speed.	

169 error messages

Error code	Description	Action
169.70	The motor (tray 5 elevator) does not turn on.	See **"Motor (tray [x] elevator) failure service check" on page 359**.
169.71	The motor (tray 5 elevator) does not turn off.	
169.72	The motor (tray 5 elevator) fails to achieve the required speed.	
169.73	The motor (tray 5 elevator) fails during operation.	
169.74	The motor (tray 5 elevator) fails to reach the required speed.	
169.75	The motor (tray 5 elevator) runs faster than the required speed.	

Error code	Description	Action
169.80	The motor (tray 5 pass-through) does not turn on.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
169.81	The motor (tray 5 pass-through) does not turn off.	
169.82	The motor (tray 5 pass-through) fails to achieve the required speed.	
169.83	The motor (tray 5 pass-through) fails during operation.	
169.84	The motor (tray 5 pass-through) fails to reach the required speed.	
169.85	The motor (tray 5 pass-through) runs faster than the required speed.	

Motor (tray [x] pass-through) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the cable connecting the motor (tray [x] pass-through) to the controller board. Is the motor properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the motor cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Replace the motor (tray [x] pass-through). See **"Motor (550-sheet tray pass-through) removal" on page 659**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray [x] elevator) failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clear the motor (tray [x] elevator) gears of any obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the gears for damage. Are the gears free of damage?	Go to step 5.	Go to step 4.
Step 4 Replace the gears. See **"2200-sheet tray elevator gears removal" on page 668**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the cable connecting the motor (tray [x] elevator) to the controller board. Is the motor properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the cable for damage. Is the cable free of damage?	Go to step 9.	Go to step 8.

Action	Yes	No
Step 8 Replace the cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the motor (tray [x] elevator). See **"Motor (2200-sheet tray elevator) removal" on page 669**. Does the problem remain?	Contact the next level of support.	The problem is solved.

17y errors

171–179 error messages

Error code	Description	Action
171.82	The main fan speed did not ramp up to the required level.	See **"Main fan failure service check" on page 361**.
171.83	The main fan stalled.	
171.84	The main fan ran too slow.	
171.85	The main fan ran too fast.	
178.82	The printhead fan speed did not ramp up to the required level.	See **"Printhead fan failure service check" on page 362**.
178.83	The printhead fan stalled.	
178.84	The printhead fan ran too slow.	
178.85	The printhead fan ran too fast.	
179.80	The HVPS fan did not turn on.	See **"HVPS fan failure service check" on page 363**.
179.81	The HVPS fan did not turn off.	
179.82	The HVPS fan speed did not ramp up to the required level.	
179.83	The HVPS fan stalled.	
179.84	The HVPS fan ran too slow.	
179.85	The HVPS fan ran too fast.	

Main fan failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connection between the main fan and controller board. Is the fan properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the main fan cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the fan. See **"Main fan removal" on page 565**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printhead fan failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connection between the printhead fan and controller board. Is the fan properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the printhead fan cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the printhead fan. See **"Printhead fan removal" on page 509**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

HVPS fan failure service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check the connection between the HVPS fan and controller board. Is the fan properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the HVPS fan cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the HVPS fan. See **"HVPS fan removal" on page 538**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

602–658 errors

602–658 error messages

Error code	Description	Action
602.19	Tray 1 is unable to get ready for picking paper.	See **"Source tray error service check" on page 365**.
602.29	Tray 2 is unable to get ready for picking paper.	
602.39	Tray 3 is unable to get ready for picking paper.	
602.49	Tray 4 is unable to get ready for picking paper.	
602.59	Tray 5 is unable to get ready for picking paper.	
621.01	The fuser heater was not hot enough when the paper entered the fuser nip.	See **"Fuser failure service check" on page 310**.
621.42	The sensor (fuser temperature) is contaminated.	See **"Sensor (fuser temperature) contamination service check" on page 365**.
630.xx	The motor (printhead wiper) stalled.	See **"Motor (printhead wiper) failure service check" on page 316**.
636.xx	The motor (K developer) stalled.	See **"Motor (K developer) failure service check" on page 317**.
637.xx	The motor (CMY developers) stalled.	See **"Motor (CMY developers) failure service check" on page 319**.
641.xx	The motor (K photoconductor) stalled.	See **"Motor (K photoconductor) failure service check" on page 322**.
642.xx	The motor (CMY photoconductors) stalled.	See **"Motor (CMY photoconductors) failure service check" on page 324**.
645.xx	The motor (black only retract) stalled.	See **"Motor (black only retract) failure service check" on page 326**.
647.xx	The motor (deskew) stalled.	See **"Motor (deskew) failure service check" on page 327**.
648.xx	The motor (duplex diverter) stalled.	See **"Motor (duplex diverter) failure service check" on page 328**.
649.xx	The motor (redrive) stalled.	See **"Motor (redrive) failure service check" on page 330**.
650.xx	The motor (duplex) stalled.	See **"Motor (duplex) failure service check" on page 333**.
651.xx	The motor (transfer belt) stalled.	See **"Motor (transfer belt) failure service check" on page 334**.
653.xx	The motor (isolation) stalled.	See **"Motor (isolation) failure service check" on page 336**.

Error code	Description	Action
655.84	The motor (K toner add) stalled.	See **"Motor (toner add) stalled service check" on page 365**.
656.84	The motor (C toner add) stalled.	
657.84	The motor (M toner add) stalled.	
658.84	The motor (Y toner add) stalled.	

Source tray error service check

Action	Yes	No
Step 1 If prompted, touch **Continue**. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Sensor (fuser temperature) contamination service check

Action	Yes	No
a Remove the fuser to access the sensor (fuser temperature) behind it. See **"Fuser removal" on page 477**. **b** Using a cotton swab, gently clean the sensor lens. **Note:** The sensor lens has a mirrored finish. When cleaning the surface, do not apply excessive pressure. **c** Reinstall the fuser. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (toner add) stalled service check

Action	Yes	No
Step 1 **a** Remove the affected toner cartridge, and then shake it. **b** Reinstall the toner cartridge. **c** Enter the Diagnostics menu, and then navigate to: **Advanced Print Quality Samples** > **Advanced Print Quality Samples** Check the test page. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 Check the shutter under the affected toner cartridge for proper operation. Does the shutter properly open and retract?	Go to step 3.	Go to step 8.
Step 3 Check the shutter for damage. Is the shutter free of damage?	Go to step 4.	Go to step 8.

Step 4
 	
  a Remove the affected developer and PC unit combo.
  b Check the shutter at the rear of the developer and PC unit combo for proper operation.
 	
Does the shutter properly open and retract?
	Go to step 5.	Go to step 6.

Step 5 Check the shutter for damage. Is the shutter free of damage?	Go to step 7.	Go to step 6.
Step 6 Replace the developer and PC unit combo. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Using a toner vacuum, clean the toner add tubes. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the affected toner cartridge. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the affected toner add tube. See **"Toner add tube removal" on page 594**. Does the problem remain?	Contact the next level of support.	The problem is solved.

660–680 errors

660–680 error messages

Error code	Description	Action
660.83	The motor (MPF pick) stalled.	See **"Motor (MPF pick) stalled service check" on page 368**.
661.13	The tray 1 lift plate failed to lift.	See **"Motor (tray 1 pick) failure service check" on page 349**.
661.83	The motor (tray 1 pick) stalled.	See **"Motor (tray 1 pick) stalled service check" on page 369**.
662.23	The tray 2 lift plate failed to lift.	See **"Motor (option tray pick) lifting error service check" on page 376**.
662.83	The motor (tray 2 pick) stalled.	See **"Motor (tray 2 pick) stalled service check" on page 370**.
663.33	The tray 3 lift plate failed to lift.	See **"Motor (option tray pick) lifting error service check" on page 376**.
663.83	The motor (tray 3 pick) stalled.	See **"Motor (tray 3 pick) stalled service check" on page 371**.
664.43	The tray 4 lift plate failed to lift.	See **"Motor (option tray pick) lifting error service check" on page 376**.
664.83	The motor (tray 4 pick) stalled.	See **"Motor (tray 4 pick) stalled service check" on page 372**.
665.53	The tray 5 lift plate failed to lift.	See **"Motor (option tray pick) lifting error service check" on page 376**.
665.83	The motor (tray 5 pick) stalled.	See **"Motor (tray 5 pick) stalled service check" on page 373**.
666.83	The motor (tray 2 pass-through) stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
666.84	The motor (tray 2 pass-through) did not reach the required speed.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
667.83	The motor (tray 3 pass-through) stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
668.83	The motor (tray 4 pass-through) stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
669.83	The motor (tray 5 pass-through) stalled.	See **"Motor (tray [x] pass-through) failure service check" on page 358**.
680.10	The ADF top door was open while feeding.	Remove paper and obstructions along the paper path, and then restart the job. See **"Paper jam in the automatic document feeder" on page 98**.
680.20	The ADF did not detect paper.	

Motor (MPF pick) stalled service check

Action	Yes	No
Step 1 Check the pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the pick roller. 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** > **MPF pick** **b** Touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor for noise. Does the motor sound abnormal or do the gears make a grinding sound?	Go to step 7.	Go to step 8.
Step 7 Replace the MPF/reference edge gearbox. See **"Reference edge motor gearbox removal" on page 498**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print job. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 1 pick) stalled service check

Action	Yes	No
Step 1 Check the pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the pick roller. 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** > **Pick (tray 1)** b Touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (tray 1 pick) for noise. Does the motor sound abnormal or do the gears make a grinding sound?	Go to step 7.	Go to step 8.
Step 7 Replace the tray 1 paper feeder. See **"Paper feeder removal" on page 550**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print job. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 2 pick) stalled service check

Action	Yes	No
Step 1 Check the pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 2)** **b** Touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (tray 2 pick) for noise. Does the motor sound abnormal or do the gears make a grinding sound?	Go to step 7.	Go to step 8.
Step 7 Replace the tray 2 paper feeder. See **"550-sheet tray paper feeder removal" on page 652** or **"2200-sheet tray paper feeder removal" on page 671**. Does the problem remain?	Go to step 8.	The problem is solved.

Action	Yes	No
Step 8 Perform a print job. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654** or **"2200-sheet tray controller board removal" on page 665**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 3 pick) stalled service check

Action	Yes	No
Step 1 Check the pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 3)** b Touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (tray 3 pick) for noise. Does the motor sound abnormal or do the gears make a grinding sound?	Go to step 7.	Go to step 8.

Action	Yes	No
Step 7 Replace the tray 3 paper feeder. See **"550-sheet tray paper feeder removal" on page 652** or **"2200-sheet tray paper feeder removal" on page 671**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print job. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654** or **"2200-sheet tray controller board removal" on page 665**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 4 pick) stalled service check

Action	Yes	No
Step 1 Check the pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 4)** **b** Touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Check the motor (tray 4 pick) for noise. Does the motor sound abnormal or do the gears make a grinding sound?	Go to step 7.	Go to step 8.
Step 7 Replace the tray 4 feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print job. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 5 pick) stalled service check

Action	Yes	No
Step 1 Check the pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray 5)** b Touch **Start**. Does the motor run?	Go to step 6.	Go to step 4.
Step 4 Check the motor cable for proper connection, and then reseat if necessary. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Replace the motor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the motor (tray 5 pick) for noise. Does the motor sound abnormal or do the gears make a grinding sound?	Go to step 7.	Go to step 8.
Step 7 Replace the tray 5 feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Perform a print job. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the controller board. See **"550-sheet tray controller board removal" on page 654**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (tray 1 pick) lifting error service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the tray insert is properly seated or fully inserted. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Sensor tests** **b** Find the sensor (Pick roller index (tray 1)). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 4.

Action	Yes	No
Step 4 Check the cable that connects the sensor (tray 1 pick roller index) to the controller board. Are both ends of the cable properly seated?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the sensor cable for damage. Is the cable free of damage?	Go to step 7.	Go to step 12.
Step 7 Replace the sensor. See **"Sensor (550-sheet tray pick roller index) removal" on page 657**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the cable that connects the motor (tray 1 pick) to the controller board. Are both ends of the cable properly seated?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (tray 1 pick) for proper operation and noise. **a** Remove the tray insert. **b** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Pick (tray 1)** **c** Select **Pick (tray 1) lifting**, and then touch **Start**. Does the motor run or does it sound normal?	Go to step 13.	Go to step 11.
Step 11 Check the motor cable for damage. Is the cable free of damage?	Go to step 13.	Go to step 12.

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Action	Yes	No
Step 12 Replace the paper feeder. See **"550-sheet tray paper feeder removal" on page 652**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (option tray pick) lifting error service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the tray insert is properly seated or fully inserted. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Sensor tests** b Find the sensor (Pick roller index (tray [x])). Does the sensor status change while toggling the sensor?	Go to step 8.	Go to step 4.
Step 4 Check the cable that connects the sensor (tray [x] pick roller index) to the controller board. Are both ends of the cable properly seated?	Go to step 6.	Go to step 5.
Step 5 Reseat the cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the sensor cable for damage. Is the cable free of damage?	Go to step 7.	Go to step 12.

Action	Yes	No
Step 7 Replace the sensor. See **"Sensor (550-sheet tray pick roller index) removal" on page 657** or **"Sensor (2200-sheet tray pick roller index) removal" on page 672**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the cable that connects the motor (tray [x] pick) to the controller board. Are both ends of the cable properly seated?	Go to step 10.	Go to step 9.
Step 9 Reseat the cable. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the motor (tray [x] pick) for proper operation and noise. **a** Remove the tray insert. **b** Enter the Diagnostics menu, and then navigate to: **Additional input tray diagnostics** > **Motor tests** > **Pick (tray [x])** **c** Select **Pick (tray [x]) lifting**, and then touch **Start**. Does the motor run or does it sound normal?	Go to step 13.	Go to step 11.
Step 11 Check the motor cable for damage. Is the cable free of damage?	Go to step 13.	Go to step 12.
Step 12 Replace the paper feeder. See **"550-sheet tray paper feeder removal" on page 652** or **"2200-sheet tray paper feeder removal" on page 671**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

8yy errors

800–845 error messages

Error code	Description	Action
800.00	A communication failure has occurred between the printer controller board and the scanner.	See **"Scanner communication failure service check" on page 378**.
840.01	The scanner was manually disabled by the user.	See **"Scanner disabled (manual) service check" on page 380**.
840.02	The scanner was automatically disabled by the printer after two consecutive hardware failures.	See **"Scanner disabled (automatic) service check" on page 380**.
842.00	A communication failure has occurred due to no response from the scanner to the system controller.	See **"Scanner communication failure service check" on page 378**.
842.01	A communication failure has occurred due to an incorrect response from the scanner to the printer controller.	
842.02	A communication failure has occurred during front side scanning.	See **"Front side scan CCDM failure service check" on page 381**.
843.00	The flatbed CCDM failed to reach its home position.	See **"Flatbed CCDM home position failure service check" on page 381**.
843.01	The ADF calibration roller failed to reach its home position.	See **"ADF calibration strip failure service check" on page 384**.
843.07	The ADF tray lift arm failed to reach its home position.	See **"ADF tray lift failure service check" on page 386**.
843.15	The motor (ADF tray lift) stalled.	See **"Motor (ADF tray lift) stalled service check" on page 387**.
843.18	The ADF pick roller failed to reach its proper picking position.	See **"ADF pick position failure service check" on page 389**.
845.03	A communication failure has occurred during back side scanning.	See **"Back side scan CCDM failure service check" on page 392**.

Scanner communication failure service check

Action	Yes	No
Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection. 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 following sockets for proper connection. • JSCPOW1 on the printer controller board • JSPWR1 on the ADF controller board Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check socket J1 on the printer controller board for proper connection. Is the cable properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reset the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the printer controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Scanner disabled (manual) service check

Action	Yes	No
Navigate to **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Scanner Configuration**. Set Disable Scanner to Enabled. Does the problem remain?	Contact the next level of support.	The problem is solved.

Scanner disabled (automatic) service check

Note: This only applies when, after performing the required service actions, the scanner remains in disabled state.

Action	Yes	No
Step 1 From the "Scanner disabled" error screen, select **Reboot and automatically enable scanner**. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** From the home screen, navigate to: **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Scanner Configuration** **b** Scroll down and select **Disable Scanner**. **Note: Enabled** prompts, but ignore this message since the scanner was automatically disabled at the microcode level. **c** Select **Disabled**, and then reset or power cycle the printer. **d** Observe the behavior, which is no errors and no messages on boot-up. **e** Navigate to **Settings** > **Device** > **Maintenance** > **Configuration Menu** > **Scanner Configuration** > **Disable Scanner**. **f** Select **Enabled**, and then reset the printer once more to complete the procedure and return the scanner to full operation. Does the problem remain?	Contact the next level of support.	The problem is solved.

Front side scan CCDM failure service check

Action	Yes	No
Step 1 Check socket J1 on the printer controller board for proper connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the flatbed scanner CCDM cable for proper connection. Is the cable properly connected to the CCDM?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 634**.	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Flatbed CCDM home position failure service check

Action	Yes	No
Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection. 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 following sockets for proper connection. • JSCPOW1 on the printer controller board • JSPWR1 on the ADF controller board Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cables. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the following sockets for proper connection. • JICC on the ADF controller board • JICC on the flatbed scanner board Are the cables properly connected?	Go to step 7.	Go to step 6.
Step 6 Reseat the cables. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check socket J1 on the printer controller board for proper connection. Is the cable properly connected?	Go to step 9.	Go to step 8.
Step 8 Reseat the cable. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the scanner belt for misalignment and damage. Is the scanner belt properly installed and free of damage?	Go to step 11.	Go to step 10.
Step 10 Reinstall or replace the scanner belt. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 Check the tension of the scanner belt. **Note:** With the proper belt tension, the flatbed CCDM will move smoothly. Is the belt tension properly set?	Go to step 13.	Go to step 12.
Step 12 Reset or adjust the belt tension. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check the sensor (FB CCD home) for proper installation. Is the sensor properly mounted to the scanner frame?	Go to step 15.	Go to step 14.
Step 14 Reinstall or replace the sensor. See **"Sensor (FB CCD home) removal" on page 641**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (FB CCD home). Does the sensor status change while toggling the sensor?	Go to step 18.	Go to step 16.
Step 16 Check the sensor cable for proper connection, and then reseat if necessary. • Check JFB1 on the flatbed scanner board. • Check the connector on the sensor. Does the problem remain?	Go to step 17.	The problem is solved.
Step 17 Replace the sensor. See **"Sensor (FB CCD home) removal" on page 641**. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the sensor actuator on the flatbed scanner CCDM. Does the actuator on the CCDM properly trigger the sensor (FB CCD home)?	Go to step 20.	Go to step 19.

Action	Yes	No
Step 19 Replace the flatbed scanner CCDM. See **"Flatbed scanner CCDM removal" on page 634**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Reset the printer. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF calibration strip failure service check

Action	Yes	No
Step 1 **a** Open the ADF bottom door, and then manually rotate the ADF calibration roller. **b** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check socket JCSHM on the ADF controller board. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the cable. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF calibration strip home). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 5.

Action	Yes	No
Step 5 Check the sensor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the sensor. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reset the printer. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the ADF bottom door. See **"ADF bottom door removal" on page 608**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Reset the printer. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF tray lift failure service check

Action	Yes	No
Step 1 Check the ADF tray lift mechanism for obstructions. Is the lift mechanism free of obstructions?	Go to step 3.	Go to step 2.
Step 2 Remove the obstructions. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 a Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** b Find the sensor (ADF tray upper limit). Does the sensor status change while toggling the sensor?	Go to step 6.	Go to step 4.
Step 4 Check the sensor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the sensor. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Motor (ADF tray lift) stalled service check

Action	Yes	No
Step 1 Check the ADF pick roller for proper installation. Is the pick roller properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the ADF pick roller. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor actuator on the ADF pick roller. Does the actuator on the pick roller properly trigger the sensor (ADF pick roller position)?	Go to step 5.	Go to step 4.
Step 4 Replace the ADF pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the ADF tray lift mechanism for obstructions. Is the lift mechanism free of obstructions?	Go to step 7.	Go to step 6.
Step 6 Remove the obstructions. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Motor tests** > **ADF tray lift** **b** Touch **Start**. Does the motor run?	Go to step 10.	Go to step 8.
Step 8 Check the motor cable for proper connection, and then reseat if necessary. • Check the connector on the ADF controller board. • Check the connector on the motor. Does the problem remain?	Go to step 9.	The problem is solved.

Action	Yes	No
Step 9 Replace the motor. See **"Motor (ADF) removal" on page 613**. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF tray upper limit). Does the sensor status change while toggling the sensor?	Go to step 13.	Go to step 11.
Step 11 Check the sensor cable for proper connection, and then reseat if necessary. ● Check the connector on the ADF controller board. ● Check the connector on the sensor. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the sensor. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Reset the printer. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

ADF pick position failure service check

Action	Yes	No
Step 1 Open the ADF top door, and then check whether the correct lift plate shim is used. **Correct shim** **Wrong shim** Is the correct shim installed?	Go to step 3.	Go to step 2.

Action	Yes	No
Step 2 Replace the shim. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the ADF pick roller for proper installation. Is the pick roller properly installed?	Go to step 5.	Go to step 4.
Step 4 Reinstall the ADF pick roller. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the sensor actuator on the ADF pick roller. Does the actuator on the pick roller properly trigger the sensor (ADF pick roller position)?	Go to step 7.	Go to step 6.
Step 6 Replace the ADF pick roller. See **"ADF maintenance kit removal" on page 604**. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the ADF pick roller cover for proper installation. Is the cover properly installed?	Go to step 9.	Go to step 8.
Step 8 Reinstall the cover. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Check the ADF tray lift mechanism for obstructions. Is the lift mechanism free of obstructions?	Go to step 11.	Go to step 10.
Step 10 Remove the obstructions. Does the problem remain?	Go to step 11.	The problem is solved.

Diagnostics and troubleshooting

Action	Yes	No
Step 11 **a** Enter the Diagnostics menu, and then navigate to: **Scanner diagnostics** > **Sensor tests** **b** Find the sensor (ADF pick roller index high) and sensor (ADF pick roller index low). Does the sensor status change while toggling the sensor?	Go to step 14.	Go to step 12.
Step 12 Check the sensor cable for proper connection, and then reseat if necessary. • Check socket JHINGE1 on the ADF controller board. • Check the connector on the sensor. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Replace the sensor. See **"ADF top door removal" on page 617**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reset the printer. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Back side scan CCDM failure service check

Action	Yes	No
Step 1 Check the HDMI cables on the printer controller board and ADF controller board for proper connection. 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.
Step 3 Check socket JCCDM1 on the ADF controller board for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the ADF CCDM cable for proper connection. Is the cable properly connected to the CCDM?	Go to step 7.	Go to step 6.
Step 6 Reseat the cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the ADF CCDM. See **"ADF CCDM removal" on page 622**.	Go to step 8.	The problem is solved.
Step 8 Reset the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the ADF controller board. See **"ADF controller board removal" on page 607**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Reset the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Replace the printer controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Reset the printer. 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 controllefr board unless instructed by your next level of support.

1 Collect the history information and firmware logs (Fwdebug and logs.tar.gz) from the SE menu.

2 Collect the settings from the Menu Settings Page.

3 Collect information from the user.

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

A. Collecting the history information from the SE menu

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

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

   Notes:

   - **printer_IP_address** is the TCP/IP address of the printer.
   - **se** is required to access the printer diagnostic information.

2 Click **History Information**, copy all information, and then save it as a text file.

3 E-mail the text file to your next level of support.

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

Notes:

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

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

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

2 Click **Logs Gzip Compressed**.

> **Note:** A logs.tar.gz file is saved to the Downloads folder. The file may take several minutes to save. You may rename the file if a logs.tar.gz already exists in the Downloads folder.

3 E-mail the logs to your next level of support.

> **Note:** To download the FWdebug log to a flash drive, see **"General SE" on page 453**.

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

900-909 error messages

Error code	Description	Action
900-909.xx	RIP firmware errors	See **"System software error service check" on page 395**.

System software error service check

Different types of 900.xx errors can occur. There may be a communication problem (bad cable, network connection, and software issues), or a hardware problem with the controller board or ISP (internal solutions port). Check the communication and software problems first. Determine if the problem is constant or intermittent. Use the following troubleshooting procedure to isolate the issue. Take notes as instructed. You will need that information in the event that you need to contact your next level of support.

Before troubleshooting:

1 Perform the **"Procedure before starting the 9yy service checks" on page 393**.

2 Determine the operating system used when the error occurred. If possible, determine whether a PostScript or PCL file was sent to the printer when the error occurred. Ask the customer which Lexmark Solutions applications are installed on the printer.

Action	Yes	No
Step 1 Perform a POR. Does the error remain?	Go to step 2.	The problem is solved.
Step 2 a Write down the exact 900.xx error code that appears on the display. b Turn off the printer. c Clear the print queues. d Disconnect all communication cables, and then remove all memory options. e Remove any installed ISP. f Reset the printer into the Diagnostics menu. Does the problem remain?	Go to step 3.	Go to step 6.
Step 3 Check all the cables on the controller board for proper connection. Are the cables properly connected?	Go to step 5.	Go to step 4.
Step 4 a Reconnect the cables. b Reset the printer into the Diagnostics menu. Does the problem remain?	Go to step 5.	Go to step 6.

Action	Yes	No
Step 5 **a** Replace the controller board. See **"Controller board removal" on page 564**. **b** Reset the printer. **Note:** If a different error code displays, then go to the service check for that error code. Does the problem remain?	Go to step 31.	The problem is solved.
Step 6 Print the following: • Error Log • Menu Settings Page • Network Settings Page Does the problem remain while printing these pages?	Go to step 31.	Go to step 7.
Step 7 **Note:** Before performing this step, write down the following information about the file being sent to the printer: • Application used • Operating system • Driver type • File type (PCL, PostScript, XPS, etc.) **a** Reattach the communications cable. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 8.	Go to step 10.
Step 8 **a** Reset the printer. **b** Perform a different print job. Does the problem remain?	Go to step 9.	Go to step 10.
Step 9 **a** Upgrade the firmware. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 31.	Go to step 10.

Action	Yes	No
Step 10 Verify if the printer is an MFP. Is the printer an MFP?	Go to step 11.	Go to step 13.
Step 11 Perform a copy job. Does the problem remain?	Go to step 31.	Go to step 12.
Step 12 Perform a scan to PC job. Does the problem remain?	Go to step 31.	Go to step 13.
Step 13 Verify if an optional memory is installed. Is there an optional memory installed?	Go to step 14.	Go to step 16.
Step 14 **a** Reinstall the memory. **b** Perform a print job. Does the problem remain?	Go to step 15.	Go to step 16.
Step 15 **a** Install a Lexmark-recommended memory option. **b** Perform a print job. Does the problem remain?	Go to step 31.	The problem is solved.
Step 16 Verify if a modem is installed. Is a modem installed?	Go to step 17.	Go to step 21.
Step 17 **a** Reinstall the modem. **b** Reset the printer. Does the problem remain?	Go to step 18.	Go to step 20.

Action	Yes	No
Step 18 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 19.	The problem is solved.
Step 19 **a** Replace the modem. **b** Reset the printer. Does the problem remain?	Go to step 31.	The problem is solved.
Step 20 Perform a fax job. Does the problem remain?	Go to step 31.	Go to step 21.
Step 21 Verify if an ISP option is installed. Is an ISP option installed?	Go to step 22.	The problem is solved.
Step 22 **a** Reinstall the first ISP option. **b** Reset the printer. Does the problem remain?	Go to step 24.	Go to step 23.
Step 23 Perform a job to test the option. Does the problem remain?	Go to step 24.	Go to step 26.
Step 24 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Perform a print job. Does the problem remain?	Go to step 25.	The problem is solved.

Action	Yes	No
Step 25 **a** Replace the faulty ISP option. **b** Reset the printer. Does the problem remain?	Go to step 31.	Go to step 26.
Step 26 Verify if there are more ISP options to install. Are there more ISP options to install?	Go to step 27.	The problem is solved.
Step 27 **a** Install the next ISP option. **b** Reset the printer. Does the problem remain?	Go to step 29.	Go to step 28.
Step 28 Perform a job to test the option. Does the problem remain?	Go to step 29.	Go to step 26.
Step 29 **a** Upgrade the firmware if it was not upgraded in a previous step. **Note:** Contact your next level of support for the correct firmware level to use. **b** Reset the printer. **c** Send a print job. Does the problem remain?	Go to step 30.	Go to step 26.
Step 30 **a** Replace the faulty ISP option. **b** Reset the printer. Does the problem remain?	Go to step 31.	Go to step 26.

Action	Yes	No
Step 31 Contact your next level of support. Provide the following information: • Exact 900.xx error digits and complete error message • Printed menu settings page • Printed network settings page • Device error log • A sample print file if the error appears to be isolated to a single file • File/Application used if the error is related to specific print file • Device operating system • Driver used (PCL/PS) • Frequency of the occurrence of the error		

98y errors

980–984 error messages

Error code	Description	Action
980.xx	Engine experiencing unreliable communication with the specified device. **Note:** <device> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	See **"Options communication error service check" on page 401**.
981.xx	Engine protocol violation detected by the specified device. **Note:** <device> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	
982.xx	Communications error detected by the specified device. **Note:** <device> can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	

Error code	Description	Action
983.xx	Invalid command received by the specified device. **Note:** *<device>* can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	See **"Options communication error service check" on page 401**.
984.xx	Invalid command parameter received by the specified device. **Note:** *<device>* can be one of the following: • Optional 550-sheet tray • Optional 2200-sheet tray • Optional staple finisher	

Options communication error service check

Action	Yes	No
Step 1 Disconnect the output option. Does the problem remain?	Go to step 2.	Go to step 9.
Step 2 a Check if the firmware is updated, and then update if necessary. b Make sure that the printer supports the input option. c Make sure that the input option is properly attached to the printer or adjacent option. d Reset the printer. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Reseat the printer interface cable on the printer controller board. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Do the following to each input option: a Reinstall the input option. b Print a test page, and then check if the input option is defective. Is there an input option that is not properly working?	Go to step 5.	If the error persists, then contact the next level of support.
Step 5 Reseat the interface cable of the affected input option. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Check the input option interface cable for damage. Is the cable free of damage?	Go to step 8.	Go to step 7.
Step 7 Replace the input option interface cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the input option controller board. Does the problem remain?	Contact the next level of support	The problem is solved.
Step 9 Check the output option locking mechanism for damage. Is the lock free of damage?	Go to step 11.	Go to step 10.
Step 10 Replace the lock. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Reinstall the output option. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the output option interface cable: • Check the connectors and its pins for damage. • Check the cable for cuts and exposed wires. Is the cable free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the output option interface cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reseat all connectors on the output option controller board. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Replace the output option controller board. Does the problem remain?	Contact the next level of support	The problem is solved.

Output option hardware errors

302–326 errors

320–326 error messages

Error code	Description	Action
320.xx	The motor (staple finisher transport) does not turn on or off.	See **"Staple finisher compiler section jam service check" on page 257**.
323.80	The motor (staple finisher upper exit roller) does not turn on.	See **"Staple finisher exit jam service check" on page 403**.
326.50	The motor (staple finisher aligner paddle) does not turn on.	See **"Staple finisher decurl assembly service check" on page 272**.

Staple finisher exit jam service check

Action	Yes	No
Step 1 a Clear the paper path of any jams or obstructions. b Reset the printer, and then reseat the staple finisher. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 a Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** b Find the sensor (Upper exit roller). Does the sensor status change while toggling the sensor?	Go to step 5.	Go to step 3.
Step 3 Check the sensor (staple finisher upper exit roller) for misalignment and damage. Is the sensor properly installed and free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the sensor. See **"Sensor (staple finisher upper exit roller) removal" on page 712**. Does the motor run?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Upper exit roller), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Check the motor (staple finisher upper exit) for misalignment and damage. Is the motor properly installed and free of damage?	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the motor. See **"Motor (staple finisher upper exit roller) removal" on page 696**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the cables for cuts or damages, and replace if necessary. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 **a** Check the front upper exit roller position gears, actuator, and lever for damage. **b** Check the gears for proper installation and alignment. **c** Check the spring for proper installation. **d** Move the gears, and then check if the roller moves up and down. **e** Check if the actuator can cover the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Replace the staple finisher front upper exit roller position gears. See **"Staple finisher front upper position exit roller gears removal" on page 713**. Does the problem remain?	Go to step 11.	The problem is solved.

Action	Yes	No
Step 11 **a** Check the rear upper exit roller position gears, actuator, and lever for damage. **b** Check the gears for proper installation and alignment. **c** Check the spring for proper installation. **d** Move the gears, and then check if the roller moves up and down. **e** Check if the actuator can cover the sensor. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Replace the staple finisher rear upper exit roller position gears. See **"Staple finisher rear upper position exit roller gears removal" on page 697**. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 **a** Check the staple finisher upper exit roller for proper installation. **b** Check the roller for wear or damage, and replace if necessary. See **"Staple finisher upper exit roller removal" on page 736**. **c** Check if the roller can move up and down. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reseat all cable connectors in the controller board, and then reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Service option software error service check

Action	Yes	No
Step 1 **a** Clear the paper path of any jams or obstructions. **b** Make sure that the jam access door is properly closed. **c** Reset the printer, and then reseat the finisher. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Transport), and then touch **Start**. Does the motor run?	Go to step 5.	Go to step 3.
Step 3 Check the motor for proper installation and damage. Is the motor properly installed or free of damage?	Go to step 5.	Go to step 4.
Step 4 Reinstall or replace the motor. See **"Motor (staple finisher transport) removal" on page 754**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Motor tests** **b** Find the motor (Exit), and then touch **Start**. Does the motor run?	Go to step 8.	Go to step 6.
Step 6 Check the motor for proper installation and damage. Is the motor properly installed or free of damage	Go to step 8.	Go to step 7.
Step 7 Reinstall or replace the motor. See **"Motor (staple finisher exit) removal" on page 754**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the staple finisher transport gears for proper installation and damage. Make sure to manually turn the roller to check if the gears are properly working. Are the gears properly installed or free of damage?	Go to step 10.	Go to step 9.
Step 9 Reinstall or replace the gears. See **"Staple finisher transport gears removal" on page 709**. Does the problem remain?	Go to step 10.	The problem is solved.

Action	Yes	No
Step 10 Check the aligner paddle gears for proper alignment and installation. Are the gears properly aligned or installed?	Go to step 12.	Go to step 11.
Step 11 Realign or reinstall the gears. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 Check the gears and the flag for damage. Are the gears and the flag free of damage?	Go to step 14.	Go to step 13.
Step 13 Replace the gears. See **"Staple finisher aligner paddle gears removal" on page 710**. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Check the exit roller belts for proper installation and damage. Are the belts properly installed or free of damage?	Go to step 16.	Go to step 15.
Step 15 Reinstall or replace the belts. See **"Staple finisher exit roller belts removal" on page 717**. Does the problem remain?	Go to step 16.	The problem is solved.
Step 16 Check the exit gears for proper alignment and installation. Are the gears properly aligned or installed?	Go to step 18.	Go to step 17.
Step 17 Realign or reinstall the exit gears. Does the problem remain?	Go to step 18.	The problem is solved.
Step 18 Check the exit gears for damage. Are the gears free of damage?	Go to step 20.	Go to step 19.

Action	Yes	No
Step 19 Replace the gears. See **"Staple finisher exit gears removal" on page 715**. Does the problem remain?	Go to step 20.	The problem is solved.
Step 20 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 21.	The problem is solved.
Step 21 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 22.	The problem is solved.
Step 22 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Other symptoms

Base printer symptoms

Base printer symptoms

Symptom	Action
The printer has problems with proximity detection.	See **"Proximity detection failure service check" on page 409**.
The printer has problems with color alignment.	See **"Auto alignment service check" on page 410**.
The printer has problems with toner patch sensing.	See **"Toner patch sensing service check" on page 413**.
The printer has problems with NFC.	See **"Mobile solutions module NFC service check" on page 417**.
A repeating thumping noise is heard from the lower right side of the printer.	See **"Printer thumping noise service check" on page 419**.
The control panel is unresponsive. During power on, the controller board makes five short beeps.	See **"Unresponsive control panel service check" on page 420**.
The control panel is unresponsive. The control panel LED flashes alternately between red and blue.	See **"Control panel flashing LED service check" on page 421**.

Proximity detection failure service check

Action	Yes	No
Step 1 Check the area within 20 feet for other printers that have proximity sensors. Is there another printer in the area that has a proximity sensor?	Go to step 2.	Go to step 3.
Step 2 Disable the sensor of the other printer. • Turn off the other printer. • If the other printer is a similar printer, then navigate to **Settings** > **Device** > **Power management** > **Timeouts**, and then disable the Proximity sensor setting. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the area within six feet of the printer for obstructions. Is the area near the printer free of obstructions?	Go to step 5.	Go to step 4.
Step 4 Clear the obstructions. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Navigate to **Settings** > **Device** > **Power management** > **Timeouts**, and then enable the Proximity sensor setting. **b** Press the power button to enable Sleep mode, and then walk more than six feet away from the printer. **c** While the printer is in Sleep mode, approach the printer control panel. Does the printer wake from Sleep mode?	The problem is solved.	Go to step 6.
Step 6 Reseat the proximity sensor cable. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the sensor (proximity). Does the problem remain?	Contact the next level of support.	The problem is solved.

Auto alignment service check

Pre-check procedure

1 Enter the Diagnostics menu, and then navigate to:

Printer setup > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics**

Let the operation run for three minutes.

2 Perform color alignment adjustment. See **"Color alignment adjustment" on page 476**.

3 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust**

On the AA Adjustment row, touch **Start**.

Note: This triggers the Auto Align routine which performs correction of color alignment errors (0.42 mm—Normal, 0.84 mm—Coarse, and 3 mm—Factory ranges).

The following lists the different Auto Align routine results:
- AA Result 1—Failed to complete
- AA Result 2—Normal Data Deficient
- AA Result 3—All OK. Normal data within limits
- AA Result 4—Normal exceeds sense limits
- AA Result 5—Normal exceeds margin limits
- AA Result 6—All OK. Normal corrections applied
- AA Result 7—Coarse data within limits
- AA Result 8—Coarse data deficient
- AA Result 9—Coarse failed to converse
- AA Result 10—Coarse exceeds sense limits
- AA Result 11—Coarse exceeds margin limits
- AA Result 12—Coarse corrections applied
- AA Result 13—Normal exceeds skew limits
- AA Result 14—Coarse exceeds skew limits
- AA Result 15—Coarse new ITU speed
- AA Result 16—AA characterization successfully completed
- AA Result 17—AA characterization deficient, using defaults
- AA Result 18—AA Manufacturing mode successfully completed
- AA Result 19—AA Manufacturing mode deficient, not updating the results

4 Enter the Diagnostics menu, and then navigate to:

Printer setup > **EP setup** > **Toner patch sensor adjust** > **Full calibration**

Let the calibration run for one minute.

Note: This will also trigger the Auto Align routine (0.42 mm—Normal range only).

Action	Yes	No
Step 1 **a** From the home screen, touch **Settings** > **Reports** > **Print quality pages**. **b** On the Device information section of the Print quality test page, check the Color Alignment Stat value. **Note:** If the value is 1, then the sensors (auto alignment) are working. Is the value equal to 0?	Go to step 2.	The problem is solved.
Step 2 **a** Perform the blank page check. See **"Blank or white pages, or one color missing check" on page 53**. **b** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish. **c** On the Sensor gain verification row, touch **Start**. **d** Check the graph generated on the printed page. The following sample graph shows good values. **Note:** Normal range of values for the sensor voltage is 1.5–2 volts. Does the graph show good values?	The problem is solved.	Go to step 3.

Action	Yes	No
Step 3 Check the TPS sensor wiper for proper movement. **a** Remove the transfer belt. See **"Transfer belt removal" on page 531**. **b** Close door B and door A. **c** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Printhead wiper** **d** Open door A, and then touch **Start**. Does the sensor wiper properly move?	Go to step 7.	Go to step 4.
Step 4 Check the TPS wiper actuator for alignment and proper connection. Is the wiper actuator properly aligned and connected with the TPS sensor wiper and K printhead wiper rail?	Go to step 5.	Reinstall, repair, or replace the wiper actuator, and then perform again the Auto alignment service check.
Step 5 Check the K printhead wiper for proper movement. **a** Remove the transfer belt. See **"Transfer belt removal" on page 531**. **b** Close door B and door A. **c** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Printhead wiper** **d** Open door A, and then touch **Start**. Does the printhead wiper properly move?	Go to step 7.	Go to step 6.
Step 6 Check the motor (printhead wiper) cable and socket JPWR1 on the controller board for proper connection. Is the motor cable properly connected?	Replace the motor. See **"Motor (printhead wiper) removal" on page 514**. Perform again the Auto alignment service check.	Reseat the cable, and then perform again the Auto alignment service check.
Step 7 Check the sensor (auto alignment) cables and socket JTPS2 on the controller board for proper connection. Are the sensor cables properly connected?	Go to step 8.	Reseat the cable, and then perform again the Auto alignment service check.

Action	Yes	No
Step 8 a Replace the two sensors. See **"Sensor (auto alignment) removal" on page 551**. b Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish. c On the Sensor gain verification row, touch **Start**. d Check the graph generated on the printed page. The following sample graph shows good values. **Note:** Normal range of values for the sensor voltage is 1.5–2 volts. *AA1 (Left) Volts vs PWM* — *Result = 16*, *Result = 74.99* *AA2 (Right) Volts vs PWM* — *Result = 16*, *Result = 54.22* Does the graph show good values?	The problem is solved.	Contact the next level of support.

Toner patch sensing service check

Pre-check procedure

1 Enter the Diagnostics menu, and then navigate to:

  Printer setup > **EP setup** > **Toner patch sensor adjust** > **Clean sensing and laser optics**

  Let the operation run for three minutes.

2 Perform color alignment adjustment. See **"Color alignment adjustment" on page 476**.

3 Enter the Diagnostics menu, and then navigate to:

  Printer diagnostics & adjustments > **Color alignment adjust**

  On the AA Adjustment row, touch **Start**.

  Note: This triggers the Auto Align routine which performs correction of color alignment errors (0.42 mm—Normal, 0.84 mm—Coarse, and 3 mm—Factory ranges).

  The following lists the different Auto Align routine results:

  • AA Result 1—Failed to complete
  • AA Result 2—Normal Data Deficient

- AA Result 3—All OK. Normal data within limits
- AA Result 4—Normal exceeds sense limits
- AA Result 5—Normal exceeds margin limits
- AA Result 6—All OK. Normal corrections applied
- AA Result 7—Coarse data within limits
- AA Result 8—Coarse data deficient
- AA Result 9—Coarse failed to converse
- AA Result 10—Coarse exceeds sense limits
- AA Result 11—Coarse exceeds margin limits
- AA Result 12—Coarse corrections applied
- AA Result 13—Normal exceeds skew limits
- AA Result 14—Coarse exceeds skew limits
- AA Result 15—Coarse new ITU speed
- AA Result 16—AA characterization successfully completed
- AA Result 17—AA characterization deficient, using defaults
- AA Result 18—AA Manufacturing mode successfully completed
- AA Result 19—AA Manufacturing mode deficient, not updating the results

4 Enter the Diagnostics menu, and then navigate to:

Printer setup > **EP setup** > **Toner patch sensor adjust** > **Full calibration**

Let the calibration run for one minute.

Note: This will also trigger the Auto Align routine (0.42 mm—Normal range only).

Action	Yes	No
Step 1 **a** From the home screen, touch **Settings** > **Reports** > **Print quality pages**. **b** On the Device information section of the Print quality test page, check the following CalSet values. • C Developer operating point • C Laser operating point • C linearization stat • M Developer operating point • M Laser operating point • M linearization stat • Y Developer operating point • Y Laser operating point • Y linearization stat • K Developer operating point • K Laser operating point • K linearization stat Is there a Calset value equal to 0?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 Perform the blank page check. See **"Blank or white pages, or one color missing check" on page 53**. During the check, was there an issue found and then resolved?	Perform again the Toner patch sensing service check.	Go to step 3.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** > **Full calibration** On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish. **b** On the Sensor gain verification row, touch **Start**. **c** On the top portion of the printed verification page, check the Patch Average from TPS values. Are the Avg Signal (Volts) values within range of the Requirement values?	The problem is solved.	Go to step 4.
Step 4 Check the TPS sensor wiper for proper movement. **a** Remove the transfer belt. See **"Transfer belt removal" on page 531**. **b** Close door B and door A. **c** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Printhead wiper** **d** Open door A, and then touch **Start**. Does the sensor wiper properly move?	Go to step 8.	Go to step 5.
Step 5 Check the TPS wiper actuator for alignment and proper connection. Is the wiper actuator properly aligned and connected with the TPS sensor wiper and K printhead wiper rail?	Go to step 6.	Reinstall, repair, or replace the wiper actuator, and then perform again the Toner patch sensing service check.
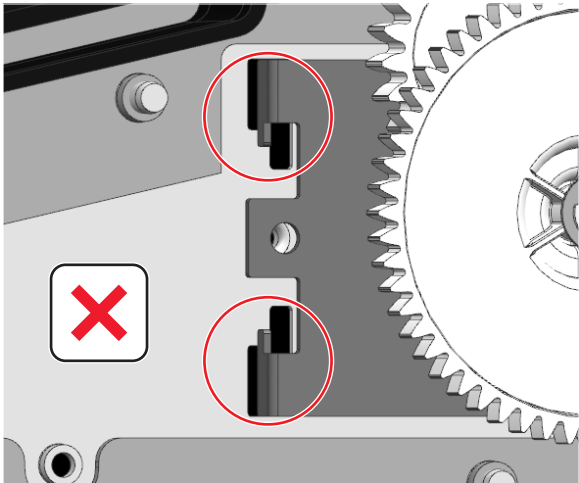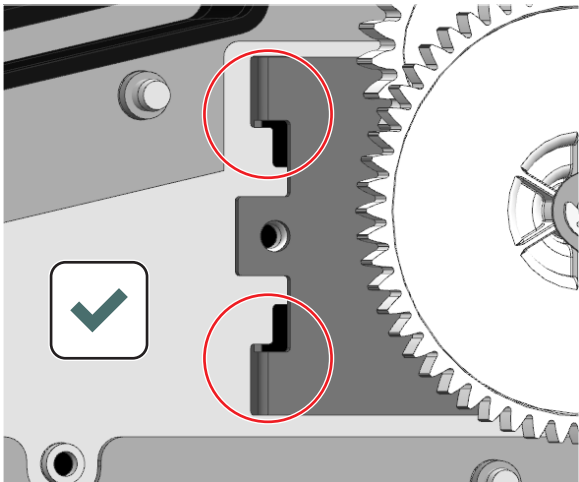
Action	Yes	No
Step 6 Check the K printhead wiper for proper movement. **a** Remove the transfer belt. See **"Transfer belt removal" on page 531**. **b** Close door B and door A. **c** Enter the Diagnostics menu, and then navigate to: **Printer diagnostics & adjustments** > **Motor tests** > **Printhead wiper** **d** Open door A, and then touch **Start**. Does the printhead wiper properly move?	Go to step 8.	Go to step 7.
Step 7 Check the motor (printhead wiper) cable and socket JPWR1 on the controller board for proper connection. Is the motor cable properly connected?	Replace the motor. See **"Motor (printhead wiper) removal" on page 514**. Perform again the Toner patch sensing service check.	Reseat the cable, and then perform again the Toner patch sensing service check.
Step 8 Check the sensor (TPS) cable and socket JTPS1 on the controller board for proper connection. Is the sensor cable properly connected?	Go to step 9.	Reseat the cable, and then perform again the Toner patch sensing service check.
Step 9 **a** Replace sensor (TPS). See **"Sensor (TPS) removal" on page 552**. **b** Enter the Diagnostics menu, and then navigate to: **Printer setup** > **EP setup** > **Toner patch sensor adjust** > **Full calibration** On the Sensor gain characterization row, touch **Start**. Wait for the operation to finish. **c** On the Sensor gain verification row, touch **Start**. **d** On the top portion of the printed verification page, check the Patch Average from TPS values. Are the Avg Signal (Volts) values within range of the Requirement values?	The problem is solved.	Contact the next level of support.

Mobile solutions module NFC service check

Action	Yes	No
Step 1 Check if the control panel is functioning properly. Is the control panel functioning properly?	Go to step 3.	Go to step 2.
Step 2 Replace the control panel. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Verify if the mobile device is an Android device that supports NFC and can read passive NFC tags. Does the device support NFC and can it read passive NFC tags?	Go to step 5.	Go to step 4.
Step 4 Use a mobile device that supports NFC. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Make sure that the latest version of the Lexmark Mobile Printing application is installed on the Android device. Is the latest version of the application installed?	Go to step 7.	Go to step 6.
Step 6 Install the latest version of the Lexmark Mobile Printing application on the mobile device. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check if the printer has a wireless ISP installed and if it is functioning properly. Is the wireless ISP installed and functioning properly?	Go to step 9.	Go to step 8.
Step 8 Install or reinstall the wireless ISP in the printer. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Verify if WiFi Direct is enabled in the printer. Is WiFi Direct enabled?	Go to step 11.	Go to step 10.

Action	Yes	No
Step 10 Enable WiFi direct in the printer. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 Verify that the NFC tap sticker is in the proper place on the control panel. Is the NFC tap sticker properly located on the control panel?	Go to step 13.	Go to step 12.
Step 12 Using a template, reposition the tap sticker. **Note:** The sticker should be placed over the NFC antenna on the mobile solutions module. Does the problem remain?	Go to step 13.	The problem is solved.
Step 13 Check if the mobile solutions module is properly installed on the control panel assembly. Is the mobile solutions module properly installed?	Go to step 15.	Go to step 14.
Step 14 Reinstall the mobile solutions module on the control panel assembly. Does the problem remain?	Go to step 15.	The problem is solved.
Step 15 Install a new NFC card. Does the problem remain?	Contact the next level of support.	The problem is solved.

Printer thumping noise service check

Action	Yes	No
Step 1 **a** Remove the printhead. See **"Printhead removal" on page 511**. **b** Check the motor (printhead wiper) and its gears for proper installation and alignment. **Note:** Make sure that the motor tabs hook behind the frame slots. Is the motor properly installed?	Go to step 3.	Go to step 2.
Step 2 Reinstall the motor. Does the problem remain?	Go to step 3.	The problem is solved.

Action	Yes	No
Step 3 Replace the motor. See **"Motor (printhead wiper) removal" on page 514**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Unresponsive control panel service check

Note: During power on, the controller board makes five short beeps when the control panel is unresponsive.
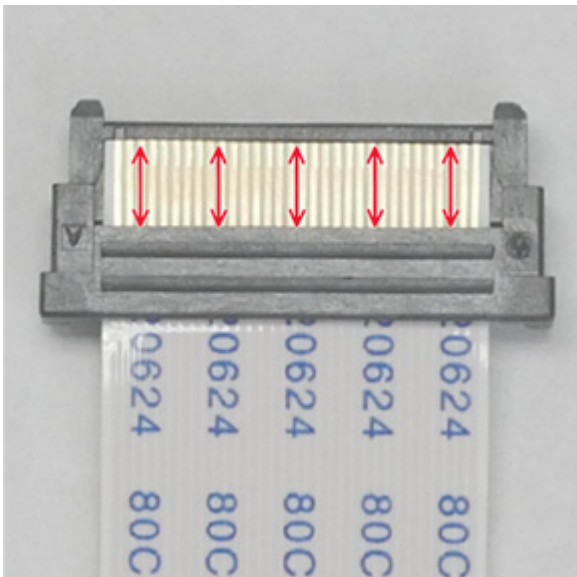
Action	Yes	No
Step 1 Check the display cable JLCD2 on the controller board for proper connection. Is the cable properly connected?	Go to step 3.	Go to step 2.
Step 2 Reseat the cable. **Warning—Potential Damage:** Do not yank the ribbon cable. See **"Disconnecting ribbon cables" on page 465**. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the control panel cable JOPPWR1 on the controller board for proper connection. Is the cable properly connected?	Go to step 5.	Go to step 4.
Step 4 Reseat the cable. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Replace the display cable. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Replace the control panel cable. Does the problem remain?	Go to step 7.	The problem is solved.
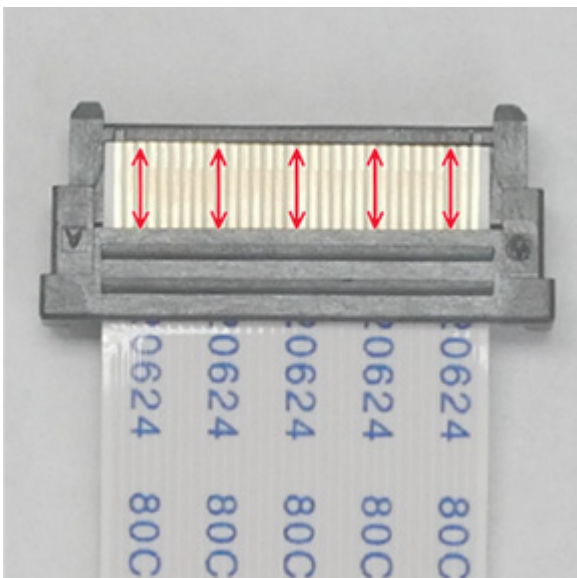
Action	Yes	No
Step 7 Replace the control panel. See **"Control panel removal" on page 519**. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Control panel flashing LED service check

Note: When the control panel LED indicator flashes alternately between red and blue, the control panel is not likely the problem. This indicates a communication issue with the printer controller board.

Action	Yes	No
Step 1 Check the display cable JLCD2 on the controller board for proper connection. Is the cable properly connected?	Go to step 2.	Go to step 3.
Step 2 Check the cable for damage. Is the cable free of damage?	Go to step 3.	Go to step 7.
Step 3 **a** Disconnect the cable JLCD2 from the controller board. **Warning—Potential Damage:** Do not yank or wiggle the ribbon cable. See **"Disconnecting ribbon cables" on page 465**. **b** Check the connector and socket for debris. Is the connector clean?	Go to step 5.	Go to step 4.

Action	Yes	No
Step 4 Wipe the connector with a lint-free cloth along the direction shown, and then reseat the cable. **Note:** To properly plug the connector, hold it by its sides and avoid pressing the release tab. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 **a** Disconnect the ribbon cable from the control panel board. See **"Control panel display removal" on page 517**. **Warning—Potential Damage:** Do not yank or wiggle the ribbon cable. See **"Disconnecting ribbon cables" on page 465**. **b** Check the connector and socket for debris. Is the connector clean?	Go to step 7.	Go to step 6.

Action	Yes	No
Step 6 Wipe the connector with a lint-free cloth along the direction shown, and then reseat the cable. **Note:** To properly plug the connector, hold it by its sides and avoid pressing the release tab. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the control panel FFC cable. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Replace the controller board. See **"Controller board removal" on page 564**. Does the problem remain?	Go to step 9.	The problem is solved.
Step 9 Replace the control panel. See **"Control panel removal" on page 519**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Input option symptoms

Input option symptoms

Symptom	Action
The input option is not detected or recognized.	See **"Input option is not detected or recognized service check" on page 424**.
"Missing tray" error message persistently prompts even if tray is inserted.	See **"Persistent 'tray (x) missing' prompt even if tray is inserted service check" on page 425**.
"Tray empty" error message persistently prompts even if tray is loaded.	See **"Persistent 'tray (x) empty' prompt even if paper is present service check" on page 426**.

Input option is not detected or recognized service check

Action	Yes	No
Step 1 **a** Make sure that the printer supports the input option. See the *Printer, Option, and Stand Compatibility Guide*. **b** Check if the option is properly attached to the printer or adjacent option. **c** Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Check if the option interface cable is properly connected to the option controller board. Is the cable properly connected?	Go to step 4.	Go to step 3.
Step 3 Reseat the connection. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the interface cable for damage. Is the cable free of damage?	Go to step 6.	Go to step 5.
Step 5 Replace the cable. See **"550-sheet tray interface cable removal" on page 654** or **"2200-sheet tray interface cable removal" on page 666**. Does the problem remain?	Go to step 6.	The problem is solved.

Action	Yes	No
Step 6 Reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Persistent "tray (x) missing" prompt even if tray is inserted service check

Action	Yes	No
Step 1 Reset the printer. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Remove, and then reinstall the tray insert. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **For the 550-sheet tray** a Check the tray rails for obstructions and damage, and replace if necessary. See **"550-sheet tray right rail removal" on page 651** and **"550-sheet tray left rail removal" on page 658**. b Reinstall the tray insert. **For the 2200-sheet tray** a Check the tray rails for obstructions and damage, and replace if necessary. See **"2200-sheet tray rail removal" on page 663**. b Check the bellcrank assembly for proper installation or damage, and replace if necessary. See **"Bell crank removal" on page 662**. c Reinstall the tray insert. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 Check the media size sensor actuators for damage, and replace if necessary. See **"550-sheet tray media size sensor actuators removal" on page 649**. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 **a** Enter the Diagnostics menu, and then navigate to: **Additional input trays diagnostics** > **Sensor tests** **b** Find the sensor (Media size (tray [x]) switch [x]). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 6.
Step 6 **a** Check if the media size sensor cable is properly connected to the option controller board. **b** Reseat the connection if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Check the media size sensor for damage, and replace if necessary. See **"Sensor (550-sheet tray media size) removal" on page 649** or **"Sensor (2200-sheet tray media size) removal" on page 664**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Persistent "tray (x) empty" prompt even if paper is present service check

Action	Yes	No
Step 1 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 trays diagnostics** > **Sensor tests** **b** Find the sensor (Media out (tray [x])). Does the sensor status change while toggling the sensor?	Go to step 4.	Go to step 3.
Step 3 **a** Check if the paper feeder cable is properly connected to the option controller board. **b** Reseat the connection if necessary. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the media out sensor actuator for damage, and replace if necessary. See **"Sensor (550-sheet tray media out) removal" on page 652** or **"2200-sheet tray media out sensor actuator removal" on page 674**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the sensor (media out) for damage, and replace if necessary. See **"Sensor (550-sheet tray media out) removal" on page 652** or **"Sensor (2200-sheet tray media out) removal" on page 671**. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher symptoms

Staple finisher symptoms

Symptom	Action
A message to close the staple finisher top door prompts even after the door is closed.	See **"Close staple finisher top door service check" on page 427**.
A message to close the staple cartridge door prompts even after the door is closed.	See **"Close staple finisher staple cartridge door service check" on page 428**.
A bin full message prompts even after the bin is cleared or empty.	See **"Staple finisher bin full service check" on page 430**.
`Staples Low [83]` prompts.	See **"Staples Low [83] service check" on page 432**.
Staple finisher is not detected or recognized.	See **"Staple finisher is not detected service check" on page 433**.

Close staple finisher top door service check

Action	Yes	No
Step 1 **a** Clear the jam access door of any obstruction, and then close it. **b** Reset the printer, and then reseat the staple finisher. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 Check the staple finisher jam access door for proper installation and damage, and replace if necessary. See **"Staple finisher jam access door removal" on page 688**. **Note:** Make sure that the jam door closes correctly. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Door test** **b** Find the switch (Jam door switch). Does the switch status change while toggling the switch?	Go to step 6.	Go to step 4.
Step 4 **a** Check the staple finisher jam door switch for proper installation. **b** Reseat the jam door switch cable on both ends. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the staple finisher jam door switch for damage, and replace if necessary. See **"Staple finisher jam door switches removal" on page 703**. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Check the cables for cuts or any damages, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reseat all connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Close staple finisher staple cartridge door service check

Action	Yes	No
Step 1 **a** Check if the staple cartridge door is properly closed. **b** Reset the printer, and then reseat the staple finisher. Does the problem remain?	Go to step 2.	The problem is solved.

Action	Yes	No
Step 2 Check the staple finisher staple cartridge door for proper installation and damage, and replace if necessary. See **"Staple finisher staple cartridge door removal" on page 688**. **Note:** Make sure that the door closes correctly. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the staple finisher rear cover for proper installation and damage, and replace if necessary. See **"Staple finisher rear cover removal" on page 685**. Does the problem remain?	Go to step 4.	The problem is solved.
Step 4 **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Door test** **b** Find the switch (Staple door). Does the switch status change while toggling the switch?	Go to step 6.	Go to step 5.
Step 5 **a** Check the staple finisher staple cartridge door switch for proper installation and damage, and replace if necessary. See **"Staple finisher staple cartridge door switch removal" on page 691**. **b** Reseat the switch cable.	Go to step 6.	The problem is solved.
Step 6 Check the cables for cuts or damages, and replace if necessary. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Reseat all connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher bin full service check

Action	Yes	No
Step 1 **a** Clear the staple finisher bin. **b** Clear the paper path of any obstruction. **c** Reset the printer, and then reseat the staple finisher. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Clear the finisher bin. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the sensor (staple finisher front upper bin full) for proper operation. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** **b** Find the sensor (Staple finisher bin full). Does the sensor status change while toggling the sensor?	Go to step 5.	Go to step 4.
Step 4 **a** Check the sensor (staple finisher front upper bin full) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher upper bin full) removal" on page 693**. **b** Reseat the cable on both ends of the sensor. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the sensor (staple finisher rear upper bin full) for proper operation. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** **b** Find the sensor (Staple finisher bin full). Does the sensor status change while toggling the sensor?	Go to step 7.	Go to step 6.
Step 6 **a** Check the sensor (staple finisher rear upper bin full) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher upper bin full) removal" on page 693**. **b** Reseat the cable on both ends of the sensor. Does the problem remain?	Go to step 7.	The problem is solved.

Action	Yes	No
Step 7 Clear the area between the sensors (staple finisher front and rear lower bin full) of any obstructions. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Check the sensor (staple finisher front lower bin full) for proper operation. **a** Enter the Diagnostics menu, and then navigate to: **Output device diagnostics** > **Sensor tests** > **Staple Finisher** > **Transport and exit section** **b** Find the sensor (Staple finisher bin full). Does the sensor status change while toggling the sensor?	Go to step 10.	The problem is solved.
Step 9 **a** Check the sensor (staple finisher front lower bin full) for proper installation and damage, and replace if necessary. See **"Sensor (staple finisher lower bin full) removal" on page 692**. **b** Reseat the cable on both ends of the sensor. Does the problem remain?	Go to step 10.	The problem is solved.
Step 10 Check the cables for cuts or any damages, and replace if necessary. Does the problem remain?	Go to step 11.	The problem is solved.
Step 11 **a** Check the staple finisher bin for damages, and replace if necessary. See **"Staple finisher bin removal" on page 727**. **b** Manually push, and then release the bin. Make sure that it returns to its default position. **c** Clear the bin of any obstructions. Does the problem remain?	Go to step 12.	The problem is solved.
Step 12 **a** Check the staple finisher bin arms for damages, and replace if necessary. See **"Staple finisher bin clamp assembly removal" on page 741**. **b** Check the bin arms and spring for proper installation. Does the problem remain?	Go to step 13.	The problem is solved.

Action	Yes	No
Step 13 **a** Check the staple finisher interface cable for cuts or any damages, and replace if necessary. **b** Reseat the cable. Does the problem remain?	Go to step 14.	The problem is solved.
Step 14 Reseat all connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staples Low [83] service check

Action	Yes	No
Step 1 **a** Remove any jammed or loose staples, and then remove the partial slab of staples so only the full slabs remain. **b** Reseat the staple cartridge and the cartridge holder. **c** Check if the staple cartridge door is closed properly. **d** Reset the printer, and then reseat the staple finisher. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 **a** Check the staple finisher staple cartridge holder for damage, and replace if necessary. **b** Reseat the staple cartridge. 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** > **Output device diagnostics** > **Staple test** **b** Select a staple job. Is the job stapled?	Go to step 5.	Go to step 4.
Step 4 **a** Check the staple finisher staple unit for proper installation and damage, and replace if necessary. See **"Staple finisher staple unit removal" on page 701**. **b** Reseat the cables on both ends of the staple unit. Does the problem remain?	Go to step 5.	The problem is solved.

Action	Yes	No
Step 5 Check the cables for cuts or any damages, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 **a** Check the staple finisher staple unit ejector for damage, and replace if necessary. See **"Staple finisher staple unit ejector removal" on page 699**. **b** Check the ejector for proper installation and operation. Make sure to clear the area of any obstructions. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 **a** Check the staple finisher staple cartridge door for damage, and replace if necessary. See **"Staple finisher staple cartridge door removal" on page 688**. **b** Check the door for proper installation. Make sure that it closes correctly. Does the problem remain?	Go to step 8.	The problem is solved.
Step 8 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Contact the next level of support.	The problem is solved.

Staple finisher is not detected service check

Action	Yes	No
Step 1 Reset the printer, and then reseat the staple finisher. Does the problem remain?	Go to step 2.	The problem is solved.
Step 2 Reseat the staple finisher interface cable. Does the problem remain?	Go to step 3.	The problem is solved.
Step 3 Check the interface cable connector for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 4.	The problem is solved.

Action	Yes	No
Step 4 Check the interface cable for cuts or damage, and replace if necessary. See **"Staple finisher interface cable removal" on page 695**. Does the problem remain?	Go to step 5.	The problem is solved.
Step 5 Check the cables for cuts or damage, and replace if necessary. Does the problem remain?	Go to step 6.	The problem is solved.
Step 6 Reseat all cable connectors in the staple finisher controller board, and then reset the printer. Does the problem remain?	Go to step 7.	The problem is solved.
Step 7 Replace the controller board. See **"Staple finisher controller board removal" on page 687**. 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	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.
4	Keypad	Enter numbers or symbols in an input field.
5	Pause button	Place a dial pause in a fax number.
6	Start button	Start a job, depending on which mode is selected.
7	Clear all or Reset button	Reset the default settings of a function such as copying, faxing, or scanning.
8	Stop or Cancel button	Stop the current job.
9	Backspace button	Move the cursor backward and delete a character in an input field.
10	Indicator light	Check the status of the printer.
11	Volume buttons	Adjust the volume of the headset or speaker.
12	Headset or speaker port	Attach a headset or speaker.

Understanding the status of the power button and indicator light

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

Power button light	Printer status
Off	The printer is off, ready, or processing data.
Solid amber	The printer is in sleep mode.
Blinking amber	The printer is in hibernate mode.

Using the home screen

Note: Your home screen may vary depending on your home screen customization settings, administrative setup, and active embedded solutions.
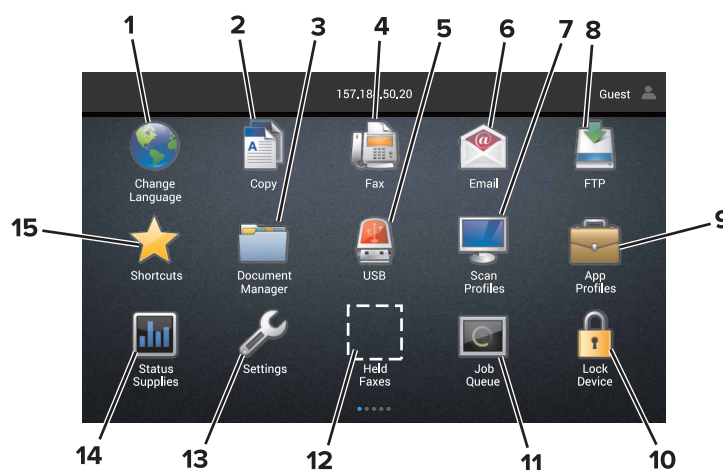
Touch		To
1	Copy	Make copies.
2	E-mail	Send e-mails.
3	Change Language	Change the language on the printer display.
4	Fax	Send fax.
5	Settings	Access the printer menus.
6	Held Faxes	Show all the current held fax jobs. **Note:** If Held Faxes is hidden, then Release Held Faxes appears.
7	Shortcut Center	Organize all shortcuts.

Service menus

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Touch		To
8	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.
9	Address Book	Access, create, and organize contacts.
10	Scan Profiles	Scan and save documents directly to the computer.
11	FTP	Scan and save documents directly to an FTP server.
12	Bookmarks	Organize all bookmarks.
13	Held Jobs	Show all the current held print jobs
14	USB Drive	View, select, or print photos and documents from a flash drive.
15	Job Queue	Show all the current print jobs. **Note:** You can also access this setting by touching the top section of the home screen.

These settings may also appear on the home screen

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

Printing a menu settings page

From the home screen, touch **Settings** > **Reports** > **Menu Settings Page**.

Service menus

Menus list

Device	Print	Paper	Copy	Fax
Preferences	Layout	Tray Configuration	Copy Defaults	Fax Mode
Notifications	Finishing	Media Configuration		Analog Fax Setup
Group Lists	Setup	Bin Configuration		Fax Server Setup
Alert Types	Quality			
Anti-Spam Logic Description	Job Accounting			
Suppressing Duplicate Alerts	Image			
Power Management	XPS			
Information Sent to Lexmark	PDF			
Accessibility	HTML			
Restore Factory Defaults	PostScript			
Maintenance	PCL			
Remote Operator Panel	PPDS			
Visible Home Screen Icons				
Site Map				
Update Firmware				
About This Printer				

E-mail	FTP	Network/Ports	USB Drive	Security
E-mail Defaults	FTP Defaults	Network Overview	Flash Drive Scan	Login Methods
E-mail Setup		Wireless	Flash Drive Print	Certificate Management
Web Link Setup		AirPrint		Schedule USB Devices
		Ethernet		Security Audit Log
		TCP/IP		Login Restrictions
		IPv6		Confidential Print Setup
		SNMP		Disk Encryption
		802.1x		Erase Temporary Data Files
		IPSec		Solutions LDAP Settings
		LPD Configuration		Miscellaneous
		HTTP/FTP Settings		
		ThinPrint		
		USB		
		Parallel [x]		
		Serial		
		Wi-Fi Direct		

Service menus

Option Card Menu	**Reports**	**Help**
Note: This setting appears only when an optional card is installed.	Menu Settings Page	Print All Guides
	Print Quality Pages	Color Quality Guide
	Device	Connection Guide
	Print	Copy Guide
	Shortcuts	E-mail Guide
	Fax	Information Guide
	Network	Media Guide
		Moving Guide
		Print Quality Guide
		Scan Guide
		Supplies Guide

Diagnostics menu

Entering the Diagnostics menu

The Diagnostics menu contains tests that are used to help isolate issues with the printer. To access some of these tests, avoid POST tests that run at POR. Some POST tests can generate errors that prevent a diagnostic test from running.

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

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

Event Log

Display Log

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

Enter the Diagnostics menu, and then navigate to:

Event Log > **Display Log**

Print Log

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

1 Enter the Diagnostics menu, and then navigate to:

  Event Log > **Print Log**

2 Touch **Start**.

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

Print Log Summary

This setting lists a brief summary of the various printer events.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > **Print Log Summary**

2 Touch **Start**.

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

Mark Log

This setting allows you to create a service, maintenance, or custom log entry. Each log entry is added in the printer event log.

1 Enter the Diagnostics menu, and then navigate to:

Event Log > **Mark Log**

2 Select a log that you want to create, and then touch **Start**.

Reports

Device Settings

This report lists all the current printer settings.

Enter the Diagnostics menu, and then navigate to:

Reports > **Device Settings**

Installed Licenses

This setting lists all the installed licenses and their feature data.

Enter the Diagnostics menu, and then navigate to:

Reports > **Installed Licenses**

Advanced Print Quality Samples

This setting prints a list of the printer settings and sample pages to check print quality.

Enter the Diagnostics menu, and then navigate to:

Advanced Print Quality Samples > **Advanced Print Quality Samples**

Input tray quick print

This setting lets you print a single or continuous Quick Test page in either duplex or simplex mode.

1 Enter the Diagnostics menu, and then touch **Input tray quick print**.

2 Select where you want to print the pages from.

3 Select whether to print a single or continuous test page, and then touch **Start**.

Printer Setup

Printed page count (mono)

This setting displays the amount of pages printed in mono.

1 Enter the Diagnostics menu, and then touch **Printer Setup**.

2 View the printed page count for mono.

Printed page count (color)

This setting displays the amount of pages printed in color.

1 Enter the Diagnostics menu, and then touch **Printer Setup**.

2 View the printed page count for color.

Permanent page count

This setting displays the total number of pages printed in mono and color. After all the print tests are completed, this value resets to zero.

1 Enter the Diagnostics menu, and then touch **Printer Setup**.

2 View the permanent page count.

Enable edge-to-edge (printing)

This setting shifts all four margins to the physical edges of the page.

Note: Contamination of the second transfer roller may result from printing up to the physical edges of the page.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **Enable edge-to-edge (printing)**

2 Select a setting to adjust.

Note: This feature does not work in PPDS emulation.

Enable edge-to-edge (copy)

This setting determines whether the printer accepts the ADF or flatbed edge erase value when performing an ADF or flatbed copy.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **Enable edge-to-edge (copy)**

2 Select a setting to adjust.

Processor ID

This setting indicates the ID of the processor on the controller board.

1 Enter the Diagnostics menu, and then touch **Printer Setup**.

2 View the processor ID.

Serial number

This setting displays a read-only value of the serial number.

1 Enter the Diagnostics menu, and then touch **Printer Setup**.

2 View the serial number.

Model name

This setting displays the model name of the printer.

1 Enter the Diagnostics menu, and then touch **Printer Setup**.

2 View the model name.

Engine setting [x]

Warning—Potential Damage: Do not change this setting without specific instructions from the next level of support.

This setting allows you to select a printer engine setting. Possible values are 0–255. 0 is the default.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **Engine setting** [x]

2 Select a setting, enter a value, and then touch **OK**.

EP setup

Warning—Potential Damage: Do not change this setting without specific instructions from the next level of support.

This setting allows you to adjust the EP setup of the printer.

1 Enter the Diagnostics menu, and then navigate to:

Printer Setup > **EP setup**

2 Select a setting.

Printer diagnostics and adjustments

Sensor tests

1 Enter the Diagnostics menu, and then touch **Printer diagnostics & adjustments**.

2 From the Sensor tests section, touch **Start**.

A dialog listing the sensor tests appears.

3 Find, and then manually toggle the sensor.

Notes:

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

Motor tests

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Motor tests**

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

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Registration adjust

This setting lets you adjust the skew, margins, or perform a Quick Test. For more information, see **"Registration adjustment" on page 474**.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Registration adjust**

2 Select a setting to adjust.

Color alignment adjust

This setting allows you to adjust the color alignments and to print or reset the default settings.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust**

2 Select a setting.

Supply reset

The setting resets the ITM counter values to zero.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Supply reset**

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

Add-on cards tests

This setting allows you to test the add-on cards installed on the printer.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Add-on cards tests**

2 Select a card.

Printhead diagnostics

This setting allows you to test the printhead.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Printhead diagnostics**

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

Additional input tray diagnostics

Sensor tests

1 Enter the Diagnostics menu, and then touch **Additional input tray diagnostics**.

2 From the Sensor tests section, touch **Start**.

A dialog listing the sensor tests appears.

3 Find, and then manually toggle the sensor.

Notes:

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

Motor tests

1 Enter the Diagnostics menu, and then navigate to:

Additional input tray diagnostics > **Motor tests**

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

Notes:

- If the motor is activated, then it is properly working.

- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Output device diagnostics

Sensor tests

1 Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > **Sensor tests**

2 Select the output device where the sensor is located.

3 Find, and then manually toggle the sensor.

Notes:

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

Motor tests

1 Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > **Motor tests**

2 Select the output device where the motor is located.

3 Find the motor, and then touch **Start**.

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Staple test

Note: This menu appears only when a finisher is installed.

1 Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > **Staple test**

2 Select a staple job, and then check the output for any issues.

Punch tests

Note: This menu appears only when a finisher is installed.

1 Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > **Punch tests**

2 Select a punch job, and then check the output for any issues.

Offset tests

Note: This menu appears only when a finisher is installed.

1 Enter the Diagnostics menu, and then navigate to:

Output device diagnostics > **Offset tests**

2 Select a bin.

Scanner diagnostics

Feed Test

This test allows for a continuous feed from the ADF or flatbed.

1 Enter the Diagnostics menu, and then navigate to:

Scanner diagnostics > **Feed Test**

2 Select a paper size.

3 From the Feed Test section, touch **Start**.

Sensor tests

This test verifies the status of the scanner sensors.

1 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.

2 From the Sensor tests section, touch **Start**.

A dialog listing the sensor tests appears.

3 Find, and then manually toggle the sensor.

Notes:

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

List of sensor tests

Test	Procedure to perform before the test
FB CCD home	--
ADF closed	Open the ADF.

Test	Procedure to perform before the test
ADF media present	Open the ADF top cover.
ADF pick	
ADF deskew	
ADF 1st scan	
ADF 2nd scan	--
ADF top door interlock	Open the ADF top cover.
ADF calibration strip home	--

Motor tests

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

Scanner diagnostics > **Motor tests**

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

Notes:

- If the motor is activated, then it is properly working.
- Some motors require automatic deactivation in order to avoid secondary issues such as possible damage and contamination.
- Some tests require a special action to activate a motor such as removing a major component.
- If the motor fails, the test failure may not indicate a failed motor. Further troubleshooting may be required. Check the boards and cables for possible issues.

Multifeed calibration

1 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.

2 Select Multifeed Calibration, and then touch **Start**.

Scanner Calibration Reset

Before starting the test, make sure that the scanner glass and backing material are clean. For more information, go to **"Cleaning the scanner" on page 777**.

1 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.

2 From the Sensor Calibration Test section, touch **Start**.

To verify the result, do the following:

1 Load the ADF with a document containing light and dark content.

2 Print a two-sided copy of the document.

Notes:

- If the back side of the copy has vertical streaks, then clean the scanner glass and backing material, and then print another copy.

- If the streaks still appear, then repeat the cleaning and verification procedure or replace the ADF.

Configuration Menu

Menu item	Description

USB Configuration
USB PnP
    1*
    2
USB Scan to Local
    Off
    On*
USB Speed
    Full
    Auto*
	Configure the USB settings.

Tray Configuration Size Sensing Tray [x] Sensing	Set the printer to detect the size of the paper loaded in the tray. **Note:** This menu item appears only in trays with size-sensing mechanism.

Tray Configuration
Tray Linking
    Automatic*
    Off
	Set the printer to link the trays that have the same paper type and paper size settings.

Tray Configuration
Tray Insert Message Delay
    Off*
    On
	Set the printer to display the `Tray Insert` message after the user has inserted a tray.

Tray Configuration
A5 Loading
    Short Edge
    Long Edge*
	Specify the page orientation when loading A5 paper size.

Tray Configuration
Paper Prompts
    Auto*
    Multipurpose Feeder
    Manual Paper
Envelope Prompts
    Auto*
    Multipurpose Feeder
    Manual Paper
	Set the paper source that the user will fill when a prompt appears to load paper or envelope.
	Note: For Multipurpose Feeder to appear, set Configure MP to Cassette from the Paper menu.

Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description

Tray Configuration
Action for Prompts
    Prompt user*
  Continue
  Use current
	Set the printer to resolve paper- or envelope-related change prompts.

Reports Menu Settings Page Event Log Event Log Summary Health Check Statistics	Print reports about printer menu settings, status, and event logs.
Supply Usage And Counters Clear Supply Usage History Reset [color] Cartridge Counter Reset [color] Imaging Unit Counter Reset [color] Developer Unit Counter Reset Color Imaging Kit Counter Tiered Coverage Ranges	Reset the supply page counter or view the total printed pages. **Note:** These settings may vary depending on your printer model.

Scanner Configuration
Edge Erase
    ADF Edge Erase
      0–6 (3*)
    FB Edge Erase
      0–6 (3*)
    ADF Mechanical Deskew
      On*
      Off
    ADF Electronic Deskew
      On*
      Off
	Set the size of a border around the scanned image that will be erased.

Scanner Configuration
Scanner Manual Registration
    Print Quick Test
    Front ADF Registration
    Rear ADF Registration
    Flatbed Registration
	Set the scanner registration after replacing the ADF, scanner glass, or controller board.

Scanner Configuration
Tiff Byte Order
    CPU Endianness*
    Little Endian
    Big Endian
	Determine the byte order of a TIFF-formatted scan output.

Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description
Scanner Configuration Exact Tiff Rows Per Strip On* Off	Set the RowsPerStrip tag value of a TIFF-formatted scan output.
Printer Emulations PPDS Emulation Off* On	Set the printer to use the PPDS data stream.
Fax Configuration Fax Low Power Support Disable Sleep Permit Sleep Auto*	Specify the power setting when in fax mode.
Fax Configuration Fax Storage Location NAND Disk*	Specify the fax storage location. **Note:** This setting appears only when a printer hard disk is installed.
Print Configuration Black Only Mode Off* On	Print color content in grayscale.
Print Configuration Color Trapping Off 1 2* 3 4 5	Enhance the printed output to correct misregistration in the printer.
Print Configuration Font Sharpening 0–150 (24*)	Adjust the value of the high frequency screens used for font data.
Print Configuration Print Density 0–5 (3*) Copy Density 0–5 (3*)	Adjust the toner density when printing or copying documents.
Print Configuration Quiet Mode Off* On	Reduce the amount of noise that the printer makes when printing.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Menu item	Description

Device Operations
Panel Menus
    Off
    On*
	Set the printer to show the control panel menus.

Device Operations
Safe Mode
    Off*
    On
	Set the printer to operate in a special mode, in which it attempts to continue offering as much functionality as possible, despite known issues.

Device Operations
Minimum Copy Memory
    20 MB
    30 MB
    50 MB
    80 MB
    100 MB
	Set the memory allocation for storing copy jobs.
	Notes:
	• 20 MB is the factory default setting for mono laser printers.
	• 80 MB is the factory default setting for color laser printers.
	• The values may vary depending on your printer model.
	• The values appear only if the amount of installed DRAM is at least twice the amount of the value.

Device Operations Clear Custom Status	Erase all custom messages.

Device Operations
Automatically Display Error Screens
    Off
    On*
	Show existing error messages on the display when the printer returns to an active state.

Device Operations
Honor orientation on fast path copy
    Off*
    On
	Set the printer to use the Orientation setting under Copy menu when sending quick copy jobs.

Device Operations Clean sensing and laser optics	Set the printer to run its wipers and clean the sensing and laser optics. **Note:** This setting is available only in some printer models.

Device Operations
Calibration frequency preference
    Disabled*
    Fewest color adjustments
    Fewer color adjustments
    Normal
    Better color accuracy
    Best color accuracy
	Set the printer to put down the correct amount of toner to maintain color consistency.

Note: An asterisk (*) next to a value indicates the factory default setting.	

Service menus

Menu item	Description
Device Operations 　Automatic Media Type Detection 　　Off 　　On*	Set the printer to detect the paper type being loaded.
Device Operations 　Custom Supply Levels 　　Off* 　　On	Set supply levels.
Toner patch sensor setup 　Calibration frequency preference 　　Disabled* 　　Fewest color adjustments 　　Fewer color adjustments 　　Normal 　　Better color accuracy 　　Best color accuracy	Set the printer to put down the correct amount of toner to maintain color consistency.
Toner patch sensor setup 　Full calibration	Run the full color calibration.
Toner patch sensor setup 　Print TPS information page	Print a diagnostic page that contains toner patch sensor calibration.
App Configuration 　LES Applications 　　Off 　　On*	Enable the Lexmark Embedded Solutions (LES) applications. **Note:** This setting does not affect built-in applications.
Note: An asterisk (*) next to a value indicates the factory default setting.	

Service Engineer menu

Entering Invalid engine mode

This mode allows the printer to load the correct firmware code.

1 Turn off the printer.

2 From the control panel, press and hold the **3**, **4**, and **6** while turning on the printer.

3 Release the buttons after 10 seconds.

Entering the Service Engineer (SE) menu

To access the Service Engineer (SE) menu:

1 Turn on the printer.

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

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

General SE

This setting allows you to save a log file to a USB drive.

Enter the Service Engineer (SE) menu, and then navigate to:

General SE > **Capture Logs to USB Drive**

Network SE

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

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

Top level menu	Intermediate menu
Print SE Menus	Print SE Menus
History	• Print History • Mark History
MAC	• Set Card Speed • LAA • Keep Alive
NPAP	Print Alerts
TCP/IP	• netstat • arp • Allow SNMP Set • MTU • Meditech Mode • RAW LPR Mode
Wireless	Enable Wi-Fi Direct Sigma Control Agent
Ping Test	• Ping • Ping6
Other Actions	• ifconfig • IPtables [Firewall Dump] • IP6tables [Firewall Dump] • IPsec Dump

Fax SE

Use this menu for the fax transmission and fax reception service checks.

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

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

Top level menu	Intermediate menu
Code Levels	• Base: [current value] • Kernel: [current value] • Network: [current value] • Engine: [current value] • Loader: [current value] • Fax: [current value] • Scanner: [current value]
Agency Test	• Go Off Hook • Ring Detect • Generate Tones • Modulations
Fax Settings	• Line Features • Fax Modulations • Detect EOLS • Print Logs • AutoPrint T30 Logs

Top level menu	Intermediate menu
Modem Settings	• Caller ID Pattern **Note:** Changing the value of this setting also changes the value of the Caller ID setting in the Fax Settings. • Dial Timeout • Transmit Level • Receive Thresh • DTMF Low Level • DTMF High Level • Positive Twt Ctrl • Negative Twt Ctrl • ATRA EQM Bias • V34 PreEmph Filt • Dial Tone Thresh • Progress Thresh • Pulse Make Time • Pulse Break Time • Pulse Dial Type • Interdigit Delay • Enable CEQ • V17 TX Filter • DC Characteristic • Impedance • Caller ID Pattern • Busy Tone Cycles • Busy Tone Min On Time • Busy Tone Max On Time • Busy Tone Min Off Time • Busy Tone Max Off Time • Congest Tone Cycles • Congest Tone Min On Time • Adjust Power FSK • Pulse Fall Time • High Ring Impedance
Reboot System	After this setting is selected, the control panel displays the message: **About to reboot. Press Start to reboot. Press Stop to return.**

Scan SE

This setting displays the current left, top, right, and mag scanner registration values for each scanner source (flatbed, ADF front, ADF rear).

Enter the Service Engineer (SE) menu, and then navigate to:

Scan SE > **Scanner Info**

Parts removal

Removal precautions

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

⚠️ **CAUTION—POTENTIAL INJURY:** The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.

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

Data security notice

Identifying printer memory

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

The following parts can store memory:
- Printer control panel
- User interface controller card (UICC)
- Controller board
- Optional hard disks

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

Erasing printer memory

To erase volatile memory, turn off the printer.

To erase non-volatile memory:

1 From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase**.

2 Select the **Sanitize all information on nonvolatile memory** check box, and then touch **ERASE**.

3 Follow the instructions on the display.

To erase the hard disk memory:

1 From the home screen, touch **Settings** > **Device** > **Maintenance** > **Out of Service Erase**.

2 Select the **Sanitize all information on hard disk** check box, and then touch **ERASE**.

3 Follow the instructions on the display.

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

Handling ESD-sensitive parts

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

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

Controller board/control panel replacement

This procedure should be followed only if both the controller board and the control panel fail. If you need to replace only one of the FRUs, follow the startup procedure described in the FRU's removal procedure.

⚠️ **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.

Warning—Potential Damage: If the control panel and the controller board are being replaced at the same time, replace the parts in this order to avoid damage to the machine.

1 Replace the controller board first.

   Note: Do not replace the new control panel and controller board in the machine at the same time.

2 After installing the new controller board, and before installing the new control panel, start the printer into diagnostics mode.

3 After the printer has completed startup, turn off the printer and replace the control panel.

   Note: If the control panel display has failed, the printers' startup cycle is complete when the driver motor and fans shut down, and the machine is quiet.

4 After installing the new control panel, start the printer into diagnostics mode, and allow the printer to go through a complete startup cycle and the display to go to Ready.

5 If the problems persist, leave the new control panel in the machine, place the old controller board back in the machine, and start it up. After the machine startup, shut down the machine, and install the new controller board. After installing the new controller board, restart the machine, and let it go through the startup cycle.

After this procedure is completed successfully, there is no need to adjust any settings.

If the above procedure fails, you must contact the technical support center for further instructions.

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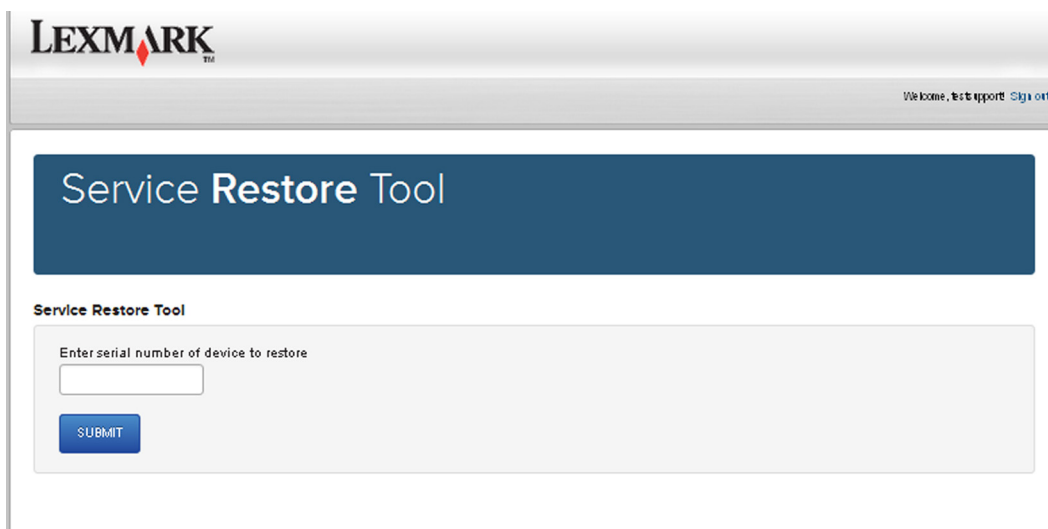
Restore the printer to its correct configuration to complete the replacement service. Use the Service Restore Tool to download the software bundle, and then flash the printer settings and embedded solutions.

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
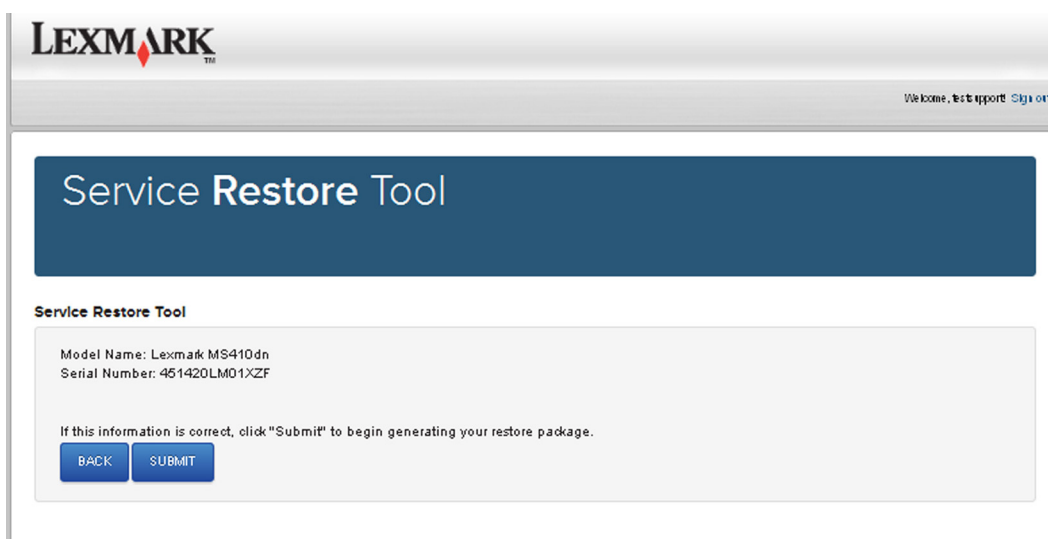
1 Go to **https://cdp.lexmark.com/service-restore-tool/** to access the tool.

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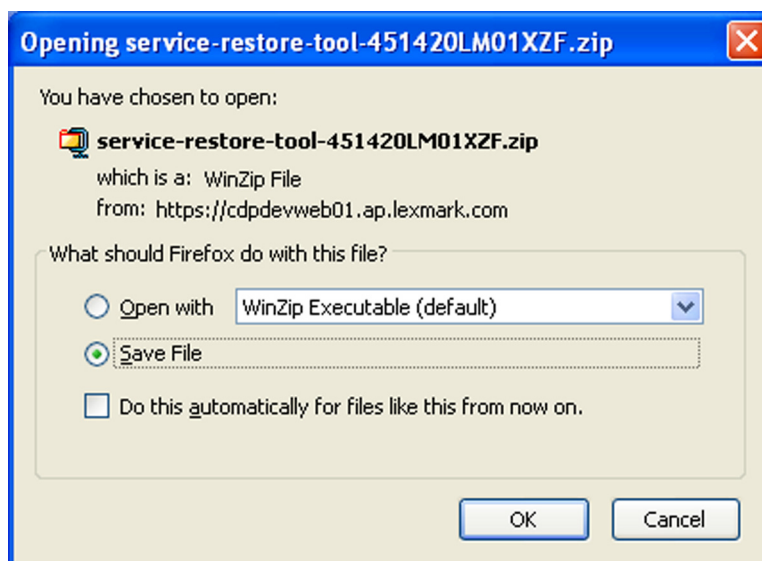
5 Extract the contents of the zip file, open the *Readme* file, and then follow the instructions in the file.

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 463**.

- To load the zip files that are extracted from the Service Restore Tool, see **"Restoring solutions, licenses, and configuration settings" on page 462**.
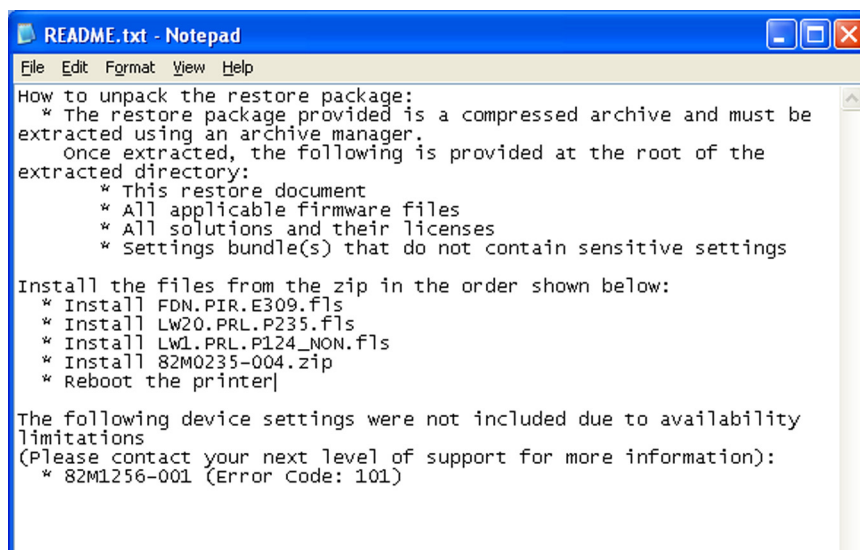
6 After performing the installation instructions in the *Readme* file, confirm from the customer if all the eSF apps have been installed.

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.
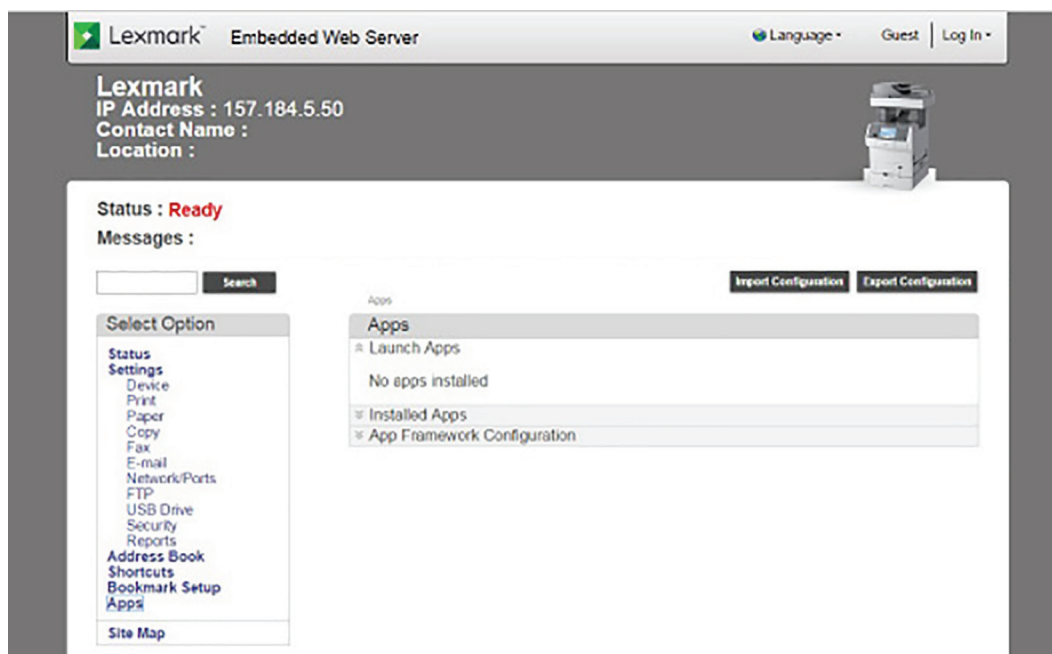
2 Click **Import Configuration**, and then click **Browse**.
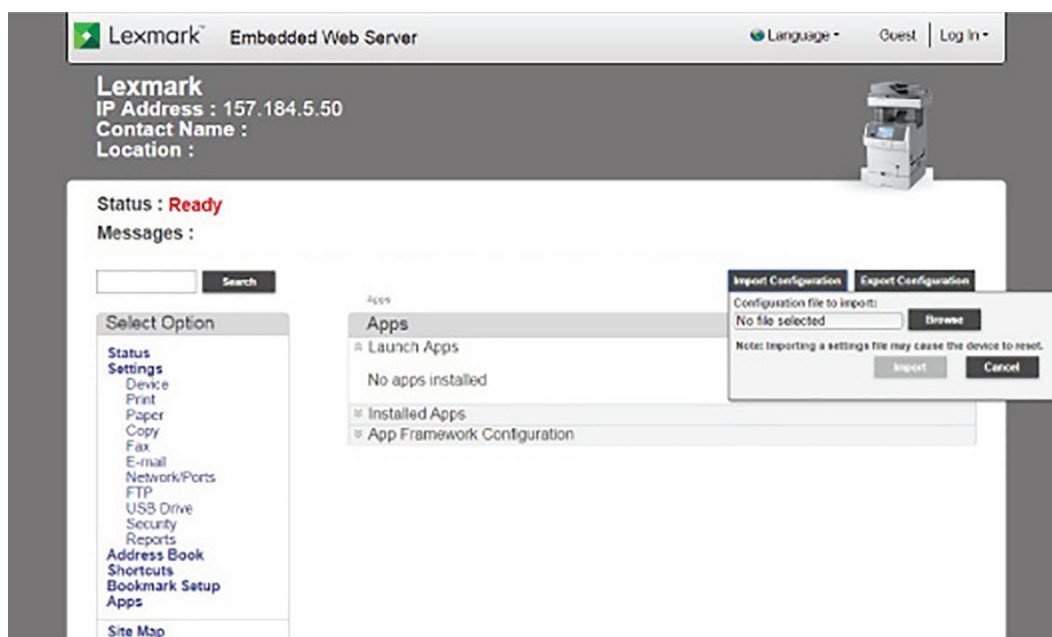
3 Navigate to the folder where the zip files are extracted from the Service Restore Tool.
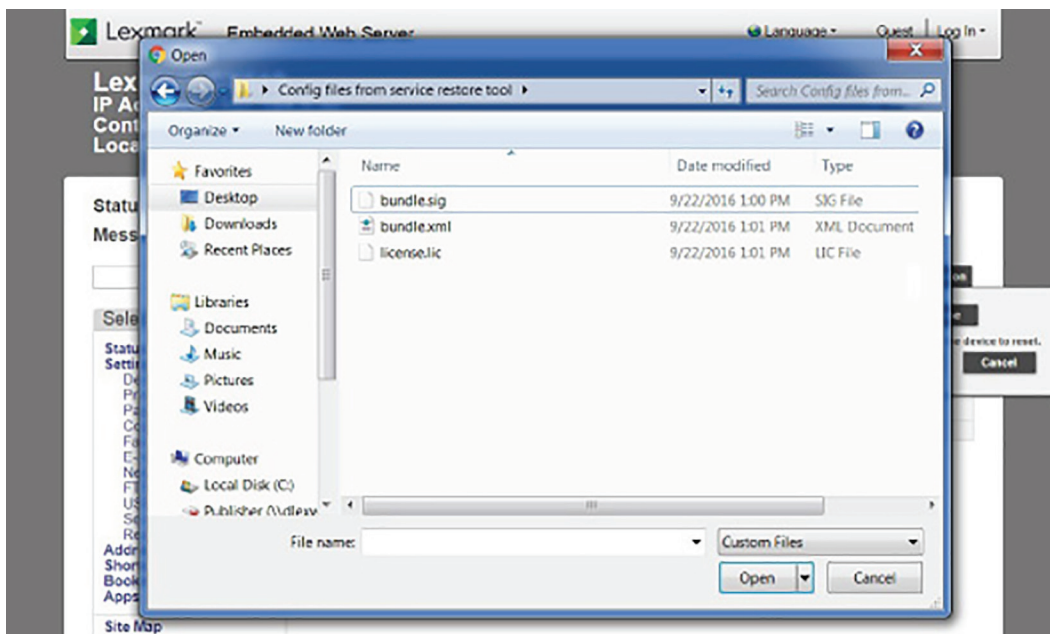
4 Select the file to import, and then click **Import**.

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.

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

Using a flash drive

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

Make sure to enable the Enable Drive and Update Code settings. You can find the settings in the Flash drive menu under the Settings menu.

1 Insert the flash drive into the USB port.

2 From the control panel, navigate to **USB Menu: Print from USB** > **Accept** or **OK**.

3 Select the file that you need to flash.

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

Using a network computer

Using the File Transfer Protocol (FTP)

Make sure that the printer is in ready state before flashing the printer.

1 Turn on the printer.

2 Obtain the IP address:
- From the home screen
- From the TCP/IP section of the Network/Ports menu

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.

5 Repeat step 2 through step 4 for the other files.

Using the Embedded Web Server

Make sure that the printer is in ready state before flashing the printer.

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

2 From the home page, navigate to **Configuration** > **Update Firmware**.

3 Select the file to use.

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

4 Repeat step 2 through step 4 for the other files.

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 .

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 452**.

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

   Note: If the web page cannot be accessed or an error occurs when starting the printer into Invalid engine mode, then data backup is not an option. Inform the customer that the data cannot be saved.

3 Navigate to **Settings** > **Solutions** > **Embedded Solutions**.

4 From the Embedded Solutions page, select the applications that you want to import.

5 Click **Import**.

Disconnecting ribbon cables

Warning—Potential Damage: The ribbon cable and its socket may get damaged if it is not properly disconnected. When disconnecting the cable, hold its connector and press its tab before unplugging it.
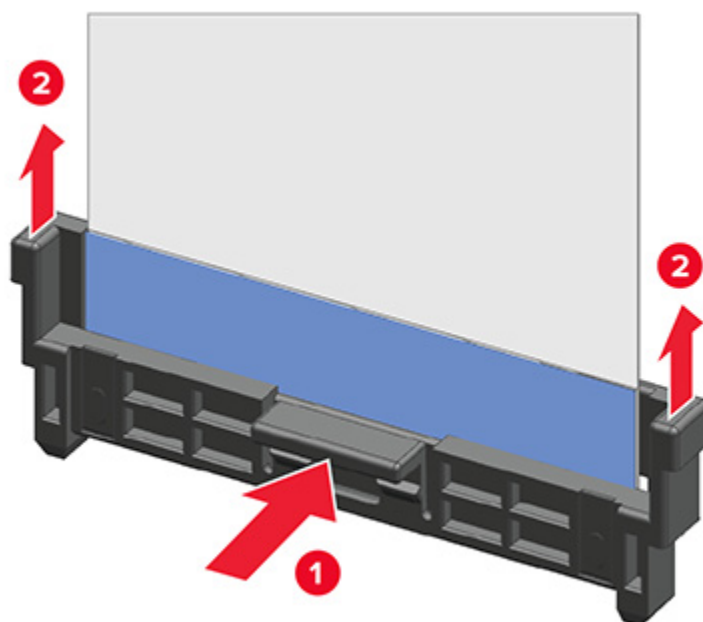
Adjustments

ADF skew adjustment (front side)

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the scanner glass cushion.

3 Loosen, but do not remove the three nuts (A) securing the adjusting bracket to the ADF frame.

4 Turn the skew adjustment screw (B) clockwise for positive skew or counterclockwise for negative skew.
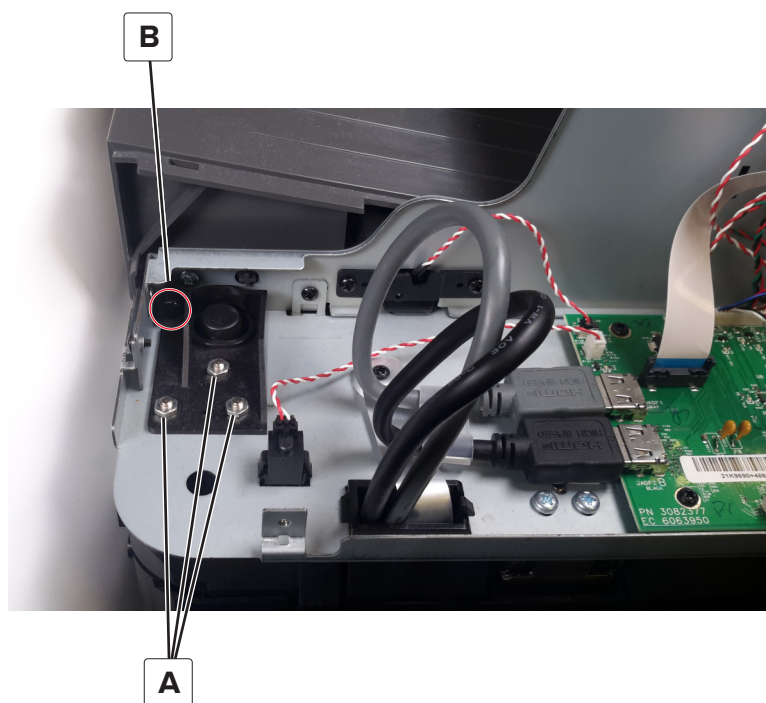
Notes:

- Do not completely remove the nuts or screws when performing this adjustment.
- Each full turn of the adjustment screw yields 0.3 mm of skew correction. The maximum adjustment is two full turns either way.

5 After the skew has been corrected, tighten the three nuts, and then reinstall the ADF rear cover.

ADF skew adjustment (back side)

1 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

2 Loosen the two screws (A) securing the adjusting bracket to the ADF frame.

3 Turn the skew adjustment screw (B) clockwise for negative skew or counterclockwise for positive skew.
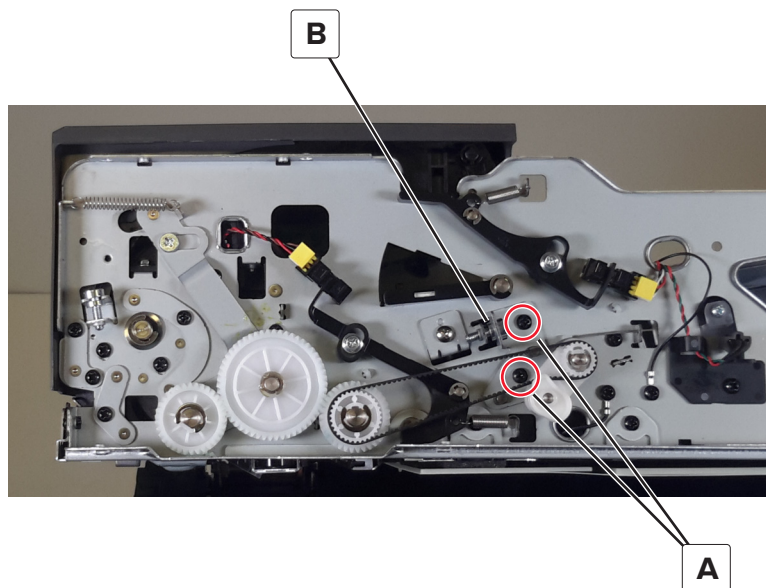
Note: Each full turn of the adjustment screw yields 0.6 mm of skew correction. The maximum adjustment is one full turn either way.

4 After the skew has been corrected, tighten the two screws, and then reinstall the ADF front cover.

ADF skew adjustment (deskew roller)

1 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

2 Loosen the two screws (A) securing the adjusting bracket to the ADF frame.

3 Turn the skew adjustment screw (B) clockwise for negative skew or counterclockwise for positive skew.

4 After the skew has been corrected, tighten the two screws, and then reinstall the ADF front cover.

Sensor (ADF multifeed) calibration

The sensor (ADF multifeed) detects the air gaps between sheets to detect double feeds. Perform this procedure after replacing the sensor or if there are double feed issues in the ADF.

1 Open door D, and then cover the sensor (A) with a sheet of paper (16–20 lb).
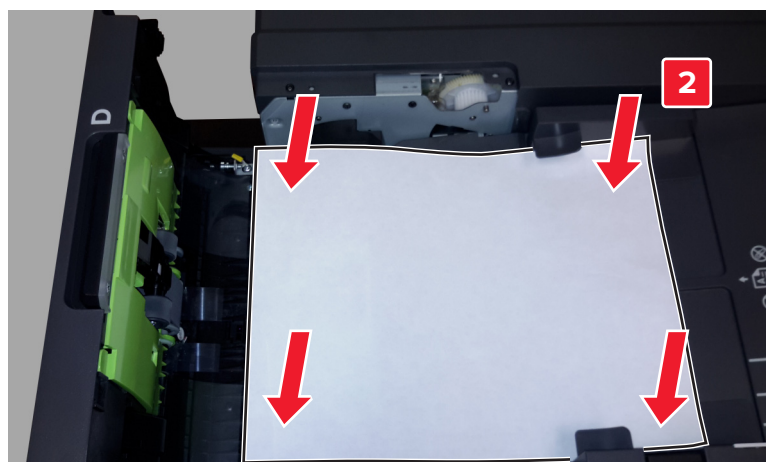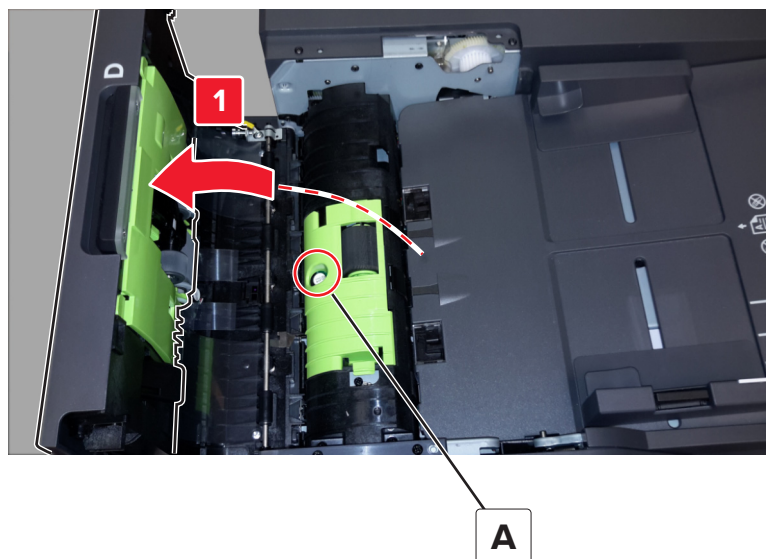
2 Close the door.

3 Enter the Diagnostics menu, and then touch **Scanner diagnostics**.

4 Select Multifeed Calibration, and then touch **Start**.

Printhead alignment adjustment

Printhead misalignment may cause crooked or skewed print. Perform this procedure after replacing the printhead or if there are skewed print issues.

Parts removal

Checking the test page for alignment

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Registration adjust** > **Quick test**

2 Check the test page.

The following test page result shows a properly aligned printhead:
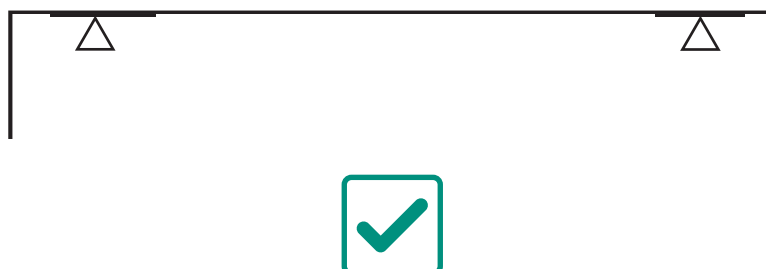
Aligning a printhead skewed in the clockwise direction

The following test page result shows a test page skewed in the clockwise direction:
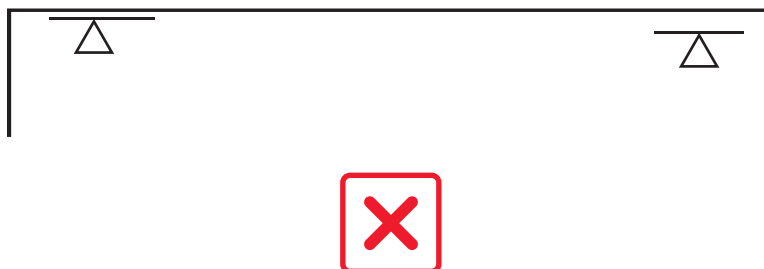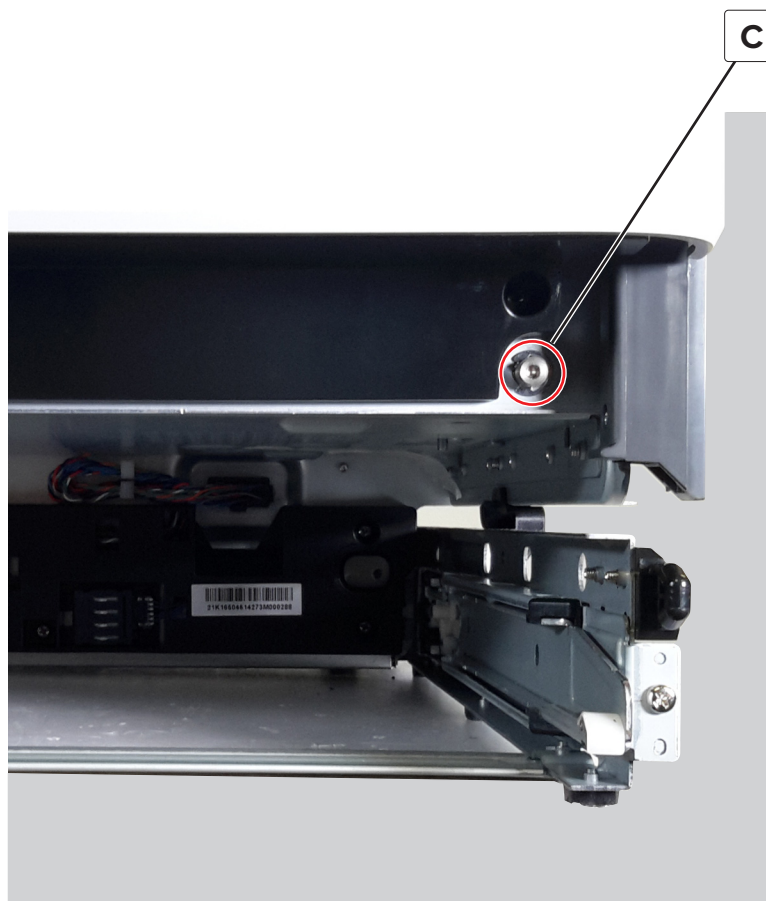
1   Remove the vent cover, see **"Vent cover removal" on page 503**, or remove the inner right cover, see **"Printhead fan removal" on page 509**.

2   Using a 3-mm ball hex wrench (B), turn the printhead clamp hex screw (A) counterclockwise by one turn.

The printhead clamp hex screw (A) with the right covers removed is shown below.

Parts removal

471
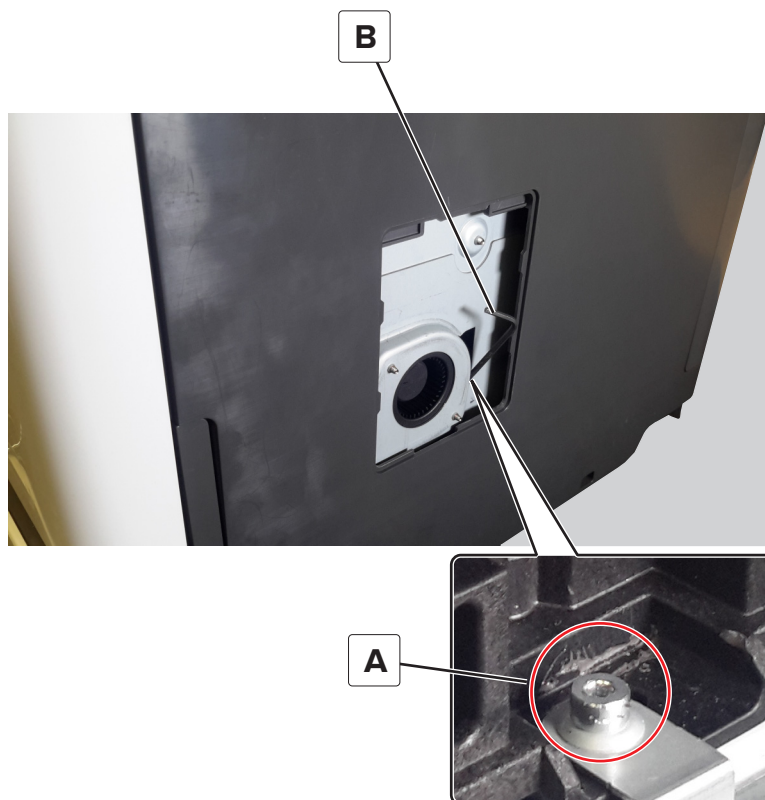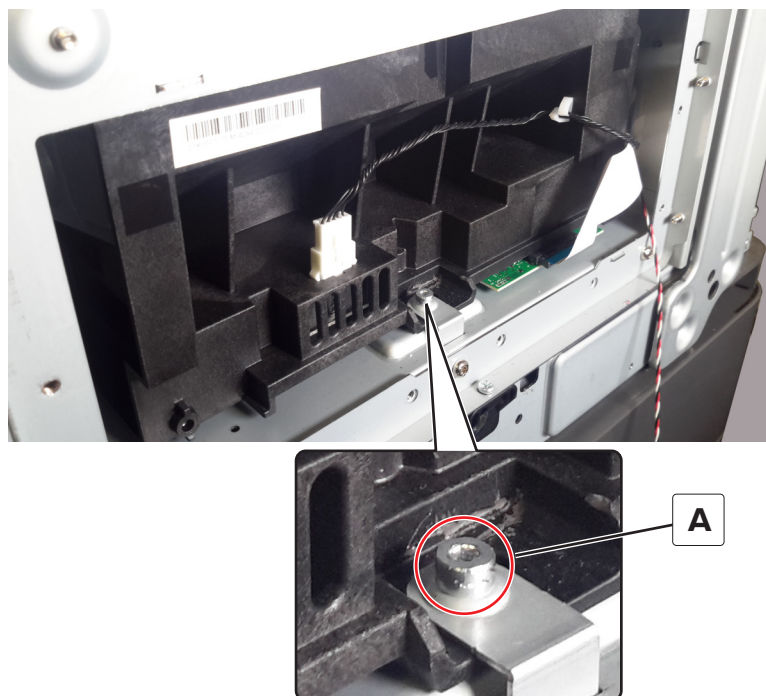
3 Remove tray 1, and then find the adjustment screw (C).

4 Turn the screw clockwise in half turn increments to adjust the printhead. Check the test page for alignment.

Note: Repeat this step until the skew on the test page is corrected.

5 Tighten the printhead clamp screw.

Aligning a printhead skewed in the counterclockwise direction

The following test page result shows a test page skewed in the counterclockwise direction:
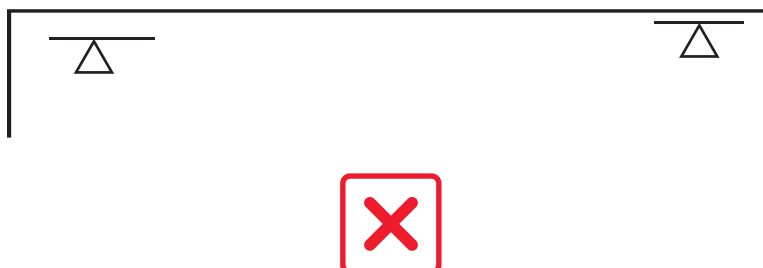
Parts removal

1. Remove the vent cover, see **"Vent cover removal" on page 503**, or remove the inner right cover, see **"Printhead fan removal" on page 509**.

2. Using a 3-mm ball hex wrench (B), turn the printhead clamp hex screw (A) counterclockwise by one turn.

The printhead clamp hex screw (A) with the right covers removed is shown below.

Parts removal

3 Remove tray 1, and then find the adjustment screw (C).

4 Turn the screw counterclockwise in half turn increments to adjust the printhead. Check the test page for alignment.

   Note: Repeat this step until the skew on the test page is corrected.

5 Tighten the printhead clamp screw.

Registration adjustment

Image misalignments may occur after printhead replacement. Perform this procedure to correct the position of the image relative to the paper edges.

Generating a test page for margin alignment

Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Registration adjust** > **Quick test**

A test page showing the margins is generated.
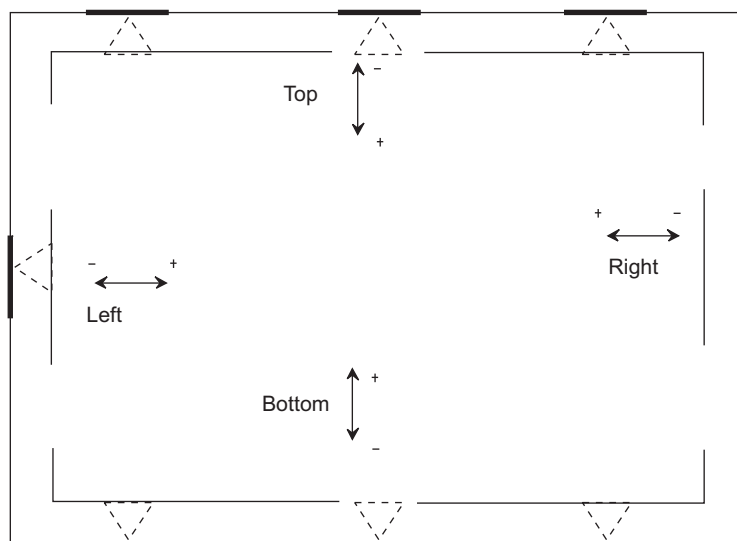
Adjusting the margins

Note: The procedure may not work for old firmware versions. Make sure that the latest firmware version is installed.

1 Refer to the test page generated for margin alignment.

Check the arrows along the margin.

- The arrows should be completely visible along the edge.
- The tip of the arrows should point to the edge.

If the arrows are misaligned, then adjust the Top margin setting:

Enter the Diagnostics menu, and then navigate to **Printer diagnostics & adjustments** > **Registration adjust** > **Top Margin**.

2 If necessary, perform printhead alignment until the test page arrows are squarely aligned. See **"Printhead alignment adjustment" on page 469**.

Note: After printhead alignment, make sure that the printhead clamp hex screw is properly locked.

3 Generate a new test page for margin alignment, check the arrows, and if necessary, adjust the following settings:

- Top margin
- Bottom margin
- Left margin
- Right margin

Note: Correcting the printhead and margin settings is necessary before proceeding with the Color alignment procedure.

4 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust**

On the AA adjustment row, touch **Start**. The Color alignment procedure is performed on the cyan, magenta, and yellow colors.

Note: The procedure may not work for old firmware versions. Make sure that the latest firmware version is installed.

5 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust** > **Cyan** > **Quick test**

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

6 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust** > **Yellow** > **Quick test**

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

7 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust** > **Magenta** > **Quick test**

Check the alignment markings on the test page generated. Follow the instructions on the test page to correct the color misalignment.

8 If color misalignment still occurs, then repeat steps 4 to 7.

Color alignment adjustment

Color misalignment may cause blurred print or color misalignment. Perform this procedure to align the colors.

1 Enter the Diagnostics menu, and then navigate to:

Printer diagnostics & adjustments > **Color alignment adjust**

2 Select the color to align, and then touch **Quick test**. Follow the alignment procedure on the test page.

Note: Repeat this step until the color misalignment in the test page is corrected.

Removal procedures

When replacing printer parts, consider the following:

- Some removal procedures require removing cable ties. Replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.
- Remove the toner cartridges, developer units, photoconductor units, and trays before removing other printer parts.
- Place the imaging or photoconductor unit on a clean, smooth, and flat surface. Do not expose the photoconductor drum to light.
- Disconnect all external cables from the printer to prevent possible damage during service.
- Unless otherwise stated, reinstall the parts in reverse order of removal.
- When reinstalling a part held by several screws, start all screws before the final tightening.

Left side removals

Left upper cover removal

1 Remove the rear upper cover. See .

2 Open door B, and then remove the two screws (A).

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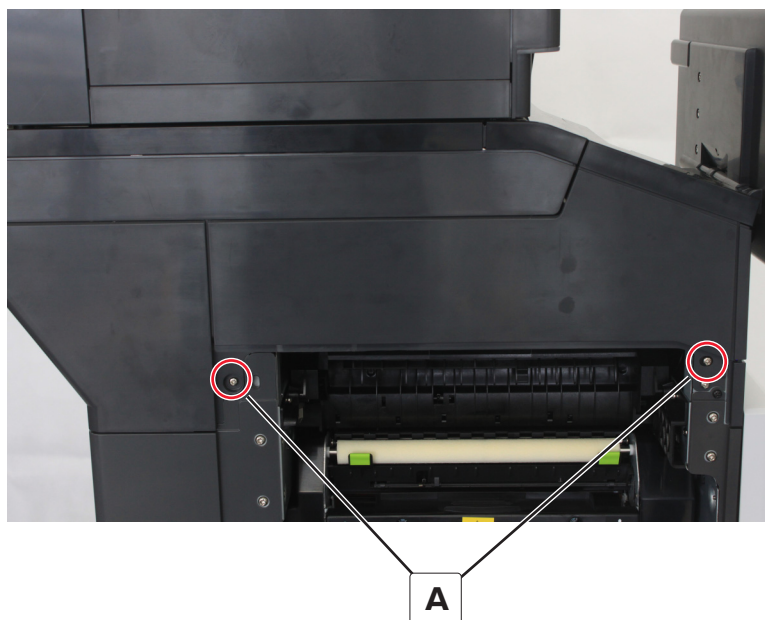
3 Remove the cover.
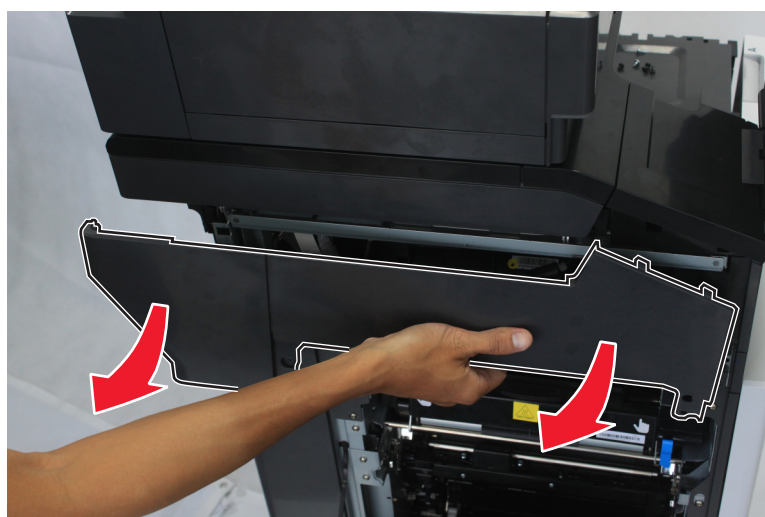
Fuser removal

1 Open door B.

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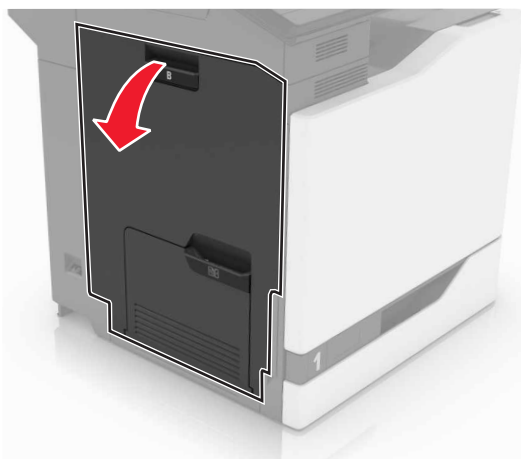
2 Remove the fuser.
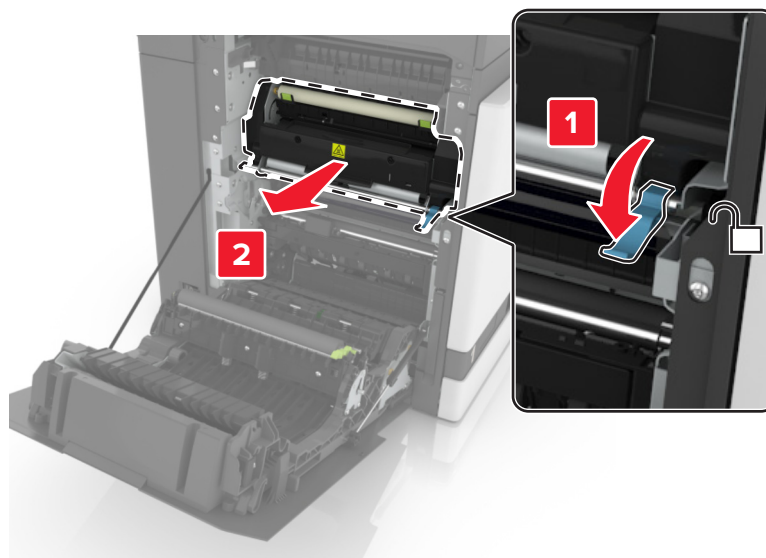
Transfer roller removal

1 Open door B.

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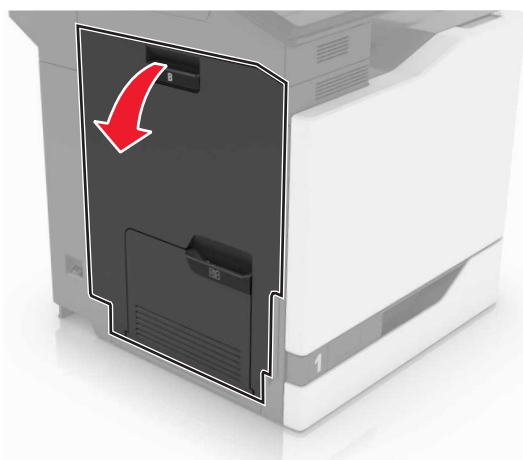
2 Remove the roller.

Duplex drive gears removal

1 Open door B, and then remove the two E-clips (A).

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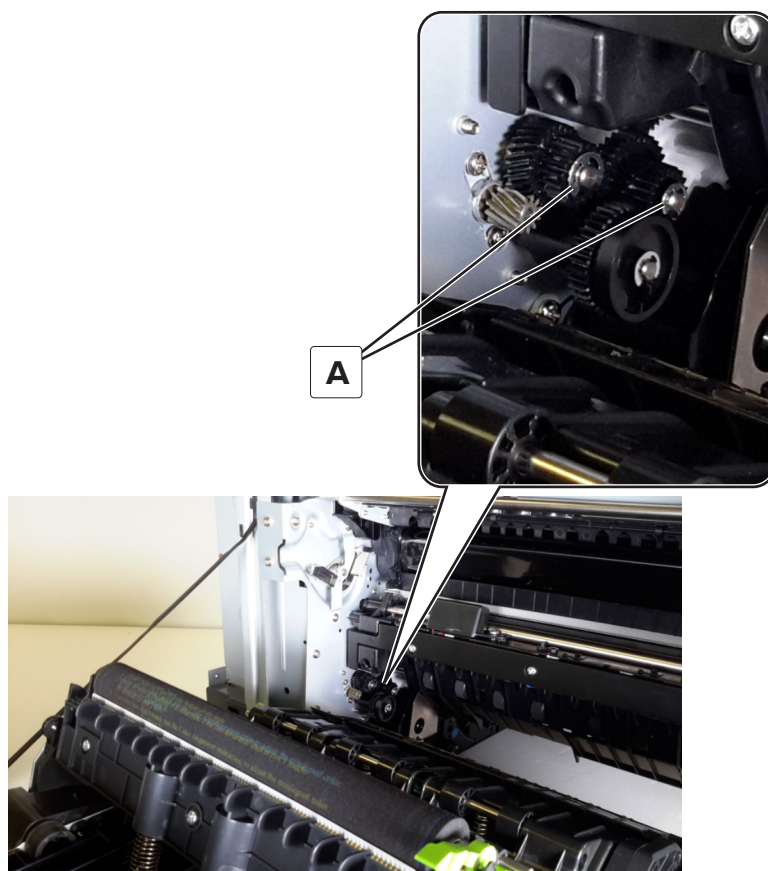
2 Remove the gears.

Installation warning: Make sure that the torsion spring is properly installed.

Duplex release latch removal

1 Open door B.

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

2 Release the inner duplex guide, and then swing it toward the printer.

3 Remove the 14 screws (A and B), and then remove the outer duplex guide.

4 Remove the two screws (C), and then release the spring (D).

C   **D**
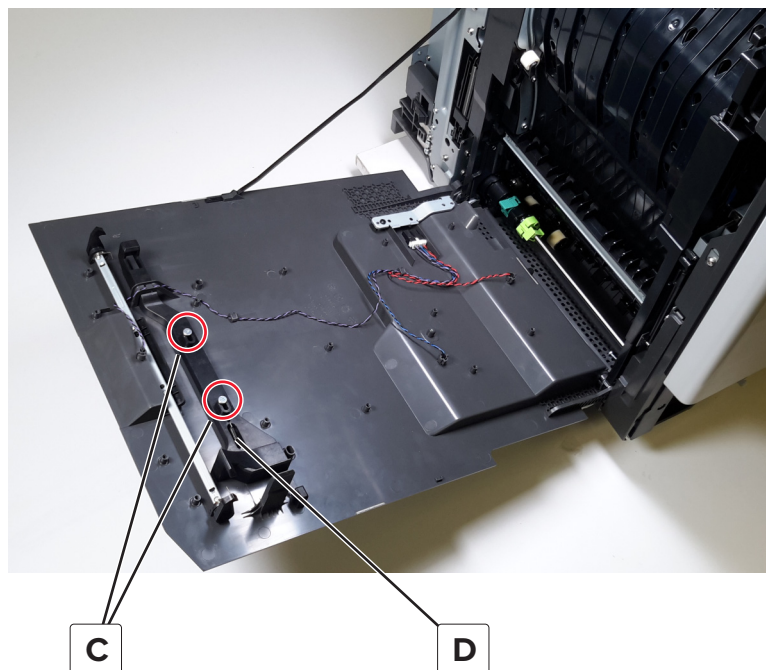
5 Remove the latch.

Deskew roller sensor guide removal

1 Open door B, and then remove the two screws (A).

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

A
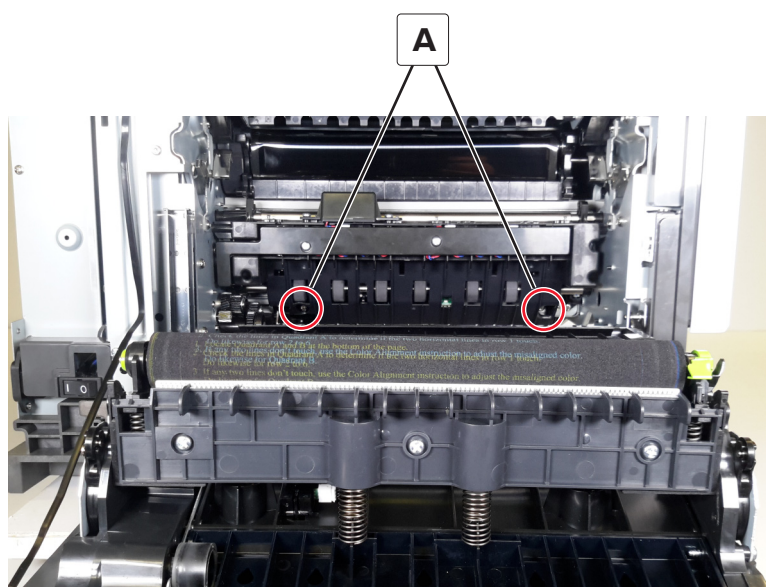
2 Open door A, and then remove the waste toner bottle.

3 Open door A1, and then remove the screw (B).
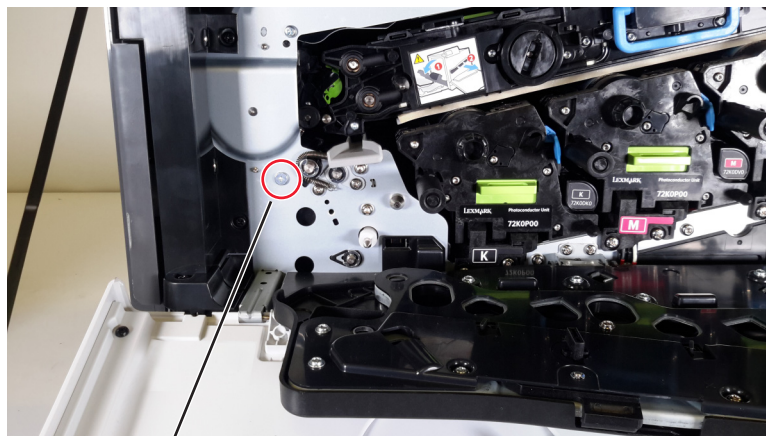
B

4 From the left, remove the two screws (C), and then remove the cover.
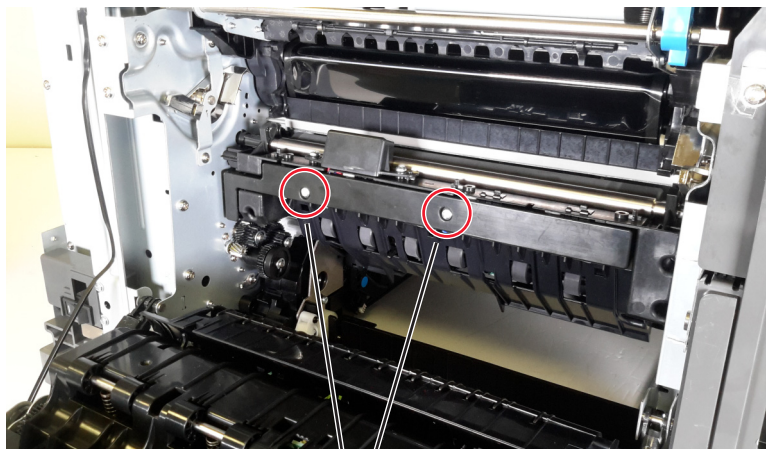
C

5 Disconnect the cable (D), and then remove the guide.

D
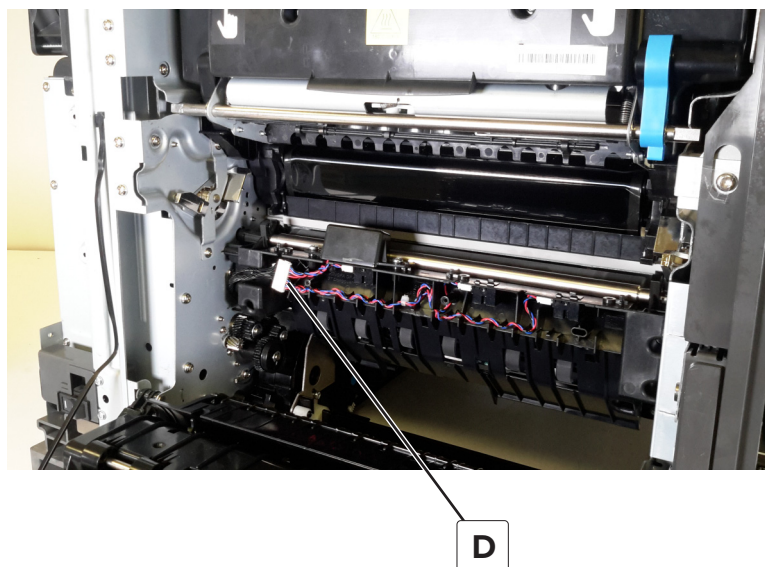
Motor (deskew) removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Remove the LVPS. See **"LVPS removal" on page 568**.

7 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

8 Remove the deskew roller sensor guide. See **"Deskew roller sensor guide removal" on page 482**.

9 Remove the two screws (A) securing the motor to the machine.
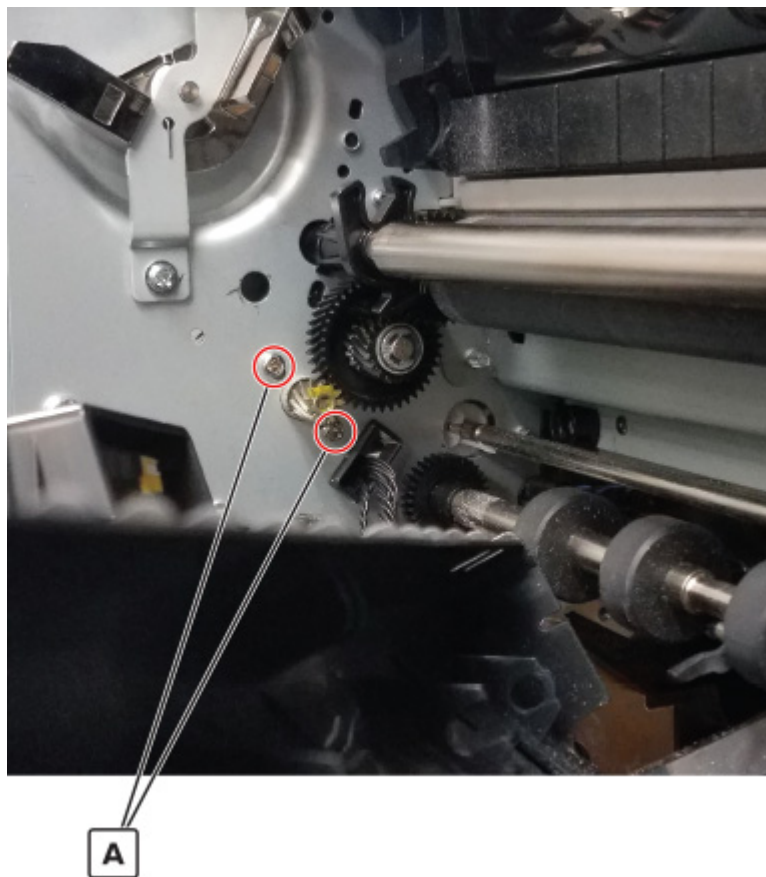
10 Remove the motor.

11 Cut the plastic wire tie, and then remove the motor cap.

12 Disconnect the connection.

Plastic connector cover removal

1 Open door B.

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

2 Remove the screw (A), and then remove the plastic connector cover.
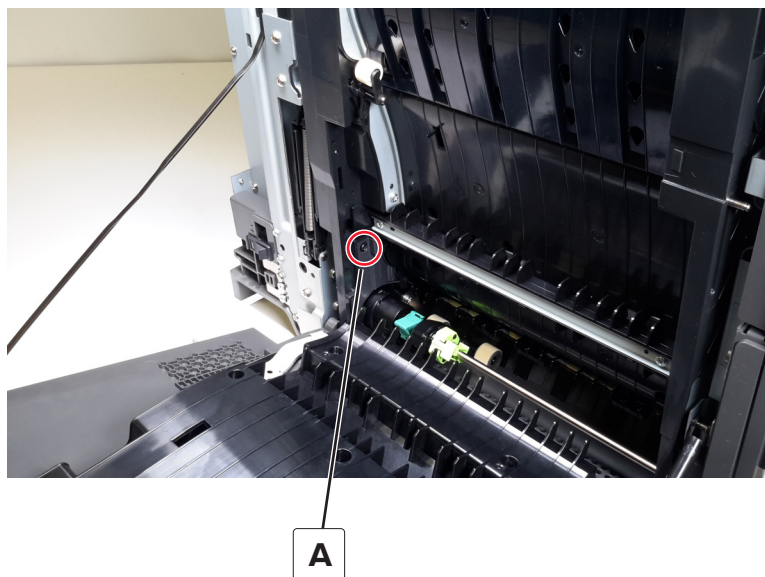
Metal connector cover removal

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

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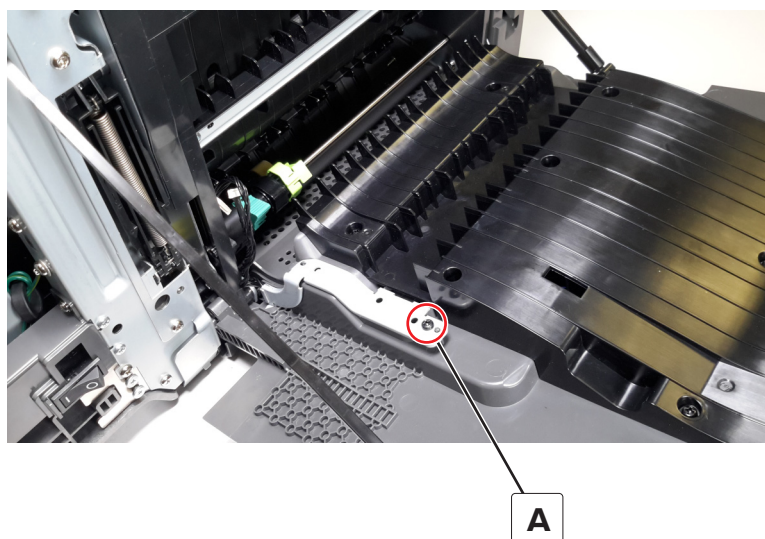
2 Remove the cover.

Left door, duplex, and MPF removal

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

1 Remove the plastic connector cover. See **"Plastic connector cover removal" on page 486**.

2 Remove the door rod cover. See **"Door rod cover removal" on page 536**.

3 Disconnect the cable (A).

A
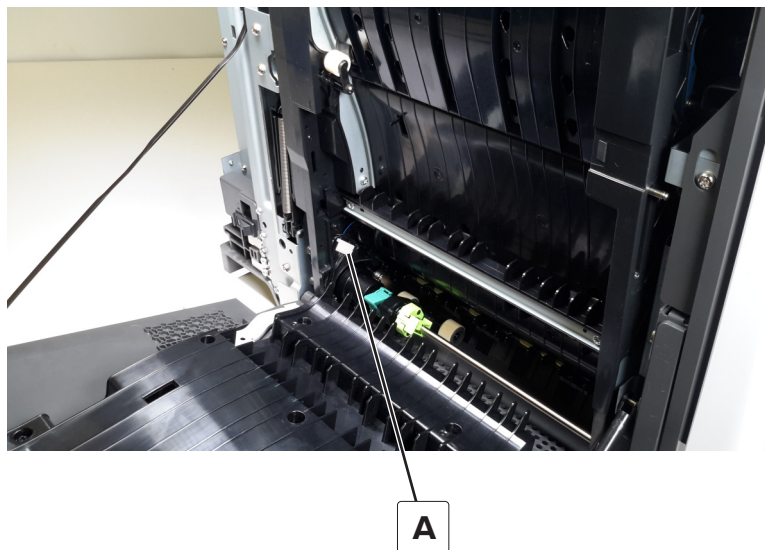
4 Remove the retainer (B).

5 Using a spring hook, disconnect the spring (C) from the door damper.

B

C
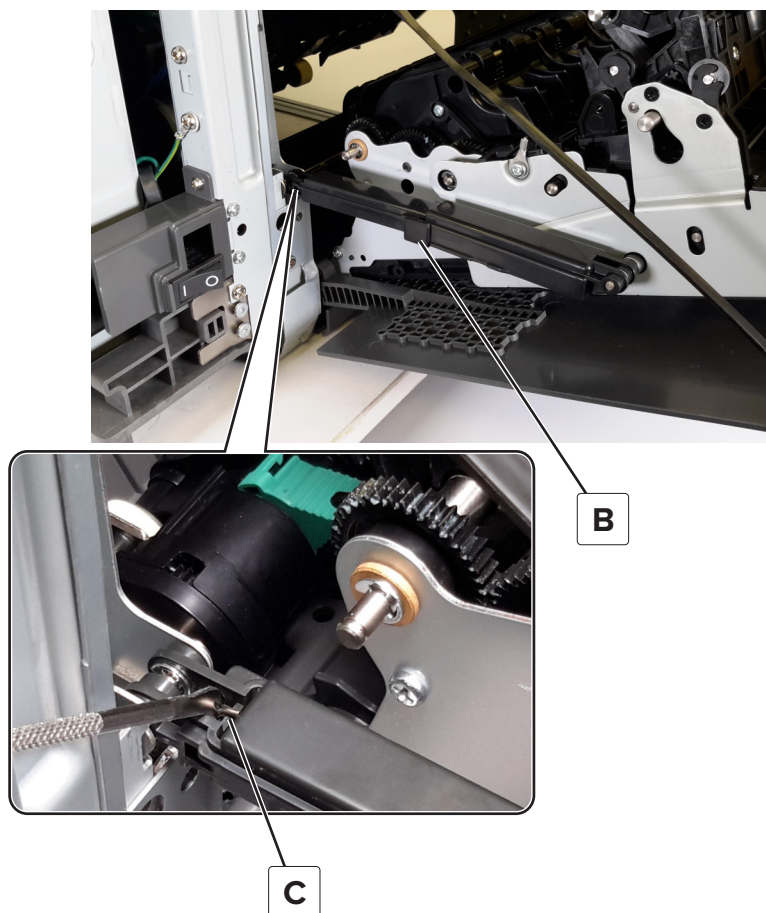
6 Separate the two damper parts (D), and then disconnect the support strap (E).

D   E

Parts removal
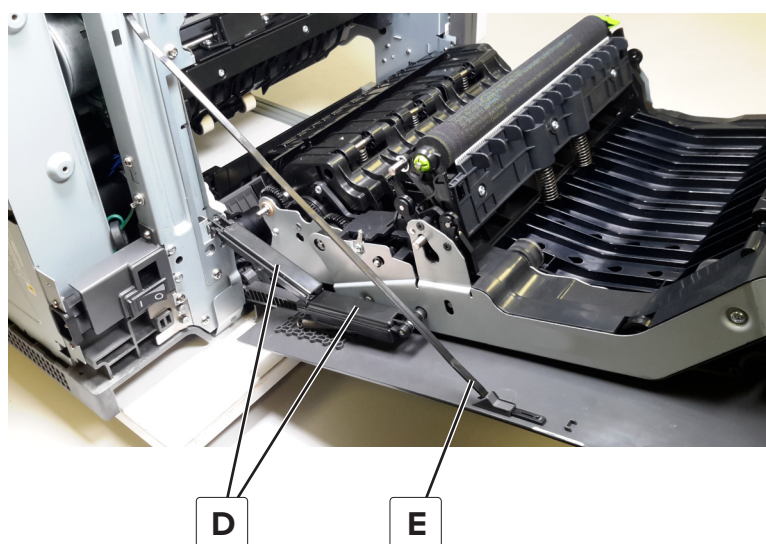
7 Remove the screw (F), and then remove the retainer plate.
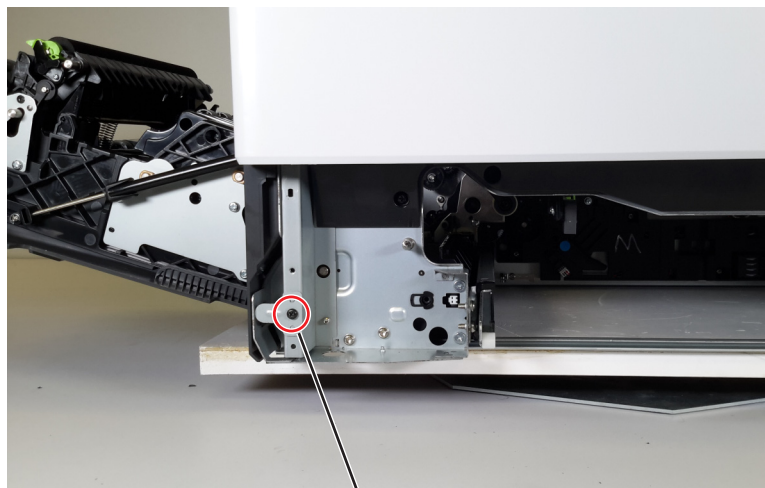
8 Release the retainer (G), and then disconnect the door support.

9 Pull out, and then remove the door rod (H).

Installation warning: Make sure that the left door, duplex, and MPF are properly aligned and engaged with the door rod. Improper installation may cause damage.

Parts removal

10 Remove the left door, duplex, and MPF.

MPF pick roller removal

1 Remove the left door, duplex, and MPF. See **"Left door, duplex, and MPF removal" on page 487**.

2 Release the E-clip (A), and then slide the pick roller to the center of the shaft.
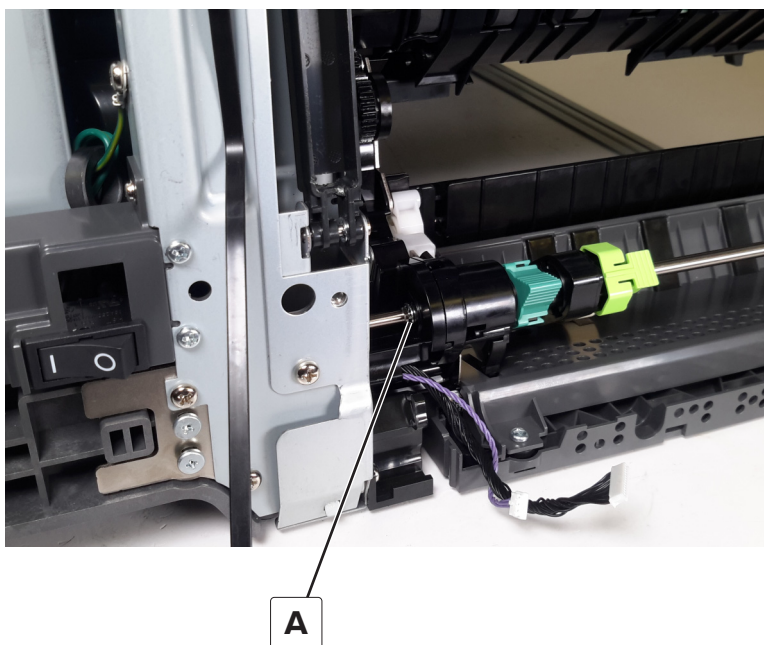
3 Rotate the retainer (B) clockwise by a quarter turn, and then remove.
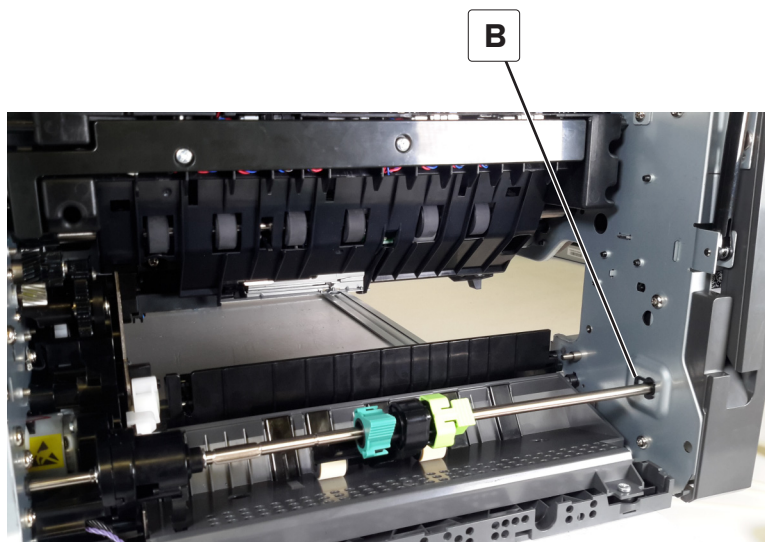
4 Slide the shaft out of the printer, and then remove the pick roller.

MPF pick guide removal

1 Remove the left door, duplex, and MPF. See **"Left door, duplex, and MPF removal" on page 487**.

2 Remove the MPF pick roller. See **"MPF pick roller removal" on page 490**.

3 From the front, carefully rotate the retainer by a quarter turn to release, and then remove using a pliers.
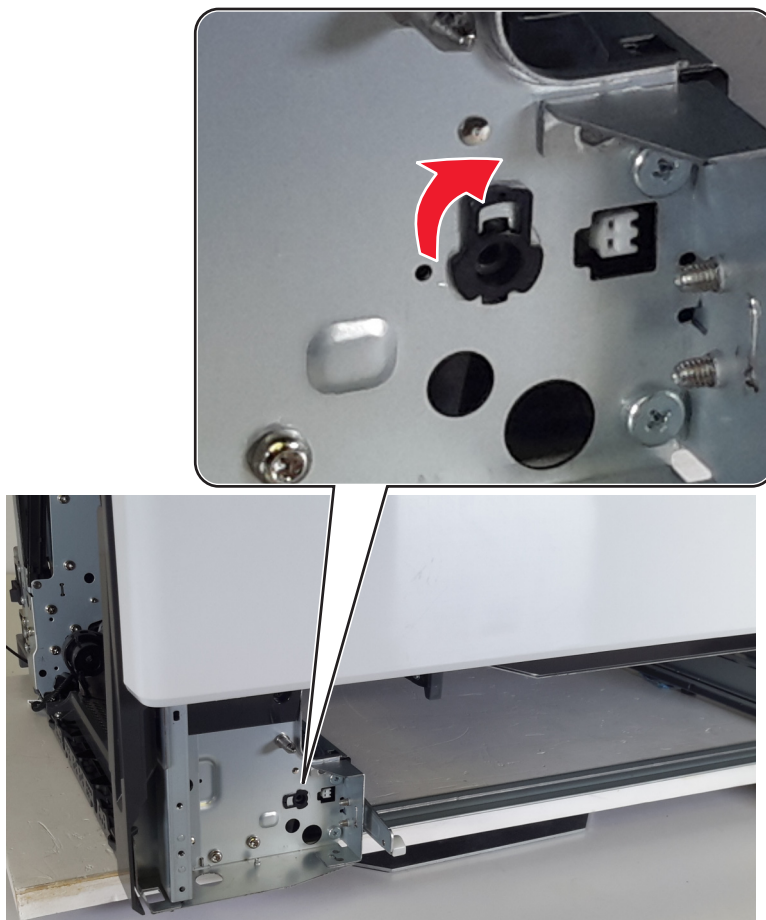
4 Pull the pick guide, and then disconnect the cable (A).

A
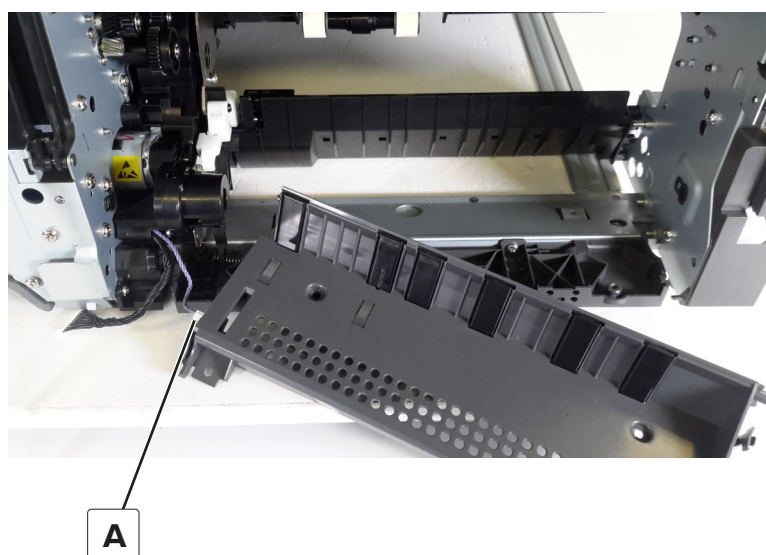
5 Remove the pick guide.

MPF tray stop removal

1 Remove the left door, duplex, and MPF. See **"Left door, duplex, and MPF removal" on page 487**.

2 Remove the MPF pick roller. See **"MPF pick roller removal" on page 490**.

3 Remove the MPF pick guide. See **"MPF pick guide removal" on page 491**.

4 Remove the two screws (A), and then remove the tray stop.
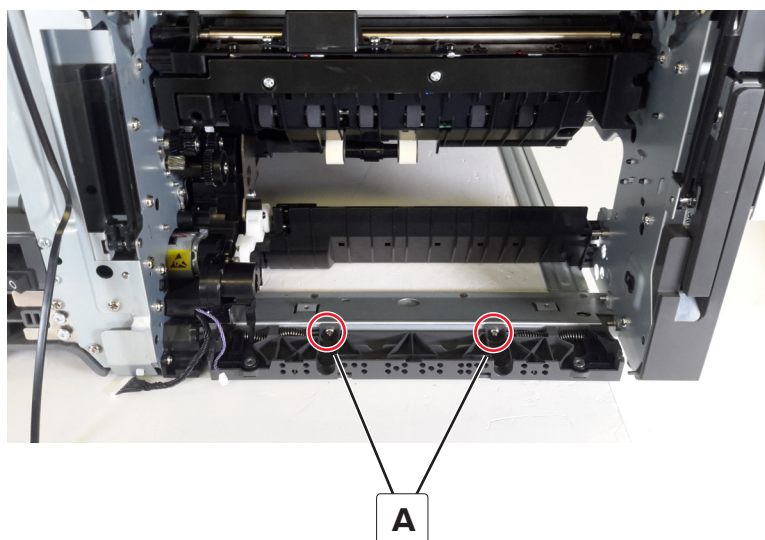
Sensor (deskew roller exit) removal

1 Remove the fuser. See **"Fuser removal" on page 477**.

2 Remove the retention screw (A), remove the two screws (B), and then remove the sensor housing.
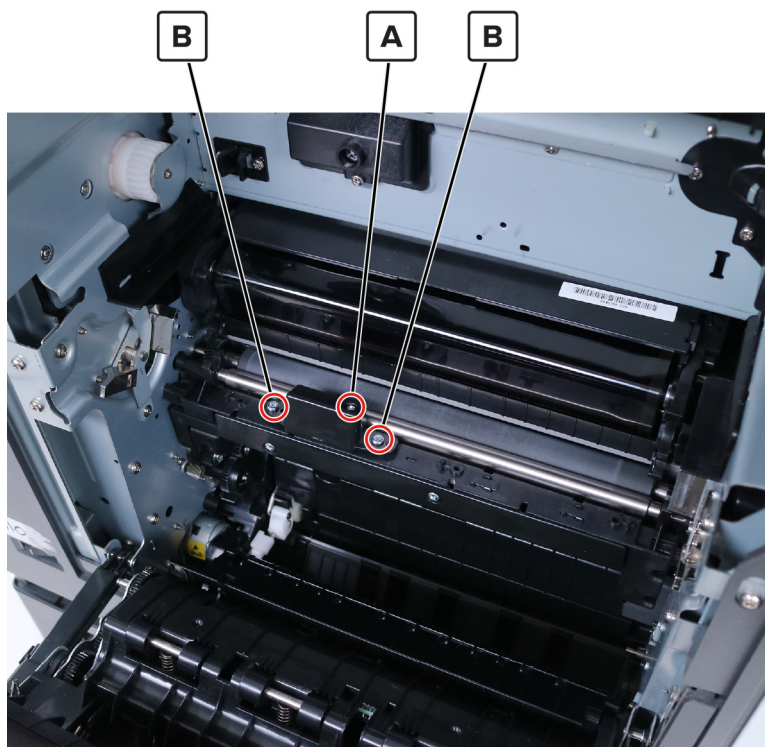
3 Disconnect the cable (C), and then remove the sensor.
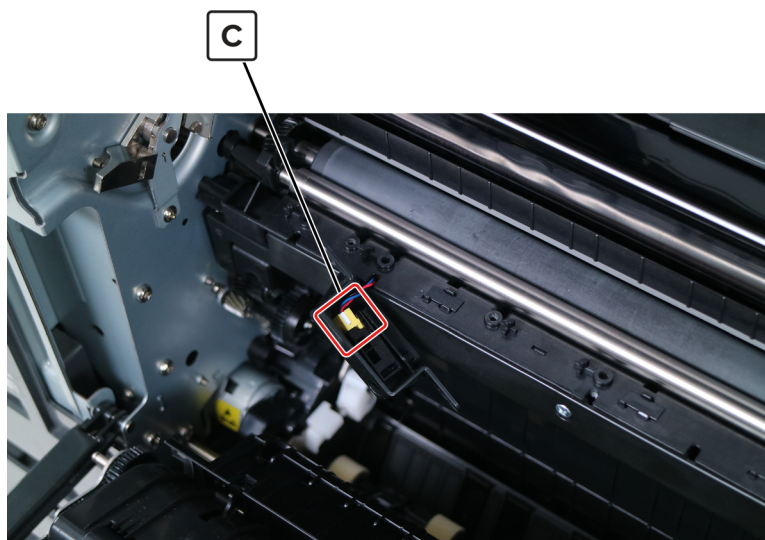
Redrive removal

1 Remove the fuser. See **"Fuser removal" on page 477**.

2 Open door A.

   Warning—Potential Damage: The redrive may get damaged during removal if door A is closed.

3 Remove the screw (A), and then remove the rear fuser guide and grounding strip (B).
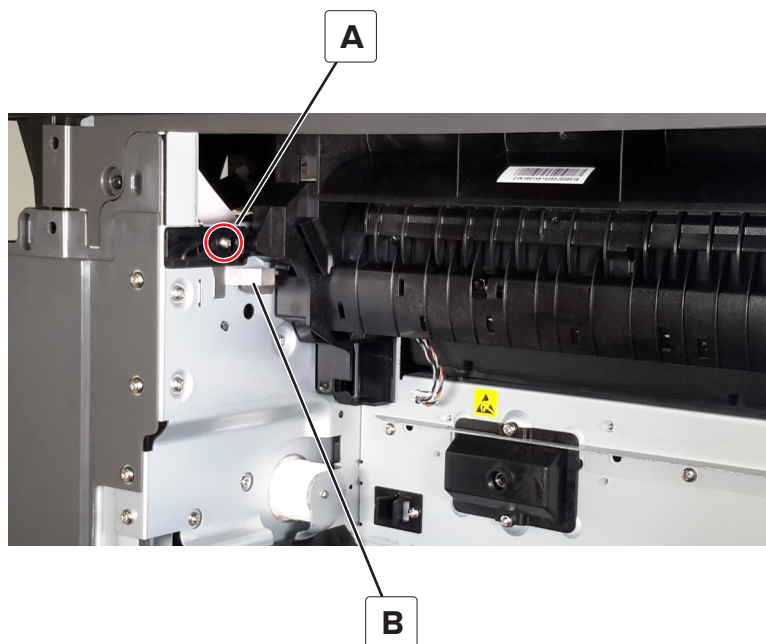
4 Remove the screw (C), and then remove the front fuser guide.
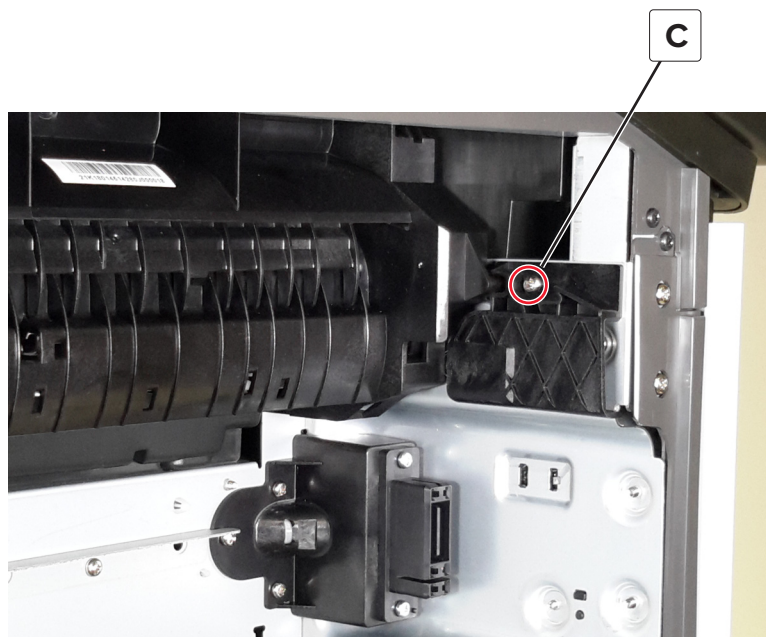
5 Disconnect the cable (D), remove the two screws (E), and then remove the redrive.

   Warning—Potential Damage: The redrive may get damaged during removal if door A is closed.

Warning—Potential Damage: Be careful not to damage or change the position of the coil spring (F).
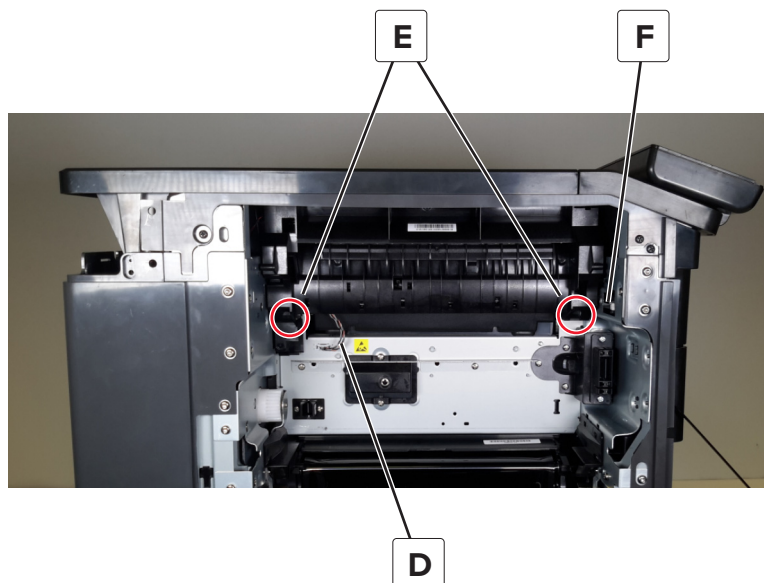
Redrive gear removal

1 Remove the fuser. See **"Fuser removal" on page 477**.

2 Remove the redrive. See **"Redrive removal" on page 495**.

3 Remove the E-clip (A), and then remove the gear.
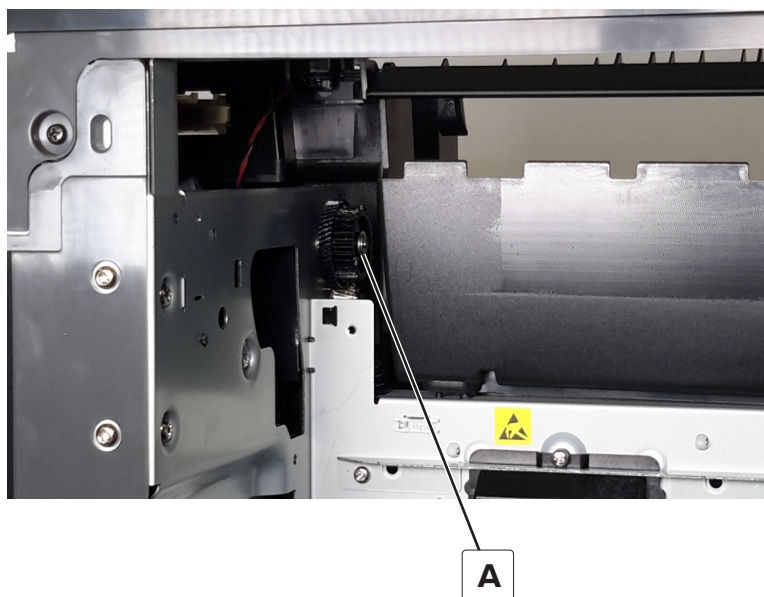
Sensor (input) removal

1 Remove the deskew roller sensor guide. See **"Deskew roller sensor guide removal" on page 482**.

2 Gently flex the shaft, and then remove the three screws (A).

3 Pull the sensor, disconnect its cable (B), and then remove it.
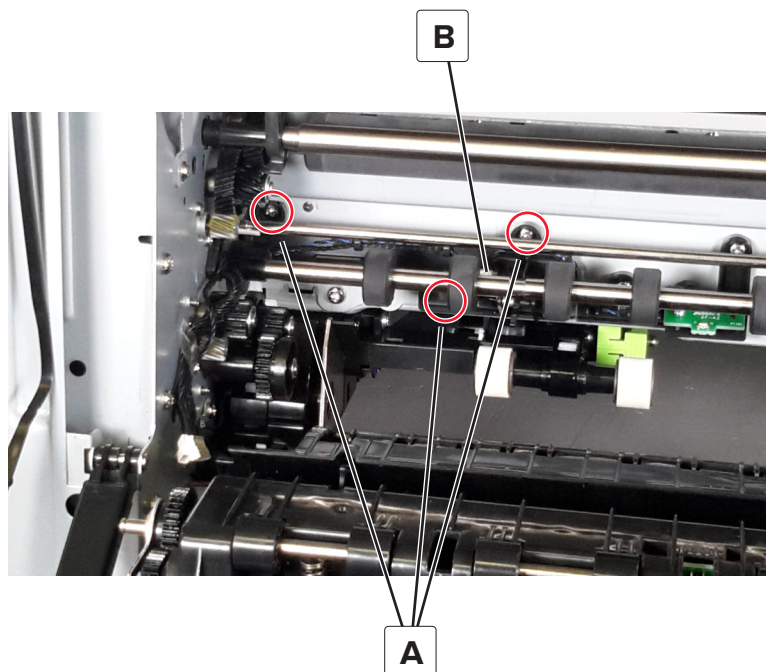
Sensor (MPF/pass-through) with deflector removal

1 Remove the left door, duplex, and MPF. See **"Left door, duplex, and MPF removal" on page 487**.

2 Remove the MPF pick roller. See **"MPF pick roller removal" on page 490**.

3 Remove the MPF pick guide. See **"MPF pick guide removal" on page 491**.

4 Remove the MPF tray stop. See **"MPF tray stop removal" on page 493**.

5 From the front, remove the two screws (A).
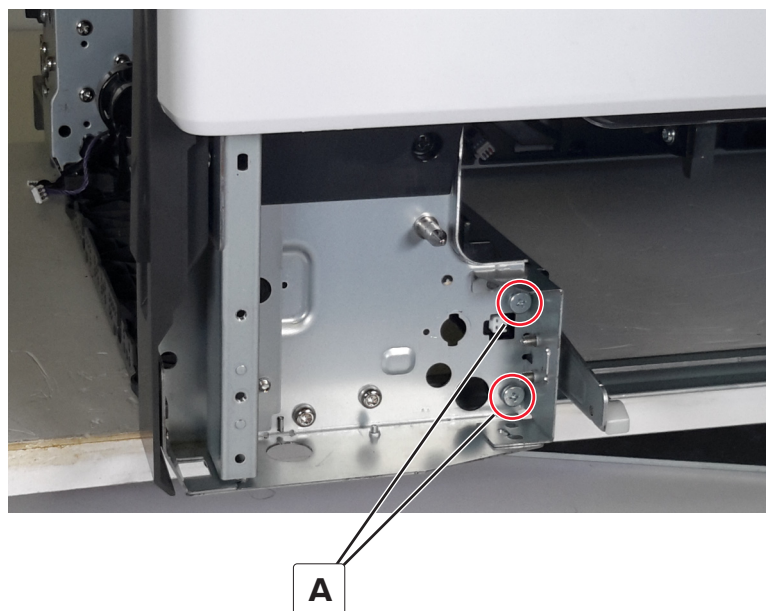
Parts removal

6 Release the guide, disconnect its cable (B), and then remove it.
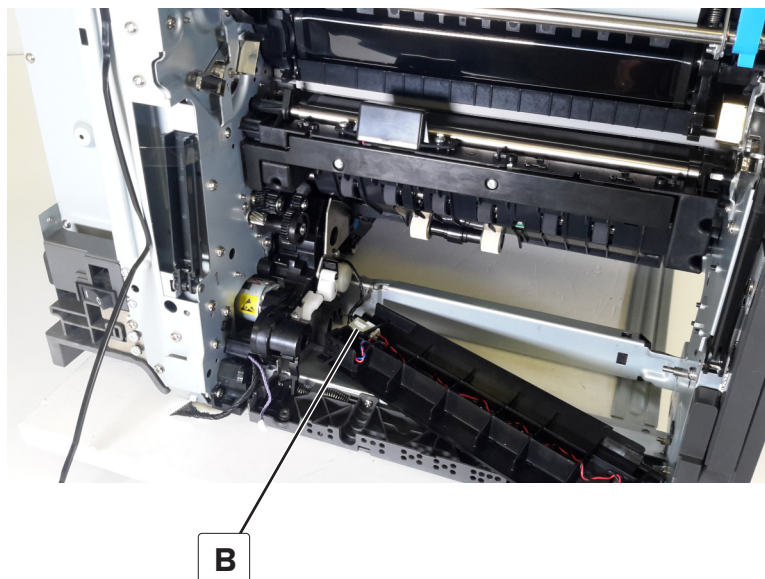
Installation warning: To avoid pinch or damage to the sensor (MPF/pass-through) cable, make sure to route the cable away from the moving rollers.

Reference edge motor gearbox removal

1 Remove the left door, duplex, and MPF. See **"Left door, duplex, and MPF removal" on page 487**.

2 Remove the MPF pick roller. See **"MPF pick roller removal" on page 490**.

3 Remove the MPF pick guide. See **"MPF pick guide removal" on page 491**.

4 Remove the MPF tray stop. See **"MPF tray stop removal" on page 493**.

5 Remove the sensor (MPF/pass-through) with deflector. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**.

6 Remove the two screws (A), and then remove the hinge support.
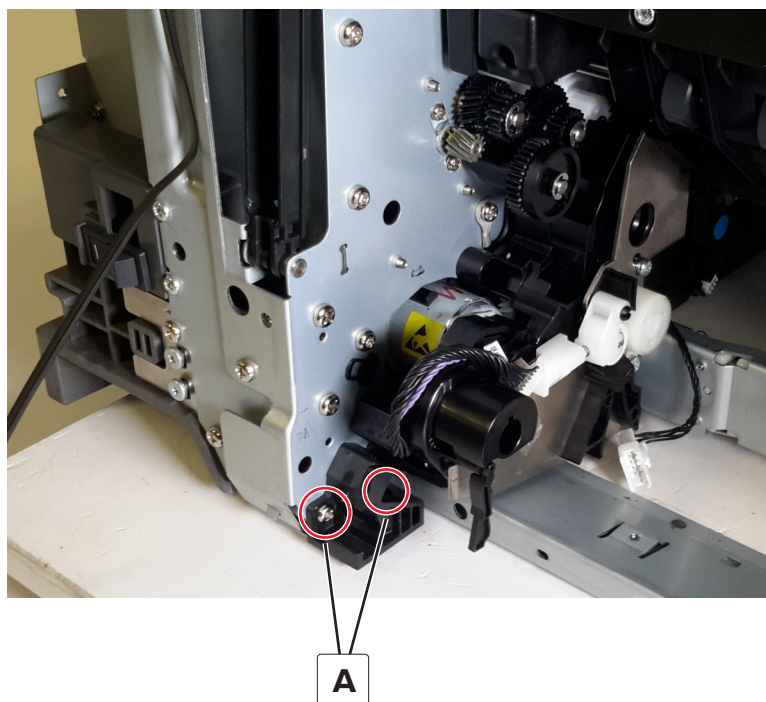
7 Remove the three screws (B).

8 Remove the screw (D) behind the isolation roller (C) guide.

Parts removal

D
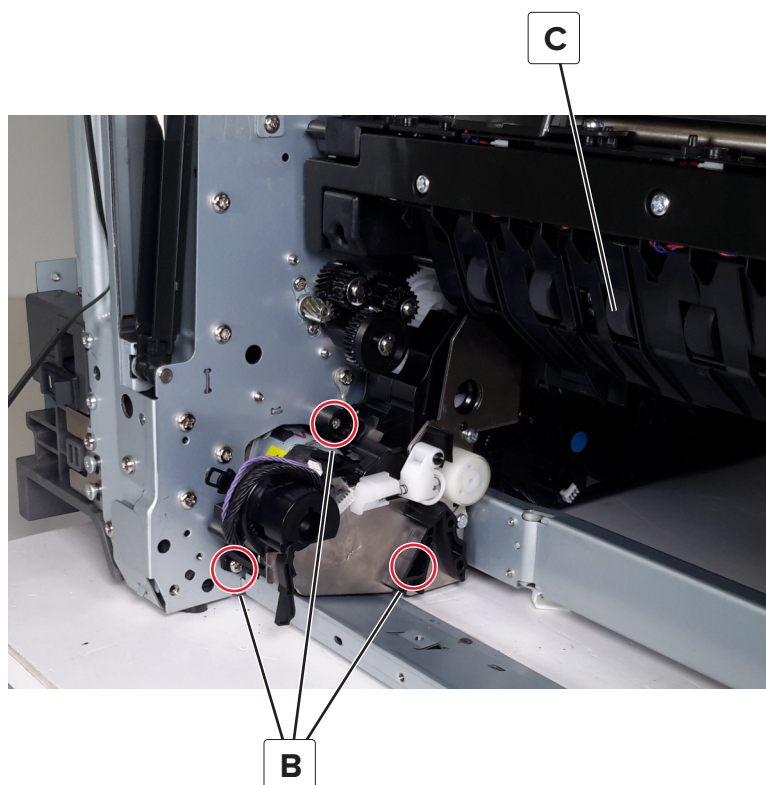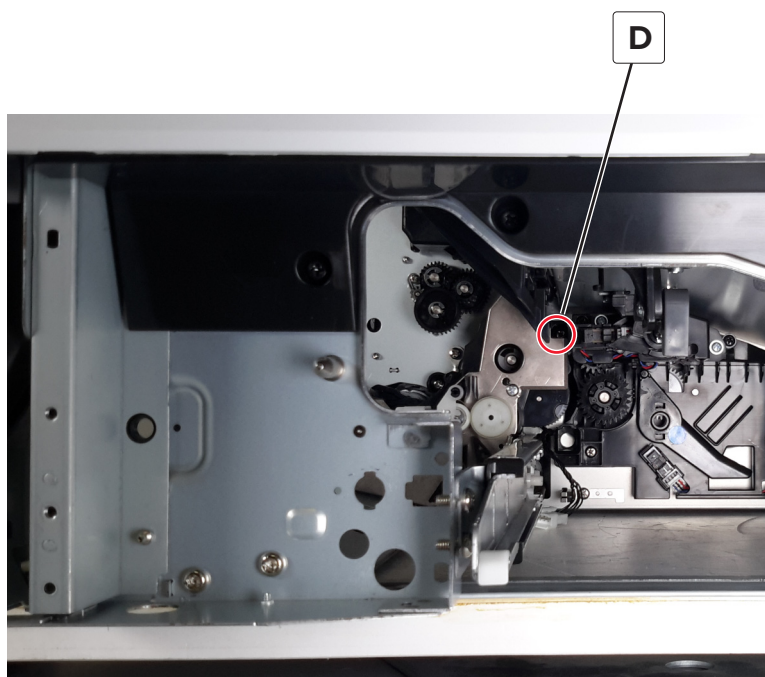
9 Carefully pull out the gearbox, and then cut the cable ties (E).

E
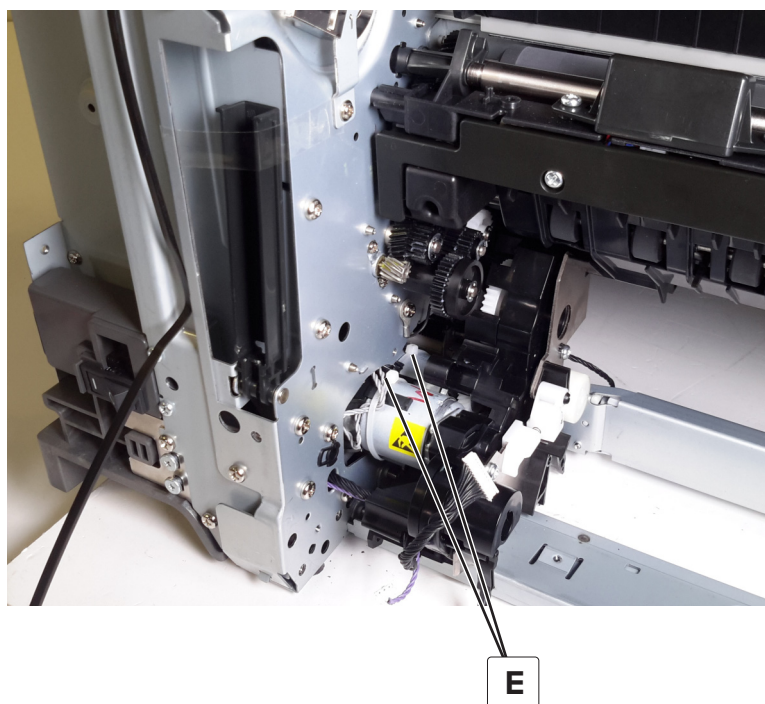
10 Remove the ground screw (F), and then disconnect the cables (G).
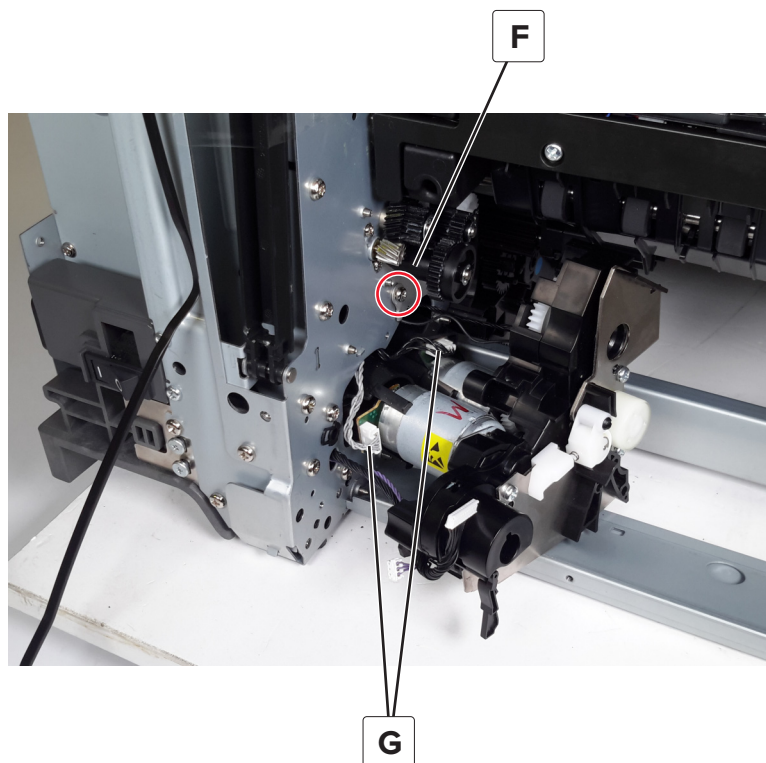
11 Remove the gearbox.

> **Installation note:** Make sure that the motor covers are installed and the cable ties are replaced.

Installation warning: To avoid pinch or damage to the sensor (MPF/pass-through) cable, make sure to route the cable away from the moving rollers.

Isolation roller gear removal

1 Remove the left door, duplex, and MPF. See **"Left door, duplex, and MPF removal" on page 487**.

2 Remove the MPF pick roller. See **"MPF pick roller removal" on page 490**.

3 Remove the MPF pick guide. See **"MPF pick guide removal" on page 491**.

4 Remove the MPF tray stop. See **"MPF tray stop removal" on page 493**.

5 Remove the sensor (MPF/pass-through) with deflector. See **"Sensor (MPF/pass-through) with deflector removal" on page 497**.

6 To access the isolation roller gear, pull out the reference edge motor gearbox. See **"Reference edge motor gearbox removal" on page 498**.

7 Remove the E-clip (A), and then remove the duplex gears.

A
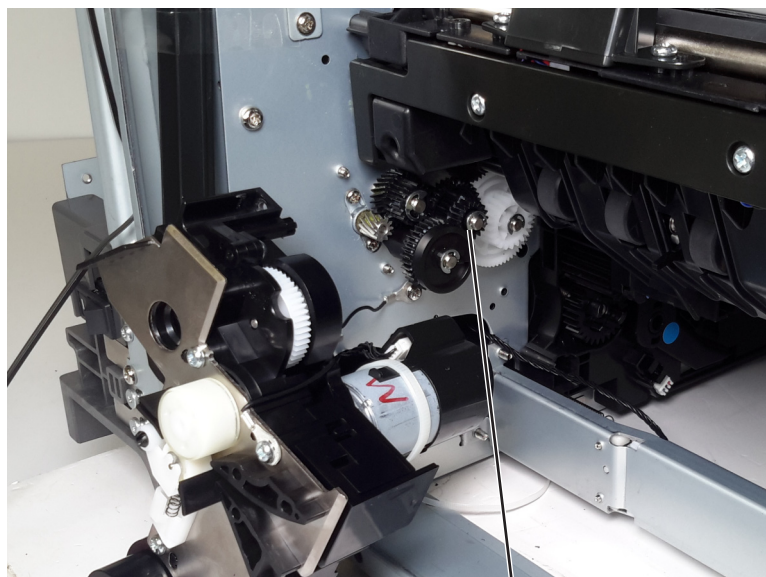
Installation note: Make sure that the duplex gear spring is properly installed.

8 Remove the E-clip (B), and then remove the roller gear.
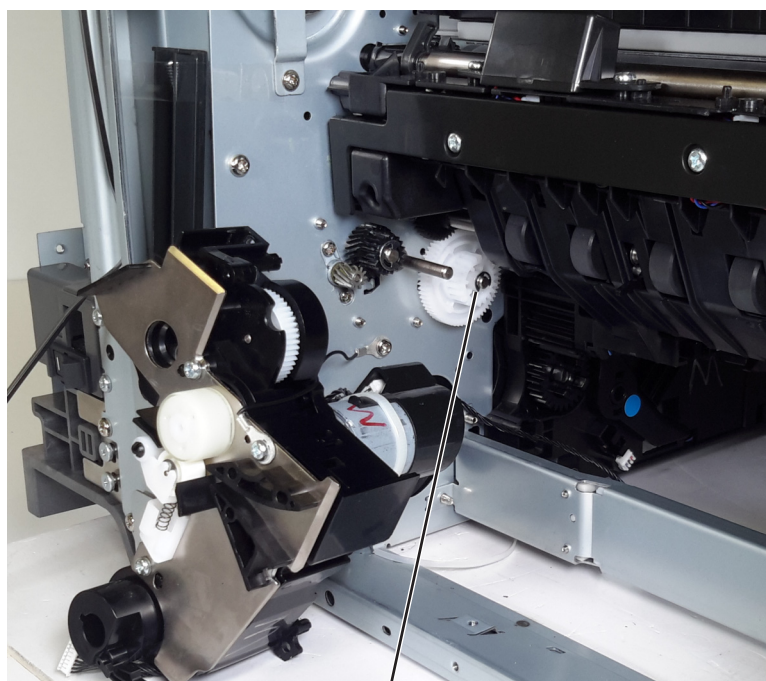
B

Right side removals

Vent cover removal

1 Pry the bottom edge of the cover to release.

2 Remove the cover.

Column outer cover removal

1 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

2 Remove the screw (A), and then remove the cover.

Right cover removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

4 Remove the eight screws (A).

5 From the rear, remove the screw (B).
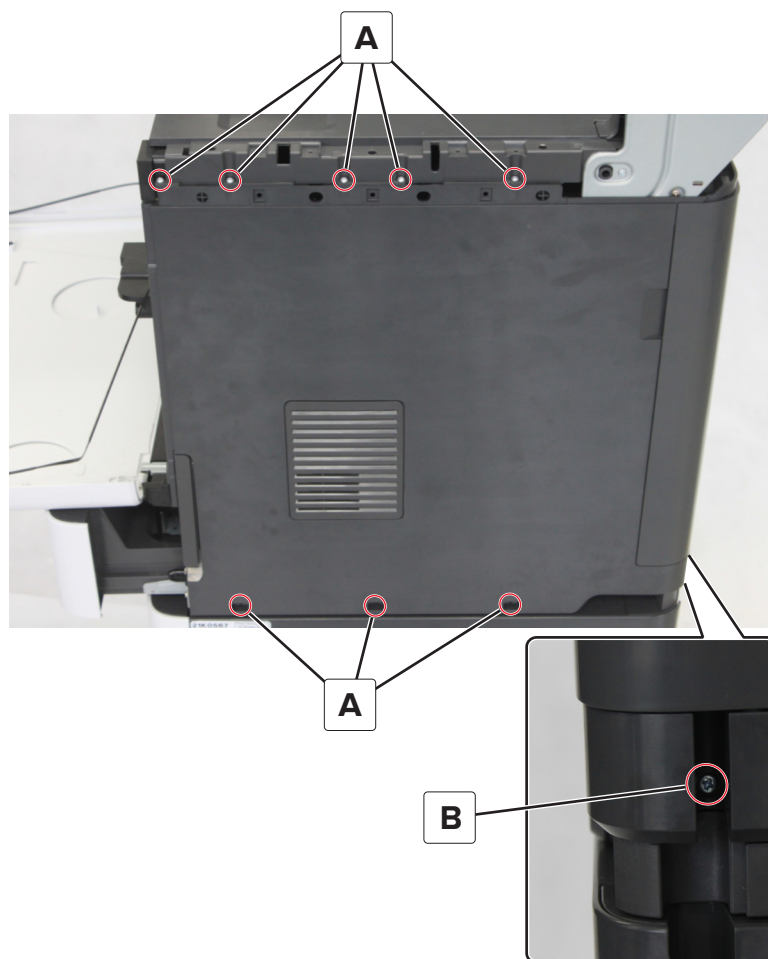
6 Open door A, and then remove the two screws (C).

7 Lift the standard bin cover (D) to release, and then lift the right cover to remove.

Note: Raise the handle (E) to easily remove the cover.

8 Remove the cover (F).
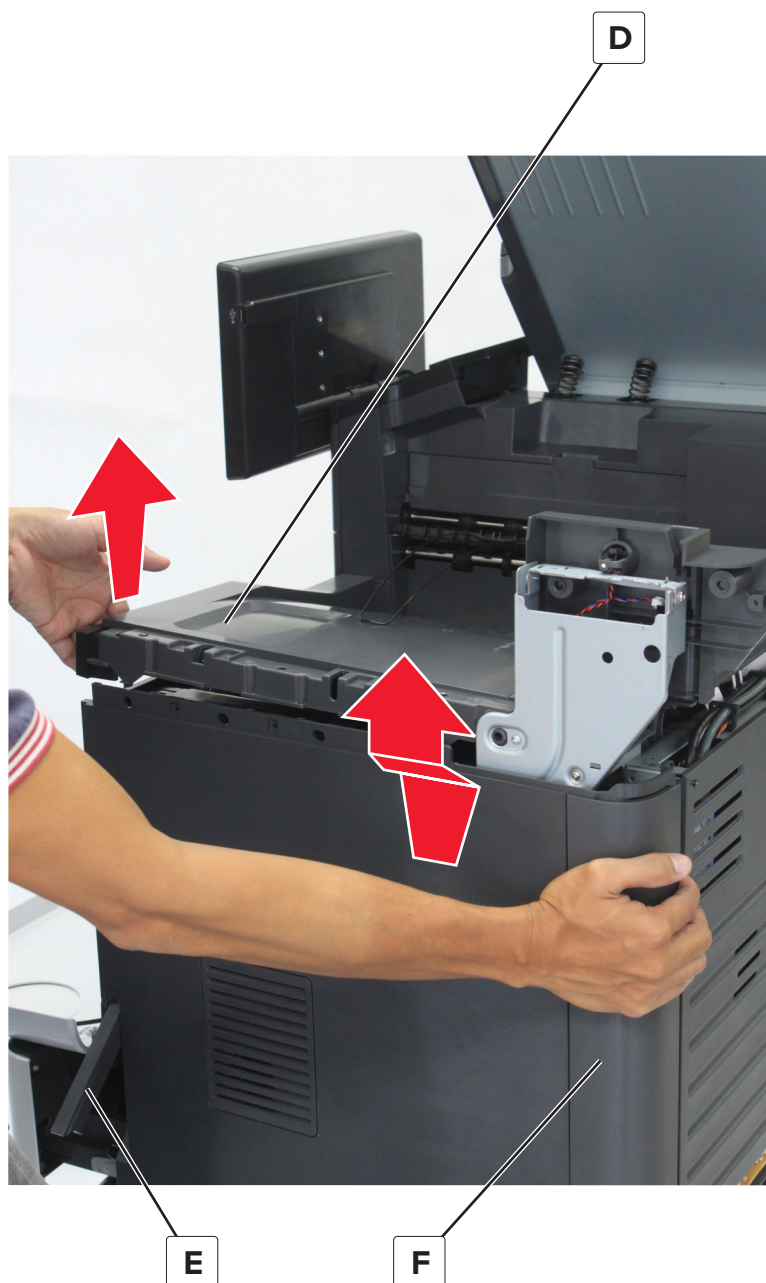
Column inner cover removal

1 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

2 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

3 Remove the screw (A), and then release the latch (B).
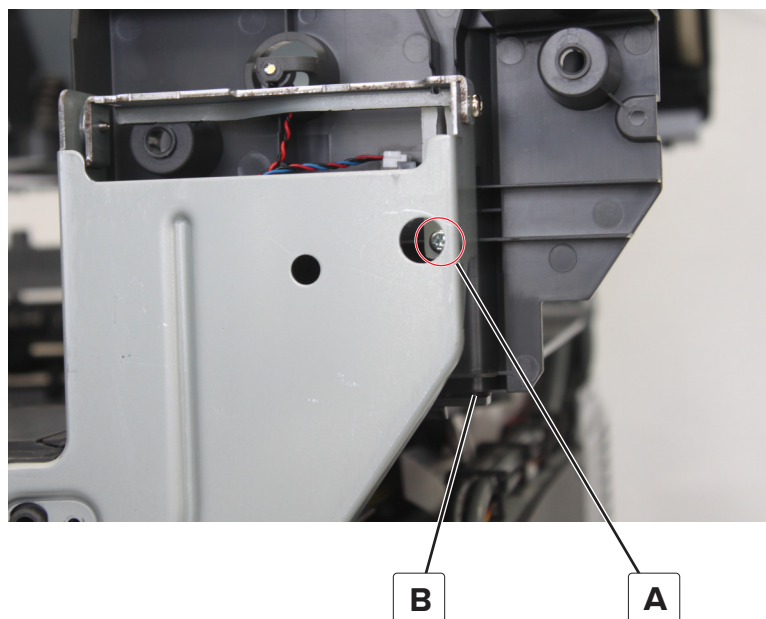
4 Slightly pull the cover, and then lift to release.

Warning—Potential Damage: Carefully handle the cover to avoid breaking it.
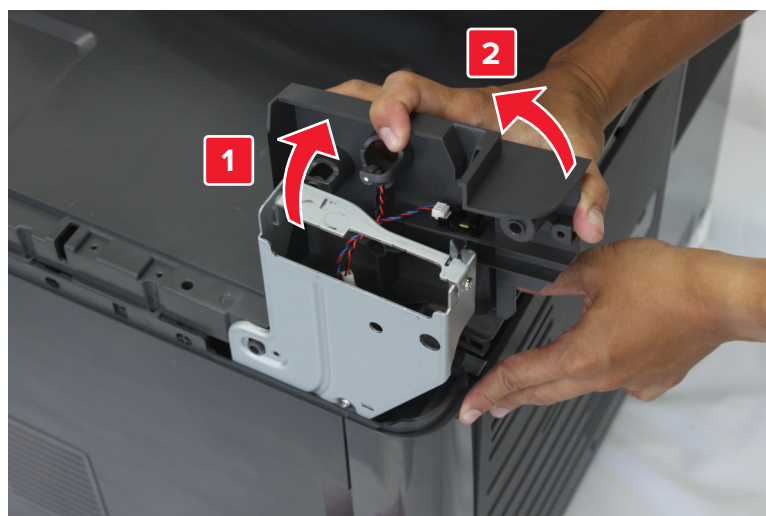
5 Release the LED (C) and sensor (D), and then remove the cover.
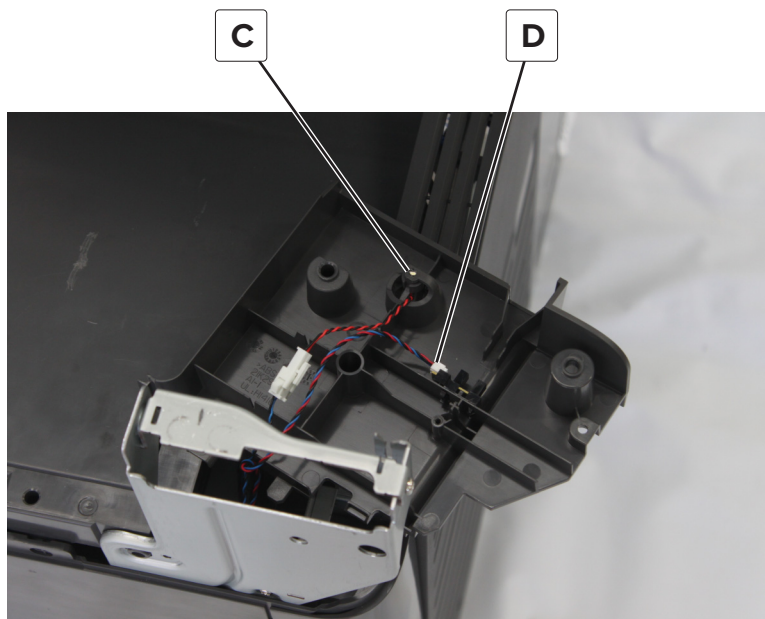
Printhead fan removal

1 Remove the right cover. See **"Right cover removal" on page 504**.

2 Remove the 10 screws (A), and then pull the inner right cover.
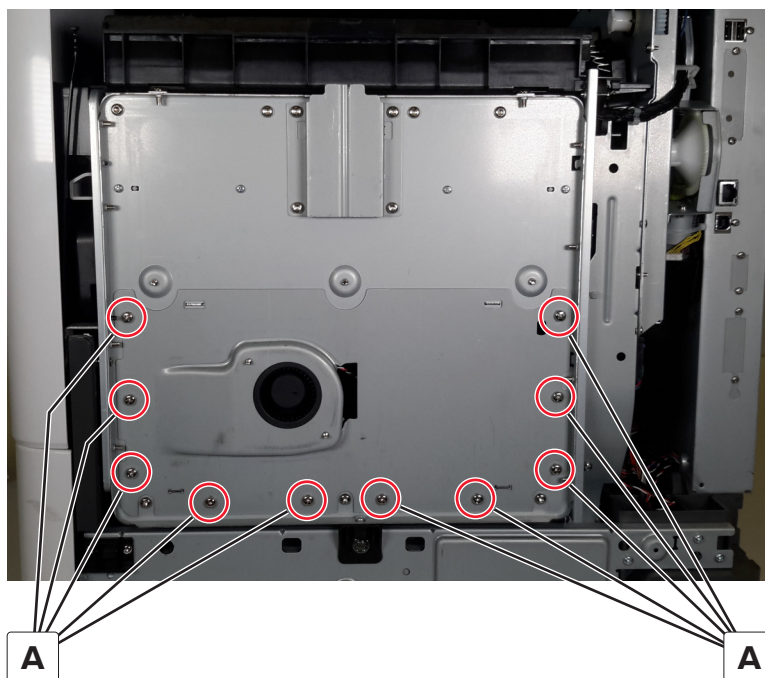
3 Disconnect the cable (B).
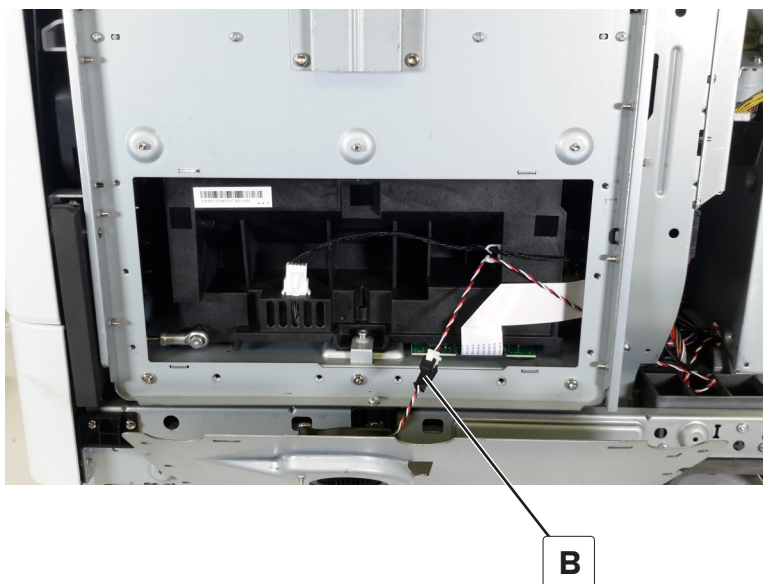
4 Remove the two screws (C), and then remove the fan.
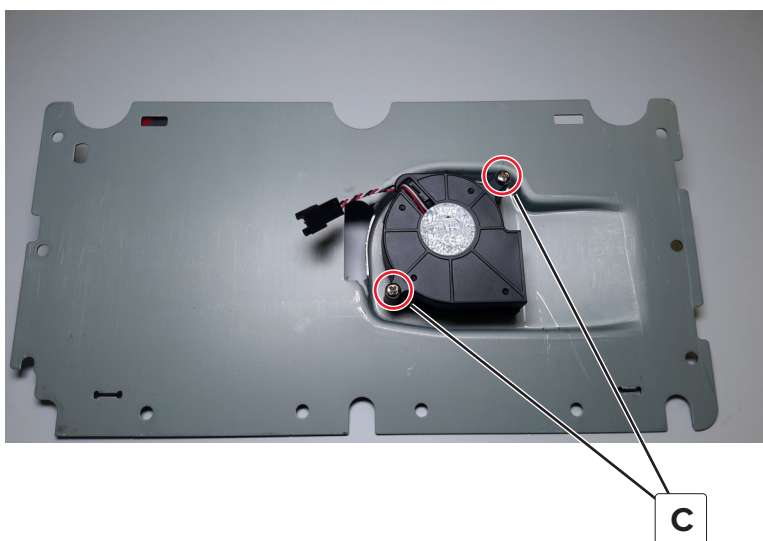
Printhead removal

1 Remove the right cover. See **"Right cover removal" on page 504**.

2 Remove the 10 screws (A).
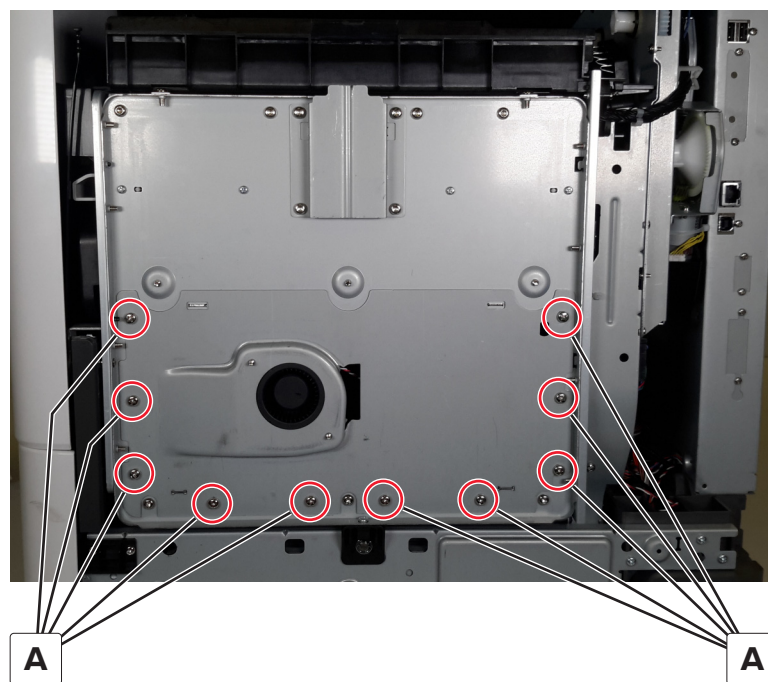
3 Pull the plate, and then disconnect the cables (B).

Warning—Potential Damage: Do not yank the ribbon cable. See **"Disconnecting ribbon cables" on page 465**.

4 Remove the screw (C), and then remove the bracket.

5 Remove the screw (D).

Warning—Potential Damage: Do not change the position of the adjuster link (E).

Installation warning: Do not overtighten the adjuster link screw.

B

E   D   C
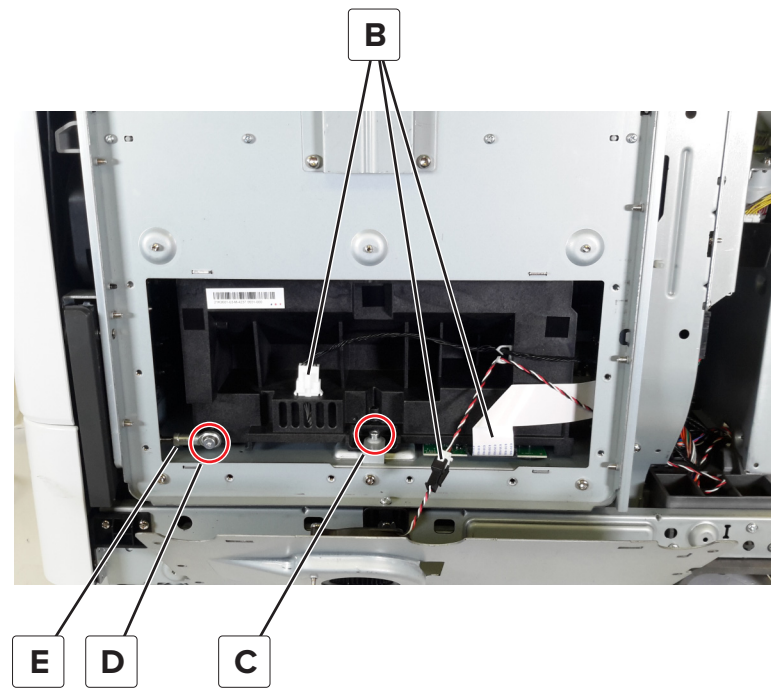
6 Release the cables from the cable guide.

7 Remove tray 1, and then remove the screw (F).

F

Parts removal
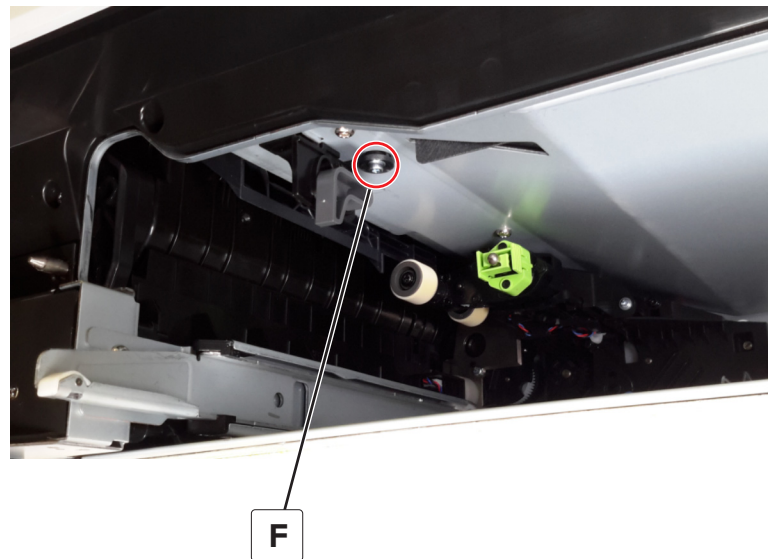
8 Release the E-clip (G).
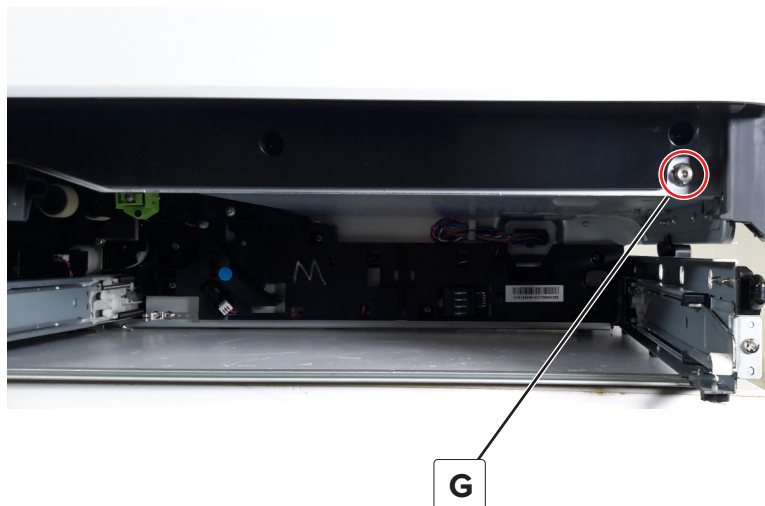
9 Remove the adjuster assembly (H), and then carefully remove the printhead (J).

Note: To minimize printhead misalignment, do not change the length of the adjuster assembly during removal.
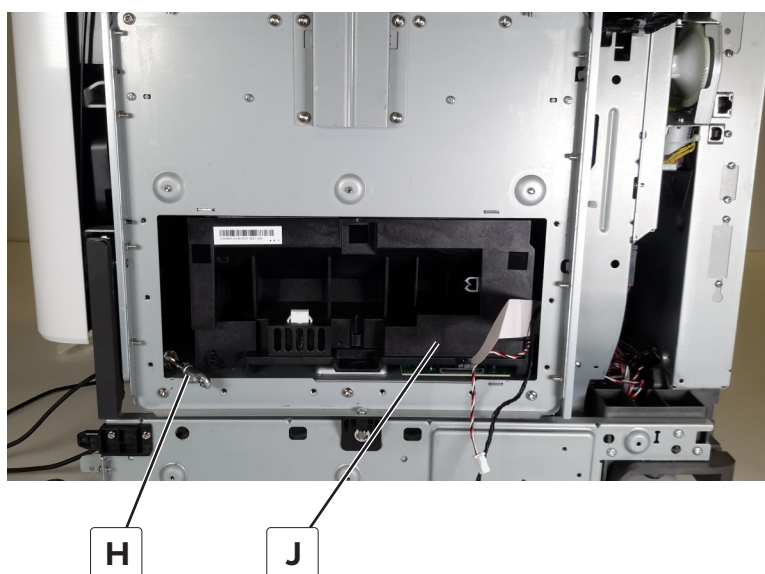
Installation warning: The edges of the frame may be sharp. Do not let the edges of the frame scrape the printhead or cables. Scraped strips or shavings may contaminate the printhead and cause print quality issues.
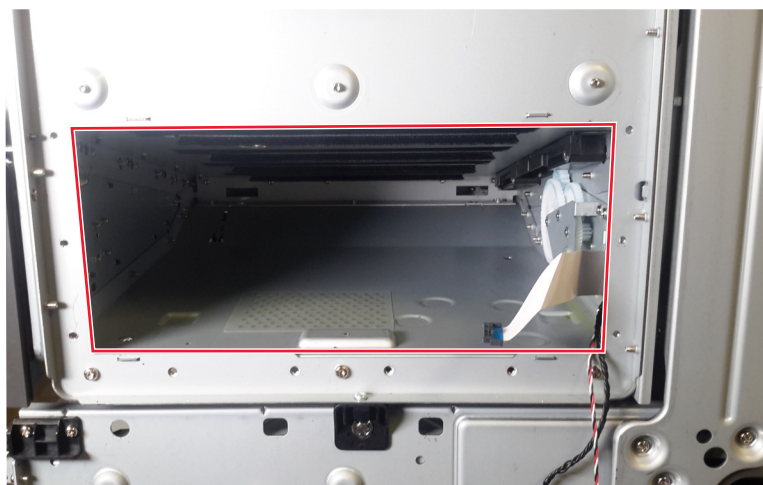
Installation notes:

a Perform the printhead alignment adjustment. See **"Printhead alignment adjustment" on page 469**.

b Perform the registration adjustment. See **"Registration adjustment" on page 474**.

Motor (printhead wiper) removal

1 Remove the right cover. See **"Right cover removal" on page 504**.

2 Remove the printhead. See **"Printhead removal" on page 511**.

3 Remove the two screws (A).
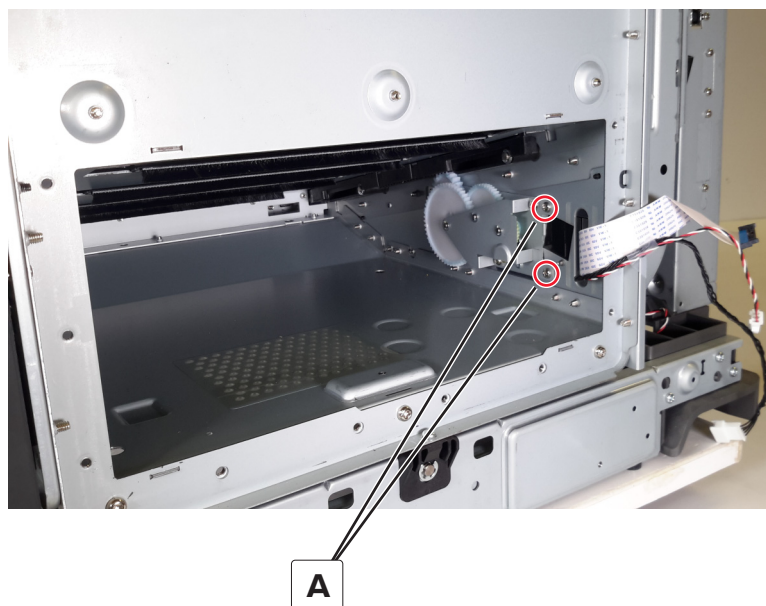
4 Pull the bracket, cut the cable tie (B), and then disconnect the cable (C).
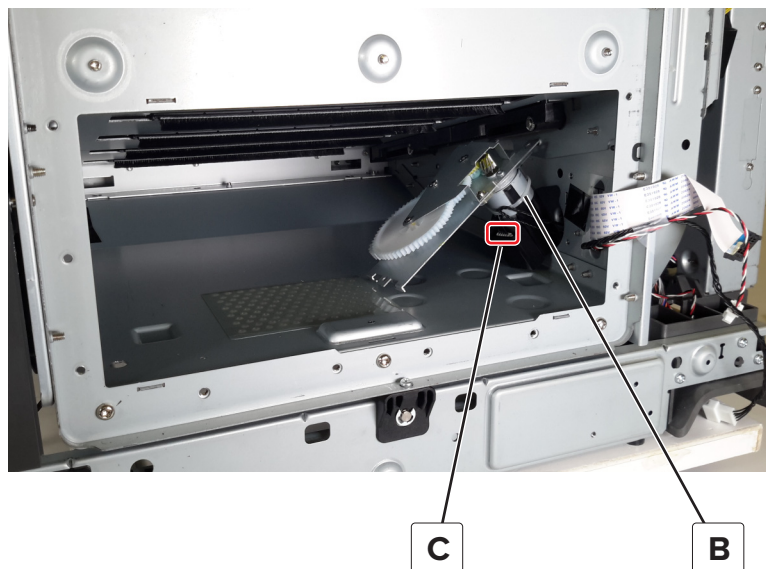
5 Remove the motor.

Installation note: Make sure that the dust cover and cable tie are reinstalled.

Installation note: Make sure that the motor tabs hook behind the frame slots.
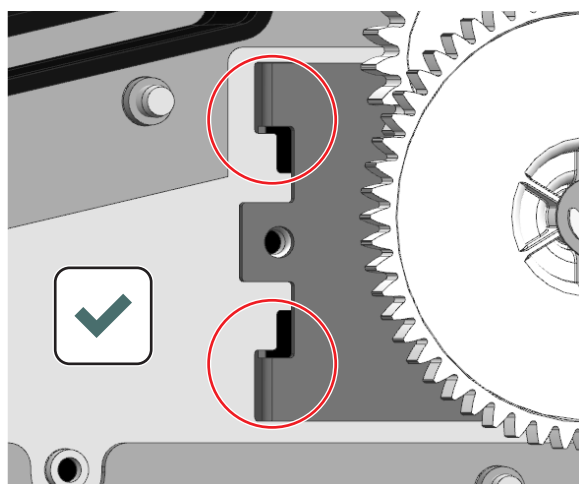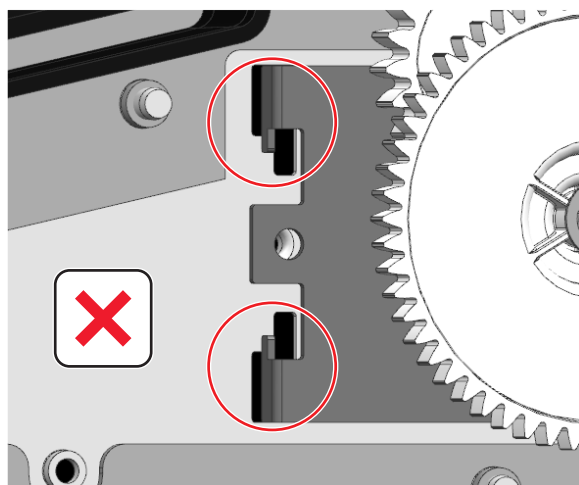
Front side removals

Keyboard attach cover removal

1 Open door A.
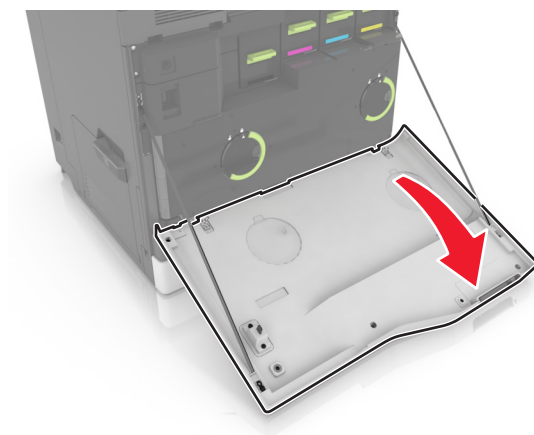
2 Remove the cover.

Control panel display removal

1 Remove the model plate bezel.

   Note: Lift the right side off first.

2 Remove the seven screws (A).
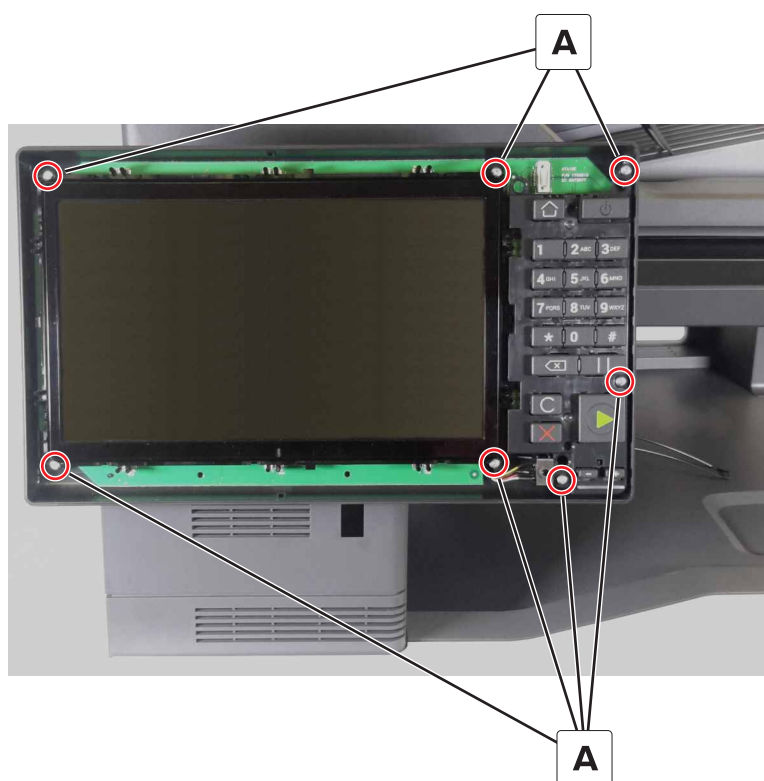
3 Disconnect the two cables (B), and then remove the display.

Warning—Potential Damage: Do not yank the ribbon cable. See **"Disconnecting ribbon cables" on page 465**.
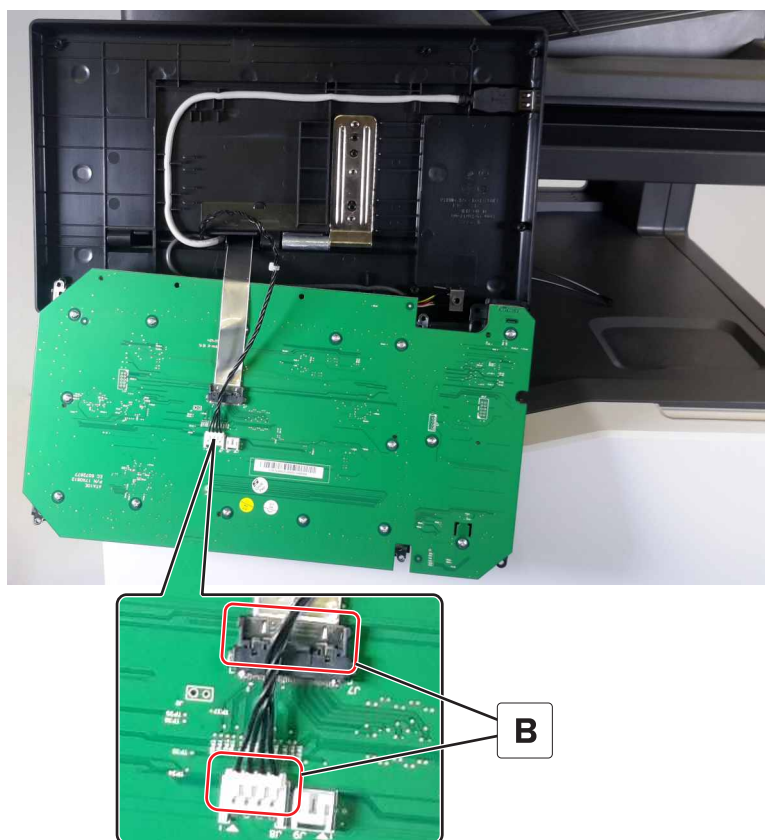
Control panel removal

Warning—Potential Damage: If you are replacing the controller board and the control panel at the same time, then see **"Controller board/control panel replacement" on page 459**.

 1 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

 2 Remove the control panel display. See **"Control panel display removal" on page 517**.

3 Using a screwdriver, carefully pry the control panel support cover.

4 Remove the support cover.

5 Remove the nine screws (A), and then disconnect the cable (B).
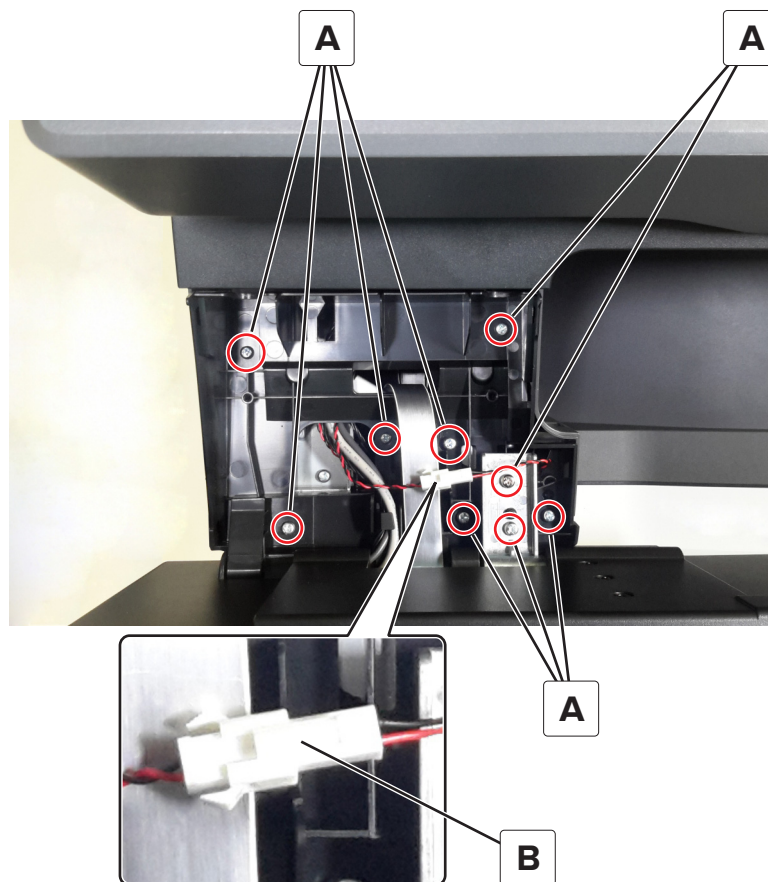
6 Remove the cables from the assembly as needed.

Control panel button kit removal

1 Remove the control panel display. See **"Control panel display removal" on page 517**.

2 Remove the three screws (A).
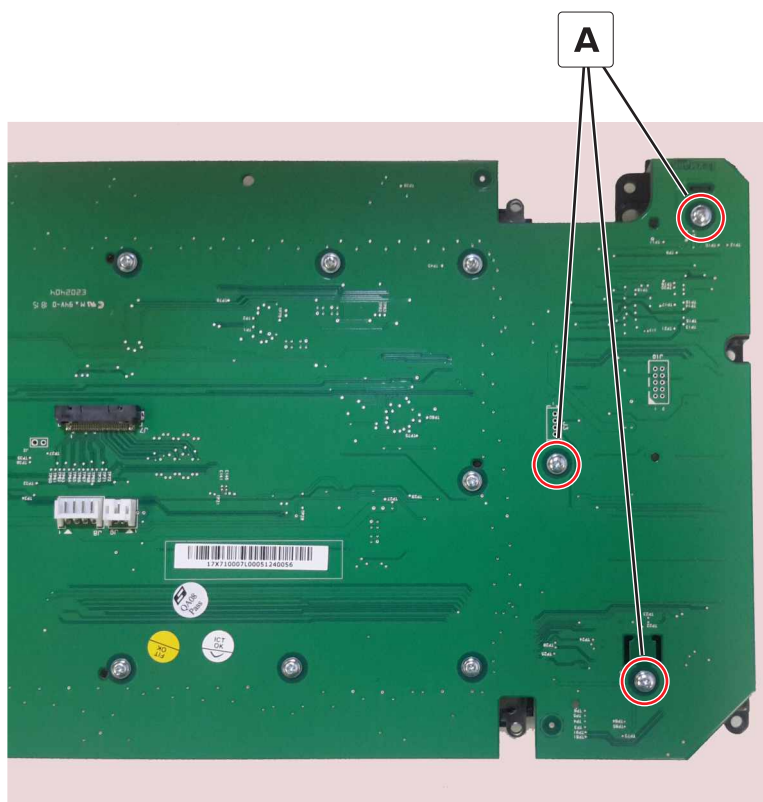
3 Remove the button kit.

Waste toner bottle removal

1 Open door B.

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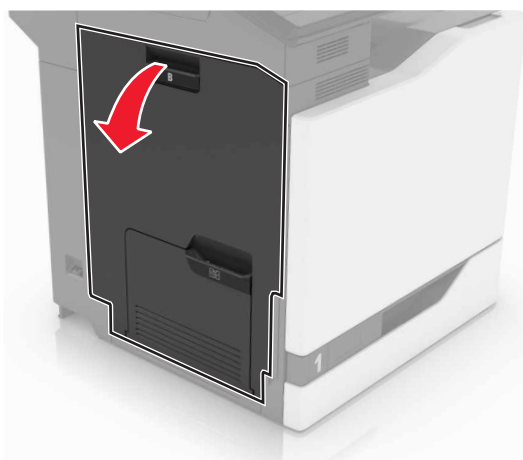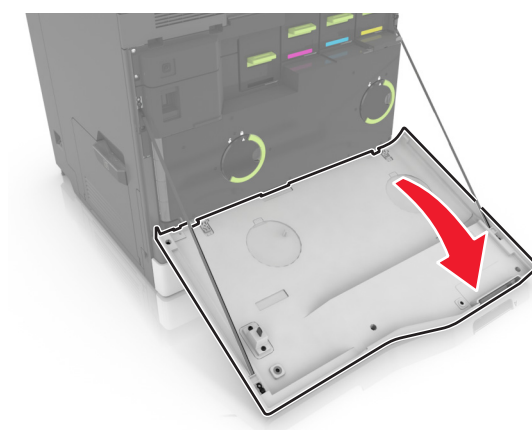
2 Open door A.

3 Remove the waste toner bottle.
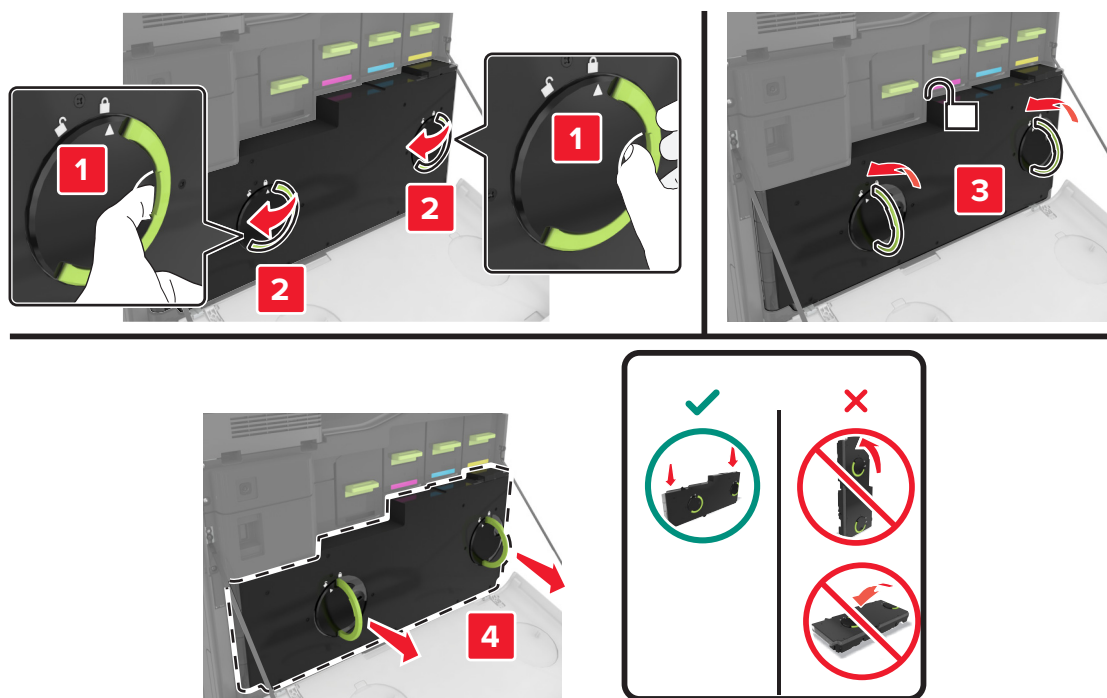
Developer unit and photoconductor unit removal

1 Open door B.

⚠ **CAUTION—HOT SURFACE:** The inside of the printer might be hot. To reduce the risk of injury from a hot component, allow the surface to cool before touching it.
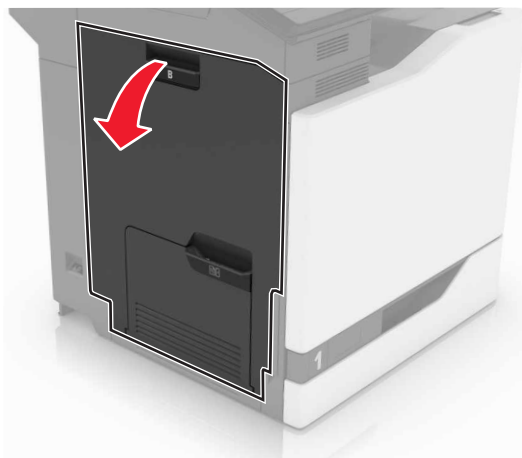
2 Open door A.
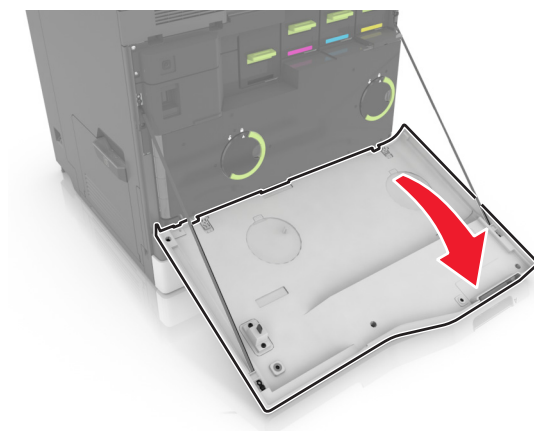
3 Remove the waste toner bottle.
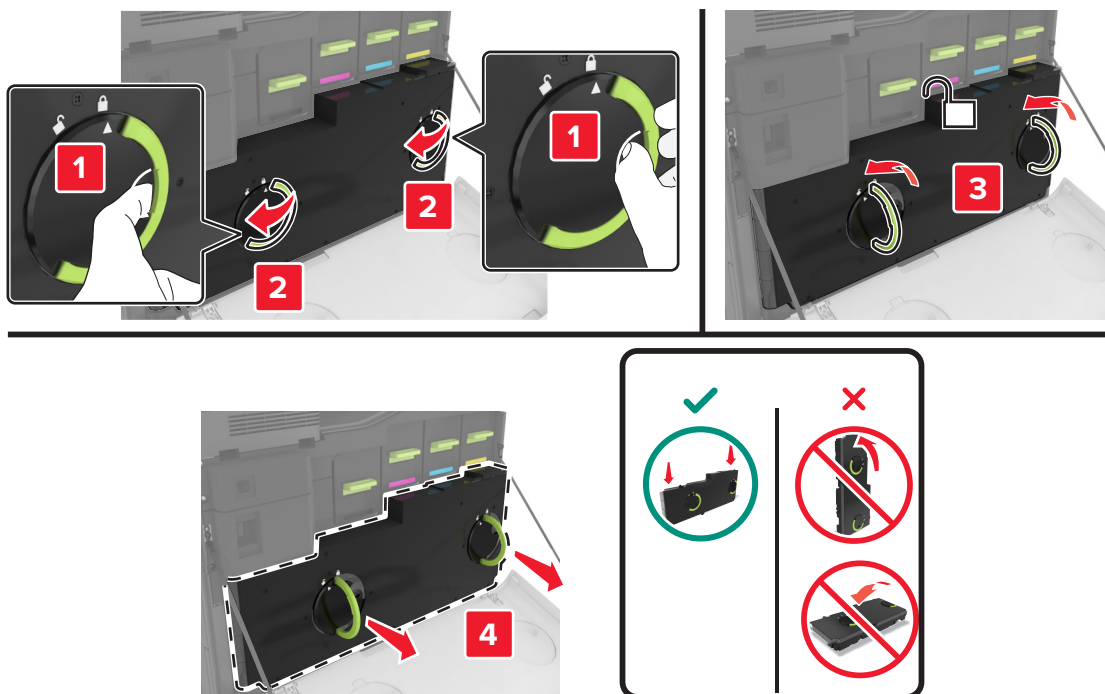
4 Remove the developer and PC unit combo.
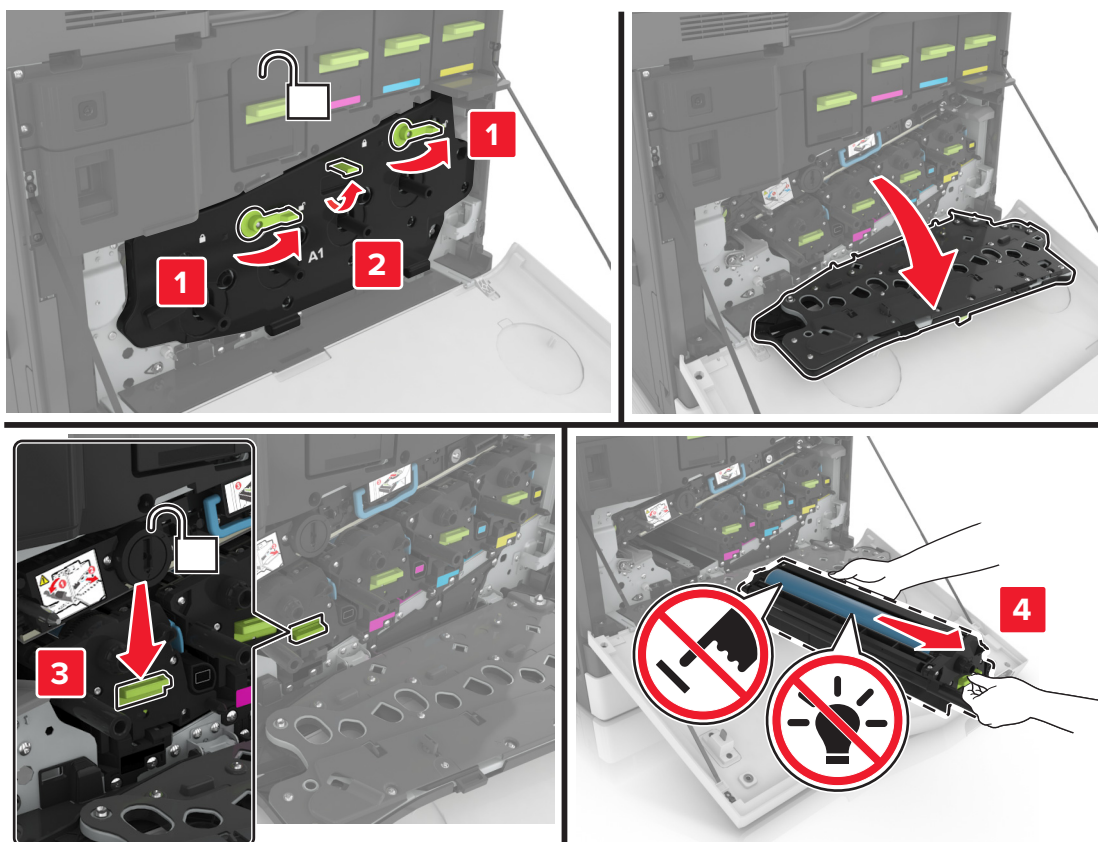
5 Remove the developer unit from the photoconductor unit.
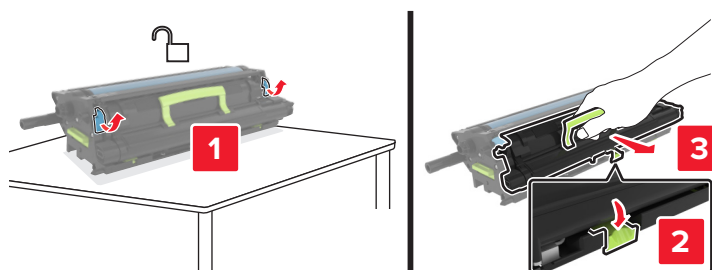
Front column upper cover removal

1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

2 Remove the three screws (A), and then remove the cover.
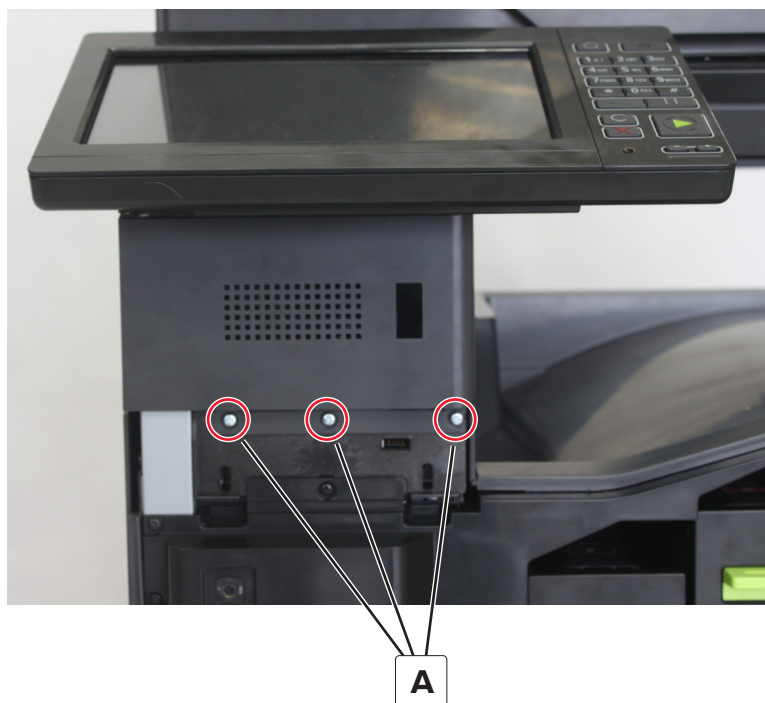
Inner upper cover removal

1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

2 Remove the front column upper cover. See **"Front column upper cover removal" on page 527**.

3 Remove the seven screws (A), and then remove the cover.
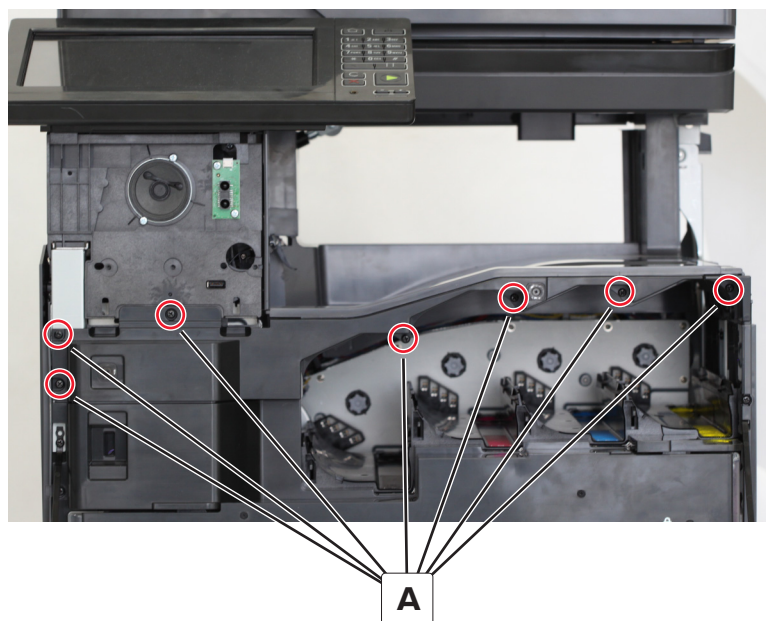
Inner lower cover removal

1 Remove the keyboard attach cover. See .

2 Remove the inner upper cover. See .

3 Remove the 10 screws (A).

Parts removal
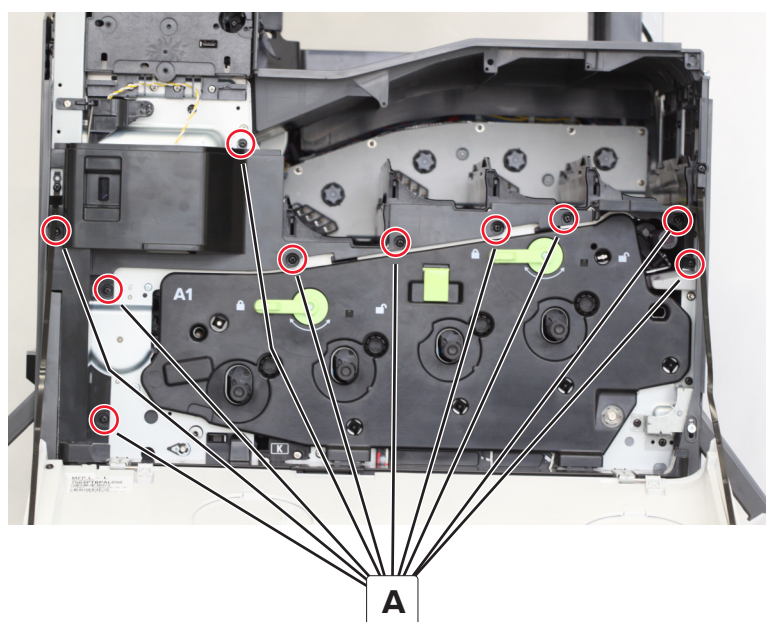
4 Remove the screw (B), and then remove the connector cover.
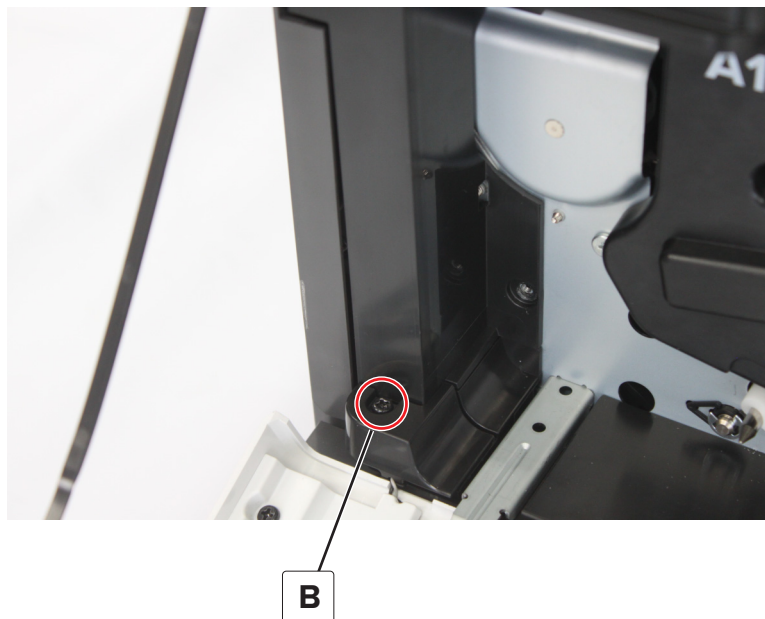
5 Remove the cover.

Front door removal

1 Open the door, and then remove the two screws (A).

2 Remove the E-clip (B), and then release the hinges.
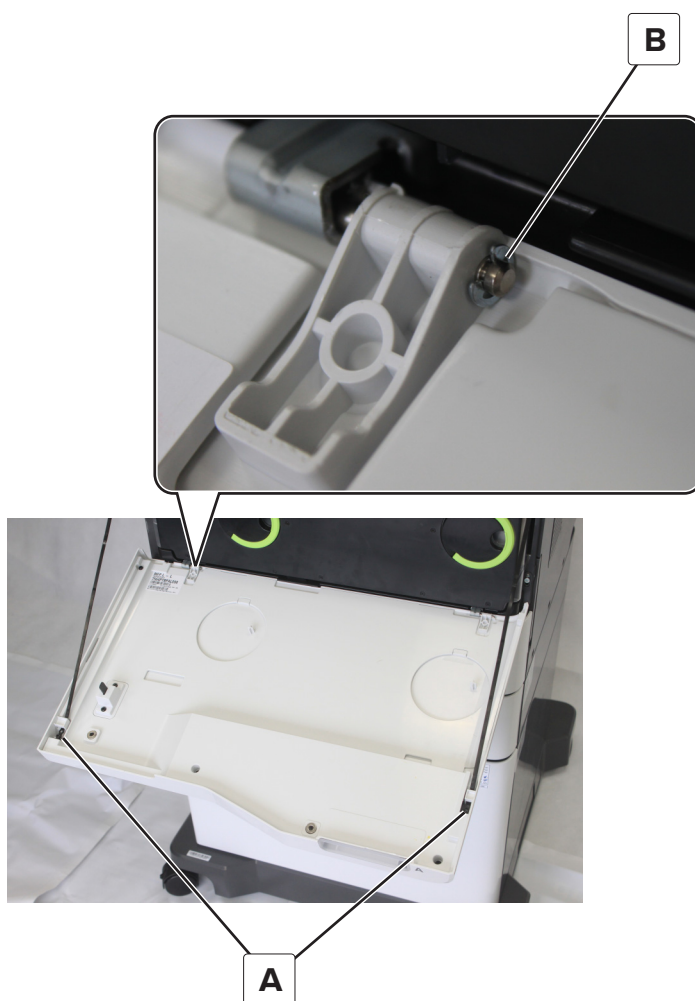
3 Remove the screw (C).

C

4 Disconnect the cable (D), and then remove the door.

D
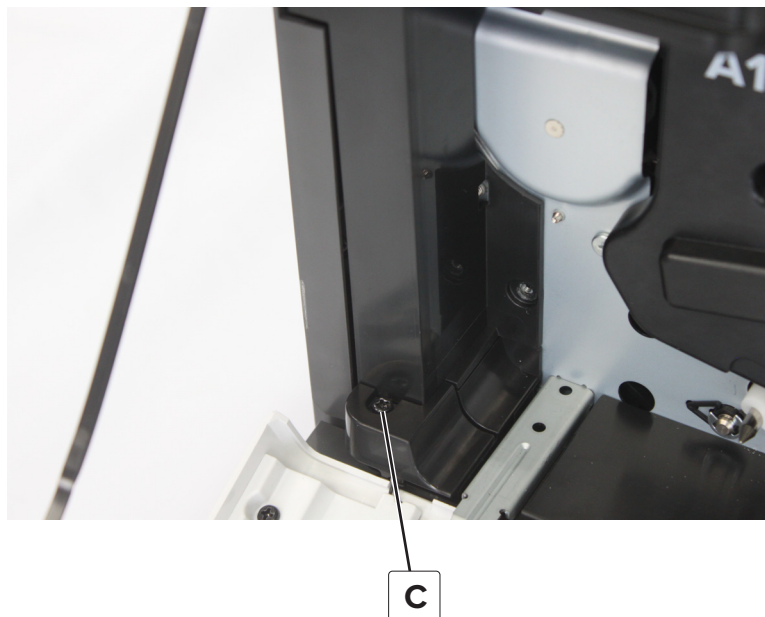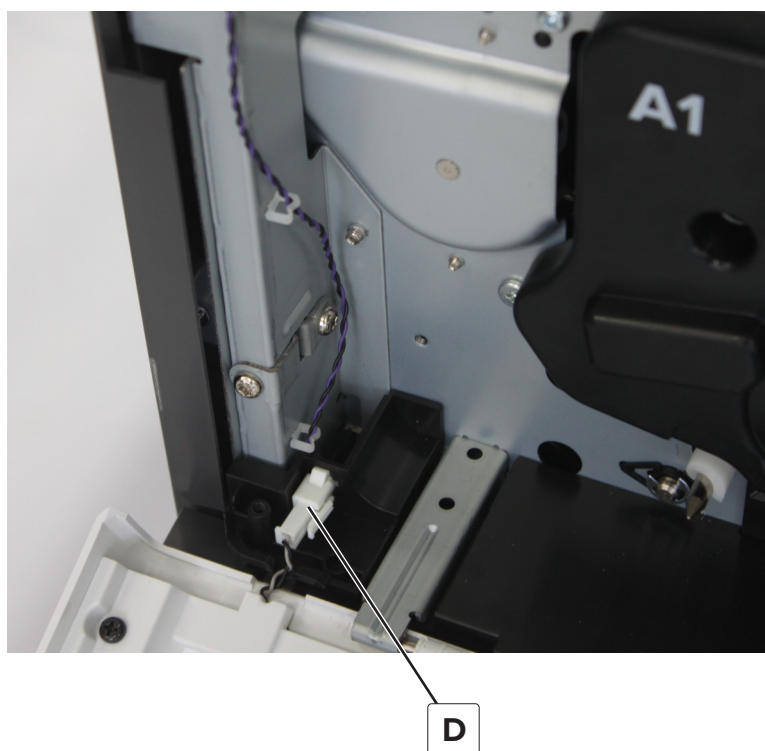
Transfer belt removal

1 Open door B.

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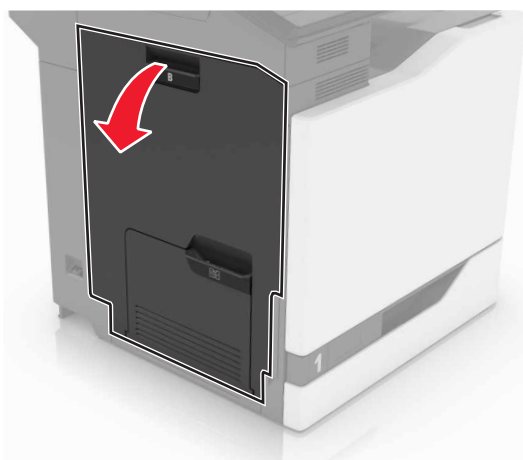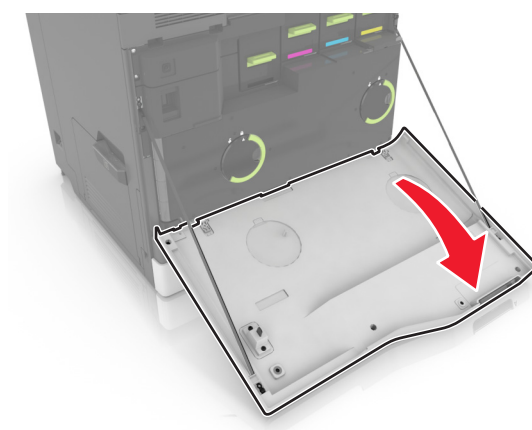
Parts removal

2 Open door A.

3 Remove the waste toner bottle.
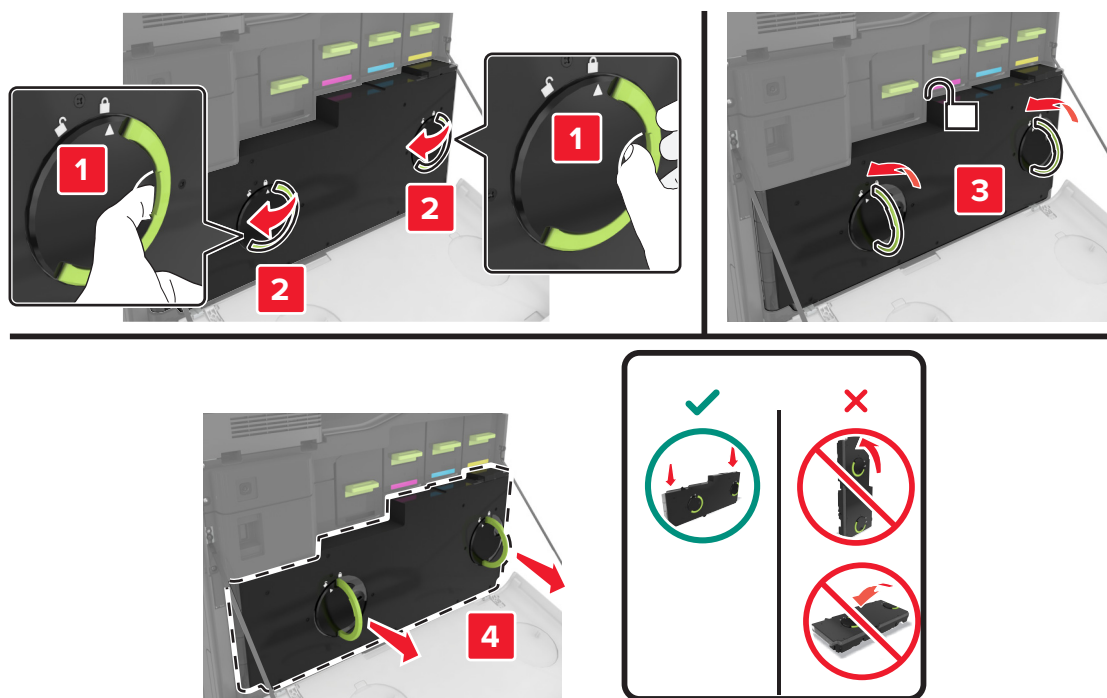
4 Open door A1.
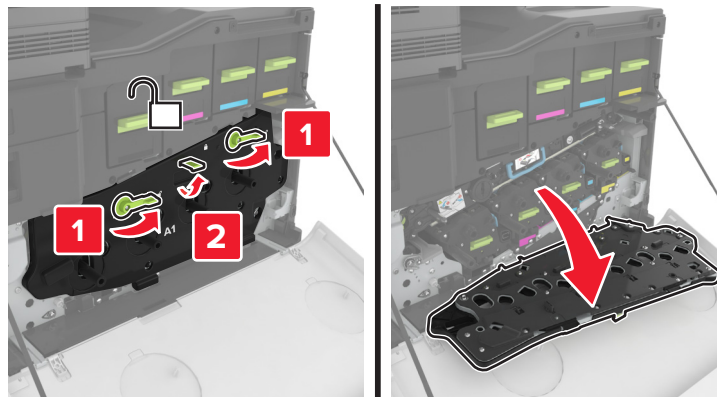
5 Remove the transfer belt.
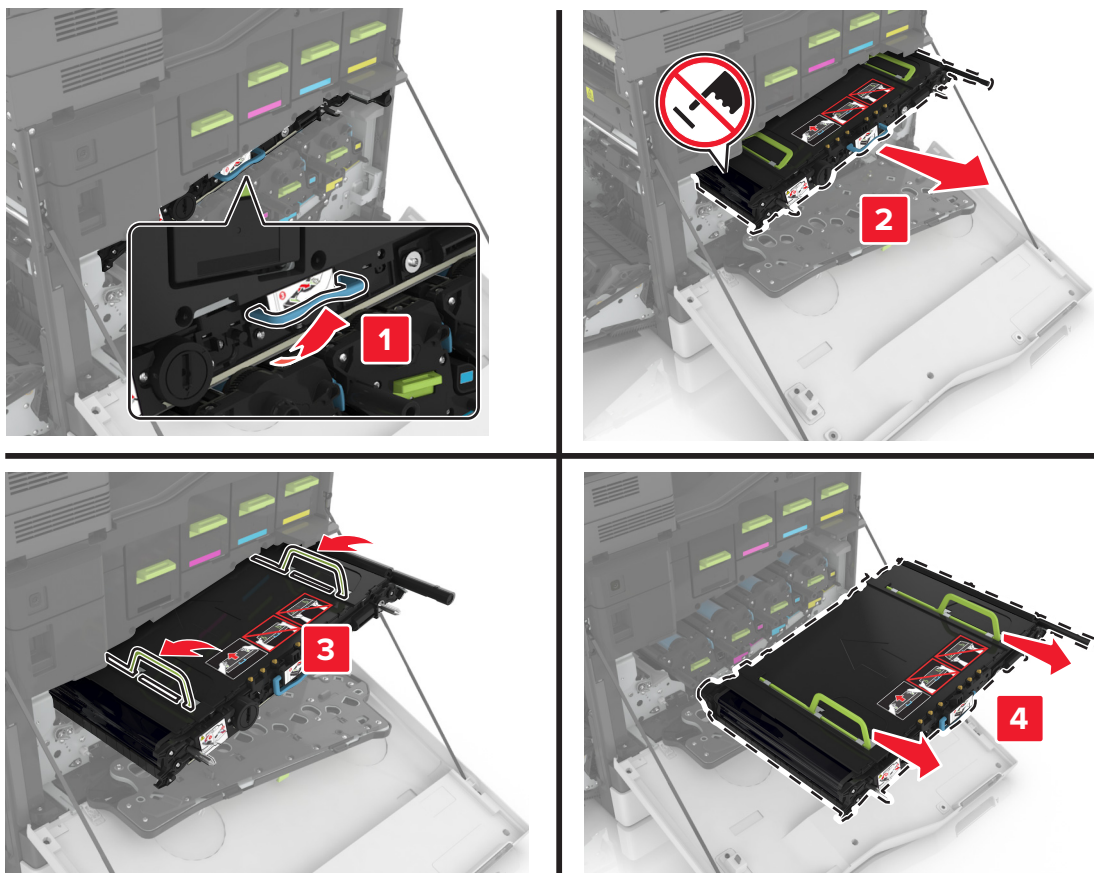
Pick roller removal
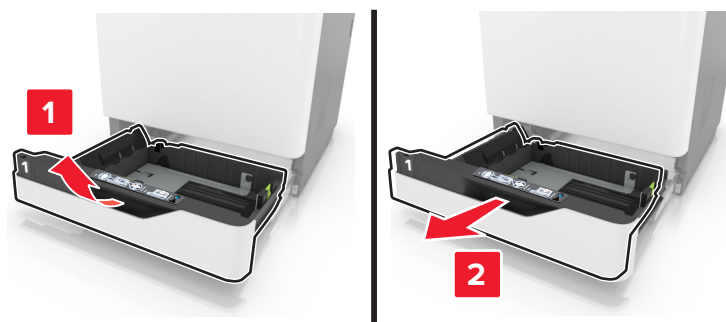
1 Remove the tray.

2 Remove the pick roller.
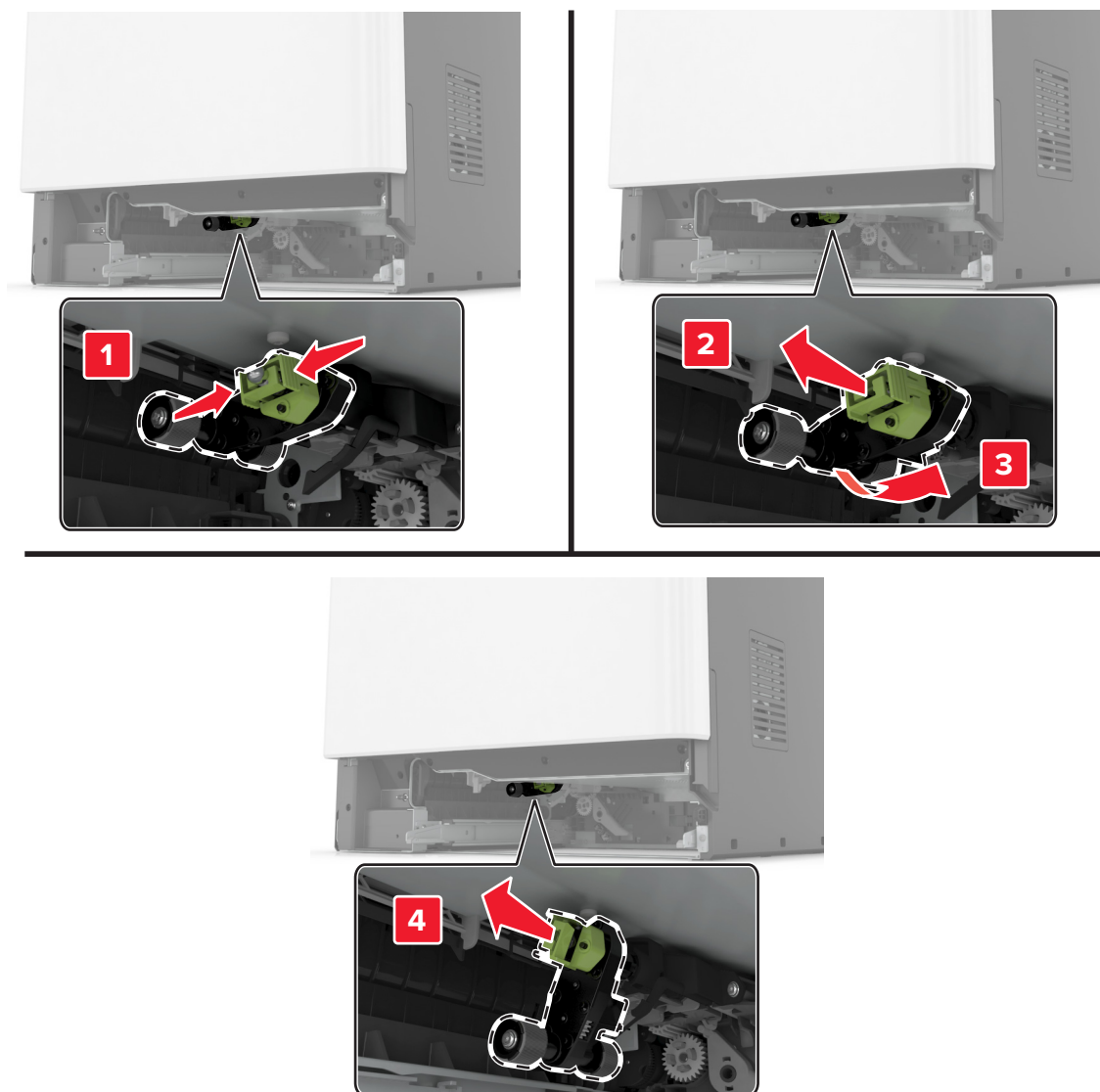
Separator pad removal

1 Pull out the tray.
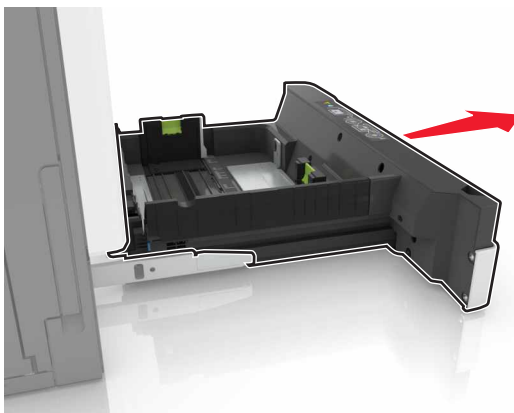
2 Remove the separator pad.
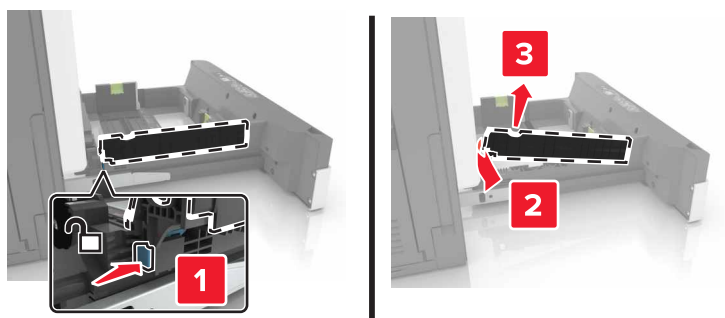
Door rod cover removal

1 Remove tray 1.

2 Remove the screw (A), and then remove the cover.

A
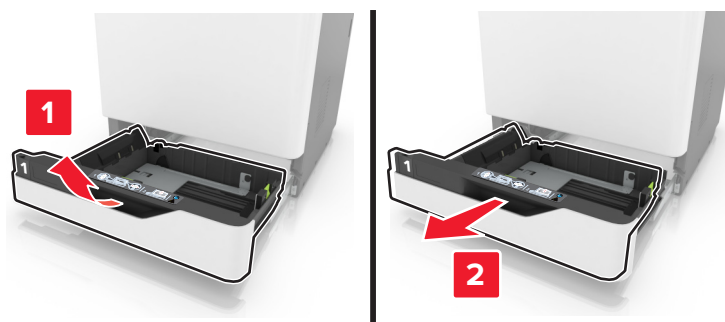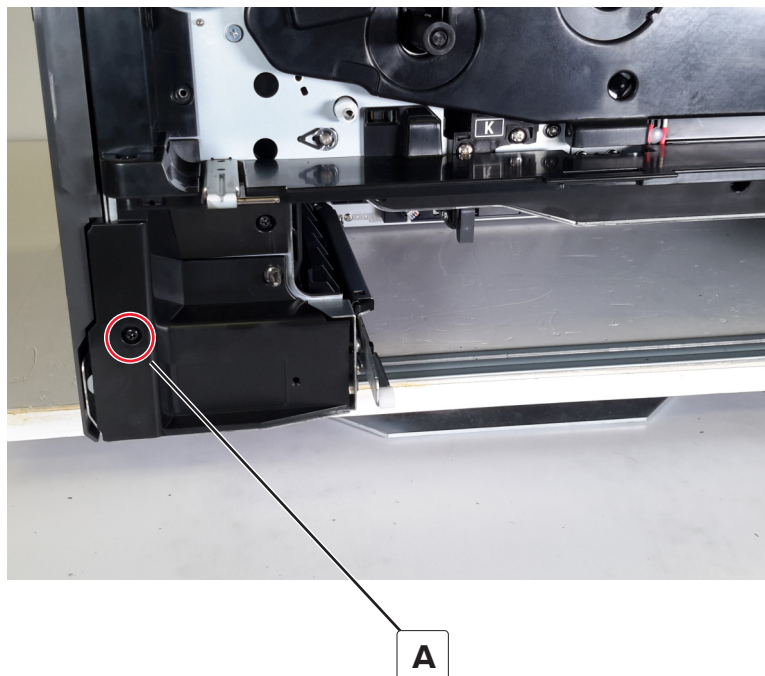
Sensor (door interlock) removal

1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

2 Remove the inner upper cover. See **"Inner upper cover removal" on page 527**.

3 Remove the inner lower cover. See **"Inner lower cover removal" on page 528**.

4 Remove the two screws (A), and then remove the actuator.

5 Disconnect the cable (B), and then remove the sensor.

A   B
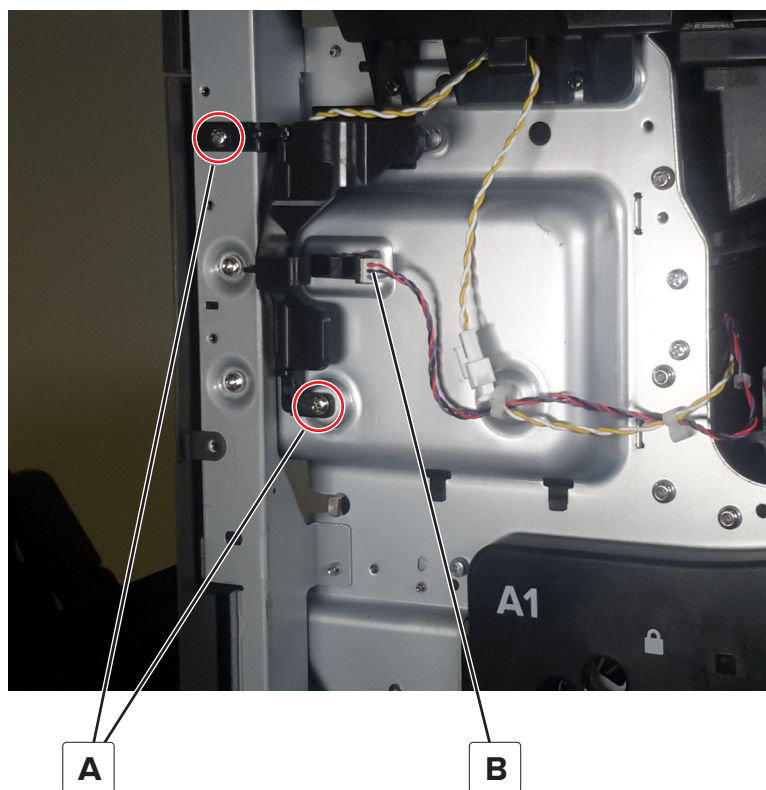
HVPS fan removal

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

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

A
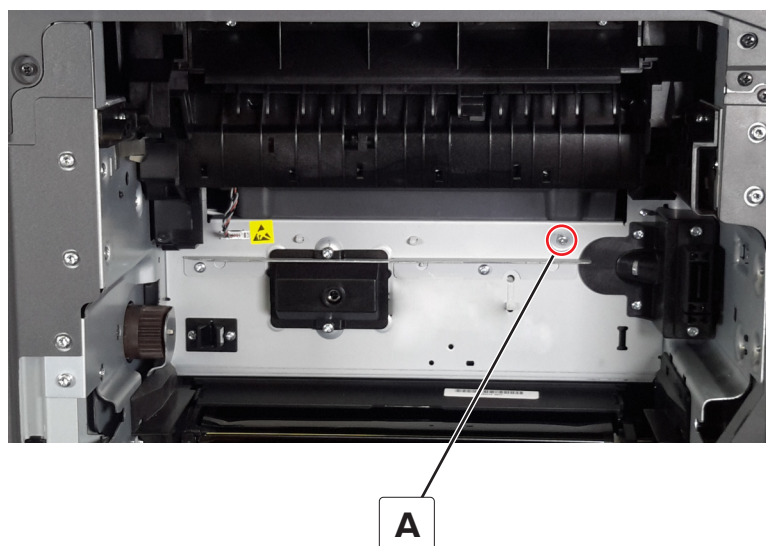
2 Open door A.

3 Remove the inner upper cover. See **"Inner upper cover removal" on page 527**.

4 Remove the inner lower cover. See **"Inner lower cover removal" on page 528**.

5 Remove the screw (B) and the duct (C).
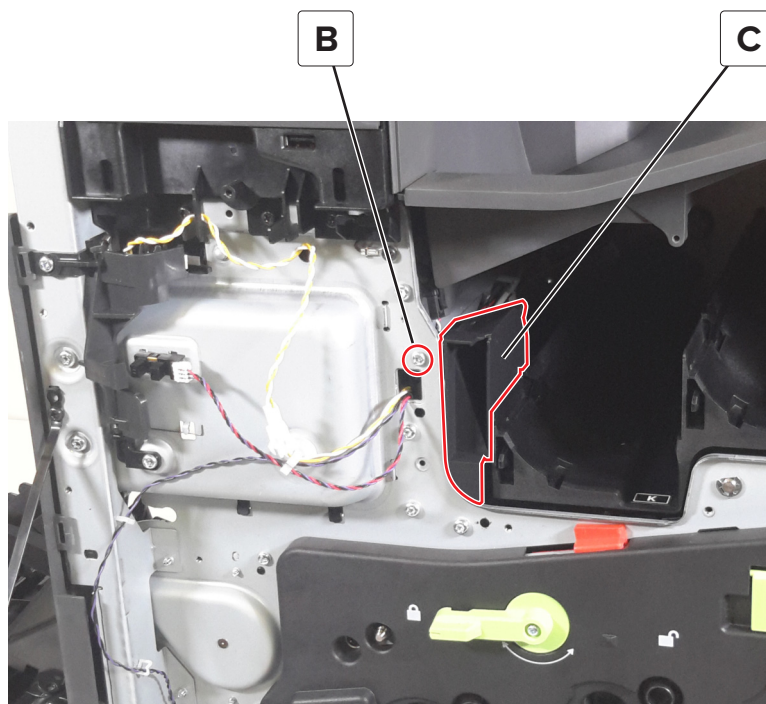
6 Remove the fan (D).
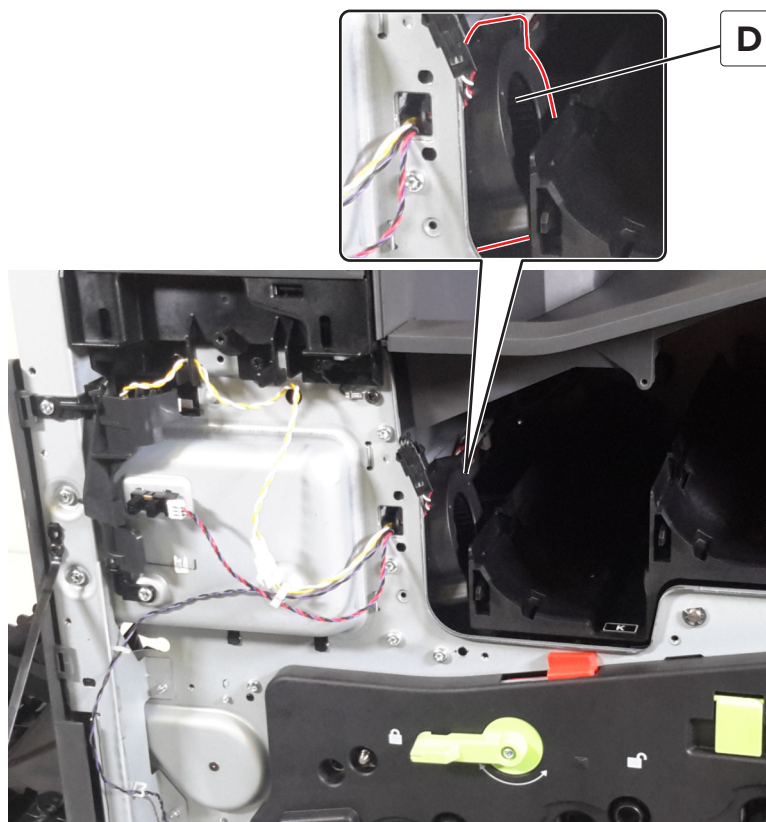
7 Disconnect the cable (E).
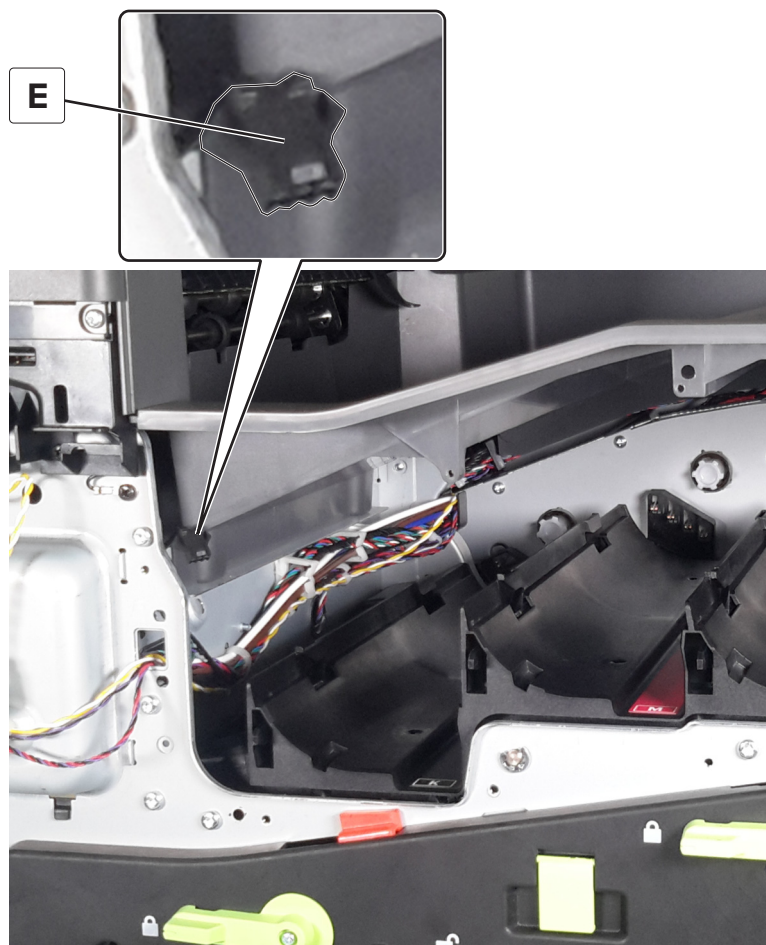
Main HVPS removal

1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

2 Remove the inner upper cover. See **"Inner upper cover removal" on page 527**.

3 Remove the inner lower cover. See **"Inner lower cover removal" on page 528**.

4 Remove the HVPS fan. See **"HVPS fan removal" on page 538**.

5 Remove the two screws (A), and then remove the bezel (B).

6 Remove the three screws (C).
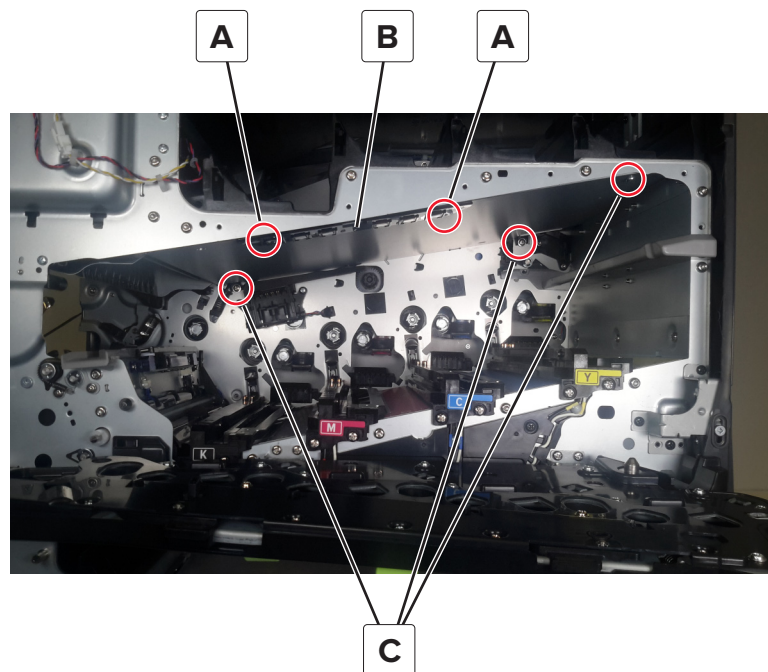
7 Remove the toner cartridge guide.

8 Disconnect the cable (D).

D
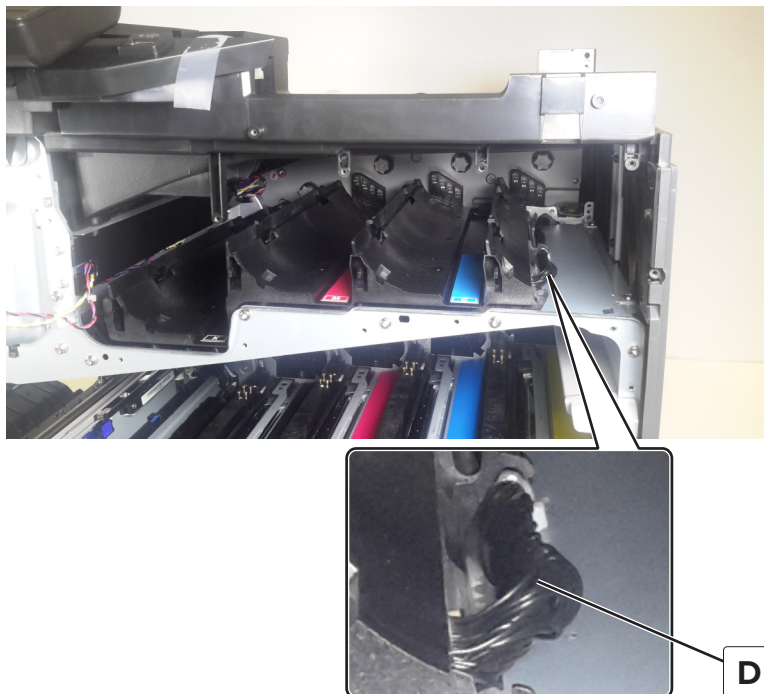
9 Lift the rear end of the HVPS to release, and then remove the HVPS.

PC unit/developer door removal

1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

2 Remove the inner upper cover. See **"Inner upper cover removal" on page 527**.

3 Remove the inner lower cover. See **"Inner lower cover removal" on page 528**.

4 Remove the front door. See **"Front door removal" on page 530**.

5 Remove the four screws (A).
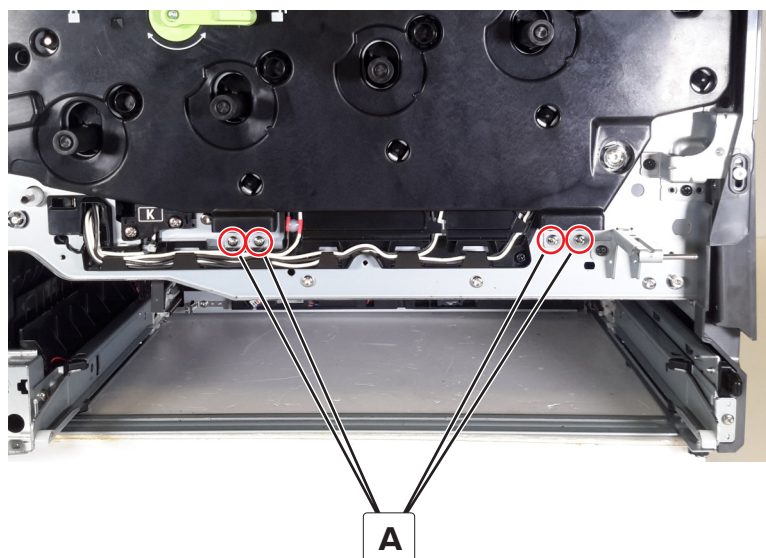
6 Open door A1, remove the four screws (B), and then remove the door.
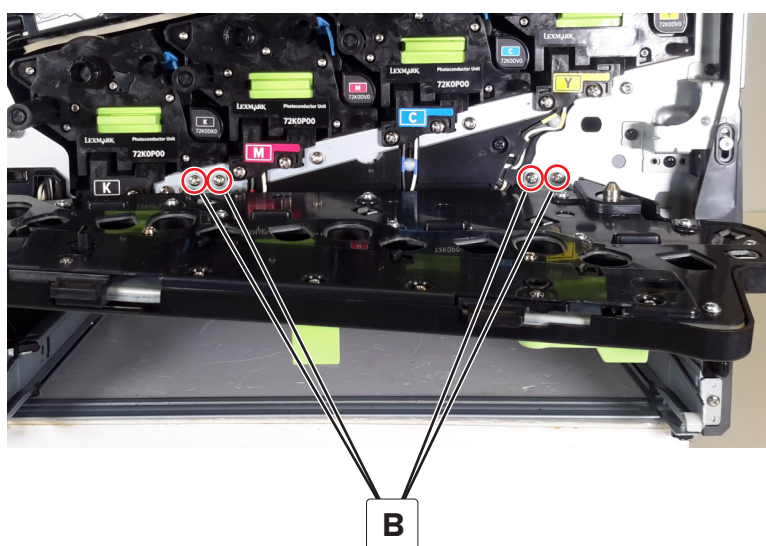
Lower front cover removal

1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

2 Remove the inner upper cover. See **"Inner upper cover removal" on page 527**.

3 Remove the inner lower cover. See **"Inner lower cover removal" on page 528**.

4 Remove the front door. See **"Front door removal" on page 530**.

5 Remove the door rod cover. See **"Door rod cover removal" on page 536**.

6 Remove the four screws (A), and then remove the cover.
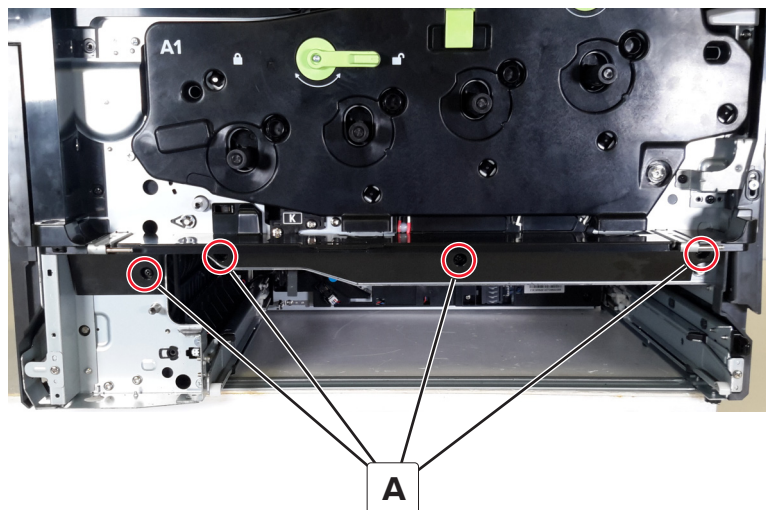
Sensor (waste toner bottle present) and bracket removal

1 Remove the waste toner bottle. See **"Waste toner bottle removal" on page 522**.

2 Remove the black developer and PC unit combo. See **"Developer unit and photoconductor unit removal" on page 524**.

3 Remove tray 1, and then open door A and door B.

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

4 Remove the two screws (A), and then remove the bracket (B).
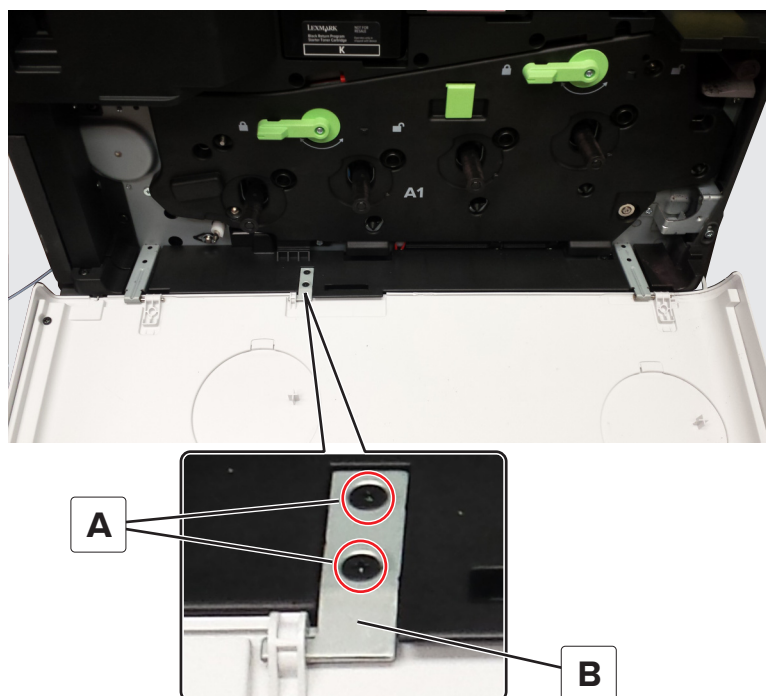
Parts removal

5 Move the door to the right to release, and then place it on top of the printer.

6 Remove the door rod cover. See **"Door rod cover removal" on page 536**.

7 Remove the lower front cover. See **"Lower front cover removal" on page 544**.

8 Disconnect the support strap (C), and then release the retainer (D) to disconnect the door support.
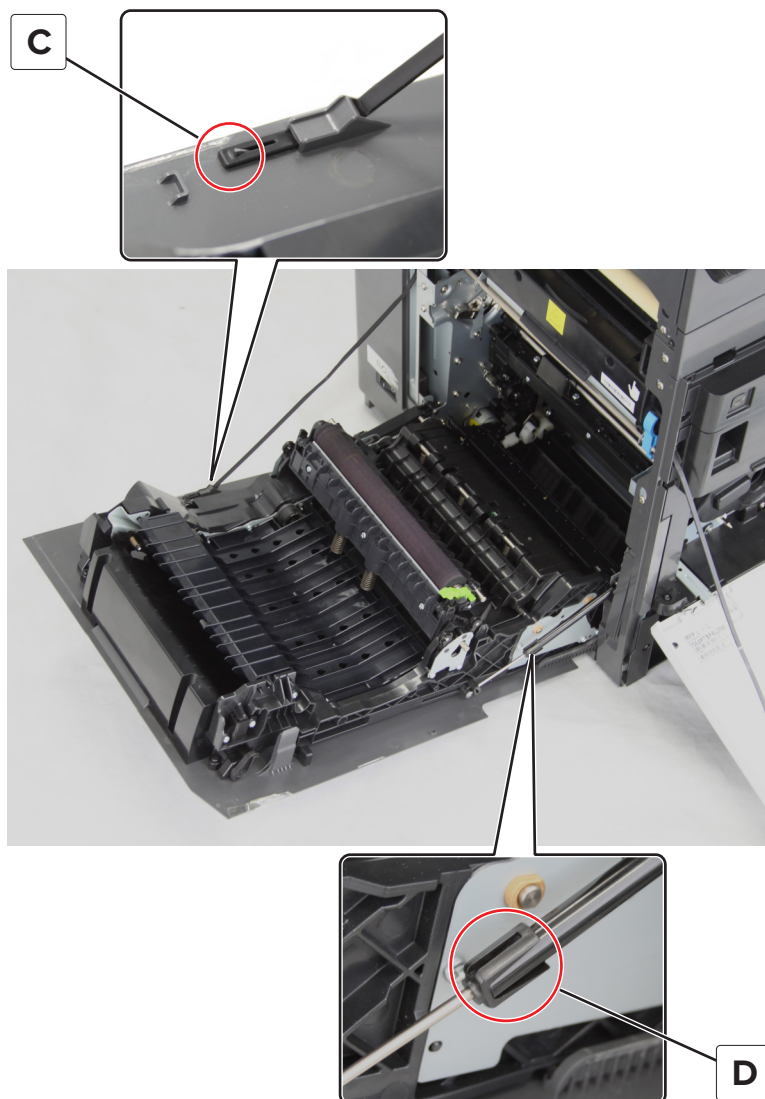
9 From the left side, remove the screw (E).
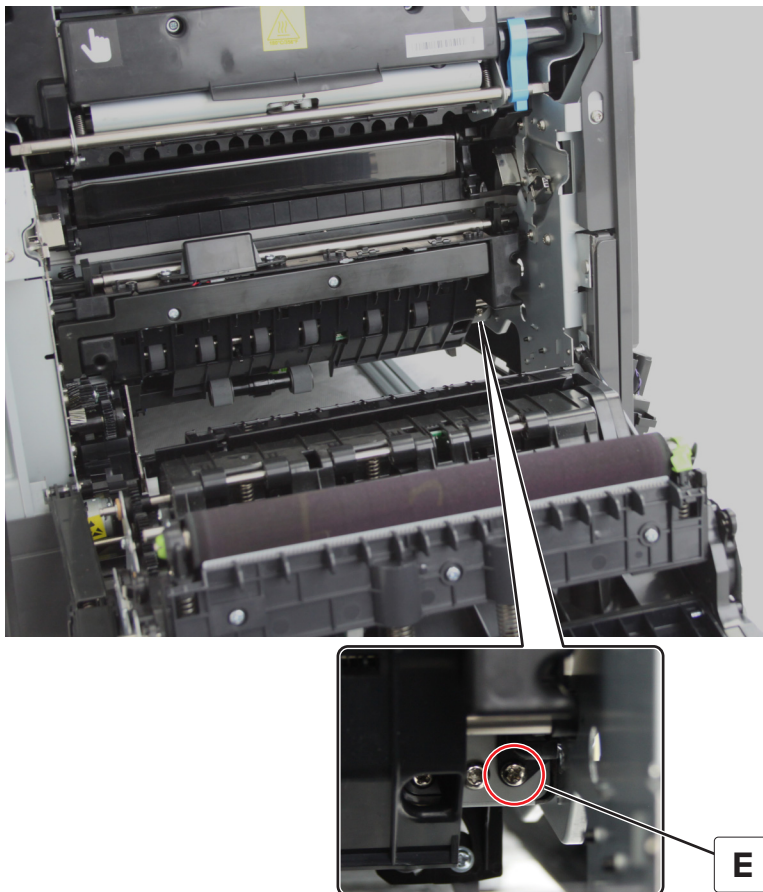
10 From the front side, pull the sensor cable to allow more slack.
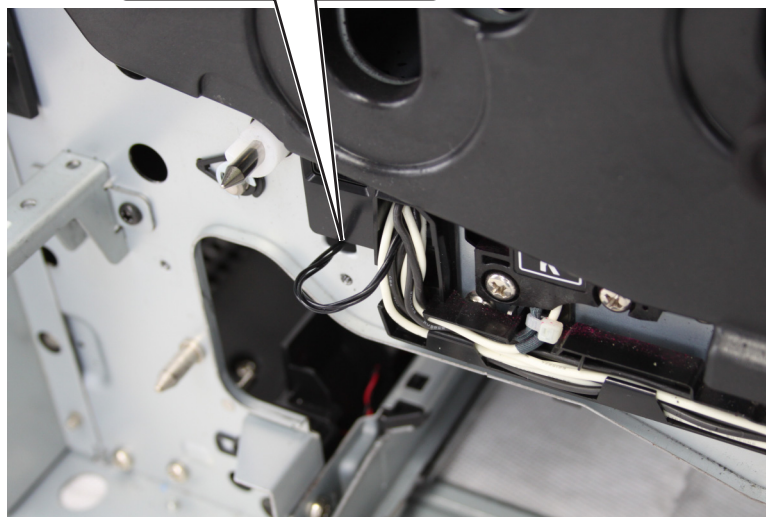
11 Open door A1, and then dislodge the sensor bracket (F) while pulling it down from the left side.

F
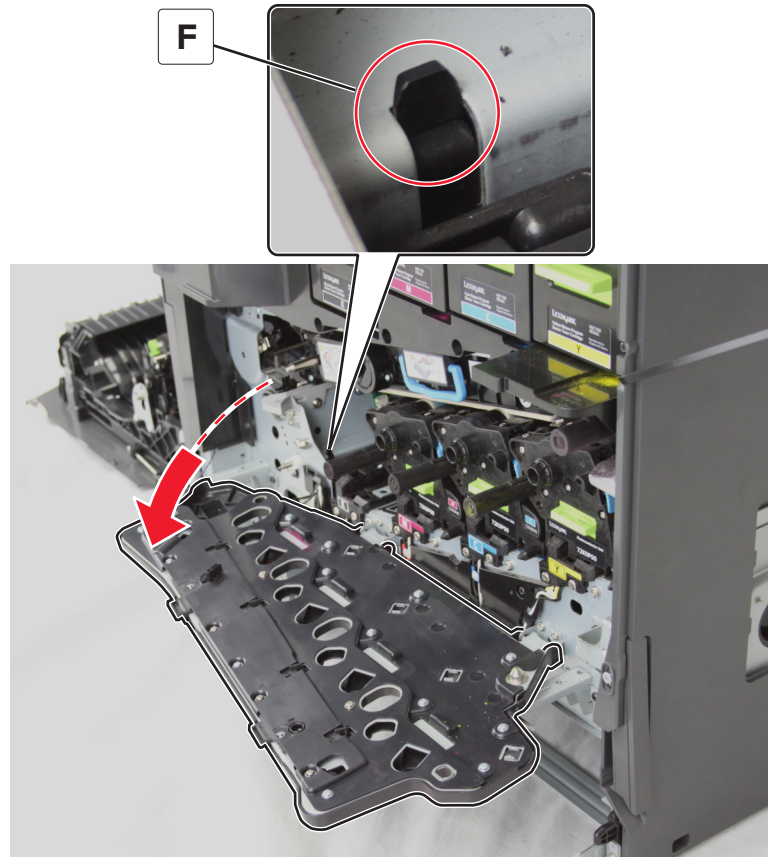
12 Disconnect the cable (G), and then separate the sensor (H) from the bracket.

G

H

Parts removal
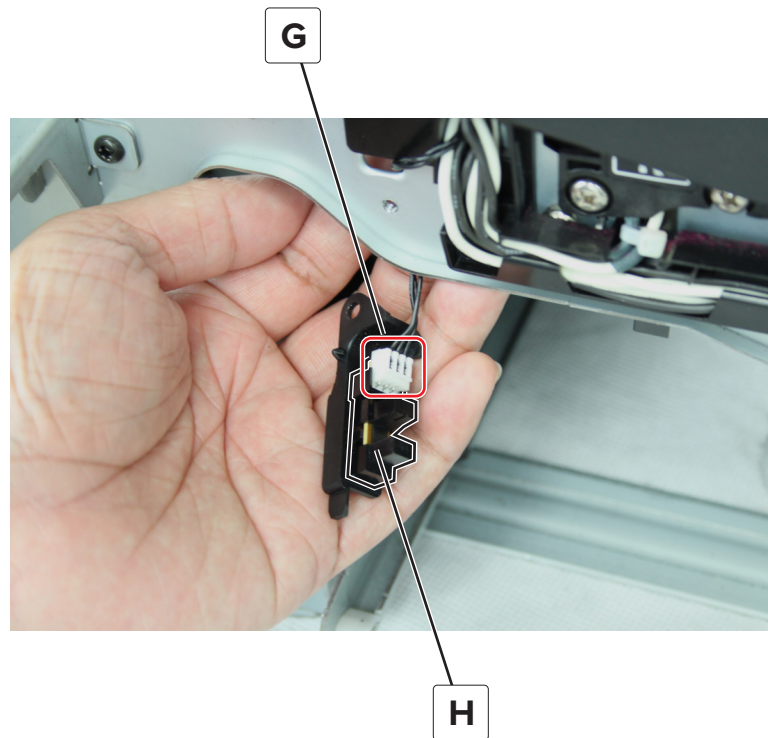
Paper feeder removal

1 Remove the pick roller. See **"Pick roller removal" on page 534**.

2 Press and hold the latch (A), and then rotate and remove the paper stopper (B).
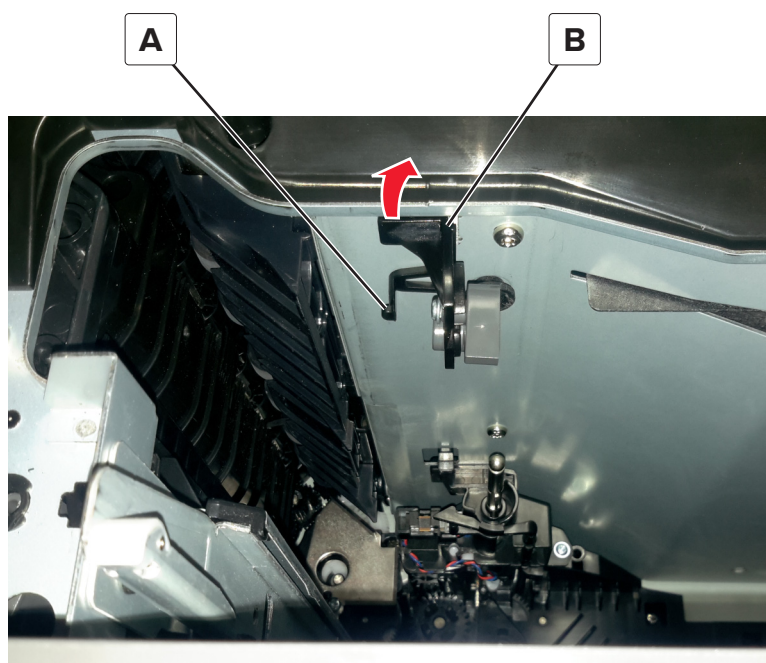
3 Lower the latch (C) to release, and then remove the feeder bearing (D).

Note: The shaft may need to be slightly rotated to align it with the hole on the feeder bearing.
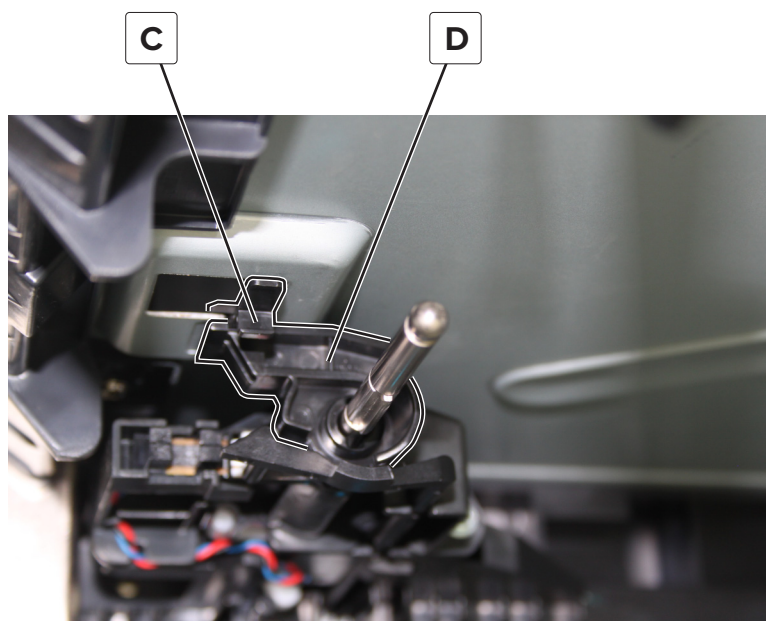
4 Release the cable from its guide (E), and then disconnect it (F).

5 Remove the five screws (G).
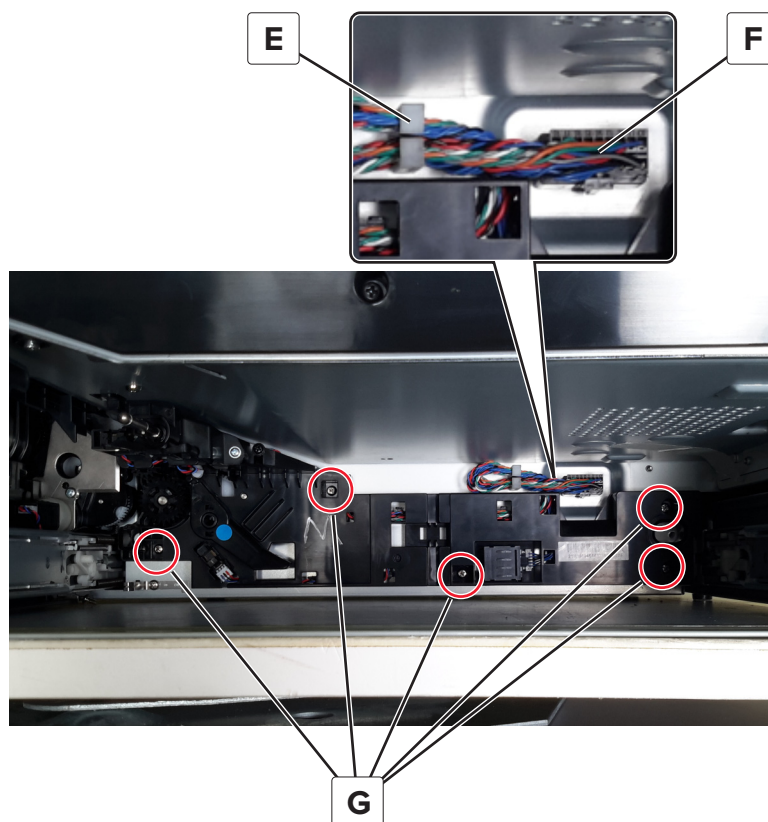
6 Pull out, and then remove the feeder.

Sensor (auto alignment) removal

1 Remove the developer and PC unit combos.

2 Remove the transfer belt. See **"Transfer belt removal" on page 531**.

3 Remove the screw (A) from the appropriate sensor.
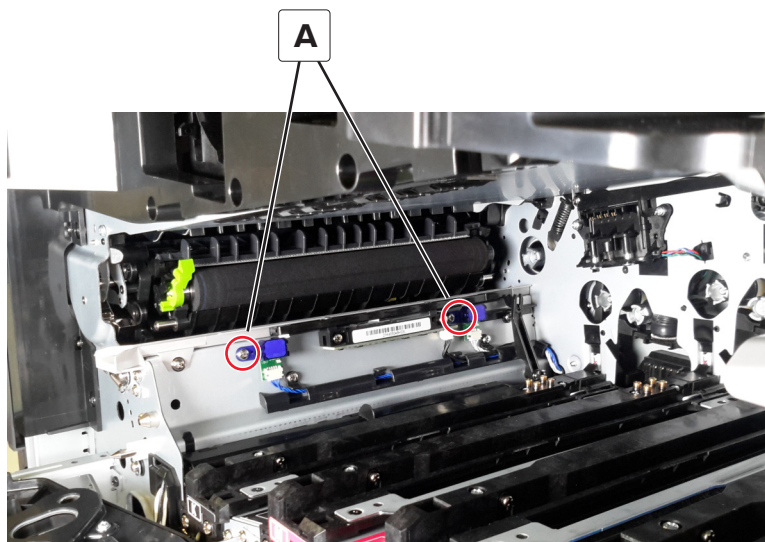
4 Disconnect, and then remove the sensor.

Sensor (TPS) removal

1 Remove the developer and PC unit combos.

2 Remove the transfer belt. See **"Transfer belt removal" on page 531**.

3 Remove the two screws (A), and then release the sensor from the fork (B).

Installation note: Engage the sensor tab with the fork properly.
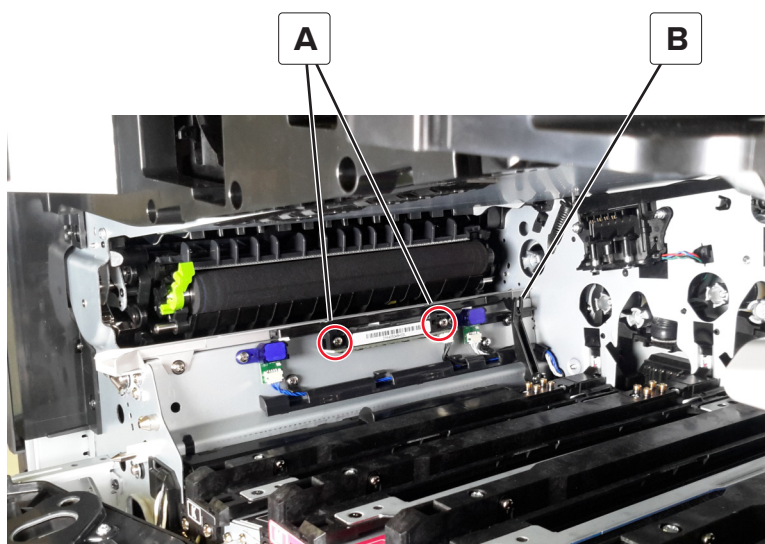
4 Disconnect, and then remove the sensor.

Warning—Potential Damage: Press the latch on the connector to unlock. Do not pull the connector without unlocking it.

Parts removal

552

TPS sensor wiper removal

1 Remove the developer and PC unit combos.

2 Remove the transfer belt. See **"Transfer belt removal" on page 531**.

3 Remove the sensor (TPS). See **"Sensor (TPS) removal" on page 552**.

4 Remove the two screws (A), and then remove the wiper.
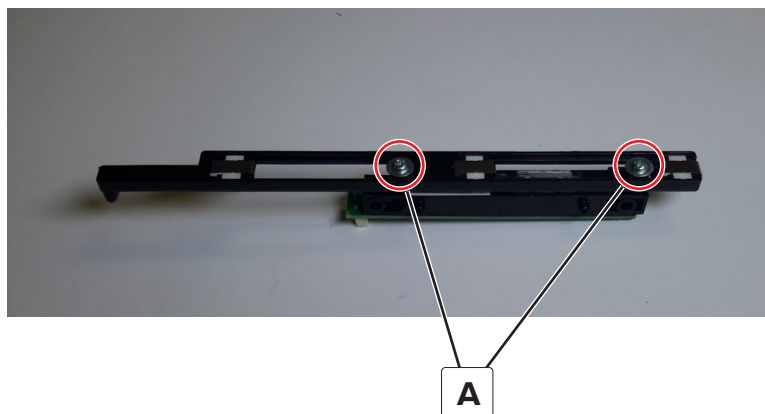
Developer/PC unit CMY wiper rail removal

1 Remove the developer and PC unit combos.

2 Remove the transfer belt. See **"Transfer belt removal" on page 531**.

3 Remove the two screws (A) from the appropriate wiper rail.
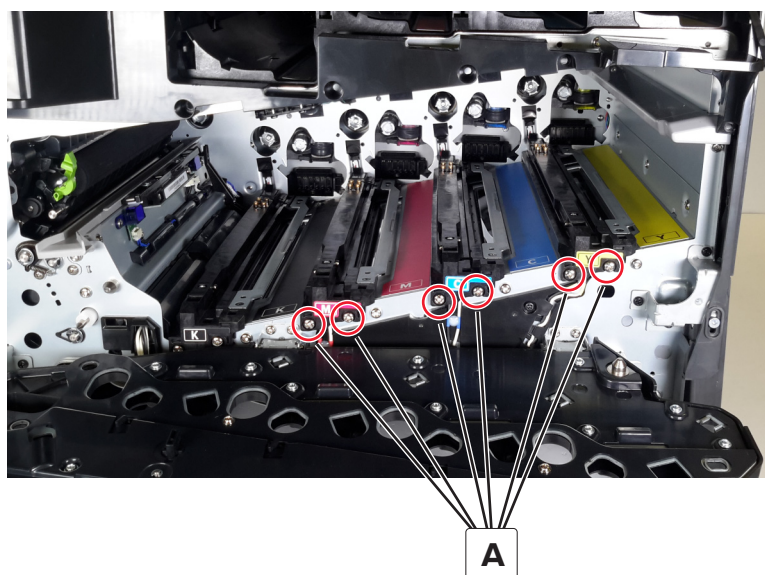
4 Disconnect, and then remove the wiper rail.

Installation warning: Align the peg with the slot, or damage may occur.
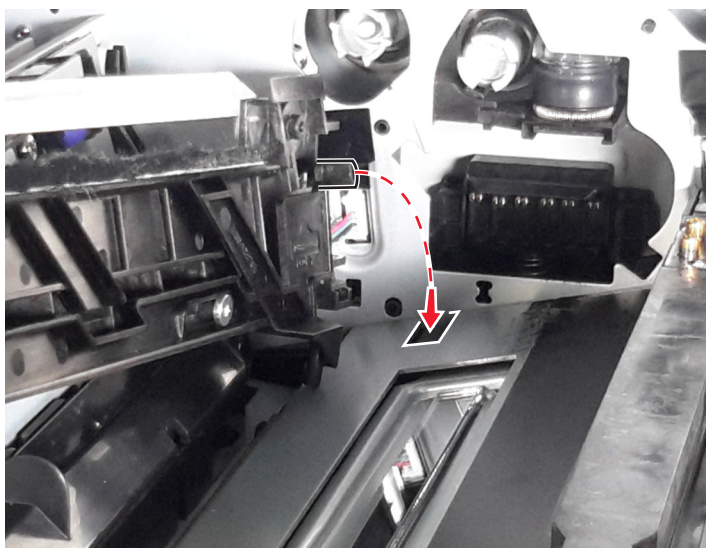
Developer/PC unit K wiper rail removal

1 Remove the developer and PC unit combos.

2 Remove the transfer belt. See **"Transfer belt removal" on page 531**.

3 Remove the PC unit/developer door. See **"PC unit/developer door removal" on page 543**.

4 Remove the two screws (A).
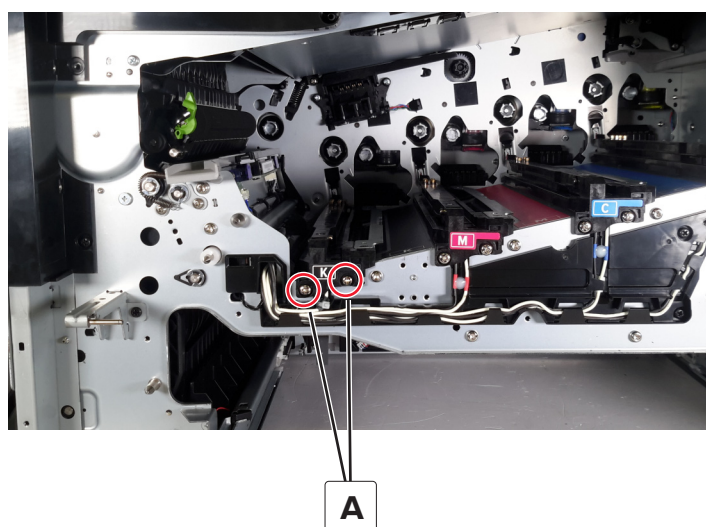
5 Disconnect, and then remove the wiper rail.

Installation warning: Align the peg with the slot, or damage may occur.
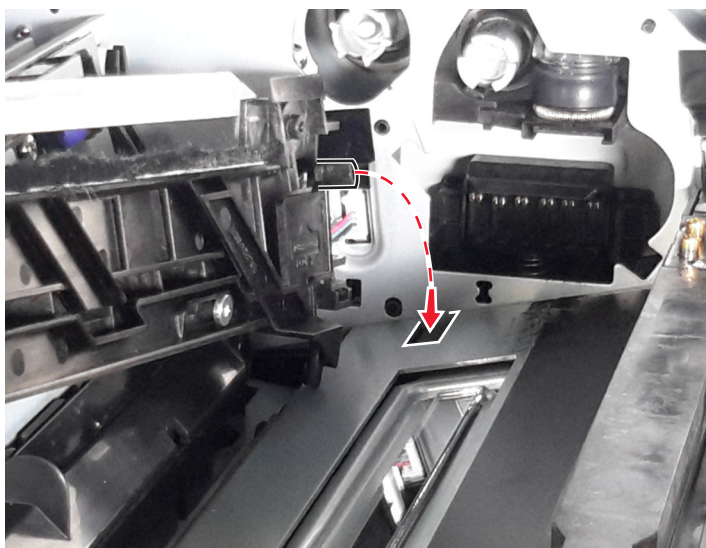
Developer roll power contact removal

Warning—Potential Damage: Pay attention to the cable routing to avoid damage.

  1 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

  2 Remove the inner upper cover. See **"Inner upper cover removal" on page 527**.

  3 Remove the inner lower cover. See **"Inner lower cover removal" on page 528**.

  4 Remove the HVPS fan. See **"HVPS fan removal" on page 538**.

  5 Remove the developer and PC unit combos. See **"Developer unit and photoconductor unit removal" on page 524**.

  6 Remove the transfer belt. See **"Transfer belt removal" on page 531**.

  7 Remove the front door. See **"Front door removal" on page 530**.

  8 Remove the lower front cover. See **"Lower front cover removal" on page 544**.

  9 Remove the PC unit/developer door. See **"PC unit/developer door removal" on page 543**.

 10 Remove the main HVPS. See **"Main HVPS removal" on page 541**.

 11 Remove the developer/PC unit CMY wiper rail. See **"Developer/PC unit CMY wiper rail removal" on page 553**.

 12 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

 13 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

 14 Remove the column outer cover removal. See **"Column outer cover removal" on page 504**.

 15 Remove the right cover. See **"Right cover removal" on page 504**.

 16 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

 17 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

 18 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

Parts removal

19 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

20 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

21 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

22 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

23 Remove the fuser/transfer belt motor gearbox. See **"Fuser/transfer belt motor gearbox removal" on page 586**.

24 Remove the cyan and magenta toner cartridge contacts. See **"Toner cartridge contact removal" on page 592**.

25 Remove the two screws (A) securing the developer roll power contact to the frame.
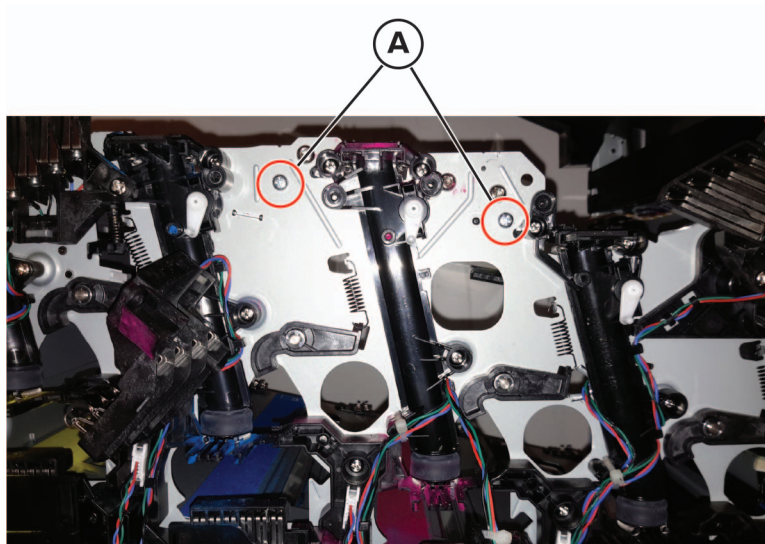
26 Lift the four contacts (B) with a small flat tipped screwdriver, and then detach them from the four brackets (C).
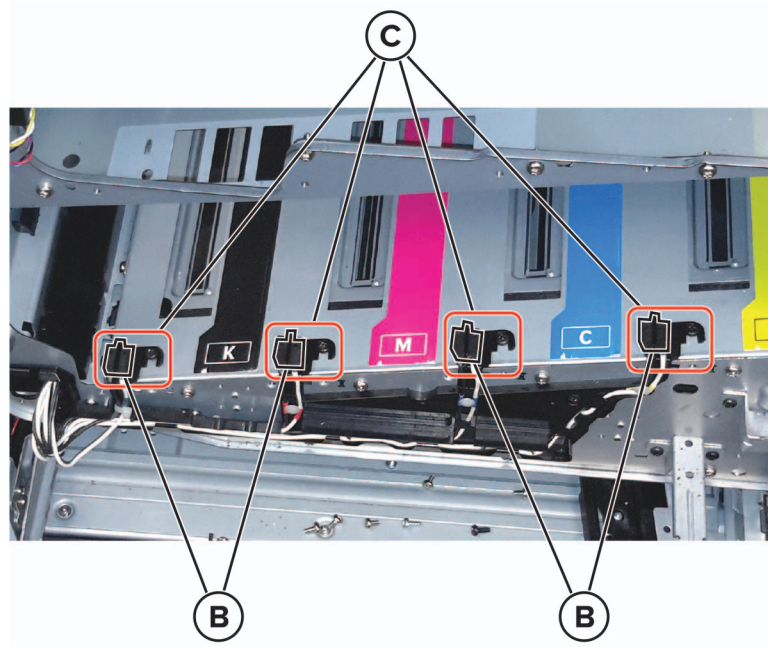
27 Remove the four cable retainers (D), and then remove the cover (E).
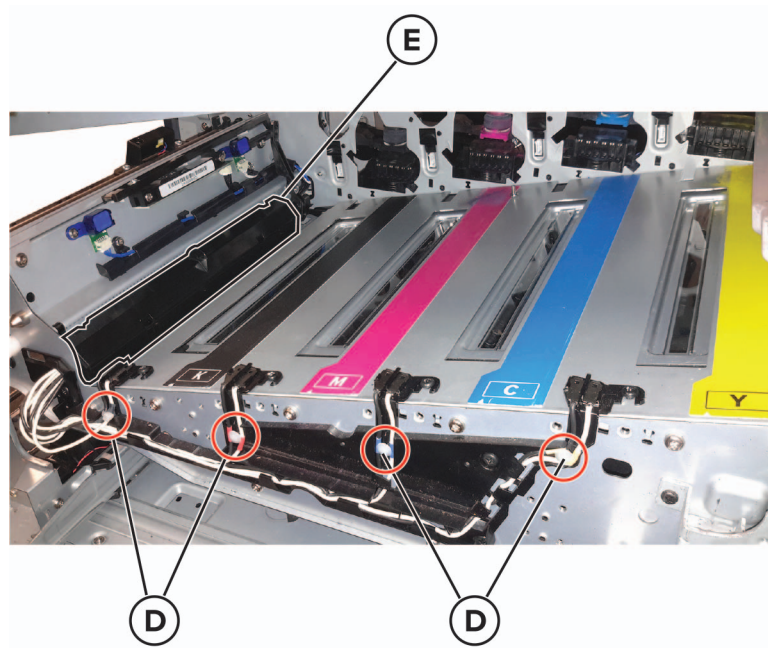
28 Remove the four black cables from the cable guides, and then remove the developer roll power contact.

Installation notes:

a Make sure that the cables are properly routed and replaced.

b Make sure to collect and bundle the excess cables under the cover (E).

Rear side removals

Controller board cover removal

1 Remove the four screws (A).
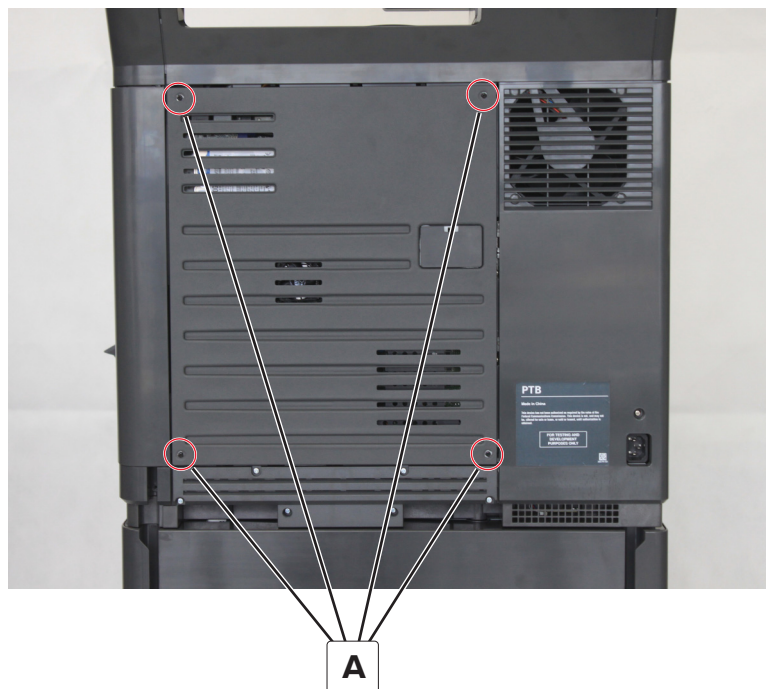
2 Remove the cover.

Rear lower cover removal

1 Remove the six screws (A).
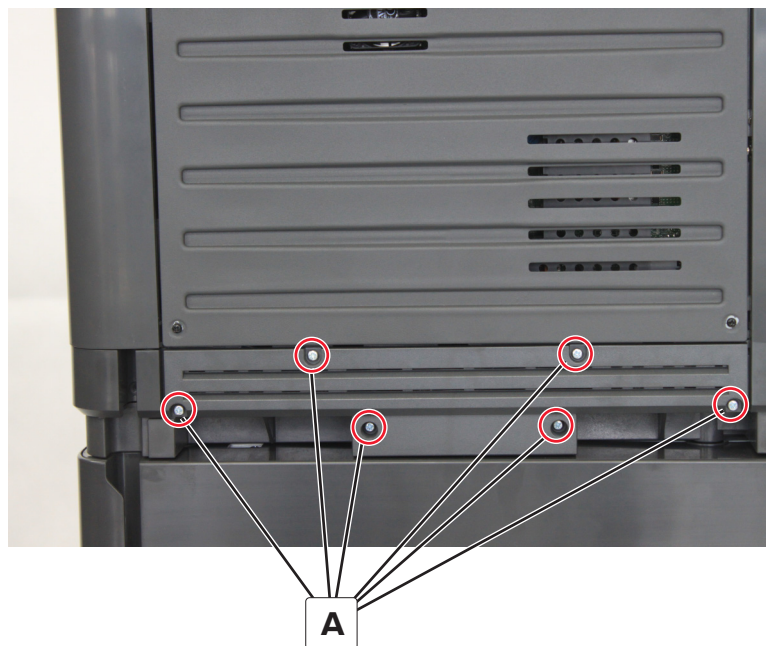
2 Remove the cover.

Rear upper cover removal

1 Remove the two screws (A).
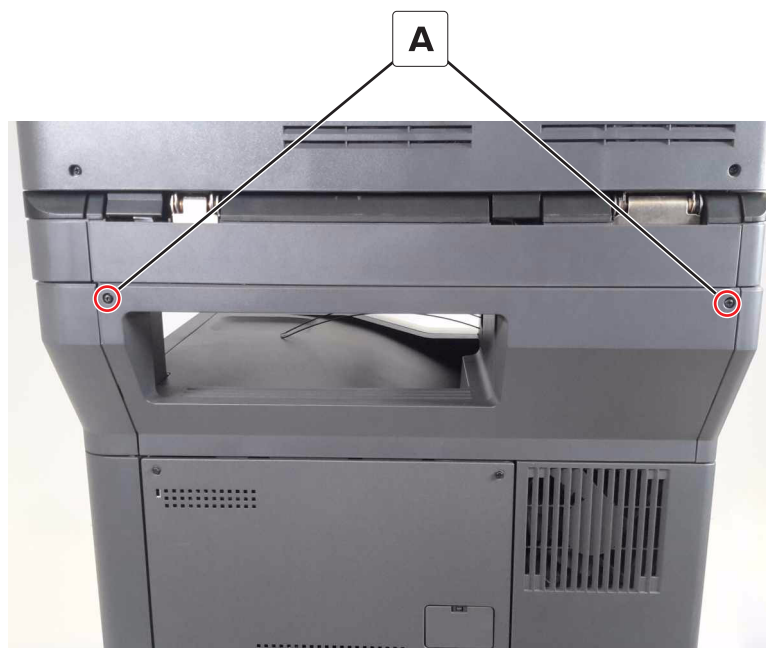
2 Remove the cover.

Rear left cover removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

4 Open door B, and then remove the two screws (A).

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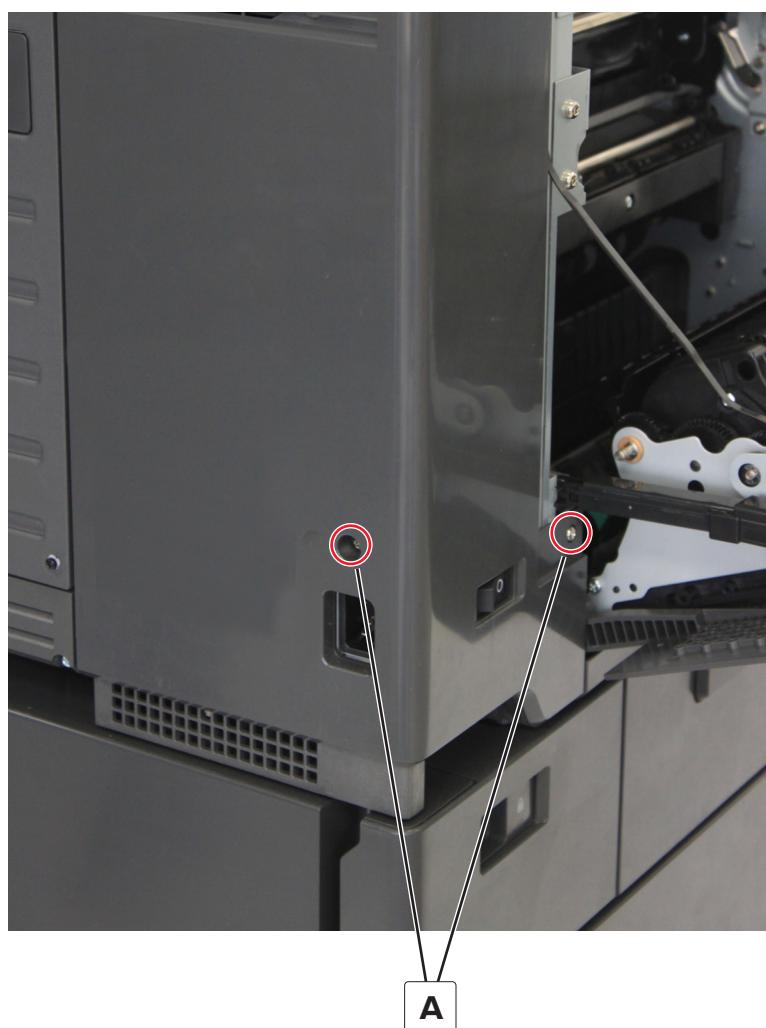
5 Remove the cover.

Charge roller HVPS removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Disconnect the cable (A), and then remove the four screws (B).

Warning—Potential Damage: Do not touch the HVPS circuit components. Only handle it by its edges.

Installation warning: Print quality issues may occur if the screws (B) are loose.

Parts removal
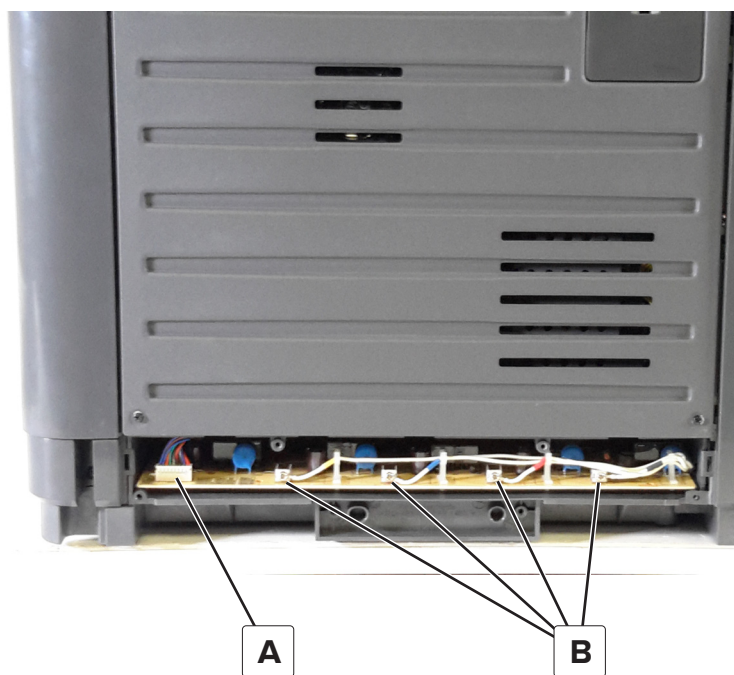
3 Remove the HVPS.

Controller board SIM removal

Note: The printer controller board may contain a Secure Element SIM. This SIM contains software and security settings that are unique to the printer. The SIM must be transferred from the old controller board to the new controller board.

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Slide the SIM lock to the open position.
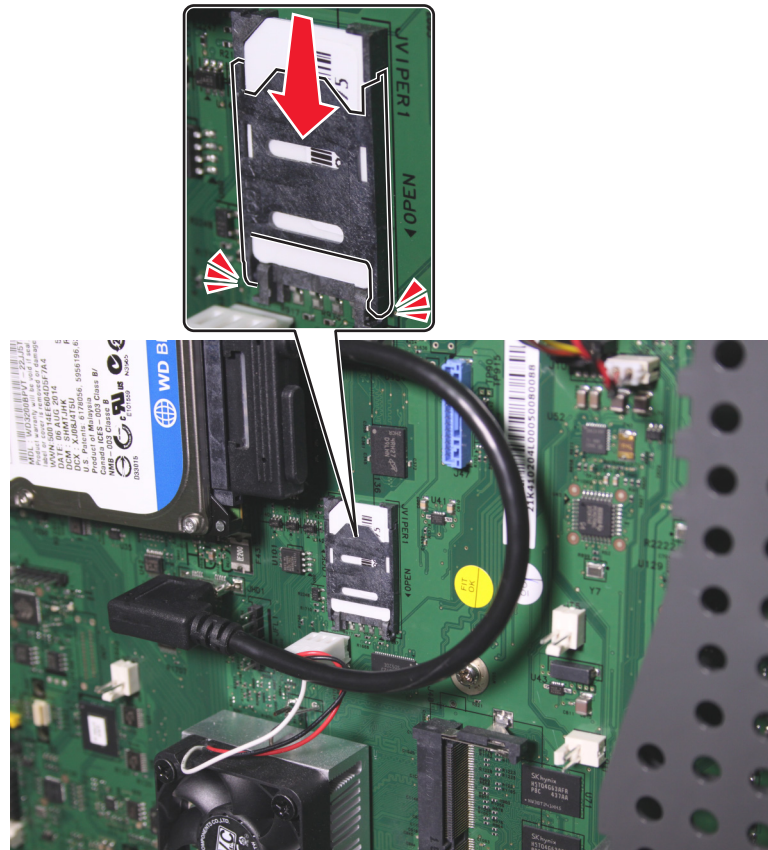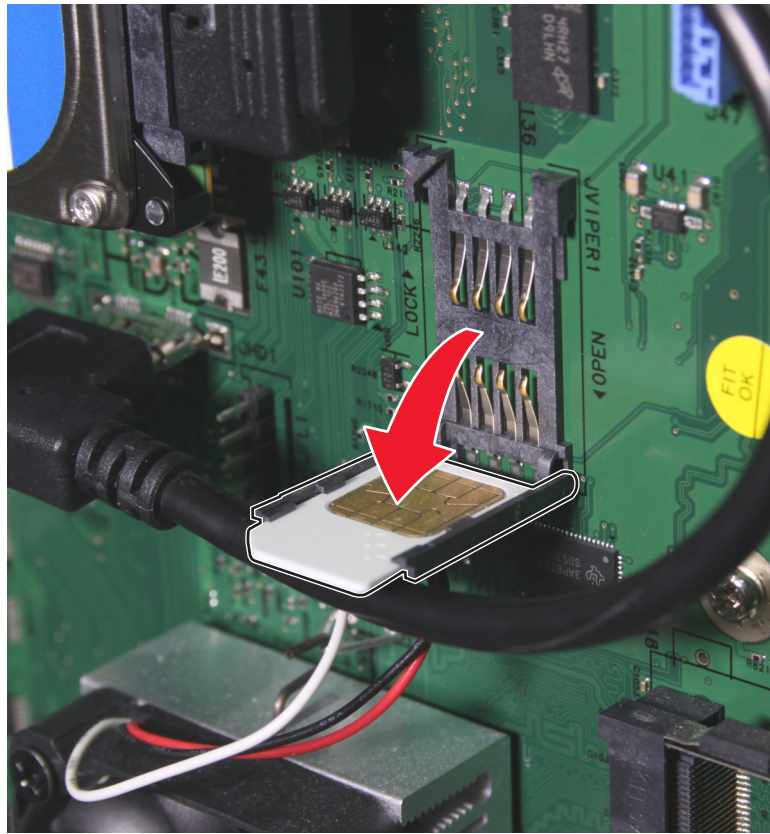
3 Remove the SIM.
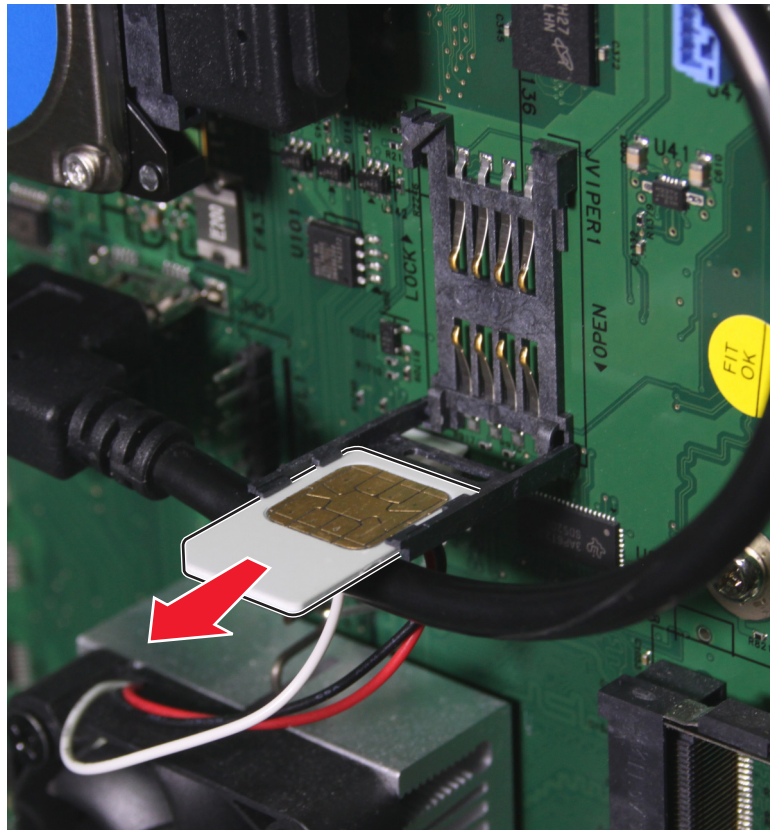
Parts removal

Controller board removal

Warning—Potential Damage: If you are replacing the controller board and the control panel at the same time, then see **"Controller board/control panel replacement" on page 459**.

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Disconnect all the cables from the board.

> **Warning—Potential Damage:** Do not yank the ribbon cables. See **"Disconnecting ribbon cables" on page 465**.

3 Remove the 12 screws (A), and then remove the board shield (B).

4 From the right, open the connector access cover, and then remove the two screws (C).
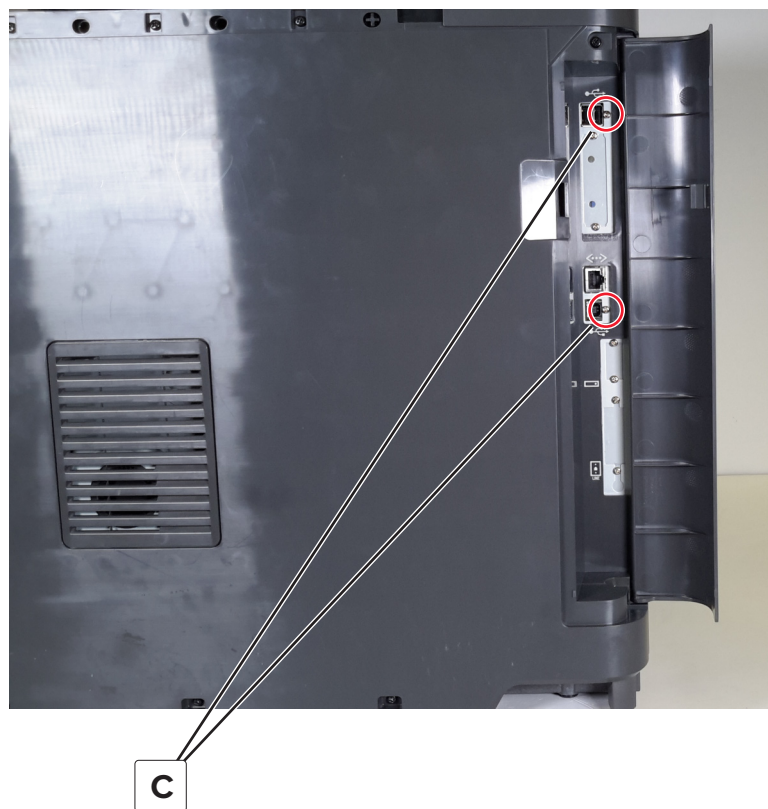
5 Remove the board.

   Installation note: Make sure that the shield is reinstalled after replacing the board.

Main fan removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Disconnect the cable JF1 from the controller board, and then remove the four screws (A).
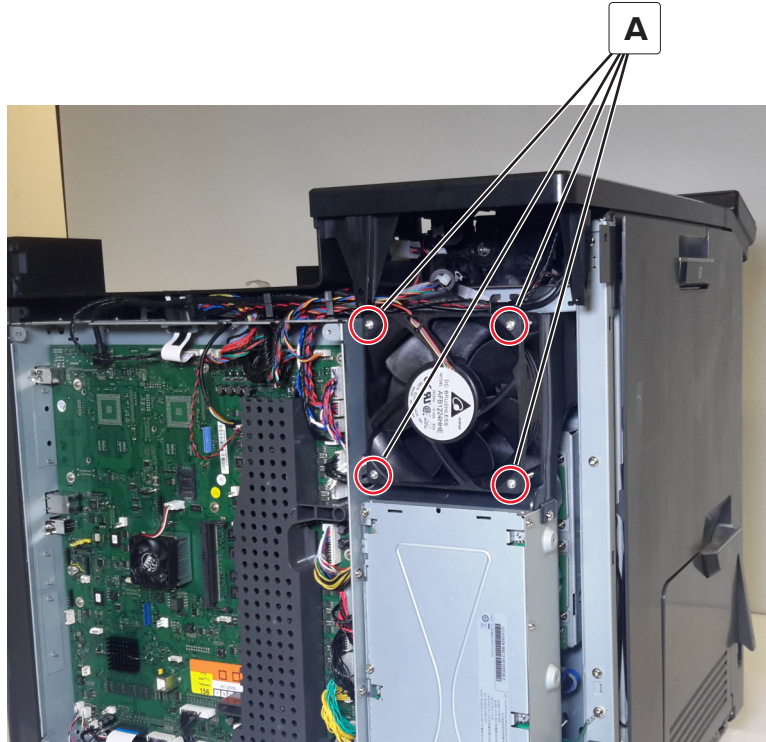
Note: Take note of the correct fan direction and position.

7 Remove the fan.

Installation note: Route the cables through the guides properly.

HEPA filter removal

1 Open the filter door.
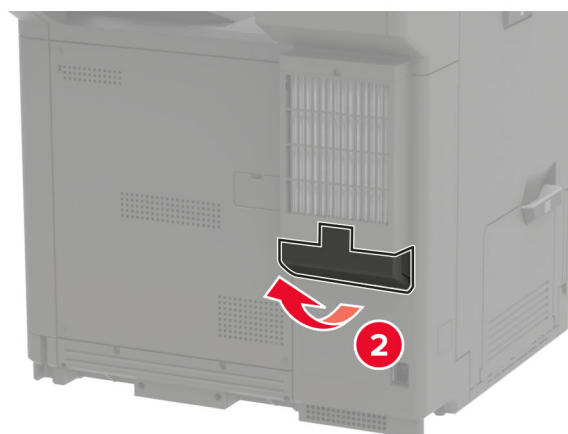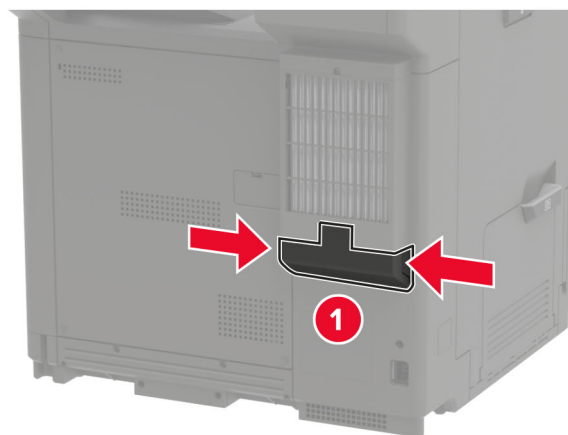
2 Remove the filter.

Installation note: Make sure to reset the HEPA filter counter after replacing the filter. See **"Resetting the HEPA filter counter" on page 776**.

LVPS removal

⚠ **CAUTION—SHOCK HAZARD:** The low-voltage power supply (LVPS) may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its outer edges.

1 Turn off the printer.

2 Unplug the power cord from the electrical outlet, and then from the printer.

3 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

4 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

5 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

7 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

8 Disconnect the cable JLVPS1 from the controller board, and then remove the three screws (A).
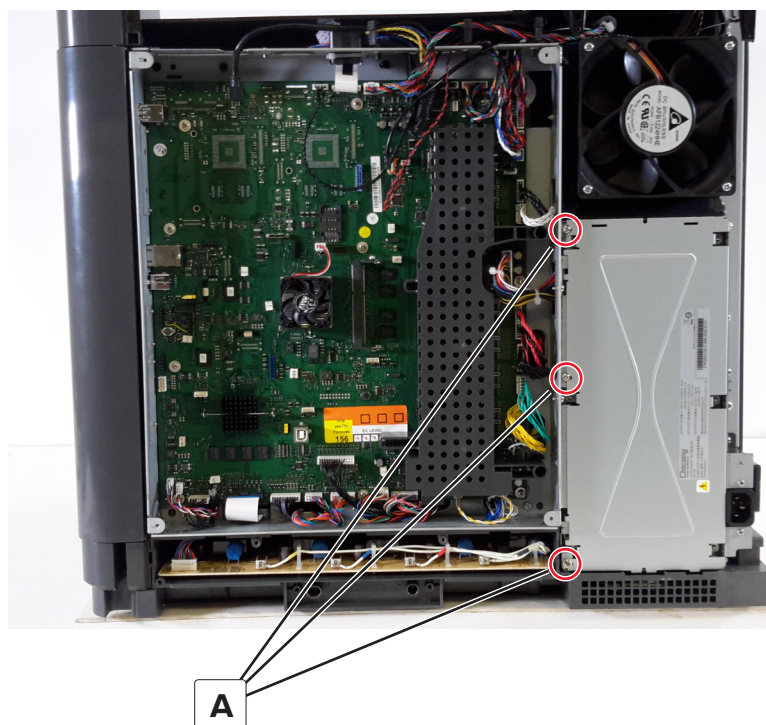
9 Remove the four screws (B) from the side, and then carefully open the LVPS.
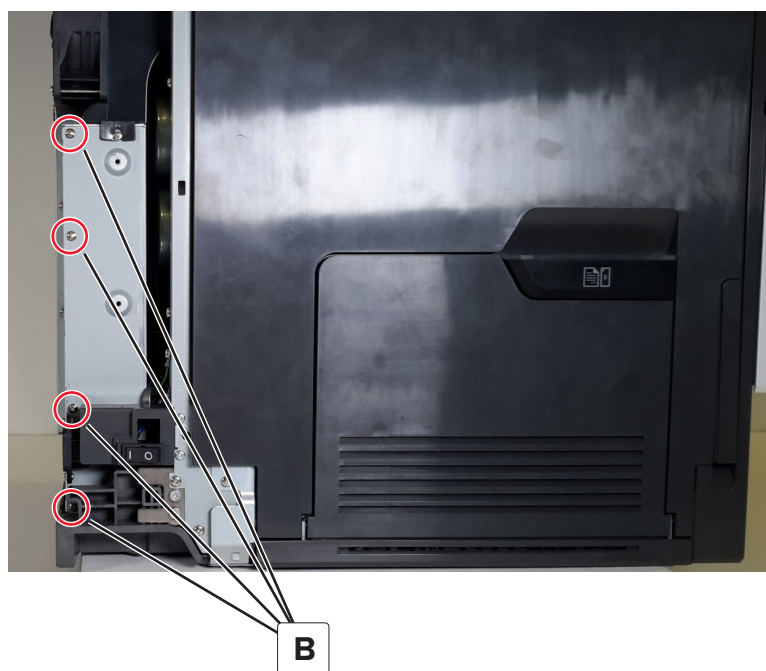
10 Disconnect the three cables (C), and then remove the LVPS.

⚠ **CAUTION—SHOCK HAZARD:** The LVPS may have residual voltage present. To avoid the risk of electrical shock, do not touch its circuit components. Only handle it by its outer edges.

Warning—Potential Damage: Do not put too much strain on the LVPS cables and sockets.
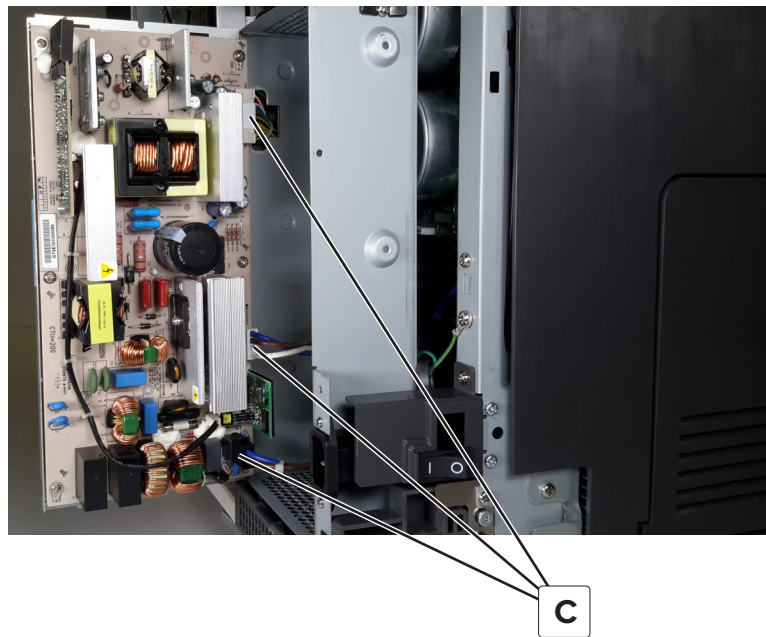
LVPS cage removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Remove the LVPS. See **"LVPS removal" on page 568**.

7 Remove the five screws (A).
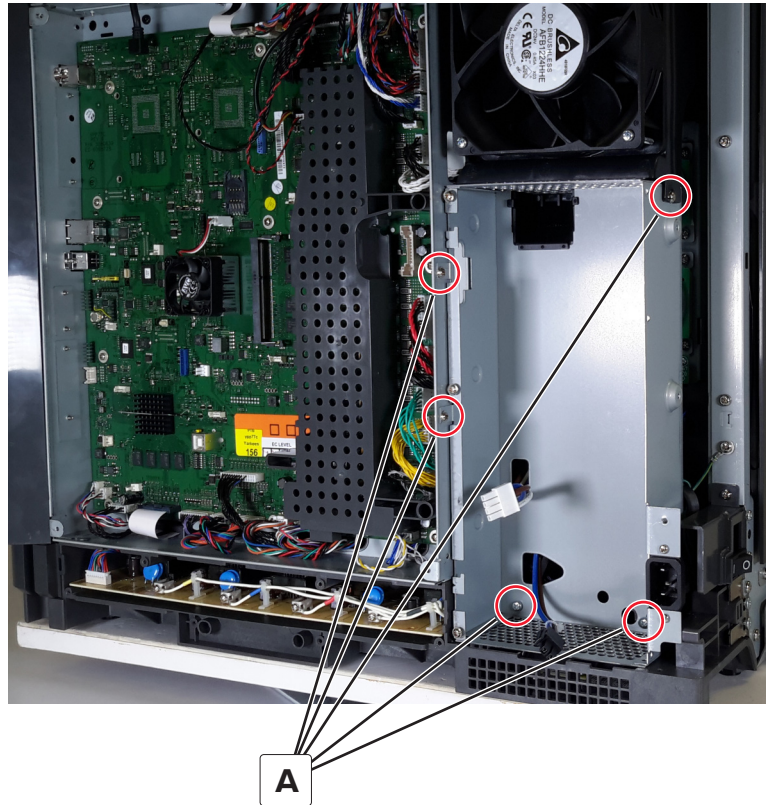
8 Remove the two screws (B).
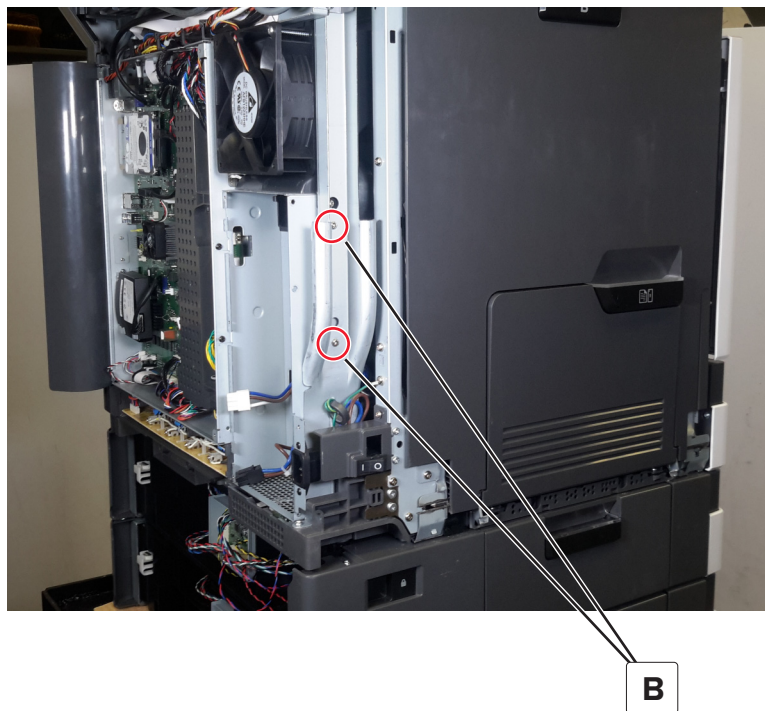
9 Remove the cage.

> **Installation note:** Route the cables through the cage holes properly.

Motor (duplex) removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Remove the LVPS. See **"LVPS removal" on page 568**.

7 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

8 Remove the two screws (A) securing the motor to the frame.
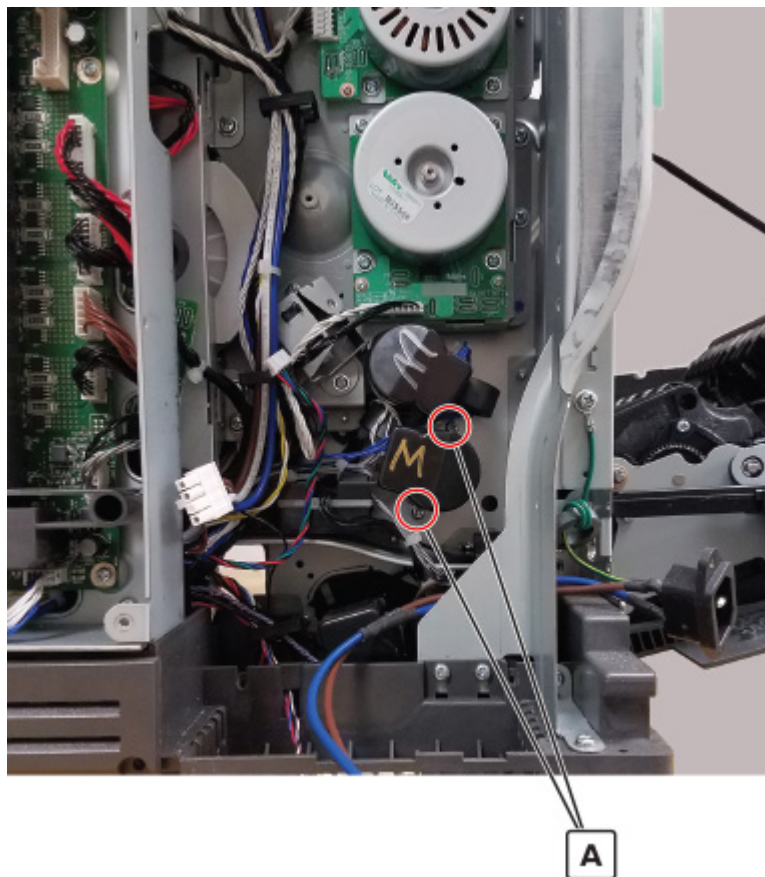
9 Remove the motor.

10 Cut the plastic wire tie (B).

11 Remove the motor cap, and then disconnect the connection.

Weather station removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Remove the LVPS. See **"LVPS removal" on page 568**.

7 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

8 Disconnect the cable (A), and then remove the screw (B).
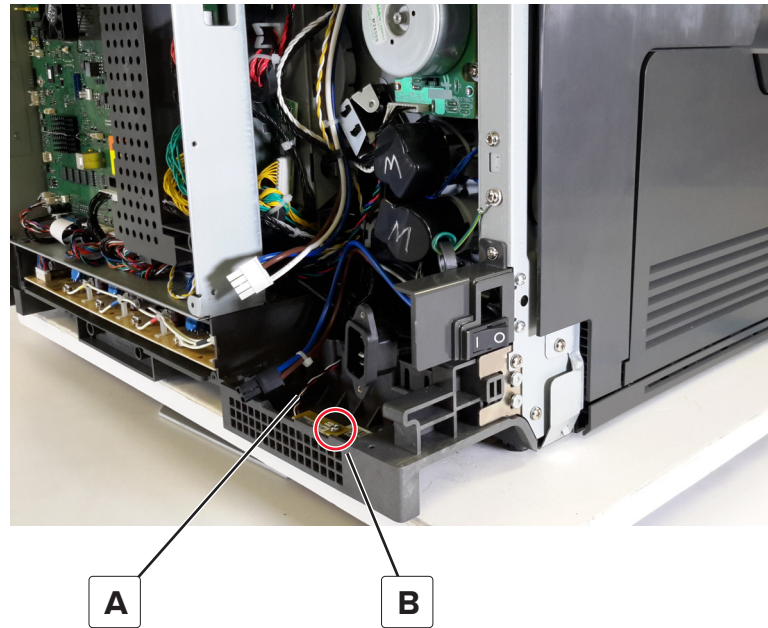
9 Remove the weather station.

Controller board cage removal

Note: This part is not a FRU.

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Disconnect all the cables from the board, and then remove the seven screws (A).

7 Release the cables from the controller board cage, and then remove the cage.

Installation note: Route properly the cables to their appropriate holes.

- Top side
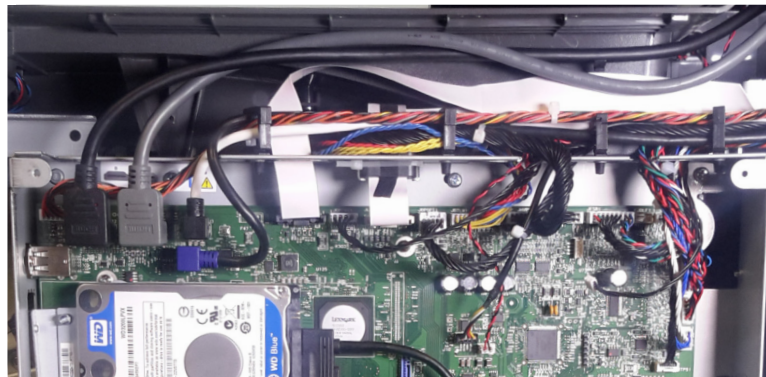
- Bottom and right side
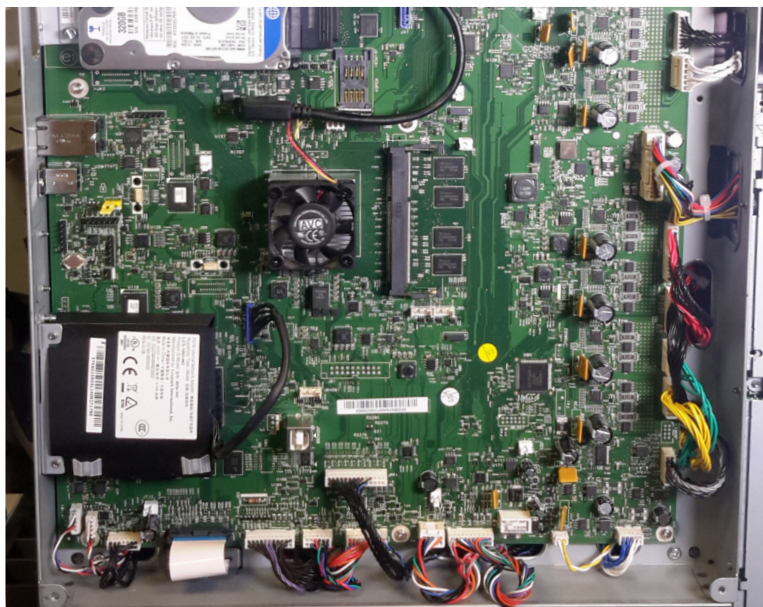
Toner add motor gearbox (K, C, and M) removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

7 Cut the cable tie (A), and then disconnect the cable from the appropriate motor (B).

8 Remove the three screws (C), and then remove the motor gearbox.
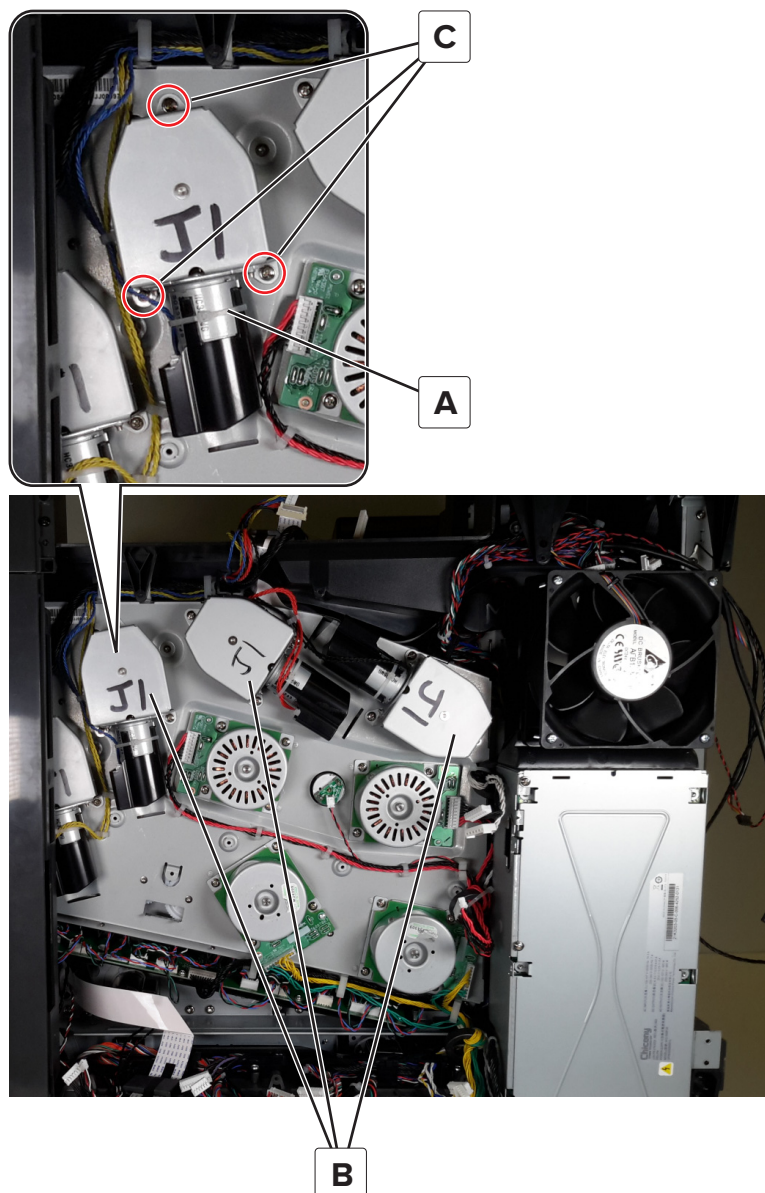
Installation note: Make sure to replace the cable tie and reinstall the motor cover.

Toner add motor gearbox (Y) removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

5 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

6 Remove the column outer cover removal. See **"Column outer cover removal" on page 504**.

Parts removal

7 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

8 Remove the right cover. See **"Right cover removal" on page 504**.

9 Cut the cable tie (A), and then disconnect the cable from the motor (B).

10 Remove the three screws (C), and then remove the motor gearbox.
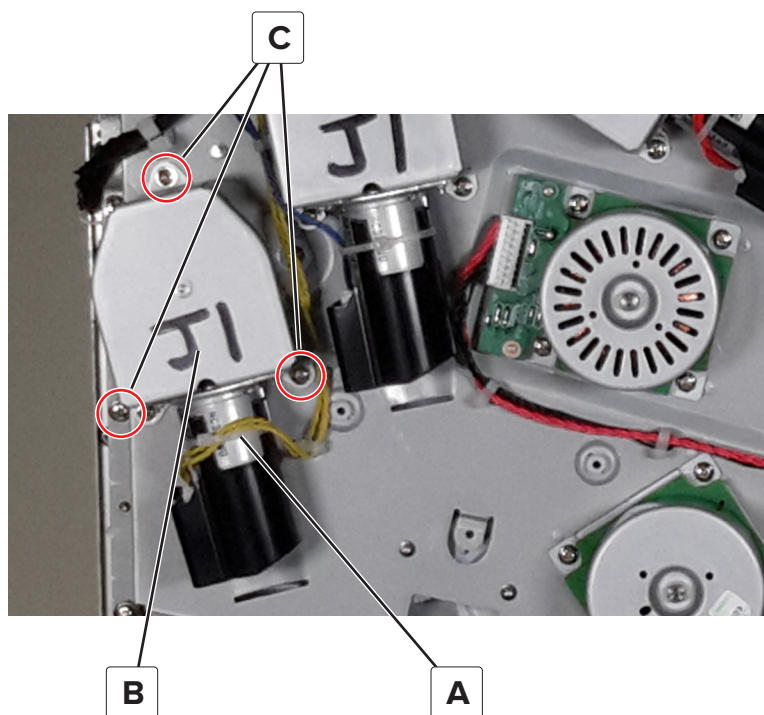
Installation note: Make sure to replace the cable tie, and reinstall the motor cover.

Main fan duct removal

1 Remove the fuser. See **"Fuser removal" on page 477**.

2 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

3 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

4 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

5 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

6 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

7 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

8 Remove the two screws securing the main fan.

9 Allow the fan to carefully hang by the wire.

10 Remove the two screws (A) securing the main fan duct to the frame.

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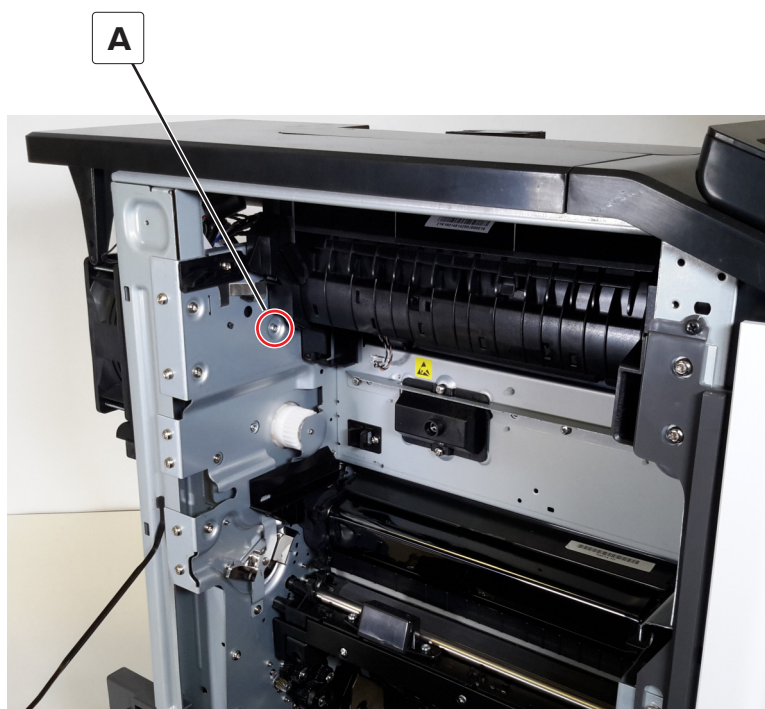
11 Remove the main fan duct.

Motor (redrive) removal

1 Remove the fuser. See **"Fuser removal" on page 477**.

2 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

3 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

4 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

5 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

6 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

7 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

8 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

9 Remove the two screws (A) securing the small duct to the frame.
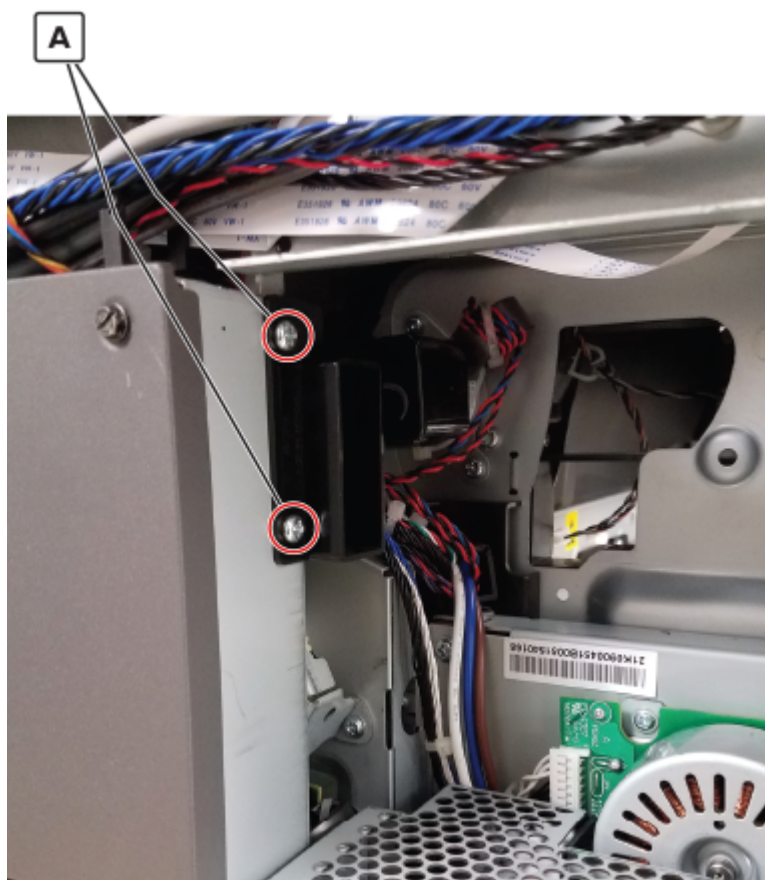
10 Remove the small duct.

11 Remove the two screws (B) securing the motor (redrive) to the frame.
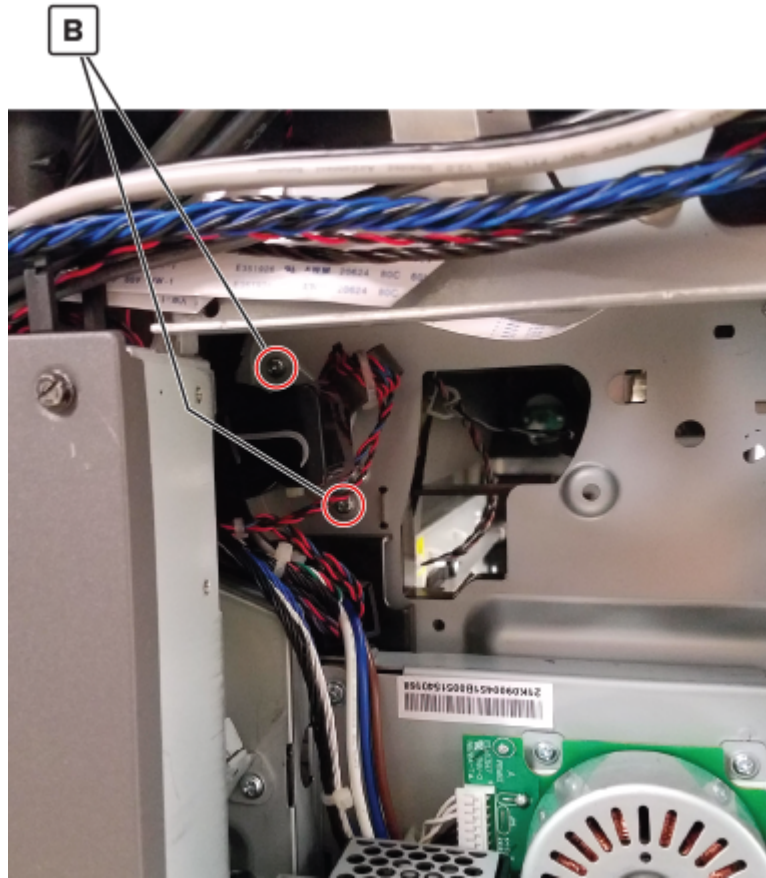
Note: See where the screwdriver (C) is inserted to gain straight-on access to the top screw.
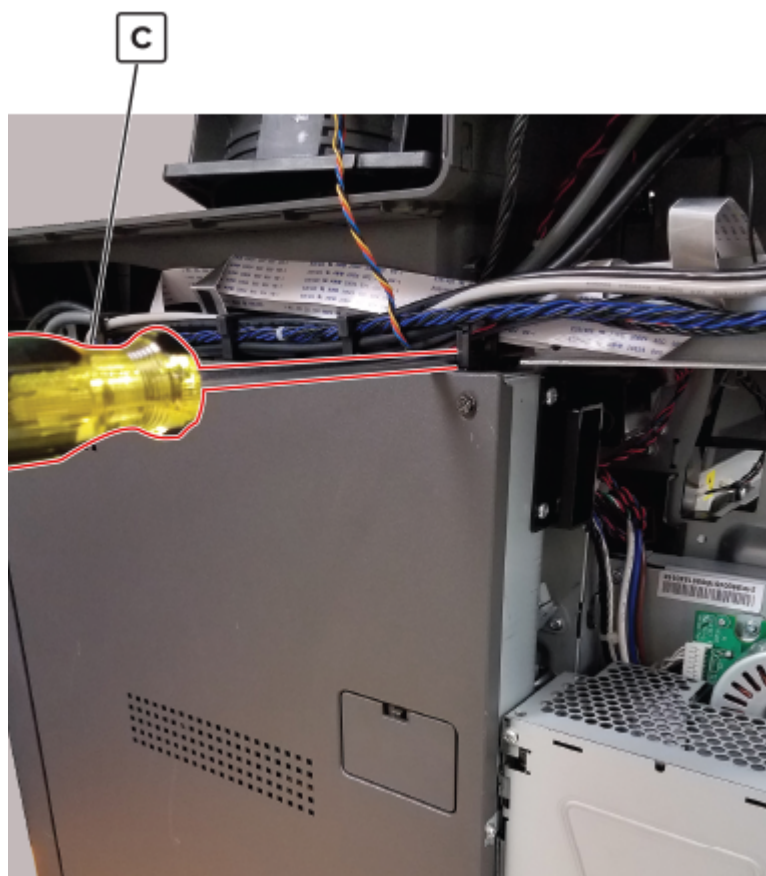
12 Remove the motor.

13 Cut the plastic wire tie, and then remove the motor cap.

14 Disconnect the connection.

EP, developer, toner add gearbox removal

1 Remove the toner cartridges, developer and PC unit combos, and transfer belt.

2 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

3 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

4 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

5 Remove the right cover. See **"Right cover removal" on page 504**.

6 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

7 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

8 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

9 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

10 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

11 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

12 Remove the seven screws (A), and then release the cables from the cable guides.

Warning—Potential Damage: The flat cable is fragile. Be careful when detaching the cable from the gearbox.
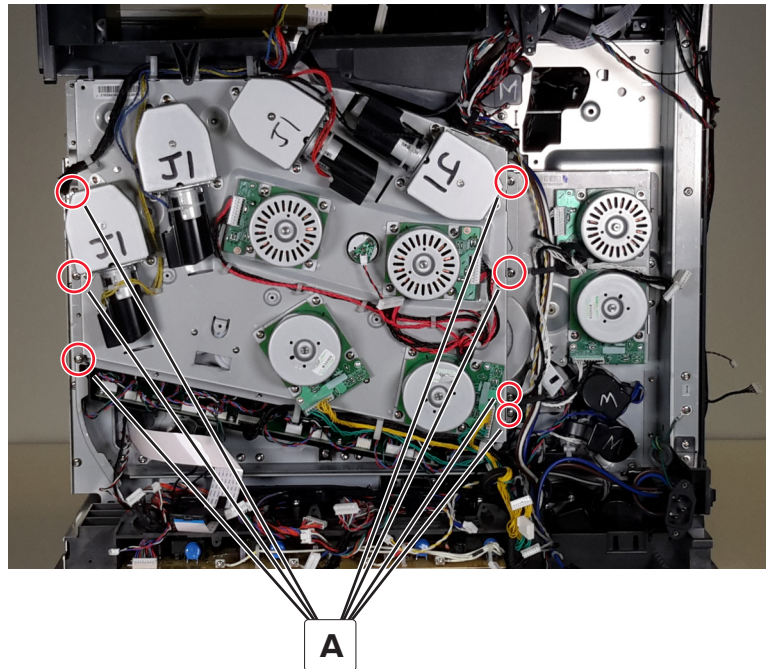
13 Remove the gearbox.

Installation notes:

a Position the toner supply actuator (A) as far to the right as possible.

Parts removal
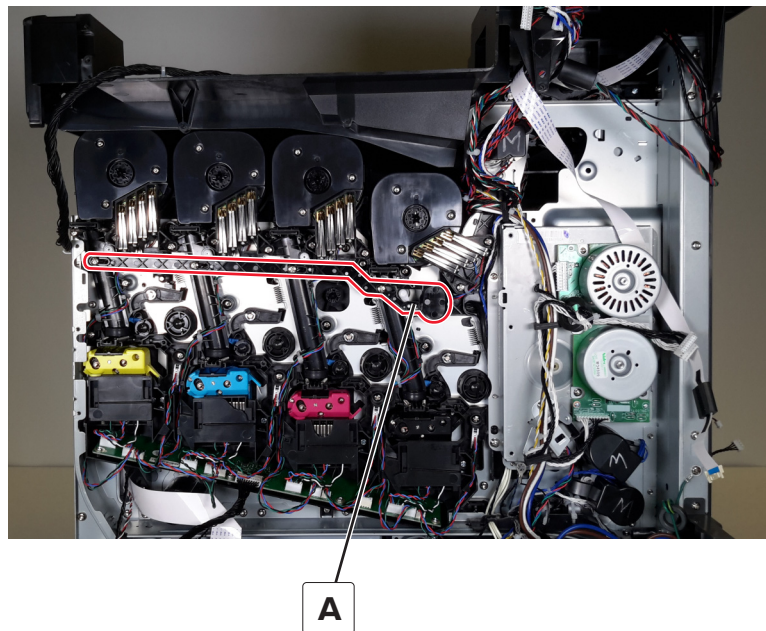
b Take note of the correct position of the cam gear (B). Make sure that the arrow indicators (C) align.
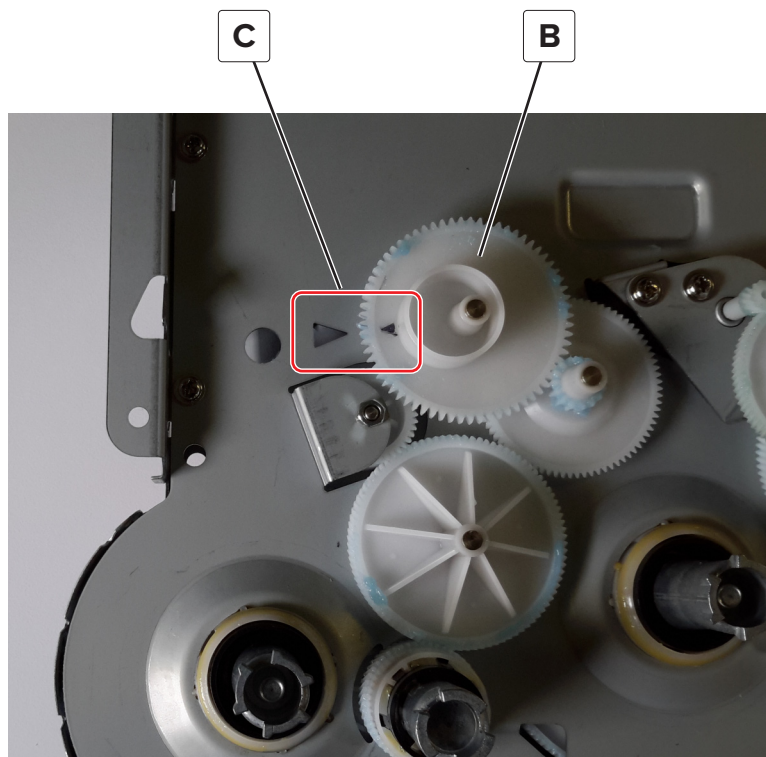
c Make sure that the cables under the gearbox are properly routed.

Warning—Potential Damage: Cables (D) may get pinched if they are not properly installed.
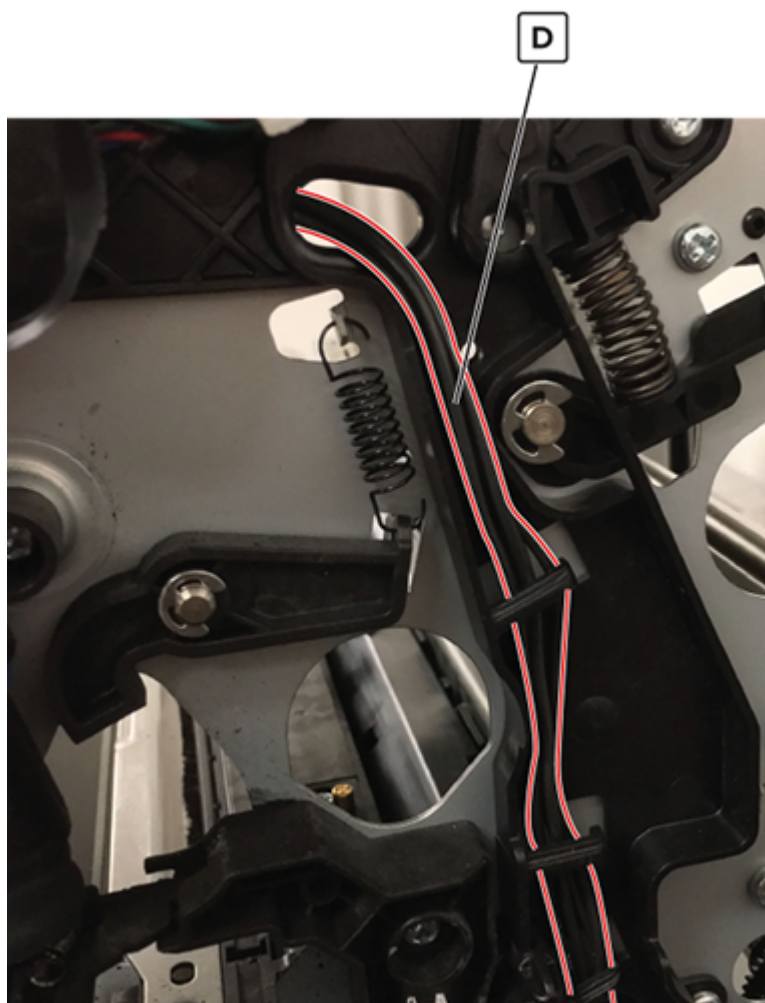
d Align the bottom edge of the gearbox first, and then swing up to align the cam gear to the toner supply actuator.

e Route the cables properly.

Fuser/transfer belt motor gearbox removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

4 Remove the right cover. See **"Right cover removal" on page 504**.

5 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

7 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

8 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

9 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

10 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

11 Release the cables from the cable guides (A).

12 Remove the four screws (B), and then disconnect the sensor cable (C).
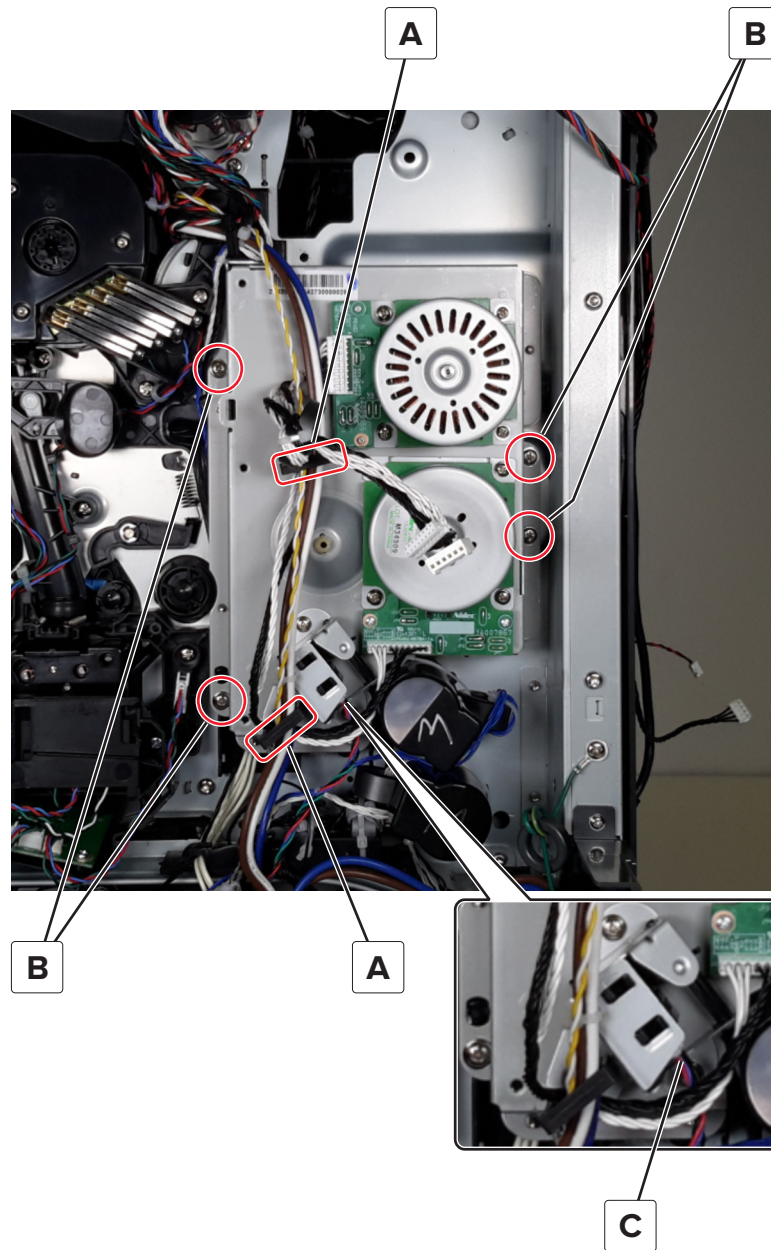
13 Remove the gearbox.

   Installation note: Insert the waste toner shaft (A) into the bushing (B) on the gearbox.

A

B

Waste toner gear removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

4 Remove the right cover. See **"Right cover removal" on page 504**.

5 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

7 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

8 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

9 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

10 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

11 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

12 Remove the fuser/transfer belt motor gearbox. See **"Fuser/transfer belt motor gearbox removal" on page 586**.

13 Pull out the waste toner shaft (A).
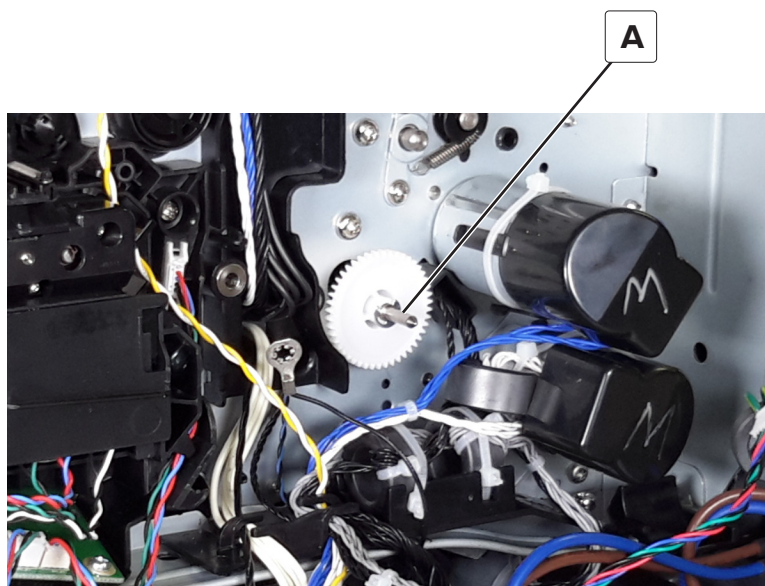
14 Remove the E-clip (B), release the latch (C), and then remove the gear.

Toner supply actuator removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

4 Remove the right cover. See **"Right cover removal" on page 504**.

5 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

7 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

8 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

9 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

10 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

11 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

12 Remove the four screws (A), and then remove the actuator.

Smart chip interface board removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

4 Remove the right cover. See **"Right cover removal" on page 504**.

5 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

7 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

8 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

9 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

10 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

11 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

12 Disconnect, and then release all the cables from their guides.

13 Remove the six screws (A), and then remove the board.
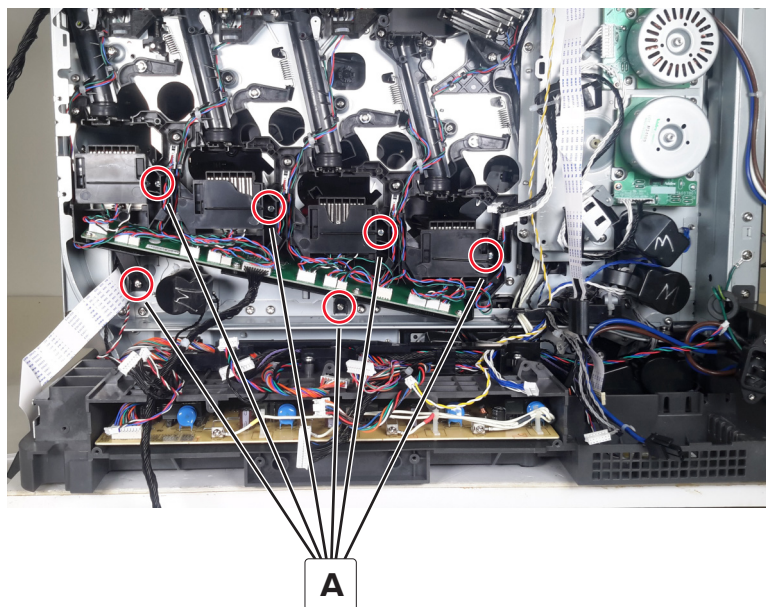
Toner cartridge contact removal

1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

4 Remove the right cover. See **"Right cover removal" on page 504**.

5 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

7 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

8 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

9 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

10 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

11 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

12 Remove the two screws (A) from the appropriate contact (B).

13 Pull the contact, and then disconnect the spring (B).
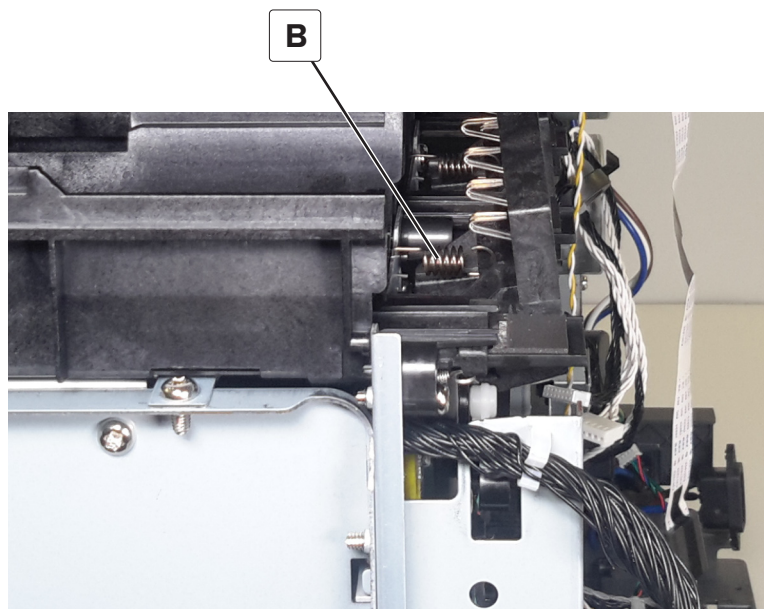
14 Release the contact cable from the cable guides.

15 Disconnect the contact cable from the smart chip board.

16 Remove the contact.

Toner add tube removal

 1 Remove the rear lower cover. See **"Rear lower cover removal" on page 559**.

 2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

 3 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

 4 Remove the right cover. See **"Right cover removal" on page 504**.

 5 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

 6 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

 7 Remove the rear left cover. See **"Rear left cover removal" on page 560**.

 8 Remove the controller board cage. See **"Controller board cage removal" on page 575**.

 9 Remove the LVPS cage. See **"LVPS cage removal" on page 570**.

10 Remove the main fan duct. See **"Main fan duct removal" on page 579**.

11 Remove the EP, developer, toner add gearbox. See **"EP, developer, toner add gearbox removal" on page 583**.

12 Remove the two screws (A) from the appropriate contact (B).

13 Carefully lift the contact, and then remove the screw (C) under it.
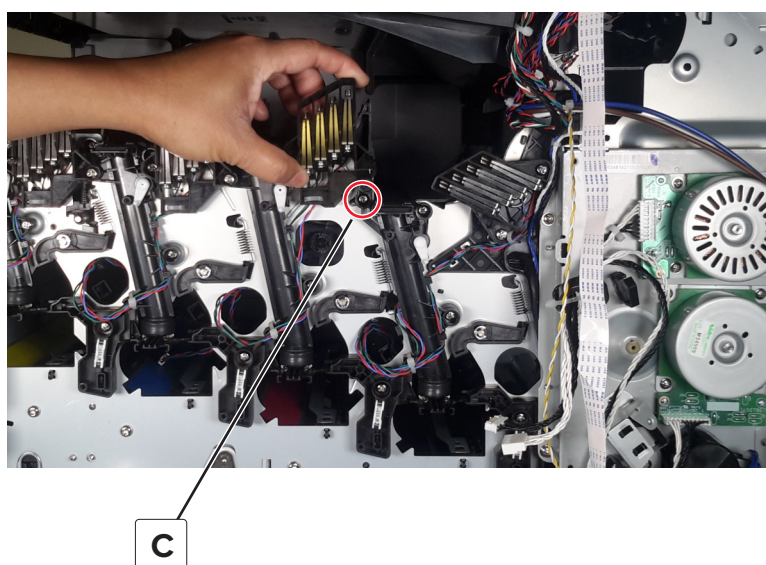
Parts removal

14 Release the appropriate cables from the cable guides.

15 Remove the appropriate screw (D), and then carefully remove the toner port retainer.
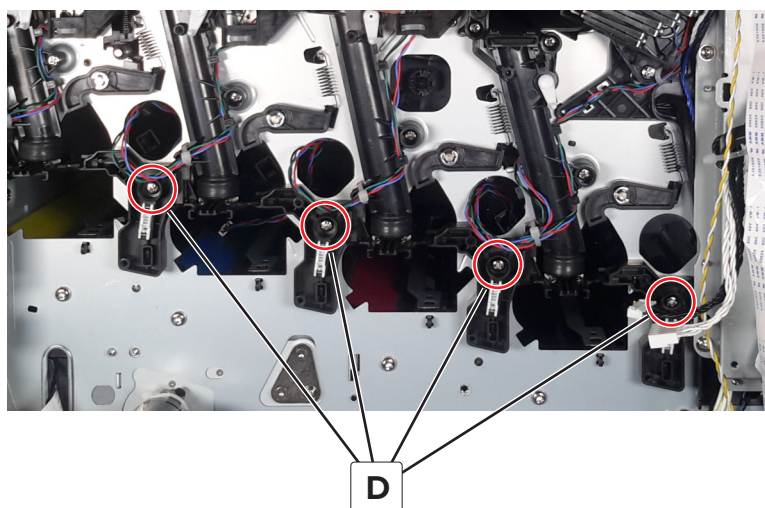
16 Remove the three screws (E), and then remove the appropriate tube.

Warning—Potential Damage: The tube is fragile. Do not disconnect the tube from the nozzle.

Parts removal

596
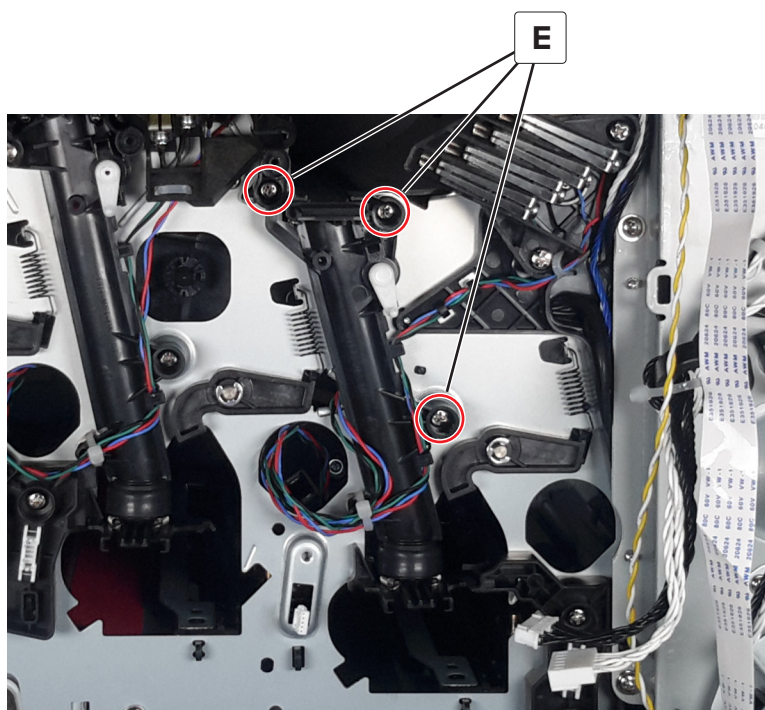
Top side removals

Top cover removal

1 Remove the exit cover.

2 Open door C, and then remove the four screws (A).
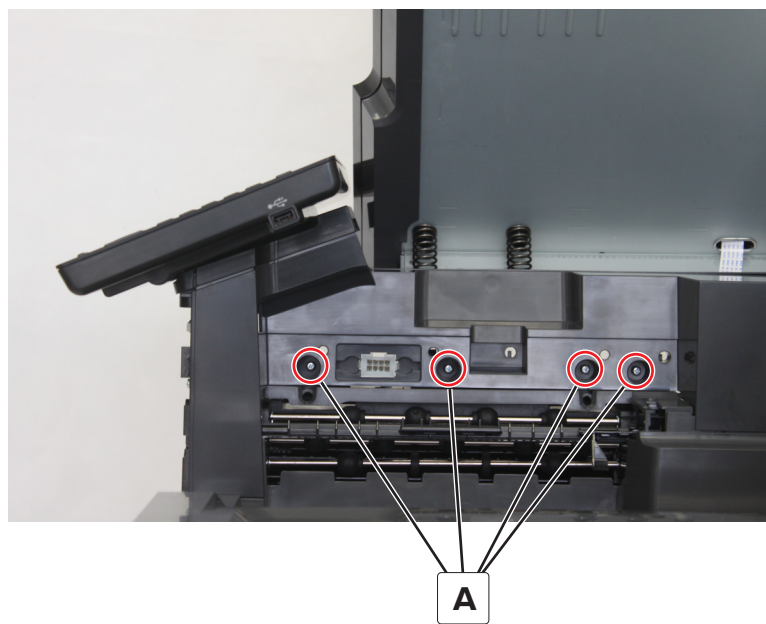
3 Press the latches to release, and then push the connector.
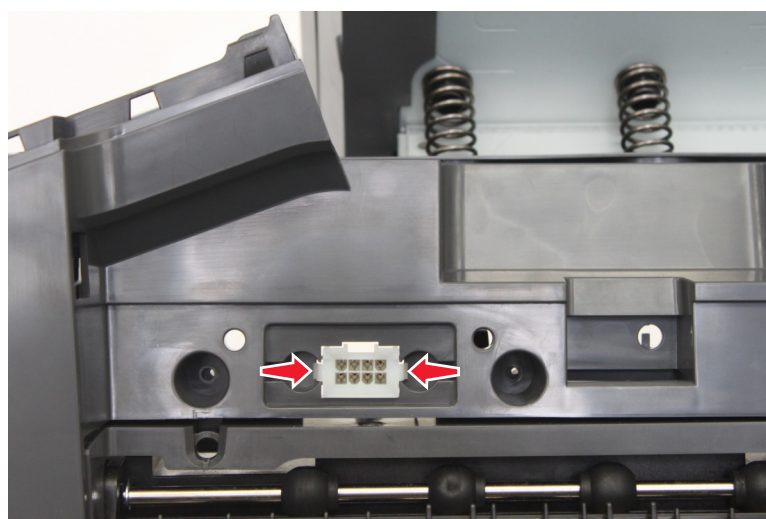
4 Remove the rear upper cover. See .

5 From the rear right, remove the screw (B).
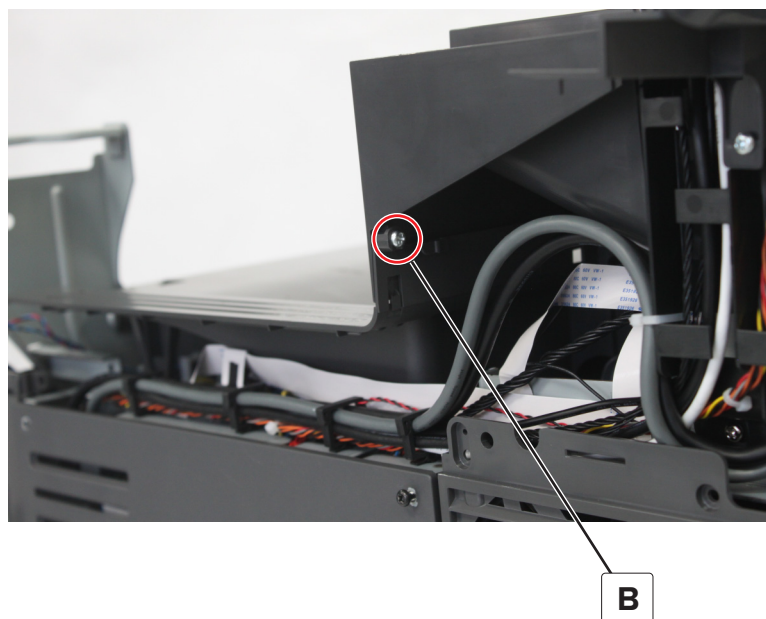
6 Lift, and then remove the cover under the control panel.

7 Remove the three screws (C), and then disconnect the door holder.

Warning—Potential Damage: Hold the ADF door while removing the screws to avoid slamming the door into the printer.

⚠ **CAUTION—PINCH HAZARD:** To avoid the risk of a pinch injury, use caution when handling the door mechanism.
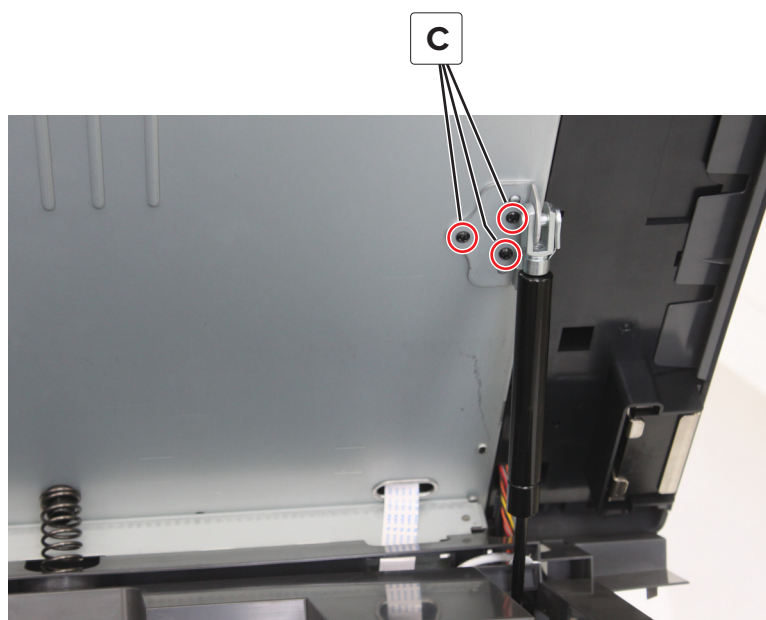
8 Remove the cover.

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

Standard bin cover removal

1 Remove the controller board cover. See **"Controller board cover removal" on page 558**.

2 Remove the keyboard attach cover. See **"Keyboard attach cover removal" on page 517**.

3 Remove the front column upper cover. See **"Front column upper cover removal" on page 527**.

4 Pull, and then remove the HTU attach cover.

5 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

6 Remove the column outer cover. See **"Column outer cover removal" on page 504**.

7 Release the cable (A) from the cable holders.

   Note: Take note of the original route of the cable.

   Warning—Potential Damage: Be careful in handling the cable.
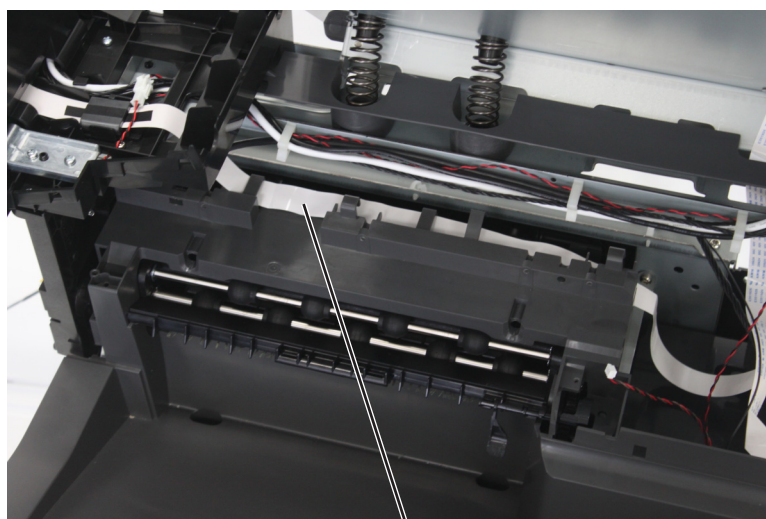
8 Remove the ground screw (B) from the front column.
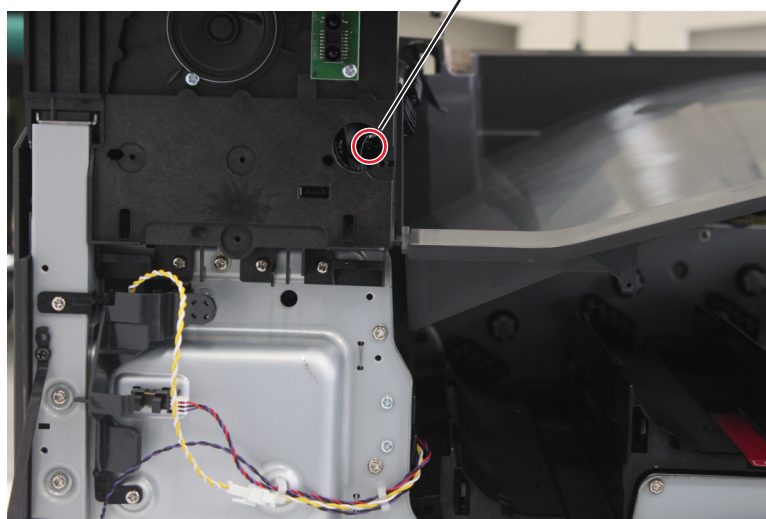
9 From the rear, remove the two screws (C).
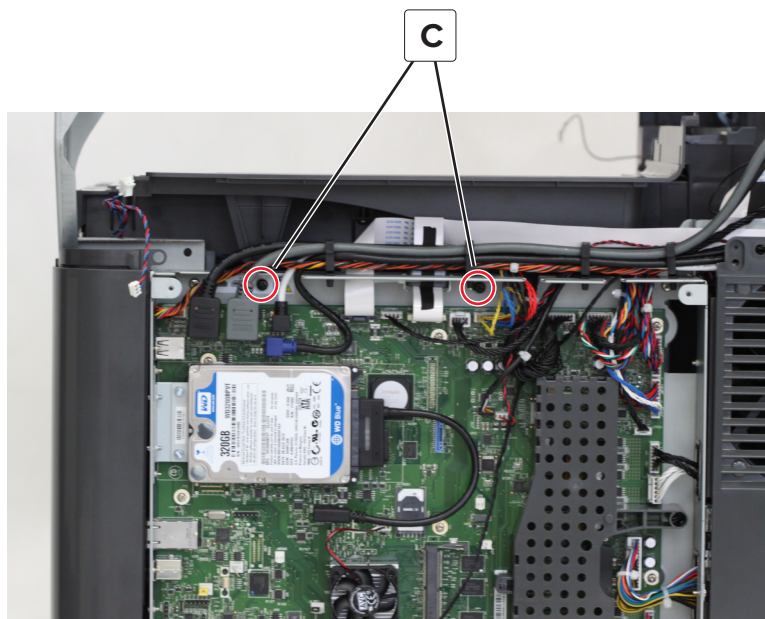
10 Remove the cover.

Sensor cover removal

1 Open door C, and then remove the screw.

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

2 Lift the flag (A) to release, and then lift the cover (B).

Parts removal

3 Disconnect the cable (C), and then remove the sensor.

C
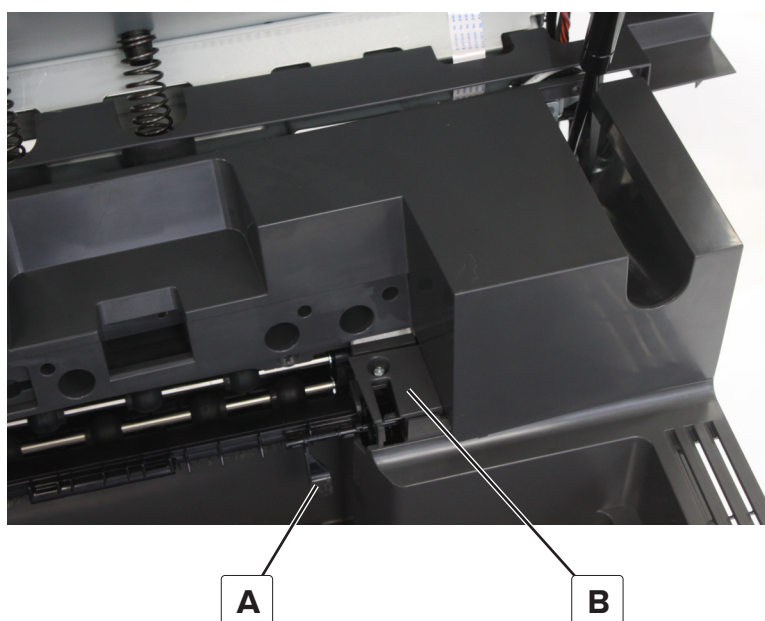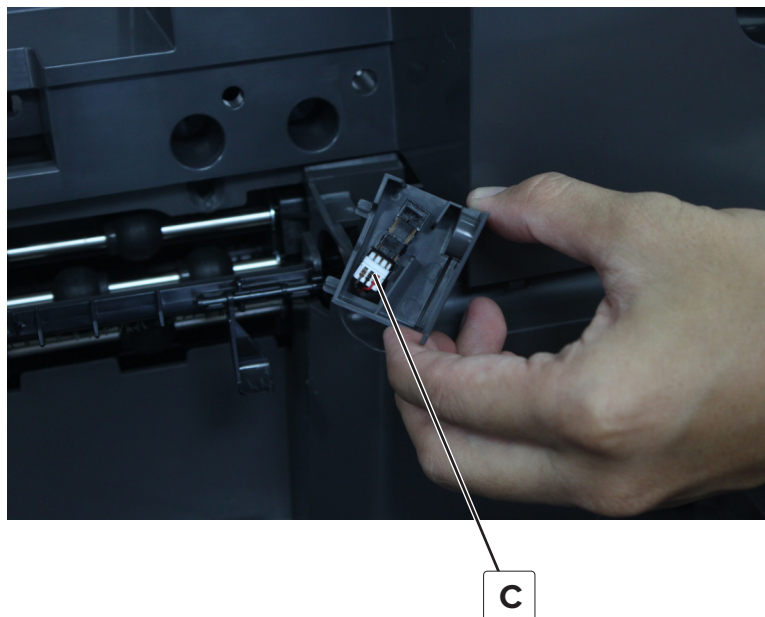
Installation note: Reinstall the strip (A) to secure the sensor latches properly.

A
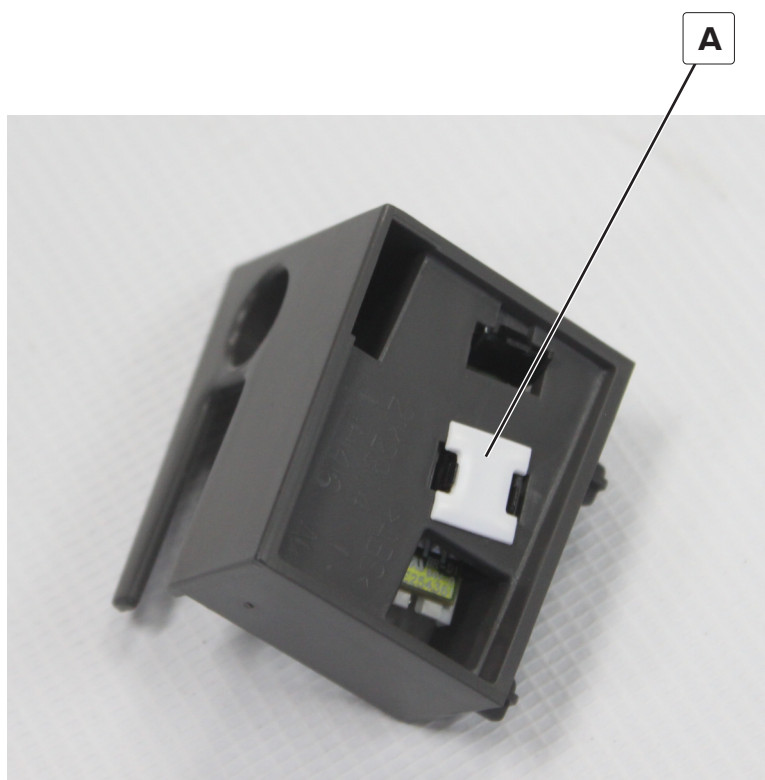
ADF and flatbed removals

ADF pick roller cover removal

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

1 Open door D.
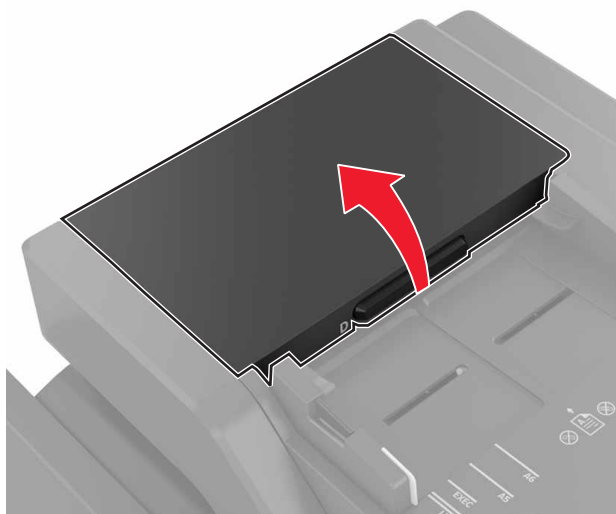
2 Release the latches, and then remove the cover.
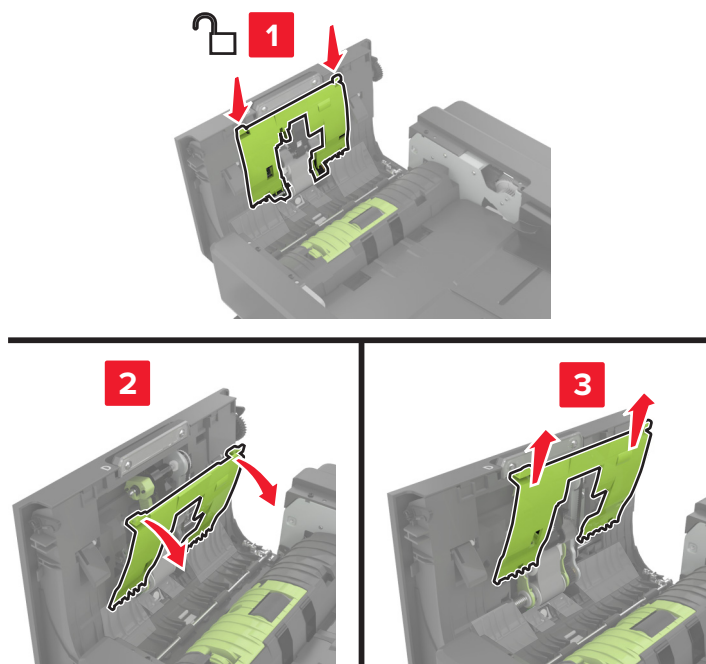
ADF maintenance kit removal

Warning—Potential Damage: Replace the ADF pick roller, ADF feed belt, and ADF separator roller at the same time. If the life of these parts don't match, feed issues may occur.

ADF pick roller removal

1 Remove the ADF pick roller cover. See .

2 Remove the pick roller.
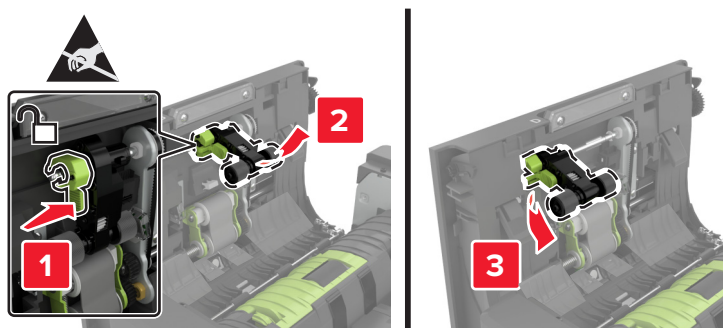
ADF feed belt removal

1 Remove the ADF pick roller cover. See **"ADF pick roller cover removal" on page 603**.

2 Remove the feed belt.
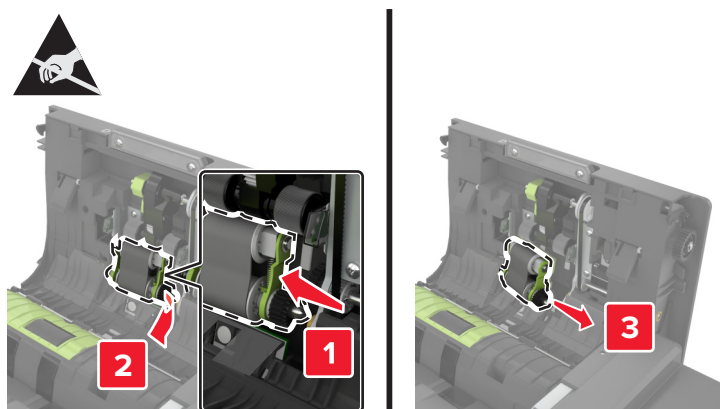
ADF separator roller removal

1 Remove the ADF pick roller cover. See **"ADF pick roller cover removal" on page 603**.

2 Remove the separator roller.
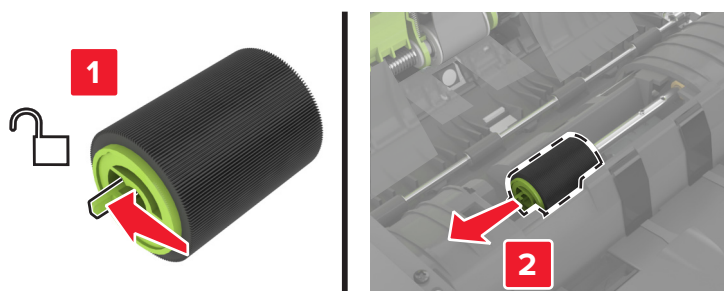
ADF rear cover removal

1 Open the ADF top door.

2 Remove the four screws (A), and then remove the cover.
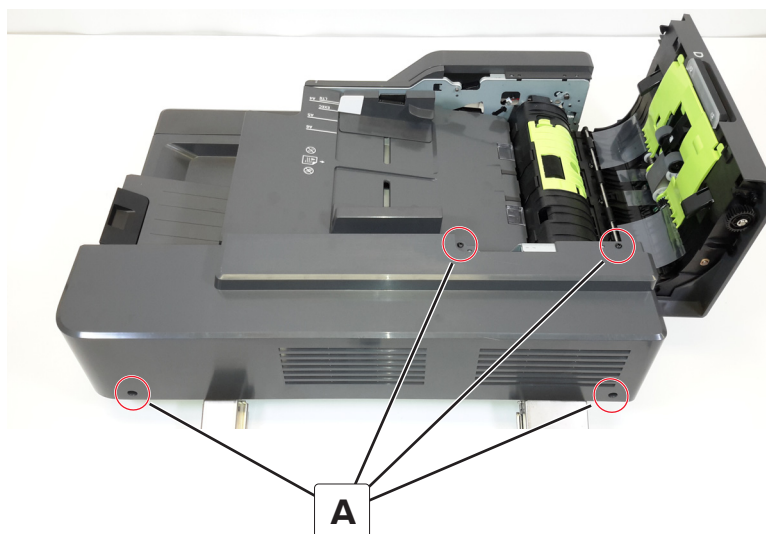
ADF removal

1 Remove the rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the four screws (A) from the retainers and grounding straps.

3 Disconnect the five cables (B).

Parts removal
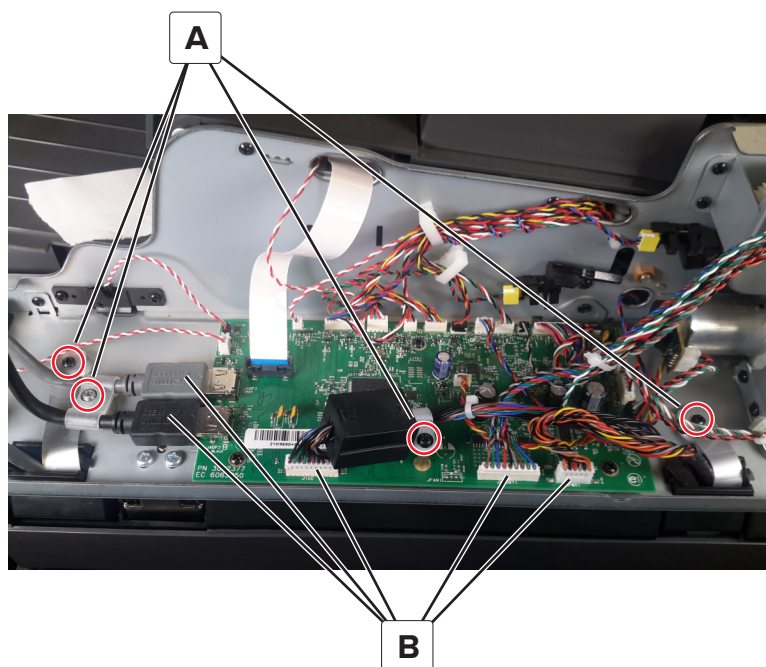
4 Release the latch (C) from the toroid casing (D), and then remove it from the cable.
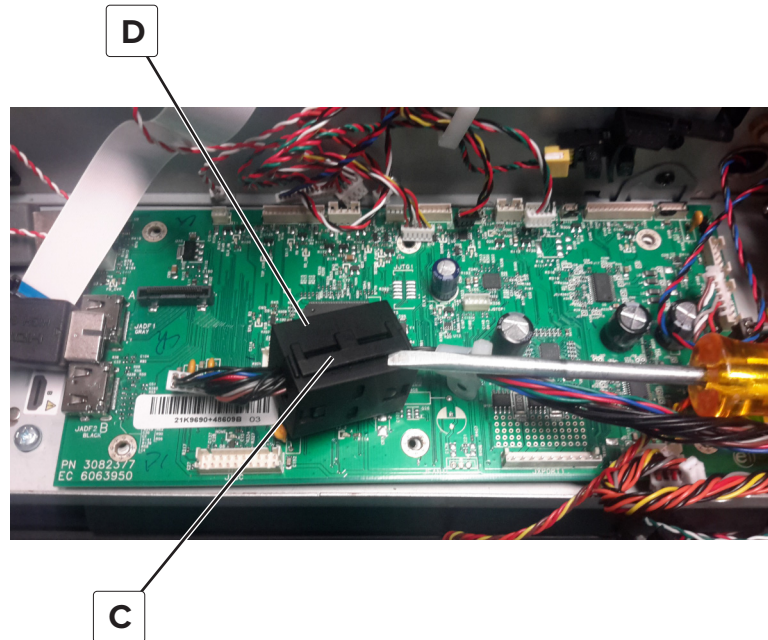
5 Gently remove the ADF from the flatbed scanner while unrouting the cables from the ADF frame.

Installation note: Make sure that all grounding straps and toroid casings are properly reinstalled.

ADF controller board removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Disconnect all the cables from the controller board, and then remove the six screws (A).

> **Warning—Potential Damage:** Do not yank the ribbon cable. See **"Disconnecting ribbon cables" on page 465**.
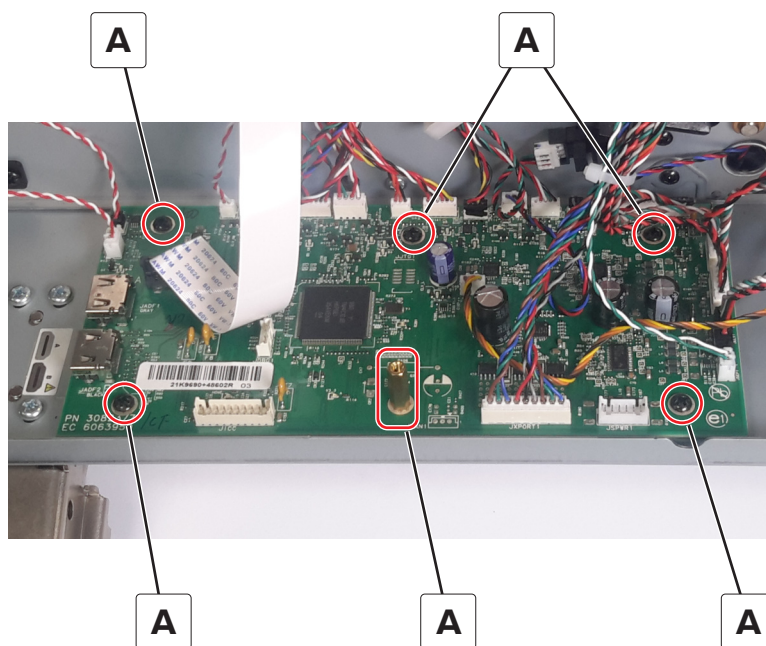
3 Remove the board.

ADF tray removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Lift the tray, and then pull to remove.
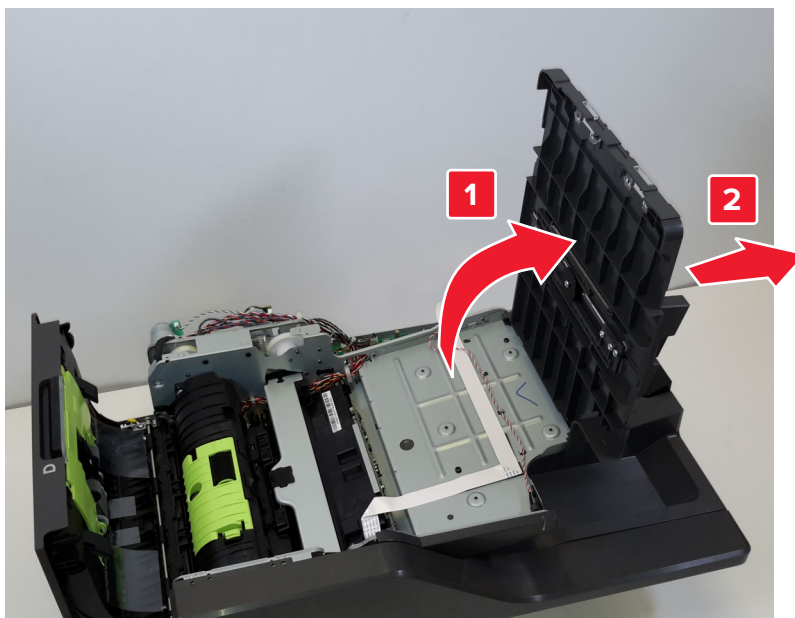
ADF bottom door removal

1 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

2 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

3 Disconnect connector JCSHM (A) from the ADF controller board.

A
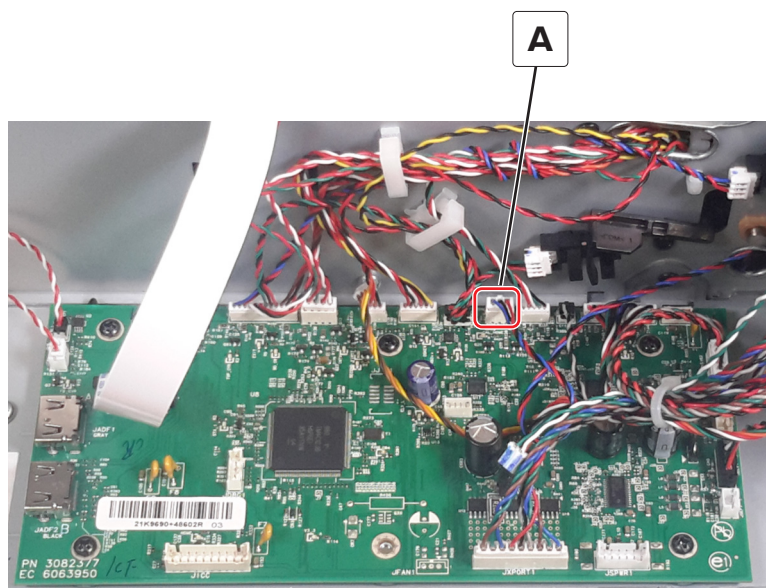
4 Remove the screw (B) securing the ground wire (C) to the frame.

B   C
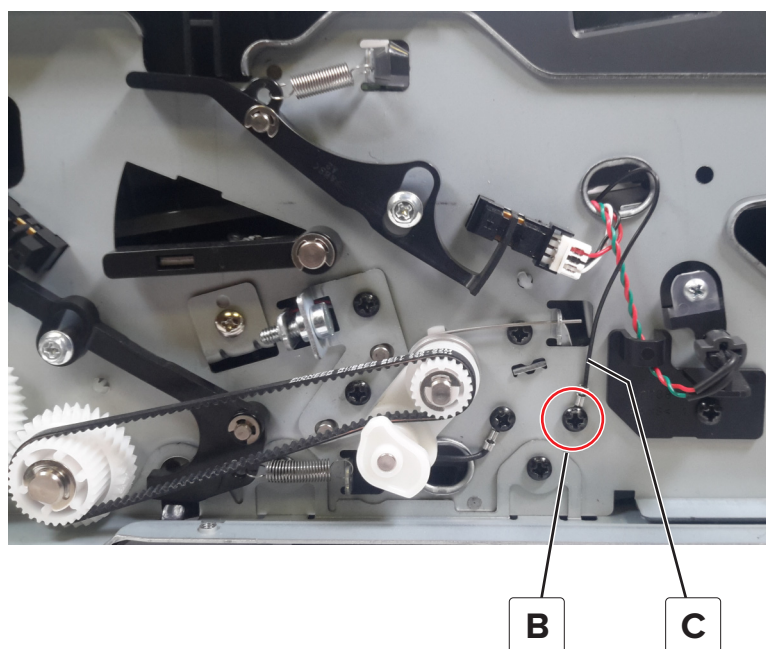
5 Open the ADF bottom door.

6 Gently flex the hinges (D), and then remove the door.
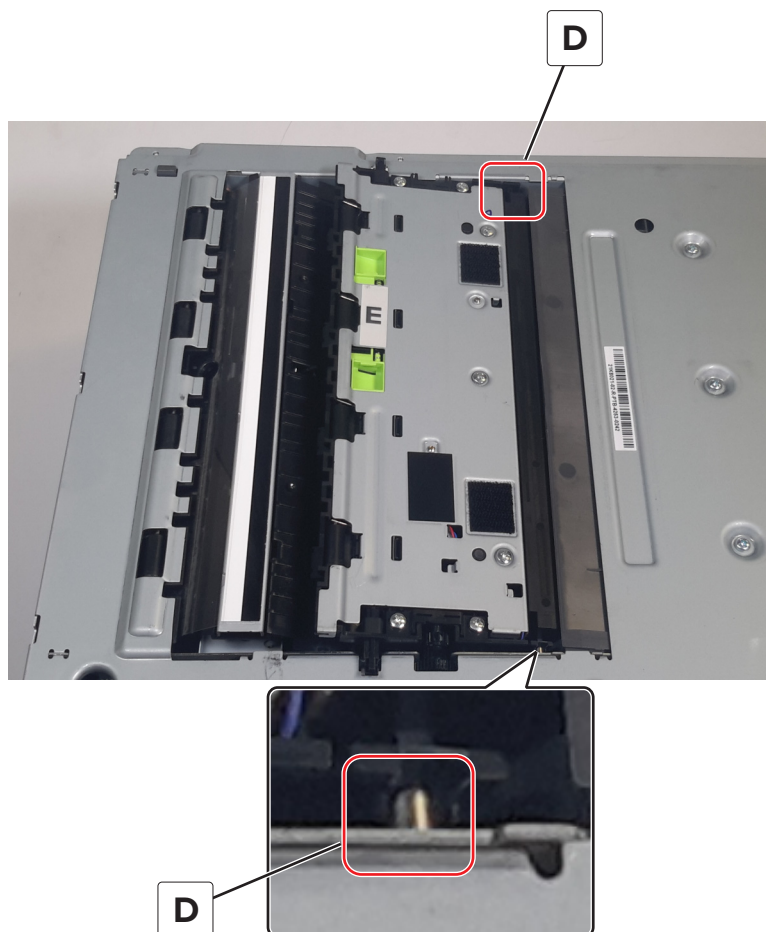
Installation note: When installing the bottom door, make sure to reconnect the ground wire.

ADF front cover removal

1 Remove the ADF rear cover. See .

2 Remove the ADF tray. See .

3 Remove the three screws (A) under the ADF.
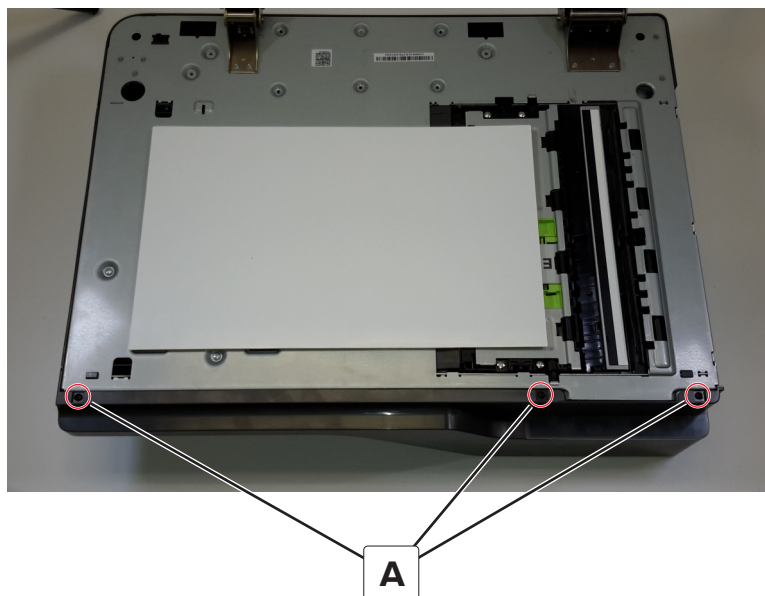
4 Remove the four screws (B) behind the cover.
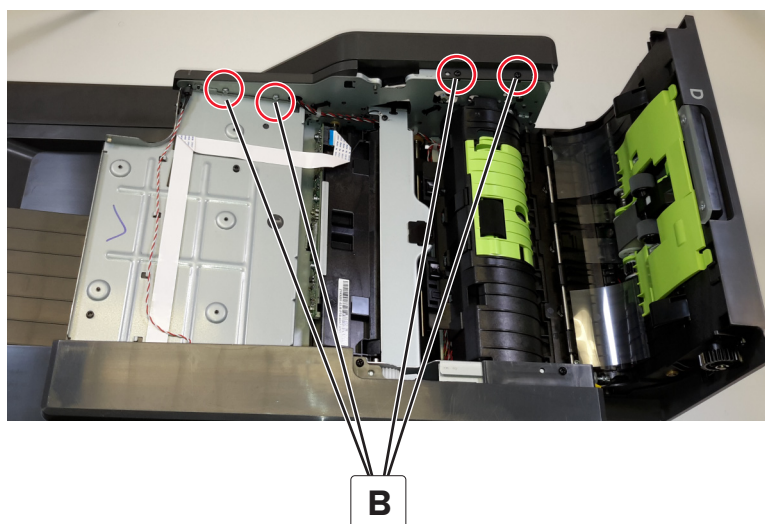
5 Remove the cover.

Top interlock actuator removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF tray. See **"ADF tray removal" on page 608**.

3 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

4 Remove the spring (A), E-clip (B), and screw (C).
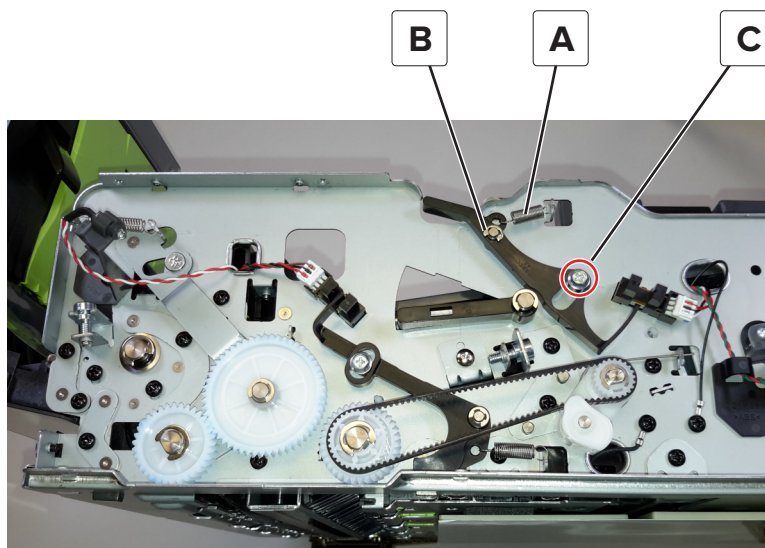
5 Remove the actuator.

ADF front drive train removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF tray. See **"ADF tray removal" on page 608**.

3 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

4 Remove the four E-clips (A).

5 Remove the belt (B), the four gears (C), and the tensioner (D).
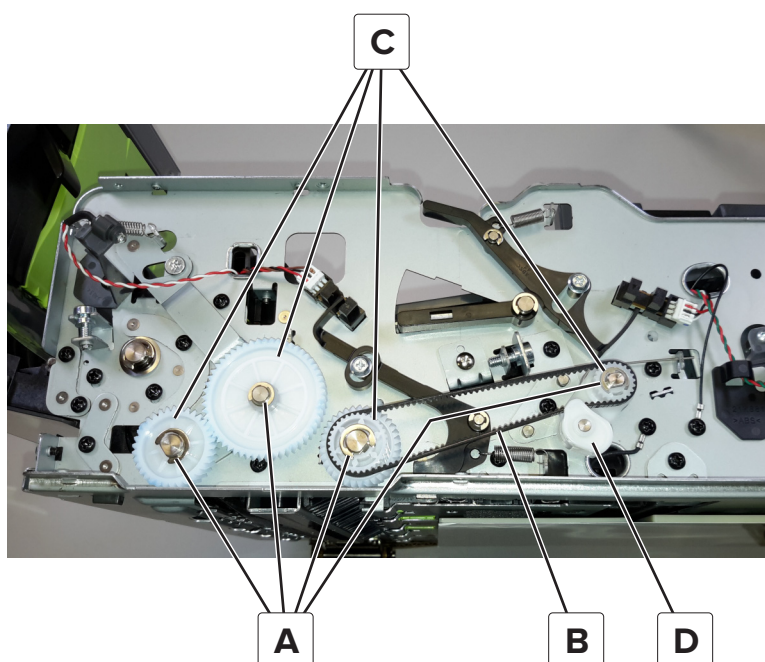
Motor (ADF) removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF controller board. See **"ADF controller board removal" on page 607**.

3 Disconnect the five cables (A).

4 Release the cables from the retainers (B).
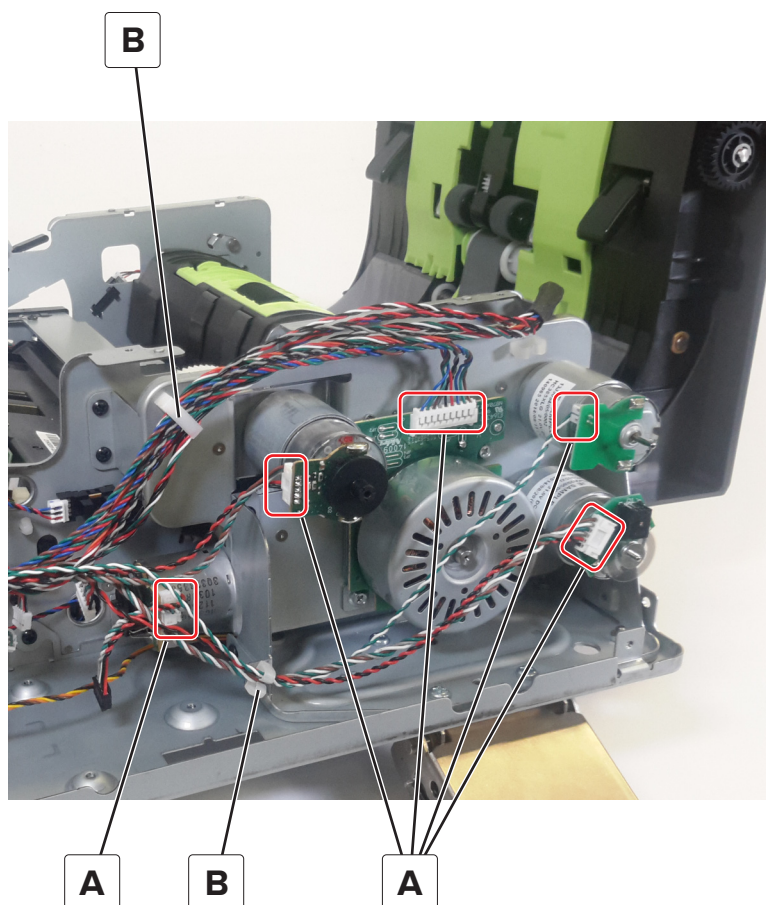
5 Remove the ten screws (C) securing the motor (ADF).
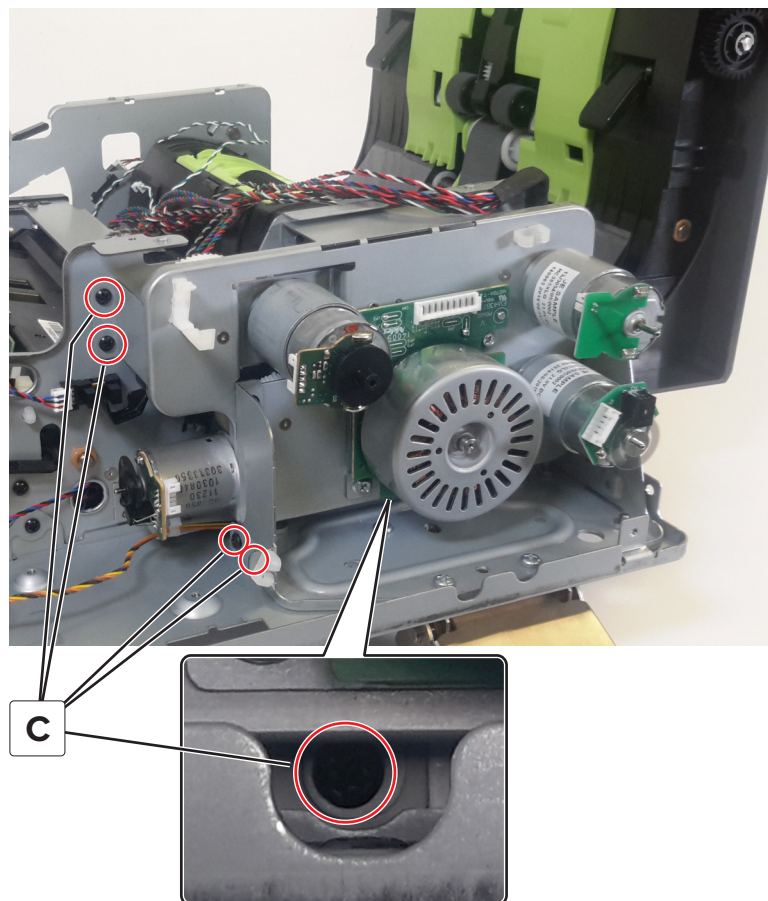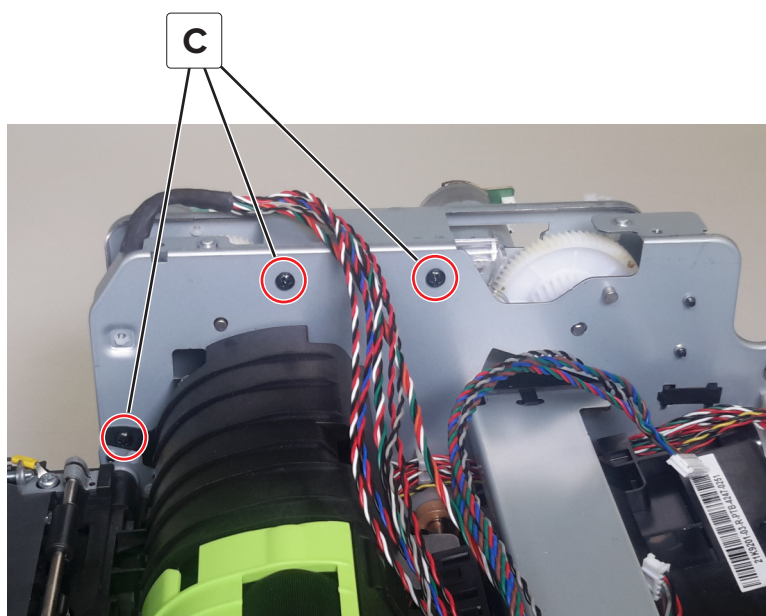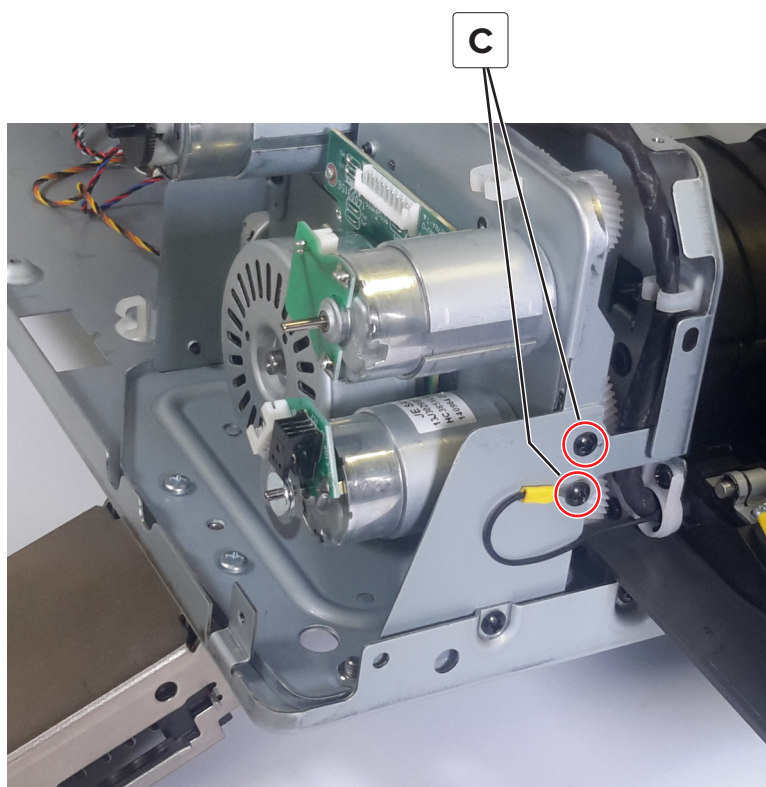
6 Remove the motor (ADF).

Installation note: When installing the motor, make sure to reconnect the ground wire (A).
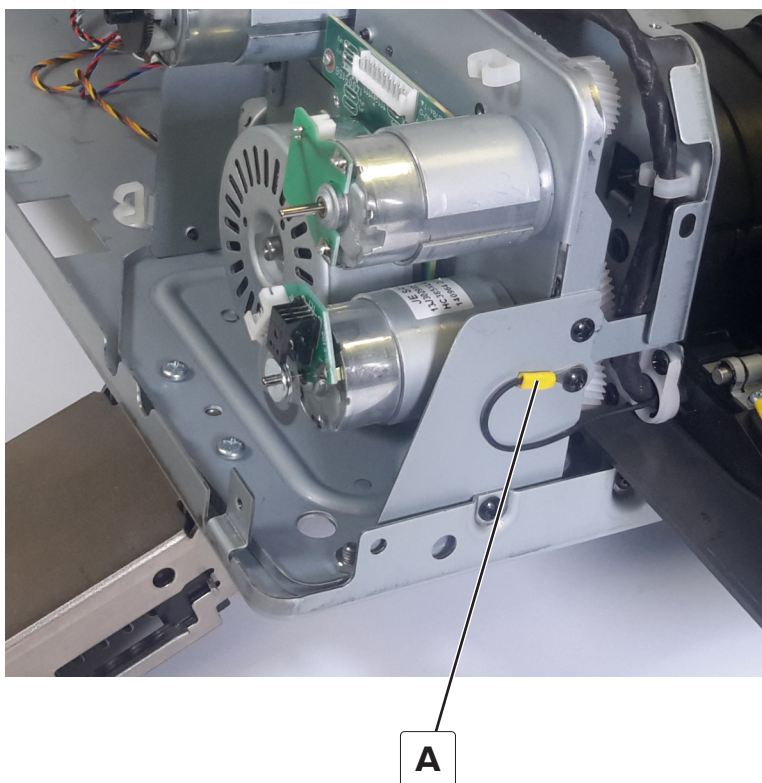
Motor (ADF calibration roller) removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the motor (ADF). See **"Motor (ADF) removal" on page 613**.

3 Disconnect connector JSTEP1 (A) from the ADF controller board.
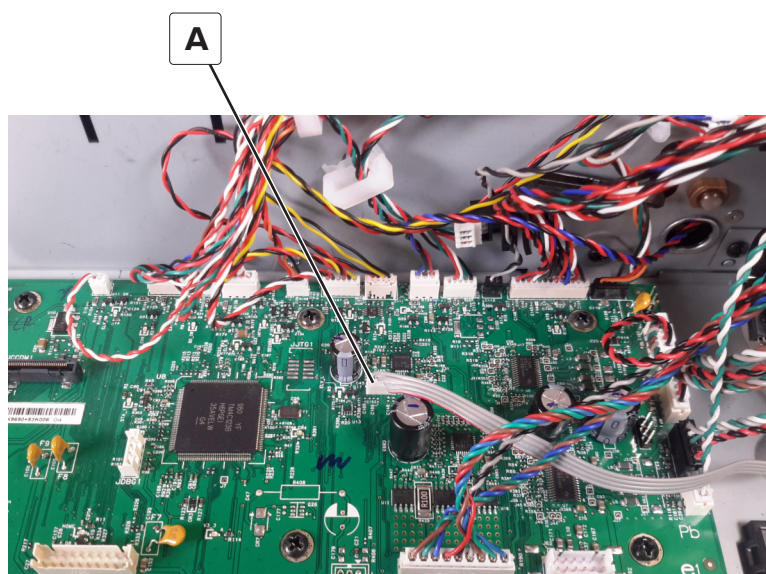
4 Remove the two screws (B).
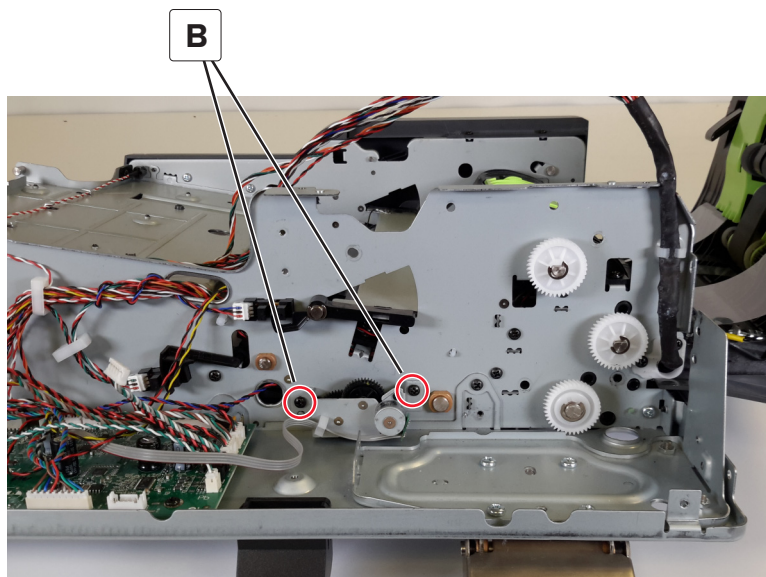
5 Remove the motor (ADF calibration roller).

ADF top door removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

3 Remove the motor (ADF). See **"Motor (ADF) removal" on page 613**.

4 From the rear side, remove the two screws (A).

5 Detach the hinge (B).
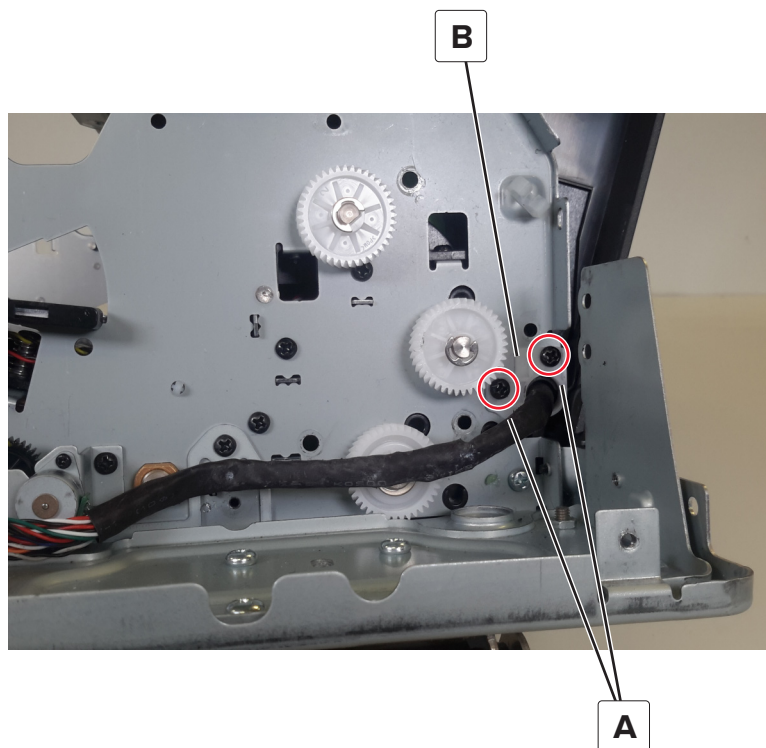
6 From the front side, remove the two screws (C), and then remove the bracket (D).
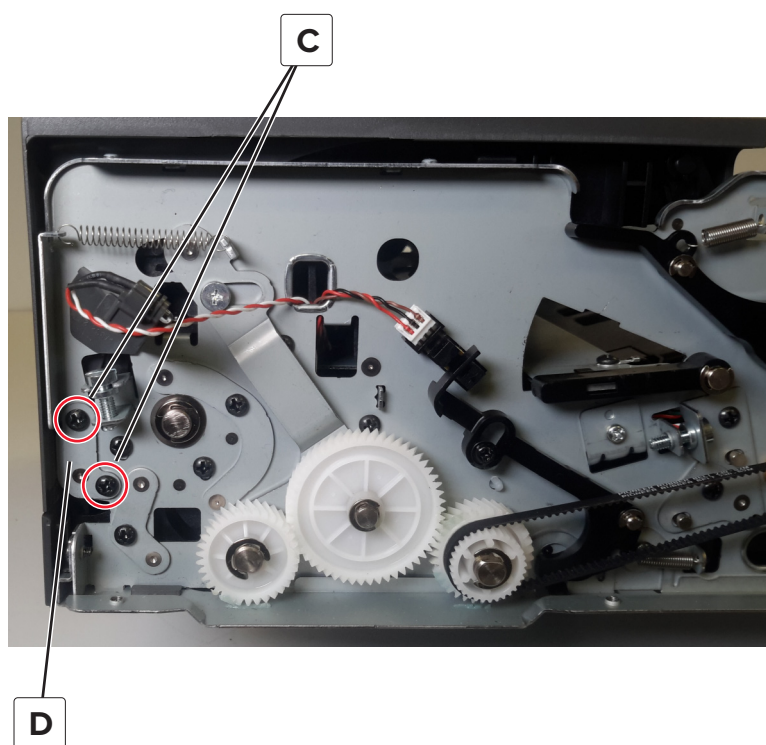
7 Remove the door.

ADF top door cover removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Gently pry the left side of the lower left cover, and then slide the cover to the left to remove it.
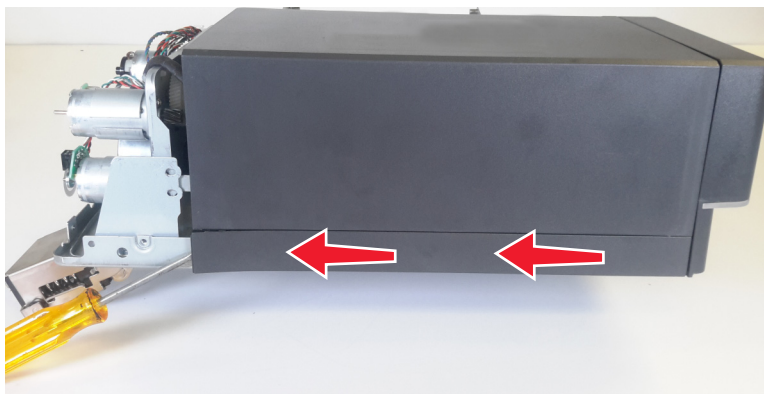
3 Open the top door, and then remove the pick roller cover.

4 Remove the two screws (A).

5 Release the two plastic latches (B).
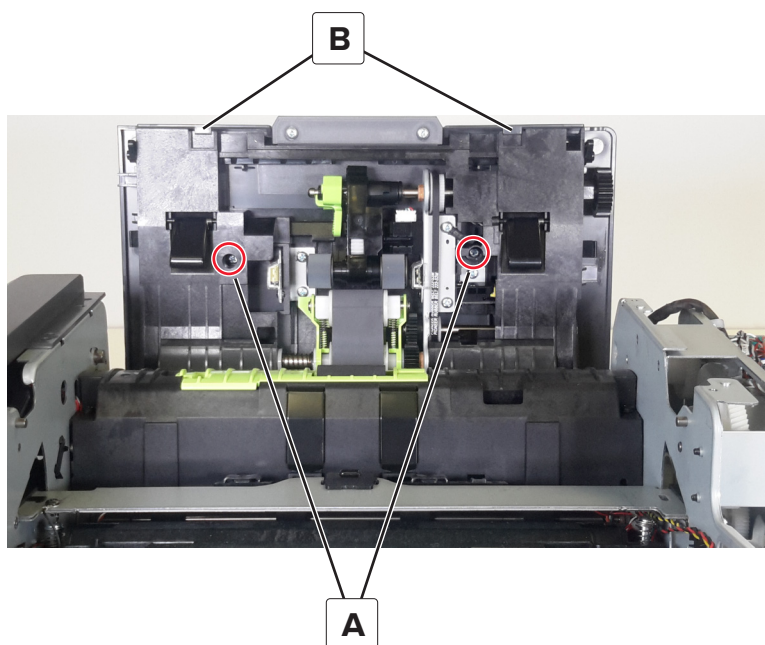
6 Close the top door, and then gently remove the cover.

ADF rear drive gears removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the motor (ADF). See **"Motor (ADF) removal" on page 613**.

3 Remove the three E-clips (A), and then remove the three gears (B).
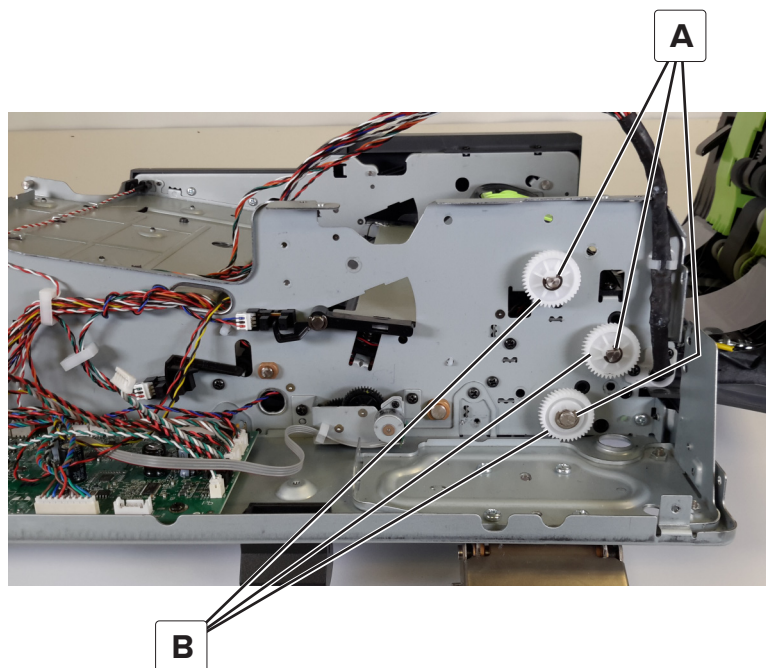
Bottom interlock actuator removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF tray. See **"ADF tray removal" on page 608**.

3 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

4 Remove the spring (A), E-clip (B), and screw (C).
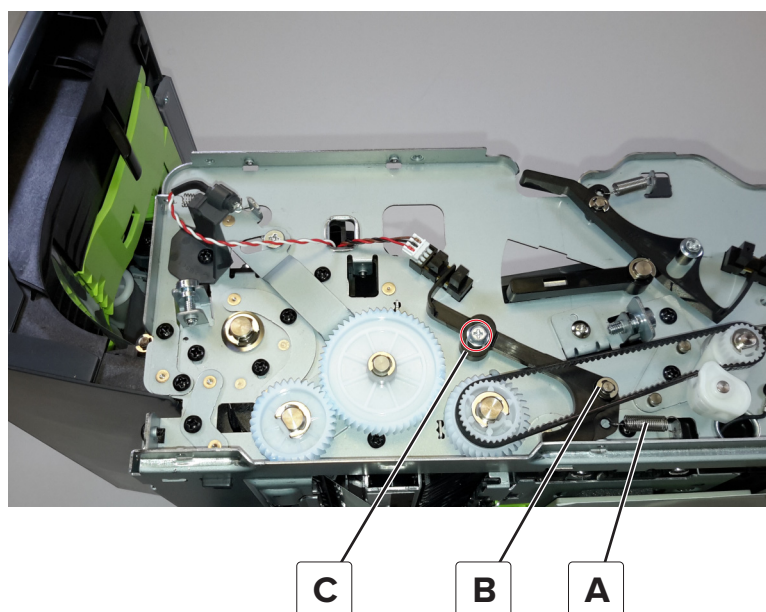
5 Remove the actuator.

Input guide removal

1 Remove the ADF separator roller. See **"ADF maintenance kit removal" on page 604**.

2 Remove the four screws (A), and then remove the guide.
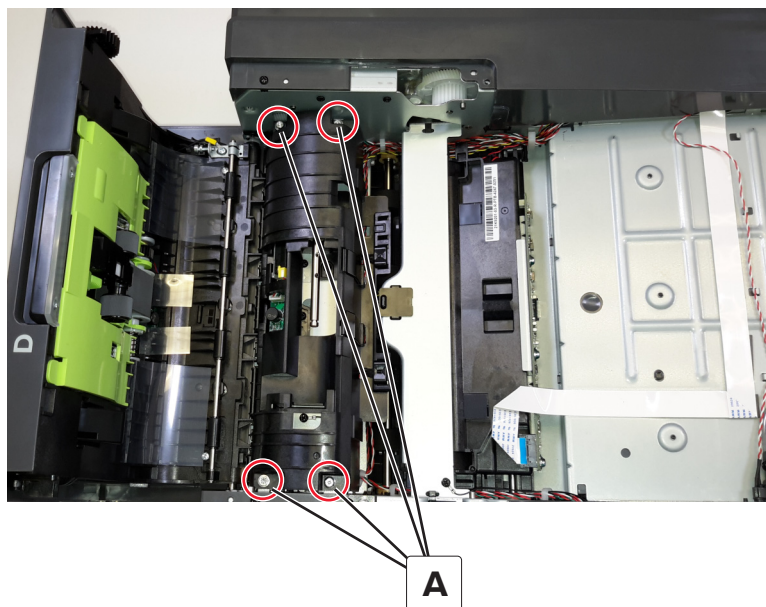
Sensor (ADF multifeed receiver) removal

1 Remove the input guide. See **"Input guide removal" on page 621**.

2 Disconnect the cable (A), and then remove the two screws (B).
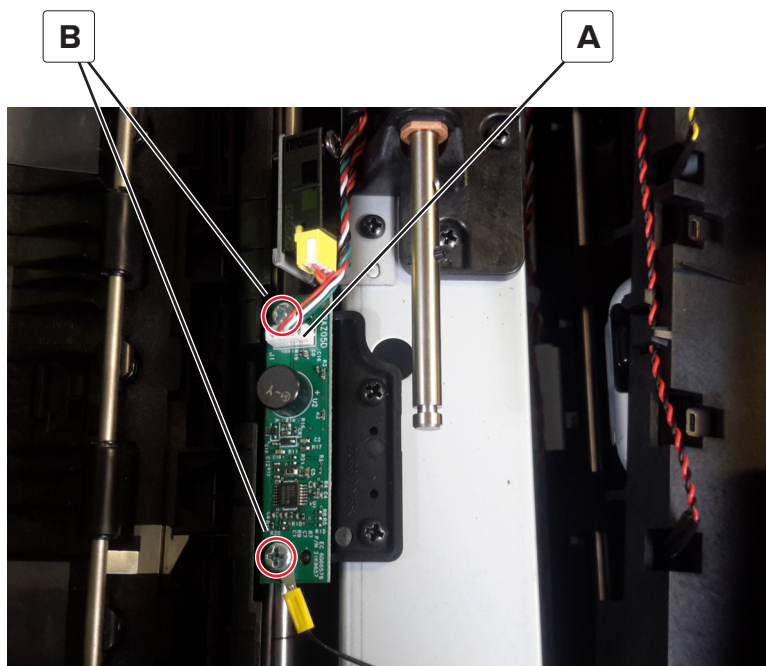
3 Remove the sensor.

Installation note: Perform Multifeed calibration on the new sensor. See **"Sensor (ADF multifeed) calibration" on page 469**.

Sensor (ADF multifeed transmitter) removal

1 Remove the ADF top door cover. See **"ADF top door cover removal" on page 619**.

2 Disconnect the two cables (A).

3 Gently release the latches (B) to remove the sensor.
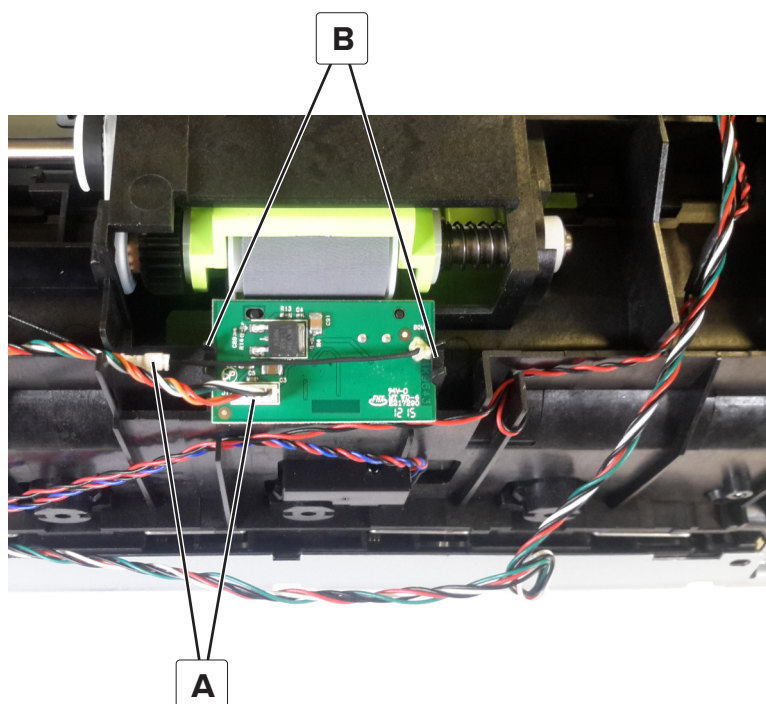
Installation note: Perform Multifeed calibration on the new sensor. See **"Sensor (ADF multifeed) calibration" on page 469**.

ADF CCDM removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

3 Remove the ADF tray. See **"ADF tray removal" on page 608**.

4 Remove the screw (A) securing the ground wire.
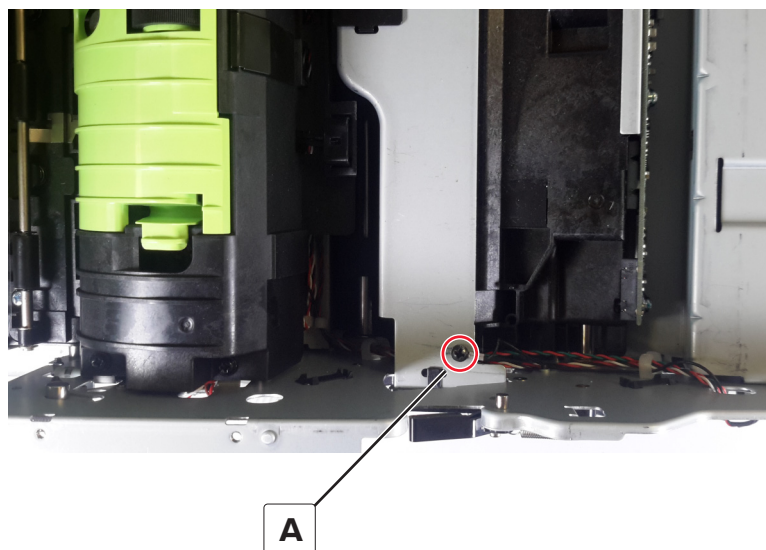
5 Remove the E-clip (B), the hinge (C), and then the lift bracket (D).
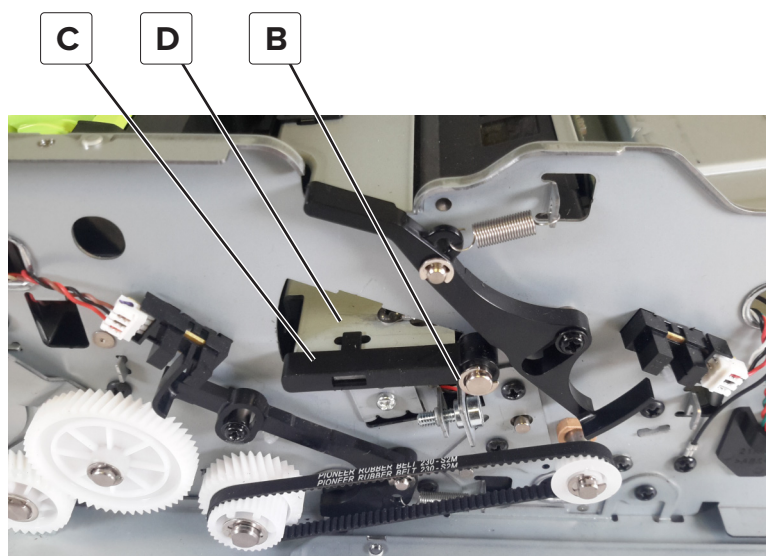
6 Disconnect the cable (E), and then remove the two screws (F) securing the CCDM.

Warning—Potential Damage: Do not yank the ribbon cables. See **"Disconnecting ribbon cables" on page 465**.
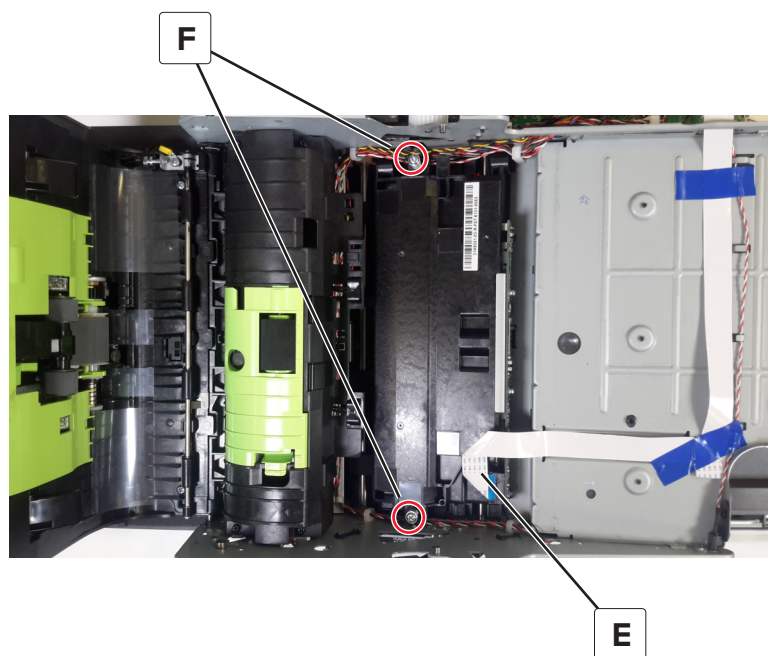
7 Remove the CCDM (ADF).

Note: When installing or replacing the CCDM (ADF), make sure to reconnect the ground wire, and then perform test scans to ensure that image skew does not occur. If image skew occurs, then see **"ADF skew adjustment (back side)" on page 466**.

ADF media exit actuator removal

1 Remove the ADF rear cover. See **"ADF rear cover removal" on page 606**.

2 Remove the ADF front cover. See **"ADF front cover removal" on page 610**.

3 Remove the ADF tray. See **"ADF tray removal" on page 608**.

4 Remove the CCDM (ADF). See **"ADF CCDM removal" on page 622**.

5 Gently remove the retainer (A).
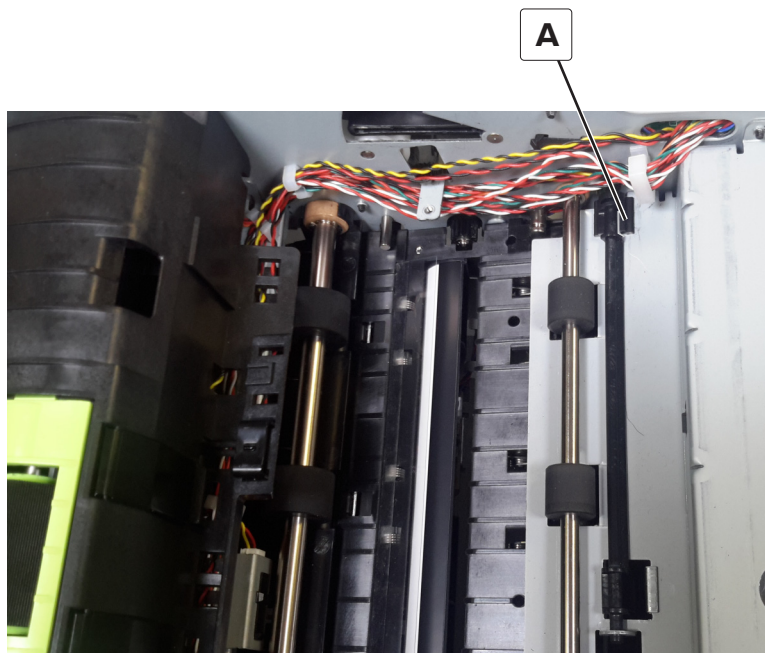
6 Remove the actuator.

Sensor (ADF 2nd scan) removal

1 Remove the ADF separator roller. See **"ADF maintenance kit removal" on page 604**.

2 Remove the input guide. See **"Input guide removal" on page 621**.

3 Remove the screw (A), and then release the cables from the bracket.
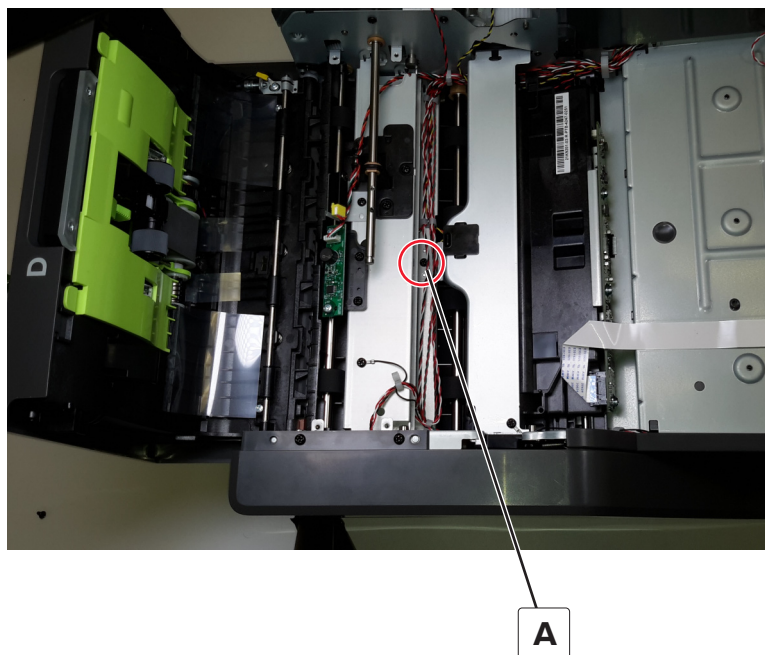
4 Remove the bracket, and then remove the sensor.

Flatbed scanner front upper cover removal

1 Fully tilt the control panel.

2 Remove the cover.

Flatbed scanner rear cover removal

1 Open door C.

2 Pull the lower edge of the cover to detach it.

3 Remove the cover.

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

Flatbed scanner left cover removal

1 Remove the rear cover. See .

2 Remove the front upper cover. See .

3 Simultaneously move the two covers to the rear to detach them from the scanner.

4 Remove the left cover.

Flatbed scanner right cover removal

1 Remove the rear cover. See **"Flatbed scanner rear cover removal" on page 627**.

2 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

3 Pull down the right cover to detach it from the scanner.
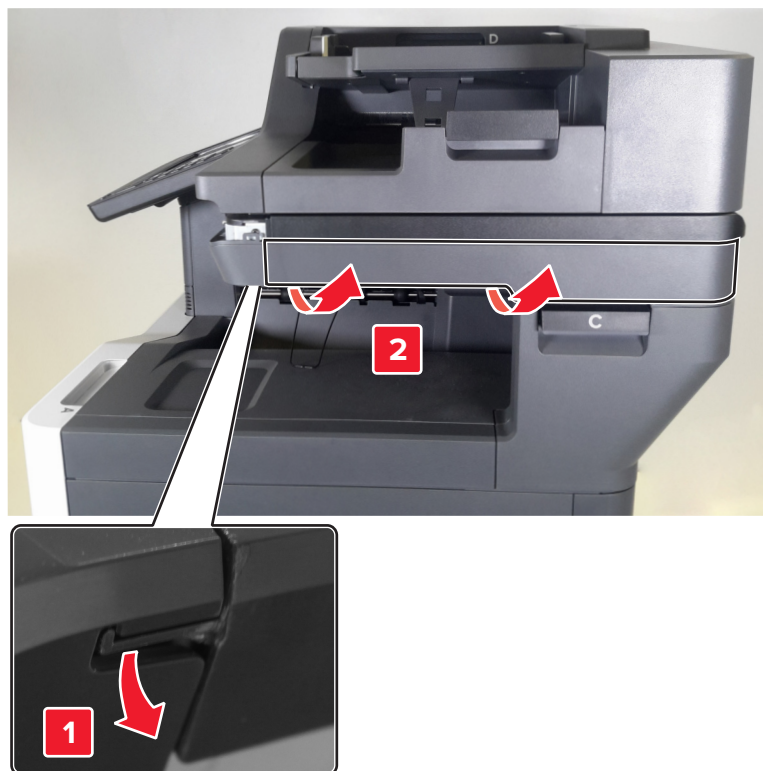
4 Simultaneously slide the trim and right covers to the rear to remove.

Flatbed scanner top cover removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

3 Remove the right cover. See **"Flatbed scanner right cover removal" on page 629**.

4 Remove the 24 screws (A, B) securing the cover.

   Note: The ADF is not shown to improve clarity.
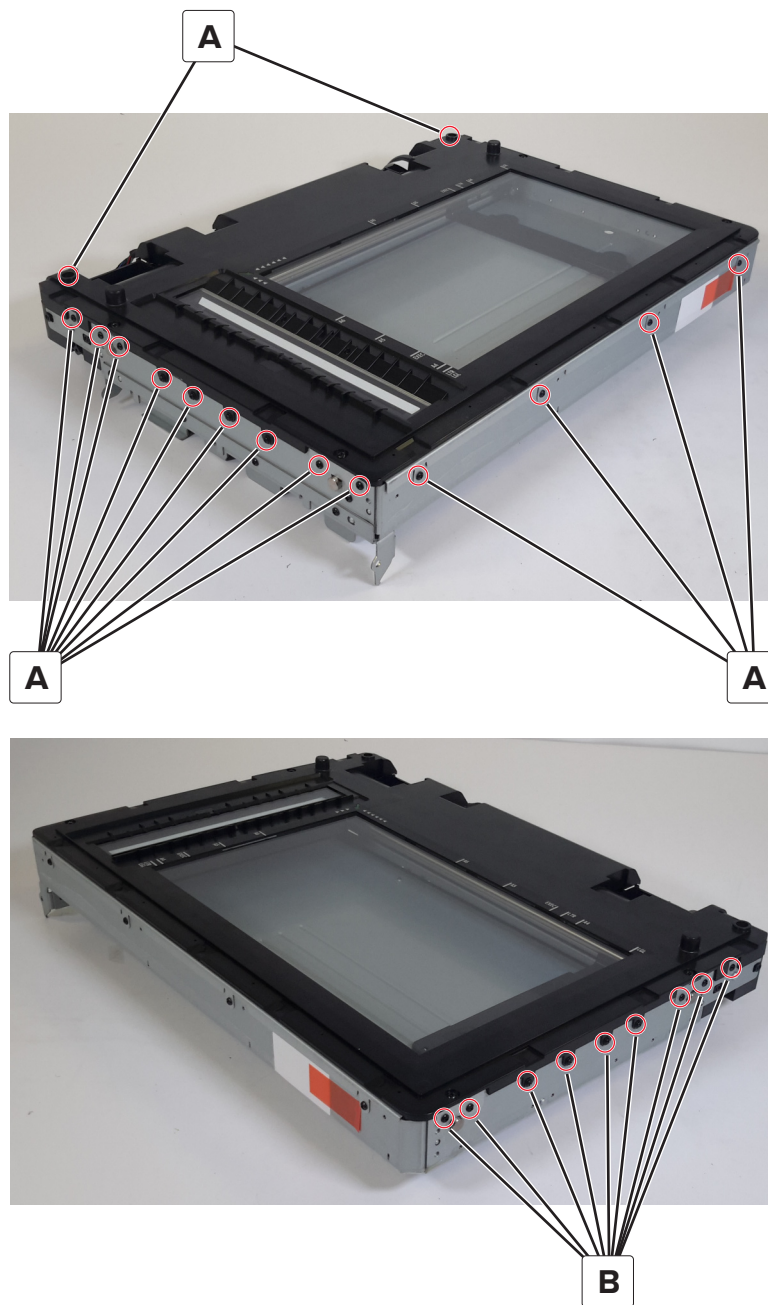
5 Remove the top cover.

Flatbed scanner support removal

Warning—Potential Damage: When removing the scanner support, make sure that the scanner is properly supported to prevent it from falling and avoid potential injury and scanner damage.

1 Remove the flatbed scanner rear left cover.

2 Remove the three (screws (A) securing the cable holder.
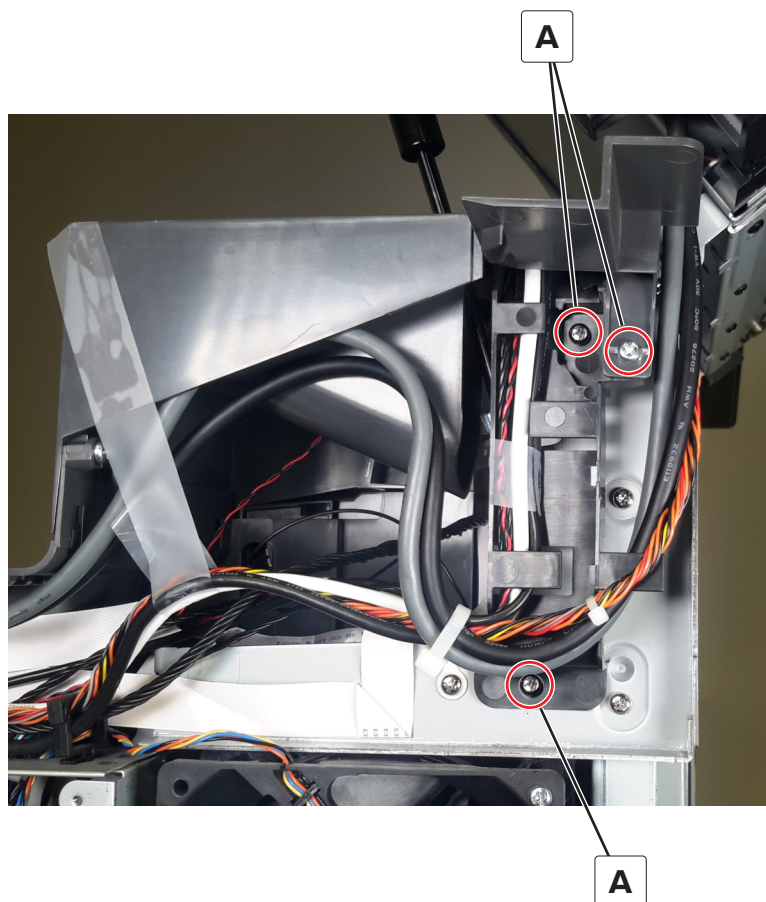
3 Position the cable holder (B) to the right, but do not remove it.

4 Rotate the lower lock pin (C) clockwise to release it from the scanner support (D), and then remove it.

> **Warning—Potential Damage:** To prevent the scanner from falling and avoid potential injury and scanner damage, make sure that the scanner is properly supported.
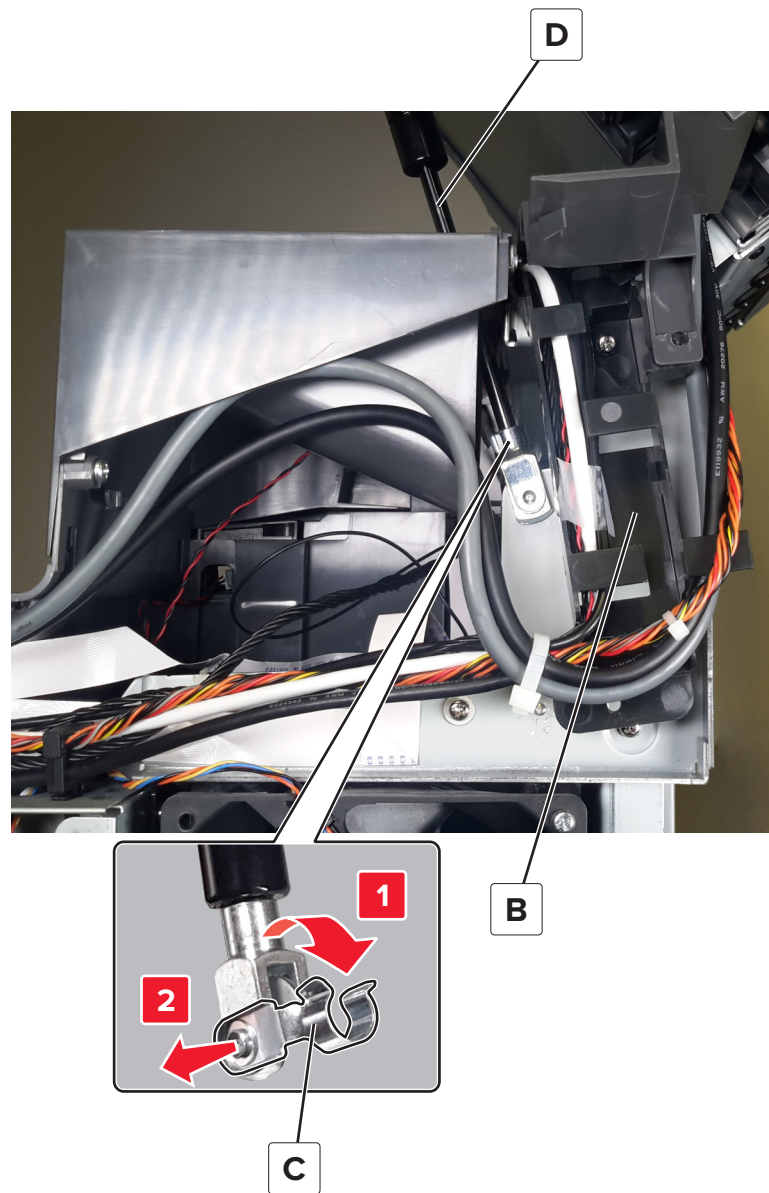
5 Rotate the upper lock pin (E) clockwise to release it from the scanner support (D), and then remove it.

Warning—Potential Damage: To prevent the scanner from falling and avoid potential injury and scanner damage, make sure that the scanner is properly supported.
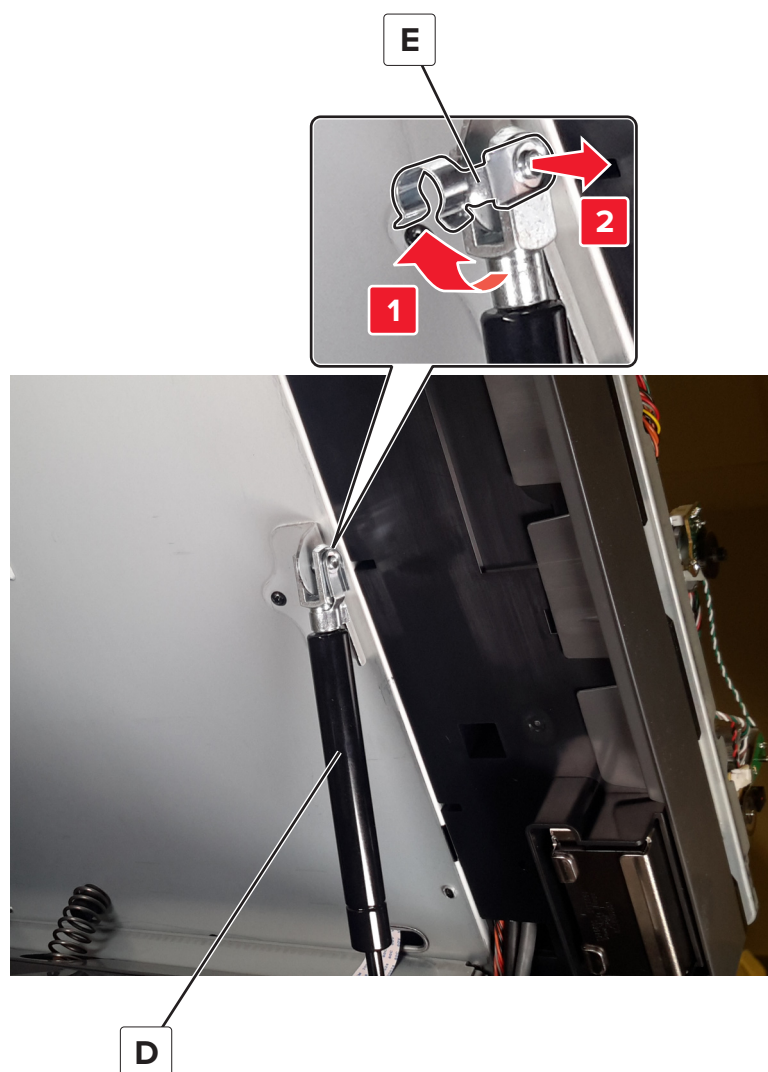
6 Remove the scanner support.

Flatbed scanner frame latch removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the right. See **"Flatbed scanner right cover removal" on page 629**.

3 Remove the five screws (A).
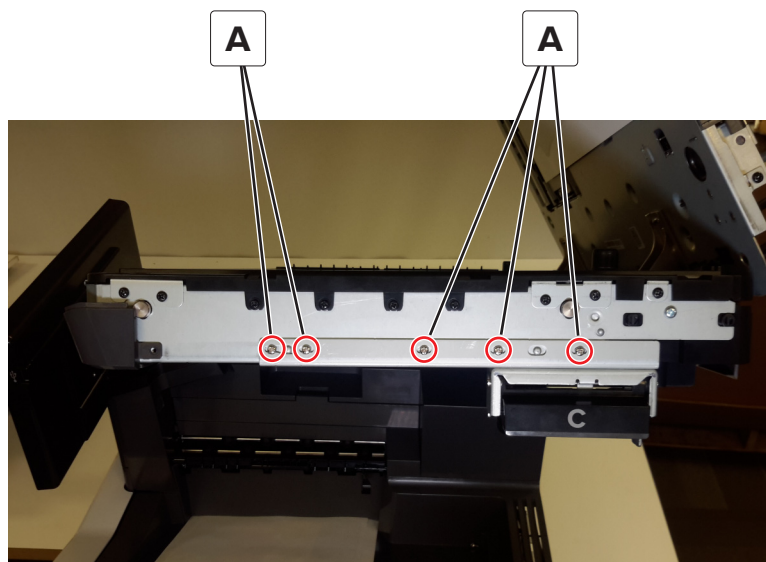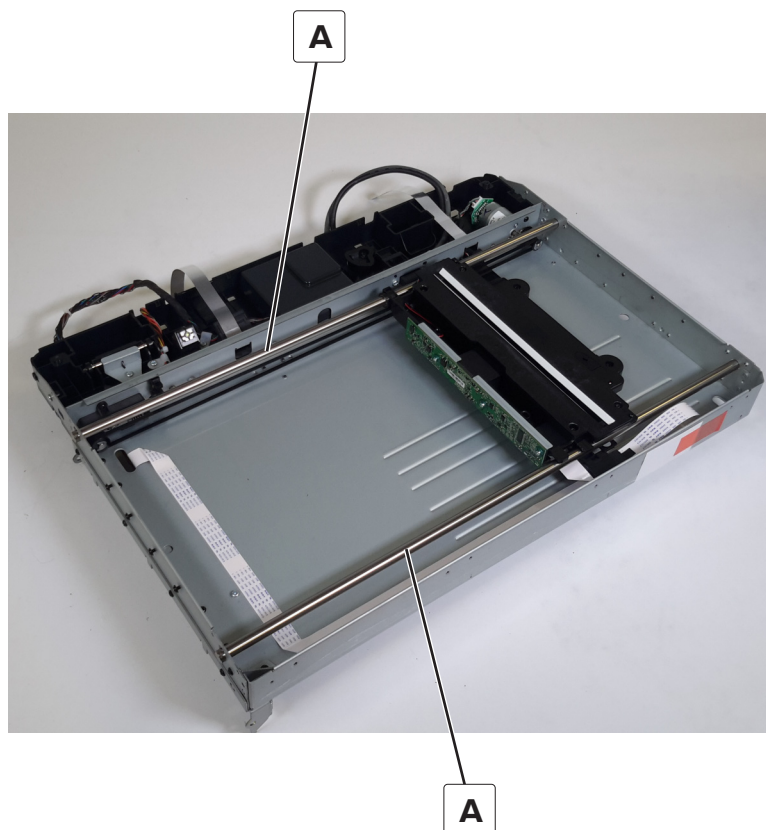
4 Remove the flatbed scanner frame latch.

Flatbed scanner CCDM removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

3 Remove the right cover. See **"Flatbed scanner right cover removal" on page 629**.

4 Remove the top cover. See **"Flatbed scanner top cover removal" on page 630**.

5 Lift, and then slide the rods (A) out the left side of the frame.

6 Detach the CCDM from the belt.

7 Release the cable (B) and the toroid (C) from the CCDM.

Warning—Potential Damage: Do not yank the ribbon cables. See **"Disconnecting ribbon cables" on page 465**.
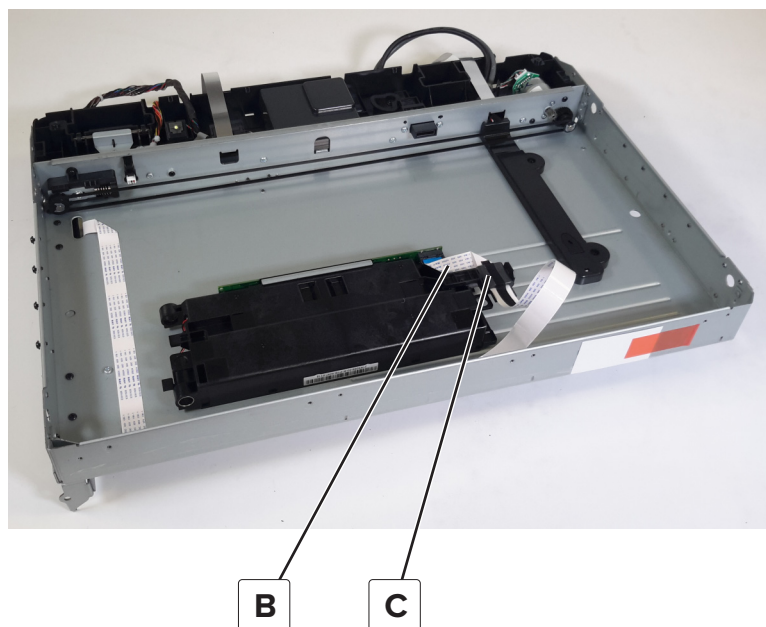
Parts removal

Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.
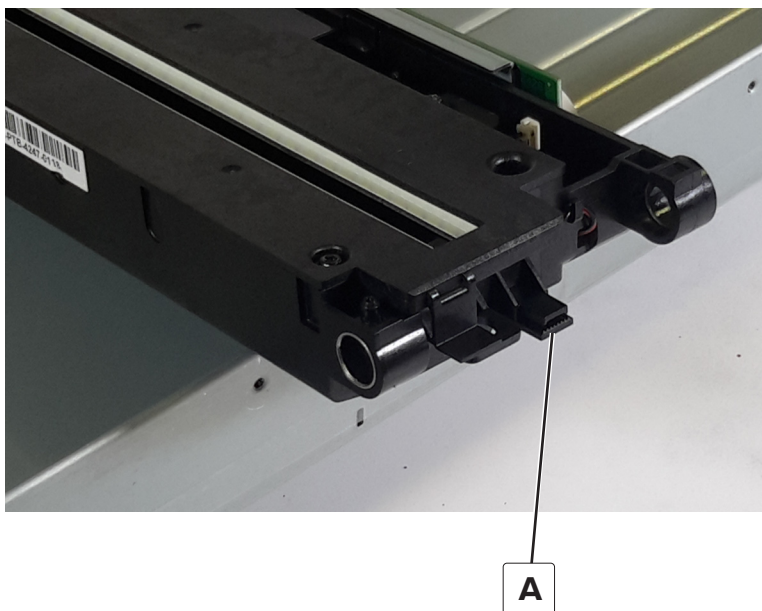
Flatbed scanner board removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

3 Remove the right cover. See **"Flatbed scanner right cover removal" on page 629**.

4 Remove the top cover. See **"Flatbed scanner top cover removal" on page 630**.

5 Release the latch (A) on both sides of the cover.

6 Remove the cover (B).
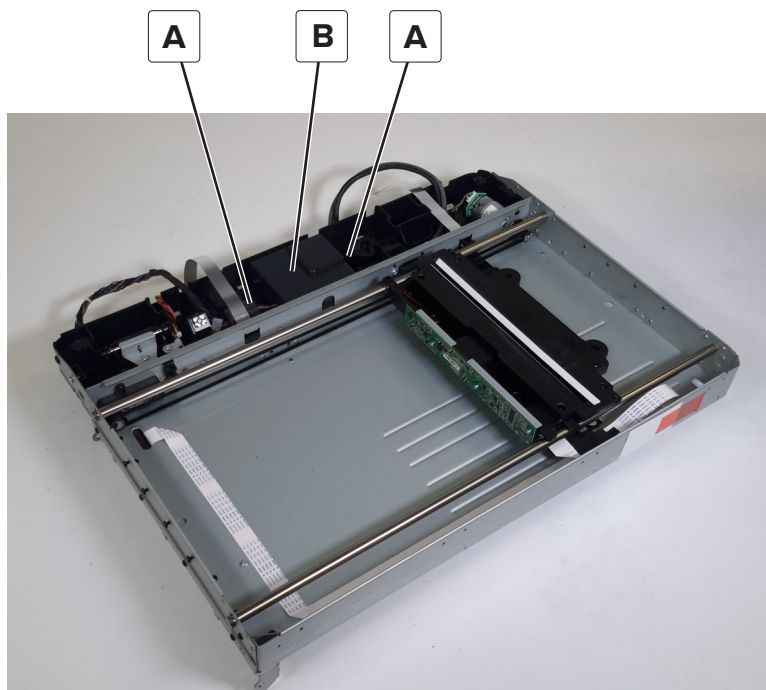
7 Remove the three screws (C), and then disconnect the four cables (D).
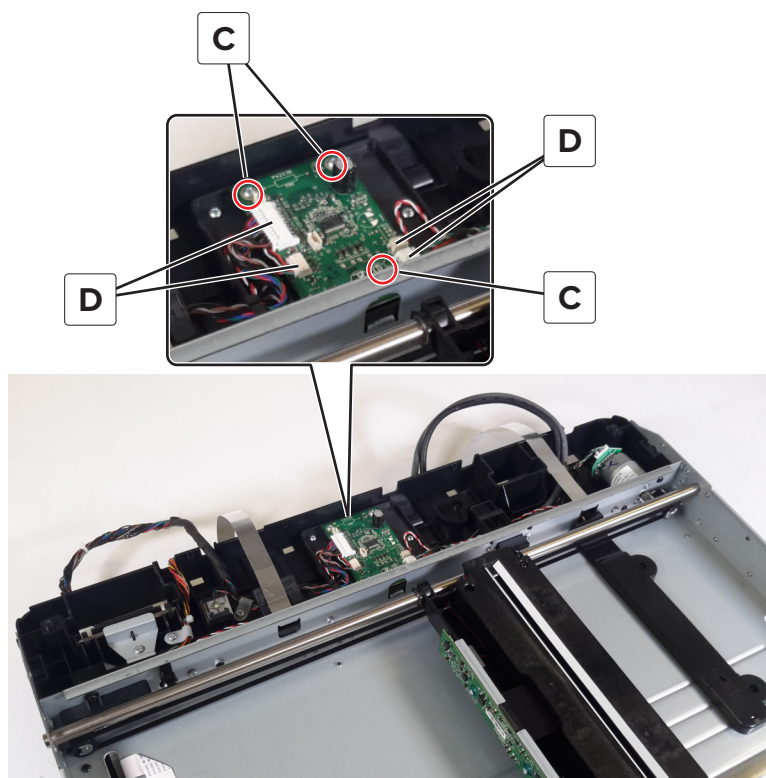
8 Remove the board.

Flatbed scanner gear removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

3 Remove the top cover. See **"Flatbed scanner top cover removal" on page 630**.

4 Lift, and then slide the rear rod (A) out of the left side of the frame.
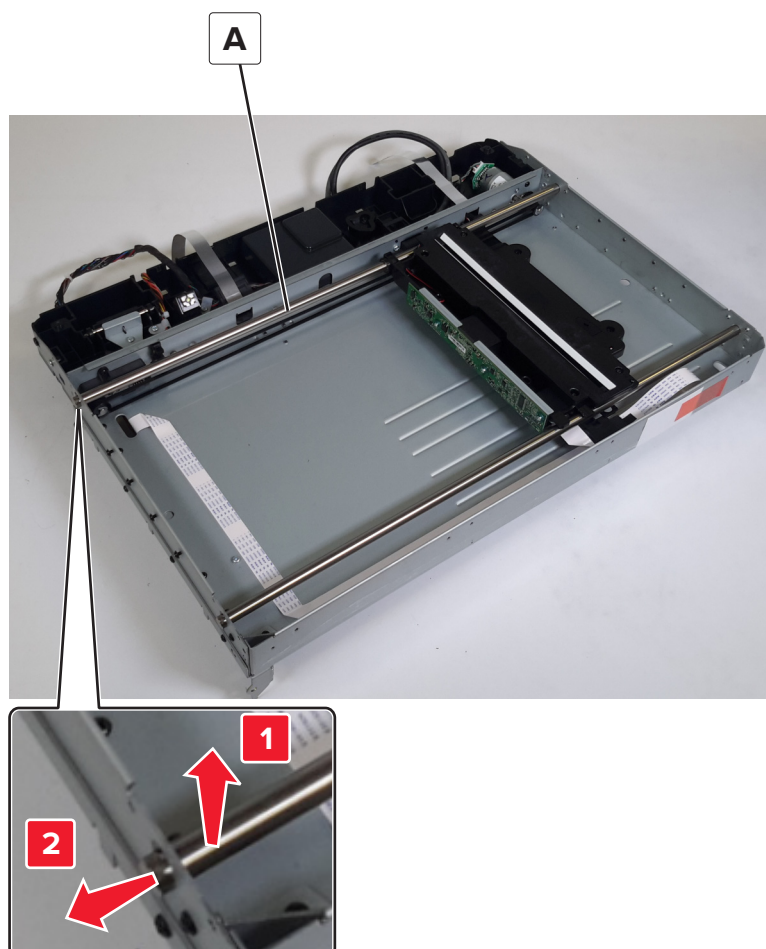
5 Remove the retainer clip (B), flange, and then the scanner gear (D).
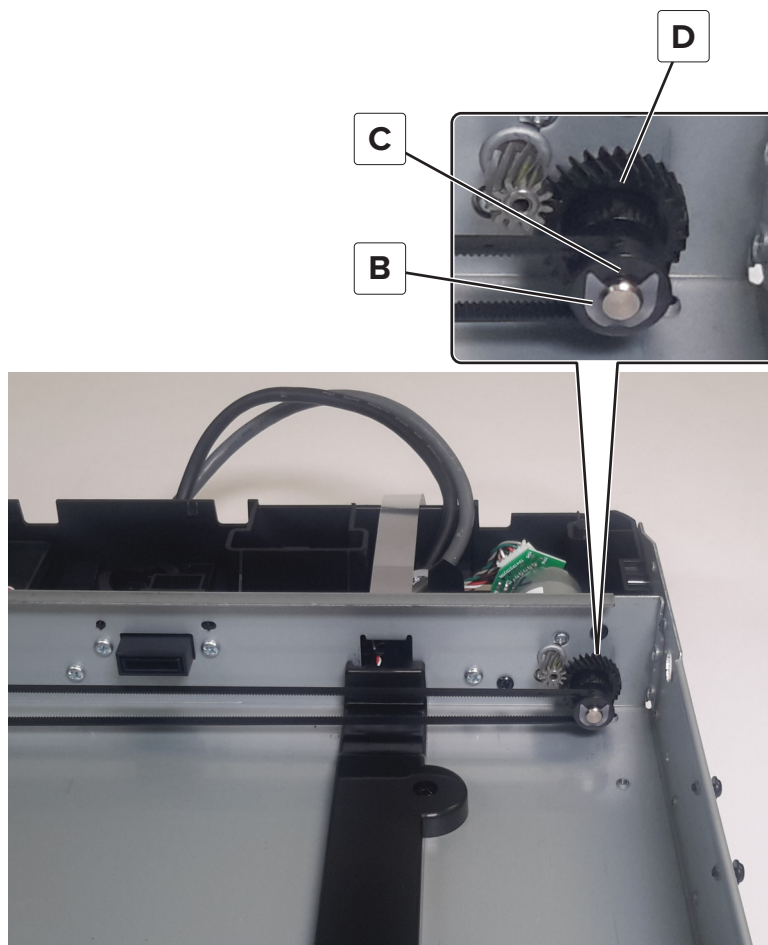
Motor (flatbed scanner) removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

3 Remove the right cover. See **"Flatbed scanner right cover removal" on page 629**.

4 Remove the top cover. See **"Flatbed scanner top cover removal" on page 630**.

5 Lift, and then slide the rods (A) out the left side of the frame.

6 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

7 Loosen the tension adjusting screw (B), and then remove the two screws (C) securing the motor.

8 Disconnect the cable (D), and the remove the motor.

Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.

Parts removal

A
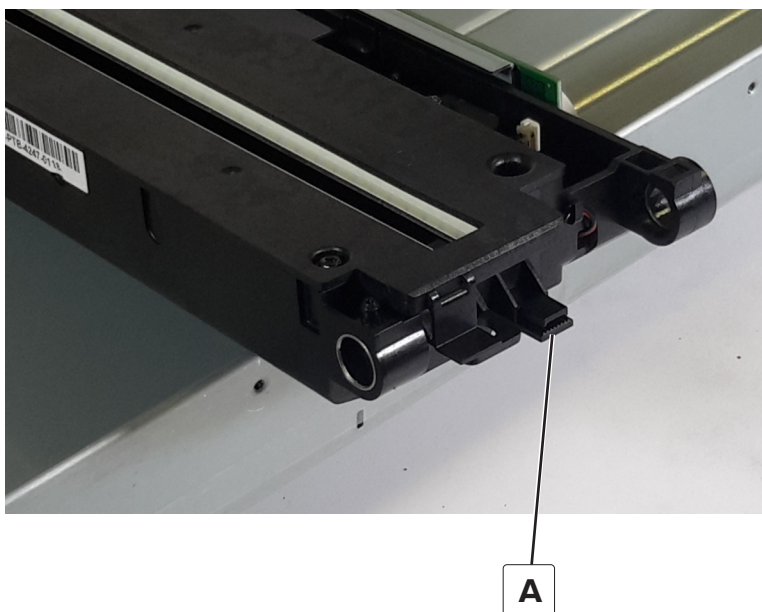
Installation warning: Tighten only the tension adjusting screw after the belt is reattached.

Sensor (FB CCD home) removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

3 Remove the right cover. See **"Flatbed scanner right cover removal" on page 629**.

4 Remove the top cover. See **"Flatbed scanner top cover removal" on page 630**.

5 Lift, and then slide the rods (A) out the left side of the frame.
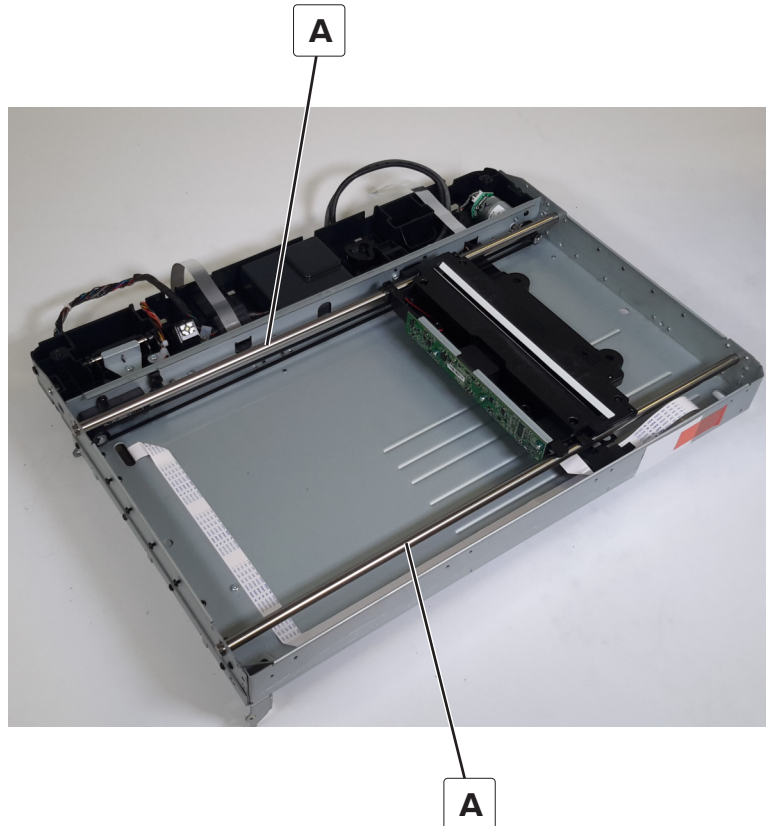
6 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

7 Release the hooks attaching the sensor (B).

8 Disconnect the cable (C).
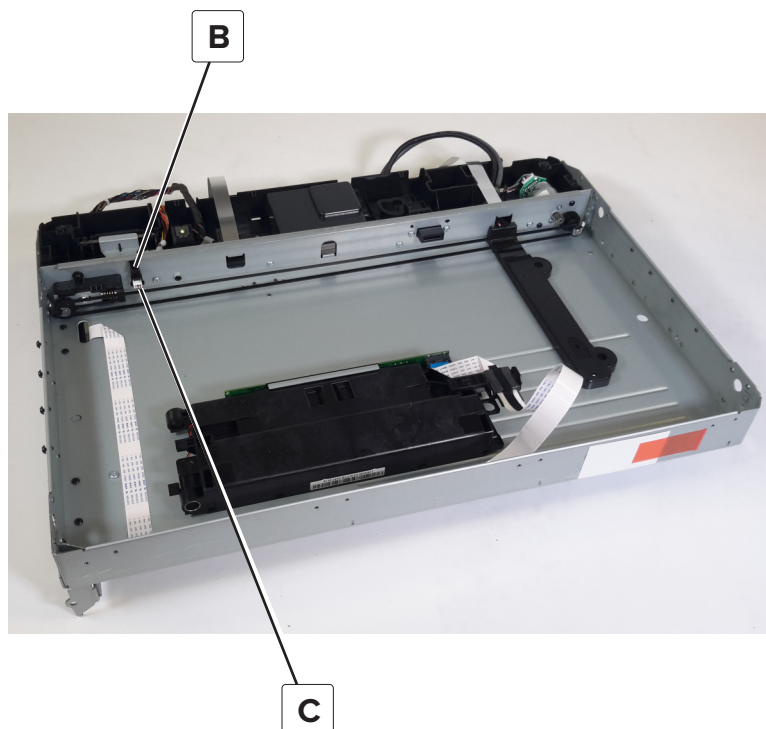
9 Remove the sensor.

Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.
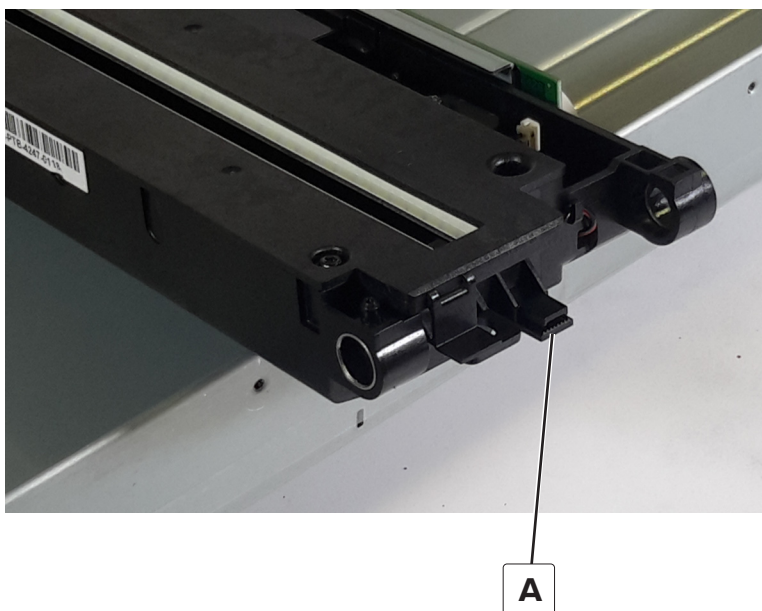
Flatbed scanner tensioner pulley removal

1 Remove the front upper cover. See **"Flatbed scanner front upper cover removal" on page 626**.

2 Remove the left cover. See **"Flatbed scanner left cover removal" on page 628**.

Parts removal

3 Remove the right cover. See **"Flatbed scanner right cover removal" on page 629**.

4 Remove the top cover. See **"Flatbed scanner top cover removal" on page 630**.

5 Lift, and then slide the rods (A) out the left side of the frame.
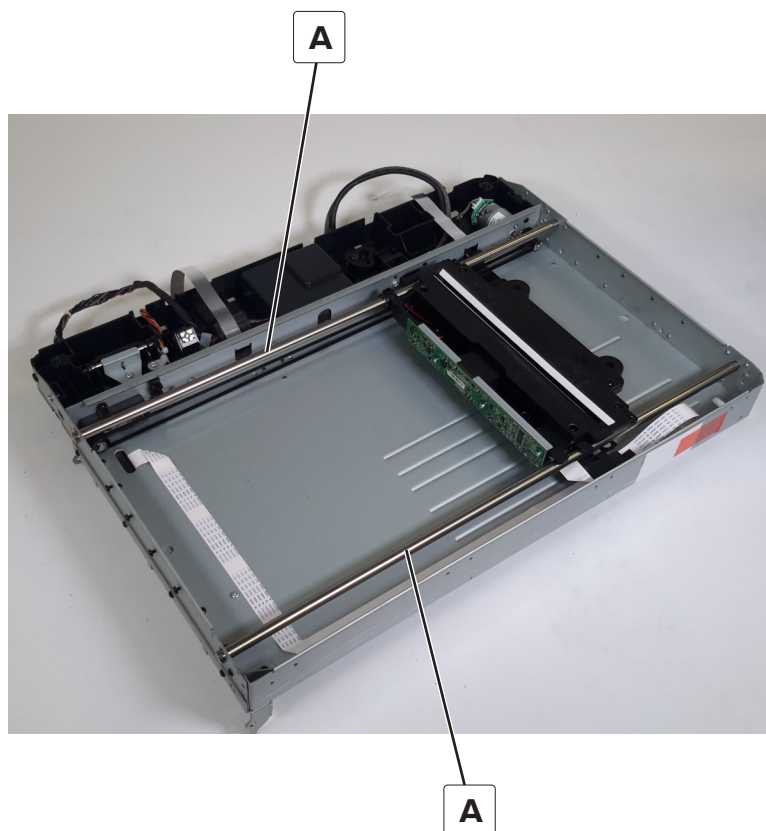
6 Detach the CCDM from the belt, and then carefully lay it out of the way, but do not detach the connectors.

7 Loosen the tension adjusting screw (B), and then remove the screw (C) securing the tensioner pulley.
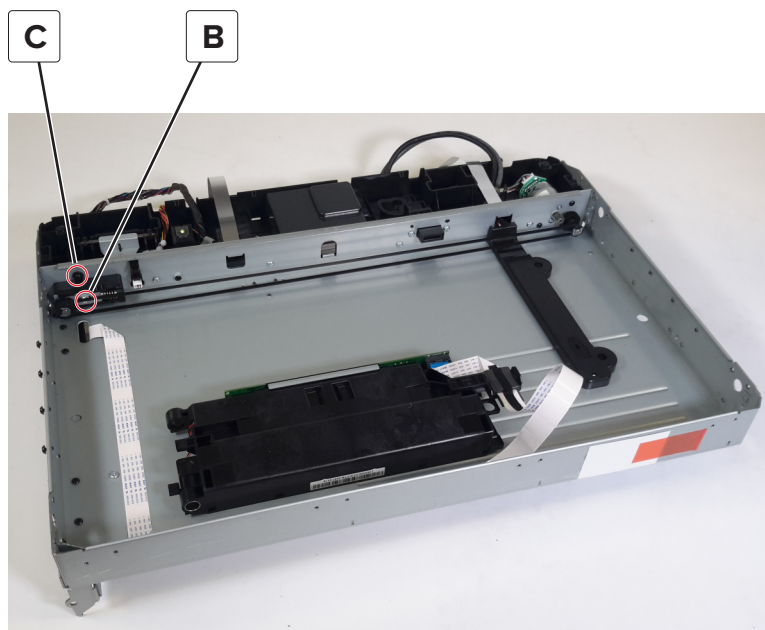
8 Remove the pulley.

Installation note: Make sure that the belt is attached to the retainer (A) on the CCDM.
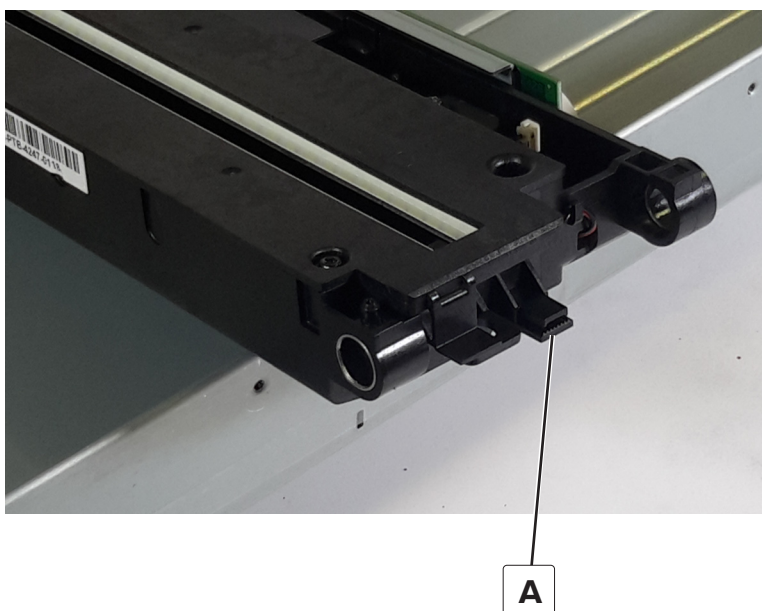
Installation warning: Tighten only the tension adjusting screw after the belt is reattached.

Flatbed scanner removal

1 Remove the ADF. See **"ADF removal" on page 606**.

2 Remove the rear upper cover. See **"Rear upper cover removal" on page 559**.

3 Remove the left upper cover. See **"Left upper cover removal" on page 477**.

Warning—Potential Damage: When removing the scanner support, make sure that the scanner is properly supported to prevent it from falling and avoid potential injury and scanner damage.

4 Remove the flatbed scanner support. See **"Flatbed scanner support removal" on page 631**.

5 Lower the flatbed scanner to its lowermost position.

6 Disconnect the connections (A) JSCPOW1, J1, J31, and J32 from the controller board.

7 Carefully remove the cables from the holders (B).
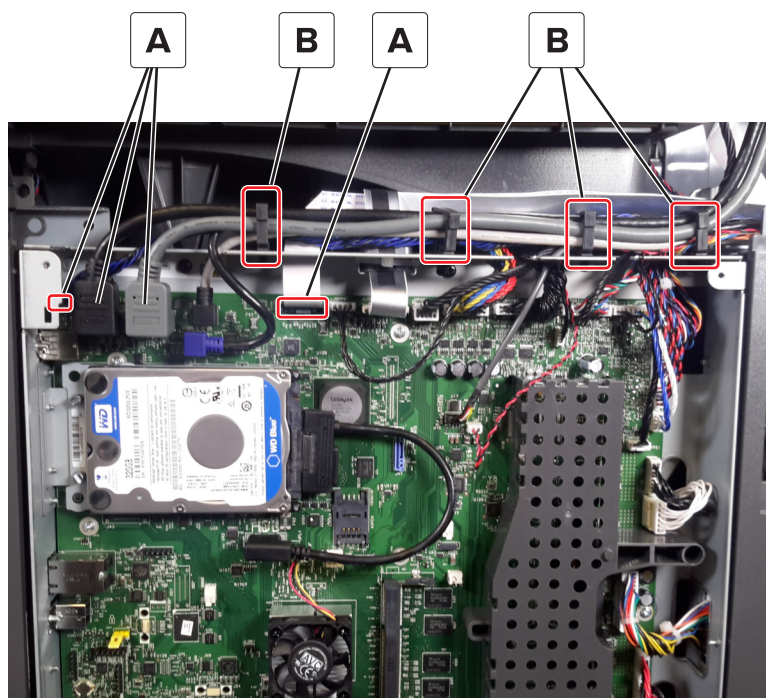
8 Cut the wire tie (C), and then remove the E-clip (D).

Warning—Potential Damage: Make sure that the cable is completely removed from the clamps and wire tie before removing the flatbed scanner.

9 Slightly raise the flatbed scanner and carefully move it toward the rear to disengage it from the two pivot pins (E).
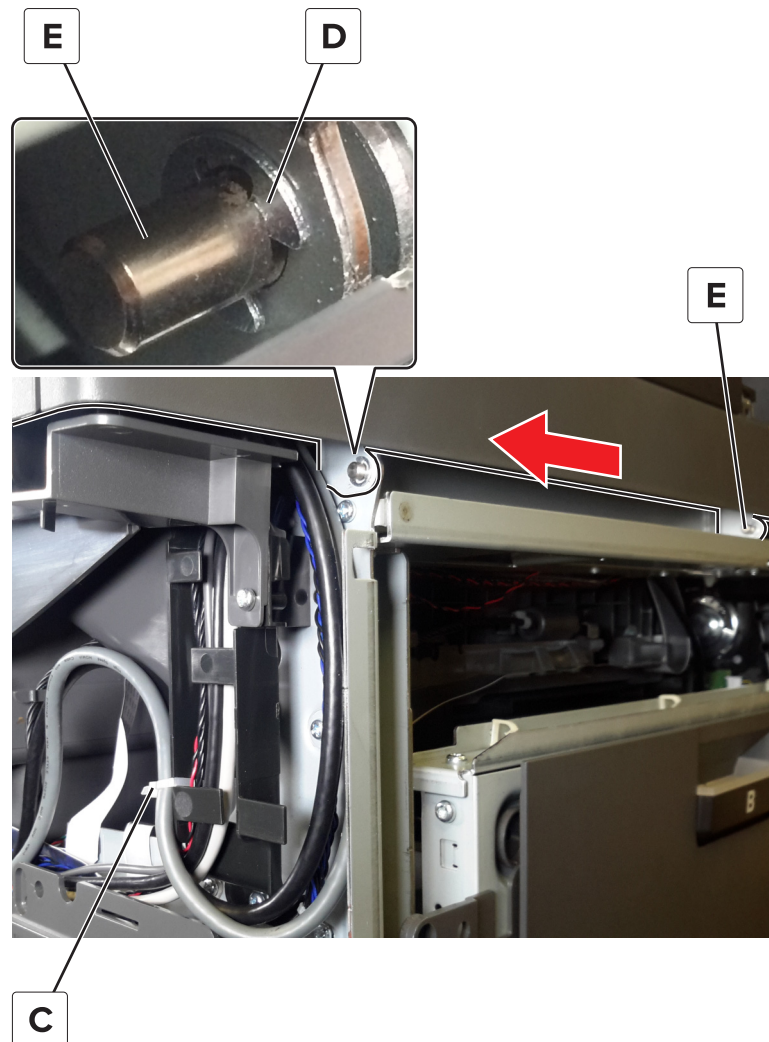
When replacing the flatbed scanner, make sure that the cables are properly routed and the following parts are replaced:

- E-clip
- Flatbed scanner support
- Wire tie

After installing the flatbed scanner, open door C, and then move the latch (A) toward the front of the printer to disengage the CCDM.

550-sheet tray removals

550-sheet tray media size sensor actuators removal

1 Remove the tray insert.

2 Pry, and then remove the actuators.

Sensor (550-sheet tray media size) removal

1 Remove the tray insert.

2 Remove the sensor (A), and then disconnect the cable from the sensor.

Parts removal
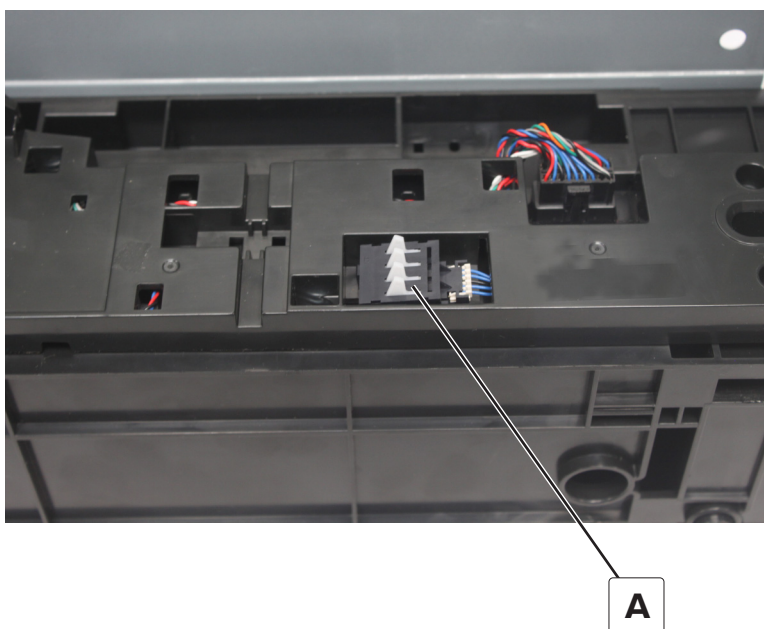
Sensor (550-sheet tray media low) removal

1 Remove the tray insert.

2 Remove the sensor (A), and then disconnect the cable from the sensor.
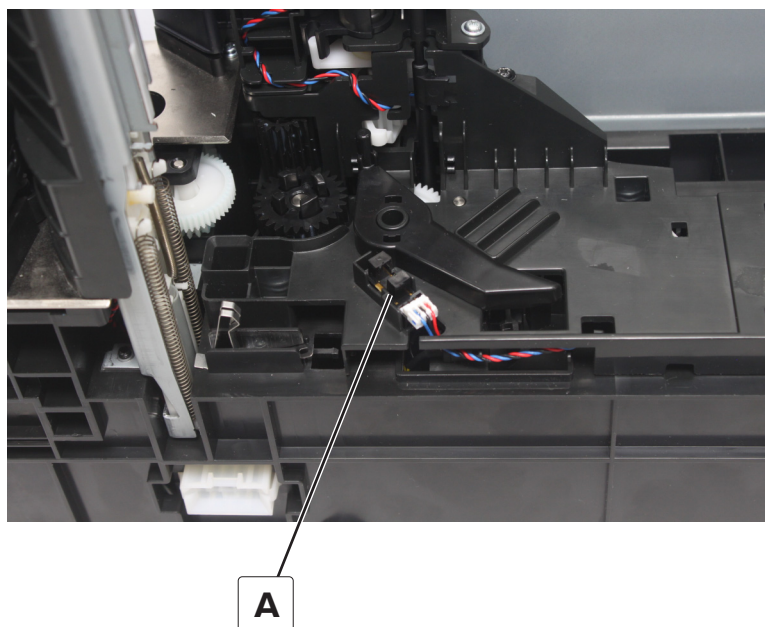
Sensor (550-sheet tray jam door)

1 Open the jam door.

2 Remove the sensor (A), and then disconnect the cable from the sensor.

A
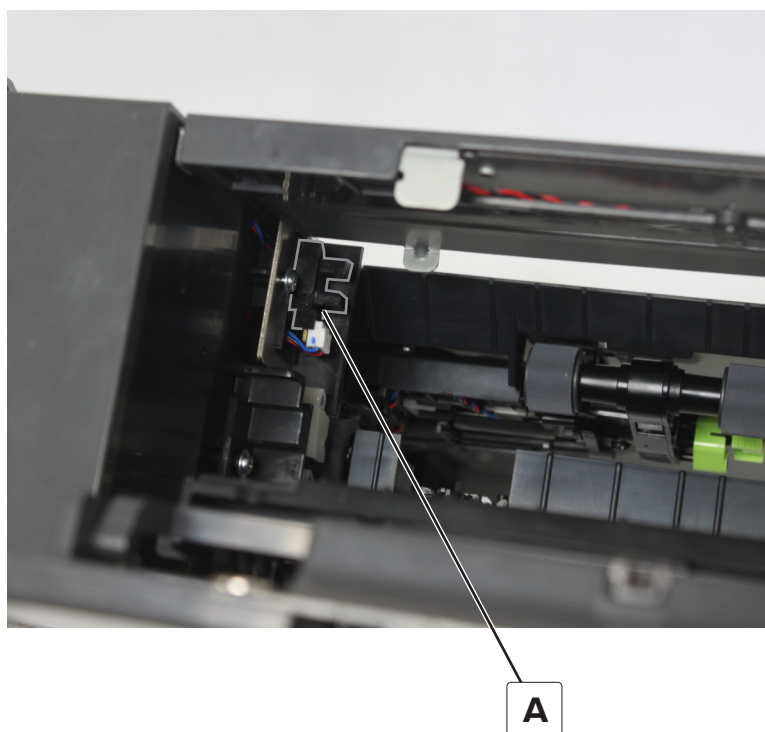
550-sheet tray right rail removal

1 Remove the tray insert.

2 Remove the screw (A), and then remove the rail.

A
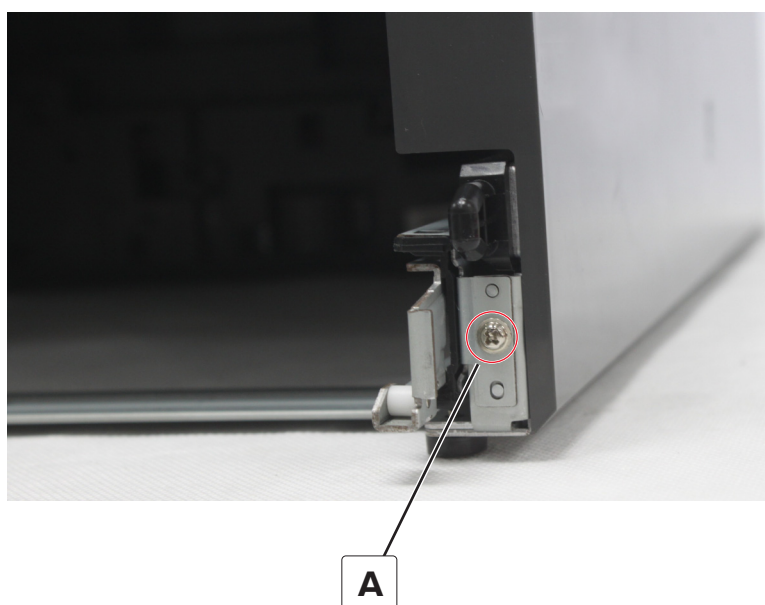
Parts removal

550-sheet tray paper feeder removal

1 Remove the tray insert.

2 Remove the pick roller.

3 Press, and then slide to remove the bracket.
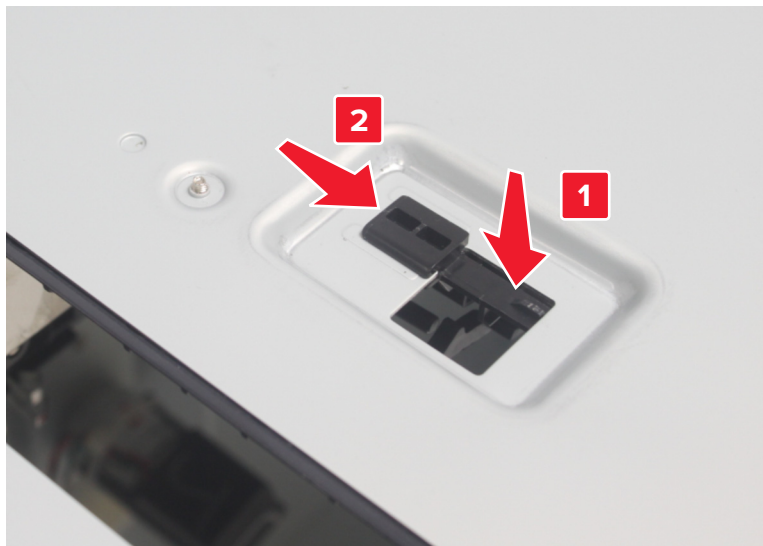
4 Disconnect the cable (A), and then remove the five screws (B).
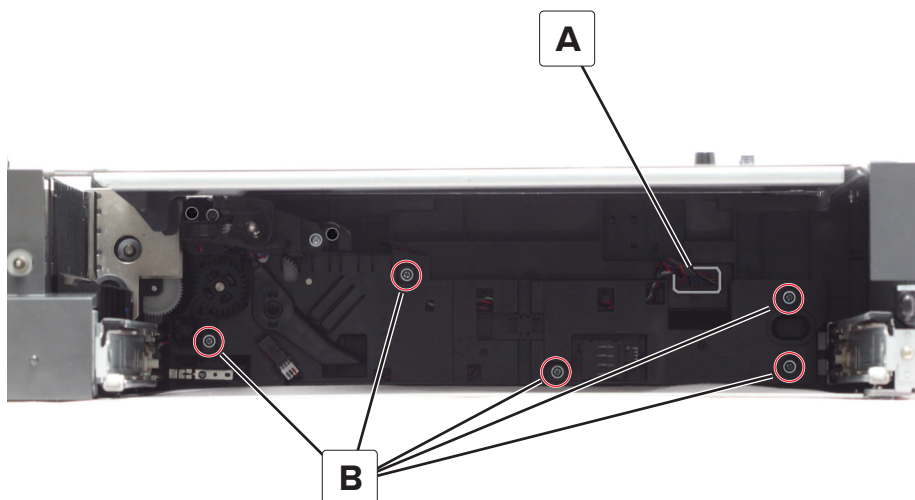
5 Remove the feeder.

Sensor (550-sheet tray media out) removal

1 Remove the tray insert.

2 Remove the paper feeder. See **"550-sheet tray paper feeder removal" on page 652**.

3 Disconnect the cable (A), and then remove the sensor.

A
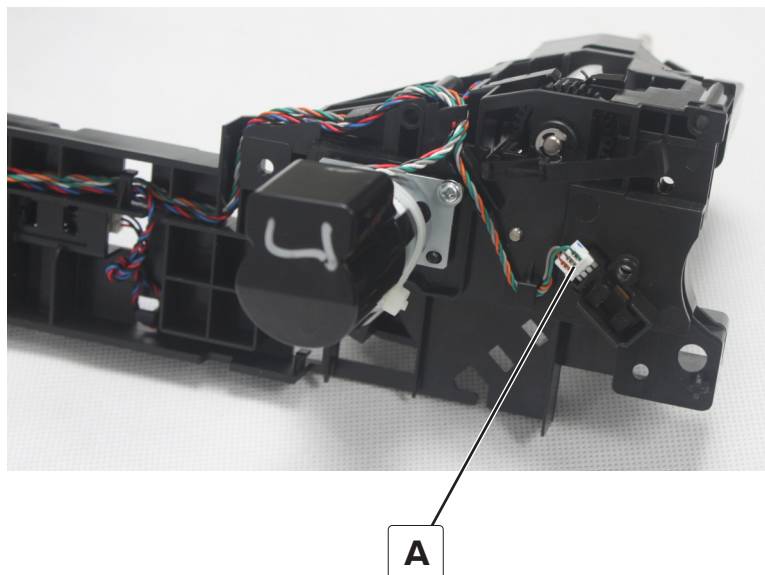
550-sheet tray rear cover removal

1 Remove the three screws (A).

A
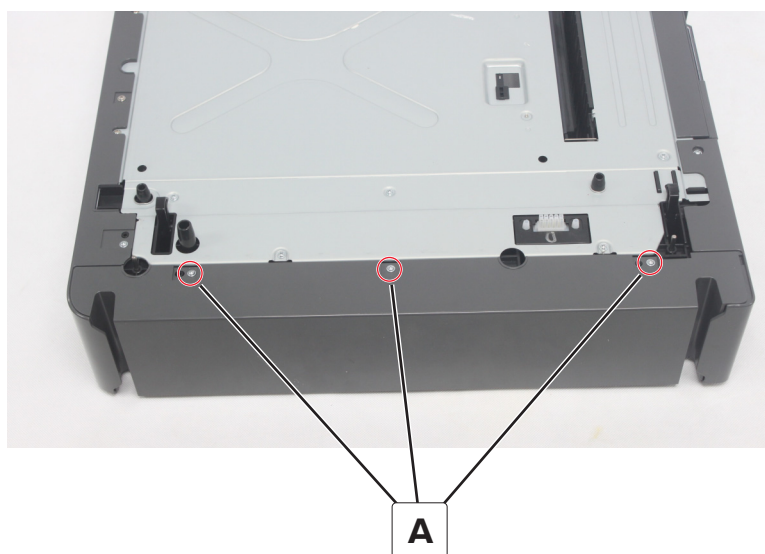
2 Slide and hold the latch to the right, and then remove the cover.
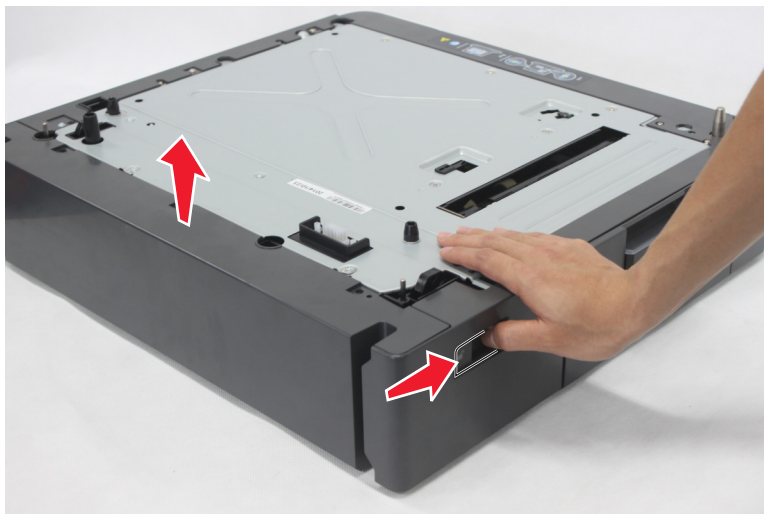
550-sheet tray controller board removal

1 Remove the rear cover. See **"550-sheet tray rear cover removal" on page 653**.

2 Disconnect the cables, and then remove the two screws (A).

A
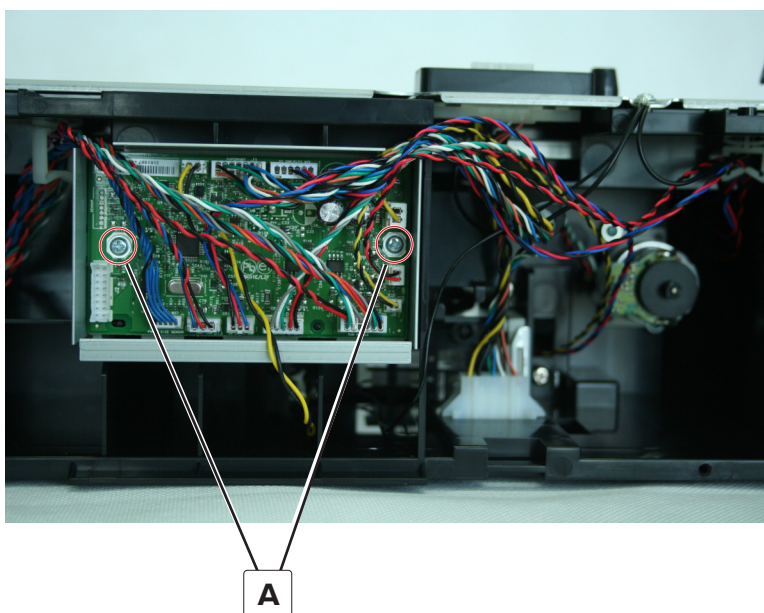
3 Remove the controller board.

550-sheet tray interface cable removal

1 Remove the tray insert.

2 Remove the rear cover. See **"550-sheet tray rear cover removal" on page 653**.
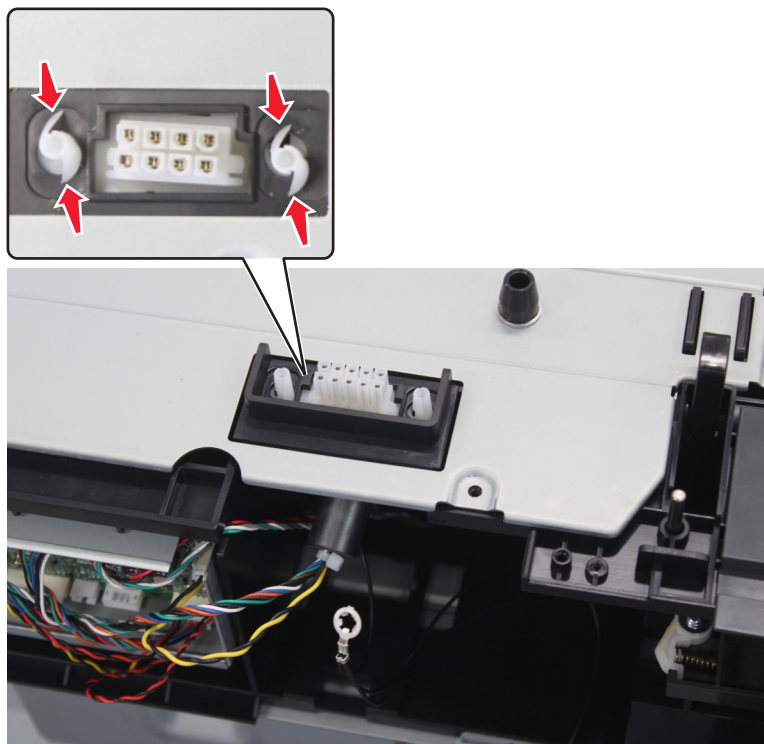
3 Disconnect the two cables (A) from the controller board.
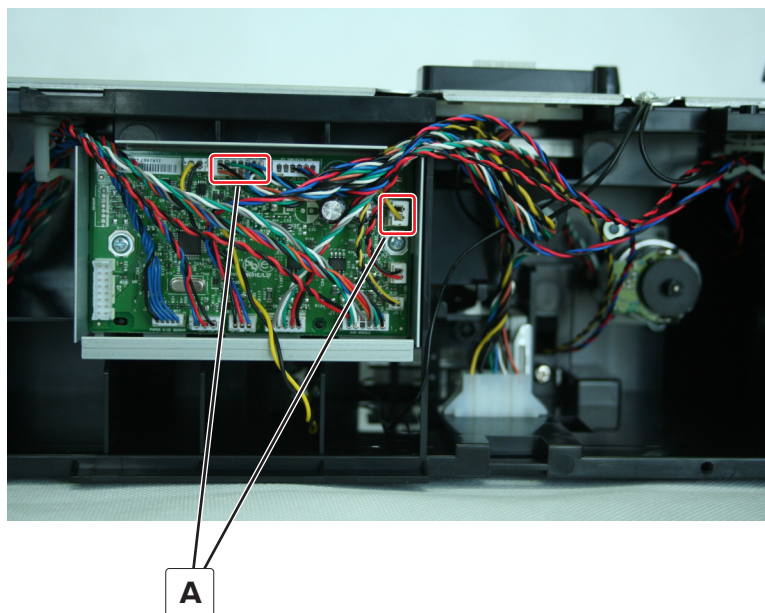
4 Remove the screw (B), and then remove the ground cable.
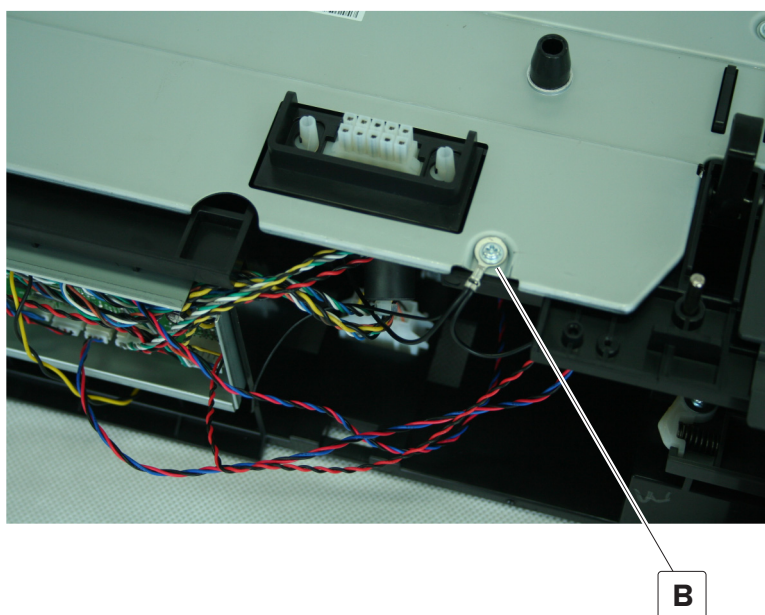
5 Using needle-nose pliers, remove the top interface cable.

6 Open the jam door.

7 Remove the screw (C), and then remove the ground cable.
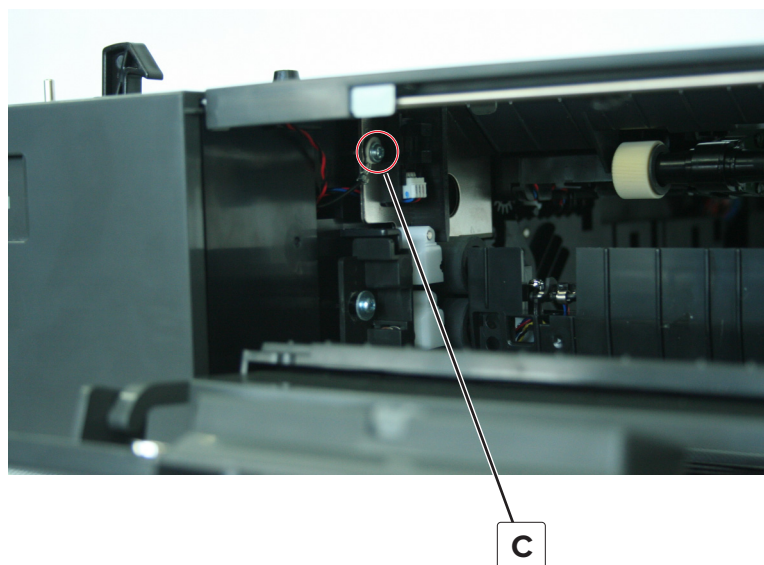
8 Remove the bottom interface cable.
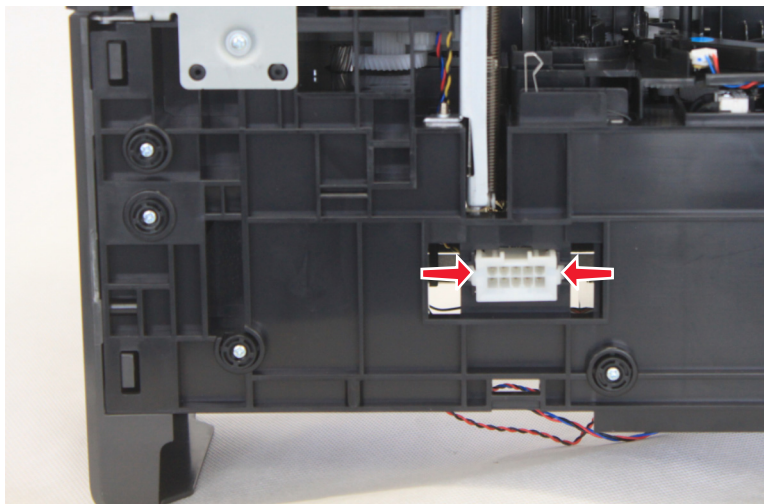
9 Remove the screw (D), and then remove the ground cable.
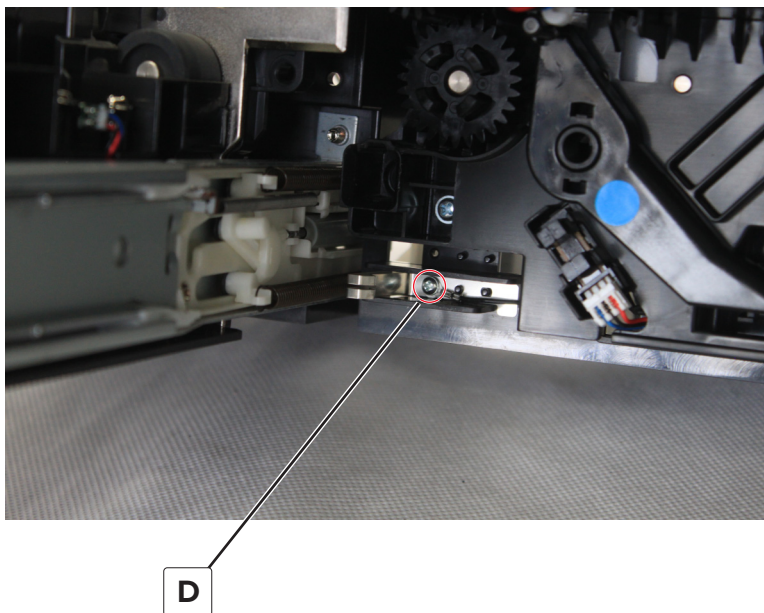
D

Sensor (550-sheet tray pick roller index) removal

1 Remove the tray insert.

2 Remove the pick roller assembly.

3 Press, and then slide to remove the bracket.
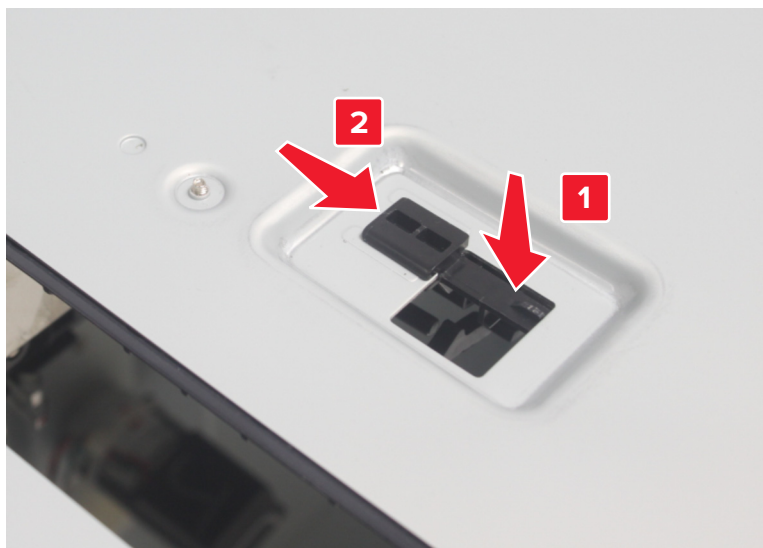
4 Remove the sensor (A), and then remove the cable.
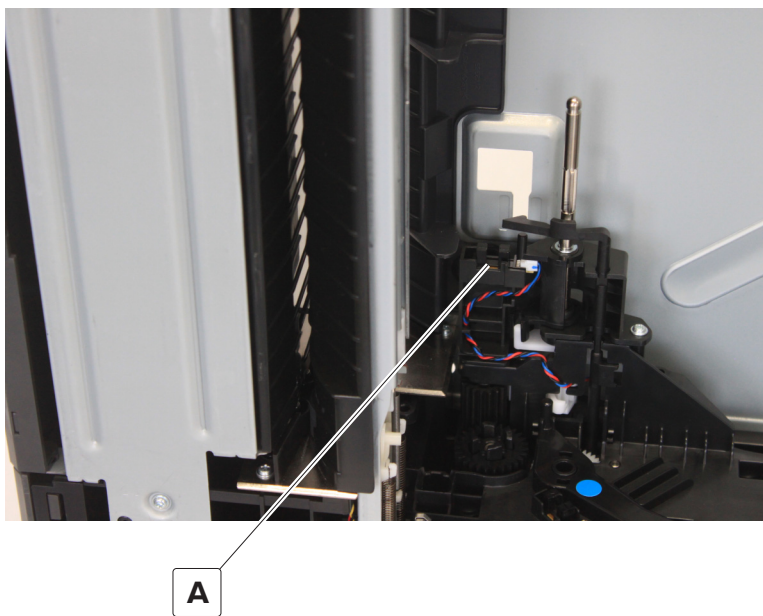
550-sheet tray left rail removal

1 Remove the tray insert.

2 Remove the rear cover. See **"550-sheet tray rear cover removal" on page 653**.

3 Remove the two screws (A).
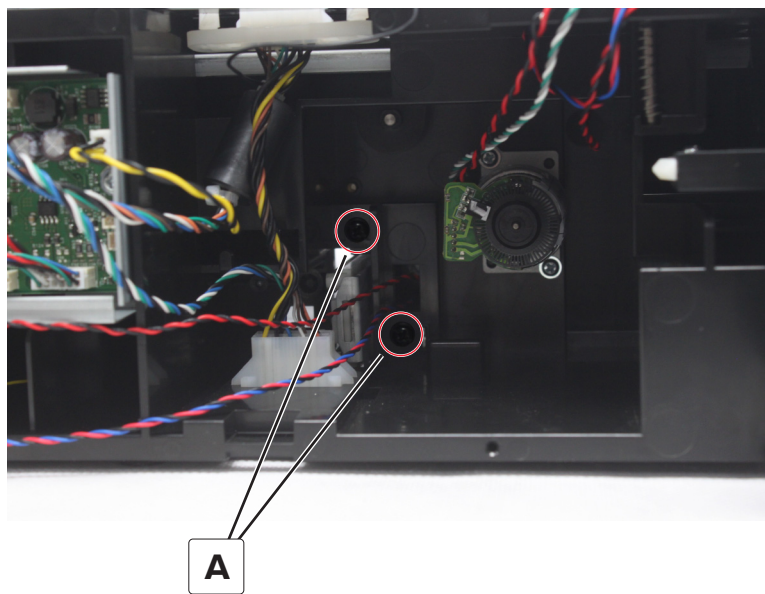
4 Remove the two screws (B), and then remove the rail.
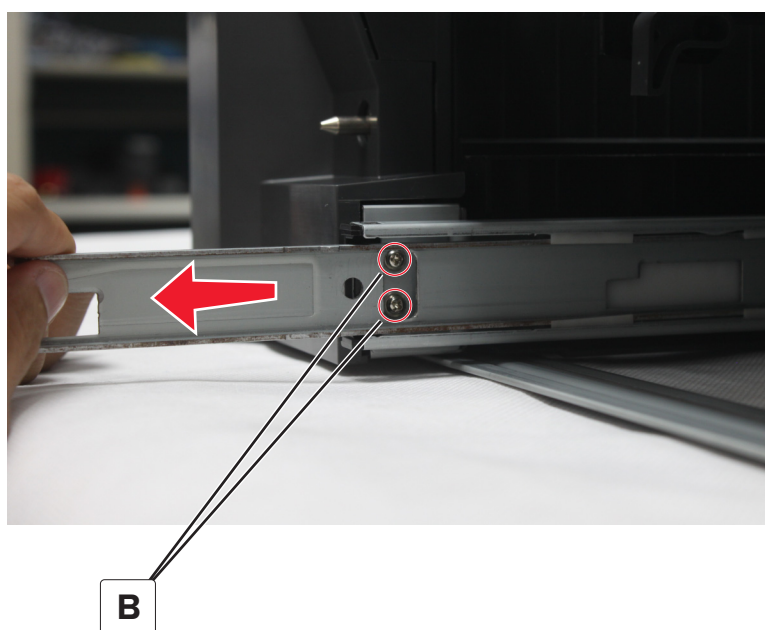
Motor (550-sheet tray pass-through) removal

1 Remove the tray insert.

2 Remove the rear cover. See **"550-sheet tray rear cover removal" on page 653**.

3 Remove the two screws (A), and then remove the motor.

A
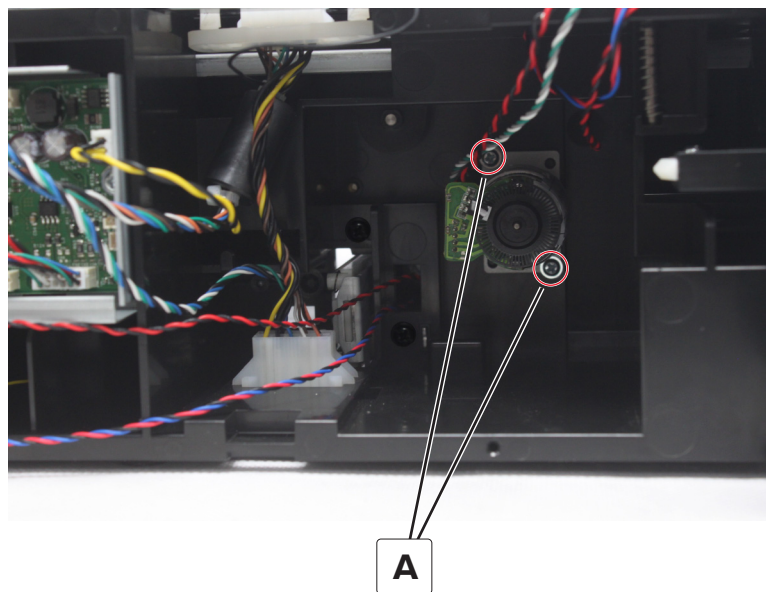
4 Disconnect the cable from the motor.

5 Remove the two screws (B), and then remove the bracket.

   Note: Pay attention to the type of bracket used.
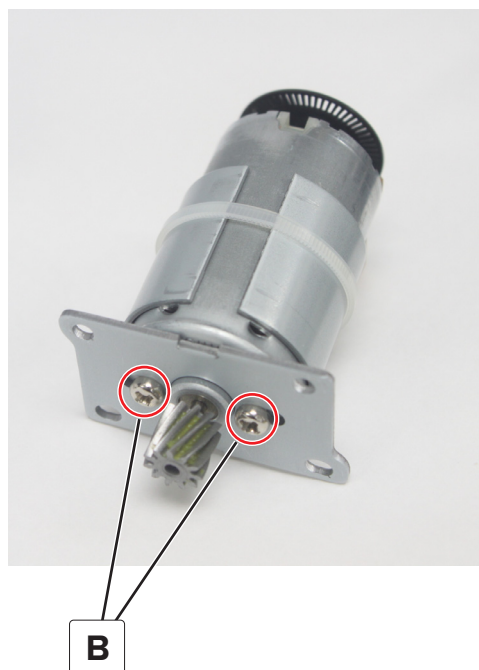
B

550-sheet tray wake up switch removal

1 Remove the tray insert.

2 Remove the rear cover. See .

3 Remove the paper feeder. See **"550-sheet tray paper feeder removal" on page 652**.

4 Disconnect the cable (A) from the controller board.
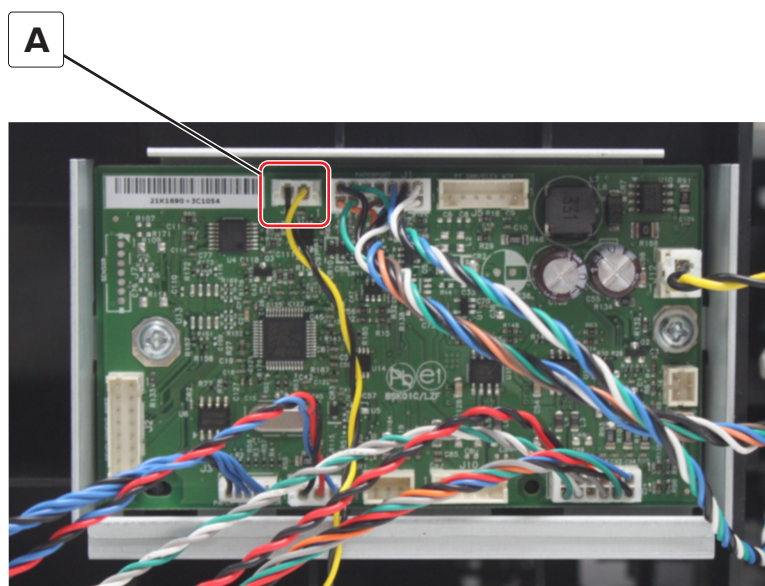
5 Remove the screw (B), and then remove the switch.
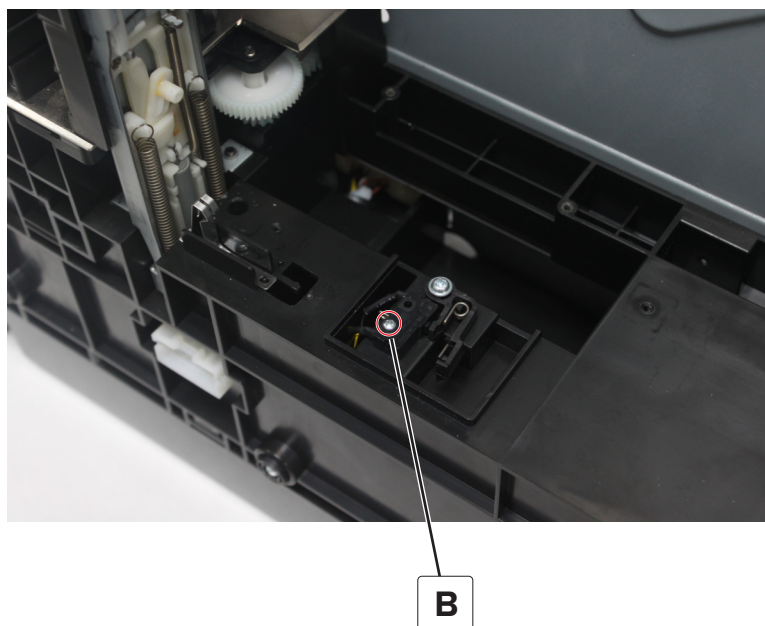
2200-sheet tray removals

2200-sheet tray insert removal

1 Fully extend the tray, and then press the left and right latches to release the tray.
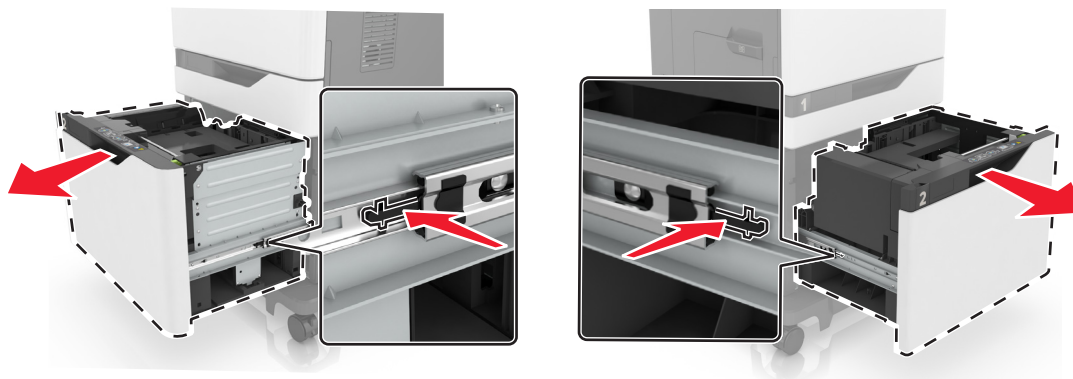
2 Remove the tray.

Bell crank removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the clip (A), and then remove the washer.

3 Remove the bell crank and spring.

> **Note:** The same steps apply when removing the other crank.

2200-sheet tray rail removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the three screws (A).

Note: Move the rail to the front to show the third screw.
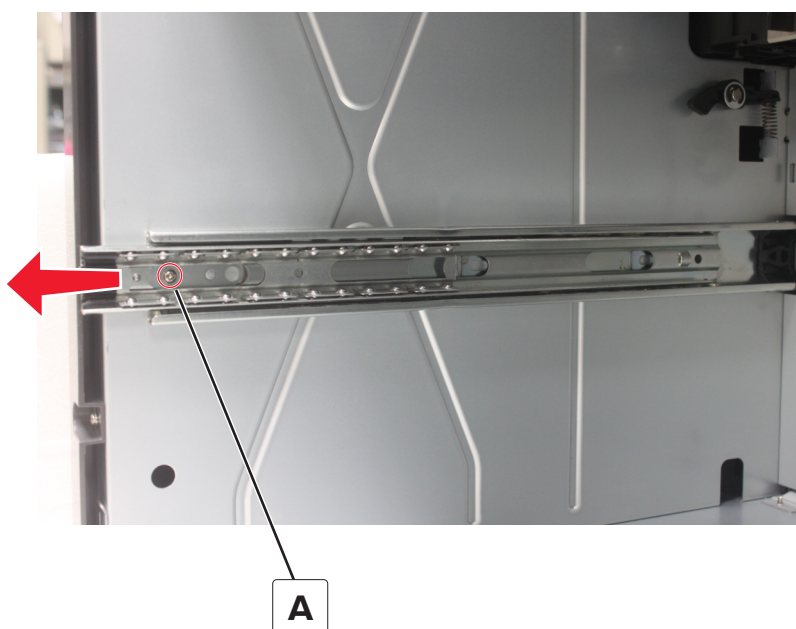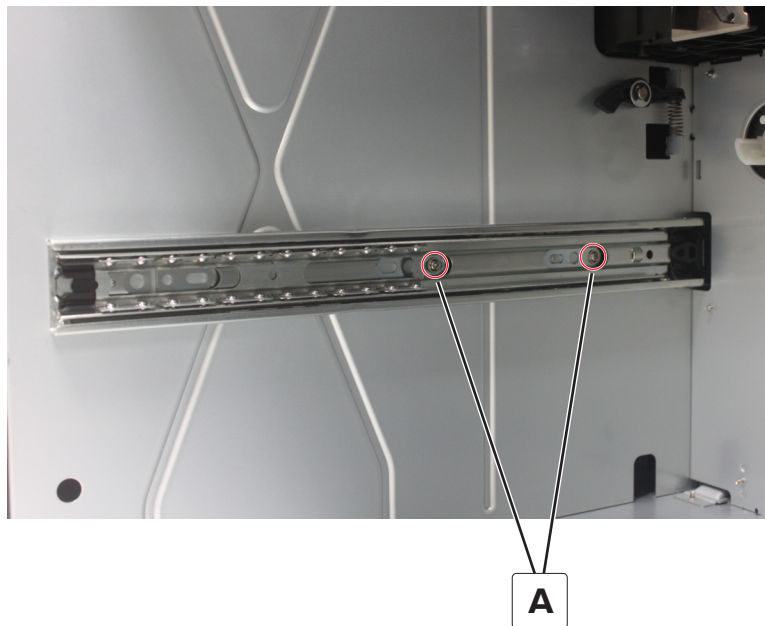
3 Remove the rail.

Note: The same steps apply when removing the other rail.

Sensor (2200-sheet tray media low) removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the sensor (A).

A
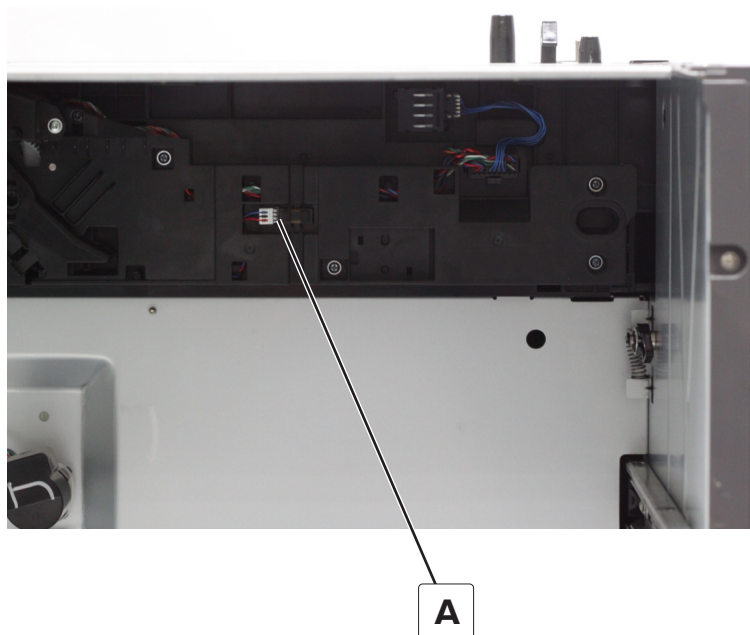
3 Disconnect the cable from the sensor.

Sensor (2200-sheet tray media size) removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Disconnect the cable (A).

A

3 Remove the sensor.

Parts removal
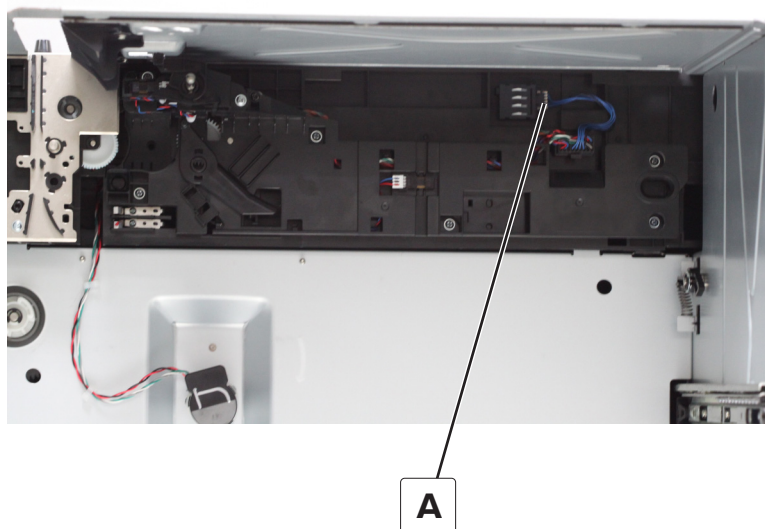
2200-sheet tray rear cover removal

1 Remove the three screws (A).
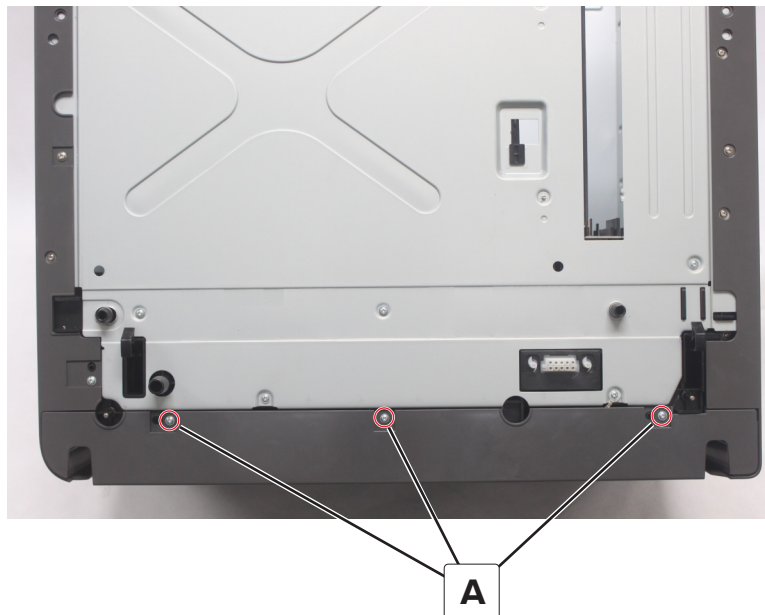
2 Remove the cover.

2200-sheet tray controller board removal

1 Remove the tray rear cover. See **"2200-sheet tray rear cover removal" on page 665**.

2 Disconnect the cables, and then remove the two screws (A).

Parts removal

665
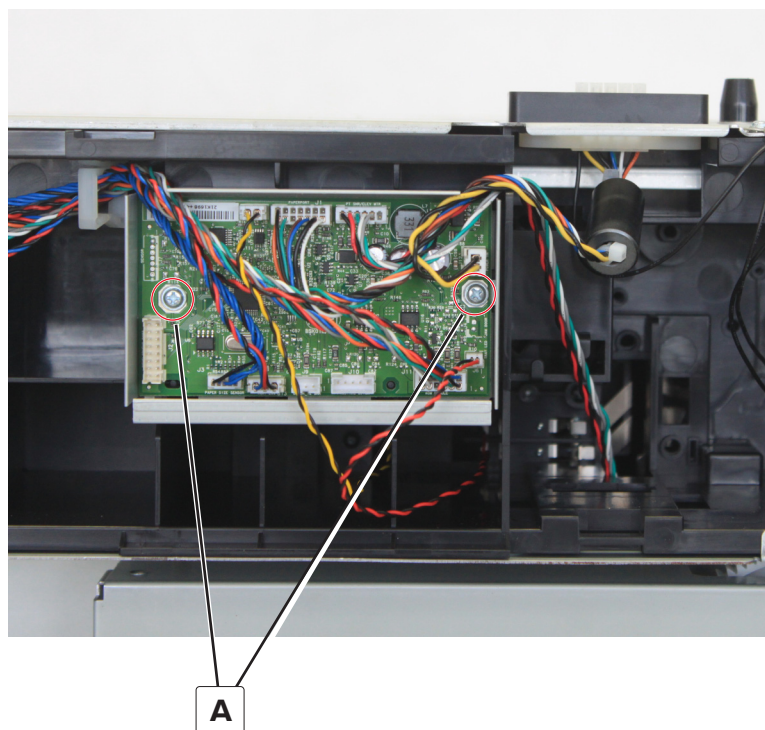
3 Remove the controller board.

2200-sheet tray interface cable removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the tray rear cover. See **"2200-sheet tray rear cover removal" on page 665**.

3 Disconnect the two cables (A).
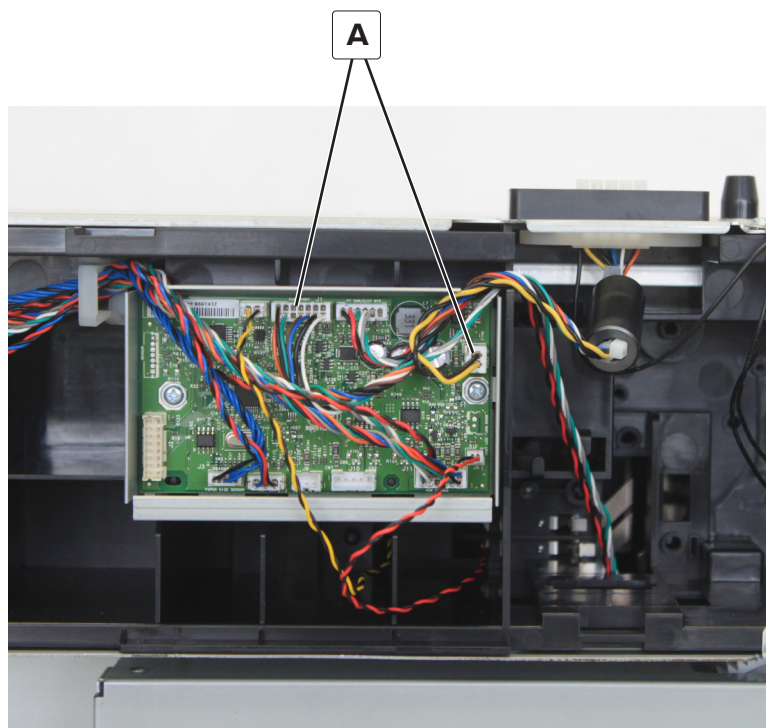
4 Remove the two screws (B), and then remove the ground cable.
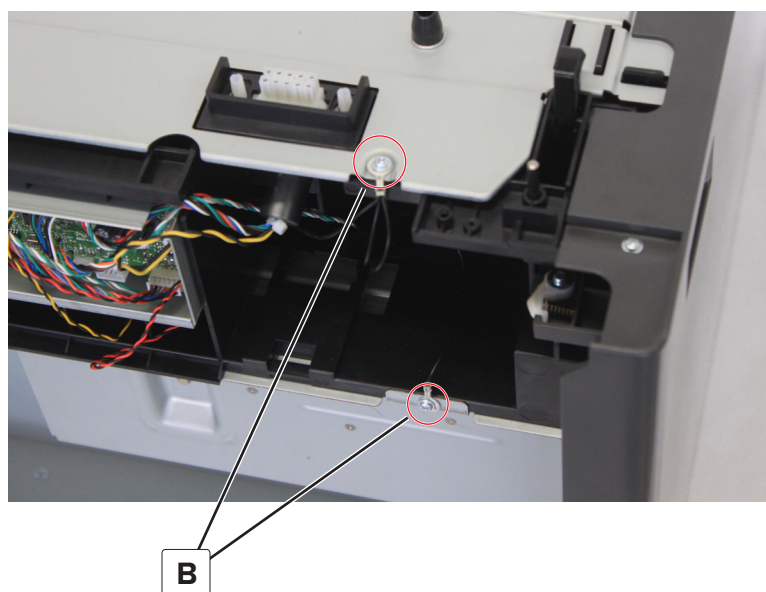
Parts removal

5 Using needle-nose pliers, remove the interface cable.

6 Remove the screw (C), and then remove the ground cable.

C
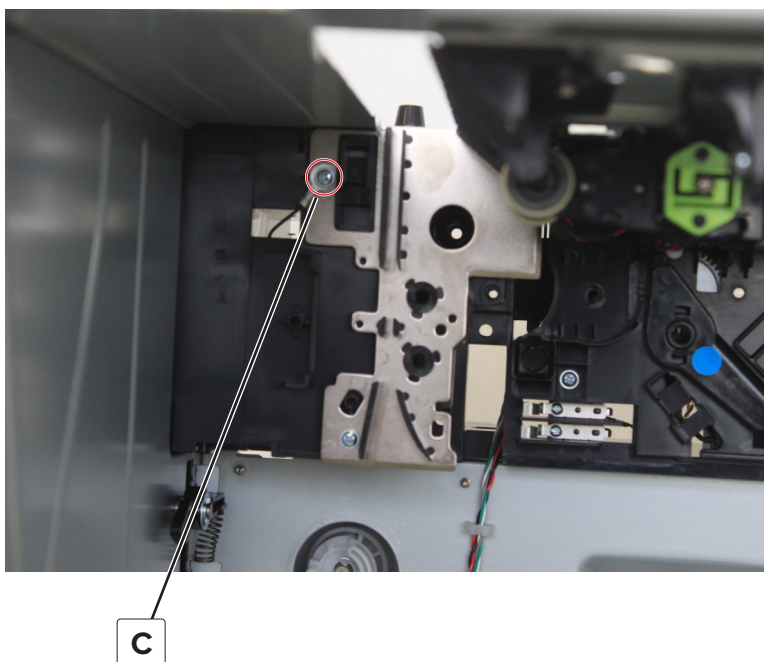
2200-sheet tray elevator gears removal

1 Remove the rear cover. See **"2200-sheet tray rear cover removal" on page 665**.

2 Remove the six screws (A), and then remove the gear bracket.
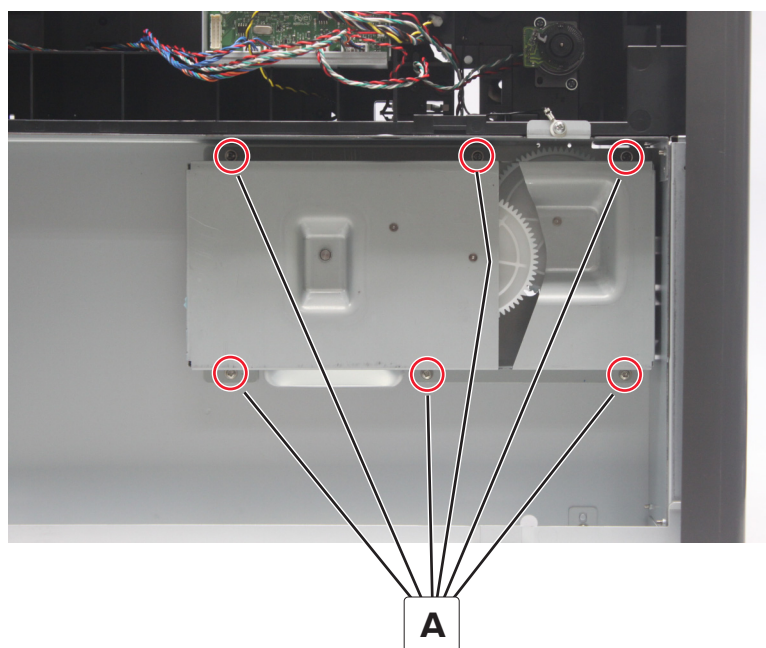
3 Remove the clip (B), and then remove the gear.
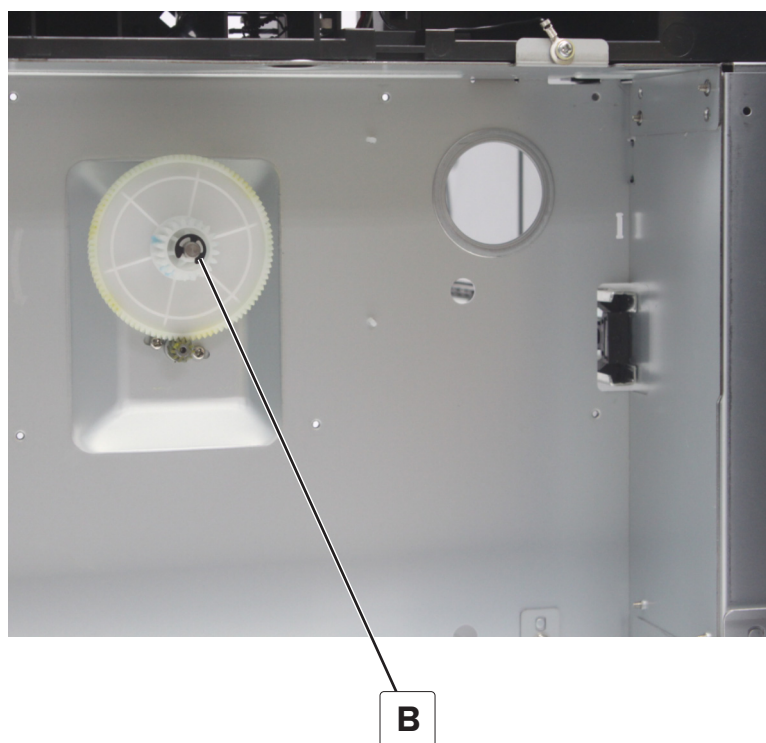
4 Remove the three clips (C), and then remove the gears.
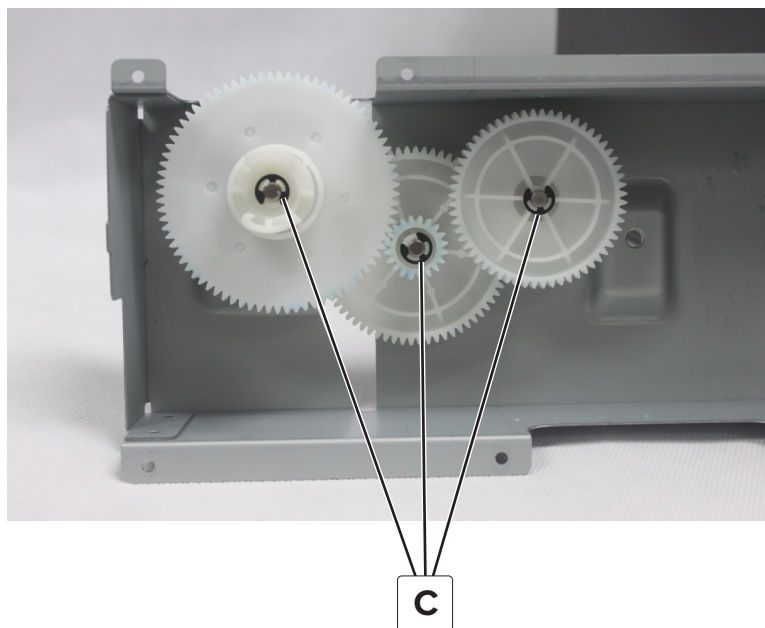
Motor (2200-sheet tray elevator) removal

1 Remove the rear cover. See **"2200-sheet tray rear cover removal" on page 665**.

2 Remove the elevator gear bracket. See **"2200-sheet tray elevator gears removal" on page 668**.

3 Disconnect the cable.

4 Remove the two screws (A), and then remove the motor.
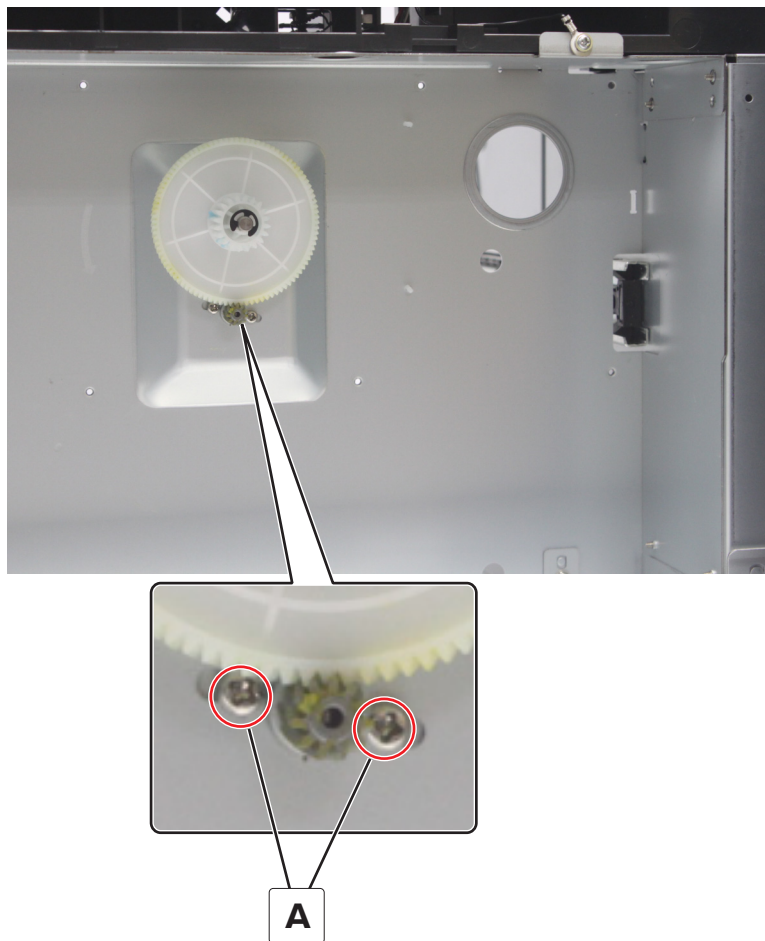
2200-sheet tray paper feeder removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Press, and then slide to remove the bracket.
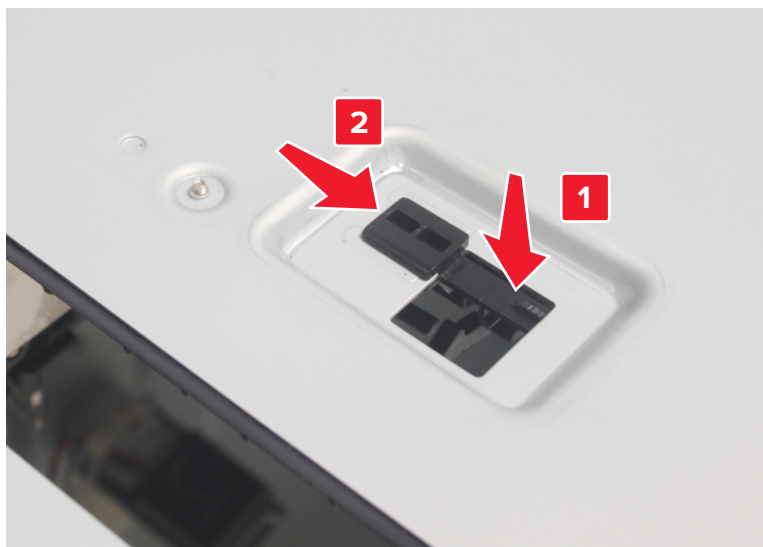
3 Disconnect the two cables (A).

4 Remove the five screws (B), and then remove the feeder.
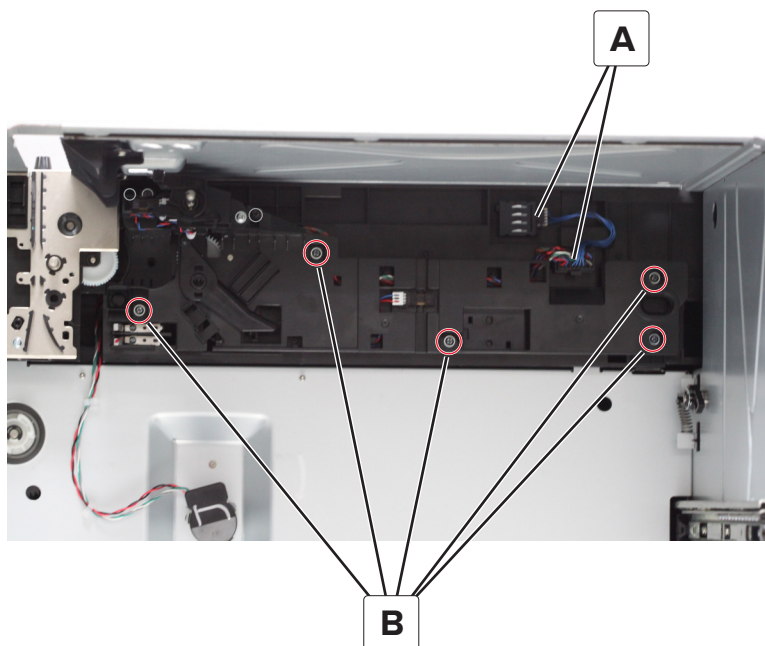
Sensor (2200-sheet tray media out) removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the paper feeder. See **"2200-sheet tray paper feeder removal" on page 671**.

3 Disconnect the cable (A), and then remove the sensor.
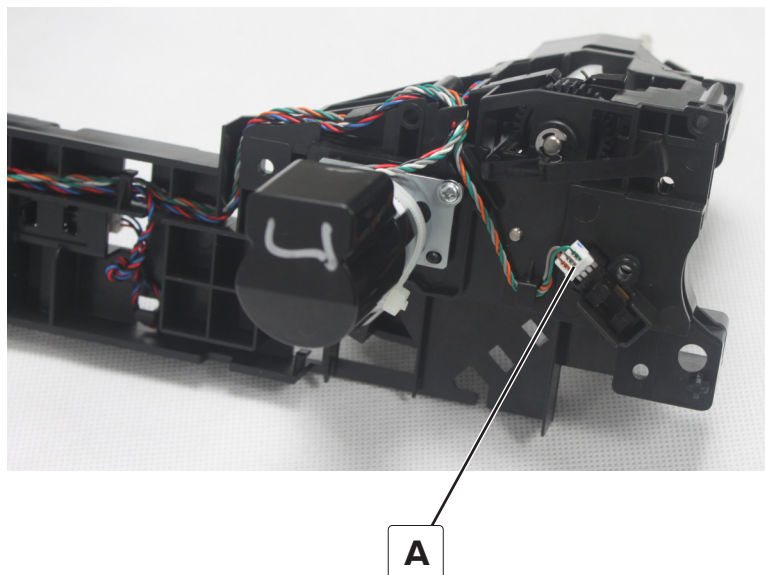
A

Sensor (2200-sheet tray pick roller index) removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the paper feeder. See **"2200-sheet tray paper feeder removal" on page 671**.

3 Remove the pick roller.

4 Remove the bracket.
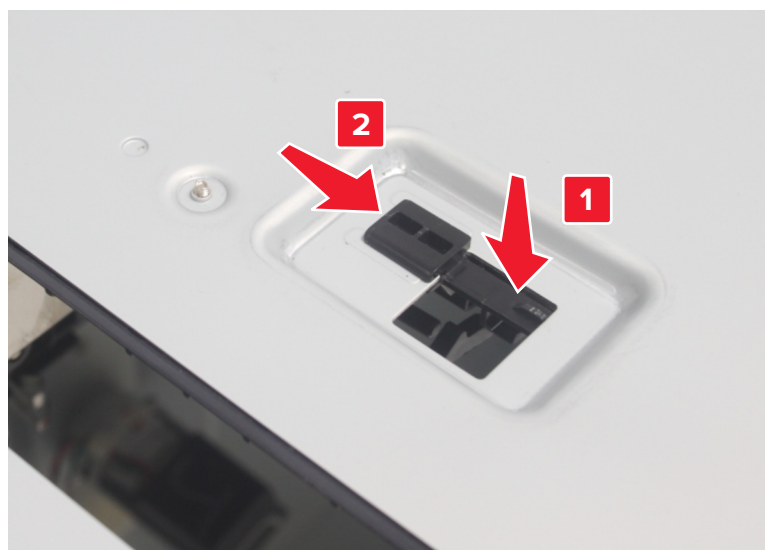
5 Remove the sensor (A), and then disconnect the cable.
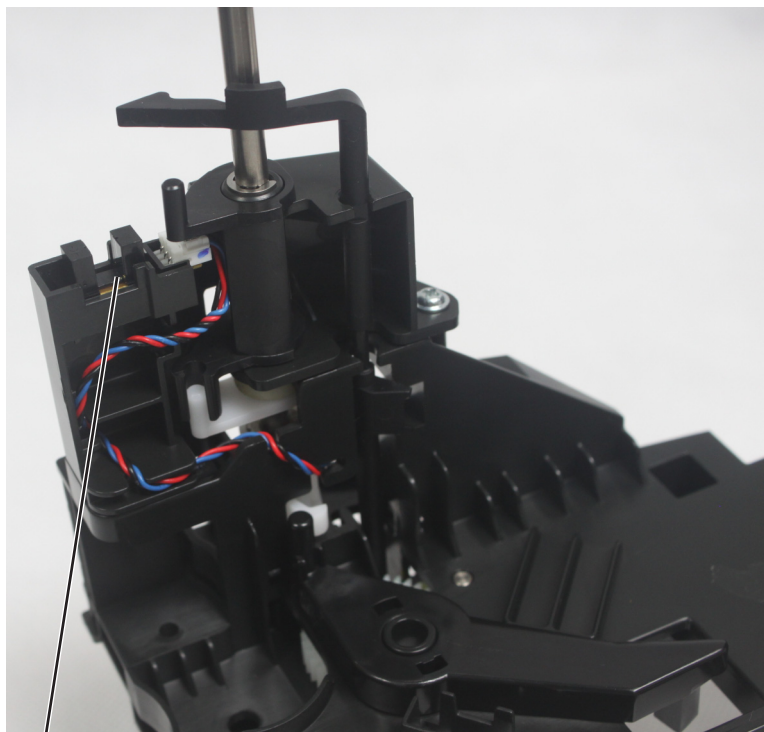
Motor (2200-sheet tray pick) removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the paper feeder. See **"2200-sheet tray paper feeder removal" on page 671**.

3 Remove the two screws (A).

A
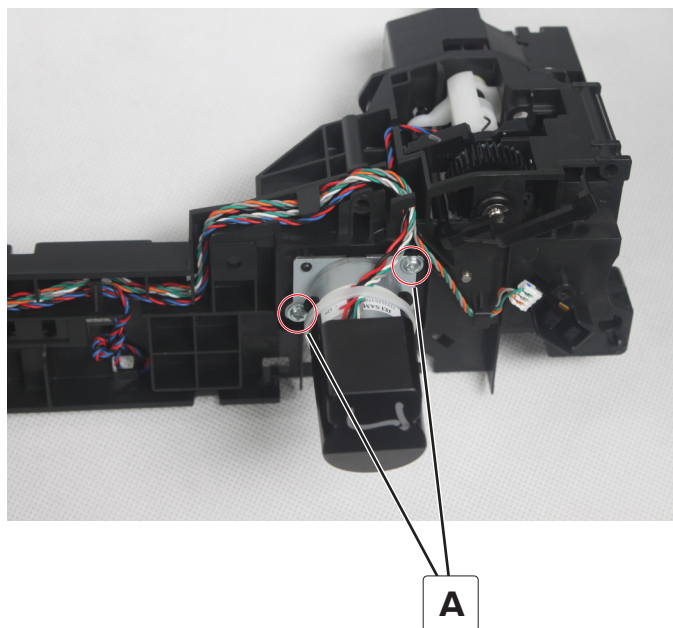
4 Cut the zip tie, disconnect the cable (B), and then remove the motor.

B
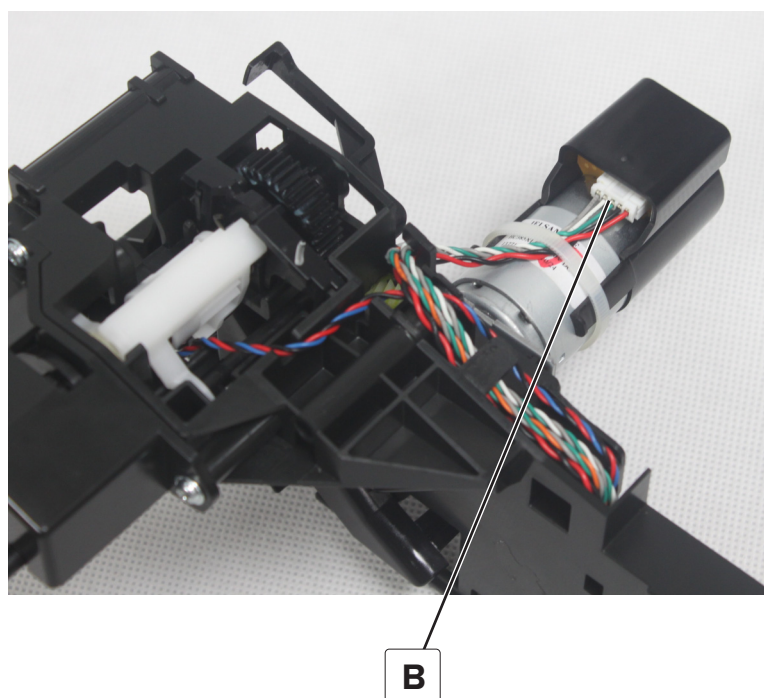
5 Remove the cover from the motor.

2200-sheet tray media out sensor actuator removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the paper feeder. See **"2200-sheet tray paper feeder removal" on page 671**.

3 Remove the bracket.
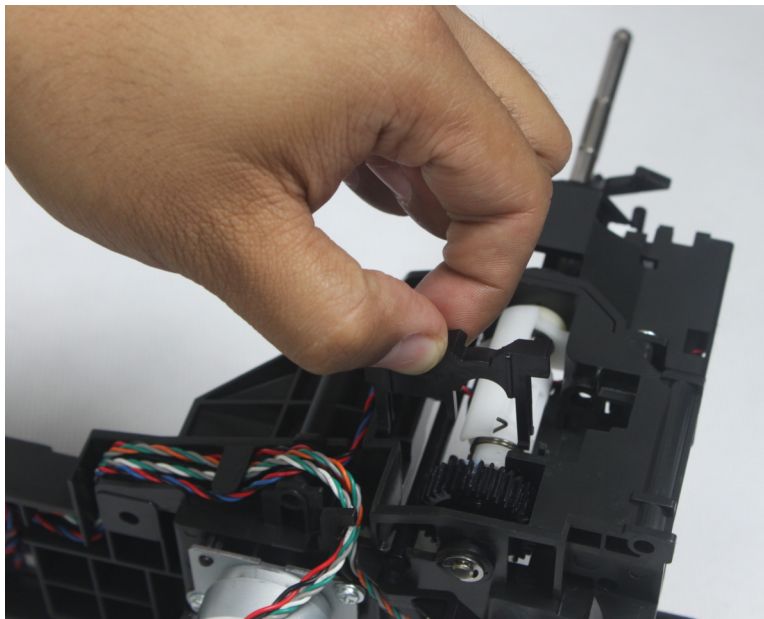
4 Move the actuator away, and then behind the sensor.
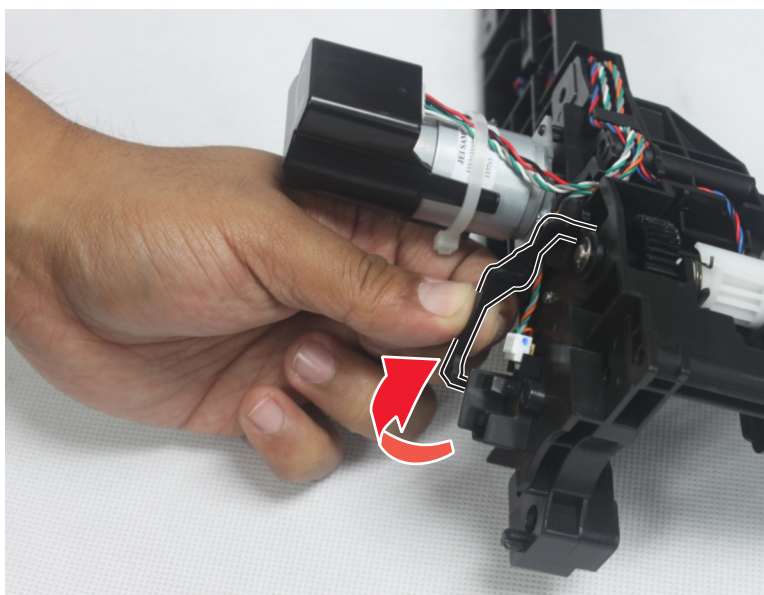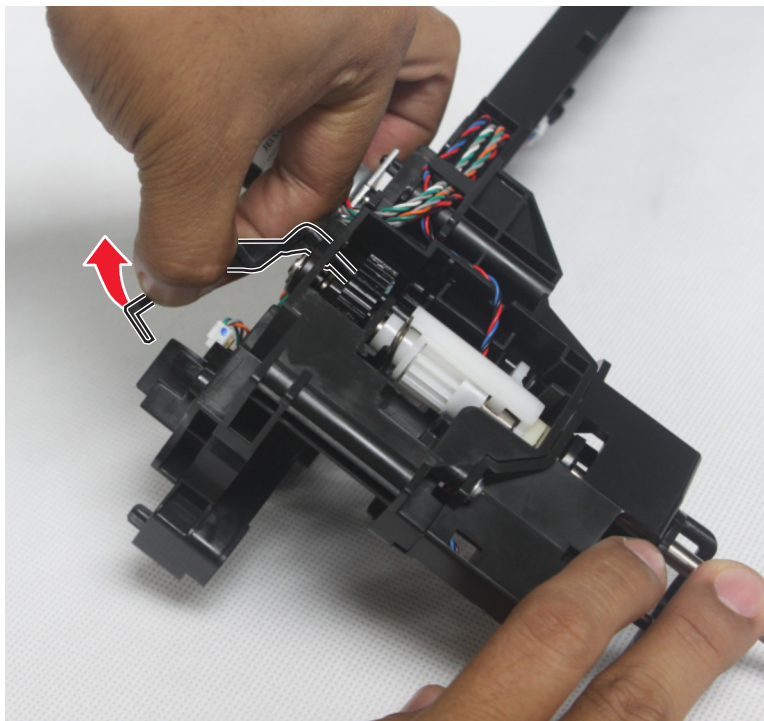
5 Rotate the actuator to align the two notches (A) with the slots.
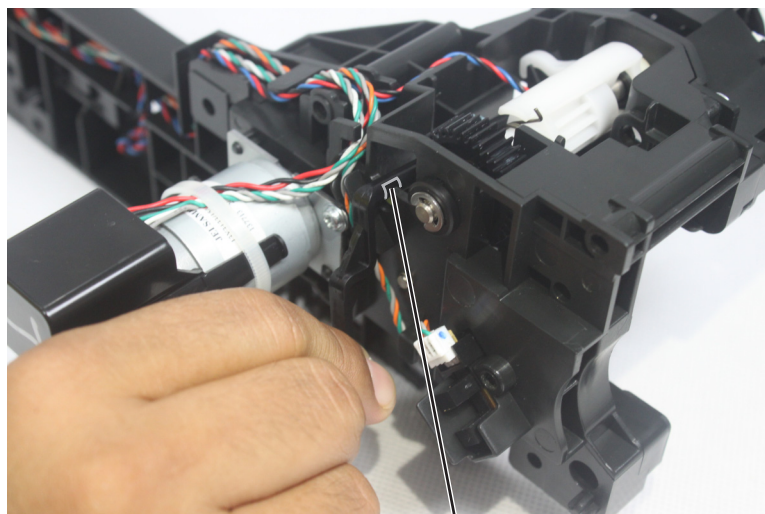
A

A
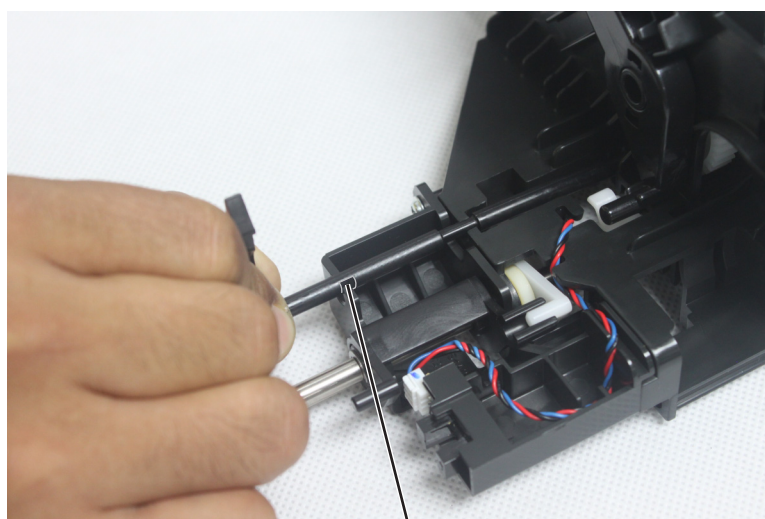
6 Remove the actuator.

2200-sheet tray wake up switch removal

1 Remove the tray insert. See **"2200-sheet tray insert removal" on page 662**.

2 Remove the paper feeder. See **"2200-sheet tray paper feeder removal" on page 671**.

3 Remove the rear cover. See **"2200-sheet tray rear cover removal" on page 665**.

4 Disconnect the cable (A).
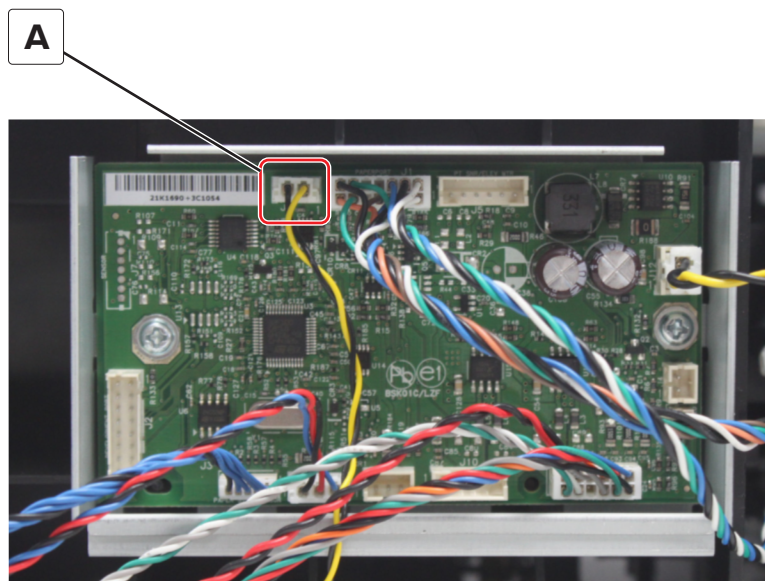
5 Remove the screw (B), and then remove the switch.
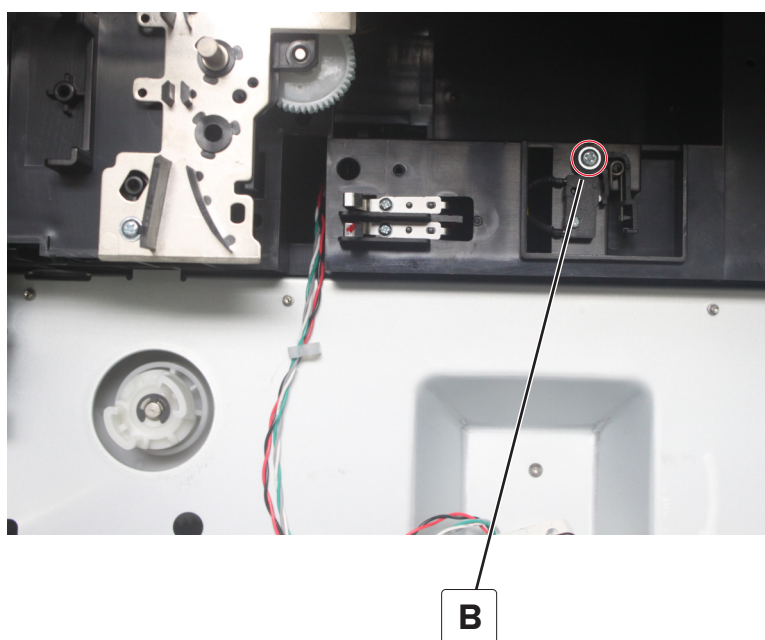
Caster base removals

Locking caster removal

1 Slide the latch to the right to unlock, and then remove the printer base or input option from the caster base.

> ⚠ **CAUTION—POTENTIAL INJURY:** The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.

2 Remove the four screws (A).

A

3 Slide the latch to the right, and then remove the caster base cover.
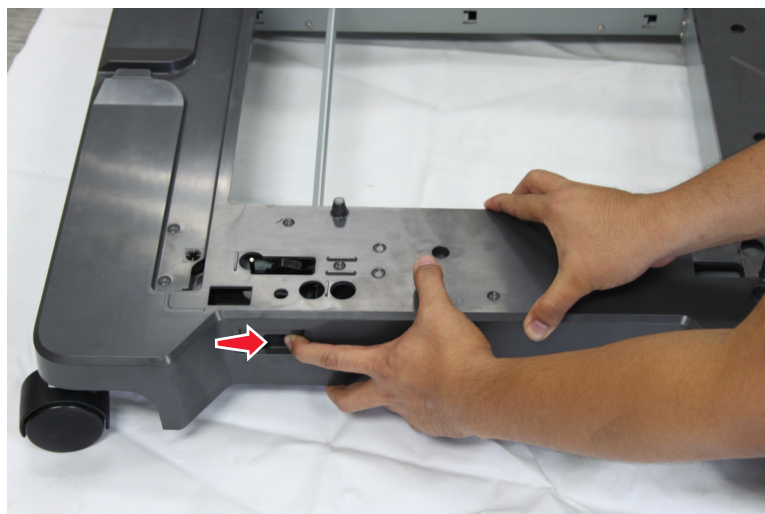
4 Remove the three screws (B), and then remove the locking caster.

Note: Remove and replace the damaged caster only. The left and right locking casters do not wear and tear at the same time.
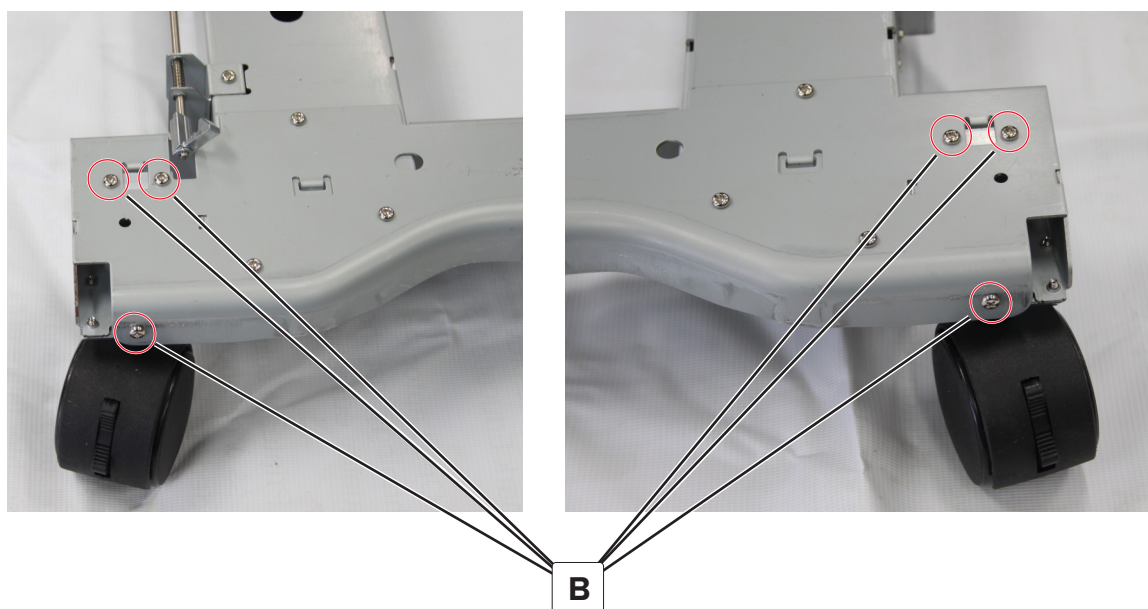
Installation note: When installing the left or right locking caster, make sure to position the caster and the screws as shown.
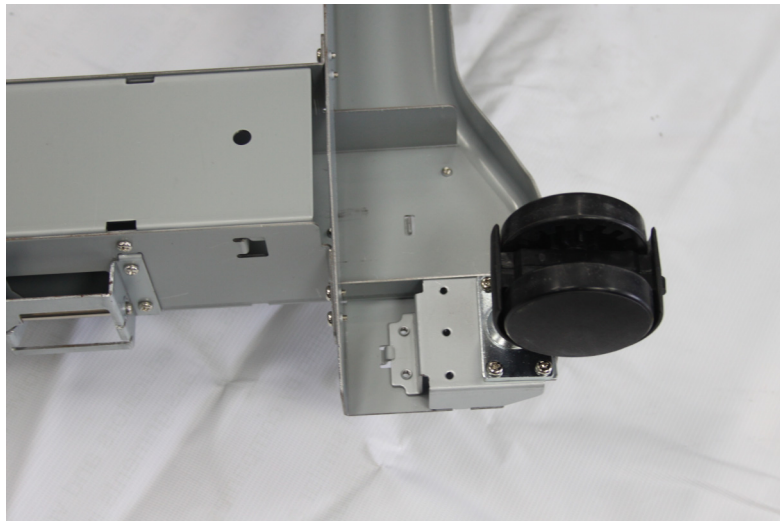
Non-locking caster removal

1 Slide the latch to the right to unlock, and then remove the printer base or input option from the caster base.

⚠ **CAUTION—POTENTIAL INJURY:** The printer weighs 61-84 kg (135-185 lb) and requires three or more trained personnel to lift it safely. Always use the handholds on the printer to lift it. Make sure that your fingers are not under the printer when you lift or set the printer down.

2 Remove the four screws (A).

3 Slide the latch to the right, and then remove the caster base cover.
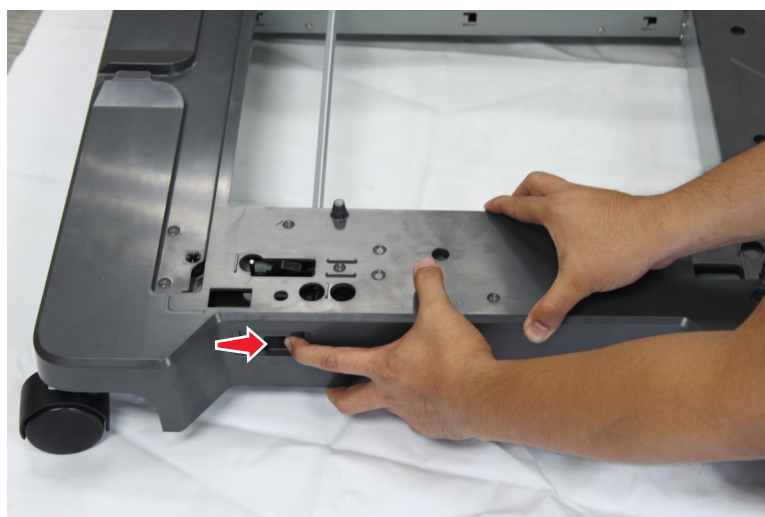
4 Remove the three screws (B), and then remove the non-locking caster.

Note: Remove and replace the damaged caster only. The left and right non-locking casters do not wear and tear at the same time.

B
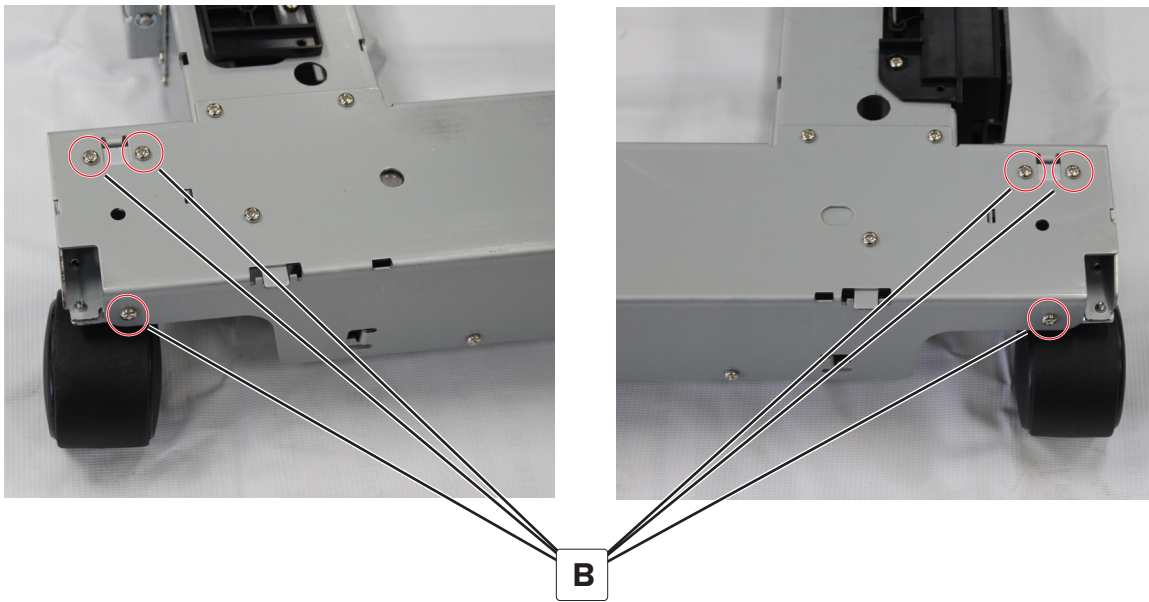
Installation note: When installing the left or right non-locking caster, make sure to position the screws as shown.
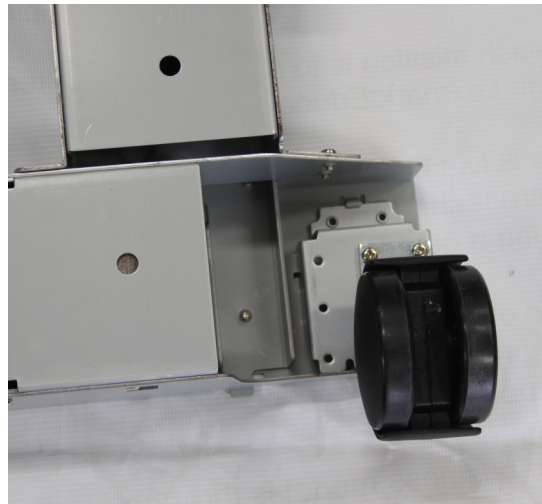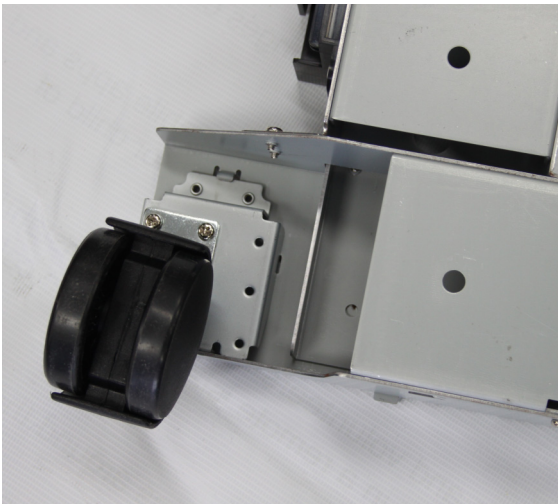
Staple finisher removals

Staple finisher right cover removal
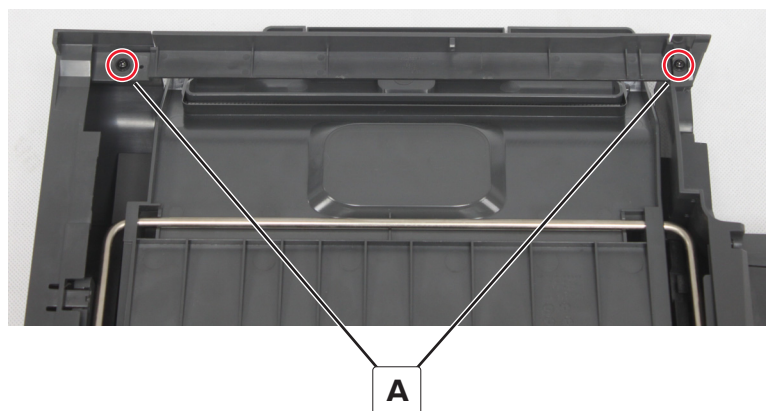
1 Remove the two screws (A).

2 Remove the cover.

Staple finisher front cover removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the screw (A).

3 Release the two latches (B), and then remove the cover.
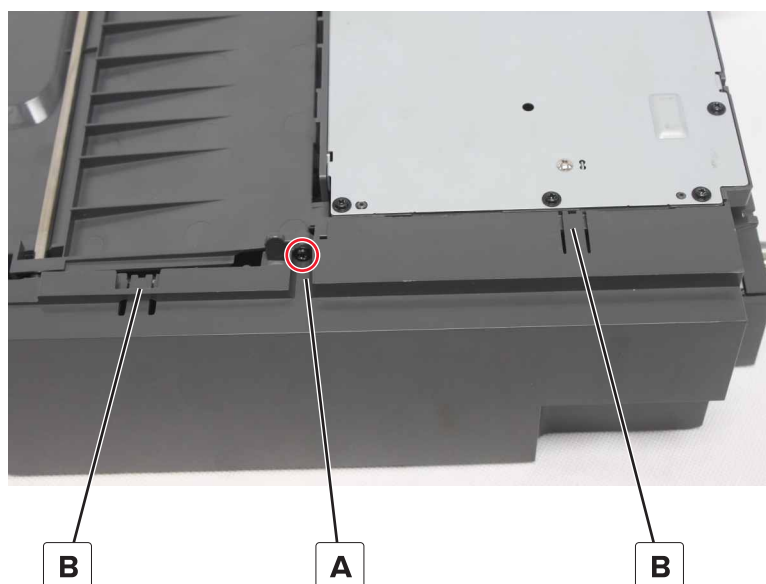
Staple finisher rear cover removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Open the staple cartridge door, and then remove the two screws (A).
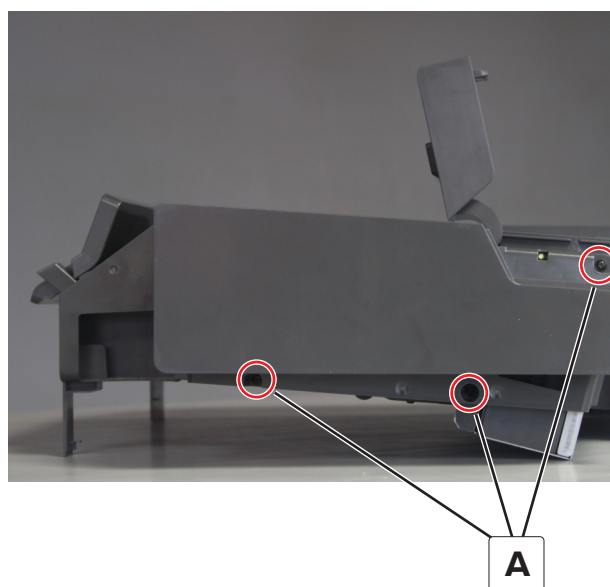
3 Swing out the cover to remove.
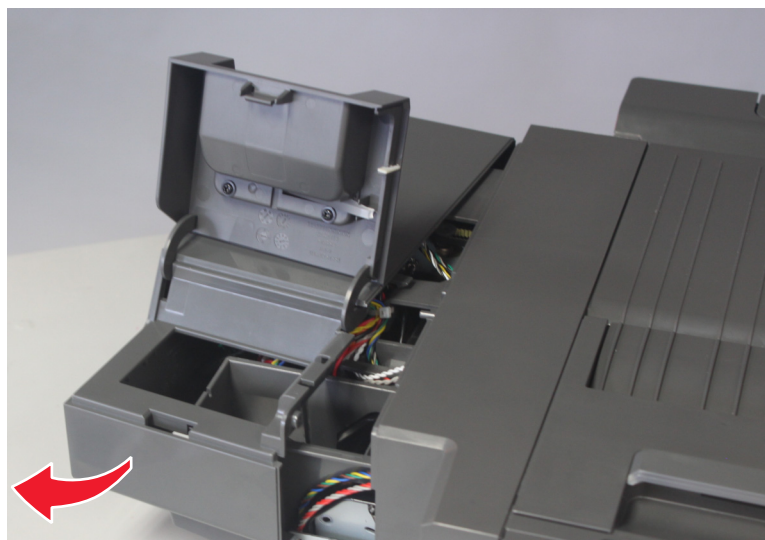
Installation notes:

a Make sure to align the two tabs (A).
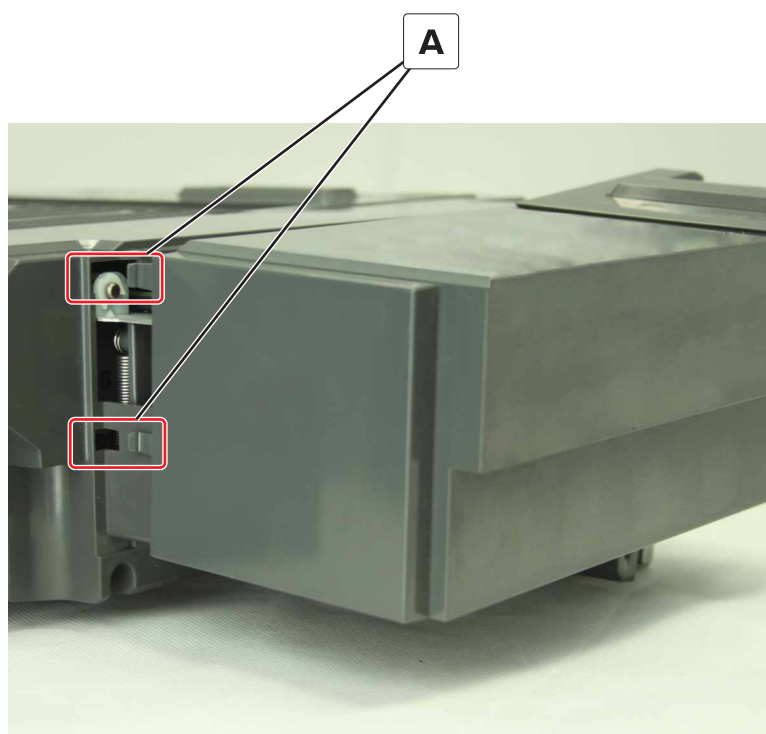
b Make sure that the pin is aligned with the hole on the staple cartridge door arm.
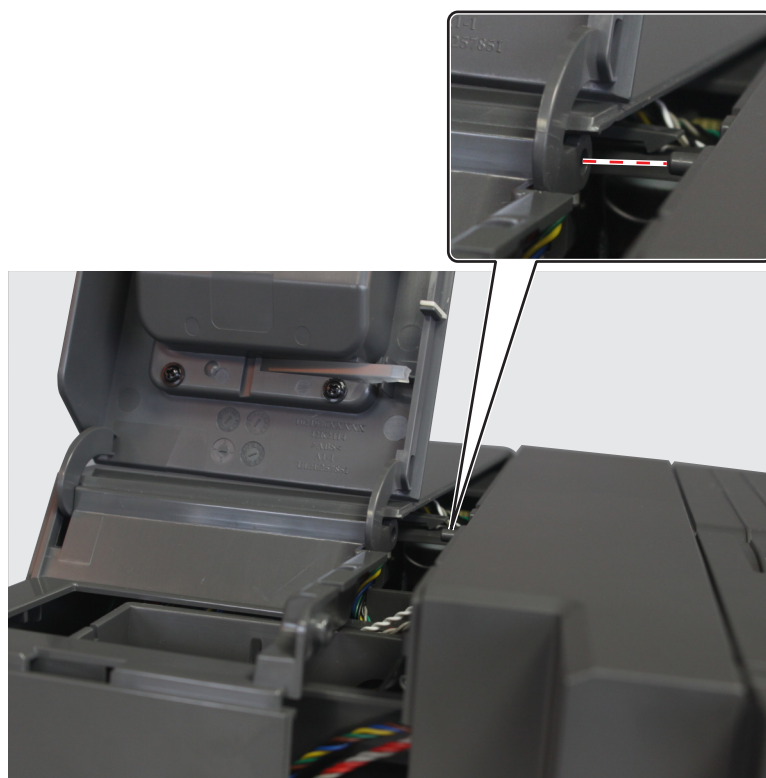
Parts removal

Staple finisher controller board removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Disconnect the cables, and then remove the four screws (A).
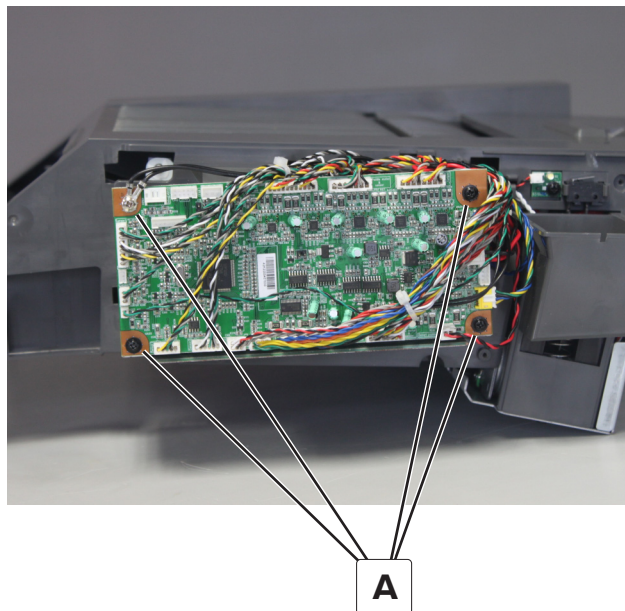
Staple finisher inner rear cover removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

4 Remove the screws (A), and then remove the cover.

Parts removal
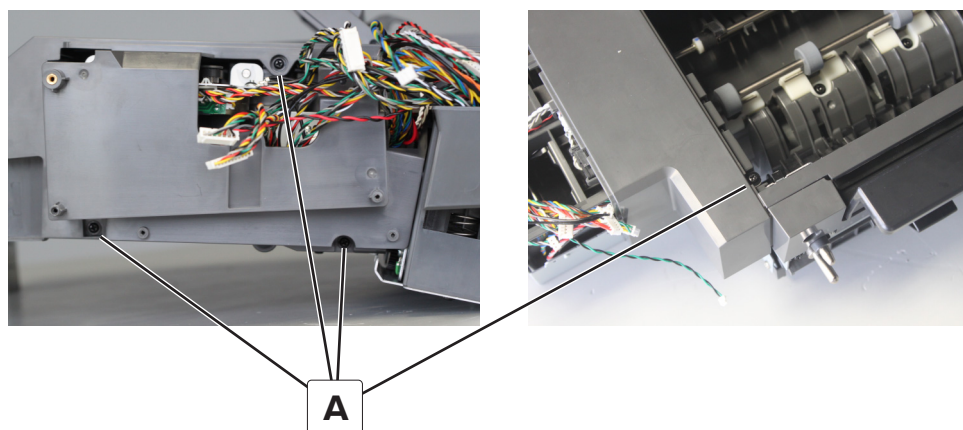
Staple finisher staple cartridge door removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Release the arm from the pin, and then remove the door.
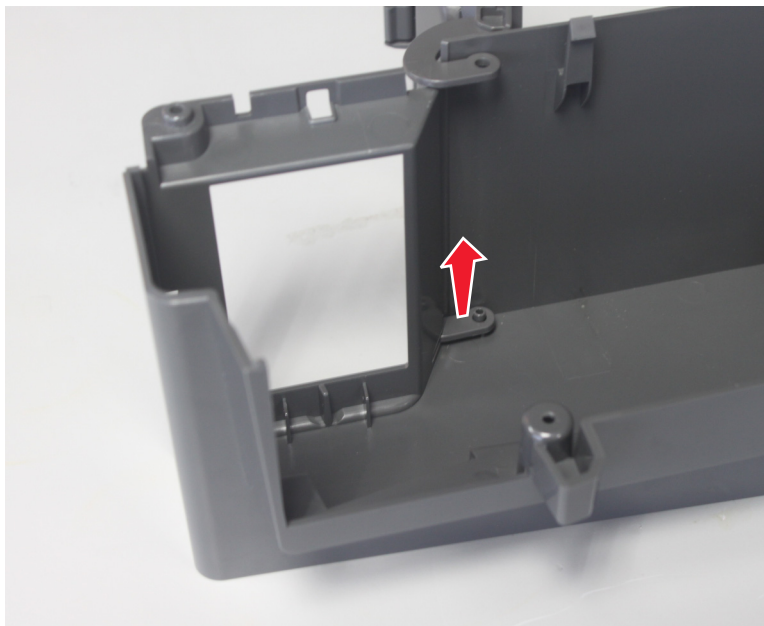
Staple finisher jam access door removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the door.

Installation note: When installing the door, insert the pin into the hole first.
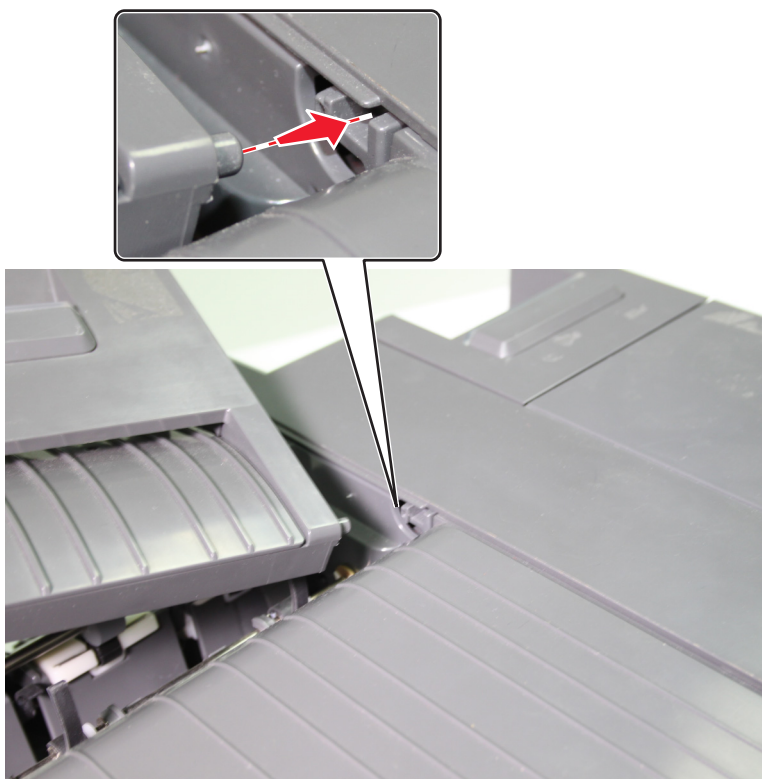
Staple finisher lock assembly removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Set aside the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Open the jam access door.

5 Remove the two screws (A), and then remove the assembly.
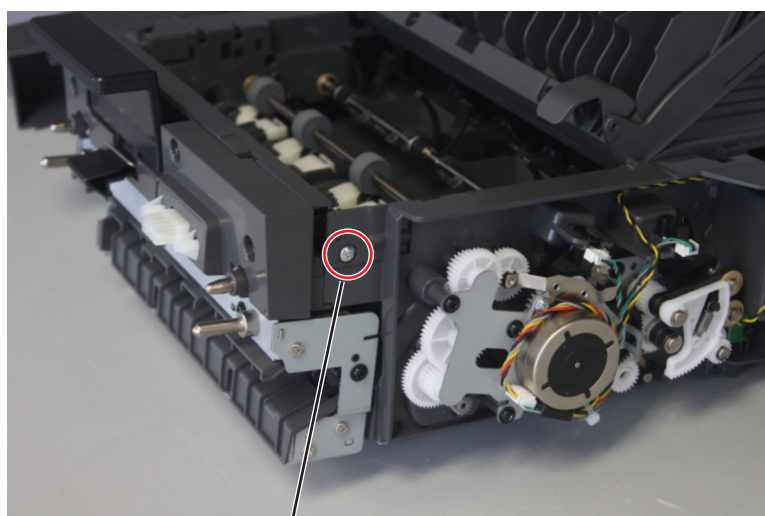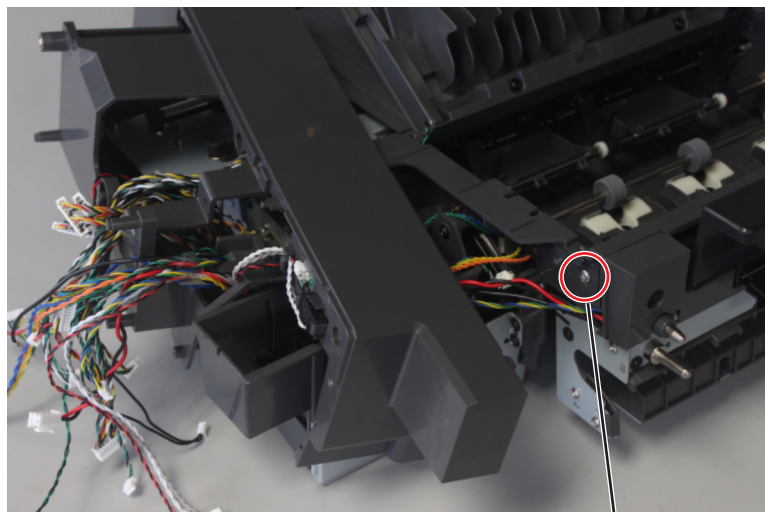
Staple finisher bottom cover removal

1 Remove the 14 screws (A).
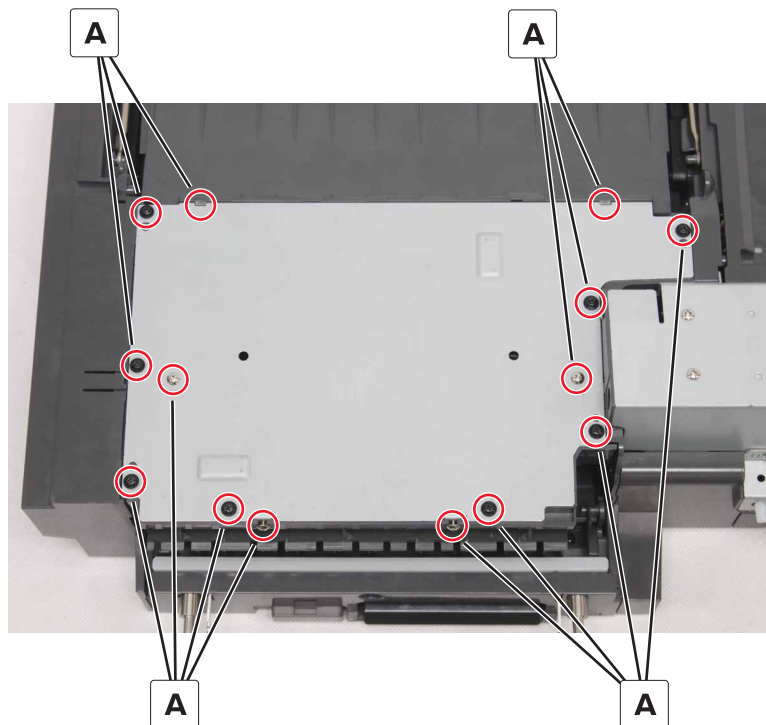
2 Remove the cover.

Staple finisher staple cartridge door switch removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Release the latches (A), and then remove the switch (B).
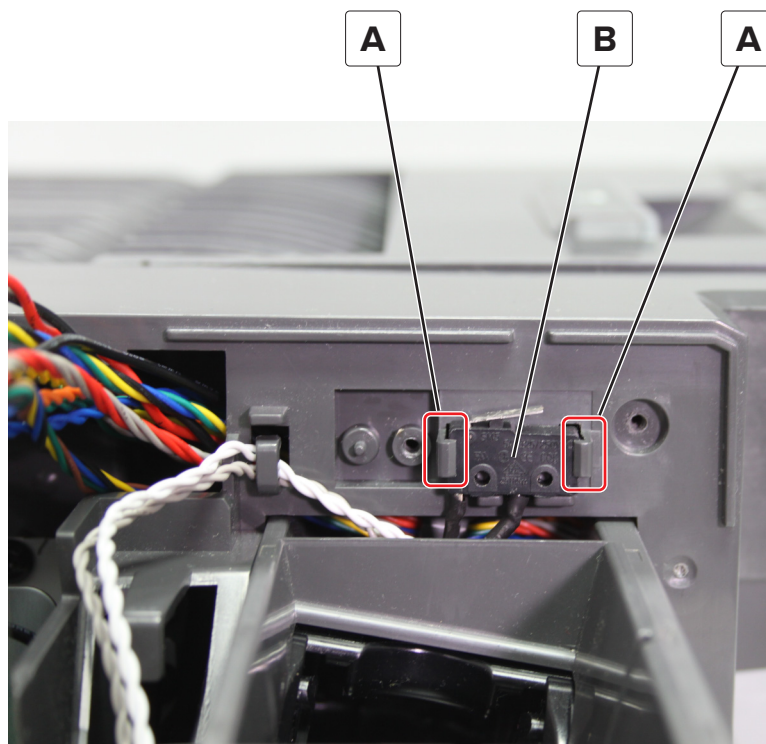
Sensor (staple finisher lower bin full) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the screw (A), and then remove the sensor (staple finisher front lower bin full—transmitter).

3 Disconnect the cable (B).
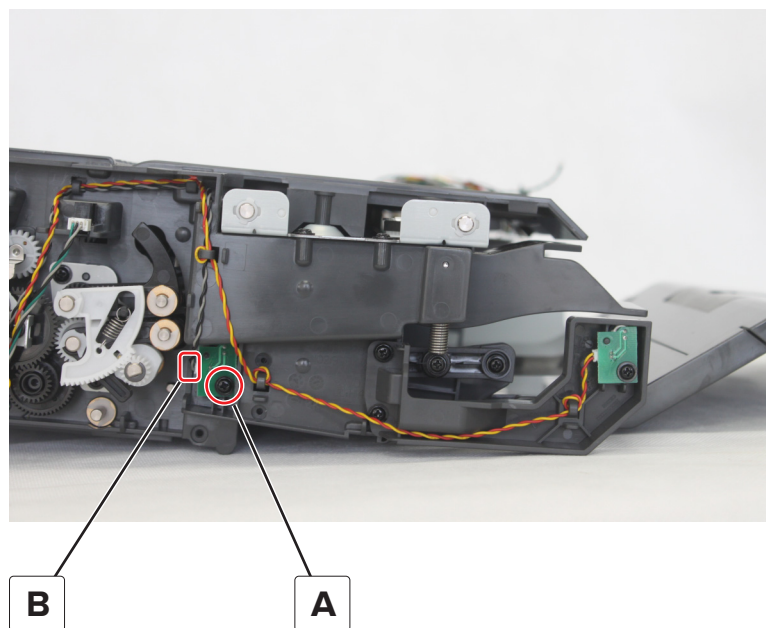
4 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

5 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

6 Set aside the inner rear cover.

7 Remove the screw (C), and then remove the sensor (staple finisher rear lower bin full—transmitter).

8 Disconnect the cable (D).
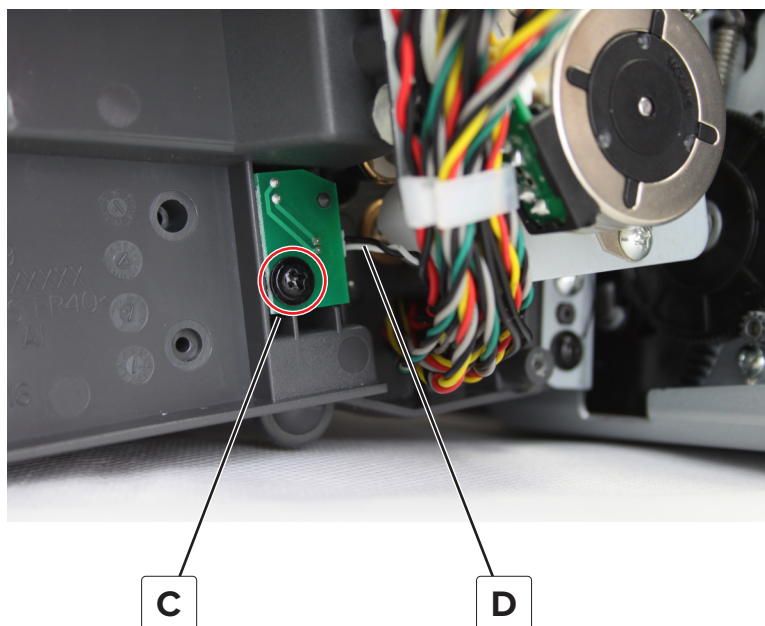
Sensor (staple finisher upper bin full) removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

4 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

5 Remove the two screws (A).

A
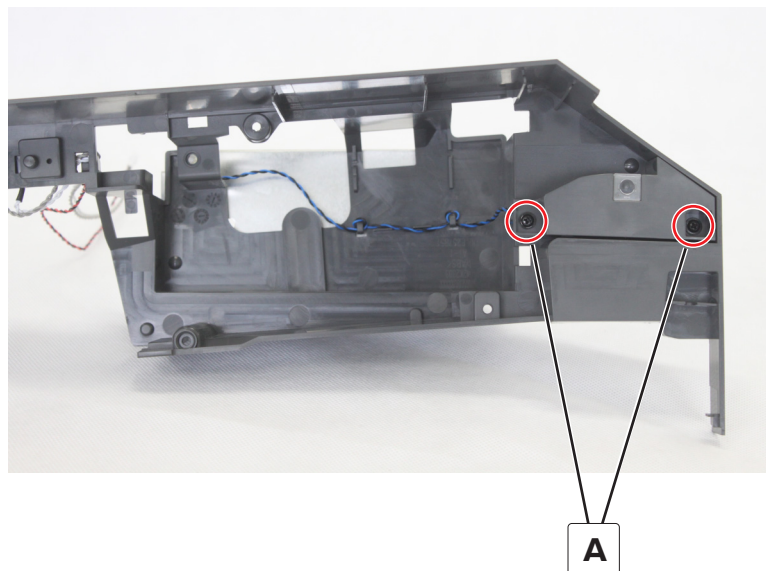
6 Remove the screw (B), disconnect the cable (C), and then remove the sensor (staple finisher rear upper bin full—receiver).

B   C
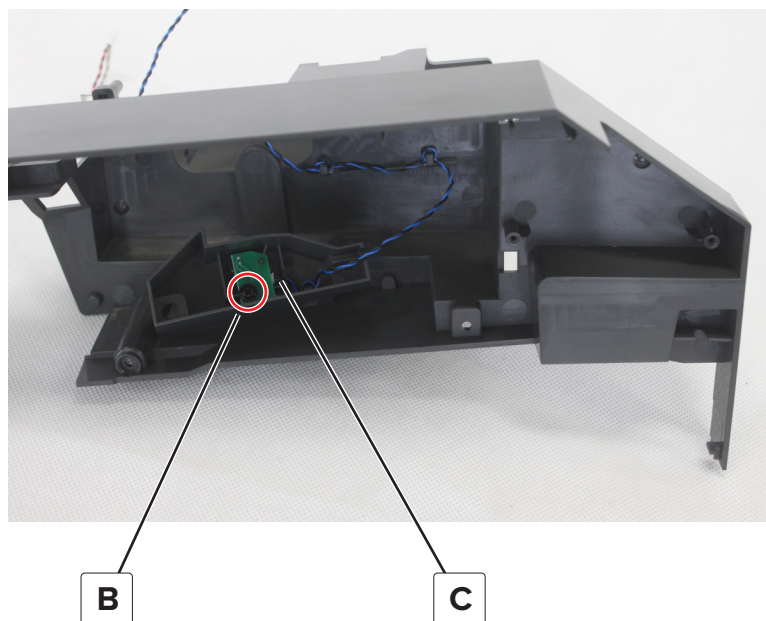
7 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

8 Remove the screw (D), and then disconnect the cable (E).
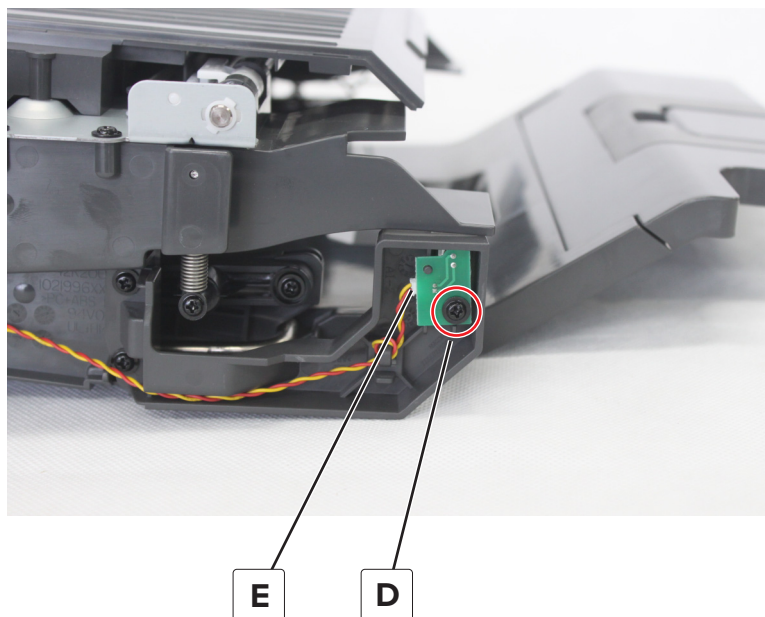
9 Remove the sensor (staple finisher front upper bin full—receiver).

Staple finisher interface cable removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the two screws (A).
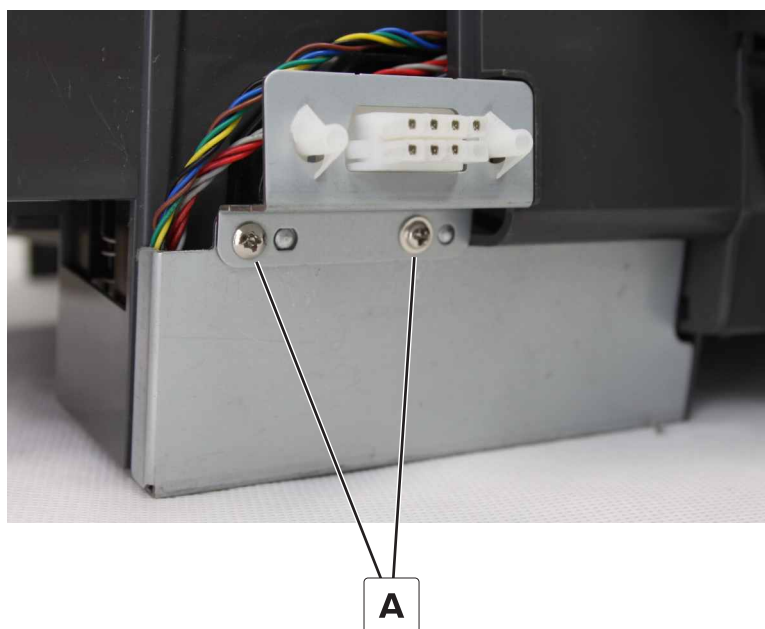
4 Using needle-nose pliers, disconnect the cable.
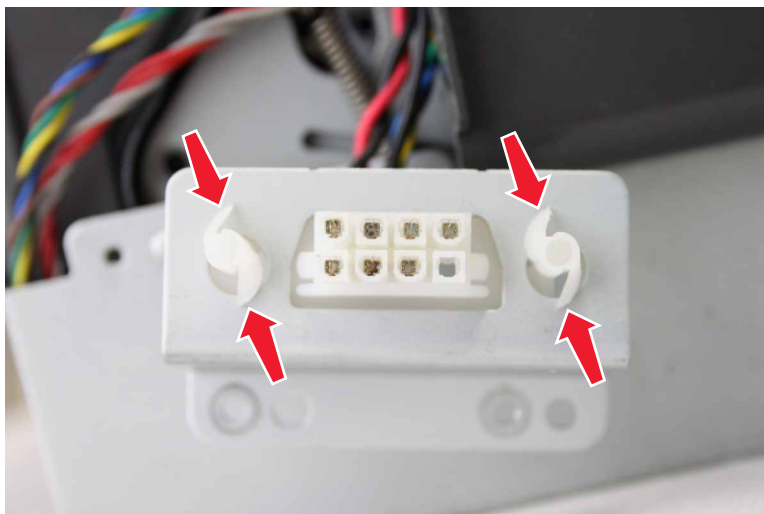
5 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

6 Disconnect the other end of the cable from the controller board.

Motor (staple finisher upper exit roller) removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

4 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

5 Disconnect the cable (A).

6 Remove the two screws (B), and then remove the motor.
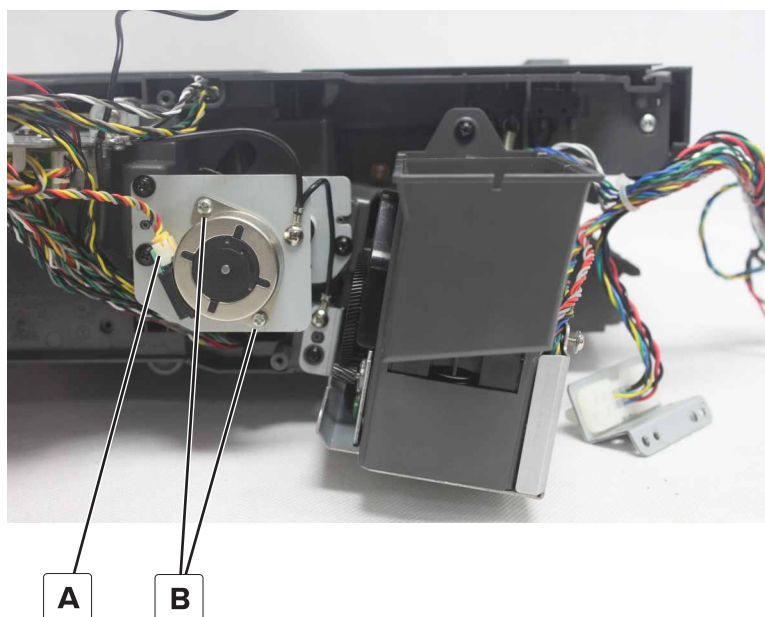
Parts removal

Staple finisher rear upper position exit roller gears removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

4 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

5 Remove the upper exit motor. See **"Motor (staple finisher upper exit roller) removal" on page 696**.

6 Remove the clip (A) and the gear (B), and then remove the spring (C).
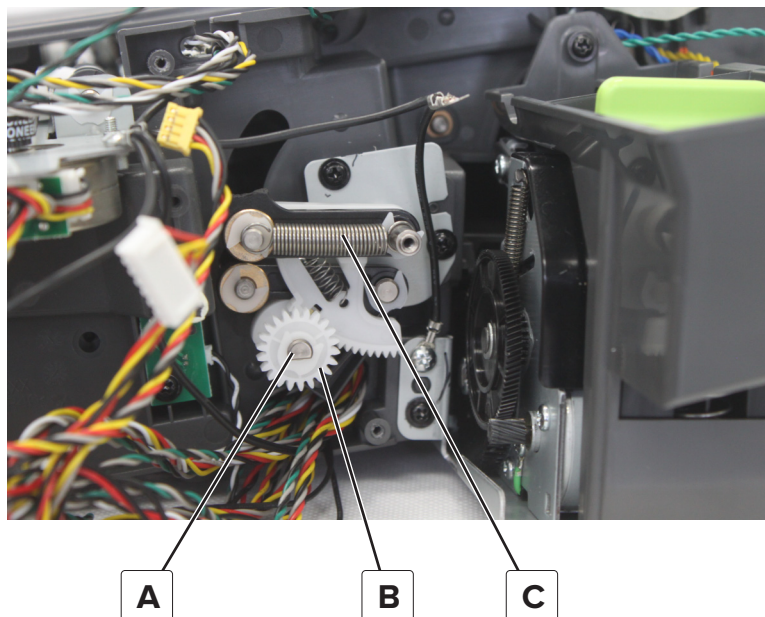
7 Remove the two clips (D) and the bushing, remove the lever (E), and then remove the gear (F).
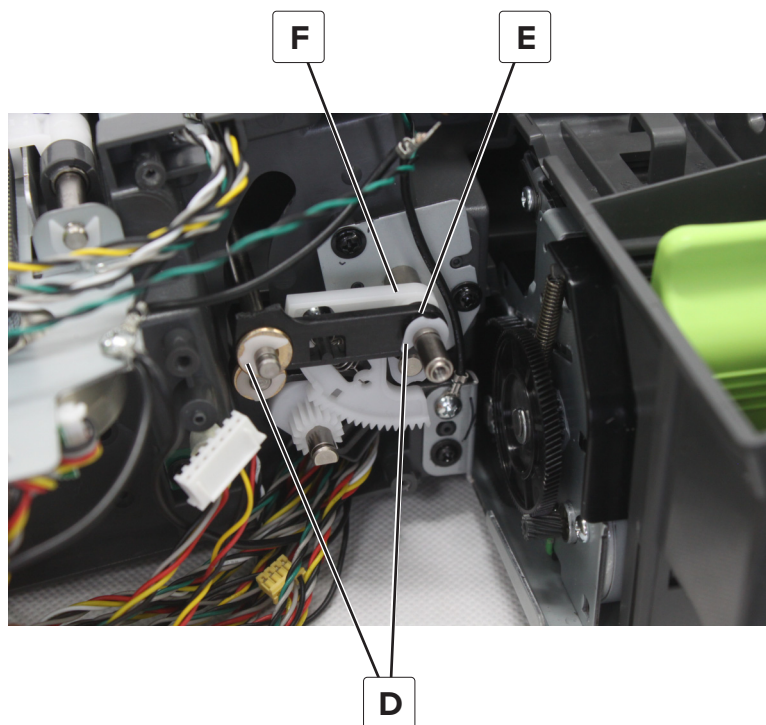
8 Remove the two clips (G), and then remove the bushing.

9 Remove the cam (H), and then remove the lever (J).

Parts removal
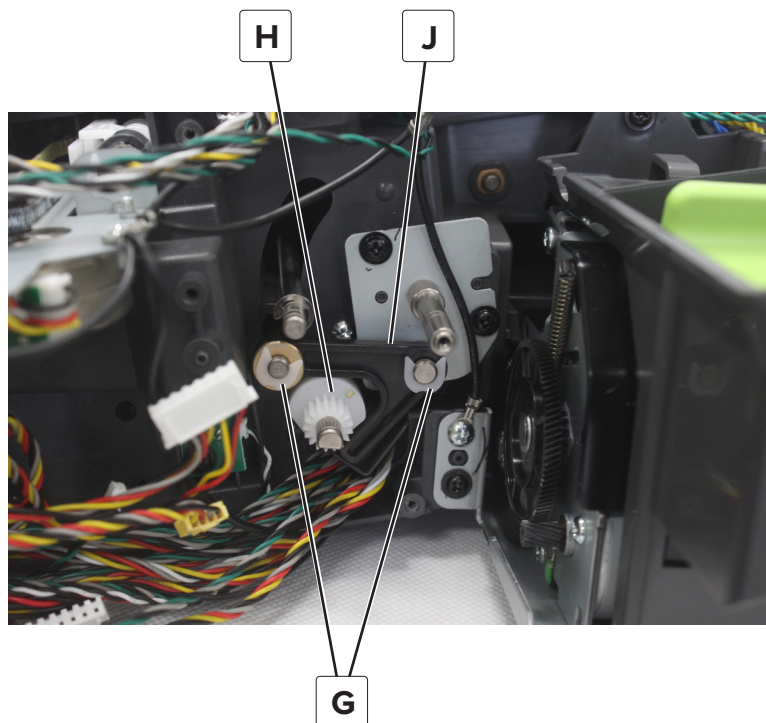
10 Remove the gear.

Installation note: Make sure that the hole (A) aligns with the gold, rectangular marker (B).

B   **A**
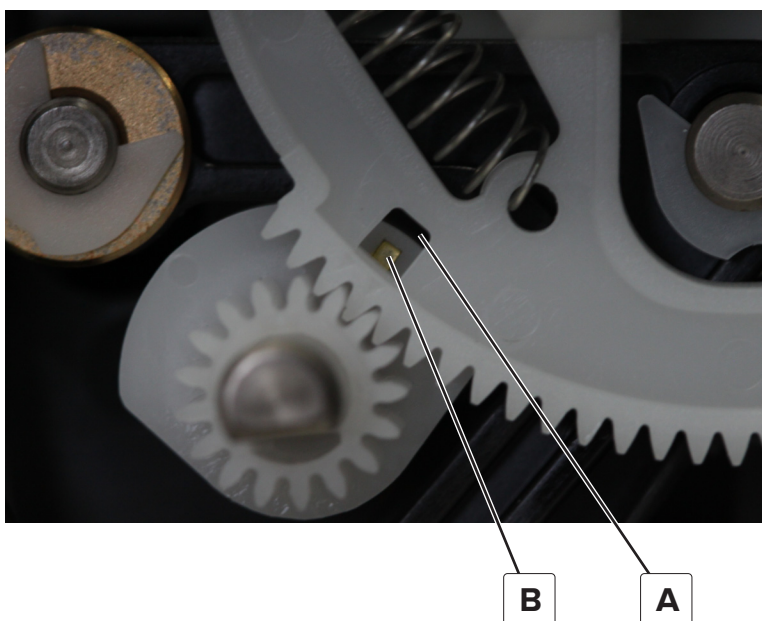
Staple finisher staple unit ejector removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Set aside the cables from the top of the ejector.

5 Remove the two screws (A), and then remove the ejector.
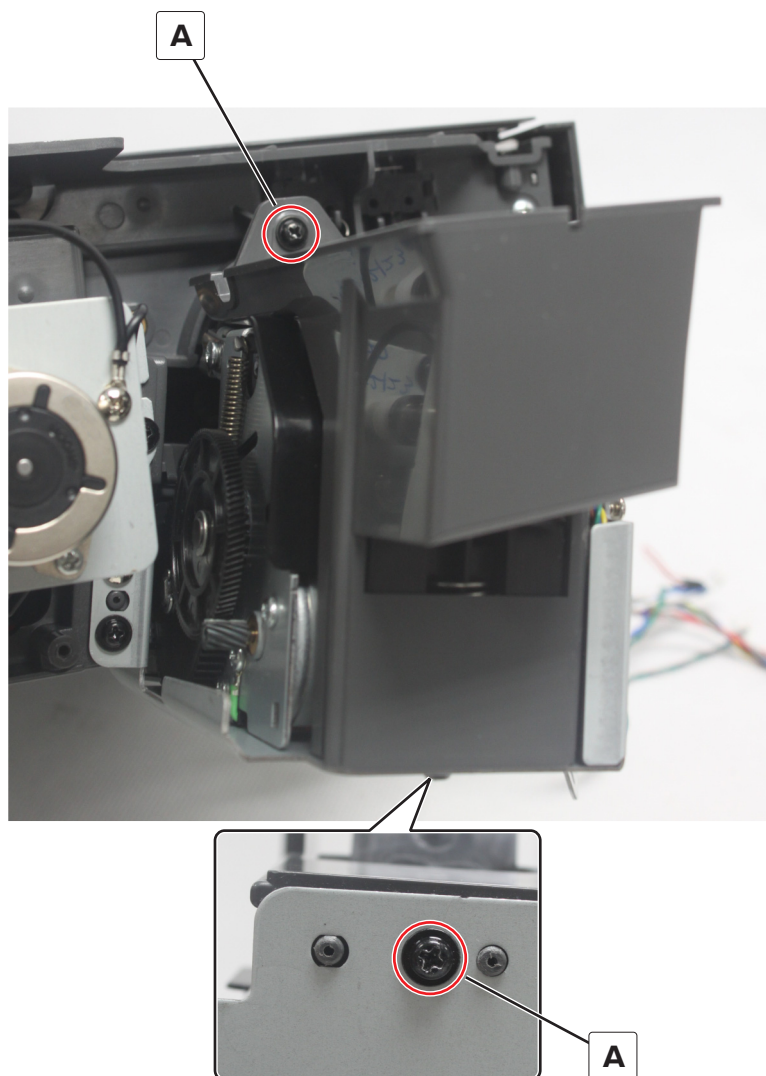
Sensor (staple finisher stack clamp) removal

1 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

2 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the ejector. See **"Staple finisher staple unit ejector removal" on page 699**.

5 Push down the stack clamp, remove the adhesive, and then remove the sensor (A).

A
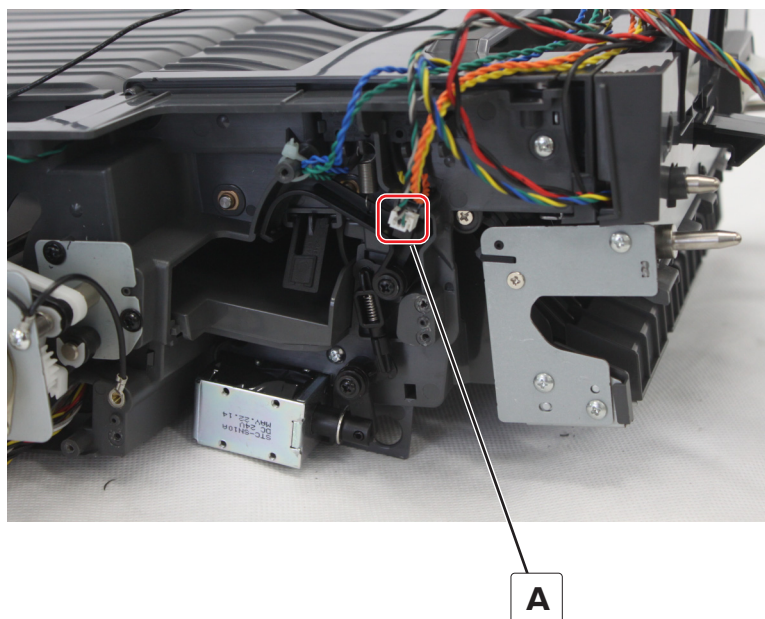
Staple finisher staple unit removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the ejector. See **"Staple finisher staple unit ejector removal" on page 699**.

5 Disconnect the two cables (A).
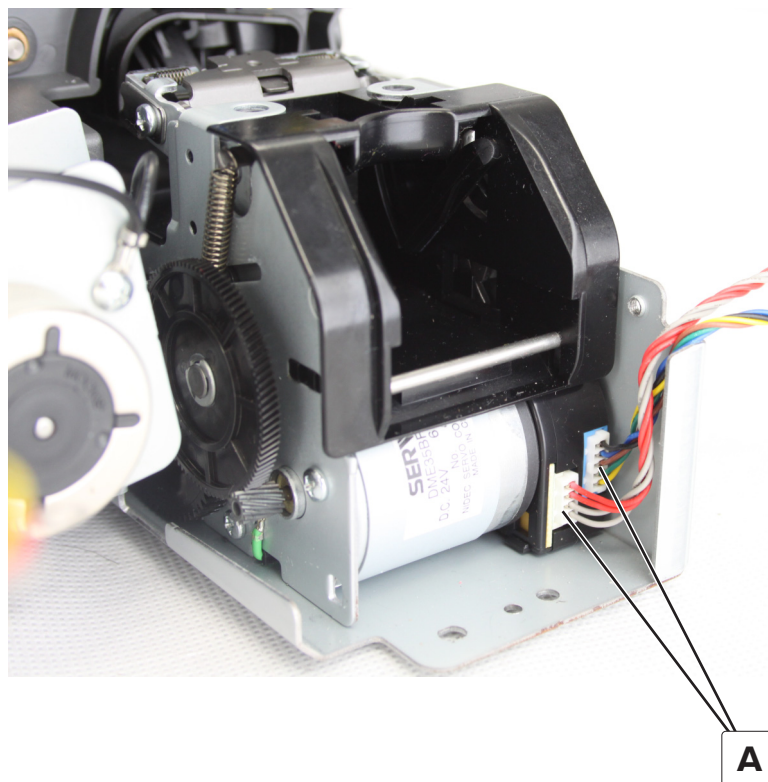
6 Remove the four screws (B), and then remove the bracket.
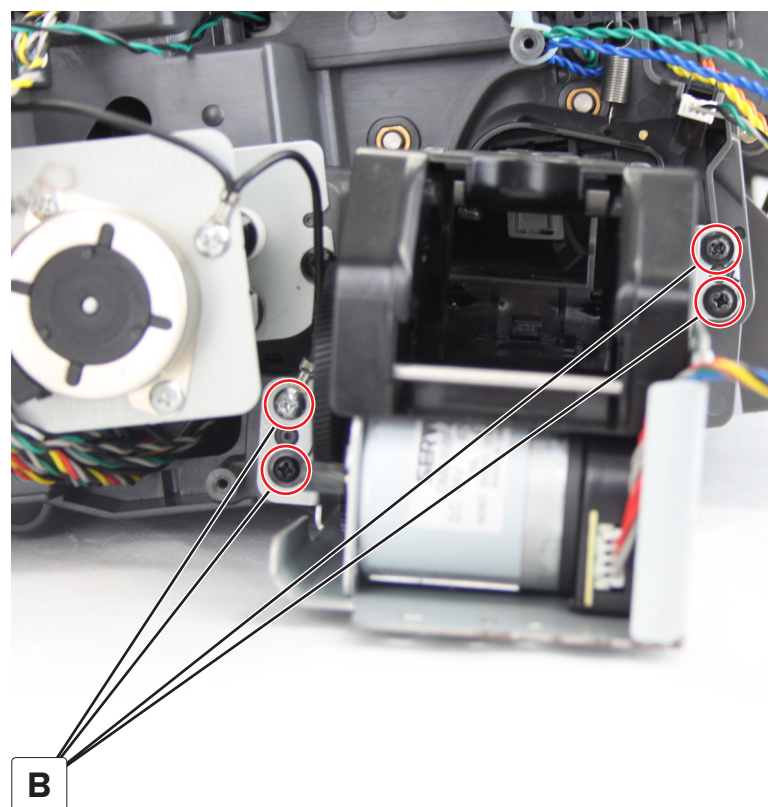
Parts removal

7 Remove the two screws (C), and then remove the staple unit.
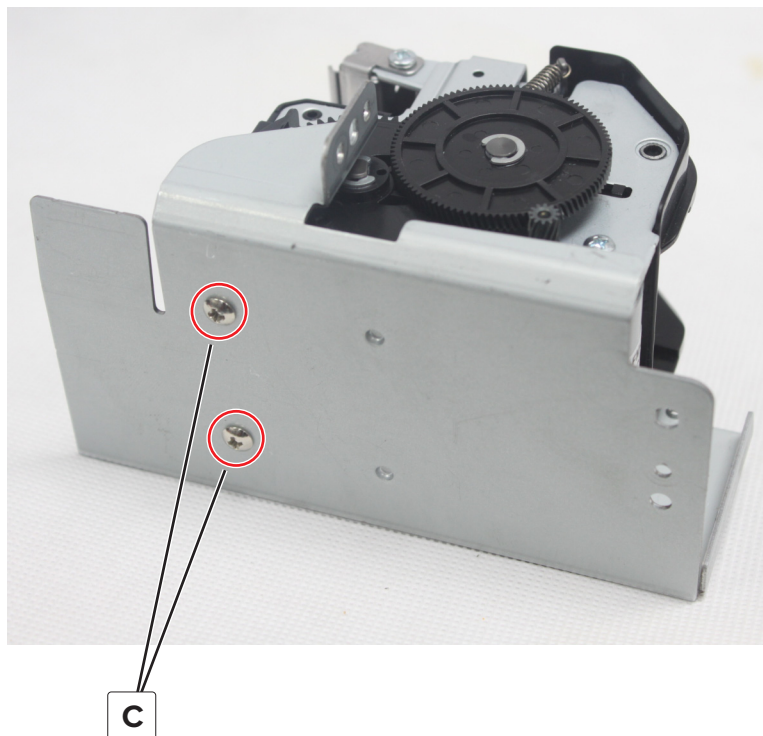
Staple finisher jam door switches removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

4 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

5 Remove the ejector. See **"Staple finisher staple unit ejector removal" on page 699**.

6 Remove the spring (A).

7 Release the two latches (B), and then remove the switches.

Note: Pay attention to the switch assignments based on the cable colors.
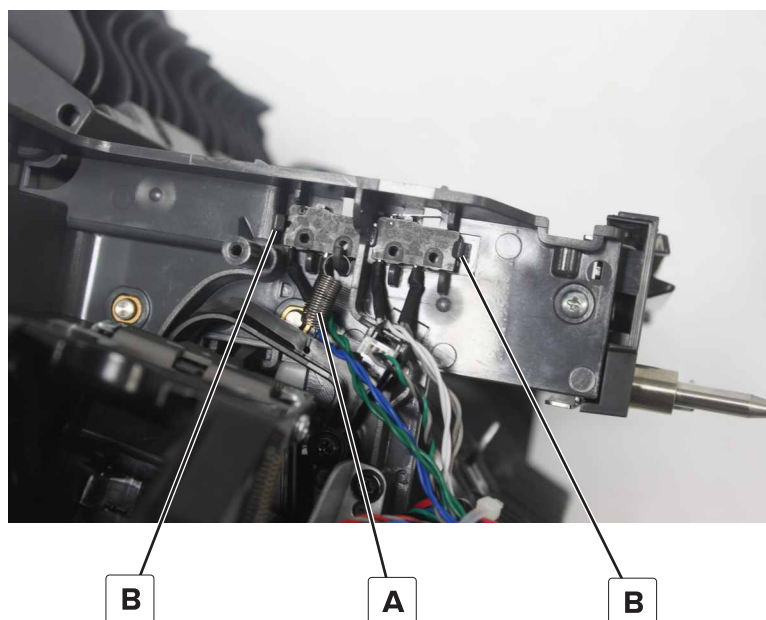
Staple finisher stack clamp solenoid removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the ejector. See **"Staple finisher staple unit ejector removal" on page 699**.

5 Remove the staple unit bracket. See **"Staple finisher staple unit removal" on page 701**.

6 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

7 Remove the two screws (A).
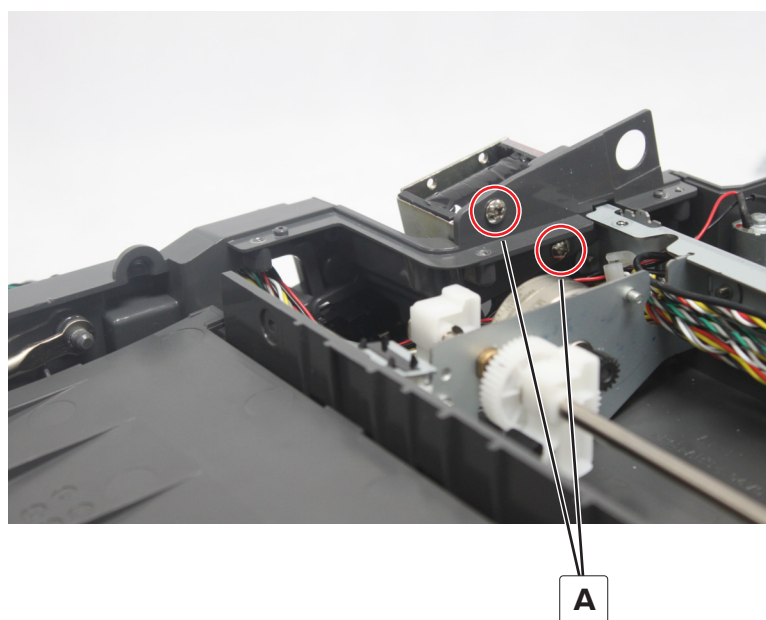
Parts removal

8 Remove the screw (B), and then remove the solenoid.
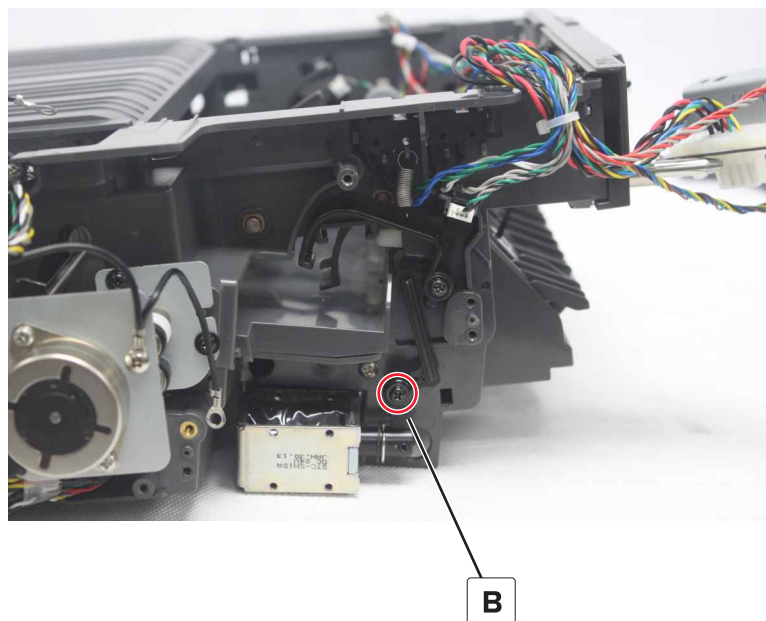
B

Staple finisher stack clamp removal

1 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

2 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Set aside the staple unit. See **"Staple finisher staple unit removal" on page 701**.

5 Remove the staple unit bail.
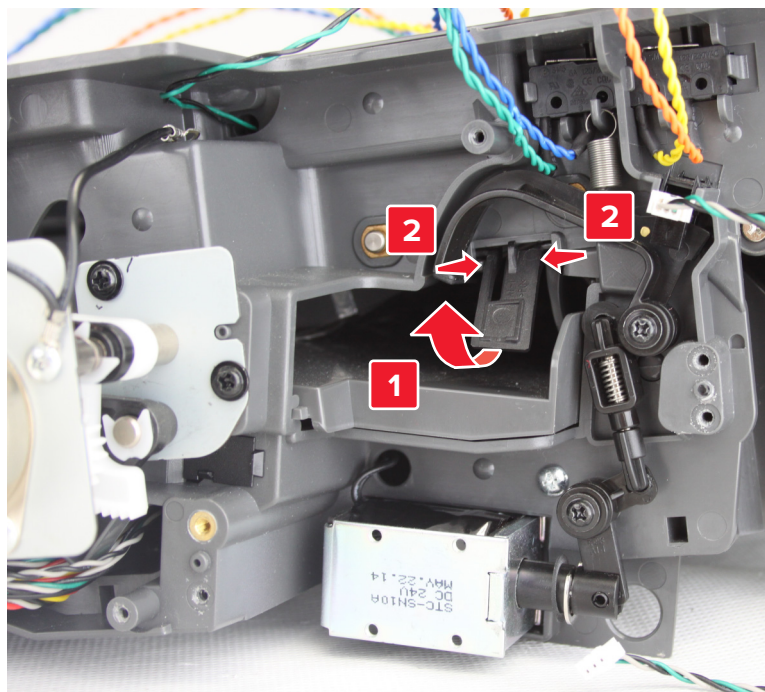
6 Remove the screw (A), remove the spring (B), and then push down the clamp (C).
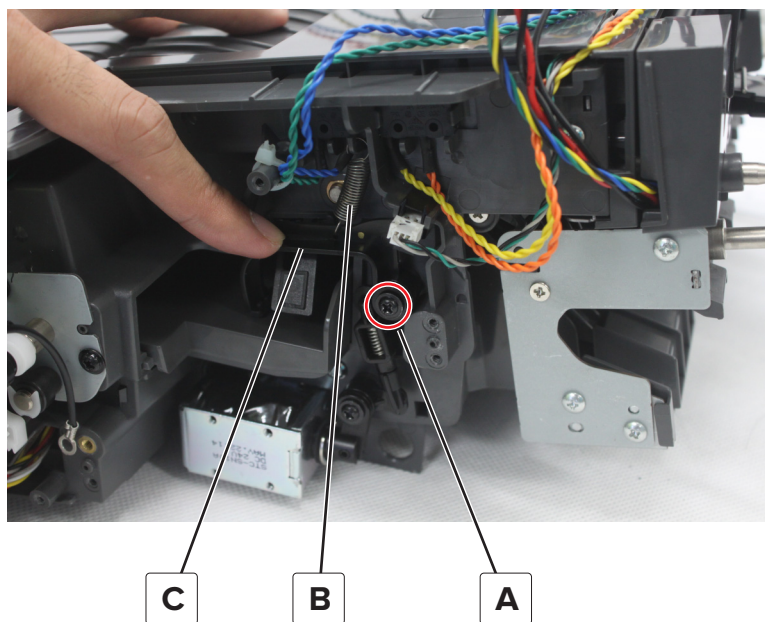
7 Remove the stack clamp solenoid. See **"Staple finisher stack clamp solenoid removal" on page 704**.

8 Remove the clamp.

When installing the stack clamp:

- Pay attention to the exact position of the lower part of the clamp.

- Push down, and then release the clamp to verify if it is properly installed.

Motor (staple finisher aligner paddle) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Set aside the cables, and then remove the four screws (A).
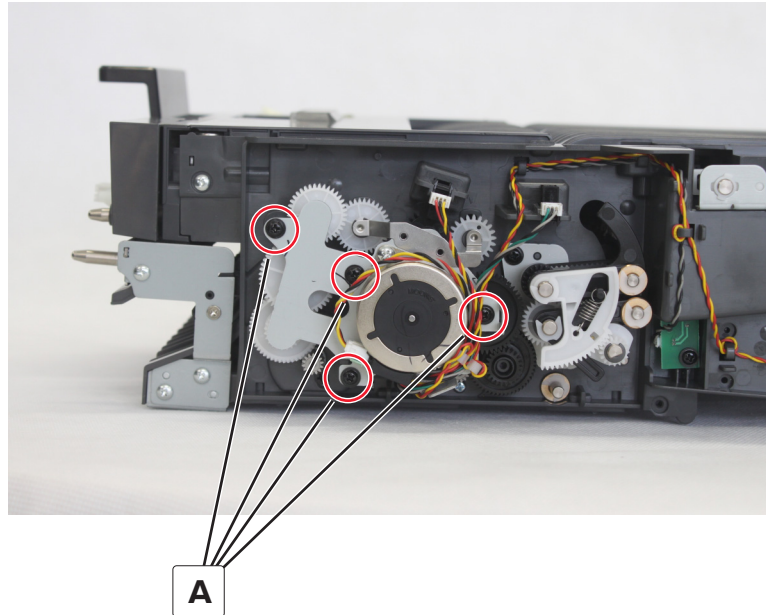
3 Remove the motor from the bracket.

Staple finisher transport gears removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Disconnect the three cables (A), and then remove the four screws (B).
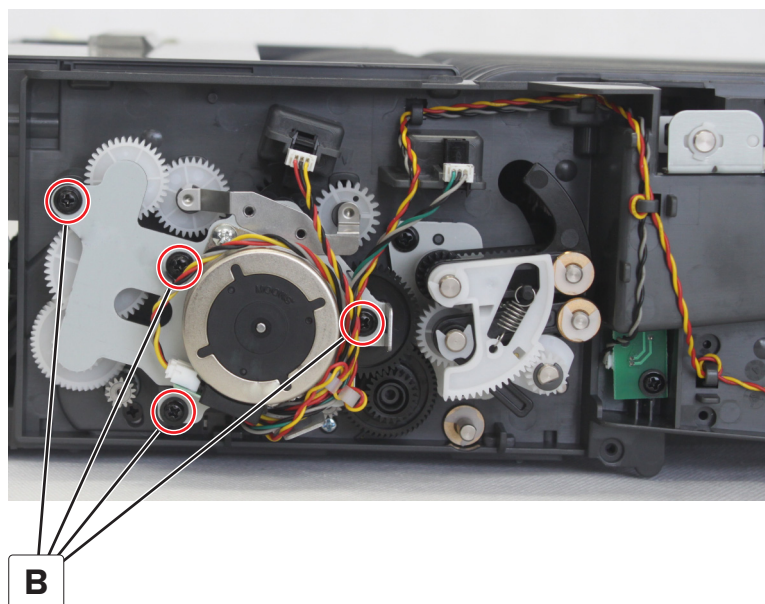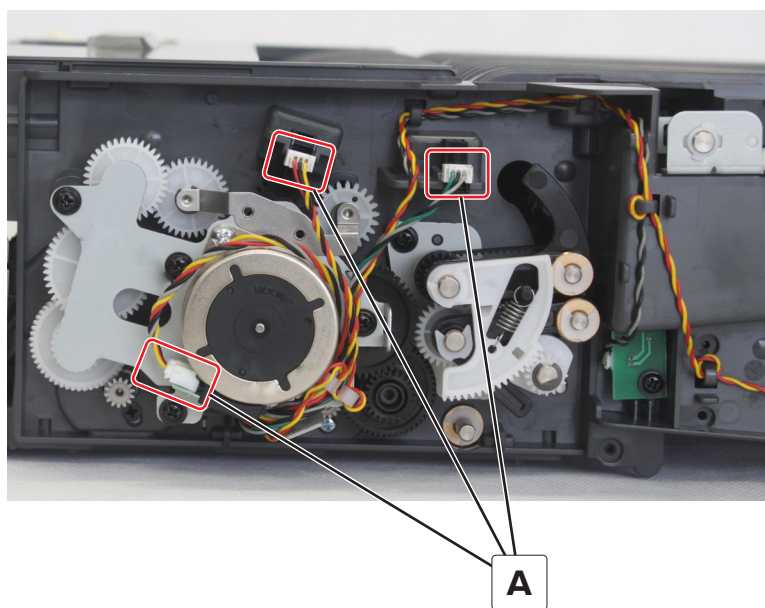
3 Set aside the aligner paddle motor and the bracket.

4 Remove the clip (C), and then remove the four gears (D).
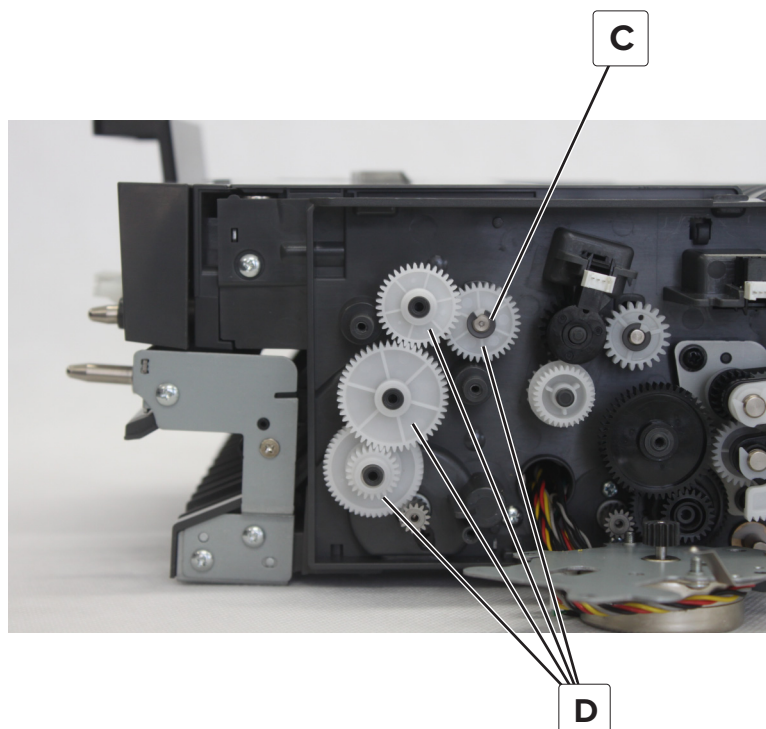
Staple finisher aligner paddle gears removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Disconnect the three cables (A), and then remove the four screws (B).

B
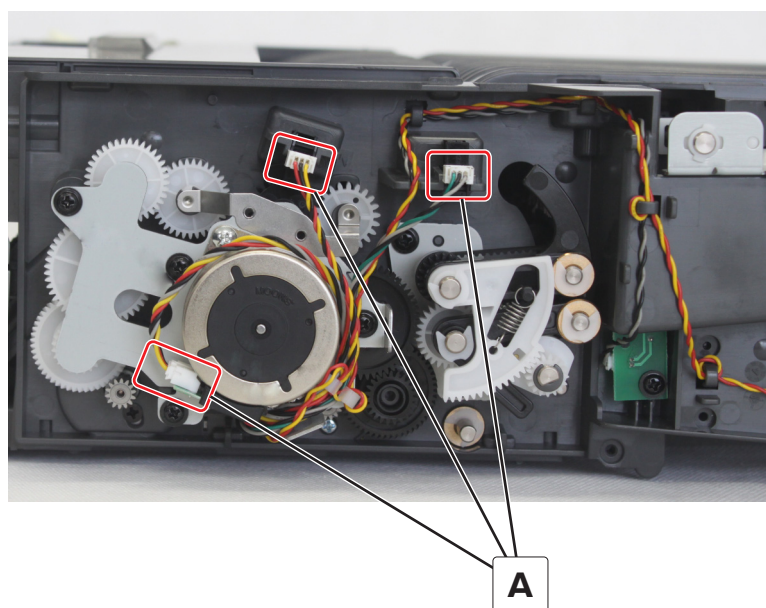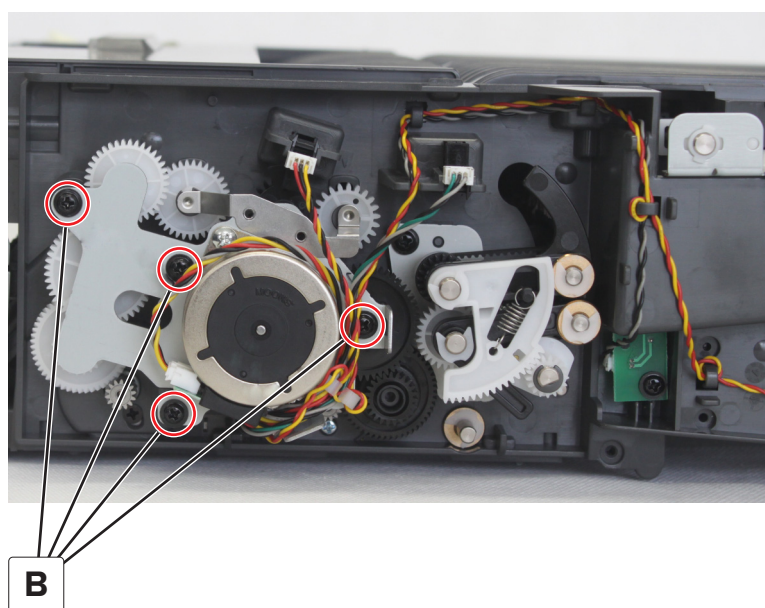
3 Set aside the aligner paddle motor and bracket.

4 Remove the sensor (staple finisher aligner paddle) (C), and then remove the clip (D).

5 Remove the three gears (E).

C

E   **D**
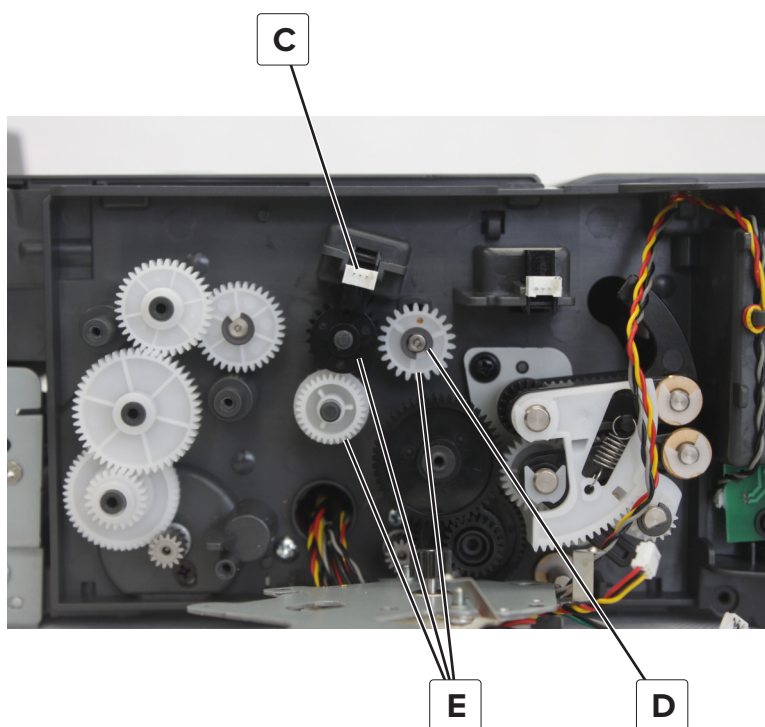
Installation note: Make sure that the hole (A) on the white gear is aligned with the arrow (B) and the hole on the black gear (C) is centered with the sensor. Align both at the same time.
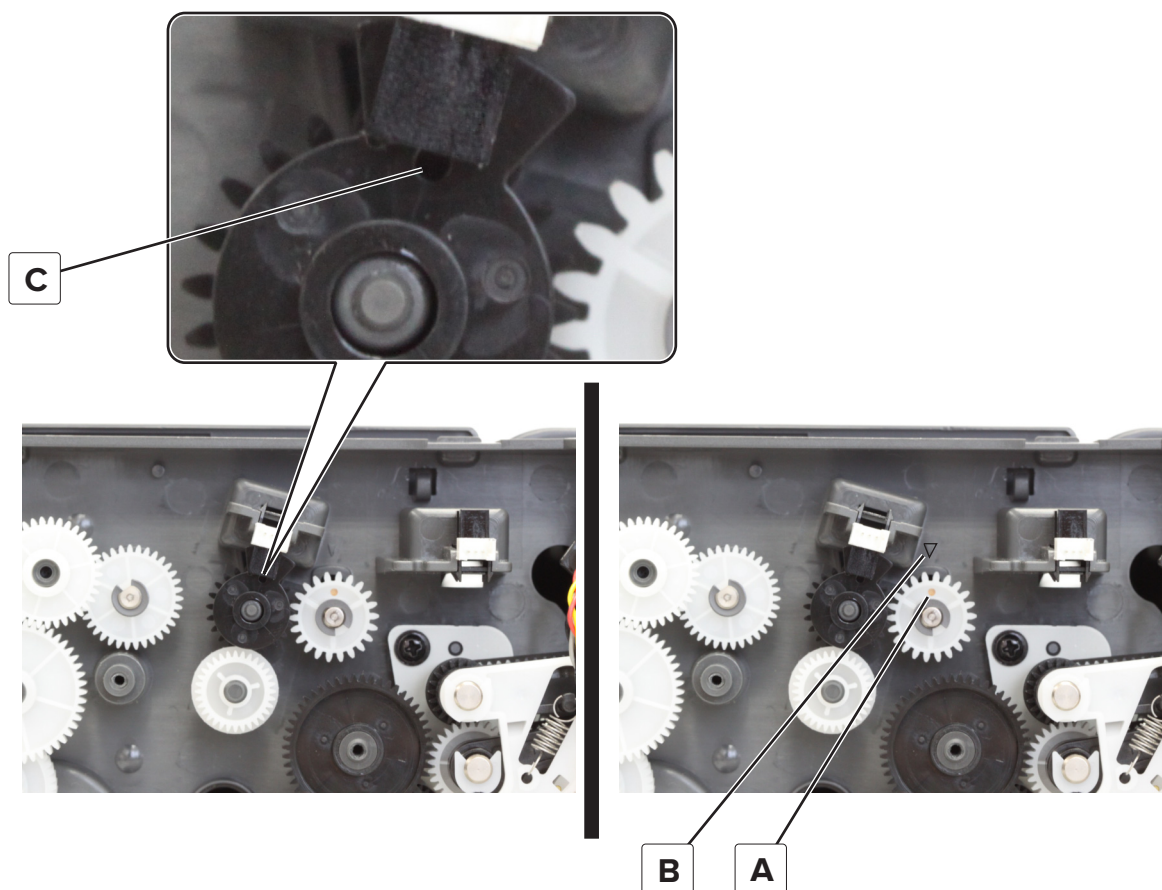
Sensor (staple finisher upper exit roller) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Disconnect the cable (A), and then remove the sensor.
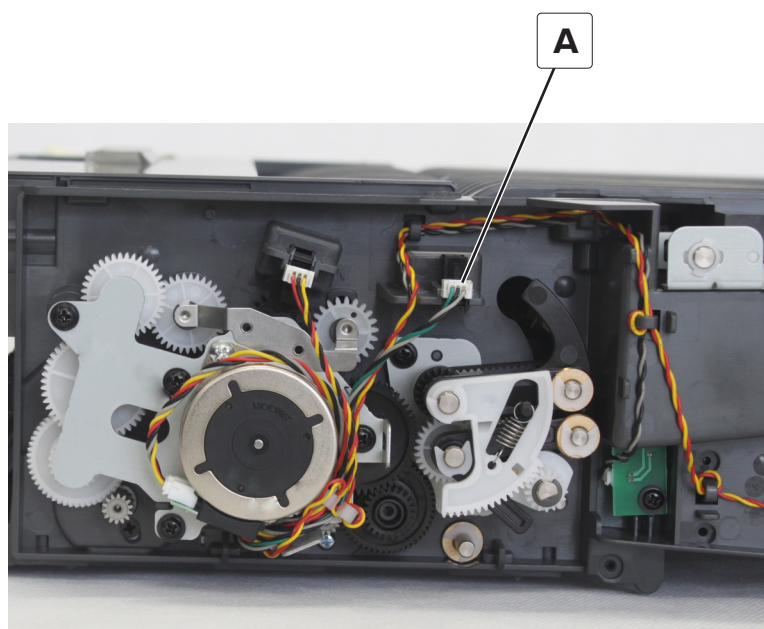
Parts removal

Staple finisher front upper position exit roller gears removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the clip (A), and then remove the spring (B).

3 Remove the gear (C).
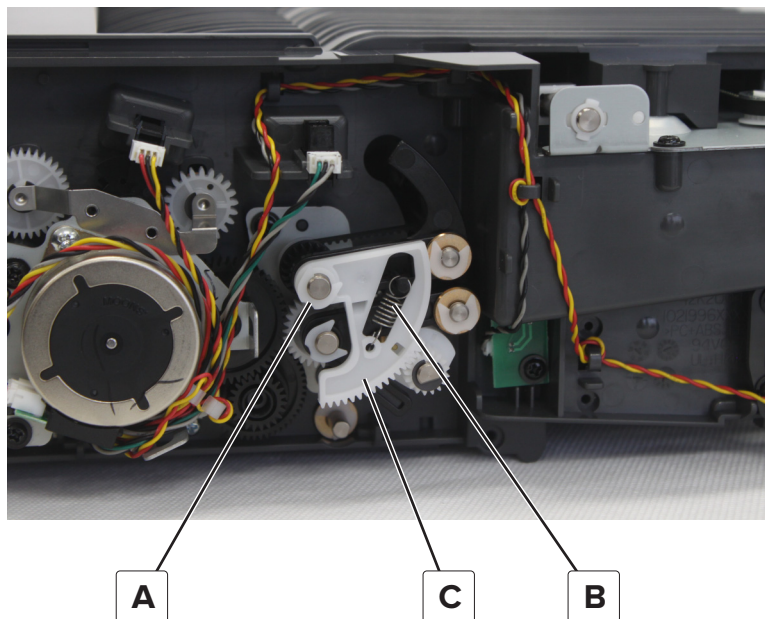
4 Remove the remaining four clips (D) and the bushings, and then remove the gear (E).

5 Remove the actuator (F), and then remove the lever (G).

Parts removal
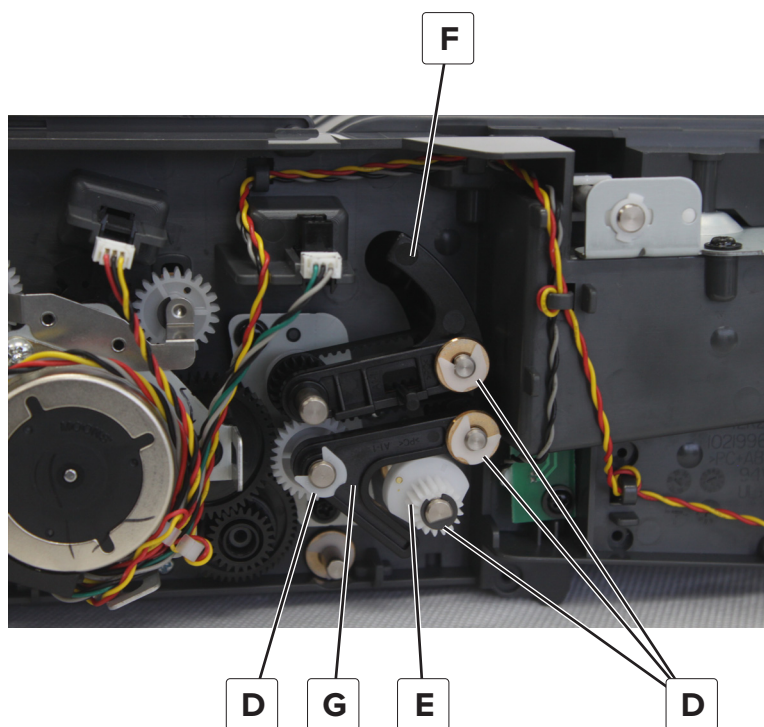
When installing the gears, make sure:

- That the tab on the gear is under the actuator.
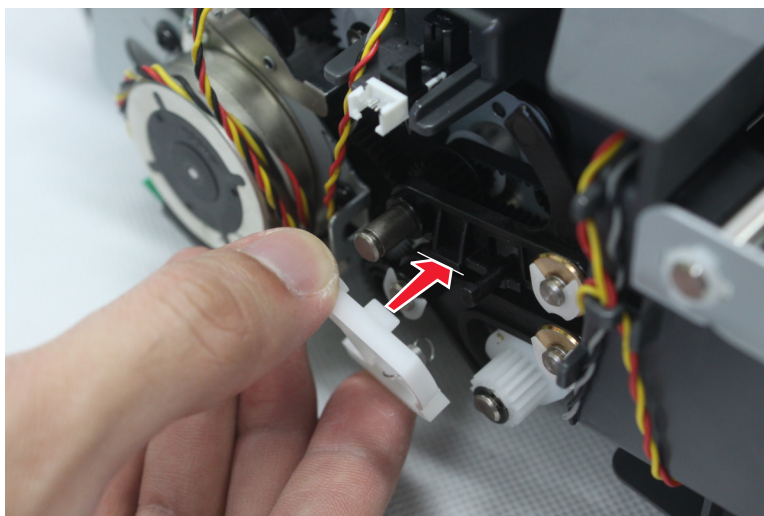
- That the hole (A) aligns with the gold, circle marker (B).
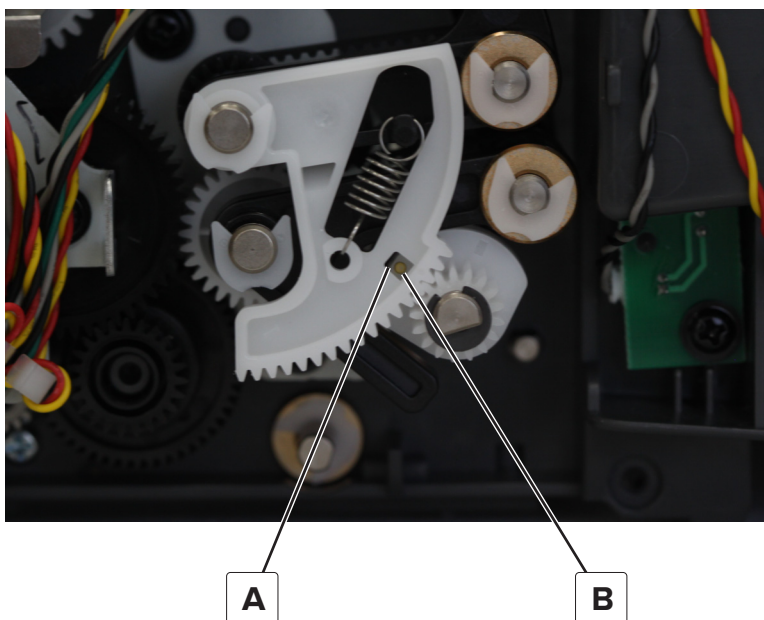
- To lift the gear to check if the actuator covers the sensor.
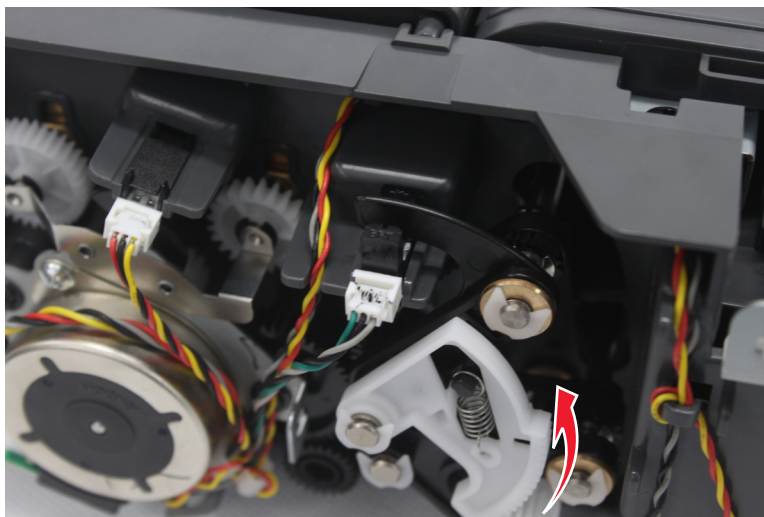
Staple finisher exit gears removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Disconnect the three cables (A), and then remove the four screws (B).

B
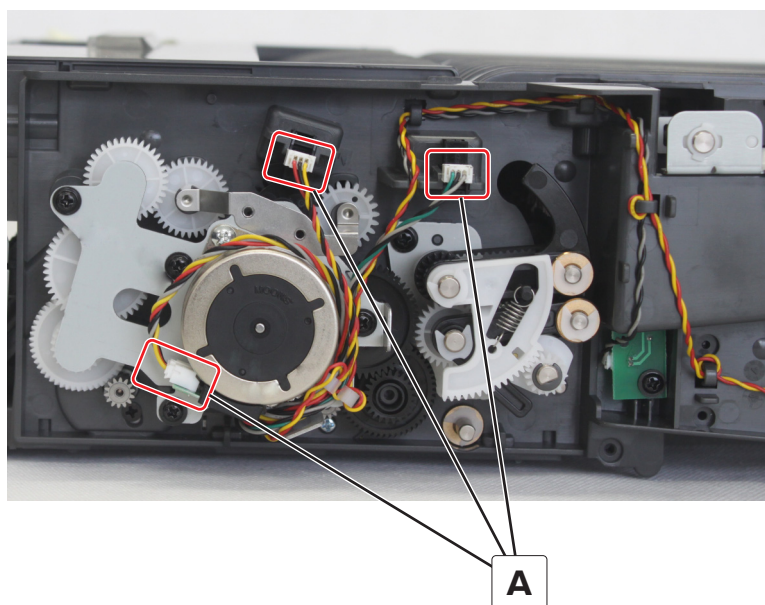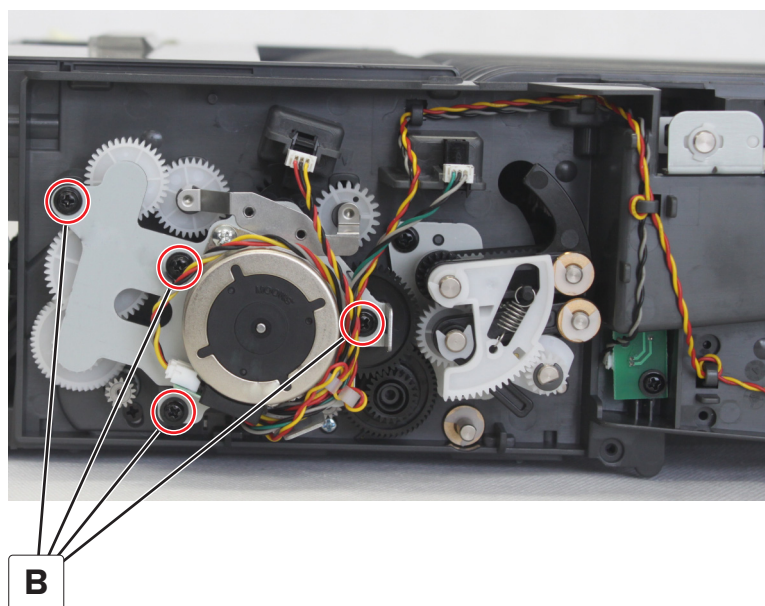
3 Set aside the aligner paddle motor and bracket.

4 Remove the front upper position exit roller gears. See **"Staple finisher front upper position exit roller gears removal" on page 713**.

5 Remove the four clips (C).

C

C
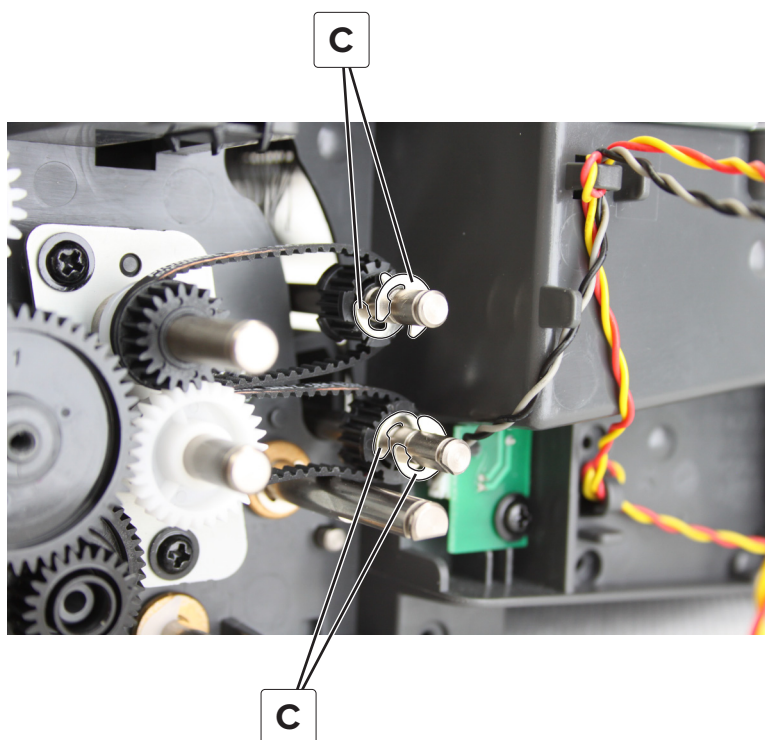
6 Remove the six exit gears (D), and then remove the two exit roller belts (E).
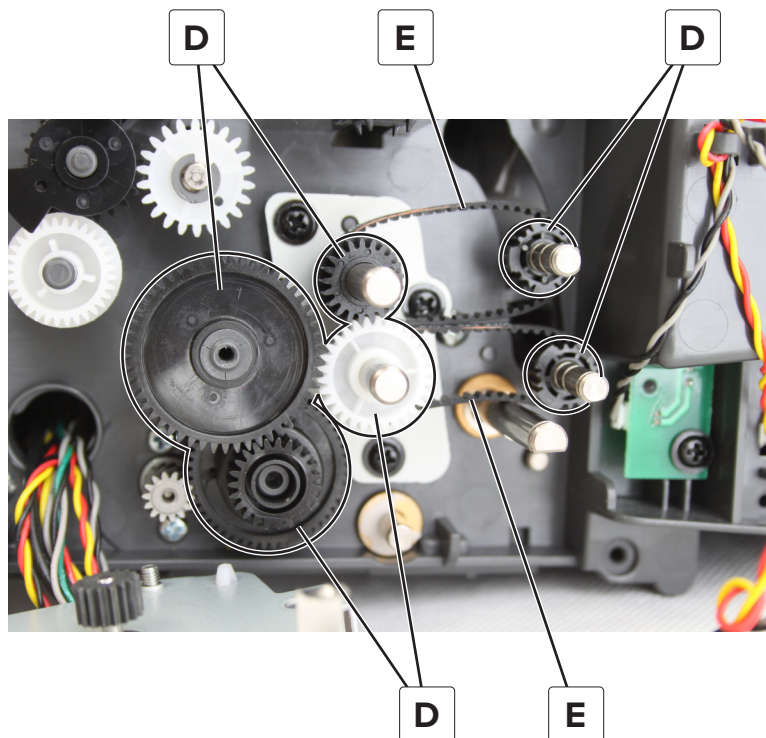
Installation note: Make sure that the washers (A) are installed together with the belts.
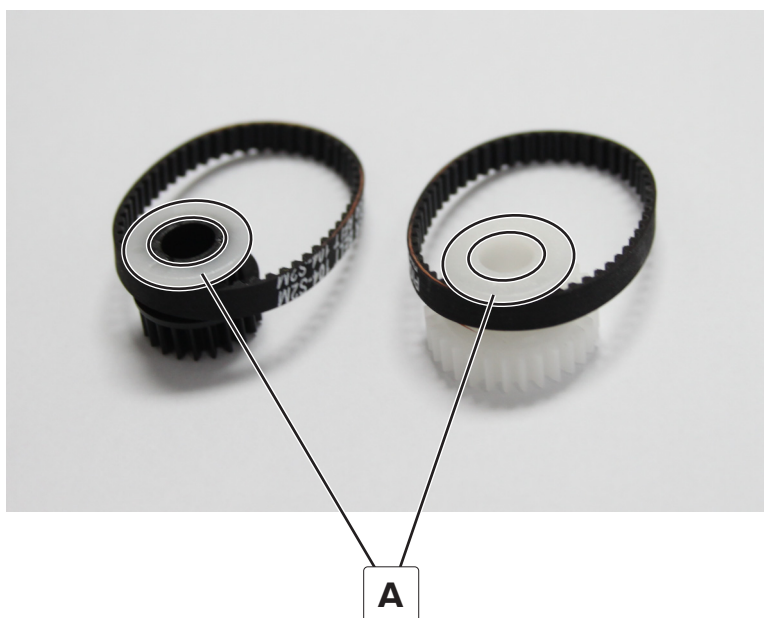
Staple finisher exit roller belts removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

Parts removal

3 Remove the upper position exit roller gears. See **"Staple finisher front upper position exit roller gears removal" on page 713**.

4 Remove the two belts (A).
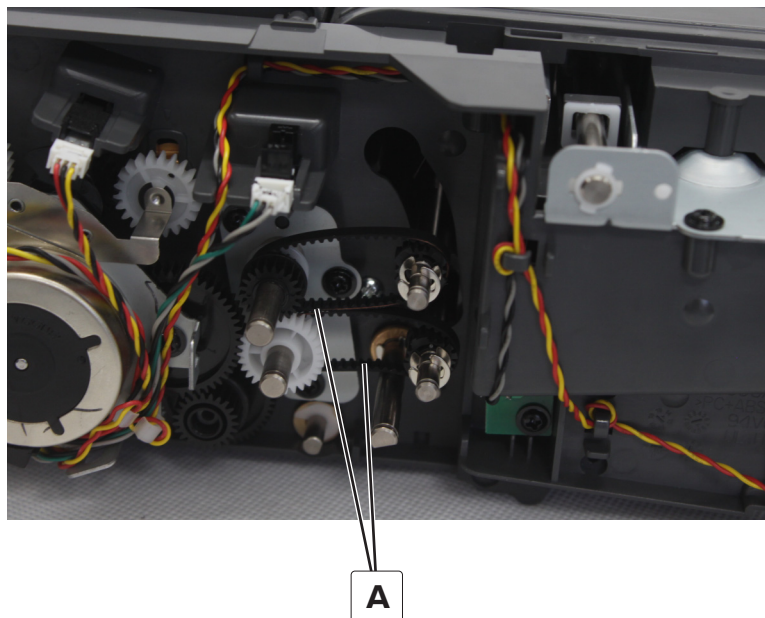
Staple finisher tamper assembly removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

5 Remove the two screws (A), and then set aside the cables.
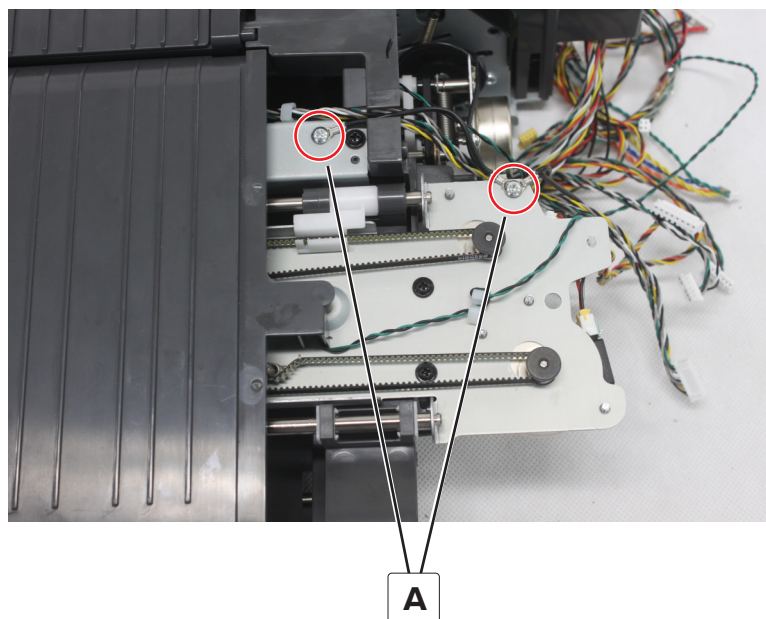
6 Remove the six screws (B).
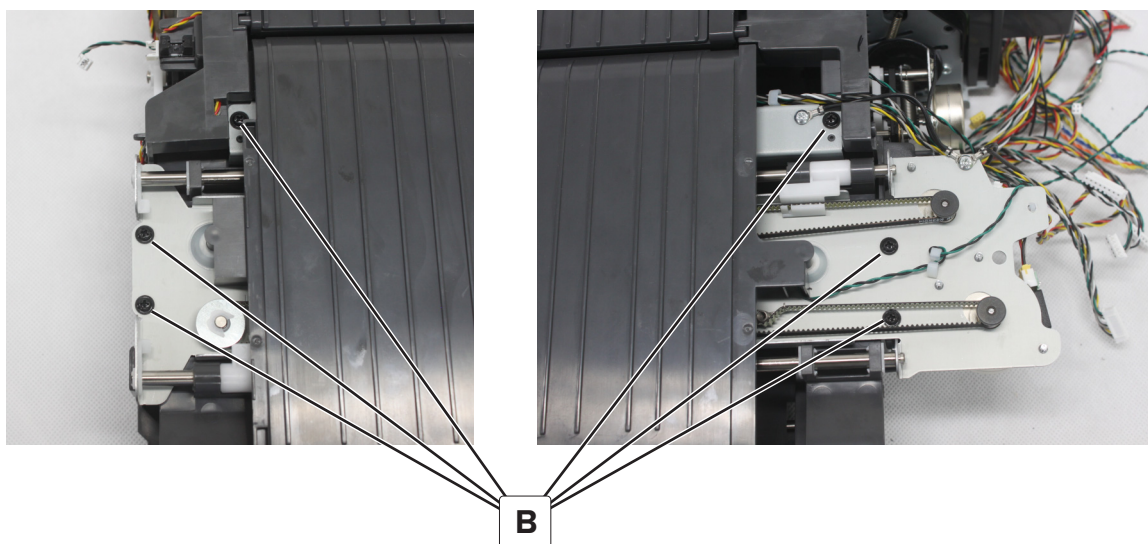
7 Set aside the cable, and then pull up the assembly.

Staple finisher tamper top cover removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

5 Remove the tamper assembly. See **"Staple finisher tamper assembly removal" on page 718**.

6 Remove the four screws (A), and then separate the top cover from the tamper.
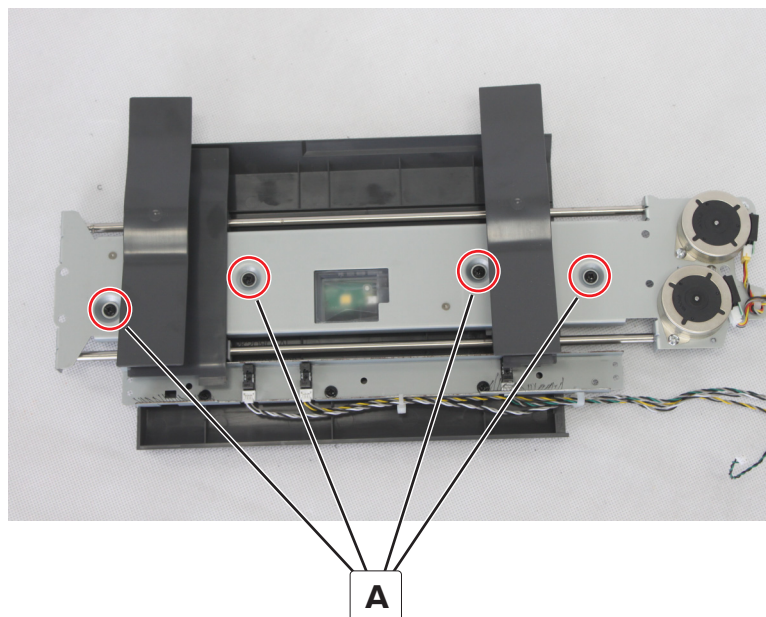
7 Remove the four screws (B), and then remove the cave light and the metal bracket.
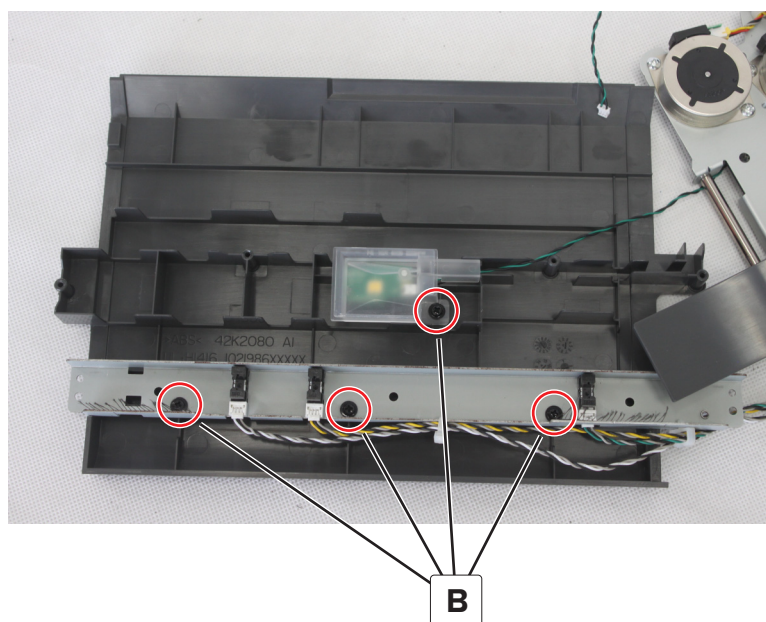
Sensor (staple finisher tamper position) removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

5 Remove the tamper assembly. See **"Staple finisher tamper assembly removal" on page 718**.

6 Remove the tamper top cover. See **"Staple finisher tamper top cover removal" on page 719**.

7 Remove the sensor holders, and then remove the sensors.
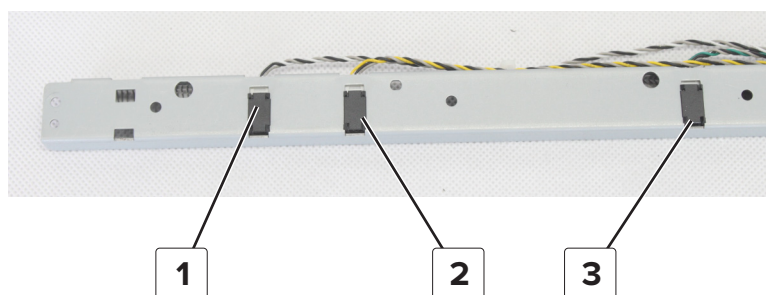
1	Sensor (staple finisher front tamper home)
2	Sensor (staple finisher narrow media tamper)
3	Sensor (staple finisher rear tamper home)

Motor (staple finisher tamper) removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher right cover removal" on page 684**.

3 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

4 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

5 From the rear or front tamper motor, remove the two screws.
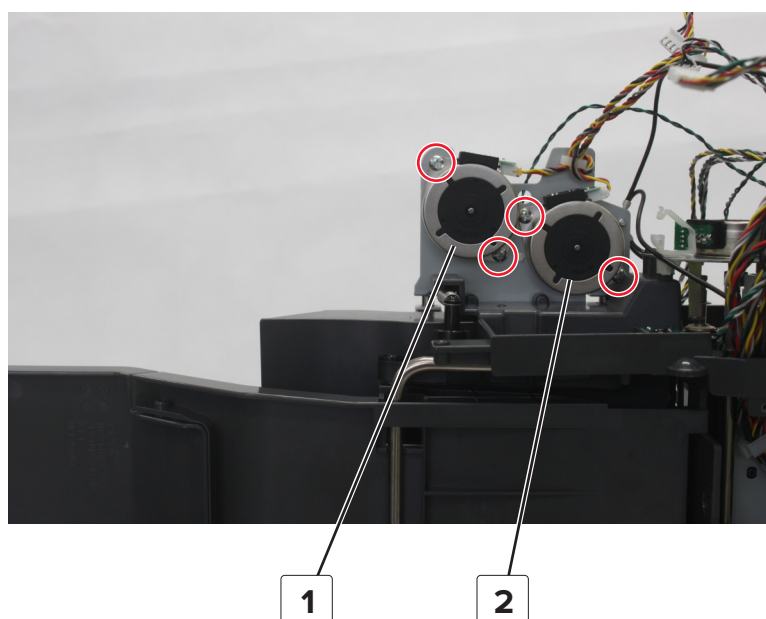
1	Motor (staple finisher front tamper)
2	Motor (staple finisher rear tamper)

6 Release the rear or front tamper belt (A) from the gear, and then remove the motor.
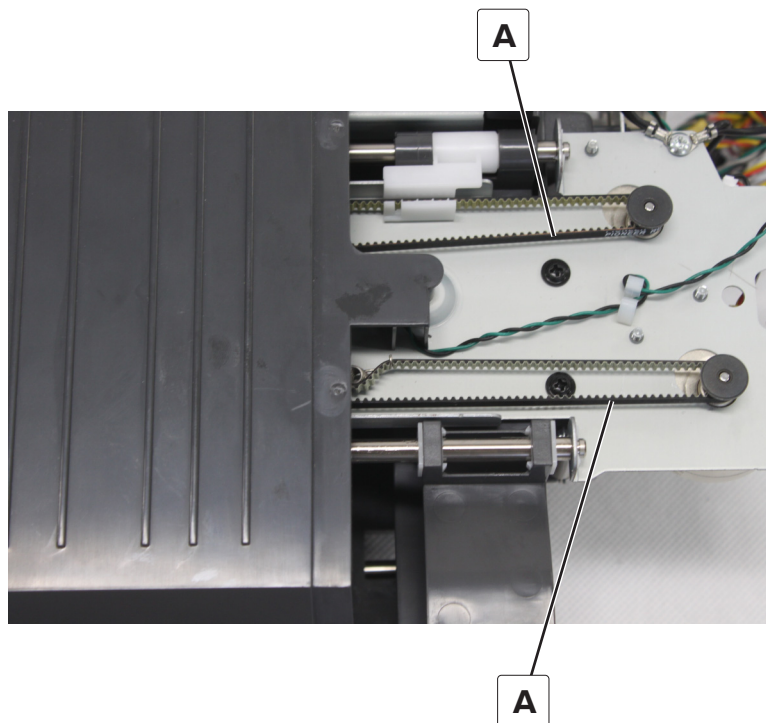
Staple finisher tamper belts removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

5 Remove the tamper assembly. See **"Staple finisher tamper assembly removal" on page 718**.

6 Remove the tamper top cover. See **"Staple finisher tamper top cover removal" on page 719**.

7 Release the belt from the belt holder (A).

8 Remove the clip (B), and then remove the washer.
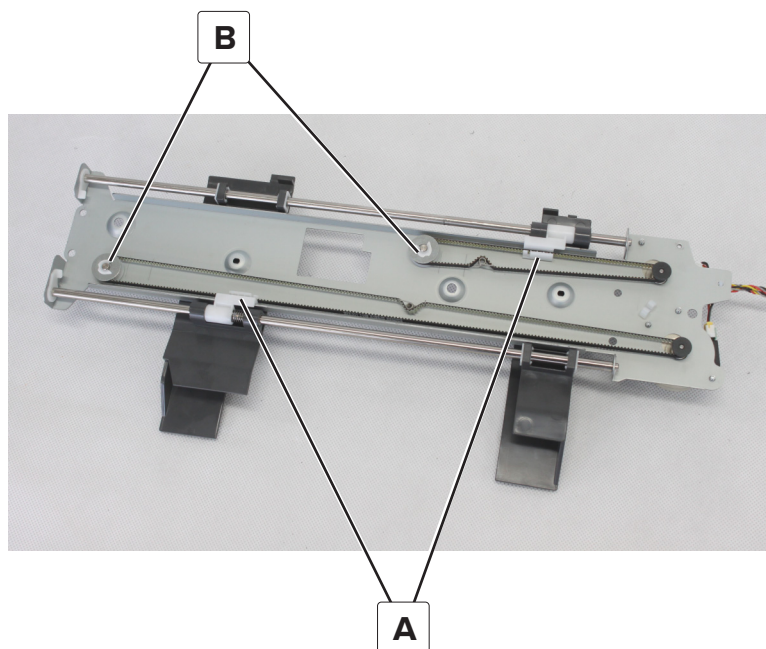
9 Remove the belt.

Installation notes:

a Move the tampers (A) to the right.

b Align the edges of the spring with the markings on the plate.
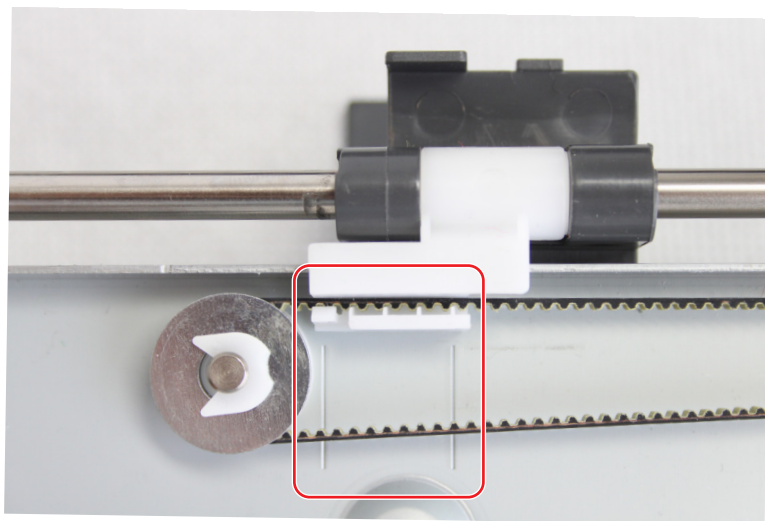
c Insert the belt into the belt holder (B).
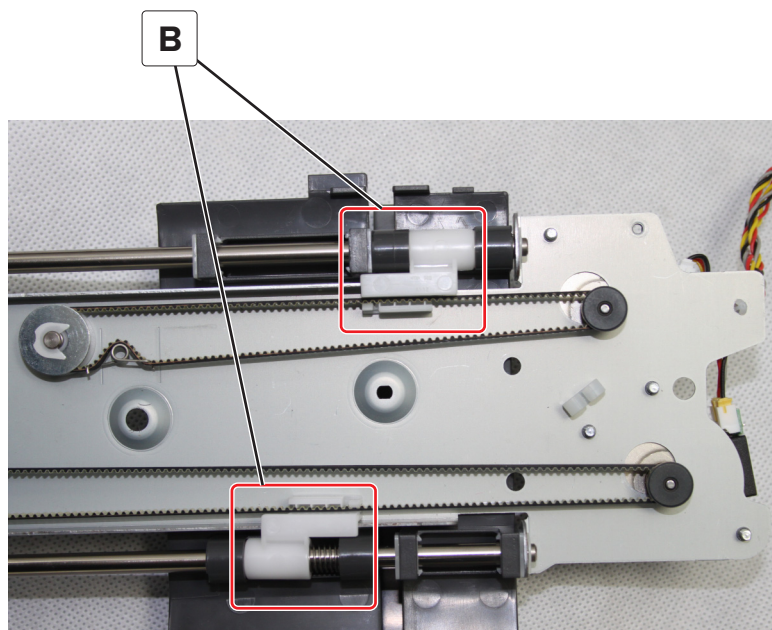
Staple finisher tamper pulley gear removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

5 Remove the tamper assembly. See **"Staple finisher tamper assembly removal" on page 718**.

6 Remove the tamper top cover. See **"Staple finisher tamper top cover removal" on page 719**.

7 Remove the tamper belts. See **"Staple finisher tamper belts removal" on page 722**.

8 Remove the clip (A), and then remove the gear.
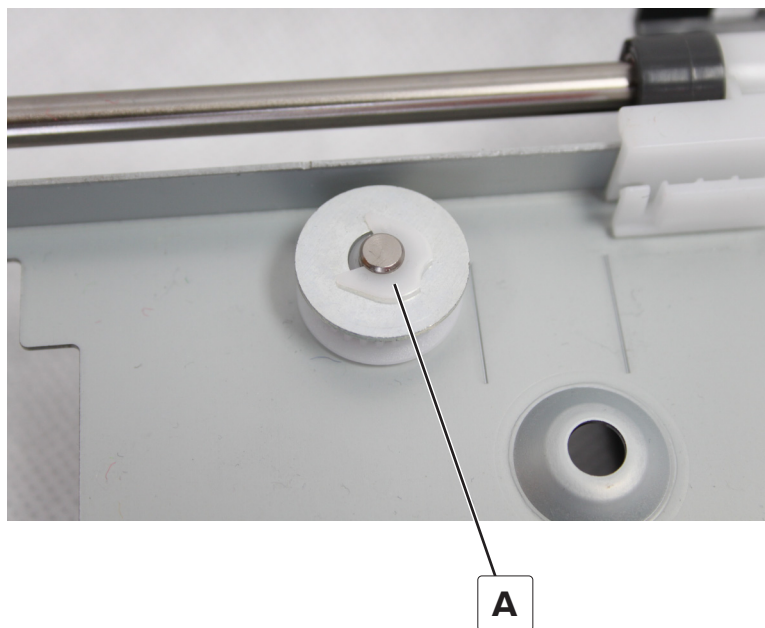
Staple finisher tamper removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

5 Remove the tamper assembly. See **"Staple finisher tamper assembly removal" on page 718**.

6 Release the belts from the holders (A).

Parts removal
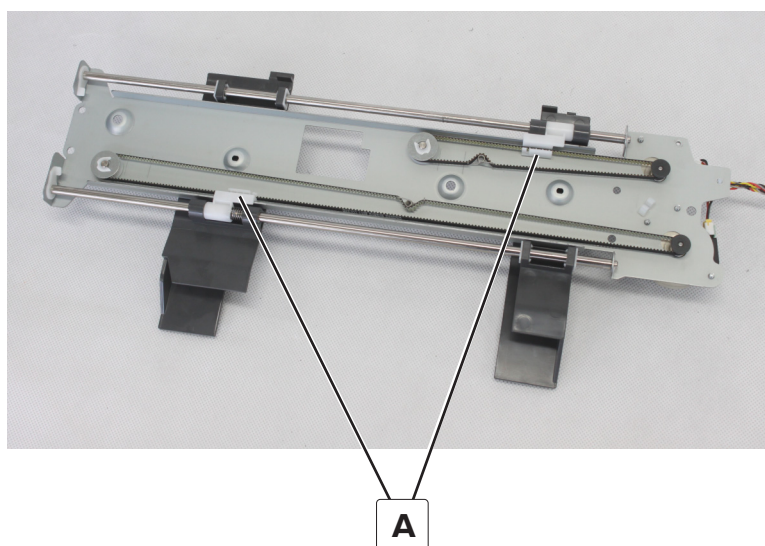
7 Remove the two clips (B).
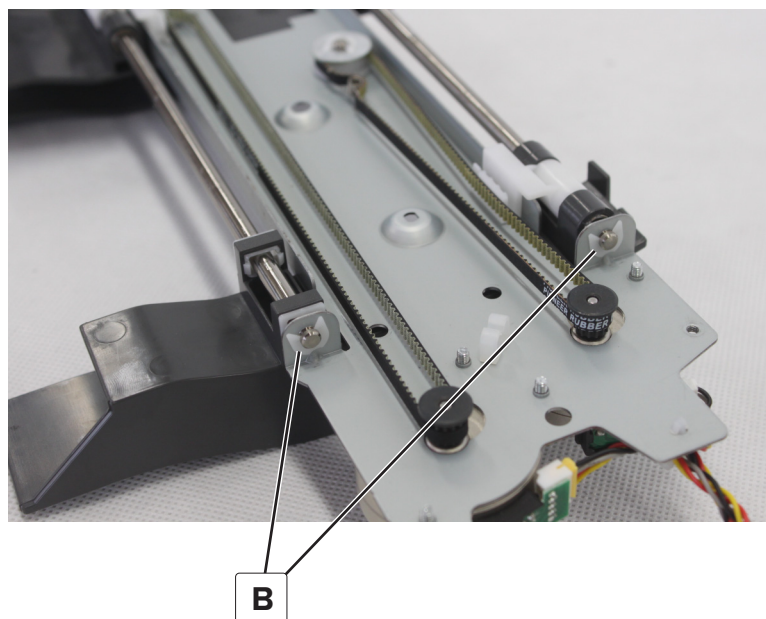
8 Remove the shafts.
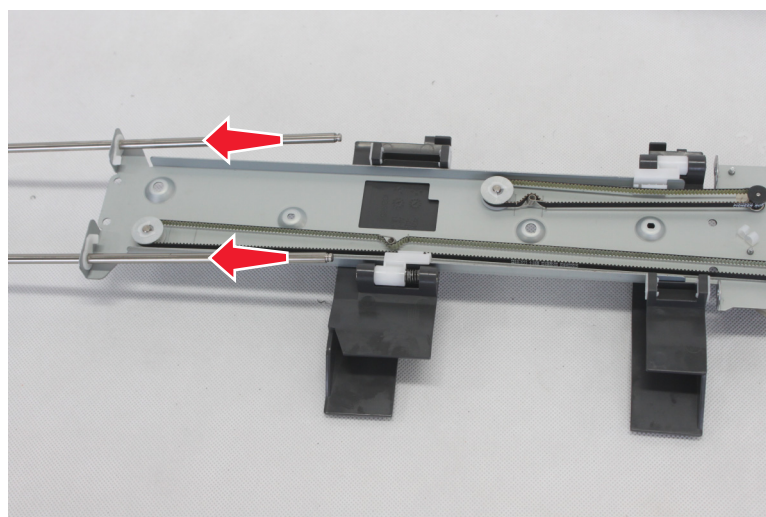
9 Remove the holder, and then remove the spring.

Staple finisher bin link removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Set aside the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the two screws (A), and then release the spring. Do the same for the two screws and the spring on the other side.

A
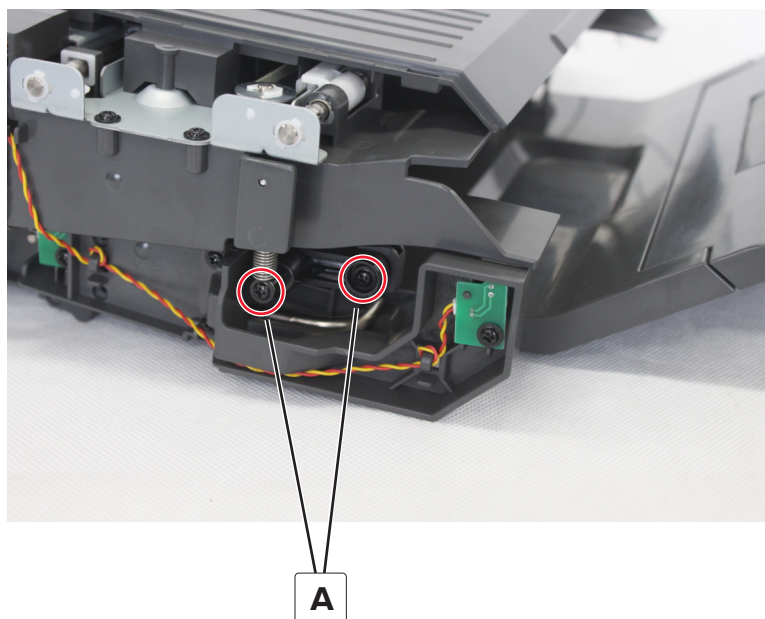
5 Remove the screw (B), and then remove the link from both sides of the finisher.

B
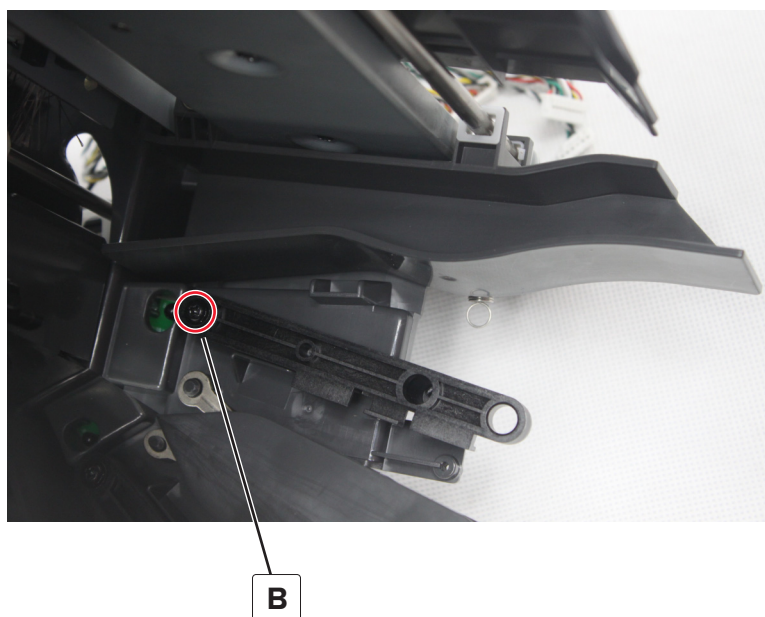
Staple finisher bin removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Set aside the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the screw (A), and then release the spring. Do the same for the screw and the spring on the other side.
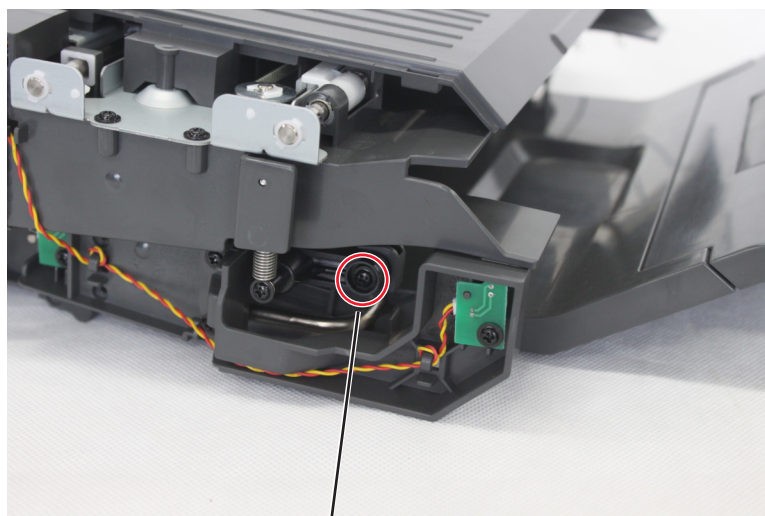
5 Release the plastic bin link. Do the same for the link on the other side.

Parts removal
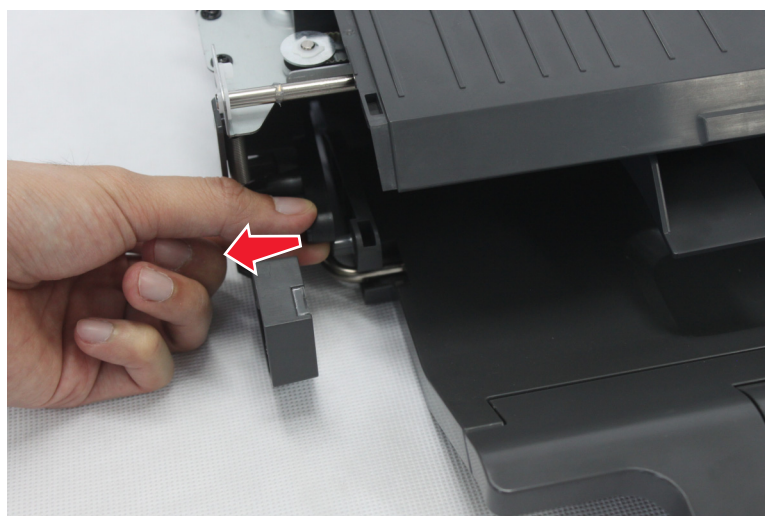
6 Release both sides of the bin support bar, and then remove the bin.
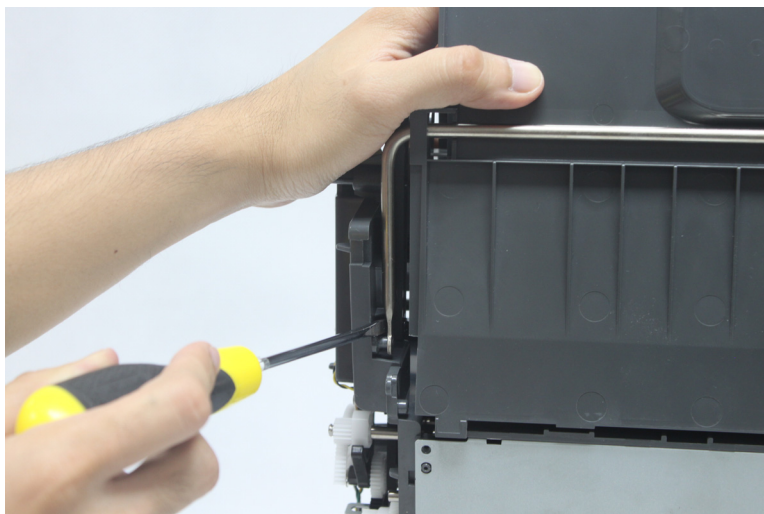
Staple finisher compiler paper guide removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the compiler feed roller. See **"Staple finisher compiler feed roller removal" on page 730**.

3 Remove the clip (A), and then remove the guide (B).
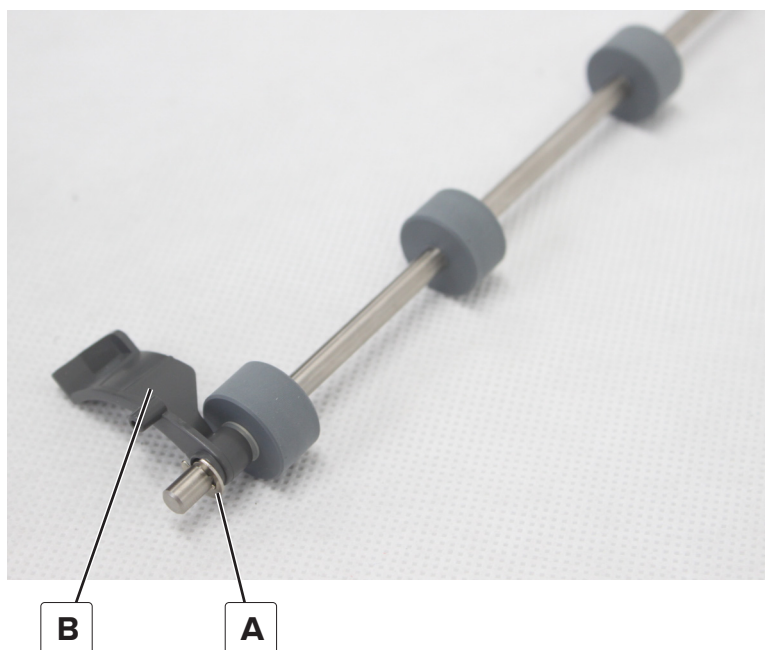
B **A**

Installation note: Make sure that the tab (A) is inside the slot.
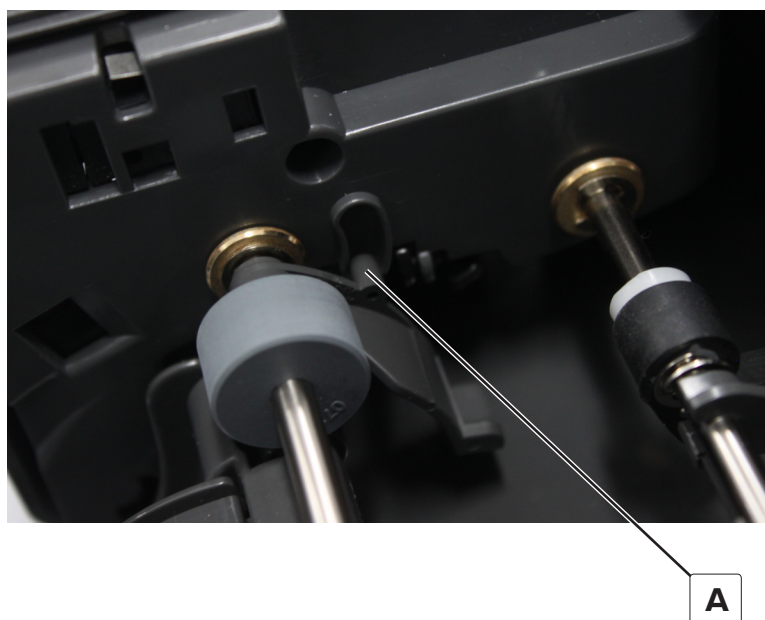
Staple finisher compiler feed roller removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Disconnect the three cables (A), and then remove the four screws (B).
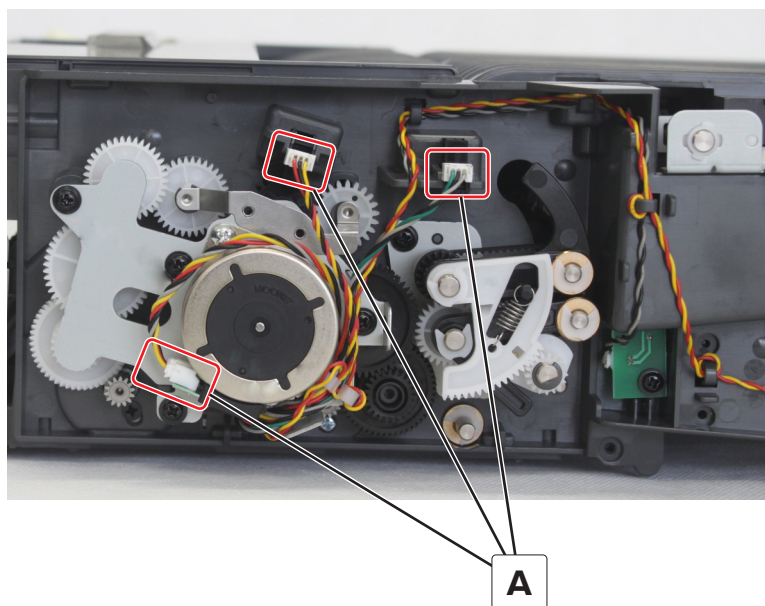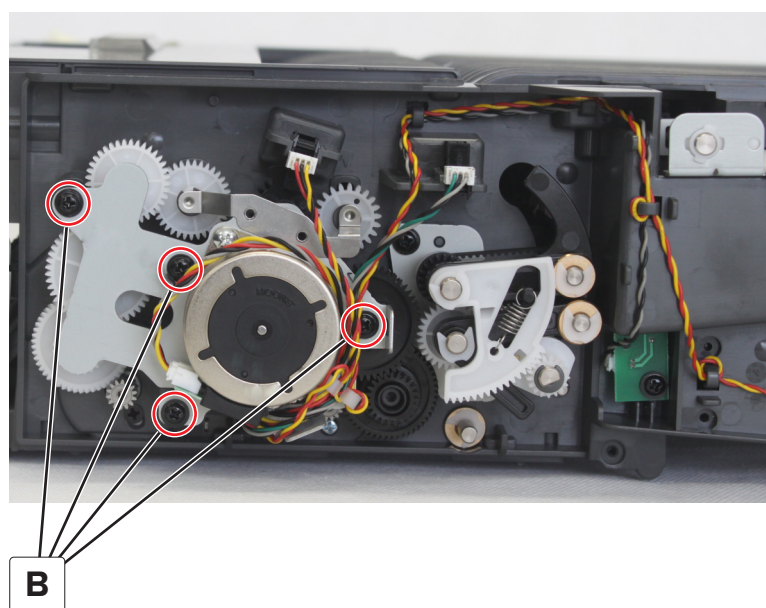
3 Set aside the aligner paddle motor and bracket.

4 Remove the clip (C), and then remove the two gears (D).
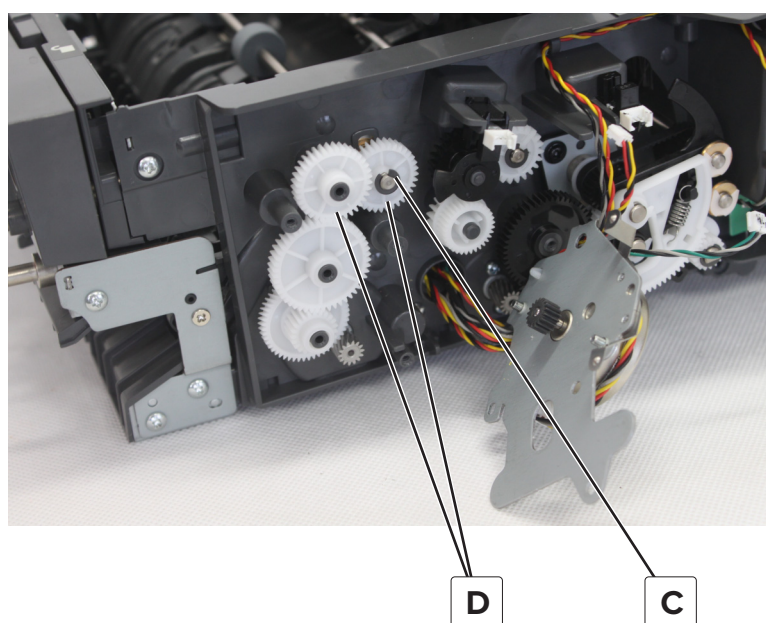
5 Remove the clip (E).

6 Push, and then swing out to remove the roller.
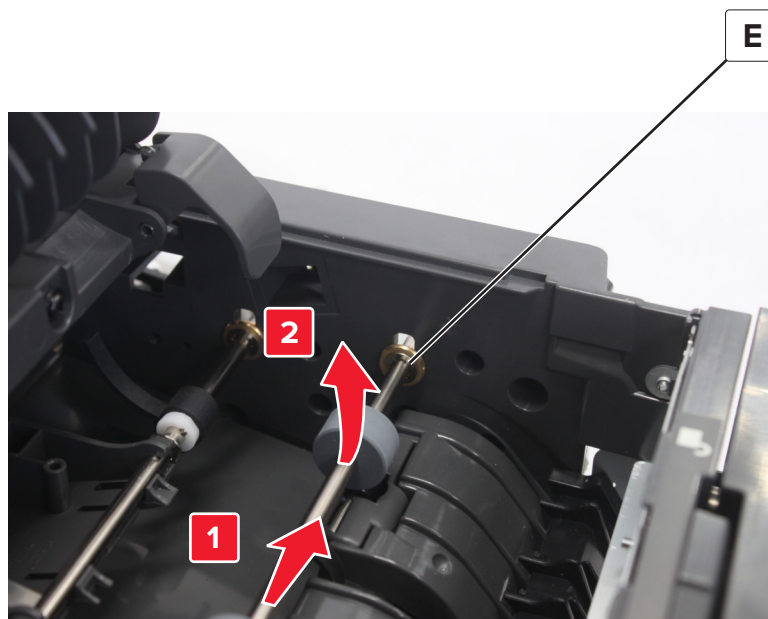
7 Remove the compiler paper guide. See **"Staple finisher compiler paper guide removal" on page 729**.

Installation note: Make sure that the tab (A) is inside the slot.
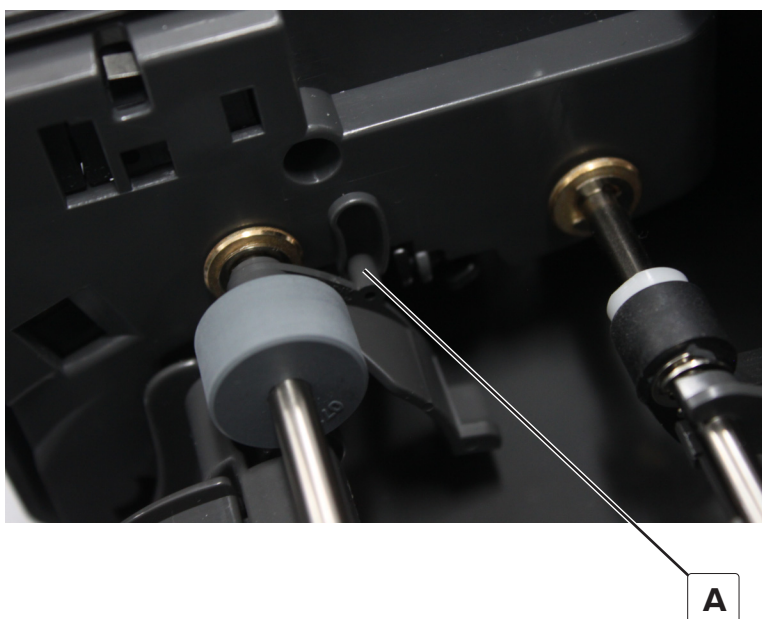
Staple finisher compiler feed idler removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the compiler feed roller. See **"Staple finisher compiler feed roller removal" on page 730**.

3 Remove the two screws (A).
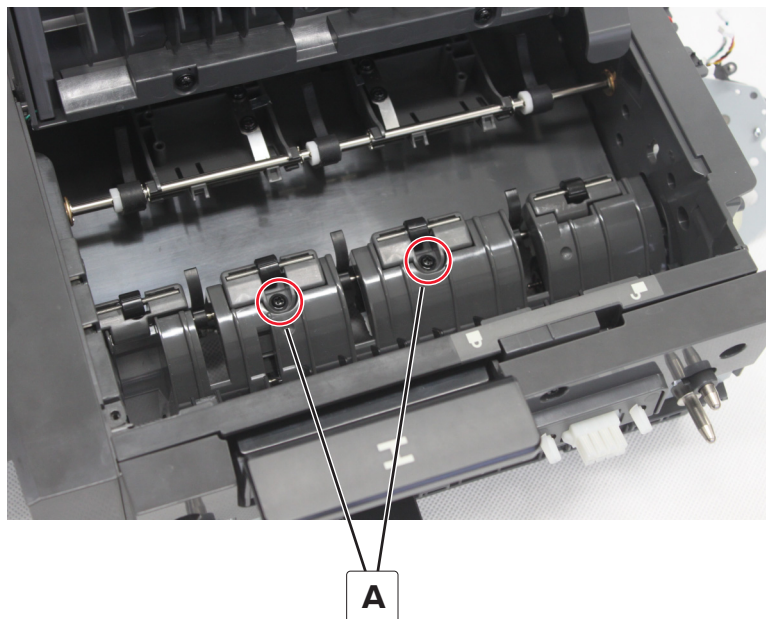
4 Remove the roller, and then remove the spring.
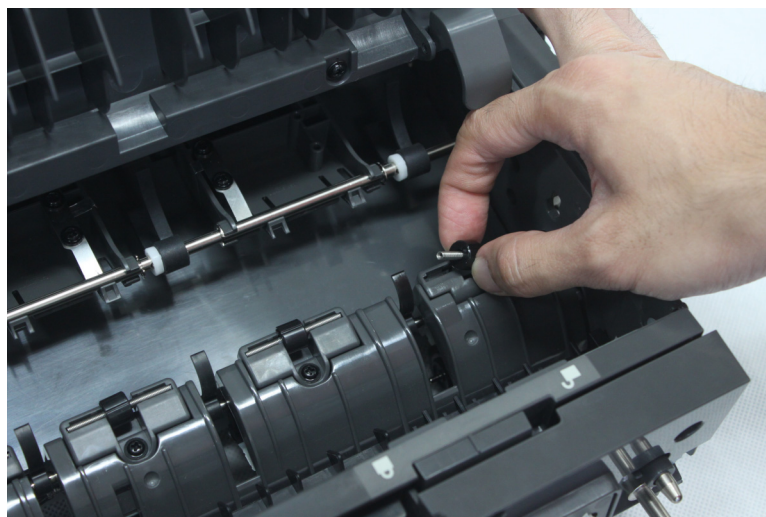
5 Remove the screw (B), and then remove the holder (C).
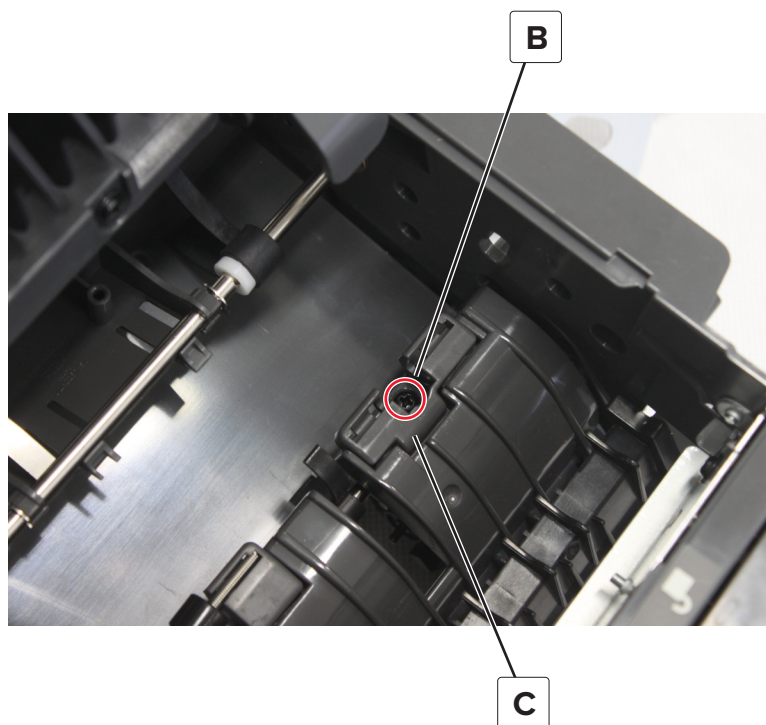
Staple finisher aligner paddle and upper paper guide removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the paddle motor and bracket. See **"Motor (staple finisher aligner paddle) removal " on page 708**.

3 Remove the clip (A), and then remove the gear (B).

Parts removal
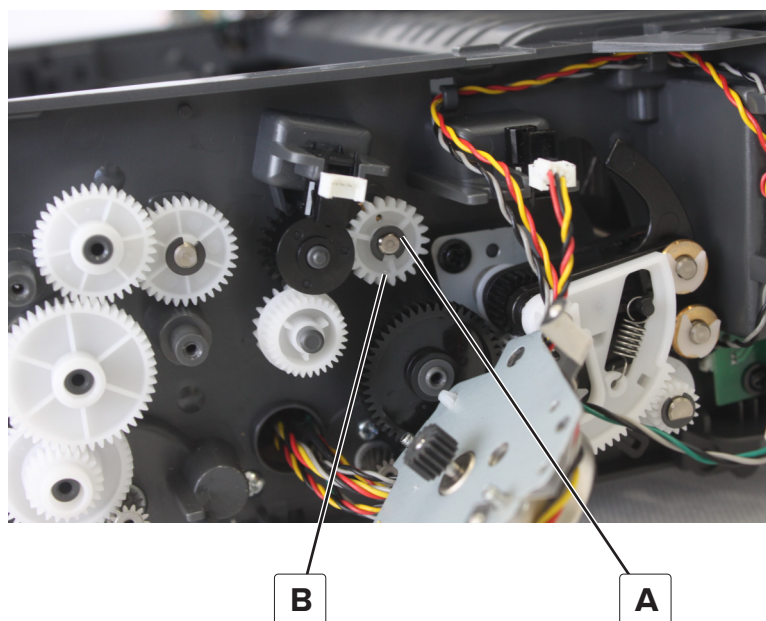
4 Set aside Door F.

5 Remove the clip (C).
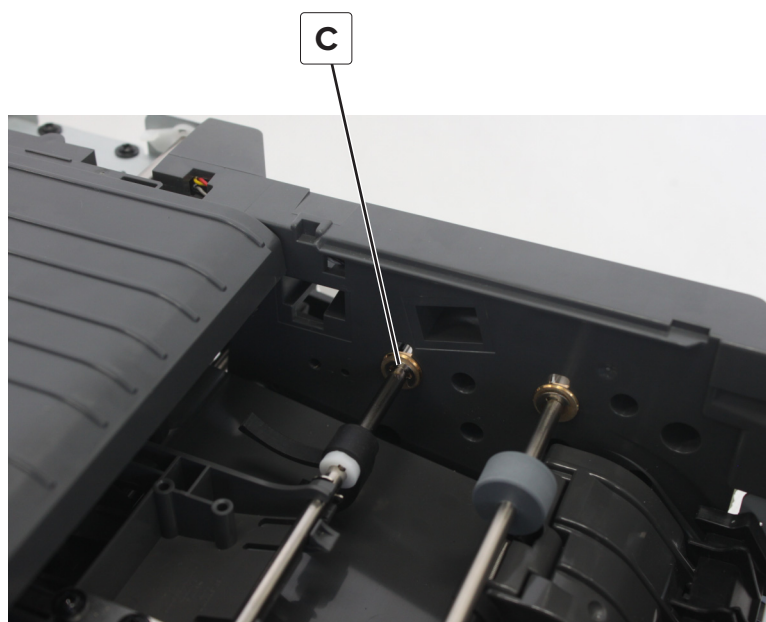
6 Remove the paddle.
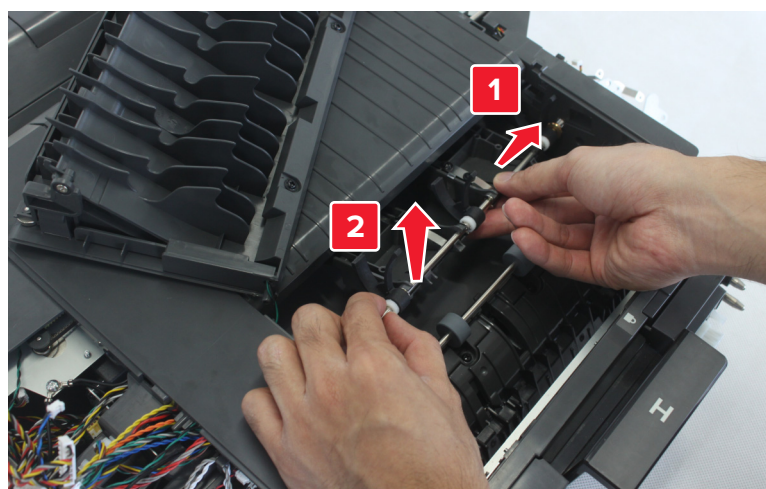
7 Remove the upper paper guide.

Installation note: Pay attention to the correct position of the upper exit roller and paddle.
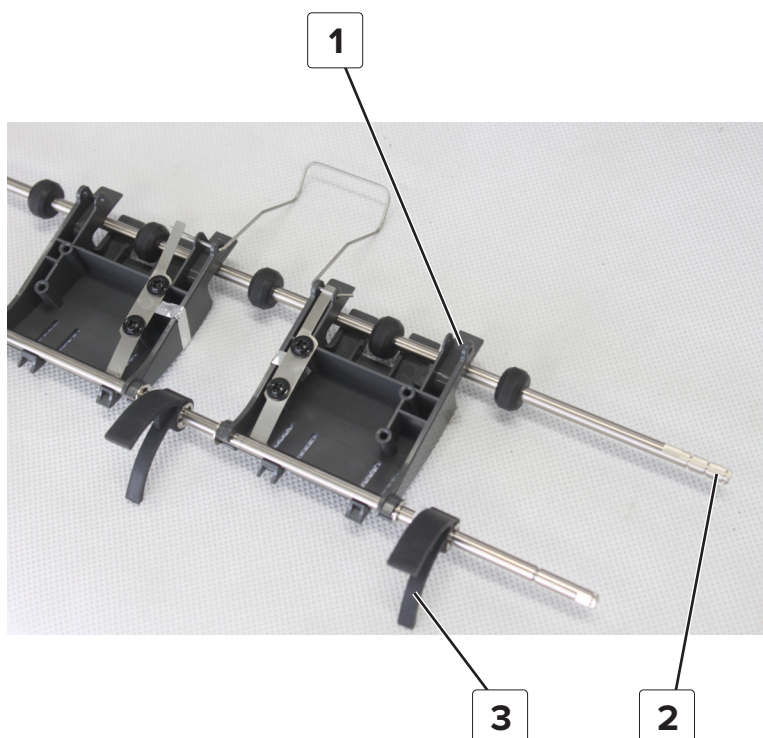
1	Staple finisher upper paper guide
2	Staple finisher upper exit roller
3	Staple finisher aligner paddle

Staple finisher upper exit roller removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the paddle motor and bracket. See **"Motor (staple finisher aligner paddle) removal " on page 708**.

3 Remove the paddle. See **"Staple finisher aligner paddle and upper paper guide removal" on page 734**.

4 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

5 Remove the controller board. See **"Staple finisher controller board removal" on page 687**.

6 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

7 Remove the motor (staple finisher upper exit roller). See **"Motor (staple finisher upper exit roller) removal" on page 696**.

8 Set aside the spring (A), and then remove the clip (B) and bushing.

B　　**A**
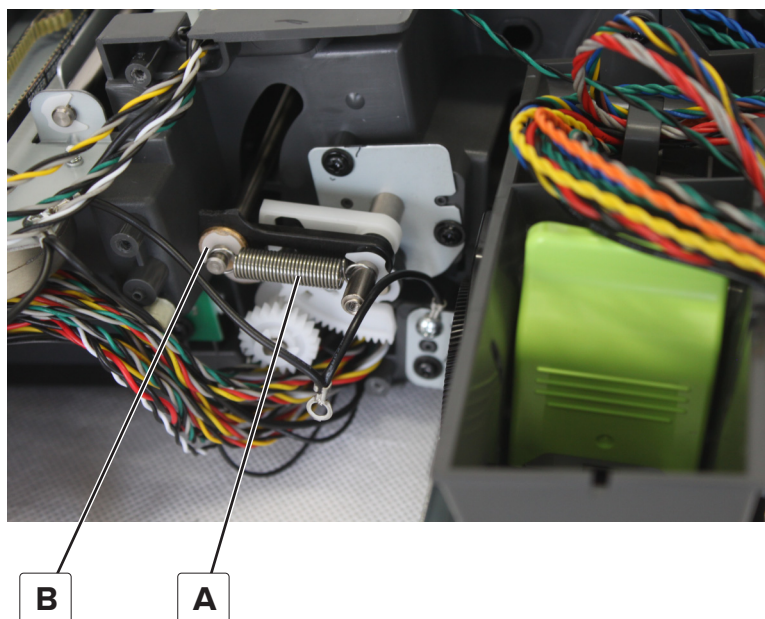
9 Remove the clip (C), release the spring (D), and then remove the gear (E).

C　　**D**　　**E**

Parts removal

737
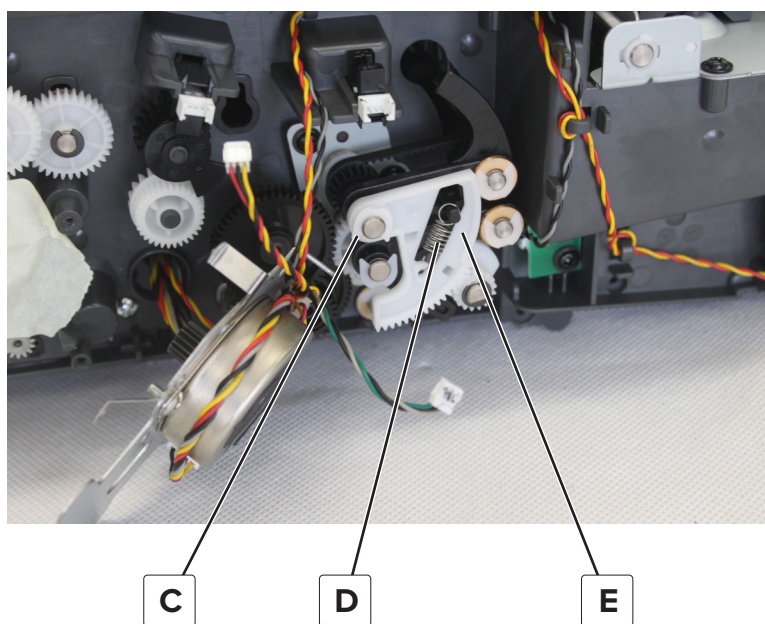
10 Remove the clip (F) and the bushing, and then remove the flag (G).

G   **F**
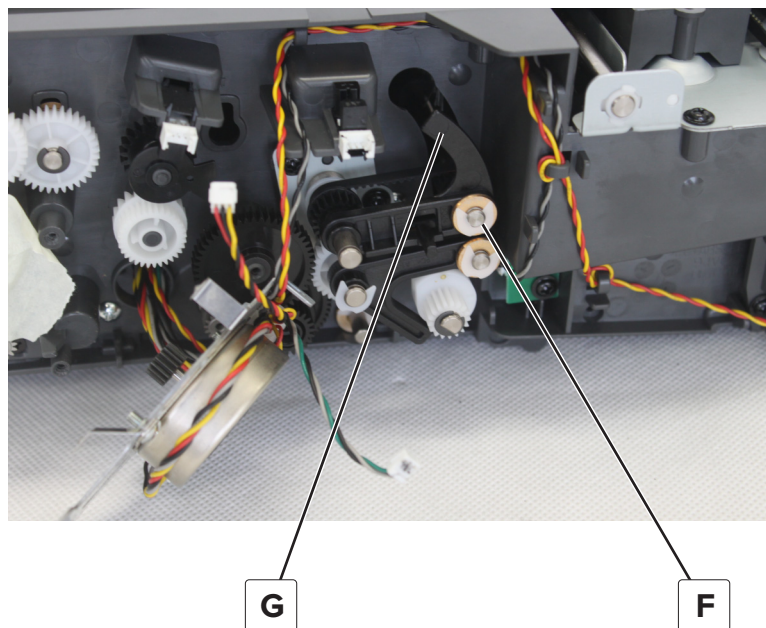
11 Detach the belt (H), remove the two clips (J), and then remove the gear.

J

H

Parts removal
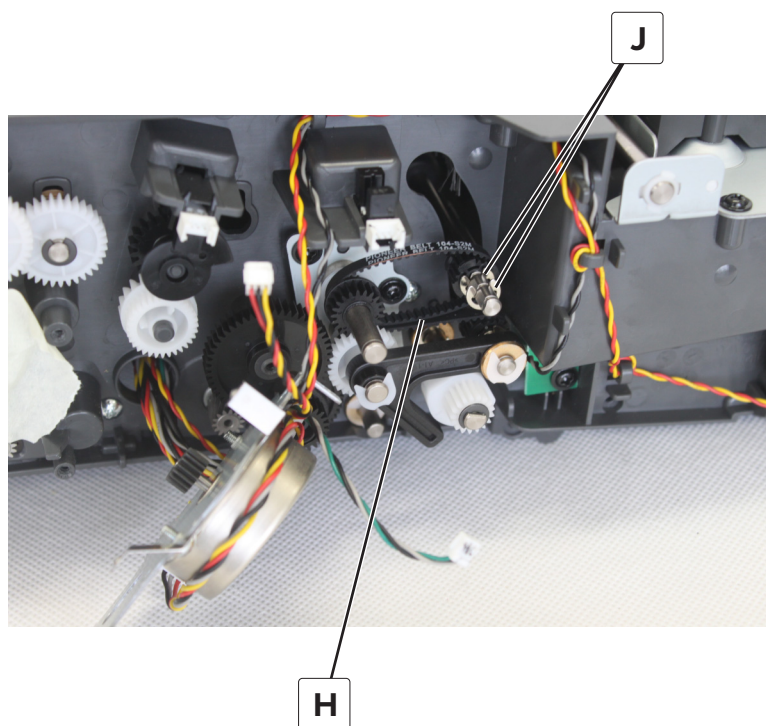
12 Remove the exit roller.
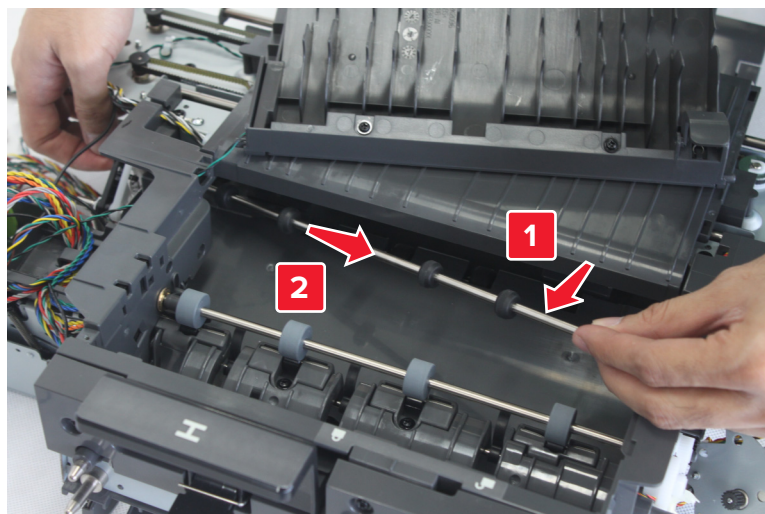
Installation note: Make sure that this side of the exit roller is installed into the front.
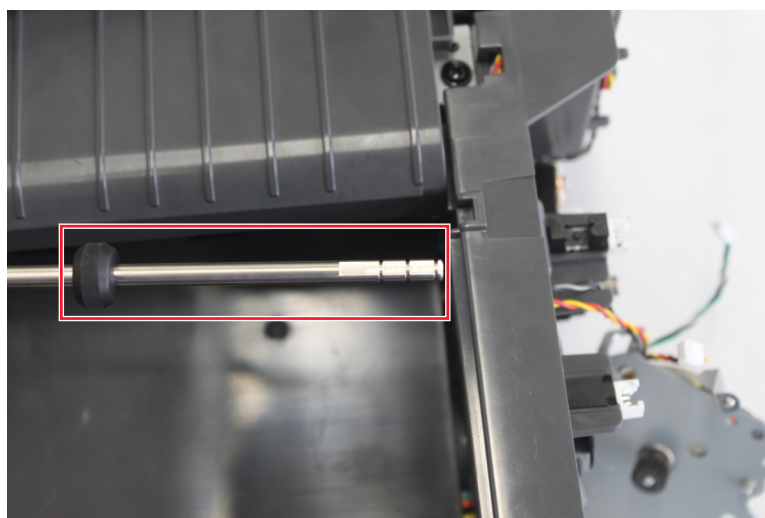
Staple finisher entrance paper guide removal

1 Release the three latches.
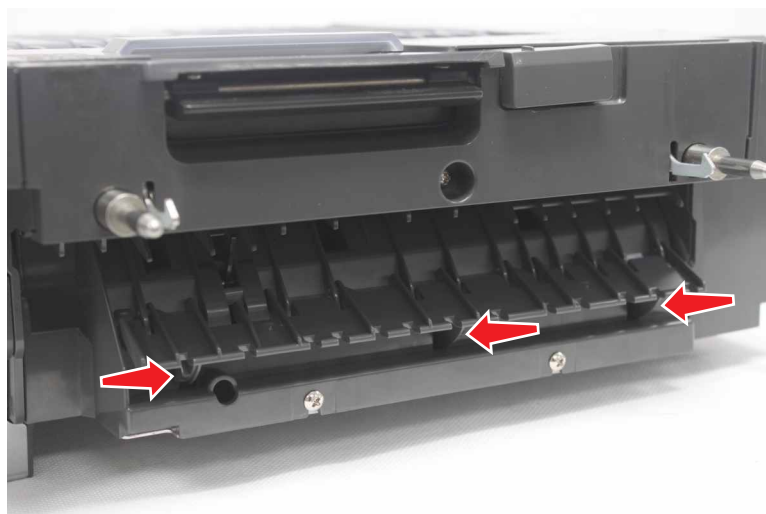
2 Release the four pins, and then remove the paper guide.

Installation note: Secure the guide on the first set of slots (A).
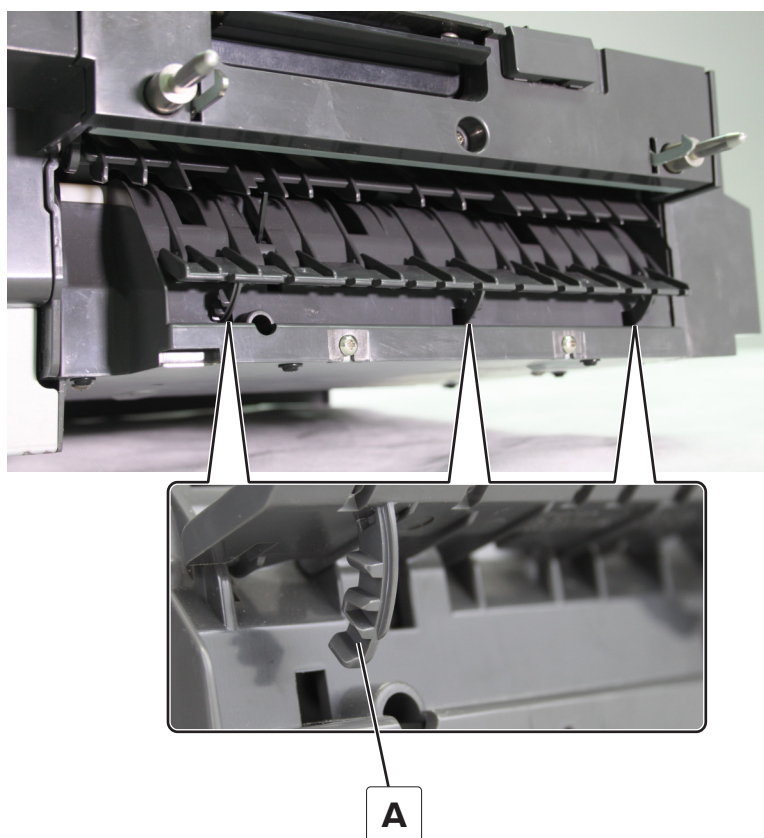
A

Staple finisher bin clamp assembly removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

3 Remove the sensor (staple finisher bin clamp). See **"Sensor (staple finisher bin clamp) removal" on page 748**.

4 Remove the clip (A) and the bushing.
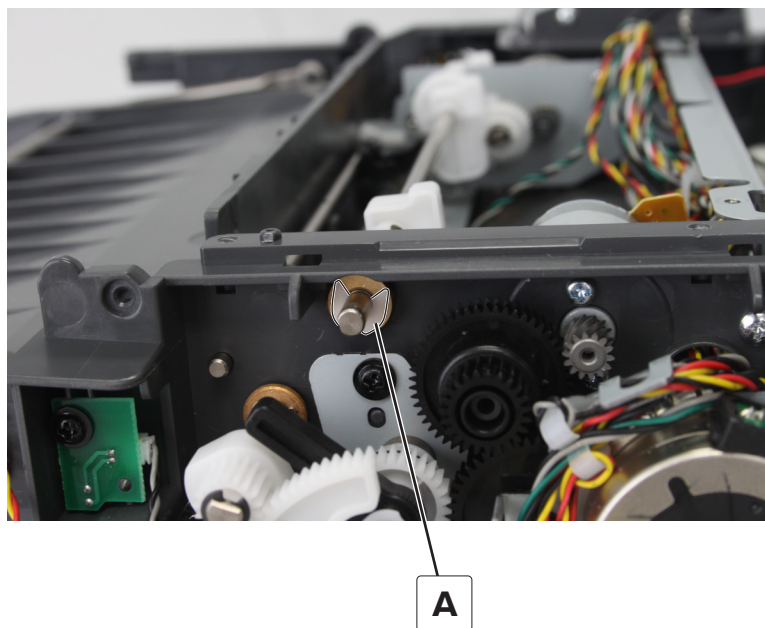
5 Remove the two screws (B).
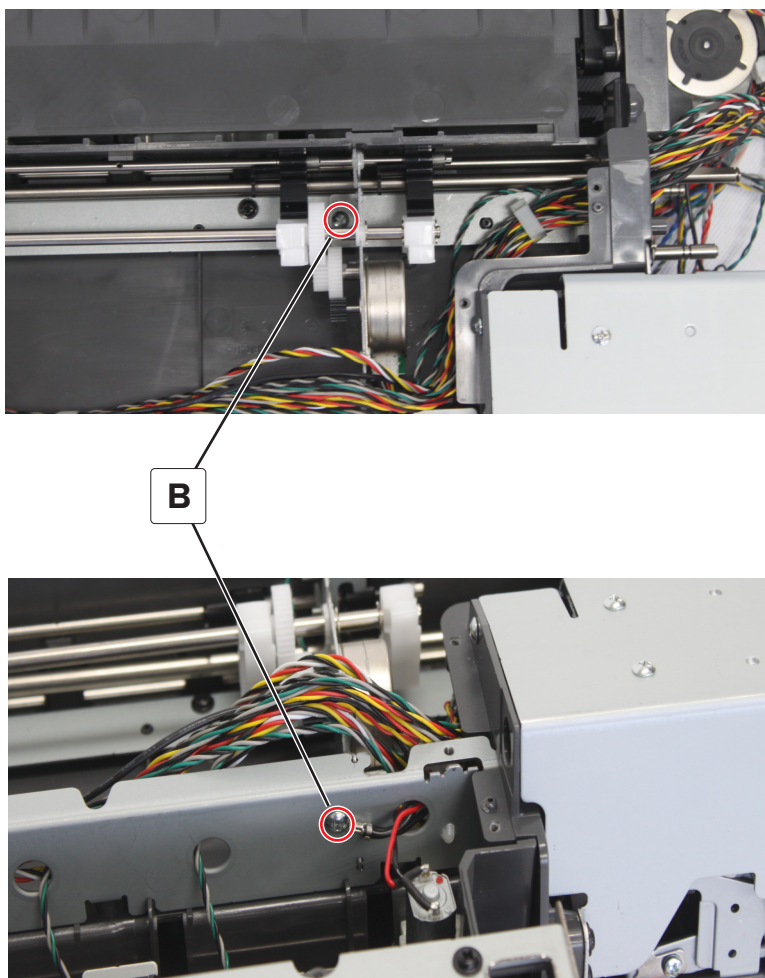
Parts removal

6 Disconnect the cable (C).
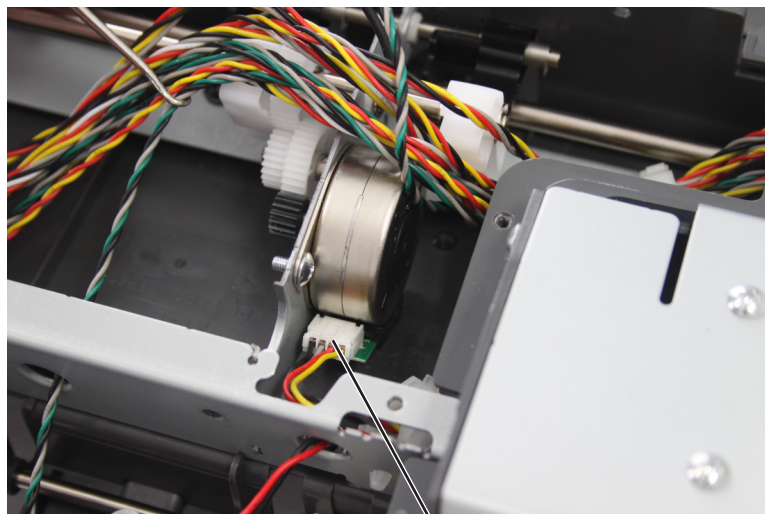
C

7 Pry the retainer counterclockwise to unlock, and then loosen it.
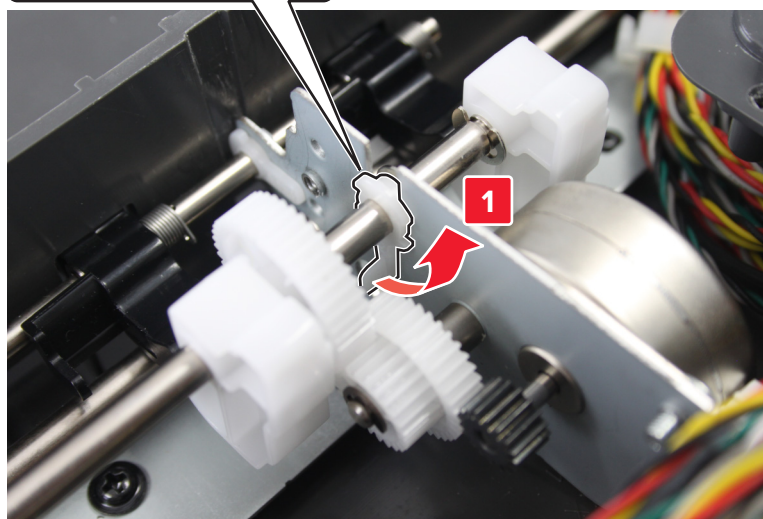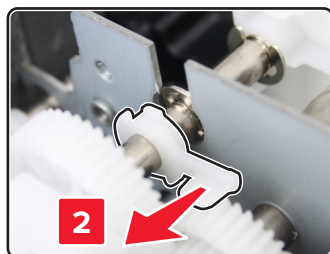
8 Remove the cam gear assembly.

9 Pry the retainer clockwise to unlock, and then loosen it.
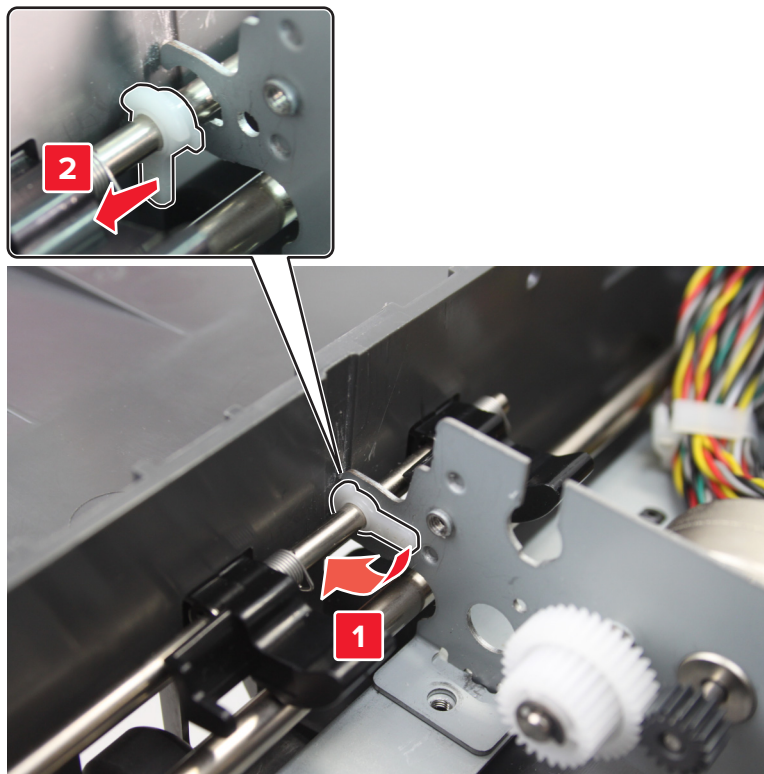
10 Release, and then remove the bracket.
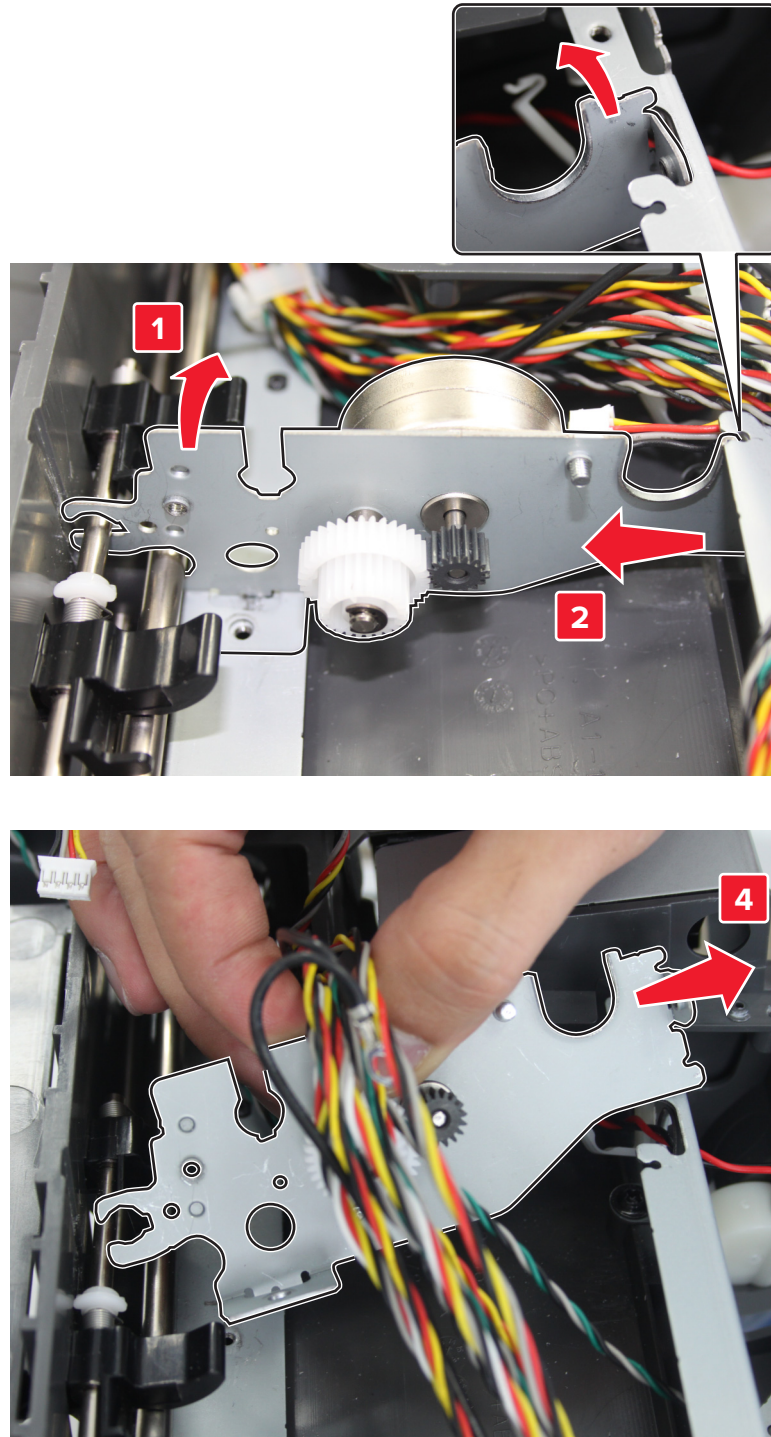
11 Remove the bin clamp.

Note: Pay attention to the default position of the arms.
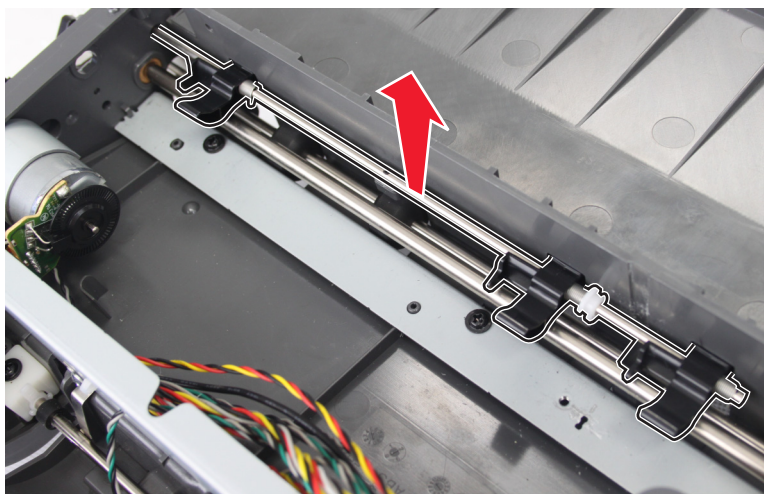
When installing the bin clamp:

- Make sure that the left side of the shaft is inserted into the D-shaped hole and the pin is placed facedown and aligned with hole.
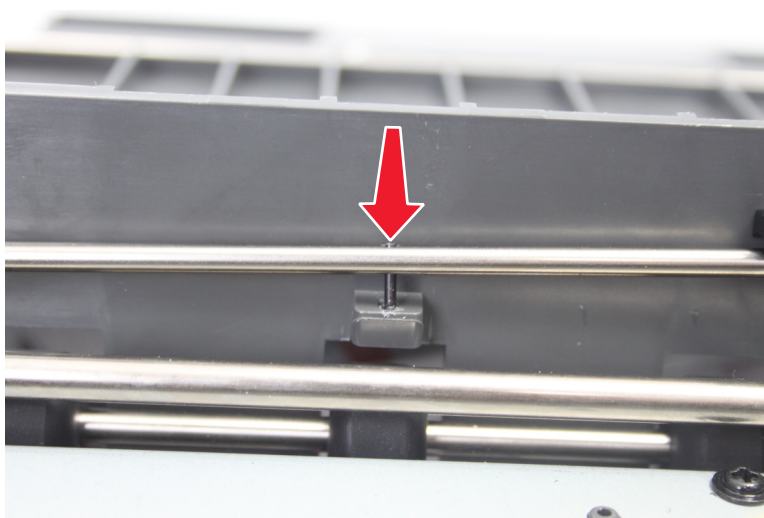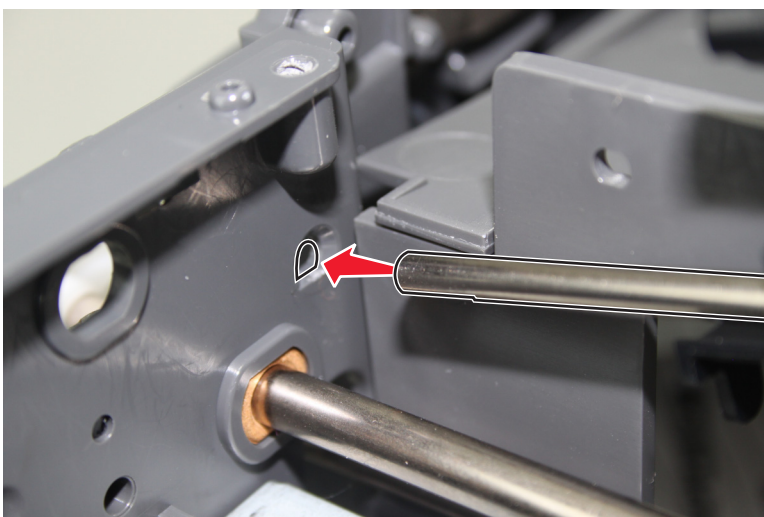
Parts removal

- With the pin placed facedown, turn the arm clockwise until the other side of the arm is aligned with the hole, and then insert the arm.
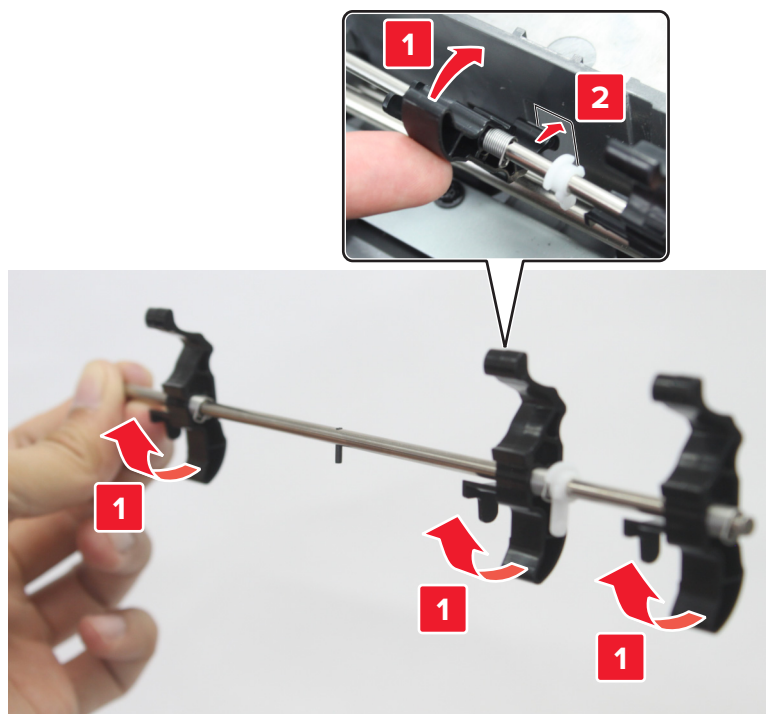
- Raise the arm, and then release it. If the arm goes back to the original position, and with a tension load, then it is properly installed.
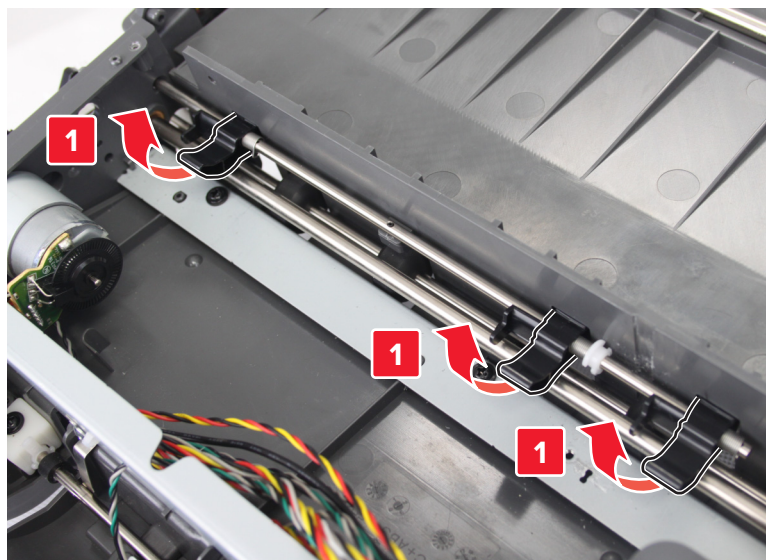
Note: For a video demonstration, see the *CS82x and CX8xx Staple finisher staple bin clamp assembly removal* at **infoserve.lexmark.com/videos/stfin_bin_clamp_asm_removal.html**.

Parts removal

747

Sensor (staple finisher bin clamp) removal

1 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

2 Disconnect the cable (A).
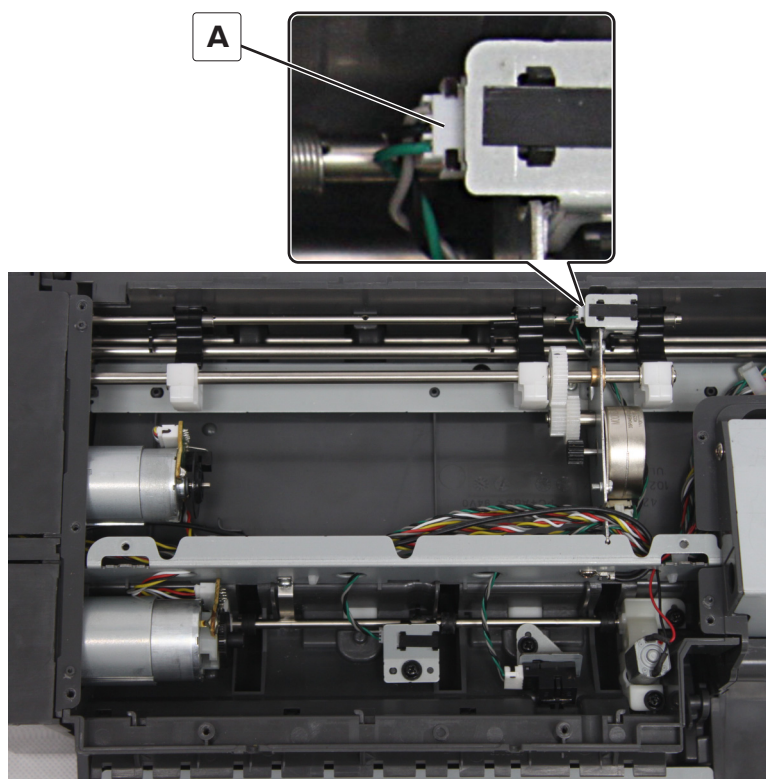
3 Remove the screw (B), and then remove the bracket.
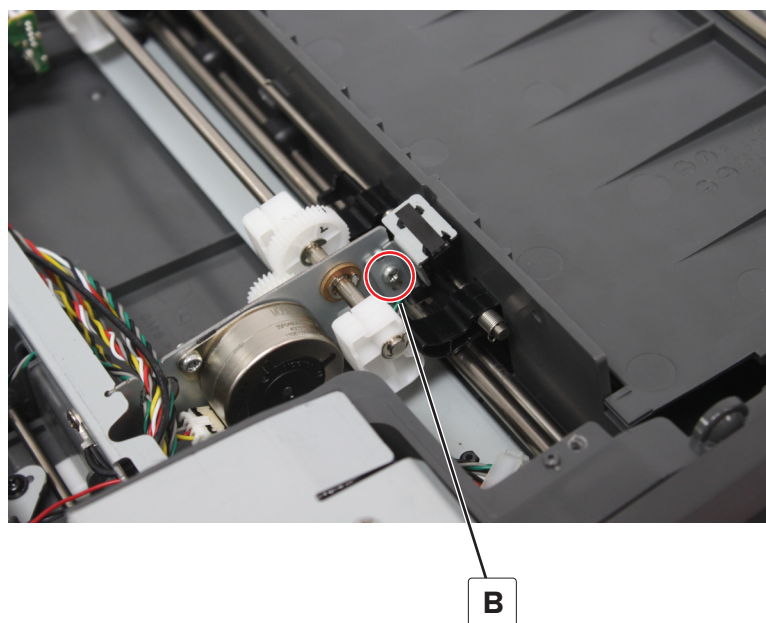
4 Remove the adhesive, and then remove the sensor.

Motor (staple finisher bin clamp) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the sensor (staple finisher bin clamp). See **"Sensor (staple finisher bin clamp) removal" on page 748**.

3 Remove the two screws (A).
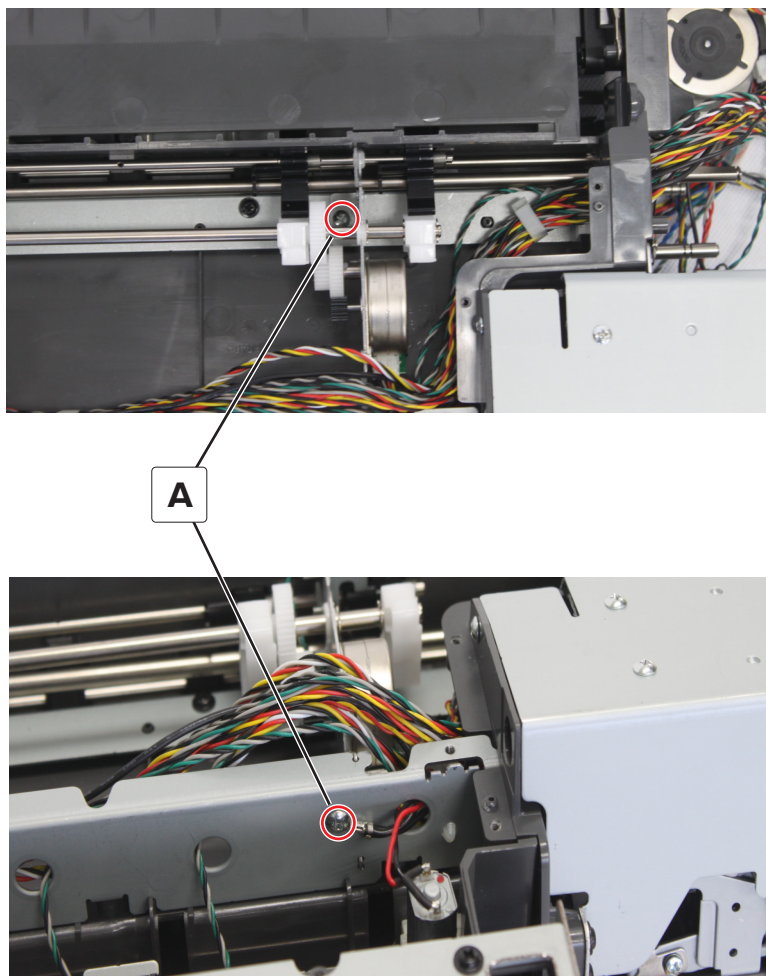
4 Disconnect the cable (B).
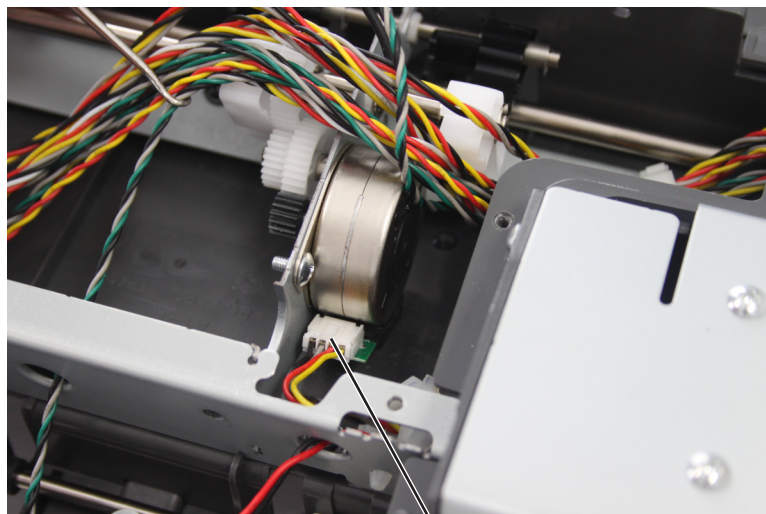
B

5 Remove the clip (C) and the bushing.

C

Parts removal

750
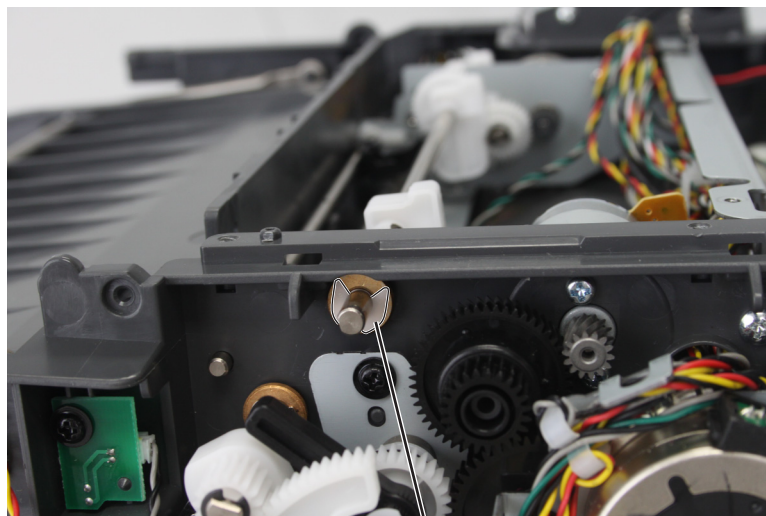
6 Pry the retainer counterclockwise to unlock, and then loosen it.
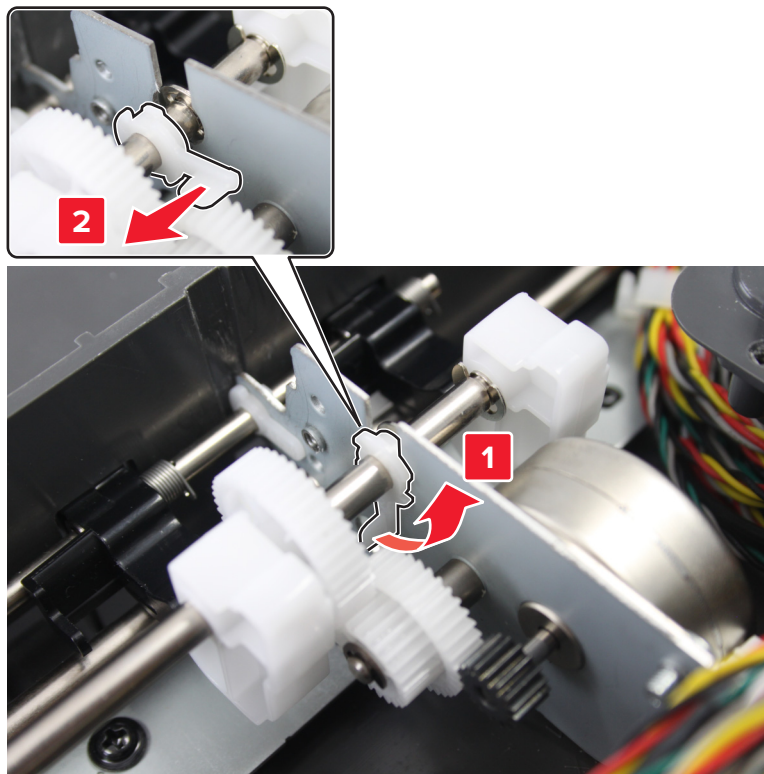
7 Remove the cam gear assembly.

8 Pry the retainer clockwise to unlock, and then loosen it.
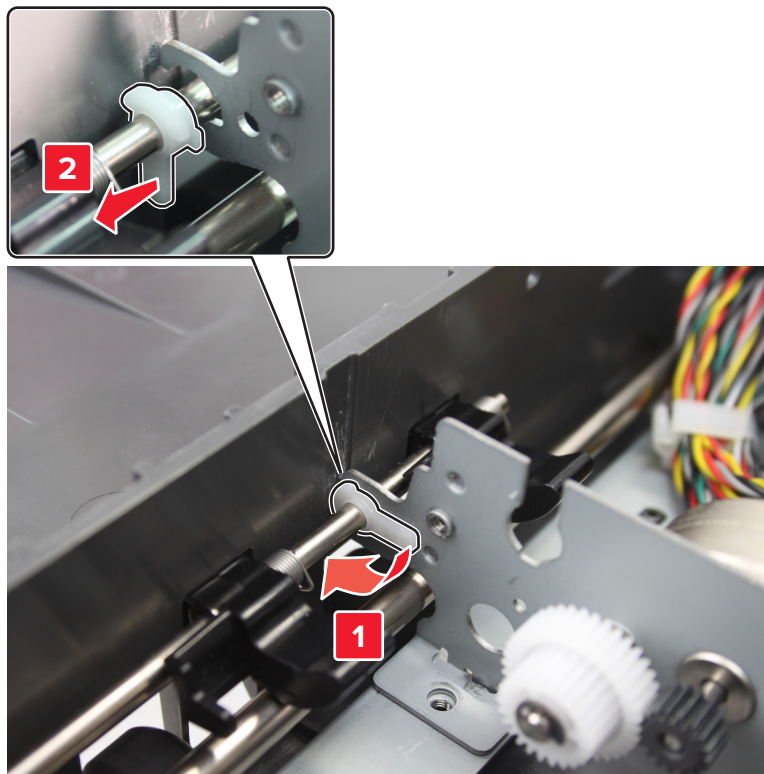
9 Release, and then remove the bracket.
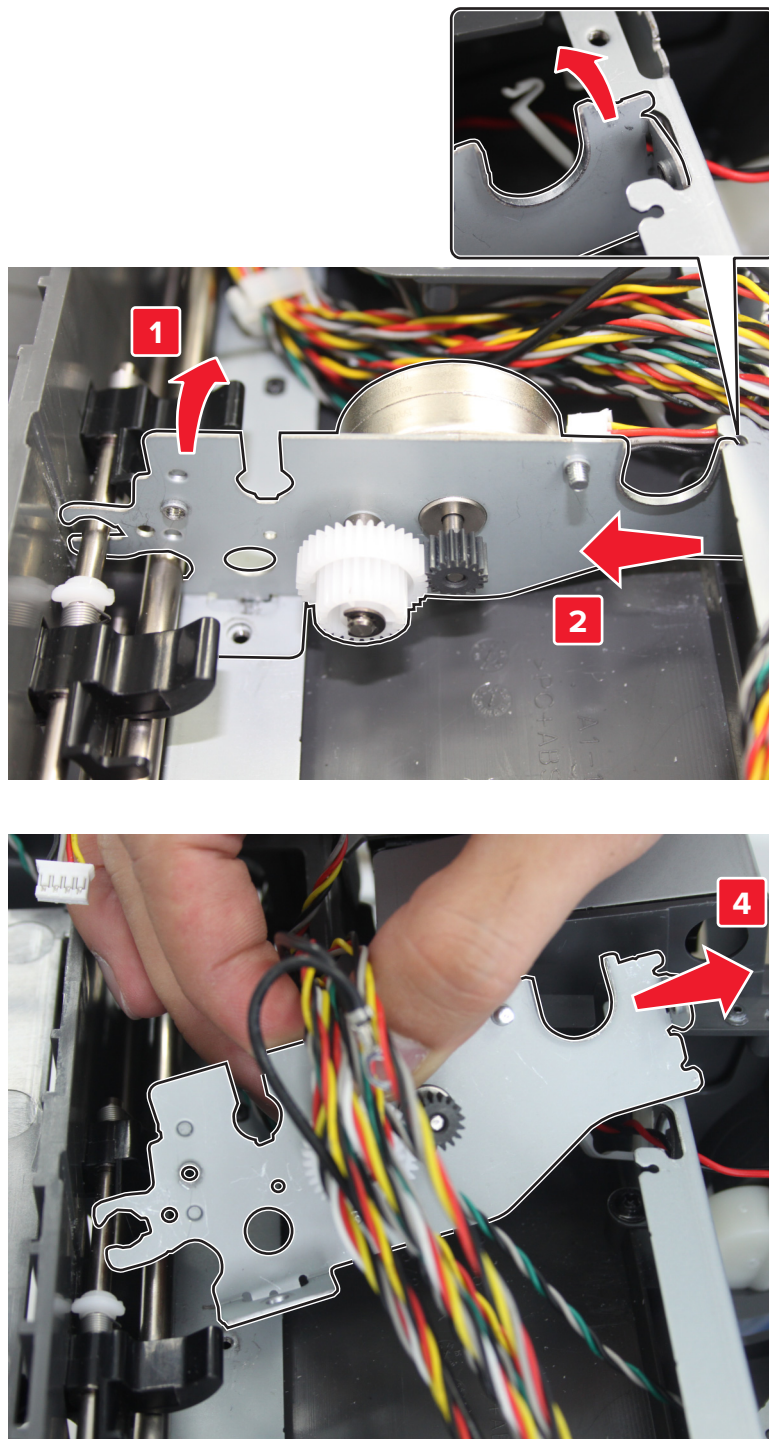
10 Remove the two screws (D), and then remove the motor.
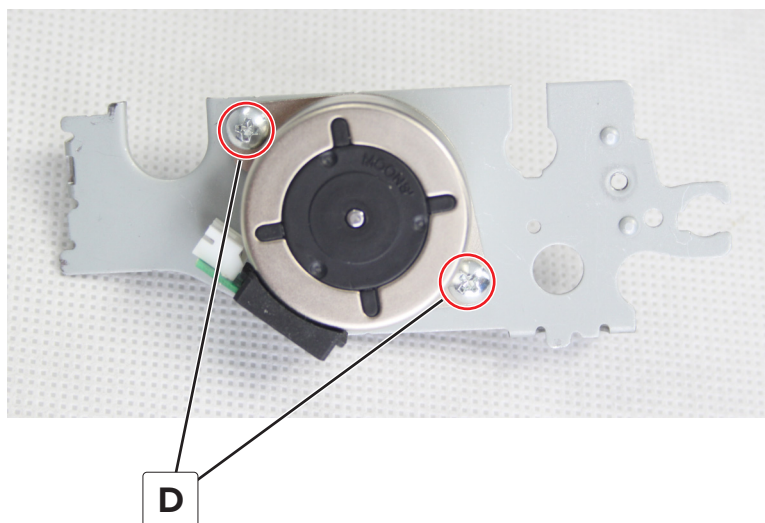
Motor (staple finisher exit) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

3 Remove the two screws (A).
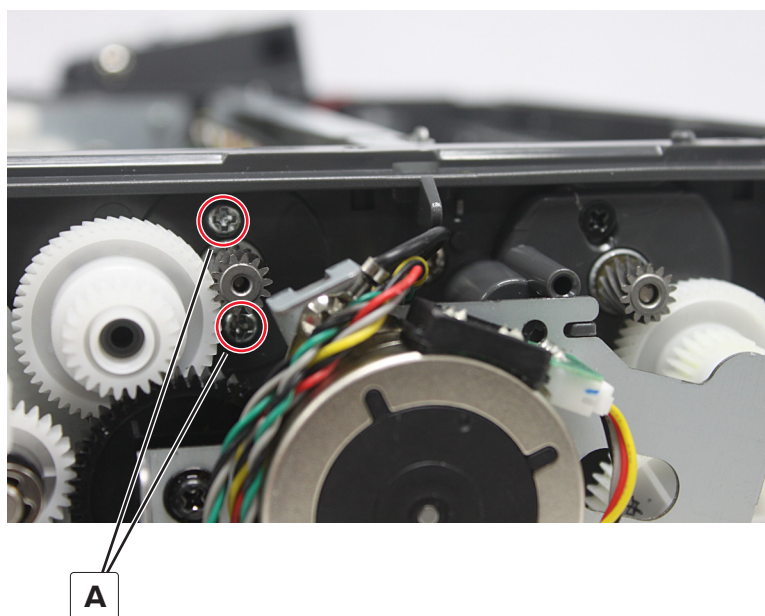
4 Remove the motor, and then disconnect the cable from the motor.

Motor (staple finisher transport) removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

3 Remove the three screws (A), and then set aside the bracket.
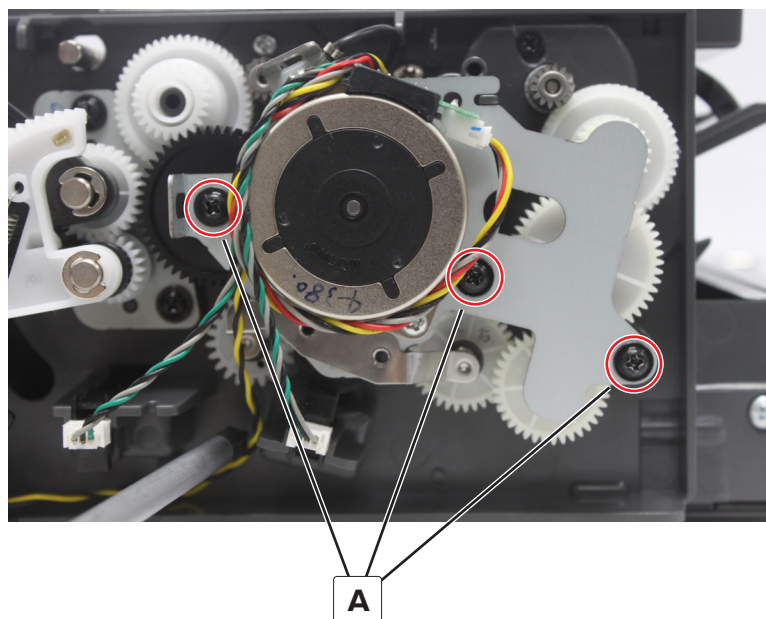
4 Remove the two gears (B).
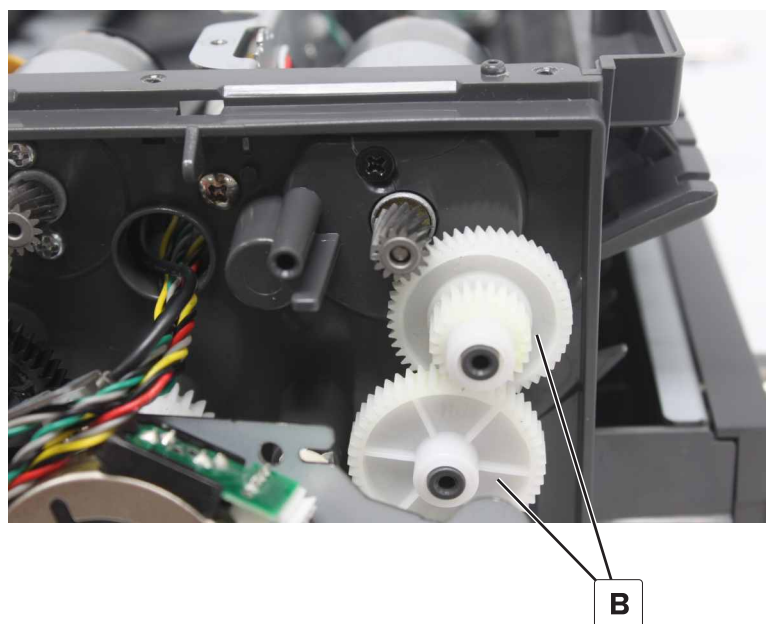
5 Remove the two screws (C), and then remove the motor.
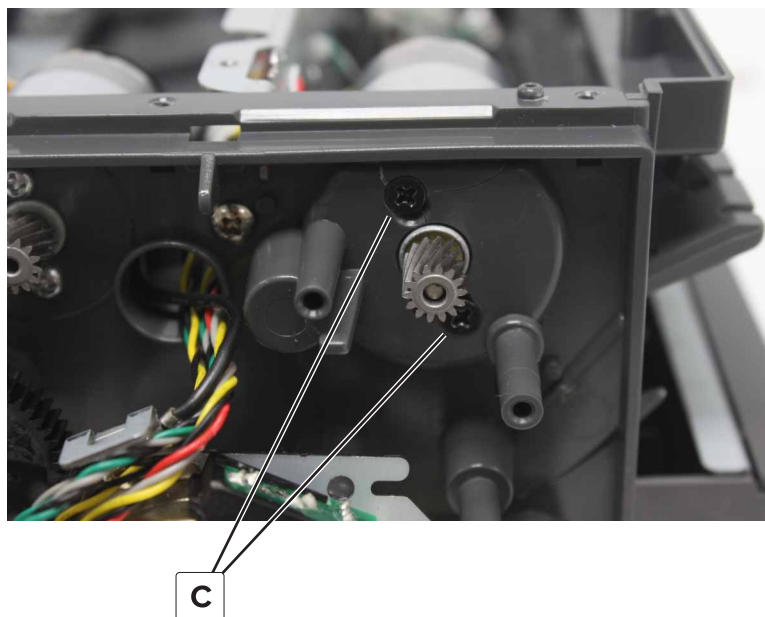
6 Disconnect the cable from the motor.

Staple finisher decurl assembly removal

1 Remove the front cover. See **"Staple finisher front cover removal" on page 684**.

2 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

3 Remove the sensor (staple finisher decurl). See **"Sensor (staple finisher decurl) removal" on page 758**.

4 Remove the sensor (staple finisher transport). See **"Sensor (staple finisher transport) removal" on page 759**.

5 Remove the motor (staple finisher transport). See **"Motor (staple finisher transport) removal" on page 754**.

6 Disconnect the decurl motor cable from the controller board, and then unroute the cable.

7 Remove the three screws (A), and then remove the assembly.
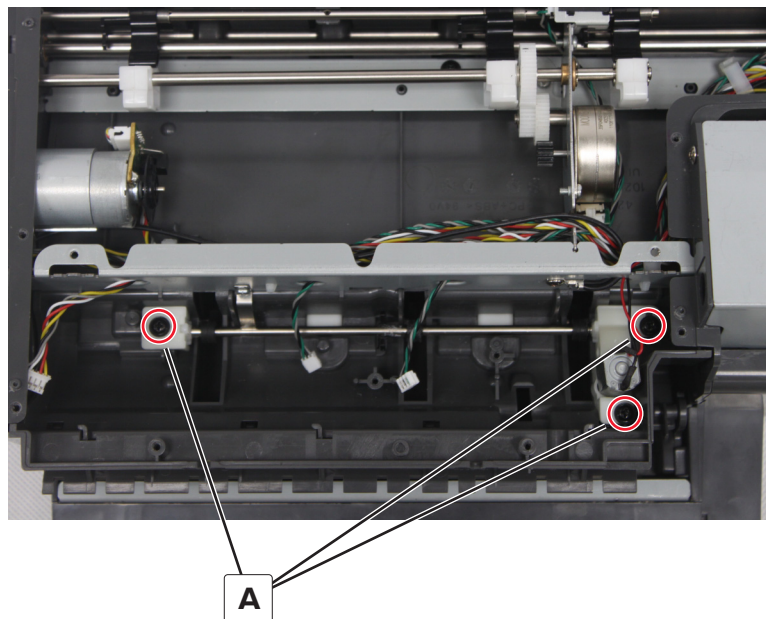
Sensor (staple finisher staple unit paper present) removal

1 Remove the right cover. See **"Staple finisher right cover removal" on page 684**.

2 Remove the rear cover. See **"Staple finisher rear cover removal" on page 685**.

3 Remove the inner rear cover. See **"Staple finisher inner rear cover removal" on page 687**.

4 Remove the ejector. See **"Staple finisher staple unit ejector removal" on page 699**.

5 Remove the staple unit bracket. See **"Staple finisher staple unit removal" on page 701**.

6 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

7 Disconnect the cable (A).
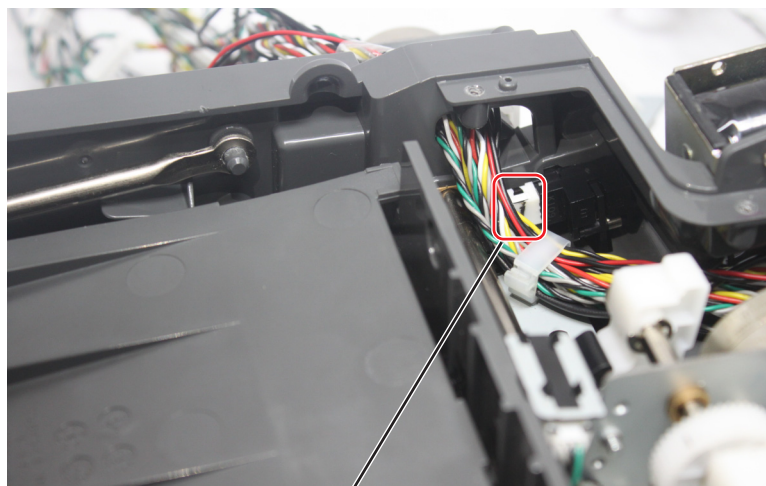
A

8 Remove the adhesive (B), and then remove the sensor.

B
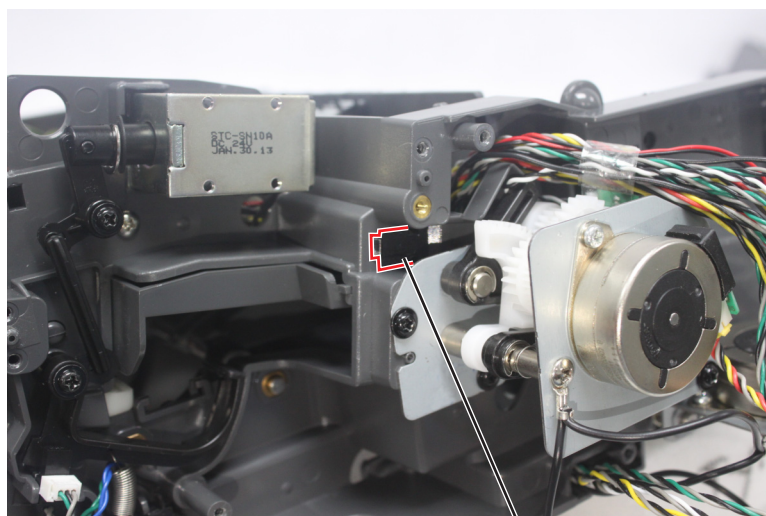
Sensor (staple finisher decurl) removal

1 Remove the bottom cover. See **"Staple finisher bottom cover removal" on page 691**.

2 Disconnect the cable (A).

3 Remove the screw (B), and then remove the bracket.

| A | B |
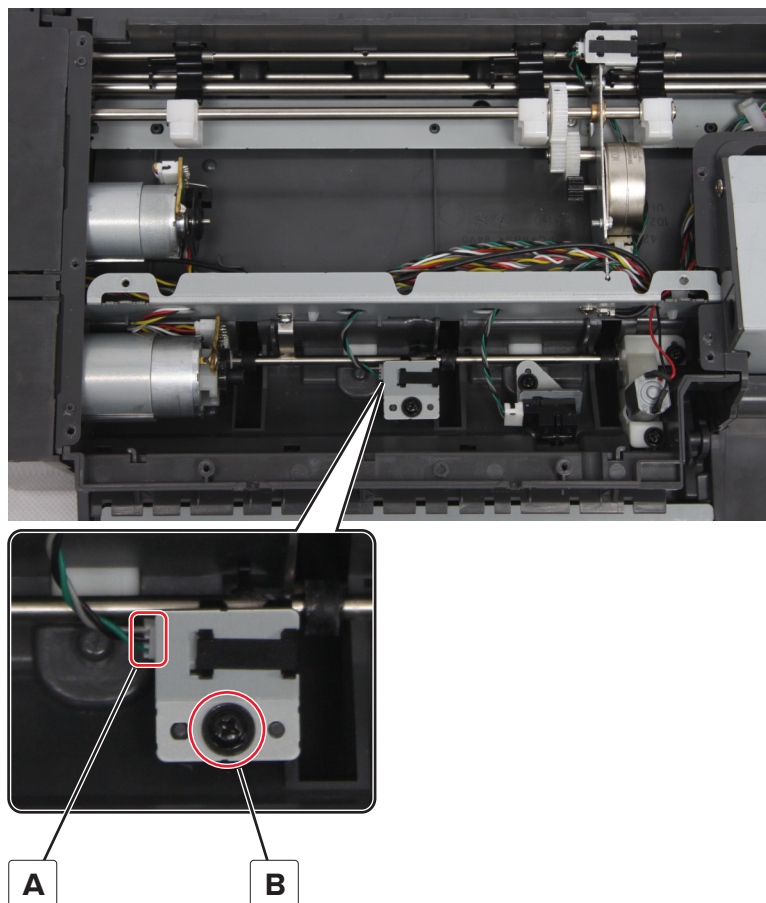
4 Remove the adhesive, and then remove the sensor.

Sensor (staple finisher transport) removal

1 Remove the bottom cover. See .

2 Disconnect the cable (A).

3 Remove the screw (B), and then remove the bracket.

A **B**
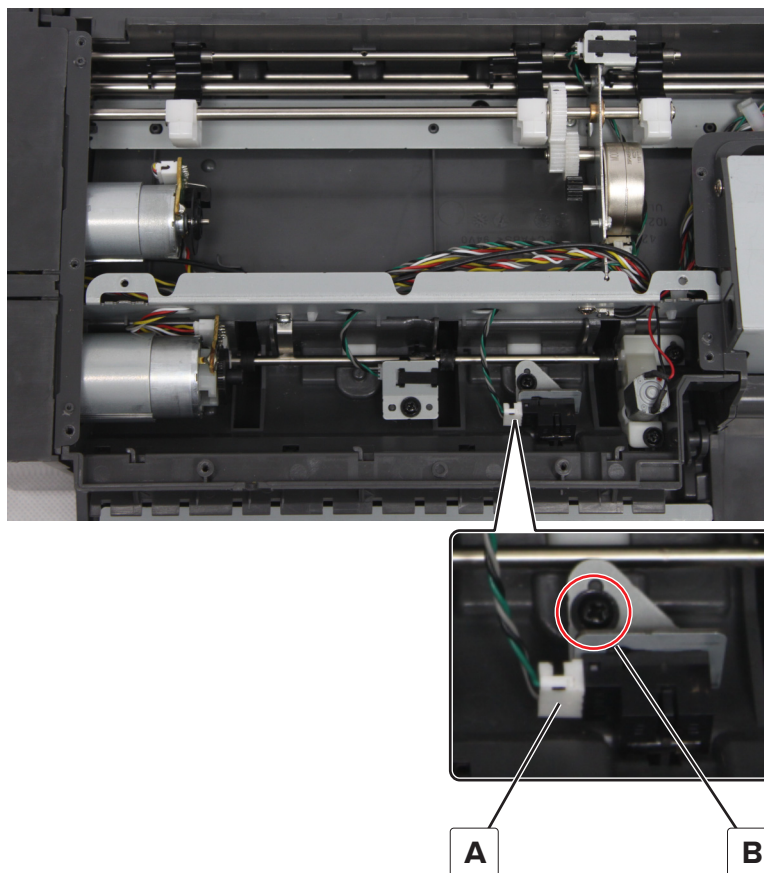
4 Remove the adhesive, and then remove the sensor.

Component locations

Printer configurations

⚠️ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, see **www.lexmark.com/multifunctionprinters**.

You can configure your printer by adding three optional 550-sheet trays and an optional 2200-sheet tray.
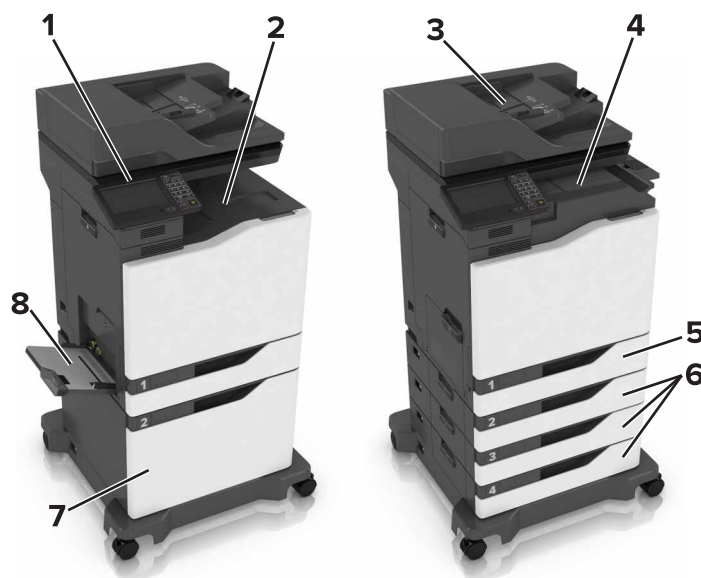
1	Control panel
2	Standard bin
3	Automatic document feeder (ADF)
4	Staple finisher
5	Standard 550-sheet tray
6	Optional 550-sheet trays
7	Optional 2200-sheet tray
8	Multipurpose feeder

Printer roller locations

Standard path rollers
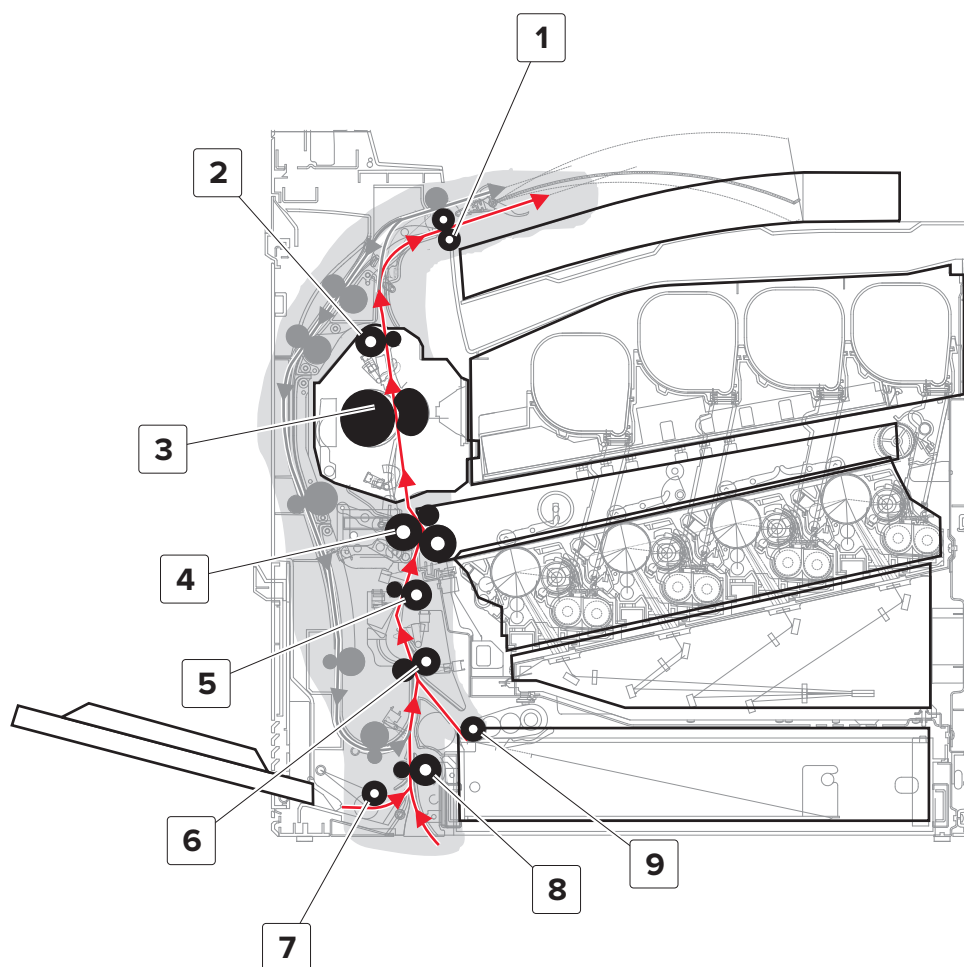
1	Media exit roller
2	Fuser decurler roller
3	Fuser heat belt
4	2nd transfer roller
5	Deskew roller
6	Isolation roller
7	MPF pick roller
8	MPF/pass-through roller
9	Tray 1 pick roller

Duplex path rollers
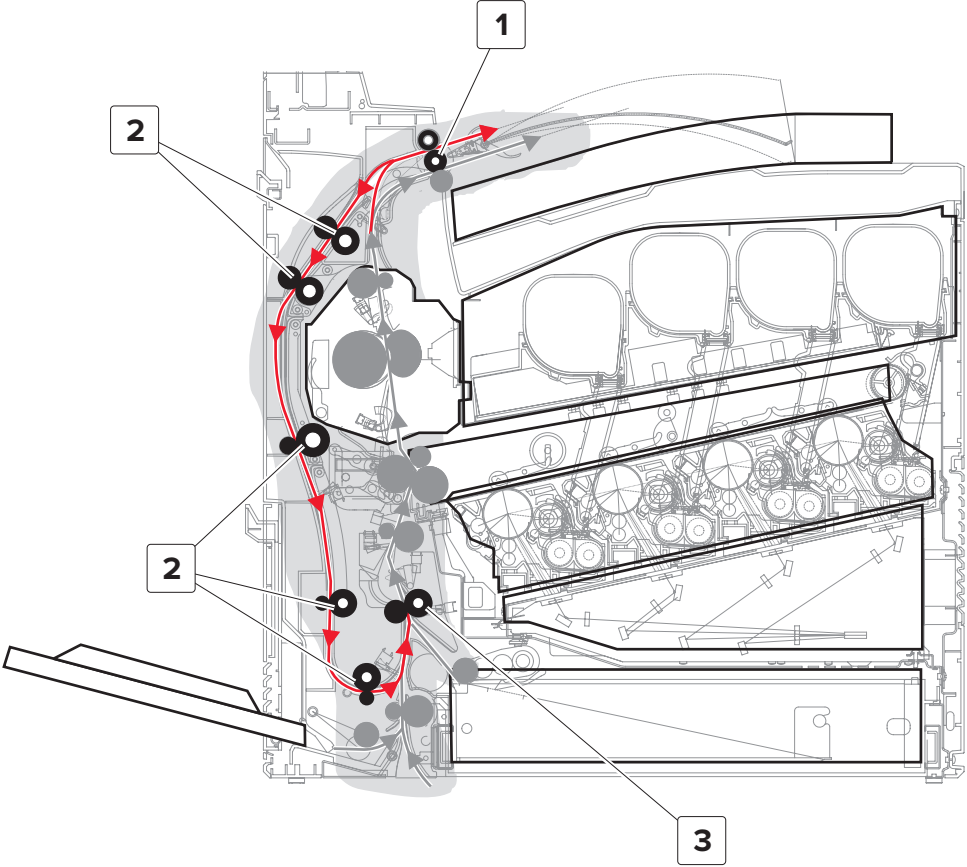
1	Duplex exit roller
2	Duplex path rollers
3	Isolation roller

Printer sensor locations

Standard path sensors
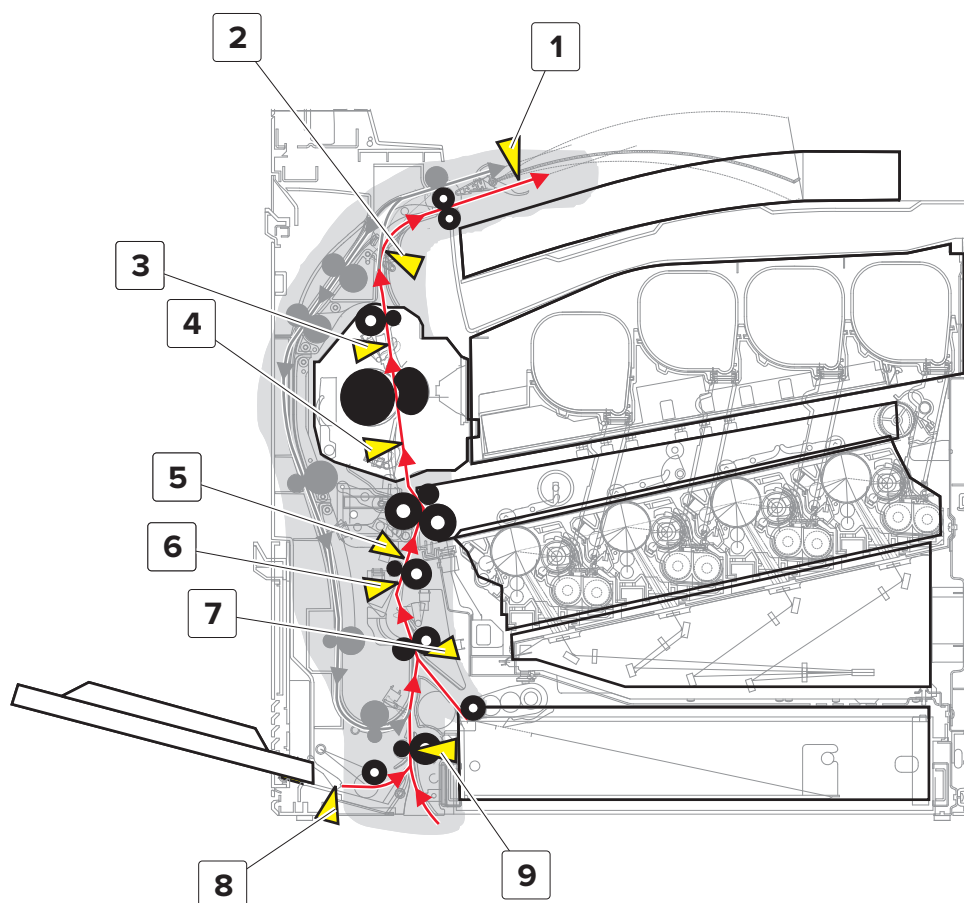
1	Sensor (output bin)
2	Sensor (redrive buckle)
3	Sensor (fuser exit)
4	Sensor (fuser buckle)
5	Sensor (deskew roller exit)
6	Sensor (deskew roller entry)
7	Sensor (input)
8	Sensor (MPF media present)
9	Sensor (MPF/pass-through)

Component locations

Duplex path sensors

1	Sensor (duplex path 1)
2	Sensor (duplex path 2)

Printer motor locations

Print engine motors—Rear
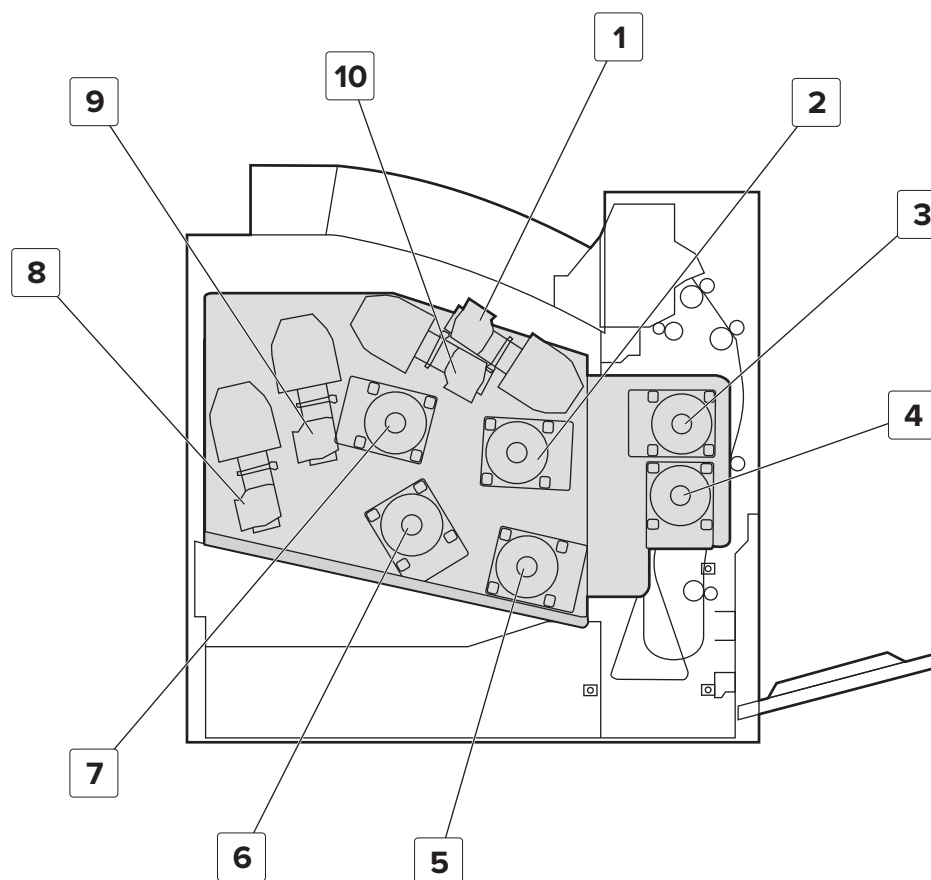
1	Motor (K toner add)
2	Motor (K developer)
3	Motor (fuser)
4	Motor (transfer belt)
5	Motor (K photoconductor)
6	Motor (CMY photoconductors)
7	Motor (CMY developers)
8	Motor (Y toner add)
9	Motor (C toner add)
10	Motor (M toner add)

Paper path motors—Rear
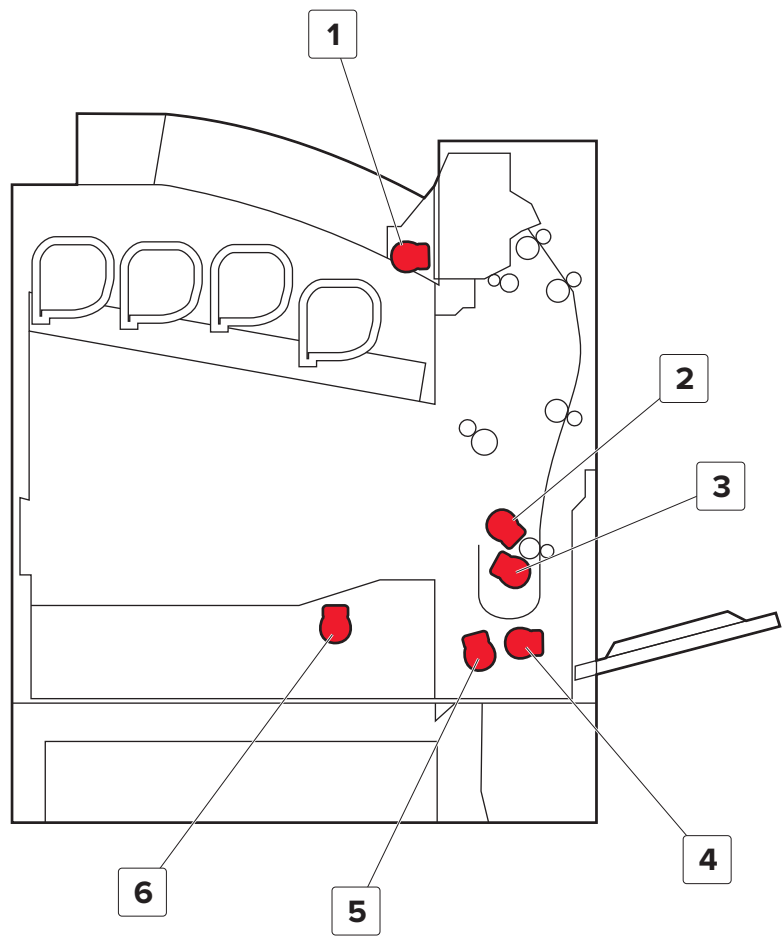
1	Motor (redrive)
2	Motor (deskew)
3	Motor (duplex)
4	Motor (MPF pick)
5	Motor (isolation)
6	Motor (tray 1 pick)

Component locations

Power supply locations—Rear
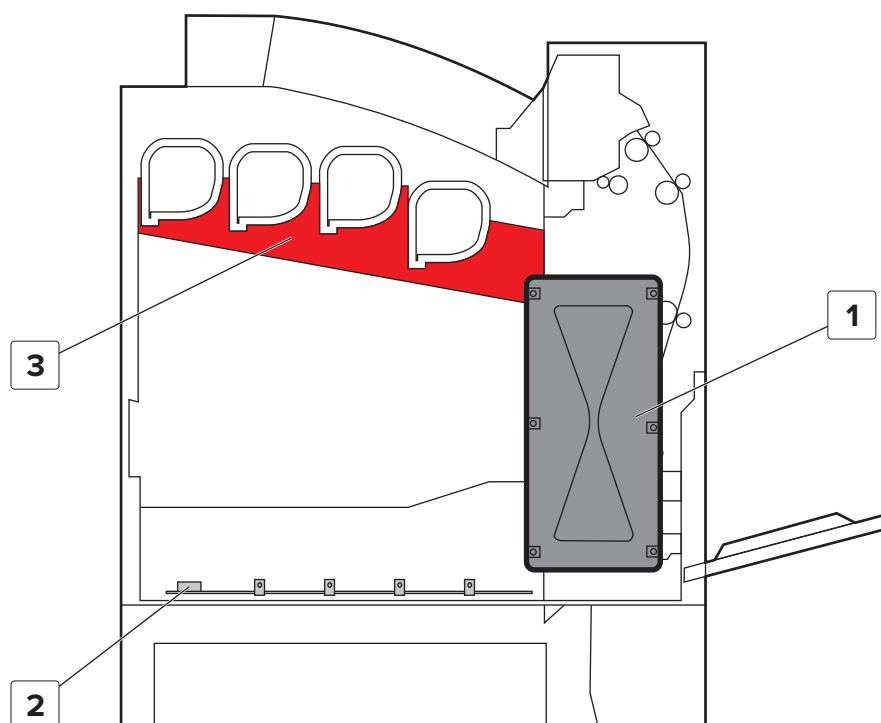
1	LVPS
2	Charge roller HVPS
3	Main HVPS

Printer fan locations
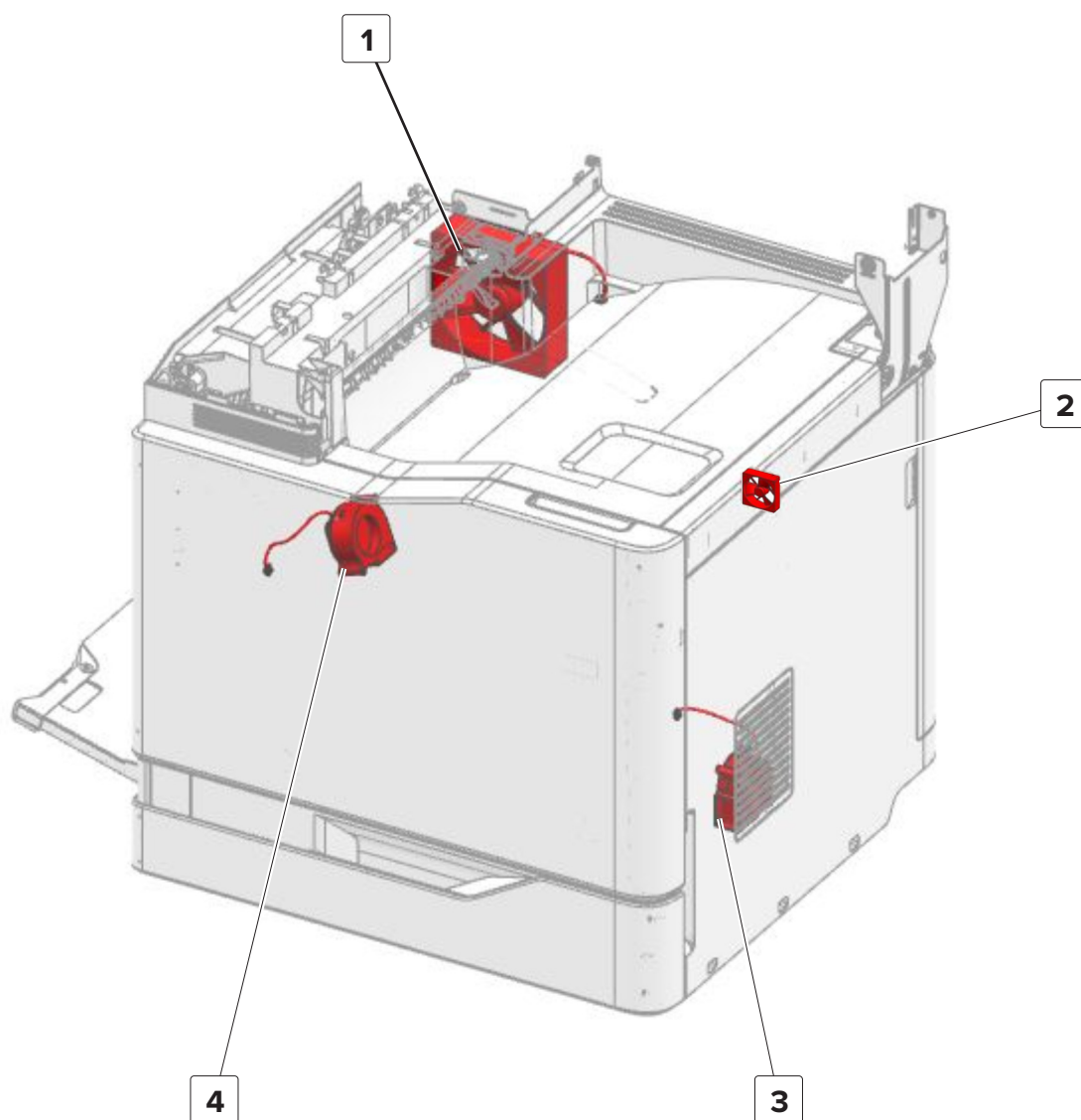
1	Main fan
2	Controller board fan
3	Printhead fan
4	HVPS fan

ADF roller locations
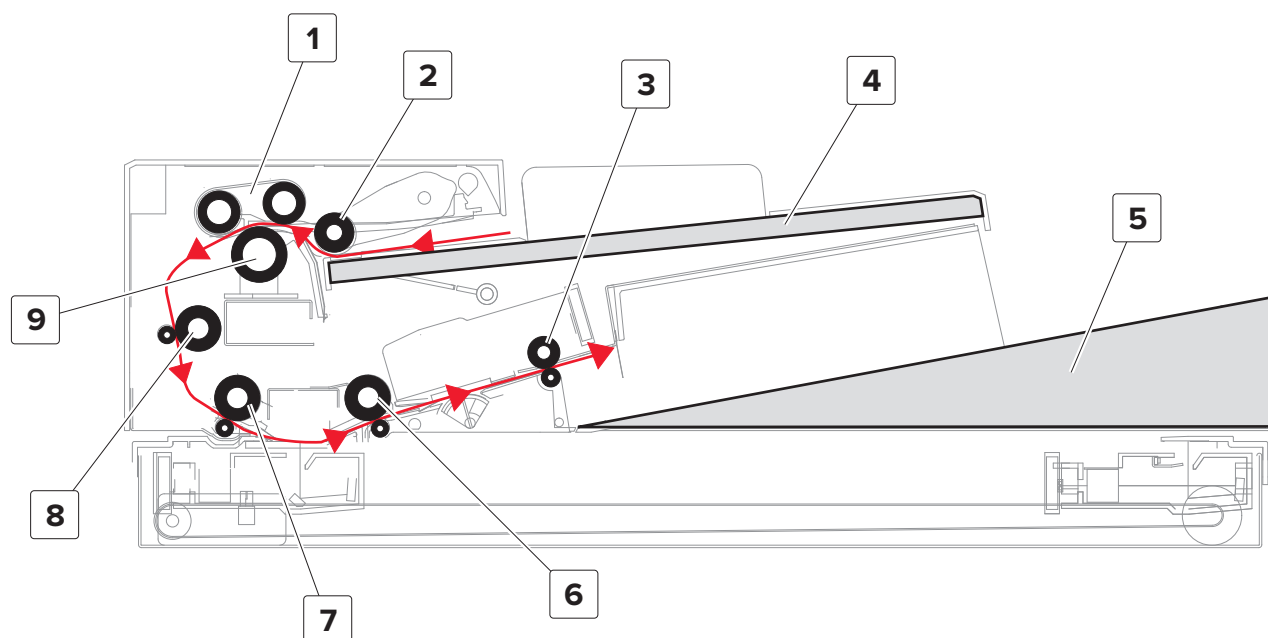
1	Feed belt
2	Pick roller
3	Exit roller
4	ADF tray
5	ADF bin
6	2nd scan roller
7	1st scan roller
8	ADF deskew roller
9	Separator roller

ADF sensor locations
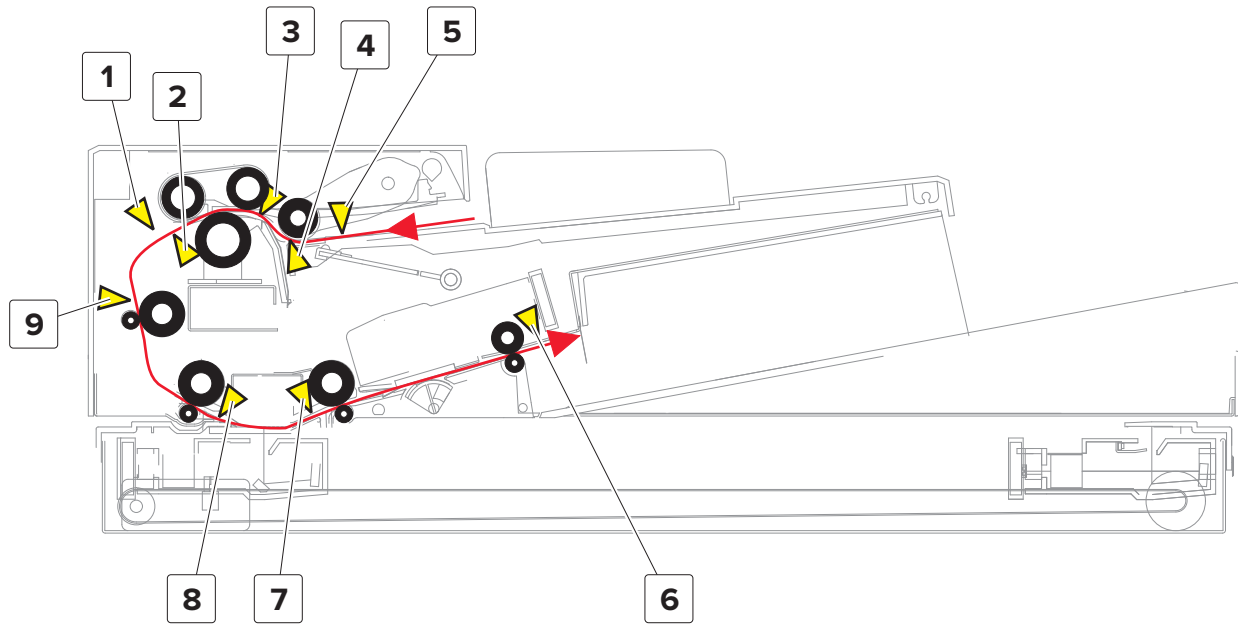
1	Sensor (ADF multi-feed detect)
2	Sensor (ADF pick)
3	Sensor (ADF gap detect)
4	Sensor (ADF media present)
5	Sensor (ADF pick roller position)
6	Sensor (ADF media exit)
7	Sensor (ADF 2nd scan)
8	Sensor (ADF 1st scan)
9	Sensor (ADF deskew)

Staple finisher locations

Motors and solenoid
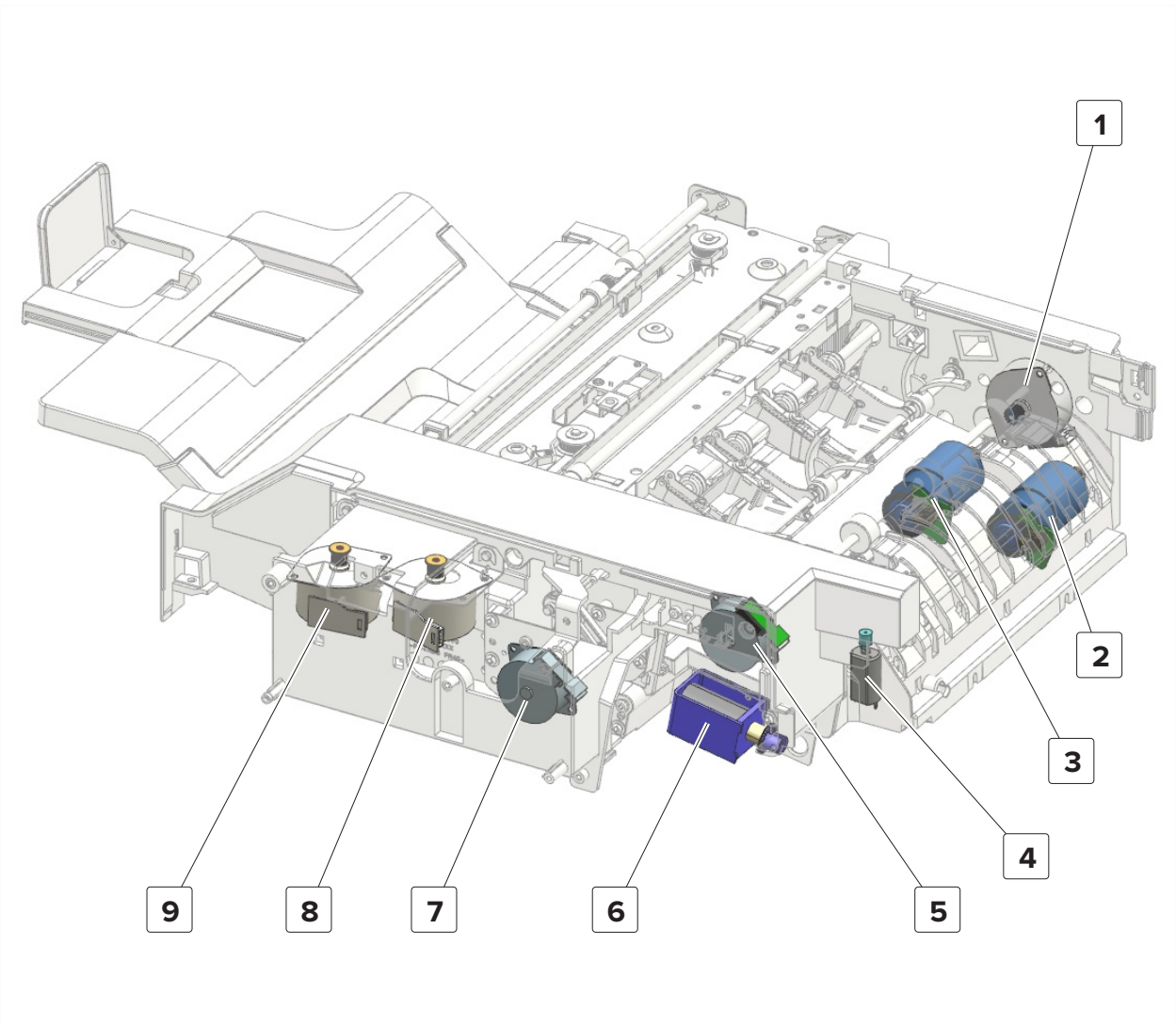
1	Motor (staple finisher aligner paddle)
2	Motor (staple finisher transport)
3	Motor (staple finisher exit)
4	Motor (staple finisher decurl)
5	Motor (staple finisher bin clamp)
6	Staple finisher stack clamp solenoid
7	Motor (staple finisher upper exit roller)
8	Motor (staple finisher rear tamper)
9	Motor (staple finisher front tamper)

Sensors and switches
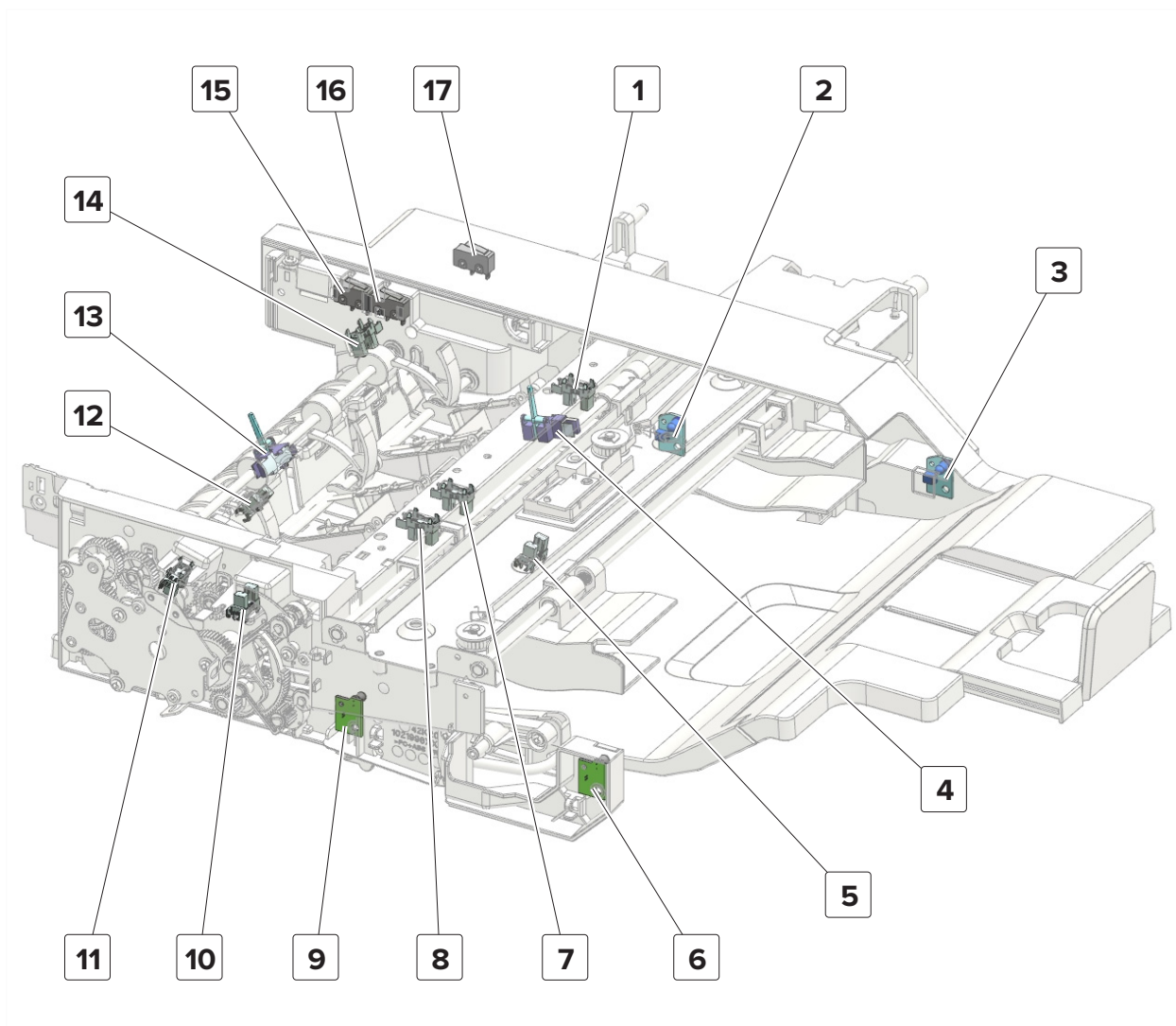
1	Sensor (staple finisher rear tamper home)
2	Sensor (staple finisher rear lower bin full—receiver)
3	Sensor (staple finisher rear upper bin full—receiver)
4	Sensor (staple finisher staple unit paper present)
5	Sensor (staple finisher bin clamp)
6	Sensor (staple finisher front upper bin full—transmitter)
7	Sensor (staple finisher narrow media tamper)
8	Sensor (staple finisher front tamper home)
9	Sensor (staple finisher front lower bin full—transmitter)
10	Sensor (staple finisher upper exit roller)
11	Sensor (staple finisher aligner paddle)
12	Sensor (staple finisher decurl)

Component locations

13	Sensor (staple finisher transport)
14	Sensor (staple finisher stack clamp)
15	Staple finisher jam door switch 1
16	Staple finisher jam door switch 2
17	Staple finisher staple cartridge door switch

Maintenance

Scheduled maintenance

The control panel displays an 80.xx error when the printer reaches a preset number of page counts. It is necessary to install the appropriate maintenance kit to maintain the print quality and reliability of the printer. Reset the maintenance counter after replacing the maintenance kit.

Maintenance kits

Part number and kit	Contents
41X0931—200K ADF maintenance kit	**Warning—Potential Damage:** Replace the following parts at the same time. Feed issues may occur if the page count of these parts do not match. • 41X0358—ADF pick roller • 41X0359—ADF feed belt • 41X0360—ADF separator roller
41X0927—300K Combo fuser and transfer module maintenance kit, 100 V	• 41X0248—Fuser (100 V) • 41X0245—Transfer belt • 41X0154—Transfer roller • 41X0999—Pick roller and separator pad, 3 units
41X0928—300K Combo fuser and transfer module maintenance kit, 115 V	• 41X0246—Fuser (115 V) • 41X0245—Transfer belt • 41X0154—Transfer roller • 41X0999—Pick roller and separator pad, 3 units
41X0929—300K Combo fuser and transfer module maintenance kit, 220 V	• 41X0247—Fuser (220 V) • 41X0245—Transfer belt • 41X0154—Transfer roller • 41X0999—Pick roller and separator pad, 3 units • 41X2213—Filter

Resetting the maintenance counter

Separator pad and pick roller counter reset

Reset the counter after installing the new separator pad and pick roller.

1 From the control panel, navigate to:

Settings > **Device** > **Maintenance** > **Configuration menu** > **Supply usage and counters**

2 On the Reset Separator Roll and Pick Assembly Counter row, touch **Start**.

Automatic counter reset

The counter automatically resets after installing the following replacement parts:

- Developer unit (C, M, Y, and K)
- Photoconductor unit (C, M, Y, and K)
- Toner cartridge (C, M, Y, and K)

  Note: The waste toner bottle counter resets when the toner supply is replaced.

- Transfer belt
- Fuser

ADF maintenance kit counter reset

Reset the maintenance counter after installing the new ADF pick roller, ADF feed belt, and ADF separator roller that are included in the kit.

1 From the control panel, navigate to:

Settings > **Device** > **Maintenance** > **Configuration menu** > **Scanner Configuration** > **Reset Maintenance Counter**

2 Touch **Start**.

Resetting the HEPA filter counter

Reset the filter counter after installing the new HEPA filter.

1 From the home screen, navigate to:

Settings > **Device** > **Maintenance** > **Configuration menu** > **Supply Usage And Counters**

2 On the Reset Filter Counter row, touch **Start**.

Cleaning printer parts

Cleaning the printer

> ⚠️ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock when cleaning the exterior of the printer, unplug the power cord from the electrical outlet and disconnect all cables from the printer before proceeding.

Notes:

- Perform this task after every few months.
- Damage to the printer caused by improper handling is not covered by the printer warranty.

1 Turn off the printer, and then unplug the power cord from the electrical outlet.

2 Remove paper from the standard bin and multipurpose feeder.

3 Remove any dust, lint, and pieces of paper around the printer using a soft brush or vacuum.

4 Wipe the outside of the printer with a damp, soft, lint-free cloth.

Notes:

- Do not use household cleaners or detergents, as they may damage the finish of the printer.
- Make sure that all areas of the printer are dry after cleaning.

5 Connect the power cord to the electrical outlet, and then turn on the printer.

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

Cleaning the scanner

1 Open the scanner cover.

2 Using a damp, soft, lint-free cloth, wipe the following areas:

- ADF glass

- ADF glass pad
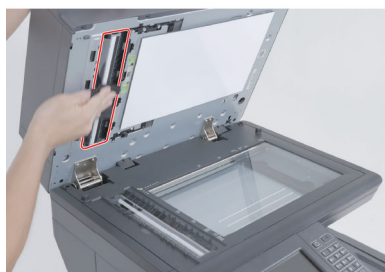
- Scanner glass

- Scanner glass pad

3 Open door E.

4 Wipe the following areas:

- ADF glass in door E

- ADF glass pad in door E
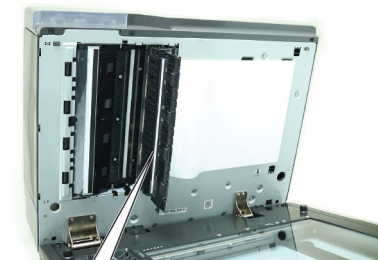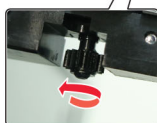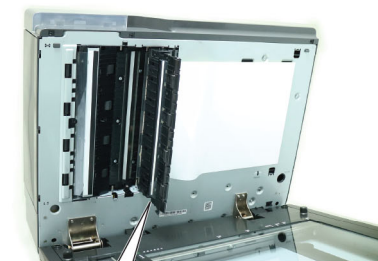
5 Close the door, and then close the scanner cover.

Maintenance

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
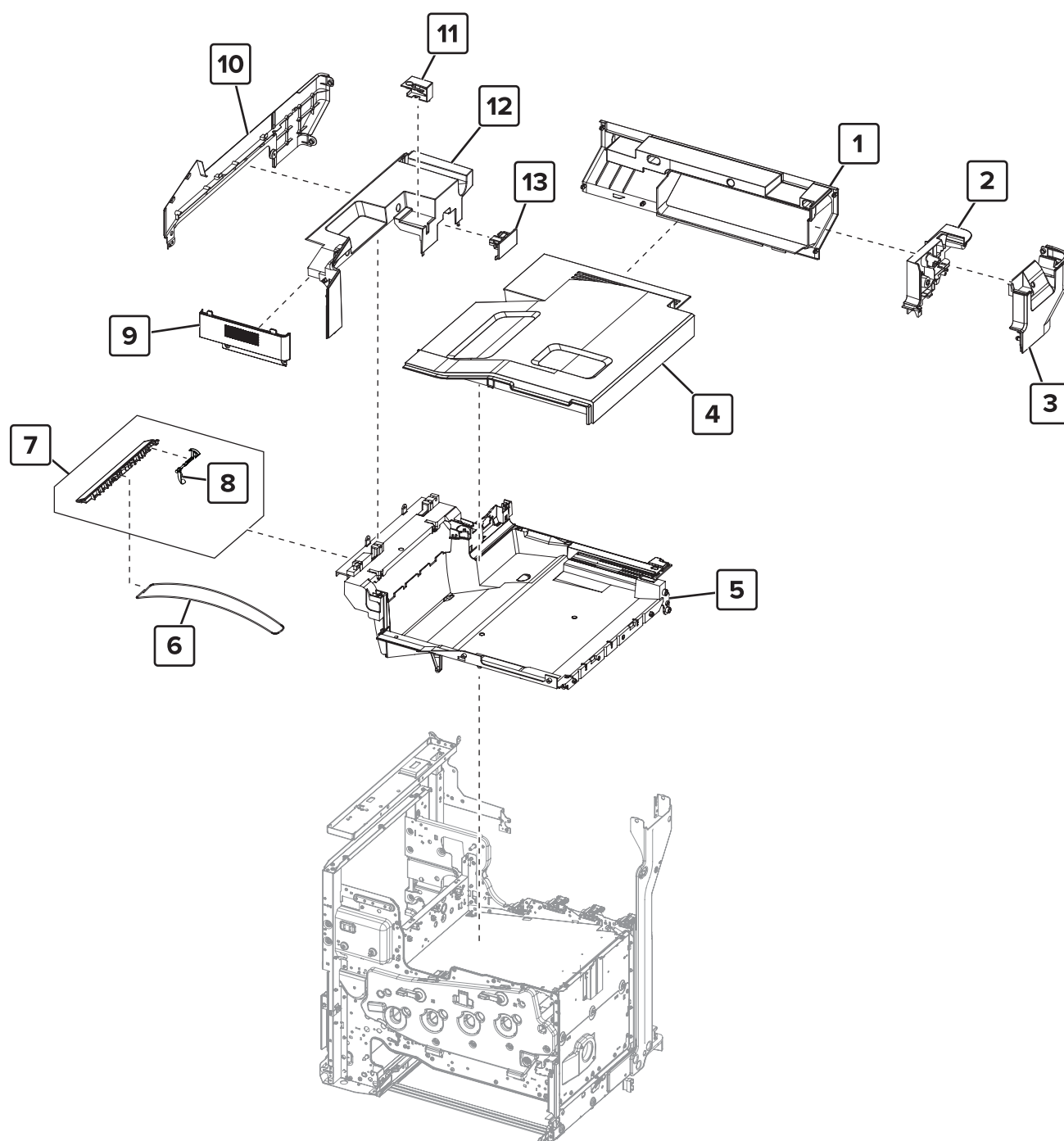
Assembly 1: Covers 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0197	1	1	Rear upper cover	--
2	41X0201	1	1	Column inner cover	--
3	41X0200	1	1	Column outer cover	--
4	41X0194	1	1	Standard bin insert cover	--
5	41X0193	1	1	Standard bin cover	--
6	41X0716	1	1	Stacking bail	--
7	41X0195	1	1	Static brush/bin full actuator	--
8	41X1738	1	1	Bin full actuator	--
9	41X0203	1	1	Front column upper cover	--
10	41X0199	1	1	Left upper cover	--
11	41X0228	1	1	Bin full sensor housing	--
12	41X0196	1	1	Top cover	--
13	41X0717	1	1	Connector access cover	--

Assembly 2: Covers 2
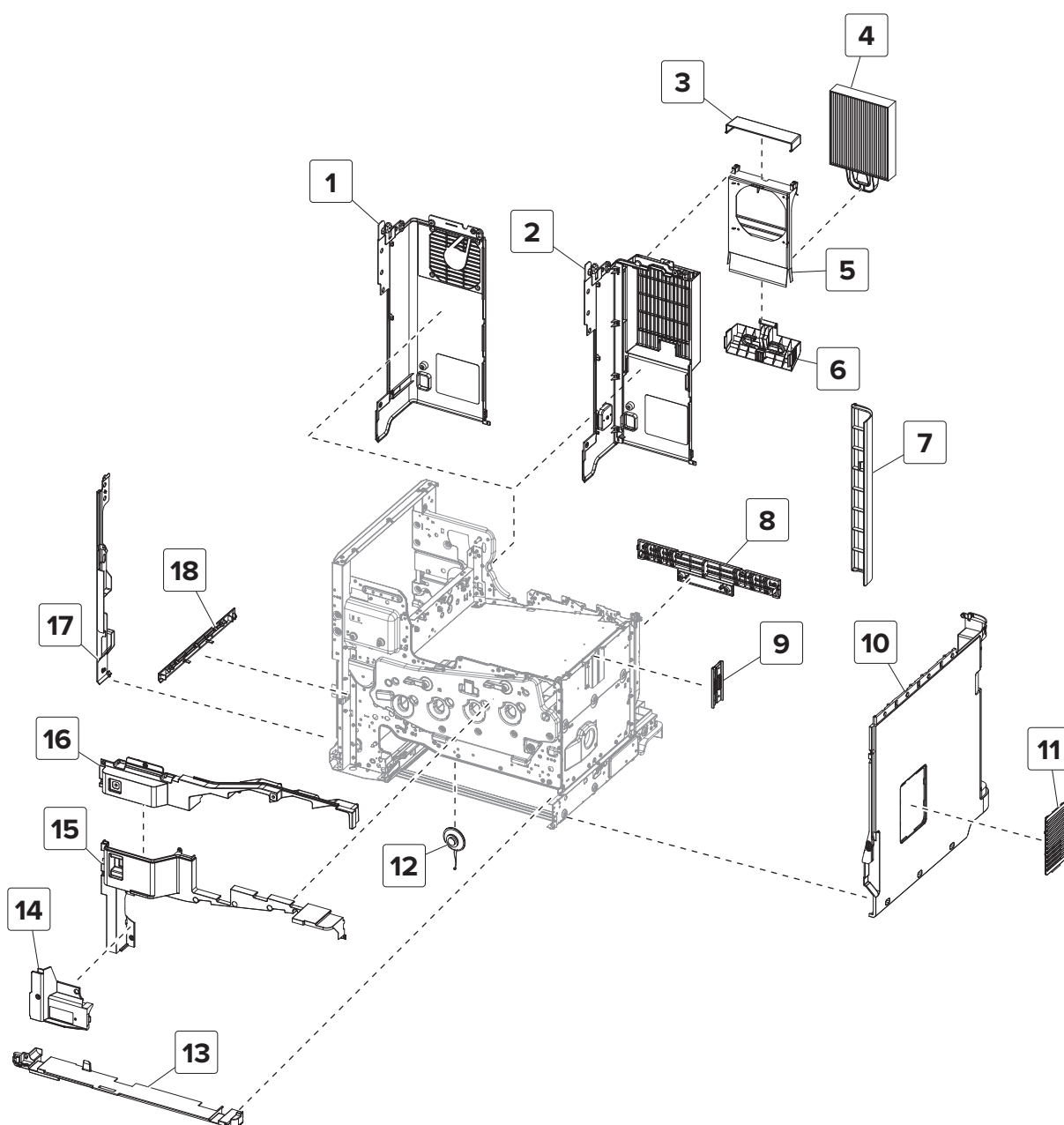
Assembly 2: Covers 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0089	1	1	Rear left cover	**"Rear left cover removal" on page 560**
2	41X2503	1	1	Rear left cover with HEPA filter **Note:** This part is only supported for 220 V printer models with E to Z as the 9th character in the serial number.	**"Rear left cover removal" on page 560**
3	41X2506	1	1	HEPA filter top cover **Note:** This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	--
4	41X2213	1	1	HEPA filter **Note:** This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	**"HEPA filter removal" on page 567**
5	41X2505	1	1	HEPA fan bezel **Note:** This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	--
6	41X2504	1	1	HEPA filter door **Note:** This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	--
7	41X0099	1	1	Connector access cover	--
8	41X0088	1	1	Rear lower cover	**"Rear lower cover removal" on page 559**
9	41X0070	1	1	Right cover bracket	--
10	41X0092	1	1	Right cover	**"Right cover removal" on page 504**
11	41X0090	1	1	Vent cover	**"Vent cover removal" on page 503**
12	40X9079	1	1	Audio speaker	--
13	41X0094	1	1	Lower front cover	**"Lower front cover removal" on page 544**
14	41X0097	1	1	Door rod cover	**"Door rod cover removal" on page 536**

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
15	41X0093	1	1	Inner lower cover	**"Inner lower cover removal" on page 528**
16	41X0715	1	1	Inner upper cover	**"Inner upper cover removal" on page 527**
17	41X0091	1	1	Left front cover	--
18	41X0096	1	1	Left lower cover	--

Assembly 3: Covers 3
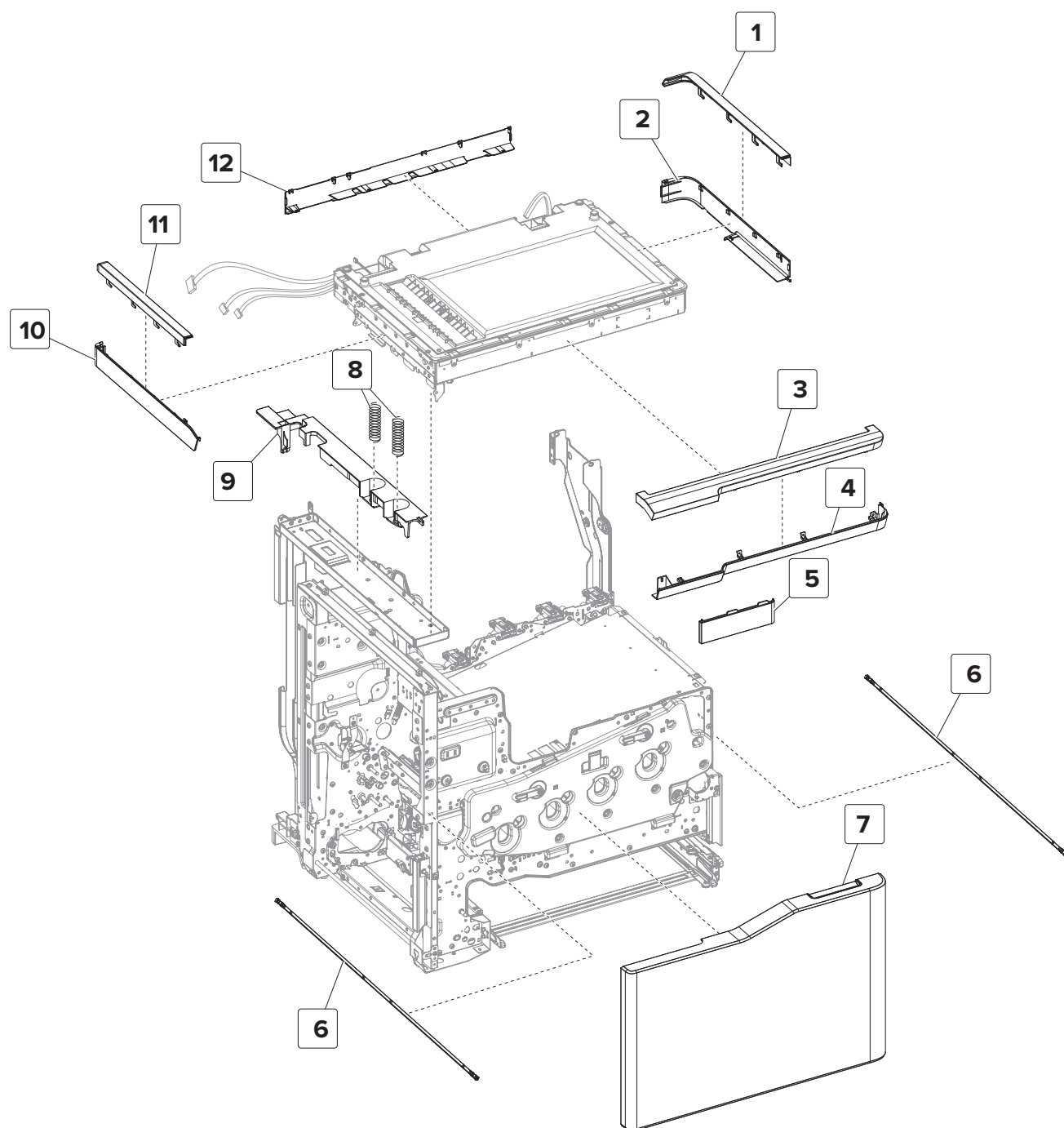
Assembly 3: Covers 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0234	1	1	Scanner right upper cover	--
2	41X0231	1	1	Scanner right cover	**"Flatbed scanner right cover removal" on page 629**
3	41X0235	1	1	Scanner front upper cover	**"Flatbed scanner front upper cover removal" on page 626**
4	41X0232	1	1	Scanner front cover	--
5	41X0229	1	1	Keyboard access cover	--
6	41X0780	2	1	Front door strap	--
7	41X0227	1	1	Front door	**"Front door removal" on page 530**
8	41X0781	2	1	Support spring	--
9	41X0278	1	1	Cable cover	--
10	41X0230	1	1	Scanner left cover	**"Flatbed scanner left cover removal" on page 628**
11	41X0233	1	1	Scanner left upper cover	--
12	41X0236	1	1	Scanner rear cover	**"Flatbed scanner rear cover removal" on page 627**

Assembly 4: Control panel
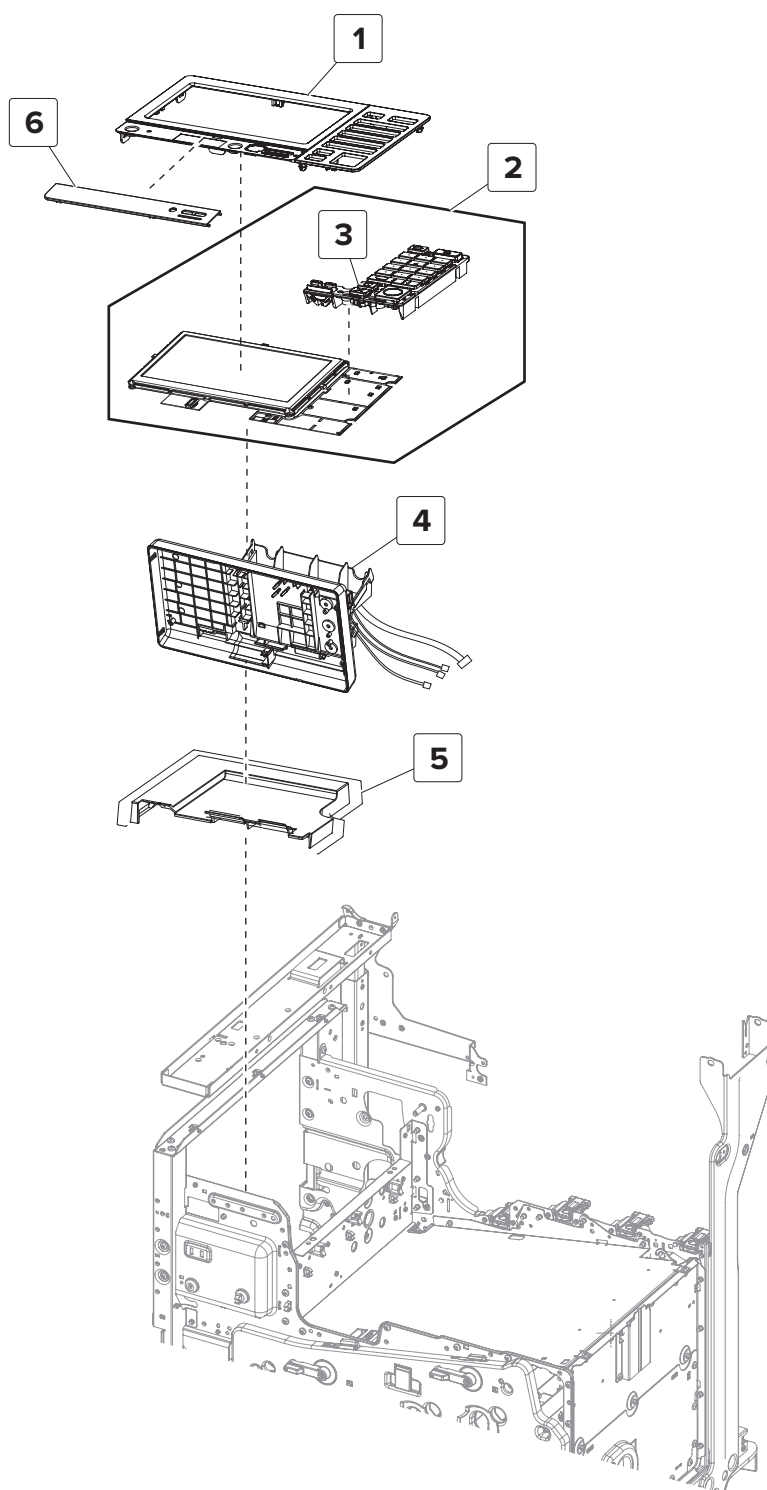
Assembly 4: Control panel

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0543	1	1	Bezel, control panel	--
2	41X0051	1	1	Board, control panel	--
3	41X0207	1	1	Button kit, 7-inch control panel	--
4	41X0204	1	1	Support, control panel	--
5	41X0238	1	1	Cover, control panel support	--
6	41X0900	1	1	Model plate (CX820)	--
6	41X2042	1	1	Model plate (CX827)	--
6	41X0899	1	1	Model plate (CX6160)	--
6	41X0901	1	1	Model plate (XC6152)	--

Warning—Potential Damage: If you are replacing the controller board and the control panel at the same time, then see **"Controller board/control panel replacement" on page 459**.

Assembly 5: Duplex
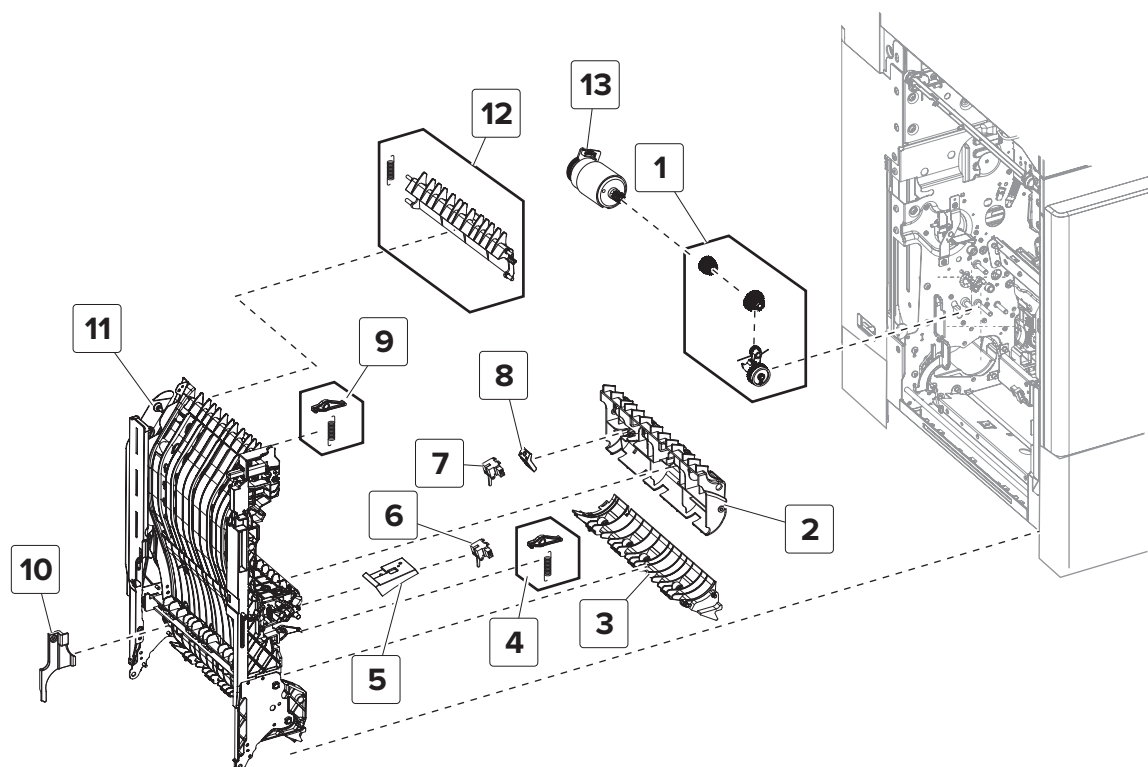
Assembly 5: Duplex

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0133	1	1	Duplex drive gears	**"Duplex drive gears removal" on page 479**
2	41X0123	1	1	Duplex lower pinch roller guide	--
3	41X0121	1	1	Duplex turn guide	--
4	41X0066	1	1	Front nip release arm	--
5	41X0072	1	1	Lower duplex sensor bracket	--
6	41X0915	1	1	Sensor (duplex path 2)	--
7	41X0915	1	1	Sensor (duplex path 1)	--
8	41X0071	1	1	Upper duplex sensor bracket	--
9	41X0065	1	1	Rear nip release arm	--
10	41X0098	1	1	Connector cover, plastic	**"Plastic connector cover removal" on page 486**
11	41X0105	1	1	Duplex	**"Left door, duplex, and MPF removal" on page 487**
12	41X0122	1	1	Duplex upper guide	--
13	41X0140	1	1	Motor (duplex)	--

Assembly 6: Left door
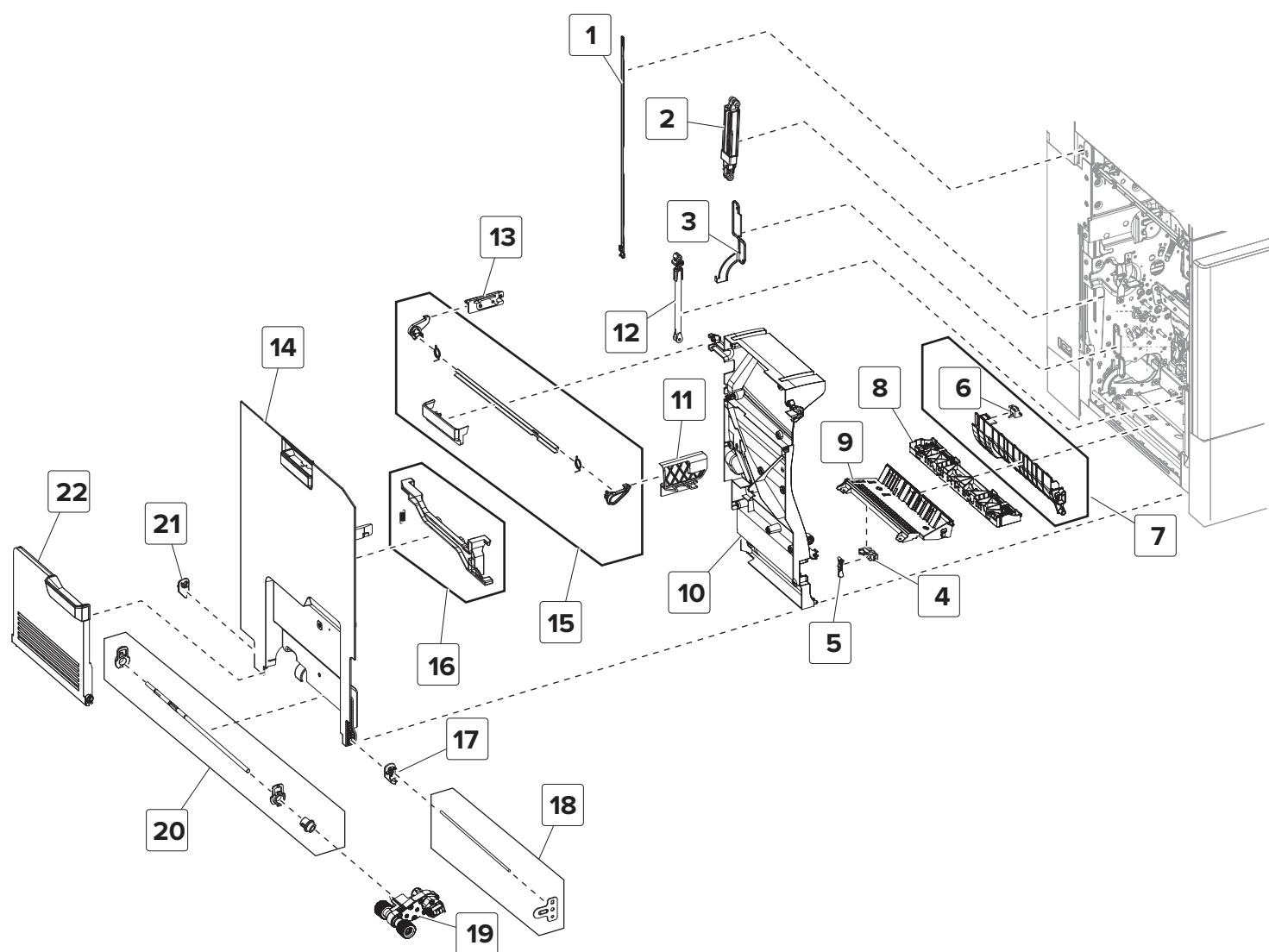
Assembly 6: Left door

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0173	1	1	Left door support strap	--
2	41X0174	1	1	Left door support	--
3	41X0073	1	1	Connector cover, metal	--
4	41X0684	1	1	Sensor (MPF paper present)	--
5	41X0058	1	1	MPF media present actuator	--
6	41X0914	1	1	Sensor (MPF/pass-through)	**"Sensor (MPF/pass-through) with deflector removal" on page 497**
7	41X0120	1	1	Deflector with sensor (MPF/pass-through)	**"Sensor (MPF/pass-through) with deflector removal" on page 497**
8	41X0172	1	1	MPF tray stop	**"MPF tray stop removal" on page 493**
9	41X0119	1	1	MPF pick guide	**"MPF pick guide removal" on page 491**
10	41X0124	1	1	Left door paper guide	--
11	41X0081	1	1	Left door front catch	--
12	41X0100	1	1	Left door damper	--
13	41X0080	1	1	Left door rear catch	--
14	41X0101	1	1	Left door	**"Left door, duplex, and MPF removal" on page 487**
15	41X0136	1	1	Left door release latch	--
16	41X0135	1	1	Duplex release latch	**"Duplex release latch removal" on page 480**
17	41X0059	1	1	MPF tray front actuator	--
18	41X0250	1	1	Left door rod	**"Door rod cover removal" on page 536**
19	41X0956	1	1	Pick roller	**"MPF pick roller removal" on page 490**
20	41X0167	1	1	MPF pick shaft	--
21	41X0060	1	1	MPF tray rear actuator	--
22	41X0176	1	1	MPF tray	**"Left door, duplex, and MPF removal" on page 487**

Assembly 7: Feeder
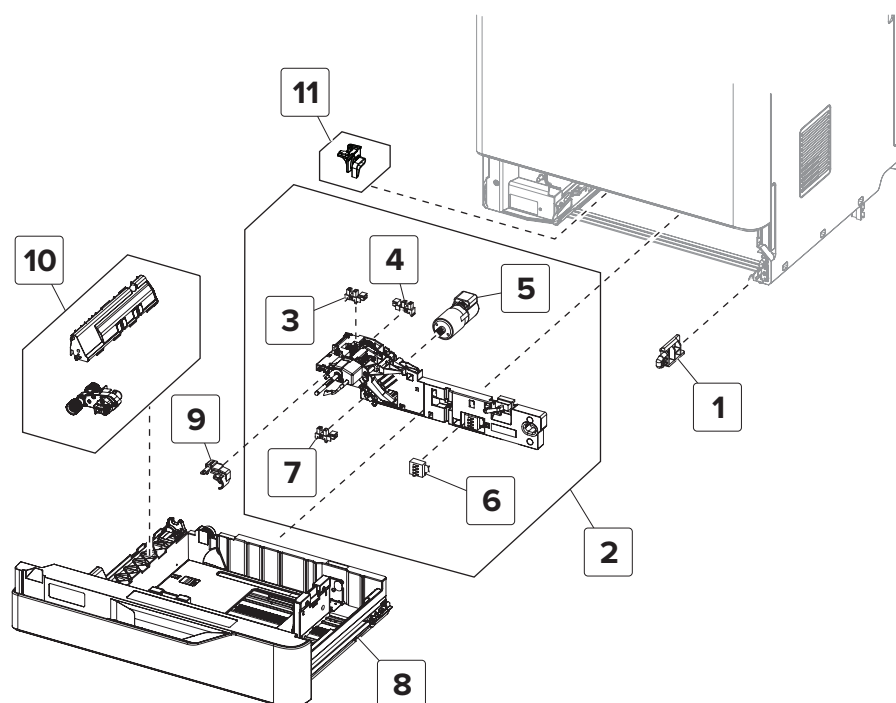
Assembly 7: Feeder

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0129	1	1	Paper tray guide	--
2	41X0106	1	1	Paper feeder	**"Paper feeder removal" on page 550**
3	41X0684	1	1	Sensor (pick roller index)	--
4	41X0684	1	1	Sensor (media out)	--
5	41X0140	1	1	Motor (pick)	--
6	40X7911	1	1	Sensor (media size)	--
7	41X0684	1	1	Sensor (media low)	--
8	41X0175	1	1	Media tray	--
9	41X0067	1	1	Feeder bearing	**"Paper feeder removal" on page 550**
10	41X0999	1	1	Pick roller and separator pad	**"Pick roller removal" on page 534**
11	41X1033	1	1	Paper overfill stop	--

Assembly 8: Frame
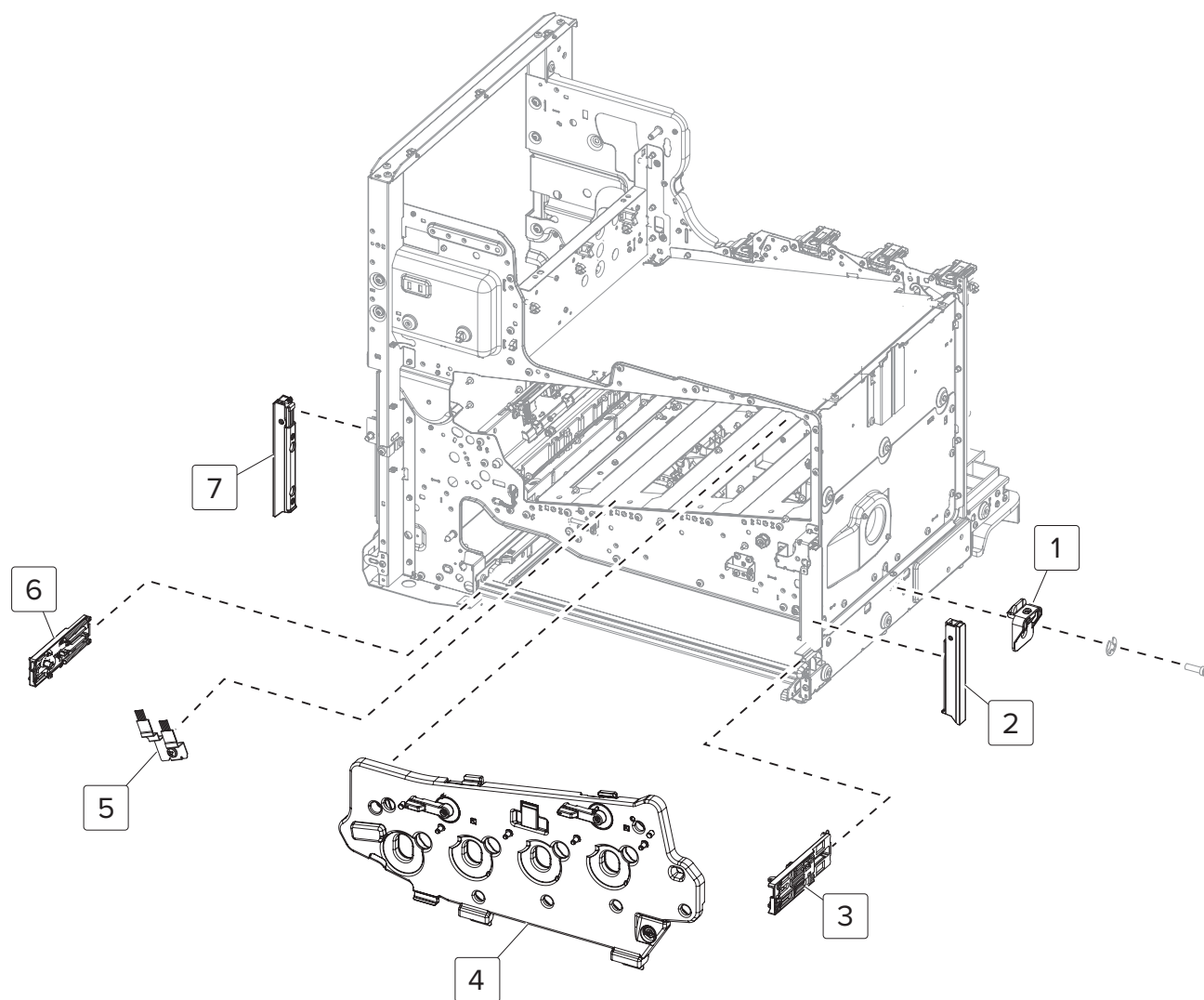
Assembly 8: Frame

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0074	1	1	Frame connector bracket	--
2	41X0131	1	1	Right handle	--
3	41X0991	1	1	Tray close rail, right	--
4	41X0103	1	1	PC unit/developer door	**"Developer unit and photoconductor unit removal" on page 524**
5	41X1975	1	1	Grounding plate	--
6	41X0992	1	1	Tray close rail, left	--
7	41X0130	1	1	Left handle	--

Assembly 9: Fuser
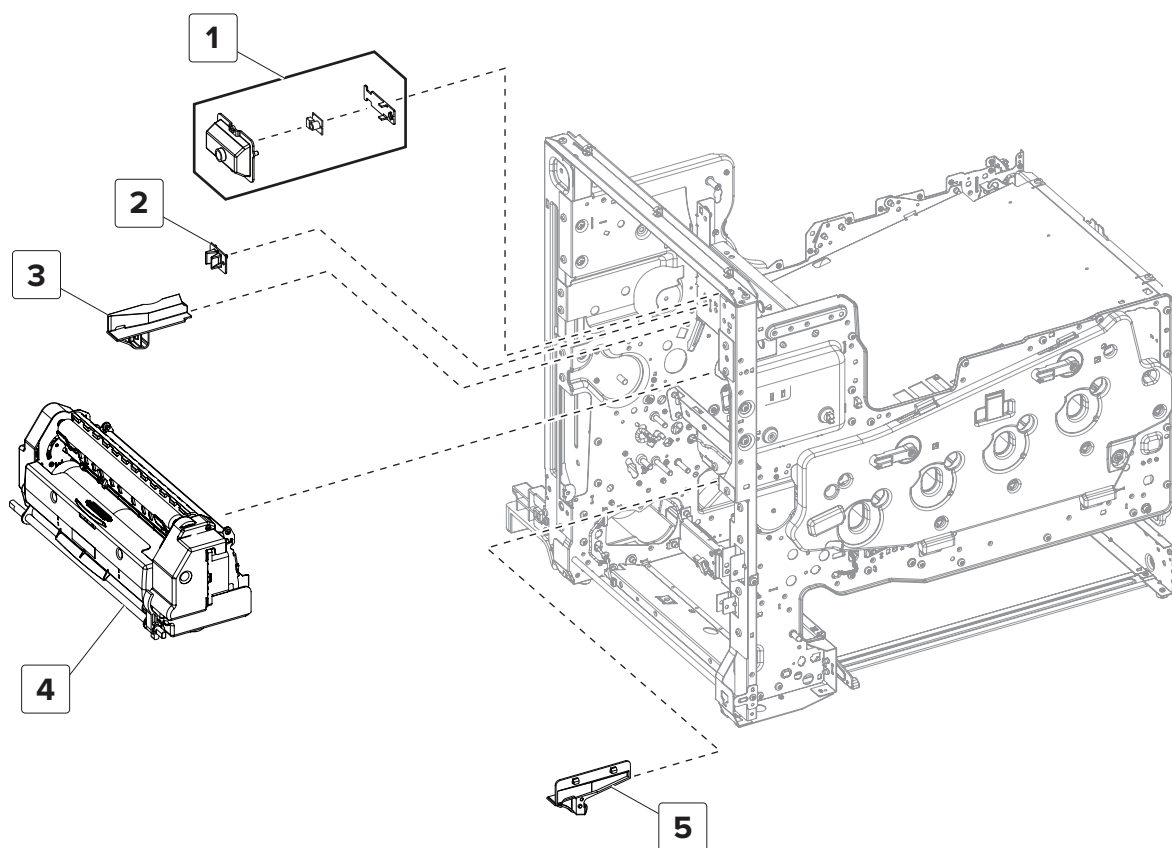
Assembly 9: Fuser

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0165	1	1	Sensor (fuser temperature)	--
2	41X0127	1	1	Fuser alignment guide	--
3	41X0126	1	1	Fuser rear loading guide	--
4	41X0248	1	1	Fuser (100 V)	**"Fuser removal" on page 477**
4	41X0246	1	1	Fuser (115 V)	**"Fuser removal" on page 477**
4	41X0247	1	1	Fuser (230 V)	**"Fuser removal" on page 477**
5	41X0125	1	1	Fuser front loading guide	--

Assembly 10: Electronics—Front
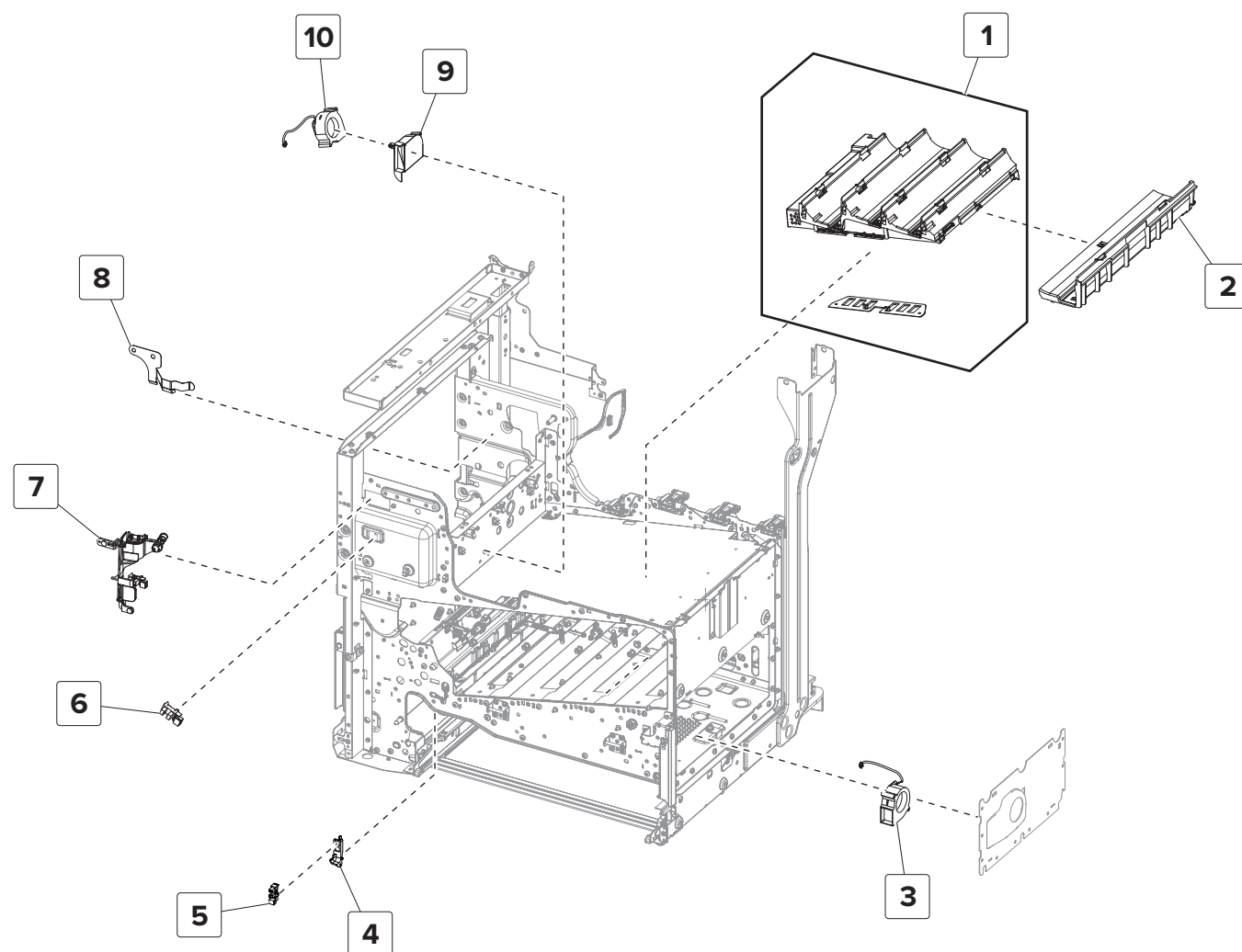
Assembly 10: Electronics—Front

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0143	1	1	Main HVPS	**"Main HVPS removal" on page 541**
2	41X0117	1	1	Toner cartridge guide	--
3	41X0975	1	1	Printhead fan	**"Printhead fan removal" on page 509**
4	41X1620	1	1	Waste toner bottle present sensor bracket	--
5	41X0570	1	1	Sensor (waste toner bottle present)	--
6	41X0684	1	1	Sensor (door interlock)	**"Sensor (door interlock) removal" on page 537**
7	41X0162	1	1	Door interlock actuator	--
8	41X0141	1	1	Grounding plate	--
9	41X0973	1	1	Fan duct	--
10	41X0974	1	1	HVPS fan	**"HVPS fan removal" on page 538**

Assembly 11: Electronics—Rear
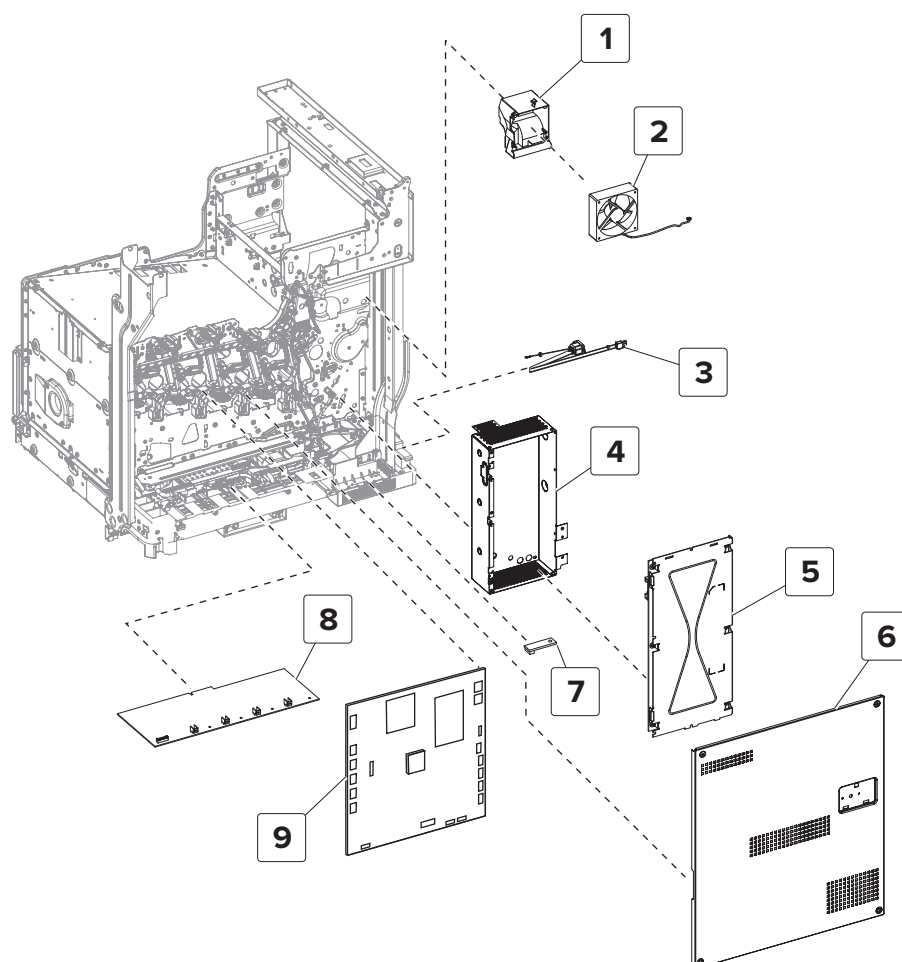
Assembly 11: Electronics—Rear

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0104	1	1	Main fan duct	**"Main fan duct removal" on page 579**
2	41X0954	1	1	Main fan	**"Main fan removal" on page 565**
2	41X2539	1	1	HEPA main fan **Note:** This part is supported only in 220 V printer models that have E to Z as the 9th character in the serial number.	**"Main fan removal" on page 565**
3	41X0260	1	1	AC power input cable	--
4	41X0244	1	1	LVPS cage	**"LVPS cage removal" on page 570**
5	41X0242	1	1	LVPS	**"LVPS removal" on page 568**
6	41X0087	1	1	Controller board cover	**"Controller board cover removal" on page 558**
7	41X0785	1	1	Weather station	**"Weather station removal" on page 574**
8	41X0241	1	1	Charge roller HVPS	**"Charge roller HVPS removal" on page 560**
9	41X0537	1	1	Controller board	**"Controller board removal" on page 564**

Warning—Potential Damage: If you are replacing the controller board and the control panel at the same time, then see **"Controller board/control panel replacement" on page 459**.

Assembly 12: Registration
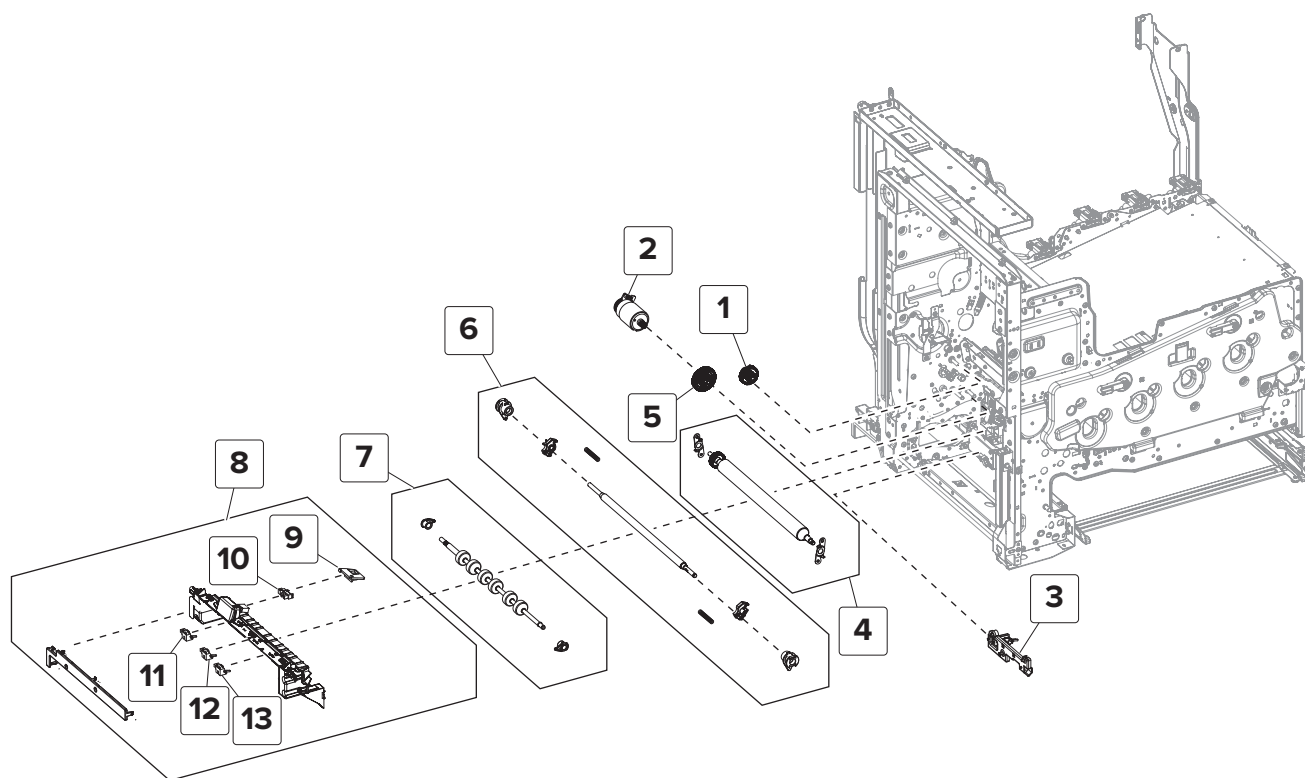
Assembly 12: Registration

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0108	1	1	Deskew roller gear	--
2	41X0140	1	1	Motor (deskew)	--
3	41X0163	1	1	Sensor (input)	**"Sensor (input) removal" on page 496**
4	41X0155	1	1	Deskew roller	--
5	41X0107	1	1	Isolation roller gear	**"Isolation roller gear removal" on page 501**
6	41X0156	1	1	Deskew pinch roller	--
7	41X0168	1	1	Isolation roller shaft	--
8	41X0128	1	1	Deskew roller sensor guide	**"Deskew roller sensor guide removal" on page 482**
9	41X2278	1	1	Sensor aperture	--
10	40X7779	1	1	Sensor (deskew roller exit)	**"Sensor (deskew roller exit) removal" on page 494**
11	41X0914	1	1	Sensor (deskew roller entry)	--
12	41X0914	1	1	Sensor (narrow media)	--
13	41X0914	1	1	Sensor (near narrow media)	--

Assembly 13: Motors
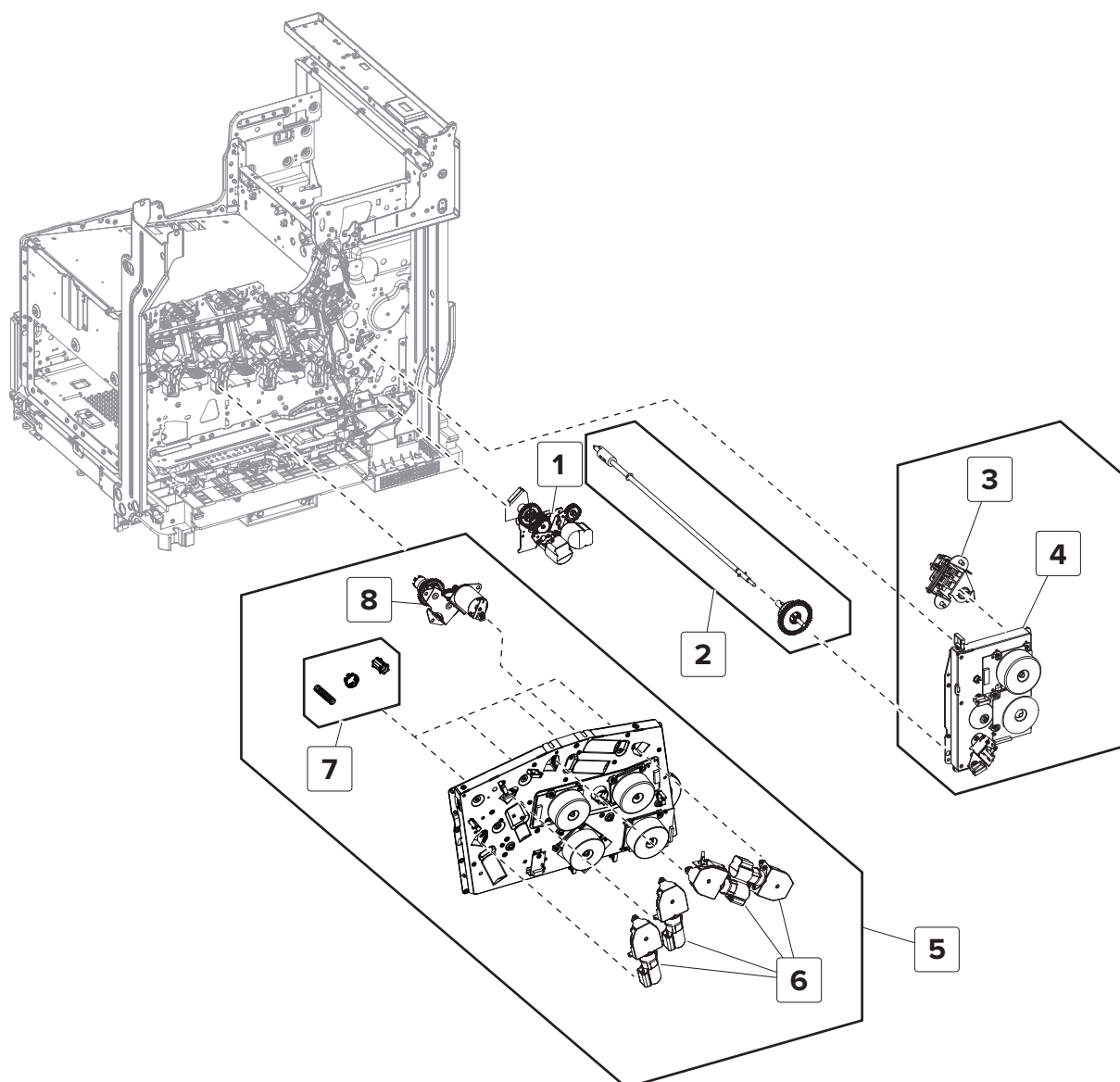
Assembly 13: Motors

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0115	1	1	MPF, reference edge gearbox	**"Reference edge motor gearbox removal" on page 498**
2	41X0109	1	1	Waste toner gear and shaft	**"Waste toner gear removal" on page 588**
3	41X0159	1	1	Sensor (waste toner full)	--
4	41X0111	1	1	Fuser/transfer belt motor gearbox	**"Fuser/transfer belt motor gearbox removal" on page 586**
5	41X0112	1	1	EP, developer, toner add gearbox	**"EP, developer, toner add gearbox removal" on page 583**
6	41X0113	3	1	Toner add motor gearbox (K, C, and M)	**"Toner add motor gearbox (K, C, and M) removal" on page 577**
6	41X0113	3	1	Toner add motor gearbox (Y)	**"Toner add motor gearbox (Y) removal" on page 578**
7	41X1976	4	3	Toner cartridge drive coupling	--
8	41X0114	1	1	Motor (black only retract)	--

Assembly 14: Printhead
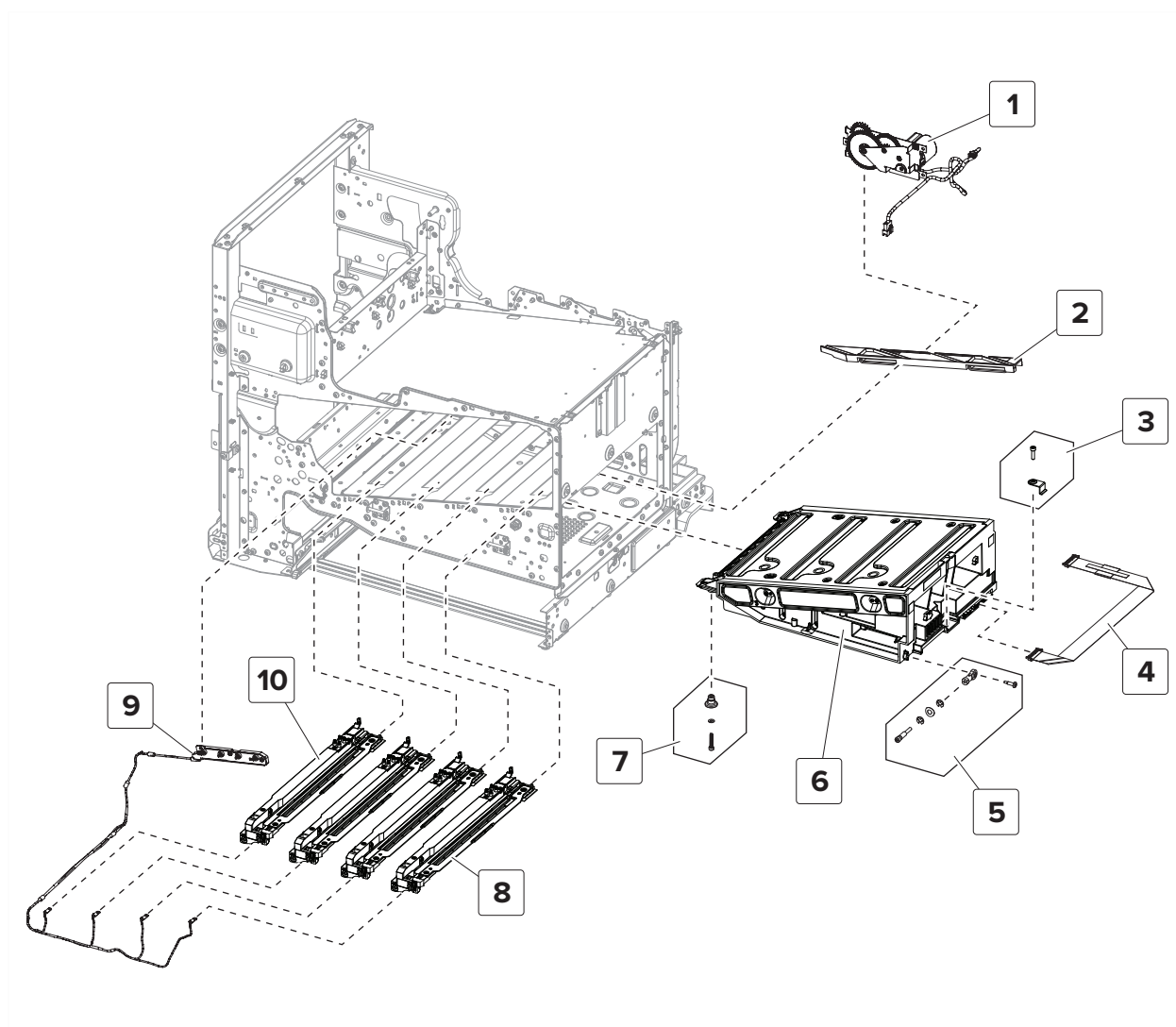
Assembly 14: Printhead

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0139	1	1	Motor (printhead wiper)	**"Motor (printhead wiper) removal" on page 514**
2	41X0145	1	1	Printhead wiper actuator rack	--
3	41X0082	1	1	Printhead clamp	--
4	41X0076	1	1	Printhead data cable	--
5	41X0240	1	1	Printhead adjustment parts pack	--
6	41X0144	1	1	Laser printhead	**"Printhead removal" on page 511**
7	41X0132	1	1	Printhead post	--
8	41X0147	3	1	Developer/PC unit CMY wiper rail	**"Developer/PC unit CMY wiper rail removal" on page 553**
9	41X0086	1	1	Developer roll power contact	--
10	41X0146	1	1	Developer/PC unit K wiper rail	**"Developer/PC unit K wiper rail removal" on page 554**

Assembly 15: Toner supply
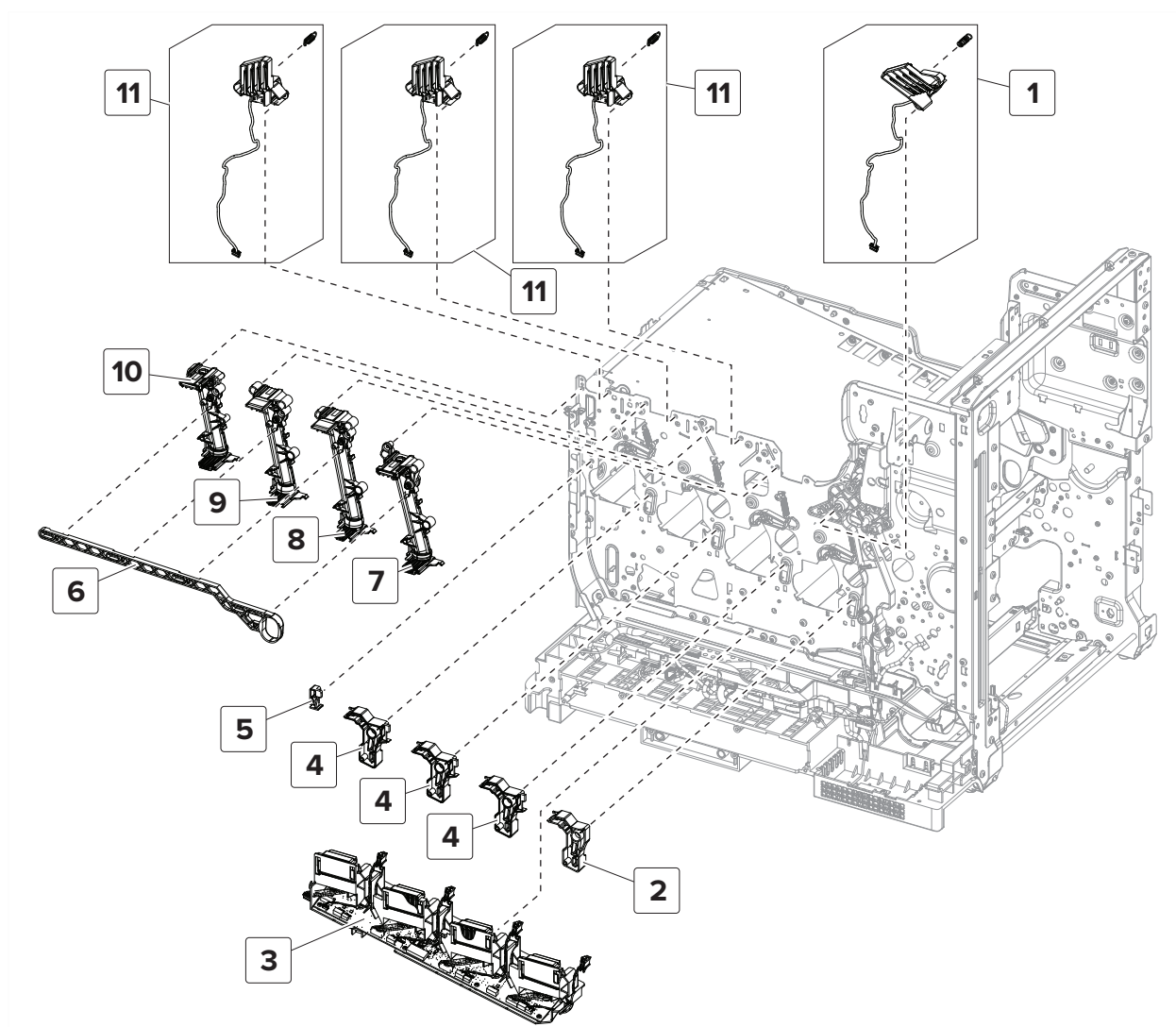
Assembly 15: Toner supply

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0084	1	1	Toner cartridge contact (K)	**"Toner cartridge contact removal" on page 592**
2	41X0152	1	1	Toner port retainer (K)	--
3	41X0069	1	1	Smart chip interface board	**"Smart chip interface board removal" on page 591**
4	41X0151	3	1	Toner port retainer (CMY)	--
5	41X0150	1	1	Toner port retainer	--
6	41X0056	1	1	Toner supply actuator	**"Toner supply actuator removal" on page 590**
7	41X0180	1	1	Toner add tube (K)	**"Toner add tube removal" on page 594**
8	41X0178	1	1	Toner add tube (M)	**"Toner add tube removal" on page 594**
9	41X0177	1	1	Toner add tube (C)	**"Toner add tube removal" on page 594**
10	41X0179	1	1	Toner add tube (Y)	**"Toner add tube removal" on page 594**
11	41X0083	3	1	Toner cartridge contact (CMY)	**"Toner cartridge contact removal" on page 592**

Assembly 16: Redrive

1

2

3
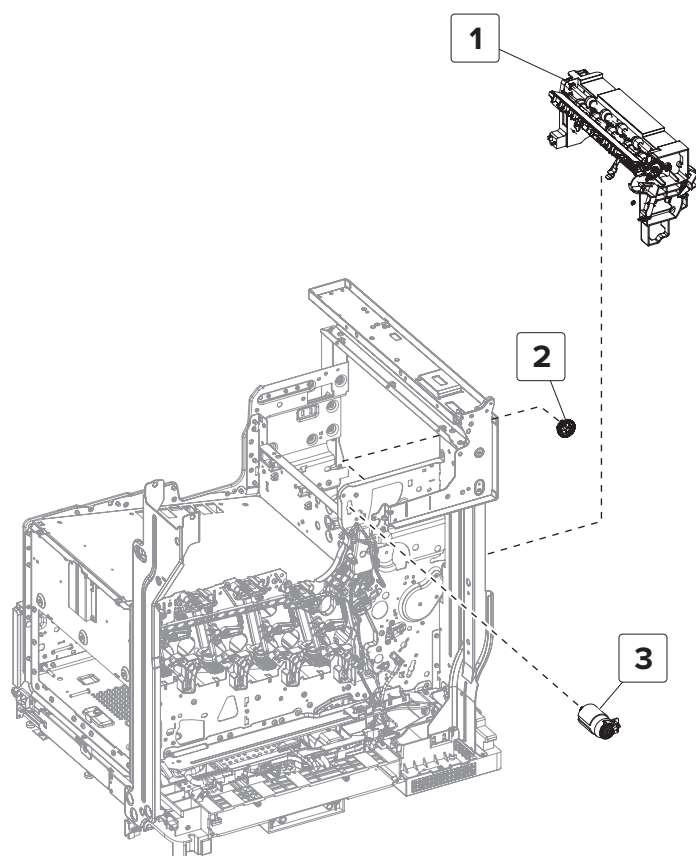
Assembly 16: Redrive

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0148	1	1	Redrive	**"Redrive removal" on page 495**
2	41X0110	1	1	Redrive gear	**"Redrive gear removal" on page 496**
3	41X0451	1	1	Motor (redrive)	--

Assembly 17: Transfer—Front
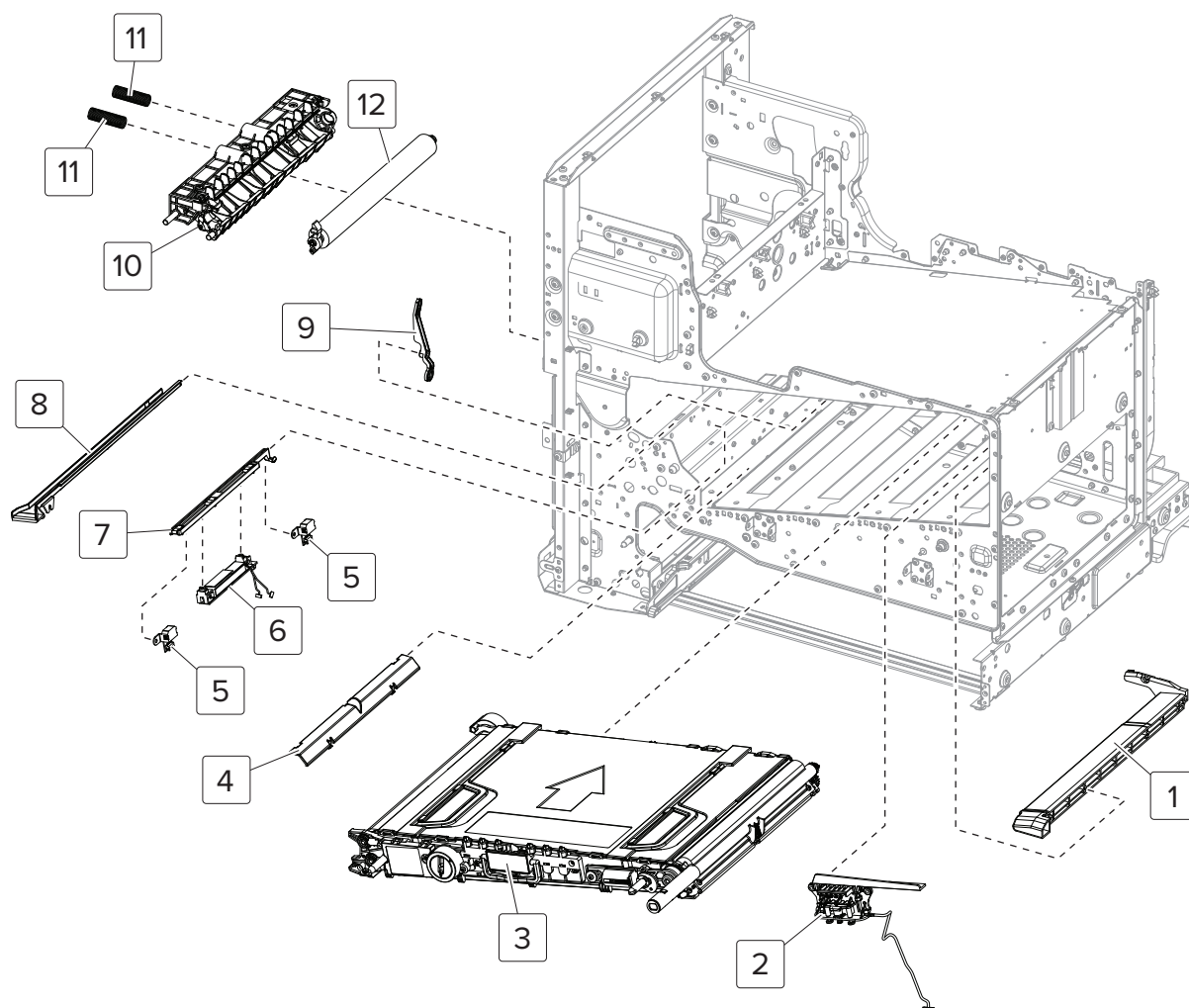
Assembly 17: Transfer—Front

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0116	1	1	Transfer belt right guide	--
2	41X0085	1	1	Transfer belt contact	--
3	41X0245	1	1	Transfer belt	**"Transfer belt removal" on page 531**
4	41X0095	1	1	Wiring cover	--
5	41X0161	2	1	Sensor (auto alignment)	**"Sensor (auto alignment) removal" on page 551**
6	41X0160	1	1	Sensor (TPS)	**"Sensor (TPS) removal" on page 552**
7	41X0181	1	1	TPS sensor wiper	**"TPS sensor wiper removal" on page 553**
8	41X0118	1	1	Transfer belt left guide	--
9	41X0057	1	1	TPS wiper actuator	--
10	41X0079	1	1	Transfer roller housing	--
11	41X0171	2	1	Transfer roller carriage spring	--
12	41X0154	2	1	Transfer roller	**"Transfer roller removal" on page 478**

Assembly 18: Transfer—Rear
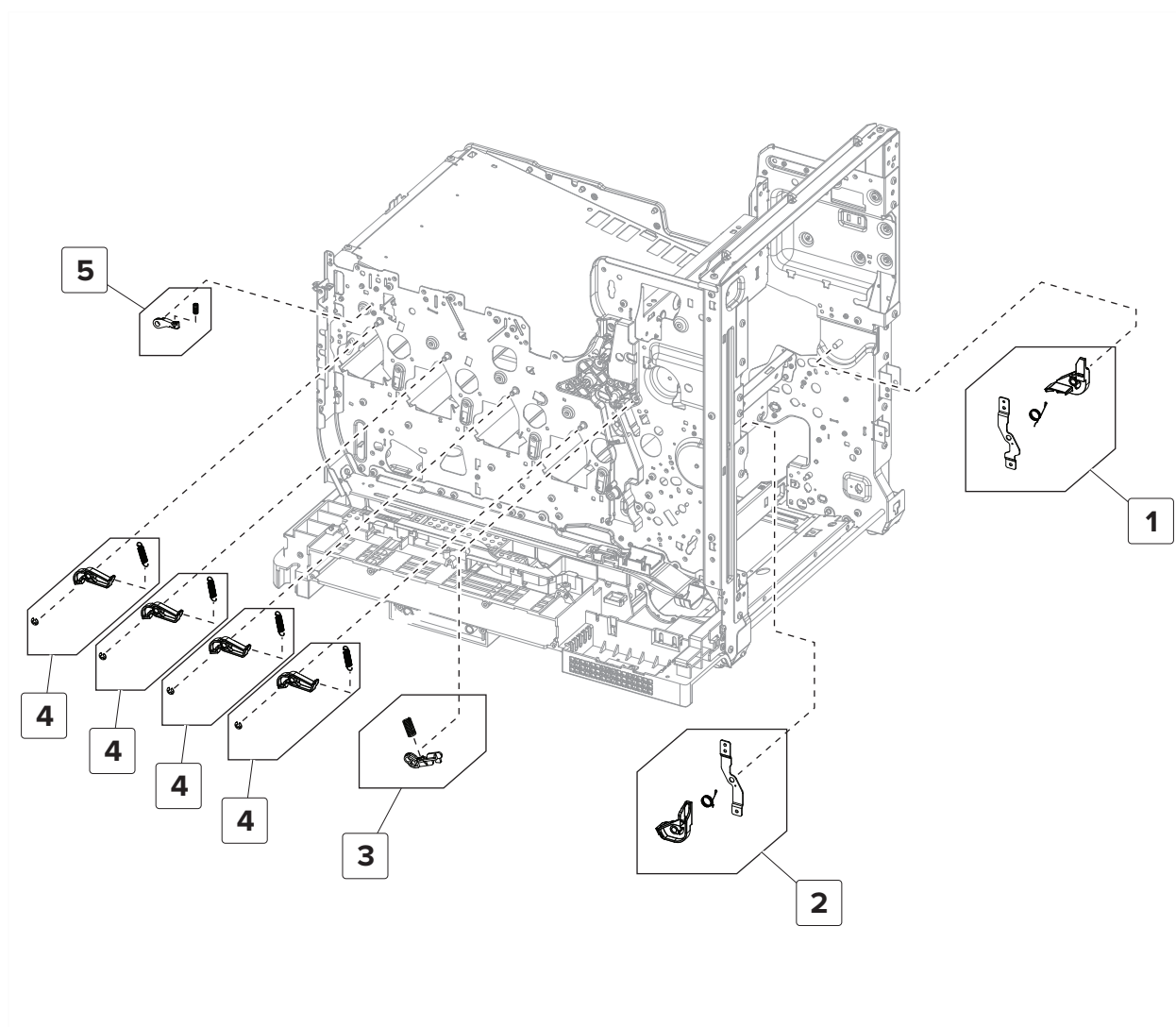
Assembly 18: Transfer—Rear

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0137	1	1	Transfer roller front latch	--
2	41X0138	1	1	Transfer roller rear latch	--
3	41X0064	1	1	Transfer belt left bias arm	--
4	41X0062	4	1	Hold down arm	--
5	41X0063	1	1	Transfer belt right bias arm	--

Assembly 19: ADF 1
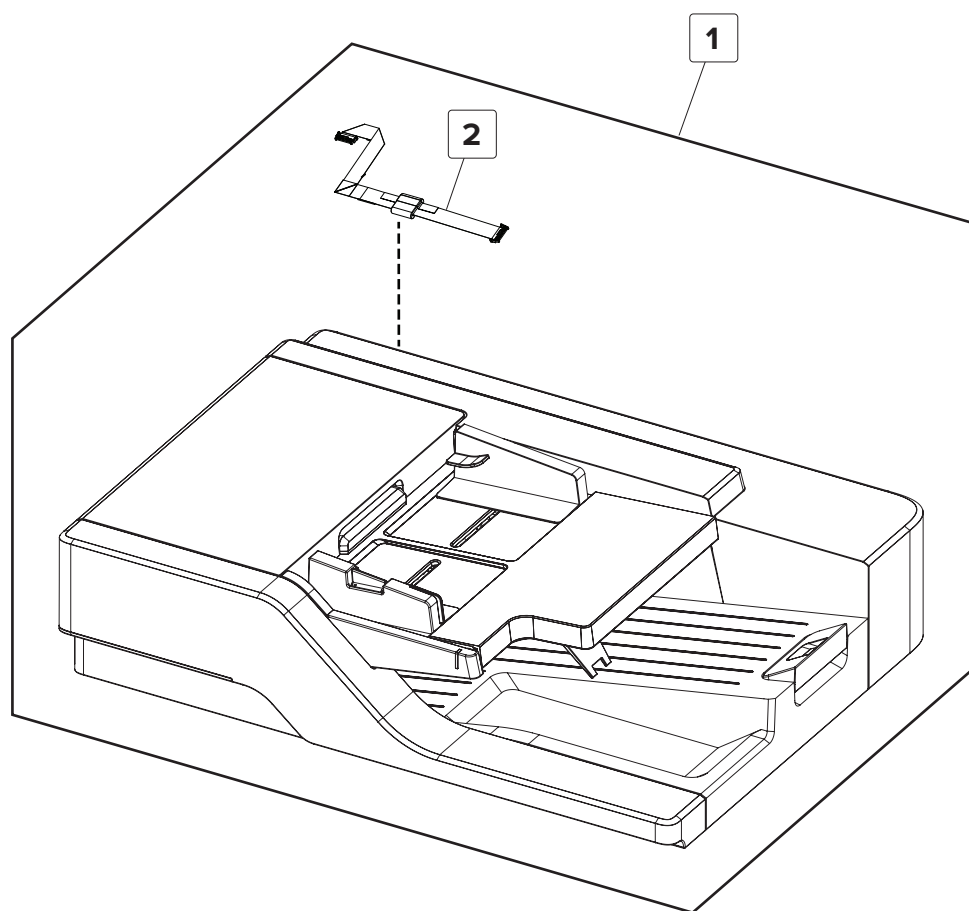
Assembly 19: ADF 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0324	1	1	ADF	--
2	41X0296	1	1	CCDM	--

Assembly 20: ADF 2
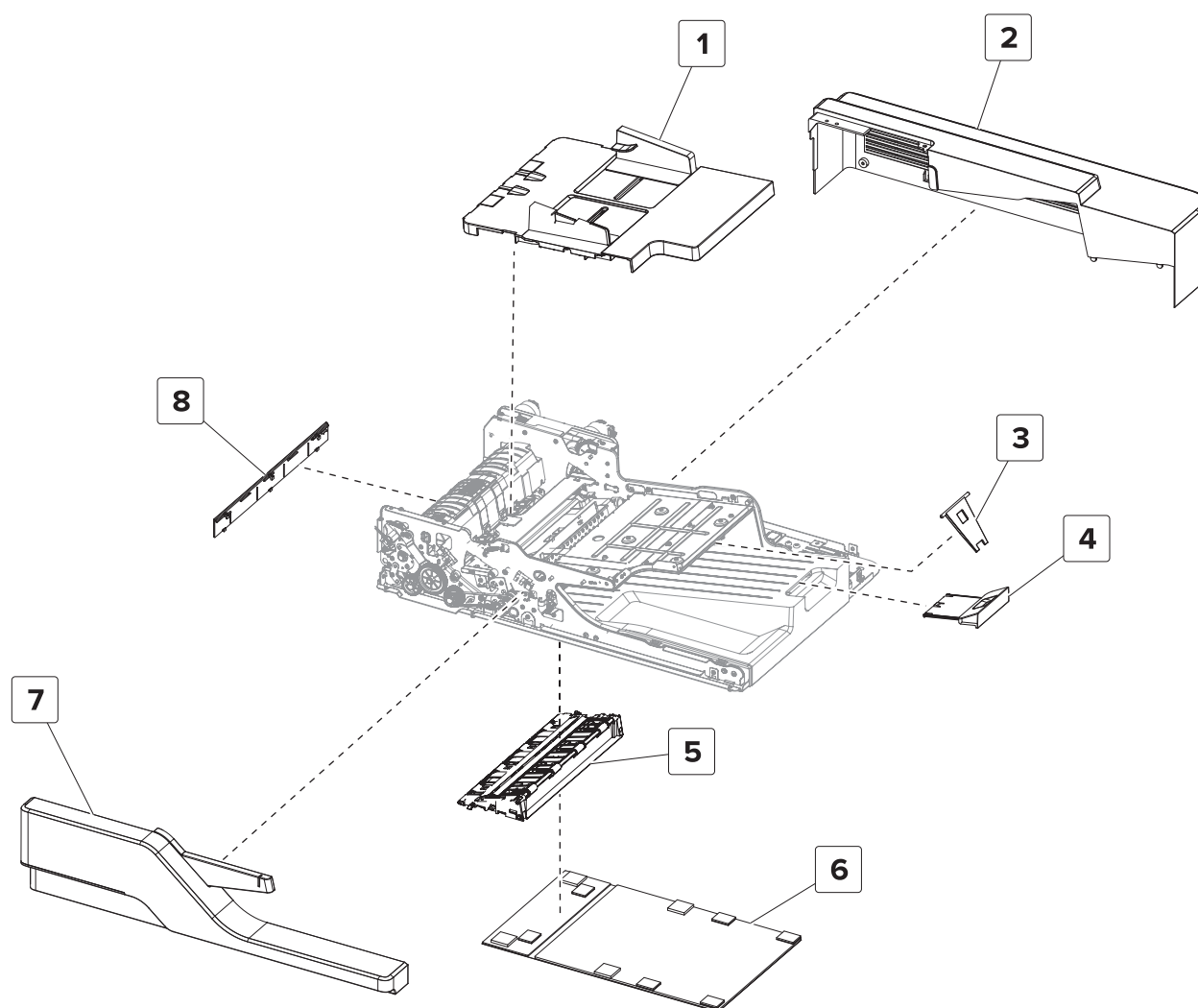
Assembly 20: ADF 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0323	1	1	ADF tray	**"ADF tray removal" on page 608**
2	41X0298	1	1	ADF rear cover	**"ADF rear cover removal" on page 606**
3	41X0295	1	1	Paper bail	--
4	41X0304	1	1	Bin extension	--
5	41X0303	1	1	ADF bottom door	**"ADF bottom door removal" on page 608**
6	41X0314	1	1	Scanner pad	--
7	41X0297	1	1	ADF front cover	**"ADF front cover removal" on page 610**
8	41X0277	1	1	Left lower cover	--

Assembly 21: ADF 3
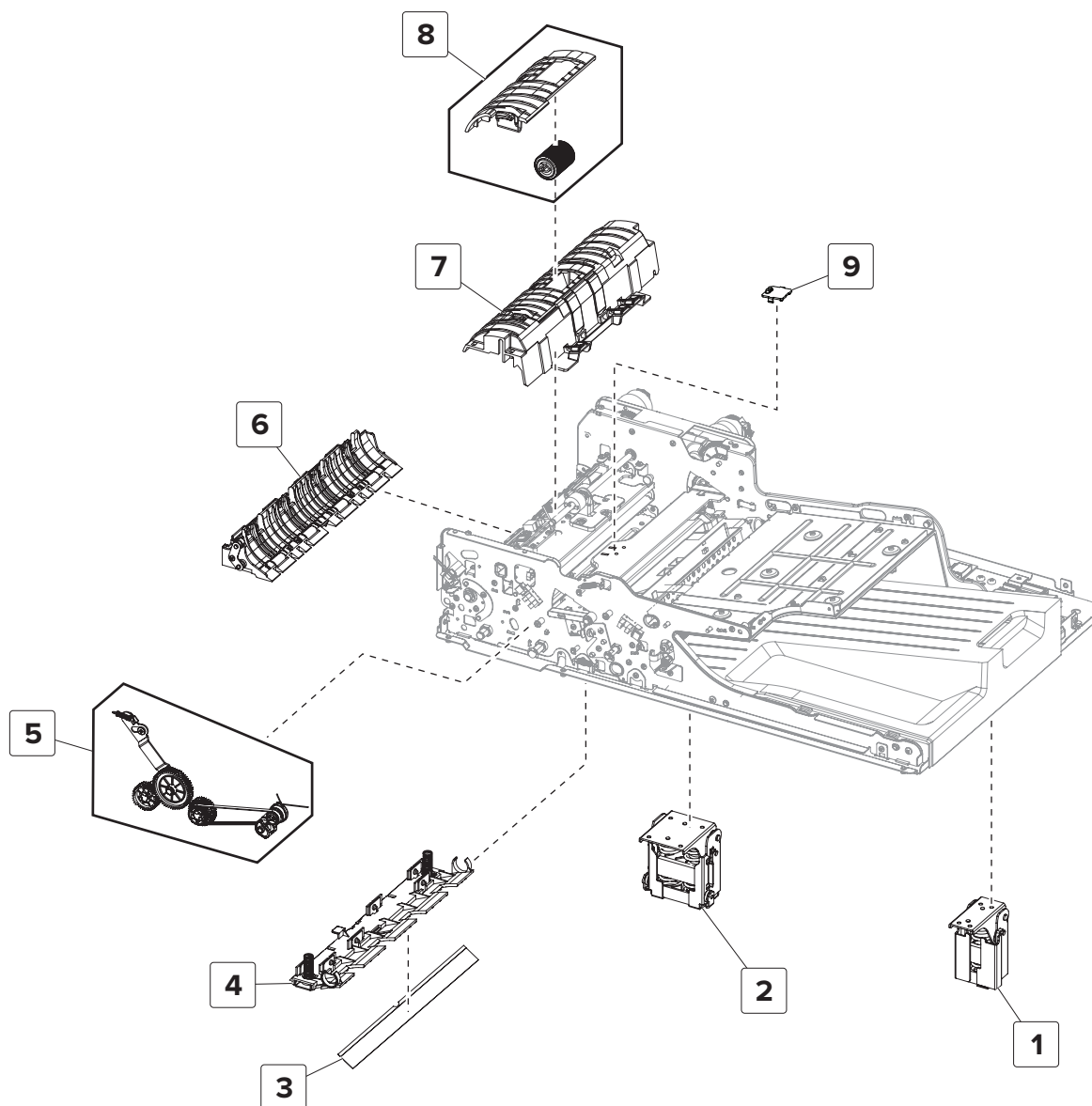
Assembly 21: ADF 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	40X7762	1	1	Right hinge	--
2	41X0311	1	1	Left hinge	--
3	41X0305	1	1	Float plate guide	--
4	41X0319	1	1	Float plate	--
5	41X0317	1	1	ADF front drive train	**"ADF front drive train removal" on page 612**
6	41X0309	1	1	Deflector guide	--
7	41X0306	1	1	Input guide	**"Input guide removal" on page 621**
8	41X0360	1	1	ADF separator roller **Warning—Potential Damage:** Replace the ADF pick roller, ADF feed belt, and ADF separator roller at the same time. If the lives of these parts don't match, feed issues may occur.	**"ADF maintenance kit removal" on page 604**
9	41X1032	1	1	Lift plate shim	--

Assembly 22: ADF 4
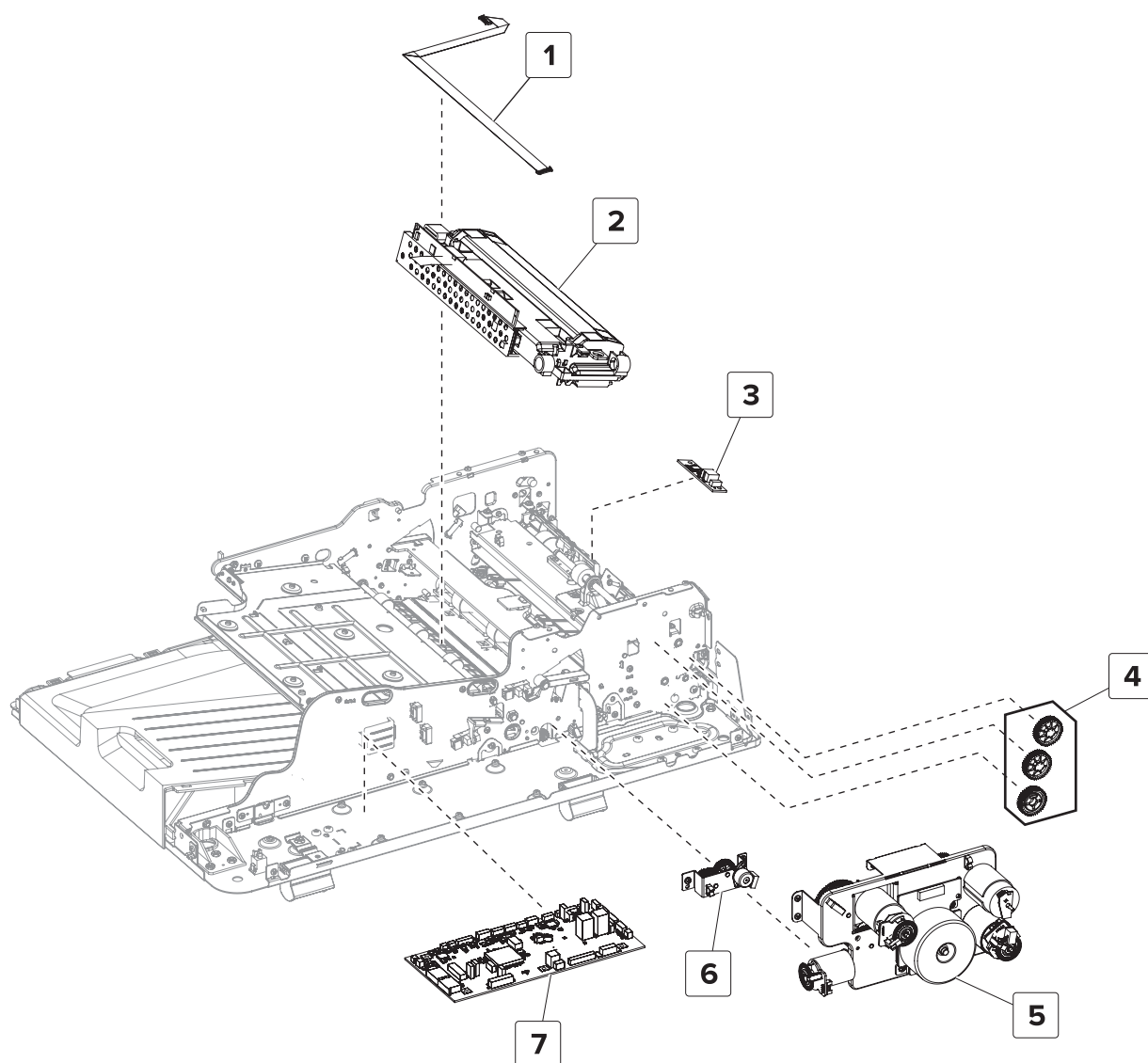
Assembly 22: ADF 4

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0296	1	1	CCDM cable, ADF	--
2	41X0320	1	1	CCDM, ADF	**"ADF CCDM removal" on page 622**
3	41X0322	1	1	Sensor (ADF multifeed receiver)	--
4	41X0316	1	1	ADF rear drive gears	--
5	41X0312	1	1	Motor (ADF)	--
6	41X0313	1	1	Motor (calibration roller)	--
7	41X0318	1	1	ADF controller board	--
NS	41X0219	1	1	ADF cable pack	--

Assembly 23: ADF 5
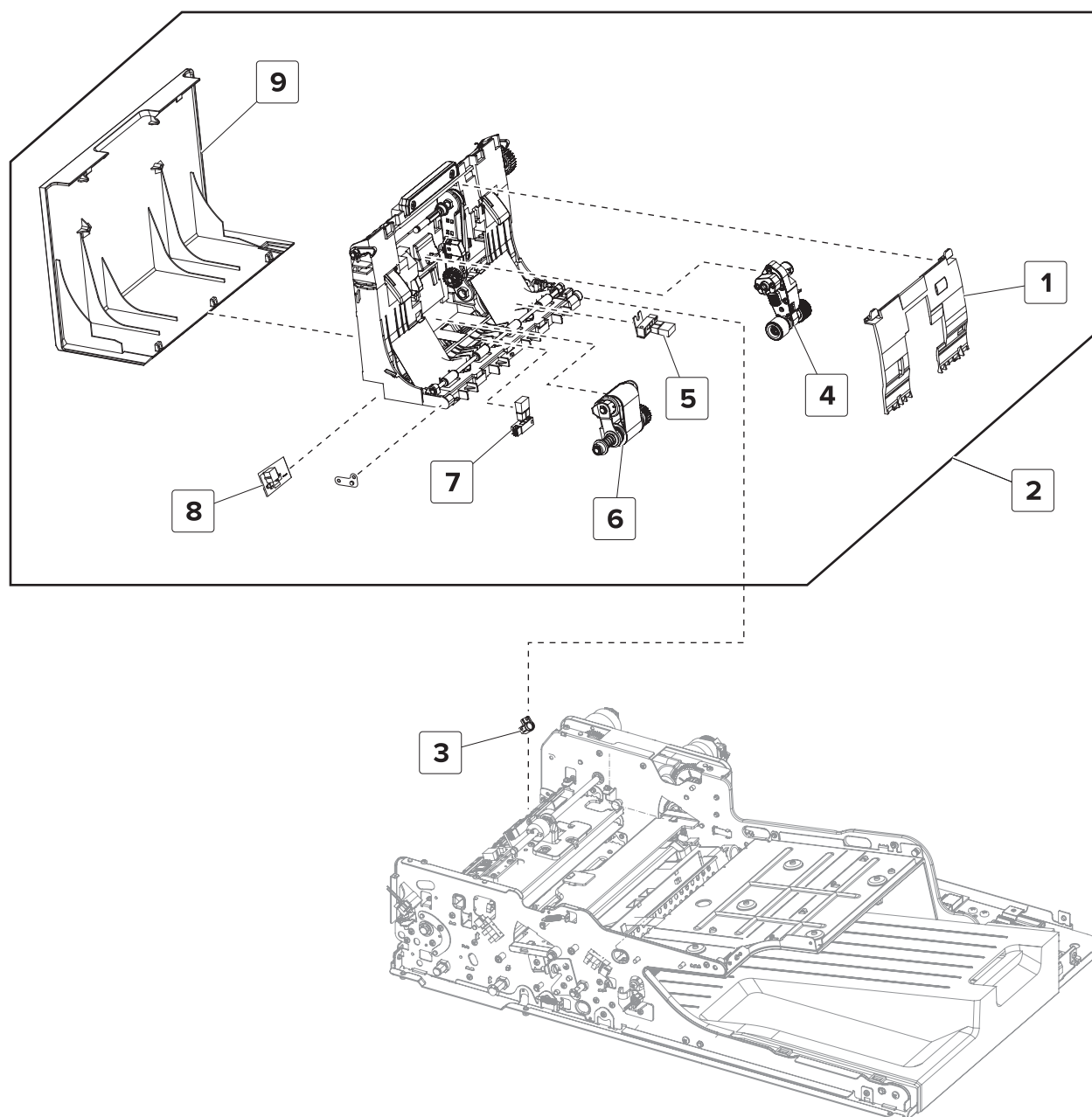
Assembly 23: ADF 5

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0299	1	1	Pick roller cover	**"ADF pick roller cover removal" on page 603**
2	41X0302	1	1	Top door	--
3	41X0310	1	1	Top door hinge retainer	--
4	41X0358	1	1	ADF pick roller **Warning—Potential Damage:** Replace the ADF pick roller, ADF feed belt, and ADF separator roller at the same time. If the lives of these parts don't match, feed issues may occur.	**"ADF maintenance kit removal" on page 604**
5	40X7779	1	1	Sensor (ADF gap detect)	--
6	41X0359	1	1	ADF feed belt **Warning—Potential Damage:** Replace the ADF pick roller, ADF feed belt, and ADF separator roller at the same time. If the lives of these parts don't match, feed issues may occur.	**"ADF maintenance kit removal" on page 604**
7	40X7779	1	1	Sensor (ADF deskew)	--
8	41X0574	1	1	Sensor (ADF multifeed transmitter)	--
9	41X0579	1	1	Top door cover	--

Assembly 24: ADF 6
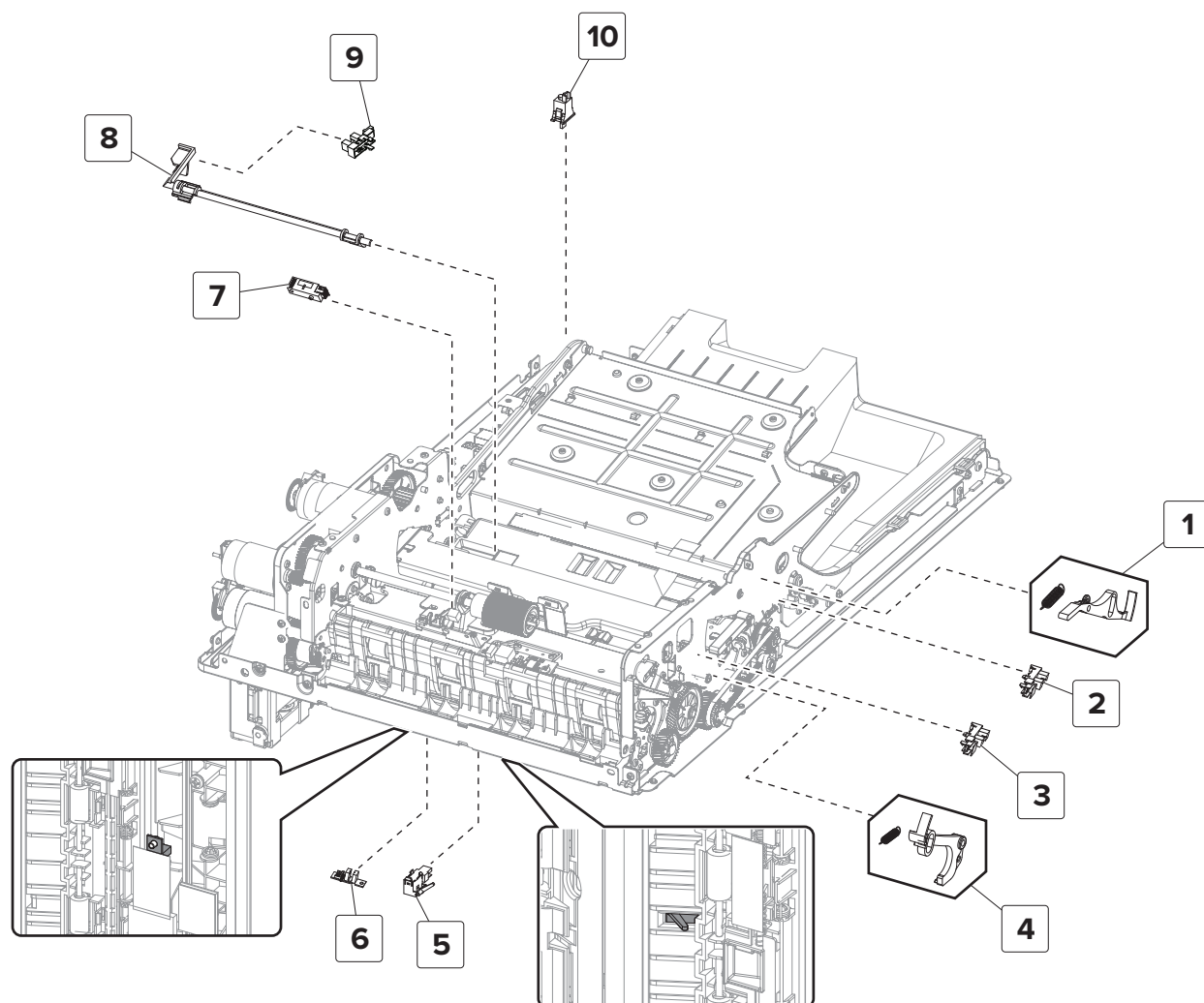
Assembly 24: ADF 6

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0293	1	1	Top interlock actuator	**"Top interlock actuator removal" on page 611**
2	40X7592	1	1	Sensor (ADF top door interlock)	--
3	40X7592	1	1	Sensor (ADF bottom door interlock)	--
4	41X0294	1	1	Bottom interlock actuator	**"Bottom interlock actuator removal" on page 620**
5	40X7776	1	1	Sensor (ADF 2nd scan)	**"Sensor (ADF 2nd scan) removal" on page 625**
6	41X0576	1	1	Sensor (ADF 1st scan)	--
7	40X7779	1	1	Sensor (ADF pick)	--
8	41X0292	1	1	ADF media exit actuator	--
9	40X7592	1	1	Sensor (ADF media exit)	--
10	40X7778	1	1	Sensor (ADF closed)	--

Assembly 25: Flatbed scanner 1
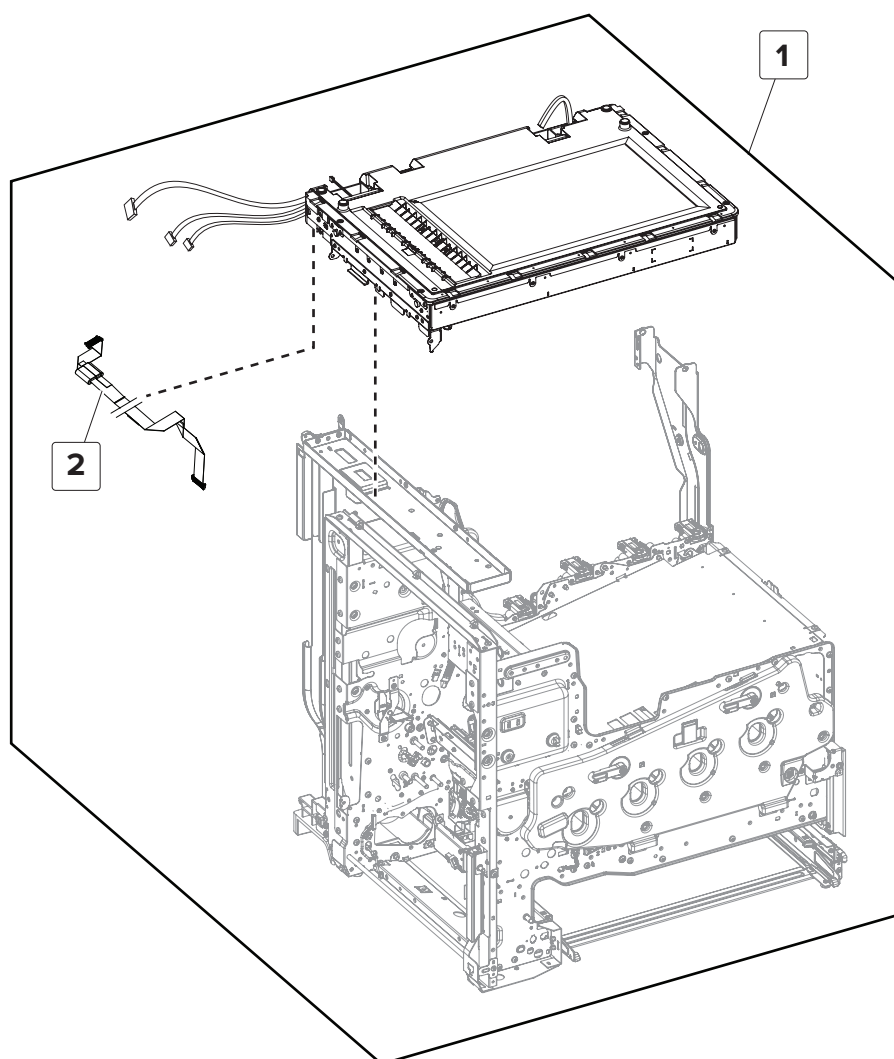
Assembly 25: Flatbed scanner 1

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0289	1	1	Flatbed scanner	--
2	41X0274	1	1	CCDM	--

Assembly 26: Flatbed scanner 2
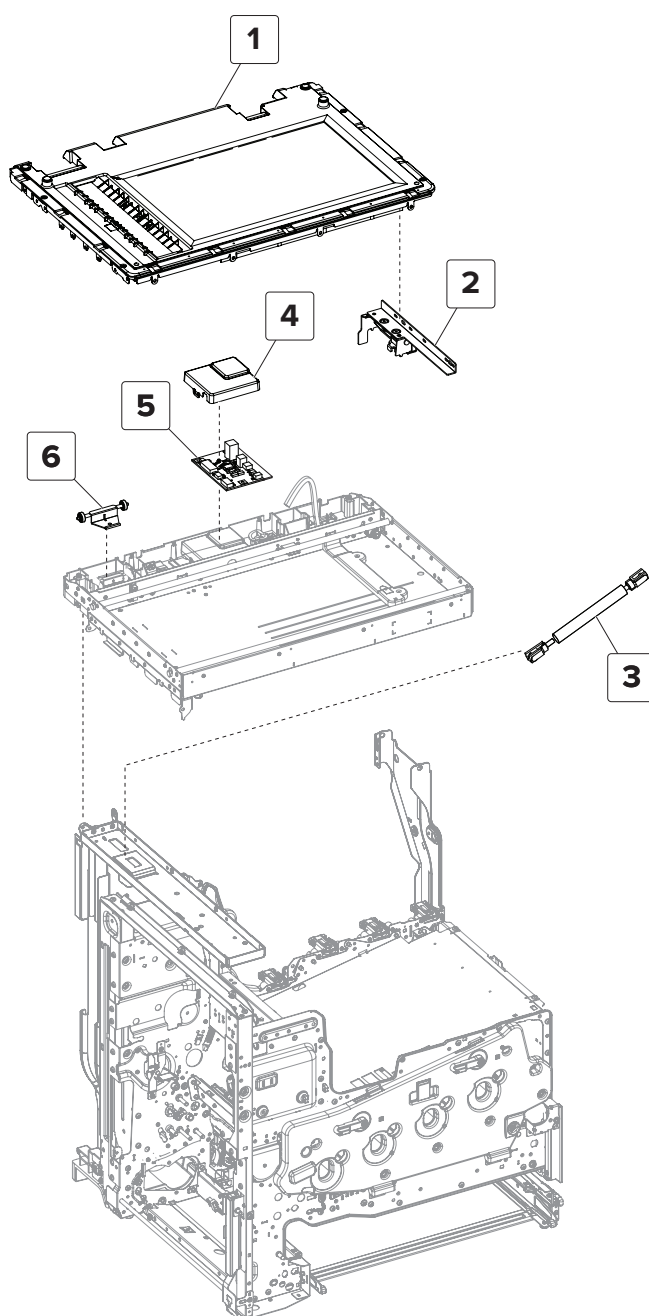
Assembly 26: Flatbed scanner 2

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0275	1	1	Flatbed scanner top cover	**"Flatbed scanner top cover removal" on page 630**
2	41X0281	1	1	Scanner frame latch	--
3	41X0261	1	1	Scanner support	--
4	41X0276	1	1	Board cover	--
5	41X0283	1	1	Flatbed scanner board	**"Flatbed scanner board removal" on page 636**
6	41X0286	1	1	Hinge roller	--

Assembly 27: Flatbed scanner 3
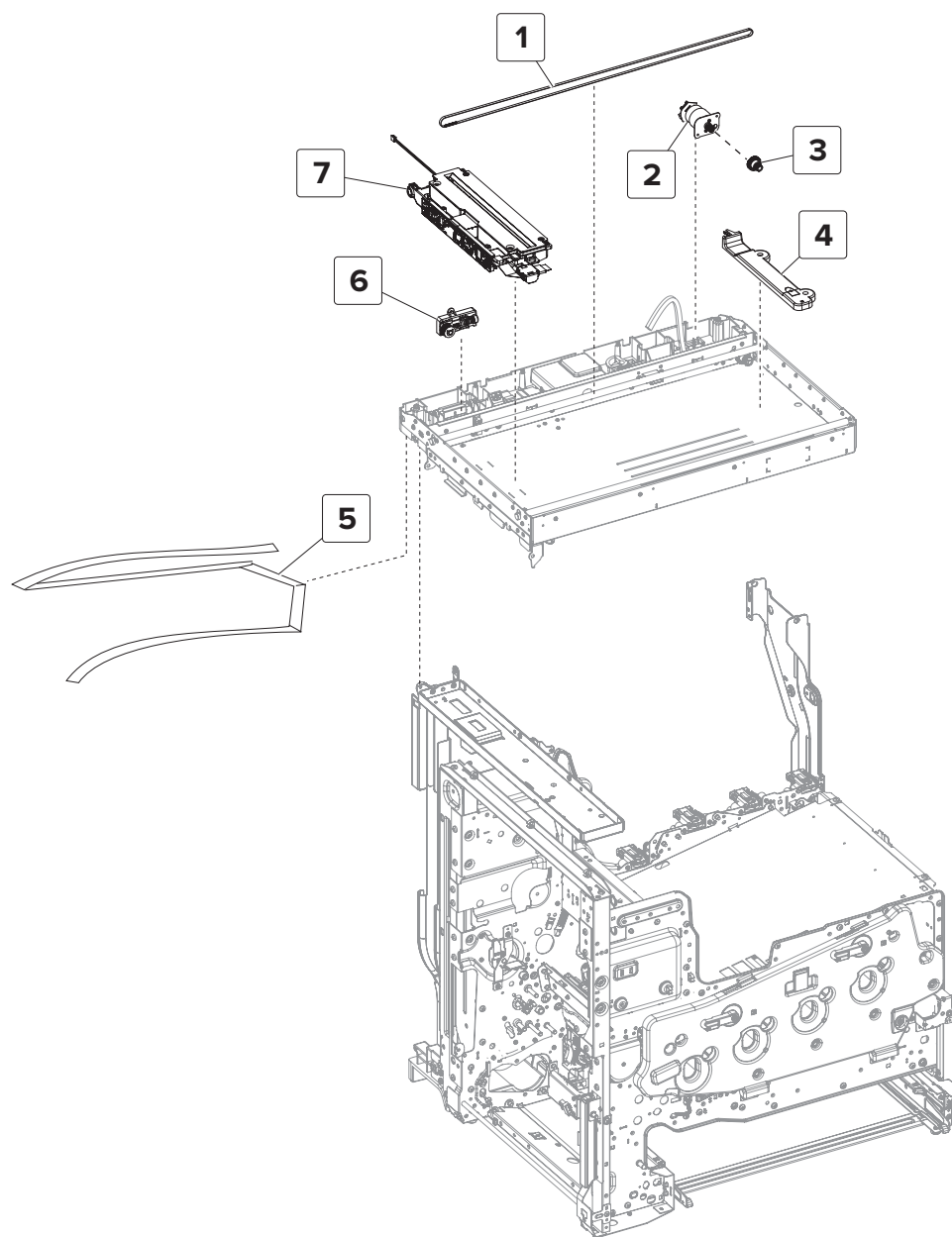
Assembly 27: Flatbed scanner 3

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
1	41X0273	1	1	Scanner belt	--
2	41X0282	1	1	Motor (flatbed scanner)	**"Motor (flatbed scanner) removal" on page 639**
3	41X0279	1	1	Scanner gear	--
4	41X0290	1	1	Sensor (flatbed media length)	--
5	41X0274	1	1	CCDM cable, flatbed	--
6	41X0284	1	1	Tensioner pulley	**"Flatbed scanner tensioner pulley removal" on page 643**
7	41X0287	1	1	CCDM, flatbed	**"Flatbed scanner CCDM removal" on page 634**

Assembly 28: 550-sheet tray
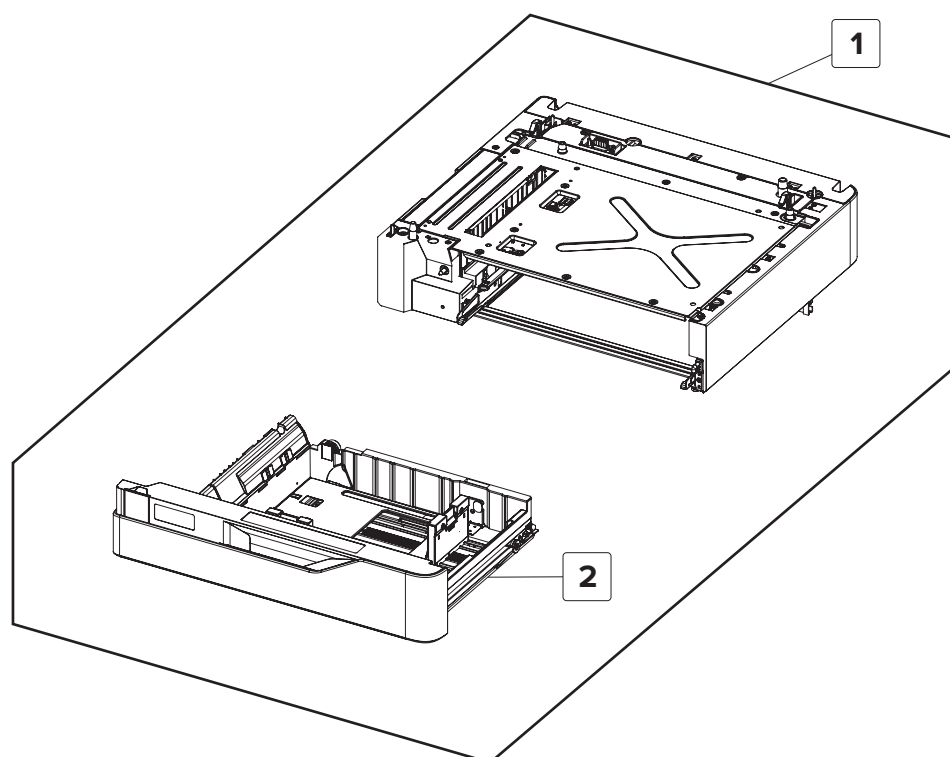
Assembly 28: 550-sheet tray

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0326	1	1	550-sheet tray	--
2	41X0175	1	1	550-sheet tray insert	--

Assembly 29: 550-sheet tray—Rear
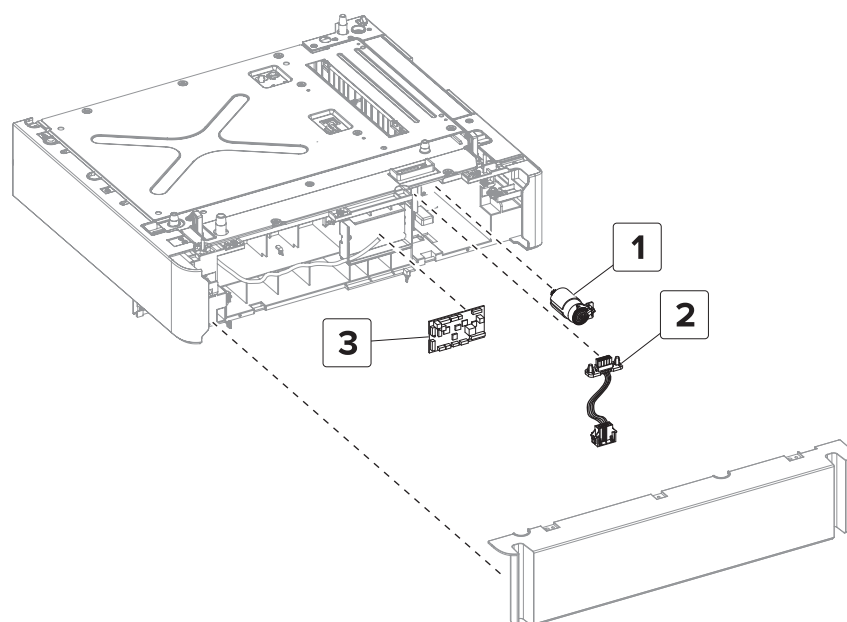
Assembly 29: 550-sheet tray—Rear

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0451	1	1	Motor (550-sheet tray pass-through)	**"Motor (550-sheet tray pass-through) removal" on page 659**
2	41X0336	1	1	550-sheet tray interface cable	**"550-sheet tray interface cable removal" on page 654**
3	41X0331	1	1	550-sheet tray controller board	**"550-sheet tray controller board removal" on page 654**
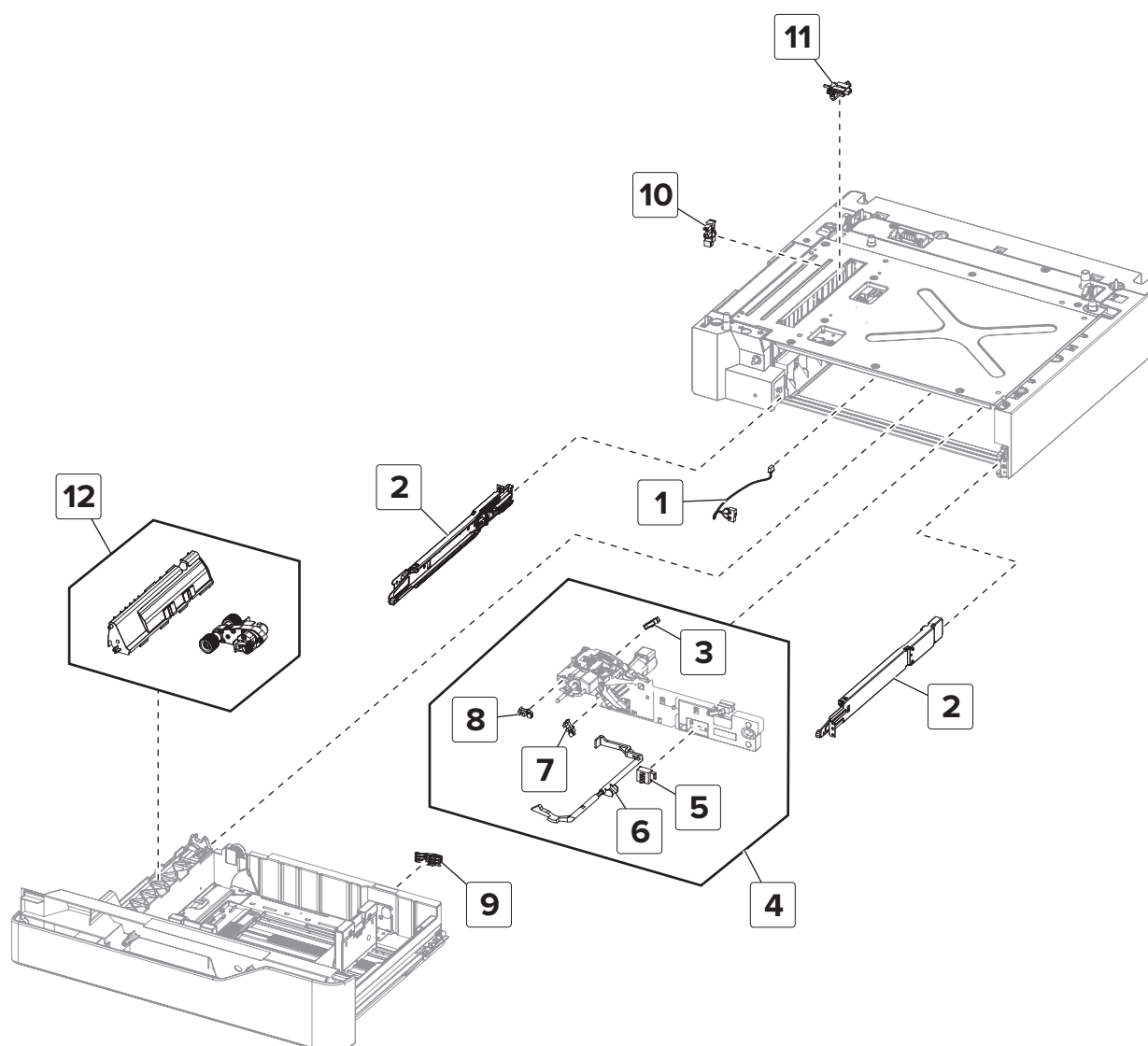
Parts catalog

Assembly 30: 550-sheet tray—Front

Assembly 30: 550-sheet tray—Front

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0335	1	1	550-sheet tray wake-up switch	**"550-sheet tray wake up switch removal" on page 660**
2	41X0342	1	1	550-sheet tray rails	**"550-sheet tray right rail removal" on page 651** **"550-sheet tray left rail removal" on page 658**
3	41X0684	1	1	Sensor (550-sheet tray media out)	**"Sensor (550-sheet tray media out) removal" on page 652**
4	41X0106	1	1	550-sheet tray paper feeder	**"550-sheet tray paper feeder removal" on page 652**
5	40X7911	1	1	Sensor (550-sheet tray media size)	**"Sensor (550-sheet tray media size) removal" on page 649**
6	41X0338	1	1	550-sheet tray media out sensor actuator	**"Sensor (550-sheet tray media out) removal" on page 652**
7	41X0684	1	1	Sensor (550-sheet tray media low)	**"Sensor (550-sheet tray media low) removal" on page 650**
8	41X0684	1	1	Sensor (550-sheet tray pick roller index)	**"Sensor (550-sheet tray pick roller index) removal" on page 657**
9	40X8541	1	1	550-sheet tray media size sensor actuators	**"550-sheet tray media size sensor actuators removal" on page 649**
10	41X0684	1	1	Sensor (550-sheet tray jam door)	**"Sensor (550-sheet tray jam door)" on page 651**
11	41X0951	1	1	Sensor (550-sheet tray pass-through)	--
12	41X0999	1	1	Pick roller and separator pad	**"Pick roller removal" on page 534**

Assembly 31: 2200-sheet tray
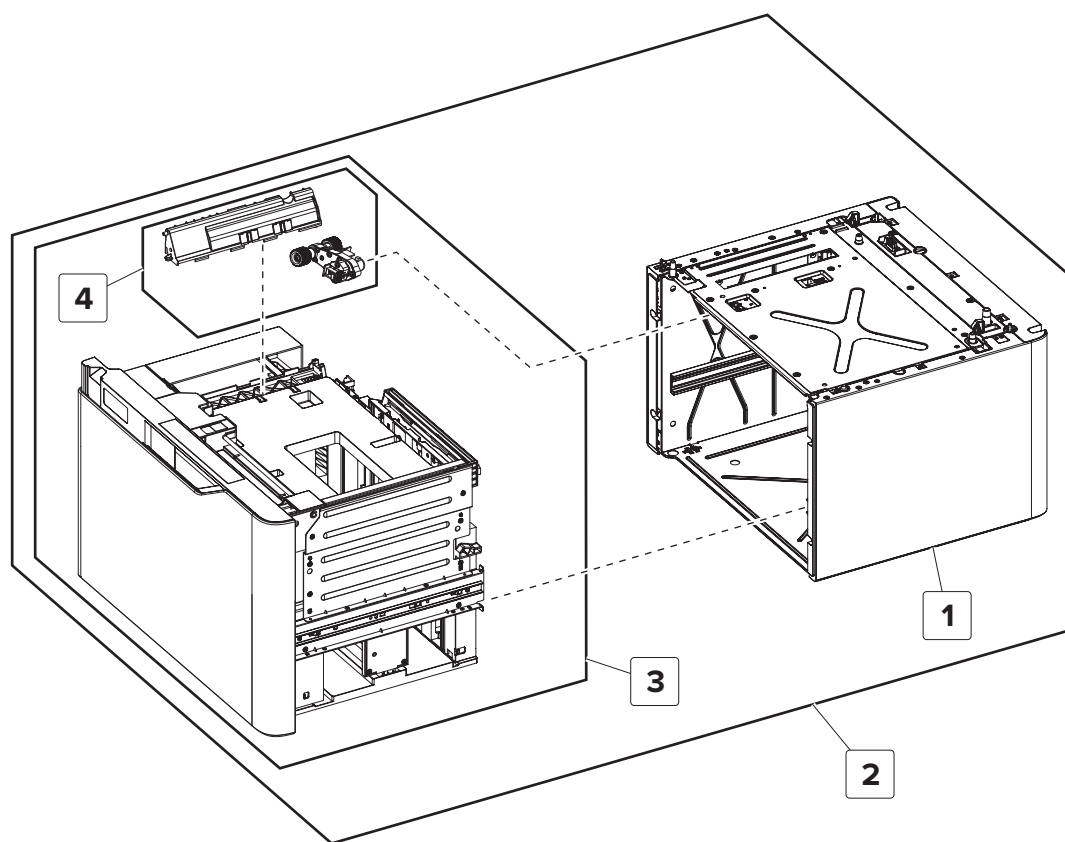
Assembly 31: 2200-sheet tray

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0329	1	1	2200-sheet tray base	--
2	41X0328	1	1	2200-sheet tray	--
3	41X0330	1	1	2200-sheet tray insert	**"2200-sheet tray insert removal" on page 662**
4	41X0999	1	1	Pick roller and separator pad	--

Assembly 32: 2200-sheet tray—Front
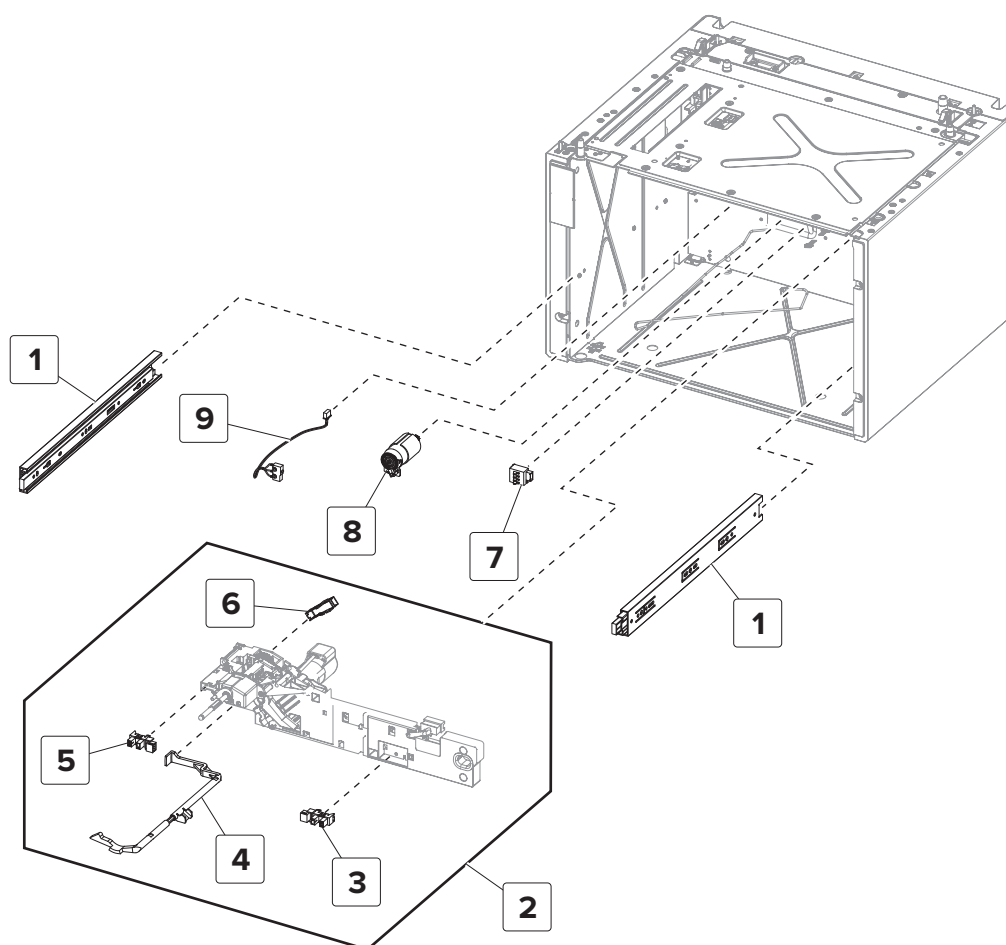
1

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Assembly 32: 2200-sheet tray—Front

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0343	2	2	2200-sheet tray rails	**"2200-sheet tray rail removal" on page 663**
2	41X0369	1	1	2200-sheet tray paper feeder	**"2200-sheet tray paper feeder removal" on page 671**
3	41X0684	1	1	Sensor (2200-sheet tray media low)	**"Sensor (2200-sheet tray media low) removal" on page 664**
4	41X0338	1	1	2200-sheet tray media out sensor actuator	**"2200-sheet tray media out sensor actuator removal" on page 674**
5	41X0684	1	1	Sensor (2200-sheet tray pick roller index)	**"Sensor (2200-sheet tray pick roller index) removal" on page 672**
6	41X0684	1	1	Sensor (2200-sheet tray media out)	**"Sensor (2200-sheet tray media out) removal" on page 671**
7	40X7911	1	1	Sensor (2200-sheet tray media size)	**"Sensor (2200-sheet tray media size) removal" on page 664**
8	41X0140	1	1	Lift motor	**"Motor (2200-sheet tray elevator) removal" on page 669**
9	41X0335	1	1	2200-sheet tray wake up switch	**"2200-sheet tray wake up switch removal" on page 677**

Assembly 33: 2200-sheet tray—Rear
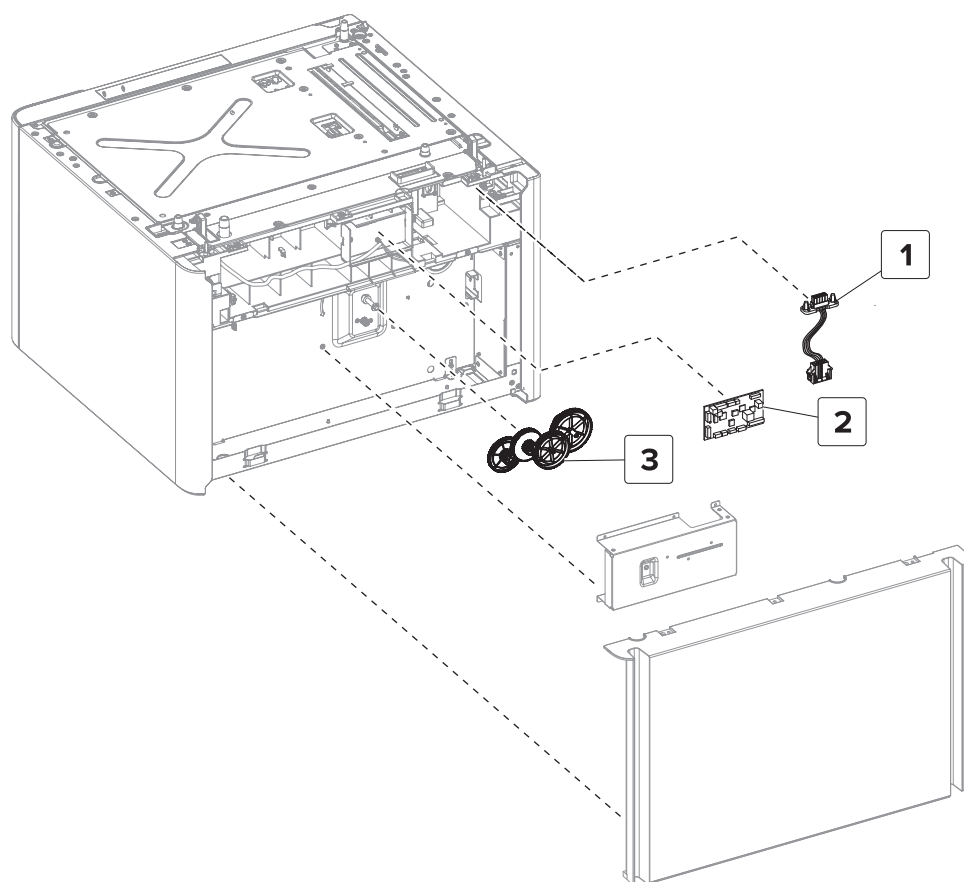
Assembly 33: 2200-sheet tray—Rear

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0337	1	1	2200-sheet tray interface cable	**"2200-sheet tray interface cable removal" on page 666**
2	41X0332	1	1	2200-sheet tray controller board	**"2200-sheet tray controller board removal" on page 665**
3	41X0351	1	1	2200-sheet tray elevator gears	**"2200-sheet tray elevator gears removal" on page 668**

Assembly 34: Caster base
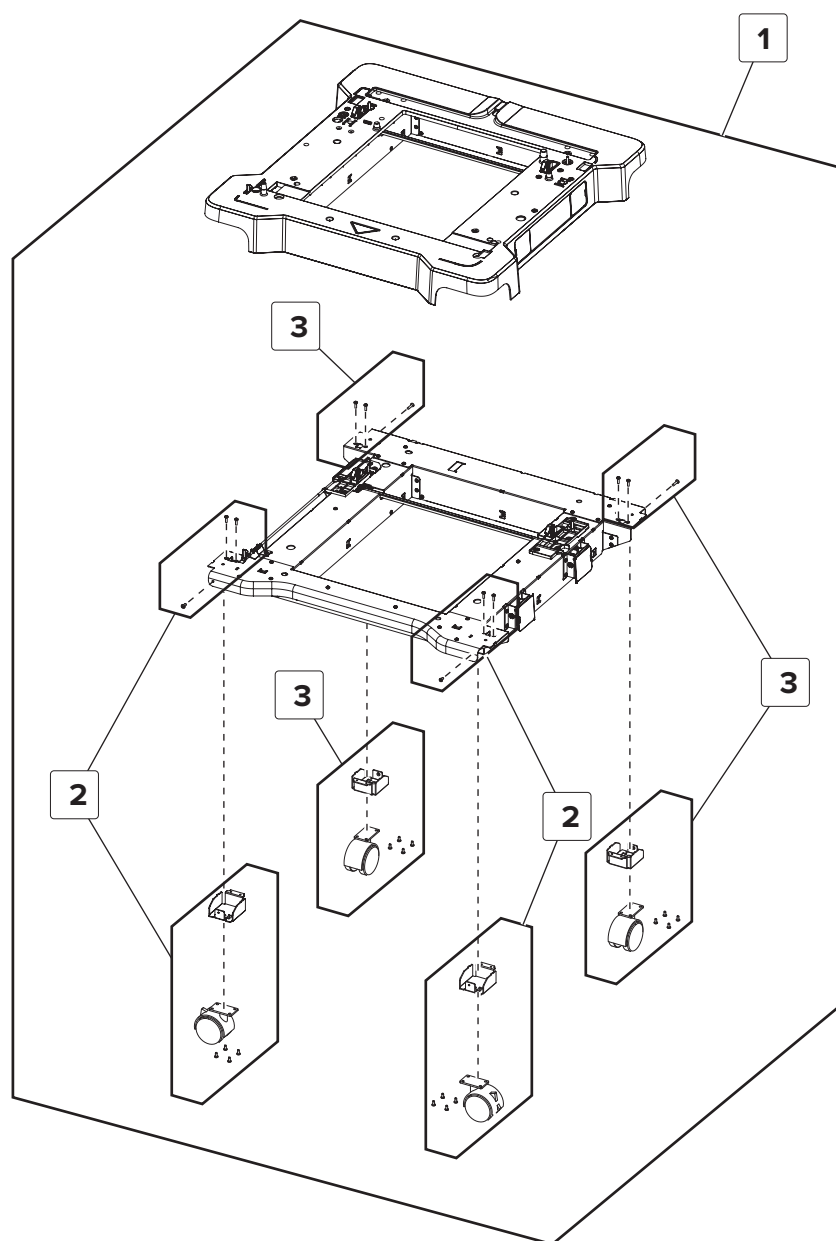
Assembly 34: Caster base

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0762	1	1	Caster base	--
2	41X0774	2	1	Caster base locking caster	**"Locking caster removal" on page 678**
3	41X0775	2	1	Caster base non-locking caster	**"Non-locking caster removal" on page 681**

Assembly 35: Cables

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0280	1	1	Flatbed scanner cable	N/A
NS	41X0890	1	1	Paper feed cables parts pack • Tray 1 sensor cable • Deskew/duplex motor cable • MPF/pass through motor cable • Redrive sensor/motor cable • Redrive extension cable • MPF cable • Paper path sensor • Duplex door beacon cable • Paper path sensor module cable	N/A
NS	41X0891	1	1	Motor cables parts pack • Toner add motor cable • Fuser/transfer belt motor cable • Developers drive motor cable • Drums drive motor cable • Printhead fan extension cable • HVPS fan extension cable	N/A
NS	41X0892	1	1	HVPS cables parts pack • Charge roller HVPS cable • Wiper/printhead mirror motor cable • Main HVPS cable • White high voltage charge wires	N/A
NS	41X0893	1	1	LVPS cables parts kit • AC power cable • LVPS/controller board cable • Fuser power cable	N/A
NS	41X0894	1	1	Miscellaneous cables parts pack • Waste toner bottle present sensor cable • Door interlock switch cable • Ground cable • Flat flex ground cable • Smartchip interface board cable	N/A
NS	41X1630	1	1	Control panel cables kit • Control panel FFC cable (SFP) • Control panel FFC cable (MFP) • Display cable	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0895	1	1	Miscellaneous control panel cables kit • Proximity sensor cable (MFP) • Speaker extension cable • Headphone cable (MFP) • Keyboard USB cable	--
NS	41X0896	1	1	Options interface cables parts kit • Input option cable • Output option cable (SFP) • Output option cable (MFP)	N/A
NS	41X0950	1	1	Optional tray cables parts pack • Separator motor cable • Paper feeder extension cable • Paper feeder cable	N/A

Assembly 36: Maintenance kits

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0927	1	1	Maintenance kit, 300K (100 V Combo fuser and transfer module) includes: • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads	--
NS	41X0928	1	1	Maintenance kit, 300K (115 V Combo fuser and transfer module) includes: • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads	--
NS	41X0929	1	1	Maintenance kit, 300K (220 V Combo fuser and transfer module) includes: • Fuser • Transfer belt • Transfer roller • 3 pick rollers • 3 separator pads • Filter	--
NS	41X0931	1	1	Maintenance kit, 200K (ADF) includes: • ADF pick rollers • ADF separator roller • ADF feed belt	--

Assembly 37: Miscellaneous

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X2093	1	1	Envelope tray	--
NS	40X8671	1	1	Cover, Removable HDD kit	--
NS	40X9934	1	1	Hard disk drive, SATA	--
NS	40X8737	1	1	Authentication device, RFID	--
NS	41X0023	1	1	MarkNet 8360 Wireless, NFC	--
NS	40X7854	1	1	Adapter, Fax	--
NS	40X9652	1	1	Adapter, Fiber Gigabit ISP	--
NS	41X0029	1	1	DDR3 RAM, 2GB, 256Mx64, 204 SODIMM	--
NS	41X1011	1	1	Font card, Hebrew	--
NS	41X1012	1	1	Font card, Arabic	--
NS	41X1013	1	1	Font card, Simplified Chinese	--
NS	41X1014	1	1	Font card, Traditional Chinese	--
NS	41X1015	1	1	Font card, Korean	--
NS	41X1016	1	1	Font card, Japanese	--
NS	41X1001	1	1	Forms and Bar Code card	--
NS	41X1029	1	1	Forms and Simplified Chinese font card	--
NS	41X1005	1	1	PRESCRIBE card	--
NS	41X1003	1	1	IPDS SCS TNE card	--
NS	41X1010	1	1	User Flash Memory, 256MB	--
NS	40X9879	1	1	Authentication device, Contact	--
NS	41X0027	1	1	Smart card, Security Element	--
NS	41X0997	1	1	Authentication Device, Contact Front Solutions Module	--
NS	41X0998	1	1	Authentication Device, Contactless Front Solutions Module	--
NS	41X0035	1	1	Keypad, English keyboard kit	--
NS	41X0036	1	1	Keypad, French keyboard kit	--
NS	41X0037	1	1	Keypad, Italian keyboard kit	--
NS	41X0038	1	1	Keypad, German keyboard kit	--
NS	41X0039	1	1	Keypad, Spanish keyboard kit	--
NS	41X0045	1	1	Keypad, English keyboard	--
NS	41X0046	1	1	Keypad, French keyboard	--
NS	41X0047	1	1	Keypad, Italian keyboard	--

Asm-index	P/N	Units/mach	Units/FRU	Description	Removal procedure
NS	41X0048	1	1	Keypad, German keyboard	--
NS	41X0049	1	1	Keypad, Spanish keyboard	--
NS	41X0357	1	1	Surge protector, 110V	--
NS	41X0370	1	1	Surge protector, 220V	--

Assembly 38: Staple finisher option
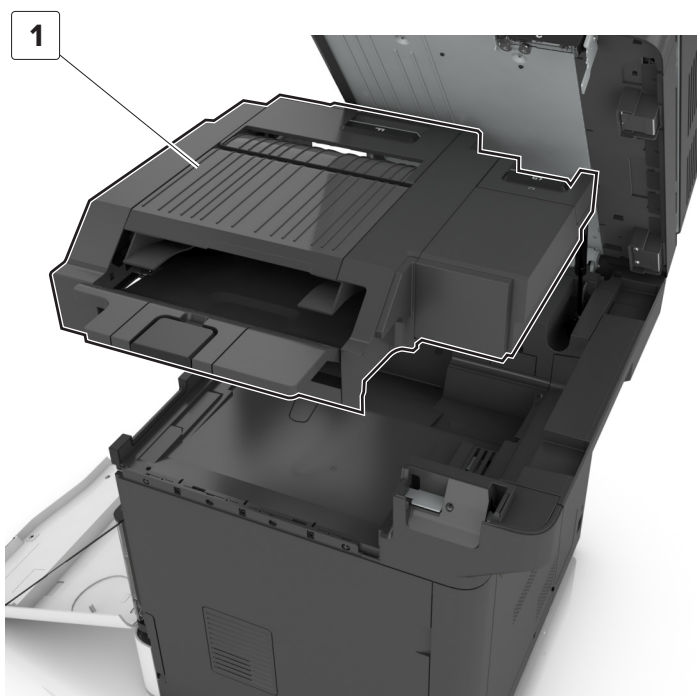
Assembly 38: Staple finisher option

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0746	1	1	Staple finisher option	--

Assembly 39: Staple finisher—Covers
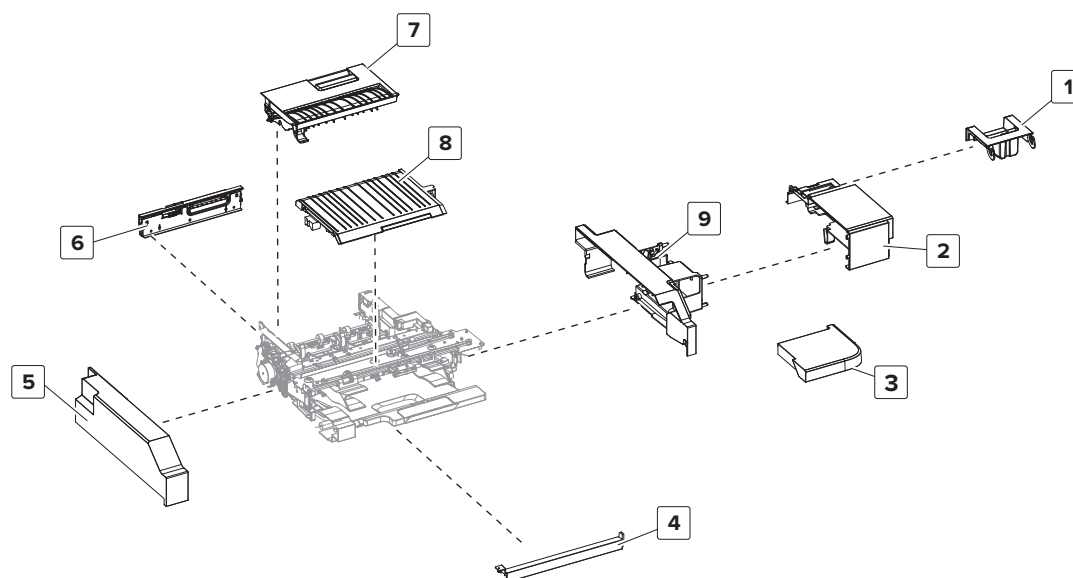
Assembly 39: Staple finisher—Covers

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0531	1	1	Staple finisher staple cartridge door	**"Staple finisher staple cartridge door removal" on page 688**
2	41X0495	1	1	Staple finisher rear cover	**"Staple finisher rear cover removal" on page 685**
3	41X0933	1	1	Staple finisher cover	--
4	41X0493	1	1	Staple finisher right cover	**"Staple finisher right cover removal" on page 684**
5	41X0494	1	1	Staple finisher front cover	**"Staple finisher front cover removal" on page 684**
6	41X0520	1	1	Staple finisher lock assembly	**"Staple finisher lock assembly removal" on page 689**
7	41X0498	1	1	Staple finisher jam door	**"Staple finisher jam access door removal" on page 688**
8	41X0507	1	1	Staple finisher top cover	**"Staple finisher tamper top cover removal" on page 719**
9	41X0497	1	1	Staple finisher inner rear cover	**"Staple finisher inner rear cover removal" on page 687**

Assembly 40: Staple finisher—Front
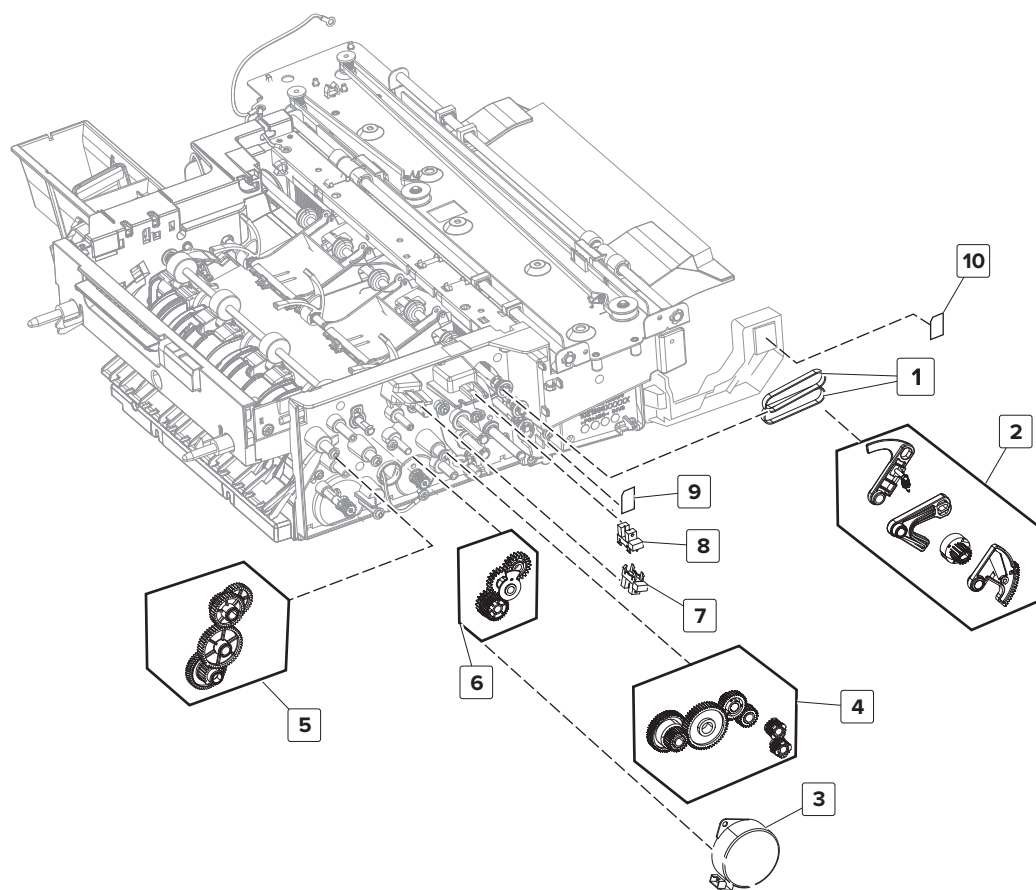
Assembly 40: Staple finisher—Front

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0521	2	1	Staple finisher exit roller belts	**"Staple finisher exit roller belts removal" on page 717**
2	41X0516	1	1	Staple finisher front upper exit roller position gears	**"Staple finisher front upper position exit roller gears removal" on page 713**
3	40X8753	1	1	Motor (staple finisher aligner paddle)	**"Motor (staple finisher aligner paddle) removal " on page 708**
4	41X0514	1	1	Staple finisher exit gears	**"Staple finisher exit gears removal" on page 715**
5	41X0512	1	1	Staple finisher transport gears	**"Staple finisher transport gears removal" on page 709**
6	41X0513	1	1	Staple finisher aligner paddle gears	**"Staple finisher aligner paddle gears removal" on page 710**
7	40X7301	1	1	Sensor (staple finisher aligner paddle)	**"Staple finisher aligner paddle gears removal" on page 710**
8	40X7301	1	1	Sensor (staple finisher upper exit roller)	**"Sensor (staple finisher upper exit roller) removal" on page 712**
9	41X0504	1	1	Sensor (staple finisher front lower bin full)	**"Sensor (staple finisher lower bin full) removal" on page 692**
10	41X0504	1	1	Sensor (staple finisher front upper bin full)	**"Sensor (staple finisher upper bin full) removal" on page 693**

Assembly 41: Staple finisher—Electrical
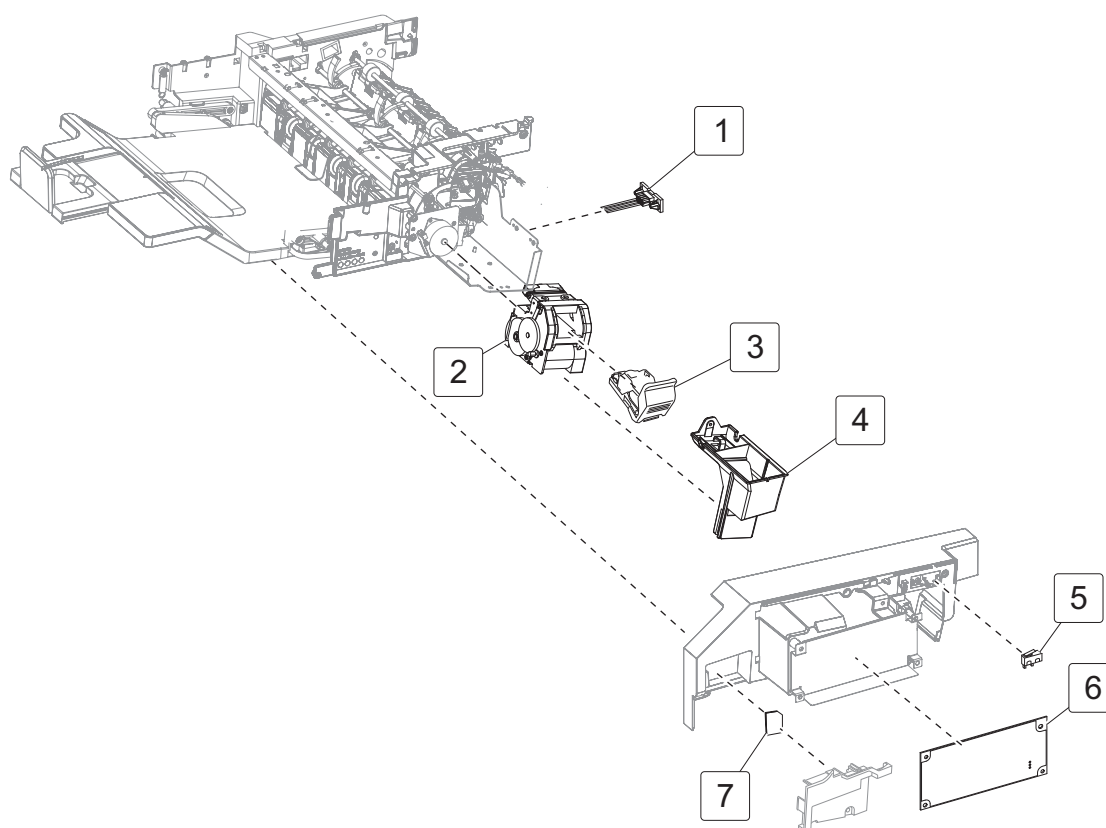
Assembly 41: Staple finisher—Electrical

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0506	1	1	Staple finisher interface cable	**"Staple finisher interface cable removal" on page 695**
2	41X0501	1	1	Staple finisher staple unit	**"Staple finisher staple unit removal" on page 701**
3	41X0530	1	1	Staple finisher staple cartridge holder	--
4	41X0500	1	1	Staple finisher staple cartridge ejector	**"Staple finisher staple unit ejector removal" on page 699**
5	41X0499	1	1	Staple finisher staple cartridge door switch	**"Staple finisher staple cartridge door switch removal" on page 691**
6	41X0496	1	1	Staple finisher controller board	**"Staple finisher controller board removal" on page 687**
7	41X0504	1	1	Sensor (staple finisher rear lower bin full)	**"Sensor (staple finisher lower bin full) removal" on page 692**
NS	41X0783	1	1	Staple finisher cable parts pack	--

Assembly 42: Staple finisher—Rear
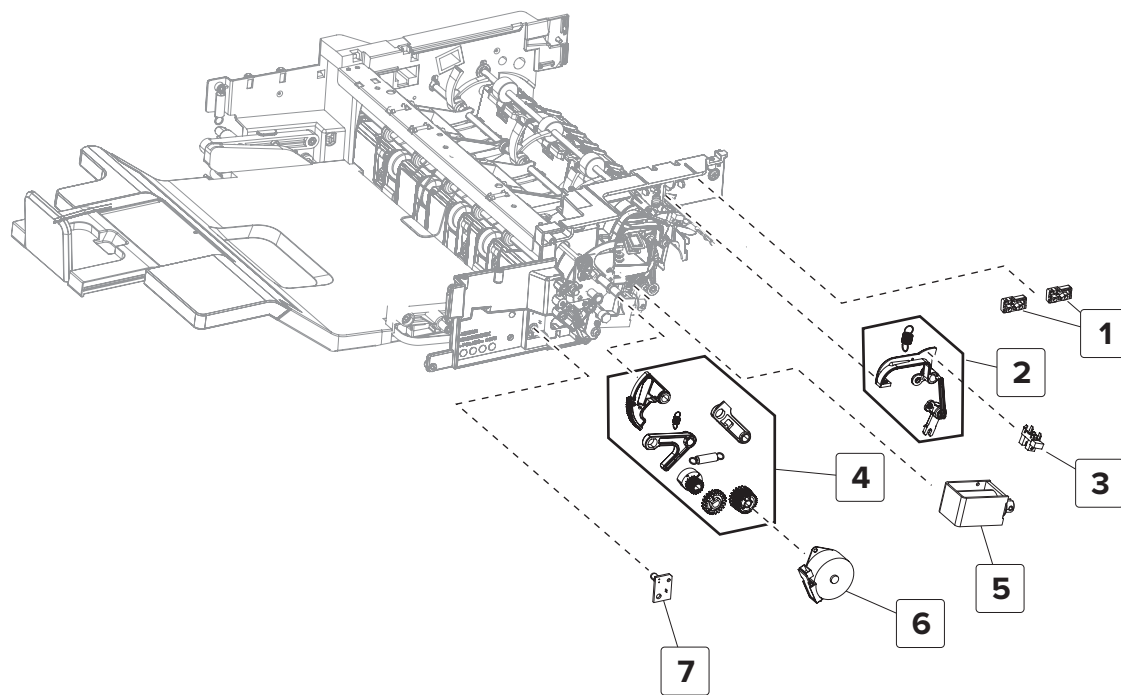
Assembly 42: Staple finisher—Rear

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0505	2	1	Staple finisher jam door switch	**"Staple finisher jam door switches removal" on page 703**
2	41X0503	1	1	Staple finisher stack clamp	**"Staple finisher stack clamp removal" on page 705**
3	40X7301	1	1	Sensor (staple finisher stack clamp)	**"Staple finisher stack clamp removal" on page 705**
4	41X0784	1	1	Staple finisher rear upper exit roller position gears	**"Staple finisher rear upper position exit roller gears removal" on page 697**
5	41X0502	1	1	Staple finisher stack clamp solenoid	**"Staple finisher stack clamp solenoid removal" on page 704**
6	40X8256	1	1	Motor (staple finisher upper exit roller)	**"Motor (staple finisher upper exit roller) removal" on page 696**
7	41X0504	1	1	Sensor (staple finisher rear upper bin full)	**"Sensor (staple finisher upper bin full) removal" on page 693**

Assembly 43: Staple finisher—Tamper
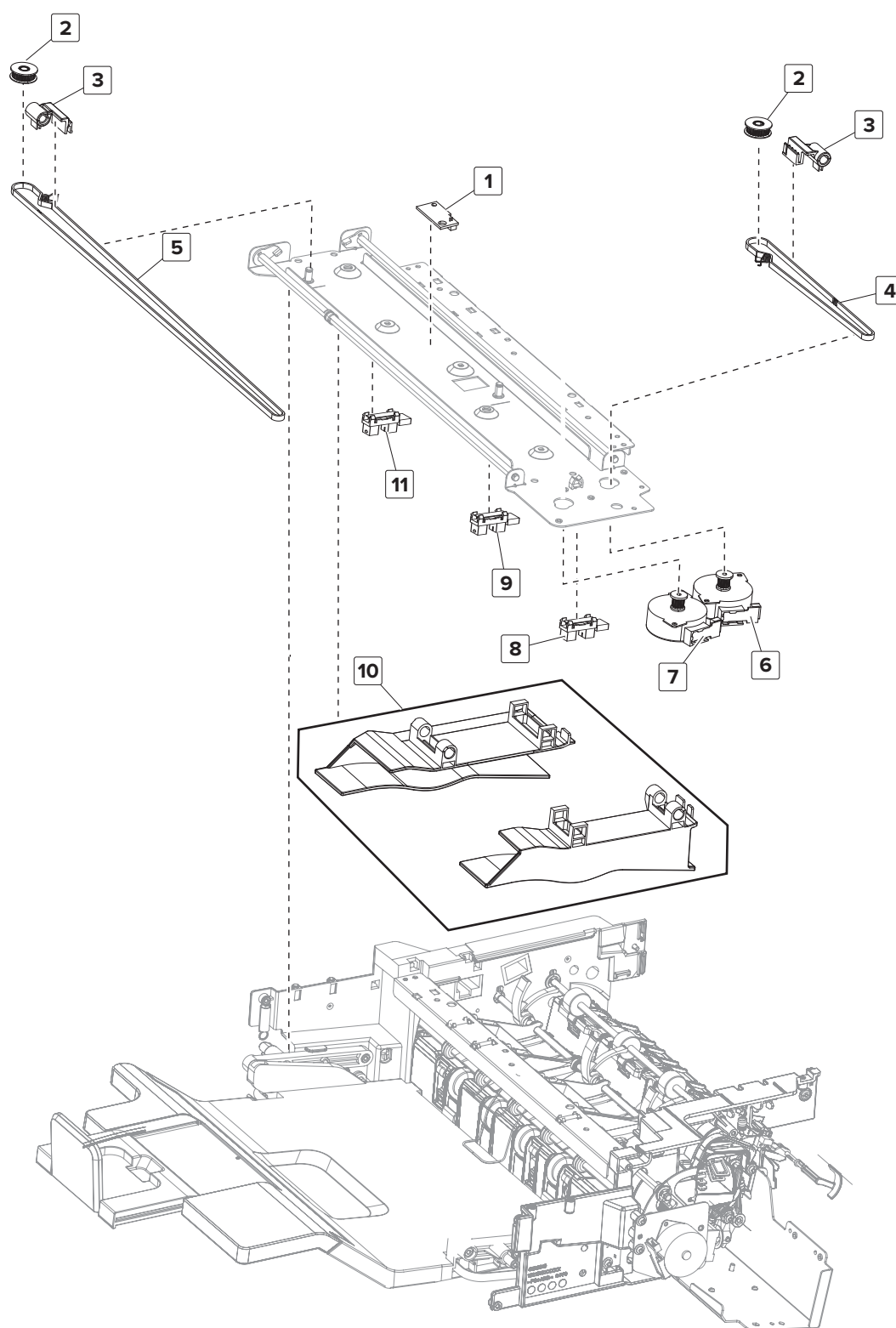
Assembly 43: Staple finisher—Tamper

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0778	1	1	Staple finisher cave light	**"Staple finisher tamper top cover removal" on page 719**
2	41X0776	1	1	Staple finisher tamper pulley gears	**"Staple finisher tamper pulley gear removal" on page 724**
3	41X0508	1	1	Staple finisher tamper belt holders	**"Staple finisher tamper removal" on page 725**
4	41X0535	1	1	Staple finisher rear tamper belt	**"Staple finisher tamper belts removal" on page 722**
5	41X0534	1	1	Staple finisher front tamper belt	**"Staple finisher tamper belts removal" on page 722**
6	40X8211	1	1	Motor (staple finisher rear tamper)	**"Motor (staple finisher tamper) removal" on page 721**
7	40X8211	1	1	Motor (staple finisher front tamper)	**"Motor (staple finisher tamper) removal" on page 721**
8	40X7301	1	1	Sensor (staple finisher rear tamper home)	**"Sensor (staple finisher tamper position) removal" on page 720**
9	40X7301	1	1	Sensor (staple finisher narrow media tamper)	**"Sensor (staple finisher tamper position) removal" on page 720**
10	41X0509	1	1	Staple finisher tampers	**"Staple finisher tamper removal" on page 725**
11	40X7301	1	1	Sensor (staple finisher front tamper home)	**"Sensor (staple finisher tamper position) removal" on page 720**

Assembly 44: Staple finisher—Transport
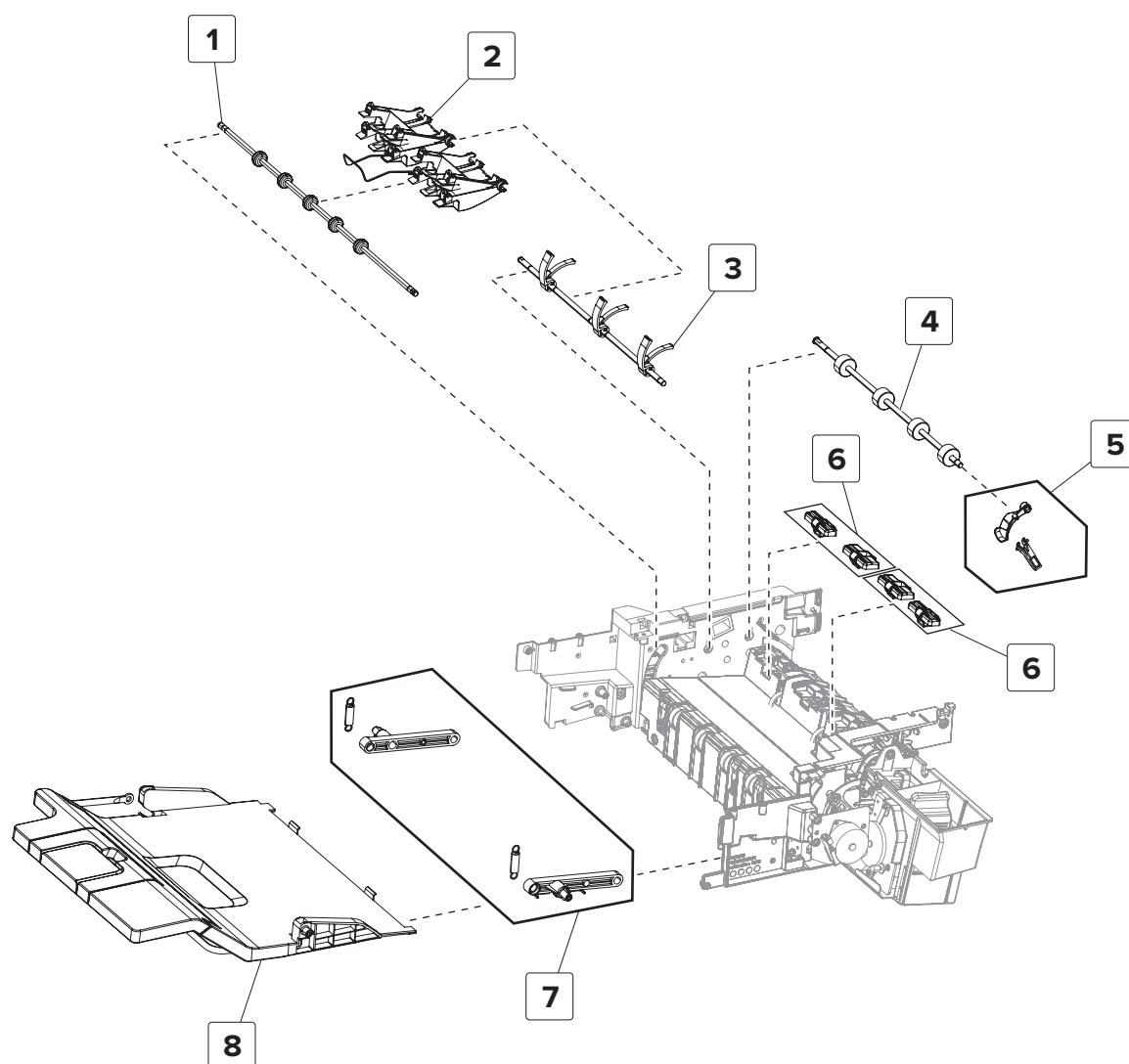
Assembly 44: Staple finisher—Transport

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0515	1	1	Staple finisher upper exit roller	**"Staple finisher upper exit roller removal" on page 736**
2	41X0519	1	1	Staple finisher upper paper guide	**"Staple finisher aligner paddle and upper paper guide removal" on page 734**
3	41X0518	1	1	Staple finisher aligner paddle	**"Staple finisher aligner paddle and upper paper guide removal" on page 734**
4	41X0517	1	1	Staple finisher compiler feed roller	**"Staple finisher compiler feed roller removal" on page 730**
5	41X0525	1	1	Staple finisher compiler paper guide	**"Staple finisher compiler paper guide removal" on page 729**
6	41X0526	2	1	Staple finisher compiler feed idler	**"Staple finisher compiler feed idler removal" on page 732**
7	41X0527	1	1	Staple finisher bin link	**"Staple finisher bin link removal" on page 726**
8	41X0528	1	1	Staple finisher bin	**"Staple finisher bin removal" on page 727**

Assembly 45: Staple finisher—Bottom
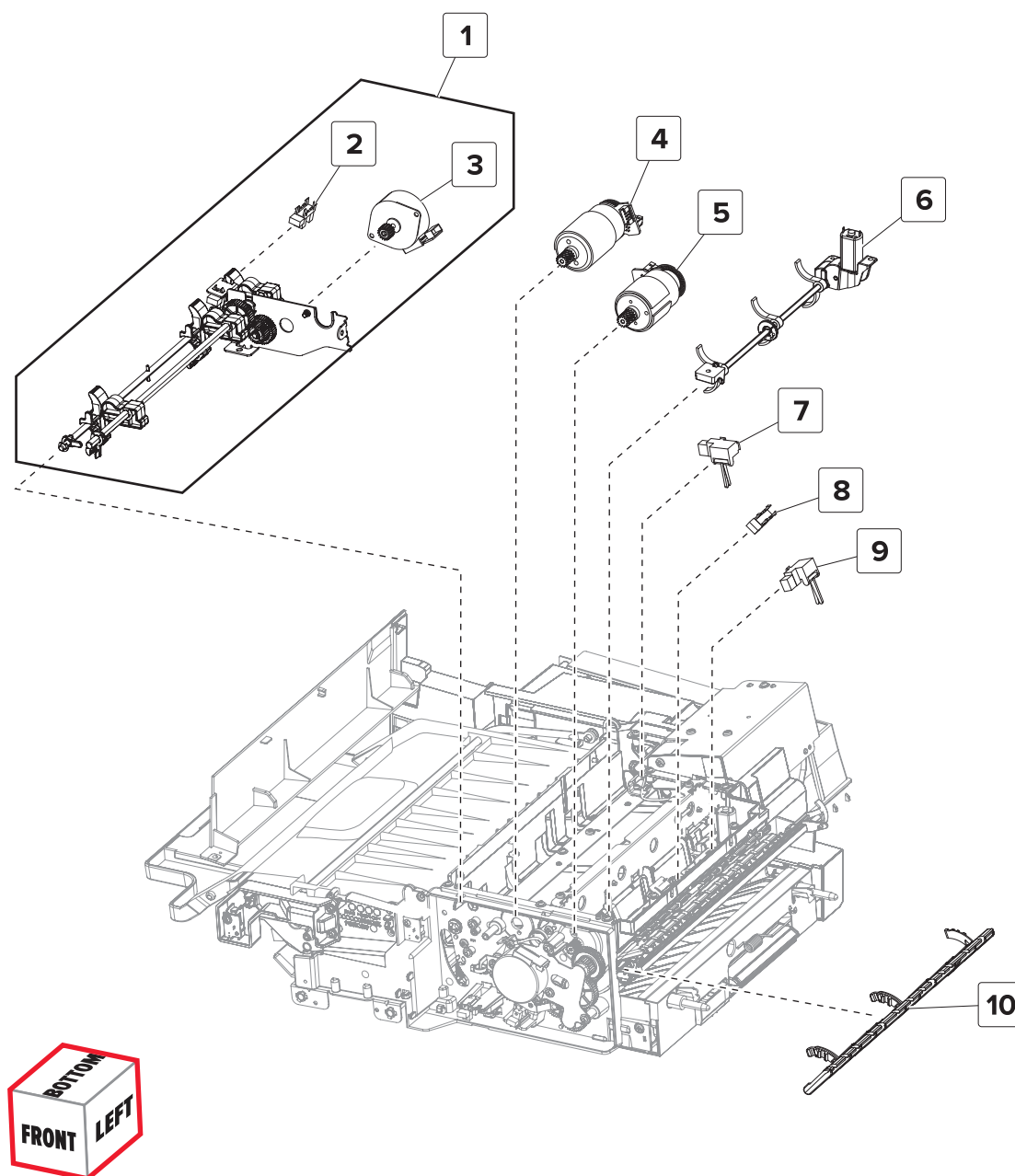
Assembly 45: Staple finisher—Bottom

Asm-index	P/N	Units/opt	Units/FRU	Description	Removal procedure
1	41X0532	1	1	Staple finisher bin clamp assembly	**"Staple finisher bin clamp assembly removal" on page 741**
2	40X7301	1	1	Sensor (staple finisher bin clamp)	**"Sensor (staple finisher bin clamp) removal" on page 748**
3	40X8256	1	1	Motor (staple finisher bin clamp)	**"Motor (staple finisher bin clamp) removal" on page 749**
4	41X0529	1	1	Motor (staple finisher exit)	**"Motor (staple finisher exit) removal" on page 754**
5	41X0529	1	1	Motor (staple finisher transport)	**"Motor (staple finisher transport) removal" on page 754**
6	41X0523	1	1	Staple finisher decurl paddle	**"Staple finisher decurl assembly removal" on page 756**
7	40X8745	1	1	Sensor (staple finisher staple unit paper present)	**"Sensor (staple finisher staple unit paper present) removal" on page 757**
8	40X7301	1	1	Sensor (staple finisher decurl)	**"Sensor (staple finisher decurl) removal" on page 758**
9	40X8745	1	1	Sensor (staple finisher transport)	**"Sensor (staple finisher transport) removal" on page 759**
10	41X0511	1	1	Staple finisher entrance paper guide	**"Staple finisher entrance paper guide removal" on page 740**
NS	41X0786	1	1	Staple finisher screw parts pack	--
NS	41X0787	1	1	Staple finisher plastic clip	--

Printer specifications

Power consumption

Product power consumption

The following table documents the power consumption characteristics of the product.

Note: Some modes may not apply to your product.

Mode	Description	Power consumption (Watts)
Printing	The product is generating hard-copy output from electronic inputs.	760 (one-sided); 740 (two-sided)
Copy	The product is generating hard-copy output from hard-copy original documents.	870
Scan	The product is scanning hard-copy documents.	115
Ready	The product is waiting for a print job.	80 (higher power usage); 70 (lower power usage)
Sleep Mode	The product is in a high-level energy-saving mode.	3.2
Hibernate	The product is in a low-level energy-saving mode.	0.3
Off	The product is plugged into an electrical outlet, but the power switch is turned off.	0.2

The power consumption levels listed in the previous table represent time-averaged measurements. Instantaneous power draws may be substantially higher than the average.

Values are subject to change. See **www.lexmark.com** for current values.

Sleep Mode

This product is designed with an energy-saving mode called *Sleep Mode*. The Sleep Mode saves energy by lowering power consumption during extended periods of inactivity. The Sleep Mode is automatically engaged after this product is not used for a specified period of time, called the *Sleep Mode Timeout*.

Factory default Sleep Mode Timeout for this product (in minutes):	1

By using the configuration menus, the Sleep Mode Timeout can be modified between 1 minute and 120 minutes. Setting the Sleep Mode Timeout to a low value reduces energy consumption, but may increase the response time of the product. Setting the Sleep Mode Timeout to a high value maintains a fast response, but uses more energy.

Hibernate Mode

This product is designed with an ultra-low power operating mode called *Hibernate mode*. When operating in Hibernate Mode, all other systems and devices are powered down safely.

The Hibernate mode can be entered in any of the following methods:

- Using the Hibernate Timeout
- Using the Schedule Power modes
- Using the Sleep/Hibernate button

| Factory default Hibernate Timeout for this product in all countries or regions | 3 days |

The amount of time the printer waits after a job is printed before it enters Hibernate mode can be modified between one hour and one month.

Off mode

If this product has an off mode which still consumes a small amount of power, then to completely stop product power consumption, disconnect the power supply cord from the electrical outlet.

Total energy usage

It is sometimes helpful to calculate the total product energy usage. Since power consumption claims are provided in power units of Watts, the power consumption should be multiplied by the time the product spends in each mode in order to calculate energy usage. The total product energy usage is the sum of each mode's energy usage.

Selecting a location for the printer

When selecting a location for the printer, leave enough room to open trays, covers, and doors. If you plan to install any options, then leave enough room for them also. It is important to:

- Set up the printer near a properly grounded and easily accessible electrical outlet with correct voltage and current capability.
- Make sure that airflow in the room meets the latest revision of the ASHRAE 62 standard or the CEN Technical Committee 156 standard.
- Provide a flat, sturdy, and stable surface.
- Keep the printer:
  - Clean, dry, and free of dust.
  - Away from stray staples and paper clips.
  - Away from the direct airflow of air conditioners, heaters, or ventilators.
  - Free from direct sunlight and humidity extremes.
- Observe the recommended temperatures and avoid fluctuations:

| Ambient temperature | 10 to 32.2°C (50 to 90°F) |
| Storage temperature | -40 to 43.3°C (-40 to 110°F) |

- Allow the following recommended amount of space around the printer for proper ventilation:
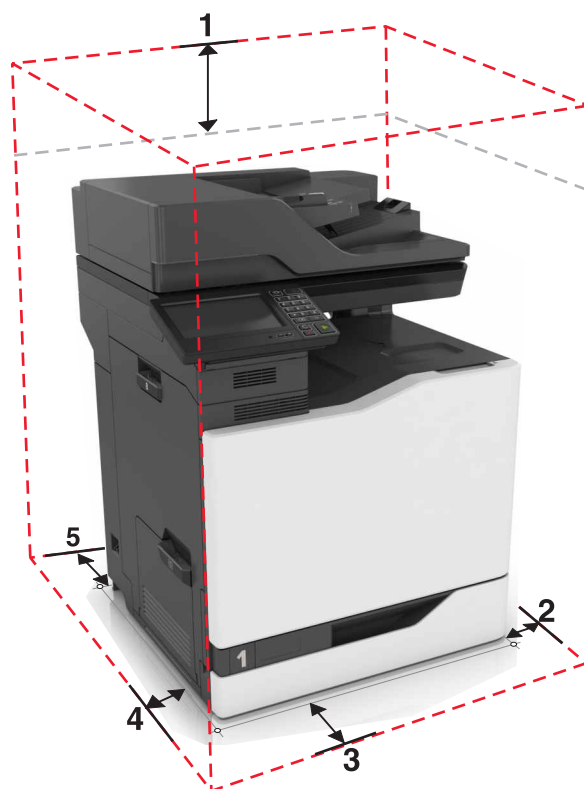
1	Top	458 mm (18 in.)
2	Right side	432 mm (17 in.)
3	Front	380 mm (14.9 in.)
4	Left side	100 mm (3.9 in.)
5	Rear	150 mm (5.9 in.)

Noise emission levels

The following measurements were made in accordance with ISO 7779 and reported in conformance with ISO 9296.

Note: Some modes may not apply to your product.

1-meter average sound pressure, dBA	
Printing	54 (one-sided); 55 (two-sided)
Scanning	56
Copying	57
Ready	28

Values are subject to change. See **www.lexmark.com** for current values.

Temperature information

Ambient operating temperature	10 to 32.2°C (50 to 90°F)
Shipping temperature	-10 to 40°C (14 to 104°F)
Storage temperature and relative humidity	-10 to 40°C (14 to 104°F) 8 to 80% RH

Enabling the security reset jumper

Notes:

- Before changing the security settings, ask for permission from your administrator.
- Resetting the printer deletes all security settings.
- For MFPs, replacing the controller board deletes all security settings.
- If LDAP is used to authenticate the copy function in MFPs, then the LDAP configuration and copy function are no longer protected.
- To prevent the tampering of the jumper, secure the controller board cage with a Kensington lock. To disable the effect of the jumper reset, select **No Effect** from the Security Reset Jumper Setting section in the Security menu.
- If Enable Audit is activated from the Security Audit Log section in the Security menu, then the printer logs a message each time the jumper is reset.

To reset the jumper:

1 Turn off the printer.

2 Access the controller board.

3 Locate the jumper on the controller board.

   Note: The jumper is located next to a lock icon on the controller board.
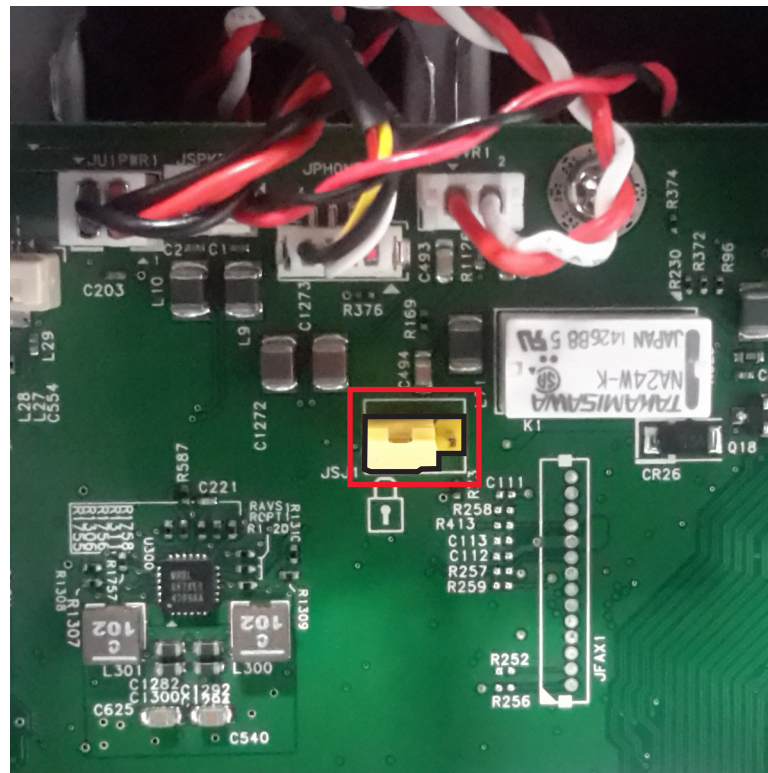
4 Move the jumper to cover the middle and exposed prongs.

   Note: The movement of the jumper triggers the reset, not the jumper position.

5 Turn on the printer.

Printer specifications

Options and features

Some of the options may not be available in every country or region.

Available internal options

- Memory card
  - DDR3 DIMM
  - Flash memory
    - Fonts
  - Application cards
    - Forms and Bar Code
    - PRESCRIBE
    - IPDS
- Lexmark Internal Solutions Port (ISP)
  - MarkNet™ N8360 (802.11 b/g/n/a wireless print server bundled with LEX-M06-001 Mobile Solutions Module)
  - IEEE 1284-B Parallel Card
  - RS-232C Serial Card

Media handling options

Some options may not be available for all models.

1	Standard 550-sheet tray
2	Optional 550-sheet tray
3	Optional 2200-sheet tray
4	Multipurpose feeder
5	Staple finisher

Input/output configurations and capacities

Input sources

Printer model	Number of standard trays	Maximum number of optional trays	Maximum number of trays[*]
CX820de, CX827de	2	4	6
CX820dtfe	4	4	6
CX825de/CX860de	2	4	6
[*] Maximum of four optional trays are supported at one time.			

Printer model	Number of standard trays	Maximum number of optional trays	Maximum number of trays[*]
CX825dte/CX860dte	4	4	6
CX825dtfe/CX860dtfe	2	4	6
[*] Maximum of four optional trays are supported at one time.			

Input capacities

Printer model	550-sheet trays	Multipurpose feeder	Total standard capacity	Maximum input capacity
CX820de, CX827de	550	100	650	4500
CX820dtfe	1650	100	1750	4500
CX825de/CX860de	550	100	650	4500
CX825dte/CX860dte	1650	100	1750	4500
CX825dtfe/CX860dtfe	1650	100	1750	4500

Output capacities[*]

Printer model	Standard bin (printer top)	Standard bin with staple finisher installed	Multiposition staple, hole punch finisher (unstapled)	Maximum output capacity[1]
CX820de, CX827de	500	300	N/A	500
CX820dtfe	300	300	N/A	300
CX825de/CX860de	500	300	1950[2]	1950[2]
CX825dte/CX860dte	500	300	1950[2]	1950[2]
CX825dtfe/CX860dtfe	300	300	N/A	N/A
[1] Only one output option can be installed.				
[2] This requires installation of MSHPF.				

Options and features

Input capacity by paper and source

Source	Paper	Stack height	Approximate reference capacity
550-sheet tray[b]	Plain paper[a]	59 mm (2.32 in.)	550 sheets (75 g/m^2)
	Labels	236 mm (9.29 in.)	200 labels **Note:** Capacity varies with label material and construction.
Optional 2200-sheet tray[b]	Plain paper[a]	236 mm (9.29 in.)	2200 sheets (75 g/m^2)
	Labels	236 mm (9.29 in.)	800 labels (75 g/m^2) **Note:** Capacity varies with label material and construction.
Multipurpose feeder[b]	Plain paper[a]	11 mm (.43 in.)	100 sheets (75 g/m^2)
	Envelopes	11 mm (.43 in.)	10 envelopes (75 g/m^2)
	Other	11 mm (.43 in.)	Various quantities **Note:** Capacity varies depending on weight and type of media.
[a] 20 lb xerographic paper at ambient environment.			
[b] Capacity may vary and is subject to media specifications and printer operating environment.			

Options and features

Output capacity by paper and source

Source	Paper	Stack height	Approximate reference capacity
Standard bin[a,b]	Plain paper[a]	68 mm (2.68 in.)	550 sheets (75 g/m^2)
	Labels	68 mm (2.68 in.)	200 labels **Note:** Capacity varies with label material and construction.
	Envelopes	68 mm (2.68 in.)	50 envelopes (75 g/m^2)
Standard bin with staple finisher installed[a,b]	Plain paper[a]	40 mm (1.57 in.)	300 sheets (75 g/m^2
	Labels	40 mm (1.57 in.)	120 labels (75 g/m^2) **Note:** Capacity varies with label material and construction.
	Envelopes	40 mm (1.57 in.)	30 envelopes (75 g/m^2)
Staple finisher[a,b]	Plain paper[a] (stapled sheets)	40 mm (1.57 in.)	300 sheets (75 g/m^2)
[a] 20 lb xerographic paper at ambient environment.			
[b] Capacity may vary and is subject to media specifications and printer operating environment.			

Physical specifications (input options)

Item	Height	Width	Depth
550-sheet tray (installed)	120 mm (4.72 in.)	558.8 mm (22 in.)	522.4 mm (20.6 in.)
2200-sheet tray (installed)	359 mm (14.13 in.)	558.8 mm (22 in.)	522.4 mm (20.6 in.)

Installing optional trays

⚠ **CAUTION—POTENTIAL INJURY:** The printer weight is greater than 18 kg (40 lb) and requires two or more trained personnel to lift it safely.

⚠ **CAUTION—SHOCK HAZARD:** To avoid the risk of electrical shock, if you are accessing the controller board or installing optional hardware or memory devices sometime after setting up the printer, then turn the printer off, and unplug the power cord from the electrical outlet before continuing. If you have any other devices attached to the printer, then turn them off as well, and unplug any cables going into the printer.

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

⚠ **CAUTION—TIPPING HAZARD:** Installing one or more options on your printer or MFP may require a caster base, furniture, or other feature to prevent instability causing possible injury. For more information on supported configurations, see **www.lexmark.com/multifunctionprinters**.

1 Turn off the printer, and then unplug the power cord from the printer and electrical outlet.

2 Unpack the optional tray, and then remove all packing material.

3 Lift the printer using the side handles.
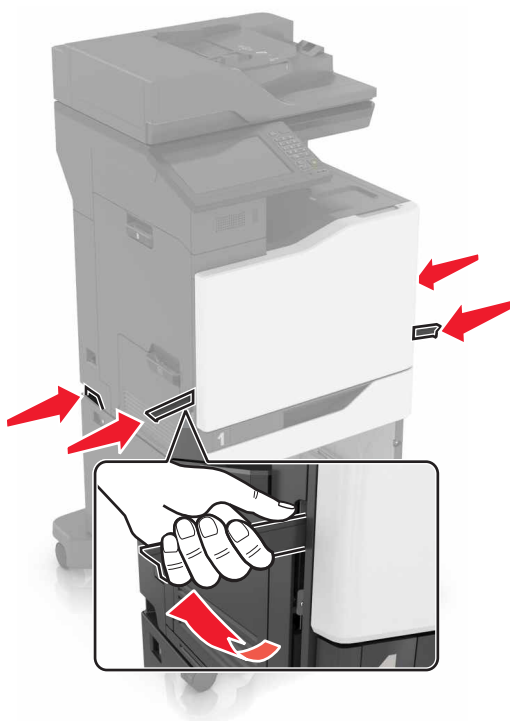
4 Align the printer with the optional tray, and then lower the printer until it *clicks* into place.
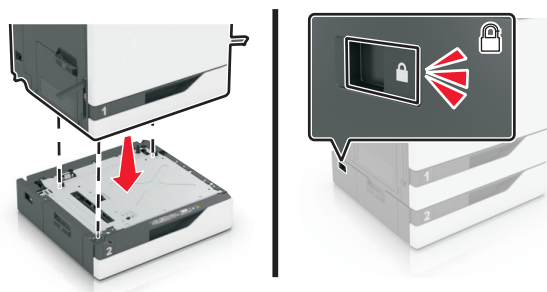
5 Connect the power cord, and then turn on the printer.

Note: If necessary, manually add the tray in the print driver to make it available for print jobs. For more information, see .

Adding available options in the print driver

For Windows users

1 Open the printers folder.

2 Select the printer you want to update, and then do the following:
- For Windows 7 or later, select **Printer properties**.
- For earlier versions, select **Properties**.

3 Navigate to the Configuration tab, and then select **Update Now - Ask Printer**.

4 Apply the changes.

For Macintosh users

1 From System Preferences in the Apple menu, navigate to your printer, and then select **Options & Supplies**.

2 Navigate to the list of hardware options, and then add any installed options.

3 Apply the changes.

Theory of operation

POR sequence

As the printer 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 POR sequence cannot be completed successfully, then the printer may post an error message. The message states that service may be needed.

Print cycle operation

Print engine layout
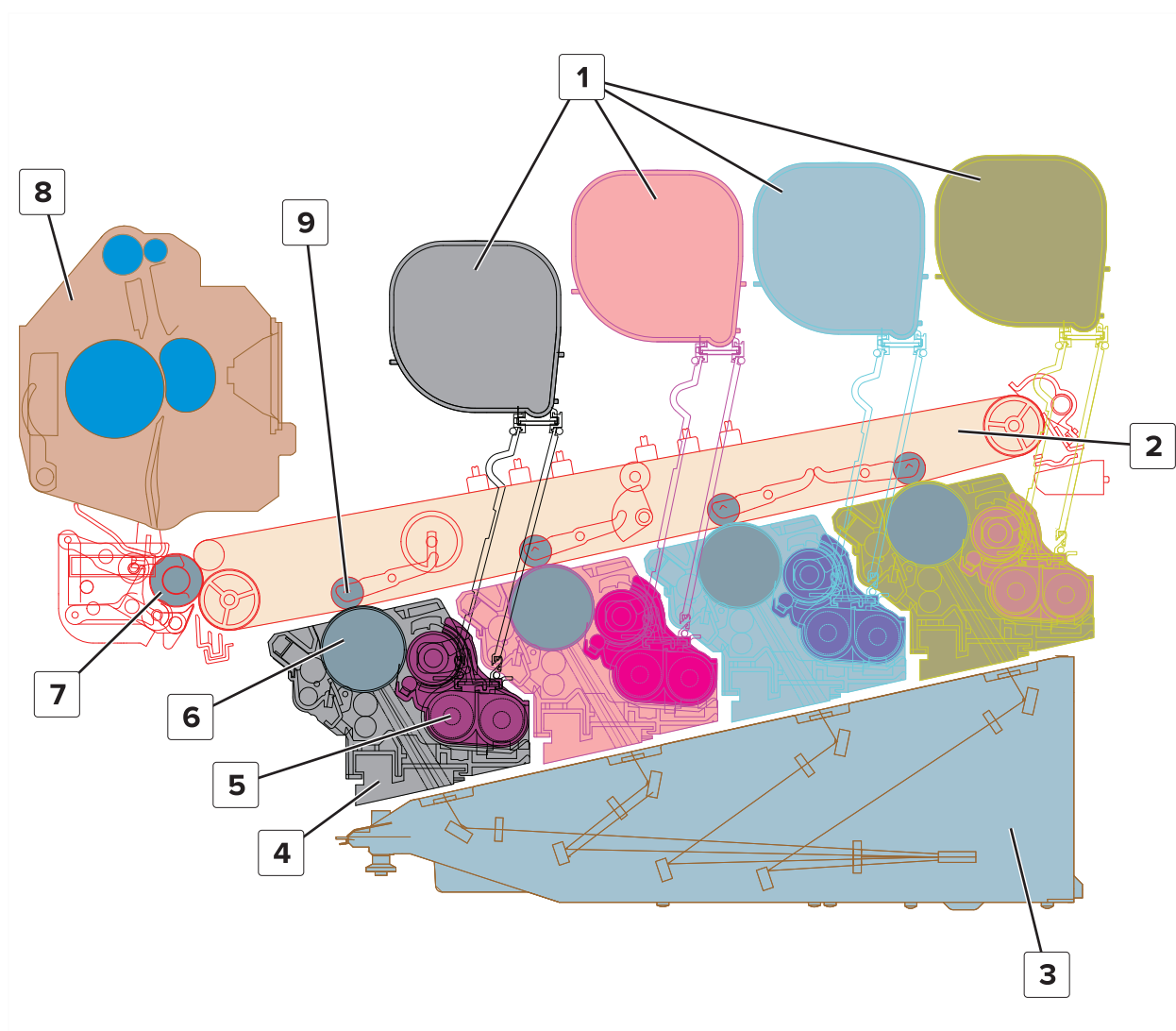
1	Toner cartridges (K, M, C, Y)
2	Transfer belt

Theory of operation

3	Printhead
4	Imaging unit
5	Developer unit
6	Photoconductor unit
7	Second transfer roller
8	Fuser
9	First transfer roller

Electrophotographic (EP) process

Flowchart
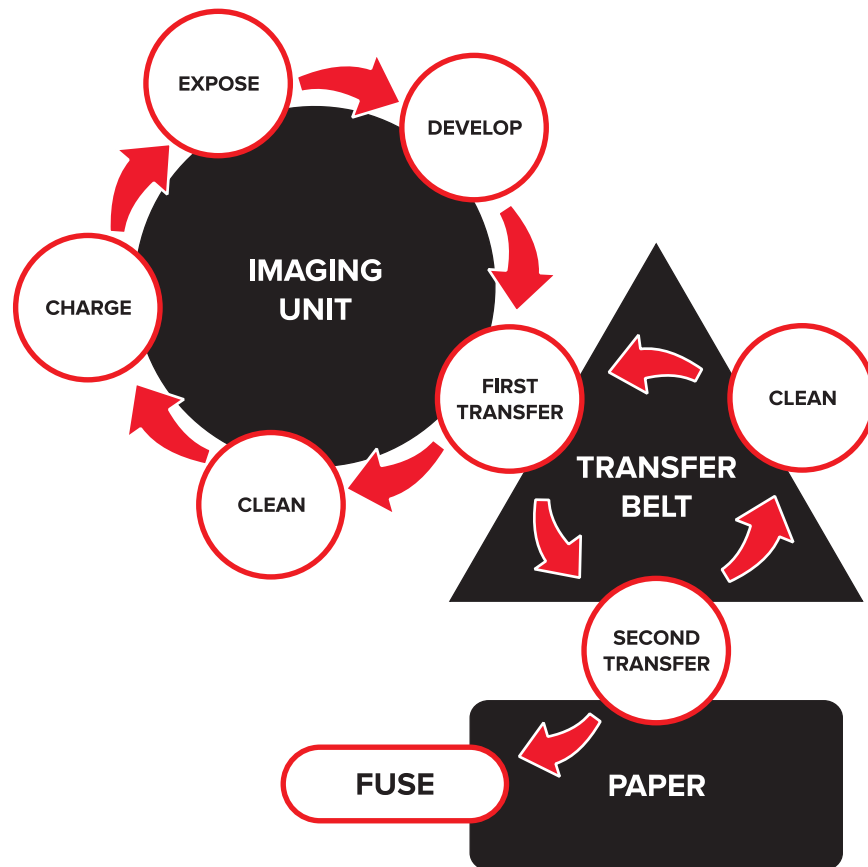
Charge
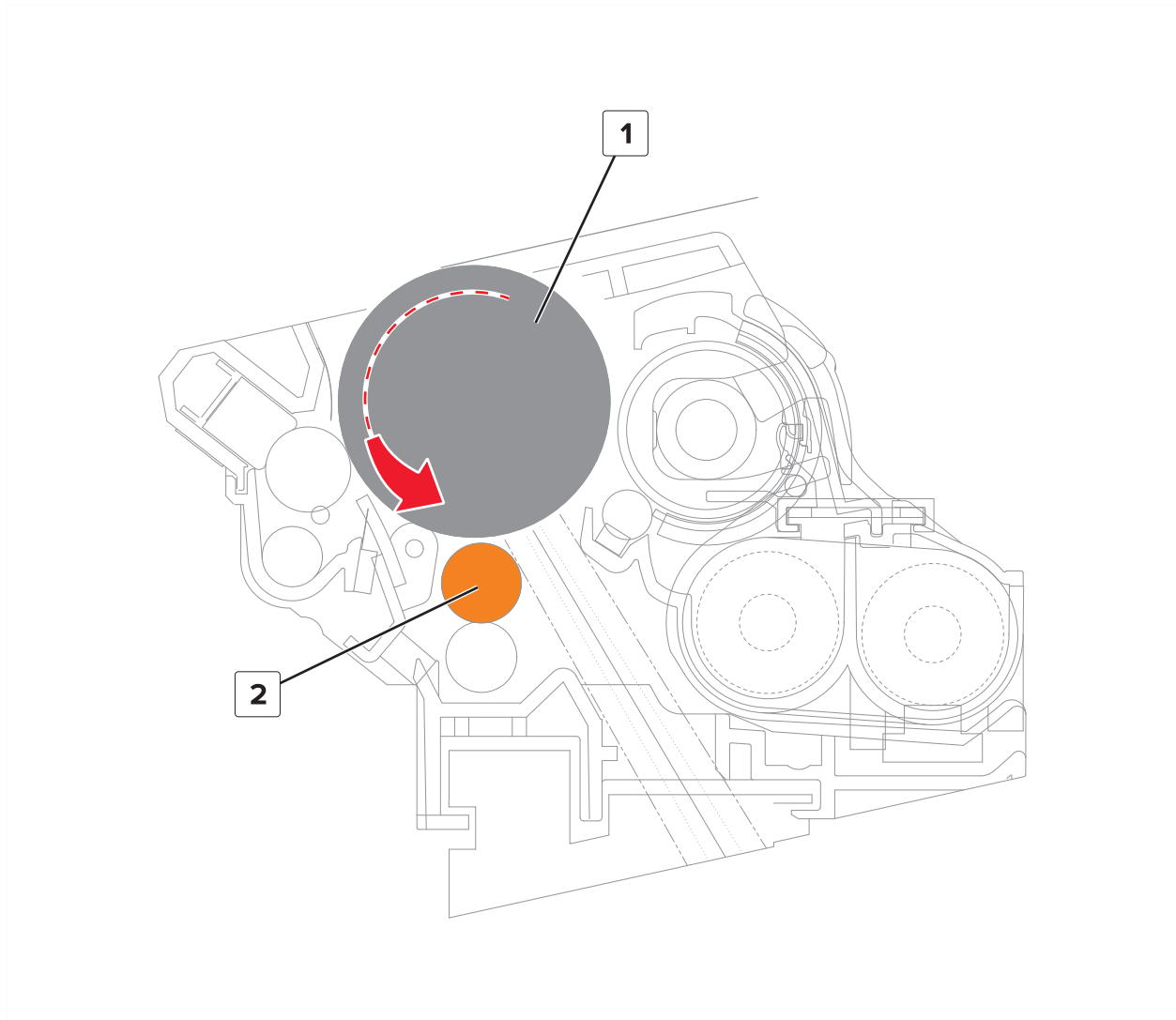
1	Photoconductor drum
2	Charge roller

A uniform negative electrical charge is applied by the charge roller to the surface of the photoconductor drum. The photoconductive properties of the surface material allow it to hold the charge as long as it is not exposed to light.

Expose
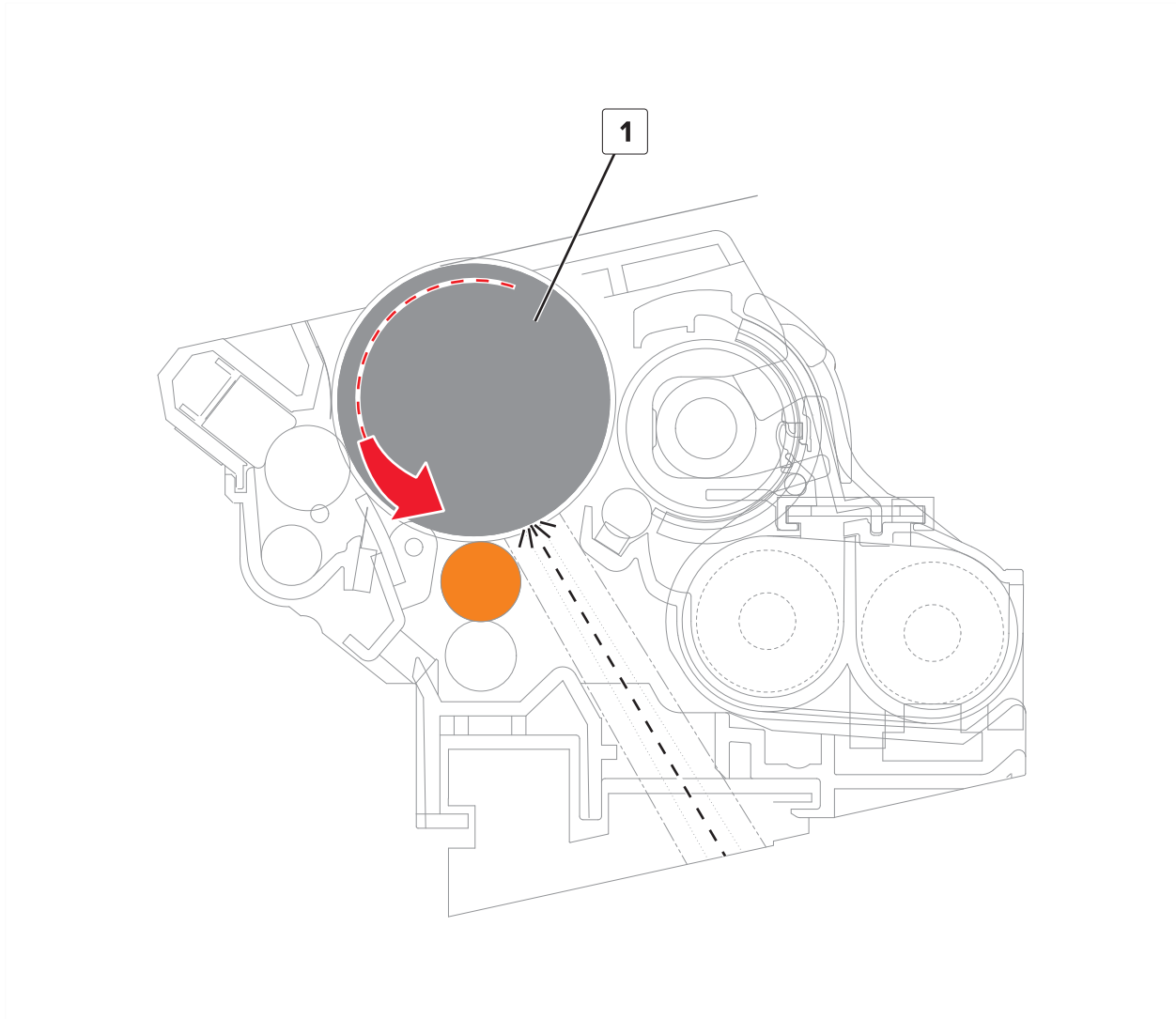
1	Photoconductor drum

The printhead emits the light that contacts the surface of the photoconductor drum. The light turns on or off coinciding with the digital latent image. The light causes areas of the photoconductor drum surface to lose charge, resulting in a relative opposite polarity.

Develop
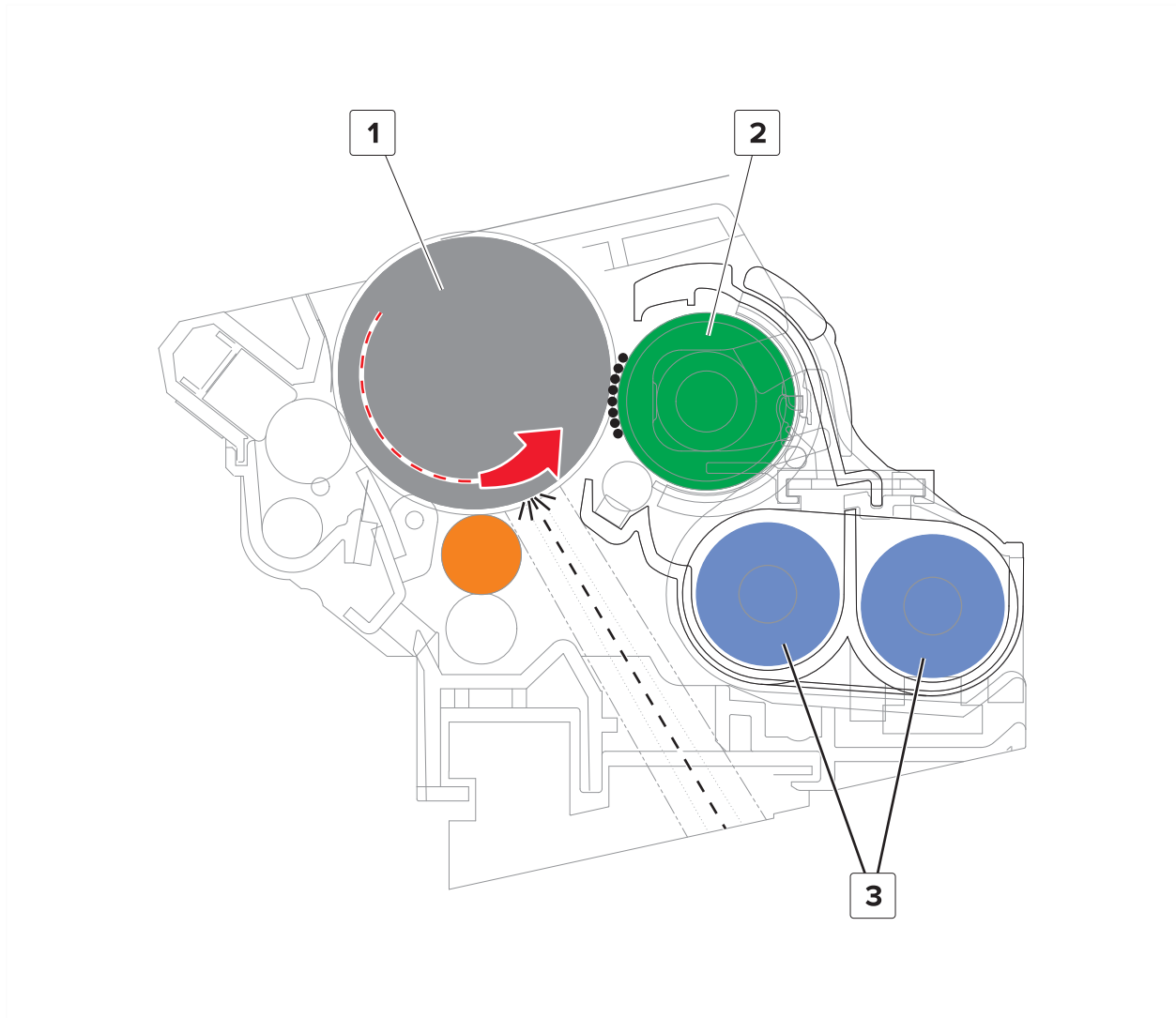
1	Photoconductor drum
2	Developer roller
3	Augers

The developer unit applies the toner from the toner cartridge to the photoconductor drum. The difference in charge causes the toner particles to attract to the photoconductor drum areas which are exposed to light.

First transfer
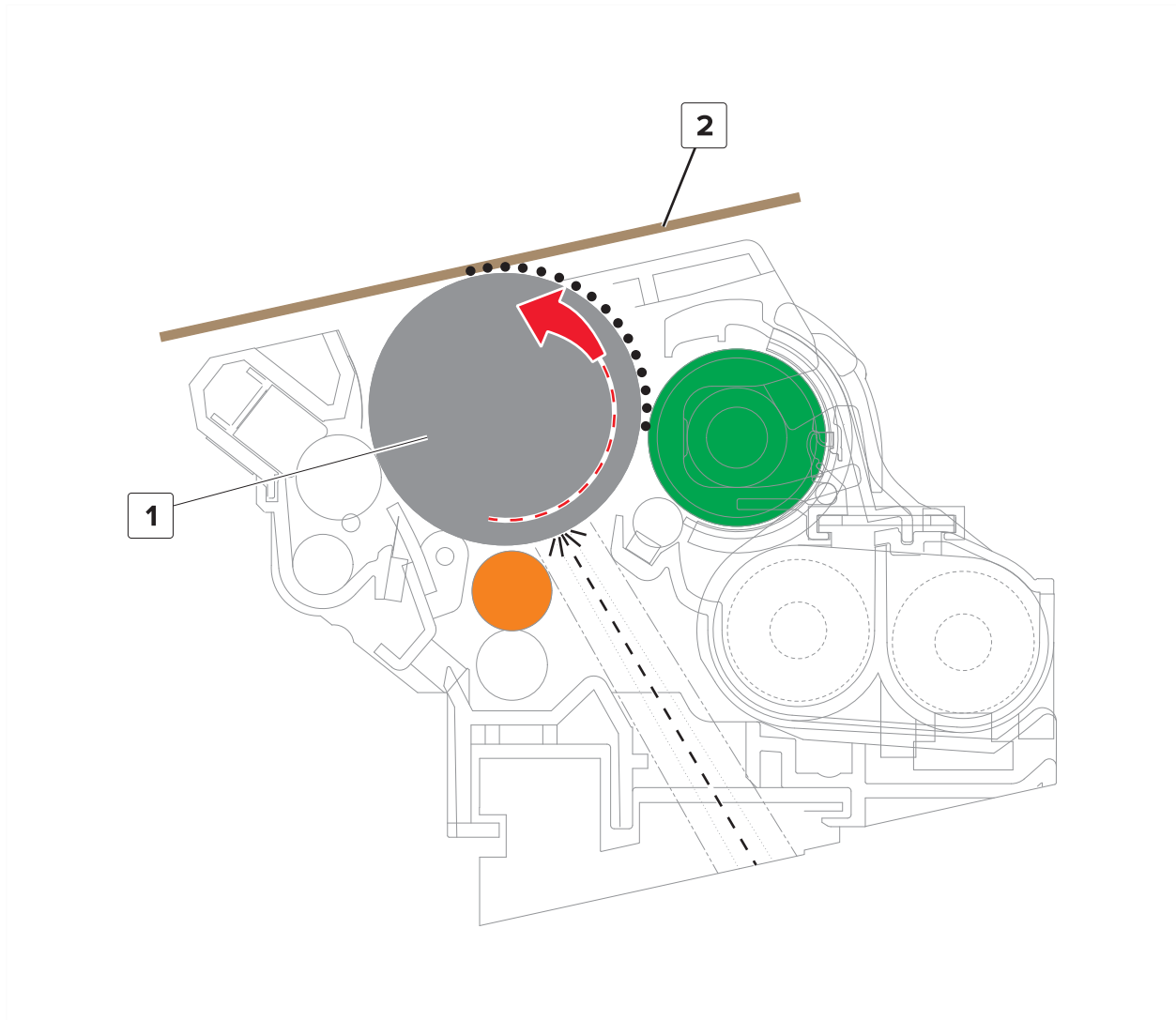
1	Photoconductor drum
2	Transfer belt

The developed image transfers from the photoconductor drum to the transfer belt. Due to relative opposite polarities, the transfer belt pressed against the photoconductor drum attracts the toner onto its surface.

Clean (photoconductor)
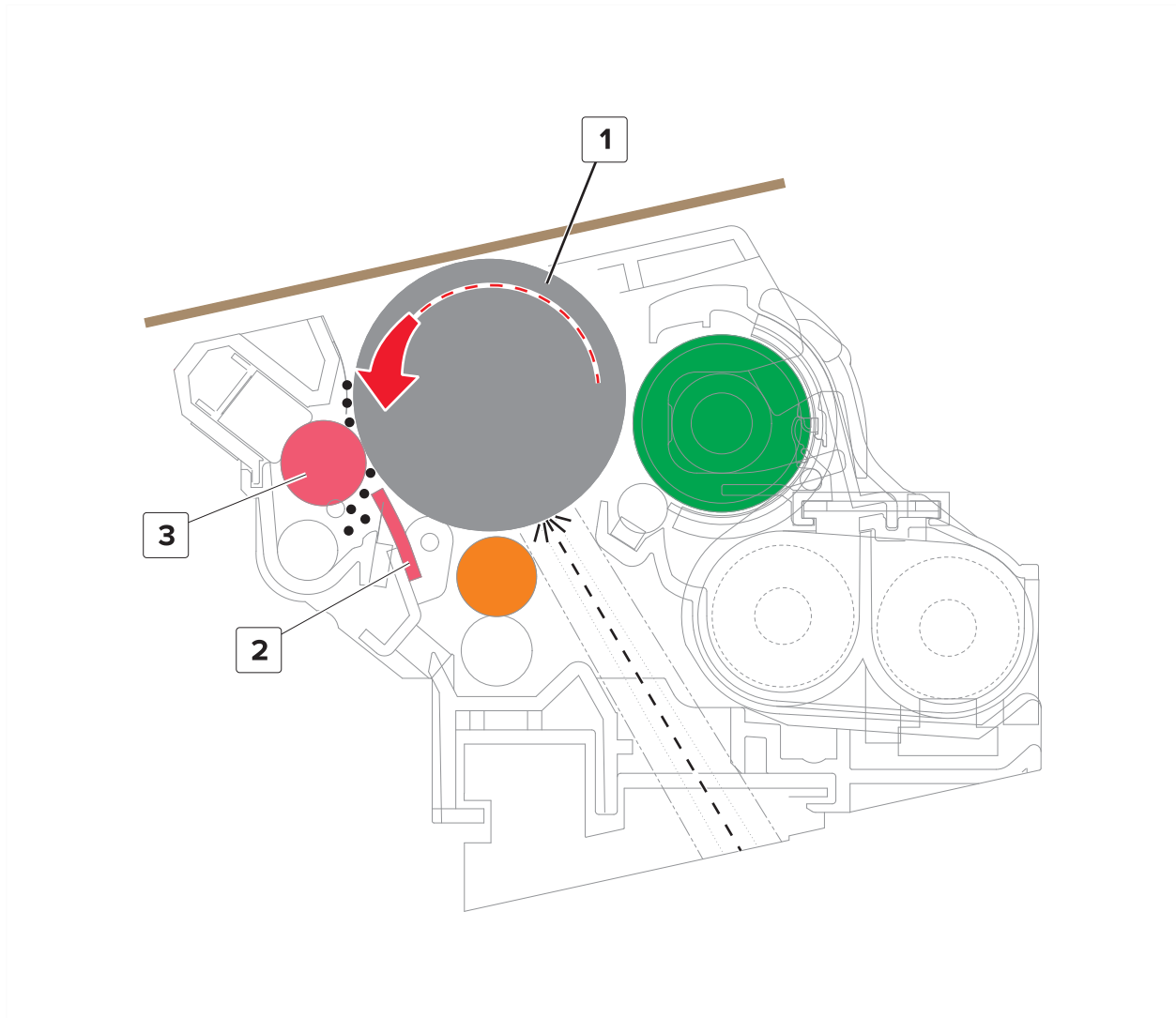
1	Photoconductor drum
2	Cleaning blade
3	Brush roller

The brush roller and the cleaning blade remove the toner residue from the photoconductor drum. The cycle (charge, expose, develop, first transfer, clean) repeats until the whole image is transferred to the transfer belt.

Second transfer
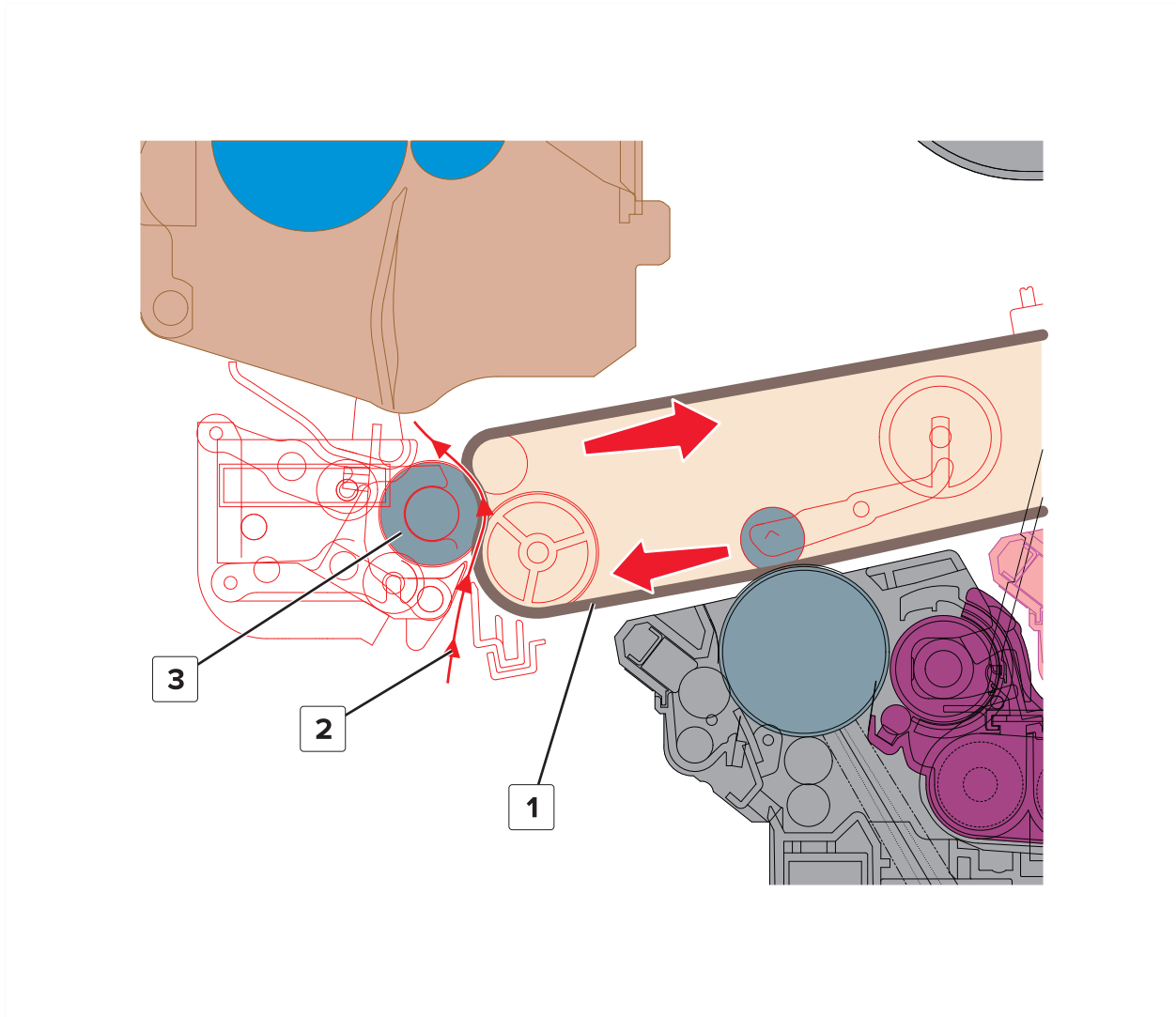
1	Transfer belt
2	Paper
3	Second transfer roller

The whole image from the transfer belt is transferred again, this time onto the paper. The paper, which is pressed between the transfer belt and transfer roller, attracts the toner to its surface.

Clean (transfer belt)
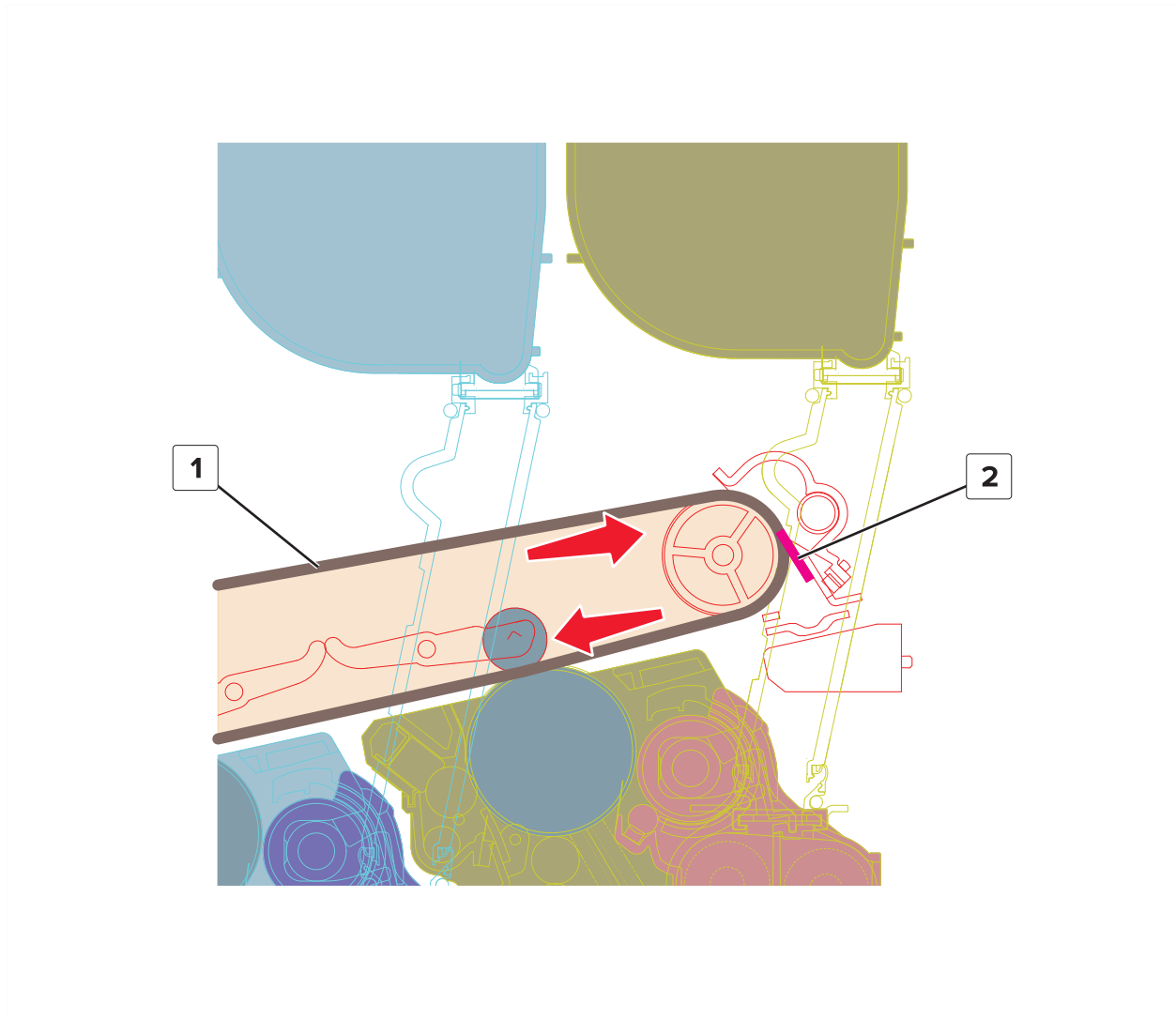
1	Transfer belt
2	Cleaning blade

Some residual toner remains applied to the surface of the transfer belt. To prevent contamination on the next image, a cleaning blade scrapes off the toner from the transfer belt surface. Waste toner from the transfer belt and photoconductor drum is transported to the waste toner bottle. The cycle (first transfer, second transfer, clean) repeats for the succeeding print jobs.

Fuse
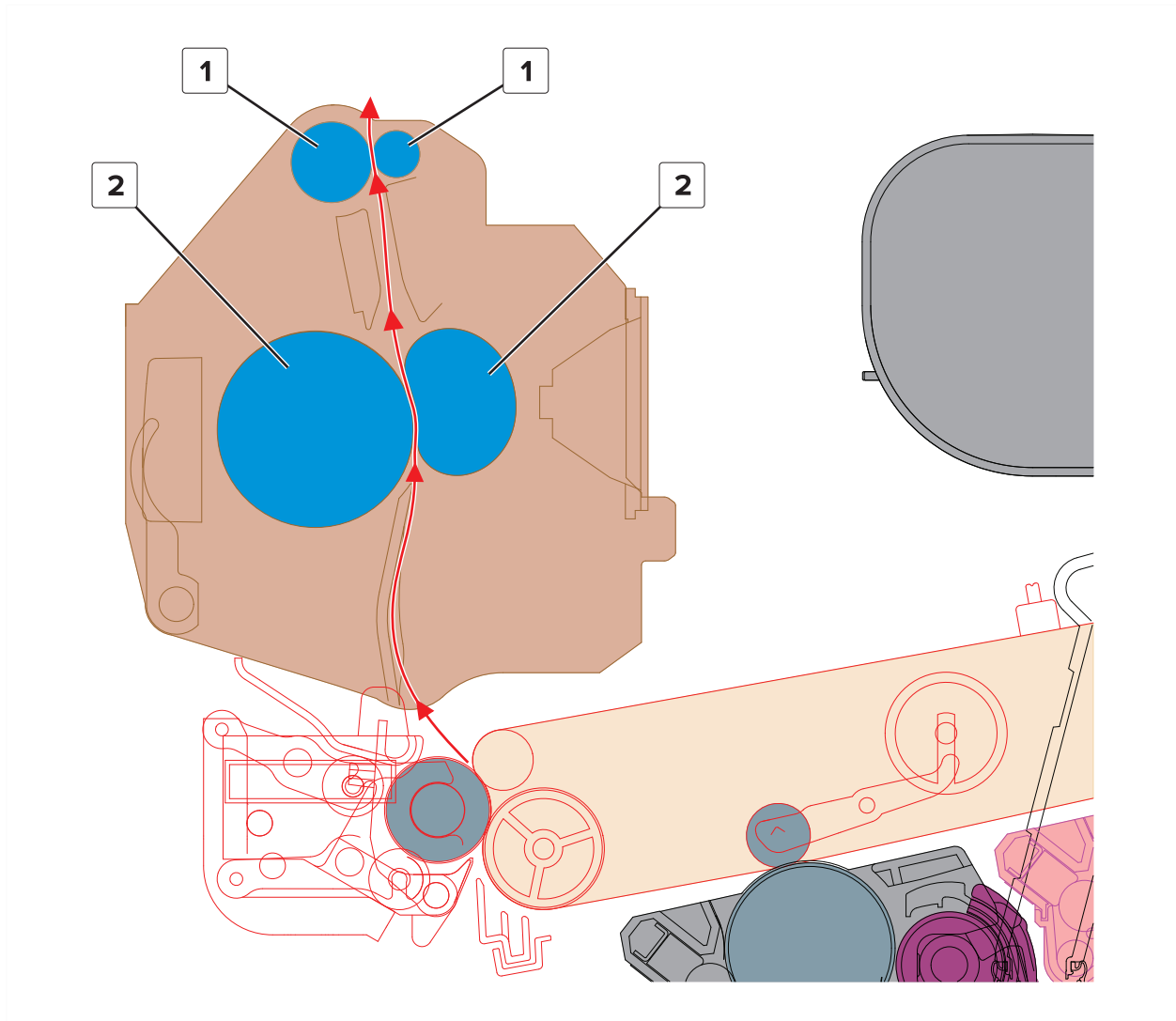
1	Decurler rollers
2	Fuser rollers

Even if the toner image is already on the paper, the toner particles are not yet permanently bonded to the surface. For the final part of printing, the paper is transported to the fuser where heat and pressure are applied to it. As a result, the toner particles melt and permanently fuse with the paper, completing the print process. The print cycle repeats for the succeeding pages.

Fresh toner delivery drive
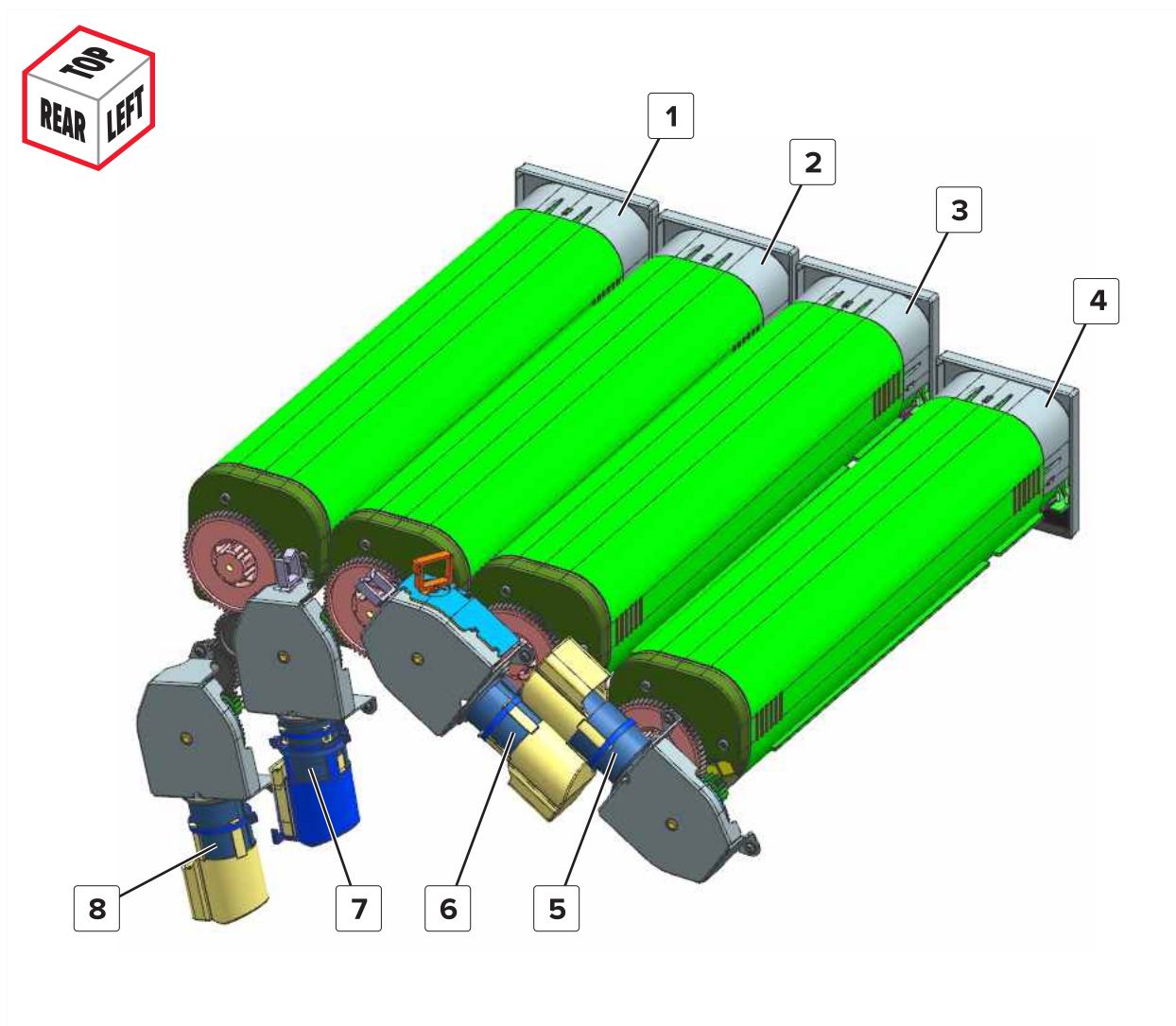
1	Toner cartridge (Y)
2	Toner cartridge (C)
3	Toner cartridge (M)
4	Toner cartridge (K)
5	Motor (K toner add)
6	Motor (M toner add)
7	Motor (C toner add)
8	Motor (Y toner add)

Toner cartridges supply fresh toner to the developer units. Inside the cartridges, the toner is agitated by paddles so that it is properly delivered to the developer unit.

A motor drives the paddle in each toner cartridge.

Developer drive
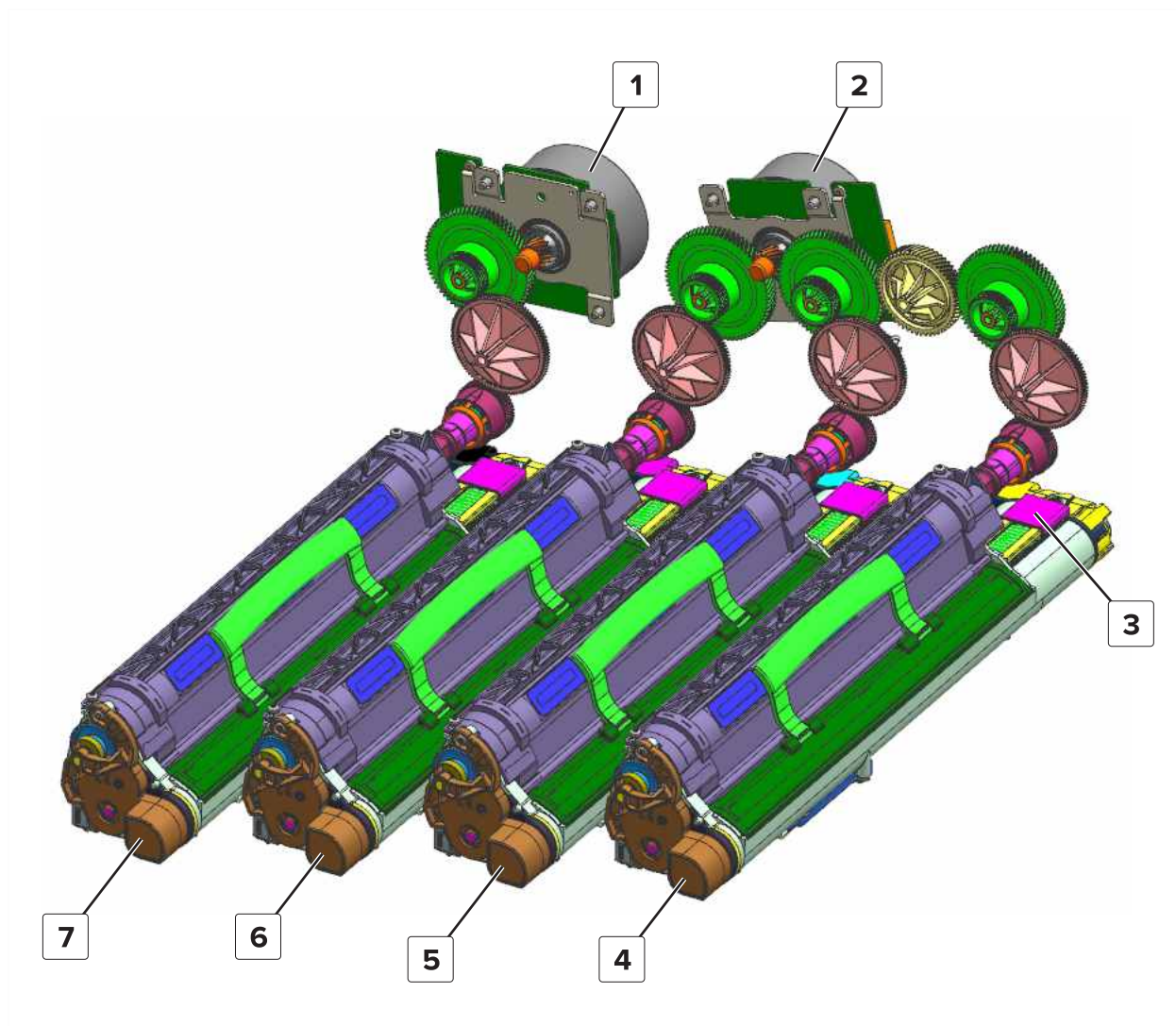
1	Motor (K developer)
2	Motor (CMY developers)
3	Shutter
4	Developer unit (Y)
5	Developer unit (C)
6	Developer unit (M)
7	Developer unit (K)

A shutter for each developer unit receives toner from the toner cartridge. Inside the developer unit, the toner is circulated by rotating augers so that it is evenly distributed. The developer roller also rotates to apply the toner particles to the photoconductor drum.

The C, M, and Y developer rollers and augers are driven by a motor. The K developer roller and augers are driven by a separate motor.

Photoconductor drive
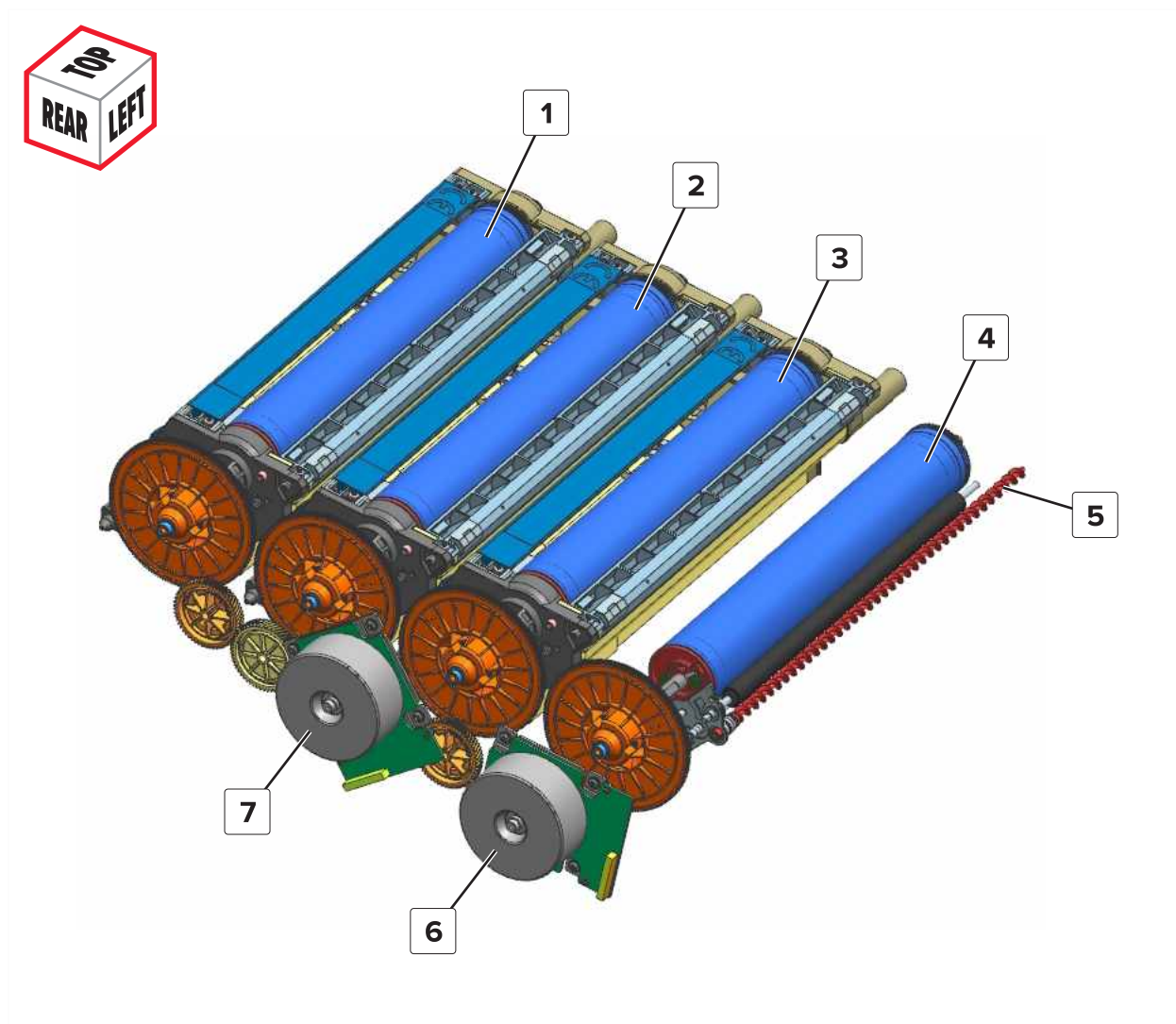
1	Photoconductor drum (Y)
2	Photoconductor drum (C)
3	Photoconductor drum (M)
4	Photoconductor drum (K)
5	Auger
6	Motor (K photoconductor)
7	Motor (CMY photoconductors)

The photoconductor drum rotates during the print cycle (charge, expose, develop, first transfer, clean). An auger for each photoconductor drum transfers the residual toner to the waste toner bottle.

The C, M, and Y photoconductor drums and augers are driven by a motor. The K photoconductor drum and auger are driven by a separate motor.

Theory of operation

Black only retract (BOR) drive
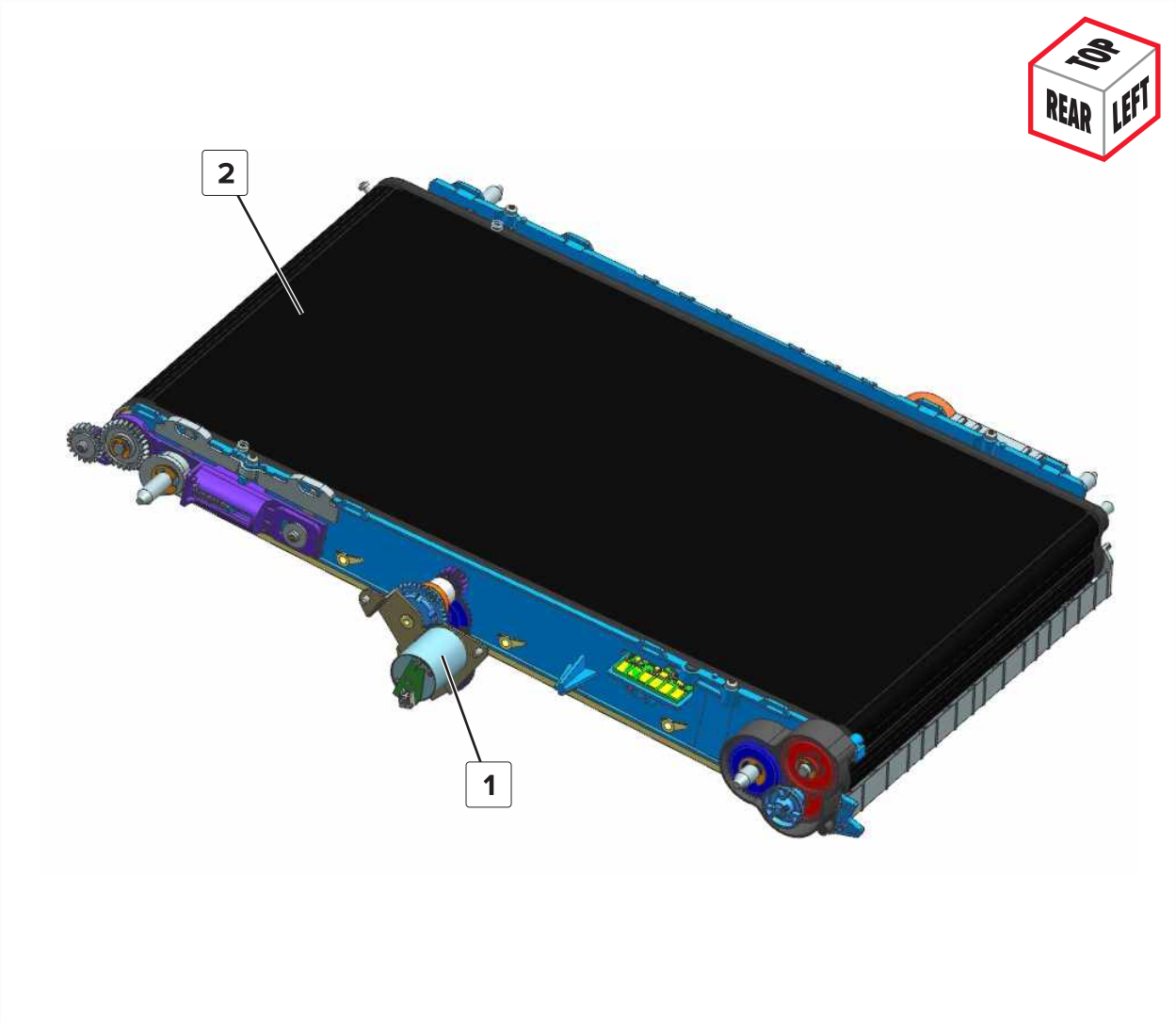
1	Motor (black only retract)
2	Transfer belt

For black and white print jobs, only the K photoconductor drum needs to be engaged with the transfer belt. For colorless printing, the C, M, and Y first transfer rollers inside the transfer belt retract to move away from the C, M, and Y photoconductor drums. As a result, image transfer only occurs on the K photoconductor drum.

The motor (black only retract) controls the positions of the first transfer rollers.

Waste toner delivery drive
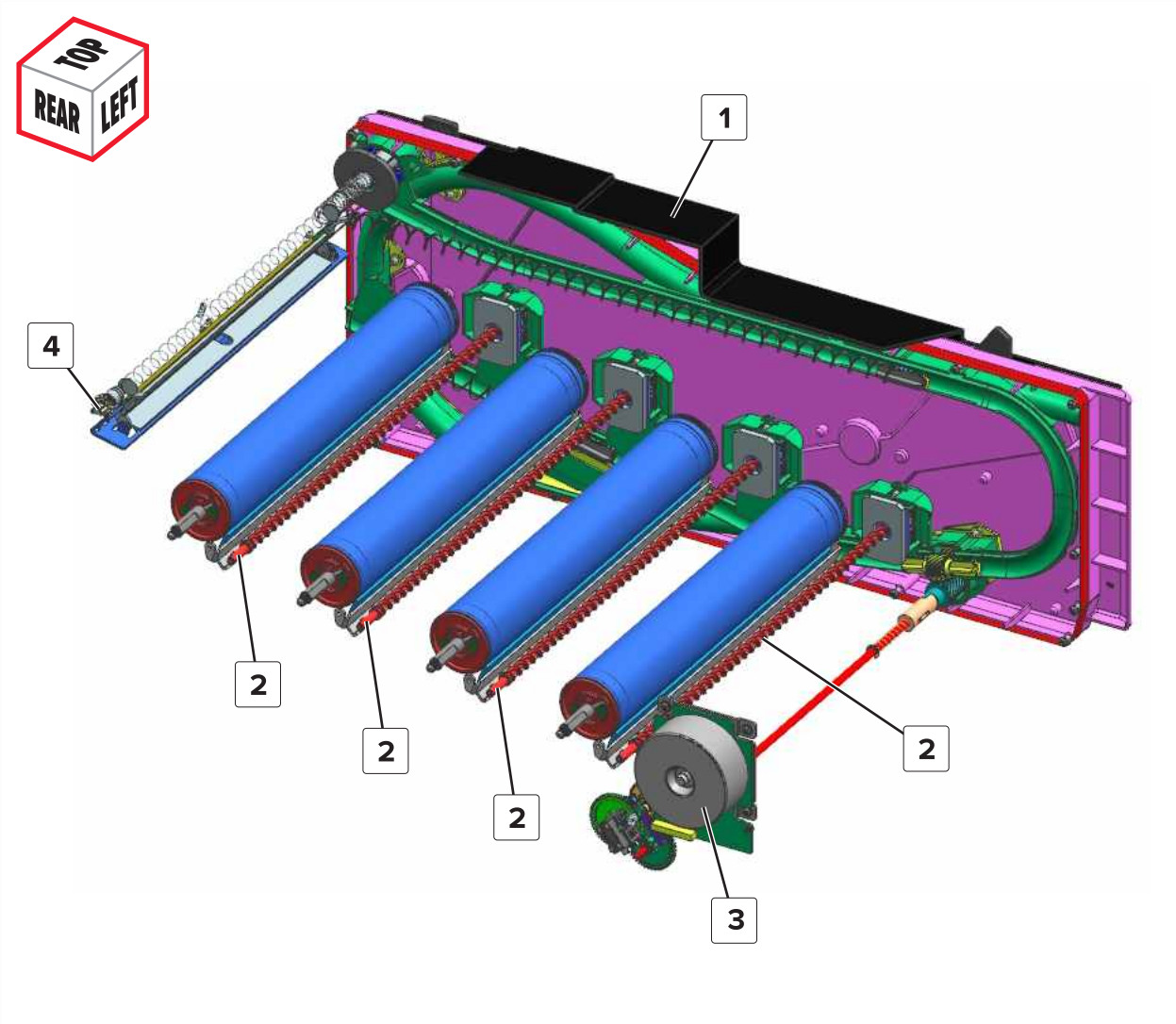
1	Waste toner bottle
2	Photoconductor cleaners
3	Motor (transfer belt)
4	Transfer belt cleaner

Toner residue from the photoconductor drums and transfer belt are removed by cleaners, and then transferred to the waste toner bottle.

Inside the waste toner bottle, augers uniformly collect the toner to maximize the container capacity.

The motor (transfer belt) drives the augers inside the waste toner bottle.

Printhead lens cleaner drive
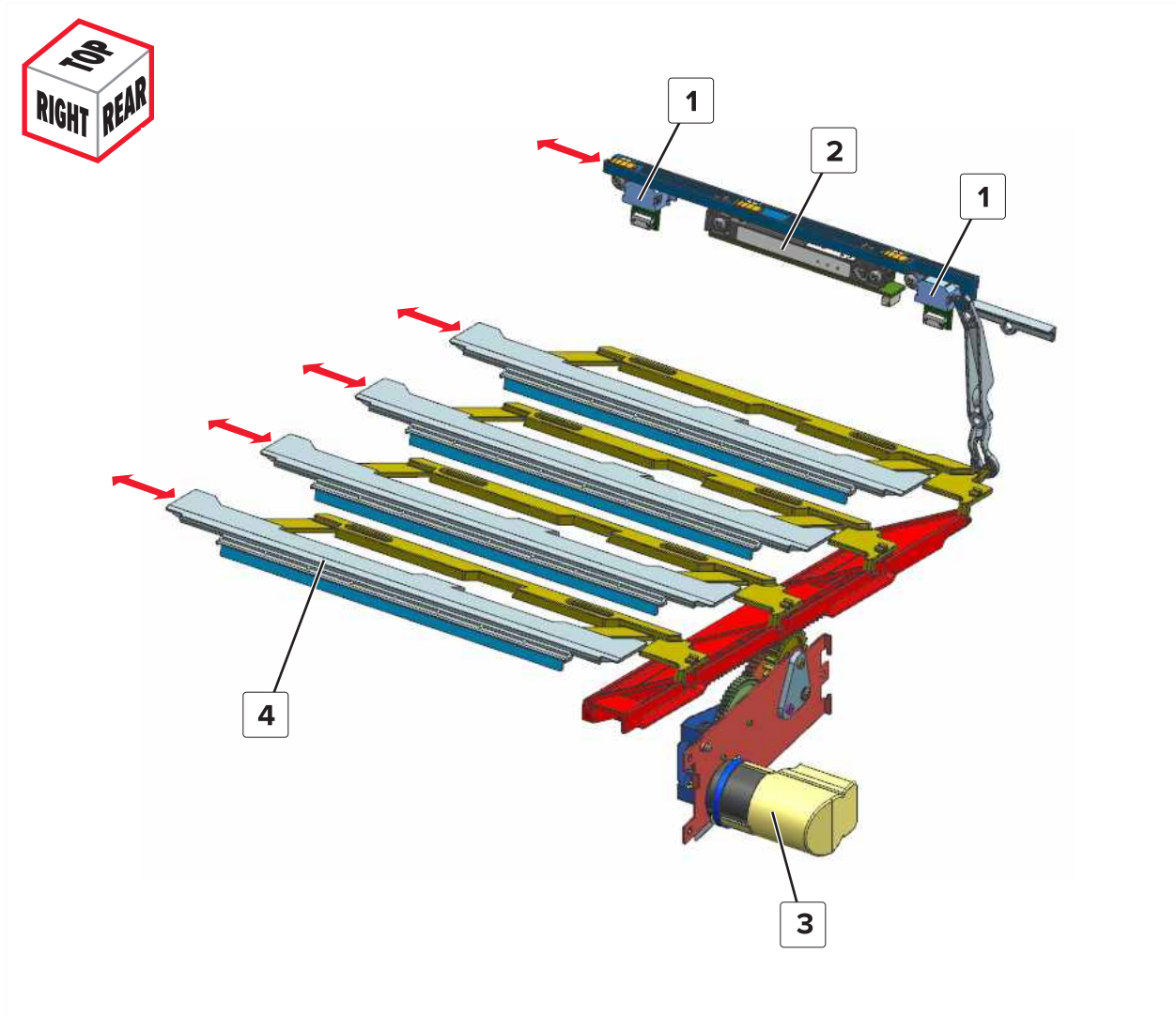
1	Sensors (auto alignment)
2	Sensor (TPS)
3	Motor (printhead wiper)
4	Printhead wiper brush

The printhead lenses are cleaned by wiper brushes so that they are free from contamination. At the same time, the sensor (TPS) and the sensors (auto alignment) are also cleaned.

Note: TPS stands for *toner patch sensing*. The sensor (TPS) detects the toner density of individual toners on the belt. The sensor (auto alignment) checks if the different colors are aligned with each other.

The motor (printhead wiper) drives the wipers and TPS mechanism.

Printer operation

Printer sections
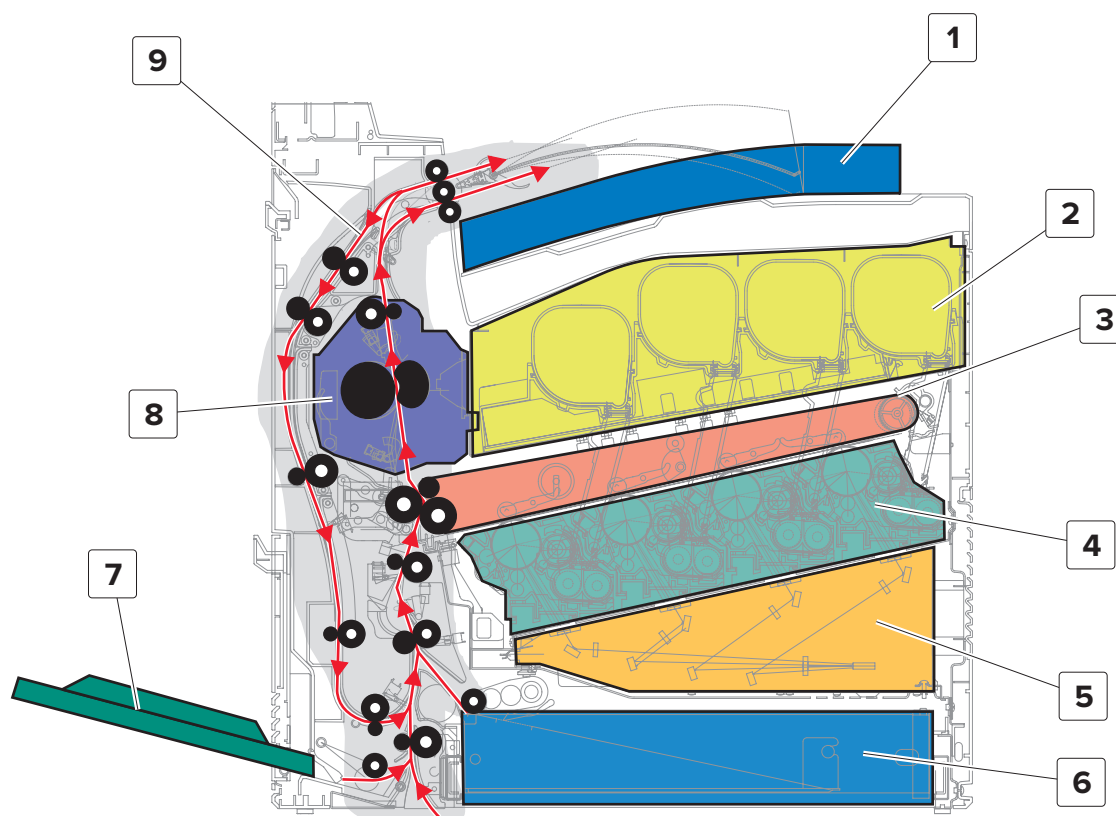
1	Bin
2	Toner supply
3	Transfer belt
4	Imaging assembly
5	Printhead
6	Tray 1
7	MPF
8	Fuser
9	Paper path

Printer paper path

Standard print job
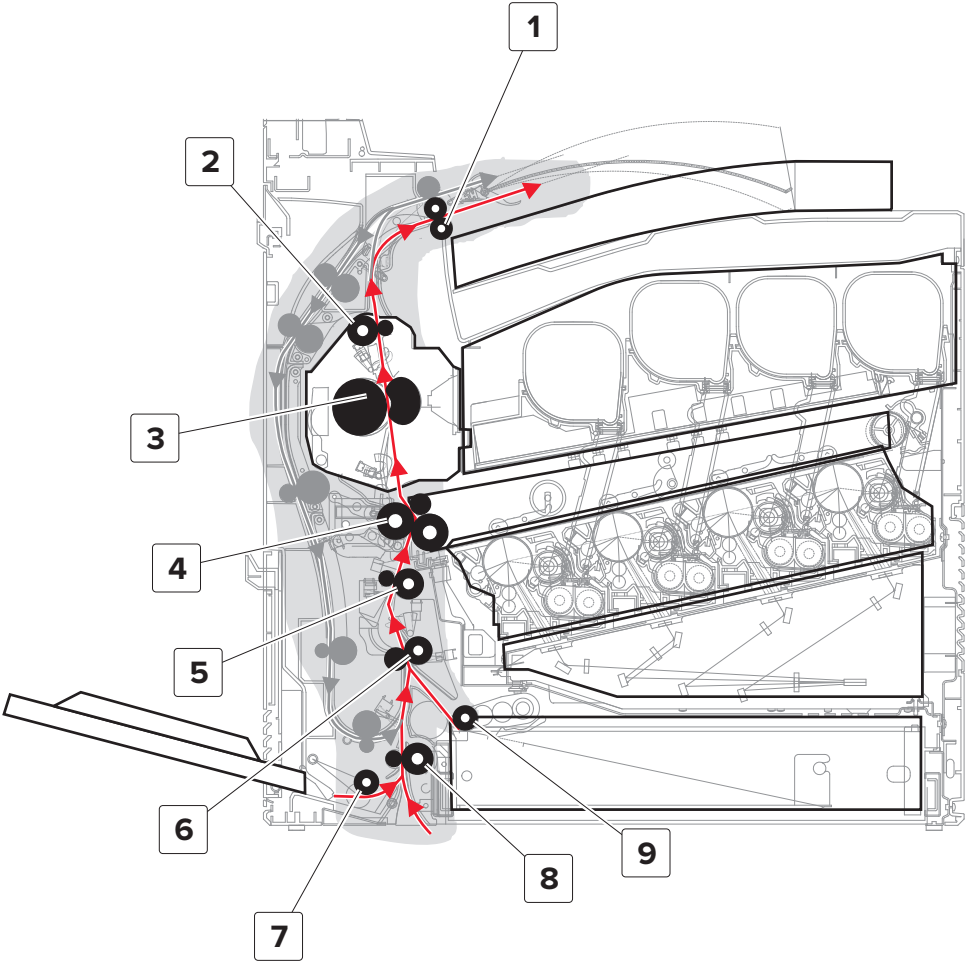
1	Media exit roller
2	Fuser decurler roller
3	Fuser heat belt
4	2nd transfer roller
5	Deskew roller
6	Isolation roller
7	MPF pick roller
8	MPF/pass-through roller
9	Tray 1 pick roller

Paper from tray 1 is picked and fed by the tray pick roller to the isolation roller. For MPF print jobs, the paper is picked and fed by the pick roller to the MPF/pass-through roller before it goes to the isolation roller.

The isolation roller transports the paper to the deskew roller where skew correction is performed.

At the 2nd transfer roller, the developed image from the transfer belt is transferred to the paper to create the printed image.

As the paper passes the fuser heat belt, heat and pressure are applied to permanently bond the toner to the paper.

At the fuser, a decurler roller counteracts the curl to flatten the paper.

Once printing is done, the paper is ejected out of the printer by the exit rollers.

Duplex print job

1	Duplex exit roller
2	Duplex path rollers
3	Isolation roller
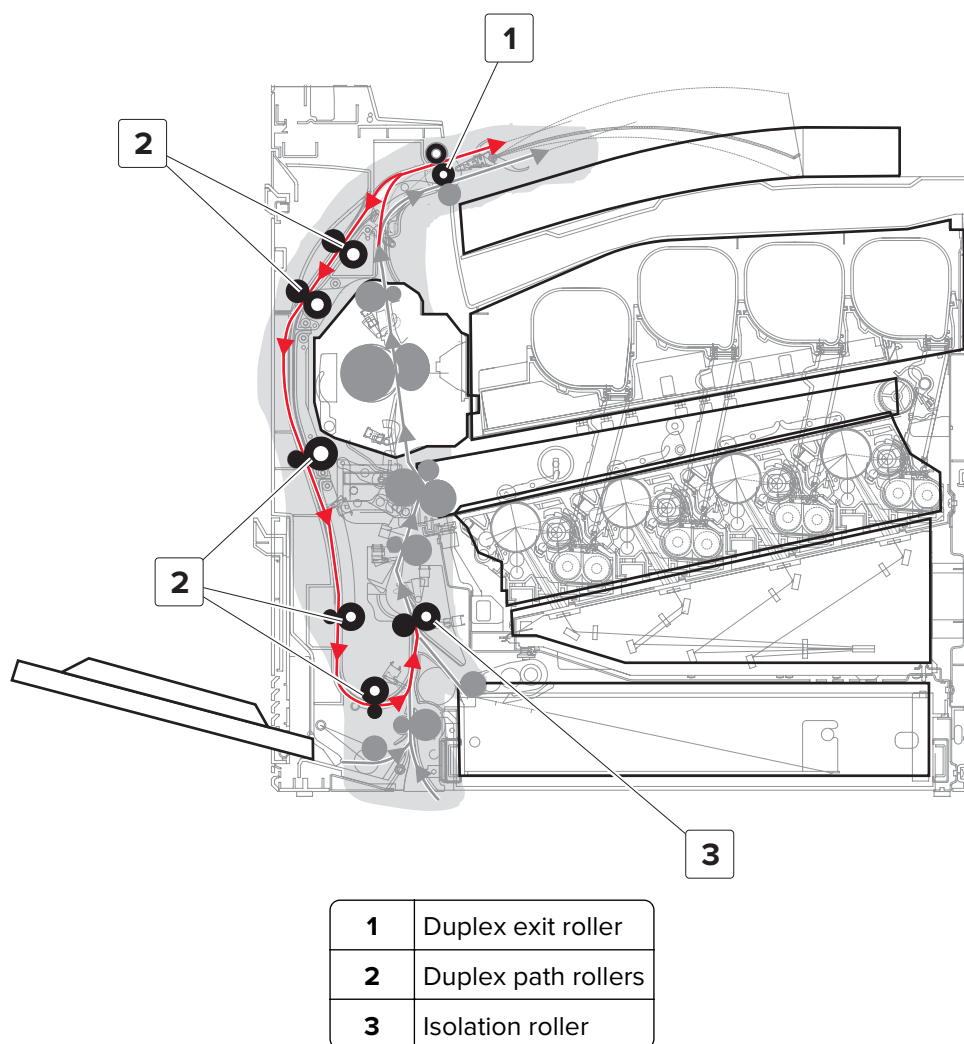
After the first side is printed, the paper is diverted to the top of the duplex exit roller. The duplex path opens, and then the paper reverses direction to get its opposite page printed.

The paper travels along the duplex path rollers until it reenters the isolation roller. From there, the paper continues its path until the print job is done.

Printer paper path sensors

Standard print job
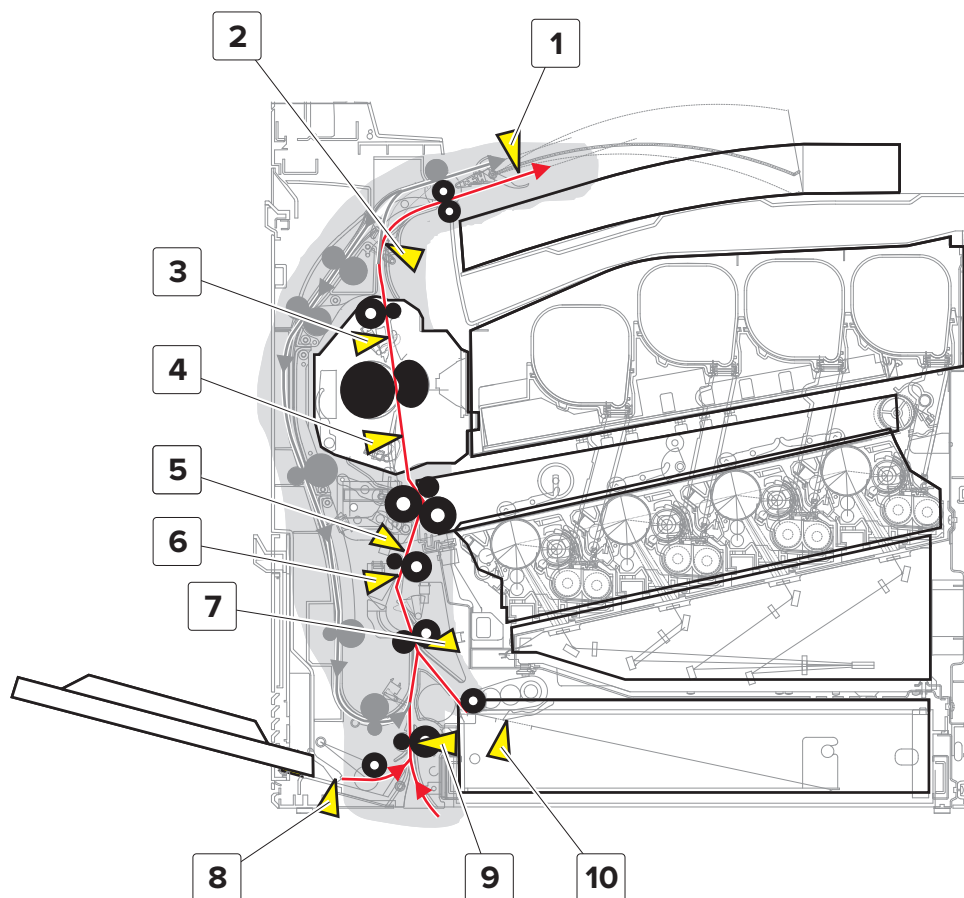
#	Sensor	Function
1	Sensor (output bin)	Detects if the bin is full.
2	Sensor (redrive buckle)	Detects buckled paper at the redrive area. If the sensor is triggered and the paper is long (>14 in.), then the exit rollers rotate slower to relax the tension.
3	Sensor (fuser exit)	Detects the paper exiting the fuser.
4	Sensor (fuser buckle)	Detects buckled paper at the fuser area. Once the sensor is triggered, the fuser rollers rotate faster to reduce the buckle.
5	Sensor (deskew roller exit)	Detects the paper exiting the deskew roller.
6	Sensor (deskew roller entry)	Detects the paper entering the deskew roller.
7	Sensor (input)	Detects the paper passing the isolation roller.
8	Sensor (MPF media present)	Detects if paper is in the MPF tray.
9	Sensor (MPF/pass-through)	Detects paper fed from the MPF and optional trays.
10	Sensor (tray 1 media out)	Detects if the tray is empty.

Duplex print job

1	Sensor (duplex path 1)
2	Sensor (duplex path 2)
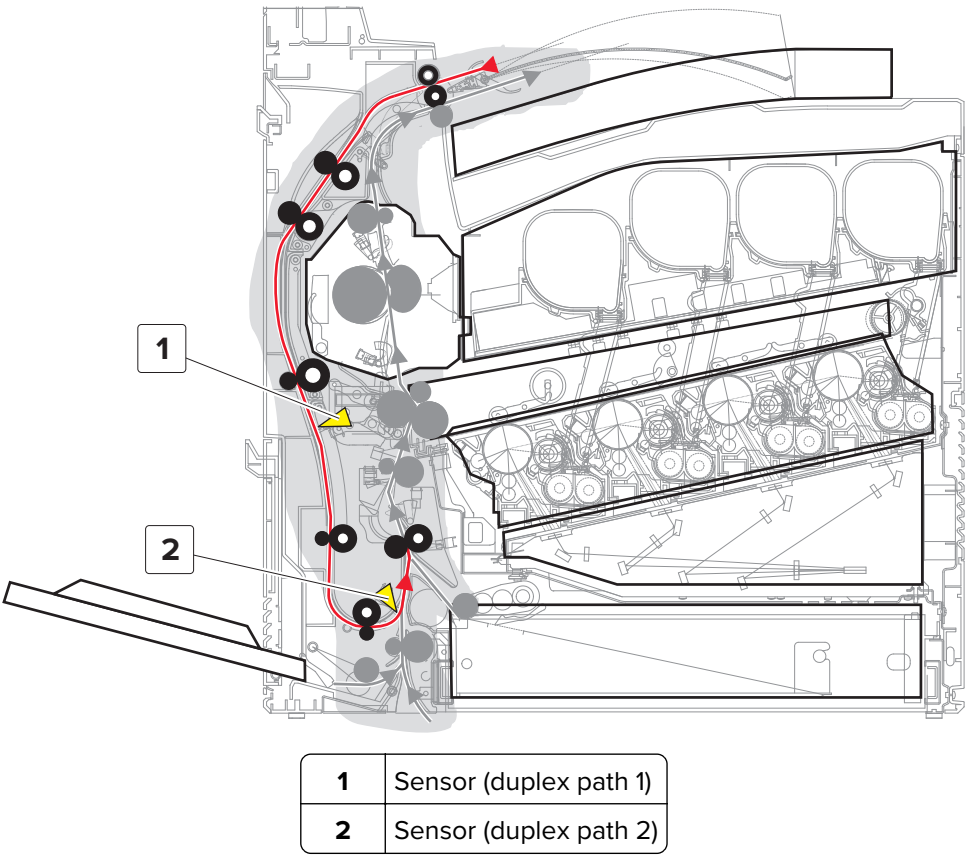
Two sensors detect the paper traveling along the duplex path.

MPF pick drive
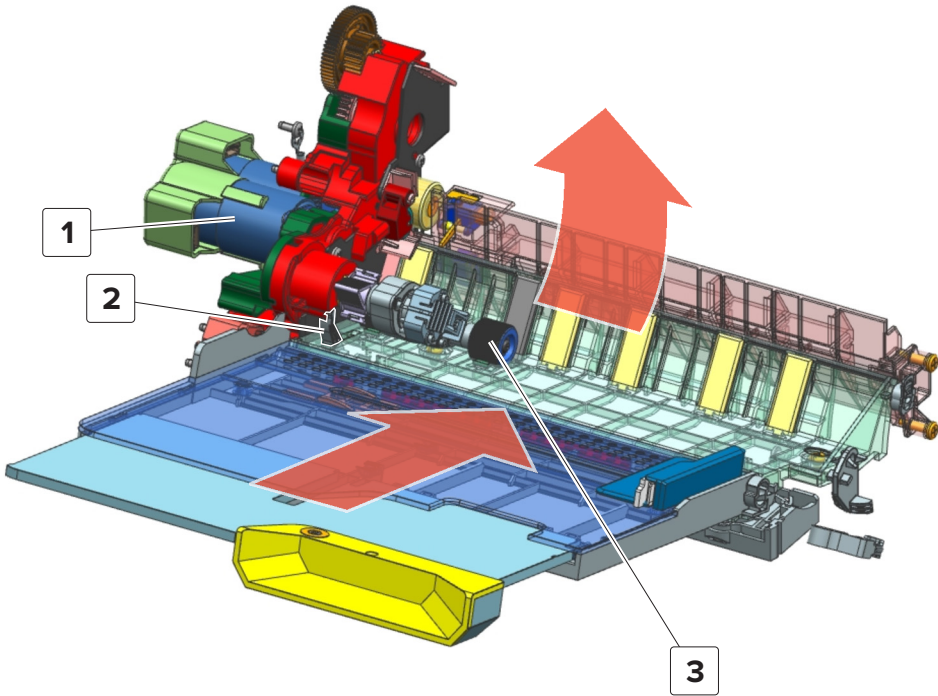
1	Motor (MPF pick)
2	MPF media present sensor actuator
3	Pick roller

The MPF pick roller feeds the paper into the printer.

The motor (MPF pick) controls the pick roller. The sensor (MPF media present) detects if the MPF tray is empty.

Tray 1 lift and pick drive
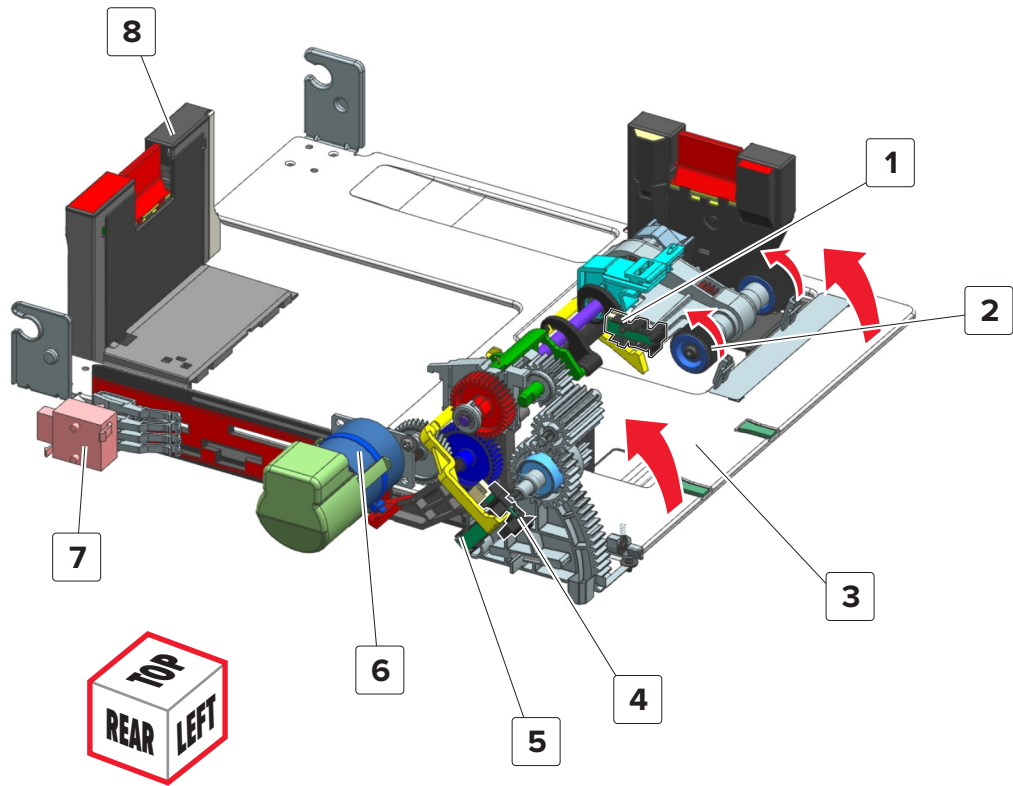
1	Sensor (pick roller index)
2	Pick roller
3	Lift plate
4	Sensor (media out)
5	Sensor (media low)
6	Motor (pick)
7	Sensor (media size)
8	Paper guide

In preparation for feeding, the lift plate raises to push the paper against the pick roller. The lift plate stops pushing at the point where the pick roller is at the proper height for picking.

After the pick roller is in position, it feeds the topmost paper to the isolation roller. Separator pads opposite the pick roller ensure that only one sheet is fed at a time.

The motor (pick) drives the lift plate and pick roller. The sensor (media out) detects if the tray is empty.

MPF/pass-through and isolation drive
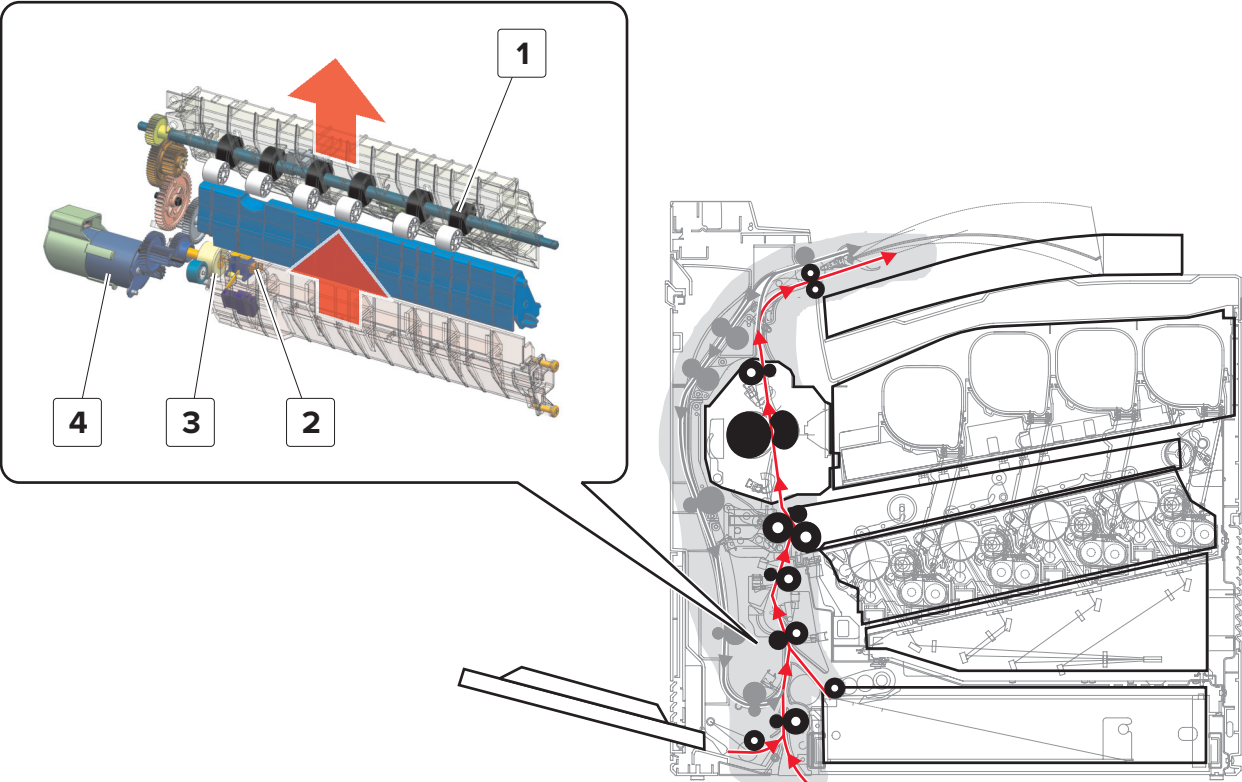
1	Isolation roller
2	Sensor (MPF/pass-through)
3	MPF/pass-through roller
4	Motor (isolation)

Paper coming from tray 1 and duplex print jobs are received by the isolation roller.

Paper coming from MPF and optional tray print jobs enter the MPF/pass-through roller before going to the isolation roller.

The isolation roller pushes the paper to the deskew roller.

The motor (isolation) drives the MPF/pass-through and isolation rollers.

Registration drive
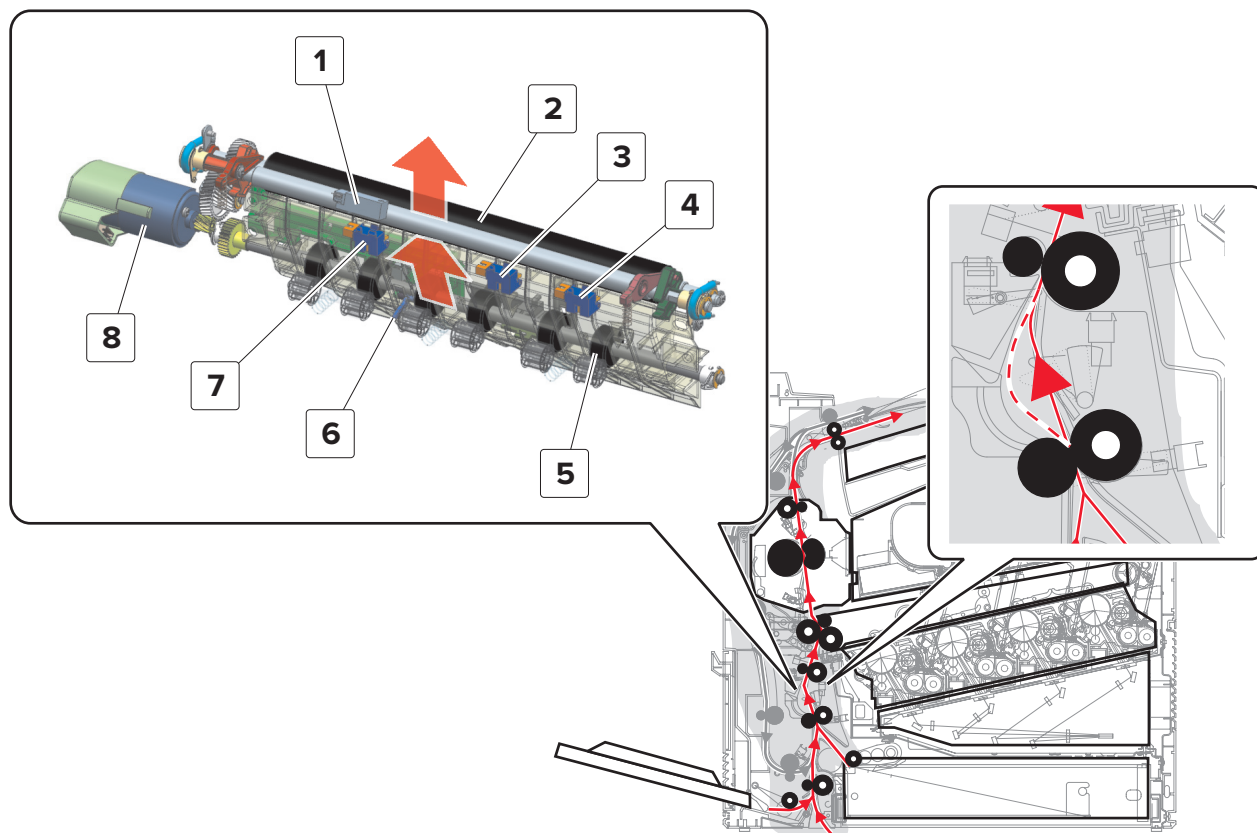
1	Sensor (deskew roller exit)
2	Deskew roller
3	Sensor (narrow media)
4	Sensor (near narrow media)
5	Isolation roller
6	Input sensor actuator
7	Sensor (deskew roller entry)
8	Motor (deskew)

During registration, the paper stops at the deskew roller to undergo skew correction. The isolation roller pushes the paper against the counterrotating deskew roller. As the paper buckles, its leading edge aligns with the deskew roller. After the skew is corrected, the deskew roller reverses to its normal rotation to continue moving the paper to the transfer belt.

The motor (deskew) drives the deskew rollers.

Transfer belt drive

1	Motor (transfer belt)
2	2nd transfer roller
3	Transfer belt
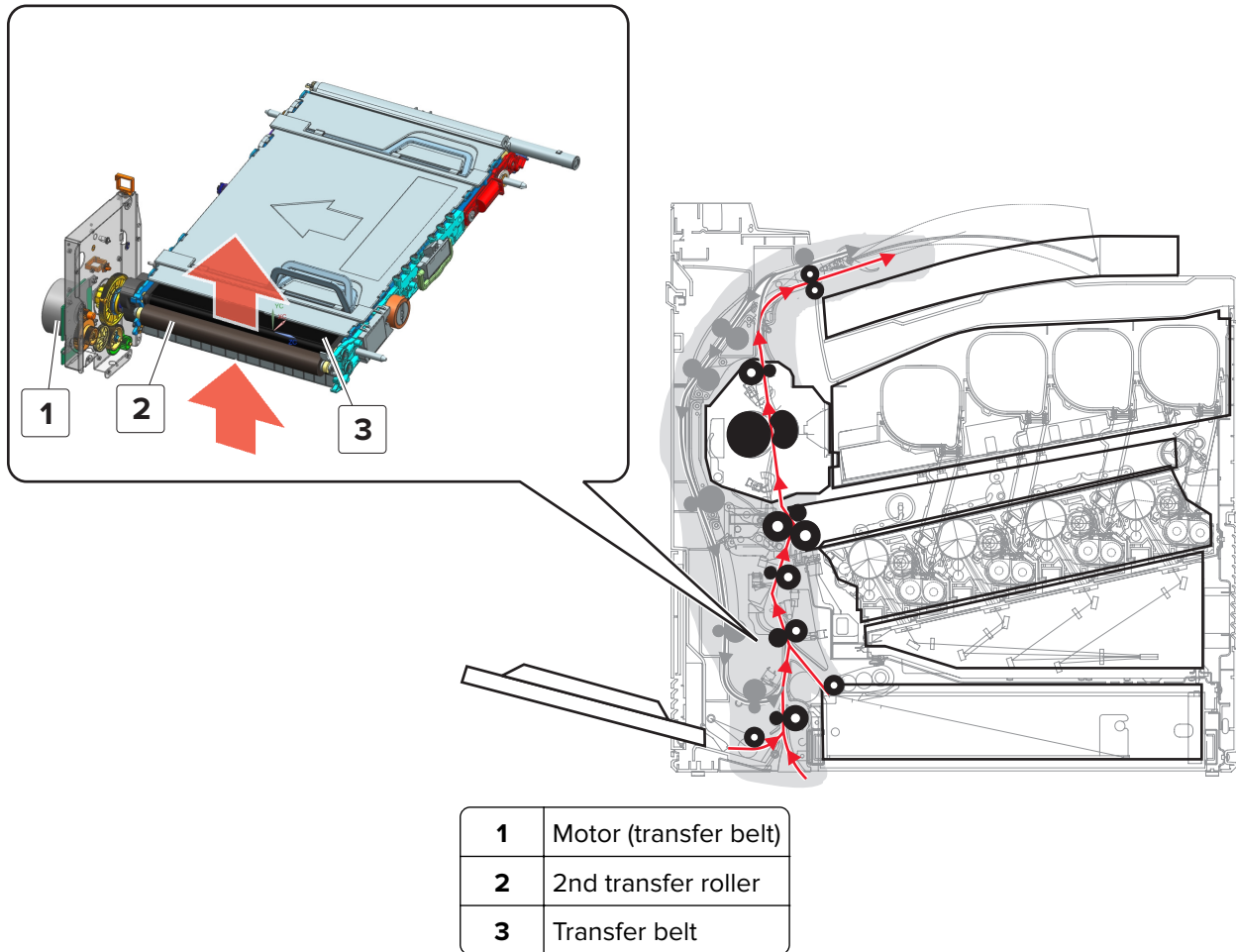
During second transfer, the developed image from the transfer belt is transferred to the paper to create the printed image. Paper from the deskew roller passes the 2nd transfer roller, and then moves towards the fuser.

The motor (transfer belt) drives the transfer belt.

Fuser drive

1	Motor (fuser)
2	Fuser decurler roller
3	Fuser heat belt
4	Fuser backup roller
5	Heat pipe
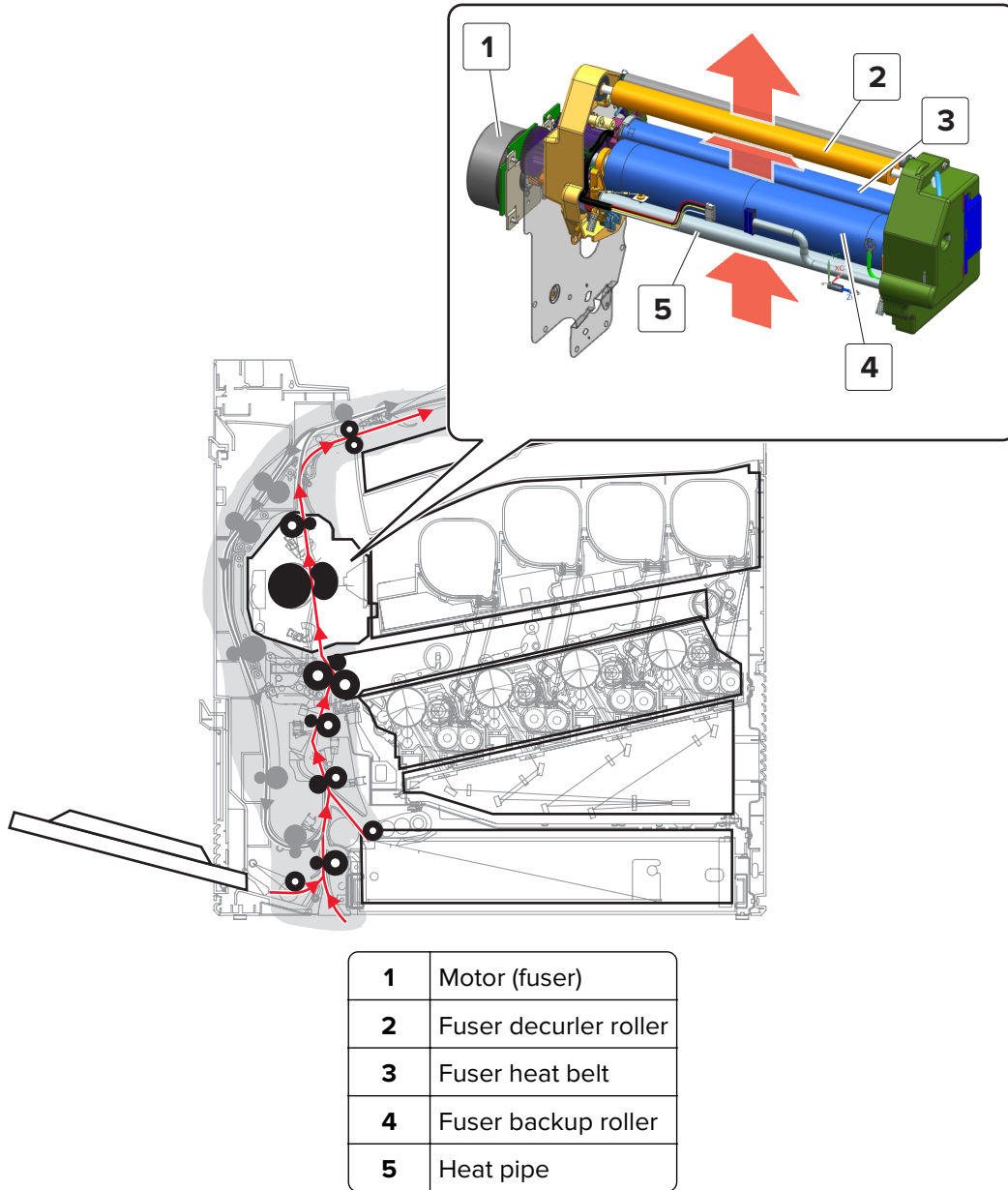
As the paper passes between the fuser heat belt and backup roller, heat and pressure are applied to permanently bond the toner to the paper.

As the paper exits the fuser, the decurler roller counteracts the curl to flatten the paper.

The motor (fuser) drives the fuser rollers.

Exit and redrive drive
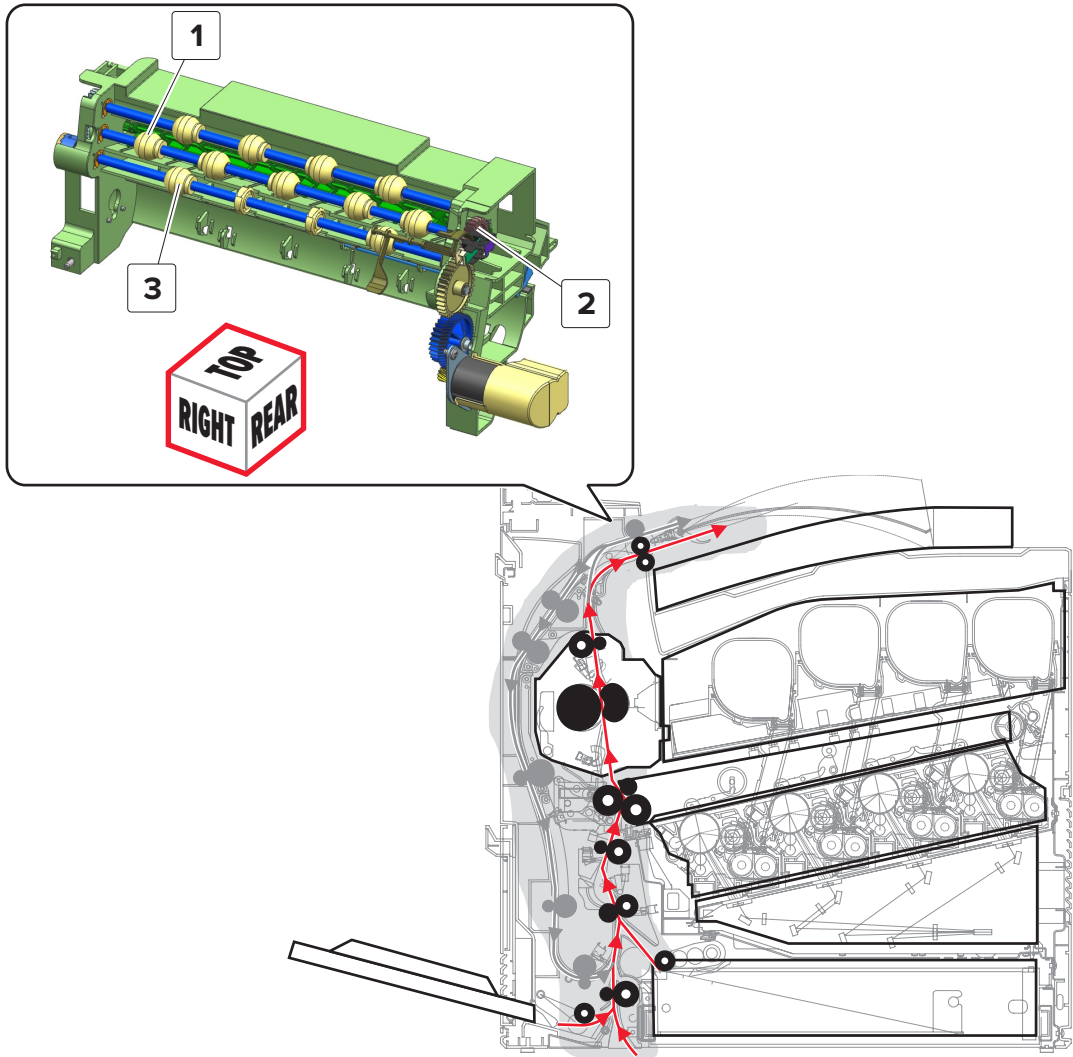
1	Duplex exit roller
2	Sensor (bin full)
3	Media exit roller

For standard print jobs, the paper exits on top of the media exit roller.

For duplex print jobs, the paper is diverted on top of the duplex exit roller before feeding it for printing on its opposite side.

The motor (redrive) controls the exit rollers.

Diverter drive

Standard print job
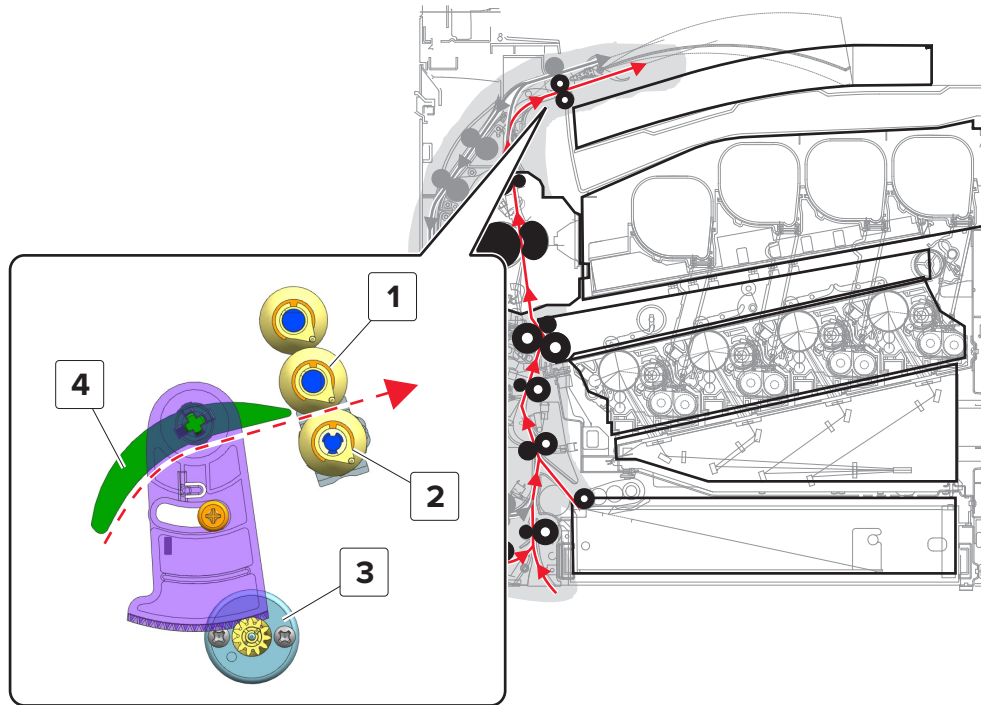
1	Duplex exit roller
2	Media exit roller
3	Motor (duplex diverter)
4	Duplex diverter

The paper passes under the diverter, and then exits between the duplex exit roller and media exit roller.

Duplex print job
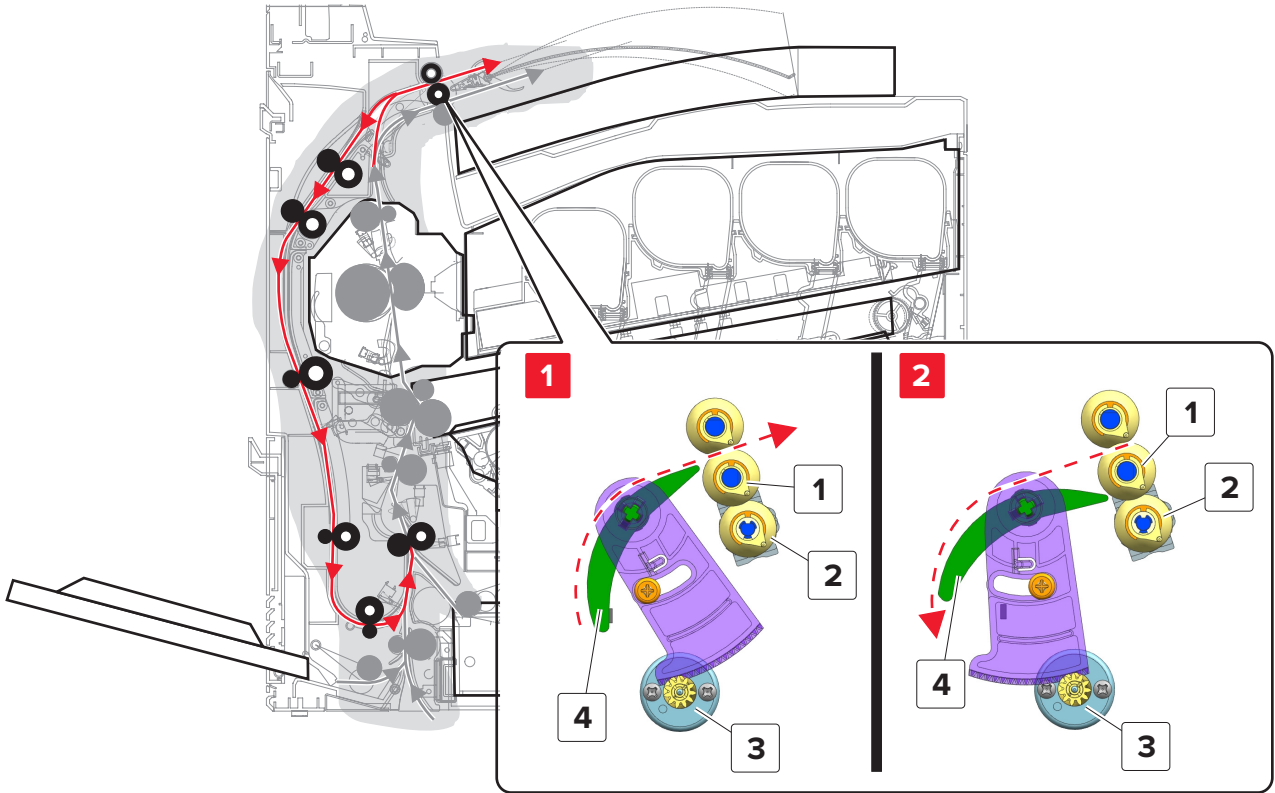
1	Duplex exit roller
2	Media exit roller
3	Motor (duplex diverter)
4	Duplex diverter

Redrive sequence:

1 The diverter switches to push the paper to the top of the duplex exit roller.

2 The diverter switches again to close the standard paper path. The duplex exit roller reverses to feed the paper to the duplex paper path.

The motor (duplex diverter) controls the diverter.

Duplex path drive
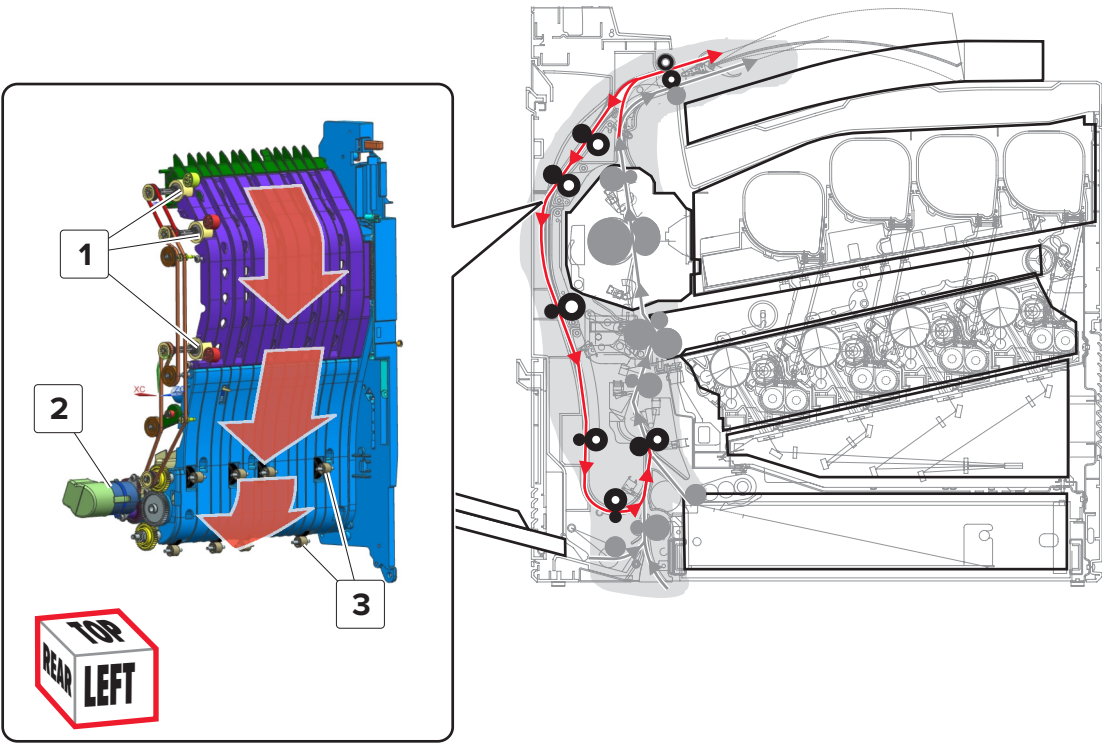
1	Upper duplex path rollers
2	Motor (duplex)
3	Lower duplex path rollers

Paper fed from the duplex exit roller travels along the duplex path rollers and reenters the isolation roller.

The motor (duplex) drives the rollers.

ADF and scanner operation

Flatbed scanner drive
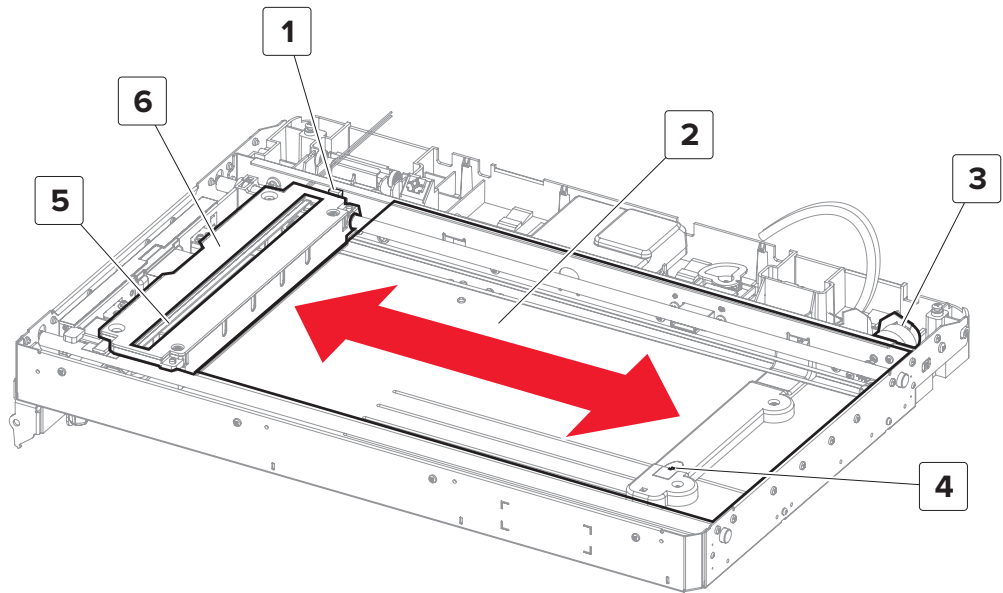
1	Sensor (FB CCD home)
2	Scanner glass
3	Motor (FB scanner)
4	Sensor (FB paper length)
5	Scanner lamp
6	Flatbed scanner

The flatbed scanner has a scanner lamp that is used to illuminate the surface of the document. The reflections produced are processed to create the scan image.

For flatbed scan jobs, the flatbed scanner moves across the scanner glass area to scan the front side of the document (facedown). The motor (FB scanner) controls the scanner position. The scanner is detected at its home position by the sensor (FB CCD home). The sensor (FB paper length) detects the edge of the document to determine the length of the paper.

For ADF scan jobs, the flatbed scanner stays at the left side to do the first scan (front side of the document).

ADF paper path
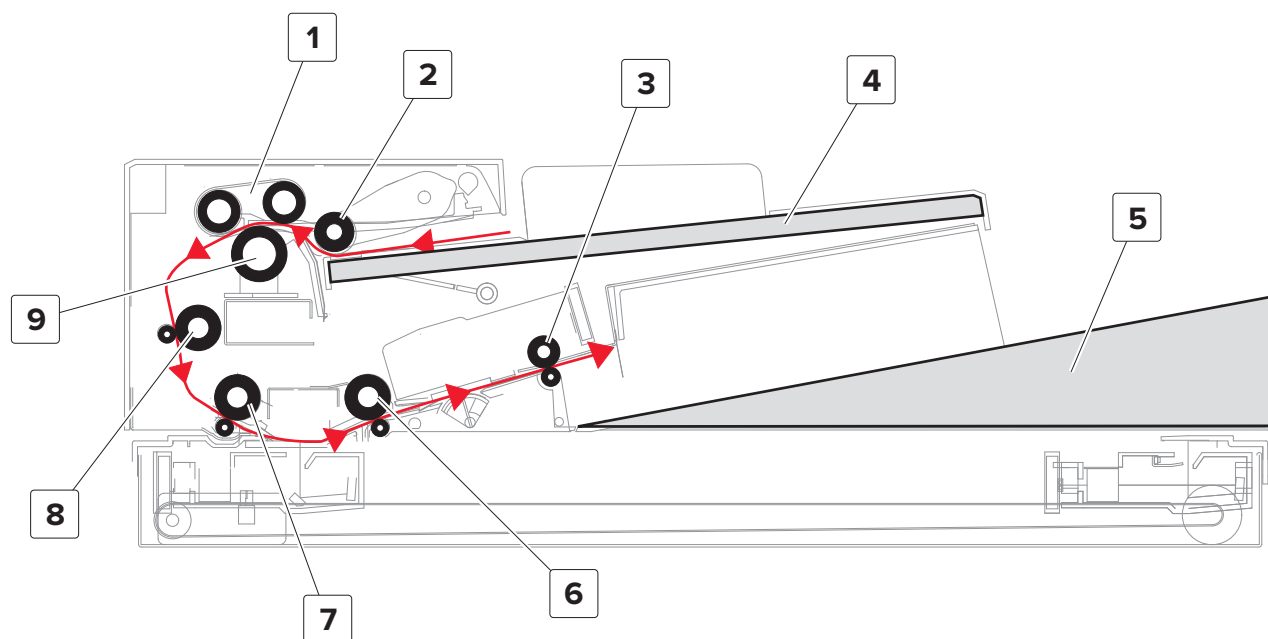
1	Feed belt
2	Pick roller
3	Exit roller
4	ADF tray
5	ADF bin
6	2nd scan roller
7	1st scan roller
8	ADF deskew roller
9	Separator roller

Paper from the ADF tray enters the ADF through the pick roller, feed belt, and separator roller.

After the paper is fed, it travels to the deskew roller where skew correction is performed.

Just past the 1st and 2nd scan rollers, both sides of the paper are scanned to produce the scan images.

After the paper is scanned, it is ejected by the exit roller to the ADF bin.

ADF paper path sensors
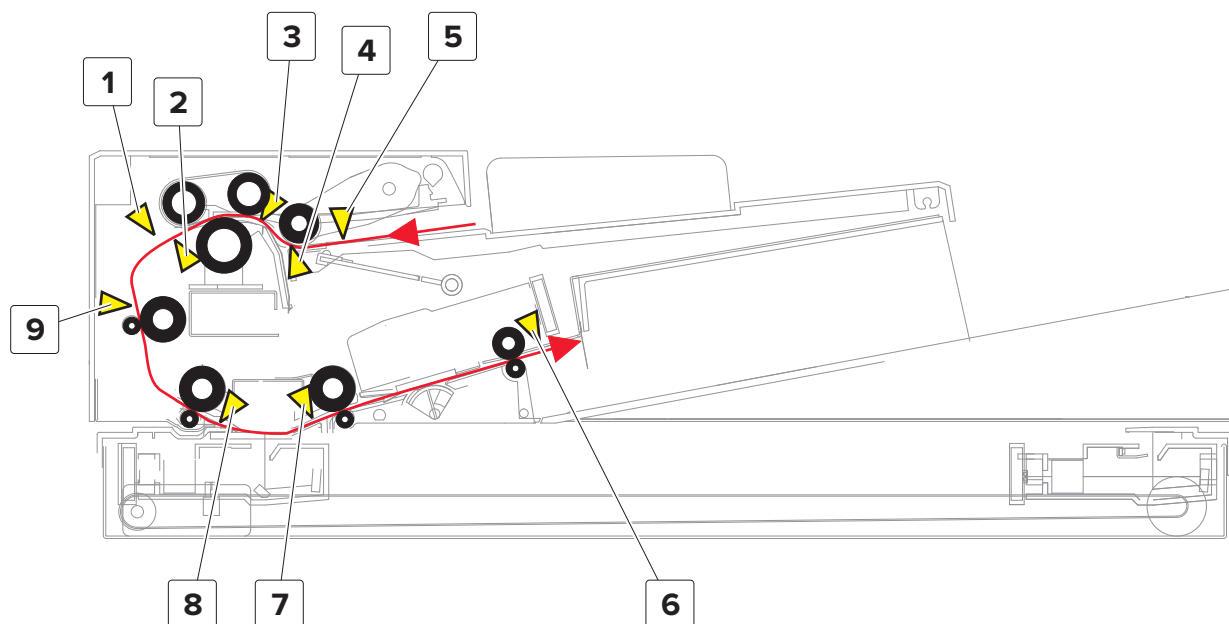
#	Sensor	Function
1	Sensor (ADF multifeed)	Detects the air gaps between sheets to detect double feeds.
2	Sensor (ADF pick)	Detects the paper to ensure proper picking.
3	Sensor (ADF gap detect)	Detects the gap between fed pages. If no paper is detected, the next page is fed to maximize page output.
4	Sensor (ADF media present)	Detects if paper is in the tray. It also detects punch holes on the paper.
5	Sensor (ADF pick roller position)	Detects if the pick roller is at the correct height to pick paper from the tray.
6	Sensor (ADF media exit)	Detects the paper exiting to the bin.
7	Sensor (ADF 2nd scan)	Detects the paper jammed at the 2nd scan roller area.
8	Sensor (ADF 1st scan)	Detects the paper about to be scanned at its front side.
9	Sensor (ADF deskew)	Detects the paper entering the deskew roller.

ADF double-feed detection
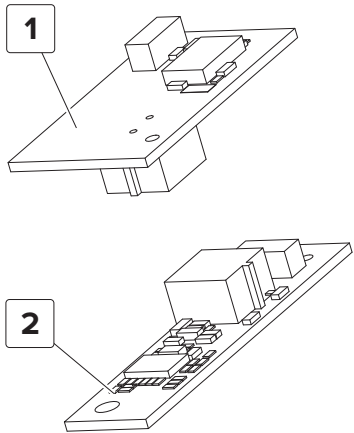
Sensor (ADF multi-feed detect) components

1	Transmitter
2	Receiver

The sensor (ADF multifeed) consists of a transmitter and a receiver. The sensor detects the presence of an air gap between sheets of paper passing between the transmitter and receiver. The transmitter emits an ultrasonic frequency in the direction of the receiver. The signal that arrives at the receiver will drop to nearly nothing when there are multiple sheets in the path.

Single sheet (normal)

Theory of operation
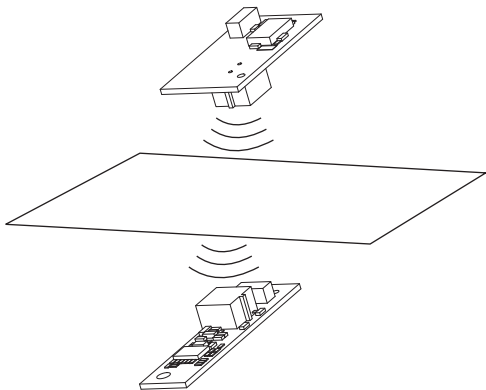
Multiple sheets
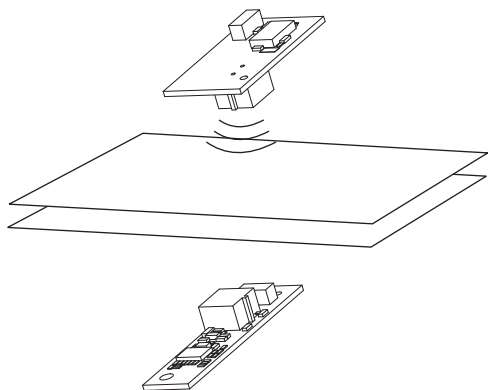
Single sheet (thick)

Theory of operation
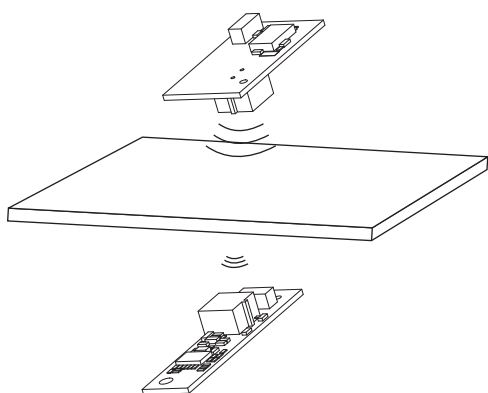
ADF tray lift drive
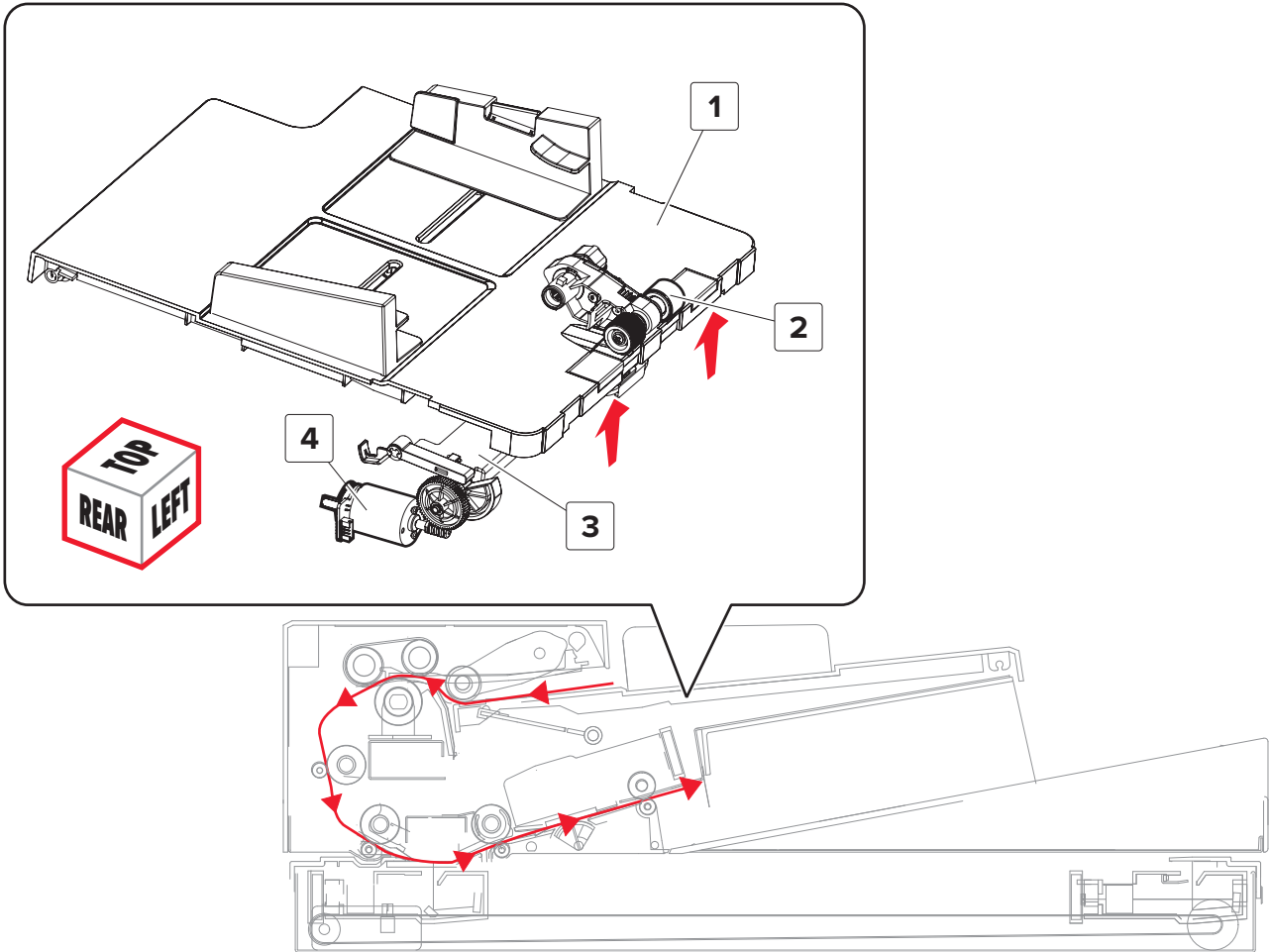
1	ADF tray
2	ADF pick roller
3	ADF tray lift arm
4	Motor (ADF tray lift)

In preparation for feeding, the lift arm raises the ADF tray to push the paper against the pick roller. The ADF tray stops pushing at the point where the pick roller is at the proper height for picking.

The motor (ADF tray lift) controls the movement of the ADF tray.

ADF tray pick and feed drive

1	ADF pick roll
2	ADF feed belt
3	Sensor (ADF pick roller position)
4	Motor (ADF pick/feed)
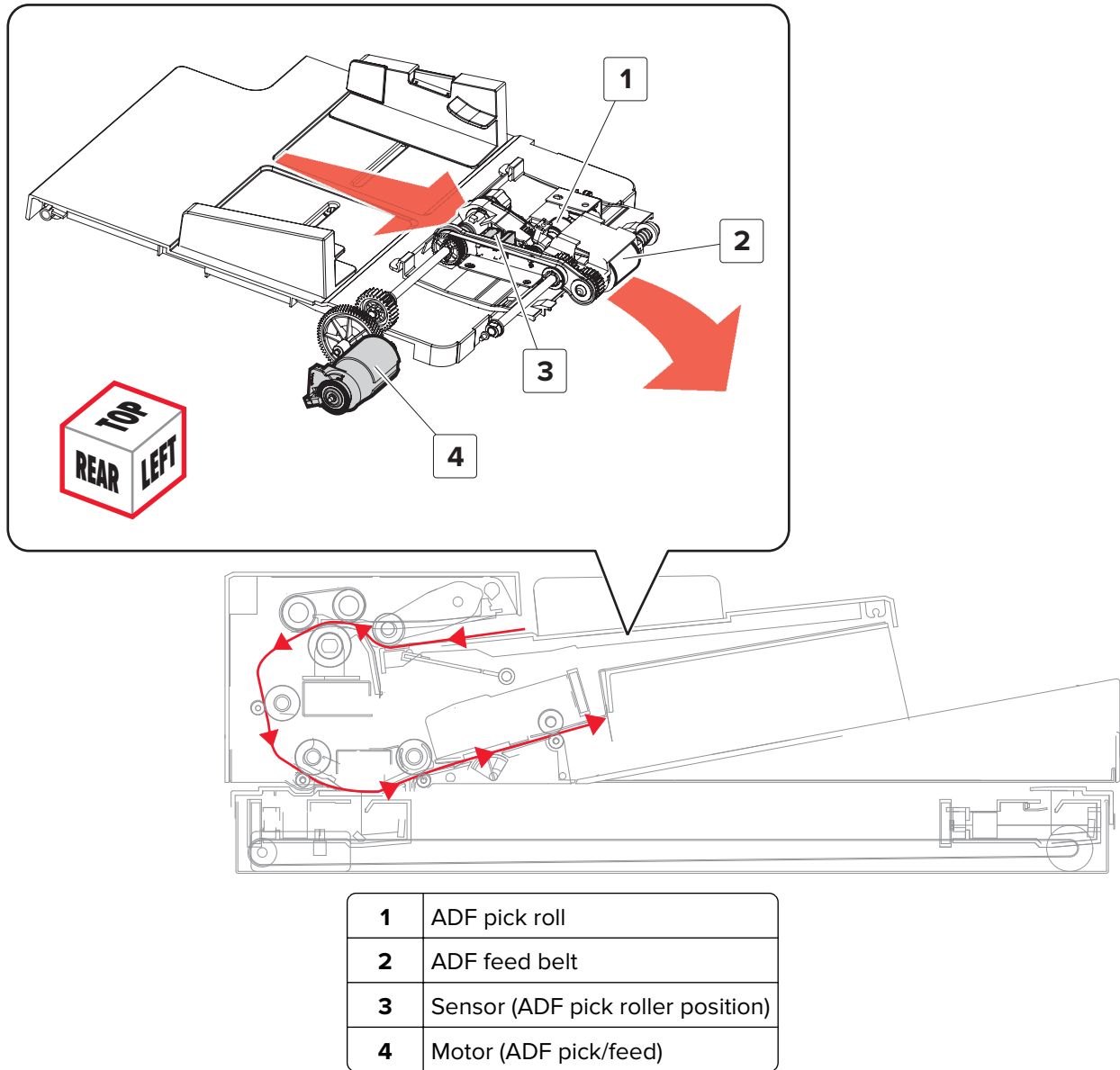
The pick roller and feed belt rotate in the same direction to feed the topmost paper to the ADF.

The motor (ADF pick/feed) drives both the pick roller and feed belt. The sensor (ADF pick roller position) detects if the pick roller is at the proper height to pick paper from the tray.

ADF separator drive

1	Motor (ADF separator)
2	ADF pick roller
3	ADF separator roller
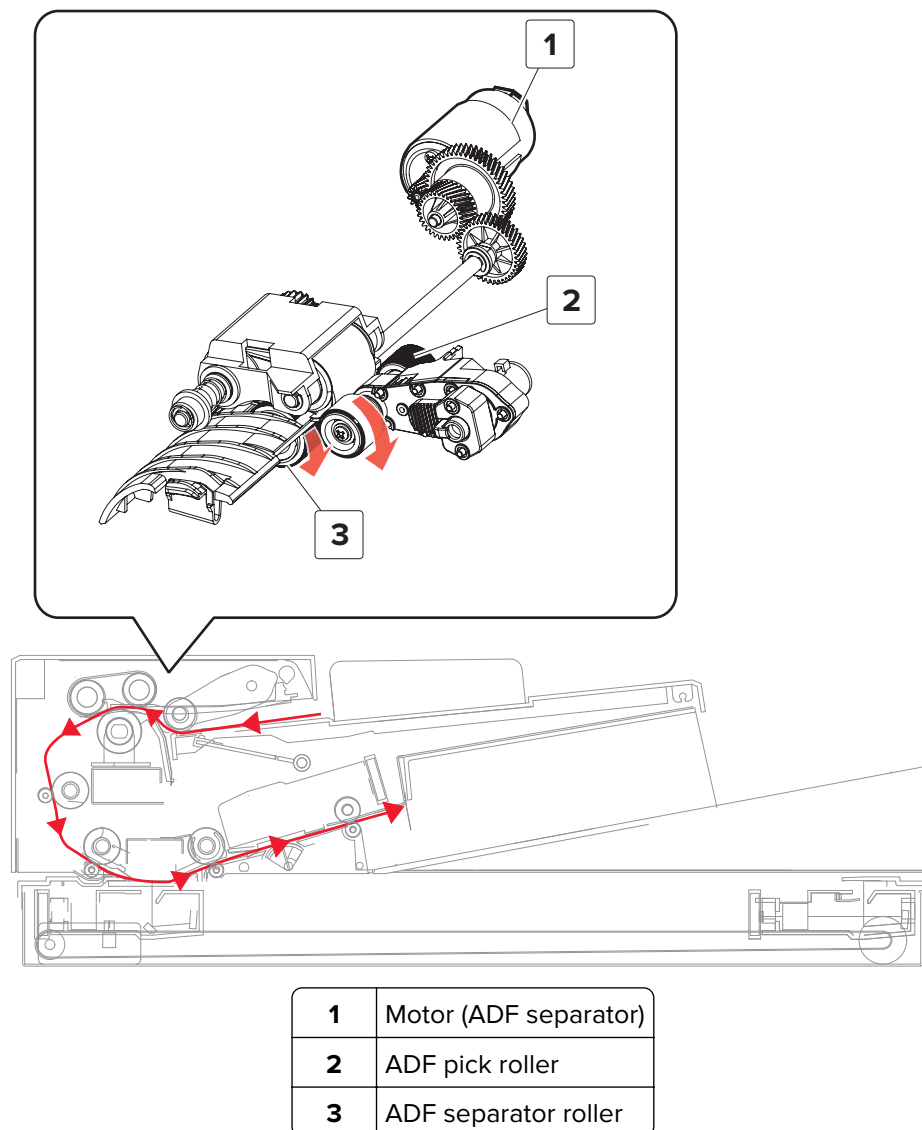
The separator roller counterrotates opposite the pick roller to allow only one sheet to be fed at a time.

The motor (ADF separator) drives the separator roller.

ADF registration drive

1	Motor (ADF registration)
2	Sensor (ADF deskew)
3	ADF deskew roller
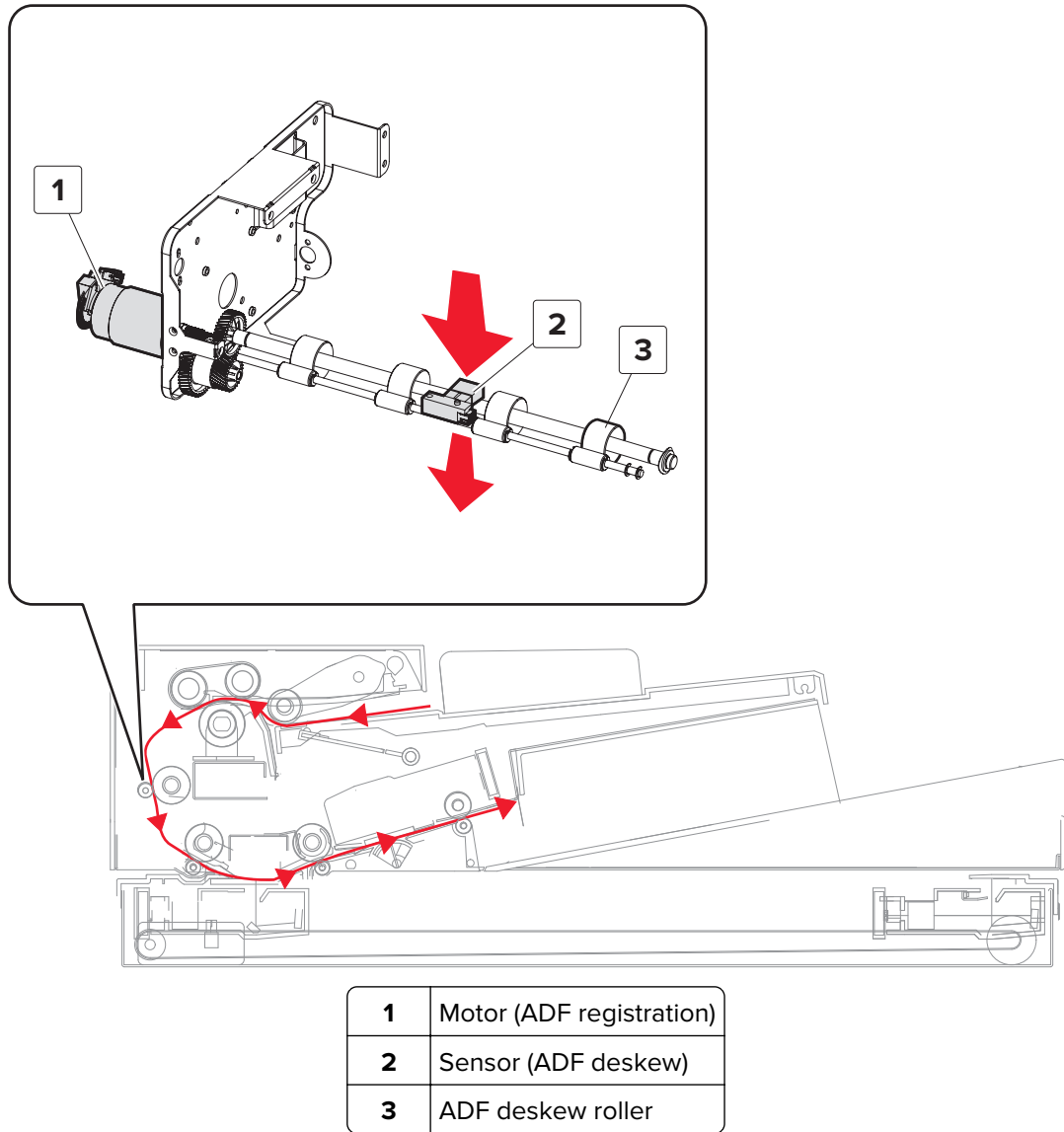
The paper stops at the deskew roller to undergo skew correction. The deskew roller counterrotates to align the leading edge of the paper against the rollers. After the skew is corrected, the deskew roller rotates to pass the paper to the 1st scan section.

The motor (ADF registration) drives the deskew roller. The sensor (ADF deskew) detects the paper entering the deskew roller.

ADF scan and exit drive
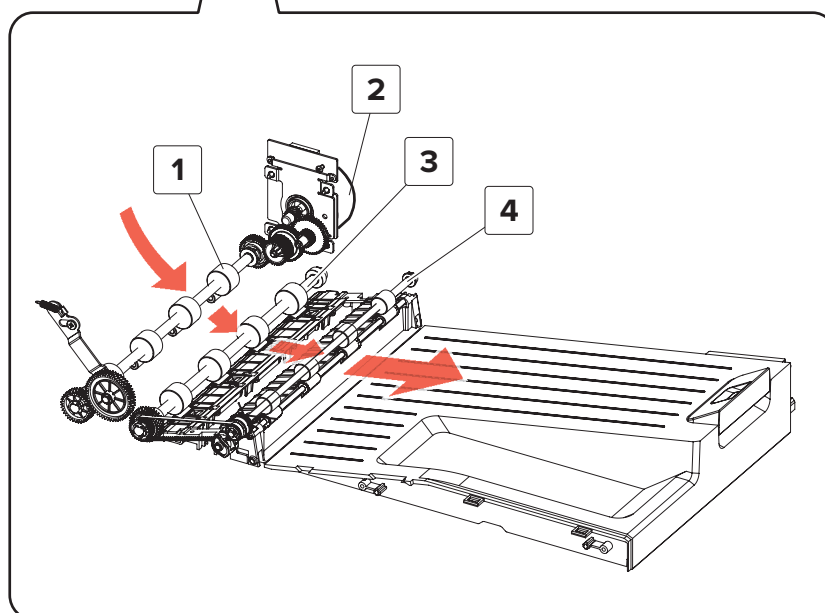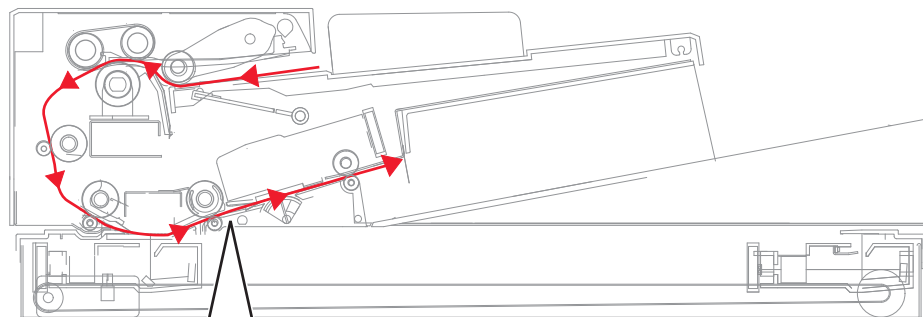
1	1st scan roller
2	Motor (ADF transport)
3	2nd scan roller
4	ADF exit roller

The paper is fed to the 1st scan roller to scan its front side. The flatbed scanner does the first scan. When the paper passes the 2nd scan roller, its back side is also scanned. The ADF CCD does the second scan. The exit roller ejects the scanned document to the ADF bin.

The motor (ADF transport) drives the scan and exit rollers.

ADF calibration drive

1	Motor (ADF calibration)
2	ADF calibration roller
3	Sensor (ADF calibration)
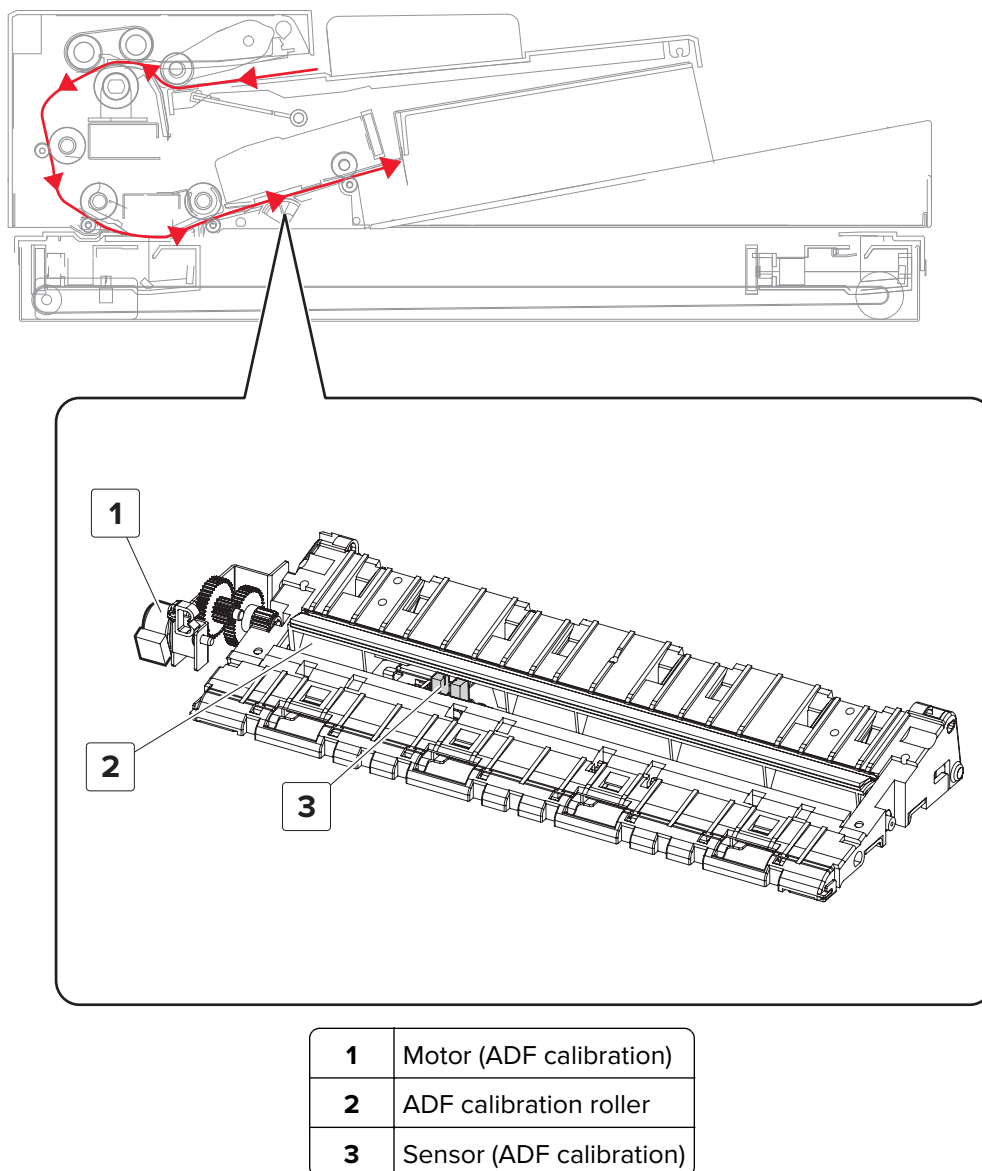
For rear side scanning, the ADF calibration roller has a black reference strip and two white reference strips. Both white strips are used for calibrating white levels. By default, the thin white strip is used for scan jobs. The black strip is for jobs that involve image editing or cropping.

The roller rotates until the appropriate strip is facing the ADF scanner. The motor (ADF calibration) controls the roller position.

2200-sheet tray operation

Paper presence and size detection
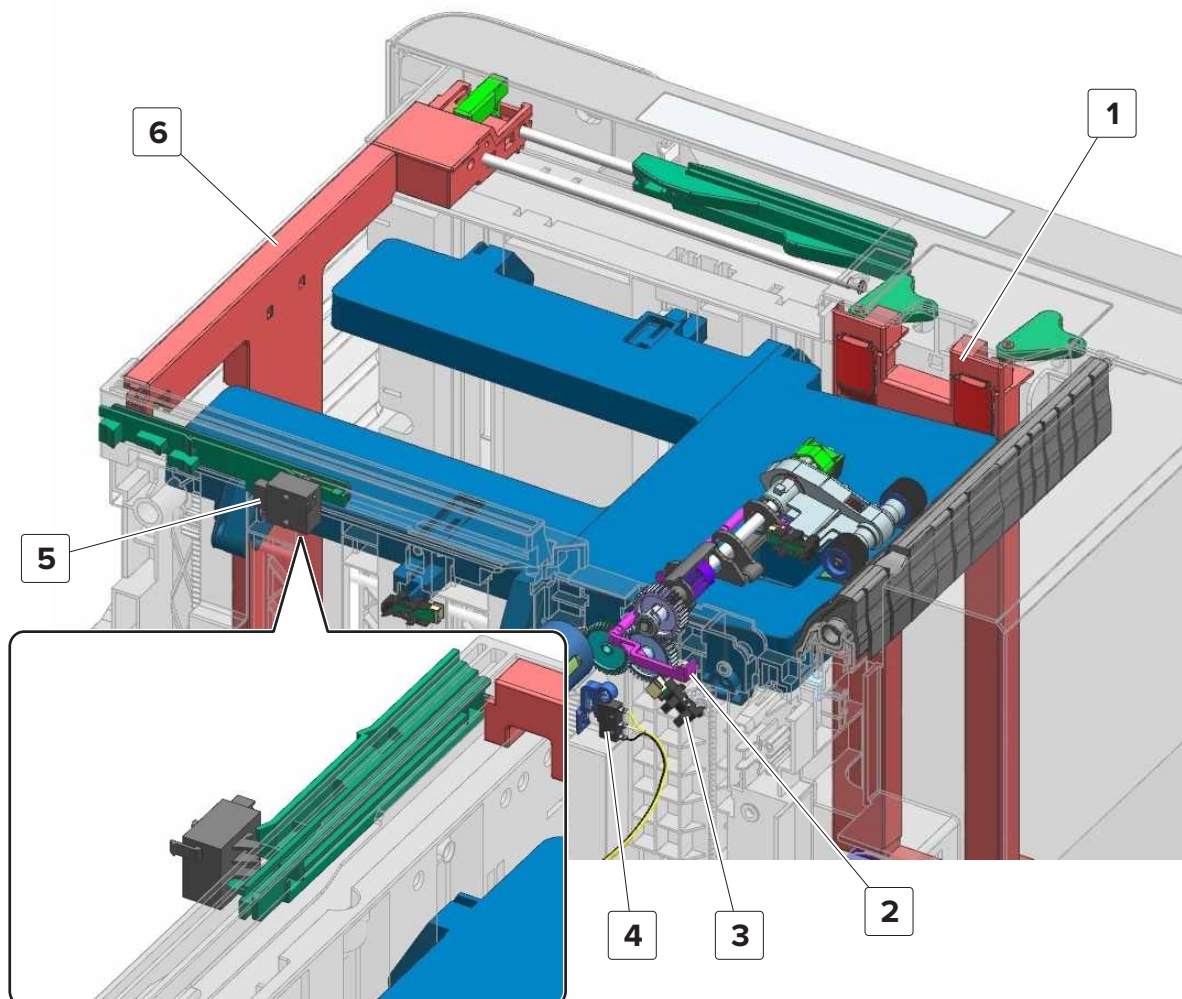
1	2200-sheet tray media width guide
2	2200-sheet tray media out actuator
3	Sensor (2200-sheet tray media out)
4	2200-sheet tray wake up switch
5	Sensor (2200-sheet tray media size)
6	2200-sheet tray media length guide

When the tray insert is pulled, the switch (2200-sheet tray wake up) wakes the printer from Hibernate/Sleep mode.

Triggered by the media out actuator, the sensor (2200-sheet tray media out) then detects that there is no paper in the tray. The positions of the guides determine the dimensions of the paper. The sensor (2200-sheet tray media size) detects the position of the guides.

Paper lift and feed
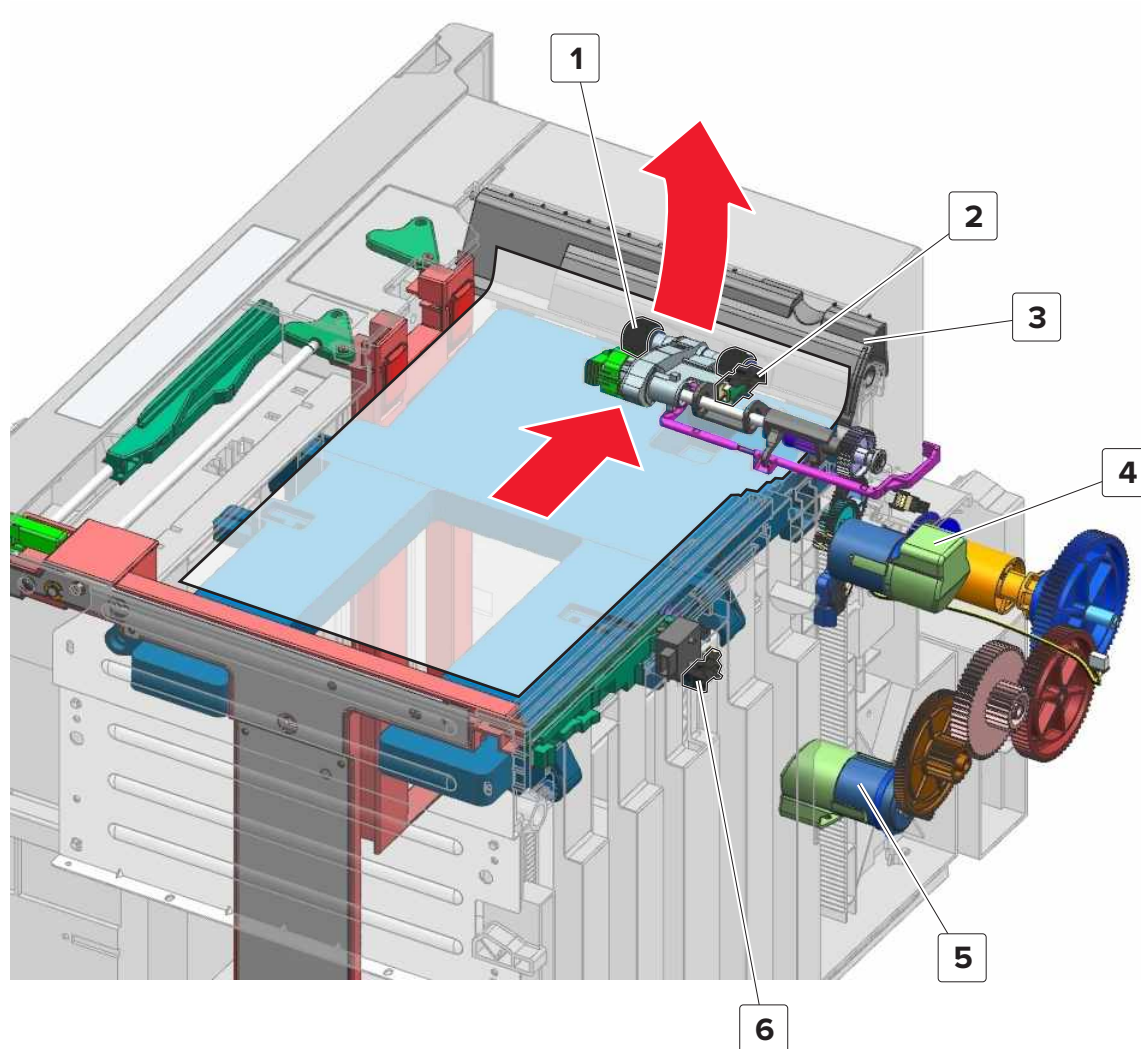
1	2200-sheet tray pick roller
2	Sensor (2200-sheet tray pick roller index)
3	2200-sheet tray separator pad
4	Motor (2200-sheet tray pick)
5	Motor (2200-sheet tray lift)
6	Sensor (2200-sheet tray media low)

Theory of operation

During the feed, the elevator plate raises the paper until the paper comes into contact with the pick roller. The sensor (2200-sheet tray pick roller index) detects if the pick roller is sufficiently engaged with the paper. The motor (2200-sheet tray lift) controls the movement of the elevator plate. As the amount of paper lessens, the elevator plate also continues to move up. When the tray is almost empty, the actuator triggers the sensor (2200-sheet tray media low).

After the pick roller is in position, it feeds the topmost paper to the transport rollers on the upper tray. Separator pads opposite the pick roller ensure that only one sheet is fed a time. The motor (2200-sheet tray pick) drives the pick roller.

Staple finisher operation

Staple finisher sections
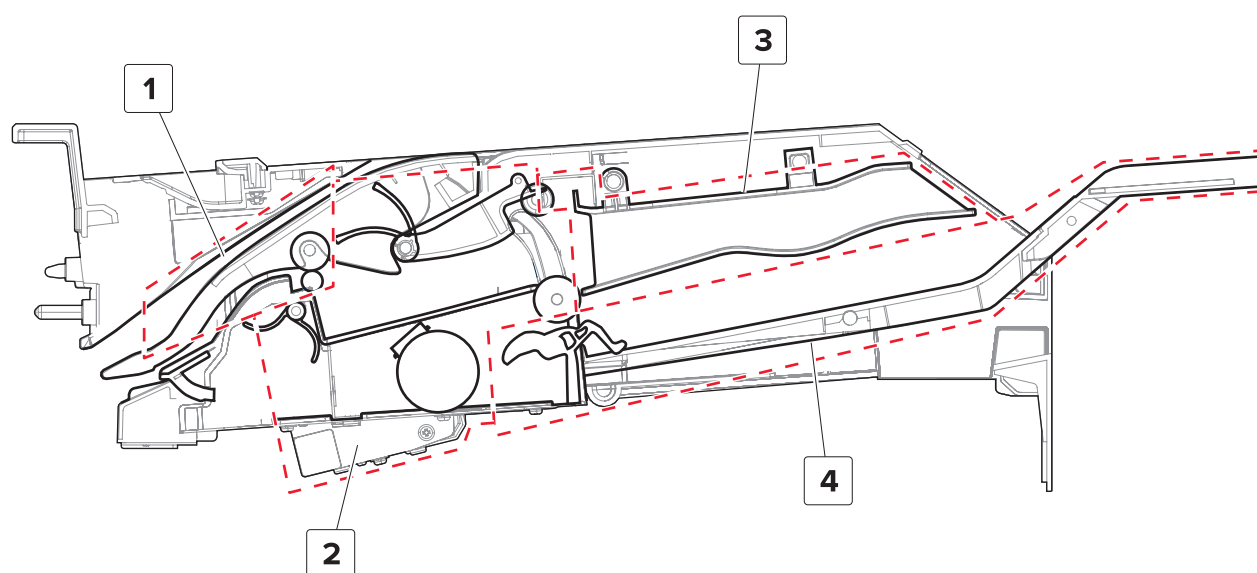
1	Feed section
2	Compiler section
3	Tamper section
4	Bin section

Paper path
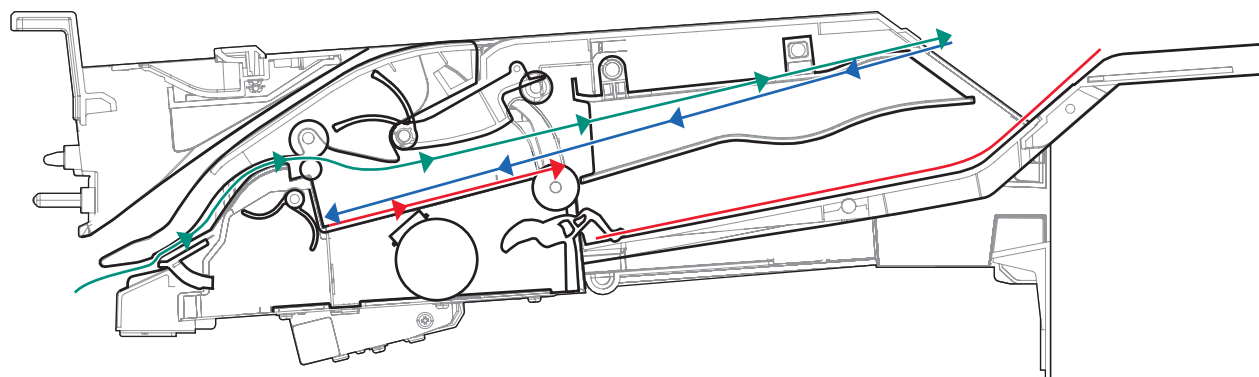
The staple finisher is installed on the printer standard bin and receives paper from the printer exit roller.

Staple or offset jobs are fed to the compiler section for the required finishing, and then to the bin. Print jobs that do not require finishing are directly fed to the bin.

Staple finisher feed section
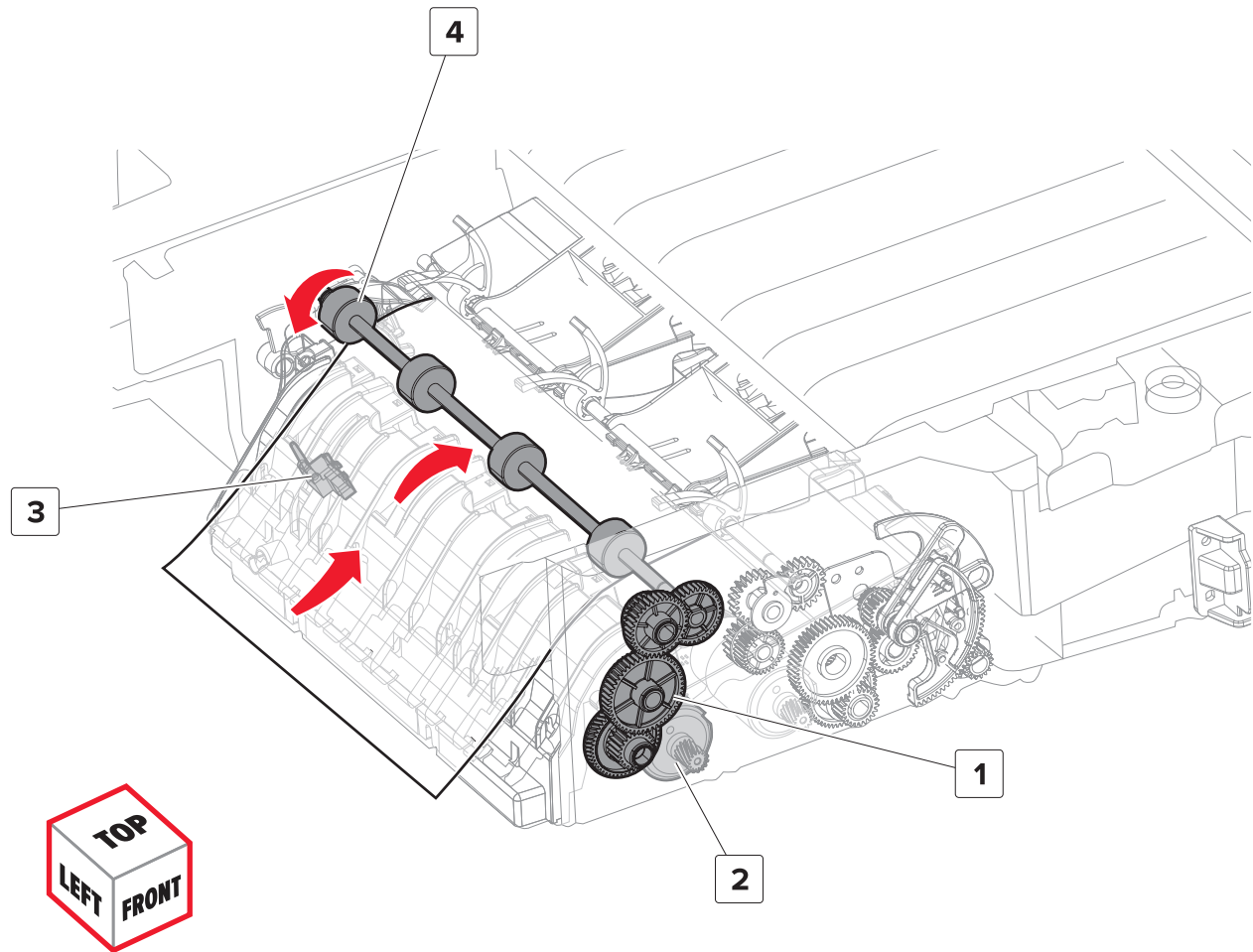
1	Transport gears
2	Motor (staple finisher transport)
3	Sensor (staple finisher transport)
4	Transport roller

The feed section receives the paper from the printer, and the sensor (staple finisher transport) detects the paper entering the finisher. The motor (staple finisher transport) drives the transport roller to feed the paper to the compiler section.

Compiler section feed and paper alignment
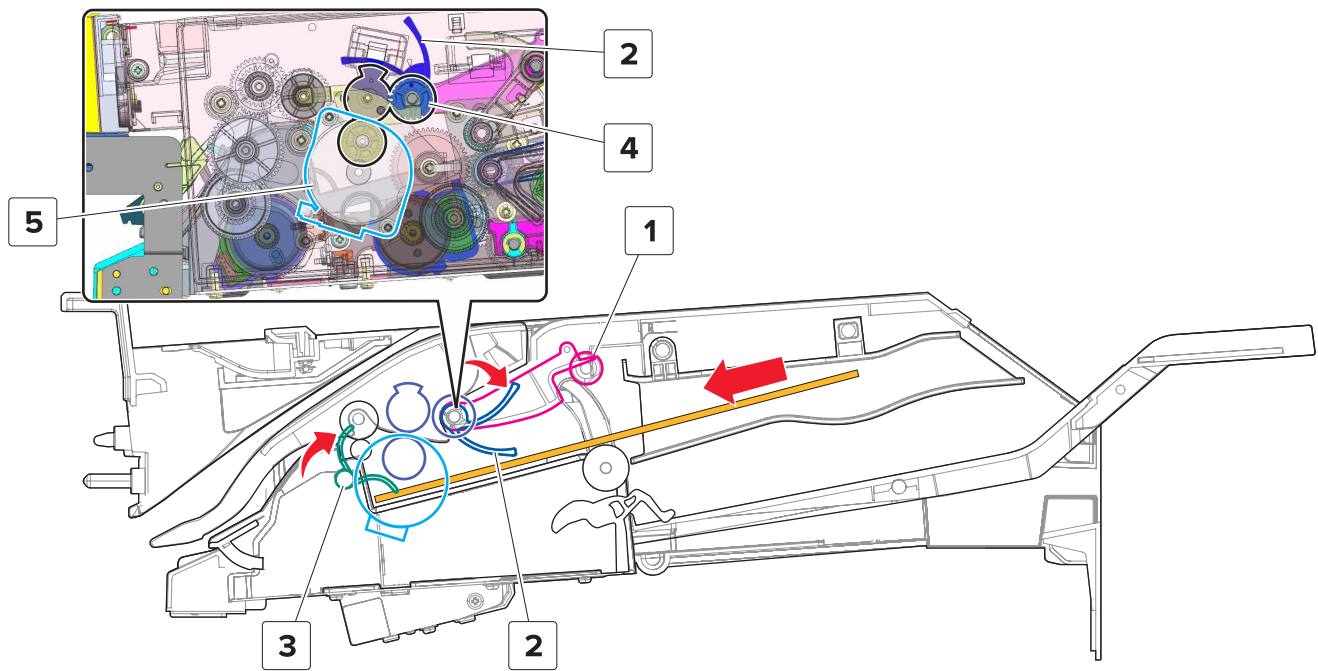
1	Upper exit roller
2	Aligner paddles
3	Decurl paddles
4	Aligner paddle gears
5	Motor (staple finisher aligner paddle)

As the paper enters the compiler section, the motor (staple finisher aligner paddle) drives the aligner paddles. These paddles push the paper to the compiler wall, aligning the short edge. The decurl paddles rotate to push the paper on the compiler tray.

Theory of operation
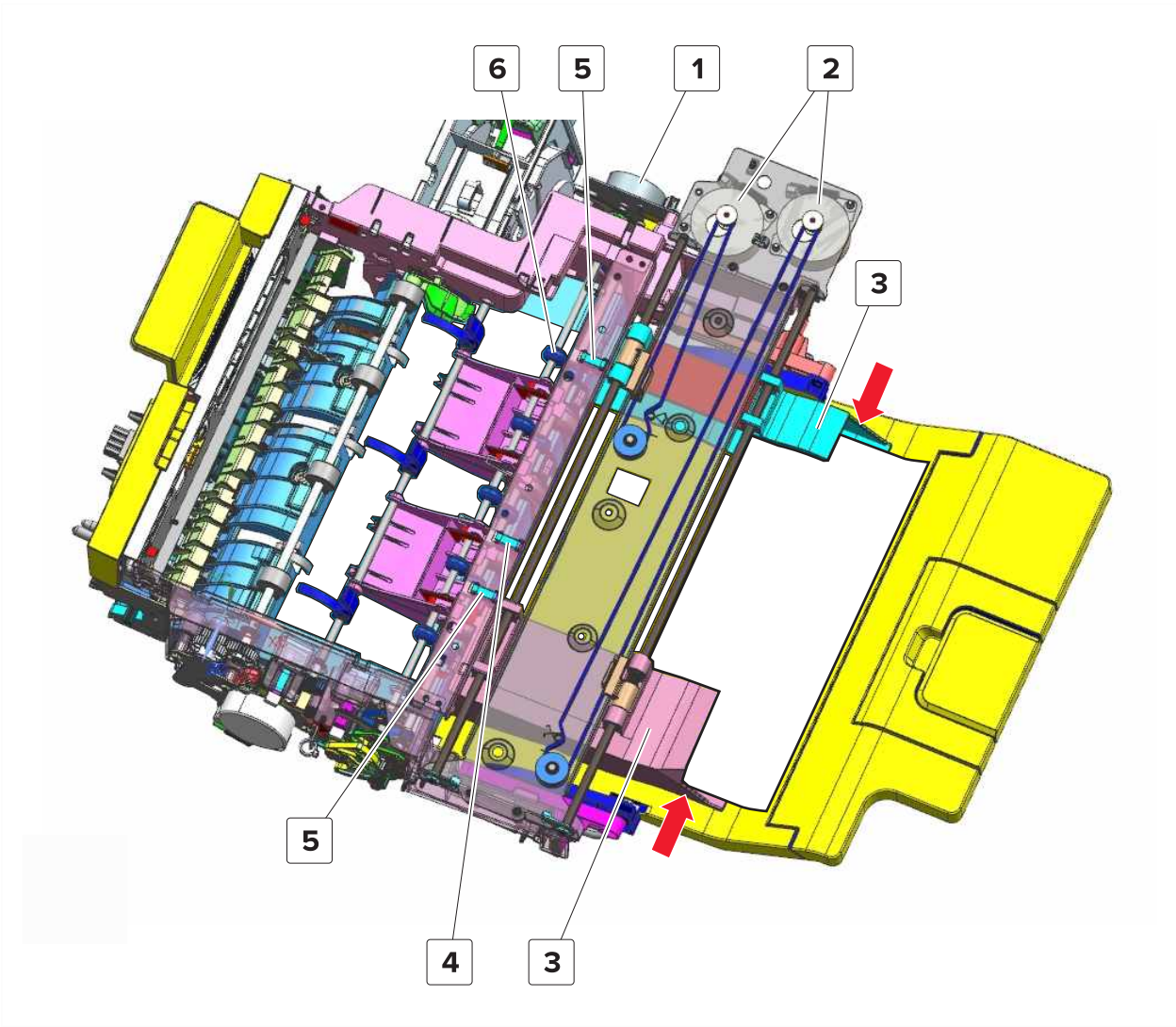
1	Motor (staple finisher upper exit roller)
2	Tamper motors
3	Tampers
4	Sensor (narrow media tamper)
5	Tamper home sensors
6	Upper exit roller

After the long edges are aligned, the motor (staple finisher upper exit roller) raises the upper exit roller to clear the paper path. The transport roller continues to move the paper until the leading portion enters the tamper section and the trailing edge falls into the compiler. The tampers move to align the long edges.

Subsequent sheets are fed and aligned in the same manner.

Offset and stapling operation
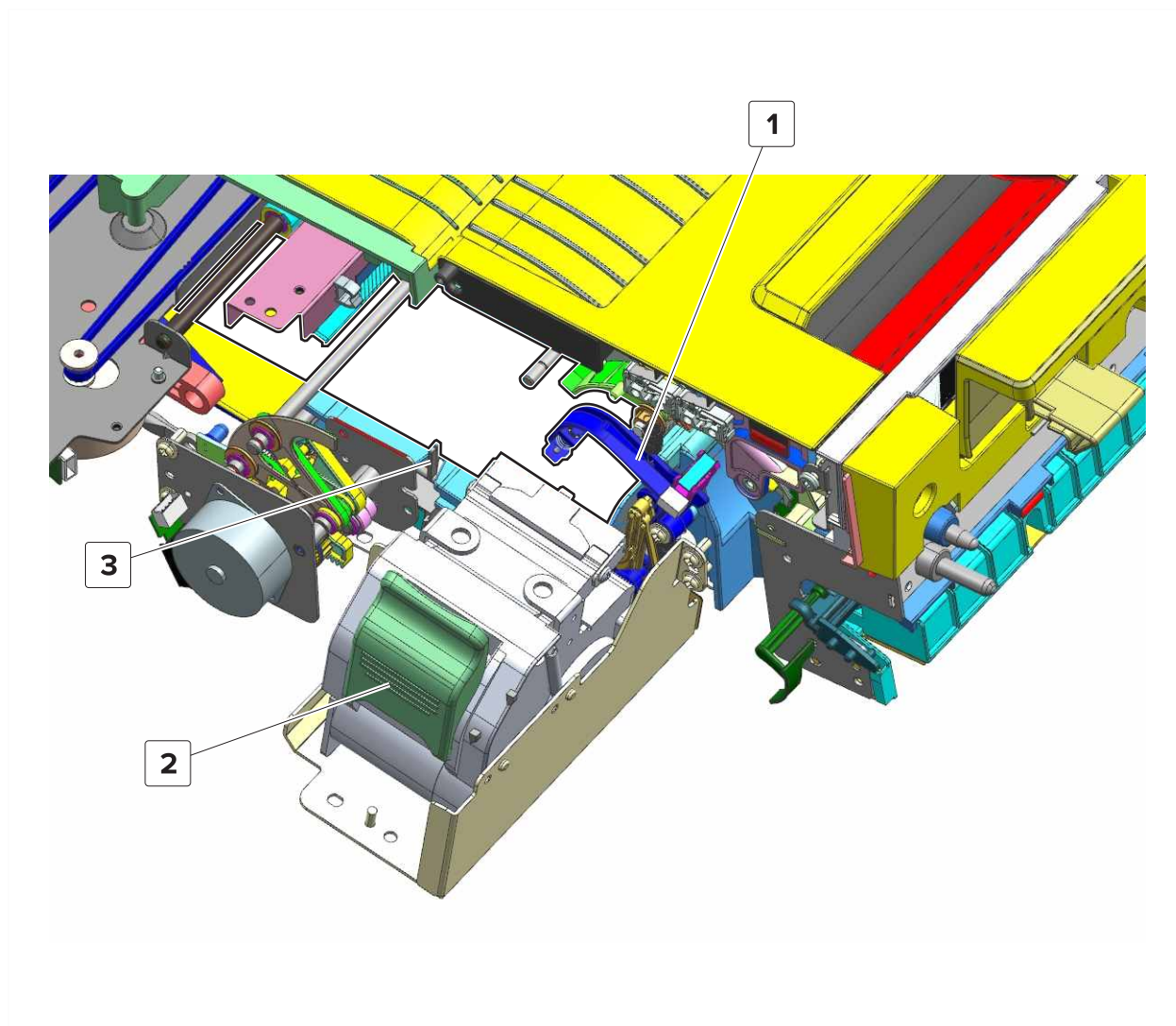
1	Stack clamp
2	Staple unit
3	Sensor (staple finisher staple unit paper present)

If the print job requires stapling, then the tampers push the paper stack to the rear of the finisher. The stack is detected by the sensor (staple finisher staple unit paper present). The stack clamp moves down to hold the stack in place, and then the stack is stapled. For offset jobs, the stack is pushed to the front or rear.

Compiler section exit
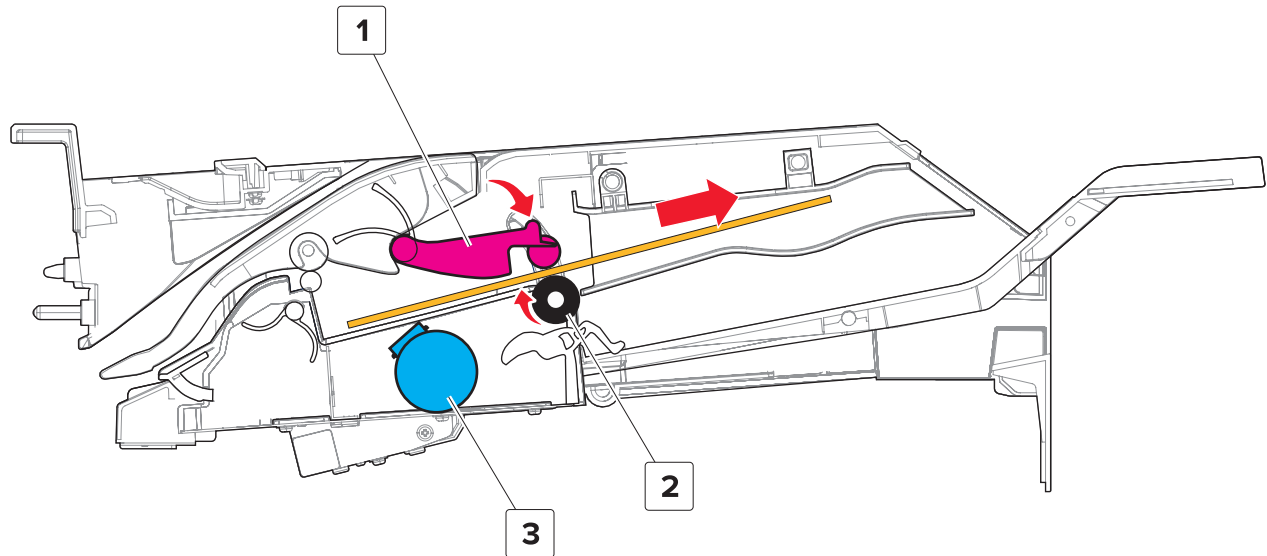
1	Upper exit roller
2	Lower exit roller
3	Motor (staple finisher exit)

After stapling or offset, the motor (staple finisher upper exit roller) lowers the upper exit roller causing the roller to come into contact with the stack. The motor (staple finisher exit) drives the upper and lower exit rollers to feed the stack to the bin.

Theory of operation

Bin section
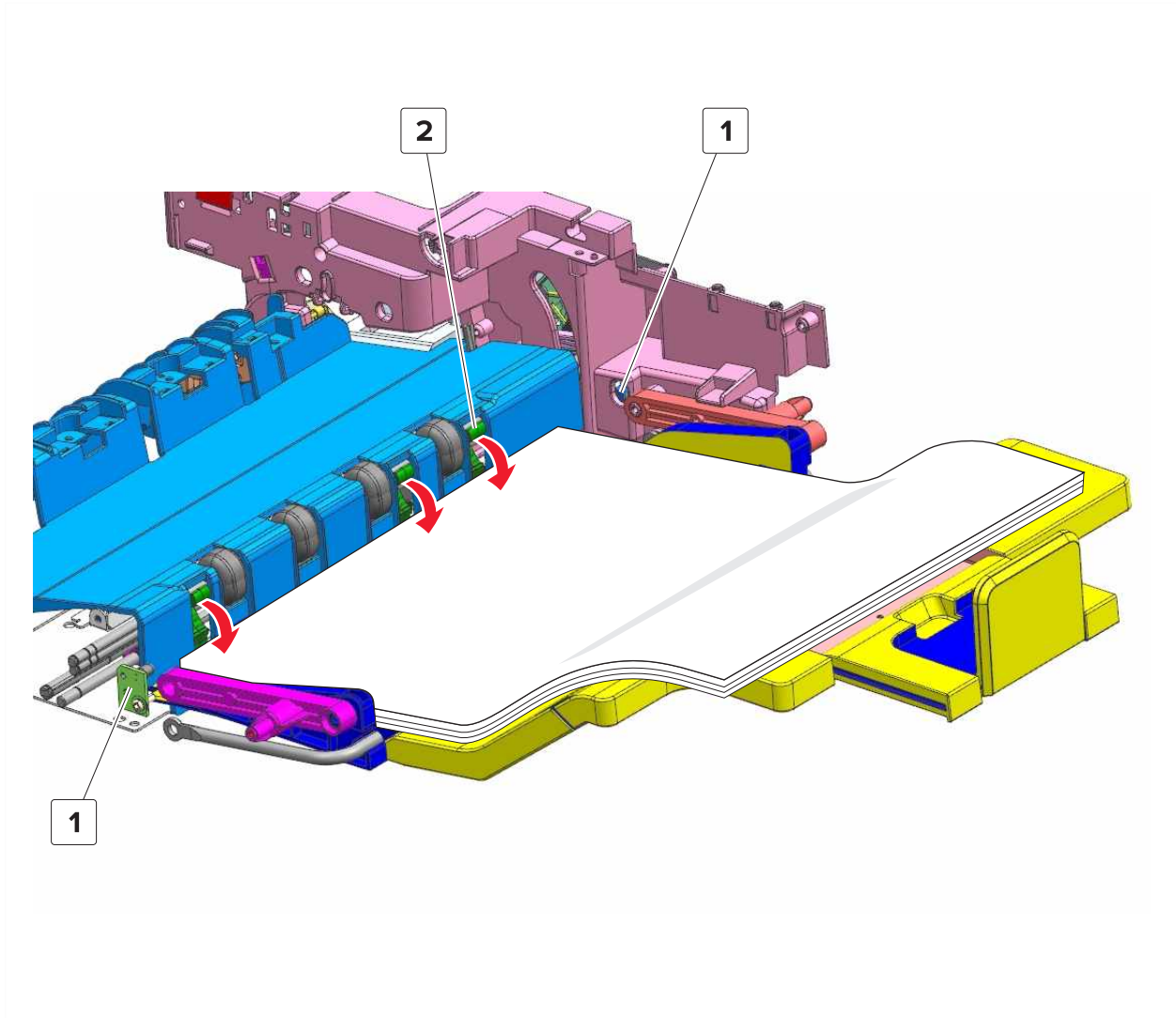
1	Sensor (staple finisher bin full)
2	Bin arms

After the paper is placed on the bin, the bin arms lower to set the stack on the bin. The bin is held by springs, and it lowers due to the weight of the accumulating paper. The sensor (staple finisher bin full) detects if the bin is full.

Acronyms

Acronyms

ASIC	Application-specific integrated circuit
BLDC	Brushless DC motor
BOR	Black only retract
C	Cyan
CCD	Charge coupled device
CCP	Carbonless copy paper
CRC	Cyclic redundancy check
CSU	Customer setup
CTLS	Capacitance toner level sensing
DIMM	Dual inline memory module
DRAM	Dynamic random access memory
EDO	Enhanced data out
EP	Electrophotography
EPROM	Erasable programmable read-only memory
ESD	Electrostatic discharge
FFC	Flat flexible cable
FRU	Field replaceable unit
GB	Gigabyte
HVPS	High voltage power supply
K	Black
LCD	Liquid crystal display
LDAP	Lightweight directory access protocol
LED	Light-emitting diode
LVPS	Low voltage power supply
M	Magenta
MB	Megabyte
MFP	Multi-function product
MPF	Multipurpose feeder
MROM	Masked read-only memory
MS	Microswitch
NVM	Nonvolatile memory
NVRAM	Nonvolatile random access memory

OEM	Original equipment manufacturer
OPT	Optical sensor
PC	Photoconductor
pel, pixel	Picture element
POR	Power-on reset
POST	Power-on self test
PSD	Position sensing device
PWM	Pulse width modulation
RIP	Raster imaging processor
ROM	Read-only memory
SDRAM	Synchronous dual random access memory
SIMM	Single inline memory module
SRAM	Static random access memory
TPS	Toner patch sensing
UPR	Used parts return
V ac	Volts alternating current
V dc	Volts direct current
VTB	Vacuum transport belt
Y	Yellow

Acronyms

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CAUTION—SHOCK HAZARD: This type of caution indicates a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you start working, or use caution if the product must receive power to perform the task.

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 lit hium batteries according to the manufacturer's instructions and local regulations.

CX820
CX825
CX860
XC6152
XC8155
XC8160

WIRING DIAGRAM

SCANNER
OPTIONAL KEYBOARD
CCDM FB SCANNER
CONTROL PANEL DISPLAY
OUTPUT OPTIONS
MOTORS (K, C, M, Y TONER ADD)
HVPS (MAIN)
LVPS
FUSER

USB THUMB DRIVE
GRAY HDMI DATA
BLACK HDMI DATA
(POWER)

HVPS FAN
MAIN FAN
SENSOR (PROXIMITY)
LED (OUTPUT BIN)
SENSOR (OUTPUT BIN FULL)
IR THERMISTOR
SENSOR (FRONT DOOR)
MOTOR (REDRIVE)
MOTOR (DUPLEX DIVERTER)
SENSORS (AUTO ALIGNMENT)
SENSOR (TPS)
MOTOR (FUSER)
MOTOR (TRANSFER BELT)
AC POWER
LVPS
SPEAKER
CONTROL PANEL HEADPHONES
MOTOR (K DEVELOPER)
MOTOR (C M Y DEVELOPERS)
SMART CHIP INTERFACE BOARD
MOTOR (K PHOTOCONDUCTOR)
MOTOR (C M Y PHOTOCONDUCTORS)
MOTOR (MPF PICK)
MOTOR (ISOLATION)
MOTOR (DESKEW)
MOTOR (DUPLEX)

JSCPOW1 JSC 32 JSC 31 J3 J1 JOPPWR1 JLCD2 JOPOPT1 JBTLM1 JHVPS1 JFSR1 JBLF1 JF 1
J5 JPS1 JREDRV1
J2 JMTR1
JTPS2
JTSP1
J6 J9 JFIS1
J47 JWDP1 JFIP1
JT 4
JVIPER1 JT 5 JRESET1
J7 J8 JFL1 J64 JT 6
JMEM2 J48 JT 6 JLVPS1
J4 JLOR1
JSEC1
JDBG1 JLOWPWR1 JMAG1
JICSP1
J11 JT 8 J80 JDISTR1
JCFT JFX1
JLBT1 JPCP1
JR4DB1 JPCS1
JDEBUG1
J52 JGDVUSB JT 11
JPP1 JMTR2
JWTHR1 JT 12 JBLF2 JT 7 JMTR3
JWPR1 JVDO1 JDPXPP1 JLED1 JHVPS2 JINOPT1 JTRAY1 JCVR1

WEATHER STATION
PRINTHEAD DATA
HVPS (CHARGE)
INPUT OPTIONS
TRAY 1 MEDIA FEEDER

PRINTHEAD FAN
SENSOR (MPF MEDIA PRESENT)
SENSOR (WASTE TONER BOTTLE PRESENT)
SENSOR (WASTE TONER BOTTLE FULL)
SENSOR (DOOR INTERLOCK)

MOTOR (PRINTHEAD WIPER) PRINTHEAD POWER
SENSOR (MPF / PASS THROUGH)
SENSOR (DUPLEX PATH 1)
SENSOR (DUPLEX PATH 2)
SENSOR (DESKEW ROLLER ENTRY), SENSOR (DESKEW ROLLER EXIT), SENSOR (NARROW MEDIA), SENSOR (NEAR NARROW MEDIA)
SENSOR (INPUT)
SENSOR (MEDIA TYPE)
LED (MPF PAPER PRESENT)
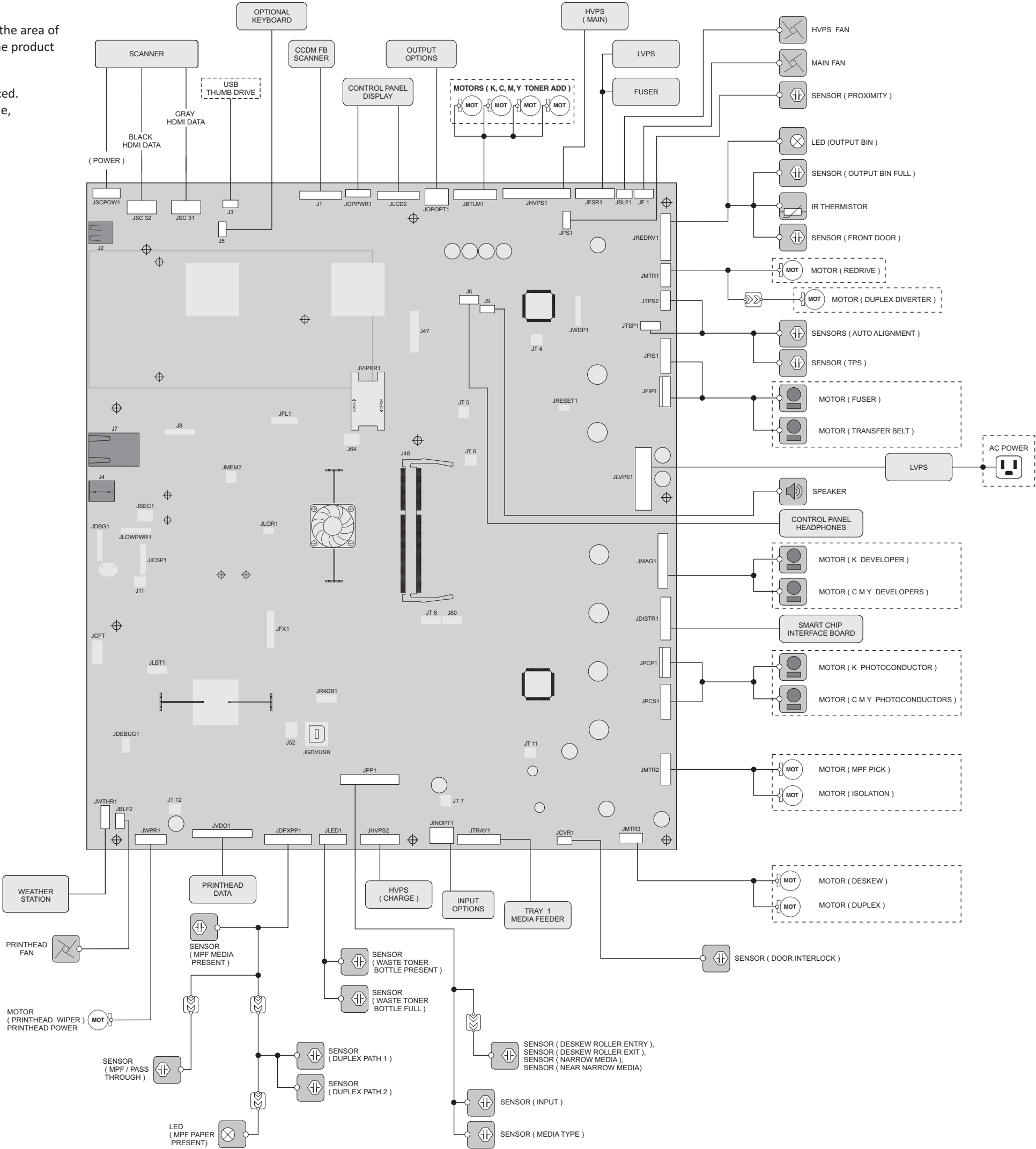
ADF
WIRING DIAGRAM

CAUTION—SHOCK HAZARD: This type of caution indicates a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you start working, or use caution if the product must receive power to perform the task.
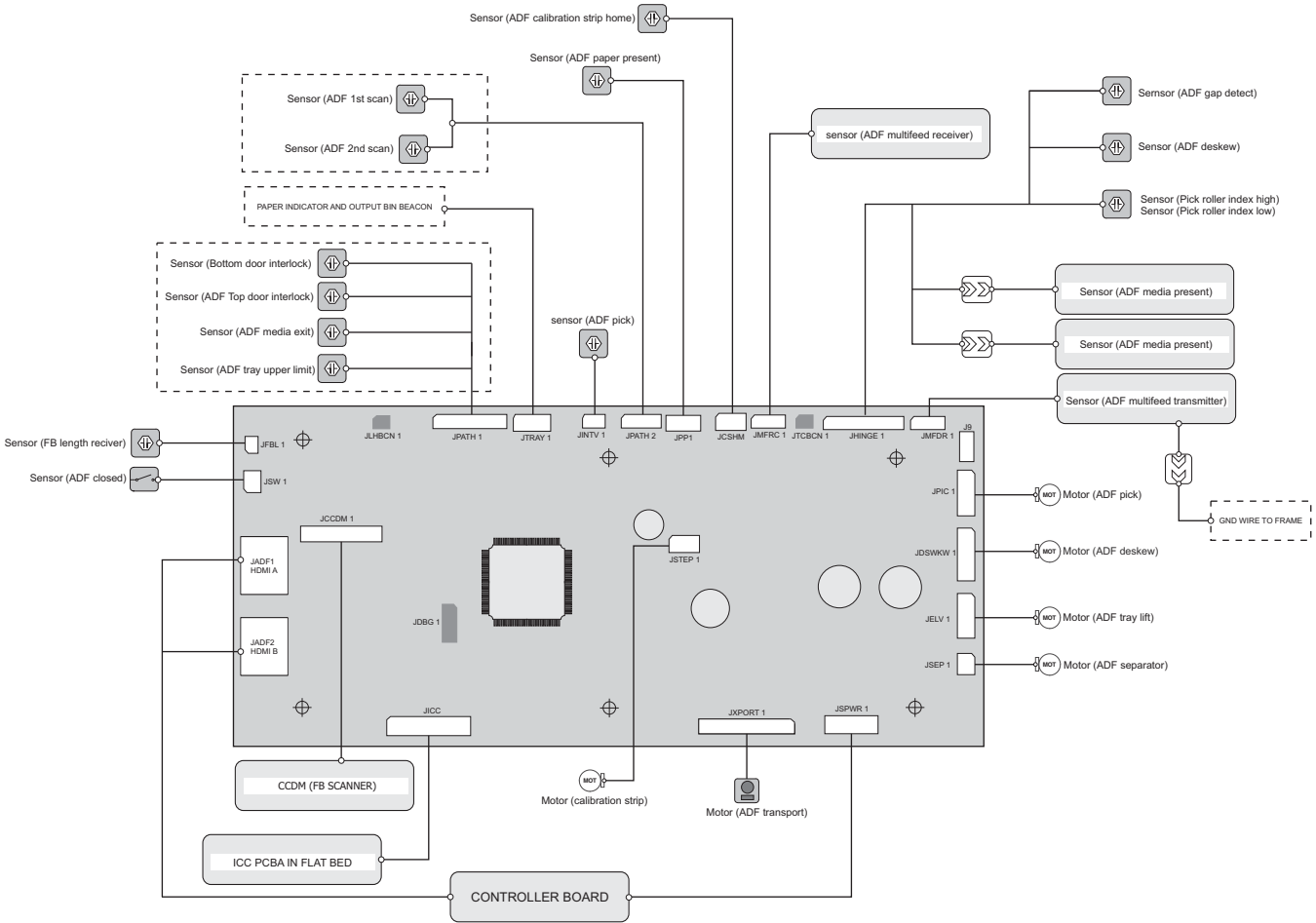
Flatbed

WIRING DIAGRAM

⚠️ **CAUTION—SHOCK HAZARD:** This type of caution indicates a danger from hazardous voltage in the area of the product where you are working. Unplug the product before you start working, or use caution if the product must receive power to perform the task.
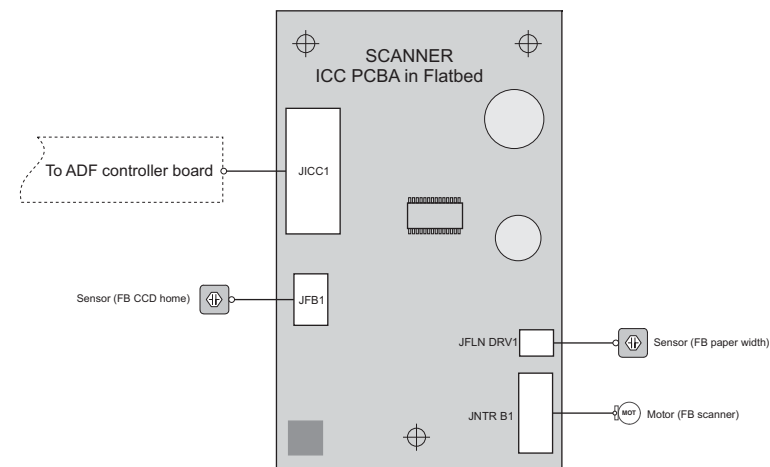

To ADF controller board — JICC1
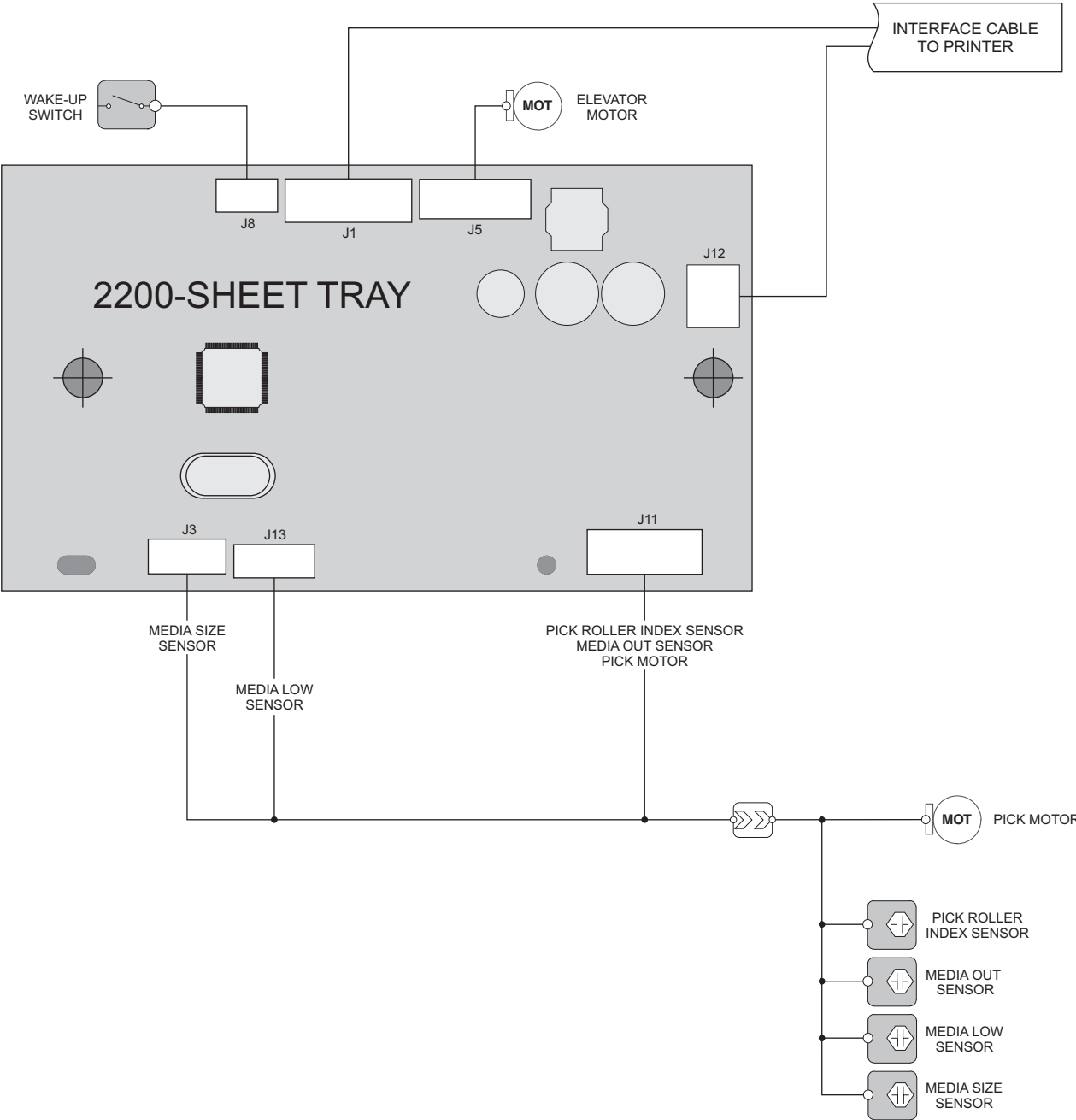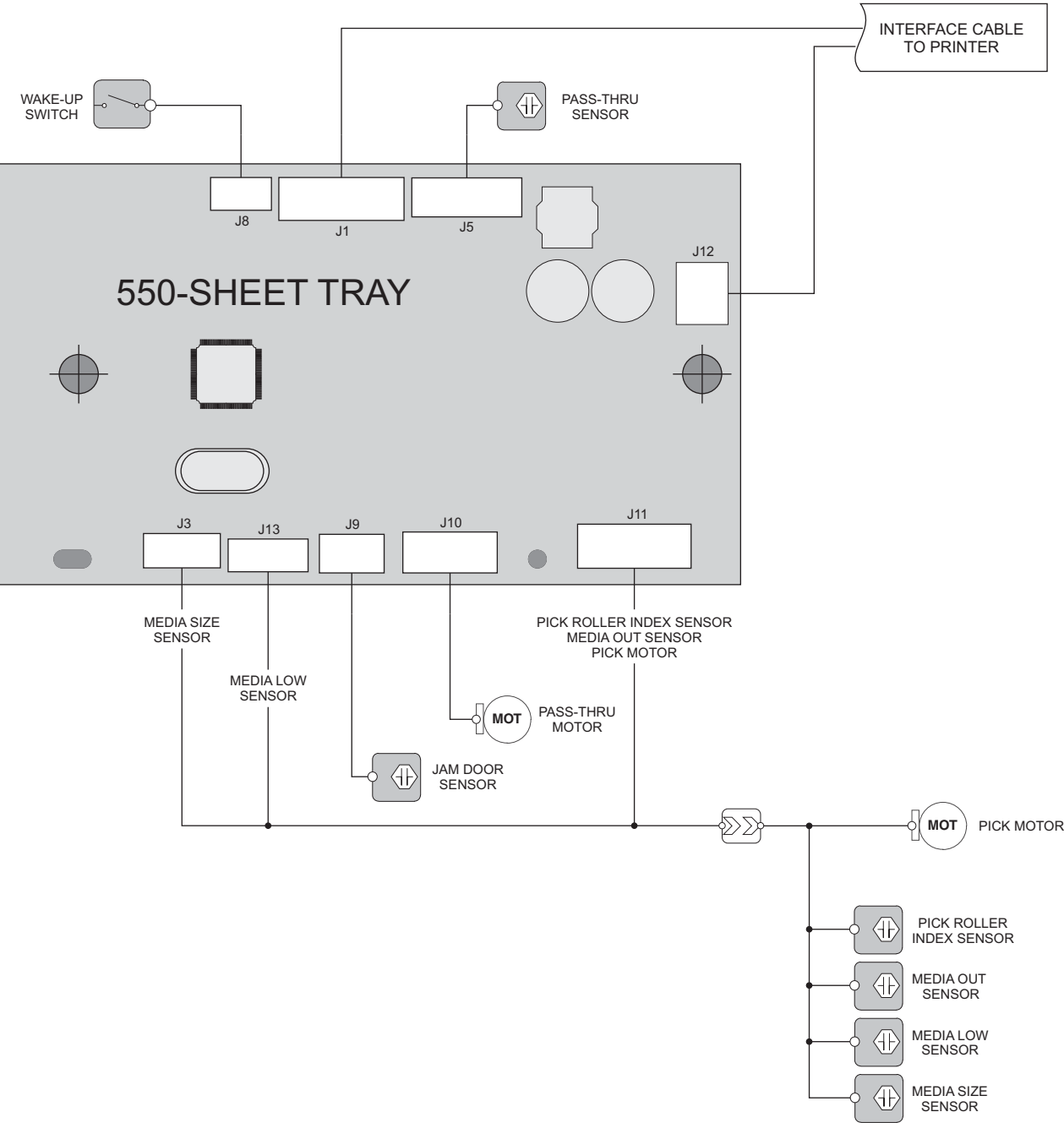
SCANNER
ICC PCBA in Flatbed

Sensor (FB CCD home) — JFB1

JFLN DRV1 — Sensor (FB paper width)

JNTR B1 — Motor (FB scanner)

550-SHEET TRAY
2200-SHEET TRAY

WIRING DIAGRAM

STAPLE FINISHER

WIRING DIAGRAM

Stapler throat Sensor

Lower Binfull TX Sensor

Exit Roller Position Sensor

Upper Binfull RX Sensor

Lower Binfull RX Sensor

Rear Tamper Sensor

Narrow Media Sensor

Front Tamper Sensor

Cave light

Staple finisher

Upper Binfull TX Sensor

Tray Holder Motor

Upper Exit Position Motor

Tray Holder Sensor

Paddle Sensor

Paddle Motor

Rear Tamper Motor

Front Tamper Motor

Power

Jam Door Switch 2

Jam Door Switch1

To LED PCBA

Staple Door Switch

Paper clamp Solenoid

To Staple Unit

(3 pins)   (2 pins)

Paddle Motor

Clamp Sensor

Exit Motor

Transport Motor

Decurl Sensor

Pass thru Sensor