9 Printer part removal and installation

Two contents lists are provided for this chapter to help you to quickly find the service part you want to replace. The first list is provided in Service Part Order and the second in Disassembly Order.

Service part order

- Ink Supply Station (ISS) on page 312
- Ink Supply Tubes and Trailing Cable on page 301
- Interconnect Cables on page 408
- Interconnect PCA on page 362
- ISS to Cartridge Cables on page 310
- Line Sensor Assembly on page 300
- Main PCA on page 375
- Maintenance Cartridge Door on page 331
- Maintenance Cartridge Door Sensor on page 332
- Media-Axis Motor on page 328
- Media Deflector on page 333
- Media Sensor on page 340
- OMAS Cable on page 369
- OMAS Controller Card on page 366
- Optical Media Advance Sensor (OMAS) on page 357
- Output Platen on page 334
- Paper Feed Brake on page 260
- Pinchwheel Assembly on page 410
- Pinchwheel Lever on page 353
- Power Supply Unit (PSU) on page 385
- Primer Assembly on page 239
- Primer Valve Cable on page 242
- Primer Valves on page 241
- PrintMech PCA on page 389
- PW Cover on page 347
- Rear Door on page 350
- Rear Trim, Left on page 348
- Rear Trim, Right on page 349
- Rewinder Gear and Motor on page 272
- Roller Guide with Mylar on page 356
- Scan-Axis Motor on page 324

- Service Station on page 244
- Smart Roll-loading System Cosmetic Sheet Metal and Separator on page 342
- Smart Roll-loading System Cover, Left on page 259
- Smart Roll-loading System Cover, Right on page 258
- Smart Roll-loading System Damper on page 278
- Smart Roll-loading System Door on page 282
- Smart Roll-loading System Door Arms on page 270
- Smart Roll-loading System Door Spring on page 269
- Smart Roll-loading System Door Switch on page 278
- Smart Roll-loading System Gear on page 264
- Smart Roll-loading System Motor on page 262
- Threading Roller on page 261
- Trim, Left on page 339
- Trim, Right on page 338
- Vacuum Fan on page 248
- Vacuum Fan Cable on page 251
- Window on page 227
- Window Position Sensor on page 344

Disassembly order

- Smart Roll-loading System Door
- Carriage
- Carriage PCA
- Carriage Flex Cables
- Encoder Strip and Encoder Sensor
- Line Sensor Assembly
- Ink Supply Tubes and Trailing Cable
- ISS to Cartridge Cables
- Ink Supply Station (ISS)
- Cartridge Tray
- APS Assembly
- Scan-Axis Motor
- Media-Axis Motor
- Maintenance Cartridge Door
- Maintenance Cartridge Door Sensor
- Media Deflector
- Output Platen
- Deflector and Stacker Switch
- Trim, Right
- Trim, Left
- Media Sensor
- Smart Roll-loading System Cosmetic Sheet Metal and Separator
- Belt Assembly
- Window Position Sensor
- Cutter Assembly
- PW Cover
- Rear Trim, Left
- Rear Trim, Right
- Rear Door
- Pinchwheel Lever
- Entry Platen

- Roller Guide with Mylar
- Optical Media Advance Sensor (OMAS)
- Interconnect PCA
- EIO to PCA Interface Card
- OMAS Controller Card
- OMAS Cable
- Main PCA
- Formatter
- Hard Disk Drive (HDD)
- Power Supply Unit (PSU)
- PrintMech PCA
- Formatter Battery
- Electronics Module
- Center Platen
- Encoder Disc and Sensor
- Interconnect Cables
- Pinchwheel Assembly
- Drive Roller

Introduction

This chapter is a step-by-step guide to the removal and installation of the key components of the printer. You may find it useful to tick off the steps as they are performed. Use the illustrations for each procedure to identify the parts referred to in the text.

The procedures appear in order of removal. So the whole machine can be stripped down by starting at the beginning of this chapter and working through the subsequent procedures.

NOTE: Before using this chapter to remove and install a new component, always make sure that you have performed the relevant service test (see Service tests and utilities on page 87). If the test passes, you do not need to replace the component.

Safety Precautions

Review the instructions identified by WARNING and CAUTION symbols before you service the printer. Follow these warnings and cautions for your protection and to avoid damaging the printer.

⚠ **WARNING!** Serious shock hazard leading to death or injury may result if you do not take the following precautions:

- Ensure that the AC power outlet (mains) has a protective earth (ground) terminal.
- Switch the plotter off, and disconnect it from the power source prior to performing any maintenance.
- Prevent water or other liquids from running onto electrical components or circuits, or through openings in the module.

Electrostatic Discharge (ESD) Precautions

To prevent damage to the printer circuits from high-voltage electrostatic discharge (ESD):

1. Do not wear clothing that is subject to static build-up.
2. Do not handle integrated circuits (ICs) in carpeted areas.
3. Do not remove an IC or a printed circuit assembly (PCA) from its conductive foam pad or conductive packaging until you are ready to install it.
4. Ground (earth) your body while disassembling and working on the printer.
5. After removing a cover from the printer, attach an earthing (ground) lead between the PCA common and earth ground. Touch all tools to earth ground to remove static charges before using them on the printer.
6. After removing any PCA from the printer, place it on a conductive foam pad or into its conductive packaging to prevent ESD damage to any ICs on the PCA.

Required Tools

The following tools are required to disassemble and repair the printer.

- A long Torx Screwdriver with the following attachments: T8, T10, T15, T20, and T25.
- A long thin-bladed T-10 Torx Screwdriver to remove the Primer. The blade must be longer than 12 cm with a maximum diameter of 10 mm.
- A long thin-bladed T-20 Torx Screwdriver to remove the OMAS Sensor. The blade must be longer than 11 cm with a maximum diameter of 4 mm.
- A T8 Torx Screwdriver to remove the left cover. The blade must be longer then 5 cm with a maximum diameter of 9 mm.

Screw types

Type	Torx	Length (mm)	Head Type	Thread Type	Part Number
A	T-20	17	Pan	Taptite	0515-1743
B	T-20	10	Pan	Taptite	0515-2282
C	T-10	7.0	Pan	Machined	0515-4613
D	T-8	5.5	Pan	Taptite	0515-2850
E	T-15	-	Pan	-	C3180-20001
F	T-15	9.5	Pan	Plastite	0515-2981
G	T-15	12.7	Pan	Taptite	0624-0769

H	T-15	12.7	Pan	Taptite	0515-4706
I	T-10	8.0	Pan	Taptite	0515-2200
J	T-15	20	Pan	Plastite	0624-0771
K	T-8	9.5	Pan	Taptite	0624-0680
L	T-8	12.7	Pan	Taptite	0624-0768
M	T-20	-	Pan	-	0515-2521
N	T-20	35	Pan	Sheet Metal	C6071-20025
O	T-20	12.7	Pan	-	0624-1062
P	T-15	11.6	Pan	Machined	C2847-20018
Q	T-20	-	Pan	Taptite	0515-2916
R	T-15	-	Pan	Taptite	0515-1916
S	T-15	18.4	Pan	Machined	Q6651-20179

Cover, Right

Removal

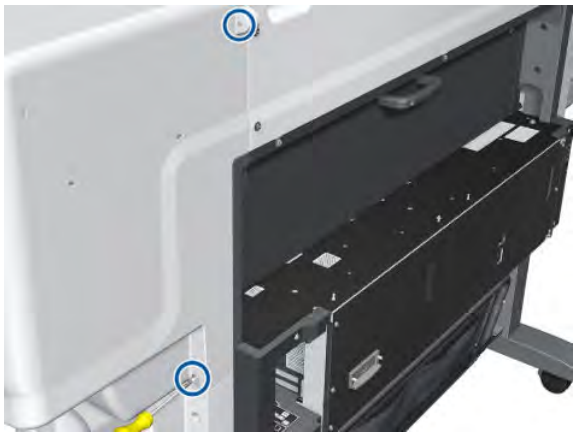
1. Open the Window.

2. Remove one T-15 screw inside the printer.

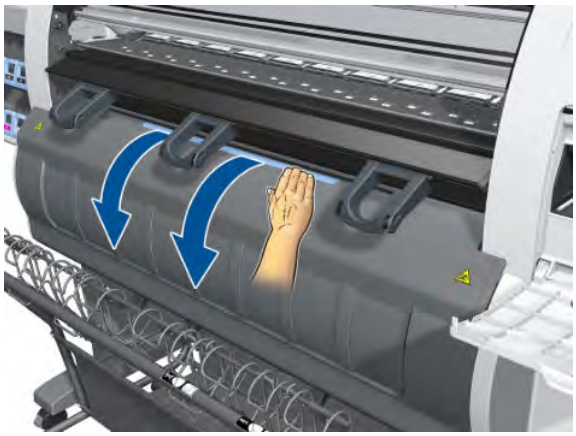
3. Open the Maintenance Cartridge Door.

4. Remove one T-15 screw.

5. Remove one T-20 and one T-15 screw from the rear of the printer.



6. Open the Smart Roll-loading System Door.



7. Remove the last T-20 screw that secures the Right Cover.

8. Remove the Right Cover from the printer.

Cover, Left

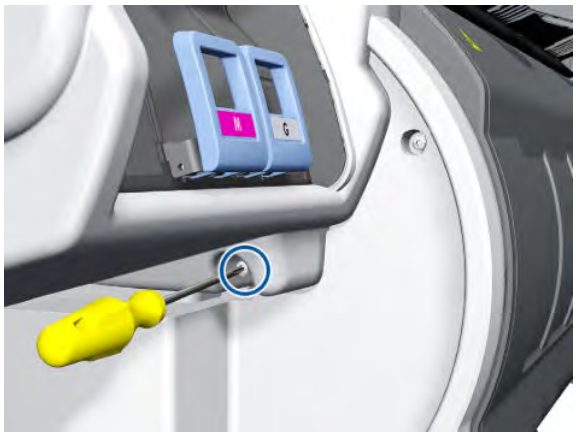
Removal

1. Open the Window.

2. Remove one T-15 screw inside the printer.

3. Remove one T-20 and one T-15 screw from the rear of the printer.

4. Remove one T-20 screw from the front.



5. Remove the Left Cover from the printer.

Window

Removal

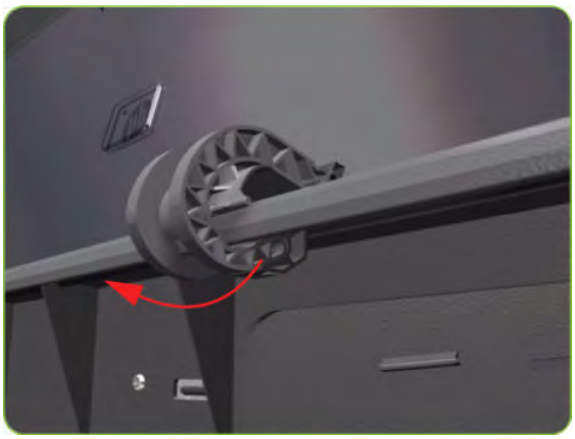
⚠ WARNING! Switch off the printer and remove the power cable.

NOTE: Throughout this section the graphics actually show the HP Designjet 4000 printer series but the steps of the procedure are identical for the HP Designjet Z6000 printer series.

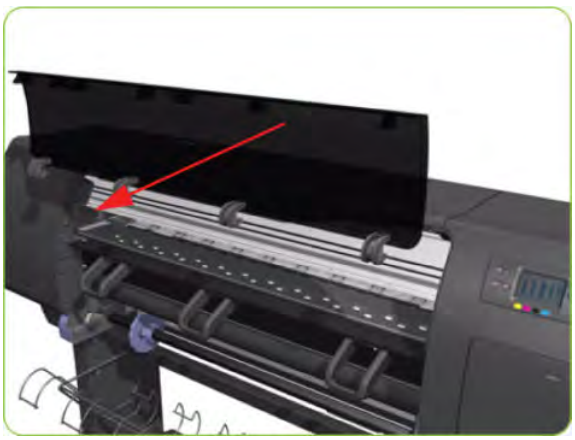
1. Open the Window.

2. Unclip the Window hinges from the Top Cover.

NOTE: Since the hinges are very hard to unclip, it is recommended that you use a screwdriver or other tool to forcefully unclip the Window hinges from the Top Cover.

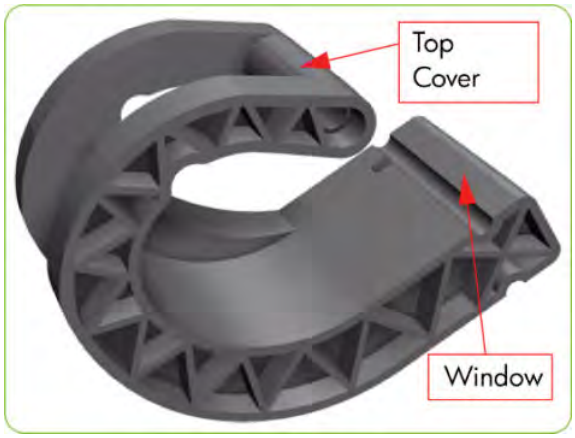


3. Remove the Window from the printer.

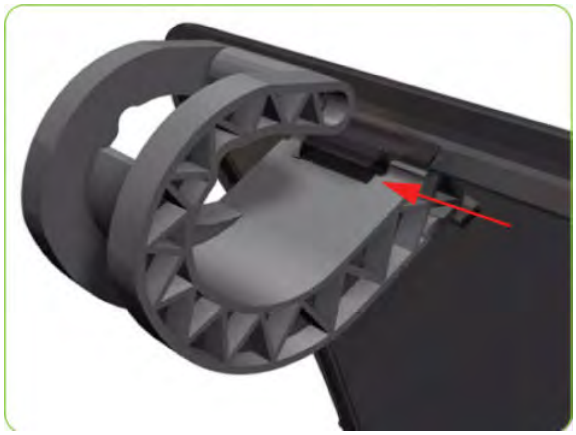


Installation of New Window

1. Identify the two ends of the Window hinge (four in total) - one end is clipped to the Window and the other to the Top Cover.

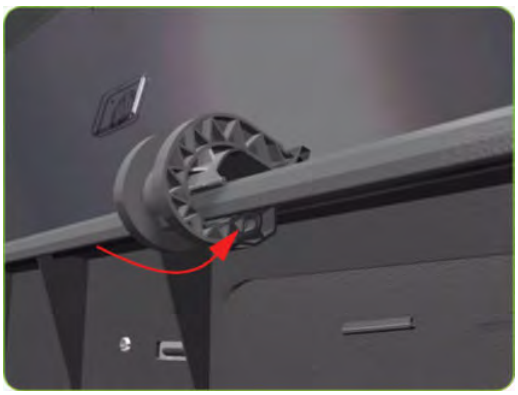


2. Slide the Window hinges on to the Window.



3. Clip the Window Hinges to the Top Cover.

NOTE: Since the hinges are very hard to clip, you will need to forcefully clip the Window hinges to the Top Cover.



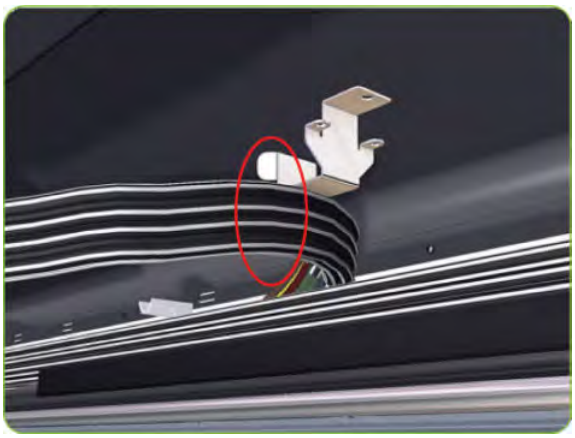
Cover, Top

Removal

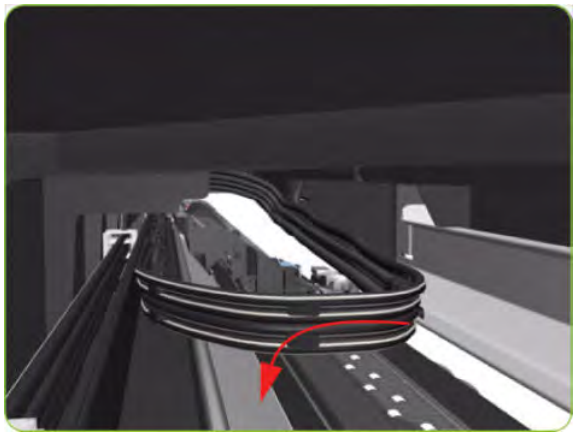
WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Release the three clips securing the Ink Supply Tubes and the Trailing Cable to the Top Cover.

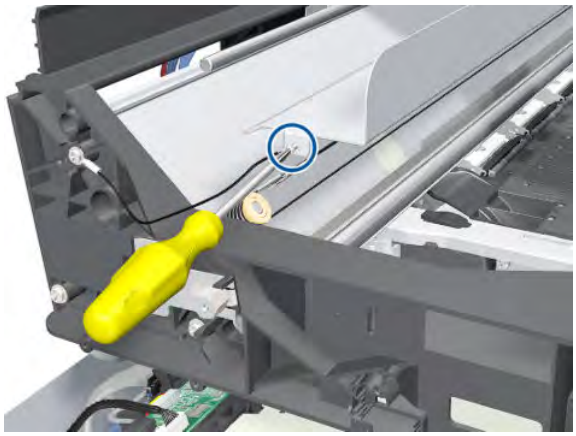
4. Release the Ink Supply Tubes and Trailing Cable from the clip underneath the Top Cover.



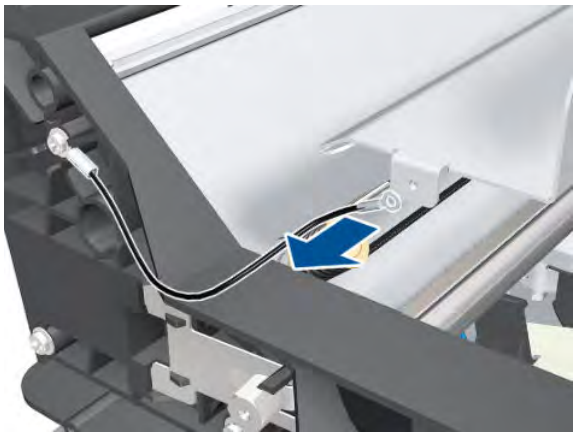
5. Remove the Ink Supply Tubes and Trailing Cable from within the Top Cover and lay them on the Print Platen.



6. Remove one T-10 (Type I) screw that secures the ESD Strip to the Top Cover (on the left-hand side of the printer).

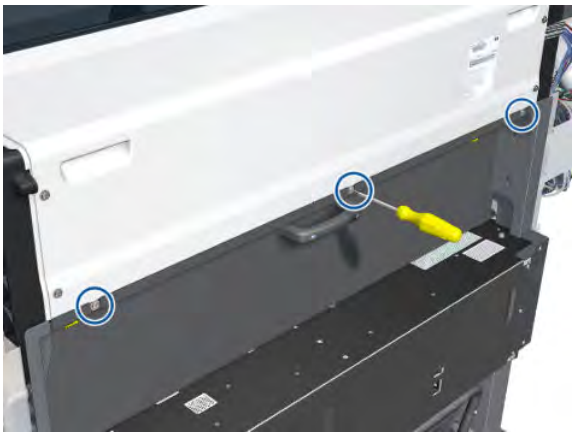


7. Disconnect the ESD Strip from the Top Cover.



8. Remove the three T-15 screws that secure the PW Cover.

NOTE: Each screw includes a washer (part number 3050-1267).

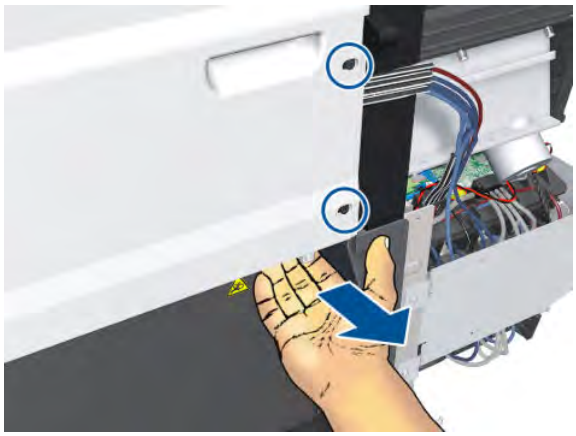


9. Remove the PW Cover.

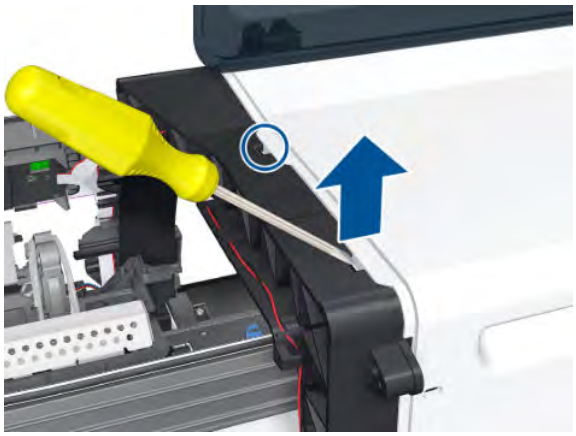
10. Remove four T-15 screws (Type H) that secure the Top Cover from the rear of the printer.

NOTE: Each screw includes a washer (part number 3050-1267).

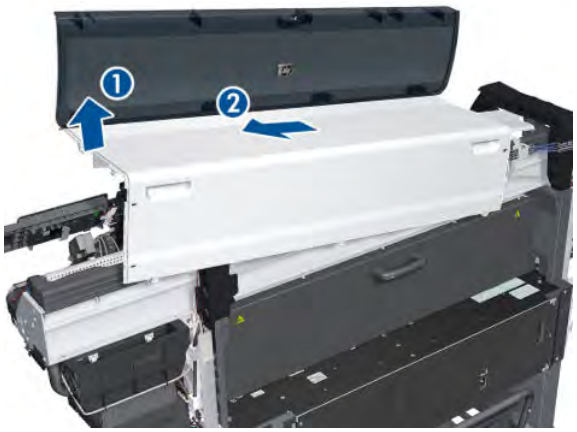
11. Release the Top Cover from the rear of the printer.



12. Using a flat-head screwdriver, release the Top Cover from the right-hand side of the printer.



13. Raise the right-hand side of the Top Cover and pull out to the right.

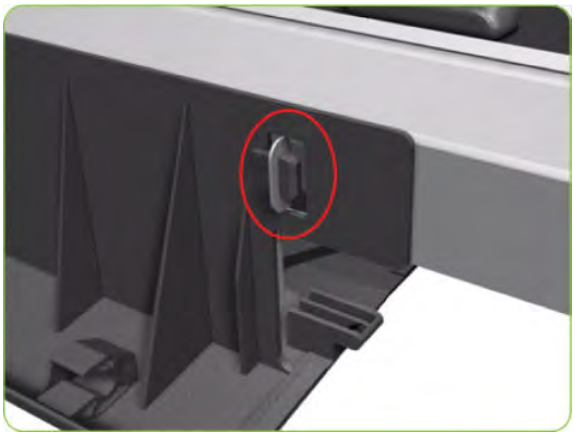


Installation

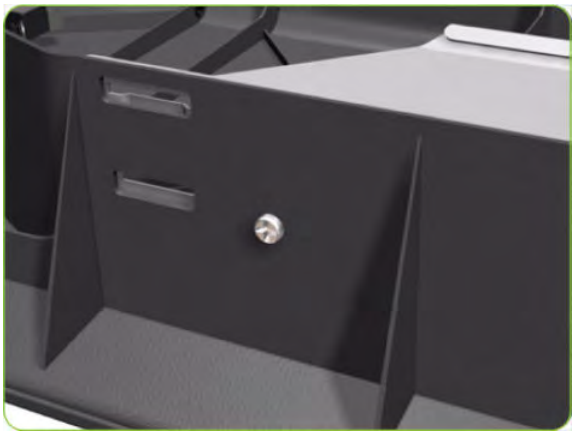
Before installing a new Top Cover, take note of the following instructions.

1. Position the Metallic Support on to the Top Cover.

2. Lock the Metallic Support on to the Top Cover.



3. Install the T-20 screw that secures the Metallic Support to the Top Cover.



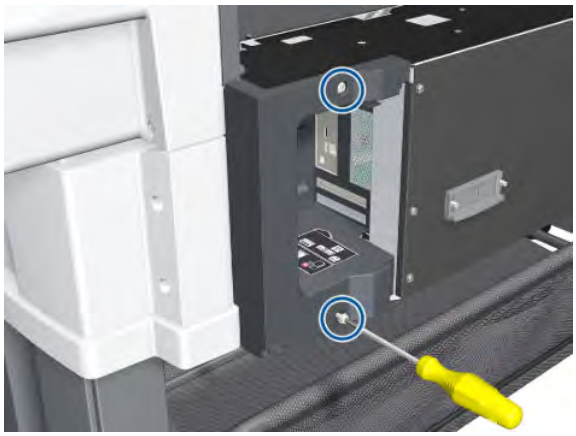
4. Remove the Window (→ See Window on page 227) from the old Top Cover and install it on the new Top Cover.

NOTE: When installing the Ink Supply Tubes and Trailing Cable on to the Top Cover, take note of the of the two red marks on the Ink Supply Tubes. These two red marks should be aligned with the first slot in the Top Cover as this will help with the rest of the installation.

Connector Cover, Right

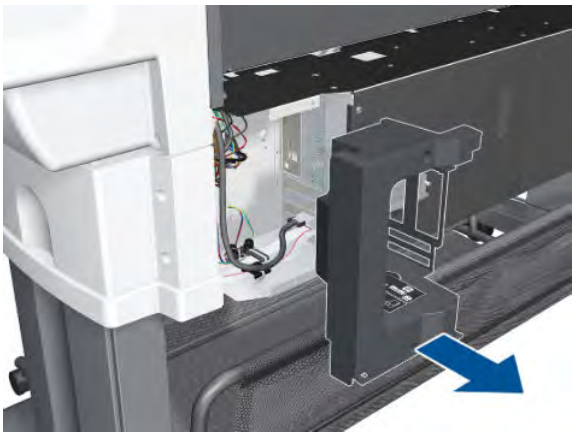
Removal

1. Remove two T-20 screws from the Right Connector Cover.



2. Rotate the Right Connector Cover a few degrees counter-clockwise so that it can be removed from the printer.

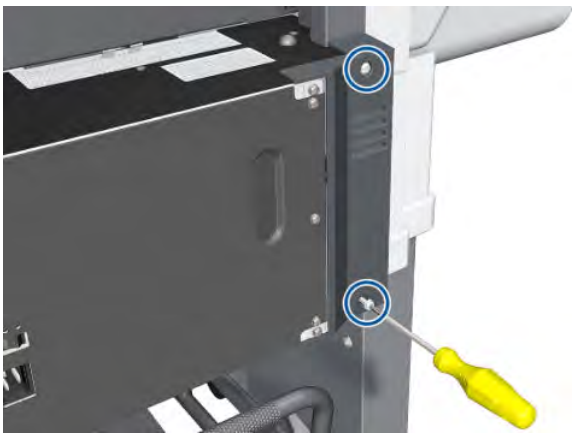
3. Remove the Right Connector Cover.



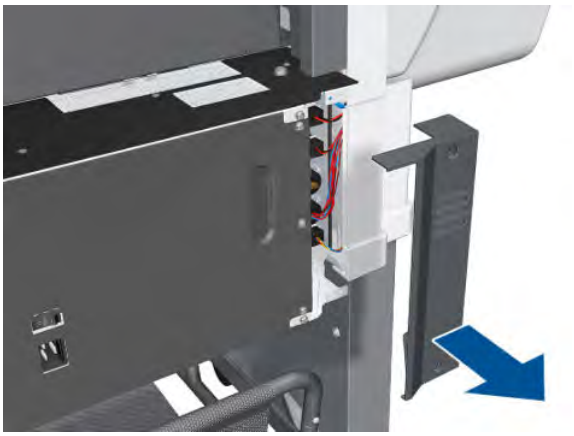
Connector Cover, Left

Removal

1. Remove two T-20 screws from the Left Connector Cover.



2. Remove the Left Connector Cover.



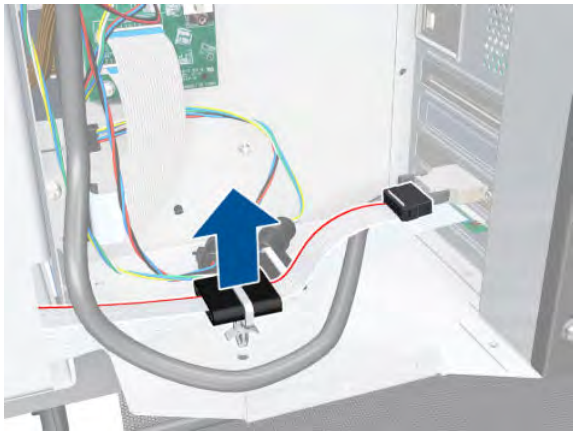
Front Panel

Removal

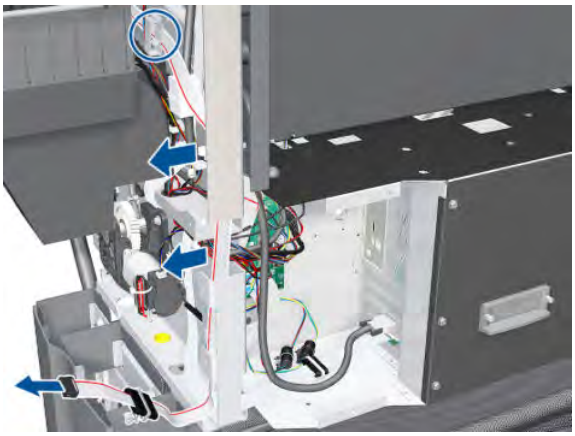
⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Connector Cover ⇨ See Connector Cover, Right on page 235.
2. Remove the Right Smart Roll-loading System Cover ⇨ See Smart Roll-loading System Cover, Right on page 258.
3. Disconnect the Front Panel cable.

4. Disconnect the ferrite clip.



5. Unroute the cable.



6. Release the cable from the Right Arc.

7. Remove two T-15 screws from the Front Panel.

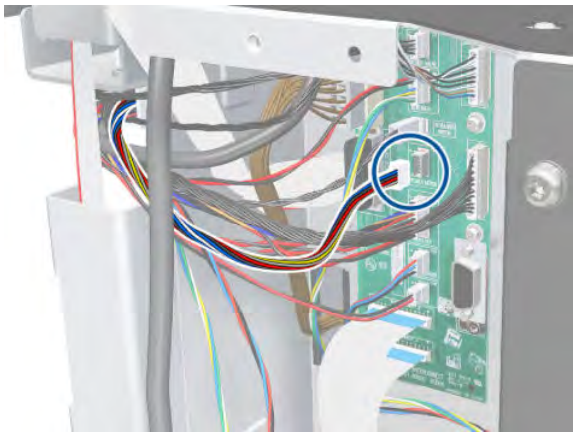
8. Remove the Front Panel.

Primer Assembly

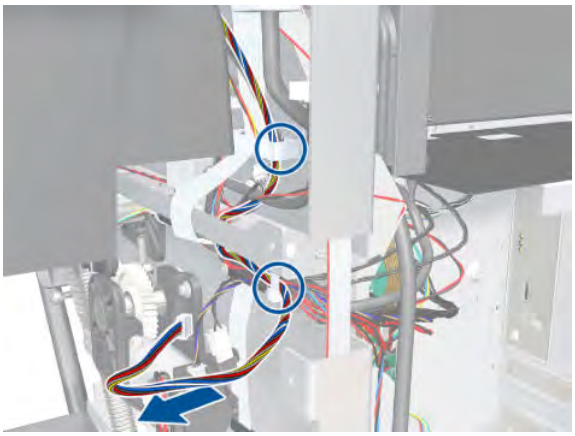
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

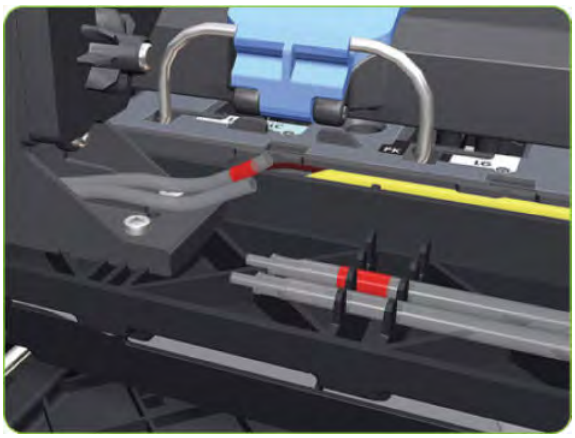
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
3. Remove the Front Panel ⇒ See Front Panel on page 237.
4. Disconnect the Primer Assembly cable from the Interconnect PCA.



5. Unroute the Primer Assembly cable from the cable clamps.

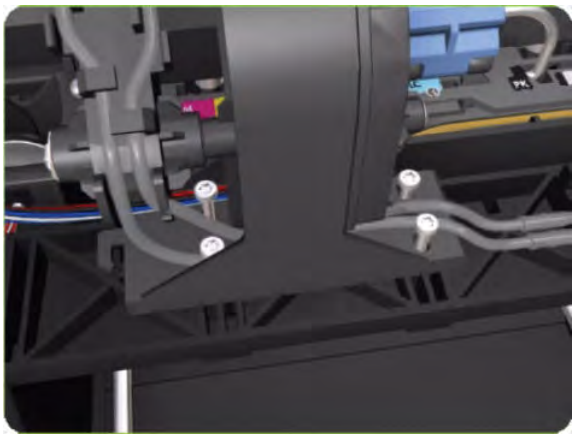


6. Disconnect the two Primer Assembly tubes.



7. Remove four T-10 screws that secure the Primer Assembly to the Service Station.

NOTE: Use a short screw driver, less than 10 cm in length.



8. Remove the Primer Assembly from the Service Station.

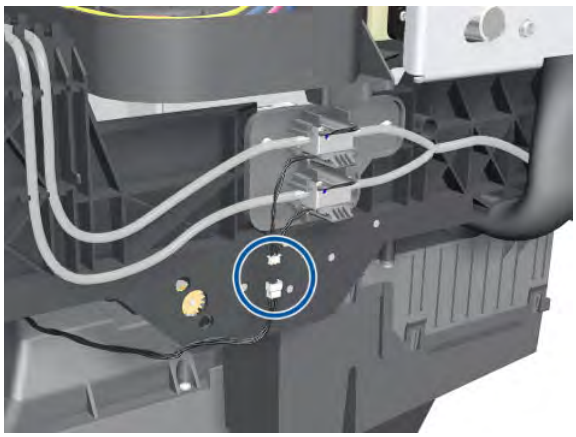
NOTE: When installing the Primer Assembly, use the identification marks on the Primer Assembly Tubes to ensure they are correctly connected.

Primer Valves

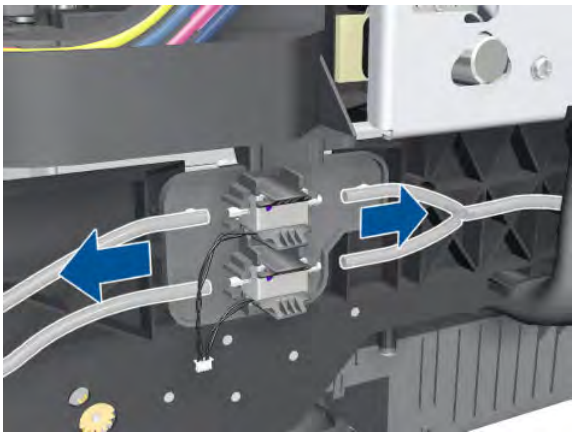
Removal

WARNING! Switch off the printer and remove the power cable.

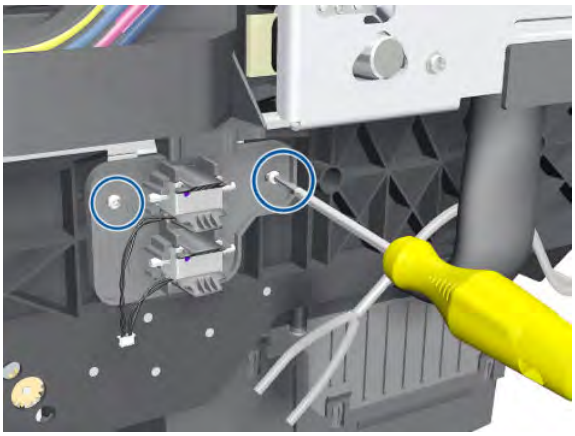
1. Remove the Right Cover See Cover, Right on page 223.
2. Disconnect the Primer Valve Cables.



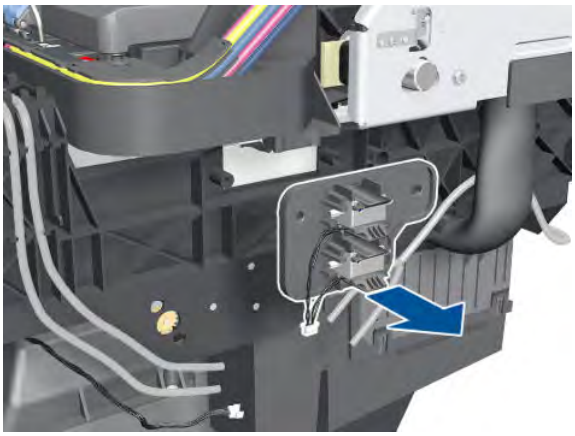
3. Disconnect the Primer Valve tubes.



4. Remove two T-15 screws.



5. Remove the Primer Valves.

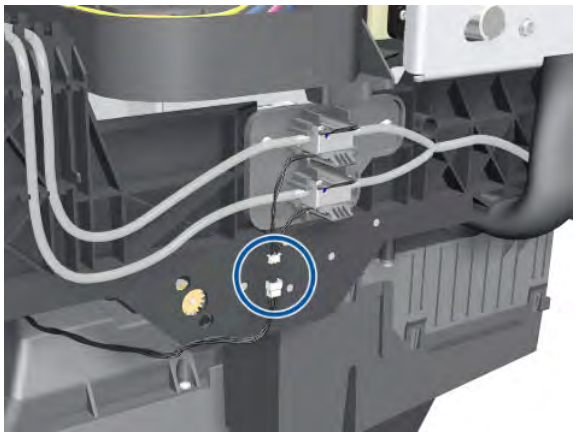


Primer Valve Cable

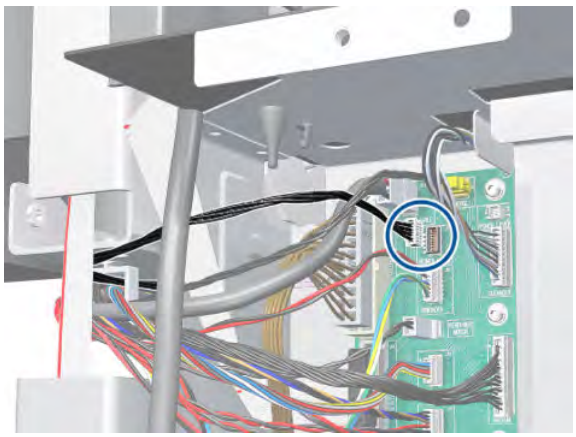
Removal

⚠ WARNING! Switch off the printer and remove the power cable.

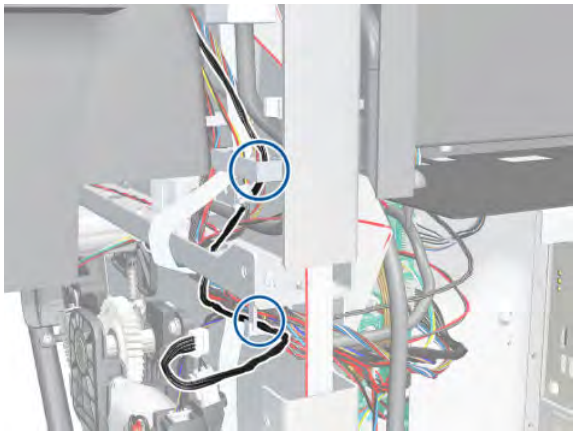
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
3. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
4. Disconnect both Primer Valves from the Interconnect PCA.



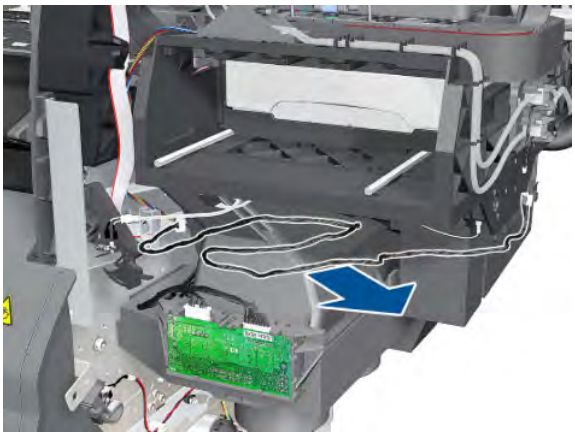
5. Unplug the Primer Valve Cable.



6. Unroute the Primer Valve cable from the cable clamp.



7. Completely unroute the Primer Valve cable from the Service Station.



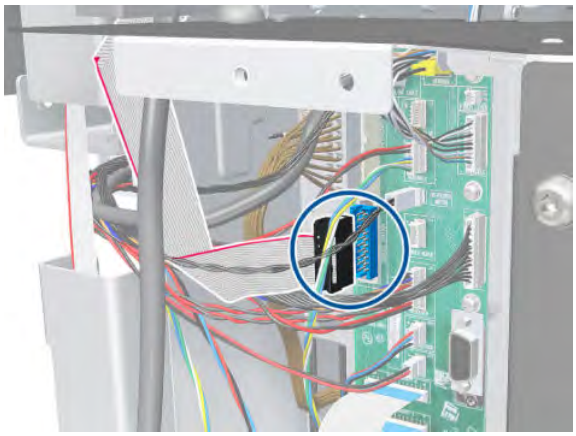
Service Station

Removal

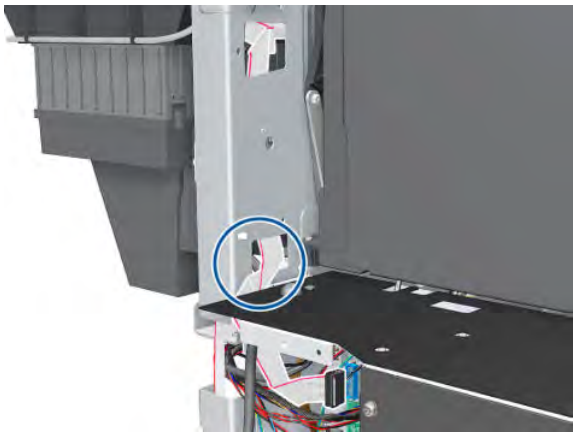
⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Primer Assembly ⇒ See Primer Assembly on page 239.
3. Remove the Primer Valves ⇒ See Primer Valves on page 241.
4. Remove the Drop Detector ⇒ See Drop Detector on page 255.
5. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
6. Remove the Maintenance Cartridge ⇒ See the User's Guide.
7. Remove the Right Rear Trim ⇒ See Rear Trim, Right on page 349.
8. Disconnect the cable from the Maintenance Cartridge Door Switch.

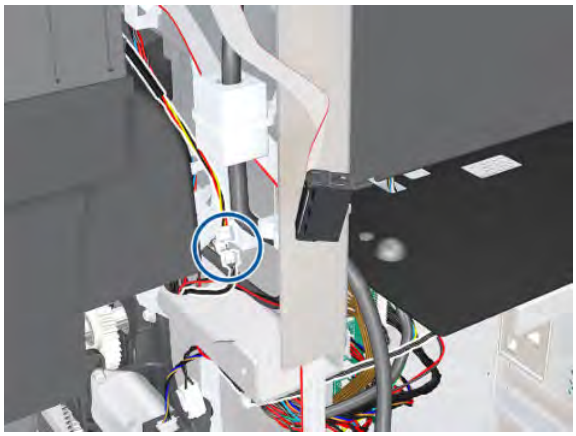
9. Disconnect the Service Station cable (labelled “SS and DD”) from the Interconnect PCA.



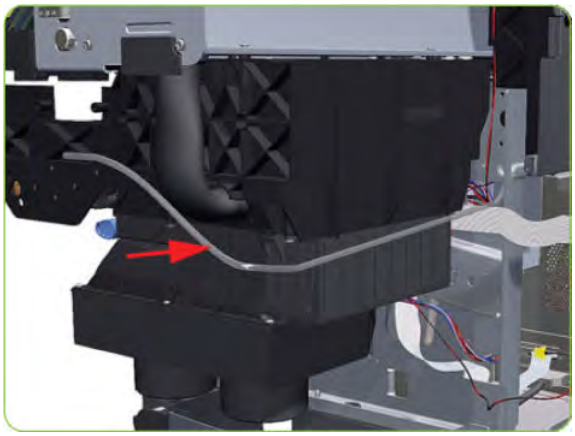
10. Unroute the Service Station cable.



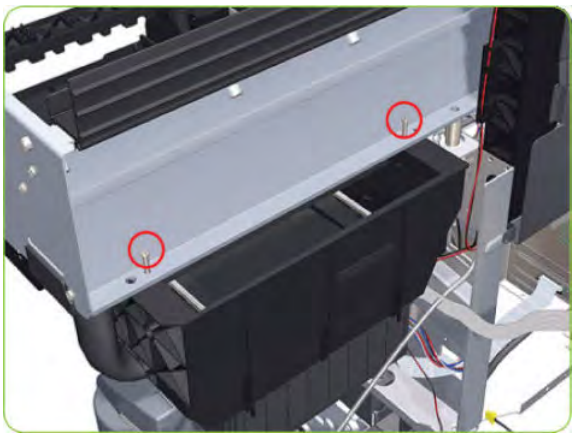
11. Disconnect the Aerosol Fan cable.



12. Unroute the Primer Assembly Valves tube from the Service Station.

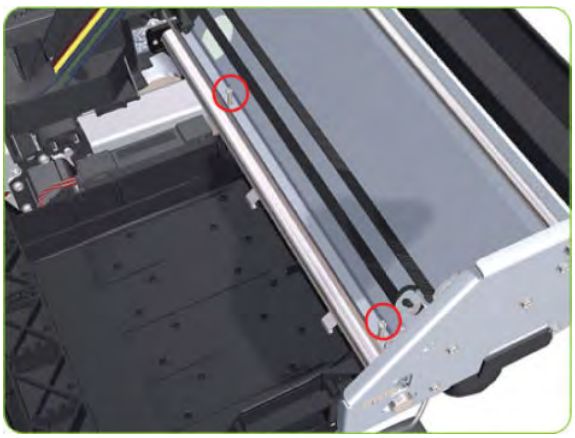


13. Remove two T-15 screws (**Type J**) that secure the rear of the Service Station to the Chassis.

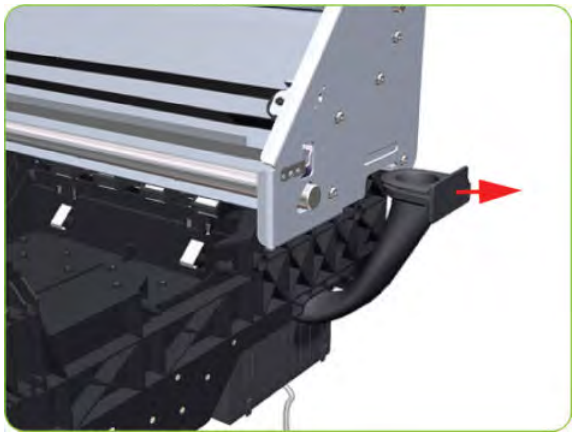


14. Remove two T-15 screws (**Type J**) that secure the Service Station to the Chassis.

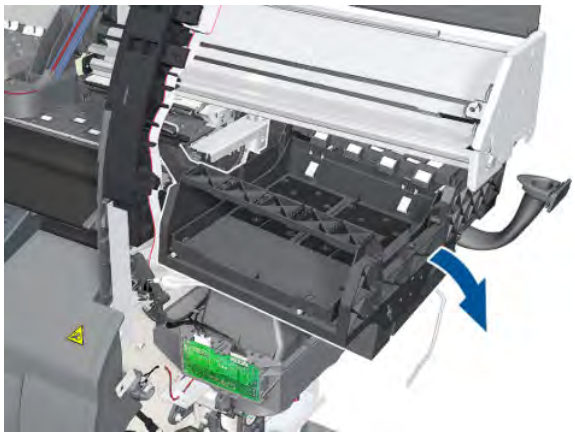
⚠ CAUTION: When removing the screws, be careful not to damage the Encoder Strip.



15. Disconnect the Aerosol Fan Tube from the Chassis.



16. Lower the right side of the Service Station.



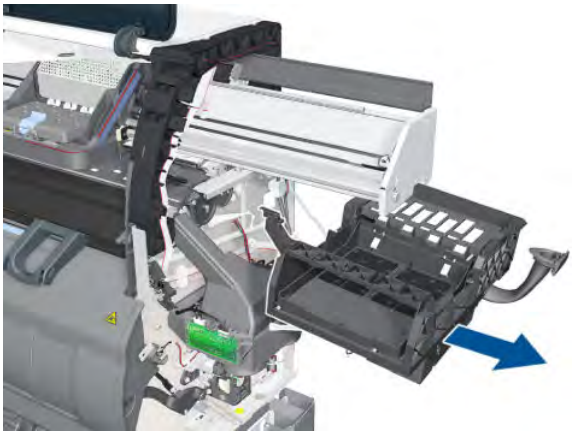
17. Remove the Service Station from the printer.

NOTE: After installing the new Service Station, make sure you perform the following Service Utility:

- Reset Counter PHC spittoon Reset Life Counters on page 110.

NOTE: After installing the new Service Station, make sure you perform the following Service Calibration:

- Drop Detector Calibration Drop Detector calibration on page 126.



Removal of the Service Station Scraper

1. Release the clip securing the Scraper to the Service Station.

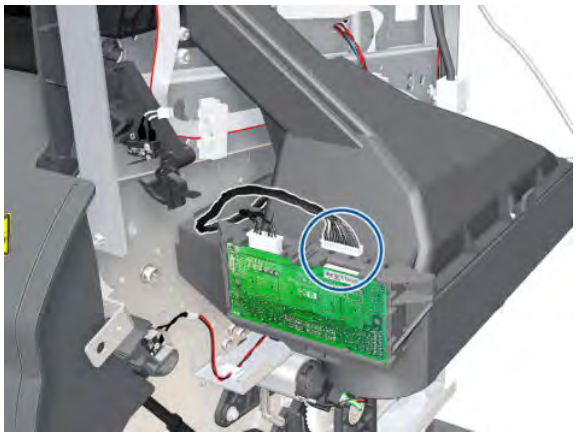
2. Remove the Scraper from the Service Station.

Vacuum Fan

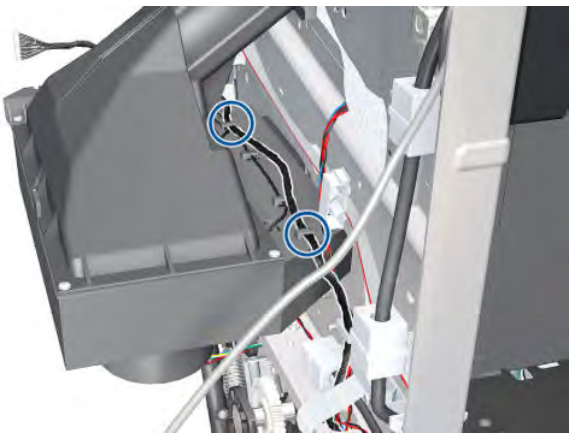
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

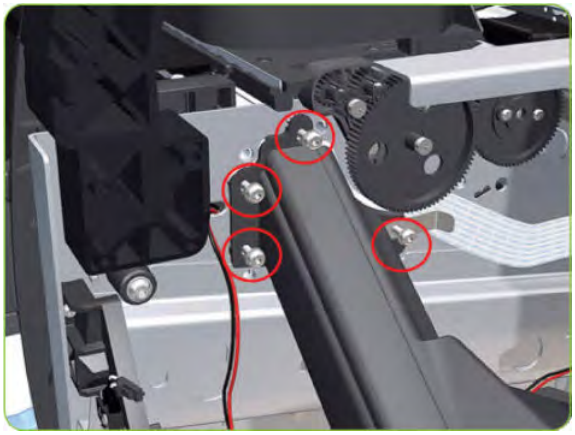
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Primer Assembly ⇒ See Primer Assembly on page 239.
3. Remove the Primer Valves ⇒ See Primer Valves on page 241.
4. Remove the Maintenance Cartridge ⇒ See the User's Guide.
5. Remove the Service Station ⇒ See Service Station on page 244.
6. Disconnect the cable labelled on the Vacuum Fan PCA as "Interconnect Cable".



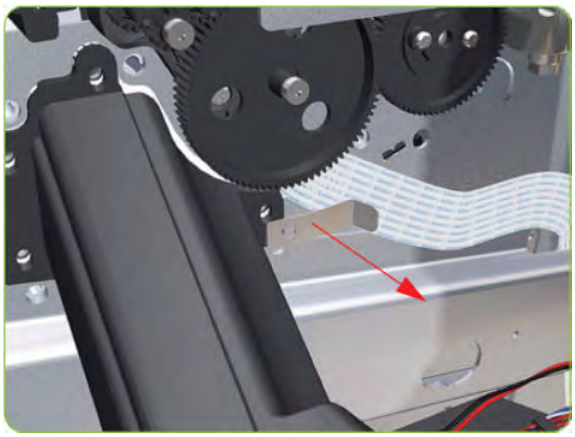
7. Unroute the Interconnect Cable.



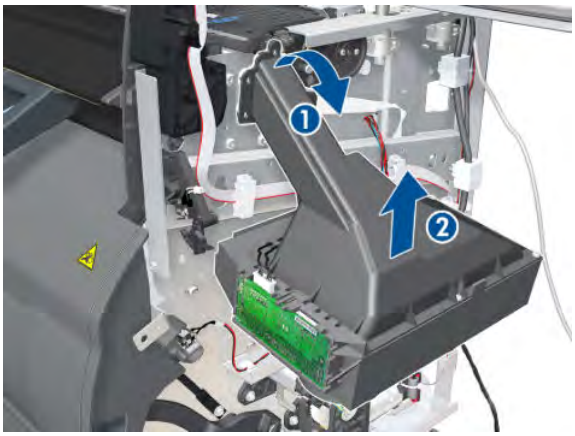
8. Remove four T-20 screws (**Type B**) that secure the Vacuum Fan to the printer.



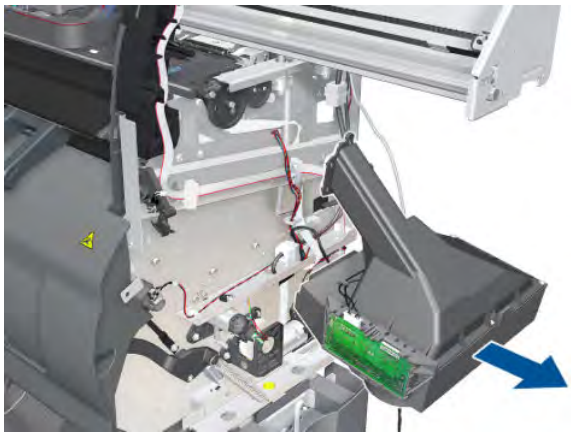
9. Remove the OMAS cable clamp from the printer.



10. Lower then lift the Vacuum Fan out of its attachment.



11. Remove the Vacuum Fan from the printer.



Installation

When connecting the Vacuum Fan cables to the Interconnect PCA, make sure you connect the cable with the label marked Vacuum Fan 1 to connector 1 and the cable with the label marked Vacuum Fan 2 to connector 2. You can check if both cables are labelled correctly by the actual markings on the Vacuum Fan.

Make sure that the OMAS ribbon cable is free of slack when you install the cable clamp.

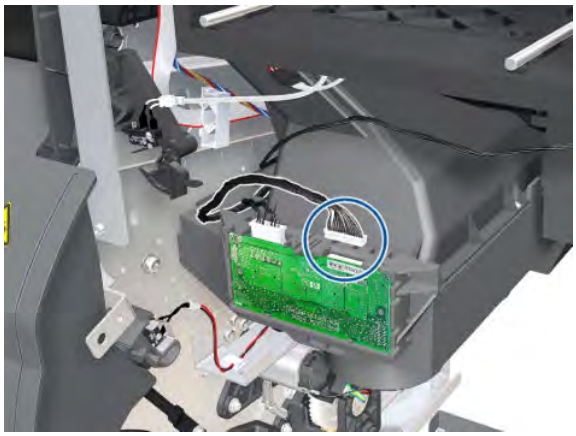
After installing the new Vacuum Fan, make sure you perform Paper-advance Calibration ⇒ Paper-advance calibration on page 123.

Vacuum Fan Cable

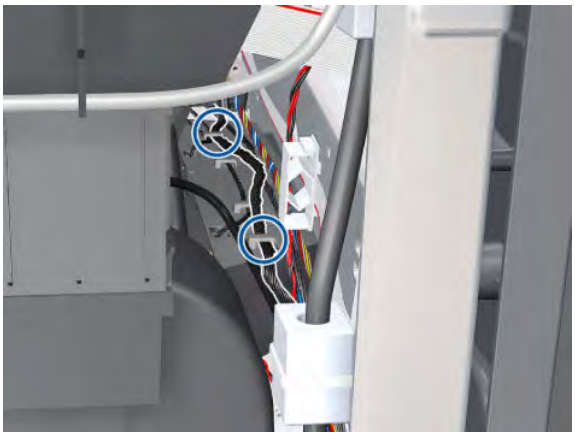
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

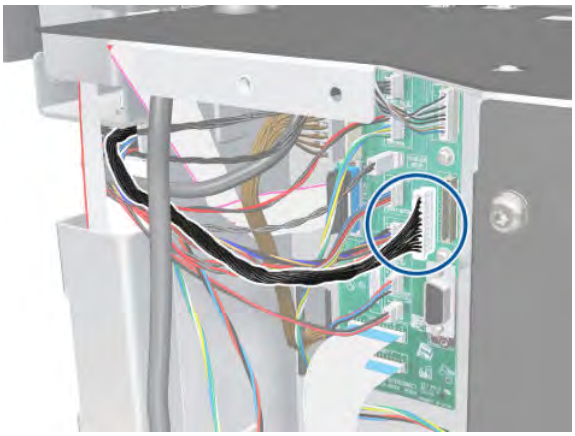
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
3. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
4. Disconnect the cable labelled on the Vacuum Fan PCA as “Interconnect Cable”.



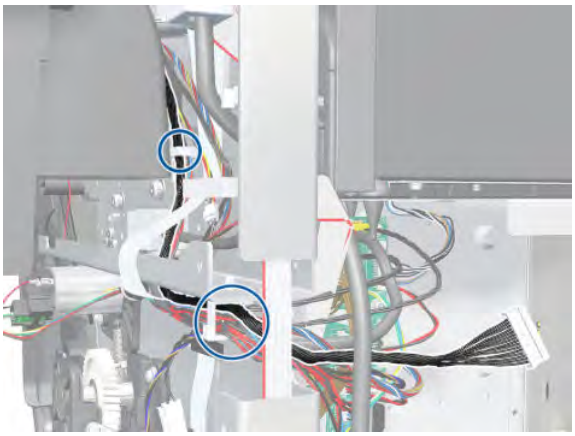
5. Unroute the Interconnect Cable.



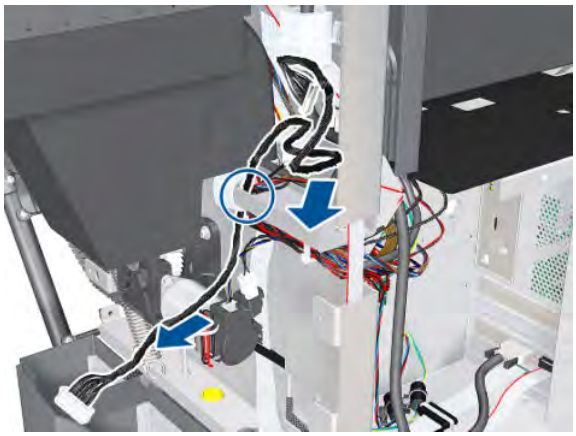
6. Disconnect the Vacuum Fan Cable from the Interconnect PCA.



7. Unclip the cables from the cable clamps.



8. Unroute the Vacuum Fan Cable from the Interconnect PCA.



Installation

Make sure that the OMAS ribbon cable is free of slack when you install the cable clamp.

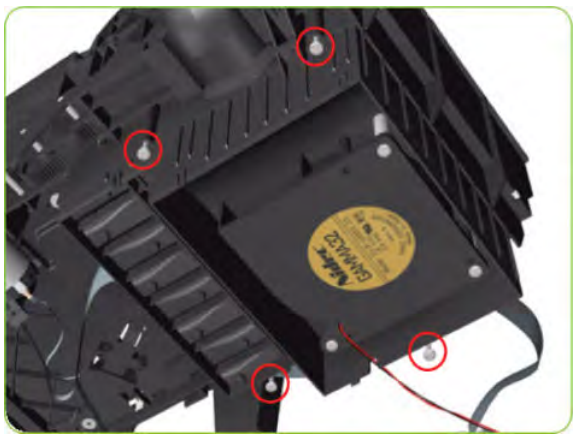
After installing the new Vacuum Fan, make sure you perform Paper-advance Calibration ⇒ Paper-advance calibration on page 123.

Aerosol Fan and Filter

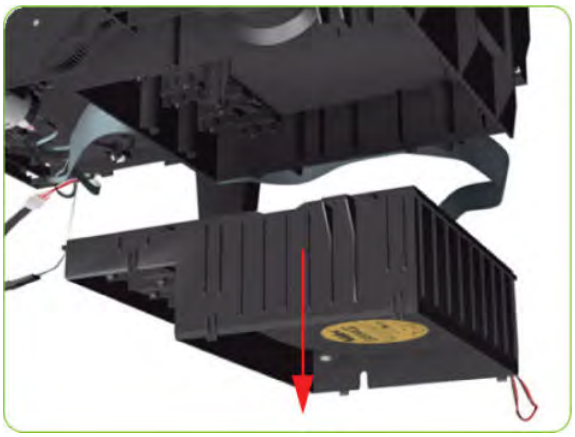
Removal

⚠ WARNING! Switch off the printer and remove the power cable.

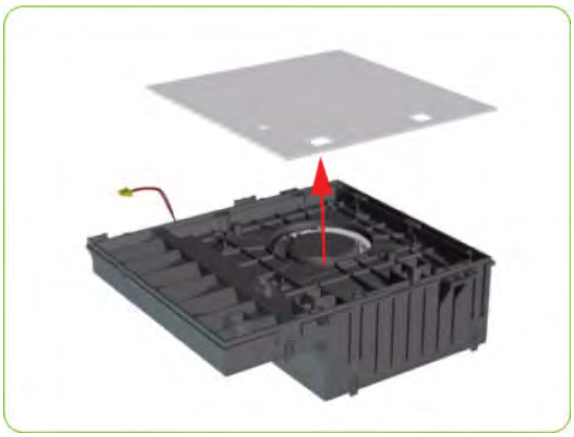
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the PW Cover ⇒ See PW Cover on page 347.
3. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
4. Remove the Service Station ⇒ See Service Station on page 244.
5. Remove four T-15 screws (**Type G**) that secure the Aerosol Fan to the Service Station.



6. Remove the Aerosol Fan from the Service Station.

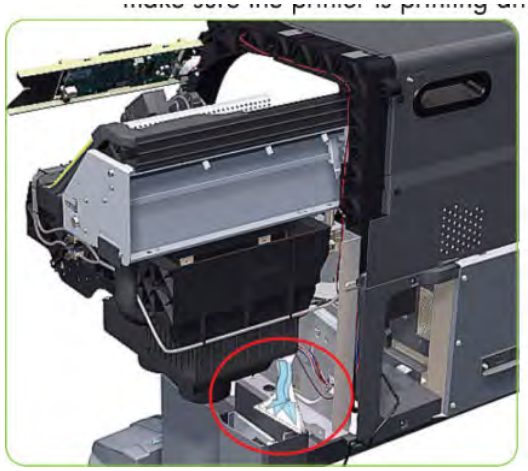


7. If necessary, remove the Aerosol Fan Filter from the Aerosol Fan.



Installing

When the new aerosol Fan and Filter have been installed, it is important to check that the fan is funcioning correctly, otherwise the printer will suffer from Aerosol spray. To check that the fan is working correctly, make sure the printer is printing and check for airflow in the area of the rear of the Service Station.

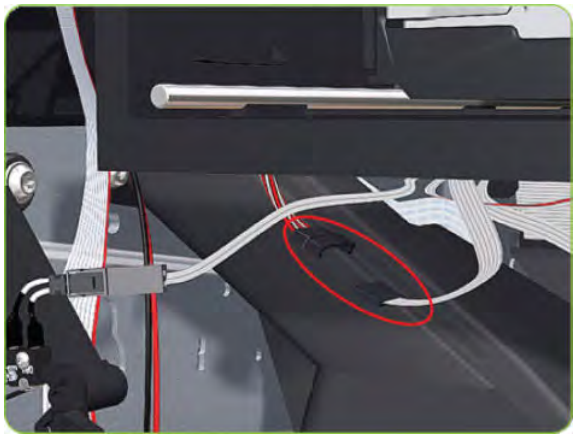


Drop Detector

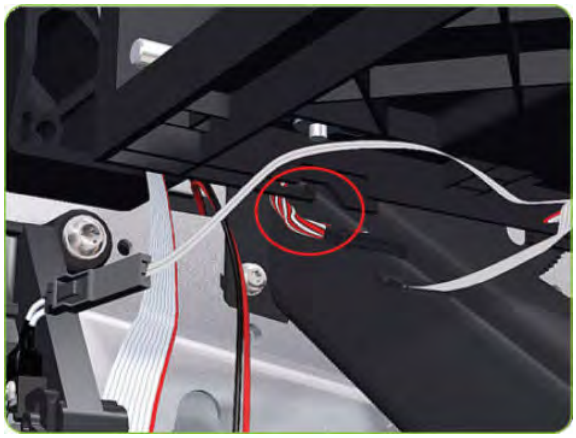
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover See Cover, Right on page 223.
2. Disconnect the Drop Detector Cable from the Service Station Cable.



3. Release the Drop Detector Cable from the Service Station.

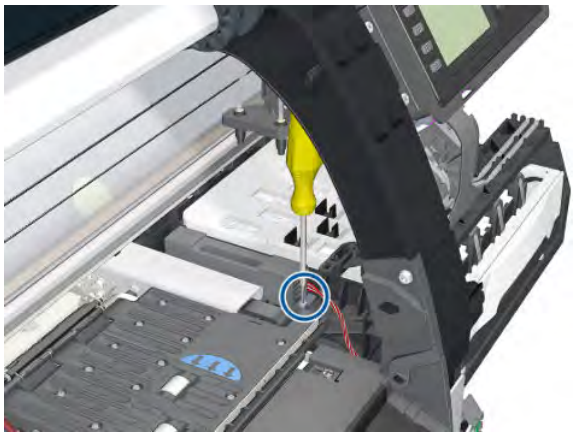


4. Pull out the Maintenance Cartridge fully from the Service Station to release the Carriage Assembly.

5. Lift the Primer and hold it as high as possible to avoid damaging it when you move the Carriage Assembly in the next step.

6. Slide the Carriage Assembly leftwards into the print path so that you can reach the Drop Detector.

7. Remove one T-8 screw (**Type K**) that secures the Drop Detector to the Service Station.

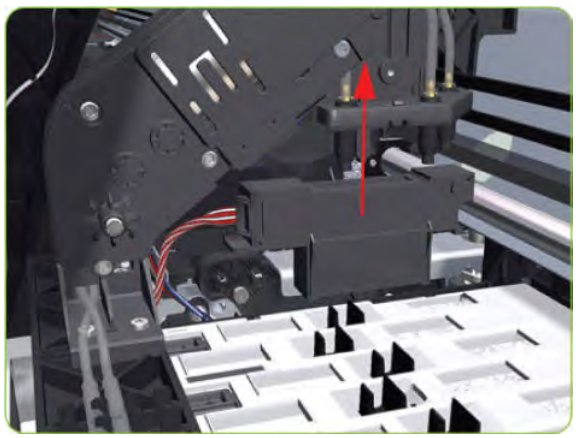


8. Slide the Drop Detector forward so you can release it from the Service Station.

9. Remove the Drop Detector from the printer.

NOTE: After installing the new Drop Detector, make sure you perform the following Service Calibration:

- Drop Detector Calibration Drop Detector calibration on page 126.



Smart Roll-loading System Cover, Right

Removal

1. Remove two T-20 screws from the Right Smart Roll-loading System Cover.

2. Remove two more T-20 screws from the Right Smart Roll-loading System Cover.

3. Remove the Right Smart Roll-loading System Cover.

Smart Roll-loading System Cover, Left

Removal

1. Remove two T-20 screws from the Left Smart Roll-loading System Cover.

2. Remove two more T-20 screws from the Left Smart Roll-loading System Cover.

3. Remove the Left Smart Roll-loading System Cover.

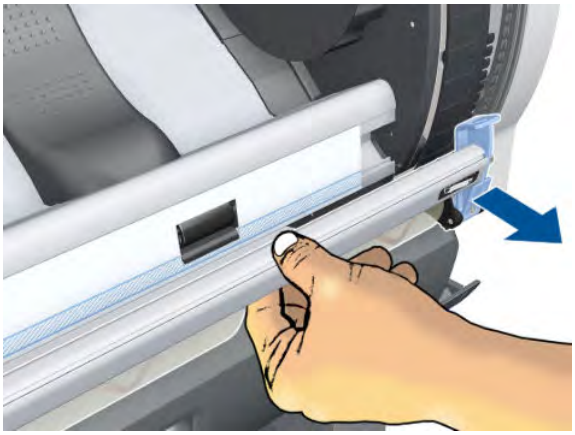
Paper Feed Brake

Removal

1. Open the Smart Roll-loading System Door.

2. Release the catch at the bottom of the blue lever on the right.

3. Release the right end of the Paper Feed Brake.



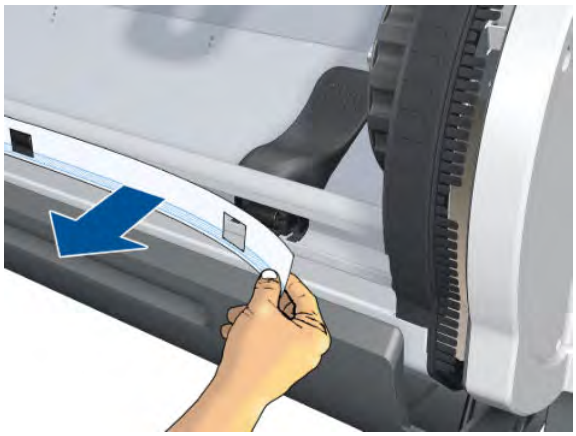
4. Release the catch at the bottom of the blue lever on the right.

5. Remove the Paper Feed Brake.

Threading Roller

Removal

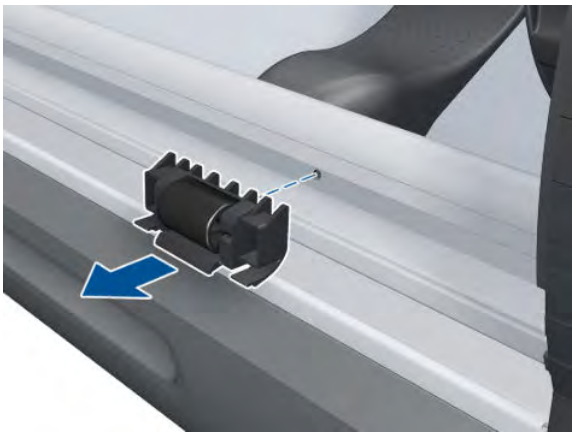
1. Remove the Paper Feed Brake ⇨ See Paper Feed Brake on page 260.
2. Remove the Threading Roller Cover.



NOTE: Before attaching a new Threading Roller Cover, you must clean off the glue from the previous one.

3. Pull up the clips.

4. Remove the Threading Roller.

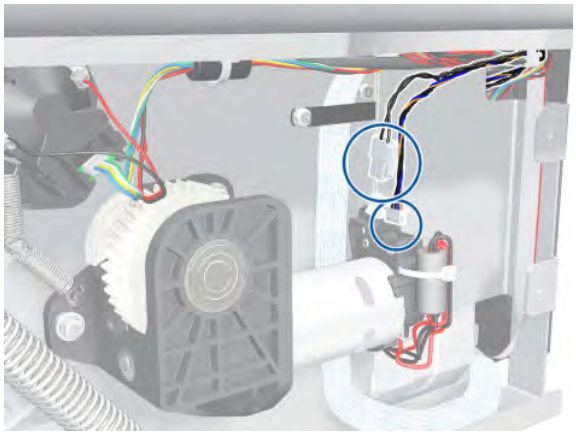


Smart Roll-loading System Motor

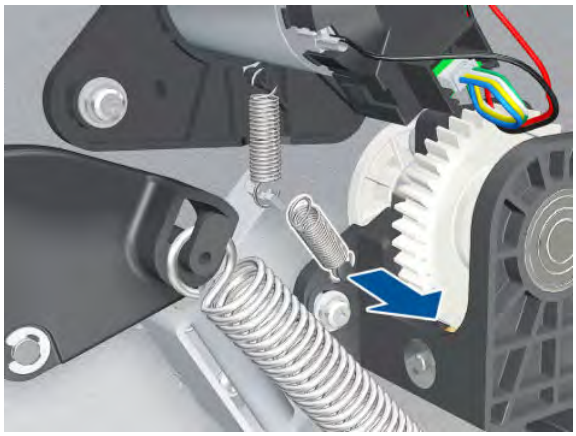
Removal

1. ⚠ Remove all paper rolls from the printer.
2. Remove the Right Smart Roll-loading System Cover ➡ See Smart Roll-loading System Cover, Right on page 258.

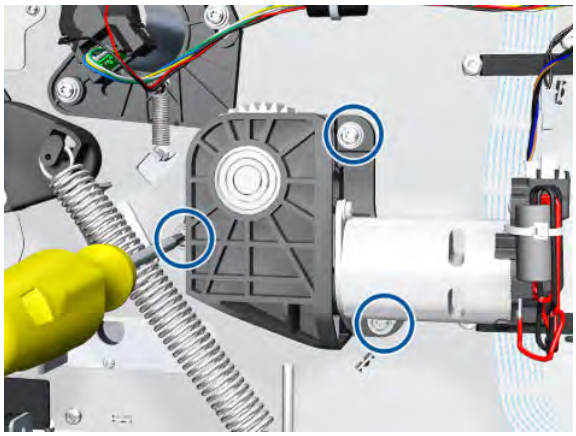
3. Disconnect the cables from the Smart Roll-loading System Motor.



4. Remove the spring from the Smart Roll-loading System Motor.

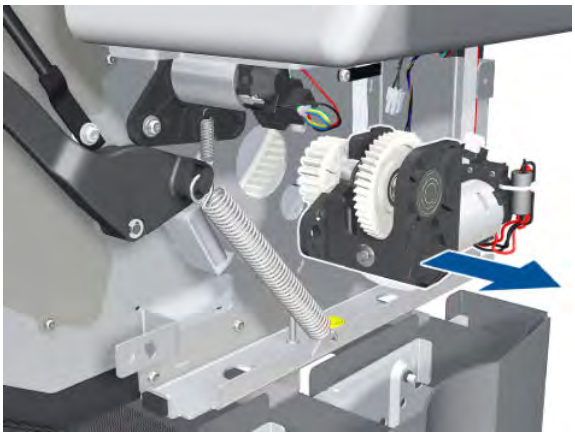


5. Remove three T-20 screws.



6. Remove the Smart Roll-loading System Motor.

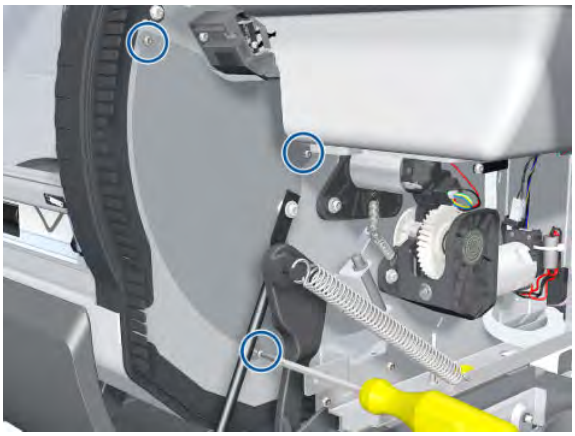
⚠ **WARNING!** The Smart Roll-loading System could rotate unexpectedly when you remove the Motor.



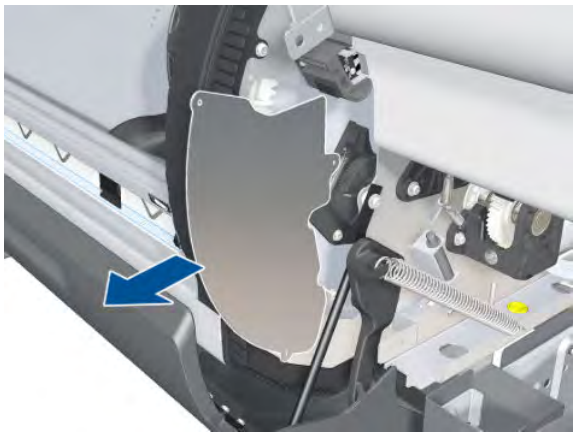
Smart Roll-loading System Gear

Removal

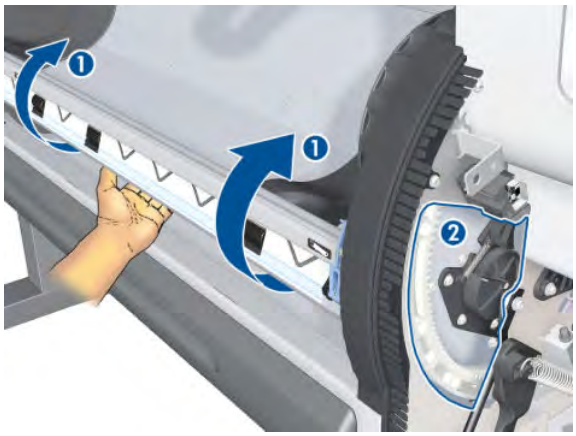
1. Open the Smart Roll-loading System Door.
2. ⚠ Remove all paper rolls from the printer.
3. Remove three T-10 screws from the Roller Cover.



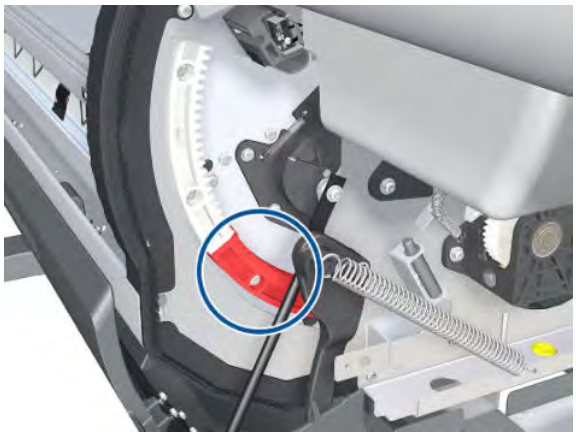
4. Remove the Roller Cover.



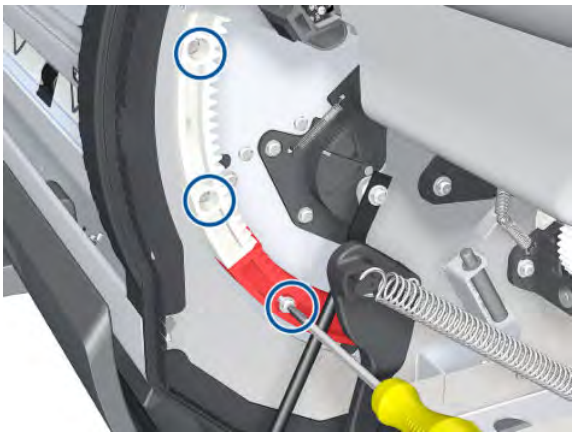
5. Rotate 1 so that you can see the faulty segment in zone 2.



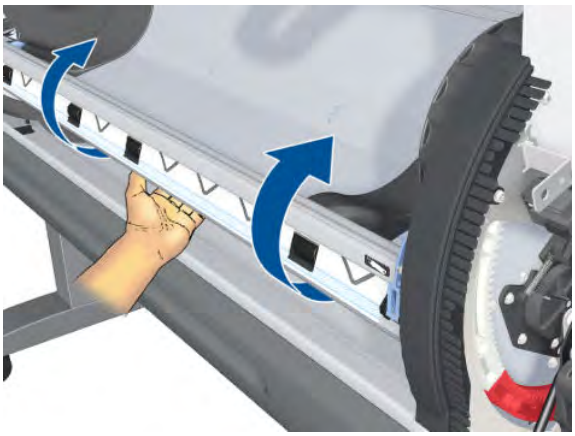
6. Locate the damaged segment (shown in red) to be removed.



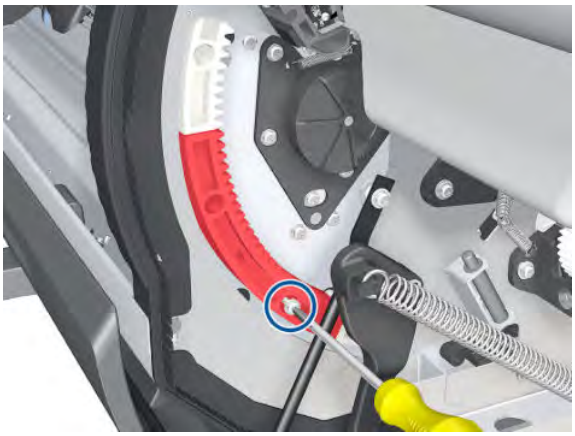
7. Remove three T-20 screws as indicated below.



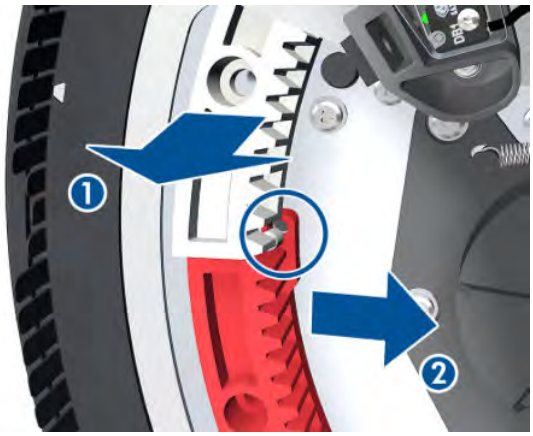
8. Rotate the gear to access the second screw of the faulty segment.



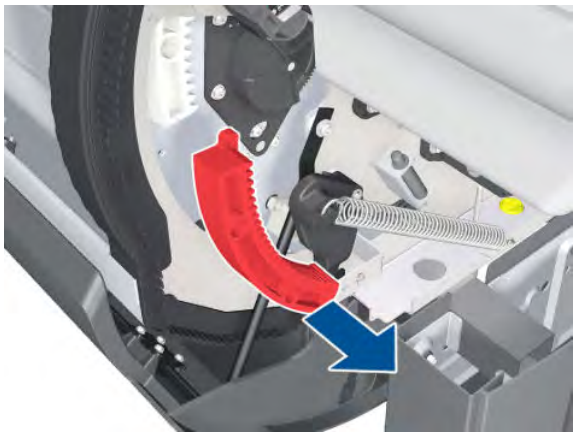
9. Remove the second T-20 screw.



10. Disconnect the two segments.

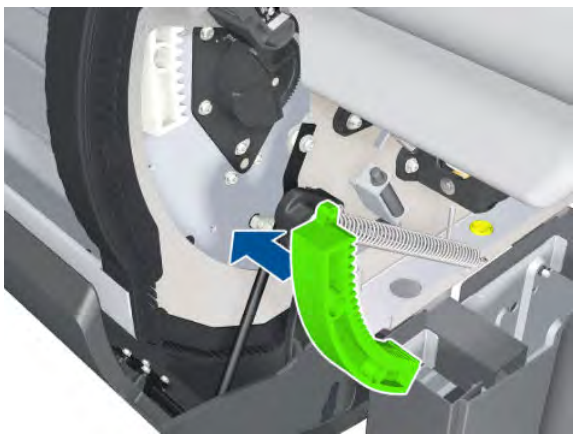


11. Pull out faulty segment.

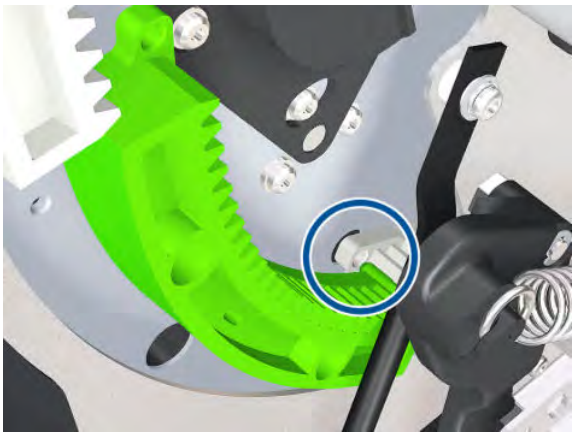


Installation

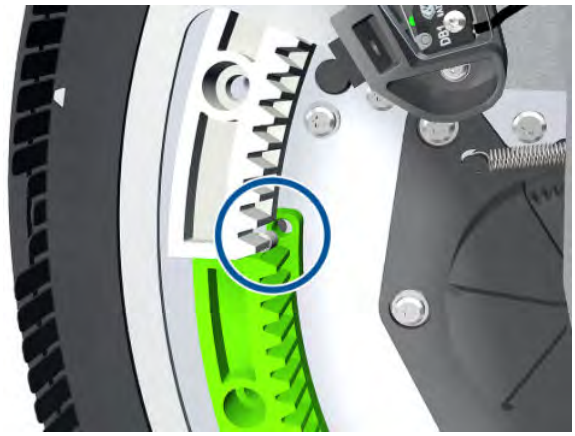
1. Put the new segment in place.



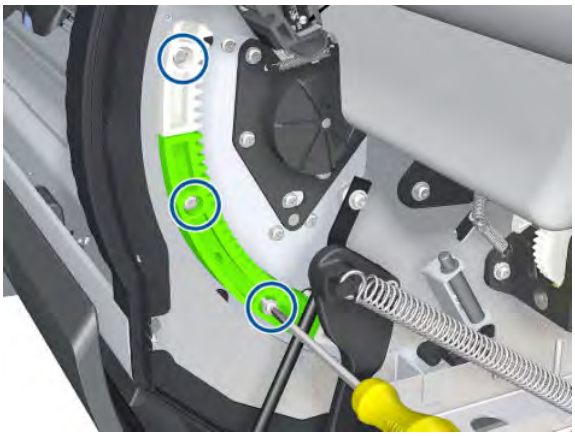
2. Insert the pin at the bottom end of the segment.



3. Move aside the upper segment temporarily before engaging it with the new segment.

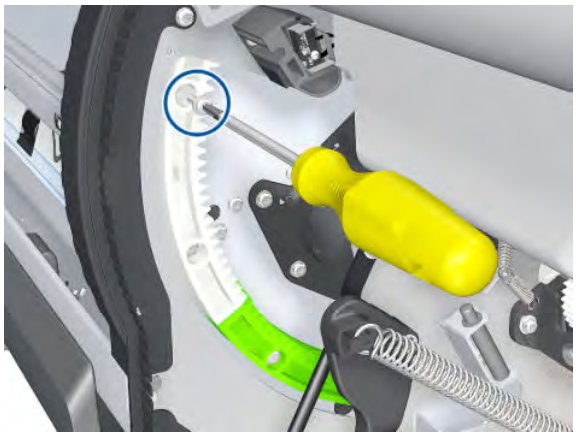


4. Insert two T-20 screws into the new segment and another into the upper segment.



5. Rotate the gear.

6. Insert the remaining screw in the upper segment.

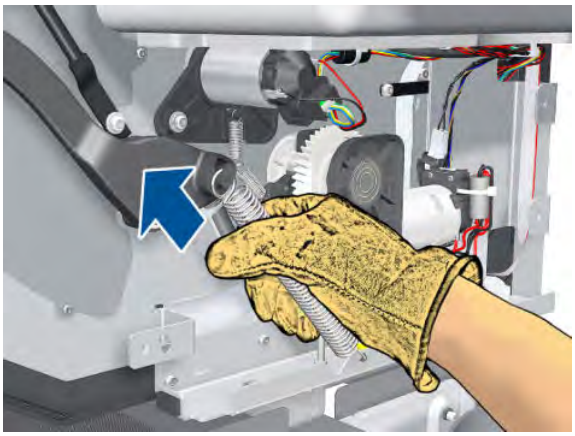


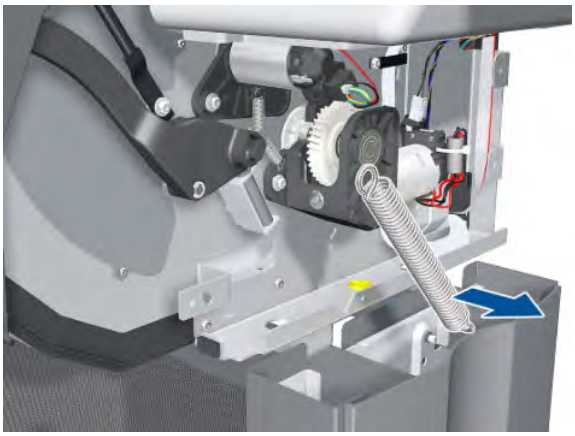
Smart Roll-loading System Door Spring

Removal

1. Close the Smart Roll-loading System Door.
2. Remove the Left Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Left on page 259.
3. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.

4. Put on a glove to disengage and remove the Smart Roll-loading System Door Spring on each side.





Smart Roll-loading System Door Arms

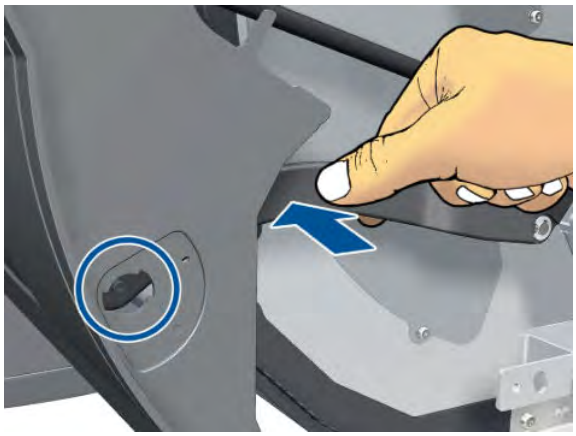
Removal

1. Turn down the lever on each side of the Smart Roll-loading System Door.

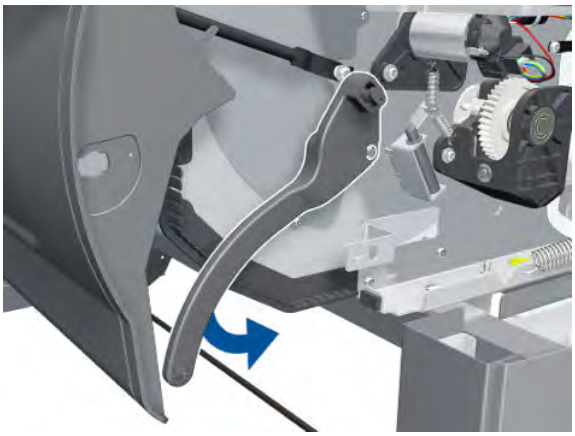
2. Open the Smart Roll-loading System Door.

3. Remove the lever from each side.

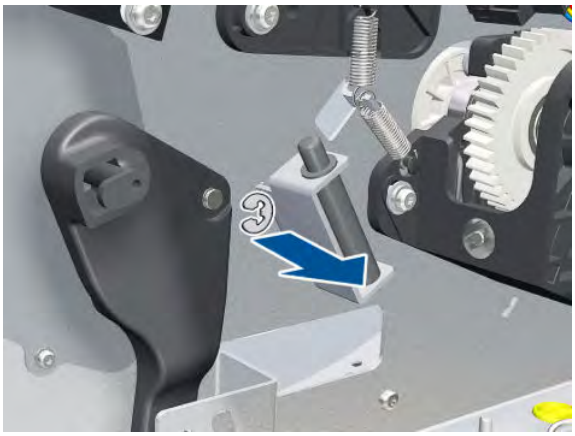
4. Move each Smart Roll-loading System Door Arm inwards to disengage it from the door.



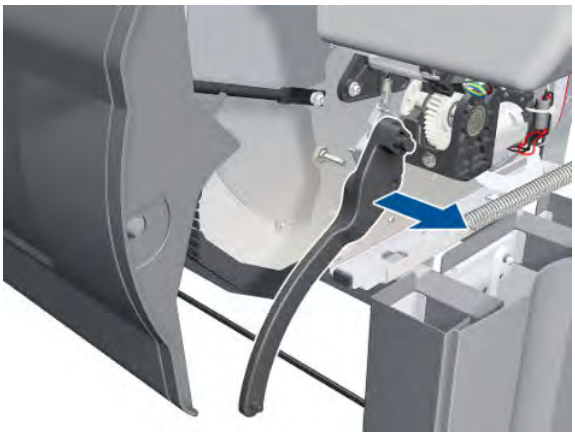
5. Move each Smart Roll-loading System Door Arm downwards, away from the door.



6. Remove the circlip, using pliers if necessary.



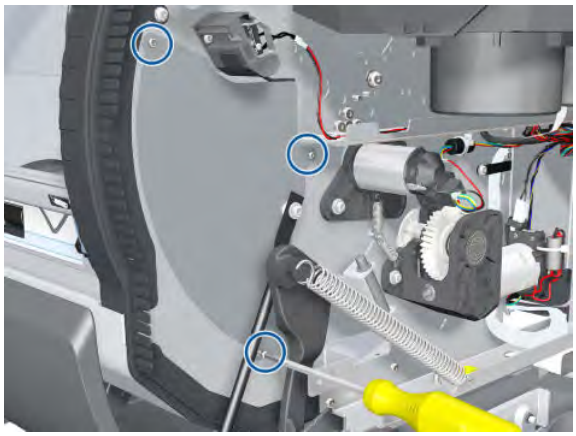
7. Remove the Smart Roll-loading System Door Arm.



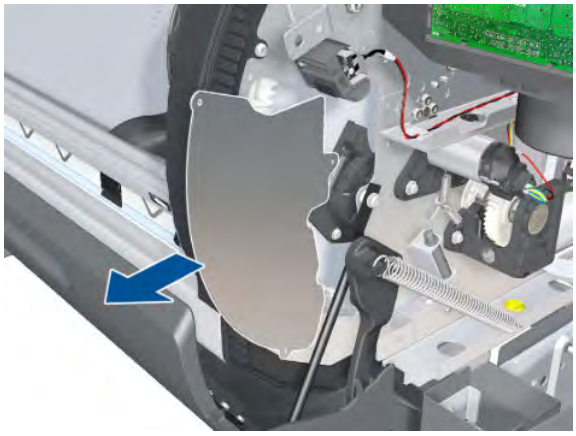
Rewinder Gear and Motor

Removal

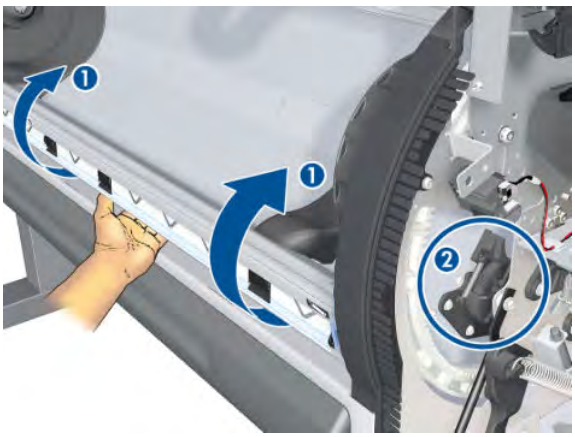
1. Unload the paper.
2. Remove the Right Cover ⇒ See Cover, Right on page 223.
3. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
4. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
5. Open the Smart Roll-loading System Door.
6. Remove three T-10 screws.



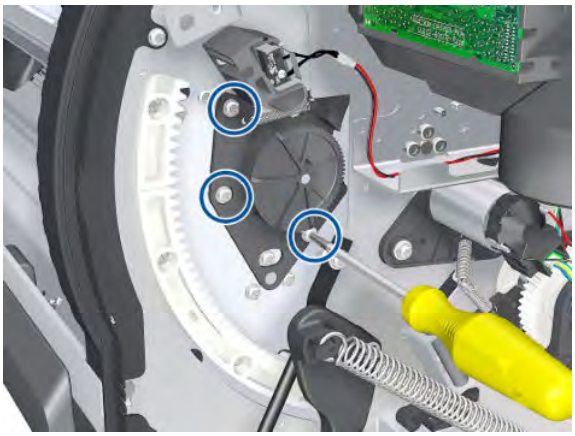
7. Remove the Roller Cover.



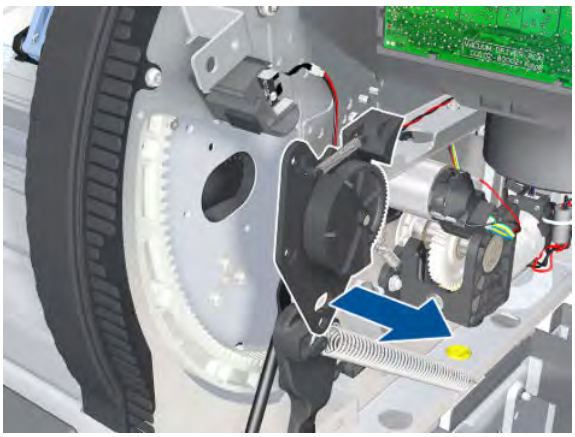
8. Rotate the Smart Roll-loading System manually (1) until the gear to be replaced can be seen through the hole in the side plate (2).



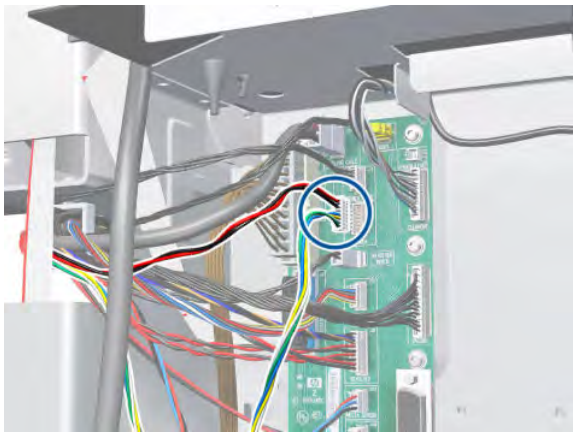
9. Remove three T-20 screws.



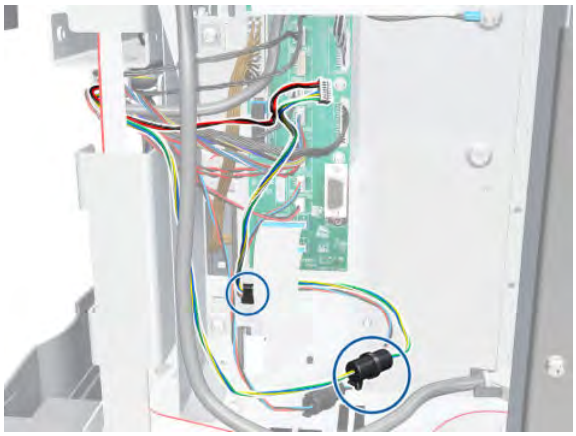
10. Remove the Rewinder Gear.



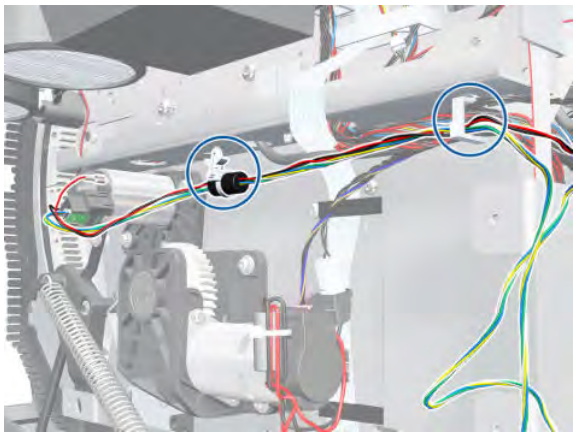
11. Disconnect the power and data cables from the Rewinder to the Interconnect PCA.



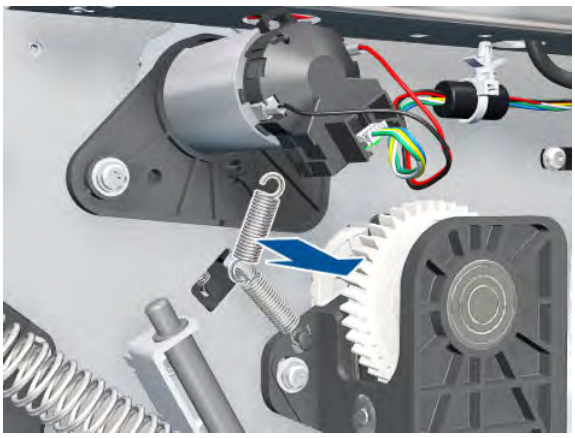
12. Unclip the cable and disconnect the ferrite.



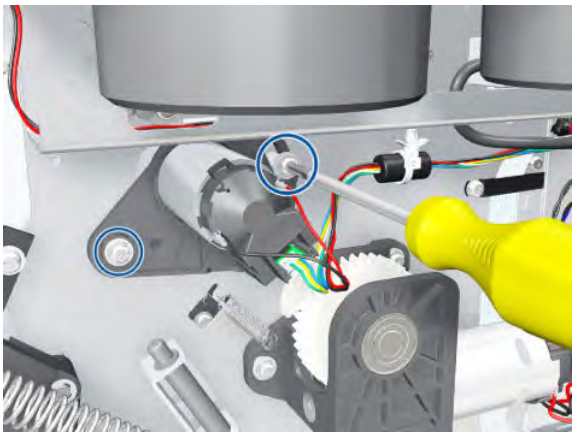
13. Unroute the cable and disconnect the ferrite.



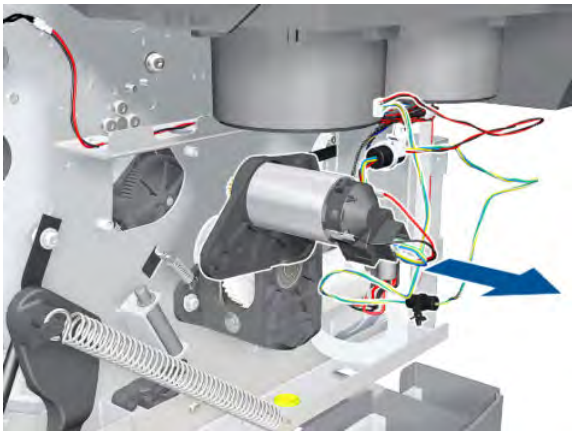
14. Remove the spring that holds the Rewinder Drive and Smart Roll-loading System Drive Motor. Be careful not to lose the spring.



15. Remove two T-20 screws and washers.



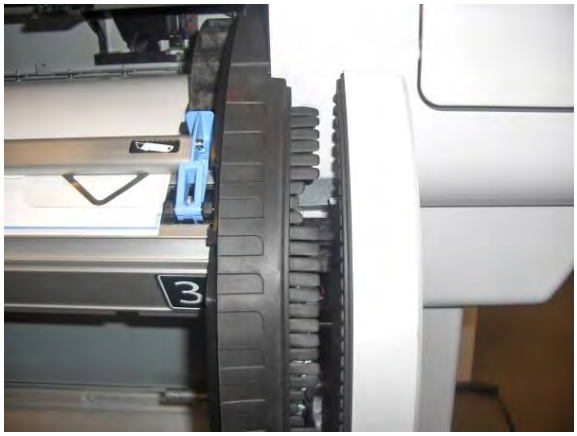
16. Remove the Rewinder Drive from the printer.



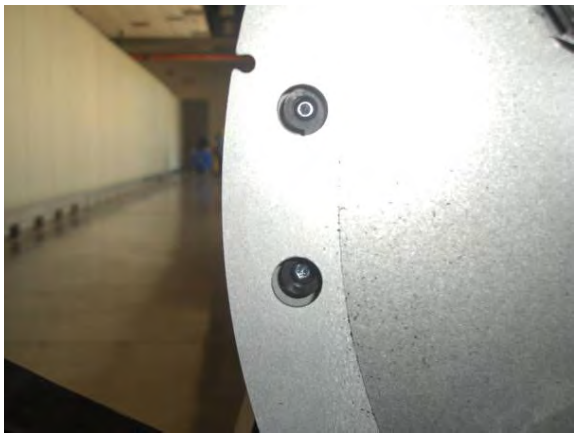
Indexer and Right Slider

Removal

1. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
2. Remove the rubber protector.



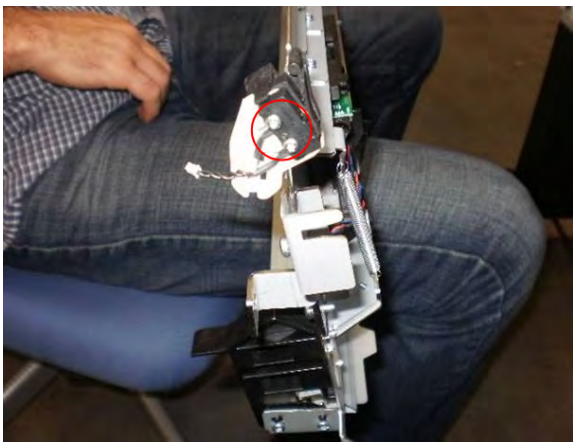
3. Turn the revolver until the 2 indexer screws match the holes on the right side Plate extension. Remove two T-15 screws from the Indexer.



4. Remove the Indexer.

5. Remove the Entry Platen ⇒ See Entry Platen on page 354.

6. Remove two T-8 screws that connect the Right Slider and the Smart Roll-loading System Sensor to the Entry Platen.

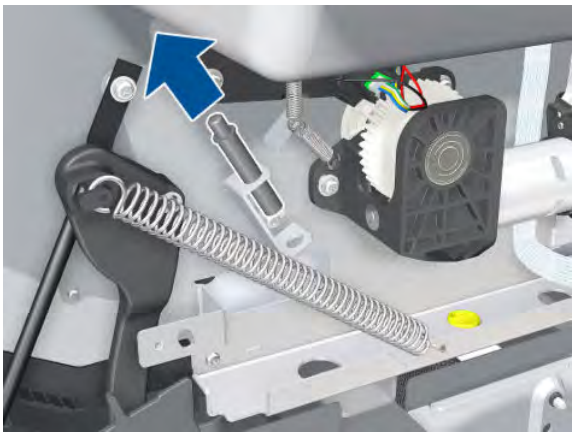


7. Remove the Right Slider.

Smart Roll-loading System Damper

Removal

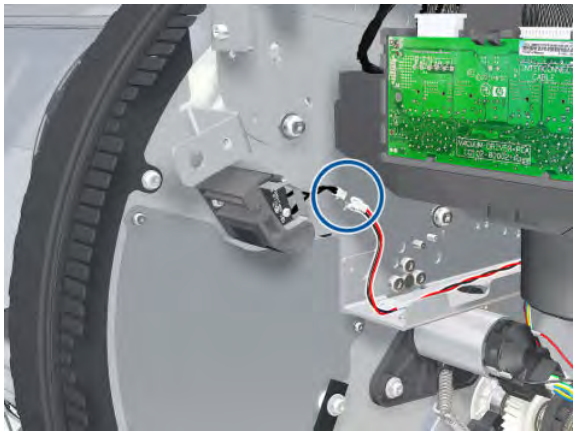
1. Remove the Left Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Left on page 259.
2. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
3. Open the Smart Roll-loading System Door.
4. Remove the Smart Roll-loading System Damper from both sides.



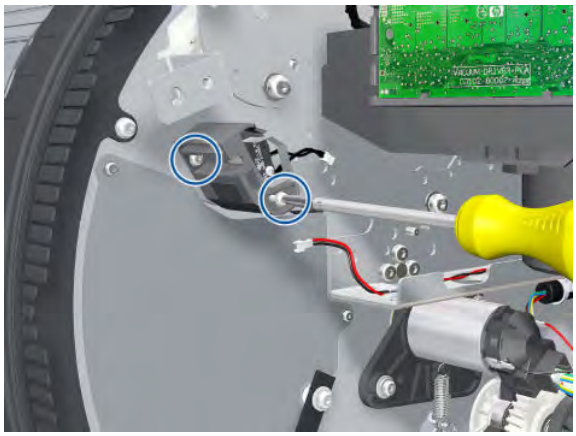
Smart Roll-loading System Door Switch

Removal

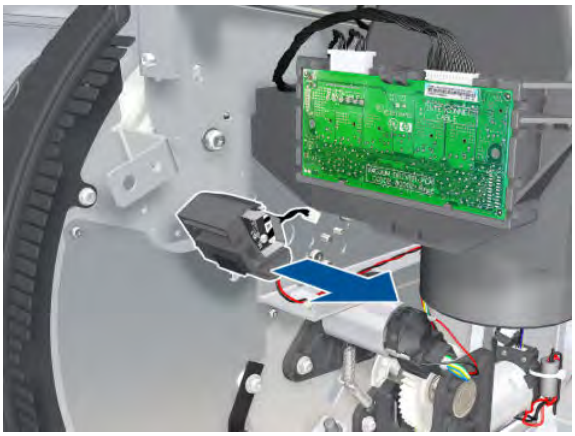
1. Remove the Left Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Left on page 259.
2. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
3. Open the Smart Roll-loading System Door.
4. Disconnect the Smart Roll-loading System Door Switch cable.



5. Remove two T-10 screws.



6. Remove the Smart Roll-loading System Door Switch.



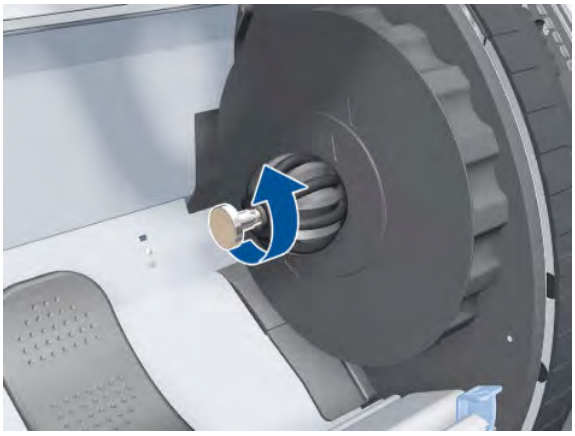
Installation

Before installing the Smart Roll-loading System Door Switch, you must insert the screws into the switch.

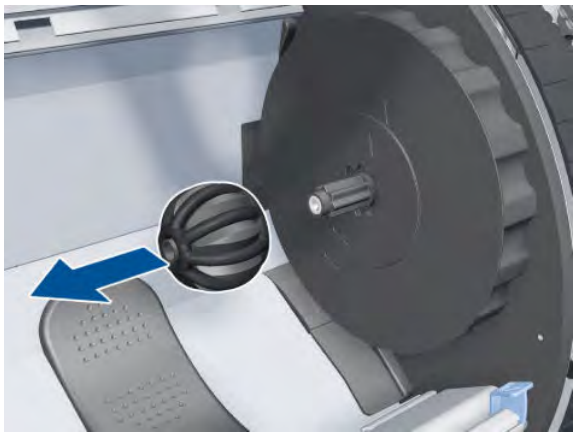
Hub, Left, and Roll Support

Removal

1. Open the Smart Roll-loading System Door.
2. Unload the paper.
3. Remove one screw from the ball.



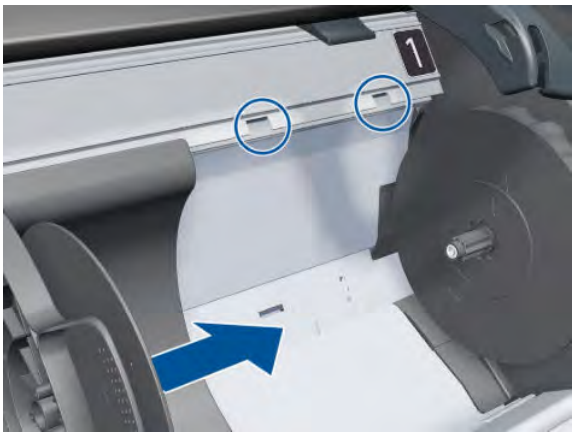
4. Remove the ball from the Left Hub.



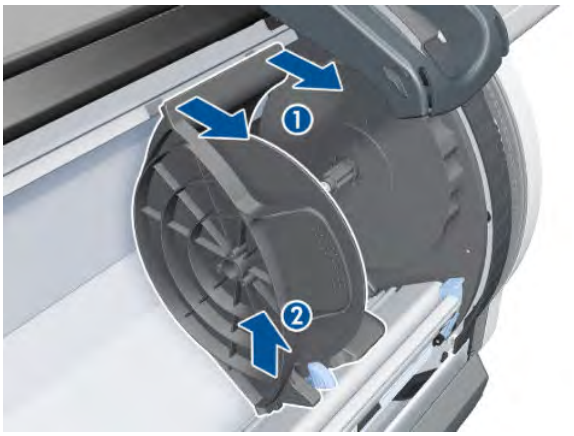
5. Remove the Roll Support from the base.

6. Slide the Left Hub to the right.

7. Continue sliding the Left Hub to the right until it reaches the slots.



8. Disengage the Left Hub from the slots.



9. Remove the Left Hub.

Smart Roll-loading System Door

Removal

1. Remove the Right Smart Roll-loading System Cover ➡ See Smart Roll-loading System Cover, Right on page 258.
2. Remove the Left Smart Roll-loading System Cover ➡ See Smart Roll-loading System Cover, Left on page 259.
3. Put the tube bushing in this position on each side.

4. Remove the tube bushing by pushing it from behind.

5. Remove one T-15 screw from the left-hand lever.

6. Remove one T-15 screw from the right-hand lever.

7. Remove the Smart Roll-loading System Door.

Carriage

Removal

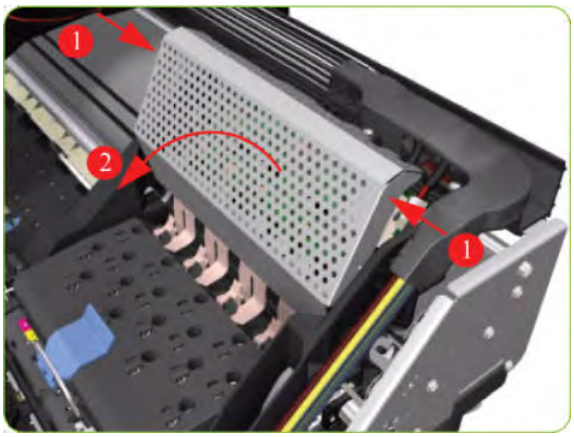
⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Front Panel ⇒ See Front Panel on page 237.
3. Remove the Primer Assembly ⇒ See Primer Assembly on page 239.
4. Remove the Left Cover ⇒ See Cover, Left on page 226.
5. Remove the Encoder Strip ⇒ See Encoder Strip and Encoder Sensor on page 296.
6. Pull out the Printhead Maintenance Cartridge tray.

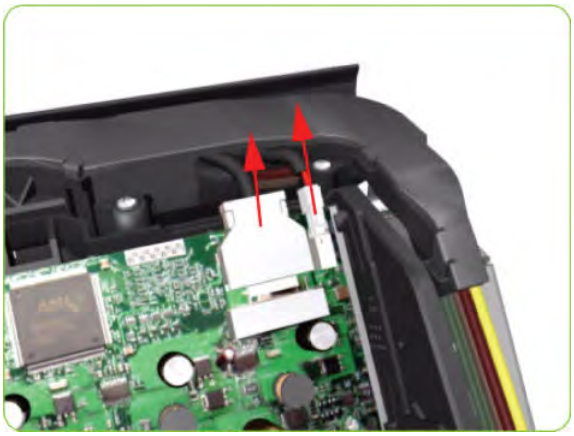
7. Lift the Primer and hold the Primer to its maximum position to avoid damaging it when you move the Carriage in the next step.

8. Move the Carriage to the extreme right of the printer.

9. Press the two side of the Carriage PCA Cover and unclip from the Carriage.

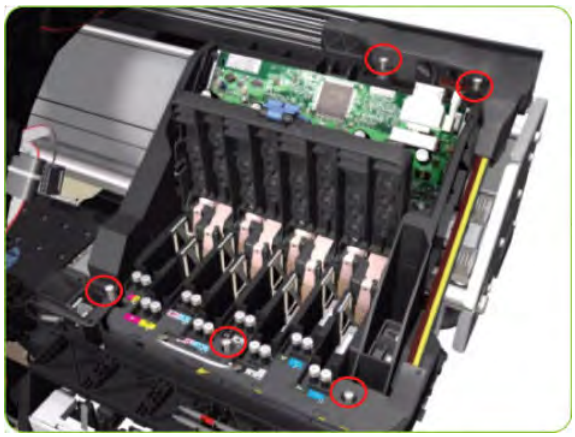


10. Disconnect the Trailing Cable from the Carriage PCA.



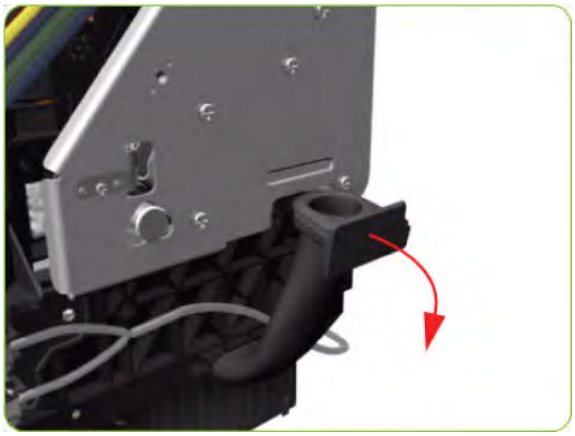
11. Open the Carriage Cover and remove ALL the Printheads from the Carriage.

12. Remove five T-15 screws (**Type G**) that secure the Ink Supply Tubes to the Carriage.



13. Remove the Ink Supply Tubes from the Carriage and safely place to one side of the printer.

14. Disconnect the Aerosol Fan Tube from the Chassis.

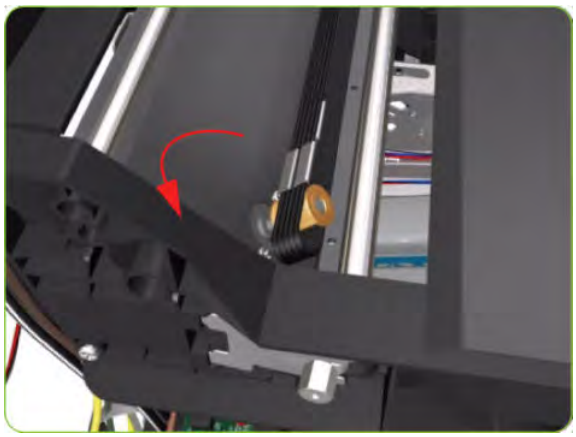


15. Remove one T-20 screw (**Type A**) that secures the Belt Tensioner to the Chassis.

16. Lift the Primer and hold the Primer to its maximum position to avoid damaging it when you move the Carriage in the next step.

17. Move the Carriage slightly away from the right Scan-Axis Bracket.

18. Release the Carriage Belt from the Scan-Axis Motor on the left-hand side of the printer.

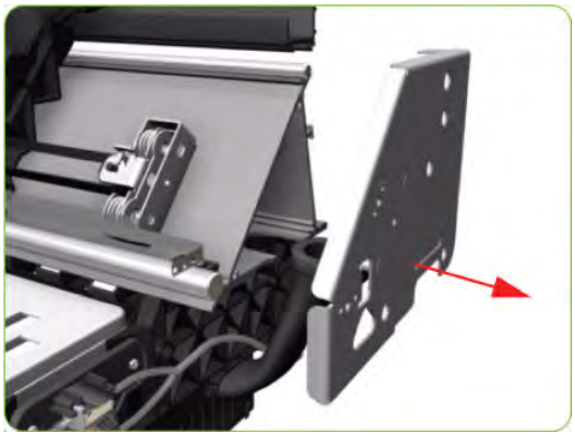


19. Remove one T-10 screw (**Type C**) that secure the Encoder Strip.

20. Remove four T-20 screws (**Type N**) that secure the right Scan-Axis Bracket.

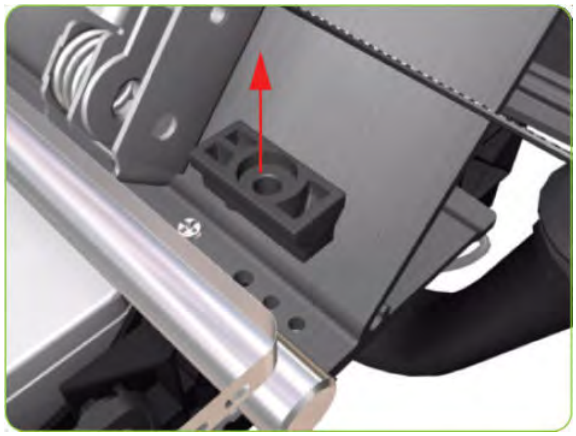
NOTE: Note that these are Chassis screws and in normal circumstances should NEVER be removed, but in this case we need to remove them in order to remove the Carriage.

21. Remove the right Scan-Axis Bracket from the printer.



22. Remove the Carriage Stopper Screw (T-20) from the Chassis.

23. Remove the Carriage Stopper from the printer.



24. Slide the Carriage (including the belt) to the right and out of the printer.

25. If the Carriage is to be replaced, make sure that you remove the Belt, the Carriage PCA, Encoder and Line Sensors and the Cutter (in order to install them on the new Carriage).

NOTE: After installing the new Carriage, make sure you perform the following Service Utility and Calibrations:

- Reset life counter Carriage ME ⇒ Reset Life Counters on page 110.
- Drop Detector Calibration ⇒ Drop Detector calibration on page 126.
- Line Sensor Calibration ⇒ Line Sensor calibration on page 128.

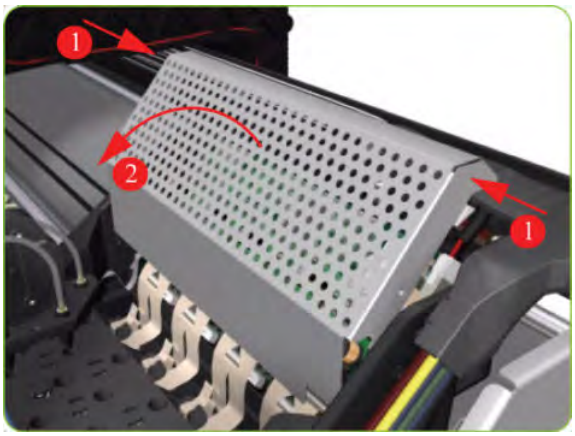
Carriage PCA

Removal

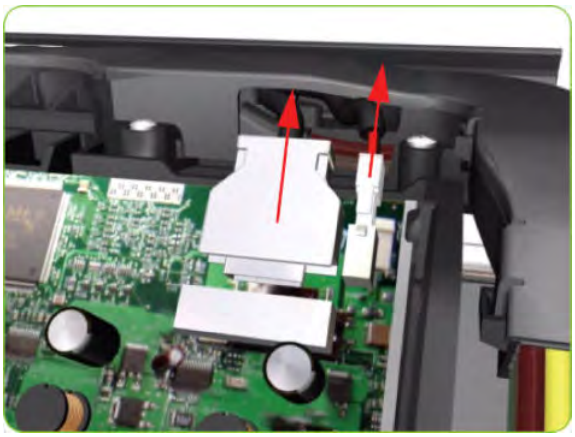
WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.

2. Press the two side of the Carriage PCA Cover and unclip from the FPCA.



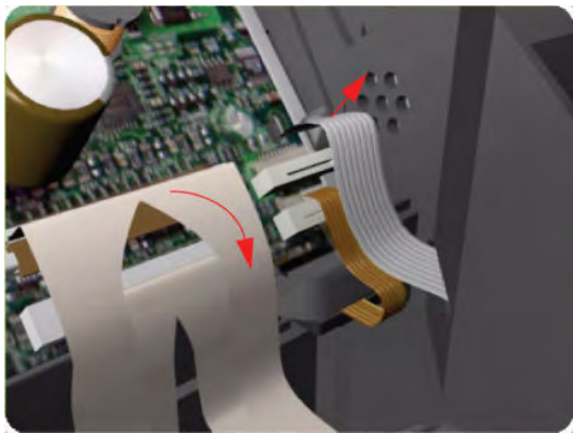
3. Disconnect the Trailing Cable from the Carriage PCA.



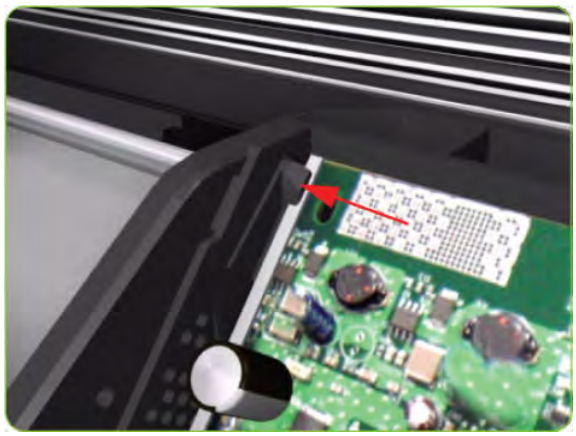
4. Use a flat-bladed screwdriver to release the ALL the clips, securing the Carriage Flex Cables to the Carriage Assembly, by pulling upwards.

5. Disconnect the Flex Cables from the Carriage PCA.

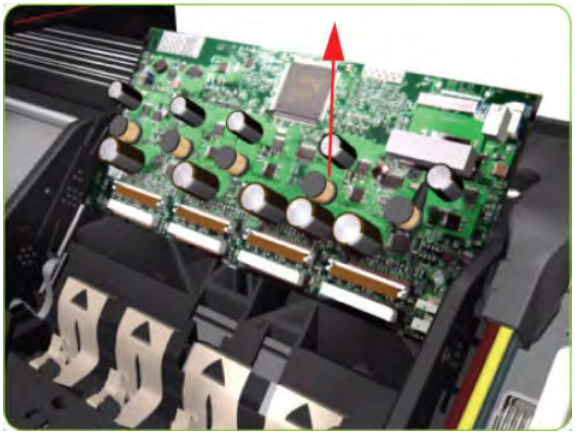
6. Disconnect the Line Sensor Cable and the Encoder Sensor Cable from the Carriage PCA.



7. Push inwards the four clips that secure the Carriage PCA.



8. Remove the Carriage PCA from the printer.



NOTE: Once you have installed a new Carriage PCA, you must perform the following steps to ensure that the printer will function correctly:

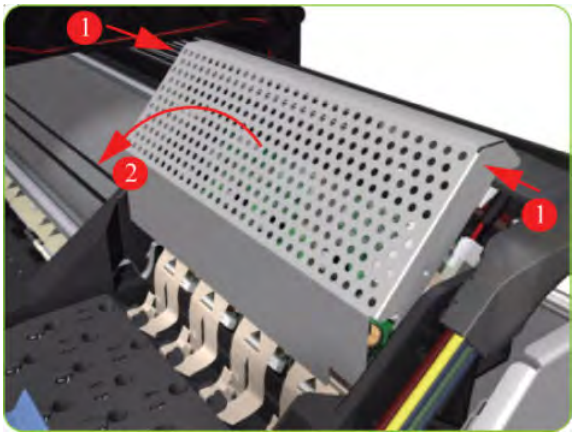
1. Turn on the printer.
2. Install the Printheads.
3. Reset life counter Carriage PCA Reset Life Counters on page 110.

Carriage Flex Cables

Removal

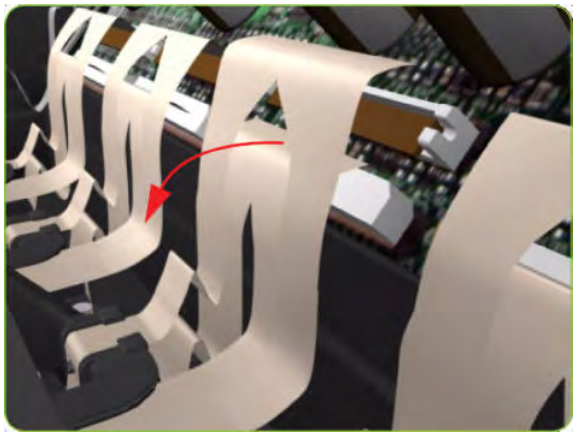
WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover See Cover, Right on page 223.
2. Remove the Front Panel See Front Panel on page 237.
3. Disconnect the Trailing Cable from the Carriage PCA.
4. Press the two side of the Carriage PCA Cover and unclip from the Carriage Assembly.

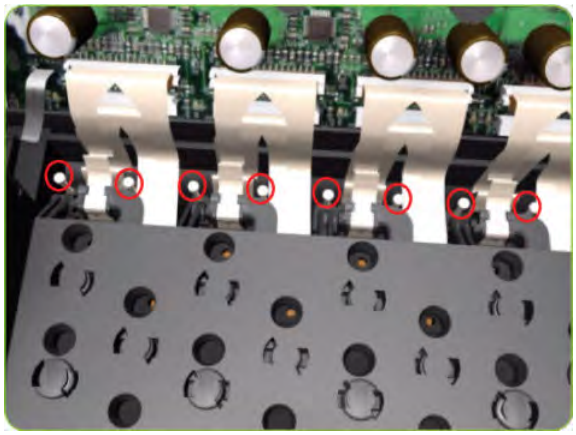


5. Use a flat bladed screwdriver to release the all the clips, securing the Carriage Flex Cables to the Carriage Assembly, by pulling upwards.

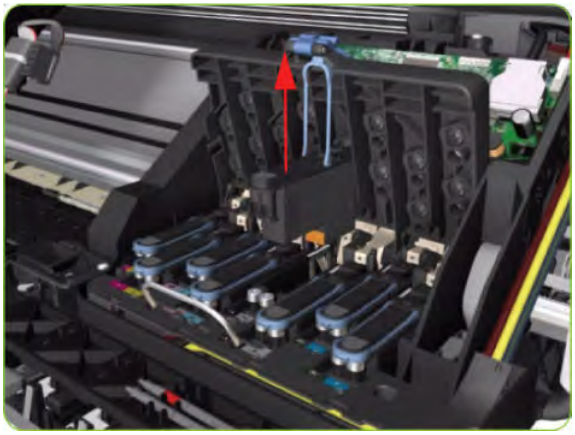
6. Remove eight T-8 screws (**Type L**) that secure the Carriage Flex Cables to the Carriage Assembly.



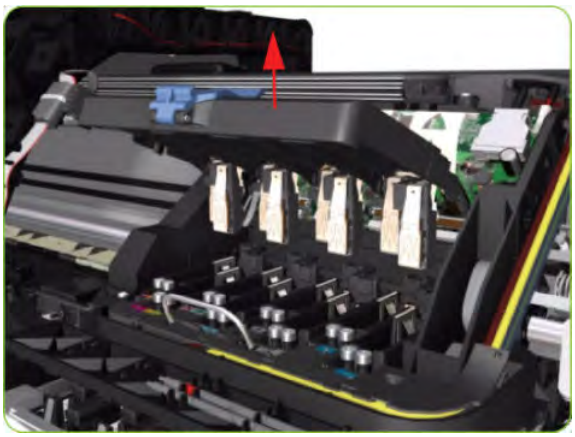
7. Open the Carriage Cover and remove all the Printheads from the Carriage Assembly.



8. Open the Carriage Cover and remove all the Printheads from the Carriage Assembly.



9. Remove the Carriage Flex Cable from the printer.



Encoder Strip and Encoder Sensor

Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover ➡ See Cover, Right on page 223.
2. Remove the Left Cover ➡ See Cover, Left on page 226.

3. Uncap the Carriage Assembly by manually pulling out the Printhead Maintenance Cartridge tray.

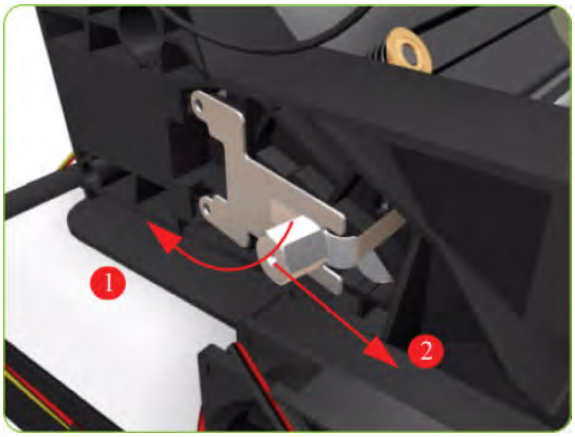
4. Lift the Primer and hold the Primer to its maximum position to avoid damaging it when you move the Carriage Assembly in the next step.

5. Move the Carriage Assembly out of the Service Station.

6. Remove one T-10 screw (**Type I**) that secures the Encoder Strip on the right-hand side of the printer.

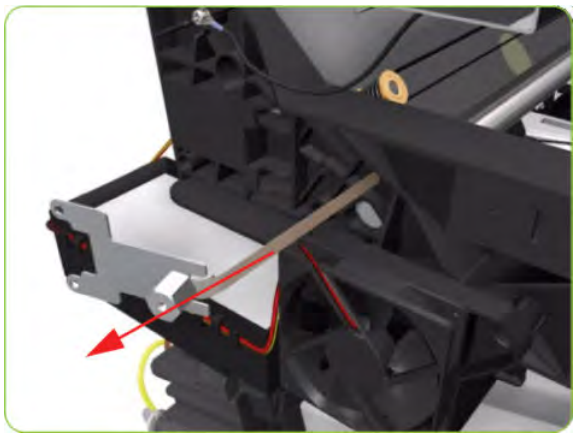
7. Release the Encoder Strip from the locating pins on the right-hand side of the printer.

8. Release the Spring Clip from the Bracket on the left-hand side of the printer.

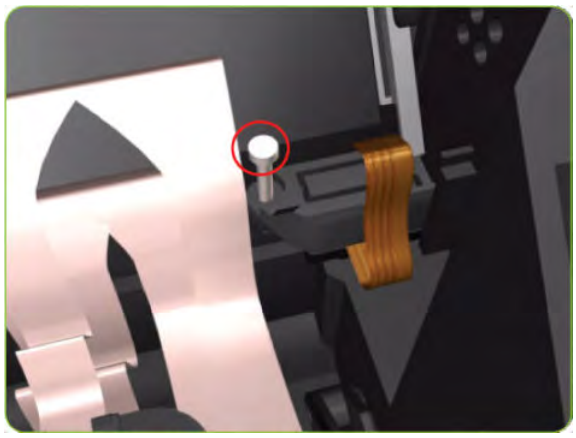


9. Carefully pull the Encoder Strip out of the left-hand side of the printer.

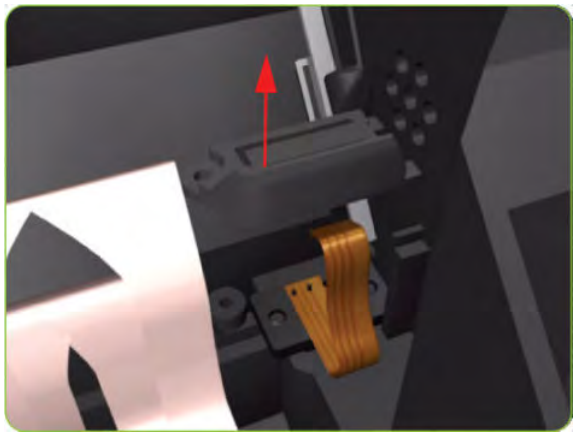
10. Remove the Carriage PCA ➡ See Carriage PCA on page 291.



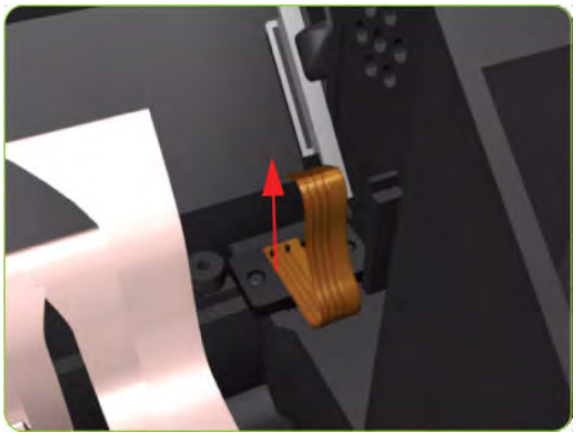
11. Remove one T-8 (**Type L**) screw that secures the Encoder Sensor to the Carriage Assembly.



12. Remove the plastic cover from the Encoder Sensor.



13. Remove the Encoder Sensor from the printer.

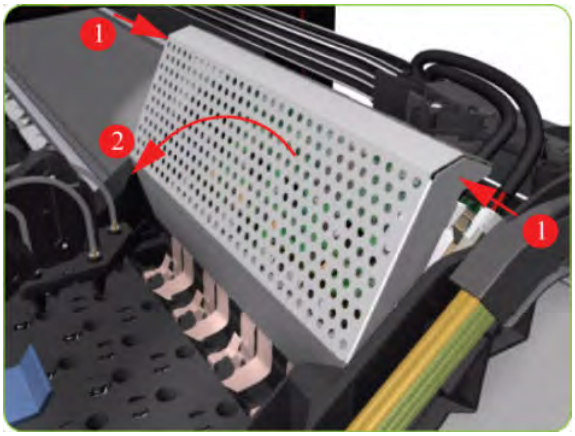


Line Sensor Assembly

Removal

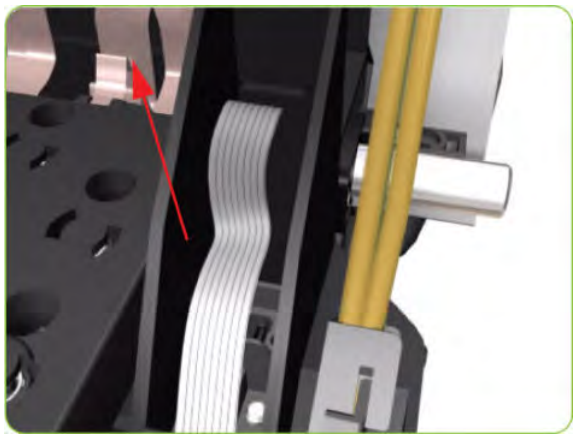
⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover → See Cover, Right on page 223.
2. Press the two side of the Carriage PCA Cover and unclip from the Carriage Assembly.



3. Release the clip and disconnect the Line Sensor cable from the Carriage PCA.

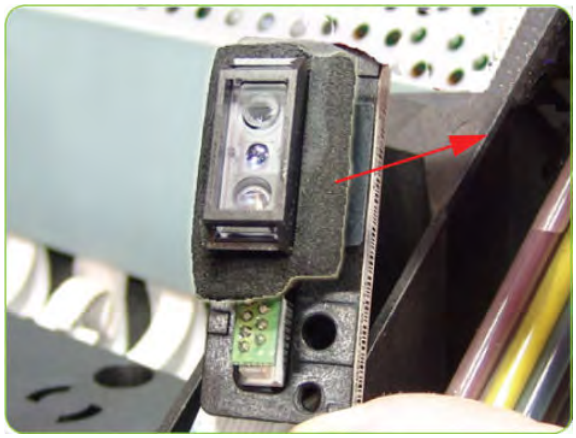
4. Remove the Line Sensor from the Carriage Assembly.



5. Remove the protective foam from around the sensor.

NOTE: After installing the new Line Sensor, make sure you perform the following Service Calibrations:

- Line Sensor Calibration ⇒ Line Sensor calibration on page 128.



Ink Supply Tubes and Trailing Cable

Removal

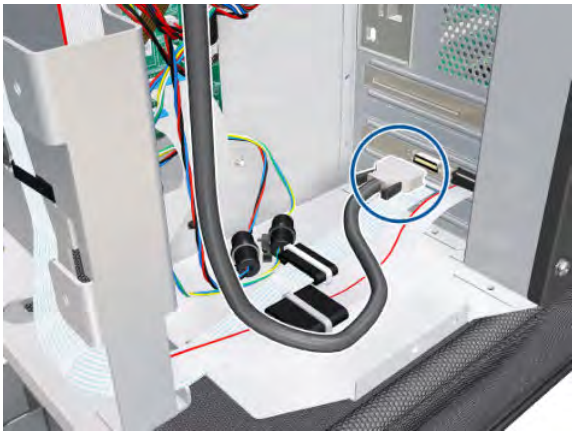
WARNING! Switch off the printer and remove the power cable.

CAUTION: You MUST NEVER replace both the Hard Disk Drive and the Ink Supply Tubes and Trailing Cable at the same time. If both parts need to replaced, you MUST first replace one part and then power ON the printer until it completely initializes. Then you can power OFF the printer and replace the other part.

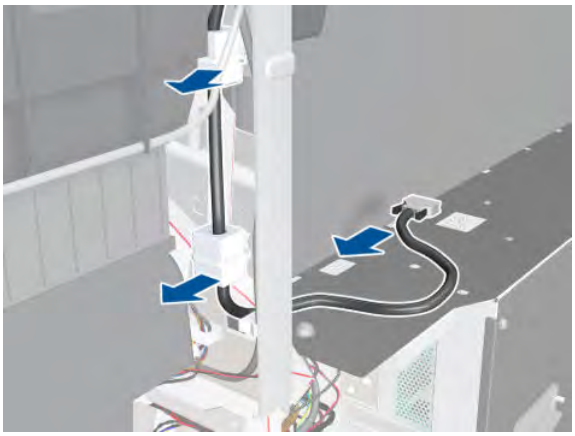
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Remove the Top Cover ⇒ See Cover, Top on page 230.
4. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
5. Remove the Right Rear Trim ⇒ See Rear Trim, Right on page 349.

6. Remove the Right Smart Roll-loading System Cover ➡ See Smart Roll-loading System Cover, Right on page 258.

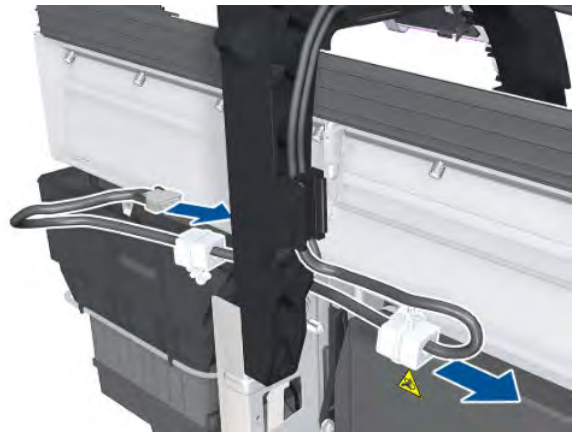
7. Disconnect the Trailing Cable from the Interconnect PCA and the Main PCA.



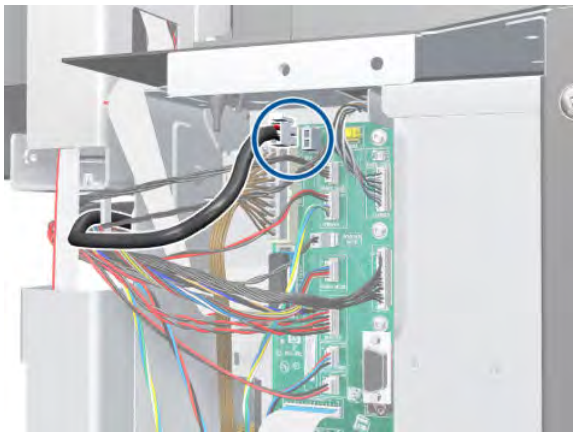
8. Unclip the Trailing Cable ferrites from the left side of the Electronic Module, and pass the cable through the sideplate.



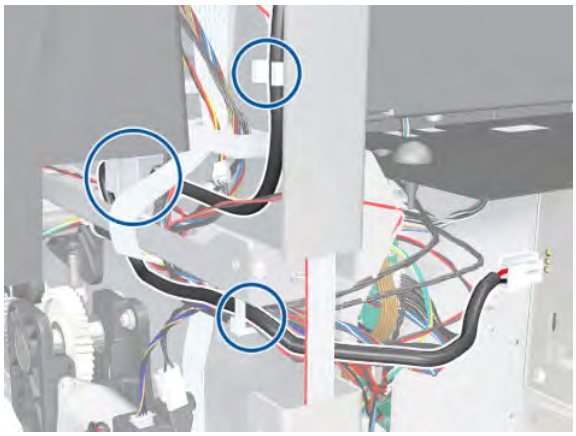
9. Pass the cable through the arc.



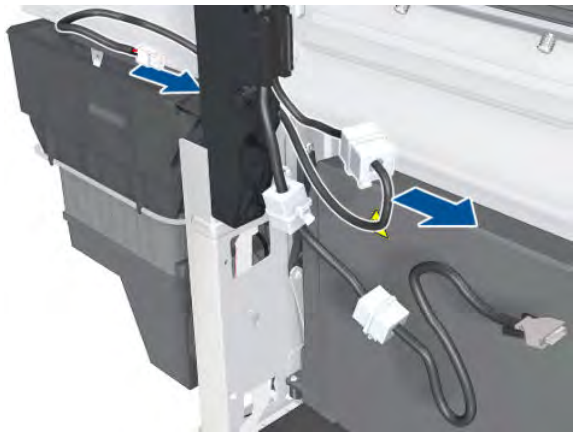
10. Disconnect the Trailing Cable from the Interconnect PCA.



11. Unclip the Trailing Cable from the cable clamps and unroute it.



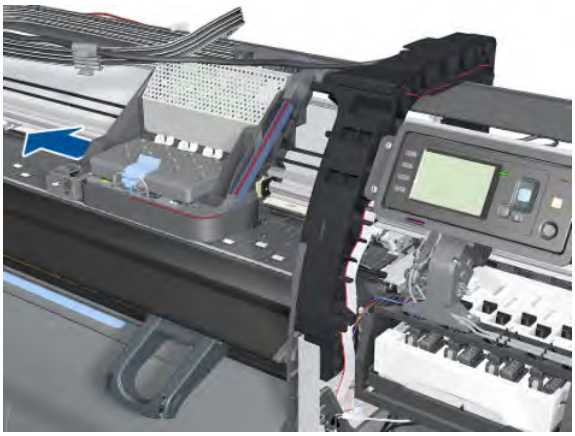
12. Pass the Trailing Cable through the arc.



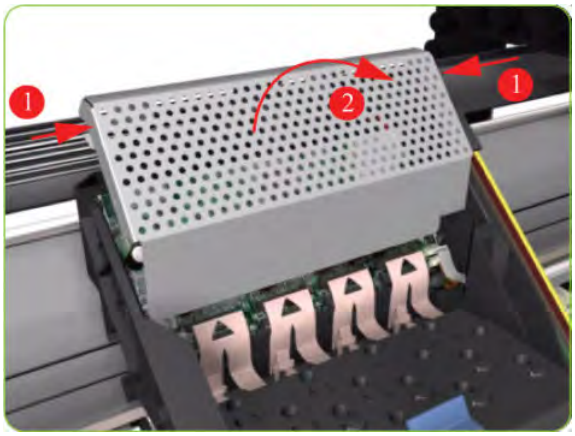
13. Slide out the Maintenance Cartridge.

14. Disconnect the Trailing Cable from the Carriage PCA.

15. Move the Carriage to the center of the Platen.

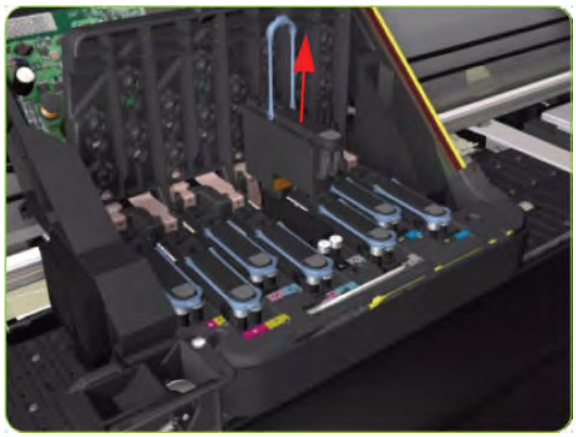


16. Press the two side of the Carriage PCA Cover and unclip from the Carriage Assembly.

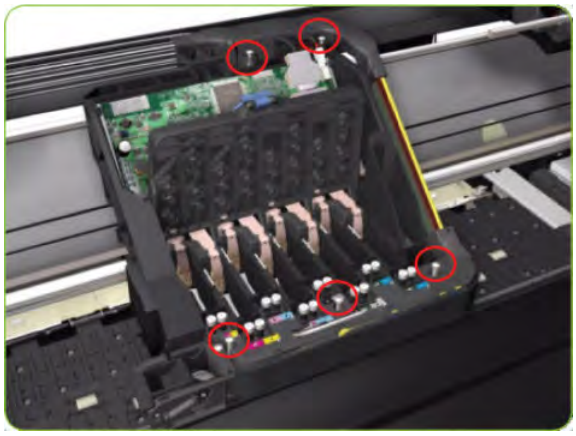


17. Disconnect the Trailing Cable from the Carriage PCA.

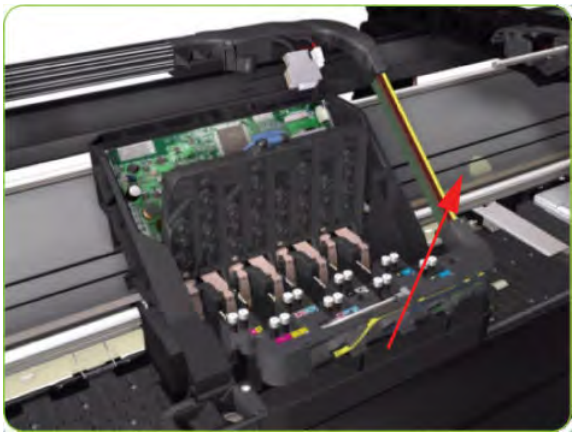
18. Open the Carriage Cover and remove all the Printheads from the Carriage Assembly.



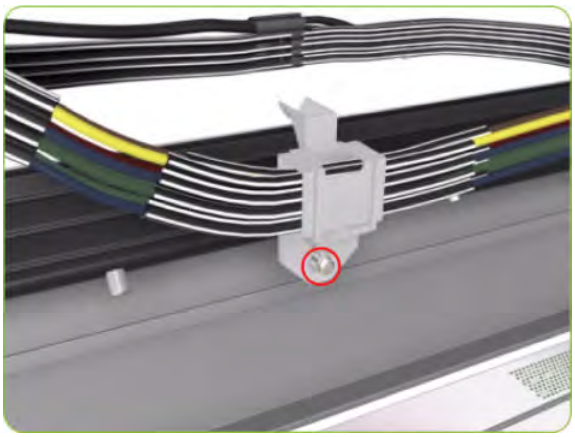
19. Remove five T-15 screws (**Type G**) that secure the Ink Supply Tubes to the Carriage Assembly.



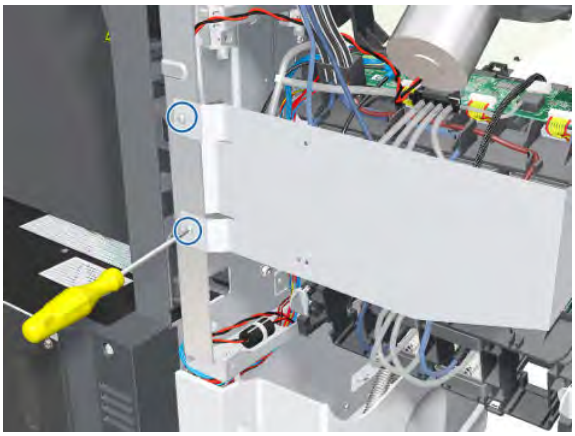
20. Remove the Ink Supply Tubes from the Carriage Assembly and safely place to one side of the printer.



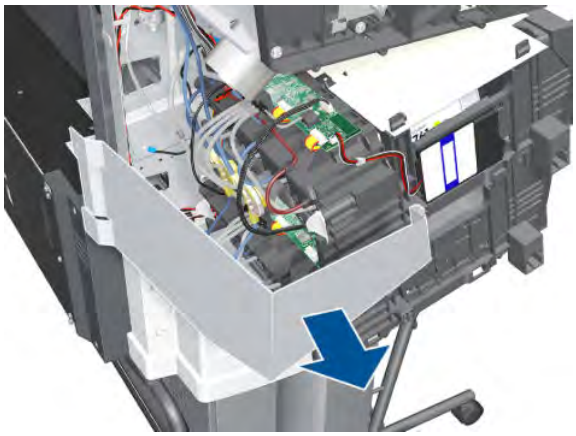
21. Remove two T-20 screws that attach the bonding cable to the printer chassis.



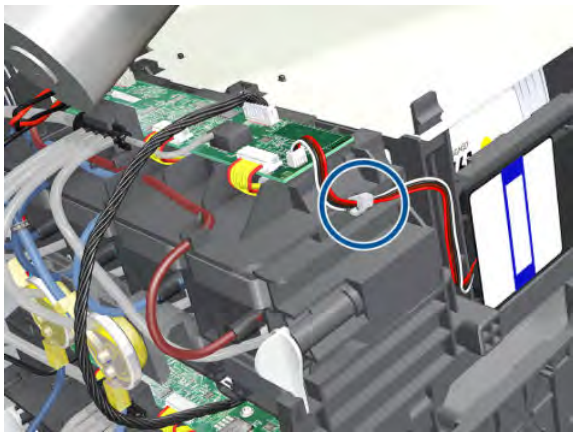
22. Remove two T-20 screws from the ISS Shielding.



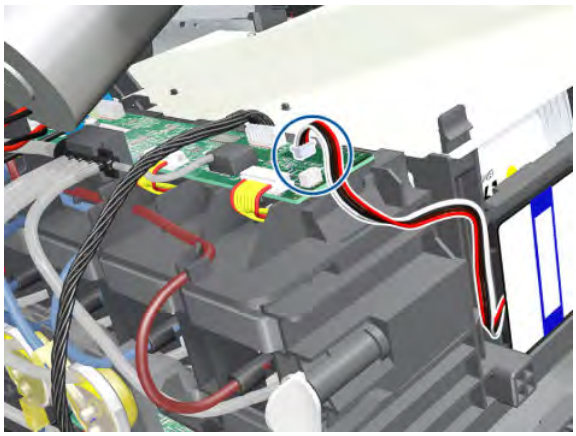
23. Remove the ISS Shielding.



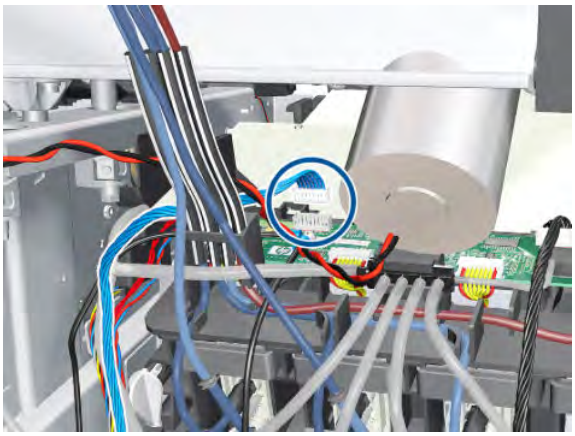
24. Unroute the RFDI cable from the bridle.



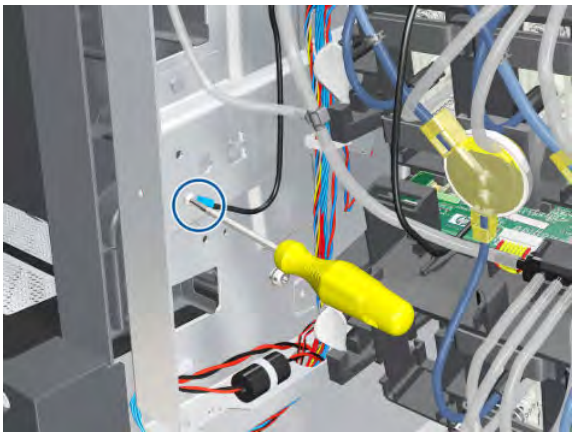
25. Disconnect the RFDI cable.



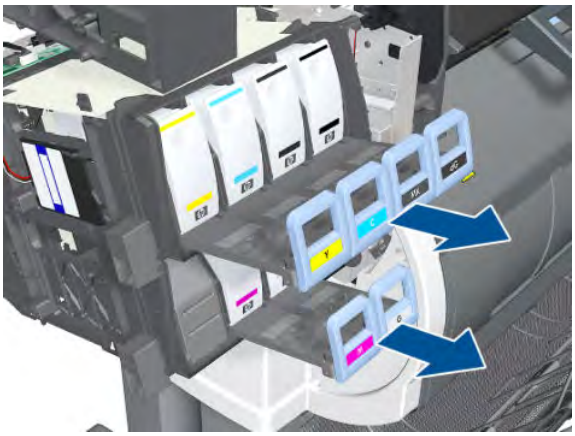
26. Disconnect the cable.



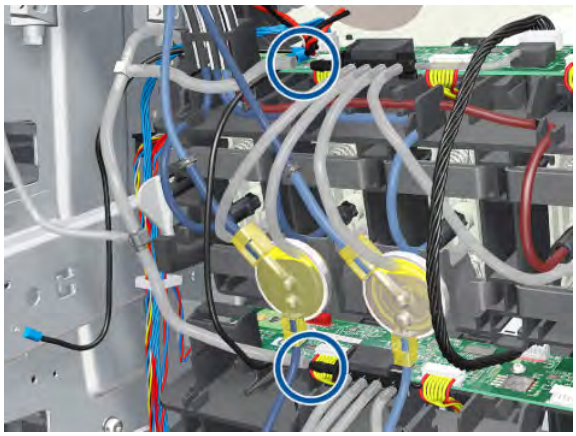
27. Remove the grounding screw.



28. Slide out the Ink Cartridges.

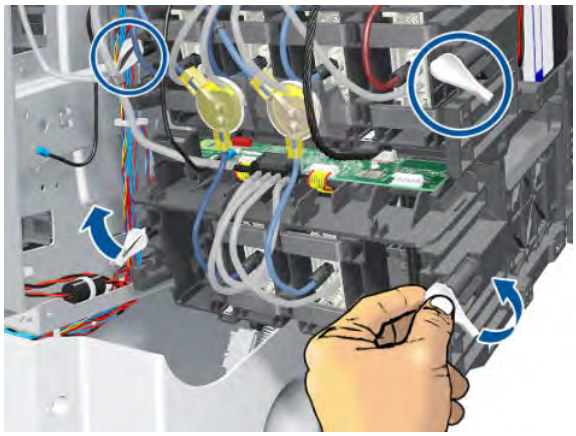


29. Disconnect the Air Tubes from the Ink Cartridge Tube Connector.

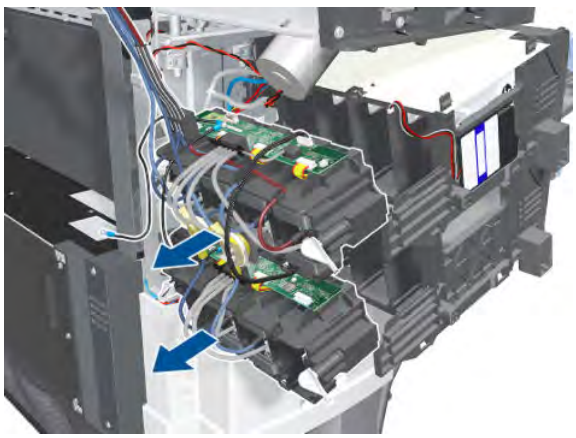


30. Twist the four latches at the rear of the Ink Cartridge Tube Connector and release the complete assembly.

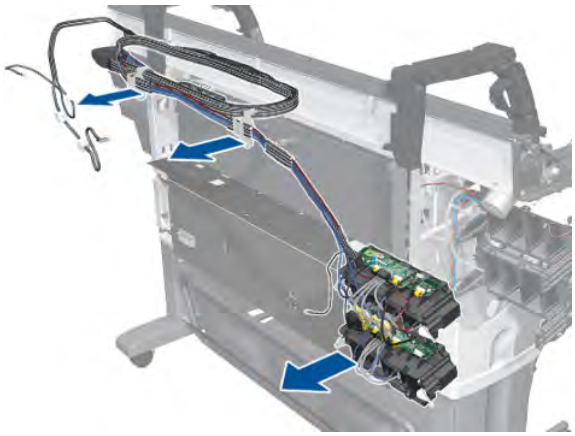
NOTE: Be careful not to damage the interconnecting cable.



31. Carefully slide the Ink Cartridge Tube Connector off the Ink Supply Station.



32. Remove the Ink Supply Tubes and Trailing Cable from the printer.



Installation of the Ink Supply Tubes and Trailing Cable

NOTE: After installing the new Ink Supply Tubes and Trailing Cable, make sure you perform the following Service Utility:

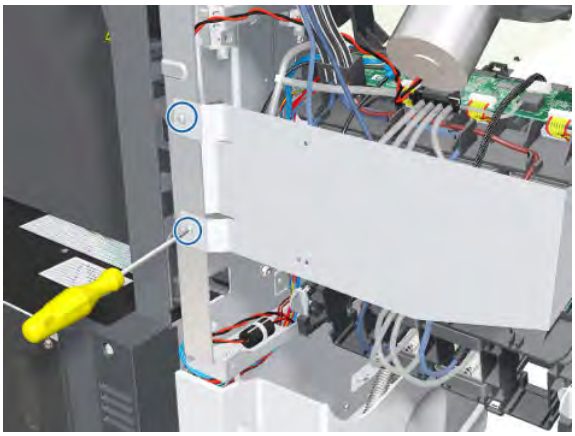
- Reset life counter scan cycles tubes/cable ⇒ Reset Life Counters on page 110.

ISS to Cartridge Cables

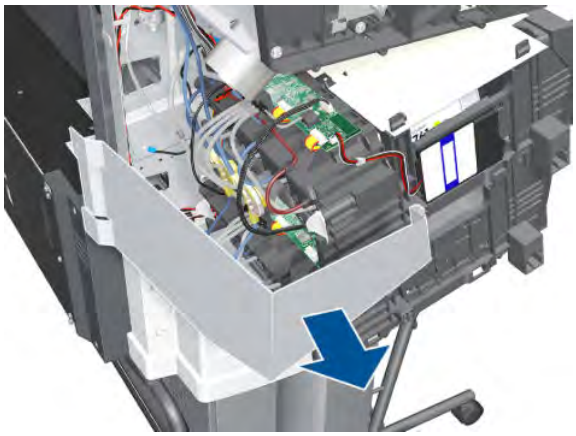
Removal

WARNING! Switch off the printer and remove the power cable.

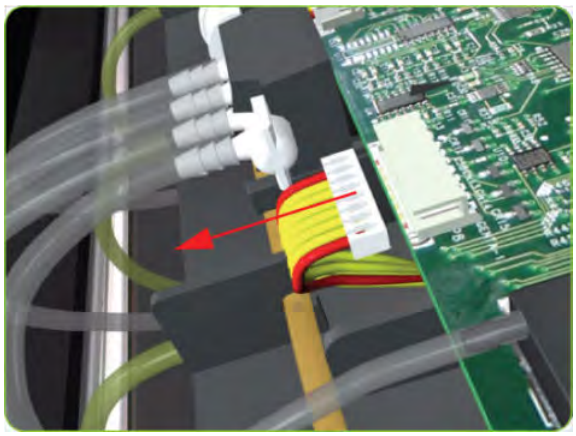
1. Remove the Left Cover ⇒ See Cover, Left on page 226.
2. Remove two T-20 screws from the ISS shielding.



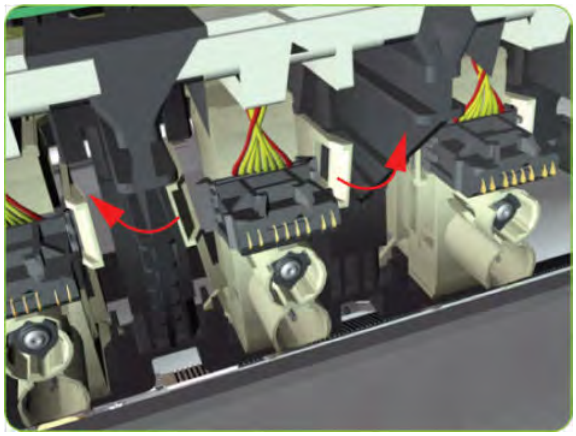
3. Remove the ISS Shielding.



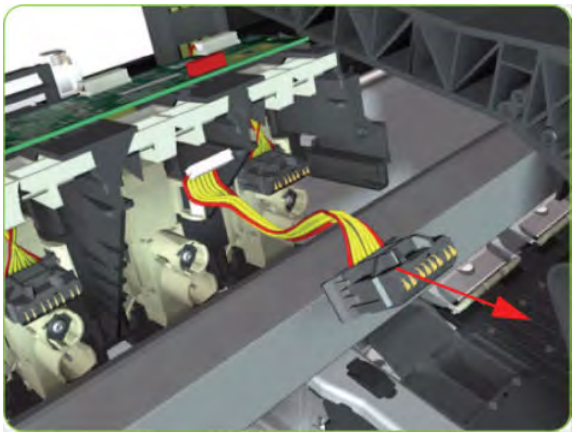
4. Disconnect the ISS to Cartridge Cable from the ISS PCA.



5. Release the clips securing the ISS to Cartridge Cable.



6. Remove the ISS to Cartridge Cable from the printer.

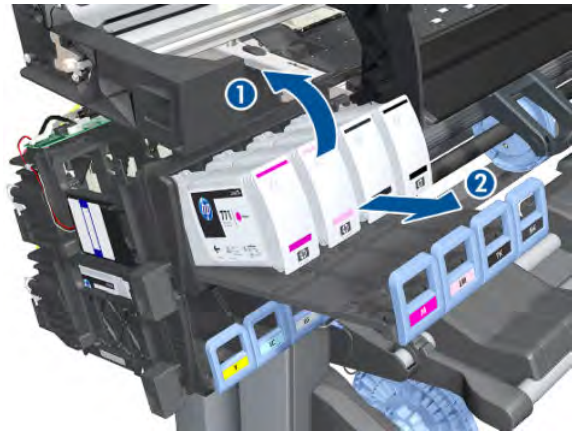


Ink Supply Station (ISS)

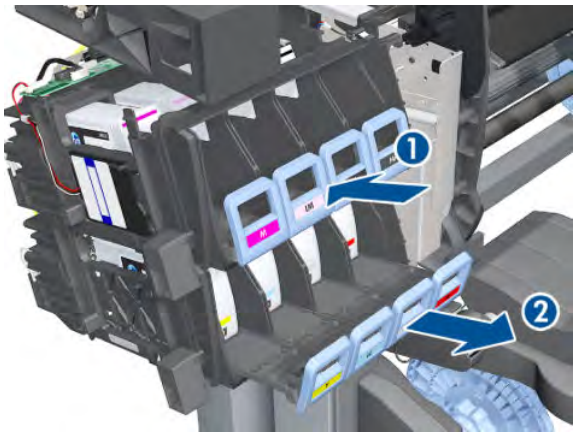
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

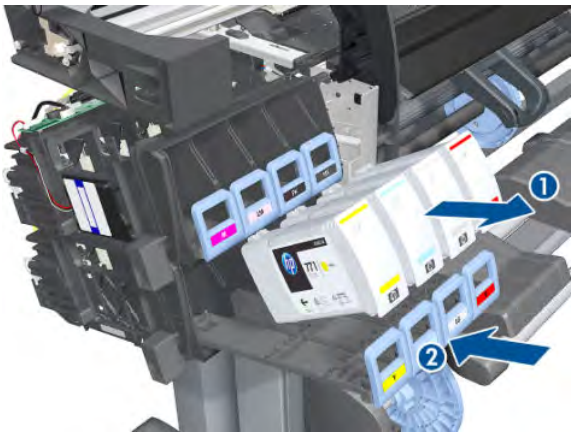
1. Remove the Scan-Axis Motor ➡ See Scan-Axis Motor on page 324.
2. Pull out the top row of Cartridge Trays and remove the Ink Cartridges.



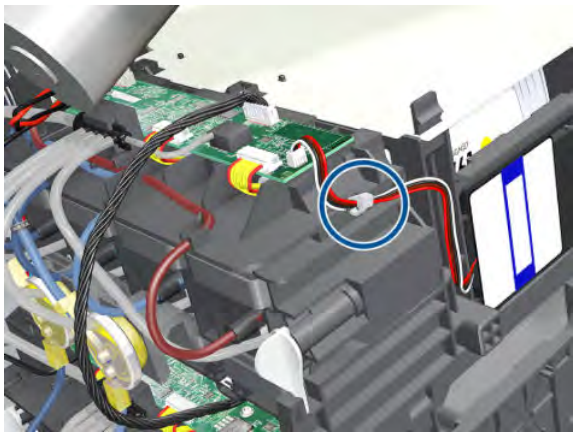
3. Close the top row of Cartridge Trays and pull out the bottom row.



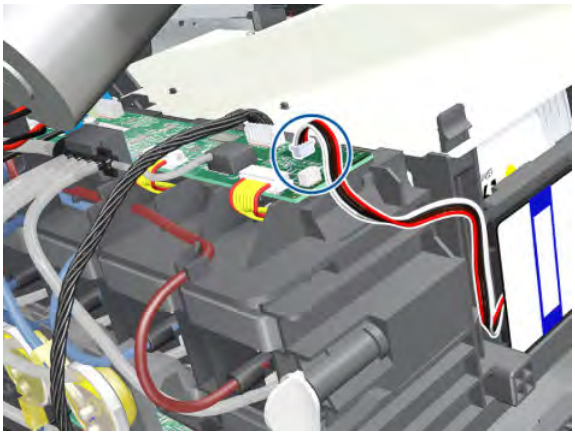
4. Pull out the bottom row of Cartridge Trays and remove the Ink Cartridges.



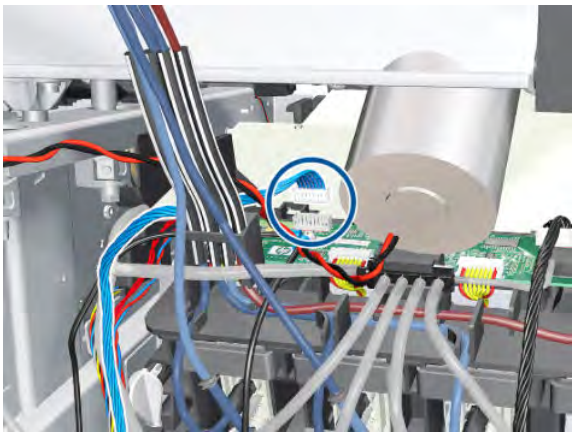
5. Unroute the RFDI cable from the bridle.



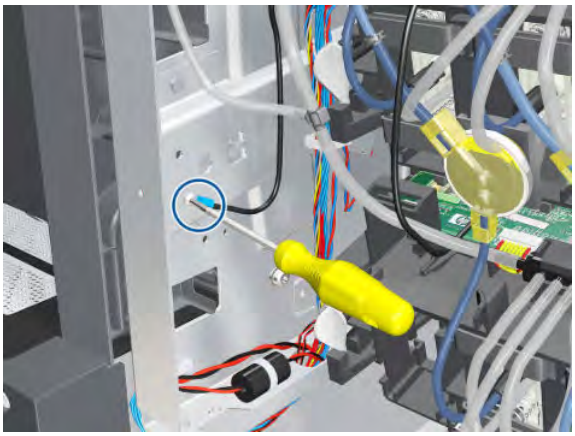
6. Disconnect the RFDI cable.



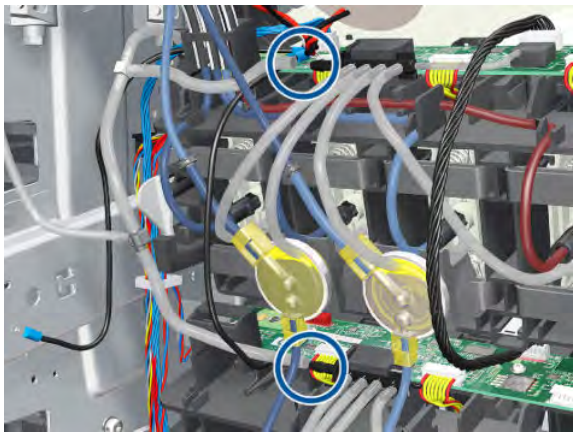
7. Disconnect the cable.



8. Remove the grounding screw.

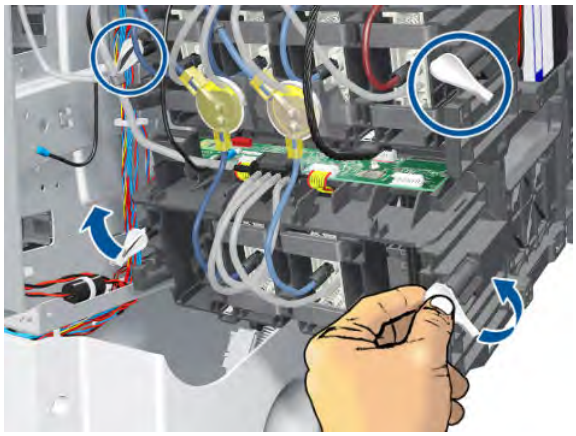


9. Disconnect the Air Tubes from the Ink Cartridge Tube Connector.

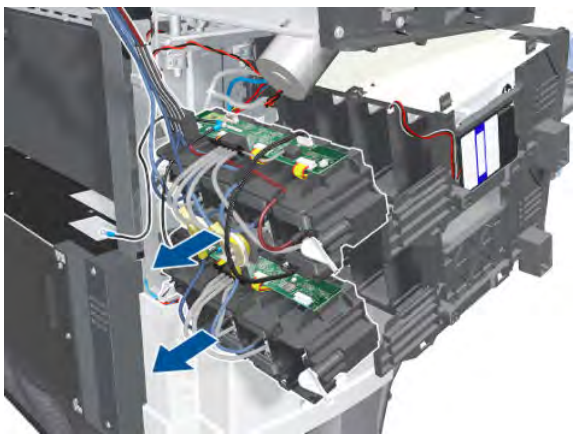


10. Twist the four latches at the rear of the Ink Cartridge Tube Connector and release the complete assembly.

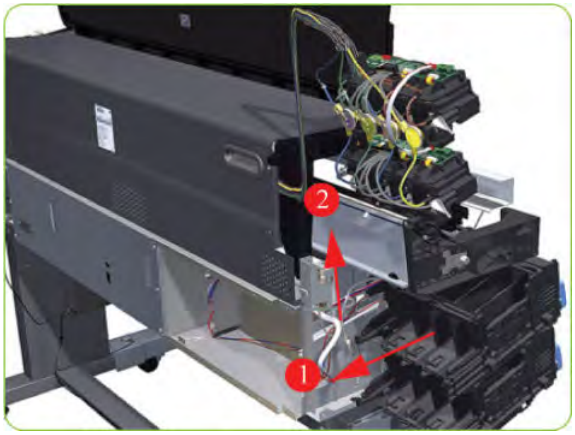
NOTE: Be careful not to damage the interconnecting cable.



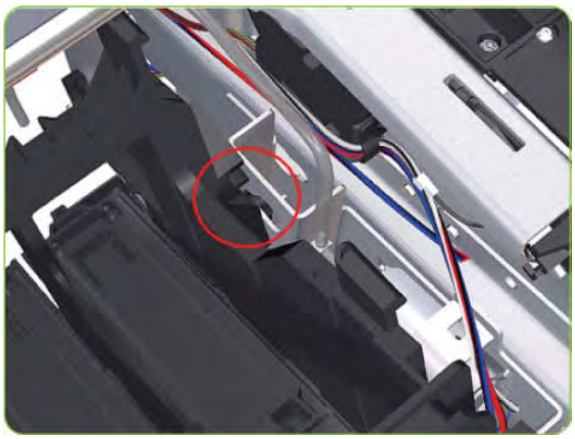
11. Carefully slide the Ink Cartridge Tube Connector off the Ink Supply Station.



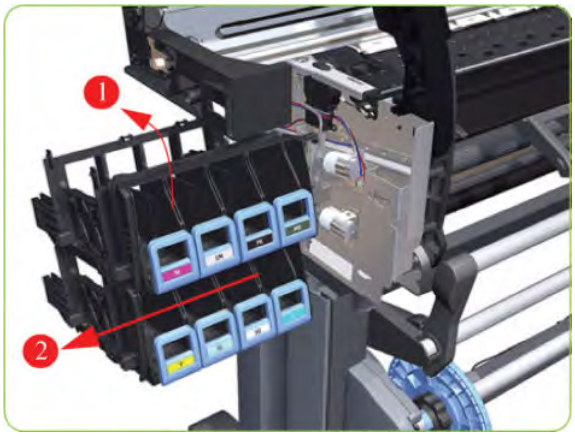
12. Remove the Cartridge Tube Connector from the Ink Supply Station.



13. Unhook Ink Supply Station cables from the printer.



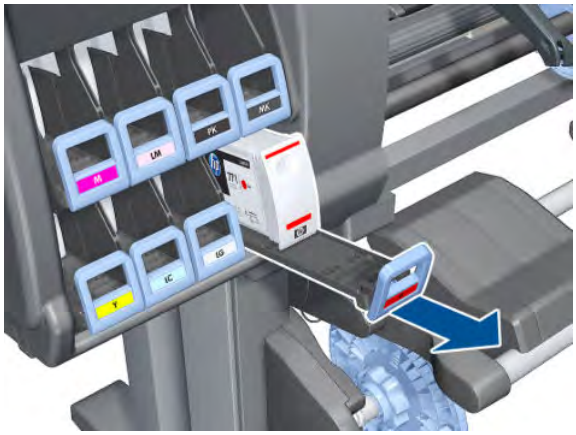
14. Remove the complete Ink Supply Station (upper and lower assemblies) from the printer.



Cartridge Tray

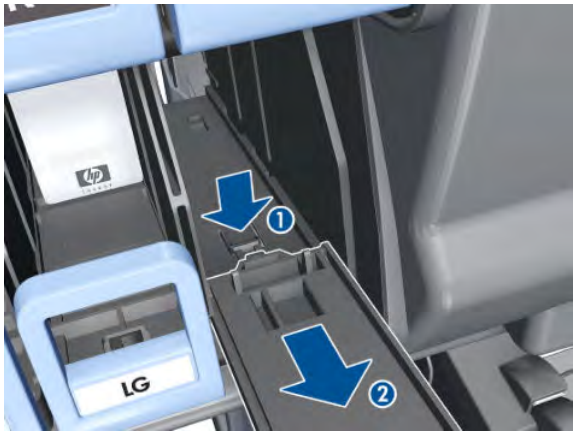
Removal

1. Release the Tray Lever of the required color and pull out the Tray.



2. Remove the Ink Cartridge if installed.

3. Press down on the Tray clip.



4. Pull the Tray completely out of the printer.

NOTE: Note that each Cartridge Tray is different even though they look very similar. When selecting the Cartridge Tray from the Support Part, choose the Tray that exactly matches the one that you have just removed.

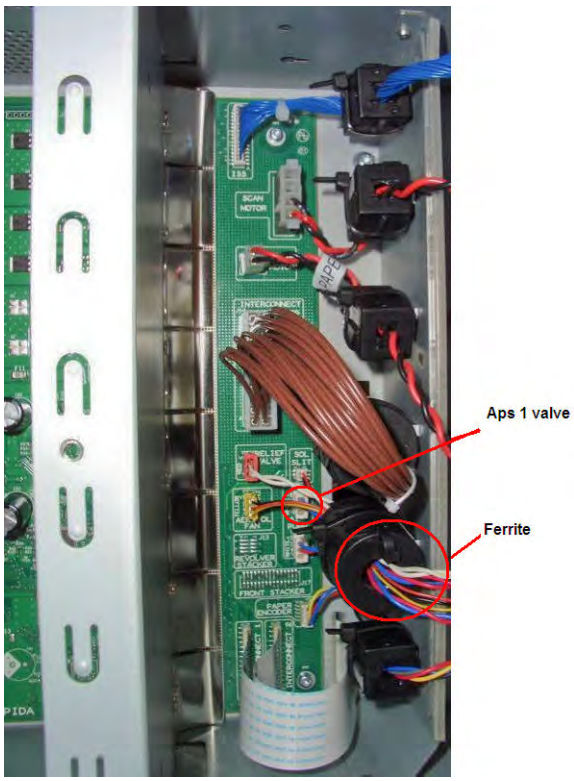
APS Assembly

Removal

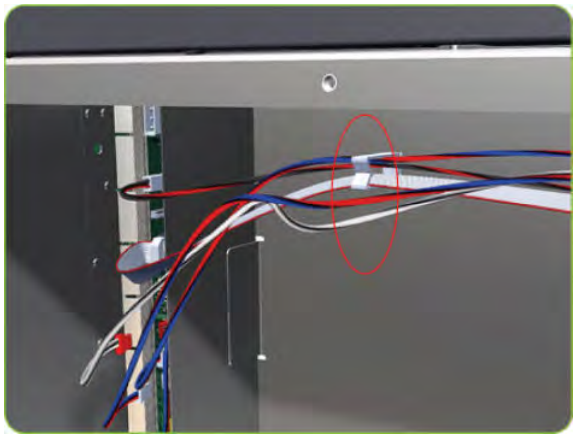
WARNING! Switch off the printer and remove the power cable.

1. Remove the Left Cover ⇒ See Cover, Left on page 226.
2. Remove the Left Connector Cover ⇒ See Connector Cover, Left on page 236.
3. Remove the Scan-Axis Motor ⇒ See Scan-Axis Motor on page 324.
4. Remove the ISS ⇒ See Ink Supply Station (ISS) on page 312.

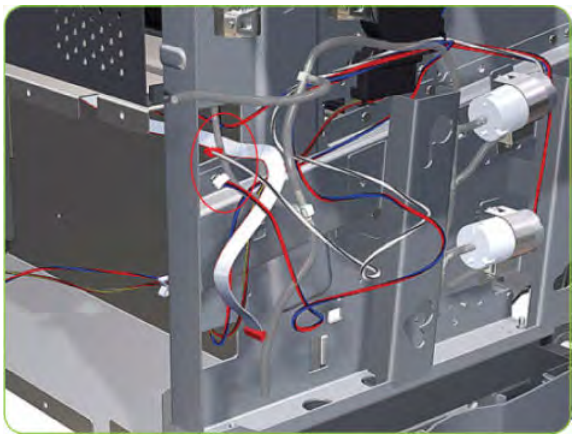
5. Disconnect the APS 1 (top unit) valve electrical connectors from the PrintMech PCA, and remove the cable from the ferrite on the right-hand side of the Electronic Module.



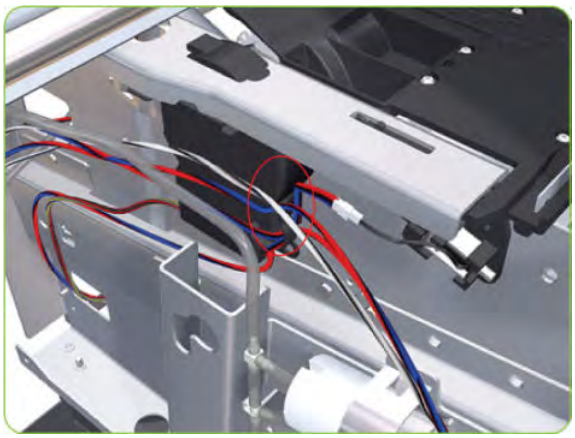
6. Unclip the APS 1 electrical cables from the cable clamps in the left connector panel



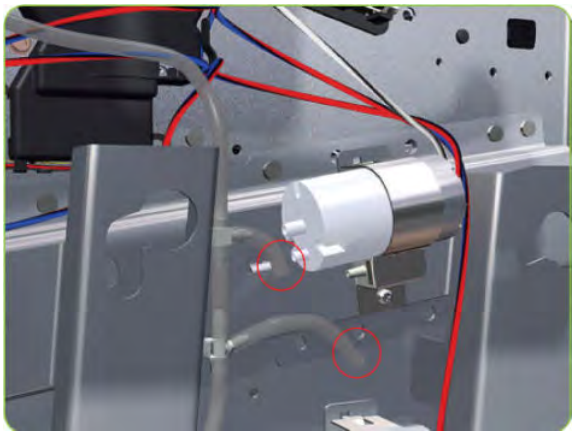
7. Unroute the APS 1 electrical connections from the left connector panel.



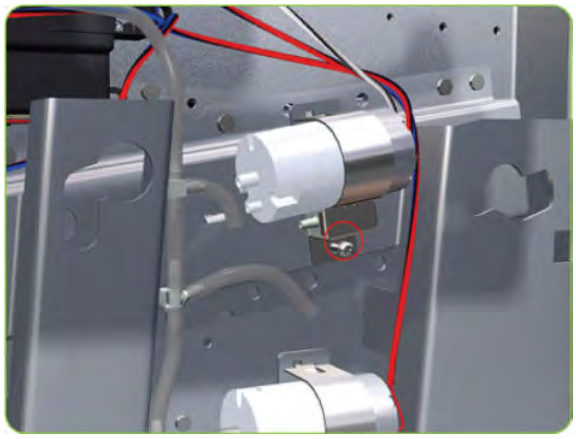
8. Unroute the electrical connections from the printer.



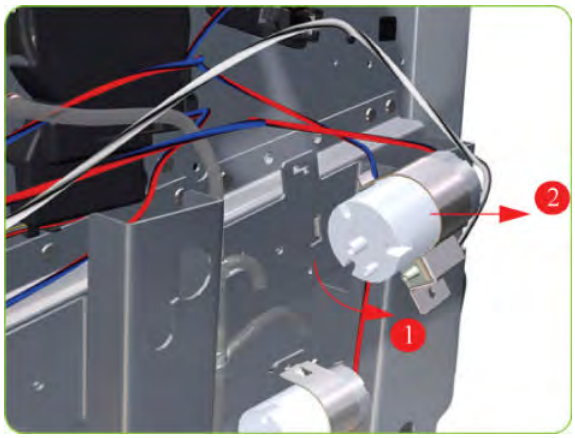
9. Disconnect both air tubes from APS 1.



10. Remove one T-20 attachment screw from APS 1 (Top unit).

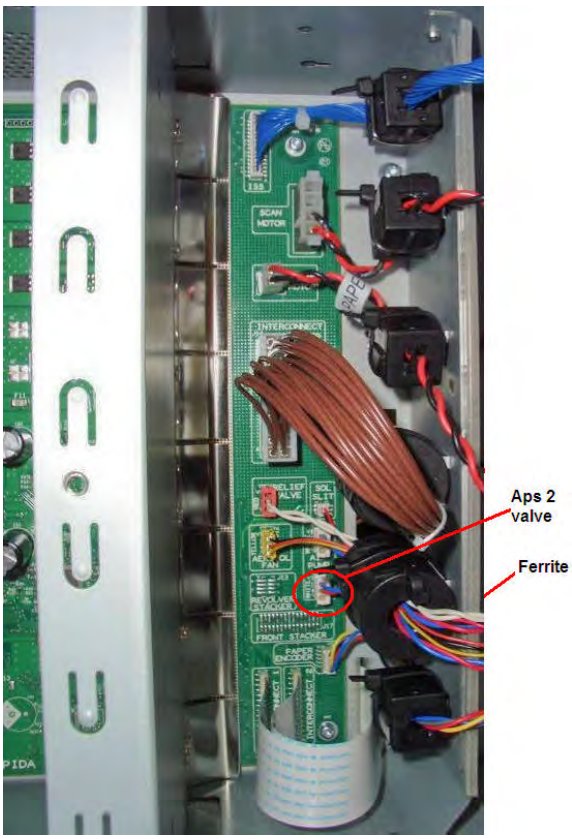


11. Remove APS 1 (Top unit) from the printer.

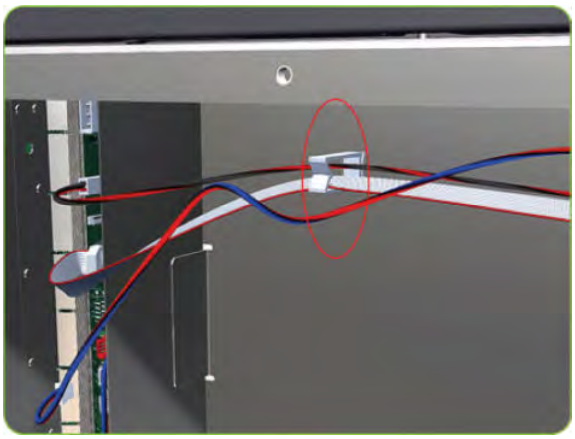


12. Remove the ISS See Ink Supply Station (ISS) on page 312.

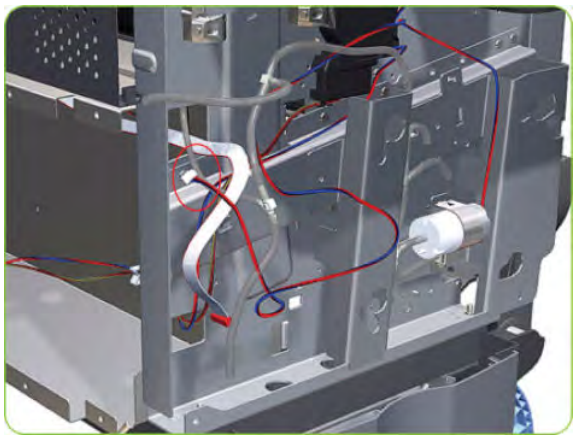
13. Disconnect the APS 2 (top unit) valve electrical connectors from the PrintMech PCA, and remove the cable from the ferrite on the right-hand side of the Electronic Module.



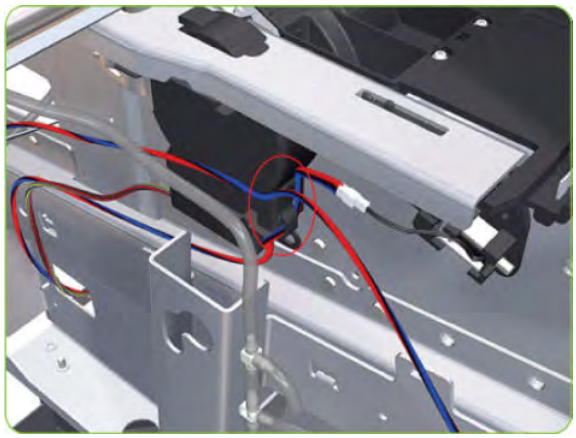
14. Unclip the APS 2 electrical cable from the cable clamps in the left connector panel



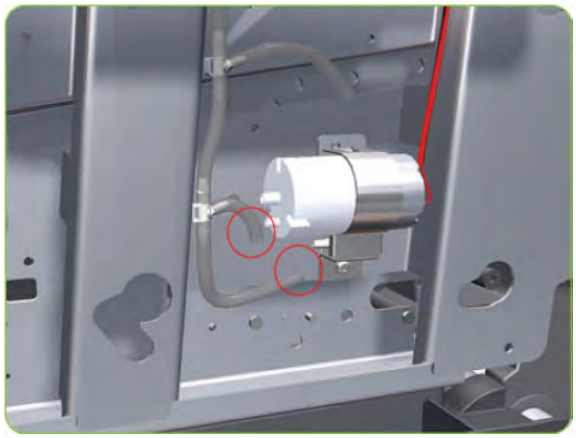
15. Unroute the APS 2 electrical connection from the Media Path Cover Encoder.



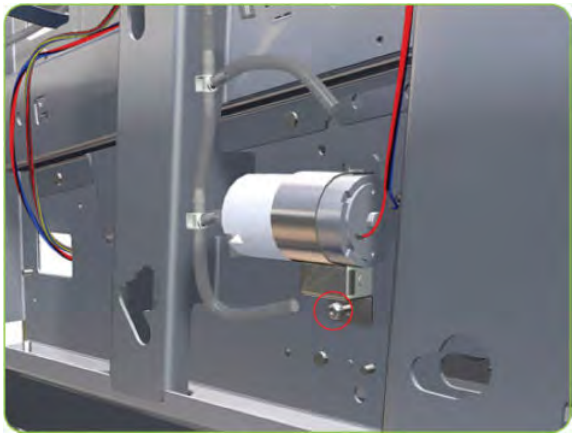
16. Unroute the APS 2 electrical connection from the printer.



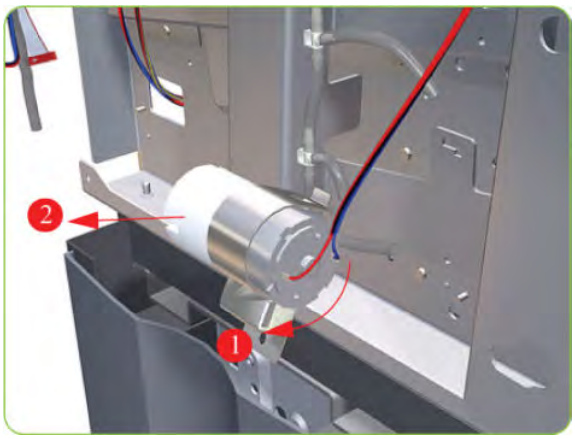
17. Disconnect both air tubes from APS 2.



18. Remove one T-20 attachment screw from APS 1 (Top unit).



19. Remove APS 2 (Bottom unit) from the printer.



Scan-Axis Motor

Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Remove the Left Connector Cover ⇒ See Connector Cover, Left on page 236.

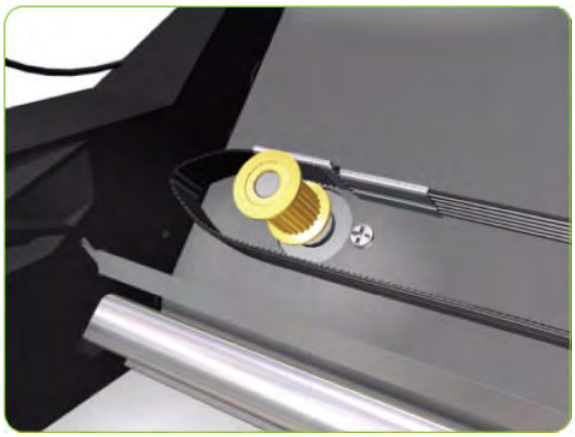
4. Uncap the Carriage Assembly by manually pulling out the Printhead Maintenance Cartridge tray.

5. Lift the Primer and hold the Primer to its maximum position to avoid damaging it when you move the Carriage Assembly in the next step.

6. Move the Carriage Assembly slightly away from the right Scan-Axis Bracket.

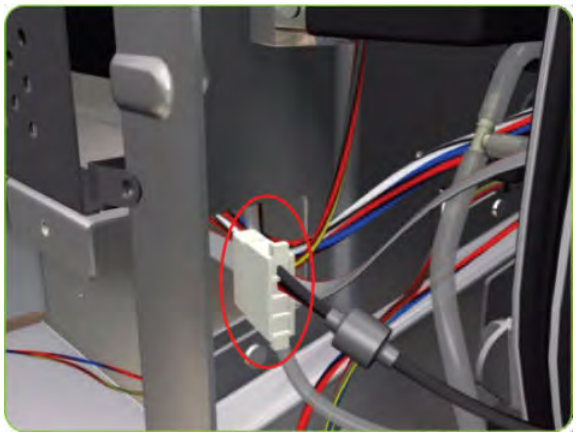
7. Remove one T-20 screw that secures the Belt Tensioner to the Chassis.

8. Release the Carriage Belt from the Scan-Axis Motor on the left-hand side of the printer.



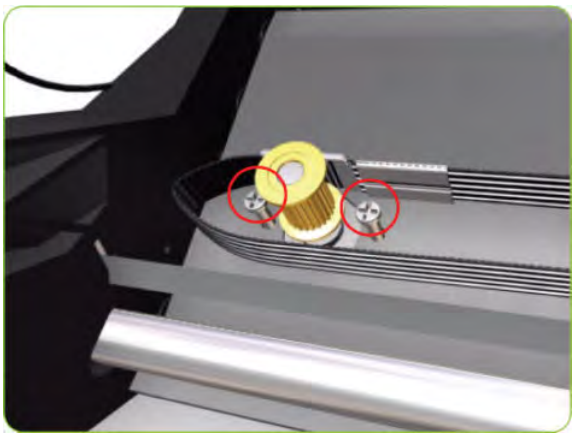
9. Disconnect the Scan-Axis Motor cable from the PrintMech PCA and its ferrite.

10. Unroute the Scan-Axis Motor cable from the chassis.



11. Remove two T-20 screws (**Type A**) that secure the Scan-Axis Motor.

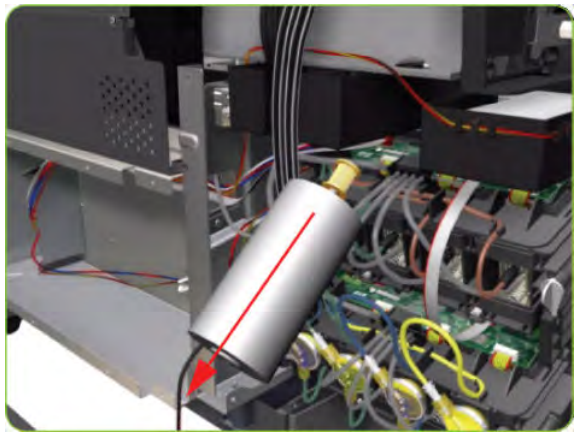
NOTE: Make sure you hold the Scan-Axis Motor securely when removing the screws.



12. Remove the Scan-Axis Motor from the printer.

NOTE: After installing the new Scan-Axis Motor, make sure you perform the following Service Utility:

- Reset scan motor life counter ⇒ Reset Life Counters on page 110.



Media-Axis Motor

Removal

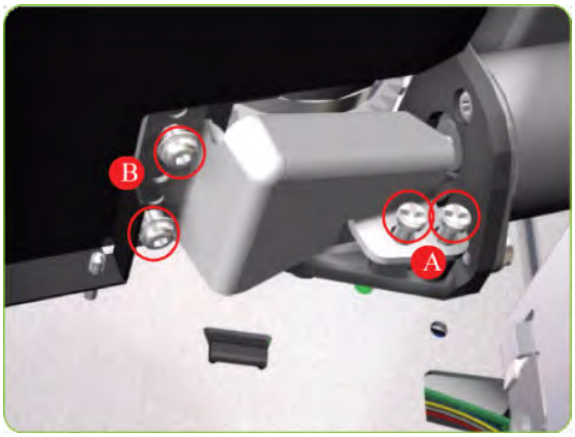
WARNING! Switch off the printer and remove the power cable.

1. Remove the Left Cover ⇒ See Cover, Left on page 226.
2. Remove the PW Cover ⇒ See PW Cover on page 347.
3. Remove the Left Connector Cover ⇒ See Connector Cover, Left on page 236.

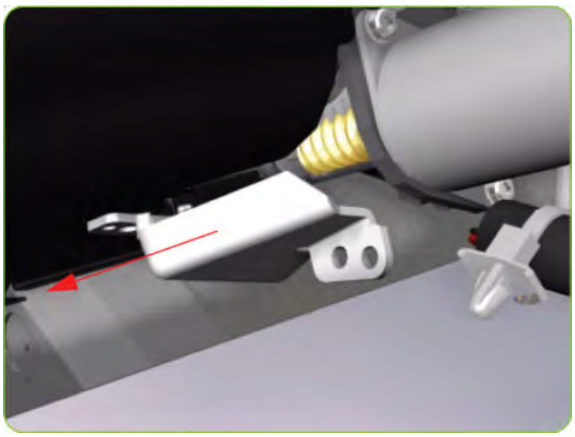
4. Disconnect the Media-Axis Motor cable from the PrintMech PCA and its ferrite.

5. Detach the clamp of the ferrite core of the Media-Axis Motor cable from the printer chassis.

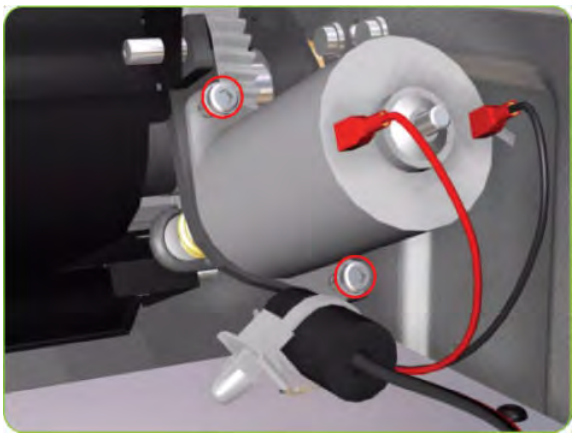
6. Remove the T-15 screws (**Type R**) identified (A) and loosen the T-15 screws (**Type R**) identified (B) that secure the Media-Axis Motor.



7. Remove the Media-Axis Motor Bracket.



8. Remove two T-20 screws (**Type B**) that secure the Media-Axis Motor Bracket.

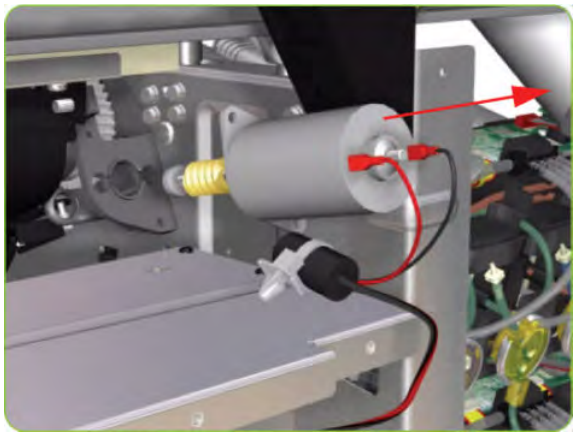


9. Remove the Media-Axis Motor from the printer.

NOTE: When reinstalling the parts, make sure you apply the grease (included with the support part) to the gears.

NOTE: After installing the new Media-Axis Motor, make sure you perform the following Service Calibration:

- Paper-advance Calibration Paper-advance calibration on page 123.



Maintenance Cartridge Door

Removal

WARNING! Switch off the printer and remove the power cable.

1. Open the Maintenance Cartridge Door.

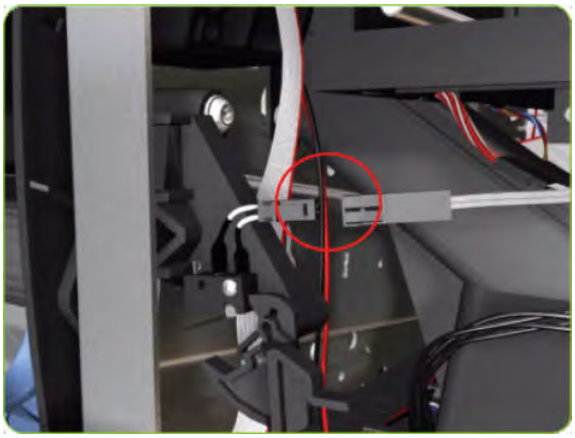
2. Unclip and remove the Maintenance Cartridge Door from Right Cover.

Maintenance Cartridge Door Sensor

Removal

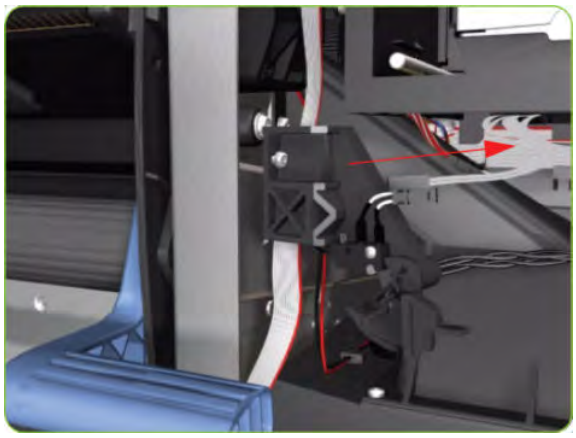
⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover ➡ See Cover, Right on page 223.
2. Disconnect the Maintenance Cartridge Door Sensor cable.



3. Release one T-10 screw that attaches the Maintenance Cartridge Door Sensor assembly to the printer.

4. Remove the Maintenance Cartridge Door Sensor assembly from the printer.



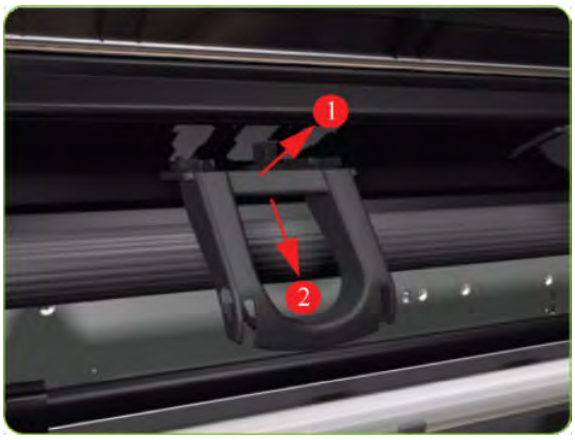
Media Deflector

Removal

⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove two T-20 screw (**Type B**) that secures the Media Deflector that needs to be replaced.

2. Remove the Media Deflector (slide upwards first) from the printer.



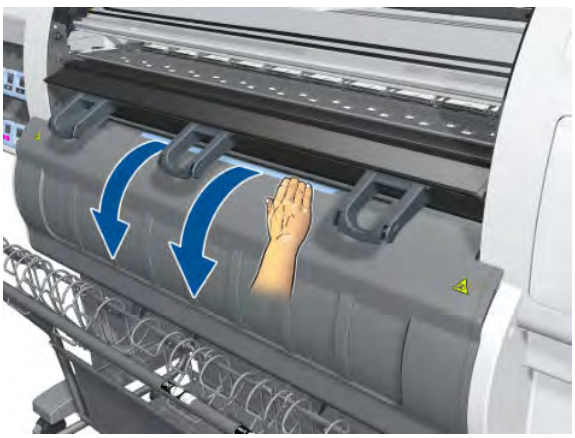
Output Platen

Removal

⚠ WARNING! Switch off the printer and remove the power cable.

1. Open the Window.

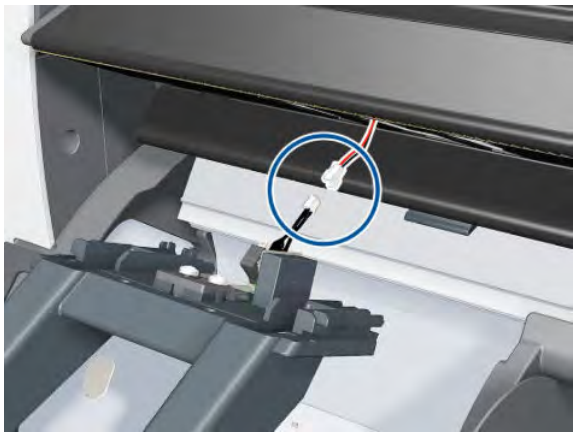
2. Open the Smart Roll-loading System Door.



3. Unscrew two T-20 screws from the left-hand deflector.

4. Remove the left-hand deflector.

5. Disconnect the sensor cable.

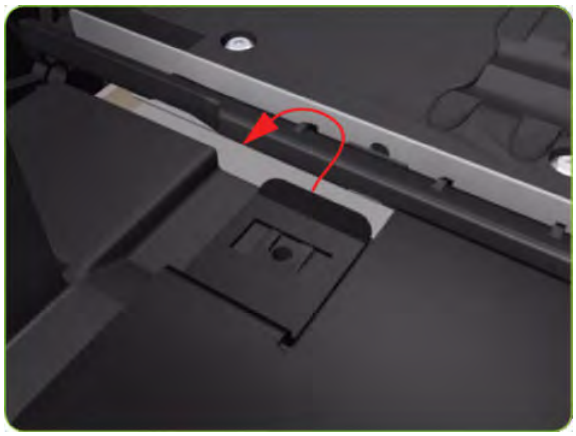


6. Remove a T-15 screw from the right of the Output Platen.

7. Remove a T-15 screw (with washer) from the right of the Output Platen.

8. Remove a T-10 and a T-15 screw (with washer) from the left of the Output Platen.

9. Release the clips on the left- and right-hand sides of the Front Platen.



10. Pull out the left side of the Output Platen.

11. Remove the Output Platen.

Deflector and Stacker Switch

Removal

1. Remove the Output Platen See Output Platen on page 334.

2. Inside the Output Platen, remove one T-8 screw, then remove the Switch Sensor.

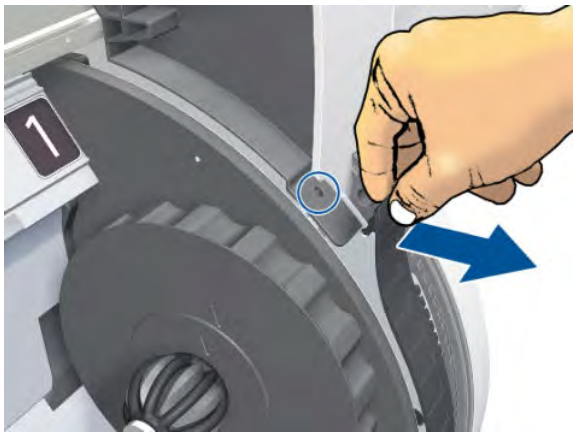
Trim, Right

Removal

⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Output Platen ⇒ See Output Platen on page 334.
2. Remove five T-15 screws that secure the Right Trim.

3. Disengage the rubber strip from the hole in the Right Trim.



4. Remove the Right Trim from the printer.

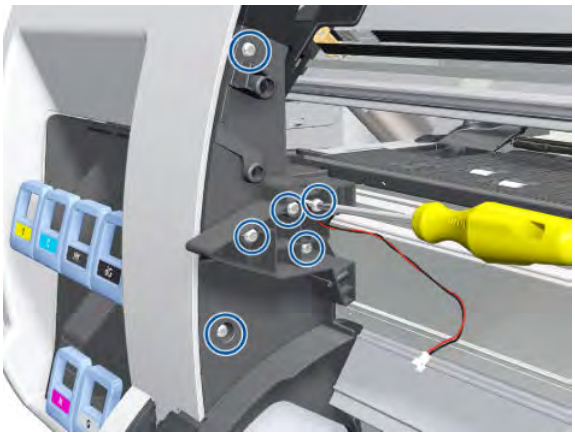
Trim, Left

Removal

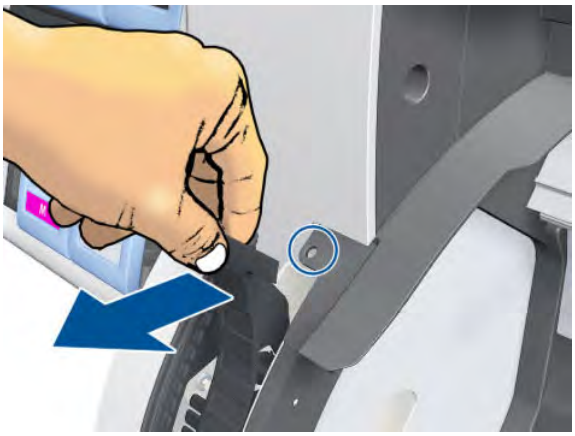
⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Output Platen See Output Platen on page 334.

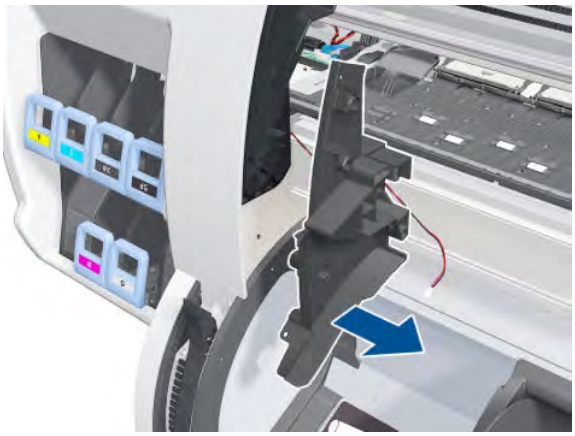
2. Remove three T-15 and three T-20 screws that secure the Left Trim.



3. Disengage the rubber strip from the hole in the Left Trim.



4. Carefully remove the Left Trim from the printer.

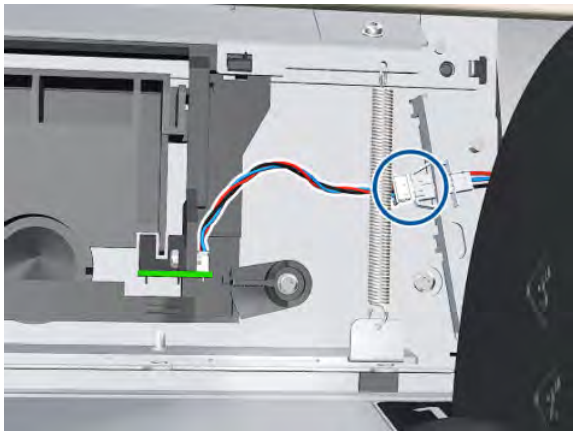


Media Sensor

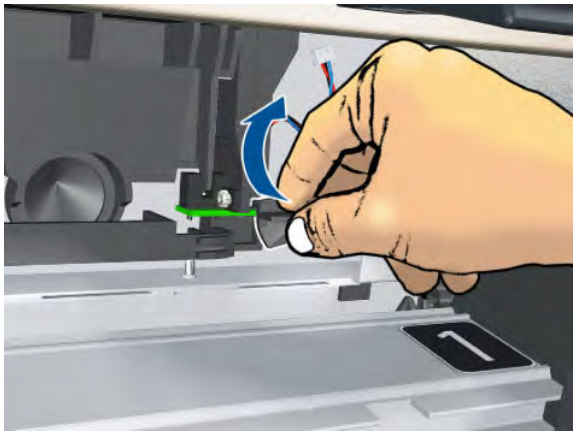
Removal

1. Open the Smart Roll-loading System Door and put the Smart Roll-loading System into the following position.

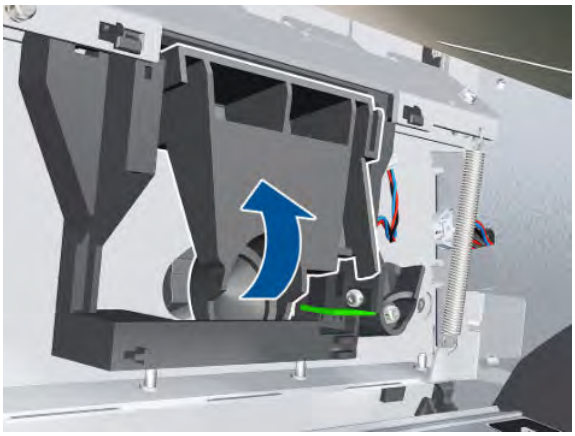
2. Disconnect the Media Sensor cable.



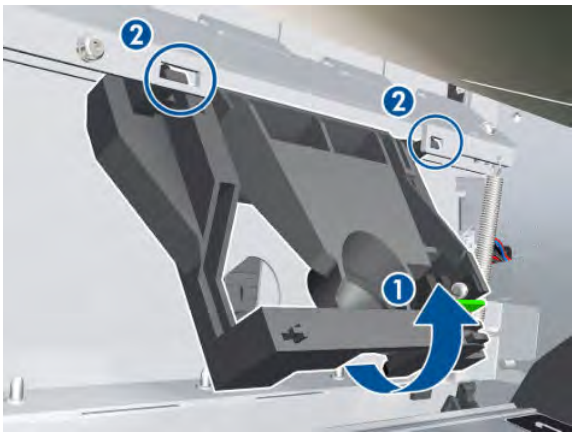
3. Rotate the clamp.



4. Pull the bottom of the Media Sensor out a little.



5. Rotate the Media Sensor to detach it from the Entry Platen.

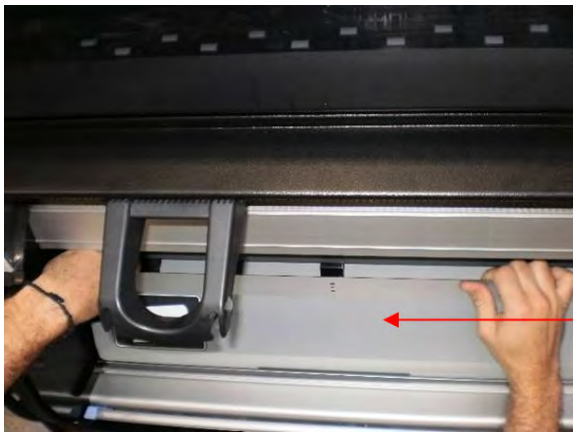


6. Remove the Media Sensor.

Smart Roll-loading System Cosmetic Sheet Metal and Separator

Removal

1. Remove the Left Hub and Roll Support ⇒ See Hub, Left, and Roll Support on page 280.
2. Remove five T-8 screws.
3. Remove the Cosmetic Sheet Metal and Separator.



Belt Assembly

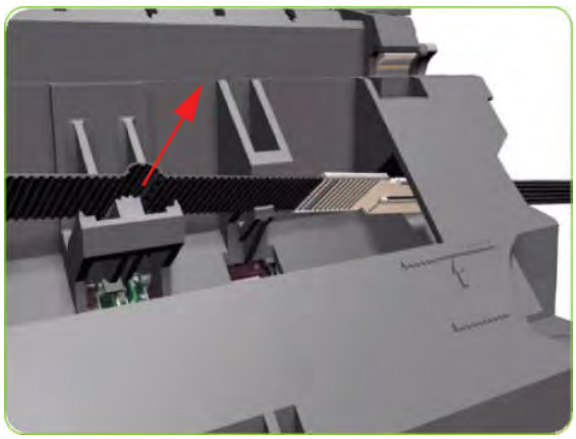
Removal

⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Remove the Top Cover ⇒ See Cover, Top on page 230.
4. Remove the Encoder Strip ⇒ See Encoder Strip and Encoder Sensor on page 296.
5. Remove the Carriage Assembly ⇒ See Carriage on page 284.
6. Release the Belt from the bottom of the Carriage Assembly.

NOTE: After installing the new Belt Assembly, make sure you perform the following Service Utility:

- Reset life counter scan cycles belt ⇒ Reset Life Counters on page 110.

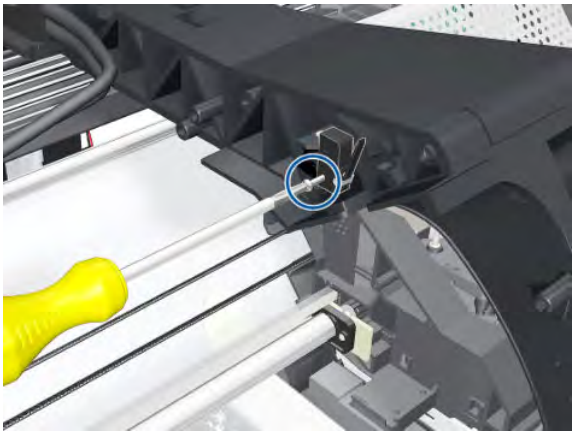


Window Position Sensor

Removal

WARNING! Switch off the printer and remove the power cable.

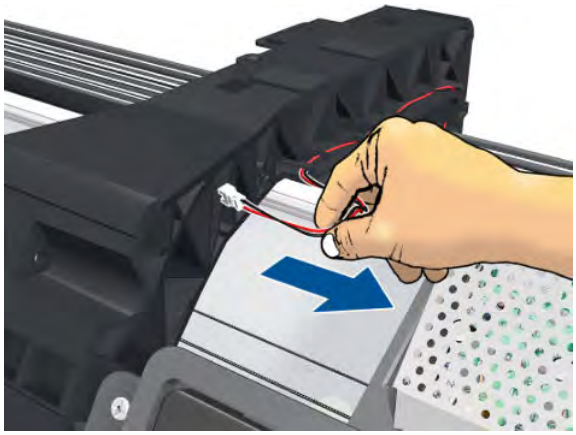
1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Remove a T-8 screw from the Window Position Sensor.



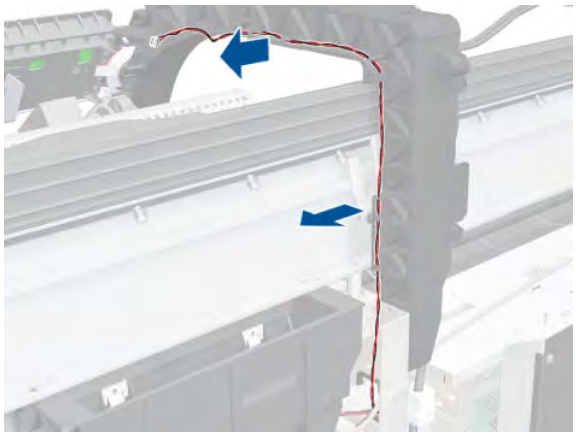
4. Disconnect and remove the Window Position Sensor.

5. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
6. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.

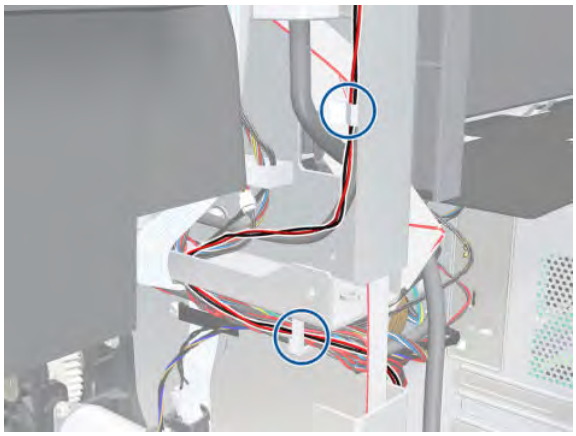
7. Pull the cable through the hole.



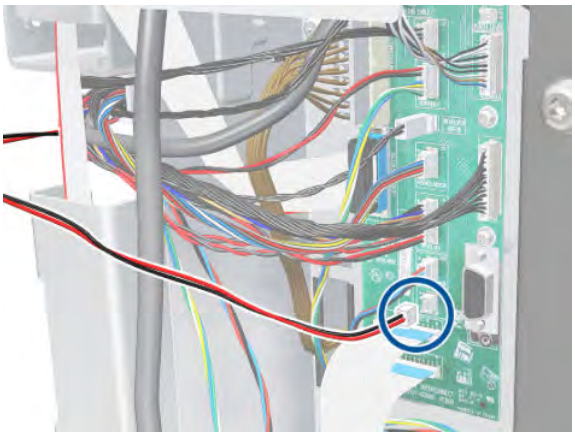
8. Unroute the cable from the right arc.



9. Continue unrouting the cable.



10. Disconnect the far end of the cable from the Main PCA, and remove the cable.



Cutter Assembly

Removal

1. Select **Replace cutter** from the Service Menu (see Replace Cutter on page 113) and follow the instructions on the Front Panel.
2. Open the Window.

3. Open the Carriage Cover.

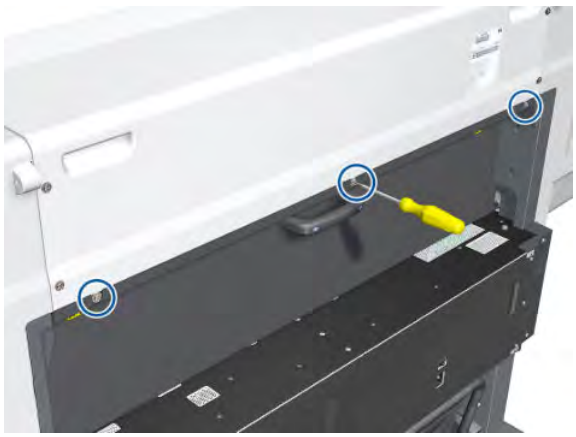
4. Remove one T-15 screw (**Type G**) that secures the Cutter Assembly to the Carriage Assembly.

5. Slide the Cutter Assembly to the left and remove from the printer.

PW Cover

Removal

1. Remove three T-15 screws from the PW Cover.

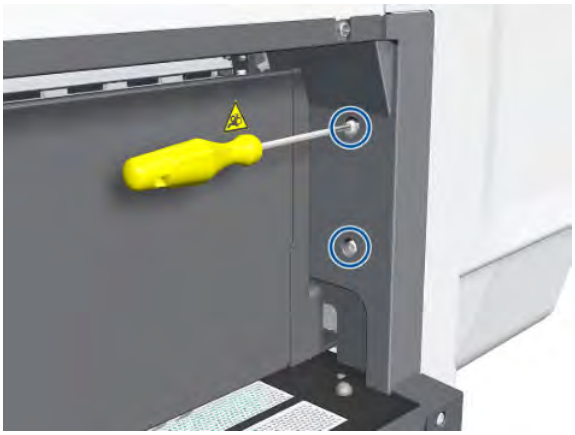


2. Remove the PW Cover, pulling it out of the printer.

Rear Trim, Left

Removal

1. Remove two T-20 screws from the Left Rear Trim.



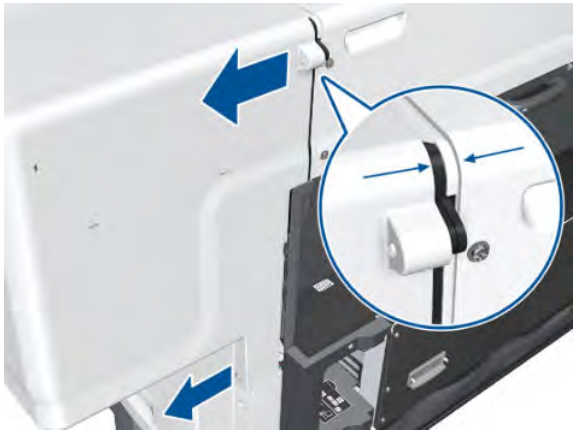
2. Remove the Left Rear Trim.

Rear Trim, Right

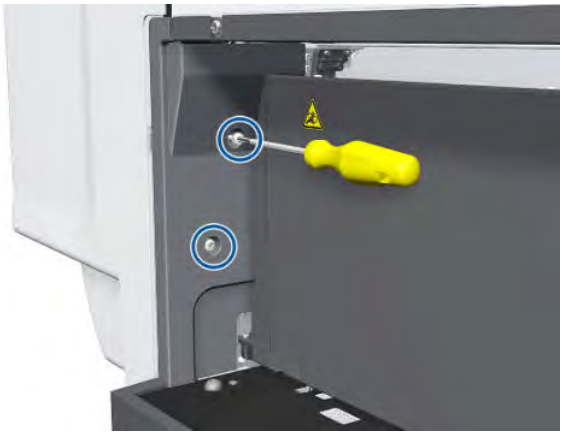
Removal

1. Loosen two screws in the Right Cover.

2. Detach the Right Cover slightly, leaving a small gap.



3. Remove two T-20 screws from the Right Rear Trim.

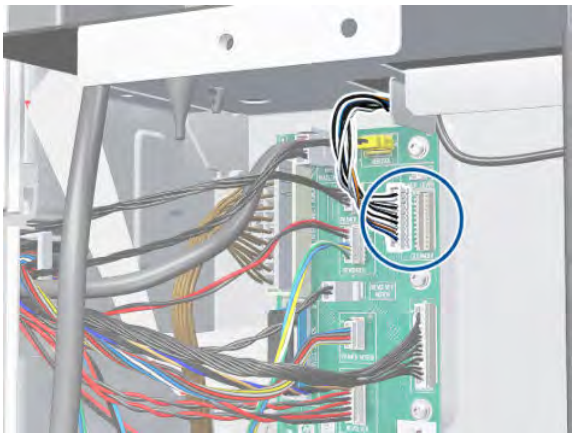


4. Remove the Right Rear Trim.

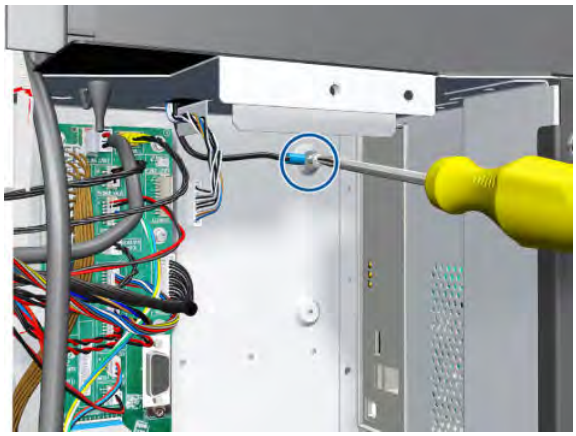
Rear Door

Removal

1. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
2. Remove the Left Connector Cover ⇒ See Connector Cover, Left on page 236.
3. Disconnect the Rear Door cable from the Interconnect PCA.



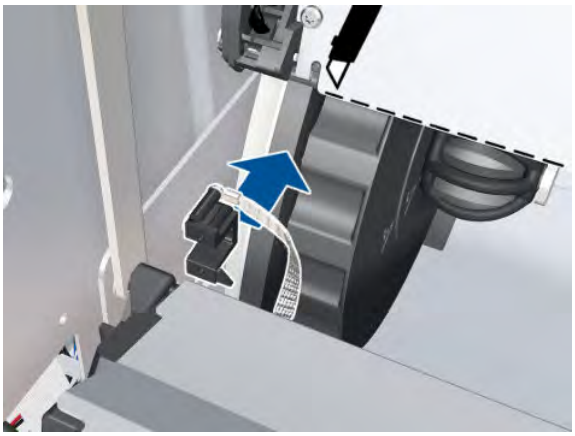
4. Unscrew another cable beside the Interconnect PCA.



5. Open the Rear Door.

6. Use a long screwdriver to remove two T-15 screws from the Right Plate Flange of the Rear Door.

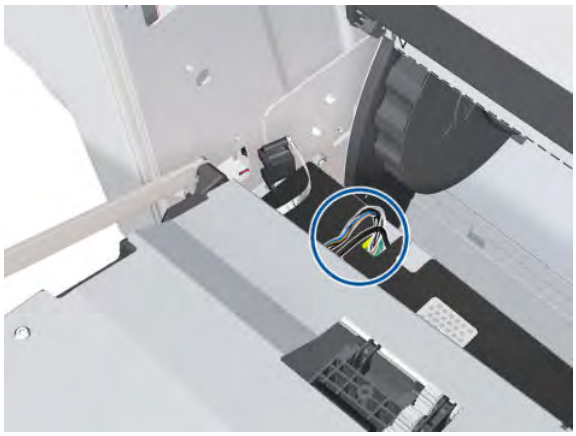
7. Remove the Rear Door Right Flange.



8. Remove one T-15 screw from the PW Connecting Rod on the left of the Rear Door.

9. Detach the PW Connecting Rod.

10. Pull the Rear Door cables up through the hole.



11. Remove the Rear Door.

NOTE: Be careful not to lose the spring.

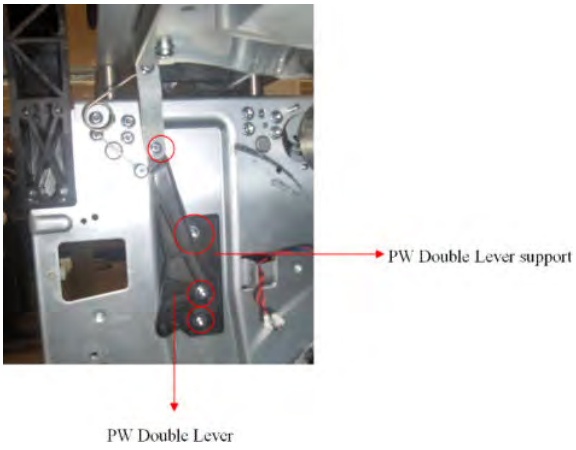
Pinchwheel Lever

Removal

1. Remove the Right Cover ➡ See Cover, Right on page 223.
2. Remove the Left Rear Trim ➡ See Rear Trim, Left on page 348.

3. Remove two T-15 screws from the Pinchwheel Double Lever, then remove the Pinchwheel Double Lever.

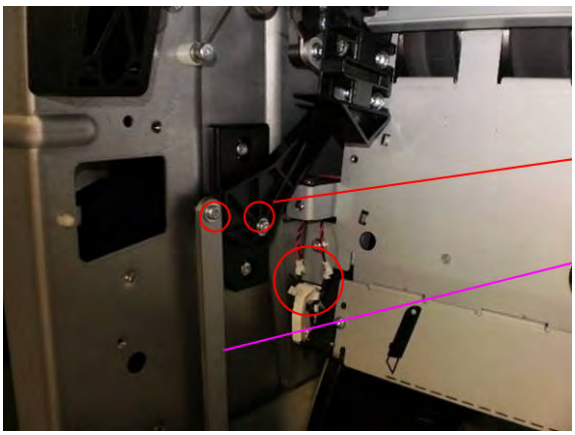
   Remove two T-15 screws from the Pinchwheel Double Lever support, then remove the Pinchwheel Double Lever support.



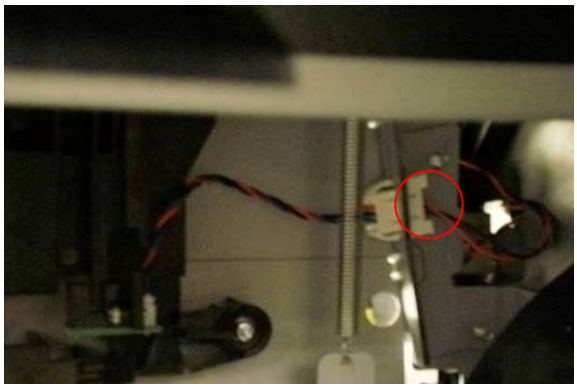
Entry Platen

Removal

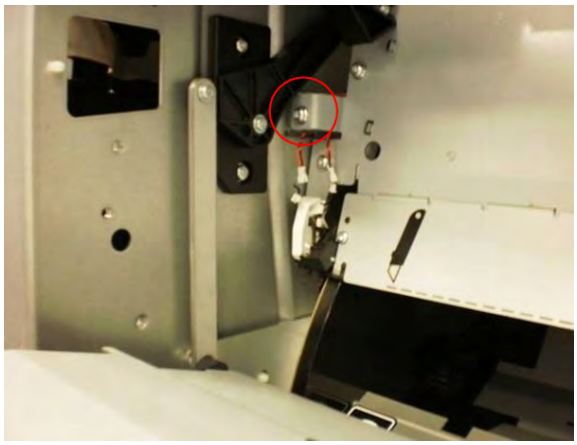
1. Remove the Left Rear Trim ⇨ See Rear Trim, Left on page 348.
2. Remove the Right Rear Trim ⇨ See Rear Trim, Right on page 349.
3. Remove the PW Cover ⇨ See PW Cover on page 347.
4. Disconnect two cables from the Entry Platen to the Interconnect PCA, remove a T-15 screw from the Pinchwheel Double Lever and remove a T-15 screw from the PW Connecting Rod.



5. Disconnect the Media Sensor cable from the Entry Platen to the Interconnect PCA.

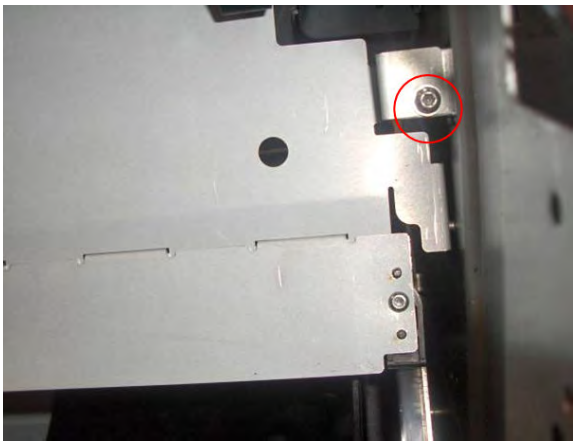


6. Remove one T-20 screw on the right.



7. Put the PW Connecting Rod in this position in order to remove the Entry Platen more easily.

8. Remove one T-20 screw on the left.

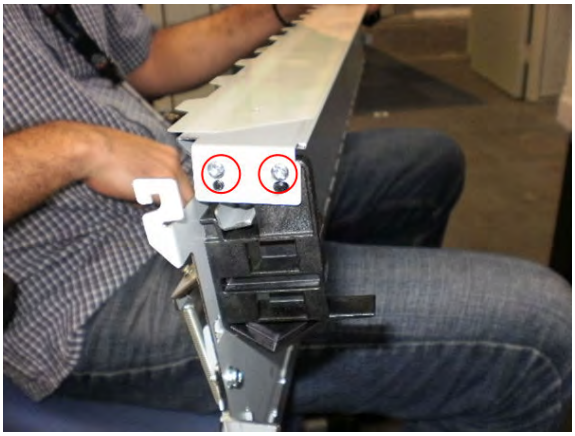


9. Remove the Entry Platen.

Roller Guide with Mylar

Removal

1. Remove the Entry Platen → See Entry Platen on page 354.
2. Remove two T-20 screws from the left side.



3. Remove two T-20 screws from the right side.

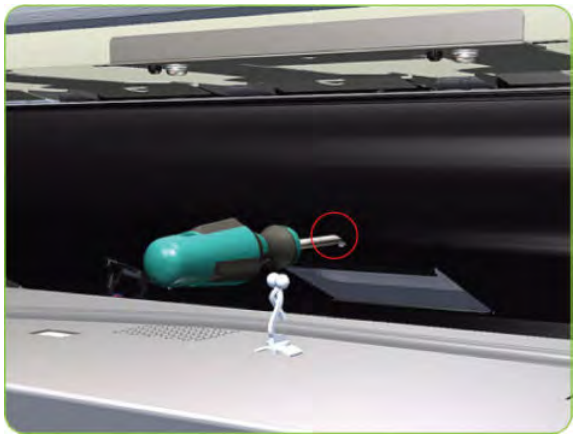
4. Remove the Roller Guide with Mylar from the Entry Platen.

Optical Media Advance Sensor (OMAS)

Removal

⚠ WARNING! Switch off the printer and remove the power cable.

1. Open the Rear Door.
2. Remove paper if loaded.
3. Remove the Entry Platen → See Entry Platen on page 354.
4. Insert the T-20 thin bladed torx screwdriver (supplied with the replacement OMAS) into the access hole at the rear of the printer.

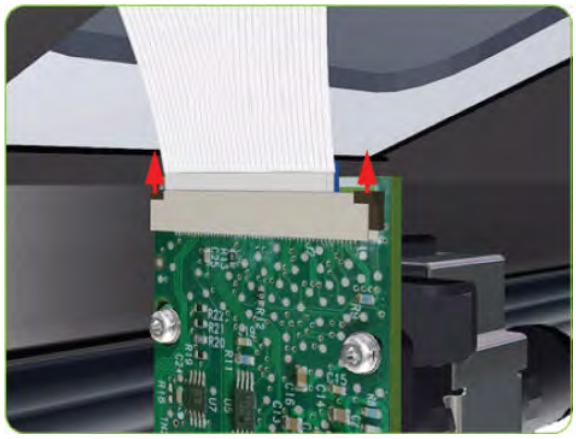


5. Remove and discard one T-20 screw which secures the OMAS horizontally to the printer.

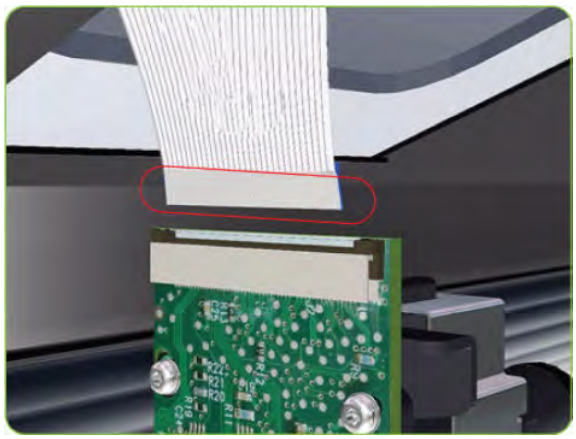
6. From the bottom of the printer, remove and discard one T-20 screw which secures the OMAS vertically to the printer.

7. Carefully lower the OMAS from the printer as far as you can with the large ribbon cable still connected.

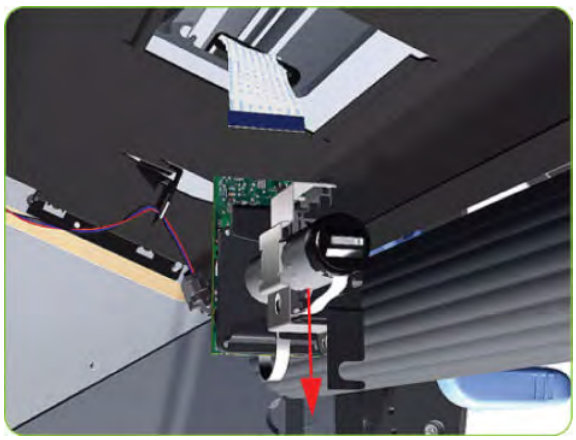
8. Release the two locking clips of the large ribbon cable connector.



9. Disconnect the large ribbon cable from the OMAS.



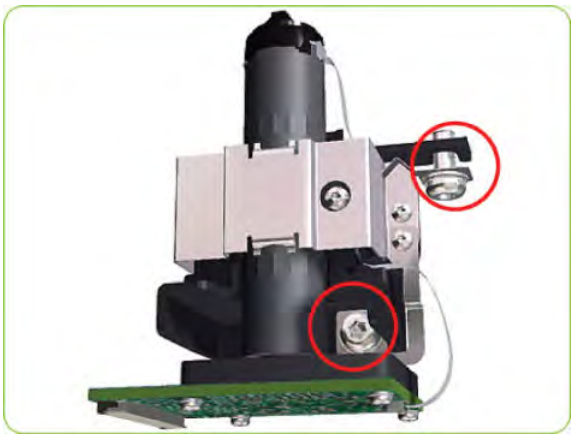
10. Remove the OMAS Sensor from the printer.



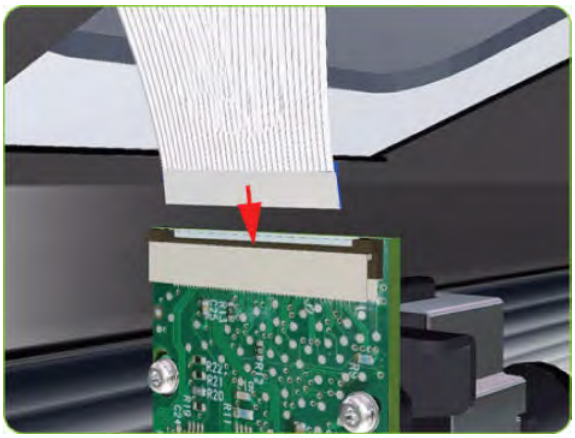
Installation

NOTE: To simplify the installation of the OMAS an Attachment Screw Retainer has been added to hold the two T-20 attachment screws. This part is delivered attached to the replacement OMAS unit with the two attachment screws. It is also delivered as a separate part with the Center Platen in case the OMAS is completely removed during its replacement.

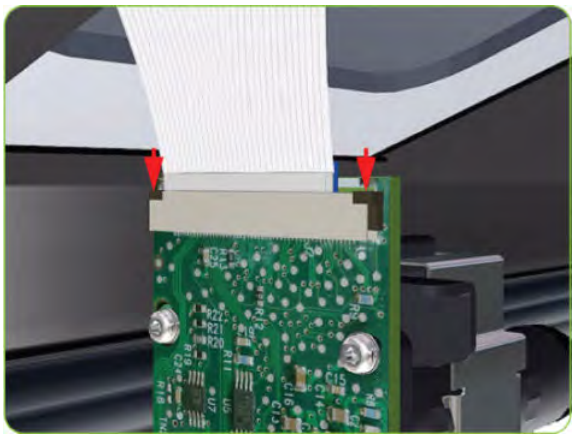
1. Check that the two T-20 attachment screws are correctly positioned in the Attachment Screw Retainer.



2. Position the OMAS under the printer and connect the large ribbon.



3. Lock the clips of the large ribbon cable connector.



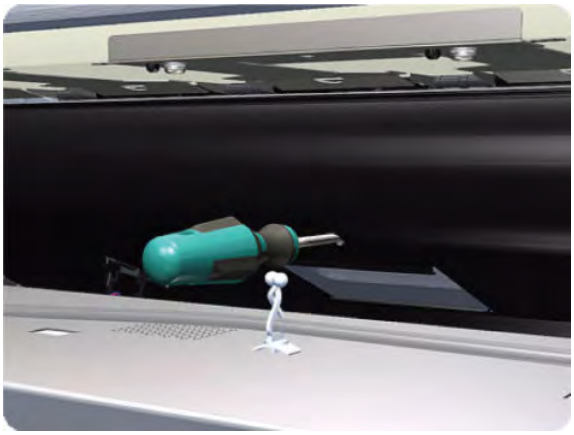
4. Carefully push the OMAS fully up into its mounting so that the OMAS window protrudes slightly **ABOVE** the Center Platen (approximately 0-2 mm). To ensure the OMAS is correctly positions, slide a sheet of paper over the Platen Ribs until it is stopped by the OMAS. This ensures the OMAS is protruding slightly above the platen.

⚠ CAUTION: Make sure the OMAS is pushed completely up into its mounting or you will encounter an error during the OMAS calibration because it will not be able to focus on the paper.

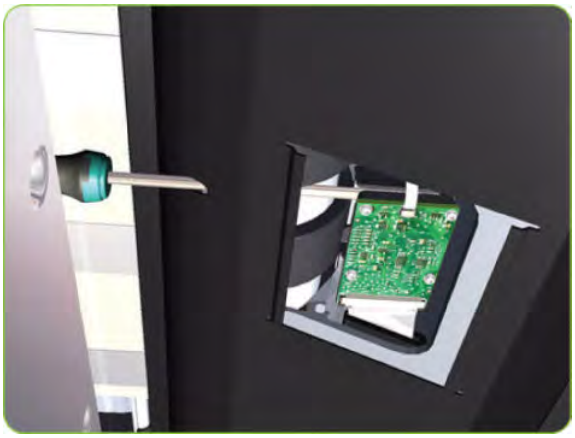
5. Slide a sheet of paper over the OMAS window, if the paper is not stopped by the OMAS, repeat step 4 to ensure the OMAS is pushed fully up into its the mounting.

6. **FULLY** tighten the T-20 vertical attachment screw.

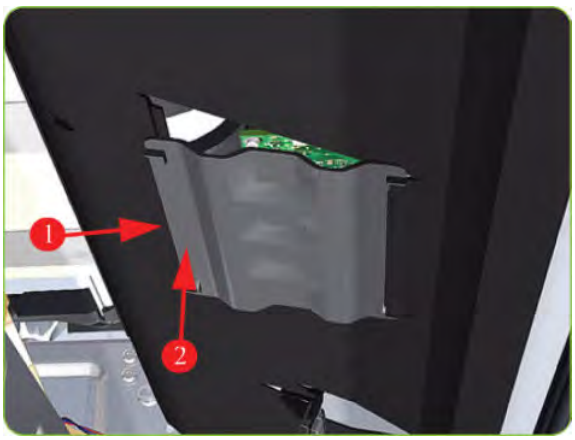
7. Insert the T-20 thin bladed torx screwdriver into the access hole at the rear of the printer.



8. Fully tighten the T-20 horizontal attachment screw which secures the OMAS to the printer.



9. Clip the OMAS access cover back into place by sliding one edge of the cover into the slot and then applying enough pressure to it so you can clip it into the other slot.



10. Calibrate the OMAS ➡ See OMAS Calibration on page 139.

Interconnect PCA

Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Connector Cover ➡ See Connector Cover, Right on page 235.
2. Disconnect all cables from the Interconnect PCA.

3. Remove five T-10 screws that secure the Interconnect PCA.

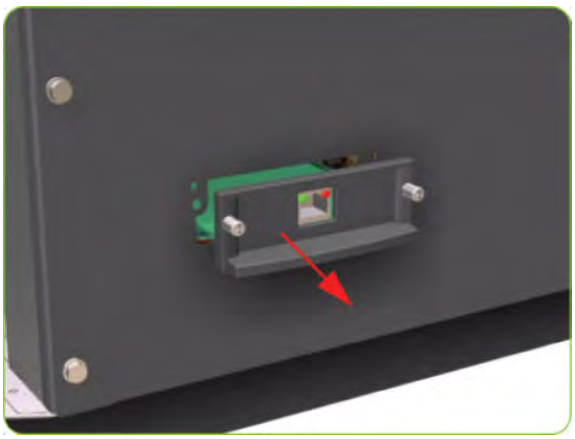
4. Remove the Interconnect PCA.

EIO to PCA Interface Card

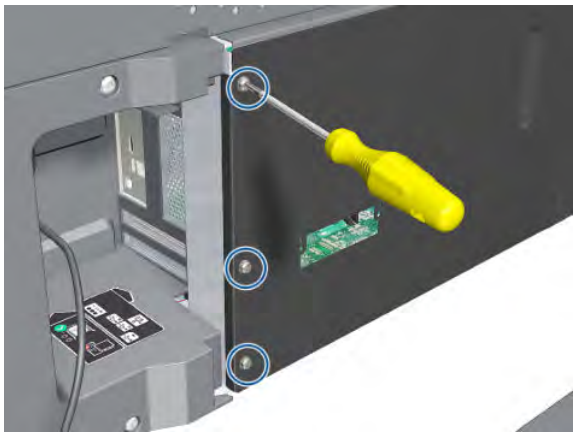
Removal

⚠ WARNING! Switch off the printer and remove the power cable.

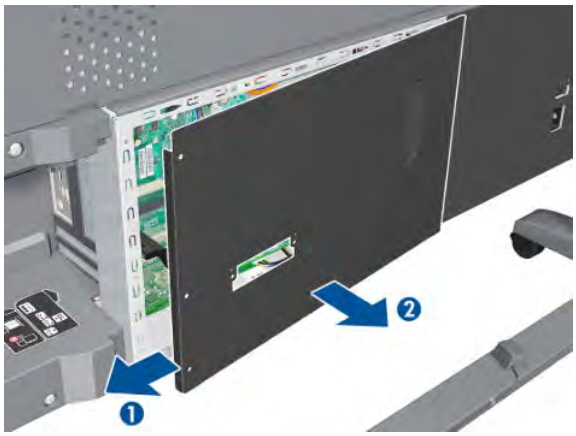
1. Remove the Jetdirect Card (if installed).



2. Remove three T-20 screws that secure the Formatter cover.



3. Remove the Formatter Cover from the printer.



4. Remove one T-10 screw (**Type I**) that secures the Interface Card.

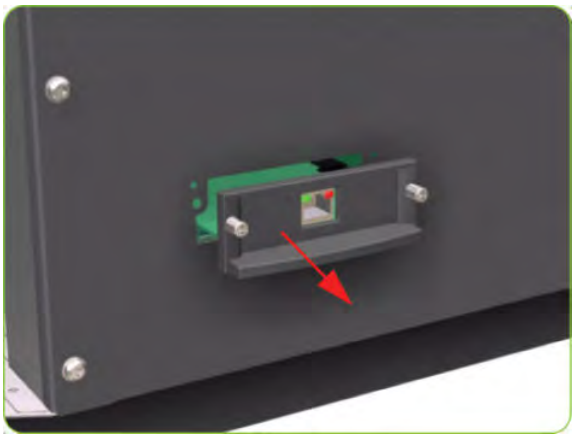
5. Disconnect the Interface Card from the Formatter and remove from the printer.

OMAS Controller Card

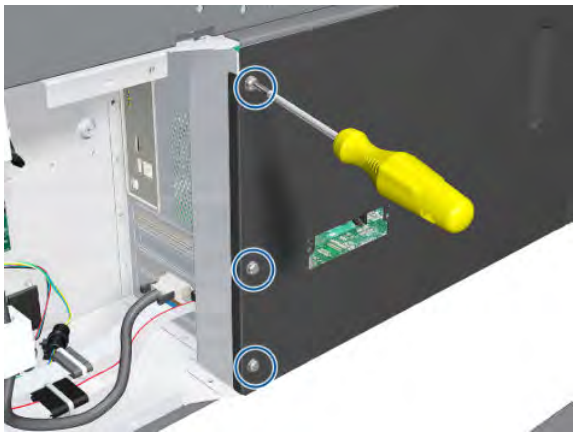
Removal

WARNING! Switch off the printer and remove the power cable.

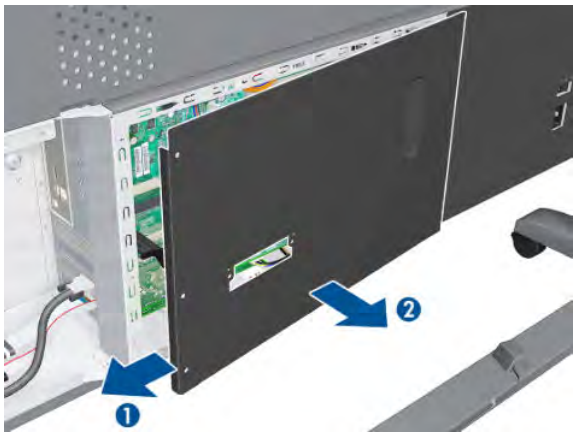
1. Remove the Right Connector Cover ➡ See Connector Cover, Right on page 235.
2. Remove the Jetdirect Card (if installed).



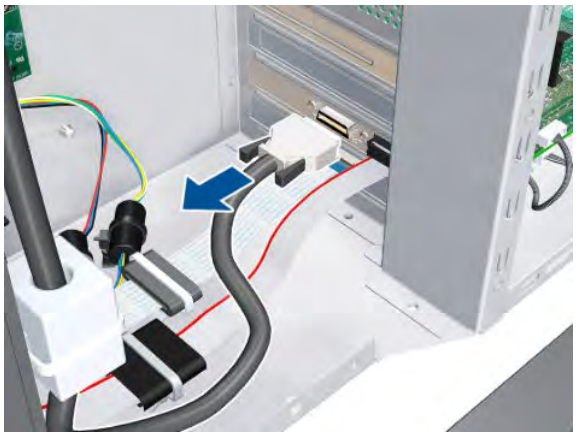
3. Remove three T-20 screws that secure the Ebox Cover Left.



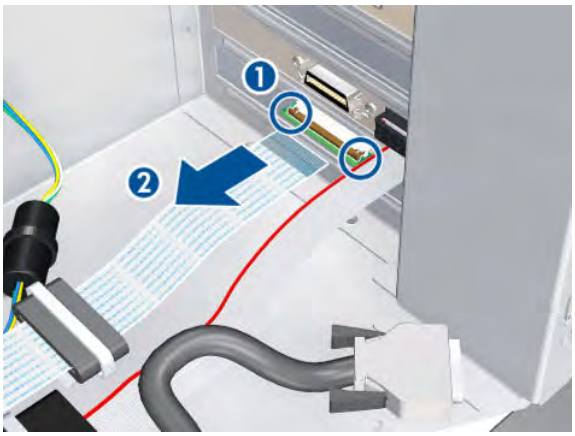
4. Remove the Ebox Cover Left from the printer.



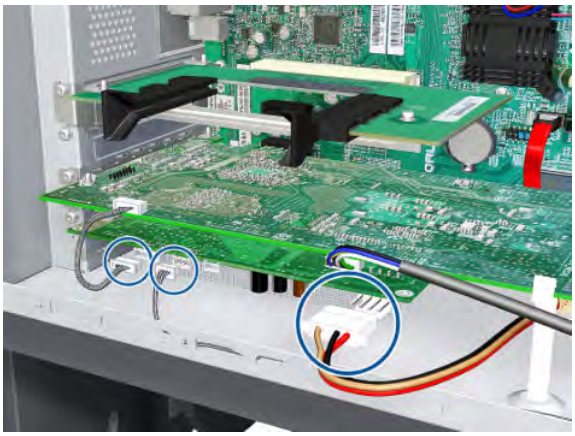
5. Disconnect the Trailing Cable to make the next step easier.



6. Unclip the connector, then disconnect the OMAS Controller Card.

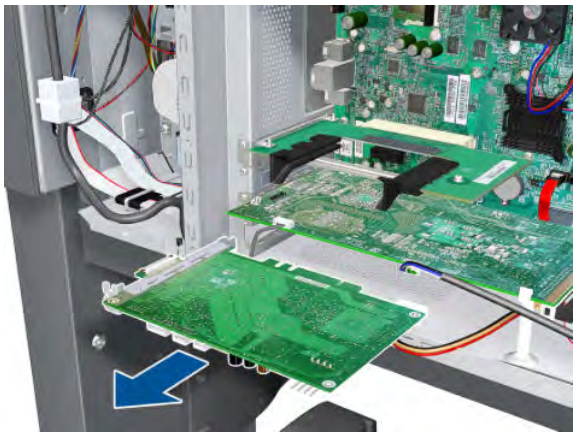


7. Disconnect three cables.



8. Remove one T-10 screw (**Type I**) that secures the OMAS Controller Card.

9. Disconnect the OMAS Controller Card from the Formatter and remove it from the printer.

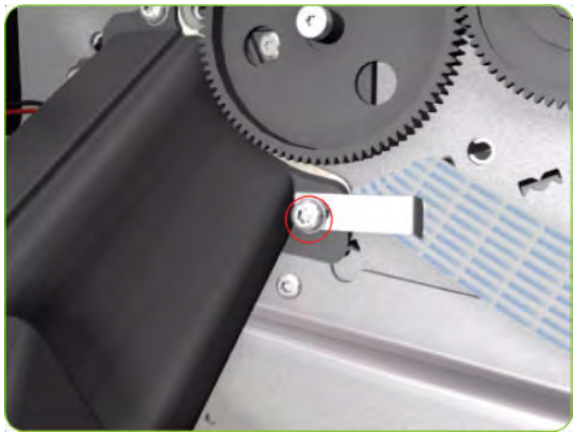


OMAS Cable

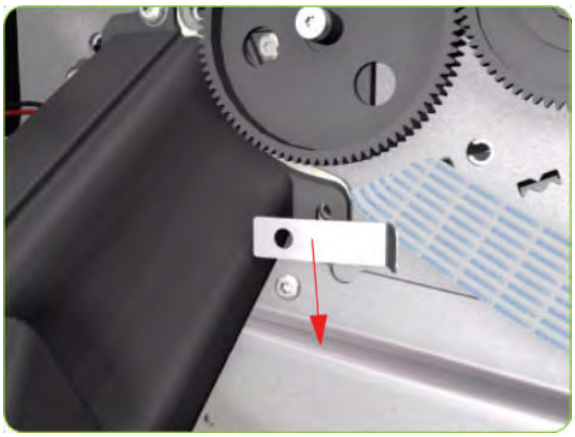
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
3. Remove the Right Smart Roll-loading System Cover ⇒ See Smart Roll-loading System Cover, Right on page 258.
4. Remove the Service Station ⇒ See Service Station on page 244.
5. Remove the OMAS ⇒ See Optical Media Advance Sensor (OMAS) on page 357.
6. Remove one T-15 screw that secures the OMAS Cable clamp from the printer.

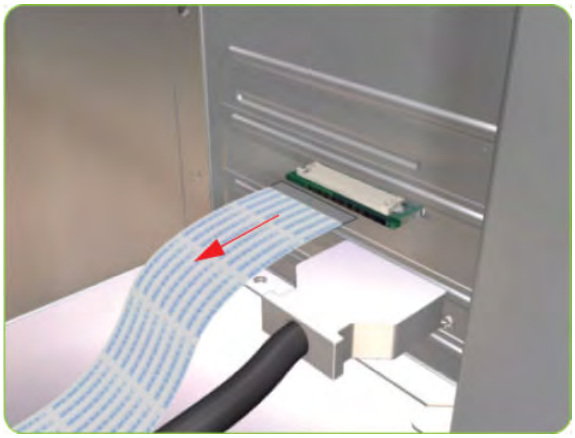


7. Remove the OMAS Cable clamp from the printer.

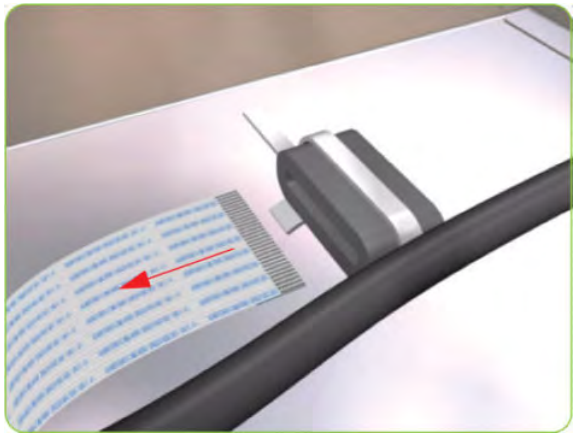


8. Carefully Pull the OMAS Cable out of the Vacuum Beam.

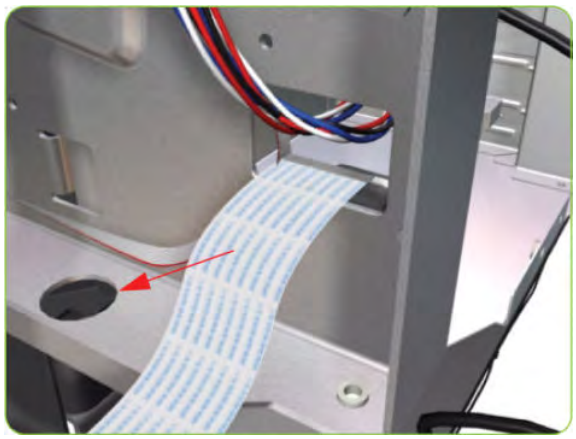
9. Disconnect the OMAS Cable from the OMAS Controller Card.



10. Unroute the OMAS Cable from the Ferrite Core.



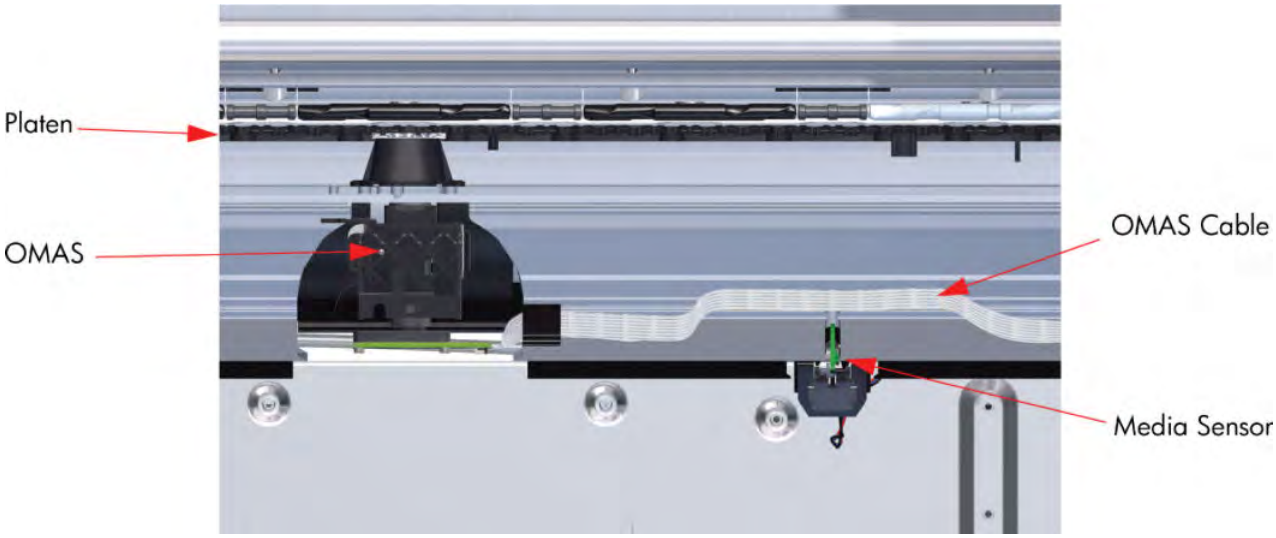
11. 10.Unroute and remove the OMAS Cable from the printer.



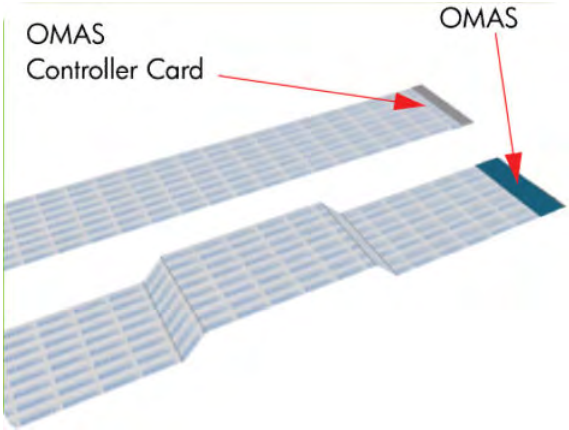
Installation

⚠ CAUTION: It is critical that the OMAS Cable is correctly positioned in the Vacuum Beam so that it does not cause physical interference to the Media Sensor.

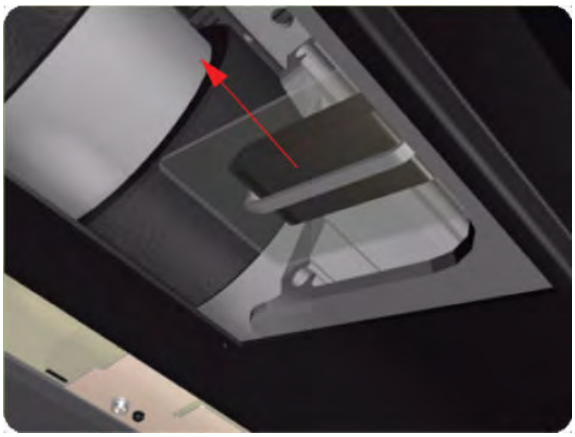
The following illustration shows a cross-section of the Vacuum Beam with the OMAS Cable correctly routed to avoid interference to the Media Sensor.



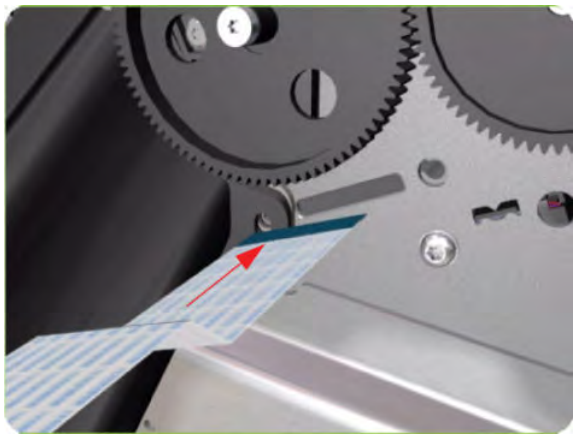
▲ Before you can start to install the OMAS Cable you must first identify which end connects to which component. The end of the cable that has the most perpendicular and diagonal folds is the end that connects to the OMAS with the blue reinforcing on the top. The other end must be connected to the OMAS Controller Card with the blue reinforcing on the bottom.



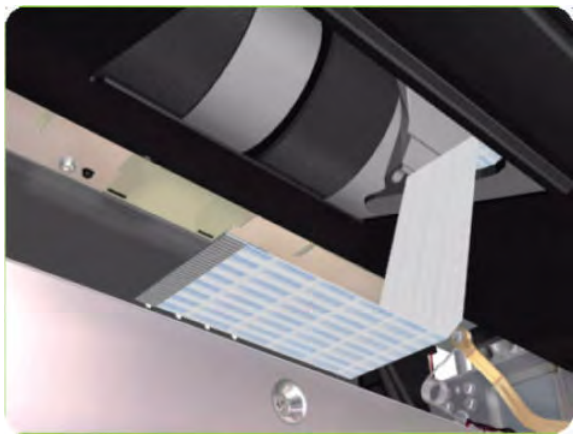
1. Carefully slide the Ferrite Core and its associated attachment plate out of the vacuum beam.



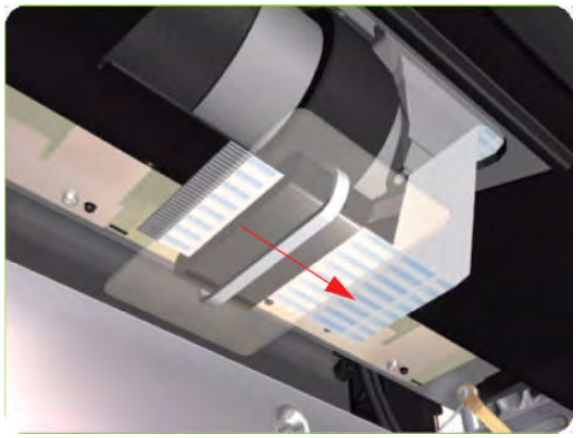
2. Position the OMAS Cable in the Vacuum Beam slot so that the blue reinforcement enters first.



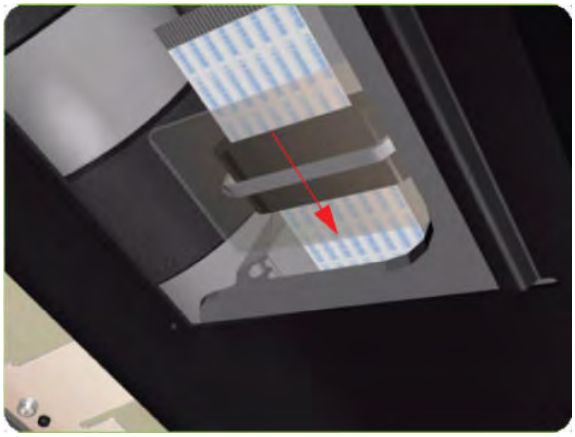
3. Carefully feed the OMAS cable through the Vacuum Beam sufficiently to have approximately 20 cm hanging from the OMAS installation position.



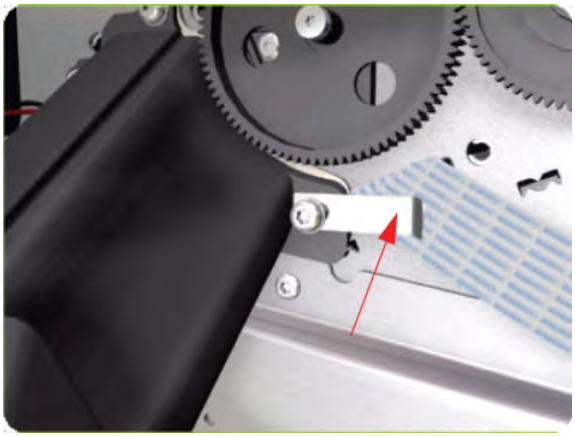
4. Slide the Ferrite Core and its associated Attachment Plate (on the top) onto the OMAS Cable.



5. Push the Attachment Plate into its slot in the Vacuum beam until it is level with the edge of OMAS installation position.

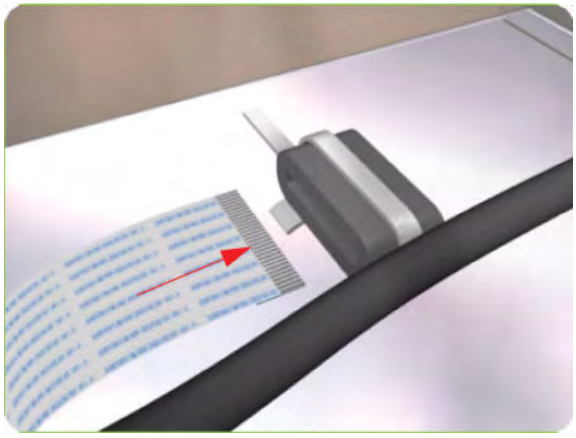


6. Carefully pull the OMAS Cable back into the Vacuum Beam (from the Service Station end) until the straight fold immediately before the first diagonal fold (from the OMAS sensor end) is aligned with the slot, fold the OMAS Cable across the diagonal fold, and install the cable clamp to lock the OMAS Cable in the correct position.

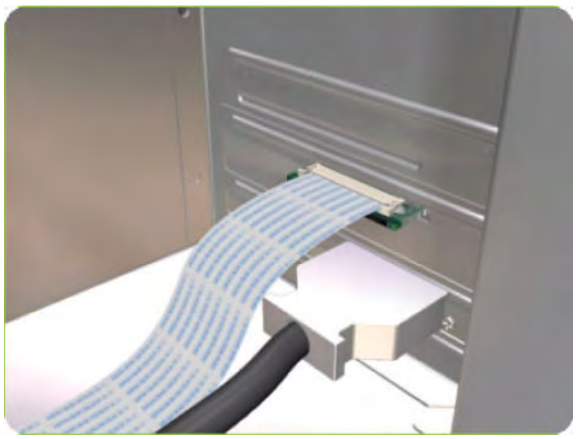


7. Route the OMAS Cable to the Ferrite Core in the Right Interconnect panel.

8. Feed the OMAS Cable through Ferrite Core.



9. Connect the OMAS Cable to the OMAS Controller Card with the connections on the top.



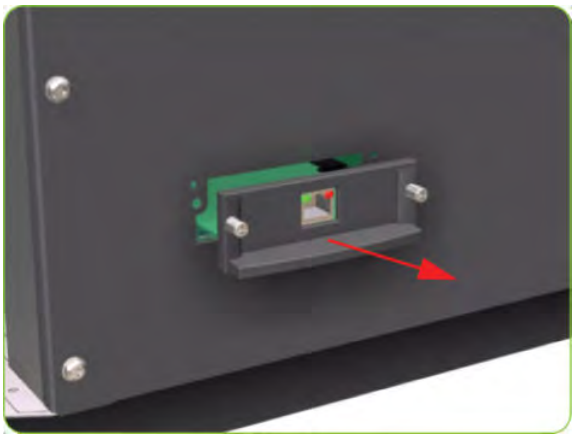
Main PCA

Removal

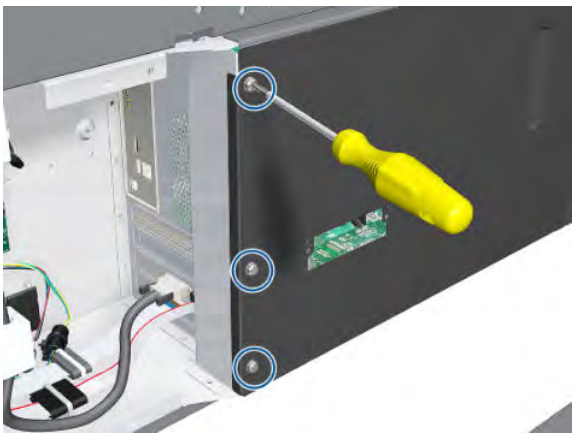
⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Connector Cover ➡ See Connector Cover, Right on page 235.

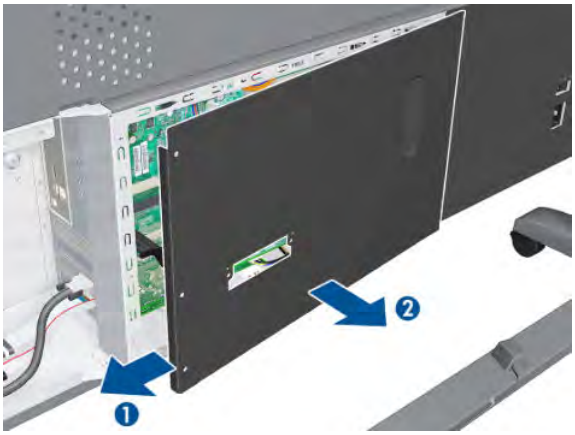
2. Remove the Jetdirect Card (if installed).



3. Remove three T-20 screws that secure the Ebox Cover Left.



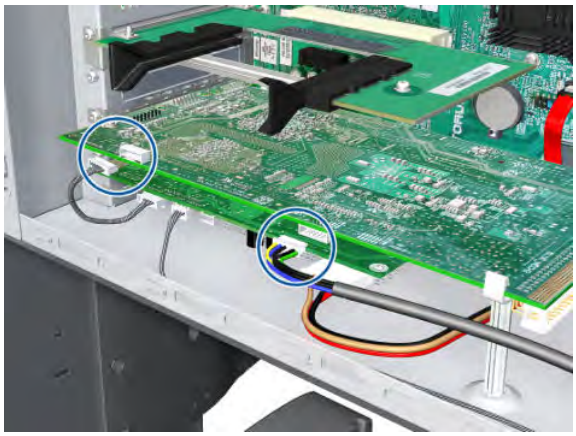
4. Remove the Ebox Cover Left from the printer.



5. Disconnect the Trailing Cable and the Front Panel cable from the Main PCA.

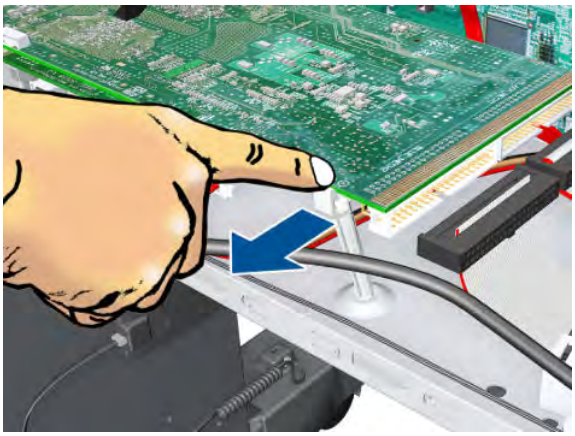
6. Disconnect two ribbon cables.

7. Disconnect two cables.

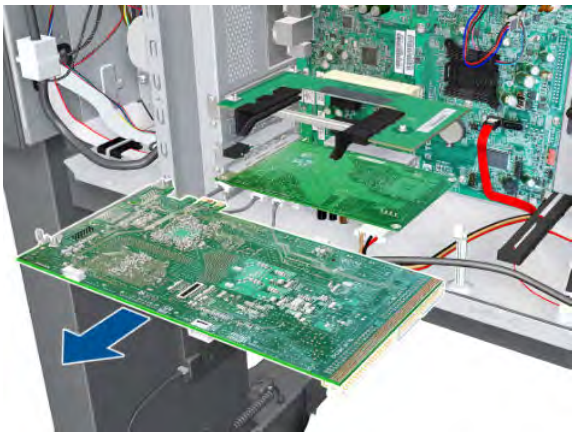


8. Remove one T-10 screw (**Type I**) that secures the Main PCA.

9. Unclip the Main PCA.



10. Remove the Main PCA.



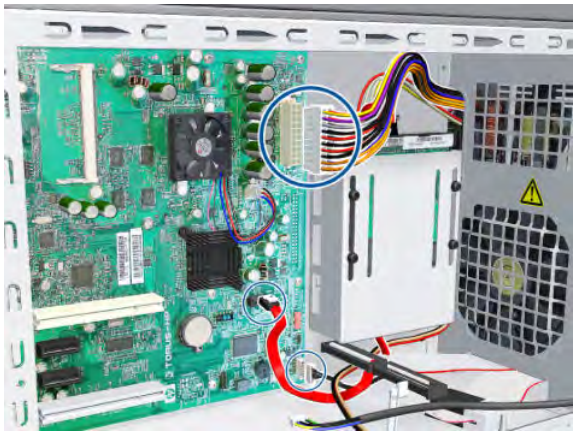
Formatter

Removal

⚠ WARNING! Switch off the printer and remove the power cable.

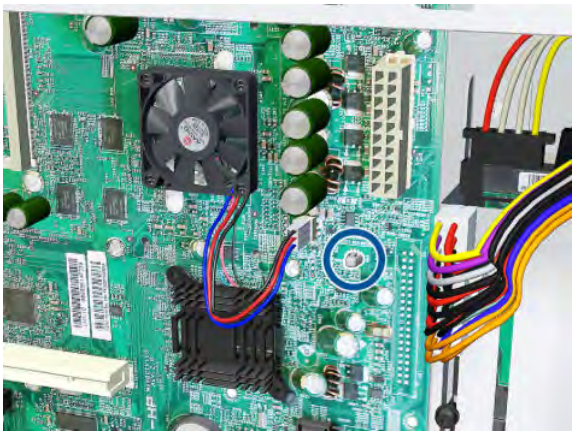
⚠ CAUTION: Do not remove the Fan or the Processor (located under the Fan) from the Formatter. The Fan and the Processor are part of the Formatter support part and should be replaced as one assembly.

1. Remove the EIO to PCI Interface Card ⇒ See EIO to PCA Interface Card on page 364.
2. Remove the Main PCA ⇒ See Main PCA on page 375.
3. Remove the OMAS Controller Card ⇒ See OMAS Controller Card on page 366.
4. Disconnect all cables connected to the Formatter.



5. Remove eight T-10 screws (**Type I**) that secure the Formatter.

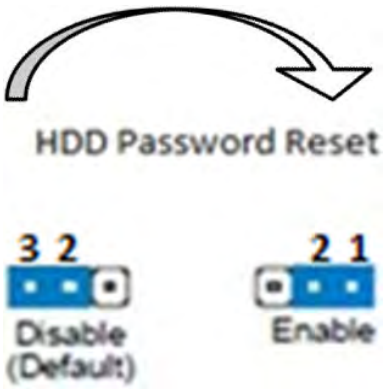
6. Release the plastic locating pin that secures the Formatter.



7. Remove the Formatter from the printer.

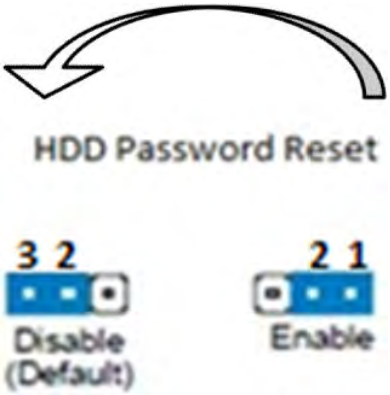
Installation (Rev B printers only)

1. Locate the Formatter on the plastic locating pin, then install the screws.
2. Move the jumper from the default connection to the password reset connection.



3. Cover the EBox temporarily, with a couple of screws to hold the cover in place.
4. Turn on the printer, wait until it has completely started up, then turn it off again.

5. When the printer is completely turned off, remove the power cable.
6. Remove the cover from the EBox.
7. Move the jumper from the password reset connection to the default connection.



8. Cover the EBox again.

TIP: When you first start a printer with a new Hard Disk Drive, encrypted or not, it may display an error message (79:04). Turn off the printer and restart. The printer should start normally.

CAUTION: Turning off the printer during the start-up procedure with a new Formatter and Hard Disk Drive may corrupt the BIOS password, leaving the system useless with no ability to restart.

TIP: After installing a new Formatter board in a Rev B printer, reset the password.

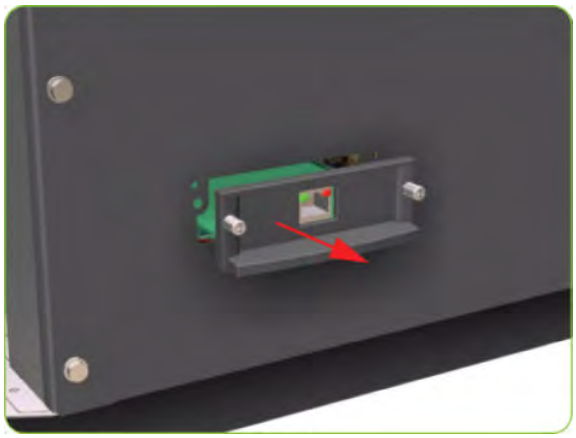
Hard Disk Drive (HDD)

Removal

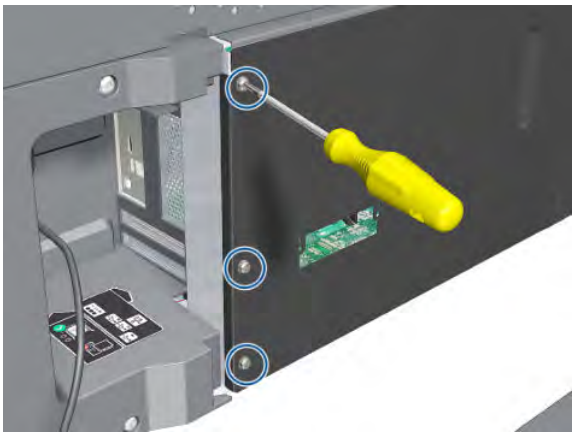
WARNING! Switch off the printer and remove the power cable.

NOTE: You must never replace both the Hard Disk Drive and the Ink Supply Tubes and Trailing Cable at the same time. If both parts need to replaced, you must first replace one part and then power on the printer until it initializes completely. Then you can power off the printer and replace the other part.

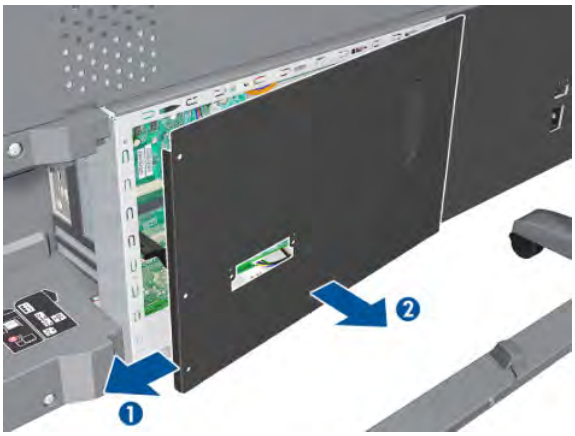
1. Remove the Jetdirect Card (if installed).



2. Remove three T-20 screws that secure the Formatter cover.



3. Remove the Formatter Cover from the printer.



4. Disconnect the power and data cables connected to the Hard Disk Drive.

5. Remove one T-10 screw (**Type I**) from the HDD Holder.

6. Slide the Hard Disk Drive upwards and remove from the printer.

NOTE: It is not necessary to remove the screws securing the HDD inside the metal casing.

Installation (Rev A printers)

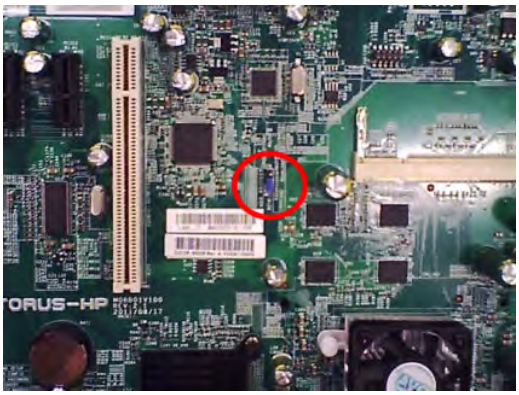
After installing a new HDD, make sure you perform the following user calibrations:

- Printhead Alignment
- Paper Advance Calibration
- Color Calibration

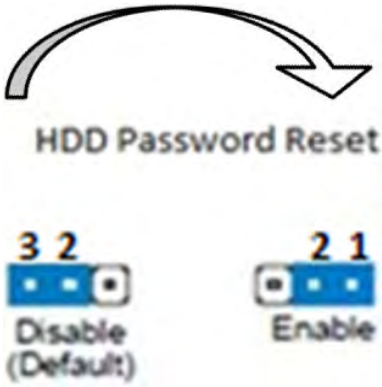
Installation (Rev B printers)

1. Install the new HDD assembly and T-10 screw.
2. Connect the SATA cable to the Formatter SATA connector and the other end to the HDD SATA connector.
3. Connect the SATA power cable to the HDD power cable from the PSU to the SATA power connector.

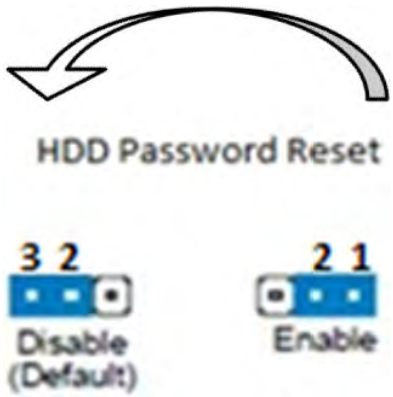
4. Identify the HDD Protect Jumper.



5. Move the jumper from the default connection to the password reset connection.



6. Replace the cover on the EBox provisionally with a couple of screws to hold the cover in place.
7. Power up the printer and turn it on (wait until it starts up).
8. Shut down the printer and power off. Remove the power cable.
9. Remove the cover from the EBox.
10. Move the jumper from the password reset connection to the default position.



11. Cover the EBox.

NOTE: When you first start the printer with a new HDD, encrypted or not, you may see a 79:04 system error. Switch off and restart; the printer should start normally.

CAUTION: Powering off the printer while starting it with a new Formatter and HDD may corrupt the BIOS password, leaving the printer useless because it will be unable to start.

After installing a new HDD, make sure you perform the following user calibrations:

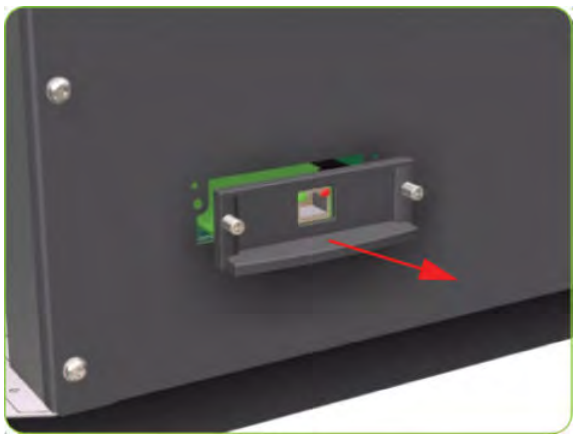
- Printhead Alignment
- Paper Advance Calibration
- Color Calibration

Power Supply Unit (PSU)

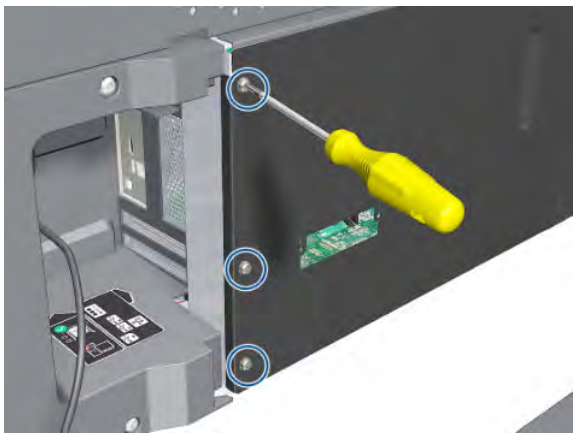
Removal

WARNING! Switch off the printer and remove the power cable.

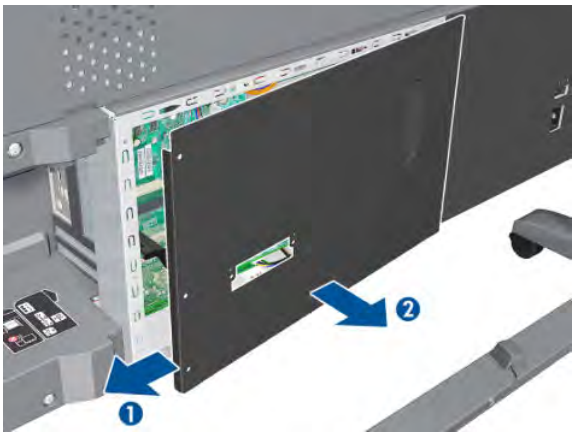
1. Remove the Left Connector Cover See Connector Cover, Left on page 236.
2. Remove the Jetdirect Card (if installed).



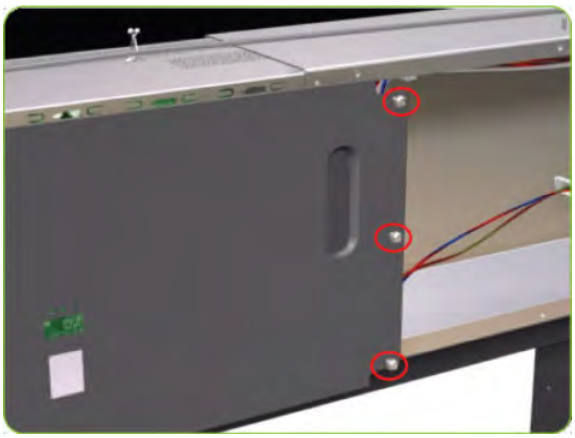
3. Remove three T-20 screws that secure the Formatter cover.



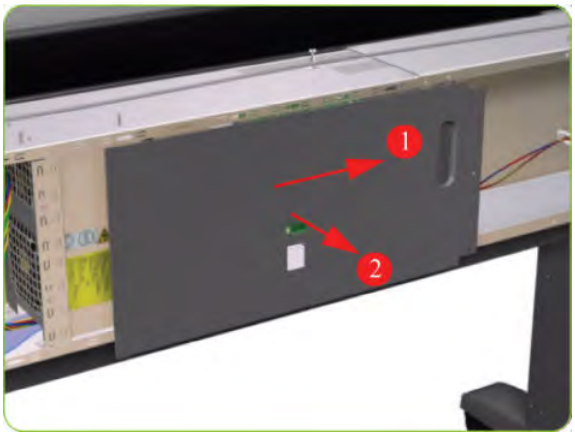
4. Remove the Formatter Cover from the printer.



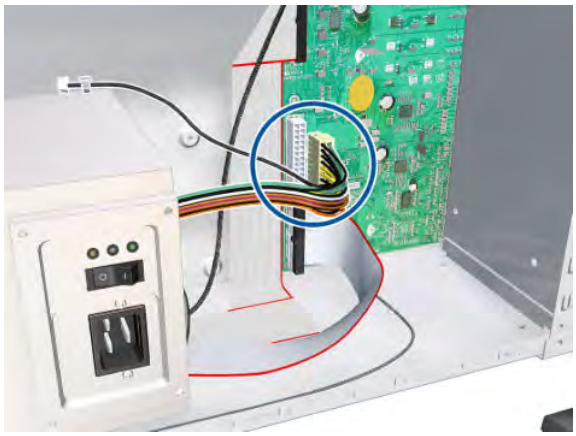
5. Remove three T-20 screws that secure the PSU cover.



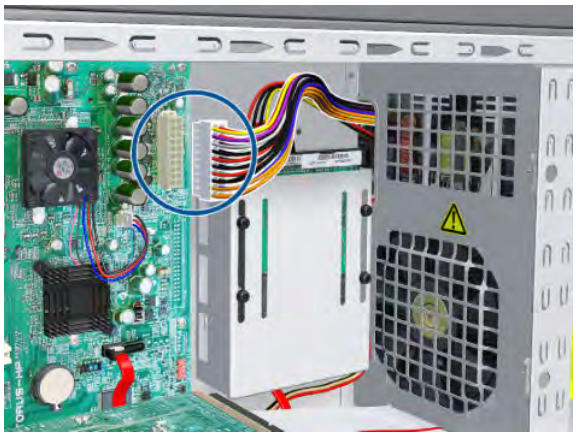
6. Remove the PSU Cover from the printer.



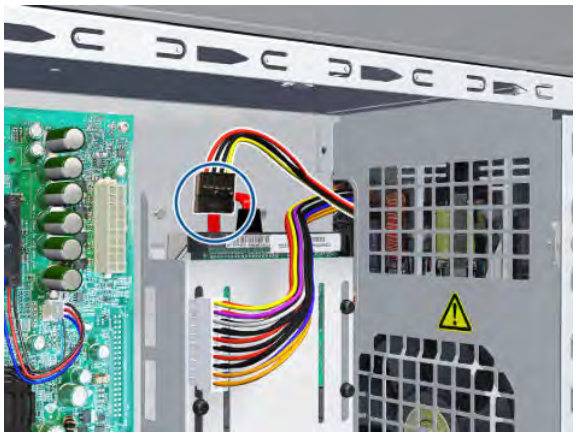
7. Disconnect the Power Supply from the PrintMech PCA.



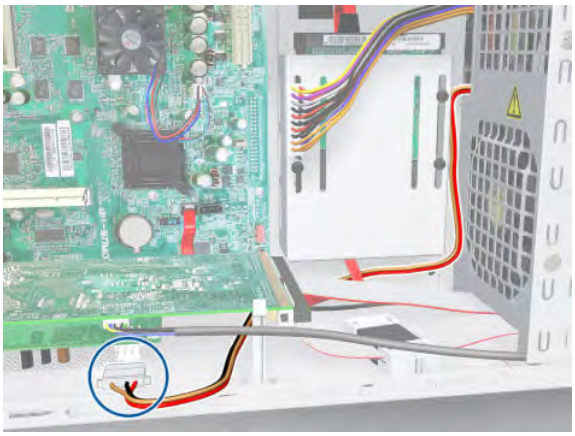
8. Disconnect the power supply cable from the Formatter.



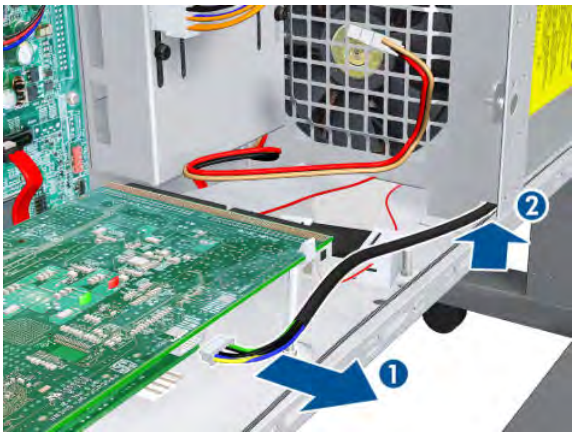
9. Disconnect one cable from the Hard Disk Drive.



10. Disconnect the cable as shown.

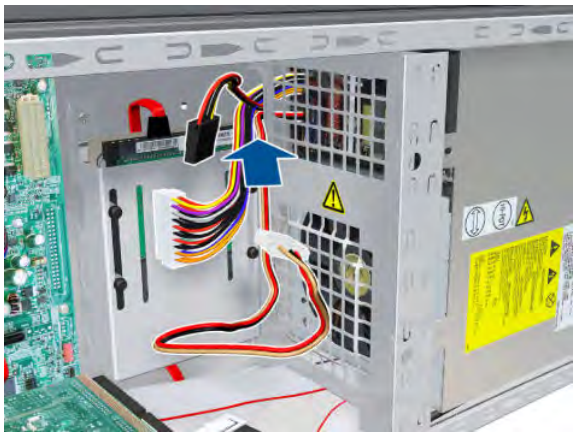


11. Disconnect the cable and pass it through the hole.

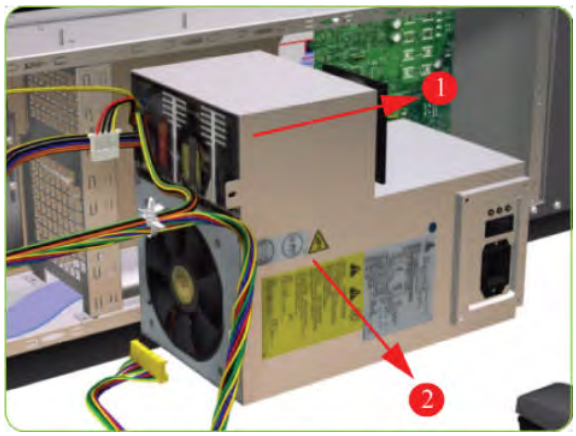


12. Remove four T-10 screws (**Type I**) that secure the Power Supply Unit.

13. Route the cables through the hole in the Electronics Module.



14. Remove the Power Supply Unit from the printer.



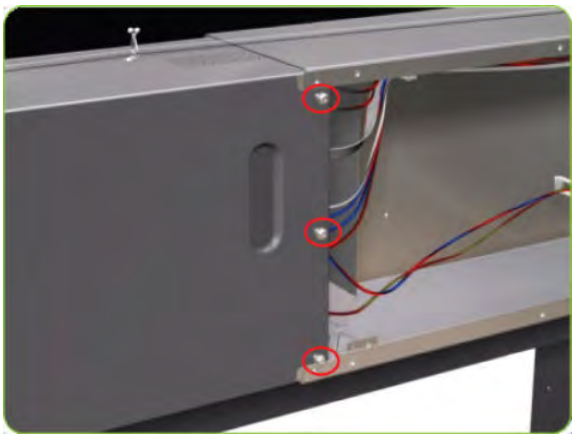
PrintMech PCA

Removal

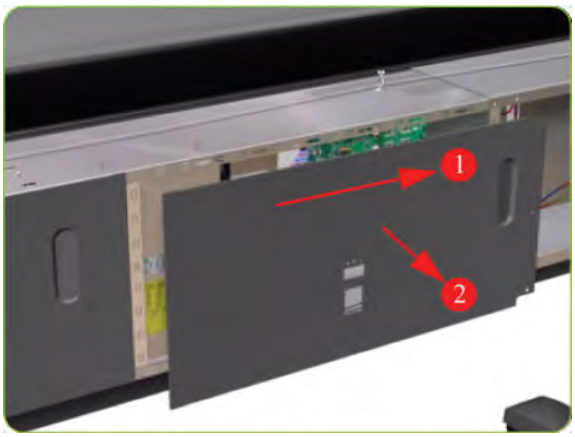
⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Left Connector Cover ➡ See Connector Cover, Left on page 236.

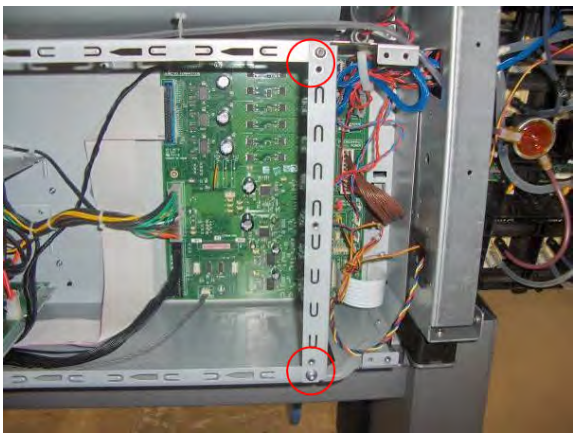
2. Remove three T-20 screws that secure the PSU Cover.



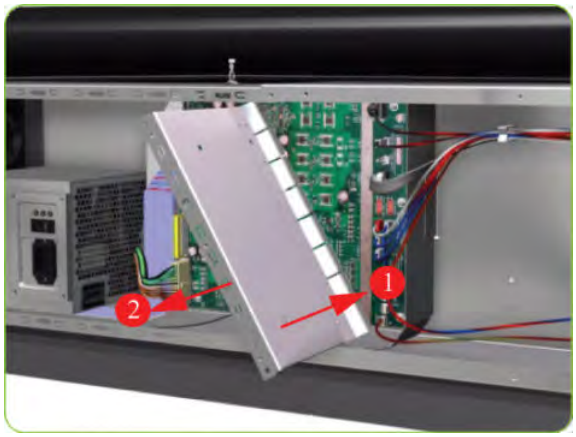
3. Remove the PSU Cover from the printer.



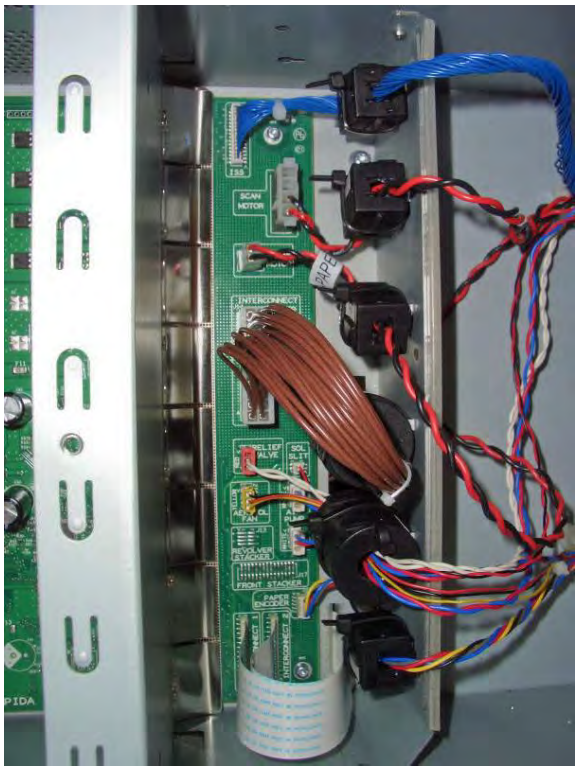
4. Remove two T-20 screws from the PrintMech Cover.



5. Slide the PrintMech Cover out of the printer.



6. Disconnect all cables from the PrintMech PCA.



7. Remove five T-10 screws (**Type I**) that secure the PrintMech PCA.

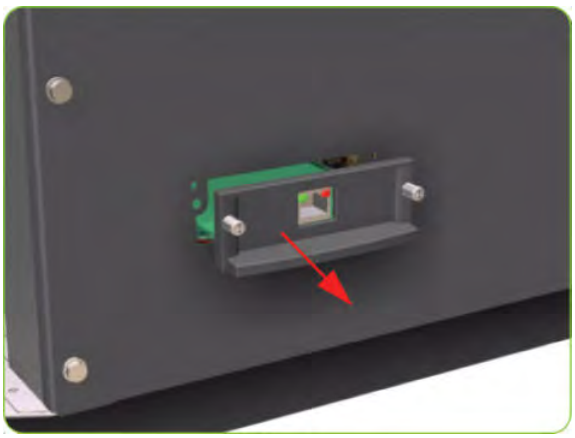
8. Remove the PrintMech PCA from the printer.

Formatter Battery

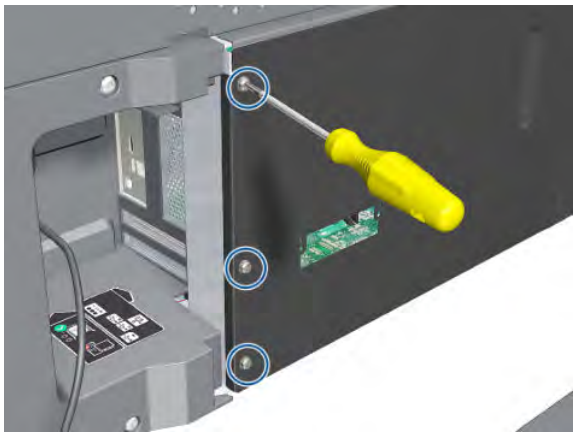
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

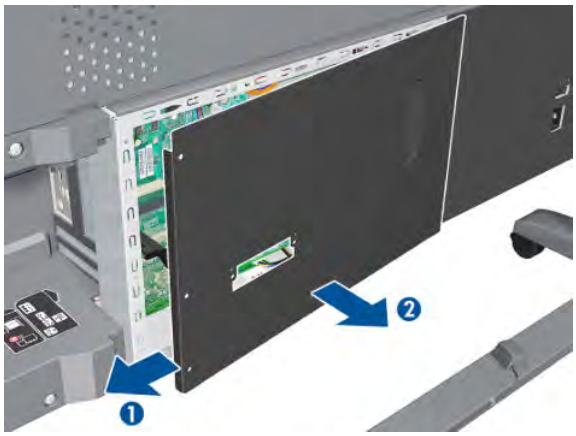
1. Remove the Jetdirect Card (if installed).



2. Remove three T-20 screws that secure the Formatter cover.

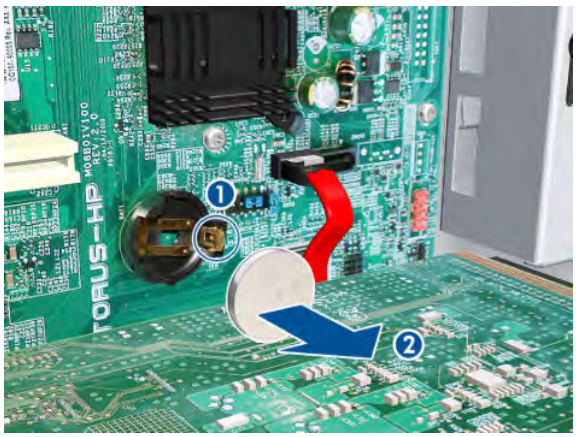


3. Remove the Formatter Cover from the printer.



4. Remove the EIO to PCA Interface Card → See EIO to PCA Interface Card on page 364.

5. Push the clip down and release the battery from the Formatter.

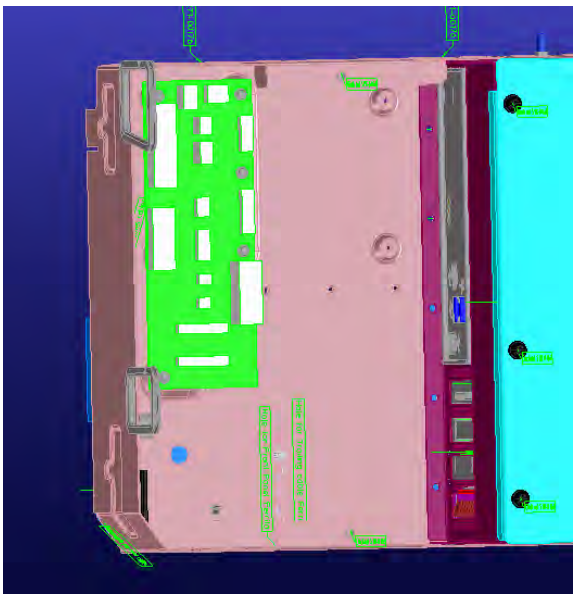


Electronics Module

Removal

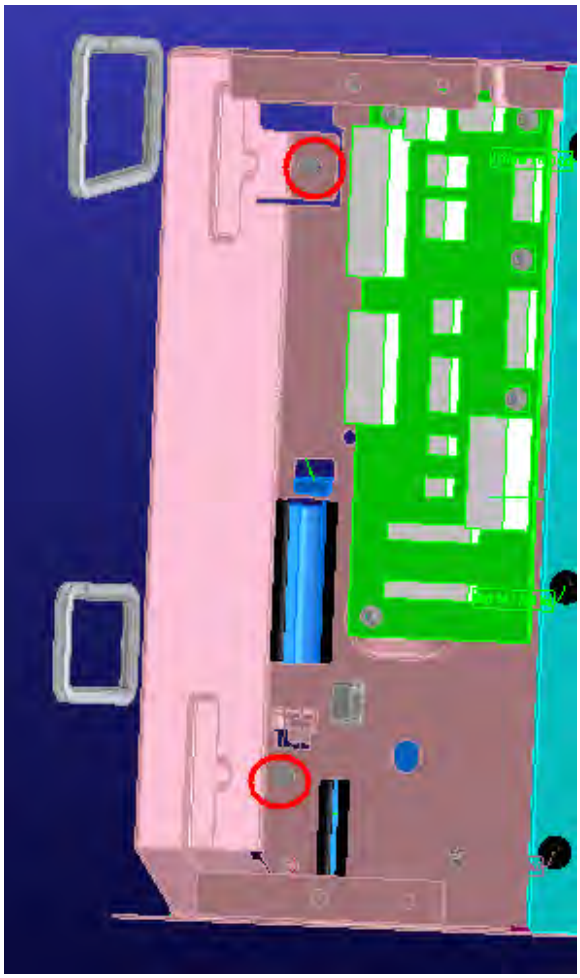
⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Connector Cover ➡ See Connector Cover, Right on page 235.
2. Remove the Left Connector Cover ➡ See Connector Cover, Left on page 236.
3. Disconnect all the cables connected to the right Interconnect PCA and the Main PCA.

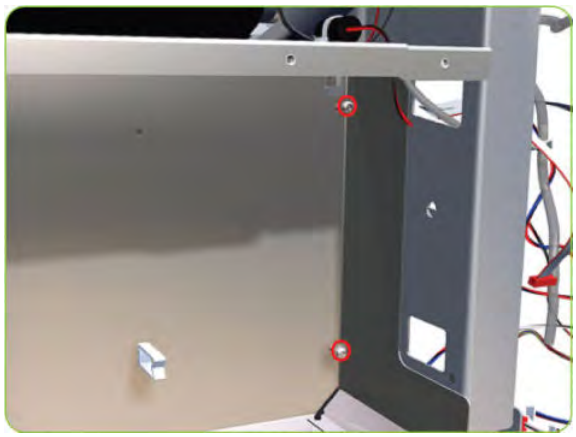


4. Unroute all the disconnected cables so they are clear of the Electronics Module.

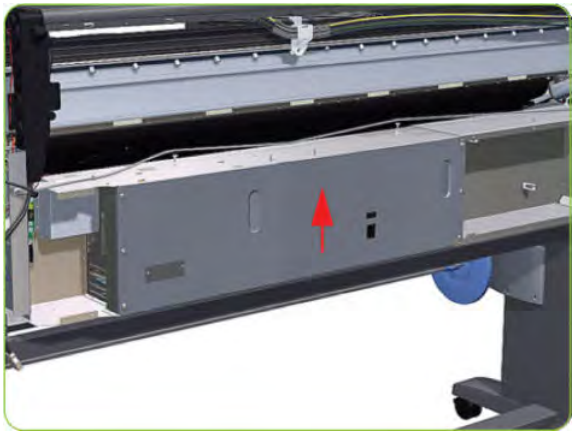
5. Remove two T-20 screws (**Type B**) that secure the right side Electronics Module.



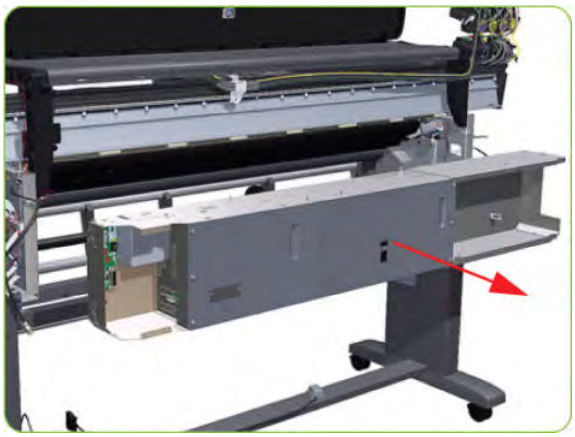
6. Remove two T-20 screws (**Type B**) that secure the left side Electronics Module.



7. Lift the Electronics Module sufficiently (approximately 2 cm) to release it from the attachments.



8. Remove the Electronics Module from the printer.



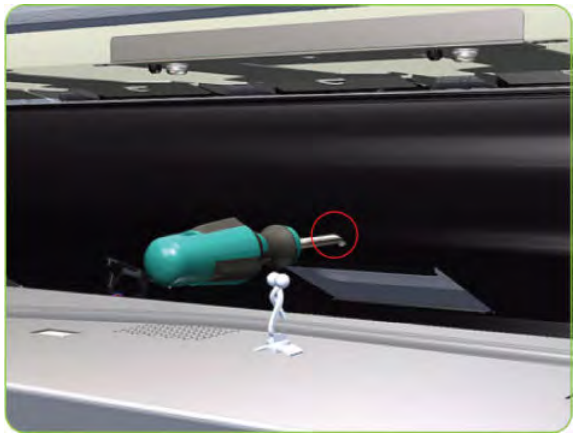
Center Platen

Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Remove the Top Cover ⇒ See Cover, Top on page 230.
4. Remove the Service Station ⇒ See Service Station on page 244.
5. Remove the Rear Door ⇒ See Rear Door on page 350.
6. Remove the Entry Platen ⇒ See Entry Platen on page 354.

7. Insert the T-20 thin bladed torx screwdriver (supplied with the replacement OMAS) into the access hole at the rear of the printer.

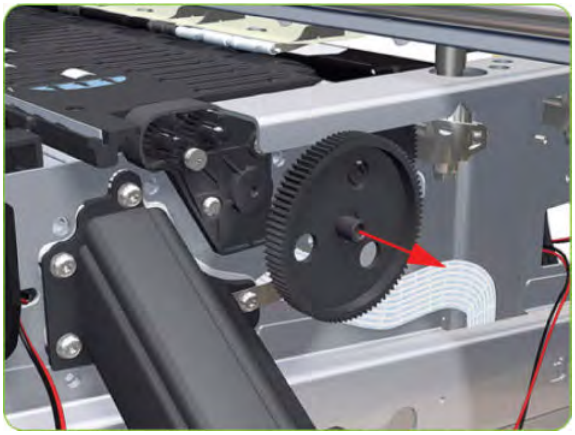


8. Loosen approximately two turns the T-20 screw which secures the OMAS horizontally to the printer.

9. From the bottom of the printer, loosen approximately two turns the T-20 screw which secures the OMAS vertically to the printer.

10. Remove one T-15 screw (**Type P**) that secures the Center Platen Gear.

11. Remove the Center Platen Gear from the printer.



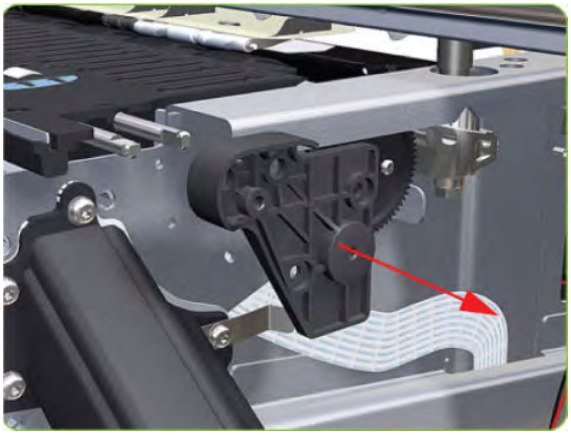
12. Remove one T-15 screw that secures the small Gear.

13. Remove the small Gear from the printer.

14. Remove the two small Platen Gears by releasing the clips.

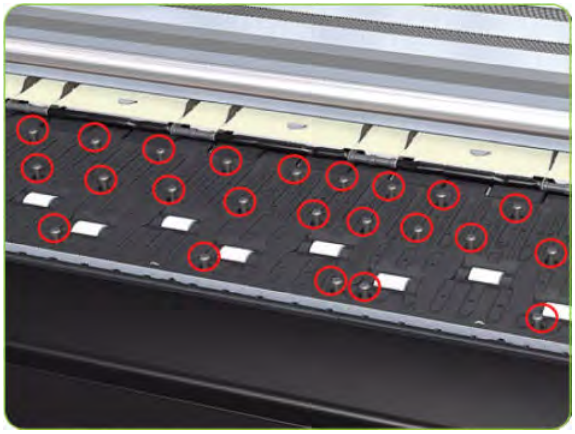
15. Remove two T-20 screws (**Type Q**) that secure the Gear Bracket.

16. Remove the Gear Bracket from the printer.



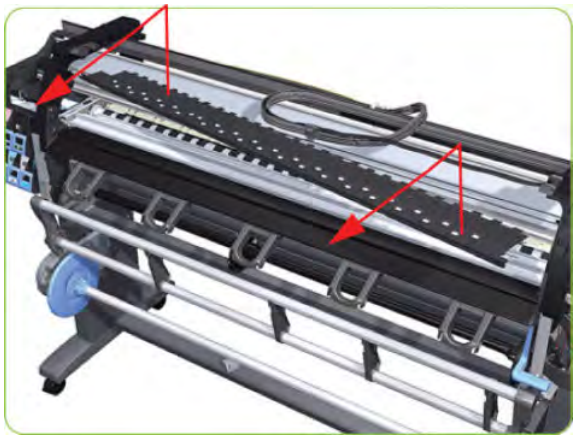
17. Move the Carriage Assembly fully to the right.

18. Remove the 80 T-10 screws (Type C) that secure the Center Platen.



19. Remove the Secondary Spittoon Blank.

20. Remove the Center Platen from the printer.



Installation of the Foams

Before installing the Center Platen, make sure you check the foams that are stuck on the Vacuum Beam. These foams should ONLY be changed if they are damaged. In the circumstance where they do need to be changed, use the following illustrations to guide you:

NOTE: Make sure you take note of the positions of the Foams located underneath the center Platen.

NOTE: When reinstalling the parts, make sure you apply the grease (included with the support part) to the gears.

NOTE: After installing the new Center Platen, make sure you perform the following Service Calibration:

- Paper-advance Calibration Paper-advance calibration on page 123.

NOTE: To simplify the installation of the OMAS an Attachment Screw Retainer has been added to hold the two T-20 attachment screws. This part is delivered with the Center Platen in case either of the OMAS attachment screws are completely removed during the removal of the Center Platen.

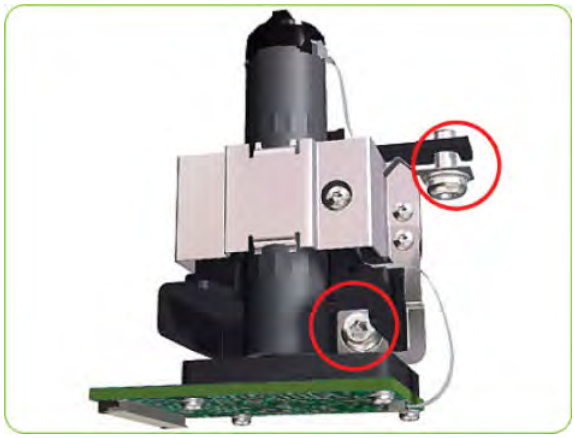
OMAS Attachment Screws Completely Removed during Center Platen Removal

1. Completely remove OMAS from the printer See Optical Media Advance Sensor (OMAS) on page 357.
2. Install the Center Platen.

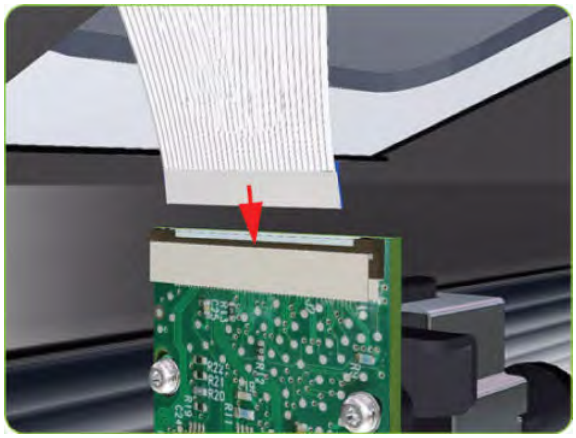
   NOTE: When reinstalling the parts, make sure you apply the grease (included with the support part) to the gears.

3. Position the Attachment Screw Retainer on the OMAS and secure it with the T-8 attachment screw provided with Center Platen.

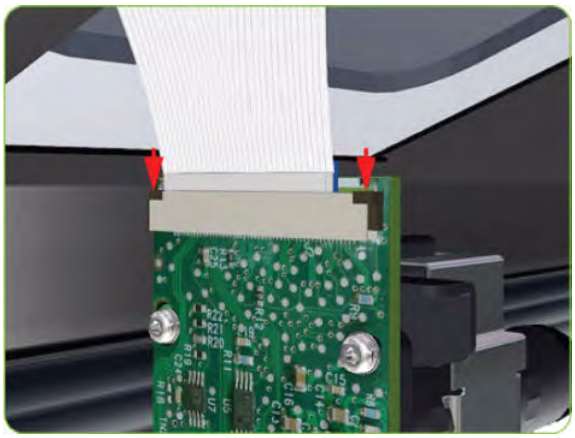
4. Check that the two T-20 attachment screws are correctly positioned in the Attachment Screw Retainer.



5. Position the OMAS under the printer and connect the large ribbon.



6. Lock the clips of the large ribbon cable connector.



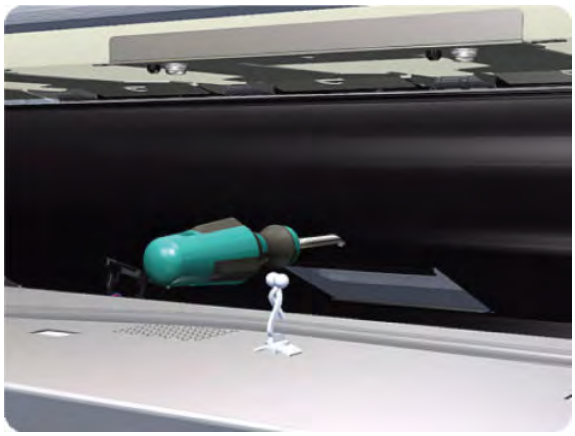
7. Carefully push the OMAS fully up into its mounting so it protrudes slightly (approximately 0.1 mm) above the Center Platen. To ensure the OMAS is correctly positions, slide a sheet of paper over the Platen Ribs until it is stopped by the OMAS. This ensures the OMAS is protruding slightly above the platen.

⚠ CAUTION: Make sure the OMAS is pushed completely up into its mounting or you will encounter an error during the OMAS calibration because it will not be able to focus on the paper.

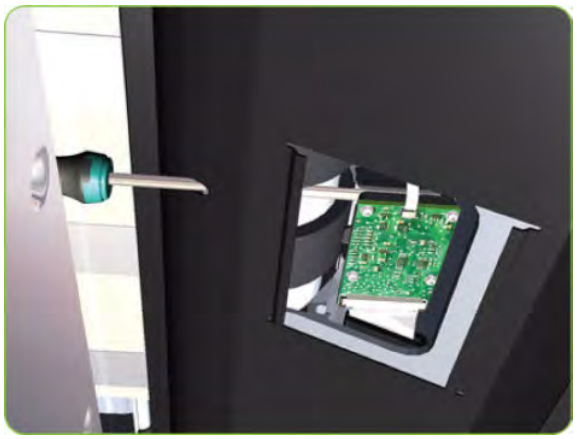
8. If the paper is not stopped by the OMAS, repeat step 4 to ensure the OMAS is push fully up into its the mounting.

9. Fully tighten the T-20 vertical attachment screw.

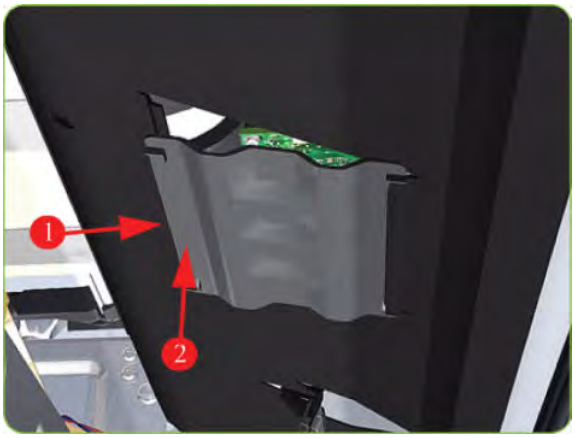
10. Insert the T-20 thin bladed torx screwdriver into the access hole at the rear of the printer.



11. Fully tighten the T-20 horizontal attachment screw which secures the OMAS to the printer.



12. Clip the OMAS access cover back into place by sliding one edge of the cover into the slot and then applying enough pressure to it so you can clip it into the other slot.



13. Perform the following calibrations.
    - OMAS Calibration ⇒ See OMAS Calibration on page 139.
    - Paper-advance Calibration ⇒ See Paper-advance calibration on page 123.

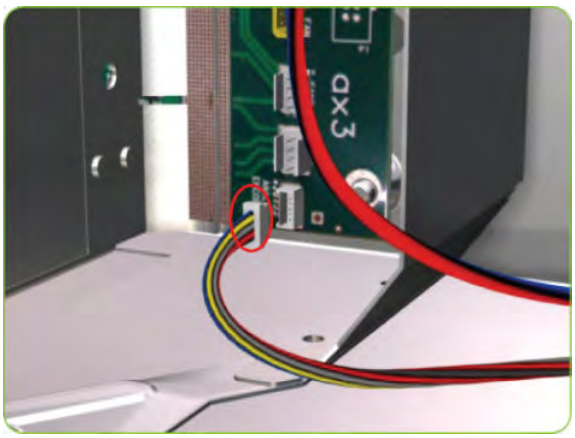
Encoder Disc and Sensor

Removal

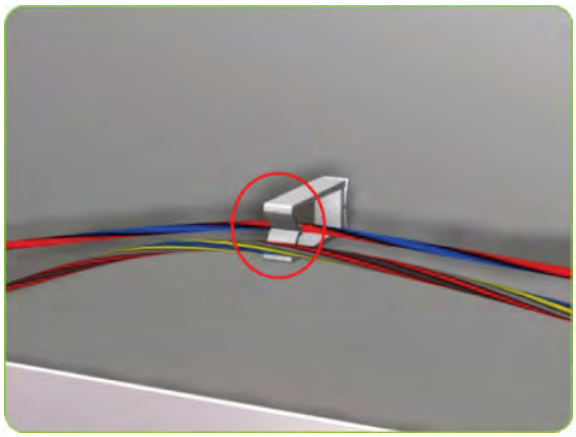
⚠ WARNING! Switch off the printer and remove the power cable.

⚠ CAUTION: Please handle the Encoder Disc very carefully since any finger prints, scratches or stains could cause the printer to malfunction.

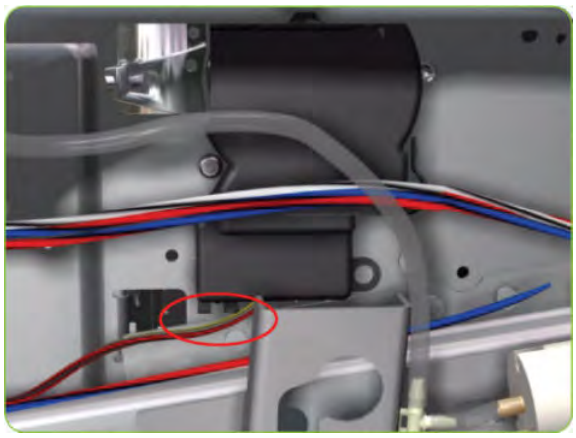
1. Remove the Left Cover ⇒ See Cover, Left on page 226.
2. Remove the Left Connector Cover ⇒ See Connector Cover, Left on page 236.
3. Remove the Ink Supply Station ⇒ See Ink Supply Station (ISS) on page 312.
4. Disconnect the Encoder Sensor cable from the PrintMech PCA.



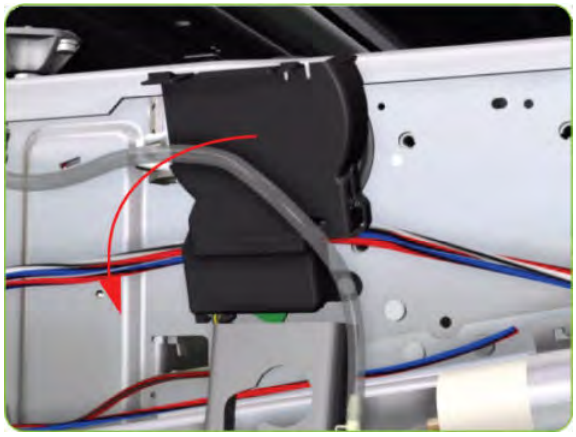
5. Release the Encoder Sensor cable from the clip located on the Electronics Module.



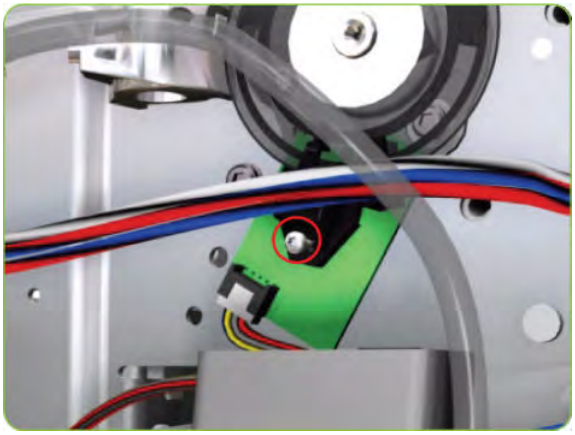
6. Release the Encoder Sensor cable from the clip located on the Encoder Disc Cover.



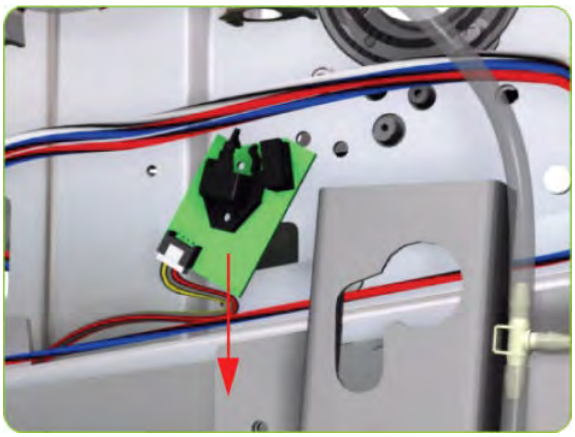
7. Unclip the Encoder Disc Cover and remove from the printer.



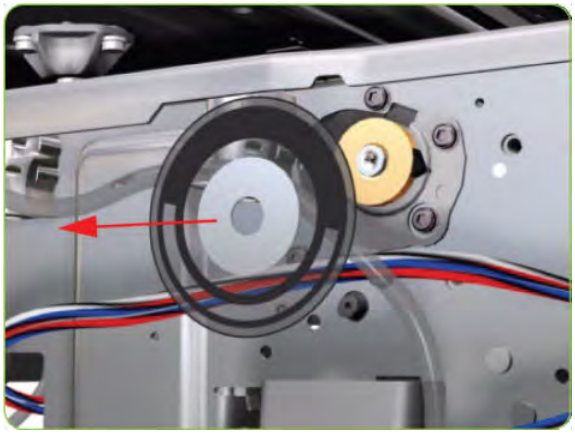
8. Remove one T-8 screw (**Type D**) that secures the Encoder Sensor to the Chassis.



9. Remove the Encoder Sensor from the printer.



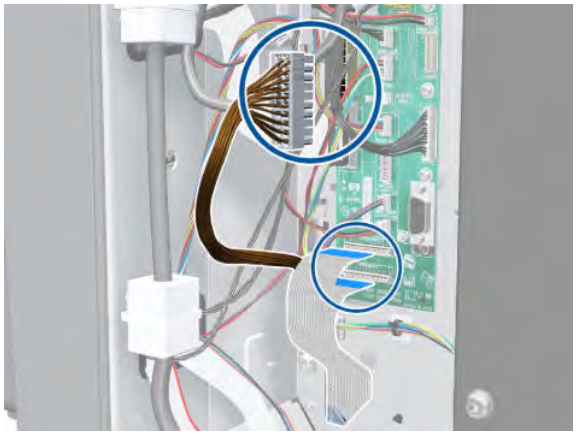
10. Carefully peel the Encoder Disc from the Drive Roller.



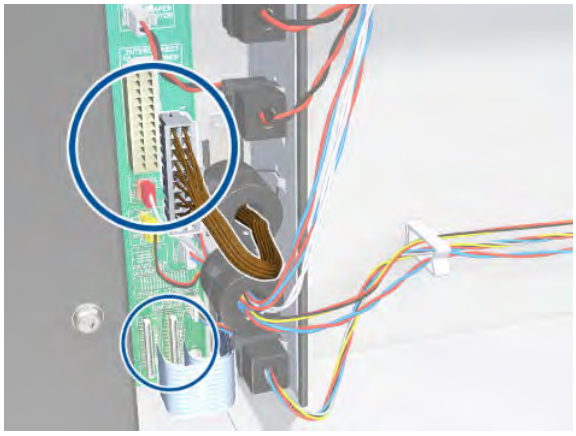
Interconnect Cables

Removal

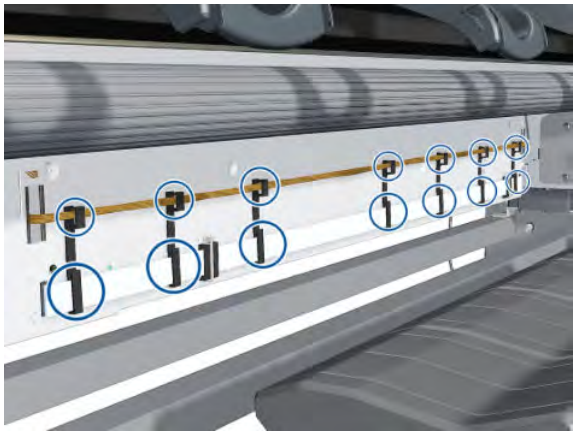
1. Disconnect the Interconnect Cable from the Interconnect PCA.



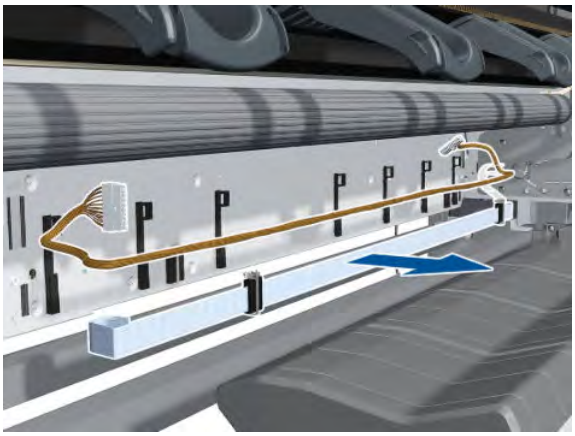
2. Disconnect the Interconnect Cable and the Interconnect Power Cable from the PrintMech PCA.



3. Unclip the seven cable holders.



4. Remove the Interconnect Cable and the Interconnect Power Cable.

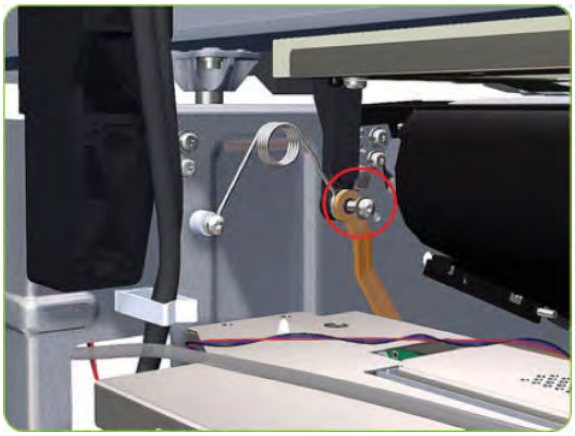


Pinchwheel Assembly

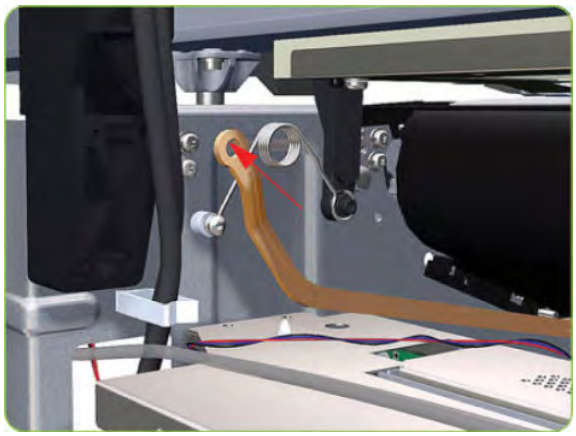
Removal

⚠ **WARNING!** Switch off the printer and remove the power cable.

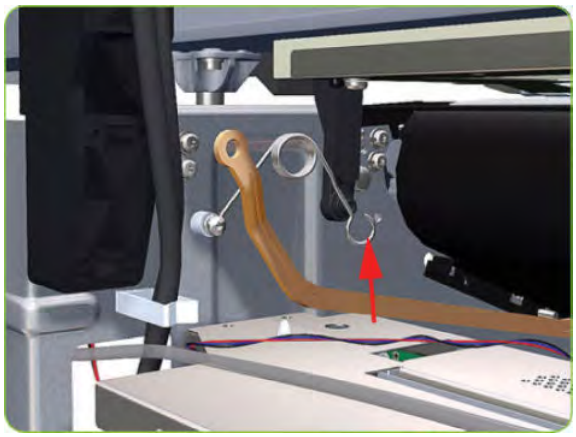
1. Remove the Right Cover ➡ See Cover, Right on page 223.
2. Open the Rear Door.
3. Remove one T-20 screw that secures the Linkage to the Spring.



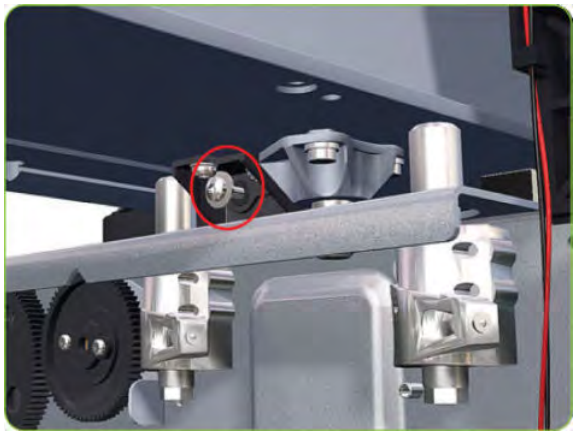
4. Disconnect the linkage from the Pinch Wheel cam-arm.



5. Disconnect the spring from the Pinch Wheel cam-arm.

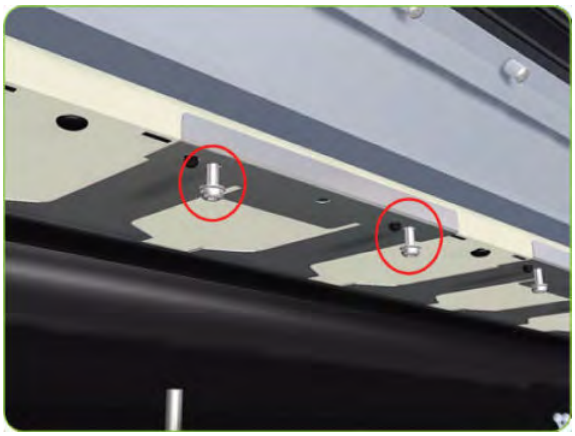


6. Remove one T-20 screw that secures the Cam to the Cam Lever.

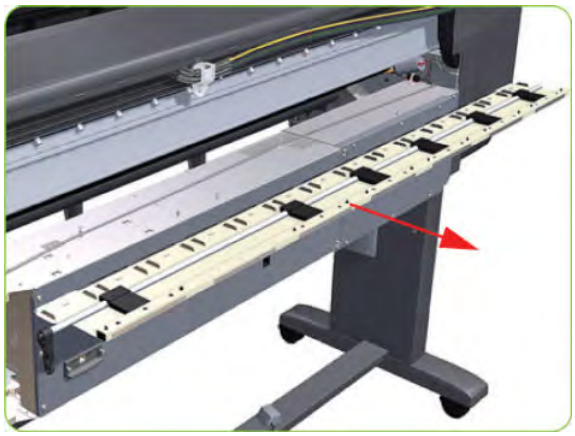


7. Insert a plastic stud into each Pinchwheel Subassembly (the Plastic Studs can be found in the replacement Pinchwheel Assembly kit).

8. Remove two T-20 screws (**Type M**) from each Pinchwheel Subassembly (a 90° screwdriver is included with the replacement Pinchwheel Assembly).



9. Remove the complete Pinchwheel Assembly (including the Cam and Cam Lever) from the printer.



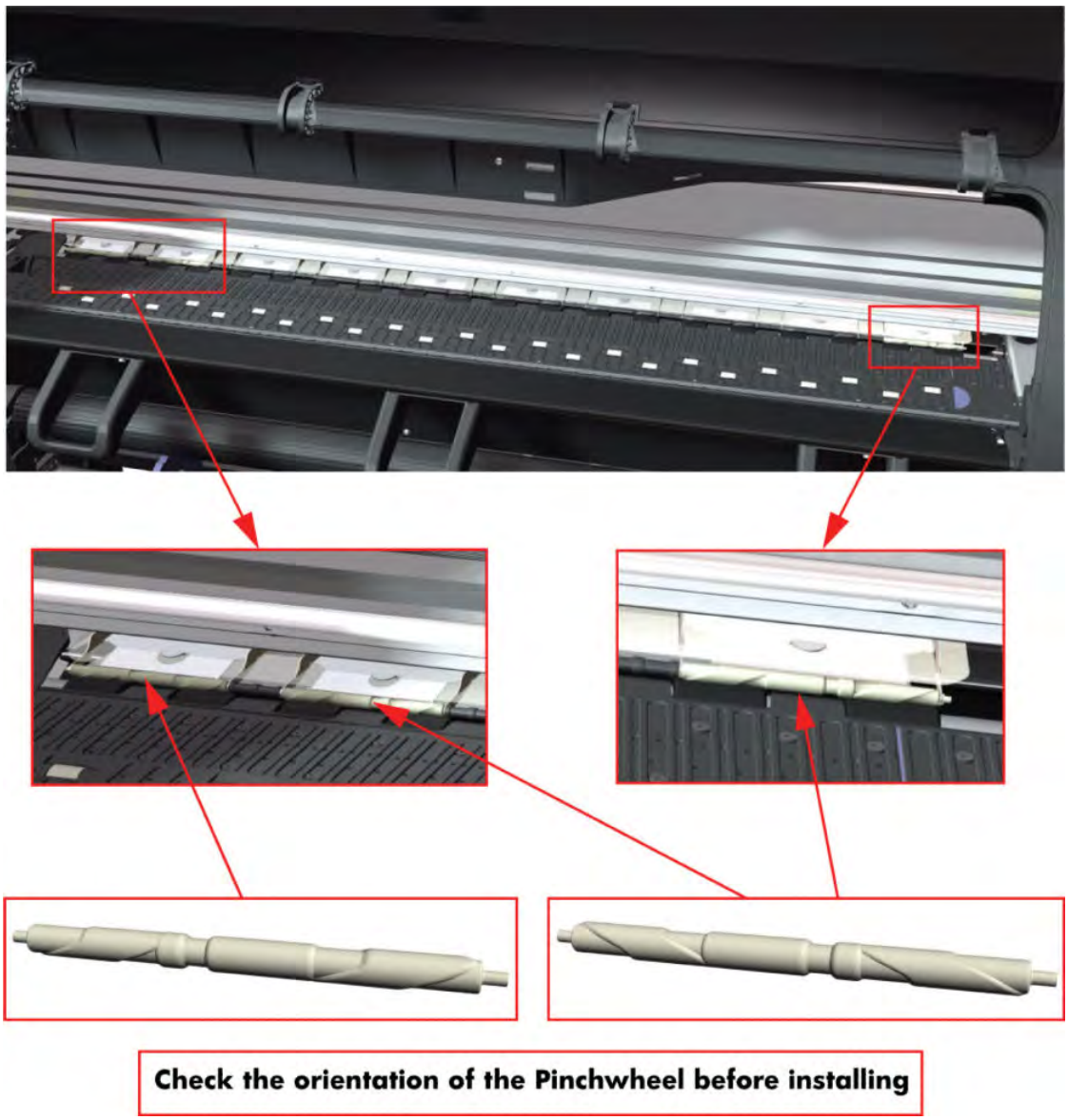
NOTE: Before installing the new Pinchwheel Assembly, insert the plastic studs into each Pinchwheel subassembly. This will make it easier to install the complete Pinchwheel Assembly.

Removing individual Pinchwheel Rollers

▲ To remove an individual Pinchwheel roller, push apart the metal part that secures the Pinchwheel roller and then pull out the individual Pinchwheel roller.

Important Information on Installation of Pinchwheels

The Pinchwheel Assembly contains 3 white Pinchwheels and several black Pinchwheels. The black Pinchwheels are symmetrical so can be installed without any problems, BUT the white Pinchwheels are NOT symmetrical so it is VERY IMPORTANT to install them correctly using the following illustration:



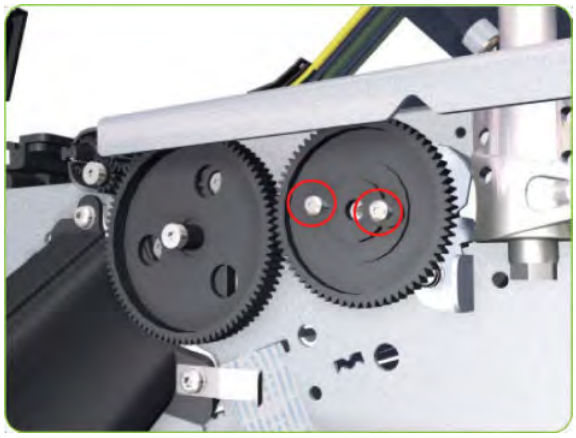
Drive Roller

Removal

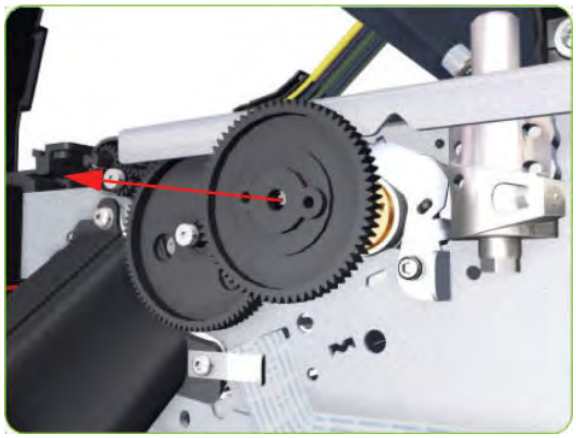
⚠ WARNING! Switch off the printer and remove the power cable.

1. Remove the Right Cover ⇒ See Cover, Right on page 223.
2. Remove the Left Cover ⇒ See Cover, Left on page 226.
3. Remove the Right Connector Cover ⇒ See Connector Cover, Right on page 235.
4. Remove the Left Connector Cover ⇒ See Connector Cover, Left on page 236.

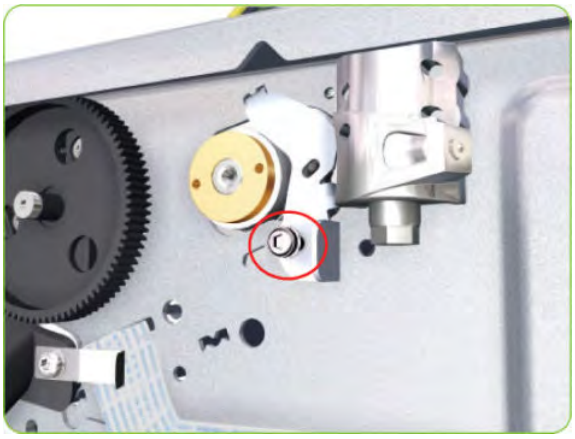
5. Remove the Service Station ⇒ See Service Station on page 244.
6. Remove the Ink Supply Station ⇒ See Ink Supply Station (ISS) on page 312.
7. Remove the Media-Axis Motor ⇒ See Media-Axis Motor on page 328.
8. Remove the Encoder Disc and Sensor ⇒ See Encoder Disc and Sensor on page 406.
9. Remove two T-10 screws that secure the Drive Roller Gear.



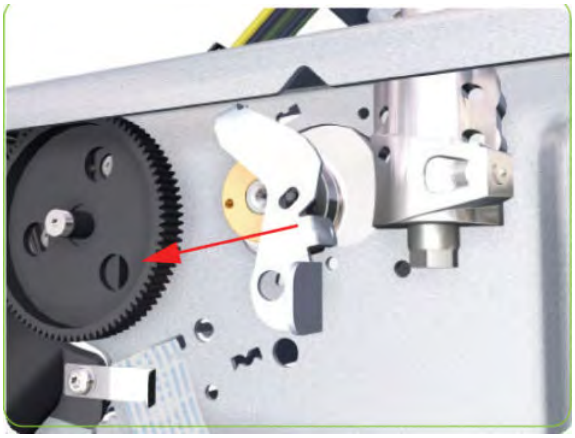
10. Remove the Drive Roller Gear from the printer.



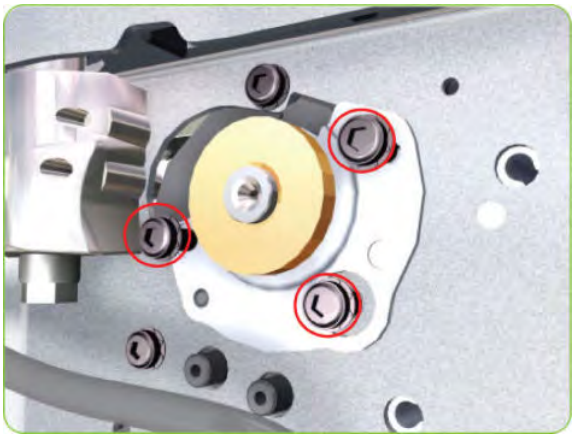
11. Remove one T-20 screw (**Type B**) that secures the cover on the right-hand side of the printer.



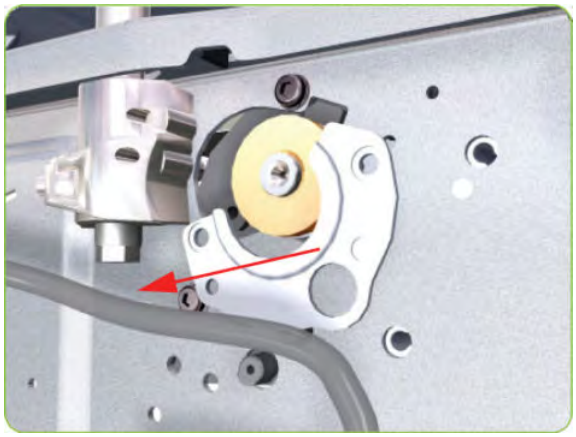
12. Remove the Cover.



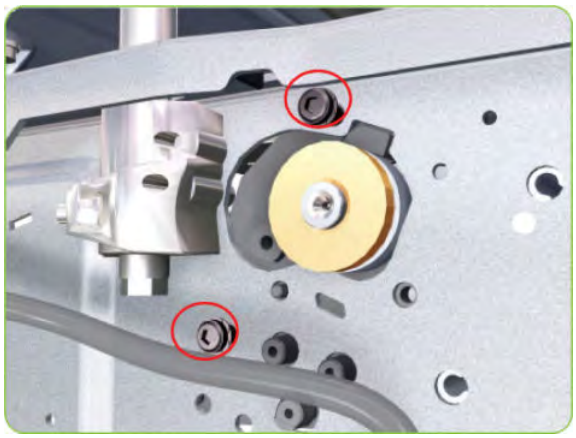
13. Remove three T-20 screws that secure the cover on the left-hand side of the printer.



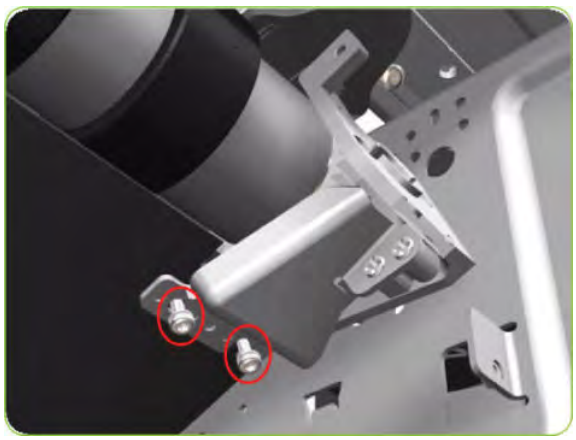
14. Remove the Cover.



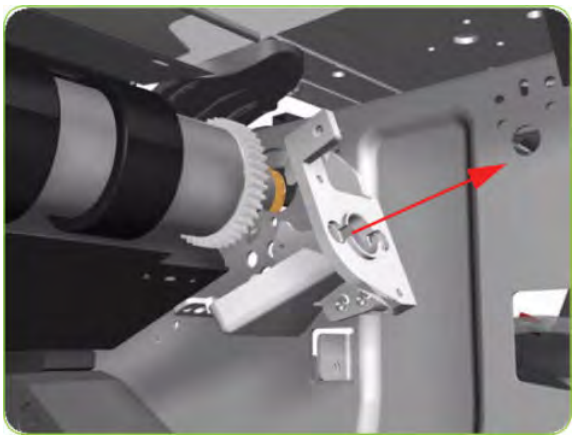
15. Remove T-20 screws that secure the Media-Axis Motor Bracket to the side-plate.



16. Remove two T-20 screws (Type A) that secure the Media-Axis Motor Bracket to the Chassis.



17. Remove the Media-Axis Motor Bracket from the printer.

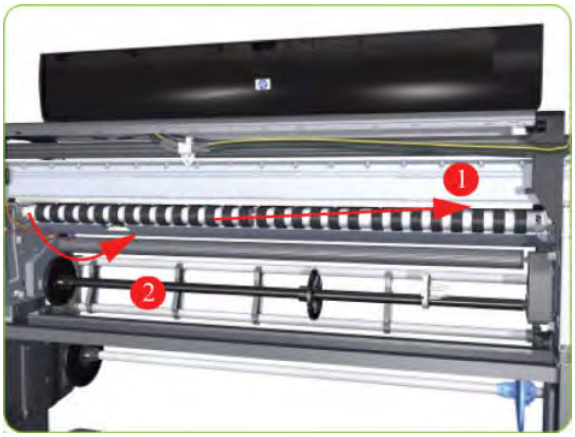


18. Remove the Drive Roller by sliding it to the right, then downwards and then out of the printer.

NOTE: When reinstalling the parts, make sure you apply the grease (included with the support part) to the gears.

NOTE: After installing the new Drive Roller, make sure you perform the following Service Calibration.

- Paper-advance Calibration Paper-advance calibration on page 123.



Installation of the Drive Roller

When installing the Drive Roller, several different datums have to be met in order to ensure that the Drive Roller has no axial play. Use the following illustrations to ensure that ALL the datums are met:

Figure 9-1 Left-Hand Side of the printer

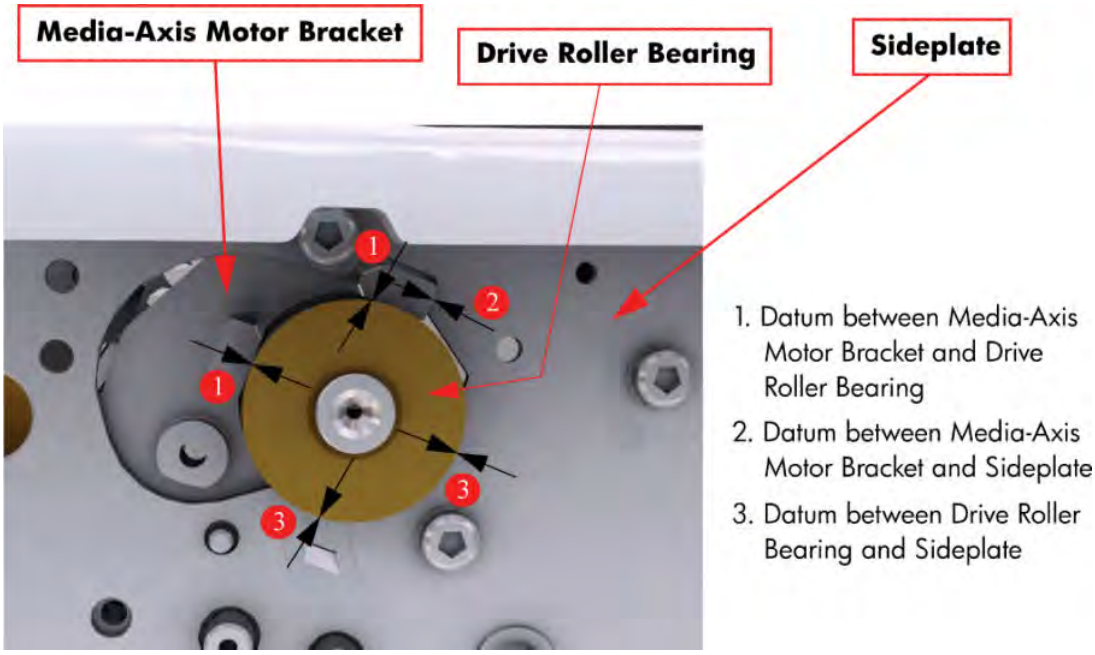
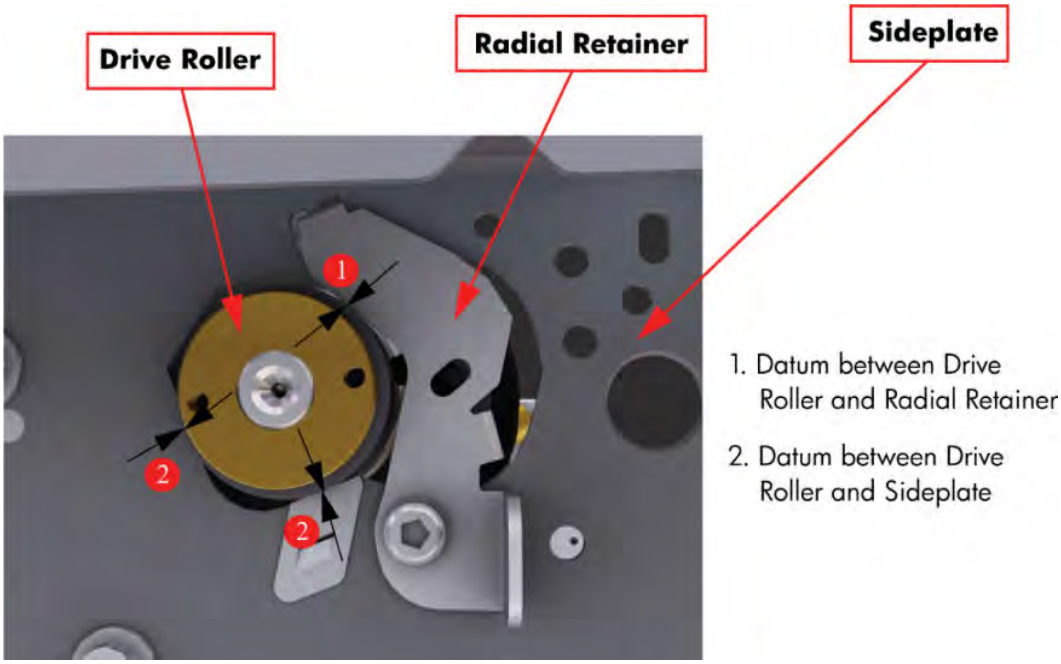
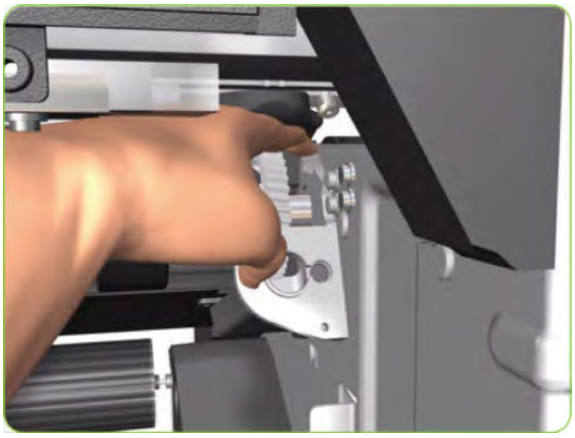


Figure 9-2 Right-Hand Side of the printer

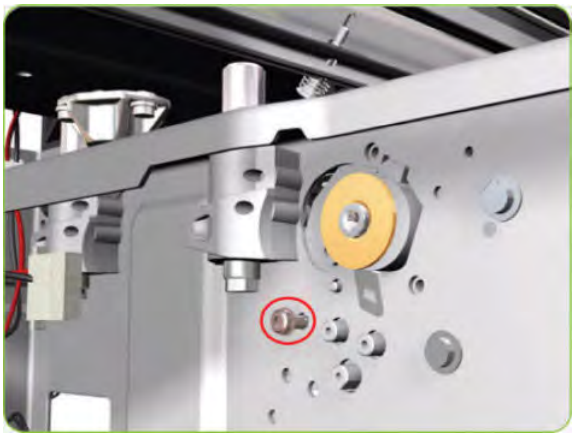


To make sure that ALL the datums are met when installing the Media-Axis Motor Bracket, make sure you follow these

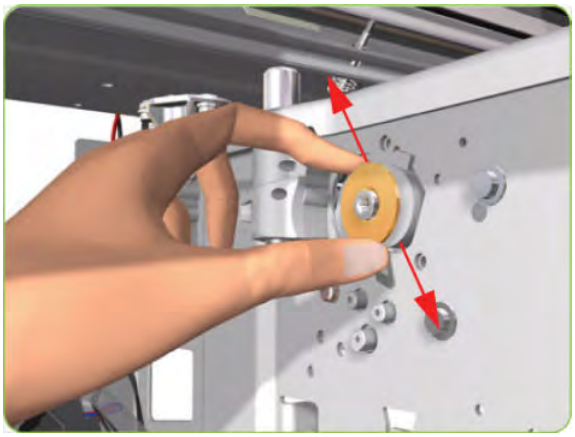
1. Place the Media-Axis Motor Bracket in the correct position on the printer. Make sure you keep it pushed down (as shown in the illustration) until the first screw has been installed and fully tightened.



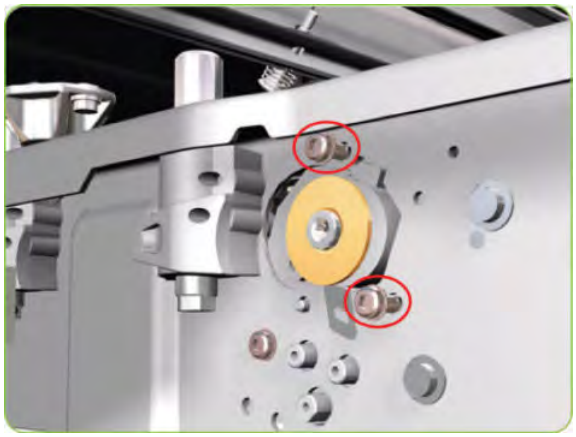
2. Install the first screw (T-15) in the position shown. Make sure you tighten the screw fully so that the Media-Axis Motor Bracket cannot be moved.



3. Check that there is no play (movement) between the Media-Axis Motor Bracket and the Drive Roller. If there is play, then check that the screw installed in the previous step is fully tightened.



4. Install the remaining two screws (T-15) that secure the Media-Axis Motor Bracket.



10 Stacker part removal and installation

This chapter is a step-by-step guide to the removal and installation of the key components in the stacker.

- Right Cover
- Left Cover
- Top Cover
- Lower Front Cover
- Pinchwheels
- Drive Motor
- Front Cover Sensor
- Safety Temperature Sensor
- Temperature Sensor PCA
- Media Sensor
- Extension Tray
- Receiving Tray
- Printer Interlocks
- Paper Infeed Platen
- Electronics PCA
- Power Supply Unit
- Heating Lamp
- Heat Roller
- Transport Belt

Right Cover

Removal

1. Switch off the stacker and remove the power cable.
2. Open the Front Cover.

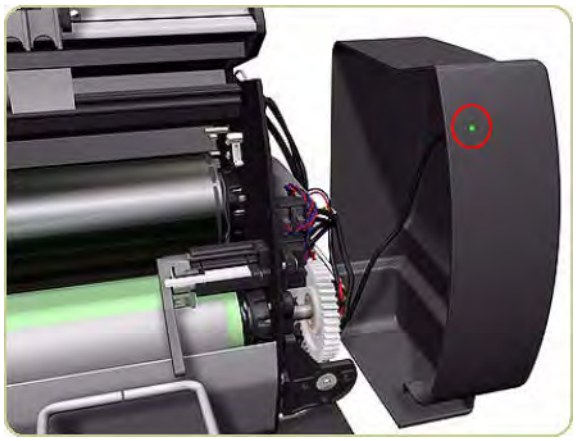
3. Remove one screw that secures the Right Cover.

4. Remove one screw that secures the Right Cover from the rear of the printer.

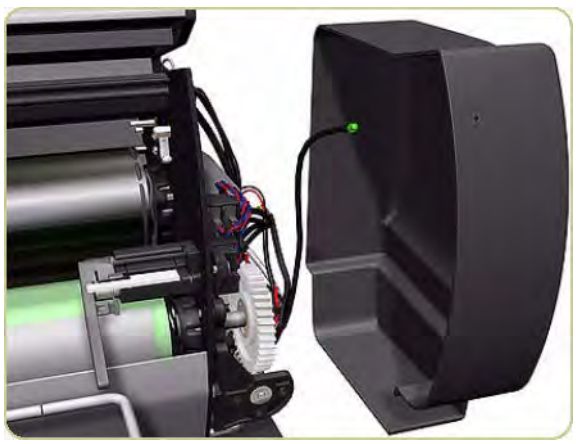
5. Remove one screw that secures the Right Cover from underneath at the rear.

6. Remove the LED from inside the Right Cover.

TIP: Use a flat-ended screwdriver to prise off the plastic holder securing the LED to the inside of the Right Cover.



7. Remove the Right Cover.



Left Cover

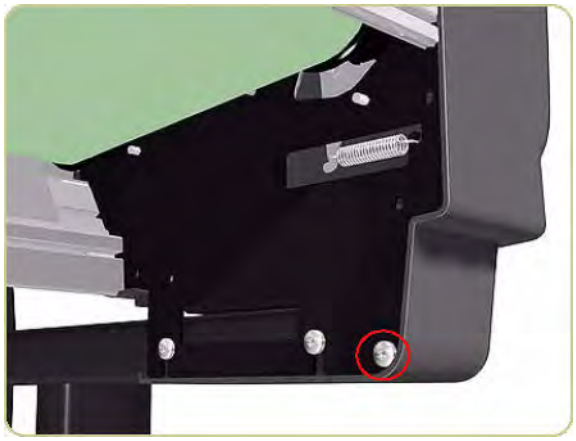
Removal

1. Switch off the stacker and remove the power cable.
2. Open the Front Cover.

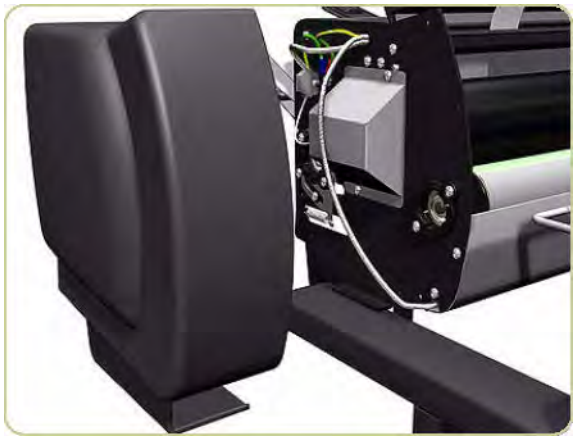
3. Remove one screw that secures the Left Cover.

4. Remove one screw that secures the Left Cover from the rear.

5. Remove one screw that secures the Left Cover from underneath at the rear.



6. Remove the Left Cover.

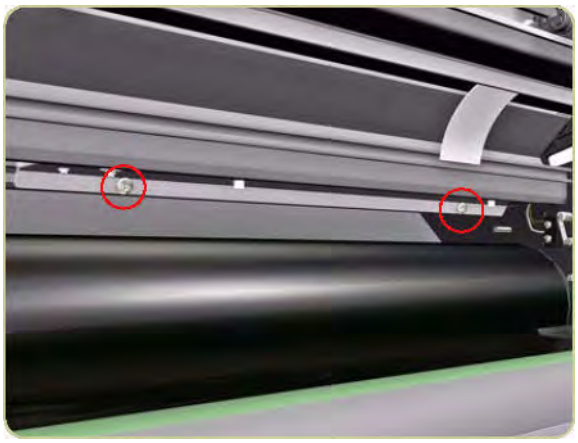


Top Cover

Removal

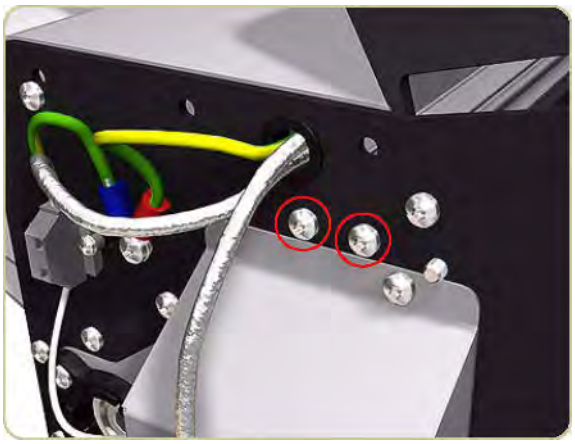
1. Remove the Right Cover ⇒ Right Cover on page 424.
2. Remove the Left Cover ⇒ Left Cover on page 426.

3. Remove two screws that secure the Temperature Sensor Plate.

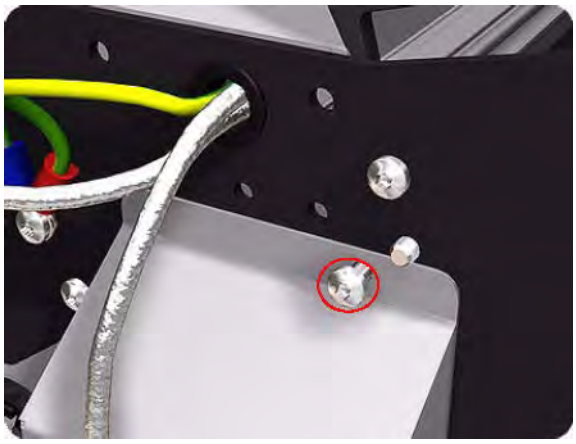


4. Pull down the Temperature Sensor Plate.

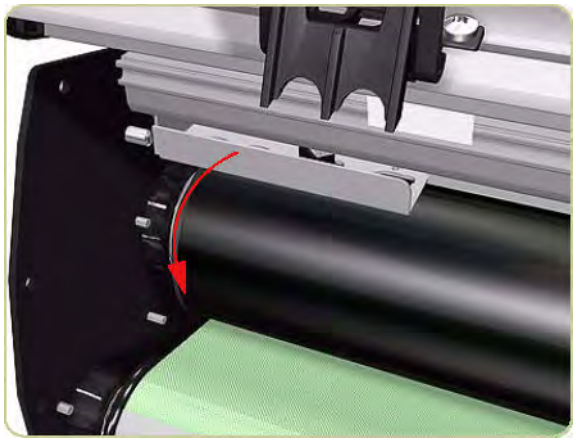
5. Remove two screws that secure the Safety Temperature Sensor Bracket from the left side of the chassis.



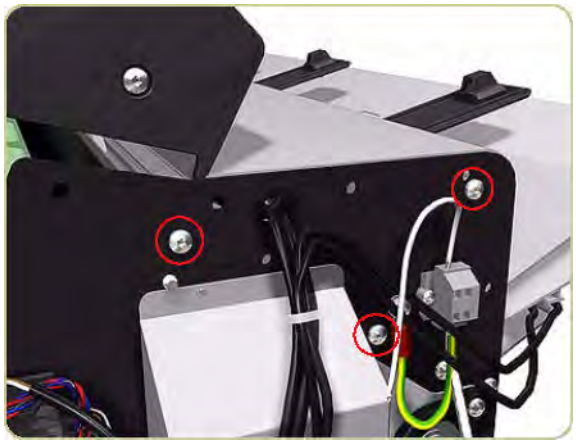
6. Loosen one screw that secures the top of the Left Heating Lamp Cover.



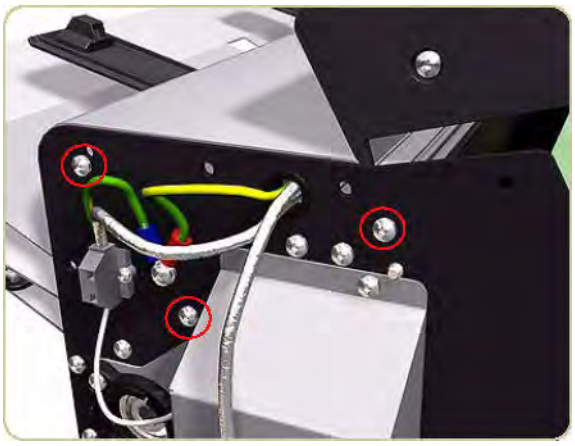
7. Slide down the Safety Temperature Sensor Bracket.



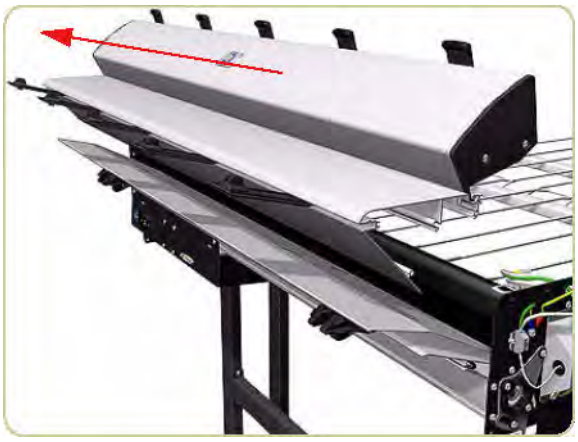
8. Remove three screws that secure the Top Cover from the right side.



9. Remove three screws that secure the Top Cover from the left side.



10. Remove the Top Cover with the Front Cover.



Lower Front Cover

Removal

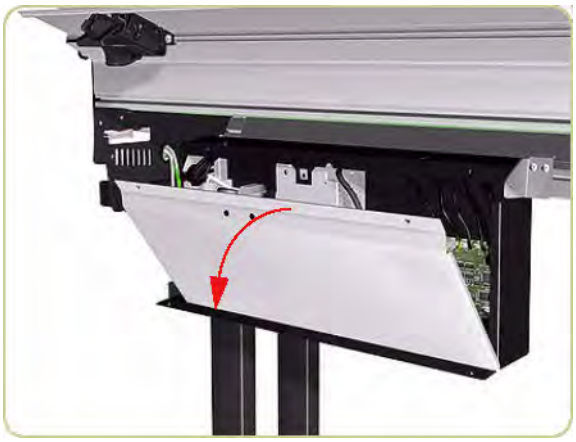
1. Remove the Right Cover ⇒ Right Cover on page 424.
2. Remove the Left Cover ⇒ Left Cover on page 426.
3. Remove the Drive Motor ⇒ Drive Motor on page 437.

4. Remove six screws that secure the top of the Electronics Module to the chassis.

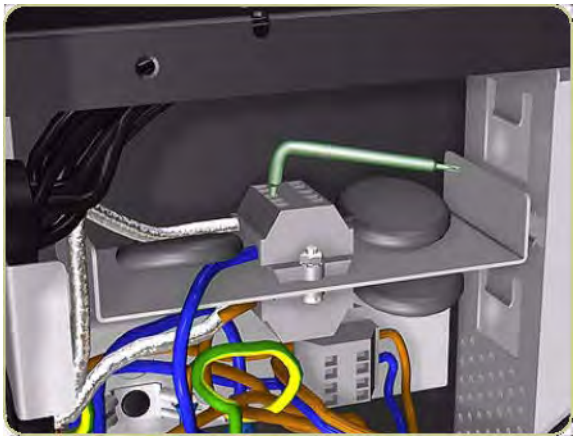
5. Pull the Electronics Module down.

6. Remove two screws that secure the Electronics Module Cover.

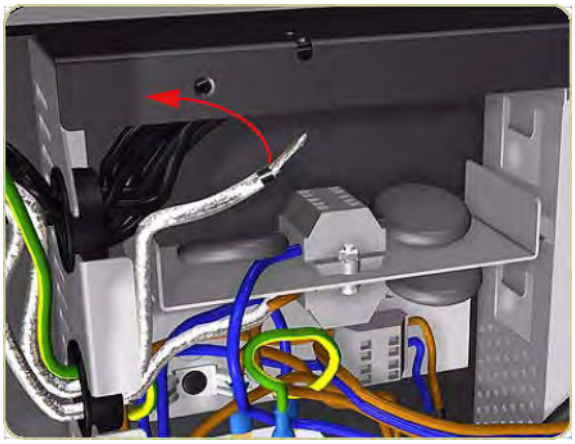
7. Remove the Electronics Module Cover.



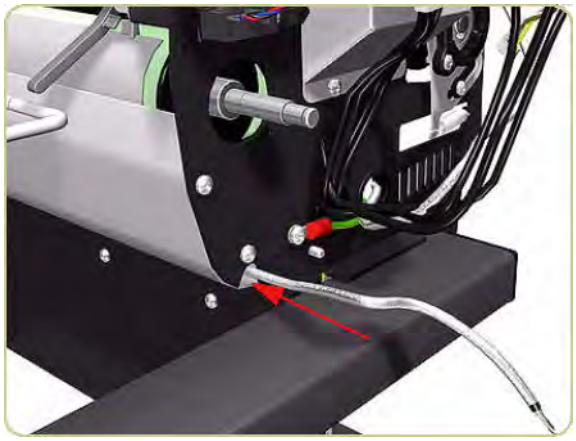
8. Disconnect the cable on the left of the Power Supply Unit by pushing down with an Allen key and releasing the cable.



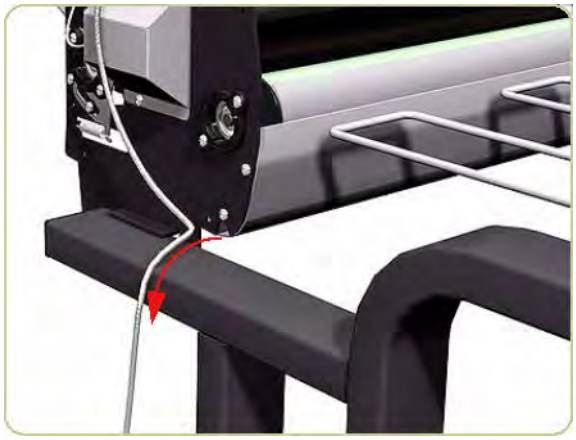
9. Remove the cable from the Electronics Module.



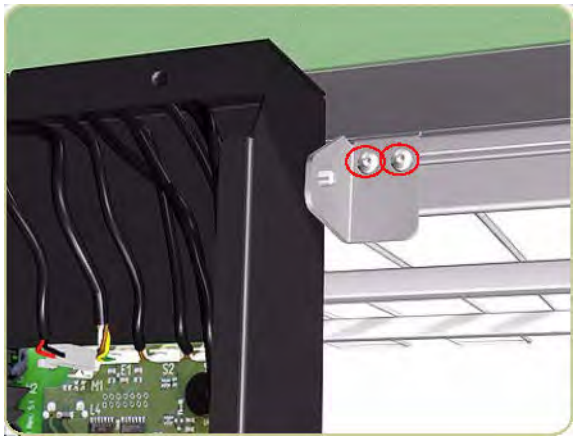
10. Push the cable back inside the Lower Front Cover.



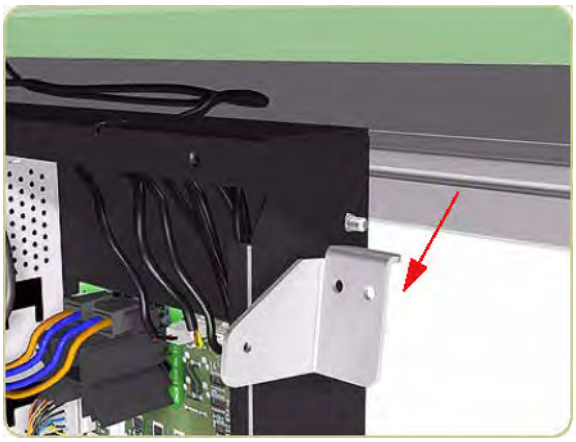
11. Pull the cable from the Lower Front Cover on the left side of the stacker.



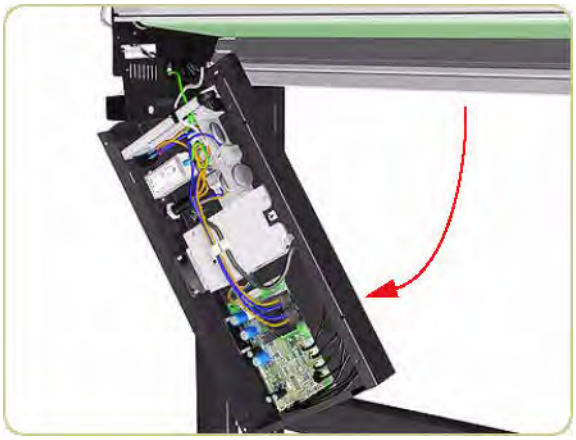
12. Remove two screws that secure the Right Hinge of the Electronics Module.



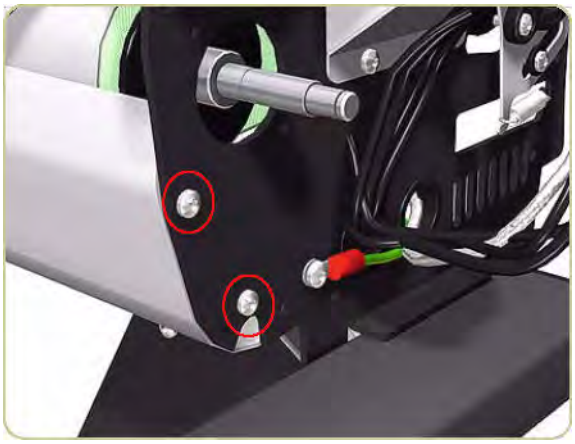
13. Remove the Right Hinge.



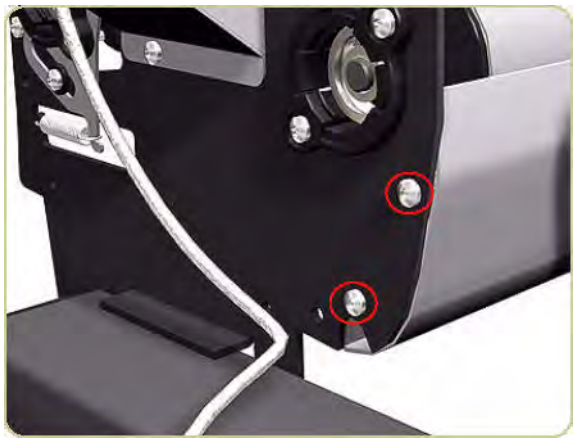
14. Slide down the right side of the Electronics Module.



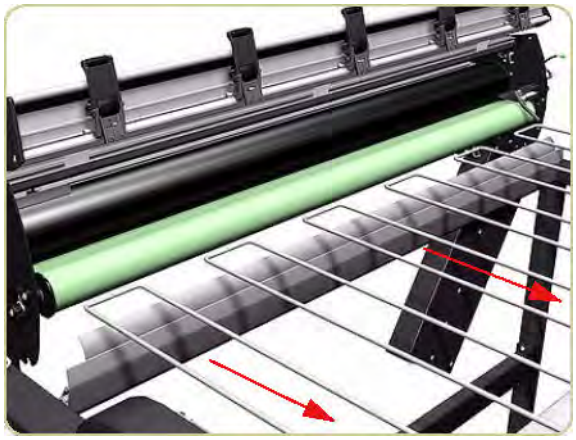
15. Remove two screws that secure the Lower Front Cover from the right side of the stacker.



16. Remove two screws that secure the Lower Front Cover from the left side of the stacker.



17. Remove the Lower Front Cover.



Pinchwheels

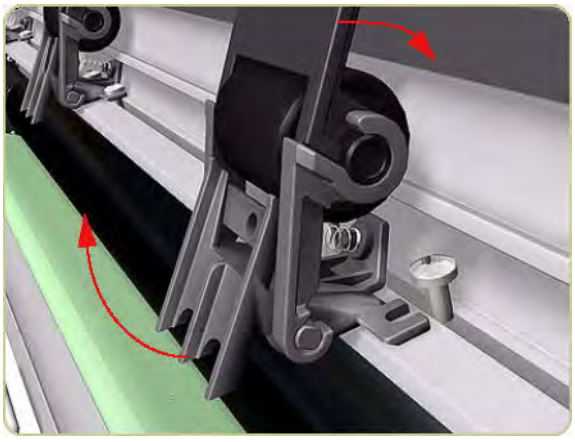
Removal

1. Switch off the stacker and remove the power cable.
2. Open the Front Cover.

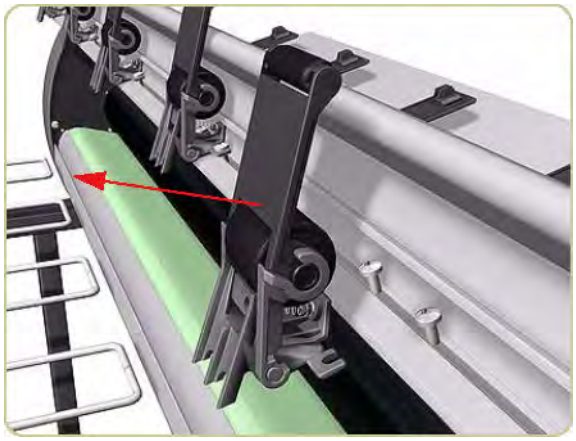
3. Loosen one screw on the left side of the Pinchwheel.

4. Loosen one screw on the right side of the Pinchwheel.

5. Rotate the bottom of the Pinchwheel slightly.



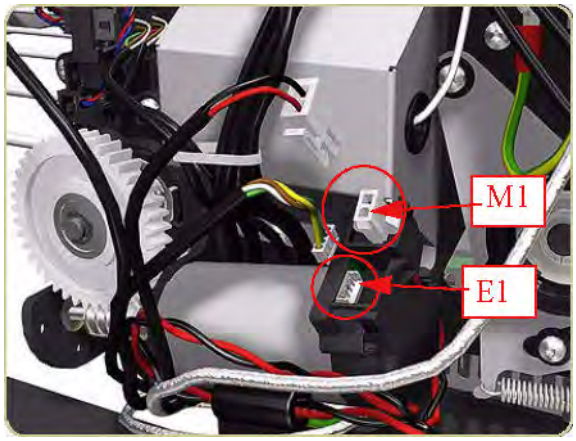
6. Remove the Pinchwheel.



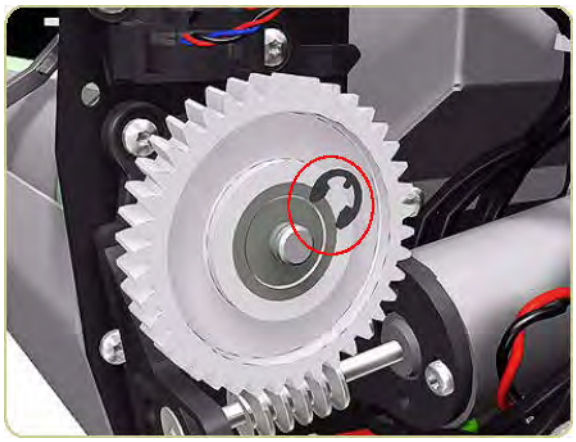
Drive Motor

Removal

1. Remove the Right Cover ⇒ Right Cover on page 424.
2. Disconnect two cables from the Drive Motor.



3. Remove an E-clip from the Drive Gear.



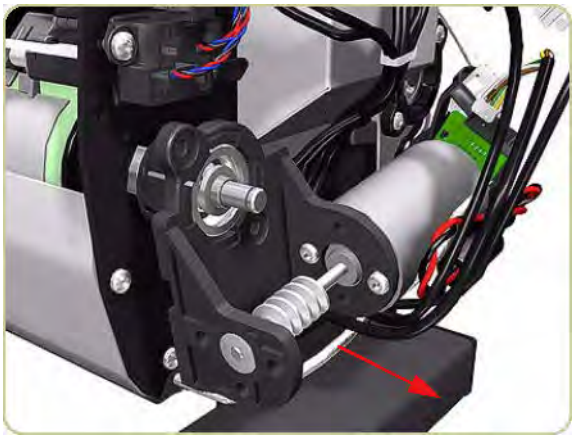
4. Remove the Drive Gear.

5. Remove four screws that secure the Driver Motor Assembly.

NOTE: One screw is hidden below the Drive Motor behind cables; this screw also secures an ESD clip to the stacker.

6. Remove the Drive Motor.

TIP: Use a flat-ended screwdriver to prise the Drive Motor away from the right end of the stacker.

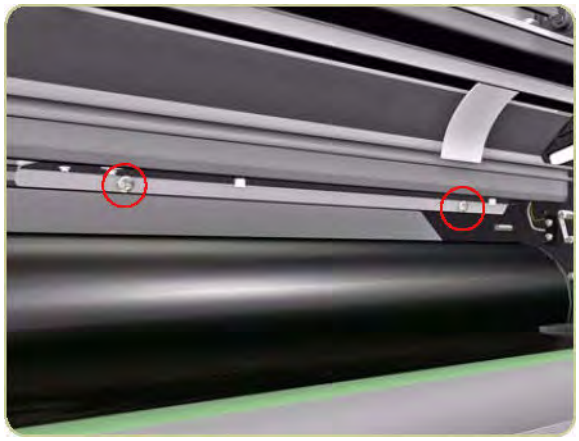


Front Cover Sensor

Removal

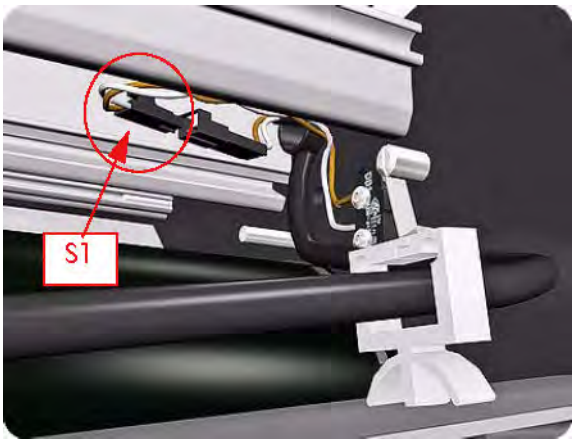
1. Switch off the stacker and remove the power cable.
2. Open the Front Cover.

3. Remove two screws that secure the Temperature Sensor Plate.

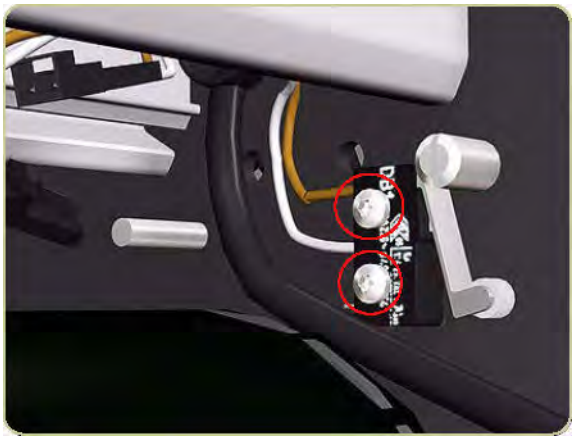


4. Slide down the Temperature Sensor Plate.

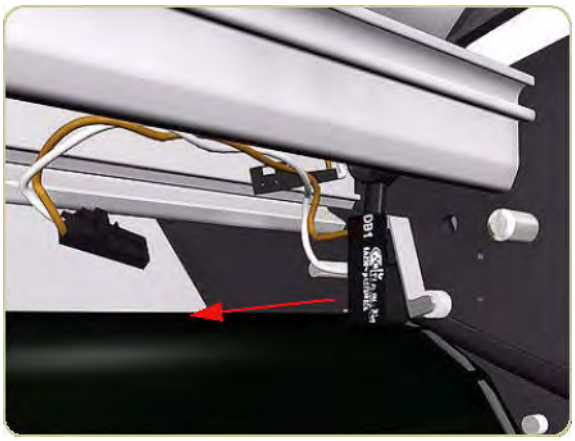
5. Disconnect the cable from the Front Cover Sensor.



6. Remove two screws that secure the Front Cover Sensor.



7. Remove the Front Cover Sensor.

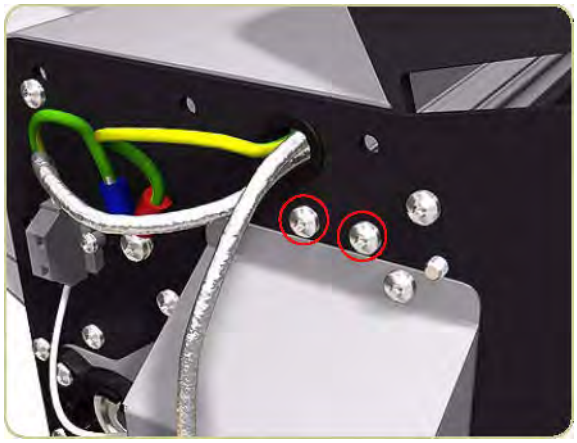


Safety Temperature Sensor

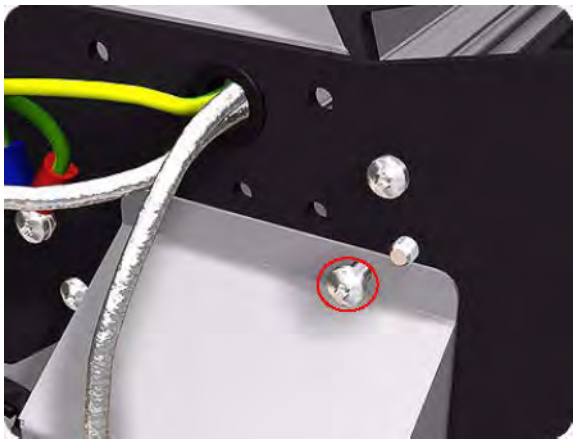
Removal

1. Remove the Left Cover Left Cover on page 426.

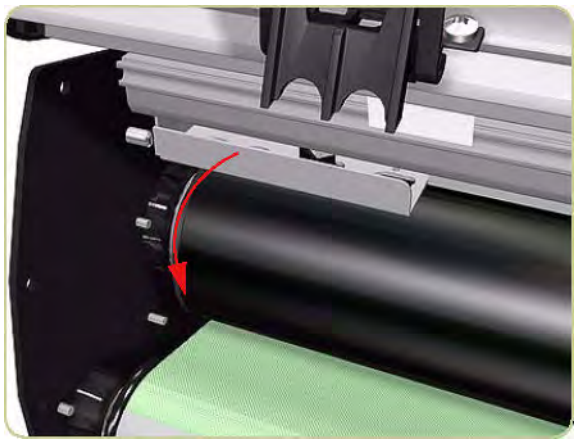
2. Remove two screws that secure the Safety Temperature Sensor Bracket from the left side of the chassis.



3. Loosen one screw that secures the top of the Left Heating Lamp Cover.

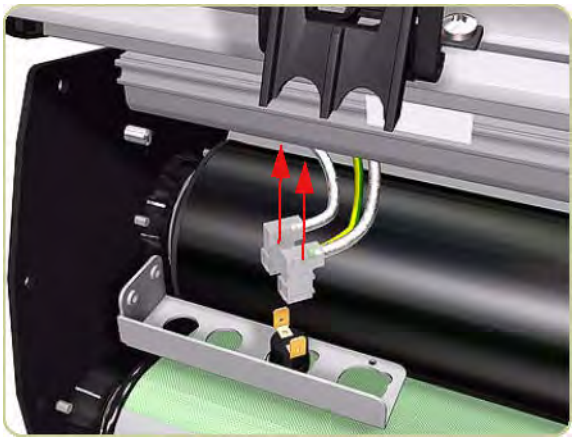


4. Slide down the Safety Temperature Sensor Bracket.



5. Disconnect the cables from the Safety Temperature Sensor.

NOTE: When removing or installing the Safety Temperature Sensor, take care not to damage the surface of the Heat Roller.

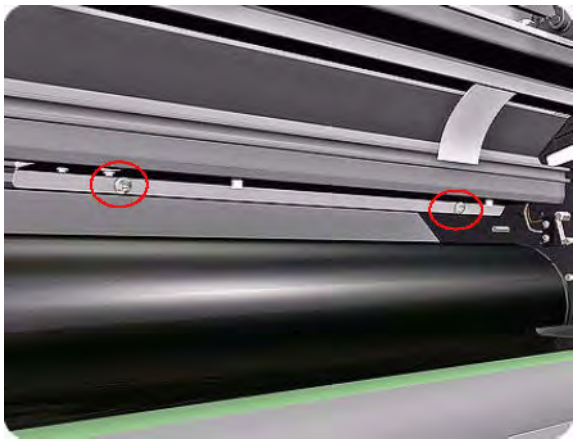


Temperature Sensor PCA

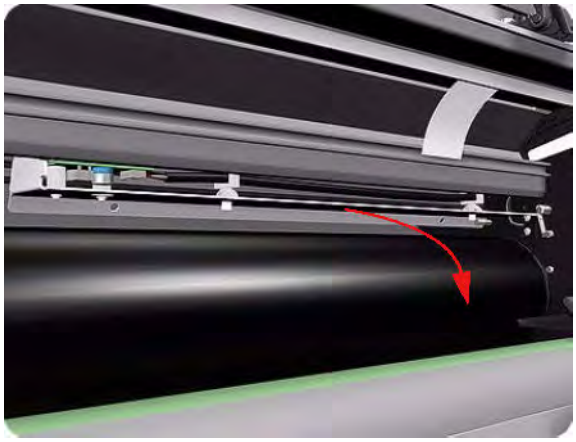
Removal

1. Switch off the stacker and remove the power cable.
2. Open the Front Cover.

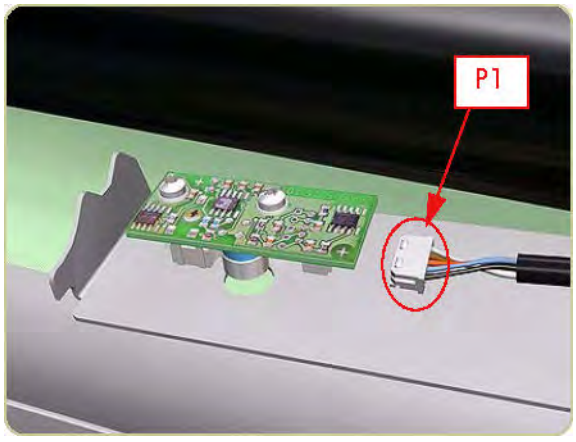
3. Remove two screws that secure the Temperature Sensor Plate.



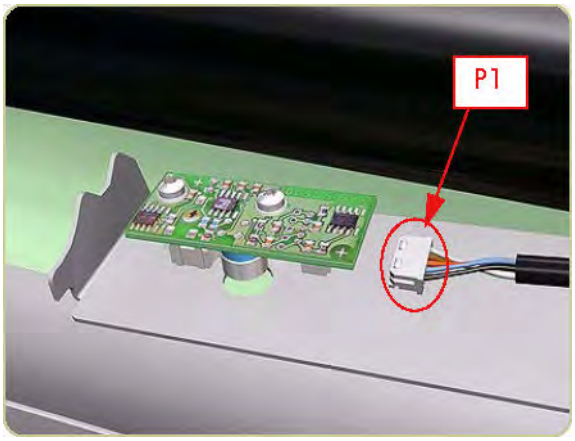
4. Slide the Temperature Sensor Plate down.



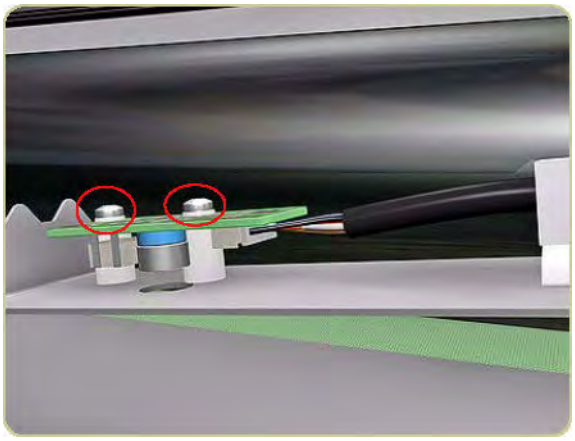
5. Turn the Temperature Sensor Plate over.



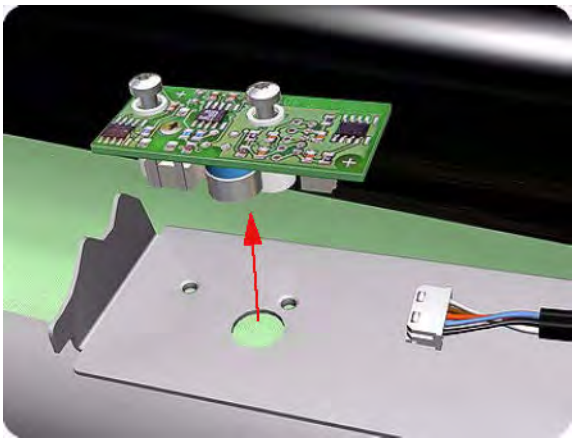
6. Disconnect the cable from the Temperature Sensor PCA.



7. Loosen two screws that secure the Temperature Sensor PCA.



8. Remove the Temperature Sensor PCA.

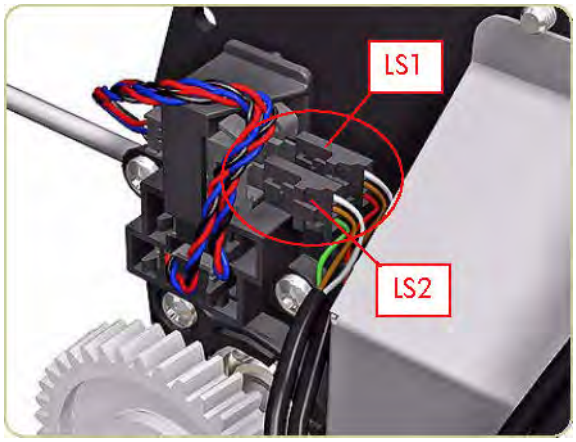


Media Sensor

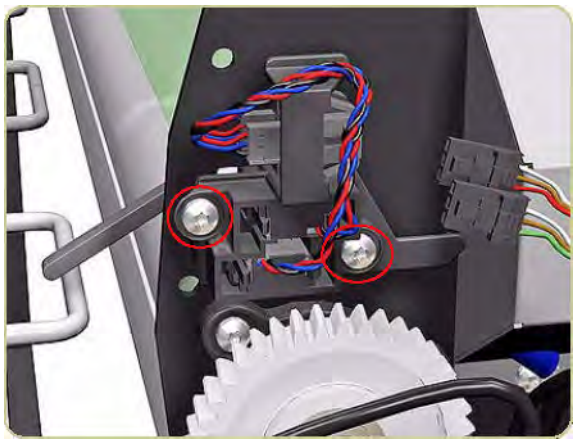
Removal

1. Remove the Right Cover Right Cover on page 424.
2. Disconnect the cables from the Media Sensor on the right side of the stacker.

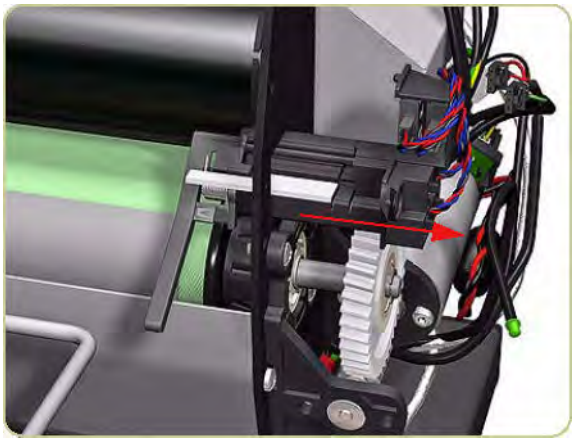
NOTE: When you reinstall the Media Sensor, it is important to connect the cables correctly. The cable marked LS2 is closest to you, the cable marked LS1 is closest to the stacker.



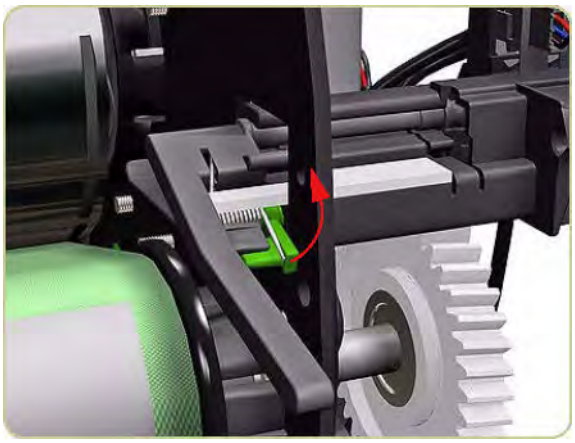
3. Remove two screws that secure the Media Sensor.



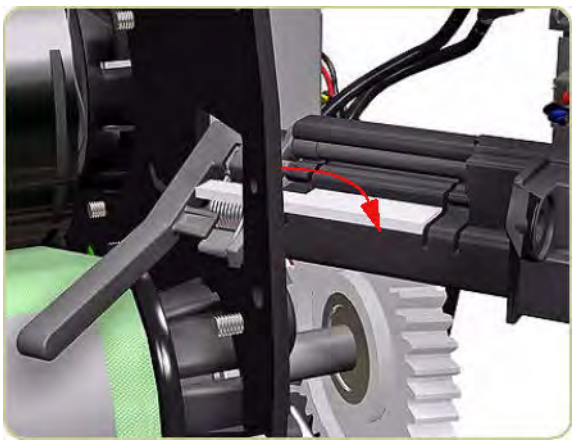
4. Slide the Media Sensor to the right.



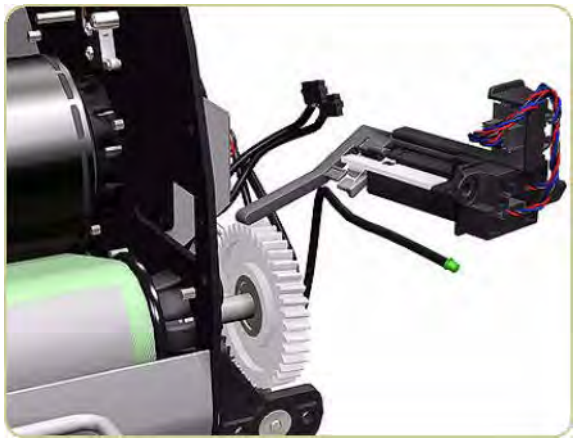
5. To enable you to pass the Media Sensor through the hole in the chassis, you have to push up the Media Jam Lever (shown in green).



6. Carefully pass the Media Sensor out through the hole by slightly turning the sensor horizontally.



7. Remove the Media Sensor.



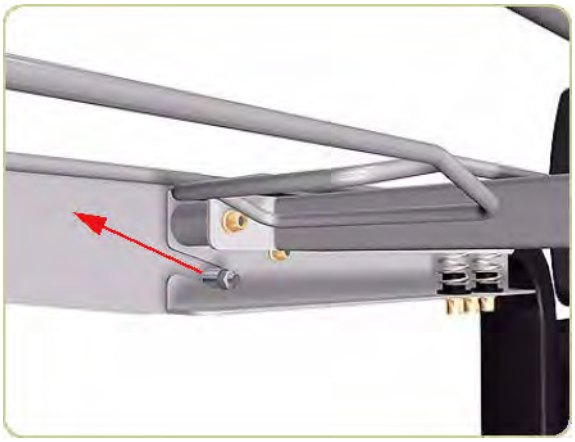
Extension Tray

Removal

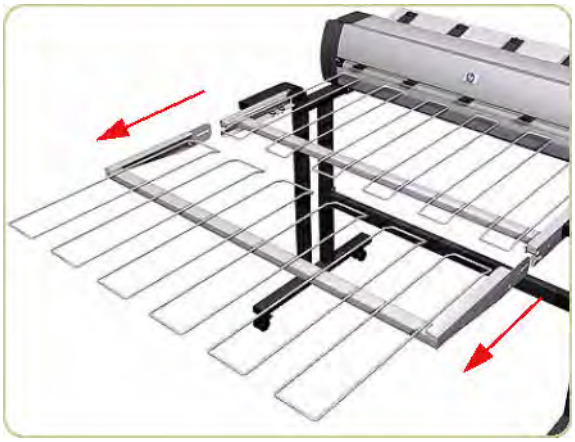
1. Switch off the stacker and remove the power cable.
2. Make sure the Extension Tray is in the Up position.

3. Remove one wing screw from each side of the Extension Tray.

4. Pull out the Extension Tray.



5. Remove the Extension Tray.



Receiving Tray

Removal

1. Remove the Extension Tray Extension Tray on page 447.

2. Remove two screws and a bearing from each side of the stacker

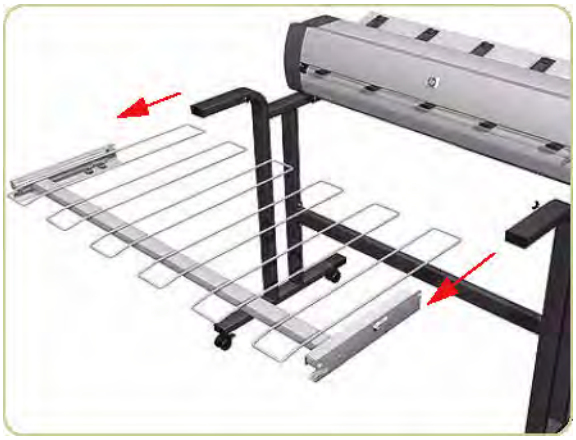
NOTE: The stacker has only one spring here, and not two as shown in these illustrations.

3. Loosen two wing screws each side of the stacker.

4. Pull out each side of the Receiving Tray.

5. Remove the Receiving Tray.

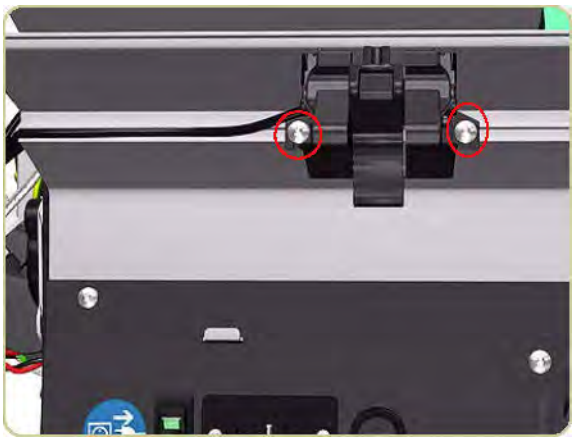
NOTE: When removing and installing the Receiving Tray, make sure you do not damage the Media Sensor.



Printer Interlocks

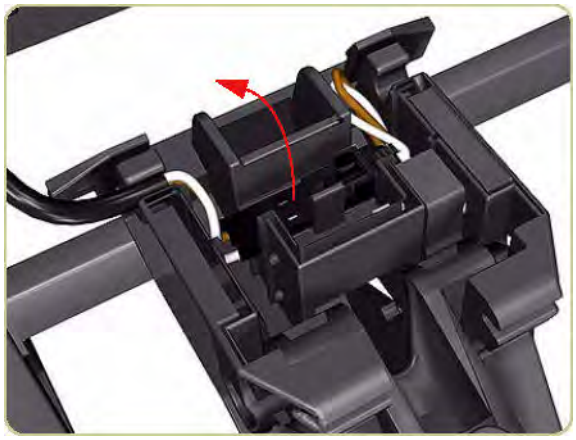
Removal

1. Remove the Right Cover Right Cover on page 424.
2. Remove the Left Cover Left Cover on page 426.
3. Remove two screws that secure each side of the two Printer Interlocks.



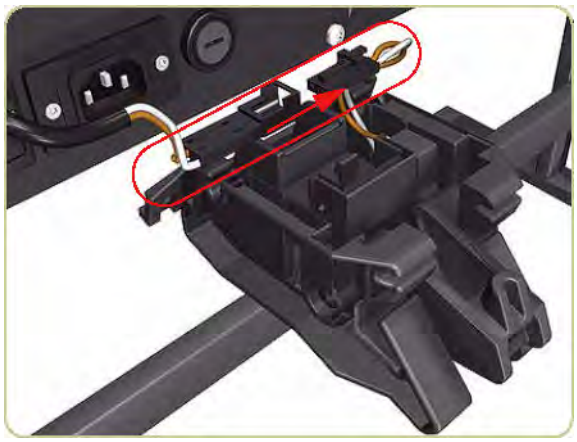
4. Remove the two Printer Interlocks.

5. Remove the Printer Interlock Sensor from the Right Printer Interlock.



6. Disconnect the cable from the Right Printer Interlock.

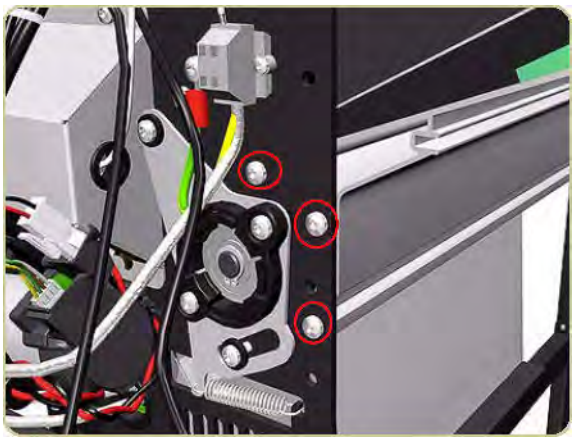
NOTE: Only the Right Printer Interlock contains a sensor and cable. When reinstalling the Printer Interlocks, make sure they are installed in the same position as when they were removed.



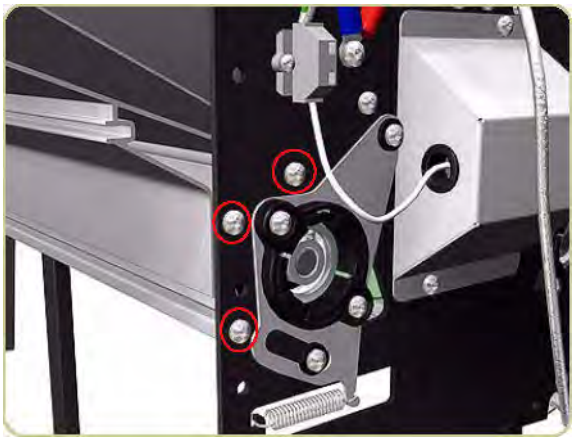
Paper Infeed Platen

Removal

1. Remove the Printer Interlocks Printer Interlocks on page 450.
2. Remove three screws that secure the right side of the Paper Infeed Platen.



3. Remove three screws that secure the left side of the Paper Infeed Platen.



4. Remove the Paper Infeed Platen.

Electronics PCA

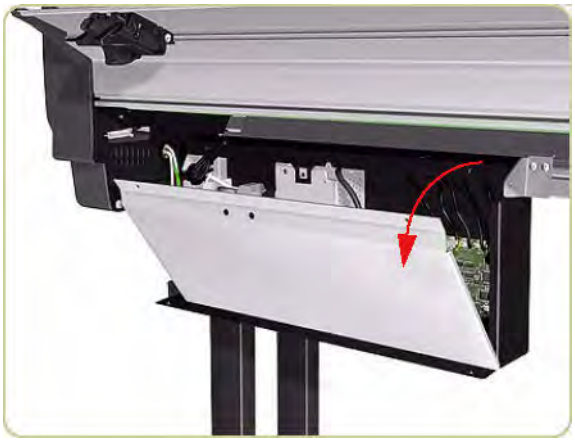
Removal

1. Switch off the stacker and remove the power cable.
2. Remove six screws that secure the top of the Electronics Module to the chassis.

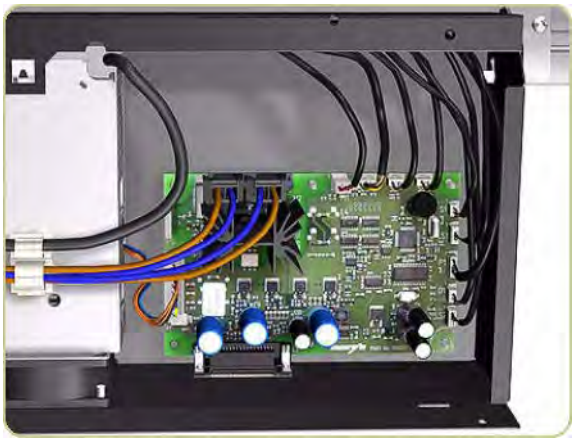
3. Pull the Electronics Module down.

4. Remove eight screws that secure the Electronics Module Cover.

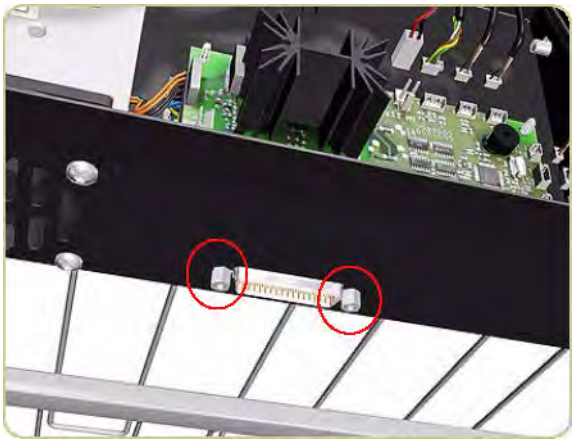
5. Remove the Electronics Module Cover.



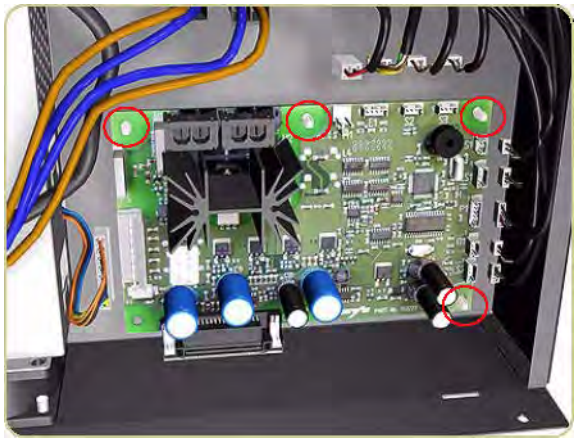
6. Disconnect all cables from the Electronics PCA.



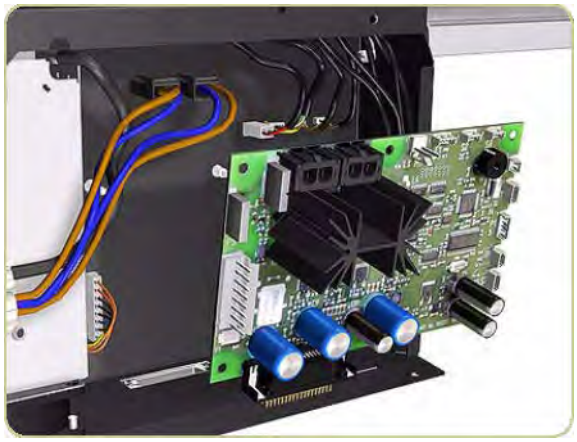
7. Remove two screws that secure the Electronics Module Power Connector.



8. Release the Electronics PCA from four plastic locating pins.



9. Remove the Electronics PCA.



Power Supply Unit

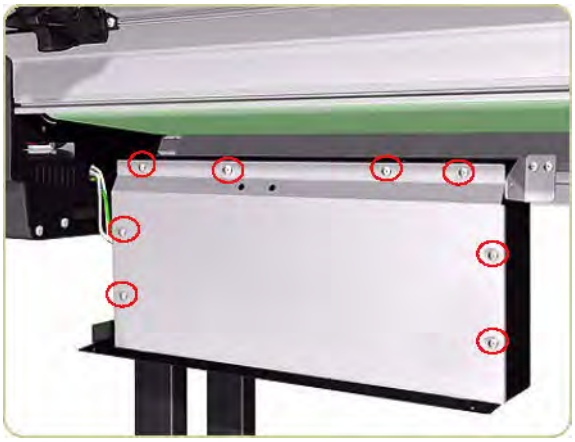
Removal

1. Switch off the stacker and remove the power cable.

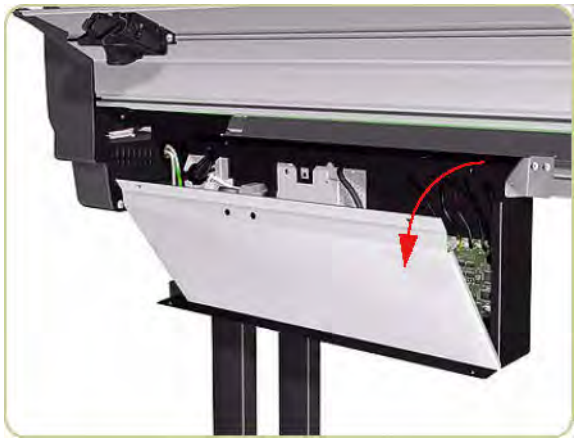
2. Remove six screws that secure the top of the Electronics Module to the chassis.

3. Pull the Electronics Module down.

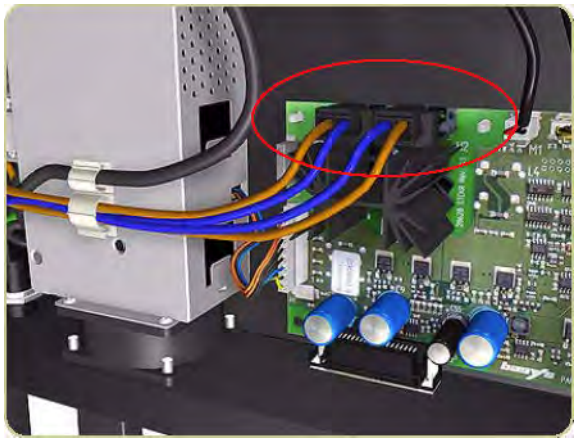
4. Remove eight screws that secure the Electronics Module Cover



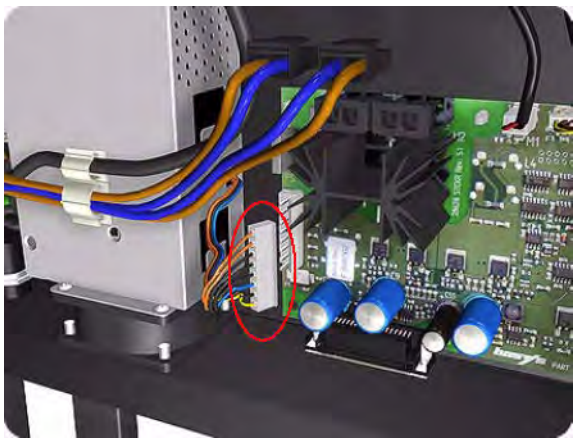
5. Remove the Electronics Module Cover.



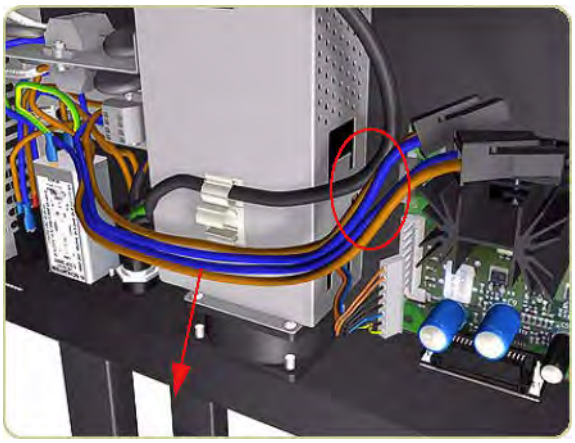
6. Disconnect brown and blue cables (H1 and H2) from the Electronics PCA.



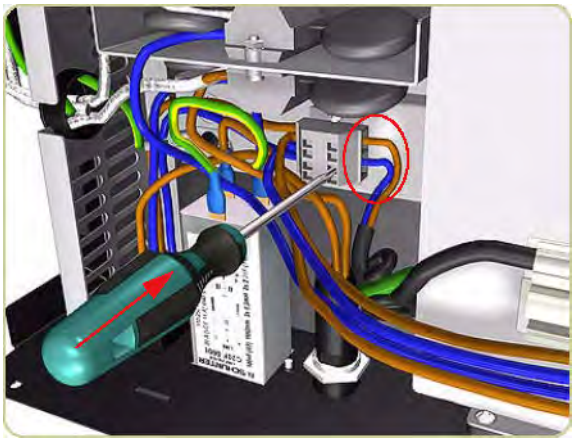
7. Disconnect the cable connecting the Power Supply Unit to the Electronics PCA.



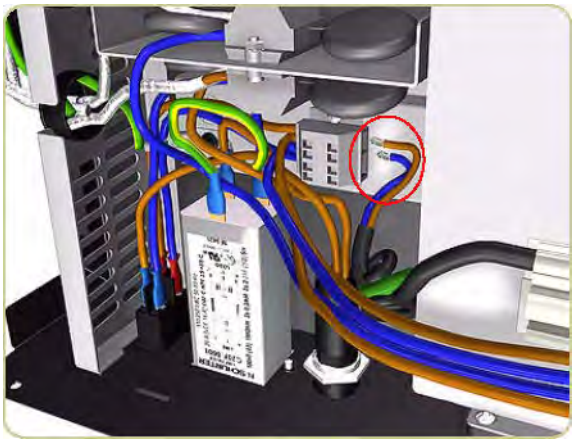
8. Remove the blue and brown cables from the cable clamp on the Power Supply Unit.



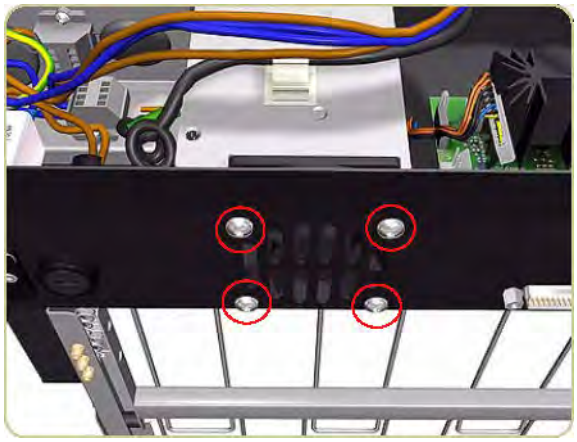
9. Disconnect two cables on the left of the Power Supply Unit by pushing in with a screw driver.



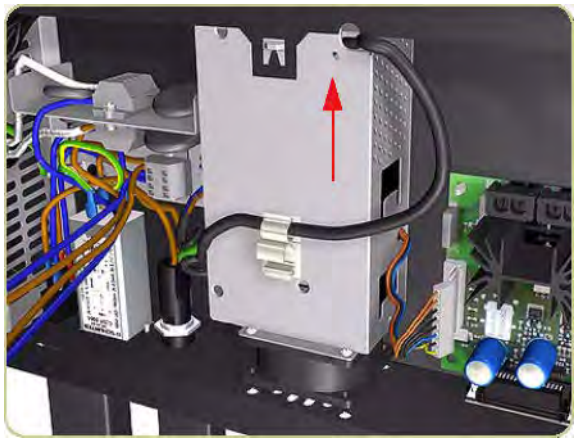
10. Remove the two cables.



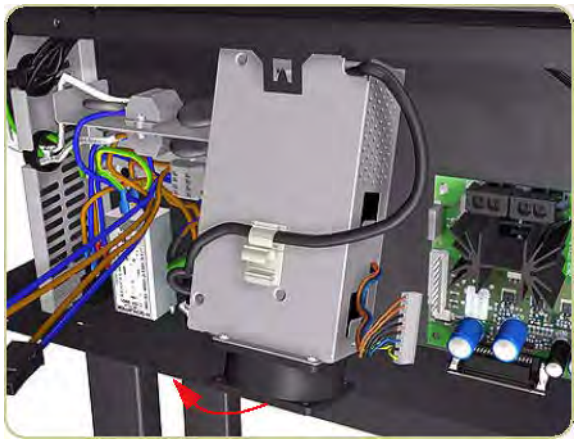
11. Remove four screws that secure the Power Supply Unit to the Electronics Module.



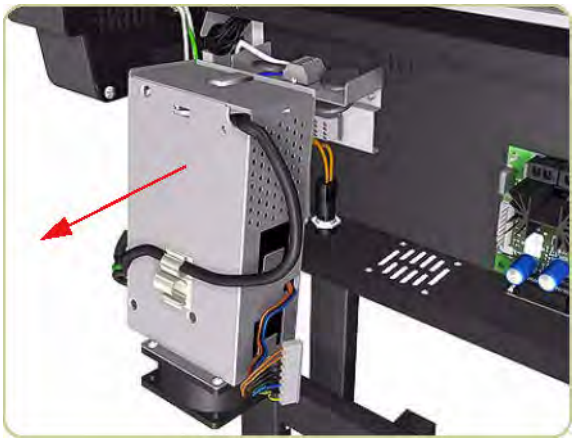
12. Lift up the Power Supply Unit.



13. Remove the bottom part of the Power Supply Unit.



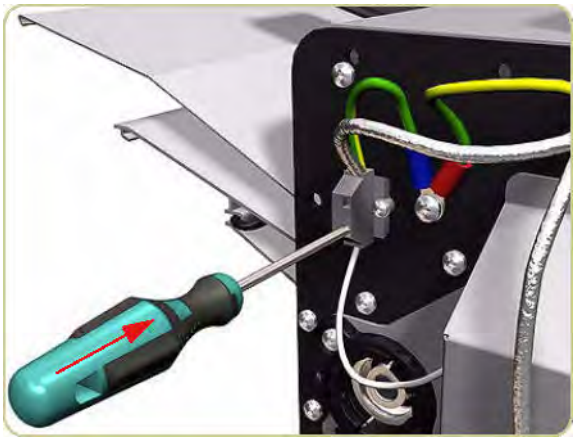
14. Remove the Power Supply Unit.



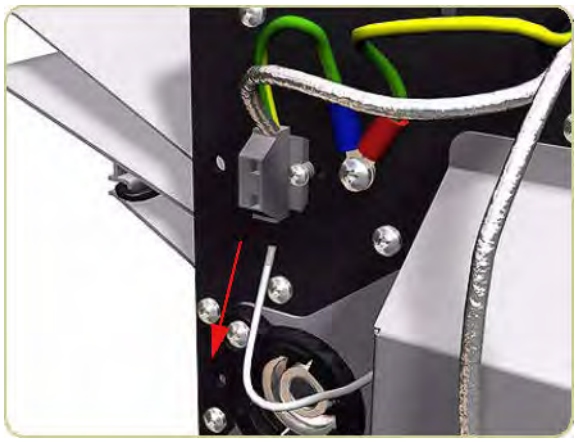
Heating Lamp

Removal

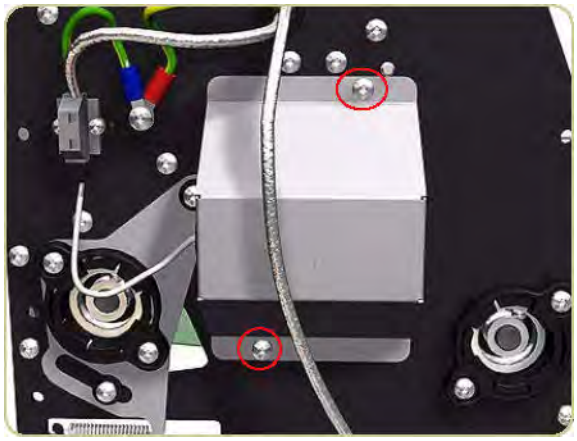
1. Remove the Right Cover Right Cover on page 424.
2. Remove the Left Cover Left Cover on page 426.
3. Disconnect the Heating Lamp Cable on the left of the chassis, push in the retaining clip with a screwdriver and release the cable.



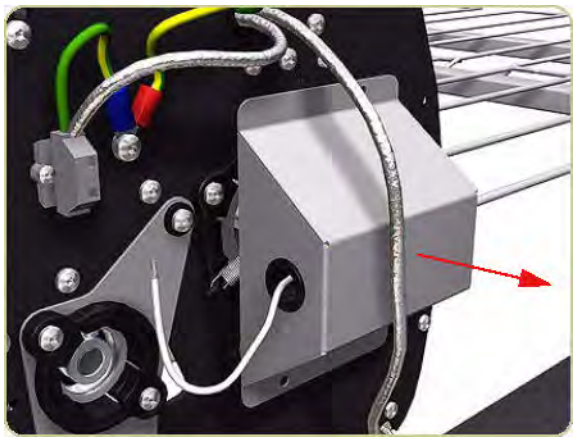
4. Remove the Heating Lamp Cable.



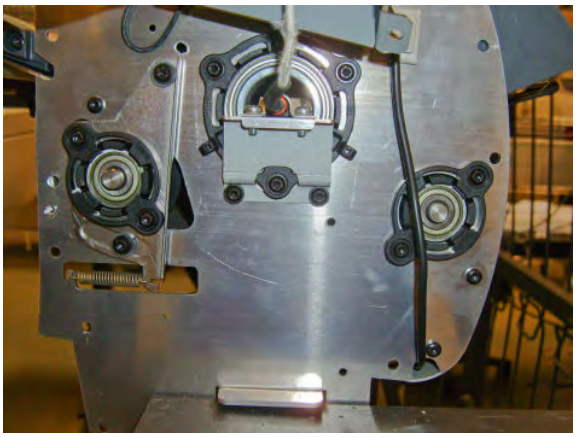
5. Remove two screws that secure the Left Heating Lamp Cover.



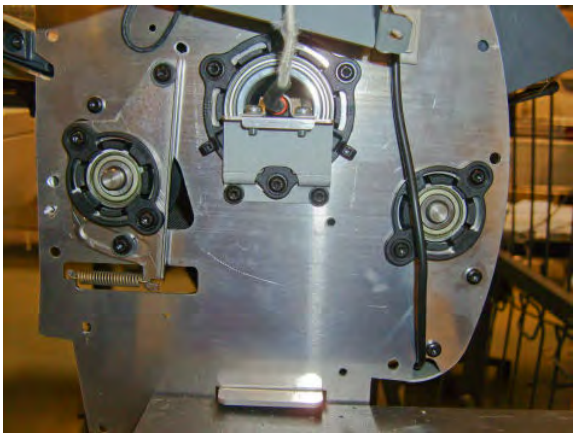
6. Remove the Left Heating Lamp Cover.



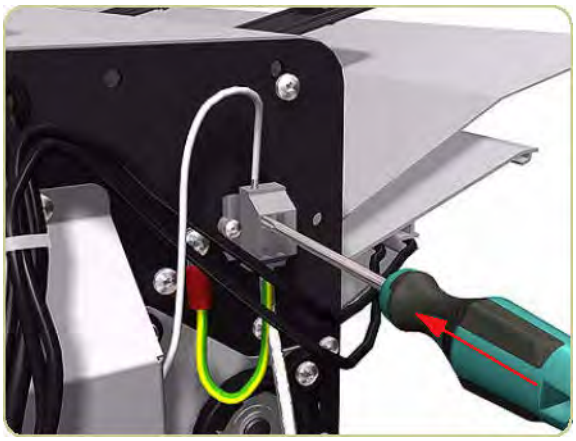
7. Disconnect the Earthing Cable from the left end of the Heating Lamp.



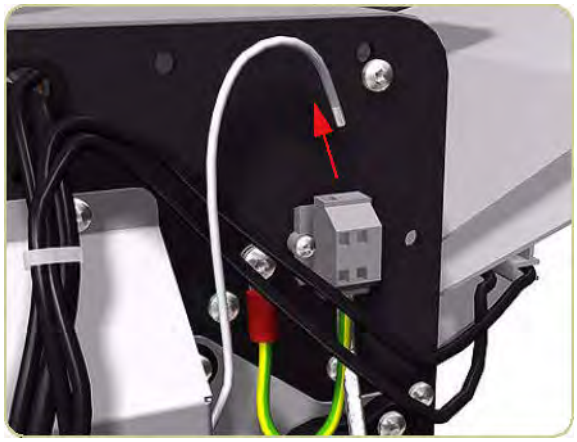
8. Remove three springs from the left end of the Heating Lamp.



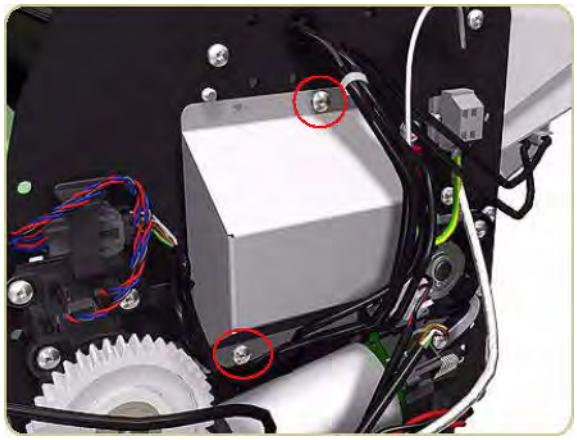
9. Disconnect the Heating Lamp Cable on the right of the chassis, push in the retaining clip with a screw driver and release the cable.



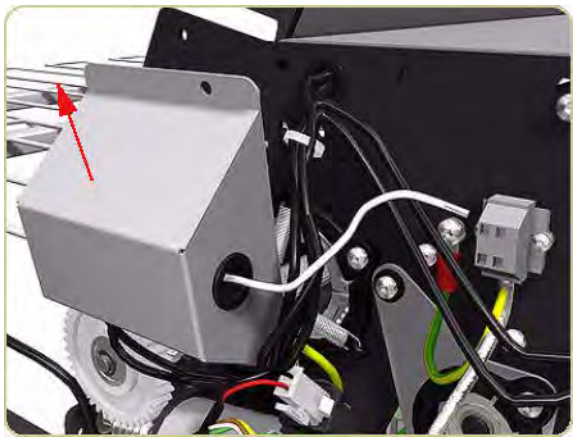
10. Remove the Heating Lamp Cable.



11. Remove two screws that secure the Right Heating Lamp Cover.

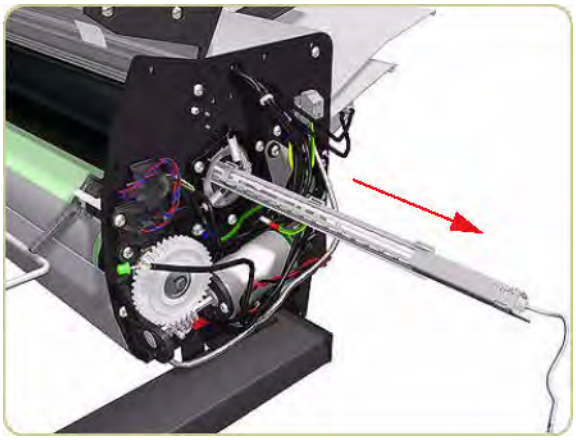


12. Remove the Right Heating Lamp Cover.



13. Remove the Heating Lamp.

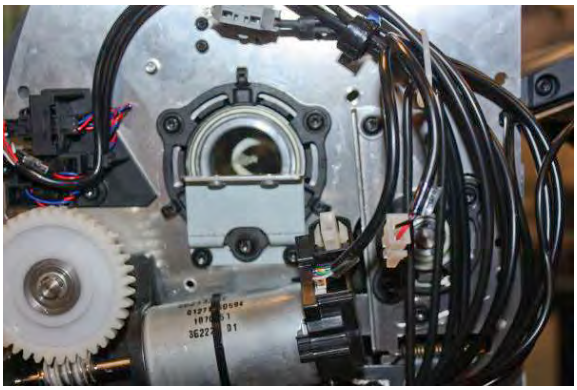
NOTE: When removing and installing the heating lamp, make sure you do not damage the heating element inside.



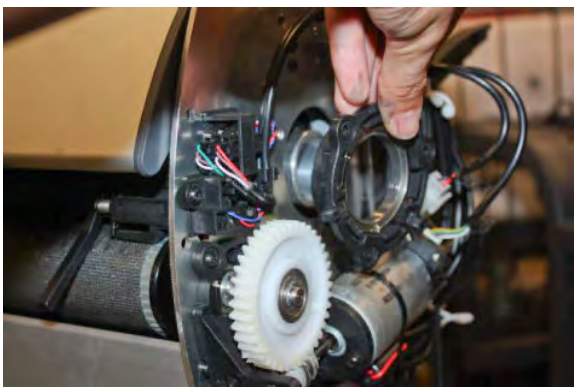
Heat Roller

Removal

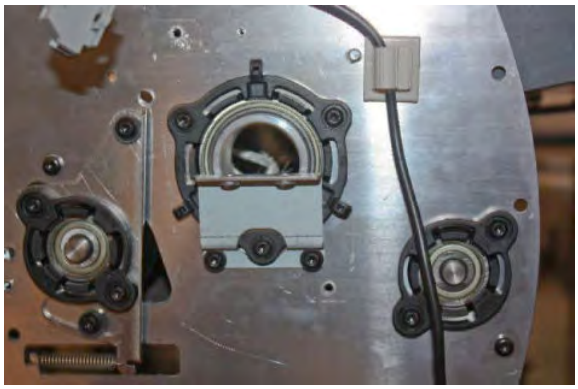
1. Remove the Heating Lamp Heating Lamp on page 460.
2. Remove three screws that secure the Right Heat Roller Bearing.



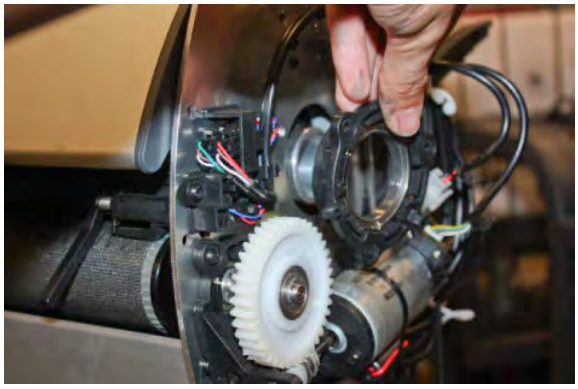
3. Remove the Right Heat Roller Bearing.



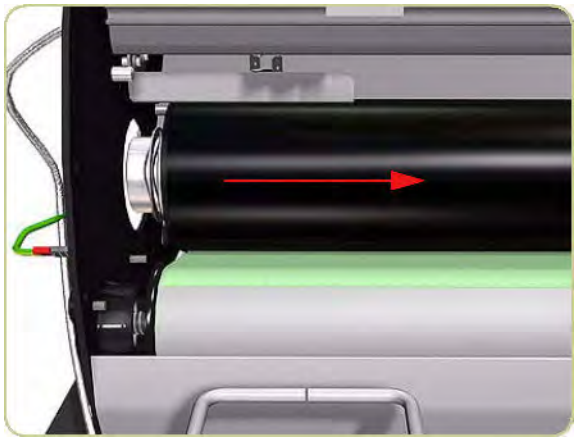
4. Remove three screws that secure the Left Heat Roller Bearing.



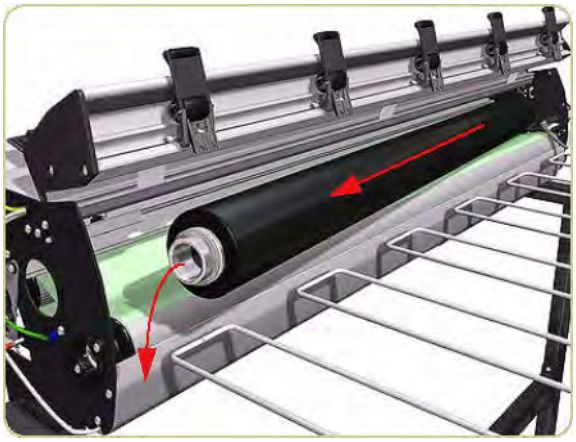
5. Remove the Left Heat Roller Bearing.



6. Slide the Heat Roller to the right.



7. Remove the Heat Roller.

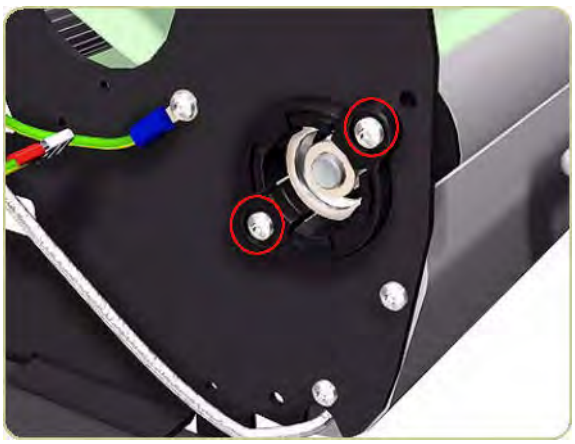


NOTE: When installing the Heat Roller, make sure that the two bevel washers are on the right side of the Heat Roller.

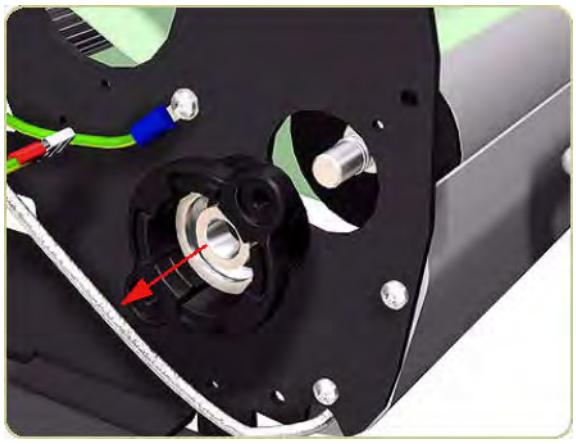
Transport Belt

Removal

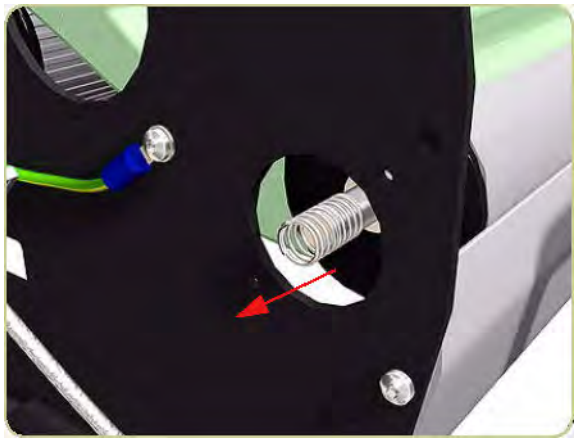
1. Remove the Drive Motor Drive Motor on page 437.
2. Remove the Heat Roller Heat Roller on page 464.
3. Remove two screws that secure the Left Output Roller Bearing.



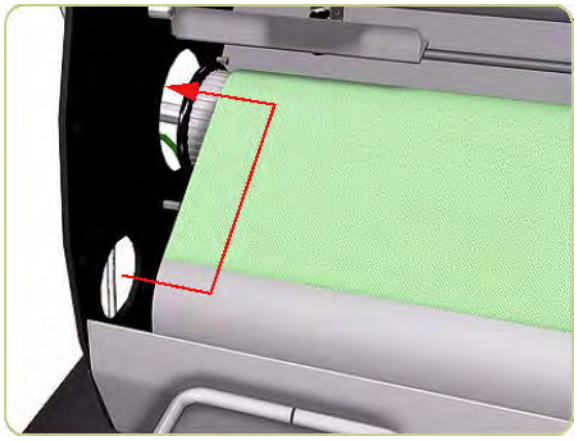
4. Remove the Left Output Roller Bearing.



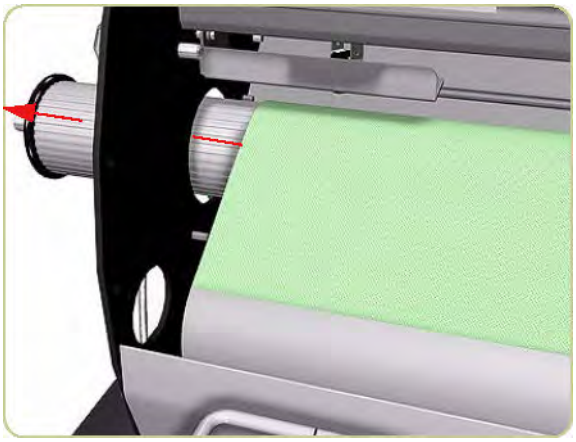
5. Remove the spring from the end of the shaft.



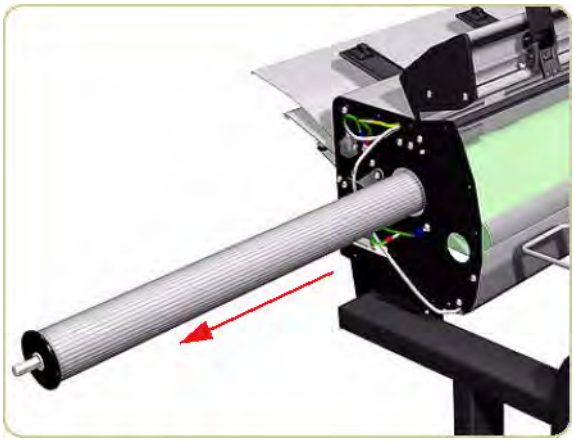
6. Slide the left end of the Output Roller back towards the hole left empty when the Heat Roller was removed.



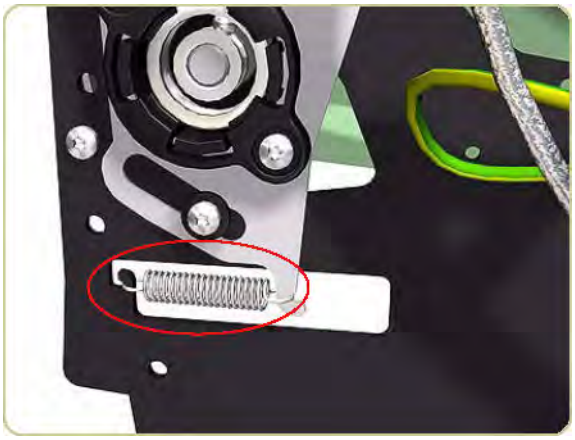
7. Pass the Output Roller through the hole.



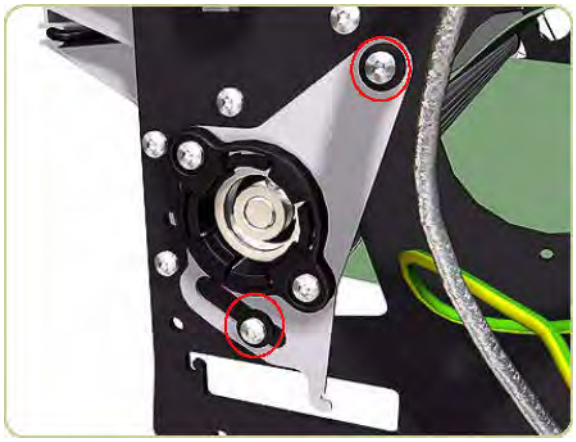
8. Remove the Output Roller.



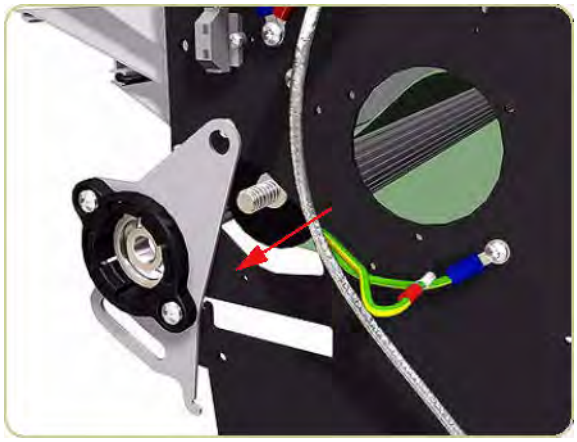
9. Remove the spring from the left side of the stacker.



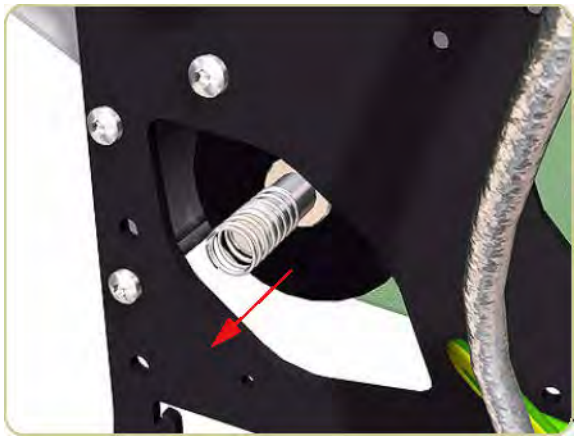
10. Remove two screws and washers that secure the Left Input Roller Bearing.



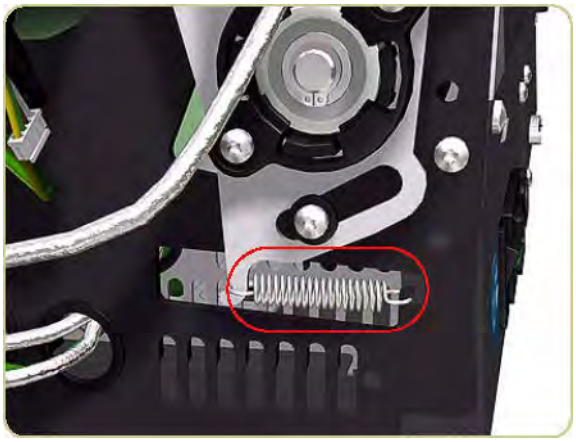
11. Remove the Left Input Roller Bearing.



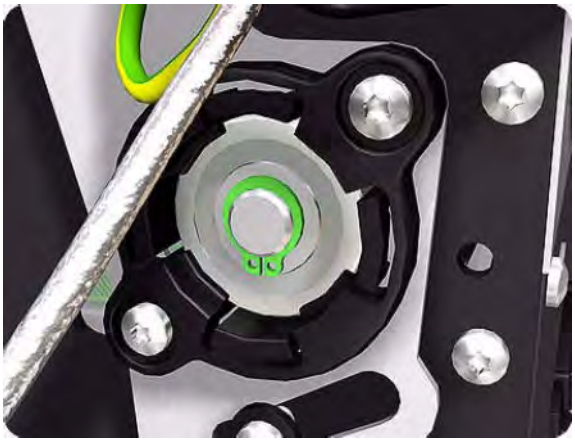
12. Remove the spring from the left end of the shaft.



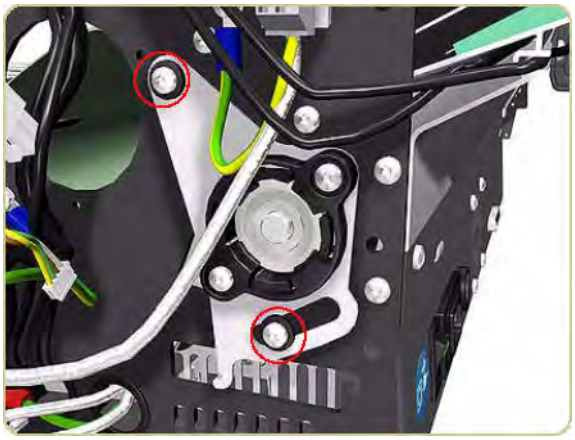
13. Remove the spring from the right side of the stacker.



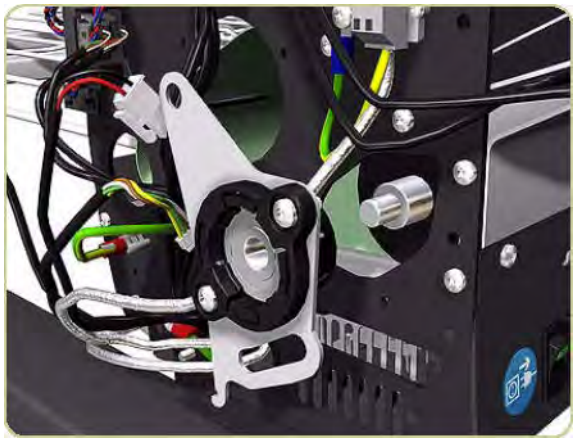
14. Remove the circlip.



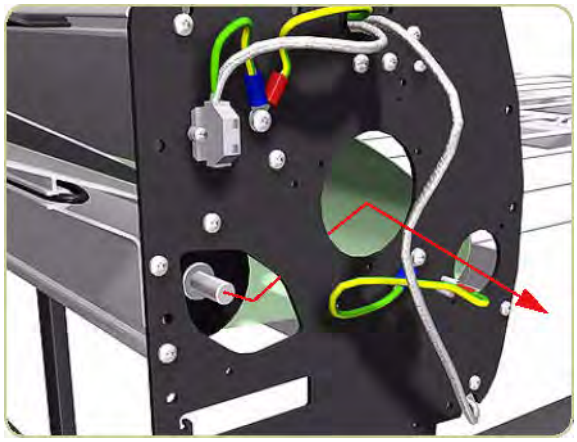
15. Remove two screws and washers that secure the Right Input Roller Bearing.



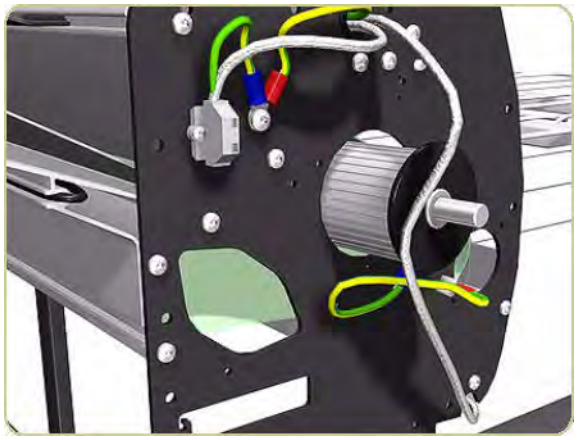
16. Remove the Right Input Roller Bearing.



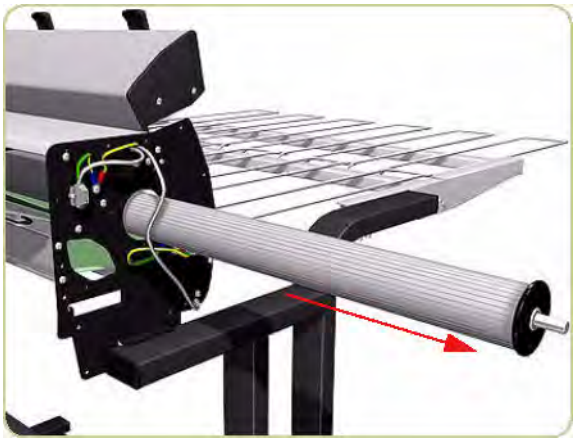
17. Slide the left end of the Input Roller towards the hole left empty when you removed the Heat Roller.



18. Pass the Input Roller through the hole.



19. Remove the Input Roller.



20. Remove the Transport Belt from underneath the stacker.

NOTE: When reinstalling the Output Roller, the side with the longer shaft is installed on the right side of the stacker.

11 Preventive maintenance

Moisture on the printer

Users should use the printer in an environment between 20% and 80% relative humidity. To recover from moisture condensation, turn the printer Off, and, using the main roller as a reference, wait until the printer is completely dry before using it again.

Noisy Carriage Bushing

To prevent noisy movement of the carriage, remove aluminum or dust particles from the bushing at the back of the carriage, and from the slider path along which the bushing moves.

Belt swelling

To prevent new belts from swelling incorrectly, keep them in their bags with desiccant until you need to install them.

General cleaning

To maintain the printer in good operating condition, keep it free of dust accumulation, ink, and other contamination. Cleaning intervals are determined by the printer environment and by the types of printer supplies used.

Proper general cleaning should include the following.

⚠ WARNING! To prevent an electric shock, make sure that the printer is switched off and unplugged before any cleaning is performed. Do not let any water get inside the printer.

1. Clean the outer surface of the printer with a damp sponge or cloth. Use a mild soap and water solution if necessary. Do not use abrasive cleaners.
2. Wipe the printer dry with a soft lint-free cloth.

Clean the Drive Roller and Overdrive

⚠ CAUTION: If ink is spilled on the Overdrive, remove the ink immediately. Due to the ink's reflectance, ink on the Overdrive can disrupt the printer's edge-sensing function. To remove any ink from the Overdrive, perform the following procedure.

CAUTION: Prevent water or other liquids from running onto electrical components or circuits, or through openings in the Electronics Module.

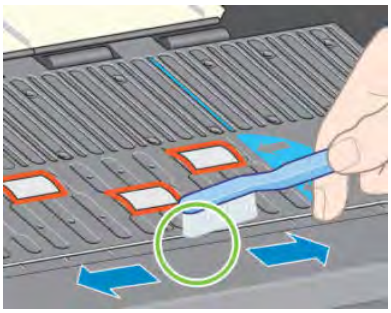
1. Perform the Turn Drive Roller Utility (see Turn Drive Roller on page 107).
2. Open the Window and apply any common household cleaning solution (water based only) to a soft, lint-free rag and apply it to the Drive Roller and Overdrive surface while it is rotating. Make sure that you thoroughly clean the Drive Roller and Overdrive surface.
3. Press OK when you have completed the cleaning procedure.
4. Allow the Drive Roller to dry before loading media into the printer.

Clean the Platen

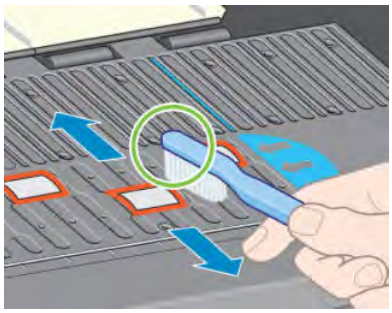
⚠ CAUTION: If wide paper is used to print after narrower paper is used for some time, you may find that the left-hand side of the Center Platen has become dirty and will leave marks on the back of the paper if not cleaned.

It is recommended to clean the Center Platen on a regular basis (at least every few months or when required) as follows:

1. Unload any paper from the printer.
2. Open the Window and with a dry brush remove ink deposits from the Cutter Groove and the Center Platen surface.



Cutter Groove

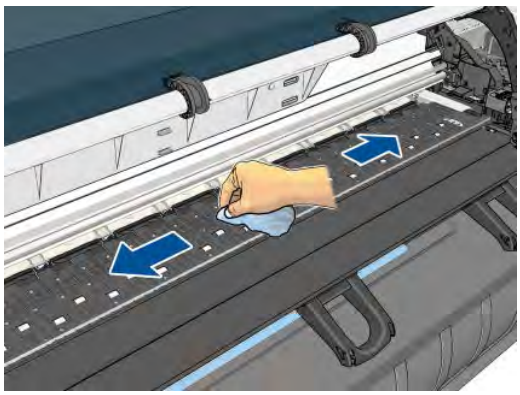


Center Platen Surface

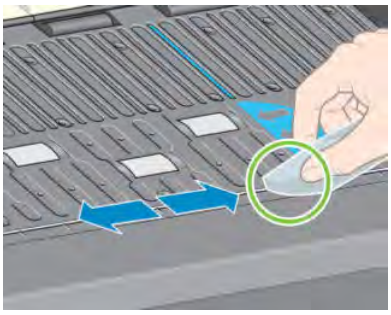
3. Use a clean, absorbent lint-free cloth, dampened with isopropyl alcohol, to wipe loosened ink deposits from the Center Platen.

   CAUTION: Do not:

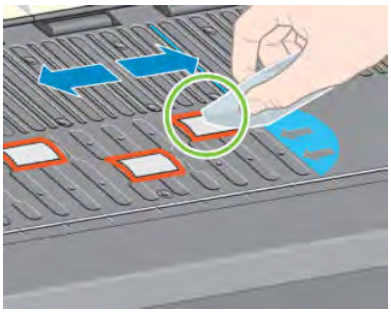
   - Use commercial cleaners or abrasive cleaners.
   - Wet the Center Platen directly because you will leave too much moisture behind.
   - Wet the rubber wheels at all (not even with the cloth).



4. Clean the Cutter ramp with the damp cloth.



5. Clean the exposed part of the wheels with a dry cloth. Ideally, clean the whole circumference of these wheels (see Turn Drive Roller on page 107).

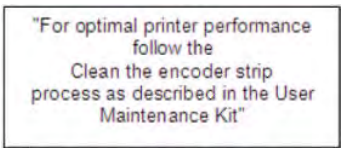


Clean the Encoder Strip

Cleaning the Encoder Strip is a vital part of the printer's maintenance and can clear a variety of system errors:

- 86:01 or 87:01 system errors and related mispositioning of the Carriage Assembly errors, such as the carriage bumping into the side of the printer.
- 42:10 system error, related to failures starting and homing the carriage on the scan axis.
- 29:01 and 29:02 system errors which cannot be cleared even after installing new Maintenance Cartridges.
- There are occasions when an Encoder Strip that needs cleaning can cause paper loading issues, as the Carriage cannot correctly detect the position of the paper.

With the type of pigmented ink that is used in the printer, the Encoder Strip cleaning must be performed at regular intervals. Cleaning must be performed after every 10 liters of ink used. The front panel will display a message when cleaning is required:

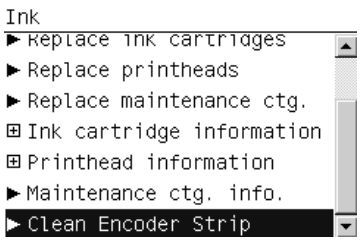


This message is displayed after every 5th job until the cleaning is performed, and the counter has been reset. This procedure is normally performed by the customer. Instructions and materials are provided within the User Maintenance kit. The kit can be ordered using part number Q6715A (HP Designjet T7200 User Maintenance Kit).

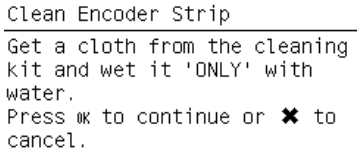
NOTE: When the message is displayed on the front panel, a ‘silent’ warning message is added within the system error log ‘8:01’. This helps when reviewing the error log history, to see if the message has been displayed.

Cleaning procedure

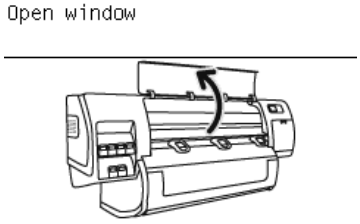
1. At the front panel, select **Clean Encoder Strip** from the Ink menu.



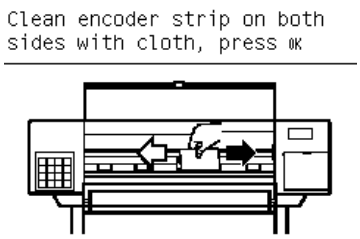
2. The front panel explains what you need to clean the Encoder Strip. Press OK to continue or Cancel to exit.



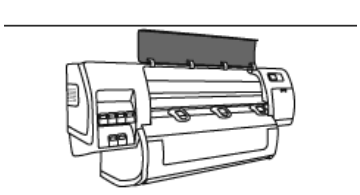
3. Open the Window.



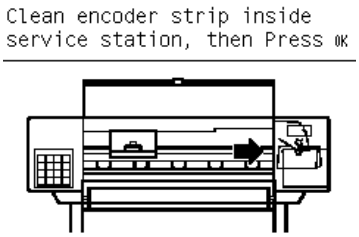
4. Clean the Encoder Strip as shown in the front panel, and press OK when finished.



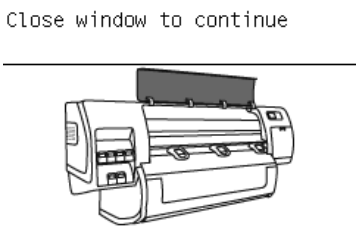
5. Close the Window. The Carriage moves to the left-hand side of the printer.



6. The front panel prompts you to reopen the Window and clean the right-hand side of the encoder strip (inside the Service Station). Press OK when finished.



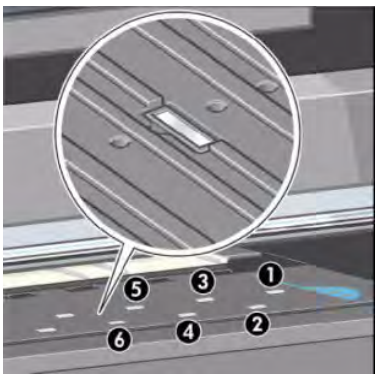
7. Close the Window. The Carriage returns to its ready position in the Service Station.



Clean the Paper-advance Sensor window

The paper advance sensor is the very small rectangular window (less than 1 square centimeter in size and shown in the following graphic) near the sixth platen roller from the right.

Use a clean, absorbent, lint-free cloth that you have slightly dampened with isopropyl alcohol to very gently wipe any dust and loosened ink deposits from the sensor window.



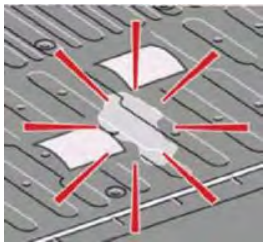
Apply oil to the Overdrive

Occasionally, it may be necessary to oil the Overdrive in order to stop the rollers from squeaking:

1. Open the Window.
2. There are small holes in the Center Platen beside some of the rollers.

3. A bottle of oil is supplied with the Maintenance Kit. Insert the pointed end of the bottle into each hole in turn, and put three drops into each.

4. Be very careful not to spill any oil onto the Center Platen.



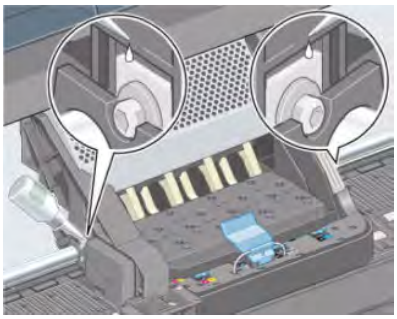
5. If there is oil on the Center Platen, wipe it away with the cloth supplied with the Maintenance Kit.

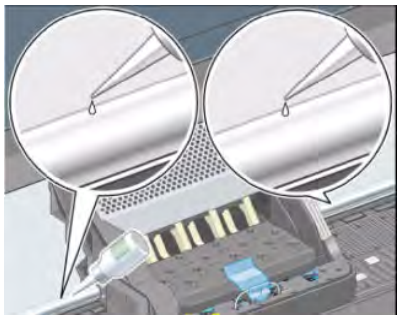
6. Close the Window.

Lubricate the Carriage Assembly

The Carriage Assembly needs to be lubricated occasionally so that it can slide easily along the Slider Rod.

1. Using the Front Panel, in the Printheads menu, select “Replace printheads now”. The Carriage Assembly will move to the center of the printer.
2. Open the Window and apply a few drops of oil (bottle of oil can be found in the Maintenance Kit) to the pads on either side of the Carriage Assembly.
3. Apply a few drops of oil directly to the Slider Rod on either side of the Carriage Assembly.





Scheduled maintenance

In some segments of the printer market, the customer tends to print more than the maximum number of prints that the throughput allows, exceeding by far the limit of the design. When this happens the customer runs into print quality problems and continuous printer failures.

The purpose of scheduled preventive maintenance is to avoid these failures - ensuring a good performance during all the product life.

Preventive Maintenance Kits

Normal printer use means 6,000,000 Carriage Cycles (which corresponds to approximately 100,000 A0 prints on average). Under normal usage conditions, it will be approximately 5 years before the printer needs maintenance. If the printer is used more heavily than normal, then it will need maintenance service much more frequently.

One of the EEROM counters is assigned to counting the number of carriage cycles. When certain components of the printer exceed this amount, the front panel displays the following message:

“Maintenance #1 required”

The following message is triggered depending on the total quantity of ink spitted in each Spittoon.

“Maintenance #2 required”

Depending on the total turns forward of the drive motor, the following message is shown:.

“Maintenance #3 required”

Once one of the maintenance advised messages is displayed, the preventive maintenance kit must be used to replace the most worn parts of the printer. See Printer part removal and installation on page 215.

Preventive Maintenance Kit #1 (F2L46-67001)

This Preventive Maintenance Kit #1 contains the following components:

- Encoder Strip ⇒ Encoder Strip and Encoder Sensor on page 296
- Encoder spring+Nut ⇒ Encoder Strip and Encoder Sensor on page 296, step 8
- Carriage PCA Cover ⇒ Carriage PCA on page 291
- Belt Tensioner Assembly ⇒ Scan-Axis Motor on page 324, step 7
- Cutter Assembly ⇒ Cutter Assembly on page 346

- Redial Retainer Assembly ⇒ Installation of the Drive Roller on page 418
- Line Sensor Cable ⇒ Line Sensor Assembly on page 300
- Air Purges (Setup Printheads)
- Aerosol foam protector ⇒ Line Sensor Assembly on page 300, step 6
- Carriage Assembly (with Encoder sensor) ⇒ Carriage on page 284 (does not include PCA nor Cutter)
- Ink Supply Tubes and Trailing Cable ⇒ Ink Supply Tubes and Trailing Cable on page 301
- Tubes retaining clip ⇒ Cover, Top on page 230, step 7
- Scraper Assembly and Absorber Foams ⇒ Removal of the Service Station Scraper on page 248
- Scan-Axis Motor ⇒ Scan-Axis Motor on page 324
- Belt Assembly ⇒ Belt Assembly on page 343

You must also clean the holes in the Service Station which are located under the Maintenance Cartridge and check that the Aerosol Fan is functioning correctly.

Preventive Maintenance Kit #2 (CQ105-67041)

This Preventive Maintenance Kit #2 contains the following components:

- Aerosol Filter ⇒ Service Station on page 244
- SVS Aerosol Fan assembly ROHS ⇒ Service Station on page 244
- Ink Absorber ⇒ See User's Guide
- Line Sensor ⇒ Line Sensor Assembly on page 300
- Encoder Strip ⇒ Encoder Strip and Encoder Sensor on page 296

You must also clean the holes in the Service Station which are located under the Maintenance Cartridge and check that the Aerosol Fan is functioning correctly.

Preventive Maintenance Kit #3 (CQ105-67064)

This Preventive Maintenance Kit #3 contains the following components:

- Rewinder Gear and Motor ⇒ CQ105-67001
- Hub Support and Adaptor ⇒ CQ105-67003
- Paper Feed Bake ⇒ CQ105-67006
- Media Sensor ⇒ CQ105-67008
- Media Axis Motor ⇒ CQ105-67012
- Drive Roller Encoder Kit ⇒ CQ105-67053
- Drive Roller Gears and Driver Roller Brake Kit ⇒ Q1273-60242

You must also clean the holes in the Service Station which are located under the Maintenance Cartridge and check that the Aerosol Fan is functioning correctly.