

Removal and Installation

4

Introduction	4-2
Left Door (P/N C2394-60011) - User Replaceable	4-4
Right Door (P/N C2394-60010) - User Replaceable	4-5
Front Bottom-Cover (P/N C2394-60003) - User Replaceable	4-6
Front Top-Cover (P/N C2394-60007) - User Replaceable	4-7
Right Side Cover (P/N C2394-60005) - User Replaceable	4-8
Left Side Cover (P/N C2394-60004) - User Replaceable	4-10
Electronics Access Cover (P/N C2394-60025)	4-12
Power Supply Unit (P/N C2394-60001)	4-13
Main PCA (P/N C2394-60002)	4-15
Bottom Electronics Cover (P/N C2394-60025)	4-17
Spindle Drive Motors 1, 2 and 3 (P/N C2394-60022)	4-18
Drive Clutches (P/N C2394-60023)	4-20
Left and Right Spindle Retainers (P/N C2394-60017)	4-21
Riding Roller (P/N C2394-60013)	4-22
Roller Levers (P/N C2394-60024)	4-24
Transport Roller (P/N C2394-60014)	4-25
Rear Top-Cover (P/N C2394-60008)	4-28
Motion Control Unit (P/N C2394-60020)	4-30
Motion Control Sensor (P/N C2394-60019)	4-33
Channel Sensor (P/N C2394-60021)	4-35
Rear Bottom-Cover (P/N C2394-60006) - User Replaceable	4-37
Infeed Unit (P/N C2394-60012) - User Replaceable	4-38

Introduction

This chapter is a step by step guide to the removal and installation of the key components in the product. 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 product can be stripped down by starting at the beginning of this chapter and working through the subsequent procedures.

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 both the printer and the multi-roll feeder OFF, and disconnect them 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.

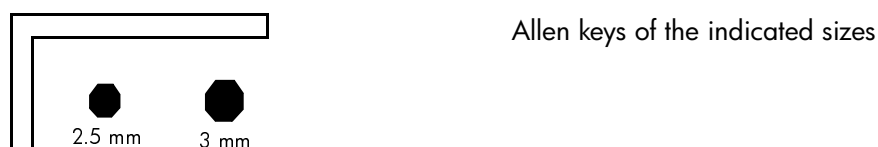
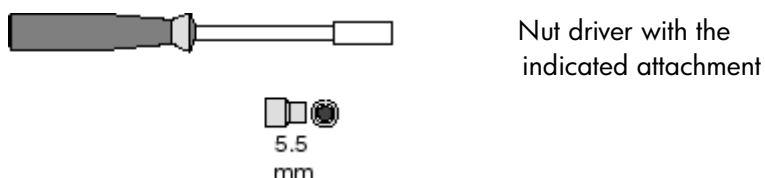
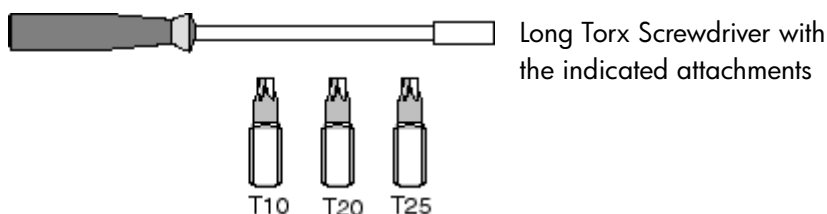
Electrostatic Discharge (ESD) Precautions

To prevent damage to the Product 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 multi-roll feeder. This can be done by touching any metallic part of the multi-roll feeder.
5. After removing a cover from the multi-roll feeder, 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 multi-roll feeder.
6. After removing any PCA from the multi-roll feeder, 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 multi-roll feeder.



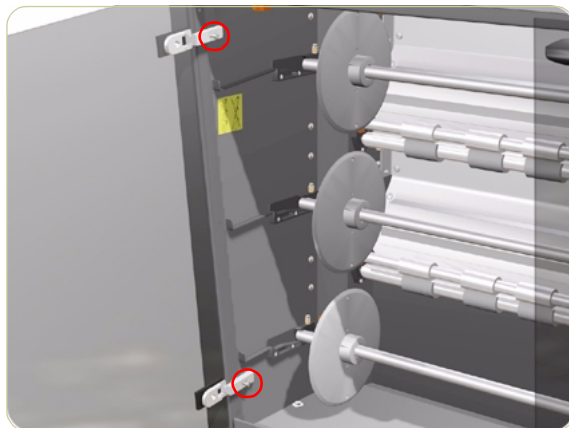
Left Door (P/N C2394-60011) - User Replaceable

Removal

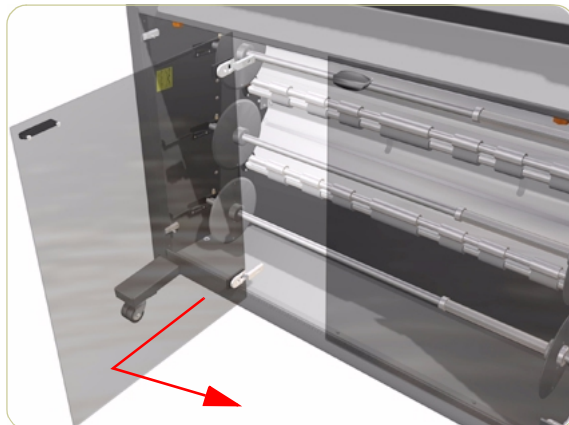
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Open the Left Door.



2. Loosen 2 screws that secure the Left Door to the Multi-Roll Feeder.



3. Remove the Left Door.

Be careful not to break the Door when removing it.

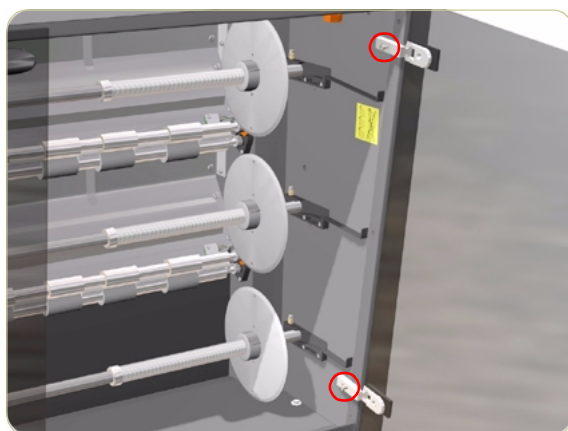
Right Door (P/N C2394-60010) - User Replaceable

Removal

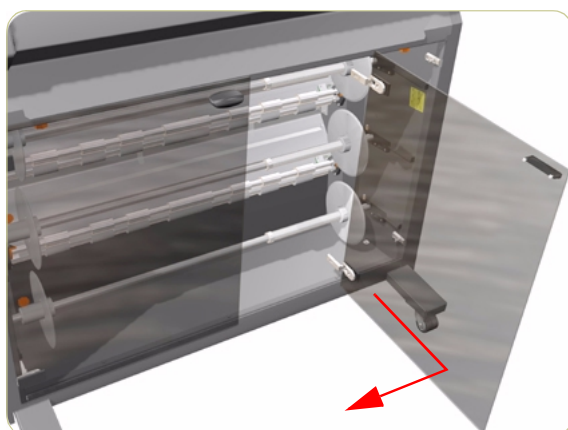
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Open the Right Door.



2. Loosen 2 screws that secure the Right Door to the Multi-Roll Feeder.

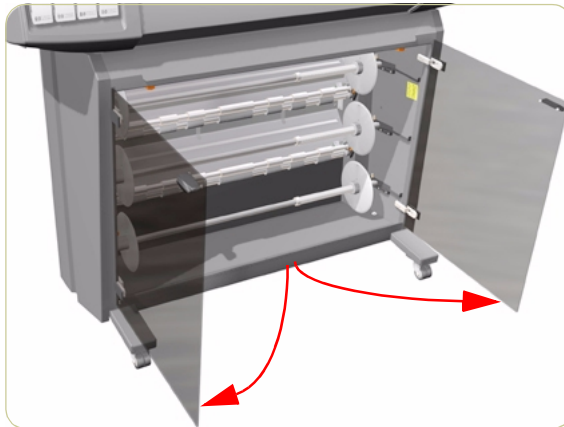


3. Remove the Right Door.

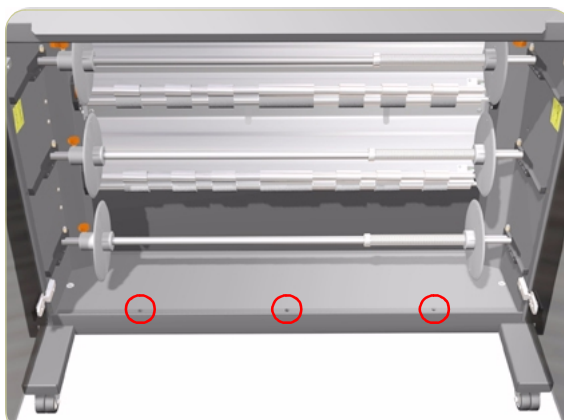
Be careful not to break the Door when removing it.

Front Bottom-Cover (P/N C2394-60003) - User Replaceable**Removal**

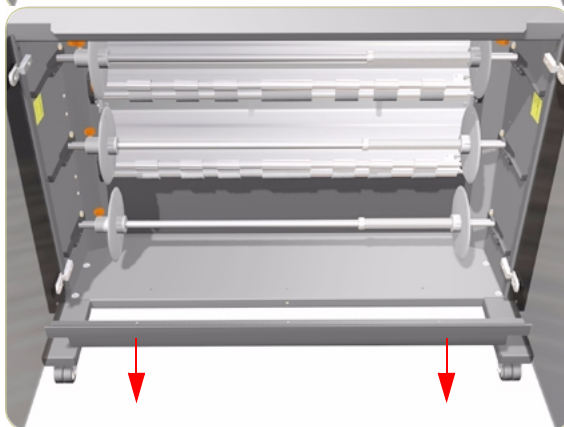
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Open both the Left and Right Doors.



2. Remove 3 T-20 screws that secure the Front Bottom Cover to the Multi-Roll Feeder.

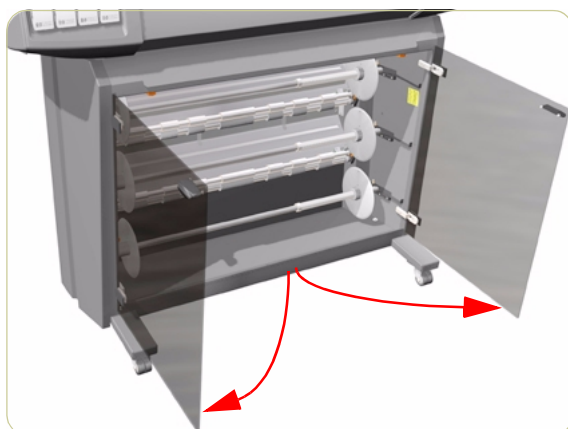


3. Remove the Front Bottom Cover.

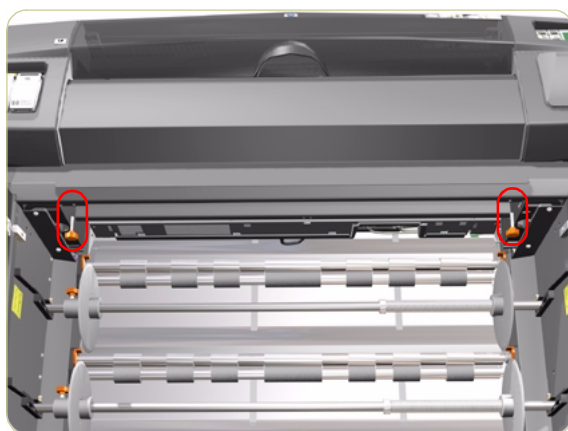
Front Top-Cover (P/N C2394-60007) - User Replaceable

Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Open both the Left and Right Doors.



2. Remove 2 star screws (**Orange**) that secure the Front Top-Cover to the Multi-Roll Feeder.

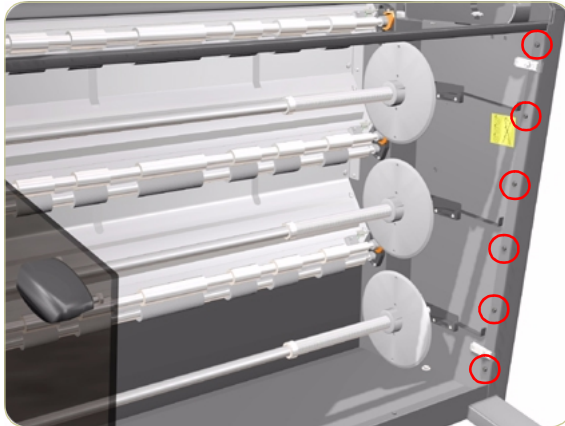


3. Remove the Front top-Cover.

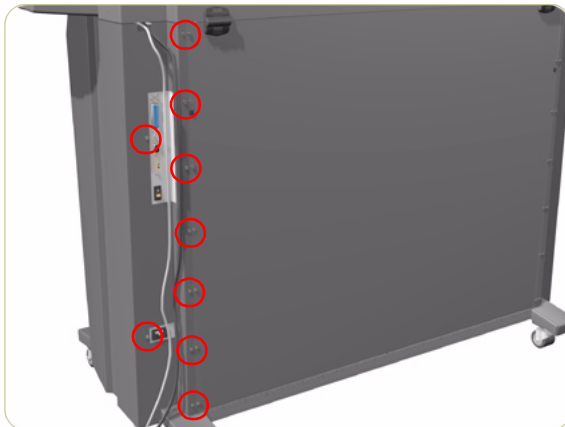
Right Side Cover (P/N C2394-60005) - User Replaceable

Removal

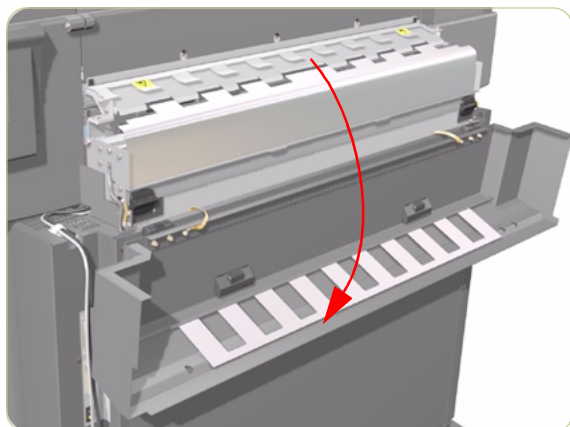
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



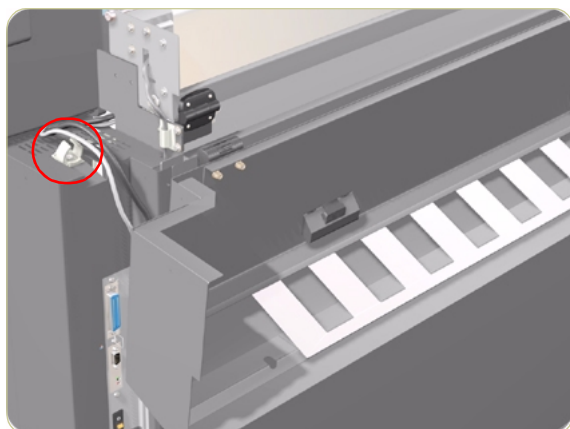
1. Remove the Right Door ⇒ Page 4-5.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove 6 T-20 screws that secure the Right Side Cover to the Multi-Roll Feeder from the front.



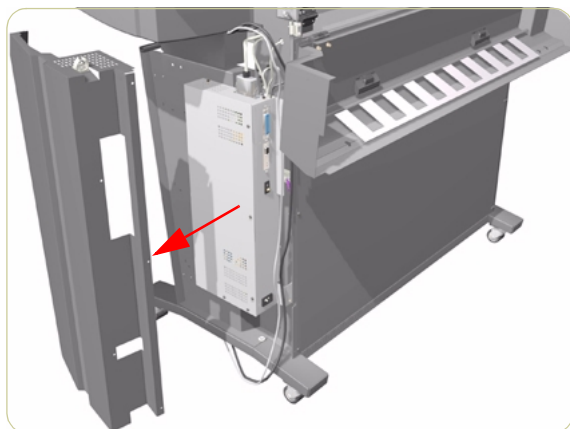
4. Remove 9 T-20 screws that secure the Right Side Cover to the Multi-Roll Feeder from the rear.



5. Open the Rear Top-Cover.



6. Release the Cable that is attached to the top of the Right Side Cover.



7. Remove the Right Side Cover.

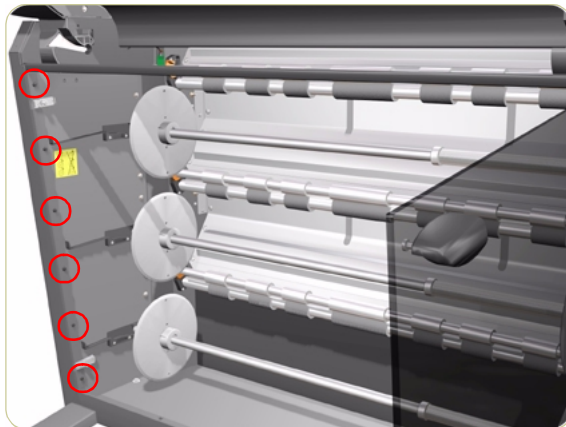
Left Side Cover (P/N C2394-60004) - User Replaceable

Removal

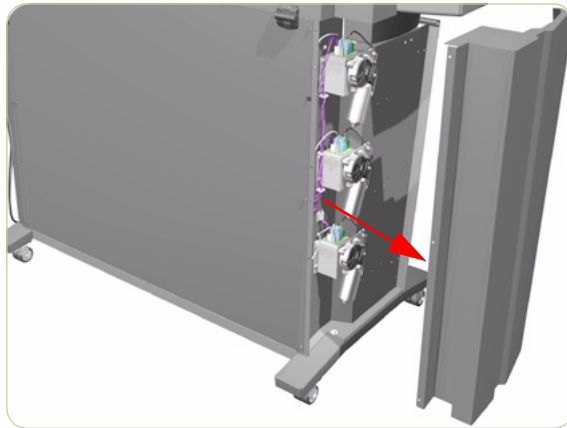
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Remove the Left Door ⇒ Page 4-4.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove 7 T-20 screws that secure the Left Side Cover to the Multi-Roll Feeder from the rear.



4. Remove 6 T-20 screws that secure the Left Side Cover to the Multi-Roll Feeder from the front.



5. Remove the Left Side Cover.

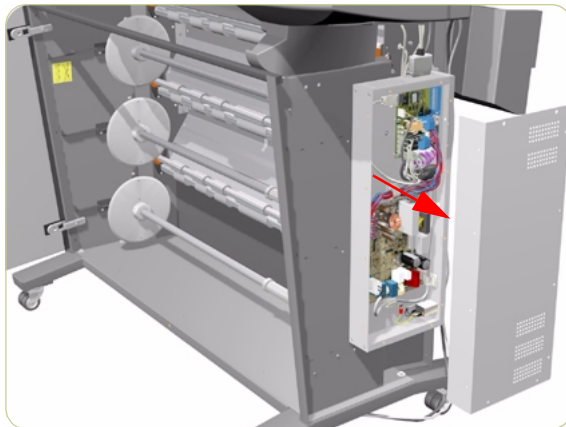
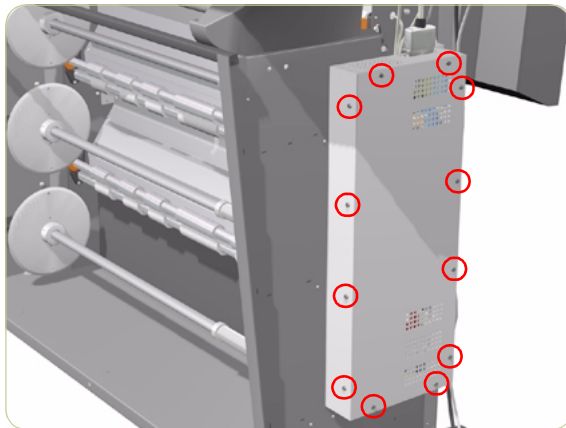
Electronics Access Cover (P/N C2394-60025)

P/N C2394-60025 is for the complete Electronics Module Chassis which includes both the Electronics Access Cover and the Bottom Electronics Cover.

Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the Right Door ⇒ Page 4-5.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Right Side Cover ⇒ Page 4-8.
4. Remove 12 T-20 screws that secure the Electronics Access Cover.



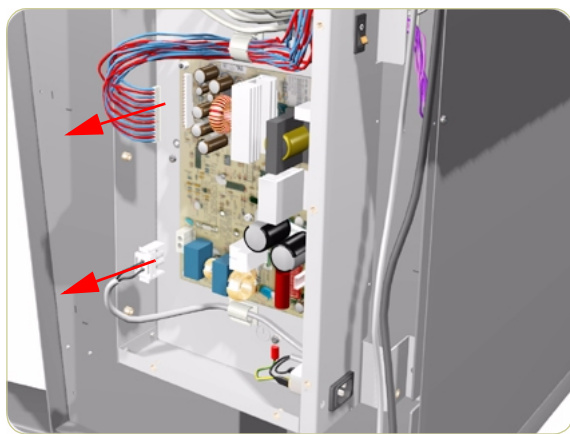
5. Remove the Electronics Access Cover.

Power Supply Unit (P/N C2394-60001)

Removal

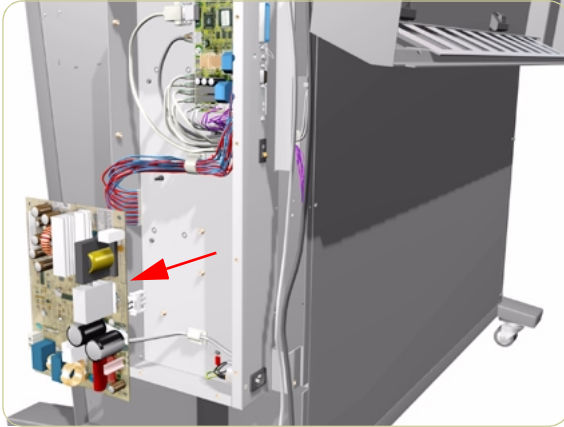
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the Right Door ⇒ Page 4-5.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Right Side Cover ⇒ Page 4-8.
4. Remove the Electronics Access Cover ⇒ Page 4-12.
5. Disconnect 2 Cables that are attached to the Power Supply Unit.



6. Remove 5 T-20 screws and 2 Nuts (5.5 mm) that secure the Power Supply Unit.





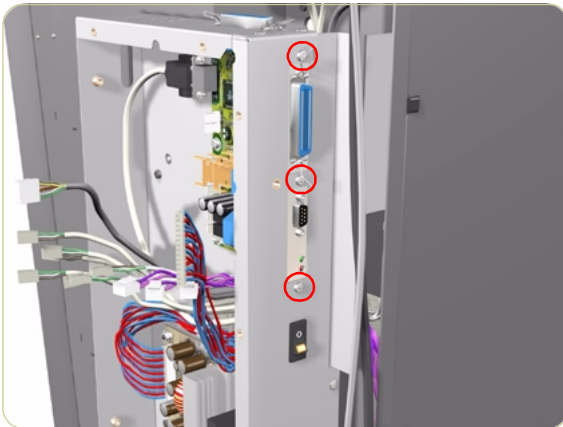
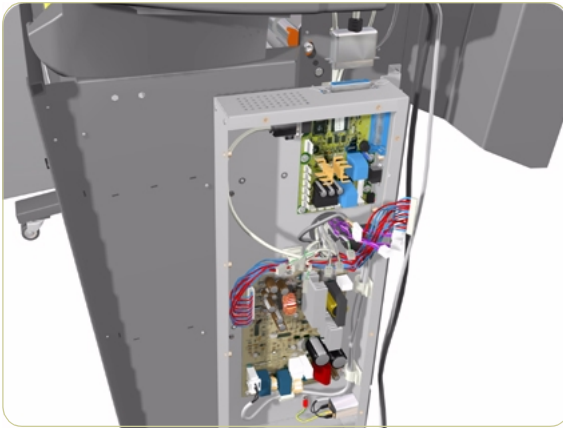
7. Remove the Power Supply Unit.

Main PCA (P/N C2394-60002)

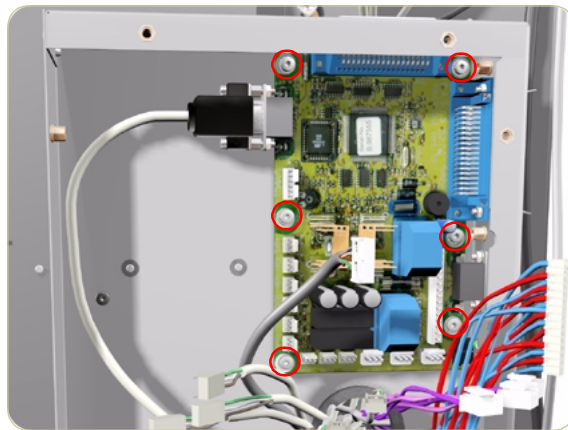
Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

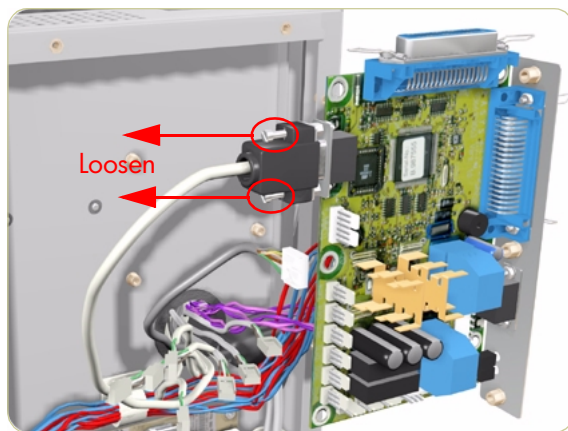
1. Remove the Right Door ⇒ Page 4-5.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Right Side Cover ⇒ Page 4-8.
4. Remove the Electronics Access Cover ⇒ Page 4-12.
5. Disconnect ALL the Cables connected to the Main PCA.



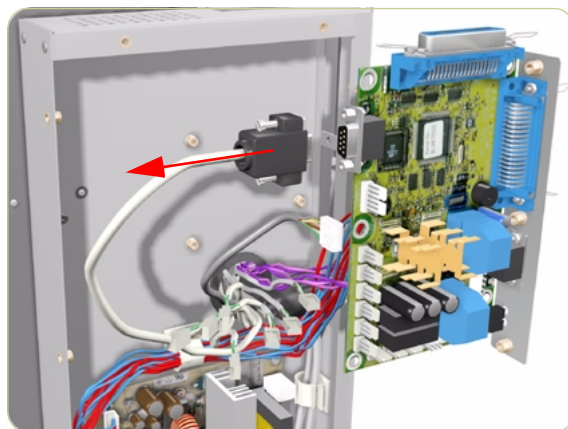
6. Remove 3 T-20 screws that secure the Main PCA from the outside.



7. Remove 6 T-20 screws that secure the Main PCA from the inside.



8. Remove the Main PCA from the base and loosen 2 screws from the serial cable.



9. Disconnect the serial cable from the Main PCA.

After replacing the Main PCA, make sure you perform the Multi-Roll Feeder Calibration. To perform the calibration ⇒ Page 1-15.

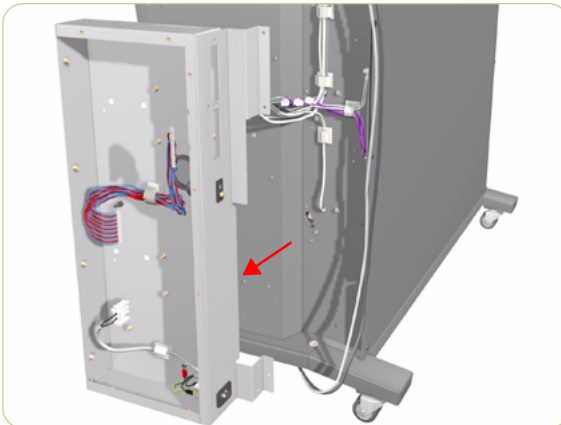
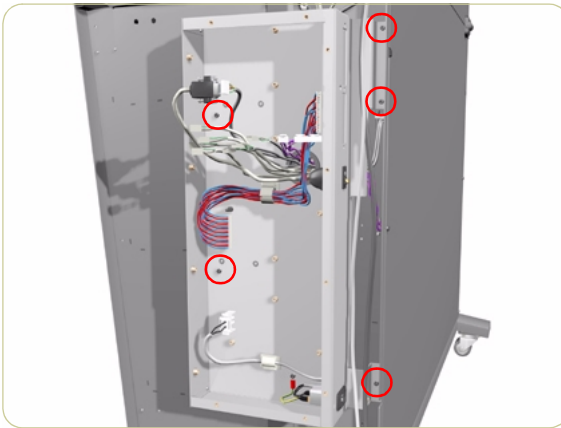
Bottom Electronics Cover (P/N C2394-60025)

P/N C2394-60025 is for the complete Electronics Module Chassis which includes both the Electronics Access Cover and the Bottom Electronics Cover.

Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the Right Door ⇒ Page 4-5.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Right Side Cover ⇒ Page 4-8.
4. Remove the Electronics Access Cover ⇒ Page 4-12.
5. Remove the Power Supply Unit ⇒ Page 4-13.
6. Remove the Main PCA ⇒ Page 4-15.
7. Remove 5 T-20 screws that secure the Bottom Electronics Cover.



8. Remove the Bottom Electronics Cover.

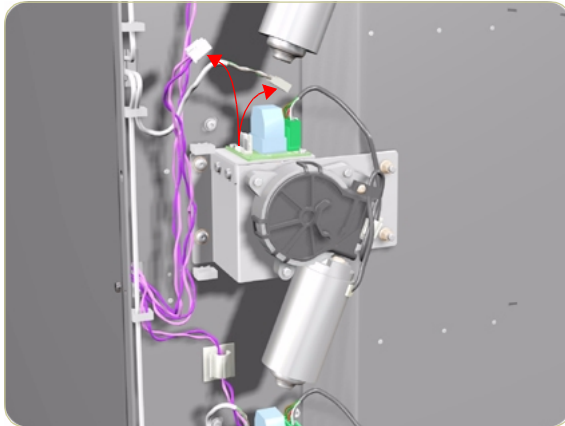
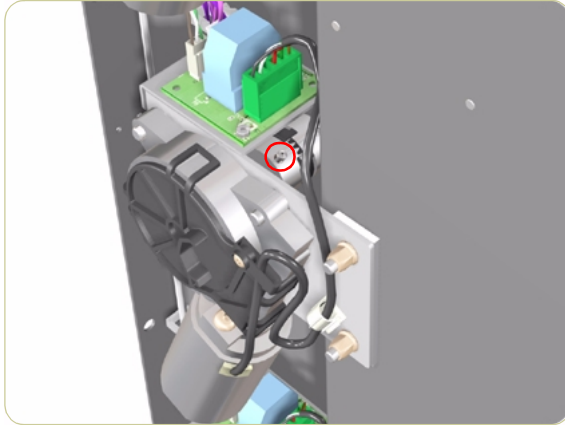
Spindle Drive Motors 1, 2 and 3 (P/N C2394-60022)

Removal

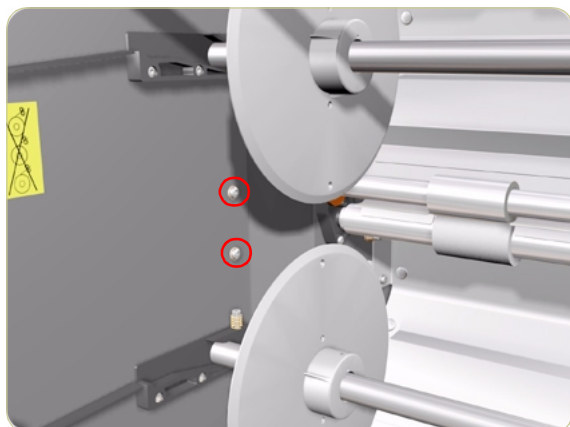
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the Left Door ⇒ Page 4-4.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Left Side Cover ⇒ Page 4-10.
4. Loosen 1 screw (Allen key 2.5 mm) that secures the outer Drive Clutch on the Spindle Drive Motor.

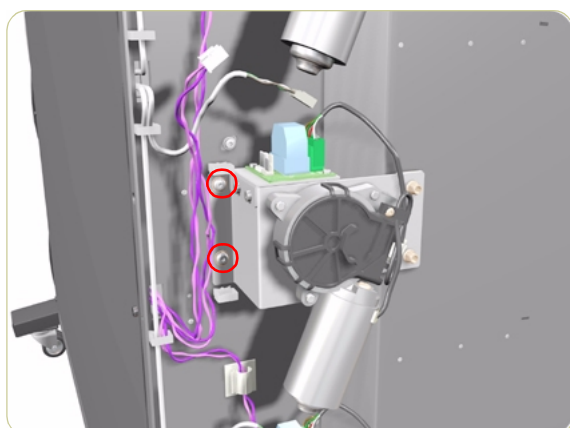
If necessary, turn the Transport Roller manually until you can access the screw in the Drive Clutch.



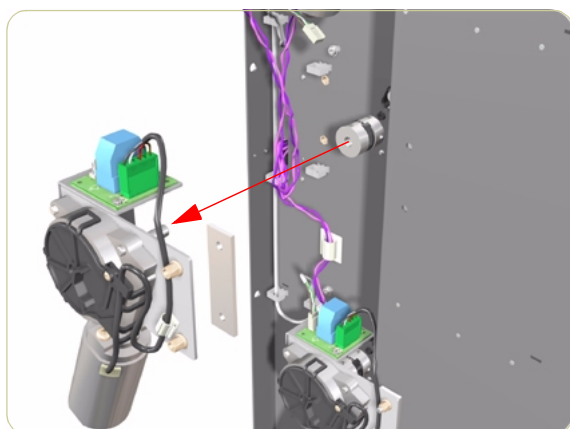
5. Disconnect the Cables connected to the Spindle Drive Motor.



6. Remove 2 T-20 screws that secure the Spindle Drive Motor from the inside.



7. Remove 2 T-20 screws that secure the Spindle Drive Motor from the outside.



8. Remove the Spindle Drive Motor.

After replacing the Drive Clutches, make sure you reset the counter length for the corresponding roll (e.g. if you replaced the Drive Clutches for Roll 1, reset the partial length counter for Roll 1 to zero). To reset the counter ⇒ Page 1-18.

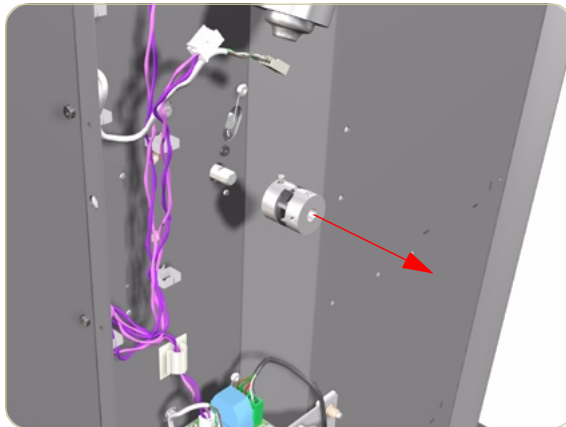
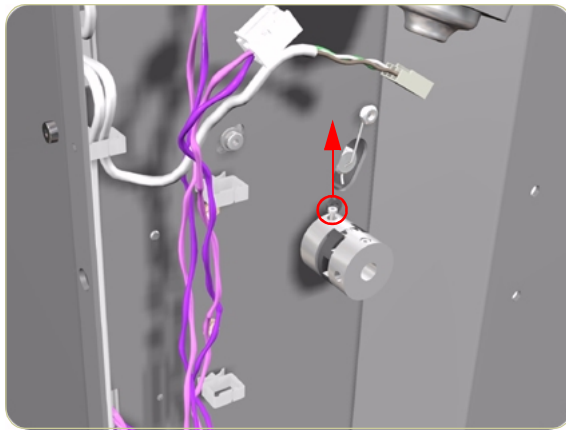
When installing the Spindle Drive Motors, make sure you first push the Transport Roller to the extreme right, and then secure the Drive Clutches (from the outside). This will ensure that there is a horizontal play in the Transport Roller of 0.5 - 1.00 mm.

Drive Clutches (P/N C2394-60023)

Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the Left Door ⇒ Page 4-4.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Left Side Cover ⇒ Page 4-10.
4. Remove the relevant Spindle Drive Motor ⇒ Page 4-18.
5. Loosen 1 screw (Allen key 2.5 mm) that secures the inner Drive Clutch on the Transport Roller.



6. Remove the inner and outer Drive Clutches and the Transmission Washer together.

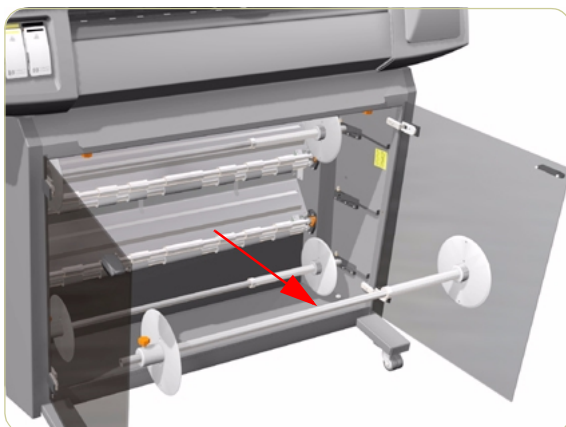
After replacing the Drive Clutches, make sure you reset the counter length for the corresponding roll (e.g. if you replaced the Drive Clutches for Roll 1, reset the partial length counter for Roll 1 to zero). To reset the counter ⇒ Page 1-18.

When installing the Drive Clutches, make sure you first push the Transport Roller to the extreme right, and then secure the Drive Clutches (from the outside). This will ensure that there is a horizontal play in the Transport Roller of 0.5 - 1.00 mm.

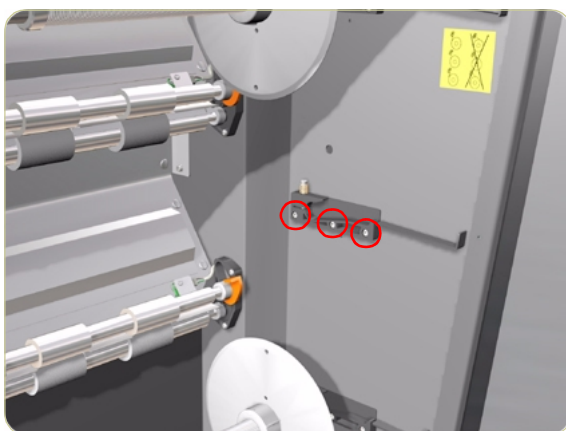
Left and Right Spindle Retainers (P/N C2394-60017)

Removal

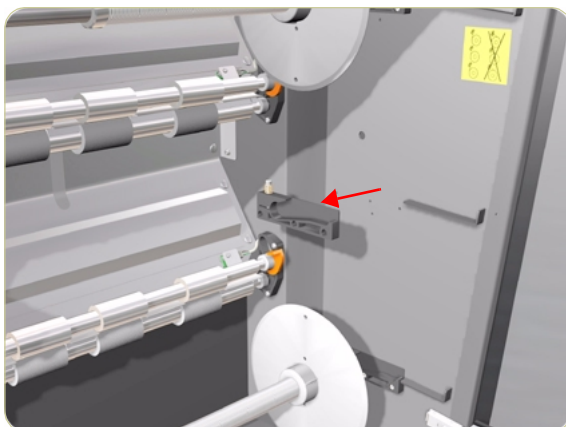
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Open both the Left and Right Doors and remove Spindle from the relevant Spindle Retainer.



2. Remove 3 T-20 screws that secure the Spindle Retainer.

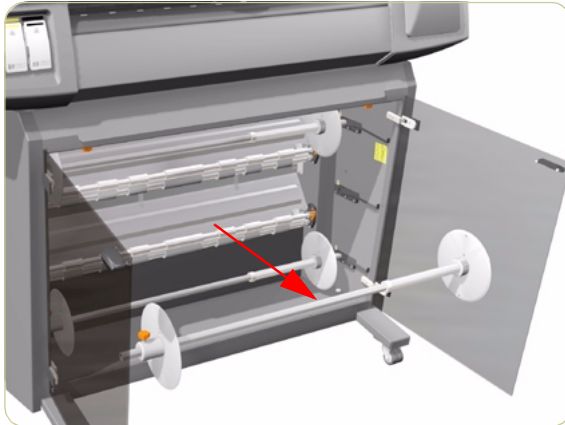


3. Remove the Spindle Retainer.

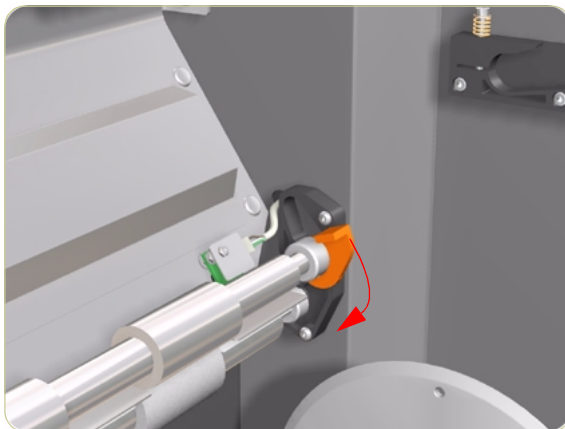
Riding Roller (P/N C2394-60013)

Removal

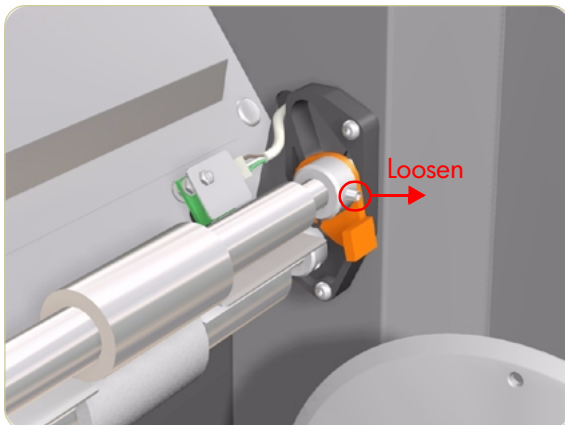
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



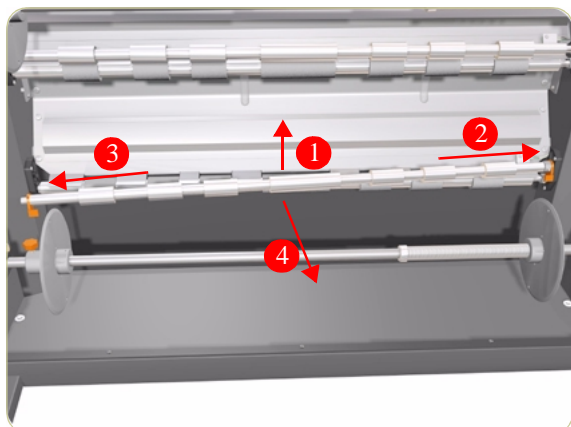
1. Open both the Left and Right Doors and remove Spindle from the relevant Spindle Retainer.



2. Lower the Roller Levers on both sides of the Riding Roller.



3. Loosen 1 screw (Allen key 3 mm) that secures the bushing to the Riding Roller.



4. Raise the Riding Roller first, and then slide it to the right and then remove from the Multi-Roll Feeder.

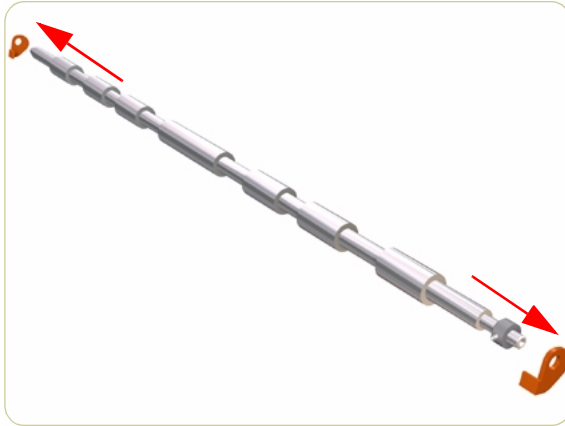
When installing the Riding Roller, make sure you first push the Riding Roller to the extreme right, and then secure the bushing (on the left hand side of the Riding Roller). This will ensure that there is a horizontal play in the Riding Roller of 0.5 - 1.00 mm.

Roller Levers (P/N C2394-60024)

Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the relevant Riding Roller ⇒ Page 4-22.
2. Remove the Roller Levers from either side of the Riding Roller.



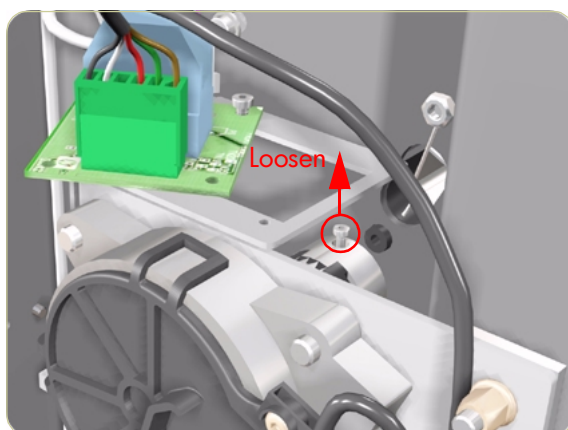
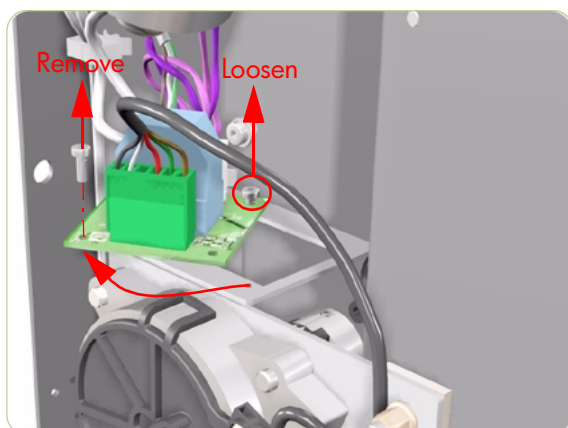
When installing the Riding Roller, make sure you first push the Riding Roller to the extreme right, and then secure the bushing (on the left hand side of the Riding Roller). This will ensure that there is a horizontal play in the Riding Roller of 0.5 - 1.00 mm.

Transport Roller (P/N C2394-60014)

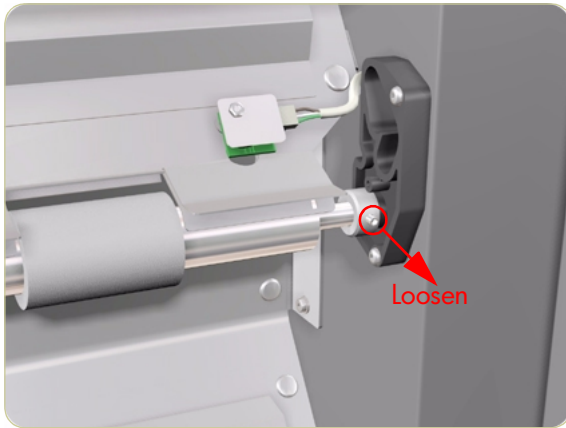
Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

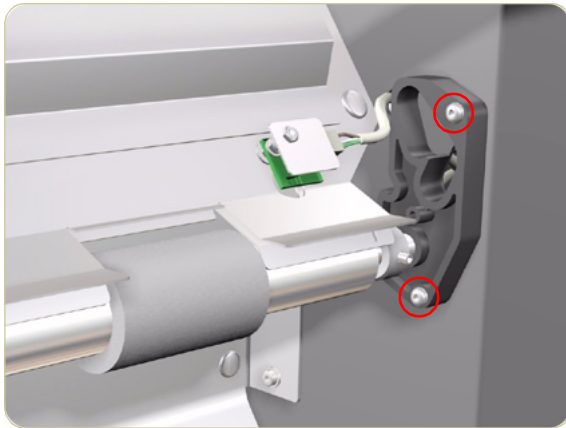
1. Remove the Left Door ⇒ Page 4-4.
2. Remove the Front Top-Cover ⇒ Page 4-7.
3. Remove the Left Side Cover ⇒ Page 4-10.
4. Remove the relevant Riding Roller ⇒ Page 4-22.
5. Remove 1 T-20 screw and loosen the other T-20 screw from the Drive Motor PCA and slide the PCA to one side.



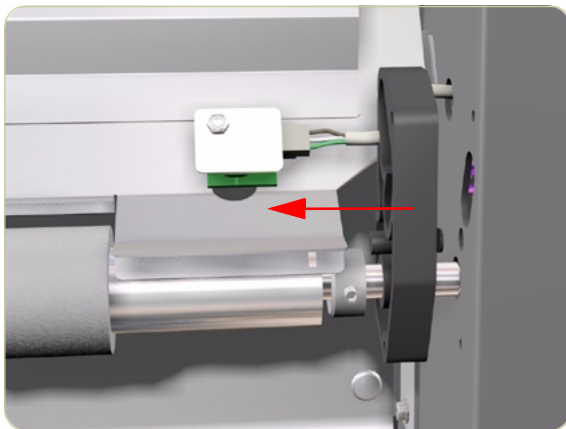
6. Loosen 1 screw (Allen key 2.5 mm) that secures the inner Drive Clutch on the Transport Roller (outside).



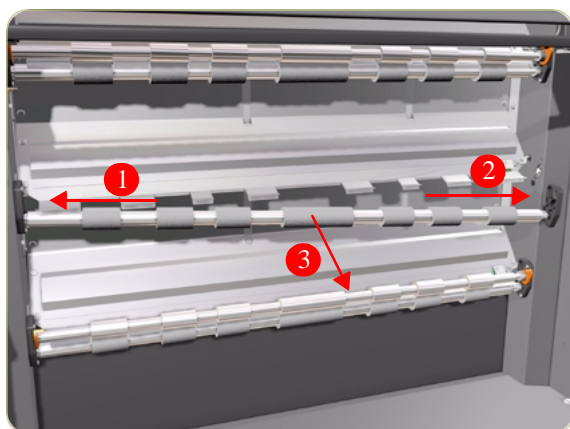
- 7.** Loosen 1 screw (Allen key 2.5 mm) that secures the bushing to the Transport Roller on the right hand side (inside).



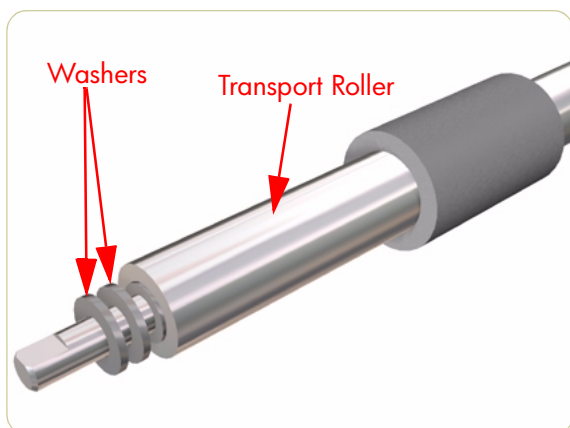
- 8.** Remove 2 T-20 screws that secure the right Roller Bearing.



- 9.** Slide the right Roller Bearing to the left.



- 10.** Slide the Transport Roller first to the left and then remove from the Multi-Roll Feeder.



When installing the Transport Roller, make sure you reinstall the same number of washers that you removed from the left hand side of the Transport Roller.

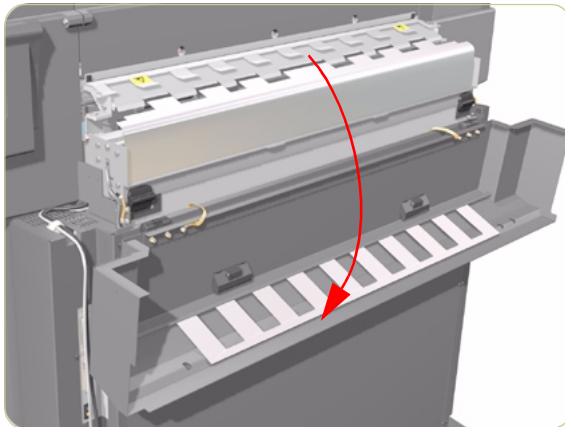
After replacing the Transport Roller, make sure you reset the counter length for the corresponding roll (e.g. if you replaced the Transport Roller for Roll 1, reset the partial length counter for Roll 1 to zero). To reset the counter ⇒ Page 1-18.

When installing the Transport Roller, make sure you first push the Transport Roller to the extreme right, and then secure the Drive Clutches (from the outside). This will ensure that there is a horizontal play in the Transport Roller of 0.5 - 1.00 mm.

Rear Top-Cover (P/N C2394-60008)

Removal

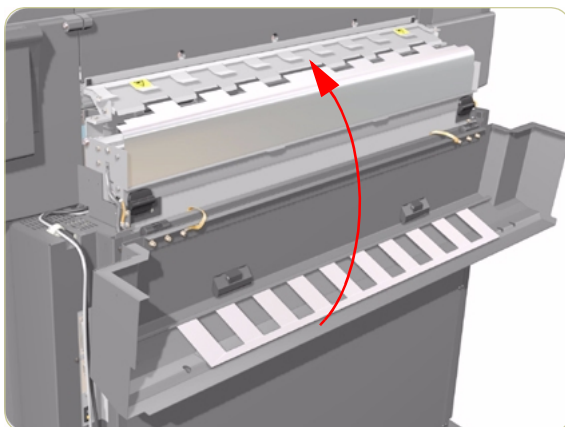
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



1. Open the Rear Top-Cover.



2. Remove the Nut and 2 washers that secure the grounding strip to the Rear Top-Cover.



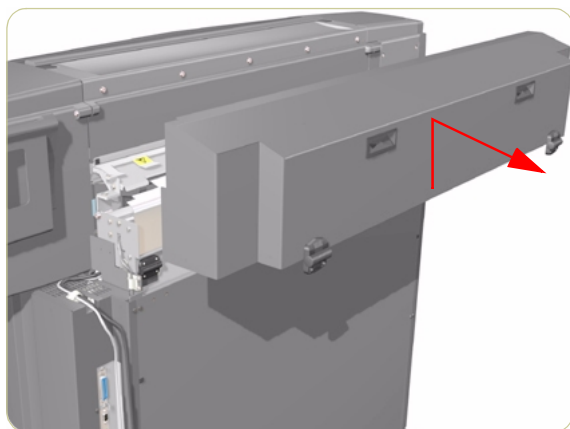
3. Close the Rear Top-Cover.



4. Remove the screw covers from both sides.



5. Remove 4 T-20 screws that secure the Rear Top-Cover.



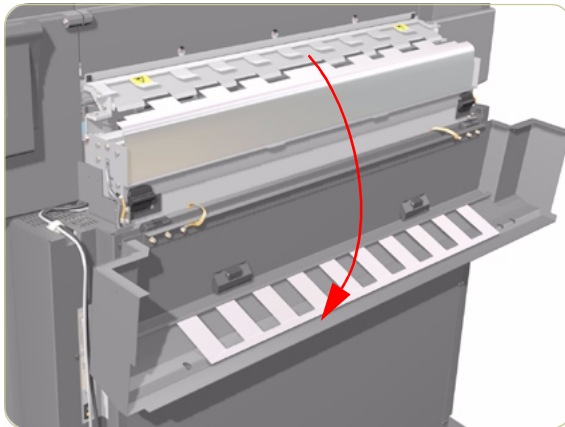
6. Remove the Rear Top-Cover.

Becareful when removing the Rear Top-Cover because it is very heavy and could accidently fall.

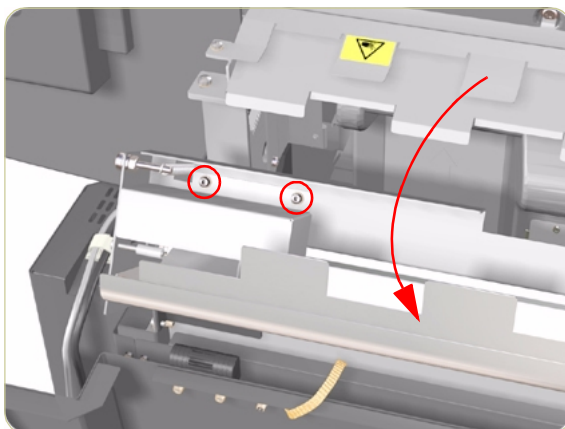
Motion Control Unit (P/N C2394-60020)

Removal

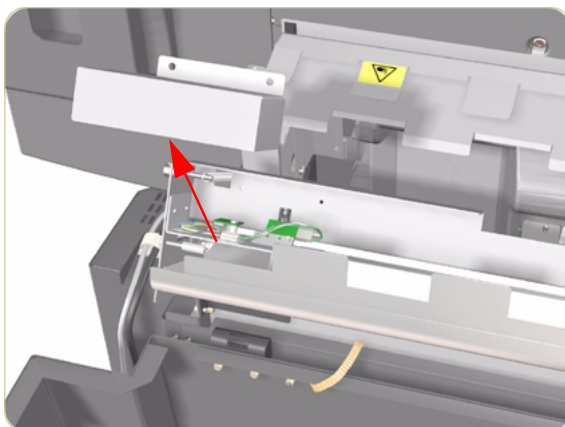
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



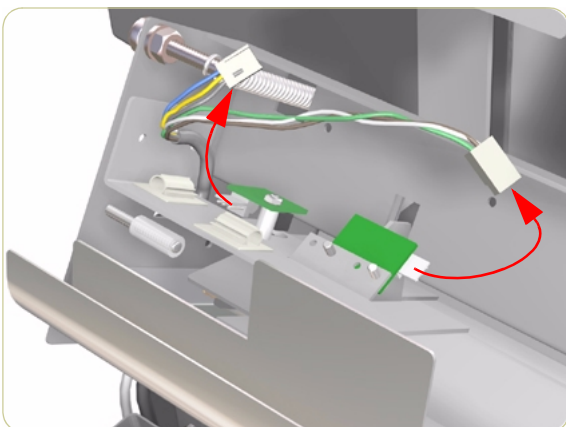
1. Open the Rear Top-Cover.



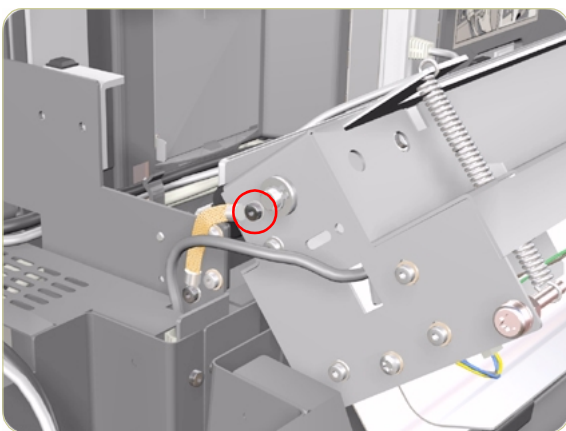
2. Open the Motion Control Unit and remove 2 screws from the Sensor Cover.



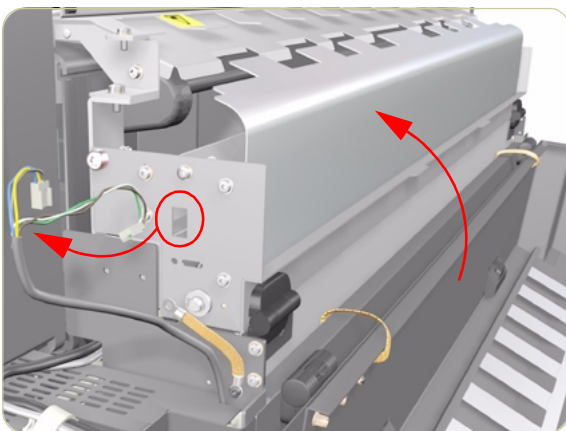
3. Remove the Motion Control Unit Sensor Cover.



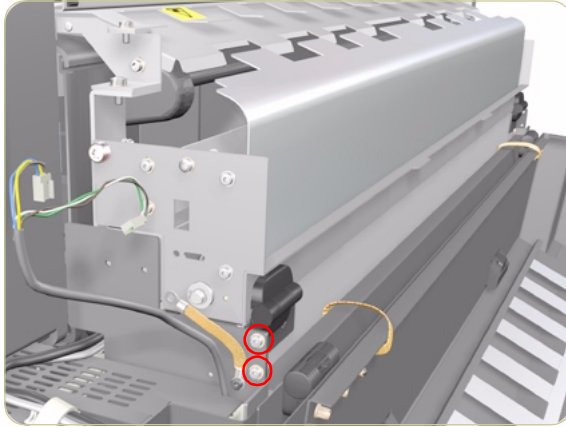
4. Disconnect 2 cables from the Motion Control Sensor and release them from the securing clips



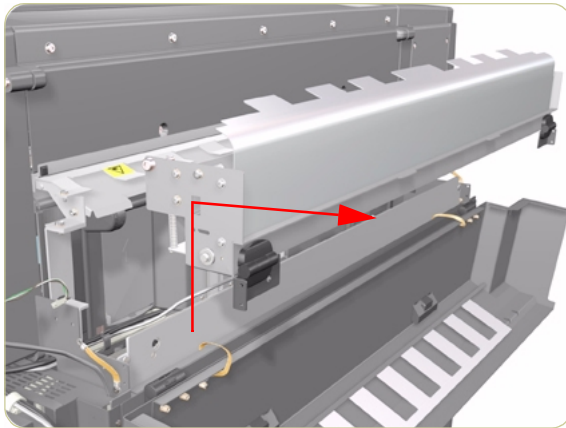
5. Remove 1 T-20 screw from the grounding strip on **both** sides of the Motion Control Unit.



6. Close the Motion Control Unit and then pull the 2 motion control sensor cables through the hole in the motion control unit.



7. Remove 2 T-20 screws that secure the Motion Control Unit on **both** sides.



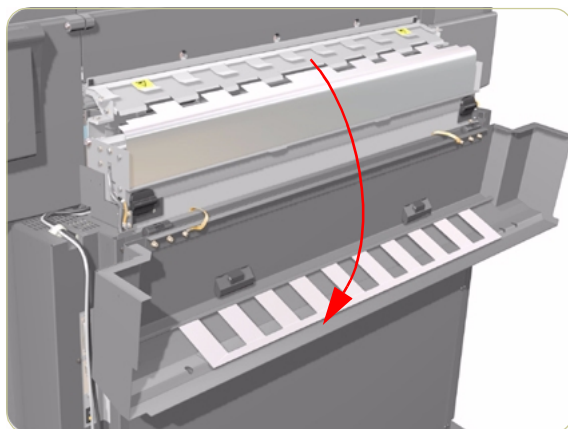
8. Remove the Motion Control Unit by lifting it upwards and then towards you.

After replacing the Motion Control Unit, make sure you perform the Multi-Roll Feeder Calibration. To perform the calibration ⇒ Page 1-15.

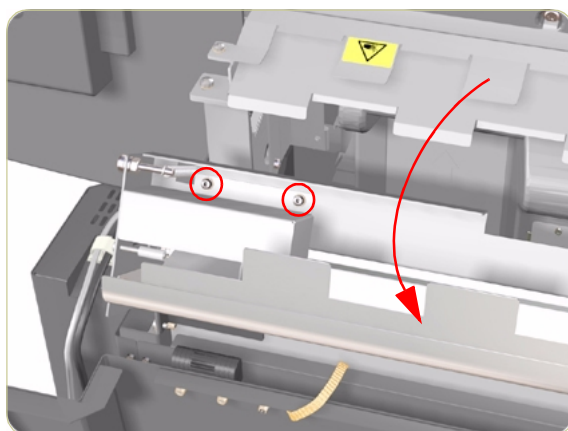
Motion Control Sensor (P/N C2394-60019)

Removal

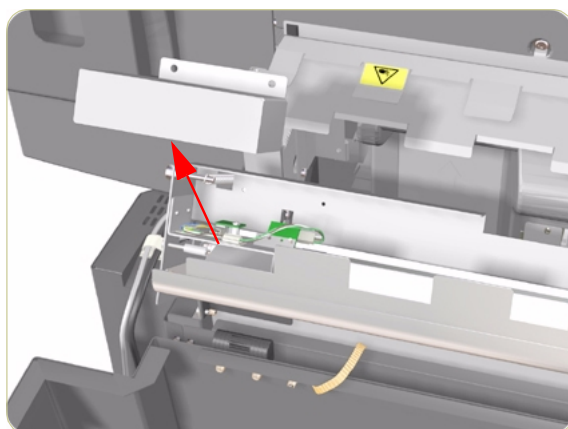
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



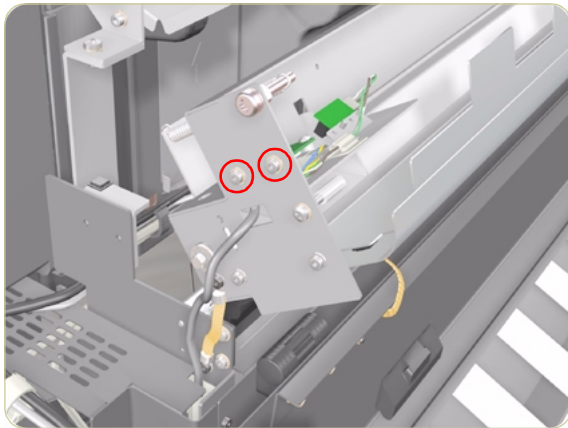
1. Open the Rear Top-Cover.



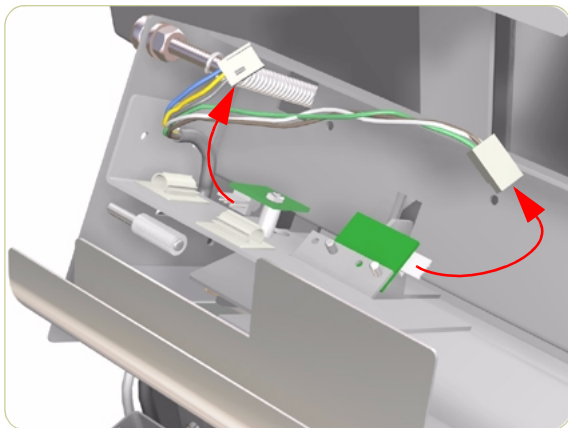
2. Open the Motion Control Unit and remove 2 screws from the Sensor Cover.



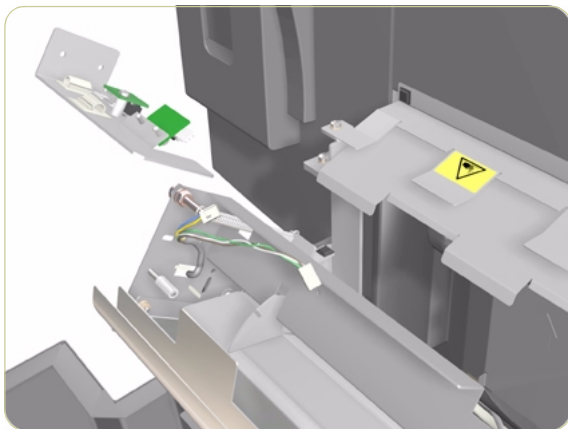
3. Remove the Motion Control Unit Sensor Cover.



4. Remove 2 T-20 screws that secure the Motion Control Sensor.



5. Disconnect 2 cables from the Motion Control Sensor and release them from the securing clips.



6. Remove the Motion Control Sensor.

When installing the Motion Control Sensor, make sure that the digital sensor is centered correctly.

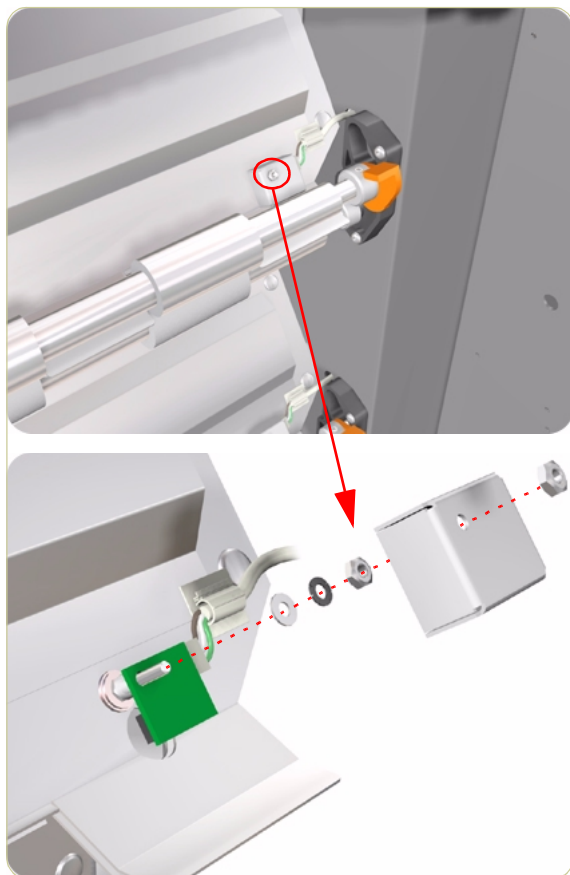
After replacing the Motion Control Sensor, make sure you perform the Multi-Roll Feeder Calibration. To perform the calibration ⇒ Page 1-15.

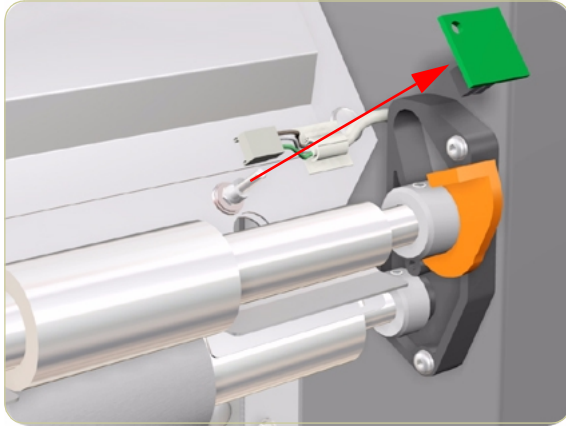
Channel Sensor (P/N C2394-60021)

Removal

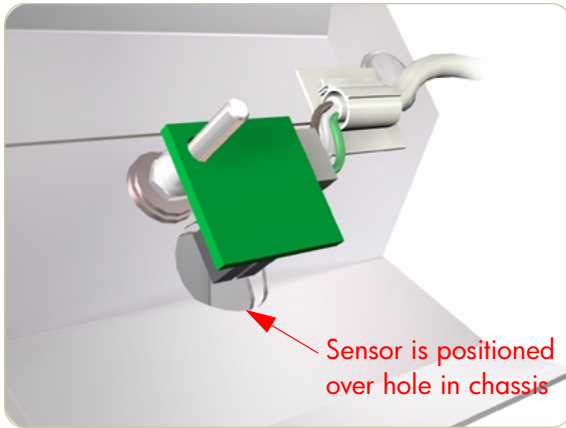
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Locate the relevant Channel Sensor to be removed:
 - 1 behind the Motion Control Unit.
 - 1 behind each Transport Roller.
2. Remove these items that secure the Channel Sensor (in this order):
 - 1 Nut (5 mm).
 - 1 Sensor Cover.
 - 1 Nut (5 mm).
 - 2 Washers.





3. Disconnect the Cable from the Channel Sensor and remove.



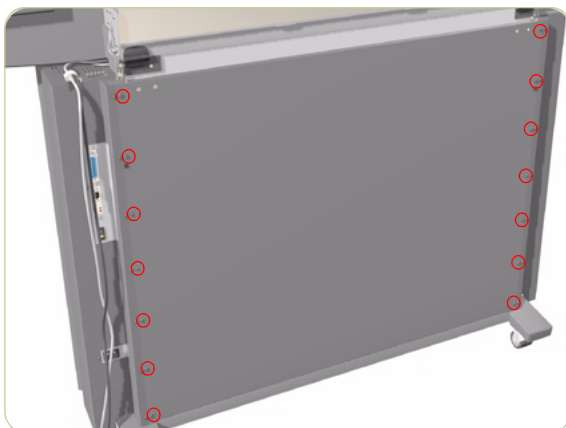
When installing the Motion Control Sensor, make sure you position it as shown in this drawing.

Rear Bottom-Cover (P/N C2394-60006) - User Replaceable

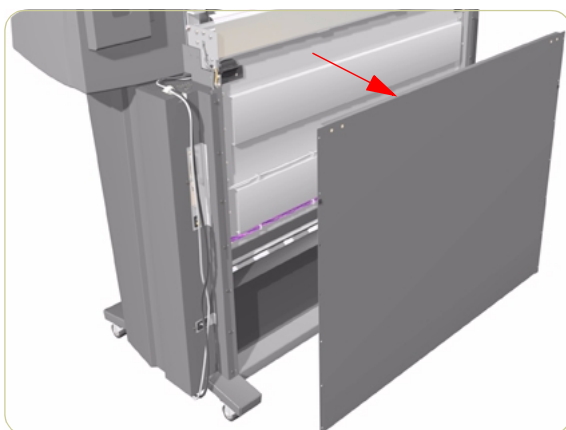
Removal

Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.

1. Remove the Rear Top-Cover ⇒ Page 4-28.
2. Remove 14 T-20 screws that secure the Rear Bottom-Cover.



3. Remove the Rear Bottom-Cover.

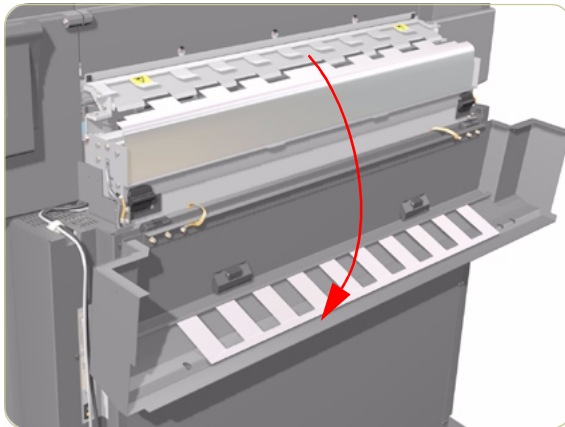


If you are installing a NEW Rear Bottom-Cover, it will come with a product label where you will need to write down the serial number of the multi-roll feeder (the serial number can be found on the OLD Rear Bottom-Cover).

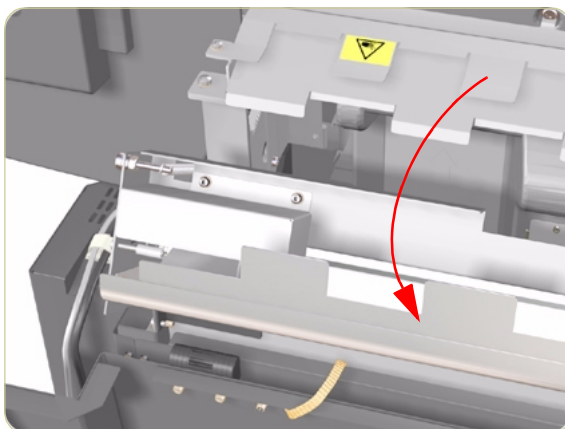
Infeed Unit (P/N C2394-60012) - User Replaceable

Removal

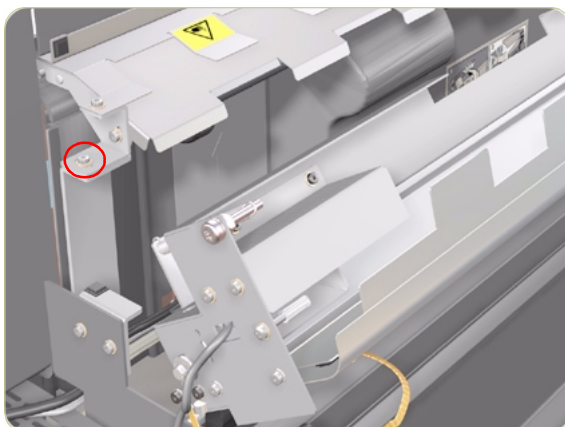
Switch both the printer and the multi-roll feeder OFF, and disconnect them from the power source prior to performing any maintenance.



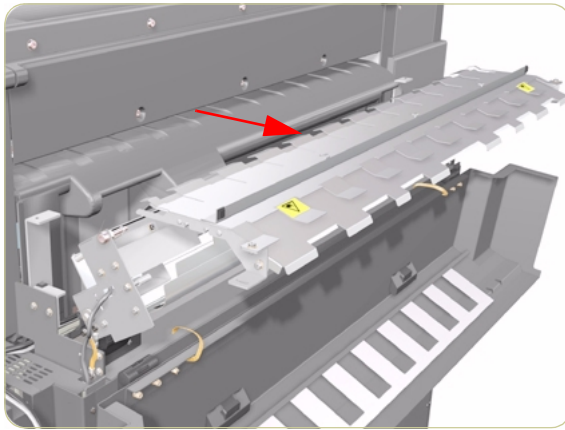
1. Open the Rear Top-Cover.



2. Open the Motion Control Unit.



3. Remove 2 T-20 screws (one on **each** side of the Motion Control Unit) that secure the Infeed Unit.



4. Remove the Infeed Unit.

