7. Attach the other end of the spring onto the link. Note: Depending on the orientation of the spring, the spring will attach from either the inside or outside.





Previous





## Replacing the left spring

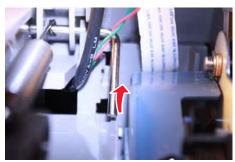
- 1. Open the top access cover.
- 2. With a spring hook, detach the spring from the left link.

Note: Depending on the orientation of the spring, the spring will attach from the inside or the outside.



3. Pull the pivot upward to unlatch it from the frame then slide the pivot out of the frame and outer top access cover holes.

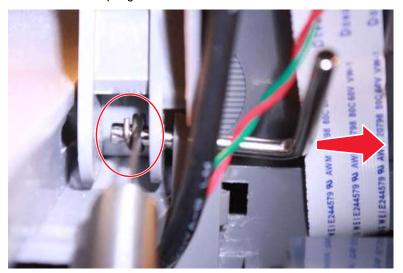
Note: Do not remove the pivot from the inner hole



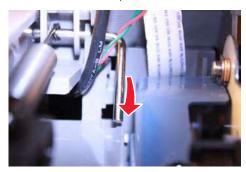


**4.** Slide out and remove the spring from the pivot.

5. Place the new spring in place to hook onto the pivot, and push the pivot back into the outer top access cover holes to secure the spring.

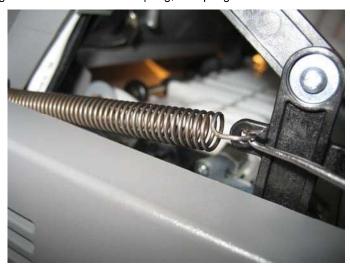


**6.** Push the pivot back into the slot to lock it in place.



7. Attach the other end of the spring to the top access cover link.

Note: Depending on the orientation of the spring, the spring will attach from either the inside or outside.



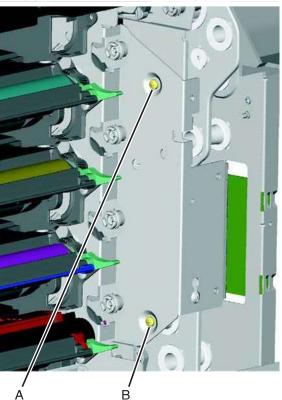




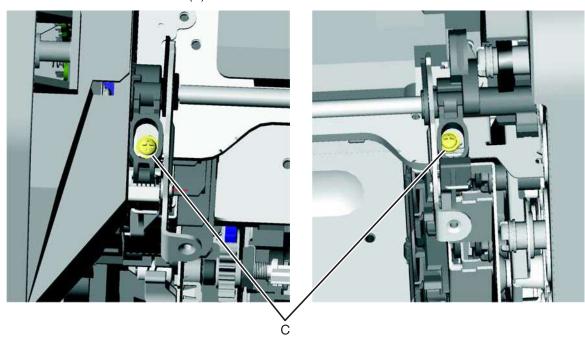
## Top cover camshaft assembly removal

See "Top cover camshaft assembly" on page 7-12 for the part number.

- 1. Remove the top access cover. See "Top access cover assembly removal" on page 4-40.
- 2. Remove the fuser. See "Fuser assembly removal" on page 4-104.
- 3. Remove the top screw (A), and loosen the other screw (B). This will allow you to flex the EP drive.



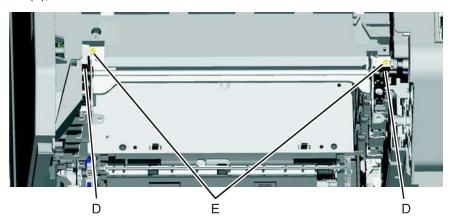
4. Remove the two screws (C).



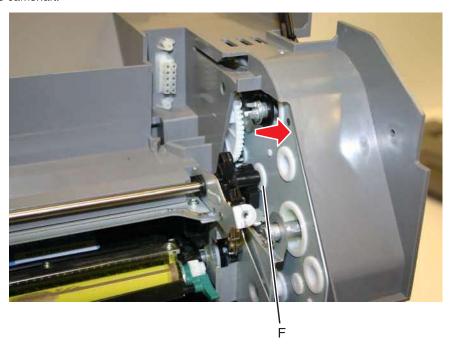




5. Rotate the camshaft up using the camshaft actuator handle (D) so you can access the other two screws (E), and remove them.



**6.** Flex the EP drive assembly to remove the right side of the camshaft from the boss (F) and lift to remove the camshaft.

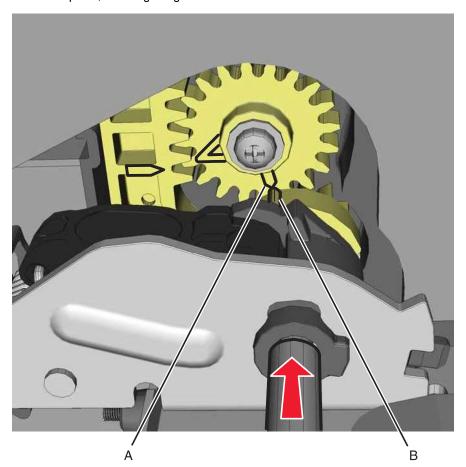






#### Installation notes:

1. On the left side, align the mark on the idler gear (A) with the mark on the camshaft gear (B), and slide the camshaft into place, meshing the gears on the left side.



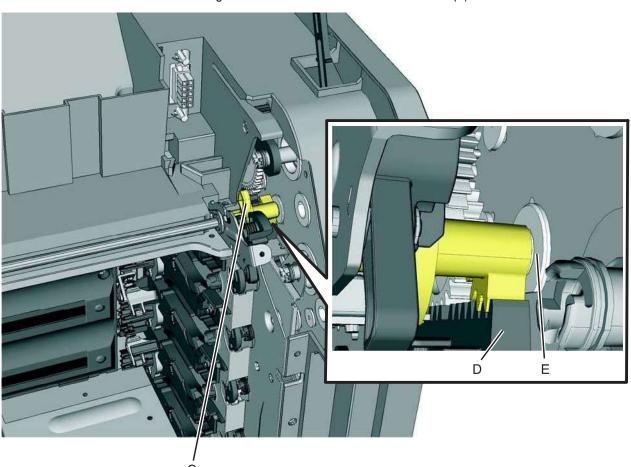




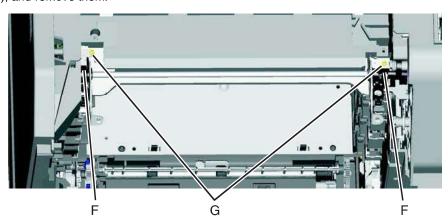
2. Rotate the camshaft up using the camshaft actuator handle (C), and make sure the gears on the right side mesh so the first gear tooth of the camshaft aligns with the first two gear teeth of the EP drive actuator rack (D).

Note: Make sure the actuator rack on the EP drive is all the way back.

3. Flex the EP drive on the right to seat the end of the shaft into the boss (E) on the EP drive.



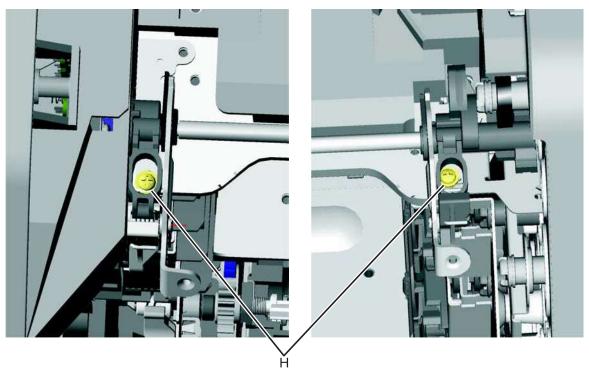
4. Rotate the camshaft up using the camshaft actuator handle (F) so you can access the other two screws (G), and remove them.

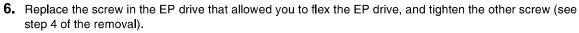






**5.** Rotate the camshaft using the camshaft actuator handle, and replace the two screws (H).





- 7. Replace the top access cover assembly
- **8.** Replace the fuser, the cartridges, and close the covers.







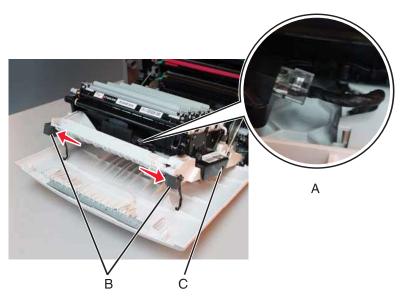
#### Transfer module removal

See "Transfer module" on page 7-5 for the part number.

- 1. Open the top access cover.
- 2. Open the front access door.
- **3.** Disconnect the transfer module cable (A).
- **4.** Press the two tabs (B) to release the front access cover assembly.
- 5. Press the two tabs (C) on either side of the transfer module, and lift out the transfer module.

Note: Leave the photoconductor units on the transport belt when removing.

Warning: To avoid damaging the photoconductor drum, place the transfer module with the photoconductor units on a clean surface. Never expose the photoconductor units to light for a prolonged period of time. Place a clean, dry cloth over the transfer module and photoconductor units until they are required.Lower the front access door cover.

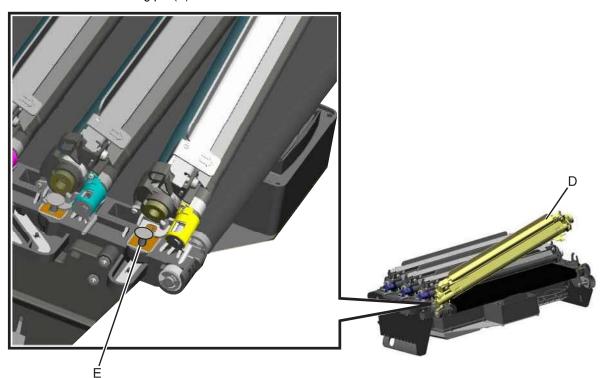


Note: If you are removing the transfer module to access another part, leave the photoconductor units attached, and you are done. If you need to replace the transport belt, continue with the next step to remove the separate photoconductor units.





- 6. Remove the photoconductor units. Lift the right end handle (D) of the photoconductor unit, releasing from the mount.
- 7. Lift the unit up and away from the left side of printer, ensuring the left end of the photoconductor is released from the holding pin (E).





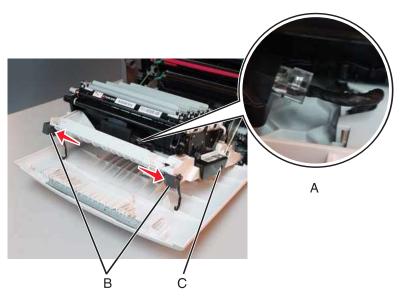


## Transport cable removal

- 1. Remove the LVPS. See "Low-voltage power supply (LVPS) removal" on page 4-115.
- 2. Disconnect the transfer module cable (transport cable) (A).
- **3.** Press the two tabs (B) to release the front access cover assembly.
- 4. Press the two tabs (C) on either side of the transfer module, and lift out the transfer module.

Note: Leave the photoconductor units on the transport belt when removing.

Warning: To avoid damaging the photoconductor drum, place the transfer module with the photoconductor units on a clean surface. Never expose the photoconductor units to light for a prolonged period of time. Place a clean, dry cloth over the transfer module and photoconductor units until they are required. Lower the front access door cover.

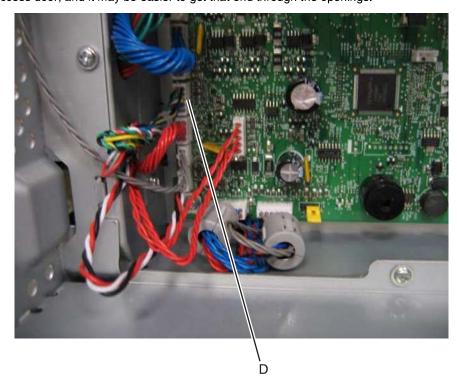




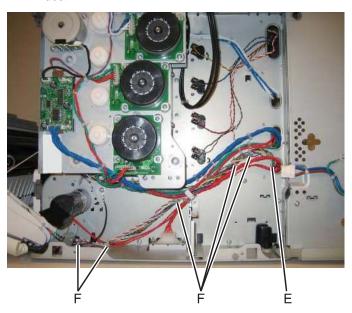


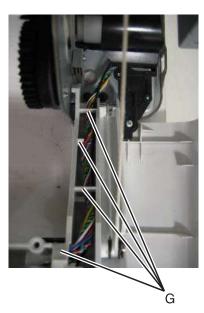


**5.** Disconnect the transport cable from the system board at JTPS1 connector (D). Note: The cable connector on the system board end of the cable is smaller than the connector on the front access door, and it may be easier to get that end through the openings.



- **6.** Extract the cable through the opening in the frame to the right side of the printer (E).
- 7. Remove the cable from the five cable restraints (F).
- 8. Remove the cable from the three openings in the cable channel (G) on the right side of the front access door.

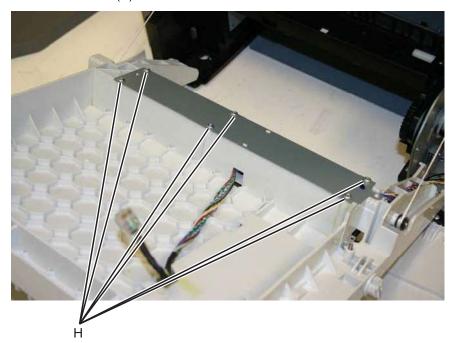




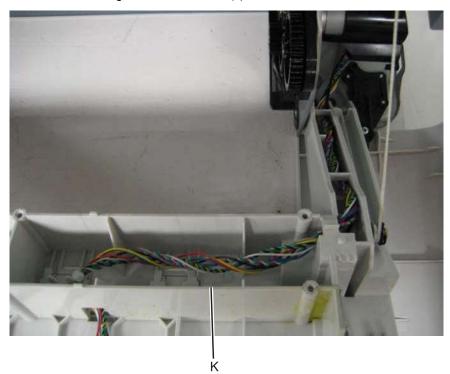




**9.** Remove the six screws (H) from the cable shield.



10. Remove the cable through the cable channel (J).

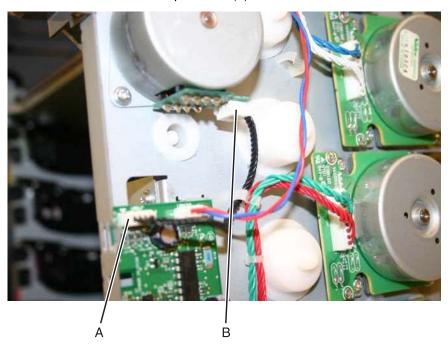






## Transport motor cable removal

- 1. Remove the right cover. See "Right cover removal" on page 4-38.
- 2. Disconnect the cable from the transport motor drive (A).
- **3.** Disconnect the cable from the transport motor (B).



4. Remove the cable.



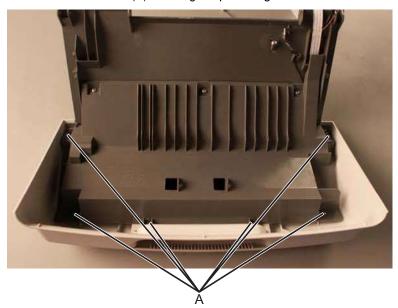




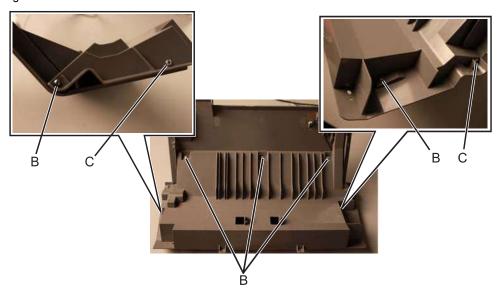
### **UICC** card removal

Warning: This part might contain customer confidential information. See "Data Security Notice" on page 4-1 for more details. After removing this part, return it to your next level of support so any data can be removed. If the customer requests to keep the part, they must sign a confirmation of memory device retention form.

- 1. Remove the top access cover assembly. See "Top access cover assembly removal" on page 4-40.
- 2. Place the top access assembly on a soft lint-free cloth with the touchscreen facing down.
- 3. Remove the six smaller screws (A) securing the position guide cover.



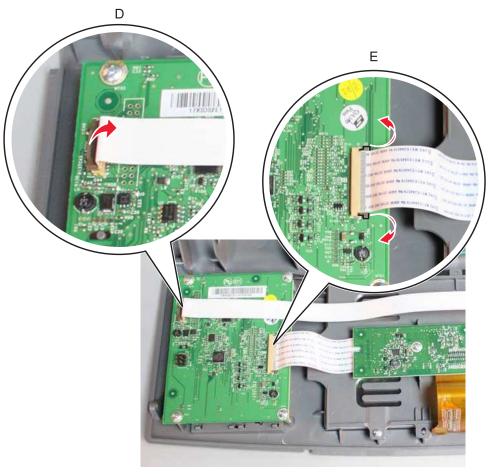
4. Remove the five larger screws (B) and the two smaller screws on the side (C), then remove the position guide cover to access the cables.







5. Flip open the lock on the UICC cable (D) and LCD interface card cable (E) connectors, then disconnect the cables from the connector.



**6.** Remove the four screws (F) securing the UICC card.



7. Remove the UICC card.



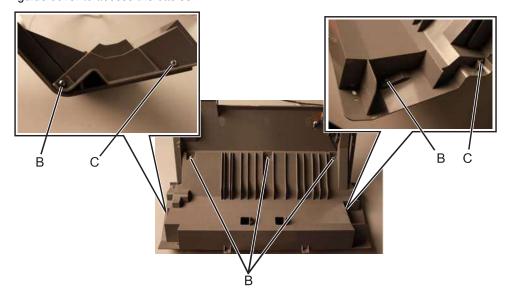


### UICC cable removal

- 1. Remove the top access cover assembly. See "Top access cover assembly removal" on page 4-40.
- 2. Place the top access assembly on a soft lint-free cloth with the touchscreen facing down.
- **3.** Remove the six smaller screws (A) securing the position guide cover.



4. Remove the five larger screws (B) and the two smaller screws on the side (C), then remove the position guide cover to access the cables.









5. Flip open the lock on the UICC cable, then disconnect the cable from the connector.

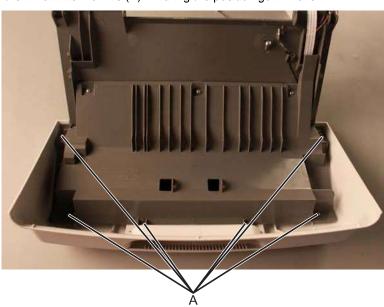


Remove the UICC cable.

Installation note: Pay attention to the routing of the UICC cable. and make sure it is properly connected to the UICC connector.

## USB connector cable removal (front panel)

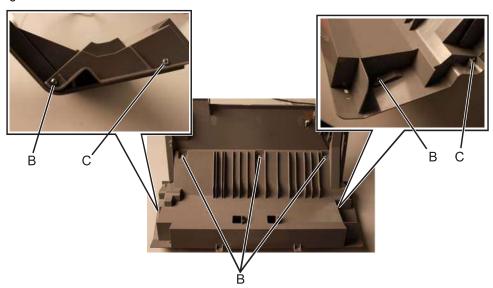
- 1. Remove the top access cover. See "Top access cover assembly removal" on page 4-40.
- **2.** Place the top access assembly on a soft lint-free cloth with the touchscreen facing down.
- 3. Remove the six smaller screws (A) securing the position guide cover.







4. Remove the five larger screws (B) and the two smaller screws on the side (C), then remove the position guide cover to access the cables.



5. Disconnect the USB ground cable (D) and remove the screw (E) securing the USB connector.

Note: Pay attention to the routing of the ground cable



**6.** Remove the USB connector cable with the ground cable

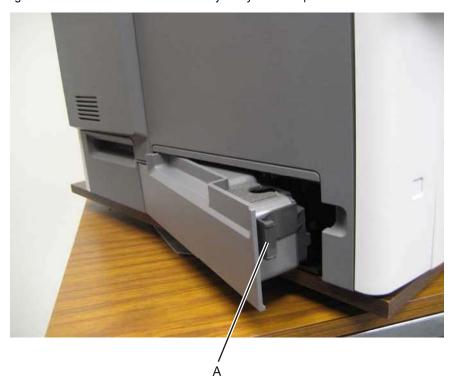




## Waste toner assembly removal

Note: This is not a FRU.

- **1.** Press the waste toner release latch (A).
- **2.** Swing the front of the waste toner assembly away from the printer and remove.





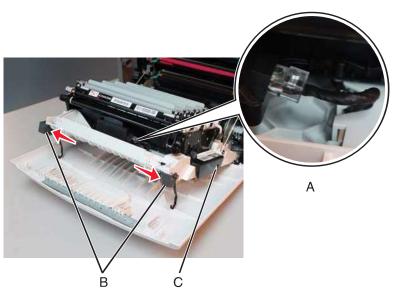


## Waste toner HV contact assembly removal

- 1. Disconnect the transfer module cable (A).
- 2. Press the two tabs (B) to release the front access cover assembly.
- 3. Press the two tabs (C) on either side of the transfer module, and lift out the transfer module.

Note: Leave the photoconductor units on the transport belt when removing.

Warning: To avoid damaging the photoconductor drum, place the transfer module with the photoconductor units on a clean surface. Never expose the photoconductor units to light for a prolonged period of time. Place a clean, dry cloth over the transfer module and photoconductor units until they are required.

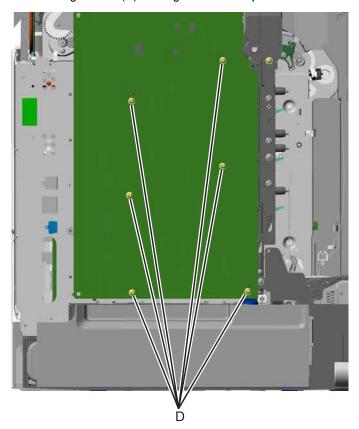


4. Remove the left cover. See "Left cover removal" on page 4-24.

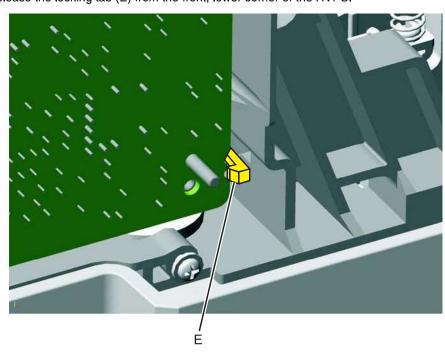




**5.** Remove the six mounting screws (D) holding the HVPS in place.



**6.** Release the locking tab (E) from the front, lower corner of the HVPS.



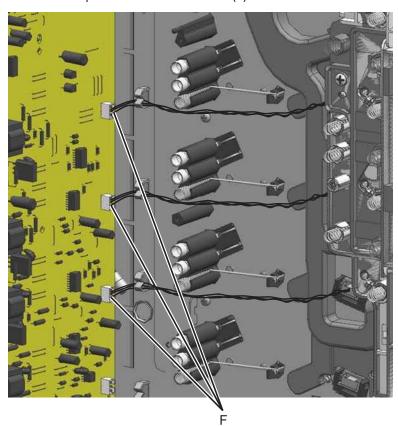




## 7. Lay the board to the left.



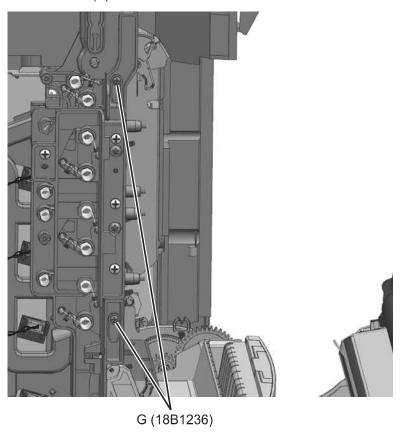
 $\pmb{8}_{\bullet}$  Disconnect the three top toner level sensor cables (F) from the HVPS.







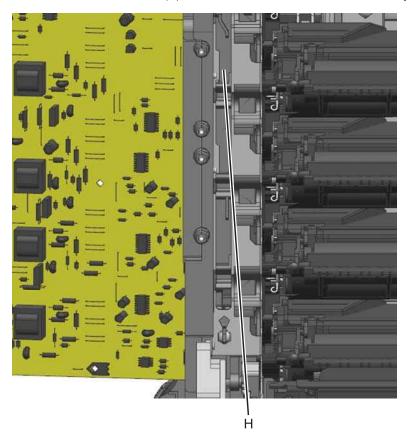
## **9.** Remove the two screws (G).







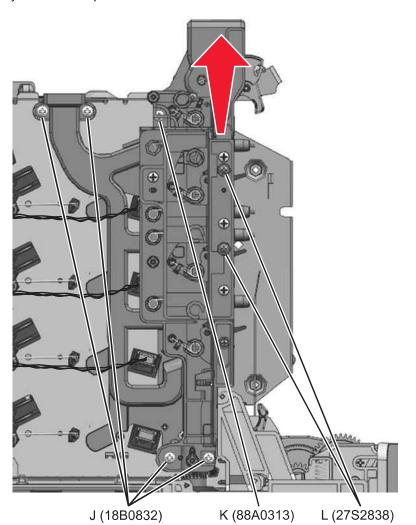
10. Remove the cleaner shutter actuator (H) from the waste toner HV contact assembly.







11. Remove the four screws (J), the two screws (K), and the screw (L). Tilt the Waste toner HV contact assembly forward and up to remove it.



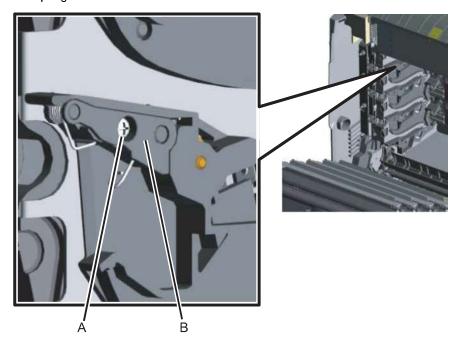




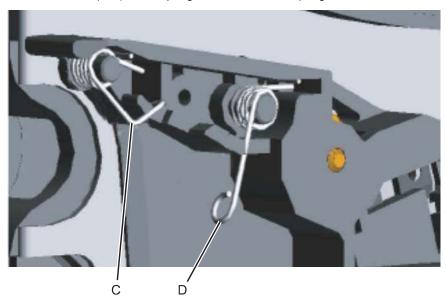


**Installation note:** Do the following procedures when re-installing the waste tone HV contact assembly:

- **1.** Remove the fuser.
- 2. Remove all four toner cartridges
- 3. Remove the four sets of torsion springs. Remove the screw (A) and the spring cap (B) of the appropriate contact spring.



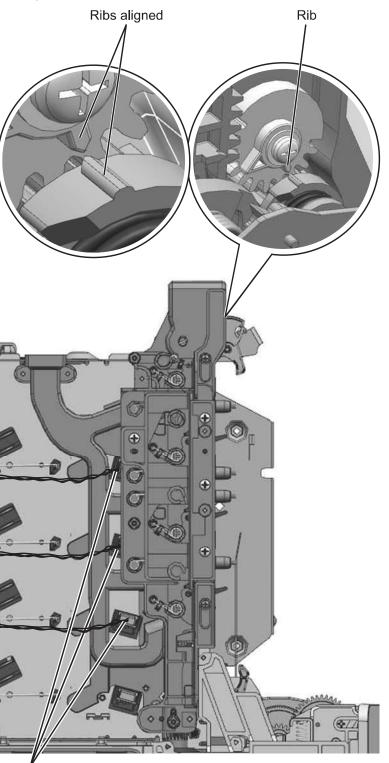
**4.** Press the lower half (C,D) of the springs, and remove the springs.







5. Install the waste toner HV contact assembly into place. Route the toner level sensor cables (E) through the holes in the waste toner HV contact assembly while positioning the assembly. Make sure the aligner shaft worm gear is aligned as shown.

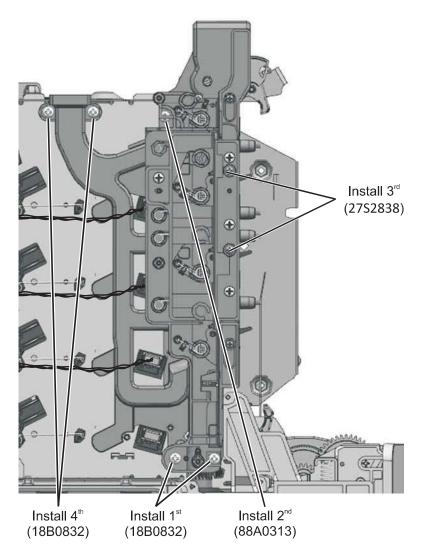








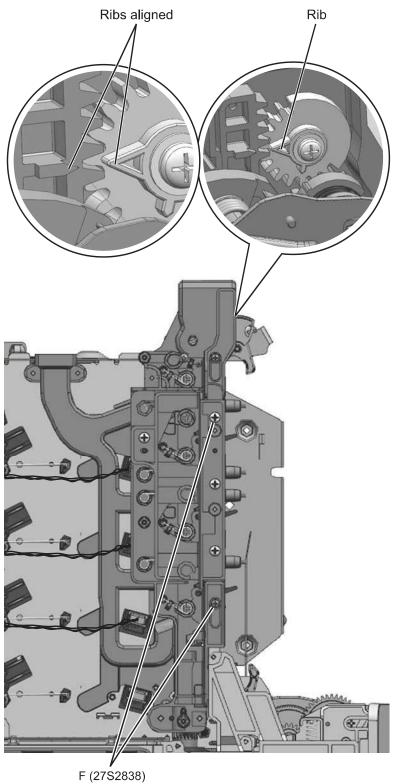
**6.** Install the seven screws in the order shown below.







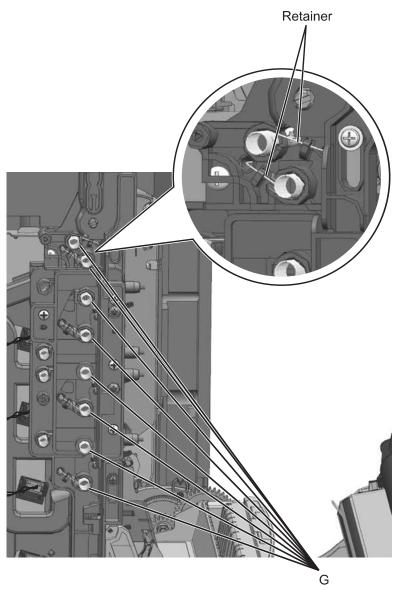
**7.** Use two screws (F) to attach the cleaner shutter actuator to the Waste toner HV contact assembly. Make sure the gear aligns as shown.







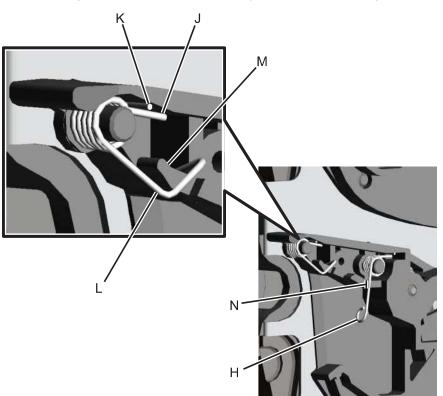
**8.** Attach the eight springs (G) to the Waste toner HV contact assembly as shown. Make sure the springs are behind the retainers.







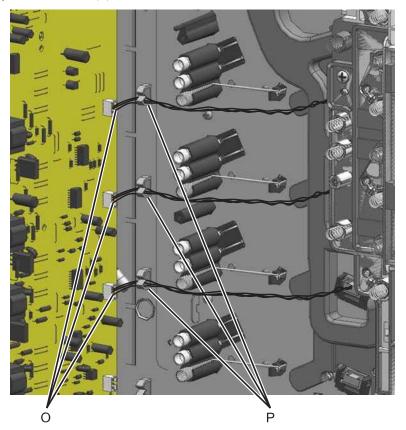
9. Install the contact springs. When installing each contact spring, make sure the top half (H) of the spring is under the straight spring (J). This is typical for both types of springs. Also make sure that the bottom half (K,L) of both springs are compressed and locked by the appropriate locking tabs (M,N).







10. Connect the three top toner level sensor cables to the HVPS, making sure the cables (O) are attached properly to the retainers (P).



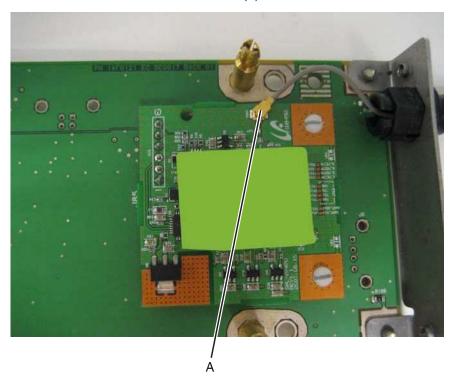
**11.**Reassemble the rest of the printer.



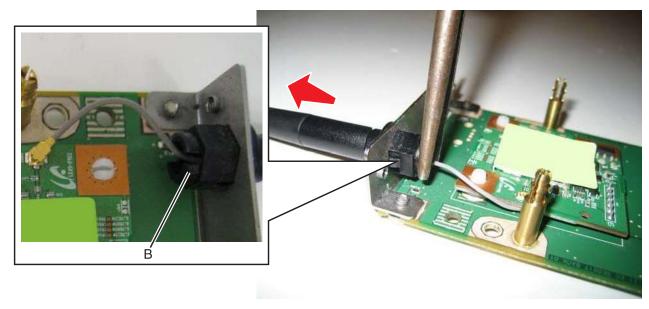


### Wireless network antenna removal

- 1. Remove the wireless network card. see "Wireless network card removal" on page 4-206.
- **2.** Disconnect the wireless network antenna cable (A) from the wireless network card.



**3.** With pliers, squeeze the inner tabs (B), and pull the antenna out.



4. Pull the cable through, and remove the antenna with the cable.

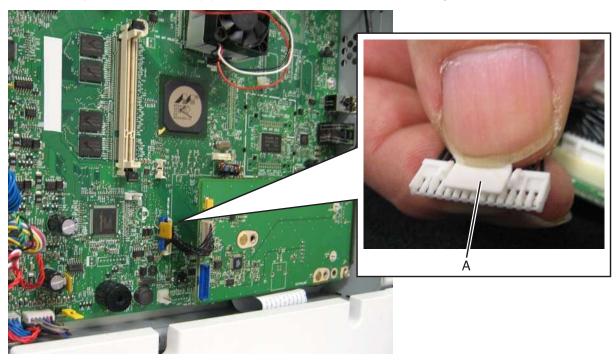




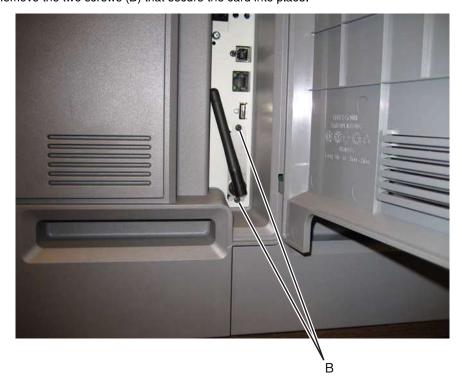


### Wireless network card removal

- 1. Remove the rear frame cover. See "Rear frame cover removal" on page 4-37.
- 2. Squeeze the connector (A) to disconnect the wireless cable from the system board at J5.



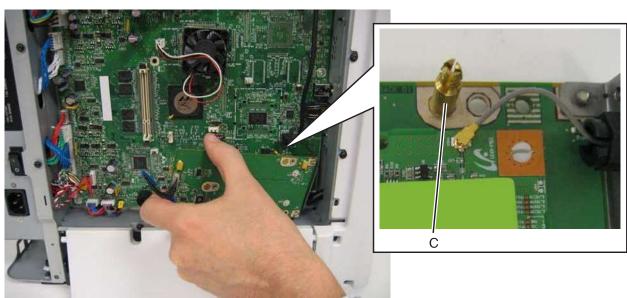
- **3.** Open the left door cover.
- 4. Remove the two screws (B) that secure the card into place.







**5.** *Pop* the posts (C) on the card from the sockets (holes) in the system board.



Note: If you are removing the wireless network card to access another part, leave the antenna attached to the card, and you are done. If you need to replace the wireless network card FRU, continue with the next step to remove the separate wireless network antenna FRU.

6. Remove the wireless network antenna. See "Wireless network antenna removal" on page 4-205.



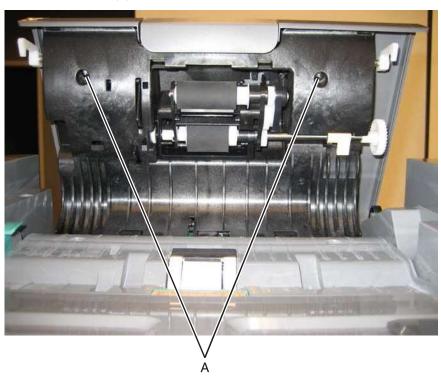




# Scanner flatbed and automatic document feeder (ADF)

### ADF front cover removal

- 1. Open the ADF front cover.
- 2. Remove the two screws (A).



- **3.** Close the ADF front cover.
- **4.** Separate the cover from the ADF case assembly by pressing on the release and cover.







#### **5.** Lift the cover from the ADF.

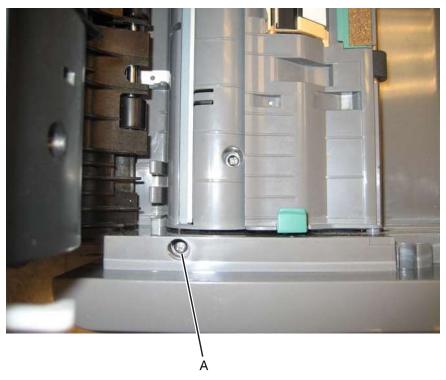






# ADF front side cover removal

- 1. Remove the input tray. See "Input tray removal" on page 4-222.
- 2. Open the ADF front cover.
- 3. Remove the screw (A).



**4.** Lift the cover to remove.





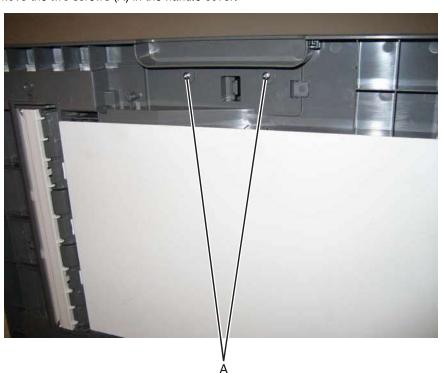


**Installation notes:** Insert the tab into the slot, and lower it into place.



#### ADF handle cover removal

- 1. Open the ADF.
- 2. Remove the two screws (A) in the handle cover.



**3.** Remove the handle cover.





#### ADF motor side cover removal

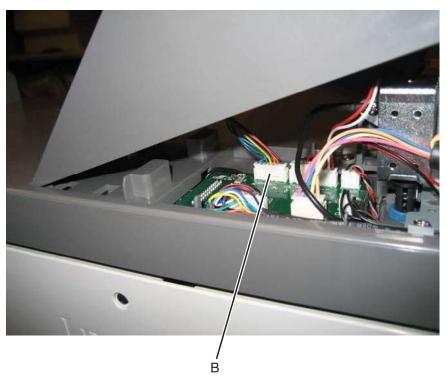
- 1. Remove the input tray. See "Input tray removal" on page 4-222.
- 2. Remove the ADF front cover. See "ADF front cover removal" on page 4-208.
- **3.** Open the ADF case assembly.
- **4.** Remove the two screws (A).





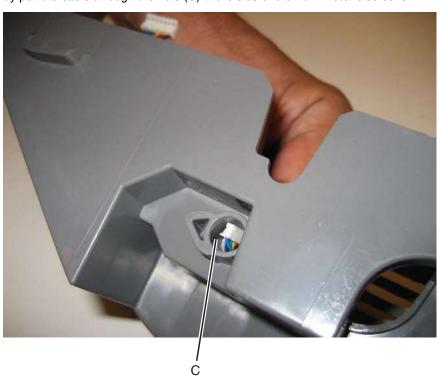


**5.** Lift the ADF motor side cover, and disconnect the tray connector (B).



Note: If you are removing the ADF motor side cover to access another part, leave the cable attached, and you are done. If you need to replace the ADF motor side cover FRU, continue with the next step to remove the separate left door cover FRU. Reinstall the cable in the new ADF motor side cover.

**6.** Gently pull the cable through the hole (C) in the side of the ADF motor side cover.







7. Remove the screw (D) to remove the cable from the ADF motor side cover.



#### Installation notes:

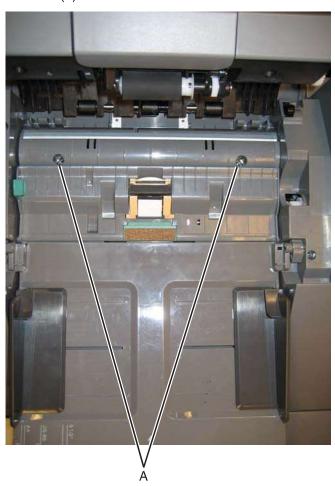
- Install the cable from the old FRU in the new FRU.
- Be sure to route the cable through the hole. The smaller connector goes through the hole.
- Insert the tab though into the slot, and then lower the ADF motor side cover into place.





# ADF upper case cover removal

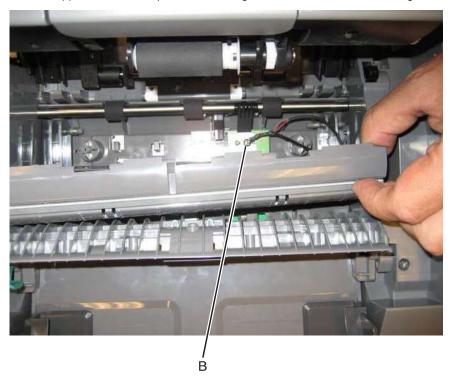
- **1.** Open the ADF cover.
- 2. Remove the two screws (A).







3. Lift the ADF upper case cover up to access the ground screw, and remove the ground screw (B).



Note: If you are removing the ADF upper case cover to access another part, leave the cable attached, and you are done. If you need to replace the ADF upper case cover, continue with the next step to remove the separate cable.

4. Remove the screw (C) holding the ground cable on the ADF upper case cover. The cable is not part of the new FRU, and is reinstalled on the new FRU.







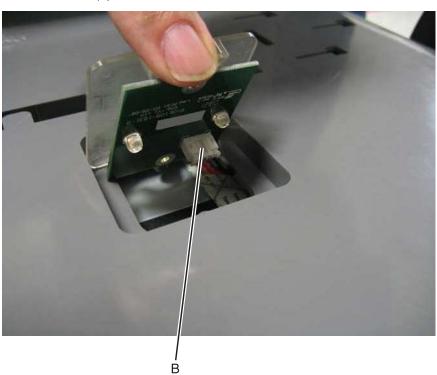
#### Flatbed cave LED card and cover removal

The flatbed cave LED card and the flatbed cave LED cover are separate FRUs. The removal for each is the same.

1. Remove the screw (A).



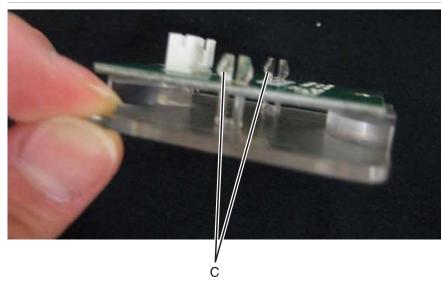
- 2. Pull the assembly down.
- 3. Disconnect the cable (B).







4. Pinch each of the two clear posts (C), separate the flatbed cave LED cover from the flatbed cave LED card.



**5.** Separate the FRU you need to replace.



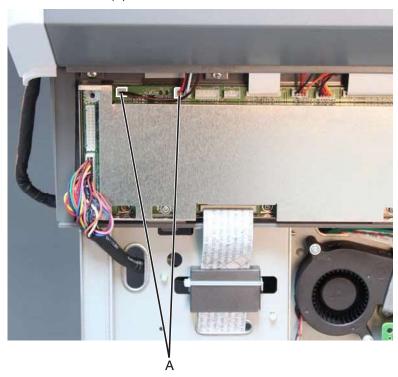






# Flatbed with glass cover removal

- 1. Remove the ADF. See "ADF removal (entire)" on page 4-228.
- 2. Disconnect the two cables (A).



- 3. Remove the scanner left cover. See "Scanner left cover removal" on page 4-224.
- 4. Remove the scanner right cover. See "Scanner right cover removal" on page 4-226.
- **5.** Remove the four screws (B).

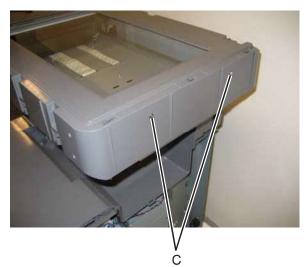






**6.** Remove the four screws (C) from the right and left sides.





7. Remove the two screws (D) from the top.

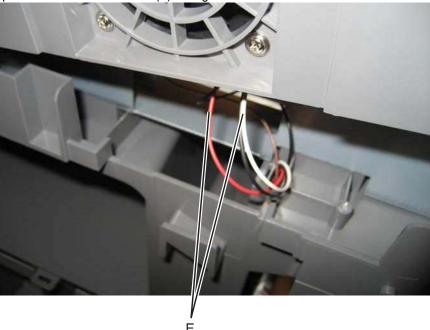








8. Lift up and extract the two cables (E) through the frame.



**9.** Remove the flatbed with glass cover.

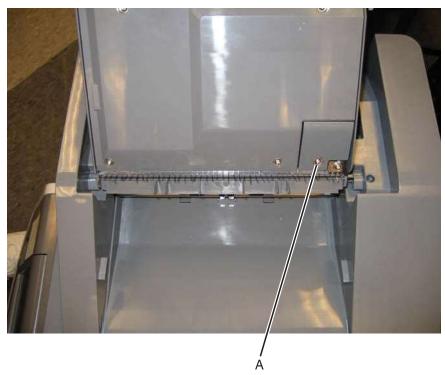




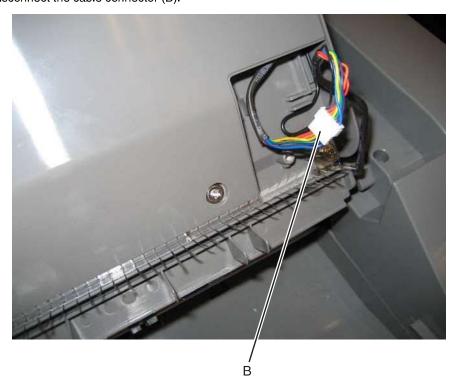


# Input tray removal

- 1. Lift the input tray.
- 2. Remove the screw (A) securing the cable cover.



3. Disconnect the cable connector (B).

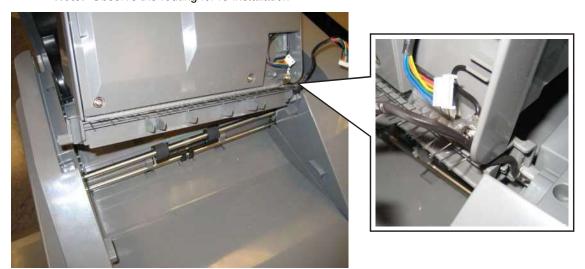


**4.** Lift the left front side, and ease the rear right edge out.





**5.** Disengage the cable from the channel, and remove the tray. **Note:** Observe the routing for re-installation.



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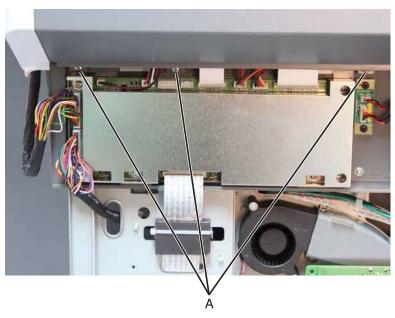
#### Scanner front cover removal

- **1.** Open the ADF.
- 2. Grasp the front cover and the top right, and pull to remove the scanner front cover.



#### Scanner left cover removal

- 1. Remove the scanner front cover. See "Scanner front cover removal" on page 4-223.
- 2. Remove the left cover. See "Left cover removal" on page 4-24.
- **3.** Remove the three screws (A).



**4.** Pull the bottom out, and slide it toward the front.







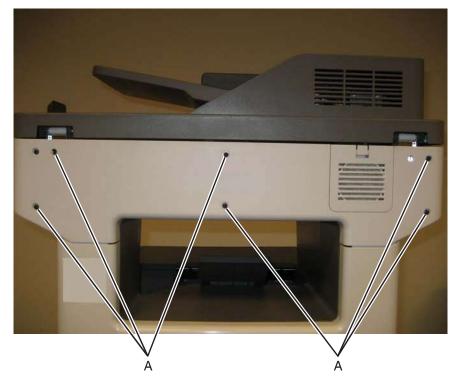






#### Scanner rear cover removal

1. Remove the six screws (A).



2. Remove the scanner rear cover.

Note: Make sure the flatbed filter does not get lost.







# Scanner right cover removal

- 1. Remove the scanner front cover. See "Scanner front cover removal" on page 4-223.
- 2. Remove the right cover. See "Right cover removal" on page 4-38.
- 3. Remove the screw (A).



**4.** Slide the cover toward the front of the multifunction printer.







**5.** Grasp the cover on the lower right, and pull up.

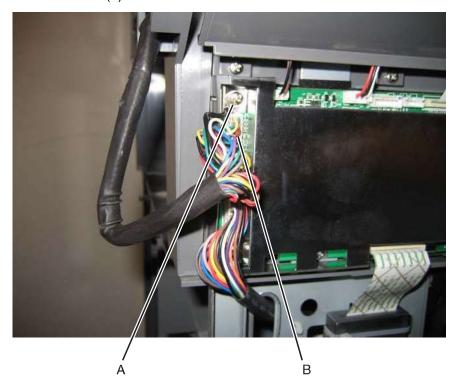






# ADF removal (entire)

- 1. Remove the left cover. See "Left cover removal" on page 4-24.
- 2. Remove the ground screw (A) secured to the MDC card.
- **3.** Disconnect the cable (B).

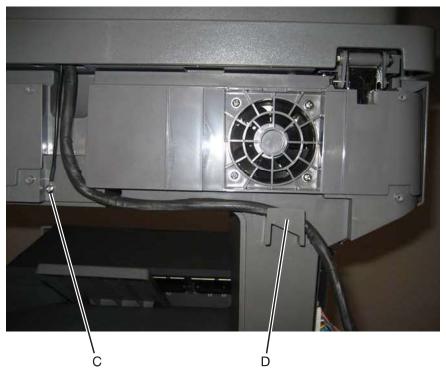


4. Remove the scanner rear cover. See "Scanner rear cover removal" on page 4-225





- **5.** Remove the screw (C) that secures the ground cable.
- **6.** Remove the cable from the cable restraint (D).



7. Lift the ADF until it has resistance, press the release tabs (D), and complete removing the ADF. Note: It may be easier to release the tab closest to the left side first.







Installation note: Make sure to attach the ground cable to the screw (see step 5 from previous page).

Warning: Whenever you replace the ADF (entire), the flatbed scanner, or the MDC card, perform the "Scanner Manual Registration" in Configuration menu.

To enter Config Menu:

- **1.** Turn off the multifunction printer.
- 2. Press and hold buttons 2 and 6.
- **3.** Turn on the MFP.
- **4.** Release the buttons when the progress bar displays.

#### ADF case assembly removal

- 1. Remove the ADF front cover. See "ADF front cover removal" on page 4-208.
- 2. Disconnect the sensor cable (A).

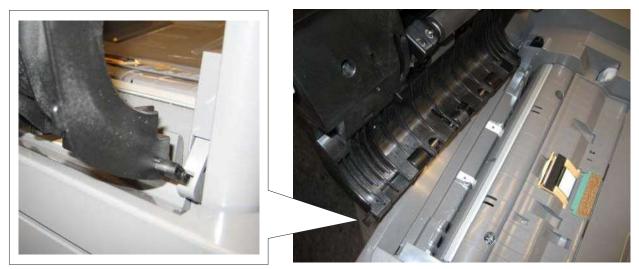








**3.** Rotate the ADF case assembly until the flattened shaft ends come out of the opening.



4. Remove the sensor cable from the narrow retainer by untwisting the cable wires and easing them out individually.



**5.** Remove the ADF case assembly.





#### ADF skew sensor card removal

- 1. Remove the ADF front cover. See "ADF front cover removal" on page 4-208.
- 2. Disconnect all cables, and remove the screw (B) from the skew sensor card (A).



3. Remove the skew sensor card.







# ADF closed cover flag removal

- 1. Remove the ADF front cover. See "ADF front cover removal" on page 4-208.
- 2. Remove the screw (A).
- 3. Lift the sensor (B) out of the way.



4. Remove the closed cover flag (C).



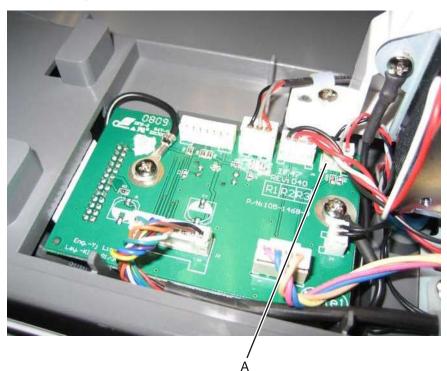




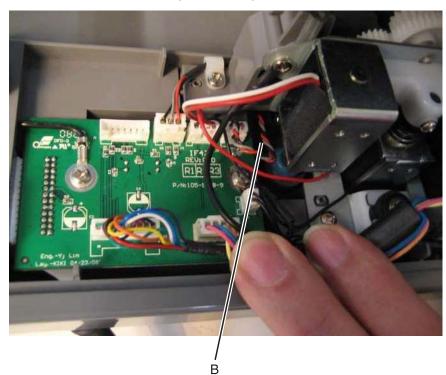


# ADF exit sensor (with cable) removal

- 1. Remove the ADF motor side cover. See "ADF motor side cover removal" on page 4-212.
- 2. Disconnect the output sensor cable.



**3.** Push the cable and connector through the opening (B) in the ADF frame.







- 4. Remove the ADF pressure plate cover. See "ADF pressure plate cover removal" on page 4-244
- **5.** Use a flat-blade screwdriver to open the latch (C) the output sensor card.

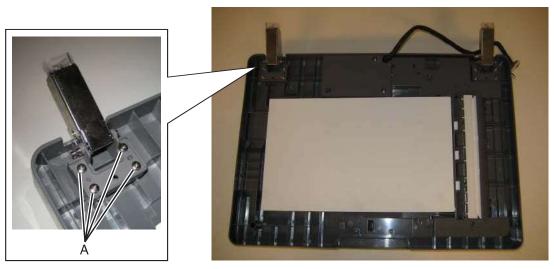


6. Remove the ADF exit sensor and cable.

#### ADF hinge (left and right) removal

The hinges are removed in a similar manner. Only one hinge is shown in this removal.

- 1. Remove the ADF. See "ADF removal (entire)" on page 4-228.
- **2.** Turn the ADF over.
- **3.** Remove the four screws (A) of the hinge you want to remove.



4. Remove the hinge.





#### Installation notes:

Note: The hinges are different. The heavy weight hinge has a blue dot on the side and should be installed on the side indicated below.

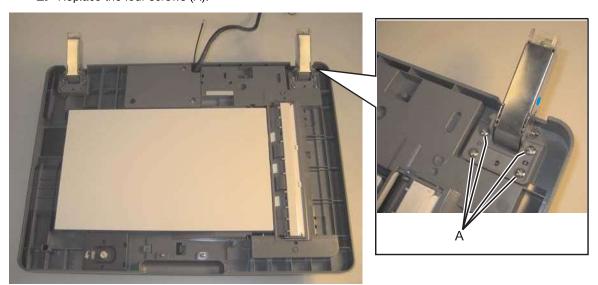




Previous



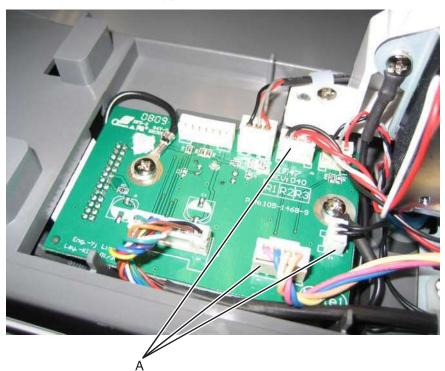
- 1. Install the heavy weight hinge with the blue dot in the position indicated below.
- 2. Replace the four screws (A).



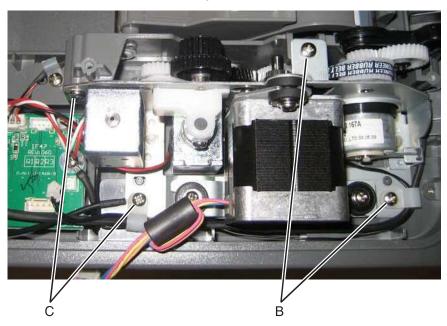
**3.** Install the lighter weight hinge on the other side, and replace the four screws.

# ADF motor gear train removal

- 1. Remove the ADF motor side cover. See "ADF motor side cover removal" on page 4-212.
- 2. Disconnect the three connectors (A).



3. Remove the two screws (B), and the two ground screw (C).



4. Remove the ADF motor gear train.

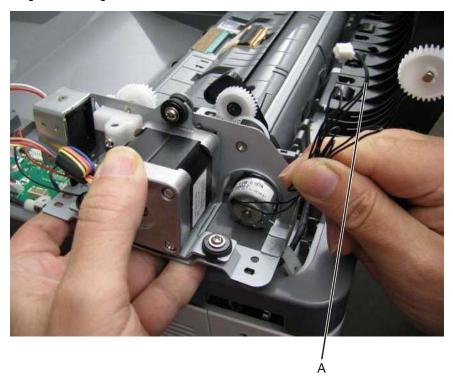
**Note:** Be sure to note the routing of the clutch motor cable.



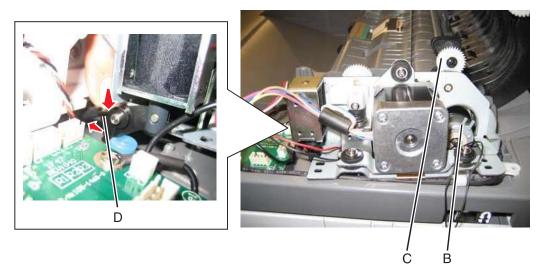


#### Installation notes:

1. Place the ADF motor gear train assembly over the clutch motor, and make sure the clutch motor cable (A) is through the housing.



- 2. Make sure the fork of the clutch assembly (B) is up, and the gear (C) is up.
- 3. Slide the left side of the ADF motor gear train assembly into place, and then press down on the lever (D) with your finger to make sure the arm of the motor gear assembly slides in below the ledge.

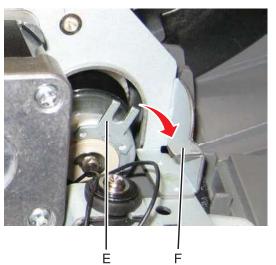


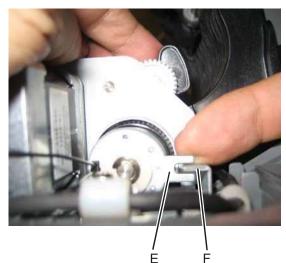




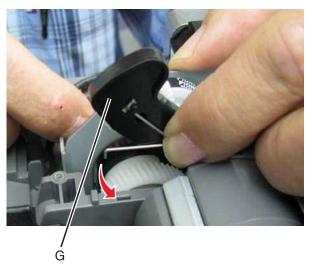


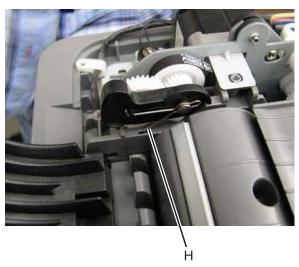
4. Slide the right side of the ADF motor gear train assembly into place, making sure that the fork (E) engages the plate (F).





**5.** Rotate the gear arm (G) down until the spring (H) latches into the frame.





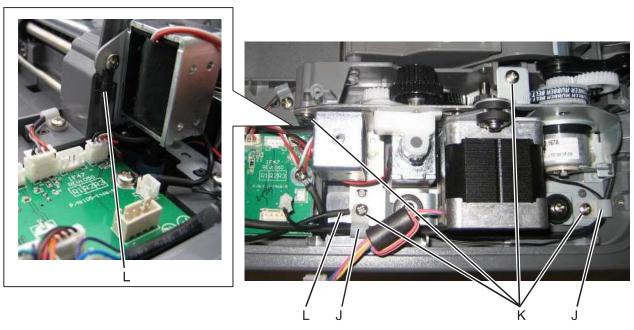
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- **6.** Route the clutch assembly cable through the cable retainers (J).
- 7. Replace the four screws (K), making sure that the ground cable (L) is attached to the indicated screw.



- **8.** Reconnect the cables.
- **9.** Replace the covers and ADF input tray.







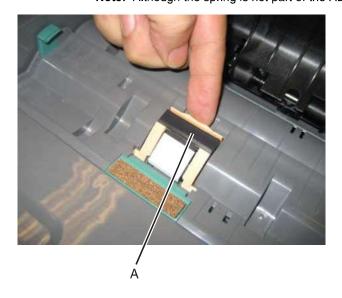
# ADF paper stop removal

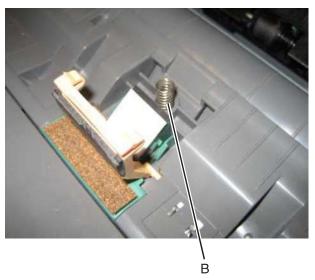
Pull the paper stop all the way out, and slide out.



# ADF pick pad removal

- **1.** Open the ADF cover.
- 2. Lift the pick pad (A), and remove the pad. Note: Although the spring is not part of the ADF pick pad FRU, be careful not to lose the spring.









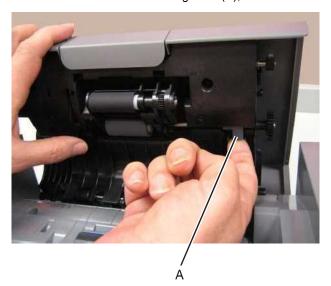
# ADF pick pad spring removal

- 1. Remove the ADF pick pad. See "ADF pick pad removal" on page 4-241.
- 2. Lift out the spring (A).



# ADF pick roller assembly removal

- 1. Open the ADF.
- 2. Rotate the locking lever (A), and remove the ADF pick roller assembly.



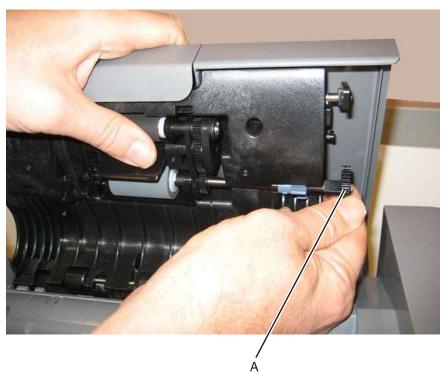




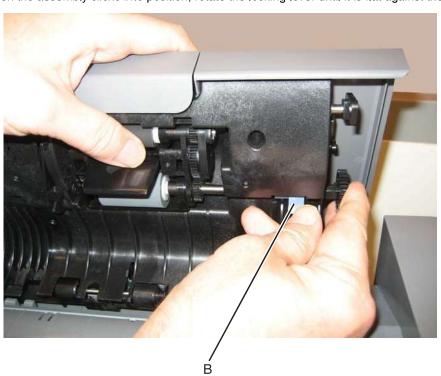


#### Installation notes:

- 1. Install the left side of the ADF pick roller assembly first.
- 2. Push the assembly flat into the ADF, while turning the gear on the right (A).



3. When the assembly *clicks* into position, rotate the locking lever until it is flat against the ADF.







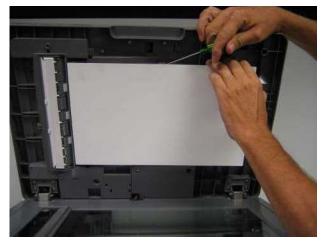
4. Verify that the installation was correct by pressing the ADF pick roller into the ADF door, then pulling the door down until the ADF pick roller assembly smoothly falls forward, without falling out.



# ADF pressure plate cover removal

- 1. Open the ADF.
- 2. Use a flatblade screwdriver to release the tabs.









**3.** Pull the pressure plate cover down, and remove it.



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#### Installation note:

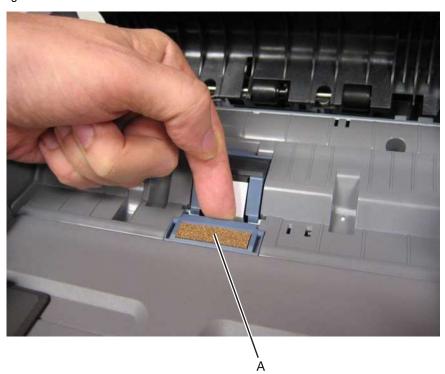
Set the pressure plate face down over the glass of the flatbed, and close the ADF. The ADF pressure pad will snap into place as the ADF is lowered.



# ADF separator pad removal

- **1.** Open the ADF cover.
- 2. Lift the ADF separator pad (A), and remove the pad.

Note: Cover the separator pad with your other hand to prevent the pad from flying away and getting lost or hitting someone.

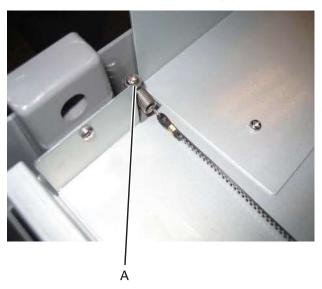






# Carriage transport belt with clip removal

- 1. Remove the flatbed CCD carrier module. See "Flatbed CCD carrier module removal" on page 4-250.
- 2. Remove the two screws (A) on either end of the carriage transport belt.





**3.** Remove the cable from the posts.

#### Installation notes:

Be sure to route the carriage transport belt correctly.

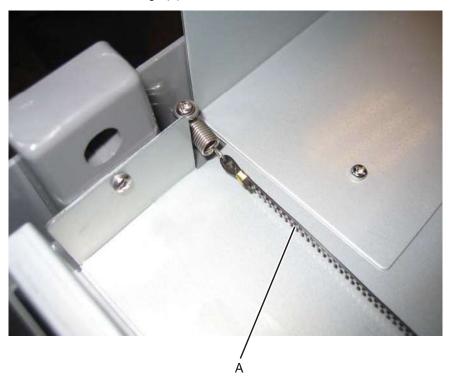








• Be sure to face the toothed edge (A) on the cable as shown.



#### ESD brush removal

- 1. Remove the ADF upper case cover. See "ADF upper case cover removal" on page 4-215.
- **2.** Gently pry the brush off the two posts with a flat-bladed screwdriver. Note: One post firmly holds the brush, and the other post is a alignment guide.



Installation note: Be sure to snap the post securely in position.





# Flatbed air filter removal

1. Press the tab (A) and remove the filter door cover.



2. Remove the filter.





