

Removal and Installation

8

Introduction	8-2
Top Cover	8-4
Center Cover	8-5
Right End Cover	8-7
Left End Cover	8-9
Ink Supply Station Cover	8-11
Ink Supply Station	8-12
Electronics Module	8-15
Power Supply Unit	8-18
Service Station	8-19
Front Panel	8-22
Encoder Strip	8-23
Carriage Motor	8-24
Cleanout Assembly	8-26
Ink Supply Tubes	8-27
Carriage Assembly	8-29
Carriage Belt	8-31
Starwheel Assembly	8-32
Print Platen Assembly	8-33
Ramp Motor Assembly	8-35
Spittoon	8-37
Pivot Assembly	8-38
Feed Roller Assembly	8-39
Pick Assembly	8-44
Inner Paper Guide	8-50
OOPS Sensor	8-51

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. 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

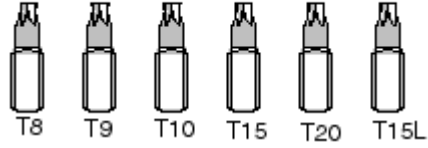
To prevent damage to the Printer circuits from high-voltage electrostatic discharge (ESD):

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.

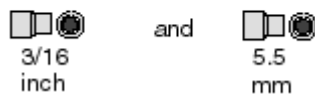
Required Tools

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

Top Cover

Removal

Switch off the product and remove the power cable.

1. Open the Top Cover.



2. Release the clips that secure the Top Cover and remove from the Printer.

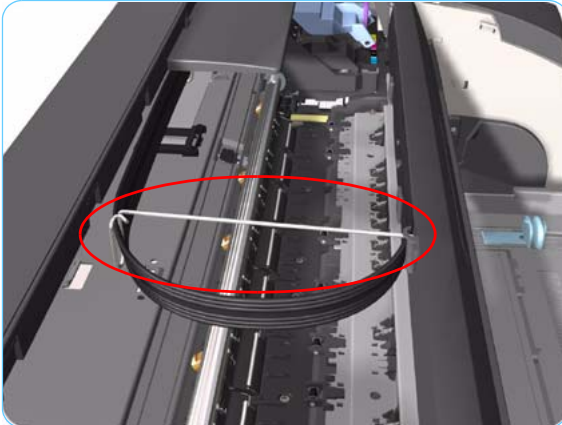


Center Cover

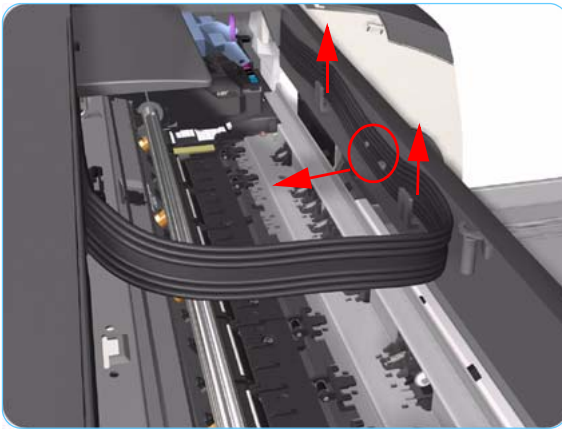
Removal

Switch off the product and remove the power cable.

1. Remove the Top Cover ⇒ Page 8-4.
2. Release the Ink Supply Tubes from the Raceway Holder. Remove the Raceway Holder from the Printer.



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



4. Remove 4 T-10 screws that secure the Center Cover to the Printer.





- 5.** Remove 2 T-10 screws that secure the Center Cover from the rear.



- 6.** Open the Printhead Door.



- 7.** Remove the Center Cover from the Printer.

Right End Cover

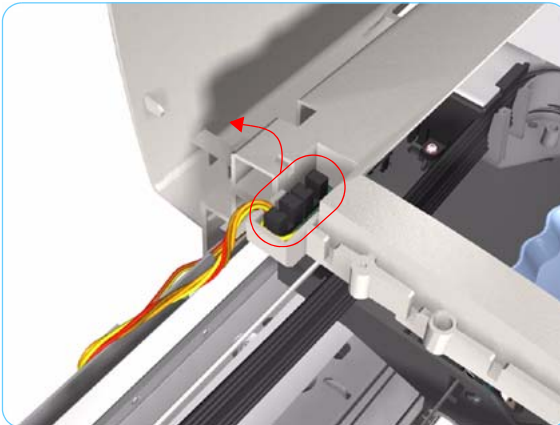
Removal

Switch off the product and remove the power cable.

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 that secures the Right End Cover to the Printer.

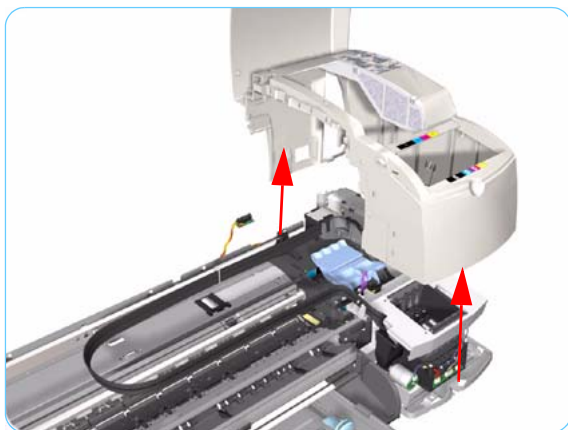




- 5.** Remove 1 T-10 screw from the Right Side Bracket.



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



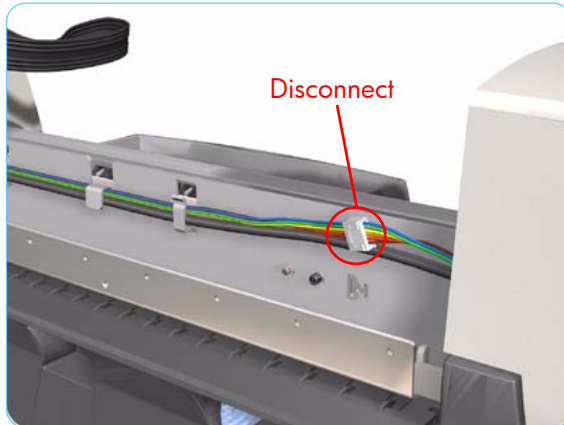
- 7.** Remove the Right End Cover from the Printer.

Left End Cover

Removal

Switch off the product and remove the power cable.

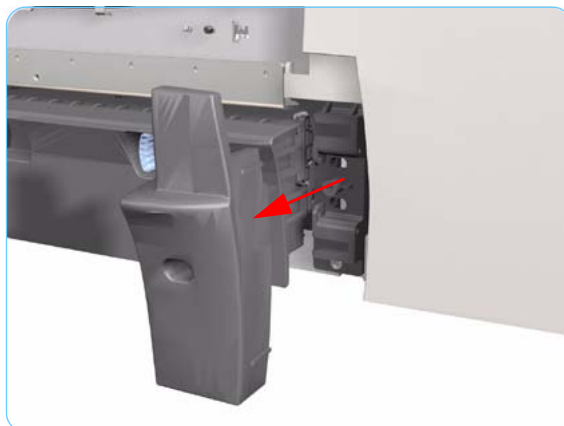
1. Remove the Center Cover ⇒ Page 8-5.
2. Disconnect the Front Panel cable from the rear of the Printer.



3. Remove 1 T-10 screw from the Rear Left Trim.

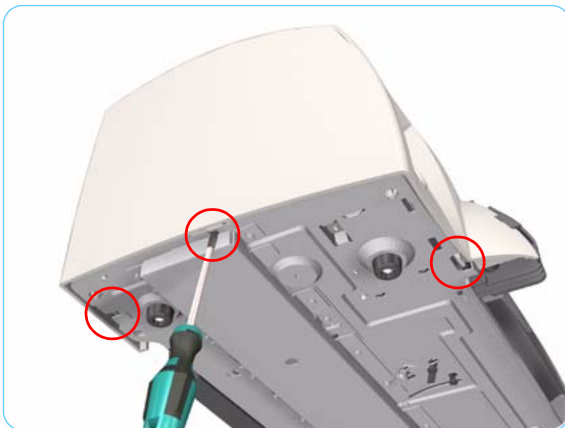


4. Remove the Rear Left Trim from the Printer.

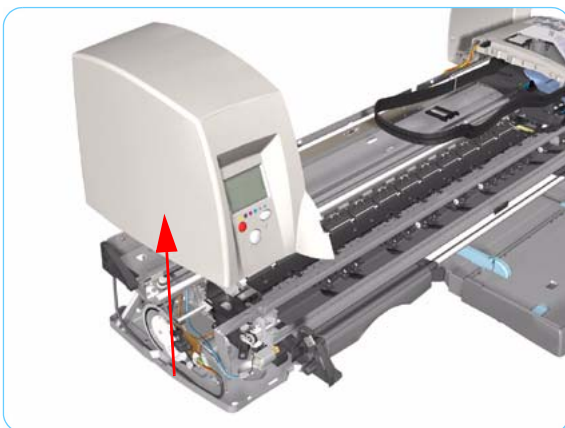




5. Remove 1 T-10 screw from the Left Side Bracket.



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



7. Remove the Left End Cover from the Printer.

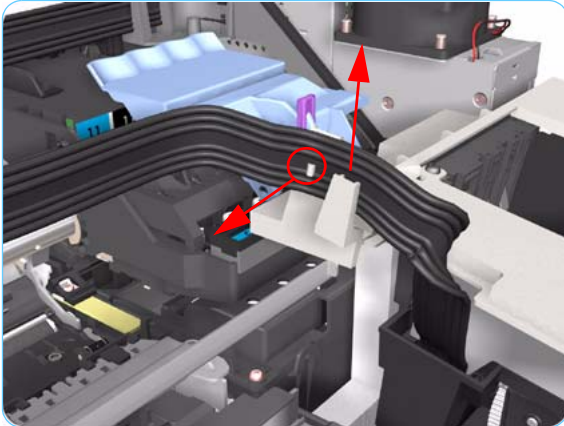
Before installing the Left End Cover, make sure you first check that the Front Panel Cable is routed correctly as shown on Page 8-22:

Ink Supply Station Cover

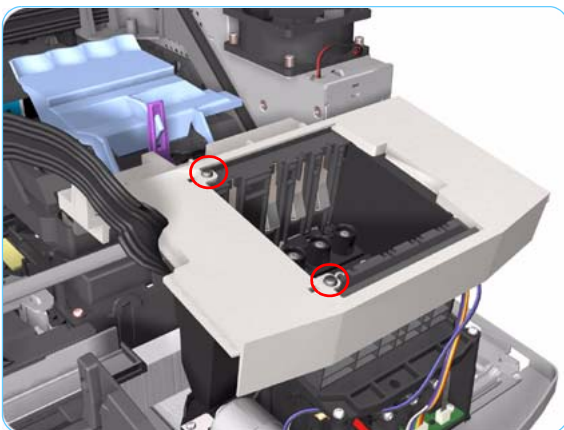
Removal

Switch off the product and remove the power cable.

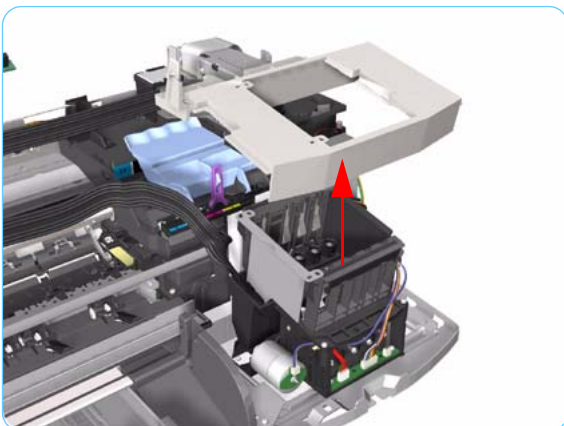
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Release the Ink Tubs from the clip on the ISS Cover.



4. Remove 2 screws that secure the ISS Cover to the Ink Supply Station.



5. Remove the ISS Cover from the Printer.

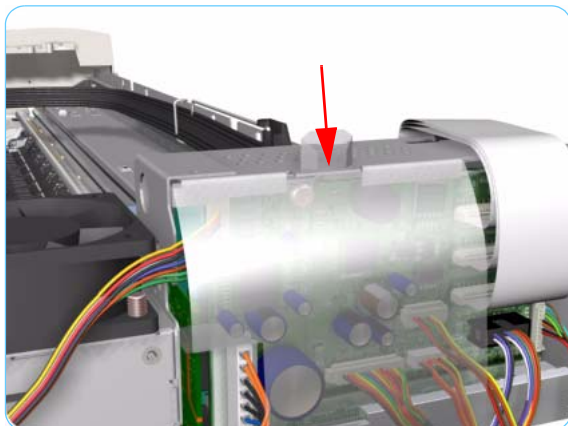


Ink Supply Station

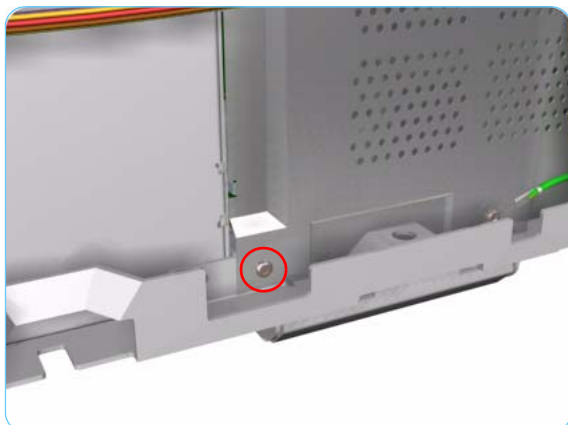
Removal

Switch off the product and remove the power cable.

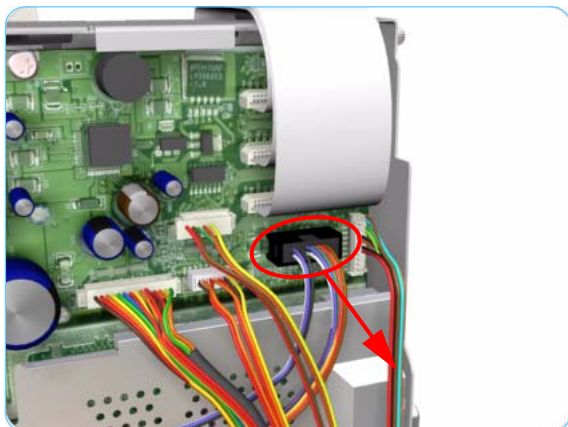
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the ISS Cover ⇒ Page 8-11.
4. Release the Plastic Cover protecting the Electronics Module.

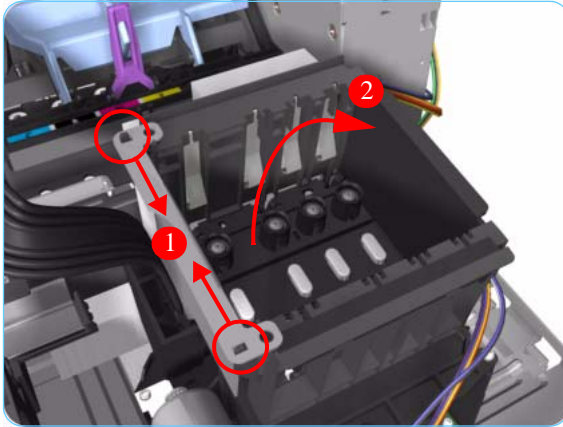


5. Remove 1 T-10 screw securing the Plastic Cover. Remove the Plastic Cover from the Printer.

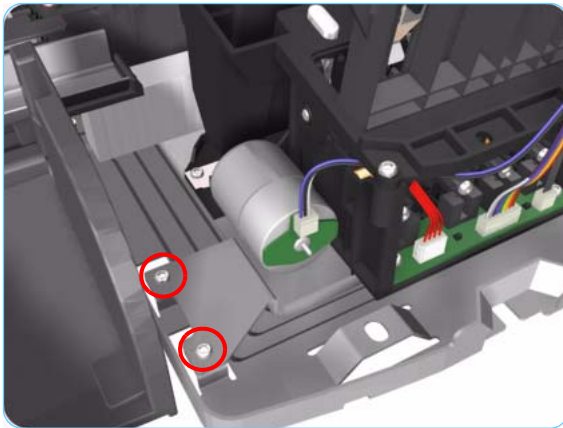


6. Disconnect the Ink Supply Station Cable from the Main PCA.

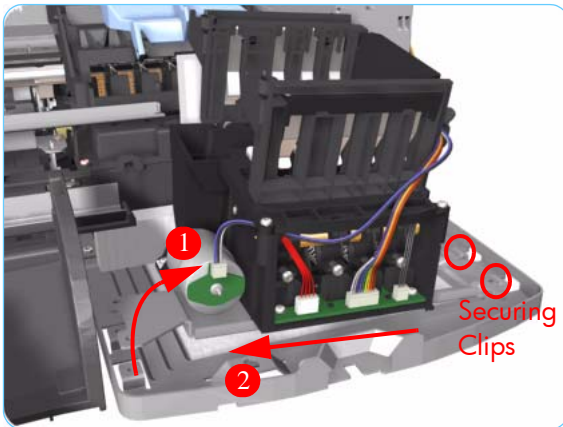




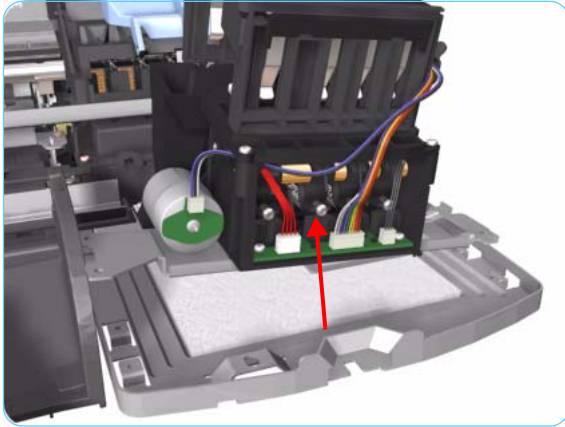
7. Release the Tubes Bracket from the Ink Supply Station by pushing the clips inwards and lifting up the Bracket.



8. Remove 2 T-10 screws that secure the Ink Supply Station.



9. Rotate the Ink Supply Station upwards and then to the left to release it from the securing clips.



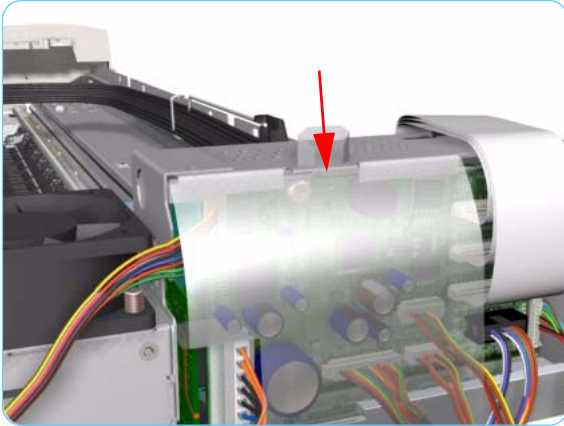
- 10.** Remove the Ink Supply Station from the Printer.

Electronics Module

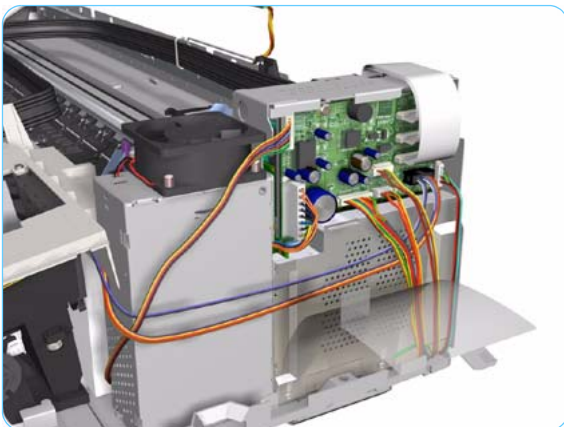
Removal

Switch off the product and remove the power cable.

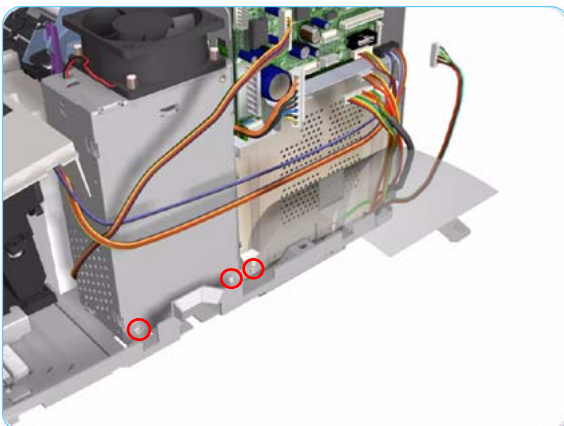
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Release the Plastic Cover protecting the Electronics Module.

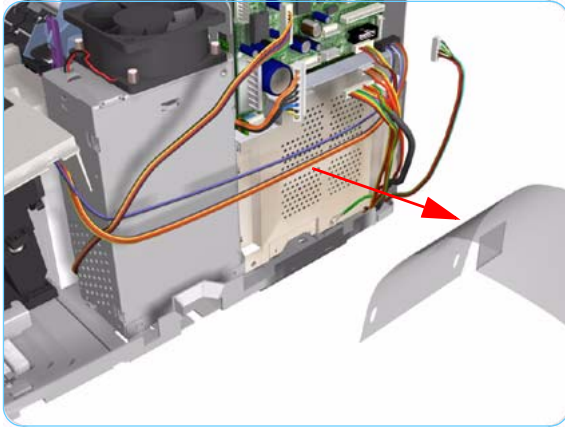


4. Disconnect ALL the cables from the Main PCA.

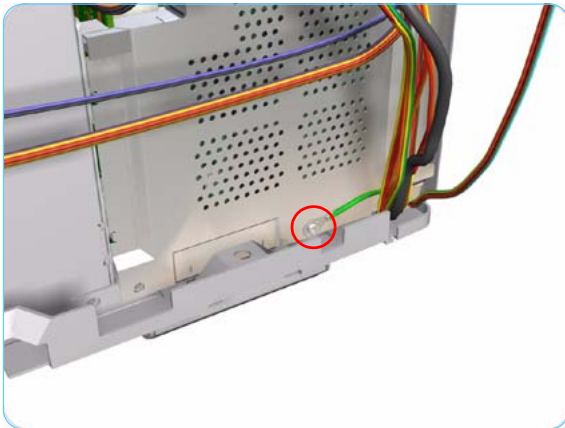


5. Remove 3 T-10 screws that secure the Electronics Module and the Power Supply Unit to the Printer.

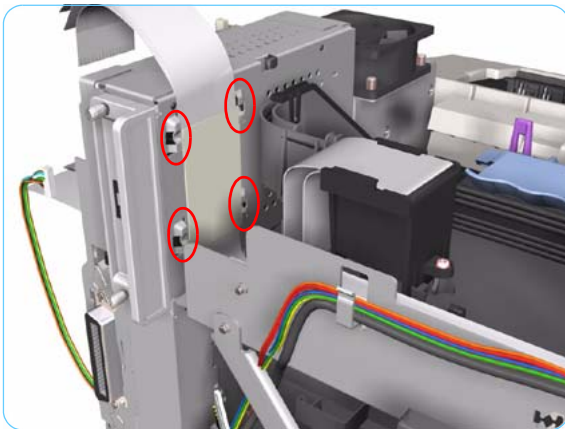




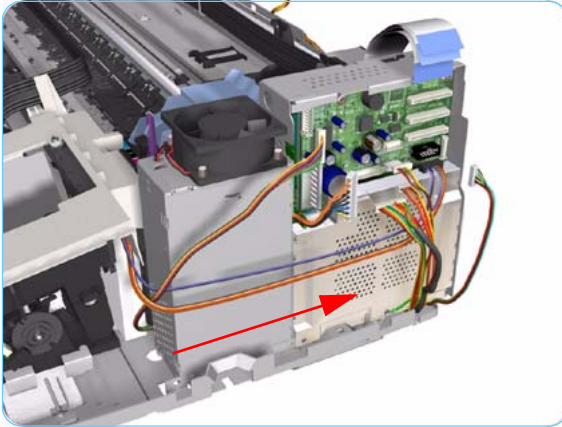
6. Remove the Plastic Cover from the Printer.



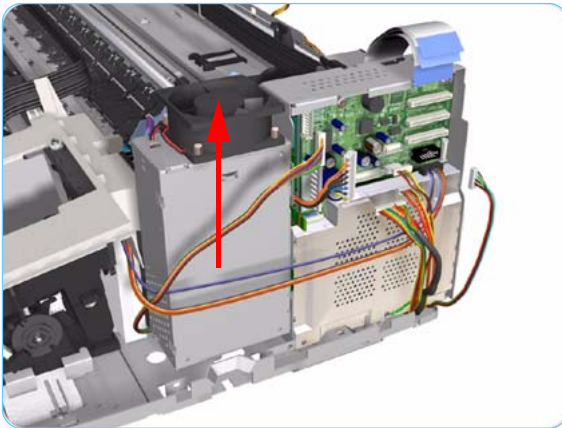
7. Remove 1 T-10 screw that secures the Electronics Module.



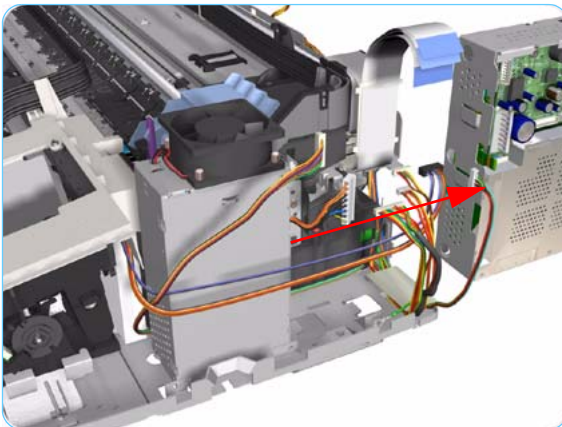
8. Release the plastic sheet that secures the Trailing Cable to the back of the Electronics Module.



9. Slide out the Electronics Module and the Power Supply Unit (**as one assembly**) to the right.



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



11. Remove the Electronics Module from the Printer.

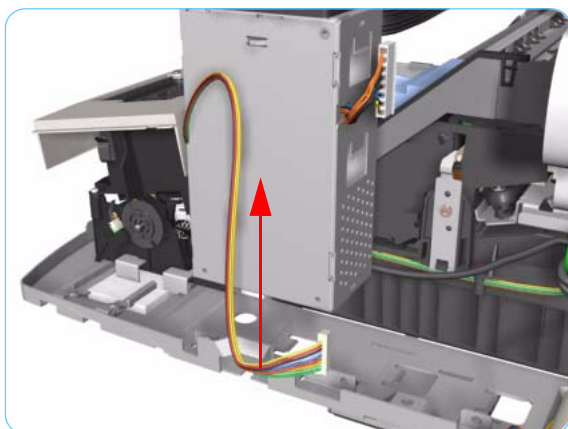
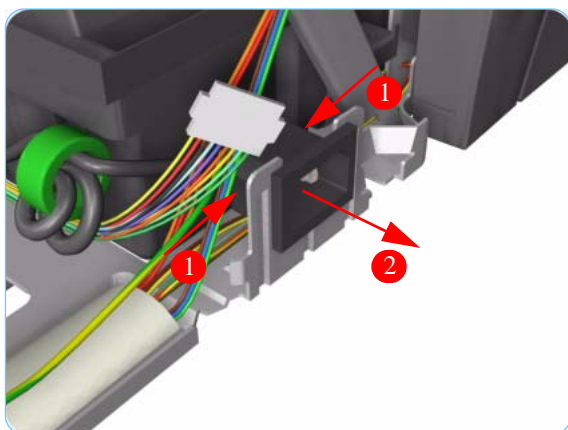
Check if cable ties need to be cut before separating the PSU and EM

Power Supply Unit

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 8-15.
4. Press in the clips on either side and release the Power Socket.



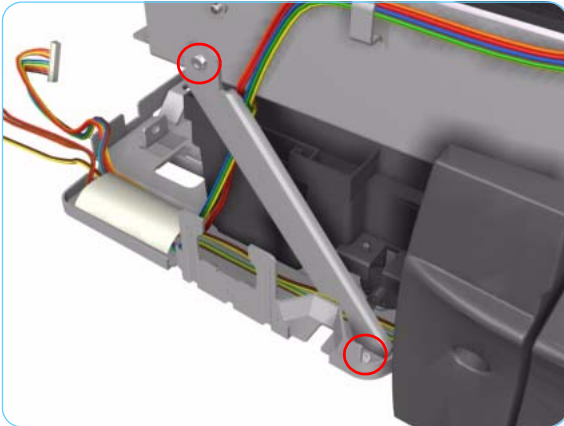
5. Remove the Power Supply from the Printer.

Service Station

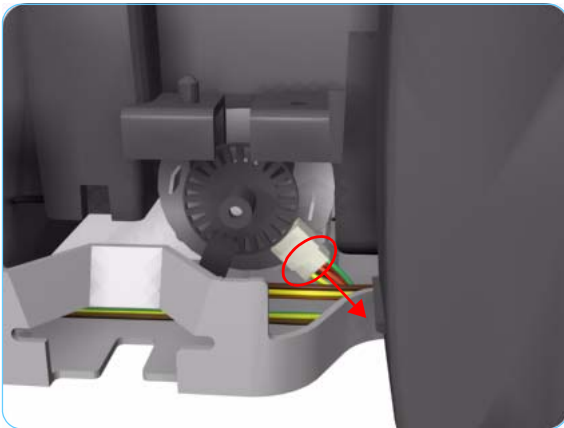
Removal

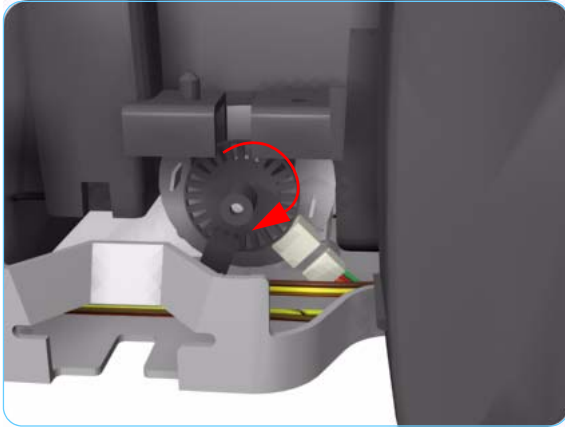
Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Electronics Module ⇒ Page 8-15.
4. Remove the Power Supply Unit ⇒ Page 8-18.
5. Remove 2 screws that secure the Reinforcement Bracket. Remove the Reinforcement Bracket from the Printer.

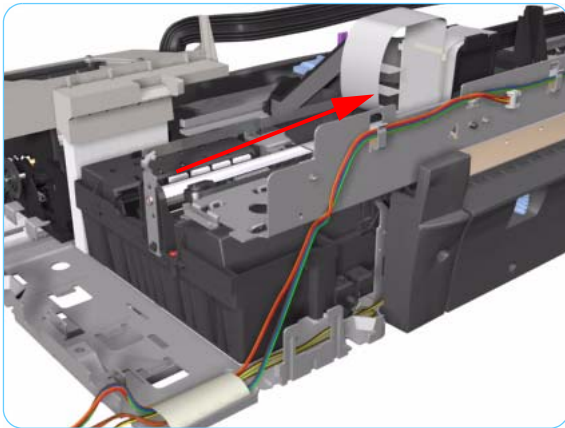


6. Disconnect the Service Station Cable.

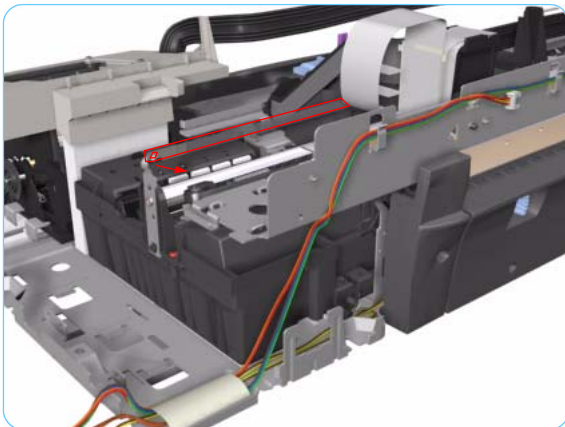




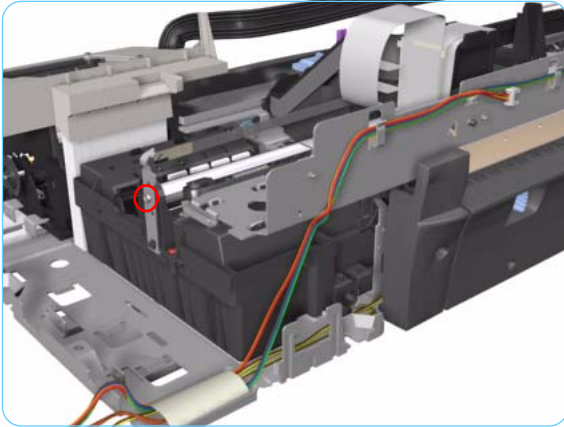
- 7.** Uncap the Carriage Assembly by turning the Service Station Motor clockwise.



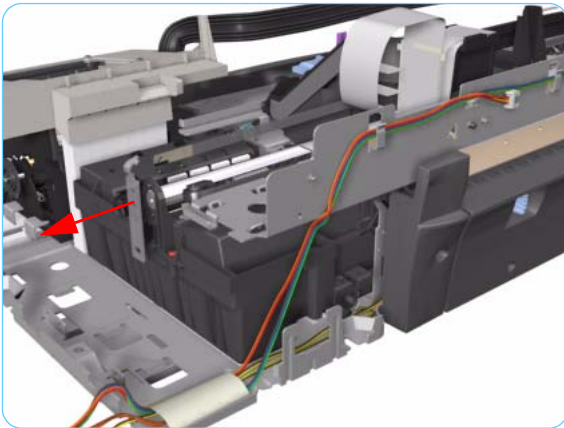
- 8.** Move the Carriage Assembly out of the Service Station.



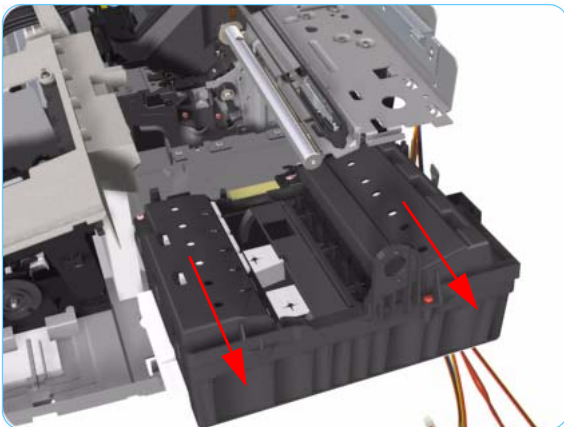
- 9.** Release the Encoder Strip from the Encoder Strip Holder.



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



- 11.** Remove the Encoder Strip Holder from the Printer.



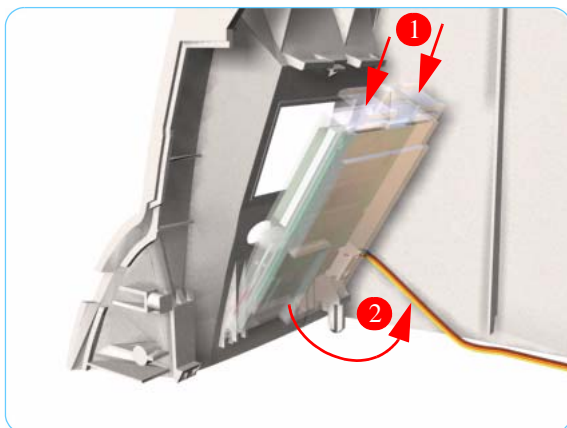
- 12.** Slide the Service Station out of the Printer.

Front Panel

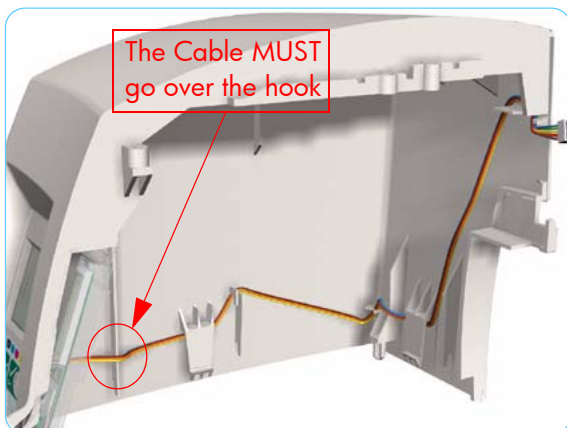
Removal

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.



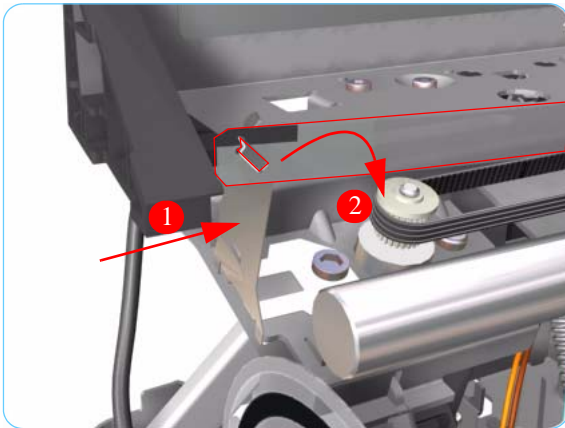
When installing the Front Panel, make sure you route the cable as shown:

Encoder Strip

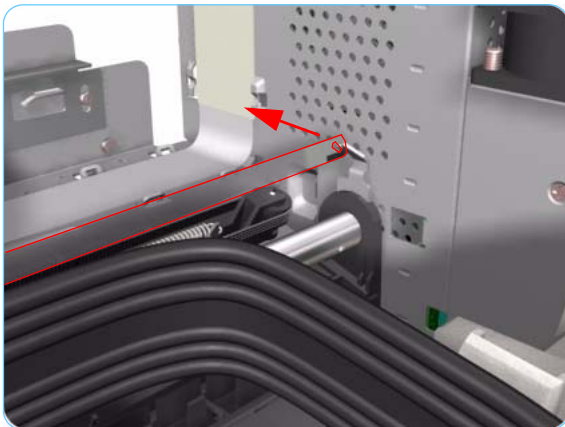
Removal

Switch off the product and remove the power cable.

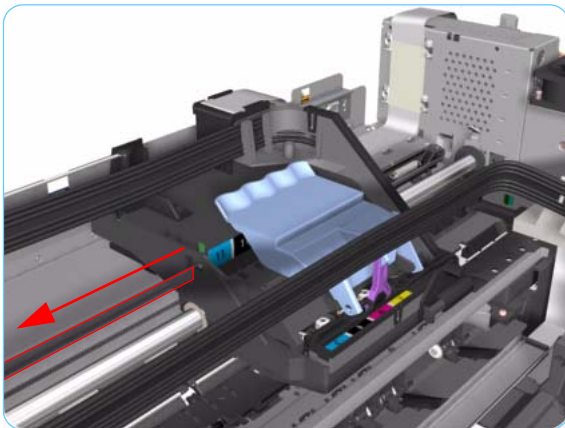
1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Left End Cover ⇒ Page 8-9.
4. Release the Encoder Strip from the left hand side of the Printer.



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.

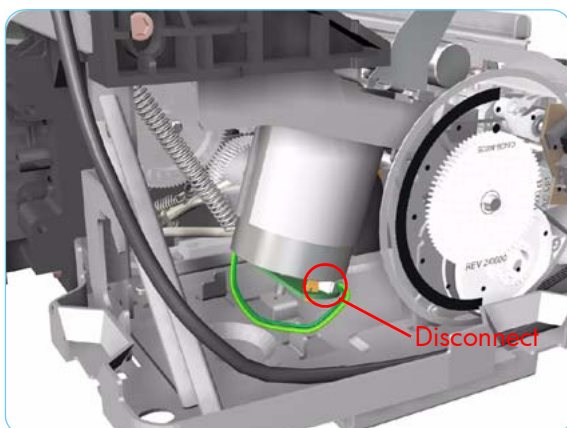


Carriage Motor

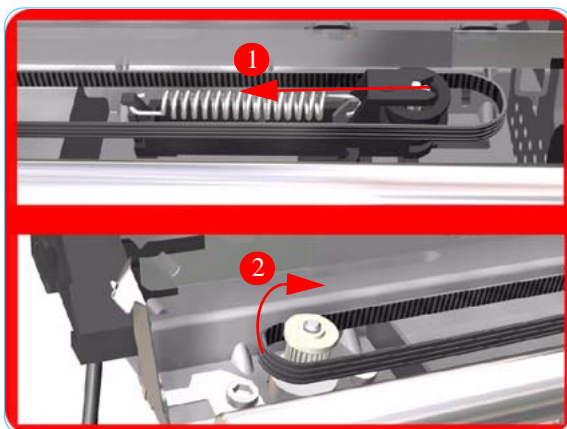
Removal

Switch off the product and remove the power cable.

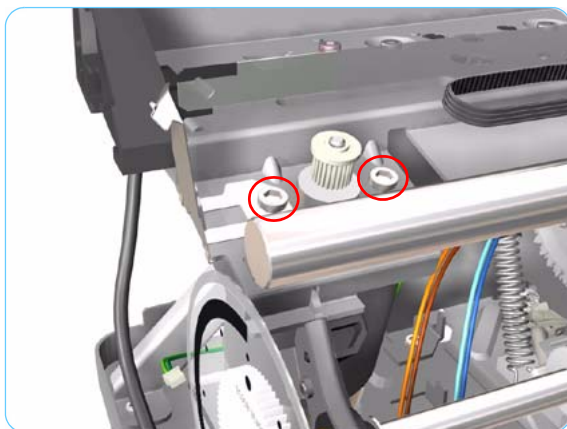
1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Left End Cover ⇒ Page 8-9.
4. Disconnect the cable from the Carriage Motor.

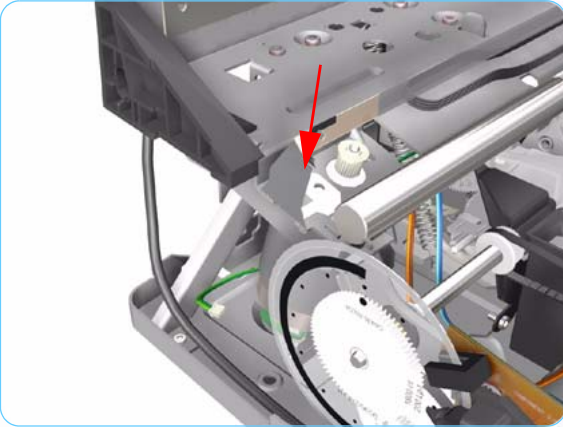


5. Release the Belt from the Carriage Motor by pushing in the Turnaround Assembly (right hand side of the printer) and at the same time releasing the Belt from the Motor on the left hand side of the printer.



6. Remove 2 T-10 screws that secure the Carriage Motor.





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

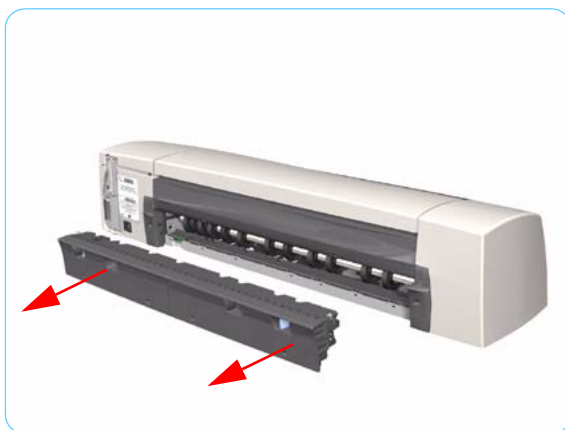
Cleanout Assembly

Removal

Switch off the product and remove the power cable.



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



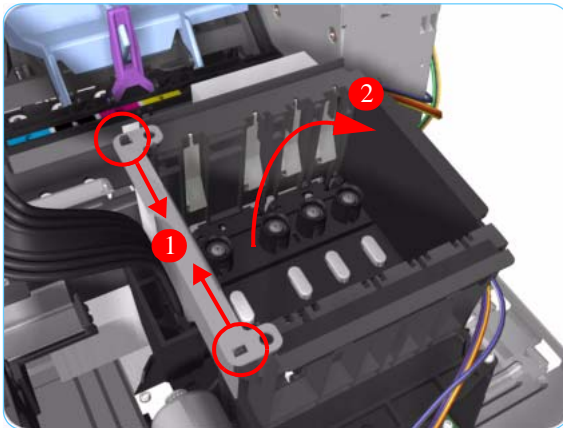
2. Remove the Cleanout Assembly from the Printer.

Ink Supply Tubes

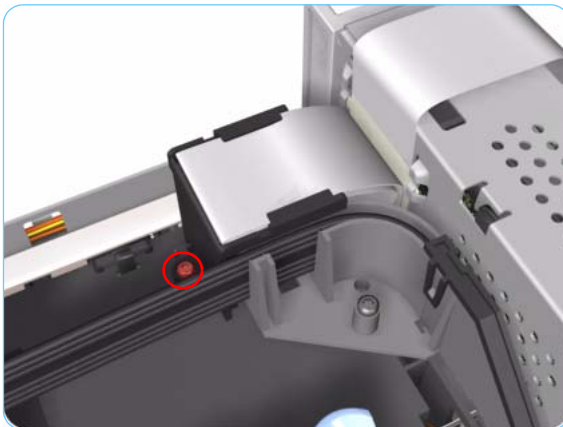
Removal

Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the ISS Cover ⇒ Page 8-11.
4. Release the Tubes Bracket from the Ink Supply Station by pushing the clips inwards and lifting up the Bracket.

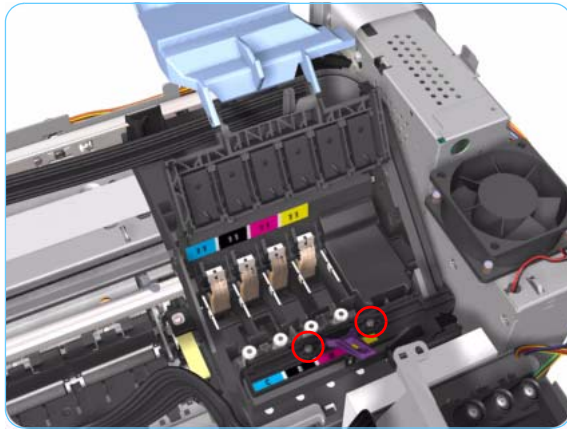


5. Remove 1 T-10 screw that secures the Trailing Cable Support to the Carriage Assembly. Release the Trailing Cable Support from the Carriage Assembly.

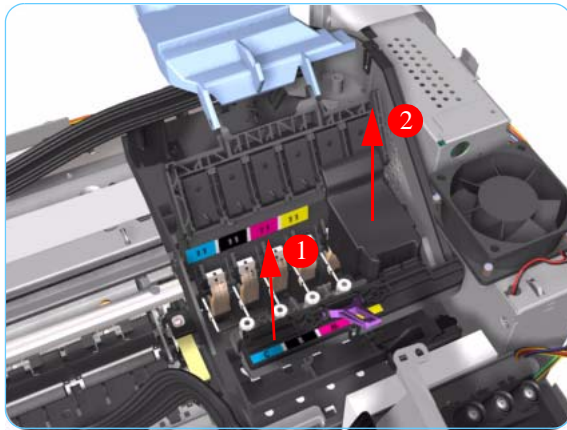


6. Remove 1 T-10 screw that secures the Tube Crane to the Carriage Assembly.

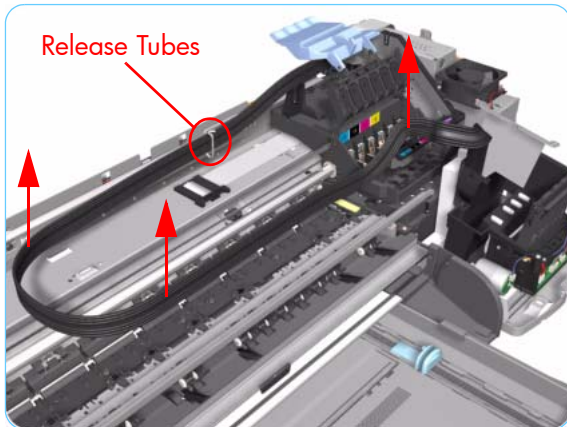




- 7.** Open the Printhead Cover and remove 2 T-8 screws that secure the Tube Crane to the Carriage Assembly.



- 8.** Lift up the Tube Crane to release the PH Cover from the Carriage Assembly and remove from the Printer.



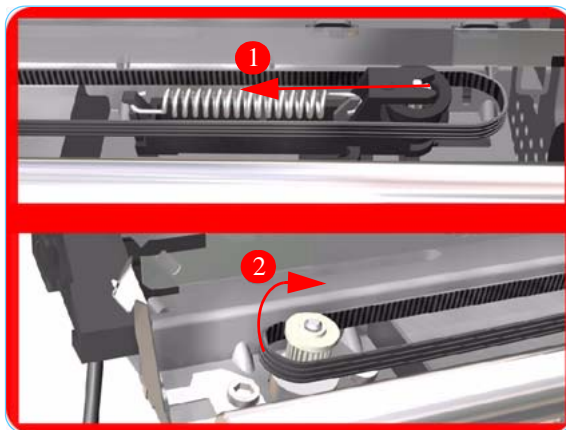
- 9.** Release the Ink Supply Tubes from the Raceway Holder and remove from the Printer.

Carriage Assembly

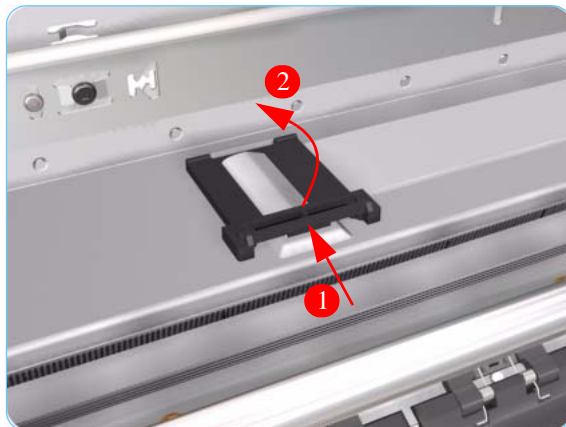
Removal

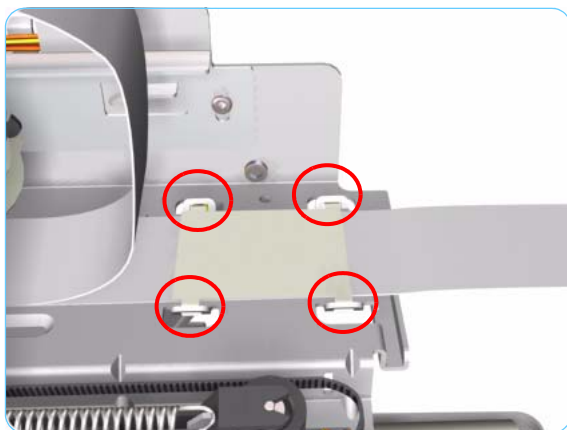
Switch off the product and remove the power cable.

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 8-15.
5. Remove the Power Supply Unit ⇒ Page 8-18.
6. Remove the Service Station ⇒ Page 8-19.
7. Remove the Ink Supply Tubes ⇒ Page 8-27.
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).

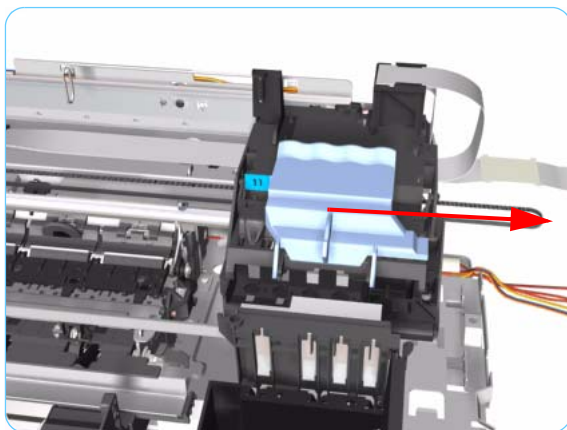


9. Release the Trailing Cable Clip from the Chassis.





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 8-31.

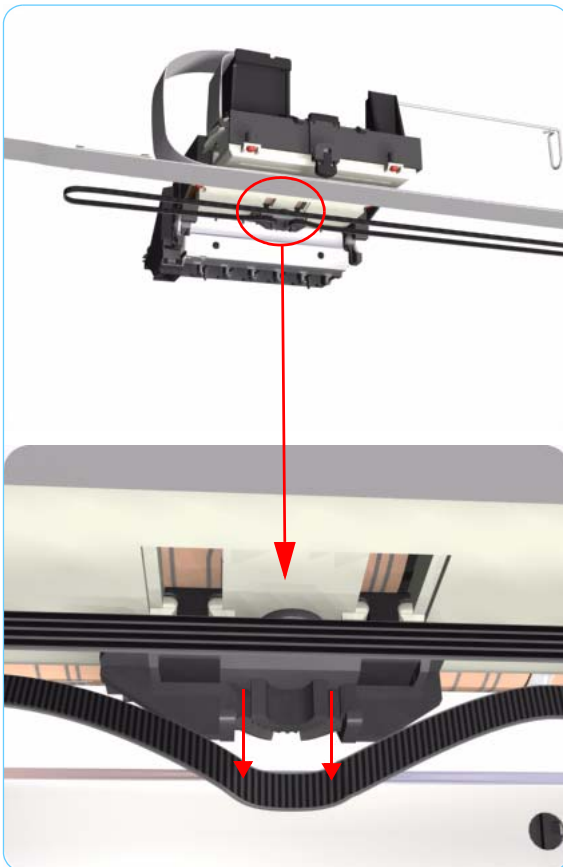
If the Carriage is replaced by a new one, make sure that you perform the PRS Adjustment procedure.

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 8-15.
4. Remove the Power Supply Unit ⇒ Page 8-18.
5. Remove the Service Station ⇒ Page 8-19.
6. Remove the Ink Supply Tubes ⇒ Page 8-27.
7. Remove the Carriage Assembly ⇒ Page 8-29.
8. Release the Belt from the bottom of the Carriage Assembly.

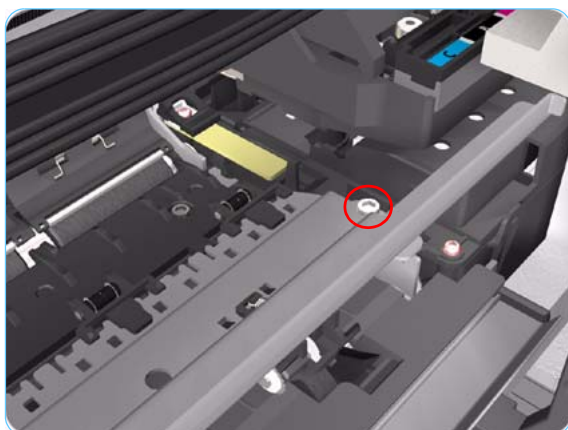


Starwheel Assembly

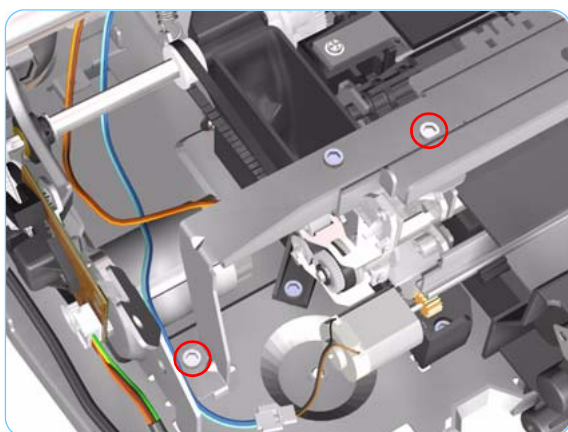
Removal

Switch off the product and remove the power cable.

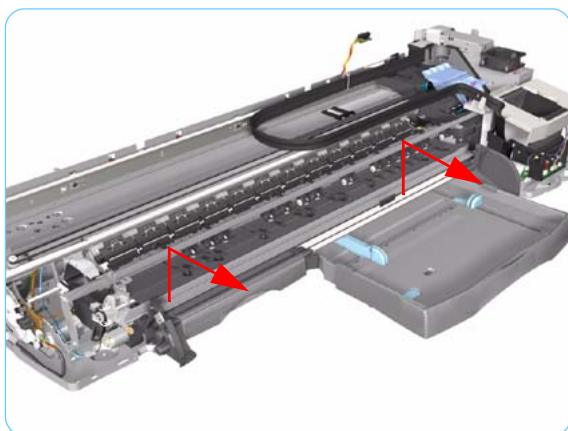
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Left End Cover ⇒ Page 8-9.
4. Remove 1 T-10 screw that secures the Starwheel Assembly to the right hand side of the printer.



5. Remove 2 T-10 screws that secure the Starwheel Assembly to the left hand side of the printer.



6. Remove the Starwheel Assembly.

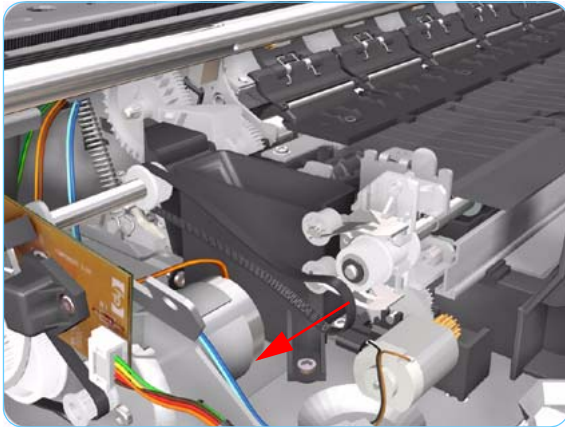


Print Platen Assembly

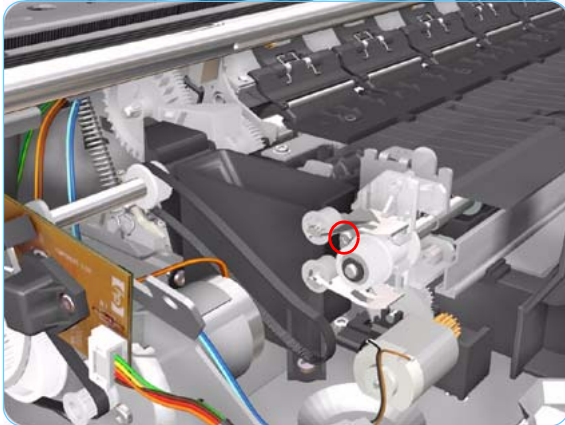
Removal

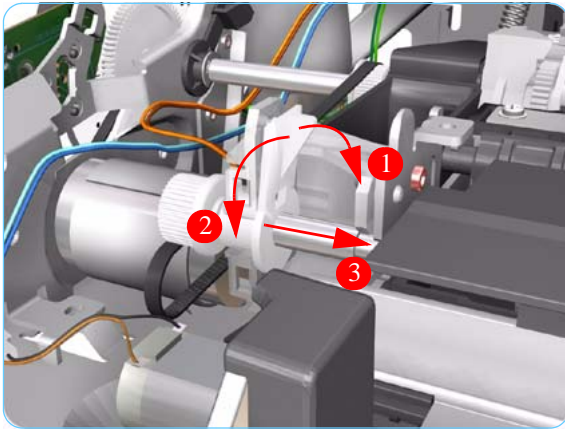
Switch off the product and remove the power cable.

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 Starwheel Assembly ⇒ Page 8-32.
5. Release the Belt from the Print Platen Assembly.

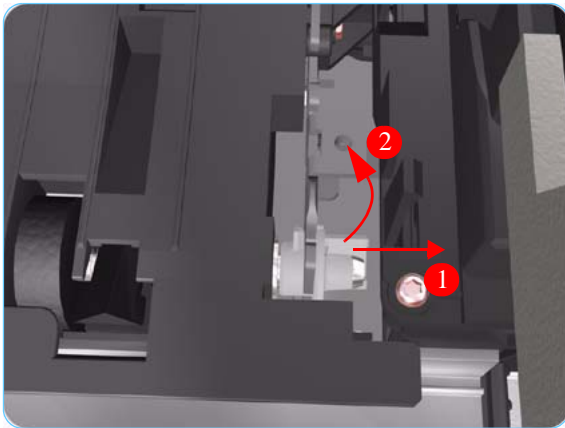


6. Remove 1 T-10 screw that secures the Spring Idler. Remove the Spring Idler from the Printer.

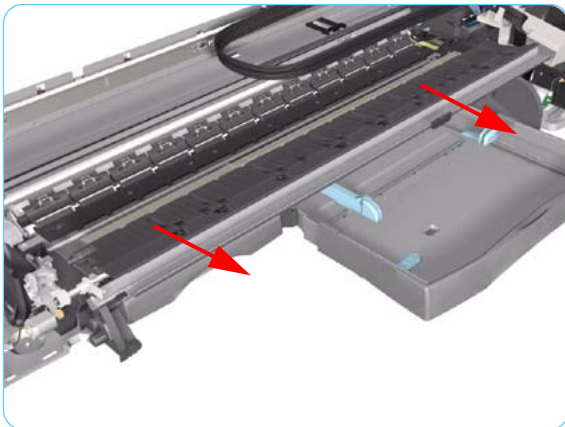




- 7.** Release the locking mechanism from the left hand side of the Printer.



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



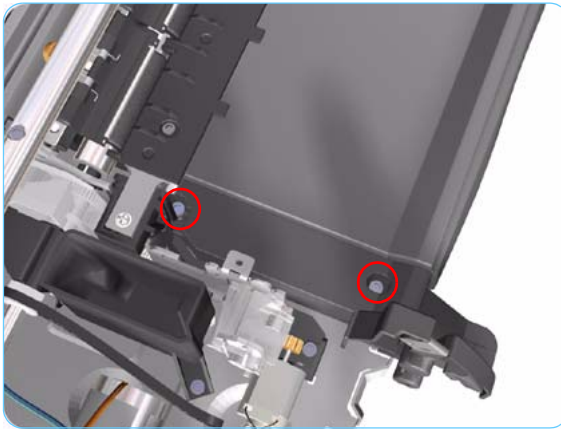
- 9.** Slide out the complete Print Platen Assembly.

Ramp Motor Assembly

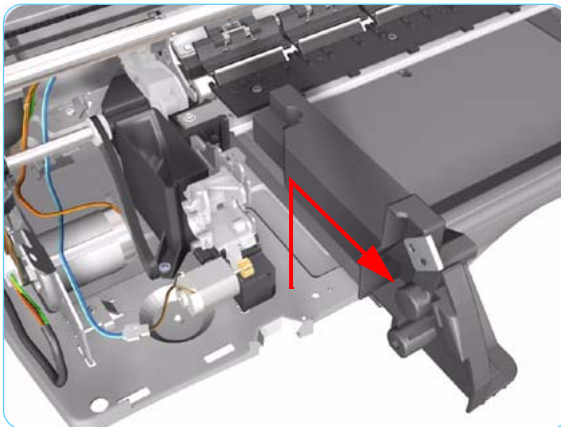
Removal

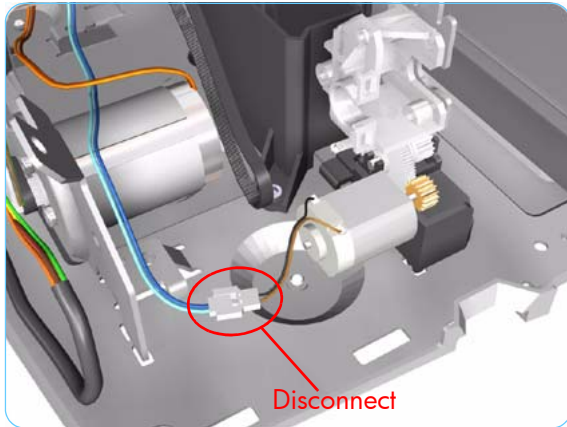
Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Left End Cover ⇒ Page 8-9.
3. Remove the Starwheel Assembly ⇒ Page 8-32.
4. Remove the Print Platen Assembly ⇒ Page 8-33.
5. Remove 2 T-10 screws that secure the Front Left Bracket.

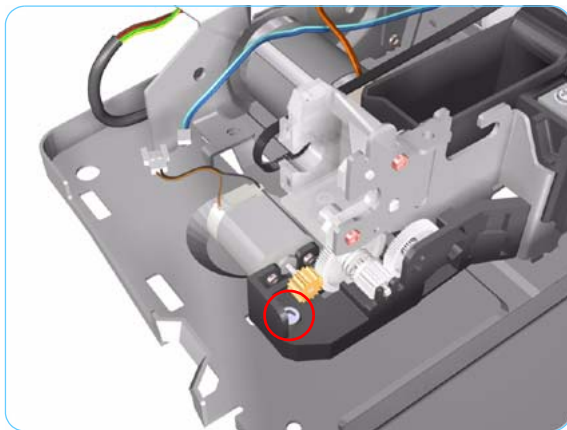


6. Remove the Front Left Bracket from the Printer.

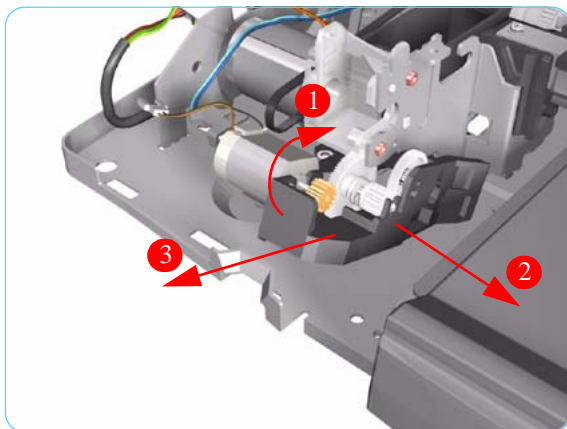




7. Disconnect the Ramp Motor cable.



8. Remove 1 T-10 screw from the Ramp Motor Assembly.



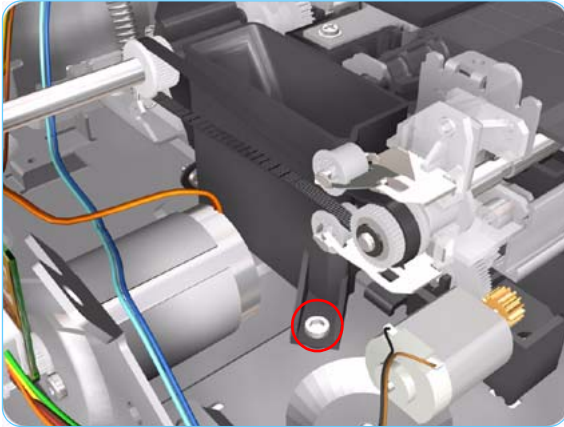
9. Remove the Ramp Motor Assembly from the Printer.

Spittoon

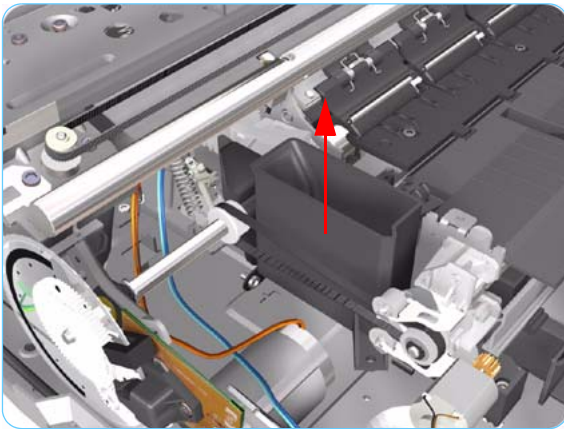
Removal

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. Remove the Starwheel Assembly ⇒ Page 8-32.
4. Remove 1 T-10 screw that secures the Spittoon.



5. Remove the Spittoon from the Printer.

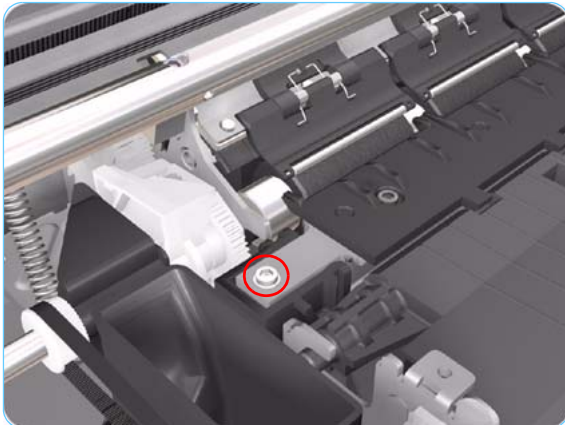


Pivot Assembly

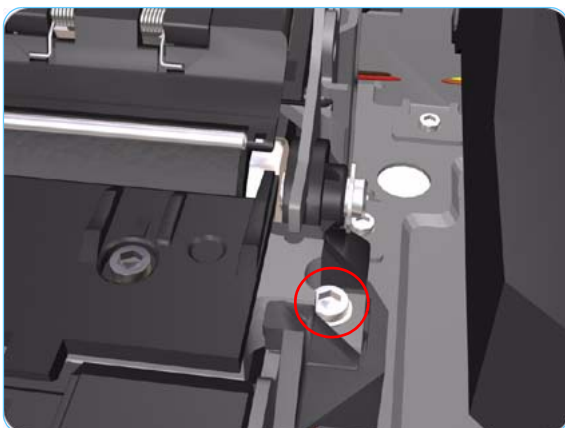
Removal

Switch off the product and remove the power cable.

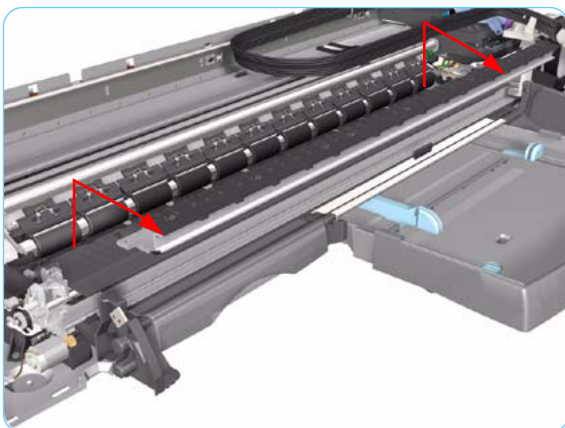
1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Left End Cover ⇒ Page 8-9.
3. Remove the Right End Cover ⇒ Page 8-7.
4. Remove the Starwheel Assy ⇒ Page 8-32.
5. Remove 1 T-8 screw and washer that secure the Pivot Assembly on the left hand side of the Printer.



6. Remove 1 T-8 screw and washer that secure the Pivot Assembly on the right hand side of the Printer.



7. Remove the Pivot Assembly from the Printer.



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

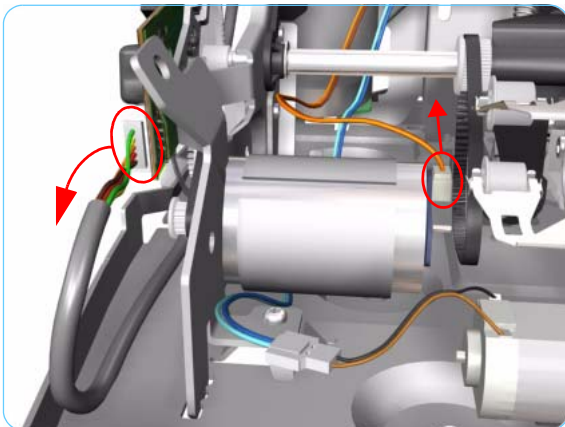
Make sure you use NEW screws to install the Pivot Assembly when it has been removed or replaced.

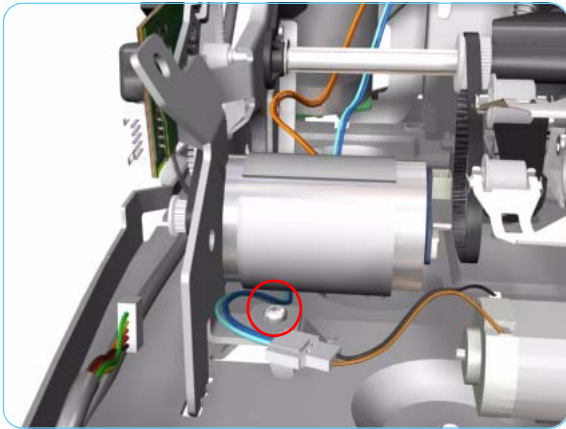
Feed Roller Assembly

Removal

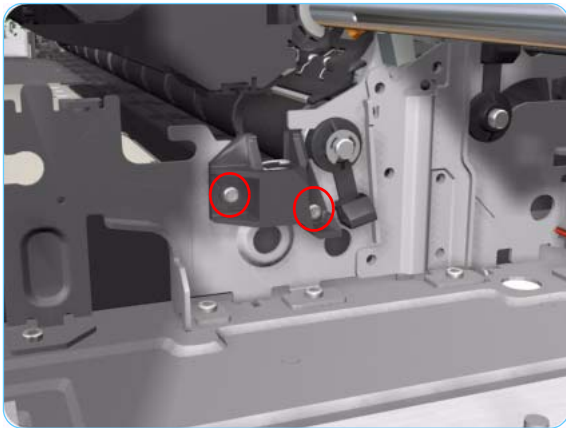
Switch off the product and remove the power cable.

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 8-15.
5. Remove the Power Supply Unit ⇒ Page 8-18.
6. Remove the Service Station ⇒ Page 8-19.
7. Remove the Starwheel Assembly ⇒ Page 8-32.
8. Remove the Print Platen Assembly ⇒ Page 8-33.
9. Remove the Spittoon ⇒ Page 8-37.
10. Remove the Pivot Assembly ⇒ Page 8-38.
11. Disconnect the Paper-Axis and Encoder cables.

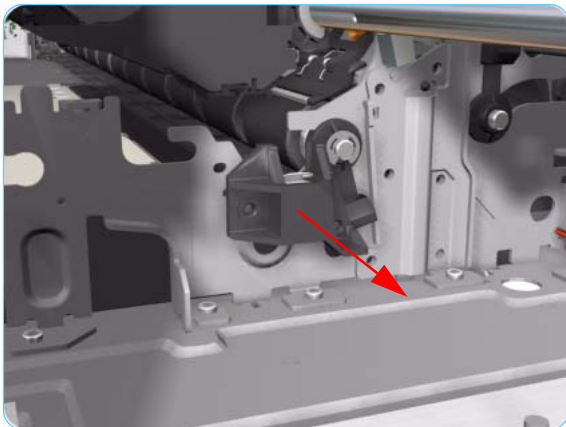




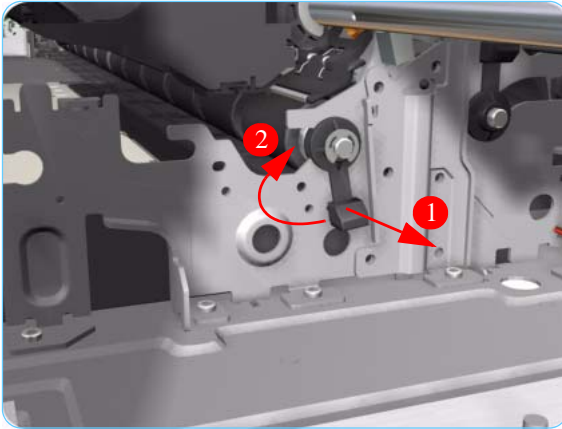
- 12.** Remove 1 T-10 screw that secures the Paper-Axis Motor Mount.



- 13.** Remove 2 T-10 screws that secure the Pivot Assembly Support on the right hand side of the Printer.



- 14.** Remove the Pivot Assembly Support from the Printer.



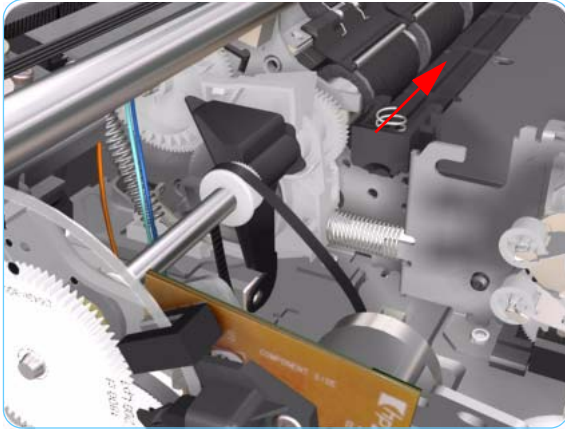
- 15.** Release the locking mechanism from the right hand side of the Printer.



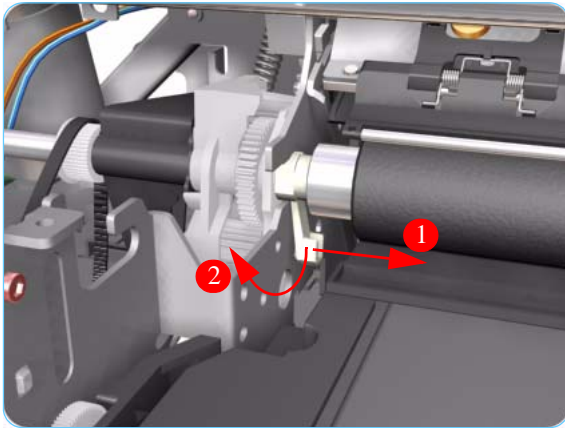
- 16.** Remove 1 T-10 screw and nut that secures the Feed-Roller Support on the left hand side of the Printer.



- 17.** Remove 2 T-10 screws that secure the bracket on the left hand side of the Printer.



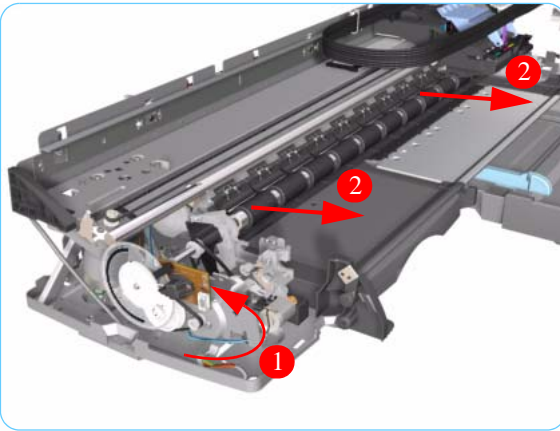
18. Remove the Bracket from the Printer.



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



20. Release the Spring from the Bracket.



- 21.** Raise the locks so that they are aligned with the cutouts and lift out the Feed Roller Assembly (including the Paper-Axis Motor) from the Printer.

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

Pick Assembly

Removal

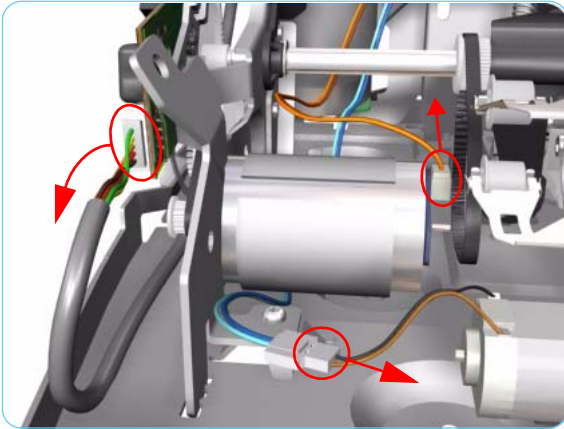
Switch off the product and remove the power cable.

1. Remove the Cleanout Assembly ⇒ Page 8-26.
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 8-15.
6. Remove the Power Supply Unit ⇒ Page 8-18.
7. Remove the Service Station ⇒ Page 8-19.
8. Remove the Encoder Strip ⇒ Page 8-23.
9. Remove the Carriage Assembly ⇒ Page 8-26.
10. Remove the Ink Supply Tubes ⇒ Page 8-27.
11. Remove 4 screws that secure the Hanger Assembly on the left hand side of the Printer.



12. Remove 1 screw that secures the Hanger Assembly on the left hand side of the Printer.

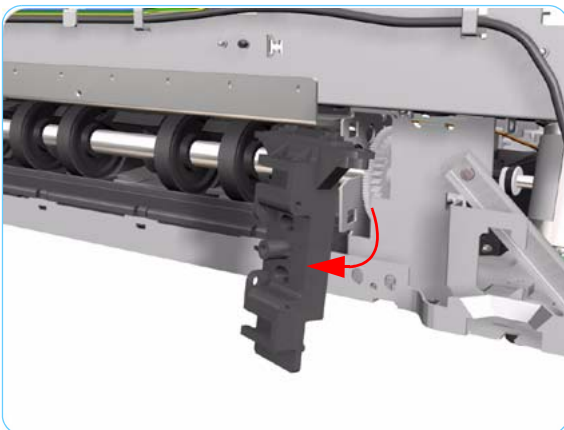




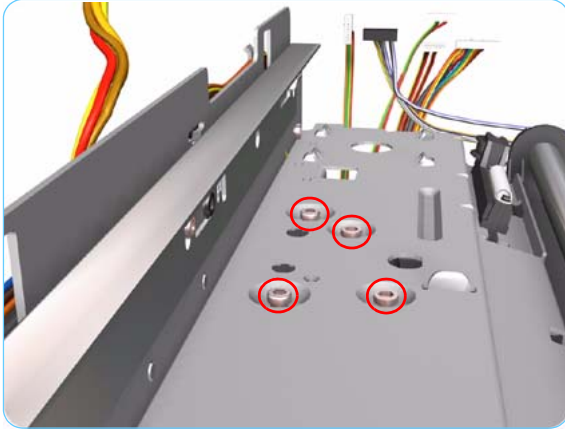
- 13.** Disconnect the Paper-Axis, Encoder and Ramp Motor cables.



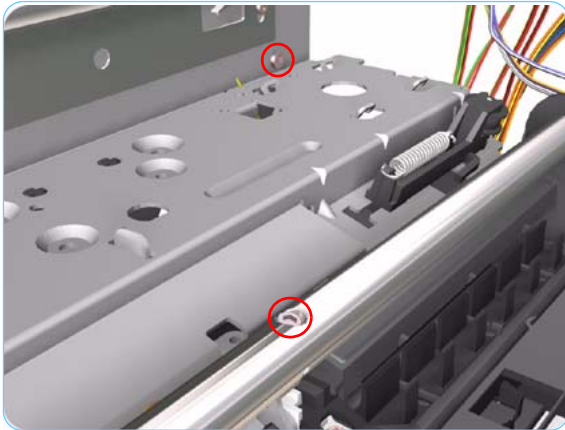
- 14.** Remove 1 screw from the Rear Left Trim Bracket.



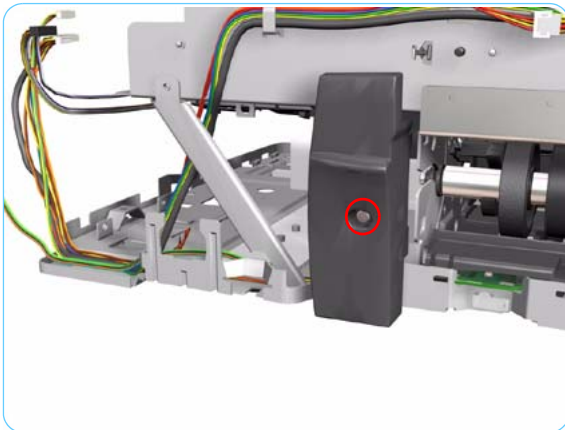
- 15.** Remove the Rear Left Trim Bracket from the Printer.



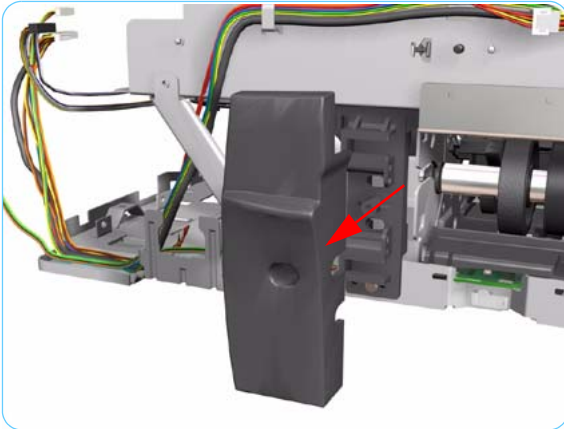
16. Remove 4 screws that secure the Hanger Assembly on the right hand side of the Printer.



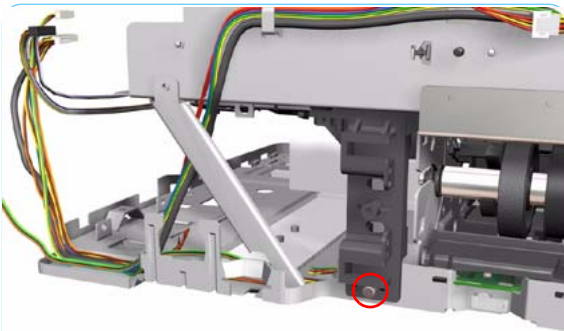
17. Remove 2 screws that secure the Hanger Assembly on the right hand side of the Printer.



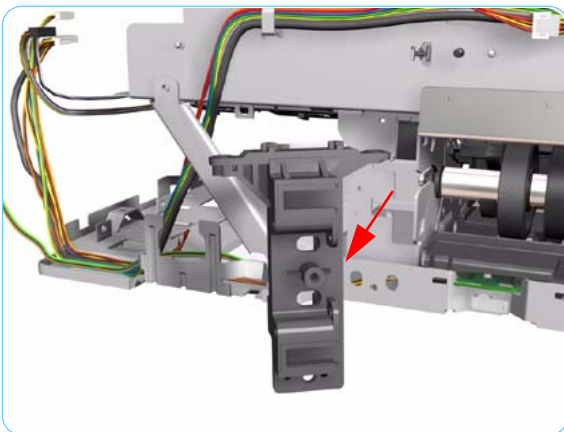
18. Remove 1 T-10 screw from the Rear Right Trim.



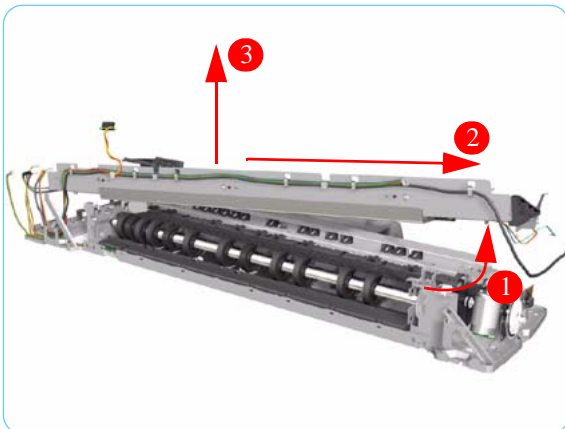
19. Remove the Rear Right Trim from the Printer.



20. Remove 1 screw from the Rear Right Trim Bracket.

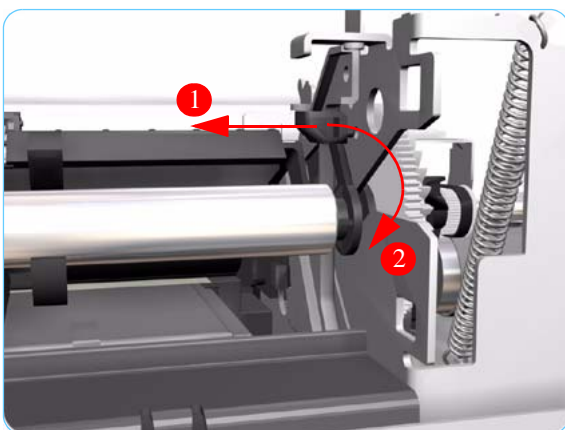


21. Remove the Rear Right Trim Bracket from the Printer.

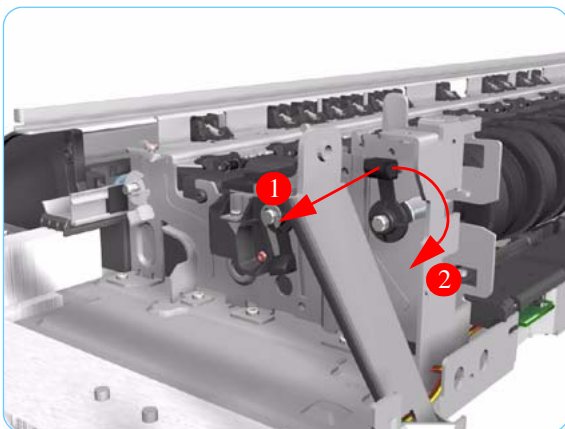


22. Remove the Hanger Assembly from the Printer.

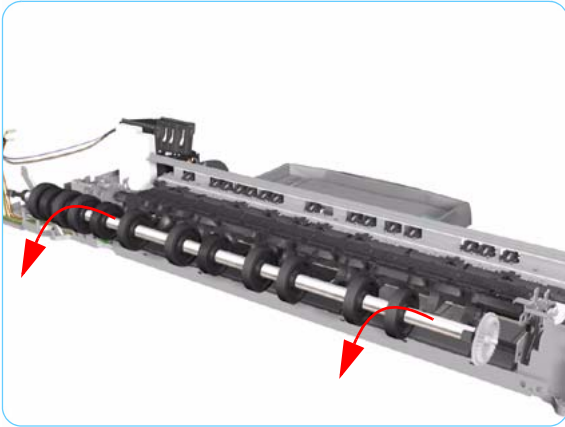
If there any cables still attached between the Hanger Assembly and the Printer then disconnect them before removing the Hanger Assembly.



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



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



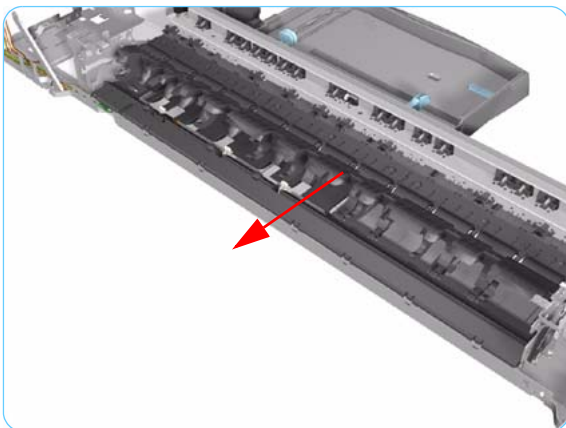
- 25.** Raise the locks so that they are aligned with the cutouts and lift out the Pick Assembly from the Printer.

Inner Paper Guide

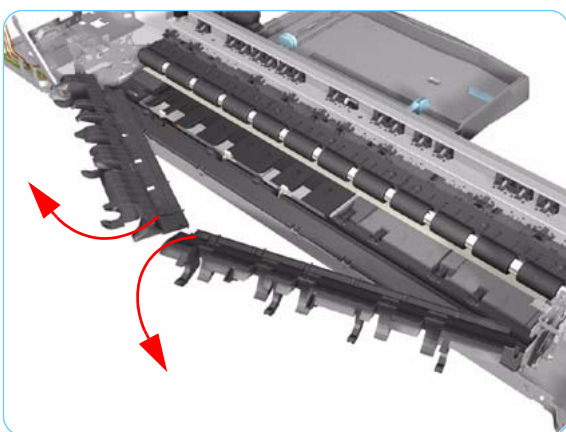
Removal

Switch off the product and remove the power cable.

1. Remove the Top Cover ⇒ Page 8-5.
2. Remove the Pick Assembly ⇒ Page 8-44.
3. Pull the Inner Paper Guide from the middle to release it from the Printer.



4. Remove both pieces of the Inner Paper Guide from the Printer.

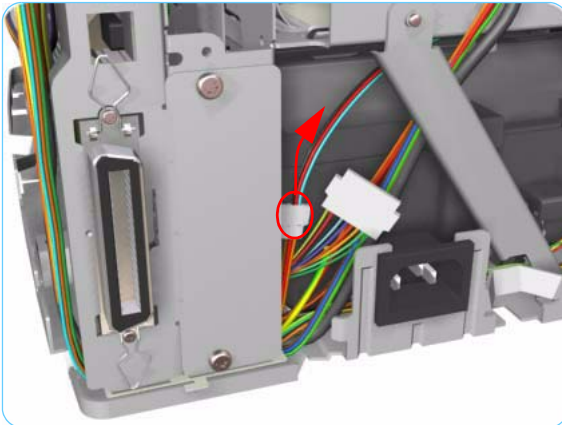


OOPS Sensor

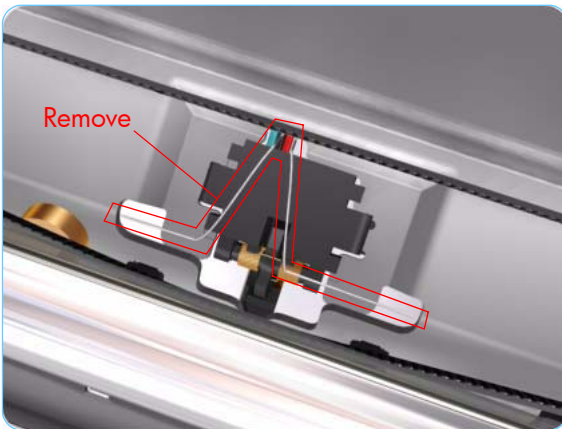
Removal

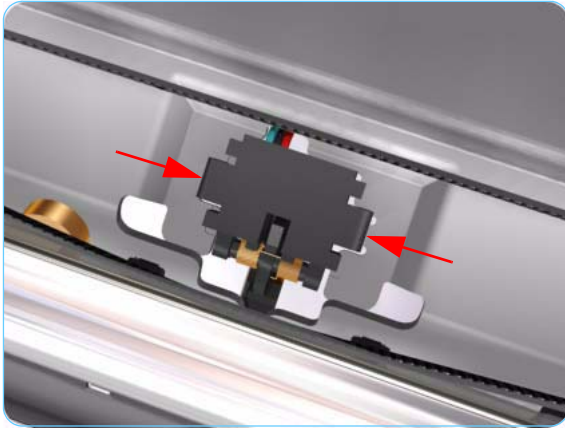
Switch off the product and remove the power cable.

1. Remove the Center Cover ⇒ Page 8-5.
2. Remove the Right End Cover ⇒ Page 8-7.
3. Remove the Electronics Module ⇒ Page 8-15.
4. Remove the Power Supply Unit ⇒ Page 8-18.
5. Remove the Service Station ⇒ Page 8-19.
6. Disconnect the OOPS Sensor Cable.

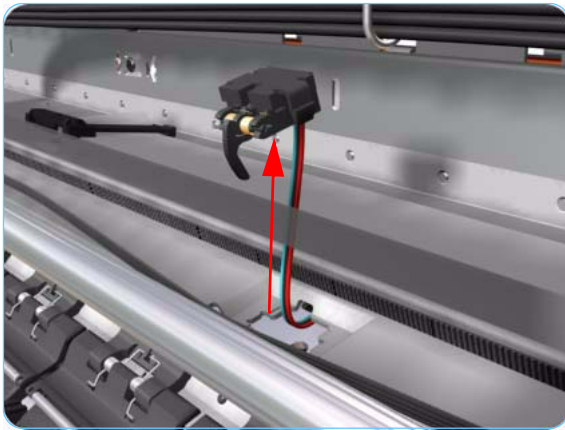


7. Remove the Spring that secures the OOPS Sensor.





8. Press the OOPS Sensor clips inwards to release it.



9. Remove the OOPS Sensor (including the cable) from the Printer.

Check if any Cable Ties need to be cut before removing the OOPS Sensor.