

Removal and Installation

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Introduction

This chapter is a step by step guide to the removal and installation of the key components in the printer. You may find it useful to tick off the steps as they are performed. Use the illustration at 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.

Before using this chapter to remove and install a new component, always make sure that you have performed the relevant service test from Chapter 4. If the test passes you will not need to replace the component.

Safety Precautions

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

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.

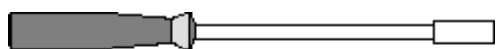
Electrostatic Discharge (ESD) Precautions

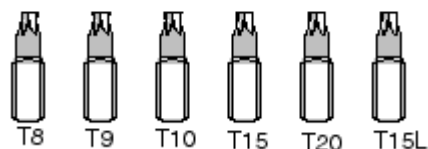
To prevent damage to the Printer circuits from high-voltage electrostatic discharge (ESD):

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.

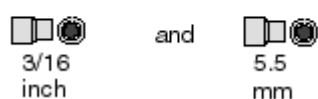
Required Tools

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

 Long Torx Screwdriver with the indicated attachments



 Nut driver with the indicated attachments



 Small flat-blade screwdriver

Screw Types

Type	Torx	Length (mm)	Head Type	Thread Type	Part Number
A	T-10	7.25	Pan	Tapitite	0515-2812
B	T-10	5.7	Pan	Tapitite	0515-2599
C	T-10	17.5	Pan Washer	Plastite	0515-2675
D	T-10	9	Pan	Plastite	0515-2811
E	T-10		Pan	Plastite	1515-2841

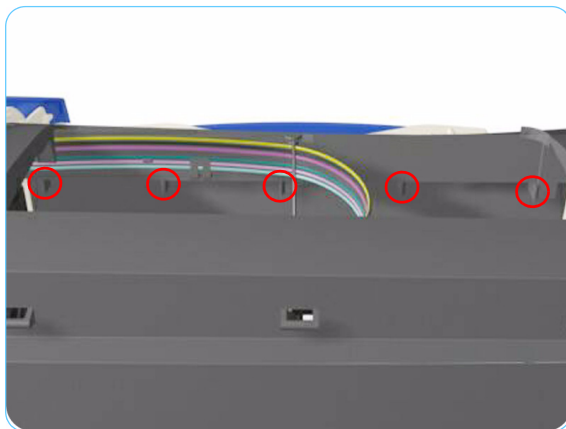
Front Cover

Removal

Switch off the product and remove the power cable.



1. Open the Access Cover.



2. Release the clips (from the inside) that secure the Front Cover.



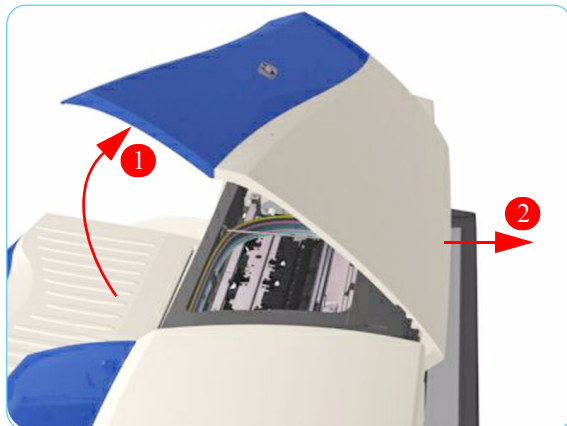
3. Remove the Front Cover from the Printer.

Center Cover

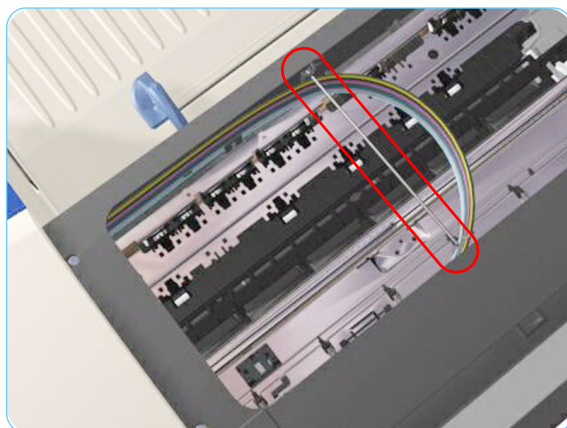
Removal

Switch off the product and remove the power cable.

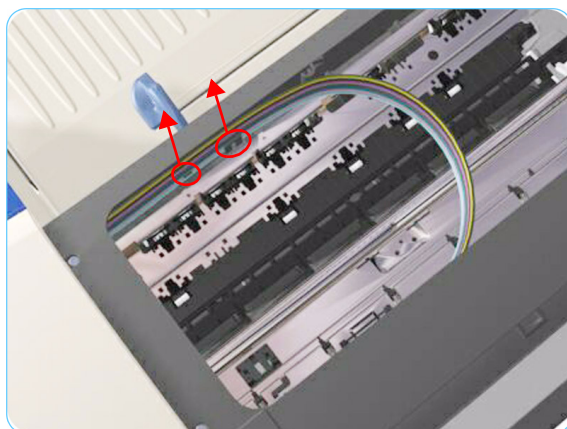
Refer to the table on Page 8-3 for information on screw types.



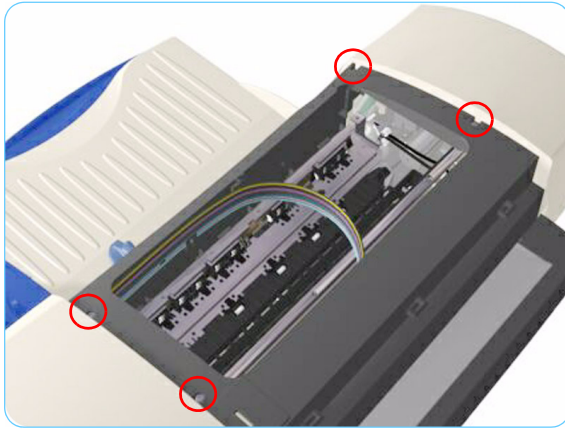
1. Unclip the Top Cover and remove from the Printer.



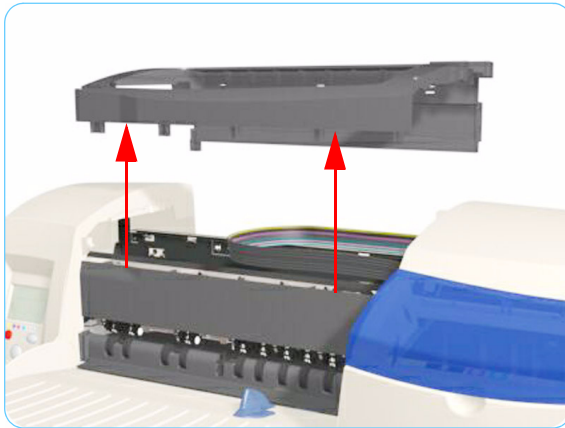
2. Release the Ink Supply Tubes from the Tubes Holder. Remove the Tubes Holder from the Printer.



3. Release the Tubes from the retaining clips in the Center Cover.



4. Remove 4 T-10 screws (**Type D**) that secure the Center Cover to the Printer.



5. Remove the Center Cover.

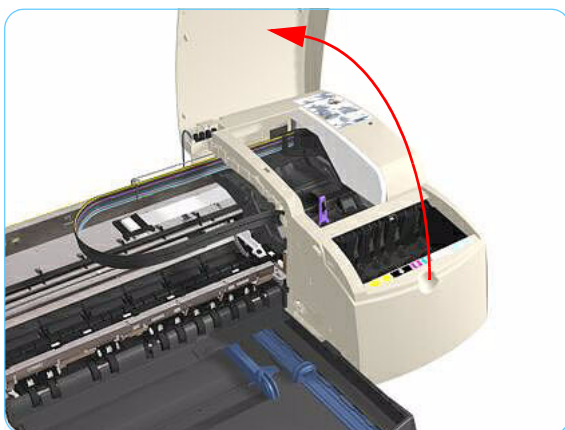
Right End Cover

Removal

Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

1. Remove the Center Cover ⇒ Page 8-5.
2. Open the Printhead Door.

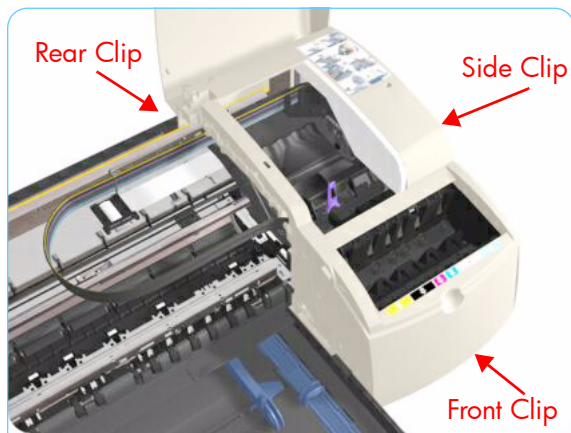


3. Release the Door Sensor from the Right End Cover.

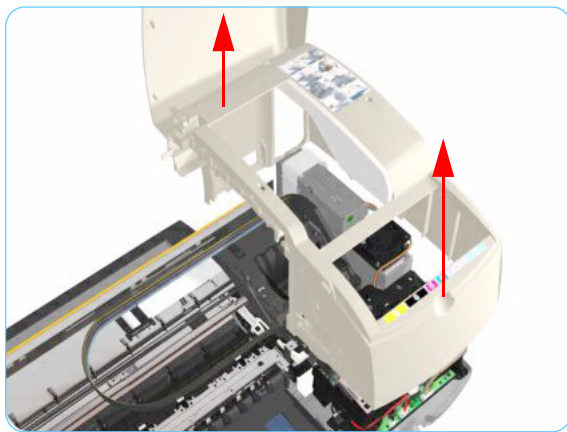


4. Remove 1 T-10 screw (**Type A**) that secures the Right End Cover to the Printer





5. Release the clips that secure the Right End Cover to the Printer (use a flat-blade screwdriver if necessary).



6. Remove the Right End Cover from the Printer.

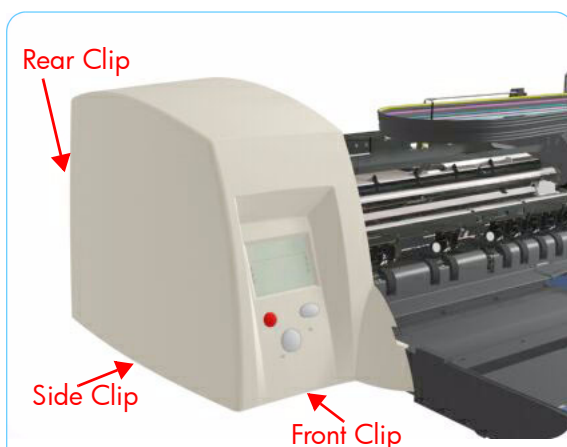
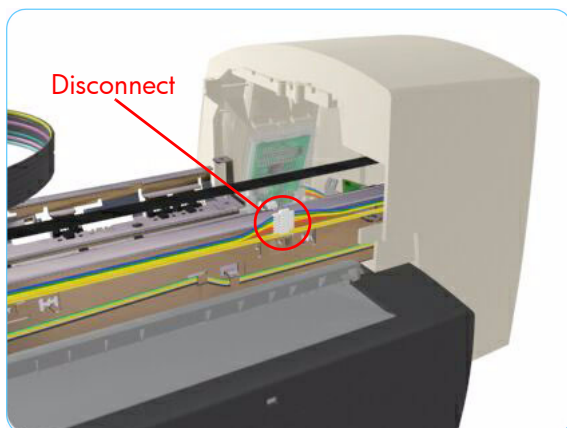
Left End Cover

Removal

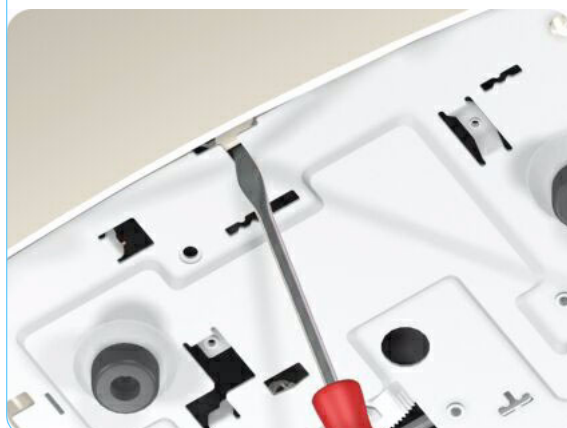
Switch off the product and remove the power cable.

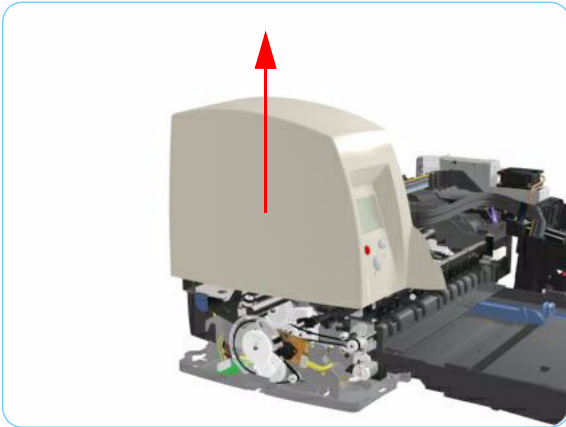
Refer to the table on Page 8-3 for information on screw types.

1. Remove the Center Cover ⇒ Page 8-5.
2. Disconnect the Front Panel cable from the rear of the Printer.



3. Release the clips that secure the Left End Cover to the Printer (use a flat-blade screwdriver if necessary).





4. Remove the Left End Cover from the Printer.

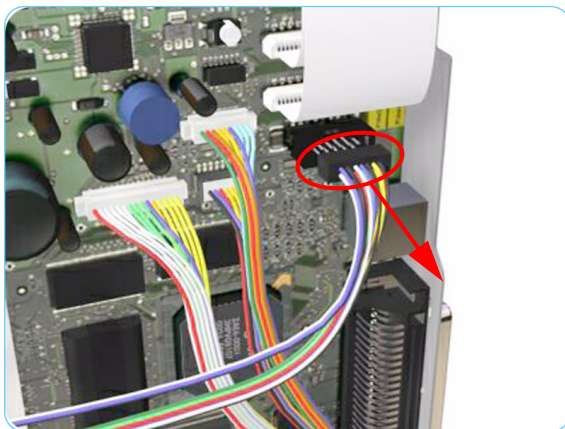
Ink Supply Station

Removal

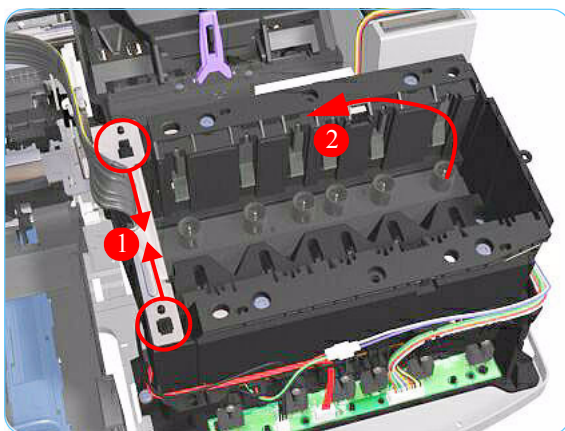
Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

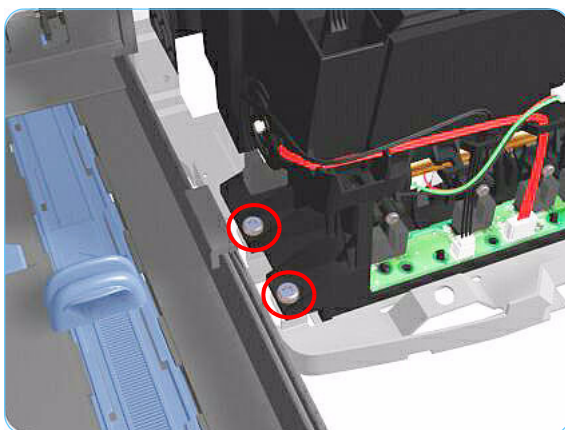
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Disconnect the Ink Supply Station Cable from the Main PCA.

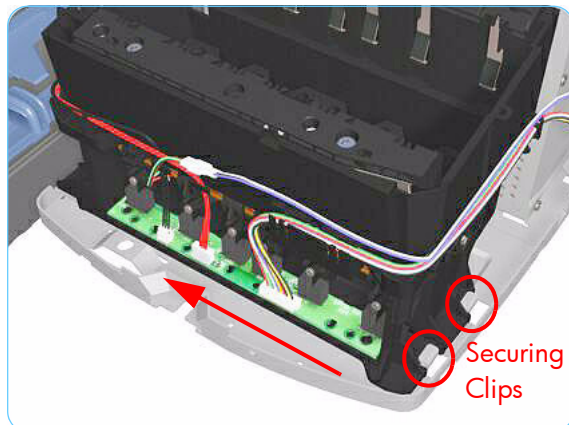


4. Release the Tubes Bracket from the Ink Supply Station by pushing the clips inwards and lifting up the Bracket.

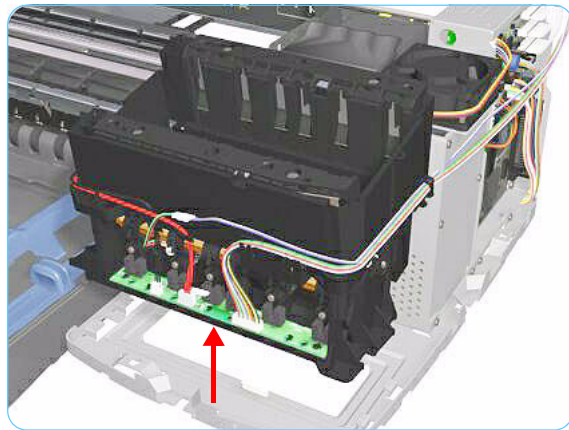


5. Remove 2 T-10 screws (**Type A**) that secure the Ink Supply Station.





6. Slide the Ink Supply Station to the left to release it from the securing clips.



7. Remove the Ink Supply Station from the Printer.

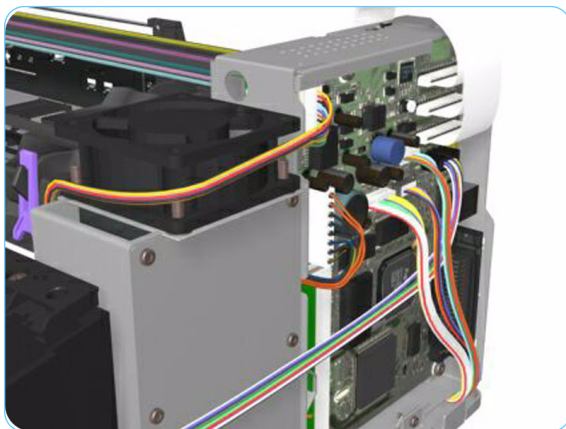
Electronics Module

Removal

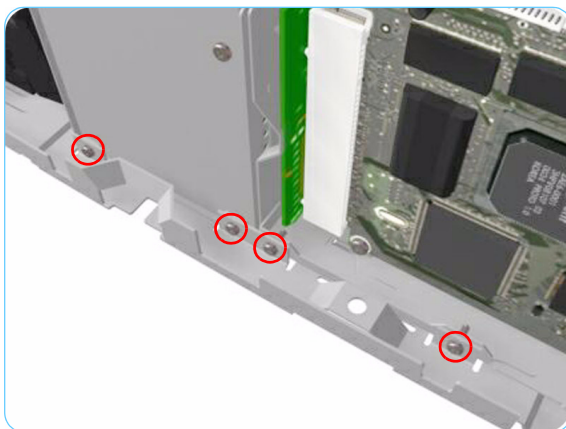
Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Disconnect ALL the cables from the Main PCA.

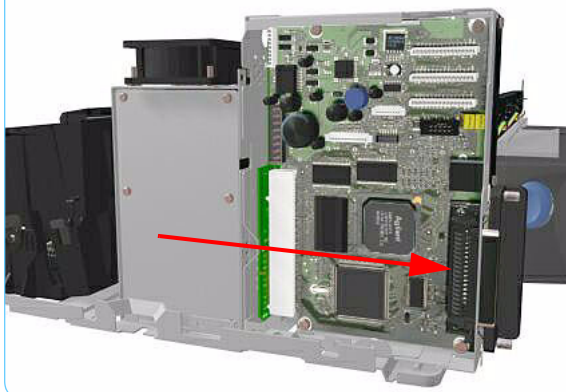


4. Remove 4 T-10 screws (**Type B**) that secure the Electronics Module and the Power Supply Unit to the Printer.

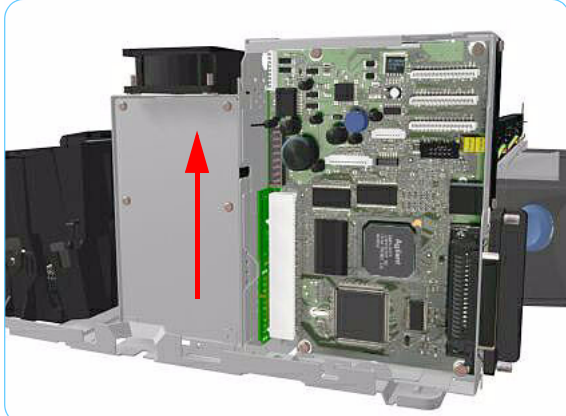


5. Release the Trailing Cable from the rear of the Electronics Module.

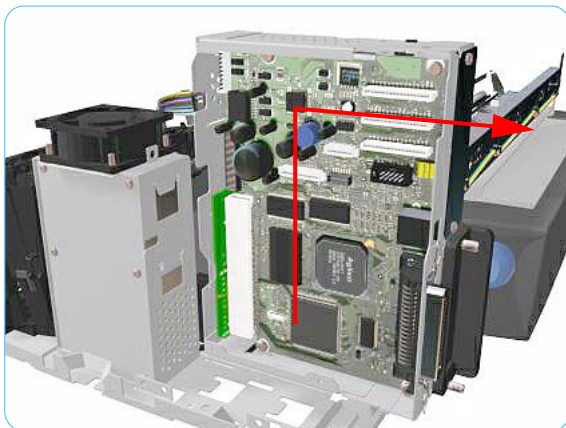




6. Slide out the Electronics Module and the Power Supply Unit (**as one assembly**) from the Printer.



7. Slide the Power Supply Unit upwards to release it from the Electronics Module.



8. Remove the Electronics Module from the Printer.

If you replace the Electronics Module with a new one, make sure that you perform the Accuracy Calibration.

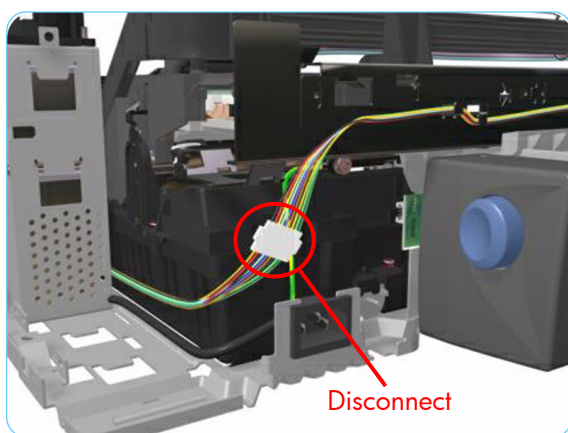
Power Supply Unit

Removal

Switch off the product and remove the power cable.

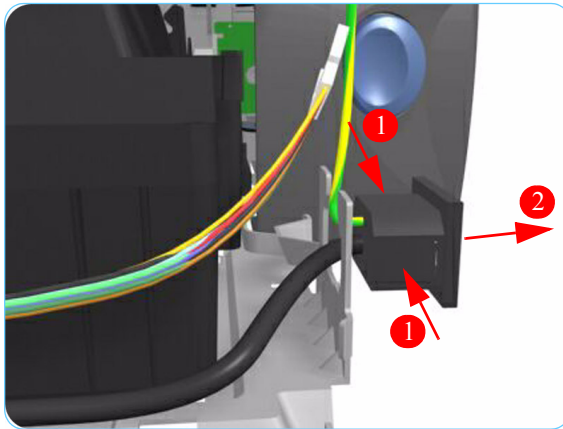
Refer to the table on Page 8-3 for information on screw types.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Electronics Module ⇒ Page 8-13.
4. Disconnect the Motor Harness Cable.

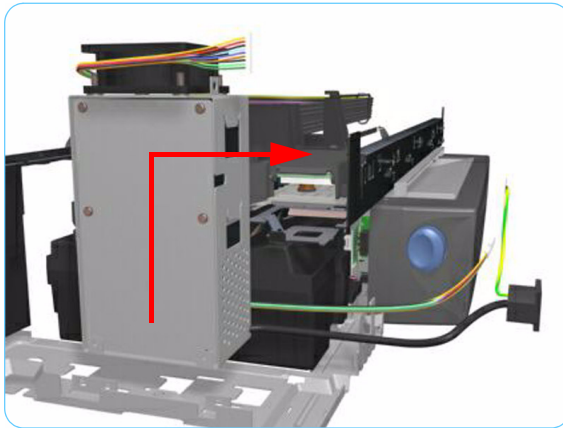


5. Remove 1 T-10 screw (**Type A**) that secures the Grounding Strip.





6. Press in the clips on either side and release the Power Socket.



7. Remove the Power Supply from the Printer.

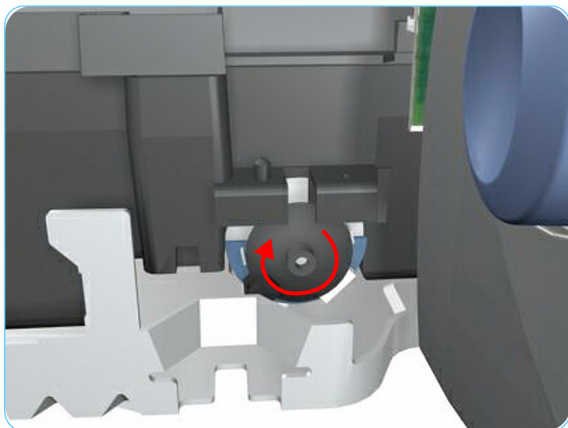
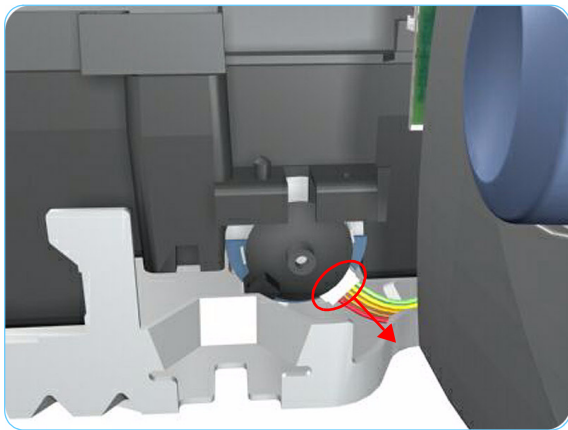
Service Station

Removal

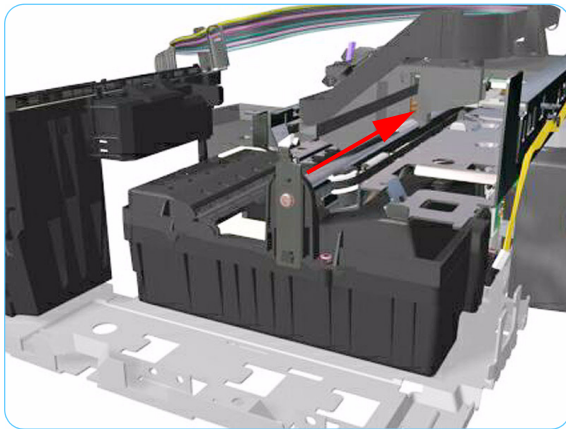
Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

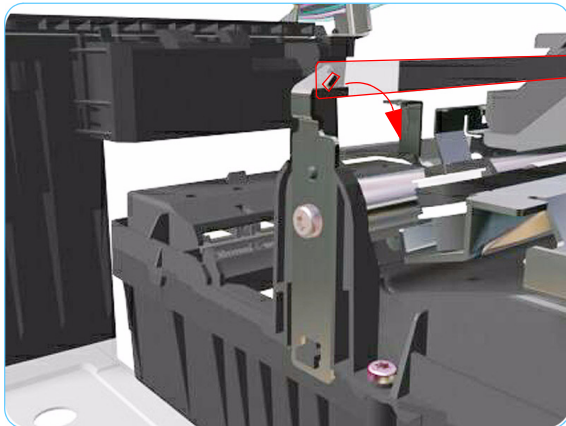
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Electronics Module ⇒ Page 8-13.
4. Remove the Power Supply Unit ⇒ Page 8-15.
5. Disconnect the Service Station Cable.



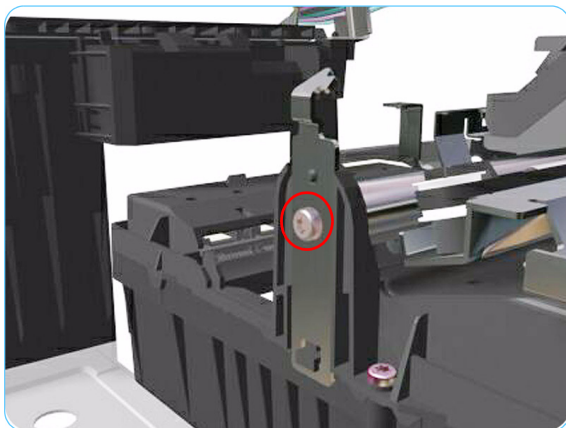
6. Uncap the Carriage Assembly by turning the Service Station Motor clockwise.



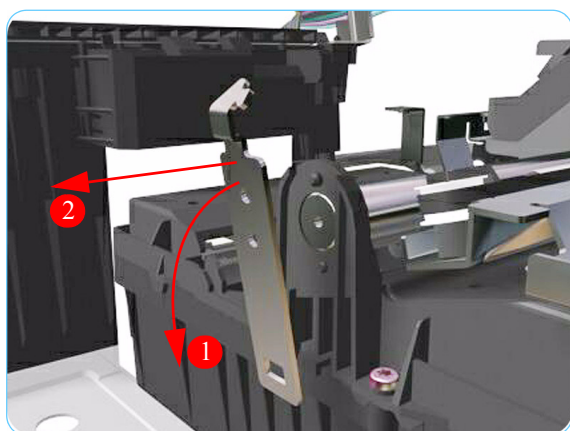
7. Move the Carriage Assembly out of the Service Station.



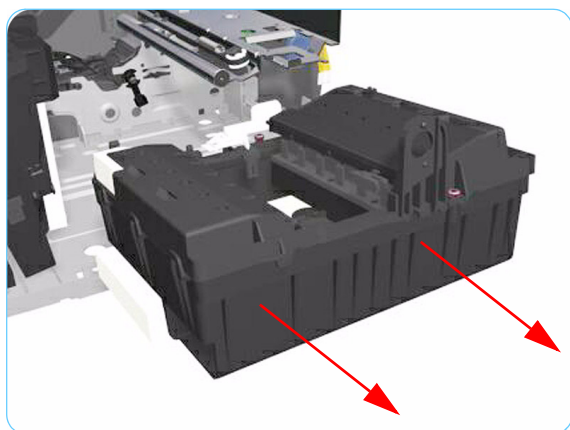
8. Release the Encoder Strip from the Encoder Strip Holder.



9. Remove 1 T-10 screw (**Type A**) that secures the Encoder Strip Holder on the right hand side of the Printer.



10. Remove the Encoder Strip Holder from the Printer.



11. Slide the Service Station out of the Printer.

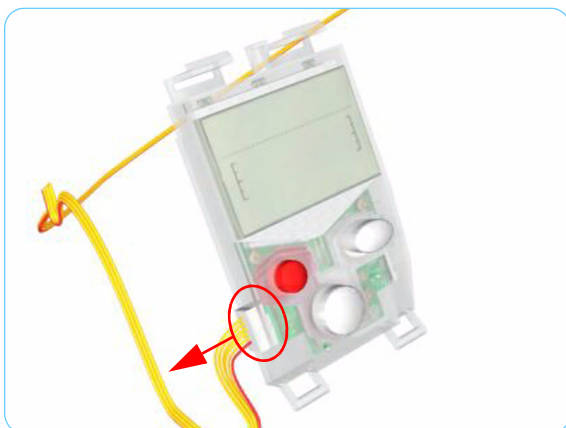
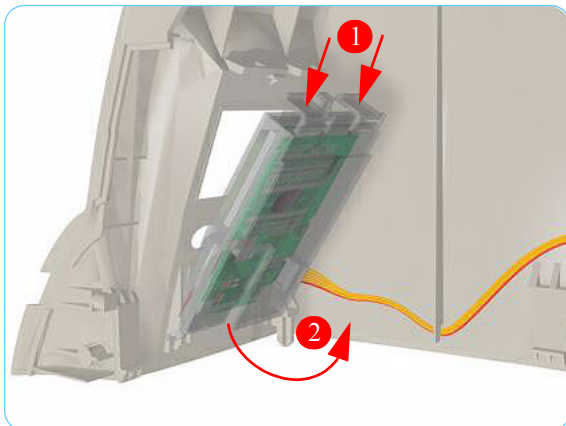
If the Service Station is replaced, make sure that you check that the Pen to Rib Space (PRS) is within specifications.

Front Panel

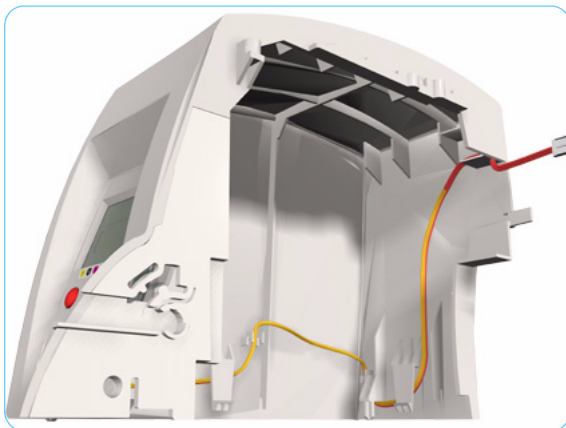
Removal

Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Left End Cover ⇒ Page 8-9.
3. Release the Front Panel from inside the Left Hand Cover.



4. Disconnect the cable from the Front Panel and remove from the Printer.



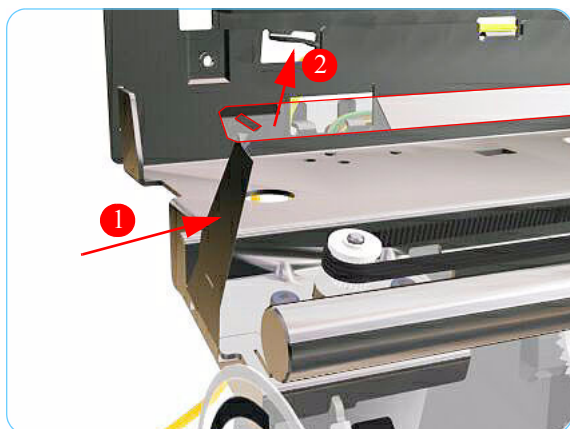
When installing the Front Panel, make sure you route the cable as shown:

Encoder Strip

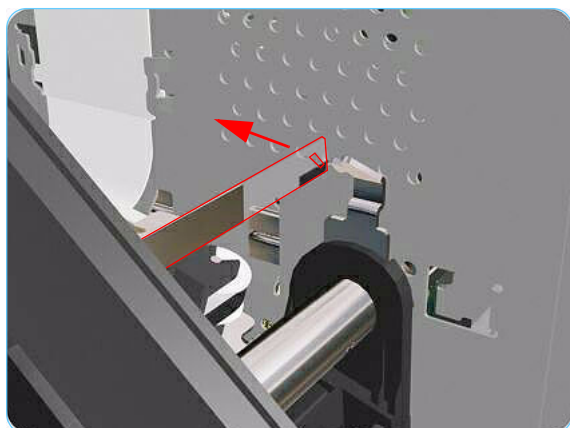
Removal

Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Left End Cover ⇒ Page 8-9.
4. Release the Encoder Strip from the left hand side of the Printer.



5. Release the Encoder Strip from the right hand side of the Printer.



6. Gently slide out the Encoder Strip through the Carriage Assembly and remove from the Printer.



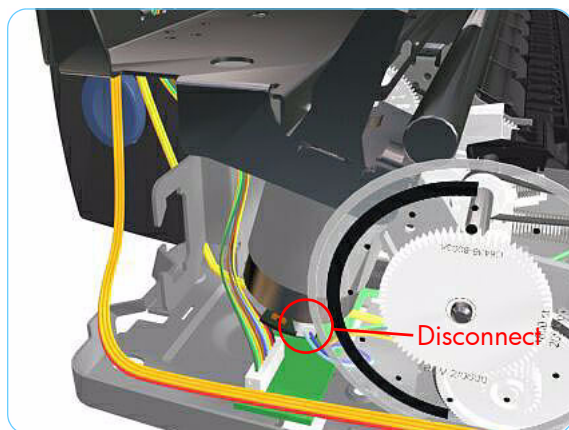
Carriage Motor

Removal

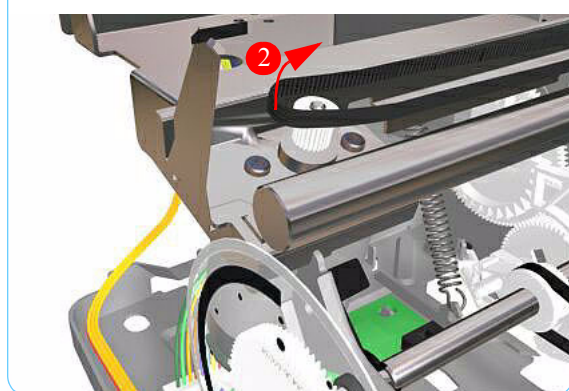
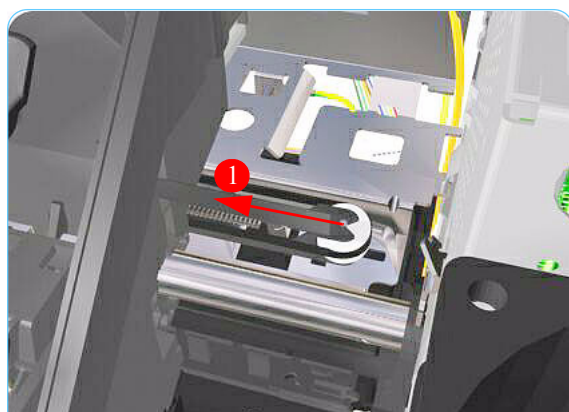
Switch off the product and remove the power cable.

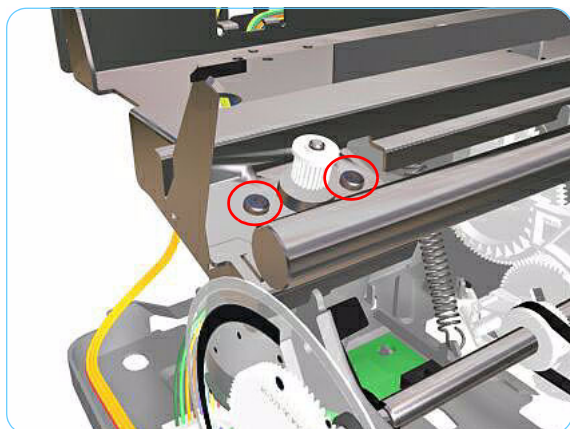
Refer to the table on Page 8-3 for information on screw types.

1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Left End Cover ⇒ Page 8-9.
4. Disconnect the cable from the Carriage Motor.

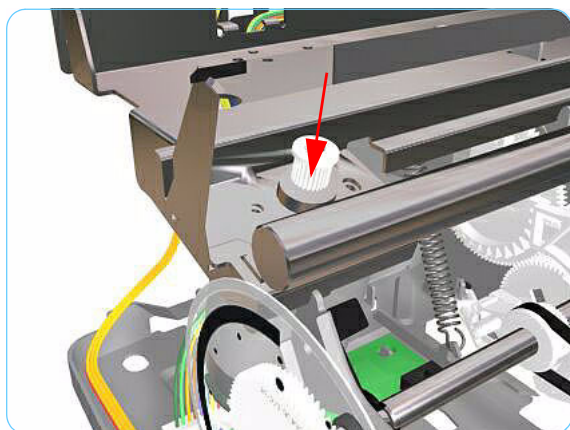


5. Release the Belt from the Carriage Motor by pushing in the Turnaround Assembly (right hand side of the printer) and at the same time releasing the Belt from the Motor on the left hand side of the printer).





6. Remove 2 T-10 screws (**Type A**) that secure the Carriage Motor.

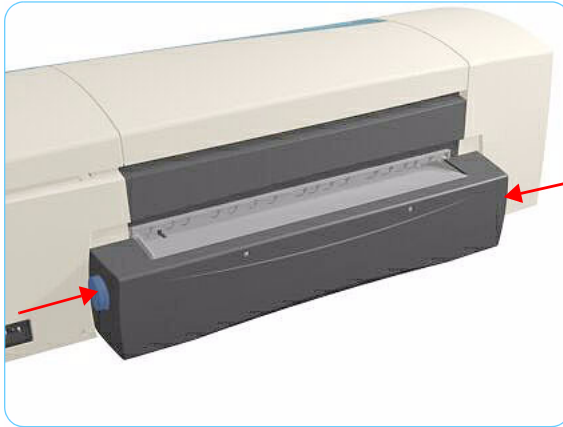


7. Remove the Carriage Motor from the Printer (needs to be removed from underneath).

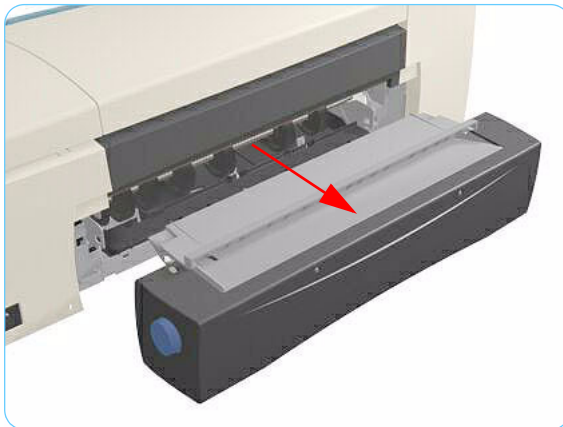
Cleanout Assembly

Removal

Switch off the product and remove the power cable.



1. To release the Cleanout Assembly, push in the 2 buttons on either side.



2. Remove the Cleanout Assembly from the Printer.

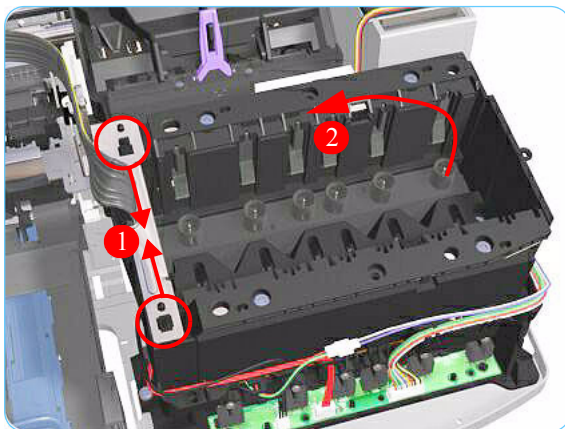
Ink Supply Tubes

Removal

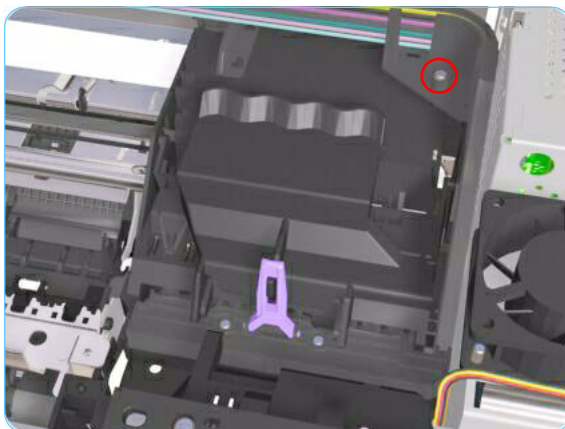
Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

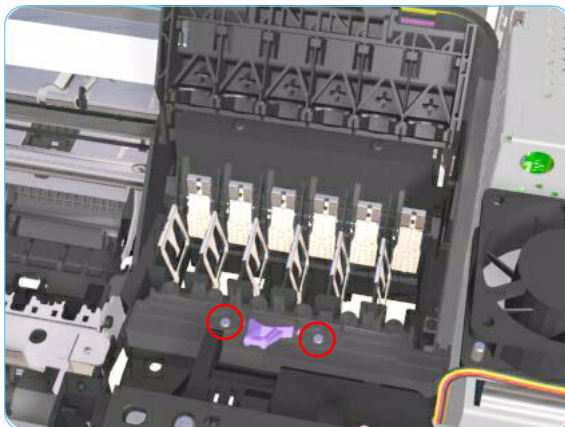
1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Release the Tubes Bracket from the Ink Supply Station by pushing the clips inwards and lifting up the Bracket.

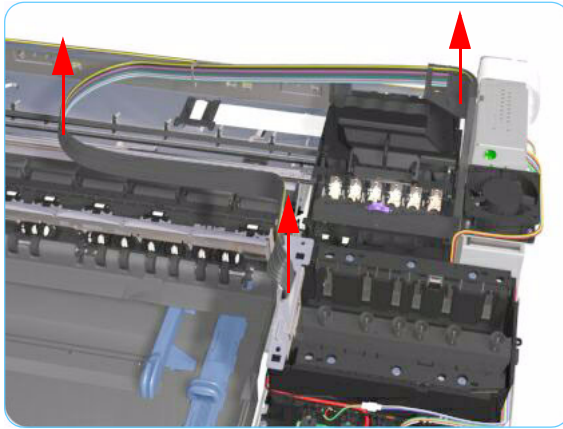


4. Remove 1 T-10 screw (**Type-C**) that secures the Tube Crane to the carriage Assembly.



5. Open the Printhead Cover and remove 2 T-8 (**Type-C**) screws that secure the Tube Crane to the Carriage Assembly.





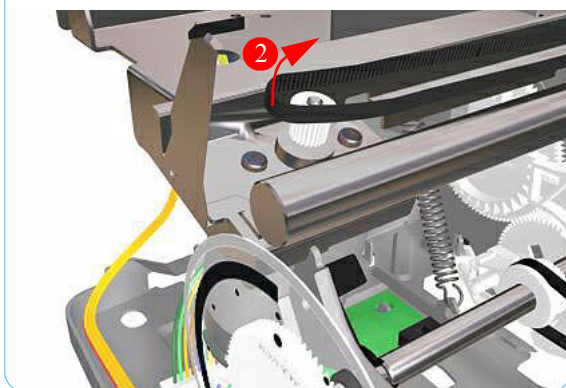
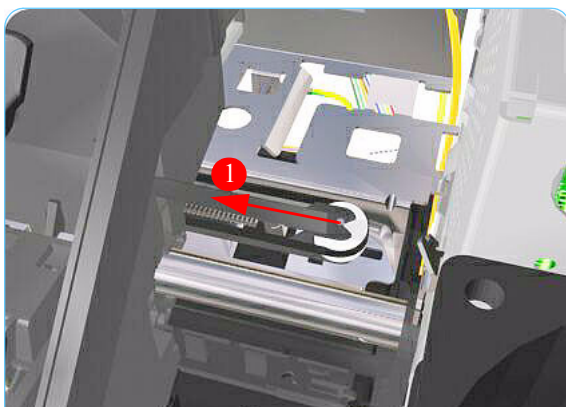
6. Release the Ink Supply Tubes from the Tubes Support and remove from the Printer.

Carriage Assembly

Removal

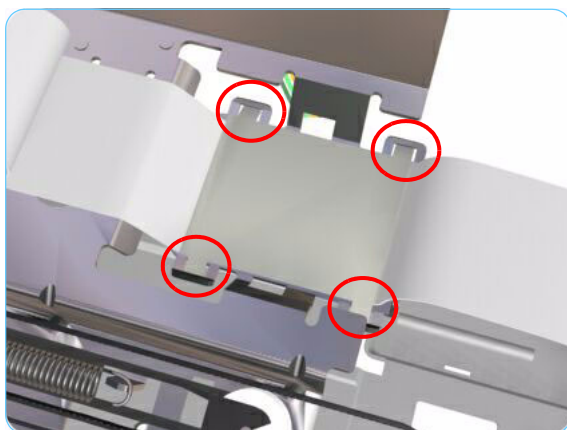
Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Left End Cover ⇒ Page 8-9.
4. Remove the Electronics Module ⇒ Page 8-13.
5. Remove the Power Supply Unit ⇒ Page 8-15.
6. Remove the Service Station ⇒ Page 8-17.
7. Remove the Ink Supply Tubes ⇒ Page 8-25.
8. Release the Belt from the Carriage Motor by pushing in the Turnaround Assembly (right hand side of the printer) and at the same time releasing the Belt from the Motor on the left hand side of the printer).

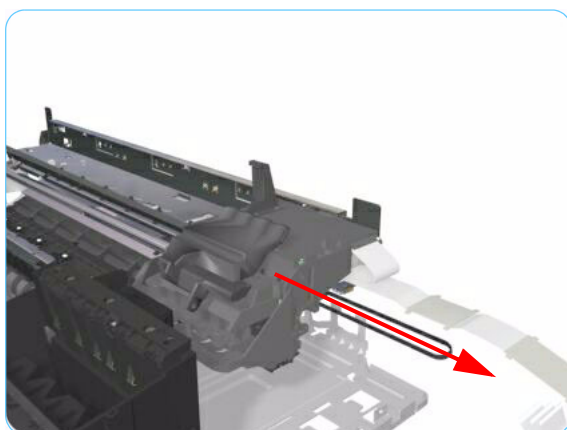




9. Release the Trailing Cable clip from the Chassis.



10. Release the Trailing Cable from the Chassis.



11. Slide the Carriage Assembly to the right and out of the Printer.

12. If the Carriage Assembly is to be replaced, make sure that you remove the belt (in order to install it on the new carriage). To remove the belt ⇒ Page 8-29.

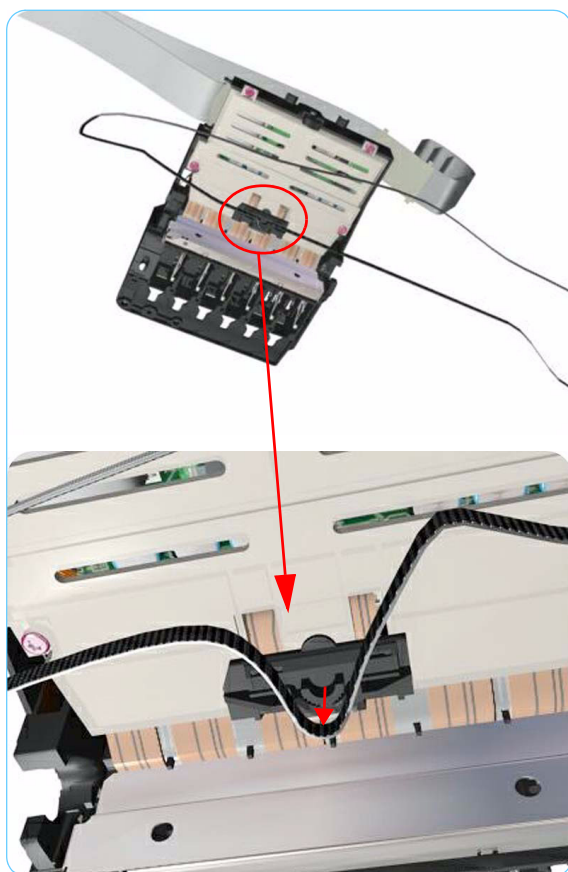
If the Carriage is replaced by a new one, make sure that you perform the PRS Adjustment procedure.

Carriage Belt

Removal

Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Electronics Module ⇒ Page 8-13.
4. Remove the Power Supply Unit ⇒ Page 8-15.
5. Remove the Service Station ⇒ Page 8-17.
6. Remove the Ink Supply Tubes ⇒ Page 8-25.
7. Remove the Carriage Assembly ⇒ Page 8-27.
8. Release the Belt from the bottom of the Carriage Assembly.



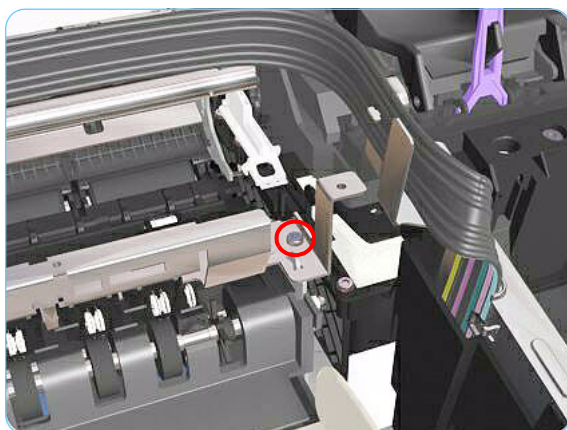
Starwheel Assembly

Removal

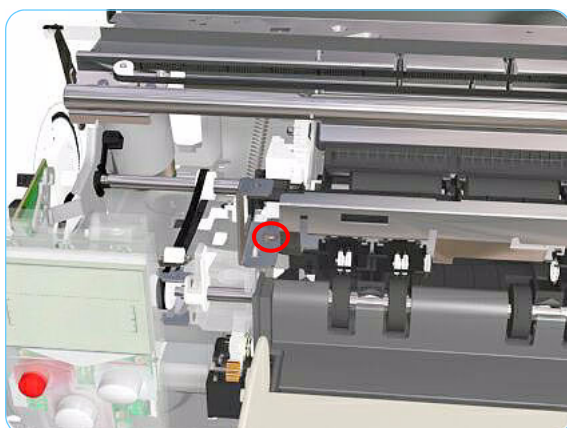
Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

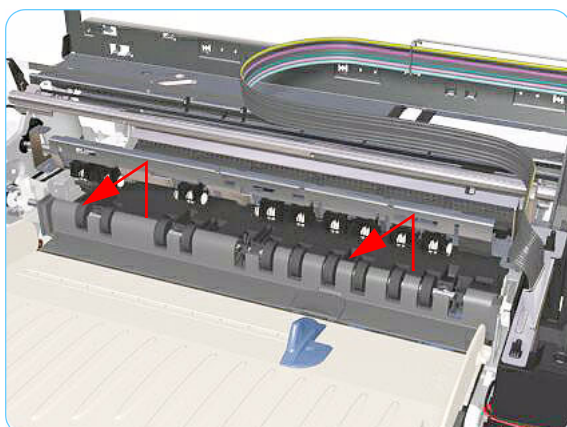
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove 1 T-10 screw (**Type A**) that secures the Starwheel Assembly to the right hand side of the printer.



3. Remove 1 T-10 screw (**Type A**) that secures the Starwheel Assembly to the left hand side of the printer.



4. Remove the Starwheel Assembly.



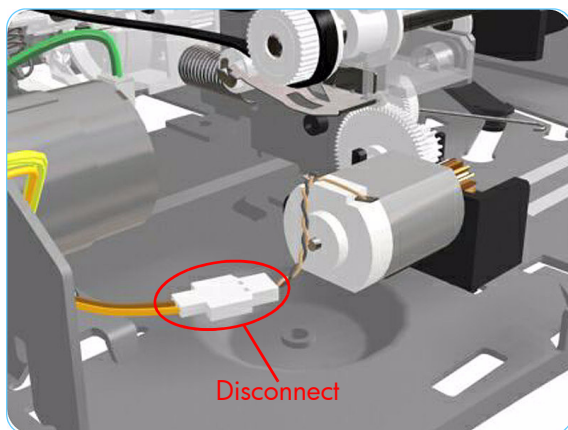
Ramp Motor Assembly

Removal

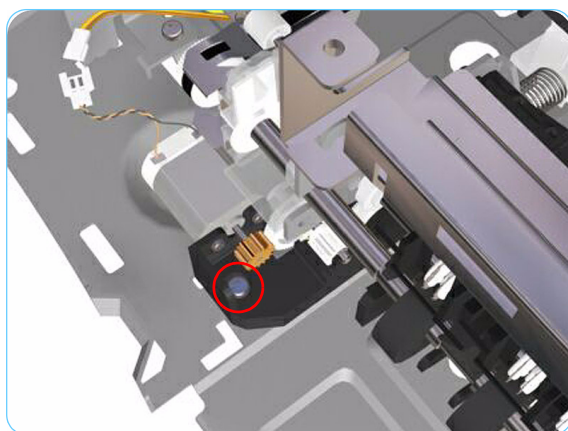
Switch off the product and remove the power cable.

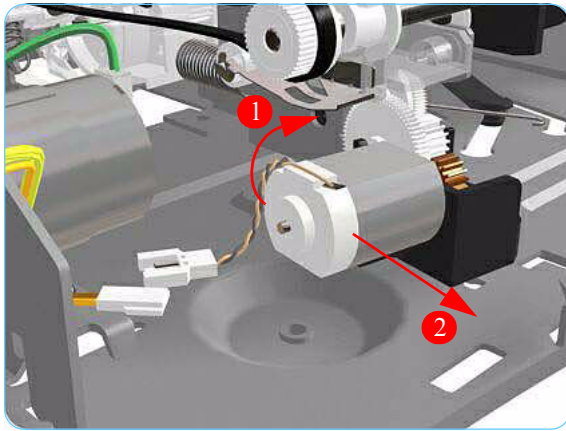
Refer to the table on Page 8-3 for information on screw types.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Left End Cover ⇒ Page 8-9.
3. Remove the Output Tray and Tray 1.
4. Disconnect the Ramp Motor cable.



5. Remove 1 T-10 screw (**Type A**) from the Ramp Motor Assembly.





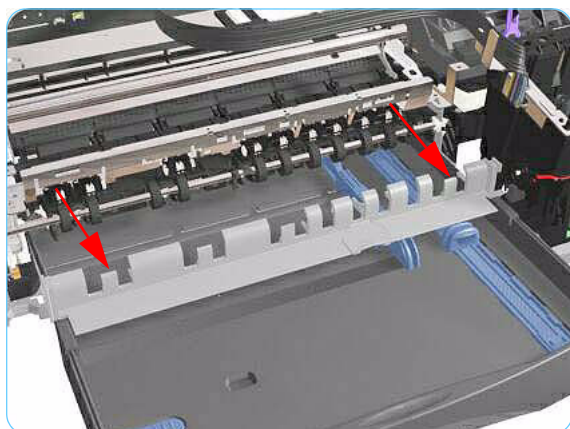
6. Remove the Ramp Motor Assembly from the Printer.

Output Seperator

Removal

Switch off the product and remove the power cable.

1. Remove the Front Cover ⇒ Page 8-4.
2. Remove the Center Cover ⇒ Page 8-5.
3. Remove the Output Tray.
4. Unclip the Output Seperator and remove from the Printer.

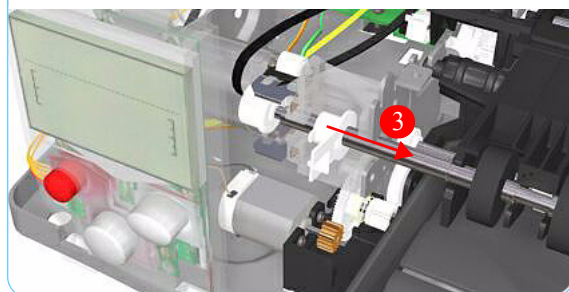
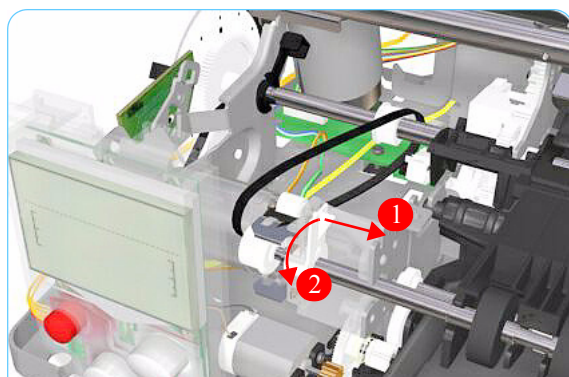
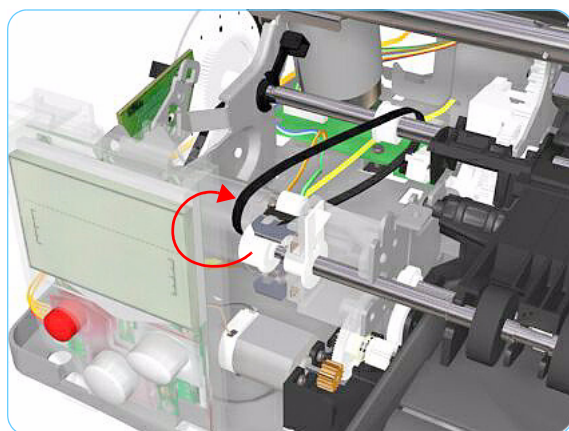


Output Mechanism Assembly

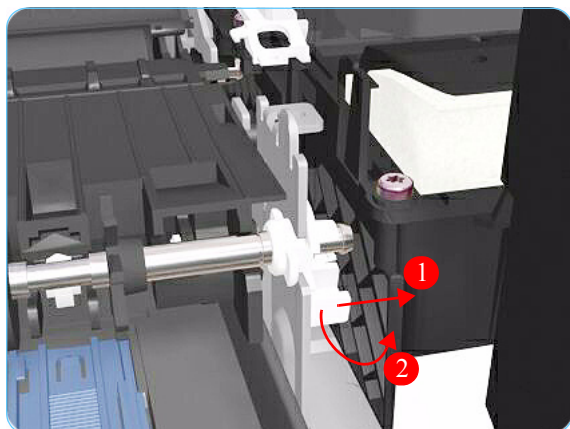
Removal

Switch off the product and remove the power cable.

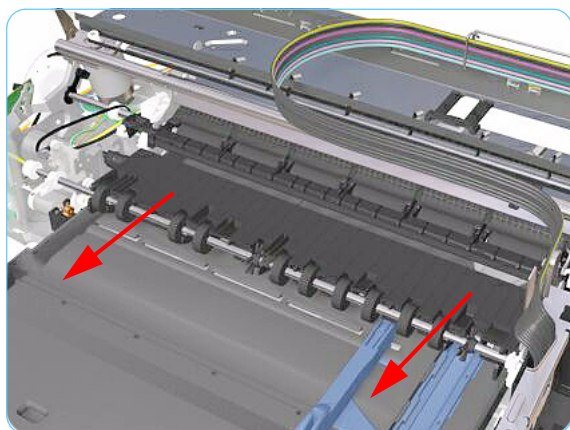
1. Remove the Front Cover ⇒ Page 8-4.
2. Remove the Center Cover ⇒ Page 8-5.
3. Remove the Right End Cover ⇒ Page 8-7.
4. Remove the Left End Cover ⇒ Page 8-9.
5. Remove the Output Separator ⇒ Page 8-33.
6. Remove the Starwheel Assembly ⇒ Page 8-30.
7. Release the Belt from the Output Mechanism Assembly.



8. Release the locking mechanism from the left hand side of the Printer.



- 9.** Release the locking mechanism from the right hand side of the Printer.



- 10.** Slide out the complete Output Mechanism Assembly.

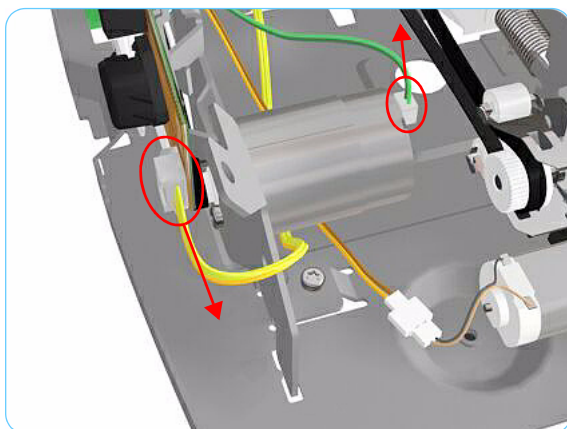
Paper-Axis Motor Drive Assembly

Removal

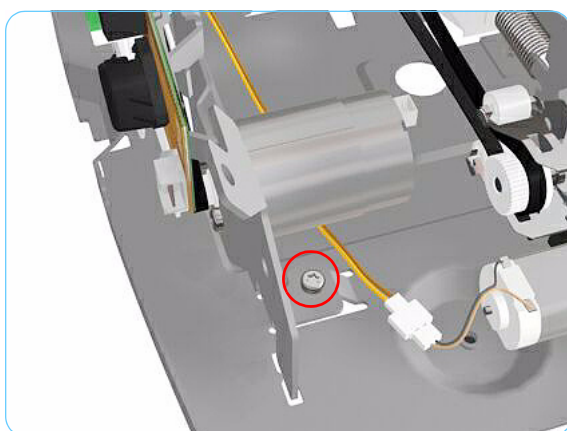
Switch off the product and remove the power cable.

Refer to the table on Page 8-3 for information on screw types.

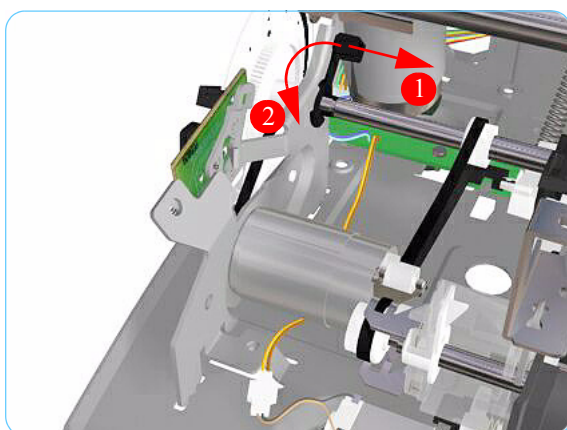
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Left End Cover ⇒ Page 8-9.
3. Disconnect the Paper-Axis and Encoder cables.

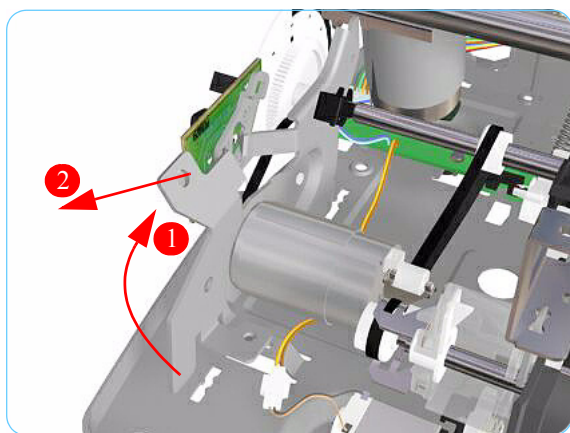


4. Remove 1 T-10 screw (**Type A**) that secures the Paper-Axis Motor Mount.



5. Release the locking mechanism that secures the Paper-Axis Motor Mount.





6. Remove the Paper-Axis Motor Assembly from the Printer.

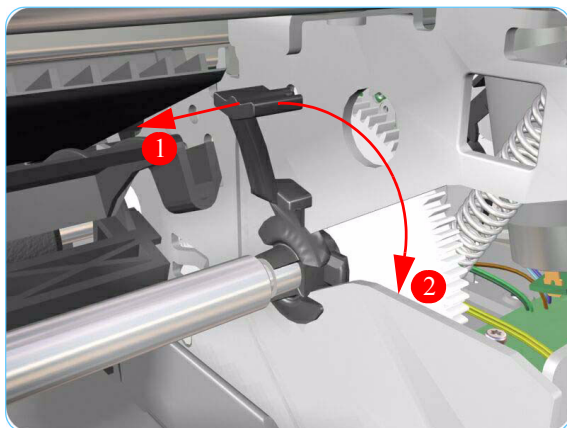
After removing or replacing the Paper-Axis Motor Assembly, make sure that you perform the Accuracy Calibration.

Pick Assembly

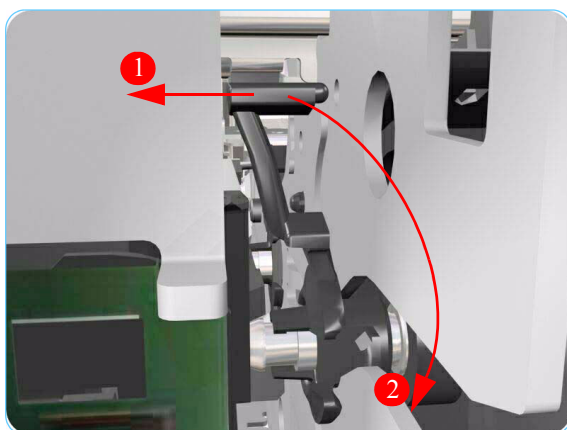
Removal

Switch off the product and remove the power cable.

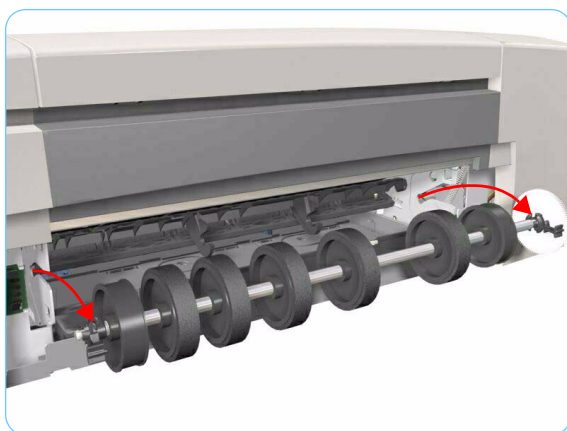
1. Remove the Cleanout Assembly ⇒ Page 8-24.



2. Release the locking mechanism that secures the Pick Assembly on the right hand side of the printer (looking from the rear).



3. Release the locking mechanism that secures the Pick Assembly on the left hand side of the printer (looking from the rear)



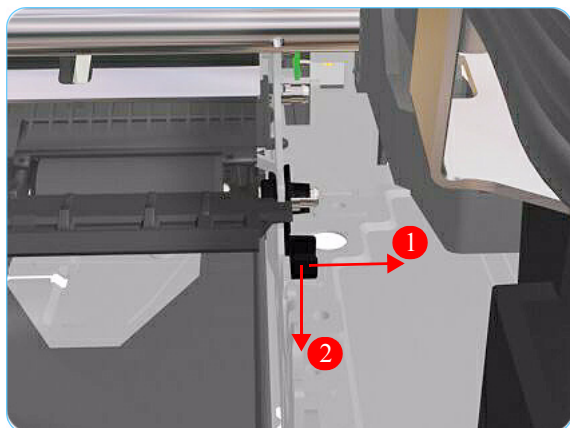
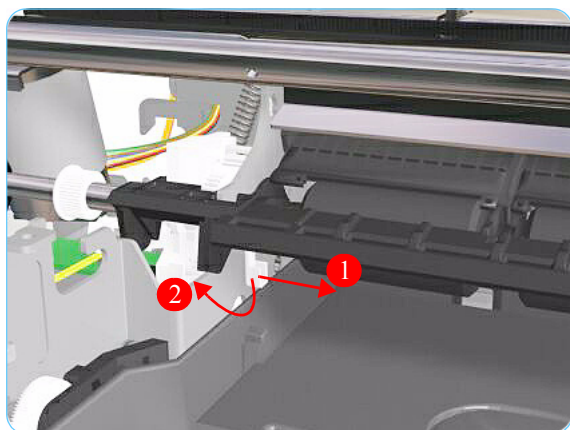
4. Raise the locks so that they are aligned with the cutouts and lift out the Pick Assembly from the Printer.

Feed Roller Assembly

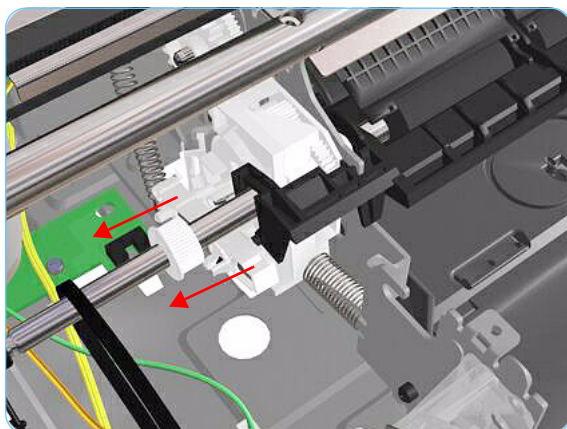
Removal

Switch off the product and remove the power cable.

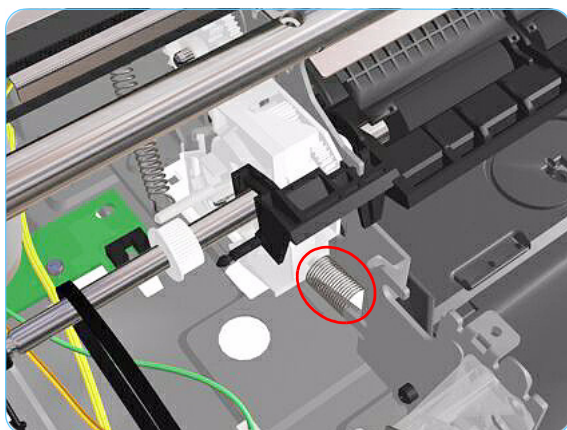
1. Remove the Front Cover ⇒ Page 8-4.
2. Remove the Center Cover ⇒ Page 8-5
3. Remove the Right End Cover ⇒ Page 8-7.
4. Remove the Left End Cover ⇒ Page 8-9.
5. Remove the Electronics Module ⇒ Page 8-13.
6. Remove the Starwheel Assembly ⇒ Page 8-30.
7. Remove the Output Separator ⇒ Page 8-33.
8. Remove the Output Mechanism Assembly ⇒ Page 8-34.
9. Remove the Paper-Axis Motor Drive Assembly ⇒ Page 8-36.
10. Release the locking mechanism from the left hand side of the Printer.



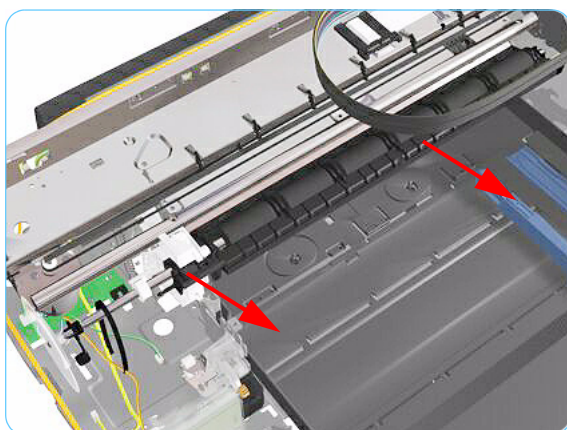
11. Release the locking mechanism from the right hand side of the Printer.



12. Release the Pin Caber and remove from the Printer.



13. Release the Spring.



14. Raise the locks so that they are aligned with the cutouts and lift out the Feed Roller Assembly from the Printer.

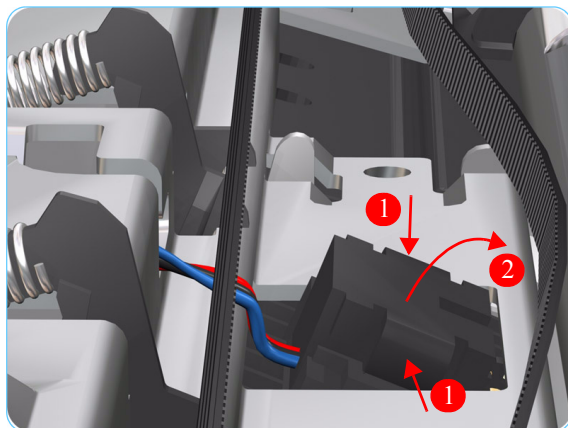
After removing or replacing the Feed Roller Assembly, make sure that you perform the PRS Adjustment procedure and the Accuracy Calibration.

Pinch Assembly

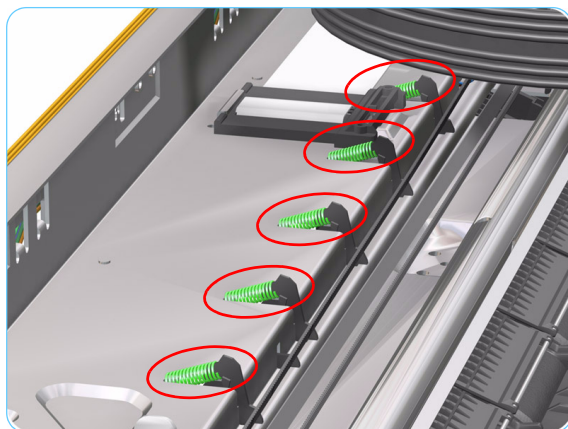
Removal

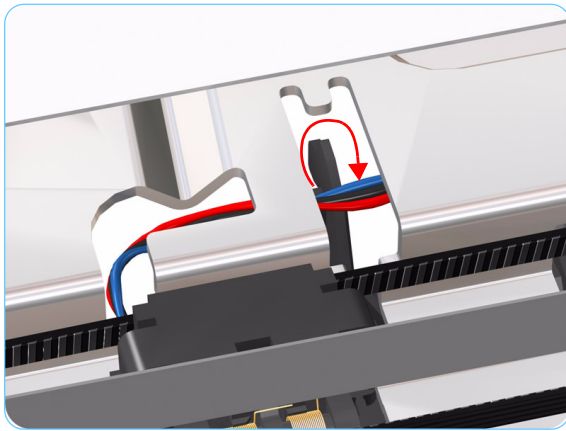
Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Cleanout Assembly ⇒ Page 8-24.
3. Remove the Pick Assembly ⇒ Page 8-38.
4. Release the Out-of-Paper Sensor from the Pinch Assembly by pinching the tabs on either side.

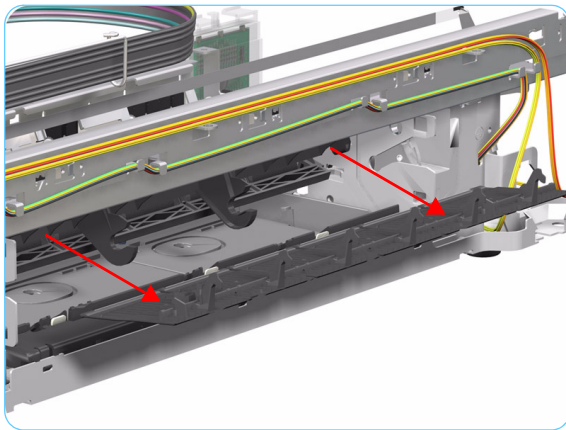


5. Release ALL the Pinch Springs from the Pinch Assembly.





6. Release the Out-of-Paper Sensor cable that is looped underneath the Pinch Assembly.



7. Working from the rear, pull out the Pinch Assembly from the Printer.

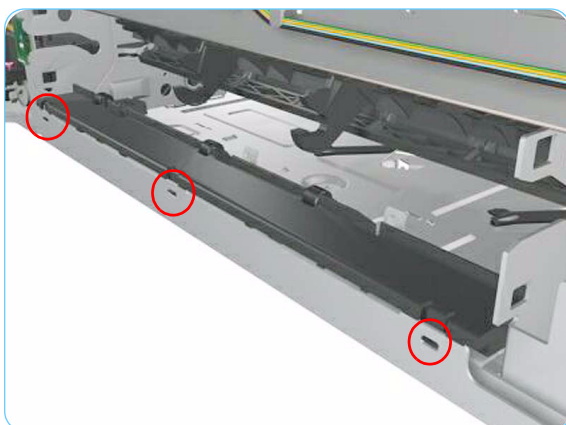
After removing or replacing the Pinch Assembly, make sure that you perform the PRS Adjustment procedure.

Lower Paper Guide

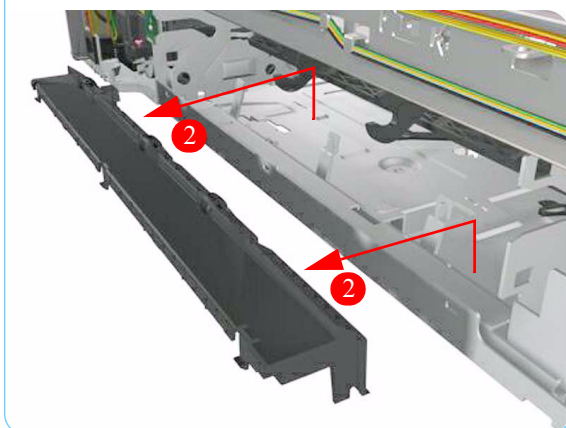
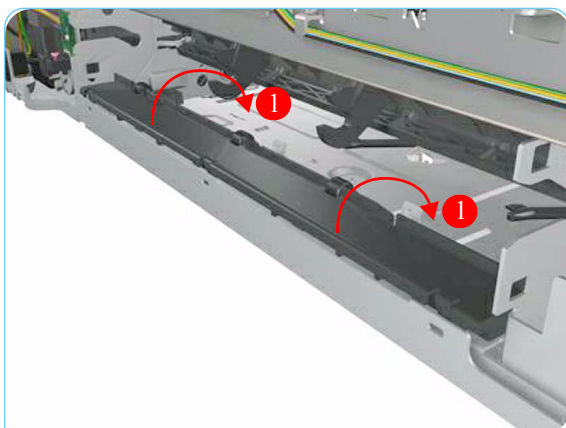
Removal

Switch off the product and remove the power cable.

1. Remove the Cleanout Assembly ⇒ Page 8-24.
2. Remove the Pick Assembly ⇒ Page 8-38.
3. Release the tabs that secure the Lower Paper Guide (use a flat blade screwdriver to help you if necessary).



4. Remove the Lower Paper Guide from the Printer.



Inner Paper Guide

Removal

Switch off the product and remove the power cable.

1. Remove the Cleanout Assembly ⇒ Page 8-24.
2. Remove the Pick Assembly ⇒ Page 8-38.
3. Release the locating pins on the left hand side (looking from the rear) by pushing the Inner Paper Guide to the right and then removing it from the Printer.

