



Service Manual

**Lexmark™ X850e, X852e, & X854e
Booklet Makier Finisher**

7500-XXX

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Notices and safety information

The following laser notice labels may be affixed to this printer.

Laser notice

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR 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.

Class I laser products are not considered to be hazardous. The printer contains internally a Class IIIb (3b) laser that is nominally a 5 milliwatt gallium arsenide laser operating in the wavelength region of 770-795 nanometers. 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 condition.

Laser

Der Drucker erfüllt gemäß amtlicher Bestätigung der USA die Anforderungen der Bestimmung DHHS (Department of Health and Human Services) 21 CFR Teil J für Laserprodukte der Klasse I (1). In anderen Ländern gilt der Drucker als Laserprodukt der Klasse I, der die Anforderungen der IEC (International Electrotechnical Commission) 60825-1 gemäß amtlicher Bestätigung erfüllt.

Laserprodukte der Klasse I gelten als unschädlich. Im Inneren des Druckers befindet sich ein Laser der Klasse IIIb (3b), bei dem es sich um einen Galliumarsenlaser mit 5 Milliwatt handelt, der Wellen der Länge 770-795 Nanometer ausstrahlt. Das Lasersystem und der Drucker sind so konzipiert, daß im Normalbetrieb, bei der Wartung durch den Benutzer oder bei ordnungsgemäßer Wartung durch den Kundendienst Laserbestrahlung, die Klasse I übersteigen würde, Menschen keinesfalls erreicht.

Avis relatif à l'utilisation de laser

Pour les Etats-Unis : cette imprimante est certifiée conforme aux provisions DHHS 21 CFR alinéa J concernant les produits laser de Classe I (1). Pour les autres pays : cette imprimante répond aux normes IEC 60825-1 relatives aux produits laser de Classe I.

Les produits laser de Classe I sont considérés comme des produits non dangereux. Cette imprimante est équipée d'un laser de Classe IIIb (3b) (arséniure de gallium d'une puissance nominale de 5 milliwatts) émettant sur des longueurs d'onde comprises entre 770 et 795 nanomètres. L'imprimante et son système laser sont conçus pour impossible, dans des conditions normales d'utilisation, d'entretien par l'utilisateur ou de révision, l'exposition à des rayonnements laser supérieurs à des rayonnements de Classe I.

Avvertenze sui prodotti laser

Questa stampante è certificata negli Stati Uniti per essere conforme ai requisiti del DHHS 21 CFR Sottocapitolo J per i prodotti laser di classe 1 ed è certificata negli altri Paesi come prodotto laser di classe 1 conforme ai requisiti della norma CEI 60825-1.

I prodotti laser di classe non sono considerati pericolosi. La stampante contiene al suo interno un laser di classe IIIb (3b) all'arseniuro di gallio della potenza di 5mW che opera sulla lunghezza d'onda compresa tra 770 e 795 nanometri. Il sistema laser e la stampante sono stati progettati in modo tale che le persone a contatto con la stampante, durante il normale funzionamento, le operazioni di servizio o quelle di assistenza tecnica, non ricevano radiazioni laser superiori al livello della classe 1.

Avisos sobre el láser

Se certifica que, en los EE.UU., esta impresora cumple los requisitos para los productos láser de Clase I (1) establecidos en el subcapítulo J de la norma CFR 21 del DHHS (Departamento de Sanidad y Servicios) y, en los demás países, reúne todas las condiciones expuestas en la norma IEC 60825-1 para productos láser de Clase I (1).

Los productos láser de Clase I no se consideran peligrosos. La impresora contiene en su interior un láser de Clase IIIb (3b) de arseniuro de galio de funcionamiento nominal a 5 milivatios en una longitud de onda de 770 a 795 nanómetros. El sistema láser y la impresora están diseñados de forma que ninguna persona pueda verse afectada por ningún tipo de radiación láser superior al nivel de la Clase I durante su uso normal, el mantenimiento realizado por el usuario o cualquier otra situación de servicio técnico.

Declaração sobre Laser

A impressora está certificada nos E.U.A. em conformidade com os requisitos da regulamentação DHHS 21 CFR Subcapítulo J para a Classe I (1) de produtos laser. Em outros locais, está certificada como um produto laser da Classe I, em conformidade com os requisitos da norma IEC 60825-1.

Os produtos laser da Classe I não são considerados perigosos. Internamente, a impressora contém um produto laser da Classe IIIb (3b), designado laser de arseneto de potássio, de 5 milliwatts, operando numa faixa de comprimento de onda entre 770 e 795 nanómetros. O sistema e a impressora laser foram concebidos de forma a nunca existir qualquer possibilidade de acesso humano a radiação laser superior a um nível de Classe I durante a operação normal, a manutenção feita pelo utilizador ou condições de assistência prescritas.

Laserinformatie

De printer voldoet aan de eisen die gesteld worden aan een laserprodukt van klasse I. Voor de Verenigde Staten zijn deze eisen vastgelegd in DHHS 21 CFR Subchapter J, voor andere landen in IEC 60825-1.

Laserprodukten van klasse I worden niet als ongevaarlijk aangemerkt. De printer is voorzien van een laser van klasse IIIb (3b), dat wil zeggen een gallium arsenide-laser van 5 milliwatt met een golflengte van 770-795 nanometer. Het lasergedeelte en de printer zijn zo ontworpen dat bij normaal gebruik, bij onderhoud of reparatie conform de voorschriften, nooit blootstelling mogelijk is aan laserstraling boven een niveau zoals voorgeschreven is voor klasse 1.

Lasermeddelelse

Printeren er godkendt som et Klasse I-laserprodukt, i overensstemmelse med kravene i IEC 60825-1.

Klasse I-laserprodukter betragtes ikke som farlige. Printeren indeholder internt en Klasse IIIB (3b)-laser, der nominelt er en 5 milliwatt galliumarsenid laser, som arbejder på bølglængdeområdet 770-795 nanometer. Lasersystemet og printeren er udformet således, at mennesker aldrig udsættes for en laserstråling over Klasse I-niveau ved normal drift, brugervedligeholdelse eller obligatoriske servicebetingelser.

Laserilmoitus

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

Luokan I lasertuotteita ei pidetä haitallisina. Tulostimen sisällä on luokan IIIb (3b) laser, joka on nimellistehoaltaan 5 mW:n galliumarsenidilaser ja toimii 770 - 795 nanometrin aallonpituuksilla. Laserjärjestelmä ja tulostin ovat rakenteeltaan sellaisia, että käyttäjä ei joudu alttiiksi luokkaa 1 suuremmalle säteilylle normaalin käytön, ylläpidon tai huollon aikana.

Huomautus laserlaitteesta

Tämä kirjoitin on Yhdysvalloissa luokan I (1) laserlaitteiden DHHS 21 CFR Subchapter J -määrityksen mukainen ja muualla luokan I laserlaitteiden IEC 60825-1 -määrityksen mukainen.

Luokan I laserlaitteiden ei katsota olevan vaarallisia käyttäjälle. Kirjoittimessa on sisäinen luokan IIIb (3b) 5 milliwatin galliumarsenidilaser, joka toimii aaltoalueella 770 - 795 nanometriä. Laserjärjestelmä ja kirjoitin on suunniteltu siten, että käyttäjä ei altistu luokan I määräytyksiä voimakkaammalle säteilylle kirjoittimen normaalin toiminnan, käyttäjän tekemien huoltotoimien tai muiden huoltotoimien yhteydessä.

VARO! Avattaessa ja suojauslukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

VARNING! Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

Laser-notis

Denna skrivare är i USA certifierad att motsvara kraven i DHHS 21 CFR, underparagraf J för laserprodukter av Klass I (1). I andra länder uppfyller skrivaren kraven för laserprodukter av Klass I enligt kraven i IEC 60825-1.

Laserprodukter i Klass I anses ej hälsovådliga. Skrivaren har en inbyggd laser av Klass IIIb (3b) som består av en laserenhet av gallium-arsenid på 5 milliwatt som arbetar i våglängdsområdet 770-795 nanometer. Lasersystemet och skrivaren är utformade så att det aldrig finns risk för att någon person utsätts för laserstrålning över Klass I-nivå vid normal användning, underhåll som utförs av användaren eller annan föreskriven serviceåtgärd.

Laser-melding

Skriveren er godkjent i USA etter kravene i DHHS 21 CFR, underkapittel J, for klasse I (1) laserprodukter, og er i andre land godkjent som et Klasse I-laserprodukt i samsvar med kravene i IEC 60825-1.

Klasse I-laserprodukter er ikke å betrakte som farlige. Skriveren inneholder internt en klasse IIIb (3b)-laser, som består av en gallium-arsenlaserenhet som avgir stråling i bølglengdeområdet 770-795 nanometer. Lasersystemet og skriveren er utformet slik at personer aldri utsettes for laserstråling ut over klasse I-nivå under vanlig bruk, vedlikehold som utføres av brukeren, eller foreskrevne serviceoperasjoner.

Avís sobre el Làser

Segons ha estat certificat als Estats Units, aquesta impressora compleix els requisits de DHHS 21 CFR, apartat J, pels productes làser de classe I (1), i segons ha estat certificat en altres llocs, és un producte làser de classe I que compleix els requisits d'IEC 60825-1.

Els productes làser de classe I no es consideren perillosos. Aquesta impressora conté un làser de classe IIIb (3b) d'arseniür de gal.li, nominalment de 5 mil.liwats, i funciona a la regió de longitud d'ona de 770-795 nanòmetres. El sistema làser i la impressora han sigut concebuts de manera que mai hi hagi exposició a la radiació làser per sobre d'un nivell de classe I durant una operació normal, durant les tasques de manteniment d'usuari ni durant els serveis que satisfacin les condicions prescrites.

レーザーに関するお知らせ

このプリンターは、米国ではDHHS 21 CFRサブチャプターJのクラスI (1)の基準を満たしたレーザー製品であることが証明されています。また米国以外ではIEC 825の基準を満たしたクラスIのレーザー製品であることが証明されています。

クラスIのレーザー製品には危険性はないと考えられています。このプリンターはクラスIII b (3 b)のレーザーを内蔵しています。このレーザーは、波長が770 ~ 795ナノメートルの範囲で、通常5ミリワットのガリウム砒化物を放射するレーザーです。このレーザーシステムとプリンターは、通常の操作、ユーザのメンテナンス、規定された修理においては、人体がクラスIのレベル以上のレーザー放射に晒されることのないよう設計されています。

注意：

本打印机被美国认证合乎 DHHS 21 CFR Subchapter I 对分类 I (1) 激光产品的标准，而在其他地区则被认证合乎 IEC 825 的标准。

分类 I 激光产品一般认为不具危险性，本打印机内部含有分类 IIIb (3b) 的激光，在操作过程中会产生 5 毫瓦含镓及砷的微量激光，其波长范围在 770-795 nm 之间。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。

본프린터는 1등급 레이저 제품들에 대한 DHHS 21 CFR Subchapter 3의 규정을 준수하고 있음을 미국에서 인증받았으며, 그외의 나라에서도 IEC 825 규정을 준수하는 1등급 레이저 제품으로서 인증을 받았습니다.

1등급 레이저 제품들은 안전한 것으로 간주됩니다. 본 프린터는 5 밀리와트 갈륨 아르세나이드 레이저로서 770-795 나노미터의 파장대에서 활동하는 Class III (3b) 레이저를 내부에 갖고 있습니다. 본 레이저 시스템과 프린터는 정상 작동 중이나 유지 보수 중 또는 규정된 서비스 상태에서 상기의 Class I 수준의 레이저 방출에 사람이 절대 접근할 수 없도록 설계되어 있습니다.

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 electric shock and personal injury during disassembly and servicing of this product. Professional service personnel should understand this and take necessary precautions.
-  **CAUTION:** 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.

Consignes de sécurité

- La sécurité de ce produit repose sur des tests et des agréments portant sur sa conception d'origine et sur des composants particuliers. Le fabricant n'assume aucune responsabilité concernant la sécurité en cas d'utilisation de pièces de rechange non agréées.
- Les consignes d'entretien et de réparation de ce produit s'adressent uniquement à un personnel de maintenance qualifié.
- Le démontage et l'entretien de ce produit pouvant présenter certains risques électriques, le personnel d'entretien qualifié devra prendre toutes les précautions nécessaires.
-  **ATTENTION :** Ce symbole indique la présence d'une tension dangereuse dans la partie du produit sur laquelle vous travaillez. Débranchez le produit avant de commencer ou faites preuve de vigilance si l'exécution de la tâche exige que le produit reste sous tension.

Norme di sicurezza

- La sicurezza del prodotto si basa sui test e sull'approvazione del progetto originale e dei componenti specifici. Il produttore non è responsabile per la sicurezza in caso di sostituzione non autorizzata delle parti.
- Le informazioni riguardanti la manutenzione di questo prodotto sono indirizzate soltanto al personale di assistenza autorizzato.
- Durante lo smontaggio e la manutenzione di questo prodotto, il rischio di subire scosse elettriche e danni alla persona è più elevato. Il personale di assistenza autorizzato deve, quindi, adottare le precauzioni necessarie.
-  **ATTENZIONE:** Questo simbolo indica la presenza di tensione pericolosa nell'area del prodotto. Scollegare il prodotto prima di iniziare o usare cautela se il prodotto deve essere alimentato per eseguire l'intervento.

Sicherheitshinweise

- Die Sicherheit dieses Produkts basiert auf Tests und Zulassungen des ursprünglichen Modells und bestimmter Bauteile. Bei Verwendung nicht genehmigter Ersatzteile wird vom Hersteller keine Verantwortung oder Haftung für die Sicherheit übernommen.
- Die Wartungsinformationen für dieses Produkt sind ausschließlich für die Verwendung durch einen Wartungsfachmann bestimmt.
- Während des Auseinandernehmens und der Wartung des Geräts besteht ein zusätzliches Risiko eines elektrischen Schlags und körperlicher Verletzung. Das zuständige Fachpersonal sollte entsprechende Vorsichtsmaßnahmen treffen.
-  **ACHTUNG:** Dieses Symbol weist auf eine gefährliche elektrische Spannung hin, die in diesem Bereich des Produkts auftreten kann. Ziehen Sie vor den Arbeiten am Gerät den Netzstecker des Geräts, bzw. arbeiten Sie mit großer Vorsicht, wenn das Produkt für die Ausführung der Arbeiten an den Strom angeschlossen sein muß.

Pautas de Seguridad

- La seguridad de este producto se basa en pruebas y aprobaciones del diseño original y componentes específicos. El fabricante no es responsable de la seguridad en caso de uso de piezas de repuesto no autorizadas.
- La información sobre el mantenimiento de este producto está dirigida exclusivamente al personal cualificado de mantenimiento.
- Existe mayor riesgo de descarga eléctrica y de daños personales durante el desmontaje y la reparación de la máquina. El personal cualificado debe ser consciente de este peligro y tomar las precauciones necesarias.
-  **PRECAUCIÓN:** este símbolo indica que el voltaje de la parte del equipo con la que está trabajando es peligroso. Antes de empezar, desenchufe el equipo o tenga cuidado si, para trabajar con él, debe conectarlo.

Informações de Segurança

- A segurança deste produto baseia-se em testes e aprovações do modelo original e de componentes específicos. O fabricante não é responsável pela segurança, no caso de uso de peças de substituição não autorizadas.
- As informações de segurança relativas a este produto destinam-se a profissionais destes serviços e não devem ser utilizadas por outras pessoas.
- Risco de choques eléctricos e ferimentos graves durante a desmontagem e manutenção deste produto. Os profissionais destes serviços devem estar avisados deste facto e tomar os cuidados necessários.
-  **CUIDADO:** Quando vir este símbolo, existe a possível presença de uma potencial tensão perigosa na zona do produto em que está a trabalhar. Antes de começar, desligue o produto da tomada eléctrica ou seja cuidadoso caso o produto tenha de estar ligado à corrente eléctrica para realizar a tarefa necessária.

Informació de Seguretat

- La seguretat d'aquest producte es basa en l'avaluació i aprovació del disseny original i els components específics.
El fabricant no es fa responsable de les qüestions de seguretat si s'utilitzen peces de recanvi no autoritzades.
- La informació pel manteniment d'aquest producte està orientada exclusivament a professionals i no està destinada a ningú que no ho sigui.
- El risc de xoc elèctric i de danys personals pot augmentar durant el procés de desmuntatge i de servei d'aquest producte. El personal professional ha d'estar-ne assabentat i prendre les mesures convenients.
-  **PRECAUCIÓ:** aquest símbol indica que el voltatge de la part de l'equip amb la qual esteu treballant és perillós. Abans de començar, desendolieu l'equip o extremeu les precaucions si, per treballar amb l'equip, l'heu de connectar.

안전 사항

- 본 제품은 원래 설계 및 특정 구성품에 대한 테스트 결과로 안정성이 입증된 것입니다. 따라서 무허가 교체부품을 사용하는 경우에는 제조업체에서 안전에 대한 책임을 지지 않습니다.
- 본 제품에 관한 유지 보수 설명서는 전문 서비스 기술자용으로 작성된 것이므로, 비전문가는 사용할 수 없습니다.
- 본 제품을 해체하거나 정비할 경우, 전기적인 충격을 받거나 상처를 입을 위험이 커집니다. 전문 서비스 기술자는 이 사실을 숙지하고, 필요한 예방 조치를 취하도록 하십시오.
-  **주의:** 이 표시는 해당영역에서 고압전류가 흐른다는 위험 표시입니다. 시작전에 플러그를 뽑으시거나, 주의를 기울여 주시기 바랍니다.

安全信息

- 本产品的安全性以原来设计和特定产品的测试结果和认证为基础。万一使用未经许可的替换部件，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，并不打算让其他人使用。
- 本产品在拆卸、维修时，遭受电击或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。
-  **切记:** 当您看到此符号时，说明在您工作的产品区域有危险电压的存在。请在开始操作前拔掉产品的电源线，或者在产品必须使用电源来执行任务时，小心从事。

Preface

This manual contains maintenance procedures for service personnel. It is divided into the following chapters:

- 1. **General information** contains a general description of the printer and the maintenance approach used to repair it. Special tools and test equipment, as well as general environmental and safety instructions, are discussed.
- 2. **Diagnostic information** contains an error indicator table, symptom tables, and service checks used to isolate failing field replaceable units (FRUs).
- 3. **Diagnostic aids** contains tests and checks used to locate or repeat symptoms of printer problems.
- 4. **Repair information** provides instructions for making printer adjustments and removing and installing FRUs.
- 5. **Connector locations** uses illustrations to identify the connector locations and test points on the printer.
- 6. **Preventive maintenance** contains the lubrication specifications and recommendations to prevent problems.
- 7. **Parts catalog** contains illustrations and part numbers for individual FRUs.

Conventions

Note: A note provides additional information.
Warning: A warning identifies something that might damage the product hardware or software.

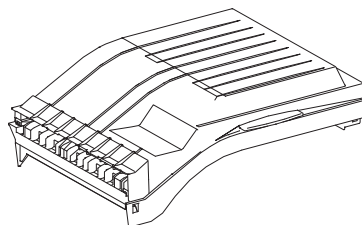
There are several types of caution statements:

	CAUTION A caution identifies something that might cause a servicer harm.
	CAUTION This type of caution indicates 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 This type of caution indicates a hot surface.
	CAUTION This type of caution indicates a tipping hazard.

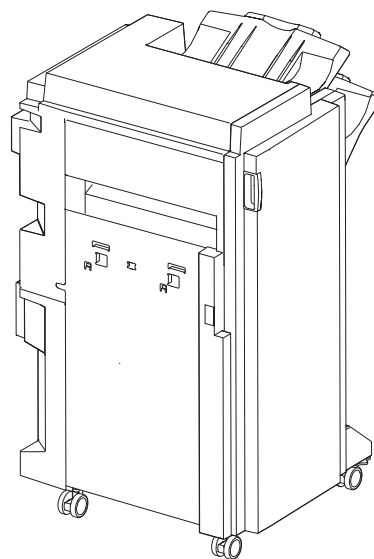
1. General information

Finisher

The optional finisher staples, punches, folding and stapling, and stacks media transferred from the Lexmark™ X850e, X852e, and X854e. Output is stacked in the upper media bin or separately collated in the stacker media bin or folded and stapled in the booklet bin.



Bridge unit assembly



Finisher

Standard Finisher weight

Unpacked: 59 kg (130 lbs)

Booklet Finisher weight

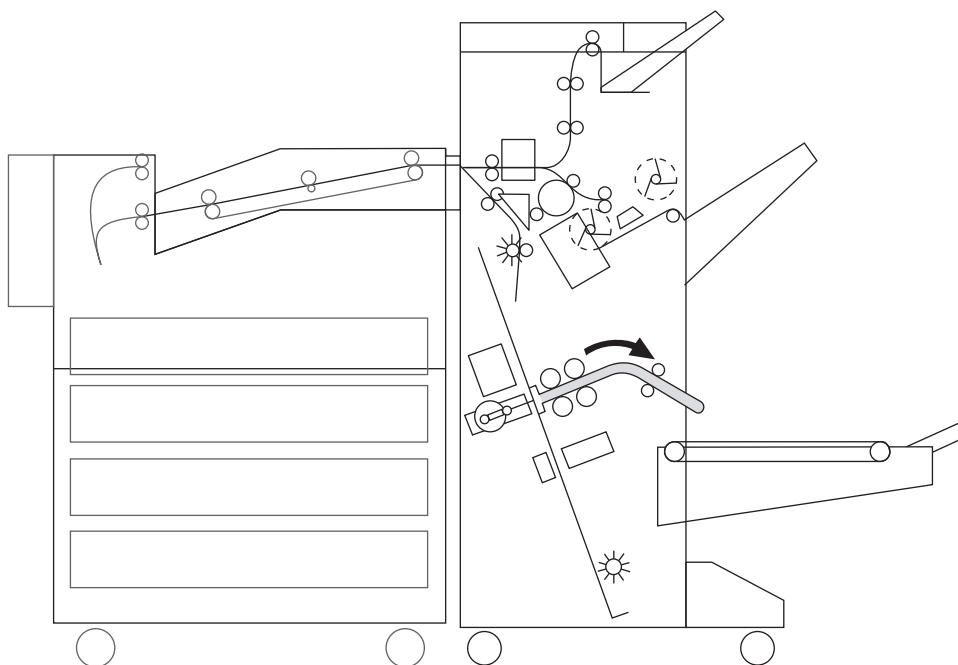
Unpacked: 87.5 kg (193 lbs)

Components

The finisher is composed of the following components.

- Bridge unit assembly block to feed media from the printer to the finisher
- Punch block to punch media
- Compiler tray block to align media
- Stapler block to staple a set of media at specified positions
- Booklet unit and tray

Media path overview



Media size and weight

The following shows media sizes and weights that the finisher can handle, as well as applicable functions for each media size.

The printer and the finisher handle different media sizes and weights. For this reason, if the printer has printed media that the finisher cannot handle, the exit 1 diverter gate in the printer is switched to eject the media from Exit 2 onto the bridge unit assembly. Refer to the *Printer Service Manual* for additional information on the printer.

Media size/orientation and applicable functions

Media description	Size	Short edge first (SEF)/ Long edge first (LEF)	Top tray	Stacker				Booklet	Folding
			Stack	Stack	Offset stack	Punch	Staple		
B5	182 x 257 mm	SEF	Yes	No	No	No	No	No	No
		LEF	Yes	Yes	Yes	Yes ^{a(2)}	Yes	No	No
Executive	7.25 x 10.5 in. 184.2 x 270 mm	SEF	Yes	No	No	No	No	No	No
		LEF	Yes	Yes	Yes	Yes ^{a(2,3,4)}	No	No	No
Letter	8.5 x 11 in. 215.9 x 279.4 mm	SEF	Yes	Yes	Yes	Yes ^{a(2)}	Yes	Yes	Yes
		LEF	Yes	Yes	Yes	Yes ^{a(2,3,4)}	Yes	No	No
A4	210 x 297	SEF	Yes	Yes	Yes	Yes ^{a(2)}	Yes	Yes	Yes
		LEF	Yes	Yes	Yes	Yes ^{2,a(3,4)}	Yes	No	No
Folio (foolscap)	8.5 x 13 in.	SEF	Yes	Yes	Yes	Yes ^{a(2)}	Yes	Yes	Yes
Legal	8.5 x 14 in.	SEF	Yes	Yes	Yes	Yes ^{a(2)}	Yes	Yes	Yes

B4	257 x 364 mm	SEF	Yes	Yes	Yes	Yes ^{a(2)}	Yes	Yes	Yes
A3	297 x 420 mm	SEF	Yes	Yes	Yes	Yes ^{a(2,3,4)}	Yes	Yes	Yes
Ledger	11 x 17 in.	SEF	Yes	Yes	Yes	Yes ^{a(2,3,4)}	Yes	Yes	Yes
Custom size	Same width with standard size		Yes	Yes	Yes	Yes	Yes	No	No
Custom size	Besides above		Yes	Yes ^b	Yes ^b	No	No	No	No
^a Numbers (2,3,4) mean 2 holes, 3 holes, and 4 holes, respectively. ^b Applicable within the following range: Media width: 203.2–297 mm Media length: 182–431.8 mm									

Media weight

Description	Maximum weight
For punching	52—176 gsm
For stapling	52—226 gsm*
For ejecting in the stacker media bin	52—226 gsm
For ejecting in the upper media bin	52—226 gsm
For folding and stapling	52-226 gsm
* The amount of media capable of being stapled will be less than 50 if the media weight is greater than 90 g/m ² .	

Features

Media processing requested	Destination of media
No post-processing	Upper media bin or stacker media bin
Punching	Upper media bin or stacker media bin
Stapling	Stacker media bin
Punching and stapling	Stacker media bin
Folding and stapling	Booklet tray

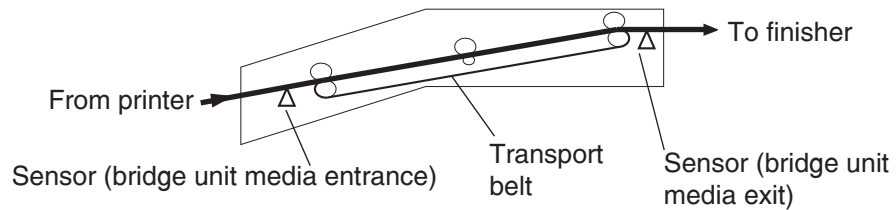
Finisher theory

Media transport

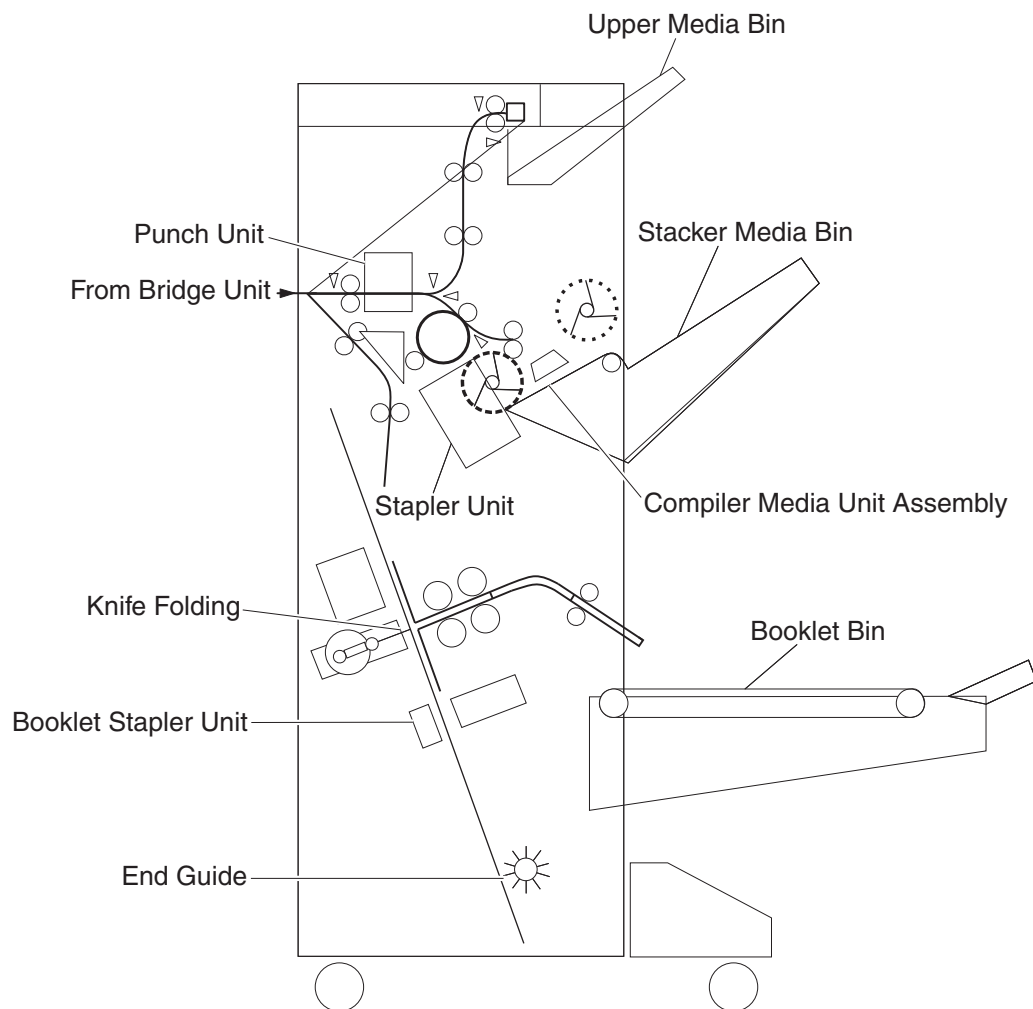
This section describes the transfer of media from the printer to a specified bin.

The following figures illustrate layouts (front view) of sensors, rollers, and main blocks, as well as a layout (rear view) of the main components.

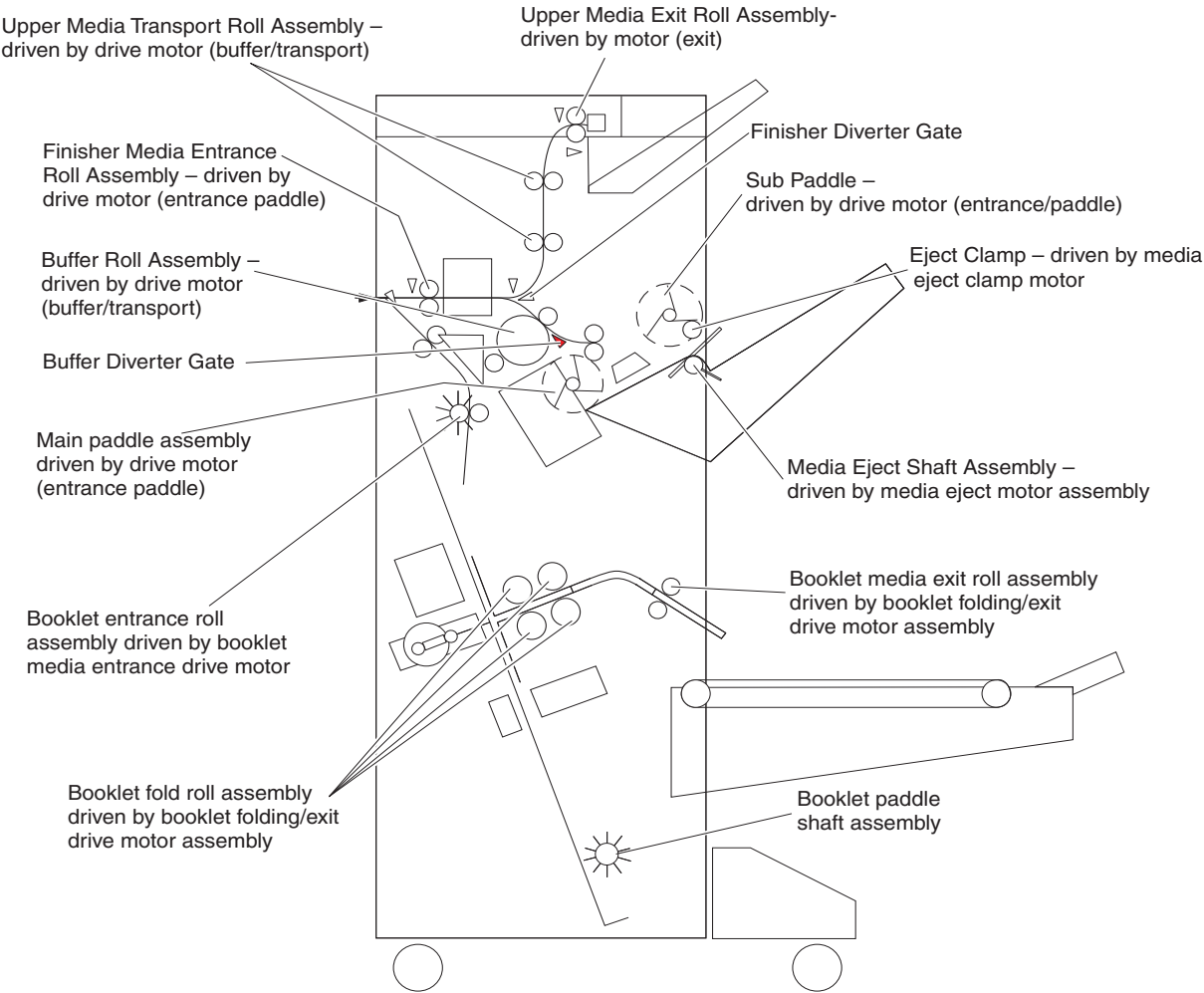
Bridge unit assembly paper path

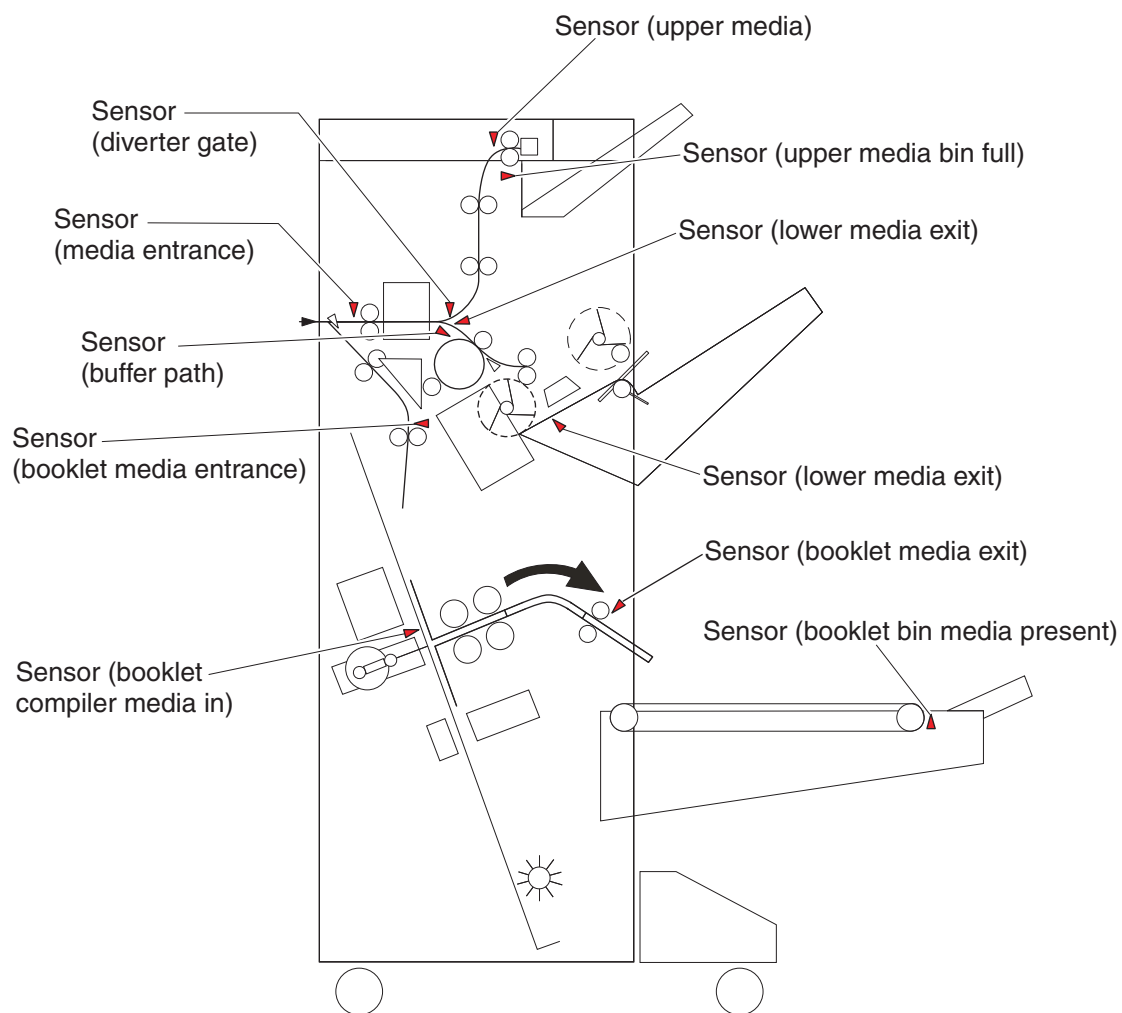


Finisher media path

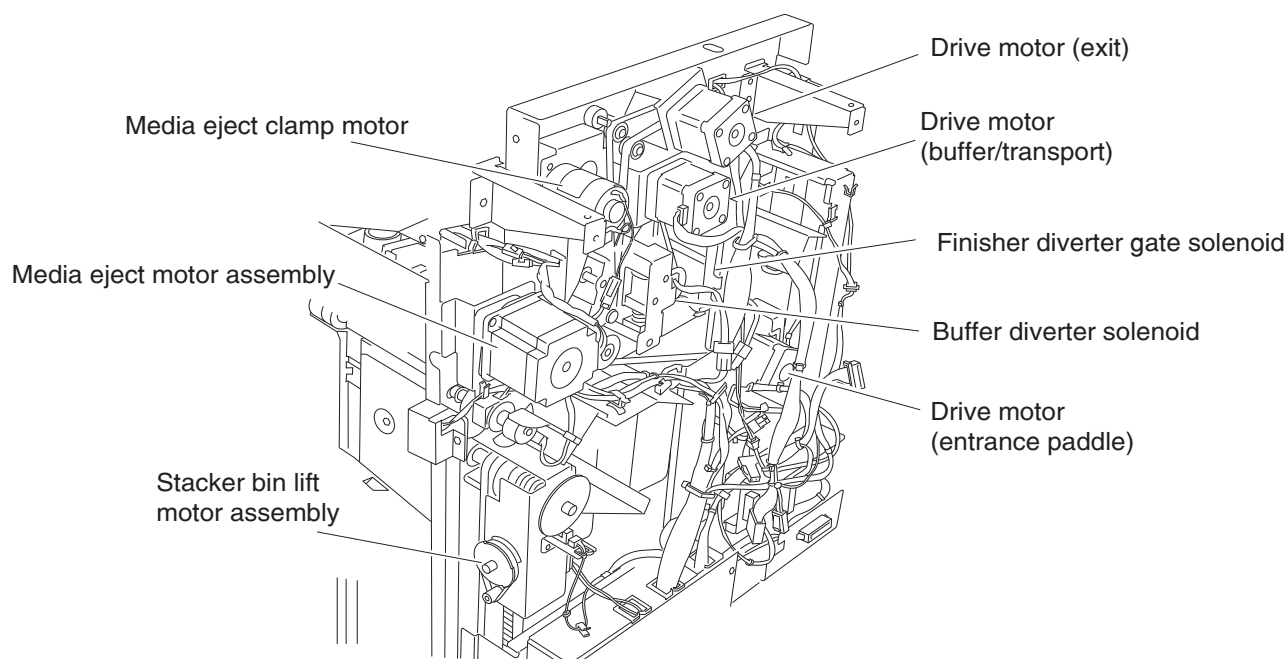


Finisher roll assemblies



Finisher media path sensors

Finisher motors

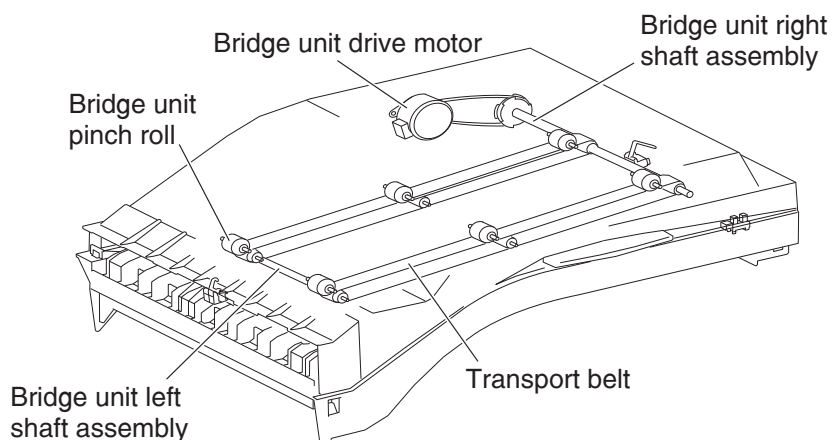


Bridge unit assembly

When the printer designates the finisher, the media diverter gate in the printer activates, and media is fed from the printer into the bridge unit assembly.

The bridge unit drive motor is activated by the trigger of the printer's registration clutch, which drives the transport belts in the bridge unit assembly. The motor power is transmitted to the two belts between the bridge unit right shaft assembly and the bridge unit left shaft assembly.

The media fed to the bridge unit assembly is securely held between the transport belts and the pinch rolls, and fed to the finisher.



From bridge unit assembly to punch

The media fed from the bridge unit assembly is fed into the finisher by the media entrance roll assembly located on the entrance section of the finisher which is driven by the drive motor (entrance/paddle).

The media route inside the finisher is determined by the finisher diverter gate.

The finisher diverter gate is activated by the finisher diverter gate solenoid controlled by the printer.

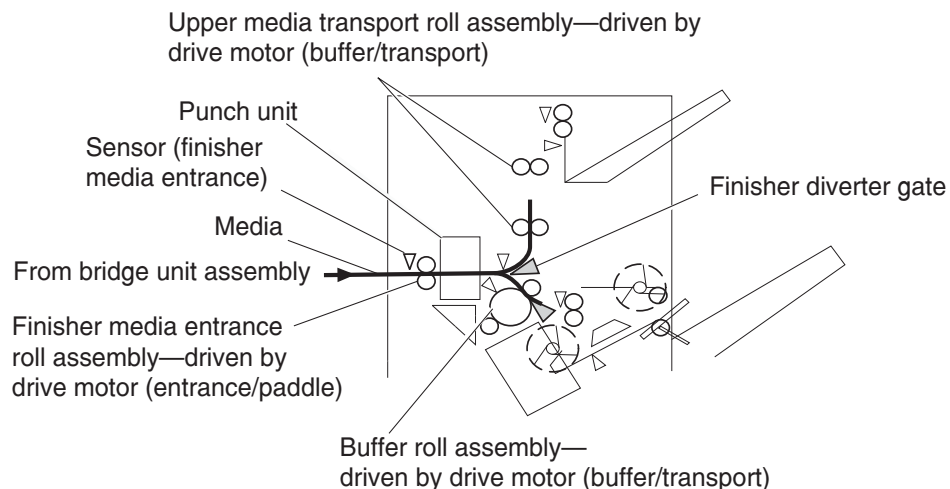
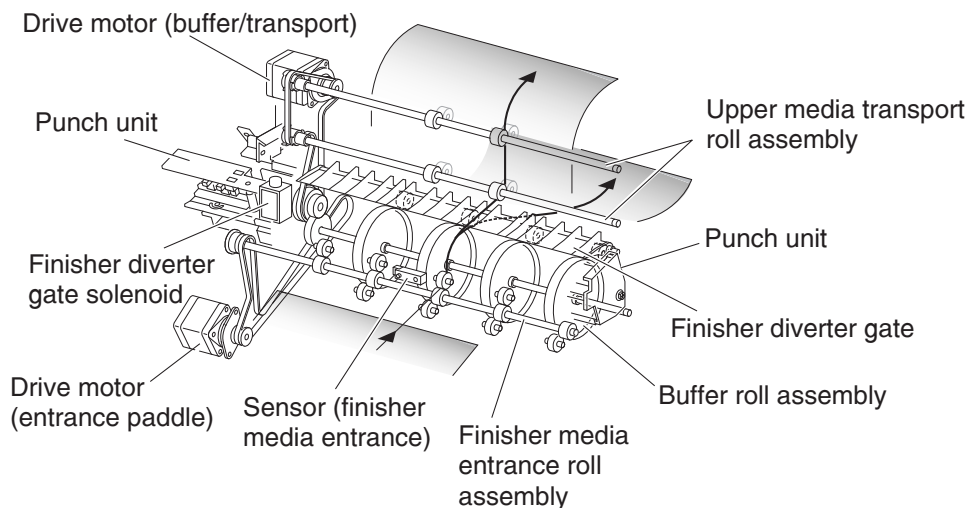
The media is further fed in the finisher by the two upper media transport roll assemblies, or the buffer roll assemblies that are driven by the motor (buffer/transport), and passes through the punch unit.

The sensor (finisher media entrance) becomes low upon detecting media. After a certain amount of time has passed and the level has changed to high, the motor (buffer/transport) that drives the upper media transport roll assembly or the buffer roll assembly starts reverse rotation.

The media is returned to the punch unit by the upper media transport roll assembly or the buffer roll assembly, and is stopped with its end gently pressed against the three punch media stopper assemblies.

The three punch media stopper assemblies in the punch unit drop to let media pass through when media is fed to the exit (while the motor (buffer/transport) is rotating forward), but rise when media is returned (while the motor (buffer/transport) is rotating reversely) to stop the media.

Thus, punch hole positions in the media feed direction are determined.



From punch to compiler unit assembly

The media is transferred to the compiler unit assembly by the buffer roll assembly (driven by the motor (buffer/transport)) and by the lower media exit roll assembly (driven by the drive motor (exit)).

When the first media reaches the compiler unit assembly, the media eject clamp motor is activated to lower the media eject clamp so that the media eject clamp and the media eject shaft assembly can clamp the media.

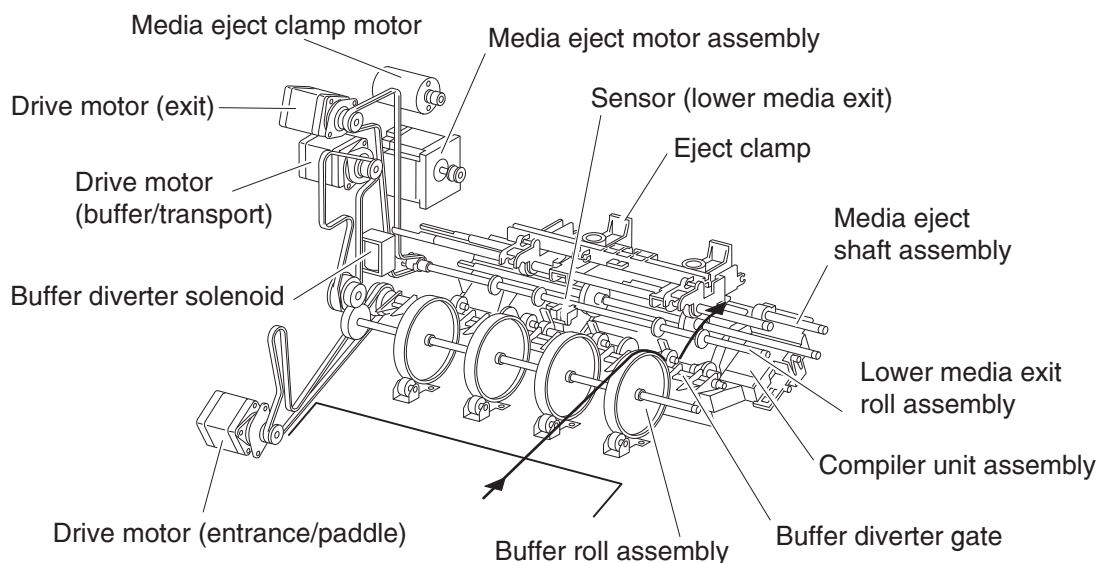
Thus, the media transferred from the punch unit is held by the media eject shaft assembly and the media eject clamp (driven by the media eject motor assembly) and is fed to the exit.

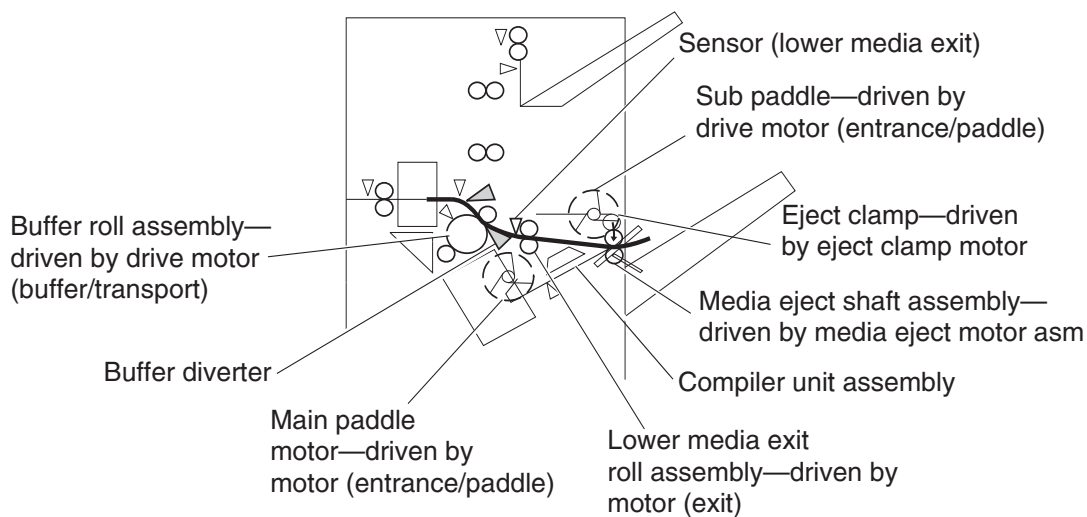
When the media trailing edge passes through the sensor (lower media exit), the media eject motor assembly starts reverse rotation to return the media to the compiler unit assembly.

When the following media reaches the compiler unit assembly, the media eject clamp is raised, and the media that has passed through the lower media exit roll assembly falls on the compiler unit assembly.

At this time, the three main paddles are rotated by the main paddle shaft assembly to feed the media so that the media trailing edge butts against the rear wall of the compiler unit assembly.

The sub paddle solenoid of the media eject unit assembly is activated to lower the sub paddle so that the media can be fed to the compiler unit assembly.





When printing multiple sets, while stapling the first set on the compiler unit assembly or ejecting it to the stacker media bin, the first media of the second set will not be fed to the compiler unit assembly.

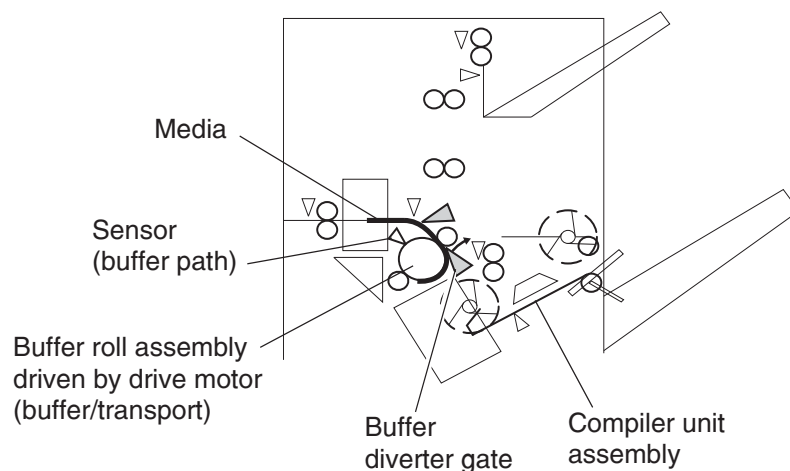
When the first media of the second set reaches the finisher, the buffer diverter solenoid is activated by the printer command and by the sensor (finisher media entrance) to switch the buffer diverter gate.

Thus, the media route is switched into the buffer roll assembly's circumferential direction. (This operation is called the buffer path.)

The first media of the second set is aligned with the second media, and then they are fed together to the compiler unit assembly.

Even for one sheet of media, the buffer path operation is executed in the same way. The media is stacked temporarily on the compiler unit assembly, and then ejected in the stacker media bin.

After the buffer path is executed for the first media, if a second media of a different size comes, the first media is fed to the compiler unit assembly, but the second one is fed to the compiler unit assembly without the buffer path. At this time, a certain delay time is provided to prevent the second media from colliding with the first one.



From compiler unit assembly to stacker media bin

Stapled media on the compiler unit assembly (stapling mode) or aligned media (non-stapling mode) are held between the media eject clamp and the media eject shaft assembly.

The media eject shaft assembly is driven by the media eject motor assembly to transfer media to the stacker media bin.

After media is transferred to the stacker media bin, it is held by the clamp paddle attached to the media eject shaft assembly.

From punch to upper media bin

The media to be ejected to the upper media bin is switched in the media path by the finisher diverter gate located behind the punch and fed in the upper media transport roll assembly direction.

The finisher diverter gate is switched by the finisher diverter gate solenoid. While the solenoid is activated, media is fed in the upper media transport roll assembly direction.

The two upper media transport roll assemblies driven by the motor (buffer/transport) feed media to the upper media exit roll assembly top at the top of the finisher.

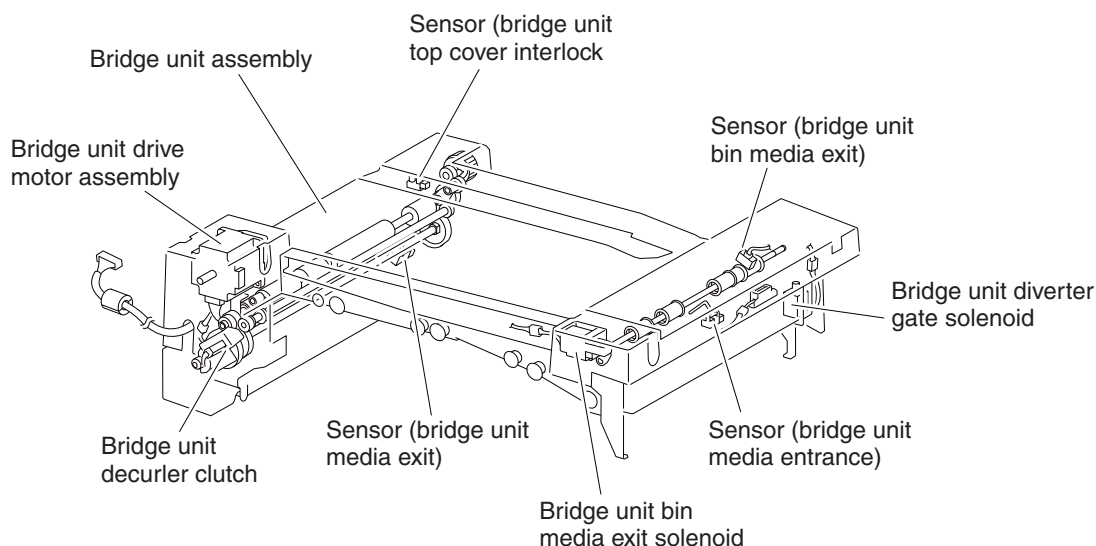
The upper media exit roll assembly top driven by the drive motor (exit) ejects the media to the upper media bin.

The upper media exit roll assembly decelerates after a specified period of time from the following trigger events.

Functions of sensors along the media path

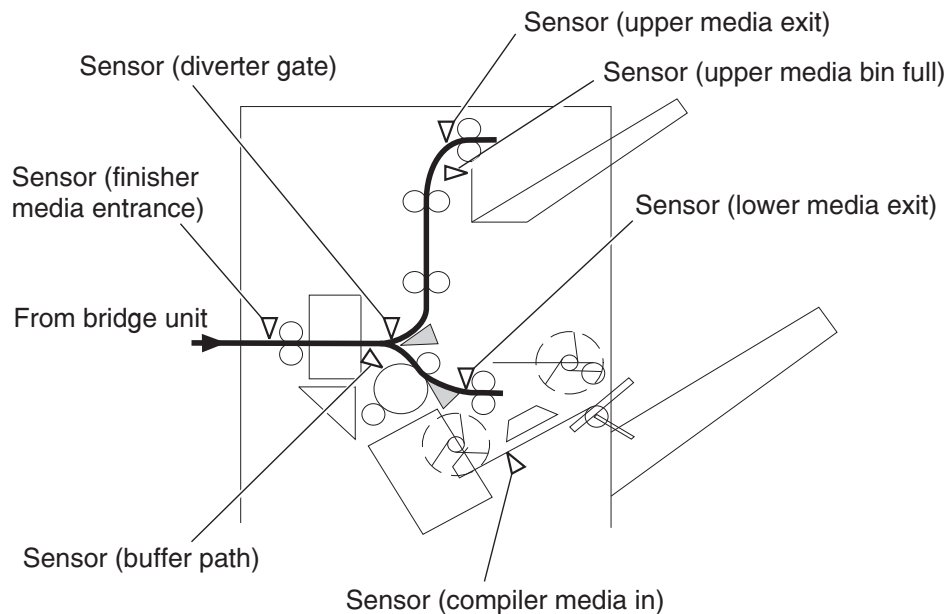
Bridge unit assembly

- Sensor (bridge unit media entrance)
 - A photo-interrupter sensor that detects whether media is fed from the printer to the bridge unit assembly
 - It turns high (+5 V dc) (light receiving) when media enters the bridge unit assembly.
- Sensor (bridge unit media exit)
 - A photo-interrupter sensor that detects whether media passes through the bridge unit assembly
 - It turns high (+5 V dc) (light receiving) when media reaches this sensor, and turns low (0 V dc) when media exits from the bridge unit assembly.
- Sensor (bridge unit top cover interlock)
 - A photo-interrupter sensor that detects open/close of the bridge top cover assembly of the bridge unit assembly
 - It turns high (+5 V dc) (light receiving) when the bridge top cover assembly opens.



Finisher

- Sensor (finisher media entrance)
 - A photo-reflective sensor detects whether media is fed from the bridge unit assembly to the finisher
 - It turns high (+5 V dc) while media is present within the sensing area.
 - When the level turns high due to the first media of the second set during multi-set printing, this sensor activates the buffer diverter solenoid to switch the buffer diverter gate so that the media goes in the buffer roll assembly's circumferential direction.
- Sensor (diverter gate)
 - A photo-reflective sensor that detects the leading edge of the media
 - It turns low (0 V) when the front end reaches the sensing area.
- Sensor (lower media exit)
 - A photo-interrupter sensor that detects whether media passes through the sensor (lower media exit)
 - It turns high (+5 V) (light receiving) when the actuator is driven out of the sensing area by the media.
 - When the level turns high, this sensor activates the front tamper motor and the rear tamper motor on the compiler unit assembly.
 - This sensor is also used to control on/off of the media eject motor assembly
- Sensor (compiler media present)
 - A photo-interrupter sensor that detects whether media is present or not on the compiler unit assembly.
 - While media is present, the actuator is outside the sensing area, and the sensor turns high (+5 V dc) (light receiving).
- Sensor (buffer path)
 - A photo-interrupter sensor that detects whether media is fed toward the buffer roll assembly
 - While media is present, the actuator is outside the sensing area, and the sensor turns at high (+5 V dc) (light receiving).
- Sensor (upper media exit)
 - A photo-interrupter sensor that detects whether media is fed to the upper media exit roll assembly top at the exit side of the upper media bin
 - When the media is fed, the actuator leaves from the sensing area, and the sensor turns high (+5 V dc).
- Sensor (upper media bin full)
 - A photo-reflective sensor that detects the stack volume of media in the upper media bin



Punch unit

This section describes the media punching operation of the punch.

Two types of punch are provided: the 2/3-hole type and the 2/4-hole type.

The following explains the 2/3-hole type (2-hole/3-hole auto-switching).

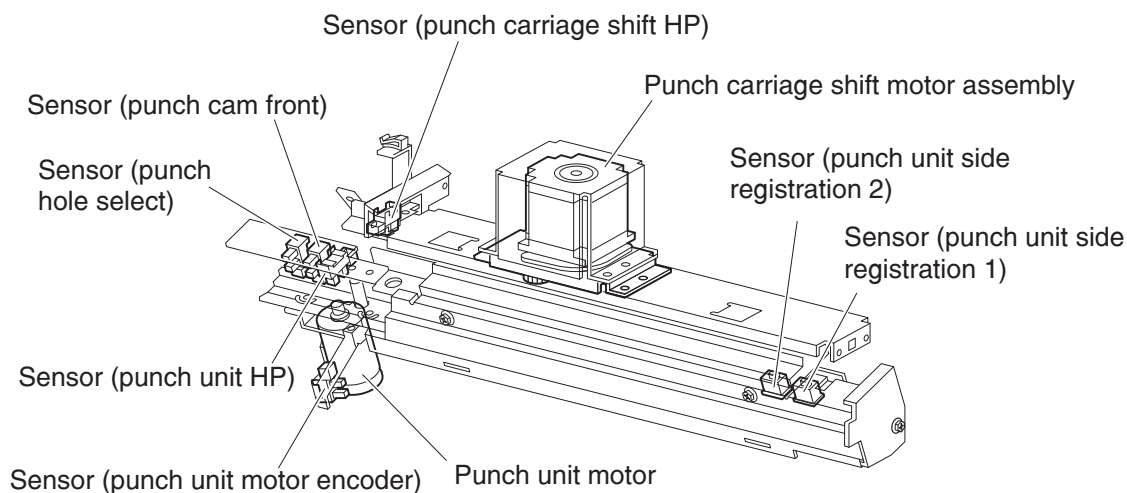
Every type has the same construction, except for the sensor (punch hole select) that is provided for the 2-hole type and 3-hole type only.

Adjusting punching positions

The punching positions from the media edge in the direction of feed are determined by gently pressing the media against the three punch media stopper assemblies.

The three punching positions from the media edge in the direction of media width are determined by the following method.

- Activate the punch carriage shift motor assembly, and move the punch to the front side until the sensor (punch carriage shift HP) turns low.
- Reversely rotate the motor, and move the punch to the rear side until the sensor turns high to determine the home position.
- The punch carriage shift motor assembly is activated to move the punch to the front until the sensor (punch unit side registration 1) and the sensor (punch unit side registration 2) detects the media edge, and then the punch is further moved to the front according to the pulse-number determined by the media size. (The punch carriage shift motor assembly stops at this position.)



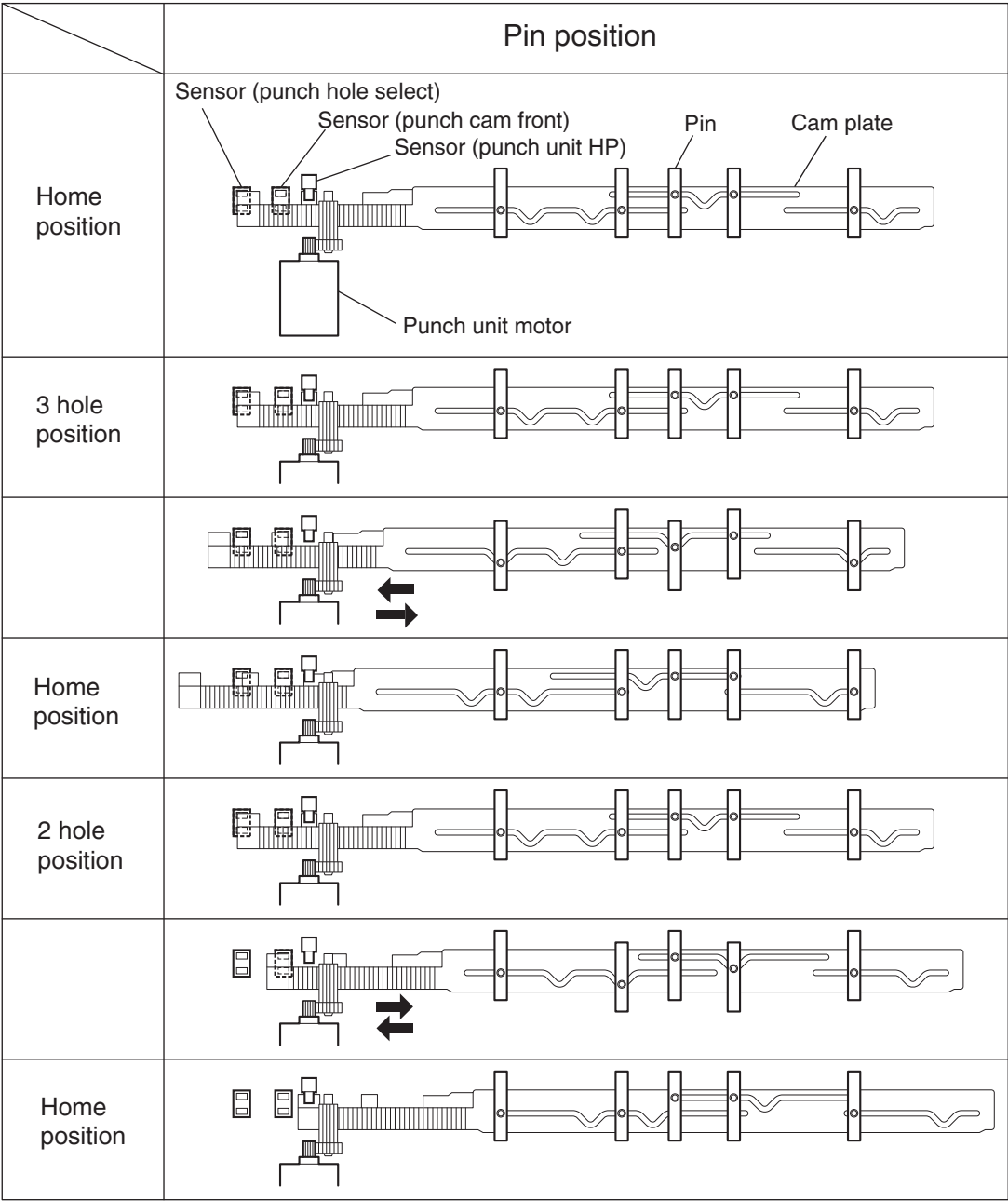
Punching

After punching positions are determined, the punch unit motor is activated to move the cam plate. With the movement of the cam plate, the pins descend along the guide holes to punch the media.

This operation is performed for each sheet of media.

The cam plate can lower the pins even while it is moving to the front or rear side.

The punch unit motor is rotated forward or reversely for each sheet of media, which is triggered by the sensor (punch cam front) being turned on/off.



Detecting punch waste full

Punch waste is stored in the punch waste box.

A sensor is provided to detect punch waste full.

When punch waste full is detected, it is notified to the operator only once.

Even if punch waste is not removed, the finisher can still punch media. However, it can spread punch waste inside the machine.

Detecting punch waste box

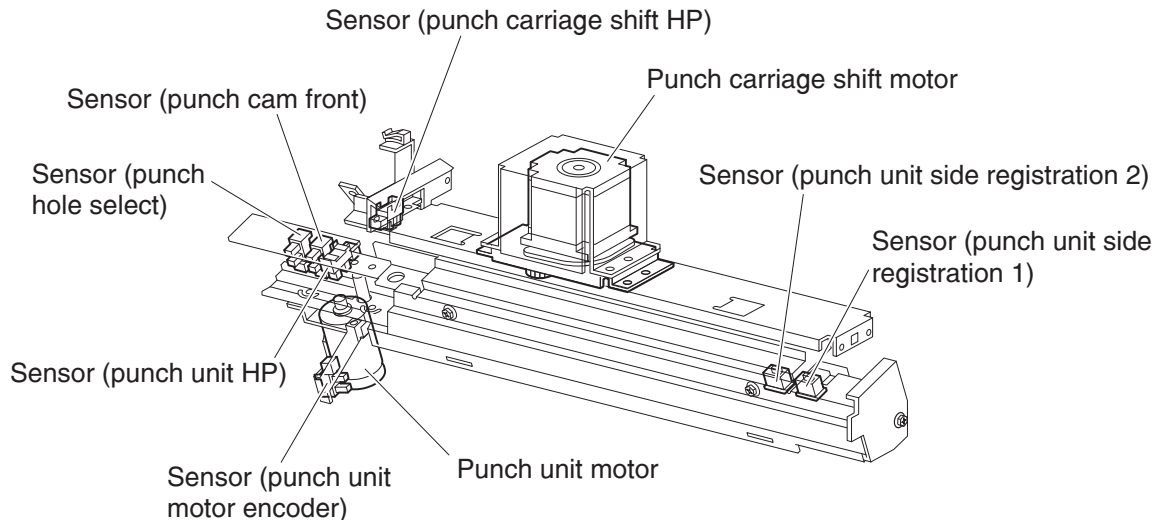
The sensor (punch waste box set) detects whether the punch waste box is properly set.

When the sensor (punch waste box set) does not detect that the punch waste box is properly set for four seconds, the punch waste box count is reset.

Functions of punch sensors/motors

- Sensor (punch unit side registration 1)
 - A photo-reflective sensor that detects the side edge of large media
 - Media side edge is detected by On/Off of this sensor while shifting the punch (containing this sensor) in the direction of media width.
 - The sensor remains at high (+5 V dc) while media is present, and turns low when media side edge is detected.
- Sensor (punch unit side registration 2)
 - A photo-reflective sensor that detects the side edge of small media
 - This sensor has the same function as the sensor (punch unit side registration 1).
- Sensor (punch carriage shift HP)
 - A photo-interrupter sensor that detects the home position of the moving punch
 - It turns high (+5 V dc) (light blocking) when the home position is detected.
- Sensor (punch unit HP)
 - A photo-interrupter sensor that detects the home position of the cam plate that lowers the punching pins
 - It turns high (+5 V dc) when the home position is detected.
- Sensor (punch hole select)
 - A photo-interrupter sensor that detects the rear position of the cam plate
 - It turns high (+5 V dc) when the rear position is detected.
 - This sensor also detects the cam position to switch punch holes (2-hole/3-hole).
- Sensor (punch cam front)
 - A photo-interrupter sensor that detects the front position of the cam plate
 - It turns high (+5 V dc) when the front position is detected.
 - This sensor is used to determine to which side (front or rear) the cam plate should be moved.
- Sensor (punch unit motor encoder)
 - A photo-interrupter sensor that detects pulse generated by the encoder attached to the punch unit motor
 - It counts punch unit motor revolutions and becomes a trigger to stop the motor (by shutting off the current).
- Punch carriage shift motor assembly
 - A stepping motor to move the punch in the media width direction
- Punch unit motor
 - A DC motor to move the cam plate that lowers the punching pins
 - Forward rotation of the motor moves the cam plate to the front side, and reverse rotation moves it to the rear side.

- Sensor (punch waste box set)
 - A photo-interrupter sensor that detects whether the waste box is properly set
 - When the punch waste box is properly set, the actuator of the box blocks the light transmission of the sensor, which turns the sensor to high (+5 V dc).
- Sensor (punch waste box full)
 - A photo-interrupter sensor that detects whether the punch waste box is filled with punch waste.



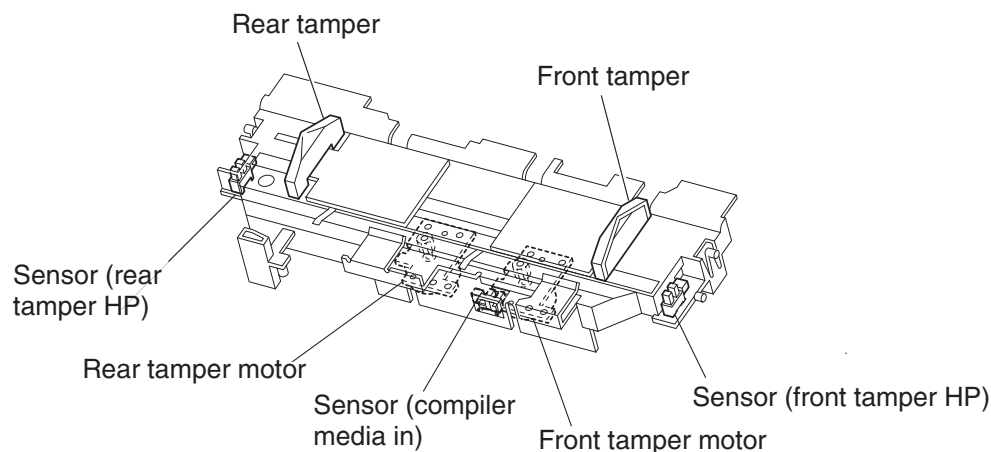
Compiler unit assembly

This section describes the operation of the compiler unit assembly which aligns the media edge transferred from the punch unit.

Outline of operation

When media is fed onto the compiler unit assembly, tamping is performed to align the media edge in the media width direction.

When ejecting stapled sets of media to the stacker media bin, if they are stacked in the stacker media bin with the same staple position, the height of the stapled portion will increase. This will cause improper compiling of media due to butting of the following media. To prevent such improper compiling, offsetting is required by shifting the staple position between sets of media.



Capacity of compiler unit assembly

Media volume that can be stacked on the compiler unit assembly is limited as shown in the table below.

The number of sheets depends on whether media is stapled or not, as well as on media size.

If the number of sheets of one set to be stapled exceeds the limit, the exceeding sheets are not stacked on the compiler unit assembly, and are forcibly ejected to the stacker media bin without being stapled.

This forcible ejection is performed to prevent damage to the staple assembly.

When feeding large media in the non-staple mode, there may be a misalignment depending on media characteristics. For this reason, the default media capacity is set to a smaller value.

Compiler unit assembly media capacity

Condition	Min.	Default	Max.
Staple mode	2	50	75
For small media (less than 216 mm in the feed direction) in non-staple mode	10	50	100
For large media (216 mm or more in the feed direction) in non-staple mode	10	25	100

Compiler unit assembly operation with multiple media sizes

When two or more media sizes are used and their widths are the same (example: A4L and A3S), all the sheets are compiled and stapled as a set on the compiler unit assembly, and then ejected to the stacker media bin.

When two or more media sizes with different media width are used, stapling media on the compiler unit assembly is stopped when a different size is detected. Such different-size sheets of media are forcibly ejected to the stacker media bin.

Tamping

When media is fed from the punch to the compiler unit assembly, tamping is performed to align the media in the media width direction on the compiler unit assembly.

Tamping is an operation to align media to the specified position on the compiler unit assembly. The front tamper or rear tamper is moved to the end of the media by its motor.

Tamping is executed each time when a sheet of media reaches the compiler unit assembly. Additional tamping is executed after the last sheet is tamped.

There are three types of tamping.

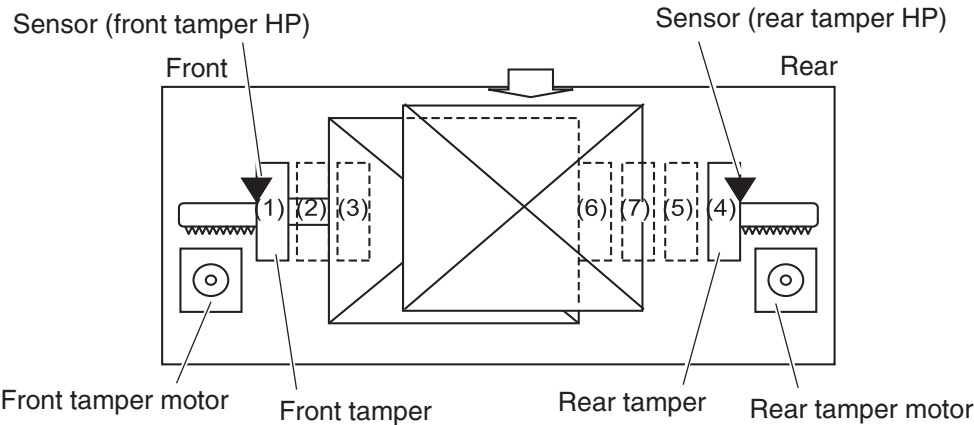
- Front tamping—Tamping by the rear tamper with the front tamper fixed at the home position
- Rear tamping—Tamping by the front tamper with the rear tamper fixed at the home position
- Center tamping—Tamping by the front and rear tampers to align media to the center

Front tamping

Front tamping is used in the following cases.

- In the non-staple mode
- When executing front stapling (corner)

The tamper positions during front tamping are shown below.



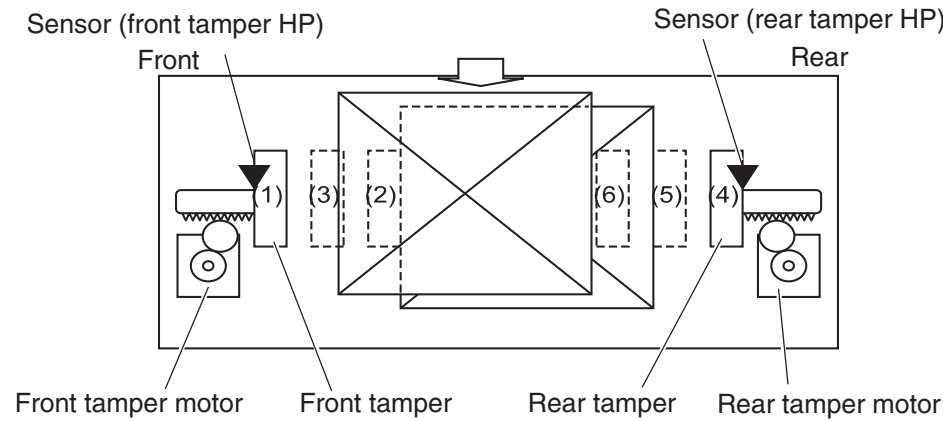
Position	Description
1	Front tamper home position—sensor (front tamper HP)
2	Front tamper size position
3	Front tamper offset position
4	Rear tamper home position—sensor (rear tamper HP)
5	Rear tamper standby position
6	Rear tamper tamping position
7	Rear tamper offset position

Rear tamping

Rear tamping is used in the following cases.

- When executing rear stapling (corner)
- When executing dual stapling

The tamber positions during rear tamping are shown below.

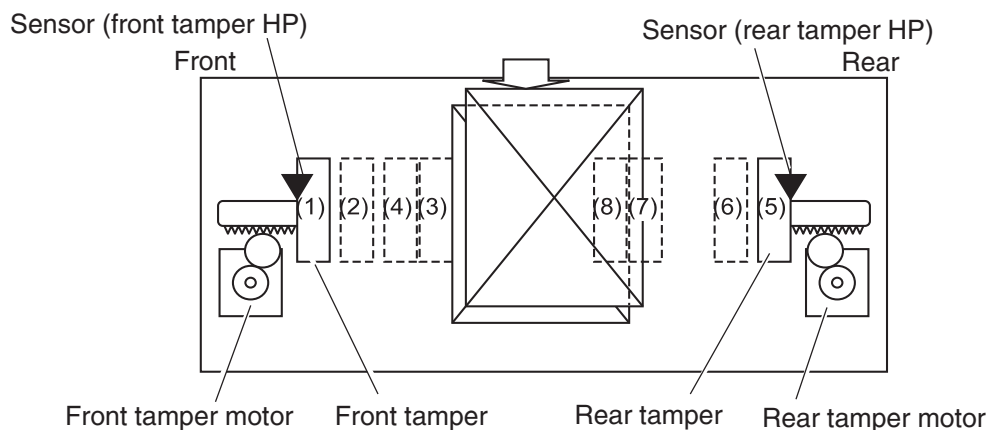


Position	Description
1	Front tamper home position—sensor (front tamper HP)
2	Front tamper tamping position
3	Front tamper offset position
4	Rear tamper home position—sensor (rear tamper HP)
5	Rear tamper size position
6	Rear tamper offset position

Center tamping

Center tamping is used when executing rear stapling (straight).

The tamper positions during center tamping are shown below.



Position	Description
1	Front tamper home position—sensor (front tamper HP)
2	Front tamper standby position
3	Front tamper tamping position
4	Front tamper offset position
5	Rear tamper home position—sensor (rear tamper HP)
6	Rear tamper standby position
7	Rear tamper size position
8	Rear tamper offset position

Determining tamper home position

When the sensor (lower media exit) turns high (+5 V dc) (light receiving), the front and rear tamper motors on the compiler unit assembly are activated, and the front and rear tampers start moving.

The front tamper home position is determined when the front tamper enters the sensor (front tamper HP) sensing area.

In the same way, the rear tamper home position is determined when the rear tamper enters the sensor (rear tamper HP) sensing area.

Tamping

Tamping is executed after a preset time has passed after the sensor (compiler media present) turns high (+5 V dc) when media is detected on the compiler unit assembly.

Offsetting

Offsetting is an operation to shift the position of media to be ejected to the stacker media bin so that boundaries between media units (sets of media, job units, etc.) can be easily recognized.

Offsetting is executed for staple positions:

- During front stapling (corner)—Shifts stapled sheets using the front tamper by 20 mm to the rear side before ejecting them to the stacker media bin
- During rear stapling (corner/straight)
 - For media with a width of 216 mm or more [rear staple (corner)]—Shifts stapled sheets using the rear tamper by 20 mm to the front side before ejecting them to the stacker media bin
 - For media with a width of less than 216 mm [rear staple (straight)]—Shifts stapled sheets using the front tamper by 9 mm to the rear side before ejecting them to the stacker media bin.

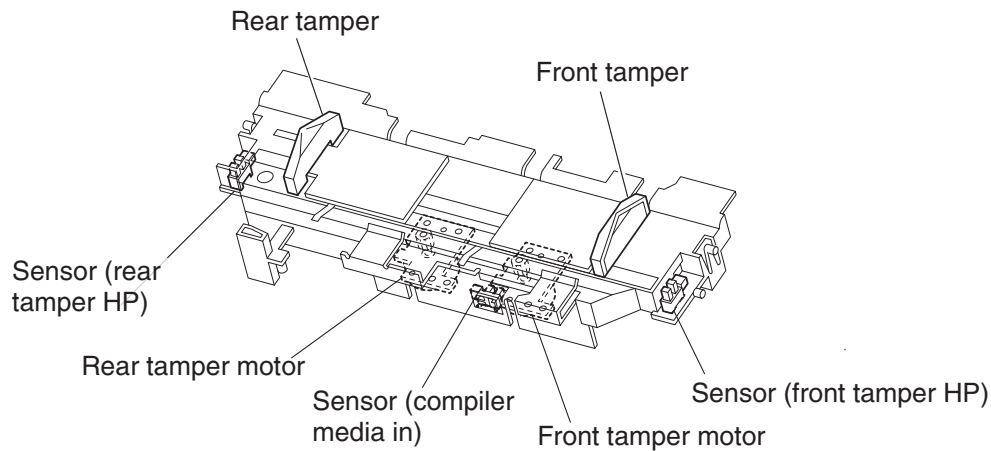
During dual stapling:

- Shifts stapled sheets using the front tamper by 9 mm to the rear side before ejecting them to the stacker media bin.
- Offsetting is not executed (0 mm) for small media.

Functions of compiler unit assembly sensors/motors

- Sensor (compiler media in)
 - A photo-interrupter sensor that detects whether media is present or not on the compiler unit assembly
 - When media is detected, the actuator leaves the sensing area, which turns the sensor to high (+5 V dc) (light receiving).
- Sensor (front tamper HP)
 - A photo-interrupter sensor that detects the front tamper home position
 - When the front tamper comes to the home position, it enters the sensor's sensing area, which turns the sensor to high (+5 V dc) (light blocking).
- Sensor (rear tamper HP)
 - A photo-interrupter sensor that detects the rear tamper home position
 - When the rear tamper comes to the home position, it enters the sensor's sensing area, which turns the sensor to high (+5 V dc) (light blocking).
- Front tamper motor
 - A stepping motor that moves the front tamper for tamping
 - Clockwise rotation of this motor moves the front tamper to the rear side. Counterclockwise rotation of this motor moves the tamper to the front side.

- Rear tamper motor
 - A stepping motor that moves the rear tamper for tamping
 - Clockwise rotation of this motor moves the rear tamper to the front side. Counterclockwise rotation of this motor moves the tamper to the rear side.



Stapler

This section describes the operation of the stapler.

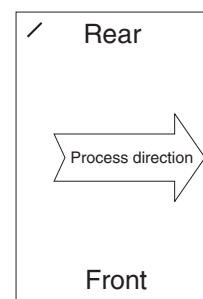
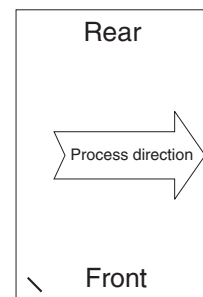
Stapling operation

Sheets of media fed from the punch are tamped on the compiler unit assembly, and then stapled at specified positions by the command of the printer.

Staple positions

There are four stapling modes:

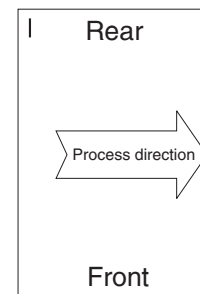
- Front staple (corner) [front corner]
The stapler staples a set of media obliquely (45 degrees) after the rear tamper aligns the media to the front side.
- Rear staple (corner) [rear corner]
This type of stapling is applied for media with a width of 216 mm or more.
The stapler moves to the rear corner and staples a set of media obliquely (45 degrees) after the front tamper aligns the media to the rear side.



- **Rear Staple (Straight) [rear straight]**

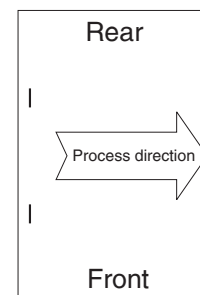
This type of stapling is applied for media with a width of less than 216 mm.

The Stapler staples a set of media in parallel with the media edge after the front tamper aligns the media to the rear side.



- **Dual Staple [dual]**

The Stapler staples a set of media at fixed positions (front/rear sides) in parallel with the media edge after the front tamper aligns the media to the specified position for each media size.



Media sizes that allow stapling

Media size that allows stapling depends on stapling positions.

The following table shows media sizes and the applicability of stapling for each staple position.

	Front corner	Rear corner	Rear straight	Dual
A3 SEF	Yes	Yes	No	Yes
A4 LEF	Yes	Yes	No	Yes
11 x 17 in. SEF	Yes	Yes	No	Yes
8.5 x 11 in. LEF	Yes	Yes	No	Yes
8K SEF(GCO), 16K LEF(GCO)	Yes	Yes	No	Yes
B4 SEF, B5 LEF	Yes	Yes	No	Yes
8 x 10 in. LEF	Yes	Yes	No	Yes
8.5 x 14 in. SEF / 8.5 x 13 in. SEF / 8.5 x 11 in. SEF	Yes	No	Yes	Yes
A4 SEF	Yes	No	Yes	Yes
8 x 10 in. SEF	Yes	No	Yes	Yes
Yes: Applicable, No: Not applicable				

Stapling one sheet

Upon receiving the stapling command from the printer with one sheet remaining on the compiler unit assembly, the finisher ejects the media to the stacker media bin without stapling it.

Stapling multiple size media

When sheets with different sizes and the same width (example: A4L and A3S) are present on the compiler unit assembly, all the sheets are stapled and then ejected to the stacker media bin.

When sheets with different widths are present on the compiler unit assembly, stapling is stopped when a different width is detected. Such different-width sheets are forcibly ejected to the stacker media bin.

Media limits for stapling

The number of sheets to be stapled is limited to prevent damage to the stapler.

- If the number of sheets of one set to be stapled exceeds the limit of the compiler unit assembly, the exceeding sheets are not stacked on the compiler unit assembly, and are forcibly ejected to the stacker media bin without being stapled.
- After the forcible ejection of media, if the number of following sheets of one set to be stapled exceeds the limit of the compiler unit assembly, the exceeding sheets are also ejected forcibly to the stacker media bin without being stapled.
- After that, even if the number of following sheets of one set to be stapled falls within the limit, the sheets are also ejected forcibly to the stacker media bin without being stapled.

The upper limit (and default) of the compiler unit assembly media capacity when stapling is 50 (variable (10 to 100) by the non-volatile memory).

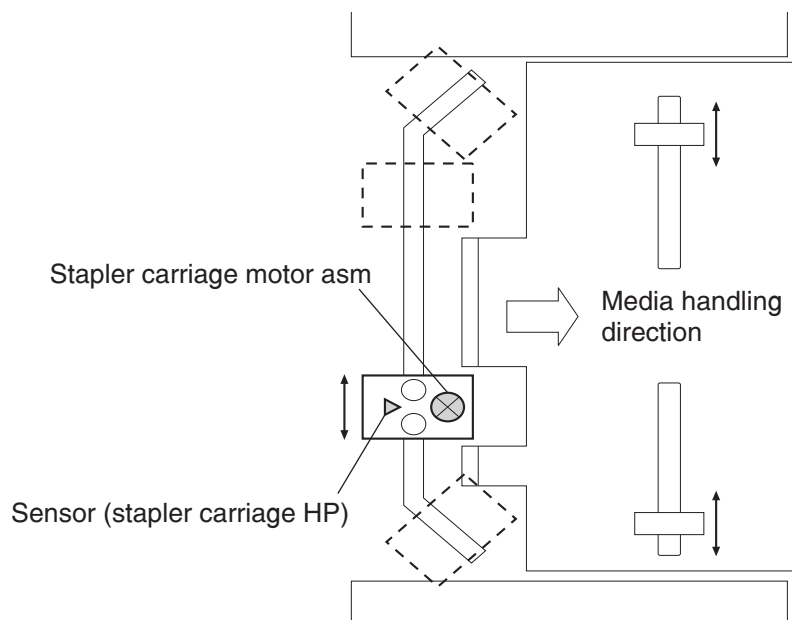
Stapler operation

The stapler stays at the front home position, that is, at the front staple (corner) position when the power is turned on.

The stapler starts stapling when a set of sheets to be stapled is stacked on the compiler unit assembly.

The stapler does not move during stapling in the front staple mode.

In any mode other than the front staple mode, the stapler moves to the specified position, and then performs stapling.



Stapler unit assembly

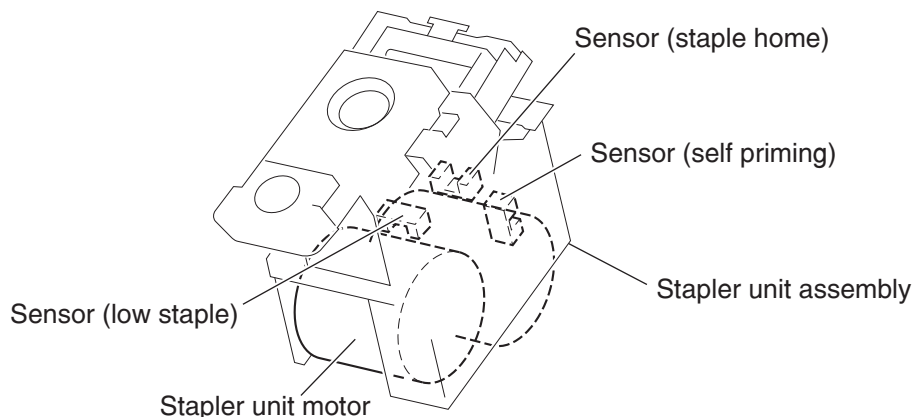
The stapling operation is executed by closing the stapler unit assembly.

The stapler unit assembly, containing the staple motor, the sensor (staple home), the sensor (self priming), and the sensor (low staple), is activated by the staple motor.

Forward (clockwise) rotation of the motor drives the stapler to staple a set of sheets, and returns the stapling unit to the home position.

If stapling fails, the motor rotates reversely (counterclockwise) to return the stapler unit assembly to the home position.

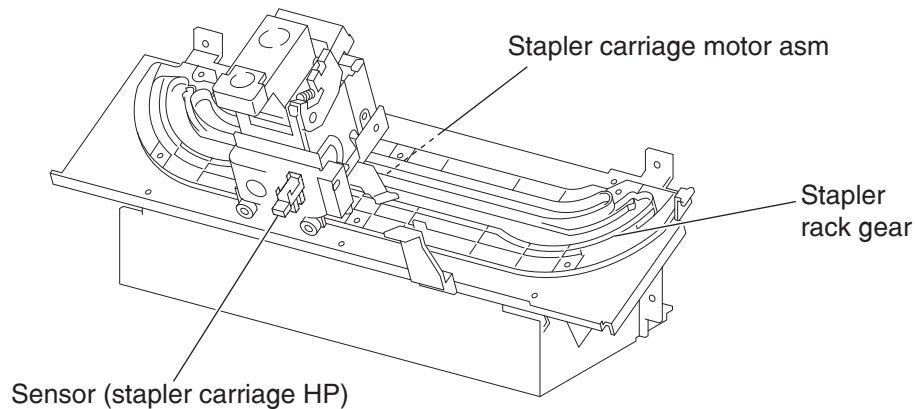
When staples become low, the low staple sensor detects it, and stapling stops automatically, displaying an alarm message. The message is also displayed when the staple cartridge is not installed.



Functions of stapler sensors/motors

- Sensor (stapler carriage HP)
 - A photo-interrupter sensor that detects the stapler home position, rear staple (corner) position, and rear staple (straight) position
 - It turns high (+5 V dc) (light blocking) when the stapler comes to the specified position.
- Stapler carriage motor assembly
 - A stepping motor that moves the stapler unit assembly
 - Clockwise rotation of this motor moves the stapler unit assembly to the rear side, while counterclockwise rotation moves the stapler unit assembly to the front side.
- Sensor (low staple) in the stapler unit assembly
 - A photo-interrupter sensor that detects when the stapler unit assembly is nearly out of staples
 - It turns high (+5 V dc) when 20 staples are left.
- Sensor (self priming) in the stapler unit assembly
 - A photo-interrupter sensor that detects that staples are at the stapler unit assembly end; it also detects failure in stapling
 - It turns low (0 V dc) (light blocking) when stapling is ready.
- Sensor (staple home) in the stapler unit assembly
 - A photo-interrupter sensor that detects the stapler unit assembly home position; it also detects failure in stapling
 - This sensor also functions as a trigger to stop the staple motor.
 - It turns low (0 V dc) (light blocking) while the stapler unit assembly stays at the home position.

- Stapler unit motor (in the stapler unit assembly)
 - A DC motor to activate the stapler unit assembly for stapling
 - Clockwise rotation of this motor enables stapling, while counterclockwise rotation returns the stapler unit assembly.



Booklet Operation

The booklet media entrance roll assembly driven by the booklet media entrance drive motor will deliver media from the finisher entrance and stack it against the booklet end guide in the booklet unit. When the booklet end guide is at the bottom of the booklet unit it will continue to accept media. Once the proper amount of media is reached, stapling will occur and booklets will be delivered in sets to the booklet media bin.

The booklet media exit roll assembly is driven by booklet folding/exit drive motor assembly and delivers booklets to the booklet media bin. During printing, paper drawn to the booklet compiler is aligned by the booklet paddle shaft assembly which is driven by booklet paddle shaft drive Motor.

When a sheet of paper enters the booklet compiler, tamping operation is performed by two moving tampers moving towards the front and rear. The front tamper is driven by front booklet tamper drive motor; rear booklet tamper drive motor. Tamping operation will be performed a final time after the last sheet is received.

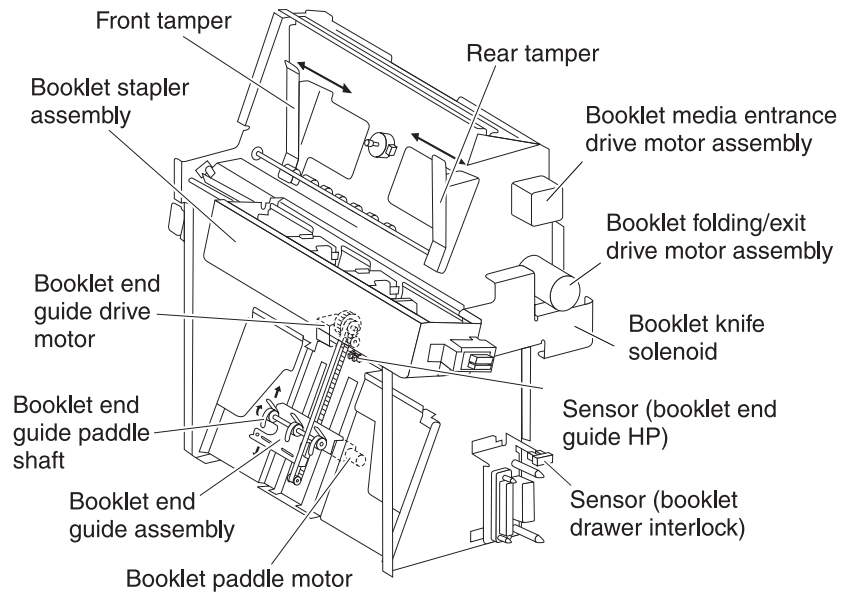
Documents in the compiler tray are assembled towards the front. For center stapling and folding positions, one set of document is assembled and moved to the center.

The booklet end guide is lifted to where the fold will divide the paper into two equal halves. When the printouts are stapled, the booklet end guide will be raised so that the stapled position is at the folding position. The stapling position is slightly lower than the folding position center line.

When the movement from the booklet folding/exit drive motor is transferred to the knife through the engagement of the sector gear, the knife will thrust forward and then return to the original position after one full rotation. At the folding position, the knife is thrust forward to fold the paper between booklet folding roll and booklet folding nip roll.

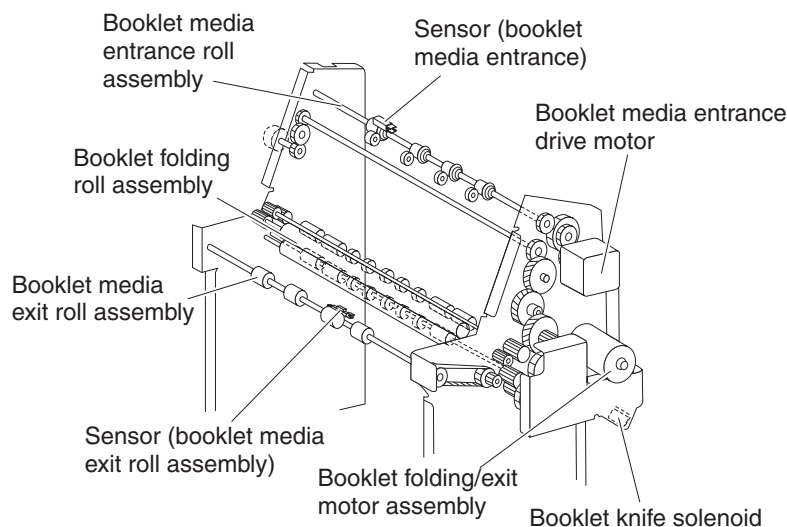
Paper is folded into two halves by the booklet folding roll driven by the booklet folding/exit drive motor and is delivered to the booklet media bin by the booklet media exit roll assembly. The booklet media bin belt will move at a fixed interval for every set of booklets that are created.

Functions of booklet sensors and motors

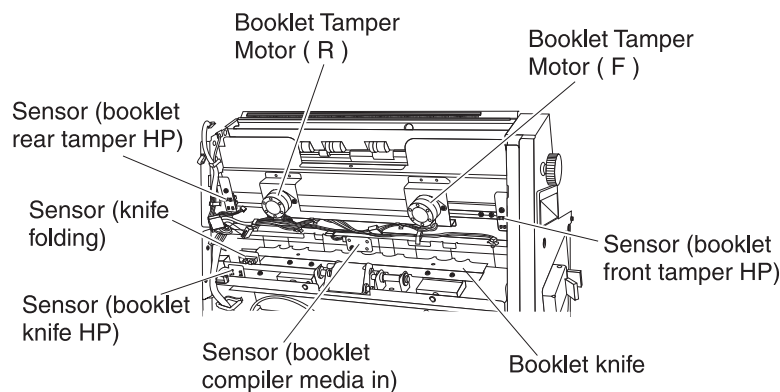


- Sensor (booklet media entrance)
 - This photo sensor detects the media delivery to the booklet unit.
- Sensor (booklet media exit)
 - This photo sensor detects paper delivery to booklet media bin.
- Booklet media entrance drive motor assembly
 - This stepping motor drives the booklet media entrance roll assembly.
- Booklet folding/exit drive motor assembly
 - This DC motor drives booklet folding roll, booklet media exit roll assembly, and knife.

- Booklet knife solenoid
 - This solenoid transfers the booklet folding/exit drive motor assembly to the knife through the gear.



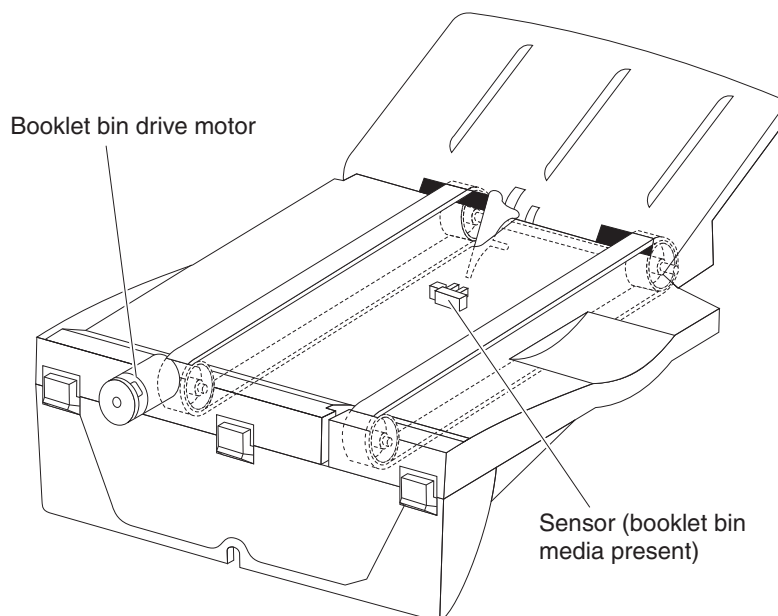
- Sensor (booklet front tamper HP)
 - This photo sensor detects the home position of the booklet front tamper.
- Sensor (booklet rear tamper HP)
 - This photo sensor detects the home position of the booklet Rear tamper.
- Sensor (booklet compile media in)
 - This photo sensor detects paper present in the booklet compiler tray.
- Booklet front tamper motor
 - This stepping motor drives the booklet front tamper.
- Booklet rear tamper motor
 - This stepping motor drives the booklet rear tamper.
- Sensor (booklet knife HP)
 - This photo sensor detects the home position (stored condition) of knife.
- Sensor (knife folding)
 - This photo sensor detects the fold position (protruded condition) of knife.
- Booklet staple assembly



- This booklet stapler consist of two stapler units (including stapler low switch) and booklet stapler head motor.
- Booklet paddle motor
 - This DC motor drives the paddle at the booklet section.
- Sensor (booklet end guide HP)
 - This photo sensor detects the home position of the booklet end guide.
- Booklet end guide drive motor
 - This stepping motor moves the booklet end guide up and down.

- Sensor (booklet drawer interlock)
 - This photo sensor detects when the booklet unit is set.
- Sensor (booklet bin media present)
 - This photo sensor detects paper availability on the booklet media bin. If 15 sets of printouts are detected in the booklet media bin, it will be considered as Full Stack.

Booklet media bin



Operation

The upper media bin contains the sensor (upper media bin full) to detect the media stack volume in the upper media bin.

Once the sensor detects a full stack (500 sheets) in the upper media bin, ejection of media to the upper media bin is inhibited until a full stack is reset.

Functions of upper media bin sensors

- Sensor (upper media exit)
 - A photo-interrupter sensor that detects that media has come to the upper media exit roll assembly top at the exit of the upper media bin
 - When media reaches the upper media exit roll assembly top, the actuator leaves the sensing area, which turns the sensor to high (+5 V dc).
- Sensor (upper media bin full)
 - A photo-reflective sensor that detects the media stack volume in the upper media bin
 - It turns high (+5 V dc) when it detects a full stack.

Stacker media bin

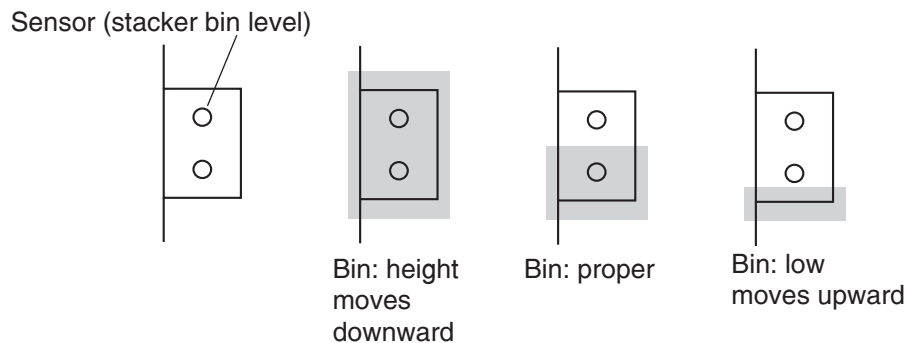
The stacker media bin goes up and down to an appropriate position according to the volume of media fed from the compiler unit assembly so as to properly stack media to a full stack.

Operation

The stacker media bin moves to an appropriate position according to the volume of media fed from the compiler unit assembly. The sensor (stacker bin level 1) and the sensor (stacker bin level 2) detect the height of media in the stacker media bin, and the sensor (stacker bin level encoder) determines the volume of media in the tray.

When media or the stacker media bin comes between the light emitter and the photo-receiver of the sensor (stacker bin level 1) and sensor (stacker bin level 2), the emitted light is blocked, and the sensors turn high. The height of media or the stacker media bin is detected based on the levels of these sensors.

This sensor information is used to control the elevator motor. The motor is activated to move the stacker media bin while the sensor (stacker bin level) turns from the light blocking state to the light receiving state.

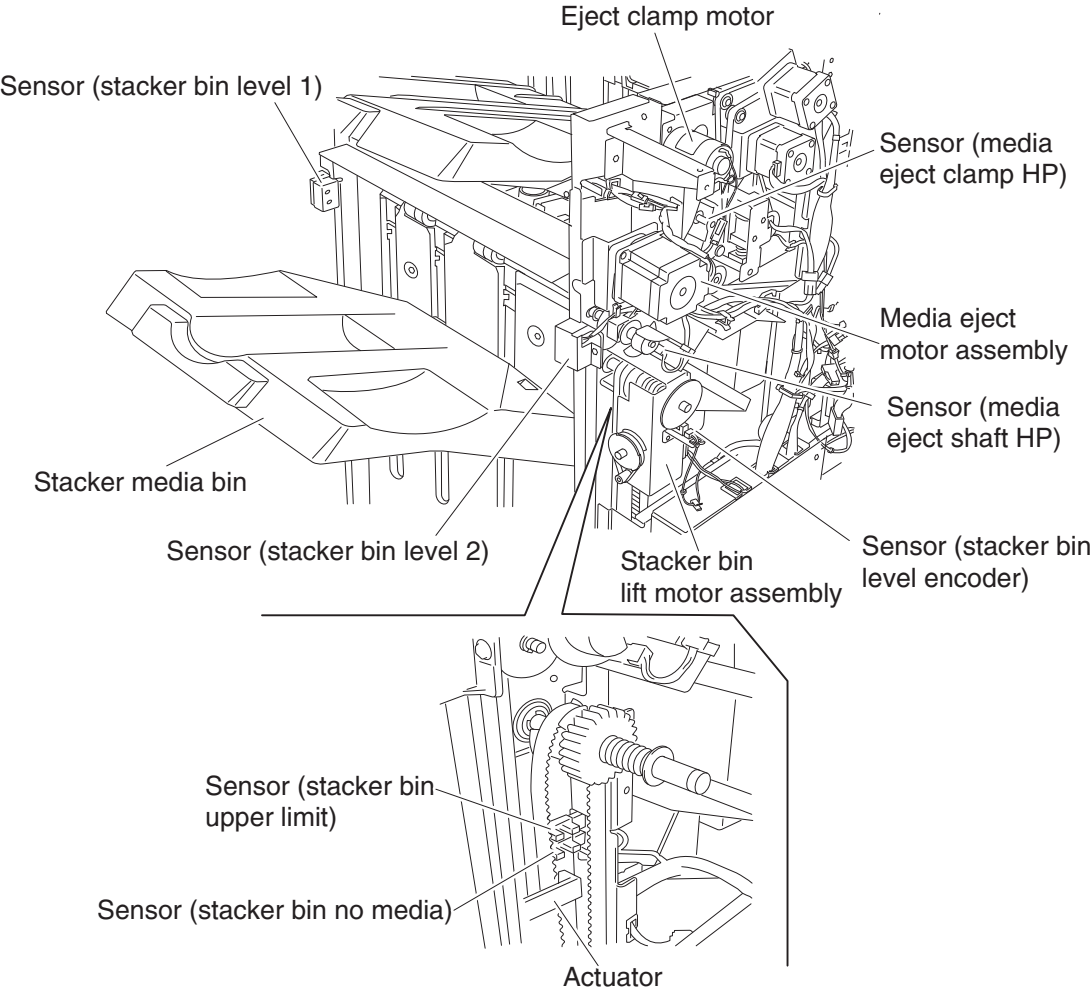


The sensor (stacker bin no media) is turned On or Off by the actuator attached to the carriage assembly right on the rear side of the finisher. In case the stacker media bin abnormally goes up above the sensor (stacker bin no media), the sensor (stacker bin upper limit) is installed above the sensor (stacker bin no media) for protection against abnormal operation.

If an operator removes media from the stacker media bin during printing, it is detected by the sensor (stacker bin level 2), and the ejection of media to the stacker media bin is inhibited. Then the elevator motor is activated to move the stacker media bin to the sensor (stacker bin level 1) sensing area. Thus, the ejection of media to the stacker media bin is restored.

If an operator removes media from the stacker media bin while printing is stopped, it is detected by the sensor (stacker bin level 2). After three seconds have passed, the elevator motor is activated to move the stacker media bin to the sensor (stacker bin level 1) sensing area. Thus, the ejection of media to the stacker media bin is restored.

The stacker media bin lowers according to the volume of media it contains. If any obstacle under the tray hinders the tray from lowering, the stacker lower safety warning is detected, and the stacker media bin is stopped.



Full stack detection

A full stack is detected when media in the stacker media bin becomes full to prevent media jam or falling of media to the floor. The stacker media bin can stack up to approximately 3000 sheets.

The media volume in the stacker media bin is detected at every 10% (approximately 300 sheets) and notified to the Controller.

Furthermore, the stacker media bin can stack up to 200 sets (default) of stapled media.

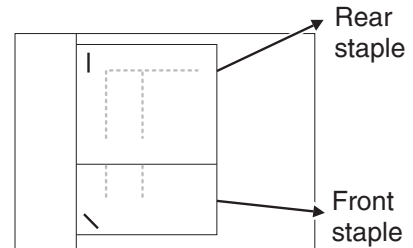
The stacker media bin can continue to stack media until media volume reaches either of the limits above.

In the mix stacking mode, all the sizes are allowed until a media volume of approximately 300 sheets in the stacker media bin is detected.

The mix stacking mode indicates one of the following cases:

- A larger (any size of media) sheet of media is stacked on a smaller sheet.
For example: A4LEF (297x210) media is stacked on A4SEF (210x297) media.
Note: When B5LEF (257x182) media is stacked on A4LEF (297x210) media, this is not mix stacking.
- A sheet of media of less than 11 inches is stacked in the stacker media bin with the Staple Mode changed.

Top view of finisher tray

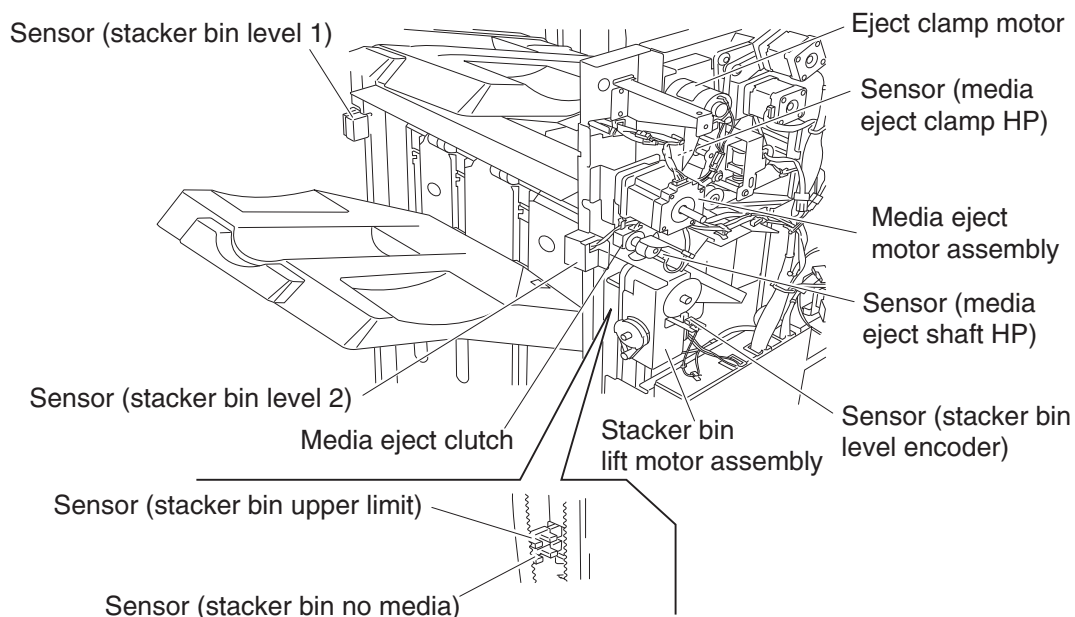


- An operator put a sheet (or sheets) when no media is remaining in the stacker media bin.
(The size and condition of media stacked in the tray are not identified.)
- Media was present in the stacker media bin when power was turned on.
(The size and condition of media stacked in the tray are not identified.)
- The finisher entered the Sleep Mode with mix stacking and then has exited the Sleep Mode.
- The post-processing mode has changed.

Functions of stacker media bin sensors/motors

- Sensor (stacker bin level 1)
 - A light emitter and photo-receiver paired together to detect the height of media in the stacker media bin
 - This sensor is used to control the elevator motor.
 - When blocked by media or the tray, this sensor turns high, deciding that the stacker media bin is above the reference level.
 - To the contrary, when receiving light, this sensor turns low, deciding that the stacker media bin is below the reference level.
 - The high to low turning point of the sensor is defined as the reference level.
- Sensor (stacker bin level 2)
 - A light emitter and photo-receiver paired together to detect the height of media in the stacker media bin (same function as sensor (stacker bin level 1))
 - This sensor is also used to control the elevator motor.
 - When blocked by media or the tray, this sensor turns high, deciding that the stacker media bin is above the reference level.
 - To the contrary, when receiving light, this sensor turns low, deciding that the stacker media bin is below the reference level.
- Sensor (stacker bin no media)

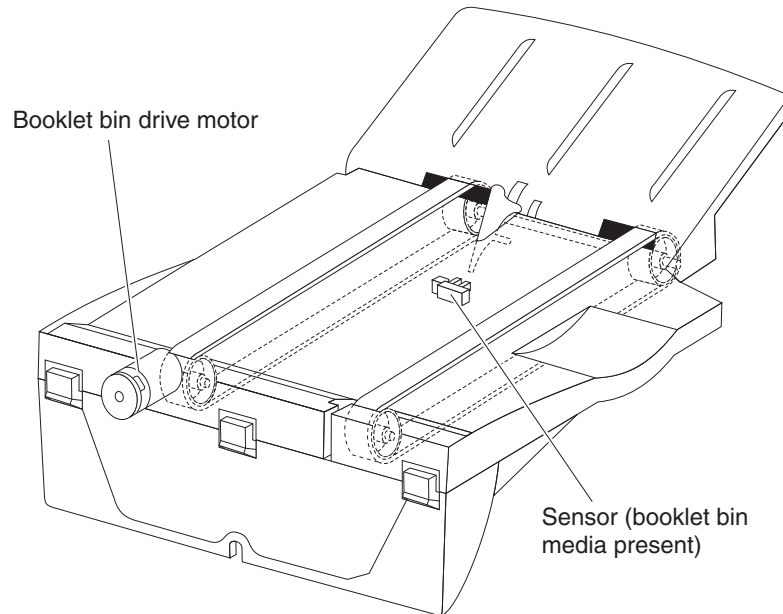
- A photo-interrupter sensor that detects that the stacker media bin is at the highest position; it also detects no media.
- When the actuator attached to the carriage assembly right enters the sensing area, the emitted light is blocked, which turns the sensor to high (+5 V).
- Sensor (stacker bin upper limit)
 - A photo-interrupter sensor that detects the stacker media bin's abnormal elevation above the top position (sensor (stacker bin no media) position)
 - When the actuator attached to the carriage assembly right enters the sensing area, the emitted light is blocked, which turns the sensor to high (+5 V).
- Sensor (stacker bin level encoder)
 - A photo-interrupter sensor that counts the pulse of the Encoder attached to the Shaft-Elevator.
 - The media volume in the stacker media bin is detected based on this count.
- Stacker bin lift motor
 - A DC motor that elevates or lowers the stacker media bin
 - Clockwise rotation elevates the tray, and counterclockwise rotation lowers the tray.
- Media eject motor assembly
 - A stepper motor that ejects stapled or non-stapled media to the stacker media bin
 - Clockwise rotation ejects media to the stacker media bin, and counterclockwise rotation reverses the eject roll to feed the media from the punch to the compiler unit assembly.
- Media eject clamp motor
 - A DC motor that elevates or lowers the media eject clamp when feeding media from the punch to the compiler unit assembly or from the compiler unit assembly to the stacker media bin
- Sensor (media eject clamp HP)
 - A photo-interrupter sensor that detects the set clamp home position
 - This sensor functions as a trigger to control On/Off of the set clamp clutch.
- Media eject clutch
 - When this clutch is activated, it transmits the media eject motor assembly rotating power to the media eject shaft assembly.



Booklet tray

Paper is folded into two by the booklet folding roll driven by the booklet Fold Roll Motor and booklet Eject Roll, and delivered to the booklet tray. Booklet tray is at a position lower than the paper delivery exit. Paper delivery belt will move at fixed interval for every set of output. When two sets or more is being delivered, one set at a time is being delivered.

When the front of the booklet tray is facing down, the printout will fall automatically below the tray. When removing paper, press booklet tray belt switch to move the paper delivery belt to the position for paper removal.

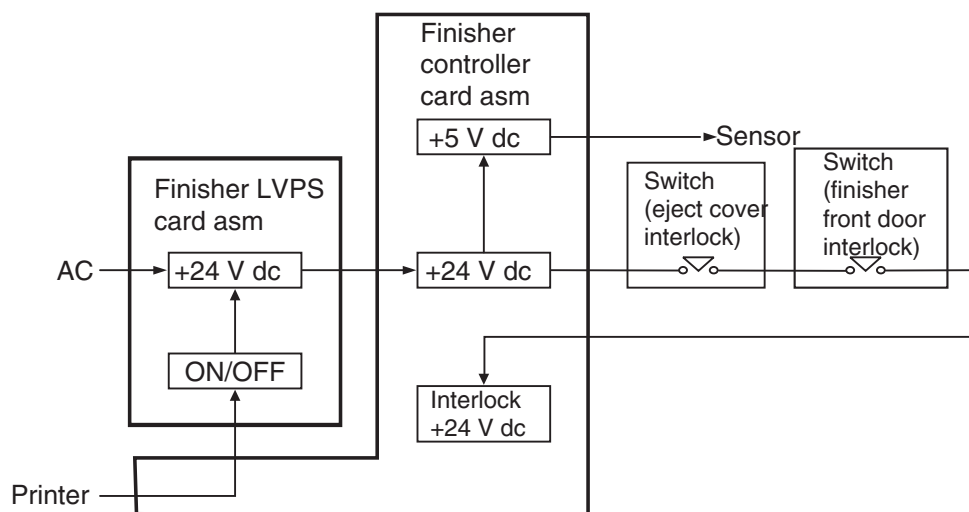
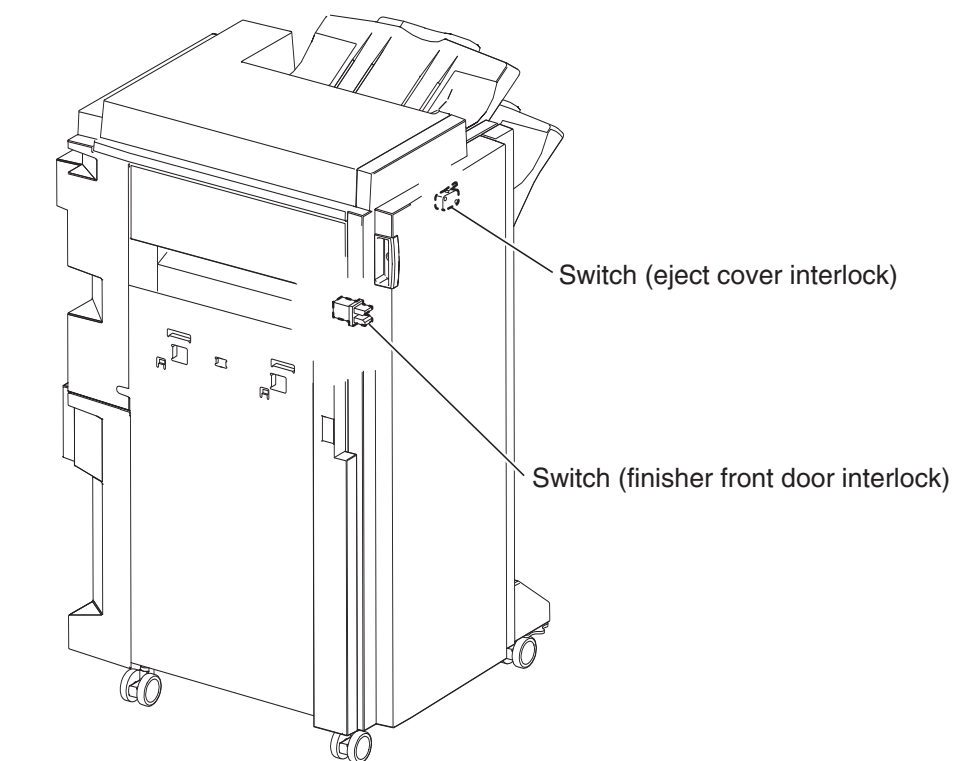


Power supply and interlock

The finisher is equipped with the following interlock switches.

- Switch (finisher front door interlock)—Turns off when the cover assembly front opens, shutting off the Interlock +24 V dc line in the finisher.

- Switch (eject cover interlock)—Turns off when the cover eject on the right side opens, shutting off the Interlock +24 V dc line in the finisher.



Tools required for service

Flat-blade screwdriver
 #1 Phillips screwdriver, magnetic
 #2 Phillips screwdriver, magnetic
 #2 Phillips screwdriver, magnetic short-blade
 Needle nose pliers
 Diagonal side cutters
 Spring hook
 5.5 mm hex driver, magnetic
 Analog or digital multi-meter
 Parallel wrap plug 1319128
 Twinax/serial debug cable 1381963
 Coax/serial debug cable 1381964

Acronyms

2TM	2 Tray Module
AC	Alternating Current
ADF	Automatic Document Feeder
APS	Automatic Paper Size
ASIC	Application Specific Integrated Circuit
CRU	Customer Replaceable Unit
CSU	Customer Setup
CCW	Counterclockwise
CW	Clockwise
DC	Direct Current
DIMM	Dual Inline Memory Module
DRAM	Dynamic Random Access Memory
EDO	Enhanced Data Out
EP	Electrophotographic Process
EPROM	Erasable Programmable Read-only Memory
ESD	Electrostatic Discharge
FRU	Field Replaceable Unit
GB	Gigabyte
GFI	Ground Fault Interrupter
HCF	High-Capacity Feeder
HVPS	High Voltage Power Supply
LASER	Light Amplification by Stimulated Emission of Radiation
LCD	Liquid Crystal Display
LD	Laser Diode
LED	Light-Emitting Diode
LEF	Long Edge Feed
LVPS	Low Voltage Power Supply
MPF	Multi-Purpose Feeder
MS	Microswitch
NVM	Nonvolatile Memory
NVRAM	Nonvolatile Random Access Memory
OEM	Original Equipment Manufacturer
OPT	Optical Sensor
PC	Photoconductor
PEL	Picture element

POR	Power-on Reset
POST	Power-on Self Test
PPM	Pages Per Minute
PSC	Parallel Synchronous Communications
PSD	Position Sensing Device
PWM	Pulse Width Modulation
RFID	Radio Frequency Identification
RIP	Raster Imaging Processor
ROM	Read only Memory
RPM	Revolutions Per Minute
SDRAM	Synchronous Dual Random Access Memory
SEF	Short Edge Feed
SIMM	Single Inline Memory Module
SOS	Start of scan
SRAM	Static Random Access Memory
TTM	Tandem Tray Module
TVOC	Total Volatile Organic Compound
UPR	Used Parts Return
V	Volts
V ac	Volts alternating current
V dc	Volts direct current

7500-XXX

2. Diagnostic information

Start

**CAUTION:**

Unplug the power cord from the electrical outlet before you connect or disconnect any cable electronic board or assembly.

**CAUTION**

If the printer is kept on, never touch the conductive parts if not specifically required. The power switch and inlet of the low voltage power supply card (LVPS card) assembly is live even while the power supply is cut off. Never touch the live parts.

**CAUTION**

Be careful to avoid burns by safely handling hot parts.

**CAUTION**

The standard finisher weight is 59 kg (130 lb.) and requires at least two people to lift it safely. The booklet finisher weight is 87.5 kg (193 lb.) and requires at least four people to lift it safely. Make sure your fingers are not under the finisher when you lift or set it down.

The MFP weighs approximately 173kg (383 lb.) and requires at least four people to lift it safely. Make sure your fingers are not under the MFP when you lift or set it down.

Warning: When operating the driving units using the diagnostics or other tools, be sure to keep them covered unless otherwise specified.

Warning: When operating the driving units using the diagnostics or other tools, never touch the driving units. When operating the driving units using diagnostics or other tools, be sure to follow the procedures in this manual.

Warning: Servicers should wear a wrist band or the like to remove static electricity from their body, grounding their body while working. Go to **“Handling ESD-sensitive parts” on page 4-1**.

Note: There may be printer error messages that are not contained in this service manual. Call your next level support for assistance.

POR (Power-On Reset) sequence

The following is an example of the events that occur during the POR sequence for the base machine with no paper handling options installed.

1. Turn the machine on.
2. +5V LED (Power ON) on the system board comes on.
3. Operator Panel LED comes on solid.
4. All diamonds appear on the LCD.
5. While loading code, dots scroll across the LCD.
6. The following is an example of the screen that displays after the code is loaded.

128MB	600Mhz
128MB = Amount of Memory 600Mhz = Processor Speed	

7. Performing Self Test appears on the LCD.
8. Fuser drive motor turns on.
9. Fuser fan turns on.
10. RIP fan turns on.
11. Heartbeat LED on system boards turns on.
12. Fuser lamps turn on.
13. Vacuum transport belt fan turns on.
14. ITU Missing appears on the LCD, if the ITU is missing.
15. Fuser Missing appears on the LCD, if the fuser is missing.
16. Close Door appears on the LCD, if the front cover is open.
17. Busy appears on the LCD.
18. Operator panel LED *blinks*.
19. Redrive exit roller turns.
20. Any cartridge errors appear on the LCD such as a Defective Cartridge, Return Program Information, or Missing Cartridge.
21. Any applicable maintenance messages appear on the LCD such as 80 Fuser Maintenance or 83 ITU Maintenance.
22. One of the toner low messages appears when applicable: 88 Yellow Toner Low, 88 Magenta Toner Low, 88 Cyan Toner Low, or 88 Black Toner Low.
23. Color calibration may be initiated. This is appears if one of the following occurs:
 - The printer detects at power on, or the front cover is closed, that a new or different toner cartridge has been installed.
 - The printer detects at power on when the cover is closed that a new or different ITU has been installed.
 - The printer detects at power on that the fuser temperature is below 60° C.
 - When coming out of power saver if power saver has been active for eight hours or longer.
 - If the printer is turned on when a calibration cycle was in progress since the printer was last powered off.
24. Ready appears on the LCD.

To enter the diagnostic menu:

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

Error code messages - finisher

Error code or message	Error contents	Description/action
280.00 Paper jam	Sensor (bridge unit media entrance) late jam	The media is late reaching the sensor (bridge unit media entrance) within the specified time after reaching the sensor (fuser exit). Go to “280.00 Sensor (bridge unit media entrance) late Jam” on page 2-10.
280.01 Paper jam	Sensor (bridge unit media entrance) static jam	Media remains on the sensor (bridge unit media entrance). Go to “280.01 Sensor (bridge unit media entrance) static jam” on page 2-11.
281.00 Paper jam	Sensor (bridge unit media exit) late jam	The media is late reaching the sensor (bridge unit media exit) within the specified time after reaching the sensor (bridge unit media entrance). Go to “281.00 Sensor (bridge unit media exit) late jam” on page 2-12.
281.03 Paper jam	Sensor (bridge unit media exit) static jam	Media remains on the sensor (bridge unit media exit). Go to “281.03 Sensor (bridge unit media exit) static jam” on page 2-14.
282.00 Paper jam	Sensor (finisher media entrance) late jam	The media is late reaching the sensor (finisher media entrance) within the specified time after reaching the sensor (bridge unit media exit). Go to “282.00 Sensor (finisher media entrance) late jam” on page 2-15.
282.01 Paper jam	Sensor (finisher media entrance) static jam	Paper remains on the sensor (finisher media entrance). Go to “282.01 Sensor (finisher media entrance) static jam” on page 2-17.
283.00 Paper jam	Sensor (buffer path) late jam	The media is late reaching the sensor (buffer path) within the specified time after reaching the sensor (finisher media entrance). Go to “283.00 Sensor (buffer path) late jam” on page 2-18.
283.03 Paper jam	Sensor (buffer path) static jam	Paper remains on the sensor (finisher buffer path). Go to “283.03 Sensor (buffer path) static jam” on page 2-21.
284.00 Paper jam	Sensor (lower media exit) late jam	The media is late reaching the sensor (lower media exit) within the specified time after reaching the sensor (buffer path). Go to “284.00 Sensor (lower media exit) late jam” on page 2-22.
284.03 Paper jam	Sensor (lower media exit) lag jam	The media reached the sensor (lower media exit) but did not clear it within the specified time. Go to “284.03 Sensor (lower media exit) lag jam” on page 2-24.
284.05 Paper jam	Sensor (lower media exit) static jam	Media remains on the sensor (lower media exit). Go to “284.05 Sensor (lower media exit) static jam” on page 2-25.

Error code or message	Error contents	Description/action
285.00 Paper jam	Sensor (compiler media in) lag jam	The media reached the sensor (lower media exit) but did not clear it within the specified time. Go to “285.00 Sensor (media compiler in) lag jam” on page 2-27.
286.00 Paper jam	Sensor (compiler media in) static jam	Media remains on the sensor (compiler media in). Go to “286.00 Sensor (compiler media in) static jam” on page 2-28.
287.00 Paper jam	Sensor (upper media exit) late jam	The media is late reaching the sensor (upper media exit) within the specified time after reaching the sensor (finisher media entrance). Go to “287.00 Sensor (upper media exit) late jam” on page 2-30.
287.01 Paper jam	Sensor (upper media exit) lag jam	The media reached the sensor (upper media exit) but did not clear it within the specified time. Go to “287.01 Sensor (upper media exit) lag jam” on page 2-31.
287.05 Paper jam	Sensor (upper media exit) static jam	Media remains on the sensor (upper media exit). Go to “287.05 Sensor (upper media exit) static jam” on page 2-33.
288.00 Paper jam	Sensor (diverter gate) late jam	The media is late reaching the sensor (diverter gate) within the specified time after reaching the sensor (bridge unit media exit). Go to “288.00 Sensor (diverter gate) late jam” on page 2-34.
288.01 Paper jam	Sensor (diverter gate) static jam A (to top bin)	The media reached the sensor (diverter gate) but did not clear it within the specified time. Go to “288.01 Sensor (diverter gate) static jam A (to top bin)” on page 2-36.
288.04 Paper jam	Sensor (diverter gate) static jam B (to stacker bin)	The media reached the sensor (diverter gate) but did not clear it within the specified time. Go to “288.04 Sensor (diverter gate) static jam B (to stacker bin)” on page 2-37.
289.00 Paper jam	sensor (booklet unit media entrance) late jam	The media is late reaching the sensor (booklet unit media entrance) within the specified time after reaching the sensor (bridge unit media exit). Go to “289.00 sensor (booklet unit media entrance) late jam” on page 2-38.
289.01 Paper jam	sensor (booklet unit media entrance) lag jam	The media reached the sensor (booklet unit media entrance) but did not clear it within the specified time. Go to “289.01 sensor (booklet unit media entrance) lag jam” on page 2-39.
289.02 Paper jam	sensor (booklet unit media entrance) static jam	Media remains on the sensor (diverter gate). Go to “289.02 sensor (booklet unit media entrance) static jam” on page 2-41.
289.03 Paper jam	sensor (booklet compiler media in) static jam	Media remains on the sensor (booklet compiler media in). Go to “289.03 sensor (booklet compiler media in) static jam” on page 2-42.

Error code or message	Error contents	Description/action
289.04 Paper jam	sensor (booklet unit media exit) late jam	The media is late reaching the sensor (booklet unit media exit) within the specified time after the booklet knife solenoid is turned on. Go to “289.04 Sensor (booklet unit media exit) late jam” on page 2-43.
289.05 Paper jam	sensor (booklet unit media exit) lag jam	The media reached the sensor (booklet unit media exit) but did not clear it within the specified time. Go to “289.05 Sensor (booklet unit media exit) lag jam” on page 2-45.
289.06 Paper jam	sensor (booklet unit media exit) static jam	Media remains on the sensor (booklet unit media exit). Go to “289.06 Sensor (booklet unit media exit) static jam” on page 2-46.
980.02 Service finisher comm	Communication error with finisher controller card assembly	A communication error has occurred with the upper printer engine card assembly and the finisher controller card assembly. Go to “980.02 Finisher communication failure” on page 2-47.
981.00 Service finisher error	Sensor (stacker bin level 1) late error Sensor (stacker bin level 2) late error	The sensing area of the sensor (stacker bin level 1) or Sensor (stacker bin level 2) is not interrupted within the specified period after the stacker bin starts rising. Go to “981.00 Sensor (stacker bin level 1) late error” on page 2-48.
981.01 Service finisher error	Stacker bin upper limit error	The sensing area of the sensor (stacker bin upper limit) is not interrupted when the stacker bin raises to its upper most limit. Go to “981.01 Stacker bin upper limit error” on page 2-49.
981.02 Service finisher error	Stacker bin lower limit error	The stacker bin lowers beyond the specified lower limit within the specified time. Go to “981.02 Stacker bin lower limit error” on page 2-51.
982.00 Service finisher error	Sensor (front tamper HP) late error	The sensing area of the sensor (front tamper HP) is not interrupted when the front tamper starts moving to the home position. Go to “982.00 Sensor (front tamper HP) late error” on page 2-53.
982.01 Service finisher error	Sensor (front tamper HP) lag error	The sensing area of the sensor (front tamper HP) remains interrupted within the specified time after the front tamper starts moving from the home position. Go to “982.01 Sensor (front tamper HP) lag error” on page 2-54.
983.00 Service finisher error	Sensor (rear tamper HP) late error	The sensing area of the sensor (rear tamper HP) is not interrupted when the rear tamper starts moving to the home position. Go to “983.00 Sensor (rear tamper HP) late error” on page 2-56.

Error code or message	Error contents	Description/action
983.01 Service finisher error	Sensor (rear tamper HP) lag error	The sensing area of the sensor (rear tamper HP) remains interrupted within the specified time after the rear tamper starts moving from the home position. Go to "983.01 Sensor (rear tamper HP) lag error" on page 2-57.
984.00 Service finisher error	Sensor (punch unit HP) late error	The sensing area of the sensor (punch unit HP) is not interrupted during the specified time after the punch unit starts moving to the home position. Go to "984.00 Sensor (punch unit HP) late error" on page 2-58.
984.01 Service finisher error	Sensor (punch unit HP) lag error	The sensing area of the sensor (punch unit HP) remains interrupted within the specified time after the punch unit starts moving from the home position. Go to "984.01 Sensor (punch unit HP) lag error" on page 2-59.
985.00 Service finisher error	Sensor (punch carriage shift HP) late error	The sensing area of the sensor (punch carriage shift HP) is not interrupted within the specified time after the punch carriage starts moving to the home position. Go to "985.00 Sensor (punch carriage shift HP) late error" on page 2-60.
985.01 Service finisher error	Sensor (punch carriage shift HP) lag error	The sensor (punch carriage shift HP) remains interrupted within the specified time after the punch carriage starts moving from the home position. Go to "985.01 Sensor (punch carriage shift HP) lag error" on page 2-61.
986.00 Service finisher error	Sensor (media eject clamp HP) late error	The sensing area of the sensor (media eject clamp HP) is not interrupted within the specified time after the eject clamp starts moving to the home position. Go to "986.00 Sensor (media eject clamp HP) late error" on page 2-63.
986.01 Service finisher error	Sensor (media eject clamp HP) lag error	The sensing area of the sensor (media eject clamp HP) remains interrupted within the specified time after the eject clamp starts moving from the home position. Go to "986.01 Sensor (media eject clamp HP) lag error" on page 2-64.
987.00 Service finisher error	Sensor (media eject shaft HP) late error	The sensing area of the sensor (media eject shaft HP) is not interrupted within the specified time after the media eject shaft starts moving to the home position. Go to "987.00 Sensor (media eject shaft HP) late error" on page 2-65.
987.01 Service finisher error	Sensor (media eject shaft HP) lag error	The sensing area of the sensor (media eject shaft HP) remains interrupted within the specified time after the media eject shaft starts moving from the home position. Go to "987.01 Sensor (media eject shaft HP) lag error" on page 2-66.
988.01 Service finisher error	Sensor (punch unit side reg 1) lag error Sensor (punch unit side reg 2) lag error	The sensor (punch unit side reg 1) or sensor (punch unit side reg 2) did not detect any media correctly. Go to "988.01 Sensor (punch unit side reg1) or (sensor (punch unit side reg2) lag failure" on page 2-68.

Error code or message	Error contents	Description/action
989.00 Service finisher error	Stapler unit error	The sensing area of the sensor (stapler unit motor HP) inside the stapler unit assembly is not interrupted within the specified timer after the stapler unit motor starts moving to the home position. Go to “989.00 Stapler unit failure” on page 2-70.
990.00 Service finisher error	Sensor (stapler carriage HP) late error	The sensing area of the sensor (stapler carriage HP) is not interrupted within the specified time after the stapler carriage starts moving to the home position. Go to “990.00 Sensor (stapler carriage HP) late error” on page 2-70.
990.01 Service finisher error	Sensor (stapler carriage HP) lag error	The sensing area of the sensor (stapler carriage HP) remains interrupted within the specified time after the stapler carriage starts moving from the home position. Go to “990.01 Sensor (stapler carriage HP) lag error” on page 2-71.
991.00 Service finisher error	Sensor (booklet front tamper HP) late error	The sensing area of the sensor (booklet front tamper HP) is not interrupted within the specified time after the front booklet tamper starts moving to the home position. Go to “991.00 Sensor (booklet front tamper HP) late error” on page 2-73.
991.01 Service finisher error	Sensor (booklet front tamper HP) lag error	The sensing area of the sensor (booklet front tamper HP) remains interrupted within the specified time after the front booklet tamper starts moving from the home position. Go to “991.01 Sensor (booklet front tamper HP) lag error” on page 2-74.
991.02 Service finisher error	Sensor (booklet rear tamper HP) late error	The sensing area of the sensor (booklet rear tamper HP) is not interrupted within the specified time after the rear booklet tamper starts moving to the home position. Go to “991.02 Sensor (booklet rear tamper HP) late error” on page 2-75.
991.03 Service finisher error	Sensor (booklet rear tamper HP) lag error	The sensing area of the sensor (booklet rear tamper HP) remains interrupted within the specified time after the rear booklet tamper starts moving from the home position. Go to “991.03 Sensor (booklet rear tamper HP) lag error” on page 2-77.
991.04 Service finisher error	Sensor (booklet end guide HP) late error	The sensing area of the sensor (booklet end guide HP) is not interrupted within the specified time after the booklet end guide starts moving to the home position. Go to “991.04 Sensor (booklet end guide HP) late error” on page 2-78.
991.05 Service finisher error	Sensor (booklet end guide HP) lag error	The sensing area of the sensor (booklet end guide HP) remains interrupted within the specified time after the booklet end guide starts moving from the home position. Go to “991.05 Sensor (booklet end guide HP) lag error” on page 2-80.
991.06 Service finisher error	Sensor (booklet unit interlock) error	The sensor (booklet unit interlock) detected that the booklet maker was not completely inserted when the finisher front door assembly was closed. Go to “991.06 Sensor (booklet unit interlock) error” on page 2-81.

Error code or message	Error contents	Description/action
991.07 Service finisher error	Sensor (booklet compiler no media) no media detected	The sensing area of the sensor (booklet compiler no media) did not detect any media when the booklet stapler motor was activated. Go to "991.07 Sensor (booklet compiler no media) no media detected" on page 2-82.
991.08 Service finisher error	Sensor (booklet knife HP) late error	The sensing area of the sensor (booklet knife HP) is not interrupted within the specified time after the booklet knife started moving to home position. Go to "991.08 Sensor (booklet knife HP) late error" on page 2-83.
991.09 Service finisher error	Sensor (booklet knife HP) lag error	The sensing area of the sensor (booklet knife HP) remains interrupted within the specified time after the booklet knife started moving from home position. Go to "991.09 Sensor (booklet knife HP) lag error" on page 2-85.
991.10 Service finisher error	Sensor (booklet knife folding) late error	The sensing area of the sensor (booklet knife folding) is not interrupted within the specified time after the booklet knife solenoid was activated. Go to "991.10 Sensor (booklet knife folding) late error" on page 2-87.
991.11 Service finisher error	Booklet stapler error	The booklet stapler unit is not completely inserted into the booklet maker unit assembly or the it has failed. Go to "991.11 Booklet stapler error" on page 2-88.
991.12 Service finisher error	Communication error with booklet controller card assembly	A communication error has occurred with the booklet controller card assembly and the finisher controller card assembly. Go to "991.12 Communication error with booklet controller card assembly" on page 2-89.
991.13 Service finisher error	Booklet unit maker error	Booklet set recovery was detected too many times for the same job. Perform a POR. Go to "991.13 Booklet unit maker error" on page 2-90.
Close cover F	Bridge unit top cover is open.	The bridge unit top cover is open. Go to "Bridge unit top cover open" on page 2-90.
Close door G	Finisher front door open.	The finisher front door is open. Go to "Finisher front door open" on page 2-92.
Close surface H	Eject cover open.	The finisher eject cover is open. Go to "Finisher eject cover open" on page 2-93.
Empty hole punch box	Punch waste box full.	The punch waste box is full. Go to "Punch waste box full" on page 2-95.
Insert hole punch box	Punch waste box missing.	No punch waste box. Go to "No punch waste box." on page 2-94.
Load staples	Staple cartridge empty.	Staple cartridge empty. Go to "Staple cartridge empty" on page 2-102.

Error code or message	Error contents	Description/action
Remove paper from bin 1	Finisher upper media bin full.	Stacker set over count The upper media bin has reached maximum capacity. Go to “Finisher upper media bin full” on page 2-93.
Remove paper from bin 2	Stacker media bin full (no mix)	The stacker media bin has reached maximum capacity (no mix). Go to “Stacker media bin full (no mix)” on page 2-98.
Remove paper from bin 2	Stacker media bin full (mix size)	The stacker media bin has reached maximum capacity (mix size). Go to “Stacker media bin full (mix size)” on page 2-96.

Service checks - finisher

280.00 Sensor (bridge unit media entrance) late Jam

Step	Check	Yes	No
1	Check the bridge unit media transport rolls. Are the bridge unit media transport rolls free of excess wear and contamination?	Go to step 2.	Clean or replace the bridge unit assembly. Go to “Bridge unit assembly removal” on page 4-5.
2	Check the sensor (bridge unit media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Bridge media entrance Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (bridge unit media entrance) connection. Is the above sensor properly connected?	Replace the sensor (bridge unit media entrance). Go to “Sensor (bridge unit media entrance) removal” on page 4-16.	Replace the connection.
4	Check the bridge unit drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Bridge unit drive motor. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the bridge unit drive motor connection. Is the above motor properly connected?	Replace the bridge unit drive motor assembly. Go to “Bridge unit drive motor assembly removal” on page 4-13. Go to step 6.	Replace the connection.

Step	Check	Yes	No
6	Perform a print test. Does the error remain?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 7.	Problem solved.
7	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

280.01 Sensor (bridge unit media entrance) static jam

Step	Check	Yes	No
1	Check the sensor (bridge unit media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Bridge media entrance Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (bridge unit media entrance) connection Is the above sensor properly connected?	Replace the sensor (bridge unit media entrance). Go to “Sensor (bridge unit media entrance) removal” on page 4-16.	Replace the connection.

Step	Check	Yes	No
3	Check the bridge unit drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Bridge unit drive motor. Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Check the bridge unit drive motor for proper connection. Is the above component properly connected?	Replace the bridge unit drive motor assembly. Go to “Bridge unit drive motor assembly removal” on page 4-13. Go to step 5.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 6.	Problem solved.
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

281.00 Sensor (bridge unit media exit) late jam

Step	Check	Yes	No
1	Check the bridge unit media transport rolls. Are the bridge unit media transport rolls free of excess wear and contamination?	Go to step 2.	Clean or replace the bridge unit assembly. Go to “Bridge unit assembly removal” on page 4-5.

Step	Check	Yes	No
2	Check the sensor (bridge unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Bridge unit media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (bridge unit media exit) connection. Is the above sensor properly connected?	Replace the sensor (bridge unit media exit). Go to “Sensor (bridge unit media exit) removal” on page 4-17.	Replace the connection.
4	Check the bridge unit drive motor for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Bridge unit drive motor. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the bridge unit drive motor connection. Is the above component properly connected?	Replace the bridge unit drive motor assembly. Go to “Bridge unit drive motor assembly removal” on page 4-13.	Replace the connection.
6	Perform a print test. Does the error remain?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 7.	Problem solved.

Step	Check	Yes	No
7	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

281.03 Sensor (bridge unit media exit) static jam

Step	Check	Yes	No
1	Check the sensor (bridge unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Bridge unit media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 2.
2	Check the sensor (bridge unit media exit) connection. Is the above sensor properly connected?	Replace the sensor (bridge unit media exit). Go to “Sensor (bridge unit media exit) removal” on page 4-17.	Replace the connection.
3	Check the bridge unit drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Bridge unit drive motor. Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Check the bridge unit drive motor connection. Is the above component properly connected?	Replace the bridge unit drive motor assembly. Go to “Bridge unit drive motor assembly removal” on page 4-13.	Replace the connection.

Step	Check	Yes	No
5	Perform a print test. Does the error remain?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 6.	Problem solved.
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

282.00 Sensor (finisher media entrance) late jam

Step	Check	Yes	No
1	Check the bridge unit media transport rolls. Are the bridge unit media transport rolls free of excess wear and contamination?	Go to step 2.	Clean or replace the bridge unit assembly. Go to “Bridge unit assembly removal” on page 4-5.
2	Check sensor (bridge unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Bridge unit media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (bridge unit media exit) connection. Is the above component properly connected?	Replace the sensor (bridge unit media exit). Go to “Sensor (bridge unit media exit) removal” on page 4-17.	Replace the connection.

Step	Check	Yes	No
4	Check the sensor (finisher media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Finisher media entrance. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (finisher media entrance) for proper connection. Is the above component properly connected?	Replace the sensor (finisher media entrance). Go to “Sensor (finisher media entrance) removal” on page 4-97.	Replace the connection.
6	Check the bridge unit drive motor for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Bridge unit drive motor. Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Check the bridge unit drive motor for proper connection. Is the above component properly connected?	Replace the bridge unit drive motor assembly. Go to “Bridge unit drive motor assembly removal” on page 4-13.	Replace the connection.
8	Perform a print test. Does the error remain?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 9.	Problem solved.

Step	Check	Yes	No
9	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

282.01 Sensor (finisher media entrance) static jam

Step	Check	Yes	No
1	Check the sensor (finisher media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Media Path 1 . 5. Touch Finisher media entrance . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (finisher media entrance) for proper connection. Is the above component properly connected?	Replace the sensor (finisher media entrance). Go to “Sensor (finisher media entrance) removal” on page 4-97.	Replace the connector.
3	Check the drive motor (entrance/paddle) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Motor Tests . 4. Touch Motor (entrance/paddle) . Does the above component operate properly?	Go to step 5.	Go to step 4.

Step	Check	Yes	No
4	Check the drive motor (entrance/paddle) for proper connection. Is the above component properly connected?	Replace the drive motor (entrance/paddle). Go to “Drive motor (entrance/paddle) and belt (entrance/paddle) removal” on page 4-99.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

283.00 Sensor (buffer path) late jam

Step	Check	Yes	No
1	Check the finisher media entrance roll assembly. Is the above component free of excess wear and contamination?	Go to step 2.	Clean or replace the finisher media entrance roll assembly. Go to “Finisher media entrance roll assembly removal” on page 4-98.
2	Check the finisher buffer roll assembly. Is the above component free of excess wear and contamination?	Go to step 3.	Clean or replace the finisher buffer roll assembly. Go to “Finisher buffer roll assembly removal” on page 4-93.
3	Check the sensor (diverter gate) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Diverter gate. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.

Step	Check	Yes	No
4	Check the sensor (diverter gate) for proper connection. Is the above component properly connected?	Replace the sensor (diverter gate). Go to “Sensor (diverter gate) removal” on page 4-108.	Replace the connection.
5	Check the buffer diverter gate solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Fin buffer solenoid. 5. Touch Forward or reverse. Does the above component operate properly?	Go to step 7.	Go to step 6.
6	Check the buffer diverter gate solenoid for proper connection. Is the above component properly connected?	Replace the buffer diverter gate solenoid. Go to “Buffer diverter gate solenoid removal” on page 4-102.	Problem solved.
7	Check the sensor (buffer path) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Buffer path. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 9.	Go to step 8.
8	Check the sensor (buffer path) for proper connection. Is the above component properly connected?	Replace the sensor (buffer path). Go to “Sensor (buffer path) removal” on page 4-92.	Replace the connection.

Step	Check	Yes	No
9	Check the drive motor (buffer/transport) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (buffer/transport). Does the above component operate properly?	Go to step 11.	Go to step 10.
10	Check the drive motor (buffer/transport) for proper connection. Is the above component properly connected?	Replace the drive motor (buffer/transport). Go to “Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.	Problem solved.
11	Perform a print test. Does the error remain?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 12.	Problem solved.
12	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

283.03 Sensor (buffer path) static jam

Step	Check	Yes	No
1	Check the sensor (buffer path) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Buffer path. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (buffer path) for proper connection. Is the above component properly connected?	Replace the sensor (buffer path). Go to “Sensor (buffer path) removal” on page 4-92.	Replace the connection.
3	Check the drive motor (buffer/transport) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (buffer/transport). Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Check the drive motor (buffer/transport) for proper connection. Is the above component properly connected?	Replace the drive motor (buffer/transport). Go to “Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.	Replace the connection.

Step	Check	Yes	No
5	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

284.00 Sensor (lower media exit) late jam

Step	Check	Yes	No
1	Check the finisher buffer roll assembly. Is the above component free of excess wear and contamination?	Go to step 2.	Clean or replace the finisher buffer roll assembly. Go to “Finisher buffer roll assembly removal” on page 4-93.
2	Check the sensor (buffer path) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Buffer path. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (buffer path) for proper connection. Is the above component properly connected?	Replace the sensor (buffer path). Go to “Sensor (buffer path) removal” on page 4-92.	Replace the connection.
4	Check the drive motor (buffer/transport) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (buffer/transport). Does the above component operate properly?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Check the drive motor (buffer/transport) for proper connection. Is the above component properly connected?	Replace the drive motor (buffer/transport). Go to “Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.	Replace the connection.
6	Check the sensor (diverter gate) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Diverter gate. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 8.	Go to step 7.
7	Check the sensor (diverter gate) for proper connection. Is the above component properly connected?	Replace the sensor (diverter gate). Go to “Sensor (diverter gate) removal” on page 4-108.	Replace the connection.
8	Check the sensor (lower media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Lower media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 10.	Go to step 9.
9	Check the sensor (lower media exit) for proper connection? Is the above component properly connected?	Replace the sensor (lower media exit). Go to “Sensor (lower media exit) removal” on page 4-80.	Replace the connection.
10	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

284.03 Sensor (lower media exit) lag jam

Step	Check	Yes	No
1	Check the lower media exit roll assembly. Is the above component free of excess wear and contamination?	Go to step 2.	Clean or replace the lower media exit roll assembly. Go to “Lower media exit roll assembly removal” on page 4-81.
2	Check the sensor (lower media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Media Path 1 . 5. Touch Lower media exit . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (lower media exit) for proper connection. Is the above component properly connected?	Replace the sensor (lower media exit). Go to “Sensor (lower media exit) removal” on page 4-80.	Replace the connection.
4	Check the drive motor (exit) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Motor Tests . 4. Touch Motor (exit) . Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the drive motor (exit) for proper connection. Is the above component properly connected?	Replace the drive motor (exit). Go to “Drive motor (exit) assembly and belt (exit) removal” on page 4-111.	Replace the connection.

Step	Check	Yes	No
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

284.05 Sensor (lower media exit) static jam

Step	Check	Yes	No
1	Check the sensor (lower media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Lower media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (lower media exit) for proper connection. Is the above component properly connected?	Replace the sensor (lower media exit). Go to “Sensor (lower media exit) removal” on page 4-80.	Replace the connection.
3	Check the buffer diverter gate solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Fin buffer solenoid. 5. Touch Forward or reverse. Does the above component operate properly?	Go to step 5.	Go to step 4.

Step	Check	Yes	No
4	Check the buffer diverter gate solenoid for proper connection. Is the above component properly connected?	Replace the buffer diverter gate solenoid. Go to “Buffer diverter gate solenoid removal” on page 4-102.	Problem solved.
5	Check the drive motor (exit) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (exit). Does the above component operate properly?	Go to step 7.	Go to step 6.
6	Check the drive motor (exit) for proper connection. Is the above component properly connected?	Replace the drive motor (exit). Go to “Drive motor (exit) assembly and belt (exit) removal” on page 4-111.	Replace the connection.
7	Check the finisher diverter gate solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Fin diverter solenoid. 5. Touch Forward or reverse. Does the above component operate properly?	Go to step 9.	Go to step 8.
8	Check the finisher diverter gate solenoid for proper connection. Is the above component properly connected?	Replace the finisher diverter gate solenoid. Go to “Finisher diverter gate solenoid removal” on page 4-101.	Problem solved.

Step	Check	Yes	No
9	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

285.00 Sensor (media compiler in) lag jam

Step	Check	Yes	No
1	Check the media eject clamp motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Media eject clamp motor. Does the above component operate properly?	Go to step 3.	Go to step 2.
2	Check the media eject motor for proper connection. Is the above component properly connected?	Replace the media eject motor. Go to “Media eject motor assembly removal” on page 4-78.	Replace the connection.
3	Check the compiler media in actuator for proper operation. Is the actuator operating properly?	Go to step 4.	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.

Step	Check	Yes	No
4	Check the sensor (compiler media in) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Compiler media in. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (compiler media in) for proper connection. Is the above component properly connected?	Replace the sensor (compiler media in). Go to “Sensor (compiler media in) removal” on page 4-72.	Replace the connection.
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

286.00 Sensor (compiler media in) static jam

Step	Check	Yes	No
1	Check the media eject clamp motor for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Media eject clamp motor. Does the above component operate properly?	Go to step 3.	Go to step 2.
2	Check the media eject clamp motor for proper connection. Is the above component properly connected?	Replace the media eject clamp motor. Go to “Media eject clamp motor assembly removal” on page 4-66.	Replace the connector.

Step	Check	Yes	No
3	Check the sensor (compiler media in) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Compiler media in. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.
4	Check the sensor (compiler media in) for proper connection. Is the above component properly connected?	Replace the sensor (compiler media in). Go to “Sensor (compiler media in) removal” on page 4-72.	Replace the connection.
5	Check the media eject motor assembly for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Media eject mtr. Does the above component operate properly?	Go to step 7.	Go to step 6.
6	Check the media eject motor assembly for proper connection. Is the above component properly connected?	Replace the media eject motor assembly. Go to “Media eject motor assembly removal” on page 4-78.	Replace the connection.
7	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

287.00 Sensor (upper media exit) late jam

Step	Check	Yes	No
1	Check the two upper media transport roll assemblies. Are the two upper media transport roll assemblies free of excess wear and contamination?	Go to step 2.	Clean or replace the two upper media transport roll assemblies. Go to “Upper media transport roll assembly removal” on page 4-109.
2	Check the sensor (upper media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Upper media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (upper media exit) for proper connection. Is the above component properly connected?	Replace the sensor (upper media exit). Go to “Sensor (upper media exit) removal” on page 4-103.	Replace the connection.
4	Check the drive motor (buffer/transport) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (buffer/transport). Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the drive motor (buffer/transport) for proper connection. Is the above component properly connected?	Replace the drive motor (buffer/transport). Go to “Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.	Replace the connection.

Step	Check	Yes	No
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

287.01 Sensor (upper media exit) lag jam

Step	Check	Yes	No
1	Check the two upper media transport roll assemblies. Are the two upper media transport roll assemblies free of excess wear and contamination?	Go to step 2.	Clean or replace the two upper media transport roll assemblies. Go to “Upper media transport roll assembly removal” on page 4-109.
2	Check the sensor (upper media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Media Path 1 . 5. Touch Upper media exit . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 4.
3	Check the sensor (upper media exit) for proper connection. Is the above component properly connected?	Replace the sensor (upper media exit). Go to “Sensor (upper media exit) removal” on page 4-103.	Replace the connection.

Step	Check	Yes	No
4	Check the drive motor (buffer/transport) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (buffer/transport). Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the drive motor (buffer/transport) for proper connection. Is the above component properly connected?	Replace the drive motor (buffer/transport). Go to “Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.	Replace the connection.
6	Check the drive motor (exit) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (exit). Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Check the drive motor (exit) for proper connection. Is the above component properly connected?	Replace the drive motor (exit). Go to “Drive motor (exit) assembly and belt (exit) removal” on page 4-111.	Replace the connection.
8	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

287.05 Sensor (upper media exit) static jam

Step	Check	Yes	No
1	Check the sensor (upper media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Upper media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (upper media exit) for proper connection. Is the above component properly connected?	Replace the sensor (upper media exit). Go to “Sensor (upper media exit) removal” on page 4-103.	Replace the connection.
3	Check the drive motor (buffer/transport) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (buffer/transport). Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Check the drive motor (buffer/transport) for proper connection. Is the above component properly connected?	Replace the drive motor (buffer/transport). Go to “Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

288.00 Sensor (diverter gate) late jam

Step	Check	Yes	No
1	Check the finisher media entrance roll assembly. Is the finisher media entrance roll assembly free of excess wear and contamination?	Go to step 2.	Clean or replace the finisher media entrance roll assembly. Go to “Finisher media entrance roll assembly removal” on page 4-98.
2	Check the sensor (bridge unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Bridge unit media exit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (bridge unit media exit) for proper connection. Is the above component properly connected?	Replace the sensor (bridge unit media exit). Go to “Sensor (bridge unit media exit) removal” on page 4-17.	Replace the connection.
4	Check the sensor (finisher media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 1. 5. Touch Finisher media entrance. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (finisher media entrance) for proper connection. Is the above component properly connected?	Replace the sensor (finisher media entrance). Go to “Sensor (finisher media entrance) removal” on page 4-97.	Replace the connection.

Step	Check	Yes	No
6	Check the sensor (diverter gate) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Diverter gate. Does the operator panel display change every time the actuator of the sensor (bridge unit media exit) is operated?	Go to step 8.	Go to step 7.
7	Check the sensor (diverter gate) for proper connection. Is the above component properly connected?	Replace the sensor (diverter gate). Go to “Sensor (diverter gate) removal” on page 4-108.	Replace the connection.
8	Check the drive motor (entrance/paddle) for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (entrance/paddle). Does the above component operate properly?	Go to step 10.	Go to step 9.
9	Check the drive motor (entrance/paddle) for proper connection. Is the above component properly connected.	Replace the drive motor (entrance/paddle). Go to “Drive motor (entrance/paddle) and belt (entrance/paddle) removal” on page 4-99.	Replace the connection.
10	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

288.01 Sensor (diverter gate) static jam A (to top bin)

Step	Check	Yes	No
1	Check the sensor (diverter gate) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Diverter gate. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (diverter gate) for proper connection. Is the above component properly connected?	Replace the sensor (diverter gate). Go to “Sensor (diverter gate) removal” on page 4-108.	Replace the connection.
3	Check the drive motor (entrance/paddle) for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (entrance/paddle). Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Check the drive motor (entrance/paddle) for proper connection. Is the above component properly connected?	Replace the drive motor (entrance/paddle). Go to “Drive motor (entrance/paddle) and belt (entrance/paddle) removal” on page 4-99.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

288.04 Sensor (diverter gate) static jam B (to stacker bin)

Step	Check	Yes	No
1	Check the sensor (diverter gate) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Diverter gate. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (diverter gate) for proper connection. Is the above component properly connected?	Replace the sensor (diverter gate). Go to “Sensor (diverter gate) removal” on page 4-108.	Replace the connection.
3	Check the motor (entrance/paddle) for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (entrance/paddle). Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Check the motor (entrance/paddle) for proper connection. Is the above component properly connected.	Replace the drive motor (entrance/paddle). Go to “Drive motor (entrance/paddle) and belt (entrance/paddle) removal” on page 4-99.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.00 sensor (booklet unit media entrance) late jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the sensor (booklet unit media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Booklet path 5. Touch Booklet unit media entrance Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (booklet unit media entrance) for proper connection. Is the above component properly connected?	Replace the sensor (booklet unit media entrance). Go to “Sensor (booklet unit media entrance) removal” on page 4-138.	Replace the connection.
6	Check the booklet diverter gate solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Motor Tests . 4. Touch Booklet diverter gate solenoid Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Check the booklet diverter gate solenoid for proper connection. Is the above component properly connected?	Replace the booklet diverter gate solenoid. Go to “Booklet diverter gate solenoid removal” on page 4-123.	Problem solved.

Step	Check	Yes	No
8	Check the motor (entrance/paddle) for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Motor (entrance/paddle). Does the above component operate properly?	Go to step 10.	Go to step 9.
9	Check the motor (entrance/paddle) for proper connection. Is the above component properly connected.	Replace the drive motor (entrance/paddle). Go to “Drive motor (entrance/paddle) and belt (entrance/paddle) removal” on page 4-99.	Replace the connection.
10	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121. Go to step 11.	Problem solved.
11	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.01 sensor (booklet unit media entrance) lag jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.

Step	Check	Yes	No
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the sensor (booklet unit media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Booklet path . 5. Touch Booklet unit media entrance Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (booklet unit media entrance) for proper connection. Is the above component properly connected?	Replace the sensor (booklet unit media entrance). Go to " Sensor (booklet unit media entrance) removal " on page 4-138.	Replace the connection.
6	Check the booklet media entrance drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Motor Tests . 4. Touch Booklet media entrance drive motor . Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Check the booklet media entrance drive motor for proper connection. Is the above component properly connected?	Replace the booklet media entrance drive motor. Go to " Booklet media entrance drive motor removal " on page 4-127.	Problem solved.
8	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to " Booklet controller card assembly removal ?? " on page 4-121. Go to step 9.	Problem solved.

Step	Check	Yes	No
9	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.02 sensor (booklet unit media entrance) static jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the sensor (booklet unit media entrance) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet path. 5. Touch Booklet unit media entrance Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.
4	Check the sensor (booklet unit media entrance) for proper connection. Is the above component properly connected?	Replace the sensor (booklet unit media entrance). Go to “Sensor (booklet unit media entrance) removal” on page 4-138.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121. Go to step 6.	Problem solved.

Step	Check	Yes	No
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.03 sensor (booklet compiler media in) static jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the sensor (booklet compiler media in) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet Path. 5. Touch Booklet compiler media in. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.
4	Check the sensor (booklet compiler media in) for proper connection. Is the above component properly connected?	Replace the sensor (booklet compiler media in). Go to “Sensor (booklet media compiler in) removal” on page 4-139.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121. Go to step 6.	Problem solved.

Step	Check	Yes	No
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.04 Sensor (booklet unit media exit) late jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the sensor (booklet unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet path 5. Touch Booklet unit media exit Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (booklet unit media exit) for proper connection. Is the above component properly connected?	Replace the sensor (booklet unit media exit). Go to “Sensor (booklet unit media exit) removal” on page 4-139.	Replace the connection.

Step	Check	Yes	No
6	Check the booklet knife solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet knife solenoid. Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Check the booklet knife solenoid for proper connection. Is the above component properly connected.	Replace the booklet knife solenoid. Go to "Booklet knife solenoid removal" on page 4-125.	Replace the connection.
8	Check the booklet folding/exit drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet folding/exit drive motor. Does the above component operate properly?	Go to step 10.	Go to step 9.
9	Check the booklet folding/exit drive motor for proper connection. Is the above component properly connected?	Replace the booklet folding/exit drive motor assembly. Go to "Booklet folding/exit drive motor assembly removal" on page 4-122.	Problem solved.
10	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ???" on page 4-121. Go to step 11.	Problem solved.

Step	Check	Yes	No
11	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.05 Sensor (booklet unit media exit) lag jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the sensor (booklet unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet path 5. Touch Booklet unit media exit Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (booklet unit media exit) for proper connection. Is the above component properly connected?	Replace the sensor (booklet unit media exit). Go to “Sensor (booklet unit media exit) removal” on page 4-139.	Replace the connection.

Step	Check	Yes	No
6	Check the booklet folding/exit drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet folding/exit drive motor. Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Check the booklet folding/exit drive motor for proper connection. Is the above component properly connected?	Replace the booklet folding/exit drive motor. Go to “Booklet folding/exit drive motor assembly removal” on page 4-122.	Problem solved.
8	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121. Go to step 9.	Problem solved.
9	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

289.06 Sensor (booklet unit media exit) static jam

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.

Step	Check	Yes	No
3	Check the sensor (booklet unit media exit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet path 5. Touch Booklet unit media exit Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.
4	Check the sensor (booklet unit media exit) for proper connection. Is the above component properly connected?	Replace the sensor (booklet unit media exit). Go to “Sensor (booklet unit media exit) removal” on page 4-139.	Replace the connection.
5	Perform a print test. Does the error remain?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121. Go to step 6.	Problem solved.
6	Perform a print test. Does the error remain?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

980.02 Finisher communication failure

Step	Check	Yes	No
1	Check the printer and finisher installation. Is the finisher installed to the printer properly?	Go to step 2.	Remove the finisher. Go to “Finisher removal” on page 4-3. Reinstall the finisher properly.
2	Turn the power on and off. Does the error still occur when the power is on?	Go to step 3.	Problem solved.

Step	Check	Yes	No
3	Check the finisher controller card assembly connection. Are the connections of the finisher controller card assembly properly connected?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116. Go to step 4.	Replace the connection.
4	Perform a print test. Does the problem remain?	Replace the printer engine card assembly. Refer to the <i>Printer Service Manual</i> .	Problem solved.

981.00 Sensor (stacker bin level 1) late error

Step	Check	Yes	No
1	Check the vertical transport mechanism of the stacker bin for obstacles and damage. Are there any obstacles in the vertical transport mechanism of the stacker bin?	Remove obstacles.	Go to step 2.
2	Check the sensor (stacker bin level 1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level1. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (stacker bin level 1) for proper connection. Is the above component properly connected?	Replace the sensor (stacker bin level 1). Go to “Sensor (stacker bin level 1) removal” on page 4-34.	Replace the connection.
4	Check the sensor (stacker bin level 2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level2. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Is the sensor (stacker bin level 2) connected properly. Is the above component properly connected?	Replace the sensor (stacker bin level 2). Go to “Sensor (stacker bin level 2) removal” on page 4-34.	Replace the connection.
6	Check the stacker bin lift motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Stacker lift mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Is the stacker bin lift motor assembly connected properly?	Replace the stacker bin lift motor assembly. Go to “Stacker bin lift motor assembly removal” on page 4-38.	Replace the connection.
8	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

981.01 Stacker bin upper limit error

Step	Check	Yes	No
1	Check the sensor (stacker bin level 1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level1. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.

Step	Check	Yes	No
2	Check the sensor (stacker bin level 1) for proper connection. Is the above component properly connected?	Replace the sensor (stacker bin level 1). Go to “Sensor (stacker bin level 1) removal” on page 4-34.	Replace the connection.
3	Check the sensor (stacker bin level 2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level2. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.
4	Check the sensor (stacker bin level 2) for proper connection. Is the above component properly connected?	Replace the sensor (stacker bin level 2). Go to “Sensor (stacker bin level 2) removal” on page 4-34.	Replace the connection.
5	Check the media stacker bin actuator for proper operation. Is the media stacker bin actuator installed properly? Does it enter the sensing area of the sensor (stacker bin upper limit)?	Go to step 6.	Repair the media stacker bin actuator.
6	Check the sensor (stacker bin upper limit) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin upper limit. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 8.	Go to step 7.
7	Check the sensor (stacker bin upper limit) for proper connection. Is the above component properly connected?	Replace the sensor (stacker bin upper limit). Go to “Sensor (stacker bin upper limit) or sensor (stacker bin no media) removal” on page 4-36.	Replace the connection.

Step	Check	Yes	No
8	Check the stacker bin lift motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Stacker lift mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 10.	Go to step 9.
9	Check the stacker bin lift motor assembly for proper connection. Is the above component properly connected?	Replace the stacker bin lift motor assembly. Go to “Stacker bin lift motor assembly removal” on page 4-38.	Replace the connection.
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

981.02 Stacker bin lower limit error

Step	Check	Yes	No
1	Check the media stacker bin actuator for proper operation. Is the media stacker bin actuator installed properly? Does it enter the sensing area of the sensor (stacker bin upper limit)?	Go to step 2.	Repair the media stacker bin actuator.
2	Check the sensor (stacker bin no media) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin no media. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (stacker bin no media) properly connected? Is the above component properly connected?	Replace the sensor (stacker bin no media).	Replace the connection.

Step	Check	Yes	No
4	Check the sensor (stacker bin level 1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level1. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Check the sensor (stacker bin level 1) for proper connection. Is the above component properly connected?	Replace the sensor (stacker bin level 1). Go to “Sensor (stacker bin level 1) removal” on page 4-34.	Replace the connection.
6	Check the sensor (stacker bin level2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level2. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 8.	Go to step 7.
7	Check the sensor (stacker bin level 2) for proper connection. Is the above component properly connected?	Replace the sensor (stacker bin level 2). Go to “Sensor (stacker bin level 2) removal” on page 4-34.	Replace the connection.
8	Check the sensor (stacker bin level encoder) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level encod. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 10.	Go to step 9.
9	Is the sensor (stacker bin level encoder) properly connected? Is the above component properly connected?	Replace the sensor (stacker bin level encoder). Go to “Sensor (stacker bin level encoder) removal” on page 4-35.	Replace the connection.

Step	Check	Yes	No
10	Check the stacker bin lift motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Stacker lift mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 12.	Go to step 11.
11	Check the stacker bin lift motor assembly for proper connection. Is the above component properly connected?	Replace the stacker bin lift motor assembly. Go to “Stacker bin lift motor assembly removal” on page 4-38.	Replace the connection.
12	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

982.00 Sensor (front tamper HP) late error

Step	Check	Yes	No
1	Check the tamper mechanism by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.
2	Check the sensor (front tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Front tamper HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.

Step	Check	Yes	No
3	Is the sensor (front tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (front tamper HP). Go to “Sensor (front tamper HP) and sensor (rear tamper HP) removals” on page 4-71.	Replace the connection.
4	Check the front tamper drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Front tamper mtr 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the compiler unit cable assembly for proper connection. Is the above component properly connected?	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

982.01 Sensor (front tamper HP) lag error

Step	Check	Yes	No
1	Check the tamper mechanism by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.

Step	Check	Yes	No
2	Check the sensor (front tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Front tamper HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (front tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (front tamper HP). Go to “Sensor (front tamper HP) and sensor (rear tamper HP) removals” on page 4-71.	Replace the connection.
4	Check the front tamper drive motor for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Front tamper mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the compiler unit cable assembly for proper connection. Is the above component properly connected?	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

983.00 Sensor (rear tamper HP) late error

Step	Check	Yes	No
1	Check the tamper mechanism by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.
2	Check the sensor (rear tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Rear tamper HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (rear tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (rear tamper HP). Go to “Sensor (front tamper HP) and sensor (rear tamper HP) removals” on page 4-71.	Replace the connection.
4	Check the rear tamper drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Rear tamper mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the compiler unit cable assembly for proper connection. Is the above component properly connected?	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.	Replace the connection.

Step	Check	Yes	No
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

983.01 Sensor (rear tamper HP) lag error

Step	Check	Yes	No
1	Check the tamper mechanism by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.
2	Check the sensor (rear tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Media Path 2 . 5. Touch Rear tamper HP . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (rear tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (rear tamper HP). Go to “Sensor (front tamper HP) and sensor (rear tamper HP) removals” on page 4-71.	Replace the connection.
4	Check the rear tamper drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Motor Tests . 4. Touch Rear tamper mtr. 5. Touch Forward or Reverse . Does the above component operate properly?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Check the compiler unit cable assembly for proper connection. Is the above component properly connected?	Replace the media compiler unit assembly. Go to “Media compiler unit assembly removal” on page 4-69.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

984.00 Sensor (punch unit HP) late error

Step	Check	Yes	No
1	Check the punch rack gear by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Remove obstacles.
2	Check the sensor (punch unit HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch unit HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (punch unit HP) properly connected? Is the above component properly connected?	Replace the sensor (punch unit HP). Go to “Sensor (punch hole select), sensor (punch cam front), and sensor (punch unit HP) removal” on page 4-49.	Replace the connection.
4	Check the punch unit motor for proper operation. 1. Enter the Diagnostic Menu. 2. Touch FINISHER TESTS. 3. Touch Punch unit mtr. 4. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Is the punch unit motor properly connected? Is the above component properly connected?	Replace the punch unit motor assembly. Go to “Punch unit motor assembly removal” on page 4-47.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

984.01 Sensor (punch unit HP) lag error

Step	Check	Yes	No
1	Check the punch rack gear by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Remove obstructions.
2	Check the sensor (punch unit HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch unit HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (punch unit HP) properly connected? Is the above component properly connected?	Replace the sensor (punch unit HP). Go to “Sensor (punch hole select), sensor (punch cam front), and sensor (punch unit HP) removal” on page 4-49.	Replace the connection.
4	Check the punch unit motor for proper operation. 1. Enter the Diagnostic Menu. 2. Touch FINISHER TESTS. 3. Touch Punch unit mtr. 4. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Is the punch unit motor properly connected? Is the above component properly connected?	Replace the punch unit motor assembly. Go to “Punch unit motor assembly removal” on page 4-47.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

985.00 Sensor (punch carriage shift HP) late error

Step	Check	Yes	No
1	Check the punch carriage by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Remove obstacles.
2	Check the sensor (punch carriage shift HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch carriage shift HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Check the sensor (punch carriage shift HP) for proper connection. Is the above component properly connected?	Replace the sensor (punch carriage shift HP). Go to “Sensor (punch carriage shift HP) removal” on page 4-51.	Replace the connection.

Step	Check	Yes	No
4	Check the punch carriage shift motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Punch carriage shift mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 9.
5	Check the punch carriage shift motor for proper connection. Is the above component properly connected?	Replace the punch carriage shift motor assembly. Go to “Punch carriage shift motor assembly removal” on page 4-43.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

985.01 Sensor (punch carriage shift HP) lag error

Step	Check	Yes	No
1	Check the punch carriage by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Remove obstructions.
2	Check the sensor (punch carriage shift HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch carriage shift HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.

Step	Check	Yes	No
3	Check the sensor (punch carriage shift HP) for proper connection. Is the above component properly connected?	Replace the sensor (punch carriage shift HP). Go to “Sensor (punch carriage shift HP) removal” on page 4-51.	Replace the connection.
4	Check the punch carriage shift motor assembly for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Punch carriage shift mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Check the punch carriage shift motor for proper connection. Is the above component properly connected?	Replace the punch carriage shift motor assembly. Go to “Punch carriage shift motor assembly removal” on page 4-43.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

986.00 Sensor (media eject clamp HP) late error

Step	Check	Yes	No
1	Check the sensor (media eject clamp HP) for proper operation. 1. Enter the Diagnostic Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Media eject clamp HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (media eject clamp HP) for proper connection. Is the above component properly connected?	Replace the sensor (media eject clamp HP). Go to “Sensor (media eject clamp HP) removal” on page 4-67.	Replace the connection.
3	Check the media eject clamp motor for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Media eject clamp motor. Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Is the media eject clamp motor properly connected? Is the above component properly connected?	Replace the media eject clamp motor. Go to “Media eject clamp motor assembly removal” on page 4-66.	Replace the connection.
5	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

986.01 Sensor (media eject clamp HP) lag error

Step	Check	Yes	No
1	Check the sensor (media eject clamp HP) for proper operation. 1. Enter the Diagnostic Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Media eject clamp HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Is the sensor (media eject clamp HP) properly connected? Is the above component properly connected?	Replace the sensor (media eject clamp HP). Go to “Sensor (media eject clamp HP) removal” on page 4-67.	Replace the connection.
3	Check the media eject clamp motor for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Media eject clamp motor. Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Is the media eject clamp motor properly connected? Is the above component properly connected?	Replace the media eject clamp motor. Go to “Media eject clamp motor assembly removal” on page 4-66.	Replace the connection.
5	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

987.00 Sensor (media eject shaft HP) late error

Step	Check	Yes	No
1	Check the sensor (media eject shaft HP) for proper operation. 1. Enter the Diagnostic Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Media eject shaft HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the sensor (media eject shaft HP) for proper connection. Is the above component properly connected?	Replace the sensor (media eject shaft HP). Go to “Sensor (media eject shaft HP) removal” on page 4-79.	Replace the connection.
3	Check the media eject motor assembly for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Media eject mtr. Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Is the media eject motor assembly for properly connected? Is the above component properly connected?	Replace the media eject motor assembly. Go to “Media eject motor assembly removal” on page 4-78.	Replace the connection.

Step	Check	Yes	No
5	Check the media eject clutch assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Media eject clutch. Does the above component make an audible clicking noise?	Go to step 7.	Go to step 6.
6	Check the media eject clutch assembly for proper connection. Is the above component properly connected?	Replace the media eject clutch assembly. Go to “Media eject clutch assembly removal” on page 4-77.	Replace the connection.
7	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

987.01 Sensor (media eject shaft HP) lag error

Step	Check	Yes	No
1	Check the sensor (media eject shaft HP) for proper operation. 1. Enter the Diagnostic Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Media Path 2. 5. Touch Media eject shaft HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.

Step	Check	Yes	No
2	Check the sensor (media eject shaft HP) for proper connection. Is the above component properly connected?	Replace the sensor (media eject shaft HP). Go to “Sensor (media eject shaft HP) removal” on page 4-79.	Replace the connection.
3	Check the media eject motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Media eject mtr. Does the above component operate properly?	Go to step 5.	Go to step 4.
4	Is the media eject motor assembly for properly connected? Is the above component properly connected?	Replace the media eject motor assembly. Go to “Media eject motor assembly removal” on page 4-78.	Replace the connection.
5	Check the media eject clutch assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Media eject clutch. Does the above component make an audible clicking noise?	Go to step 7.	Go to step 6.
6	Is the media eject clutch assembly connected properly? Is the above component properly connected?	Replace the media eject clutch assembly. Go to “Media eject clutch assembly removal” on page 4-77.	Replace the connection.

Step	Check	Yes	No
7	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

988.01 Sensor (punch unit side reg1) or (sensor (punch unit side reg2) lag failure

Note: This procedure pertains to sensor punch unit reg1 and reg2.

Step	Check	Yes	No
1	Check the sensor (punch unit side reg1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch side reg1. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 3.	Go to step 2.
2	Check the appropriate sensor (punch unit side reg pair) connection. Is the above component properly connected?	Replace the appropriate sensor (punch unit side reg pair). Go to “Sensor (punch unit side registration pair) with bracket removal” on page 4-44.	Replace the connection.
3	Check the sensor (punch unit side reg2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch side reg2. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 5.	Go to step 4.

Step	Check	Yes	No
4	Check the appropriate sensor (punch unit side reg pair) connection. Is the above component properly connected?	Replace the appropriate sensor (punch unit side reg pair). Go to “Sensor (punch unit side registration pair) with bracket removal” on page 4-44.	Replace the connection.
5	Check the punch carriage shift motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Punch carriage shift mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 7.	Go to step 6.
6	Check the punch carriage shift motor for proper connection. Is the above component properly connected?	Replace the punch carriage shift motor assembly. Go to “Punch carriage shift motor assembly removal” on page 4-43.	Replace the connection.
7	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

989.00 Stapler unit failure

Step	Check	Yes	No
1	Check the stapler unit assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. Warning: Ensure there are no loose staples in the stapler unit after performing this test. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Stapler unit mtr. Does the above component operate properly?	Check for staples and staple jams. Problem resolved.	Go to step 2.
2	Is the stapler unit assembly properly connected? Is the above component properly connected?	Replace the stapler unit assembly. Go to “Stapler unit assembly removal” on page 4-56.	Replace the connection.
3	Perform a print test stapled document. Does the error remain?	Replace the printer engine card assembly. Refer to the <i>Printer Service Manual</i>.	Problem solved.

990.00 Sensor (stapler carriage HP) late error

Step	Check	Yes	No
1	Check the stapler by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Remove obstructions.
2	Check the sensor (stapler carriage HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Stapler carriage shift HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.

Step	Check	Yes	No
3	Is the sensor (stapler carriage HP) properly connected? Is the above component properly connected?	Replace the sensor (stapler carriage HP). Go to “Sensor (stapler carriage HP) removal” on page 4-58.	Replace the connection.
4	Check the stapler carriage motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Stapler carriage mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Is the stapler carriage motor assembly properly connected? Is the above component properly connected?	Replace the stapler carriage motor assembly.	Replace the connection
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

990.01 Sensor (stapler carriage HP) lag error

Step	Check	Yes	No
1	Check the stapler by moving it manually. Does the above component slide back and forth properly?	Go to step 2.	Remove obstructions.

Step	Check	Yes	No
2	Check the sensor (stapler carriage HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Stapler carriage shift HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (stapler carriage HP) properly connected? Is the above component properly connected?	Replace the sensor (stapler carriage HP). Go to “Sensor (stapler carriage HP) removal” on page 4-58.	Replace the connection.
4	Check the stapler carriage motor assembly for proper operation. Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Stapler carriage mtr. 5. Touch Forward or Reverse. Does the above component operate properly?	Go to step 6.	Go to step 5.
5	Is the stapler carriage motor assembly properly connected? Is the above component properly connected?	Replace the stapler carriage motor assembly.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.00 Sensor (booklet front temper HP) late error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the booklet front tamper by moving it manually. Does the above component slide back and forth properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet front tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test 4. Touch Booklet Path 5. Touch Booklet front tamper HP . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet front tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet front tamper HP). Go to "Sensor (booklet front tamper HP) removal" on page 4-132.	Replace the connection.
7	Check the booklet front tamper motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Tests . 4. Touch Booklet front tamper motor . Does the above component operate properly?	Go to step 6.	Go to step 5.
8	Is the booklet front tamper motor properly connected? Is the above component properly connected?	Replace the booklet front tamper motor. Go to "Booklet front tamper motor removal" on page 4-134.	Replace the connection.

Step	Check	Yes	No
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ??" on page 4-121.	Problem solved.
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to "Finisher controller card assembly removal" on page 4-116.	Problem solved.

991.01 Sensor (booklet front tamper HP) lag error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the booklet front tamper by moving it manually. Does the above component slide back and forth properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet front tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test 4. Touch Booklet Path 5. Touch Booklet front tamper HP . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet front tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet front tamper HP). Go to "Sensor (booklet front tamper HP) removal" on page 4-132.	Replace the connection.

Step	Check	Yes	No
7	Check the booklet front tamper motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Booklet front tamper motor. Does the above component operate properly?	Go to step 6.	Go to step 5.
8	Is the booklet front tamper motor properly connected? Is the above component properly connected?	Replace the booklet front tamper motor. Go to "Booklet front tamper motor removal" on page 4-134.	Replace the connection.
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ???" on page 4-121.	Problem solved.
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to "Finisher controller card assembly removal" on page 4-116.	Problem solved.

991.02 Sensor (booklet rear tamper HP) late error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.

Step	Check	Yes	No
4	Check the booklet rear tamper by moving it manually. Does the above component slide back and forth properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet rear tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test 4. Touch Booklet Path 5. Touch Booklet rear tamper HP . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet rear tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet rear tamper HP). Go to "Sensor (booklet rear tamper HP) removal" on page 4-133.	Replace the connection.
7	Check the booklet rear tamper motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Tests . 4. Touch Booklet rear tamper motor . Does the above component operate properly?	Go to step 6.	Go to step 5.
8	Is the booklet rear tamper motor properly connected? Is the above component properly connected?	Replace the booklet rear tamper motor. Go to "Booklet rear tamper motor removal" on page 4-135.	Replace the connection.
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ???" on page 4-121.	Problem solved.

Step	Check	Yes	No
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.03 Sensor (booklet rear tamper HP) lag error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the booklet rear tamper by moving it manually. Does the above component slide back and forth properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet rear tamper HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test 4. Touch Booklet Path 5. Touch Booklet rear tamper HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet rear tamper HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet rear tamper HP). Go to “Sensor (booklet rear tamper HP) removal” on page 4-133.	Replace the connection.

Step	Check	Yes	No
7	Check the booklet rear tamper motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Booklet rear tamper motor. Does the above component operate properly?	Go to step 6.	Go to step 5.
8	Is the booklet rear tamper motor properly connected? Is the above component properly connected?	Replace the booklet rear tamper motor. Go to “Booklet rear tamper motor removal” on page 4-135.	Replace the connection.
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.04 Sensor (booklet end guide HP) late error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.

Step	Check	Yes	No
4	Check the booklet end guide by moving it manually. Does the above component slide up and down properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet end guide HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test 4. Touch Booklet Path 5. Touch Booklet end guide HP Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet end guide HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet end guide HP). Go to "Sensor (booklet end guide HP) removal" on page 4-140.	Replace the connection.
7	Check the booklet end guide drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS . 3. Touch Finisher Tests . 4. Touch Booklet end guide drive motor . Does the above component operate properly?	Go to step 9.	Go to step 8.
8	Is the booklet end guide drive motor properly connected? Is the above component properly connected?	Replace the booklet end guide drive motor. Go to "Booklet end guide drive motor removal" on page 4-142.	Replace the connection.
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ???" on page 4-121.	Problem solved.

Step	Check	Yes	No
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.05 Sensor (booklet end guide HP) lag error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the booklet end guide by moving it manually. Does the above component slide up and down properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet end guide HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test 4. Touch Booklet Path 5. Touch Booklet end guide HP Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet end guide HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet end guide HP). Go to “Sensor (booklet end guide HP) removal” on page 4-140.	Replace the connection.

Step	Check	Yes	No
7	Check the booklet end guide drive motor for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Tests. 4. Touch Booklet end guide drive motor. Does the above component operate properly?	Go to step 9.	Go to step 8.
8	Is the booklet end guide drive motor properly connected? Is the above component properly connected?	Replace the booklet end guide drive motor. Go to “Booklet end guide drive motor removal” on page 4-142.	Replace the connection.
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.06 Sensor (booklet unit interlock) error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.

Step	Check	Yes	No
4	Check the booklet unit assembly by opening it and closing it. Does the above component slide open and close properly?	Go to step 5.	Remove obstructions.
5	Check the sensor (booklet unit interlock) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Booklet Path . 5. Touch Booklet unit interlock . Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 7.	Go to step 6.
6	Is the sensor (booklet unit interlock) properly connected? Is the above component properly connected?	Replace the sensor (booklet unit interlock). Go to "Sensor (booklet unit interlock) removal" on page 4-120.	Replace the connection.
7	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ?? " on page 4-121.	Problem solved.
8	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to "Finisher controller card assembly removal" on page 4-116.	Problem solved.

991.07 Sensor (booklet compiler no media) no media detected

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.

Step	Check	Yes	No
4	Check the sensor (booklet compiler media in) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet Path 5. Touch Booklet compiler media in. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Is the sensor (booklet compiler media in) properly connected? Is the above component properly connected?	Replace the sensor (booklet compiler media in). Go to “Sensor (booklet media compiler in) removal” on page 4-139.	Replace the connection.
6	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.
7	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.08 Sensor (booklet knife HP) late error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.

Step	Check	Yes	No
4	Check the sensor (booklet knife HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet Path. 5. Touch Booklet knife HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Is the sensor (booklet knife HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet knife HP). Go to “Sensor (booklet knife HP) removal” on page 4-136.	Replace the connection.
6	Check the booklet knife solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet knife solenoid. Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Is the booklet knife solenoid properly connected? Is the above component properly connected?	Replace the booklet knife solenoid. Go to “Booklet knife solenoid removal” on page 4-125.	Replace the connection.
8	Check the booklet folding/exit drive motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet folding/exit drive motor Does the above component operate properly?	Go to step 10.	Go to step 9.

Step	Check	Yes	No
9	Is the booklet folding/exit drive motor assembly properly connected? Is the above component properly connected?	Replace the booklet folding/exit drive motor assembly. Go to “Booklet folding/exit drive motor assembly removal” on page 4-122.	Replace the connection.
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.
11	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.09 Sensor (booklet knife HP) lag error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the sensor (booklet knife HP) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet Path. 5. Touch Booklet knife HP. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Is the sensor (booklet knife HP) properly connected? Is the above component properly connected?	Replace the sensor (booklet knife HP). Go to "Sensor (booklet knife HP) removal" on page 4-136.	Replace the connection.
6	Check the booklet knife solenoid for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet knife solenoid. Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Is the booklet knife solenoid properly connected? Is the above component properly connected?	Replace the booklet knife solenoid. Go to "Booklet knife solenoid removal" on page 4-125.	Replace the connection.
8	Check the booklet folding/exit drive motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet folding/exit drive motor Does the above component operate properly?	Go to step 10.	Go to step 9.
9	Is the booklet folding/exit drive motor assembly properly connected? Is the above component properly connected?	Replace the booklet folding/exit drive motor assembly. Go to "Booklet folding/exit drive motor assembly removal" on page 4-122.	Replace the connection.

Step	Check	Yes	No
10	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.
11	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.10 Sensor (booklet knife folding) late error

Step	Check	Yes	No
1	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 2.	Replace the booklet unit interface connector assembly.
2	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit sensor interface cable assembly.
3	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit motor interface cable assembly.
4	Check the sensor (booklet knife folding) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Booklet Path. 5. Touch Booklet knife folding. Does the display on the operator panel change every time the sensing area of the above sensor is interrupted or blocked?	Go to step 6.	Go to step 5.
5	Is the sensor (booklet knife folding) properly connected? Is the above component properly connected?	Replace the sensor (booklet knife folding). Go to “Sensor (booklet knife folding) removal” on page 4-137.	Replace the connection.

Step	Check	Yes	No
6	Check the booklet folding/exit drive motor assembly for proper operation.  Caution: When performing motor tests, ensure that all cover and door interlock switches are overridden. 1. Enter the Diagnostics Menu. 2. Touch MOTOR TESTS. 3. Touch Finisher Motor Tests. 4. Touch Booklet folding/exit drive motor Does the above component operate properly?	Go to step 8.	Go to step 7.
7	Is the booklet folding/exit drive motor assembly properly connected? Is the above component properly connected?	Replace the booklet folding/exit drive motor assembly. Go to “Booklet folding/exit drive motor assembly removal” on page 4-122.	Replace the connection.
8	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.
9	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.11 Booklet stapler error

Step	Check	Yes	No
1	Check the booklet unit stapler assembly. Is the above component properly inserted into the booklet maker unit assembly?	Go to step 2.	Ensure that the booklet unit stapler assembly is properly inserted.
2	Check the booklet unit interface connector assembly. Is the above component free of damage?	Go to step 3.	Replace the booklet unit interface connector assembly.

Step	Check	Yes	No
3	Check the main connector on the booklet unit sensor interface cable assembly. Is the above component free of damage?	Go to step 4.	Replace the booklet unit sensor interface cable assembly.
4	Check the main connector on the booklet unit motor interface cable assembly. Is the above component free of damage?	Go to step 5.	Replace the booklet unit motor interface cable assembly.
5	Check the booklet stapler interface cable assembly. Is the above component free of damage?	Go to step 6.	Replace the booklet stapler interface cable assembly.
6	Check the connector on the back of the booklet stapler unit assembly. Is the above component free of damage.	Replace the booklet stapler unit assembly. Go to "Booklet stapler unit assembly removal" on page 4-123.	Go to step 7.
7	Perform a print test booklet stapled document. Does the error remain?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ??" on page 4-121.	Problem solved.
8	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to "Finisher controller card assembly removal" on page 4-116.	Problem solved.

991.12 Communication error with booklet controller card assembly

Step	Check	Yes	No
1	Check the booklet controller card assembly and the finisher controller card assembly for proper connection. Is the above component properly connected?	Go to step 2.	Replace the connection.
2	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to "Booklet controller card assembly removal ??" on page 4-121. Go to step 3.	Problem solved.

Step	Check	Yes	No
3	Perform a POR. Does the error continue when the power is turned off/on?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

991.13 Booklet unit maker error

Step	Check	Yes	No
1	Perform a POR. Does the error continue when the power is turned off/on?	Replace the booklet controller card assembly. Go to “Booklet controller card assembly removal ??” on page 4-121.	Problem solved.

Bridge unit top cover open

Step	Check	Yes	No
1	Check the bridge unit cable assembly for proper connection. Is the bridge unit cable assembly properly connected to the rear of the finisher?	Go to step 2.	Replace the connection.
2	Open and close the bridge unit top cover assembly on the bridge unit assembly. Does it open or close smoothly?	Go to step 3.	Check that the bridge unit top cover assembly is installed properly, and correct any deformations. If this does not correct the problem, replace the bridge unit top cover assembly. Go to “Bridge unit top cover assembly removal” on page 4-7.

Step	Check	Yes	No
3	Check the bridge unit top cover assembly on the bridge unit assembly for shape and operation. Is the actuator of the bridge unit top cover assembly that enters the sensor (bridge unit top cover interlock) bent or damaged?	Reshape the actuator so it fits into the cover sensor. If this does not correct the problem, replace the bridge unit top cover assembly. Go to “Bridge unit top cover assembly removal” on page 4-7.	Go to step 3.
4	Check the bridge unit assembly top cover actuator. Paint both faces of the actuator with a black permanent marker. Does the error continue?	Go to step 5	Problem solved.
5	Check the sensor (bridge unit top cover interlock) installation. Is the sensor (bridge unit top cover interlock) installed properly?	Go to step 6.	Reinstall the sensor (bridge unit top cover interlock). Go to “Sensor (bridge unit top cover interlock) removal” on page 4-15.
6	Check the sensor (bridge unit top cover interlock) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Cover and Door. 5. Touch Cover F bridge unit top. Does the operator panel display change every time the detection point of the sensor (bridge unit top cover interlock) is blocked?	Go to step 8.	Go to step 7.
7	Is the sensor (bridge unit top cover interlock) connected properly?	Replace the sensor (bridge unit top cover interlock). Go to “Sensor (bridge unit top cover interlock) removal” on page 4-15.	Replace the connection.
8	Does the error still occur when the power is turned on?	Go to step 9.	Problem solved.
9	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116. Does the error still occur when the power is turned on?	Replace the printer engine card assembly. Refer to the <i>Printer Service Manual</i>.	Problem solved.

Finisher front door open

Step	Check	Yes	No
1	Open and close the finisher front door assembly. Does it open or close smoothly?	Go to step 2.	Check the finisher front door assembly for installation, correct deformations, or replace it. Go to “Finisher front door assembly removal” on page 4-27.
2	Check the switch (finisher front door interlock) installation Is the switch (finisher front door interlock) installed properly?	Go to step 3.	Reinstall the switch (finisher front door interlock). Go to “Switch (finisher front door interlock) removal” on page 4-26.
3	Check the switch (finisher front door interlock) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Cover and Door. 5. Touch Door G fin front. Does the operator panel display change every time the detection point of the switch (finisher front door interlock) is pressed by the tip of the screwdriver?	Go to step 5.	Go to step 4.
4	Is the switch (finisher front door interlock) connected properly?	Replace the switch (finisher front door interlock). Go to “Switch (finisher front door interlock) removal” on page 4-26.	Replace the connection.
5	Does the error still occur when the power is turned off and back on?	Go to step 6.	Problem solved.
6	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116. Does the error still occur when the power is turned off and back on?	Replace the printer engine card assembly. Refer to the <i>Printer Service Manual</i> .	Problem solved.

Finisher eject cover open

Step	Check	Yes	No
1	Check the switch (eject cover interlock) installation. Is the switch (eject cover interlock) installed properly?	Go to step 2.	Reinstall the switch (media eject cover).
2	Check the operation of the switch (eject cover interlock). 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Cover and Door . 5. Touch Surface H fin eject . Does the operator panel display change every time the actuator of the switch is activated?	Go to step 4.	Go to step 3.
3	Is the switch (media cover interlock) connected properly?	Replace the switch (eject cover interlock). Go to “Switch (eject cover interlock) removal” on page 4-68 .	Replace the connection.
4	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116 .	Problem solved.

Finisher upper media bin full

Step	Check	Yes	No
1	Check the sensor (upper media bin full) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Sensor Test . 4. Touch Bin Level . 5. Touch Fin upper bin full . Does the display of the operator panel change every time a piece of white media is placed over the sensing area of the sensor (upper media bin full)?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116 .	Go to step 2.

Step	Check	Yes	No
2	Is the sensor (upper media bin full) connected properly?	Replace the sensor (upper media bin full). Go to “Sensor (upper media bin full) removal” on page 4-106.	Replace the connection.
3	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

No punch waste box.

Step	Check	Yes	No
1	Check the sensor (punch waste box present) for proper operation. Is the sensor installed properly?	Go to step 2.	Reinstall the sensor (punch waste box set). Go to “Sensor (punch waste box set) removal” on page 4-52.
2	Check the sensor (punch waste box set). Perform sensor (punch waste box set) test. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch box set. Open the finisher front door. Remove the punch waste box. Does the operator panel display change every time the sensing area of the sensor (punch waste box set) is blocked?	Go to step 4.	Go to step 3.
3	Is the sensor (punch waste box set) properly connected?	Replace the sensor (punch waste box set). Go to “Sensor (punch waste box set) removal” on page 4-52.	Replace the connection.

Step	Check	Yes	No
4	Perform a print test. Does the error still occur?	Replace the bridge unit interface card assembly. Go to “Bridge unit interface card assembly removal” on page 4-115. Go to step 5.	Problem solved.
5	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

Punch waste box full

Step	Check	Yes	No
1	Check the sensor (punch waste box full) for correct installation. Is the sensor installed properly?	Go to step 2.	Reinstall the sensor (punch waste box full). Go to “Sensor (punch waste box full) removal” on page 4-53.
2	Check the sensor (punch waste box full). 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Punch and Staple. 5. Touch Punch waste box full. Open the finisher front door. Remove the punch waste box. Insert a sheet of white media into the sensing area of the sensor (punch waste box full). Does the operator panel display change every time the sensing area of the sensor (punch waste box full) is blocked?	Go to step 4.	Go to step 3.
3	Perform a print test. Does the error still occur?	Replace the sensor (punch waste box full). Go to “Sensor (punch waste box full) removal” on page 4-53.	Replace the connection.

Step	Check	Yes	No
4	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

Stacker media bin full (mix size)

Step	Check	Yes	No
1	Check the stacker bin for obstructions. Are there any obstructions on the upper and lower parts of the stacker bin?	Remove the obstructions.	Go to step 2.
2	Check the sensor (stacker bin level 1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level1. Does the operator panel display change every time the sensing area of the sensor (stacker bin level 1) is blocked by a multiple page document or your finger?	Go to step 4.	Go to step 3.
3	Is the sensor (stacker bin level 1) connected properly?	Replace the sensor (stacker bin level 1). Go to “Sensor (stacker bin level 1) removal” on page 4-34.	Replace the connection.
4	Check the sensor (stacker bin level2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level2. Does the operator panel display change every time the sensing area of the sensor (stacker bin level 2) is blocked by a piece of media or your finger?	Go to step 6.	Go to step 5.

Step	Check	Yes	No
5	Is the sensor (stacker bin level 2) connected properly?	Replace the sensor (stacker bin level 2). Go to “Sensor (stacker bin level 2) removal” on page 4-34.	Replace the connection.
6	Check the encoder of the sensor (stacker bin level encoder) installation. Is the encoder installed properly? Does it enter the detection point of the sensor (stacker bin level encoder)?	Go to step 7.	Replace the encoder.
7	Check the sensor (stacker bin level encoder) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level encod. Does the operator panel display change when the belt of the stacker bin lift motor assembly is moved by hand?	Go to step 9.	Go to step 8.
8	Is the sensor (stacker bin level encoder) connected properly?	Replace the sensor (stacker bin level encoder). Go to “Sensor (stacker bin level encoder) removal” on page 4-35.	Replace the connection.
9	Check the stacker bin lift motor assembly by blocking the lower hole in either of the sensors (stacker bin level). The stacker bin should lower slightly. Does the stacker bin lift motor assembly operate properly?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Go to step 10.
10	Is the stacker bin lift motor assembly connected properly?	Replace the stacker bin lift motor assembly. Go to “Stacker bin lift motor assembly removal” on page 4-38.	Replace the connection.

Step	Check	Yes	No
11	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

Stacker media bin full (no mix)

Step	Check	Yes	No
1	Check the stacker bin for obstructions. Are there any obstructions on the upper and lower parts of the stacker bin?	Remove the obstructions.	Go to step 2.
2	Check the sensor (stacker bin level 1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level1. Does the operator panel display change every time the sensing area of the sensor (stacker bin level 1) is blocked by a multiple page document or your finger?	Go to step 4.	Go to step 3.
3	Is the sensor (stacker bin level 1) installed properly?	Replace the sensor (stacker bin level 1). Go to “Sensor (stacker bin level 1) removal” on page 4-34.	Replace the connection.
4	Check the sensor (stacker bin level2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level2. Does the operator panel display change every time the sensing area of the sensor (stacker bin level 2) is blocked by a piece of media or your finger?	Go to step 5.	Go to step 6.

Step	Check	Yes	No
5	Is the sensor (stacker bin level 2) connected properly?	Replace the sensor (stacker bin level 2). Go to “Sensor (stacker bin level 2) removal” on page 4-34.	Replace the connection.
6	Check the encoder of the sensor (stacker bin level encoder) installation. Is the encoder installed properly? Does it enter the detection point of the sensor (stacker bin level encoder)?	Go to step 7.	Replace the encoder.
7	Check the sensor (stacker bin level encoder) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level encod. Does the operator panel display change when the belt of the stacker bin lift motor assembly is moved by hand?	Go to step 9.	Go to step 8.
8	Is the sensor (stacker bin level encoder) connected properly?	Replace the sensor (stacker bin level encoder). Go to “Sensor (stacker bin level encoder) removal” on page 4-35.	Replace the connection.
9	Check the stacker bin lift motor assembly for proper operation. Check the above motor by blocking the lower hole in either of the sensors (stacker bin level). The stacker bin should lower slightly. Does the stacker bin lift motor assembly operate properly?	Go to step 11.	Go to step 10.
10	Is the stacker bin lift motor assembly connected properly?	Replace the stacker bin lift motor assembly. Go to “Stacker bin lift motor assembly removal” on page 4-38.	Replace the connection.

Step	Check	Yes	No
11	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

Stacker lower safety failure

Step	Check	Yes	No
1	Check the vertical transport mechanism of the stacker bin for obstructions and deformation. Are there any obstructions in the vertical transport mechanism of the stacker bin?	Remove obstructions.	Go to step 2.
2	Is there any deformation in the vertical transport mechanism of the stacker bin?	Replace deformed part.	Go to step 3.
3	Check the sensor (stacker bin level 1) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level1. Does the operator panel display change every time the sensing area of the sensor (stacker bin level 1) is blocked by a multiple page document or your finger?	Go to step 5.	Go to step 4.
4	Is the sensor (stacker bin level 1) connected properly?	Replace the sensor (stacker bin level 1). Go to “Sensor (stacker bin level 1) removal” on page 4-34.	Replace the connection.
5	Check the sensor (stacker bin level2) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS. 3. Touch Sensor Test. 4. Touch Bin Level. 5. Touch Stacker bin level2. Does the operator panel display change every time the sensing area of the sensor (stacker bin level 2) is blocked by a piece of media or your finger?	Go to step 7.	Go to step 6.

Step	Check	Yes	No
6	Check the sensor (stacker bin level 2) connection. Are the connections of the main sensor cable assembly properly connected?	Replace the sensor (stacker bin level 2). Go to “Sensor (stacker bin level 2) removal” on page 4-34.	Replace the connection.
7	Check the stacker bin lift motor assembly by blocking the lower hole in either of the sensors (stacker bin level). The stacker bin should lower slightly. Does the stacker bin lift motor assembly operate properly?	Go to step 9.	Go to step 8.
8	Is the stacker bin lift motor assembly connected properly?	Replace the stacker bin lift motor assembly. Go to “Stacker bin lift motor assembly removal” on page 4-38.	Replace the connection.
9	Perform a print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.

Stacker set over count failure

Step	Check	Yes	No
1	Check connectors of the finisher controller card assembly connection. Are all the connectors connected to the finisher controller card assembly properly connected?	Go to step 3.	Replace the connection.
2	Does the error still occur when the power is turned on?	Go to step 3.	Problem solved.
3	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116. Does the error still occur when the power is turned on?	Replace the printer engine card assembly. Refer to the <i>Printer Service Manual</i> .	Problem solved.

Staple cartridge empty

Step	Check	Yes	No
1	Check the staple cartridge for new and unused staples. Does the staple cartridge have a sufficient amount of new and unused staples?	Go to step 2.	Refill the cartridge with new and unused staples.
2	Check the staple cartridge for correct installation. Is the staple cartridge installed properly?	Go to step 3.	Install the staple cartridge properly.
3	Check the staple cartridge for damage. Is the staple cartridge damaged?	Go to step 4.	Replace the staple cartridge.
4	Check the sensor (low staple) for proper operation. 1. Enter the Diagnostics Menu. 2. Touch FINISHER TESTS . 3. Touch Punch and Staple . 4. Touch Low Staple . Does the operator panel display change every time an undamaged and filled staple cartridge is removed and reinserted into the stapler unit assembly?	Go to step 6.	Go to step 5.
5	Check the stapler unit cable assembly connection. Are all the connections of the stapler unit cable assembly connected properly?	Replace the stapler unit assembly. Go to “Stapler unit assembly removal” on page 4-56.	Replace the connection.
6	Perform a stapled print test. Does the error still occur?	Replace the finisher controller card assembly. Go to “Finisher controller card assembly removal” on page 4-116.	Problem solved.
7	Perform a stapled print test.	Replace the printer engine card assembly. Refer to the <i>Printer Service Manual</i> .	Problem solved.

3. Diagnostic aids

This chapter explains the tests and procedures to identify printer failures and to verify that repairs have corrected the problem.

Accessing service menus

Access the following menus to identify problems with the printer and run diagnostic tests.

Diagnostics Menu	1. Turn off the printer. 2. Press and hold the 3 and 6 buttons simultaneously. 3. Turn on the printer. 4. Release the buttons after 10 seconds.	The Diagnostics Menu group consists of menus, settings, and operations that are used to diagnose various printer problems. Note: While the Diagnostics Menu Group is active, all host interfaces are offline. See “Entering Diagnostics Menus” on page 3-2 for more information.
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Diagnostics Menus

Entering Diagnostics Menus

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

Available tests

Tests appear on the LCD in the order shown:

MOTOR TESTS	See "MOTOR TESTS" on page 3-4.
Finisher Motor Tests	
Motor (entrance/paddle)	
Motor (buffer/transport)	
Motor (exit)	
Fin diverter solenoid	
Sub paddle solenoid	
Media eject clutch	
Media eject clamp mtr	
Media eject mtr	
Fin Buffer solenoid	
Punch carriage shift mtr	
Punch unit mtr	
Front tamper mtr	
Rear tamper mtr	
Stapler carriage mtr	
Stapler unit mtr	
Stacker lift motor	
Booklet end guide drive motor	
Booklet paddle drive motor	
Booklet front tamper motor	
Booklet rear tamper motor	
Booklet folder/exit drive motor	
Booklet media entrance drive motor	
Booklet knife solenoid	
Booklet bin media transport motor	
Bridge unit drv mtr	
Booklet diverter gate solenoid	
Booklet stapler motor	

OUTPUT BIN TESTS		
	Feed to All Bins	See “Feed Tests (output bins)” on page 3-4.
	Feed Tests	See “Feed To All Bins” on page 3-5.
FINISHER TESTS		
	Staple Test	See “Staple Test” on page 3-5.
	Hole Punch Test	See “Hole Punch Test” on page 3-6.
	Feed Tests	See “Feed Tests (Finisher)” on page 3-6.
	Sensor Tests	See “Sensor Test (Finisher)” on page 3-6.
PRINTER SETUP		
	Defaults	See “Defaults” on page 3-9.
	Prt Color Pg Count	See “Printed Color Page Count” on page 3-9.
	Prt Mono Pg Count	See “Printed Mono Page Count” on page 3-10.
	Perm Page Count	See “Permanent Page Count” on page 3-10.
	Serial Number	See “Serial Number” on page 3-10.
	Engine Setting 1 to 4	See “Engine Setting 1 to 4” on page 3-10.
	Model Name	See “Model Name” on page 3-10.
	Configuration ID	See “Configuration ID” on page 3-10.
EVENT LOG		
	Display Log	See “Display the Event Log” on page 3-12.
	Print Log	See “Print the Event Log” on page 3-13.
	Clear Log	See “Clear the Event Log” on page 3-13.
	Booklet Fold Adj	See “Booklet Fold Adjust” on page 3-17.
	Booklet Tamper Shift Adj	
	Booklet Compile Position	
	Booklet 2-sheet	
	Booklet 15-sheet	
	Booklet Fold Pos Fine Adj	
	Booklet Staple Pos Fine Adj	
	Finisher Config	See “Finisher Config” on page 3-17.
	Exit Diagnostics Menu	See “Exiting Diagnostics Menu” on page 3-18.

MOTOR TESTS

The tests in this group allow you to test specific motors, and on some motors run them forward or reverse.

To run the MOTOR TESTS:

1. Touch **MOTOR TESTS** from the Diagnostics Menu.
2. Touch the test to run.

The following Finisher Motor Tests are available:

- Motor (entrance/paddle)
- Motor (buffer/transport)
- Motor (exit)
- Fin diverter solenoid
- Sub paddle solenoid
- Media eject clutch
- Media eject clamp mtr
- Media eject mtr
- Fin Buffer solenoid
- Punch carriage shift mtr
- Punch unit mtr
- Front tamper mtr
- Rear tamper mtr
- Stapler carriage mtr
- Stapler unit mtr
- Stacker lift motor
- Booklet end guide drive motor
- Booklet paddle drive motor
- Booklet front tamper motor
- Booklet rear tamper motor
- Booklet folding/exit drive motor
- Booklet media entrance drive motor
- Booklet transport motor
- Booklet knife solenoid
- Booklet bin media transport motor
- Bridge unit drv mtr
- Booklet diverter gate solenoid
- Booklet stapler motor
- Bridge unit bin media exit solenoid
-

3. During the test, Motor Running... appears on the LCD.

Note: If available, **Forward** and **Reverse** options appear on the LCD for selected tests.

Press **Stop**  to stop the test.

OUTPUT BIN TESTS

Feed Tests (output bins)

Use these tests to verify that media can be fed to a specific output bin. Media is fed from the default input source to the selected output bin. No information is printed on the media fed to the output bin because the printhead is not engaged during this test. These tests can use any media size or envelope supported by the printer.

To run the Feed Tests for the output bins:

1. Touch **OUTPUT BIN TESTS** from the Diagnostics Menu.
2. Touch **Feed Tests**.
3. Touch the output bin you want the paper to exit into. The standard bin as well as any output option bin installed on the printer is shown on the menu.
 - Standard Bin
 - Output Bin 1
 - Output Bin 2
4. Touch either **Single** or **Continuous**.
 - **Single**—Feeds one sheet of media from the selected source.
 - **Continuous**—Media continues feeding from the selected source until **Stop**  is pressed.

Press **Stop**  to return to the [Selected Output Bin].

While this test runs, [Selected Output Bin] Feeding... appears on the LCD. During Single tests, no buttons are active. However, during Continuous tests, you can press **Stop**  to cancel the test.

Feed To All Bins

This test can be used to verify that the printer can feed media to the standard bin or any installed output options. No information will be printed on the test pages, as the printhead is not engaged during the feed test. The media feeds from the default paper source.

To run the Feed To All Bins Test:

1. Touch **OUTPUT BIN TESTS** from the Diagnostics Menu.
2. Touch **Feed To All Bins**.

The printer feeds media from the default source to each installed bin. After the test is selected, the printer feeds a separate piece of media to the standard bin first, then it feeds a separate piece of media to each output bin installed. While this test runs, *All Bin Test Feeding...* appears on the LCD.

The test is continuous until **Stop**  is pressed. If a test is canceled, *All Bin Test Canceled...* appears on the LCD and feeds any remaining media in the paper path to the appropriate output destination.

Press **Stop**  to exit the test.

FINISHER TESTS

Staple Test

This test is used to verify the functioning of the finisher's staple mechanism.

To run the Staple Test

1. Touch **FINISHER TESTS** from the Diagnostics Menu.
2. Touch **Staple Test**.

The printer feeds eight pieces of media from the default input source to the output bin that supports stapling. After all eight pieces of media are deposited, the device staples the packet. While this test runs, *Staple Test Running...* appears on the LCD.

Press **Stop**  to cancel the test.

Hole Punch Test

This test is used to verify that media can be fed to a finisher output bin and then hole punched. No information is printed on the feed test pages.

To run the Hole Punch Test:

1. Touch **FINISHER TESTS** from the Diagnostics Menu.
2. Touch **Hole Punch Test**.
3. Touch **3 Punch Test**.

Eight sheets of paper are fed, and then the pages are hole-punched with a 2-hole or 3-hole pattern depending on the selected punch test. Media is initially requested from the default input source and then output to the Finisher output bin.

The Hole Punch Test cannot be canceled. No buttons are active during this test. During the test, **Hole Punch Test Running...** appears on the LCD. After completion of the test, the display returns to the Hole Punch Test screen.

Feed Tests (Finisher)

This test is used to verify that media can be fed to a finisher output bin. This test feeds one sheet of media from the printer's default input source to a finisher output bin. The device can perform this test using any paper size that is supported by the finisher. No information is printed on the test page.

To run the Feed Test:

1. Touch **FINISHER TESTS** from the Diagnostics Menu.
2. Touch **Feed Tests**.

You cannot specify the output bin to which the device will feed the test page. Once begun, the Feed Test cannot be canceled. No buttons are active during the test. During this test, **Feed Test Running...** appears on the LCD.

Sensor Test (Finisher)

This test verifies that the sensors in the finisher are operating properly.

To run the Sensor Test:

1. Touch **FINISHER TESTS** from the Diagnostics Menu.
2. Touch **Sensor Test**.

The LCD displays the option's name in the header row and each of the option's sensors below the header row. You must select a specific sensor from this list in order to view and toggle the sensor's state. After selecting a specific sensor, **[Sensor Name] Testing...** appears on the LCD with the sensor's current state below this message. The tables below indicate which sensors are available for testing.

Available Cover and Door Sensors

Sensor Name

Door G fin front

Surface H fin eject cover

Cover F bridge top

Available Bin Level Sensors

Sensor Name
Fin upper bin full
Stacker bin level1
Stacker bin level2
Stacker bin upper limit
Stacker bin no media
Stacker bin level encod

Available Media Path 1 Sensors

Sensor Name
Bridge media ent
Bridge media exit
Fin media enter
Buffer path
Upper media exit
Lower media exit
Compiler media in

Available Media Path 2 Sensors

Sensor Name
Diverter gate
Front tamper hp
Rear tamper hp
Eject clamp hp
Media eject shaft hp

Available Punch and Staple Sensors

Sensor Name
Punch side reg1
Punch side reg2
Punch box set
Punch waste full
Low staple
Punch carriage shift hp
Punch unit hp
Stapler carriage shift hp
Punch cam front
Punch hole select

Available Booklet Path Sensors

Sensor Name
Booklet end guide HP
Booklet knife HP
Booklet knife folding
Booklet front tamper HP
Booklet rear tamper HP
Booklet unit media entrance
Booklet unit media exit
Booklet bin media present
Booklet compiler media in
Booklet unit interlock
Booklet front low staple
Booklet rear low staple

After selecting one of the available sensors, you can manually toggle the sensor between its two values (Open or Closed). The LCD displays *O*pen when the sensor is open, and *C*losed when the sensor is closed.

Press **Stop**  to exit the test.

PRINTER SETUP

To enter the PRINTER SETUP screen, touch **PRINTER SETUP** from the Diagnostics Menu. The following graphic appears on the LCD:

PRINTER SETUP

Defaults

U.S.

Prt Color Pg Count

24

Prt Mono Pg Count

17

Prt Pg Count

0

Serial Number

NV26T470

Envelope Entrance

Medium

Engine Setting 1

0

?

Submit

Back

Defaults

The value of this setting determines whether the printer uses the US or Non-US factory default value for the printer settings listed below:

Printer Setting	US Value	Non-US Value
Paper Sizes (applies only to input sources which do not have hardware size sensing capability)	Letter	A4
Envelope Size (applies only to envelope feeding sources which do not have hardware size sensing capability)	10 Envelope	DL Envelope
PCL Symbol Set	PC-8	PC-850
PPDS Code Page	437	850
Universal Units of Measure	Inches	Millimeters

Touch **Submit** to change the value of this setting, then the LCD returns to the Diagnostics menu. To return to the PRINTER SETUP menu without changing the value of this setting, touch **Back**.

Printed Color Page Count

The value of this setting enables you to gauge the amount of usage on a device.

The Printed Page Count cannot be reset by the servicer.

Printed Mono Page Count

The value of this setting enables you to gauge the amount of usage on a device.

The Printed Page Count cannot be reset by the servicer.

Permanent Page Count

The value of this setting indicates the total number of pages that have been printed by the printer.

The Permanent Page Count cannot be reset.

Serial Number

This printer setting records the printer's serial number that was assigned by the manufacturer. When you select this setting, a replica of a keyboard appears on the LCD that enables you to edit the serial number.

Engine Setting 1 to 4

These settings are used by Engine code ECs to fix field problems.

Warning: Do not change these settings unless requested to do so by your next level of support.

Model Name

The model name can only be viewed and cannot be changed.

Configuration ID

The two configuration IDs are used to communicate information about certain areas of the printer that cannot be determined using hardware sensors. The configuration IDs are originally set at the manufacturer, however you may need to reset Configuration ID 1 or Configuration ID 2 when you replace the printer engine card assembly. This printer uses two Configuration IDs, each of which consists of eight digits. The first seven digits in each ID are hexadecimal numbers, while the last digit is a checksum of the preceding seven hexadecimal digits. Each ID can contain a combination of the digits 0 through 9 and the characters A to F.

If the printer's firmware detects that either of the printer's Configuration IDs has not been defined or is invalid, then the following occurs:

1. The firmware automatically uses the Configuration IDs defined for the printer's standard model.
2. The Configuration ID setting is the only item that appears when you open the Diagnostics menu.
3. When the printer is not in Diagnostics mode, Check Config ID appears on the LCD.

Note: Each of the above conditions will remain until a valid value is entered for Configuration ID 1 and Configuration ID 2.

The Configuration ID setting allows you to set both Configuration IDs simultaneously. To set one or both Configuration IDs:

1. From the PRINTER SETUP menu, touch the icon to the right of the Configuration ID menu item. The screen displays the value of both Configuration IDs. By default, the cursor appears on the Configuration ID 1 line.

The screenshot shows a window titled 'vga' with two text input fields at the top. The first field is labeled 'Config ID1' and contains the text 'CC 00 01 81'. The second field is labeled 'Config ID2' and contains the text 'B0 55 70 0C'. Below these fields is a numeric keypad with circular buttons for digits 1 through 9, 0, and a left-pointing arrow (Backspace). To the right of the digits are circular buttons for letters 'a' through 'f'. At the bottom of the screen are three buttons: a question mark icon, a 'Submit' button, and a 'Back' button.

2. To change the value of Configuration ID 1, touch the **Backspace** key to erase any of the existing characters. Then enter the correct ID using the number and letter keys that appear on the screen.
3. To edit the value of Configuration ID 2, touch a section of the display screen that appears inside of the text box containing the current value of Configuration ID 2. The cursor appears in the text box containing the current value of Configuration ID 2.
4. To change the value of Configuration ID 2, touch the **Backspace** key to erase any of the existing characters. Then enter the correct ID using the number and letter keys that appear on the screen.

Note: To exit the Configuration ID screen and return to the PRINTER SETUP menu, touch **Back**.

Note: Although it is recommended that all unused and reserved bits be set to zero, the code will not validate or enforce this condition.

5. To save the values of both Configuration IDs, touch **Submit**. The printer validates both IDs. If either ID is invalid, the printer posts `Invalid ID`, discards any changes, and displays the original Configuration IDs. If both IDs are valid, the printer automatically returns to the PRINTER SETUP menu.

EVENT LOG

The exact number of events recorded in the Event Log will vary since each event requires a different amount of storage space. When the Event Log requires more space to record an event, it overwrites the oldest currently logged event(s) and inserts the new event into the first log position. Consecutive log entries may be identical if the same event occurred twice in a row.

The Event Log records the following types of events:

- All 9xx Service Errors
- 2xx Paper Jams

- Maintenance Count Resets
- NV Resets and various types of JFFS@ partition formats

Touch **EVENT LOG** from the Diagnostics Menu, and the following options are displayed:

Display Log
Print Log
Clear Log

Display the Event Log

Note: The displayed version of the Event Log shows only a subset of the information contained in the Diagnostics version of the printed Event Log. For the most comprehensive information about each logged event, print the Event Log. See **“Print the Event Log” on page 3-13**.

Touch **Display Log**, and a graphic similar to the following appears on the LCD:



Each logged event is identified by the text that appeared when the event occurred. For instance, if the log recorded a 900 Service Error, the Display Log would show 900 Service RIP Software. Log entries appear in chronological order.

If additional log entries exist, touch ▼ to view the next log entries. Continue following this procedure until you reach the end of the logged entries. To view earlier log entries, touch ▲.

Touch **Back** to return to the EVENT LOG.

Print the Event Log

Each page of the printed Event Log report has the title Event Log at the top of each page followed by the model name and serial number. The following is a sample of a printed Event Log:

Model and Serial number	Event Log (Page 1) Luxmark X854c (s/n:XXX-XXXX)
Printer information	Device Information Page Count 2020 Installed Memory 256 MB Processor Speed 625MHz Engineer 11-11-0053-0 Loader 850-XP-8053-0 Kernel 1.3-NA-8053-0 Base 850-XP-8053-0 Network 850-XP-8053-0 Network Driver 4.0 Panel 1 Toner 3 04-36-0-10 Toner 4 04-36-0-10 Font 0 0-11001-04.4 Bin 1 04-38-0 Bin 2 04-38-0
Panel display when error occurred	Event Log Information 990.01 Service Fin Stapling Panel Message 990.01 Service Fin Stapling Page Count 2027 RDL Count 273 Date and Time Thu Jan 01 00:00:40 Up Time 45 secs 197 msec
Page count	Code Levels Target: 1: 8053-0 Tue Apr 12 10:21:30 2005 mca-bid 01: Loader 1.3-NA-8053-0 Tue Apr 12 10:20:44 2005 mca-bid 02: Kernel 850-XP-8053-0 Tue Apr 12 10:21:28 2005 mca-bid 03: Base 1.3-NA-8053-0 Tue Apr 12 10:21:28 2005 mca-bid 04: Network 850-XP-8053-0 Tue Apr 12 10:21:28 2005 mca-bid 05: Network Driver 1.3-NA-8053-0 Tue Apr 12 10:21:31 2005 mca-bid 23: Security Files 1.0 Tue Apr 12 10:21:31 2005 mca-bid 24: Network ExpData 1.0 Tue Apr 12 10:21:31 2005 mca-bid 25: W2K XP 1.0 Tue Apr 12 10:21:31 2005 mca-bid 27: Driver W-1.0 Tue Apr 12 10:21:31 2005 mca-bid 30: History 1.0 Tue Apr 12 10:21:31 2005 mca-bid 31: Network W-1.0 Thu Mar 17 00:41:17 2005 mca-bid Engine: 11-11-0
Earliest error code	Debug Data 990.01 Service Fin Stapling Panel Message 990.01 Service Fin Stapling Page Count 1927 RDL Count 265 Date and Time Thu Jan 01 00:00:55 1970 Up Time 35 secs 323 msec
Next error code	Code Levels Target: 1: 8053-0 Tue Apr 12 10:21:30 2005 mca-bid 01: Loader 1.3-NA-8053-0 Tue Apr 12 10:20:44 2005 mca-bid 02: Kernel 850-XP-8053-0 Tue Apr 12 10:21:28 2005 mca-bid 03: Base 1.3-NA-8053-0 Tue Apr 12 10:21:28 2005 mca-bid 04: Network 850-XP-8053-0 Tue Apr 12 10:21:28 2005 mca-bid 05: Network Driver 1.3-NA-8053-0 Tue Apr 12 10:21:31 2005 mca-bid 23: Security Files 1.0 Tue Apr 12 10:21:31 2005 mca-bid 24: Network ExpData 1.0 Tue Apr 12 10:21:31 2005 mca-bid 25: W2K XP 1.0 Tue Apr 12 10:21:31 2005 mca-bid 27: Driver W-1.0 Tue Apr 12 10:21:31 2005 mca-bid 30: History 1.0 Tue Apr 12 10:21:31 2005 mca-bid 31: Network W-1.0 Thu Mar 17 00:41:17 2005 mca-bid Engine: 11-11-0

As the Event Log report prints, Printing EVENT LOG appears on the LCD.

Clear the Event Log

To clear the Event Log:

1. Touch **Event Log** from the Diagnostics Menu.
2. Touch **Clear Log**.

Yes and **No** appears on the menu. If you touch **Yes**, Deleting EVENT LOG appears on the LCD and erases all Event Log information, including information from the printed report. Touch **No** to cancel deletion and return to the EVENT LOG menu, or touch **Back** to exit Clear Log and return to the EVENT LOG menu.

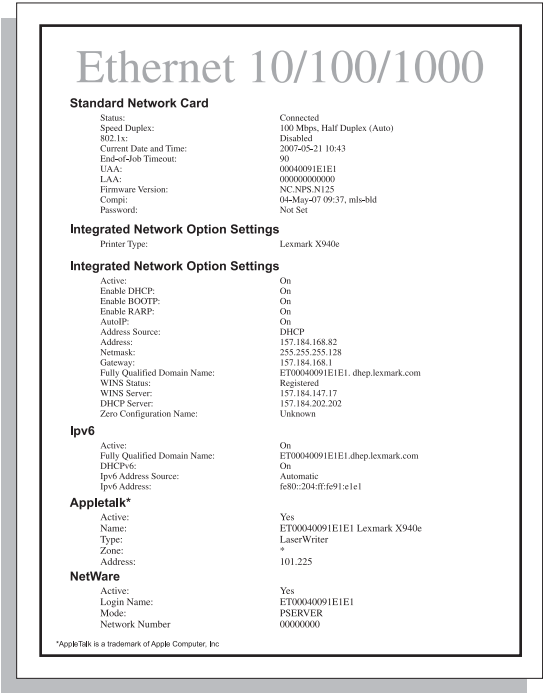
ENGINE ADJUST

To begin PH Adjust (media tray registration), the test page must be printed.

To print the test page the printer must be in standard mode.

- 1. Select **Menus**.
- 2. Select **Reports**.
- 3. Select **Network Setup Page**

The following report prints.



Using a fine incremental ruler, measure from the black line border to the edge of the media. Ideally, the borders should be centered on the page.

To perform the ENGINE ADJUST settings:

- 1. Select **ENGINE ADJUST** from the Diagnostics Menu.

The following tests appear on the LCD:

Select the following:

PH Adjust
(Media tray registration)

Then select: (

Adj Side Reg ALL (appears on LCD)
(Adj side reg all trays)

Adj Side Reg MSI (appears on LCD)
(Adj side reg MPF)

Adj Side Reg DUP (appears on LCD)
(Adj side reg duplex)

Appears on the LCD:

Registration values appear on the LCD. If required, reset the values and **Select** ✓ to submit the changes.

Registration values appear on the LCD. If required, reset the values and **Select** ✓ to submit the changes.

Registration values appear on the LCD. If required, reset the values and **Select** ✓ to submit the changes.

Adj Lead Reg ALL (appears on LCD) (Adj lead reg all trays)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg Tr165 (appears on LCD) (Adj lead reg tray 1 - plain/color)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg MSI165 (appears on LCD) (Adj lead reg MPF - plain/color)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg MSIhp2 (appears on LCD) (Adj lead reg MPF - heavy weight 2)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg DUP165 (appears on LCD) (Adj lead reg duplex - plain/color)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
MSI Guide Max Val (appears on LCD) (MPF guide maximum analog - value)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
MSI Guide Min Val (appears on LCD) (MPF guide minimum analog - value)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Side Reg Tr1 (appears on LCD) (Adj side reg tray 1)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Side Reg Tr2 (appears on LCD) (Adj side reg tray 2)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Side Reg Tr3 (appears on LCD) (Adj side reg tray 3)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Side Reg Tr4 (appears on LCD) (Adj side reg tray 4)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Side Reg ALLtr (appears on LCD) (Adj side reg all trays)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg Trhpl (appears on LCD) (Adj lead reg tray 1 - heavy weight 1)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg MSIhp (appears on LCD) (Adj lead reg MPF - heavy weight 1)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg Duphp1 (appears on LCD) (Adj lead reg duplex - heavy weight 1)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg Tr208 (appears on LCD) (Adj lead reg tray 1 - plain/BW)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead Reg MSI208 (appears on LCD) (Adj lead reg MPF - plain/BW)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
Adj Lead DUP 208 (appears on LCD) (Adj lead reg duplex - plain/BW)	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.

PRO-CON (ATC sensor setup and adjust)

This procedure is used to adjust the following:

Sensor (C ATC)

Sensor (M ATC)

Sensor (Y ATC)

Sensor (K ATC)

Select PRO-CON and select:	Then Select:	Appears on the LCD
ATC Sensor Adjust values (	Sen Grad SNR-Y	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	Sen Grad SNR-M	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	Sen Grad SNR-C	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	Sen Grad SNR-K	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	SNR Output Ref TC-Y	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	SNR Output Ref TC-M	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	SNR Output Ref TC-C	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
	SNR Output Ref TC-K	Registration values appear on the LCD. If required, reset the values and Select ✓ to submit the changes.
ATC Sensor Adjust Cycle		Testing... Pass

RegCon (color registration)

This procedure is used to adjust the printhead color registration.

Select RegCon Adjust and then select:	Appears on the LCD:
Measurement Cycle	Reg Measuring Testing...
Control Sensor Check	Reg Control Sensor Testing...
Control Sensor Cycle	Reg Control Sensor Correction Testing...
Belt Edge Learn	Belt Edge Learn Testing...

Select RegCon Adjust and then select:	Then select:	Appears on the LCD:
Control Setup Cycles	Skew Fine Setup	Skew Fine Setup Testing...
	IN/OUT Setup	IN/OUT Setup Testing...
	Center Setup	Center Setup Testing...
	Skew Rough Setup	Skew Rough Setup Testing...
	Cycle Result Value	Cycle Result Values appear on the LCD.

Press **Stop**  to return to ENGINE ADJUST.

Booklet Fold Adjust

To perform the Booklet Fold Adjust Test:

1. Select **Booklet Fold Adjust** from the Diagnostics Menu.

The following tests appear on the LCD

Select the following:

Booklet Compile position

Booklet 2-sheet

Booklet 15-sheet

Booklet Staple Fold Fine Adjust

Booklet Staple Pos Fine Adjust

Booklet Tamper Shift Adjust

Appears on the LCD:

Booklet Compile position values appear on the LCD. If required, reset the values and submit.

Booklet 2-sheet values appear on the LCD. If required reset the values and submit.

Booklet 15-sheet values appear on the LCD. If required reset the values and submit.

Booklet Staple Fold Fine Adjust values appear on the LCD. If required, reset the values and submit.

Booklet Staple Fold Fine Adjust values appear on the LCD. If required, reset the values and submit.

Booklet Staple Fold Fine Adjust values appear on the LCD. If required, reset the values and submit.

Finisher Config

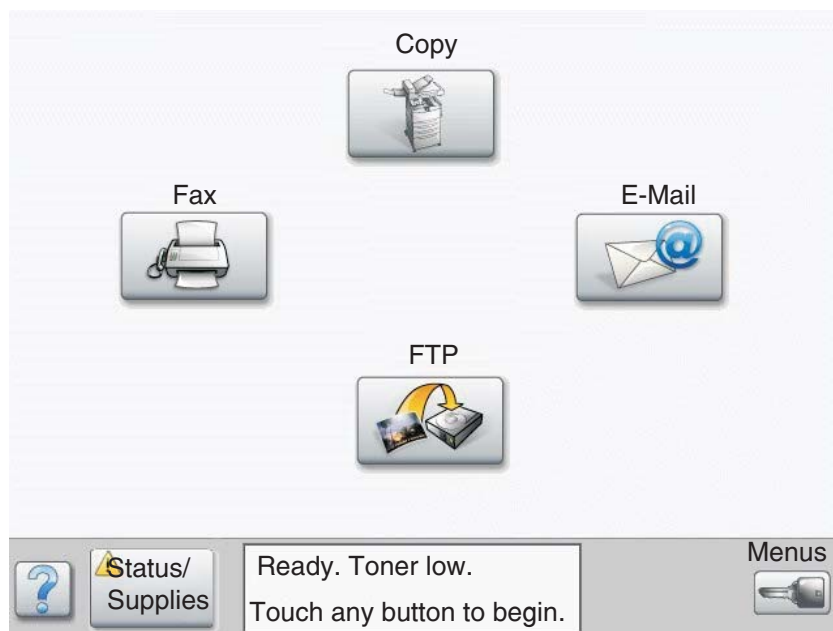
To perform Finisher Config:

1. Select **Finisher Config** from the Diagnostics Menu.

Finisher Config values appear on the LCD. If required, reset the values and submit.

Exiting Diagnostics Menu

From the Diagnostics Menu, touch **Back** until a graphic appears with **Exit Diag Menu** in the lower right corner. Touch **Exit Diag Menu** to perform a POR, and the following graphic appears on the LCD:



7500-XXX

7500-XXX

7500-XXX

7500-XXX

7500-XXX

4. Repair information

Warning: Read the following before handling electronic parts.

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, use the following instructions in addition to all the usual precautions, such as turning off power before removing logic boards:

- Keep the ESD-sensitive part in its original shipping container (a special “ESD bag”) until you are ready to install the part into the machine.
- 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 discharges any static electricity in your body to the machine.
- Hold the ESD-sensitive part by its edge connector shroud (cover); do not touch its pins. If you are removing a pluggable module, use the correct tool.
- Do not place the ESD-sensitive part on the machine cover or on a metal table; if you need to put down the ESD-sensitive part for any reason, first put it into its special bag.
- Machine covers and metal tables are electrical grounds. They increase the risk of damage because they make a discharge path from your body through the ESD-sensitive part. (Large metal objects can be discharge paths without being grounded.)
- Prevent ESD-sensitive parts from being accidentally touched by other personnel. Install machine covers when you are not working on the machine, and do not put unprotected ESD-sensitive parts on a table.
- If possible, keep all ESD-sensitive parts in a grounded metal cabinet (case).
- Be extra careful in working with ESD-sensitive parts when cold-weather heating is used, because low humidity increases static electricity.

Removal procedures

**CAUTION**

Remove the power cord from the electrical outlet before you connect or disconnect any cable or electronic board or assembly for personal safety and to prevent damage. Disconnect any connections between the printer and PCs/peripherals.

Note: Some removal procedures require removing cable ties. You must replace cable ties during reassembly to avoid pinching wires, obstructing the paper path, or restricting mechanical movement.

Note: Parts are controlled as spare parts. When servicing parts for which no procedure is described, observe the assembly before starting the service.

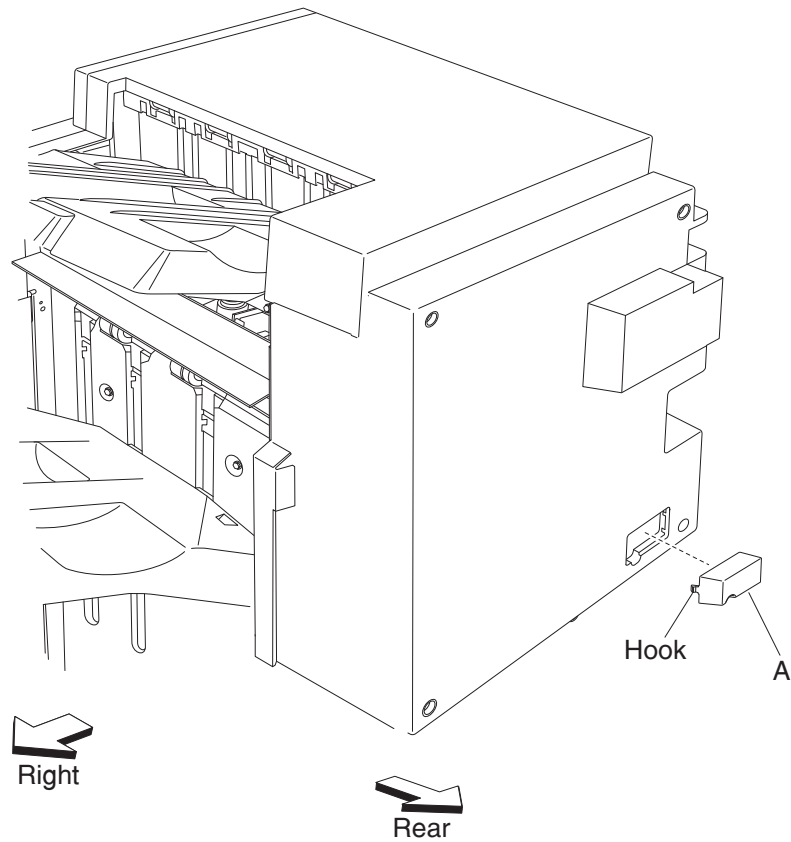
Note: Though the optional parts are assumed to be removed, they may not be removed if not required for the purpose of service.

Before starting service work

- Turn the power off, and remove the power cord from the outlet.
- While performing service around the fuser assembly, ensure the fuser area has cooled down.
- Do not use excessive force to remove parts. Damage to the parts or function of the machine may occur.
- A wide variety of screws are used; make note of their positions during service.
- Wear a wrist band to remove the risk of static electricity.

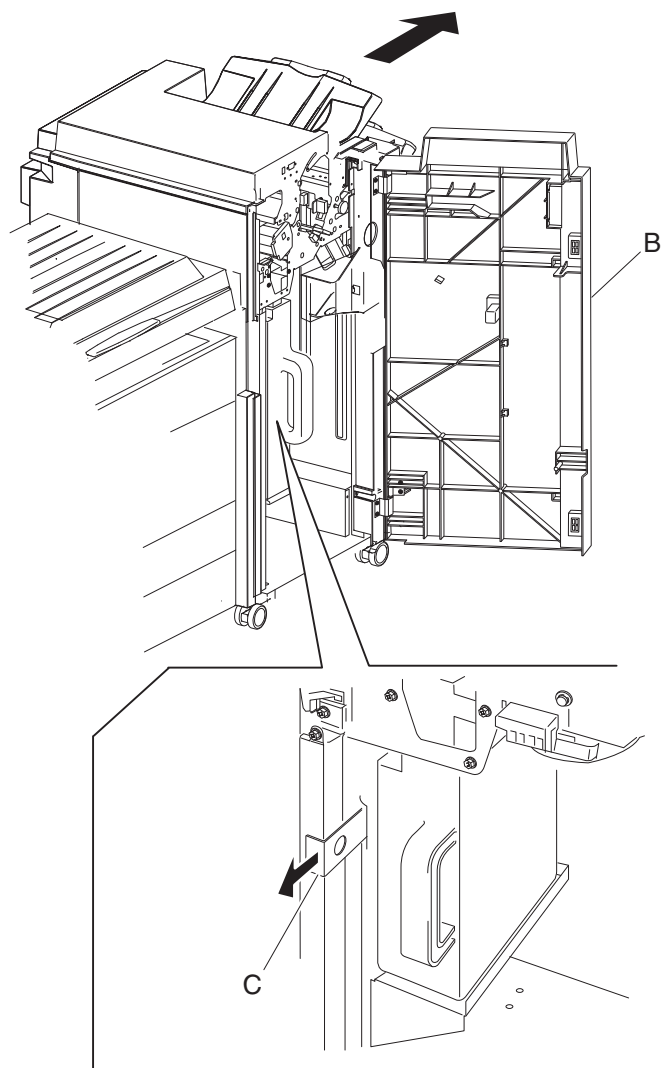
Finisher removal

1. Disconnect the finisher power cord and the finisher connection cable from the rear of the printer.
2. Release the hook securing the bridge unit hookup cover (A) to the finisher.



3. Remove the bridge unit hookup cover (A).
4. Disconnect the bridge unit connection from the finisher.

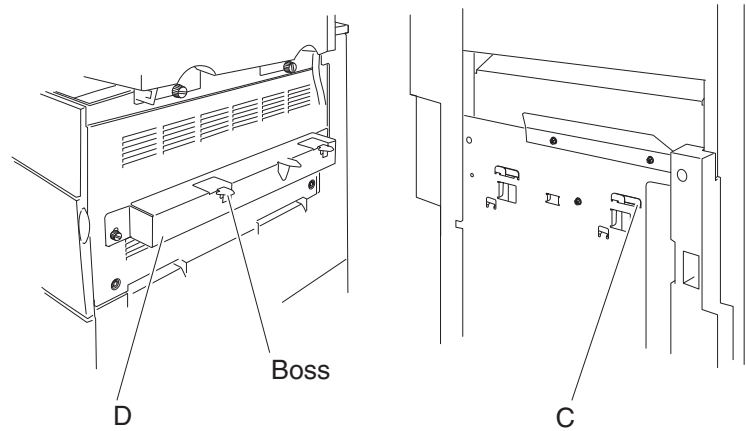
5. Open the finisher front door assembly (B) on the front of the finisher.
6. Pull the finisher docking latch assembly (C) outward in the direction of the arrow, and pull the finisher away from the printer.



7. Close the finisher front door assembly.

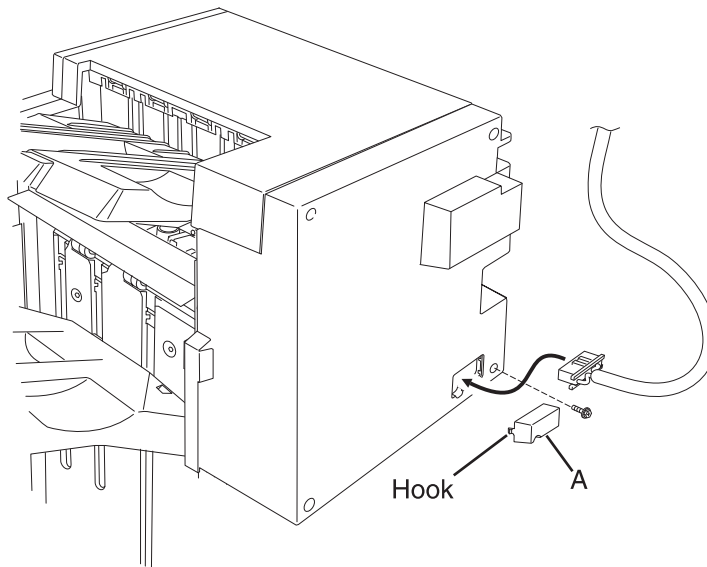
8. Remove the two screws securing the finisher docking bracket (D) to the printer.
9. Remove the finisher docking bracket (D).

Replacement note: When docking the finisher to the printer, make sure the boss on the finisher docking bracket (D) is inserted into the hole on the finisher docking latch assembly (C). The finisher should be firmly locked into position.



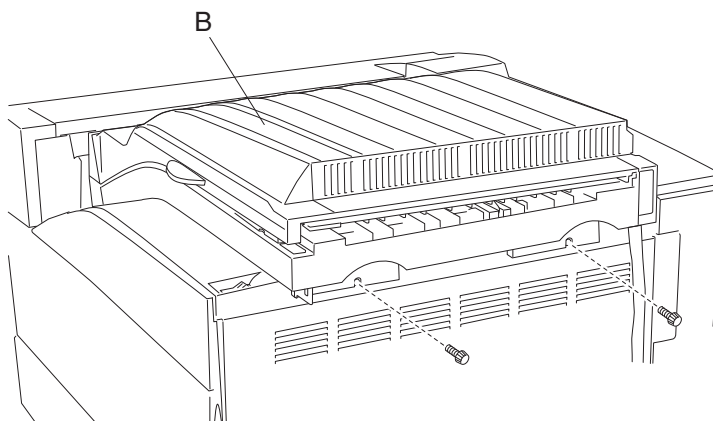
Bridge unit assembly removal

1. Release the hook securing the bridge unit hookup cover (A) to the finisher.
2. Remove the bridge unit hookup cover (A).



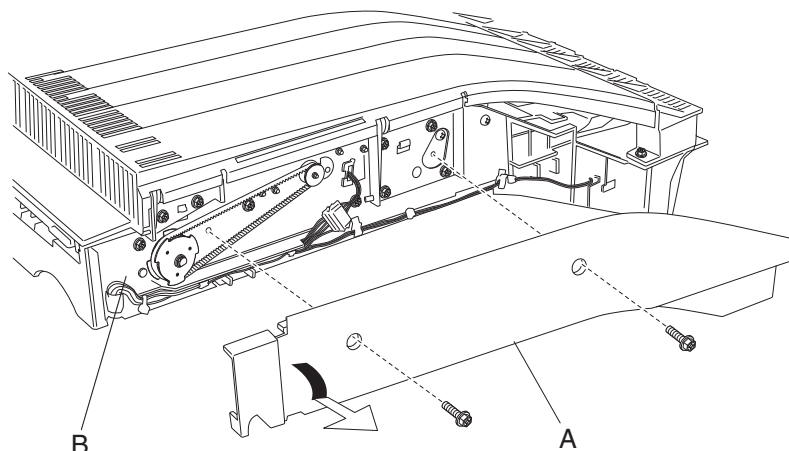
3. Remove the finisher from the printer.
4. Remove the two screws securing the bridge unit assembly (B) to the printer.

5. Remove the bridge unit assembly (B) from the printer.



Bridge unit rear cover removal

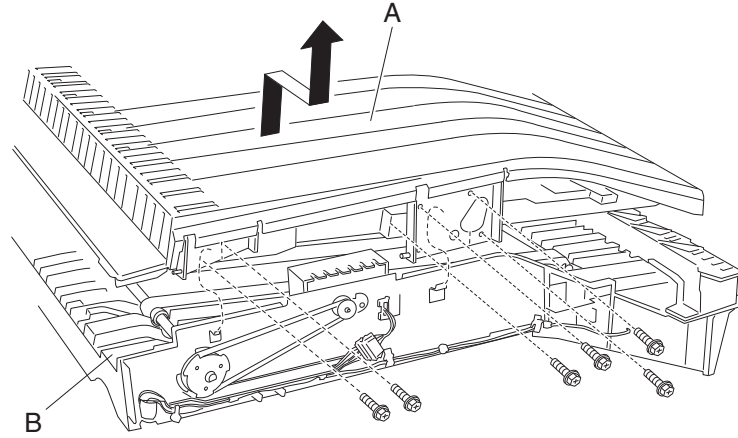
1. Remove the bridge unit assembly. See **“Bridge unit assembly removal” on page 4-5.**
2. Remove the two screws securing the bridge unit rear cover (A) to the bridge unit assembly (B).



3. Remove the bridge unit rear cover (A).

Bridge unit top cover assembly removal

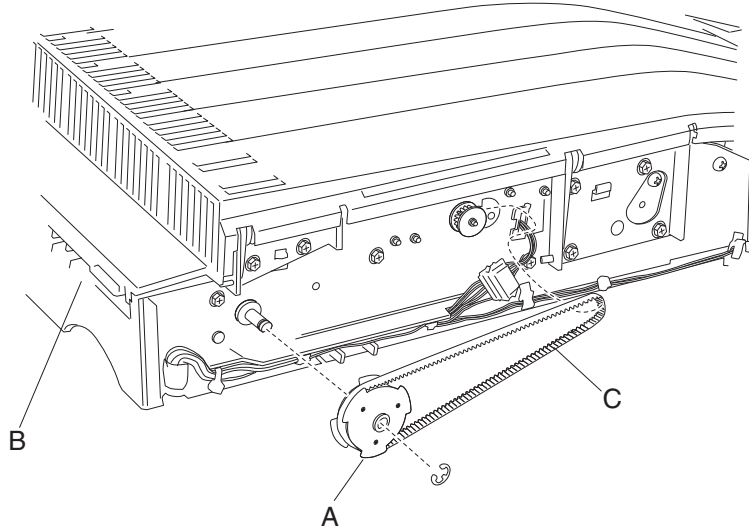
1. Remove the bridge unit rear cover. See **“Bridge unit rear cover removal”** on page 4-6.
2. Open the bridge unit top cover assembly (A).
3. Remove the six screws securing the bridge unit top cover assembly (A) to the bridge unit assembly (B).



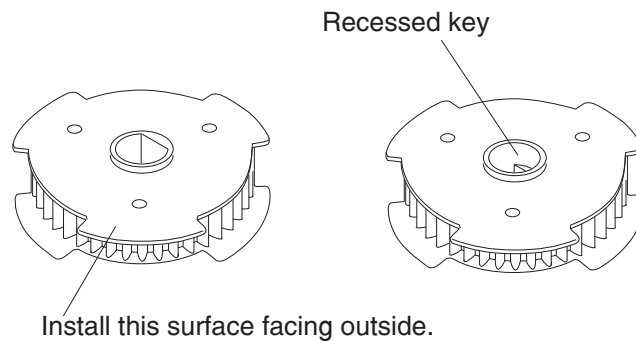
4. Lift the bridge unit top cover assembly (A) upward in the direction of the arrow.
5. Remove the bridge unit top cover assembly (A).

Bridge unit drive belt and bridge unit drive pulley removal

1. Remove the bridge unit rear cover. See **“Bridge unit rear cover removal”** on page 4-6.
2. Use a prying tool to remove the e-clip securing the bridge unit drive pulley (A) to the bridge unit assembly (B).
3. Remove the bridge unit drive pulley (A) and the bridge unit drive belt (C) from the bridge unit assembly (B).

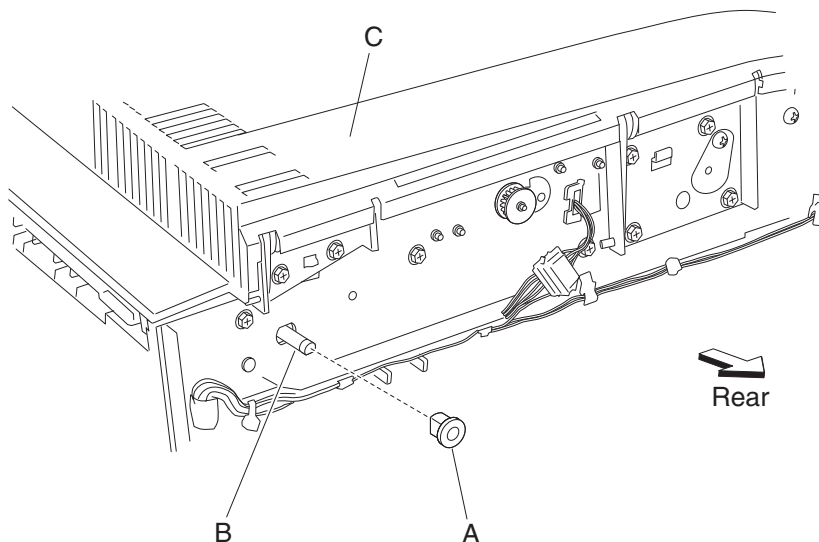


Replacement note: Make sure to install the bridge unit drive pulley (A) to the bridge unit assembly in the direction shown.

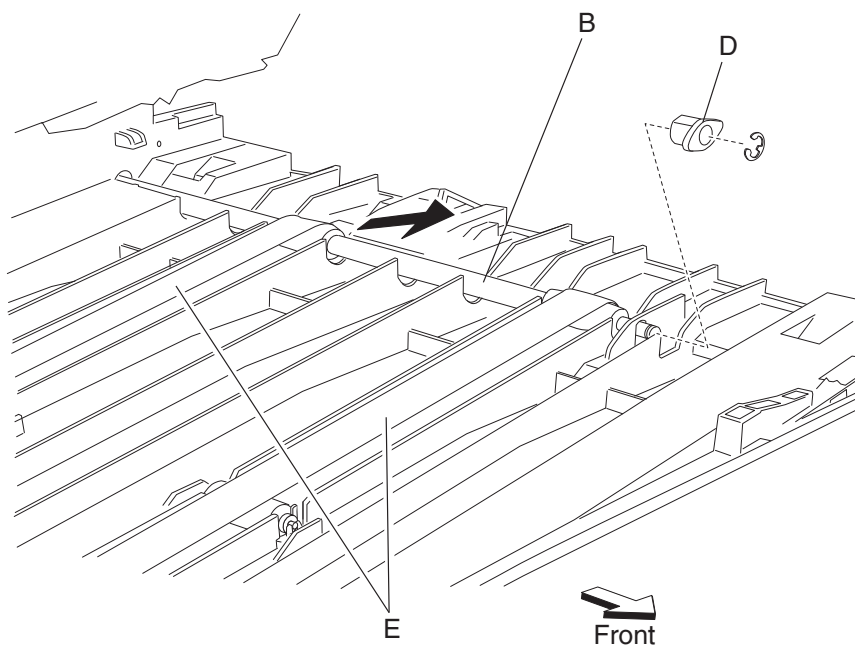


Bridge unit right shaft assembly removal

1. Remove the bridge unit rear cover. See **“Bridge unit rear cover removal” on page 4-6.**
2. Remove the bridge unit transport belt and bridge unit drive pulley. See **“Bridge unit drive belt and bridge unit drive pulley removal” on page 4-8.**
3. Remove the 6 mm bushing (A) from the bridge unit right shaft assembly (B).
4. Open the bridge unit top cover assembly (C).

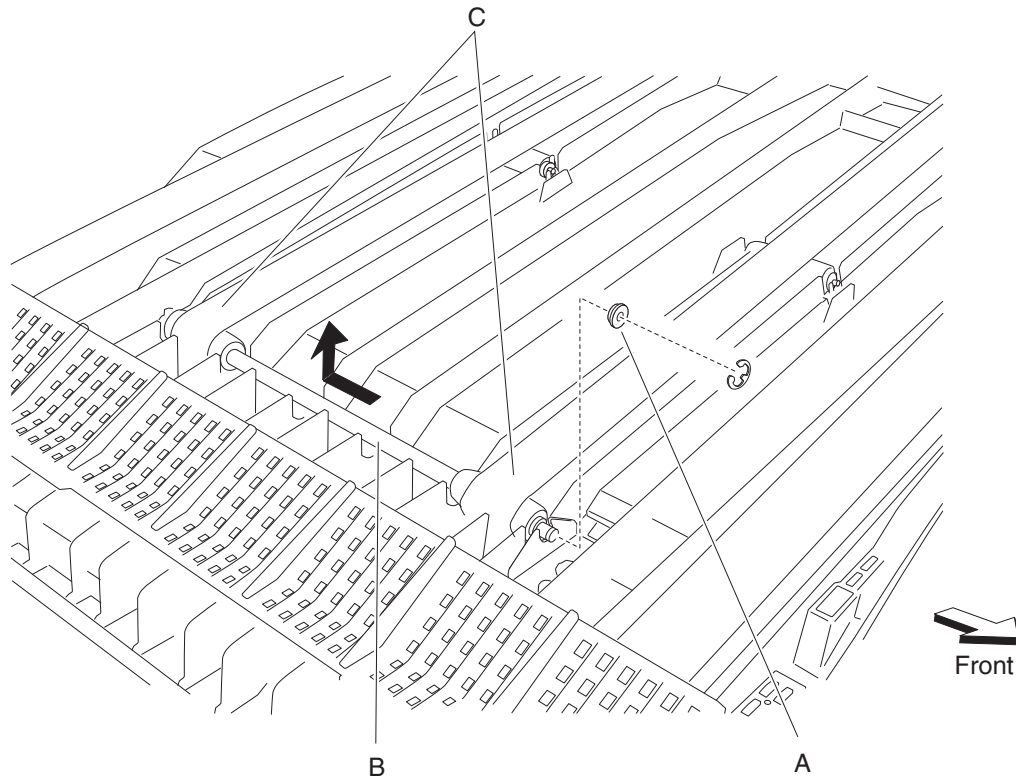


5. Use a prying tool to remove the e-clip securing the 6 mm bushing (D) to the bridge unit assembly.
6. Remove the 6 mm bushing (D).
7. Move the bridge unit right shaft assembly (B) toward the right as shown.
8. Remove the bridge unit right shaft assembly (B) from the two transport belts (E).
9. Remove the bridge unit right shaft assembly (B).



Bridge unit left shaft assembly removal

1. Open the bridge unit top cover assembly.
2. Use a prying tool to remove the front e-clip securing the 4 mm ball bearing (A) to the bridge unit left shaft (B).

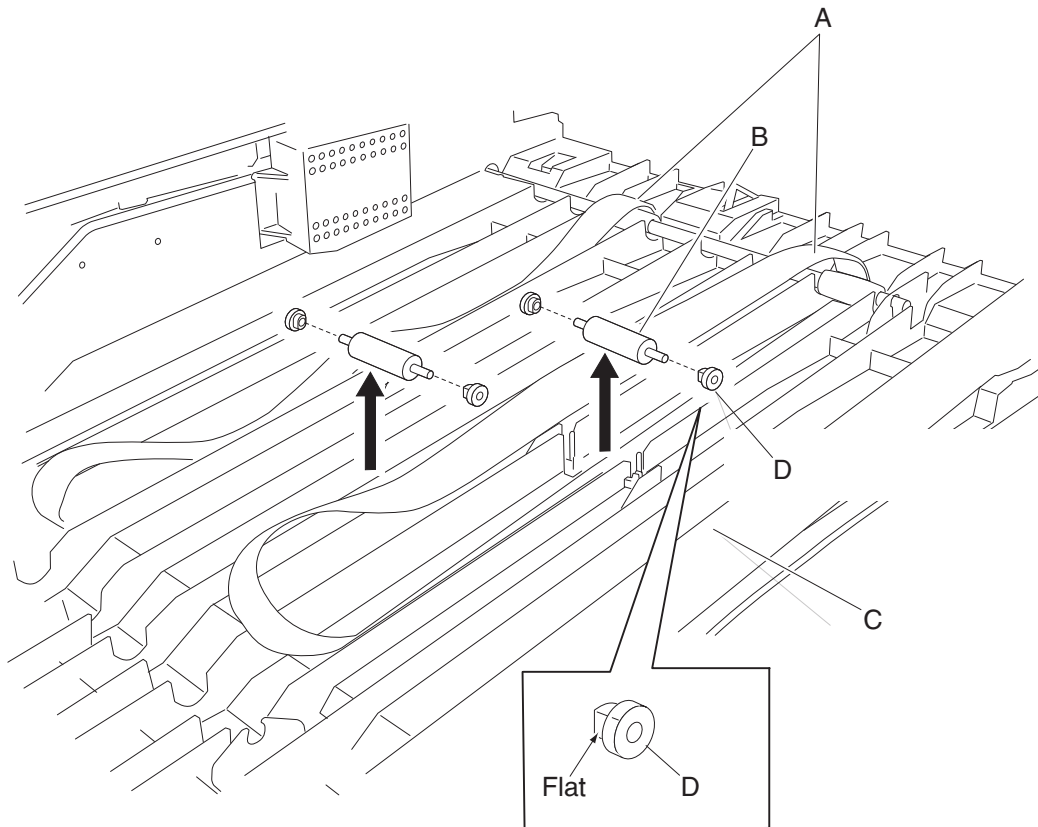


3. Move the bridge unit left shaft (B) rearward as shown.
4. Remove the bridge unit left shaft (B) from the two transport belts (C).
5. Remove the bridge unit left shaft (B).
6. Remove the other e-clip securing the 4 mm ball bearing (A) on the other end of the shaft.
7. Remove the second 4 mm ball bearing (A) from the bridge unit left shaft.

Bridge unit idler rolls removal

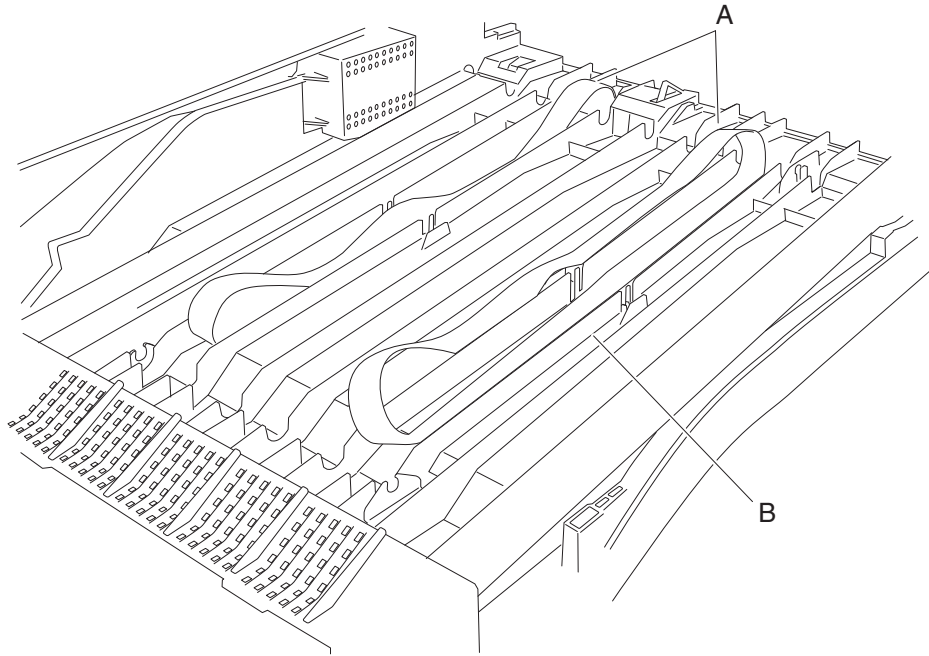
1. Open the bridge unit top cover assembly.
2. Remove the bridge unit left shaft assembly. See **“Bridge unit left shaft assembly removal” on page 4-10.**
3. Move the two transport belts (A) away from the two bridge unit idler rolls (B).
4. Lift the two bridge unit idler rolls upward to release them from the bridge unit assembly (C).
5. Remove the bushings (D) from the bridge unit idler rolls.

Replacement note: When replacing the bridge unit idler rolls, make sure the bushings are installed as shown.



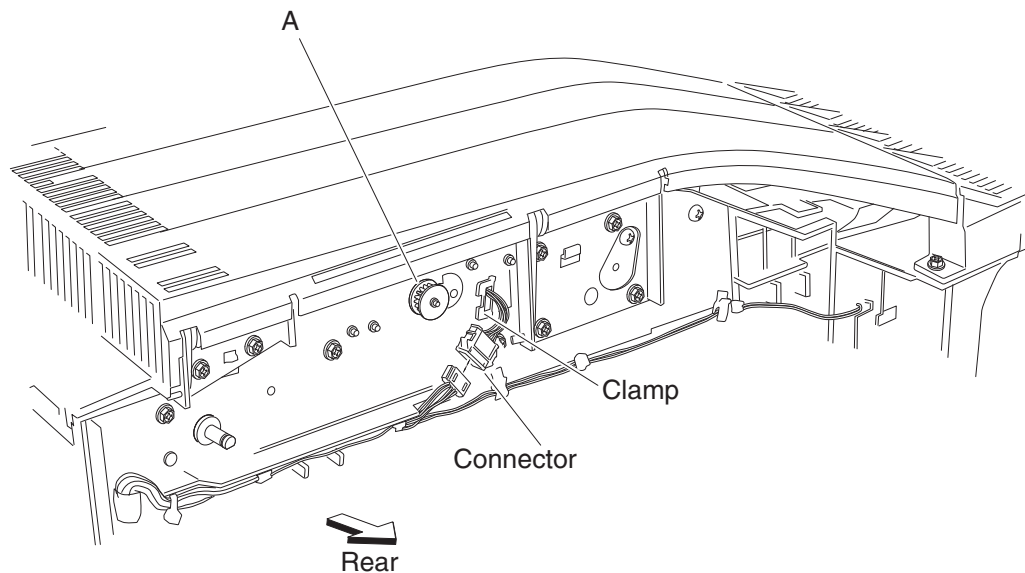
Bridge unit transport belt removals

1. Remove the bridge unit rear cover. See **“Bridge unit rear cover removal”** on page 4-6.
2. Open the bridge unit top cover assembly.
3. Remove the bridge unit right shaft assembly. See **“Bridge unit right shaft assembly removal”** on page 4-9.
4. Remove the bridge unit left shaft assembly. See **“Bridge unit left shaft assembly removal”** on page 4-10.
5. Remove the bridge unit idler rolls. See **“Bridge unit idler rolls removal”** on page 4-11.
6. Remove the transport belts (A) from the bridge unit assembly (B).

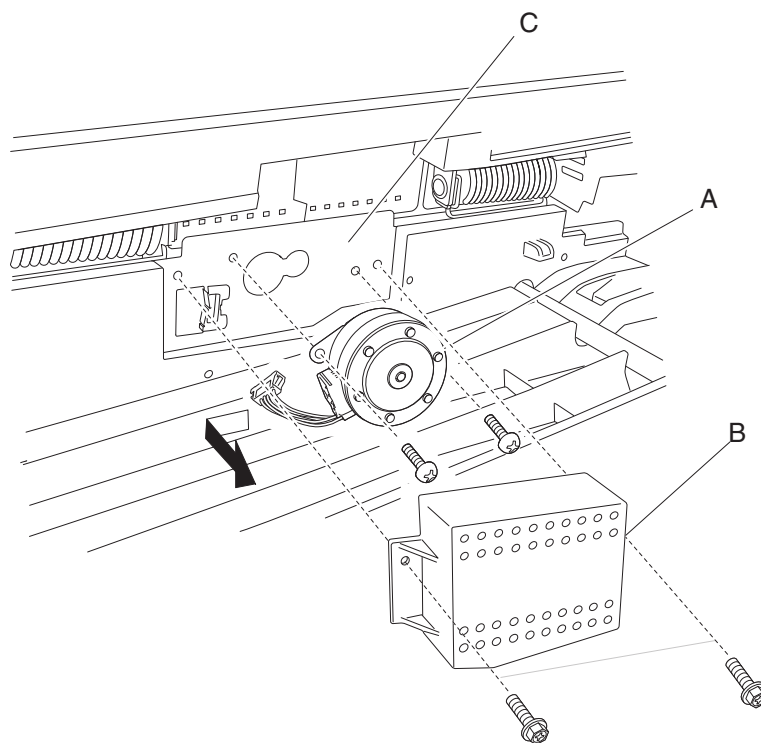


Bridge unit drive motor assembly removal

1. Remove the bridge unit rear cover. See **“Bridge unit rear cover removal”** on page 4-6.
2. Remove the bridge unit drive belt. See **“Bridge unit drive belt and bridge unit drive pulley removal”** on page 4-8.
3. Disconnect the connector from the bridge unit drive motor (A).



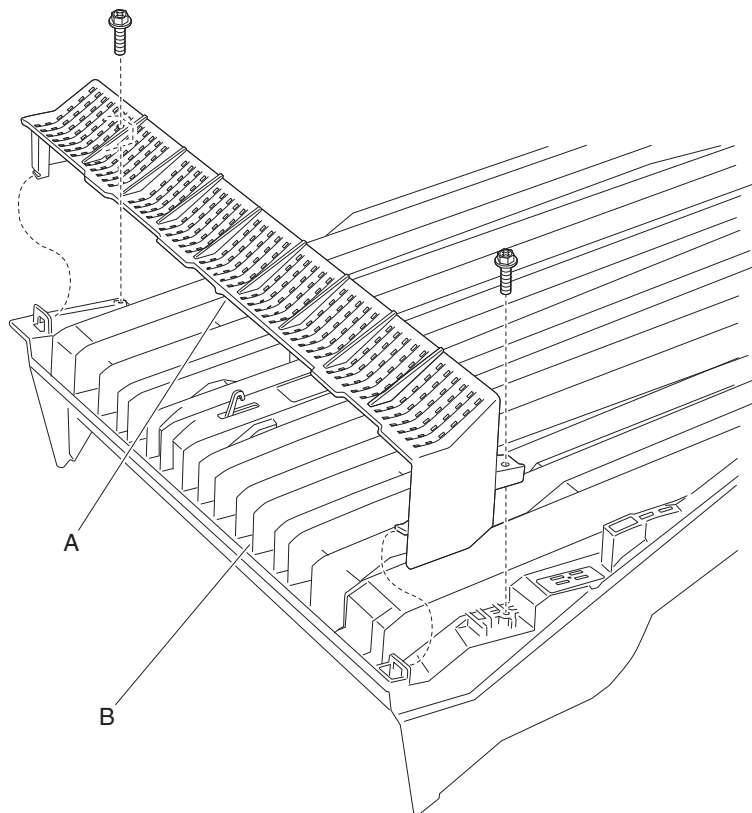
4. Release the harness from the clamp.
5. Open the bridge unit top cover assembly.
6. Remove the two screws securing the cover (B) from the bridge unit assembly (C).
7. Remove the cover (B).
8. Remove the two screws securing the bridge unit drive motor (A) to the bridge unit assembly (C).



9. Remove the bridge unit drive motor (A).

Bridge unit entrance guide removal

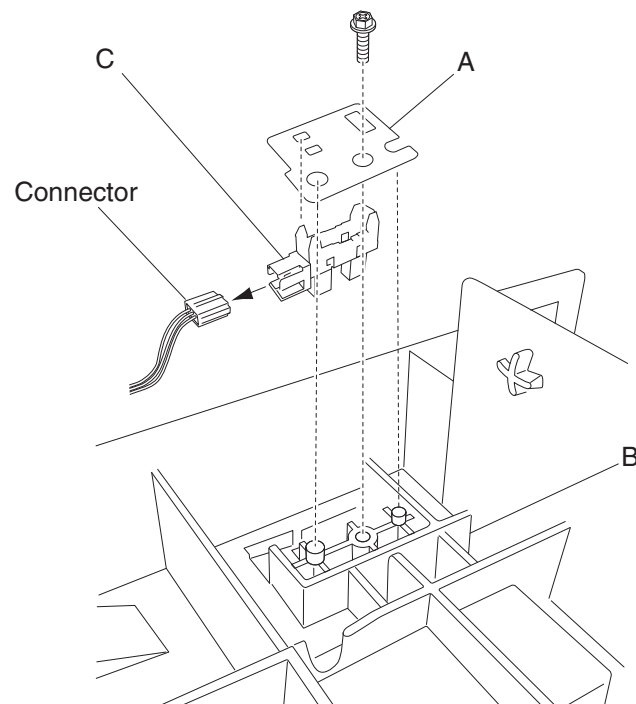
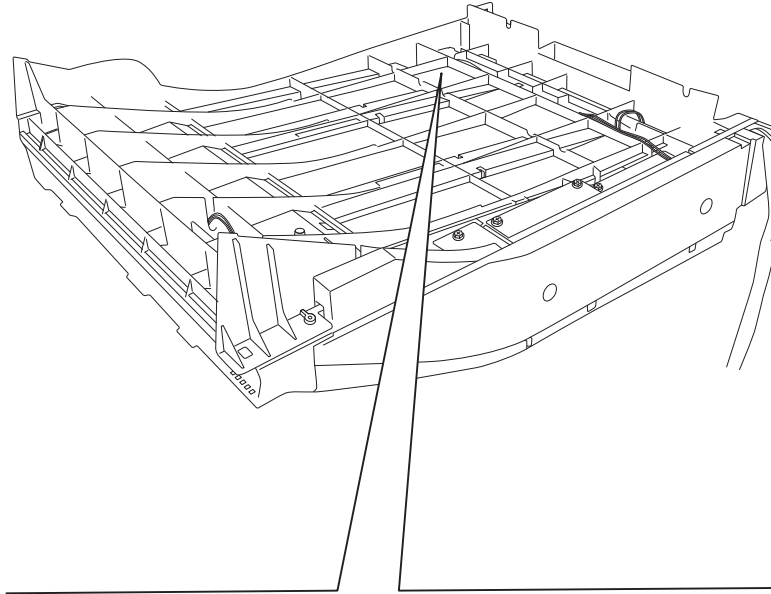
1. Remove the bridge unit rear cover. See **“Bridge unit rear cover removal”** on page 4-6.
2. Open the bridge unit top cover assembly.
3. Remove the two screws securing the bridge unit entrance guide (A) to the bridge unit assembly (B).



4. Remove the bridge unit entrance guide (A).

Sensor (bridge unit top cover interlock) removal

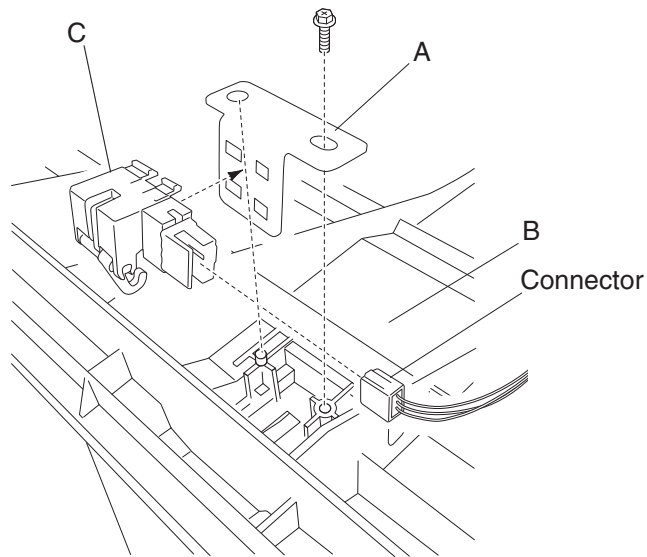
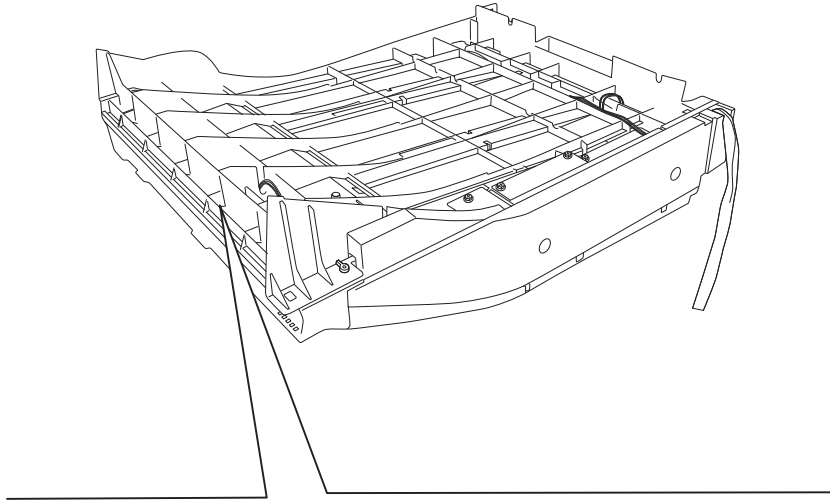
1. Remove the bridge unit assembly. See **“Bridge unit assembly removal”** on page 4-5.
2. Place the bridge unit assembly upside down.
3. Remove the screw securing the bracket (A) to the bridge unit assembly (B).
4. Disconnect the cable from the sensor (bridge unit top cover interlock) (C).



5. Release the hooks securing the sensor (bridge unit top cover interlock) (C) to the bracket (A).
6. Remove the sensor (bridge unit top cover interlock) (C).

Sensor (bridge unit media entrance) removal

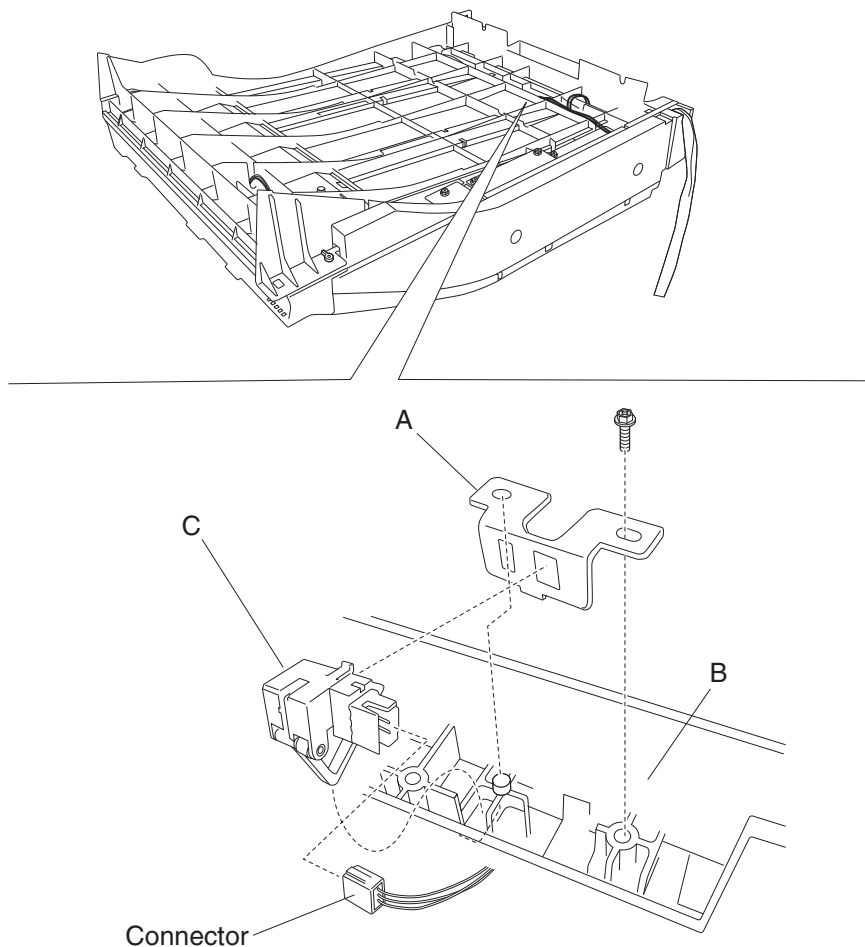
1. Remove the bridge unit assembly. See **“Bridge unit assembly removal” on page 4-5.**
2. Place the bridge unit assembly upside down.
3. Remove the screw securing the bracket (A) to the bridge unit assembly (B).
4. Disconnect the connector from the sensor (bridge unit media entrance) (C).



5. Release the hooks securing the sensor (bridge unit media entrance) (C) to the bracket (A).
6. Remove the sensor (bridge unit media entrance) (C).

Sensor (bridge unit media exit) removal

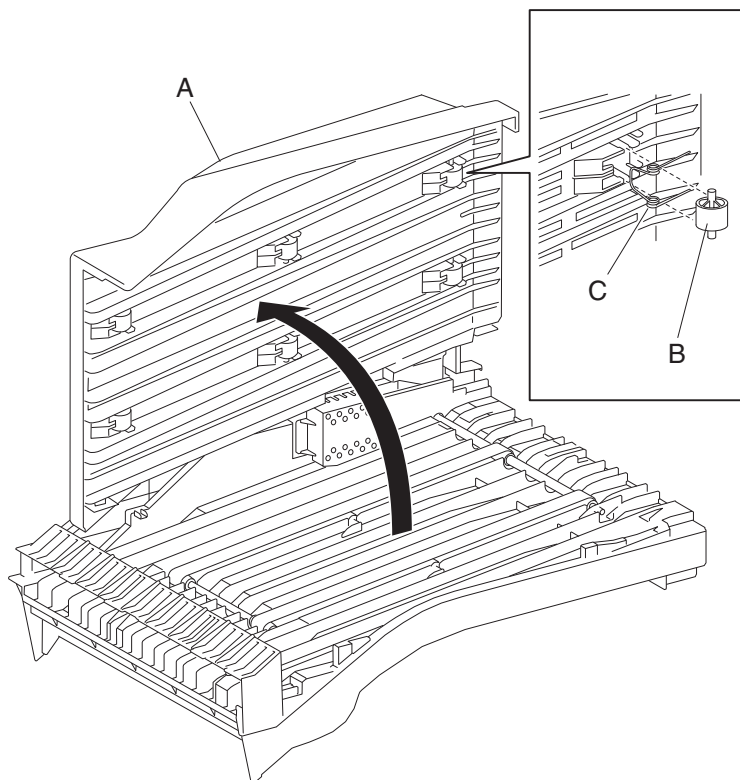
1. Remove the bridge unit assembly. See **“Bridge unit assembly removal” on page 4-5.**
2. Place the bridge unit upside down.
3. Remove the screw securing the bracket (A) to the bridge unit (B).



4. Disconnect the connector from the sensor (bridge unit media exit) (C).
5. Release the hooks securing the sensor (bridge unit media exit) (C) to the bracket (A).
6. Remove the sensor (bridge unit media exit) (C).

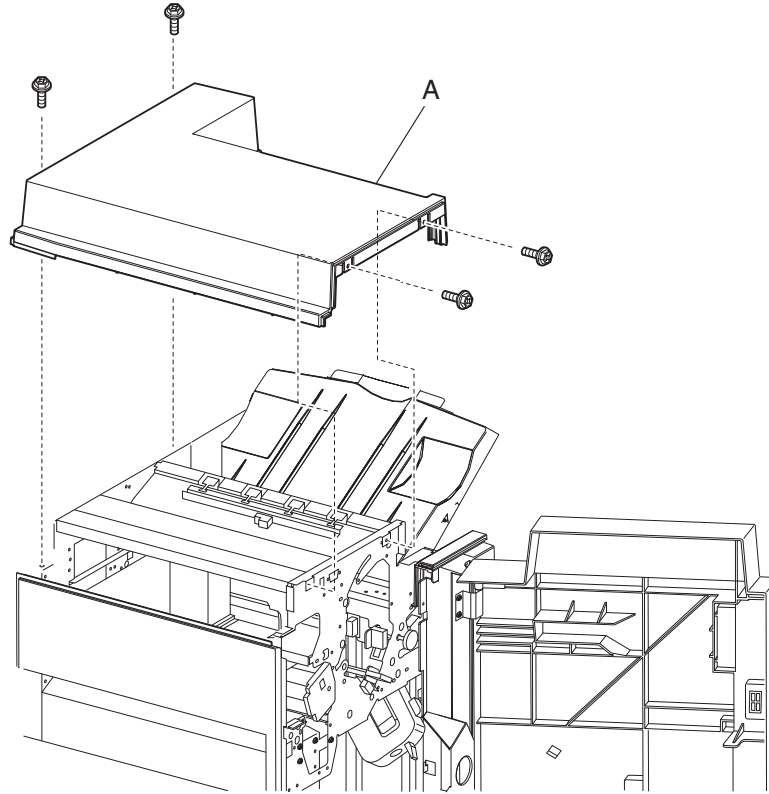
Bridge unit pinch roller removal

1. Open the bridge unit top cover assembly (A).
2. Remove the six bridge unit pinch rollers (B) by gently pulling them out of the bridge unit top cover assembly.
3. Remove the six springs (C).



Top cover removal

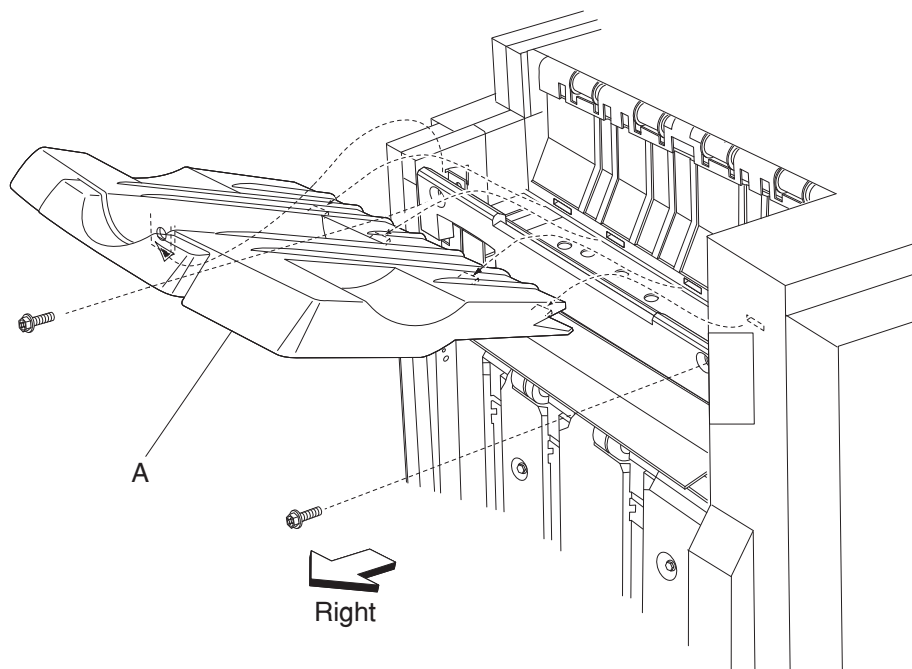
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the four screws securing the top cover (A) to the finisher.



5. Remove the top cover (A).

Upper media bin assembly removal

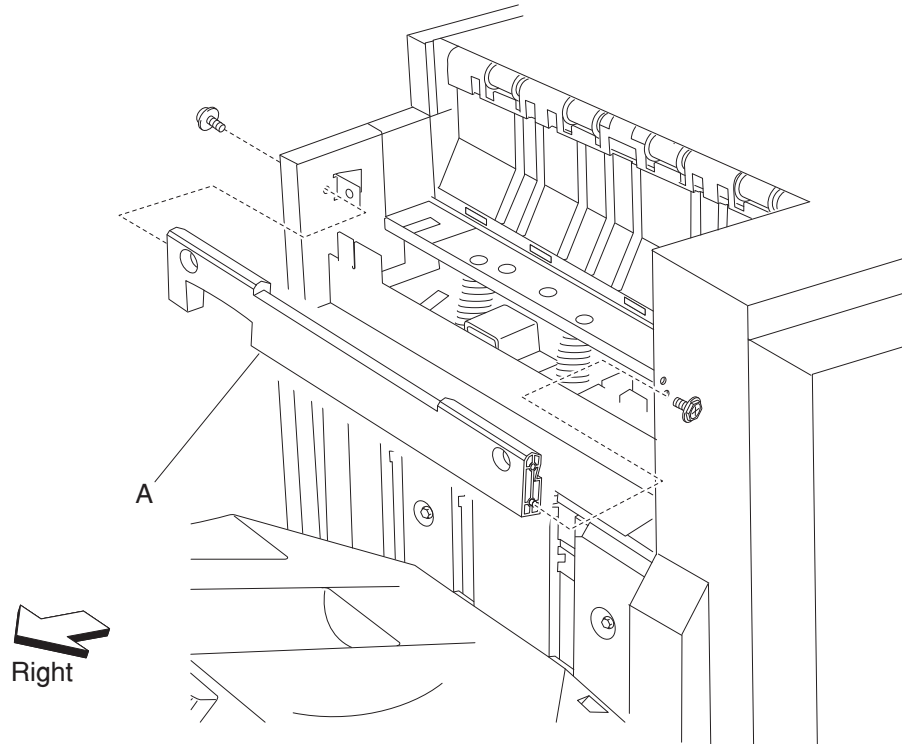
1. Loosen the two screws securing the upper media bin assembly (A) to the finisher.



2. Lift the upper media bin assembly (A) upward in the direction of the arrow.
3. Remove the upper media bin assembly (A).

Right eject cover removal

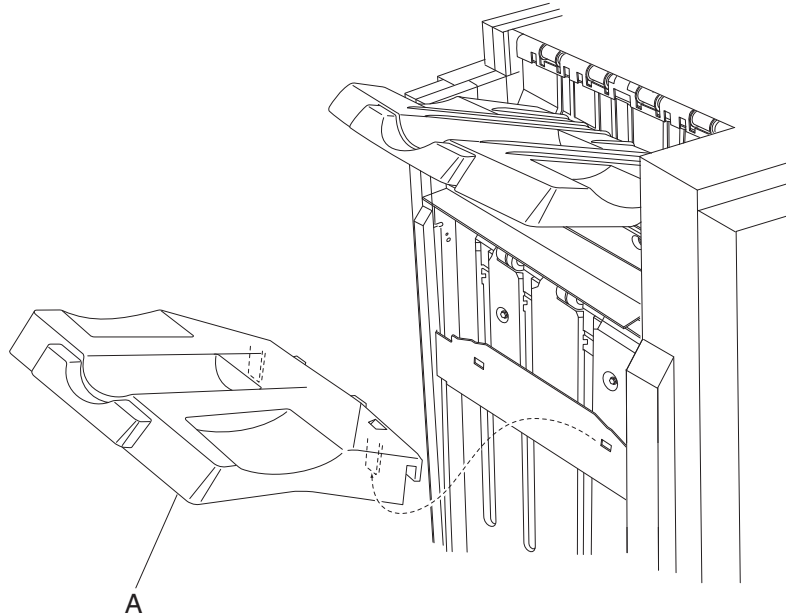
1. Remove the finisher front door assembly. See **"Finisher front door assembly removal"** on page 4-27.
2. Remove the rear upper cover. See **"Rear upper cover removal"** on page 4-24.
3. Remove the two screws securing the right eject cover (A) to the finisher.



4. Remove the right eject cover (A).

Stacker media bin assembly removal

1. Release the two hooks securing the stacker media bin assembly (A) to the finisher.



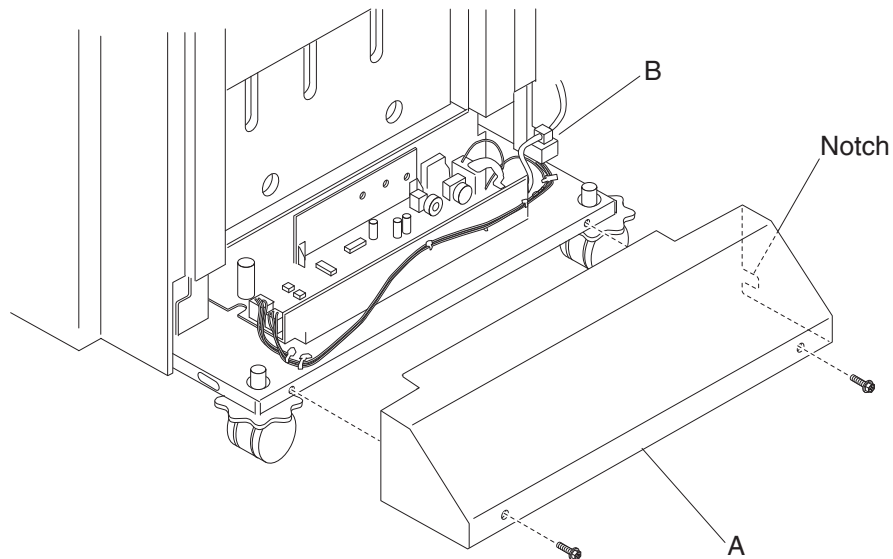
2. Lift the stacker media bin assembly (A) upward.
3. Remove the stacker media bin assembly. (A).



Right lower low voltage power supply (LVPS) cover removal

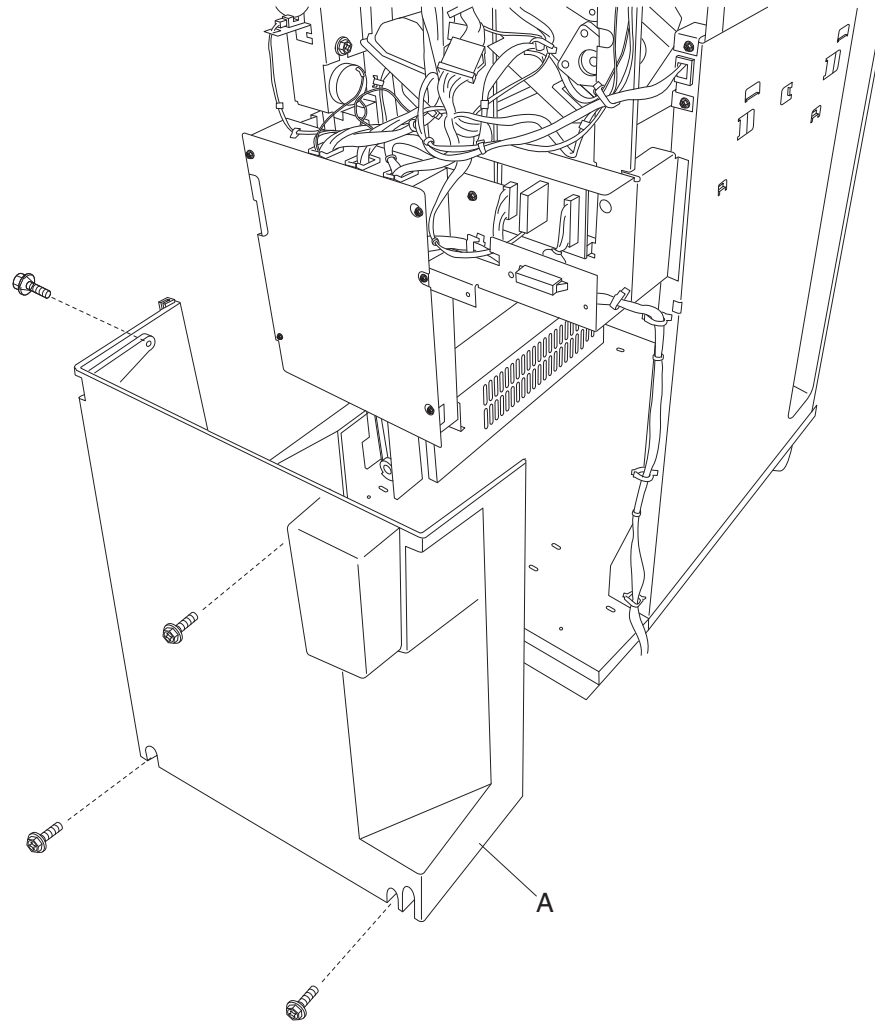
1. Remove the two screws securing the right lower LVPS cover (A) to the finisher.
2. Remove the right lower LVPS cover (A).

Replacement note: Make sure to put the power cord (B) into the notch on the right lower LVPS cover (A).



Rear lower cover removal

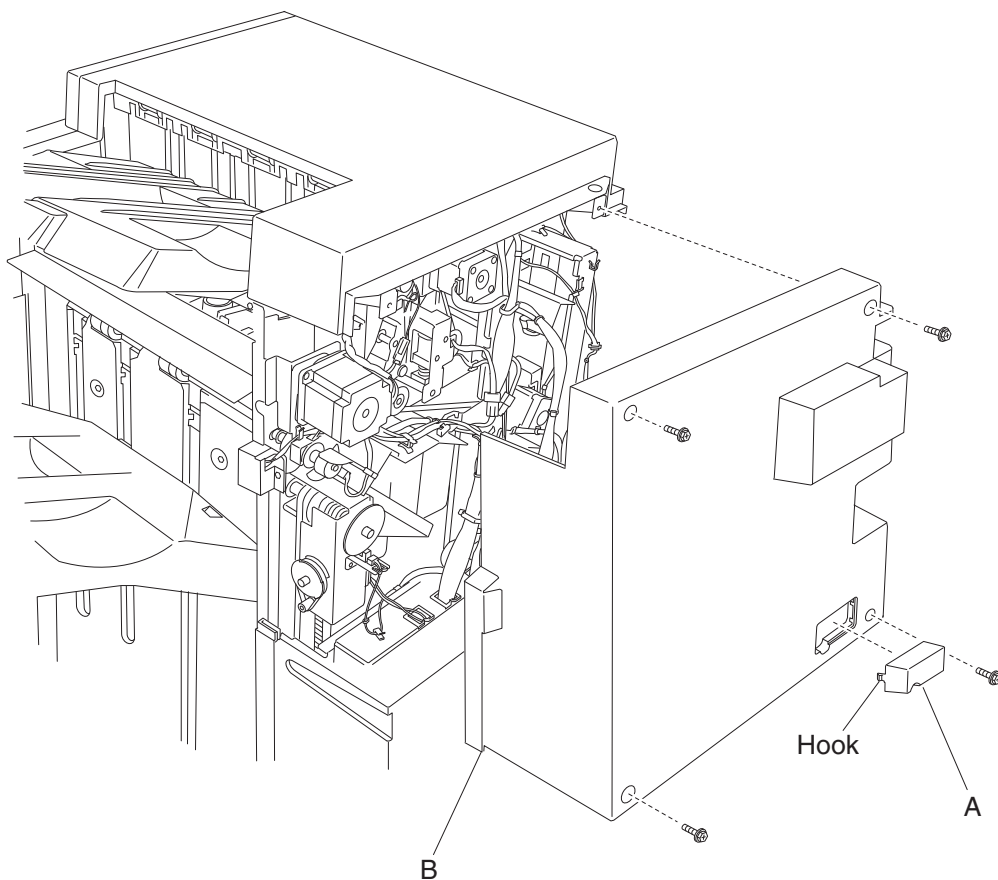
1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the four screws securing the rear lower cover (A) to the finisher.



3. Remove the rear lower cover (A).

Rear upper cover removal

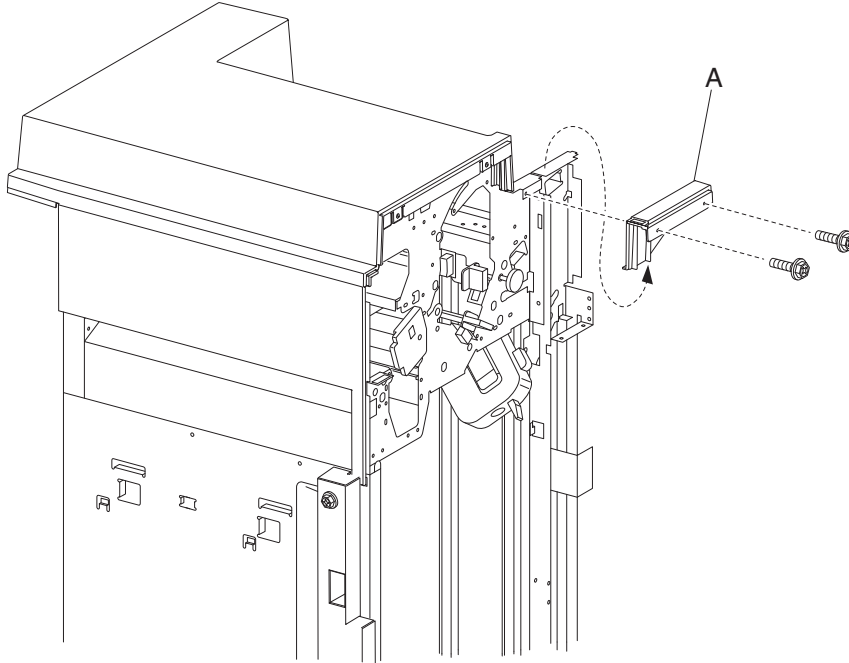
1. Release the hook of the bridge unit hookup cover (A) to the finisher.
2. Disconnect the bridge unit harness from the finisher.
3. Remove the four screws securing the rear upper cover (B) to the finisher.



4. Remove the rear upper cover (B).

Upper media bin front cover removal

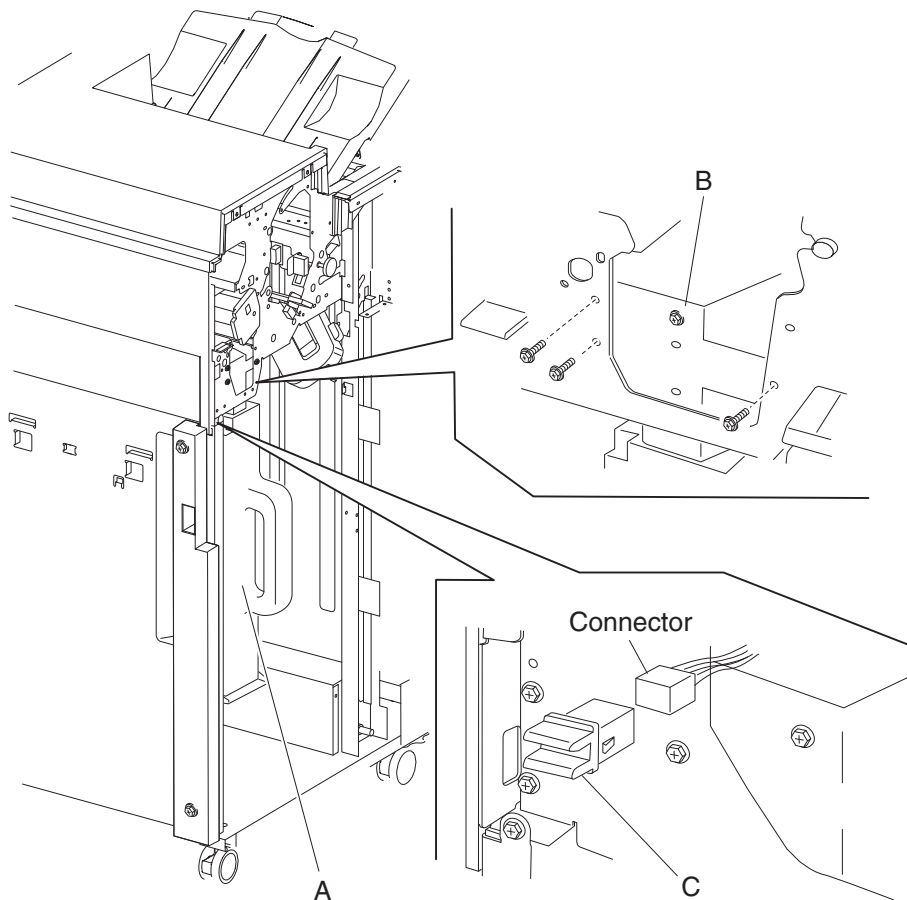
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
3. Remove the two screws securing the upper media bin front cover (A).



4. Remove the upper media bin front cover (A).

Switch (finisher front door interlock) removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the punch waste box (A).
4. Remove the three screws in the front securing the punch waste chute (B).
5. Gently pull down the punch waste chute (B) to gain better access to the switch (finisher front door interlock) (C).
6. Disconnect the connector from the switch (finisher front door interlock) (C).

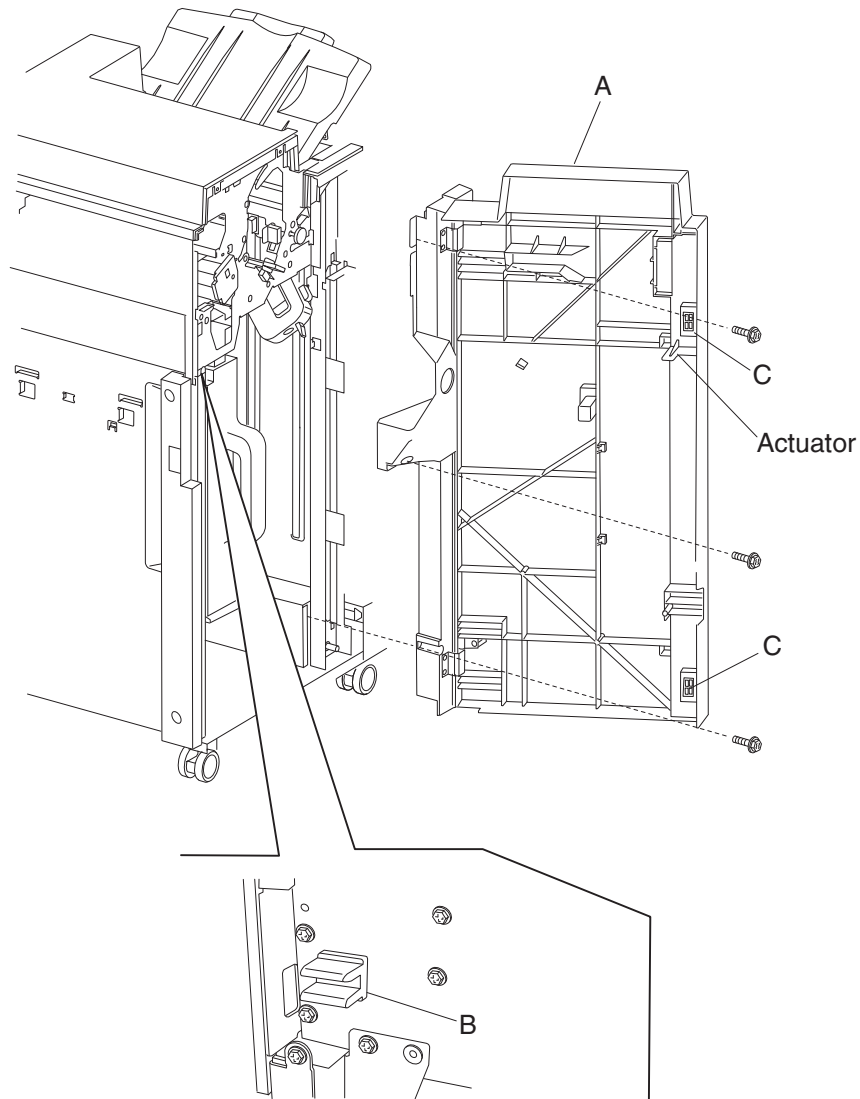


7. Release the hooks securing the switch (finisher front door interlock) (C) to the finisher.
8. Remove the switch (finisher front door interlock) (C).

Finisher front door assembly removal

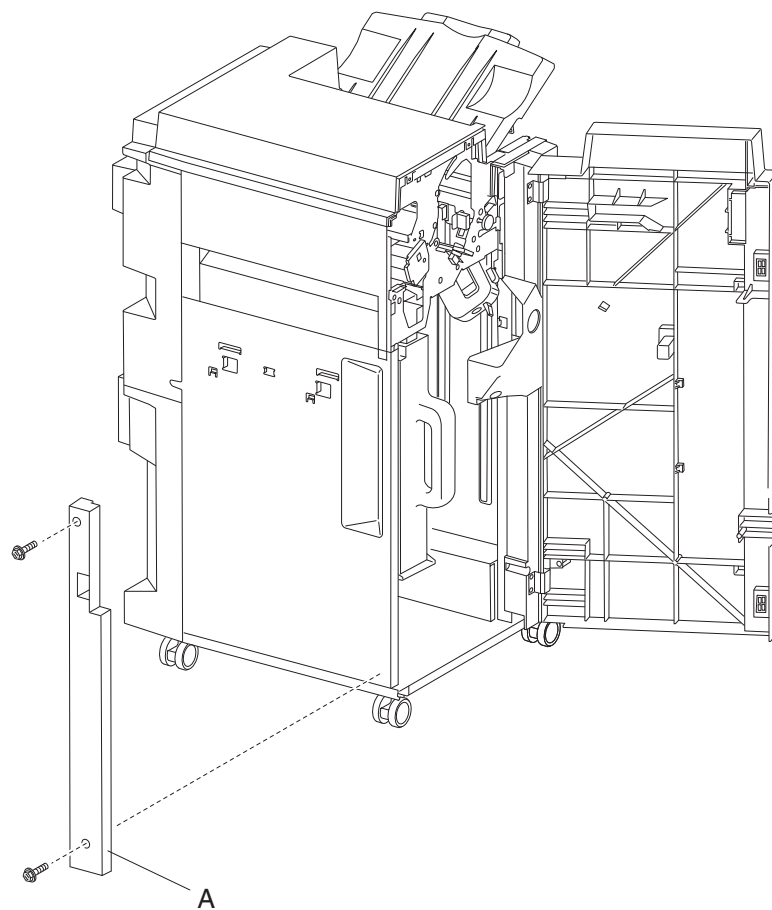
1. Open the finisher front door assembly (A).
2. Remove the three screws securing the finisher front door assembly.
3. Remove the finisher front door assembly.

Replacement note: Make sure the actuator molded in the finisher front door assembly properly engages the switch (finisher front door interlock) (B). The two magnetic catches (C) should properly engage the finisher.



Left lower cover removal

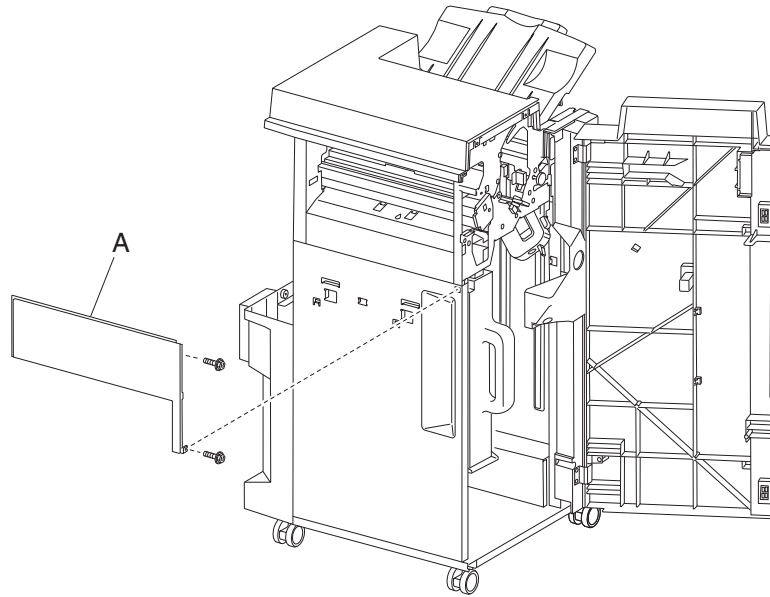
1. Open the finisher front door assembly.
2. Remove the two screws securing the left lower cover (A).



3. Remove the left lower cover (A).

Left upper cover removal

1. Open the finisher front door assembly.
2. Remove the two screws securing the left upper cover (A).

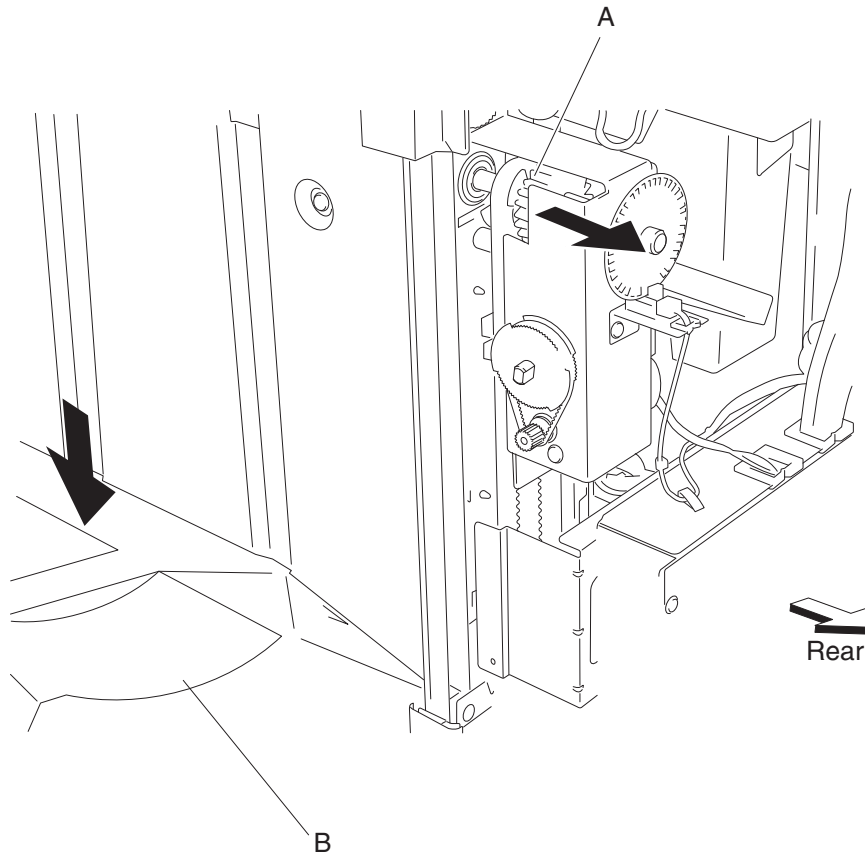


3. Remove the left upper cover (A).

Carriage lift belt left removal

1. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
2. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
3. Move the slip clutch gear 24T (A) toward the rear to disengage the stacker bin (B).
4. Move the stacker bin (B) down to its lowest position after being disengaged.

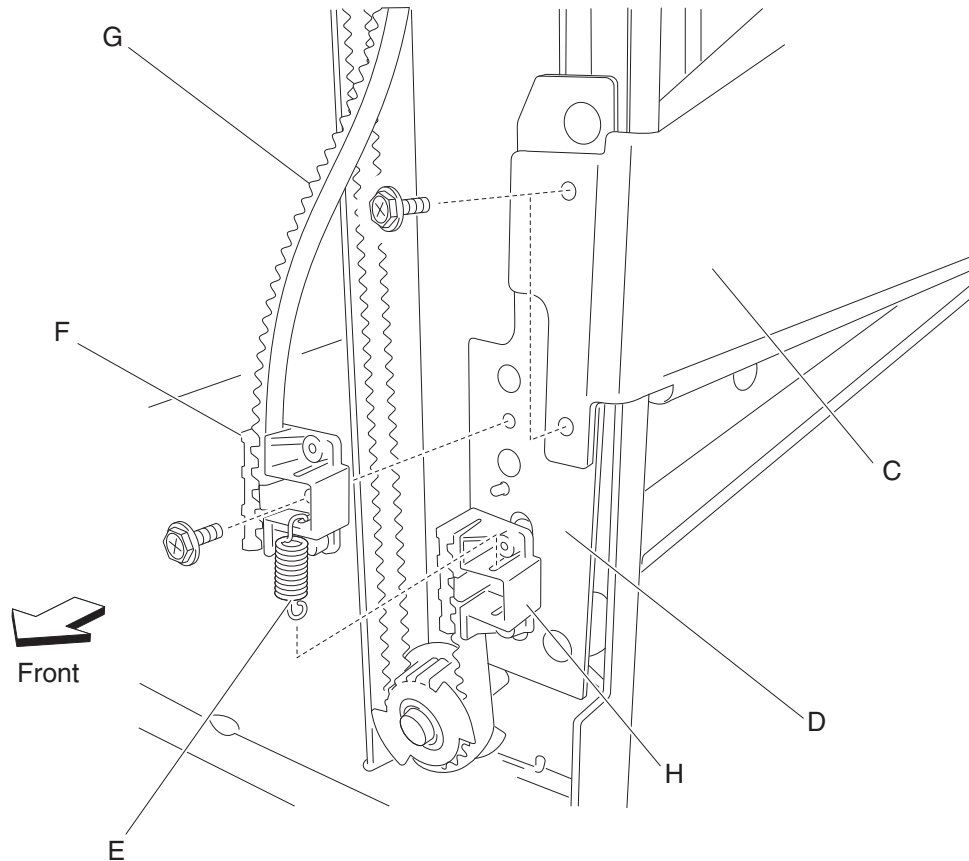
Note: Make sure the stacker bin is at its lowest position before continuing.



5. Remove the two screws securing the bin bracket (C) to the left carriage bracket (D).
6. Remove the spring (E) from the left carriage lift assembly.
7. Remove the screw securing the upper belt clamp (F) to the left carriage bracket (D).
8. Remove the upper belt clamp (F).
9. Remove the left carriage bracket with the carriage lift belt (G) from the finisher.
10. Release the hook securing the carriage lift belt (G) to the lower belt clamp (H).
11. Remove the carriage lift belt (G).

Replacement notes:

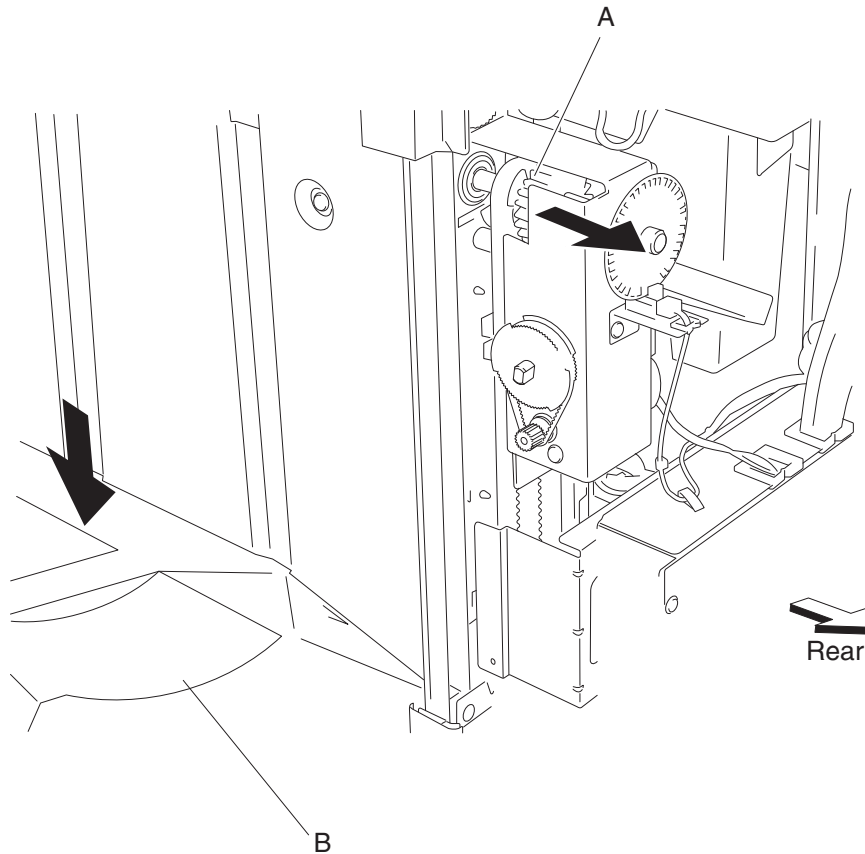
- Make sure the carriage lift belt (G) is inserted into the upper belt clamp (F) as shown.
- Make sure the bin bracket (C) is level to prevent binding.



Carriage lift belt right removal

1. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
2. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
3. Move the slip clutch gear 24T (A) toward the rear to disengage the stacker bin (B).
4. Move the stacker bin (B) to its lowest position.

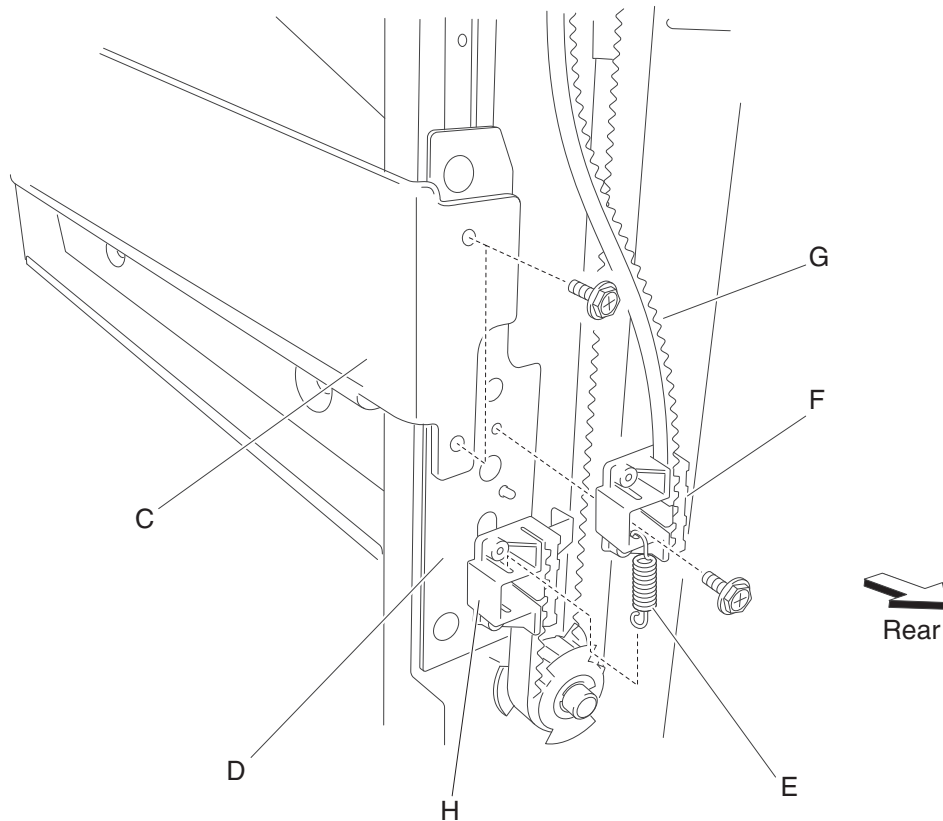
Note: Make sure the stacker bin is at the lowest position before continuing.



5. Remove the two screws securing the bin bracket (C) to the right carriage bracket (D).
6. Remove the spring (E) from the right carriage bracket (D).
7. Remove the screw securing the upper belt clamp (F) to the right carriage bracket (D).
8. Remove the upper belt clamp (F).
9. Remove the right carriage bracket (D) with the carriage lift belt (G) from the finisher.
10. Release the hook securing the carriage lift belt (G) to the lower belt clamp (H).
11. Remove the carriage lift belt (G).

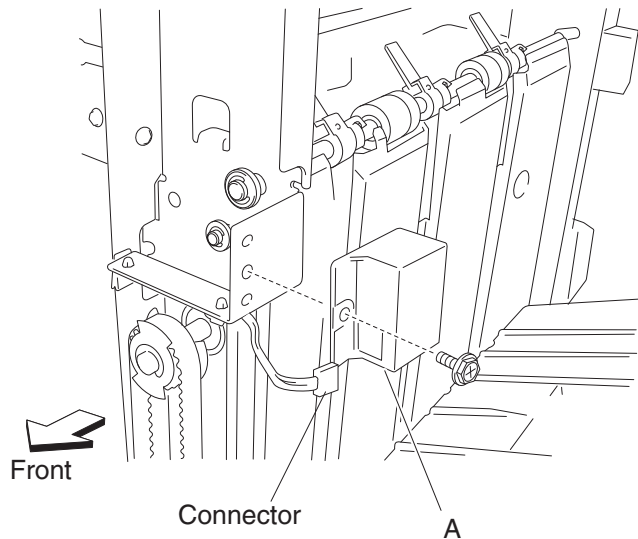
Replacement notes:

- Make sure the carriage lift belt (G) is inserted into the upper belt clamp (F) as shown.
- Make sure the bin bracket (C) is level to prevent binding.



Sensor (stacker bin level 1) removal

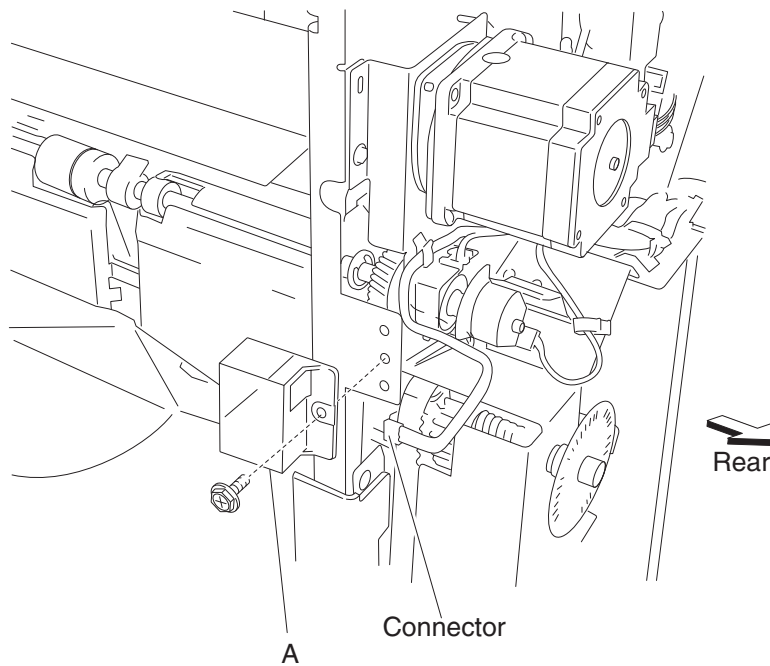
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Disconnect the connector from the sensor (stacker bin level 1) (A).



4. Remove the screw securing the sensor (stacker bin level 1) (A) to the finisher.
5. Remove the sensor (stacker bin level 1) (A).

Sensor (stacker bin level 2) removal

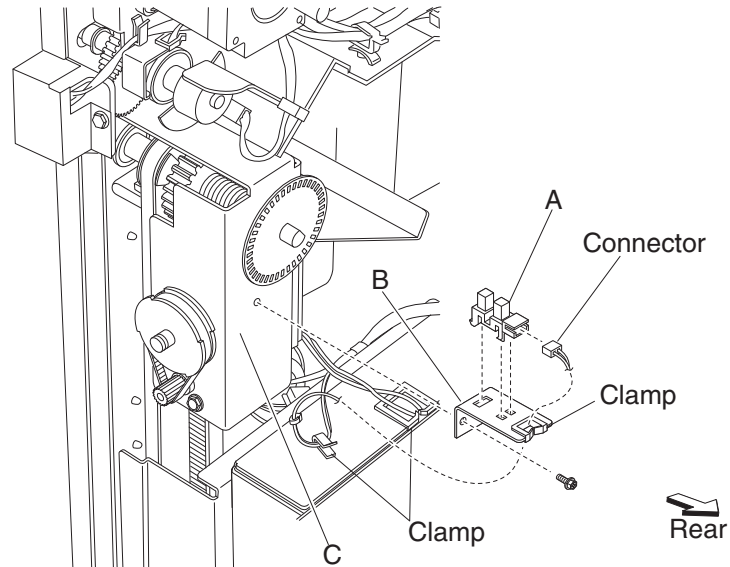
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Disconnect the connector from the lift tray height sensor (stacker bin level 2) (A).



4. Remove the screw securing the sensor (stacker bin level 2) (A).
5. Remove the sensor (stacker bin level 2) (A).

Sensor (stacker bin level encoder) removal

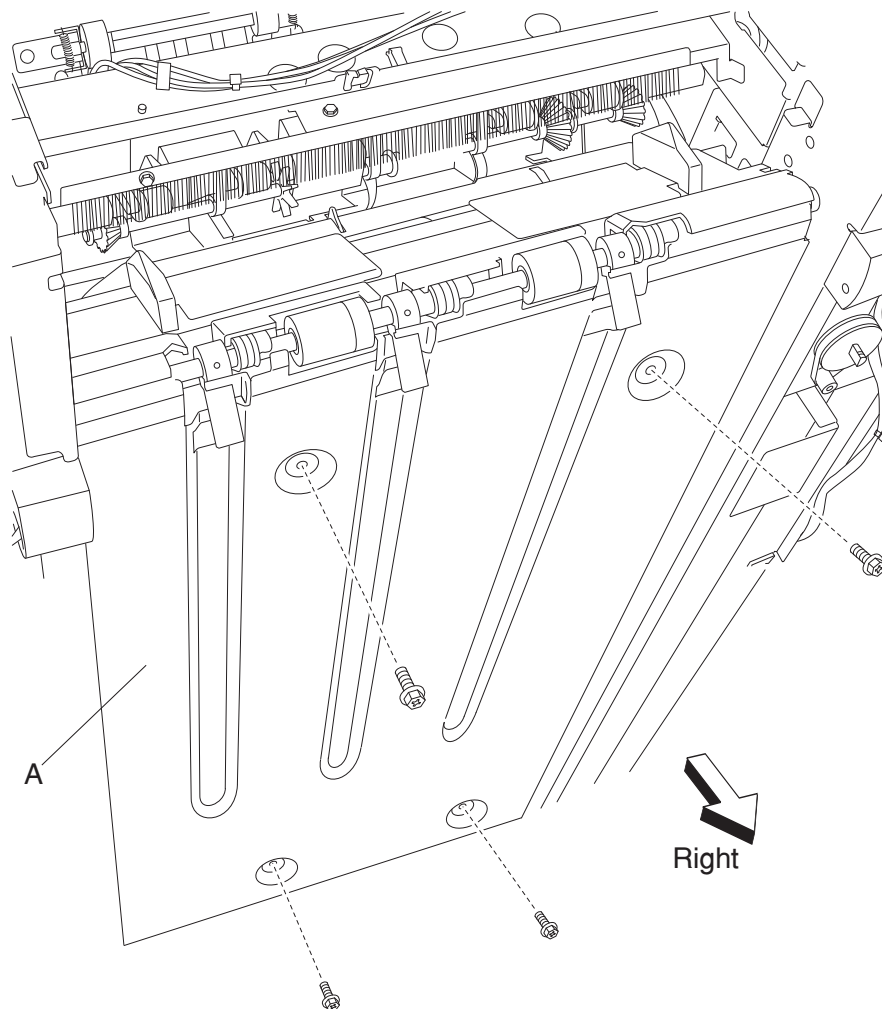
1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Disconnect the connector from the sensor (stacker bin level encoder) (A).
3. Release the harness from the clamp.
4. Remove the screw securing the bracket (B) from the stacker bin lift motor assembly (C).



5. Release the hooks securing the sensor to the bracket (B).
6. Remove the sensor (stacker bin level encoder) (A).

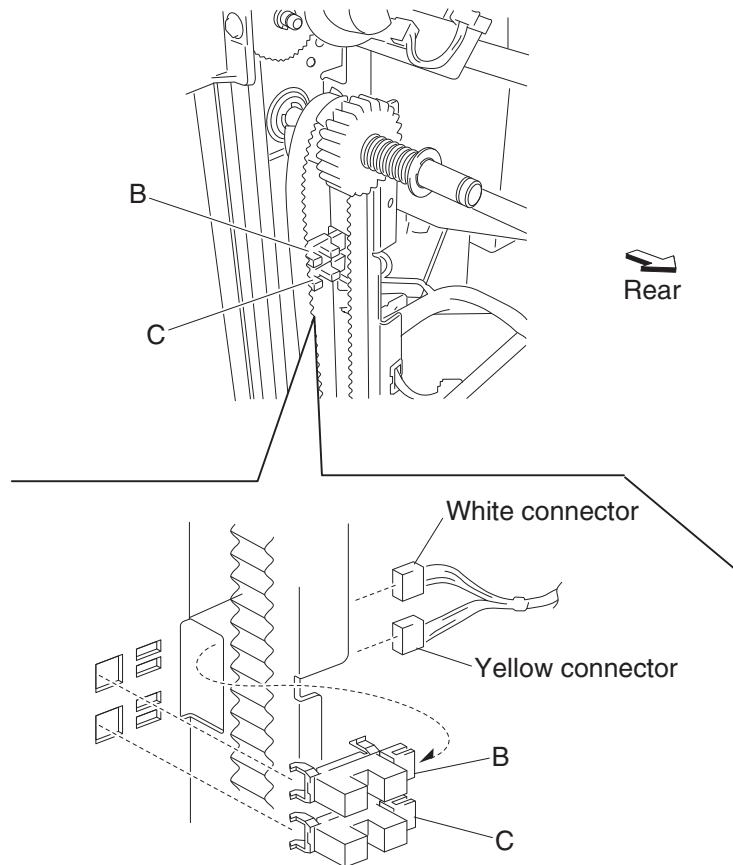
Sensor (stacker bin upper limit) or sensor (stacker bin no media) removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the rear lower cover. See **“Rear lower cover removal”** on page 4-23.
3. Remove the stacker media bin assembly. See **“Stacker media bin assembly removal”** on page 4-22.
4. Remove the stacker bin lift motor assembly. See **“Stacker bin lift motor assembly removal”** on page 4-38.
5. Remove the four screws securing the metal cover (A) to the finisher.
6. Remove the metal cover (A).



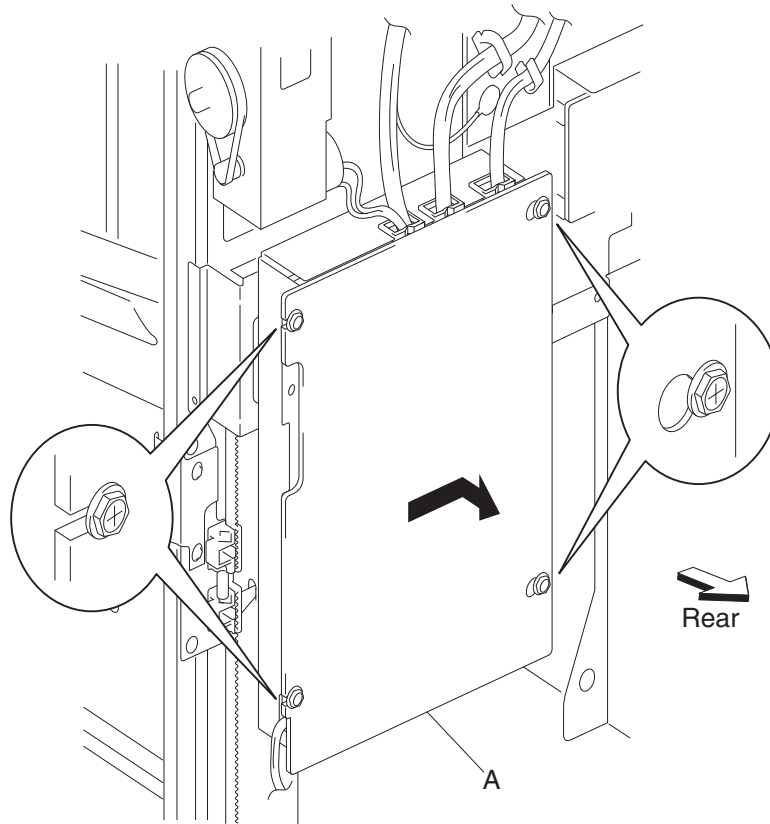
7. Disconnect the connector from the sensor (stacker bin upper limit) (B) or the sensor (stacker bin no media) (C).
8. Release the hooks of the selected sensor.
9. Remove the sensor.

Replacement note: Make sure that the yellow connector is plugged into the sensor (stacker bin no media) (C).



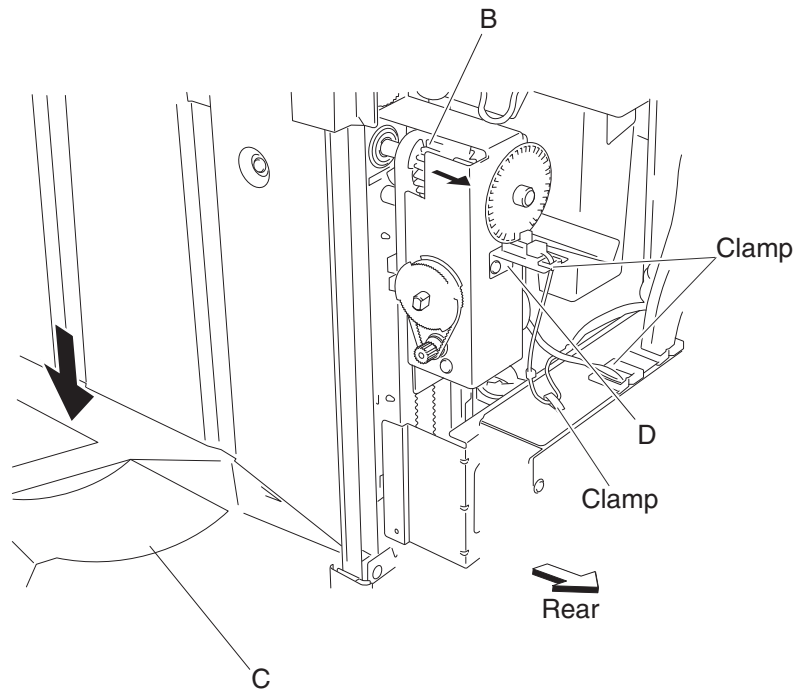
Stacker bin lift motor assembly removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the rear lower cover. See **“Rear lower cover removal”** on page 4-23.
3. Loosen the four screws securing the plate (A).
4. Move the plate (A) toward the right as shown.

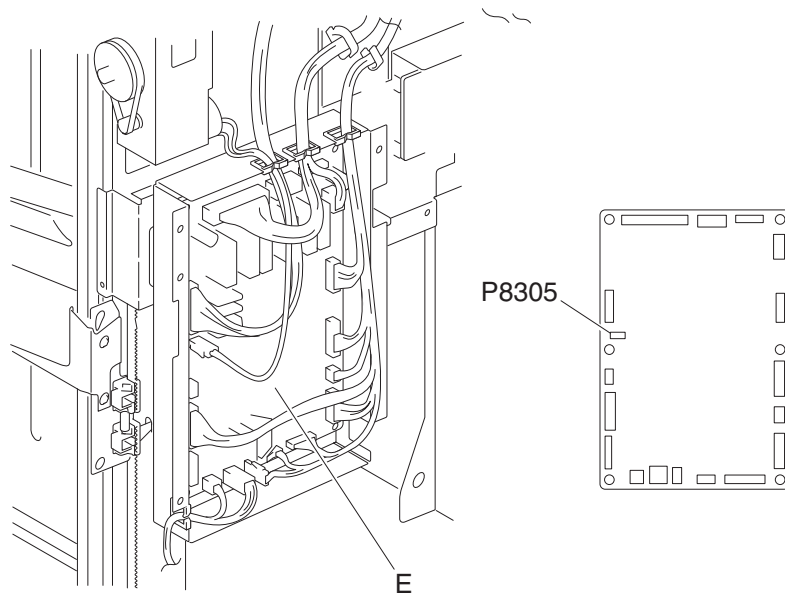


5. Remove the plate (A).

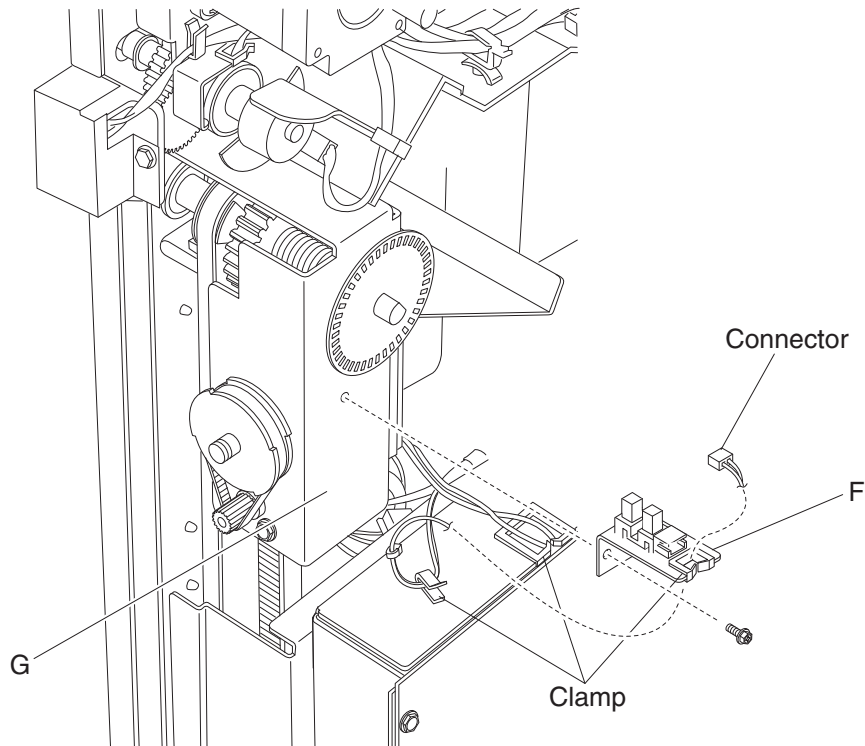
6. Move the slip clutch gear 24T (B) toward the rear to disengage the stacker bin (C).
7. Move the stacker bin (C) to the lowest position.
Note: Make sure the stacker bin (C) is at the lowest position before continuing.
8. Disconnect the connector from the sensor (stacker bin level encoder) (D).
9. Release the harness from the clamps.



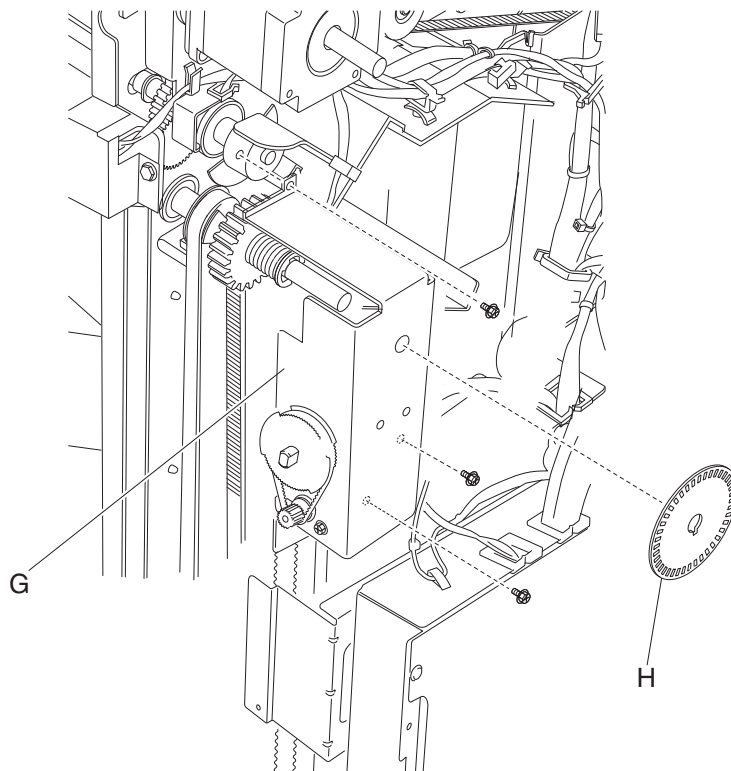
10. Disconnect the connector (P8305) from the finisher controller card assembly (E).



11. Remove the screw securing the bracket (F) to the stacker bin lift motor assembly (G).
12. Remove the bracket (F).



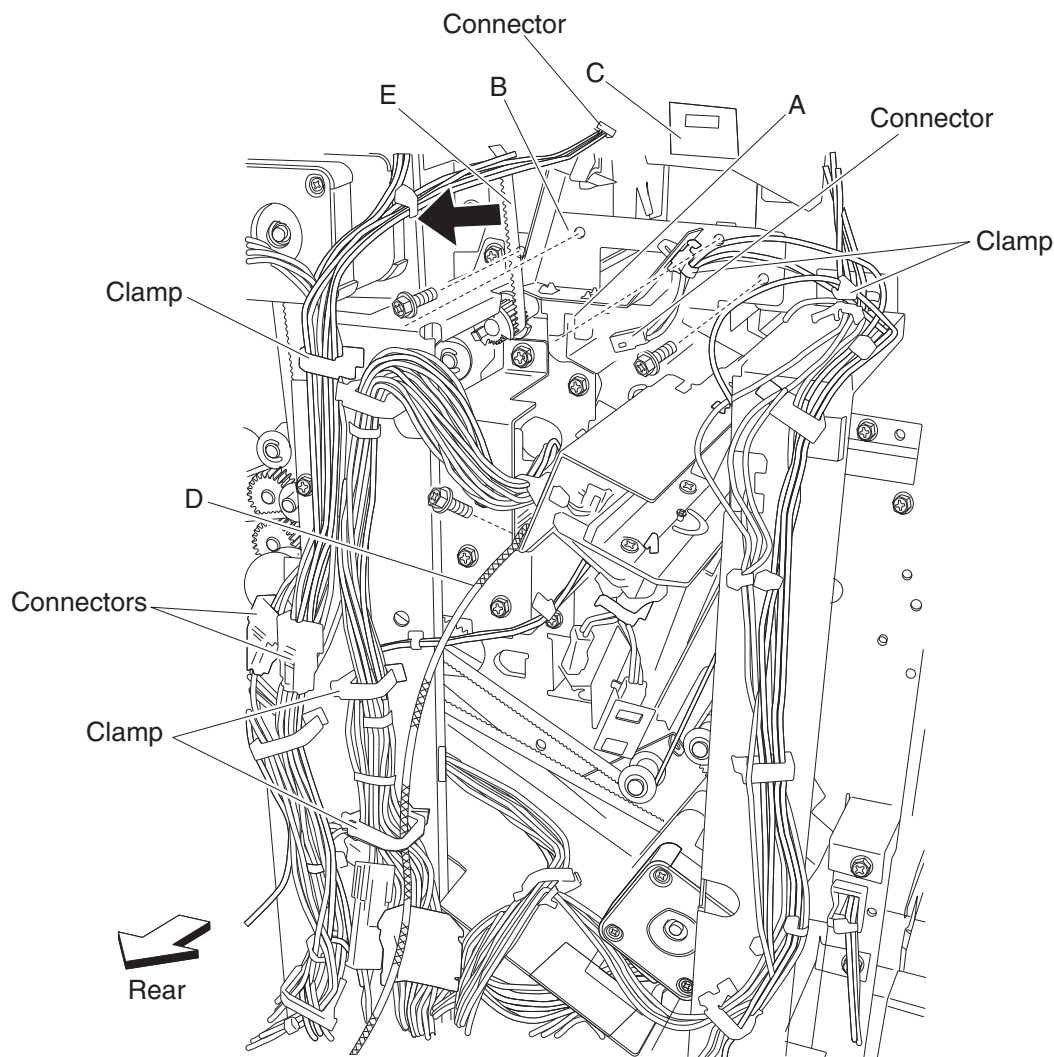
13. Release the hook securing the encoder (H) to the stacker bin lift motor assembly (G).
14. Remove the encoder.
15. Remove the three screws securing the stacker bin lift motor assembly (G) to the finisher.



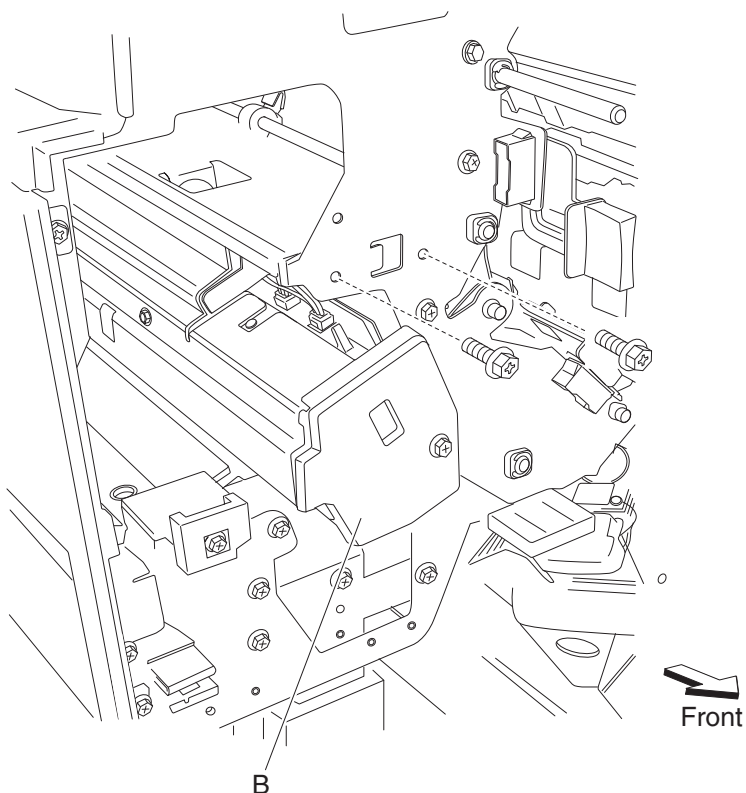
16. Remove the stacker bin lift motor assembly (G).

Punch carriage assembly removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the connector from the sensor (punch carriage shift HP) (A).
5. Remove the top cover. See **“Top cover removal” on page 4-19.**
6. Release the harness from the punch carriage assembly (B).
7. Remove the connector from the punch carriage shift motor assembly (C).
8. Release the two punch unit assembly harnesses from the three clamps on the rear of the finisher.
9. Disconnect the two punch unit assembly harnesses from the main harness.
10. Remove the screw securing the grounding wire (D) to the punch unit carriage assembly (B).
11. Remove the two screws on the rear securing the punch carriage assembly (B) to the finisher.



12. Remove the two screws on the front securing the punch carriage assembly (B) to the finisher.



13. While moving the belt (buffer/transport) (E) to the left as shown, pull the punch carriage assembly (B) gently out of the rear of the finisher.

Warning: Do not force the punch carriage assembly (B) out of the finisher. Be sure to hold the unit firmly to avoid dropping it.

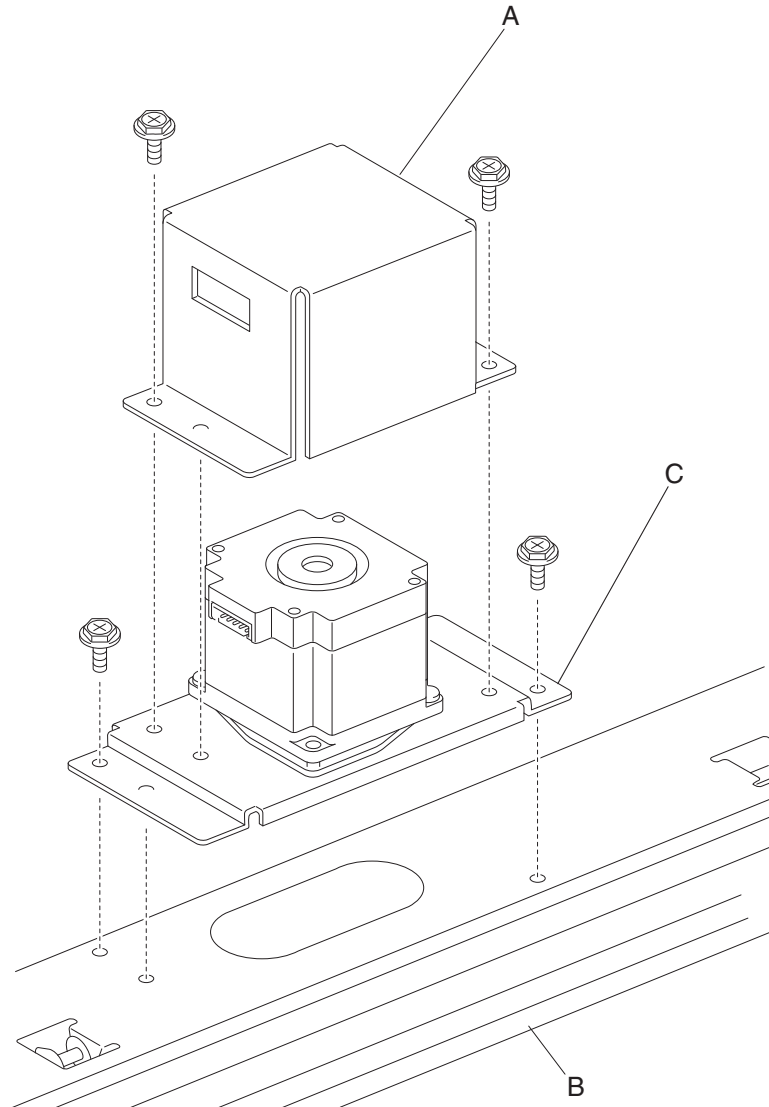
Replacement notes:

Warning: Make sure the punch carriage assembly is able to shift back and forth completely without binding the harnesses, or damage will occur.

- Do not force the punch unit into the finisher.
- Be sure to hold the punch carriage assembly firmly to avoid dropping it.
- Make sure all harnesses are properly clamped.
- Make sure the harnesses do not come into contact with any rotating mechanisms.

Punch carriage shift motor assembly removal

1. Open the finisher front door assembly.
2. Remove the upper media bin assembly. See **"Upper media bin assembly removal" on page 4-20.**
3. Remove the top cover. See **"Top cover removal" on page 4-19.**
4. Remove the rear upper cover. See **"Rear upper cover removal" on page 4-24.**
5. Remove the punch carriage assembly. See **"Punch carriage assembly removal" on page 4-41.**
6. Remove the two screws securing the cover (A) to the punch carriage assembly (B).
7. Remove the cover (A).
8. Remove the two screws securing the punch carriage shift motor assembly (C) to the punch unit assembly (B).

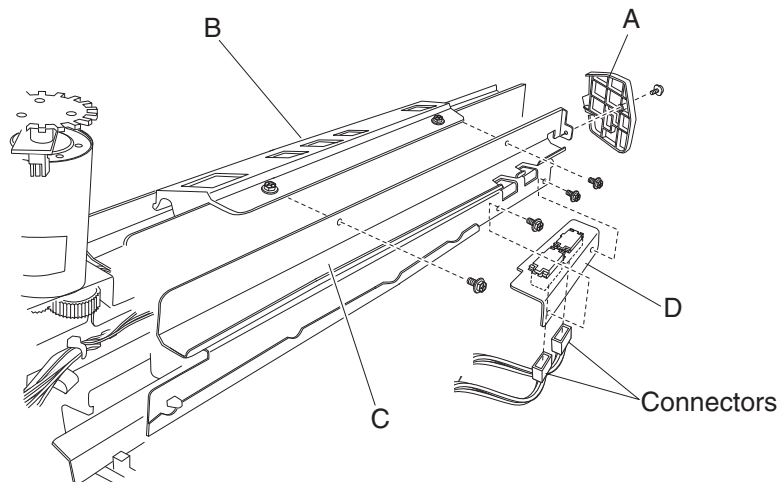


9. Remove the punch carriage shift motor assembly (C).

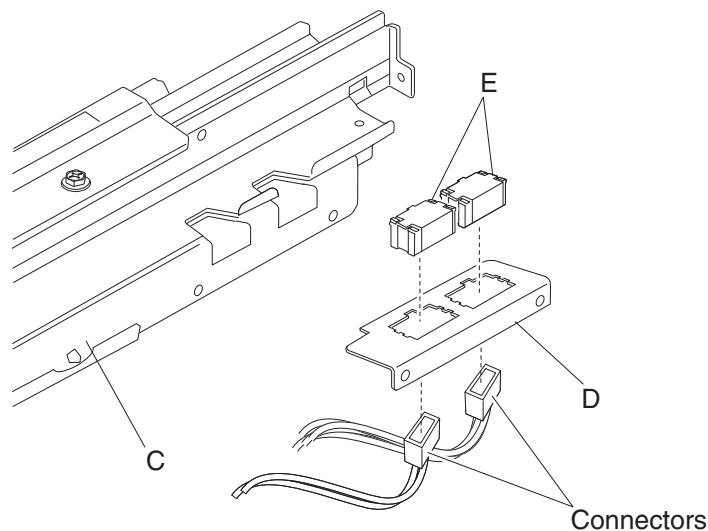
Sensor (punch unit side registration pair) with bracket removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
6. Remove the screw securing the cover (A) to the punch unit assembly (B).
7. Remove the cover.
8. Remove the two screws securing the paper guide (C) to the punch unit assembly (B).

Note: Do not remove the harness attached to the paper guide (C).



9. Turn the paper guide (C) upside down.
10. Remove the two screws securing the bracket (D) to the paper guide (C).
11. Remove the bracket (D).
12. Remove the two connectors from the sensor (punch unit side registration pair) (E).
13. Release the hooks securing the sensors (punch unit side registration pair) (E) to the bracket (D).

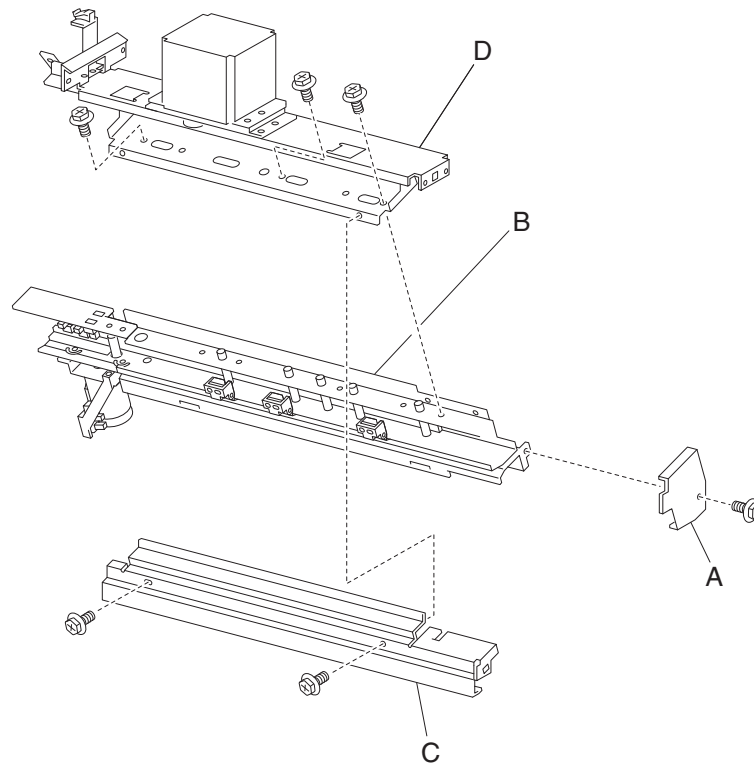


14. Remove the sensor (punch unit side registration pair) (E).

Note: The two sensors are identical.

Punch unit assembly removal

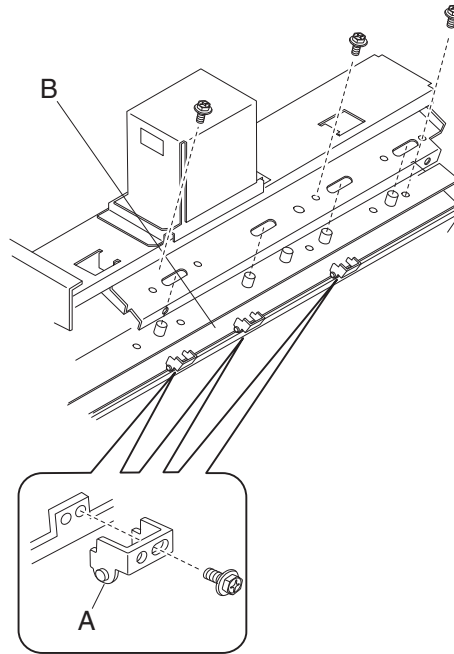
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
6. Remove the screw securing the cover (A) to the punch unit assembly (B).
7. Remove the cover (A).
8. Remove the two screws securing the bracket (C) to the punch carriage assembly (D).
9. Remove the bracket (C).
10. Remove the three screws securing the punch carriage assembly (D) to the punch unit assembly (B).



11. Remove the punch unit assembly (B).

Punch media stop assembly removal

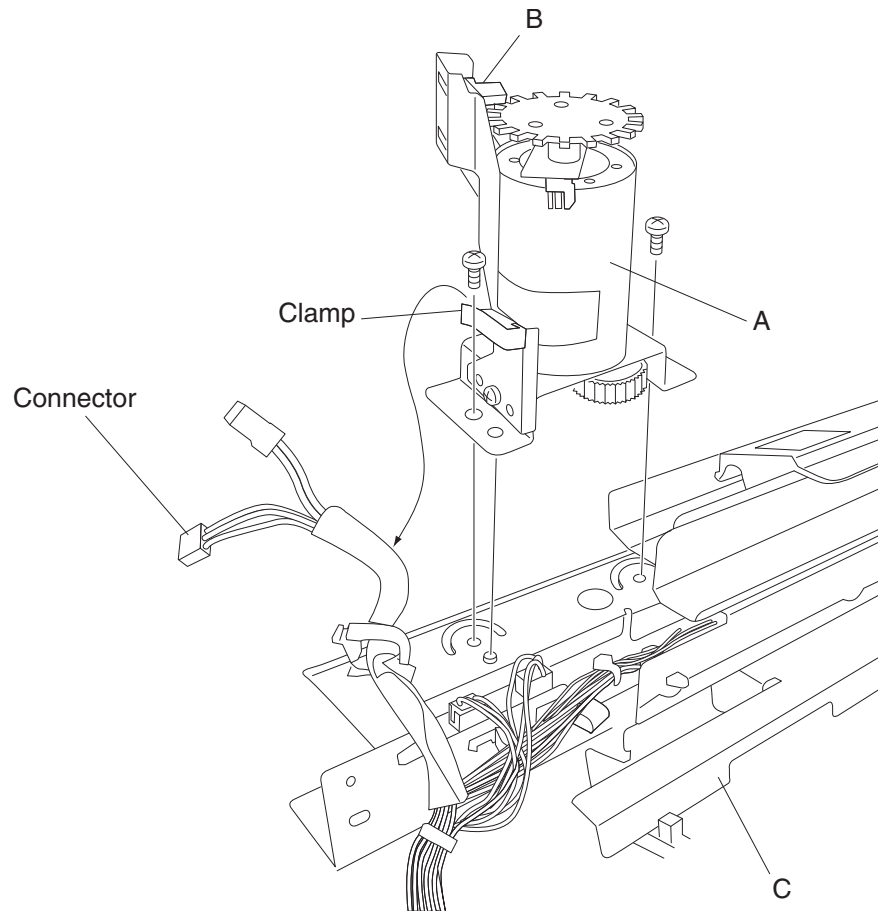
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
6. Remove the punch unit assembly. See **“Punch unit assembly removal” on page 4-45.**
7. Remove the three screws securing the three punch media stop assemblies (A) to the punch unit assembly (B).



8. Remove the three punch media stop assemblies (A).

Punch unit motor assembly removal

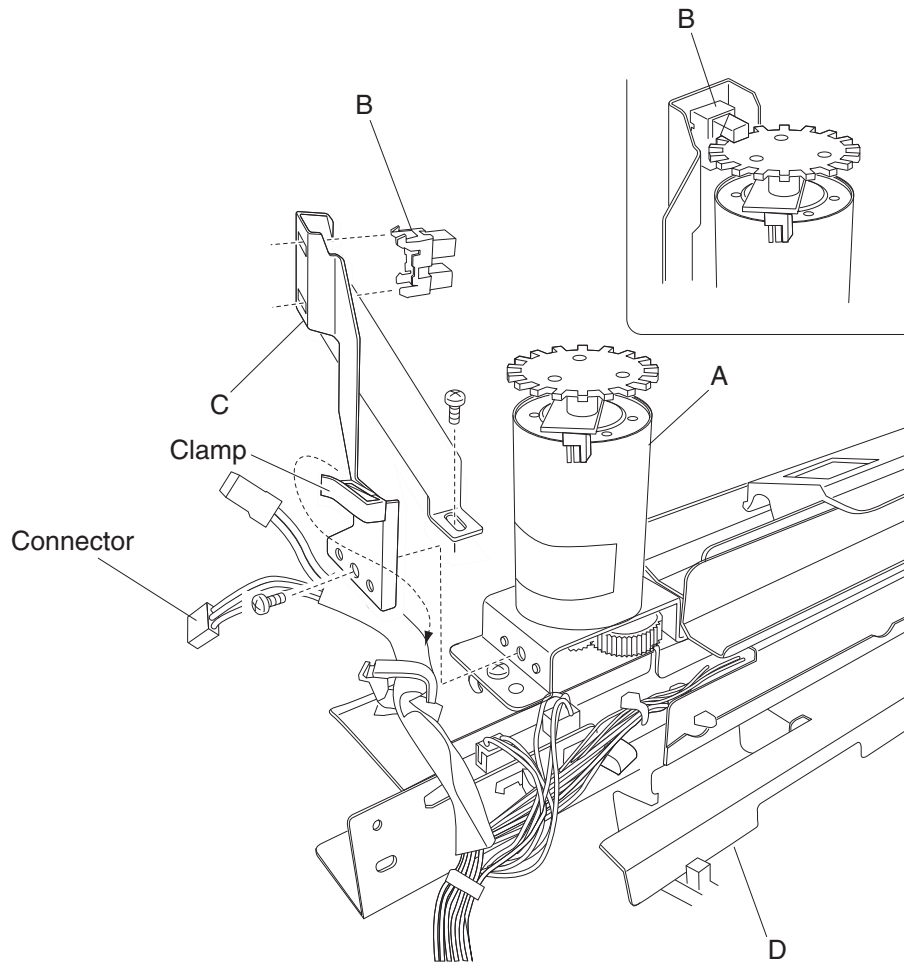
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **"Rear upper cover removal"** on page 4-24.
3. Remove the upper media bin assembly. See **"Upper media bin assembly removal"** on page 4-20.
4. Remove the connector from the sensor (punch carriage shift HP) (A).
5. Remove the top cover. See **"Top cover removal"** on page 4-19.
6. Remove the punch carriage assembly. See **"Punch carriage assembly removal"** on page 4-41.
7. Disconnect the connector from the punch unit motor assembly (A).
8. Disconnect the connector from the sensor (punch unit motor encoder) (B).
9. Remove the harness from the clamp.
10. Remove the two screws securing the punch unit motor assembly (A) to the punch unit assembly (C).



11. Remove the punch unit motor assembly.

Sensor (punch unit motor encoder) removal

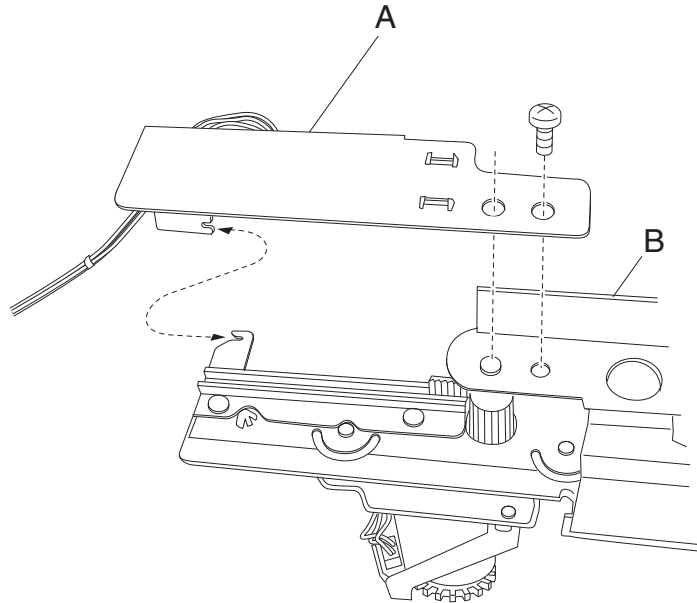
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
6. Disconnect the connector from the punch unit motor assembly (A).
7. Disconnect the connector from the sensor (punch unit motor encoder) (B).
8. Remove the harness from the clamp.
9. Remove the two screws securing the bracket (C) to the punch unit assembly (D).



10. Release the hooks securing the sensor (punch unit motor encoder) (B) to the bracket (C).
11. Remove the sensor (punch unit motor encoder) (B).

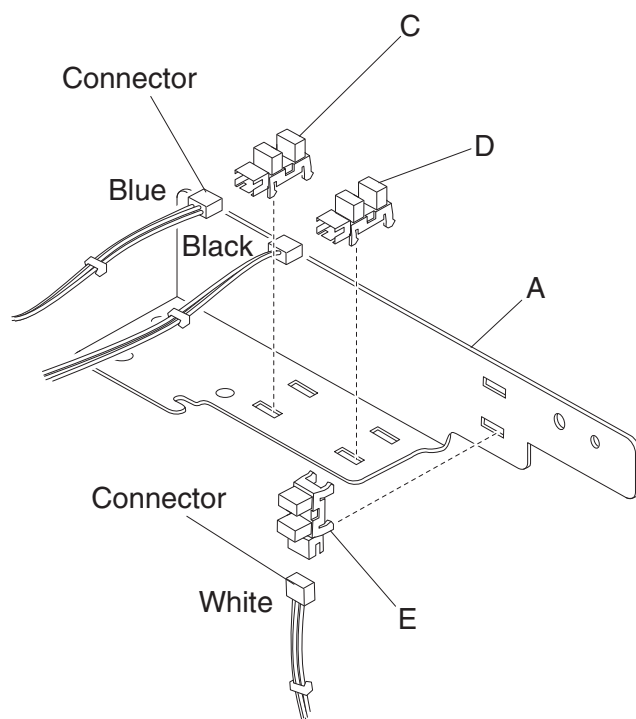
Sensor (punch hole select), sensor (punch cam front), and sensor (punch unit HP) removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
4. Remove the screw securing the bracket (A) to the punch unit assembly (B).



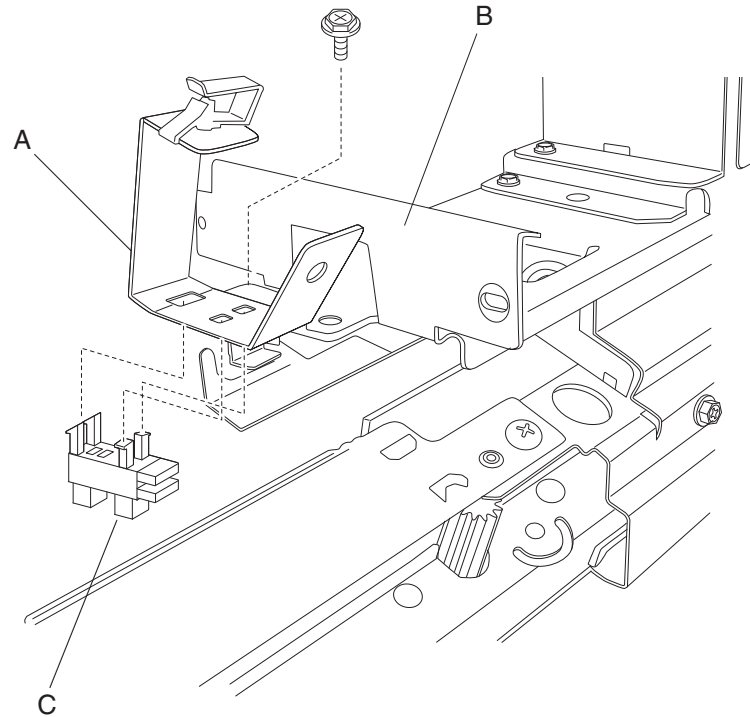
5. Disconnect the connector from the sensor (punch hole select) (C), the sensor (punch cam front) (D), or the sensor (punch unit HP) (E).
6. Release the hooks securing the sensor(s) to the bracket.
7. Remove the sensor(s).

Replacement note: Make sure the color coded-connectors are connected to the proper sensors, as shown.



Sensor (punch carriage shift HP) removal

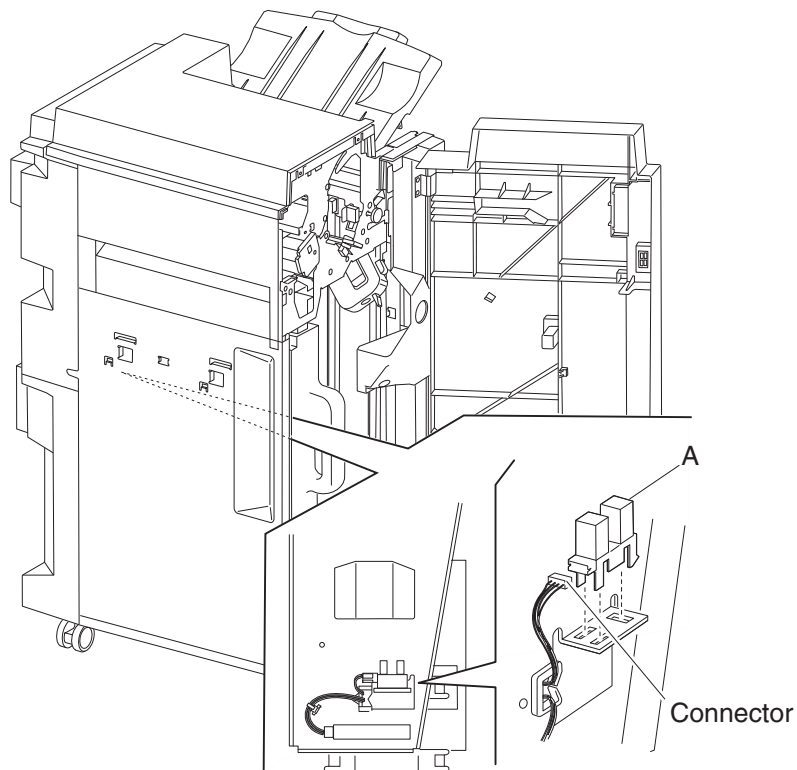
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
4. Remove the one screw securing the bracket (A) to the punch carriage unit (B).
5. Release the hooks securing the sensor (punch carriage shift HP) (C) to the bracket (A).



6. Remove the sensor (punch carriage shift HP) (C).

Sensor (punch waste box set) removal

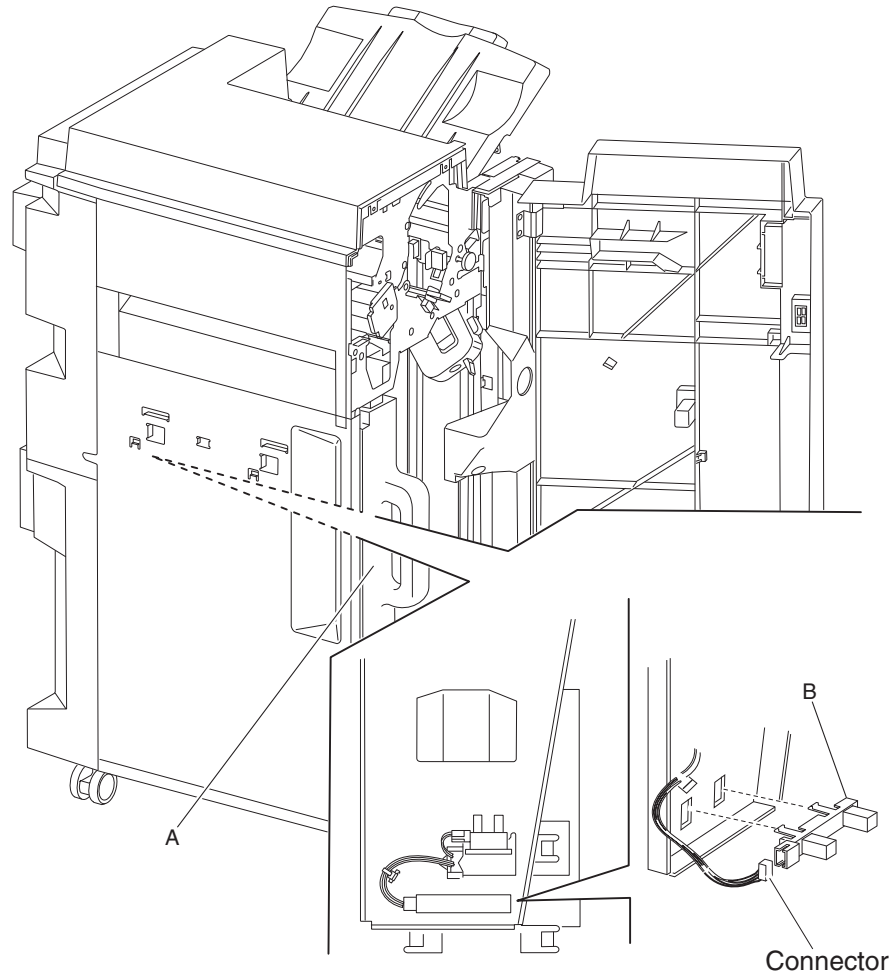
1. Open the finisher front door assembly.
2. Pull the punch waste box.
3. Disconnect the connector from the sensor (punch waste box set) (A).
4. Release the hooks securing the sensor (punch waste box set) (A) to the finisher.



5. Remove the sensor (punch waste box set) (A).

Sensor (punch waste box full) removal

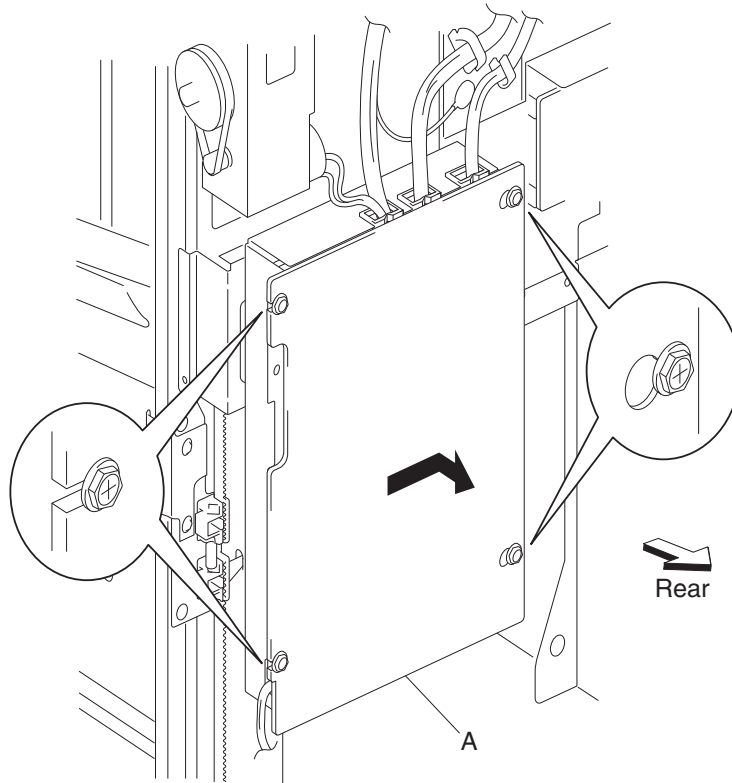
1. Open the finisher front door assembly.
2. Remove the punch waste box (A) from the finisher.
3. Disconnect the connector from the sensor (punch waste box full) (B).
4. Release the hooks securing the sensor (punch waste box full) (B) to the finisher.



5. Remove the sensor (punch waste box full) (B).

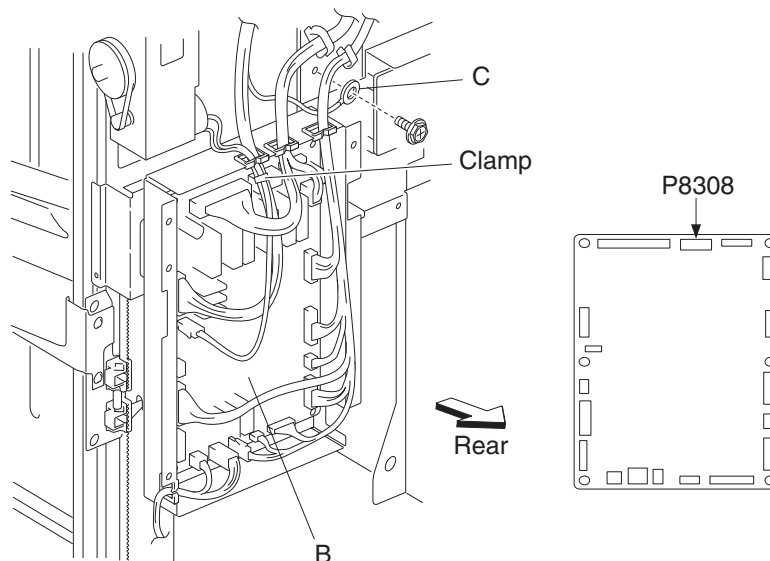
Stapler unit frame removal

1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the staple cartridge.
3. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
4. Remove the rear lower cover. See **“Rear lower cover removal” on page 4-23.**
5. Loosen the four screws securing the plate (A) to the finisher.
6. Move the plate (A) toward the right and out in the direction shown.

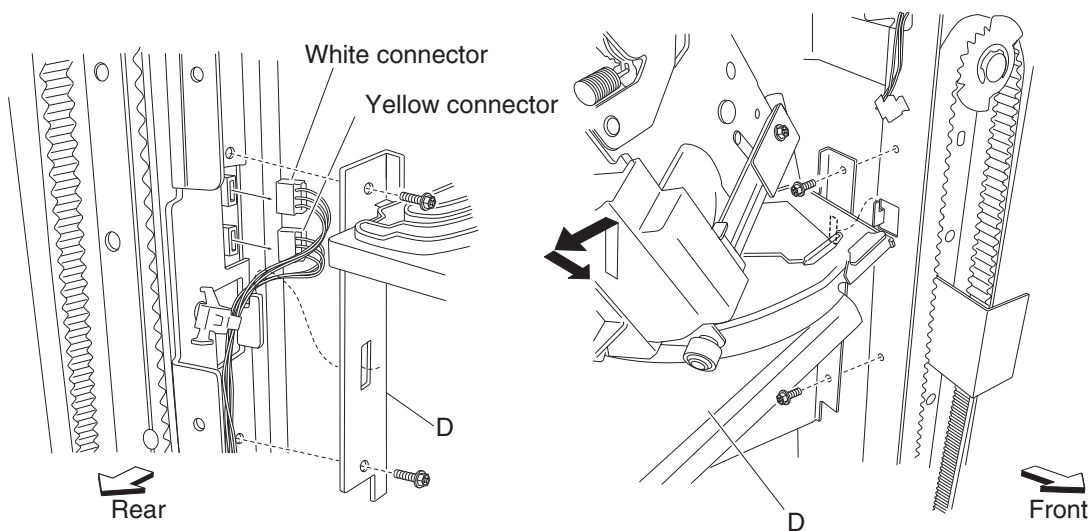


7. Remove the plate.

8. Disconnect the connector P8308 from the finisher controller card assembly (B).
9. Remove the screw securing the ground wire (C) to the finisher.
10. Release the harness from the clamp.



11. Remove the media stacker bin lift motor assembly. See **“Stacker media bin assembly removal” on page 4-22.**
12. Disconnect the white connector and the yellow connector from the sensor (stacker bin upper limit) and the sensor (stacker bin no media).
13. Remove the four screws securing the stapler unit frame (D) to the finisher.
14. Move the stapler unit frame upward and outward in the direction of the arrow, as shown.



15. Remove the stapler unit frame.

Warning: Do not force the stapler unit frame out of the finisher.

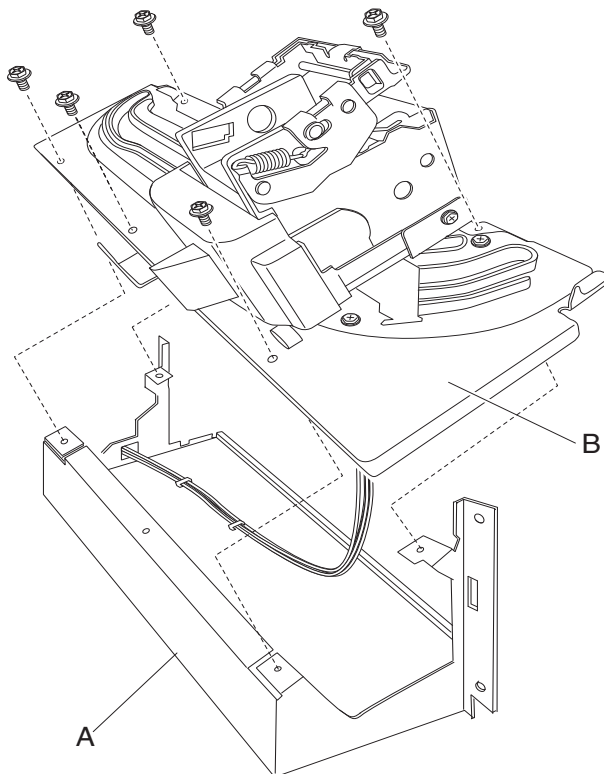
Warning: Be sure to hold the stapler unit frame firmly to avoid dropping it.

Replacement notes:

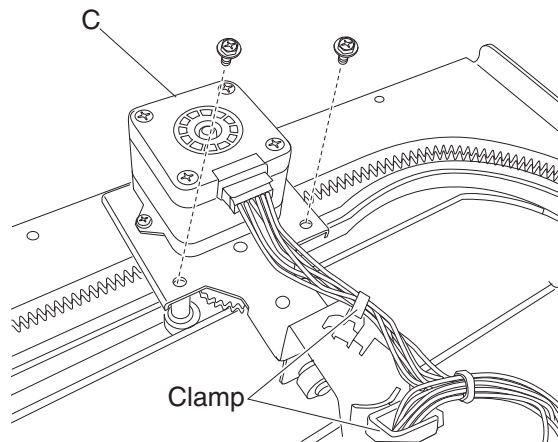
- Do not force the stapler unit frame into the finisher.
- Be sure to hold the stapler unit frame firmly to avoid dropping it.
- Make sure no harnesses are pinched when replacing the stapler unit frame.
- Be sure to replace the grounding wire.
- Ensure that the white connector and the yellow connector are properly replaced.

Stapler unit assembly removal

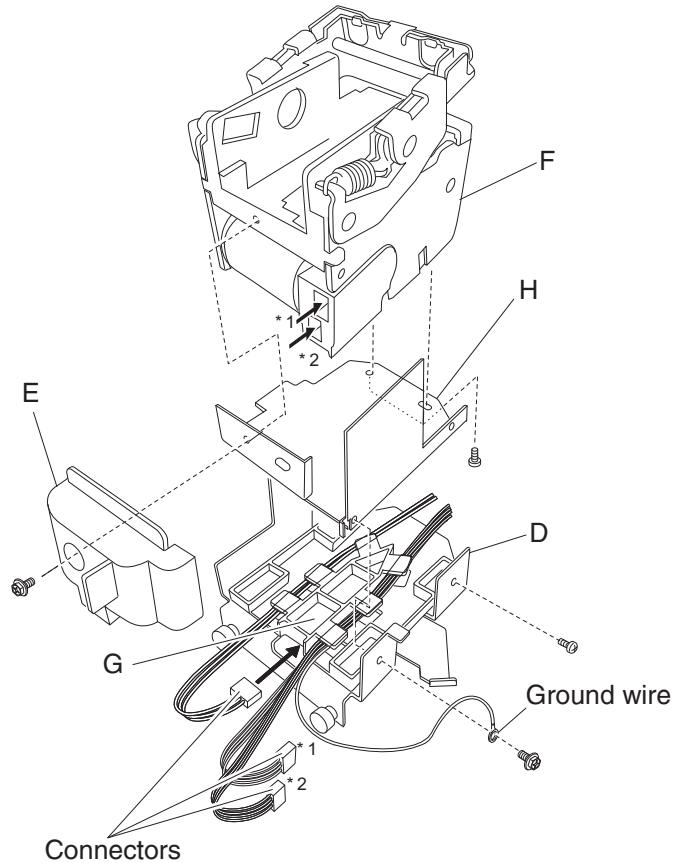
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the staple cartridge.
3. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
4. Remove the rear lower cover. See **“Rear lower cover removal” on page 4-23.**
5. Remove the stapler unit frame. See **“Stapler unit frame removal” on page 4-54.**
6. Remove the five screws securing the stapler unit frame (A) to the plate (B).



7. Remove the stapler unit frame (A).
8. Release the harness from the three clamps on the stapler unit frame (A).
9. Remove the two screws securing the stapler carriage motor assembly (C) to the stapler carriage assembly (D).
10. Remove the stapler carriage motor assembly (C).



11. Remove the screw securing the stapler cover (E) to the stapler unit assembly (F).
12. Remove the stapler cover (E).
13. Disconnect the two connectors from the stapler unit assembly (F).
14. Disconnect the connector from the sensor (stapler carriage HP) (G).
15. Remove the two screws securing the bracket (H) to the stapler carriage assembly (D).
16. Remove the bracket (H).
17. Remove the two screws securing the bracket (H) to the stapler unit assembly (F).



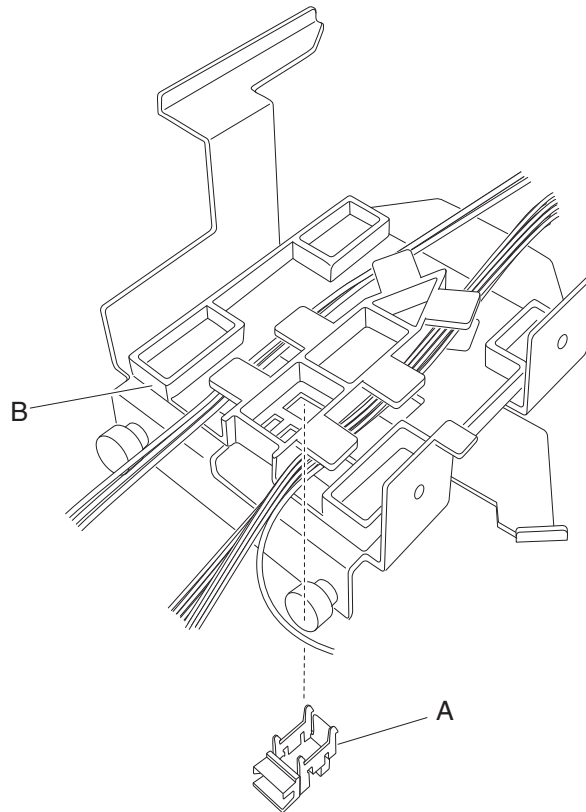
18. Remove the stapler unit assembly (F).

Replacement notes:

- When replacing the stapler unit assembly (F), make sure the ground wire is reconnected.
- Make sure the stapler carriage assembly (D) and the stapler carriage motor assembly (C) move freely without binding.

Sensor (stapler carriage HP) removal

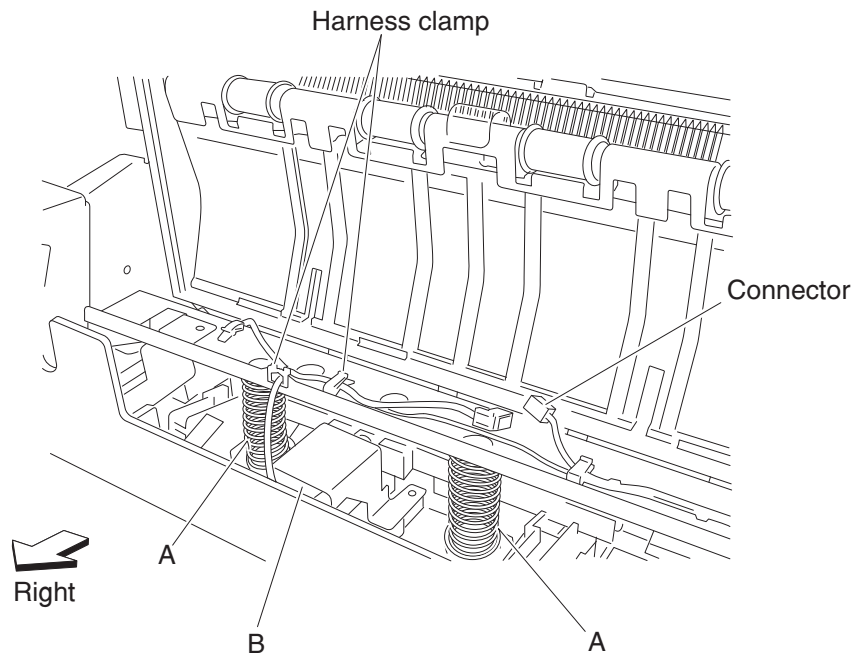
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the staple cartridge.
3. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
4. Remove the rear lower cover. See **“Rear lower cover removal” on page 4-23.**
5. Remove the stapler unit frame. See **“Stapler unit frame removal” on page 4-54.**
6. Remove the stapler unit assembly. See **“Stapler unit assembly removal” on page 4-56.**
7. Release the hooks securing the sensor (stapler carriage HP) (A) to the stapler carriage assembly (B).



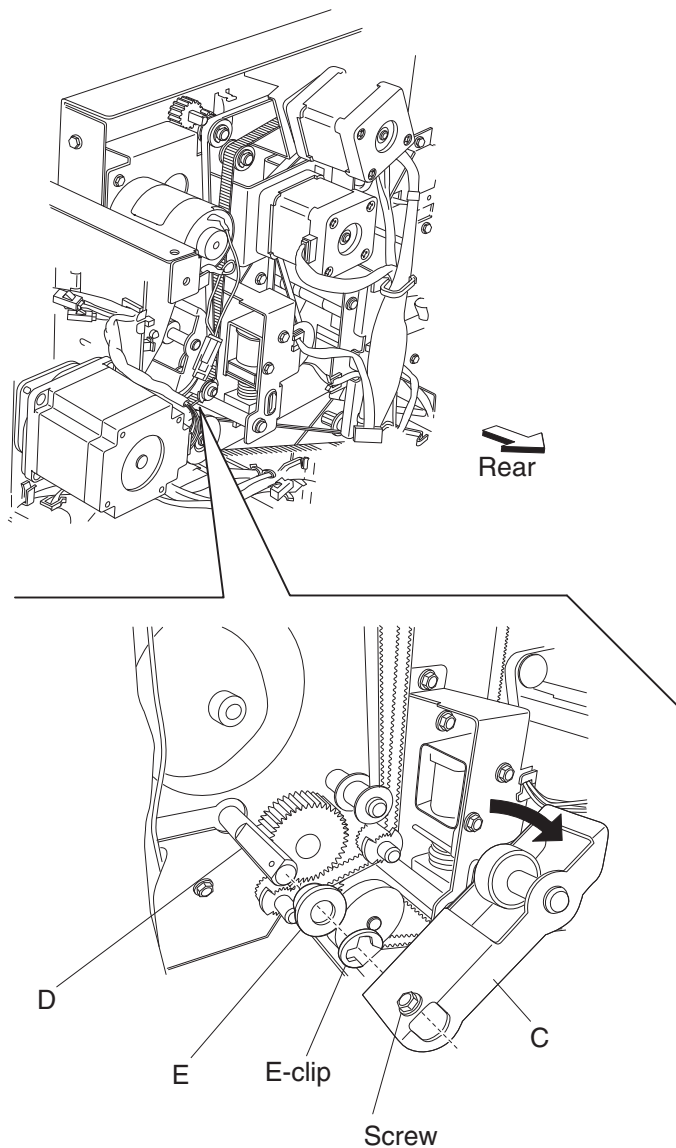
8. Remove the sensor (stapler carriage HP) (A).

Media eject unit assembly removal

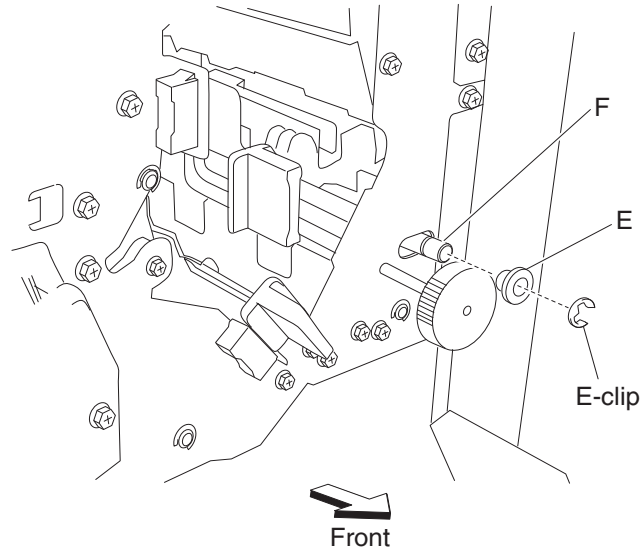
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the upper media bin vertical cover. See **“Right eject cover removal” on page 4-21.**
5. Remove the two media eject unit springs (A) by pushing them downward.
6. Disconnect the connector from the eject unit solenoid (B).
7. Release the harness from the two clamps.



8. Remove the screw securing the eject clamp lever assembly (C) from the shaft (D) on the rear of the finisher.
9. Remove the eject clamp lever assembly (C).
10. Remove the e-clip securing the shaft (D) to the rear of the finisher.
11. Remove the 8 mm bushing (E) on the rear side.



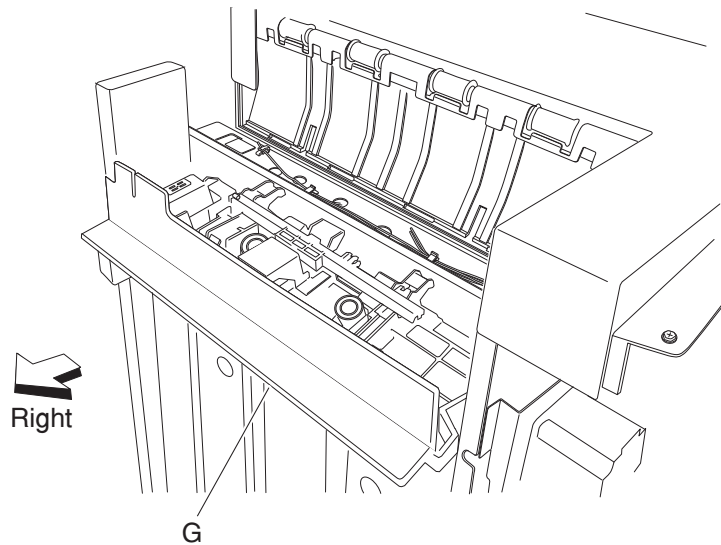
12. Remove the e-clip securing the shaft (F) to the front of the finisher.
13. Remove the 8 mm bushing (E) on the front side.



14. Gently move the left side of the media eject unit assembly (G) out of the finisher followed by the right side.

Note: Do not force the media eject unit assembly out of the finisher. Remove the left side before the right side.

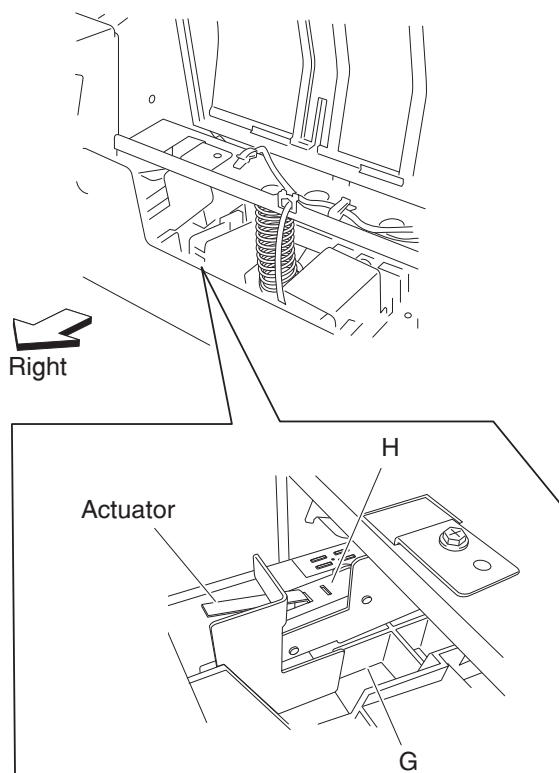
Note: Tilting the media eject unit assembly slightly may make the removal easier.



15. Remove the media eject unit assembly.

Replacement notes:

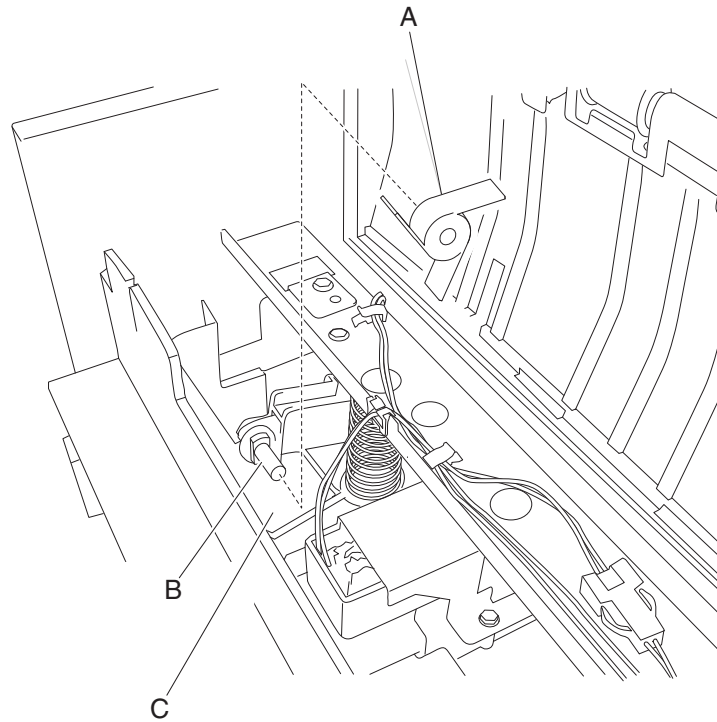
- Do not force the media eject unit assembly into the finisher. Insert the right side before the left side.
- Make sure the media eject unit assembly properly actuates the switch (eject cover interlock) (H) without binding.



Sub paddle removal

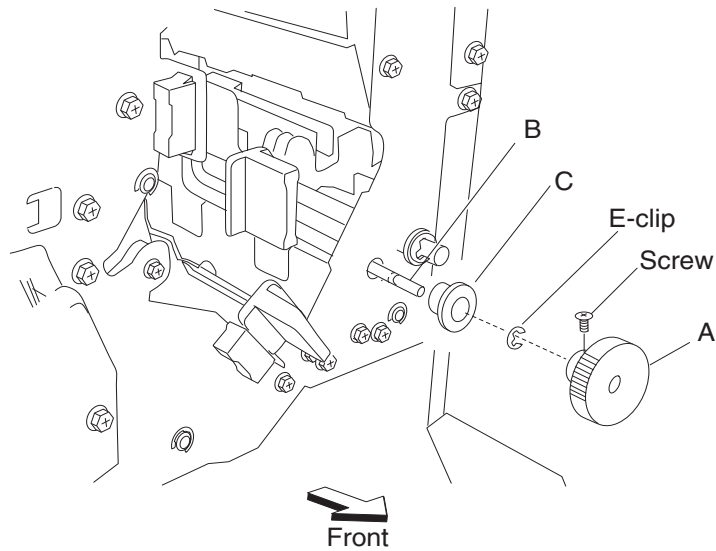
1. Remove the upper media bin assembly. See **“Upper media bin assembly removal”** on page 4-20.
2. Gently remove the two sub paddles (A) from the two shafts (B).

Replacement note: Make sure the sub paddles are properly installed as shown in the figure. The paddles must not come in contact with the media eject unit assembly (C).



Sub paddle drive shaft assembly removal

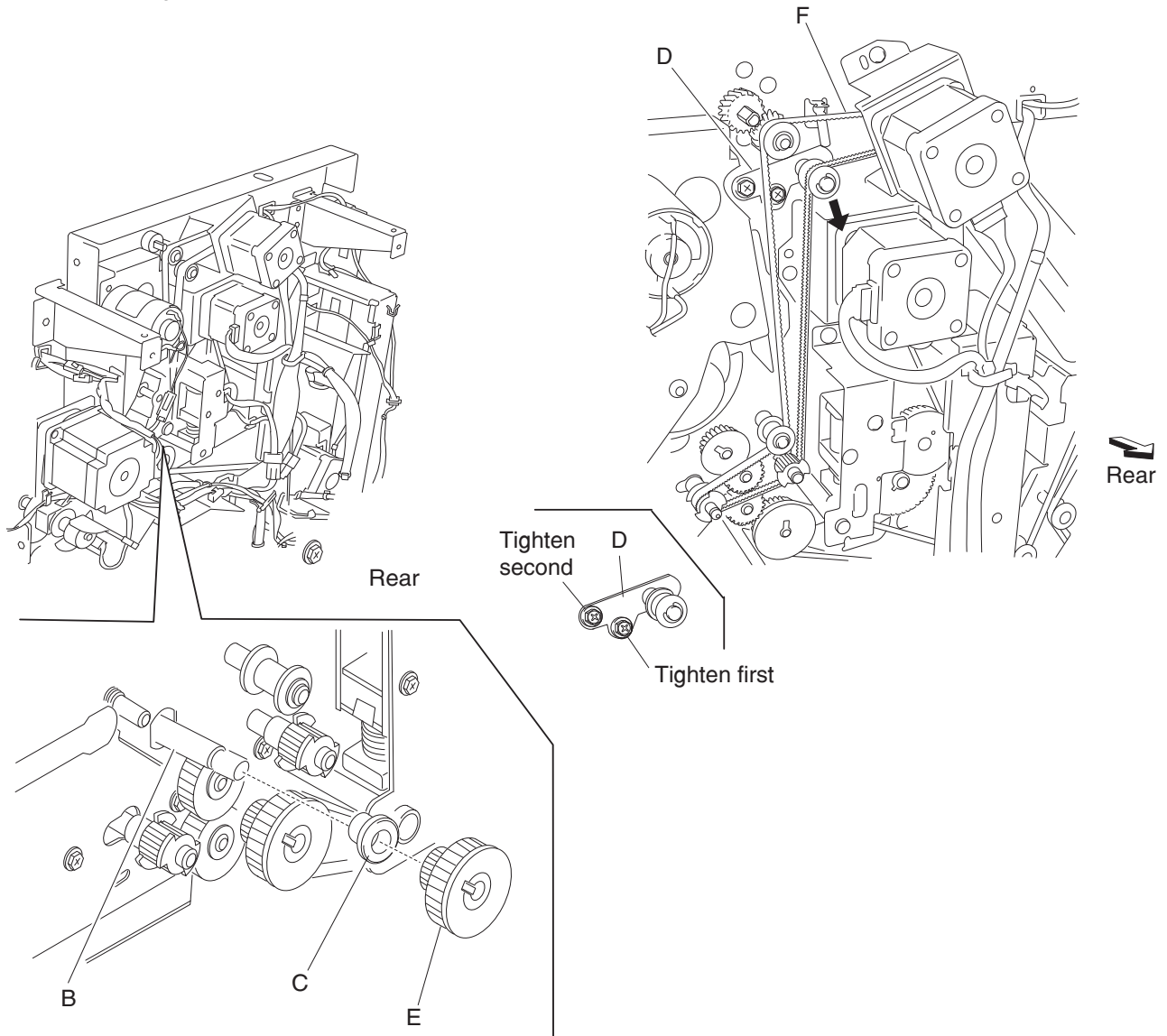
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the media eject unit assembly. See **“Media eject unit assembly removal” on page 4-59.**
4. Loosen the screw securing the knob (A) to the sub paddle drive shaft assembly (B) on the front of the finisher.
5. Remove the knob (A).
6. Remove the one e-clip securing the sub paddle drive shaft assembly (B).
7. Remove the bushing (C).



8. Loosen the two screws securing the belt tensioner bracket (D) to the rear of the finisher.
9. Release the hook of the sub paddle drive gear 23T (E) from the sub paddle drive shaft assembly (B).
10. Remove the sub paddle drive gear 23T (E).
11. Remove the e-clip and the 6 mm bushing (C).
12. Move the sub paddle drive shaft assembly (B) toward the rear of the finisher and outward.
13. Remove the sub paddle drive shaft assembly (B).

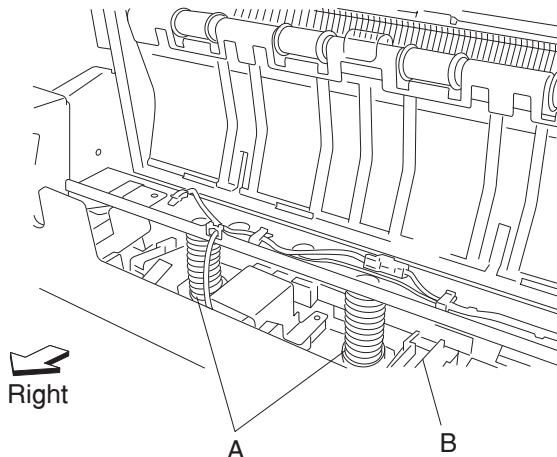
Replacement notes:

- The tension of the belt (exit) (F) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (D).
- Tighten the two screws in the order shown.



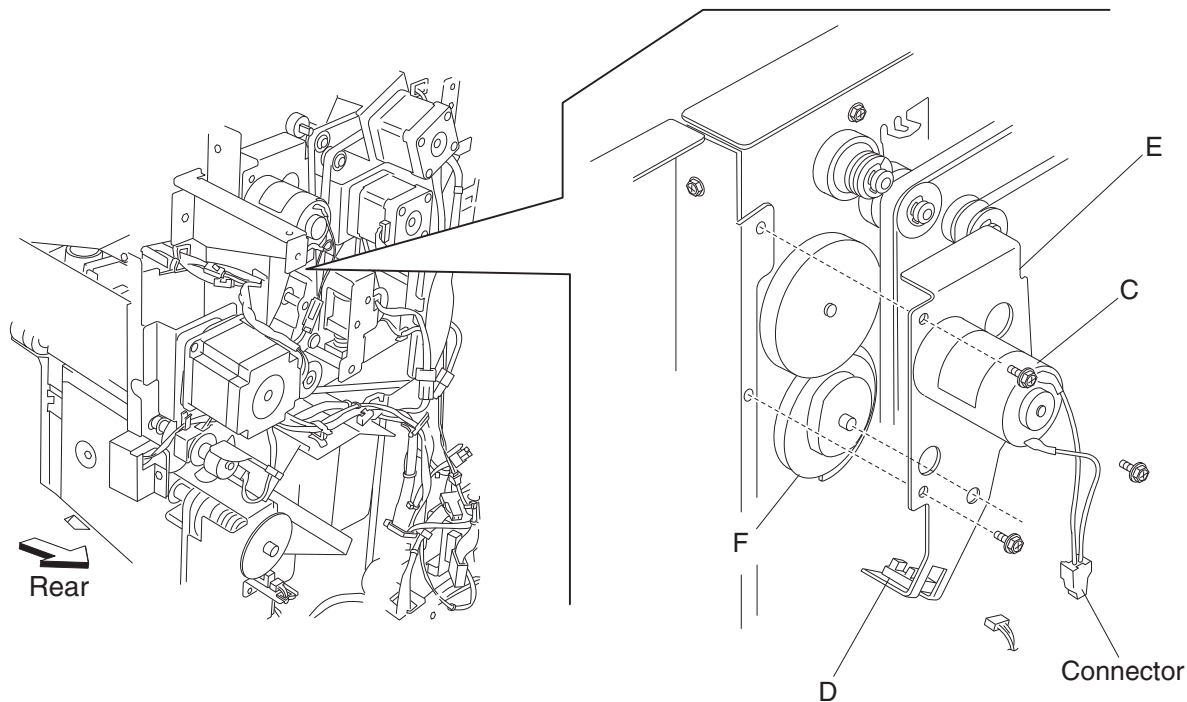
Media eject clamp motor assembly removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the upper media bin assembly. See **“Upper media bin assembly removal”** on page 4-20.
3. Remove the two media eject unit springs (A) attached to the media eject unit assembly (B) by pushing them downward.



4. Disconnect the connector from the media eject clamp motor (C).
5. Disconnect the connector from the sensor (media eject clamp HP) (D).
6. Remove the three screws securing the bracket (E) to the finisher.
7. Remove the bracket (E).

Note: When removing the bracket, turn the media eject clamp gear 70T (F) so that it does not interact with the sensor (media eject clamp HP) (D).

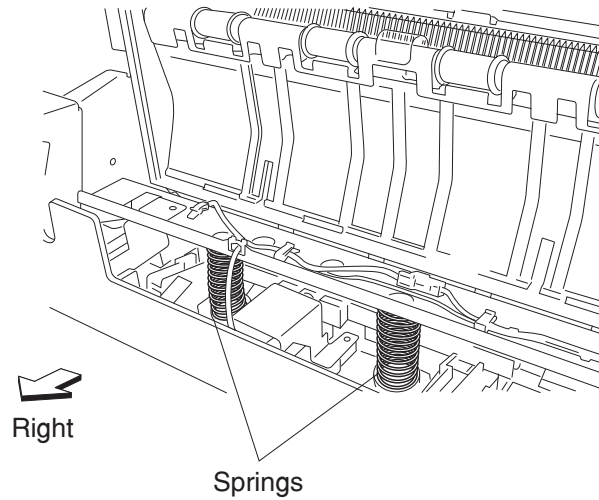


8. Remove the two screws securing the media eject clamp motor to the bracket (E).
9. Remove the media eject clamp motor (C).

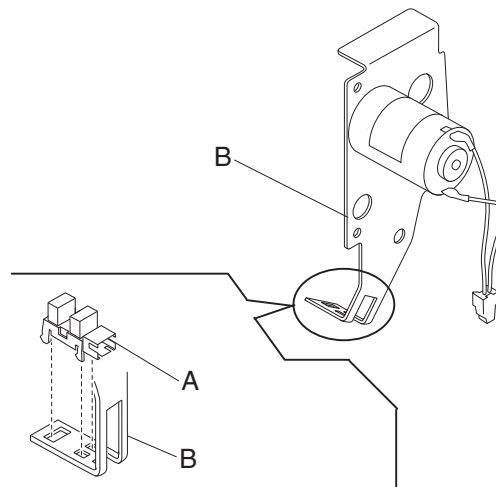
Replacement note: When replacing the bracket, turn the media eject clamp gear 70T (F) so that it interacts with the sensor (media eject clamp HP).

Sensor (media eject clamp HP) removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the upper media bin assembly. See **“Upper media bin assembly removal”** on page 4-20.
3. Remove the two media eject unit springs attached to the media eject unit assembly by pushing them downward.

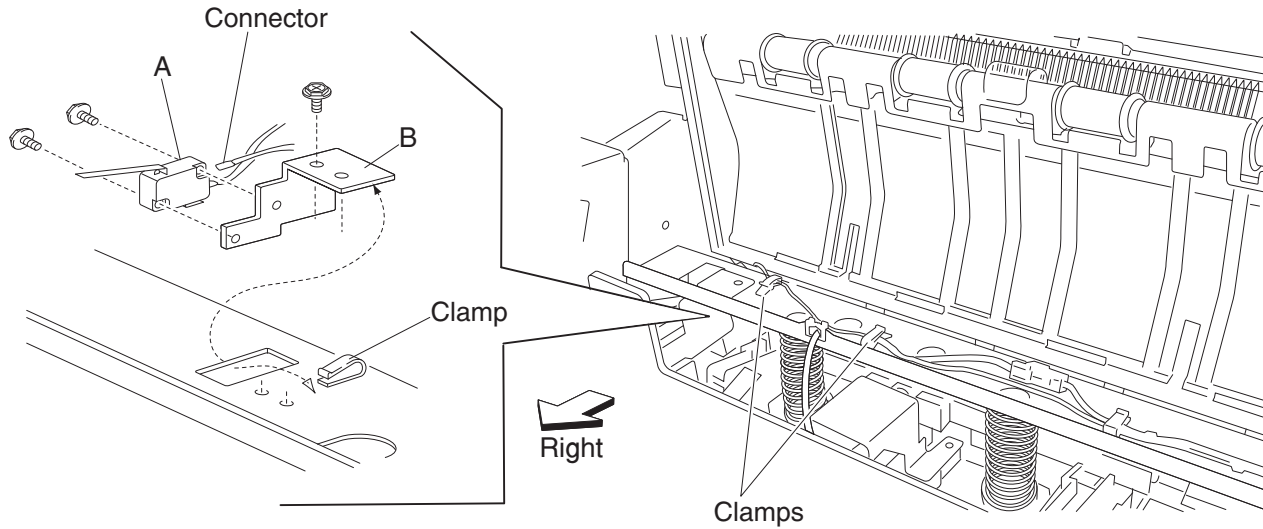


4. Remove the media eject clamp motor assembly. See **“Media eject clamp motor assembly removal”** on page 4-66.
5. Release the hooks of the sensor (media eject clamp HP) (A) from the bracket (B).
6. Remove the sensor (media eject clamp HP) (A).



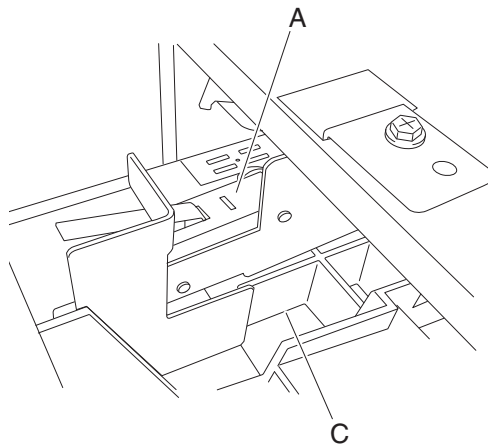
Switch (eject cover interlock) removal

1. Remove the upper media bin assembly. See **“Upper media bin assembly removal”** on page 4-20.
2. Disconnect the connector from the switch (eject cover interlock) (A).
3. Release the harness from the two clamps.
4. Remove the screw securing the bracket (B) to the finisher.
5. Remove the bracket (B) from the square hole in the finisher.
6. Remove the two screws securing the switch (eject cover interlock) (A) from the bracket (B).



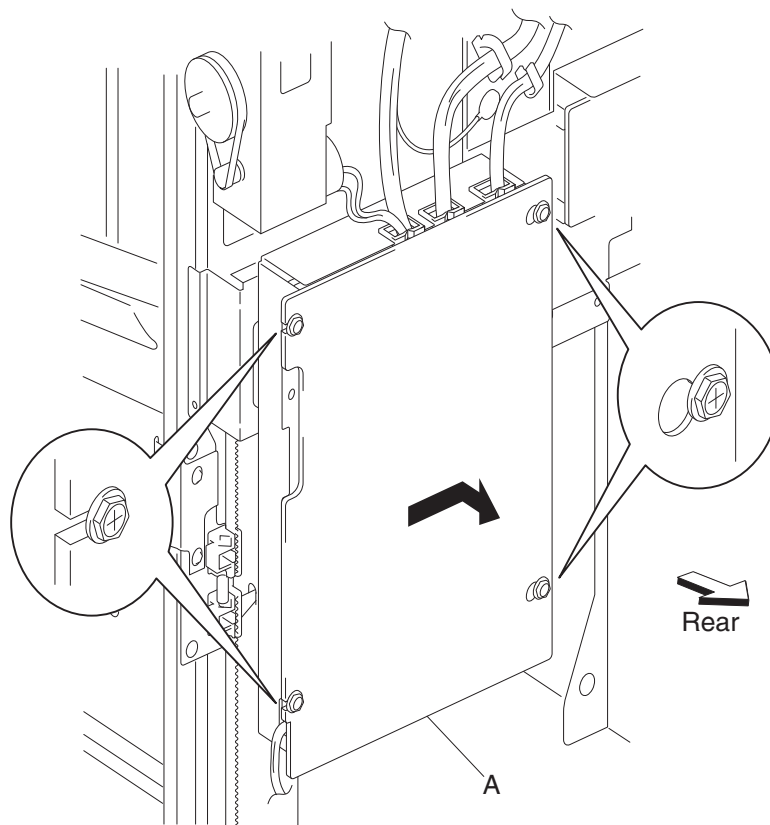
7. Remove the switch (eject cover interlock) (A).

Replacement note: Make sure the media eject unit assembly (C) properly actuates the switch (media eject interlock) (A) without binding.



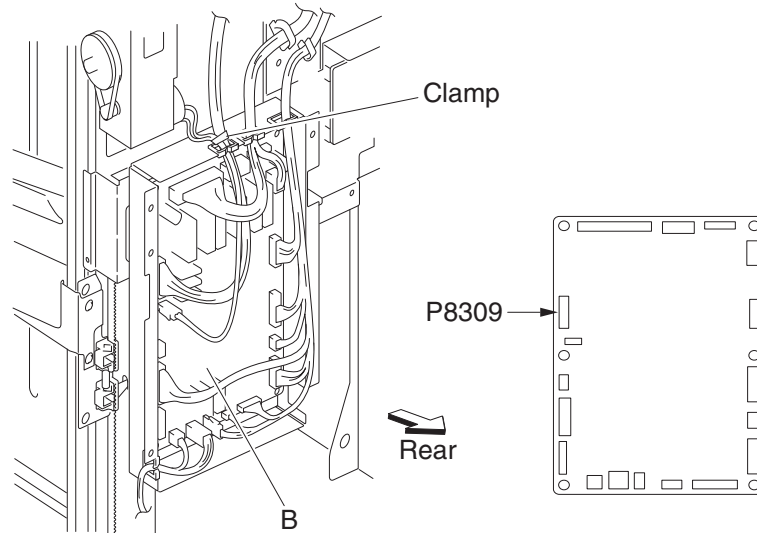
Media compiler unit assembly removal

1. Remove the finisher front door assembly. See **“Finisher front door assembly removal”** on page 4-27.
2. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
3. Remove the rear lower cover. See **“Rear lower cover removal”** on page 4-23.
4. Remove the upper media bin assembly. See **“Upper media bin assembly removal”** on page 4-20.
5. Remove the upper media bin vertical cover. See **“Right eject cover removal”** on page 4-21.
6. Remove the stapler unit frame. See **“Stapler unit frame removal”** on page 4-54.
7. Remove the media eject clamp motor assembly. See **“Media eject clamp motor assembly removal”** on page 4-66.
8. Remove the media eject unit assembly. See **“Media eject unit assembly removal”** on page 4-59.
9. Remove the media eject motor assembly. See **“Media eject motor assembly removal”** on page 4-78.
10. Loosen the four screws securing the plate (A) to the finisher.
11. Move the plate to the right and outward.

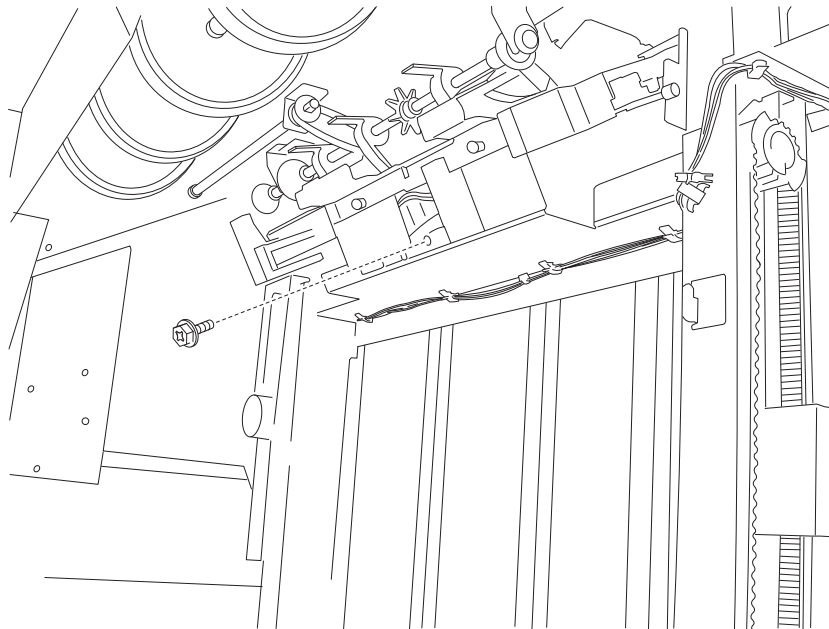


12. Remove the plate.

13. Disconnect the connector P8309 from the finisher controller card assembly (B).
14. Release the harness from the clamps.

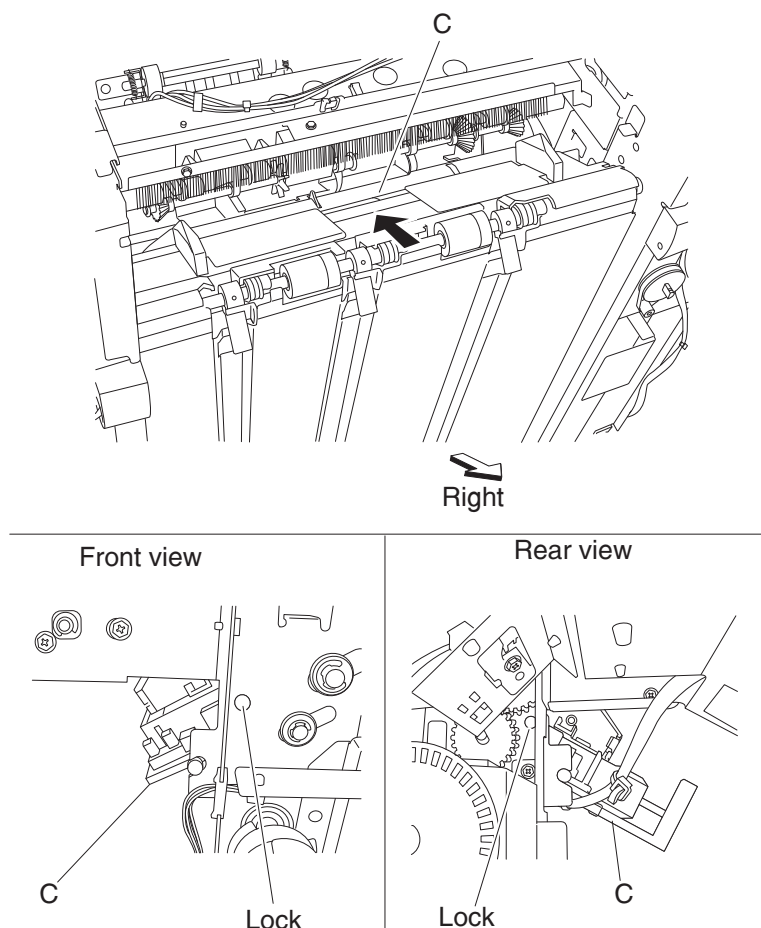


15. Remove the screw securing the media compiler unit assembly (C) to the finisher. This screw is found inside the finisher.



Inside view

16. Release the media compiler assembly (C) by pushing the front lock and the rear lock inward to release the front boss and the rear boss from the finisher.



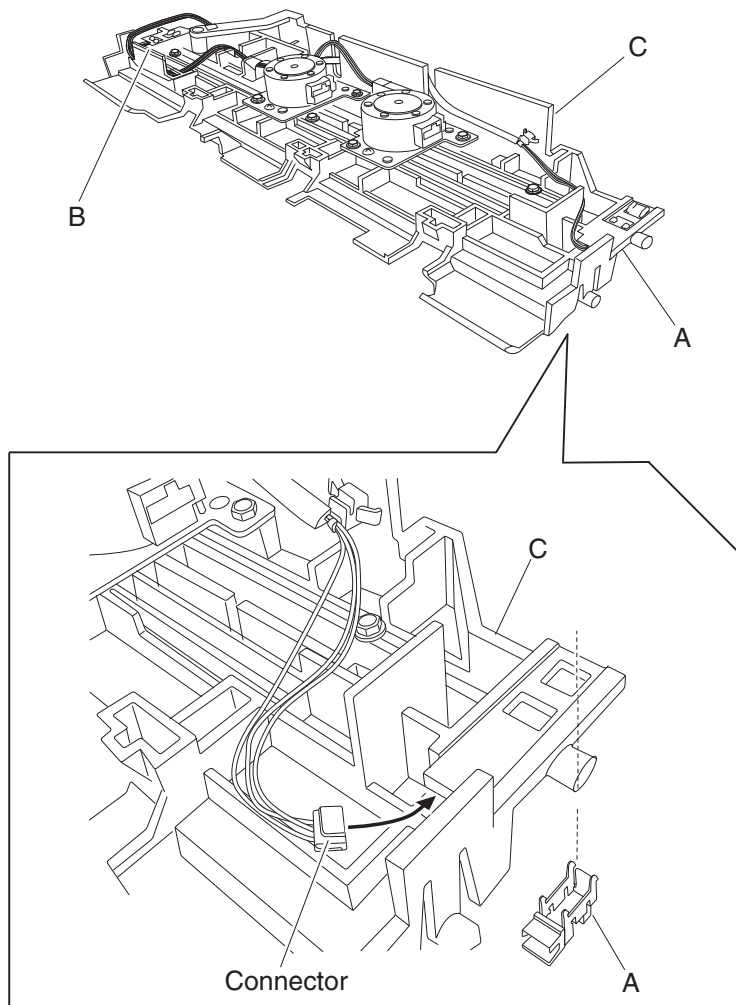
17. Remove the harness from any additional parts.
18. Remove the media compiler unit assembly through the inside of the finisher and out the front.

Sensor (front tamper HP) and sensor (rear tamper HP) removals

1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the rear lower cover. See **“Rear lower cover removal” on page 4-23.**
4. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
5. Remove the upper media bin vertical cover. See **“Right eject cover removal” on page 4-21.**
6. Remove the stapler unit frame. See **“Stapler unit frame removal” on page 4-54.**
7. Remove the media eject clamp motor assembly. See **“Media eject clamp motor assembly removal” on page 4-66.**
8. Remove the media eject unit assembly. See **“Media eject unit assembly removal” on page 4-59.**
9. Remove the media eject motor assembly. See **“Media eject motor assembly removal” on page 4-78.**
10. Remove the media compiler unit assembly. See **“Media compiler unit assembly removal” on page 4-69.**
11. Disconnect the connector from the sensor (front tamper HP) (A) or the sensor (rear tamper HP) (B).
12. Release the hooks securing the sensor (front tamper HP) (A) or the sensor (rear tamper HP) (B) from the media compiler unit assembly (C).

13. Remove the sensor(s).

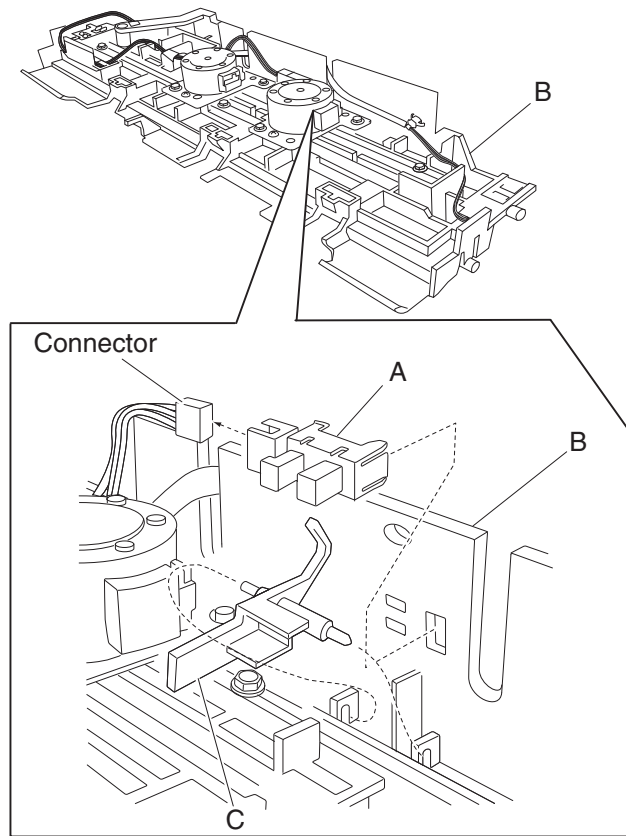
Note: The sensors are identical.



Sensor (compiler media in) removal

1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the rear lower cover. See **“Rear lower cover removal” on page 4-23.**
4. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
5. Remove the upper media bin vertical cover. See **“Right eject cover removal” on page 4-21.**
6. Remove the stapler unit frame. See **“Stapler unit frame removal” on page 4-54.**
7. Remove the media eject clamp motor assembly. See **“Media eject clamp motor assembly removal” on page 4-66.**
8. Remove the media eject unit assembly. See **“Media eject unit assembly removal” on page 4-59.**
9. Remove the media eject motor assembly. See **“Media eject motor assembly removal” on page 4-78.**
10. Remove the media compiler unit assembly. See **“Media compiler unit assembly removal” on page 4-69.**
11. Disconnect the connector from the sensor (compiler media in) (A).
12. Release the hooks securing the sensor (compiler media in) (A) to the compiler unit assembly (B).

13. Move the compiler media present actuator (C) downward as shown.



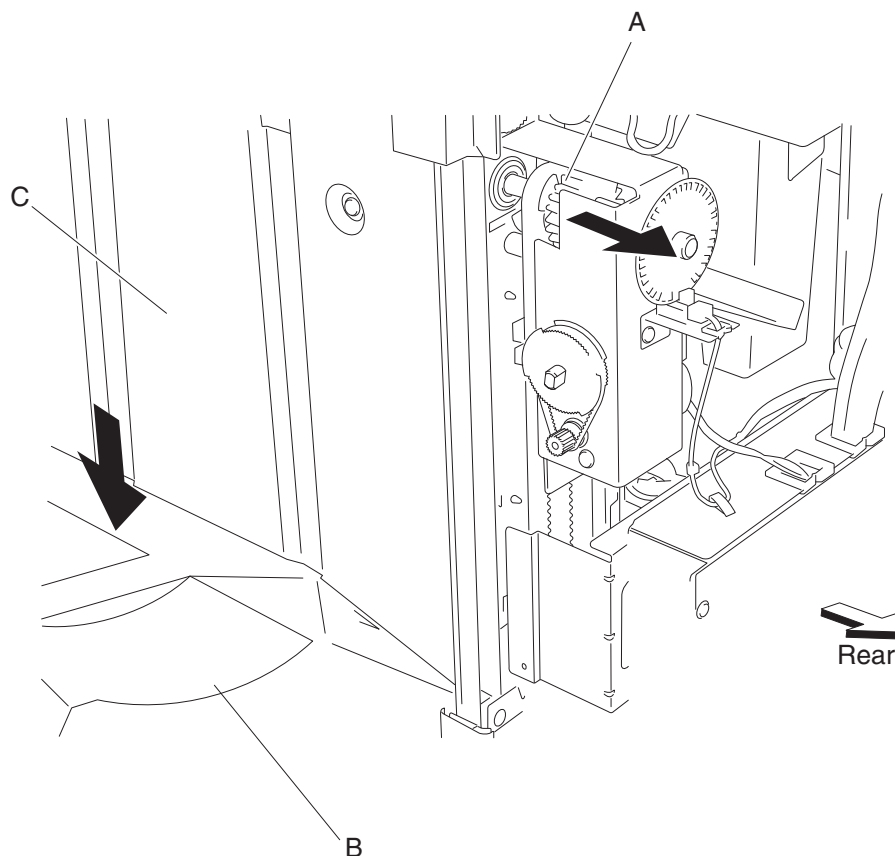
14. Remove the sensor (compiler media present) (A).

Media eject shaft assembly removal

1. Remove the finisher front door assembly. See **"Finisher front door assembly removal" on page 4-27.**
2. Remove the rear upper cover. See **"Rear upper cover removal" on page 4-24.**
3. Move the slip clutch gear 24T (A) toward the rear as shown to disengage the stacker bin (B).
4. Move the stacker bin down as shown to its lowest position after it is disengaged.

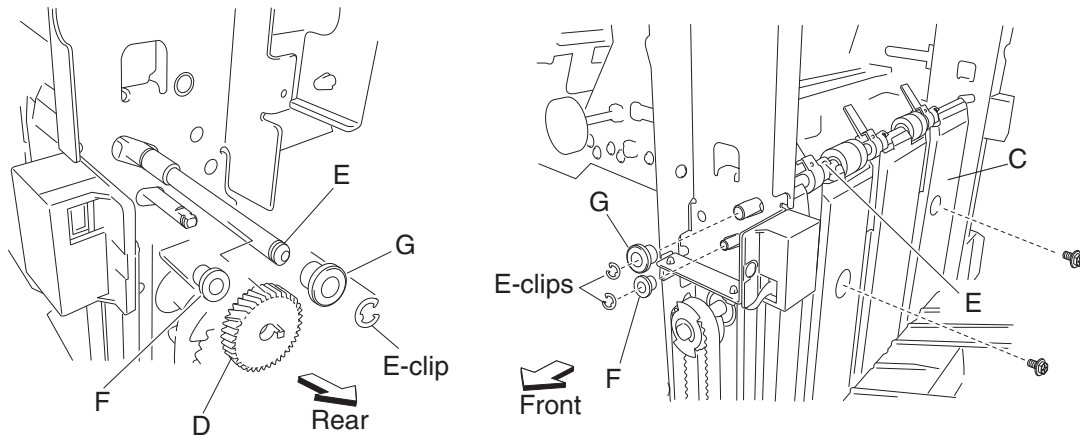
Note: Make sure the stacker bin is at its lowest position before continuing.

5. Remove the upper media bin assembly. See **"Upper media bin assembly removal" on page 4-20.**
6. Remove the four screws securing the right panel (C) to the finisher.

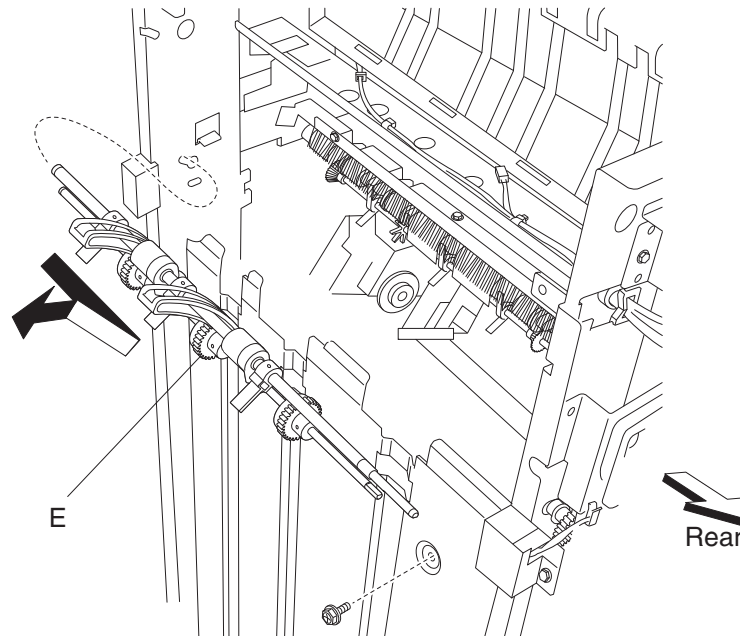


7. Remove the media eject motor assembly. See **"Media eject motor assembly removal" on page 4-78.**
8. Release the hook of the media eject shaft gear 39T (D) from the media eject shaft assembly (E).
9. Remove the media eject shaft gear 39T (D).
10. Remove the 6 mm bushing (F).
11. Use a prying tool to remove the e-clip securing the media eject shaft assembly (E) to the rear of the finisher.
12. Remove the 8 mm bushing (G).
13. Remove the two e-clips securing the media eject shaft assembly (E) to the front of the finisher.
14. Remove the 6 mm bushing (F) and the 8 mm bushing (G).

15. Move the media eject shaft assembly toward the rear and outward as shown.

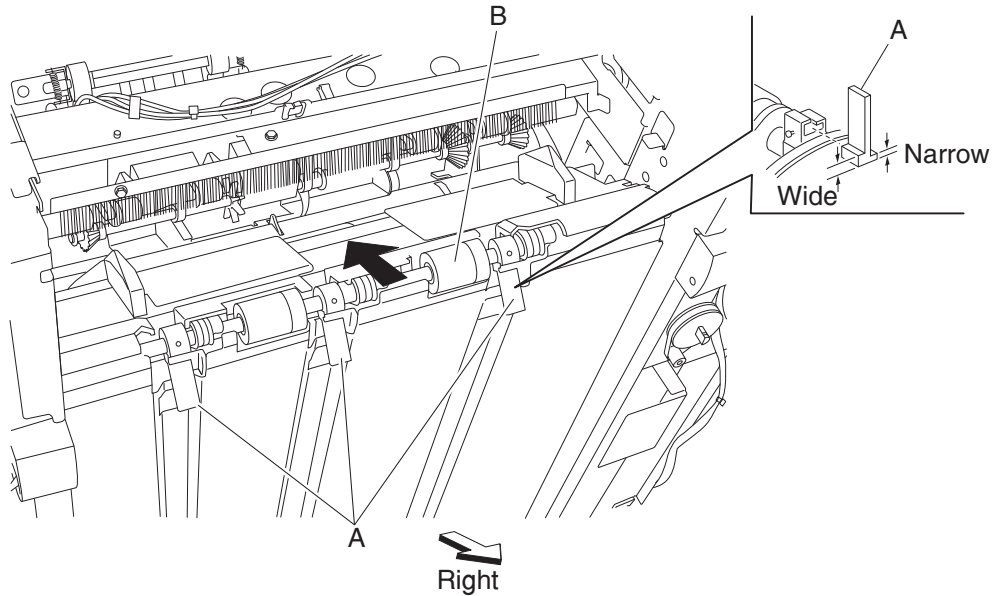


16. Remove the media eject shaft assembly (E).



Clamp paddle removal

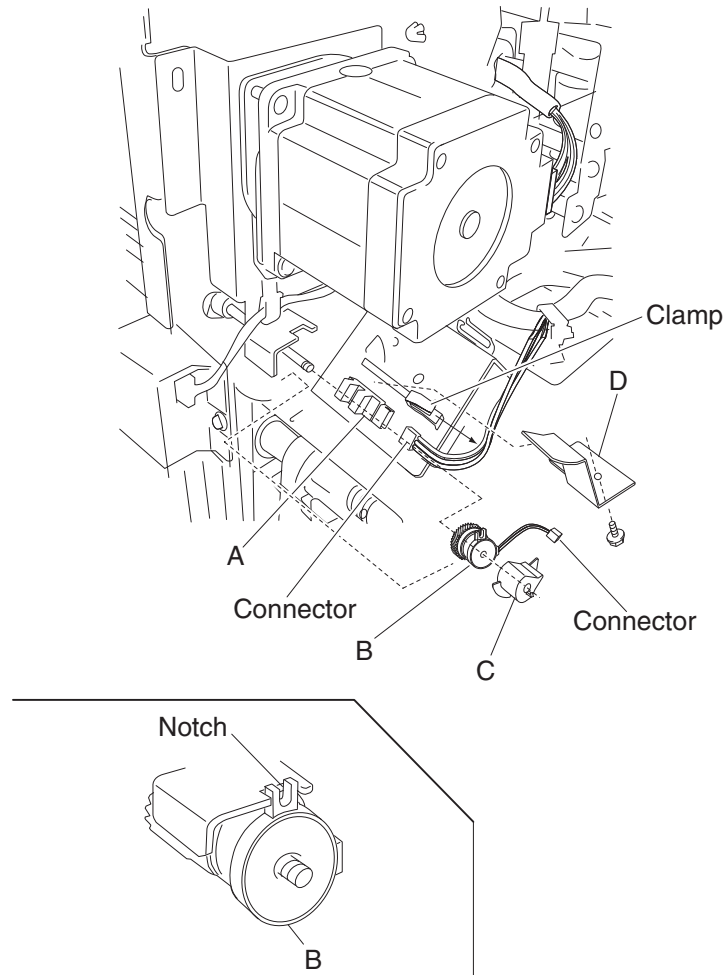
1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the media eject shaft assembly. See **“Media eject shaft assembly removal” on page 4-74.**
4. Remove the three clamp paddles (A) by sliding them out of the media eject shaft assembly (B).



Replacement note: Replacement is easier if you lightly moisten the rubber surface of the paddles with water.

Media eject clutch assembly removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Disconnect the connector from the sensor (media eject shaft HP) (A).
3. Release the harness from the clamp.
4. Disconnect the connector from the media eject clutch (B).
5. Release the harness from the clamp.
6. Release the hook securing the media eject clutch actuator (C) to the media eject clutch (B).
7. Remove the screw securing the spring clamp (D) to the finisher.

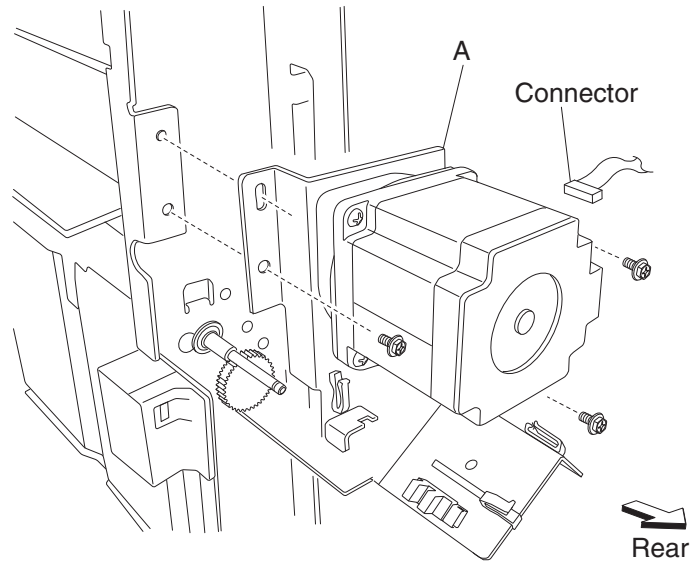


8. Remove the spring clamp (D).
9. Remove the media eject clutch actuator (C).
10. Remove the media eject clutch assembly (B).

Installation note: Make sure the hook on the media eject clutch assembly is placed in the notch of the bracket.

Media eject motor assembly removal

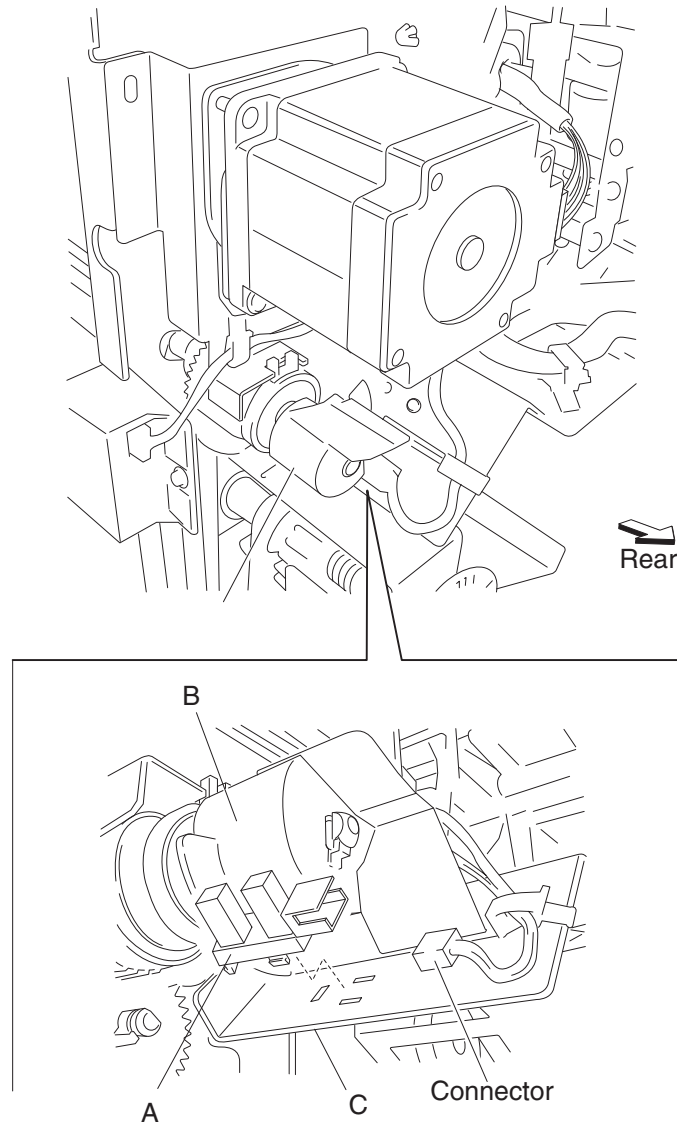
1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the media eject clutch. See **“Media eject clutch assembly removal”** on page 4-77.
3. Disconnect the connector from the media eject motor assembly (A).
4. Disconnect the connector from the sensor (media bin level 2) (B).
5. Remove the three screws securing the media eject motor assembly (A).



6. Remove the media eject motor assembly (A).
7. Remove any remaining harnesses from the clamps.

Sensor (media eject shaft HP) removal

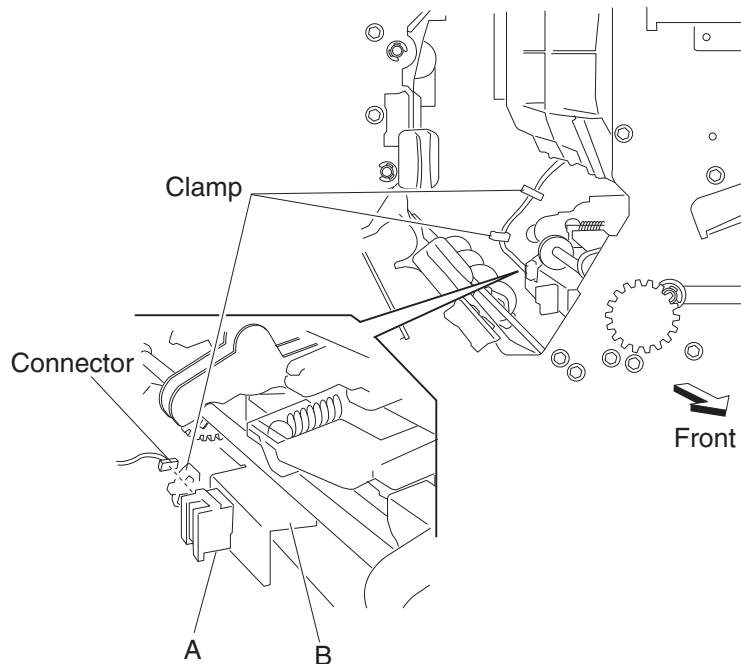
1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Disconnect the connector from the sensor (media eject shaft HP) (A).
3. Rotate the media eject clutch actuator (B) by hand so it clears the sensor (media eject shaft HP) (A).
4. Release the hooks securing the sensor (media eject shaft HP) (A) to the bracket (C).



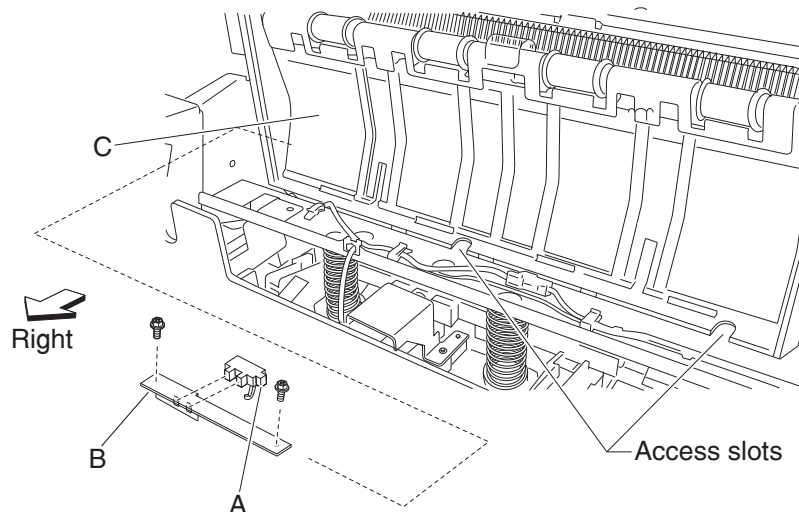
5. Remove the sensor (media eject shaft HP) (A).

Sensor (lower media exit) removal

1. Open the finisher front door assembly.
2. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
3. Disconnect the connector from the sensor (lower media exit) (A).
4. Remove the harness from the clamps.
5. Remove the two screws securing the bracket (B) to the finisher.



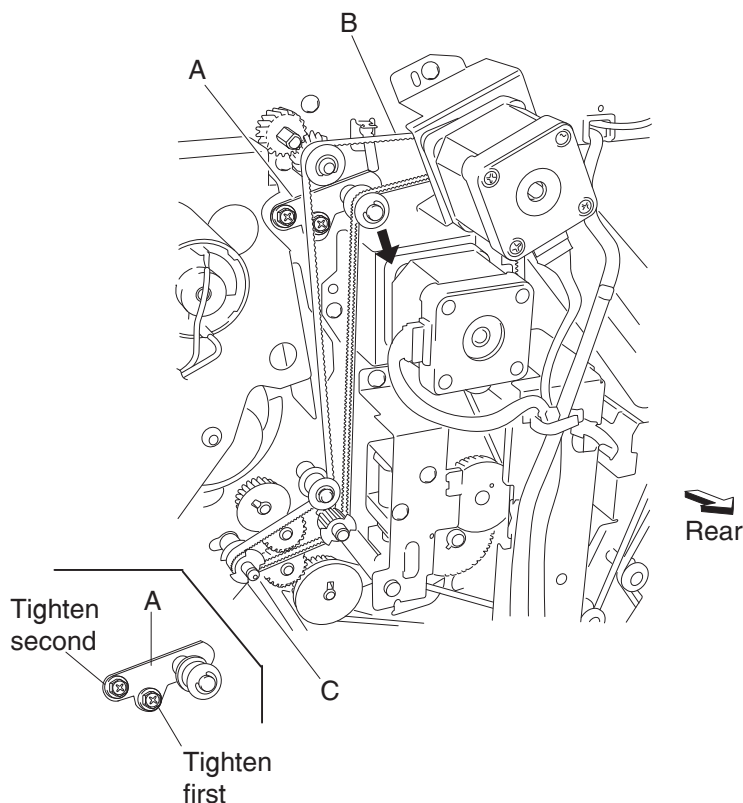
Note: The upper media bin vertical cover (C) has slots that make access to the screws easier, as shown.

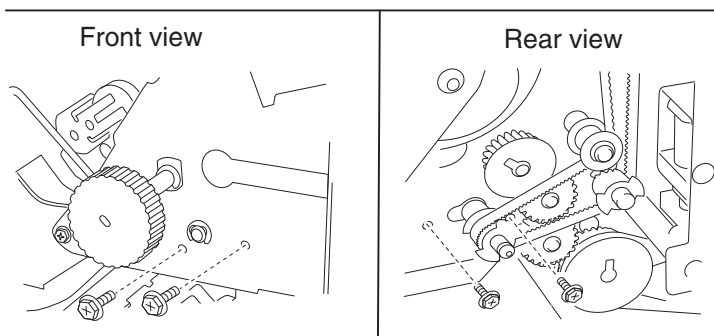
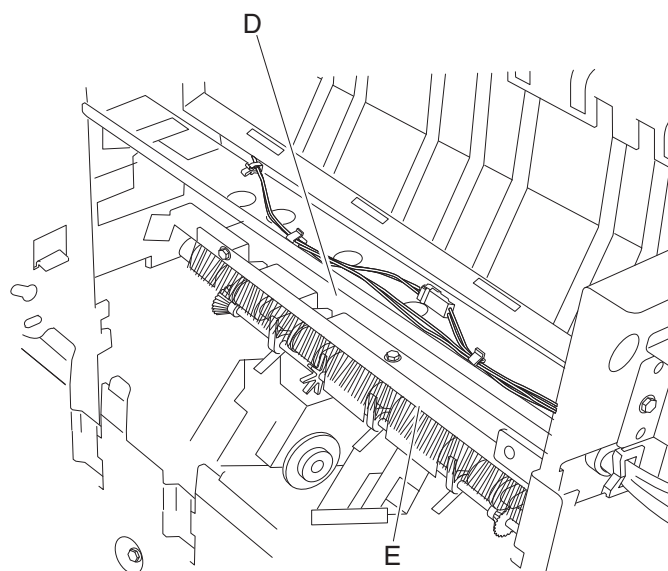


6. Remove the bracket (B).
7. Release the hooks securing the sensor (lower media exit) (A) to the bracket.
8. Remove the sensor (lower media exit) (A).

Lower media exit roll assembly removal

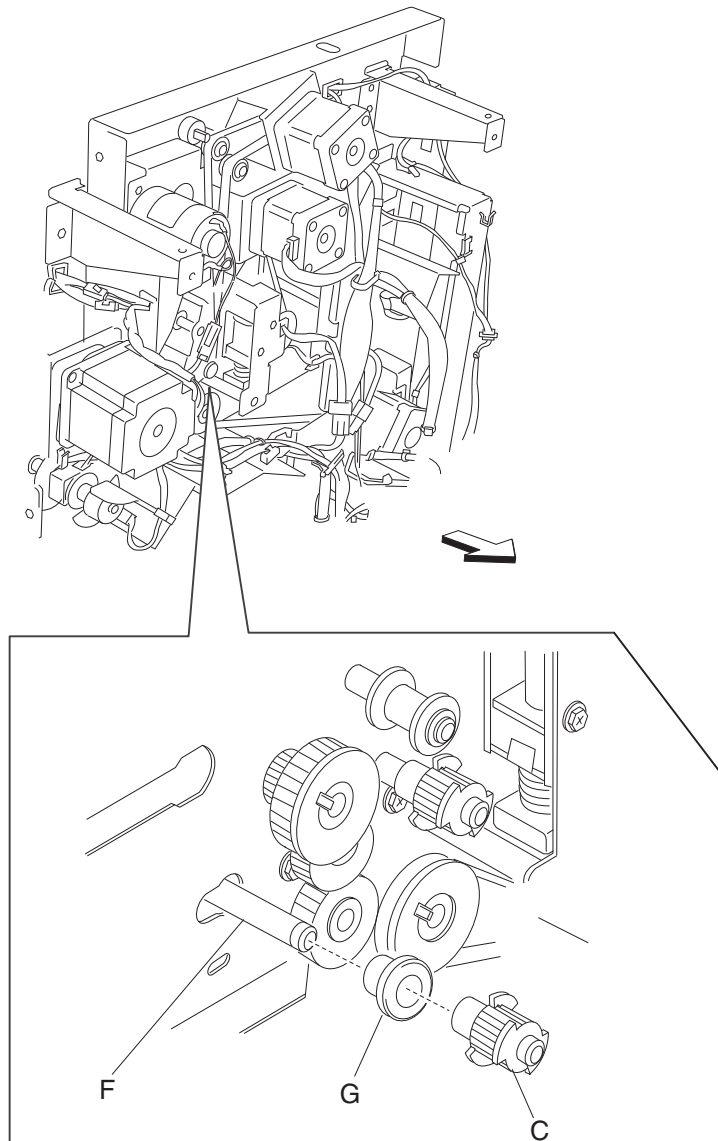
1. Remove the finisher front door assembly. See **"Finisher front door assembly removal"** on page 4-27.
2. Remove the rear upper cover. See **"Rear upper cover removal"** on page 4-24.
3. Remove the upper media bin assembly. See **"Upper media bin assembly removal"** on page 4-20.
4. Remove upper media bin vertical cover. See **"Right eject cover removal"** on page 4-21.
5. Remove the rear lower cover. See **"Rear lower cover removal"** on page 4-23.
6. Remove the stapler unit frame. See **"Stapler unit frame removal"** on page 4-54.
7. Remove the upper media bin assembly. See **"Upper media bin assembly removal"** on page 4-20.
8. Remove the upper media bin vertical cover. See **"Right eject cover removal"** on page 4-21.
9. Remove the stapler unit frame. See **"Stapler unit frame removal"** on page 4-54.
10. Remove the media eject clamp motor assembly. See **"Media eject clamp motor assembly removal"** on page 4-66.
11. Remove the media eject unit assembly. See **"Media eject unit assembly removal"** on page 4-59.
12. Remove the media compiler unit assembly. See **"Media compiler unit assembly removal"** on page 4-69.
13. Remove the media eject clutch. See **"Media eject clutch assembly removal"** on page 4-77.
14. Remove the media eject motor assembly. See **"Media eject motor assembly removal"** on page 4-78.
15. Remove the media eject shaft assembly. See **"Media eject shaft assembly removal"** on page 4-74.
16. Remove the main paddle shaft assembly. See **"Paddle and roll exit assembly removal"** on page 4-85.
17. Loosen the two screws securing the belt tensioner bracket (A) to the finisher, and move the bracket down in the direction of the arrow.
18. Remove the belt (exit) (B) from the lower exit roll drive pulley 20T (C).





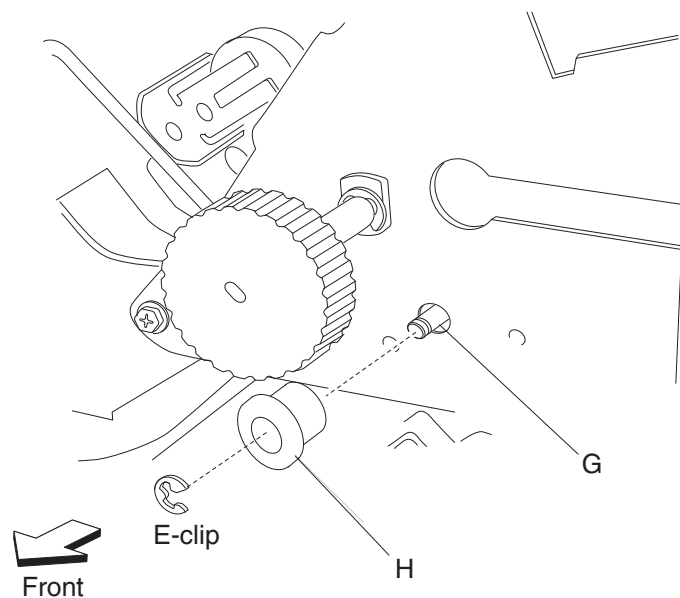
19. Release the hook of the lower exit roll drive pulley 20T (C) from the lower media exit roll assembly (F).
20. Remove the lower exit roll drive pulley 20T (C).

21. Remove the 6 mm ball bearing (G).

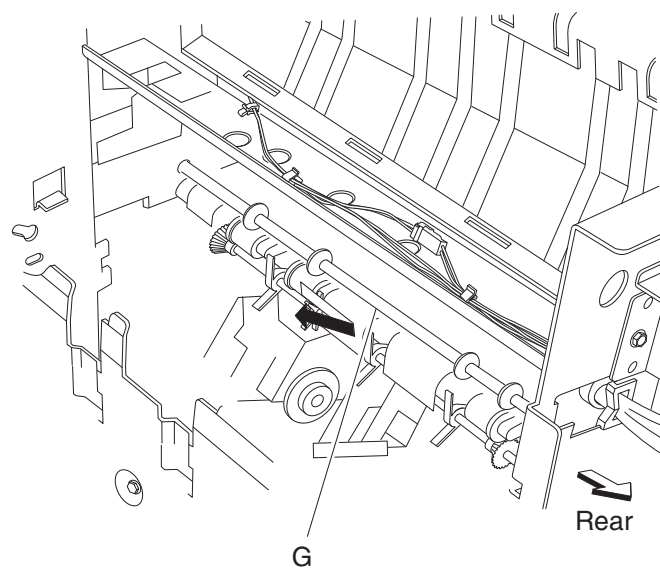


22. Use a prying tool to remove the e-clip on the front of the finisher securing the lower media exit roll assembly (F) to the finisher.

23. Remove the 6 mm bushing (H).



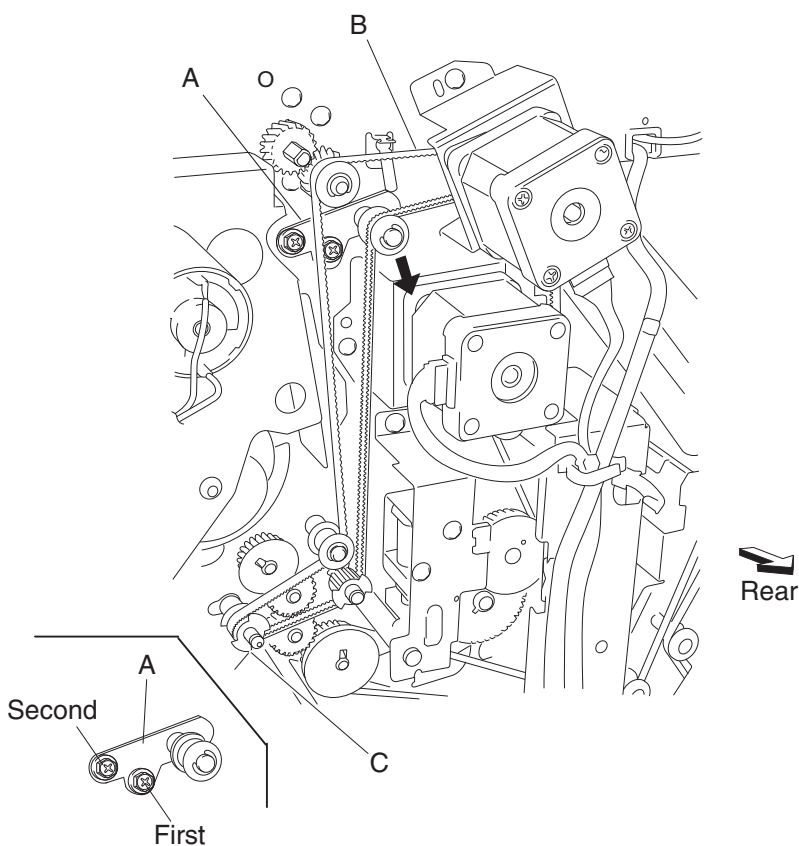
24. Move the lower media exit roll assembly (F) towards the rear and outward, as shown.



25. Remove the lower media exit roll assembly (F).

Paddle and roll exit assembly removal

1. Remove the finisher front door assembly. See **"Finisher front door assembly removal"** on page 4-27.
 2. Remove the rear upper cover. See **"Rear upper cover removal"** on page 4-24.
 3. Remove the rear lower cover. See **"Rear lower cover removal"** on page 4-23.
 4. Remove the upper media bin assembly. See **"Upper media bin assembly removal"** on page 4-20.
 5. Remove the upper media bin vertical cover. See **"Right eject cover removal"** on page 4-21.
 6. Remove the stapler unit frame. See **"Stapler unit frame removal"** on page 4-54.
 7. Remove the media eject clamp motor assembly. See **"Media eject clamp motor assembly removal"** on page 4-66.
 8. Remove the media eject unit assembly. See **"Media eject unit assembly removal"** on page 4-59.
 9. Remove the media compiler unit assembly. See **"Media compiler unit assembly removal"** on page 4-69.
 10. Remove the media eject motor assembly. See **"Media eject motor assembly removal"** on page 4-78.
 11. Remove the media eject shaft assembly. See **"Media eject shaft assembly removal"** on page 4-74.
 12. Loosen the two screws securing the belt tensioner bracket (A) to the finisher, and move it down, as shown.
- Replacement note:** When replacing the belt tensioner bracket (A), tighten the screws in the order shown.
13. Remove the belt (exit) (B) from the lower exit roll drive pulley 20T (C).

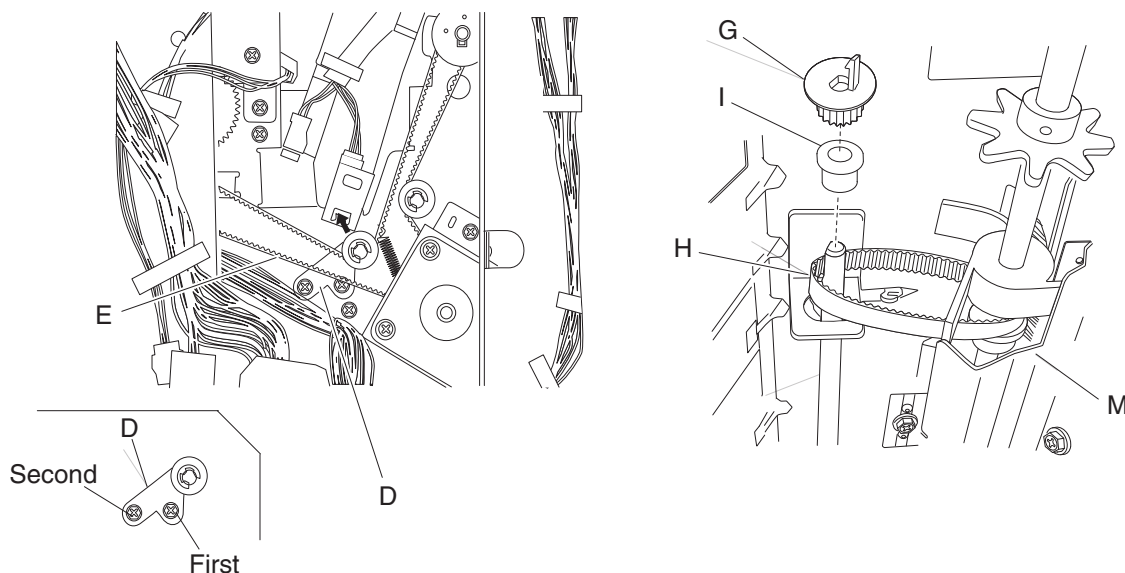


14. Loosen the two screws securing the belt tensioner bracket (D) to the finisher and move it upward, as shown.

Replacement note: When replacing the belt tensioner bracket (D), tighten the screws in the order shown.

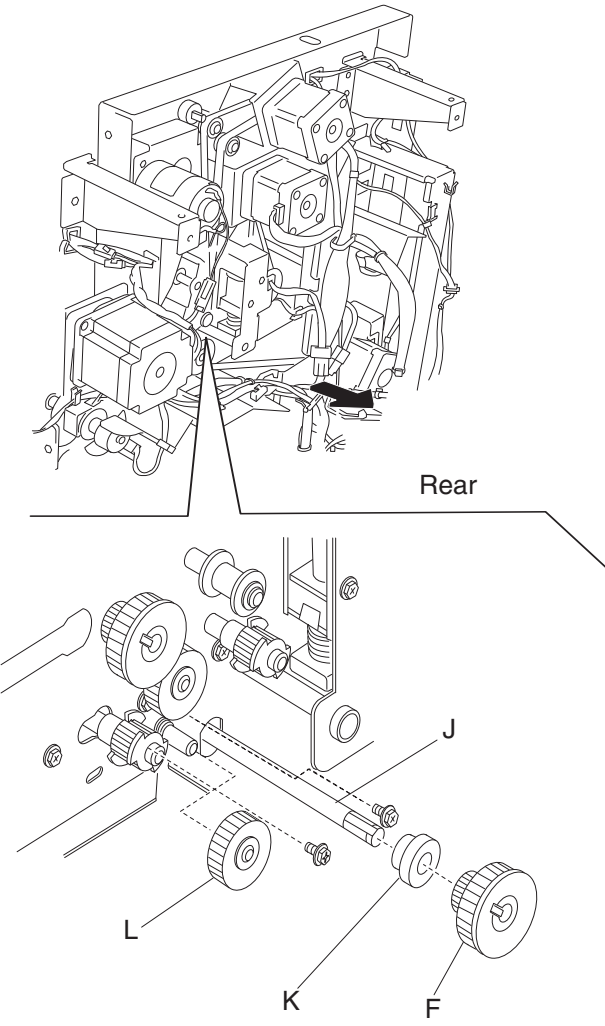
15. Remove the belt (paddle/entrance) (E) from the main paddle drive pulley/gear 44/20T (F).
16. Release the hook from the main paddle shaft drive pulley 17T (G) inside the finisher.
17. Remove the main paddle shaft drive pulley 17T (G).

Note: The belt (H) will become attached.



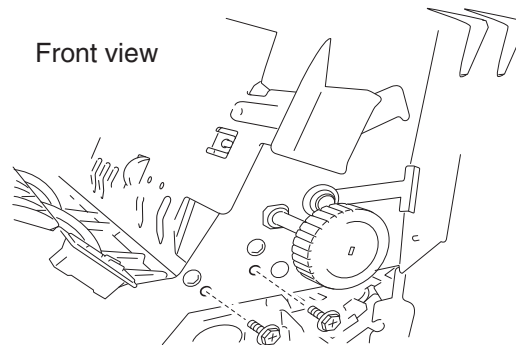
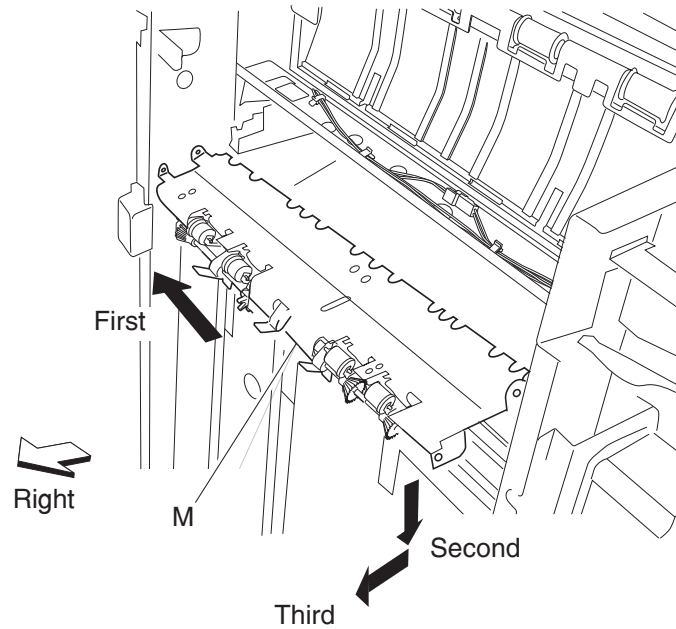
18. Remove the 6 mm bushing (I).
19. Release the hook of the main paddle drive pulley/gear 44/20T (F) from the shaft (J).
20. Remove the main paddle drive pulley/gear 44/20T (F).
21. Remove the 6 mm bushing (K).
22. Remove the main paddle idler gear 23T right (L).
23. Remove the two front and the two rear screws securing the main paddle shaft assembly (M).
24. Move the main paddle shaft assembly (M) forward and then downward and outward.

25. Remove the main paddle shaft assembly.



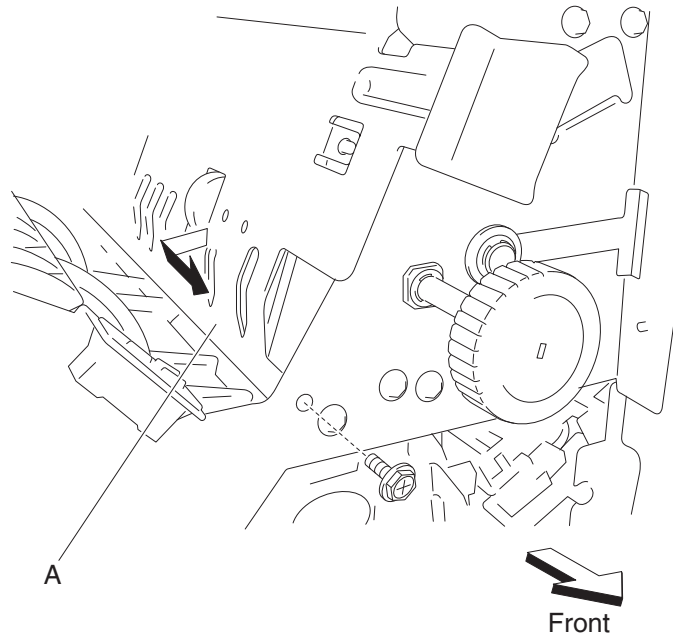
Replacement notes:

- The tension of the belt (exit) (A) and the belt (paddle/entrance) (E) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (A and D).
- Tighten the screws in the order shown.



Lower pinch guide assembly removal

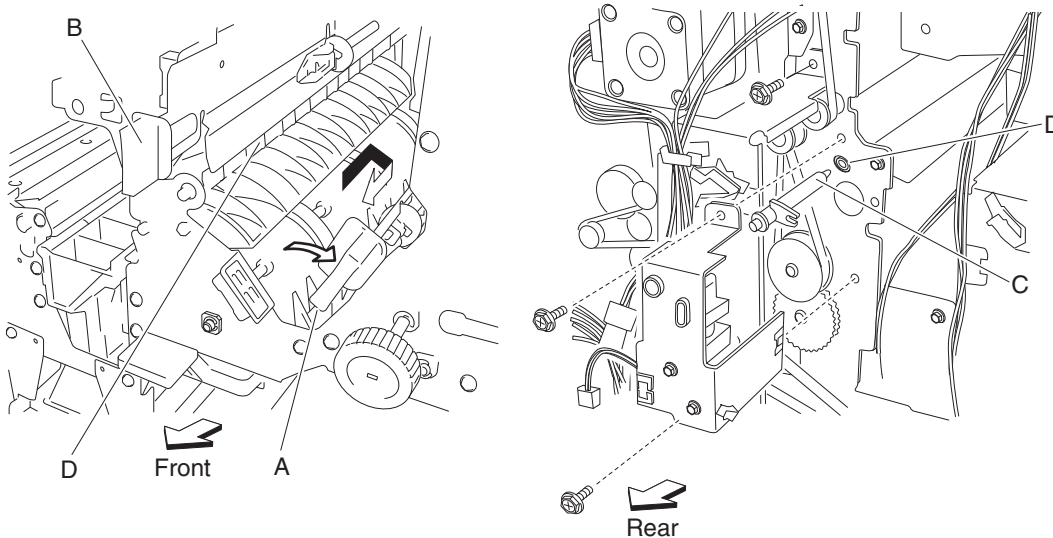
1. Open the finisher front door assembly.
2. Open the lower pinch guide assembly (A) by lifting it upward.
3. Remove the screw securing the lower pinch guide assembly (A) to the finisher.
4. Move the lower pinch guide assembly (A) upward and outward.



5. Remove the lower pinch guide assembly (A).

Finisher diverter gate removal

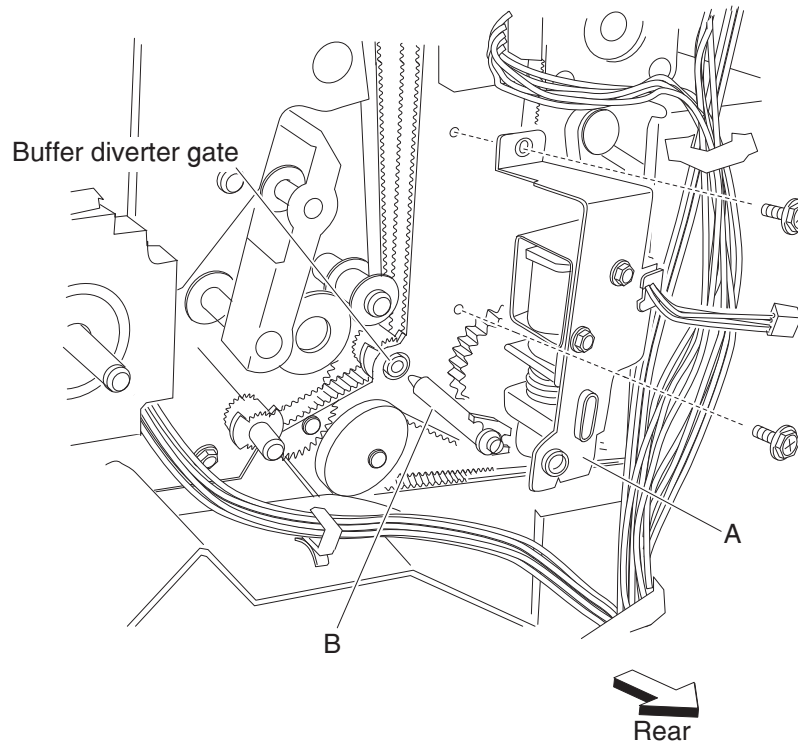
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Open the lower pinch guide assembly (A) to the right.
4. Open the upper pinch guide assembly (B) to the right.
5. Remove the finisher diverter gate solenoid. See **“Finisher diverter gate solenoid removal” on page 4-101.**
6. Remove the link (C).
7. Move the finisher diverter gate (D) toward the rear, to the right, and forward, as shown.



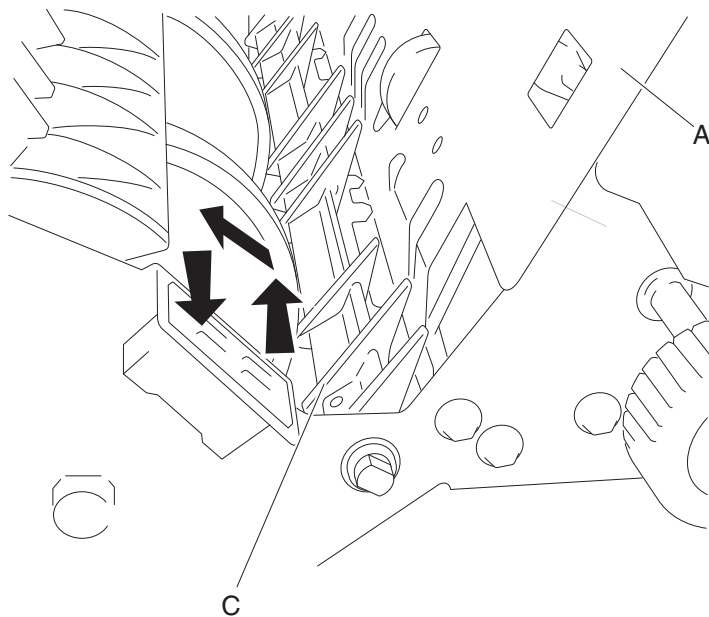
8. Remove the finisher diverter gate (D).

Buffer diverter gate removal

1. Open the finisher front door assembly.
2. Move the lower pinch guide assembly (A) to the right.
3. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
4. Remove the buffer diverter gate solenoid. See **“Buffer diverter gate solenoid removal” on page 4-102.**
5. Remove the link (B).



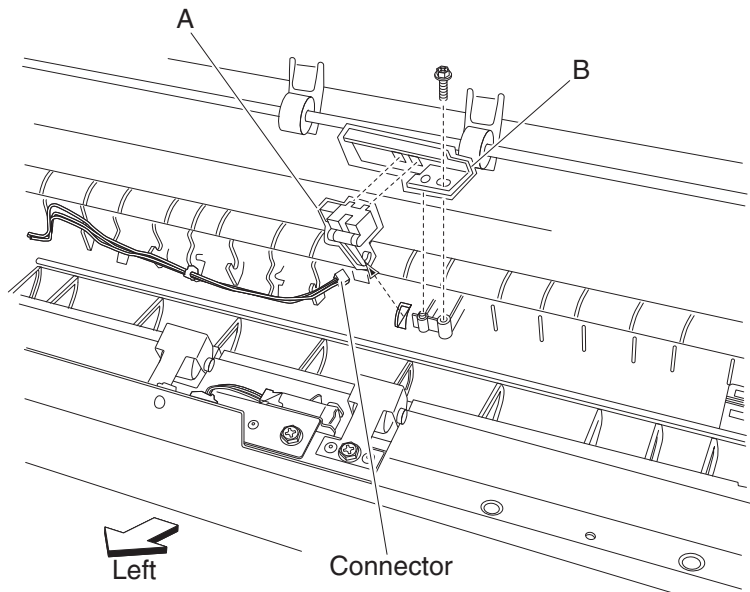
6. Move the buffer diverter gate (C) toward the rear, the left, and then forward, as shown.



7. Remove the buffer diverter gate (C).

Sensor (buffer path) removal

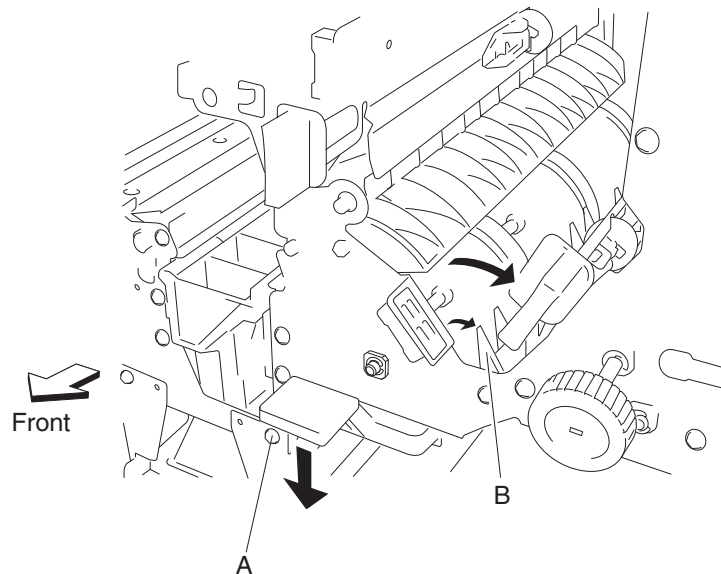
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the left lower cover. See **“Left lower cover removal” on page 4-28.**
6. Remove the left upper cover. See **“Left upper cover removal” on page 4-29.**
7. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
8. Disconnect the connector from the sensor (buffer path) (A).
9. Remove the screw securing the bracket (B) to the finisher.



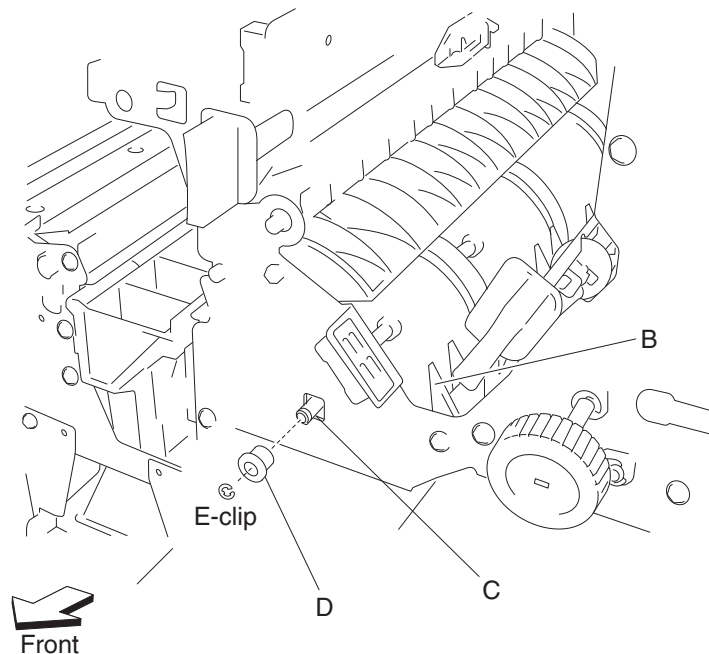
10. Remove the bracket (B).
11. Release the hooks securing the sensor (buffer path) (A) to the bracket (B).
12. Remove the sensor (buffer path) (A).

Finisher buffer roll assembly removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Open the finisher front door assembly.
3. Remove the stapler unit cartridge.
4. Move the stapler unit assembly by hand as far to the rear as it will go.
5. Lower the buffer pinch guide assembly (A).
6. Move the lower pinch guide assembly to the right.
7. Position the buffer diverter gate (B) using your finger to its upper-most position.

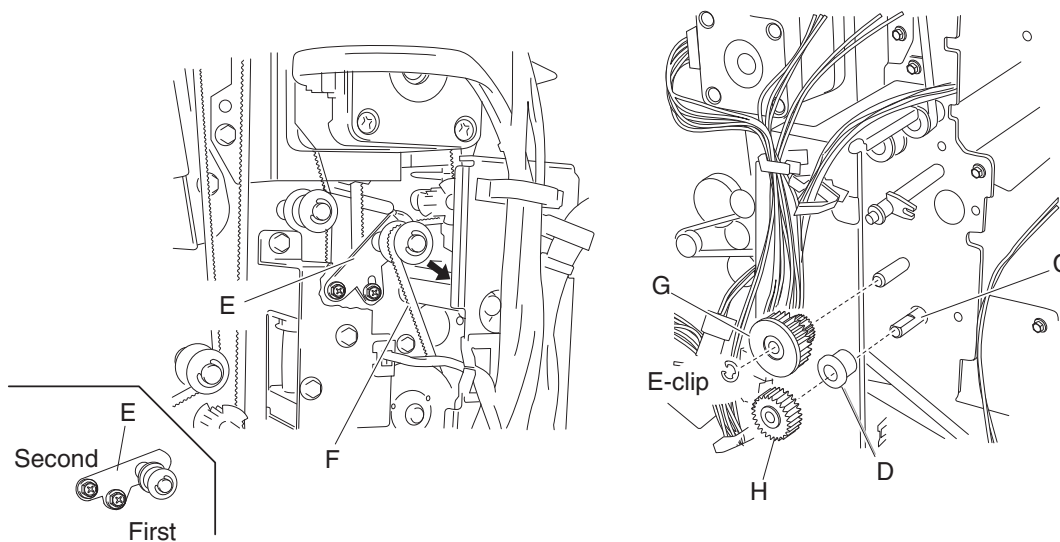


8. Use a prying tool to remove the e-clip securing the buffer roll assembly (C) to the front of the finisher.
9. Remove the 6 mm bushing (D).



10. Remove the finisher diverter gate solenoid. See **“Finisher diverter gate solenoid removal”** on page 4-101.

11. Loosen the two screws securing the belt tensioner bracket (E) to the finisher and move it downward, as shown.
12. Remove the belt (buffer/transport) (F) from the buffer roll drive gear 46T (G).

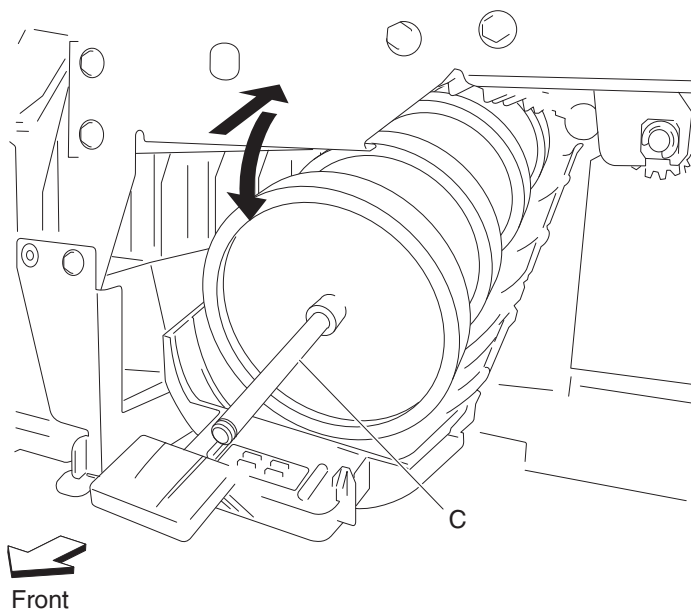


13. Use a prying tool to remove the e-clip securing the buffer roll drive gear 23/53T (G).
14. Remove the buffer roll drive gear 53/23T (G).
15. Release the hook of the buffer roll drive gear 46T (H) from the buffer roll assembly (C).
16. Remove the buffer roll drive gear 46T (H).
17. Remove the 6 mm bushing (D).
18. Remove the buffer roll assembly (C) from inside the finisher.

Note: When removing the buffer roll assembly (C), do not touch the rubber surface.

Replacement notes:

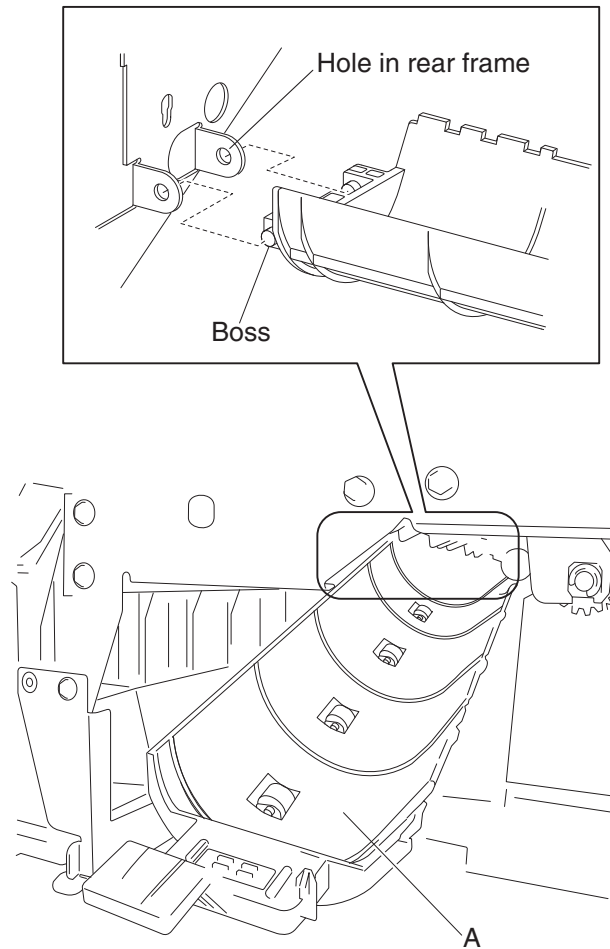
- Make sure the flat spot on the end of the buffer roll assembly (C) is installed to the rear.



- When replacing the buffer roll assembly, do not touch the rubber surface.
- The tension of the belt (buffer/transport) (F) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (E).
- Tighten the two screws in the order shown.

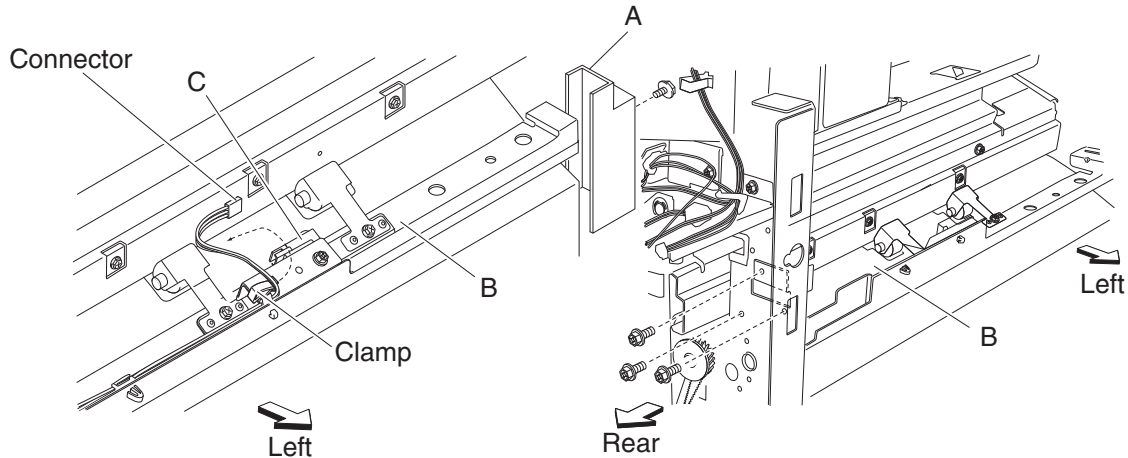
Buffer pinch guide assembly removal

1. Remove the finisher front door assembly. See **“Finisher front door assembly removal” on page 4-27.**
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the rear lower cover. See **“Rear lower cover removal” on page 4-23.**
4. Remove the stapler unit frame. See **“Stapler unit frame removal” on page 4-54.**
5. Lower the buffer pinch guide assembly (A) as far as it will go.
6. Move the buffer pinch guide assembly (A) to the right to remove the two bosses from the holes in the finisher.



Media entrance pinch guide assembly removal

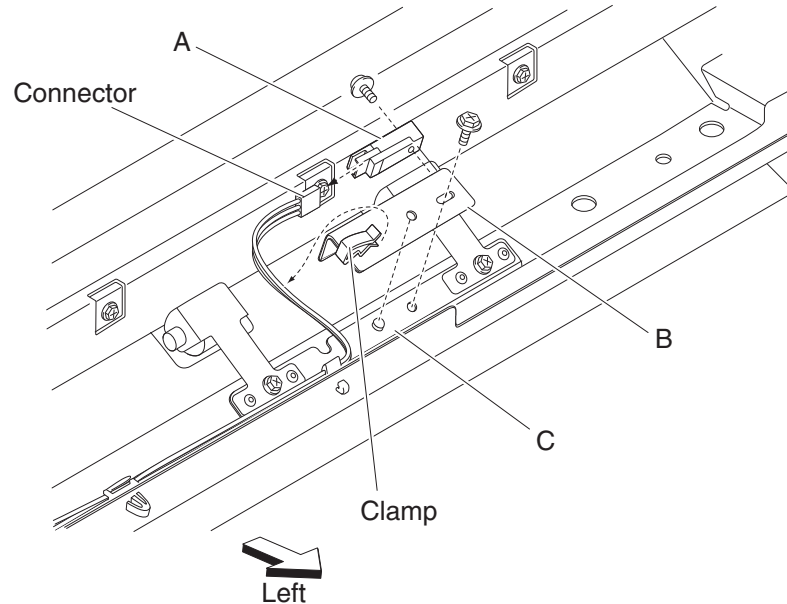
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the left lower cover. See **“Left lower cover removal” on page 4-28.**
4. Remove the left upper cover. See **“Left upper cover removal” on page 4-29.**
5. Remove the screw securing the cover (A) to the media entrance pinch guide assembly (B).
6. Remove the cover (A).
7. Disconnect the connector from the sensor (finisher media entrance) (C).
8. Release the harness from the clamps.
9. Remove the three screws securing the media entrance pinch guide assembly (B).



10. Remove the entrance pinch guide assembly (B) from the finisher.

Sensor (finisher media entrance) removal

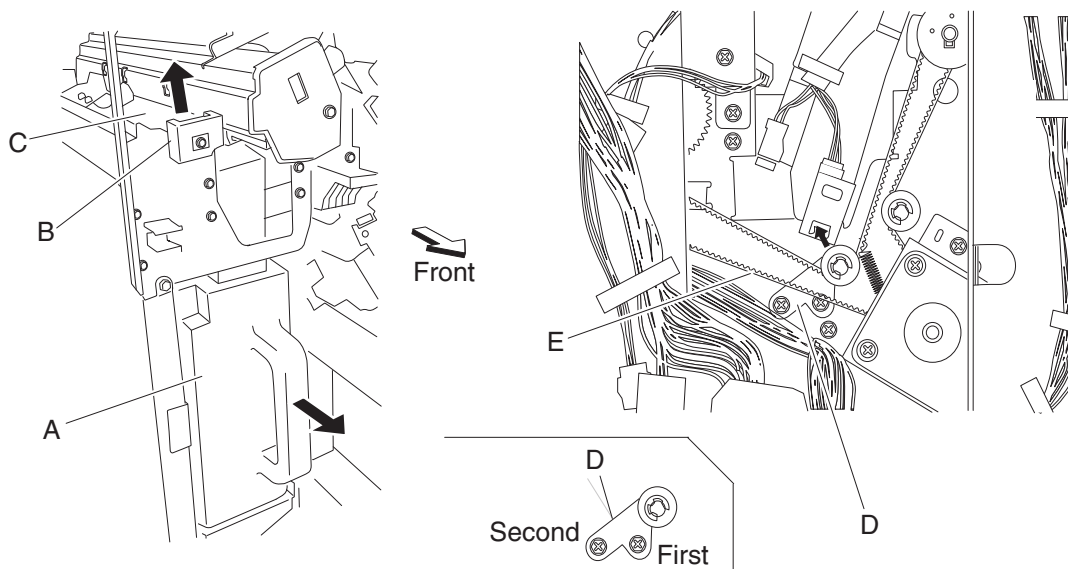
1. Open the front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the left lower cover. See **“Left lower cover removal” on page 4-28.**
6. Remove the left upper cover. See **“Left upper cover removal” on page 4-29.**
7. Disconnect the connector from the sensor (finisher media entrance) (A).
8. Release the harness from the clamp.
9. Remove the screw securing the bracket (B) to the media entrance pinch guide assembly (C).



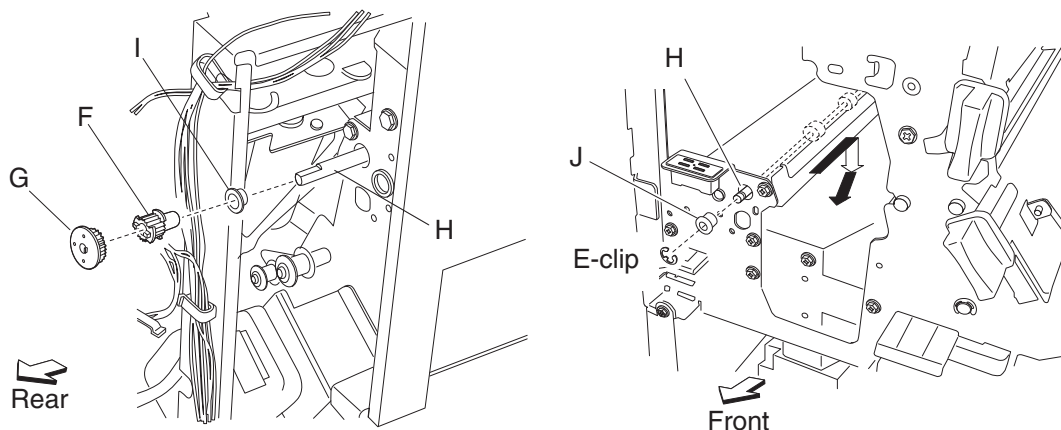
10. Release the hooks securing the sensor (finisher media entrance) (A) to the bracket (B).
11. Remove the sensor (finisher media entrance) (A).

Finisher media entrance roll assembly removal

1. Remove the finisher front door assembly. See **“Finisher front door assembly removal”** on page 4-27.
2. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
3. Remove the left upper cover. See **“Left upper cover removal”** on page 4-29.
4. Remove the punch waste box (A) from the finisher.
5. Remove the screw securing the cover (B) to the media entrance pinch guide assembly.
6. Remove the cover (B).
7. Lift the media entrance pinch guide assembly (C).
8. Loosen the two screws securing the belt tensioner bracket (D) to the finisher and move it upward in the direction of the arrow.
9. Remove the belt (entrance/paddle) (E) from the entrance drive pulley 20T (F).



10. Release the hook securing the entrance drive gear 23T (G) to the media entrance roll assembly (H).
11. Remove the entrance drive gear 23T (G).
12. Remove the entrance drive pulley 20T (F).
13. Remove the bushing (I).
14. Remove the e-clip securing the media entrance roll assembly (H) to the front of the finisher.
15. Remove the bushing (J).



16. Move the media entrance roll assembly (H) toward the rear, downward, and then forward.
17. Remove the media entrance roll assembly (H) through the inside of the finisher.

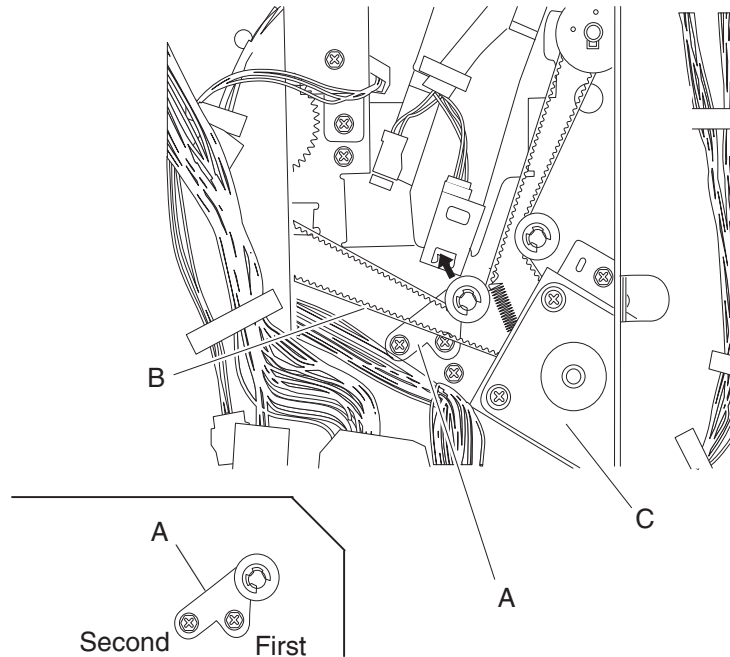
Note: When removing the media entrance roll assembly (H), do not touch the rubber surface.

Replacement notes:

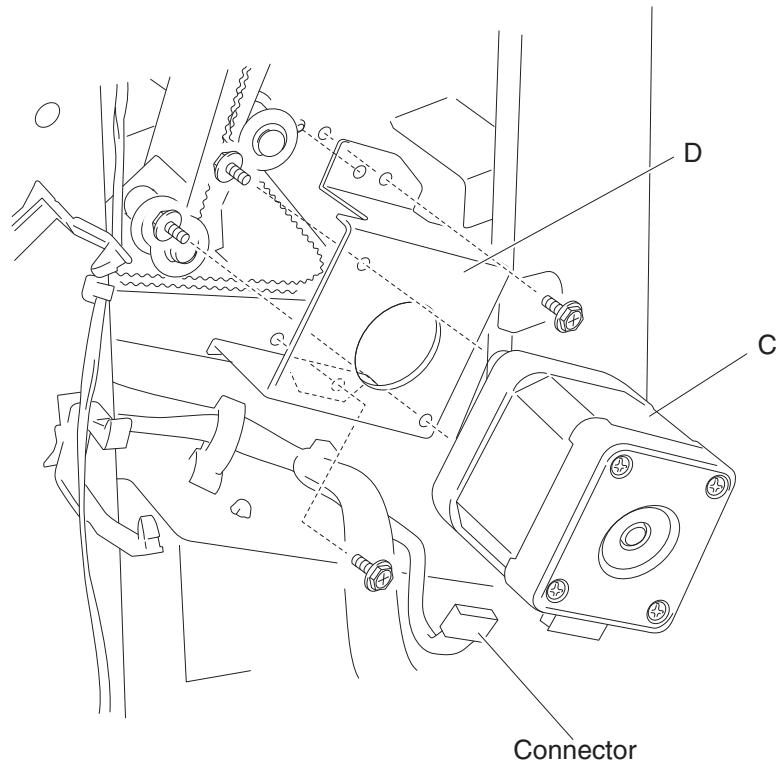
- Make sure the flat spot on the media entrance roll assembly (H) is installed to the rear.
- When replacing the media entrance roll assembly (H), do not touch the rubber surface.
- The tension of the belt (entrance/paddle) (E) is automatically adjusted to the force of the spring attached to the belt tensioner bracket (D).
- Tighten the two screws in the order shown.

Drive motor (entrance/paddle) and belt (entrance/paddle) removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Loosen the two screws securing the belt tensioner bracket (A) to the finisher and move upward, as shown.
3. Remove the belt (entrance/paddle) (B) from the drive motor (entrance/paddle) (C).
4. Disconnect the connector from the drive motor (entrance/paddle) (C).



5. Remove the two screws securing the bracket (D) to the finisher.



6. Remove the bracket (D).
7. Remove the two screws securing the bracket (D) to the drive motor (entrance/paddle) (C).
8. Remove the drive motor (entrance/paddle) (C).
9. Remove the belt (entrance/paddle) (B).

Replacement notes:

- The tension of the belt (entrance/paddle) (B) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (A).
- Tighten the two screws in the order shown.

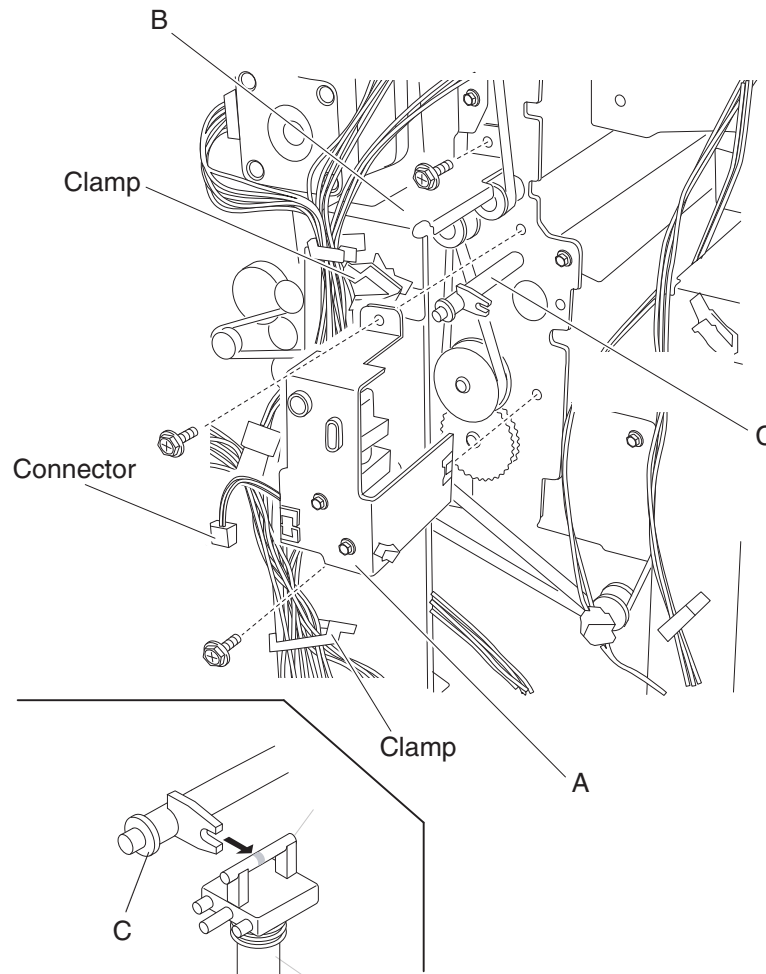
Finisher diverter gate solenoid removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Disconnect the connector from the finisher diverter gate solenoid (A).
4. Release the harness from the clamp.
5. Remove the two screws securing the bracket (B) to the finisher.

Note: The bracket should not be removed from the finisher, it should be gently moved to provide better access to the finisher diverter gate solenoid mounting screws.

6. Remove the two screws securing the finisher diverter gate solenoid (A) to the finisher.
7. Remove the finisher diverter gate solenoid (A).

Note: The link (C) may remain inserted into the finisher.



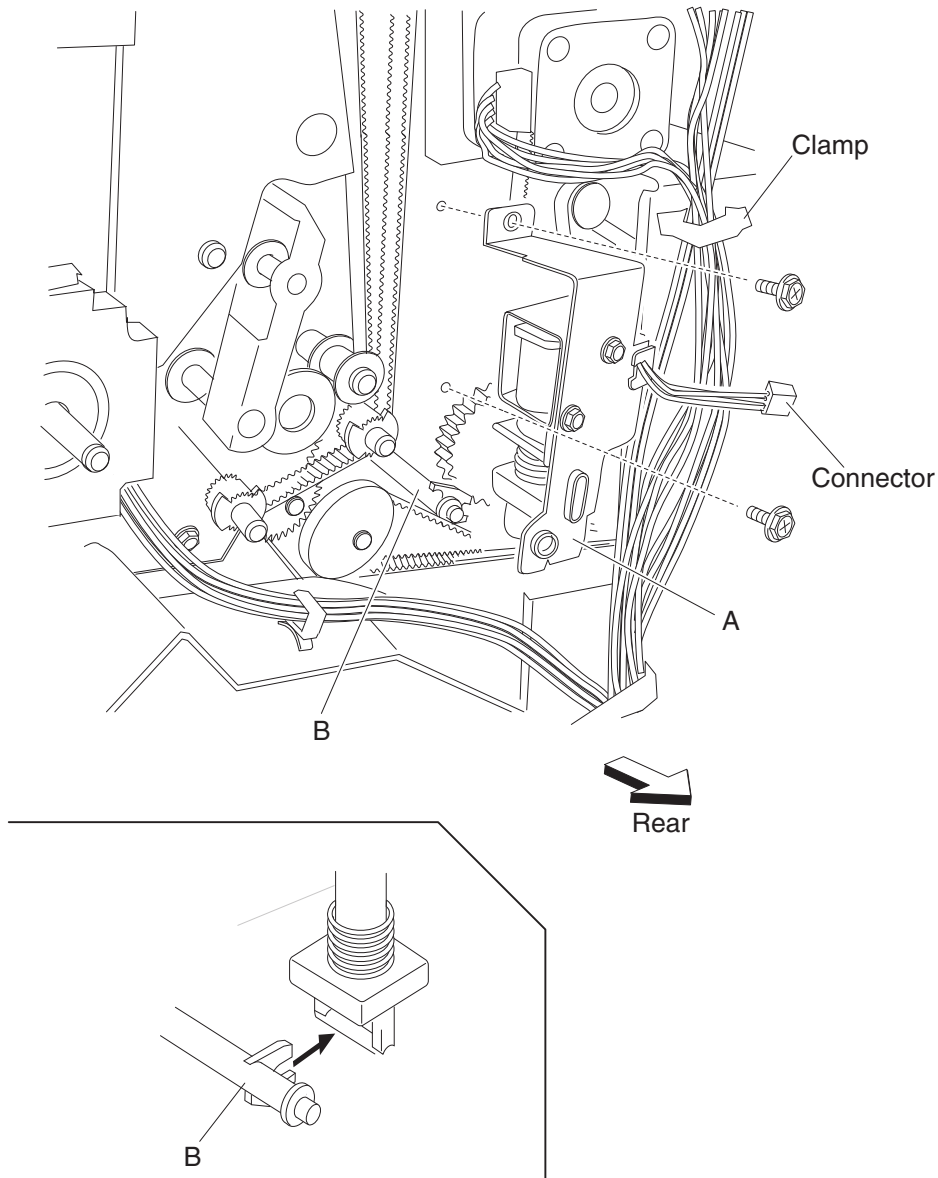
8. Remove the link.

Note: When the link is removed, the finisher diverter gate may become detached. See **“Finisher diverter gate removal” on page 4-90.**

Buffer diverter gate solenoid removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Disconnect the connector from the buffer diverter gate solenoid (A).
4. Release the harness from the clamp.
5. Remove the two screws securing the buffer diverter gate solenoid to the finisher.
6. Remove the buffer diverter gate solenoid.

Note: The link (B) may remain inserted into the finisher.

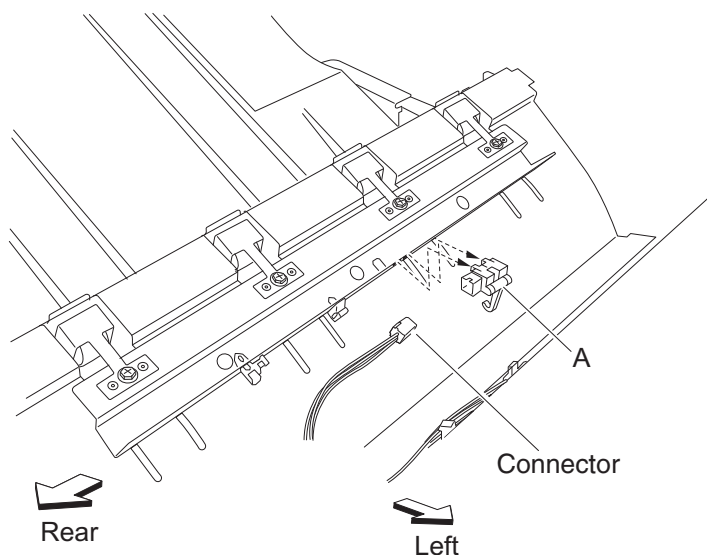


7. Remove the link.

Note: When the link is removed, the buffer diverter gate may become detached. See **“Buffer diverter gate removal” on page 4-91.**

Sensor (upper media exit) removal

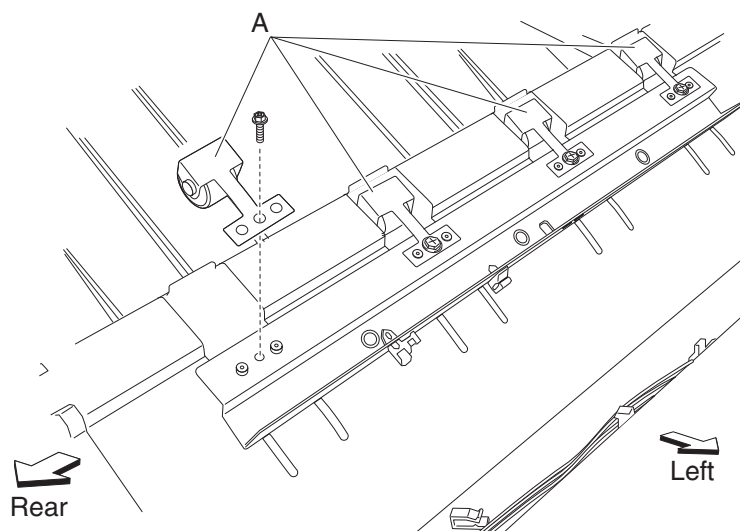
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Disconnect the connector from the sensor (upper media exit) (A).



6. Release the hooks securing the sensor (upper media exit) (A) to the finisher.
7. Remove the sensor (upper media exit) (A).

Upper media exit pinch roll assembly removal

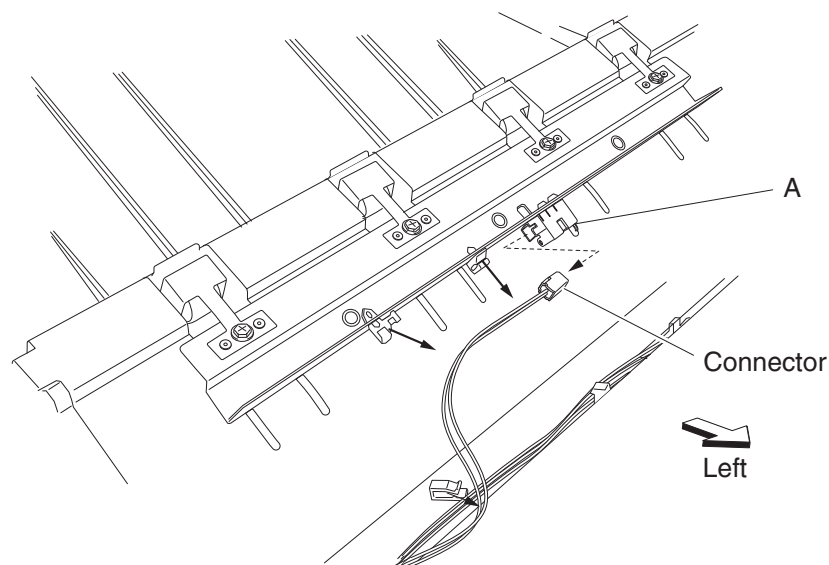
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the four screws securing the four upper media exit pinch roll assemblies (A) to the finisher.



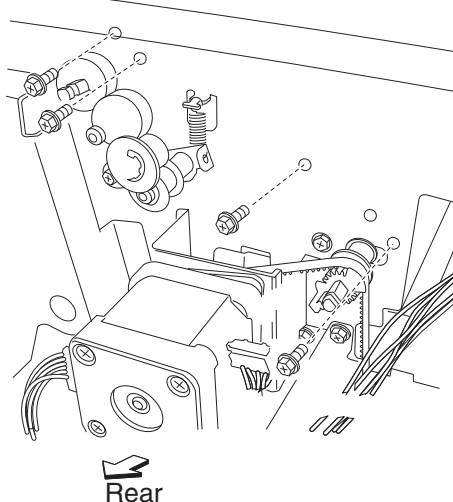
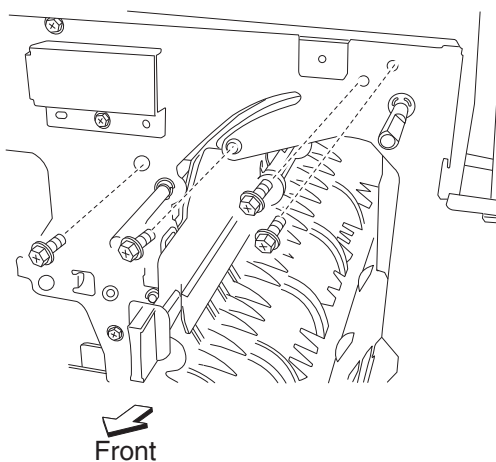
6. Remove the four upper media exit pinch roll assembly (A).

Upper media exit roll assembly removal

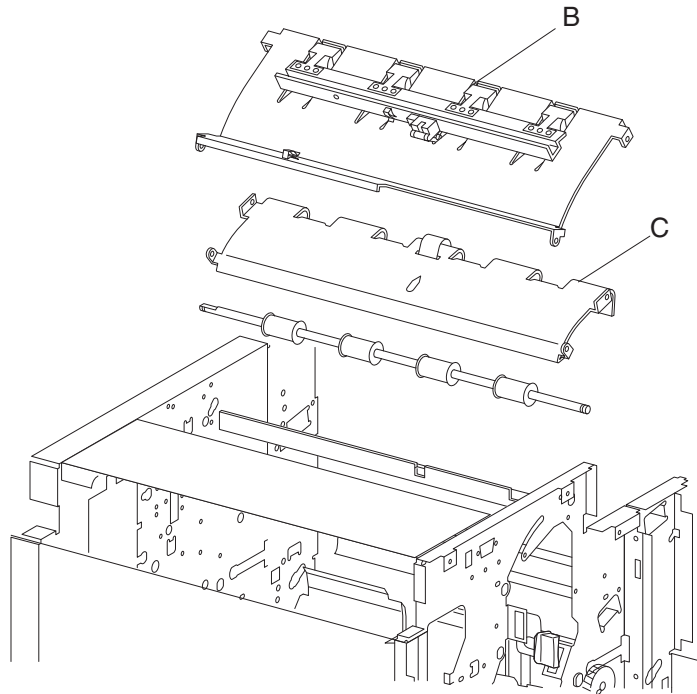
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the drive motor (exit). See **“Drive motor (exit) assembly and belt (exit) removal” on page 4-111.**
6. Disconnect the connector from the sensor (upper media exit) (A).



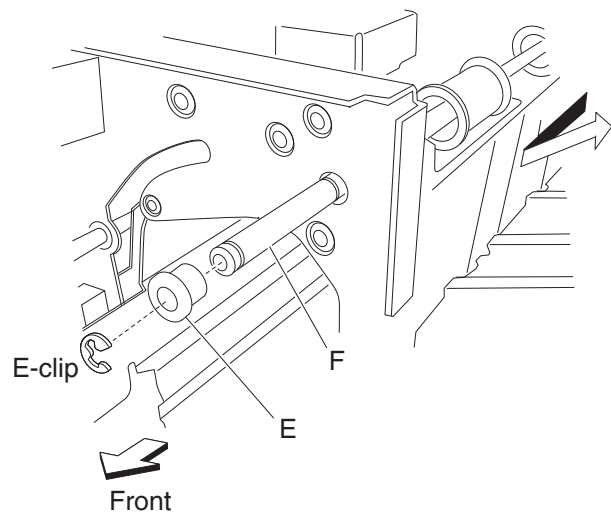
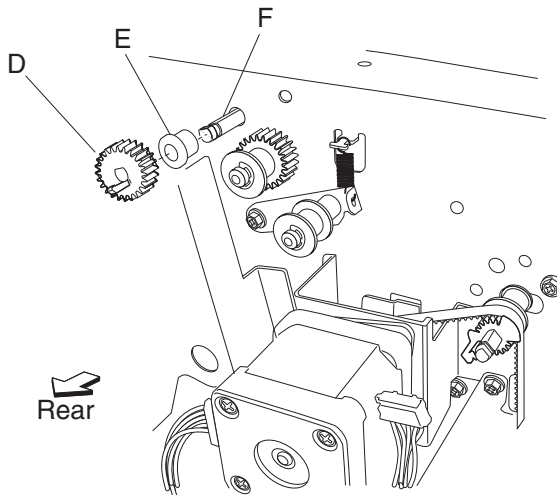
7. Release the harness from the clamps.
8. Remove the two front and two rear screws securing the upper exit guide assembly (B).
9. Remove the upper exit guide assembly.
10. Remove the two front screws and the two rear screws securing the bracket (C) to the finisher.



11. Remove the bracket (C).



12. Release the hook from the upper media exit roll drive gear 20T(D).
 13. Remove the upper media exit roll drive gear 20T.
 14. Remove the 6 mm bushing.
 15. Use a prying tool to remove the e-clip securing the upper media exit roll assembly (F) to the front of the finisher.
 16. Remove the 6 mm bushing (E).
 17. Move the upper media exit roll assembly frontward and outward in the direction of the arrow.



18. Remove the upper media exit roll assembly (F).

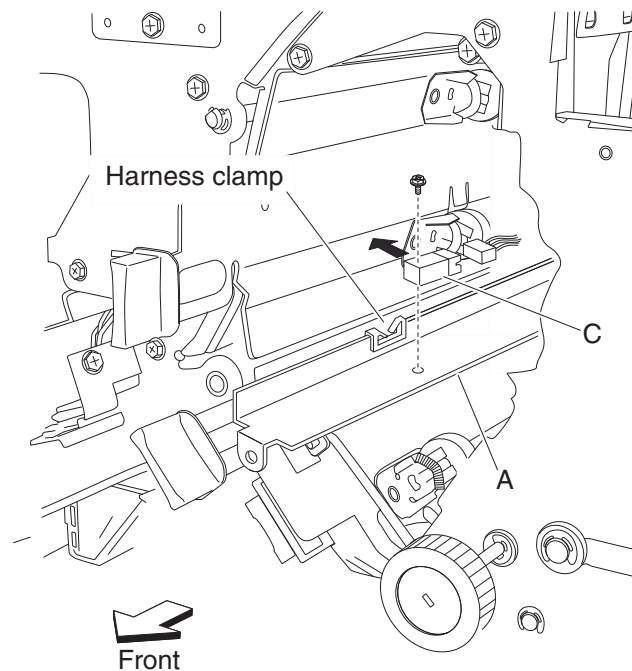
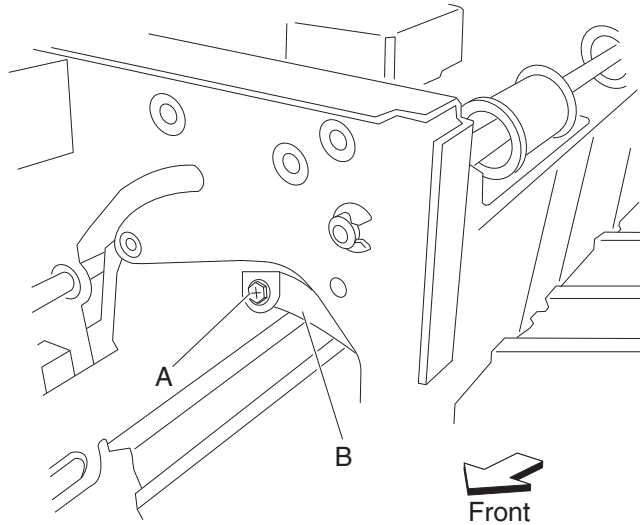
Note: When removing the upper media exit roll assembly (F), do not touch the rubber surface.

Replacement notes:

- Make sure the flat spot of the upper media exit roll assembly (F) is installed to the rear.
- When replacing the upper media exit roll assembly (F), do not touch the rubber surface.

Sensor (upper media bin full) removal

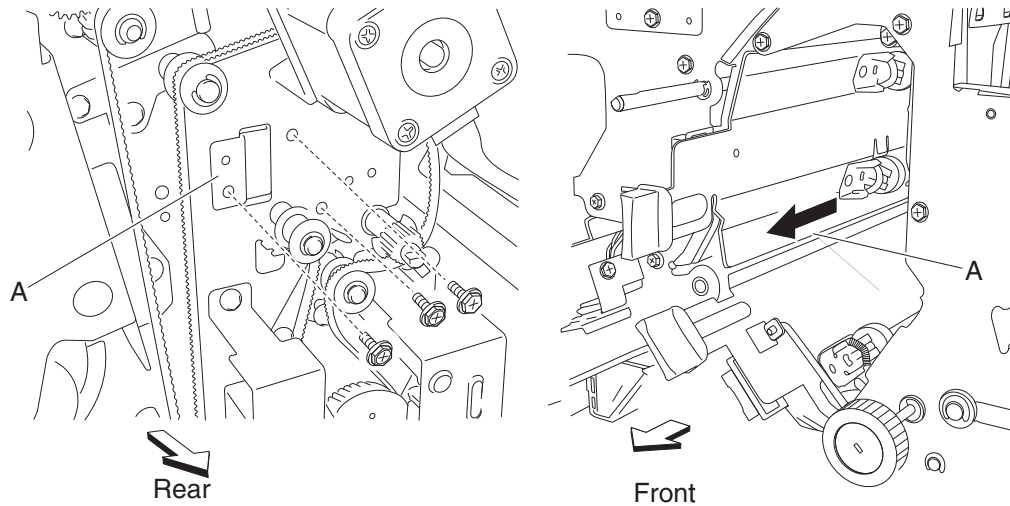
1. Open the finisher front door assembly.
2. Remove the screw securing the bracket (A) to the upper media bin vertical cover (B).
3. Move the bracket frontward and downward to gain access to the harness and connector.
4. Release the harness from the clamp.
5. Move the bracket (B) frontward again, and remove the screw securing the sensor (upper media bin full) (C) to the bracket.



6. Remove the sensor (upper media bin full) (C).
7. Disconnect the connector from the sensor (upper media bin full) (C).

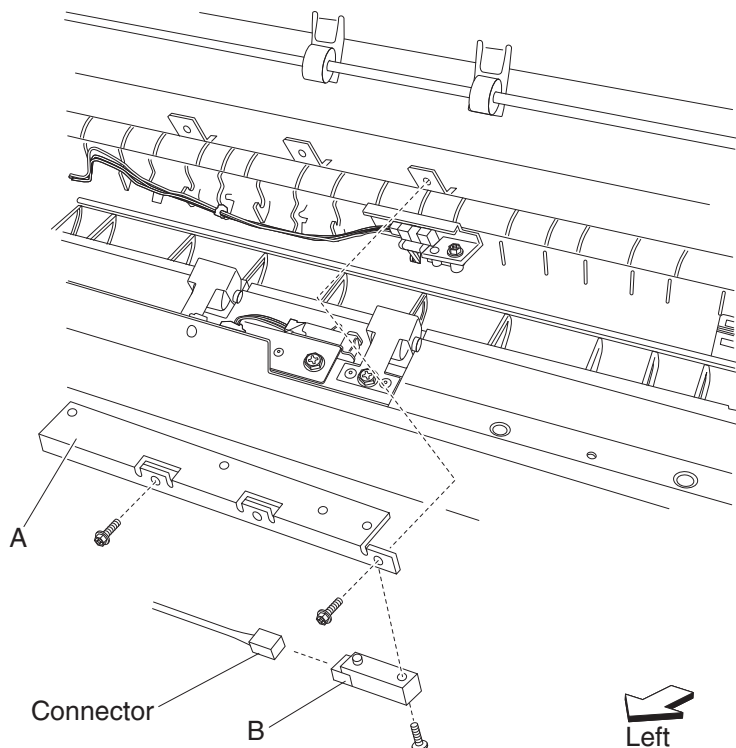
Upper pinch guide assembly removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the drive motor (buffer/transport). See **“Drive motor (buffer/transport) and belt (buffer/transport) removal” on page 4-113.**
4. Remove the three screws securing the hinge of the upper pinch guide assembly (A) on the rear of the finisher.
5. Move the upper pinch guide assembly hinge from the rear of the finisher.
6. Remove the upper pinch guide assembly (A) from the inside of the finisher in the direction of the arrow.



Sensor (diverter gate) removal

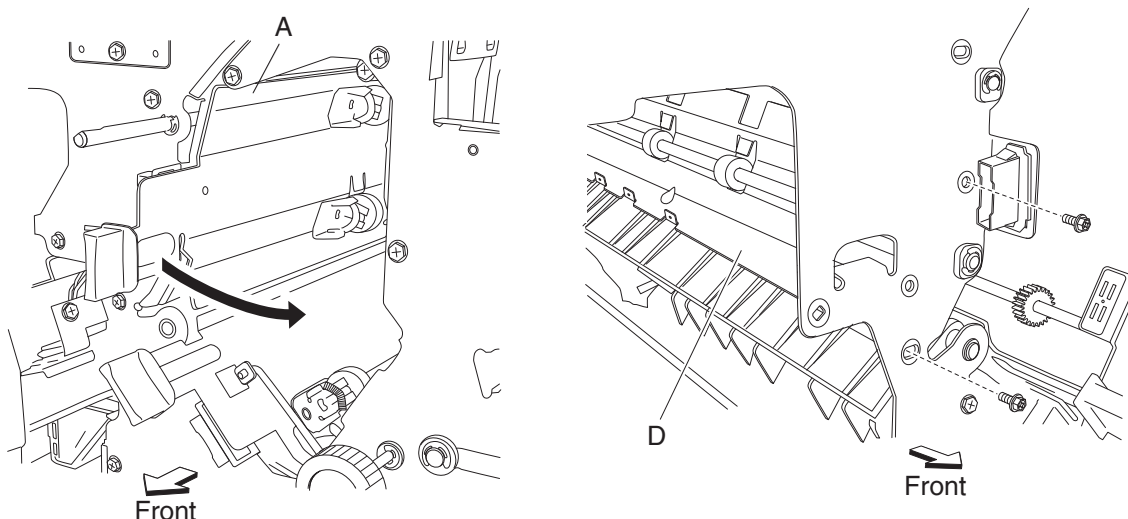
1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal” on page 4-24.**
3. Remove the upper media bin assembly. See **“Upper media bin assembly removal” on page 4-20.**
4. Remove the top cover. See **“Top cover removal” on page 4-19.**
5. Remove the left lower cover. See **“Left lower cover removal” on page 4-28.**
6. Remove the left upper cover. See **“Left upper cover removal” on page 4-29.**
7. Remove the punch carriage assembly. See **“Punch carriage assembly removal” on page 4-41.**
8. Remove the two screws securing the bracket (A) to the finisher.
9. Remove the bracket (A).
10. Disconnect the connector from the sensor (diverter gate) (B).
11. Remove the screw securing the sensor (diverter gate) (B) to the bracket (A).



12. Remove the sensor (diverter gate) (B).

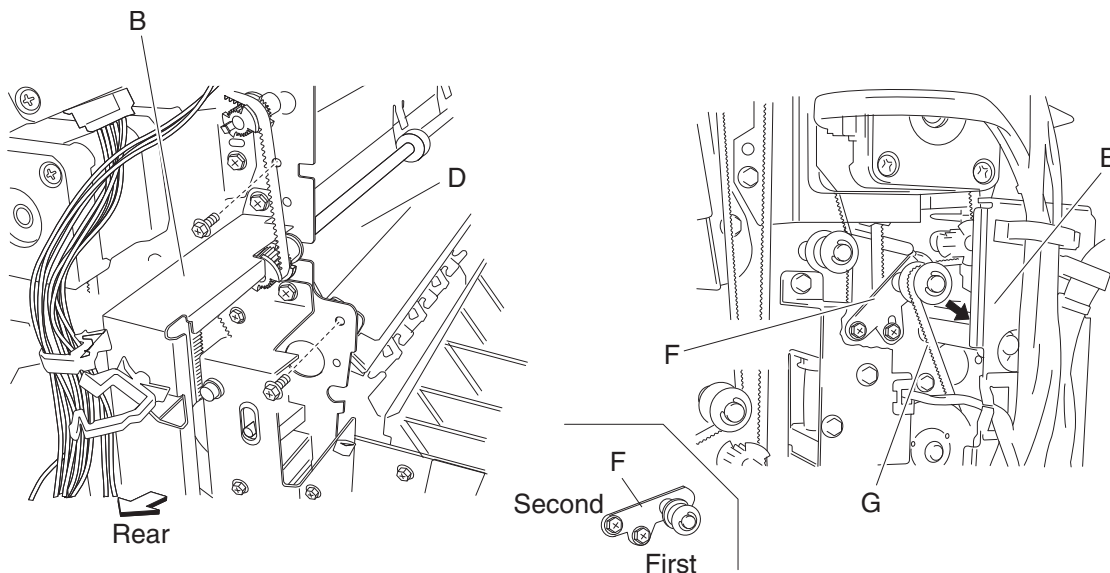
Upper media transport roll assembly removal

1. Open the finisher front door assembly.
2. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
3. Remove the top cover. See **“Top cover removal”** on page 4-19.
4. Remove the left lower cover. See **“Left lower cover removal”** on page 4-28.
5. Remove the left upper cover. See **“Left upper cover removal”** on page 4-29.
6. Remove the punch carriage assembly. See **“Punch carriage assembly removal”** on page 4-41.
7. Open the upper pinch guide assembly (A) toward the right.
8. Remove the two screws securing the bracket (B) on the rear of the finisher.



9. Move the bracket (B) slightly toward the exit side of the finisher.

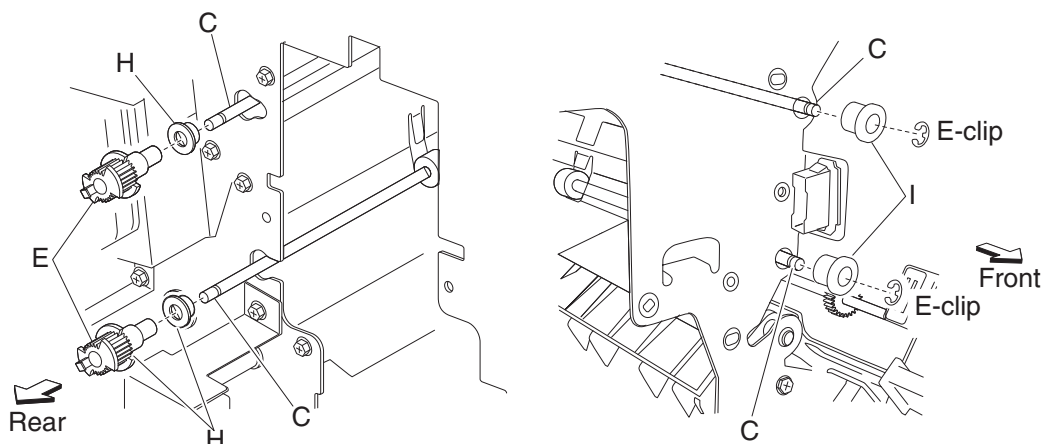
Note: It is not necessary to remove the bracket from the finisher; it should only be slightly moved to provide better access to the two upper media transport roll assemblies (C) for removal.



10. Remove the two screws securing the bracket (D).

Note: It is not necessary to remove the bracket from the finisher; it should only be slightly moved to provide better access to the two upper media transport roll drive pulleys 20T(E).

11. Loosen the two screws securing the belt tensioner bracket (F) to the finisher, and move the bracket downward as shown.
12. Remove the belt (buffer/transport) (G) from the two upper media transport roll drive pulleys 20T (E).
13. Release the hook securing the appropriate upper media transport roll drive pulley 20T (E) to the appropriate upper media transport roll assembly (C).
14. Remove the appropriate upper media transport roll drive pulley 20T (E).
15. Remove the appropriate bushing (H).
16. With a prying tool, remove the e-clip securing the appropriate upper media transport roll assembly (C) to the front of the finisher.



17. Remove the appropriate 6 mm bushing (I).
18. Move the appropriate upper media transport roll assembly (C) toward the front and outward.
19. Remove the appropriate upper media transport roll assembly (C).

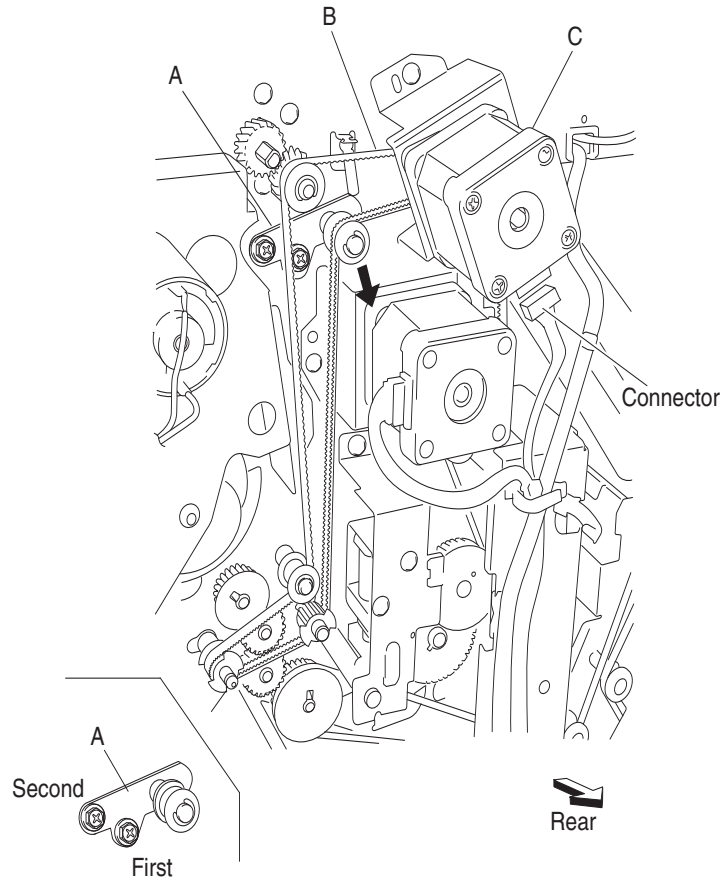
Note: When removing the upper media transport roll assembly (C), do not touch the rubber surface.

Replacement notes

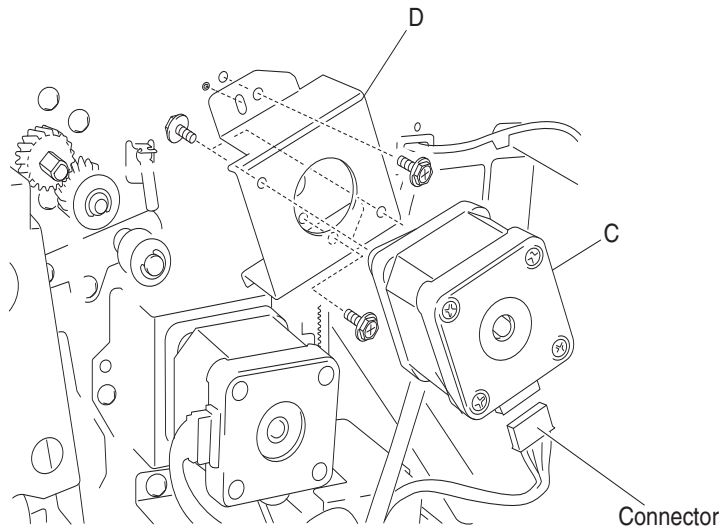
- Make sure the flat spot on the upper media transport roll assembly (C) is installed to the rear.
- When replacing the upper media transport roll assembly (C), do not touch the rubber surface.
- The tension of the belt (buffer/transport) (G) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (F).
- Tighten the two screws in the order shown.

Drive motor (exit) assembly and belt (exit) removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Loosen the two screws securing the belt tensioner bracket (A) to the finisher, and move it down as shown.
3. Remove the belt (exit) (B) from the drive motor (exit) assembly (C).
4. Disconnect the connector from the drive motor (exit) assembly.



5. Remove the two screws securing the bracket (D) to the finisher.
6. Remove the bracket (D).
7. Remove the two screws securing the drive motor (exit) assembly to the bracket (D).



8. Remove the drive motor (exit) assembly (C).

Replacement notes:

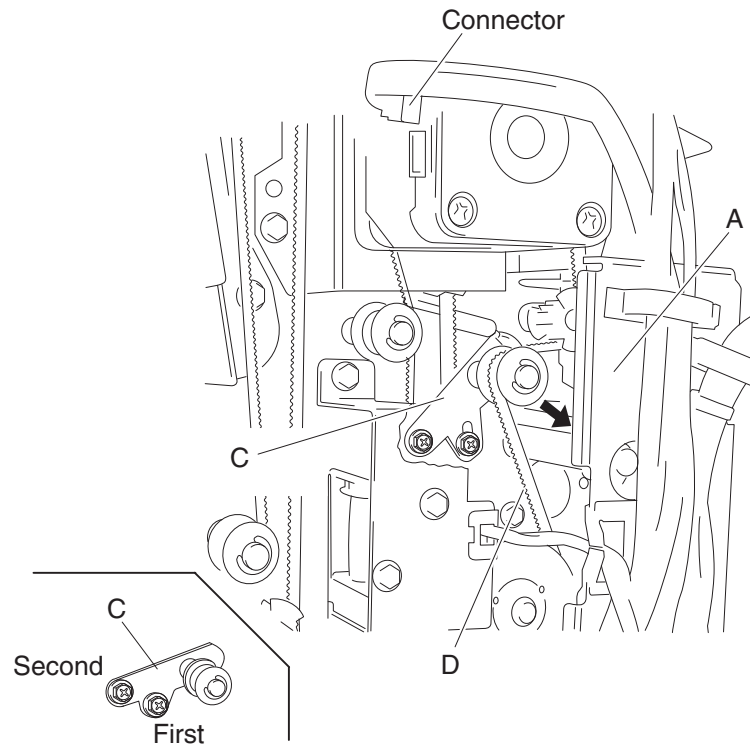
- The tension of the belt (exit) (B) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (A).
- Tighten the two screws in the order shown.

Drive motor (buffer/transport) and belt (buffer/transport) removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the two screws securing the bracket (A) on the rear of the finisher.
3. Move the bracket slightly.

Note: It is not necessary to remove the bracket from the finisher. It should only be slightly moved to provide better access to the drive motor (buffer/transport) (B) for removal.

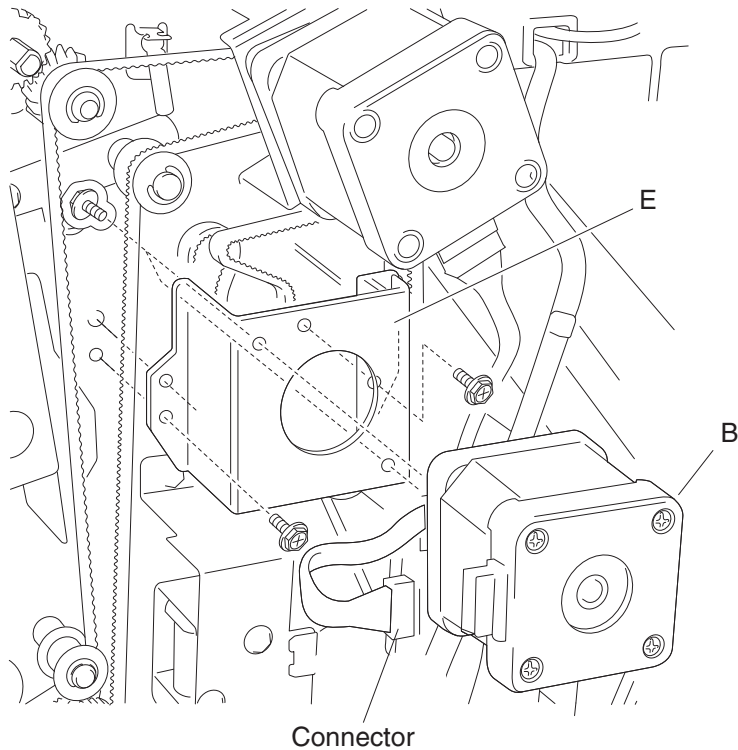
4. Loosen the two screws securing the belt tensioner bracket (C) to the finisher, and move it down as shown.
5. Remove the belt (buffer/transport) (D) from the drive motor (buffer/transport).



6. Disconnect the connector from the drive motor (buffer/transport).
7. Remove the two screws securing the bracket (E) to the finisher.
8. Remove the bracket.
9. Remove the two screws securing the drive motor (buffer/transport) to the bracket.
10. Remove the drive motor (buffer/transport).
11. Remove the belt (buffer/transport) (D).

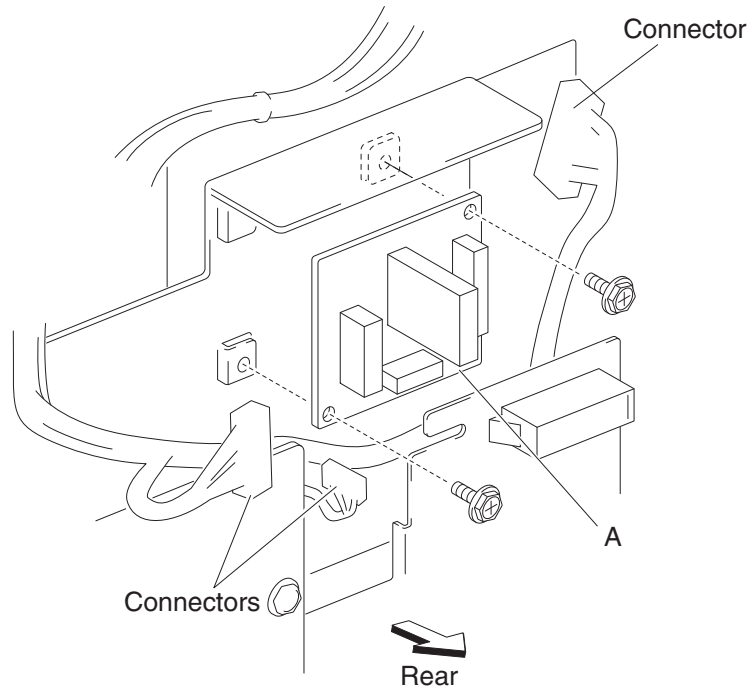
Replacement notes:

- The tension of the belt (buffer/transport) (D) is automatically adjusted by the force of the spring attached to the belt tensioner bracket (C).
- Tighten the two screws in the order shown.



Bridge unit interface card assembly removal

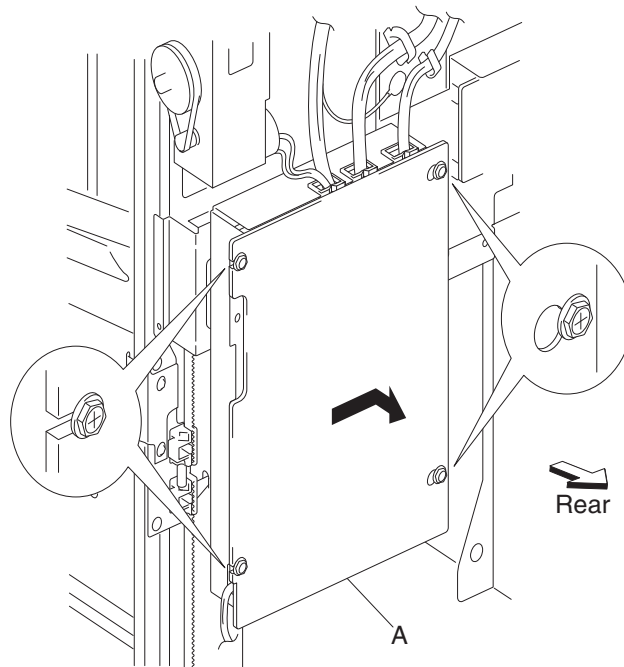
1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Disconnect all the connectors from the bridge unit interface card assembly (A).
3. Remove the two screws securing the bridge unit interface card assembly (A) to the finisher.



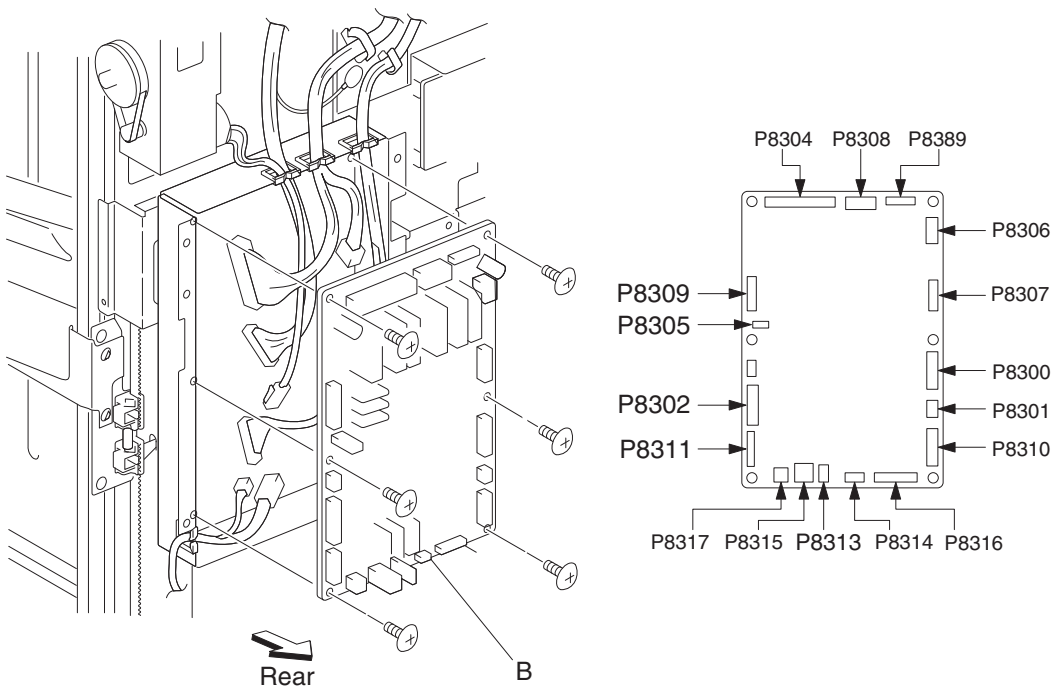
4. Remove the bridge unit interface card assembly (A).

Finisher controller card assembly removal

1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the rear lower cover. See **“Rear lower cover removal”** on page 4-23.
3. Loosen the four screws securing the plate (A) to the finisher.
4. Move the plate (A) to the right and outward.



5. Remove the plate (A).
6. Disconnect the connectors from the finisher controller card assembly (B).

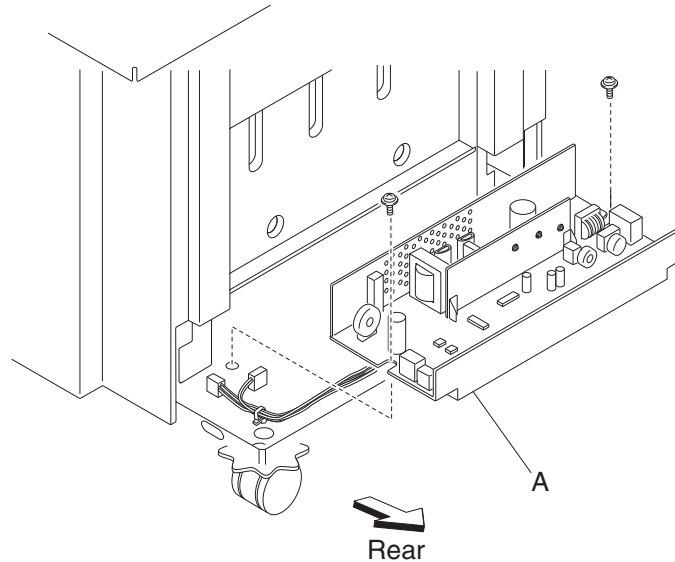


7. Remove the six screws securing the finisher controller card assembly (B).
8. Remove the finisher controller card assembly (B).



Finisher low voltage power supply (LVPS) removal

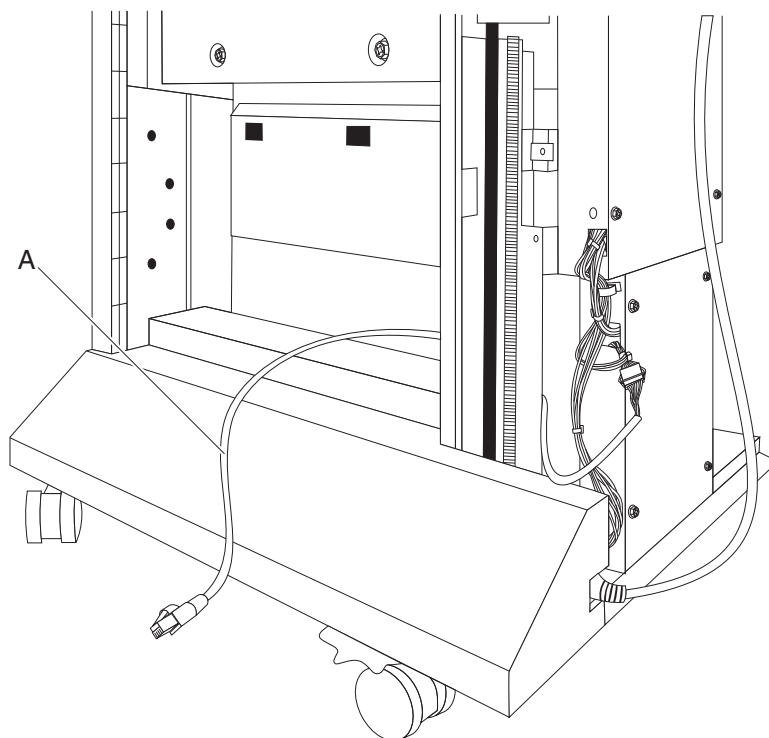
1. Remove the right lower cover. See **“Rear lower cover removal”** on page 4-23.
2. Disconnect all the connectors from the finisher LVPS (A).
3. Remove the two screws securing the finisher LVPS (A) to the finisher.



4. Remove the finisher LVPS (A).

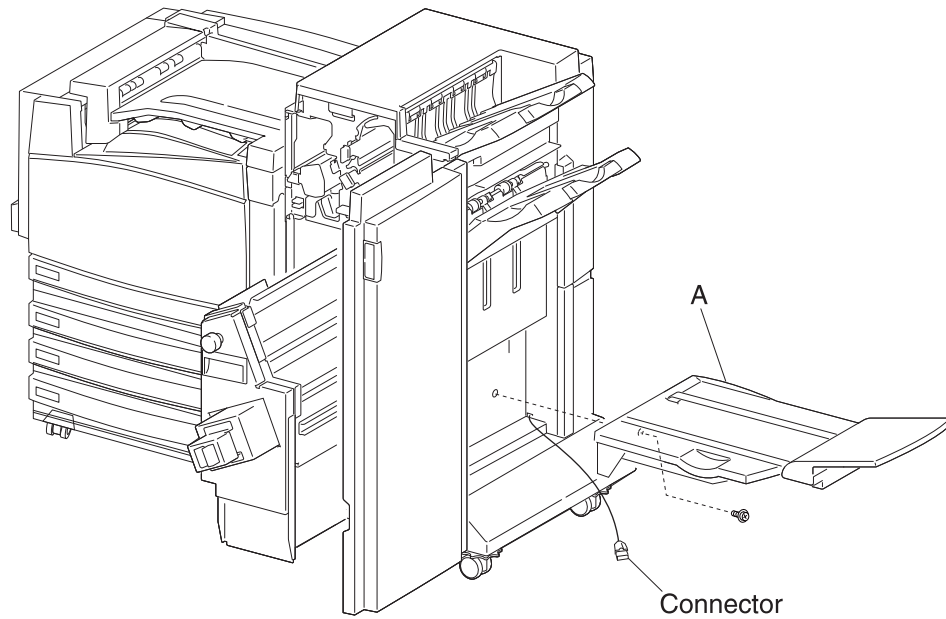
Booklet bin hookup cable assembly removal

1. Disconnect booklet hookup cable assembly from the booklet bin assembly.
2. Remove rear lower cover. See **“Rear lower cover removal” on page 4-23.**
3. Disconnect the booklet bin hookup cable assembly from the rear of the finisher.
4. Release the clamps securing the booklet bin hookup cable assembly from the finisher.
5. Remove booklet bin hookup cable assembly (A).



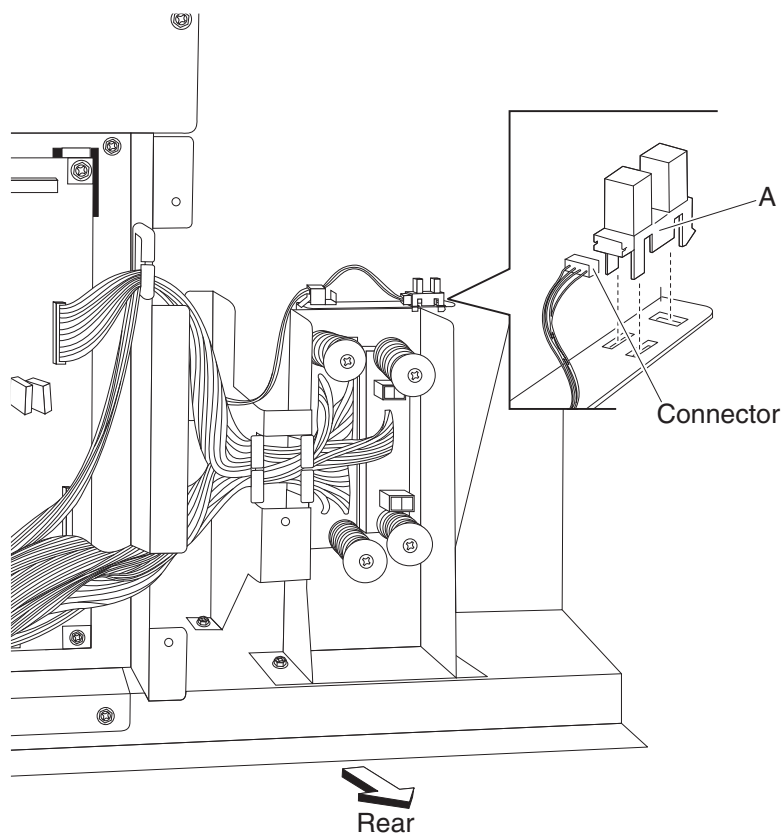
Booklet bin assembly removal

1. Disconnect booklet hookup cable assembly from the booklet bin assembly.
2. Remove the screw securing the booklet bin assembly (A) to the finisher.
3. Remove booklet bin assembly (A).



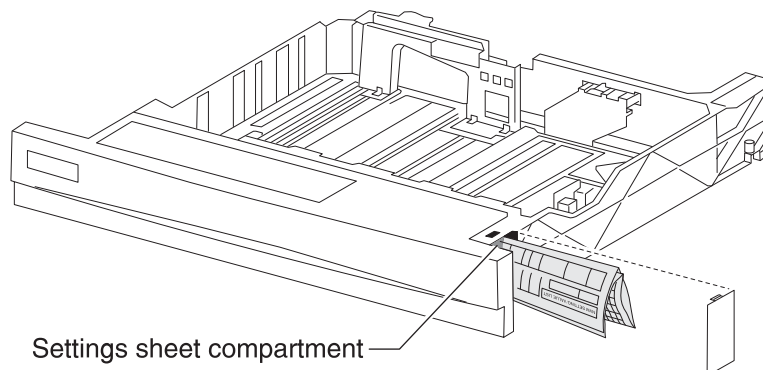
Sensor (booklet unit interlock) removal

1. Open the finisher front door assembly.
2. Pull the booklet unit assembly out of the finisher.
3. Remove rear lower cover. See **“Rear lower cover removal” on page 4-23.**
4. Disconnect the connector from the sensor (booklet unit interlock).
5. Remove sensor (booklet unit interlock) (A).



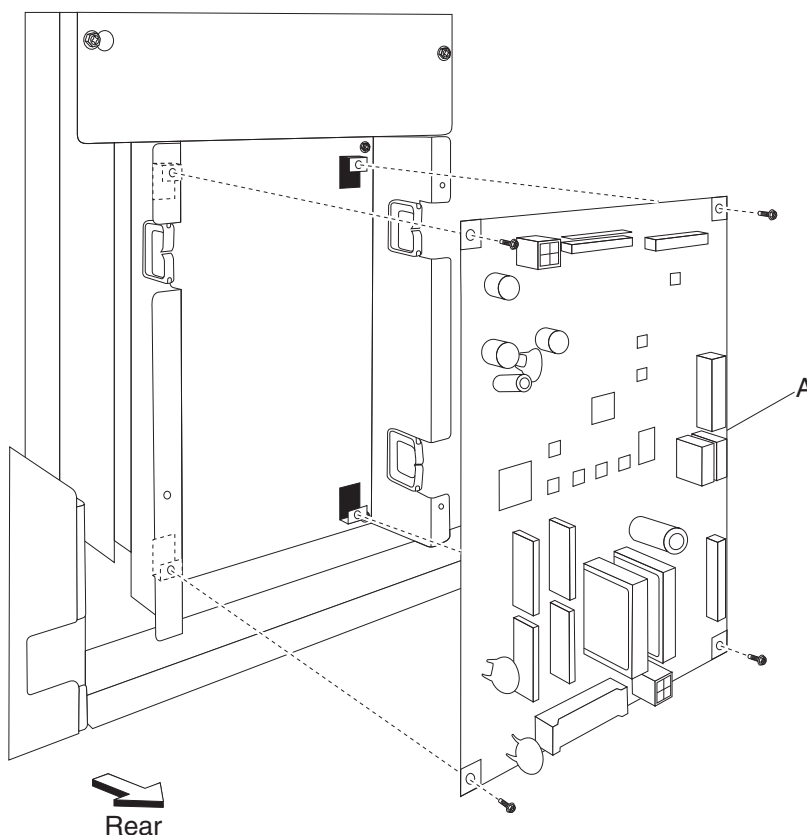
Booklet controller card assembly removal ??

Warning: When replacing the booklet controller card assembly, the existing booklet maker adjustments must be restored to the original settings, or booklet folding and stapling will be out of alignment. The existing booklet maker adjustments can be found on the settings sheet located in the tray 1 settings sheet compartment.



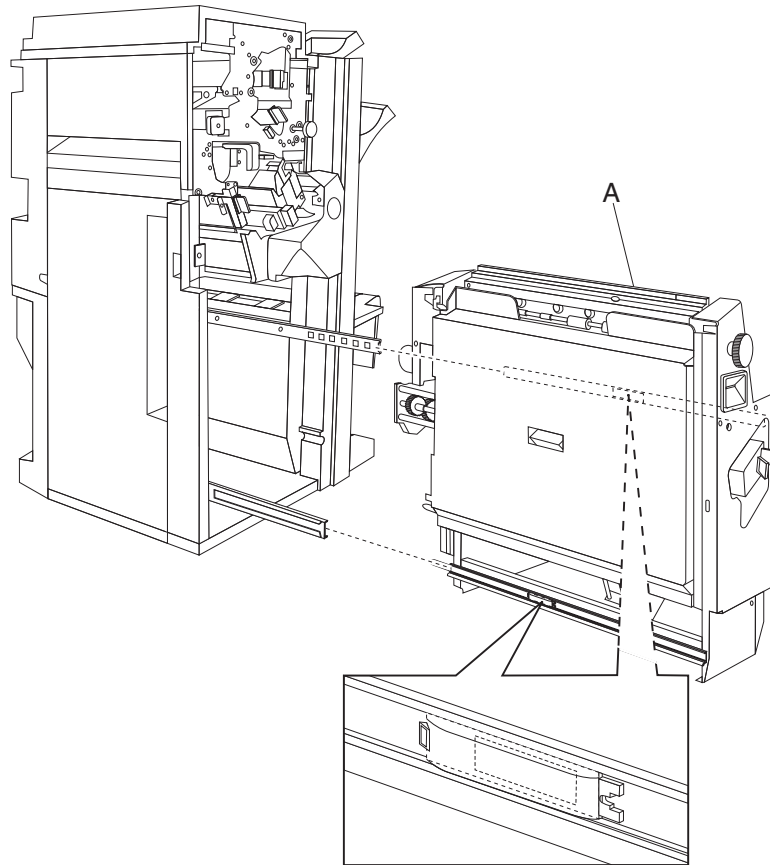
To enter replacement settings or if the setting sheet is not available, refer to booklet maker setup and adjustment located in chapter 4. See **“Booklet maker setup & adjustment” on page 4-144.**

1. Remove the rear lower cover. **“Rear lower cover removal” on page 4-23.**
2. Loosen the four screws securing the plate to the finisher.
3. Move the plate to the right and outward.
4. Remove the plate.
5. Disconnect the connectors from the booklet controller card assembly (A).
6. Remove the four screws securing the booklet controller card assembly (A).
7. Remove the booklet controller card assembly (A).



Booklet unit assembly removal

1. Open the finisher front door assembly.
2. Slide the booklet unit out.
3. Release the two latches securing the booklet unit (A) from the guides.
4. Remove booklet unit (A).

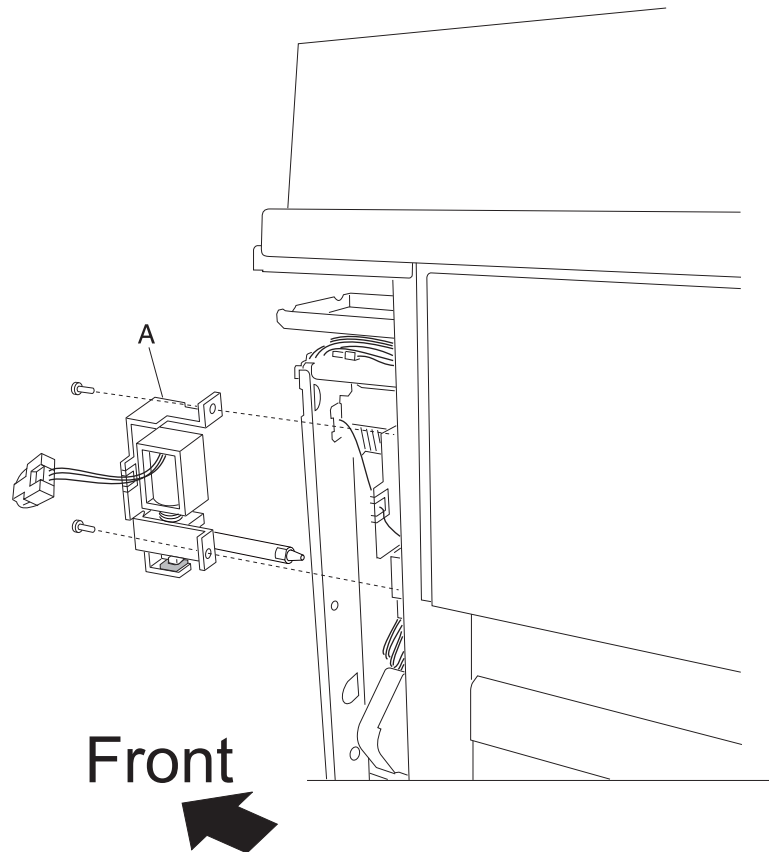


Booklet folding/exit drive motor assembly removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Disconnect the connectors from the booklet unit motor assembly (A).
3. Remove the five screws securing the booklet folding/exit drive motor assembly (A) from the booklet gear train frame.
4. Remove the booklet folding/exit drive motor assembly (A).

Booklet diverter gate solenoid removal

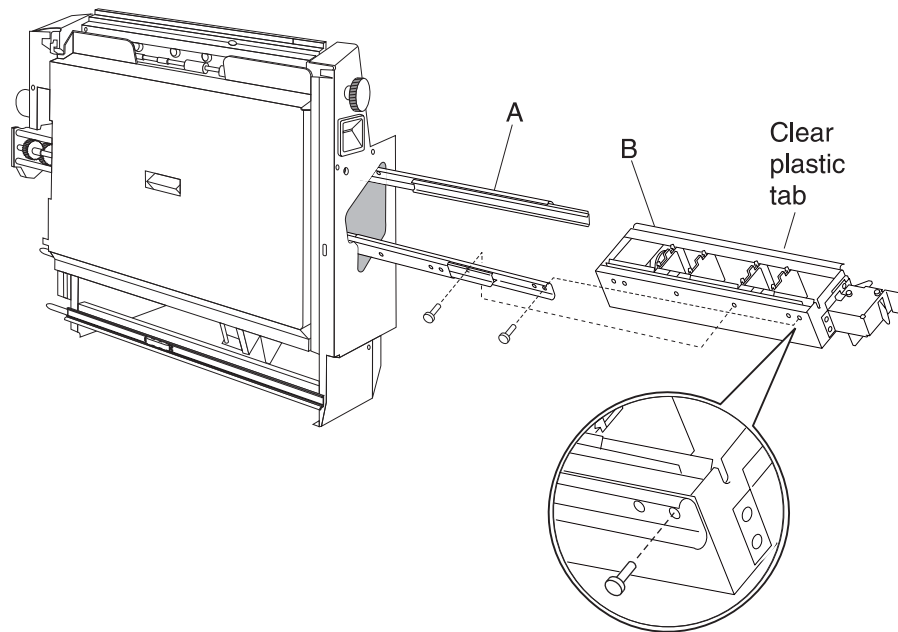
1. Remove the rear upper cover. See **“Rear upper cover removal”** on page 4-24.
2. Remove the two screws securing the booklet diverter gate solenoid (A) to the machine.
3. Remove the booklet diverter gate solenoid (A).
4. Release the harness from the clamp.
5. Disconnect the connector from the booklet diverter gate solenoid (A).



Booklet stapler unit assembly removal

1. Open the finisher front door assembly.
2. Pull the booklet stapler unit out of the machine.
3. Release the hook securing the right ball bearing slide (A).
4. Pull the booklet stapler unit assembly (B) from the machine.
5. Remove the two screws securing the booklet stapler unit assembly (B) to the left ball bearing slide (C).

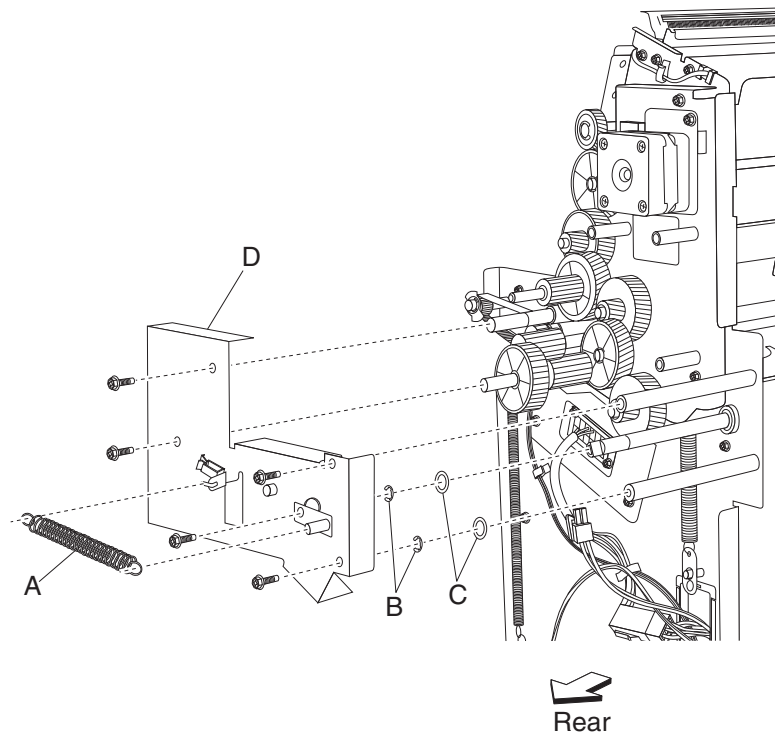
6. Remove the booklet stapler unit assembly (B).



Booklet knife solenoid frame removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit motor assembly. See **“Booklet folding/exit drive motor assembly removal” on page 4-122.**
3. Disconnect the connectors from the booklet knife solenoid (A).
4. Remove the spring from the booklet knife solenoid frame (A).
5. Remove the five screws securing the booklet gear train frame from the booklet unit assembly.
6. Remove the two e-clips from shaft X & Y.
7. Remove the two bushings from shaft X & Y.

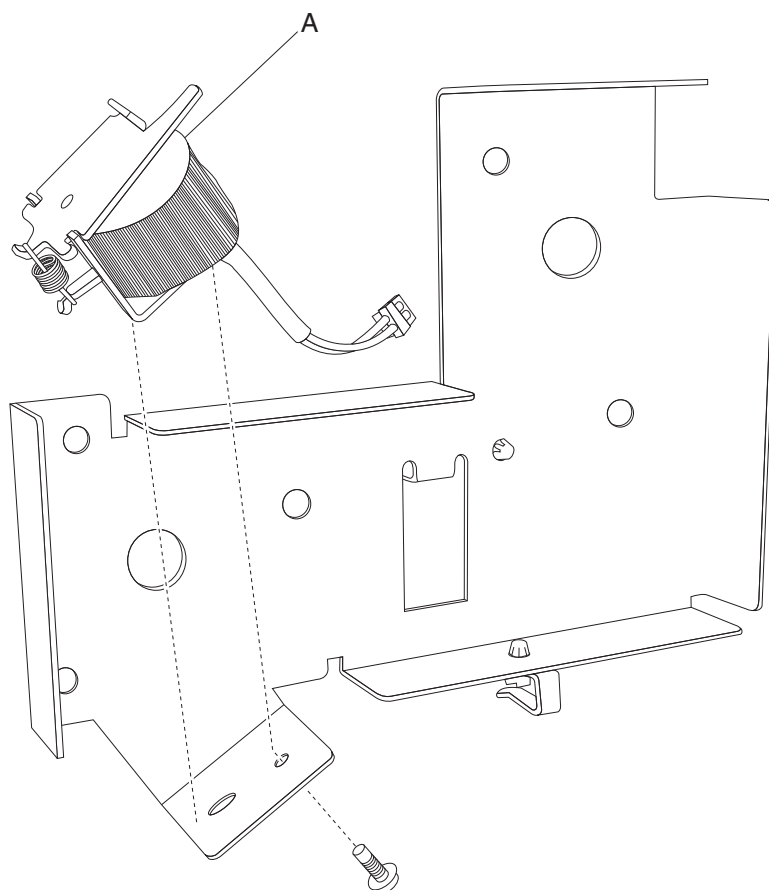
8. Remove the folding solenoid frame (A).



Booklet knife solenoid removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit motor assembly. See **“Booklet folding/exit drive motor assembly removal” on page 4-122.**
3. Remove the knife solenoid frame. See **“Booklet knife solenoid frame removal” on page 4-124.**
4. Remove the screw securing the booklet knife solenoid from the knife solenoid frame (A).

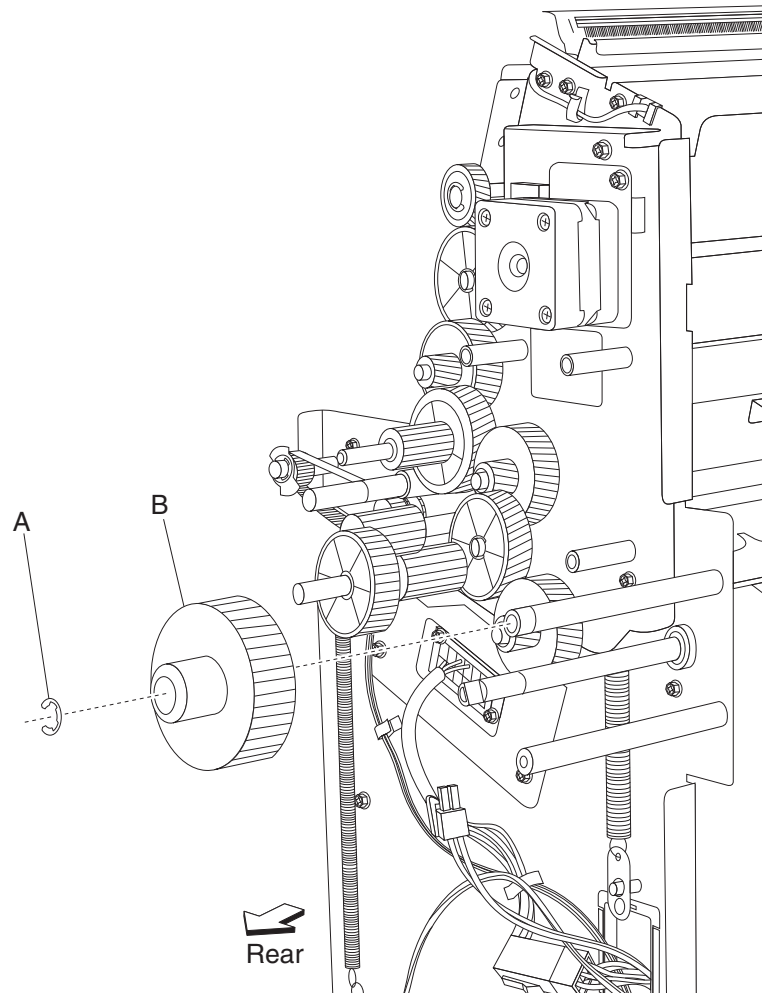
5. Remove the booklet knife solenoid (A).



Booklet knife sector drive gear 42T

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit motor assembly. See **“Booklet folding/exit drive motor assembly removal” on page 4-122.**
3. Remove the knife solenoid frame. See **“Booklet knife solenoid frame removal” on page 4-124.**
4. Remove the e-clip.

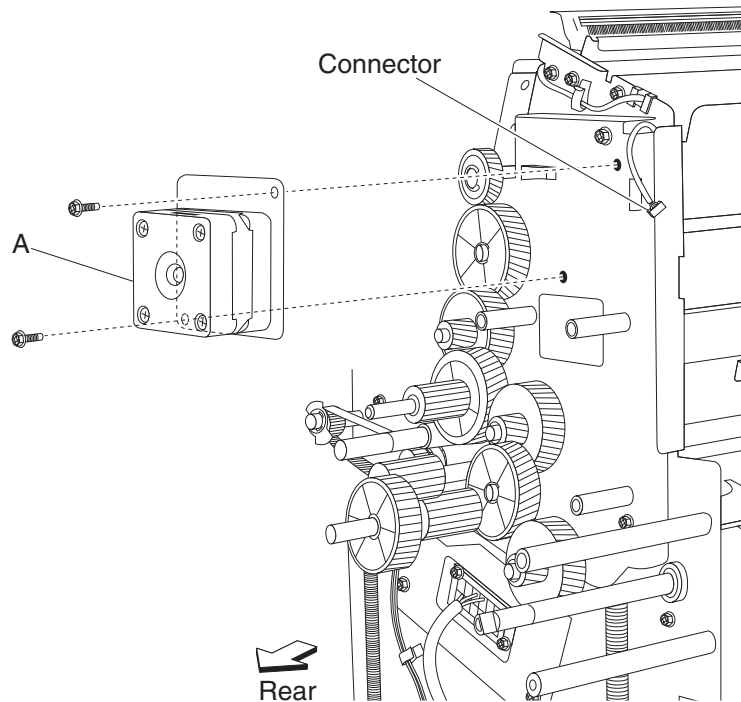
5. Remove the booklet knife sector drive gear 42T (A).



Booklet media entrance drive motor removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the screws securing the booklet media entrance drive motor cover from the booklet unit.
3. Remove the booklet media entrance drive motor cover.
4. Disconnect the connectors from the booklet media entrance drive motor (A).
5. Remove the two screws securing the booklet media transport from the knife solenoid frame.

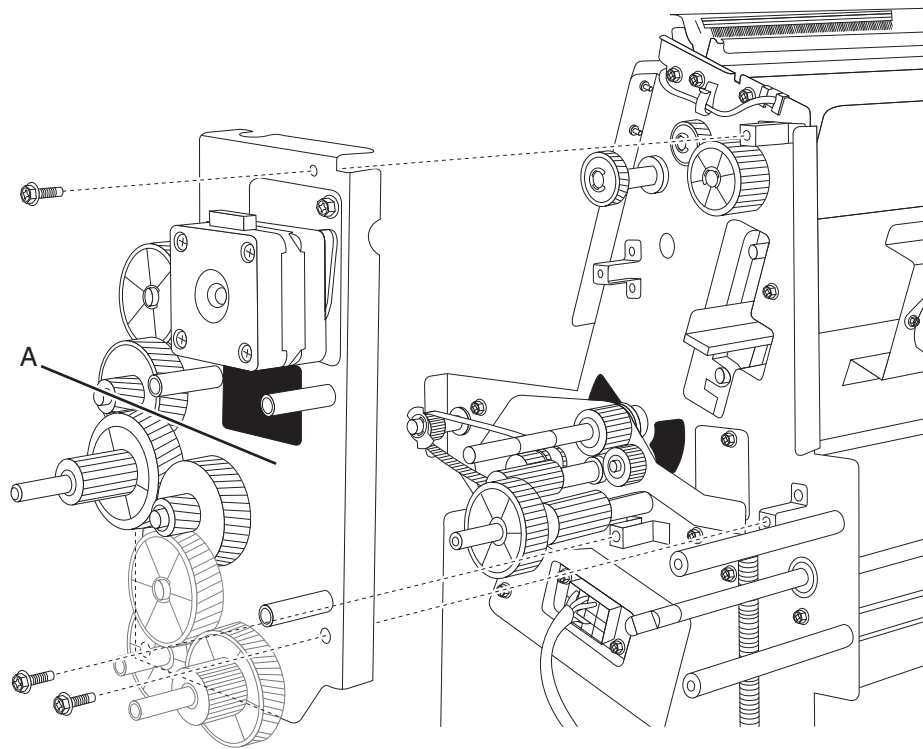
6. Remove the booklet media entrance drive motor (A).



Booklet unit gear train frame removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit motor assembly. See **“Booklet folding/exit drive motor assembly removal” on page 4-122.**
3. Remove the knife solenoid frame. See **“Booklet knife solenoid frame removal” on page 4-124.**
4. Remove the booklet media entrance drive motor. See **“Booklet media entrance drive motor removal” on page 4-127.**
5. Remove the booklet knife sector drive gear 42T. See **“Booklet knife sector drive gear 42T” on page 4-126.**
6. Remove the gear 18T.
7. Remove the three screws securing the booklet unit gear train frame (A) from the booklet unit.

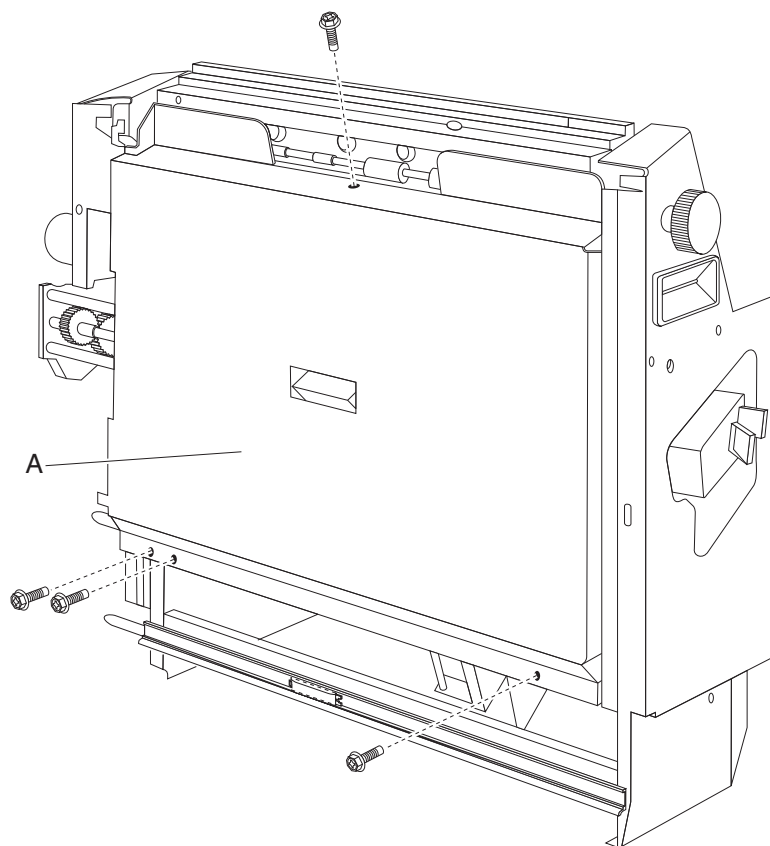
8. Remove the booklet unit gear train frame (A).



Booklet unit assembly left cover

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the top screws securing the left cover to the booklet unit assembly.
3. Loosen the two screws securing the left cover to the booklet unit assembly.

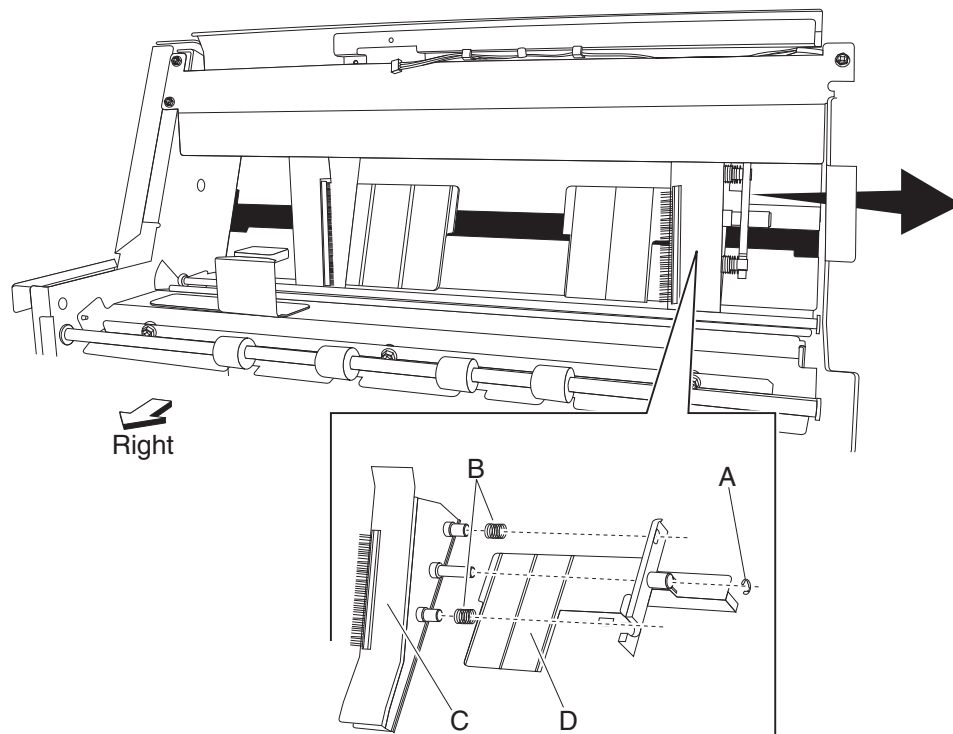
4. Remove the booklet unit assembly left cover (A).



Booklet rear tamper assembly removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit motor assembly. See **“Booklet folding/exit drive motor assembly removal” on page 4-122.**
3. Remove the knife solenoid frame. See **“Booklet knife solenoid frame removal” on page 4-124.**
4. Remove the booklet media entrance drive motor. See **“Booklet media entrance drive motor removal” on page 4-127.**
5. Remove the booklet knife sector drive gear 42T. See **“Booklet knife sector drive gear 42T” on page 4-126.**
6. Remove booklet unit gear train frame. See **“Booklet unit gear train frame removal” on page 4-128.**
7. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
8. Remove the screw securing the sensor (booklet rear tamper HP).
9. Slide the booklet rear tamper guide out.
10. Remove the e-clip.
11. Remove the two springs from the booklet rear tamper guide.
12. Remove tamper guide.

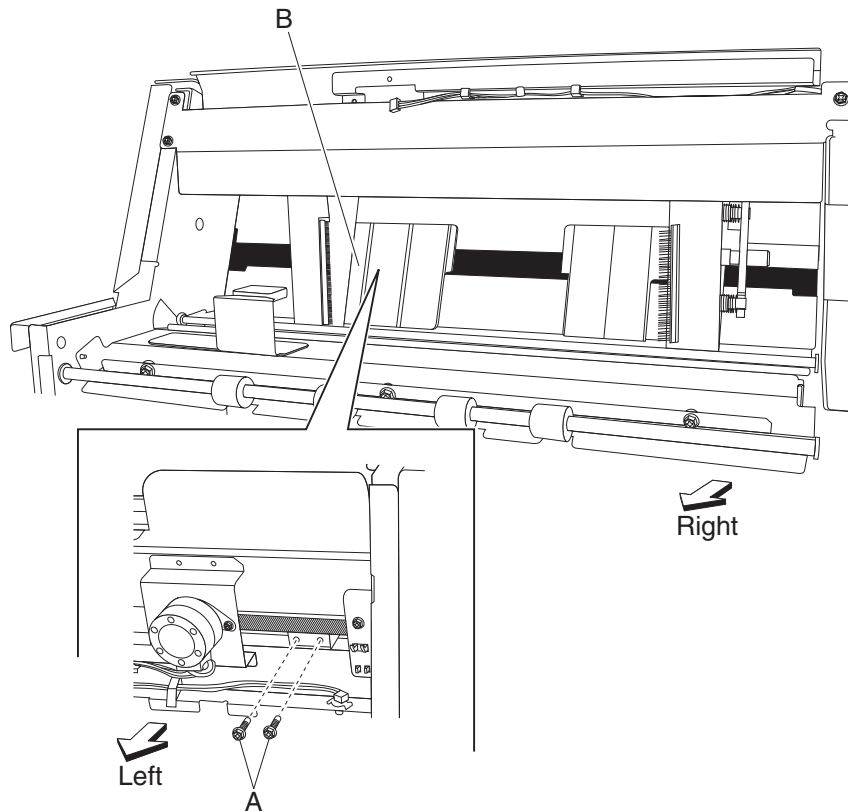
13. Remove the rear tamper assembly (A).



Booklet front tamper guide removal

1. Remove the booklet unit assembly. See **"Booklet unit assembly removal" on page 4-122.**
2. Remove booklet unit assembly left cover. See **"Booklet unit assembly left cover" on page 4-129.**
3. Remove the two screws securing the booklet front tamper guide from the rack.

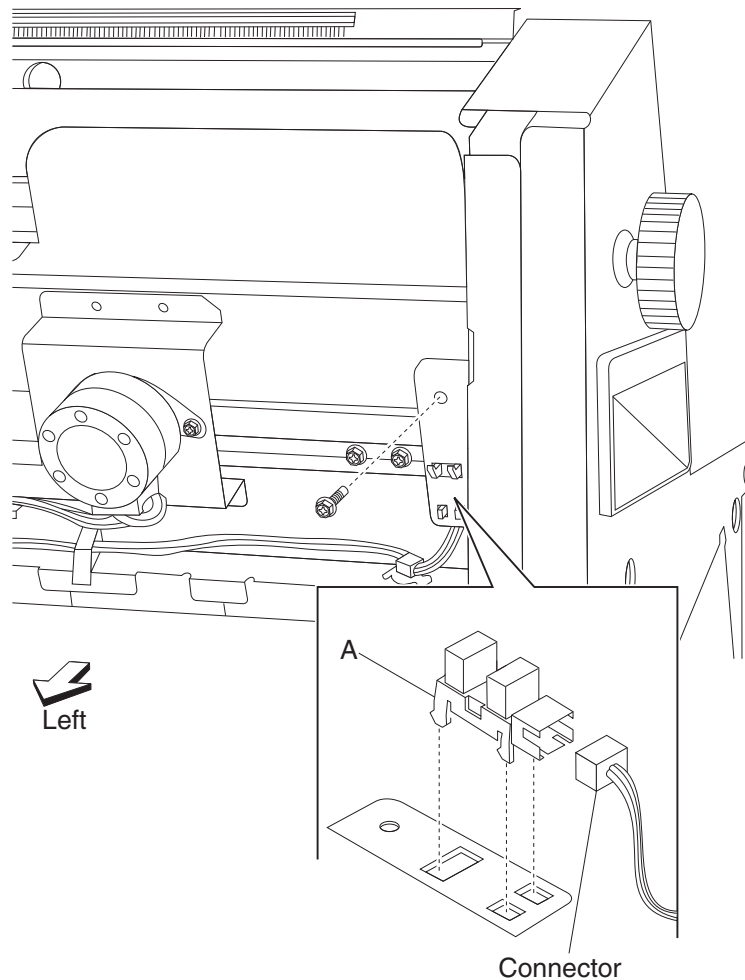
4. Remove the front tamper guide (A).



Sensor (booklet front tamper HP) removal

1. Remove the booklet unit assembly. See **"Booklet unit assembly removal" on page 4-122.**
2. Remove the booklet unit assembly left cover. See **"Booklet unit assembly left cover" on page 4-129.**
3. Disconnect the connector from the booklet front tamper sensor.
4. Remove the screw securing the sensor (booklet front tamper HP) bracket from the booklet unit assembly.

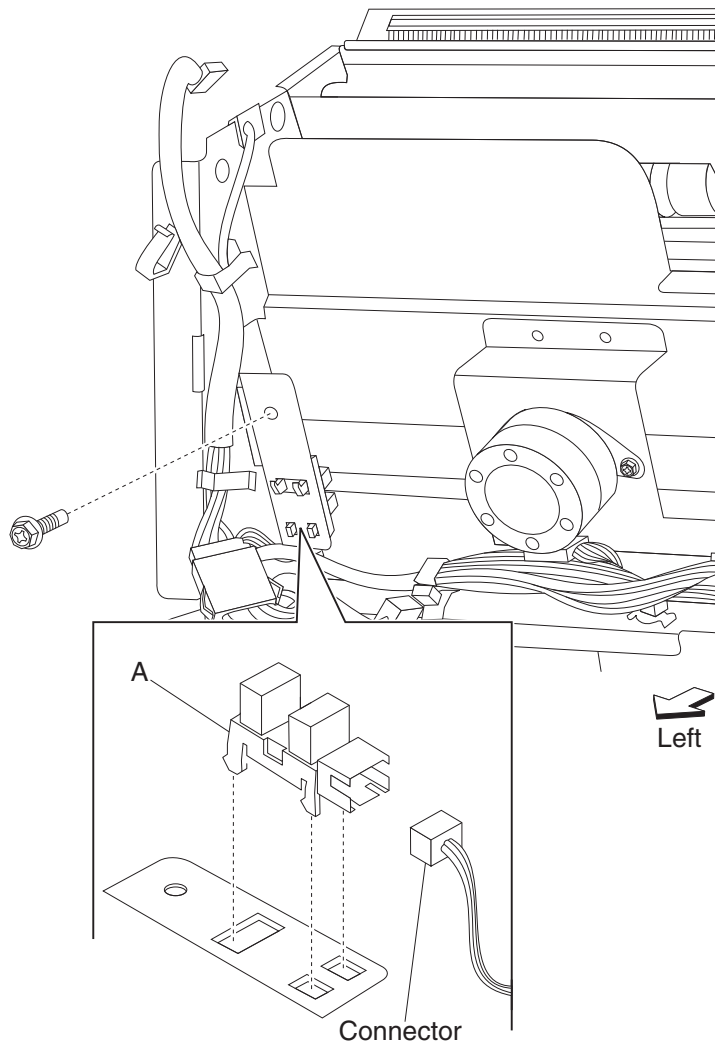
5. Remove sensor (booklet front tamper HP) (A).



Sensor (booklet rear tamper HP) removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Disconnect the connector from the booklet left tamper sensor.
4. Remove the screw securing the sensor (booklet rear tamper HP) bracket from the booklet unit assembly.

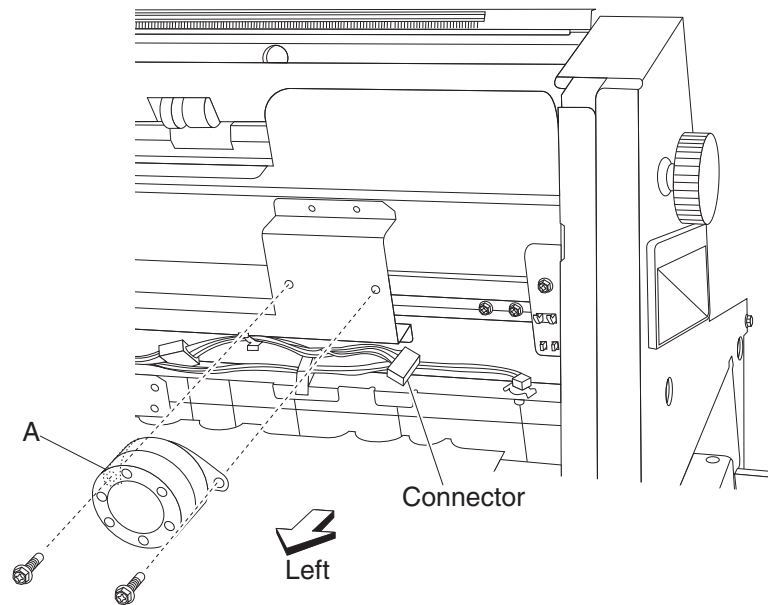
5. Remove sensor (booklet rear tamper HP) (A).



Booklet front tamper motor removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Disconnect the connector from the booklet front tamper motor.
4. Remove the two screws securing the booklet front tamper motor from the tamper frame assembly.

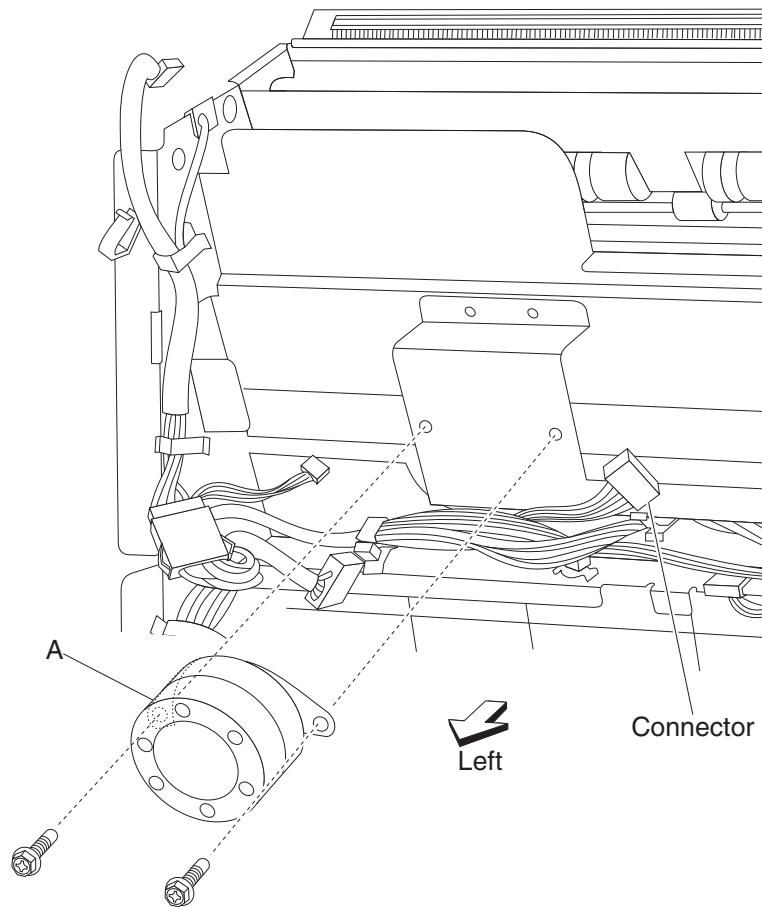
5. Remove the booklet front tamper motor (A).



Booklet rear tamper motor removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Disconnect the connector from the booklet rear tamper motor (A).
4. Remove the two screws securing the booklet rear tamper motor (A) from the tamper frame assembly.

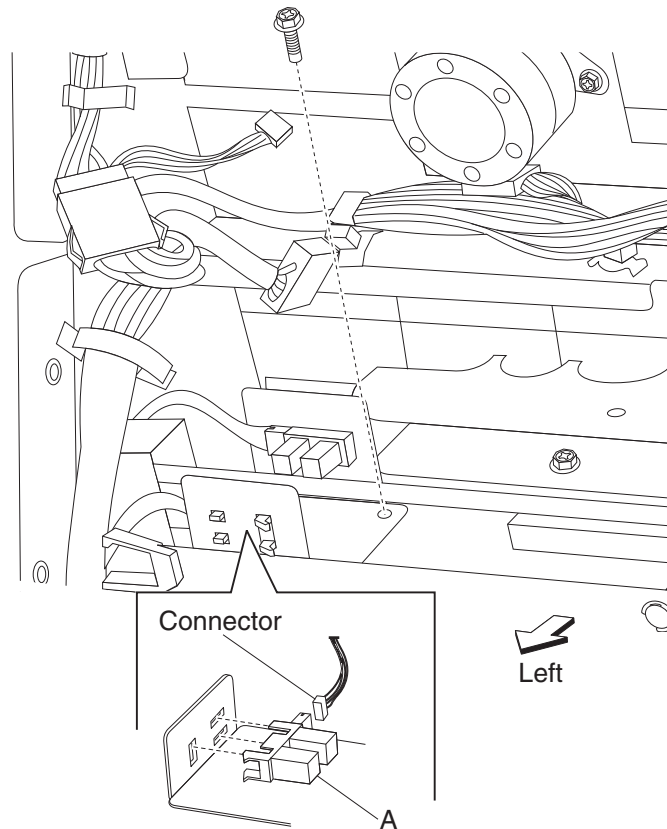
5. Remove the booklet rear tamper motor (A).



Sensor (booklet knife HP) removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Rotate knife sector gear clockwise until the flag is in the folding sensor position.
4. Remove one screw securing the sensor (knife HP sensor & Knife folding sensor) from the knife frame assembly.
5. Disconnect the connector from the sensor (booklet knife HP and booklet knife folding).

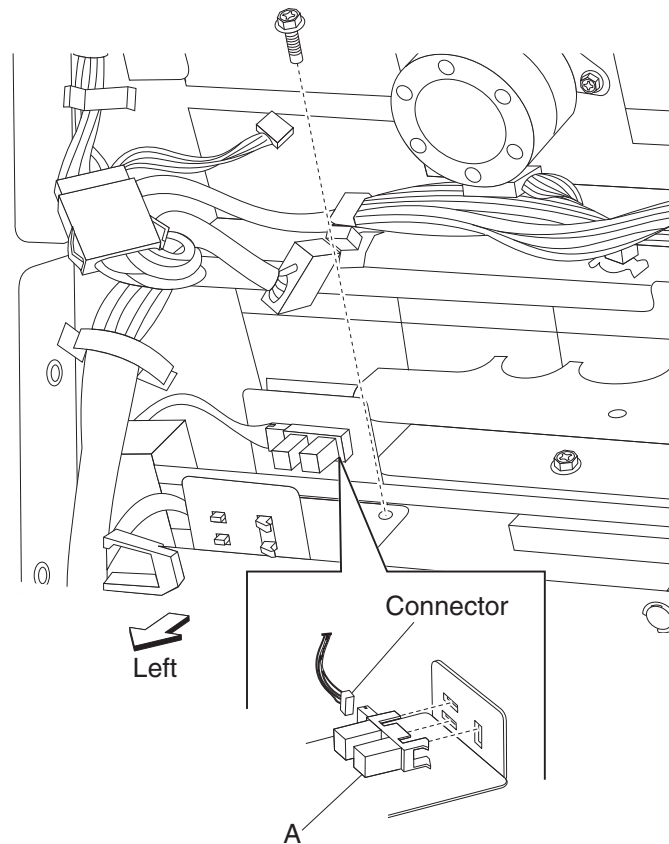
6. Remove sensor (booklet knife HP) (A).



Sensor (booklet knife folding) removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
1. Remove the Complete booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
2. Rotate knife sector gear clockwise until the flag is in the folding sensor position.
3. Remove one screw securing the sensor (knife HP sensor & knife folding sensor) from the knife frame assembly.
4. Disconnect the connector from the sensor (booklet knife folding) (A).

5. Remove sensor (booklet knife folding) (A).



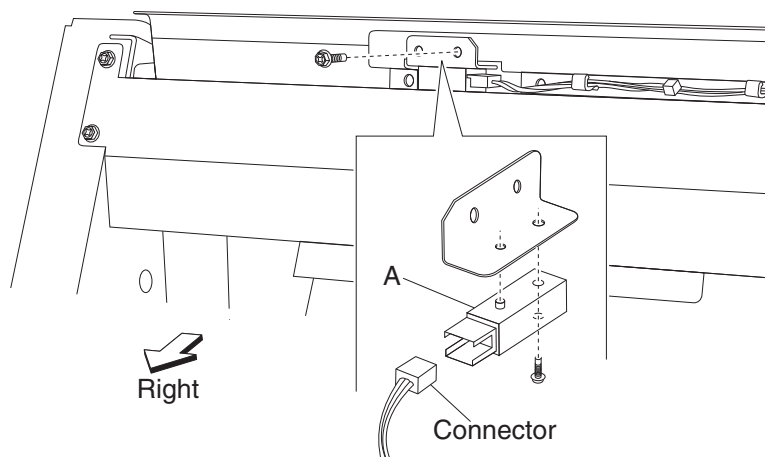
Booklet unit front door assembly removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the e-clip securing the shaft X from the booklet unit.
3. Remove the four screws securing the front door assembly from the frame of the booklet unit.
4. Remove the bushing.
5. Remove the booklet unit front door assembly (A).

Sensor (booklet unit media entrance) removal

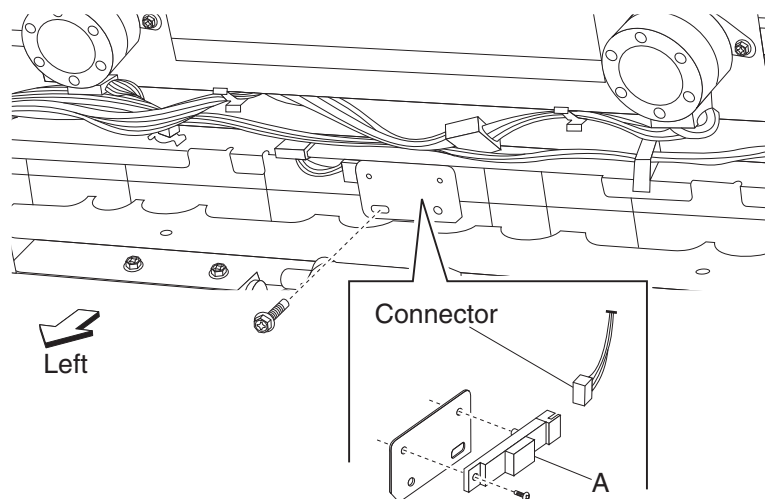
1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Disconnect the connectors from the Sensor (booklet unit media entrance) (A).
3. Remove the screw securing the Sensor (booklet unit media entrance) bracket from the pinch roll frame.
4. Remove the screw securing the Sensor (booklet unit media entrance) (A) from the bracket.

5. Remove Sensor (booklet unit media entrance) (A).



Sensor (booklet media compiler in) removal

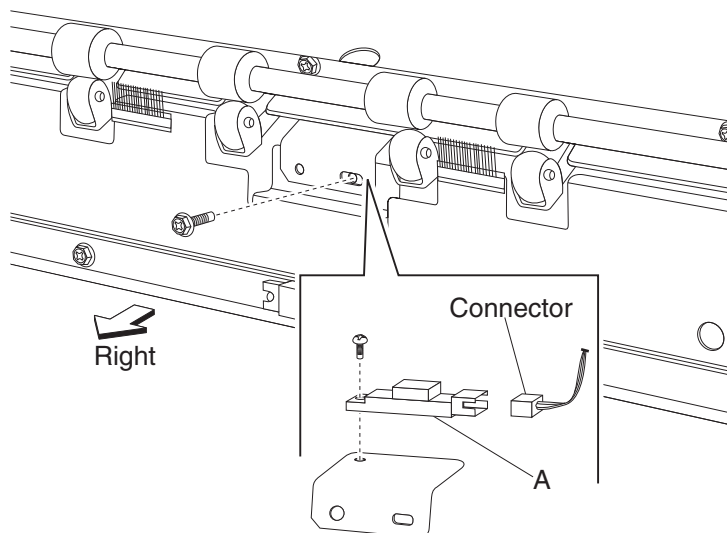
1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Disconnect the connector from the Sensor (booklet media compiler in) (A).
4. Remove the screw securing the Sensor (booklet media compiler in) bracket from the booklet unit assembly.
5. Remove the screw securing the Sensor (booklet media compiler in) (A) from the bracket.
6. Remove Sensor (booklet media compiler in) (A).



Sensor (booklet unit media exit) removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Remove the screw securing the Sensor (booklet unit media exit) bracket from the booklet unit assembly.
4. Disconnect the connector from the Sensor (booklet unit media exit) (A).
5. Remove the screw securing the Sensor (booklet unit media exit) (A) from the bracket.

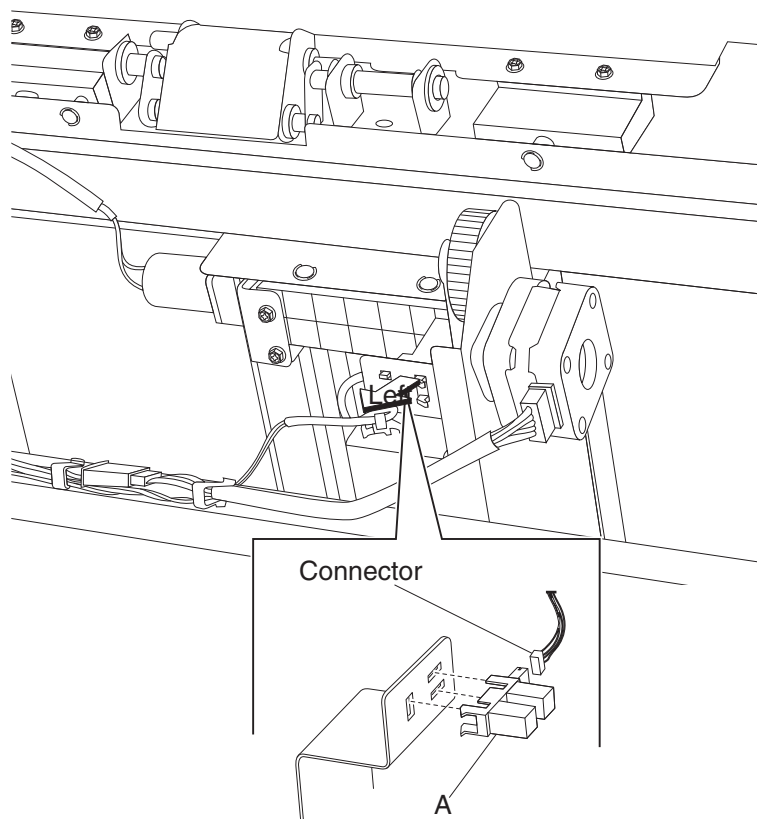
6. Remove Sensor (booklet unit media exit) (A).



Sensor (booklet end guide HP) removal

1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover” on page 4-129.**
3. Disconnect the connector from the sensor (booklet end guide HP) (A).
4. Release the hooks securing the sensor (booklet end guide HP) (A) from the booklet unit.

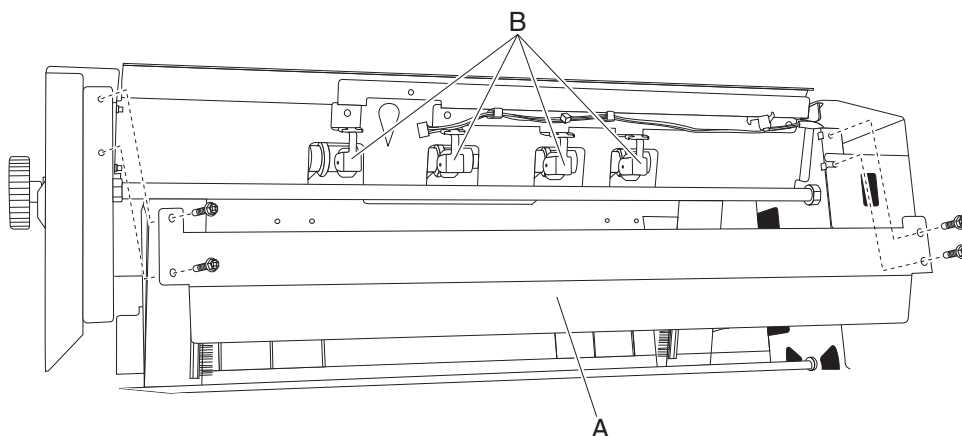
5. Remove sensor (booklet end guide HP) (A).



Booklet media pinch roll assembly removal

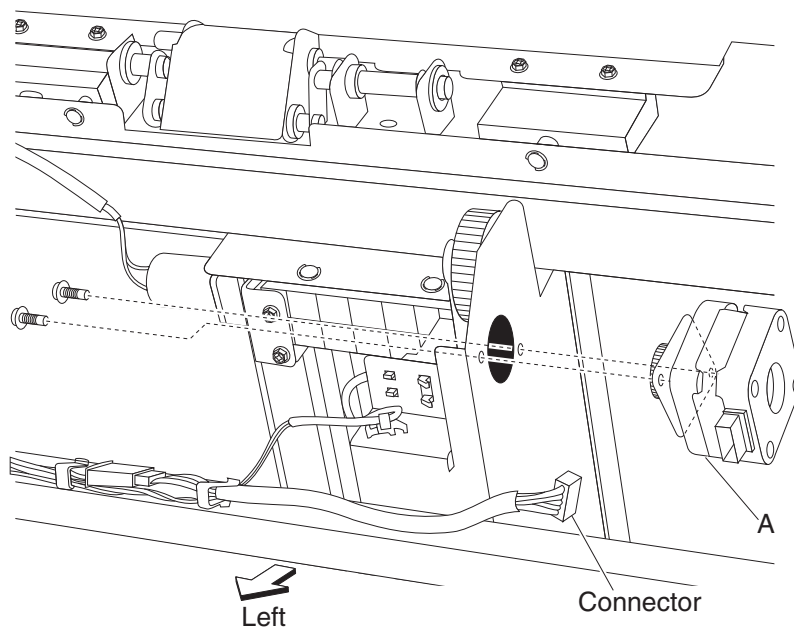
1. Remove the booklet unit assembly. See **“Booklet unit assembly removal” on page 4-122.**
2. Remove the Sensor (booklet unit media entrance). See **“Sensor (booklet unit media entrance) removal” on page 4-138.**
3. Remove the four screws securing the frame X from the booklet unit assembly.
4. Release the cable harness from the frame X.
5. Remove the booklet unit front door assembly. See **“Booklet unit front door assembly removal” on page 4-138.**
6. Remove the four screws securing the booklet media pinch roll assembly (A) from the booklet unit assembly.

7. Remove the booklet media pinch roll assembly (A).



Booklet paddle motor removal

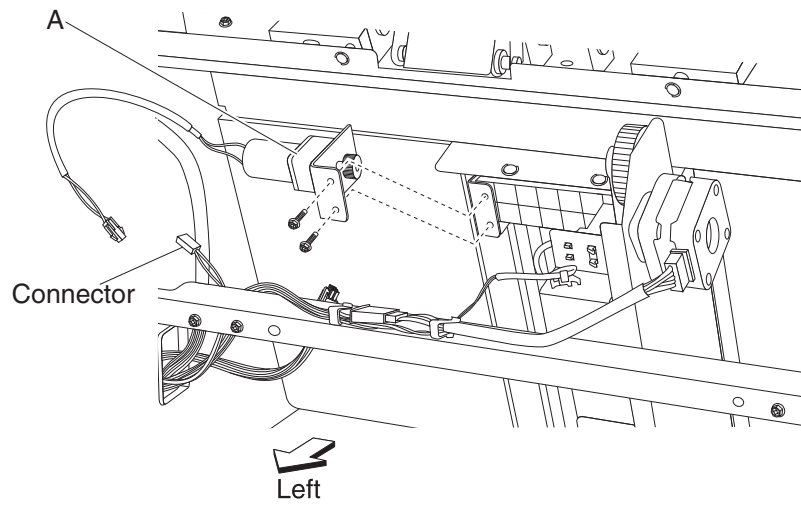
1. Remove the booklet unit assembly. See **“Booklet unit assembly removal”** on page 4-122.
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover”** on page 4-129.
3. Disconnect the connectors from the booklet paddle motor (A).
4. Remove the two screws securing the booklet paddle motor (A) from the compiler frame.
5. Remove booklet paddle motor (A).



Booklet end guide drive motor removal

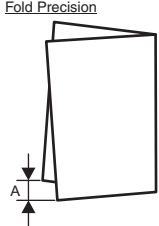
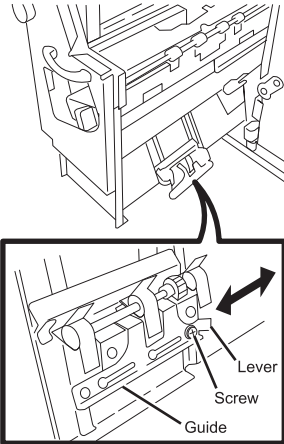
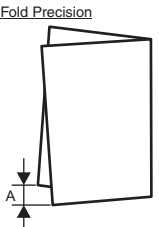
1. Remove the booklet unit assembly. See **“Booklet unit assembly removal”** on page 4-122.
2. Remove the booklet unit assembly left cover. See **“Booklet unit assembly left cover”** on page 4-129.
3. Disconnect the connectors from the sensor (booklet end guide drive motor).
4. Remove the two screws securing the booklet end guide drive motor (A) from the compiler frame.

5. Remove the booklet end guide drive motor (A).



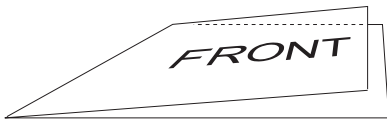
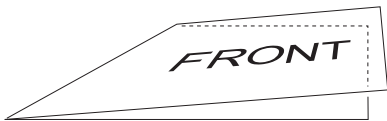
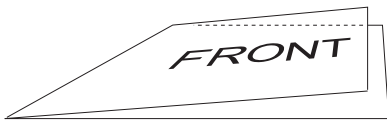
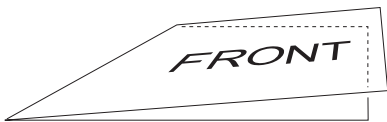
Booklet maker setup & adjustment

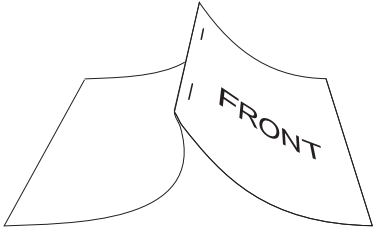
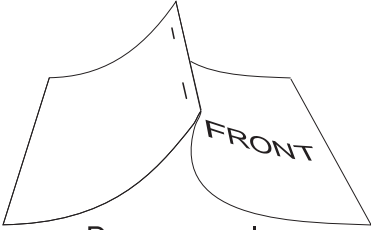
Folding precision skew adjustment

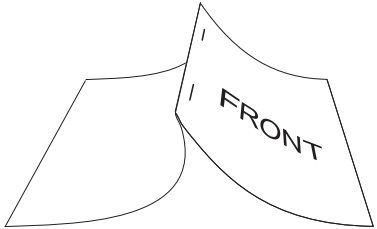
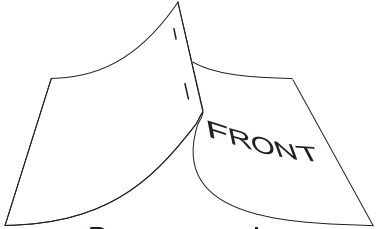
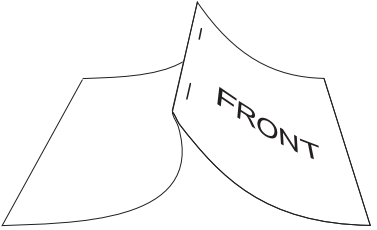
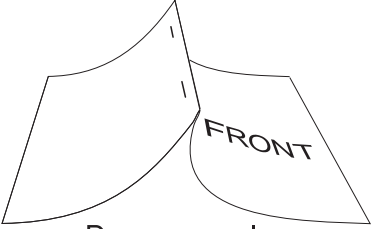
Step	Check	Yes	No
1	Print a 2 sheet booklet using the booklet maker. Does the booklet appear skewed as shown in the graphic below?  When stapling ● A4/Letter: A ≤ 2.0mm ● Other: A ≤ 2.5mm When un-stapling ● A4/Letter: A ≤ 2.0mm ● Other: A ≤ 2.5mm	Go to step 2.	The folding precision skew adjustment is in spec.
2	Check the booklet maker precision skew adjuster. 1. Open the finisher front door 2. Pull the booklet maker out of the finisher. 3. Loosen the screw securing the end guide skew lever.  4. Adjust the end guide skew lever by moving it either forward or rearward. 1 step on the scale = 1 mm shift. 5. Once the adjustment is made, tighten the screw. Print a 2 sheet booklet using the booklet maker. Do the booklet sheet edges appear skewed as shown in the graphic below?  When stapling ● A4/Letter: A ≤ 2.0mm ● Other: A ≤ 2.5mm When un-stapling ● A4/Letter: A ≤ 2.0mm ● Other: A ≤ 2.5mm	Repeat step 2 until the end guide precision skew is in spec.	Problem solved.

2 sheet fold & staple position fine adjustment

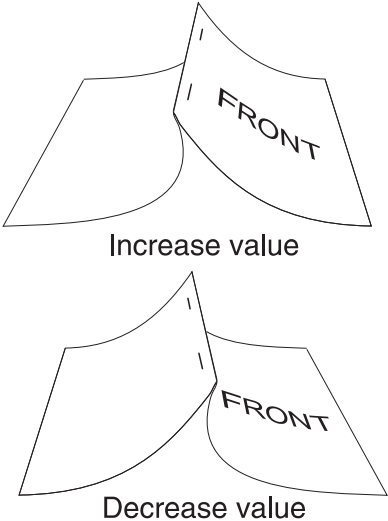
Step	Check	Yes	No
1	Print a 2 sheet booklet using the booklet maker. Does the booklet sheet edges appear overlapped as shown in the graphic below?  Decrease value  Increase value	Go to step 2.	The 2 sheet fold position fine adjustment is in spec. Go to step 3.

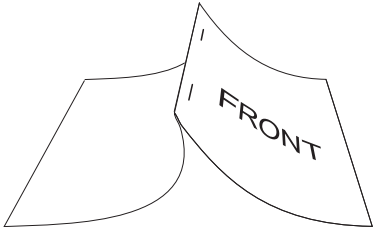
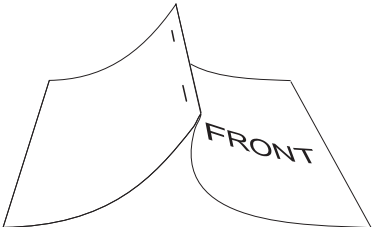
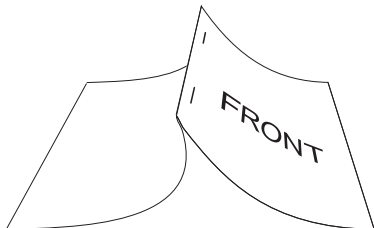
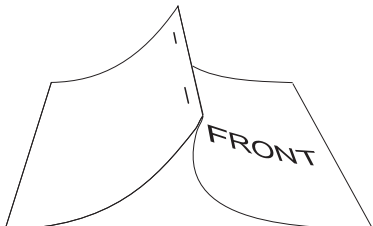
Step	Check	Yes	No																	
2	Adjust the 2 sheet position fine adjustment value based on the graphic below:  Decrease value  Increase value 1. Enter the diagnostic mode. 2. Touch ENGINE ADJUST. 3. Touch Booklet fold adjust. 4. Touch Booklet 2 sheet. 5. Make required fold position value adjustments according to the media size as shown in the graphic below. 1 step = .1 mm shift. Target amount to be adjusted is half the amount of the total Fold Misalignment. <u>Media size reference</u> <table><tr><td>A3</td><td rowspan="3">}</td><td rowspan="3">B4 or > (B4 size paper or larger)</td></tr><tr><td>Tabloid</td></tr><tr><td>B4</td></tr><tr><td colspan="3"> </td></tr><tr><td>Legal</td><td rowspan="7">}</td><td rowspan="7">< B4 (Less than B4 size paper)</td></tr><tr><td>Folio</td></tr><tr><td>A4</td></tr><tr><td>Letter</td></tr><tr><td>Executive</td></tr><tr><td>B5</td></tr><tr><td>A5</td></tr></table> 6. Touch Submit. Print a 2 page booklet using the booklet maker. Do the booklet sheet edges appear overlapped as shown in the graphic below?  Decrease value  Increase value	A3	}	B4 or > (B4 size paper or larger)	Tabloid	B4				Legal	}	< B4 (Less than B4 size paper)	Folio	A4	Letter	Executive	B5	A5	Repeat step 2 until the 2 sheet fold position fine adjustment is in spec. Go to step 3.	Problem solved.
A3	}	B4 or > (B4 size paper or larger)																		
Tabloid																				
B4																				
Legal	}	< B4 (Less than B4 size paper)																		
Folio																				
A4																				
Letter																				
Executive																				
B5																				
A5																				

Step	Check	Yes	No
3	Print a 2 sheet stapled booklet using the booklet maker. Does the staple position fine adjustment appear to be offset from the fold as shown in the graphic below?  Increase value  Decrease value	Go to step 4.	The 2 sheet staple position fine adjustment is in spec.

Step	Check	Yes	No
4	Adjust the 2 sheet staple position fine adjustment value as shown in the graphic below:  Increase value  Decrease value 1. Enter the diagnostic mode. 2. Touch ENGINE ADJUST. 3. Touch Booklet fold adjust. 4. Touch Booklet 2 sheet. 5. Make required staple position adjustments according to media size. 1 step = .1 mm shift. 6. Touch Submit. Print a 2 page booklet using the booklet maker. Does the staple position fine adjustment appear to be offset from the fold as shown in the graphic below?  Increase value  Decrease value	Repeat step 2 until the 2 sheet staple position fine adjustment is in spec.	Problem solved.

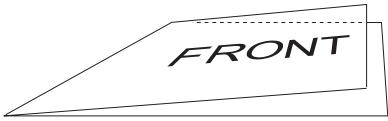
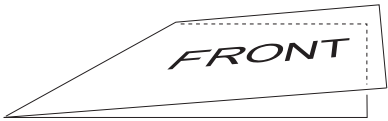
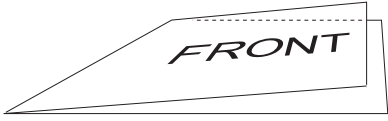
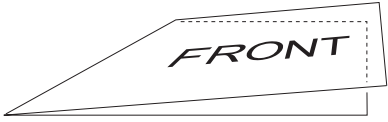
15 sheet staple position fine adjustment

Step	Check	Yes	No
1	Print a 15 sheet stapled booklet using the booklet maker. Does the staple position fine adjustment appear to be offset from the fold as shown in the graphic below? 	Go to step 2.	The 15 sheet staple position fine adjustment is in spec.

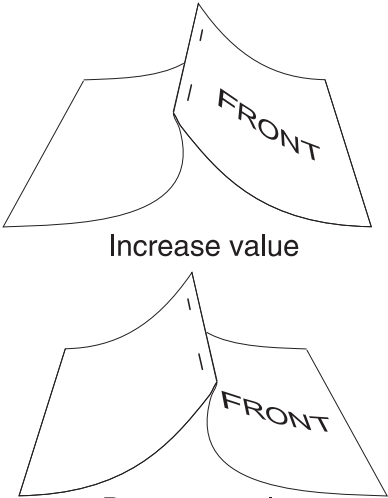
Step	Check	Yes	No
2	Adjust the 15 sheet staple position fine adjustment value as shown in the graphic below:  Increase value  Decrease value 1. Enter the diagnostic mode. 2. Touch ENGINE ADJUST. 3. Touch Booklet fold adjust. 4. Touch Booklet 15 sheet. 5. Make required staple position adjustments according to media size. 1 step = .1 mm shift. 6. Touch Submit. Print a 15 page booklet using the booklet maker. Does the staple position fine adjustment appear to be offset from the fold as shown in the graphic below?  Increase value  Decrease value	Repeat step 2 until the 15 sheet staple position fine adjustment is in spec.	Problem solved.

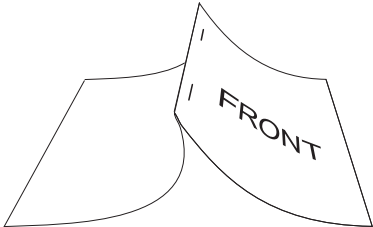
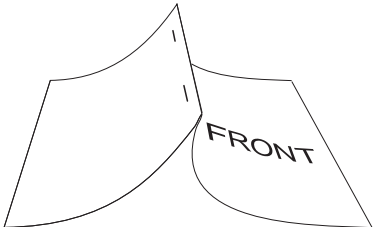
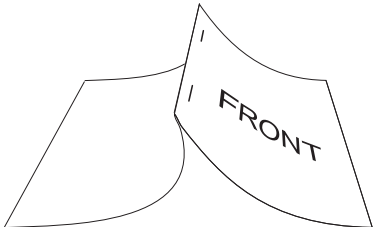
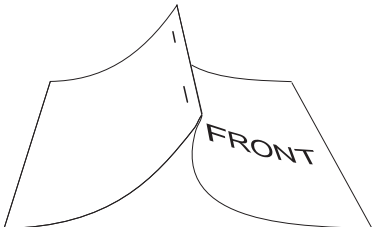
Booklet fold position fine adjustment (3-15 sheets)

Step	Check	Yes	No
1	Note: The booklet fold position fine adjustment is different depending on the amount of sheets that compose the booklet and the size of the media. Volume 1 = 3 sheets Volume 2 = 4 sheets Volume 3 = 5-7 sheets Volume 4 = 8-15 sheets S = media < B4 L = B4 media or > Print the appropriate booklet using the booklet maker. Do the booklet sheet edges appear overlapped as shown in the graphic below?  Decrease value  Increase value	Go to step 2.	The booklet fold position fine adjustment is in spec.

Step	Check	Yes	No
2	Adjust the fold position fine adjustment value based on the graphic below:  Decrease value  Increase value 1. Enter the diagnostic mode. 2. Touch ENGINE ADJUST. 3. Touch Booklet fold adjust. 4. Touch Booklet fold pos fine adj. 5. Make required adjustments according to media size. 1 step = .1 mm shift. Target amount to be adjusted is half the amount of the total Fold Misalignment. 6. Touch Submit. Enter the user mode and print the appropriate booklet using the booklet maker. Do the booklet sheet edges appear overlapped as shown in the graphic below?  Decrease value  Increase value	Repeat step 2 until the Booklet fold position fine adjustment is in spec.	Problem solved.

Booklet staple position fine adjustment (3-14 sheets)

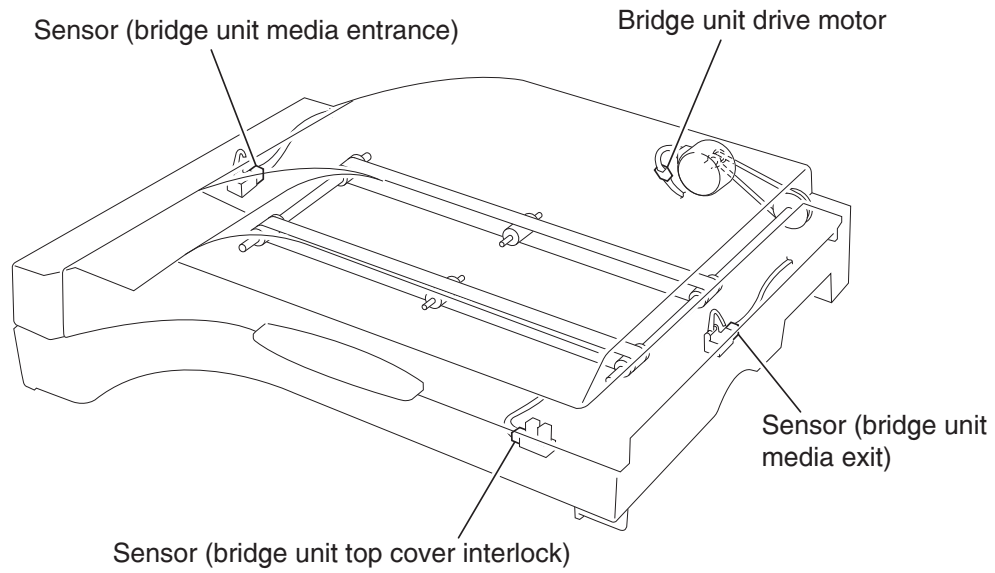
Step	Check	Yes	No
1	Note: The booklet staple position fine adjustment is different depending on the amount of sheets that compose the booklet. Volume 1 = 3 sheets Volume 2 = 4 sheets Volume 3 = 5-7 sheets Volume 4 = 8-14 sheets Print the appropriate booklet using the booklet maker. Does the staple position fine adjustment appear to be offset from the fold as shown in the graphic below? 	Go to step 2.	The booklet staple position fine adjustment is in spec.

Step	Check	Yes	No
2	Adjust the booklet staple position fine adjustment value as shown in the graphic below:  Increase value  Decrease value 1. Enter the diagnostic mode. 2. Touch ENGINE ADJUST. 3. Touch Booklet fold adjust. 4. Touch Booklet fold pos fine adj. 5. Make required adjustments according to media size. 1 step = .1 mm shift. Target amount to be adjusted is half the amount of the total Fold Misalignment. 6. Touch Submit. Enter user mode and print the appropriate booklet using the booklet maker. Does the staple position fine adjustment appear to be offset from the fold as shown in the graphic below?  Increase value  Decrease value	Repeat step 2 until the Booklet staple position fine adjustment is in spec.	Problem solved.

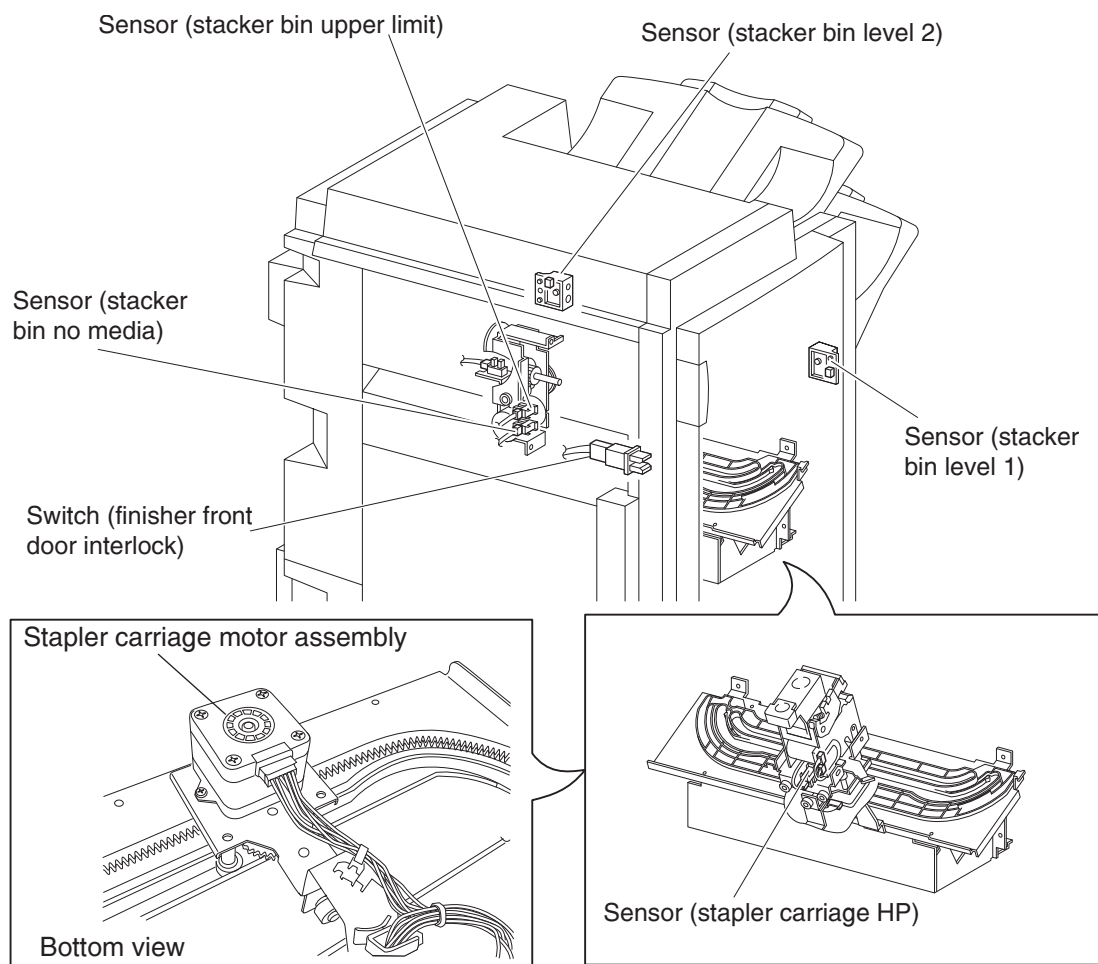
5. Connector locations

Finisher components

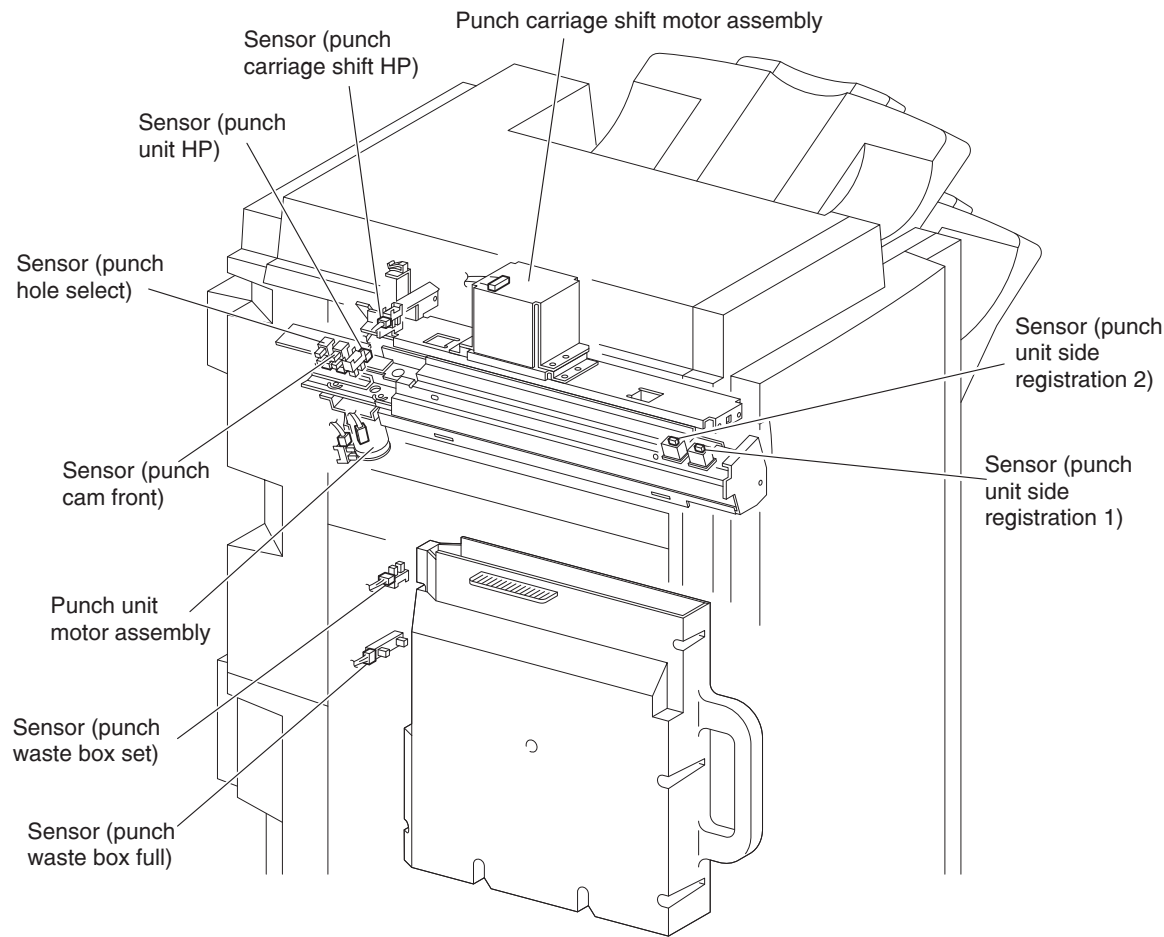
Bridge unit assembly



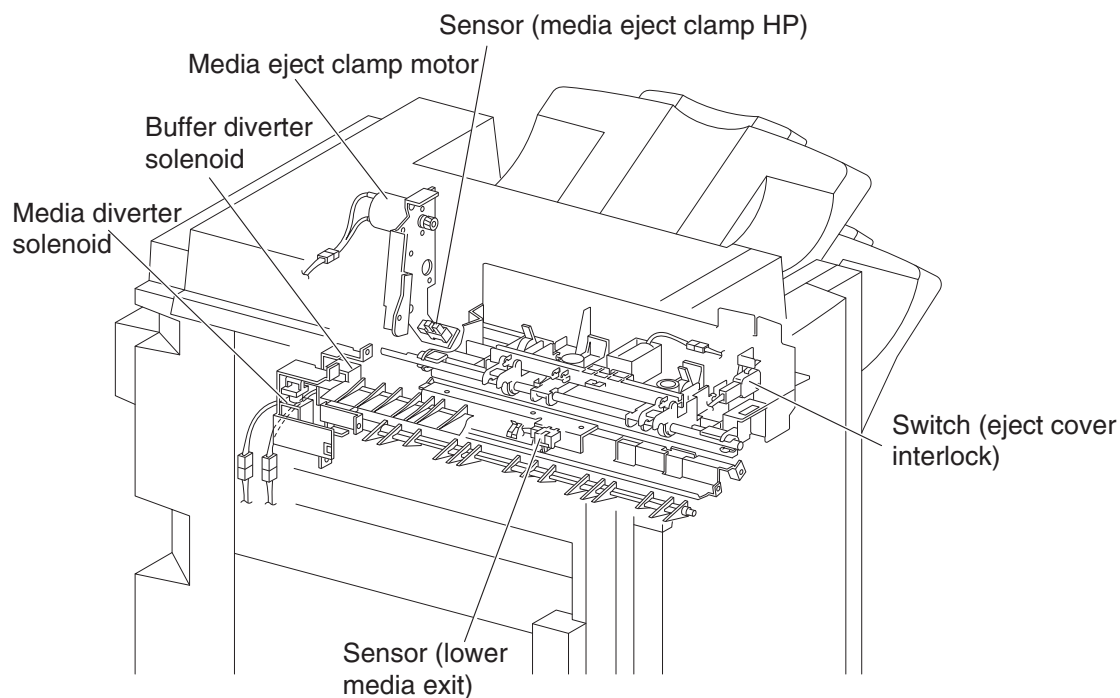
Stacker lift and stapler



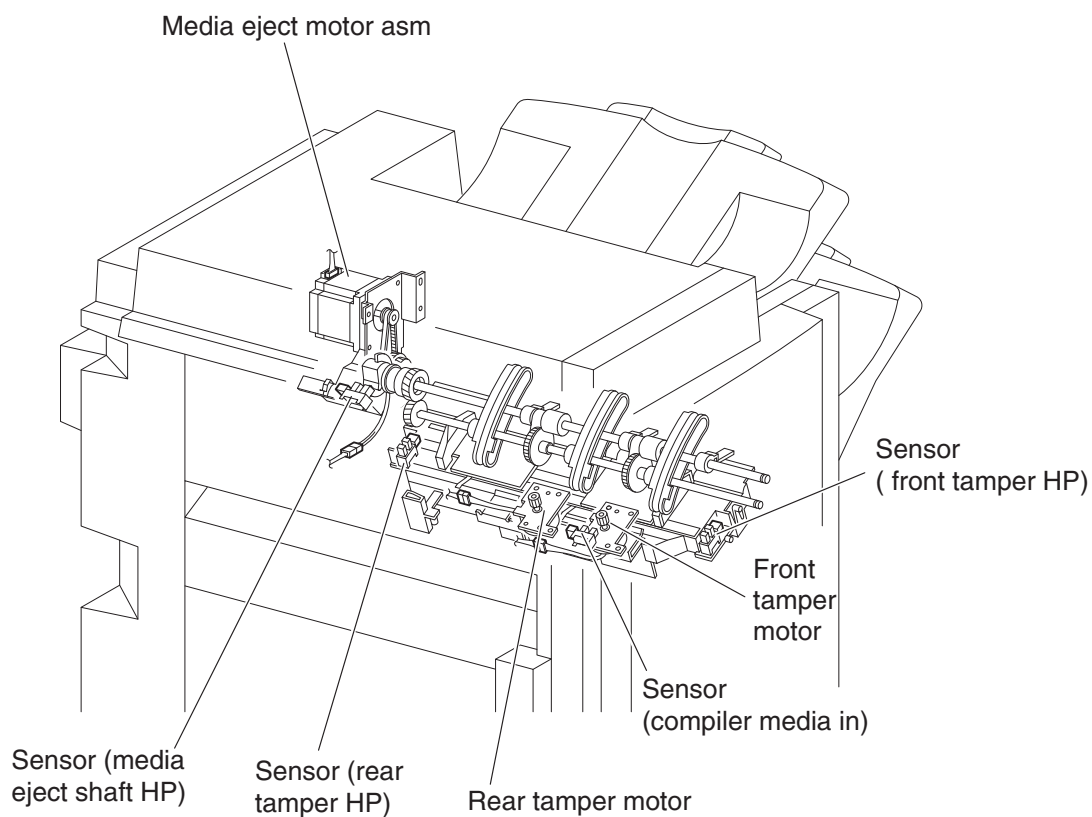
Punch unit



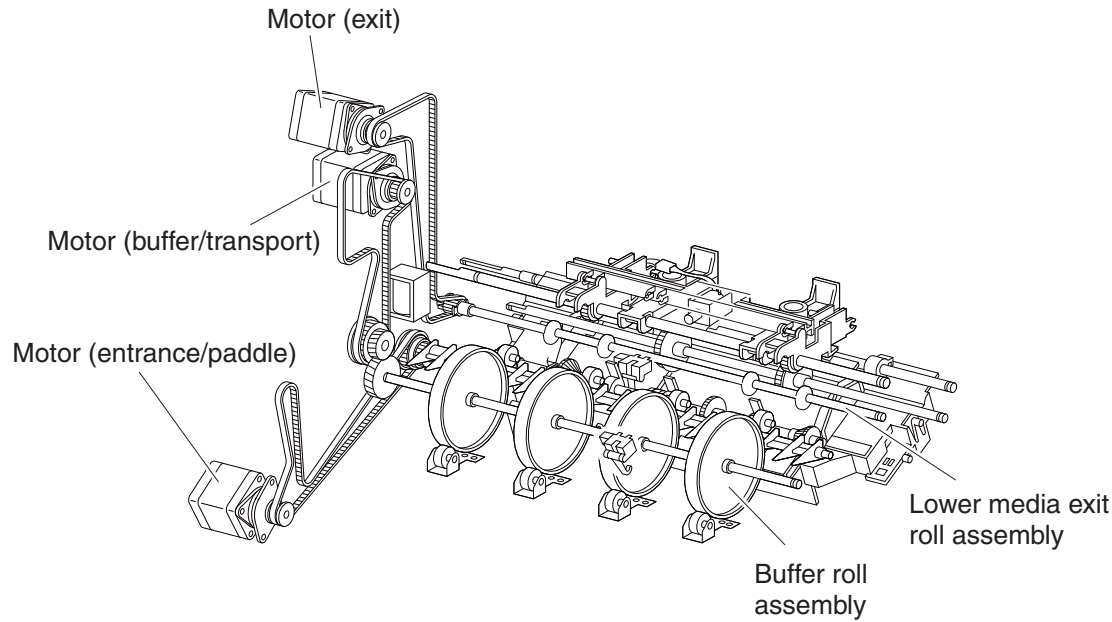
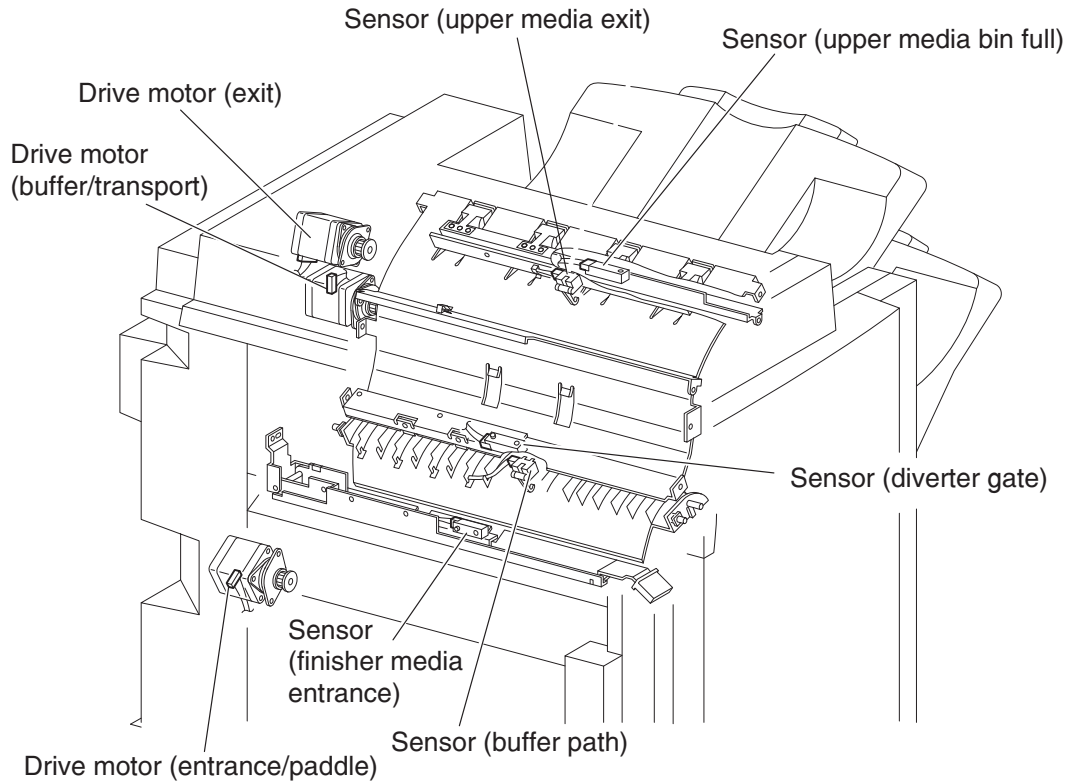
Diverter and media eject

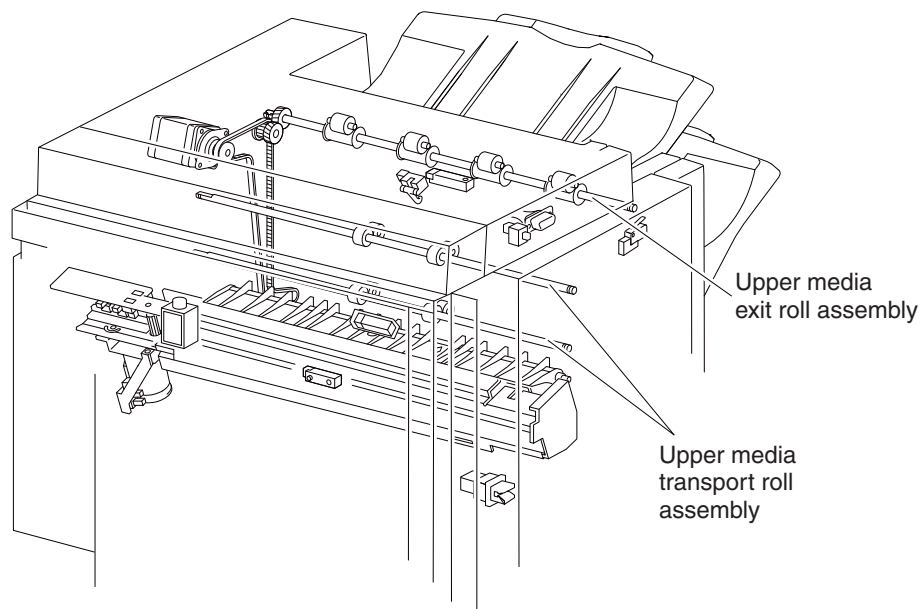


Media eject and media compiler

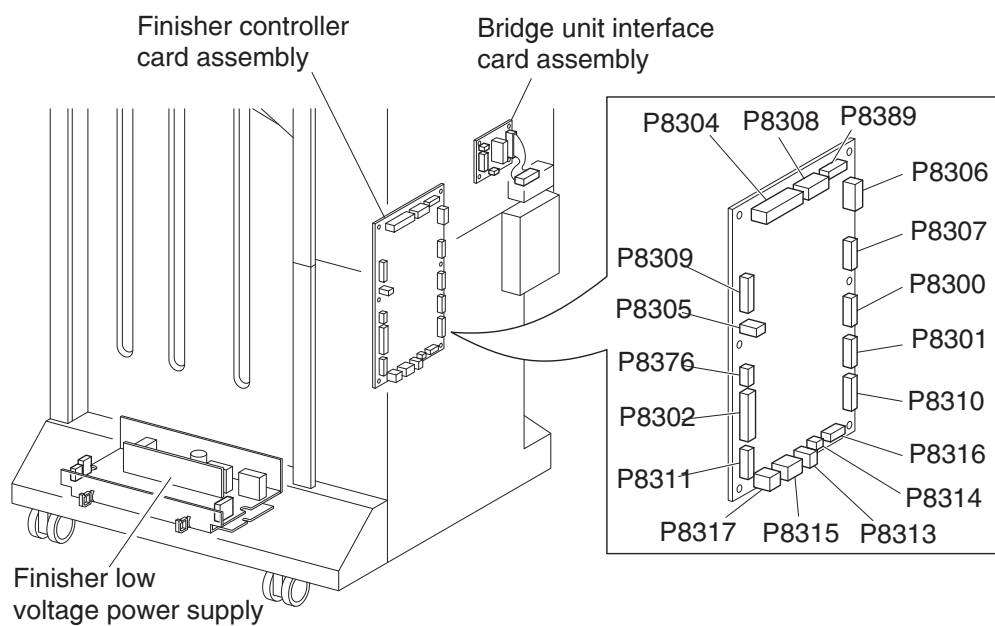


Buffer, upper exit, lower exit, and drive motors

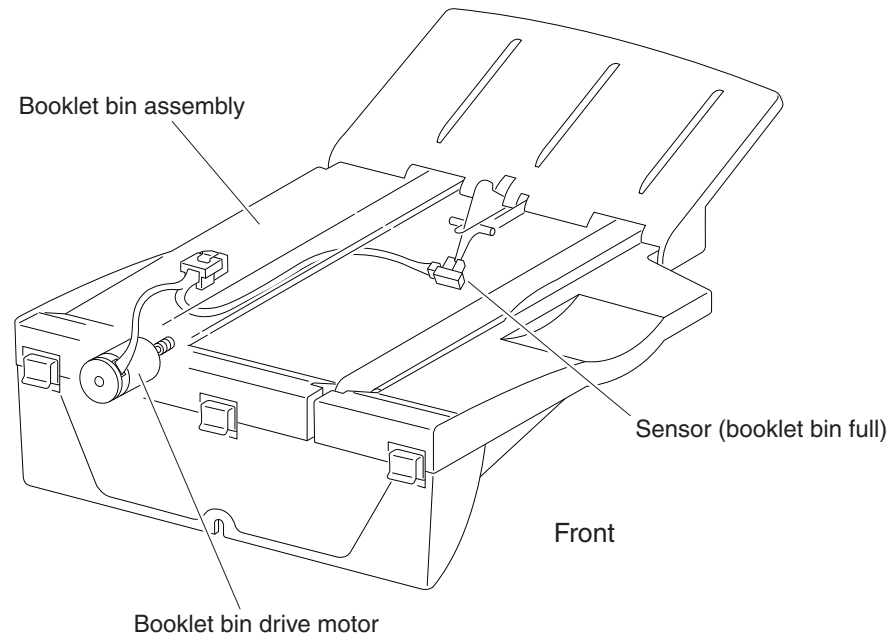




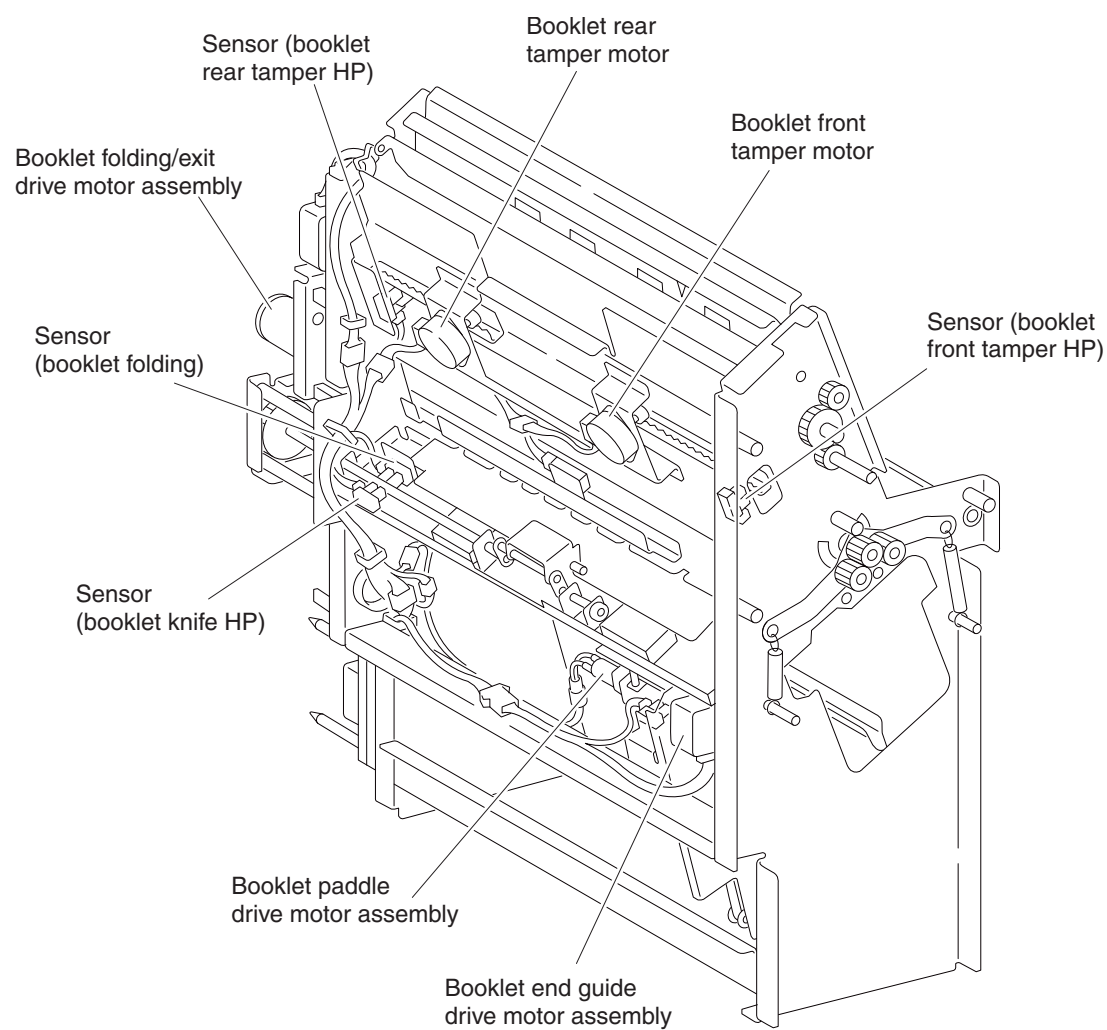
Finisher controller card assembly

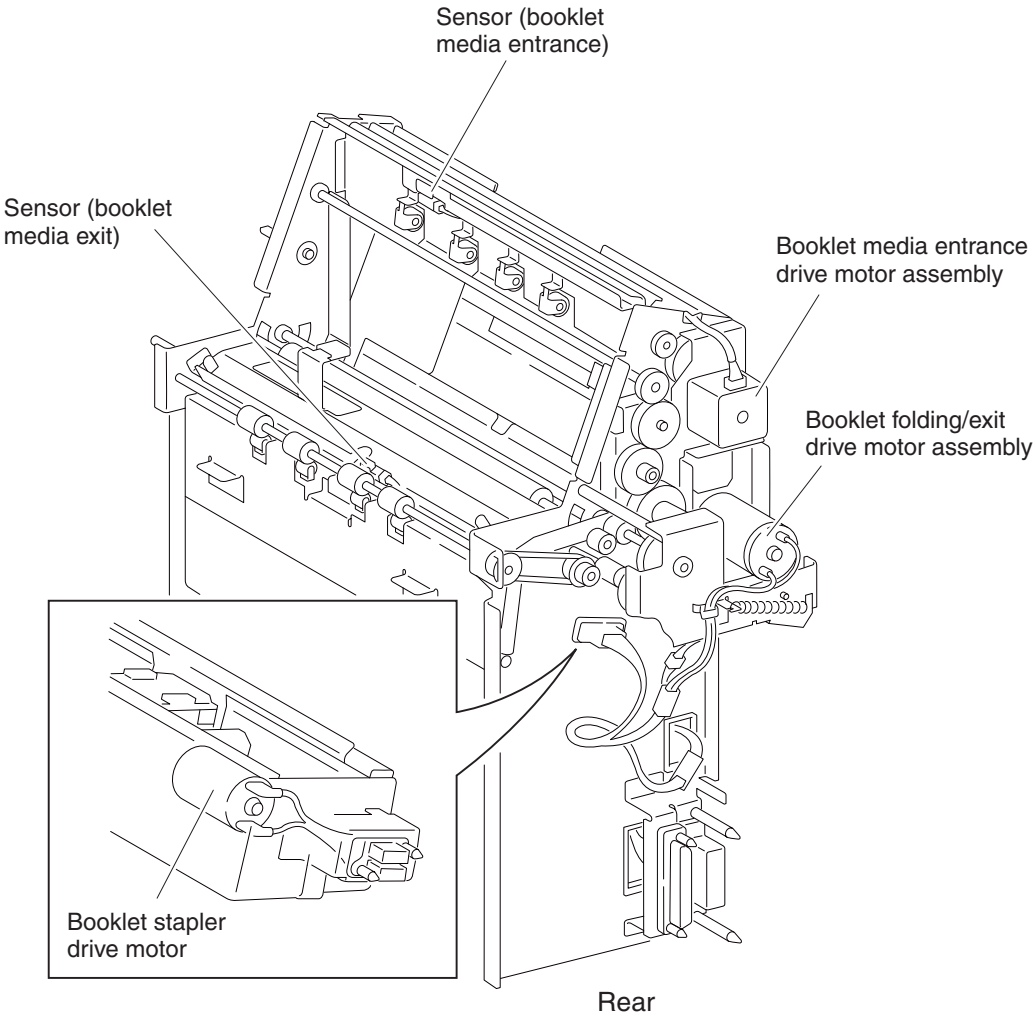


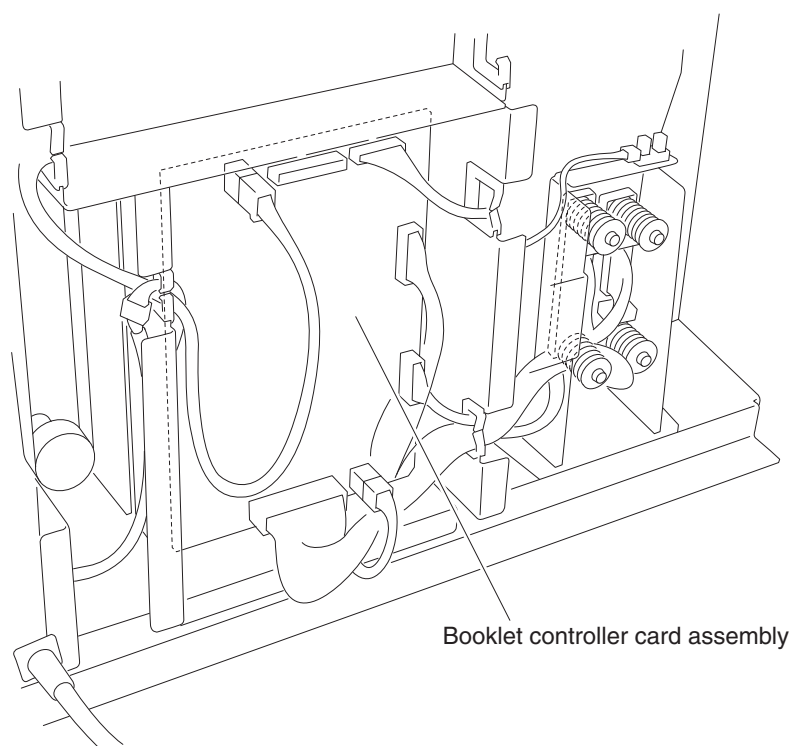
Booklet media bin



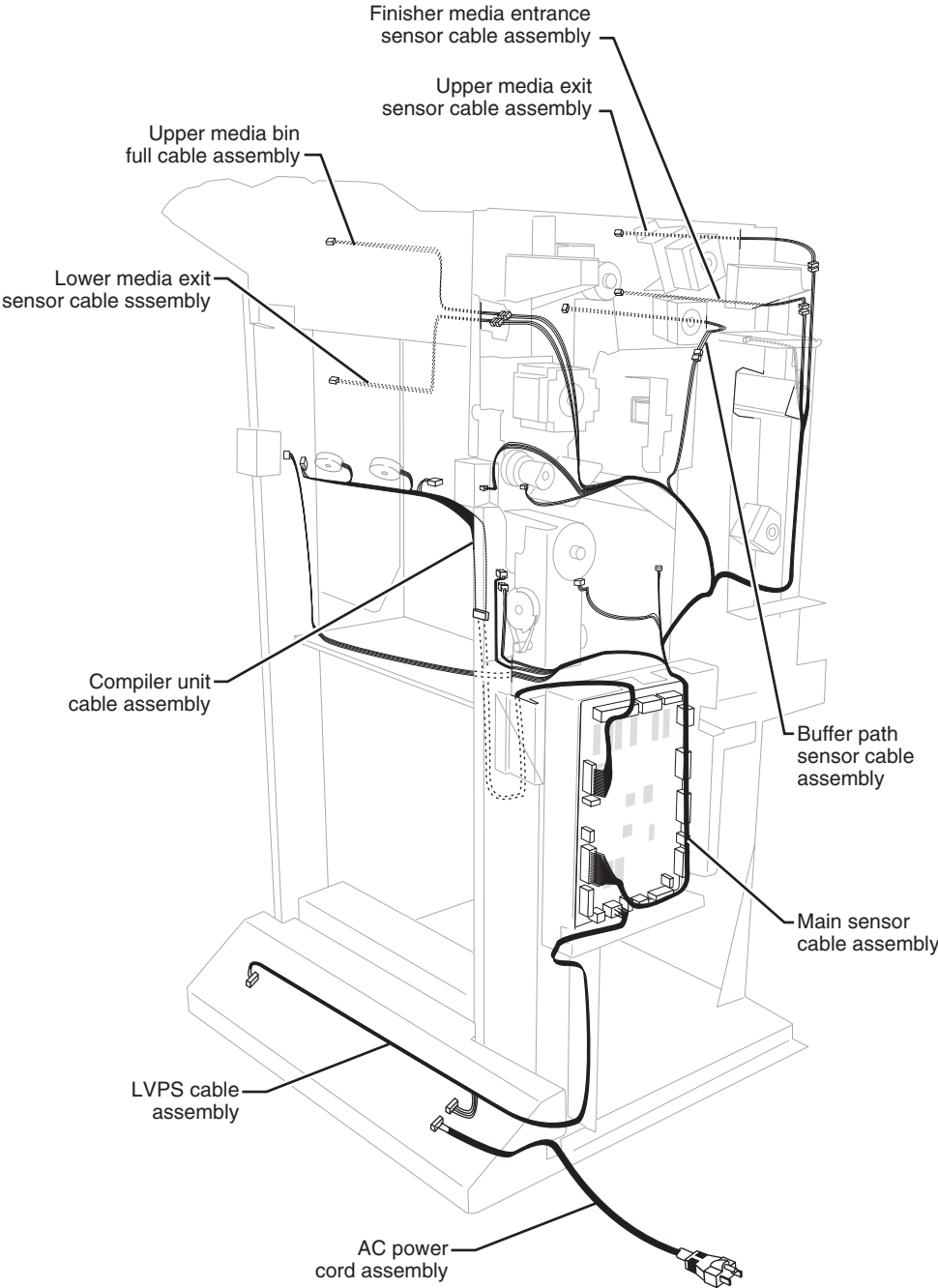
Booklet maker

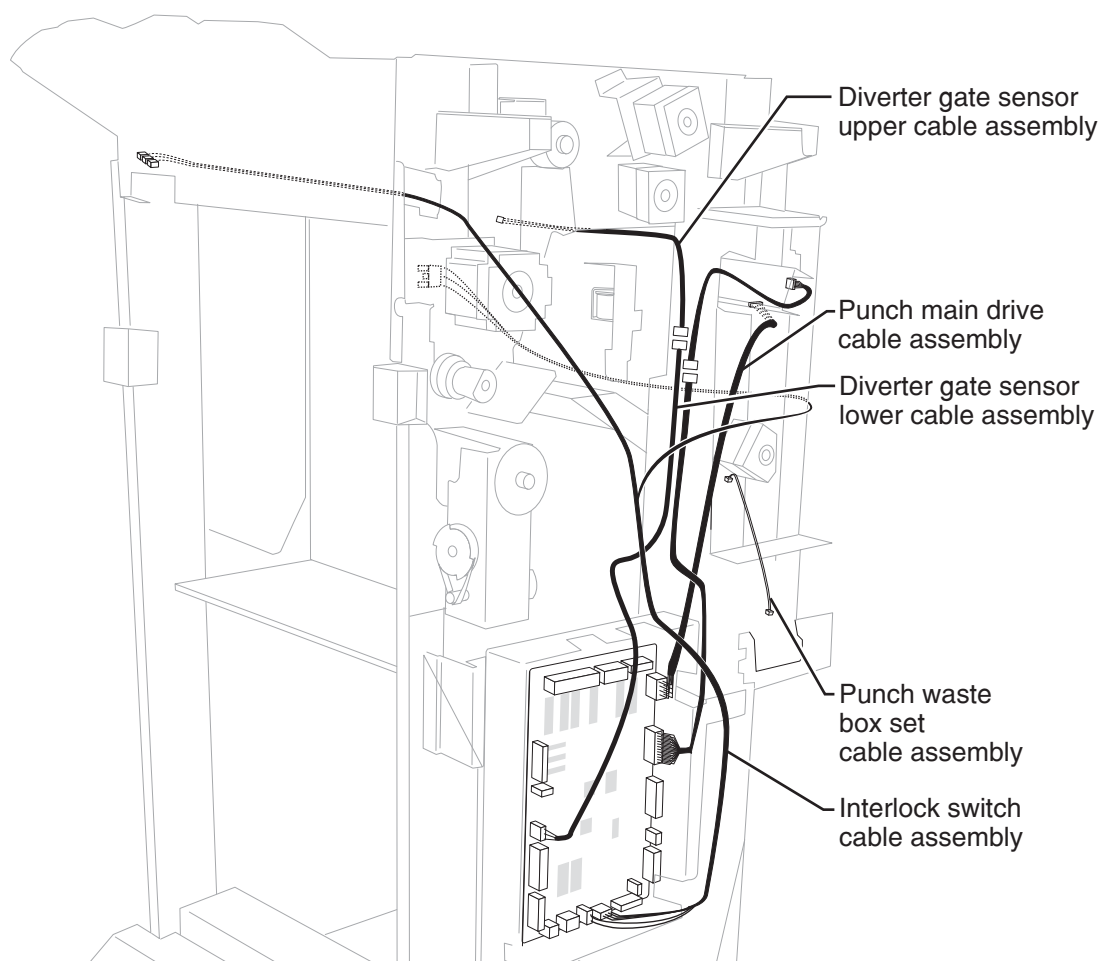


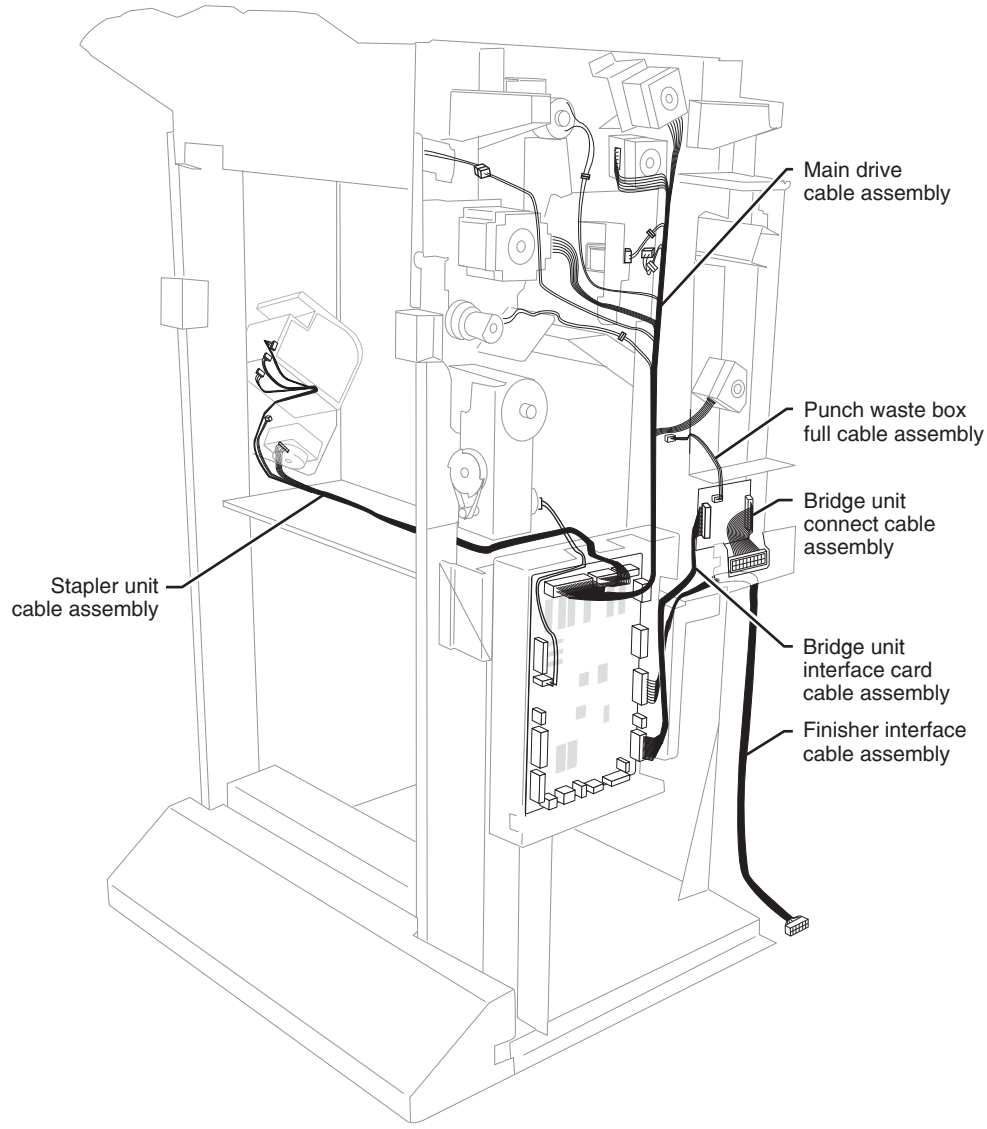




Cabling







6. Preventive maintenance

This chapter describes procedures for printer preventive maintenance. Follow these recommendations to help prevent problems and maintain optimum performance.

Safety inspection guide



The purpose of this inspection guide is to aid you in identifying unsafe conditions.

If any unsafe conditions exist, find out how serious the hazard could be and if you can continue before you correct the hazard.

Check the following items:

- Damaged, missing, or altered parts, especially in the area of the On/Off switch and the power supply
- Damaged, missing, or altered covers, especially in the area of the top cover and the power supply cover
- Possible safety exposure from any non-Lexmark attachments

Lubrication specifications

Lubricate only when parts are replaced or as needed, not on a scheduled basis. Use of lubricants other than those specified can cause premature failure. Some unauthorized lubricants may chemically attack polycarbonate parts. Use IBM no. 10 oil, P/N 1280443 (Approved equivalents: Mobil DTE27, Shell Tellus 100, Fuchs Renolin MR30), IBM no. 23 grease (Approved equivalent Shell Darina 1), and grease, P/N 99A0394 to lubricate appropriate areas.

Maintenance recommendations

Finisher	Every service call	Every 300,000 pages
Bridge unit belts	Inspect	Clean with water or alcohol
Main paddles (3)	Inspect	Clean with water or alcohol
Sub paddles (2)	Inspect	Clean with water or alcohol
Clamp paddles (3)	Inspect	Clean with water or alcohol
Punch waste box	Clean	Clean
Stapler cartridge	Inspect for correct operation	Inspect for correct operation

7500-XXX

7. Parts catalog

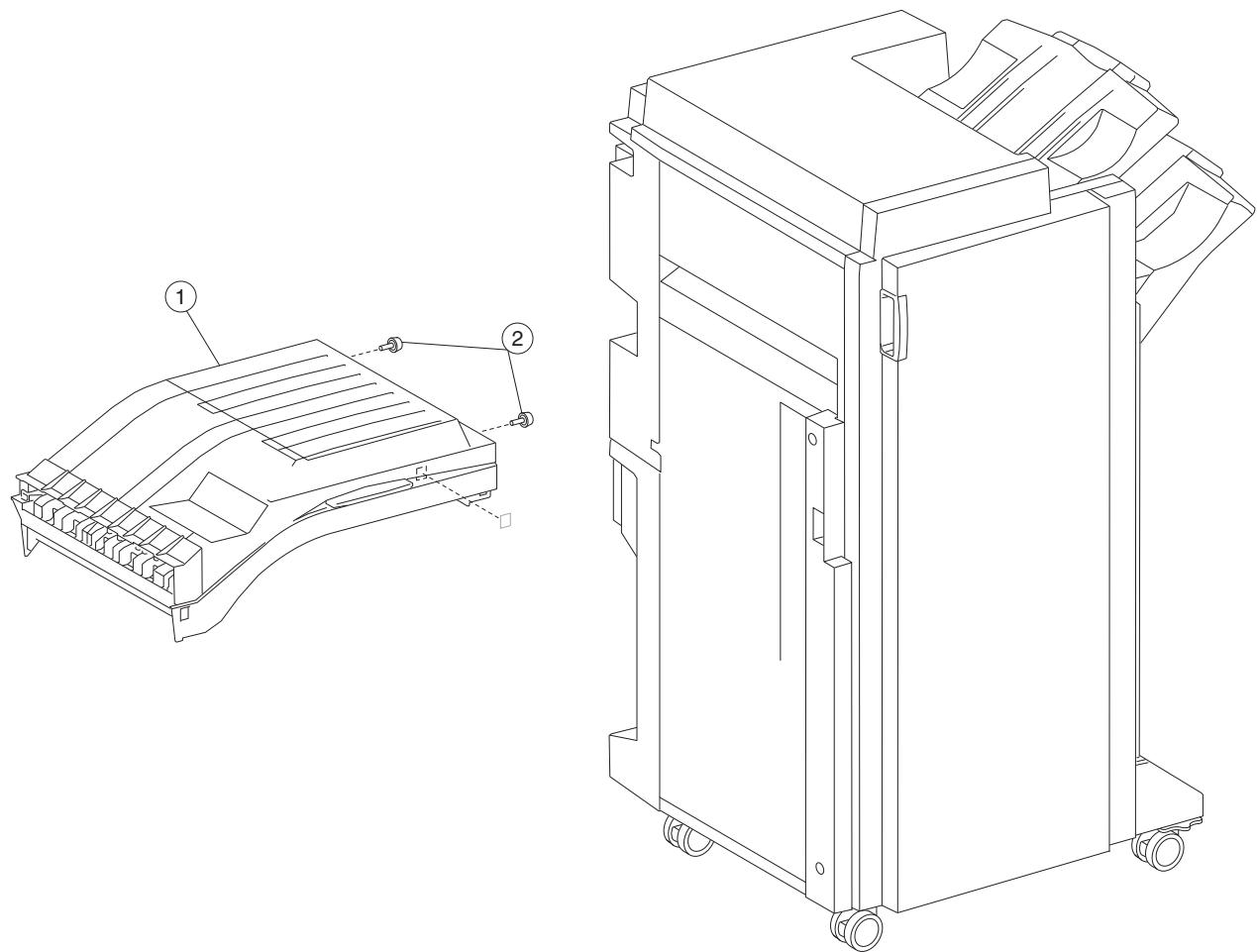
How to use this parts catalog

The following legend is used in the parts catalog:

Asm- Index	Part number	Units/ option	Units/ FRU	Description
---------------	----------------	------------------	---------------	-------------

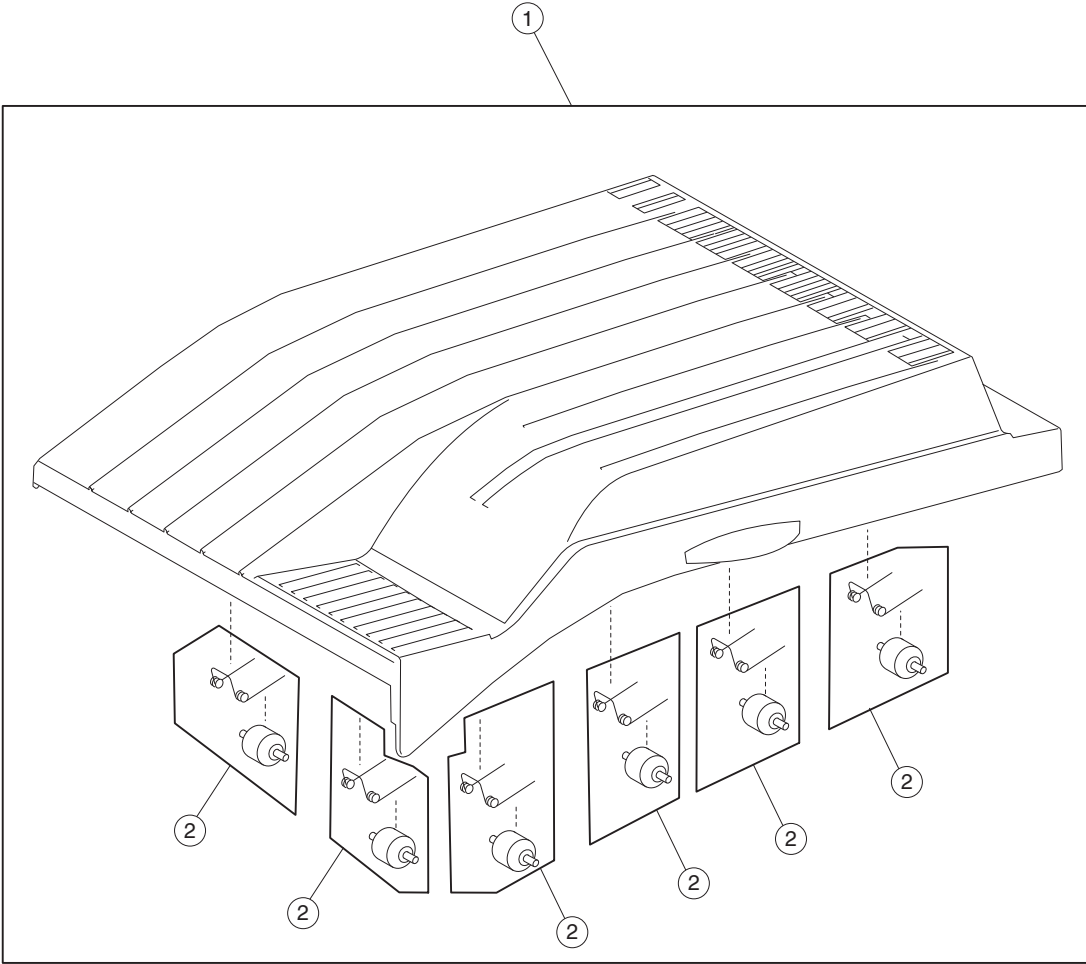
- **Asm-index:** Identifies the assembly and the item in the diagram. For example 3-1 indicates Assembly 3 and item number 1 in the table.
- **Part number:** Identifies the unique number that identifies this FRU.
- **Units/option:** Refers to the number of units in a particular option. It does not include the rest of the base machine.
- **Units/FRU:** Refers to the number of units packaged together and identified by the part number.
- **NS:** (Not shown) in the Assembly-Index column indicates that the part is procurable but is not pictured in the illustration.
- **PP:** (Parts Packet) in the parts description column indicates the part is contained in a parts packet.

Assembly 1: Finisher—bridge unit



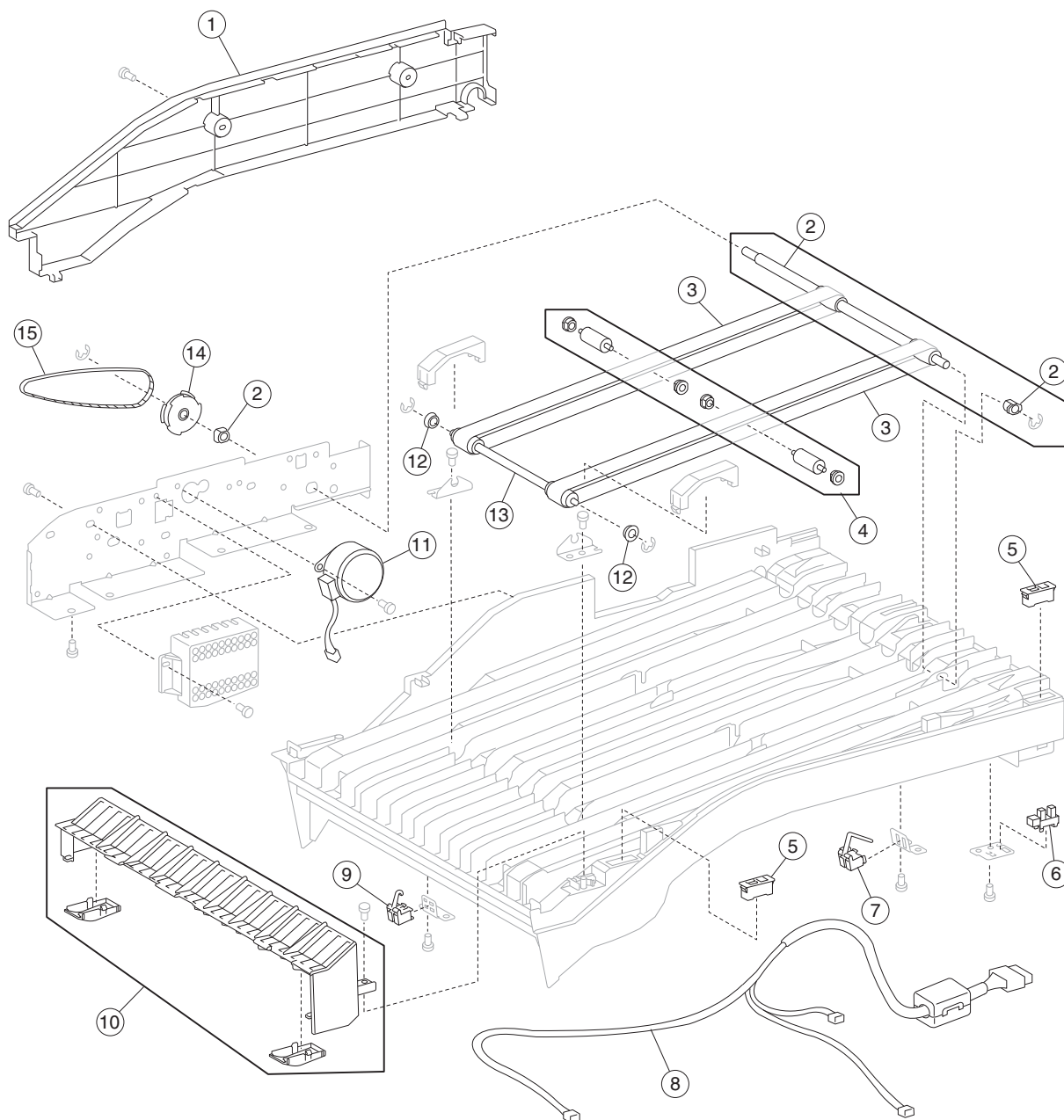
Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X0811	1	1	Bridge unit assembly
2	40X0810	1	2	Bridge unit assembly docking screw (2 each)

Assembly 2: Finisher—bridge unit top cover assembly



Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X0813	1	1	Bridge unit top cover assembly
2	40X0812	6	2	Bridge unit pinch roll kit includes: • Bridge unit pinch roll (6 each) • Spring (6 each)

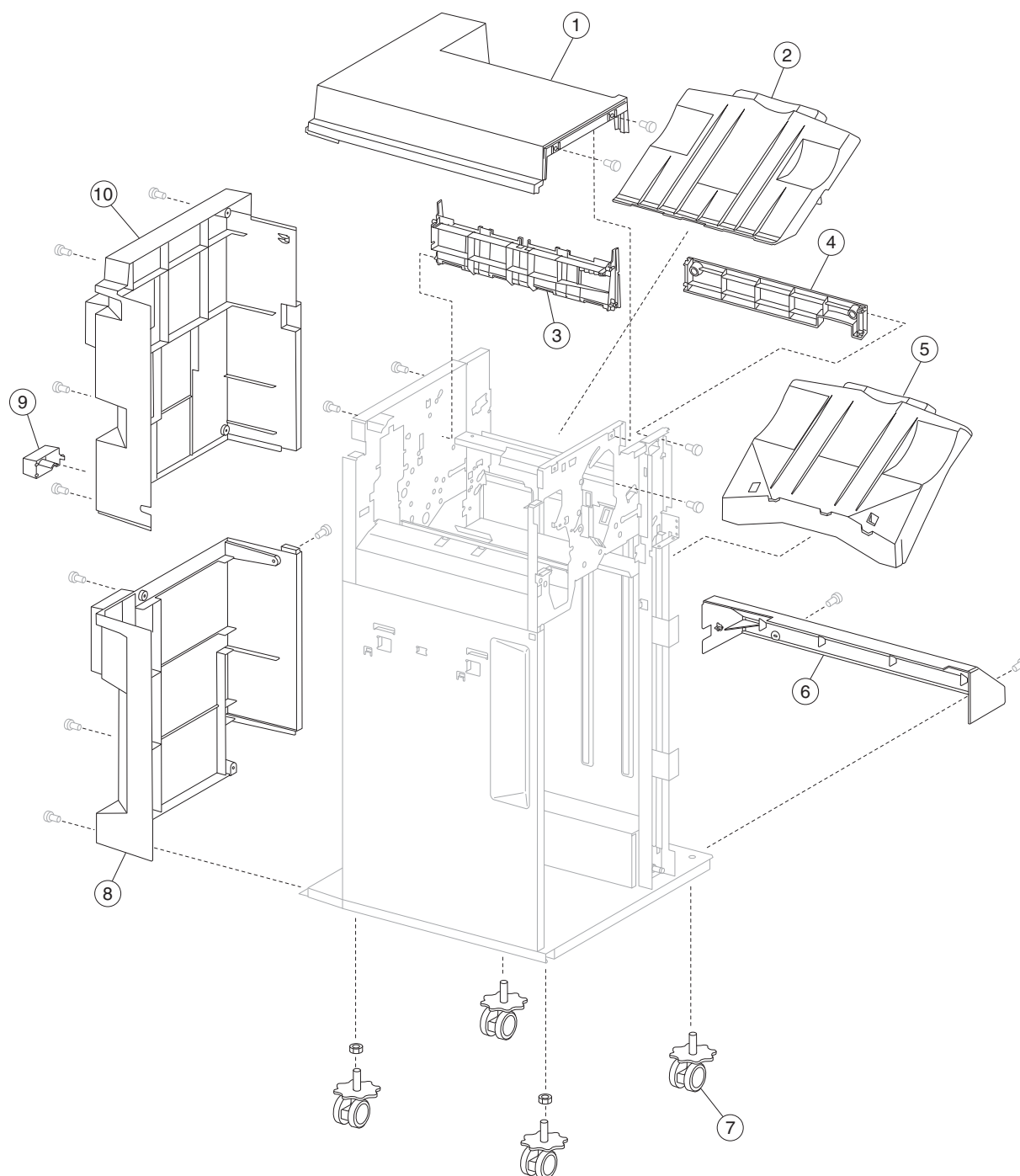
Assembly 3: Finisher—bridge unit lower assembly



Assembly 3: Finisher—bridge unit lower assembly

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0814	1	1	Bridge unit rear cover
2	40X0822	1	3	Bridge unit right shaft kit includes: • 6 mm bushing - front • Bridge unit right shaft assembly • 6 mm bushing - rear
3	40X0820	1	2	Transport belts (2 each)
4	40X0821	1	6	Idler roll kit includes: • Idler roll (2 each) • Bushing (4 each)
5	40X0824	8	1	Magnetic catch
6	40X0825	1	1	Sensor (bridge unit top cover interlock)
7	40X0826	1	1	Sensor (bridge unit media exit)
8	40X0828	1	1	Bridge unit cable assembly
9	40X0827	1	1	Sensor (bridge unit media entrance)
10	40X0818	1	3	Bridge unit entrance guide kit includes: • Bridge unit entrance guide • Lower guides (2 each)
11	40X0817	1	1	Bridge unit drive motor
12	40X0819	2	1	Ball bearing 4 mm
13	40X0823	1	1	Bridge unit left shaft assembly
14	40X0816	1	1	Bridge unit drive pulley
15	40X0815	1	1	Bridge unit drive belt

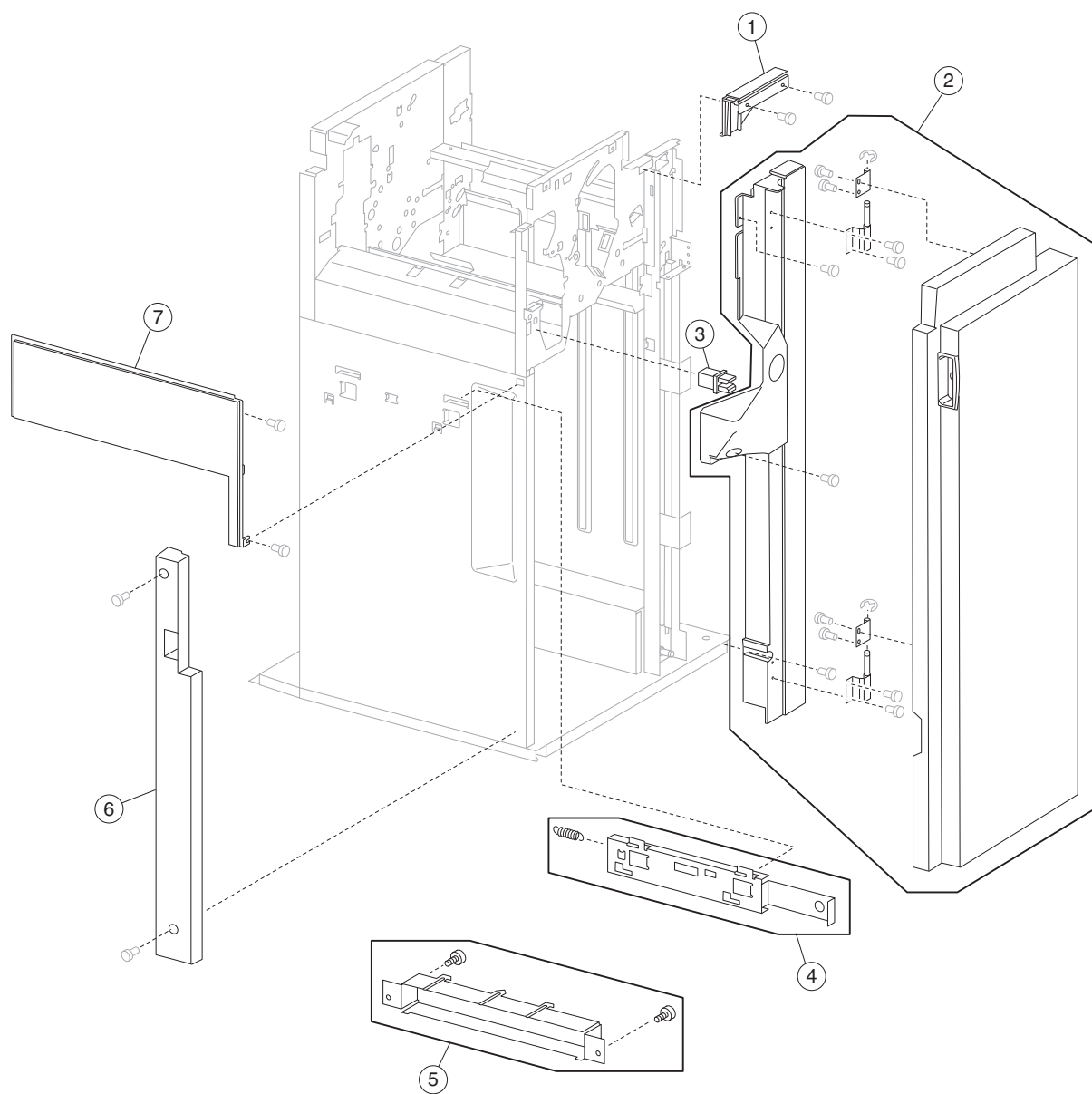
Assembly 4: Finisher—covers



Assembly 4: Finisher—covers

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0829	1	1	Top cover
2	40X0831	1	1	Upper media bin assembly
3	40X0830	1	1	Upper media bin vertical cover
4	40X0832	1	1	Right eject cover
5	40X0833	1	1	Stacker media bin
6	40X0834	1	1	Right lower LVPS cover
7	40X4405	4	1	Caster (booklet finisher only)
7	40X0835	4	1	Caster
8	40X0836	1	1	Rear lower cover
9	40X0837	1	1	Bridge unit hookup cover
10	40X0838	1	1	Rear upper cover

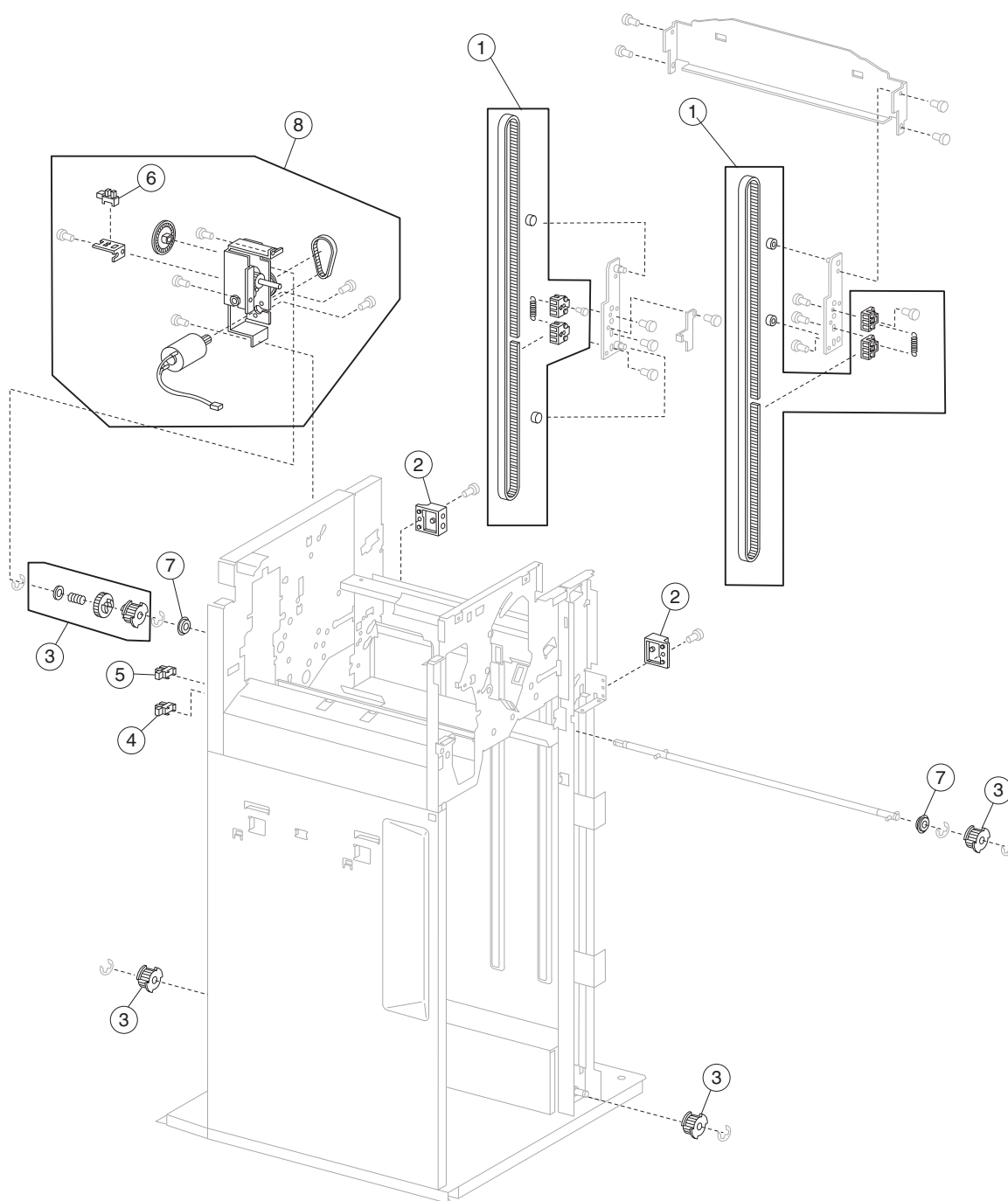
Assembly 5: Finisher—covers and front door



Assembly 5: Finisher—covers and front door

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0839	1	1	Upper media bin front cover
2	40X0841	1	1	Finisher front door assembly (this comes assembled)
3	40X0840	1	1	Switch (finisher front door interlock)
4	40X0842	1	2	Finisher docking latch kit includes: • Finisher docking latch assembly • Spring
5	40X0843	1	3	Finisher docking bracket kit includes: • Finisher docking bracket • Screw (2 each)
6	40X0844	1	1	Left lower cover
7	40X0845	1	1	Left upper cover

Assembly 6: Finisher—stacker bin lift

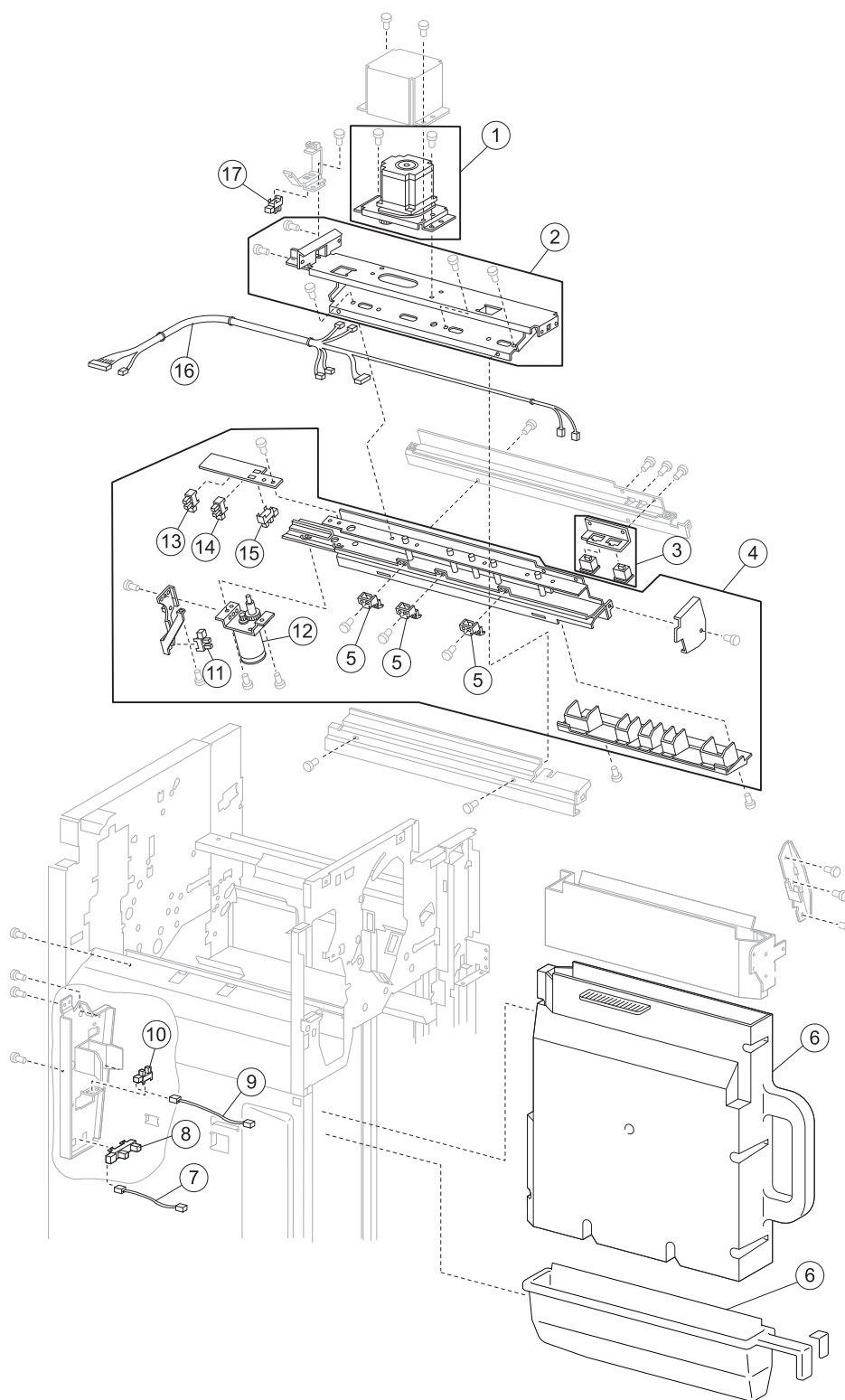


Assembly 6: Finisher—stacker bin lift

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0846	2	6	Carriage lift belt kit includes: • Carriage lift belt • Belt clamp (2 each) • Spring • Roll (2 each)
2	40X0847	2	1	Sensor (stacker bin level)
3	40X0849	1	7	Stacker slip clutch pulley kit includes: • Pulley, 18T (3 each) • Slip clutch pulley, 18T • Slip clutch gear, 24T • Spring • Washer
4	40X0850	1	1	Sensor (stacker bin no media)
5	40X0850	1	1	Sensor (stacker bin upper limit)
6	40X0850	1	1	Sensor (stacker bin level encoder)
7	40X0848	2	1	Ball bearing 10 mm
8	40X4409	1	3	Stacker bin lift motor assembly (booklet finisher only) • Bracket with sensor • Encoder • Stacker bin lift motor
8	40X0851	1	3	Stacker bin lift motor assembly • Bracket with sensor • Encoder • Stacker bin lift motor

Note: Assembly index items 4, 5, and 6 are identical sensors with different functions; therefore, they are the same part number with different descriptions.

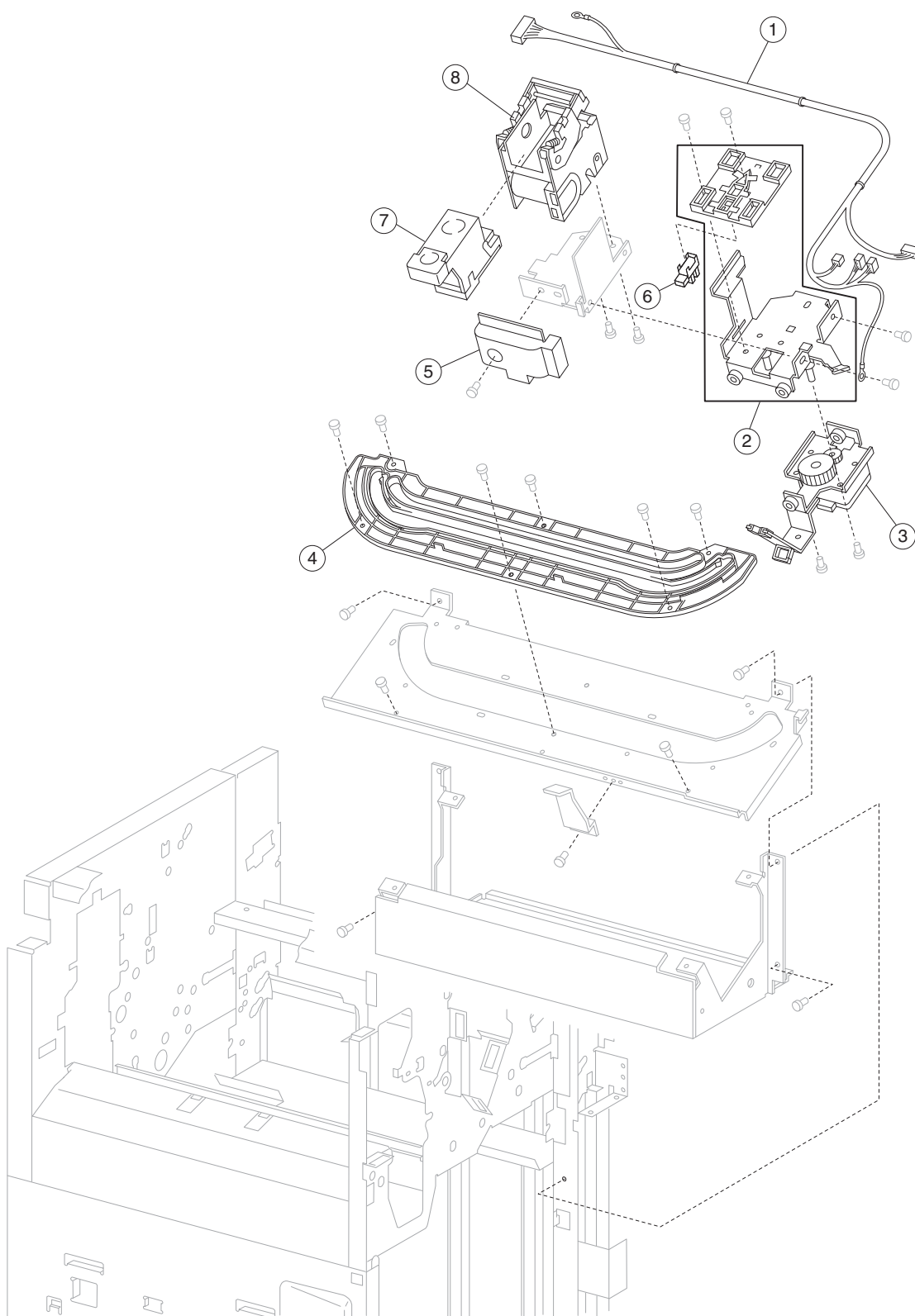
Assembly 7: Finisher—punch



Assembly 7: Finisher—punch

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0854	1	1	Punch carriage shift motor assembly
2	40X0855	1	1	Punch carriage assembly
3	40X0856	1	1	Sensor (punch unit side reg) assembly • Sensor (punch unit side reg1) • Sensor (punch unit side reg2) • Bracket
4	40X3936	1	1	2/3 punch unit assembly (this comes assembled)
4	40X3937	1	1	2/4 punch unit assembly (this comes assembled)
5	40X3941	3	1	Punch media stopper assembly
6	40X0862	1	1	Punch waste box (non-booklet making finisher)
6	40X3946	1	1	Punch waste box (booklet making finisher)
7	40X0930	1	1	Punch waste box full cable assembly
8	40X0864	1	1	Sensor (punch waste box full) (non-booklet making finisher only)
9	40X0865	1	1	Punch waste box set cable assembly
10	40X0861	1	1	Sensor (punch waste box set)
11	40X3944	1	1	Sensor (punch unit motor encoder)
12	40X3943	1	1	Punch unit motor assembly
13	40X0850	1	1	Sensor (punch hole select)
14	40X0850	1	1	Sensor (punch cam front)
15	40X0850	1	1	Sensor (punch unit HP)
16	40X0853	1	1	Punch unit cable assembly
17	40X3938	1	1	Sensor (punch carriage shift HP)

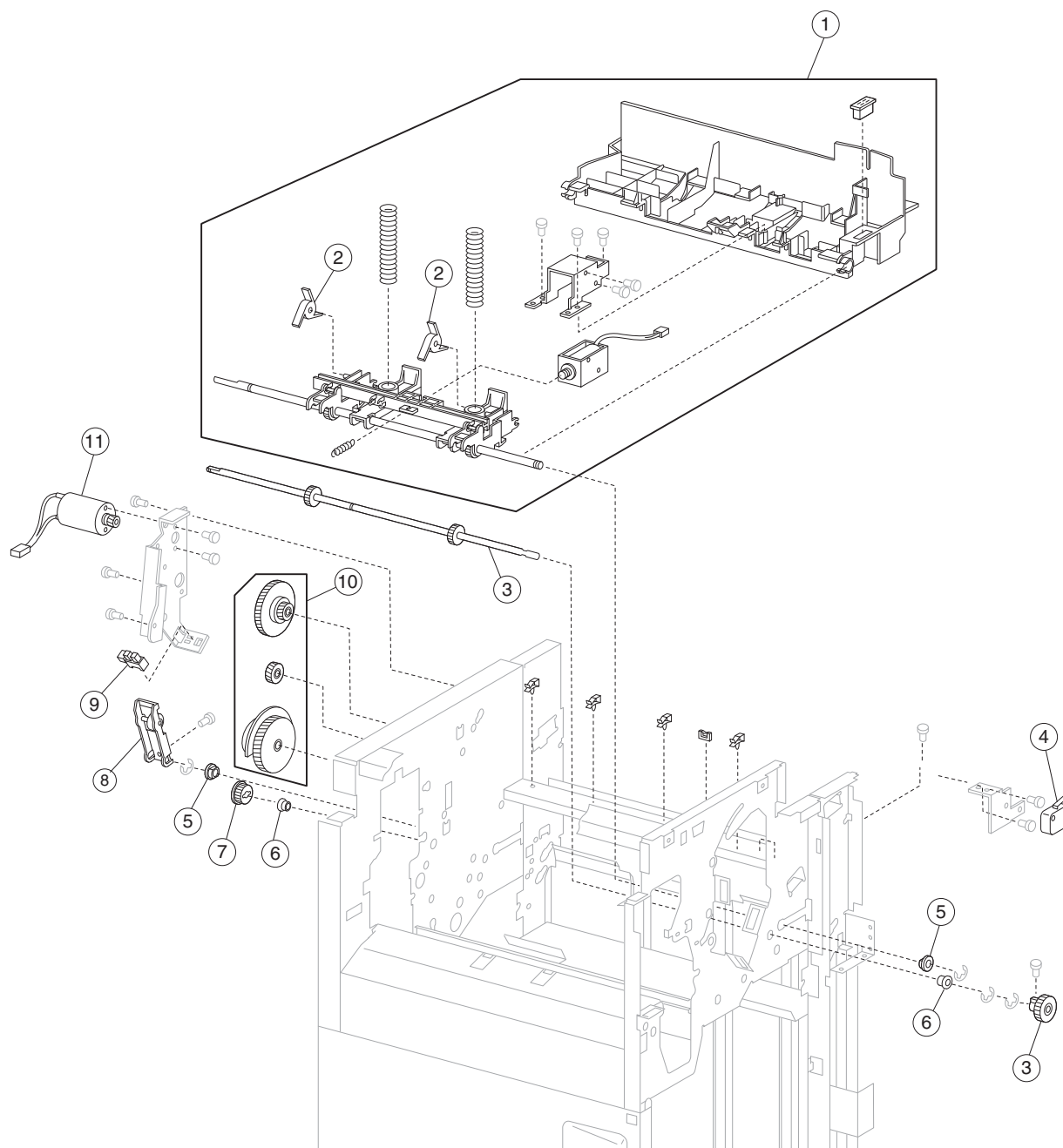
Note: Assembly index items 11, 13, 14, 15, and 17 are identical sensors with different functions; therefore, they are the same part number with different descriptions.

Assembly 8: stapler

Assembly 8: Finisher—stapler

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0870	1	1	Stapler unit cable assembly
2	40X0869	1	2	Stapler carriage kit includes: • Stapler carriage wire guide • Stapler carriage assembly
3	40X0871	1	1	Stapler carriage motor assembly
4	40X0872	1	1	Stapler carriage rack gear
5	40X0868	1	1	Stapler unit cover
6	40X0850	1	1	Sensor (stapler carriage HP)
7	40X0866	1	1	Staple cartridge
8	40X0867	1	1	Stapler unit assembly

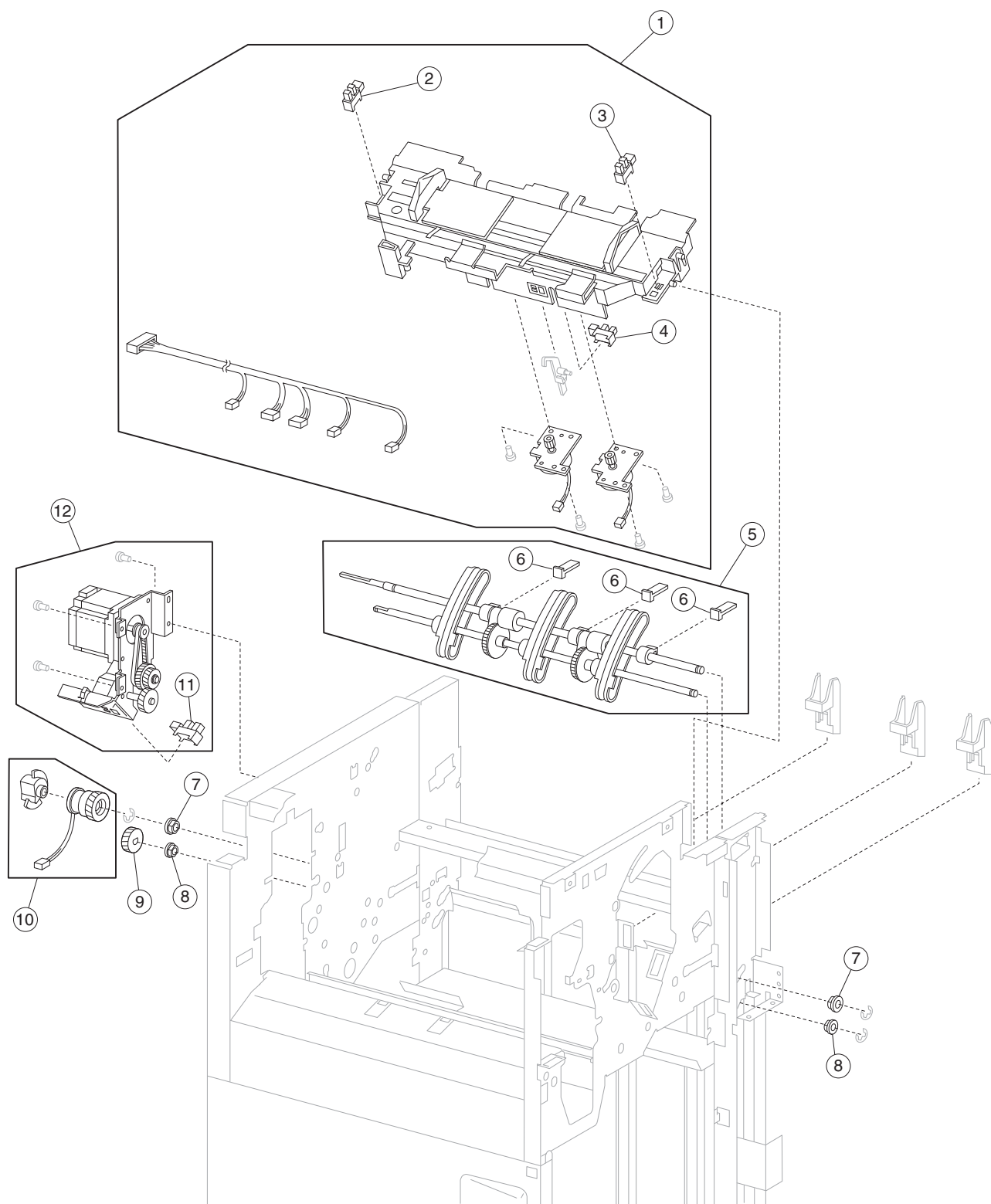
Assembly 9: Finisher—media eject



Assembly 9: Finisher—media eject

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0873	1	1	Media eject unit assembly (this comes assembled)
2	40X0874	2	1	Sub paddle
3	40X0875	1	2	Sub paddle drive shaft kit includes: • Sub paddle drive shaft assembly • Knob
4	40X0882	1	1	Switch (eject cover interlock)
5	40X1388	4	1	Bushing 8 mm
6	40X0888	15	1	Bushing 6 mm
7	40X0879	2	2	Sub paddle/entrance drive gear 23T
8	40X0877	1	1	Eject clamp lever assembly
9	40X0825	1	1	Sensor (media eject clamp HP)
10	40X0881	1	3	Eject clamp gear kit includes: • Eject clamp gear 70T • Eject clamp gear 23T • Eject clamp gear 68/20T
11	40X0876	1	1	Media eject clamp motor

Assembly 10: Finisher—eject and compiler unit

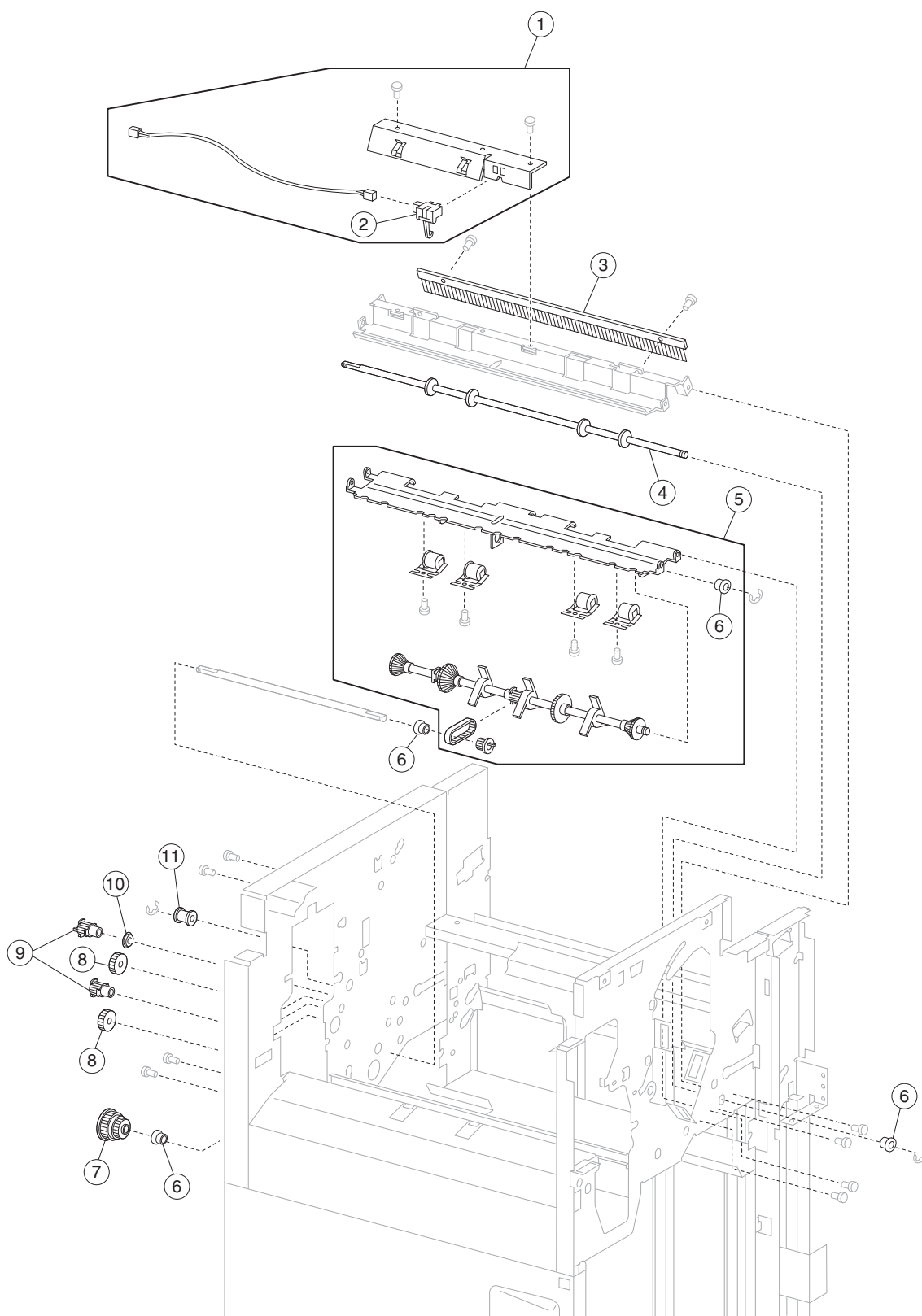


Assembly 10: Finisher—eject and compiler unit

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0883	1	1	Media compiler unit assembly (this comes assembled)
2	40X0850	1	1	Sensor (rear tamper HP)
3	40X0850	1	1	Sensor (front tamper HP)
4	40X0825	1	1	Sensor (compiler media in)
5	40X4150	1	1	Media eject shaft assembly (booklet finisher only)
5	40X0886	1	1	Media eject shaft assembly
6	40X0887	3	1	Clamp paddle
7	40X0888	15	1	Bushing 6 mm
8	40X1388	4	1	Bushing 8 mm
9	40X0889	2	1	Media eject shaft gear 39T
10	40X0890	1	2	Media eject clutch kit includes: • Media eject clutch • Media eject clutch actuator
11	40X0825	1	1	Sensor (media eject shaft HP)
12	40X0891	1	1	Media eject motor assembly

Note: Assembly index items 2 and 3 are identical sensors with different functions; therefore, they are the same part number with different descriptions.

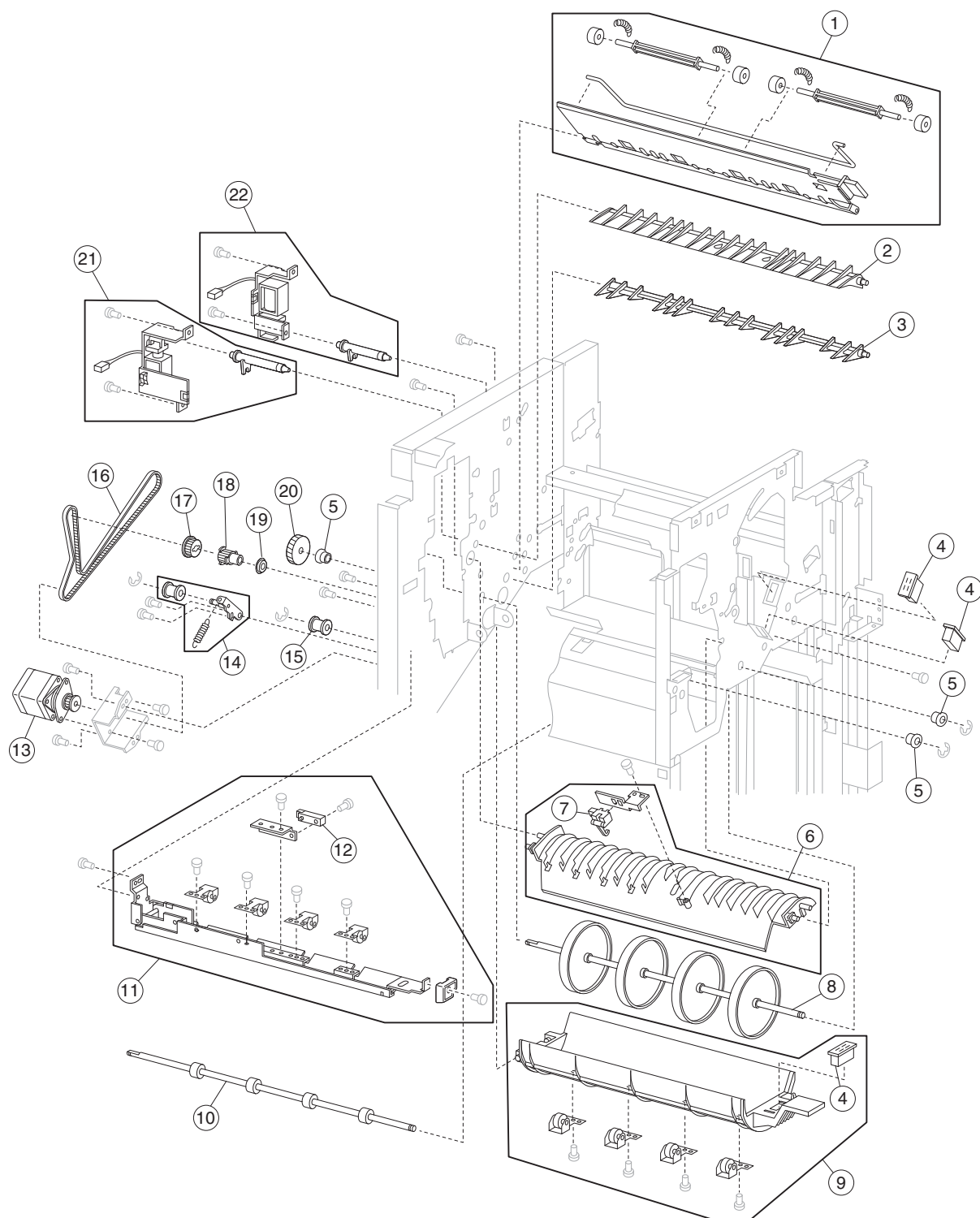
Assembly 11: Finisher—lower exit drive



Assembly 11: Finisher—lower drive

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0892	1	1	Sensor (lower media exit) with bracket
2	40X0893	1	1	Sensor (lower media exit)
3	40X0894	1	1	Static eliminator brush
4	40X0895	1	1	Lower media exit roll assembly
5	40X4410	1	2	Main paddle shaft kit includes: (this comes assembled)(booklet finisher only) • Main paddle shaft assembly • Main paddle shaft drive pulley 17T
5	40X0896	1	2	Main paddle shaft kit includes: (this comes assembled) • Main paddle shaft assembly • Main paddle shaft drive pulley 17T
6	40X0888	15	1	Bushing 6 mm
7	40X0900	1	1	Main paddle drive pulley/gear 44/20T
8	40X0899	1	2	Main paddle idler gear kit includes: • Main paddle idler gear 23TR • Main paddle idler gear 23TL
9	40X0898	1	2	Lower exit roll drive pulley kit includes: • Lower exit roll drive pulley 20T • Idler pulley 20T
10	40X0913	4	1	Ball bearing 6 mm
11	40X0897	3	1	Belt idler pulley

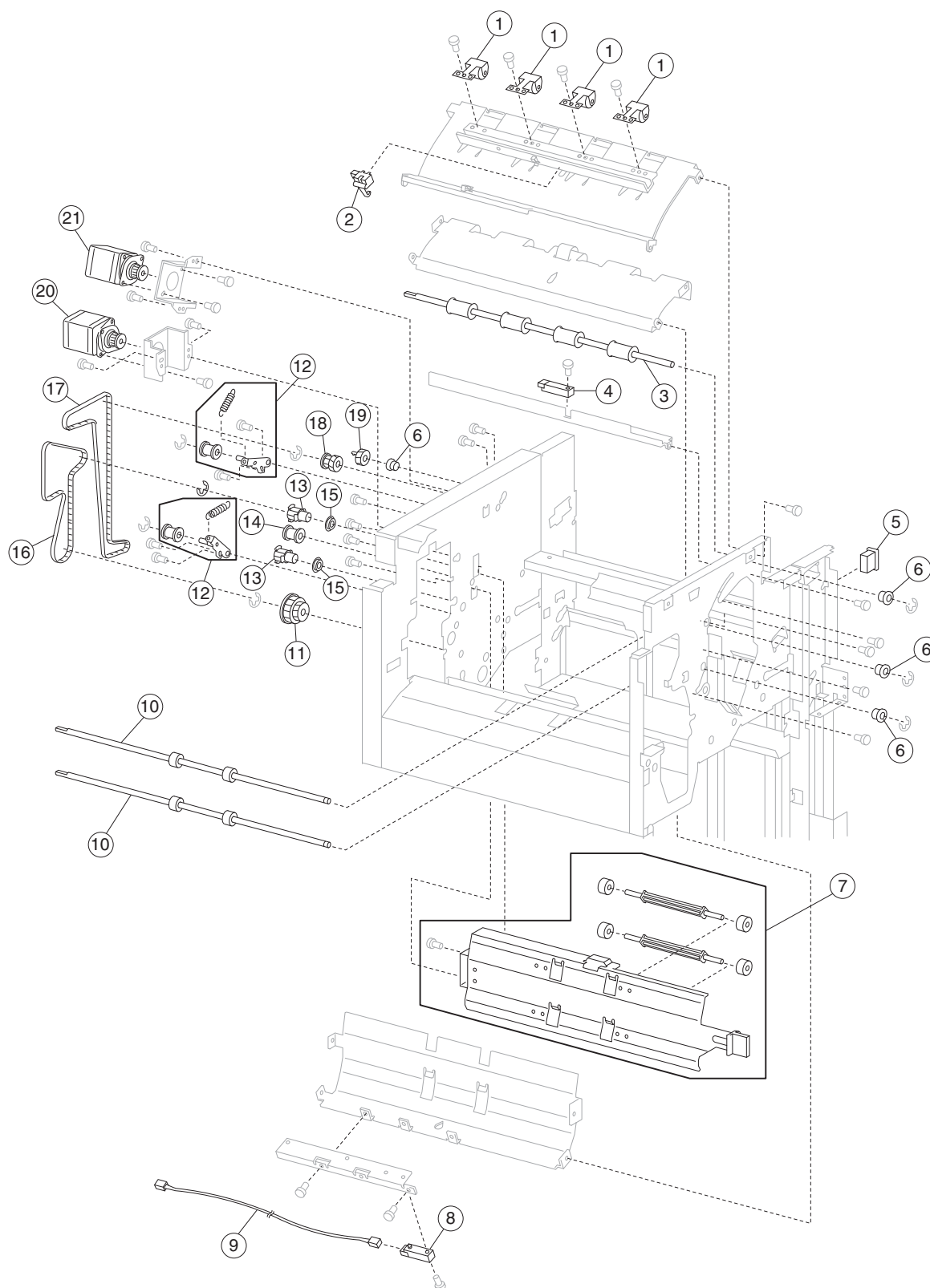
Assembly 12: Finisher—buffer and entrance drive



Assembly 12: Finisher—buffer and entrance drive

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0901	1	1	Lower pinch guide assembly (this comes assembled)
2	40X0902	1	1	Finisher diverter gate
3	40X4149	1	1	Buffer diverter gage (booklet finisher only)
3	40X0903	1	1	Buffer diverter gate
4	40X0824	8	1	Magnetic catch
5	40X0888	15	1	Bushing 6 mm
6	40X0904	1	1	Buffer upper guide assembly
7	40X0893	1	1	Sensor (buffer path)
8	40X0905	1	1	Buffer roll assembly
9	40X0906	1	1	Buffer pinch guide assembly (this comes assembled)
10	40X0909	1	1	Media entrance roll assembly
11	40X4411	1	1	Media entrance pinch guide assembly (this comes assembled)(booklet finisher only)
11	40X0907	1	1	Media entrance pinch guide assembly (this comes assembled)
12	40X0908	1	1	Sensor (finisher media entrance)
13	40X0910	1	1	Drive motor (entrance/paddle)
14	40X0912	3	3	Belt tensioner pulley kit includes: • Belt idler pulley • Spring • Belt tensioner bracket
15	40X0897	3	1	Belt idler pulley
16	40X0911	1	1	Belt entrance/paddle, 31.6 cm
17	40X0879	2	1	Sub paddle/entrance drive gear 23T
18	40X0914	1	1	Media entrance roll drive pulley 20T
19	40X0913	4	1	Ball bearing 6 mm
20	40X0915	1	1	Buffer roll drive gear 46T
21	40X0916	1	2	Media diverter solenoid kit includes: • Media diverter solenoid • Media diverter solenoid link
22	40X0917	1	2	Buffer diverter solenoid kit includes: • Buffer diverter solenoid • Buffer diverter solenoid link

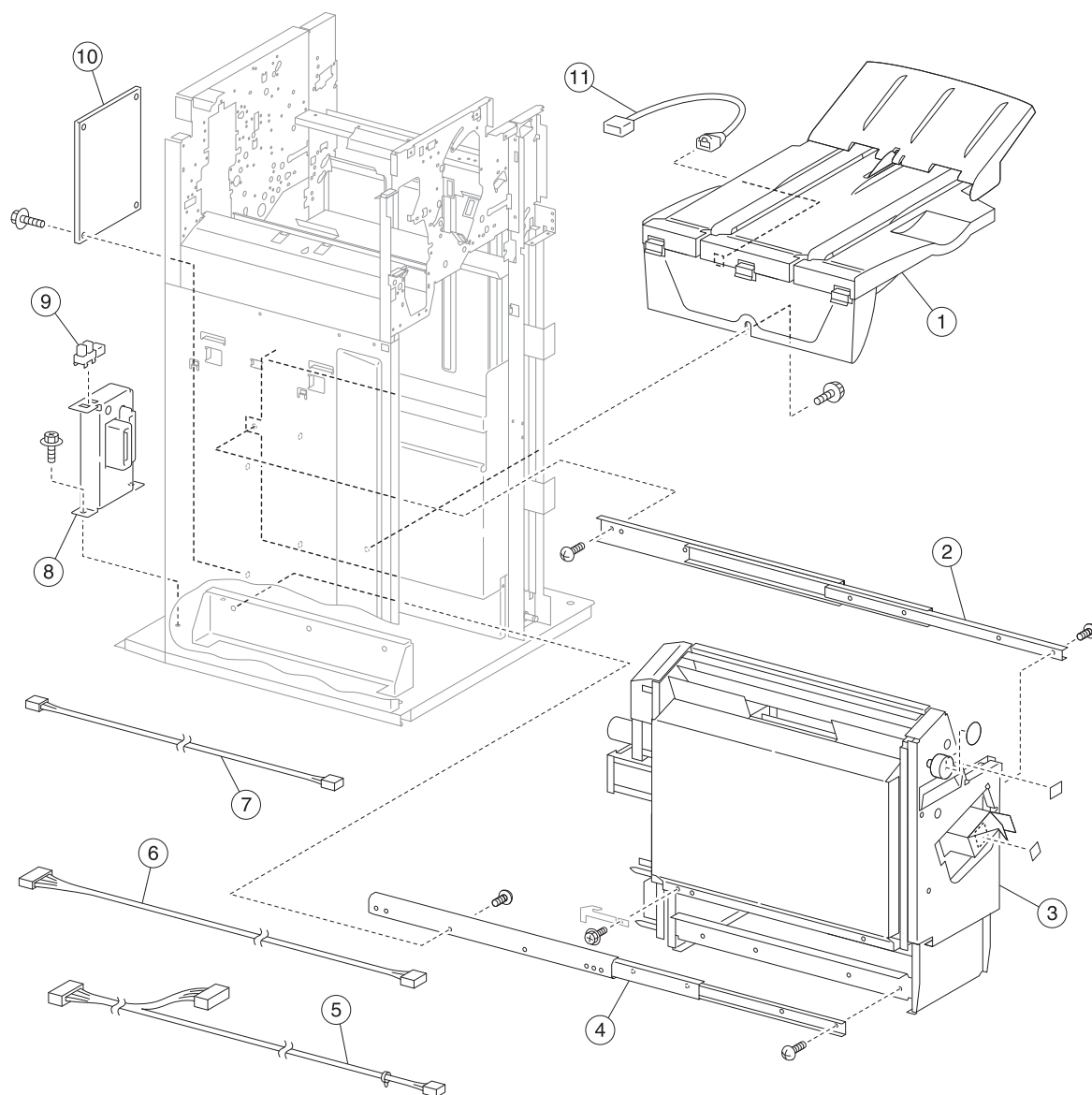
Assembly 13: Finisher—buffer, transport, and upper drive



Assembly 13: Finisher—transport and upper drive

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0918	4	1	Upper media exit pinch roll assembly
2	40X0893	1	1	Sensor (upper media exit)
3	40X0919	1	1	Upper media exit roll assembly
4	40X0908	1	1	Sensor (upper media bin full)
5	40X0824	8	1	Magnetic catch
6	40X0888	15	1	Bushing 6 mm
7	40X0920	1	1	Upper pinch guide assembly (this comes assembled)
8	40X0921	1	1	Sensor (diverter gate)
9	40X0922	1	1	Diverter gate sensor upper cable assembly
10	40X0923	2	1	Upper media transport roll assembly
11	40X0924	1	1	Buffer roll drive pulley/gear 53/23T
12	40X0912	3	3	Belt tensioner bracket kit includes: • Belt idler pulley • Spring • Belt tensioner bracket
13	40X0925	2	1	Upper media transport roll drive pulley 20T
14	40X0897	3	1	Belt idler pulley
15	40X0913	4	1	Ball bearing 6 mm
16	40X0928	1	1	Belt (buffer transport) 19.8 cm
17	40X0929	1	1	Belt (exit) 27.7 cm
18	40X0926	1	1	Upper media exit roll drive pulley/gear, 20T/20T
19	40X0927	1	1	Upper media exit roll drive gear 20T
20	40X0910	1	1	Drive motor (buffer/transport)
21	40X0910	1	1	Drive motor (exit)

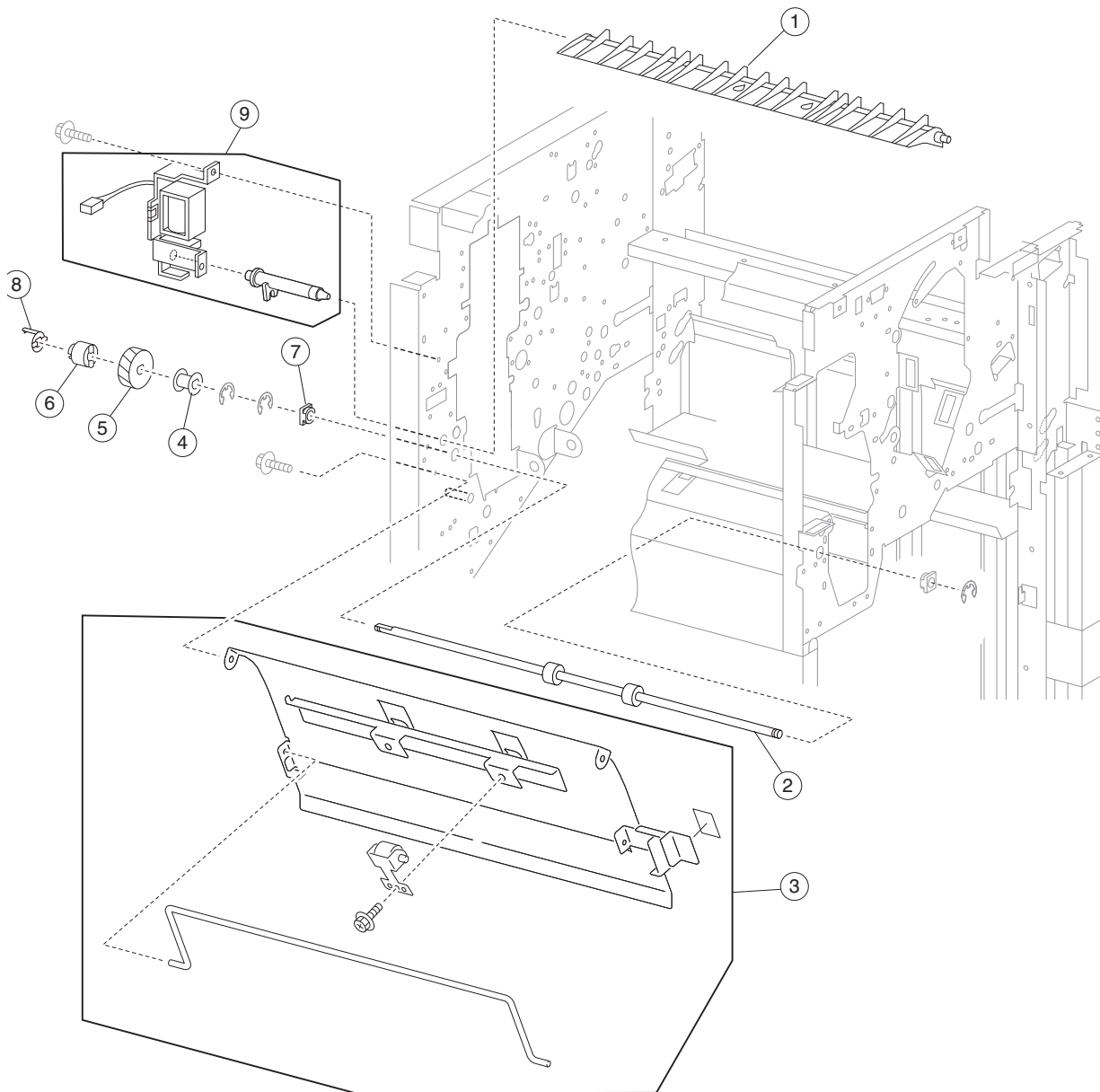
Assembly 14: Booklet maker 1



Assembly 14: Booklet maker 1

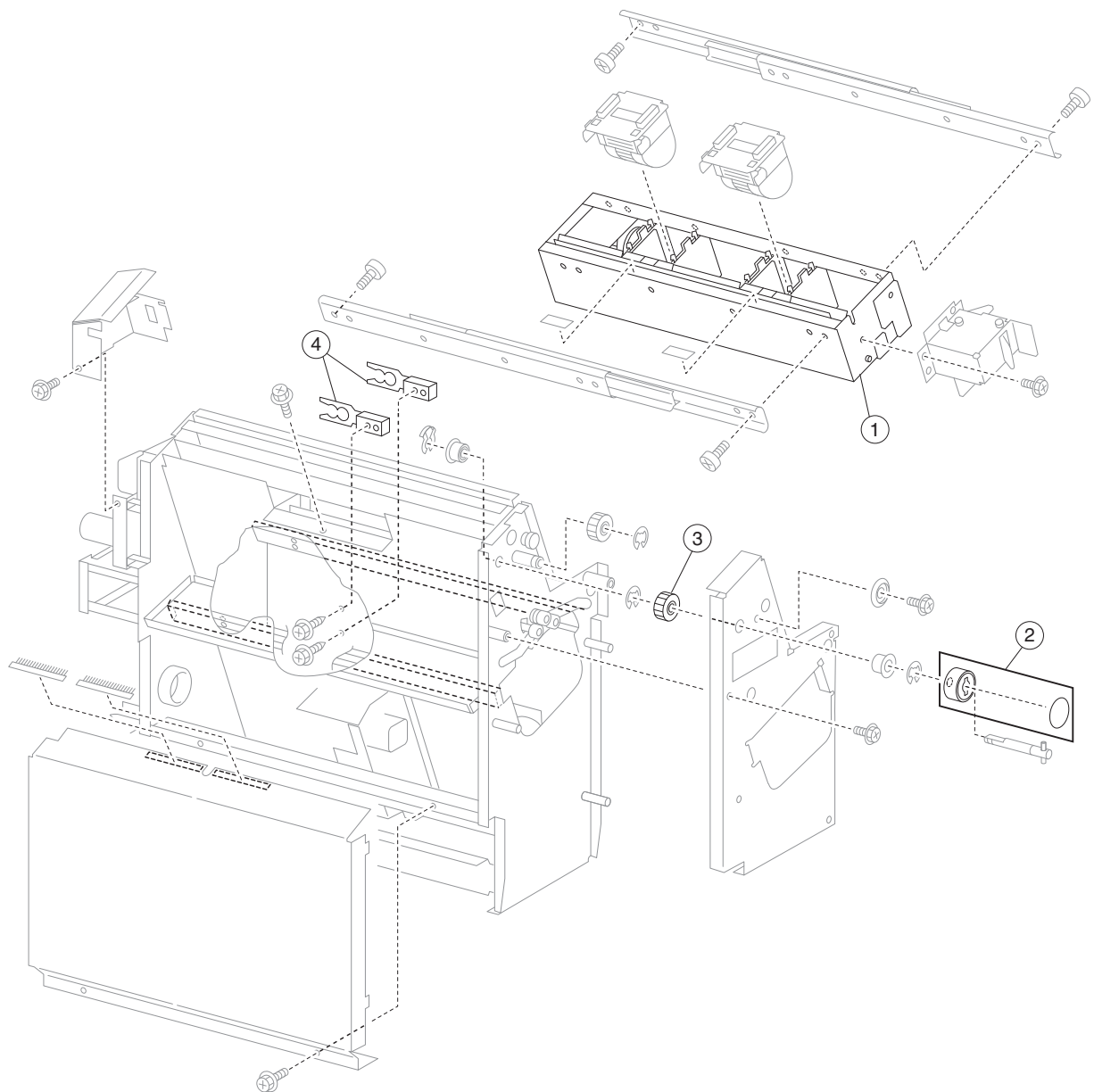
Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X3981	1	1	Booklet bin assembly
2	40X3979	1	1	Booklet unit right glide assembly
3	40X4413	1	1	Booklet unit assembly (this comes assembled)
4	40X3980	1	1	Booklet unit left glide assembly
5	40X3984	1	1	Booklet unit cable assembly
6	40X3983	1	1	Booklet bin/diverter cable assembly
7	40X3982	1	1	Booklet controller card power cable assembly
8	40X3985	1	1	Booklet unit interface connector assembly
9	40X0850	12	1	Sensor (booklet unit interlock)
10	40X3978	1	1	Booklet controller card assembly
11	40X3987	1	1	Booklet bin hookup cable assembly

Assembly 15: Booklet maker 2



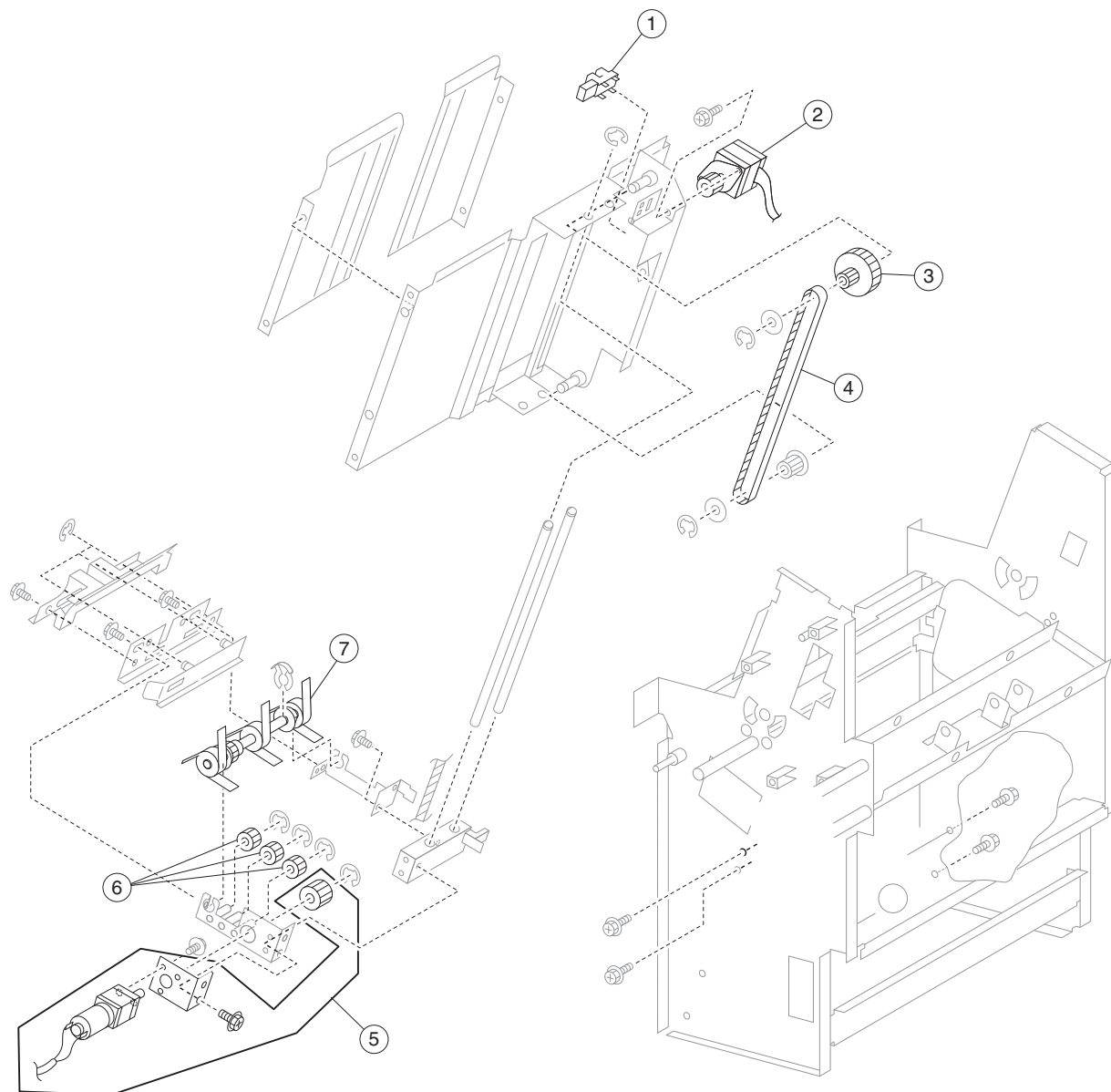
Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X3961	1	1	Booklet diverter gate
2	40X4118	1	1	Booklet path media transport roll assembly
3	40X3958	1	1	Booklet pinch guide assembly
4	40X4128	1	1	Belt idler pulley
5	40X0899	1	1	Booklet media transport roll drive gear 23T
6	40X3962	1	1	Booklet media transport roll torque limiter
7	40X0880	1	1	Bushing 6 mm
8	40X3963	1	1	Booklet media path roll retainer
9	40X0917	1	1	Booklet diverter gate solenoid kit • Booklet diverter gate solenoid • Link

Assembly 16: Booklet maker 3



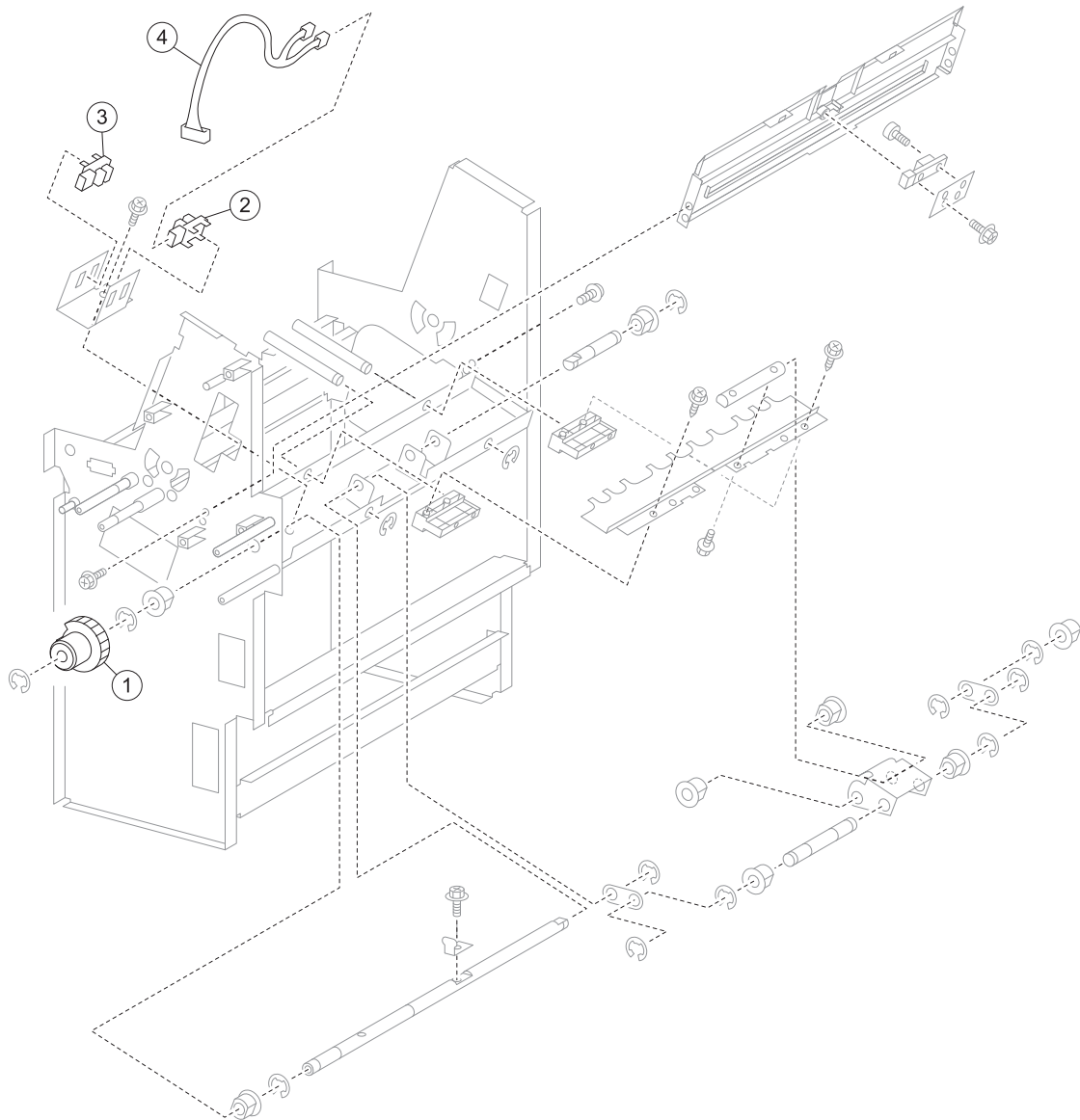
Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X4414	1	1	Booklet stapler unit assembly
2	40X3990	1	1	Booklet manual feed knob
3	40X3989	1	1	Booklet manual feed drive gear 31T
4	40X3988	1	1	Booklet unit catch

Assembly 17: Booklet maker 4



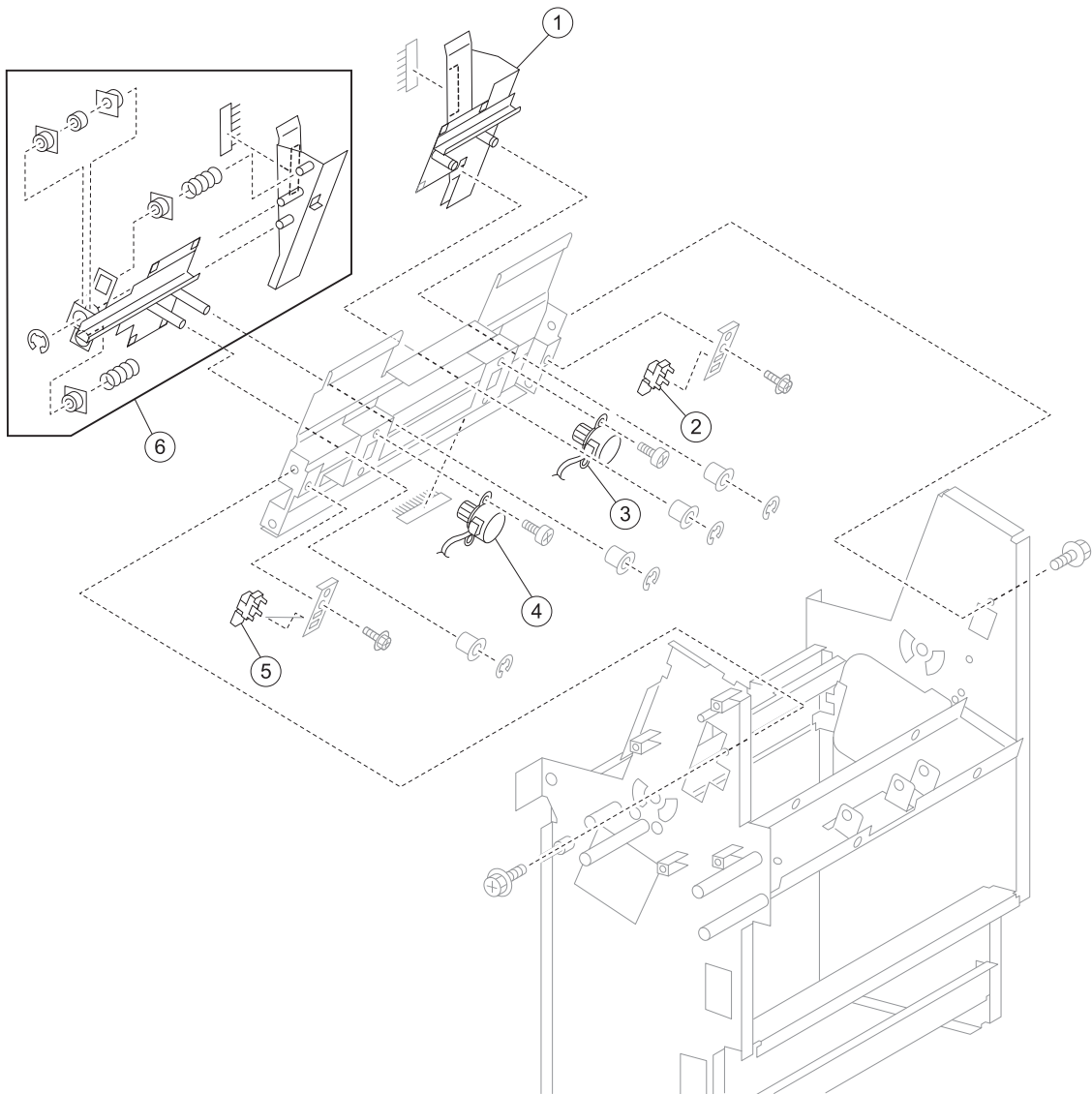
Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0825	10	1	Sensor (booklet end guide HP)
2	40X3992	1	1	Booklet media entrance drive motor
3	40X3993	1	1	Gear pulley 40/20T
4	40X3994	1	1	Booklet end guide drive belt
5	40X3996	1	1	Booklet paddle drive motor assembly
6	40X3995	3	1	Booklet paddle idler gear 14T
7	40X3997	1	1	Booklet paddle shaft assembly

Assembly 18: Booklet maker 5



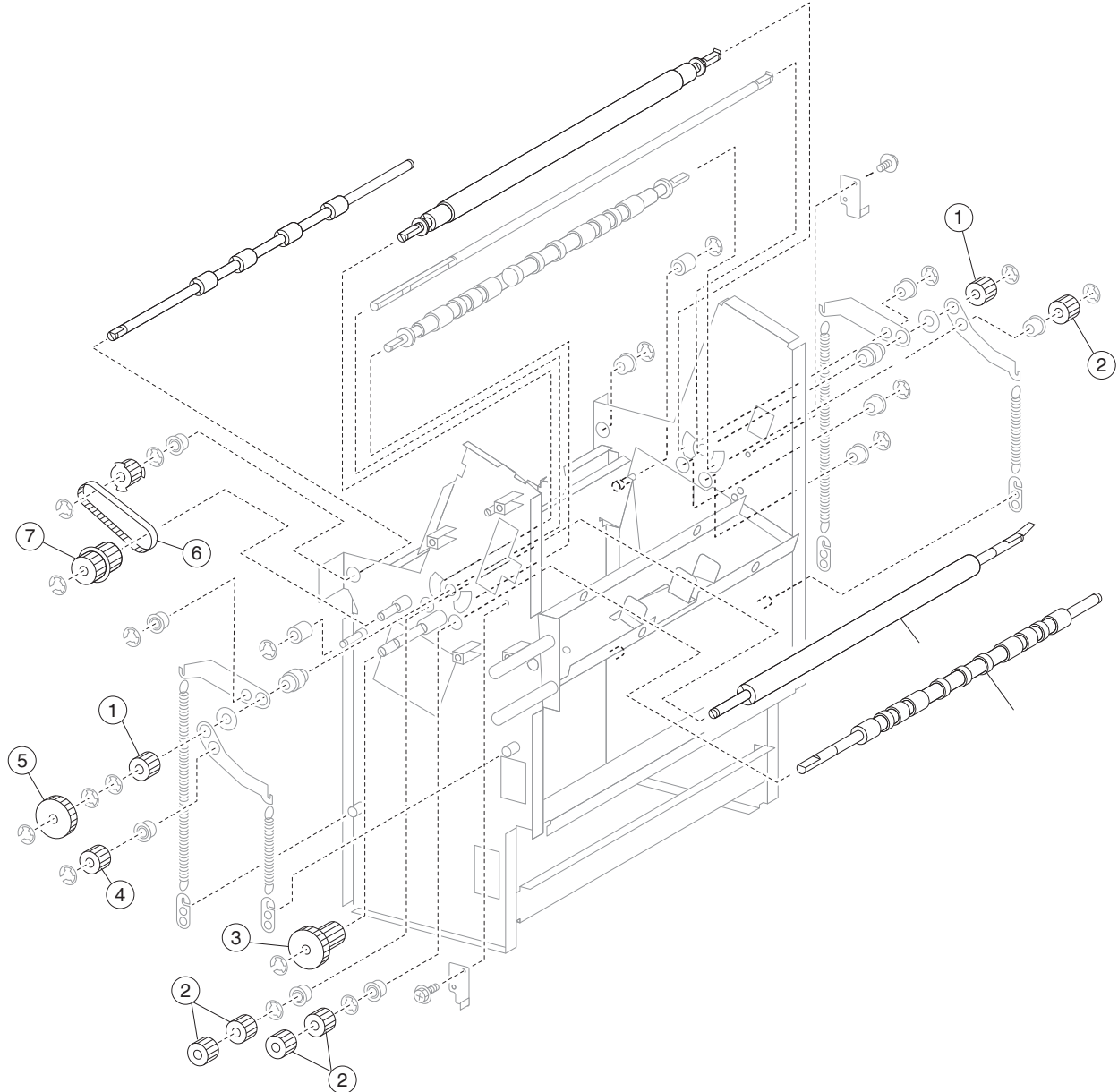
Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X3999	1	1	Booklet knife sector drive gear 42T
2	40X0825	10	1	Sensor (booklet knife HP)
3	40X0825	10	1	Sensor (booklet knife folding)
4	40X3998	1	1	Booklet knife HP sensor cable assembly

Assembly 19: Booklet maker 6



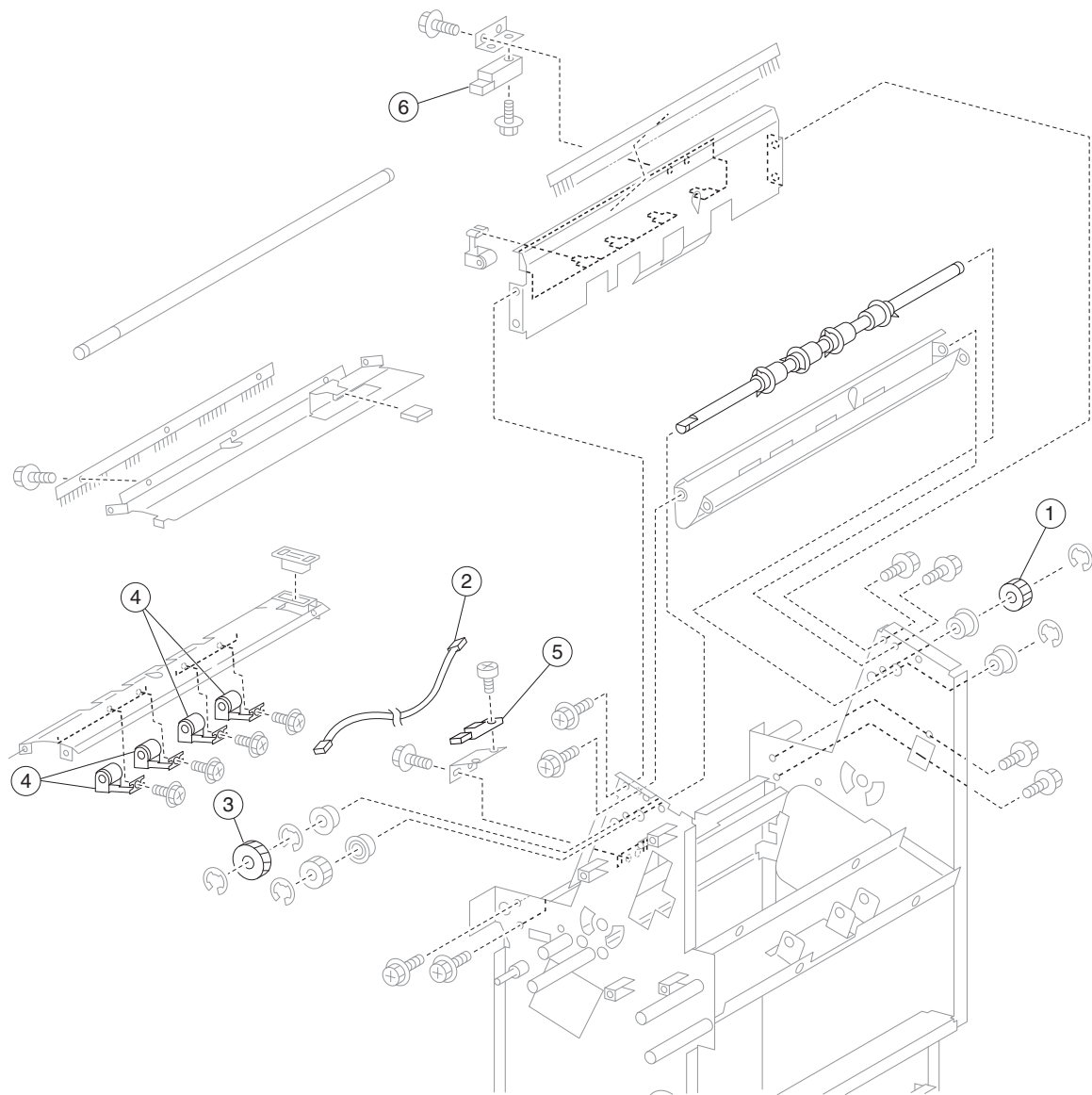
Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X4001	1	1	Booklet front tamper
2	40X0825	10	1	Sensor (booklet front tamper HP)
3	40X4002	1	1	Booklet front tamper motor
4	40X4002	1	1	Booklet rear tamper motor
5	40X0825	10	1	Sensor (booklet rear tamper HP)
6	40X4003	1	1	Booklet rear tamper assembly

Assembly 20: Booklet maker 7



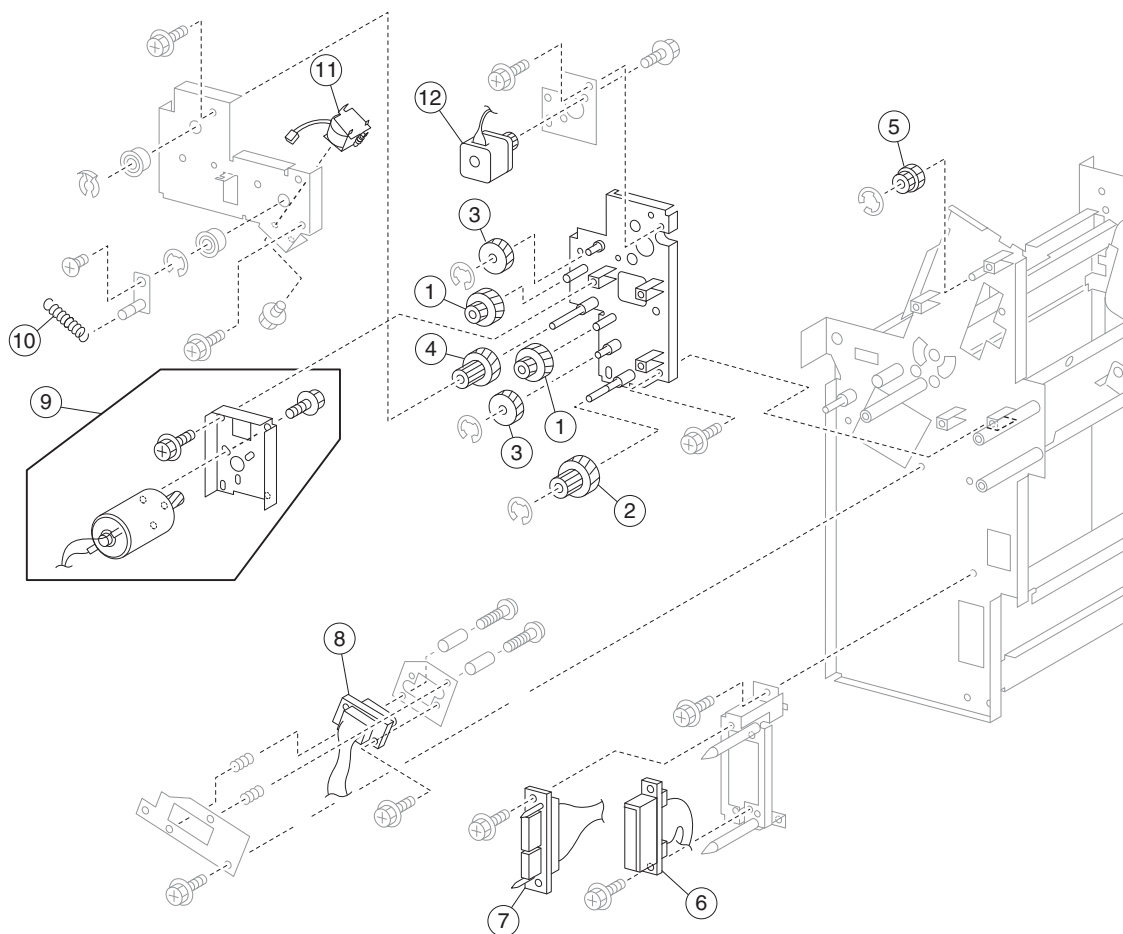
Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X4008	2	1	Booklet roll drive gear 18T
2	40X4006	5	1	Booklet roll drive gear 16T
3	40X4007	1	1	Booklet idler gear 38/18T
4	40X4009	1	1	Booklet drive gear 16T
5	40X4010	1	1	Folding drive gear 38T
6	40X4005	1	1	Exit roll drive belt
7	40X4004	1	1	Exit roll idler gear 20/25T

Assembly 21: Booklet maker 8



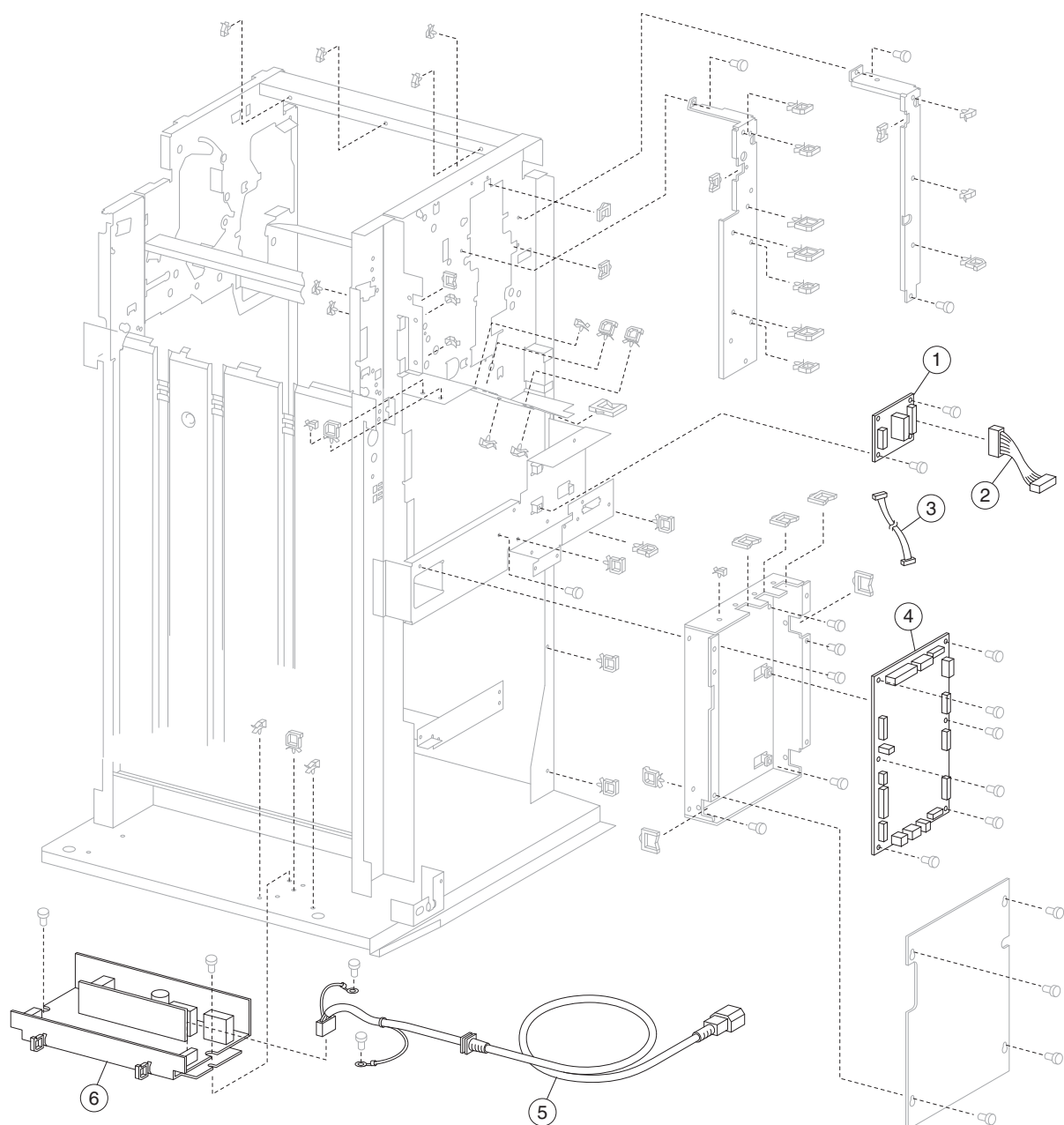
Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X4012	1	1	Manual feed drive gear 28T
2	40X4014	1	1	Media exit sensor cable assembly
3	40X4013	1	1	Manual feed drive gear 17T
4	40X4011	4	1	Booklet media pinch roll assembly
5	40X0921	2	1	Sensor (booklet unit media exit)
6	40X0908	1	1	Sensor (finisher media entrance)

Assembly 22: Booklet maker 9



Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X4016	2	1	Booklet gear 43/14T
2	40X4024	1	1	Booklet gear 39/18T
3	40X4015	1	1	Booklet gear 45T
4	40X4017	1	1	Booklet gear 44/16T
5	40X4019	1	1	Booklet gear 27/34T
6	40X4023	1	1	Booklet sensor interface cable assembly
7	40X4022	1	1	Booklet motor interface cable assembly
8	40X4021	1	1	Booklet stapler interface cable assembly
9	40X4025	1	1	Booklet folding/exit drive motor assembly
10	40X4020	1	1	Spring
11	40X4018	1	1	Booklet knife solenoid
12	40X3992	1	1	Booklet media entrance drive moror assembly

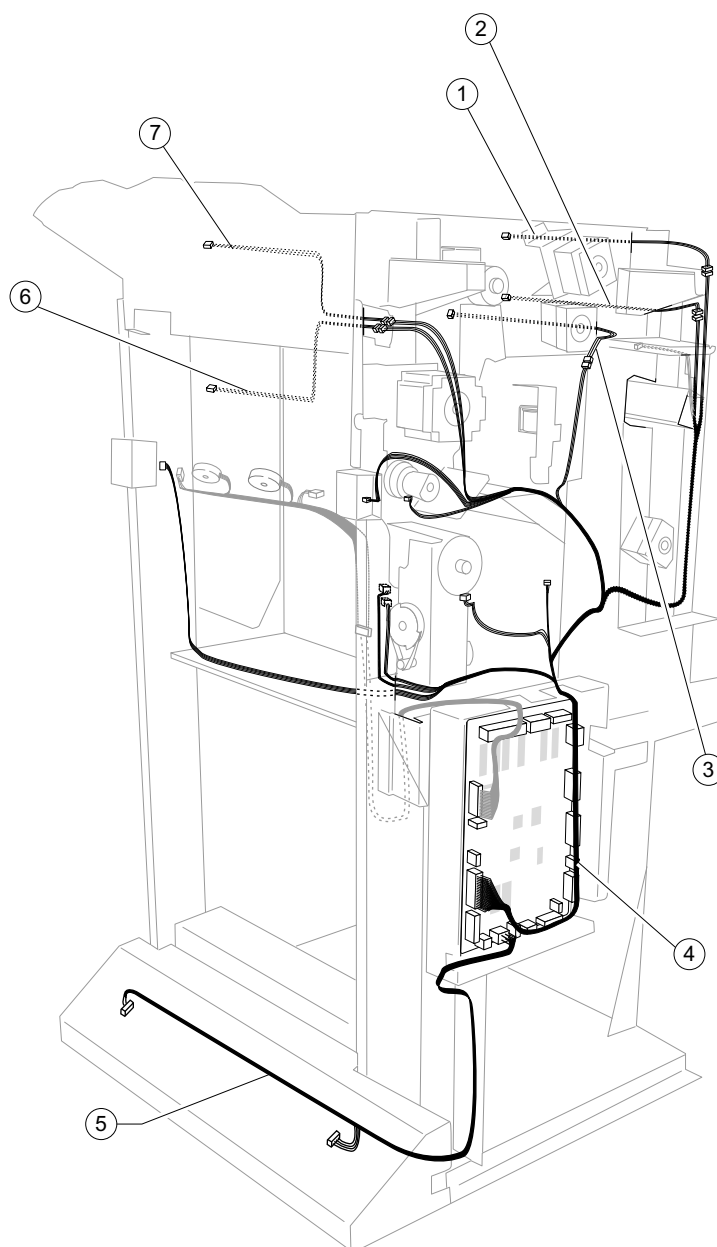
Assembly 23: Finisher—electronics



Assembly 23: Finisher—electronics

Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0931	1	1	Bridge unit interface card assembly
2	40X0932	1	1	Bridge unit connect cable assembly
3	40X0933	1	1	Bridge unit interface card cable assembly
4	40X0934	1	1	Finisher controller card assembly
4	40X4154	1	1	Finisher controller card assembly (booklet finisher only)
5	40X0935	1	1	AC power cord assembly
6	40X0936	1	1	Finisher LVPS card assembly

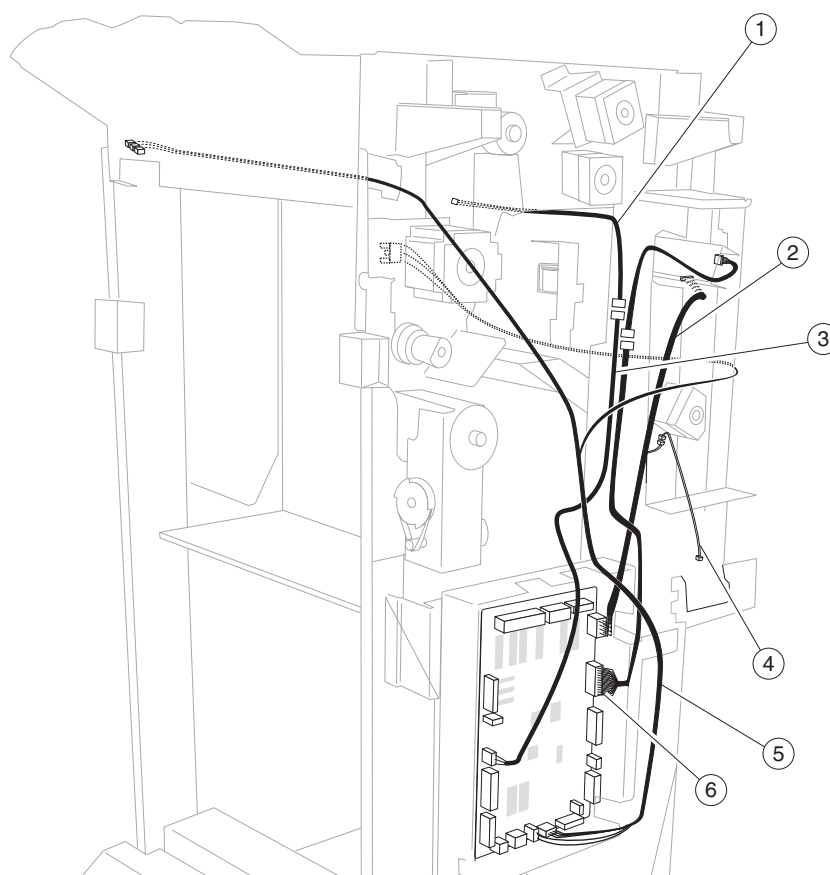
Assembly 24: Finisher—cables 1



Assembly 24: Finisher—cables 1

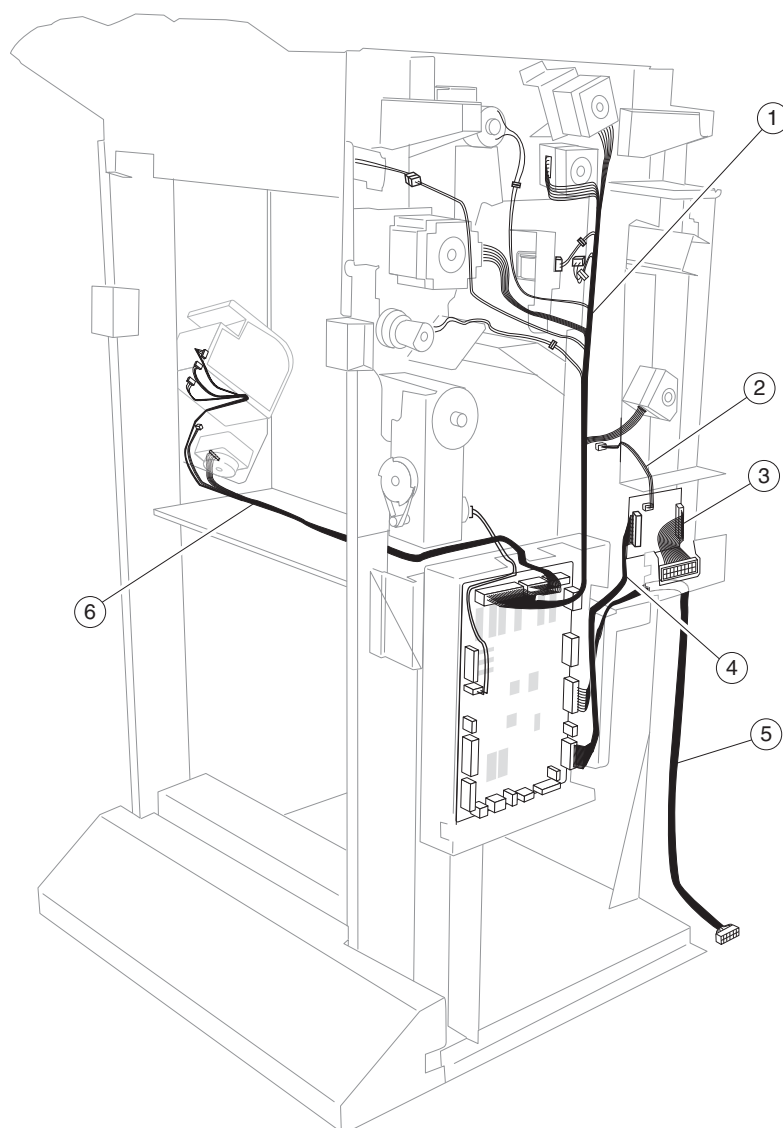
Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0942	1	1	Upper media exit sensor cable assembly
2	40X0940	1	1	Finisher media entrance sensor cable assembly
3	40X0941	1	1	Buffer path sensor cable assembly
4	40X0937	1	1	Main sensor cable assembly
5	40X0946	1	1	Finisher LVPS cable assembly
6	40X0892	1	3	Sensor (lower media exit) assembly • Sensor (lower media exit) • Lower media exit sensor cable assembly • Bracket
7	40X0943	1	1	Upper media bin full sensor cable assembly

Assembly 25: Finisher—cables 2



Asm-Index	Part number	Units/ option	Units/ FRU	Description
1	40X0922	1	1	Diverter gate sensor upper cable assembly
2	40X0944	1	1	Punch main drive cable assembly
3	40X0950	1	1	Diverter gate sensor lower cable assembly
4	40X0865	1	1	Punch waste box set cable assembly
5	40X0947	1	1	Interlock switch cable assembly
6	40X0945	1	1	Punch main sensor cable assembly

Assembly 26: Finisher—cables 3



Asm-Index	Part number	Units/option	Units/FRU	Description
1	40X0938	1	1	Main drive cable assembly
2	40X0930	1	1	Punch waste box full cable assembly
3	40X0932	1	1	Bridge unit connect cable assembly
4	40X0931	1	1	Bridge unit interface card assembly
5	40X4412	1	1	Finisher interface cable assembly (booklet finisher only)
5	40X0939	1	1	Finisher interface cable assembly
6	40X0870	1	1	Stapler unit cable assembly

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40X4405	Caster (booklet finisher only)	7-7
40X4409	Stacker bin lift motor assembly (booklet finisher only)	7-11
40X4410	Main paddle shaft kit (booklet finisher only)	7-21
40X4411	Media entrance pinch guide assembly (this comes assembled)(booklet finisher only)	7-23
40X4412	Finisher interface cable assembly (booklet finisher only)	7-41
40X4413	Booklet unit assembly (this comes assembled)	7-27
40X4414	Booklet stapler unit assembly	7-29

Finisher

