DesignJet T1600 Printer Series and T2600 MFP Series

Service Manual

Safety

The procedures described in this manual are to be performed by HP-qualified service personnel only.

The Warning symbol calls attention to a procedure, practice, or the like, which, if not correctly performed or adhered to, could result in personal injury. Do not proceed beyond a Warning symbol until the indicated conditions are fully understood and met.

The Caution symbol calls attention to an operating procedure, practice, or the like, which, if not correctly performed or adhered to, could result in damage to or destruction of part or all of the printer. Do not proceed beyond a Caution symbol until the indicated conditions are fully understood and met.

Readership

The primary readers of this service manual are HP service engineers, although secondary readership may include resellers.

Table of contents

1   Safety

General safety guidelines

Before servicing the printer, read the following safety precautions to make sure that you can work on the printer safely:

- Before servicing the printer, turn it off, and disconnect electrical power.

- Before removing and replacing parts, see .

Service personnel are expected to have appropriate technical training and experience necessary to be aware of hazards to which they may be exposed in performing a task, and to take appropriate measures to minimize the risks to themselves and other people.

Electrical shock hazard

⚠ **WARNING!**   The built-in power supplies, and the power inlet operate at hazardous voltages capable of causing death or serious personal injury.

The printer requires a building installation circuit breaker, which must meet the requirements of the printer and should be in accordance with the Electrical Code requirements of the local jurisdiction of the country in which the equipment is installed.

The printer uses one power cord. Unplug the power cord before servicing the printer.

The printer should be connected to earthed mains outlets only.

Fire hazard

To avoid the risk of fire, take the following precautions:

- Check that the power supply where the printer is installed meets the requirements specified on the nameplate.

- Protect power lines by a branch circuit breaker according to the rating of the wall socket. Do not use a power strip (relocatable power tap) to connect the power cords.

- Use only the power cord supplied by HP with the printer. Do not use a damaged power cord. Do not use the power cord with other products.

- Do not insert objects through slots in the printer.

- Take care not to spill liquid on the printer. After cleaning, make sure all components are dry before using the printer again.

- Do not use aerosol products that contain flammable gases inside or around the printer. Do not operate the printer in an explosive atmosphere.

- Do not block or cover the openings of the printer.

Mechanical hazard

The printer has moving parts that could cause injury. To avoid personal injury, take the following precautions when working close to the printer.

Best practice

- Keep your clothing and all parts of your body away from the printer's moving parts.

- Avoid wearing necklaces, bracelets, and other hanging objects.

- If your hair is long, try to secure it so that it will not fall into the printer.

- Take care that sleeves or gloves do not get caught in the printer's moving parts.

- Avoid touching fan blades when accessing internal parts of the printer.

- If you need to replace the cutter assembly, remember that the cutter has a sharp cutting edge, take care not to cut yourself.

- Make sure that there are no tools obstructing the operation of the printer.

Lifting and handling

Improper handling of heavy materials can lead to serious bodily injury.

Best practice

- When handling rolls of paper, take care to avoid back strain and/or injury. Consider handle heavy rolls with 2 people.

- Consider using a forklift, pallet truck, or other handling equipment.

- When handling heavy paper rolls, wear personal protective equipment including boots and gloves.

- Follow any manpower instructions included in this service manual when you replace components. Many components require at least two people for removal.

Ink handling

- HP recommends that you wear gloves when handling ink supplies.

Warning labels

Label	Meaning
	Electric shock hazard. Power supply inside operates at hazardous voltages. Disconnect all power sources before servicing.
	Before starting, read and follow the operating and safety instructions.
	Located on the E-box.

For HP-authorized personnel only

Label	Meaning
	Moving parts. Rotating gears. Keep hands out.
	Located inside the roll paper cover.
	Internal warning for paper roll load process.
	Moving parts. Rotating roll bar. Keep hands out.
	Located at the bottom structure.

📝 NOTE: The final label position and its size on the printer may vary slightly, but it should always be visible and close to the potential risk area.

2 Printer fundamentals

- Introduction
- Theory of operation

Introduction

This service manual contains information necessary to test, maintain, and service the following:

- HP DesignJet T1600 36-in Printer

- HP DesignJet T1600 36-in PostScript Printer

- HP DesignJet T1600dr 36-in Printer

- HP DesignJet T1600dr 36-in PostScript Printer

- HP DesignJet T2600 36-in MFP

- HP DesignJet T2600 36-in PostScript MFP

- HP DesignJet T2600dr 36-in MFP

- HP DesignJet T2600dr 36-in PostScript MFP

For information about using these printers, see the corresponding *User guide*.

Features overview

The are 14 versions of the HP DesignJet T1600 and T2600 Multifunction Printer series.

Product number	Model name
3EK10A	HP DesignJet T1600 36-in Printer
3EK11A	HP DesignJet T1600 36-in PostScript Printer
3EK11F	
3EK12A	HP DesignJet T1600dr 36-in Printer
3EK13A	HP DesignJet T1600dr 36-in PostScript Printer
3EK13B	
3EK13F	
3XB77A	HP DesignJet T2600 36-in Multifunction Printer
3XB78A	HP DesignJet T2600 36-in PostScript Multifunction Printer
3XB78F	
Y3T75A	HP DesignJet T2600dr 36-in Multifunction Printer
3EK15A	HP DesignJet T2600dr 36-in PostScript Multifunction Printer
3EK15B	
3EK15F	

The different sku features are:

Feature	3EK10A	3EK11A 3EK11F	3EK12A	3EK13A 3EK13B 3EK13F	3XB77A	3XB78A 3XB78F	Y3T75A	3EK15A 3EK15B 3EK15F
Paper source	One 36-in roll, and single sheets		Two 36-in rolls, and single sheets		One 36-in roll, and single sheets		Two 36-in rolls, and single sheets	
Paper output	Stacker, accepting up to 100 A1 plain-paper sheets Basket							
Throughput	180 D/A1 per hour							
Memory (RAM)	4 GB				8 GB			
File processing memory	128 GB							
Supplies	HP730 (HP730F for "F" Product Numbers), 130/300 cc							
Borderless printing	No							
Languages supported	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF Additional support to print Adobe PostScript 3, Adobe PDF 1.7ext3	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF Additional support to print Adobe PostScript 3, Adobe PDF 1.7ext3	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF Additional support to print Adobe PostScript 3, Adobe PDF 1.7ext3 and/or generate PDF/A scan files	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF	HP-GL/2, HP-RTL, TIFF, JPEG, CALS G4, HP PCL 3 GUI, URF Additional support to print Adobe PostScript 3, Adobe PDF 1.7ext3 and/or generate PDF/A scan files
Job queues	Yes							
Job preview from queues	Yes							
Crop marks and nesting	Yes							
Accounting in EWS	Yes							
Auto rotate, automatic blank area removal	Yes							
EWS job submittal	No							

Readership

The procedures described in this service manual are to be performed by HP Certified service personnel only.

Part numbers

Part numbers for printer service parts are located in .

Theory of operation

Schematics

Electronics are based on 3 main components:

- E-box - contains the power supply and all the PCAs (driving the printer), plus the Ethernet port.

- Carriage PCA - drives the printhead.

- Dashboard PCA - Small front panel, USB port, power button and speaker.

- Front Panel - user interface.

- Scanner Controller PCA - To control the scanner component (only for MFP)

- Dashboard PCA - Dashboard with a multi USB port.

    - For the Front Panel

    - Wifi accessory

    - User thumbdrive

The following diagram describes the connections between components and electronic boards and the data line type.

Block diagram
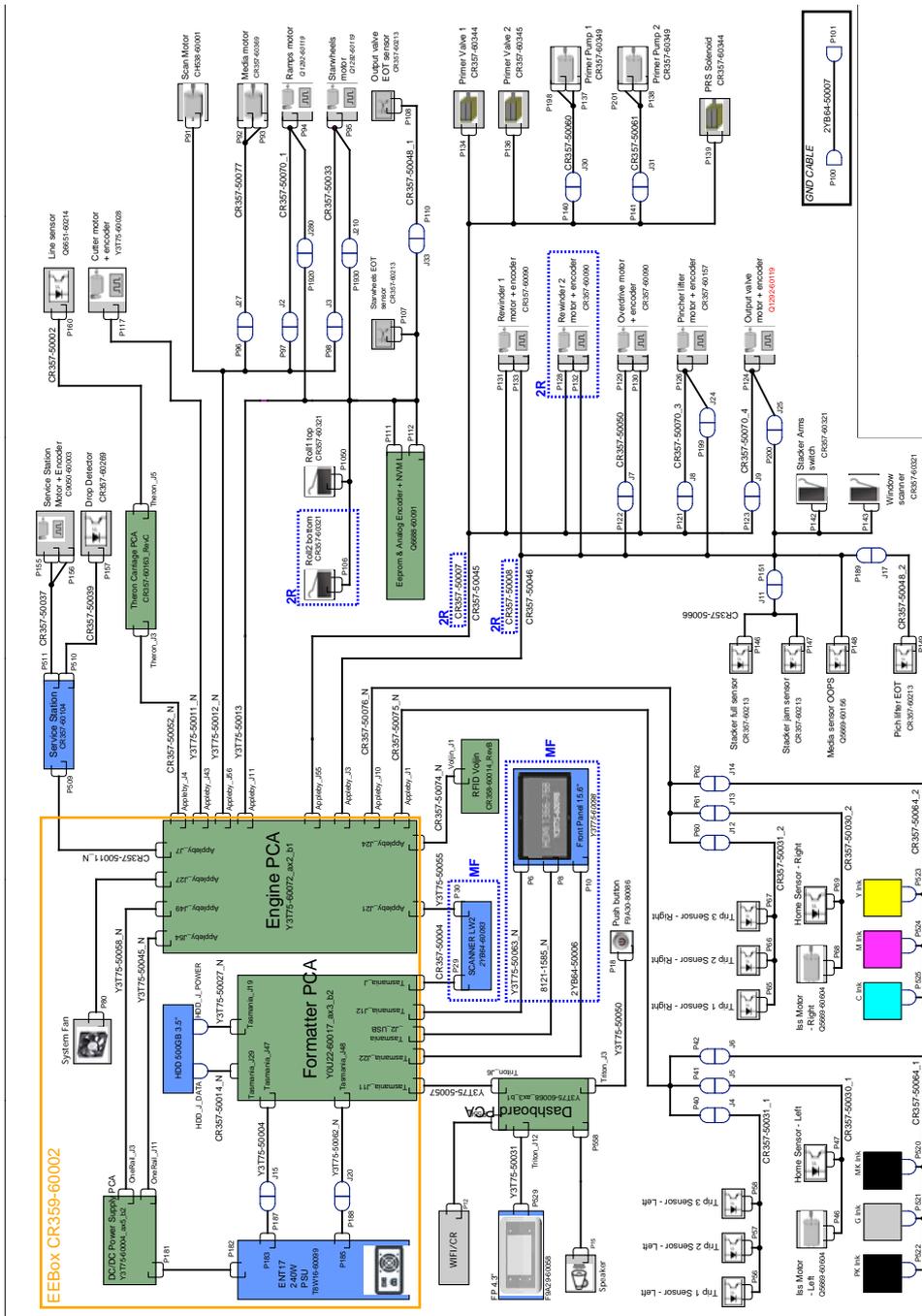
Wiring diagram

Scanner block diagram

Block Diagram

(HP DesignJet T2500 and T3500 eMultifunction Series only)
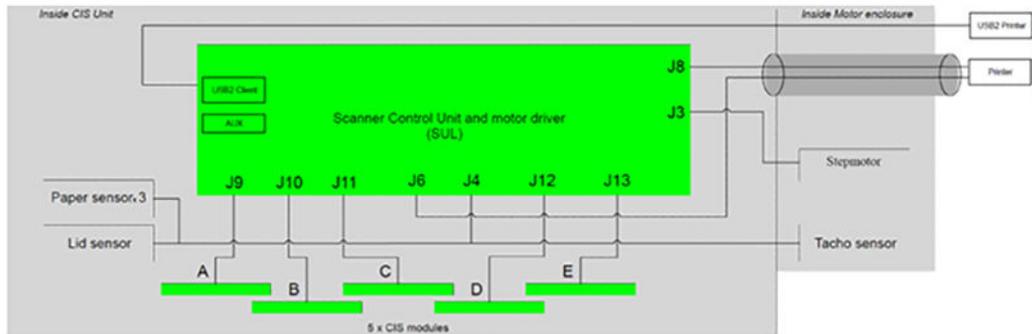
Wiring Diagram
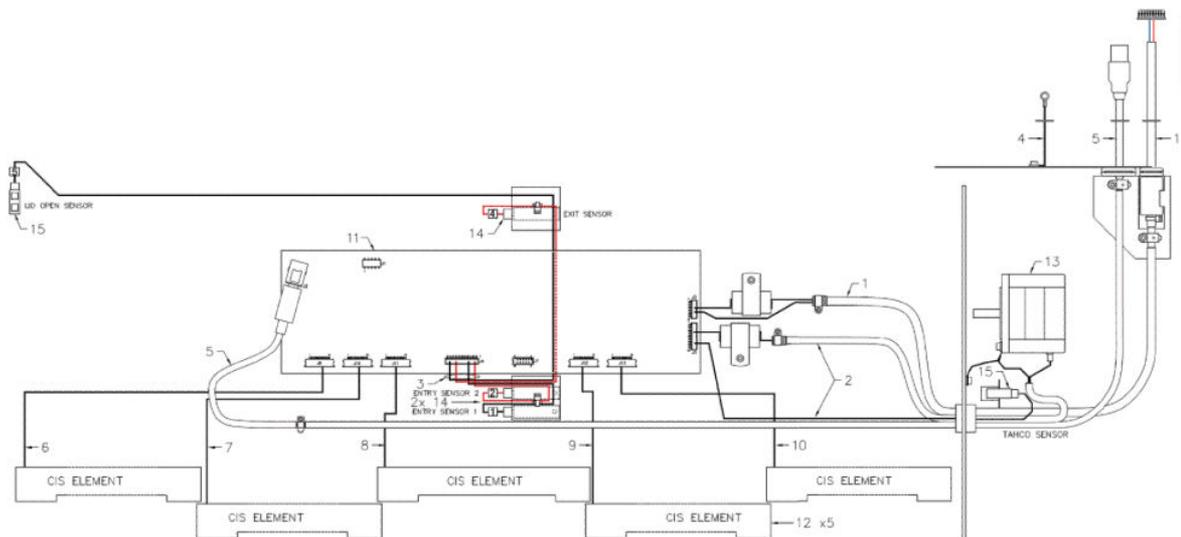
Scanner Controller Board Layout (SULG)

(HP DesignJet T2600 MFP only)

	Voltage	Min limit	Max limit
TP1	5V-Main (Always on when there is power to the board)	4.75	5.25
TP2	5V	4.75	5.25
TP3	1.2V	1.1	1.3
TP8	3.3V	3.2	3.4
TP6	2.5V	2.4	2.6

	Voltage	Min limit	Max limit
TP7	1.8V	1.7	1.9
TP15	0.9V	0.8	1.0
IC201	3.3VLDO	3.1	3.5
IC203	3.3VLDO	3.1	3.5
IC204	3.3VLDO	3.1	3.5

TP1
5V Main (4.75–5.25)

TP2
5V (4.75-5.25)

TP3
1.2V (1.1-1.3)

TP8
3.3V (3.2-3.4)

TP6
2.5V (2.4-2.6)

TP7
1.8V (1.7-1.9)

TP15
0.9V (0.8-1.0)
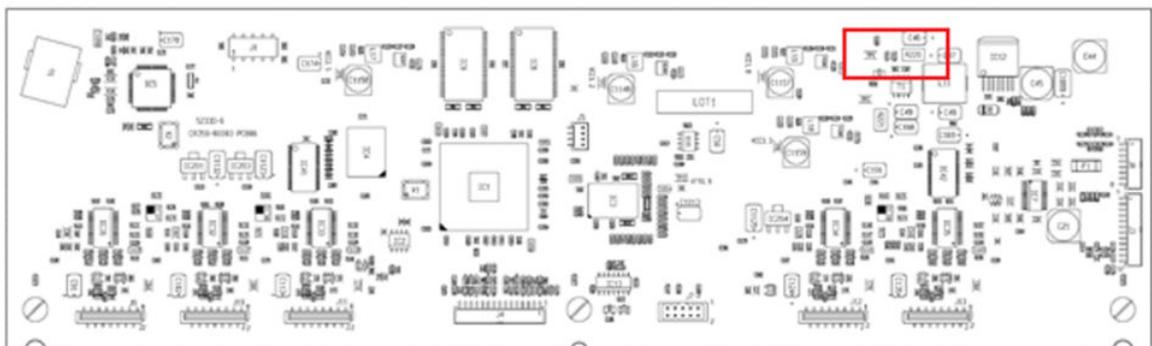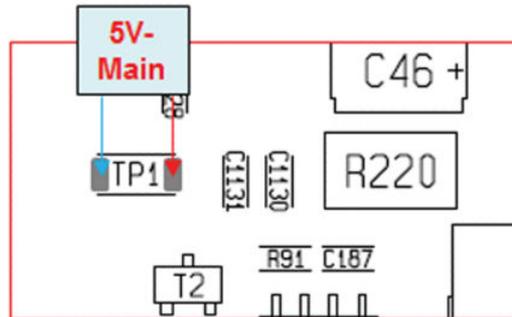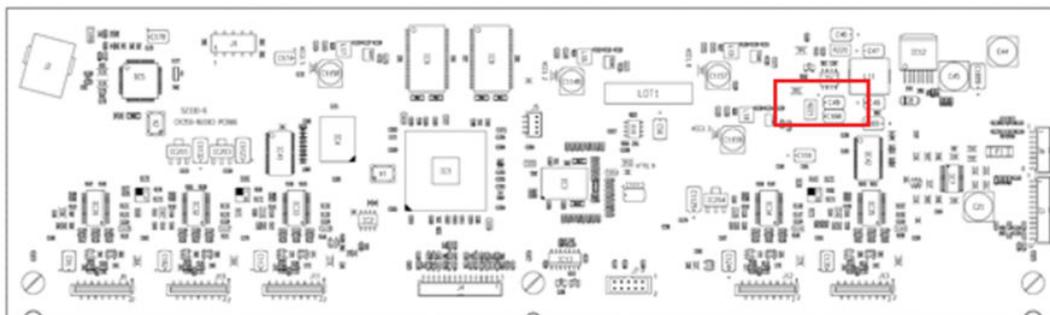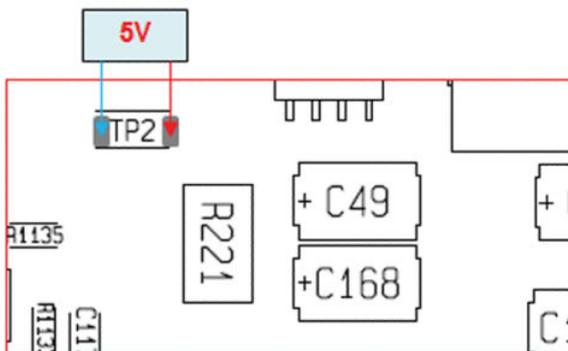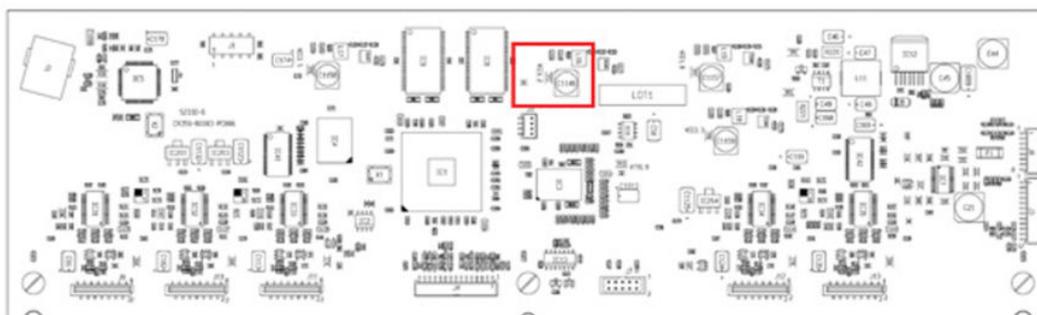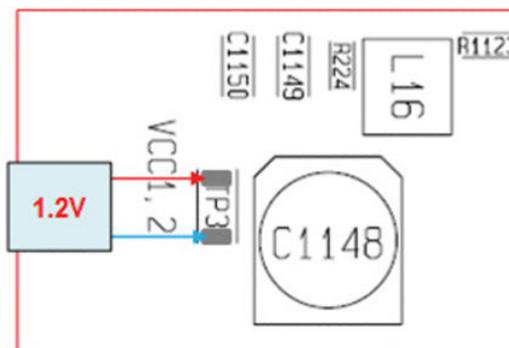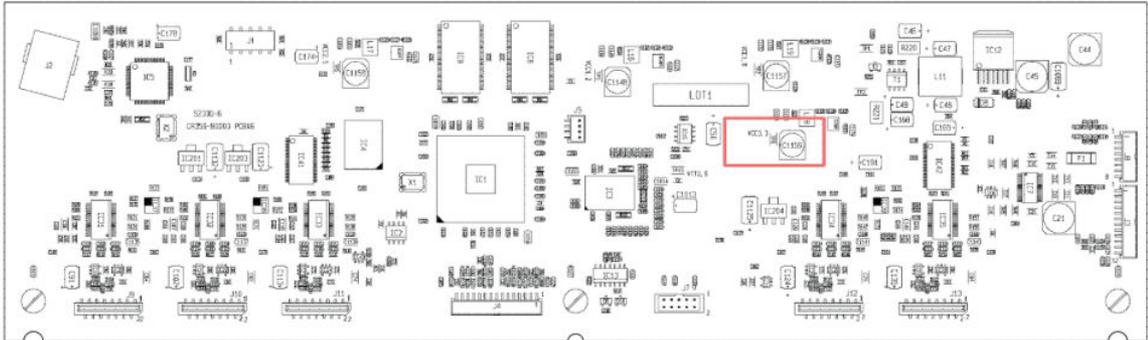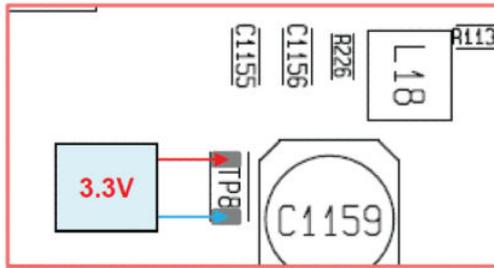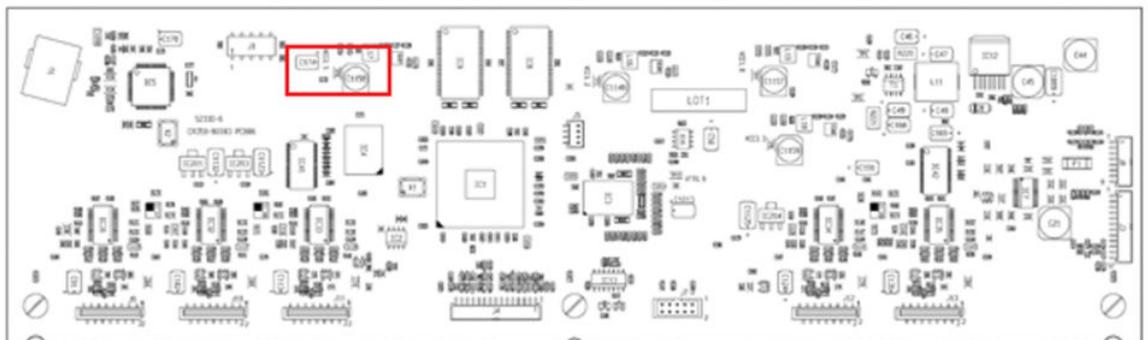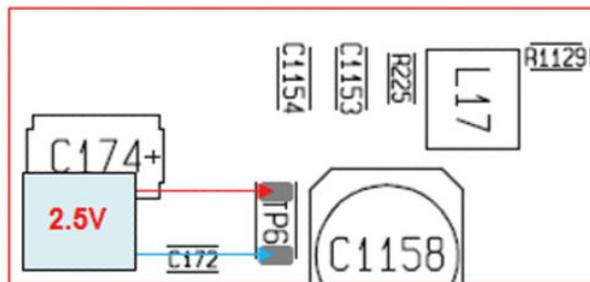
IC201
3.3V LDO(3.2-3.4)
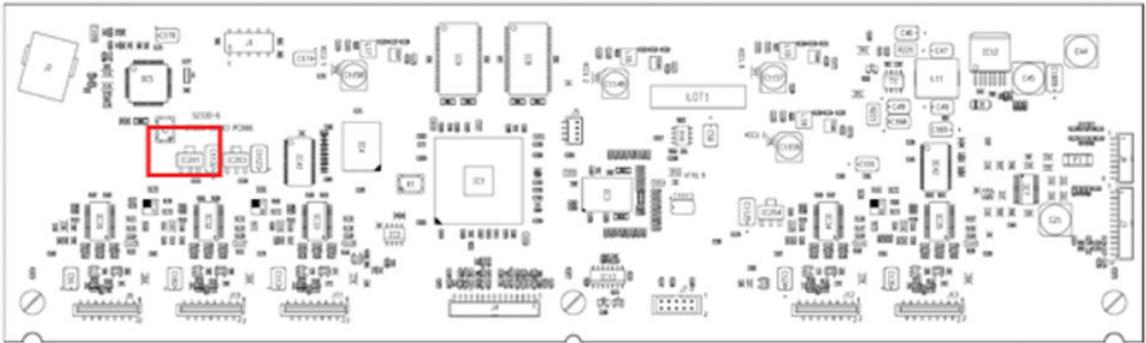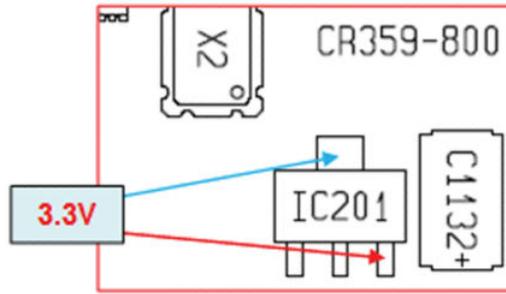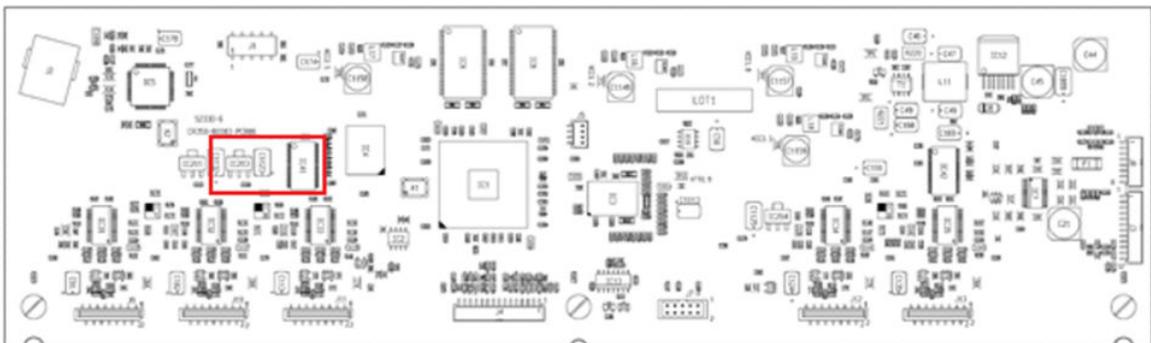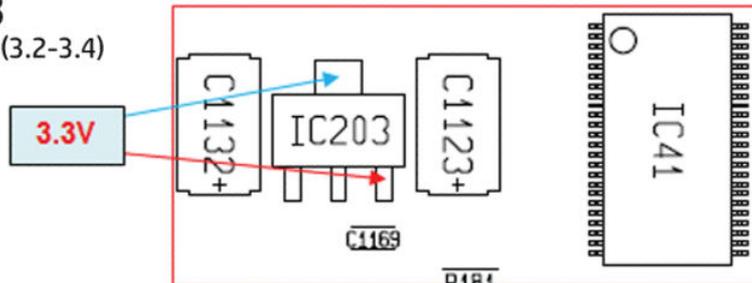
IC203
3.3V LDO(3.2-3.4)
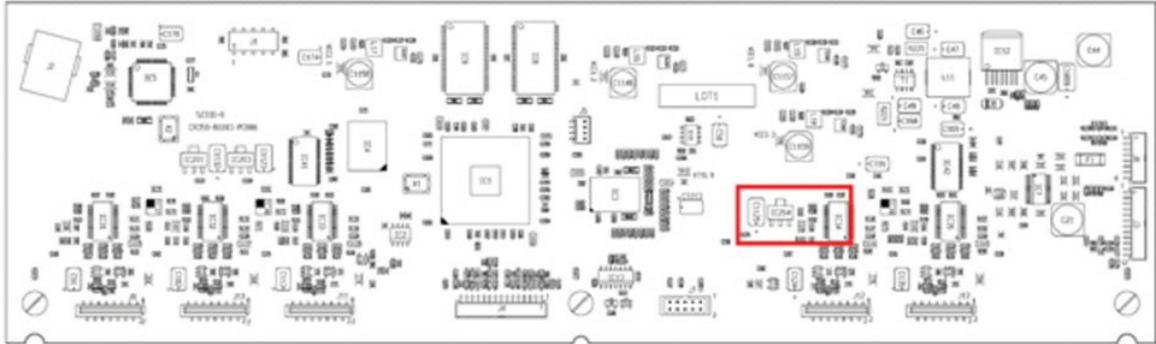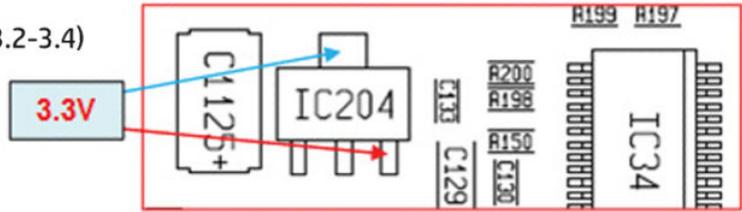
CIS Technology

Example of a CIS Element, Contact Image Sensor:

The CIS Element consist of 3 major parts:

- Sensor

- Lens

- Light source

The Light source is 3 RGB LEDs that are lit one at a time. The sensor consists of 10368 individual monochrome sensors.
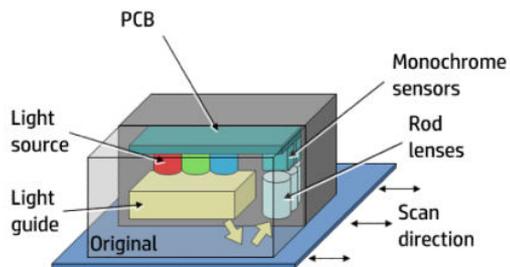
The purpose of the lens is to channel the light from the "pixels" on the image to the sensors. There is no magnification in the lens (1x1).

Rod lenses
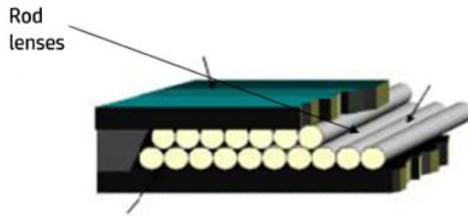
Due to the very short focal length, the focus depth is limited. The original has to be in contact with the surface of the glass plate in order to be in focus.

The LED's flash one at a time, capturing one color at a time.

One full color line exposure

Red exposure   Green exposure   Blue exposure
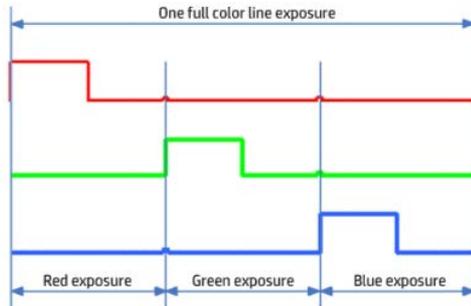
Printer Initialization

There are 3 main blocks to be initialized before the printer can be operated:

Electronic components init → OS & Firmware init → Mechanical components init

Electronic components init

1. The front panel shows a white background and blue HP logo.

2. The upper LED in the formatter is **ON,** indicating that the formatter has been initialized.

3. The middle LED in the formatter blinks, indicating that the HDD has been initialized.

    NOTE: Steps 2&3 are the same when waking from Sleep Mode except the 3 LEDs are not on but; **ON**–Blinking-**OFF**

OS & Firmware init

▲   The OS is loaded into RAM. The Front Panel blinks for a second.

Mechanical components init

1. The Front Panel shows a black background with a blue circle in the middle. The "Initializing" message appears. A progress bar shows the percentage of subsystems that have been initialized.

2. The printer moves the carriage from side to side to validate its position within the scan axis. The printer initializes the service station, moving the caps from bumper to bumper.

3. The pinches move down into position.

4. The carriage and service station move to the home position.

5. The printer checks the status of supplies and the printhead, and then initializes the Ink Supply Stations.

6. Servicing routines are launched. The routines refresh the printhead depending on the time that the printer has been off.

    📝 **NOTE:**   The user can still navigate through the Front Panel, but any action that needs mechanical movements will be not allowed until the servicing routines are finished. During the routine, a moving wheel icon will appear on the top left of the Front Panel.

7. The paper path subsystems are initialized by exercising the ramps and rewinder, checking if there is media present over the Media Sensor.

8. At the end of the process, the home screen appears in the Front Panel.

HP 732 Printhead start-up process

1. Insert cartridges: If the printhead is initialized during the installation of the printer, the printer will first check for new supplies. If the cartridges are already installed and accepted, go to step 2.
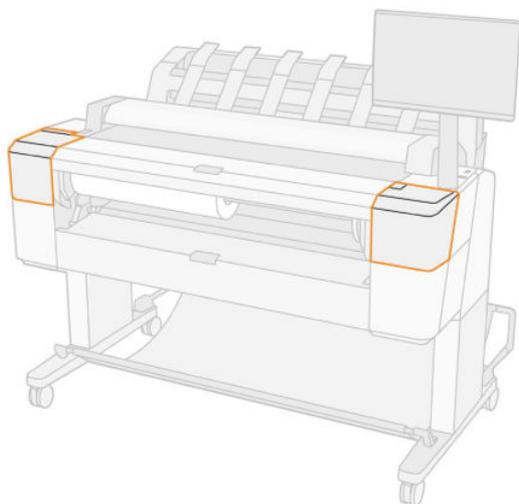
Press **Finish & check** to continue.

2. After inserting the cartridges, the printer requests the printheads.

Preparing printhead replacement
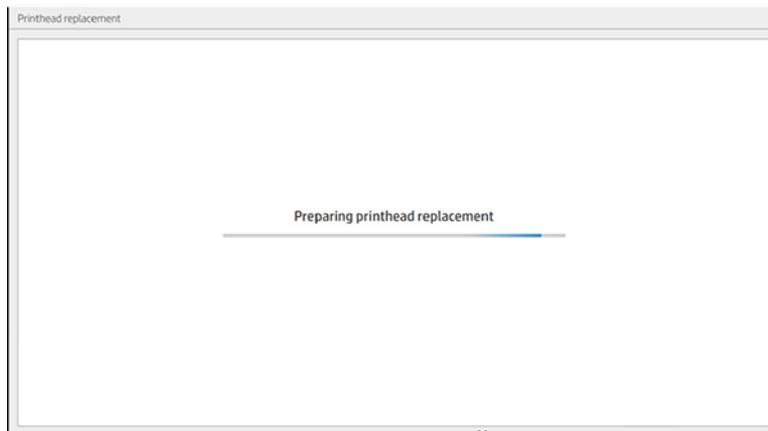
Open the window to access printheads. Insert the printhead in the correct orientation.
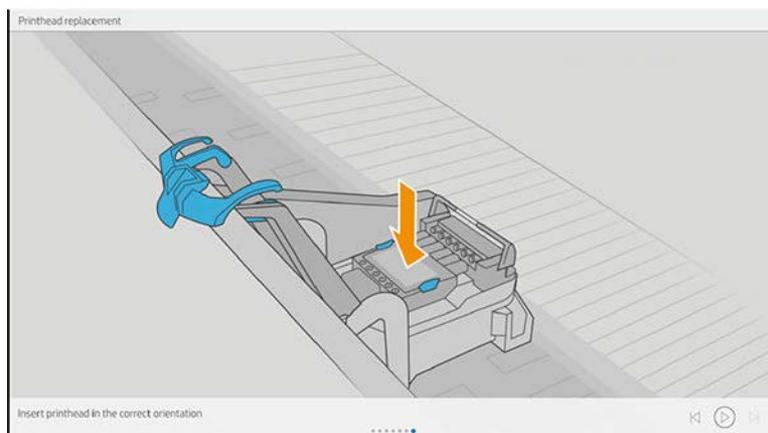
📝 **NOTE:** If printhead insertion is completed during printer installation, remember to remove the orange caps.
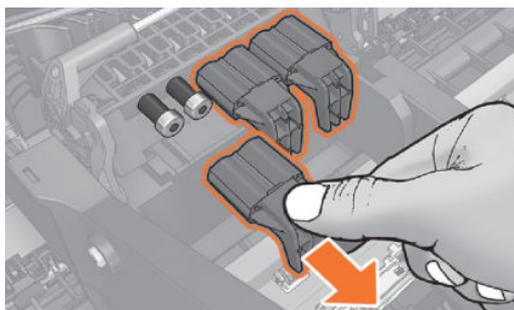
3. After inserting the printhead, the printer will check the electronic connections. If the check fails, the printer will ask to reseat the printhead.

If the cartridges used for installation do not contain the required 60 cc of ink for purging, the printer will report that **cartridge is not valid for setup**.
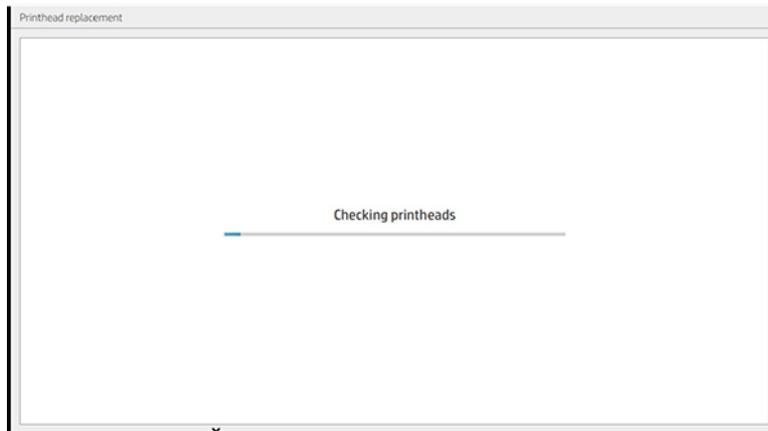
Checking printheads

NOTE: Keep in mind that to initialize a printhead you need 40 ml of Matte Black ink and 30 ml of ink for the rest of the colors. To purge ink tubes, you need 60 cc of all colors. If in doubt, use 130 ml cartridges.

4. Once it is certain that the printhead is recognized, the printer will purge the ink tubes if they are empty. It will also fill the printhead.
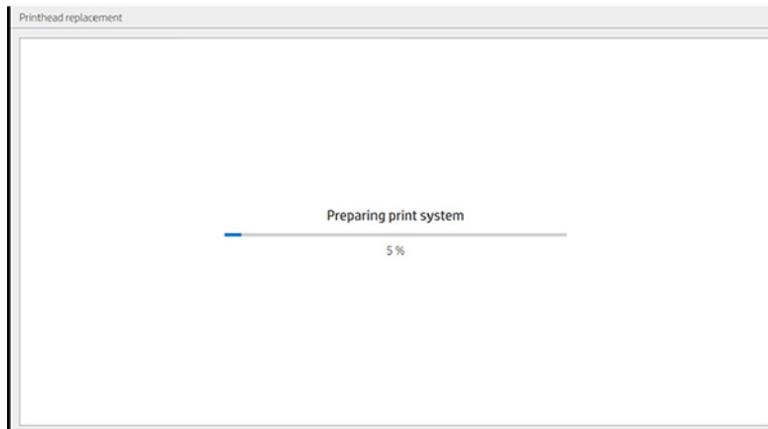
Preparing print system

If the process finishes OK, the printer will flag the printer tubes and printhead as filled with ink.

If during the process the printer detects that a cartridge has been removed it will show the message **Wrong cartridge extraction** and it will request a cartridge replacement before coming back to this step.

During this process, the printer will eventually run a pressure test to check that the printhead ink regulator is open.

If the check fails, it means that the regulator is closed and the ink is not able to enter inside the printhead. In this case, a 0086-0004-0n95 System Error will be logged in the service plot (where n is the failing color). Then, the check will be retried with the purpose of opening the regulator, for a maximum of ten times. A SE 0086-0004-0n96 will be logged for each failed retry. The number of the retry is shown in the description of the System Error.

If the pressure test is still failing after these retries, the printer will request to Reseat the printhead. After that, the printer will try again to fill tubes and printhead by going back to Step 3. The printer only asks to reseat the printhead once, so it will continue with the process even if the pressure tests fail again.

After this step, all ink tubes should be completely filled. The circles on top of the printhead should also look filled.

5. At this point, the printer will run a temperature check to validate the start-up.

None of these System Errors are shown in the front panel.

n indicates the missing color:

- n=1 stands for photo black

- n=2 stands for gray

- n=3 stands for matte black

- n=4 stands for cyan

- n=5 stands for magenta

- n=6 stands for yellow

The second check consists on measuring the printhead's temperature before and after spitting ink.

If the temperature increases over a limit, it may indicate that the printhead was not able to spit ink, thus may not be completely filled. In this case, a SE 0086-0004-0n97 will be logged.

6. After the printhead and tubes are filled, the printer completes some printhead servicing to finalize the initialization.
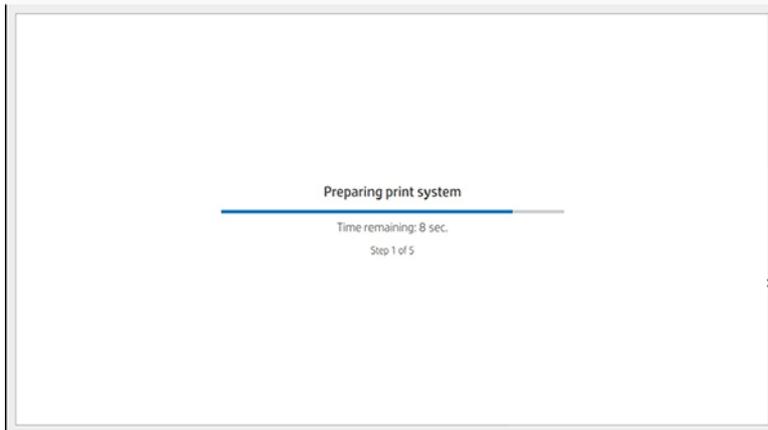
Preparing print system

If successful. If the printhead is properly initialized, the printer shows the following message: **Printhead replacement successful**. Press **OK** to continue.
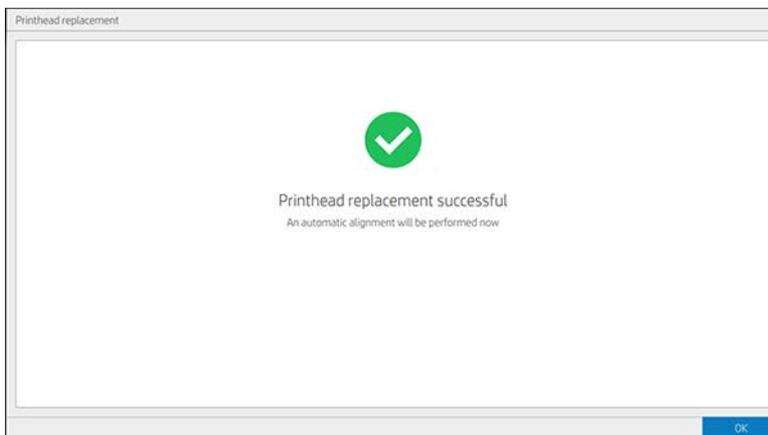
If unsuccessful. If there is a problem the printer, depending on the problem, one of the four following messages appears:

- **Printhead error. Replace Printhead.** Press **Replace** to continue.
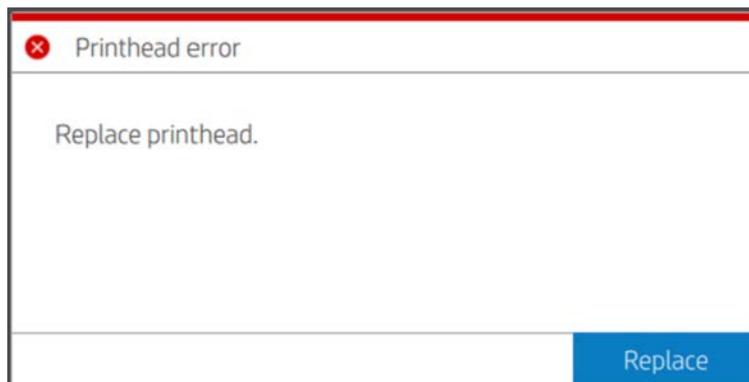
- **Printhead error. Reseat the printhead. If the error persists, replace it.** Press **Reseat** to continue.
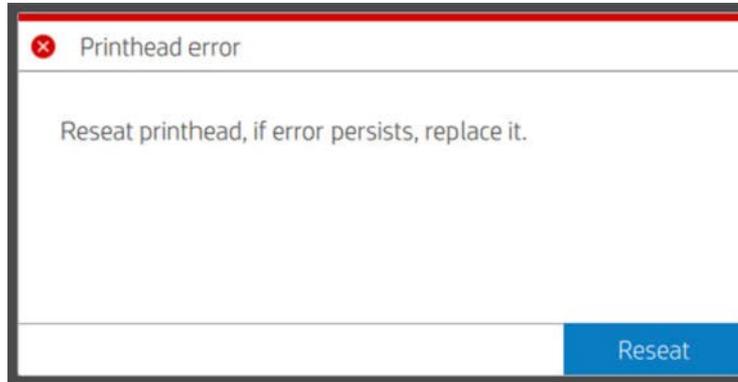
- **New printhead required. Install new printhead to continue.** Press **Replace** to continue.

- **Printhead Error. Replace printhead. Matte black Yellow Cyan Magenta Photo black Gray 1.** Press **Replace** to continue.
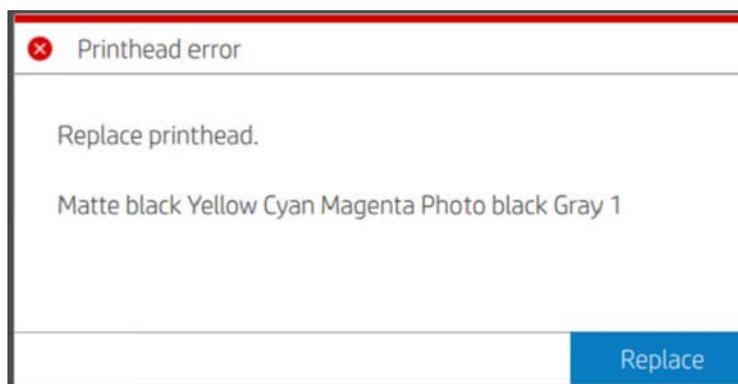
Paper input

Cutter

The auto cutter allows cutting all the supported media in both directions of movement with a self-orientated rotary blade. This cutter is completely independent from the printer carriage. Therefore, the printing process and the cutting process can be parallel, optimizing this way the printer´s throughput.

- New cutter for higher productivity in continuous print.

- Assemblies are separated from the printhead carriage.

- It has its own cutter motor, pulley, and cutter carriage with rotary blade.

- It can cut while the carriage is printing.

- It cuts in both directions (left and right).

- There is no CSR component.

NOTE: In the service menu, the **Cutter offset calibration** is available in case the top and bottom margins have problems. Normally there is no need to perform it even when replacing related components.

Cutter components

Cutter rail

Cutter motor

Cutter carriage

Belt

Pulley

Rotatory blade

Linear blade

"overwrap" between rotary blade and liner blade

DC Motor + Encoder

Cutter Guide

Cutter Module
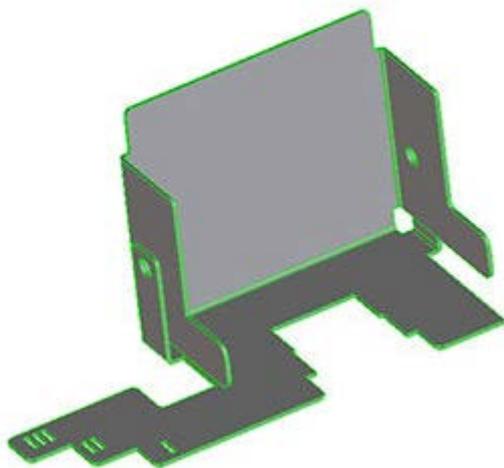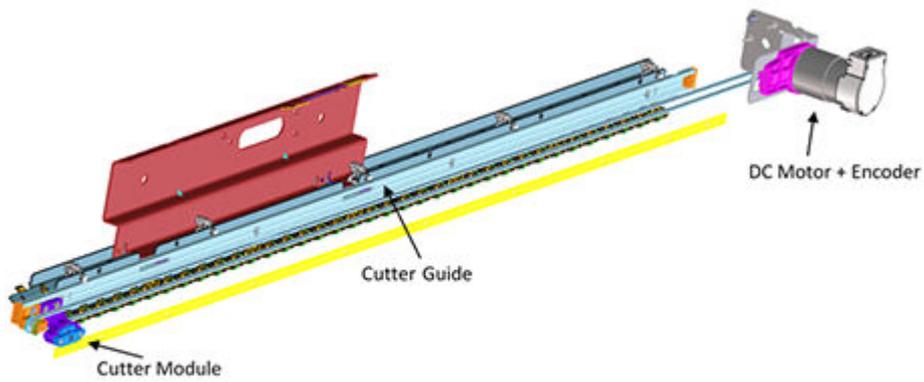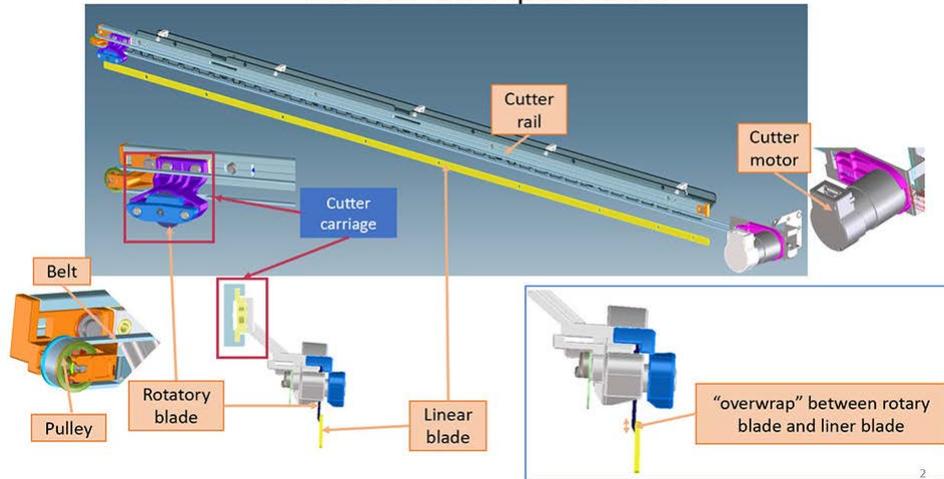
Paper output

Paper output overview

The paper output system transfers the media to the output device (folder, stacker, or basket).
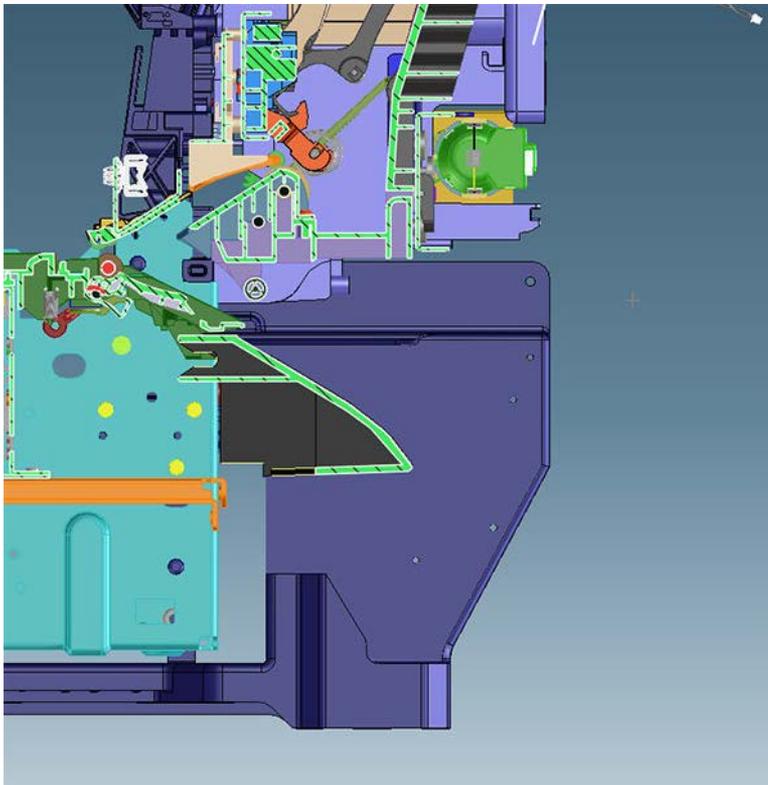
Electric and electronics parts

- Formatter PCA: Celeron 2 cores, 4GB (T1600) or Celeron 4 cores, 8 GB (T2600).

- Engine PCA

- HDD: 500 GB 2,5" L32597-021.
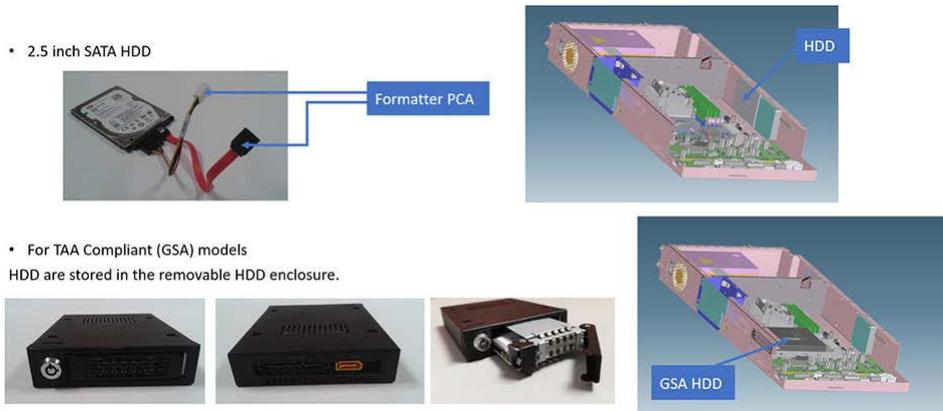
- DC/DC power supply PCA: it converts 12 V to 32 V. The PSU provides 12 V and all the motors need a higher voltage.

NOTE: Converts 12 V from PSU to 32 V.

PSU uses 12 V, and all the motors require a higher voltage.

- PSU: there is no hardware switch. The mains switch is below the FP screen.
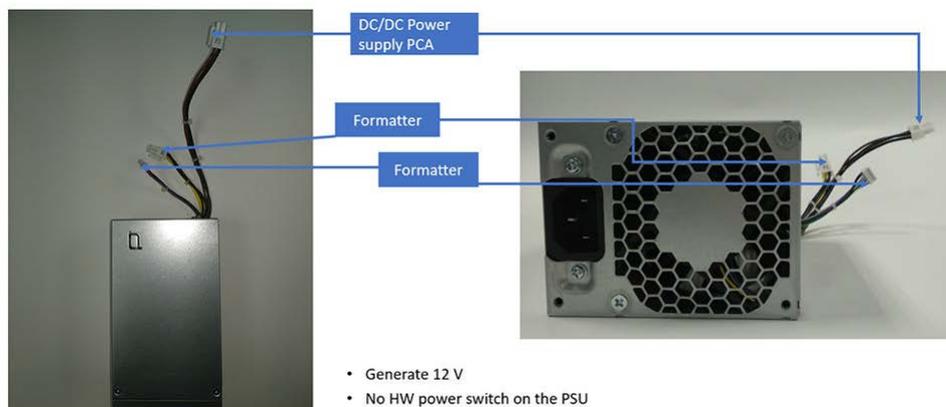
- CryptoASIC PCA

Front panel

- It is a 15.6 inch touch screen intended for a better usability.

- It is placed at the right front side of the printer. For a best user experience the screen can be X and Z angle adjusted.

- The screen is fixed to a tube, by means of a rotating arms, and supported by the structure through an ID part for a better user experience (provides a feeling of rigidity due to less vibration while handling).

- HDMI, USB, and power cables are connected to the screen after coming out through the inside of the tube.
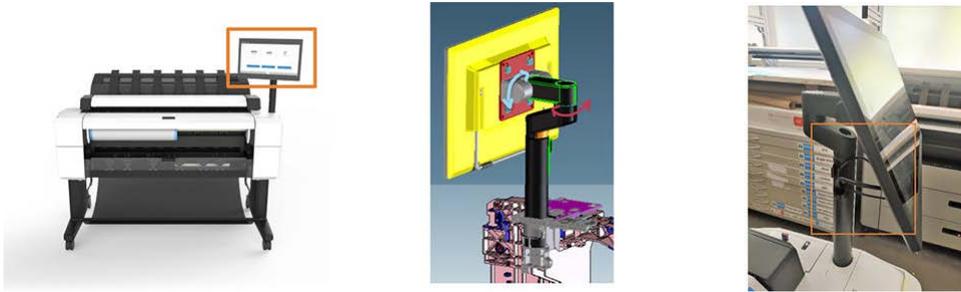
Small monitor

- It is a 4.3 inch touch screen intended for a better usability.

- It is placed at the right front side of the printer. For a best user experience the screen can be X angle adjusted.

- The screen is fixed to an ID Bezel.

- A FFC cable from Dashboard PCA is hiddenly connected to provide PWR and Signal to the Small Front Panel

Ink delivery system (IDS)

Functionality

- The IDS drives ink from the cartridges to the printheads.

- It is composed of two parts:

    - **Ink Supply Station (ISS):** Holds the ink cartridges. Provides pressure to pump ink from the ink supplies to the printhead.

– **Replaceable Ink Delivery System (RIDS):** Conducts the ink from the ISS to the carriage end by means of pressure.

ISS (Ink Supply Station)

- Conducts the ink pumped from the ink cartridges to the printhead.

- Keeps the ink in good condition until it is delivered to the printhead.

- Provides leak-tight connections to avoid leaks and minimize ink on the customer.

- Holds ink cartridges and provides easy handling for users.

- For each ink supply, there is a spring mechanism pushing a lifter that pressurizes a pump chamber.

    – A camshaft, driven by a motor, moves the lifters up and down.

    – Sensors detect when the pump chamber is empty and needs to be refilled (by pushing down the lifters).

RIDS (Replaceable Ink Delivery System)

- Conducts ink from carriages in the ISS to printheads on the carriage.

- Ink flows through a flexible tube from the ISS to the carriage end by means of pressure.

- There are fluid interconnections at both ends of the tubes which:

    – Minimize contact between customers and ink (when replacing ink supplies or printheads).

    – Allow ink cartridges to remain static on the ISS while the carriage is moving back and forth in the direction of the scan axis.

3   Troubleshooting

The front panel

The front panel is located on the front right of the printer. It gives you complete control of your printer: from the front panel, you can print, view information about the printer, change printer settings, perform calibrations and tests, and so on. The front panel also displays alerts (warning and error messages) when necessary.

For more information about front panel, refer to the user guide.

Sleep mode

Sleep mode puts the printer into a reduced power state after a period of inactivity, turning off the front panel display to save energy. Printer features can be enabled from this mode, and the printer maintains network connectivity, waking up only as necessary. The printer can be woken from sleep mode by the Power button, by sending a print job, or by opening the window, the roll cover, or the stacker cover. The printer wakes up in several seconds, more quickly than if it is completely turned off. While in sleep mode, the Power button blinks.

To change the time that elapses before sleep mode, press **Settings ►System ►Power Options► Sleep mode wait time**. You can set a time between 5 and 60 minutes; the default time is 13 minutes.

Printer Monitoring (with the Print Spooler) and Remote Printer Management with the HP Utility and Web JetAdmin continue to be available during sleep mode. Some remote management tasks offer the option of remotely waking up the printer if needed to perform the task.

Other Power States

Besides sleep mode, the printer has 5 different power states (including ready and sleep). Depending on the power state, the printer has different subsystems wake up and ready for use.

State	Ready	Sleep	Stand-by/soft-off	Off
What is working?	Everything	Networking	Nothing	Nothing
Visual cues	Front panel and power button LED is on	Front panel is off, power button LED is pulsing	Everything off	Everything off
How to enter	Going out from any other power state	After "Sleep mode" timeout	1. Press power button 2. Press power button more than 5 sec 3. After "Auto-off" timeout	Unplug power cord

State	Ready	Sleep		Stand-by/soft-off	Off
How to leave	Enter into any of the other states	1.	Press power button	Press Power button	Plug in power cord
		2.	Job submission		
		3.	Open window, open supplies, open roll covers, open stacker arms		
		4.	Auto-reboot (1)		
What has power?	Everything	Front panel and power button; Formatter and PSU		• Real Time Clock (battery supplied) • Part of the PSU	Real Time Clock (battery supplied)
Max power	75 W	8 W		0.5 W	0.1 W

(1) After 50 cycles of sleep-mode, the printer performs an auto-reboot, done between 22h00 and 06h00.

Auto-off

Every printer produced will have the Auto-off sets enabled. However, as soon as the printer gets connected to any network, these settings will be automatically disabled. This is the only time when the Auto-off is controlled by something other than the user.

After that, the user can change the Auto-off settings by pressing **Settings System Power OptionsAuto-off due to inactivity**. The time out is 120 minutes.

NOTE: In some situations this can be confusing since printers without LAN will be set to off automatically during the night. Furthermore, once the printer has been turned off automatically it needs to be turned on with the Blue Power Button on the printer. Turning on from the rear button will not wake up the printer.

Troubleshooting tree (T920 and T1500 only)

As a general approach, the following tree should be followed to troubleshoot any issue. This helps understand at which point the problem was caused. The tree is sequential; before checking a subsystem, the previous steps need to be working. Once a sub system is identified as causing the problem, the service and utilities related to that component can be used to troubleshoot further. See Diagnostics, Service Utilities and Calibrations on page 282.
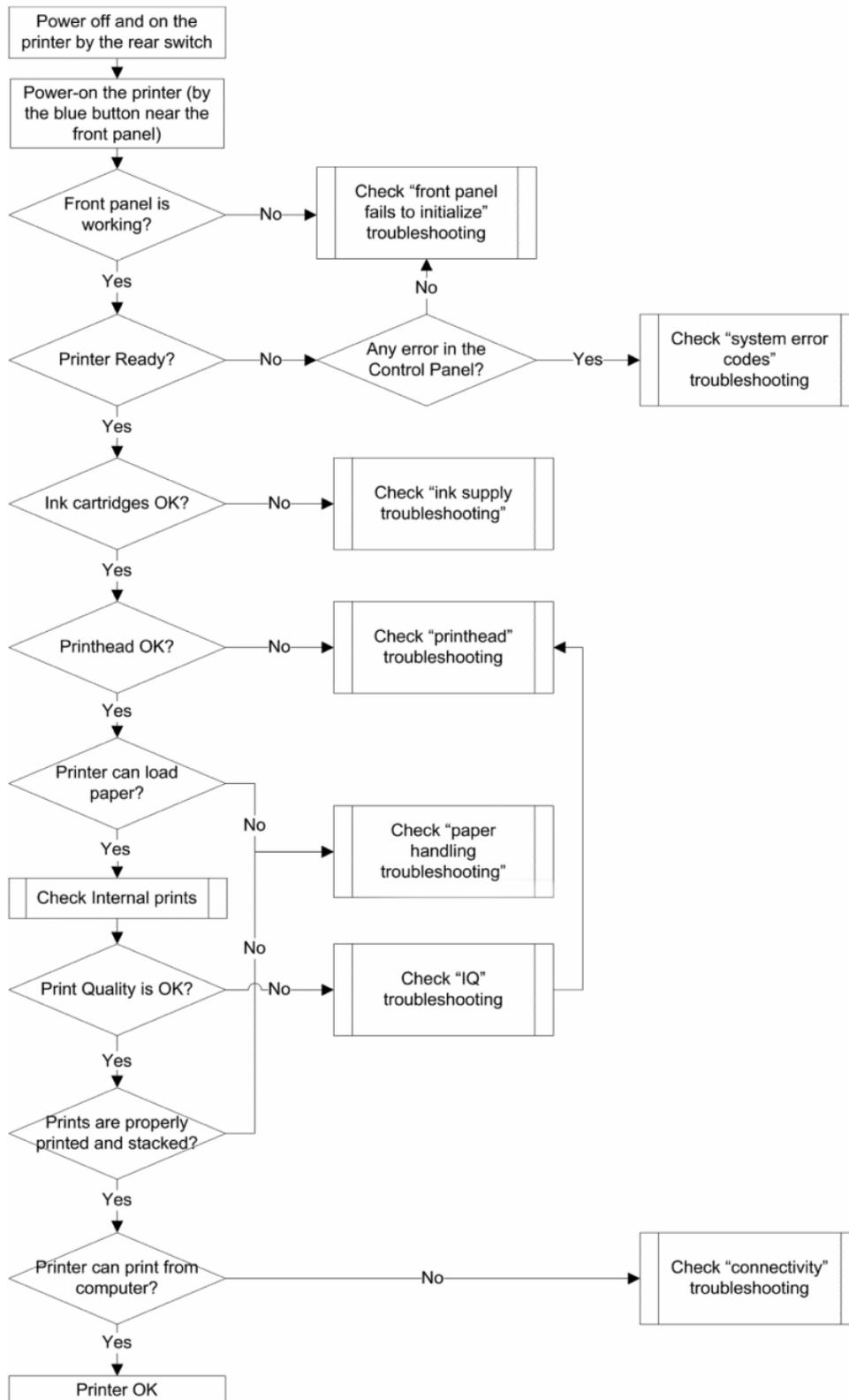
NOTE: Once an issue is confirmed, check that printer has latest firmware installed.

Product Troubleshooting trees (T2500 and T3500 only)

Figure 1-1 Troubleshooting
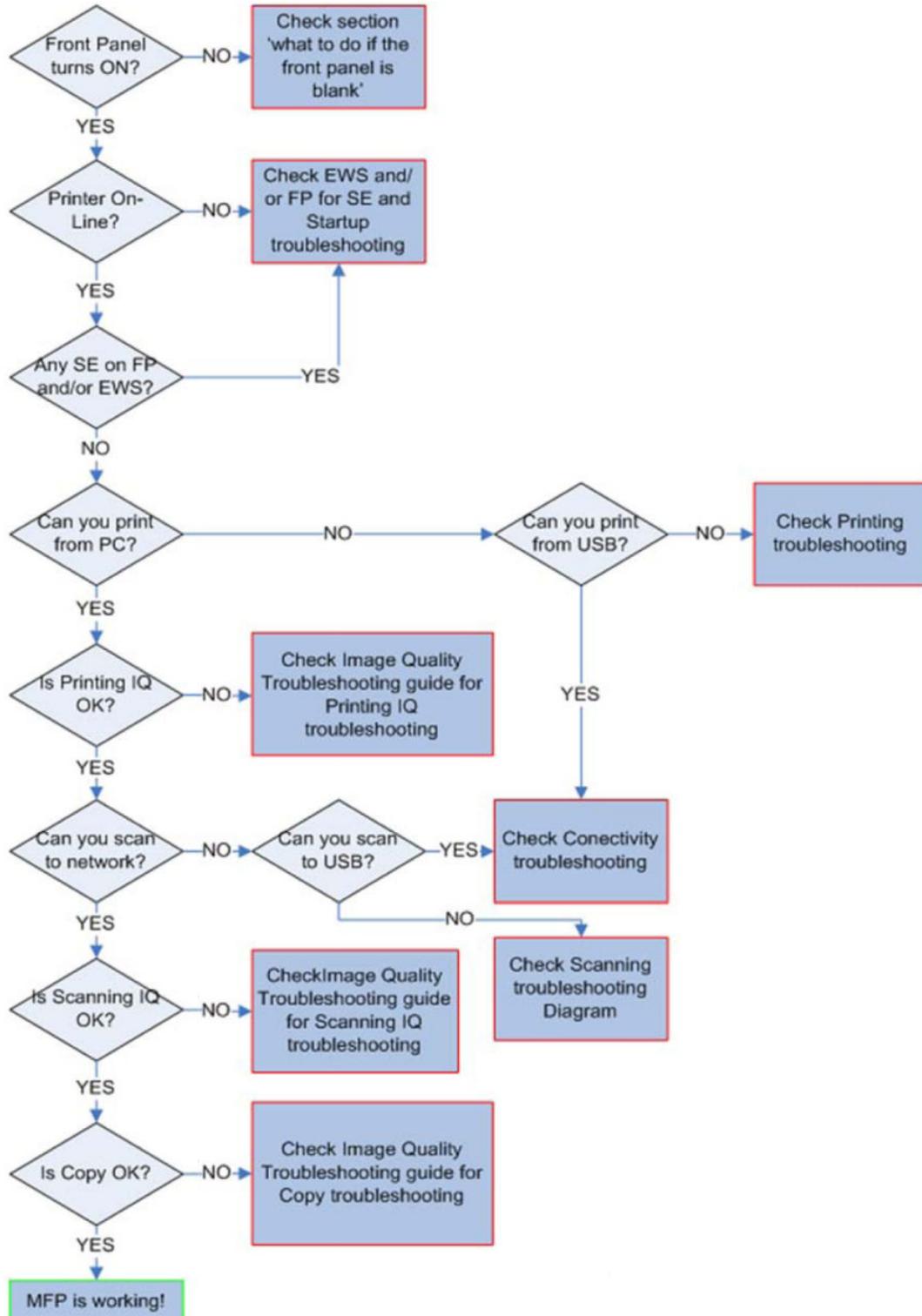
Scanner Troubleshooting Tree

Figure 1-2 Scanner Troubleshooting
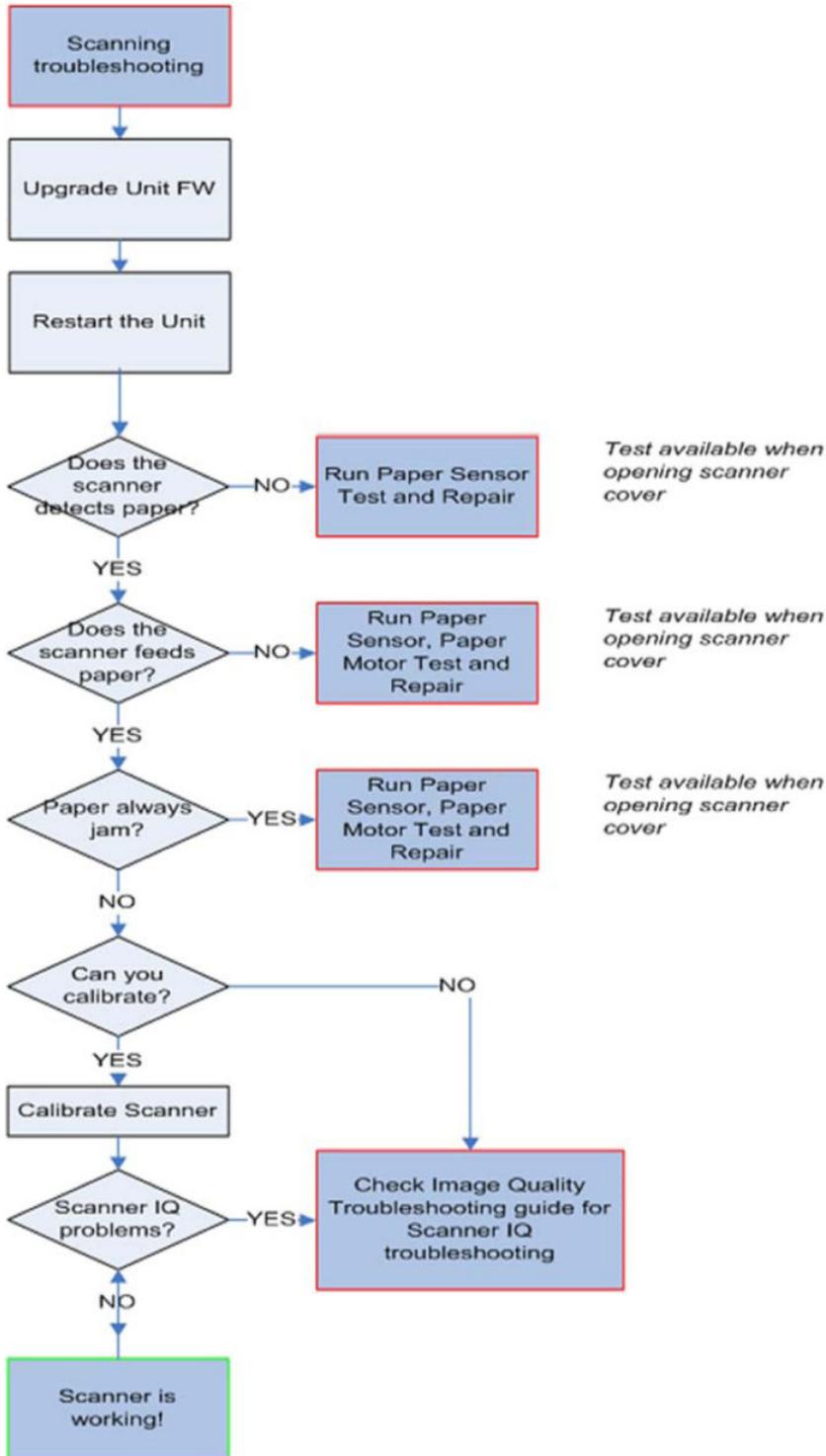
Scanner CIS Troubleshooting

Figure 1-3 Scanner Troubleshooting

```
┌─────────────────────┐        ┌─────────────────────┐        ┌─────────────────────┐        ┌─────────────────────┐
│ Do all of the CIS   │  No    │ Do some of the CIS  │  No    │ Do all CIS modules  │  No    │ Are all CIS modules │
│ flash in sequence   │────────│ flash in sequence   │────────│ light blue          │────────│ off                 │
│ Red>Green>Blue      │        │ Red>Green>Blue      │        │                     │        │                     │
│ when opened?        │        │ when opened?        │        └─────────────────────┘        └─────────────────────┘
└─────────────────────┘        └─────────────────────┘                 │                              │
                                         │                             Yes                            Yes
                                        Yes                             │                              │
                               ┌─────────────────────┐        ┌─────────────────────┐        ┌─────────────────────┐
                               │ Replace the ones    │        │ Scanner is not      │        │ Sensor L is         │
         Yes                   │ that do not flash   │        │ connected with the  │        │ defective           │
          │                    └─────────────────────┘        │ printer:            │        │ replace sensor      │
                                                              │ Check cables and    │        └─────────────────────┘
                                                              │ printer             │
                                                              └─────────────────────┘
┌─────────────────────┐        ┌─────────────────────┐
│ Block sensor R      │  No    │ Sensor R is         │
│ Are all LEDs RED?   │────────│ defective           │
└─────────────────────┘        │ replace sensor      │
          │                    └─────────────────────┘
         Yes
┌─────────────────────┐        ┌─────────────────────┐
│ Block sensor G      │  No    │ Sensor G is         │
│ Are all LEDs Green? │────────│ defective           │
└─────────────────────┘        │ replace sensor      │
          │                    └─────────────────────┘
         Yes
┌─────────────────────┐        ┌─────────────────────┐
│ Block sensor B      │  No    │ Sensor B is         │
│ Are all LEDs Blue?  │────────│ defective           │
└─────────────────────┘        │ replace sensor      │
          │                    └─────────────────────┘
         Yes
┌─────────────────────┐        ┌─────────────────────┐
│ Block sensor RGB    │  No    │ Motor/Scan          │
│ Motor moves forward?│────────│ Controller Board is │
└─────────────────────┘        │ defective: replace  │
          │                    └─────────────────────┘
         Yes
┌─────────────────────┐
│ Scanner hardware OK │
└─────────────────────┘
```

Troubleshooting using board LEDs

All the printer boards have diagnostic LEDs to help in the troubleshooting. Although some LED information is redundant and also known by the printer firmware, using the board LEDs can be very useful when trying to diagnose power or communication problems. The following sections provide information on the physical location and meaning of each board's diagnostic LEDs.

For further information regarding electric and electronic interactions, see the subsystems' block diagrams in section Theory of operation on page 9.

Board name: Formatter PCA
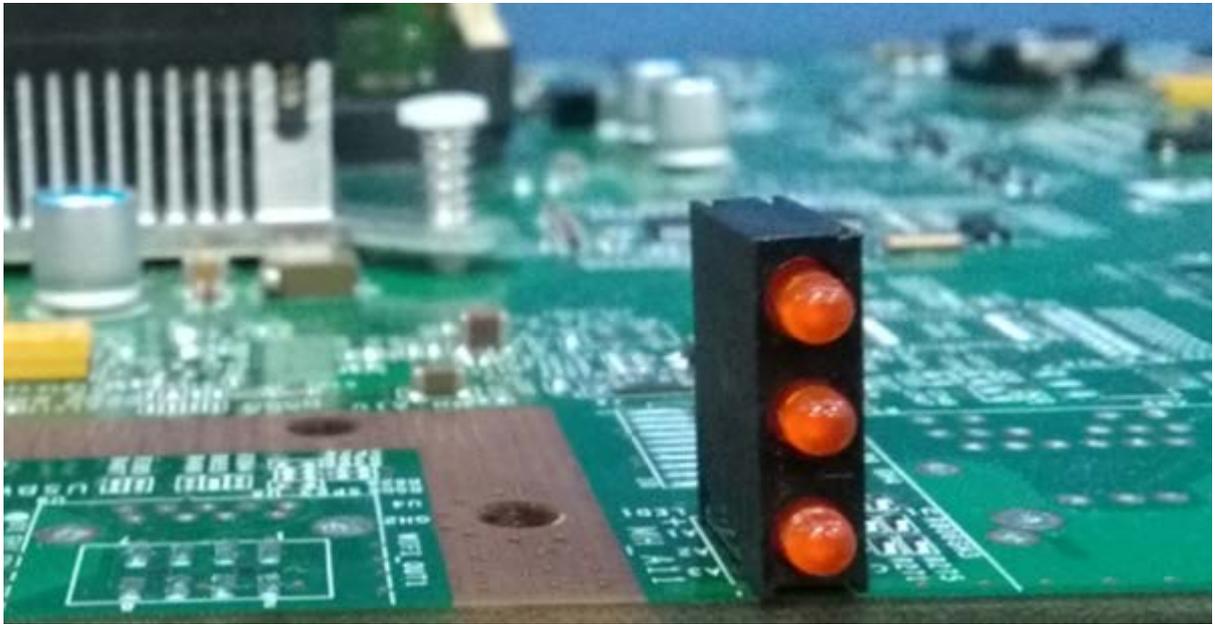
Meaning of LEDs

▲
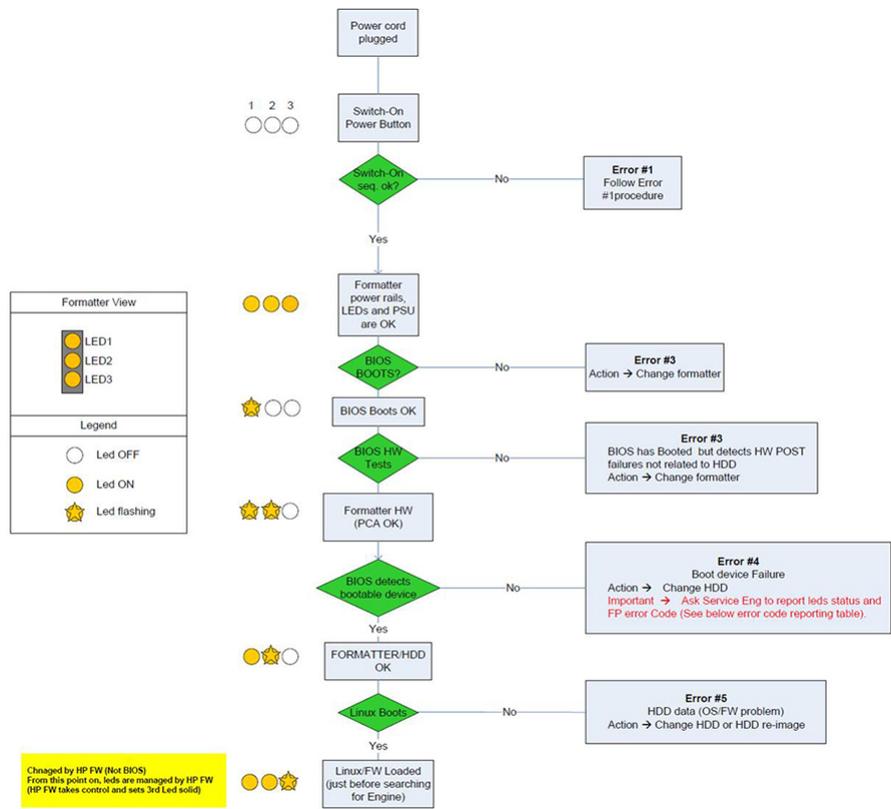
Board name: Carriage PCA

Meaning of LEDs:

State	Orange LED DS3	Orange LED DS4	Red LED DS1	Orange LED DS2
32V Power input OFF	OFF	??	??	??
Vcc Power OFF	??	OFF	OFF	OFF
32V Power input ON	ON	??	??	??
Vcc Power ON	??	ON	??	??
FPGA not programmed	??	ON	ON	ON
FPGA programmed in Reset State	??	ON	OFF	OFF
FPGA out of reset but no clock	??	ON	Regular blinking	Not blinking
FPGA out of reset, HCI clock OK, HCI not initialized	??	ON	??	Slow blinking
FPGA out of reset, HCI clock OK, HCI Id initialized	??	ON	??	Fast blinking
FPGA out of reset, PLL unlocked	??	ON	Two-pulse blinking	??

Board name: Jester PCA

Meaning of LEDs:

There is only one LED left on Jester. It is a Green/Red LED able to code the following states:

Board status	LED status	Period
Some Voltage/Temperature out of range	Fix Red	-
Monokhan does not respond (possibly in reset)	Slow Red	0.4 Hz
Mismatching Hardware/Software version	Quick Red	5 Hz
Monokhan unexpected reset	Fix Green	-
Normal operation	Quick Green	5 Hz

Board name: Engine PCA

Meaning of LEDs:

State	Green LED DS5	Green LED DS11
32V Power input OFF	Off	Off
32V Power input ON	On	Off
Sleep mode activated	Off	On

Paper handling problems

The paper has jammed in the print platen

When a paper jam occurs, you normally see the **Possible paper jam** message in the front panel display, and a system error 0065–0002–0008 or 0065–0002–0059 or 0065–0006–0008 or 0065–0006–0059.

1. Open the window.
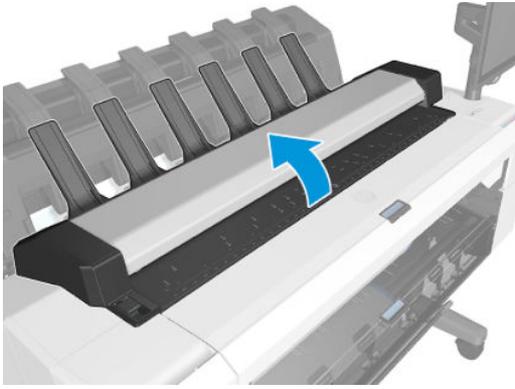
2. Move the carriage manually to the left side of the printer, if feasible.
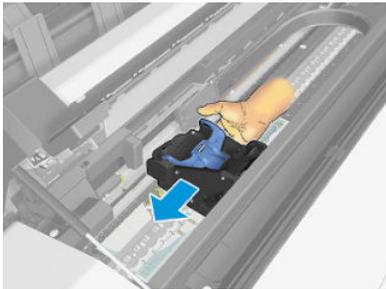
3. Go to the paper path.
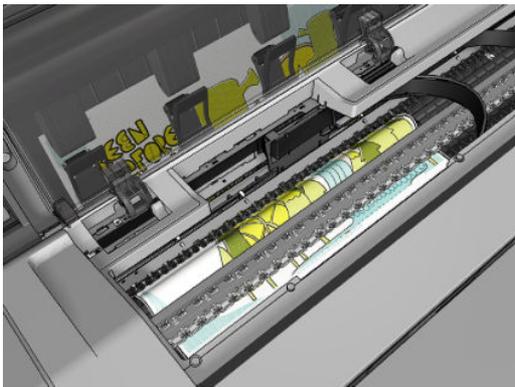
4. Cut the paper with a pair of scissors.
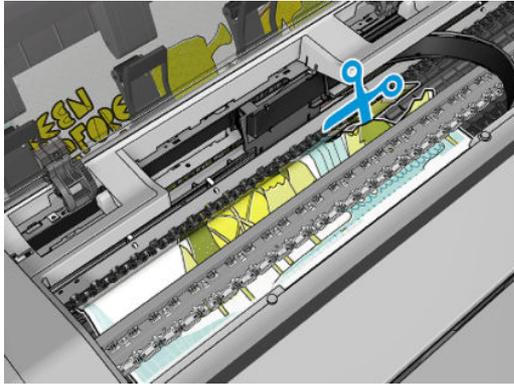
5. Open the roll cover.
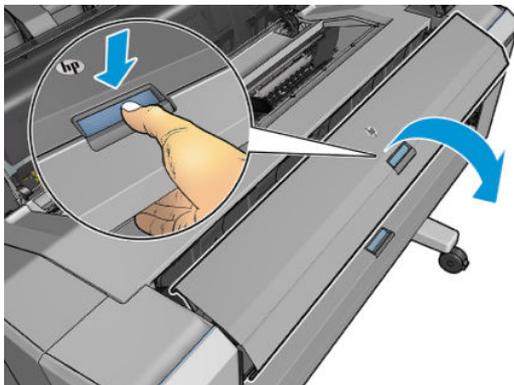
6. Manually rewind paper onto the roll.
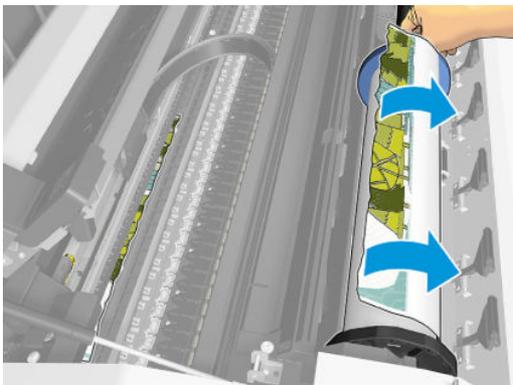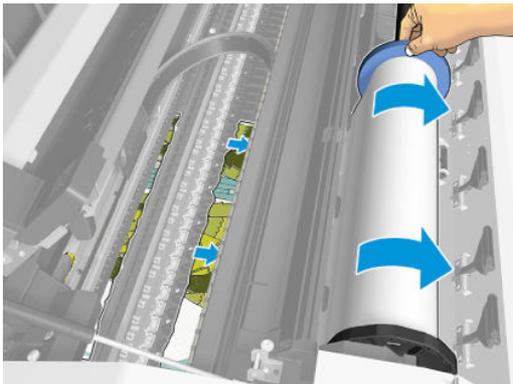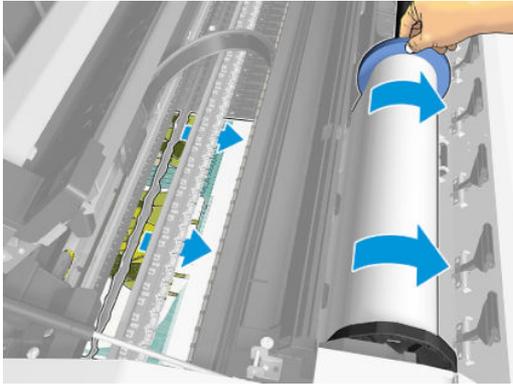
7. If the leading edge of the paper is ragged, trim it carefully with scissors.
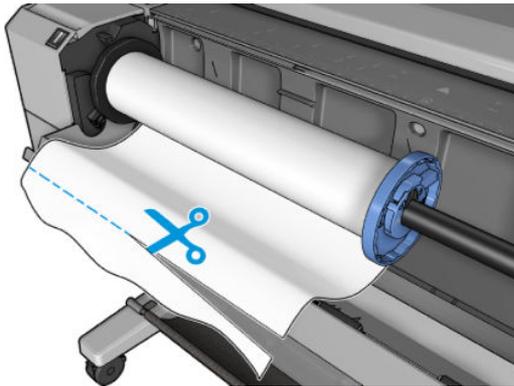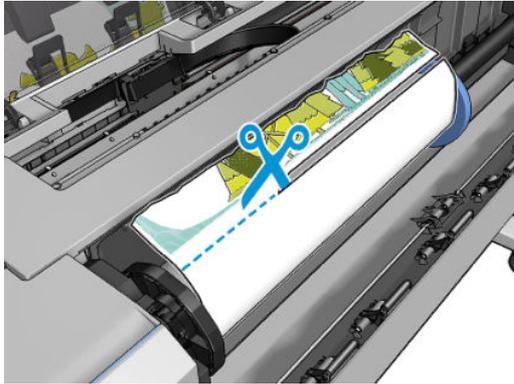
8. Remove the paper left in the printer.
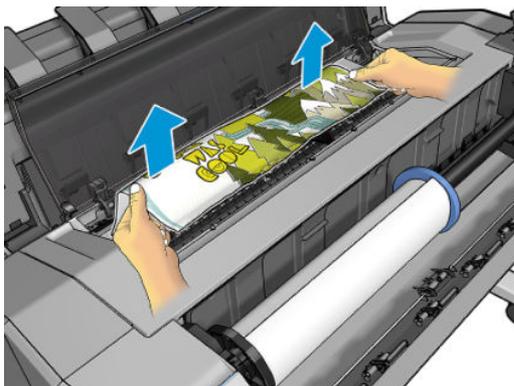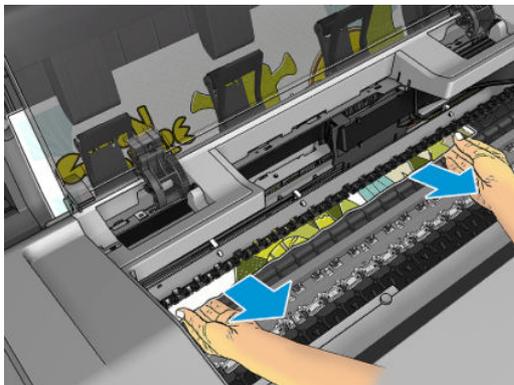
9. Make sure you have removed every fragment of paper.
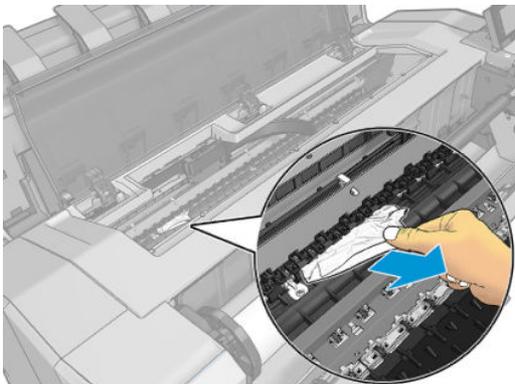
📝 **IMPORTANT:** Remove remaining paper by carefully pulling it out in the direction of the paper axis.

10. Close the window and the roll cover.
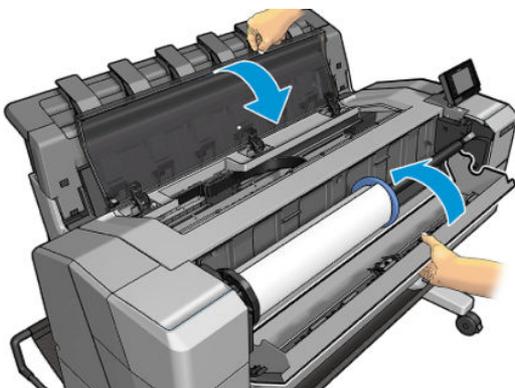
11. Restart the printer by holding down the power button for a few seconds, or by turning the power switch at the rear off and then on.

12. Reload the roll, or load a new sheet.

📝 **NOTE:** If you find that there is still some paper causing an obstruction within the printer, restart the procedure and carefully remove all pieces of paper.

The paper has jammed in the stacker

When a stacker jam is detected, printing is paused, and the front panel asks you to open the stacker cover and clear the jam by pulling out the paper.

📝 **IMPORTANT:** Remove remaining paper by carefully pulling it out in the direction of the paper axis.

When the stacker arms cover is closed and the printer detects no jammed paper, the front panel requests confirmation to continue printing.

Thin paper is jamming in the stacker

When using a media thinner than 75 gsm, the blue lever needs to be pulled forward so that there is a larger gap between the arms and the stacker tray when the arms are closed.
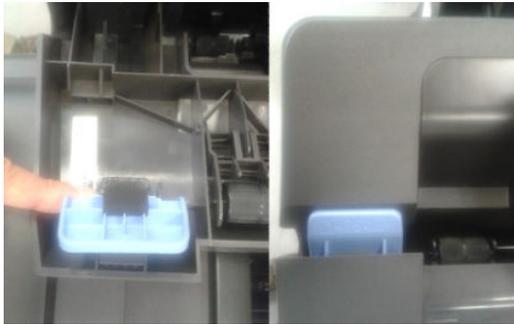
After printing with thin media, remember to return the blue lever so that the gap between the arms and the stacker tray is small again.
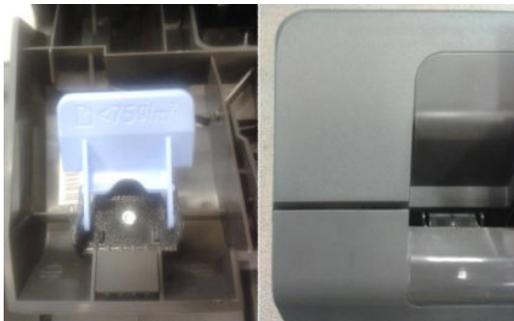
High density plots jamming in the stacker

If you are printing high-density plots (over 15 ngrs ink density) with media below 80 grs/m2, and you encounter that plots have problems curving at the end of the stacker, or do not stack properly, and cause jams:

- Use Manual mode.

- Print to the basket.

- Use thicker media; over 80 grs/m2.

- Use the CR357-67089 Stacker tray filler (CSR)

  To improve the performance of the stacker when printing high density graphic content customers can use the Stacker tray filler that guides stacker paper exit.

  Place the parts of the Stacker tray filler as illustrated below:
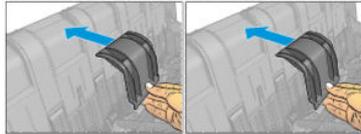
Several stacker paper jams

Call agent:

1. Ask customer for Media type used and plot content.

2. Ask customer to check there is free space between the top of the stacker and the wall.

3. Ask customer to check if one or several wheels of the arms cover are stuck in the paper path.

4. Exclude the cause to be any of the previously described issues. See Thin paper is jamming in the stacker on page 50 and High density plots jamming in the stacker on page 51.

   A root cause can be one or several wheels of the arm cover stuck in the paper path.

   Ask the customer to perform the following actions:

5. Check that no cable routing is blocking the paper path.

6. Remove all paper from the stacker.

7. Detach the stacker arms cover from the printer.

8. Visually check that there are no missing wheel supports in the stacker cover (there are 25 wheel supports).

9. Shake the stacker cover a couple of times so all the wheel supports can move freely.

10. Ensure that all wheel supports in the cover can rotate freely (by pushing them, and checking that they return to their position). If any of them are stuck, try to move slightly to free them.

11. If any of the wheel supports are stuck or are missing, send a new stacker arms cover to the customer.

12. If all the wheel supports are free and there are none missing, then arrange an on-site visit with a new stacker and stacker cover arms.

Service engineer:

Items required:

Take a stacker

Take stacker cover arms

1. Remove all paper from the stacker.

2. Detach the stacker cover from the printer.

3. Visually check that there are no missing wheel supports in the stacker cover (there are 25 wheel supports).

4. Shake the stacker cover a couple of times so all the wheel supports can move freely.

5. Ensure that all wheel supports in the cover can rotate freely (by pushing them, and checking that they return to their position). If any of them are stuck, try to move slightly to free them.

6. If any of the wheel supports are stuck or are missing, send a new stacker arms cover to the customer.

7. If all the wheel supports are free and there are none missing, check that there are no free or misplaced pieces at the bottom of the stacker (pinches, first wheel holder, wheels, etc.).
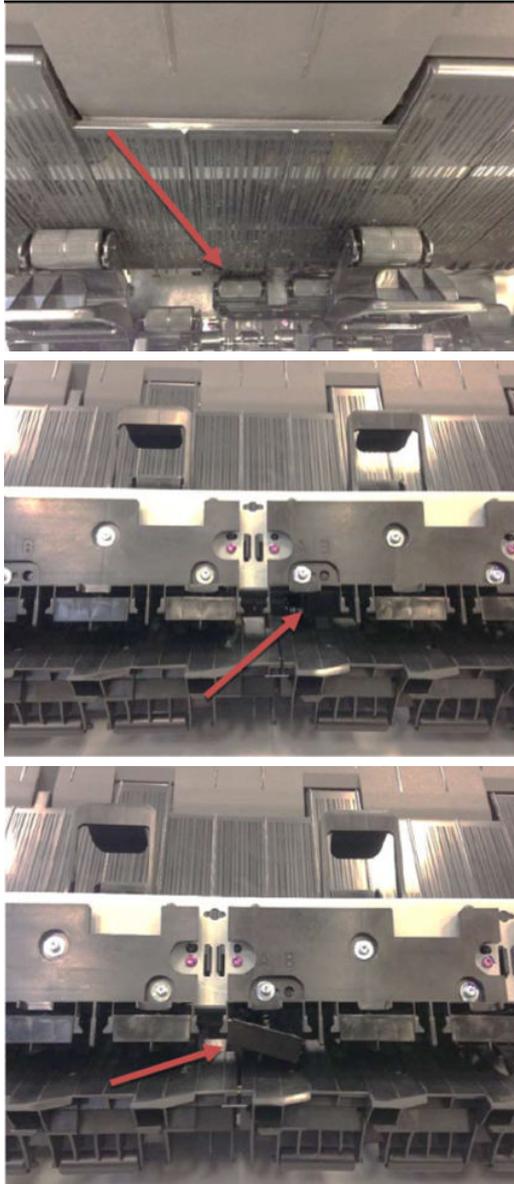
8. Check that the Ramps are not broken and are aligned.
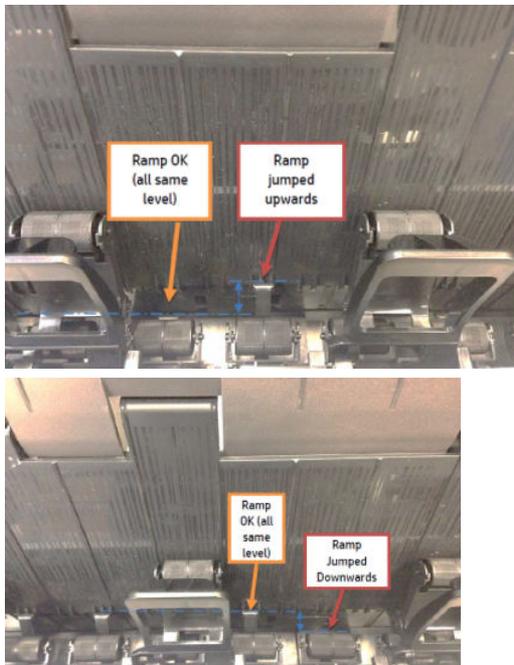
9. Report root cause in cso and change Stacker.

Stacker capacity lower than expected
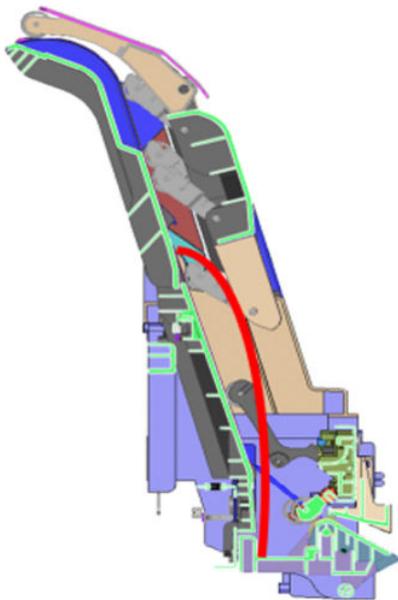
Stacker capacity is defined as up to 100 pages (T920/T1500/T2500), A1/D size line drawing plots in landscape on bond media, but stacker capacity depends on media thickness and page size. If you are printing plots shorter than A1 and you experience a reduction in the stacker capacity because they collapse and the curling fills the available stacking space:

- Try to increase the length of the plots when printing A2 and A3 sizes:

— Print A2 sizes in portrait position, using low-width rolls or nesting to minimize waste of paper.

— For A3 size, group different jobs in the same plot.

The stacker detects "Stacker is full" permanently

Even when there are no pages in the stacker, it detects that is it full.

- Remove the stacker arm and check the stacker wheels. If you find a stacker wheel in the upper position, get it down with the hand.

- Run the capacity sensor diagnostic.

- Run the ramps motor diagnostic.

- Check that when the ramps are up all are at the same height.
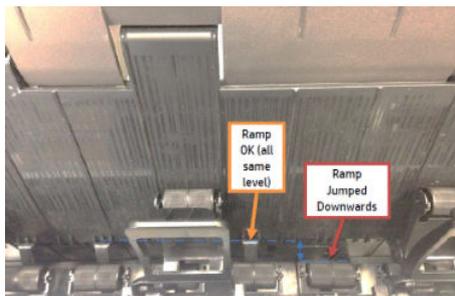
If ramps are not aligned, replace the stacker.

- Run the capacity sensor diagnostic. If it fails, replace the Hand off assy sensor.

The stacker detects "Stacker jam" permanently

Even when there are no pages in the stacker, it detects a jam.

- Run the capacity sensor diagnostic. If it fails, replace the Hand off assy sensor.

The printer rejects the paper during paper load

If the roll load process is too long and unsuccessful, check the following items:

- Check that the Clenout plastic parts are properly clipped by pressing firmly and seeing that all parts are aligned.

- Roll paper is properly inserted in the spindle and pressed uniformly by the hubs.

- The core of the roll paper is not misplaced. If this is the case, try to correct its position.

- Check if the black hub of the spindle is damaged. If any part of the spindle is damaged, it could cause roll load problems.

If the roll affected is from a polyester or film type, it is possible that the edges of the paper are not properly detected during the paper load process:

- Upgrade to the latest FW release to solve the problem, as the paper load algorithm has been improved.

The printer rejects the paper because out of paper when printing or loading paper

Check the performance of the media presence sensor.

Prints do not fall neatly into the basket

- Ensure that the network and power cables are not getting in the way.

- Ensure that the basket is correctly installed.

- Ensure that the basket is open.

- Ensure that the basket is not full.

- Ensure that the paper is not jammed.

- Paper often tends to curl near the end of a roll, which can cause output problems. Load a new roll, or remove prints manually as they are completed.

If you see the message **Please remove the print from the basket and press OK to continue**, empty the basket, check that there is no paper in the path to the basket, then press **OK**. The printer checks that the problem has been fixed.

Using the stacker

Installation

Prevent interruptions:

1. Open the basket; this indicates the clear space required at the back of the printer.
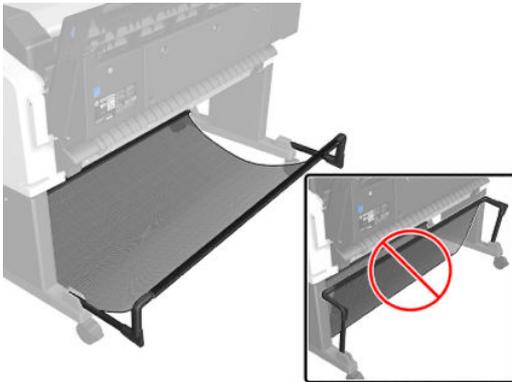
2. Route the cables to the side desired to attach the power cable; the left side is shown here.
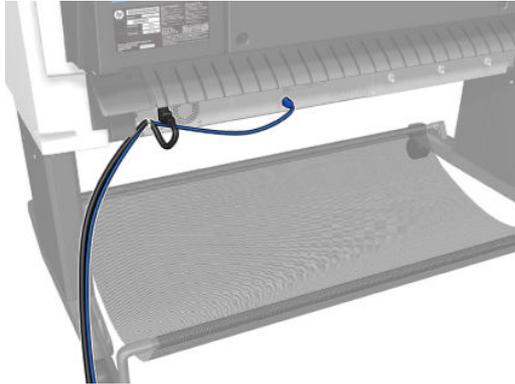
Removing prints from the stacker tray

Sheets can be removed from the stacker while printing. It is recommended to remove all prints when not printing.

> 📝 **NOTE:** Once removed, do not put prints back into the tray as this can collapse output.

If prints are replaced in the stacker tray; make sure that they reach the bottom of the stacker and don't overlap the page that is being printed, or the small black plastic piece.
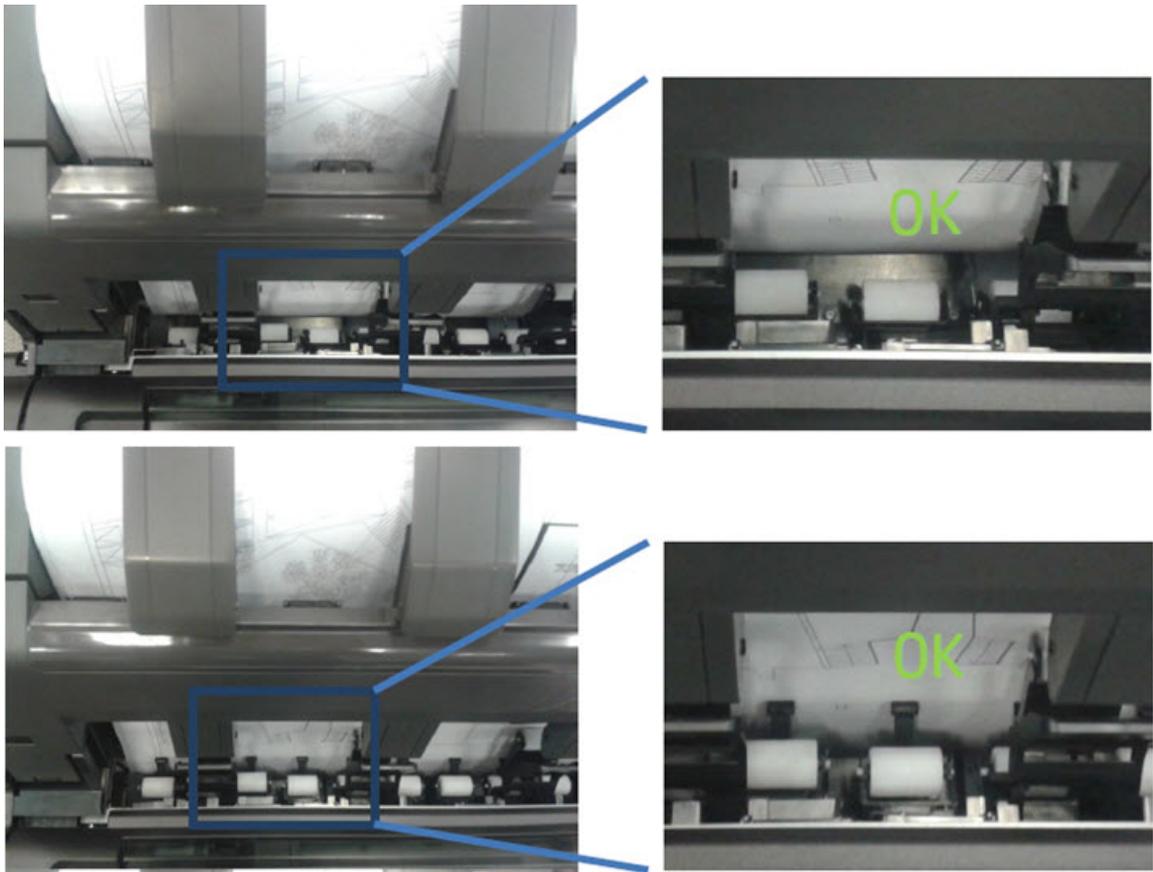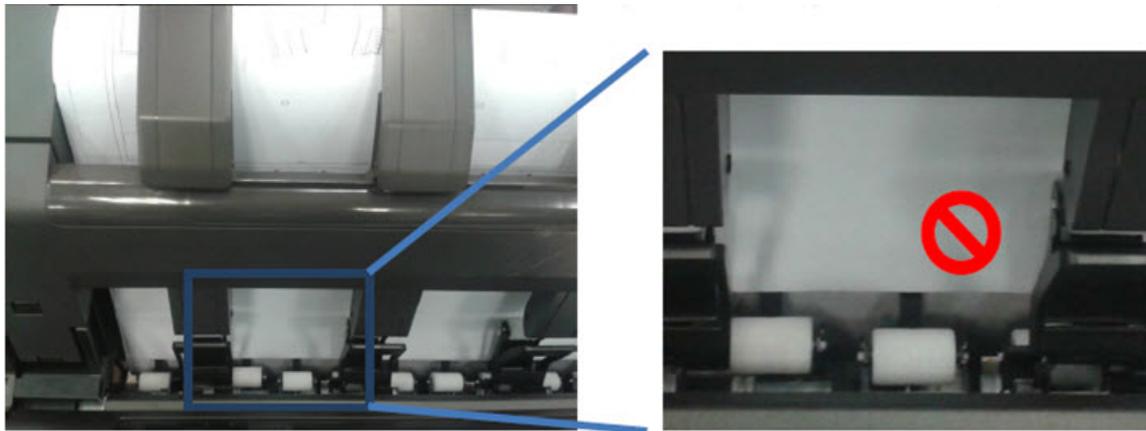
Printing high quality prints

To obtain the best possible quality, consider:

High quality photo media graphics

Use instant dry photo media such as HP Instant Dry Photo or Satin paper to get ready-to-use and robust prints.

Optimize quality when printing solid black areas; use Manual mode (print with the stacker open), and carefully remove the output immediately after printing.

High quality matte media graphics

HP Heavy Coated Paper and Super Heavy Coated Paper reproduce deeper blacks and more saturated colors than bond paper due to heavier coating.

When printing solid black areas, carefully remove output immediately after printing to prevent the next print covering it.

Utilize full stacker capacity

The stacker is optimized for plain paper use (the most common size ISO A1/D). Capacity is up to 100 pages. When the printer detects that the stacker is full, an alert appears to empty the stacker. The actual capacity may differ depending on the combination of paper size printed and media type; for example, heavyweight coated is a media with a higher grammage than plain paper, therefore the number of pages that the stacker can handle is less.

How to change the output destination

The default output is **Use printer default**, this means that the output destination will be the one selected in the printer.

In V3 driver properties, select the **Layout/Output** tab, then in **Output options** select the destination:

In V4 driver properties, select the **Output** tab, then in **Output options** select the destination:

Manual mode

Manual mode is designed to help maximum print quality with photo media. The driver automatically enables Manual mode when photo media is selected in the driver; the job now waits in queue for the stacker to open, and

to be activated. This ensures the stacker doesn't touch the print while drying. If jobs are not required to be "**Hold for manual mode**", in V3 drivers there are 2 options:

1. Manual mode can be enabled/disabled in the **Layout/output** tab in the driver by clicking in the check box **Hold for manual printing with stacker open**.

2. Disable the driver check for photo media so Manual mode is not enabled automatically. Press the **Start** button, select **Devices and Settings**, and right-click the printer's icon. Select **Printer Properties**. Select **Device Settings**.
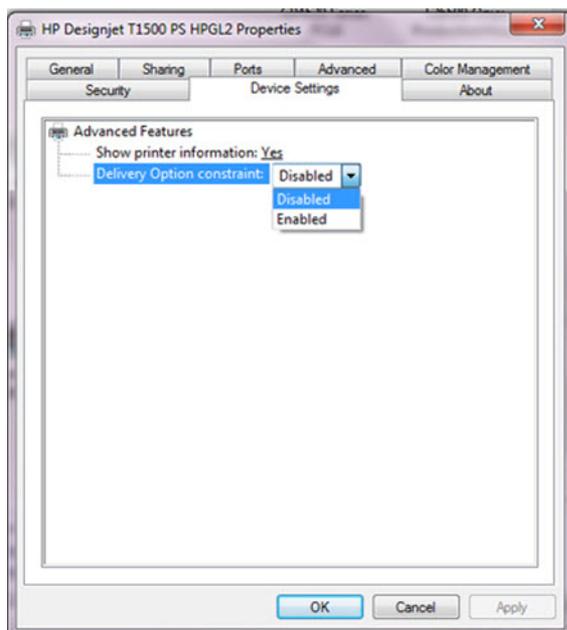
In V4 drivers, Manual mode can be enabled/disabled in the **Output** tab in the driver by clicking the check box **Hold for manual printing with stacker open**.

NOTE: When a job is put "On hold for manual mode" the printer doesn't stop; while this job is waiting, and if the stacker is closed, other jobs can still be sent and printed.

NOTE: After printing the job sent in Manual mode with the stacker open, the printer stops until the stacker is closed, or another job is sent from the queue.

Resuming print interruptions

The stacker has a sensor to prevent unexpected behavior of the media in the tray, and ensure that the jams never reach the printhead. Eventually, when prompted by the printer, it's required to go to the stacker and correct it by flattening the paper. Once fixed, printing will resume.

Media jam frequency may increase under certain conditions; when printing images with very high ink density on light media like Bond or Coated under specific environmental conditions such as 30°C (86°F)/70% RH. In such cases, switching to a media with higher grammage such as HP Heavy Weight Coated can help to increase productivity.

The paper type is not in the list

To work with a paper that does not appear in the list in the driver or front panel, you can choose one of the other papers in the list. However, you should at least choose a paper of the same type: transparent or translucent, photo or bond, coated or technical.

> **NOTE:** For photo paper, it is important to select a photo paper type, as the printer adjusts its use of ink for photo paper.

Transparent or translucent film

If your paper is a transparent film (for example, a transparency), select paper type **Film** > **Transparent/Clear film**.

If your paper is a translucent paper or film (for example, technical paper), select paper type **Film** > **Matte film**.

Photo paper

If your paper is a photo paper, use the **Photo Paper** category. For gloss or high-gloss paper, select paper type **Photo Gloss Paper**. For semi-gloss, satin, pearl, or luster finishes, select paper type **Photo Semi-gloss/Satin Paper**.

To increase gamut on photo paper, select paper type **HP Universal Instant-dry Gloss Photo Paper** or **HP Universal Instant-dry Satin Photo Paper**, depending on the finish.

Bond and coated or technical paper

Your paper type selection for generic paper depends on the paper's ink absorption capacity.

- For thin papers (< 90 g/m^2) or uncoated papers (for example plain paper or bright white paper), select paper type **Bond and Coated Paper** > **Plain Paper**. You can also select **Recycled Bond Paper**.

- For light coated papers (< 110 g/m^2), select paper type **Bond and Coated Paper** > **HP Coated Paper**.

- For heavyweight coated papers (< 200 g/m^2), select paper type **Bond and Coated Paper** > **Heavyweight Coated Paper**.

Black ink is easily removed when touched

This happens when your paper is incompatible with matte black ink. To use an optimized ink combination, select paper type **Photo Paper** > **Photo Gloss Paper**.

After printing, the paper has wrinkles or there is too much ink

Reduce the quantity of ink, or use thicker paper. Matte paper categories from thinnest to thickest are:

- Plain Paper

- Coated Paper

- Heavyweight Coated Paper

- Super Heavyweight Plus Matte Paper

> **TIP:** If you load paper that is slightly thicker than the paper type you selected, the printer will use less ink than usual for the loaded paper.

The printer printed on the wrong paper type

If the printer prints your job before you were able to load your desired paper, you may have **Any** or **Use printer settings** selected for the Paper Type in the printer driver. In this case, the printer will print immediately on whichever paper is loaded. Load your desired paper, and select your paper type specifically in the driver.

- **In the Windows driver dialog:** select the **Paper/Quality** tab or the **Paper** tab depending on the architecture of the driver, then select your paper type from the Paper Type list.

It is not possible to load a single sheet

Check that Cleanout plastic parts are properly clipped into the beam.
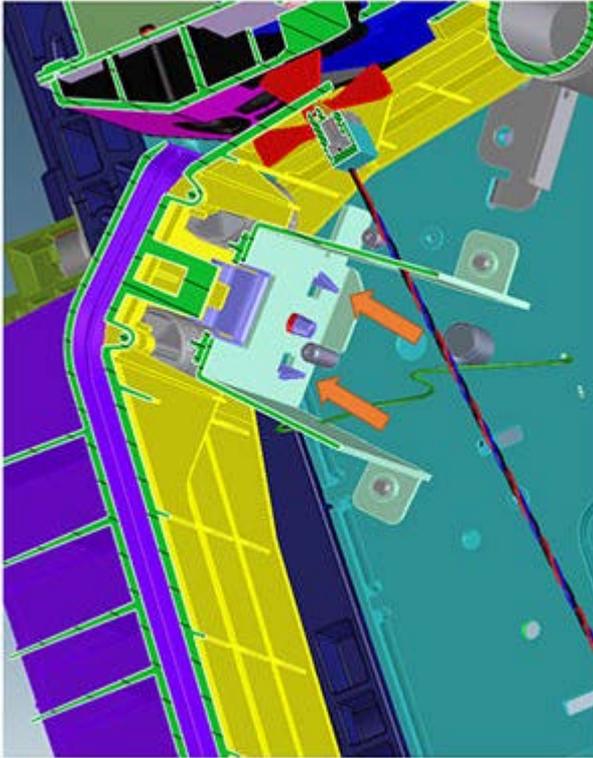
1. See if all the parts are aligned between them.

2. Press firmly over each part to check they are completely clipped.

3. If the part cannot be clipped, check if it is damaged and replace if needed.

It is not possible to load a single sheet because alignment fails

In this case, check that the single sheet is introduced following the blue line in the input platen. Make sure that the leading edge of the single sheet is straight and uniformly cut.(It is recommended to use standard single sheets and not hand cut sheets.)

An "on hold for paper" message

Based on a set of conditions that you can set when sending a job to a two-roll printer, the printer will decide which of the loaded rolls of paper is more suitable to print the job. If there is no roll of paper available that meets all the conditions, the printer will put the job on hold for paper. You can manually resume the job, forcing it to print on a paper other than the one originally specified, otherwise it will stay on hold.

Which criteria are used to decide on which roll a job will be printed?

When a user sends a job, the desired paper type can be set in the driver, the Embedded Web Server or on any other submittal tool (HP SmartStream, HP Click, HP Smart…). The printer will print the job on a roll of paper of the chosen paper type that is large enough to print the drawing without clipping. If there is more than one roll on

which the job could be printed meeting all the criteria, the roll will be chosen according to your preferences. These can be set from the front panel.

When is a job put on hold for paper?

If the paper mismatch action is set to **Put job on hold**, a job is put on hold for paper in the following cases:

- The paper type that has been selected by the user is not currently loaded on the specified roll—or on either of the rolls, if no roll has been specified.

- The paper type that has been selected by the user is loaded on the specified roll, but the drawing is too large to fit on the roll—or on either of the rolls, if no roll has been specified.

  Bear in mind that the auto-rotation policy can be set by the user when sending the job, or through the Front Panel, in order to rotate a job for fitting in the roll width. This way, the job will not be held, but printed rotated.

If I load a new roll of paper, will jobs that were on hold for paper be automatically printed?

Yes. Every time a new roll of paper is loaded, the printer will check if there are any jobs on hold for paper that could be printed on the loaded roll.

I don't like jobs being put on hold for paper. Can I prevent it?

Yes, this can be done from the front panel.

I set the option "Paper mismatch action" to "Print anyway", but some jobs are still put on hold (Windows driver only)

If the **Show print preview** option is selected in the driver or the Embedded Web Server, jobs are put on hold until you have checked the preview and resumed the job. Check that the **Show print preview** option is not checked in the driver, and that there are no pending preview windows waiting for confirmation to continue printing.

My job is exactly as wide as the roll of paper that is loaded on the printer, but is put on hold for paper

Margins are managed in different ways depending on the file type:

- For HP-GL/2 and HP RTL files, by default, margins are included inside the drawing, so a 914 mm (36 in) HP-GL/2 and HP RTL file can be printed on a 914 mm (36 in) roll of paper and will not be put on hold for paper.

- For other file formats, such as PostScript, PDF, TIFF or JPEG, the printer assumes that margins need to be added outside the drawing (as, in many cases, these formats are used for photographs and other images that do not include margins). This means that, to print a 914 mm (36 in) TIFF, the printer needs to add margins, and the drawing needs 925 mm (36.4 in) of paper to be printed; this would cause the job to be put on hold if the paper that is loaded on the printer is only 914 mm (36 in) wide.

  If you wish to print these file formats without adding extra margins outside of the drawing, the **Clip contents by margins** option can be used. This option will force the margins to be set inside of the drawing, so a 914 mm (36 in) TIFF can be printed on a 914 mm (36 in) roll of paper without being put on hold. However, if there is no white space already included in the drawing's borders, some contents could be clipped because of the margins.

NOTE: If you choose the option **Match exact size**, your job will be printed only on paper whose width exactly matches the width of the job.

The printer displays out of paper when paper is available

If the roll has become loose from its core, it will not feed correctly and the printer will not load the paper. If possible, tighten the paper to its core or load a new roll.

Check the performance of the media presence sensor.

The print remains in the printer after printing has completed

The printer holds the paper to allow the print to dry after printing. If a sheet of paper is only partially ejected after the drying time, gently pull it out of the printer.

The cutter does not cut well

By default, the printer is set to cut the paper automatically after each job.

- If the cutter moves but it does not cut paper, the rotary blade might have jumped over the linear blade. This implies the reassembly of the cutter body module to its position.

- If the cutter moves but it does not cut well, check that the guide rail and the linear blade rail are clean and clear of any obstacles. Then, restart the printer and try to cut.

- If the rail is clean and clear of any obstacles, the cutter moves and produces a knocking sound along the movement, the blade might be damaged and needs to be replaced.

- Finally, if SE code 0065-0006-0008 or 0065-0006-0059 or 0066-0001-0059 (auto-cutter shutdown) appears while cutting, there is an obstacle or high friction in the rail. Check that the guide rail and the linear blade rail are clean and clear of any obstacles. Restart the printer and try to cut.

The roll is loose on the spindle

The roll may need to be replaced or reloaded.

The roll is unloaded unexpectedly

In the cases below an excess of friction is causing a malfunction in the media input which causes the end of a roll to unload unexpectedly.

One of the main causes of friction is that the sides of the paper are brushing against the hubs for different possible reasons, such as:

- Media has expanded due to climatic conditions (for example, turning off Air Conditioning).

- Poor quality media with telescoping, core is narrower than media.

Call agent:

1. Ask customer if the issue has happened while printing.

2. Upgrade the printer to the latest firmware.

3. Ask customer to open roll cover and feed media into the media path.

   a. Check if the sides of the media roll are brushing against the hubs. If they are, tell customer to reposition the media roll on the spindle ensuring some margin (≈ 3 mm) between the sides of the

media and the black and blue hubs and check that it does not brush against the hubs anymore. If this is not the case, continue troubleshooting as below.

b. Visually check that the hubs (black and blue pieces) are not broken. If they are damaged, send a new spindle to the customer.

Ink supply problems

-
-
-
-
-
-
-
-

Cannot insert an ink cartridge

1. Check that you have the correct type of cartridge (model number).

2. Check that the colored label on the cartridge is the same color as the label on the slot.

3. Check that the cartridge is correctly oriented, with the letter or letters marking the cartridge label right-side up and readable.

⚠ **CAUTION:** Never clean inside the ink cartridge slots.

Ink cartridge status messages

These are the possible ink cartridge status messages:

- **OK**: The cartridge is working normally, with no known problems.

- **Missing**: There is no cartridge present, or it is not correctly connected to the printer.

- **Low**: The ink level is low.

- **Very low**: The ink level is very low.

- **Empty or Depleted**: The cartridge is empty.

- **Reseat**: You are recommended to remove the cartridge and then reinsert it.

- **Expired**: The cartridge expiration date has passed.

- **Incompatible**: The cartridge is not compatible with this printer.

- **Altered**: The cartridge is used, refilled, or counterfeit.

- **Not Valid**: If the printer doesn't have enough ink to perform an operation, it will display the front panel message "Not Valid For Operation". In order to remove the message, a cartridge containing more ink is needed.

- **Compatible**: The cartridge contains non-HP ink..

- **OEM**:Cartridge manufacturer approved by HP.

Printhead problems during insertion

The carriage latch is not closed properly

The carriage appears to be closed, but the blue latch sticks up a little and does not stay flat.

How to check:

▲ Ensure that:

    a. The carriage latch is properly engaged.
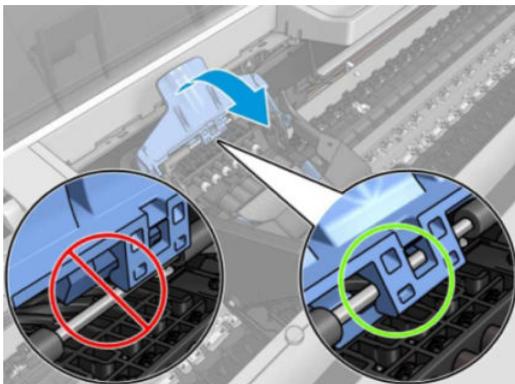
    b. The latch is completely down.
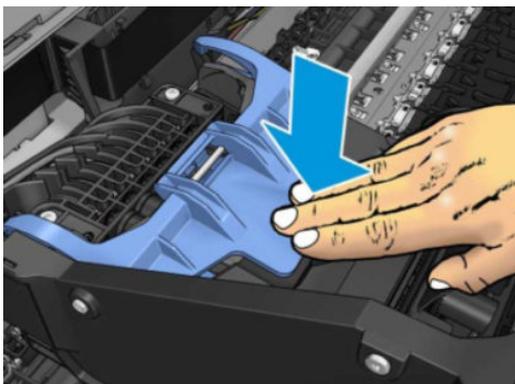
    If these two conditions are not met, printhead installation may fail and/or some tubes may not be filled with ink.

> **NOTE:** If the carriage is open, it will be detected by the printer and the customer will be asked to try to close it again. However, if the carriage is not closed and the printer is powered off, there is a risk that, after booting up, the printer will raise service system error 0065-0006-0059 or 0065-0006-0060. In this case, turn the printer off again, close the carriage (removing the printhead, if necessary), and then move the printhead to the Service Station. Finally boot up the printer again.

Root Cause

Incorrect printhead insertion can cause errors because of the latch not engaging properly.

Corrective actions:

1. Update firmware.

2. Check that you have the correct type of printhead (model number).

3. Check that the printhead is correctly oriented.

4. Check that you have correctly closed and latched the printhead cover.

The front panel display recommends reseating the printhead after insertion and no tubes start to fill (tubes are empty)

The printer brings the printhead to the Service Station and rejects it immediately.

1. Update firmware.

2. Send/Bring a set of ink supplies plus PHA.

3. Check Printhead errors:

How to check:

When a reseat message appears, the printer will show a printhead error on the Front Panel.

The printer has not yet started to pump ink into the tubes.

Check the Printhead error code

● Check the printhead status on the Front Panel.

Go to **Main Menu** ►**Ink** ►**Printheads**.
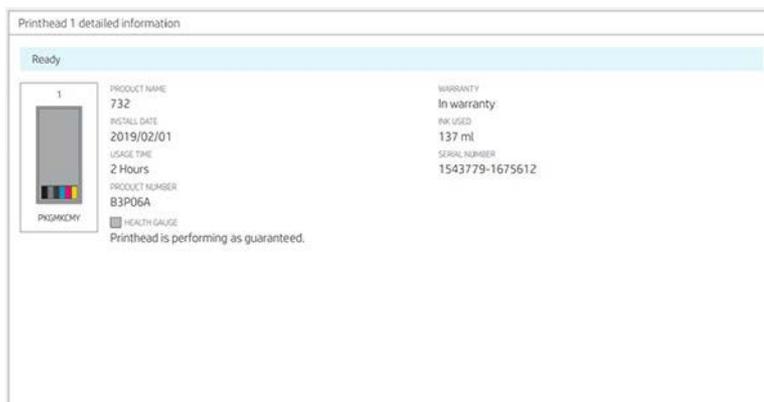
● From EWS:

Generate the Service plot. Go to the Embedded Web Server: **Support tab** ►**Service support** ►**Service information**. Download this page or print it to a PDF file.

Current Printhead Kit Info (I)		
	Warranty status	Service Code	Status	Error ID Code	Product Number
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	on_warranty	dWo+yu95olcTu5Kxhchl3Q==	OK	0	B3P06A

Current Printhead Kit Info (II)		
	Product Name	Serial Number	Warranty Date
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	732	1543779-1675612	2020-01-31T00:00:00Z

Current Printhead Kit Info (III)		
	Used non-HP ink	Used expired ink	Ink Used (cc)
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	false	false	137.00

Current Printhead Kit Info (IV)		
	Usage Time (s)	Max. Recovery Level	Scan Axis Shutdown
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	9000	0	0

Printhead error related to RESEAT:

Status code (dec)	Status code (hex)	Status name	User reported status	Description on printer HW	Test	Troubleshooting
0	0x0	WORKING	OK	The pen is working properly	All	-
2	0x2	FAILS_CONTINUITY	RESEAT		Pen ID programming and pen continuity	Trailing cable/ PSU/ E-box
4	0x4	SHUTDOWN	–	Not used	NA	Trailing cable/ PSU/ E-box
32	0x20	TEMP_EXTREMELY_LOW	RESEAT	The temperature of the pen is below the normal margins	Thermal runtime tests	PHA Replace
128	0x80	TEMP_TOO_LOW	RESEAT	The temperature of the pen is below the normal margins	Thermal runtime tests	PHA Replace
8192	0x2000	CSDATA_NOT_RESPONDING	RESEAT	The CSDATA communication fails	Pen ID programming	Trailing/PHA
16384	0x4000	CSDATA_TRANSMIT_ERROR	RESEAT	The CSDATA communication is erroneous	Every pen communication	Trailing/PHA

4. If the printhead shows Reseat error code (0x00002, 0x02000, 0x04000…)

Root Cause

- If the printer rejects the printhead before even trying to initiate tube purging, it can indicate that the printer does not recognize the printhead. This may also cause a 0x00002 printhead Error Code to be shown on the Front Panel.

- The printer is not able to communicate with the printhead.

- Other issues.

Corrective action

- Reseat the same printhead and try again. Follow Front Panel instructions. Do not stop the servicing routines, allow the printhead to be initialized.

- If it fails, replace it with a new PHA and follow Front Panel instructions.

- Try 2 times more with the new PHA.

- If the reseat message still appears, check the carriage PCA using the **Carriage test** in the diagnostic menu. Replace carriage PCA if needed.

5. If there is no Printhead error shown on the Front Panel or EWS

   Root Cause

   - Unknown.

   Corrective action

   - Reseat the same printhead and try again. Follow Front Panel instructions.

     This process may end with a PH reseat and a PHA error (see step 4 in Check the Printhead error code on page 67) or in a Printhead replacement (see The front panel display shows "PH replacement incomplete" on page 69).

The front panel display shows "PH replacement incomplete"

The printhead is rejected and some ink tubes are not filled: Yellow and Matte Black are missing, or Cyan, Magenta, Gray, and Photo Black are missing.

1. Update firmware.

2. Check SE code of "Ink Tube Filling Status" in the Service plot.

   Filling SE codes are included to simplify diagnosticability of PHA replacement root cause (looking at those SE in the service plot avoids the need to visually check the ink tubes).

   a. Generate the Service plot since the 0086-0004-0n95, 0086-0004-0n96 and 0086-0004-0n97 are not shown in the front panel. Go to the Embedded Web Server: **Support tab** ▶ **Service support** ▶ **Service information**. Download this page or print it to a PDF file.

      0086-0004-0n95 During the tube filling, the first check of ink pressure for color n failed. If no SE 0086-0004-0n96 appears, it means that the issue was automatically fixed by the printer.

      0086-0004-0n96 After the ink pressure test fails for the first time, it is retried for a maximum of ten times. Each time this check fails in any of these retries, this SE is logged. If the test is still failing after the maximum number of retries, the pen is reseated. A lot occurrences of this SE mean that color n in the printhead may not be filled with ink or that the ink tube is leaking.

      0086-0004-0n97 During the tube filling, the check of temperature for color n failed. This means that color n in the printhead is not correctly filled with ink.

      n indicates the color at fault:

      – n=1 stands for photo black

      – n=2 stands for gray

      – n=3 stands for matte black

      – n=4 stands for cyan

- — n=5 stands for magenta

- — n=6 stands for yellow.

b. Service plot shows the following SE:

- — SE 0086-0004-0197

- — SE 0086-0004-0297

- — SE 0086-0004-0497

- — SE 0086-0004-0597

Root Cause

- — The Upper primer that manages 4 ink tubes (Cyan/Magenta/Gray/Photo black) is failing, therefore, those tubes are not completely filled.

Corrective action

- — Replace upper primer.

- — Run the **Ink Delivery System diagnostic** to check the status of the Ink Supply Station . If it fails, replace the corresponding ISS.

- — Also, ensure that the ink tube connectors are properly lubricated.

- — Run a tube purge to fill all the tubes, including the missing color.

- — To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

c. Service plot shows the following SE:

- — SE 0086-0004-0397

- — SE 0086-0004-0697

Root Cause

- — The Lower primer than manages 2 ink tubes (Yellow and Matte Black) is failing, therefore, those tubes are not completely filled.

Corrective action

- — Replace lower primer.

- — Run the **Ink Delivery System diagnostic** to check the status of the Ink Supply Station . If it fails, replace the corresponding ISS.

- — Also, ensure that the ink tube connectors are properly lubricated.

- — Run a tube purge to fill all the tubes.

- — To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

d. Service plot shows the following SE:

— SE 0086-0004-0197

— SE 0086-0004-0297

— SE 0086-0004-0397

Root Cause

— The Service Station Side Ink Supply Station that manages 3 ink tubes (Gray/Photo black /Matte black) is failing, therefore, those tubes are not completely filled.

Corrective action

— Replace the Service Station Side Ink supply station.

— Also, ensure that the ink tube connectors are properly lubricated.

— Run a tube purge to fill all the tubes.

To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

e. Service plot shows the following SE:

— SE 0086-0004-0497

— SE 0086-0004-0597

— SE 0086-0004-0697

Root Cause

— The Front Panel Side Ink Supply Station that manages 3 ink tubes (Cyan/Magenta/Yellow) is failing, therefore, those tubes are not completely filled.

Corrective action

— Replace the Front Panel Side Ink supply station.

— Also, ensure that the ink tube connectors are properly lubricated.

— Run a tube purge to fill all the tubes.

To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

f. Service plot shows one or several 0086-0004-0n9x SE:

— If multiple colors are missing, there will be a SE 0086-0004-0n97 for each missing color.

— If some SE 0086-0004-0n95 and/or 0086-0004-0n96 appear, but there's no SE 0086-0004-0n97, it means that the color failed to be filled, but the printer auto recovery was able to fully fill the printhead.

Root Cause

— Any of the aforementioned root causes may apply.

Corrective action

— Test the primer and Ink Supply Station. Ensure the ink tube connectors are properly lubricated.

— Run a tube purge to fill all the tubes.

To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

NOTE: If a cartridge is inserted and the ink tube is not filled, the printer can potentially mark the cartridge as "Out Of Ink" or leaked. To prevent this from happening, do not install cartridges when some tubes are empty.

The printer rebooted during the start-up; printhead initialization took a long time and was then canceled

Root cause

- Printhead issue.

- Incorrect error message from drop detection that causes the printer to carry out additional servicing routines.

- Other issues.

Corrective action

- Do not stop the servicing routines, allow the printhead to be initialized.

- If, after the start-up, the image quality is poor, carry out the usual image quality troubleshooting.

- If at the moment of interruption (System Error or user intervention) the tubes were already filled, try to re-install the printhead.

- If at the moment of interruption (System Error or user intervention) the tubes weren't fully loaded yet, try to launch a Tube purge from the Service Menu.

During Usage

During normal usage, any Printhead reseat or replacement should imply sending a new PHA.

The printhead shows an Error Code 0x00010 or 0x00040

The printhead shows an Error Code 0x00010 or 0x00040.

Root Cause

The nozzle area is overheating. This can be due to air present in the nozzle area of the printhead.

Corrective action

Check that the ink tubes are filled and have no air bubbles. Run manual printhead cleaning to try to restore the printhead. Ultimately, replace the printhead if needed.

All ink tubes are filled, but the printer requests a random printhead reseat

Root Cause

To analyze the root cause, check the printhead Error Code in the table at the end of this document.

Corrective action

The printhead reseat issue can be solved by simply removing and reinstalling the printhead. If, after the reseat, the error message continues, try a new printhead. If the reseat message continues to appear, check the carriage PCA using the Carriage test in the diagnostic menu.

Clean the printhead

As long as the printer is kept turned on, automatic cleaning is performed periodically. This ensures there is fresh ink in the nozzles and prevents nozzle clogs, thus preserving print quality. If you have print quality problems, please see Print-quality problems on page 88 before proceeding.

To clean the printhead, go to the front panel and press 📷, then **Clean printheads ▶ Continue**, and select the color group including the color that needs cleaning (**Clean all**, **Clean MK-Y**, **Clean C-M-PK-G**).

Align the printhead

Precise printhead alignment is essential for accurate colors, smooth color transitions, and sharp edges in graphical elements. Your printer has an automatic printhead alignment process which runs whenever the printhead has been accessed or replaced.

You may need to align the printhead after a paper jam or if you are experiencing print-quality problems.

1. Load the paper you wish to use. You can use a roll or a cut sheet; plain white paper is recommended.

    ⚠ CAUTION: Do not use transparent or semi-transparent paper to align the printhead.

2. Ensure that the window is closed, as a strong light source near the printer during printhead realignment can affect alignment.

3. From the front panel, press ⚙ , then **Image Quality Maintenance** > **Align printhead**.

    📝 NOTE: Printhead alignment can also be started from the Embedded Web Server (**Support** > **Print Quality Troubleshooting**), or from the HP Utility (Windows: **Support** > **Print Quality Troubleshooting**)

4. If the loaded paper is satisfactory, the printer runs the realignment and prints a realignment pattern.

5. The process takes about five minutes. Wait until the front panel display shows the process complete before using the printer.

If the printer cannot complete the printhead alignment successfully, you may be asked to clean the printhead and try again.

Printhead status messages

These are the possible printhead status messages:

● **OK**: The printhead is working normally, with no known problems

● **Missing**: There is no printhead present, or it is not correctly installed in the printer.

● **Reseat**: You are recommended to remove the printhead and then reinsert it. If that fails, clean the electrical connections. If that fails, replace the printhead with a new one.

● **Replace**: The printhead is failing. Replace the printhead with a working one.

● **Replacement incomplete**: The printhead replacement process has not completed successfully; re-launch the replacement process and let it finish completely.

- **Remove**: The printhead is not a suitable type for use in printing.

- **Non-HP ink**: Ink from a used, refilled, or counterfeit ink cartridge has passed through the printhead. See the limited warranty document provided with your printer for details of the warranty implications.

HP 732 Printhead Troubleshooting

General troubleshooting for printhead reseat/rejection

If customers have problems installing a printhead (PH):

- Make sure that the printer has the latest firmware installed, available from: www.hp.com/go/ DesignJetT1600/firmware, or www.hp.com/go/DesignJetT2600/firmware.

- Download the Service plot (this helps to check for error codes and ink levels).

- Make sure that the carriage and the blue latch are properly closed.

- Make sure there is enough ink to start up the printhead (40 cc for matte black (mK) and 30 cc for other inks; for a tubes purge - 60 cc for each color). Ink levels can be checked in the service plot. If in doubt, use 130 ml cartridges.

- Make sure that the ink tubes are filled. Refer to .

Symptoms	Printer message	Troubleshooting
Incomplete latch closure	None	1. Upgrade to latest FW version.
		2. Moisten tube connections with Water or PEG (Polyethylene glycol).
		3. Replace Carriage latch (CR357-67070).

Symptoms	Printer message	Troubleshooting
PH rejected before filling the tubes	Reseat printhead	1. Upgrade to latest FW version.
		2. Clean the septum and carriage PCA, and printhead contact with water or PEG.
		3. Perform the carriage test in the diagnostic menu. Replace the carriage PCA if it fails.
		4. Re-insert the printhead for a second attempt for start up.
		5. If problem persists, try using a new printhead.
PH rejected after filling the tubes	Reseat or replace printhead after initialization or Long initialization time	1. Check which colors are still empty (if any) and run printer diagnostics to validate Primer & ISS.
		2. Upgrade latest FW version.
		3. Moisten tube connections with Water or PEG (Polyethylene glycol).
		4. Purge the tubes again. If there IS NOT enough ink, use 130 ml supplies for all colors (it may require 60 ml for purging)

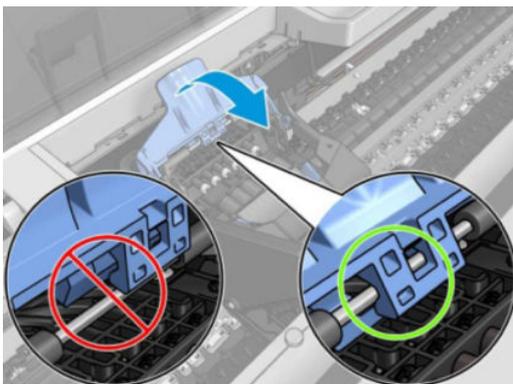**General reseat printhead error message troubleshooting flow chart:**
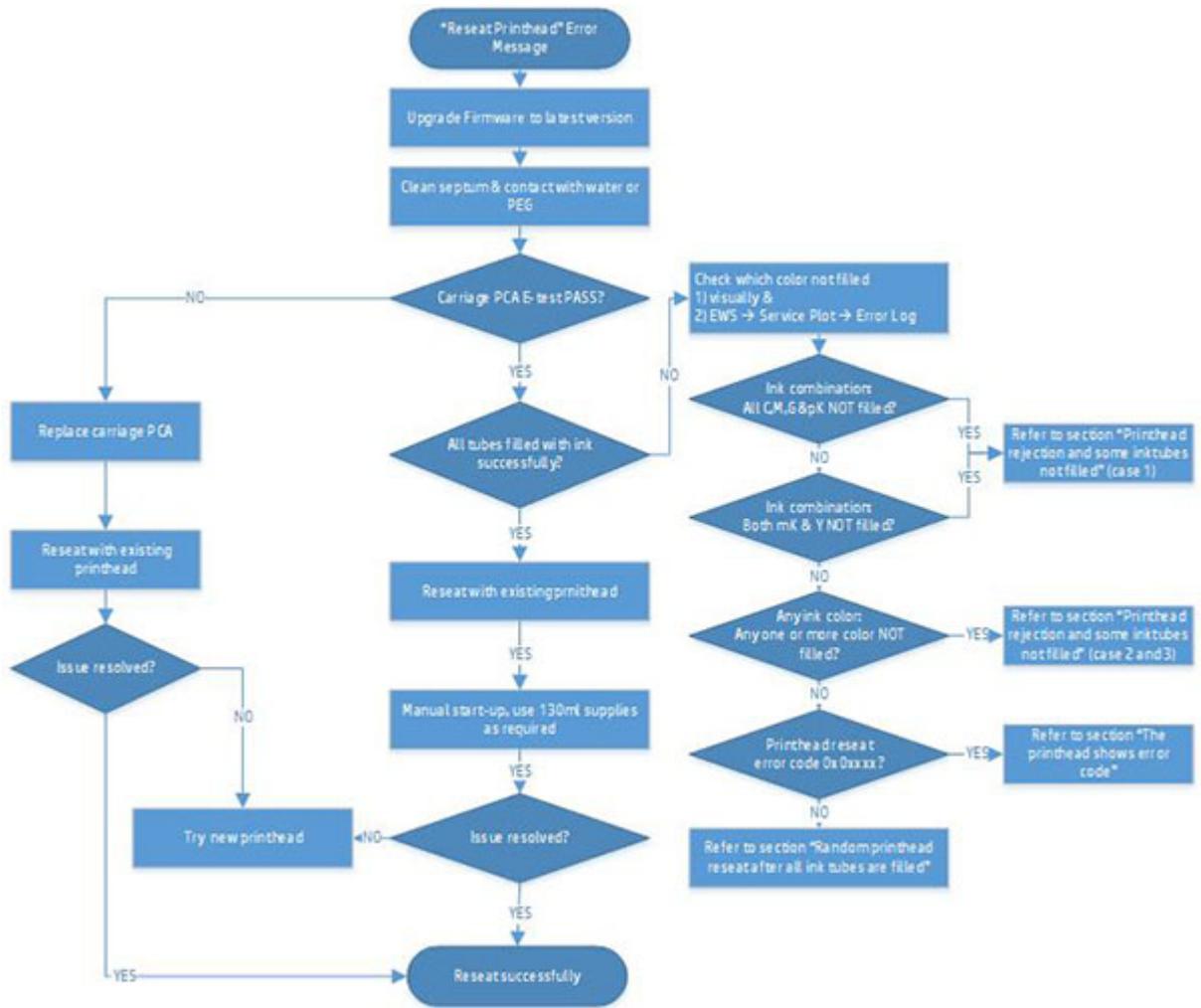
The carriage does not fully close

The carriage appears to be closed, but the blue latch sticks up a little and does not stay flat.
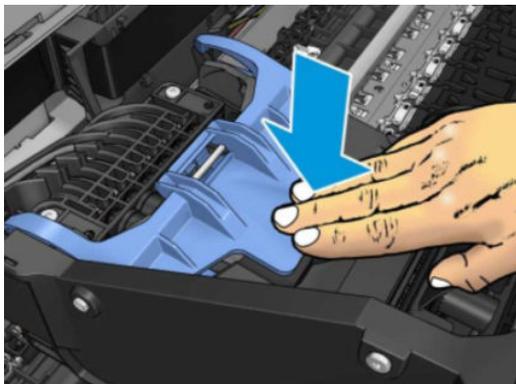
How to check

If the carriage is not properly closed, make sure that:

1.   The carriage latch is properly engaged.

2. The latch is completely down.

If these two conditions are not met, printhead installation may fail and/or some tubes may not be filled with ink.

NOTE: If the carriage is fully open, it will be detected by the printer and the customer will be asked to try to close it again. However, if the carriage is not closed and the printer is powered off, there is a risk that, after booting up, the printer will raise service system error 0065-0006-0008 or 0065-0006-0059. In this case, turn the printer off again, close the carriage (removing the printhead, if necessary), and then move the printhead to the Service Station. reboot the printer.

Root Cause

Incorrect printhead insertion can cause errors because of insufficient lubrication or the latch not engaging properly.

Corrective actions

Close the carriage latch properly.

The printhead is rejected immediately after insertion and no tubes start to fill.

The printer brings the printhead to the Service station and rejects it immediately.

How to check

In some cases, the printer will show printhead error code 0x00002 on the Front Panel. The printer has not yet started to pump ink into the tubes.

Root cause

If the printer rejects the printhead before even trying to initiate tube purging, it can indicate that the printer does not recognize the printhead. This may also cause a 0x00002 printhead Error Code to be shown on the Front Panel.

Corrective action

1. First, upgrade the FW to the latest version.

2. Clean septum, carriage PCA, and printhead contact with water or PEG.

3. Perform carriage test in diagnostic menu. Replace carriage PCA if it fails.

4. Re-insert printhead for second attempt to start up.

5. If this still fails, try using a new printhead.

The printer rebooted during start-up; printhead initialization took a long time and was then canceled.

Root cause

Potential connectivity delay between carriage PCA and printhead. If the printer rejects the printhead before even trying to initiate tube purging, it can indicate that the printer does not recognize the printhead. This may also cause a 0x00002 printhead Error Code to be shown on the Front Panel.

An incorrect error message from drop detection that causes the printer to carry out additional servicing routines.

Corrective action

1. Do not interrupt the servicing routines; allow the printhead to be initialized.

2. Upgrade the firmware to the latest version where applicable.

3. Clean septum and carriage PCA, printhead contact with water or PEG.

4. Perform carriage test in diagnostic menu. Replace carriage PCA if this fails.

5. Re-insert printhead for second attempt to start up.

6. If, after the start-up, the image quality is poor, carry out the usual image-quality troubleshooting.

7. If at the moment of interruption (System Error or user intervention) the tubes were already filled, try to re-install the printhead.

The printhead is rejected and some ink tubes are not filled: Yellow and Matte Black are missing, or Cyan, Magenta, Gray and Photo Black are missing

How to check

After filling the tubes and initializing, the printer shows a message to either reseat or replace the printhead.

A SE will appear in the Service Plot:

If Cyan, Magenta, Gray & Photo black tubes have not been filled	If Matte black and Yellow tubes have not been filled
SE 0086-0004-0197	SE 0086-0004-0397
SE 0086-0004-0297	SE 0086-0004-0697
SE 0086-0004-0497	
SE 0086-0004-0597	

Visually check if there are empty tubes:

1. Open the carriage.

2. Check the end of the tubes. They should appear as shown in the picture below. The rest of the ink circuit can be checked for bubbles and ink. When the tubes are empty, they will have a bluish color. When filled, the tubes will look darker and the yellow channel will have a slight magenta color (due to the combination of ink color and tube color).

Filled tubes:
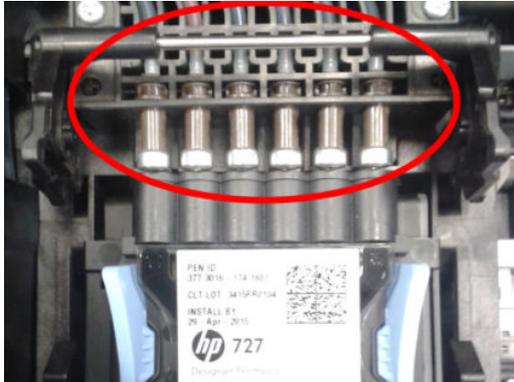
Empty tubes:
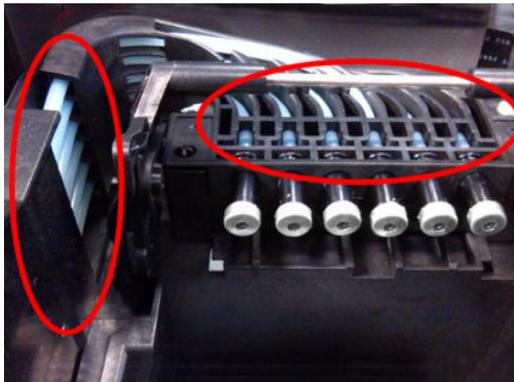
Root Cause

There are two primer channels. If one primer fails, one of the groups might not get filled.

a. Yellow and Matte Black share one primer channel.

b. Cyan, Magenta, Gray, and Photo Black share the other primer channel.

Corrective action

1. Run the primer test to check if the primer is working. If it fails, replace the primer.

2. Also, ensure that the ink tube connectors are properly lubricated.

3. Run a tube purge to fill all the tubes, including the missing color.

4. To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

📝 NOTE: If a cartridge is inserted and the ink tube is not filled, the printer can potentially mark the cartridge as "Out Of Ink". To prevent this from happening, do not install cartridges when some tubes are empty.

The printhead is rejected and some of the ink tubes are not filled: Gray, Photo Black and Matte Black, or Cyan, Magenta and Yellow are missing

How to check

After trying to fill the tubes and printhead, the printer shows a message to either reseat or replace the printhead.

A SE will appear in the Service Plot:

If Gray, Photo black & Matte Black tubes have not been filled	If Cyan, Magenta & Yellow tubes have not been filled
SE 0086-0004-0197	SE 0086-0004-0497
SE 0086-0004-0297	SE 0086-0004-0597
SE 0086-0004-0397	SE 0086-0004-0697

Root cause

The Ink Supply Station has separate System Errors from the printhead. However, if the missing colors are grouped as they are in the Ink Supply Station, this issue can be related to that part of the printer.

Corrective action

1. Run the "Ink Delivery System diagnostic" to check the status of the Ink Supply Station and troubleshoot accordingly.

2. Also, ensure that the ink tube connectors are properly lubricated.

3. Run a tube purge to fill all the tubes, including the missing color.

4. To purge the tubes, run **Purge tubes** from the service utilities Re-insert the inks and printhead, as requested.

The printhead is rejected and some ink tubes are not filled: any other color combination

How to check

After trying to fill the tubes and printhead, the printer will show a printhead **Reseat** or **Replace** message.

In the service plot, the System Errors SE 0086-0004-0n97 appear. n indicates the missing color:

- n=1 stands for photo black

- n=2 stands for gray

- n=3 stands for matte black

- n=4 stands for cyan

- n=5 stands for magenta

- n=6 stands for yellow

Root cause

1. If multiple colors are missing, there will be a SE 0086-0004-0n97 for each missing color.

2. If some SE 0086-0004-0n95 and/or 0086-0004-0n96 appear, but there's no SE 0086-0004-0n97, it means that the color failed to be filled during the first attempt, but the printer auto recovery was able to fully fill the printhead.

3. If only one tube is empty, any of the aforementioned root causes may apply.

Corrective action

1. Test the primer and Ink Supply Station. Ensure the ink tube connectors are properly lubricated.

2. Run a tube purge to fill all the tubes, including the missing color.

3. To purge the tubes, run **Purge tubes** from the service utilities. Re-insert the inks and printhead, as requested.

The Printhead shows an error code

The printhead shows error code 0x00002, 0x02000, or 0x04000

Root cause

The printer is not able to communicate with the printhead.

Corrective action

1. Upgrade firmware to the latest version.

2. Clean septum and carriage PCA, printhead in contact with water or PEG.

3. Perform carriage test in diagnostic menu,

    a. If FAIL, replace new carriage PCA, then re-insert the printhead.

    b. if PASS, reseat and re-insert the printhead.

4. If the above still fail, try using a new printhead.

5. If the error continues, try a new carriage PCA.

The printhead shows error code 0x00010 or 0x00040

Root cause

The nozzle area is overheating. This can be due to air present in the nozzle area of the printhead.

Corrective action

1. Upgrade firmware to the latest version.

2. Check to see if the ink tubes are filled and have no air bubbles.

3. Run manual printhead cleaning to try to restore the printhead.

4. Clean septum and carriage PCA, printhead contact with water or PEG.

5. Perform carriage test in diagnostic menu.

      a. If FAIL, replace new carriage PCA, then re-insert the printhead.

      b. if PASS, reseat and re-insert the printhead.

6. If the above still fails, try using a new printhead.

All ink tubes are filled, but the printer requests a random printhead reseat

Root Cause

To analyze the root cause, check the printhead Error Code, see .

Corrective action

1. Upgrade firmware to the latest version.

2. Clean septum and carriage PCA, printhead contact with water or PEG.

3. Perform carriage test in diagnostic menu.

      a. If FAIL, replace new carriage PCA, then re-insert the printhead.

      b. if PASS, reseat and re-insert the printhead.

4. If the above still fails, try using a new printhead.

HP 732 printhead start–up process

See section .

How to deal with printhead filling codes

How to check the printhead filling codes

1. Generate the Service plot, the 0086-0004-0n95, 0086-0004-0n96 and 0086-0004-0n97 are not shown in the Front Panel. Go to the Embedded Web Server: **Support tab ►Service support ►Service information**. Download this page or print it to a PDF file.

2. Check the system Warnings section.

How to read the filling codes

- **SE 0086-0004-0n95** During the tube filling, the first check of ink pressure for color n failed. If this SE does not appear, it means that the issue was automatically fixed by the printer.

- **0086-0004-0n96** After the ink pressure test fails for the first time, it is retried for a maximum of ten times. Each time this check fails in any of these retries, this SE is logged. If the test is still failing after the maximum number of retries, the pen is reseated. A lot occurrences of this SE mean that color n in the printhead may not be filled with ink or that the ink tube is leaking.

- **0086-0004-0n97** During the tube filling, the check of temperature for color n failed. This means that color n in the printhead is not correctly filled with ink.

- **n** indicates the color at fault:

  - n=1 stands for photo black

  - n=2 stands for gray

- n=3 stands for matte black

- n=4 stands for cyan

- n=5 stands for magenta

- n=6 stands for yellow.

📝 **NOTE:** If in the example above, the temperature check failed twice for Gray, Cyan and Magenta inks, it means that these colors were not filled in the printhead. If the printhead was rejected for this combination, refer to The printhead is rejected and some ink tubes are not filled: any other color combination on page 80

How to check the printhead error code

▲ See .

Printhead 732 Error codes

In order to troubleshoot any printhead related issue, the first step is to check the printhead status and error codes. Printhead information can be retrieved from different sources:

- From the Service Plot. To generate the service plot, go to the Embedded Web Server: **Support tab ►Service support ►Service information**. Download this page or print it to a PDF file. Once you have obtained the Service Plot, check the **Status** and the **Error ID Code** fields in the Current Printhead Kit Info table.

Current Printhead Kit Info (I)						
	Warranty status		Service Code	Status	Error ID Code	Product Number
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	on_warranty		dWo+yu950lcTu5Kxhchl3Q==	OK	0	B3P06A

Current Printhead Kit Info (II)			
	Product Name	Serial Number	Warranty Date
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	732	1543779-1675612	2020-01-31T00:00:00Z

Current Printhead Kit Info (III)			
	Used non-HP ink	Used expired ink	Ink Used (cc)
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	false	false	137.00

Current Printhead Kit Info (IV)			
	Usage Time (s)	Max. Recovery Level	Scan Axis Shutdown
1 - Matte black-Matte black-Yellow-Cyan-Magenta-Photo black-Gray	9000	0	0

- In the Warning System Error Section, check if the printer has reported any 0086-0004-00XX System Warning.

- Alternatively, check the printhead **Status** in the Front Panel, under **Main Menu** ►**Ink** ►**Printheads**.
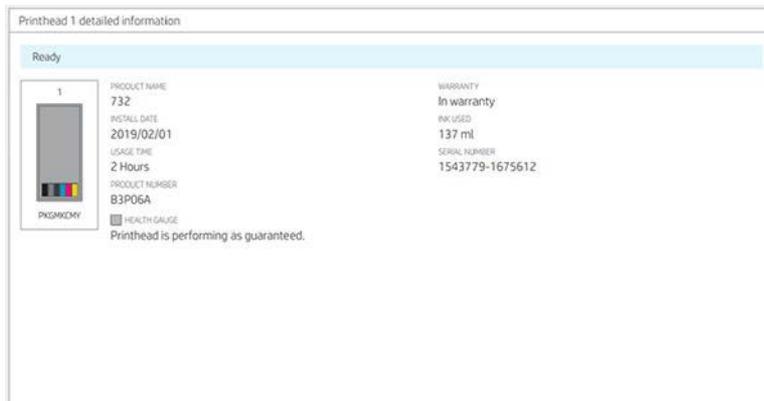
The following table lists the potential error codes reported by the printer, and the corresponding troubleshooting steps. Prior to running any of the troubleshooting steps, update the printer's firmware to the latest version which can be downloaded from **hp.com**.

System error	Service Support / Printer Information Code by EWS	Printhead Information by Control Panel	Action reported to user	Description on printer HW	Troubleshooting steps
N/A	0	0x00000	OK	The printhead is working properly	N/A
0086-0004-0084	1	0x00001	REPLACE	Under-voltage, over-voltage or ink shortage detected in Vcc (5V)	1. Replace Printhead 2. Reseat Trailing Cable 3. Replace Carriage PCA 4. Replace Carriage W/O PCA/ Line Sensor 5. Replace Engine PCA
0086-0004-0083	2	0x00002	RESEAT	Failed pen ID programming or pen continuity tests	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA/ Line Sensor 6. Replace Engine PCA

System error	Service Support / Printer Information Code by EWS	Printhead Information by Control Panel	Action reported to user	Description on printer HW	Troubleshooting steps
0086-0004-0085	8	0x00008	REPLACE	Under-voltage, over-voltage, leakage or ink shortage detected in Vpp or VppLogic	1. Replace Printhead 2. Reseat Trailing Cable 3. Replace Carriage PCA 4. Replace Carriage W/O PCA / Line Sensor 5. Replace Engine PCA
0086-0004-0021	16	0x00010	REPLACE	The temperature of the printhead is beyond maximum margins	1. Check which colors are still empty (if any), run printer diagnostics, and check for 0086-0004-0nXX errors in the service plot to validate Primer & ISS. 2. Replace Printhead 3. Replace Primer 4. Replace ISS
0086-0004-0022	32	0x00020	RESEAT	The temperature of the printhead is under minimum margins	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA
0086-0004-0021	64	0x00040	REPLACE	The temperature of the printhead has been above the normal margins for too long.	1. Check which colors are still empty (if any), run printer diagnostics, and check for 0086-0004-0nXX errors in the service plot to validate Primer & ISS 2. Replace Printhead 3. Replace Primer 4. Replace ISS
0086-0004-0022	128	0x00080	RESEAT	The temperature of the printhead has been below the normal margins for too long	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA

System error	Service Support / Printer Information Code by EWS	Printhead Information by Control Panel	Action reported to user	Description on printer HW	Troubleshooting steps
0086-0004-0088	256	0x00100	REPLACE	Parity error on printhead bits	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA
0086-0004-0080	512	0x00200	MISSING	There is no printhead detected	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA
0086-0004-0081	1024	0x00400	RESEAT	Error while reading or writing printhead bits	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA
0086-0004-0089	2048	0x00800	REPLACE	The model inserted is not the model required by the printer	Replace Printhead
0086-0004-0089	4096	0x01000	REPLACE	The color or the printhead version is not in the required slot	Replace Printhead
0086-0004-0082	8192	0x02000	RESEAT	The CSDATA communication failed	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA

System error	Service Support / Printer Information Code by EWS	Printhead Information by Control Panel	Action reported to user	Description on printer HW	Troubleshooting steps
0086-0004-0082	16384	0x04000	RESEAT	The CSDATA communication is erroneous	1. Reseat Printhead 2. Replace Printhead 3. Reseat Trailing Cable 4. Replace Carriage PCA 5. Replace Carriage W/O PCA / Line Sensor 6. Replace Engine PCA
0086-0004-0093	32768	0x80000	RESEAT	The energy calibration has failed	1. Reseat Printhead 2. Check which colors are still empty (if any), run printer diagnostics, and check for 93:XY errors in the service plot to validate Primer & ISS 3. Replace Printhead 4. Replace Primer 5. Replace ISS
0086-0004-0091	262144	0x04000	Warning	The Printhead warranty has expired	Replace Printhead if image quality is not acceptable
N/A	524288	0x80000	Warning	The Printhead has used expired or non-HP ink	Replace Printhead if image quality is not acceptable

Print-quality problems

General advice

When you have any print-quality problem:

- To achieve the best performance from your printer, use only genuine manufacturer's supplies and accessories, whose reliability and performance have been thoroughly tested to give trouble-free performance and best-quality prints. For details of recommended papers, see the user guide.

- Make sure that the paper type selected in the front panel is the same as the paper type loaded into the printer (see the user guide). At the same time, check that the paper type has been calibrated. Also make sure that the paper type selected in your software is the same as the paper type loaded into the printer.

  ⚠ **CAUTION:** If you have the wrong paper type selected, you could experience poor print quality and incorrect colors, and perhaps even damage to the printhead.

- Check that you are using the most appropriate print-quality settings for your purposes (see the user guide). You are likely to see lower print quality if you have moved the print-quality slider to the 'Speed' end of the scale, or set the custom quality level to **Fast**.

- Check that your environmental conditions (temperature, humidity) are in the recommended range. See users guide.

- Check that your ink cartridges and printhead have not passed their expiration dates: see users guide.

For the latest information, please visit http://www.hp.com/go/T1600/support or http://www.hp.com/go/T2600/support.

Print-quality troubleshooting wizard

The print-quality troubleshooting wizard can help with the following problems:

- Horizontal lines across the image (banding)

- The whole image is blurry or grainy

- Lines are too thick, too thin or missing

- Colors are inaccurate

To start the wizard:

- **From the HP Designjet Utility for Windows:** Go to the **Support** tab, and select **Print Quality Toolbox**.

- **From the Embedded Web Server:** Go to the **Support** tab, then select **Print quality troubleshooting**.

- **From the front panel:** Tap 🖼 to optimize print quality.

Alternatively, or if you have other print-quality problems, you can continue reading this chapter.

Recalibrate the paper advance

Accurate paper advance is important to image quality because it is part of controlling the proper placement of dots on the paper. If the paper is not advanced the proper distance between printhead passes, light or dark bands appear in the print and image grain may increase.

The printer is calibrated to advance correctly with all the papers appearing in the front panel. When you select the type of loaded paper, the printer adjusts the rate at which to advance the paper while printing. However, if

you are not satisfied with the default calibration of your paper, you may need to recalibrate the rate at which the paper advances. See the user guide for steps to determine if paper advance calibration will solve your issue.

You can check the paper advance calibration status of the currently loaded paper at any time from the front panel. Tap 🖼 > ⋯ > ⚙ and then **Calibration status**. The status may be one of the following.

- **PENDING:** This status appears when loading any paper that has not been calibrated. HP papers in the Front Panel have been optimized by default and unless you experience image quality problems in your printed image such as banding or graininess it is not recommended to recalibrate the paper advance.

- **DONE:** This status indicates that the loaded paper has been calibrated before. However you may need to repeat the calibration if you experience image quality problems such as banding or graininess in your printed image.

📝 **NOTE:** Whenever you update the printer's firmware, the paper advance calibration values are reset to factory default, see the User guide.

Recalibrating the paper advance procedure

⚠ **CAUTION:** If you are using transparent papers or films, go directly to step 3 of this procedure.

1. From the front panel, tap 🖼, then **Paper advance calibration** ▶ **Choose paper** ▶ **Paper advance calibration**. The printer automatically recalibrates the paper advance and prints a paper advance calibration image, which you can send to the stacker or basket.

2. Wait until the front panel displays the status screen, then reprint your print.

📝 **NOTE:** The recalibration procedure takes a few minutes. Do not worry about the paper advance calibration image. The front panel display shows any errors in the process.

If you are satisfied with your print, continue using this calibration for your paper type. If you see improvement in your print, continue with step three. If you are dissatisfied with the recalibration, return to the default calibration, see <u>Return to default calibration on page 91</u>.

3. If you would like to fine-tune the calibration or are using a transparent paper, tap 🖼, then **Paper advance calibration** ▶ **Choose paper** ▶ **Adjust paper advance manually**.

4.   Select the percentage of change from −100% to +100%. To correct light banding, decrease the percentage.

To correct dark banding, increase the percentage.
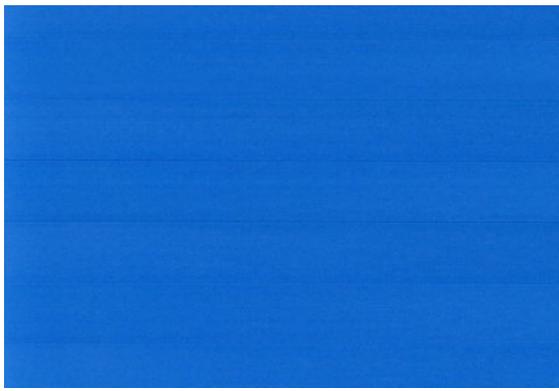
5.   Tap on the front panel to return to the all-apps page.

Return to default calibration

Returning to the default calibration sets all the corrections made by the paper advance calibration to zero. To return to the default paper advance calibration value, you must reset the calibration.

1.   From the front panel, tap > ⋯ > and then **Reset calibration**.

2.   Wait until the front panel displays the operation has completed successfully.

Horizontal lines across the image (banding)

If your printed image suffers from added horizontal lines as shown (the color may vary):

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. See users guide.

2. Check that you are using appropriate print-quality settings for your purposes (see users guide). In some cases, you can overcome a print-quality problem merely by selecting a higher print-quality level. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**. If you change the print-quality settings, you may wish to reprint your job at this point in case the problem has been solved.

3. Print the Image Diagnostics Print. See The Image Diagnostics Print on page 102.

4. If the printheads are working correctly, go to the front panel and tap 🖼 > … > ⚙ and then **Calibration status** to see the paper advance calibration status. If the status is DEFAULT, try performing paper advance calibration: see Recalibrate the paper advance on page 89.

In case you are using rolls with 3-in core adaptors:

1. Check that the roll core is not damaged.

2. Make sure that the 3-in adaptor is correctly attached to the spindle.

3. Print using Roll 1 for better performance.

4. Print in a higher quality/slower mode.

5. If horizontal banding is only showing in the laterals of the media, check that the 3-in. adaptors are positioned so that the spring of the black hub and the blue hub are aligned:

If the problem persists despite all the above actions, contact your customer service representative for further support.

Lines are too thick, too thin or missing
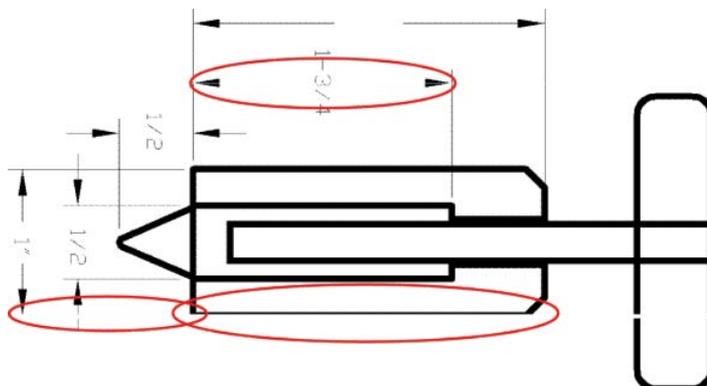
1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. See users guide.

2. Check that you are using appropriate print-quality settings for your purposes (see users guide). If printing on photo paper, select the custom print-quality options in the driver dialog, and try turning on the **Maximum detail** option (if available). You may wish to reprint your job at this point in case the problem has been solved.

3. If the resolution of your image is greater than the printing resolution, you may notice a loss of line quality. If you are using the PCL3GUI V3 driver for Windows, you can find the **Max. Application Resolution** option in the driver dialog's **Advanced** tab, under **Document Options** ▶ **Printer Features**. If you change this option, you may wish to reprint your job at this point in case the problem has been solved.

4. When printing on uncoated paper in Fast mode, try loading the paper as Bright White Bond Paper.

5. If the problem remains, go to the front panel and tap [icon] > ... > [icon] and then **Calibration status** to see the printhead alignment status. If the status is PENDING, you should align the printhead. See Align the printhead on page 73. After alignment, you may wish to reprint your job in case the problem has been solved.

6. Go to the front panel and tap [icon] > ... > [icon] and then **Calibration status** to see the paper advance calibration status. If the status is PENDING, you should perform paper advance calibration: see Recalibrate the paper advance on page 89.

7. If lines are too thin or missing, print the Image Diagnostics Print. See The Image Diagnostics Print on page 102.

If the problem persists despite all the above actions, contact your customer service representative for further support.

Line thickness changed when scaling

Lines appear stepped or jagged

If lines in your image appear stepped or jagged when printed:

1. The problem may be inherent in the image. Try to improve the image with the application you are using to edit it.

2. Check that you are using appropriate print-quality settings. See users guide.

3. Select the custom print-quality options in the driver dialog, and turn on the **Maximum detail** option (if available).

Lines print double or in the wrong colors

This problem can have various visible symptoms:

● Colored lines are printed double, in different colors.
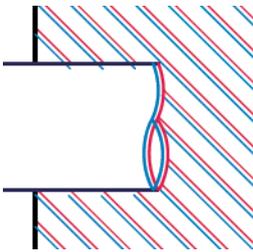
● The borders of colored blocks are wrongly colored.
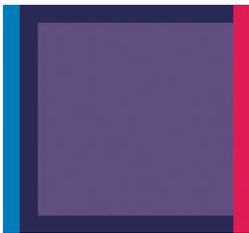
To correct this kind of problem:

1. Align the printhead. See Align the printhead on page 73.

2. Reseat the printhead by removing and then reinserting it. See users guide.

Lines are discontinuous

If your lines are broken in the following way:

1. Check that you are using appropriate print-quality settings. See users guide.

2. When printing on uncoated paper in Fast mode, try loading the paper as Bright White Bond Paper.

3. Align the printhead. See Align the printhead on page 73.

4. If the alignment fails, reseat the printhead by removing and then reinserting it. See users guide.

Lines are blurred

Humidity can cause ink to soak into the paper, making the lines blurred and fuzzy. Try the following:

1. Check that your environmental conditions (temperature, humidity) are suitable for high-quality printing. See users guide.

2. Check that the paper type selected in the front panel is the same as the paper type you are using. See users guide.

3. Try changing to a heavier paper type, such as HP Heavyweight Coated Paper or HP Super Heavyweight Plus Matte Paper.

4. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper, Super Heavyweight Plus Matte Paper.

5. If you are using photo paper, try changing to a different type of photo paper.

6. Align the printhead. See Align the printhead on page 73.

Line lengths are inaccurate

If you have measured your printed lines and find that the lengths are not sufficiently accurate for your purposes, you can try to improve line length accuracy in the following ways.

1. Print on HP Matte Film, for which your printer's line length accuracy is specified. See users guide.

   Polyester film is about ten times more dimensionally stable than paper. However, using film that is thinner or thicker than HP Matte Film will reduce line length accuracy.

2. Set the Print Quality slider to **Quality**.

3. Maintain the room at a steady temperature between 10°C and 30°C (50°F and 86°F).

4. Load the roll of film and let it rest for five minutes before printing.

5. If you are still not satisfied, try recalibrating the paper advance. See <u>Recalibrate the paper advance on page 89</u>.

The whole image is blurry or grainy

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. See users guide.

2. Check that you are printing on the correct side of the paper.

3. Check that you are using appropriate print-quality settings (see users guide). In some cases, you can overcome a print-quality problem merely by selecting a higher print-quality level. For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**. If you change the print-quality settings, you may wish to reprint your job at this point in case the problem has been solved.

4. Go to the front panel and tap 🖼 > ... > ⚙ and then **Calibration status** to see the printhead alignment status. If the status is PENDING, you should align the printhead. See <u>Align the printhead on page 73</u>. After alignment, you may wish to reprint your job in case the problem has been solved.

5. Go to the front panel and tap 🖼 > ... > ⚙ and then **Calibration status** to see the paper advance calibration status. If the status is PENDING, you should perform paper advance calibration: see <u>Recalibrate the paper advance on page 89</u>.

If the problem persists despite all the above actions, contact your customer service representative for further support.

The paper is not flat

If the paper does not lie flat when it comes out of the printer, but has shallow waves in it, you are likely to see defects in the printed image, such as vertical stripes. This can happen when you use thin paper that becomes saturated with ink.

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. See users guide.

2. Try changing to a thicker paper type, such as HP Heavyweight Coated Paper or HP Super Heavyweight Plus Matte Paper.

3. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper, Super Heavyweight Plus Matte Paper.

4. If you see horizontal stripes, try printing the same job rotated; this sometimes reduces the visibility of the stripes.

The print is scuffed or scratched

The black ink pigment can be scuffed or scratched when touched by a finger, a pen or some other object. This is particularly noticeable on coated paper.

Photo paper may be extremely sensitive to the basket or to anything else that it contacts soon after printing, depending on the amount of ink used and the environmental conditions at the time of printing.

To reduce the risk of scuffs and scratches:

*   Handle prints carefully.

*   Catch your prints as they are cut from the roll and do not let them fall into the basket. Alternatively, leave a sheet of paper in the basket so that freshly printed sheets do not make direct contact with the basket.

Ink marks on the paper

This problem can occur for several different reasons.

Horizontal smears on the front of the paper

When a lot of ink is used on a paper-based material, the paper absorbs the ink quickly and expands. If the paper is stiff and curled, near the end of the roll the leading edge of the paper may rise slightly in the print area. As the printhead moves over the paper, it may come into contact with the paper and smear the printed image.
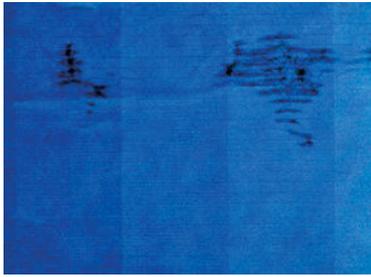
Whenever you notice this problem, cancel the printing job immediately. Press ❌ on the front panel and also cancel the job from your computer application. Soaked paper can damage the printhead.

Try the following suggestions to avoid this problem:

1. Increase the margins by relocating the image to the center of the page, either with your software or with the front panel's **Move Paper** option (see users guide). To prevent such smears most effectively, the distance from the image to the leading edge of the paper should be at least 20 mm (0.8 in).

2. Select a faster print mode: change from Best to Normal, or from Normal to Fast mode.

Other smears on the paper

The following suggestions may be used for all kinds of smears, including those on the front of the paper:

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. See users guide.

2. Use a recommended paper type (see users guide) and the correct print settings.

3. If using sheet paper, try rotating the sheet 90 degrees. The orientation of the paper fibers may affect performance.

4. Try changing to a thicker paper type, such as HP Heavyweight Coated Paper or HP Super Heavyweight Plus Matte Paper.

5. Select a paper type that is slightly thinner than the paper you have loaded; this will persuade the printer to use less ink. Here are some example paper types in ascending order of thickness: Plain Paper, Coated Paper, Heavyweight Coated Paper, Super Heavyweight Plus Matte Paper.

Black ink comes off when you touch the print

This problem may be caused by printing with matte black ink on photo paper. The printer will not use matte black ink if it knows that the paper will not retain it. To be sure of avoiding matte black ink, you can select Photo Gloss Paper as the paper type (in the Photo Paper category).

Edges of objects are stepped or not sharp
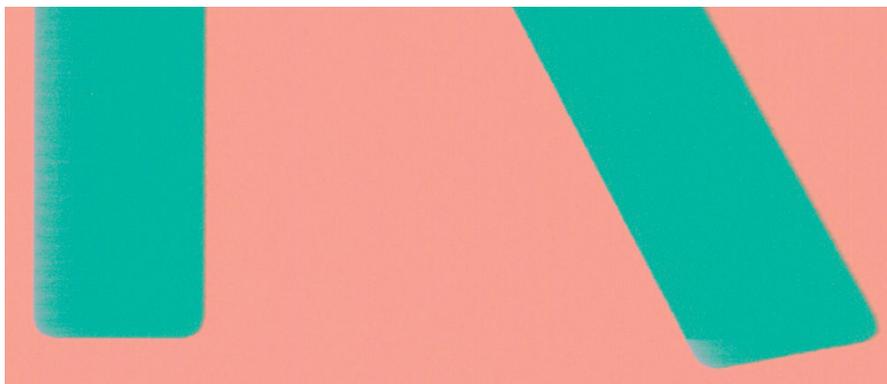
If edges of objects or lines appear to be poorly defined or lighter in density, and you have already set the print-quality slider to **Quality** in the driver dialog, select the custom print-quality options, and try setting the quality level to **Normal**. See users guide.

Edges of objects are darker than expected

If edges of objects seem darker than expected, and you have already set the print-quality slider to **Quality** in the driver dialog, select the custom print-quality options, and try setting the quality level to **Normal**. See users guide.

Horizontal lines at the end of a cut sheet print

This type of defect affects only the end of a print, within approximately 30 mm of the trailing edge of the paper. You may see some very thin horizontal lines across the print.

To avoid this problem:

1. Print the Image Diagnostics Print. See .

2. Consider printing with roll paper.

3. Consider using larger margins around your image.

Vertical bands of different colors

If your print has vertical bands of different colors along it:

1. Try using higher print-quality settings (see users guide). For instance, if you have set the Print Quality slider to **Speed**, try setting it to **Quality**.

2. Try using thicker paper, choosing from the recommended paper types such as HP Heavyweight Coated Paper and HP Super Heavyweight Paper. See users guide.

White spots on the print

You may notice white spots on the print. This is probably due to paper fibers, dust or loose coating material. To avoid this problem:

1. Try cleaning the paper manually with a brush before printing, to remove any loose fibers or particles.

2. Always keep the cover of your printer closed.

3. Protect your paper rolls and sheets by storing them in bags or boxes.

Colors are inaccurate

If the colors of your print do not match your expectations, try the following:

1. Check that the paper type you have loaded corresponds to the paper type selected in the front panel and in your software. See the user guide. Also, tap 🖼 > ⋯ > ⚙ and then **Calibration status** to check the color calibration status. If the status is PENDING or OBSOLETE, you should perform color calibration: see the user guide. If you have made any changes, you may wish to reprint your job in case the problem has been solved.

2. Check that you are printing on the correct side of the paper.

3. Check that you are using appropriate print-quality settings (see users guide). If you have selected the **Speed** or **Fast** options, you may not get the most accurate colors. If you change the print-quality settings, you may wish to reprint your job at this point in case the problem has been solved.

4. If you are using Application Color Management, check that the color profile you are using corresponds to the selected paper type and print-quality settings. If you have doubts about which color settings to use, see users guide.

   📝 NOTE: Whether you are using Application Color Management or Printer Color Management, make sure to specify your choice both in the printer settings and the application settings (if available).

   If the Application Color Management is not satisfactory, try the Printer Color Management instead.

5. If the problem consists of color differences between your print and your monitor, please follow the instructions in the "How to calibrate your monitor" section of the HP Color Center. At this point, you may wish to reprint your job in case the problem has been solved.

6. Print the Image Diagnostics Print. See <u>The Image Diagnostics Print on page 102</u>.

If the problem persists despite all the above actions, contact your customer service representative for further support.

Color accuracy using EPS or PDF images in page layout applications

Page layout applications such as Adobe InDesign and QuarkXPress do not support color management of EPS, PDF or grayscale files.

If you have to use such files, try to ensure that the EPS, PDF or grayscale images are already in the same color space that you intend to use later on in Adobe InDesign or QuarkXPress. For instance, if your final goal is to print the job in a press that follows the SWOP standard, convert the image into SWOP when you create it.

Colors are fading

If you print on instant-dry photo paper, your prints will fade rapidly. If you plan to display the prints for more than two weeks, you should laminate them to achieve longer life.

Prints on swellable coated papers will fade much less rapidly. However, lamination will increase the life of prints (depending on the type of lamination) with all paper types. For more information, consult your laminate provider.

The image is incomplete (clipped at the bottom)

- Did you press ❌ before all the data were received by the printer? If so, you have ended the data transmission and will have to print the page again.

- There may be a communications problem between your computer and the printer. Check your network cable.

- Check to make sure that your software settings are correct for your current page size (for example, long-axis prints).

- If you are using network software, make sure it has not timed out.

The image is clipped

Clipping normally indicates a discrepancy between the actual printable area on the loaded paper and the printable area as understood by your software. You can often identify this kind of problem before printing by previewing your print (see users guide).

- Check the actual printable area for the paper size you have loaded.

  printable area = paper size – margins

- Check what your software understands to be the printable area (which it may call "printing area" or "imageable area"). For example, some software applications assume standard printable areas that are larger than those used in this printer.

- If you have defined a custom page size with very narrow margins, the printer may impose its own minimal margins, clipping your image slightly. You may want to consider using a larger paper size.

- If your image contains its own margins, you may be able to print it successfully by using the **Clip Contents by Margins** option (see users guide).

- If you are trying to print a very long image on a roll, check that your software is capable of printing an image of that size.

- You may have asked to rotate the page from portrait to landscape on a paper size that is not wide enough.

- If necessary, reduce the size of the image or document in your software application, so it fits between the margins.

There is another possible explanation for a clipped image. Some applications, such as Adobe Photoshop, Adobe Illustrator and CorelDRAW, use an internal 16-bit coordinate system which means that they cannot handle an image of more than 32,768 pixels.

If you try to print an image larger than this from these applications, the bottom of the image may be clipped. To print the whole image, try these suggestions:

- Try using the PostScript or PDF printer driver to print your job, if you have not already tried it.

- Save the file in another format, such as TIFF or EPS, and open it with another application.

- Use a RIP to print the file.

- If you are printing from Adobe Acrobat or Acrobat Pro try selecting **Print as image** in the advanced properties of the **Print** dialog of the application. This will reduce the quality of the output.

Some objects are missing from the printed image

Large quantities of data may be necessary to print a high-quality large-format print job, and in some specific workflows there may be issues that can lead to some objects missing from the output. Here are some suggestions to help you to avoid this problem.

- Try using the PostScript or PDF printer driver to print your job, if you have not already tried it.

- Select a smaller page size and scale to the desired final page size in the driver or in the front panel.

- Save the file in another format, such as TIFF or EPS, and open it with another application.

- Use a RIP to print the file.

- Reduce the resolution of bitmap images in your application software.

- Select a lower print quality in order to reduce the resolution of the printed image.

- If you are printing from Adobe Acrobat or Acrobat Pro try selecting **Print as image** in the advanced properties of the **Print** dialog of the application. This will reduce the quality of the output.

These options are suggested for troubleshooting purposes and may adversely affect the final output quality or the time necessary to generate the print job. Therefore, they should be cancelled if they do not help to solve the problem.

A PDF file is clipped or objects are missing

In older versions of Adobe Acrobat or Adobe Reader, large PDF files could be clipped or lose some objects when printing with the PCL3GUI driver at high resolution. In order to avoid such problems, update your Adobe Acrobat or Adobe Reader software to the latest version. In DC versions these problems should be solved.

The Image Diagnostics Print

See .

Product Limitations

This Product limitations review document is designed to highlight and communicate the major product limitations of the HP Designjet T2500/T2530/T3500 Printers. Included are appropriate workarounds (where possible). It is intended for HP internal use only and is subject to change as and when new information is available. It should be treated with the utmost confidentiality, and should not be reproduced and distributed

openly. Its purpose is to serve as an informational document for those who come into direct contact with customers (Sales Force, Marketing Centers, and Technical Support) in order that they can VERBALLY acknowledge the limitations, explain them, and provide the best possible workaround. The limitations described here will only affect some users some of the time.

NOTE: For a complete up to date list of printing related Product limitations; please check the T920/T1500 Product Limitations document.

Scanner

Part of the image is lost when scanning thin or semi-transparent paper

Limitation type

Permanent

Symptoms affecting the customer

Clipping on an image when scanning thin or transparent media; the following two reasons explain why:

- The scanner reads content located inside the E-size marks, any image part outside will not be read. If the paper edge is located outside those marks, it will not be detected either.

- If the paper is too thin, the scanner may not locate the paper edge easily.

In both situations, the scanner can confuse a black line inside the image with the paper edge. If the image profile is not regular, parts of the image can be lost. Example:
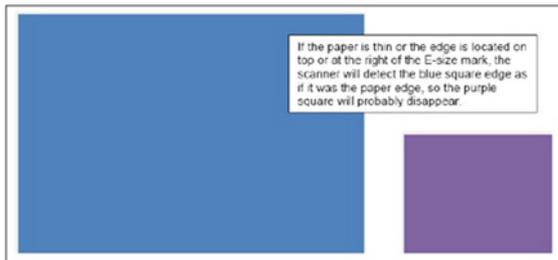
Communication to the customer

There are some workarounds available to minimize this issue:

1. Make sure that the paper edge is located at the left of the E-size mark.

2. Change the job orientation; it could work better for the image type you want to scan.

3. If the paper is too thin, place a piece of white paper below the original when scanning.

4. Use the Scan full width option.

Context

The algorithm to detect the paper edge has improved compared to the T2300, but it still might fail depending on the image and paper type.

Scan to LAN cannot be configured successfully in IPv6 or IPSec networks

Limitation type

Permanent

Symptoms affecting the customer

The issue happens when trying to setup a folder for scanning, and the customer network uses pure IPv6 protocol, or has IPSec protocol configured.

The Embedded Web Server shows an error message when trying to setup the folder saying that the computer specified as a server cannot be found. It is not possible to set up, and use scan to folder in this environment.

Communication to the customer

In order to use scan to folder at least a mixed IPv4/IPv6 network is required. In case of IPSec, the scan to folder will never work if the network is using IPSec policies. We recommend in this case using the Scan to USB option.

Context

Same problem happens in the T2300.

Connectivity

Printer cannot access the Internet after changing the proxy settings

Limitation type

Permanent

Symptoms affecting the customer

After changing the proxy settings in the printer, trying to connect to the Internet may give an error message.

Communication to the customer

In some cases it is required to restart the printer to refresh the Internet settings.

Image Quality

Printouts show different colors compared to the T790/T1300/T2300

Limitation type

Permanent

Symptoms affecting the customer

If a customer replaces a T-series printer with a T1600/T2600 printer; a color change when printing certain images with certain paper types and using some setting combinations will be noticed.

Communication to the customer

Color reproduction has been improved. Therefore, the output will be different from any of the printers listed. This might be a problem for some users that are replacing an existing T-series printer.

Context

Same problem happens in the T920/T1500.

Inaccurate lines in the first or last 10 cm of a job

Limitation type

Permanent

Symptoms affecting the customer

When scanning an original with horizontal lines, the first or last 10 cm of the image might show some steps or discontinuances in the horizontal lines.
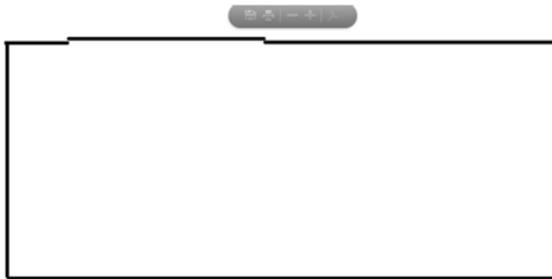
Communication to the customer

A misalignment of up to 4 pixels is considered normal with this type scanner technology. The amount of misalignment depends on the scan resolution and paper type used.

This issue is related to the distance between the original paper and the CIS sensors. When the paper enters the scanner, it is only held by one set of rollers, so the paper is not completely flat, and the focal distance between the CIS sensors and the paper might change. Once the paper has gone completely through the rollers of the scanner, the media becomes held by the second roller, and the issue is solved. The same instance occurs when the media is leaving the scanner. This is the reason why you can see the issue only during the first and last 10cm of the image.

The issue is usually improved after calibrating, but sometimes the defect cannot be completely removed.

Context

This issue also happens in the Designjet T2300 eMFP.

If you still have a problem

If you still experience print-quality problems after applying the advice in this chapter, here are some further things that you can do:

- Try using a higher print-quality option. See users guide.

- Check the driver you are using to print with. If it is a non-HP driver, consult the driver vendor about the problem. You could also try using the correct HP driver, if feasible. The latest HP drivers can be downloaded from http://www.hp.com/go/T920/drivers, http://www.hp.com/go/T1500/drivers, http://www.hp.com/go/T2500/drivers,.or http://www.hp.com/go/T3500/drivers.

- If you are using a non-HP RIP, its settings may be incorrect. See the documentation that came with the RIP.

- Check that your printer's firmware is up to date. See users guide.

- Check that you have the right settings in your software application.

Connectivity problems

General network troubleshooting

Some symptoms are:

- The front panel display does not show the **Receiving** message when an image is sent to the printer.

- Computer displays an error message when trying to print.

- Computer or printer hangs (stays idle), while communication is taking place.

- Printed output shows random or inexplicable errors (misplaced lines, partial graphics etc.).

- Printer cannot wake up when sending a job using EWS or drivers.

To solve a communication problem:

- Ensure that the correct printer is selected in the application.

- Ensure that the printer works correctly when printing from other applications.

- Remember that very large prints may take some time to receive, process and print.

- If the printer is connected to a network, check the printer connectivity status: the printer should have an IP address and it should match the IP address specified in the printing computer. If the addresses do not match, then configure correctly; if the issue persists, check the network configuration.

- Try another interface cable.

- When a network device automatically configures itself on an IP address from the DHCP service, the IP address may differ from the time the device was last turned off to the time it is next turned on. This can lead to the device being shown as "offline" when driver port settings are configured with the original IP address. There are at least three possible ways to avoid this:

  – Increase the lease time of the DHCP server device.

  – Set a fixed IP address for the printer that will not be changed by DHCP.

  – Configure the printer and driver to refer to the hostname instead of the numeric IP address. To set a fixed IP address for the printer:

Finally, the T790, T1500, T2500, and T3500 embedd a Jet Direct (JDI) connectivity card. For detailed information see:

- HP Jetdirect Print Servers Administrator's Guide.

- http://www.hp.com/go/jetdirect

To use the hostname instead of the numeric IP address:

1. Go to the front panel and press [icon] or [icon] .

2. Take a note of the IP address and the hostname (HP XXXXXX format).

3. If the computer is running Windows, go to **Control Panel** > **Printers** >, right-click the printer and select **Properties** > **Ports**> **Configure Port**, and in the Printer name or IP address field enter the hostname.

Finally, if unexpected printer behavior is experienced, one can restore most of the printer's settings:

- Basic networking settings can be reset by pressing [icon], then [icon] , then **Connectivity** > **Network connectivity** > **Reset connectivity factory settings**.

- Network security settings can be reset by pressing [icon], then [icon] , then **Connectivity** > **Network connectivity** > **Gigabit Ethernet** > **Modify configuration** > **Reset Security**.

Printer discovery

If unable to install the HP software provided with the printer, check that:

- All cable connections to the computer and the printer are secure.

- The network is operational and the network hub is turned on.

- All applications, including virus protection programs, spyware protection programs, and firewalls, are closed or disabled for computers running Windows.

- The printer is installed on the same subnet as the computers that use the printer. If the installation program cannot discover the printer, print the network configuration page, and enter the IP address manually in the installation program.

Though it is not recommended that a static IP address is assigned to the printer, it might resolve some installation problems (such as a conflict with a personal firewall) by doing so.

Connectivity Configuration page

The Connectivity Configuration page provides comprehensive print server status. It is an important diagnostic tool, especially if network communications are not available. For a description of messages that may appear on the Connectivity Configuration page, see the HP Jetdirect Print Servers Administrator's Guide for the print server model.

The connectivity configuration page can be printed by pressing the setting icon in the **Front Panel** > **Internal Prints** > **Service Information Prints** > **Print all pages**.

LEDs

The printer has status lights (LEDs) that indicate the link status and network activity.

- When the green light is on, the printer has successfully linked to the network.

- When the yellow light is blinking, there is network transmission activity.

Link troubleshooting

If the printer does not successfully connect to the network:

- Both LEDs will be off.

- **LAN Error**– **Loss of Carrier** will be indicated on the Connectivity Configuration page.

If a link failure is indicated, try the following:

- Check the cable connections, or try another cable.

- Manually configure the link setting to match the port configuration of the network hub or switch. Turn the printer off, then on again, to re-initialize the setting.

- Print an Connectivity Configuration page and check link settings.

Item Description

Port Config If the printer is properly linked, this item has one of the following values:

- **10BASE-T HALF:** 10 Mbps, half-duplex

- **10BASE-T FULL:** 10 Mbps, full-duplex

- **100TX-HALF:** 100 Mbps, half-duplex

- **100TX-FULL:** 100 Mbps, full-duplex

- **1000TX FULL**

If the printer is not properly linked, one of the following messages will appear:

- **UNKNOWN:** The printer is in an initialization state.

- **DISCONNECTED:** A network connection has not been detected. Check network cables. Reconfigure the link settings, or restart the printer.

Auto Negotiation Indicates whether auto-negotiation for link configuration is on or off:

- **ON (default):**The printer will attempt to automatically configure itself onto the network at the proper speed and communication mode.

- **OFF:** Manually configure the link speed and communication mode using the front panel. The settings must match those of the network for proper operation.

Link configuration methods

The printer supports 10, 100, or 1000 Mbps network link speeds using full-duplex or half-duplex communication modes (a 1000T half-duplex selection is not supported). By default, it will attempt to autonegotiate its link operation with the network. When connecting to network hubs and switches that do not support auto-negotiation, the printer will configure itself for 10 Mbps or 100 Mbps half-duplex operation. For example, when connected to a nonnegotiating 10 Mbps hub, the print server will automatically set itself to operate at 10 Mbps half-duplex.

If the printer is not able to connect to the network through auto-negotiation, set the link setting by one of the following methods:

- The front panel.

- The Embedded Web Server.

- Telnet interface, through a system command prompt.

- A TFTP (Trivial File Transfer Protocol) configuration file that is downloaded, for example, from a BootP or DHCP server.

- Network management tools such as HP Web Jetadmin.

Reset network parameters

Network parameters (for example, the IP address) can be reset to factory default values: **Front Panel** > **settings** > **connectivity** > **network connectivity** > **Restore connectivity factory settings** and then turning the printer off and on again. After restoring, print an Connectivity Configuration page to confirm that factory reset values have been assigned.

⚠ CAUTION: A factory-installed HP Jetdirect X.509 certificate will be saved over a cold reset to factory default values. However, a Certificate Authority (CA) certificate that has been installed by the user to validate a network authentication server will not be saved.

Problems with proxy

If access to internet requires connecting via a proxy in your environment; you must enter the proxy address manually. For that, press **Details** > **Modify** > **Enable proxy** > **Use proxy server**, and then enter your proxy address and port.

A proxy is a server that acts as an intermediary between computers on your local network and servers on the internet. Before setting up the printer, please check if your network requires a web proxy.

To check this open Internet Explorer or Safari on any computer within your network, and browse to the http://hp.com site. If you cannot connect to hp.com, your network does not have internet access and you need to consult with your IT provider on how to configure internet access. If you can connect to hp.com, you can check the browser settings for proxy configuration as follows:

- For Internet Explorer, go to **Tools** > **Internet Options** > **Connections** > **Local Area Network (LAN) Settings**. In the "Proxy server" part of the window, if the "Use a proxy server" box is unchecked, you do not need a web proxy. If it is checked, make a note of the Address and Port settings in the main window, or in the HTTP part of the Advanced settings window.

- For Safari, go to **Preferences** > **Advanced** > **Proxies** > **Change Settings**. If the "Web Proxy (HTTP)" box is unchecked, you do not need a web proxy. If it is checked, make a note of the Web Proxy Server name (before the ":") and port (after the ":").

- Proxy server names are typically like "proxy.mycompany.com" and proxy port is typically 80, but details are network dependent. If you are unable to determine whether you need a web proxy or how to configure it, please consult with your network administrator or Internet Service Provider. When in doubt, you probably do not need a web proxy.

If you are unable to determine whether you need a web proxy or how to configure it, please consult with your network administrator or Internet Service Provider. When in doubt, you probably do not need a web proxy.

Security

For security troubleshooting, please refer to the "HP Designjet Security white paper": http://www.hp.com/go/designjet/security

Scanning Problems

- [Banding Problems](#)
- [Image quality problems](#)
- [Dust problems](#)
- [Stitching problems](#)

Banding Problems

Bad/no gray balance calibration (CIS module to module match).

To fix this issues, make sure that the scanner glass is clean and calibrate the scanner.

Image quality problems

Scanning originals that have folds or are crumpled on a CIS scanner is often taken to be a scanner defect, where in reality it is a limitation of the technology being used. Due to the very short distance from sensor to surface of the original, also called "Focal Length", there is also a very short "Focus Depth", meaning that if the original is NOT in contact with the glass plate, it is very likely to be out of focus.
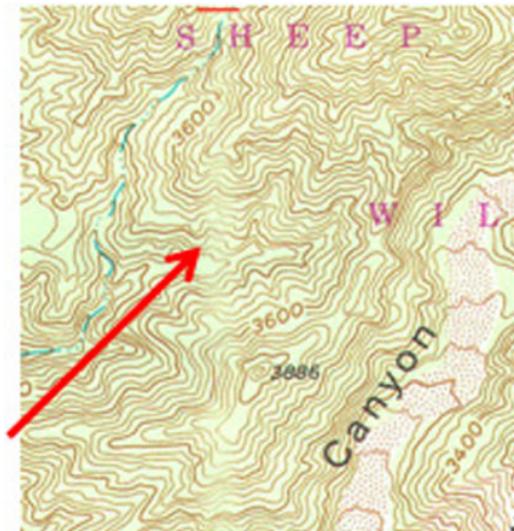
Dust problems

There are image quality problems not related to hardware errors, these can be due to either insufficient cleaning, bad calibration or limitations in the CIS technology.
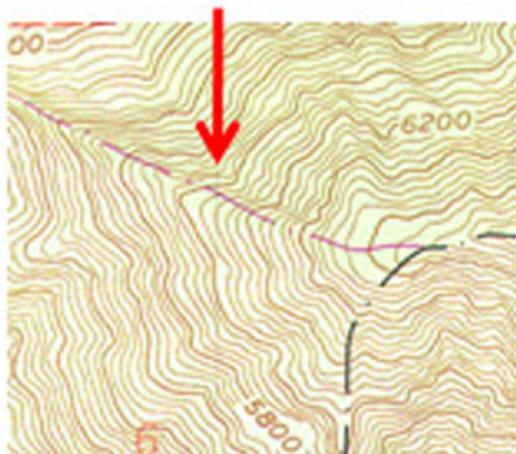
Streaks running in the scan direction which seem to appear and disappear during the scan aremost likely caused by dust. Clean the scanner and the original. The streaks are often a darker shade of color.

Streaks that run in the scan direction, that are color dependent, or a lighter shade of the color are often related to calibration. Dust that was present in the scanner during calibration, but has been cleaned away since.

Stitching problems

Other issues can be that the scanner simply needs to be calibrated, either because the parameter block has been erased, never been calibrated, or that the scanner has been moved around.

Stitching problem between 2 CIS modules:
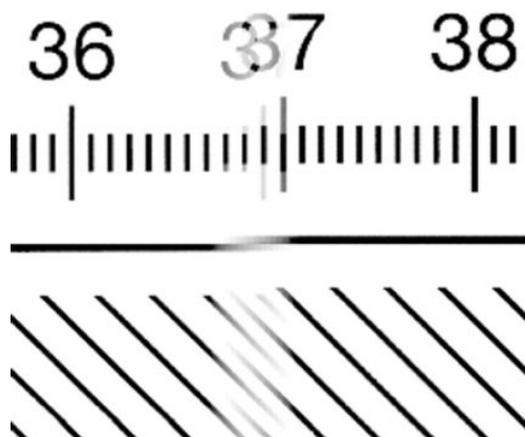
To fix this issue, try calibrating the scanner.

Firmware upgrades

- [How to upgrade](#)
- [Embedded web server](#)
- [USB upgrade](#)

How to upgrade

To obtain the latest firmware, please check www.hp.com/go/DesignJetT1600/firmware, or www.hp.com/go/DesignJetT2600/firmware

There are 3 ways of updating the firmware in the printer:

- Automatic firmware upgrade if web services are enabled
- Embedded web server. See users guide
- Using a USB key

Embedded web server

Once the file is downloaded open the EWS with any web browser. Go to **About Printer** > **Manual firmware** update" then select the firmware file (.fmw) and press the **I AGREE** button.

USB upgrade

1. Upload the fmw file onto an empty USB stick.
2. Turn off the printer.
3. Plug in the USB stick.
4. Turn on the printer and follow instructions.

4   System error codes

Introduction

System error codes are generally used to report internal system errors. The following pages contain a list of system error codes with their descriptions and recommended corrective actions. Try only one recommended action at a time, in the order in which they appear in this manual, and restart the printer after each action. If the error code no longer appears, there is no need for any more corrective actions.

Errors of three kinds

- Some system errors are advisory, which means that you can press **OK** on the front panel and continue using the printer.

- Some system errors are continuable, which means that you can still use the printer but a hardware issue was found, so the printer will disable the affected functions. For example, scanning could be disable but the printer could continue working; or the other way around.

- And some system errors are non-continuable, which means that you cannot continue using the printer. In this case, turn the printer off and on again. If the error code reappears, then the printer requires a remote support or on-site visit in order to resolve the problem.

☆ TIP: The printer self-diagnostics work more accurately on printer start-up. Therefore, when a system error appears, you are recommended to restart the printer and repeat the action that caused the error, to get a more accurate diagnostic.

Reporting a system error to HP Support.

If you have an error code that you cannot resolve, then report the error to HP Support Office. When reporting the error, have the following information ready:

📝 NOTE: If you fail to provide any of the following information, HP Support cannot help you properly. Make sure you take time to gather all of this information.

- The **serial number and product number**, which can be seen on the HP label next to the connection panel.

- Which **firmware version** the printer is using. which can be found in 🛈, there go to: **Main menu** ►**About printer** ►**Firmware update**. If you cannot use the Front panel, check for the firmware version in the **Embedded Web Server**. To connect to the EWS enter the printer's IP address in a web browser, go to **About printer** and then to the **Firmware update** tab.

- The complete system error code, which can be found in the Front panel.

- Print all the Service information prints . To do so, press 🛞, and then go to **Internal Prints** ►**Service Information Prints**. Please, print all pages.

- Which software application the customer is using.

- The file, line number, error and error code , which can be found in the **Details** menu, available when a system error is shown on the front panel. To get the internal error code you will have to scroll down to the next printer screen.

NOTE: The file and line fields are important to identify the source of the problem because the same internal error code can be reported in different files and line. In the **File** field, supply only the filename: the part after the last slash ("/"). For example, for a file **/ae/.../elektra/hal/motors/ControlledMotor/Elektra/ControlledMotorElektra.cpp** you only need to provide the **ControlledMotorElektra.cpp** part to HP support.

- The diagnostic package.

TIP: When investigating a system error, you are recommended to use the diagnostic package to further understand the problem. To obtain the diagnostic package (which takes a few minutes), see Appendix B: Obtaining the diagnostics package on page 280.

Diagnostic package

It is possible to view all the actions the printer performs collected in a log file. To further understand a system error code, it is useful to have a log showing what the printer was doing at the time when the system error occurred. To get the diagnostic package, see Appendix B: Obtaining the diagnostics package on page 280.

What to do if the front panel fails to initialize

The LEDs of the formatter (visible at the rear of the printer, see figure number 2 below), the power supply, and the network interface card can help you troubleshoot a problem if the front panel is not working. All these LEDs are located in the E-Box placed below the printer.
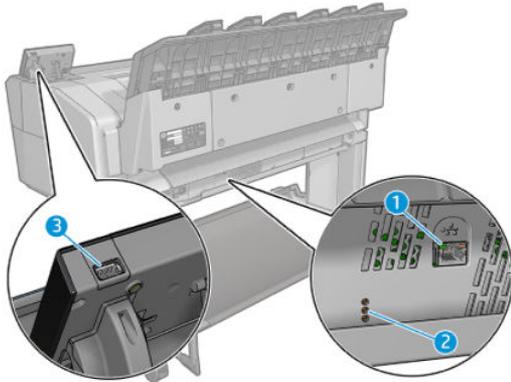
The call agent should ask the customer to follow these steps to troubleshoot the problem:

1. Switch the power off at the rear of the printer and disconnect the power cord. Reconnect the power cord and switch on the printer.

2. Check that the front panel interface cable is undamaged and correctly corrected to the engine PCA.

3. Use the information in the next section to interpret the LEDs and find the source of the problem. Remember that you should read these LEDs when you press the power button. Some combinations may require the replacement of more than one component. In this case, always replace one component at a time. Check the LEDs again to see whether the problem has disappeared. If the same LED sequence appears, replace the next component indicated in the table.

    NOTE: Once the printer has gone through the "Ready" state, the LEDs are no longer representative; in particular you will notice that on waking from "Sleep mode" the LEDs turn to PSU-On, Upper-On, Mid-blinking and Lower-Off.

Diagnostics during initialization

During boot up, diagnostics must be done by LEDs as the front panel isn't running. Three LEDs are used for diagnosing errors in Formatter/PSU.

NOTE: In certain conditions, a LED can blink with max and mid light (never turn off completely), but this has the same meaning as a normal blink (on -> off -> on...).
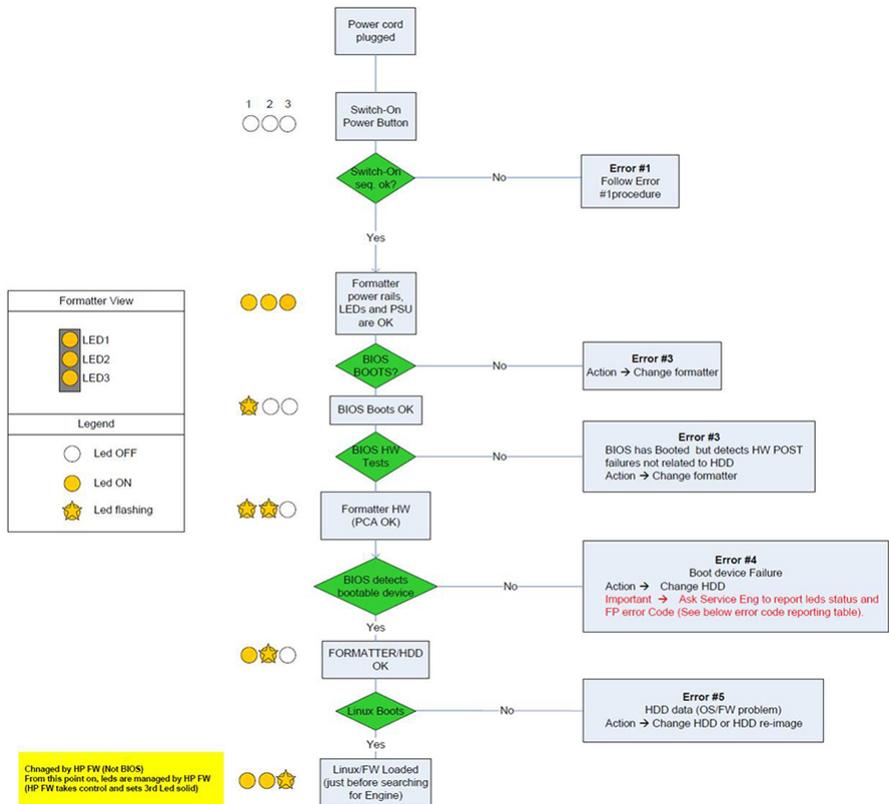
System error codes in brief

Reading a system error code

System error codes explain which component or system is failing, and what action should be taken to resolve the problem.

System error codes have been defined in the format **D0XX-nnYY-mmZZ**.

The different parts of the code have the following meaning:

- **D**: Device in which the failure has been detected.

- **XX**: Subsystem in which the failure has been detected (see below the table for the subsystem error codes).

- **nn**: Subsystem index, if more than one subsystem of the same kind is used; for example, it may be used to identify the ink delivery system (Service Station side and Front Panel side). If there is only one subsytem, nn is 00.

- **YY**: Service part in which the failure has been detected.

- **mm**: Service part index, if more than one part of the same kind is used; for example, it may be used to identify the ink cartridge (color and number). If there is only one part, mm is 00.

- **ZZ**: Indicates the cause of error as identified by self-diagnostics; see the next section for more details.

Values of D (1 digit)

D	Device
0	Printer
1	Accessories
8	Internal printer firmware error[1]

[1] Errors starting with 8 (D = 8) are internal firmware issues (for example, 86B0-1A7E-0000). If an error of this kind appears, there is probably an issue in the firmware that will be solved in a future release. These errors are not documented for this reason. If one of these errors appears, check that the printer has the latest firmware installed and install it if needed.

Values of XX for device 0 (printer)

XX	Subsystem
01	E-box
03	Power supply
21	Service station (SVS)
22	Ink delivery system (IDS)
45	BIOS/Formatter
60	Media input
65	Media path
66	Cutter

XX	Subsystem
75	Integrated stacker
80	User interface
86	Carriage
90	Internal firmware

Values of XX for device 1 (accessories)

XX	Subsystem
09	Scanner

System error codes in full

This section describes each of the system error codes that may be encountered while using the printer and suggests actions to solve the problem in each case.

📝 IMPORTANT: Try only one recommended action at a time, in the order in which they appear in this manual, and restart the printer after each action (unless the action was to restart the printer). If the error code no longer appears, there is no need for any more corrective actions.

01 E-box

0001-0001-0003

Description

The firmware has detected an unsupported Engine PCA version.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Engine PCA firmware and hardware mismatch. Check that the firmware is up to date.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1.   Make sure that the printer has the latest firmware version.

2.   Upgrade the firmware version. See Appendix A: Updating firmware in boot mode on page 279.

3.   Run the **00102 Check Mechatronics** service diagnostic and check if the Engine PCA version is the proper one.

4.   Replace the Engine PCA if needed.

Possible parts affected

Engine PCA

0001–0001–0004

Description

The Engine PCA cannot communicate with the Formatter PCA. If the issue is persistent, it indicates a malfunction in the Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Engine PCA comms error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1.   Check that the communication cable from the Formatter PCA to the Engine PCA is unbroken, undamaged and properly connected.

2.   Run the **00102 Check Mechatronics** service diagnostic and check if the Engine PCA communication status is OK.

3.   Replace the Engine PCA, if needed.

4.   Replace the Formatter PCA, if needed.

Possible parts affected

Engine PCA

0001–0001–0010

Description

The firmware has detected an internal voltage in the Engine PCA outside of normal range. If the issue is persistent, it indicates a malfunction in the Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Engine PCA voltage out of range.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

•

Troubleshooting

1. Run the **00102 Check Mechatronics** service diagnostic and check if the input voltage from the Engine PCA is within its operation range.

2. Replace the Engine PCA if needed.

Possible parts affected

Engine PCA

0001–0001–0052

Description

The printer has detected that the power cable from the Engine PCA is not properly connected to the DC/DC Power Supply PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Engine PCA power cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the power cable from DC/DC Power supply PCA to Engine PCA and its corresponding connector are not broken, not dirty and undamaged.

2. Run the **00102 Check Mainboard electronics** service diagnostic and check if the Engine PCA communication status is OK.

3. Replace the Engine PCA, if needed.

Possible parts affected

- Engine PCA

0001-0001-0053

Description

The printer has detected that the Engine PCA is not properly connected to the Formatter PCA (PCI express).

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Engine PCA PCI express presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Engine PCA is properly connected to the Formatter PCA.

2. Clean the gold contacts from the engine PCA PCI connector.

3. Run the **00102 Check Mainboard electronics** service diagnostic and check if the Engine PCA communication status is OK.

4. Replace the Engine PCA, if needed.

5. Replace the Formatter PCA, if needed.

Possible parts affected

- Engine PCA

0001-0001-0095

Description

32V voltage out of spectification in Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Engine PCA 32 V check.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check if the power cable from the DC/DC power supply PCA to the Engine PCA and its corresponding connector is unbroken, undamaged and properly connected.

2. Run the **00102 Check Mechatronics** service diagnostic and check if the 32V voltage from the Engine PCA is in range.

3. Replace the DC/DC power supply PCA, if needed.

4. Replace the Engine PCA, if needed.

Possible parts affected

● DC/DC power supply PCA

● Engine PCA

0001–0006–0002

Description

The printer has not been able to detect the RFID PCA presence.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. RFID PCA resence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Run the **00104 Check RFID electronics** service diagnostic and check the RFID PCA status.

2. Check that the RFID cable to the Engine PCA is unbroken, undamaged and properly connected.

3. If the error persists, get the diagnostic package (see) and contact Level 3 providing the printer Serial Number and Product Number.

Possible parts affected

- RFID PCA

0001-0006-0048

Description

The printer is not able to receive the expected data that has been sent from the RFID PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. RFID PCA data expected not received

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00104 Check RFID electronics** service diagnostic and check the RFID PCA status.

2. Check that the RFID cable to the Engine PCA is unbroken, undamaged and properly connected.

3. If the error persists, get the diagnostic package (see) and contact Level 3 providing the printer Serial Number and Product Number.

Possible parts affected

- RFID PCA

0001-0008-0012

Description

32 V voltage out of specification, undervoltage in DC/DC Power Supply PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC Power supply PCA Voltage too low.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1.   Run the **00101 Check one rail** service diagnostic and check if the 32 V signal is in range.

2.   Replace the DC/DC Power supply PCA, if needed.

Possible parts affected

●   DC/DC Power supply PCA

0001–0008–0002

Description

The printer has detected that the power cable from the Engine PCA is not properly connected to the DC/DC Power supply PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC Power supply PCA presence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the cable from the DC/DC Power supply PCA to Power Supply Unit and its corresponding connector are not broken, not dirty and undamaged.

2. Run the **00101 Check one rail** service diagnostic and check if the DC/DC Power supply PCA communication status is OK.

3. Replace the Power Supply Unit, if needed.

4. Replace the DC/DC Power supply PCA, if needed.

Possible parts affected

- Power supply

- DC/DC Power supply PCA

0001-0008-0009

Description

The printer has detected that the data cable from the DC/DC Power Supply is not properly connected to the Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC Power supply PCA data cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the cable from the DC/DC Power supply PCA to Engine PCA and its corresponding connector are not broken, not dirty and undamaged.

2. Run the **00101 Check one rail** service diagnostic and check if the DC/DC Power supply PCA communication status is OK.

3. Replace the DC/DC Power supply PCA, if needed.

4. Replace the Engine PCA, if needed.

Possible parts affected

- DC/DC Power supply PCA

- Engine PCA

0001-0008-0011

Description

32V voltage out of specification, overvoltage.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC power supply voltage too high.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

- A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC power supply PCA voltage too high.

Troubleshooting

1. Run the **00101 Check one rail** service diagnostic and check if the 32V signal is in range.

2. Replace the DC/DC power supply PCA, if needed.

Possible parts affected

- DC/DC power supply PCA

0001-0008-0015

Description

The printer has detected that the electrical protection from the DC/DC Power Supply is not properly working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC Power supply PCA electrical protection issue.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Run the **00101 Check one rail** service diagnostic and check if the DC/DC Power supply PCA communication status is OK.

2. Replace the DC/DC Power supply PCA, if needed.

Possible parts affected

- DC/DC Power supply PCA

0001-0008-0054

Description

Voltage out of specification, overvoltage or undervoltage in DC/DC power supply PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. DC/DC power supply PCA voltage failure.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00101 Check one rail** service diagnostic and check if the 32V signal is in range.

2. Replace the DC/DC power supply PCA, if needed.

Possible parts affected

- DC/DC power supply PCA

0001-0009-0080

Description

The E-box fan is malfunctioning.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. E-box fan rotation fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the cable from the fan to the Engine PCA is unbroken, undamaged and properly connected.

2. Make sure that the E-box fan is not blocked or dirty.

3. Run the **00102 Check Mechatronics** service diagnostic and check the fan status.

4. Replace the E-box fan, if needed.

Possible parts affected

- E-box fan

21 Service Station

0021-0001-0001

Description

Drop Detector not working as expected or cannot be detected.

IPS/Front panel message

A system error occurred. Tap **OK** to continue or restart the device. If the problem persists, contact your support representative. Drop detector sensor motor malfunction, error status or state.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the cables between the Drop detector to Service station PCA are properly connected, not broken, not dirty and undamaged.

2. Run the **02101 Check Electronics** service diagnostic test and check if the Drop Detector functionality status is OK.

3. Replace the Drop Detector.

4. If the problem persists, replace the Service station PCA.

Possible parts affected

- Drop detector

0021-0001-0010

Description

The firmware has detected an internal voltage in Drop detector outside of normal range. If the issue is persistent it indicates a malfunction in Drop Detector.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Drop detector sensor Voltage out of range.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Run the **02101 Check Electronics** service diagnostic test and check if the Drop Detector functionality status is OK.

2. Replace the Drop Detector.

3. If the problem persists, replace the Service station PCA.

Possible parts affected

- Drop detector

0021–0001–0080

Description

The Drop detector sensor has detected particles, such as fibers, hair or paper pieces, blocking the sensor as they can affect print-quality.

IPS/Front panel message

Cleaning process needed. See Clean the Drop Detector, in the user's guide. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Drop detector sensor Fiber detected.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check the printhead health.

2. Make sure that the Drop detector is clear.

3. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check the printhead health.

2. Make sure that the Drop detector is clear.

3. Check if the encoder strip is dirty. Clean it, if possible.

4. Check that the Drop detector is undamaged and properly connected to Service station PCA.

5. Run the **02101 Check Electronics** service diagnostic test and check if the Drop Detector functionality status is OK.

6. Replace the Drop detector if needed.

7. If the problem persists, replace the Service Station PCA.

Possible parts affected

- Drop detector

0021-0002-0001

Description

There is an issue with Service Station motor that does not assure its functionality.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If problem persists, contact your support representative. SVS motor Malfunction, error status or state.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Make sure that the service station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the service station.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the cables between the Service Station to Engine PCA are unbroken, undamaged and properly connected. In case of any damage, replace the cables.

2. Run the **02101 Check Electronics** or the **02102 Check service Station motor** service diagnostic tests to troubleshoot the problem further.

3. Replace the Service station. See .

Possible parts affected

- Service station

0021-0002-0017

Description

There is an electrical or mechanical issue with Service Station motor that does not assure the motor move correctly.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. SVS motor movement blocked.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that the service station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the service station.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the cables between the Service Station to Engine PCA are unbroken, undamaged and properly connected. In case of any damage, replace the cables.

2. Run the **02101 Check Electronics** or the **02102 Check service Station motor** service diagnostic tests to troubleshoot the problem further.

3. Replace the Service station. See Service Station with Drop Detector on page 532.

Possible parts affected

*   Service station

0021-0002-0065

Description

There is a movement issue with the Service Station motor that does not assure its functionality.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. SVS motor distance check failure.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Ensure that the service station path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the service station.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the cables between the Service Station and the Engine PCA are unbroken, undamaged and properly connected. In case of any damage, replace the cables.

2. Perform the service station diagnostic test **02101 Check Electronics** or **02102 Check service Station motor** to troubleshoot the problem further.

3. Replace the service station. See [Service Station with Drop Detector on page 532](#).

Possible parts affected

- Service Station

0021-0003-0Y61 (Y may be in the range 1-2)

(0021-0003-0161,0021-0003-0261)

Description

There is an electrical fault in Primer valve Y .

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Primer valve electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

    c.   Mechanical system jammed, broken, loose or not well greased.

    d.   Engine PCA issue.

Troubleshooting

1. Check that the valve and connectors are properly connected, not broken, not dirty and undamaged.

2. Run the **02103 Check Primer motor** service diagnostic and check if the Primer valve status is OK.

3. Replace the Primer valve.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Primer valve

0021-0003-0Y62 (Y may be in the range 1–2)

(0021-0003-0162, 0021-0003-0262)

Description

The Primer valve Y driver located in the Engine PCA has detected an over-temperature and it stops.

> **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Primer valve electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

    a.   There is a high consumption of the motor.

    b.   Mechanical system jammed, broken, loose or not well greased.

    c.   Engine PCA issue.

Troubleshooting

1. Check that the valve and connectors are properly connected, not broken, not dirty and undamaged.

2. Run the **02103 Check Primer motor** service diagnostic and check if the primer valve status is OK.

3. Replace the Primer valve.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Primer valve

- Engine PCA

0021-0003-0Y63 (Y may be in the range 1–2)

(0021-0003-0163, 0021-0003-0263)

Description

Motor driver not working as expected while Primer valve Y is working.

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Primer valve driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Check that the valve and connectors are properly connected, not broken, not dirty and undamaged.

2. Run the **02103 Check Primer motor** service diagnostic and check if the Primer valve status is OK.

3. Replace the Primer valve.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Primer valve

- Engine PCA

0021-0004-0Y61 (Y may be in the range 1-2)

(0021-0004-0161, 0021-00034-0261)

Description

There is an electrical fault in Primer pump Y .

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Primer pump electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the pump and connectors are properly connected, not broken, not dirty and undamaged.

2. Run the **02103 Check Primer motor** service diagnostic and check if the Primer pump status is OK.

3. Replace the Primer pump.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

● Primer pump

0021-0004-0Y62 (Y may be in the range 1-2)

(0021-0004-0162, 0021-0004-0262)

Description

The Primer pump Y driver located in the Engine PCA has detected an over-temperature and it stops.

📝 **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Primer pump electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   There is a high consumption of the motor.

b.   Mechanical system jammed, broken, loose or not well greased.

c.   Engine PCA issue.

Troubleshooting

1.   Check that the pump and connectors are properly connected, not broken, not dirty and undamaged.

2.   Run the **02103 Check Primer motor** service diagnostic and check if the primer pump status is OK.

3.   Replace the Primer pump.

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

●   Primer pump

●   Engine PCA

0021-0004-0Y63 (Y may be in the range 1-2)

(0021-0004-0163, 0021-0004-0263)

Description

Motor driver not working as expected while Primer pump Y is working.

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Primer pump driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Check that the pump and connectors are properly connected, not broken, not dirty and undamaged.

2. Run the **02103 Check Primer motor** service diagnostic and check if the Primer pump status is OK.

3. Replace the Primer pump.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Primer pump

- Engine PCA

0021-0005-0009

Description

The printer has detected that the cable from Service Station is not properly connected to Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If problem persists, contact your support representative. Cable SVS to Mainboard PCA Connector/cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Service Station (SVS) cable to the Engine PCA is unbroken, undamaged and properly connected.

2. Run the **02103 Check Primer motor** service diagnostic and check if the SVS cable to mechatronics PCA presence status is OK.

3. Replace the Service Station (SVS) cable to the Engine PCA if needed.

4. If the problem persists, replace the Service Station PCA.

Possible parts affected

- Service Station

22 Ink delivery system (IDS)

0022-0X04-0005 (X may be in the range 1–2)

(0022-0104-0005, 0022-0204-0005)

Description

Timeout detected in ISS motor 1 (SVS side) when it is spinning and the time that it takes to complete a full rotation is longer than expected.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. ISS motor timeout.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Make sure that the ISS motor path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the ISS motor.

2. Check that the ISS left bundle cable is in good condition and properly connected to the ISS motor and the Engine PCA.

3. Run the **02201 Check Electronics** service diagnostic and check if the ISS motor status is OK.

4. Replace the ISS motor, if needed.

Possible parts affected

- ISS motor

0022-0X04-0061 (X may be in the range 1–2)

(0022-0104-0061, 0022-0204-0061)

Description

There is an electrical fault in the ISS motor X.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. ISS motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Make sure that the ISS motor path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the ISS motor.

2. Run the **02201 Check Electronics** service diagnostic and check if the ISS motor status is OK.

3. Replace the ISS motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- ISS motor

0022-0X04-0062 (X may be in the range 1–2)

(0022-0104-0062, 0022-0204-0062)

Description

The ISS motor X driver located in the Engine PCA has detected an over-temperature and it stops.

📝 **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. ISS motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Make sure that the ISS motor path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the ISS motor.

2. Run the **02201 Check Electronics** service diagnostic and check if the ISS motor status is OK.

3. Replace the ISS motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- ISS motor

- Engine PCA

0022-0X04-0063 (X may be in the range 1–2)

(0022-0104-0063, 0022-0204-0063)

Description

Motor driver not working as expected while ISS motor X is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. ISS motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Make sure that the ISS motor path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the ISS motor.

2. Run the **02201 Check Electronics** service diagnostic and check if the ISS motor status is OK.

3. Replace the ISS motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- ISS motor

- Engine PCA

03 Power supply

0003-0009-0009

Description

The printer has detected that the cable from the Power Supply is not properly connected to Formatter PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Power supply fan connector/cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the cable between PSU to Formatter PCA is unbroken, undamaged and properly connected.

2. Run the **00301 Check Power Supply Fan** service diagnostic and check the fan status.

3. Replace the Power Supply Unit, if needed.

Possible parts affected

Power Supply unit

0003-0009-0080

Description

The PSU fan is malfunctioning.

IPS/Front panel message

A system error occurred. If the problem persists, contact your support representative. PSU Fan rotation fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check that the cable between PSU to Formatter PCA is unbroken, undamaged and properly connected.

2. Make sure that the PSU fan is not blocked or dirty.

3. Run the **00301 Check Power Supply Fan** service diagnostic and check the fan status.

4. Replace the Power Supply Unit, if needed.

Possible parts affected

Power Supply unit

45 BIOS/Formatter

0045-0002-0001

Description

The Formatter is malfunctioning. It is possible that Data in the NVRAM is corrupted or invalid.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Formatter PCA Malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Make sure that the printer has the latest firmware version.

2. Upgrade the firmware version. See <u>Firmware upgrades on page 113</u>.

3. Run the **04501 Check Mainboard** service diagnostic and check if the Formatter functionality status is OK.

4. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0002-0003

Description

The firmware has detected an unsupported Formatter PCA version.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Formatter PCA FW/HW mismatch.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Make sure that the printer has the latest firmware version.

2. Upgrade the firmware version. See <u>Firmware upgrades on page 113</u>.

3. Run the **04501 Check Mainboard** service diagnostic and check if the Formatter functionality status is OK.

4. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0002-0021

Description

The temperature of the Formatter is beyond maximum margin.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Formatter PCA Temp too high.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1.   Check that the CPU Fan or Eebox Fan are unbroken, undamaged and properly connected.

2.   Make sure that the CPU fan, Eebox Fan or Eebox cover are not blocked or dirty.

3.   Run the **04501 Check Mainboard** service diagnostic and check if the Formatter functionality status is OK.

4.   Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0002-0040

Description

To keep the date and time correct when the printer is not plugged there is a 3.3 V battery in Formatter. If the printer is left for too long without being connected to power this battery will eventually discharge. This SE is to notify the user to replace the battery, but the printer may continue to work perfectly.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Formatter PCA Low Battery.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check that the battery is properly connected.

2. Replace the battery, if needed.

Possible parts affected

RTC battery

0045-0002-0067

Description

The firmware has detected an unsupported Formatter's internal FW version.

IPS/Front panel message

An error occurred. Device is not fully functional. Contact your support representative. Formatter PCA USING_DEBUGGING_CODE

FW severity

Severe Continuable

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Make sure that the printer has the latest firmware version.

2. Upgrade the firmware version. See .

3. Run the **00105 Check Disk** service diagnostic and check if the Hard Disk status is OK.

4. Change the Hard Disk using the **00107 Reset HDD to be removed** diagnostic if needed.

5. Replace the Formatter PCA, if needed.

Possible parts affected

HDD

0045-0002-0069

Description

The firmware has detected a Formatter's internal firmware issue.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Formatter PCA EXECUTION_ERROR.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

- ●

Troubleshooting

1. Make sure that the printer has the latest firmware version.

2. Upgrade the firmware version. See <u>Appendix A: Updating firmware in boot mode on page 279</u>.

3. Run the **00105 Check Disk** service diagnostic and check if the Hard Disk status is OK.

4. Change the Hard Disk using the **00107 Reset HDD to be removed** diagnostic if needed.

5. Replace the Formatter PCA, if needed.

Possible parts affected

HDD

0045-0002-0078

Description

BIOS version has to be updated.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Formatter PCA Update needed.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Make sure that the printer has the latest firmware version.

2. Upgrade the firmware version. See Appendix A: Updating firmware in boot mode on page 279.

3. Run the **04501 Check Mainboard** service diagnostic and check if the Formatter functionality status is OK.

4. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0004-0001

Description

Cannot communicate with JDI microcontroller.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. JDI Malfunction, error status or state.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00103 Check connectivity** service diagnostic and check if the connectivity board status is OK.

2. Run the **09901 Hard reset connectivity** service diagnostic and reset its internal configuration.

3. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0004-0002

Description

JDI microcontroller initialization error.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. JDI Presence check failure, initialization error.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Run the **00103 Check connectivity** service diagnostic and check if the connectivity board status is OK.

2. Run the **09901 Hard reset connectivity** service diagnostic and reset its internal configuration.

3. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0004-0043

Description

JDI memory corrupted or Failure.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. JDI Memory fail.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00103 Check connectivity** service diagnostic and check if the connectivity board status is OK.

2. Run the **09901 Hard reset connectivity** service diagnostic and reset its internal configuration.

3. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0004-0086

Description

JDI MAC direction not configured or lost.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. JDI No mac adress.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00103 Check connectivity** service diagnostic and check if the connectivity board status is OK.

2. Run the **09901 Hard reset connectivity** service diagnostic and reset its internal configuration.

3. Replace the Formatter, if needed.

Possible parts affected

Formatter

0045-0008-0102

Description

HDD not present or not detected.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. JDI No mac adress.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0140

Description

Printer detects HDD as empty.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the**00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0143

Description

Printer detects HDD with a partition issue.

IPS/Front panel message

A system error occurred. Tap **OK** to continue or restart the device. If problem persists, contact your support representative. HDD (BIOS) Memory fail.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check if the cable from the Hard Disk to the Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed**.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0174

Description

The printer has detected a problem with NVM configuration from the Hard Disk.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. HDD (BIOS) NVM issue.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check if the cable from the Hard Disk to the Formatter PCA is unbroken, undamaged and properly connected.

2. Run the **00105 Check Disk** service diagnostic and check if the HDD status is OK.

3. If the HDD status is not OK, replace the HDD, using previously the **00107 Reset HDD to be removed** service diagnostic.

Possible parts affected

HDD

0045-0008-0180

Description

HDD Failed to mount rootfs. Printer does not detect a valid boot loader in the HDD.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0181

Description

HDD Boot loader issue. Printer does not detect a valid boot loader in the HDD.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0182

Description

HDD Boot loader error. Printer does not detect a valid boot loader in the HDD.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0184

Description

HDD Failed to mount packages. Printer does not detect a valid boot loader in the HDD.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0185

Description

HDD Failed to run triggers.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0089

Description

HDD Wrong model/mismatch. Printer detects a non valid HDD version or bad partitioned HDD.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the**00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0008-0197

Description

HDD PWD locked. The HDD is locked and can not be access.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

For HP-authorized personnel only

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the HDD cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** service diagnostic.

3. If the problem persists, replace the Formatter PCA.

Possible parts affected

HDD

0045-0011-0081

Description

USB Boot loader issue. Printer does not detect a valid boot loader in the USB.

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that Formatter does not have an USB flash drive connected.

2. If the problem persists, replace the Formatter PCA.

Possible parts affected

Formatter

46 Printer ID

0046-0000-0002

Description

The printer is unable to detect the Printer ID PCA or Fuse 3v3 flown in Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Printer ID PCA Presence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **04601 Check Printer ID electronics** diagnostic and check if the Printer ID PCA status is OK.

2. Check that the Printer ID PCA is not broken and undamaged and it is properly connected to the Formatter PCA.

3. Check that the fuses F19 or F20 in Engine PCA are flown, replace Engine PCA if needed.

4. Order a CryptASIC Service Kit. Escalate to Level 3, providing the printer's serial number and product number, and the serial number of the CryptASIC Service Kit. Replace the Printer ID PCA. Write the file provided by Level 3 to a USB flash drive. Plug the USB flash drive into the printer and restart. If startup fails, enable the diagnostic package with the USB flashdrive and provide system logs to Level 3.

5. If the problem persists, replace the Engine PCA.

Possible parts affected

Printer ID PCA

Engine PCA

0046-0000-0082

Description

The printer has detected a hardware problem with the Printer ID PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Printer ID PCA HW Muradin error

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1.   Run the **04601 Check Printer ID electronics** diagnostic and check if the Printer ID PCA status is OK.

2.   Check that the Printer ID PCA is not broken and undamaged and it is properly connected to the Formatter PCA.

3.   Order a CryptASIC Service Kit. Escalate to Level 3, providing the printer's serial number and product number, and the serial number of the CryptASIC Service Kit. Replace the Printer ID PCA. Write the file provided by Level 3 to a USB flash drive. Plug the USB flash drive into the printer and restart. If startup fails, enable the diagnostic package with the USB flashdrive and provide system logs to Level 3.

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

Printer ID PCA

Engine PCA

0046-0000-0083

Description

The printer has detected that installed Printer ID PCA family configuration does not match with the real printer family.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Printer ID PCA Wrong family Muradin.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Run the **04601 Check Printer ID electronics** diagnostic and check if the Printer ID PCA status is OK.

2. Check that the Printer ID PCA is not broken and undamaged and it is properly connected to the Formatter PCA.

3. Order a CryptASIC Service Kit. Escalate to Level 3, providing the printer's serial number and product number, and the serial number of the CryptASIC Service Kit. Replace the Printer ID PCA. Write the file provided by Level 3 to a USB flash drive. Plug the USB flash drive into the printer and restart. If startup fails, enable the diagnostic package with the USB flashdrive and provide system logs to Level 3.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

Printer ID PCA

Engine PCA

0046-0000-0084

Description

The printer has detected that its Printer ID PCA has a serial number that belongs to an another product.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Printer ID PCA SN Muradin Missmatch.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Run the **04601 Check Printer ID electronics** diagnostic and check if the Printer ID PCA status is OK.

2. Check that the Printer ID PCA is not broken and undamaged and it is properly connected to the Formatter PCA.

3. Order a CryptASIC Service Kit. Escalate to Level 3, providing the printer's serial number and product number, and the serial number of the CryptASIC Service Kit. Replace the Printer ID PCA. Write the file provided by Level 3 to a USB flash drive. Plug the USB flash drive into the printer and restart. If startup fails, enable the diagnostic package with the USB flashdrive and provide system logs to Level 3.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

Printer ID PCA

Engine PCA

0046-0000-0087

Description

The printer has detected a hardware problem with the Printer ID PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Printer ID PCA Error configuring device with recovery file.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Run the **04601 Check Printer ID electronics** diagnostic and check if the Printer ID PCA status is OK.

2. Check that the Printer ID PCA is not broken and undamaged and it is properly connected to the Formatter PCA.

3. Order a CryptASIC Service Kit. Escalate to Level 3, providing the printer's serial number and product number, and the serial number of the CryptASIC Service Kit. Replace the Printer ID PCA. Write the file

provided by Level 3 to a USB flash drive. Plug the USB flash drive into the printer and restart. If startup fails, enable the diagnostic package with the USB flashdrive and provide system logs to Level 3.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

Printer ID PCA

Engine PCA

0046-0000-0099

Description

The printer has detected a hardware problem with the Printer ID PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Printer ID PCA Generic Muradin error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **04601 Check Printer ID electronics** diagnostic and check if the Printer ID PCA status is OK.

2. Check that the Printer ID PCA is not broken and undamaged and it is properly connected to the Formatter PCA.

3. Order a CryptASIC Service Kit. Escalate to Level 3, providing the printer's serial number and product number, and the serial number of the CryptASIC Service Kit. Replace the Printer ID PCA. Write the file provided by Level 3 to a USB flash drive. Plug the USB flash drive into the printer and restart. If startup fails, enable the diagnostic package with the USB flashdrive and provide system logs to Level 3.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

Printer ID PCA

Engine PCA

60 Media input

0060-0001-0Y59 (Y may be in the range 1–2)

(0060-0001-0159, 0060-0001-0259)

Description

The Rewider motor Y suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Restart the printer and try again. Make sure there is no paper jam restricting movement of roll 1. If the problem persists, contact your support representative. Rewinder motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the roll.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Rewinder motor path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Rewinder motor.

2. Check that the motor, encoder and connectors are not broken, not dirty and undamaged.

3. Check that Power right bundle cable is in good condition and properly connected to the Rewinder motor and the Engine PCA.

4. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

5. Replace the Rewinder motor, if needed.

Possible parts affected

- Rewinder motor

0060-0001-0Y60 (Y may be in the range 1–2)

(0060-0001-0160, 0060-0001-0260)

Description

During boot-up, the direction test for the Rewinder motor Y has failed.

IPS/Front panel message

A system error occurred. Restart the printer and try again. Make sure there is no paper jam restricting movement of roll 1. If the problem persists, contact your support representative. Rewinder motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the carriage.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the cutter.

2. Check that the the motor, encoder and connectors are not broken, not dirty and undamaged.

3. Check that the Power right bundle cable is in good condition and properly connected to the Rewinder motor and the Engine PCA.

4. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

5. Replace the Rewinder motor, if needed.

Possible parts affected

- Rewinder motor

0060–0001–0Y61 (Y may be in the range 1–2)

(0060-0001-0161, 0060-0001-0261)

Description

There is an electrical fault in Rewinder motor Y.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Rewinder motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   There is a short-circuit in the motor or in the power cable.

b.   There is a high amount of friction in the movement of the motor.

c.   Mechanical system jammed, broken, loose or not well greased.

d.   Engine PCA issue.

Troubleshooting

1.   Check that the motor, encoder and connectors are not broken, not dirty and undamaged.

2.   Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

3.   Replace the Rewinder motor, if needed.

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

●   Rewinder motor

0066-0001-0Y62 (Y may be in the range 1–2)

(0060-0001-0162, 0060-0001-0262)

Description

The Rewinder motor Y driver located in the Engine PCA has detected an over-temperature and it stops.

📝 NOTE: A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Rewinder motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the motor, encoder and connectors are not broken, not dirty and undamaged.

2. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

3. Replace the Rewinder motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Rewinder motor

- Engine PCA

0066-0001-0Y63 (Y may be in the range 1–2)

(0060-0001-0163, 0060-0001-0263)

Description

Motor driver not working as expected while the Rewinder motor Y is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Rewinder motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Check that the motor, encoder and connectors arenot broken, not dirty and undamaged.

2. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

3. Replace the Rewinder motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Rewinder motor

- Engine PCA

0060-0001-0Y59 (Y may be in the range 1–2)

(0060-0001-0159, 0060-0001-0259)

Description

The Rewider motor Y suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Rewinder motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the roll.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Rewinder motor path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Rewinder motor.

2. Check that the motor, encoder and connectors are not broken, not dirty and undamaged.

3. Check that Power right bundle cable is in good condition and properly connected to the Rewinder motor and the Engine PCA.

4. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

5. Replace the Rewinder motor, if needed.

Possible parts affected

- Rewinder motor

0060–0001–0Y60 (Y may be in the range 1–2)

(0060-0001-0160, 0060-0001-0260)

Description

During boot-up, the direction test for the Rewinder motor Y has failed.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Rewinder motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the carriage.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the cutter.

2. Check that the the motor, encoder and connectors are not broken, not dirty and undamaged.

3. Check that the Power right bundle cable is in good condition and properly connected to the Rewinder motor and the Engine PCA.

4. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

5. Replace the Rewinder motor, if needed.

Possible parts affected

- Rewinder motor

0060-0001-0Y61 (Y may be in the range 1–2)

(0060-0001-0161, 0060-0001-0261)

Description

There is an electrical fault in Rewinder motor Y.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Rewinder motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the motor, encoder and connectors are not broken, not dirty and undamaged.

2. Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

3. Replace the Rewinder motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Rewinder motor

0066-0001-0Y62 (Y may be in the range 1–2)

(0060-0001-0162, 0060-0001-0262)

Description

The Rewinder motor Y driver located in the Engine PCA has detected an over-temperature and it stops.

📝 NOTE: A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Rewinder motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   There is a high consumption of the motor.

b.   Mechanical system jammed, broken, loose or not well greased.

c.   Engine PCA issue.

Troubleshooting

1.   Check that the motor, encoder and connectors are not broken, not dirty and undamaged.

2.   Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

3.   Replace the Rewinder motor, if needed.

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

● Rewinder motor

● Engine PCA

0066-0001-0Y63 (Y may be in the range 1–2)

(0060-0001-0163, 0060-0001-0263)

Description

Motor driver not working as expected while the Rewinder motor Y is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Rewinder motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   Motor malfunction.

b.   Engine PCA issue.

Troubleshooting

1.   Check that the motor, encoder and connectors arenot broken, not dirty and undamaged.

2.   Run the **06001 Check Rewinder motor** service diagnostic and check if the Rewinder motor status is OK.

3.   Replace the Rewinder motor, if needed.

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

- Rewinder motor

- Engine PCA

65 Media path

0065-0001–0001

Description

OPPS sensor has an electrical or mechanical issue that does not assure its functionality.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. OPPS sensor Malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲　If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the OPPS sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Make sure that the OPPS sensor media path is clear. Remove any visible obstacles (screws, plastic parts, etc.)

3. Check that Signal right bundle cable is in good condition and properly connected to Engine PCA.

4. Run the **06505 Check Media motor and sensor** service diagnostic and check if the OPPS sensor status is OK.

5. Replace the OPPS sensor, if needed.

Possible parts affected

● OPPS sensor

0065-0001-0002

Description

The printer has not been able to detect the OPPS sensor presence.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. OPPS sensor Presence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲　If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the OPPS sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Check that Signal right bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **06505 Check Media motor and sensor** service diagnostic and check if the OPPS sensor status is OK.

4. Replace the OPPS sensor, if needed.

Possible parts affected

- OPPS sensor

0065-0002-0008

Description

The printer has detected a jam that does not let Media motor performs the expected movement properly.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Media motor Jam (Generic).

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the paper path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Media motor.

2. Check that the Media motor is properly connected, not broken, not dirty and undamaged.

3. Check that the Power left bundle cable is in good condition and properly connected to Media motor and the Engine PCA.

4. Run the **06505 Check Media motor and sensor** Service diagnostic and check if the Media motor status is OK.

5. Replace the Media motor, if needed. See Motor Media Advance Transmission with Encoder on page 581.

Possible parts affected

- Media motor

0065-0002-0009

Description

Only in Auto-Diagnostic test. Try to move the Media motor, it does not move but the encoder works correctly.

IPS/Front panel message

Media motor Connector/cable presence.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Media motor.

2. Check that the Media motor is properly connected, not broken, not dirty and undamaged.

3. Check that the Power left bundle cable is in good condition and properly connected to Media motor and the Engine PCA.

4. Run the **06505 Check Media motor and sensor** Service diagnostic and check if the Media motor status is OK.

5. Replace the Media motor, if needed. See Motor Media Advance Transmission with Encoder on page 581.

Possible parts affected

- Media motor

0065-0002-0059

Description

The Media motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Media motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the media path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Media motor.

2. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

3. Check that the Power left bundle cable is in good condition and properly connected to the Media motor and the Engine PCA.

4. Run the **06505 Check Media motor and sensor** service diagnostic and check if the Media motor status is OK.

5. Replace the Analog encoder, if needed (see Motor Media Advance Transmission with Encoder on page 581).

6. Replace the Media motor, if needed (see Motor Media Advance Transmission with Encoder on page 581).

Possible parts affected

- Analog encoder

- Media motor

0065-0002-0060

Description

During boot-up, the direction test for Media motor has failed.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Media motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the media path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Media motor.

2. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

3. Check that the Power left bundle cable is in good condition and properly connected to the Media motor and the Engine PCA.

4. Run the **06505 Check Media motor and sensor** service diagnostic and check if the Media motor status is OK.

5. Replace the Analog encoder, if needed (see Motor Media Advance Transmission with Encoder on page 581).

6. Replace the Media motor, if needed (see Motor Media Advance Transmission with Encoder on page 581).

Possible parts affected

- Analog encoder

- Media motor

0065-0002-0061

Description

There is an electrical fault in Media motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Media motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

2. Run the **06505 Check Media motor and sensor** service diagnostic and check if the Media motor status is OK.

3. Replace the Media motor, if needed (see Motor Media Advance Transmission with Encoder on page 581).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Media motor

0065-0002-0062

Description

The Media motor driver located in the Engine PCA has detected an over-temperature and it stops.

📝 **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Media motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

  a. There is a high consumption of the motor.

  b. Mechanical system jammed, broken, loose or not well greased.

  c. Engine PCA issue.

Troubleshooting

  1. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

  2. Run the **06505 Check Media motor and sensor** service diagnostic and check if the Media motor status is OK.

  3. Replace the Media motor, if needed (see Motor Media Advance Transmission with Encoder on page 581).

  4. If the problem persists, replace the Engine PCA.

Possible parts affected

  ● Media motor

  ● Engine PCA

0065-0002-0063

Description

Motor driver not working as expected while Media motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Media motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

  ▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

  a. Motor malfunction.

  b. Engine PCA issue.

Troubleshooting

1. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

2. Run the **06505 Check Media motor and sensor** service diagnostic and check if the Media motor status is OK.

3. Replace the Media motor, if needed (see Motor Media Advance Transmission with Encoder on page 581).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Media motor

- Engine PCA

0065-0003-0046

Description

Only in Auto-Diagnostic test. At the end of the Media motor check, try to calibrate the analog encoder and it can not do it.

IPS/Front panel message

Analog encoder PCA Not calibrated, misaligned, unable to calibrate.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

2. Check that the Signal left bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **06501 Check Electronics** Service diagnostic and check if the Analog Encoder status is OK.

4. Replace the Analog encoder, if needed.

Possible parts affected

- Analog encoder

- Media motor

0065-0003-0047

Description

Analog encoder fails when moving Media Motor and zero cannot be found.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Analog encoder PCA Zero calibration, zero not found, homing error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1.   Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

2.   Check that the Signal left bundle cable is in good condition and properly connected to Engine PCA.

3.   Run the **06501 Check Electronics** Service diagnostic and check if the Analog Encoder status is OK.

4.   Replace the Analog encoder, if needed.

Possible parts affected

●   Analog encoder

●   Media motor

0065-0003-0074

Description

NVM backup read failure, can not be accessed or NVM default values found. This NVM is located in the analog encoder PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Analog encoder PCA NVM issue.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Media motor, Analog encoder and connectors are properly connected, not broken, not dirty and undamaged (see Motor Media Advance Transmission with Encoder on page 581).

2. Check that the Signal left bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **06501 Check Electronics** Service diagnostic and check if the Analog Encoder status is OK.

4. Replace the Analog encoder, if needed.

Possible parts affected

- Analog encoder
- Media motor

0065-0004-0059

Description

The Pinch lifter motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Pinch lifter motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the media path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Pinch lifter path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Pinch lifter motor.

2. Check that the Pinch lifter motor and connectors are properly connected, not broken, not dirty and undamaged (see Auto Pinch Lifter on page 572).

3. Check that the Power right bundle cable is in good condition and properly connected to the Pinch lifter motor and the Engine PCA.

4. Run the **06506 Check Pinch lifter** service diagnostic and check if the Pinch lifter motor status is OK.

5. Replace the Pinch lifter motor, if needed (see Auto Pinch Lifter on page 572).

Possible parts affected

- Pinch lifter

0065-0004-0061

Description

There is an electrical fault in the Pinch lifter motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Pinch lifter motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Pinch lifter motor and connectors are properly connected, not broken, not dirty and undamaged (see Auto Pinch Lifter on page 572).

2. Run the **06506 Check Pinch lifter** service diagnostic and check if the Pinch lifter motor status is OK.

3. Replace the Pinch lifter motor, if needed (see Auto Pinch Lifter on page 572).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Pinch lifter

0065-0004-0062

Description

The Pinch lifter motor driver located in the Engine PCA has detected an over-temperature and it stops.

📝 **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Pinch lifter motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Pinch lifter motor and connectors are properly connected, not broken, not dirty and undamaged (see Auto Pinch Lifter on page 572).

2. Run the **06506 Check Pinch lifter** service diagnostic and check if the Pinch lifter motor status is OK.

3. Replace the Pinch lifter motor, if needed (see Auto Pinch Lifter on page 572).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Pinch lifter
- Engine PCA

0065-0004-0063

Description

Motor driver not working as expected while Pinch lifter motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Pinch lifter motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   Motor malfunction.

b.   Engine PCA issue.

Troubleshooting

1.   Check that the Pinch lifter motor and connectors are properly connected, not broken, not dirty and undamaged (see Auto Pinch Lifter on page 572).

2.   Run the **06506 Check Pinch lifter** service diagnostic and check if the Pinch lifter motor status is OK.

3.   Replace the Pinch lifter motor, if needed (see Auto Pinch Lifter on page 572).

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

●   Pinch lifter

●   Engine PCA

0065-0005-0001

Description

The Pinch lifter EOT sensor has an electrical or mechanical issue that does not assure its functionality.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Pinch lifter EOT sensor Malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Pinch Lifter EOT sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Make sure that the Pinch Lifter media path is clear. Remove any visible obstacles (screws, plastic parts, etc.)

3. Run the **06506 Check Pinches Lifter** Service diagnostic and check if the Pinch Lifter EOT sensor status is OK.

4. Replace the Pinch Lifter EOT sensor, if needed.

Possible parts affected

- Pinch Lifter EOT sensor

0065-0005-0002

Description

The printer has not been able to detect the Pinch Lifter EOT sensor presence.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Pinch lifter EOT sensor Presence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Pinch Lifter EOT sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Check that Signal right bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **06506 Check Pinches Lifter** Service diagnostic and check if the Pinch Lifter EOT sensor status is OK.

4. Replace the Pinch Lifter EOT sensor, if needed.

Possible parts affected

-   Pinch Lifter EOT sensor

0065-0006-0008

Description

The printer has detected a jam that does not let Media motor performs the expected movement properly.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Scan axis motor Jam (Generic).

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the paper path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the carriage.

2. Check that the Scan axis Motor is not broken, not dirty and undamaged. See Scan-axis motor on page 528.

3. Check that Power left bundle cable is in good condition and properly connected to Scan axis motor and the Engine PCA.

4. Check that linear encoder is not bent due to Carriage PCA bad position, dirty or damaged. Check also if linear encoder sensor from Carriage PCA (see Carriage PCA on page 520) is broken or damage.

5. Run the **06504 Check Scan motor** Service diagnostic and check if the Scan axis motor status is OK.

6. Replace linear strip encoder, if needed (see Line Sensor on page 519).

7. Replace the Scan axis motor, if needed (see Scan-axis motor on page 528).

8. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Linear strip encoder

- Scan axis motor

0065-0006-0059

Description

The Scan-axis motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Restart the printer and try again. Make sure there is no paper jam restricting movement in carriage. If the problem persists, contact your support representative. Scan axis motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the carriage and clean the encoder.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the Carriage.

2. Check that the Scan-axis motor is not broken, not dirty and undamaged (see Scan-axis motor (CR357-67023) on page 457).

3. Check that the Power left bundle cable is in good condition and properly connected to the Scan–axis motor and the Engine PCA.

4. Check that the linear encoder is not bent due to Carriage PCA bad position, dirty or damaged. Check also if the linear encoder sensor from the Carriage PCA is broken or damage (see Carriage PCA on page 520).

5. Run the **06504 Check Scan–axis motor** service diagnostic and check if the Scan–axis motor status is OK.

6. Replace the Linear encoder strip, if needed (see Linear encoder (CR357-67022) on page 463).

7. Replace the Scan-axis motor, if needed (see Scan-axis motor (CR357-67023) on page 457).

8. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Linear encoder strip

- Scan–axis motor

0065-0006-0060

Description

During boot-up, the direction test for Scan-axis motor has failed.

IPS/Front panel message

A system error occurred. Restart the printer and try again. Make sure there is no paper jam restricting movement in carriage. If the problem persists, contact your support representative. Scan axis motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the carriage.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the Carriage.

2. Check that the Scan-axis motor is not broken, not dirty and undamaged (see Scan-axis motor (CR357-67023) on page 457).

3. Check that the Power left bundle cable is in good condition and properly connected to the Scan–axis motor and the Engine PCA.

4. Check that the linear encoder is not bent due to Carriage PCA bad position, dirty or damaged. Check also if the linear encoder sensor from the Carriage PCA is broken or damage (see Carriage PCA on page 520).

5. Run the **06504 Check Scan–axis motor** service diagnostic and check if the Scan–axis motor status is OK.

6. Replace the Linear encoder strip, if needed (see Linear encoder (CR357-67022) on page 463).

7. Replace the Scan-axis motor, if needed (see <u>Scan-axis motor (CR357-67023) on page 457</u>).

8. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Linear encoder strip

- Scan-axis motor

0065-0006-0061

Description

There is an electrical fault in Scan-axis motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Scan-axis motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Scan-axis motor is not broken, not dirty and undamaged (see <u>Scan-axis motor (CR357-67023) on page 457</u>).

2. Run the **06504 Check Scan–axis motor** service diagnostic and check if the Scan–axis motor status is OK.

3. Replace the Scan-axis motor, if needed (see <u>Scan-axis motor (CR357-67023) on page 457</u>).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Scan-axis motor

0065-0006-0062

Description

The Scan-axis motor driver located in the Engine PCA has detected an over-temperature and it stops.

📝 **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Scan-axis motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Scan-axis motor is not broken, not dirty and undamaged (see Scan-axis motor (CR357-67023) on page 457).

2. Run the **06504 Check Scan–axis motor** service diagnostic and check if the Scan–axis motor status is OK.

3. Replace the Scan-axis motor, if needed (see Scan-axis motor (CR357-67023) on page 457).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

● Scan-axis motor

● Engine PCA

0065-0006-0063

Description

Motor driver not working as expected while Scan-axis motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Scan-axis motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Check that the Scan-axis motor is not broken, not dirty and undamaged (see Scan-axis motor (CR357-67023) on page 457).

2. Run the **06504 Check Scan–axis motor** service diagnostic and check if the Scan–axis motor status is OK.

3. Replace the Scan-axis motor, if needed (see Scan–axis motor (CR357-67023) on page 457).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

● Scan-axis motor

● Engine PCA

0065-0007-0017

Description

There is an electrical or mechanical issue with PRS solenoid that does not assure the carriage move correctly.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. PRS Solenoid Movement blocked.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the PRS solenoid is not broken, not dirty and undamaged.

2. Run the **06503 Check PRS** Service Diagnostic and check if the PRS Solenoid status is OK.

3. Replace the PRS Solenoid, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- PRS solenoid

0065-0007-0080

Description

The PRS solenoid has not moved while been activated.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. PRS Solenoid Not activated.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the PRS solenoid is not broken, not dirty and undamaged.

2. Run the **06503 Check PRS** Service Diagnostic and check if the PRS Solenoid status is OK.

3. Replace the PRS Solenoid, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- PRS solenoid

0065-0007-0081

Description

The PRS solenoid has not moved after been deactivated.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. PRS Solenoid Not Deactivated.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the PRS solenoid is not broken, not dirty and undamaged.

2. Run the **06503 Check PRS** Service Diagnostic and check if the PRS Solenoid status is OK.

3. Replace the PRS Solenoid, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- PRS solenoid

0065-0008-0059

Description

The Starwheel motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Starwheel motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the Starwheel mechanism.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Starwheel mechanism is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Starwheel path.

2. Check that the Starwheel motor and connectors are properly connected, not broken, not dirty and undamaged (see Starwheel Motor on page 589).

3. Check that the Power left bundle cable is in good condition and properly connected to the Starwheel motor and the Engine PCA.

4. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel motor status is OK.

5. Replace the Starwheel motor, if needed (see Starwheel Motor on page 589).

Possible parts affected

- Starwheel motor

0065-0008-0060

Description

During boot-up, the direction test for Starwheel motor has failed.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Starwheel motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the Starwheel mechanism.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Starwheel mechanism is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement of the Starwheel path.

2. Check that the Starwheel motor and connectors are properly connected, not broken, not dirty and undamaged (see Starwheel Motor on page 589).

3. Check that the Power left bundle cable is in good condition and properly connected to the Starwheel motor and the Engine PCA.

4. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel motor status is OK.

5. Replace the Starwheel motor, if needed (see Starwheel Motor on page 589).

Possible parts affected

- Starwheel motor

0065-0008-0061

Description

There is an electrical fault in Starwheel motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Starwheel motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Starwheel motor and connectors are properly connected, not broken, not dirty and undamaged (see Starwheel Motor on page 589).

2. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel motor status is OK.

3. Replace the Starwheel motor, if needed (see Starwheel Motor on page 589).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Starwheel motor

0065-0008-0062

Description

The Starwheel motor driver located in the Engine PCA has detected an over-temperature and it stops.

📝 NOTE: A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Starwheel motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Starwheel motor and connectors are properly connected, not broken, not dirty and undamaged (see Starwheel Motor on page 589).

2. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel motor status is OK.

3. Replace the Starwheel motor, if needed (see Starwheel Motor on page 589).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Starwheel motor

- Engine PCA

0065-0008-0063

Description

Motor driver not working as expected while Starwheel motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Starwheel motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Check that the Starwheel motor and connectors are properly connected, not broken, not dirty and undamaged (see Starwheel Motor on page 589).

2. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel motor status is OK.

3. Replace the Starwheel motor, if needed (see Starwheel Motor on page 589).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Starwheel motor
- Engine PCA

0065-0009-0001

Description

The Starwheels EOT sensor has an electrical or mechanical issue that does not assure its functionality.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Starwheels EOT sensor Malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Starwheels EOT sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Make sure that the Starwheels media path is clear. Remove any visible obstacles (screws, plastic parts, etc.)

3. Check that Signal left bundle cable is in good condition and properly connected to Engine PCA.

4. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel EOT status is OK.

5. Replace the Starwheels EOT sensor, if needed.

Possible parts affected

- Starwheels EOT sensor

0065-0009-0002

Description

The printer has not been able to detect the Starwheels EOT sensor presence.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Starwheels EOT sensor Presence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Starwheels EOT sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Check that Signal left bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **06502 Check Starwheel motor and sensor** service diagnostic and check if the Starwheel EOT status is OK.

4. Replace the Starwheels EOT sensor, if needed.

Possible parts affected

- Starwheels EOT sensor

0065-0010-0059

Description

The Overdrive motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Overdrive motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the integrated stacker.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the integrated stacker is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the media path.

2. Check that the Overdrive motor and connectors are properly connected, not broken, not dirty and undamaged (see Overdrive on page 599).

3. Check that the Power right bundle cable is in good condition and properly connected to the Engine PCA.

4. Run the **06507 Check Overdrive motor** service diagnostic and check if the Overdrive motor status is OK.

5. Replace the Overdrive motor, if needed (see Overdrive on page 599).

Possible parts affected

- Overdrive motor

0065-0010-0060

Description

During boot-up, the direction test for Overdrive motor has failed.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Overdrive motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the integrated stacker.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the integrated stacker is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the media path.

2. Check that the Overdrive motor and connectors are properly connected, not broken, not dirty and undamaged (see Overdrive on page 599).

3. Check that the Power right bundle cable is in good condition and properly connected to the Engine PCA.

4. Run the **06507 Check Overdrive motor** service diagnostic and check if the Overdrive motor status is OK.

5. Replace the Overdrive motor, if needed (see Overdrive on page 599).

Possible parts affected

- Overdrive motor

0065-0010-0061

Description

There is an electrical fault in Overdrive motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Overdrive motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Overdrive motor and connectors are properly connected, not broken, not dirty and undamaged (see Overdrive on page 599).

2. Run the **06507 Check Overdrive motor** service diagnostic and check if the Overdrive motor status is OK.

3. Replace the Overdrive motor, if needed (see Overdrive on page 599).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Overdrive motor

0065-0010-0062

Description

The Overdrive motor driver located in the Engine PCA has detected an over-temperature and it stops.

📓 NOTE: A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Overdrive motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Overdrive motor and connectors are properly connected, not broken, not dirty and undamaged (see Overdrive on page 599).

2. Run the **06507 Check Overdrive motor** service diagnostic and check if the Overdrive motor status is OK.

3. Replace the Overdrive motor, if needed (see Overdrive on page 599).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Overdrive motor

- Engine PCA

0065-0010-0063

Description

Motor driver not working as expected while Overdrive motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Overdrive motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   Motor malfunction.

b.   Engine PCA issue.

Troubleshooting

1.   Check that the Overdrive motor and connectors are properly connected, not broken, not dirty and undamaged (see Overdrive on page 599).

2.   Run the **06507 Check Overdrive motor** service diagnostic and check if the Overdrive motor status is OK.

3.   Replace the Overdrive motor, if needed (see Overdrive on page 599).

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

●   Overdrive motor

●   Engine PCA

66 Cutter

0066-0001-0059

Description

The Cutter motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Cutter motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the cutter.

2. Check that the Cutter motor is not broken, not dirty and undamaged (see Cutter motor with support (2YB64-67009) on page 440).

3. Check that Power left bundle cable is in good condition and properly connected to Cutter motor and the Engine PCA.

4. Run the **06601 Check Electronics** service diagnostic and check if the Cutter motor status is OK.

5. Replace the Cutter motor, if needed (see Cutter motor with support (2YB64-67009) on page 440).

Possible parts affected

● Cutter motor

0066-0001-0060

Description

During boot-up, the direction test for Cutter motor has failed.

IPS/Front panel message

A system error occurred. Make sure there is no paper jam restricting movement in the paper path. Restart the device. If the problem persists, contact your support representative. Cutter motor direction test fail.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the carriage.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the media path is clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the cutter.

2. Check that the Cutter Motor is not broken, not dirty and undamaged (see Cutter motor with support (2YB64-67009) on page 440).

3. Check that Power left bundle cable is in good condition and properly connected to Cutter motor and the Engine PCA.

4. Run the **06601 Check Electronics** service diagnostic and check if the Cutter motor status is OK.

5. Replace the Cutter motor, if needed (see Cutter motor with support (2YB64-67009) on page 440).

Possible parts affected

- Cutter motor

0066-0001–0061

Description

There is an electrical fault in Cutter motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Cutter motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Cutter Motor is not broken, not dirty and undamaged (see Cutter motor with support (2YB64-67009) on page 440).

2. Run the **06601 Check Electronics** service diagnostic and check if the Cutter motor status is OK.

3. Replace the Cutter motor, if needed (see Cutter motor with support (2YB64-67009) on page 440).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Cutter motor

0066-0001–0062

Description

The Cutter motor driver located in the Engine PCA has detected an over-temperature and it stops.

> 📝 **NOTE:** A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Cutter motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Cutter Motor is not broken, not dirty and undamaged (see Cutter motor with support (2YB64-67009) on page 440).

2. Run the **06601 Check Electronics** service diagnostic and check if the Cutter motor status is OK.

3. Replace the Cutter motor, if needed (see Cutter motor with support (2YB64-67009) on page 440).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Cutter motor

- Engine PCA

0066-0001-0063

Description

Motor driver not working as expected while Cutter motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Cutter motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor malfunction.

b. Engine PCA issue.

Troubleshooting

1. Check that the Cutter motor is not broken, not dirty and undamaged (see Cutter motor with support (2YB64-67009) on page 440).

2. Run the **06601 Check Electronics** service diagnostic and check if the Cutter motor status is OK.

3. Replace the Cutter motor, if needed (see Cutter motor with support (2YB64-67009) on page 440).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Cutter motor

- Engine PCA

0066-0003-0009

Description

The printer has detected that the cable from Cutter is not properly connected to Engine PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Cable Cutter to Mainboard PCA Connector/cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Cutter cable to the Engine PCA is unbroken, undamaged and properly connected.

2. Run the **06601 Check Electronics** service diagnostic and check if the Cutter presence status is OK.

3. Replace the Cutter motor, if needed (see <u>Cutter motor with support (2YB64-67009) on page 440</u>).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Cutter

75 Integrated stacker

0075-0001-0001

Description

The Full sensor has an electrical or mechanical issue that does not assure its functionality.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Integrated stacker - Full sensor is not working as it is expected.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Full sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Make sure that the Integrated Stacker path is clear. Remove any visible obstacles (screws, plastic parts, etc.)

3. Check that Signal right bundle cable is in good condition and properly connected to Engine PCA.

4. Run the **07504 Check Sensors** service diagnostic and check if the Full sensor status is OK.

5. Replace the Full sensor, if needed.

Possible parts affected

- Full sensor sensor

0075-0001-0002

Description

The printer has not been able to detect the Full sensor presence.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Stacker full sensor Presence check failure, initialization error.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Full sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Check that Signal right bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **07504 Check Sensors** service diagnostic and check if the Full sensor status is OK.

4. Replace the Full sensor, if needed.

Possible parts affected

- Full sensor sensor

0075-0002-0001

Description

The Jam sensor has an electrical or mechanical issue that does not assure its functionality.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Integrated stacker – Jam sensor is not working as it is expected.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Jam sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Make sure that the Integrated Stacker path is clear. Remove any visible obstacles (screws, plastic parts, etc.)

3. Run the **07504 Check Sensors** service diagnostic and check if the Jam sensor status is OK.

4. Replace the Jam sensor, if needed.

Possible parts affected

- Jam sensor sensor

0075-0002-0002

Description

The printer has not been able to detect the Jam sensor presence.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Stacker jam sensor Presence check failure, initialization error.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1.   Check that the Jam sensor and connector are properly connected, not broken, not dirty and undamaged.

2.   Check that the Signal right bundle cable is in good condition and properly connected to Engine PCA

3.   Run the **07504 Check Sensors** service diagnostic and check if the Jam sensor status is OK.

4.   Replace the Jam sensor, if needed.

Possible parts affected

●   Jam sensor sensor

0075-0003-0001

Description

The Output valve EOT sensor has an electrical or mechanical issue that does not assure its functionality.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Output valve EOT sensor Malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Output valve EOT sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Make sure that the Output path is clear. Remove any visible obstacles (screws, plastic parts, etc.)

3. Check that the Signal left bundle cable is in good condition and properly connected to Engine PCA

4. Run the **07501 Check Electronics** service diagnostic and check if the Output valve EOT sensor status is OK.

5. Replace the Output valve EOT sensor, if needed.

Possible parts affected

- Output valve EOT sensor

0075-0003-0002

Description

The printer has not been able to detect the Output valve EOT sensor presence.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Output valve EOT sensor Presence check failure, initialization error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Output valve EOT sensor and connector are properly connected, not broken, not dirty and undamaged.

2. Check that the Signal left bundle cable is in good condition and properly connected to Engine PCA.

3. Run the **07501 Check Electronics** service diagnostic and check if the Output valve EOT sensor status is OK.

4. Replace the Output valve EOT sensor, if needed.

Possible parts affected

- Output valve EOT sensor

0075-0004-0059

Description

The Output valve motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Restart the printer and try again. Make sure there is no paper jam restricting movement in paper output path. If the problem persists, contact your support representative. Output valve motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the integrated stacker.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Integrated stacker path as well as the Output valve motor gears are clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the Output valve.

2. Check that the Output valve motor is not broken, not dirty and undamaged.

3. Check that Power right bundle cable is in good condition and properly connected to the Output valve motor and the Engine PCA.

4. Run the **07502 Check Output Valve motor** service diagnostic and check if the Output valve motor status is OK.

5. Replace the Output valve motor, if needed.

Possible parts affected

- Output valve motor

0075-0004-0061

Description

There is an electrical fault in the Output valve motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Output valve motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a short-circuit in the motor or in the power cable.

b. There is a high amount of friction in the movement of the motor.

c. Mechanical system jammed, broken, loose or not well greased.

d. Engine PCA issue.

Troubleshooting

1. Check that the Output valve motor is not broken, not dirty and undamaged.

2. Run the **07502 Check Output Valve motor** service diagnostic and check if the Output valve motor status is OK.

3. Replace the Output valve motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

● Output valve motor

0075-0004-0062

Description

The Output valve motor driver located in the Engine PCA has detected an over-temperature and it stops.

📝 NOTE: A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Output valve motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Output valve motor is not broken, not dirty and undamaged.

2. Run the **07502 Check Output Valve motor** service diagnostic and check if the Output valve motor status is OK.

3. Replace the Output valve motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Output valve motor

- Engine PCA

0075-0004-0063

Description

Motor driver not working as expected while Output valve motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Output valve motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

    a.   Motor malfunction.

    b.   Engine PCA issue.

Troubleshooting

1. Check that the Output valve motor is not broken, not dirty and undamaged.

2. Run the **07502 Check Output Valve motor** service diagnostic and check if the Output valve motor status is OK.

3. Replace the Output valve motor, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Output valve motor

- Engine PCA

0075-0004-0080

Description

The Output Valve motor suddenly stops or fails while it is moving to low position.

IPS/Front panel message

A system error occurred. Restart the printer and try again. If the problem persists, contact your support representative. Output valve motor Movement blocked in low position.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the output media path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Make sure that the Integrated stacker path as well as Output valve motor gears are clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the Output valve.

2. Check that the Output valve Motor is not broken, not dirty and undamaged.

3. Check that the Power right bundle cable is in good condition and properly connected to Output valve motor and the Engine PCA.

4. Run the **07502 Check Output Valve motor** service diagnostic and check if the Output valve motor status is OK.

5. Replace the Output valve motor, if needed.

Possible parts affected

- Output valve motor

0075-0004-0081

Description

The Output Valve motor suddenly stops or fails while it is moving to high position.

IPS/Front panel message

A system error occurred. Restart the printer and try again. If the problem persists, contact your support representative. Output valve motor Movement blocked in high position.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement of the output media path.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Make sure that the Integrated stacker path as well as Output valve motor gears are clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement in the Output valve.

2. Check that the Output valve Motor is not broken, not dirty and undamaged.

3. Check that the Power right bundle cable is in good condition and properly connected to Output valve motor and the Engine PCA.

4. Run the **07502 Check Output Valve motor** service diagnostic and check if the Output valve motor status is OK.

5. Replace the Output valve motor, if needed.

Possible parts affected

- Output valve motor

0075-0005-0059

Description

The Ramps motor suddenly stops or fails while it is working.

IPS/Front panel message

A system error occurred. Restart the printer and try again. Make sure there is no paper jam restricting movement in paper output path. If the problem persists, contact your support representative. Ramps motor servo shutdown.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Make sure that there is no paper jam restricting the movement in the integrated stacker.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. Motor is not moving (power cable disconnected or damaged motor).

b. No encoder readings received (encoder cable disconnected or damaged, or dirty encoder disc).

Troubleshooting

1. Make sure that the Ramps path as well as the Ramps motor gears are clear. Remove any visible obstacles (screws, plastic parts, etc.) restricting the movement related to the Ramps motor.

2. Check that the Ramps motor, encoder and connector are not broken, not dirty and undamaged.

3. Check that Power left bundle cable is in good condition and properly connected to the Output valve motor and the Engine PCA.

4. Run the **07503 Check Ramps motor** service diagnostic and check if the Ramps motor status is OK.

5. Replace the Ramps motor, if needed (see Ramps Motor on page 625).

Possible parts affected

- Ramps motor

0075-0005-0061

Description

There is an electrical fault in the Ramps motor.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Ramps motor electrical fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   There is a short-circuit in the motor or in the power cable.

b.   There is a high amount of friction in the movement of the motor.

c.   Mechanical system jammed, broken, loose or not well greased.

d.   Engine PCA issue.

Troubleshooting

1.   Check that the Ramps motor, encoder and connector are not broken, not dirty and undamaged.

2.   Run the **07503 Check Ramps motor** service diagnostic and check if the Ramps motor status is OK.

3.   Replace the Ramps motor, if needed (see <u>Ramps Motor on page 625</u>).

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

●   Ramps motor

0075-0005-0062

Description

The Ramps motor driver located in the Engine PCA has detected an over-temperature and it stops.

NOTE: A motor driver can control more than one motor, so any of these motors can report this error if they operate at the same time.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Ramps motor electrical warm.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a. There is a high consumption of the motor.

b. Mechanical system jammed, broken, loose or not well greased.

c. Engine PCA issue.

Troubleshooting

1. Check that the Ramps motor, encoder and connector are not broken, not dirty and undamaged.

2. Run the **07503 Check Ramps motor** service diagnostic and check if the Ramps motor status is OK.

3. Replace the Ramps motor, if needed (see Ramps Motor on page 625).

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Ramps motor

- Engine PCA

0075-0005-0063

Description

Motor driver not working as expected while Ramps motor is working.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Ramps motor driver fault.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

a.   Motor malfunction.

b.   Engine PCA issue.

Troubleshooting

1.   Check that the Ramps motor, encoder and connector are not broken, not dirty and undamaged.

2.   Run the **07503 Check Ramps motor** service diagnostic and check if the Ramps motor status is OK.

3.   Replace the Ramps motor, if needed (see Ramps Motor on page 625).

4.   If the problem persists, replace the Engine PCA.

Possible parts affected

- Ramps motor

- Engine PCA

80 User interface

0080-0001–0002

Description

Front Panel application service failure

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Front Panel application service failure.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the printer has the latest firmware

2. Upgrade the firmware to the latest version. See <u>Appendix A: Updating firmware in boot mode on page 279</u>.

Possible parts affected

-

0080-0005-0002

Description

Front Panel Presence check failure, initialization error.

The printer has not been able to detect the Front Panel presence.

IPS/Front panel message

FW severity

Severe Continuable

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Front Panel cable to the Dashboard PCA is unbroken, undamaged and properly connected.

2. Replace the Front Panel, if needed.

3. If the problem persists, replace the Dashboard PCA.

Possible parts affected

-   Front Panel

0080-0005-0004

Description

Front Panel cannot communicate correctly. If the issue is persistent it indicates a malfunction in Front Panel.

IPS/Front panel message

An error occurred. Device is not fully functional. Contact your support representative. Front Panel communication issue.

FW severity

Severe Continuable

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1.   Check that the Front Panel cable to the Dashboard PCA is unbroken, undamaged and properly connected.

2.   Replace the Front Panel, if needed.

3.   If the problem persists, replace the Dashboard PCA.

Possible parts affected

- Front Panel

0080-0012-0002

Description

The printer has not been able to detect the Dashboard PCA USB port.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If problem persists, contact your support representative. USB Host Presence check failure, initialization error.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Dashboard PCA cable to Formatter PCA is unbroken, undamaged and properly connected.

2. Replace the Dashboard PCA, if needed.

3. If the problem persists, replace the Formatter.

Possible parts affected

- Dashboard PCA

0080-0019-0009

Description

The printer has detected that the cable from Dashboard PCA is not properly connected to Formatter PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Dashboard PCA Connector/cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Dashboard cable to the Formatter PCA is unbroken, undamaged and properly connected.

2. Run the "08001 Check electronics" Service diagnostic and check if the Dashboard PCA presence status is OK.

3. Replace the Dashboard PCA, if needed.

4. If the problem persists, replace the Formatter PCA.

Possible parts affected

- Dashboard PCA

86 Carriage

0086-0001-0001

Description

The trailing cable is not working properly.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Trailing cable malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check that the Trailing cable from the Engine PCA to the Carriage PCA is unbroken, undamaged and properly connected.

2. Run the **08601 Checks Electronics** service diagnostic and check if the Trailing cable presence status is OK. Check also the diagnostic LED of the Carriage PCA.

3. Replace the Trailing cable, if needed.

4. Replace the Carriage PCA.

5. Replace the Engine PCA.

Possible parts affected

● Trailing cable

● Carriage PCA

0086-0001-0004

Description

Trailing cable data lines cannot communicate correctly. If the issue is persistent, it indicates a malfunction in the Trailing cable.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Trailing cable communication error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1. Check that the Trailing cable from the Engine PCA to the Carriage PCA is unbroken, undamaged and properly connected.

2. Run the **08601 Checks Electronics** service diagnostic and check if the Trailing cable presence status is OK. Check also the diagnostic LED of the Carriage PCA.

3. Replace the Trailing cable, if needed.

4. Replace the Carriage PCA.

5. Replace the Engine PCA.

Possible parts affected

● Trailing cable

0086-0001–0009

Description

The trailing cable cannot be detected.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Trailing cable connector/cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Trailing cable from the Engine PCA to the Carriage PCA is unbroken, undamaged and properly connected.

2. Run the **08601 Checks Electronics** service diagnostic and check if the Trailing cable presence status is OK. Check also the diagnostic LED of the Carriage PCA.

3. Replace the Trailing cable, if needed.

4. Replace the Carriage PCA.

5. Replace the Engine PCA.

Possible parts affected

- Trailing cable

- Carriage PCA

- Engine PCA

0086-0002-0001

Description

The printer has not been able to detect the Carriage PCA presence.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Carriage PCA Malfunction, error status or state.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Trailing cable from Engine PCA to the Carriage PCA is unbroken, undamaged and properly connected.

2. Run the **08601 Checks Electronics** service diagnostic and check if the Carriage PCA communications status is OK.

3. Replace the Carriage PCA.

4. Replace the Engine PCA.

Possible parts affected

- Carriage PCA

0086–0002–0003

Description

The firmware has detected an unsupported Carriage PCA version.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Carriage PCA firmware and hardware mismatch.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Make sure that the printer has the latest firmware version.

2. Upgrade the firmware version. See Appendix A: Updating firmware in boot mode on page 279.

3. Run the **08601 Checks Electronics** service diagnostic and check if the Carriage PCA version is the proper one.

4. Replace the Carriage PCA, if needed.

Possible parts affected

- Carriage PCA

0086-0002-0004

Description

The Carriage PCA cannot communicate with the Engine PCA. If the issue is persistent, it indicates a malfunction in Carriage PCA.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Carriage PCA communication error.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1.   Check that the Trailing cable from the Engine PCA to the Carriage PCA is unbroken, undamaged and properly connected.

2.   Run the **08601 Checks Electronics** service diagnostic and check if the Carriage PCA communications status is OK.

3.   Replace the Carriage PCA.

4.   Replace the Trailing cable, if needed.

5.   Replace the Engine PCA.

Possible parts affected

●   Carriage PCA

0086-0002-0010

Description

The 5V signal generated in the Carriage PCA is not properly detected by the printer.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Carriage PCA voltage out of range.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Turn off the printer and remove the printhead.

2. Clean the septum and electrical connections between the carriage PCA and the printhead.

3. Turn on the printer and follow the front panel instructions to install the printhead.

4. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Clean the septum and electrical connections between the carriage PCA and the printhead. Re-insert the printhead for a second attempt to start up.

2. Check that the firmware is the latest one, and check also if the printhead or carriage PCA are well placed in the Carriage structure.

3. Check the orange 5V diagnostic LED (DS2) of the Carriage PCA (See Board name: Carriage PCA on page 42).

4. If the orange 5V diagnostic LED (DS2) is **on**, run the **08601 Checks Electronics** service diagnostic and check if the 5V status is OK.

5. If the 5V check status is OK, try using a new printhead.

6. If the 5V check status failure is confirmed, replace the Carriage PCA.

7. If the problem persists, replace the Trailing cable.

Possible parts affected

- Printhead
- Carriage PCA

0086-0003-0038

Description

Only in Auto-Diagnostic test. Different reading in encoder carriage between automatic and manual carriage movement.

IPS/Front panel message

Carriage encoder sync movement error.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that Linear encoder strip is not dirty, scratched or in bad condition (see Linear encoder (CR357-67022) on page 463).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check that the Linear strip encoder is not dirty, scratched or in bad condition (see Linear encoder (CR357-67022) on page 463).

2. Check that the Encoder strip integrated in Carriage PCA is not broken, not dirty and undamaged (see Carriage PCA on page 520).

3. Check that the Power left bundle cable is in good condition and properly connected to the Media motor and the Engine PCA.

4. Run the **08602 Check Mechatronics** service diagnostic and check if the Encoder strip status is OK.

5. Replace the Linear encoder strip , if needed.

6. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Linear encoder strip

0086-0003-0082

Description

After several prints, the printer has found that the number of counts provided by the Encoder strip is less than expected, so the Encoder strip could be dirty.

IPS/Front panel message

Ensure that the encoder strip is clean. If it is dirty, clean it, paying special attention to the area near the service station. A system error occurred. Tap OK to continue or restart the device. If problem persists, contact your support representative. Carriage encoder encoder strip dirty

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Make sure that the encoder strip is clean. If it is dirty, clean it, paying special attention to the area near the service station.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Linear encoder strip is not dirty, scratched or in bad condition (See Linear encoder (CR357-67022) on page 463).

2. Check that the Encoder strip integrated in the Carriage PCA is not broken, undamaged and in good condition (See Carriage PCA on page 520).

3. Run the **08602 Checks Mechatronics** and check if the Encoder strip status is OK.

4. Replace the Linear encoder strip, if needed.

5. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Linear encoder strip

0086-0004-0021

Description

The temperature of the pen is beyond maximum margin. The nozzle area is overheating. This can be due to air present in the nozzle area of the printhead.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Check which colors are still empty (if any), run the printer diagnostics, and check for 0086-0004-0nXX errors in the service plot to validate Primer & ISS.

2. Replace printhead

3. Replace primer.

4. Replace ISS.

Possible parts affected

-

0086-0004-0022

Description

The temperature of the printhead is under minimum margins.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead.

2. Replace printhead

3. Reseat Trailing cable.

4. Replace Carriage PCA.

5. Replace Carriage without PCA/Line sensor.

6. Replace Engine PCA.

Possible parts affected

-

0086-0004-0080

Description

There is no printhead detected.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead.

2. Replace printhead

3. Reseat Trailing cable.

4. Replace Carriage PCA.

5. Replace Carriage without PCA/Line sensor.

6. Replace Engine PCA.

Possible parts affected

●

0086-0004-0081

Description

Error while reading or writing printhead bits.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead.

2. Replace printhead

3. Reseat Trailing cable.

4. Replace Carriage PCA.

5. Replace Carriage without PCA/Line sensor.

6. Replace Engine PCA.

Possible parts affected

●

0086-0004-0082

Description

The CSDATA communication failed or is erroneous.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead.

2. Replace printhead

3. Reseat Trailing cable.

4. Replace Carriage PCA.

5. Replace Carriage without PCA/Line sensor.

6. Replace Engine PCA.

Possible parts affected

-

0086-0004-0083

Description

Failed pen ID programming or pen continuity tests.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead.

2. Replace printhead

3. Reseat Trailing cable.

4. Replace Carriage PCA.

5. Replace Carriage without PCA/Line sensor.

6. Replace Engine PCA.

Possible parts affected

-

0086–0004–0084

Description

Under-voltage, over-voltage or ink shortage detected in Vcc (5V).

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Replace printhead

2. Reseat Trailing cable.

3. Replace Carriage PCA.

4. Replace Carriage without PCA/Line sensor.

5. Replace Engine PCA.

Possible parts affected

•

0086-0004-0085

Description

Under-voltage, over-voltage, leakage or ink shortage detected in Vpp or VppLogic.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Replace printhead

2. Reseat Trailing cable.

3. Replace Carriage PCA.

4. Replace Carriage without PCA/Line sensor.

5. Replace Engine PCA.

Possible parts affected

•

0086-0004-0088

Description

Parity error on printhead bits.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead

2. Replace printhead

3. Reseat Trailing cable.

4. Replace Carriage PCA.

5. Replace Carriage without PCA/Line sensor.

6. Replace Engine PCA.

Possible parts affected

•

0086-0004-0089

Description

The model inserted is not the model required by the printer or the color or the printhead version is not in the required slot.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲   Replace printhead.

Possible parts affected

●

0086-0004-0090

Description

The printhead has many nozzles missing.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲   Replace printhead if image quality is not acceptable.

Possible parts affected

●

0086-0004-0091

Description

The Printhead warranty has expired.

IPS/Front panel message

FW severity

Silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲ Replace printhead if image quality is not acceptable.

Possible parts affected

●

0086-0004-0092

Description

The Printhead replacement was incomplete.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲ Reseat printhead.

Possible parts affected

-

0086-0004-0093

Description

The energy calibration has failed.

IPS/Front panel message

FW severity

Message + silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

1. Reseat printhead.

2. Check which colors are still empty (if any), run printer diagnostics, and check for 0086-0004-0nXX errors in the service plot to validate Primer & ISS.

3. Replace printhead

4. Replace Primer.

5. Replace ISS.

Possible parts affected

-

0086-0004-0Y95 (Y may be in the range 1-6)

(0086-0004-0195, 0086-0004-0295, 0086-0004-0395, 0086-0004-0495, 0086-0004-0595, 0086-0004-0695)

Description

During the tube filling, the first check of ink pressure for color Y failed (where Y indicates the color at fault).

- Y = 1 stands for photo black

- Y = 2 stands for gray

- Y = 3 stands for matte black

- Y = 4 stands for cyan

- Y = 5 stands for magenta

- Y = 6 stands for yellow

IPS/Front panel message

FW severity

Silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲ Check section <u>Printhead problems during insertion on page 66</u> for prerequisites and specific cases.

Possible parts affected

-

0086-0004-0Y96 (Y may be in the range 1–6)

(0086-0004-0196, 0086-0004-0296, 0086-0004-0396, 0086-0004-0496, 0086-0004-0596, 0086-0004-0696)

Description

After reseating the printhead, the second check of ink pressure for color Y failed (where Y indicates the color at fault). This means that color Y in the printhead may not be filled with ink or that the ink tube is leaking.

- Y = 1 stands for photo black

- Y = 2 stands for gray

- Y = 3 stands for matte black

- Y = 4 stands for cyan

- Y = 5 stands for magenta

- Y = 6 stands for yellow

IPS/Front panel message

FW severity

Silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲ Check section <u>Printhead problems during insertion on page 66</u> for prerequisites and specific cases.

Possible parts affected

●

0086-0004-0Y97 (Y may be in the range 1-6)

(0086-0004-0197, 0086-0004-0297, 0086-0004-0397, 0086-0004-0497, 0086-0004-0597, 0086-0004-0697)

Description

During the tube filling, the check of temperature for color Y during the printhead spit test failed (where Y indicates the color at fault).

● Y = 1 stands for photo black

● Y = 2 stands for gray

● Y = 3 stands for matte black

● Y = 4 stands for cyan

● Y = 5 stands for magenta

● Y = 6 stands for yellow

IPS/Front panel message

FW severity

Silent

Call agents (Proactive and Reactive)

▲

Onsite support

Causes in order of importance

▲

Troubleshooting

▲ Check section Printhead problems during insertion on page 66 for prerequisites and specific cases.

Possible parts affected

-

0086-0005-0009

Description

The line sensor cannot be detected.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Line sensor connector/cable presence.

FW severity

Severe

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Line sensor cable to the Carriage PCA is unbroken, undamaged and properly connected.

2. Run the **08601 Checks Electronics** service diagnostic and check if the Line sensor status is OK.

3. Replace the Line sensor, if needed.

4. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Line sensor

- Carriage PCA

0086-0005-0046

Description

The line sensor cannot be calibrated.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device.If the problem persists, contact your support representative. Line sensor - Unable to calibrate the line sensor.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

1.   Check that the Line sensor cable to the Carriage PCA is unbroken, undamaged and properly connected.

2.   Run the **08601 Checks Electronics** service diagnostic and check if the Line sensor status is OK.

3.   Run the **Drop detector calibration** Service utility.

4.   Replace the Line sensor, if needed.

5.   If the problem persists, replace the Carriage PCA.

Possible parts affected

●   Line sensor

●   Carriage PCA

0086-0005-0065

Description

The line sensor has a non valid calibration values.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Carriage — Line sensor distance check failure.

FW severity

Severe

Call agents (Proactive and Reactive)

▲   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Line sensor cable to the Carriage PCA is unbroken, undamaged and properly connected.

2. Run the **08601 Checks Electronics** service diagnostic and check if the Line sensor status is OK.

3. Run the **Drop detector calibration** Service utility.

4. Replace the Line sensor, if needed.

5. If the problem persists, replace the Carriage PCA.

Possible parts affected

- Line sensor

- Carriage PCA

90 Internal firmware

0090-0001-0097

Description

A process being babysitted died.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. SYSMGR-BABYSIT baby sit trheat lost

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0001-0099

Description

A process being babysitted died.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. SYSMGR-BABYSIT Process lost.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0004-0080

Description

FSM - Transition not found.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. FSM-FSM Generic issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0006-0084

Description

Connectivity IO reset.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. EH-CIO connectivity - IO Reset.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00103 Check connectivity** service diagnostic and check If the connectivity board status is OK.

2. Run the **09901 Hard reset connectivity** service diagnostic and resets its internal configuration.

3. Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0006-0086

Description

Connectivity process lost.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. EH-CIO connectivity - process lost.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **00103 Check connectivity** service diagnostic and check If the connectivity board status is OK.

2. Run the **09901 Hard reset connectivity** service diagnostic and resets its internal configuration.

3. Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0005

Description

PDL I/O timeout

IPS/Front panel message

Data lost due to idle timeout. Increase timeout in front panel. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL Timeout.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲   Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0044

Description

No memory to start PDL

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL Out of memory.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲   Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0082

Description

PDF is locked for printing

IPS/Front panel message

File with password cannot be printed. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL File Locked/Protected for printing.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Ensure that the file sent is not protected.

2. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

3. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0085

Description

Out of disk space

IPS/Front panel message

Resource area is full. Unable to save downloaded resources. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL Disk full.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Run the **09904 Delete Job Manager Queue** service diagnostic to have free space on hard disk.

2. Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0087

Description

PS fonts missing

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL PS fonts missing.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0089

Description

PDL – Unexpected end of job

IPS/Front panel message

Unexpected end of job. Canceling current job. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL Unexpended end of job.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check the customer's network to ensure that network speed is adequate and that there are no breaks in communication.

2. Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0007-0094

Description

Out of virtual memory

IPS/Front panel message

Job processing size too big, press OK to continue. Retry with less resolution or smaller size. Not enough memory to process raster file.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090–0007–0096

Description

PDL parse error

IPS/Front panel message

File contains format errors. The printer cannot process the job. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PDL Parse error.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0008-0080

Description

JPEG library error or RasterConfigure failed or Image swath

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-VPM Generic issue or EH-VPM Generic issue or EH-VPM Generic issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see <u>Appendix A: Updating firmware in boot mode on page 279</u>).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See <u>Appendix A: Updating firmware in boot mode on page 279</u>.

Possible parts affected

-

0090-0009-0080

Description

Make Directory or Open directory or Close directory or Write directory

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-FS Generic issue or EH-FS Generic issue or EH-FS Generic issue or EH-FS Generic issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see [Appendix A: Updating firmware in boot mode on page 279](#)).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See [Appendix A: Updating firmware in boot mode on page 279](#).

Possible parts affected

-

0090-0010-0080

Description

CDS object not found

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-JS Generic issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see [Appendix A: Updating firmware in boot mode on page 279](#)).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See [Appendix A: Updating firmware in boot mode on page 279](#).

Possible parts affected

-

0090-0012-0083

Description

Unsupported PDL

IPS/Front panel message

Wrong file format. The printer cannot process the job. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. EH-PM File format issue/not supported PDL.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

●

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

●

0090-0018-0004

Description

Unable to connect to front panel or Control panel connection lost

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. GUI-LYCURGUS communication issue or GUI-LYCURGUS communication issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0085-0090

Description

More than one Tupperware in USB root.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Internal firmware – More than one Tupperware in USB root.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090-0085-0091

Description

Incorrect Tupperware in USB root.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Internal firmware - Internal firmware - Incorrect Tupperware in USB root.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see <u>Appendix A: Updating firmware in boot mode on page 279</u>).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲   Upgrade the firmware to the latest version. See <u>Appendix A: Updating firmware in boot mode on page 279</u>.

Possible parts affected

-

0090-0090-0003

Description

Firmware/hardware mismatch.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. General firmware and hardware mismatch. Check that the firmware is up to date.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

- ●

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

- ●

0090–0090–0005

Description

The printer has detected a timeout to perform any process related to firmware.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. General Timeout

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

- ●

Troubleshooting

1. Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

2. Run the **00102 Check Mechatronics** service diagnostic and check if the Engine PCA status is OK.

3. Replace the Engine PCA.

Possible parts affected

-

0090-0090-0050

Description

The printer has not been able to read/get a value, partition issue.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. General unable to read/get value.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

2. Re-image HDD or replace the HDD having previously used the **00107 Reset HDD to be removed** Service Diagnostic.

Possible parts affected

-

0090-0090-0078

Description

Firmware update needed.

IPS/Front panel message

A system error occurred. Restart the device. If the problem persists, contact your support representative. Update needed.

FW severity

Severe

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

0090–0090–0080

Description

Only in auto-diagnostic test. The printer has detected an issue with the auto-diagnostic test execution

IPS/Front panel message

FW severity

Message

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version. See Appendix A: Updating firmware in boot mode on page 279.

Possible parts affected

-

09 Scanner

1009-0001-0001

Description

The printer has not been able to detect the Media Feed motor presence

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Media feed motor Malfunction, error status or state.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Open the scanner cover. Underneath you will see red, then green, then blue flashing lights.

2. In the center of the scanner cover, between the flashing lights, you will find four small sensors labeled R, G, B, and L. Put your fingers over the R, G, and B sensors simultaneously; the scanner motor should advance.

3. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Media Feed motor cable to the Scanner Controller board is unbroken, undamaged and properly connected.

2. Restart the printer. Open the scanner cover. Underneath you will see red, then green, then blue flashing lights. In the center of the scanner cover, between the flashing lights, you will find four small sensors labeled R, G, B, and L. Put your fingers over the R, G, and B sensors simultaneously; the scanner motor should advance.

3. Run the **10901 Checks Electronics** Service diagnostic and check if the Media Feed motor status is OK.

4. Replace the Media Feed motor, if needed.

5. If the problem persists, replace the Scanner Controller board.

Possible parts affected

- Media feed motor

1009-0002-0Y01 (Y may be in the range 1-5)

(1009-0002-0101, 1009-0002-0201, 1009-0002-0301, 1009-0002-0401, 1009-0002-0501)

Description

The printer has not been able to detect the CIS Y sensor presence

(Y=1 A, Y=2 B, Y=3 C, Y=4 D, Y=5 E)

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. CIS Y sensor Malfunction, error status or state.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Clean and calibrate the scanner.

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the CIS Y flat flexible cable to the Scanner Controller board is unbroken, undamaged and properly connected.

2. Run the **10901 Checks Electronics** Service diagnostic and check if the CIS Y sensor status is OK.

3. Replace the flat flexible cable, if needed.

4. Replace the CIS Y element, if needed.

5. If the problem persists, replace the Scanner Controller board.

Possible parts affected

- CIS Y sensor

1009-0003-0052

Description

The printer has detected that the power cable from the Scanner Controller Board is not properly connected to Engine PCA.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Power cable issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Scanner Controller board power cable to the Engine PCA is unbroken, undamaged and properly connected.

2. Run the **10901 Checks Electronics** Service diagnostic and check if the scanner status is OK.

3. Replace the Scanner Controller board, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Scanner Controller board

1009-0004-0053

Description

The printer has detected that the data cable from the Scanner Controller Board is not properly connected to Engine PCA.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Data cable issue.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Scanner Controller board data (USB) cable to the Engine PCA is unbroken, undamaged and properly connected.

2. Run the **10901 Checks Electronics** Service diagnostic and check if the scanner status is OK.

3. Replace the Scanner Controller board, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Scanner Controller board

1009-0005-0002

Description

The printer has not been able to detect the Scanner Controller board presence.

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Scanner Controller Board Presence check failure, initialization error.

FW severity

Advisory

Call agents (Proactive and Reactive)

▲ If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the Scanner Controller board cables to the Engine PCA are unbroken, undamaged and properly connected.

2. Run the **10901 Checks Electronics** Service diagnostic and check if the scanner status is OK.

3. Replace the Scanner Controller board, if needed.

4. If the problem persists, replace the Engine PCA.

Possible parts affected

- Scanner Controller board

1009-0006-0080

Description

Failed to load scanner library

IPS/Front panel message

A system error occurred. Device is not fully functional. Contact your support representative. Failed to load scanner library. Check that the firmware is up to date.

FW severity

Severe Continuable

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

- ●

Troubleshooting

▲   Upgrade the firmware to the latest version (see Appendix A: Updating firmware in boot mode on page 279).

Possible parts affected

- ●

1009-0006-0081

Description

Firmware version mismatch

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Library Scanner firmware mismatch. Check that the firmware is up to date.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version (see Appendix A: Updating firmware in boot mode on page 279).

Possible parts affected

-

1009-0006-0082

Description

Library version missmatch

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Library Scanner mismatch. Check that the firmware is up to date.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version (see Appendix A: Updating firmware in boot mode on page 279).

Possible parts affected

-

1009-0006-0098

Description

Firmware upgrade failed

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Scanner firmware update failed. Check that the firmware is up to date.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version (see Appendix A: Updating firmware in boot mode on page 279).

Possible parts affected

-

1009-0007-0046

Description

Scaner never calibrated or calibration values not found, calibration needed.

IPS/Front panel message

Scanner is uncalibrated. Please calibrate. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Firmware Not calibrated, misaligned, unable to calibrate.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Clean and calibrate the scanner.

2. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

3. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Clean and calibrate the scanner.

2. Upgrade the firmware to the latest version (see Appendix A: Updating firmware in boot mode on page 279).

Possible parts affected

-

1009-0007-0083

Description

Firmware restart failed

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Firmware Restart failed.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲   Upgrade the firmware to the latest version (see <u>Appendix A: Updating firmware in boot mode on page 279</u>).

Possible parts affected

-

1009-0007-0098

Description

Firmware upgrade needed /failed

IPS/Front panel message

A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Firmware upgrade needed/failed. Check that the firmware is up to date.

FW severity

Advisory

Call agents (Proactive and Reactive)

1.   Check that the printer has the latest firmware; if not, update it (see <u>Appendix A: Updating firmware in boot mode on page 279</u>).

2.   If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲   Upgrade the firmware to the latest version (see <u>Appendix A: Updating firmware in boot mode on page 279</u>).

Possible parts affected

-

1009-0008-0001

Description

Scanner is in SAFE MODE

IPS/Front panel message

The scanner is not available now. A system error occurred. Tap OK to continue or restart the device. If the problem persists, contact your support representative. Scanner is in SAFE MODE.

FW severity

Advisory

Call agents (Proactive and Reactive)

1. Check that the printer has the latest firmware; if not, update it (see Appendix A: Updating firmware in boot mode on page 279).

2. If, after rebooting, the issue persists, then your Support representative is needed to repair the printer on site.

Onsite support

Causes in order of importance

-

Troubleshooting

▲ Upgrade the firmware to the latest version (see Appendix A: Updating firmware in boot mode on page 279).

Possible parts affected

-   Scanner Controller board

8XXX–XXXX–0000

Description

Internal printer firmware error (where X can be any hexadecimal value).

IPS/Front panel message

FW severity

Severe

Call agents (Proactive and Reactive)

▲ Make sure that the printer has the latest firmware.

Onsite support

Causes in order of importance

-

Troubleshooting

1. Check that the printer has the latest firmware.

2. Restart the printer and update the firmware to the latest version, if necessary.

   📝 **NOTE:** When switching off the printer, make sure that all the LEDs at the side of the power inlet are powered off before powering back on.

3. If the error persists after having performed the steps above, report the error to HP Support. See Reporting a system error to HP Support. on page 115.

Possible parts affected

- Line sensor

- Carriage PCA

Appendix A: Updating firmware in boot mode

If the printer is displaying a 8XXX-XXXX-0000system error during start up and will not start normally, then services like the Embedded Web Server will not work.

If it is not possible to perform a firmware upgrade using the normal procedures (for instance, if there is a System Error and the Embedded Web Server is unavailable), it is possible to perform an emergency firmware upgrade using a USB flash drive. Follow these steps:

1. Copy a valid FMW firmware file onto a USB flash drive. This file is provided in HP DesignJet Online. Remove all other contents from the flash drive.

2. Turn off the product.

3. Connect the USB flash drive to the USB host port in the front panel.

4. Turn on the product, and follow the front panel instructions.

Appendix B: Obtaining the diagnostics package

Printers keep an internal log of their own actions. When a system error occurs, the diagnostic package may help to find the cause and the solution. By default, whenever it restarts, the printer deletes the current log and starts a new one, in order to avoid using a lot of hard disk space.

There are three types of diagnostic package:

- Diagnostic package (reduced level)

- Extended diagnostic package (medium level)

- Extended diagnostic package from USB (verbose level)

There are two ways of retrieving the information:

- From the front panel with a USB flash drive (all levels)

- From the Embedded Web Server (reduced or medium level)

NOTE: If the extended diagnostic package is available, it will be visible from the Embedded Web Server.

When the information has been obtained, it should be attached to the customer case.

NOTE: The extended diagnostic package enabled from USB is always preferred as it includes extra level logging.

NOTE: Once the case is solved, the extended diagnostic package must be disabled in order to preserve disk space.

Front panel USB method

This method works only with a standard USB flash drive (without a flash drive, use the Embedded Web Server method). The Front Panel USB method has the advantage of working with very minimal printer functionality: just the printer OS and the USB connection. It can work without connectivity and the front panel. The level of logging is more detailed than the extended package that can be enabled from EWS. It is recommended to use the USB method whenever possible.

1. Take a standard USB flash drive, formatted as FAT32.

2. Create an empty file in the USB flash drive (right-click, **New** > **Text Document**) and name it **pdipu_enable<action code>.log.** You can also find these files attached to this document.

Empty file to load in the USB	Actions
pdipu_enable_elog.log pdipu_enable_scanner_elog.log	Enable verbose logging. Printer needs to restart to take effect. The file with "scanner" allows to enable logs for the scanning subsystem.
pdipu_enable_loggz.log	Extract the logs to the USB. After downloading check the size. If it's 0KB try downloading with another USB key.
pdipu_enable_loggz_dlog.log pdipu_enable_scanner_dlog.log	Disable the verbose logging. It is important to run this after the case is solved to prevent the disk getting full from logs.

3. The recommended flow to get an extended diagnostic package through USB is:

a. Create an empty file called "pdipu_enable_elog_loggz.log" and copy it in a USB flash drive.

b. Plug in the USB and switch on the printer. You will hear the message "Traces are now enabled. You must reboot the printer". Unplug the USB and reboot the printer.

c. After reboot, reproduce the issue.

d. Plug again the USB. You will hear the message "Generating diagnostic package, please wait" "You can now detach the USB pen drive"

e. The extended diagnostic package has been saved in the USB. Copy it into your computer.

f. To disable the logs, erase the information stored previously into the USB, create an empty file caller "pdipu_enable_dlog.log" and plug it into the printer.

4. The printer gives audio messaging detailing the progress. The audio messages available are:

a. "Generating diagnostic package, please wait."

b. "Diagnostic package successfully complete"

c. "Error. Diagnostic package failed"

d. "You can now detach the USB pen drive"

e. "Traces are now enabled. You must reboot the printer"

f. "Generating package without printer.log"

g. "Encrypting package"

Embedded Web Server method

▲ Access the Embedded Web Server by typing the IP address of the printer in a Web browser. In the **Support** tab, click **Service support** to display the following page.

If the problem persists and is difficult to debug, try the extended diagnostics package. To enable the extended diagnostics package, click **Enable the extended diagnostics package**. The printer needs to be restarted after enabling or disabling the extended diagnostics package.

At any time after enabling the extended diagnostics package, you can download the package and the printer logs by clicking **Download the extended diagnostics package**.

When you have finishing using the extended diagnostics package, remember to disable it; otherwise it could affect printer performance or cause undesirable side-effects.

5 Diagnostics, Service Utilities and Calibrations

Introduction

This chapter explains how to use the product's diagnostic tests and utilities, and what to do in the event of any failure.

> **NOTE:** If possible, always perform a diagnostic test on a component that you are about to replace, to make sure that is the component that has failed. If the test on that component passes, there is no need to replace it.

Initialization Self test

Initialization sequences

Whenever the product is switched on, it automatically performs a series of internal self-tests and mechanical initialization sequences. If any part fails, a system error will appear and you should consult System error codes on page 114.

Auto-diagnostics test

In the event of a paper or scan-axis jam triggering a system error 0065-0006-0008 or 0065-0006-0059, a message will appear on the Front Panel.

After restarting, the product will exercise several electromechanical subsystems involved in Paper or Scan-axis movement. If necessary, you may be asked to move the carriage manually or check whether the main roller is moving. You may also be asked to launch an auto-diagnostics test.

- In the event of a paper jam, if another paper jam occurs during the first 15 paper advance movements after the product restarts, the product will ask you to launch the Paper-axis auto-diagnostics.

- In the event of a scan-axis jam, if another scan-axis jam occurs during the first 50 carriage movements after the product restarts, the product will ask you to launch the Scan-axis auto-diagnostics.

A final result will be shown with all the collected data.

Phone support

> **NOTE:** In certain circumstances, a call agent can try to troubleshoot the product by requesting the customer to perform a Service test over the phone. Using this process, it can be determined whether the product requires any on-site maintenance.

Remember that the key combination for the customer to enter the Service tests and Utilities is the same as the one that the engineer will use.

Diagnostic tests

The following is a list of all diagnostic tests available in the product. For instructions on entering the Diagnostics menu, see Entering the Diagnostics menu when booting the printer (diagnostic boot mode) – T1600 and 2600 on page 284.

Entering the Diagnostics menu (normal boot mode)

1. Go to the printer's Main menu.

2. Go to **Service menu**.

3. Choose user `Service`.

4. Type password `2703`.

5. Go to **Reboot in Diagnostic Mode**.

6. Allow the printer to reboot.

Entering the Diagnostics menu when booting the printer (diagnostic boot mode) – T1600 and 2600

To enable the boot mode selection, please follow these instructions:

1. At boot time of the operating system, a beep is emitted and the image in the screen changes to the following.

2. Tap at least three times to enable the boot mode selection. A new beep is emitted if the selection is enabled (the time for this activation depends on the boot of the operating system).

3. If the selection is enabled:

    a. A few seconds later, a new beep is emitted and the image change to this.

b. We have five seconds to enter the sequence that we need.

Sequences

First of all, we perform a virtual division of the screen in four sections, and assign a letter to each one.
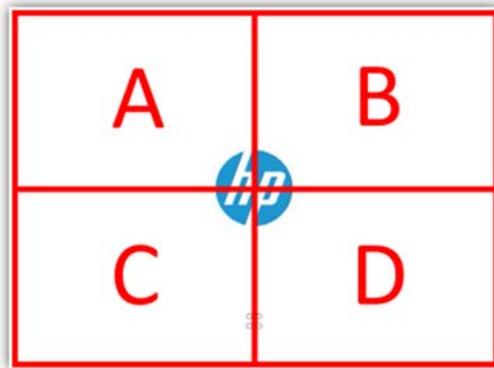
- To use diagnostics as a **customer**, tap the sequence: A – B – C.

- To use diagnostics as a **service engineer**, tap the sequence: C – B – A.

IMPORTANT: Do not tap the sections at the same time, tap one section and release it before tapping the next one.

c. After the five seconds, you will listen a success or error beep, depending if the sequence was recognized or not.

4. The printer will boot in the diagnostic boot mode.

NOTE: The Diagnostic Tests and Utilities work in a special mode that does not require the full initialization of the product. Therefore, whenever a test is finished, turn off the product and turn it on again before printing.

The Diagnostics menu

The Diagnostics menu can vary according to the user. The following table shows which diagnostics are available for each type of user (service or customer).

Subsystem	Code	Diagnostic	User
E-box	00101	Check one rail	Service and Customer
	00102	Check main board electronics	Service and Customer
	00103	Check connectivity	Service and Customer
	00104	Check RFID electronics	Service and Customer
	00105	Check disk	Service and Customer
	00106	Set printer installed	Service
	00107	Reset HDD to be removed	Service
	00108	Activate DFE power state	Service
Power supply	00301	Check power supply fan	Service and Customer
Service station – SVS	02101	Check electronics	Service and Customer
	02102	Check service station motor	Service and Customer
	02103	Check primer motor	Service and Customer
IDS	02201	Check mechatronics	Service and Customer
	02202	Check ink supplies	Service and Customer
	02203	Check leakage	Service and Customer
	02204	Set ink tubes as purged/empty	Service
BIOS/Formatter	04501	Check main board	Service and Customer
Secure electronics	04601	Check printer ID electronics	Service
Media input	06001	Check rewinder motor	Service and Customer
Media path	06501	Check electronics	Service and Customer
	06502	Check starwheels motor and sensors	Service and Customer
	06503	Check PRS	Service and Customer
	06504	Check scan motor	Service and Customer
	06505	Check media motor and sensors	Service and Customer
	06506	Check pinches lifter	Service and Customer
	06507	Check overdrive motor	Service and Customer
Cutter	06601	Check electronics	Service and Customer
Integrated stacker	07501	Check electronics	Service and Customer
	07502	Check output valve motor	Service and Customer
	07503	Check ramps motor	Service and Customer
	07504	Check sensors	Service and Customer
	07505	Output valve motor calibration	Service
User interface	08001	Check Electronics	Service and Customer
	08002	Check cover status	Service and Customer

Subsystem	Code	Diagnostic	User
	08003	Check Speaker	Service and Customer
	08004	Check front panel	Service and Customer
Carriage	08601	Check electronics	Service and Customer
	08602	Check mechatronics	Service and Customer
Utilities	09901	Hard reset connectivity	Service
	09902	EEROM reset utility	Service
	09903	Unit information utility	Service and Customer
	09904	Delete job manager queue	Service
	09905	Enable extended log for next boot	Service
Scanner	10901	Check electronics	Service and Customer
	10902	Delete the scanner queue operator or engineer	Service and Customer

Diagnostic Test

001 EEBOX

00101 Check One Rail

This diagnostic performs checks the DC/DC Power Supply PCA status ("One Rail PCA").

1. Once you have entered the **001 EE-BOX** menu, access the **00101 Check One Rail** menu.
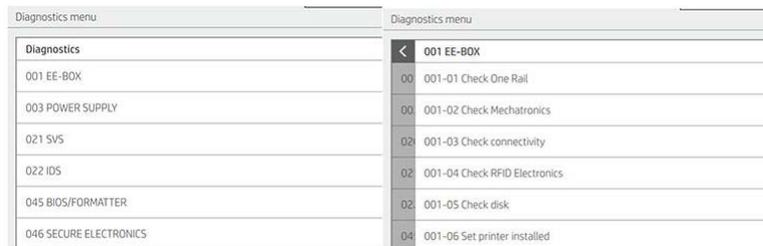
2. Then, tap the **OK** button to continue the checking process.

3. As can be seen below, the next screen shows the different checks performed in the DC/DC Power Supply PCA ("One rail PCA"). If the voltages are between the correct values the checks will display an OK. To continue to the final diagnostic result screen, press the **OK** button.

4. The screen shows the diagnostic result.

00102 Check Mainboard electronics

This test checks the single rail PSU voltage, the Engine PCA (Mechatronic PCA) and hard disk status.

1. Once you have entered the **001 EE-BOX** menu, access the **00102 Check Mechatronics** menu.
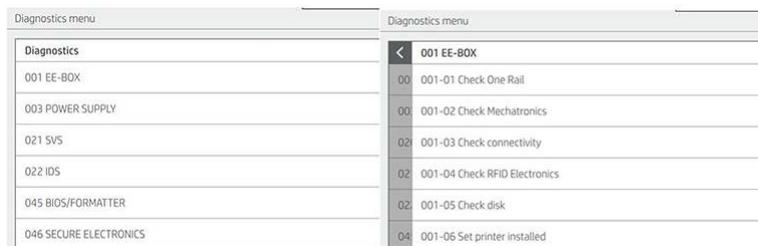
2. Then, tap the **OK** button to continue the checking process.

3. As it can be seen below, the next screen shows the different checks performed in the Engine PCA (Mechatronic PCA). Here you can see the Engine PCA presence and version, the input, output and operational voltages, and their rates. Also the motor drivers and the fan status. If the voltages are between the rate values, the checks will display an **OK**. To continue to the final diagnostic result screen, press the "OK" button.

4. The screen will show the final diagnostic result.

00103 Check connectivity

1. Once you have entered the **001 EE-BOX** menu, access the **00103 Check connectivity** menu.
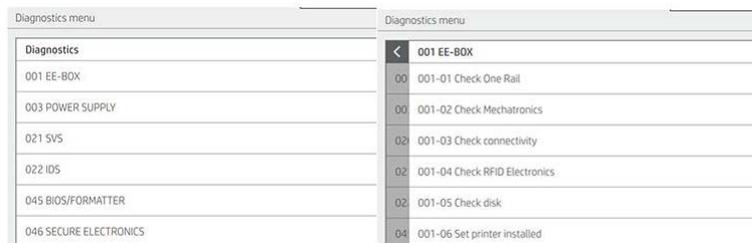
2. Then, tap the **OK** button to continue the checking process.
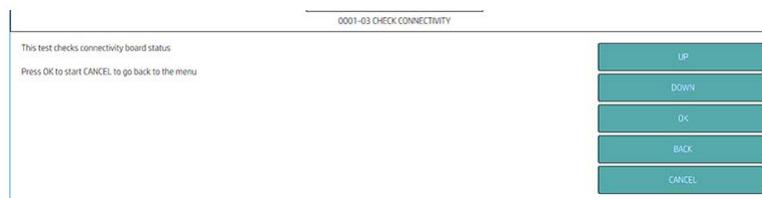
3. In the images below the results are displayed. You can see that connectivity is okay, the system having ensured that the LAN cable is properly connected. Once all information is displayed, press **OK** to finish.
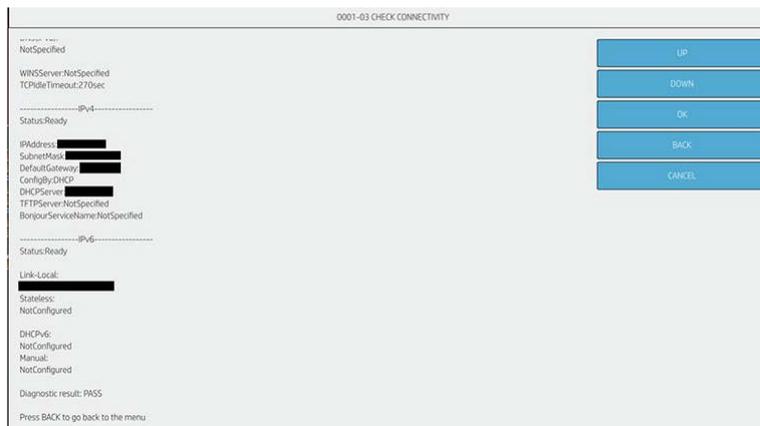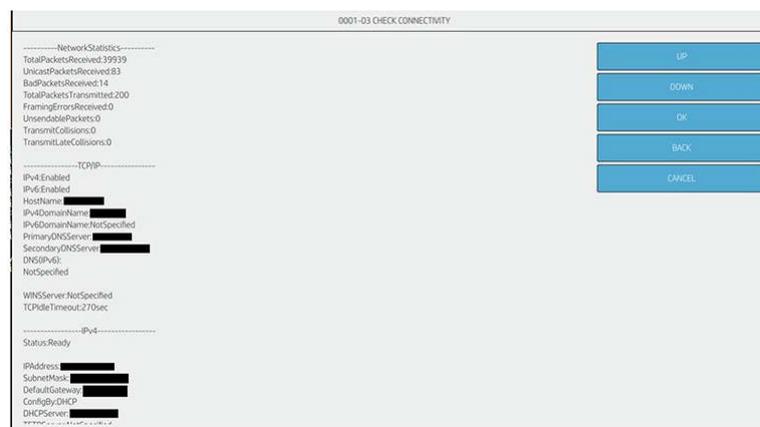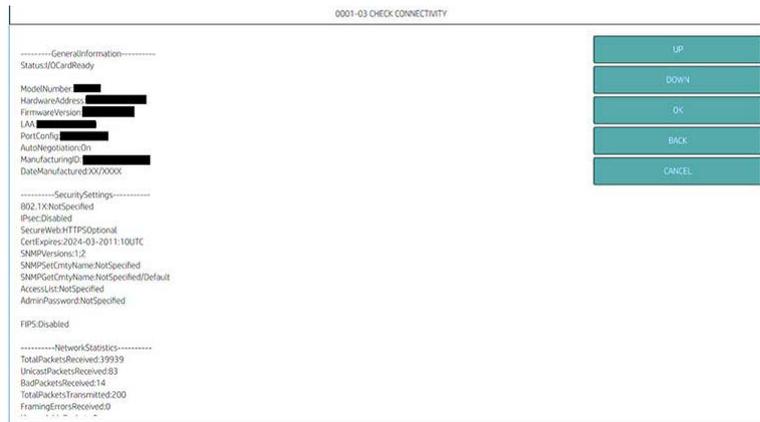
00104 Check RFID electronics

This diagnostic performs a connectivity check with RFID PCA ("RFID Voljin").

1. Once you have entered the **001 EE-BOX** menu, access the **00104 Check RFID electronics** menu.
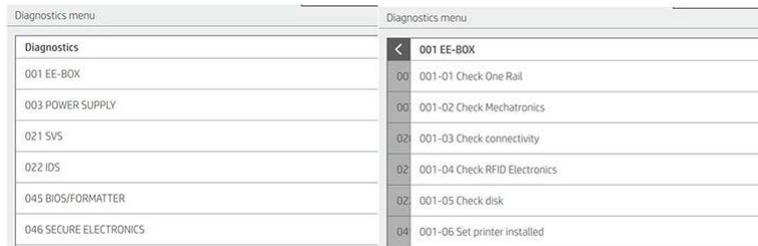
2. Then, tap the **OK** button to continue the checking process.

3. As it can be seen below, the system detects the RFID Voljin presence along with the fact that it is connected. To continue to the final diagnostic result screen, press the **OK** button.

4. The screen will show the final diagnostic result.

00105 Check Disk

This diagnostic performs a hard disk ("HDD") check.

1. Once you have entered the **001 EE-BOX** menu, access the **00105 Check disk** menu.
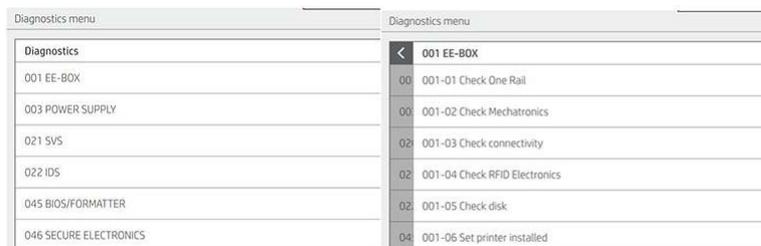
2. Then, tap the **OK** button to continue the checking process.

3. The screen below shows a message which explain that the printer is going to perform several checks in the hard disk. Only if it detects any fail, a System Error will prompt. Tapping the **OK** button will shut down the printer and reboot it. If you do not want to turn off, press **CANCEL**.

00106 Set printer installed

This diagnostic performs a setting of initial parameters on the printer ("Out-of-box").

1. Once you have entered the **001 EE-BOX** menu, access the **00106 Set printer installed** menu.
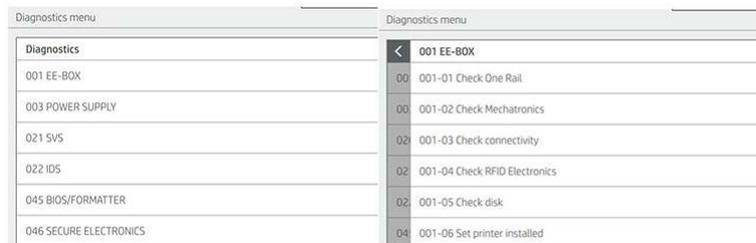
2. Then, tap the **OK** button to continue the checking process.

3. The system will set some internal parameters to adjust them correctly. In order to go to main menu, tap the **CANCEL** button when the diagnostic shows that the procedure have been finished.

00107 Reset HDD to be removed

This diagnostic resets the HDD interconnect with Formatter PCA to be replaced.

▲ Once you have entered the **001 EE-BOX** menu, access the corresponding menu.

00108 Activate DFE power state

This diagnostic resets the HDD interconnect with Formatter PCA to be replaced.

1. Once you have entered the **001 EE-BOX** menu, access the **00108 Activate DFE power state** menu.
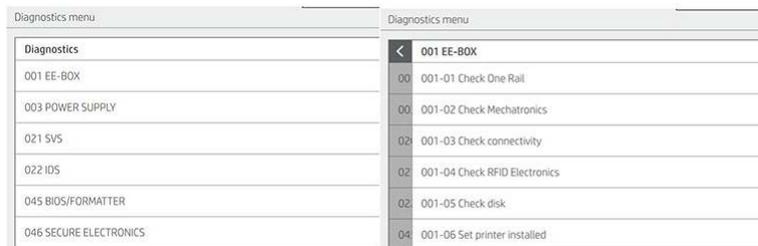
2. Then, tap the **OK** button to continue the checking process.

3. The screen below shows the diagnostic executed. The test activates the DFE mode of the printer. It just configures some internal parameters in the printer and reboot it. When the DFE mode is activated, press **OK** to shut down the printer.

003 POWER SUPPLY

00301 Check fan

This diagnostic performs a functionality check in the PSU fan.

1. Once you have entered the **003 POWER SUPPLY** menu, access the **00301 Check Power Supply Fan** menu.
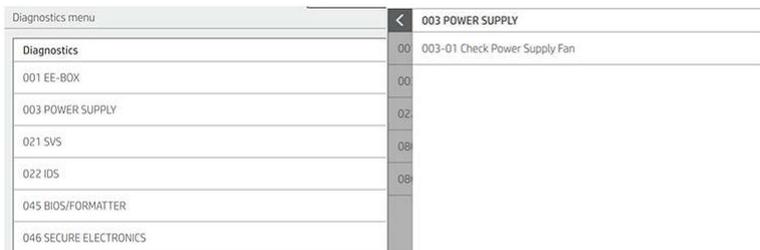
2. Then, tap the **OK** button to continue the checking process.

3. The screen below shows the diagnostic results. You can see the PSU fan status, which should be OK if works properly. Press **OK** in order to go to the final diagnostic screen result.

4. The screen will show the final diagnostic result.
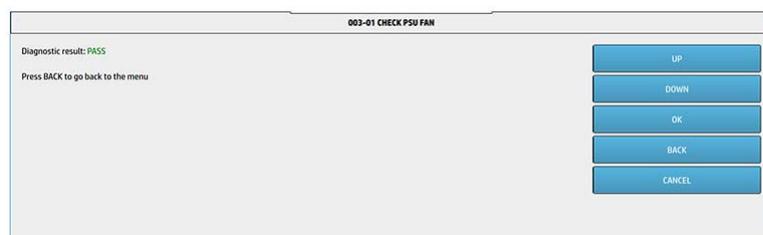
021 Service Station – SVS

02101 Check Electronics

This diagnostic checks the presence of the cable from SVS to Mechatronics PCA and the drop detector functionality.

1. Once you have entered the **021 SVS** menu, access the **02101 Check Electronics** menu.

Diagnostics menu	Diagnostics menu
Diagnostics	< 021 SVS
001 EE-BOX	00 021-01 Check Electronics
003 POWER SUPPLY	00 021-02 Check Service Station Motor
021 SVS	02 021-03 Check Primer Motor
022 IDS	
045 BIOS/FORMATTER	

2. Then, tap the **OK** button to continue the checking process.

    021-01 CHECK SERVICE STATION E

    This test raises and checks the minimum electronics and connections related to Service Station functionality. (Mechatronic PCA and Drop detector functionality)

    Press OK to continue or CANCEL to go back to the menu

    UP
    DOWN
    OK
    BACK
    CANCEL

3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more information, check .

    021-01 CHECK SERVICE STATION E

    Checking electronics...

    Mechatronic PCA presence: OK
    Mechatronic PCA version: OK (Revision is AX3)
    Input 32V voltage: OK (Voltage is 32.25V) / Operating range [30.3V – 34.3V]
    Checking 5V: OK (Voltage is 5.17V) / Operating range [4.74V – 5.24V]
    Output 32V voltage: OK (Voltage is 32.56V) / Operating range [26.78V – 37.65V]
    Motor drivers status: OK
    Fan status: OK

    Electronics checked successfully!

    Press OK to continue

    UP
    DOWN
    OK
    BACK
    CANCEL

4. The screen below shows the diagnostic results. This service diagnostic checks the presence of the cable from SVS to Mechatronics PCA and the drop detector functionality. Press **OK** in order to go to the last diagnostic result screen.

    021-01 CHECK SERVICE STATION E

    Checking SVS electronics...

    Cable SVS to mechatronics PCA: Cable SVS to mechatronics PCA: OK
    Drop detector functionality: OK

    SVS electronics checked successfully!

    Press OK to continue

    UP
    DOWN
    OK
    BACK
    CANCEL

5. The screen will show the final diagnostic result.

02102 Check Service Station Motor

This diagnostic performs several tests to check the correct movement of the service station as distance test movements, positioning test movements and primitives test.

1. Once you have entered the **021 SVS** menu, access the **02102 Check Service Station Motor** menu.
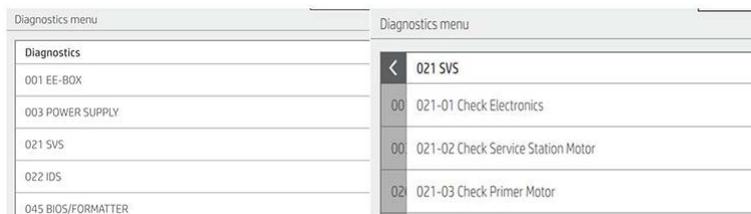
2. Then, tap the **OK** button to continue the checking process.

3. The screen below shows the diagnostic results. This service diagnostic performs the next movement tests: homing and distance, positioning and finally primitives. Press **OK** in order to go to the last diagnostic result screen.
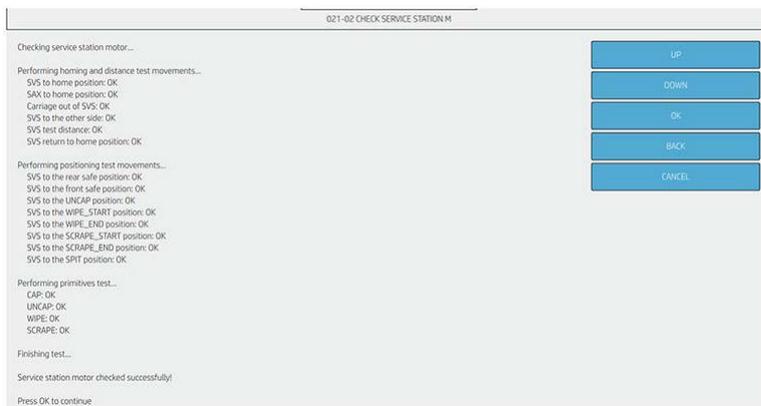
4. The screen will show the final diagnostic result.

02103 Check Primer motor

This diagnostic performs an overcurrent check in the primer motor of the service station.

1. Once you have entered the **021 SVS** menu, access the **02103 Check Primer Motor** menu.
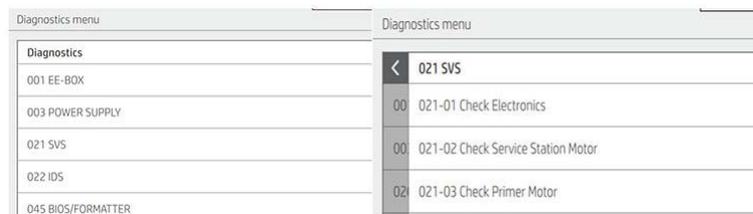
2. Then, tap the **OK** button to continue the checking process.

3. The diagnostic launches the test initializing the primer motor.

4. The screen below shows the diagnostic results. This service diagnostic checks the overcurrent measure in the primer motor for channel 0 and 1. Press **OK** in order to go to the last diagnostic result screen.

5. The screen will show the final diagnostic result.

022 INK DELIVERY STATION – IDS

02201 Check Mechatronics

This diagnostic checks the minimum electronics and connections related to Ink Delivery Subsystem functionality.

1. Once you have entered the **022 IDS** menu, access the **02201 Check mechatronics** menu.
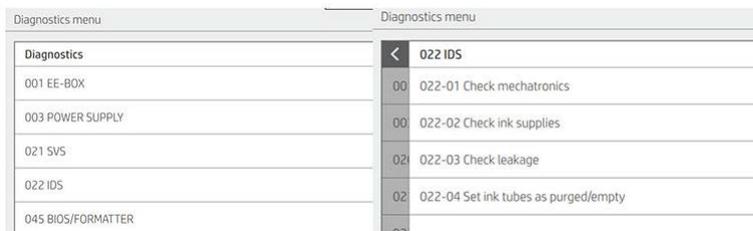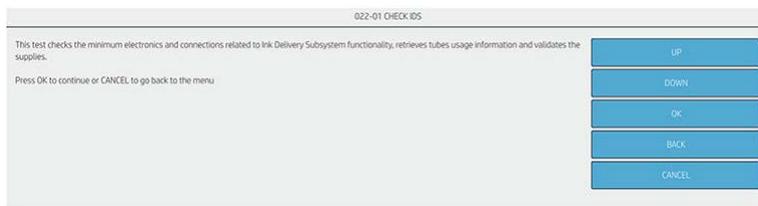
2. Then, tap the **OK** button to continue the checking process.

3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more information, check

4. Ensure that the supplies are installed. Then, tap the **OK** button in order to continue the checking process.
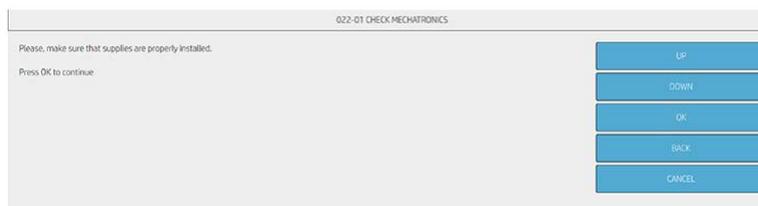
5. The diagnostic performs a check to initialize the acumens. Press **OK** button to continue to next screen.

    NOTE: Supply #0 is related to PK supply and Supply #2 is related to MK supply.

6. The diagnostic performs a check on supplies. Tap **OK** button to continue to next screen.

    NOTE: Supply #0 is related to PK supply and Supply #2 is related to MK supply.

7. The diagnostic asks for removing all the supplies. Then press **OK** button to continue.

8. The diagnostic performs a check in ISS motors (service station and front panel sides) down movement. Then press **OK** button to continue.

9. The diagnostic checks the optotrip sensors when the ISS motor is down. Then press **OK** button to continue.

    NOTE: Optotrip #0 is related to PK supply and Optotrip #2 is related to MK supply.

10. The diagnostic performs a check in ISS motors (service station and front panel sides) up movement. Then press **OK** button to continue.

11. The diagnostic checks the optotrip sensors when the ISS motor is up. Then press **OK** button to continue.

📝 **NOTE:** Optotrip #0 is related to PK supply and Optotrip #2 is related to MK supply.

12. The diagnostic performs a check in ISS motors (service station and front panel sides) down movement again. Then press **OK** button to continue.
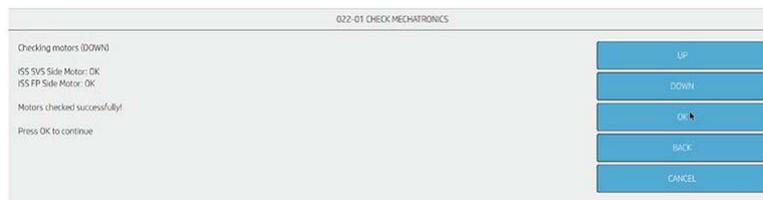
13. The test shows the percentage of usage tubes. Press **OK** button to continue.

14. The screen will show the final diagnostic result.

02202 Check Ink Supplies

This diagnostic checks the supplies status, current ink and if they are able to be used in purge.

1. Once you have entered the **022 IDS** menu, access the **02202 Check Ink Supplies** menu.

Diagnostics menu	Diagnostics menu
Diagnostics	< **022 IDS**
001 EE-BOX	00 022-01 Check mechatronics
003 POWER SUPPLY	00 022-02 Check ink supplies
021 SVS	02 022-03 Check leakage
022 IDS	02 022-04 Set ink tubes as purged/empty
045 BIOS/FORMATTER	0?

2. Then, tap the **OK** button in order to continue the checking process.

022-02 CHECK INK SUPPLIES

This test checks the supplies status.

Press OK to continue or CANCEL to go back to the menu

UP
DOWN
OK
BACK
CANCEL

3. Check supplies are correctly installed. Then, tap the **OK** button in order to continue the checking process.

022-02 CHECK INK SUPPLIES

Please, make sure that supplies are properly installed.

Press OK to continue

UP
DOWN
OK
BACK
CANCEL

4. First, the diagnostic initializes the acumens. Press the **OK** button in order to continue when the checking process ends.

022-02 CHECK INK SUPPLIES

Initializing Acumens
This process may take a while, please wait...

Supply #0: OK (DARK_GRAY)
Supply #1: OK (LIGHT_GRAY)
Supply #2: OK (BLACK)
Supply #3: OK (CYAN)
Supply #4: OK (MAGENTA)
Supply #5: OK (YELLOW)

Acumens initialized successfully!

Press OK to continue

UP
DOWN
OK
BACK
CANCEL

📝 **NOTE:** Supply #0 is related to PK supply and Supply #2 is related to MK supply.

5. Second, the diagnostic checks the supplies integrity. Press the **OK** button in order to continue when the checking process ends.

022-02 CHECK INK SUPPLIES

Checking supplies integrity

Supply #0: OK (DARK_GRAY)
Supply #1: OK (LIGHT_GRAY)
Supply #2: OK (BLACK)
Supply #3: OK (CYAN)
Supply #4: OK (MAGENTA)
Supply #5: OK (YELLOW)

Supplies checked successfully!

Press OK to continue

UP
DOWN
OK
BACK
CANCEL

📝 **NOTE:** Supply #0 is related to PK supply and Supply #2 is related to MK supply.

6. Third, the diagnostic checks the current cartridges ink, it detects if cartridges are OK for purge. Press the **OK** button in order to continue when the checking process ends.

📝 **NOTE:** Supply #0 is related to PK supply and Supply #2 is related to MK supply.

7. The screen will show the final diagnostic result.

02203 Check Leakage

This diagnostic checks if the ink supply station works properly and possible supplies leakage.

1. Once you have entered the **022 IDS** menu, access the **02203 Check leakage** menu.
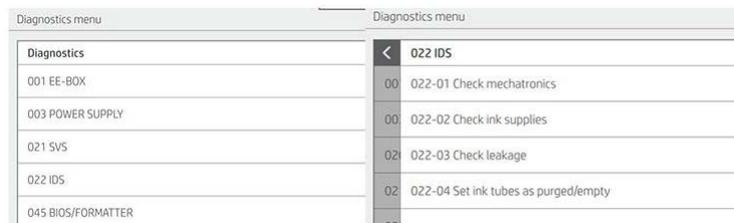
2. Then, tap the **OK** button in order to continue the checking process.
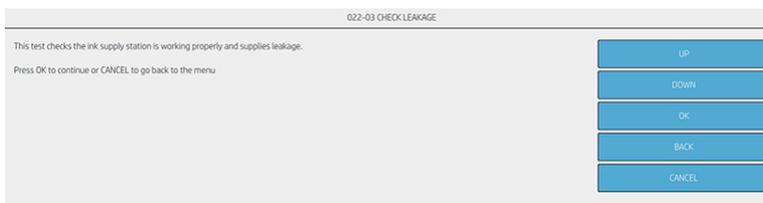
3. Insert the ink supplies and make sure that are correctly installed. Then, tap the **OK** button in order to continue the checking process.

4. First, the diagnostic initializes the acumens. Press the **OK** button in order to continue when the checking process ends.

```
                        022-03 CHECK LEAKAGE

Initializing Acumens                                         UP
This process may take a while, please wait...

Supply #0: OK (DARK_GRAY)                                   DOWN
Supply #1: OK (LIGHT_GRAY)
Supply #2: OK (BLACK)                                        OK
Supply #3: OK (CYAN)
Supply #4: OK (MAGENTA)
Supply #5: OK (YELLOW)                                      BACK

Acumens initialized successfully!
                                                           CANCEL
Press OK to continue
```

NOTE: Supply #0 is related to PK supply and Supply #2 is related to MK supply.

5. Second, remove all the supplies cartridges and then tap the **OK** button in order to continue.

```
                        022-03 CHECK LEAKAGE

Please, remove all supplies                                  UP

Press OK to continue                                        DOWN

                                                            OK

                                                           BACK

                                                           CANCEL
```
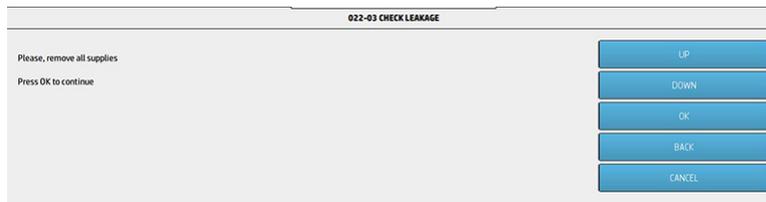
6. The service diagnostic checks ISS service station side and front panel side motors down movement. Press the **OK** button in order to continue.

```
                        022-03 CHECK LEAKAGE

Checking motors (DOWN)                                       UP

ISS SVS Side Motor: OK
ISS FP Side Motor: OK                                       DOWN

Motors checked successfully!                                 OK

Press OK to continue                                        BACK

                                                           CANCEL
```

7. The diagnostic checks the optotrip sensors when the ISS motor is down. Then press **OK** button to continue.

```
                        022-03 CHECK LEAKAGE

Checking optotrip sensors (DOWN)                             UP

Optotrip #0: OK (DARK_GRAY)
Optotrip #1: OK (LIGHT_GRAY)                                DOWN
Optotrip #2: OK (BLACK)
Optotrip #3: OK (CYAN)                                       OK
Optotrip #4: OK (MAGENTA)
Optotrip #5: OK (YELLOW)                                    BACK

Sensors checked successfully!
                                                           CANCEL
Press OK to continue
```

NOTE: Optotrip #0 is related to PK supply and Optotrip #2 is related to MK supply.

8. The diagnostic performs a check in ISS motors (service station and front panel sides) up movement. Then press **OK** button to continue.

```
                        022-03 CHECK LEAKAGE

Checking motors (UP)                                         UP

ISS SVS Side Motor: OK
ISS FP Side Motor: OK                                       DOWN

Motors checked successfully!                                 OK

Press OK to continue                                        BACK

                                                           CANCEL
```

9. The diagnostic checks the optotrip sensors when the ISS motor is up. Then press **OK** button to continue.

022-03 CHECK LEAKAGE	
Checking optotrip sensors (UP)	UP
Optotrip #0: OK (DARK_GRAY)	
Optotrip #1: OK (LIGHT_GRAY)	DOWN
Optotrip #2: OK (BLACK)	
Optotrip #3: OK (CYAN)	OK
Optotrip #4: OK (MAGENTA)	
Optotrip #5: OK (YELLOW)	BACK
Sensors checked successfully!	
Press OK to continue	CANCEL

NOTE: Optotrip #0 is related to PK supply and Optotrip #2 is related to MK supply.

10. The diagnostic performs a check in ISS motors (service station and front panel sides) down movement again. Then press **OK** button to continue.

022-03 CHECK LEAKAGE	
Checking motors (DOWN)	UP
ISS SVS Side Motor: OK	
ISS FP Side Motor: OK	DOWN
Motors checked successfully!	OK
Press OK to continue	BACK
	CANCEL

11. Ensure that the supplies are correctly installed. Then, tap the **OK** button in order to continue the checking process.

022-03 CHECK LEAKAGE	
Please, insert all supplies.	UP
Press OK to continue	DOWN
	OK
	BACK
	CANCEL
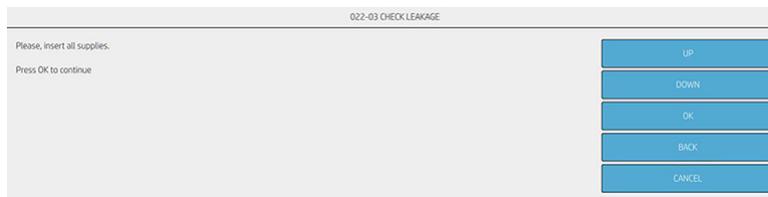
12. The diagnostic performs a check in ISS motors (service station and front panel sides) up movement again, in this case, supplies are already installed. Then press **OK** button to continue.

022-03 CHECK LEAKAGE	
Checking motors (UP)	UP
ISS SVS Side Motor: OK	
ISS FP Side Motor: OK	DOWN
Motors checked successfully!	OK
Press OK to continue	BACK
	CANCEL

13. The diagnostic performs a check in ISS motors (service station and front panel sides) down movement again in this case, supplies are already installed. Then press **OK** button to continue.

14. The screen will show the final diagnostic result.

02204 Set Ink Tubes as Purged/Empty

This diagnostic performs an emptied or filled tubes to initiate the printer in OOBE workflow or usual boot.

1. Once you have entered the **022 IDS** menu, access the **02204 Set ink tubes as purged/empty** menu.
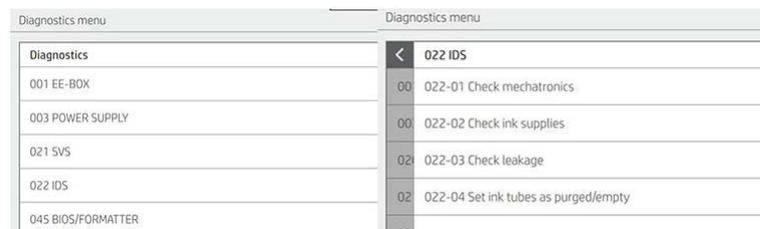
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows 2 options. The upper option is setting the tubes as filled. The lower option is setting the tubes as emptied. Then, tap the **OK** button in order to continue.

```
022-04 SET TUBES STATUS

Press UP or DOWN button to select a Tubes status from the options:        UP
[ Filled ]
Emptied                                                                   DOWN

Press OK to confirm the Tubes status set to Filled                        OK

                                                                          BACK

                                                                          CANCEL
```

4. If you choose the upper option the follow screen will be showed, filling the tubes. Tap the **OK** button in order to continue.

```
022-04 SET TUBES STATUS

Setting tubes as filled...                                                UP

Setting tubes successfully!                                               DOWN

Press OK to continue                                                      OK

                                                                          BACK

                                                                          CANCEL
```

5. If you choose the lower option the follow screen will be showed, emptying the tubes. Tap the **OK** button in order to continue.

```
022-04 SET TUBES STATUS

Setting tubes as emptied...                                               UP

Setting tubes successfully!                                               DOWN

Press OK to continue                                                      OK

                                                                          BACK

                                                                          CANCEL
```

6. To restart the printer, press **OK**. Other case, press **BACK** to go back to main menu, if you want to restart the printer later.

```
022-04 SET TUBES STATUS

The printer is going to reboot.                                           UP
Press OK to continue or BACK to go back to the menu if you will restart later.
                                                                          DOWN

                                                                          OK

                                                                          BACK

                                                                          CANCEL
```

045 BIOS/FORMATTER

04501 Check Mainboard

This diagnostic performs several checks on Formatter PCA and hard disk status.

1. Once you have entered the **045 BIOS/FORMATTER** menu, access the **04501 Check Mainboard** menu.
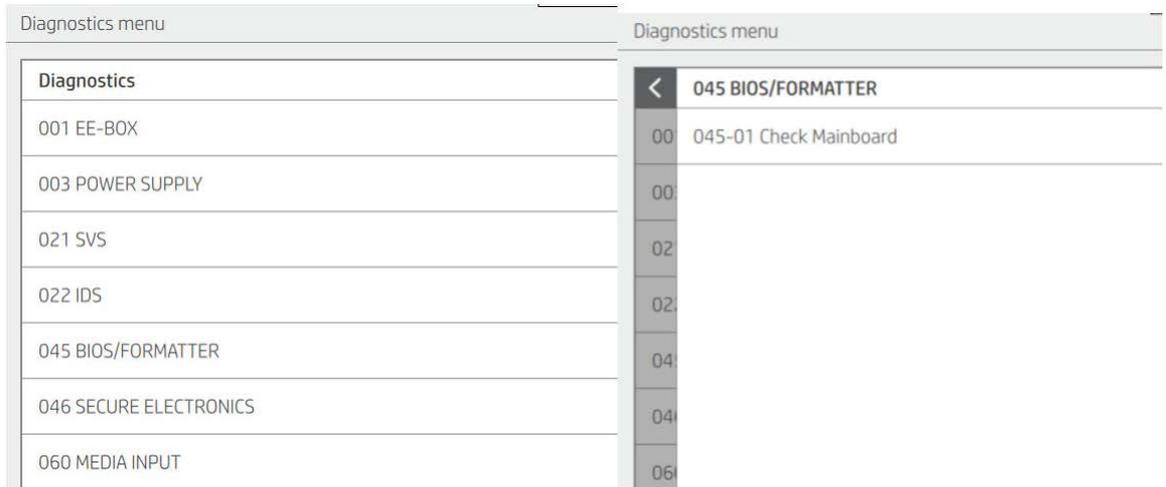
2. Then, tap the **OK** button to continue the checking process.
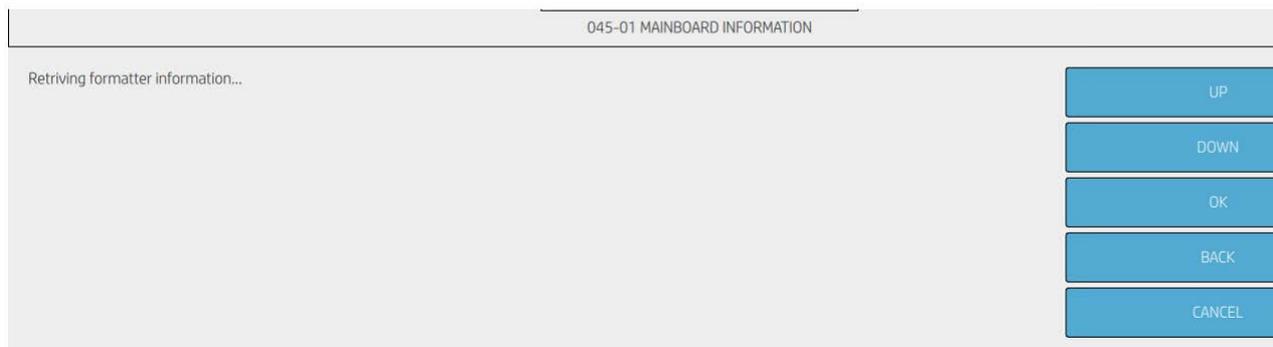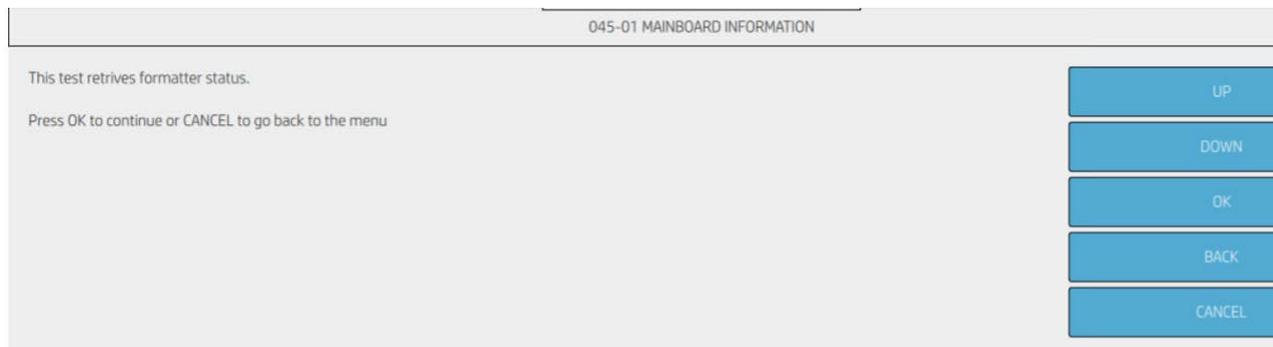
3. The diagnostic will check the ram memory installed. Press the **OK** button in order to continue.

046 SECURE ELECTRONICS

046-01 Check Printer ID electronics

This diagnostic checks the values of the secure electronics ID.

1. Once you have entered the **046 SECURE ELECTRONICS** menu, access the **04601 Check printer ID EE** menu.
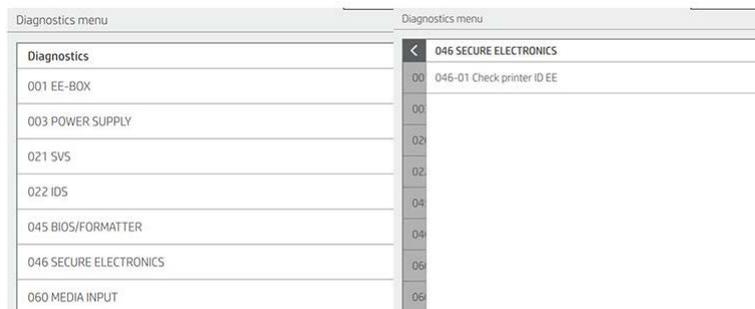
2. Then, tap the **OK** button in order to continue the checking process.

3. The diagnostic checks the identification of main electronics. Press the **OK** button in order to continue.

4. The screen will show the final diagnostic result.

060 MEDIA INPUT

06001 Check Rewinder motor

This diagnostic raises and checks the minimum electronics and connections related to Media Input functionality.

1. Once you have entered the **060 MEDIA INPUT** menu, access the **06001 Check rewinder motor** menu.
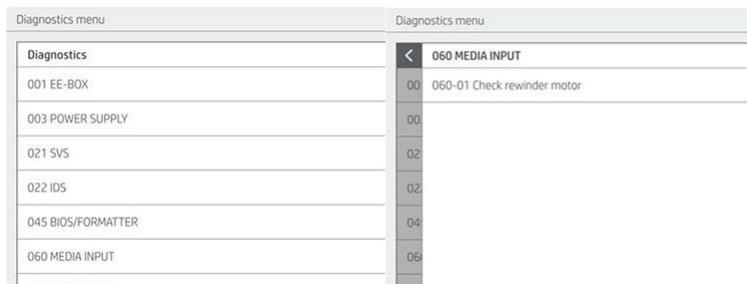
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more information, check .

```
060-01 CHECK REWINDER MOTOR

Checking electronics...                                              UP

Mechatronic PCA presence: OK
Mechatronic PCA version: OK (Revision is AX3)                       DOWN
Input 32V voltage: OK (Voltage is 32.33V) / Operating range [30.3V ~ 34.3V]
Checking 5V: OK (Voltage is 5.16V) / Operating range [4.74V ~ 5.24V]   OK
Output 32V voltage: OK (Voltage is 32.56V) / Operating range [26.78V ~ 37.65V]
Motor drivers status: OK
Fan status: OK                                                      BACK

Electronics checked successfully!
                                                                   CANCEL
Press OK to continue
```
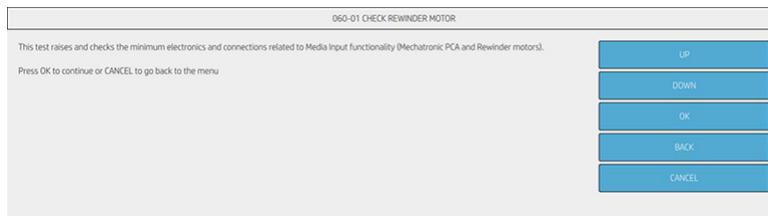
4. The screen below shows the diagnostic results of rewinder 1, which is the upper one. These are the results of motor current check and the direction test in rewinder 1. Press **OK** in order to continue with the service diagnostic.

```
060-01 CHECK REWINDER MOTOR

Checking rewinders...                                               UP

RewinderMotor1 current check:
     Driver ADC: 0.821918 OK (Operation range >= 0.1)              DOWN
     Movement: 1047 OK (Operation range >= 5)
RewinderMotor1 direction test: OK                                    OK

RewinderMotor1 electronics and direction test checked successfully! PWM test will be launched   BACK

Press OK to continue
                                                                   CANCEL
```

5. The diagnostic asks for opening the rewinder 1 and load the paper. Press **OK** in order to performs the PWM test which generates a paper bubble.

```
060-01 CHECK REWINDER MOTOR

Please, load paper manually.                                        UP

Press OK to continue or CANCEL to go back to the menu              DOWN

                                                                    OK

                                                                   BACK

                                                                   CANCEL
```

If the cover is closed, the big monitor shows the next screen.

```
060-01 CHECK REWINDER MOTOR

Loading media...                                                    UP
Please, open roll cover.

Press OK to continue or CANCEL to go back to the menu              DOWN

                                                                    OK

                                                                   BACK

                                                                   CANCEL
```

6. The diagnostic gets traces with the paper bubble generated. Then, it asks for closing the roll cover. Press the **OK** button in order to continue the checking process.

```
060-01 CHECK REWINDER MOTOR

Getting BT traces with NORMAL BTU ...                               UP
Traces collected
Rewinding excessive paper until no bubble                          DOWN
Please, close roll cover.

Press OK to continue or CANCEL to go back to the menu               OK

                                                                   BACK

                                                                   CANCEL
```

7. The diagnostic performs several checks getting data and calibrating the motor control. Then, tap the **OK** button to continue the checking process.

8. The screen below shows the diagnostic results of rewinder 2, which is the upper one. These are the results of motor current check and the direction test in rewinder 2. Press **OK** in order to continue with the service diagnostic.

9. The diagnostic asks for opening the rewinder 2 and load the paper. Press **OK** in order to performs the PWM test which generates a paper bubble.

10. The diagnostic gets traces with the paper bubble generated. Then, it asks for closing the roll cover. Press the **OK** button in order to continue the checking process.

11. The diagnostic performs several checks getting data and calibrating the motor control. Then, tap the **OK** button to continue the checking process.
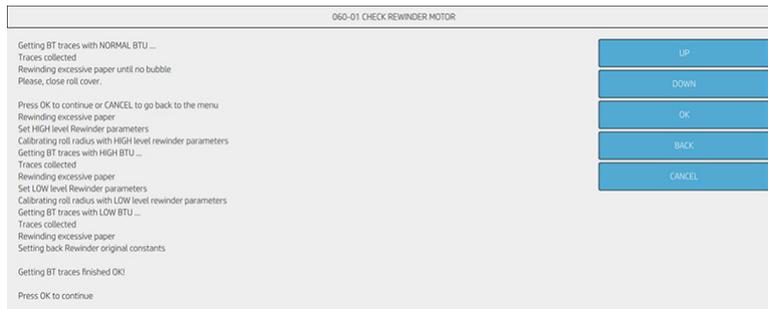
12. The diagnostic analyses the PWM traces and other parameters involved in the motor control. Press the **OK** button to continue the checking process.

13. The screen will show the final diagnostic result.

065 Media Path

06501 Check Electronics

This diagnostic raises and checks the minimum electronics and connections related to Media Path functionality.

1. Once you have entered the **065 Media Path** menu, access the **06501 Check Electronics** menu.
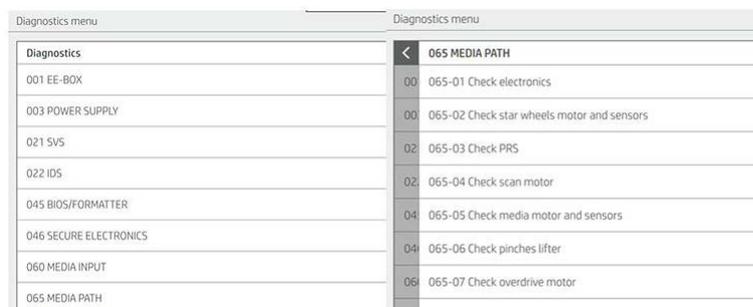
2. Then, tap the **OK** button in order to continue the checking process.
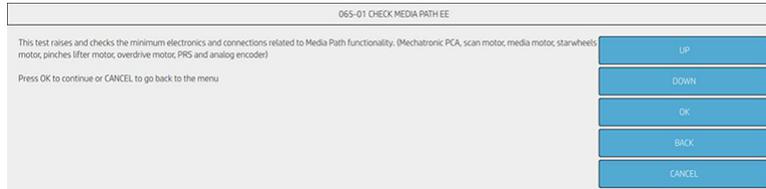
3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more information, check 00102 Check Mainboard electronics on page 288.

4. The screen below shows the several direction tests made by the service diagnostic.

5. The diagnostic checks the actual current in media motor and the movement detected by the analog encoder.
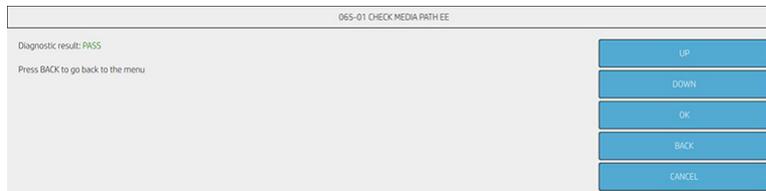
6. The screen will show the final diagnostic result.

06502 Check Star Wheels Motor and sensors

This diagnostic performs a PWM check in the different Star wheels positions.

1. Once you have entered the **065 Media Path** menu, access the **06502 Check star wheels motor and sensors** menu.
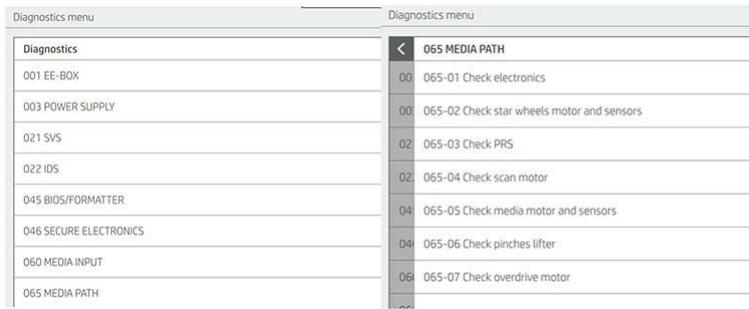
2. Then, tap the **OK** button in order to continue the checking process.
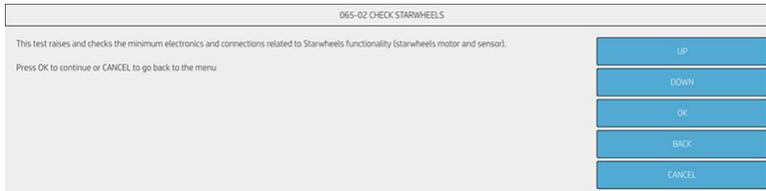
3. The screen below shows the diagnostic result of star wheels motor. These are the results of motor current check and direction test in star wheels motor. Also, the diagnostic checks the star wheels EOT sensor presence. Press **OK** in order to continue with the service diagnostic.

4. The screen below shows the diagnostic which performs a PWM forward check at star wheels motor in high position. The diagnostic picks up the traces and show the results. Press **OK** in order to continue with the service diagnostic.

5. The screen below shows the diagnostic which performs a PWM backward check at star wheels motor in low position. The diagnostic picks up the traces and show the results. Press **OK** in order to continue with the service diagnostic.
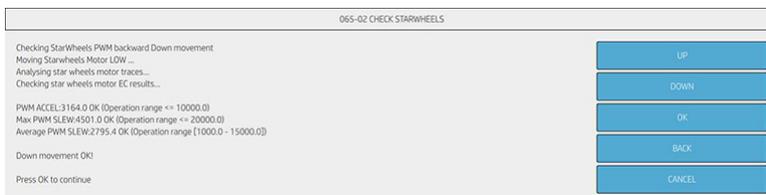
6. The screen below shows the diagnostic which performs a PWM forward check at star wheels motor in intermediate position. The diagnostic picks up the traces and show the results. Press **OK** in order to continue with the service diagnostic.

7. The screen below shows the diagnostic which performs a PWM backward check at star wheels motor in low position. The diagnostic picks up the traces and show the results. Press **OK** in order to continue with the service diagnostic.

8. The next screen shows a resume of all obtained results.

9. The screen shows the final diagnostic result.

06502 Check Star Wheels Motor and sensors

This diagnostic performs a PWM check in the different star wheels positions.

1. Once you have entered the **065 Media Path** menu, access the **06503 Check PRS** menu.
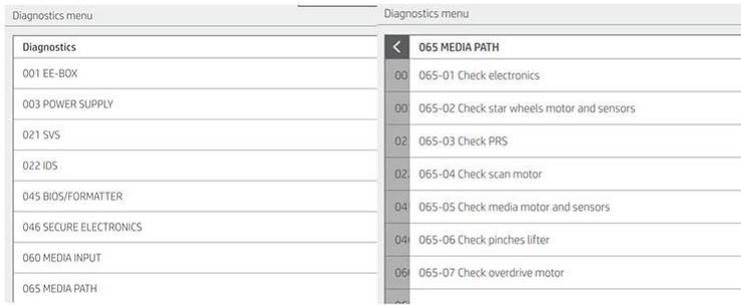
2. Then, tap the **OK** button in order to continue the checking process.

3. The diagnostic initialize the SVS and the Scan Axis. Then it moves them to home position. Press **OK** button to continue.
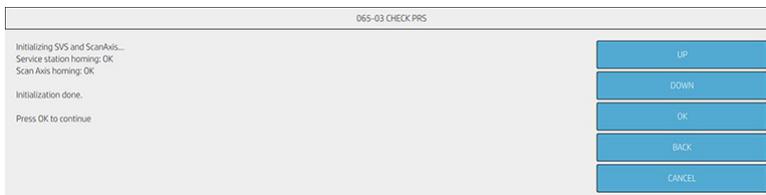
4. The diagnostic explains that it is going to set the PRS at its maximum height. Press **OK** button to continue.

5. The diagnostic set the PRS at its maximum height to check the distance visually. Press **OK** button to continue when it will be checked.

6. The diagnostic explains that it is going to set the PRS at its minimum height. Press **OK** button to continue.

065-03 CHECK PRS	
Set PRS LOW. Distance can be checked visually	UP
Press OK to continue	DOWN
	OK
	BACK
	CANCEL

7. The diagnostic set the PRS at its minimum height to check the distance visually. Press **OK** button to continue when it will be checked.

065-03 CHECK PRS	
Checking LOW position... Moving PRS to low: OK Movement OK!	UP
Press OK to continue	DOWN
All movements done! please, check.	OK
Press OK to continue	BACK
	CANCEL

8. The screen will show the final diagnostic result.

065-03 CHECK PRS	
Diagnostic result: PASS	UP
Press BACK to go back to the menu	DOWN
	OK
	BACK
	CANCEL

06504 Check Scan Motor

This diagnostic performs different PWM checks and movements over scan motor.

1. Once you have entered the **065 Media Path** menu, access the **06504 Check Motor** menu.

Diagnostics menu		Diagnostics menu	
Diagnostics		**065 MEDIA PATH**	
001 EE-BOX		00	065-01 Check electronics
003 POWER SUPPLY		00	065-02 Check star wheels motor and sensors
021 SVS		02	065-03 Check PRS
022 IDS		02	065-04 Check scan motor
045 BIOS/FORMATTER		04	065-05 Check media motor and sensors
046 SECURE ELECTRONICS		04	065-06 Check pinches lifter
060 MEDIA INPUT		06	065-07 Check overdrive motor
065 MEDIA PATH			

2. Then, tap the **OK** button in order to continue the checking process.

065-04 CHECK SCAN MOTOR	
This test checks the scan motor and evaluates if PWM collected data is in the st ipulated range.	UP
Press OK to continue or CANCEL to go back to the menu	DOWN
	OK
	BACK
	CANCEL

3. The screens below show the PWM forward movement test, recollecting the traces and analyzing them. It shows the correct operation range in each check. Then, the test results will be shown in the same screen. Press **OK** to continue.

4. The screen will show the final diagnostic result.
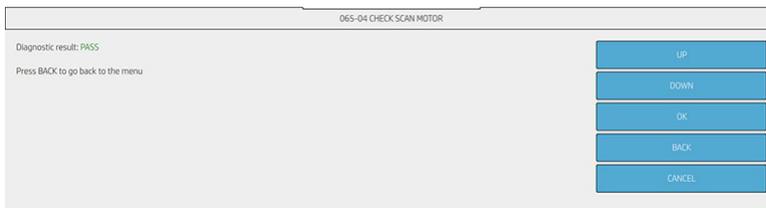
06505 Check Media Motor and sensors

1. Once you have entered the **065 Media Path** menu, access the **06505 Check media motor and sensors** menu.

2. Then, tap the **OK** button in order to continue the checking process.

> 065-05 CHECK MEDIA MOTOR AND S
>
> This test checks the media motor and evaluates if PWM collected data is in the s tipulated range
>
> Press OK to continue or CANCEL to go back to the menu
>
> UP
> DOWN
> OK
> BACK
> CANCEL

3. The screen below shows the diagnostic result of media motor. These are the results of motor current check and direction test in media motor. The diagnostic checks also the OOPS sensor presence. Press **OK** in order to continue with the service diagnostic.

> 065-05 CHECK MEDIA MOTOR AND S
>
> Checking Media motor...
>
> Media motor current check:
>   Driver ADC: 0.821918 OK (Operation range >= 0.1)
>   Movement: 12594 OK (Operation range >= 5)
> Media motor direction test: OK
> OPPS sensor status: OK
>
> Media motor electronics and direction test checked successfully! PWM test will be launched
>
> Press OK to continue
>
> UP
> DOWN
> OK
> BACK
> CANCEL

4. The screens below show the motor PWM forward and backward movement test, recollecting the traces and analyzing them. It shows the correct operation range in each check. Then, the test results will be shown in the same screen. Press **OK** to continue.

> 065-05 CHECK MEDIA MOTOR AND S
>
> Checking media motor PWM forward movement
> Moving media motor 15 inches at 6 IPS...
> Dumping motor traces...
> Analysing media motor traces...
> Checking media motor PWM results...
> Average PWM:9633.4 OK (Operation range [7100.0 - 11000.0]
> Standard Deviation PWM:74.1 OK (Operation range [-9999.0 - 500.0]
> Maximum PWM:10220.0 OK (Operation range <= 12000.0)
> Speed Error:28.7 EU/Int OK (Operation range <= 45.0)
>
> Checking media motor PWM backward movement
> Moving media motor -15 inches at 6 IPS...
> Dumping motor traces...
> Analysing media motor traces...
> Checking media motor PWM results...
> Average PWM:9471.2 OK (Operation range [7100.0 - 11000.0]
> Standard Deviation PWM:59.3 OK (Operation range [-9999.0 - 500.0]
> Maximum PWM:9937.0 OK (Operation range <= 12000.0)
> Speed Error:18.7 EU/Int OK (Operation range <= 80.0)
>
> --------------------- TEST RESULTS ---------------------
> PWM Average (Fw/Bw) ---> 9633.4 / 9471.2
> PWM Std Dev (Fw/Bw) ---> 74.1 / 59.3
> PWM Maximum (Fw/Bw) ---> 10220 / 9937
> Max Speed Error EU/Int (Fw/Bw) ---> 28.7 / 18.7
>
> Media motor checked successfully!
>
> Press OK to continue
>
> UP
> DOWN
> OK
> BACK
> CANCEL

5. The screen will show the final diagnostic result.

> 065-05 CHECK PAPER MOTOR
>
> Diagnostic result: PASS
>
> Press BACK to go back to the menu
>
> UP
> DOWN
> OK
> BACK
> CANCEL

06506 Check Pinches Lifter

This diagnostic performs PWM checks in pinches lifter motor and compares them with the operation ranges.

1. Once you have entered the **065 Media Path** menu, access the **06506 Check Pinches Lifter** menu.

Diagnostics menu		Diagnostics menu	
Diagnostics		**< 065 MEDIA PATH**	
001 EE-BOX		00	065-01 Check electronics
003 POWER SUPPLY		00	065-02 Check star wheels motor and sensors
021 SVS		02	065-03 Check PRS
022 IDS		02	065-04 Check scan motor
045 BIOS/FORMATTER		04	065-05 Check media motor and sensors
046 SECURE ELECTRONICS		04	065-06 Check pinches lifter
060 MEDIA INPUT		06	065-07 Check overdrive motor
065 MEDIA PATH			

2. Then, tap the **OK** button in order to continue the checking process.

065-06 CHECK PINCHES LIFTER MO

This test checks the pinches lifter motor and evaluates if PWM collected data is in the stipulated range

Press OK to continue or CANCEL to go back to the menu

- UP
- DOWN
- OK
- BACK
- CANCEL

3. The screen below shows the diagnostic result of pinches lifter motor. These are the results of motor current check and direction test in pinches lifter motor. Press **OK** in order to continue with the service diagnostic.

065-06 CHECK PINCHES LIFTER MO

Checking Pinches lifter motor...

Pinches lifter motor current check:
   Driver ADC: 0.81409 OK (Operation range >= 0.1)
   Movement: 389 OK (Operation range >= 5)
Starting servo: OK

Pinches lifter motor electronics checked successfully! PWM test will be launched

Press OK to continue

- UP
- DOWN
- OK
- BACK
- CANCEL

4. Screen below shows the initial preparation to perform the PWM test. Press **OK** button to start it.

065-06 CHECK PINCHES LIFTER MO

Prepare test moving pinches lifter to lower position.
Test ready to start.

Press OK to continue

- UP
- DOWN
- OK
- BACK
- CANCEL

5. The screens below show the media motor PWM forward movement test, recollecting the traces and analyzing them. It shows the correct operation range in each check. Press **OK** to continue.

065-06 CHECK PINCHES LIFTER MO

Checking pinches lifter PWM Forward Up movement:
Analysing pinch lifter motor traces...
Checking pinch lifter motor EC results...
Max PWM ACCEL: 2015 (Operation range <= 18000)
Max PWM SLEW: 8460 (Operation range <= 18000)
Average PWM: 5316.390 (Operation range [4000 9000])
Average PWM:5316.390 OK
Movement up checked.

Press OK to continue

- UP
- DOWN
- OK
- BACK
- CANCEL

6. The screens below show the media motor PWM backward movement test, recollecting the traces and analyzing them. It shows the correct operation range in each check. Press **OK** to continue and see the resume results.

7. The screen below shows the resume results of the performed test. Press **OK** in order to continue.

8. The screen will show the final diagnostic result.

06507 Check Overdrive motor

This diagnostic performs PWM checks in overdrive motor and compares them with the operation ranges.

1. Once you have entered the **065 Media Path** menu, access the **06507 Check Overdrive motor** menu.
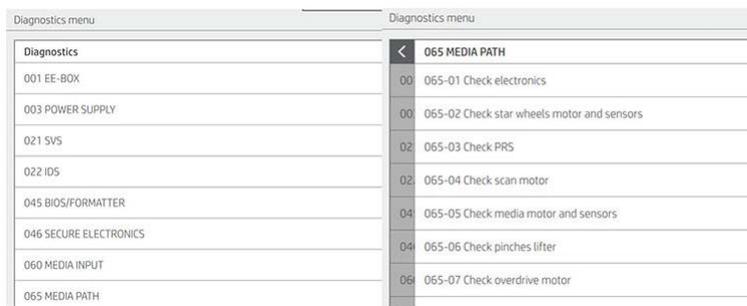
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows the diagnostic result of overdrive motor. These are the results of motor current check and direction test in overdrive motor. Press **OK** in order to continue with the service diagnostic.

4. The screen will show the final diagnostic result.

066 CUTTER

06601 Check electronics

This diagnostic checks overcurrent and direction test in cutter motor and compares them with the operation ranges. Also, it checks the cable presence and the cutter distance to bump.

1. Once you have entered the **066 CUTTER** menu, access the **06601 Check electronics** menu.
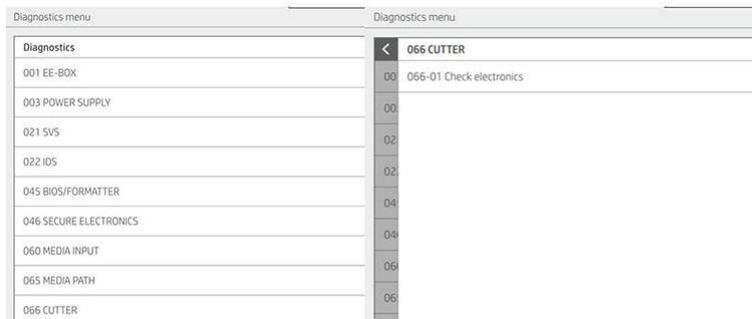
2. Then, tap the **OK** button in order to continue the checking process.
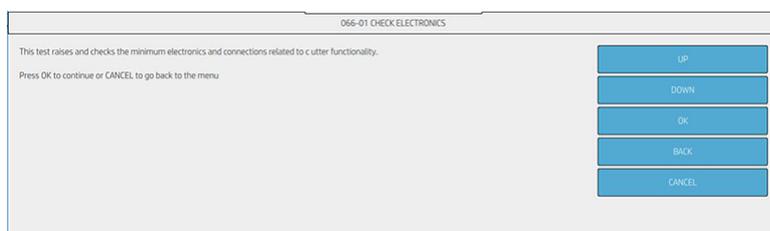
3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more info check <u>00102 Check Mainboard electronics on page 288</u>.
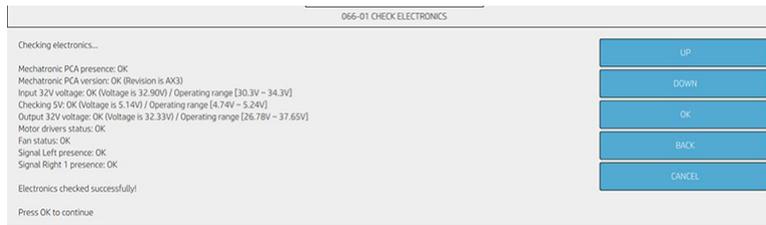
4. Diagnostic checks the cutter current and direction test, cable presence and bump distance. Press **OK** in order to go to final diagnostic screen.

5. The screen will show the final diagnostic result.

075 INTEGRATED STACKER

07501 Check electronics

This diagnostic checks the main electronics functionality and the output valve sensor presence.

1. Once you have entered the **075 INTEGRATED STACKER** menu, access the **07501 Check electronics** menu.
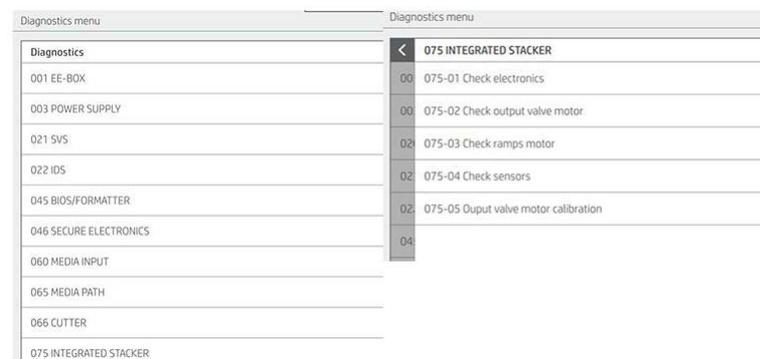
2. Then, tap the **OK** button in order to continue the checking process.
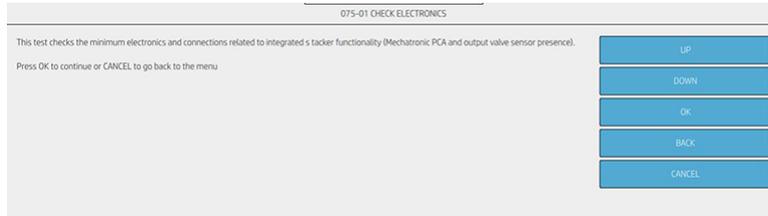
3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more info check <ins>00102 Check Mainboard electronics on page 288</ins>.
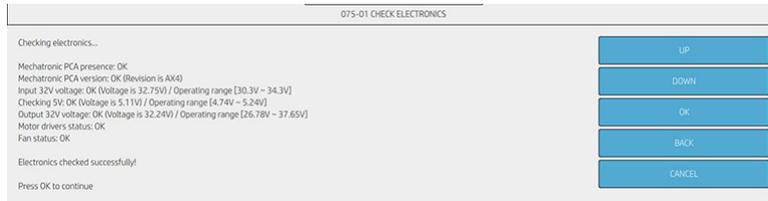
4. The diagnostic checks the output valve sensor presence. Press **OK** in order to continue to the final screen.
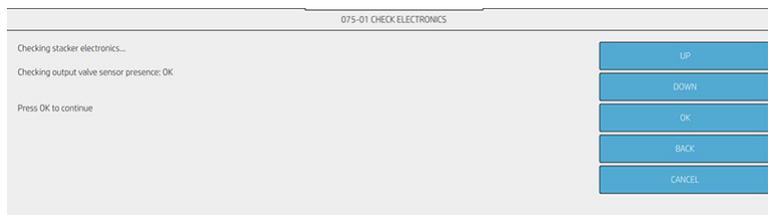
5. The screen will show the final diagnostic result.

07502 Check Output Valve motor

This diagnostic checks the output valve motor overcurrent, position high and low and total distance.

1. Once you have entered the **075 INTEGRATED STACKER** menu, access the **07502 Check Output Valve motor** menu.
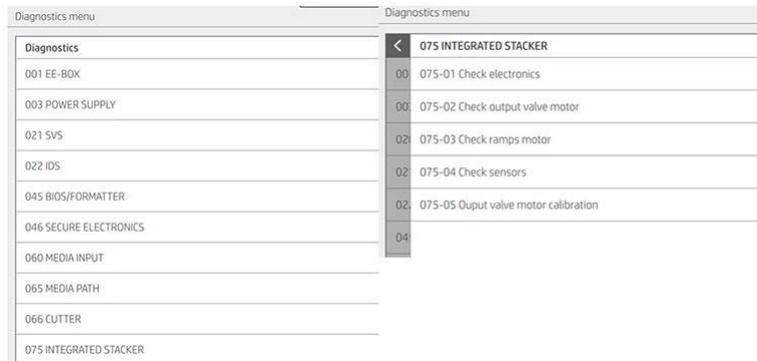
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows the diagnostic result of output valve motor. These are the results of motor current check, the setup of different positions (low and high) and the EOT sensor presence. Also, diagnostic compares the distance path with the NVM manufacturing value. Press **OK** in order to continue with the service diagnostic.
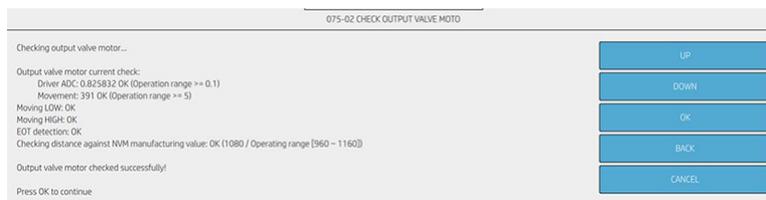
4. The screen will show the final diagnostic result.
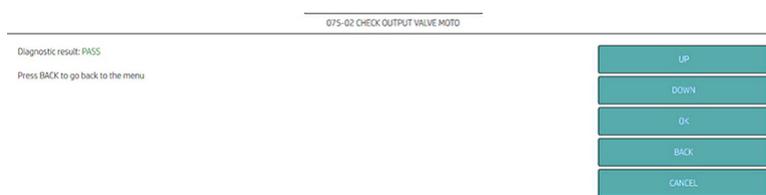
07503 Check Ramps motor

This diagnostic checks the ramps motor overcurrent, position high/low, and total distance.

1. Once you have entered the **075 INTEGRATED STACKER** menu, access the **07503 Check Ramps motor** menu.
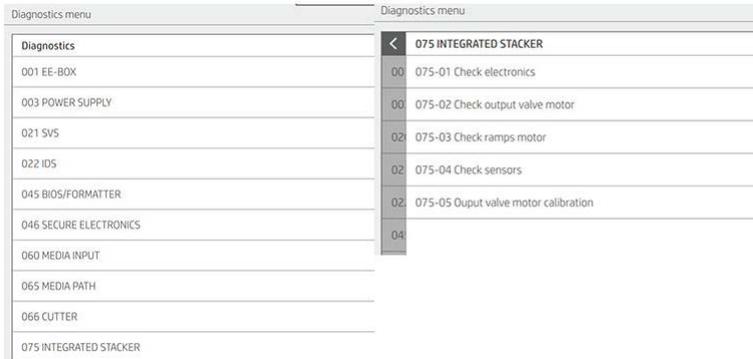
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows the diagnostic result of ramps motor. These are the results of motor current check, the setup of different positions (home, low and high). Also, diagnostic compares the distance path with the NVM manufacturing value. Press **OK** in order to continue with the service diagnostic.

4. The screen will show the final diagnostic result.

07504 Check sensors

This diagnostic checks that the full and jam stacker sensors work correctly.

1. Once you have entered the **075 INTEGRATED STACKER** menu, access the **07504 Check sensors** menu.
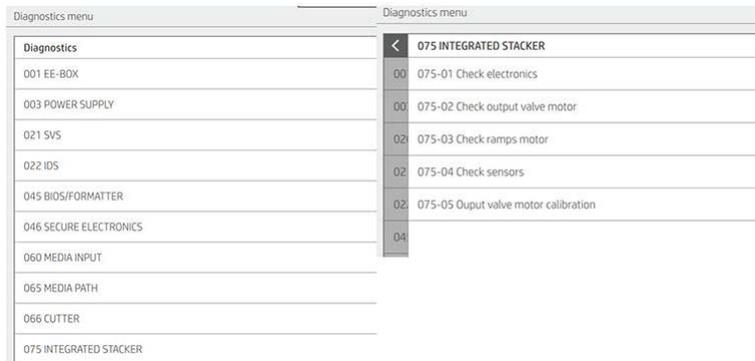
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below asks for lifting the first wheel holder which activate the jam sensor to check if it works correctly. See the image attached below to know where is located the component. Lift the wheel and press **OK** in order to continue.
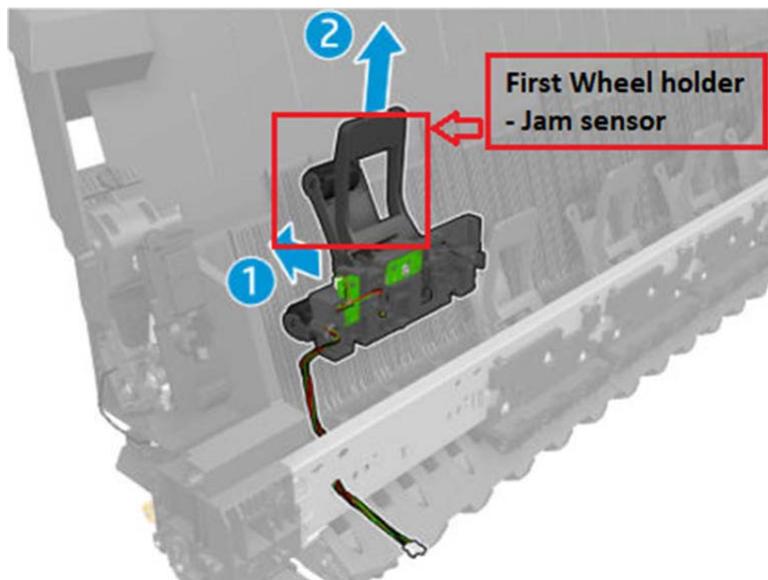
> **NOTE:** Make sure that no object is interfering with the sensor.

4. The screen below asks for lower the first wheel holder which activate the **jam sensor** to check if it works correctly. Lower the wheel and press **OK** in order to continue.

5. The screen below asks for lifting the first wheel holder which activate the **full sensor** to check if it works correctly. See the image attached below to know where is located the component. Lift the wheel and press **OK** in order to continue.

First wheel holder - Full sensor
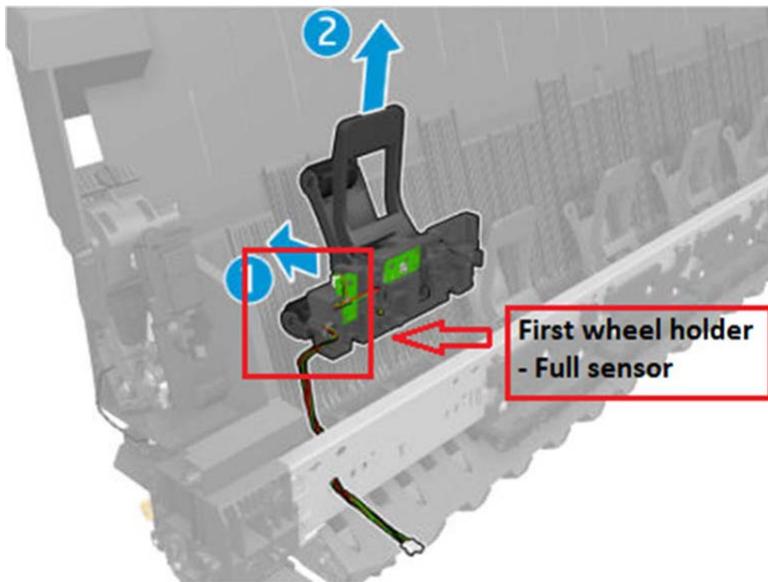
📝 **NOTE:** Make sure that no object is interfering with the sensor.

6. The screen below asks for lower the first wheel holder which activate the **full sensor** to check if it works correctly. Lower the wheel and press **OK** in order to continue.

7. Diagnostic shows the status of jam and full stacker sensors.
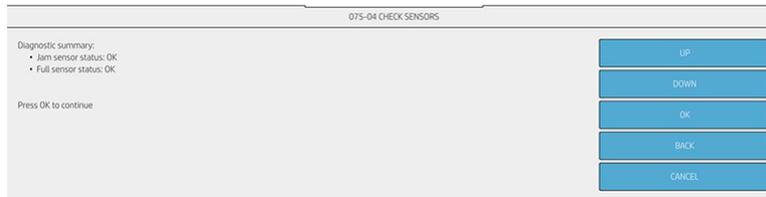
8. The screen will show the final diagnostic result.
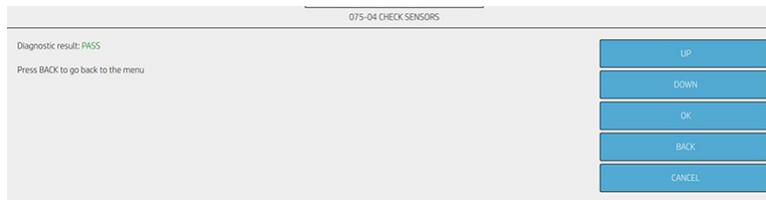
07505 Output Valve motor calibration

This diagnostic calibrates the output valve motor. This valve directs the prints to the stacker or basket. Also, it detects output jams by performing several movements.

1. Once you have entered the **075 INTEGRATED STACKER** menu, access the **07505 Output Valve motor calibration** menu.
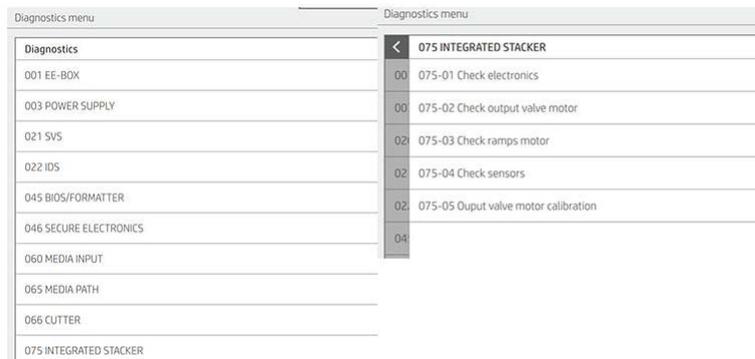
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows the different measurements done to calibrate the output valve motor.

4. The screen will show the final diagnostic result.

```
                                075-05 OUTPUT VALVE MOTOR CALI

Diagnostic result: PASS                                      ┌──────────────┐
                                                             │      UP      │
Press BACK to go back to the menu                            ├──────────────┤
                                                             │     DOWN     │
                                                             ├──────────────┤
                                                             │      OK      │
                                                             ├──────────────┤
                                                             │     BACK     │
                                                             ├──────────────┤
                                                             │    CANCEL    │
                                                             └──────────────┘
```

080 USER INTERFACE

08001 Check Electronics

This diagnostic checks functionality of user interface main electronics.

▲ This diagnostic checks functionality of user interface main electronics.

08002 Check cover status

This diagnostic checks the switches and optic sensors of all the covers (Window Cover, Window Scanner Cover, CleanOut Cover, Roll Cover and Stacker Arms Switch).

1. Once you have entered the **08002 Check cover status** menu, access the corresponding menu.

2. Then, tap the **OK** button in order to continue the checking process.

```
                                080-01 CHECK COVER STATUS

This test checks the switches and optic sensors of all the covers (Window Cover, Window Scanner Cover, CleanOut Cover, Roll Cover and Stackers Arms switch)   ┌──────────────┐
                                                                                     │      UP      │
Press OK to continue or CANCEL to go back to the menu                                ├──────────────┤
                                                                                     │     DOWN     │
                                                                                     ├──────────────┤
                                                                                     │      OK      │
                                                                                     ├──────────────┤
                                                                                     │     BACK     │
                                                                                     ├──────────────┤
                                                                                     │    CANCEL    │
                                                                                     └──────────────┘
```

3. The screen below shows the initializing process.

```
                                080-01 CHECK COVER STATUS

Initializing components... (3/3)                             ┌──────────────┐
                                                             │      UP      │
                                                             ├──────────────┤
                                                             │     DOWN     │
                                                             ├──────────────┤
                                                             │      OK      │
                                                             ├──────────────┤
                                                             │     BACK     │
                                                             ├──────────────┤
                                                             │    CANCEL    │
                                                             └──────────────┘
```
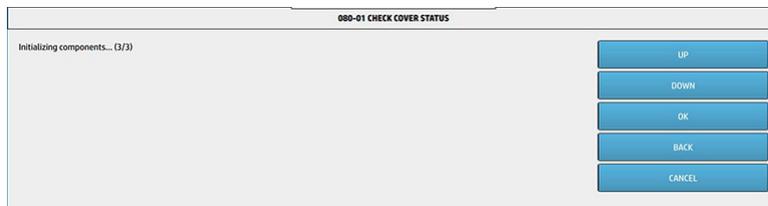
4. Once the initialization process finish, the screen below will appear, showing the diagnostic of window cover sensor. Ensure that the window cover is closed and press **OK**. Then open the window cover and press **OK**. Close again the window cover and press **OK**. A test result for window cover sensor will appear. Finally, press **OK** button in order to continue for next screen.

```
                                080-01 CHECK COVER STATUS

1 / 5 Checking Window cover sensor                           ┌──────────────┐
                                                             │      UP      │
Please, ensure that the Window cover is closed and press OK  ├──────────────┤
Open the Window cover and press OK                           │     DOWN     │
Close the Window cover and press OK                          ├──────────────┤
                                                             │      OK      │
Test result for Window cover sensor: PASSED                  ├──────────────┤
Press OK to continue                                         │     BACK     │
                                                             ├──────────────┤
                                                             │    CANCEL    │
                                                             └──────────────┘
```
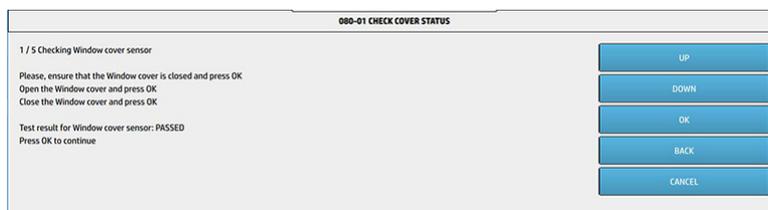
📝 **NOTE:** Window cover give you access to the Carriage.

5. The screen below shows the diagnostic of stacker cover sensor. Ensure that the stacker cover is closed and press **OK**. Then open the stacker cover and press **OK**. Close again the stacker cover and press **OK**. A test result for stacker cover sensor will appear. Finally, press **OK** button in order to continue for next screen.

080-01 CHECK COVER STATUS

2 / 5 Checking Stacker cover sensor

Please, ensure that the Stacker cover is closed and press OK
Open the Stacker cover and press OK
Close the Stacker cover and press OK

Test result for Stacker cover sensor: PASSED
Press OK to continue

UP
DOWN
OK
BACK
CANCEL
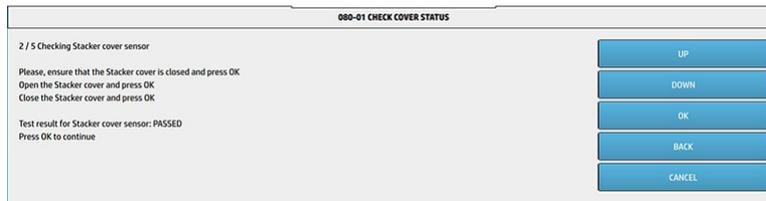
6. The screen below shows the diagnostic of roll1 cover sensor (Upper). Ensure that the roll1 cover is closed and press **OK**. Then open the roll1 cover and press **OK**. Close again the roll1 cover and press **OK**. A test result for roll1 cover sensor will appear. Finally, press **OK** button in order to continue for next screen.

080-01 CHECK COVER STATUS

3 / 5 Checking Roll1 (Upper) cover sensor

Please, ensure that the Roll1 (Upper) cover is closed and press OK
Open the Roll1 (Upper) cover and press OK
Close the Roll1 (Upper) cover and press OK

Test result for Roll1 (Upper) cover sensor: PASSED
Press OK to continue

UP
DOWN
OK
BACK
CANCEL
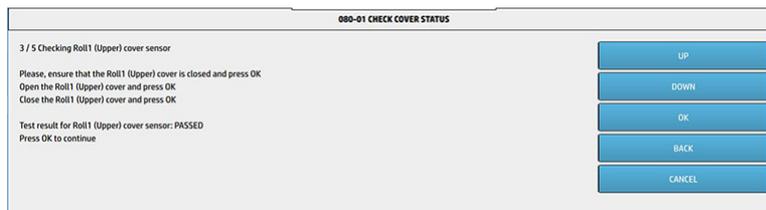
7. The screen below shows the diagnostic of roll2 cover sensor (Lower). Ensure that the roll2 cover is closed and press **OK**. Then open the roll2 cover and press **OK**. Close again the roll2 cover and press **OK**. A test result for roll2 cover sensor will appear. Finally, press **OK** button in order to continue for next screen.

080-01 CHECK COVER STATUS

5 / 5 Checking Scanner cover sensor

Please, ensure that the Scanner cover is closed and press OK
Open the Scanner cover and press OK
Close the Scanner cover and press OK

Test result for Scanner cover sensor: PASSED
Press OK to continue

UP
DOWN
OK
BACK
CANCEL

8. The screen below shows the diagnostic of Scanner cover sensor. Ensure that the scanner cover is closed and press **OK**. Then open de scanner cover and press **OK**. Close again the scanner cover and press **OK**. A test result for scanner cover sensor will appear. Finally, press **OK** button in order to continue for next screen.

080-01 CHECK COVER STATUS

Diagnostic result: PASS

Press BACK to go back to the menu

UP
DOWN
OK
BACK
CANCEL

📝 **NOTE:** Only for MFP SKU printers.

9. The screen will show the final diagnostic result.

08003 Check Speaker

This diagnostic checks the status of the speaker by playing a sound.

1. Once you have entered the **08002 Check cover status** menu, access the corresponding menu.

SPEAKER TEST EXECUTION

This test checks the speaker functionality
Press OK to continue
Press CANCEL to exit

UP
DOWN
OK
BACK
CANCEL

2. Then, tap the **OK** button in order to continue the checking process.

SPEAKER TEST EXECUTION

Checking electronics...

Mechatronic PCA presence: OK
Mechatronic PCA version: OK (Revision is AX4)
Input 32V voltage: OK (Voltage is 32.75V) / Operating range [30.3V – 34.3V]
Checking 5V: OK (Voltage is 5.08V) / Operating range [4.74V – 5.24V]
Output 32V voltage: OK (Voltage is 32.24V) / Operating range [26.78V – 37.65V]
Motor drivers status: OK
Fan status: OK

Electronics checked successfully!

Press OK to continue

UP
DOWN
OK
BACK
CANCEL

3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more info check .

SPEAKER TEST EXECUTION

Testing the speaker:
Playing sound...

UP
DOWN
OK
BACK
CANCEL

4. The diagnostic performs the test of the speaker by playing a sound.

08004 Check Front Panel

This diagnostic checks the front panel main electronics to ensure its functionality.

▲ This diagnostic checks the front panel main electronics to ensure its functionality.

086 CARRIAGE

08601 Check electronics

This diagnostic checks the main electronics of the carriage board to ensure its functionality.

1. Once you have entered the **086 CARRIAGE** menu, access the **08601 Check electronics** menu.
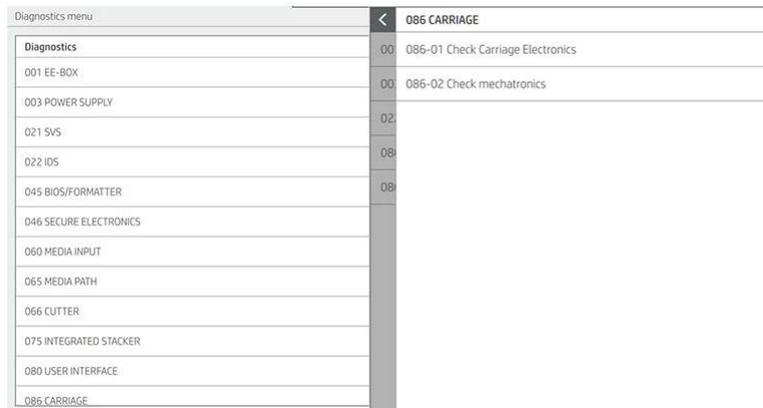
2. Then, tap the **OK** button in order to continue the checking process.
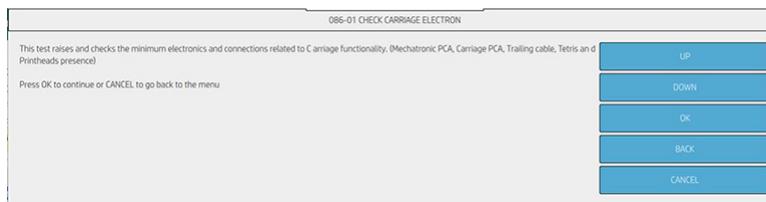
3. The screen below shows the status of the Engine PCA (Mechatronic PCA), for more info check .
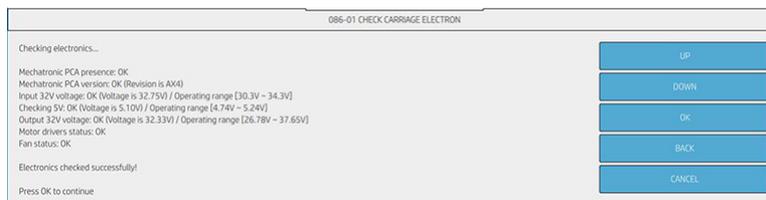
4. The screen below shows the different checks performed in the carriage to ensure its correct functionality. Trailing cable, tetris, printhead, printhead communication and printhead CSIO communication status. Also, version and carriage supply. Press **OK** in order to continue.
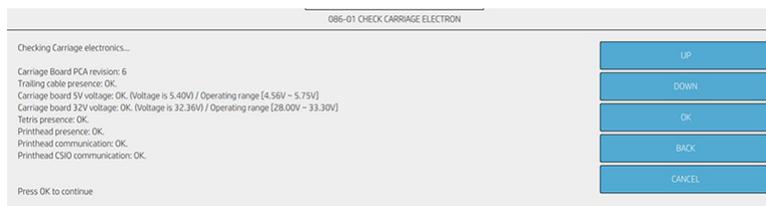
5. The screen will show the final diagnostic result.
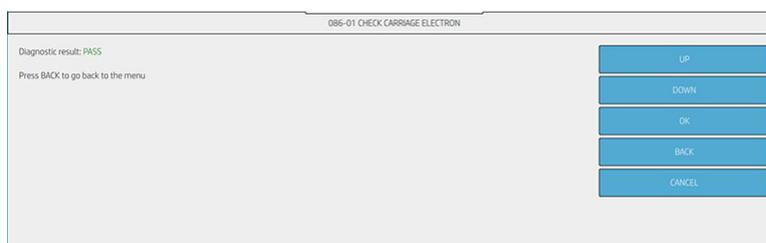
08602 Check carriage mechatronics

1. Once you have entered the **086 CARRIAGE** menu, access the **08602 Check carriage mechatronics** menu.
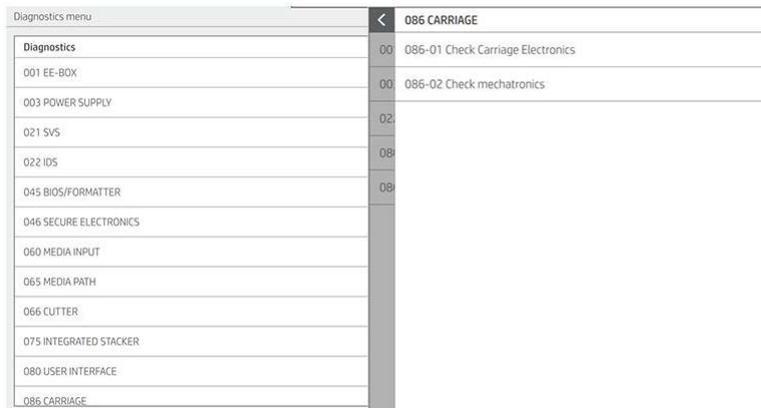
2. Then, tap the **OK** button in order to continue the checking process.
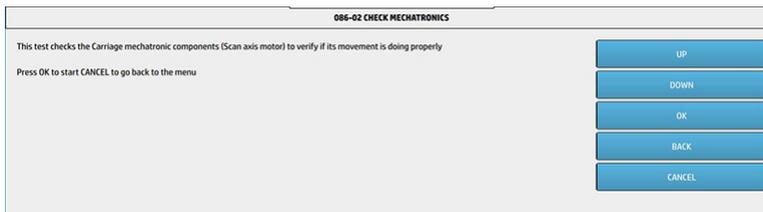
3. The screen below shows the overcurrent and movement test in scan motor diagnostic. Press **OK** in order to continue.

4. The diagnostic asks for opening the window cover in order to visually check the carriage movement through the scan axis. Then, tap the **OK** button in order to continue the checking process.

⚠ **CAUTION:** Carriage is going to move with the window cover opened. Be careful not to trap your fingers while moving the Carriage.

5. Once the carriage finishes its movement, the diagnostic will ask for closing the window cover. Do it and then press the **OK** button to continue to last screen.

6. The screen will show the final diagnostic result.

099 Utilities

09901 Hard reset connectivity

This diagnostic reset the connectivity configuration, deleting some configuration files, data and generating clean ones.

1. Once you have entered the **099 Utilities** menu, access the **09901 Hard reset connectivity** menu.
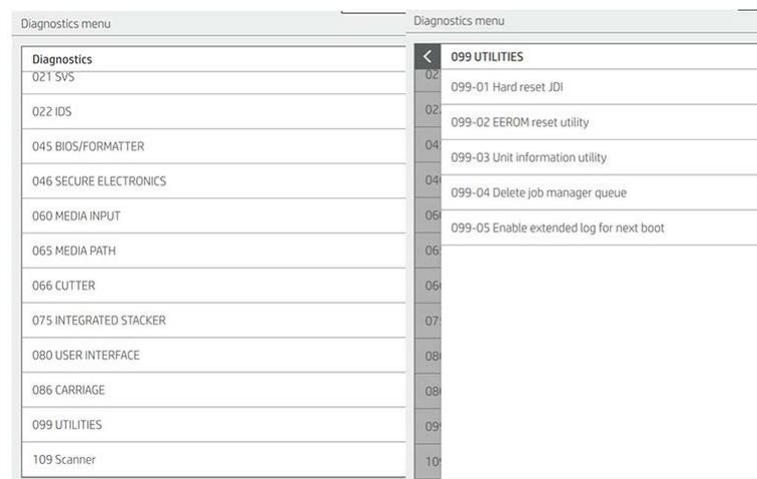
2. Then, tap the **OK** button in order to continue the checking process.

3. The diagnostic performs the hard reset over the connectivity configuration. Press the **OK** button in order to continue. Printer will restart itself once pressing **OK** button.

099-01 HARD RESET JDI	
Perform JDI hard reset.	UP
Press OK to start CANCEL to go back to the menu	DOWN
	OK
	BACK
	CANCEL

09902 EEROM reset utility

This diagnostic reset all user information.

1. Once you have entered the **099 Utilities** menu, access the **09902 EEROM reset utility** menu.

Diagnostics menu	Diagnostics menu
Diagnostics	**099 UTILITIES**
021 SVS	099-01 Hard reset JDI
022 IDS	099-02 EEROM reset utility
045 BIOS/FORMATTER	099-03 Unit information utility
046 SECURE ELECTRONICS	099-04 Delete job manager queue
060 MEDIA INPUT	099-05 Enable extended log for next boot
065 MEDIA PATH	
066 CUTTER	
075 INTEGRATED STACKER	
080 USER INTERFACE	
086 CARRIAGE	
099 UTILITIES	
109 Scanner	

2. Then, tap the **OK** button in order to continue the checking process.

EEROM RESET	
User information will be lost. Do you want to continue?	UP
Press OK to confirm or Cancel to exit	DOWN
	OK
	BACK
	CANCEL

⚠ **CAUTION:** All custom settings configuration will be deleted (language, printing configuration, scanner preferences, system configuration, etc).

09903 Unit information utility

This diagnostic shows useful information about the printer: name, serial number, sku and firmware version.

1. Once you have entered the **099 Utilities** menu, access the **09903 Unit information utility** menu.
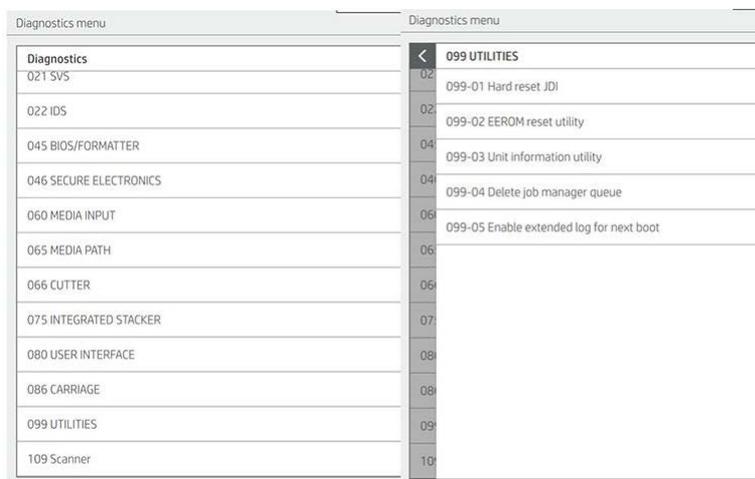
For HP-authorized personnel only

2.   Then, tap the **OK** button in order to continue the checking process.

3.   The screen below shows the information about the printer: name, serial number, sku and firmware version. Press the **OK** button in order to continue.

4.   The screen will show the final diagnostic result.

09904 Delete Job Manager Queue

This diagnostic deletes the job manager queue.

1.   Once you have entered the **099 Utilities** menu, access the **09904 Delete Job Manager Queue** menu.
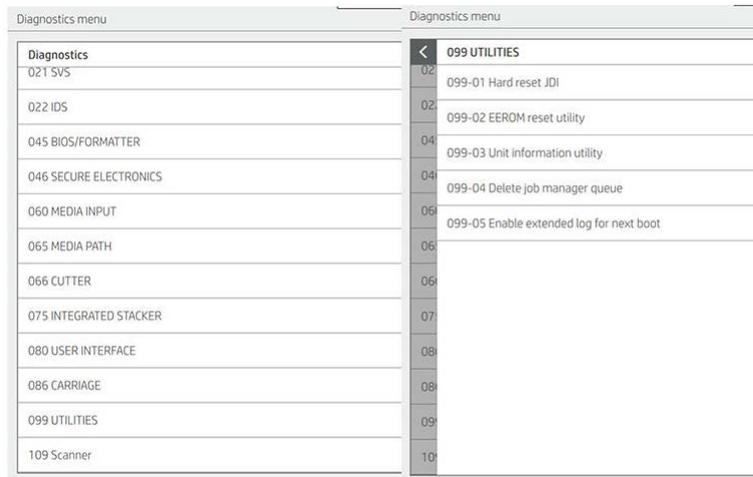
2. Then, tap the **OK** button in order to continue the checking process.

3. The screen below shows how job manager queue is being deleted and when is completely deleted. Press **CANCEL** to go back to the main menu.

09905 Enable extended log for next boot

This diagnostic activates traces as if it was in developer mode only for next boot.

1. Once you have entered the **099 Utilities** menu, access the **09905 Enable extended log for next boot** menu.
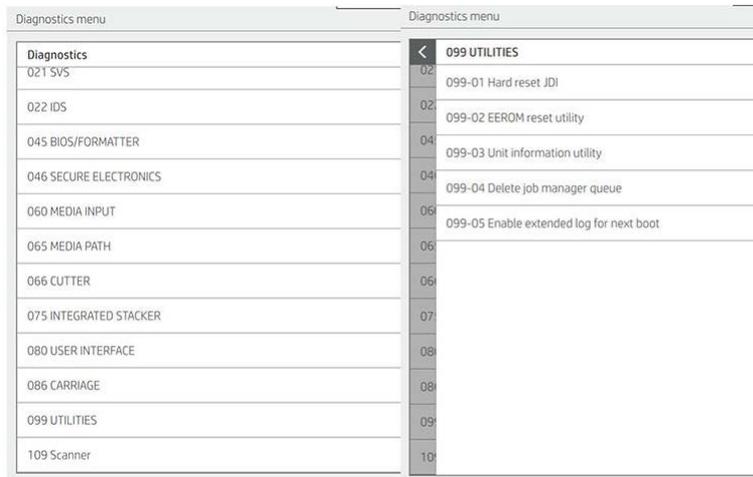
2. Then, tap the **OK** button in order to continue the checking process.
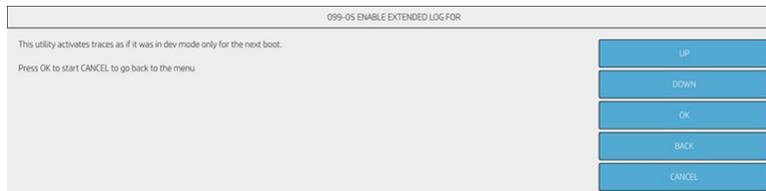
3. The screen below shows the activation of the traces. Extended log is enabled just for next boot up. The diagnostic asks for reboot the printer to get extra log information.

4. The screen will show the final diagnostic result.

109 Scanner

10901 Check Scanner Electronics

This diagnostic performs several checks in scanner electronics.

▲ Once you have entered the **109 Scanner** menu, access the **10901 Check Scanner Electronics** menu.
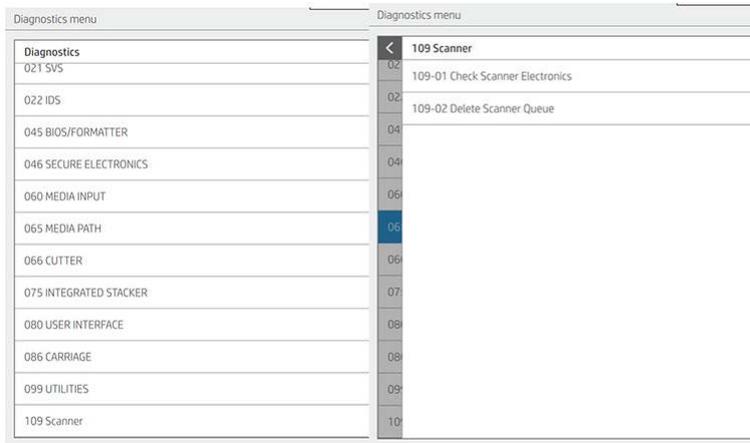
10902 Delete Scanner Queue

This diagnostic deletes the scanner queue. Once you realize this diagnostic, it is needed to reboot the printer.

1. Once you have entered the **109 Scanner** menu, access the **10902 Delete Scanner Queue** menu.
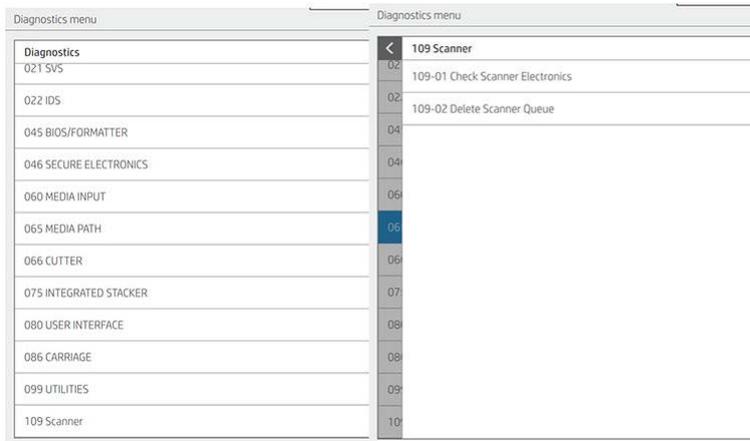
2. Then, tap the **OK** button in order to continue the checking process.

3. Screen below shows the process of deleting scanner job queue. When it prompts that the process is completed, press the **OK** button in order to continue.

4. The screen will show the final diagnostic result.

Service Utilities

The following is a list of all internal Service Utilities available in the product. To access them, see Entering the Service utilities menu on page 343.

Module	Menu 1	Menu 2
Calibrations	Cutter offset Calibration	
	Drop Detector Calibration	Reset Calibration Flag
	Drop Detector Calibration	Calibrate Drop Detector
	Line Sensor Calibration	
Diagnostic Print	Advance Diagnostic Print	Paper Advance
	Advance Diagnostic Print	Printhead Alignment
	Advance Diagnostic Print	Nozzle Health
	Advance Diagnostic Print	Force Drop Detection
	Image quality Service Best	
	Image quality Service Normal	
	Print Reference Plot Best	
	Print Reference Plot Fast	
	Print Reference Plot Normal	
Disk utilities	Disk Wipe DoD 5220.22-M	Insecure Mode
	Disk Wipe DoD 5220.22-M	1-Pass Mode
	Disk Wipe DoD 5220.22-M	5-Pass Mode
	Secure File Erase Mode	Insecure Mode
	Secure File Erase Mode	1-Pass Mode
	Secure File Erase Mode	5-Pass Mode
	Hard Disk recovery utility	
Hardware utilities	Advance paper to stop position	off
	Advance paper to stop position	on
	Disable core-attached detection	off
	Disable core-attached detection	on

Module	Menu 1	Menu 2
	Disable upper roll cover	
	Enable upper roll cover	
	Mark printhead as filled	
	Purge Tubes	Purge Tubes
	Purge Tubes	Incremental Purges
	Reset usage counters	Tubes and trailing cable
	Reset usage counters	Reset scan axis belt
	Reset usage counters	Reset scan motor
	Reset usage counters	Reset full bleed foams
	Reset usage counters	Reset carriage
Hardware utilities	Reset usage counters	Reset SVS
	Reset usage counters	Reset scanner counters
	Reset usage counters	Reset drop detector working time
	Rewinder Adjust	Adjust Rewinder 1
	Rewinder Adjust	Adjust Rewinder 2
	Scanner Utilities	Scanner validation
	Scanner Utilities	Adjust scanner Y-Axis scale
	Scanner Utilities	Reset scanner usage counters
	Scanner Utilities	Delete scanner queue
	Scanner Utilities	Check scanner electronics
	Set IO to Factory Defaults	
	Turn Drive Roller	
	Unblock SVS	
	View startup code	
Paper-preset utilities	Custom roll sizes	
	Remove non factory papers	
PMK reset counters	Reset Maintenance Kit usage	Reset life counters PMK1
	Reset Maintenance Kit usage	Reset life counters PMK2
	Reset Maintenance Kit usage	Reset life counters PMK3
Printer settings	Accounting Mode	None
	Accounting Mode	Mode 1
	Accounting Mode	Test
	Accounting Mode	Enterprise PIN
	Accounting Mode	Enterprise password

Module	Menu 1	Menu 2
	Content Thresholds	COLOR
	Content Thresholds	LDI
	Content Thresholds	HDI
	Double cut for borderless printing	Enabled
	Double cut for borderless printing	Disabled
	Enable HP-GL/2 palette options	Disable
	Enable HP-GL/2 palette options	Enabled
	Enable special margin	off
	Enable special margin	on
	Extended Customizations Mode	
	Firmware Update History	
	Set margin	
	Set printer uninstalled	
	Show print categories	off
	Show print categories	on
	Touchscreen Accounting	
	Uninstall applications	
Reboot in Diagnostic Mode		

Entering the Service utilities menu

1. Turn on the printer in normal mode.

2. Go to **Home screen** > **Settings** > **Service menu**.

3. Select **Service in the Username** (**admin** by default) and enter 1st level access code **2703**. Now press **OK**.
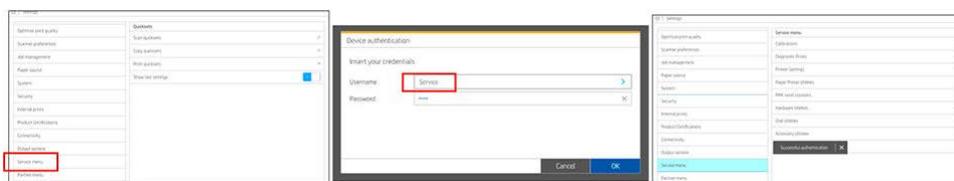
Calibrations

Drop Detector Calibration

The purpose of this Service calibration is to calibrate the Drop detector (located in the Service station) in relation to the Carriage assembly. There are two menu options to calibrate the Drop detector:

- Calibrate Drop detector

- Reset calibration flag

NOTE: Always perform the Reset Calibration Flag calibration before calibrating the Drop detector.

Reset Calibration Flag

Run this option before replacing the Drop detector (Service station), so that the product will not try to perform a Drop detection until the new Drop detector has been calibrated.

1. In the **Service Calibrations** submenu, select **Drop Detector calibration** and press **OK**.

2. In the **Drop Detector calibration** menu, scroll to **Reset Calibration Flag** and press **OK**.

3. When the following message appears on the Front Panel, you must select whether you would like to continue with the calibration by pressing the **OK** key. Press Cancel to exit the calibration.

4. The product resets the calibration flag. flag. Press **OK** to return to the menu.

5. Shut down the product and replace the drop detector.

6. Start the product and calibrate the drop detector.

Calibrate Drop Detector

1. In the **Service Calibrations** submenu, scroll to Drop Detector calibration and press **OK**.

2. In the **Drop Detector calibration** submenu, scroll to Calibrate Drop Detector and press **OK**.

3. A message is displayed on the Front Panel, select the **OK** button.

4. The product will start to calibrate the Drop Detector, which takes about 30 seconds.

5. Once the Drop Detector has been calibrated, the results will be displayed on the Front Panel. Press **OK** to finish the calibration.

   The offset is the displacement from the nominal carriage position for doing the drop detection. width refers to values captured by the drop detector sensor. The offset should be within the valid range, and the window width should be at least the minimum shown. If the values are correct, press OK to accept them. If not, the drop detector is not correctly installed, either because the service station has not been correctly installed in the scan axis or because the drop detector is not correctly installed or not working properly. Press Cancel to reject the values.

   CAUTION: Do not accept these values if they are not within the right range, as the product will not work properly.

6. Press **OK** to end the calibration.

Line Sensor Calibration

The purpose of this calibration is to calibrate the intensity of the line sensor in the Carriage board. An incorrect calibration can result in edge-detection failures during paper loading and incorrect reading of prints that are used for alignment or calibration.

Perform this calibration in the following cases:

- If the edge-detect procedure fails during paper loading

- If the carriage is disassembled or replaced

- If the line sensor is disassembled or replaced

- If banding is detected in prints

- If misalignment between colors is detected

- If the cutter platen has been disassembled or replaced

Diagnostic Print

Advance Diagnostic Print

Paper Advance

The Visual Paper Advance Diagnostic prints a test plot to check that the paper advance is operating correctly.

It consists of three plots printed at the left, center, and right of the paper. These three plots are the same, and contain several numbered columns. The following illustrations shows an example of the Visual Paper Advance Diagnostic plot:
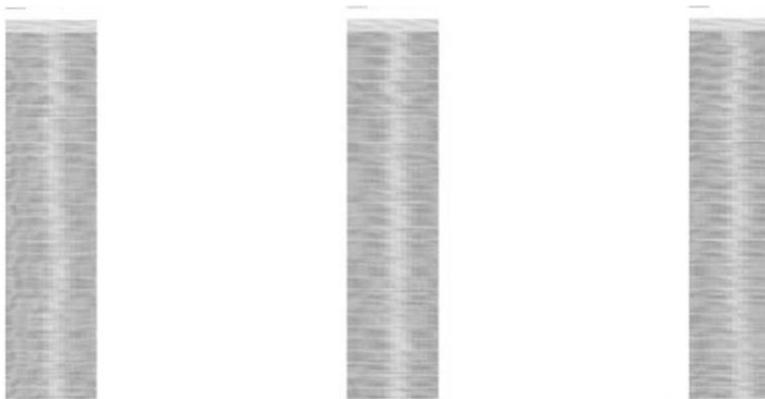
The most uniformly centered will be the white/lightest band; better the media advance the printer has. This should be true for all three plots or the printer will have differential banding (a difference of advance between the left and right).

When the white / light band is clearly not uniform (in the same band or comparing to the other bands), perform a user paper advance calibration.

Force Drop Detection

If the Nozzle print test plot has persistent white point banding in only one color that cannot be fixed with a printhead recovery, you can use this option to resolve the problem by resetting the nozzle health database so that all the nozzles are assumed to be correct.

Once the nozzle health database has been reset, drop detection is forced. The normal cause of this white point banding in a single color is the incorrect detection of failed nozzles by the Drop detector.

Disk utilities

Disk Wipe is the same as Secure File Erase (see Secure File Erase Mode on page 346), except that it erases all temporary files, including old ones.

📝 NOTE: If you choose to erase the whole hard disk, you may be asked to restart the printer several times during the process, which will take about 6 hours with Secure Fast Erase or 24 hours with Secure Sanitizing Erase.

Secure File Erase Mode

The printer's hard disk is used as a temporary storage area for print jobs. Secure File Erase can erase your temporary files from the hard disk to protect them from unauthorized access. It begins to do so as soon as you turn it on, but old temporary files that were already on the hard disk are not erased retroactively. If you want to erase the old files too, see Disk Wipe on page 346.

The product's hard disk is used as a temporary storage area for print jobs. The Secure File Erase Mode utility can erase information from the hard disk to prevent unauthorized access.

It provides three different levels of security:

- **Insecure Mode:** all pointers to the information are erased. The information itself remains on the hard disk until the disk space it occupies is needed for other purposes, and it is then overwritten. While it remains on the disk, it is difficult for most people to access, but may be accessed using software designed for the purpose. This is the normal method in which files are erased on most computer systems; it is the fastest method but the least secure.

- **1 Pass Mode:** In this mode, all pointers to the information are erased, and the information itself is also overwritten with a fixed character pattern. This method is slower than Insecure Mode, but more secure. It may still be possible to access fragments of the erased information by using special tools to detect residual magnetic traces.

- **5 Pass Mode:** In this mode, all pointers to the information are erased, and the information itself is repetitively overwritten using an algorithm designed to eliminate any residual traces. This is the slowest method, but the most secure. Secure Sanitizing Erase meets the US Department of Defense 5220-22.m requirements for clearing and sanitization of disk media. This is the default security level when using Secure File Erase.

  While files are being erased, the printer's performance may be affected.

Disk Wipe

The purpose of this Service Utility is to erase data from the Hard Disk securely, according to the directive DoD 5220.22-M.

The product's hard disk is used as a temporary storage area for print jobs. The Secure Disk Wipe utility can erase user information from the hard disk to prevent unauthorized access.

Execute the Disk Wipe utility as follows:

1. In the Service Utilities submenu, scroll to Disk Wipe DoD 5220.22-M and press this menu option.

2. In the Disk Wipe submenu, scroll to Sanity Level and press OK.

3. In the Sanity Level submenu, scroll to the required Sanity Level and press OK.

📝 NOTE: Erasing the Hard Disk drive using either of the Secure Sanitize Levels is a very slow process, 6 hours for the 1 Pass mode and 40 hours for the 5 Pass mode.

4. When the Sanity Level has been changed, the Front Panel displays a message, or an error message if there is some problem.

5. In the Disk Wipe submenu, scroll to Disk Wipe and press OK.

6. A message appears on the Front Panel, you must select whether you would like to perform a complete erase of the Hard Disk Drive using the previously selected erase mode by pressing OK. Press Cancel to exit the utility.

7. A message appears on the Front Panel, you must select whether you want to continue and completely erase the Hard Disk Drive by pressing OK. Press Cancel to exit the utility.

8. The erase process starts and the front panel shows a setup progress bar.

9. The product reboots into the Disk Wipe mode, and continues with the disk erase until it is completed.

⚠ **CAUTION:** Do not try to interrupt this process. All Front Panel keys are disabled while the product erases the Hard Disk Drive.

Secure Disk Wipe provides three different levels of security

- **Unsecure Mode:** All pointers to the information are erased. The information itself is not erased, and remains on the hard disk until the disk space it occupies is needed for new print jobs. The new print information overwrites the old information. While the information remains on the disk, it is difficult for most people to access, but may be accessed using software designed for that purpose. This is the normal method in which files are erased on most computer systems; it is the fastest method but the least secure. This is the default security level when using Secure Disk Erase.

- **1 Pass Mode:** All pointers to the information are erased, and the information itself is repetitively overwritten with a fixed character pattern. This method is slower than Non-Secure Fast Erase, but more secure. It may still be possible to access fragments of the erased information by using special tools to detect residual magnetic traces.

- **5 Pass Mode:** All pointers to the information are erased, and the information itself is repetitively overwritten using an algorithm designed to eliminate any residual traces. This is the slowest method, but the most secure. Secure Sanitizing Erase meets the US Department of Defense 5220-220M requirements for clearing and sanitization of disk paper.

Hard Disk recovery utility

The Hard Disk recovery utility erases the hard disk and restores the factory firmware.

Printer settings

Set printer uninstalled

This option allows you to set whether the printer has been installed (out-of-box procedure completed). Press UP or DOWN to set Yes or No, and press **OK** to confirm.

Paper-preset utilities

Remove non factory papers

This utility removes paper presets installed by the user. It does not remove any original paper preset shipped with the printer.

Use this utility when a paper profile installed by the user could be the cause of a problem.

1. In the **Service Utilities** submenu, scroll and select **Remove non factory papers**.

2. Press **OK** to confirm the removal.

Hardware utilities

Turn Drive Roller

The purpose of this Service Utility is to rotate the Drive Roller and the Overdrive in order to clean them.

📝 **NOTE:** Remove the media from the product before proceeding with the procedure.

Perform the Turn Drive Roller utility as follows:

1. Remove Media from the paper path.

2. The **Service Utilities** submenu, scroll to **Turn Drive Roller** and press on this menu option.

3. The test begins and the Front Panel displays the following message:

   Rotation started

4. If paper is loaded, the service utility will be cancelled. In this case, unload the paper and start again from step 1. If no paper is loaded, the test will continue.

5. The Drive Roller begins to turn slowly and a message is displayed on the Front Panel.

6. To clean the drive roller and overdrive, see the user guide.

7. Once you have finished cleaning the Drive Roller and the Overdrive, press the Cancel key to stop the roller.

Purge Tubes

📝 **NOTE:** Make sure that NEW Ink Cartridges are installed or that the ink volume remaining in the Ink cartridges is above 60cc before starting to fill the tubes. If you do not comply, you will get a warning message and the printer will force you to replace the cartridges.

📝 **NOTE:** Before using the Purge Tubes utility, you must make sure you have a new printhead.

Perform the Purge Tubes utility as follows:

1. In the Service Utilities submenu, scroll to **Purge Tubes** and select it.

2. The printer reboots.

3. After a time, a cartridge replacement screen appears.

4. Insert all cartridges and press **OK**.

5. If any of the cartridges have insufficient ink, the cartridge replacement will not allow you to leave until they have all been purged. You have to replace cartridges that are not valid, and press **OK** again.

6. When the cartridge replacement process has successfully completed, a printhead replacement will be opened.

7. The front panel will prompt you to install a new printhead. Please follow the instructions.

8. The front panel prompts you to confirm that the printhead is replaced with a correctly inserted new one. If it's correctly inserted, press **OK**.

9. The product will now perform the Printhead Alignment and Front Panel will prompt you to continue with the Printhead Alignment, select Align now and press the **OK** key.

10. Once the Printhead Alignment is completed, the following message will be displayed on the Front Panel.

Press the OK key to continue.

Incremental Purges

This feature will let service engineers troubleshoot issues without the need of replacing the printhead by performing extra purges in addition to the automatic purge that happens during the printhead installation. Additional purges could help remove the air in the ink tubes, so the printhead can be installed successfully. This functionality can also help identify issues with the ink delivery system, due to tube leakage or primer issues. By performing additional purges, and observing the ink in the tubes, the service engineer will be able to diagnose these issues.

When to use the Incremental Purge option:

1. When a printhead is rejected because air is found in the tubes due to an IDS issue. Once the issue is fixed, an additional purge can be triggered to fill the ink tubes without replacing the printhead.

2. When the primer is not working correctly, and the printhead is rejected because no ink has reached it. The service engineer must solve the primer issue first, and then use this service function to troubleshoot and fill the ink tubes and printheads.

3. If air has entered the tubes due to air leakage in the printhead latch connection. This service function will help eliminate the air in the tubes and diagnose the IDS issue.

Prerequisites to run this test:

1. The printer needs to be in ready state with no errors and media loaded.

2. The used printhead needs to be installed in the printer.

3. Ink cartridges need to have at least 20 mL of ink left to successfully perform the incremental purge operation. 20 mL is enough ink for the servicing and calibration of the printhead (10 mL), and 5 incremental purges (2 mL per purge).

Mark printhead as filled

The printer will flag the printhead as if it has gone successfully through the filling process (See HP 732 Printhead start-up process on page 20 for more details). Once flagged, the printer will recognize the printhead as filled, and will try to use it accordingly: print with it, run servicing routines, etc.

Mark the printhead as filled in case that the HDD and NVM backups have been replaced in the printer.

Rewinder Adjust

Adjust Rewinder 1

- The Rewinder adjust utility clears the calibration parameters associated with a Rewinder motor when it has to be replaced.

Adjust Rewinder 2

- The Rewinder adjust utility clears the calibration parameters associated with a Rewinder motor when it has to be replaced.

Set I/O factory defaults

The Set I/O factory defaults utility sets network card default settings, however this can reset additional internal areas of the NVM in case it has been corrupted.

Disable Upper Roll Cover

Disables the functionality that makes the printer unload the roll every time the roll cover is opened.

Enable Upper Roll Cover

This utility re-enables the upper roll cover without restarting the product.

Advance paper to stop position (on)

This utility allows to make the paper stop further from the pinch rollers. This helps to prevent the leading edge of the page to crash against the rips of the platen generating marks on the top of the print.

Advance media stop position: ON

Advance paper to stop position (off)

This utility allows to make the paper stop further from the pinch rollers. This helps to prevent the leading edge of the page to crash against the rips of the platen generating marks on the top of the print.

Advance media stop position: OFF
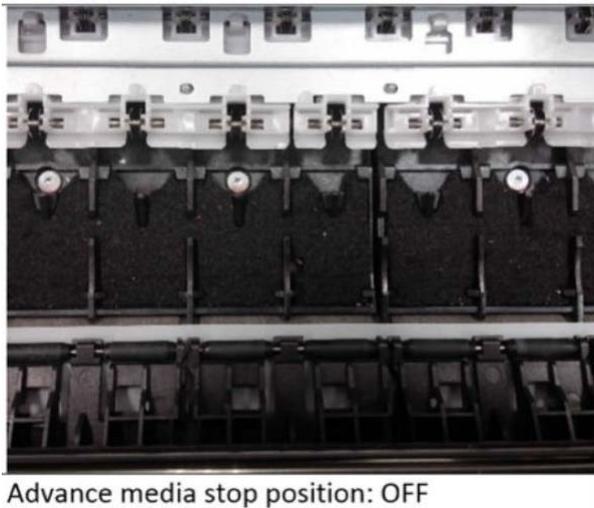
View startup code

This option provides a hexanumeric code that allows you to verify the status of printhead installation.

Scanner utilities

Check scanner electronics

See 10901 Check Scanner Electronics on page 339.

Scanner validation

By executing this Scanner Validation, the product will perform several scanner tests. Scanner calibration sheet is needed to perform this utility.

NOTE: Before running the scanner validation check that the calibration sheet is free from dust, spots or stripes. Check that the calibration sheet is not dirty, wrinkled, scratched or folded.

NOTE: Before running the scanner validation open the scanner to check that the glass plate is free of dirt, dust and scratches. Clean the glass plate if necessary before proceeding.

Set scanner Y-Axis scale

The scanner may produce a vertical distortion in scanned images. It is important in CAD plots to maintain the aspect ratio of the originals. The purpose of this utility is to correct this vertical distortion. This section describes how to calculate and set the Y-Axis adjustment scale.

Delete scanner queue

See 10902 Delete Scanner Queue on page 340.

Enable special margin

This utility allows you to reduce the paper margins on the left and right side of the page down to 2 mm.

Set margin

The aim of this feature is to provide the capability of setting any of the margins to a value between 2 mm - 50 mm.

Enable HP-GL/2 palette options

This option was available on legacy T series printers.

It allows the user to be able to configure HP-GL/2 palette options, selecting color/width for the different pens.

Content thresholds

This menu allows you to change the default threshold values of HP Designjet Partner Link Pay-Per-Use usage categories.

- **Color** value is the maximum % of color pixels in a Mono Lines Category.

- **LDI** value is the minimum % of non-white pixels with respect to the total pixels on a page to be considered as the Low Density Image category.

- **HDI** value is the minimum % of non-white pixels with respect to the total pixels on a page to be considered as the High Density Image category.

The default values are Color: 1%, LDI: 10% and HDI: 50%. Do not change these values unless you are sure about what are you doing.

Please refer to the HP Designjet Partner Link Pay-Per-Use user manual for deeper information about printing usage categories.

Stacker ramps test

Ramps with
wheels

Minimize
media marks

Ramps with
NO wheels

CR354-67003
(old PN)
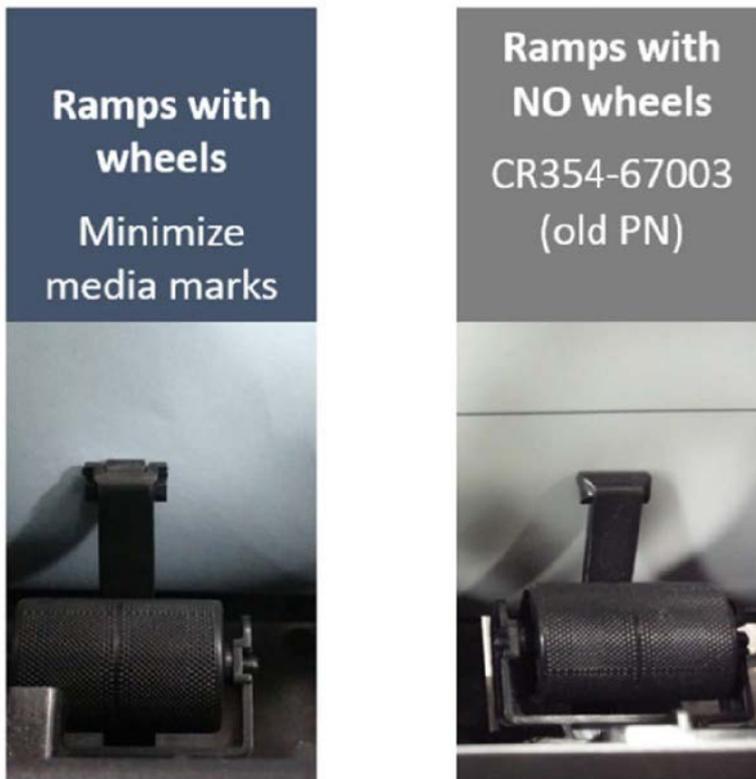
Set I/O factory defaults

This option is the same as the option available in the User menu (which sets network card default settings: **Setup** ▶**Connectivity** ▶**Network Connectivity** ▶**Advanced** ▶**Restore Factory Settings**), however this can reset additional internal areas of the NVM in case it has been corrupted.

Turn drive roller

The purpose of this Service utility is to rotate the Drive roller and the Overdrive in order to clean them.

NOTE: Remove the media from the product before proceeding with the procedure.

Perform the Turn Drive roller utility as follows:

1. Remove media from the media path.

2. The Service Utilities submenu, scroll to **Turn Drive Roller** and press this menu option.

3. The test begins and the Front Panel displays the following message:

    ● **Rotation started**.

4. If media is loaded, the service utility will be cancelled. In this case, unload the media and start again from **step 1**. If no media is loaded, the test will continue.

5. The Drive roller begins to turn slowly and a message is displayed on the Front Panel.

6. To clean the drive roller and overdrive, see the *User guide*.

7. Once you have finished cleaning the Drive roller and the Overdrive, press **Cancel** to stop the roller.

Purge tubes

📝 **NOTE:** Make sure that **new** ink cartridges are installed or that the ink volume remaining in the Ink cartridges is above 60 cc before starting to fill the tubes. If you do not comply, you will get a warning message and the printer will force you to replace the cartridges.

📝 **NOTE:** Before using the Purge tubes utility, you must make sure you have a new printhead.

Perform the Purge tubes utility as follows:

1. In the Service Utilities submenu, scroll to **Purge tubes** and select it.

2. The printer reboots.

3. After a time, if the cartridges are not inserted or not accepted, a cartridge replacement screen appears. If the cartridges are already inserted and accepted, go to step 6.

4. Insert all the cartridges and press **OK**.

5. When the cartridge replacement process has successfully completed, a printhead replacement will be opened.

6. The Front panel will prompt you to install a new printhead. Please follow the instructions.

7. The Front Panel prompts you to confirm that the printhead is replaced with a correctly inserted new one. If it is correctly inserted, press **OK**. If any of the cartridges have insufficient ink, the printhead replacement will not allow you to continue. You have to replace the cartridges that are not valid and press **OK** again.

8. The product will now perform the Printhead alignment: the Front Panel will prompt you to continue with the Printhead alignment, select **Align now** and press **OK**.

9. Once the Printhead Alignment is completed, a confirmation message will be displayed on the Front Panel. Press the **OK** key to continue.

Mark printhead as filled

The printer will flag the printhead as if it has gone successfully through the filling process (See HP 732 Printhead start-up process on page 20 for more details). Once flagged, the printer will recognize the printhead as filled, and will try to use it accordingly: print with it, run servicing routines, etc.

Mark printhead as filled in case that the HDD and NVM back ups have been replaced in the printer.

Reset Life Counters

The purpose of this Service Utility is to reset the internal life counters.

There are two submenus that allow you to:

● Reset **all** the counters related to a Preventive Maintenance Kit (PMK).

● Reset only the counters related to a specific replaced part.

📝 **IMPORTANT:** Always reset the life counter of a corresponding part after replacing it.

Perform the Reset Life Counters utility as follows:

1. In the Service Utilities submenu, scroll to **Reset Life Counters** and press this menu option.

2. Enter the 4-digit 2nd level access code 5 4 9 4 and press **OK**.

3. Select **Reset Maintenance Kit usage** to reset the Life Counter for **all** parts included in a Preventative Maintenance Kit (PMK).

   You can choose from the following Preventive Maintenance Kits:

   ● Preventive Maintenance Kit 1 (PMK1).

   ● Preventive Maintenance Kit 2 (PMK2).

   ● Preventive Maintenance Kit 3 (PMK3).

   NOTE: For more information about the counters that are reset see the *user guide*.

   It is also advisable to check the status of the Life Counters related to the other Preventive Maintenance Kits to avoid multiple trips to the customer.

4. Select **Reset usage counters** to reset the Life Counter of a single part.

   ● Tubes and Trailing cable

   ● Scan-axis belt with tensioner

   ● Scan motor

   ● Full bleed foams

   ● Carriage

   ● Service station

   ● Scanner counters

   If you replace a part, you should reset the Life Counters as follows:

Replaced part	Reset Life Counters
Ink supply tubes (with trailing cables)	Tubes and Trailing cable
Belt assembly	Scan-axis belt with Tensioner
Scan-axis motor	Scan-axis motor
Foams	Full bleed foams
Carriage assembly	Carriage
Service station	Service Station
Drop detector	Drop detector working time

5. Once you have selected the Life Counters to reset, a message similar to the following will be displayed on the Front Panel. Press **OK** to reset the selected Life Counters or press **Cancel** to exit without resetting the Life Counters.

Diagnostics print

This is a set of diagnostic prints used to highlight printhead reliability, or other printer problems that can affect the Image Quality of the printer.

To print any of the Image diagnostics prints:

1. Use the same paper type that you were using when you detected the problem.

2. Check that the selected paper type is the same as the paper type loaded into the printer.

Paper advance plot

The Visual paper advance diagnostic prints a test plot to check that the paper advance is operating correctly.

It consists of three plots printed at the left, center, and right of the paper. These three plots are the same, and contain several numbered columns. The following illustrations shows an example of the Visual paper advance diagnostic plot:
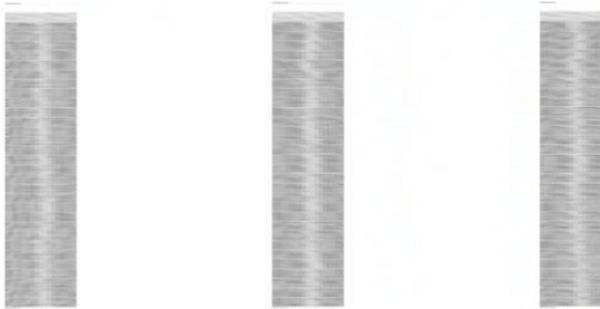
The most uniformly centered will be the white/lightest band; better the media advance the printer has.

This should be true for all three plots or the printer will have differential banding (a difference of advance between the left and right).

When the white / light band is clearly not uniform (in the same band or comparing to the other bands), perform a user paper advance calibration, in the Image Quality maintenance menu (see the *User guide* for more details).

Nozzle health

Nozzle health print is an extended version of the Image Quality Service prints, focused exclusively on nozzle health. It's not intended to help to understand overall banding problems, used only for specific nozzle health problems.

For each individual colored pattern, check that most of the dashes are present. If you see missing dashes in one color, you should clean the printhead, selecting the relevant color group.

Printhead alignment

The printhead alignment diagnostic print shows several groups of vertical lines, each one printed in one color and with different carriage speeds (30, 40 and 60 inches per second).

The aim of the diagnostic is to detect printhead alignment problems by looking at how straight the three groups of thin vertical lines that go from top to the bottom are.

If the diagnostic shows severe straightness / continuity problems in any of these lines, perform a printhead alignment.
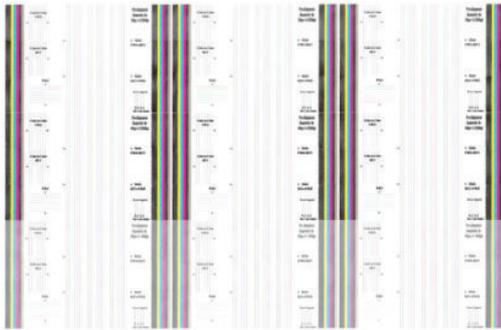
Force drop detection

If the Nozzle Print Test plot has persistent white-point banding in only one color that cannot be fixed with a printhead recovery, you can use this option to resolve the problem by resetting the nozzle health database so that all nozzles are assumed to be correct. Once the nozzle health database has been reset, drop detection is forced.

The normal cause of this white-point banding in a single color is the incorrect detection of failed nozzles by the drop detector.

Perform the test as follows:

1. Go to the Service utilities menu and select **Diagnostic Print**.

2. Select **Advanced Diagnostic Print**.

3. Select **Force Drop Detection**.

4. Make sure that the ink system is ready, and the covers and doors are closed, then press **OK**.

5. The printer performs drop detection.

6. When the process has ended, press **OK** to return to the menu.

Rewinder adjust

The Rewinder Adjust utility clears the calibration parameters associated with a Rewinder motor when it has to be replaced.

The changes made by this utility take effect only after the product has been restarted. Therefore, you are recommended to proceed in the following order.

1. Use the Rewinder Adjust utility to reset the calibration parameters.

a. In the Service Utilities submenu, scroll to **Rewinder Adjust** and press on this menu option.

b. Enter the 4-digit 2nd level access code 5 4 9 4 and press **OK**.

c. Select the Rewinder for roll 1 or roll 2 and press **OK**.

d. Confirm your selection by pressing **OK**.

e. The product resets the calibration parameters and checks that the default values have been correctly saved inside the NVM memory. If the check fails, a 8XXX-XXXX-0000 error is generated, and the procedure is interrupted. Otherwise, the product confirms success.

2. Turn off the product.

3. Replace the Rewinder motor.

Disable Upper roll cover

Disables the functionality that makes the printer unload the roll every time the roll cover is opened.

Enable Upper roll cover

This utility re-enables the upper roll cover without restarting the product.

1. In the Service Utilities submenu, scroll to, and select **Enable upper roll cover**.

2. Close the roll cover when requested by the Front Panel.

3. Wait until you see the a message.

4. Press **OK**.

Scanner validation

By executing this validation, the product will perform the following scanner tests:

- ScanDump

- Focus

- Skew

- Dead/hot pixels

- Alignment/Stitching

- Chromatic aberration

- Streak

- Gray matching

- Signal noise

📝 **NOTE:** Before running the scanner validation check that the calibration sheet is free from dust, spots or stripes. Check that the calibration sheet is not dirty, wrinkled, scratched or folded.

📝 **NOTE:** Before running the scanner validation open the scanner to check that the glass plate is free of dirt, dust and scratches. Clean the glass plate if necessary before proceeding.

1. In the Service Utilities submenu, scroll down and select the **Scanner validation** option.

2. Enter the 4-digit 2nd level access code `5494` and press **OK**.

3. The Front Panel will then prompt you to load the calibration sheet.
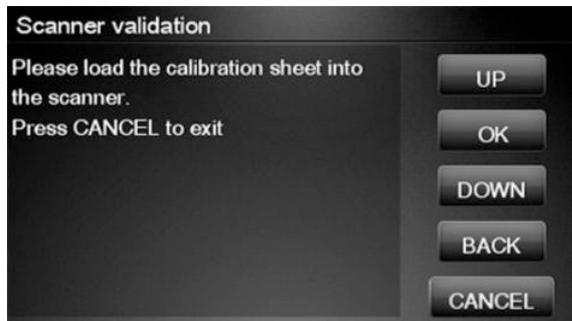
4. Hold the calibration sheet from both sides and place it facing the arrow in the centre of the sheet in front of the Page icon present on the input tray of the scanner. Push the sheet with both hands on both sides at the same time to load the sheet with no skew. Press **OK** to continue with the test.

5. Press **OK** to continue with the test.
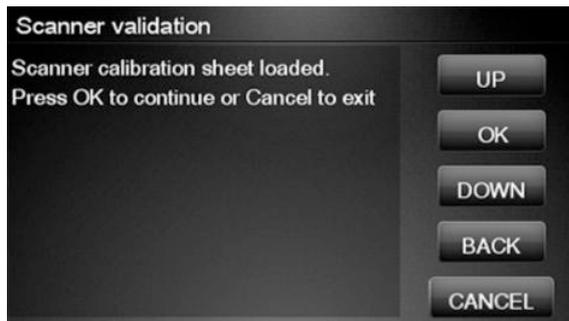
6. The Front Panel will then display a percentage with the progress of the validation.

7. Wait until the scanner validation test has completed. The Front Panel will then show the test results. Press **OK** to continue

📝 **NOTE:** If scanner validation result is **FAIL** then:

- Check that the calibration sheet is in good condition according to previous note. Replace with a new one if necessary.

- Check that the 5 glass plates are in good condition. Replace with new ones if necessary.

- Inspect that the 5 glass plates are correctly installed, and that they are clean.

- Perform a scanner calibration and repeat the validation.

- If the scanner validation result is FAIL with error CWS_RC_VAL_DEADPIXEL_FOUND, replace the individual CIS module accordingly.

After the validation, a set of files is saved in the CWS_validation folder. SCANdump and log files will be written every time a validation is being executed. TIFF files will only be written if a test fails. If the validation is performed again the files are overwritten. The following files are written:

File name	CWS_validation folder
SCANdump_Xxx.con	SCANdump files can be opned with SCANview. (part of SCANtest)
scanTRUSTresult.log	Results file, contains the following: - Measured values and limits - Error codes (if any)
scanTRUST.log	The Log file. Primarily contains information that can help troubleshoot where an error has occurred.
*.tif	Scanned images of failed tests. These are mainly for escalation to division for troubleshooting purposes.

📝 **NOTE:** The Diagnostic package (reduced level) will contain only all LOG and CON files. Extended diagnostic package (full level) will contain all files.

SCANdump

SCANdump is an archive file that can be viewed with SCANview (SCANtest). The SCANdump file consists of the following:

- Four light profiles (see below for an explanation on Light Profiles).

  – RGB: Unadjusted.

  – RGB: Adjusted.

  – Grey: Unadjusted.

  – Grey: Adjusted.

- A statistic file and documentation about how to use the system.

Light Profiles

The light profiles are a snapshot of what the image sensor sees at the time the SCANdump was made. The light profiles will in some degree be affected by of wear and tear, cleanness, and also the condition of the calibration sheet that was used to calibrate the unit. There are two types of light profile, adjusted and unadjusted.

The Unadjusted light profile is a raw picture of the light source. All imperfections of the sensors and the light guide (in one, the CIS elements), are visible. Only the general light level has been manipulated.
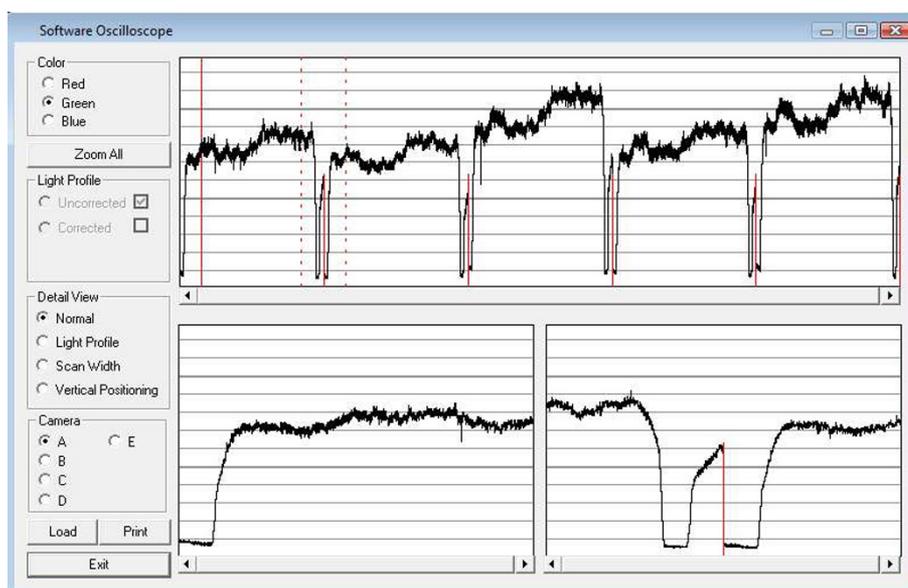
The Adjusted light profile is corrected according to the calibration sheet, in other words, the calibration sheet has been used as a reference to correct the imperfection of the CIS elements.
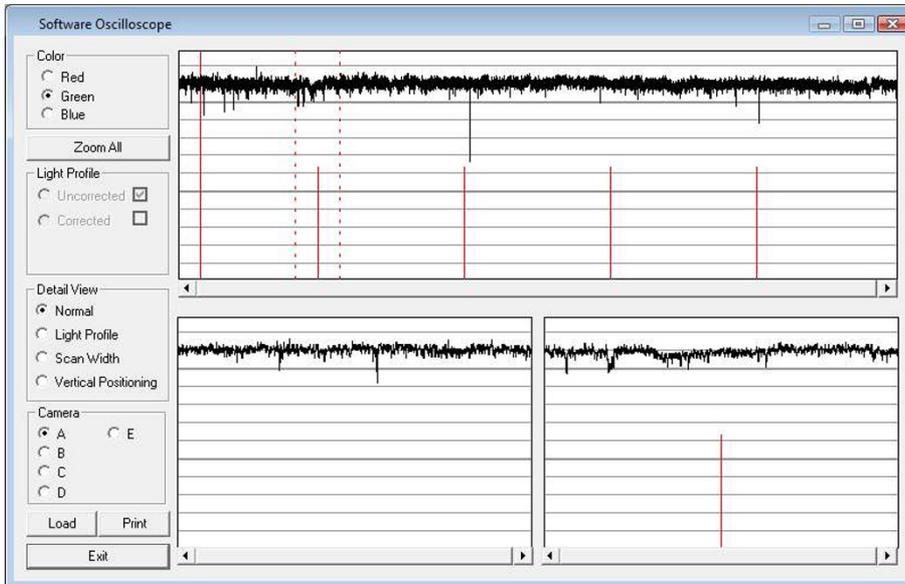
Since we do the basic calibration in two modes, one for the color channels and one for Gray, two sets of profiles are included in the SCANdump file.

General view of the light profile

This is the overview screen of the profiles of the CIS elements, here shown as A, B; C; D; E. Each arc represents a CIS element. The lower half of the screen can be used to amplify the profile of a selected CIS element, for a closer look.
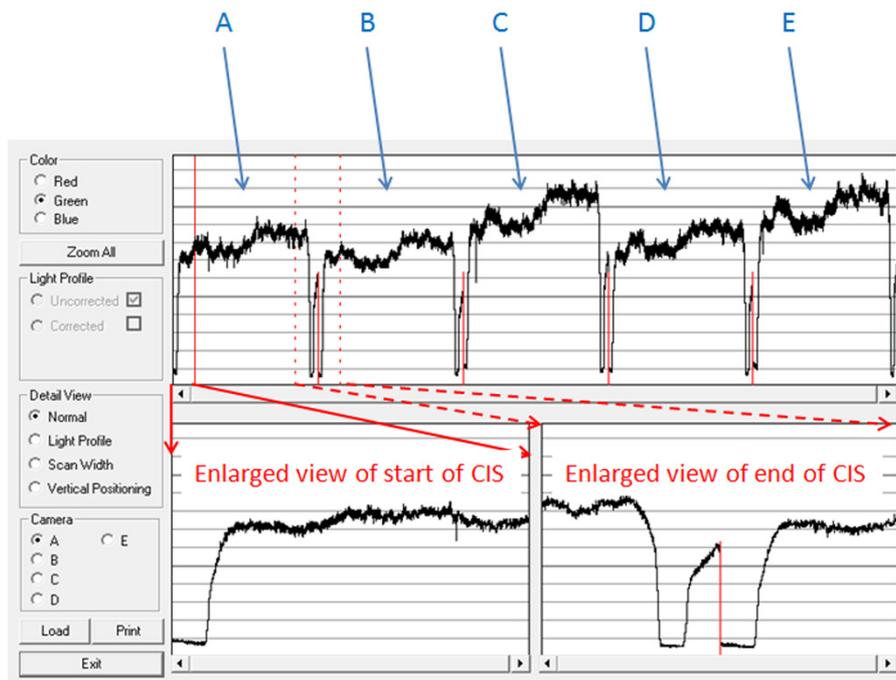
Reading the Uncorrected Light Profile

A uncorrected light profile should be within the Min/Max shown here. Since the Light source is located at the end of the CIS element it is normal that the light profile's level is higher here and that the level drops a little towards the center of the CIS.

Max.

End of CIS where light source is located.
Level is often higher here

Red line, indicates transition
from one CIS to the next

Min.

A drop in the light level in the active part of the CIS
is often caused by dirt or scratches on the glass plate
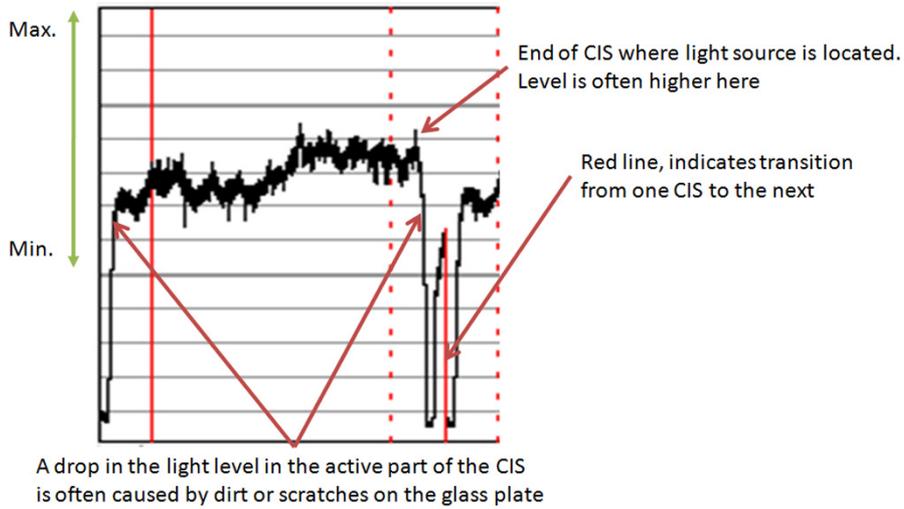
A white patch is located at each end of the CIS element. The one at the start of the CIS is a bit smaller than the one at the end, it makes a black point, unlike the end which makes a Black and a White point.

White point patch
End of CIS element

Indicates
transition point
between two
different CIS
Elements

Black point on patch
Start of CIS element

Black point on patch
Start of CIS element
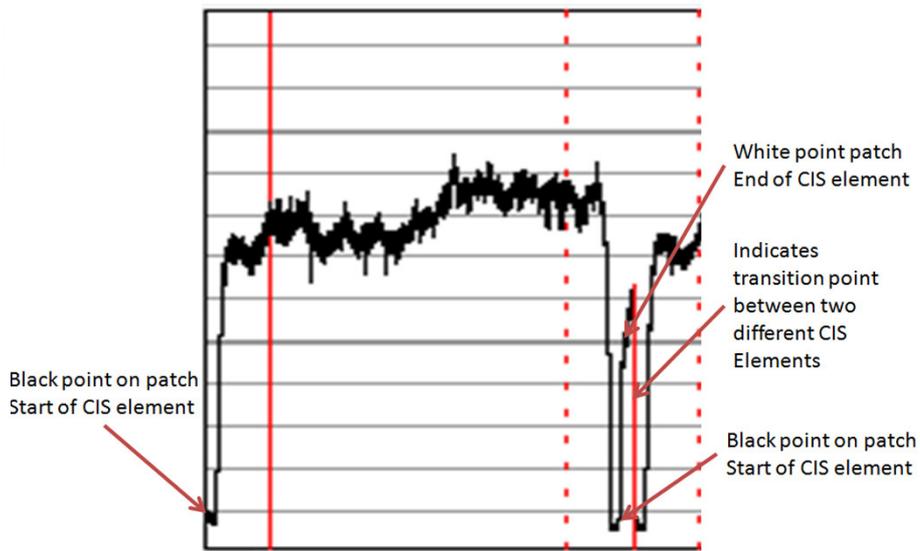
Reading the Corrected Light Profile

A corrected light profile should be within the Min/Max shown here.

Single pixels peaks are of caused by dirt or scratches on the calibration sheet! (can be more than a single pixel)

Single pixel drops are of caused by dirt or scratches on the glassplaet! (can be more than a single pixel)
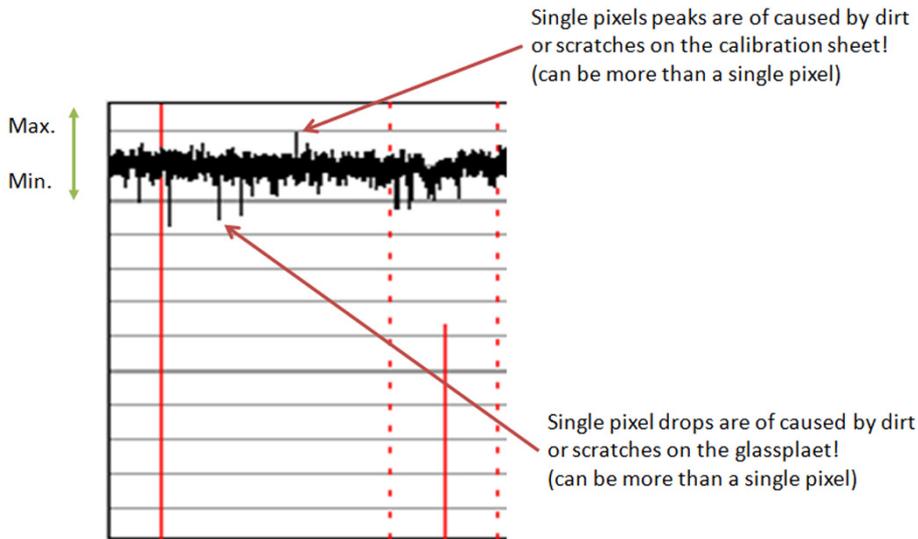
Peaks will show up in a scan as a lighter color and not necessarily in all colors, it depends on which color channels are being affected by the dirt/ scratch.

Drops will be seen as a dark line in the scan and again not necessarily in all colors, it depends on which color channels are being affected by the dirt/ scratch.

If the peak or the drop is within 1-2 div (lines) it is usually not noticeable in the scan and is just general noise. The dirt or the scratch can be from one pixel to several!

Statistics File

This file contains useful information about the usage of the system, along with firmware version and last calibration date.

Troubleshooting image quality using the light profiles

A drop in the light profile is often caused by dirt/dust on the glass plate A spike is related to the calibration, either dirt or dust on the glass plate during the calibration or a dirty calibration sheet.

CIS C, streaks though out the document

A Spike in the light profile

A Drop in the light profile
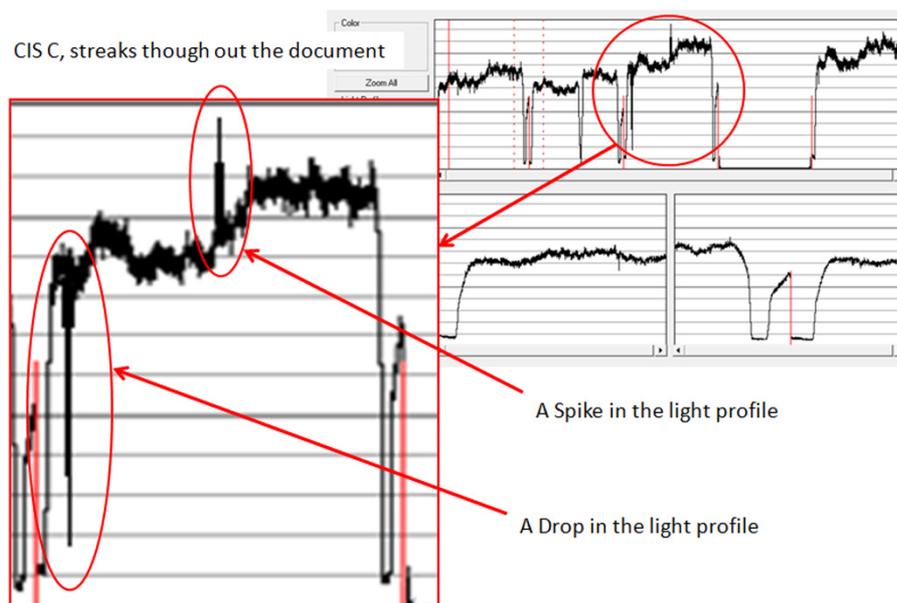
A light profile with an about 20 pixel drop can be a contaminated lens in the CIS module.
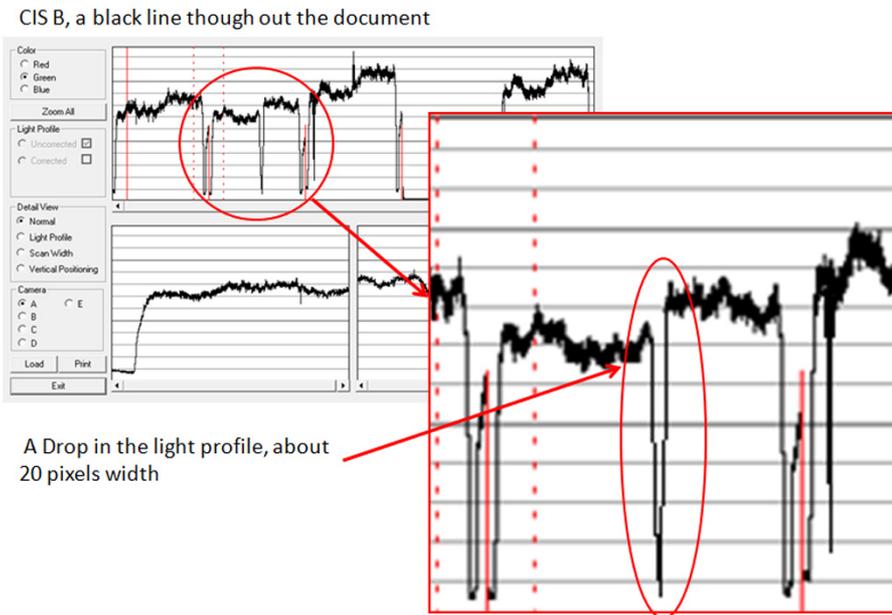
A light profile with an about 20 pixel drop can be a contaminated lens in the CIS module.
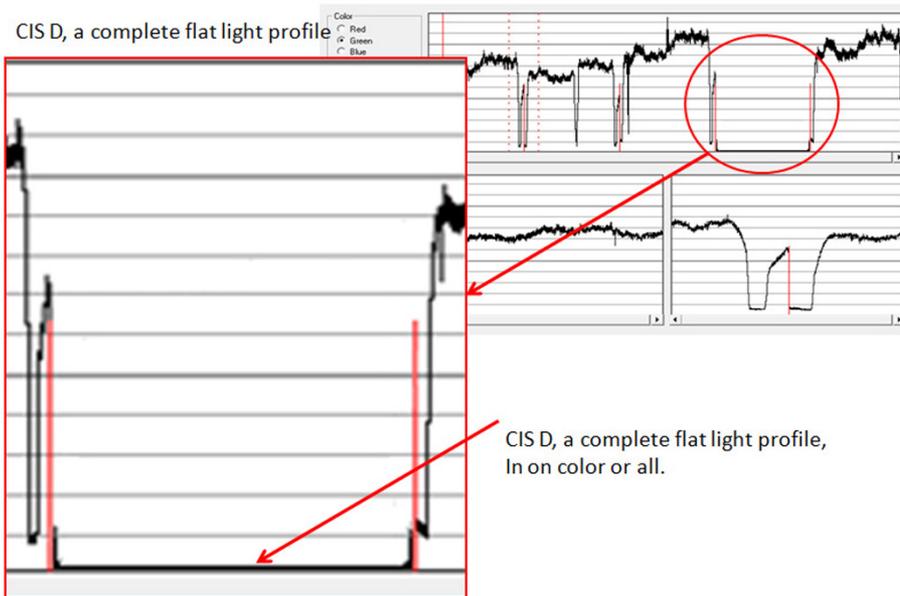
A completely flat light profile in one color or all colors can either be one specific LED or the entire CIS module that is faulty.

Adjustment scanner Y-axis scale

The scanner may produce a vertical distortion in scanned images. It is important in CAD plots to maintain the aspect ratio of the originals. The purpose of this utility is to correct this vertical distortion. This sections describes how to calculate and set the Y-Axis adjustment scale.

Use the following procedure to print the Scanner IQ plot.

1. From the Home screen press the **Information** icon on the top left corner of the screen. For information regarding the Front Panel keys, see The front panel on page 33.

2. From the Product Information area, press the **Main Menu/tool** icon on the bottom right corner of the screen.
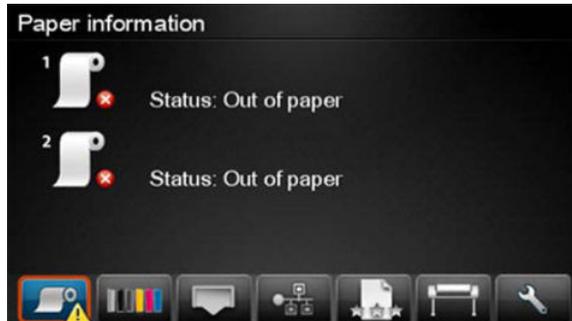
3. From the Main menu, scroll down and select the **Image-quality maintenance** option.
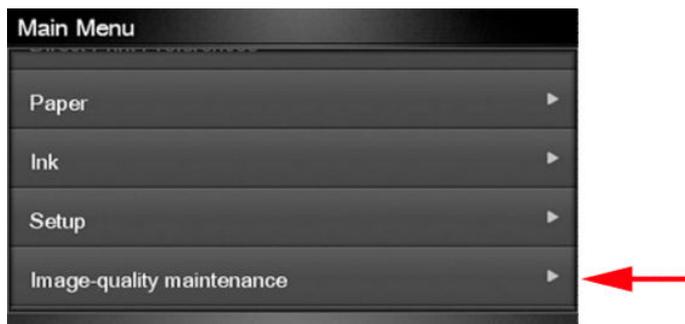
4. From the Image-quality maintenance menu, scroll down and select the **Scanner IQ plot** to print.

5. The next procedure describes how to copy the Scanner IQ plot:

6. From the Home screen, press the **Copy** icon on the left side of the screen
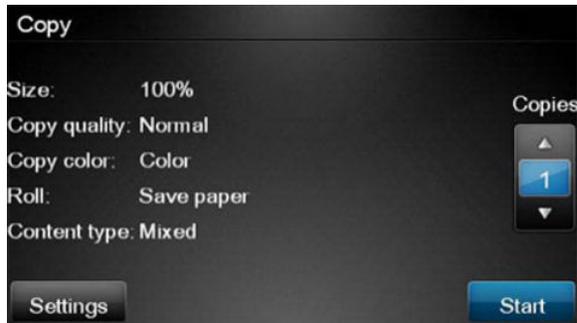
7. Press **Start**.
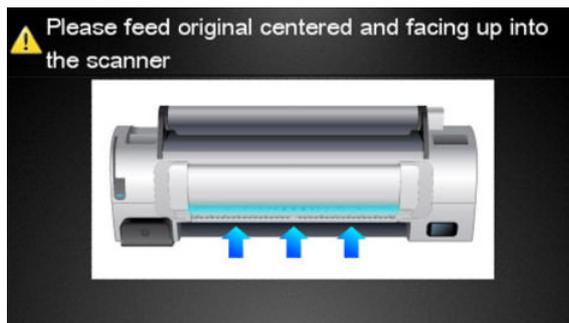
8. The Front Panel prompts you to feed the original. Load the scanner IQ plot that you printed previously in the scanner input tray. Wait then for the product to scan and print the image.

9. Follow the next steps to calculate the Y-Axis adjustment scale: Measure the total length of the two vertical rules at both sides of the copied plot (we call it M1 and M2).
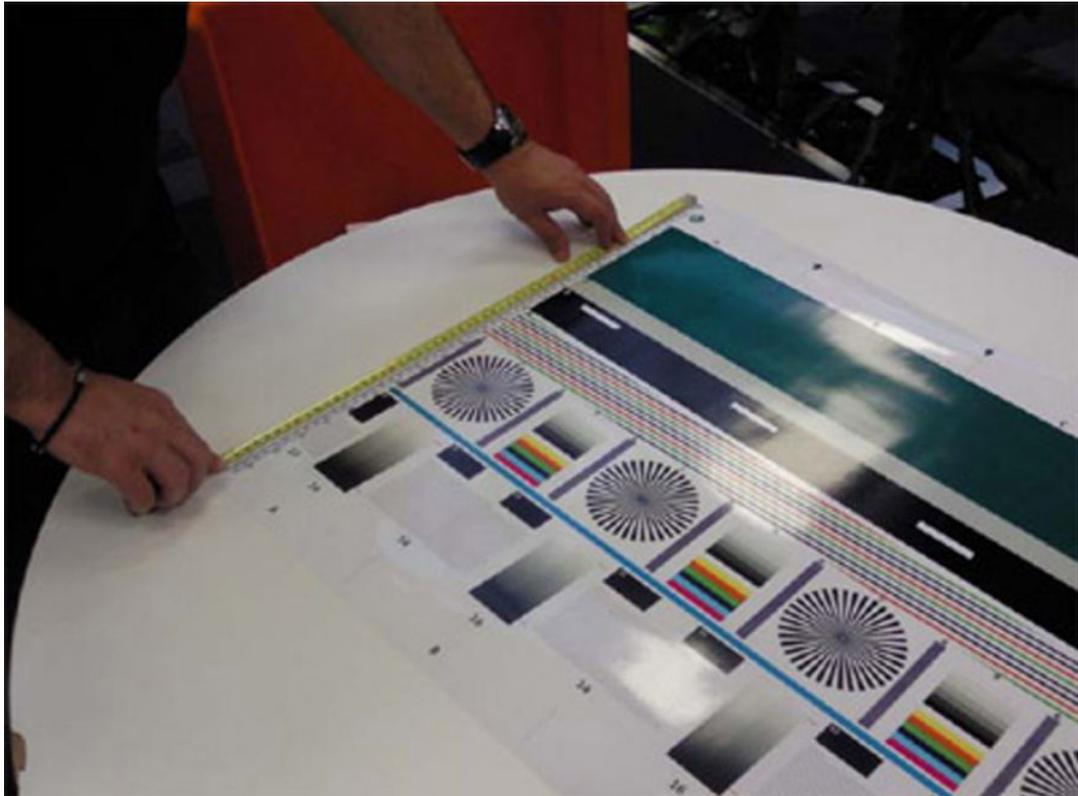
NOTE: If M1 is quite different from M2 (more than 1mm or 1/16th inch) then refer to incorrect paper advance, skew during scanning, or horizontal wrinkles in the Image-quality troubleshooting.

10. If M1 and M2 are similar (within 1mm or 1/16th inch) then consider M1 = M2 = M and calculate P as: Y-Axis adjustment scale = -100 × (M – T) / T Where T is the total length of the vertical rules (T = 22 inches or 570 mm). Follow the next steps to set the Y-Axis adjustment scale:

11. In the Service Utilities submenu, scroll to the **Adjustment scanner Y-Axis scale** and press on this option.

12. Press **OK** to continue.

13. Press **UP** and **DOWN** to pre-set the new value of Y-axis adjustment scale and press **OK**.
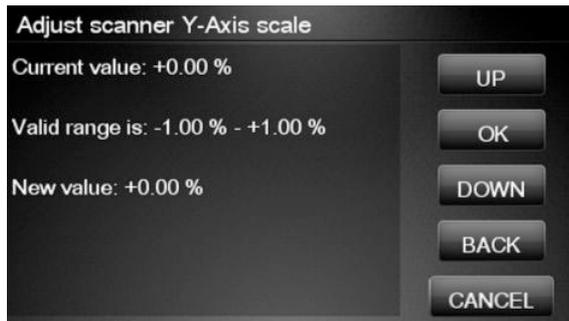
14. Repeat the process from step 6 onwards until M is equal to T.

Service Calibrations

The product has several calibration procedures that must be performed under certain conditions.

IMPORTANT: Remember that certain calibrations are required even if an assembly has been disassembled to gain access to another assembly or component.

The following is a list of all internal service calibrations available in the product. For instructions to enter the service calibrations menu, see .

+

　　　Print

　　　Scan

+

　　　Calibrate drop detector

　　　Reset calibration flag

NOTE: If **all** the Calibrations need to be performed (for example, when both the Formatter and the Engine PCA have been replaced), you must perform them in the above order.

Entering the Service Calibrations menu

1. From the Home screen press the **Information** icon on the top left corner of the screen. For information regarding the Front Panel keys, see .

2. From the Product Information area, press the **Main menu tool** icon on the bottom right corner of the screen.

3. Scroll down to the lowest menu option and press on the **Service menu** option.

4. Enter the 4-digit 1st level access code `3174` and press **OK**.

5. Press the **Service calibrations menu** option.

6. From the **Service calibrations menu**, you can scroll up and down the available utilities. Press on the selected menu option.

NOTE: In some cases a quick press of a button may not be recognized by the product. When pressing a button, be sure to press it firmly.

Paper advance calibration

The purpose of this Service Calibration is to calibrate the nominal advance of the paper. This calibration is necessary to control the exact movement of the paper in order to avoid print quality problems like banding.

If you need to perform a Paper advance calibration to solve a print quality problem, it is recommended that you first try the Paper advance calibration from the user's menu, which will calibrate the product to a specific paper type.

> 📝 **NOTE:** You can perform Paper advance calibration on a sheet or roll, but the paper type should always be HP Universal Instant-dry Photo Gloss. You are recommended to order the Paper advance calibration kit (36 in model: CR357-67079), which contains two sheets of HP Universal Instant-dry Photo Gloss paper. You can also perform this calibration by using cutsheets created from a roll, with a minimum width of 23 inches and a minimum length of 18 inches.

Perform the Service accuracy calibration whenever:

- Banding is detected in prints.

Service calibrations also need to be performed after removing or replacing certain product components. If you have removed or replaced product components, check the user guide to see which tests and calibrations you need to perform.

The Paper advance calibration is split into two parts and should always be done in this order:

1. Print calibration pattern - The product first calibrates the Analog encoder and then prints the Paper advance calibration pattern.

2. Scan calibration pattern - The product scans the Paper advance calibration pattern in order to calibrate the nominal advance of the paper.

   > 📝 **NOTE:** Only scan the Calibration pattern in the product that was used to actually print it. Using the Calibration in a different product could cause it to experience paper advance problems. After scanning the Calibration pattern, it should be discarded.

Perform the Paper advance calibration as follows.

1. Unload paper from the product.

2. In the Service calibrations submenu, scroll to **Paper advance calibration** and press **OK**.

3. In the Paper advance calibration submenu, scroll to **Print Calibration Pattern** and press **OK**.

4. When the following message appears on the Front Panel, you must select whether you would like to continue with the calibration by pressing **OK**. Press **Cancel** to exit the calibration.

5. If paper is detected, the product will prompt you to remove it. If paper is **not** detected, the calibration will continue.

6. The product will start to calibrate the Analog encoder and the following message will be displayed on the Front Panel.

   If the Calibration is not done or if the values are out of the limits, a warning message will appear on the Front Panel. In this case, try the following:

   - Check that the product has the latest firmware version. If not, update the firmware to the latest version.

   - Retry the Paper advance calibration.

7. Once the Analog encoder has been calibrated correctly, the Front Panel prompts you to select the type of paper you will use. Use the **Arrow** keys to choose roll or sheet paper. Press the **OK** key to start loading the paper.

8. The Front Panel prompts you to load the paper. Make sure you load the paper that corresponds to your paper type selection.

9. The Front Panel prompts you to select the paper category you will use for the calibration. Scroll to your paper category and select it to continue the paper load process.

10. The Front Panel prompts you to select the specific type of paper you will use for the calibration. Scroll through the menu and select your paper type.

11. The Front Panel displays the following screen, press **OK**.

12. Once the paper is loaded into the product, a message will appear on the Front Panel.

13. Press **OK** to continue.

14. The product advances and reels in about a meter of paper. The Front Panel displays the following messages:

    - Advancing Paper

    - Printing Pattern

15. The product will start to print the Paper advance calibration pattern. This could take several minutes during which a message will be displayed on the Front Panel.

16. When the Calibration Pattern has been printed successfully, the Front Panel reminds you to leave it to dry for a while.

17. When the Calibration Pattern is dry, the Front Panel will prompt you to continue. Press **OK**.

18. Return to the Paper Advance Calibration submenu, scroll to **Scan Calibration Pattern** and press **OK**.

19. When the following message appears on the Front Panel, you must select whether you would like to continue with the calibration by pressing the **OK** key. Press **Back** or **Cancel** to exit the calibration.

20. A message will appear advising you that you will need to load the Calibration pattern into the product. Make sure that you rotate the printed pattern 90° clockwise and reload it printed-side down, so that the black arrows go into the product first. Press the **OK** key to continue.

    NOTE: Only scan the Calibration pattern in the product that was used to actually print it. Using the Calibration in a different product could cause it to experience paper advance problems.

    After scanning the Calibration pattern, it should be discarded. When loading the Calibration pattern, use the Cutter blade on the Print platen to align the edge of the sheet. If you follow this advice, you will prevent the cutter from cutting a section of the Calibration pattern, which could cause the Calibration to fail.

21. The Front Panel prompts you to select the paper category you used for the calibration. Select the same paper that you used to perform the Paper Advance Calibration print. Use the **Arrow** keys to scroll to your paper category and press the **OK** key to continue the paper load process.

22. The Front Panel prompts you to select the specific type of paper you used for the calibration. Use the **Arrow** keys to scroll through the menu and the **OK** key to select your paper type.

23. Load the calibration pattern into the product and the Front Panel displays the normal sheet loading procedure.

24. When the Calibration Pattern is successfully loaded the Front Panel displays the following screen, press **OK** to start the scan.

25. The Front Panel displays the following screen. The product will scan the Calibration pattern which could take several minutes. Once the calibration is completed successfully, a message will be displayed on the Front Panel. Press the **OK** key to continue.

    If the Paper advance calibration fails for any reason, a warning message will appear on the Front Panel. In this case, try the following:

    - Check that the Calibration pattern was not incorrectly cut (trimming the actual pattern) during the paper load process. If this is the case, perform the Paper advance calibration again from **step 1**.

    - Perform a Line sensor calibration. See .

    - Replace the Line sensor. See the *User guide*.

    - If the problem continues, replace the Media advance driver. See the *user guide*.

Drop detector calibration

The purpose of this Service calibration is to calibrate the Drop detector (located in the Service station) in relation to the Carriage assembly. There are two menu options to calibrate the Drop detector:

- Calibrate drop detector

- Reset calibration flag

Always perform the Reset calibration flag calibration **before** calibrating the drop detector.

Service calibrations also need to be performed after removing or replacing certain product components. If you have removed or replaced product components, check the user guide to see which tests and calibrations you need to perform.

Reset calibration flag

Run this option before replacing the drop detector (service station), so that the product will not try to perform a drop detection until the new drop detector has been calibrated.

1. In the Service calibrations submenu, select **Drop Detector calibration** and press **OK**.

2. In the Drop detector calibration menu, scroll to **Reset Calibration Flag** and press **OK**.

3. When the following message appears on the Front Panel, you must select whether you would like to continue with the calibration by pressing **OK**. Press **Cancel** to exit the calibration.

4. The product resets the calibration flag. Press **OK** to return to the menu.

5. Shut down the product and replace the drop detector.

6. Start the product and calibrate the drop detector.

Calibrate drop detector

1. In the Service calibrations submenu, scroll to **Drop Detector calibration** and press **OK**.

2. In the Drop detector calibration submenu, scroll to **Calibrate Drop Detector** and press **OK**.

3.   A message is displayed on the Front Panel, select the **OK** button.

4.   The product will start to calibrate the Drop detector, which takes about 30 seconds.

5.   Once the Drop detector has been calibrated, the results will be displayed on the Front Panel. Press **OK** to finish the calibration.

     The offset is the displacement from the nominal carriage position for doing the drop detection. width refers to values captured by the drop detector sensor. The offset should be within the valid range, and the window width should be at least the minimum shown. If the values are correct, press **OK** to accept them. If not, the drop detector is not correctly installed, either because the service station has not been correctly installed in the scan axis or because the drop detector is not correctly installed or not working properly. Press **Cancel** to reject the values.

     ⚠ CAUTION: Do not accept these values if they are not within the right range, as the product will not work properly.

6.   Press **OK** to end the calibration.

Line sensor calibration

The purpose of this Service Calibration is to calibrate the intensity of the line sensor in the Carriage PCA. An incorrect calibration can result in edge-detection failures during paper loading and incorrect reading of prints that are used for alignment or calibration.

Perform the Line sensor calibration in the following cases.

●   If the edge detect procedure fails during paper loading.

●   If the Carriage is disassembled or replaced.

●   If the Line sensor is disassembled or replaced.

●   If banding is detected in prints.

●   If misalignment between colors is detected.

●   If the cutter platen has been disassembled or replaced.

This Service calibration only performs the Cutter line offset calibration if the line sensor has been calibrated previously.

Service calibrations also need to be performed after removing or replacing certain product components. If you have removed or replaced product components, check the Service Calibration Guide to Removal and Installation to see which tests and calibrations you need to perform.

The full calibration process

1.   If possible, load a roll of Glossy or Bond and Coated type (HP Bond, HP Brightwhite, Plain, HP Coated, HP Heavyweight Coated, HP Superheavyweight Coated or photo matte) with a width of at least 24 inches into the product before starting the calibration.

2.   In the Service Calibrations submenu, scroll to, and select **Line Sensor calibration**.

3.   When a message appears on the Front Panel, press the **OK** key to continue or the **Cancel** key to exit the calibration. If the product detects no paper, see .

4.   The Front Panel displays a message while the calibration is in progress.

5. The product calibrates the intensity of the LEDs and displays the results on the Front Panel. Press **OK** to continue or press **Cancel** to exit the calibration.

   If the values are not within the range specified, an error appears on the Front Panel. In this case, repeat the calibration from the beginning. If necessary, replace the Line Sensor.

6. The next step is to calibrate the Line sensor position. The product prints a line of black dots and then scans it.

7. Once the Line sensor position has been calibrated, the results are displayed on the Front Panel. Press **OK** to continue or **Cancel** to exit.

8. If the calibration fails or the values are out of range, try the following solutions:

   ● Reseat the line sensor.

   ● Repeat the calibration again from the beginning.

   ● Replace the line sensor.

   At this point the calibration finishes and continues with the step 13.

9. The next step in this is the cutter line offset calibration. This calibration moves the media and cuts it. The Front Panel shows several numbers and a message communicating if the calibration has passed or failed.

10. The product now tries to align the printheads. When a message appears on the Front Panel, press **OK** to continue or **Cancel** to exit.

11. If printhead alignment cannot be completed, try the following.

    ● Enter the Front Panel menu and retry printhead alignment from there. If the alignment completes successfully, then perform color calibration.

    ● If the alignment fails again, check the alignment pattern to see whether any of the printheads are printing incorrectly. If necessary, perform a printhead recovery through the Front Panel and retry printhead alignment.

12. If the printhead alignment ends successfully, you have completed the full Line sensor calibration process.

13. Now the Front Panel shows a summary of the line sensor and cutter line offset calibration results.

The manual paper loading process

1. If the product detects no paper, a message is displayed. If you think you can load paper normally, press **Cancel** and resume the full calibration process (see) Otherwise, press **OK** to proceed with manual loading.

   📝 NOTE: The manual loading process performs only a partial calibration, after which you should try again to load roll paper and perform the full calibration.

2. The Front Panel prompts you to load the paper manually.

3. Feed a sheet of paper manually into the product (the product will not try to move it) until it fully covers the right-hand size of the print platen. It must cover the line sensor so that the product detects it. An A4 or US Letter paper size is sufficient.

4. When you have loaded the paper, press **OK**. The product starts the calibration process, and displays the results on the Front Panel if successful. Press **OK** to continue.

    If the calibration fails, start again from the beginning. If necessary, try replacing the Line sensor.

5. The Front Panel asks you to unload the paper. It then reminds you to reload roll paper in the normal way and perform the full Line sensor calibration (see).

Cutter Offset Calibration

The purpose of this Service Calibration is to calibrate the cutter offset. This is the slightest (i.e. millimeters) difference between where the cut is supposed to be and where the real cut is done.

As the cut is not uniform along the whole scan-axis, we perform several measures and work out the average.

Perform the Cutter Offset Calibration whenever:

●   There are problems with the margins between plots.

Usually, it won't be needed to perform this calibration, even when replacing the cutter blade; as this calibration depends only on the cutter guide and the platen.

In order to perform this calibration follow these preliminary steps:

1. Load the media. If the media is not loaded when starting the test, there will be an error message.
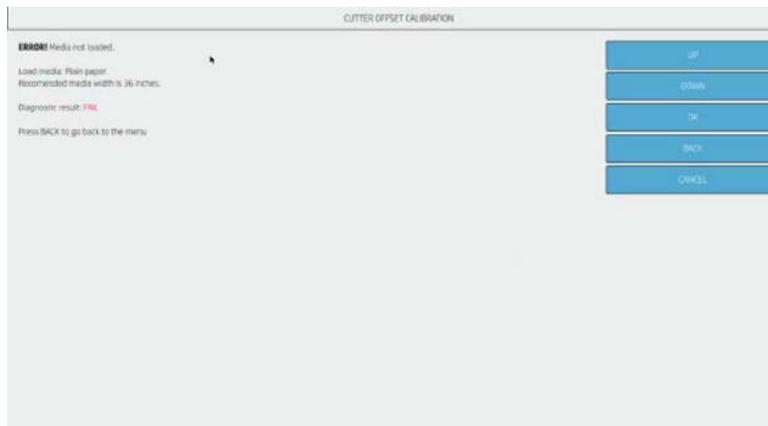
2. The media selected should be from the Glossy family or Bond and Coated family. Otherwise, there will be an error message.

3. If this media is not available, make sure the media is plain paper and 36 inch wide to avoid the previous error message.

Perform the Cutter offset calibration as follows:

1. In the Service calibrations submenu, scroll to **Cutter Offset Calibration** and press **OK**.

2. Then press **OK**.

3. The front edge position along all the scan-axis will be measured (19 measures performed).

4. All 19 measurements are repeated.

5. The average front edge position will be calculated.
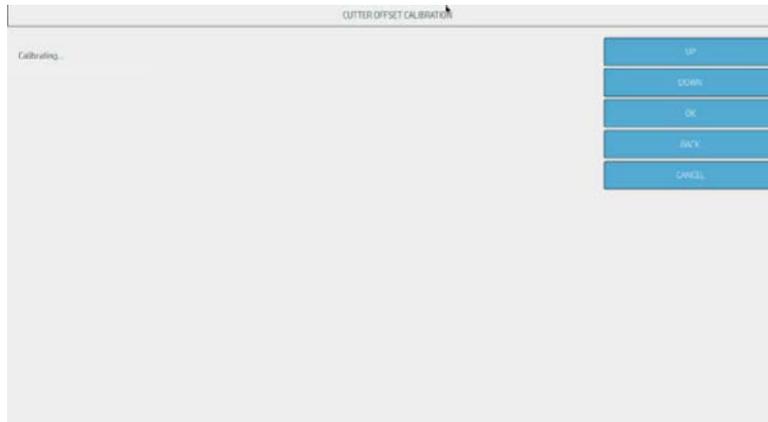
6. The previous and current cutter offset values will be shown.

7. If the calibration has been done correctly, a **PASS** message will appear. In this case, save the new offset value.

8. If any of the measures performed are not valid (i.e. outside the valid offset range), the calibration will fail and an error message will appear.
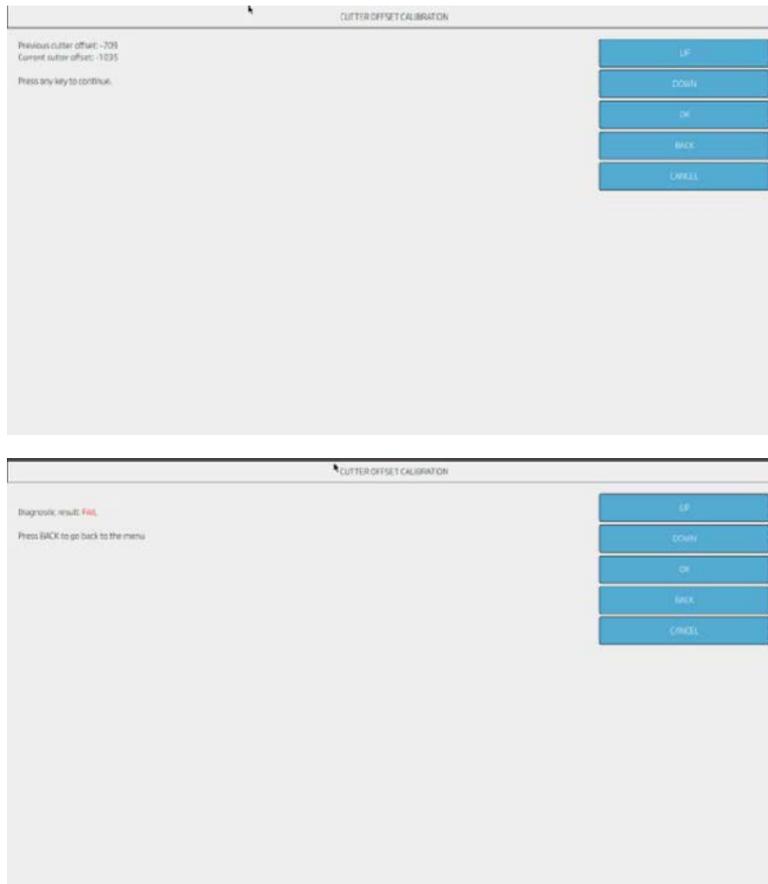
Stacker overdrive calibration

The purpose of this Service Calibration is to calibrate the stacker overdrive friction against the printer.

It has to be done when:

- Reinstalling or replacing the complete stacker.

- When replacing the stacker overdrive motor with transmission part.

Follow these steps:

1. Prior to calibration, remove all the prints in the stacker and any paper loaded in the printer.

2. To select this calibration, go to **Stacker overdrive calibration**.
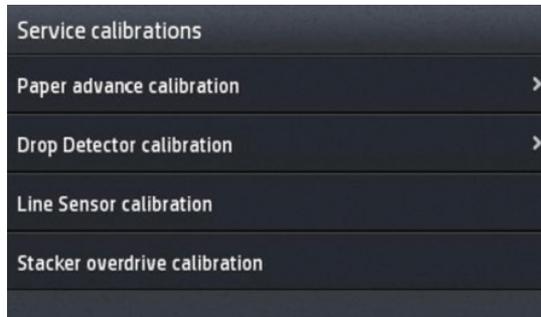
3. After selecting it, press **OK** to start calibration.
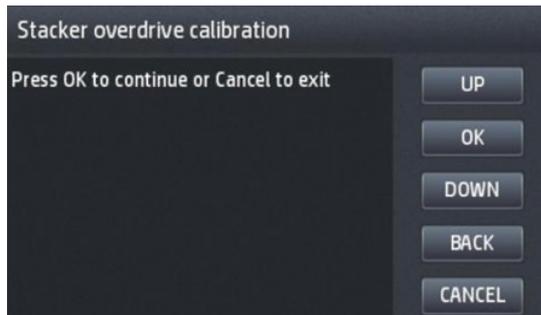
4. The screen will show **calibrating status** during some minutes while the stacker overdrive is moving at different speeds.
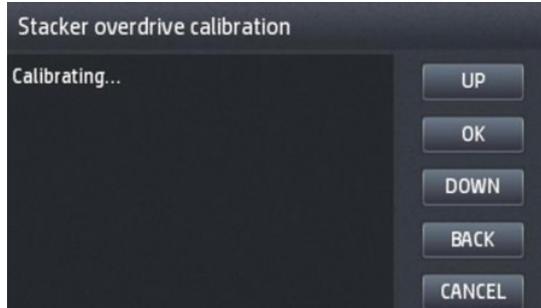
5. At the end of the process, the result of the calibration is shown.
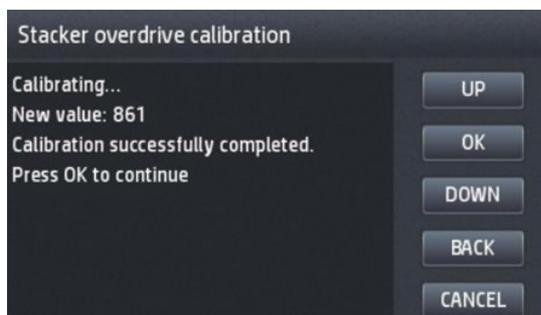
6.   Press **OK** to finish the calibration.
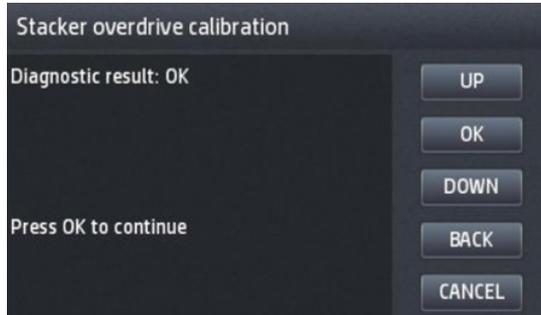
6 Parts and diagrams

Introduction

The list of parts in this chapter include the notation CSR for parts that can be replaced by the customer. All other parts must be replaced by an engineer. See Customer Self Repair parts on page 421.

For information on the preventive maintenance kits, see Preventive Maintenance Kits on page 666.

Unless otherwise indicated, service parts are compatible with all SKUs. Any limitations are indicated in the tables below.

Printer support

	Part number	Description	Cross-reference
1	CR357-67066	Basket assembly	Customer Self Repair Flyers on page 668

Center and Roll covers
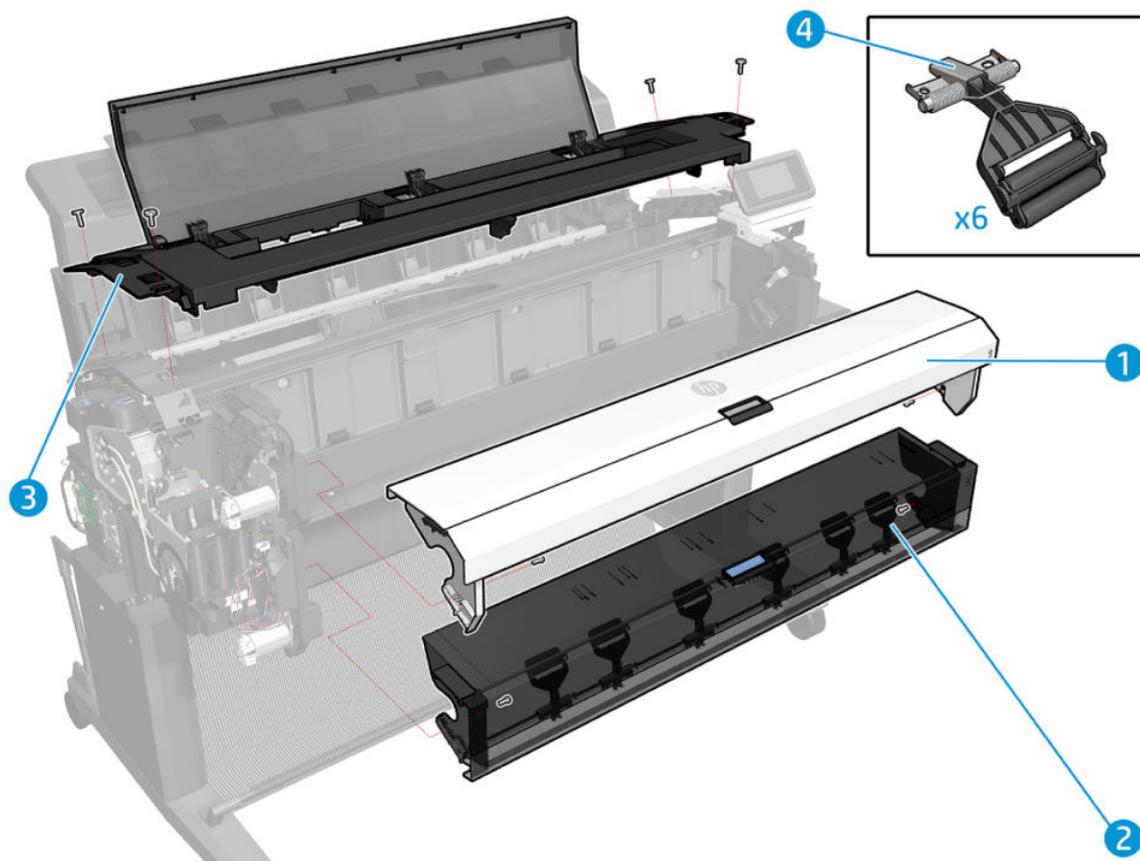
	Part number	Description	Cross-reference
1	Y3T75-67015	TX600 Top roll cover assembly	Customer Self Repair Flyers on page 668
2	CR357-67036	Bottom roll cover assembly	Customer Self Repair Flyers on page 668
3	CR357-67054	Center cover assembly	Center cover (CR357-67054) on page 480
4	CR357-67067	ARS arm assembly (Pinch arm top and bottom roll)	Customer Self Repair Flyers on page 668

Rear covers
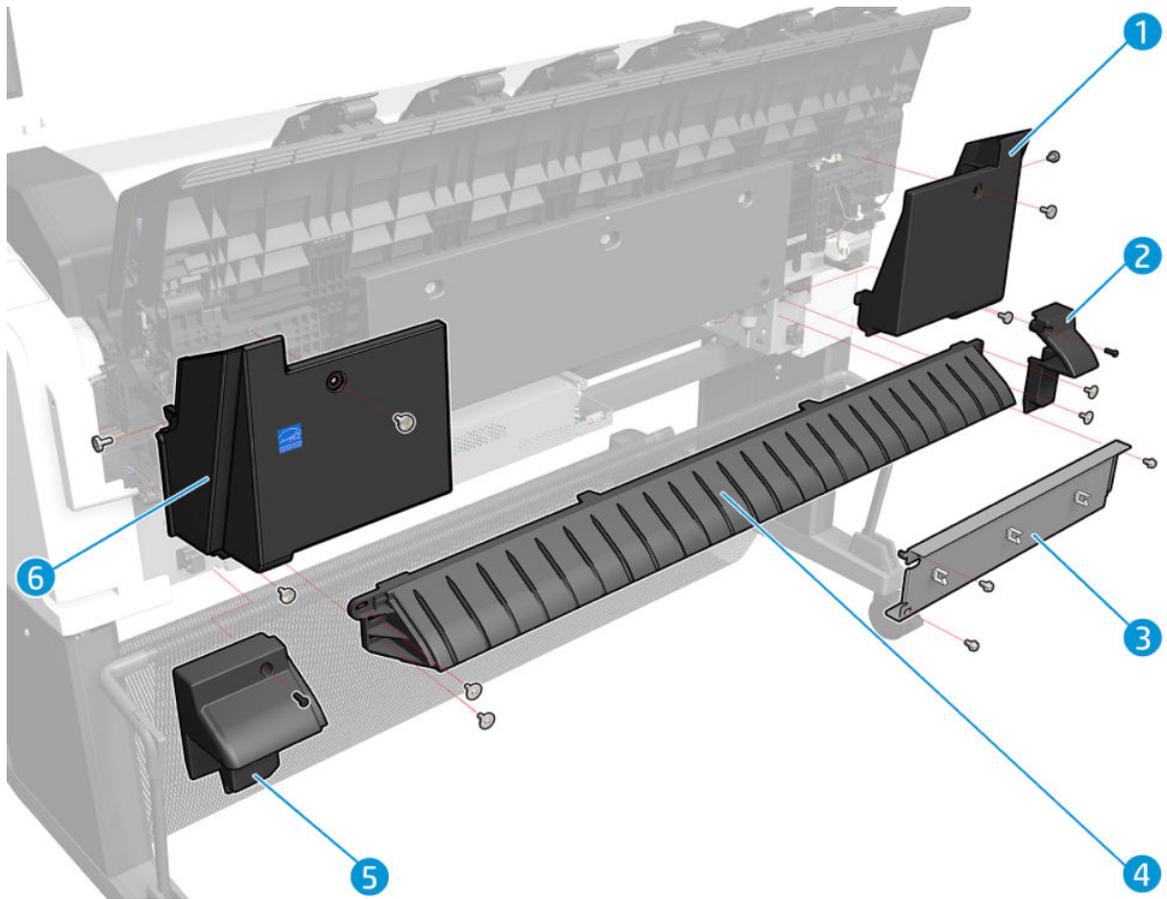
	Part number	Description	Cross-reference
1	CR357-67061	Fixed tray cover, SVS side	Left protective cover (L2Y21-67015) on page 428
2	CR357-67063	Sidewall cover, SVS side	Arch sidewall cover (service station side) on page 494
3	Y3T75-67016	Rear cover	Rear cover (Y3T75-67016) on page 487
4	CR357-67014	Output platen	T920/Tx500 Output platen (CR357-67014) on page 425
5	CR357-67062	Sidewall cover, CP side	Arch sidewall cover (front panel side) on page 493
6	6KD23-67044	Fixed Tray cover, CP side	

CP side cover
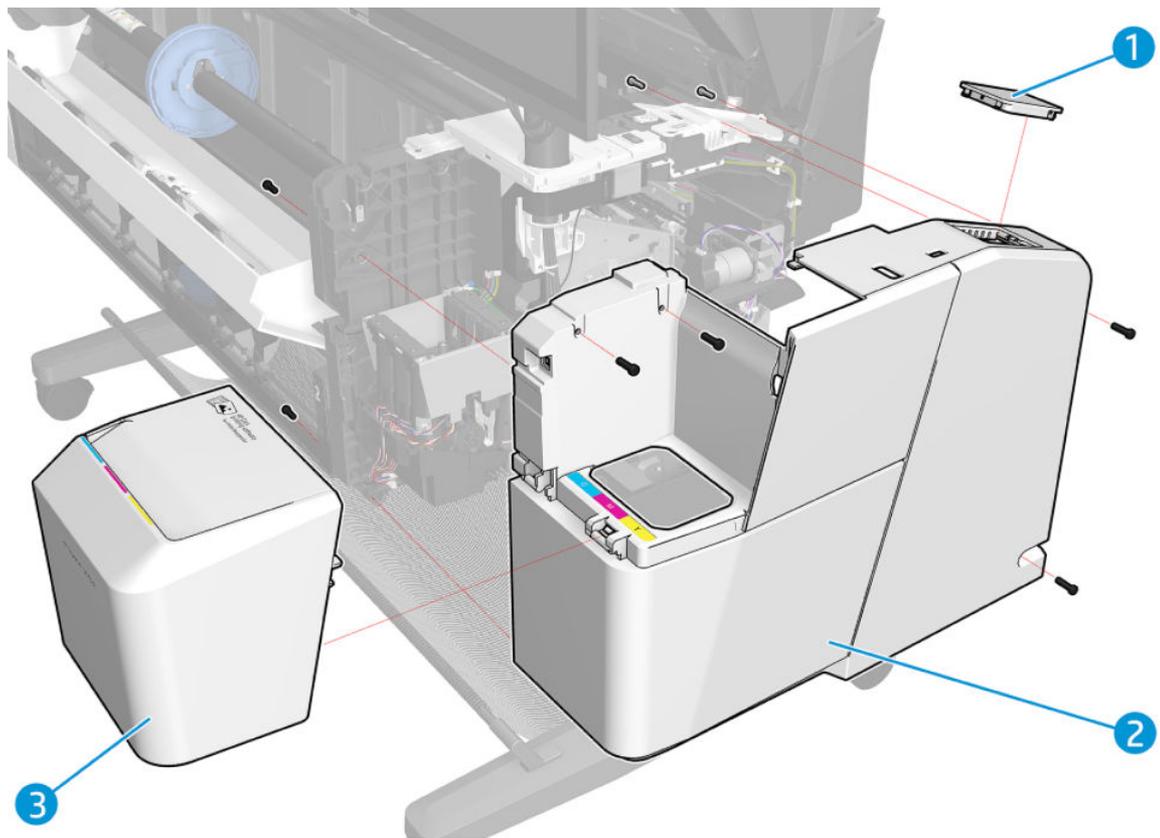
	Part number	Description	Cross-reference
1	3EK10-67006	TX600 wifi lid	Wifi Lid (3EK10-67006) on page 488
2	Y3T75-67011	TX600 Main Cover CP side	Main cover (front panel side Y3T75-67011) on page 475
3	Y3T75-67010	TX600 Ink Door CP	Customer Self Repair Flyers on page 668

SVS side cover
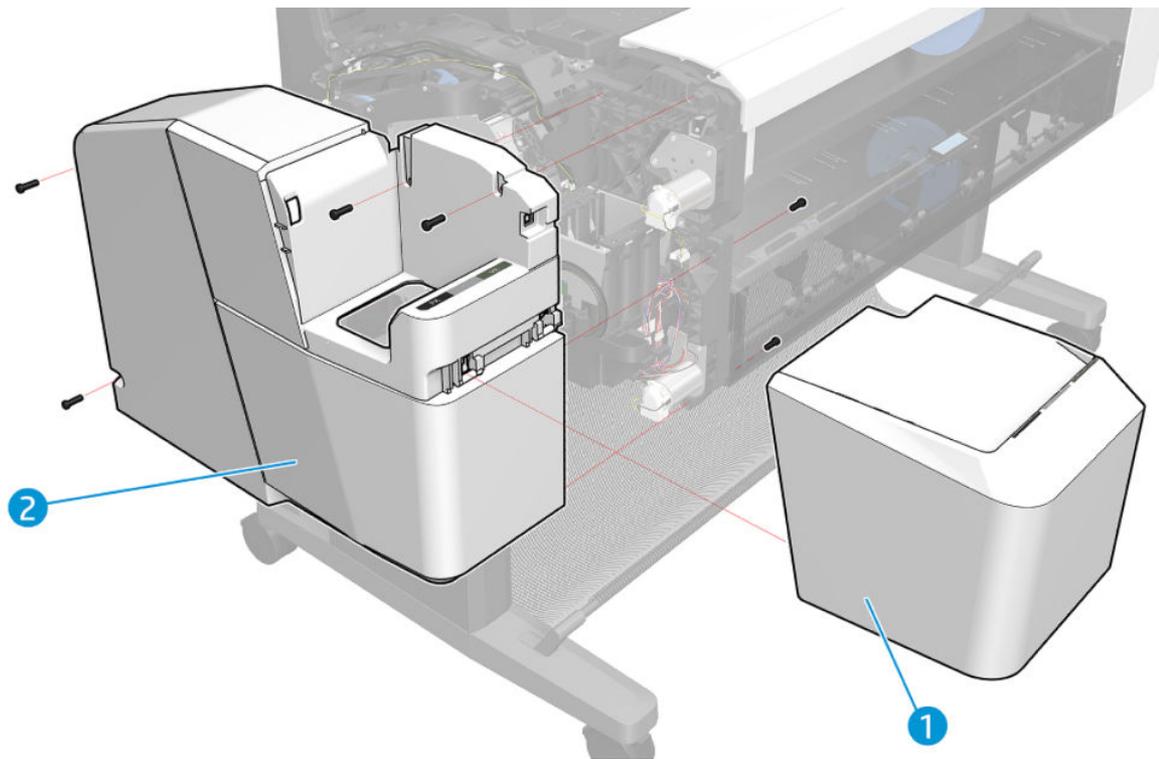
	Part number	Description	Cross-reference
1	Y3T75-67018	Ink Door SVS side (Ink covers)	Customer Self Repair Flyers on page 668
2	Y3T75-67012	Main cover SVS side	Main cover (service station side Y3T75-67012) on page 473

T2600 Front Panel
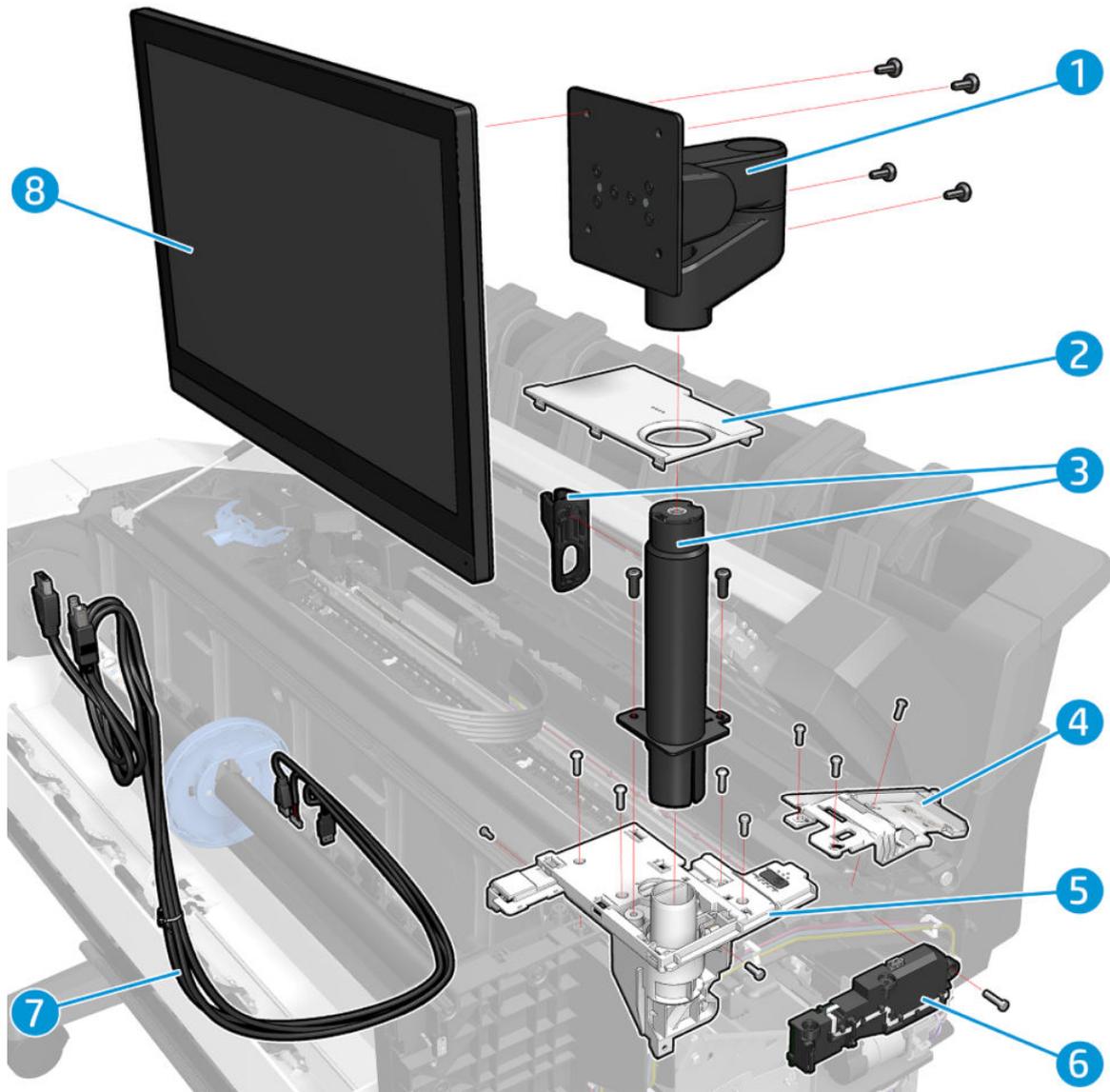
	Part number	Description	Cross-reference
1	Y3T75-67003	T2600 Front panel arms	T2600 Front Panel Arm (Y3T75-67003) on page 489
2	Y3T75-67005	T2600 Front panel bezel	Front panel bezel (Y3T75-67005) on page 433
3	Y3T75-67004	T2600 Front panel tube	T2600 Front Panel Tube (Y3T75-67004) on page 490
4	Y3T75-67006	TX600 wifi bezel housing	Wifi Bezel Housing (Y3T75-67006) on page 484
5	Y3T75-67001	T2600 right bracket w/pwr button and speaker	Wifi Bezel Housing (Y3T75-67006) on page 484
6	3EK10-67002	TX600 Dashboard PCA w/cover	Dashboard PCA with cover (3EK10-67002) on page 438

	Part number	Description	Cross-reference
7	2YB64-67015	XL3600/T2600 front panel cables	
8	2YB64-60122	XL3600/T2600 Front panel assembly	

T1600 Front Panel
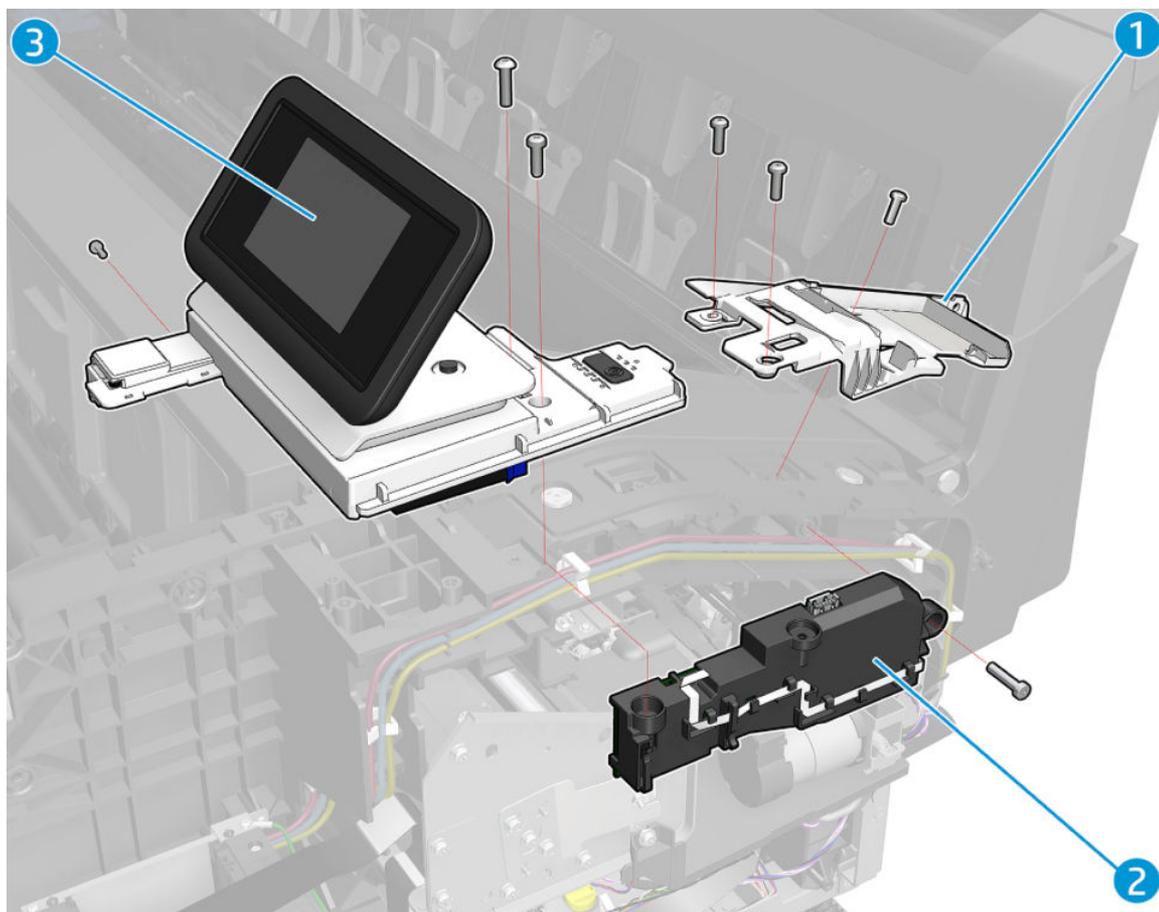
	Part number	Description	Cross-reference
1	Y3T75-67006	TX600 wifi bezel housing	Wifi Bezel Housing (Y3T75-67006) on page 484
2	3EK10-67002	TX600 Dashboard PCA W/cover	Dashboard PCA with cover (3EK10-67002) on page 438
3	3EK10-67001	T1600 Front Panel assembly W/bracket	Front panel (3EK10-67001) – (T1600 only) on page 429

CP Side Assemblies
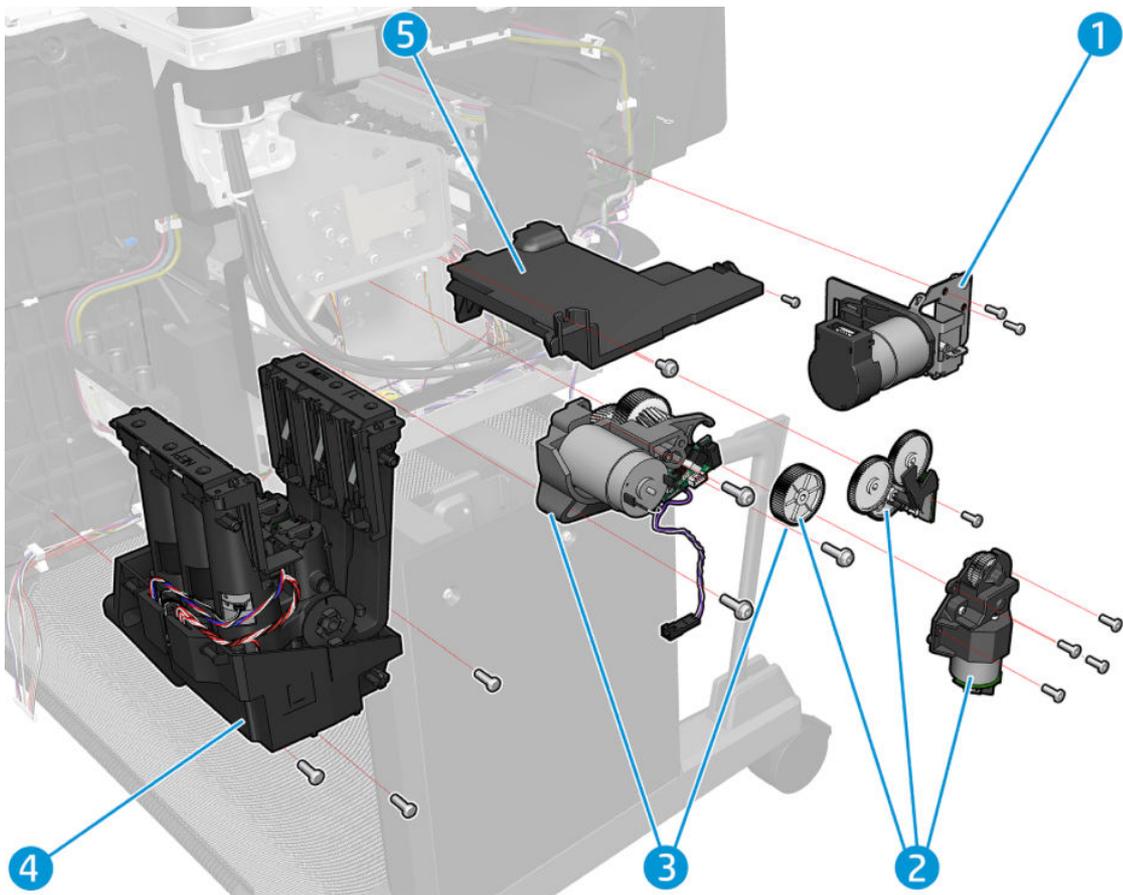
	Part number	Description	Cross-reference
1	2YB64-67009	XL3600/TX600 cutter motor W/support	
2	CR357-67010	T920/Tx500 Module Motor SW	
3	CR357-67009	T920/Tx500 Mcy Mtr Media Adv transmission	
4	6KD23-67024	XL3600/TX600 ISS CP_side	
5	L2Y21-67015	Protective Cover Left SV	

Carriage assembly
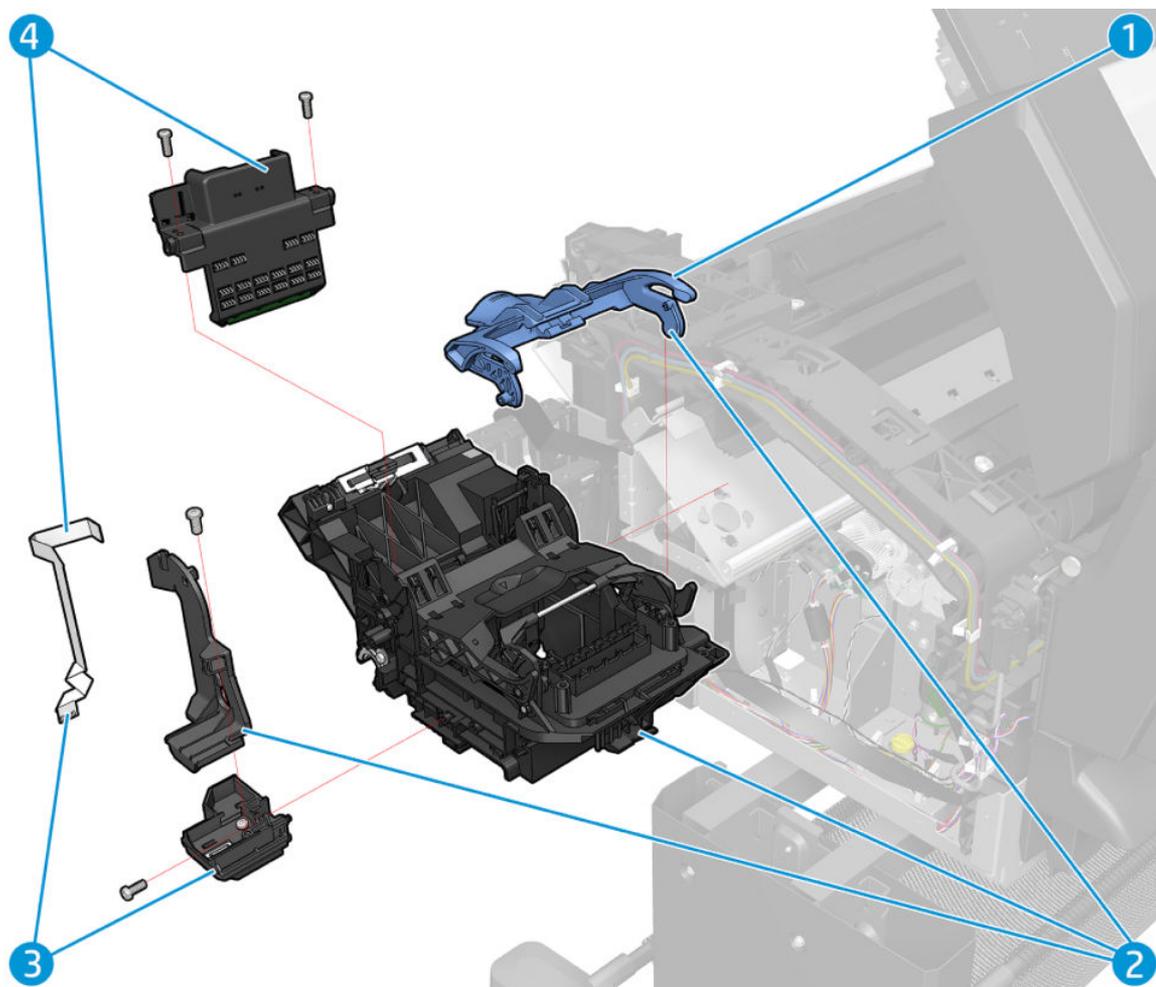
	Part number	Description	Cross-reference
1	CR357-67070	Carriage latch	Carriage latch (CR357-67070) on page 460
2	CR357-67092	Carriage W/O PCA/Line Sensor	Carriage (CR357-67092) on page 466/Carriage on page 515
3	CR357-67020	Line Sensor W/ cable	Line Sensor on page 519
4	CR357-67081	Carriage PCA w/ Line sensor cable	Carriage PCA on page 520

Scanner
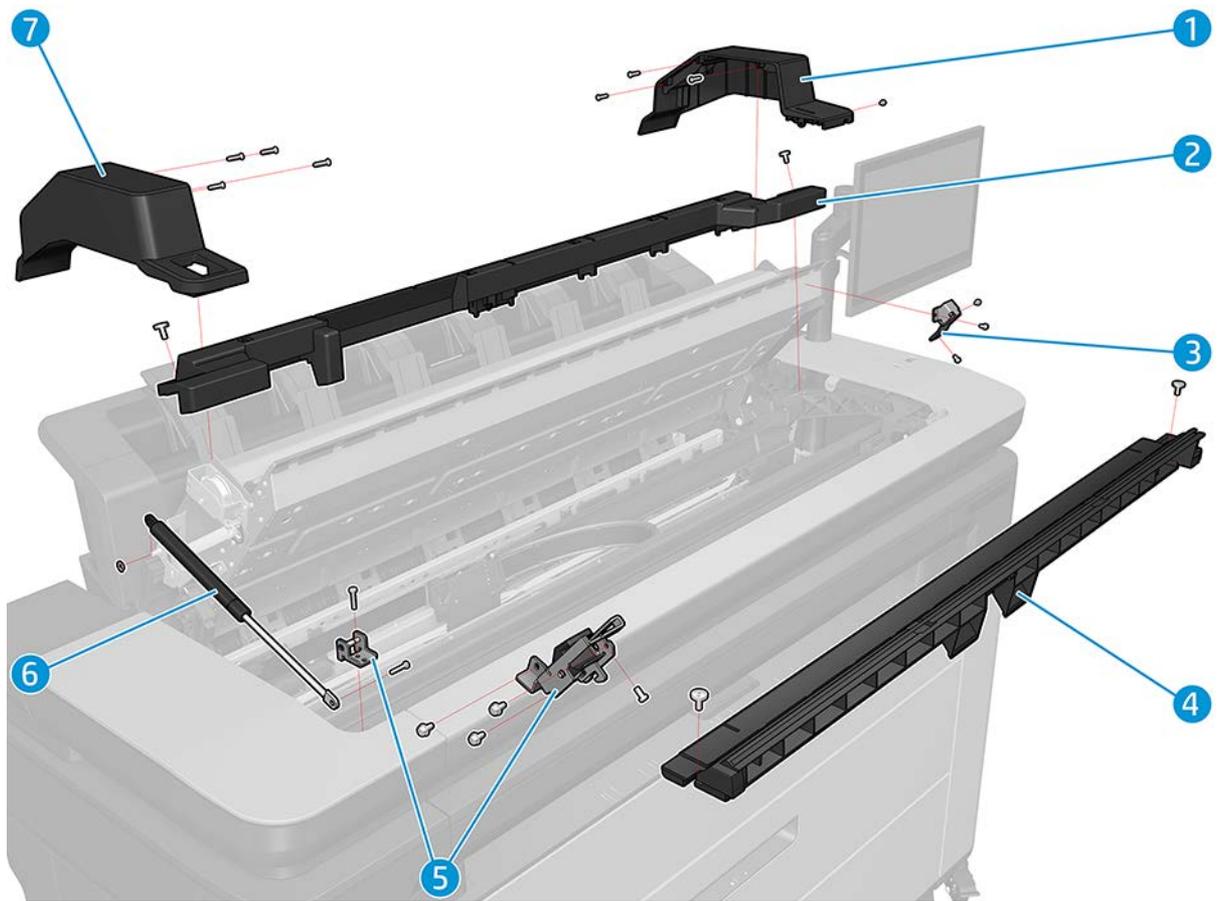
	Part number	Description	Cross-reference
1	CR359-67003	T2500 Cover Scanner CP_side	
2	CR359-67005	T2500 Cover Scanner Rear	
3	CR359-67007	T2500/T3500 Bumper Bracket Assembly	
4	CR359-67010	T2500 Front Beam Bumper Assembly	
5	6KD23-67035	XL3600 Latch Hook Assembly Push S	
6	CR359-67009	T2500 Scanner Lift Assembly	
7	CR359-67004	T2500 Cover ScannerS_side	

Scanner
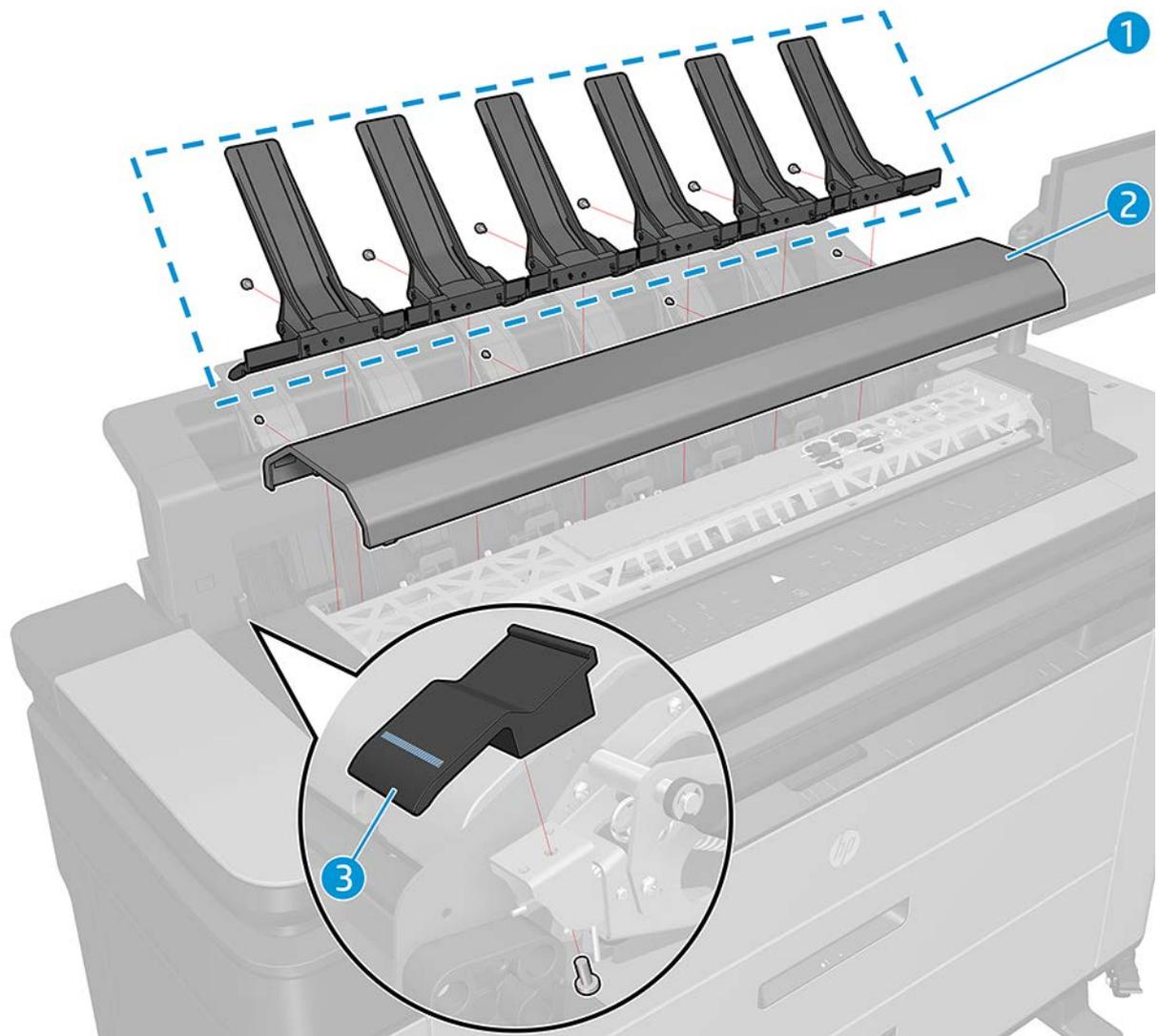
	Part number	Description	Cross-reference
1	CR359-67008	T2500 Scanner Deflectors	
2	Y3T75-67014	TX600 Top Cover Scanner	
3	CR359-67012	T2500/T3500 Latch CIS	

Scanner
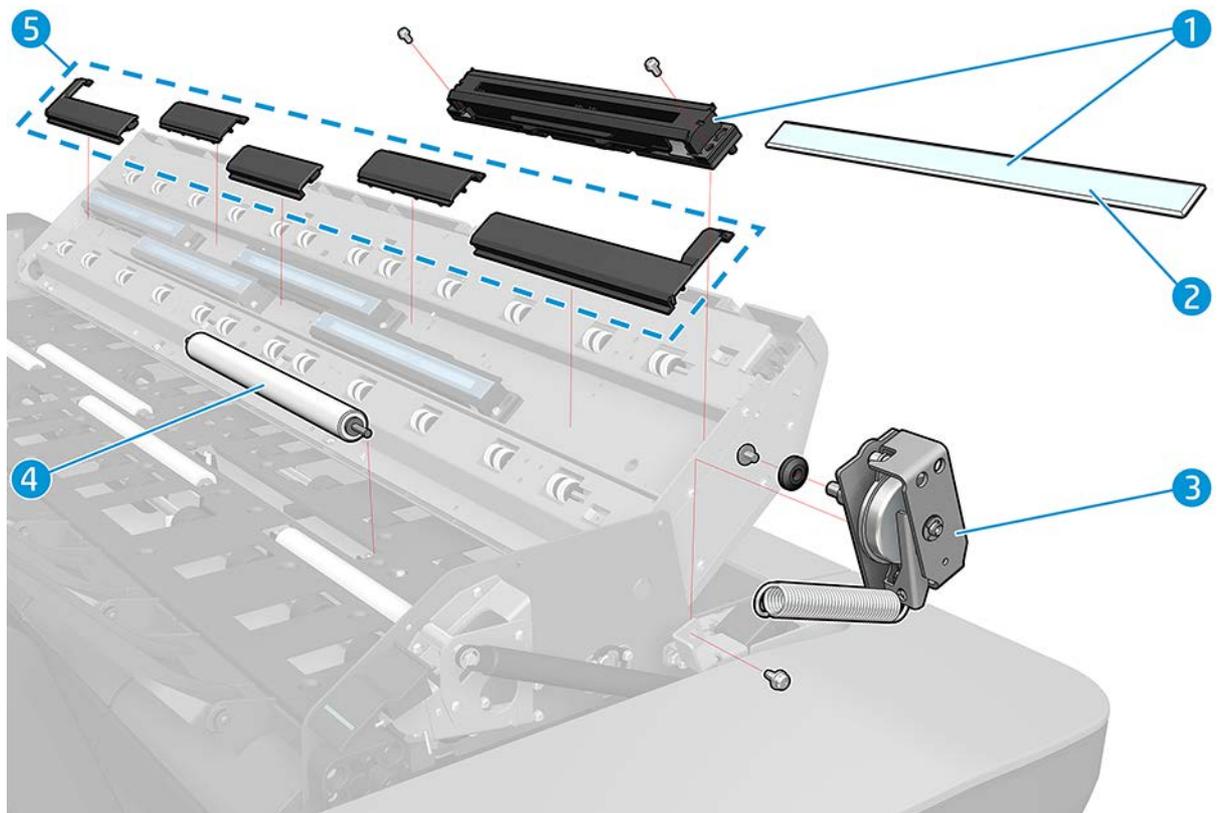
	Part number	Description	Cross-reference
1	CR359-67014	T2500/T3500 Tiles Kit	
2	3XB77-67005	TX600 Glass Plate	
3	3XB77-67007	TX600 CIS module (5 units)	
4	3XB77-67003	TX600 Pressure Roller	
5	3XB77-67004	TX600 Torsioner Dump	

Scanner

DRAFT
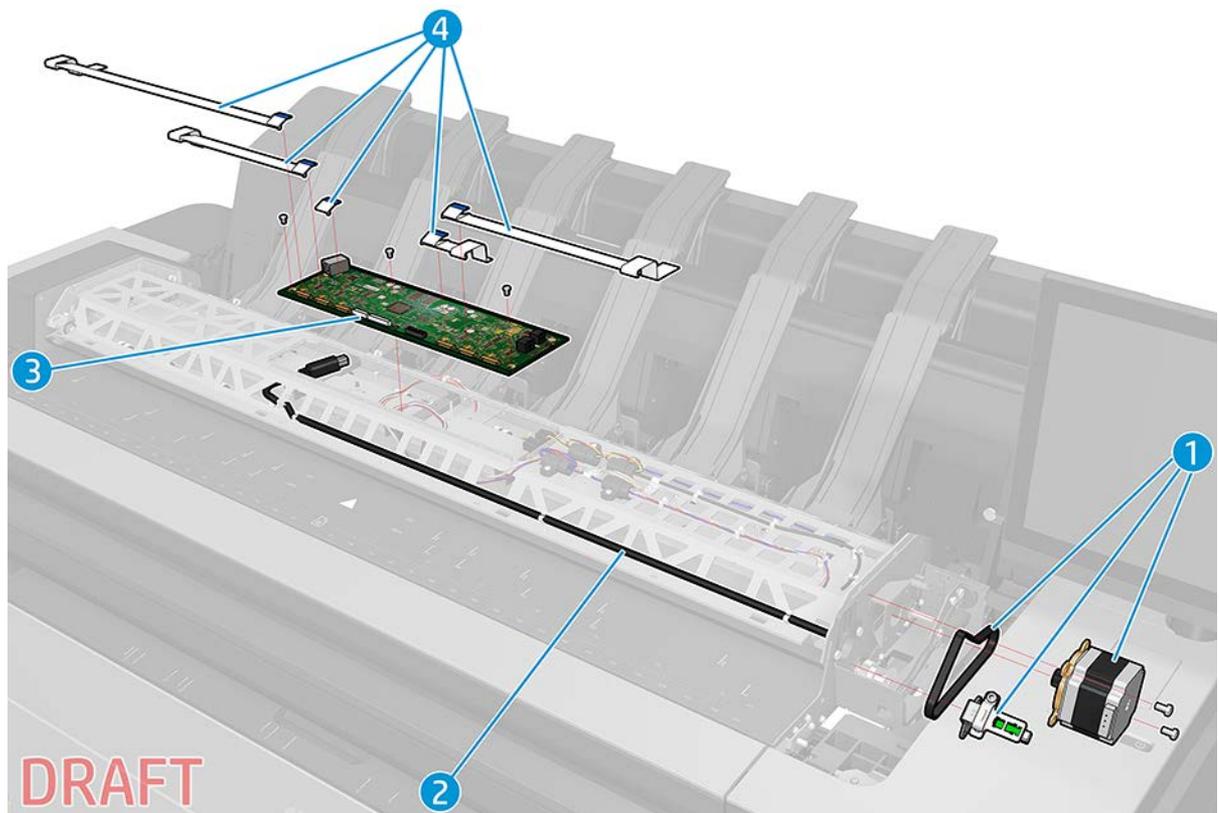
	Part number	Description	Cross-reference
1	3XB77-67002	TX600 Stepper Motor with Tach Sensor	
2	3XB77-67006	TX600 Power/Reset/Awake Cable	
3	2YB64-67058	TX3600 LW2.1 PCA SV	
4	CR359-67015	T2500/T3500 FFC Cable Set-Scanner	

E-box
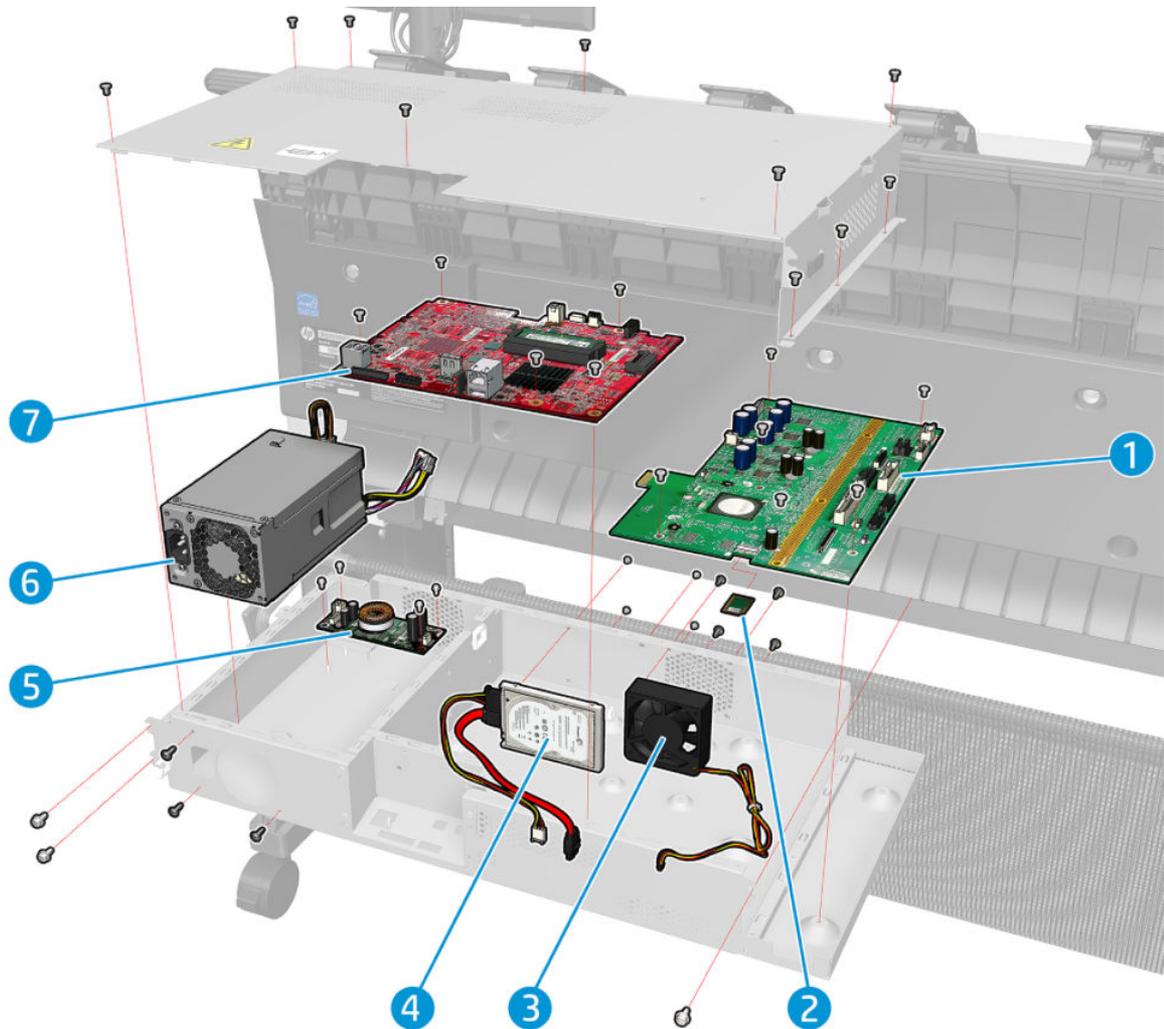
	Part number	Description	Cross-reference
1	3EK10-67003	Engine PCA	Engine PCA on page 508
2	6KD23-67027	XL3600/TX600 CryptoAsic SIM SV	
3	CR357-67099	E-Box Fan	E-Box fan on page 501
4	Y3T75-67008	GSA HDD	
5	2YB64-67021	DC/DC Power Supply PCA	DC/DC Power supply PCA on page 509
6	2YB64-67001	PSU	Power supply unit on page 503
7	Y3T75-67002	Formatter power (T2600 SF)	Formatter PCA on page 511
	3EK10-67005	Formatter power (T1600 SF)	

Center assemblies
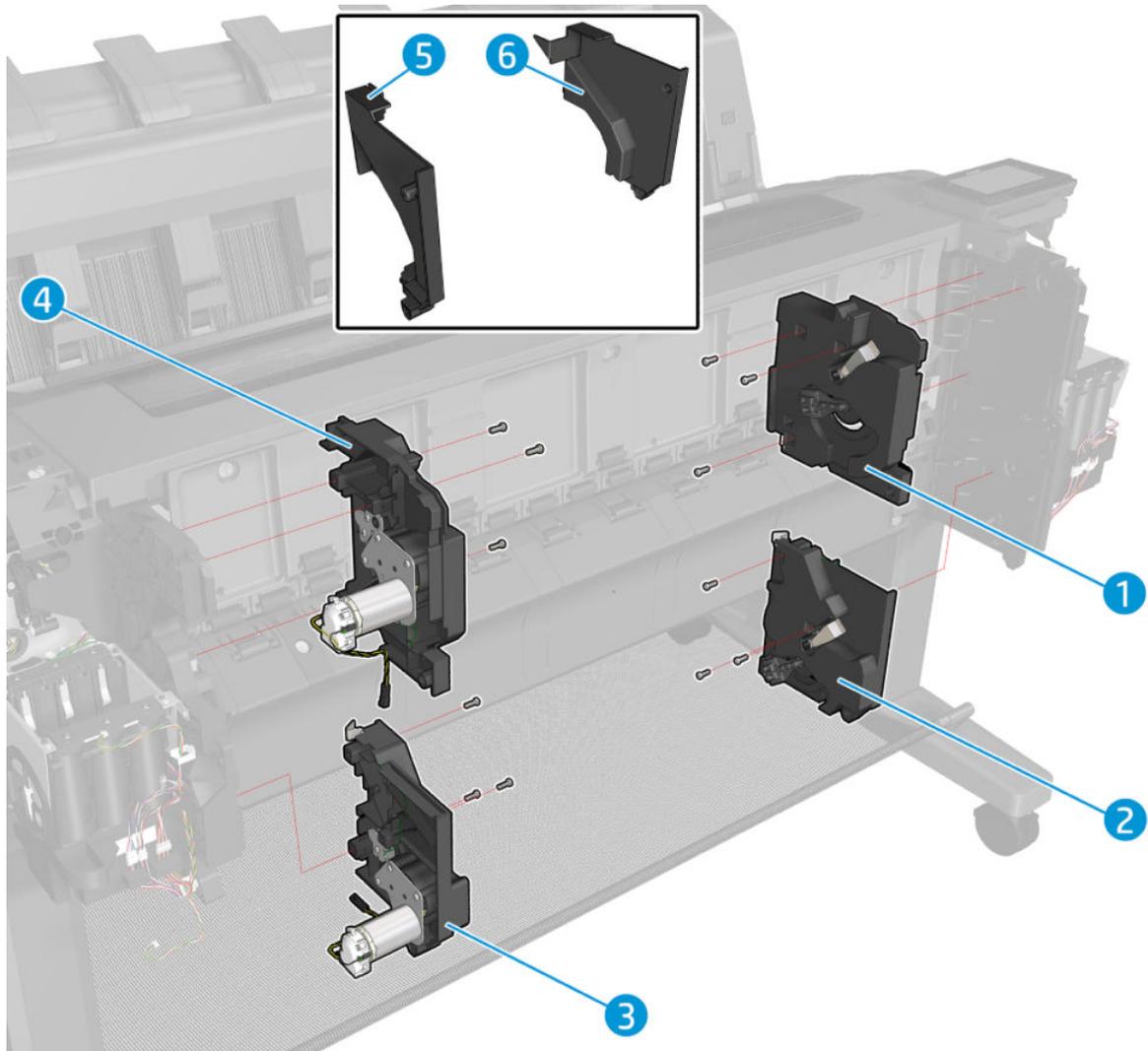
	Part number	Description	Cross-reference
1	CR357-67038	Top tip support assembly	Top Tip Support on page 565
2	CR357-67035	Bottom tip Support	Bottom Tip Support on page 566
3	CR357-67034	Bottom rewinder support	Bottom Rewinder Support on page 561
4	CR357-67037	Top rewinder support A	Top Rewinder Support on page 563
5	CR355-67005	Arch cover SVS side (1 roll)	Arch sidewall cover (service station side) on page 494
6	CR355-67004	Arch cover FP side (1 roll)	Arch sidewall cover (front panel side) on page 493

SVS side assemblies
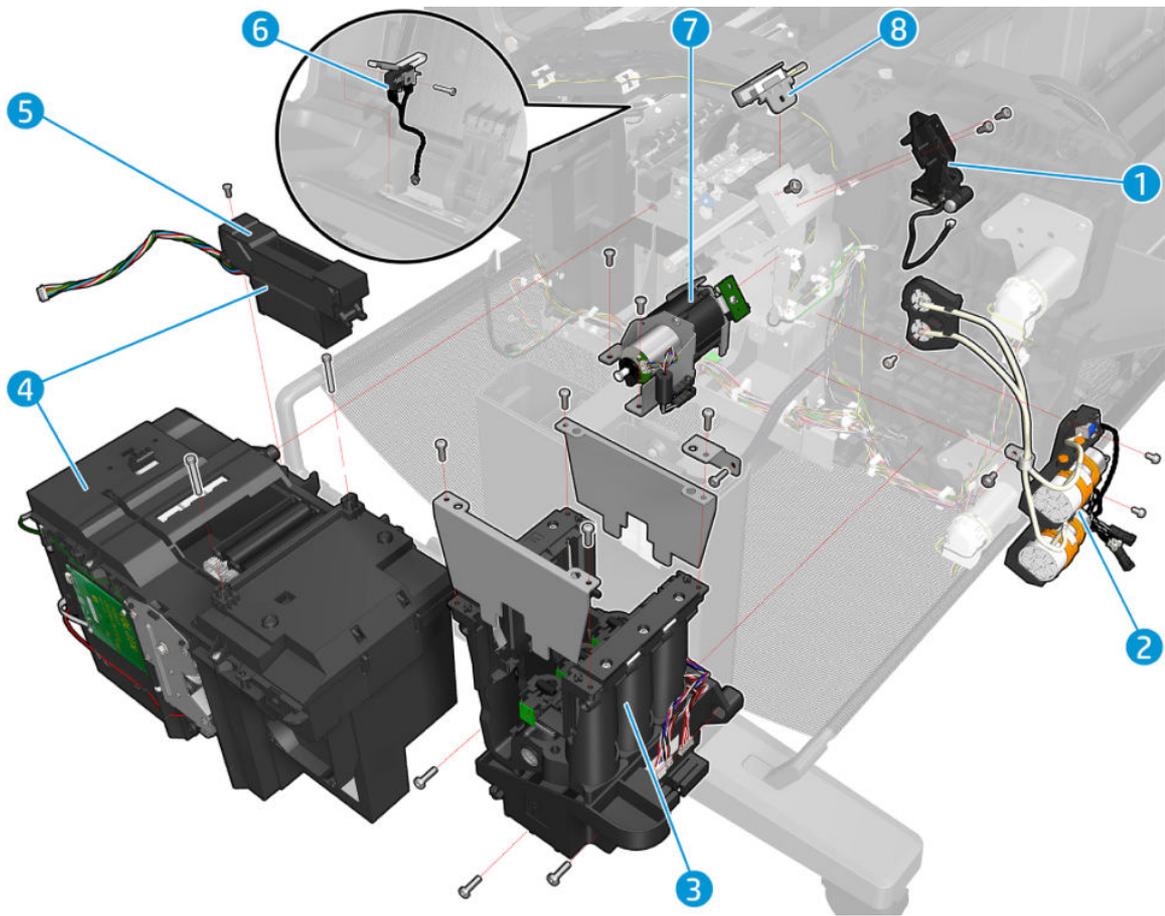
	Part number	Description	Cross-reference
1	CR357-67003	PRS Actuator	PRS Actuator on page 523
2	CR357-67024	Primer assembly	Primer Assembly on page 536
3	6KD23-67023	ISS SVS side	ISS SVS Side on page 543
4	CR357-67025	SVS W/ DD	Service Station with Drop Detector on page 532
5	CR357-67026	Drop Detector	Drop Detector on page 531
6	CR357-67080	Microswitch (sensor)	Stacker Arm Sensor on page 627
7	CR357-67005	Auto Pinch Lifter assembly	Auto Pinch Lifter on page 572
8	Q6675-60043	Rail Oiler	Rail Oiler Kit on page 522

Paper path assemblies (front)
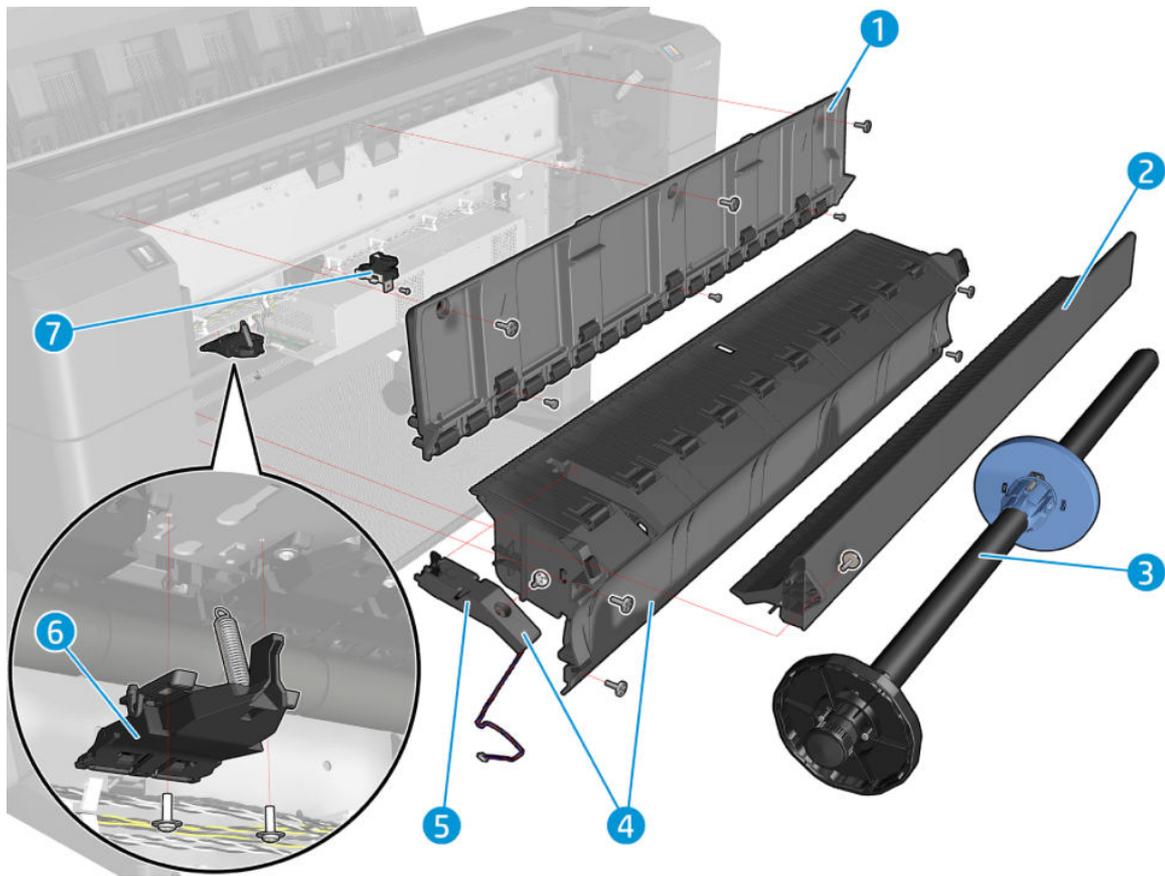
	Part number	Description	Cross-reference
1	CR357-67033	Vertical media guide Assembly	
2	CR357-67032	Converger assembly	
3	CR357-67093	Spindle 36 assembly	
4	CR354-67006	Clean-out assembly (T1600)	
	CR357-67030	Clean-out assembly (T2600)	
5	CR357-67031	Media sensor	
6	CR357-67004	Pinch wheel assembly	
7	CH538-67074	Center support assembly	

Paper path assemblies (Rear)
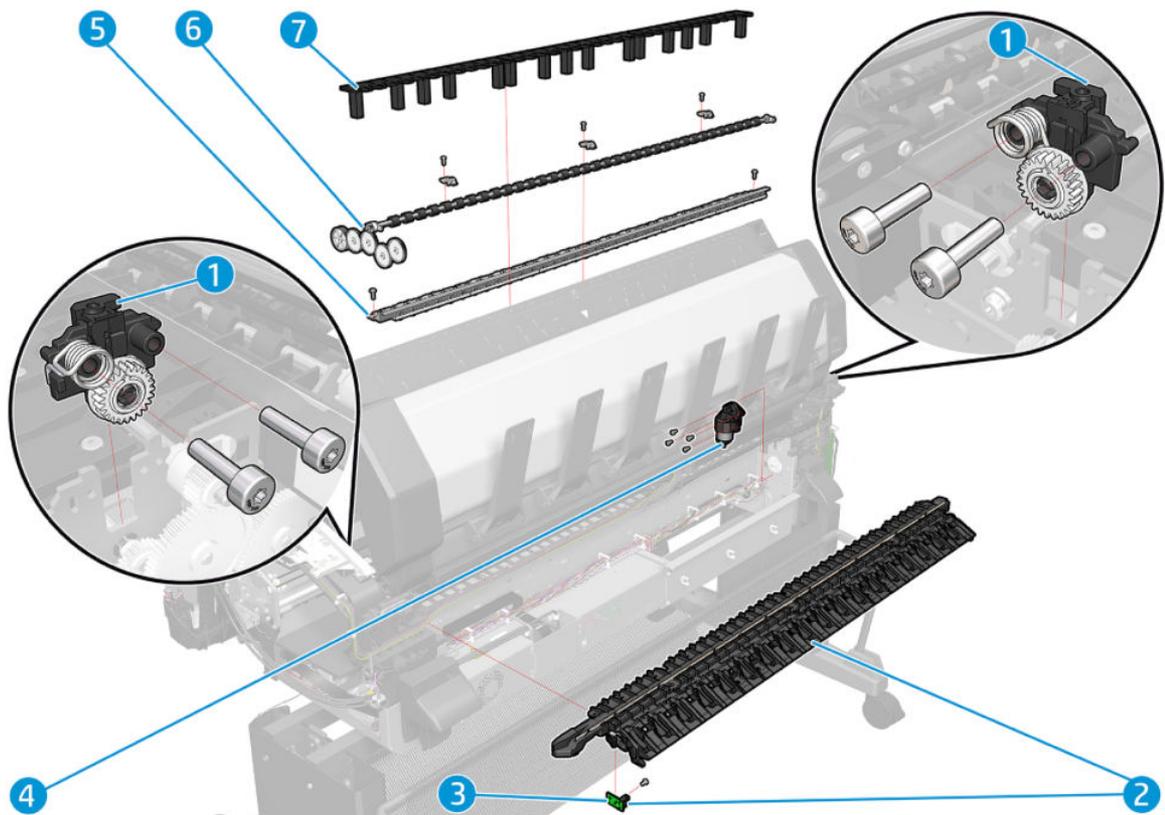
	Part number	Description	Cross-reference
1	CR357-67086	T920/Tx500 Starwheel Lifter	
2	6KD23-67042	XL3600/TX600 CUTTER PLATEN w/ ADJ TOOL	
3	CR357-67006	T920/Tx500 Opto sensor	
4	CR357-67015	T920/Tx500 Module Motor Valves	
5	CR354-67004	T920/Tx500 36 Sht Metal Starwheel Assy	
6	CR357-67011	T920/Tx500 Over drive	
7	L2Y23-67002	Full Bleed	

Stacker parts (rear)
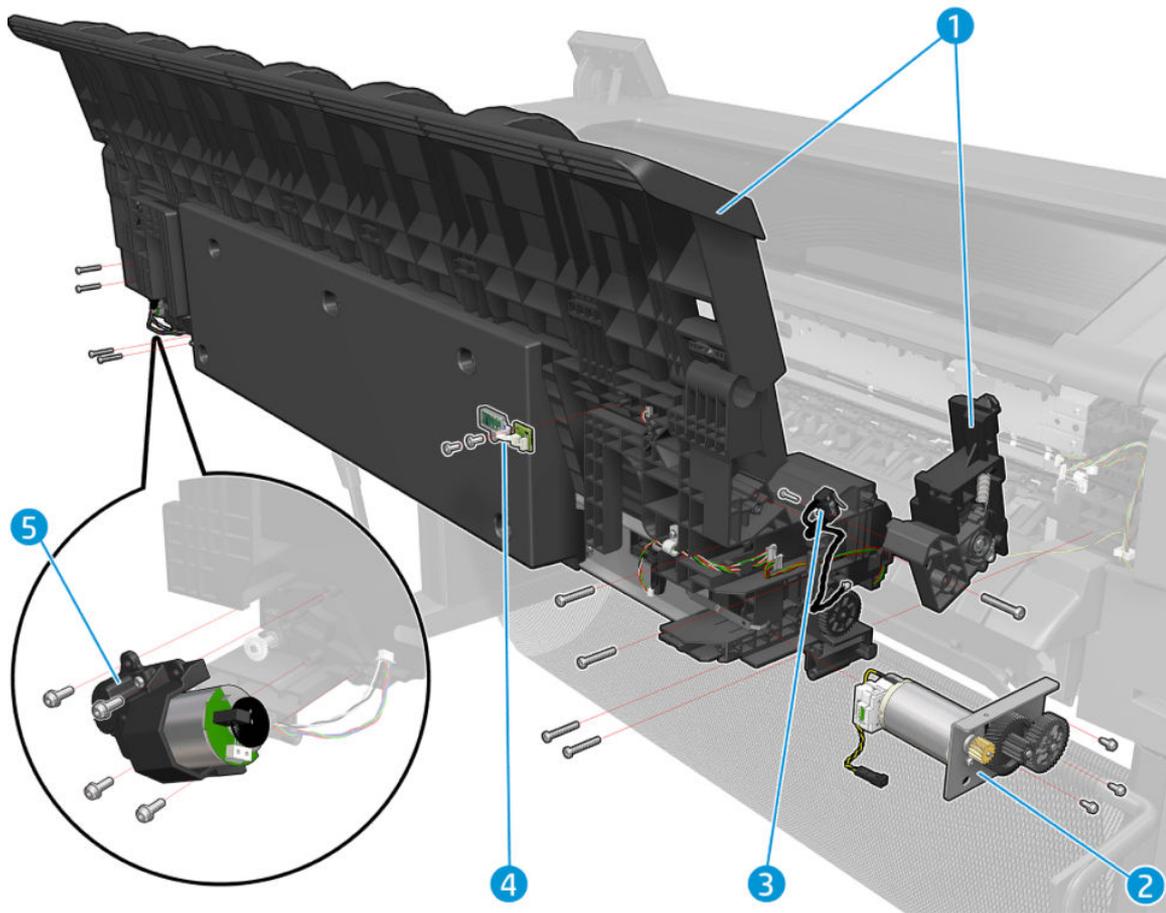
	Part number	Description	Cross-reference
1	3EK10-67007	Stacker (Single Function)	Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608
	3EK10-67009	Stacker & T9x0/T15x0/T2500 Stacker Adaptor for MFP — Includes Stacker wheel lifter MFP parts and stacker arms (T2600 MFP)	Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608 and Stacker adaptor for MFP on page 611
2	CR357-67043	Stacker OVD Transmission W/ Motor	OVD Transmission with Motor on page 623
3	CR357-67080	Microswitch (sensor)	Stacker Arm Sensor on page 627
5	CR357-67015	Ramps and valves motor	Ramps Motor on page 625 and Valves Motor on page 607

Stacker parts (front)
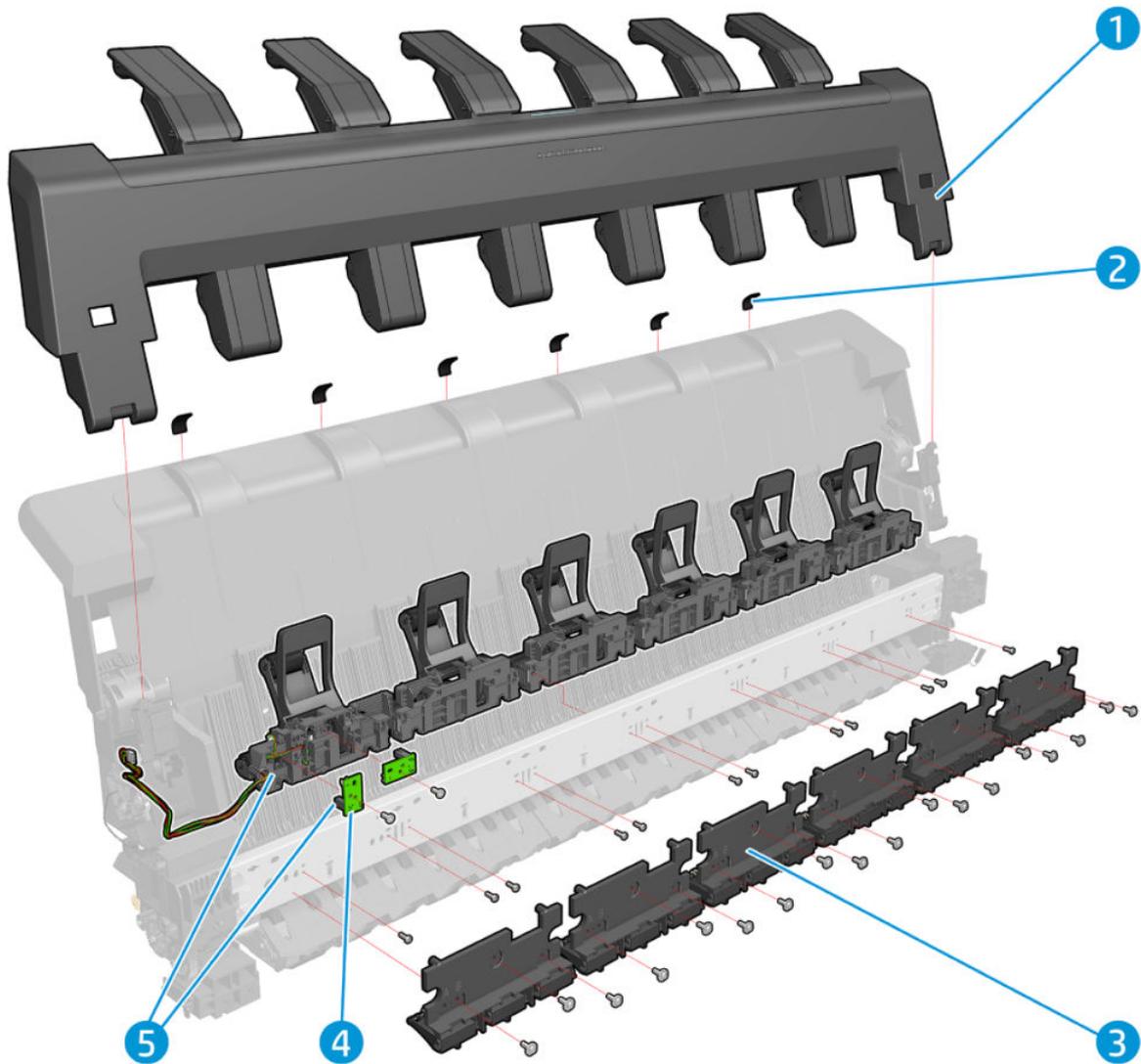
	Part number	Description	Cross-reference
1	L2Y23-67006	Stacker arms	Customer Self Repair Flyers on page 668
2	CR357-67078	Stack pad	
3	CR357-67074	Stacker Ppnches	Stacker Pinches on page 615
4	CR357-67006	Opto sensor	OPTO Sensor on page 621
5	3EK10-67008	Stacker hand off	Stacker Hand Off Assembly Service Kit (3EK10-67008) on page 617

Scan-Axis Assemblies

	Part number	Description	Cross-reference
1	CR357-67027	T920/Tx500 RIDS	
2	CR357-67021	T920/Tx500 Belt	
3	CR357-67022	T920/Tx500 Linear Encoder	
4	2YB64-67011	XL3600/TX600 cutter guide w/pulley & bumper	
5	CR357-67023	T920/Tx500 SAX Motor	
6	2YB64-67010	XL3600/TX600 cutter module w/belt	
7	6KD23-67032	XL3600/TX600 SECOND OV SW RAIL	
8	6KD23-67043	Cutter adjustment tool service kit	

Cables Kit

	Part number	Description	Cross-reference
1	Y3T75-67017	TX600 Cables Kit	
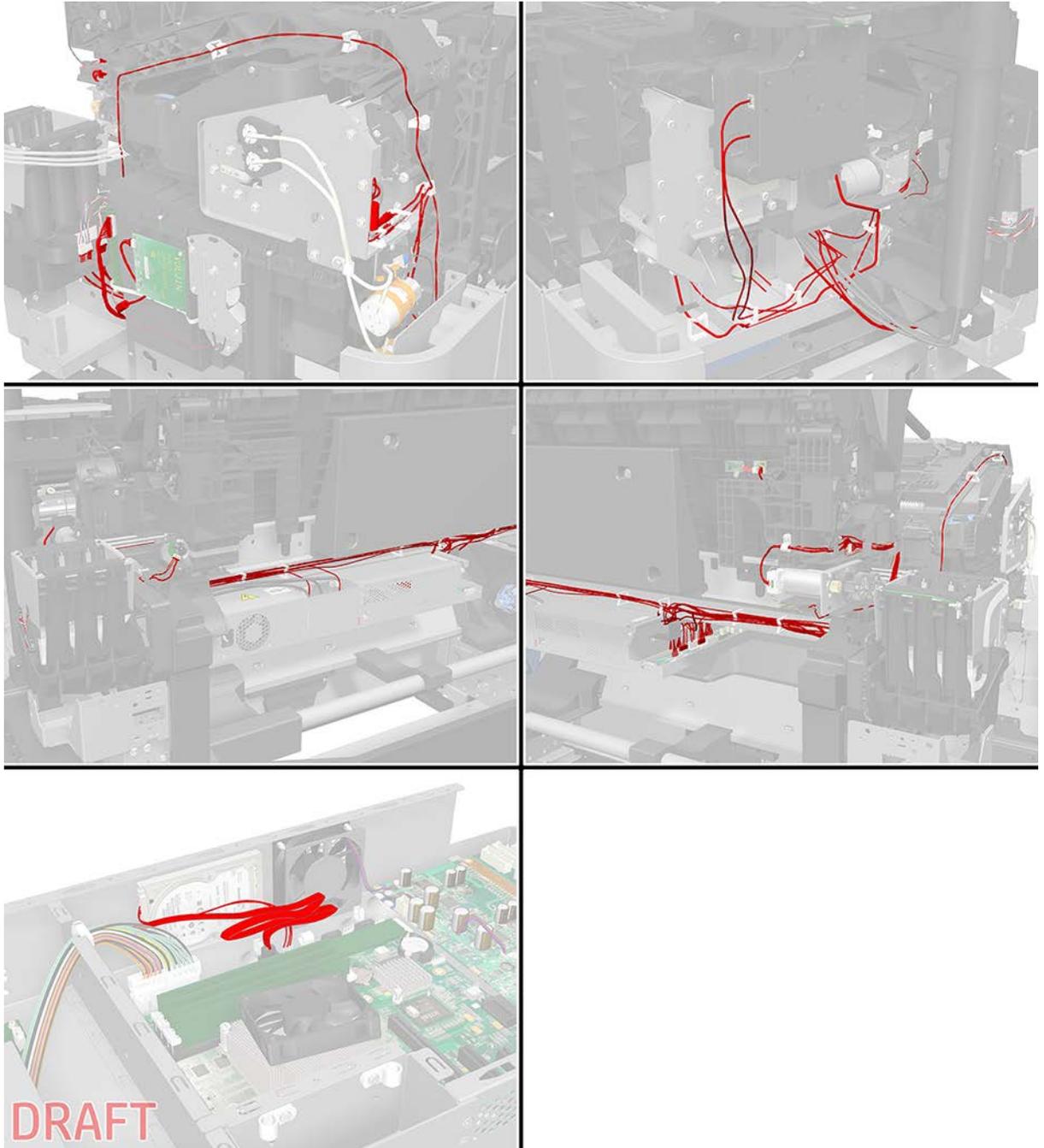
Miscellaneous parts

Part number	Description
CR354-67005	Support Label T920 Nameplate
L2Y21-67003	Support Label T930 Nameplate
CR355-67006	Support Label T920PS Nameplate
CR355-67007	Support LBL US Gov T920PS Nameplate
L2Y22-67001	Support Label T930PS Rev A. printer Nameplate
L2Y22-67003	Support LBL US Gov T930PS Nameplate
CR356-67001	Support Label T1500 Nameplate
CR357-67076	Support Label T1500PS Nameplate
CR357-67077	Support LBL US Gov T1500PS Nameplate
CR357-67094	Stand
L2Y23-67004	Support LBL T1530 Nameplate
L2Y24-67002	Support Label T1530PS Rev A. printer Nameplate
L2Y24-67003	Support LBL US Gov T1530PS Nameplate
CR358-67001	Support Label T2500 Nameplate
CR359-67028	Support Label T2500PS Nameplate
CR359-67027	Support LBL US Gov T2500PS Nameplate
L2Y25-67002	Support Label T2530 Nameplate
L2Y26-67001	Support Label T2530PS Rev A. printer Nameplate
L2Y26-67002	Support LBL US Gov T2530PS Nameplate
CR359-67032	Serial Label for: • T25x0 Rev. A printers
CQ533-60001	Europe Power Cord KIT for • T9x0 Rev.A printers • T15x0 Rev.A printers • T25x0 Rev.A printers
CQ533-60002	America Power Cord KIT
CQ533-60003	Asia Power Cord KIT for: • T9x0 Rev.A printers • T15x0 Rev.A printers • T25x0 Rev.A printers
Y3T75-67060	Product Cables
Y3T75-67017	TX600 Cable Kit

Part number	Description
Y3T75-67007	PM Kit-1
CR357-67073	PM Kit-2
—	Serial Label for: • T920 printers • T930 Rev. A printers • T1500 Rev. A printers • T1530 Rev. A printers
CR357-67079	Paper Advance Calibration

7 Removal and installation

- Main cover (front panel side Y3T75-67011)

- Top scanner cover (Y3T75-67014)

- Center cover (CR357-67054)

- Converger assembly (CR357-67032)

- Wifi Bezel Housing (Y3T75-67006)

- Clean-out

- Rear cover (Y3T75-67016)

- Wifi Lid (3EK10-67006)

- T2600 Front Panel Arm (Y3T75-67003)

- T2600 Front Panel Tube (Y3T75-67004)

- Arch sidewall cover (front panel side)

- Arch sidewall cover (service station side)

- Window Sensor

- Open the E-Box

- E-Box fan

- Power supply unit

- Hard disk drive

- How to replace the HDD

- Engine PCA

- DC/DC Power supply PCA

- Formatter PCA

- Front panel – (HP DesignJet T1600 only)

- Carriage

- Line Sensor

- Carriage PCA

- Rail Oiler Kit

- PRS Actuator

- Belt

- Encoder Strip

- Scan-axis motor

- Drop Detector

For HP-authorized personnel only

- Service Station with Drop Detector
- Primer Assembly
- ISS (Ink Supply Station) Front Panel Side
- ISS SVS Side
- Ink Tubes and Trailing Cable
- Media Sensor (CR357-67031)
- Card Reader
- Cleanout Assembly (CR357-40003)
- Bottom Rewinder Support
- Top Rewinder Support
- Top Tip Support
- Bottom Tip Support
- Vertical Media Guide
- Center Support
- Full Bleed
- Auto Pinch Lifter
- Pinch Wheel Assembly
- Motor Media Advance Transmission with Encoder
- Starwheel Motor
- Starwheel Support
- Second Starwheel Rail
- Cutter module
- Overdrive
- Cutter Platten
- Sensor Valves
- Valves Motor
- Stacker assembly (3EK10-67007 & 3EK10-67009)
- Stacker adaptor for MFP
- Stacker Pinches
- Stacker Hand Off
- Stacker Hand Off Assembly Service Kit (3EK10-67008)

- OPTO Sensor

- OVD Transmission with Motor

- Ramps Motor

- Stacker Arm Sensor

- How to release Service Station Caps

- How to manually move Valves

- How to manually move Stacker Ramps

- Scanner Controller Unit (SUP)

- CIS Tiles

- CIS Modules

- CIS FFC Cables

- CIS Glass

- Stepper Motor Assembly (taco sensor, and belt)

- Stepper Motor Assembly (cable)

- Paper and Lid Sensors

- Paper and Lid Sensor Cable

- USB & Awake / Power Cable

- CIS Bridge Damper

- CIS Scanner Latch

- Pressure Rollers

- Front panel side scanner cover

- Service station side scanner cover

- Rear scanner cover

- Bumper bracket

- Deflector hinge

- Lift assembly

- Scanner front beam bumper assembly

- Scanner latch hook assembly

- Card Reader Accessory

Parts list

	Title	Type
1	Fixed tray CP cover (CR357-67060)	Covers
2	Fixed tray SVS cover (CR357-67061)	Covers
3	Left protective cover (L2Y21-67015)	Covers
4	Main cover (front panel side)	Covers
5	Main cover (service station side)	Covers
6	Center cover	Covers
27	Rear cover	Covers
8	Arch sidewall cover (front panel side)	Covers
9	Arch sidewall cover (service station side)	Covers
10	Window Sensor	Covers
11	Front panel side scanner cover	Covers
12	Service station side scanner cover	Covers
13	Rear scanner cover	Covers
14	Top scanner cover	Covers
15	Card Reader Accessory	Covers
16	Front panel (2YB64-60122) – (T2600 MFP only)	Front panel
17	Front panel – (HP DesignJet T1600 only)	Front panel
18	E-box	EE subsystem
19	Open the E-Box	EE subsystem
20	E-Box fan	EE subsystem
21	Power supply unit	EE subsystem
22	DC/DC Power supply PCA	EE subsystem
23	Formatter PCA	EE subsystem
24	Engine PCA	EE subsystem
25	Hard disk drive	EE subsystem
26	Scan-axis motor (CR357-67023)	Scan axis components
27	Linear encoder (CR357-67022)	Scan axis components
28	Encoder Strip	Scan axis components
29	Belt	Scan axis components
30	Carriage latch (CR357-67070)	Scan axis components
31	Carriage (CR357-67092)	Scan axis components

	Title	Type
32	Carriage PCA	Scan axis components
33	Line Sensor	Scan axis components
34	Rail Oiler Kit	Scan axis components
35	PRS Actuator	Scan axis components
36	Drop Detector	Scan axis components
37	Service Station with Drop Detector	Scan axis components
38	How to release Service Station Caps	Scan axis components
39	Primer Assembly	Scan axis components
40	ISS (Ink Supply Station) Front Panel Side	IDS subsystem
41	ISS SVS Side	IDS subsystem
42	Ink Tubes and Trailing Cable	IDS subsystem
43	Cutter module	Cutter subsystem
44	Cutter module with belt (2YB64-67010)	Cutter subsystem
45	Cutter motor with support (2YB64-67009)	Cutter subsystem
46	Cutter guide with pulley and bumper (2YB64-67011)	Cutter subsystem
47	Cutter Platten	Cutter subsystem
48	Cutter adjustement	Cutter subsystem
49	Bottom Rewinder Support	Paper input subsystem
50	Top Rewinder Support	Paper input subsystem
51	Top Tip Support	Paper input subsystem
52	Bottom Tip Support	Paper input subsystem
53	Clean-out	Paper input subsystem
54	Media Sensor	Paper input subsystem
55	Auto Pinch Lifter	Paper input subsystem
56	Converger Assembly	Paper input subsystem
57	Vertical Media Guide	Paper input subsystem
58	Auto Pinch Lifter	Paper input subsystem
59	Motor Media Advance Transmission with Encoder	Paper input subsystem
60	Starwheel Motor	Paper input subsystem
61	Starwheel Support	Paper input subsystem
62	Full Bleed	Paper input subsystem

	Title	Type
63	Center Support	Paper input subsystem
64	Second Starwheel Rail	Paper output subsystem
65	Overdrive	Paper output subsystem
66	Sensor Valves	Paper output subsystem
67	Valves Motor	Paper output subsystem
68	How to manually move Valves	Paper output subsystem
69	Ramps Motor	Paper output subsystem
70	How to manually move Stacker Ramps	Paper output subsystem
71	Output platen (CR357-67014)	Paper output subsystem
72	Stacker	Stacker subsystem
73	Stacker adaptor for MFP	Stacker subsystem
74	OVD Transmission with Motor	Stacker subsystem
75	Stacker Pinches	Stacker subsystem
76	Stacker Hand Off Assembly Service Kit (CR357-67041)	Stacker subsystem
77	Stacker Hand Off	Stacker subsystem
78	OPTO Sensor	Stacker subsystem
79	Stacker Arm Sensor	Stacker subsystem
80	Scanner Controller Unit (SUP)	Scanner
81	CIS Tiles	Scanner
82	CIS Modules	Scanner
83	CIS FFC Cables	Scanner
84	CIS Glass	Scanner
85	Stepper Motor Assembly (taco sensor, and belt)	Scanner
86	Stepper Motor Assembly (cable)	Scanner
87	Paper and Lid Sensors	Scanner
88	Paper and Lid Sensor Cable	Scanner
89	USB & Awake / Power Cable	Scanner
90	CIS Bridge Damper	Scanner
91	CIS Scanner Latch	Scanner
92	Pressure Rollers	Scanner
93	Bumper bracket	Scanner
94	Deflector hinge	Scanner

	Title	Type
95	Lift assembly	Scanner
96	Scanner front beam bumper assembly	Scanner
97	Scanner latch hook assembly	Scanner
98	Batch scanning piece	Scanner

Parts list; HP Designjet T2600 MFP Series only

📝 **NOTE:** Before replacing any electrical parts such as the Scanner Control Unit, or Cameras, try calibrating the scanner in order to get the scanner to recreate the content of the parameter block. This will solve the problem in most cases.

Parts in alphabetical order

Bumper bracket on page 652

CIS Bridge Damper on page 645

CIS FFC Cables on page 635

CIS Glass on page 636

CIS Modules on page 634

CIS Scanner Latch on page 647

CIS Tiles on page 633

Deflector hinge on page 653

Front panel (2YB64-60122) – (T2600 MFP only) on page 432

Front panel side scanner cover on page 649

Lift assembly on page 654

Paper and Lid Sensors on page 640

Paper and Lid Sensor Cable on page 642

Pressure Rollers on page 648

Rear scanner cover on page 651

Scanner Controller Unit (SUP) on page 632

Scanner front beam bumper assembly on page 655

Scanner latch hook assembly on page 656

Service station side scanner cover on page 650

Stacker adaptor for MFP on page 611

Stepper Motor Assembly (cable) on page 639

Stepper Motor Assembly (taco sensor, and belt) on page 637

Top scanner cover (Y3T75-67014) on page 478

USB & Awake / Power Cable on page 643

Introduction

This chapter is a step-by-step guide to removal and installation of the key components of the product. It may be useful to check off the steps as they are performed. Use the illustrations for each procedure to identify the parts referred to in the text.

Some of the procedures have a video available which can be downloaded. When a video is available the following graphic is shown:

Click on the graphic to download the video. These videos and others, are also available from the **Service Media Library**.

- Employees and contingent workers: http://thesml.hp.com

- HP Channel partners, external call centers (requires registration): http://h20181.www2.hp.com/plm

- HP Customers: http://www.hp.com/go/sml

NOTE: 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 the instructions identified by WARNING and CAUTION symbols before servicing the product. Follow these warnings and cautions for protection and to avoid damaging the product.

NOTE: 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 product 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 product's 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 product. 202 Chapter 6 Removal and Installation ENWW.

5. After removing a cover from the product, 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 product.

6. After removing any PCA from the product, place it on a conductive foam pad or into its conductive packaging to prevent ESD damage to any ICs on the PCA.

Required Tools

All the special tools and equipment required to disassemble, service and repair the product are provided in the Toolkit. Some tools can be ordered separately from the toolkit.

Toolkit Q6683-67028 contains the following tools:

Description/Comments	HP Part Number
Cleaning Cloth	9300-2531
Lubricant oil	6040-0855
Oil dispenser	Q6675-60062
Media advance drive adjustment tool	NA
Protective plastic gloves	Q6675-60035
Spring insertion tool	Q5669-20594
Tweezers	Q6675-60037

You will also need the following standard hand tools:

Description/Comments	Size
Long Torx Screwdriver	1/4 inch drive
Torx Bit (75 mm) magnetic end	8/9/10 straight, 15/20 straight and angled
Philips Screwdriver	PH1
Pliers	N/A
Snips	N/A
Flat-bladed Screwdriver	N/A
Pipe Spanner	5.5 mm
Wrench	7.0 mm
Long Torx Screwdriver	1/4 inch drive

Customer Self Repair parts

Some product parts are designated Customer Self Repair (CSR) parts, which means that a faulty part can be replaced by the customer. Non-CSR parts need to be replaced by an engineer.

The CSR parts are listed below:

Part number	Description	Flier	SKUs
Y3T75-67018	Ink covers, service-station side	Yes	HP DesignJet T1600 and T2600
Y3T75-67010	Ink covers, front panel side	Yes	HP DesignJet T1600 and T2600
Y3T75-67016	Rear cover	Yes	HP DesignJet T1600 and T2600
3EK10-67006	WIFI lid	Yes	HP DesignJet T1600 and T2600
CR354-67004	Starwheel	Yes	HP DesignJet T1600 and T2600
2YB64-60122	Front panel	Yes	HP DesignJet T2600
L2Y23-67006	Stacker arm	Yes	HP DesignJet T1600 and T2600
CR357-67066	Basket	Yes	HP DesignJet T1600 and T2600
CR357-67070	Carriage latch	Yes	HP DesignJet T1600 and T2600
CR357-67036	Bottom roll cover	Yes	HP DesignJet T1600 and T2600 (dual roll only)
CR357-67067	Pinch arm top and bottom rolls	Yes	HP DesignJet T1600 and T2600 (dual roll only)
Y3T75-67015	Top roll cover	Yes	HP DesignJet T1600 and T2600
CR357-67089	Stacker tray filler	Yes	HP DesignJet T1600 and T2600
CN727-69006	Calibration sheet	No	HP DesignJet T1600 and T2600
3XB77-67005	Glass Plate	No	HP DesignJet T1600 and T2600

For further information

- CSR Corporate Standards: http://standards.corp.hp.com/smc/hpstd/AHP0001501.htm

- CSR Web site: http://www.hp.com/go/csrparts/

- Part Surfer: http://partsurfer.hp.com/search.aspx

- HP Parts Page: http://partpage.corp.hp.com/default.asp

Service Calibration Guide to Removal and Installation

Using the Service Calibration Guide

When you remove most product components, you will need to perform a particular set of Service Calibrations and Diagnostic tests to ensure proper product performance.

The Service Calibration Table explains which service calibrations and diagnostic tests need to be performed whenever you remove and install particular product components.

The calibrations and tests must be performed in the order in which they are listed.

NOTE: Even if you do not replace the removed component with a new component, you still need to perform the calibrations indicated in the table.

Diagnostics and Calibration Table

Component	Diagnostic Tests	Calibrations	Service Utilities
Auto Pinch Lifter	Pinches lifter	—	—
Belt	Scan Axis / Scan Axis	—	After replacement, reset "scan axis belt" usage counters
Carriage Assembly	Carriage Assembly, Scan Axis /Scan Axis, Scan Axis / Cutter	Line Sensor Calibration	After replacement, reset "carriage" usage counters
Carriage PCA	Carriage Assembly	Line Sensor Calibration	—
Center support	Paper Drive	Paper Advance Calibration	—
Cutter	Scan Axis / Cutter	Cutter offset Calibration	—
Cutter platen – Output Valves	Output Valve, Scan Axis / Cutter	Output Valve Calibration, Line Sensor Calibration, Cutter offset Calibration	—
Drop Detector	—	Before replacement, run Drop Detector Calibration / Reset Calibration Flag. After replacement, run Drop Detector Calibration / Calibrate Drop Detector	After replacement, reset "drop detector working time" usage counters
Encoder Strip	Scan Axis / Scan Axis	—	—
Formatter PCA, Hard Disk Drive, Engine PCA, Jester PCA, Front Panel, Power Supply Unit, PSU Fan	Electronics Module	—	—
Ink Supply Station Front Panel Side	Ink Delivery System	—	—
Ink Supply Station SVS side	Ink Delivery System	—	—
Ink Tubes and Trailing Cable	Scan Axis / Scan Axis, Ink Delivery System	—	After replacement, reset "tubes and trailing cable" usage counters, and perform the purge tubes routine.
Line Sensor	Carriage Assembly	Line Sensor Calibration	—

Component	Diagnostic Tests	Calibrations	Service Utilities
Motor Media Advance Transmission with Encoder	Paper Drive	Paper Advance Calibration	—
Overdrive	Paper Drive	—	—
Pinch Rollers	Paper Drive	—	—
Preventative Maintenance #1	Carriage Assembly, Scan Axis / Scan Axis, Scan Axis / Cutter	Line Sensor Calibration	After replacement, reset "Life PMK1" counters
Preventative Maintenance #2	Service Station, Carriage Assembly	Before replacement, run Drop Detector Calibration / Reset Calibration Flag. After replacement, run Drop Detector Calibration / Calibrate Drop Detector. Line Sensor Calibration	After replacement, reset "Life PMK2" counters
Primers	Service Station / Primer motor	—	—
PRS Actuator	Scan Axis / PRS	—	—
Rail Oiler	Scan Axis / Scan Axis	—	—
Scan Axis motor	Scan Axis / Scan Axis	—	After replacement, reset "scan motor" usage counters
Stacker (w/o Arms assy)	Stacker Overdrive, Stacker Ramps	Stacker Overdrive Calibration, Output Valve Calibration	—
Stacker Arm sensor (microswitch)	Sensors	—	—
Stacker capacity sensor (opto)	Stacker capacity sensor	—	—
Stacker jam sensor (opto)	Stacker jam sensor	—	—
Stacker OVD Transmission W/ Motor	Stacker Overdrive	Stacker Overdrive Calibration	—
Stacker Ramps Motor	Stacker Ramps	—	—
Stacker Valves motor	Output Valve	Output Valve Calibration, Line Sensor Calibration	—
Stacker Valves sensor	Output Valve	Output Valve Calibration, Line Sensor Calibration	—
Starwheel lifter mech	Scan Axis / Starwheel Lifter	–	—
Starwheel supports	Scan Axis / Starwheel Lifter	—	—
SVS W/ Drop Detector	Service Station	Before replacement, run Drop Detector Calibration / Reset Calibration Flag. After replacement, run Drop Detector Calibration / Calibrate Drop Detector	After replacement, reset ""SVS"" usage counters. After replacement, reset ""drop detector working time"" usage counters

Component	Diagnostic Tests	Calibrations	Service Utilities
Top or Bottom Rewinder	Rewinder	—	—
Upper or Lower Roll Cover Sensor (microswitch)	Sensors	—	—
Window Position Sensor (microswitch)	Sensors	—	—

T920/Tx500 Output platen (CR357-67014)

Removal

1. Turn off the printer.

2. Remove the 2 arch sidewall covers. See Arch sidewall cover (service station side) on page 494 andArch sidewall cover (front panel side) on page 493.

3. Remove two screws.
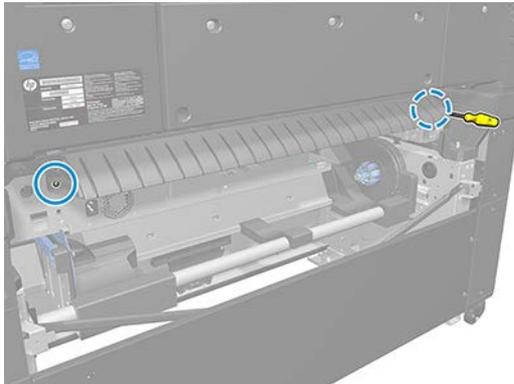
4. Remove the output platen.
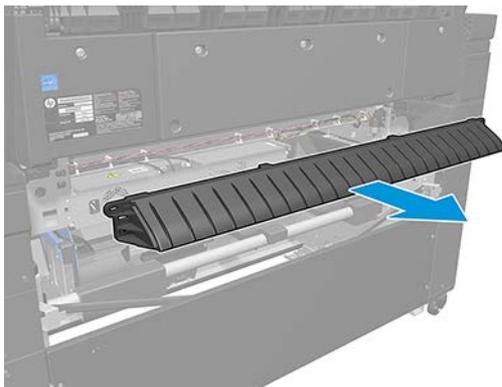
Fixed tray CP cover (6KD23-67044)

Removal

1. Turn off the printer.

2. Open the right ink cover.

3. Unscrew three screws.
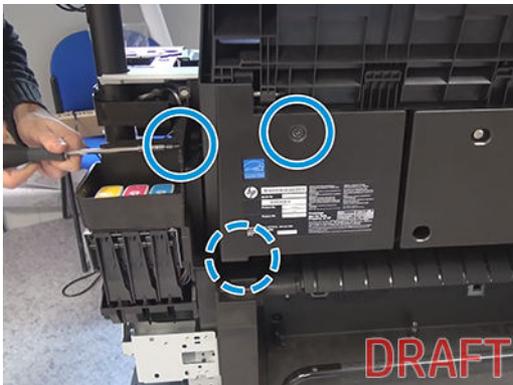
4. Remove the fixed tray CP cover.
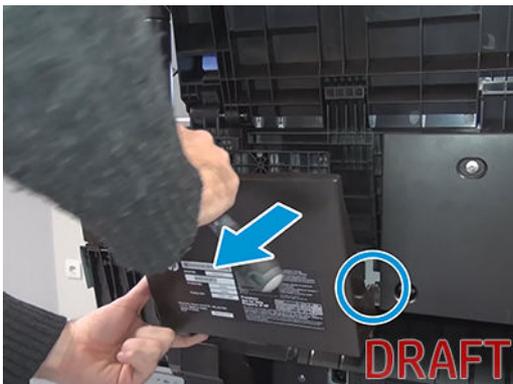
Fixed tray SVS cover (CR357-67061)

Removal

1. Turn off the printer.

2. Open the right ink cover.

3. Unscrew three screws.
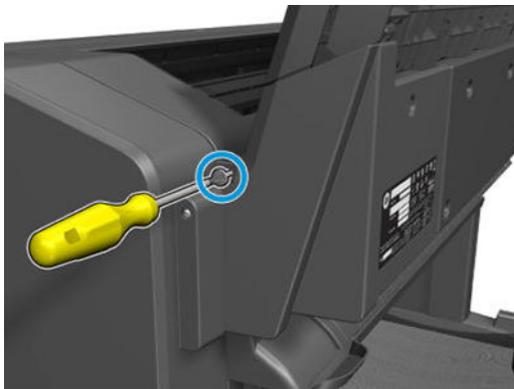
4. Remove the fixed tray SVS cover.
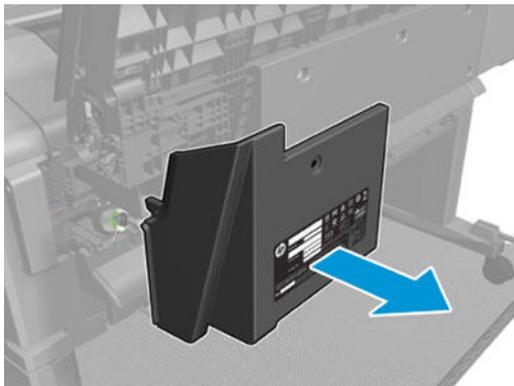
Left protective cover (L2Y21-67015)

Removal

1. Turn off the printer.

2. Remove the Front panel side cover.

3. Unscrew the two left protective over screws.
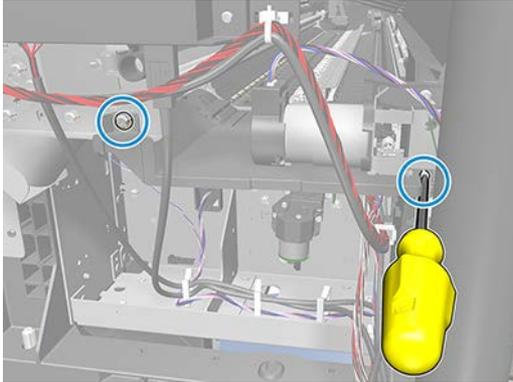
4. Remove the left protective cover.
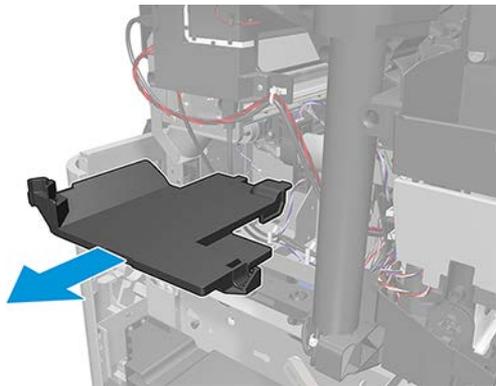
Front panel (3EK10-67001) – (T1600 only)

Removal

1. Turn off the printer.

2. Remove the main front panel cover. See .

3. Remove the 2 front panel screws.
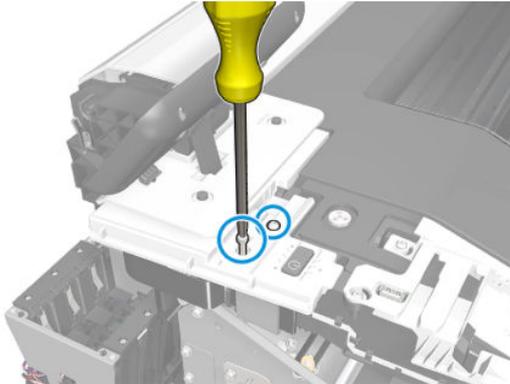
4. Open the top roll cover.
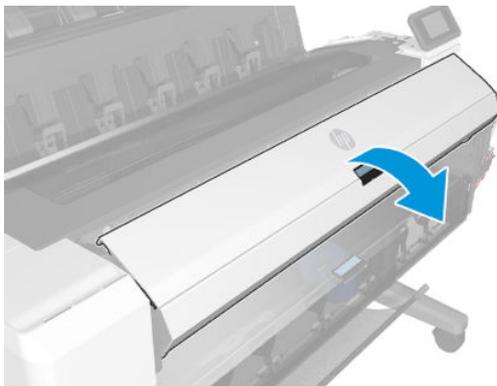
5. Remove the hidden screw.
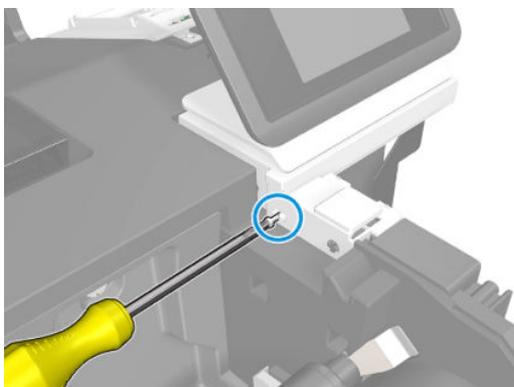
6. Release the front panel.
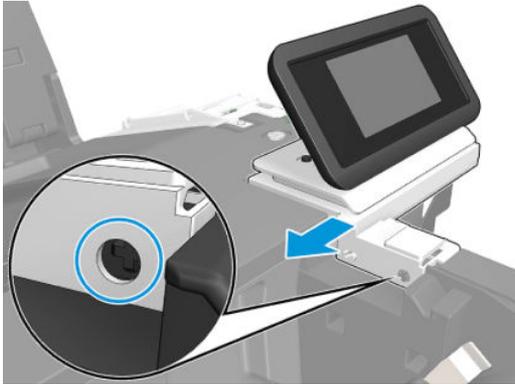
7. Rotate the front panel.
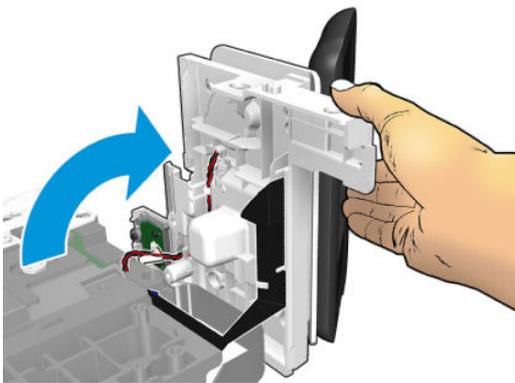
8. Unplug the cables.
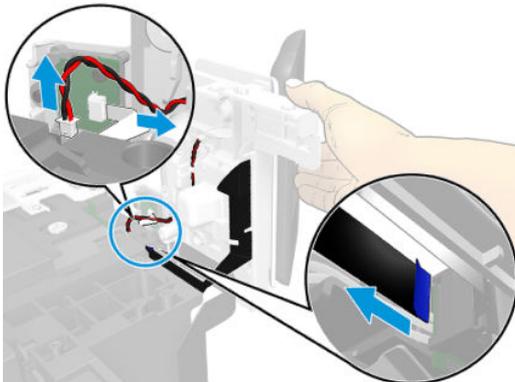
9. Remove the front panel.
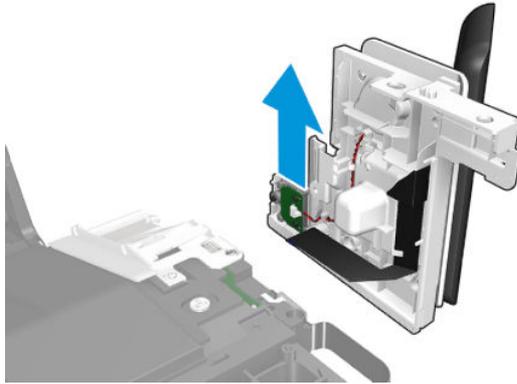
Front panel (2YB64-60122) – (T2600 MFP only)

Removal

1. Turn off the printer.

2. Remove all the cables of the front panel.
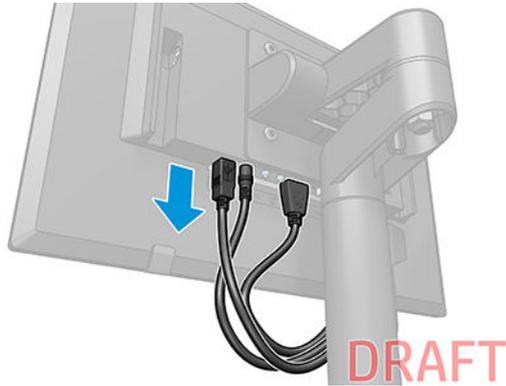
3. Remove four screws (first the ones at the bottom).
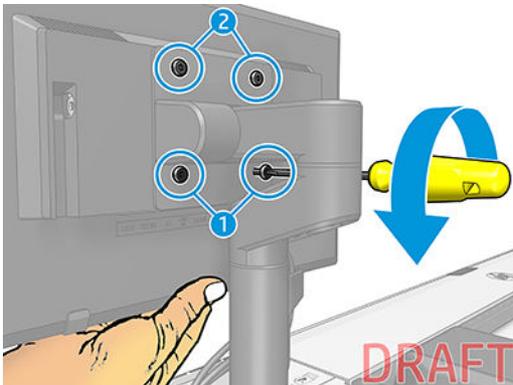
4. Remove the front panel.
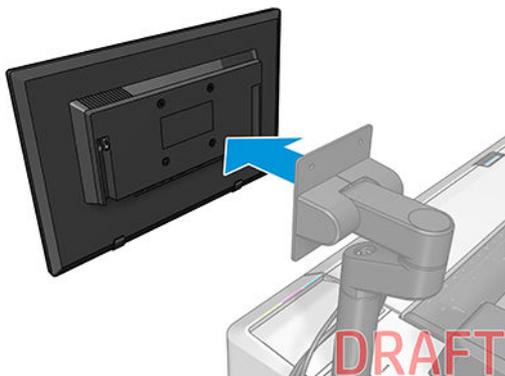
Front panel bezel (Y3T75-67005)

Removal

1. Turn off the printer.

2. Remove the front panel tube. See T2600 Front Panel Tube (Y3T75-67004) on page 490.

3. Remove the front panel bezel.
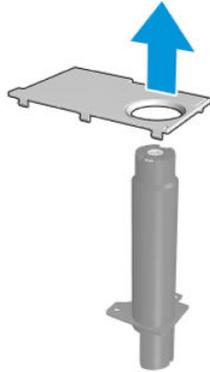
Right bracket with power button and speaker (Y3T75-67001)

Removal

1. Turn off the printer.

2. Remove the front panel tube. See T2600 Front Panel Tube (Y3T75-67004) on page 490.

3. Remove the front panel cover. See Main cover (front panel side Y3T75-67011) on page 475.

4. Unclip the cable.
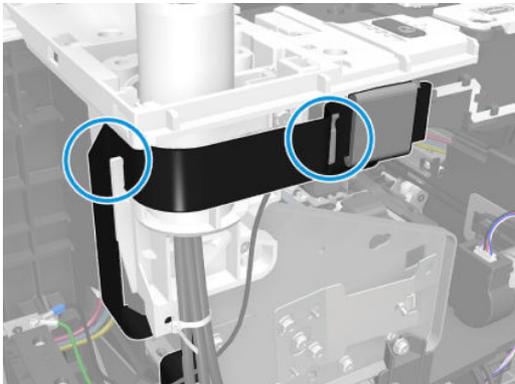
5. Unscrew the grounding cable.
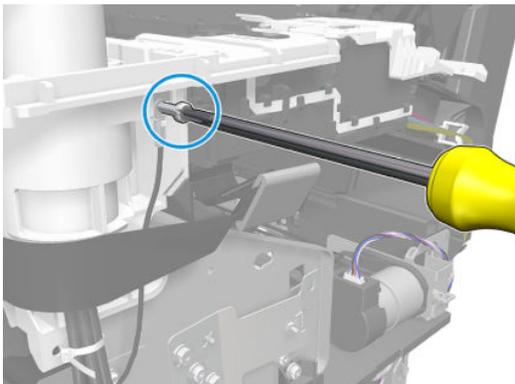
6. Unroute the panel cables.
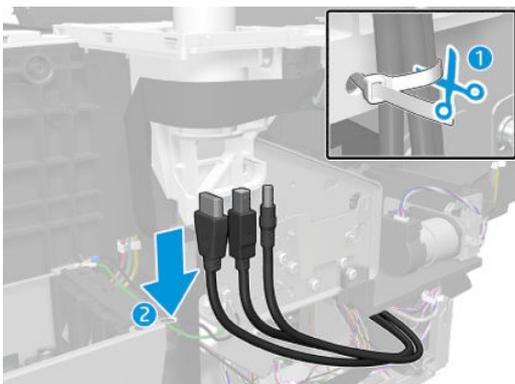
7. Open the roll cover.
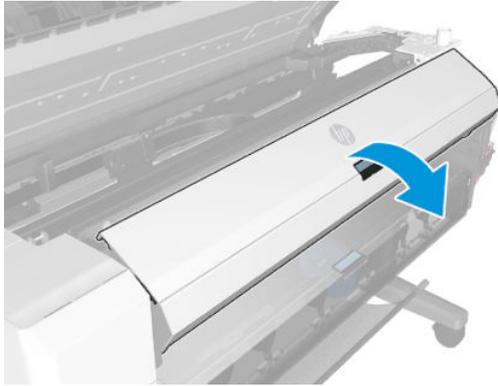
8. Unscrew the four panel screws.
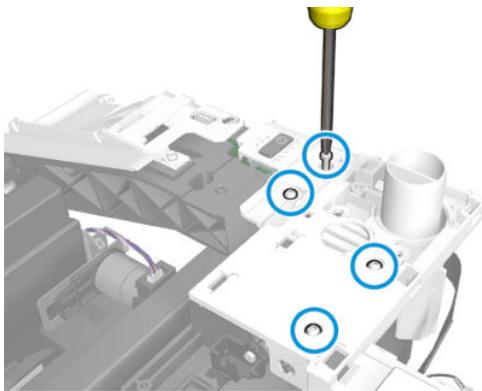
9. Unscrew the hidden screw.
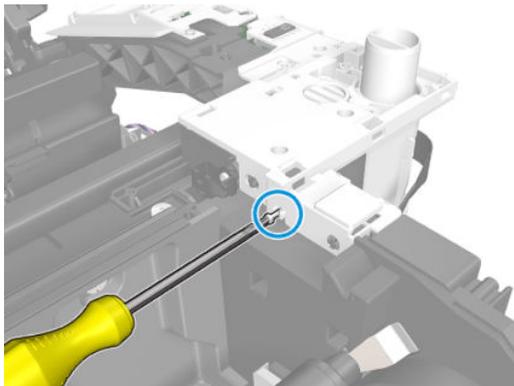
10. Release the right bracket.
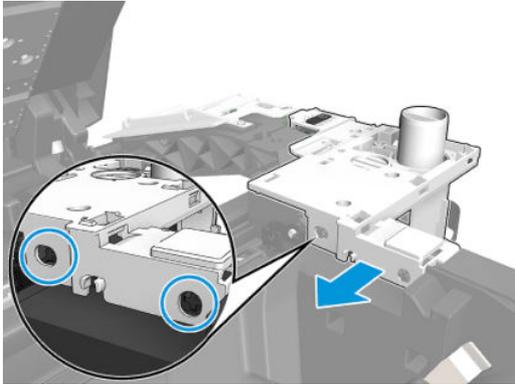
11. Unroute the cable.
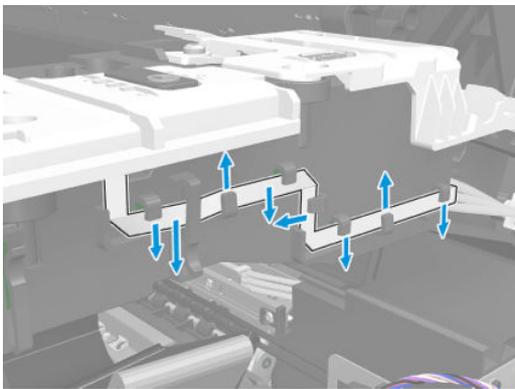
12. Lift the right bracket and unplug the cables.
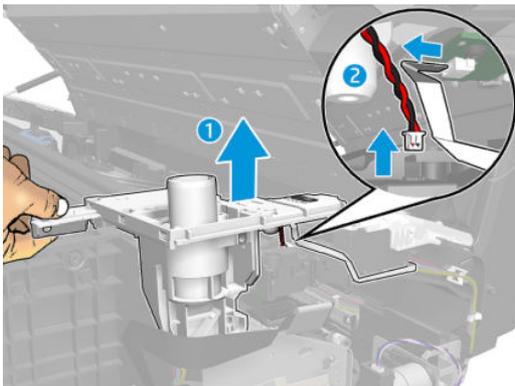
13. Remove the right bracket with power button and speaker.
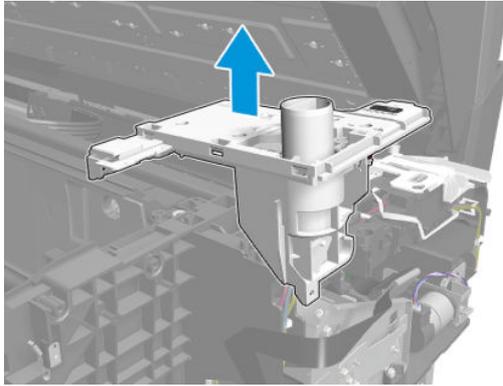
Dashboard PCA with cover (3EK10-67002)

Removal

1. Turn off the printer.

2. Remove the front panel tube. See [T2600 Front Panel Tube (Y3T75-67004) on page 490](#).

3. Remove the front panel cover. See [Main cover (front panel side Y3T75-67011) on page 475](#).

4. Remove the right bracket. See [Right bracket with power button and speaker (Y3T75-67001) on page 434](#).

5. Remove the wifi bezel housing. See [Wifi Bezel Housing (Y3T75-67006) on page 484](#).

6. Unplug the cable.
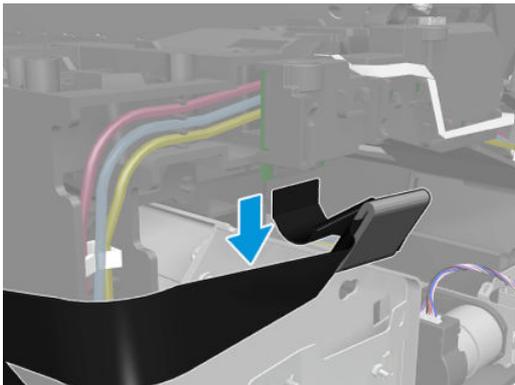
7. Unscrew the dashboard screw.
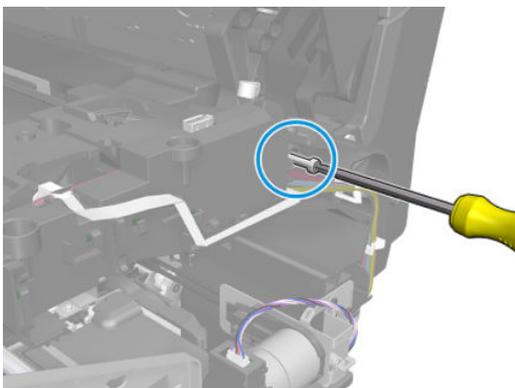
8. Remove the dashboard.
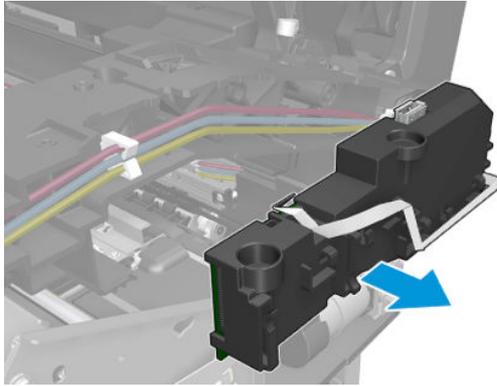
Cutter motor with support (2YB64-67009)

Removal

1. Turn off the printer.

2. Remove the Top right cover.

   ▲ Open the scanner.
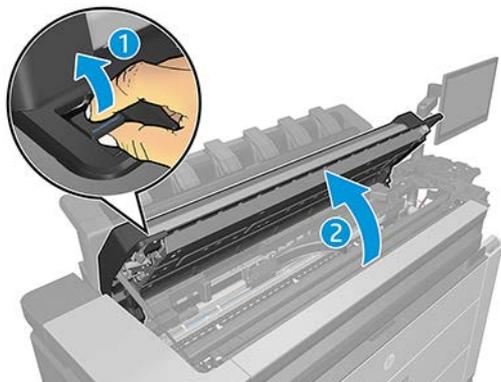
3. Move the motor to the left to remove the belt from the bushing.
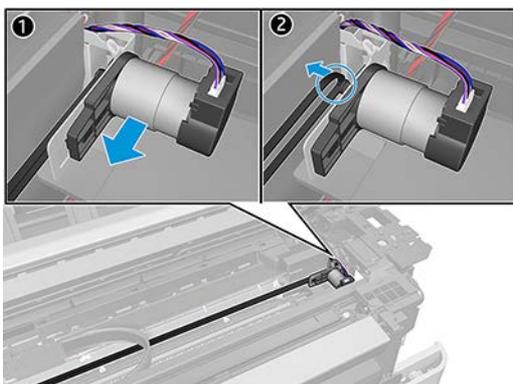
📝 NOTE: Make sure the motor support plate is not bent.

⚠ CAUTION: Do not slide the motor to the left too much. Gently move it left just enough to remove the belt from the bushing, otherwise the spring could be permanently over-stretched. Weak tension causes slips between the pulley and belt, and then cutter movement will have a problem with unwanted noise.
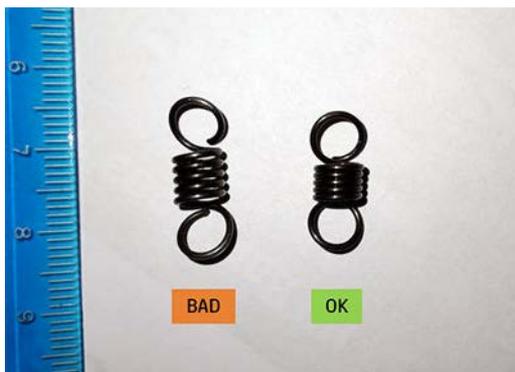
4. Unplug the motor encoder cable.

5. Unscrew two screws.

6. Remove the cutter motor with support.

Cutter module with belt (2YB64-67010)

Removal

1. Turn off the printer.

2. Open the scanner.
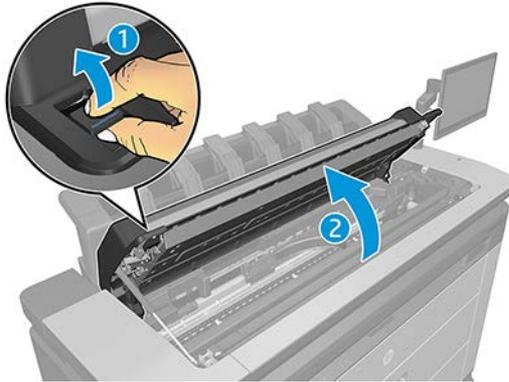
3. Move the motor to the left to remove the belt from the bushing.
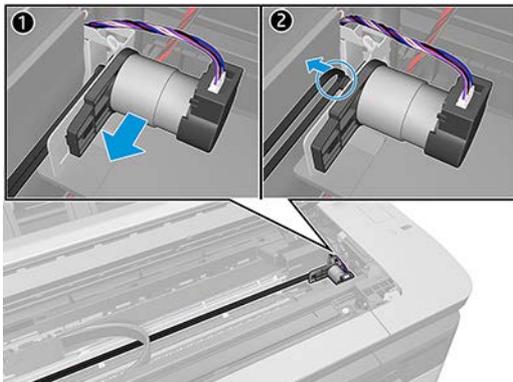
CAUTION: Do not slide the motor to the left too much. Gently move it left just enough to remove the belt from the bushing, otherwise the spring could be permanently over-stretched. Weak tension causes slips between the pulley and belt, and then cutter movement will have a problem with unwanted noise.

NOTE: Use a short screwdriver for the next step to avoid damaging the encoder strip.
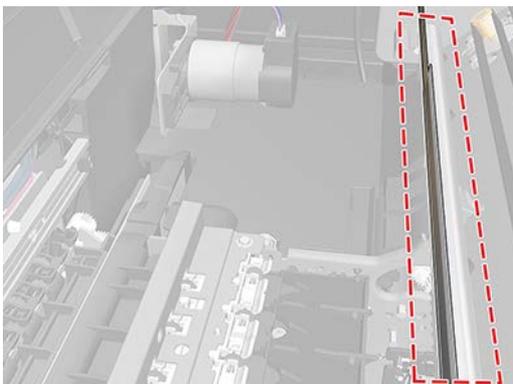
NOTE: Put a piece of paper under the work area to avoid dropping loose parts into the printer.

4. Unscrew the right end cap bumper screw.

5. Remove the right end cap bumper.

For HP-authorized personnel only
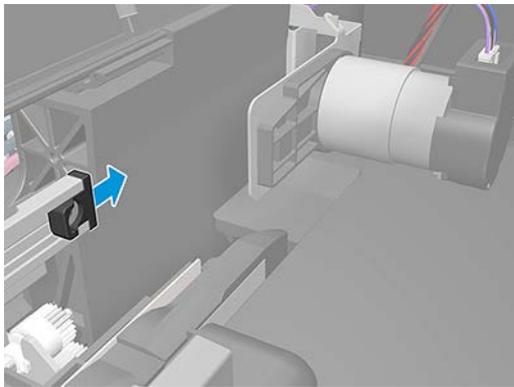
6. Remove the cutter module with the belt.

7. Unscrew the left end cap bumper screw.
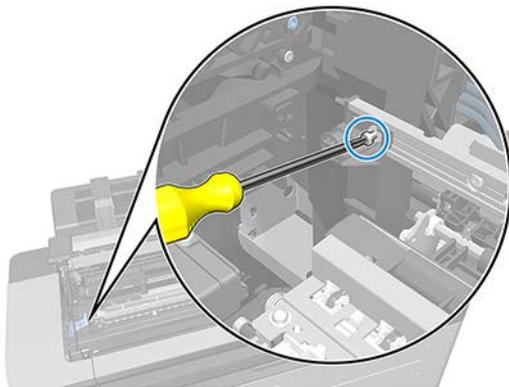
8. Remove the left end cap bumper.
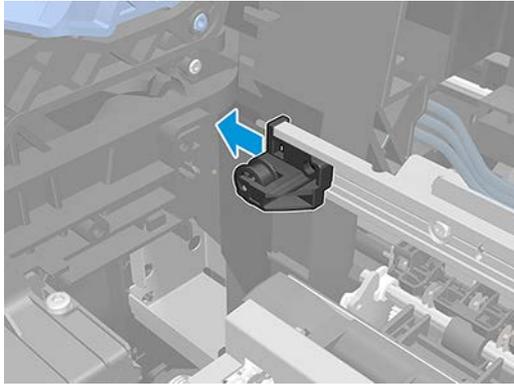
Installation

- After installation of the cutter module, ensure the cutter position is correct. Press on the shaft with a finger:

    - If the shaft can be pushed down: OK

    - If the shaft doesn't move: Loosen the right screw on the 2nd SW rail (NOT the one on the cutter guide) to correct the cutter position. Tighten the screw after adjustment.
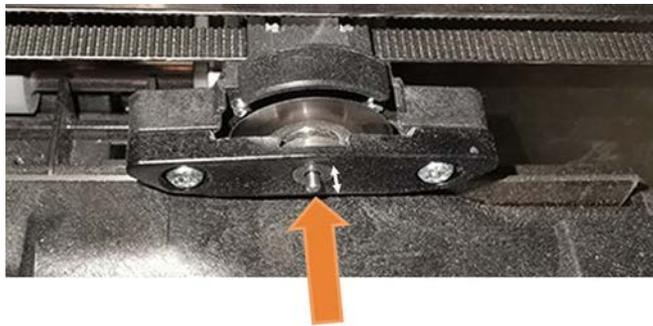
Cutter position
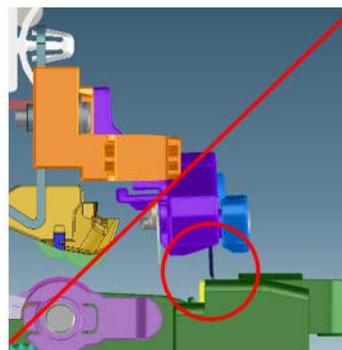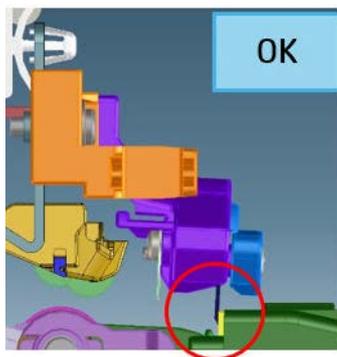
Cutter guide with pulley and bumper (2YB64-67011)

Removal

⚠ **CAUTION:** Do not separate the cutter rail from the Second Starwheel Rail. The nominal position was calibrated at the factory. See .

1.   Turn off the printer.

2.   Open the scanner.
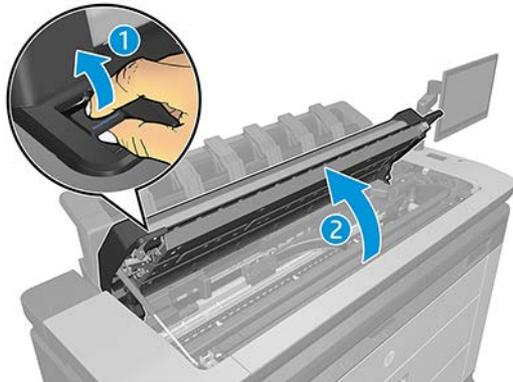
3.   Move the motor to the left to remove the belt from the bushing.
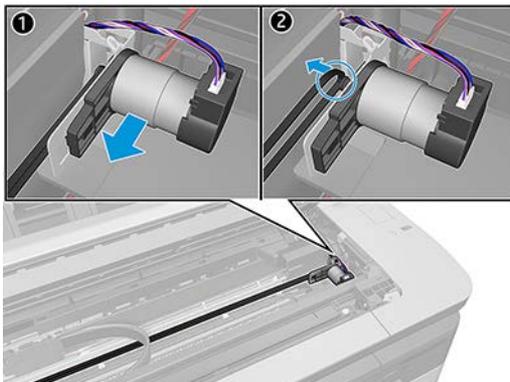
📝 **NOTE:** Use a short screwdriver for the next step to avoid damage to the encoder strip.
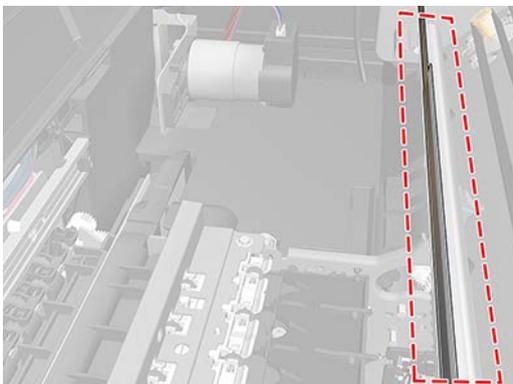
4.   Unscrew the right endcap bumper screw.
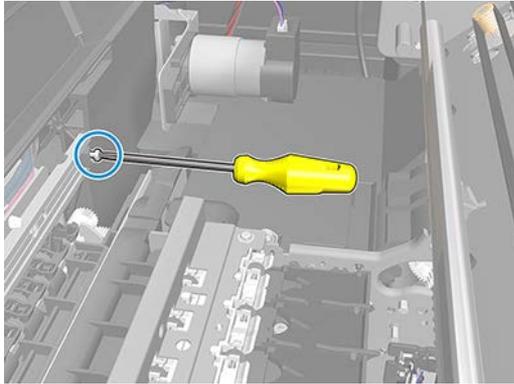
5.   Remove the right endcap bumper.
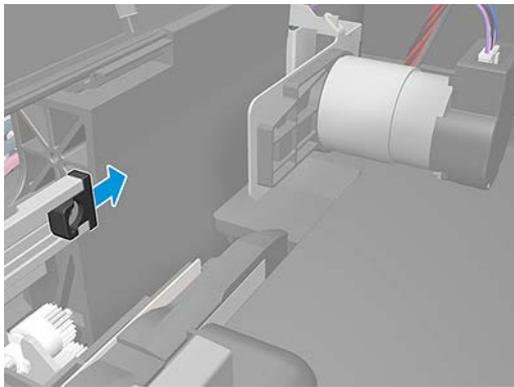
6. Remove the cutter module with the belt.
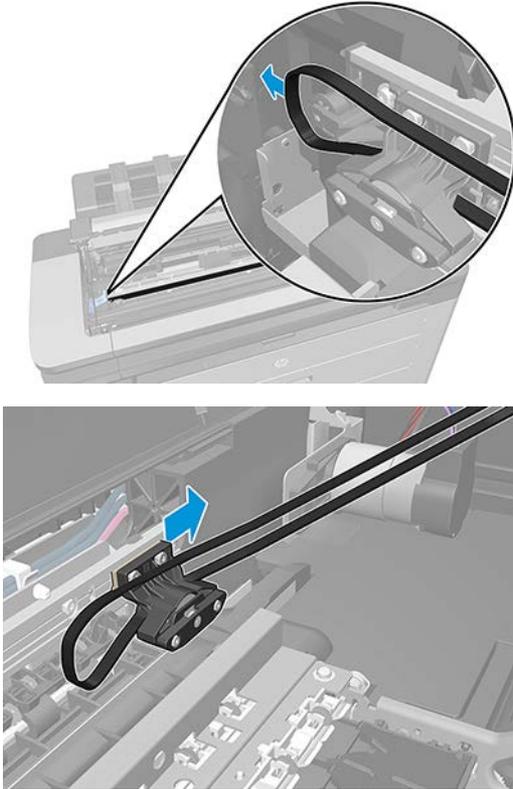
7. Unscrew 2 cosmetic screws from the scanner cover.
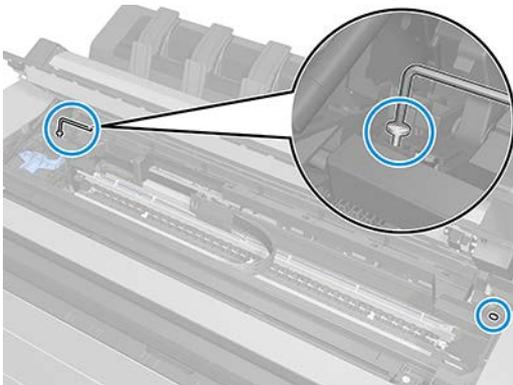
8. Remove the scanner cover.
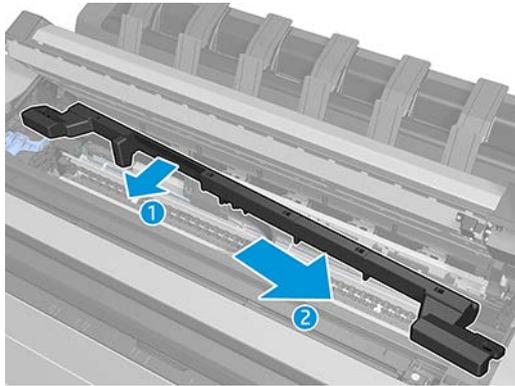
9. Unscrew 2 screws from second starwheel rail.
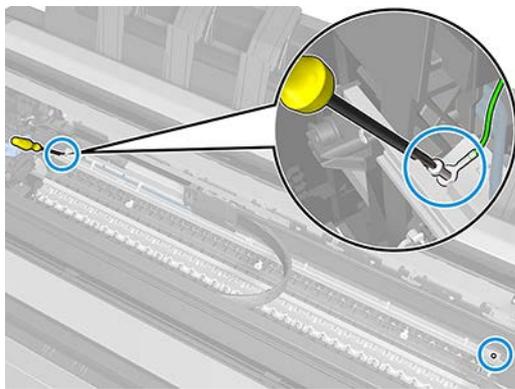
10. Unclip the ink tube clamps.
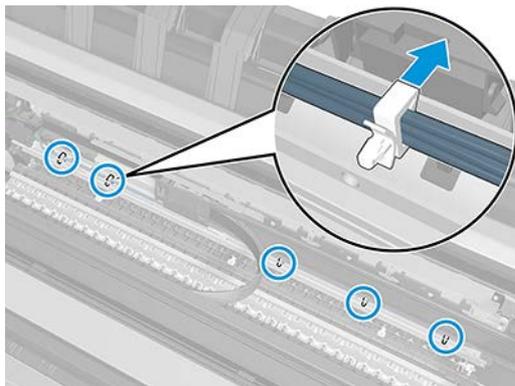
11. Rotate the IDS a little bit to have access to remove 2 screws from IDS.
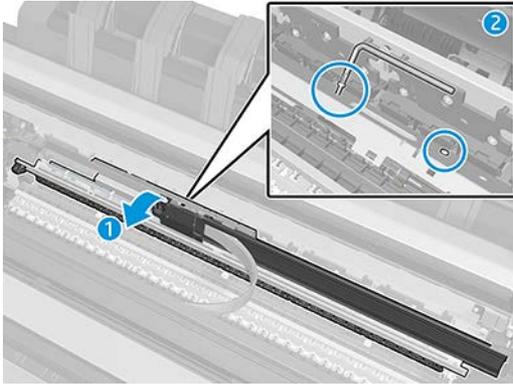
12. Lift the IDS a little bit to have access to remove second starwheel rail.
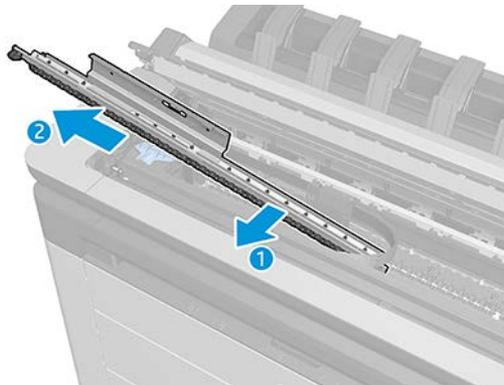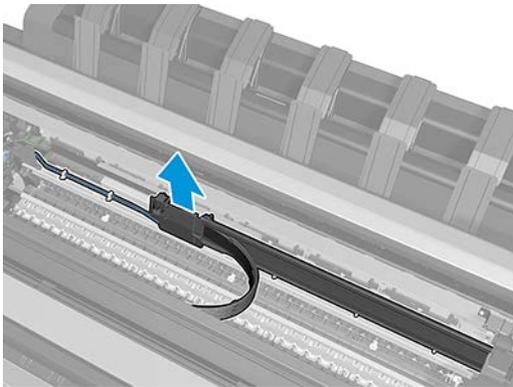
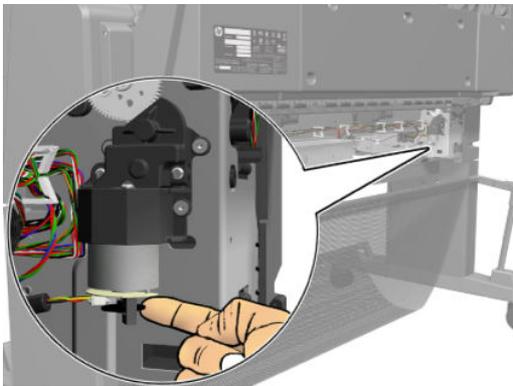### Installation

▲ Perform the Cutter Adjustment. For more information see

Cutter Adjustment

It is important to adjust the height of the cutter after replacing the following components, which can change the "overlap" between rotary blade and liner blade:

- Second starwheel rail including cutter rail.

- Cutter platen.

A jig comes with the previous service kits. It indicates good or bad status in 3 positions against the liner blade, referring to whether or not the overlap is within specifications:

- I — Too low
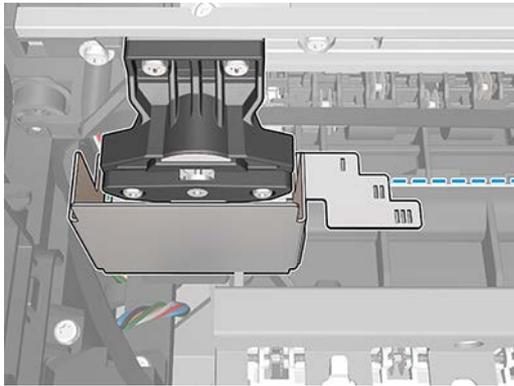
- II — OK
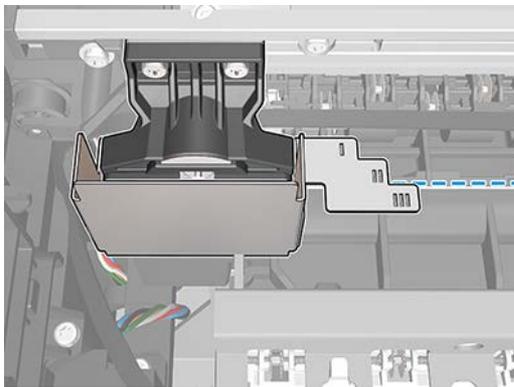
- III — Too high
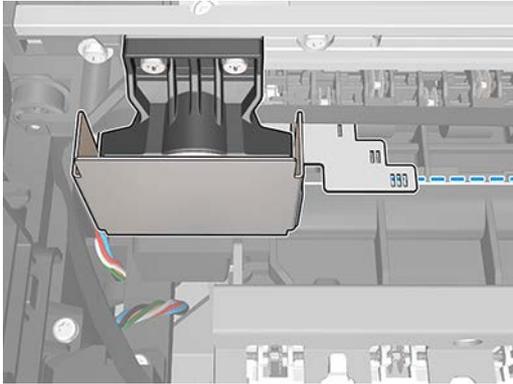
⚠ **CAUTION:** Do not separate the cutter rail from the 2nd starwheel rail. The nominal position was calibrated at the factory.

📝 **NOTE:** When you remove/install the 2nd starwheel rail, ensure the screws which hold it to the printer are correctly tightened. Otherwise the overwrap will have play.

How to adjust the height of the cutter guide:

1. Remove the belt from the pulley.
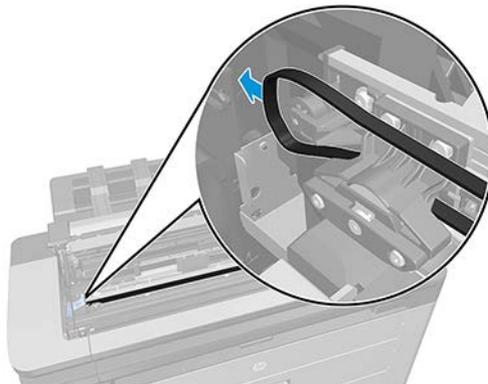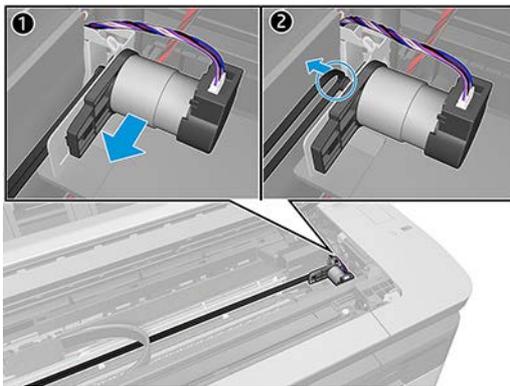
2. Insert the jig at the 5 positions each marked with a red ✖ one by one to identify where it is out of spec:
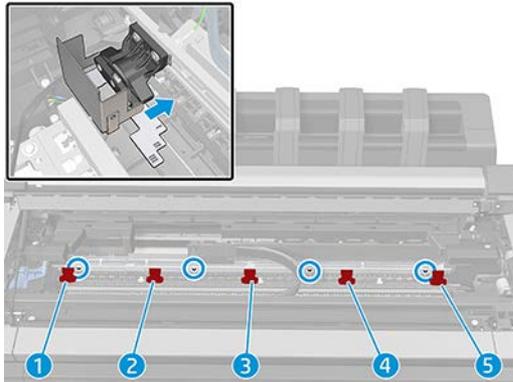
Check the I/II/III marker on the jig against the liner blade to identify the position as OK, too low, or too high.

3. From left to right, loosen the screw marked with a blue **O** closest to the first point where the overlap is out of spec.
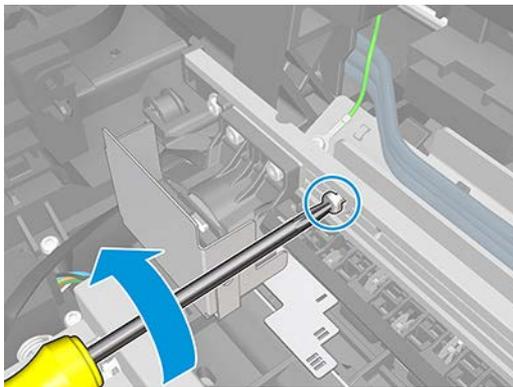
📝 **NOTE:** Make sure never to loosen more than one screw at a time.

4. Gently press the cutter guide:

    ● Down to increase the overlap (if the jig shows "III — Too high")
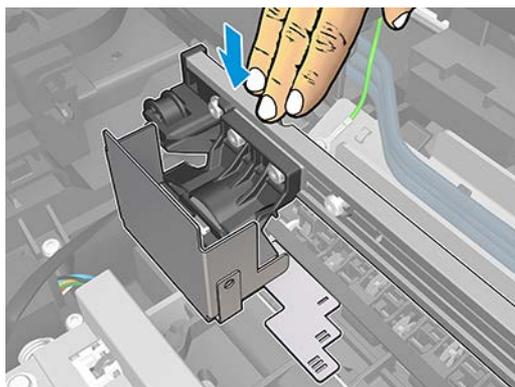
- Up to decrease the overlap (if the jig shows "I — Too low")
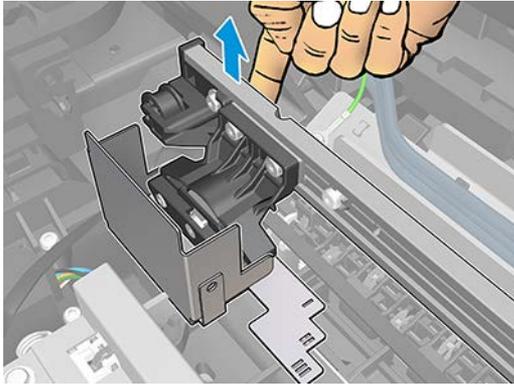
5. While keeping pressure on the cutter guide, tighten the loose screw.
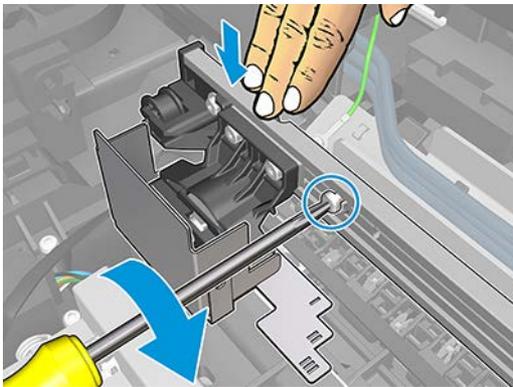
6. Repeat the process from step 2 until each of the five positions have been checked.
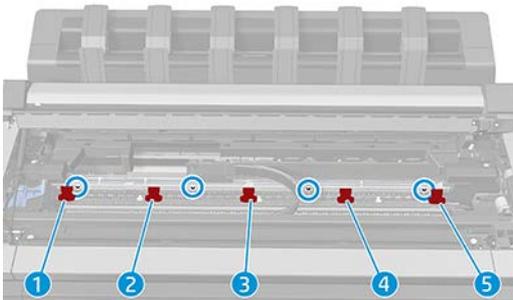
Scan-axis motor (CR357-67023)

Removal

1. Turn off the printer.

2. Remove the Top side cover.

3. Unscrew the tensioner screw to remove the belt tension from the left side.
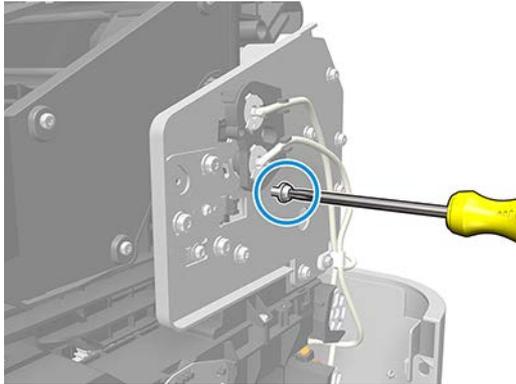
4. Remove the Top side cover.

5. Open the scanner.
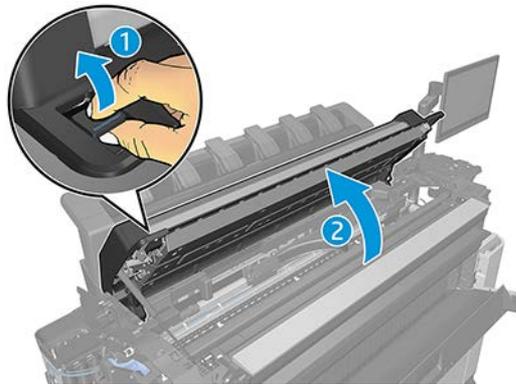
6. Remove the belt.
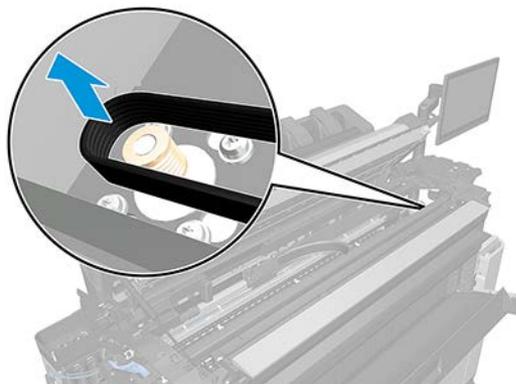
7. Unplug the SAX motor cable.
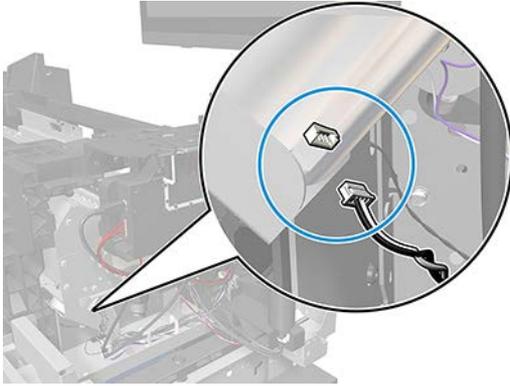
8. Remove two lateral screws.
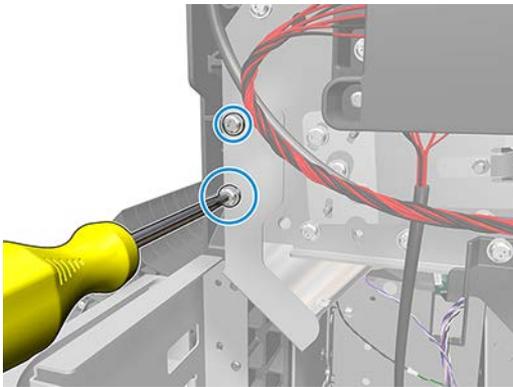
9. Untighten 4 top screws. Be careful not to touch the linear encoder.
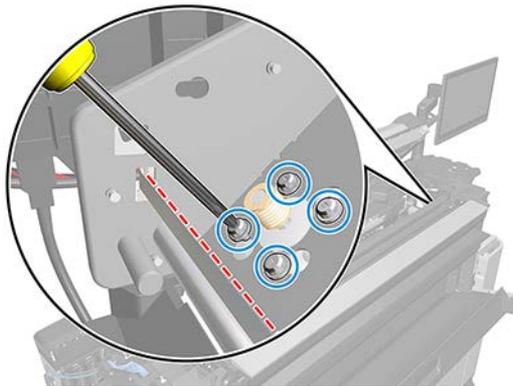
10. Rotate and remove the scan-axis motor.
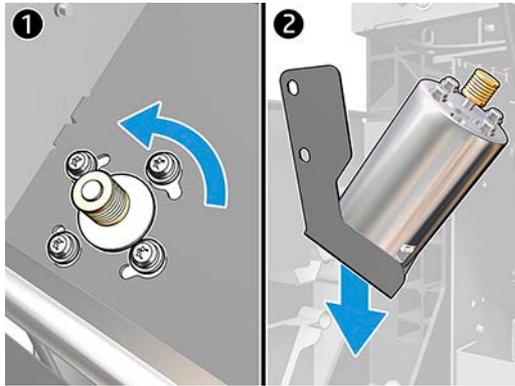
Carriage latch (CR357-67070)

Removal

1. Move the carriage to the printhead replacement position.

2. Turn off the printer.

3. Open the scanner.
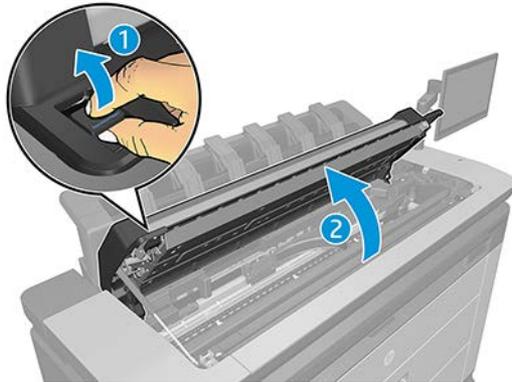
4. Open the carriage latch.
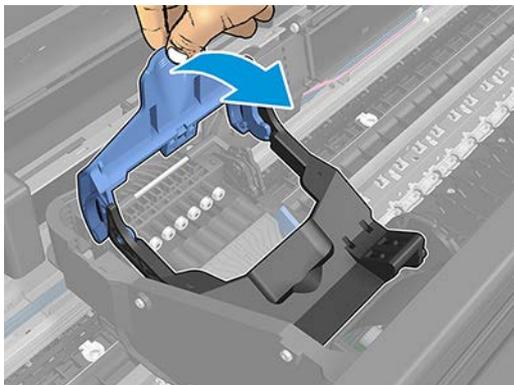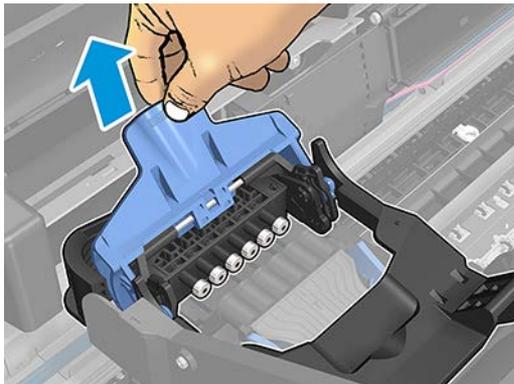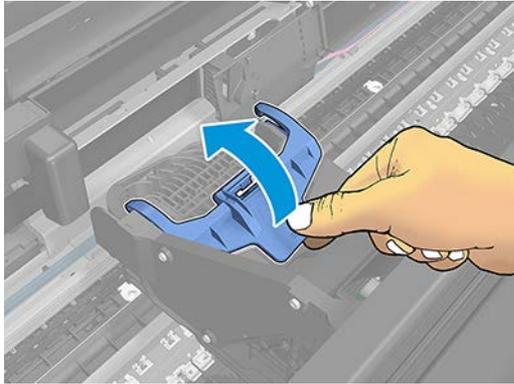
5. Unclip the latch on the left side.

6. Remove the latch pin on the right side.

7. Remove the carriage latch.
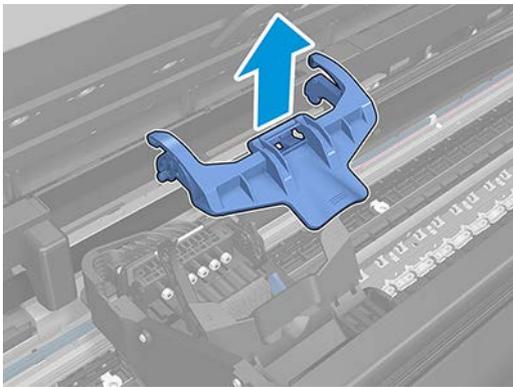
Linear encoder (CR357-67022)

Removal

1.   Turn off the printer.

2.   Remove the Top left cover.

⚠ **WARNING!**   Do not remove these screws. The position of the encoder strip is adjusted by these metal plates in factory.
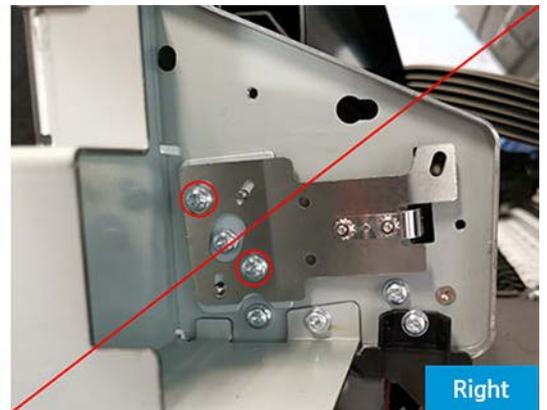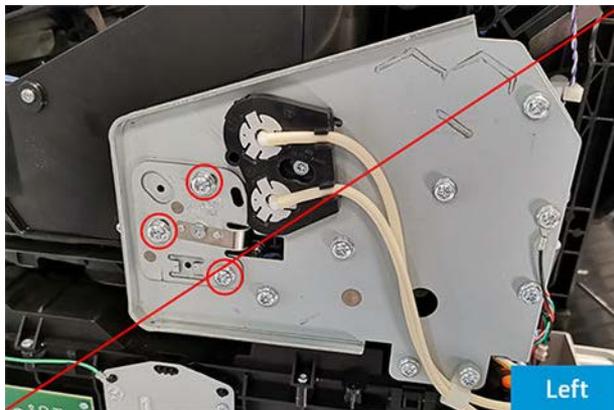
3.   Unscrew the linear encoder screw.
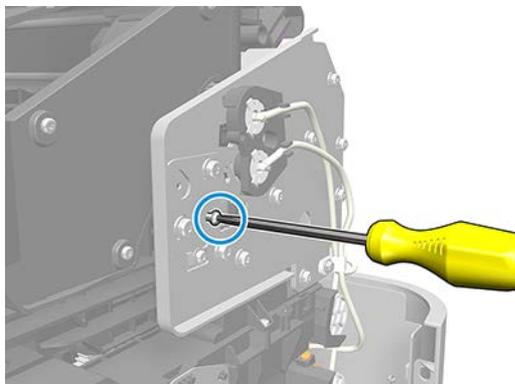
4. Press the bracket to release the encoder strip tension.
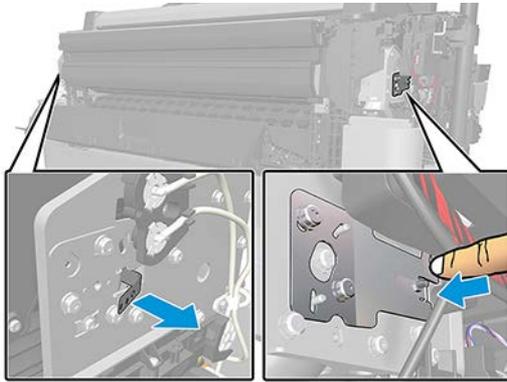
5. Unscrew the linear encoder nut.

6. Open the scanner.
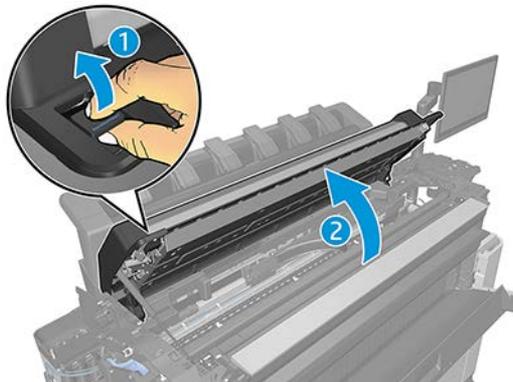
7. Remove the linear encoder.
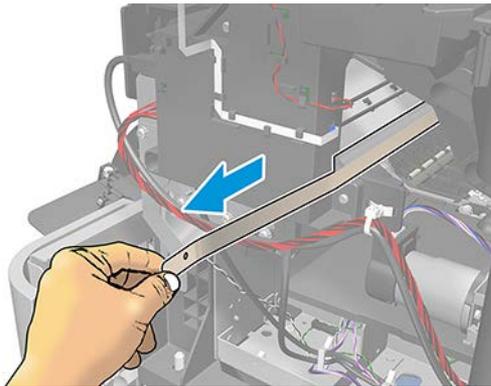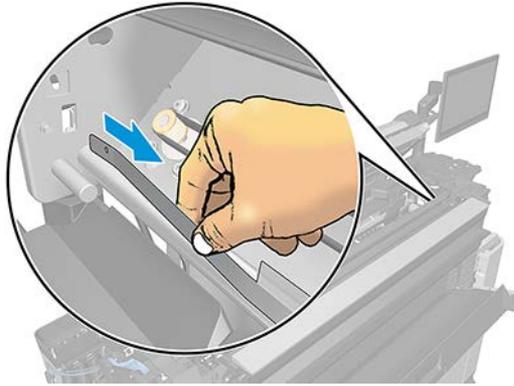
Carriage (CR357-67092)

Removal

1. Turn off the printer.

2. Remove the Top left cover.

3. Move up the service station gear to release the carriage.
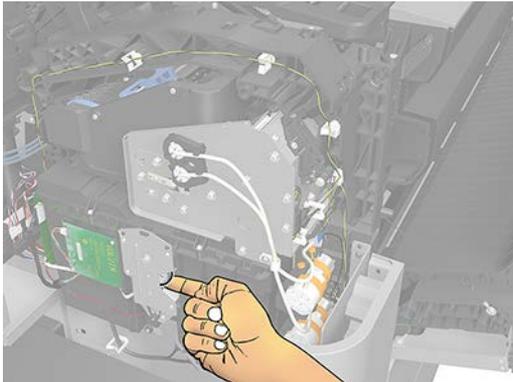
4. Move the carriage to the right.
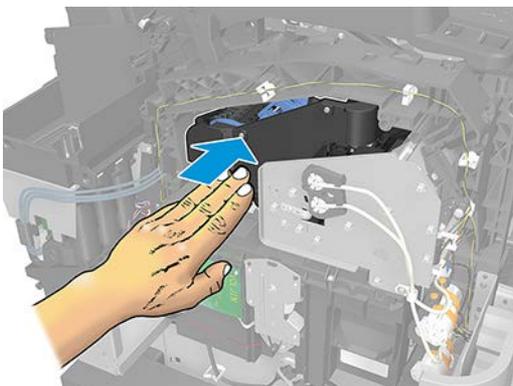
5. Take out the tension of the belt.
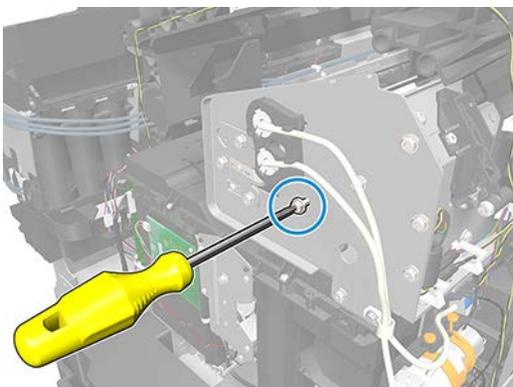
6. Remove the Linear encoder. See Linear encoder (CR357-67022) on page 463.

7. Remove the Cutter motor with support. See Cutter motor with support (2YB64-67009) on page 440.

8. Remove the Dashboard PCA.

9. Remove the Left protective cover. See Left protective cover (L2Y21-67015) on page 428.

10. Remove the SAX motor. See Scan-axis motor (CR357-67023) on page 457.

11. Unscrew five end bracket screws.
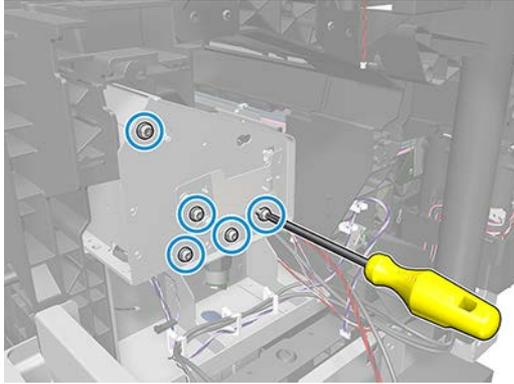
12. Remove the right end bracket.
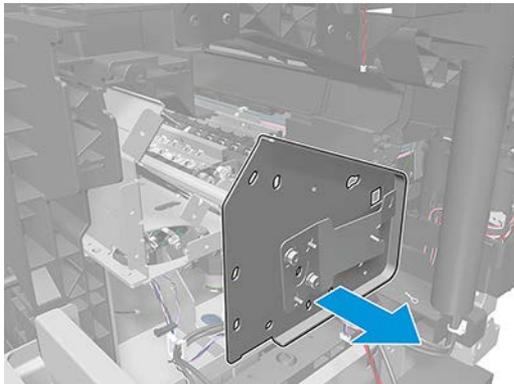
13. Unscrew two tube guide screws from the left side.
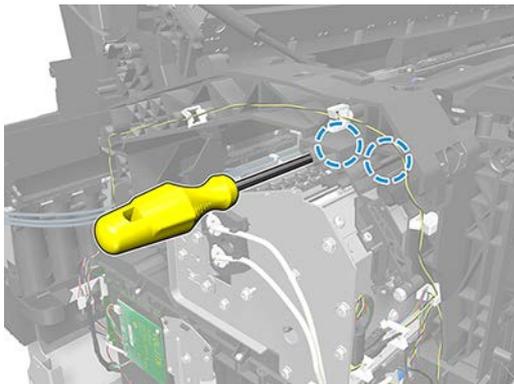
14. Remove the tube guide from the right side.
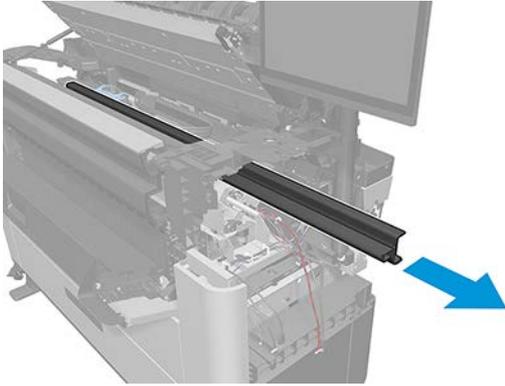
15. Open the carriage latch.
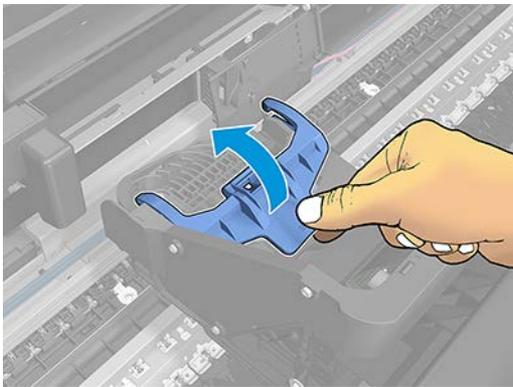
16. Remove the printheads.
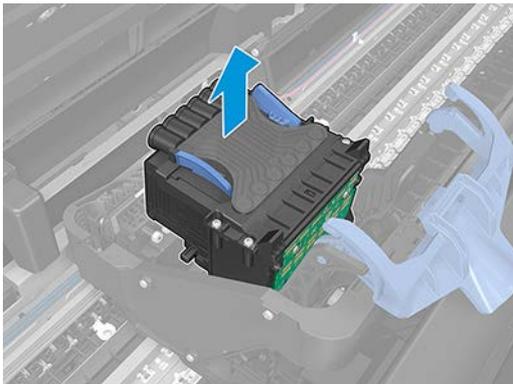
17. Unscrew five rids screws.
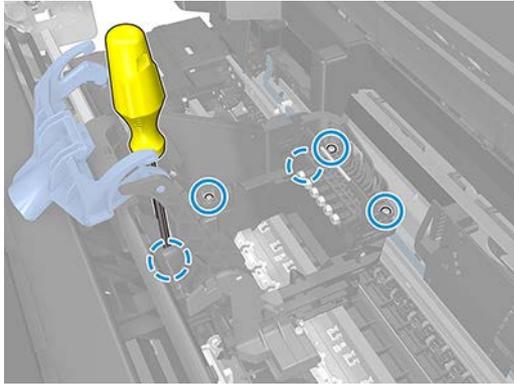
18. Close the carriage latch and unplug the trailing cable.
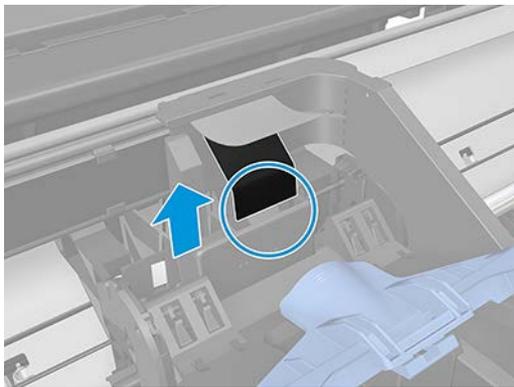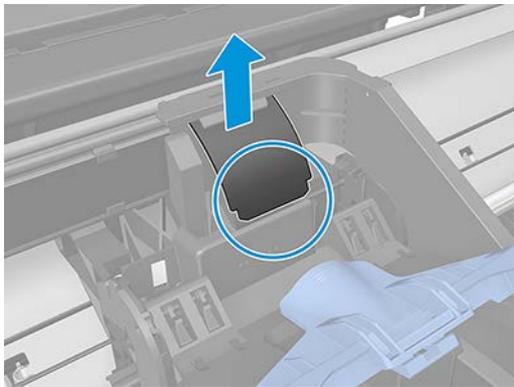
19. Carefully lift out the Ink Supply Tubes.
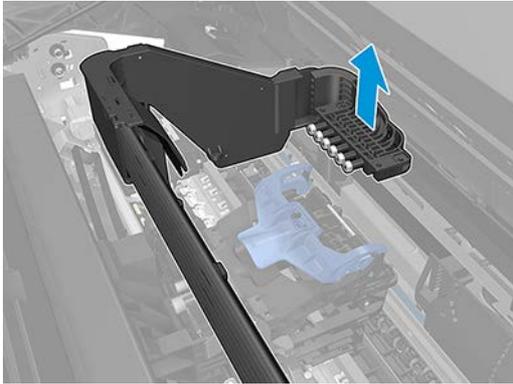
20. Move the carriage to the right side and remove it with the belt.
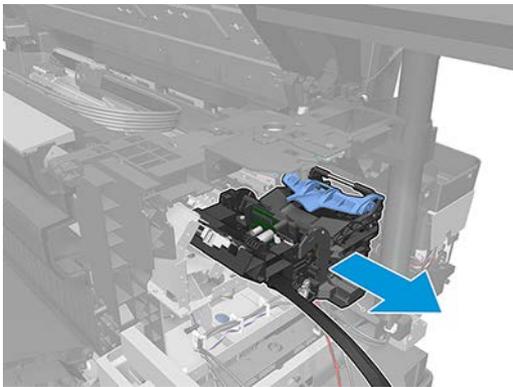
E-box

Removal

1. Turn off the printer.

2. Remove the Rear top center cover.

3. Unplug the three central cables.
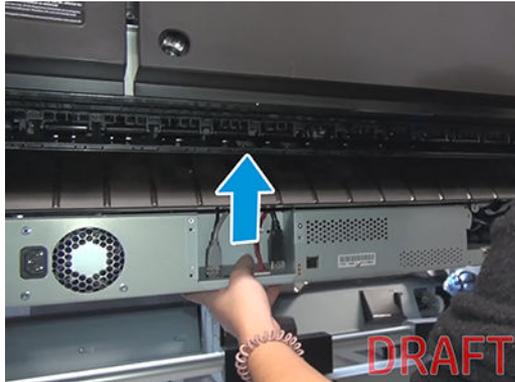
4. Unplug all the right cables.
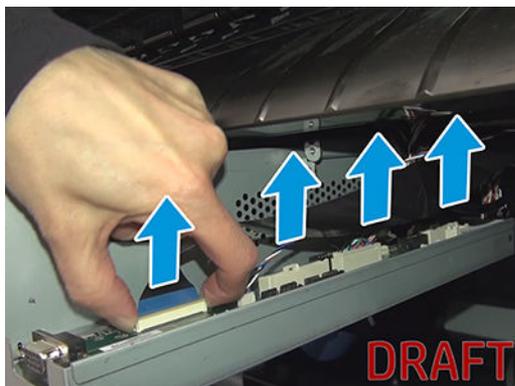
5. Unscrew three E-box screws.
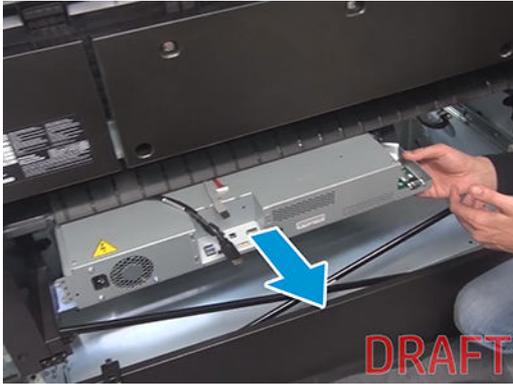
6. Remove the E-box.

Main cover (service station side Y3T75-67012)

Removal

1. Turn off the printer.

2. Remove 2 T-15 screws.
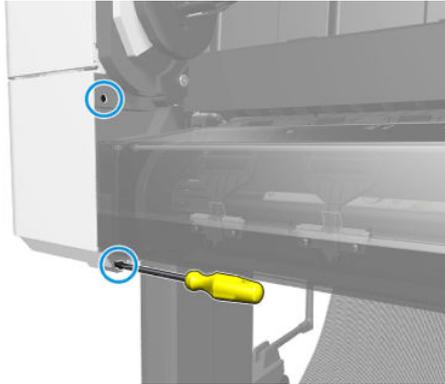
3. Remove 2 T-15 screws.
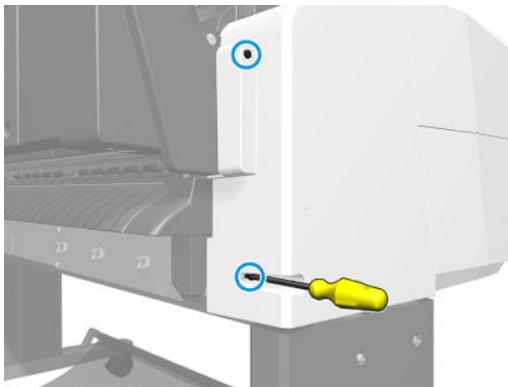
4. Open the ink cartridge cover.
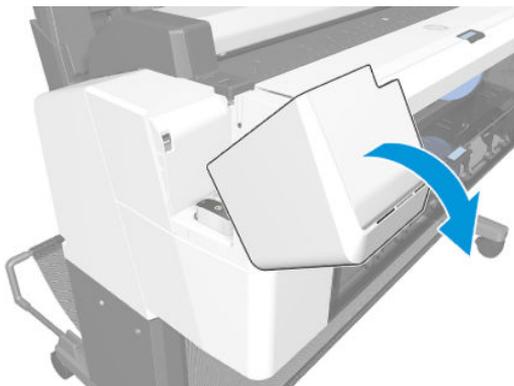
5. Remove the ink cartridges.
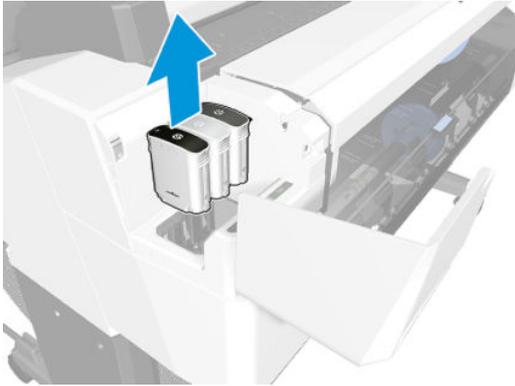
6. Remove 2 T-15 screws.
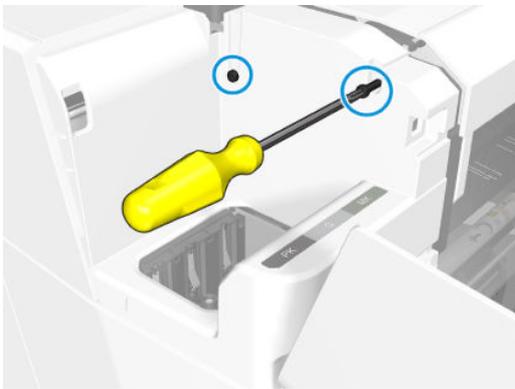
7. Remove the cover.
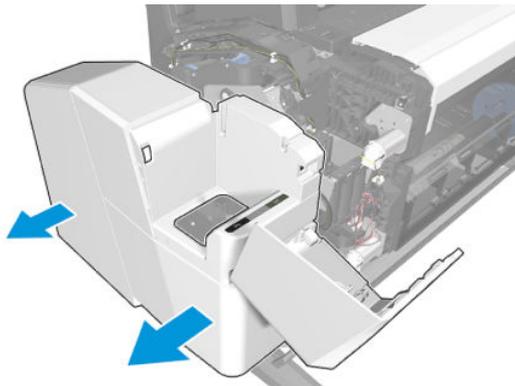
Main cover (front panel side Y3T75-67011)

Removal

1. Turn off the printer.

2. Open the roll cover.
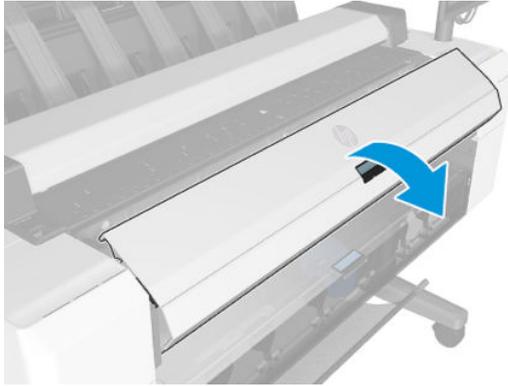
3. Remove 2 T-15 screws.
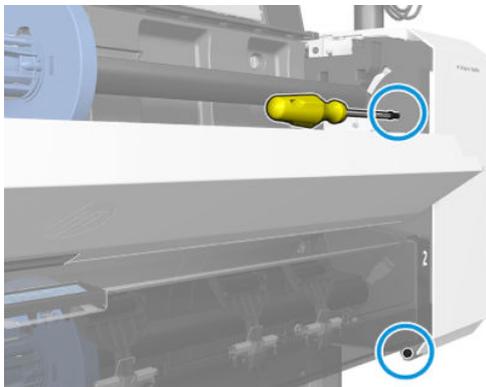
4. Open the scanner.
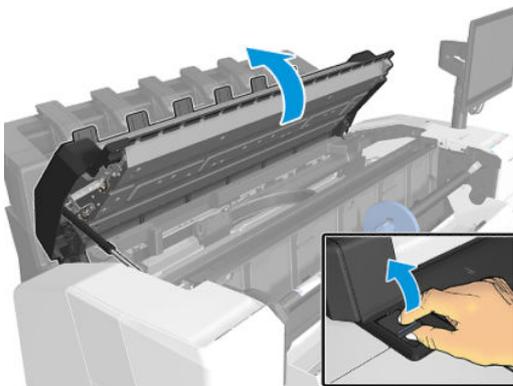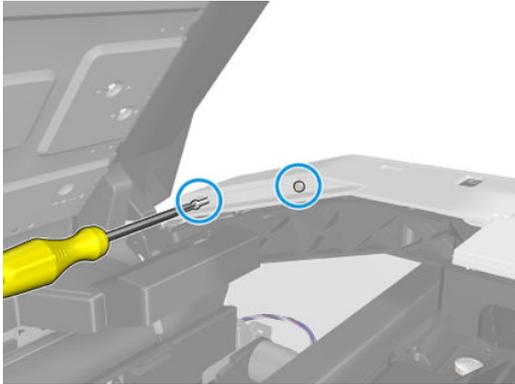
5. Remove 2 screws.

6. Remove 2 T-15 screws.
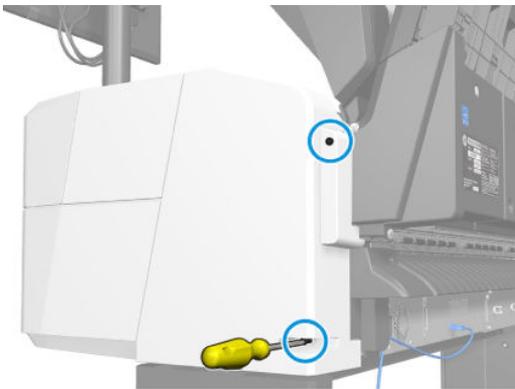
7. Open the ink cartridge cover.
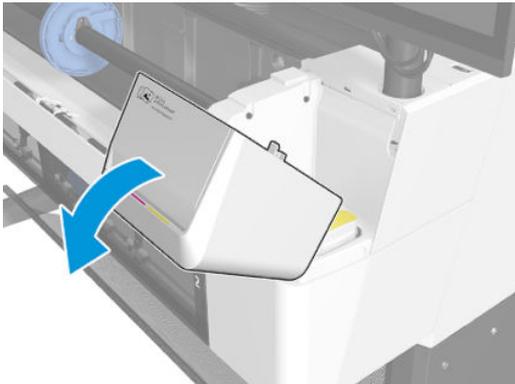
8. Remove the ink cartridges.
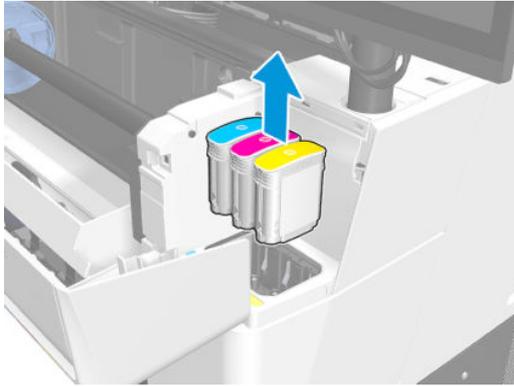
9. Remove 2 T-15 screws.
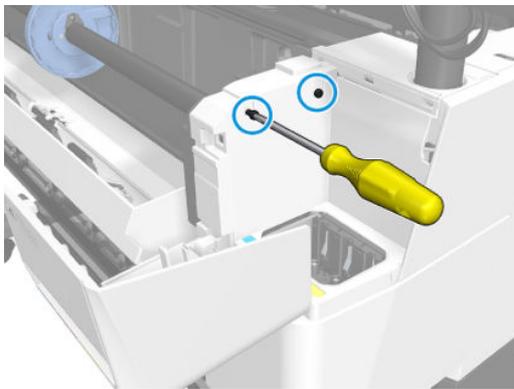
10. Remove the cover.
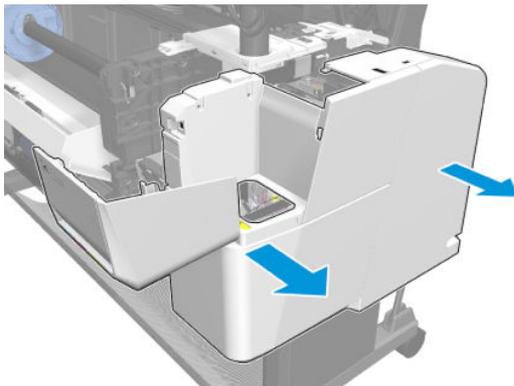
Top scanner cover (Y3T75-67014)

Removal

1. Turn off the printer.

2. Open the scanner.

3. Remove 4 screws (Torx 15).
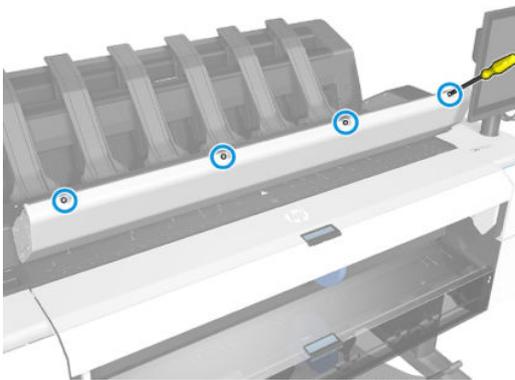
4. Close the scanner.
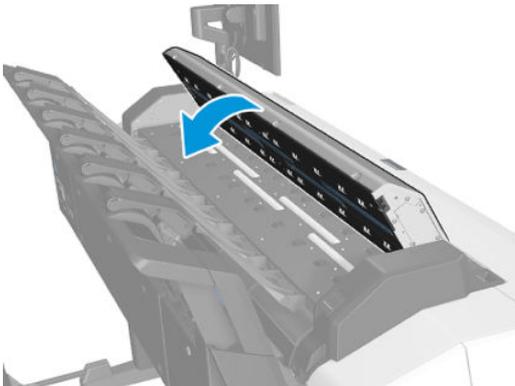
5. Remove the piece.
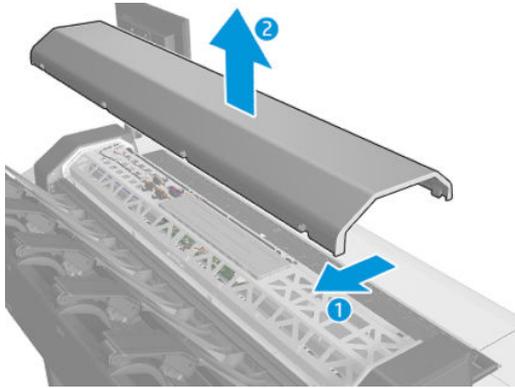
Center cover (CR357-67054)

Removal

1. Turn off the printer.

2. Remove the main front panel cover. See .

3. Remove the main svs cover. See .

4. Open the roll cover.
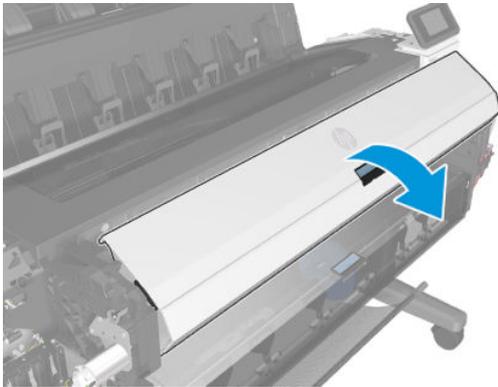
5. Remove the spindle.
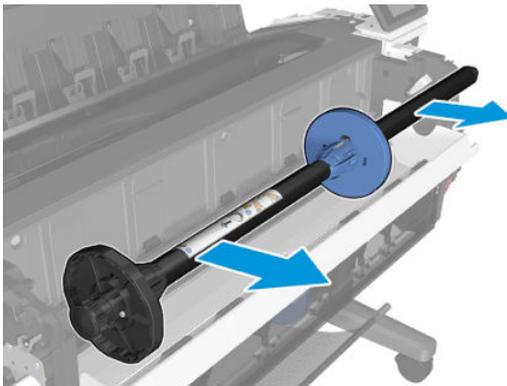
6. Unscrew 3 screws.
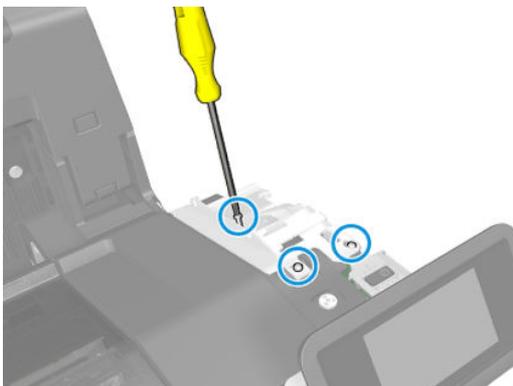
7. Remove the wifi bezel housing.
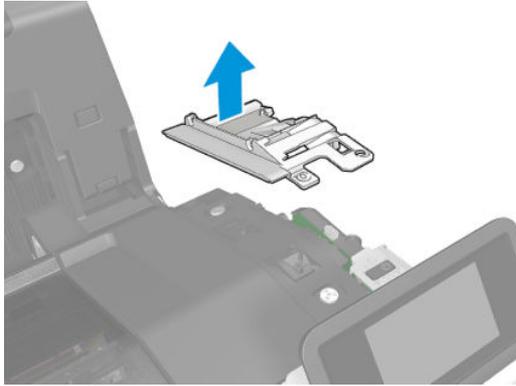
8. Remove the 7 T-15 screws.
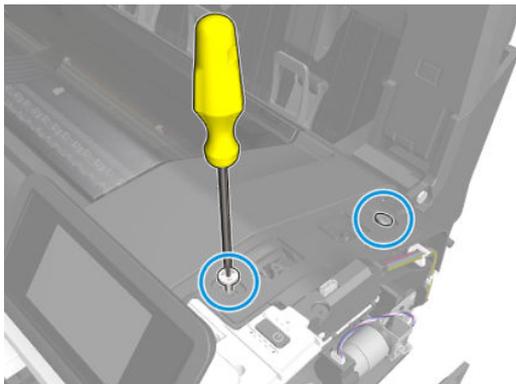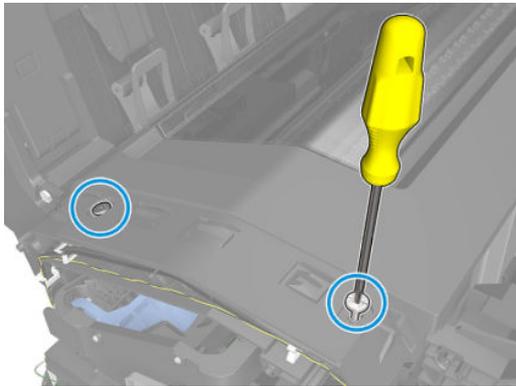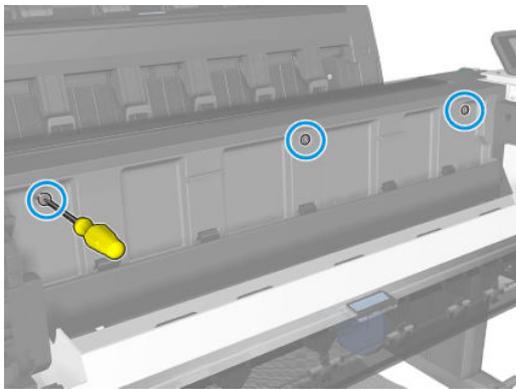
9. Lift up the center cover, and remove it from the printer.
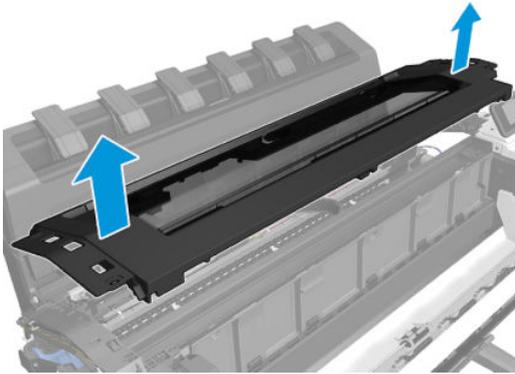
Converger assembly (CR357-67032)

Removal

1. Turn off the printer.

2. Remove the top spindle and close the top cover.

3. Open the bottom roll cover.
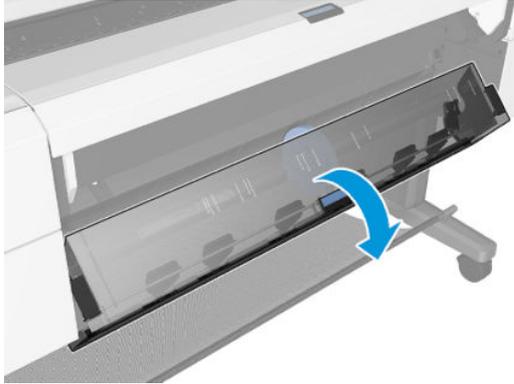
4. Remove the T-15 screw.
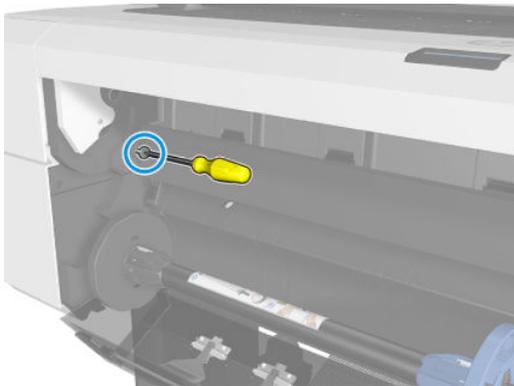
5. Remove the converger.
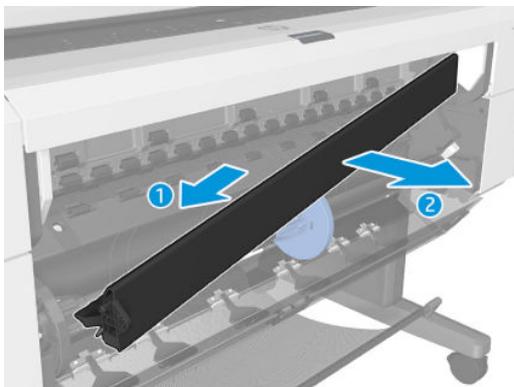
Wifi Bezel Housing (Y3T75-67006)

Removal

1. Turn off the printer.

2. Remove the main front panel cover. See .

3. Unscrew 3 screws.
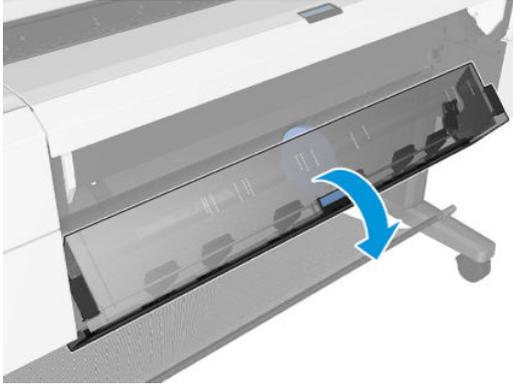
4. Remove the wifi bezel housing.
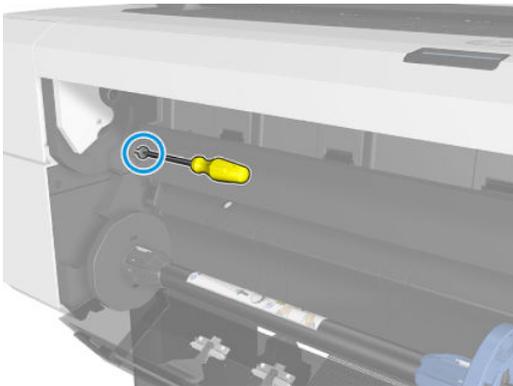
Clean-out

Removal

1. Remove the bottom tip support. See Bottom Tip Support on page 566.

2. Remove the control panel side cover. See Main cover (service station side Y3T75-67012) on page 473.

3. Remove the bottom roll cover. See Customer Self Repair Flyers on page 668.

4. Remove the converger. See Converger assembly (CR357-67032) on page 483.

5. Disconnect the media sensor cable underneath the printer.
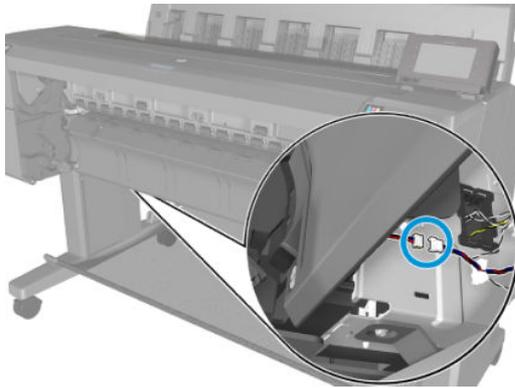
6. Remove 4 T-15 cosmetic screws.
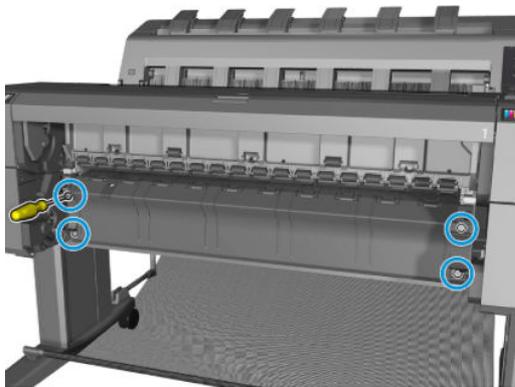
7. Rotate the 2 supports outward.
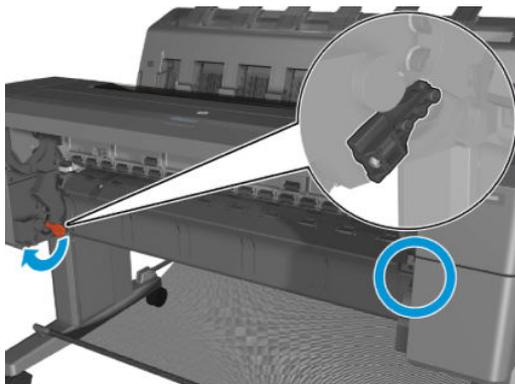
8. Remove the clean-out.
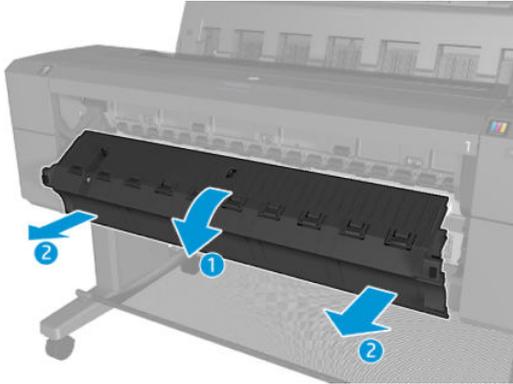
Installation

▲ Insert at an angle, and when in, rotate upwards.
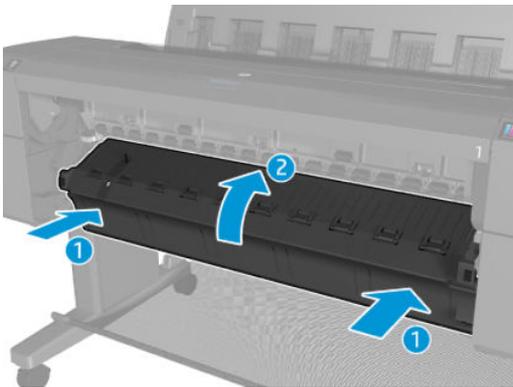
Rear cover (Y3T75-67016)

Removal

1. Turn off the printer.

2. Unroute the cables.
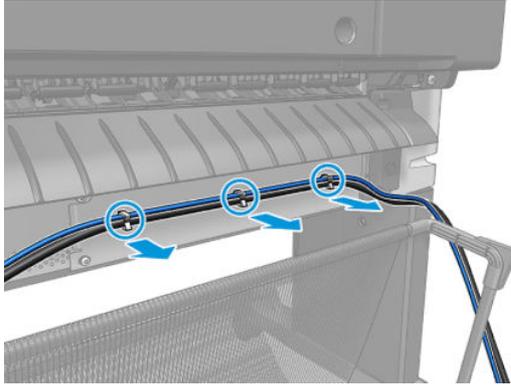
3. Unscrew 3 screws.
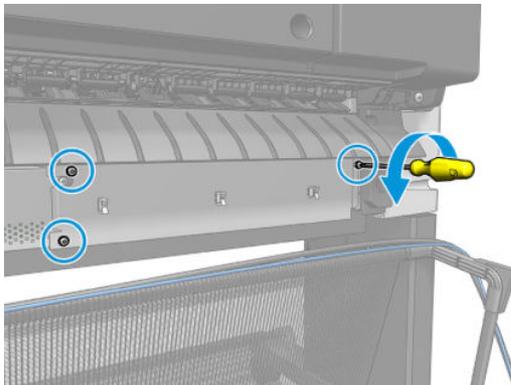
4. Remove the rear cover.
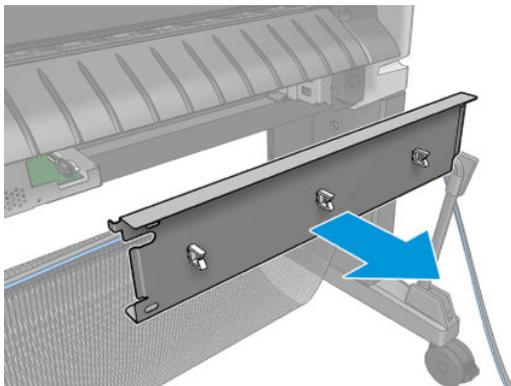
Wifi Lid (3EK10-67006)

Removal

1. Turn off the printer.

2. Unclip the wifi lid with a flat screwdriver.
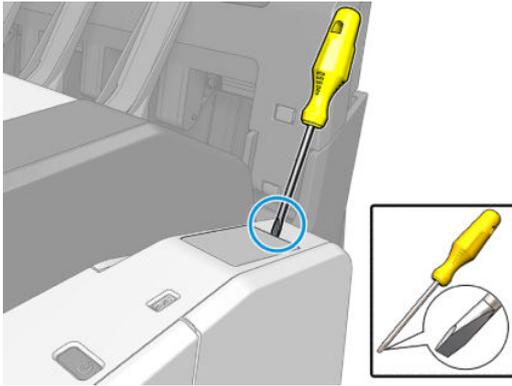
3. Unscrew 3 screws.
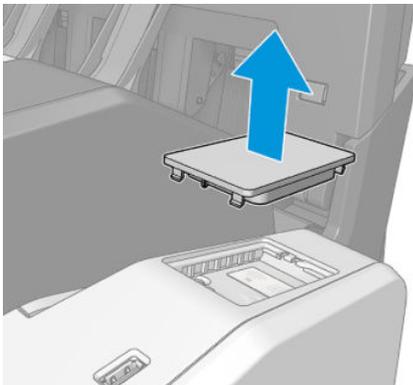
T2600 Front Panel Arm (Y3T75-67003)

Removal

1. Turn off the printer.

2. Unplug all the monitor cables.
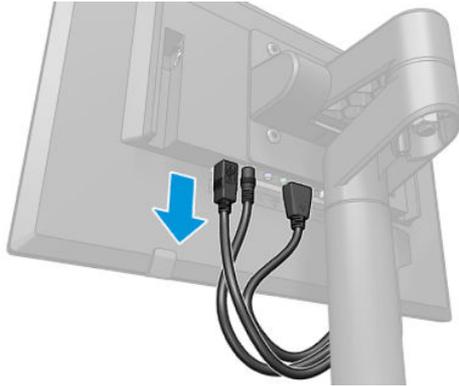
3. Unscrew one screw using a allen wrench and remove the front panel.
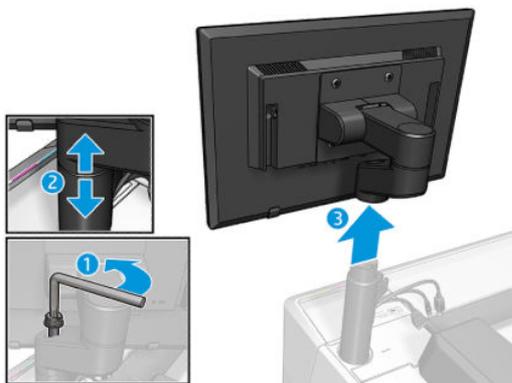
4. Unscrew 4 screws and remove the front panel arm.
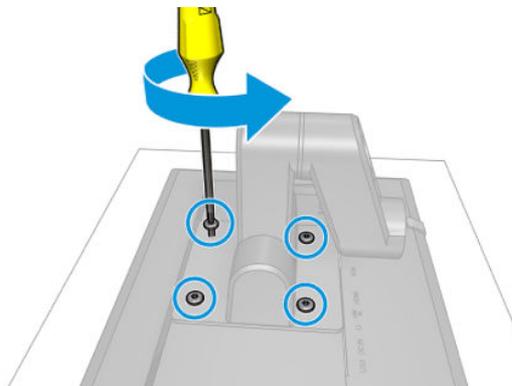
T2600 Front Panel Tube (Y3T75-67004)

Removal

1. Turn off the printer.

2. Unplug all the monitor cables.
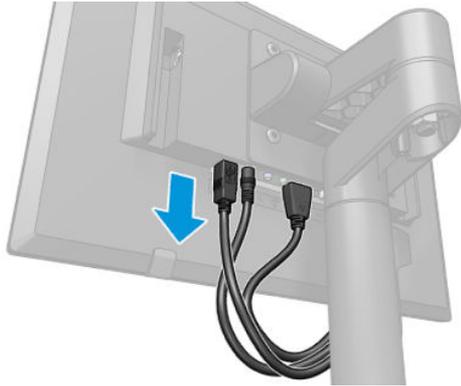
3. Unscrew one screw using a allen wrench and remove the front panel.
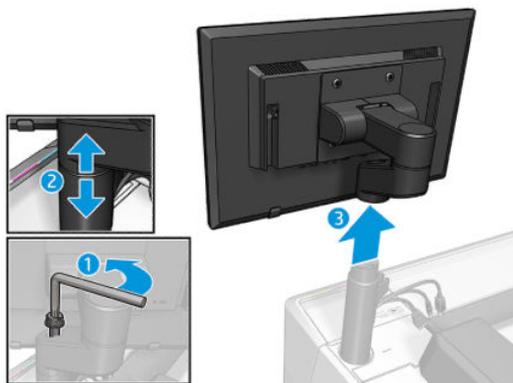
4. Remove the tube protector.
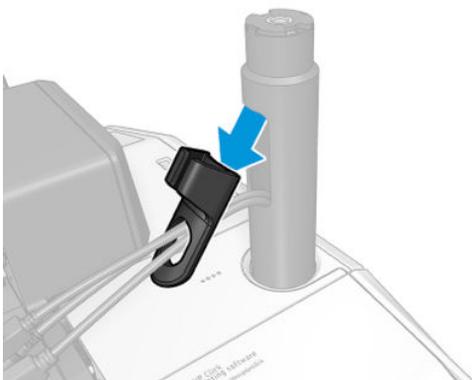
5. Open the scanner.
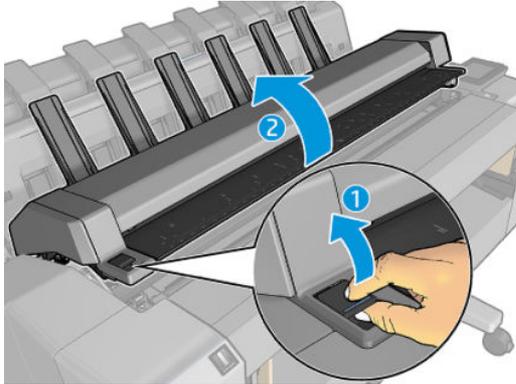
6. Open the ink door.
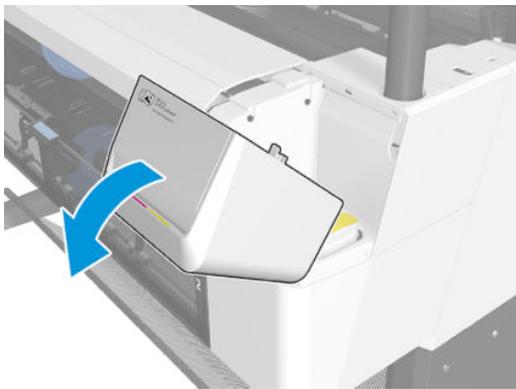
7. Release the front panel bezel.
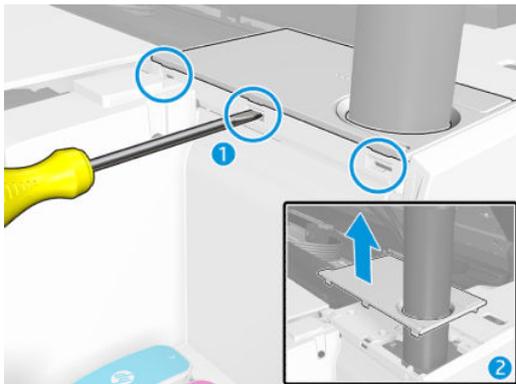
For HP-authorized personnel only

8. Unscrew 3 screws and remove the front panel tube from the printer.
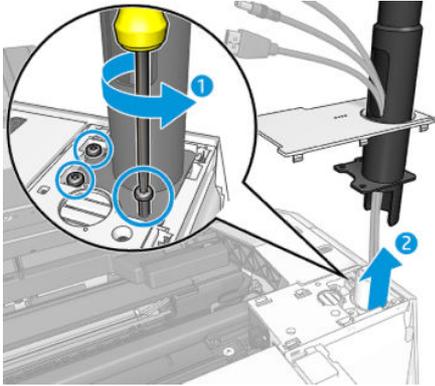
9. Remove the front panel tube.

Arch sidewall cover (front panel side)

Removal

1. Remove the T-15 screw.
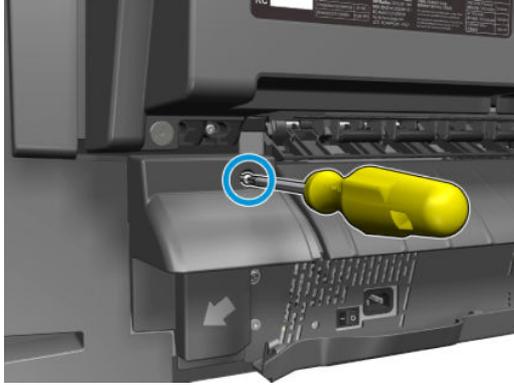
2. Remove the arch sidewall cover from the front panel side.
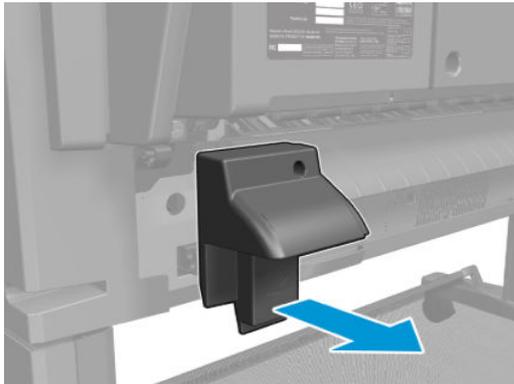
Arch sidewall cover (service station side)

Removal

1. Remove the T-15 screw.
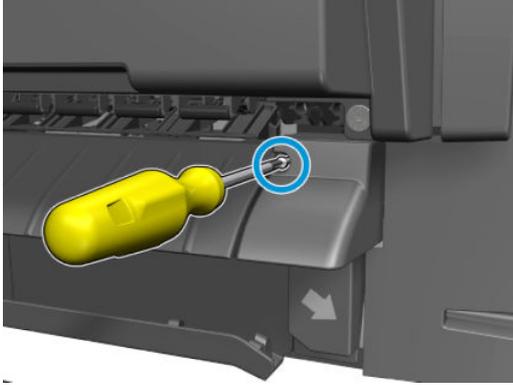
2. Remove the arch sidewall cover from the service station side.
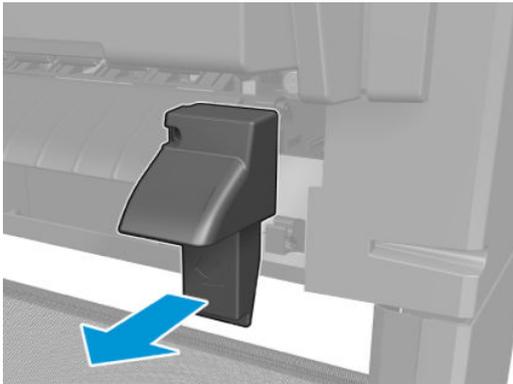
Window Sensor

Removal

1. Open the window.
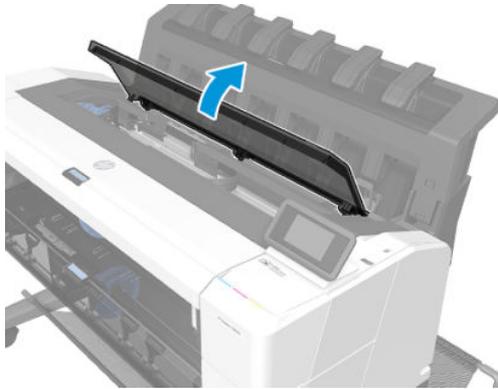
2. Remove the T-8 screw.
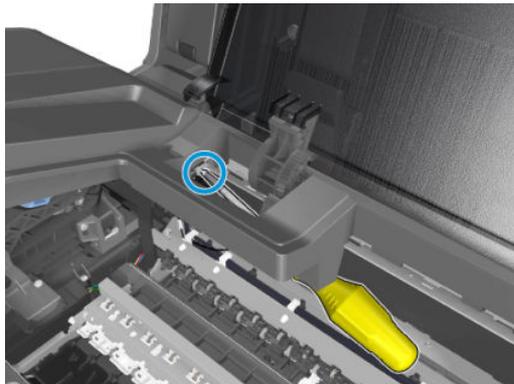
3. Unroute and disconnect the cable.
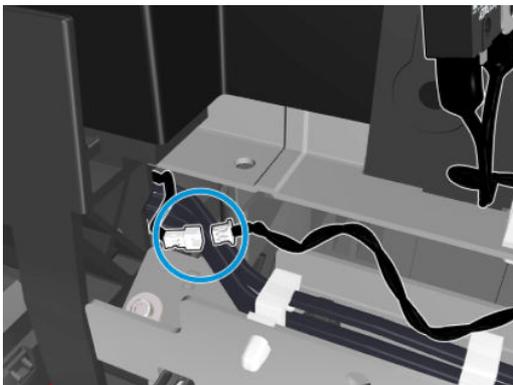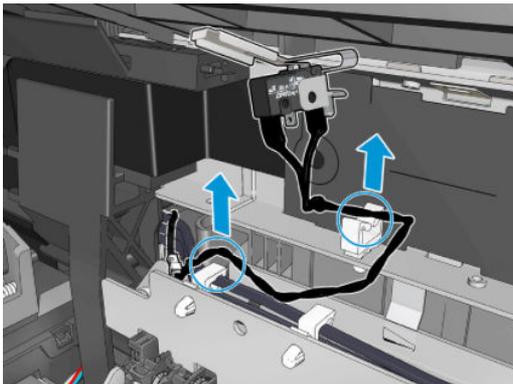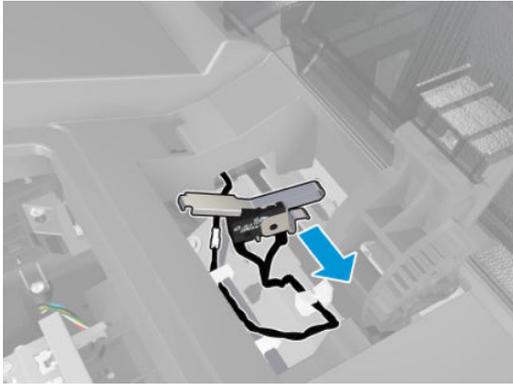
Open the E-Box

Removal

1. Use the power switch at the rear to turn off the printer, then disconnect the power cord.

2. Remove the output platen and Rear Cover. See and .

3. Remove two T-20 screws.
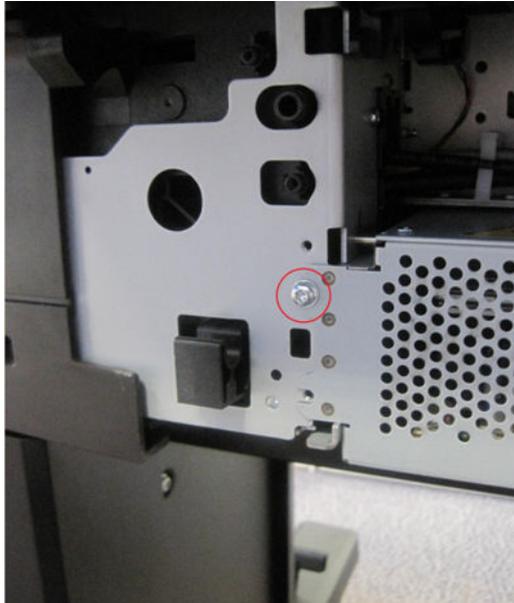
4. Remove the front panel cable and the T-10 screw. For the T2500 and T3500, you will also need to disconnect the USB cable.

5. Move forwards 15 cm and then disconnect the cables.

6. Remove the E-Box from the printer.

7. Remove six T-8 screws.
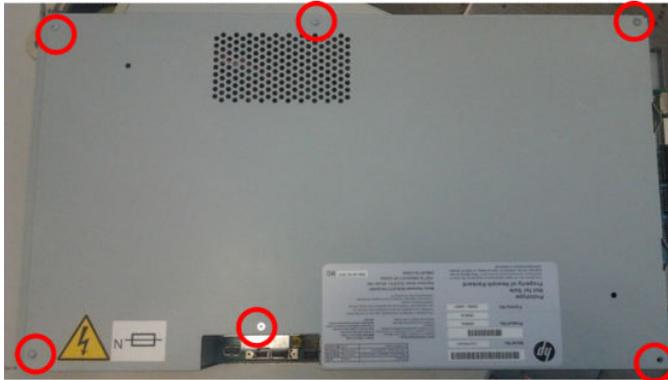
8. Remove four T-8 screws.

9. Remove two T-8 screws.

10. Slide out the E-Box cover.

E-Box fan

Removal

1. Open the E-Box. See .

2. Remove four screws from each fan.
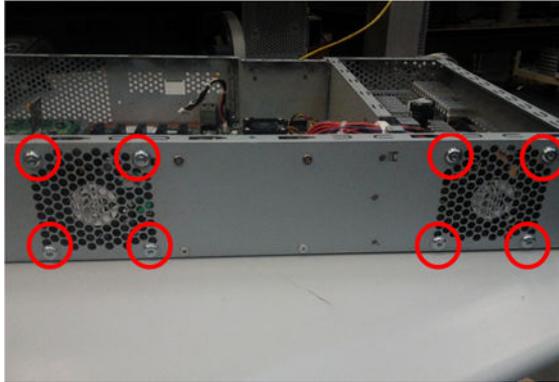
3. Unroute the cables, remove the T–20 screw, and remove the clamp.

4. Remove the cable tie.
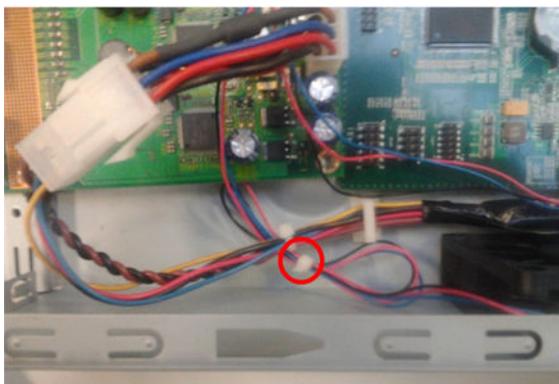
5. Disconnect the cables.

6. Remove the E-Box fans.

Power supply unit

Removal

1. Remove the e-box. See

2. Unscrew 10 e-box cover screws.
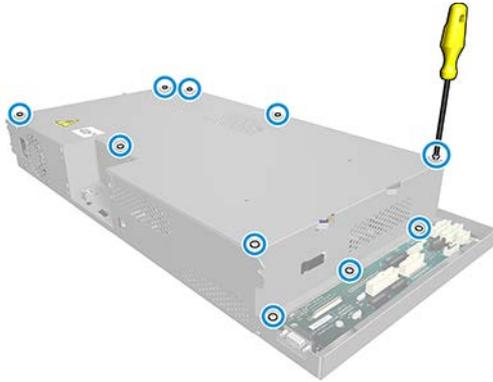
3. Remove e-box cover.
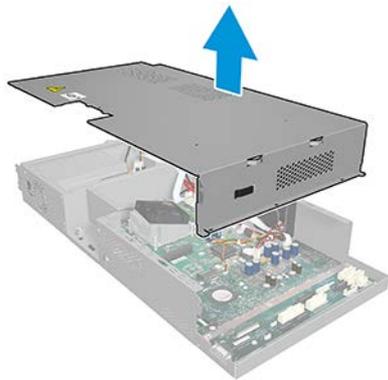
4. Unplug e-box power supply cables.
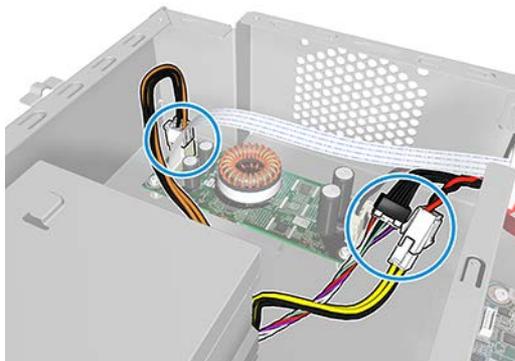
5. Unscrew 3 e-box power supply screws.
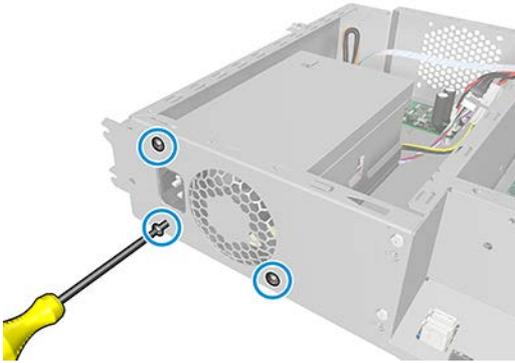
6. Remove the e-box power supply.
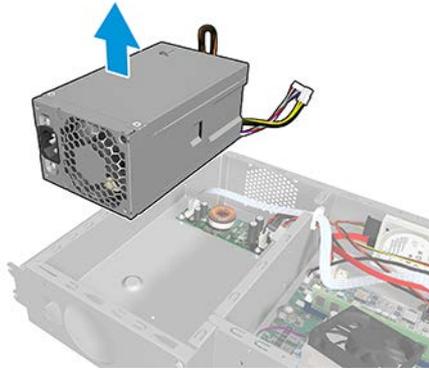
Hard disk drive

Removal

📝 **NOTE:** If you try to insert a previously used hard disk drive, the product displays a System Error, and will not start successfully.

1. Open the E-Box. See Open the E-Box on page 497.

2. Remove 4 PH1 screws.
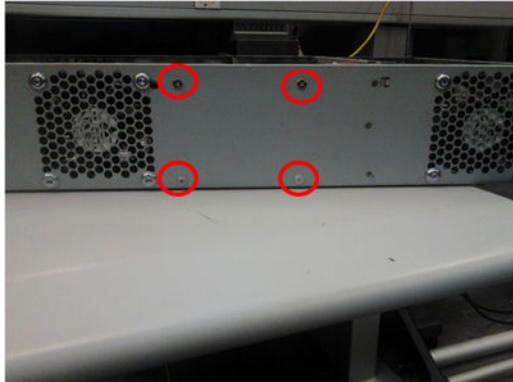
3. Disconnect the cable.

4. Remove the hard disk drive.

📝 **NOTE:** Remember that after installing a new Hard Disk Drive all previous custom paper presets and printer applications may need to be reinstalled.

How to replace the HDD

How to configure the new HDD

1. Download the latest firmware release from the web, and rename the file **firmware.fmw** on your PC. Copy it onto a USB thumb drive which has previously been formatted FAT32.

2. Replace the HDD with a new one.

3. Turn the printer ON.

4. When the printer displays 0045-0008-0089, insert USB thumb drive.

5. The printer will copy and install the new firmware file to the HDD. This takes approximately 2 minutes.

How to replace the HDD

1. The front panel displays: **Installation success. Remove USB and reboot**.

2. Remove the USB thumb drive.

3. Turn the printer off and on. The printer will boot up.

   NOTE: In the first boot, if a system error **0001-0002-0003** appears, reboot the printer.

4. If the printer detects that the wrong firmware has been installed, it will show the system error **0045-0008-0089**. In this case, send again the firmware using the emergency firmware update method (turn off the printer, insert a USB thumb drive which contains the correct firmware file, then turn on the printer to initiate it).

5. After the printer boots up, it will not recognize neither the ink cartridges nor the printhead. Reset them.

IMPORTANT: If you need to reuse an HDD, don't forget to run the utility **Reset HDD to be removed** from the **Diagnostics Menu** before removing it. Otherwise, the system error 0001-0004-0074 (HDD-NVM issue) will appear on the printer where you are trying to install it.

Engine PCA

Removal

1. Open the E-Box. See .

2. Disconnect cables and remove three T-8 screws.

3. Slide out and remove the engine PCA (which is connected to the formatter PCA).

📝 NOTE: The red PCA, Cryptoasic SIM, must be installed in the new engine PCA.

DC/DC Power supply PCA

Removal

1. Remove the e-box. See

2. Unscrew 10 e-box cover screws.
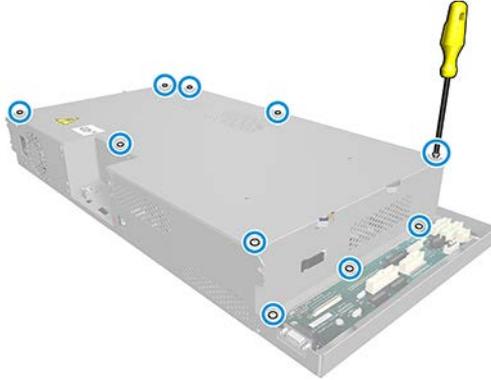
3. Remove e-box cover.
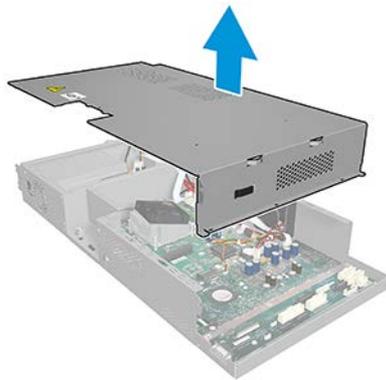
4. Unplug e-box power supply PCA cables.
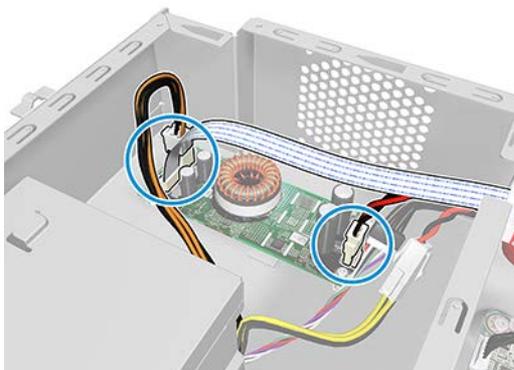
5. Unscrew 4 e-box power supply PCA screws.
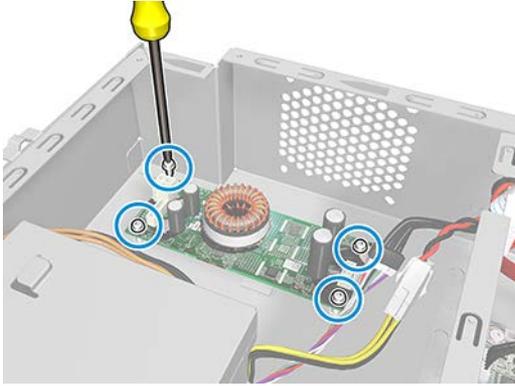
6. Remove the e-box power supply PCA.
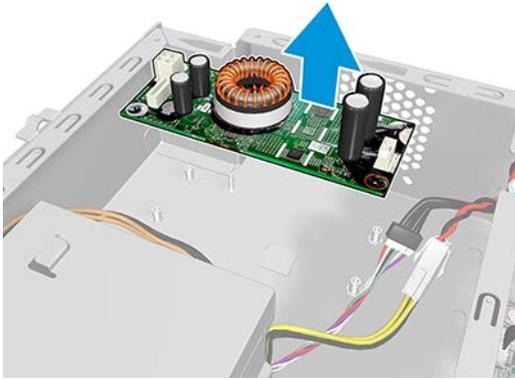
Formatter PCA

Removal

1. Use the power switch at the rear to turn off the printer, then disconnect the power cord.

2. Remove the engine PCA. See .

⚠ WARNING! If the engine PCA is not removed before the formatter, the bridge connections may be damaged.

3. Remove the two screws shown.

4. Disconnect the cables and remove the clamp.

5. Remove four T-8 screws and the L-shaped metal sheet.
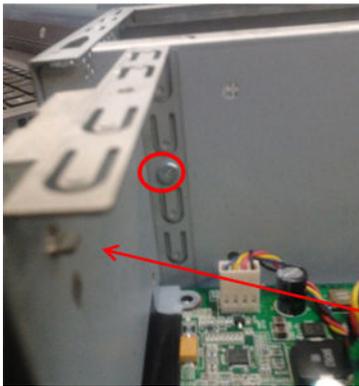
6. Remove four T-8 screws.
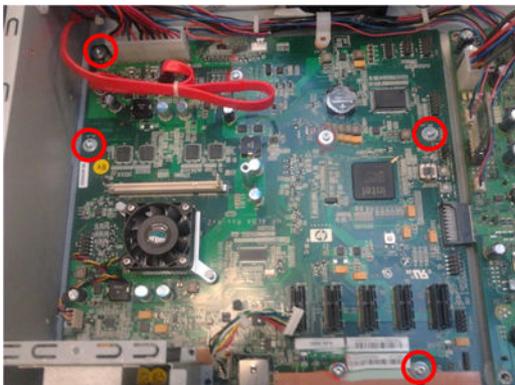
7. Remove the formatter PCA.

Front panel – (HP DesignJet T1600 only)

Removal

1. Remove the main cover on the front panel side. See Main cover (front panel side Y3T75-67011) on page 475.
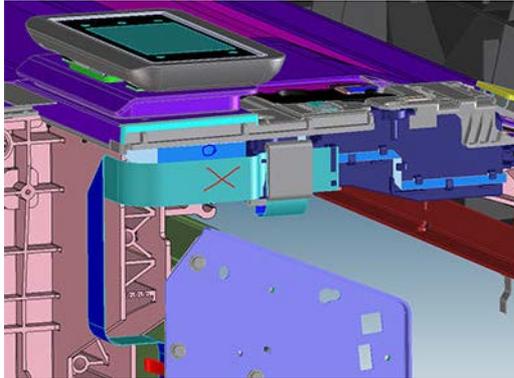
2. Remove the front panel screw.
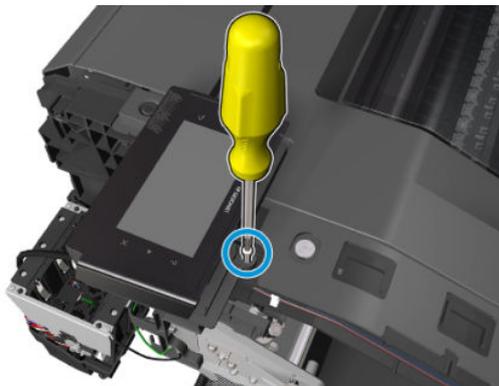
3. Open the top roll cover.
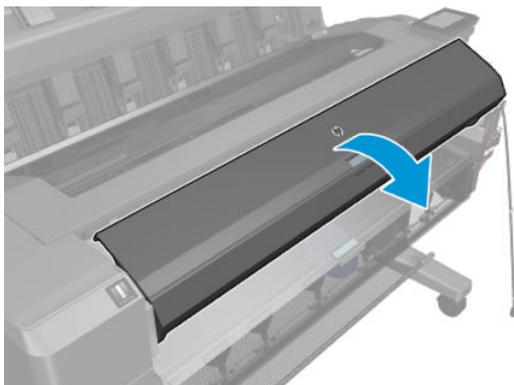
4. Remove the hidden screw.
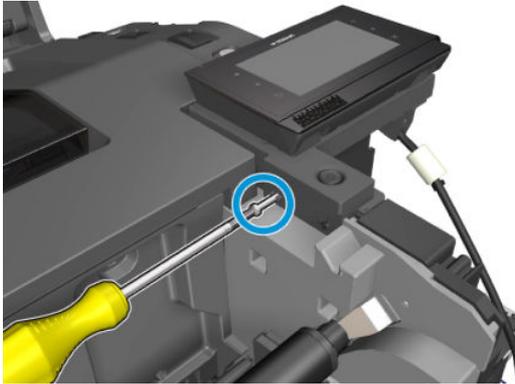
5. Remove the front panel.
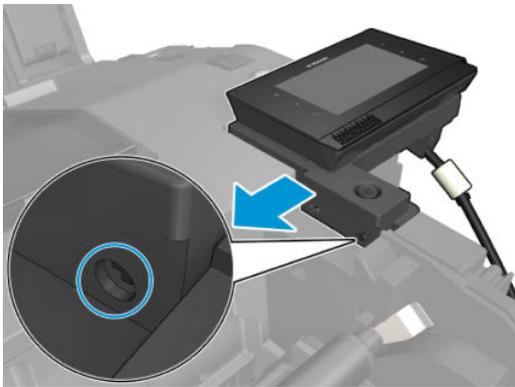
Carriage

Removal

1. Remove the top cover and Window.

2. Remove the SVS main cover. See Main cover (service station side Y3T75-67012) on page 473.

3. Remove the Front Panel main cover. See Main cover (front panel side Y3T75-67011) on page 475.

4. Remove the Cutter motor. See Cutter motor with support (2YB64-67009) on page 440.

5. Loosen the T-20 screw belt tensioner.
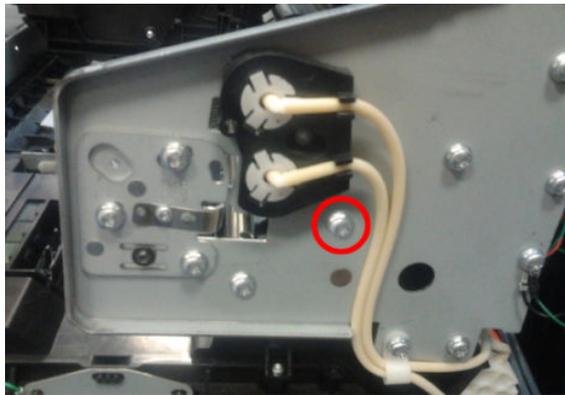
6. Remove the starwheel lifter cover and actuator.
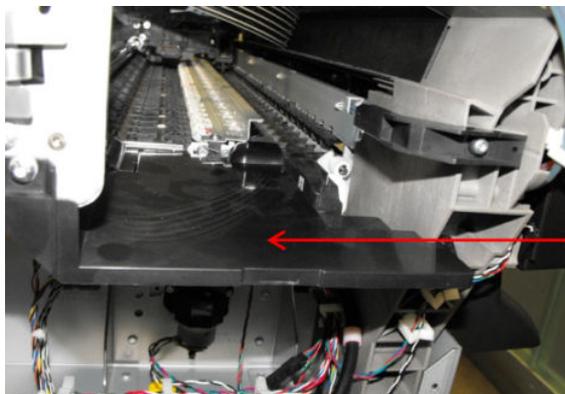
7. Remove the encoder strip. See Encoder Strip on page 526.

8. Remove 2 T-20 screws from the front panel wire rester.
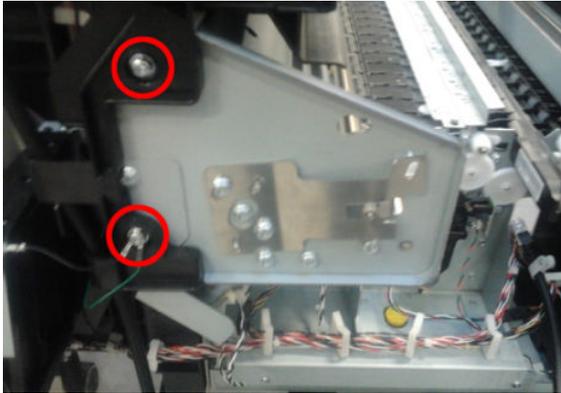
9. Remove the Scan Axis Motor. See Scan-axis motor on page 528.

10. Remove 5 T-20 screws and the Front Panel bracket.
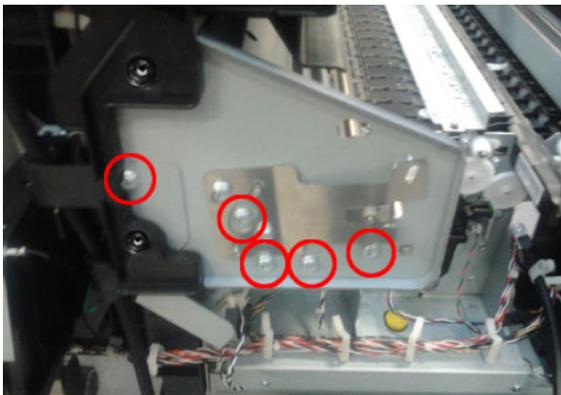
11. Remove the tube guide.
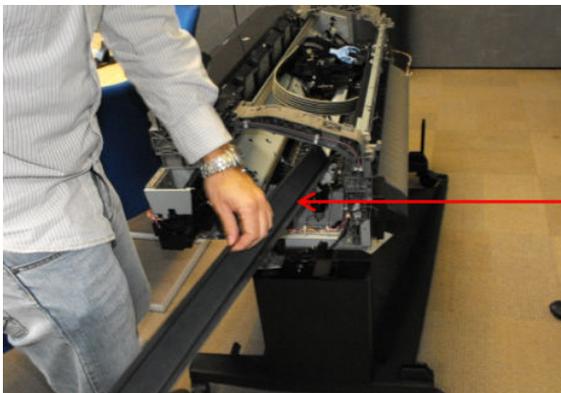
12. Remove 6 screws and the printheads.

⚠ WARNING! When unplugging the trailing cable, be careful not to damage the corners of the cable end.
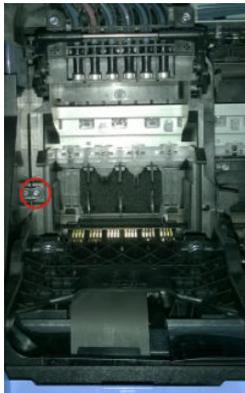
13. Remove the carriage.

To install the carriage, put the tubes into position first.

📝 **NOTE:** When installing the crane, check that the needles support is properly attached with the levers on the sides. The levers help to move the needles down inside the printhead when the carriage latch is closed.

📝 **NOTE:** After installing the carriage, when closing the latch, make sure the carriage is placed in the printhead replacement position so the carriage doesn't interfere with the rear guide.
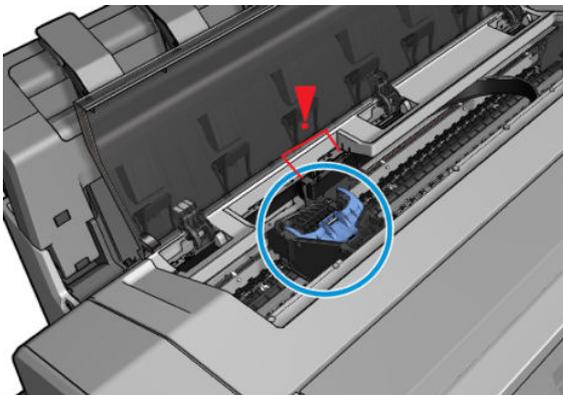
Line Sensor

Removal

1. Open the window.

2. Move the carriage to create a good position for manipulating the carriage.

3. Remove the carriage PCA. See Carriage PCA on page 520.

4. Remove the screw and the Line Sensor.
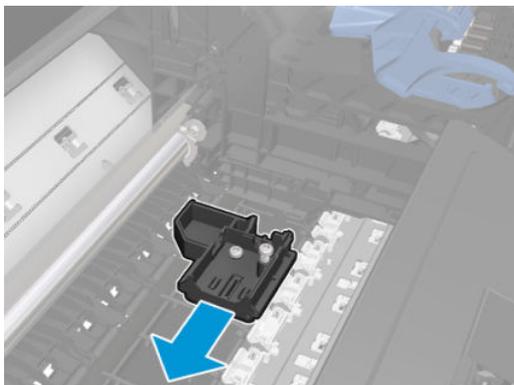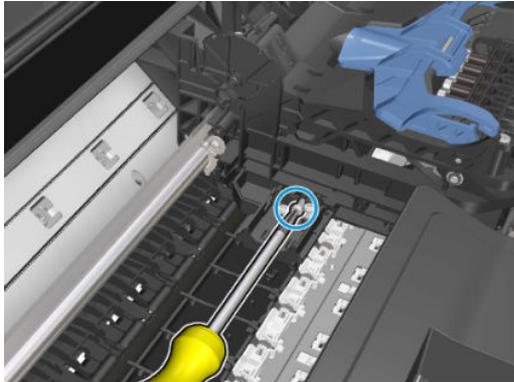
NOTE: After installing the carriage, when closing the latch, make sure the carriage is placed in the printhead replacement position so the carriage doesn't interfere with the rear guide.
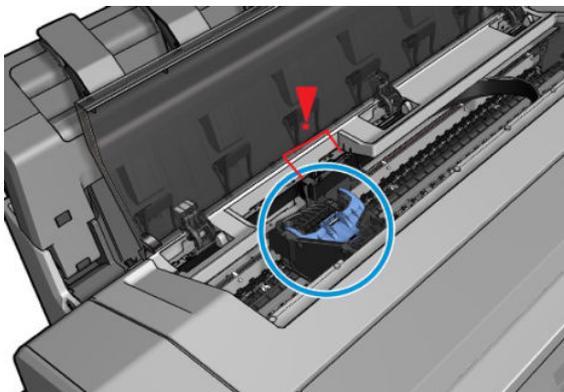
Carriage PCA

Removal

1. Open the window and initiate printhead replacement in order to move the carriage to the middle of the printer.

2. Remove the T-15 screw and disconnect the Line Sensor cable.
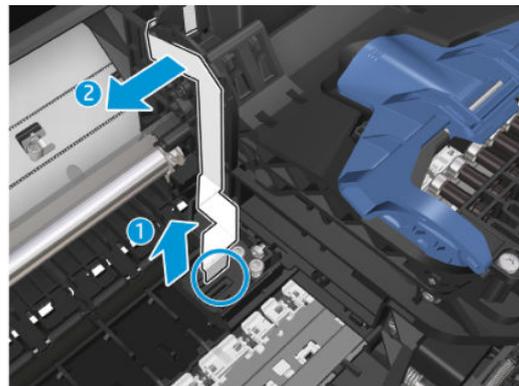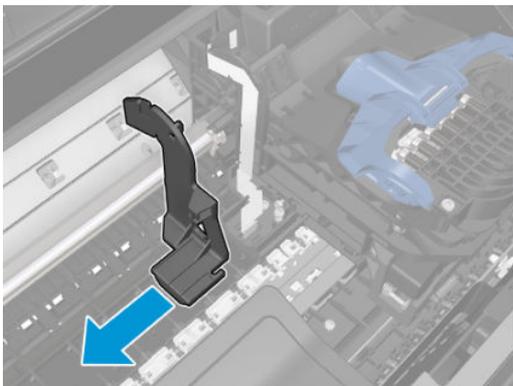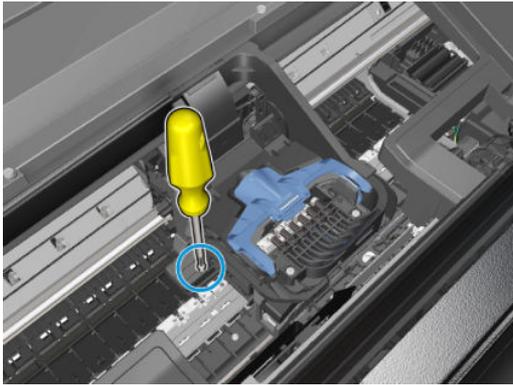
3. Unclip the mylar, and disconnect trailing cable.

⚠ WARNING! When unplugging the trailing cable, be careful not to damage the corners of the cable end.
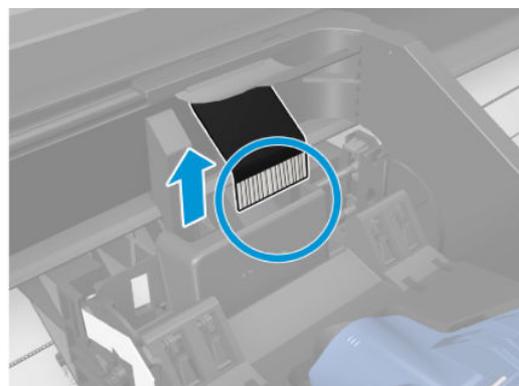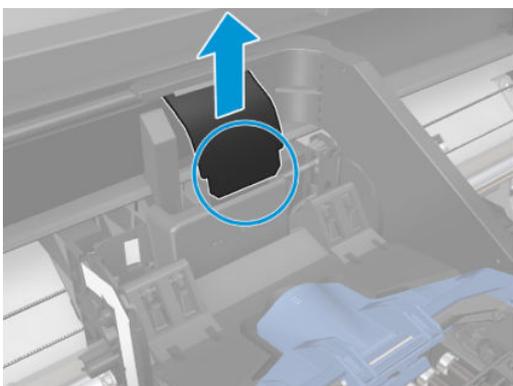
4. Remove the 2 T–15 screws.
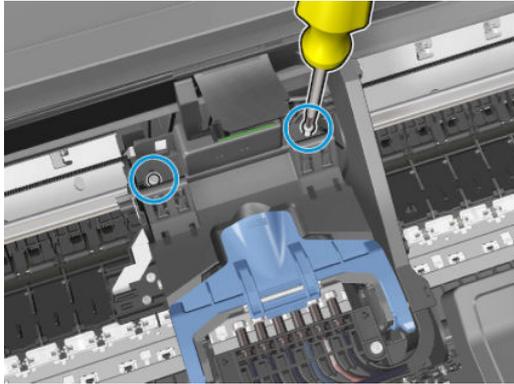
5. Remove the carriage PCA.
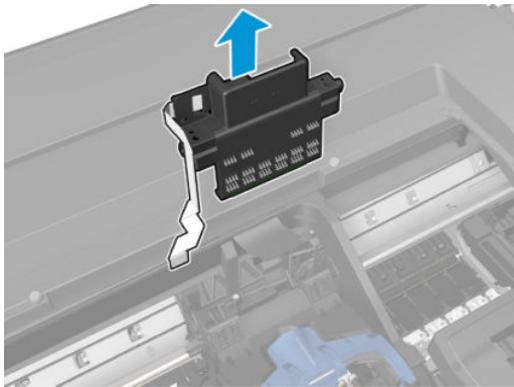
📝 NOTE: After installing the carriage, when closing the latch, make sure the carriage is placed in the printhead replacement position so the carriage doesn't interfere with the rear guide.
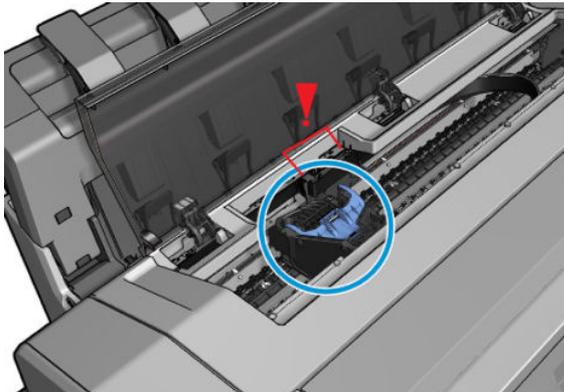
Rail Oiler Kit

Removal

1. Remove the SVS main cover. See .

2. Remove the T-20 screw.
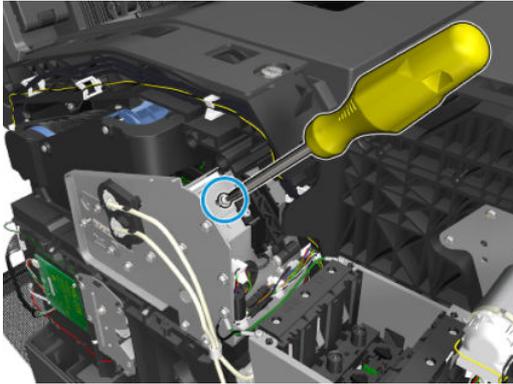
3. Remove the rail oiler kit.
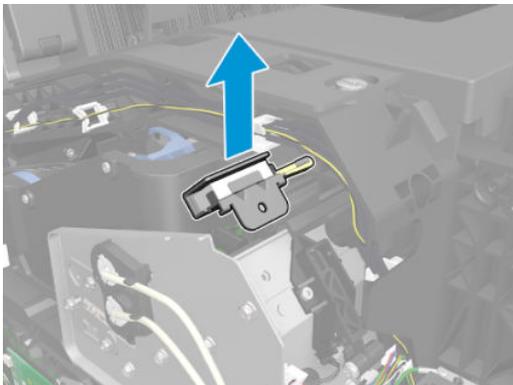
PRS Actuator

Removal

1. Remove the SVS main cover. See .

2. Disconnect and unclip the cable.
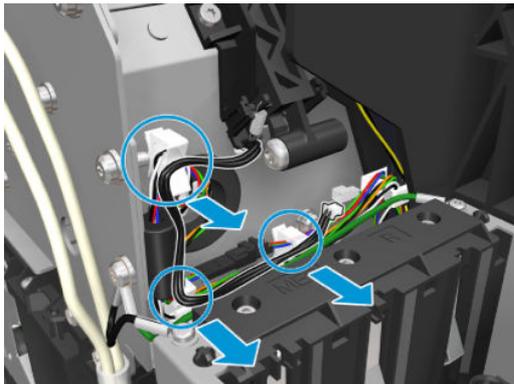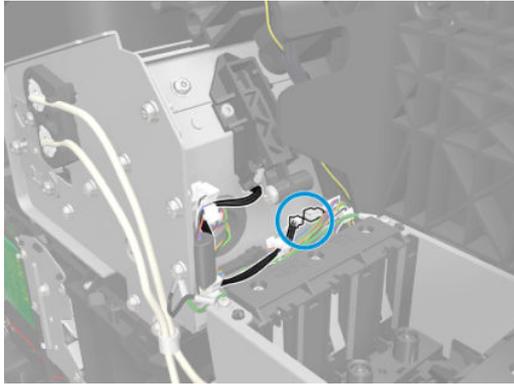
3. Remove the 2 T-20 screws, and the PRS actuator.
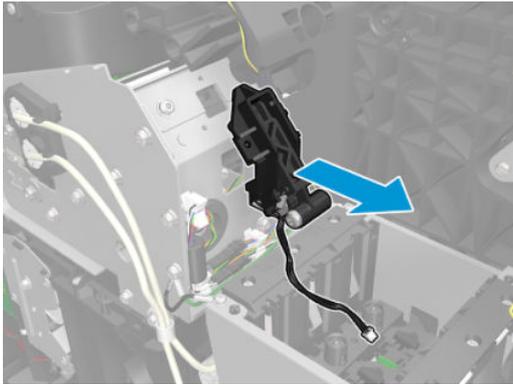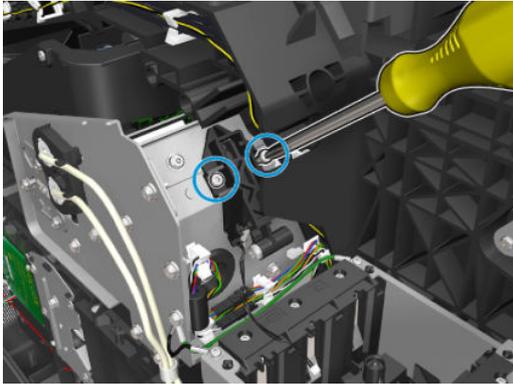
Belt

Removal

1. Remove the carriage. See Carriage on page 515.

2. Remove the belt.

> **NOTE:** When assembling the belt, make sure that it is correctly attached to the tensioner and scan axis motor pin. If not,the belt can rapidly become worn out, and/or make noise.
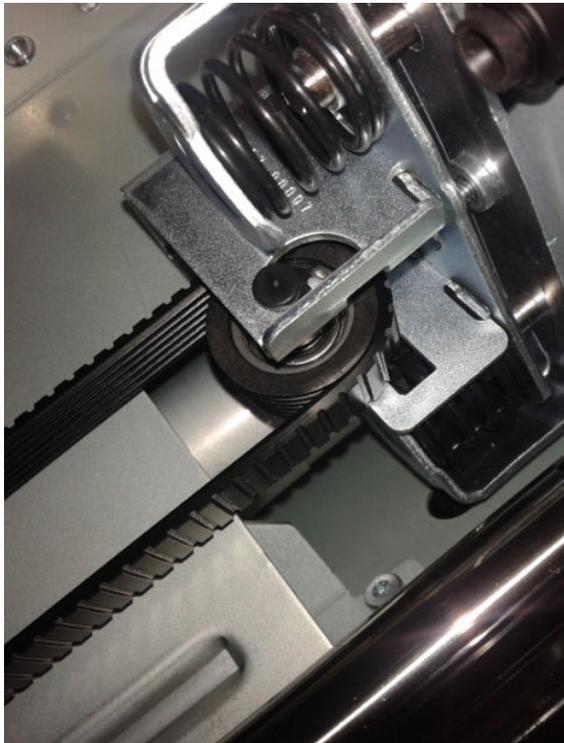
Encoder Strip

Removal

1. Remove the SVS main cover. See Main cover (service station side Y3T75-67012) on page 473.

2. Remove the Front Panel main cover. See Main cover (front panel side Y3T75-67011) on page 475.

3. Remove the T-10 screw.
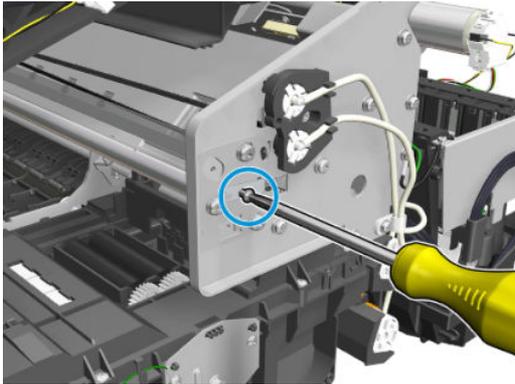
4. Press the bracket to release the encoder strip tension.
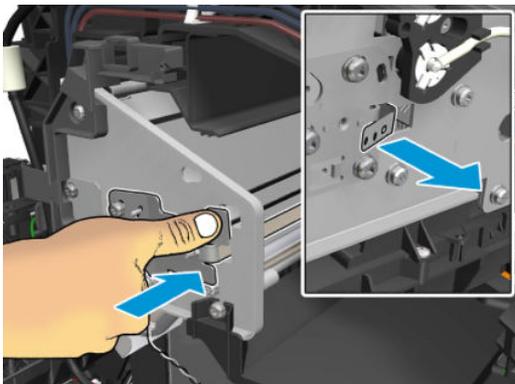
5. Remove the 5.5 mm nut.

6. Remove the Encoder Strip.
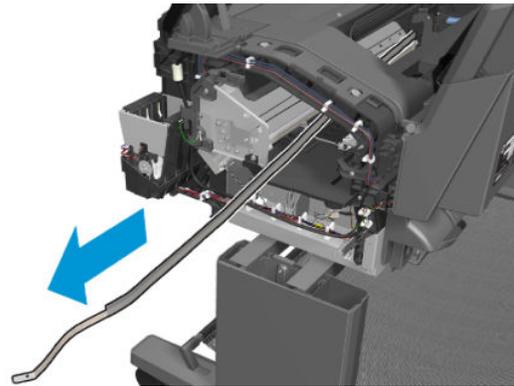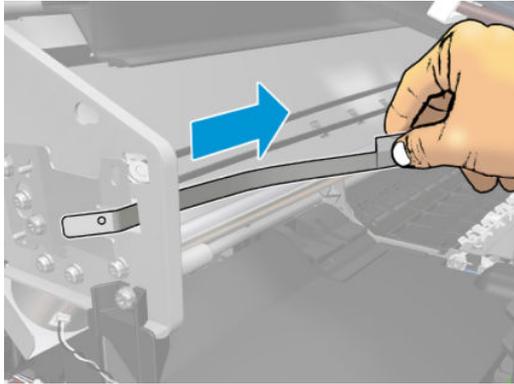
Installation

1. Position the encoder strip.

2. Press the spring to allow the encoder to fit into the nut.

3. Tighten the nut manually.

   📝 NOTE: Do not tighten with a tool, the force would be too much and the encoder could slide down.

4. Tighten the T10 screw while hand holding the encoder to prevent it from sliding.
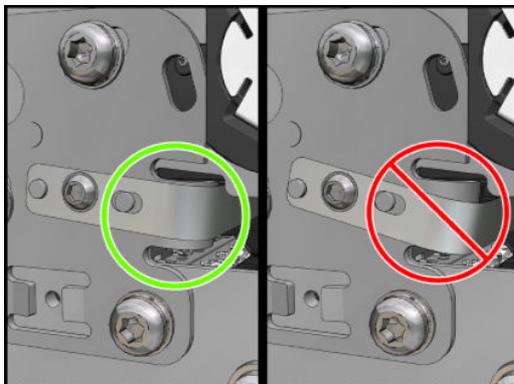
   📝 NOTE: Run feed and cut.

Scan-axis motor

Removal

1. Remove the center cover. See .

2. Loosen the belt tensioner T-20 screw, SVS side.
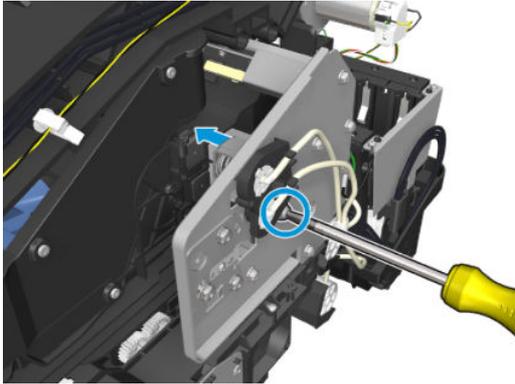
3. Untighten the 4 T-20 screws, FP side.
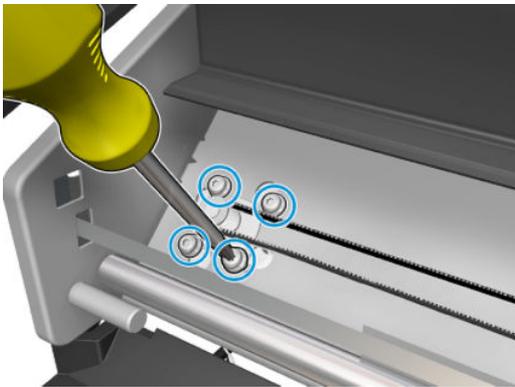
4. Disconnect the belt.
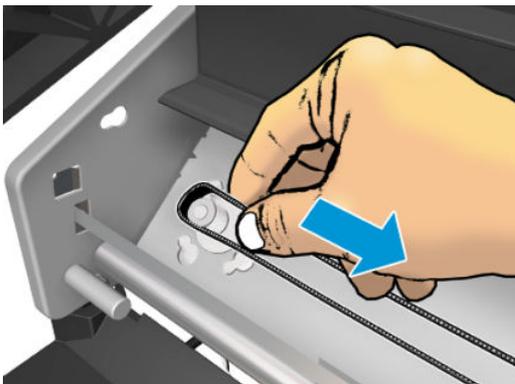
5.   Disconnect the cable.
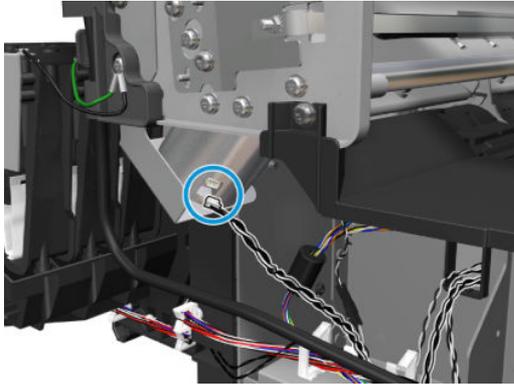
6.   Remove the 2 screws in order to remove the piece.

📝 **NOTE:** Hold the Scan-axis motor in place when removing the screws.
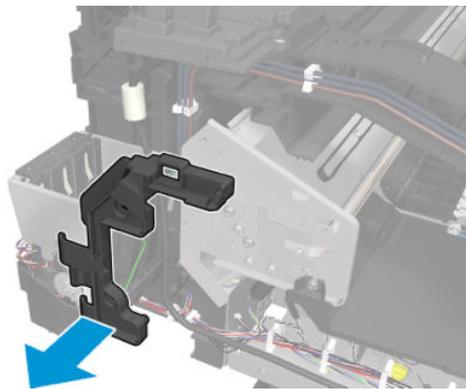
7.   Remove the screw in order to remove the metallic piece.
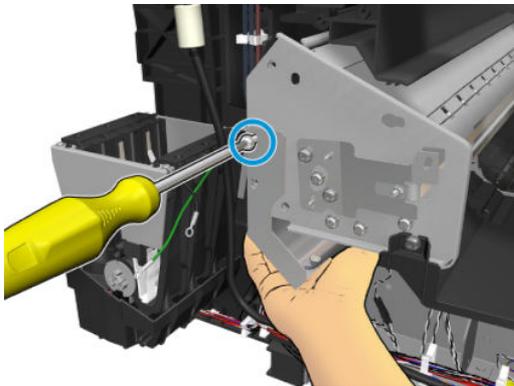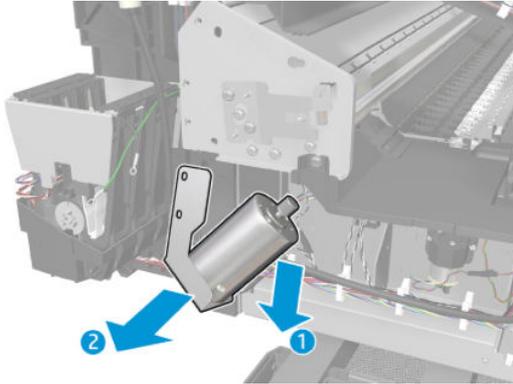
8. Remove the Scan-axis motor.

Drop Detector

Removal

1. Remove the service station. See .

2. Disconnect the cable.
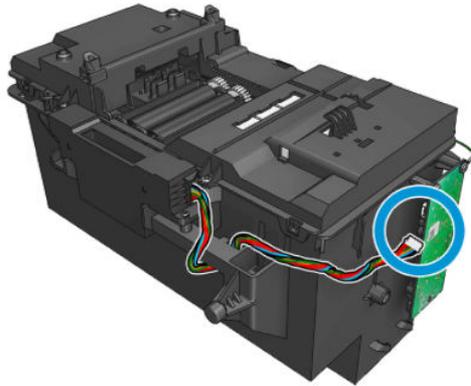
3. Remove the T-15 screw.
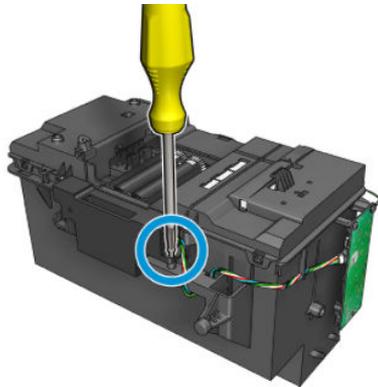
4. Remove the Drop Detector from the service station.
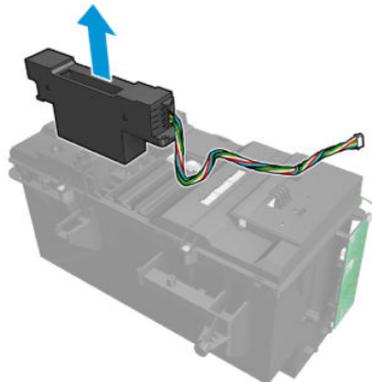
Service Station with Drop Detector

Removal

1. Remove the Center Cover. See .

2. Release the carriage.
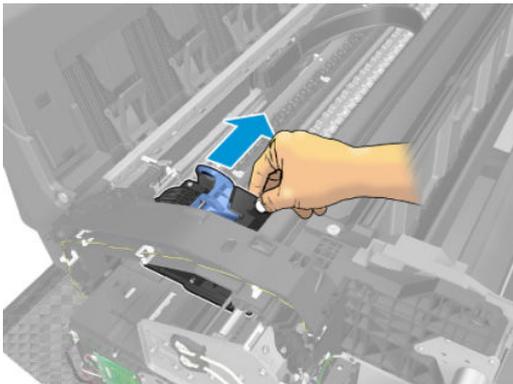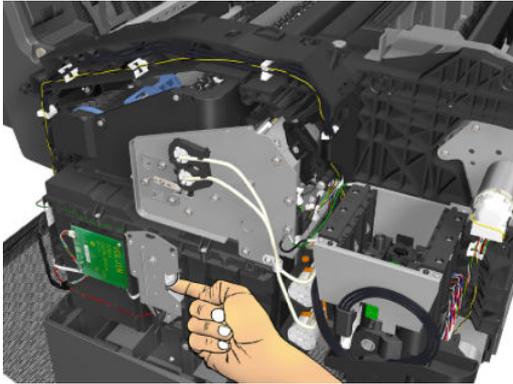
3. Disconnect and unroute the cables.
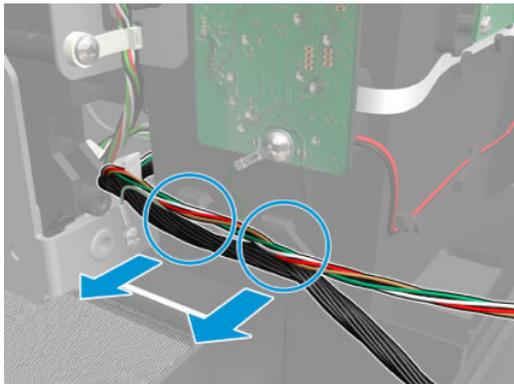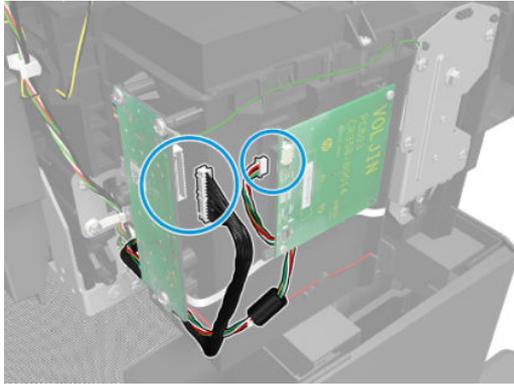
4. Remove the grounding screw.
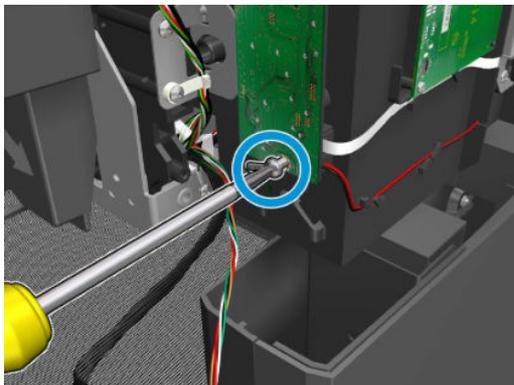
5. Remove the 2 allen screws from the Slider Rod.

   💡 **TIP:** Cover the service station with a A4/E size sheet of paper to prevent it from getting dirty and to protect against screws falling into the ink container.
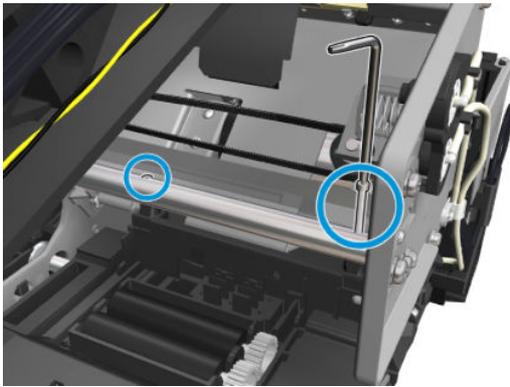
6. Remove the 2 T-15 screws and the left bracket.
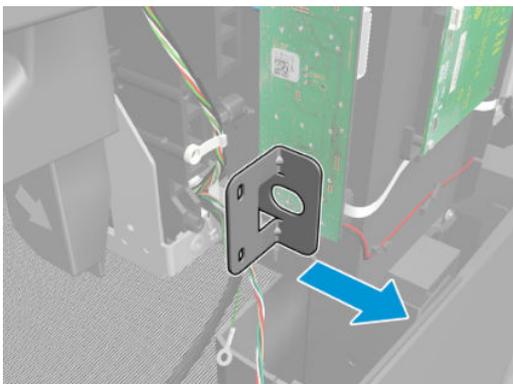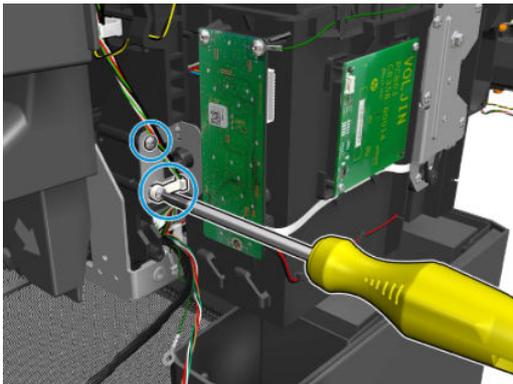
7. Remove the Service Station.
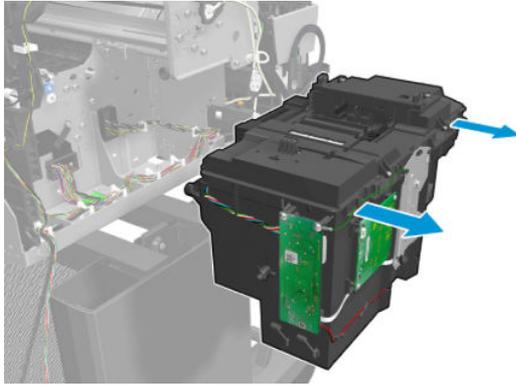
Primer Assembly

Removal

1. Remove the ISS SVS Side. See ISS SVS Side on page 543.

2. Disconnect, and unroute the primer cables.
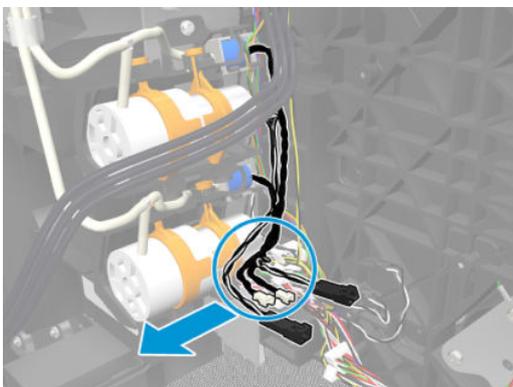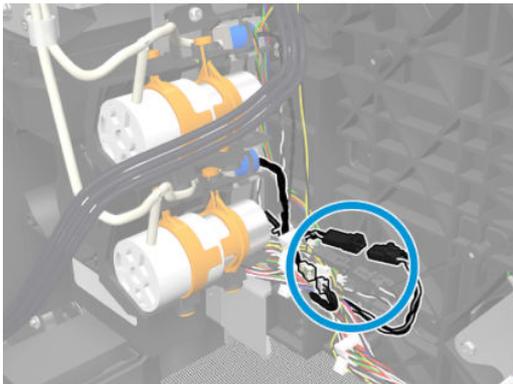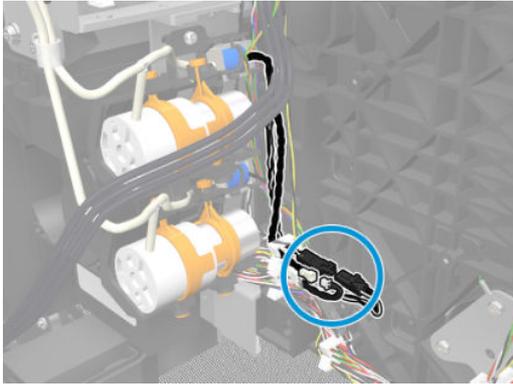
3. Remove the T-20 screw, the T-10 screw, the tubes, and the plastic pieces.
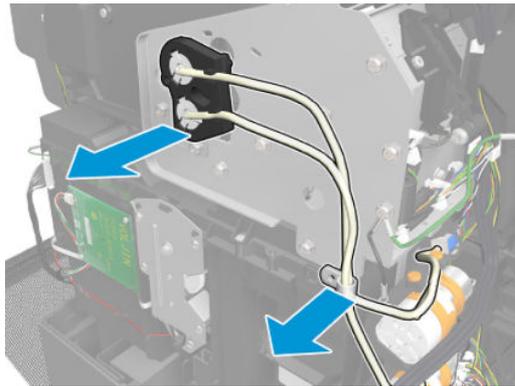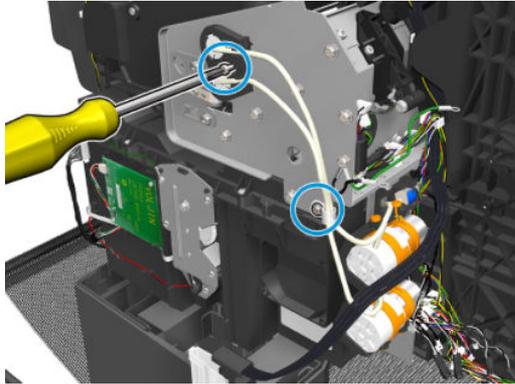
> **NOTE:** On the first primer tubes holder make sure the holes are aligned with the holes of the carriage.

4. Remove a T-20 screw from each primer.
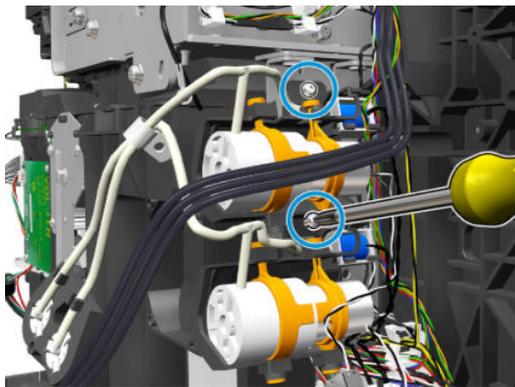
5. Remove the primer.
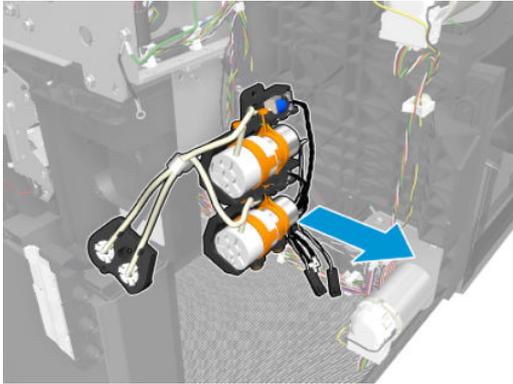
📝 **NOTE:** The primer service kit includes the valves, the plastic, and the tubes.

ISS (Ink Supply Station) Front Panel Side

Removal

1. Remove the Front Panel side main cover. See .

2. Disconnect the cables.
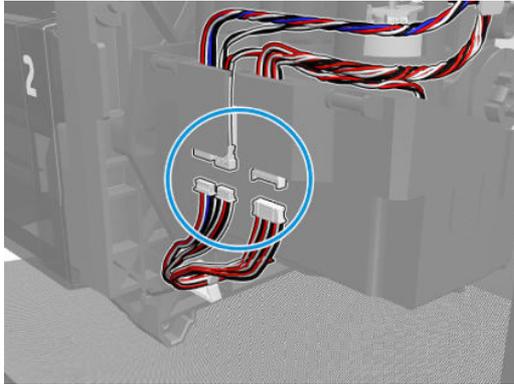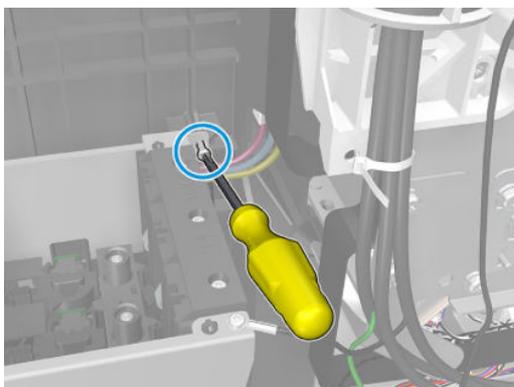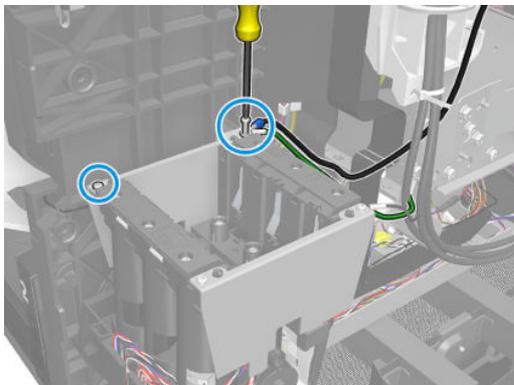
3. Remove 3 T-10 screws.

4. Remove the bracket and side plate.
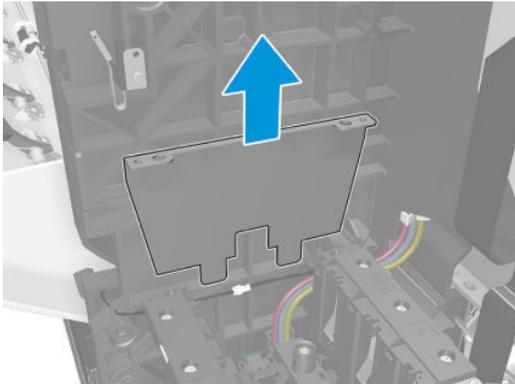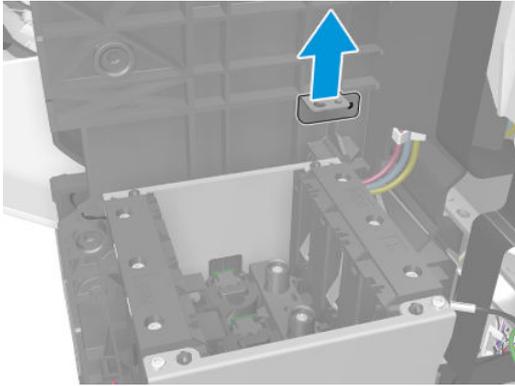
5. Remove 2 screws and the side plate.
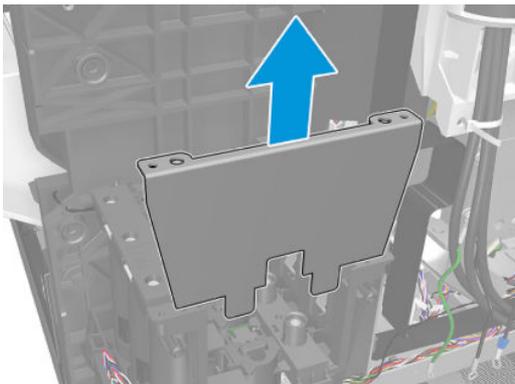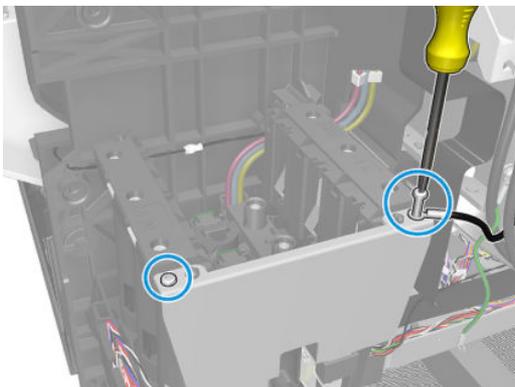
6. Remove the fluid inter-connector.
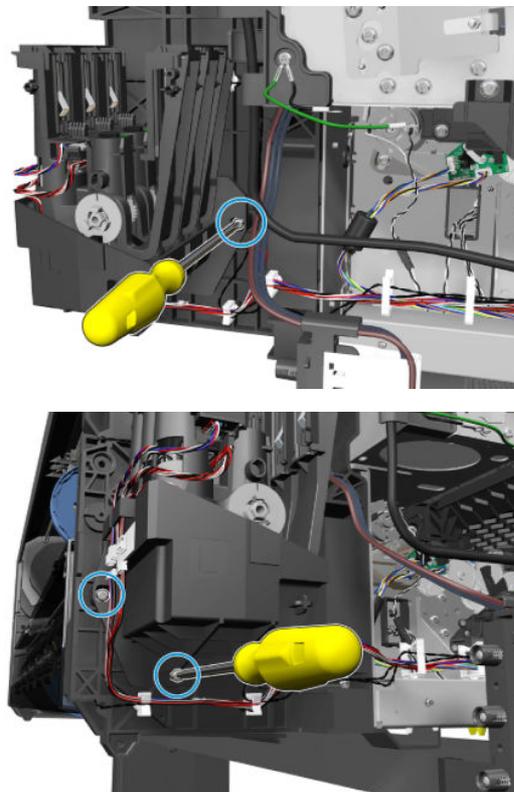
7. Remove 3 T-10 screws.

8. Remove the ISS Front Panel Side.
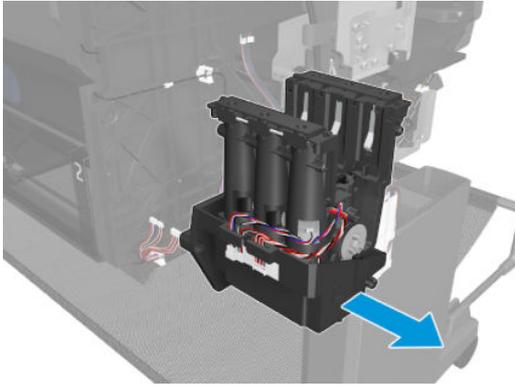
ISS SVS Side

Removal

1. Remove the ISS SVS Side main cover. See .

2. Disconnect the and unroute the cables.
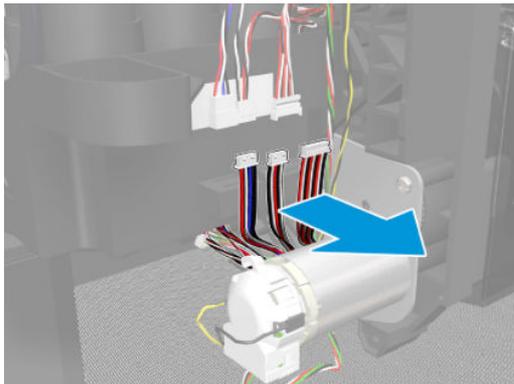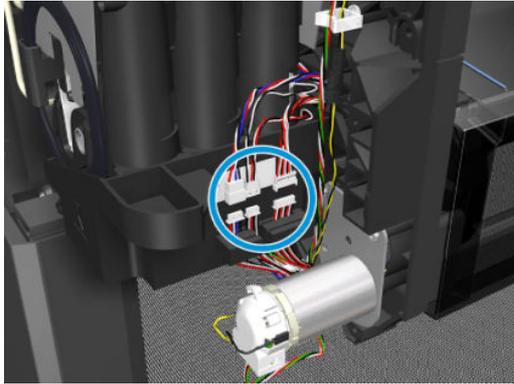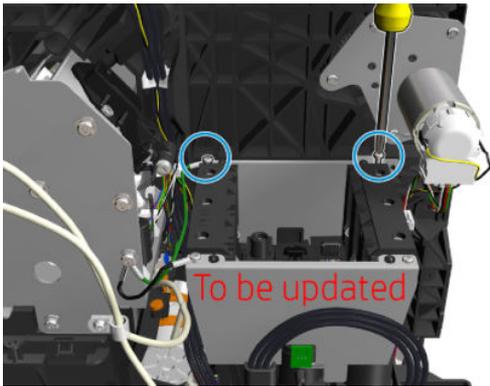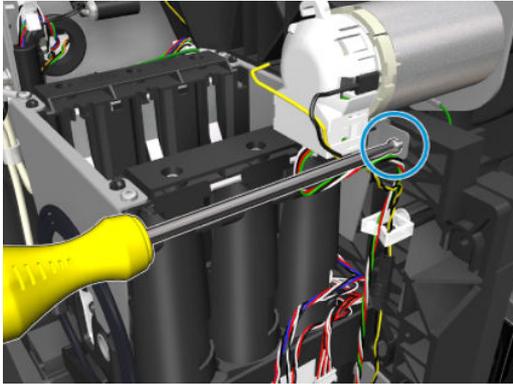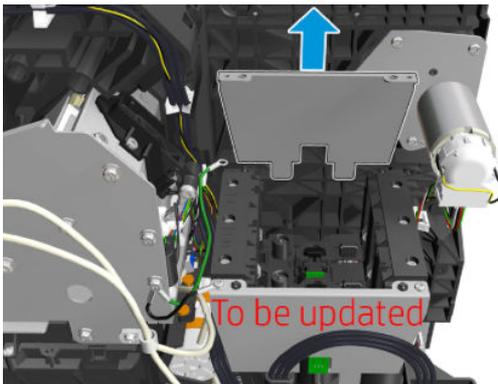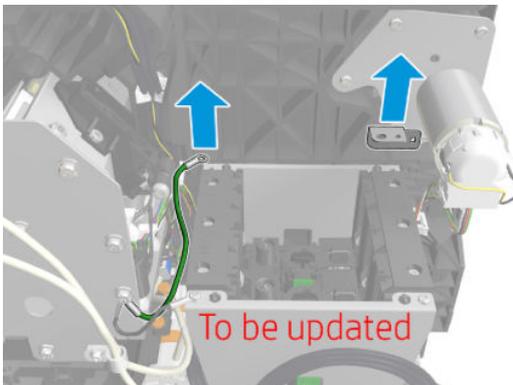
3. Remove 3 T-10 screws.

4. Remove the bracket and side plate.

5. Remove 2 screws and the side plate.
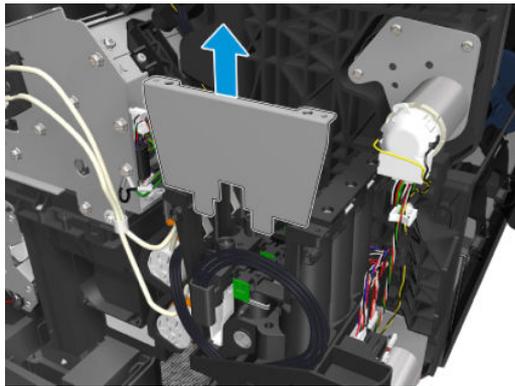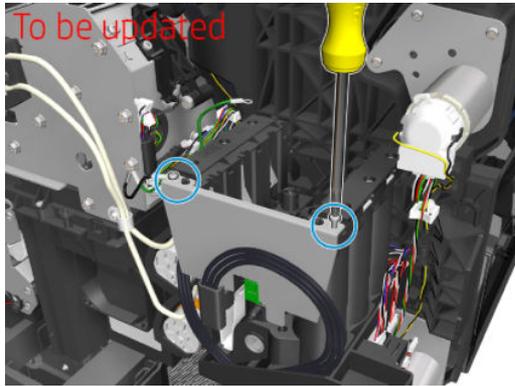
6. Remove the fluid inter-connector.
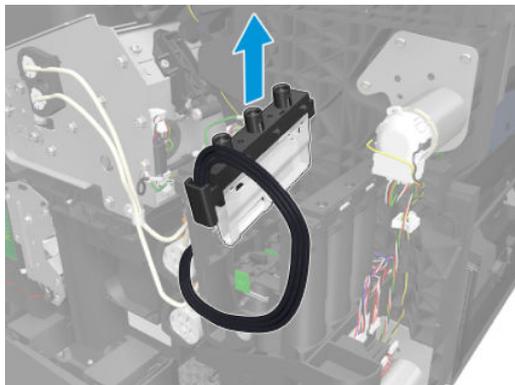
7. Remove 3 T-10 screws.
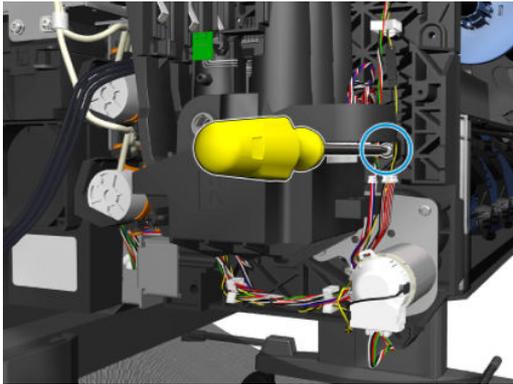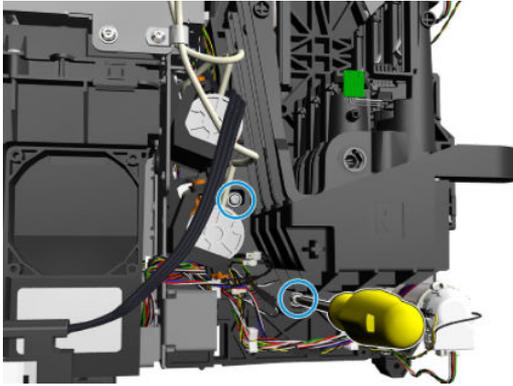
8. Remove the ISS SVS side.
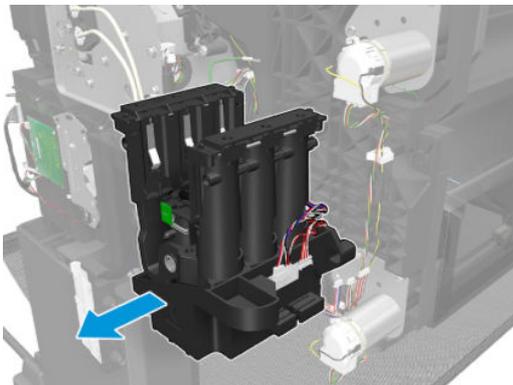
Ink Tubes and Trailing Cable

📝 **NOTE:** A purge tubes routine needs be launched after the ink tubes are replaced, check the ink levels and make sure a new printhead is available before starting the procedure. For more information, see Purge tubes on page 354.

Removal

1. Remove the Front Panel main cover. See Main cover (front panel side Y3T75-67011) on page 475.

2. Remove the SVS main cover. See Main cover (service station side Y3T75-67012) on page 473.

3. Remove the center cover. See Center cover (CR357-67054) on page 480.

4. Remove the stacker. See Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608.

5. Remove the rear beam.
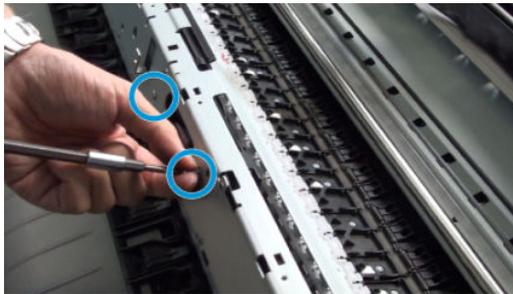
6.   Remove the ISS wall(removing 2 T-10 screws).
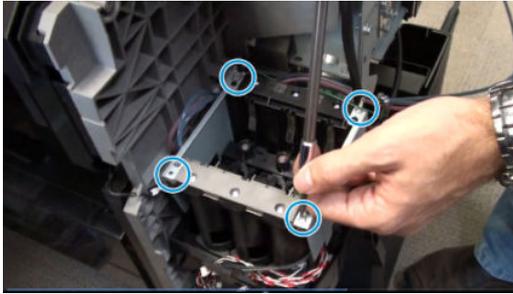
7.   Remove the service station. See Service Station with Drop Detector on page 532.

8.   Remove the holder.
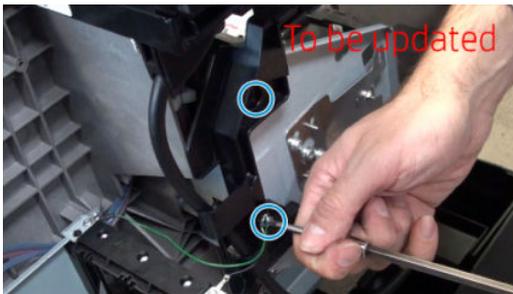
9. Remove the rear plate.
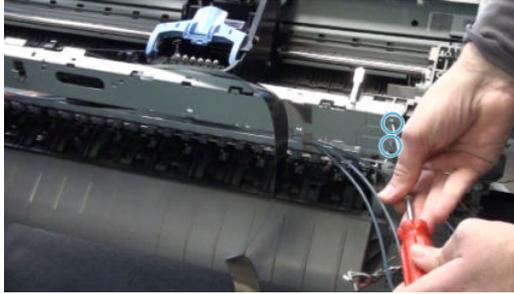
10. Remove the Carriage PCA. See Carriage PCA on page 520.

11. Remove the ink tubes and trailing cable from the carriage.
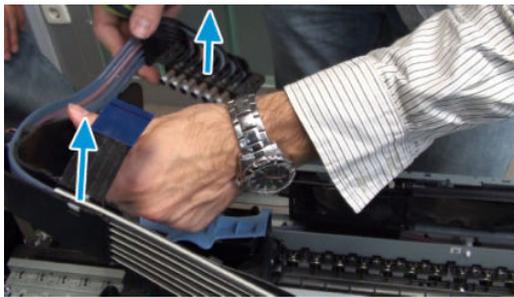
12. Unroute the trailing cable.
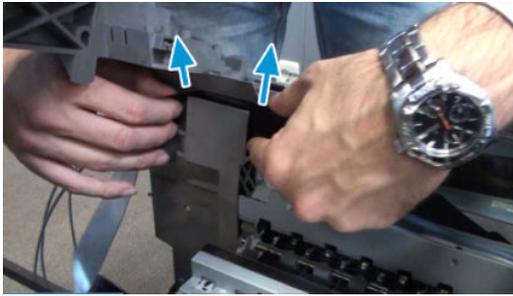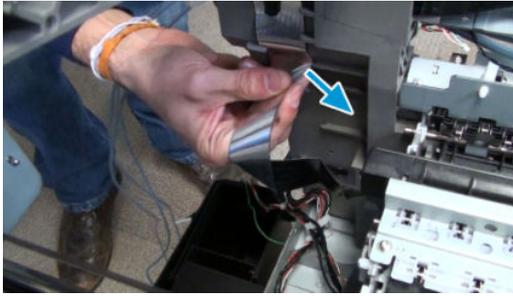
13. Unroute the end tubes.
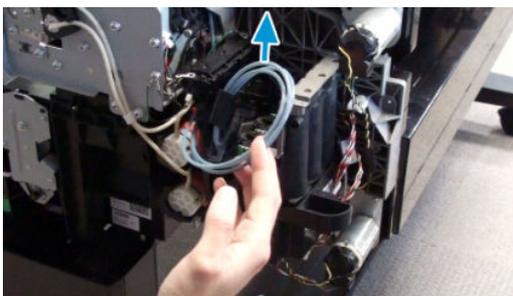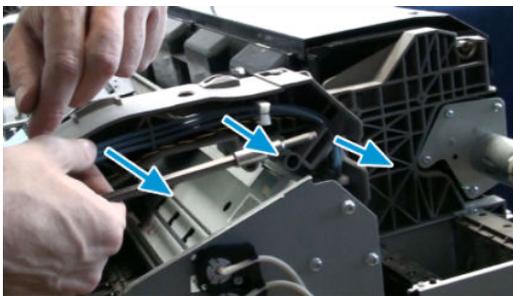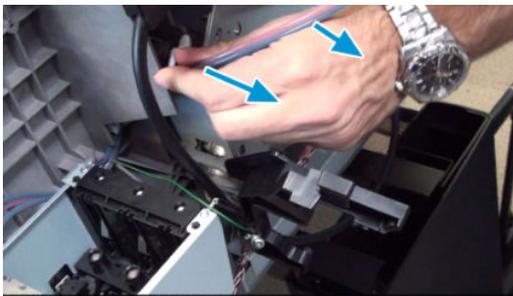
Installation

1. Install the new ink tubes and trailing cable. Reassemble all the parts, without inserting the ink cartridges or the printhead.

   ⚠ WARNING! Do not install the fluid interconnector to the ISS with the connections reversed, as the ink will be contaminated.

2. Power on the printer and enter the Service utilities menu (see Entering the Service utilities menu on page 343). In this menu, reset the Tubes and Trailing cable usage counter (see Reset Life Counters on page 354). Then, run the Purge Tubes utility, and follow the steps prompted by the printer (see Purge tubes on page 354).

Media Sensor (CR357-67031)

Removal

1. Turn off the printer.

2. Remove the converger. See .

3. Close the bottom roll cover and unplug the media sensor.
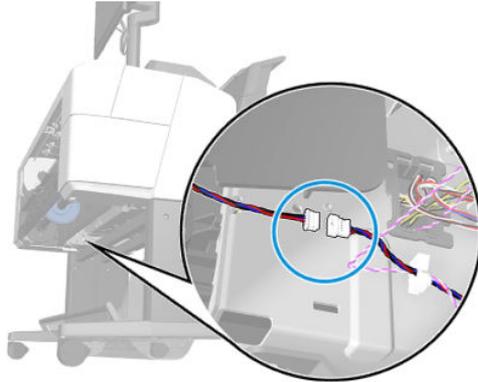
4. Unroute the media sensor.
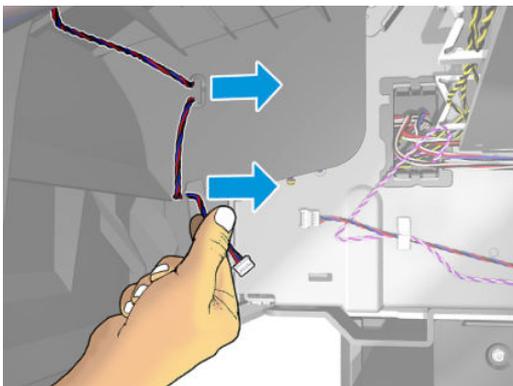
5. Open the bottom roll cover and remove the cosmetic screw.
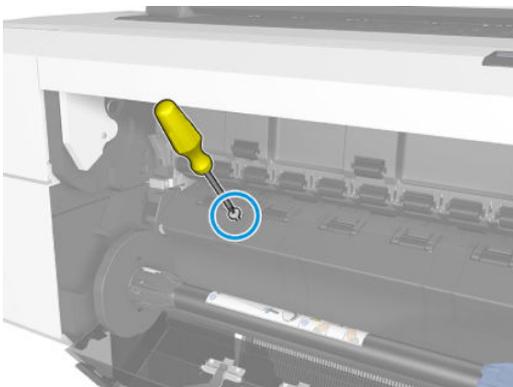
6. Remove the media sensor.
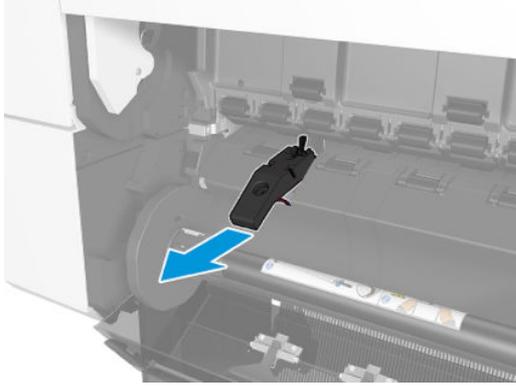
Card Reader

Installation

1. Turn off the printer.

2. Remove the Wifi lid. See .

3. Open the roll cover.
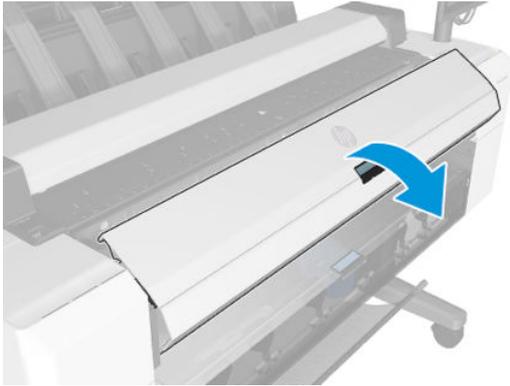
4. Remove 2 T-15 screws.
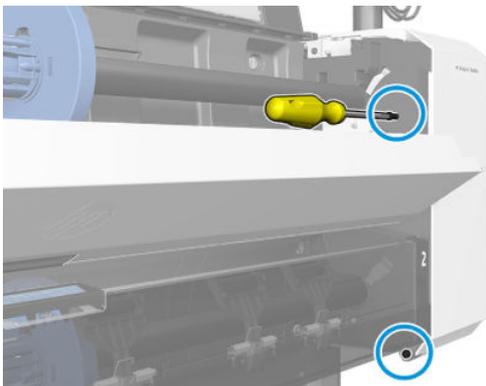
5. Open the scanner.
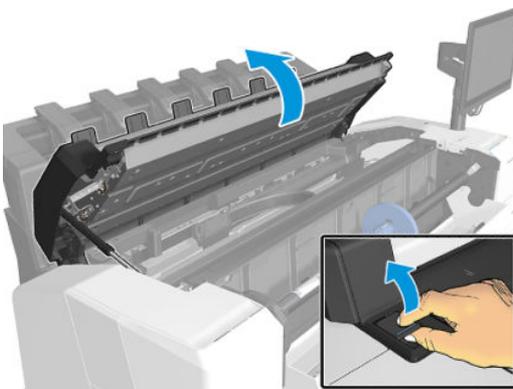
6. Remove 2 screws.
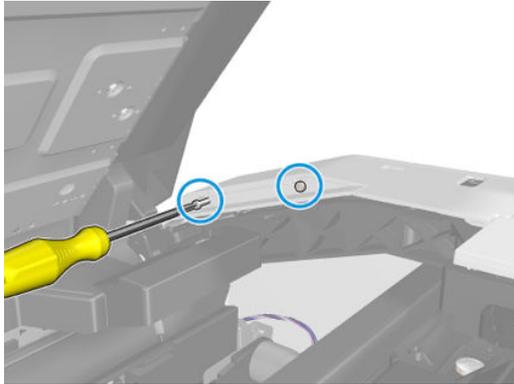
7. Remove 2 T-15 screws.
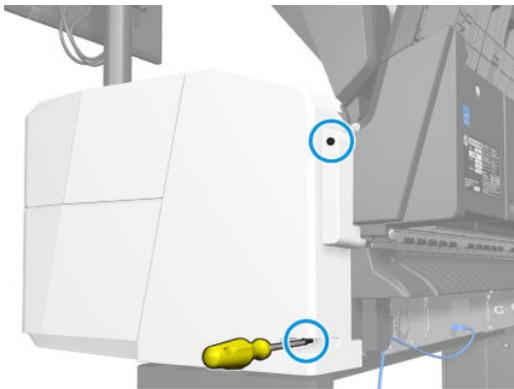
8. Open the ink cartridge cover.
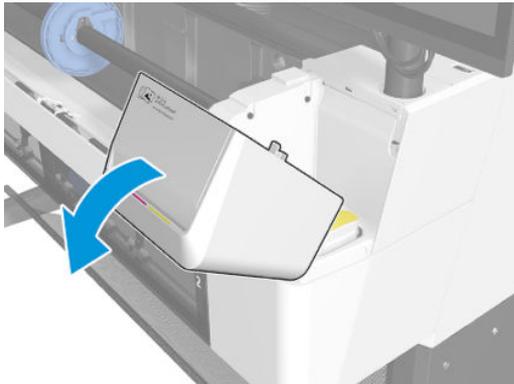
9. Remove the ink cartridges.
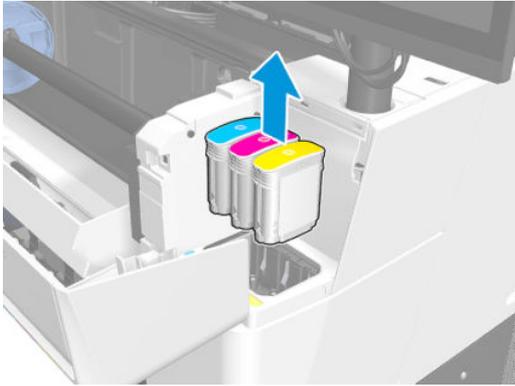
10. Remove 2 T-15 screws.
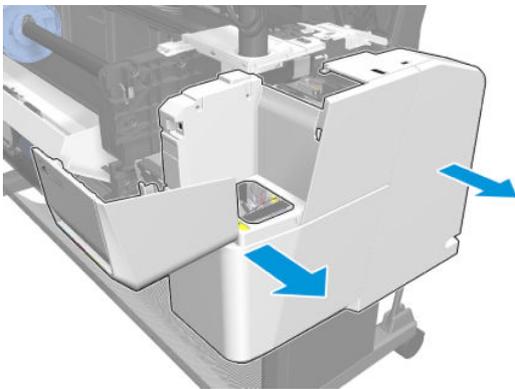
11. Slide the main cover cp.
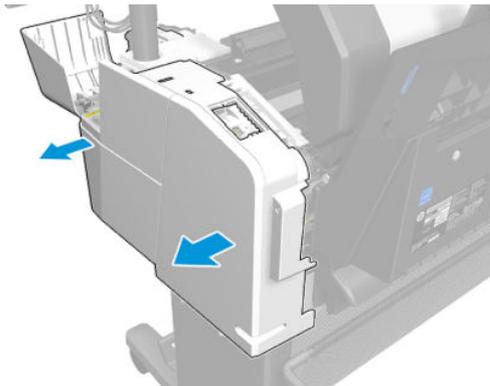
12. Pass the cable trough the first hole.
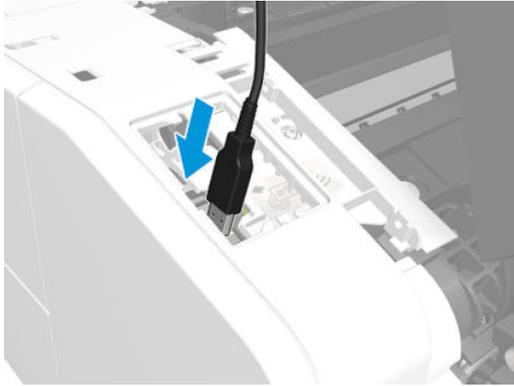
13. Position the cable in the cover.
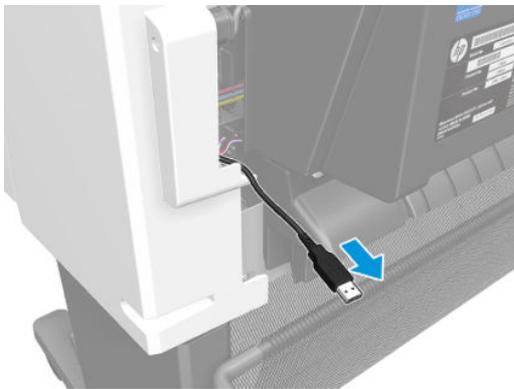
14. Place the cover back and make sure the cable are in place.
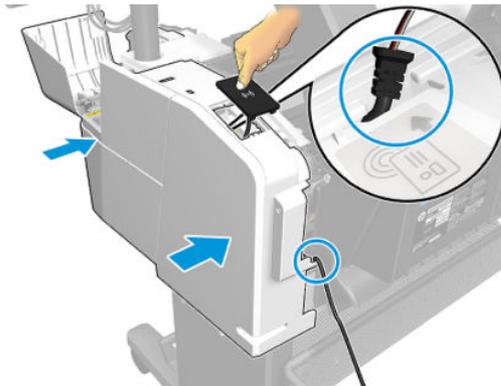
15. Connect the card reader.

Cleanout Assembly (CR357-40003)

Removal

1. Turn off the printer.

2. Remove the bottom roller.

3. Remove the converger. See Converger assembly (CR357-67032) on page 483.

4. Disconnect the media sensor cable underneath the printer.
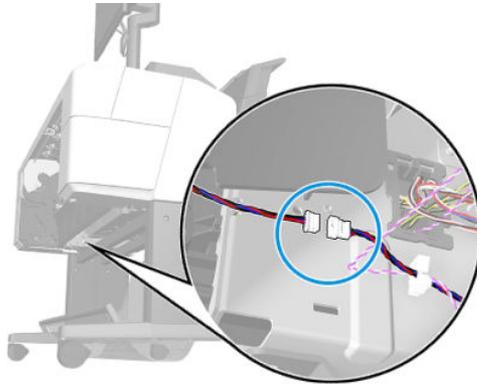
5. Remove 4 T-15 cosmetic screws.
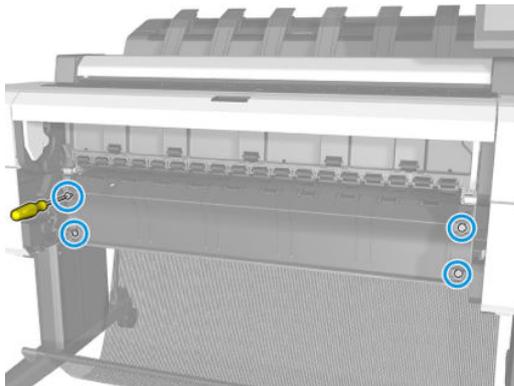
6. Rotate the 2 supports outward.
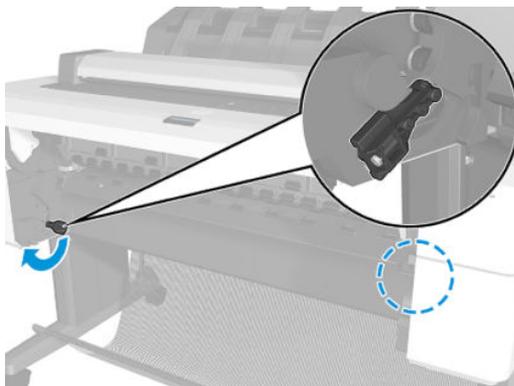
7. Remove the clean-out.
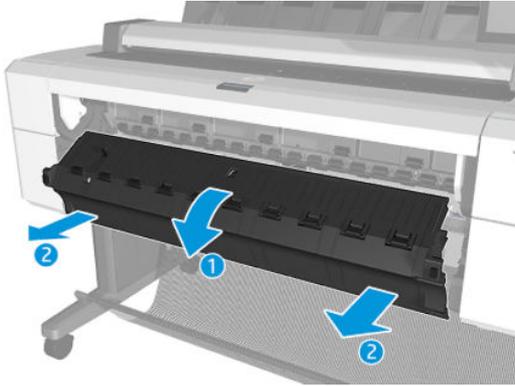
Installation

▲ Insert at an angle, and when in, rotate upwards.

Bottom Rewinder Support

Removal

1. Remove the SVS side main cover. See .

2. Remove the bottom roll cover. See .

3. Remove the converger. See .

4. Disconnect, and unroute the cables.

5. Remove 3 T-15 screws and the rewinder.
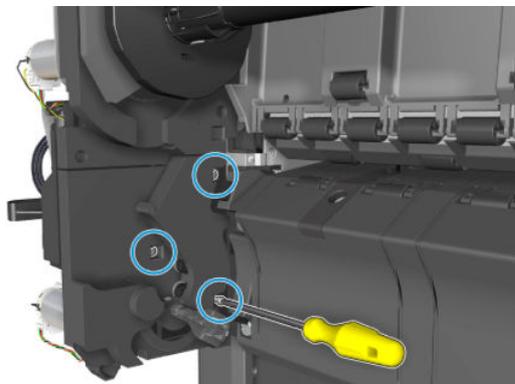
6. Remove the bottom rewinder support.
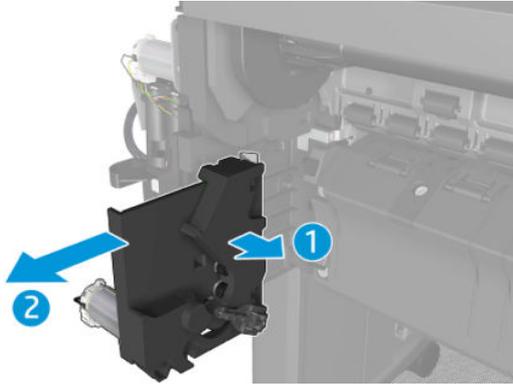
Top Rewinder Support

Removal

1. Remove the SVS side main cover. See Main cover (service station side Y3T75-67012) on page 473.

2. Remove the top roll cover. See Customer Self Repair Flyers on page 668.

3. Remove the converger. See Converger assembly (CR357-67032) on page 483.

4. Disconnect, and unroute the cable.
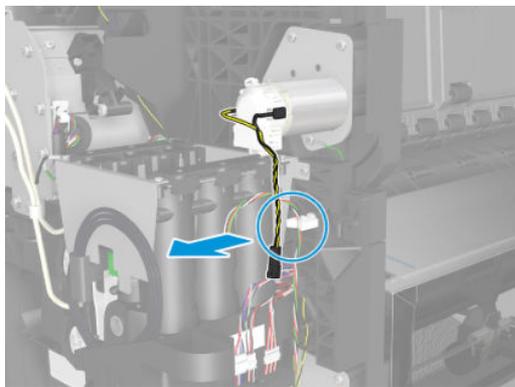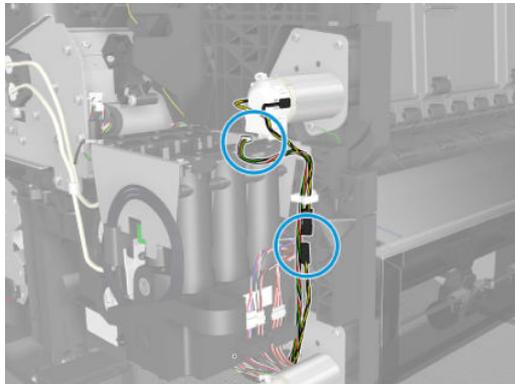
5. Remove 3 T-15 screws and the rewinder.
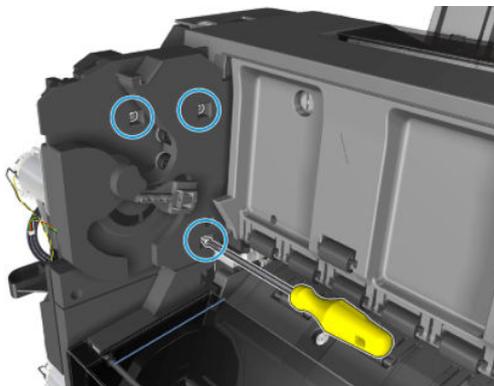
6. Remove the top rewinder support.
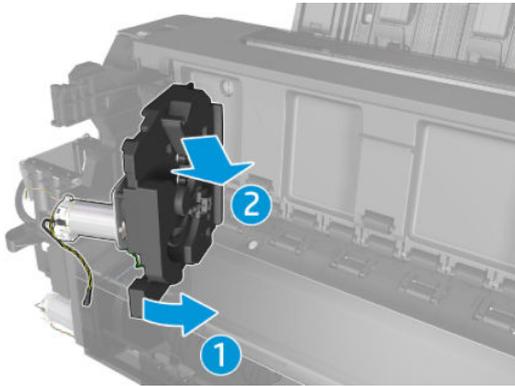
Top Tip Support

Removal

1. Remove the top roll cover. See Customer Self Repair Flyers on page 668.

2. Remove the converger. See Converger assembly (CR357-67032) on page 483.

3. Remove the front panel side cover. See Main cover (front panel side Y3T75-67011) on page 475.

4. Disconnect, and unroute the cable.
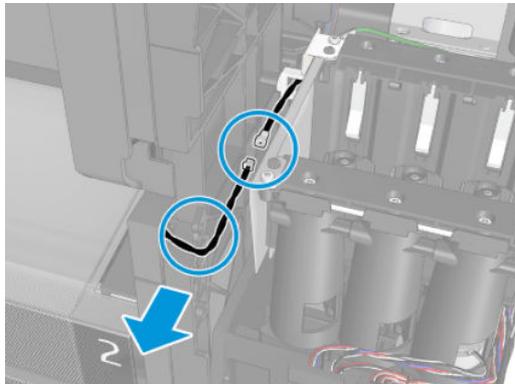
5. Remove 3 T-15 screws.
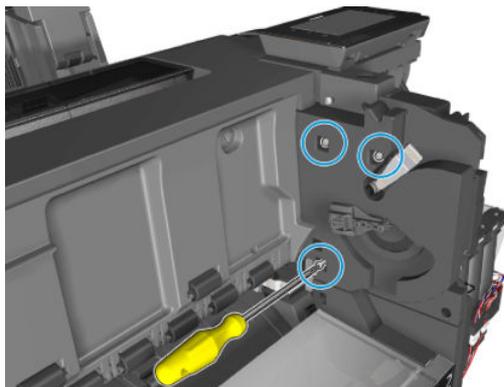
6. Remove the tip top support.
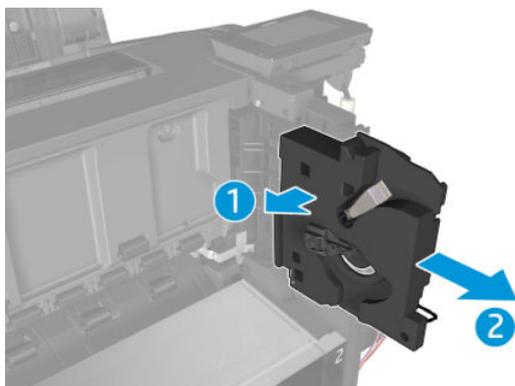
Bottom Tip Support

Removal

1. Remove the bottom roll cover. See .

2. Remove the front panel side cover. See .

3. Remove the converger. See .

4. Disconnect, and unroute the cable.
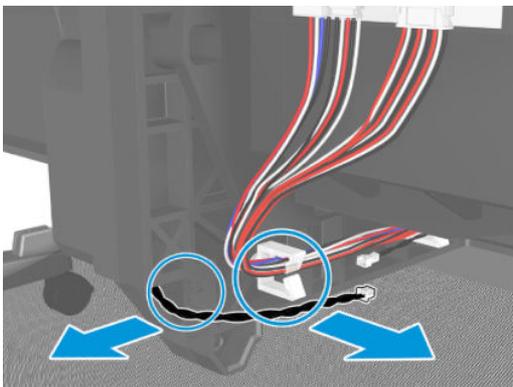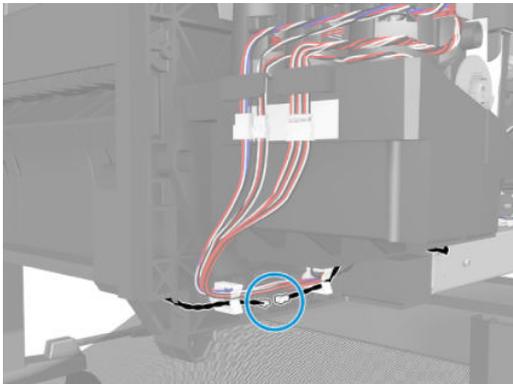
5. **T3500 only**: Remove 1 T-15 screw.
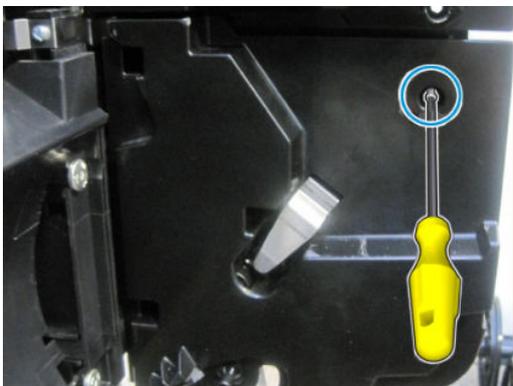
6. Remove 3 T-15 screws.
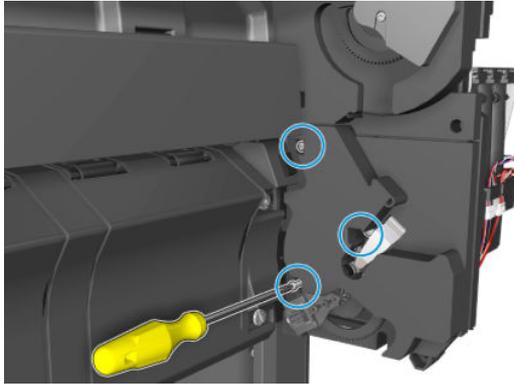
7. Remove the bottom tip support.
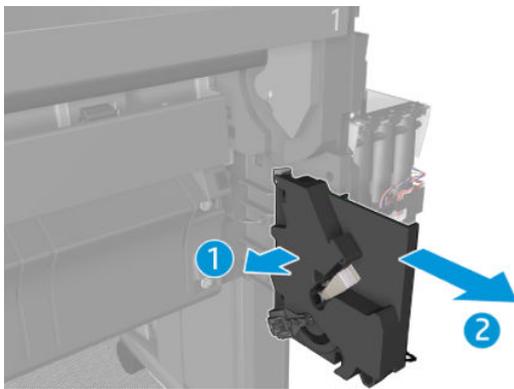
Vertical Media Guide

Removal

1. Remove the top roll cover. See Customer Self Repair Flyers on page 668.

2. Remove the converger. See Converger assembly (CR357-67032) on page 483.

3. Remove 3 T-15 cosmetic screws.
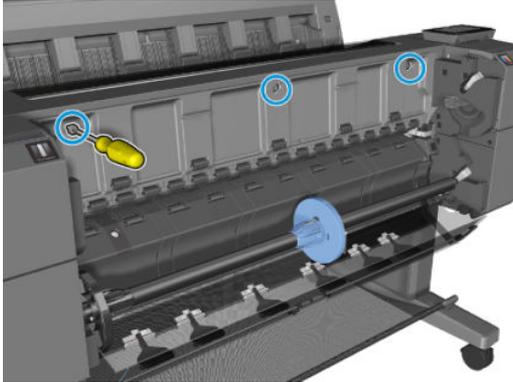
4. Remove the wheels.
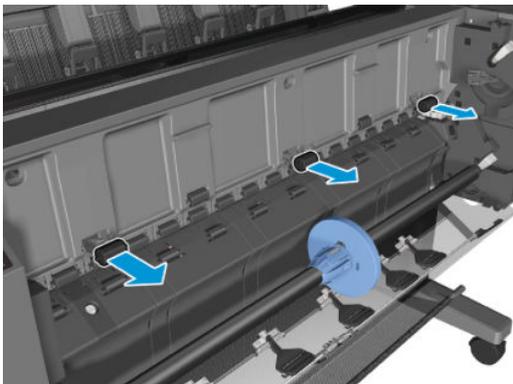
5. Remove the 3 T-15 screws underneath.
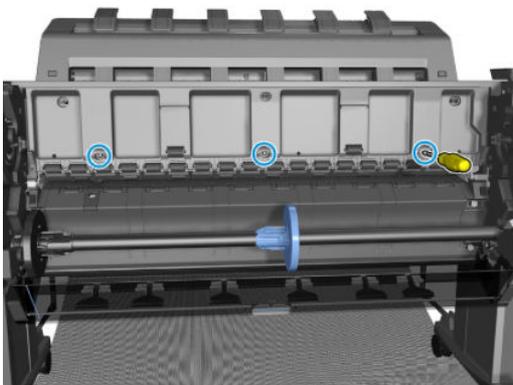
6. Remove the vertical media guide.
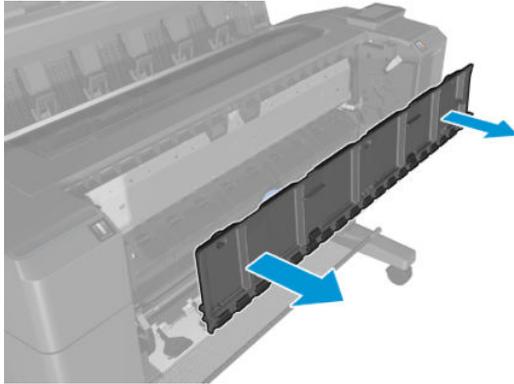
Center Support

Removal

1. Remove the bottom roll cover. See Customer Self Repair Flyers on page 668.

2. Remove the spindle.

3. Remove the clean-out. See Clean-out on page 485.

4. Remove the T-20 screw.
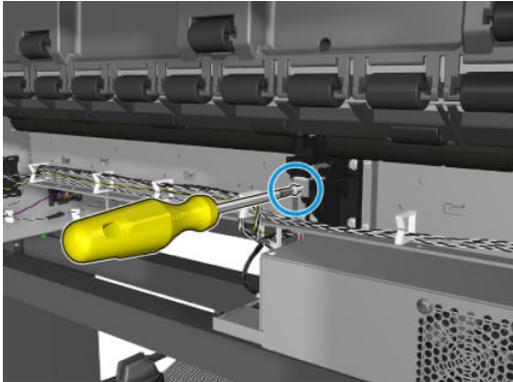
5. Remove the center support.
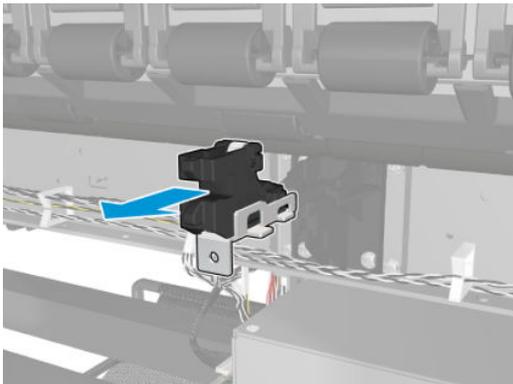
Full Bleed

Removal

1. Open the window.

2. Remove the full bleed foams.
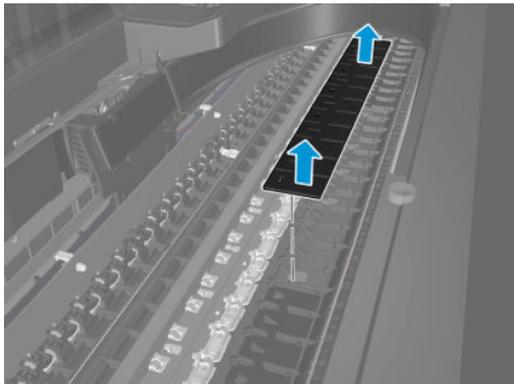
Auto Pinch Lifter

Removal

1. Remove the main SVS cover. See Main cover (service station side Y3T75-67012) on page 473.

2. Turn the SVS wheel until the carriage is released from the SVS station.
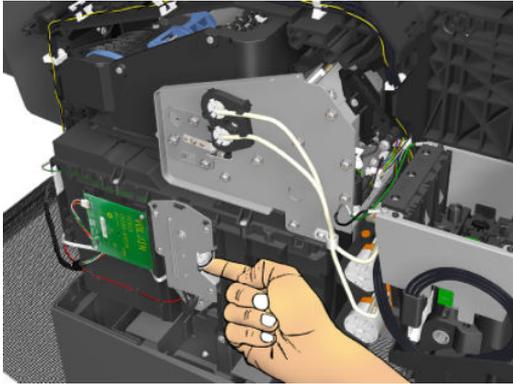
3. Move the carriage.
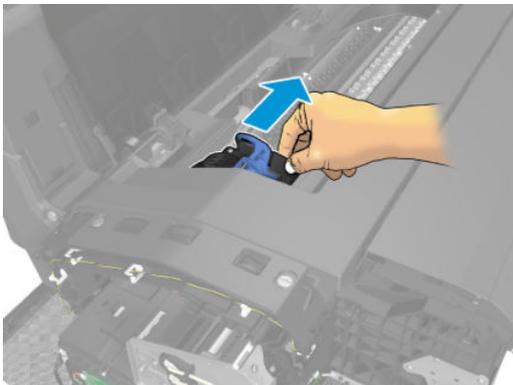
4. Release the Encoder Strip.
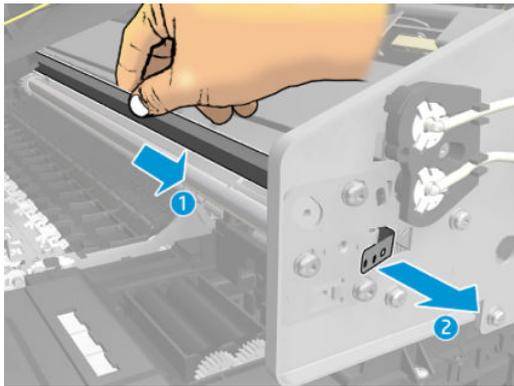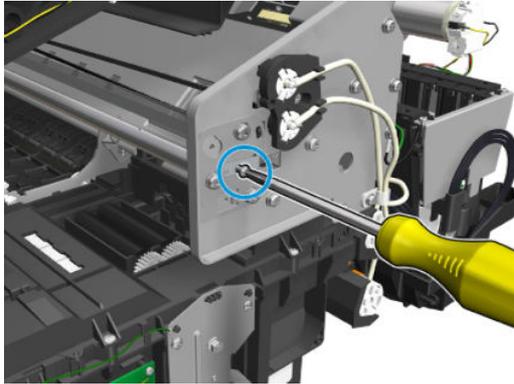
5. Remove 2 screws, and remove the primer tubes.
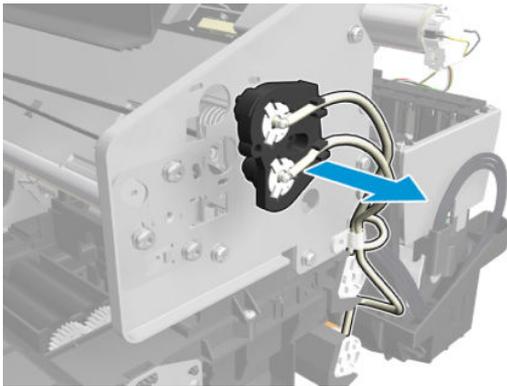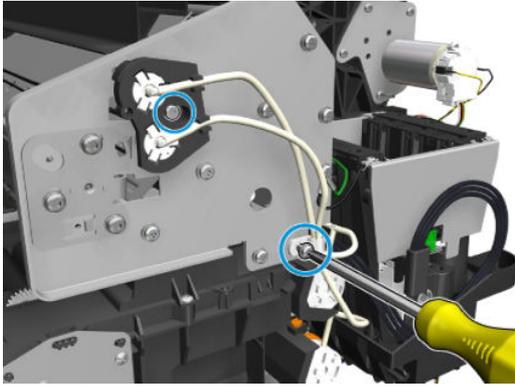
📝 NOTE: On the first primer tubes holder make sure the holes are aligned with the holes of the carriage.

6. Remove 7 screws (1 is the tensioner).
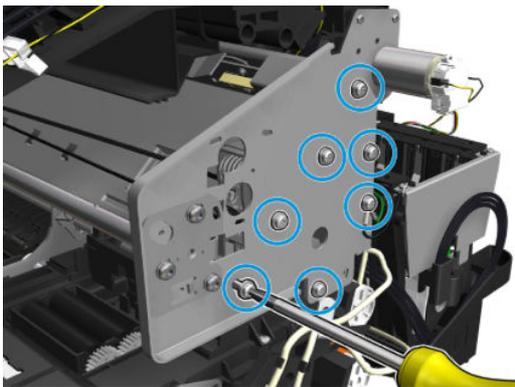
7. Remove the bracket.
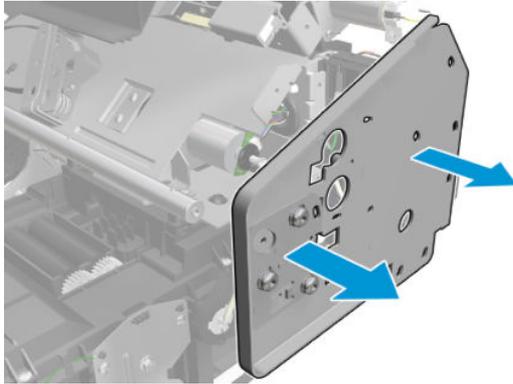
8. Disconnect the cable.
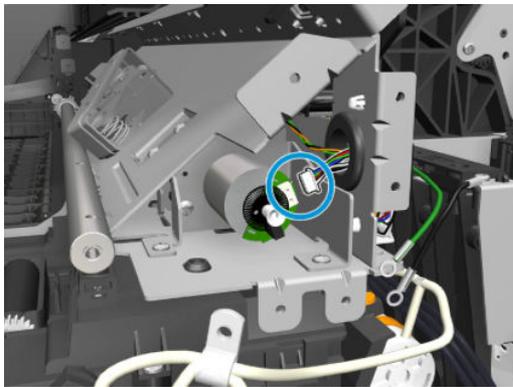
9. Remove 4 screws.
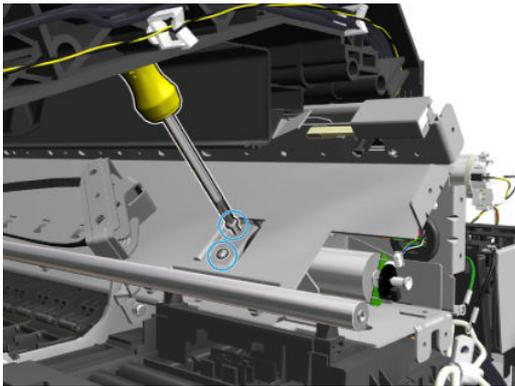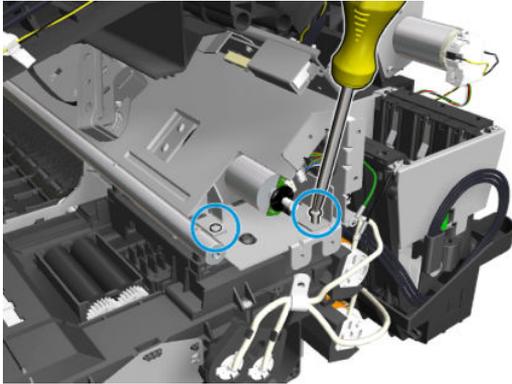
10. Slide out the auto pinch lifter, and disconnect the sensor.
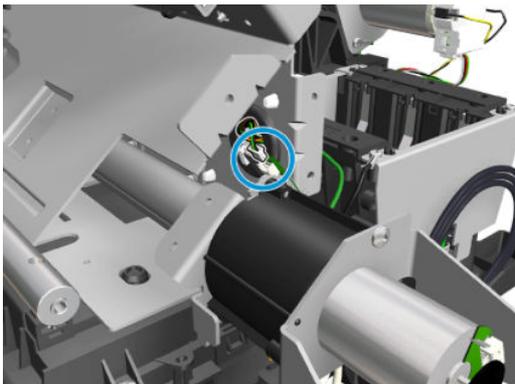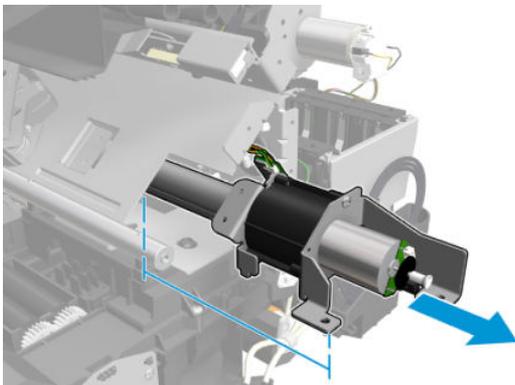
11. Rotate, unlock, and remove the auto pinch lifter.
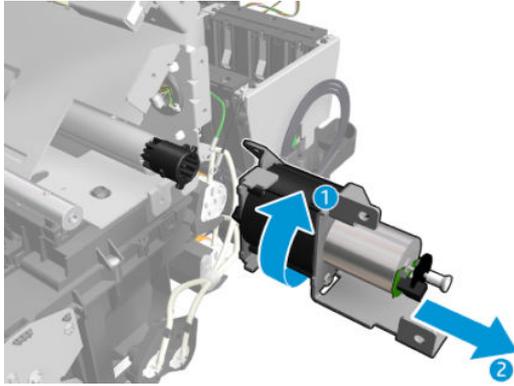
📝 **NOTE:** The cam does not need to be removed.

Installation

▲ Slide into place and follow the removal procedure in reverse.
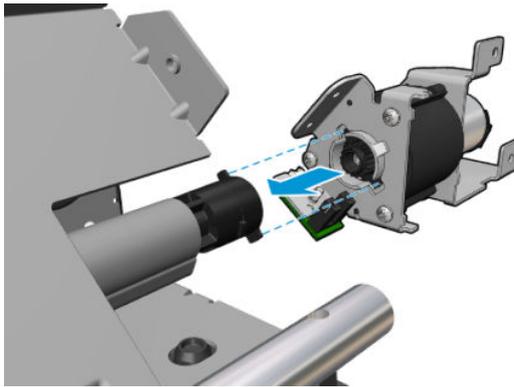
Pinch Wheel Assembly

Removal

1. Remove the converger. See Converger assembly (CR357-67032) on page 483.

2. Remove the clean-out. See Clean-out on page 485.

3. Remove the bottom roll cover. See Customer Self Repair Flyers on page 668.

4. Remove 3 T-10 screws.
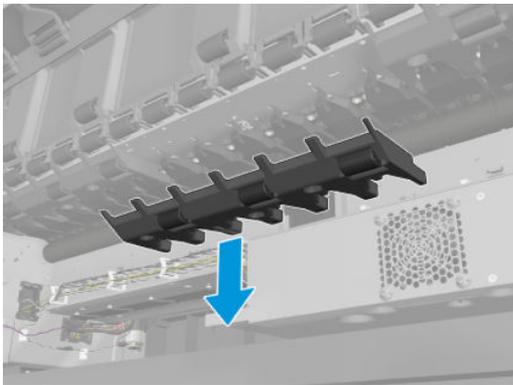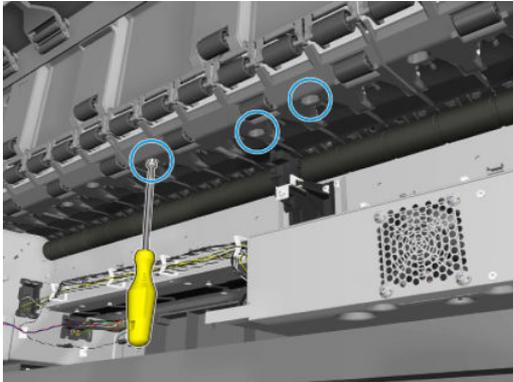
5. Remove the spring using the tool.
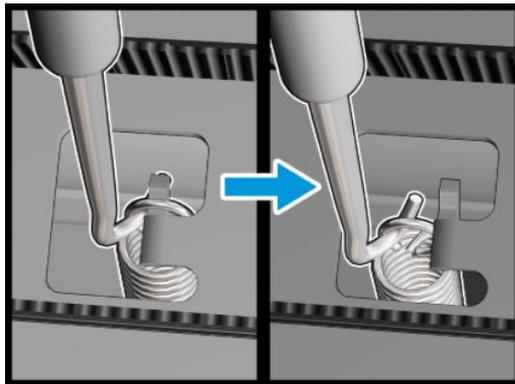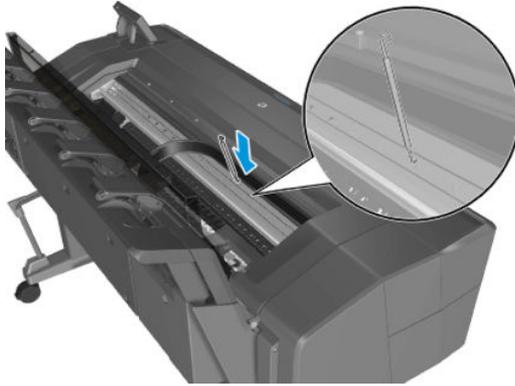
6. Remove 2 T-10 screws.
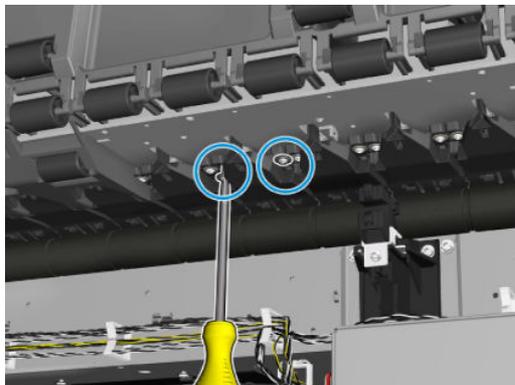
7. Remove the pinch wheel.
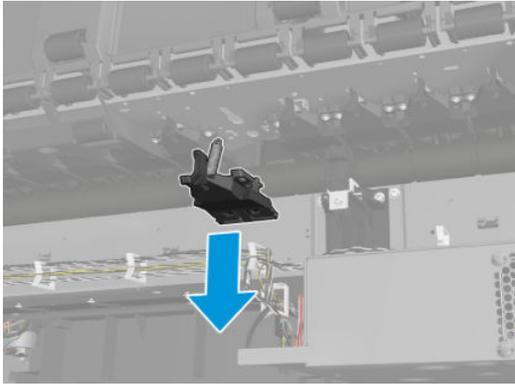
Motor Media Advance Transmission with Encoder

Removal

1. Remove the front panel side main cover. See [Main cover (front panel side Y3T75-67011) on page 475](#).

2. Remove 3 screws and the starwheel lifter cover.
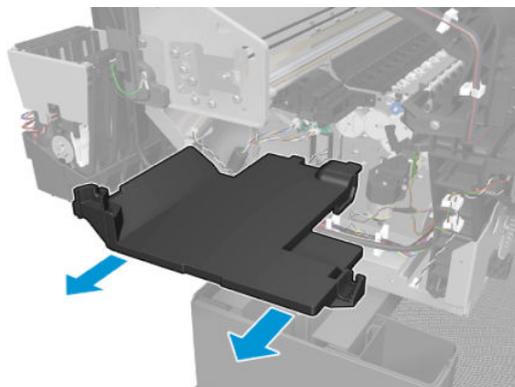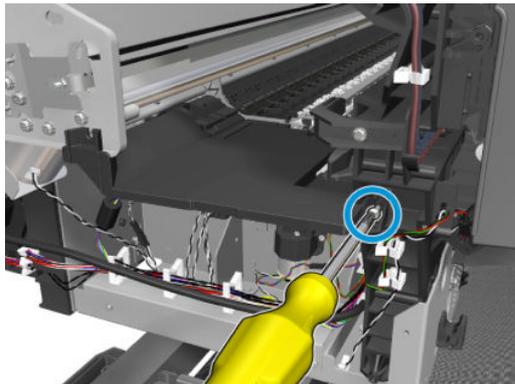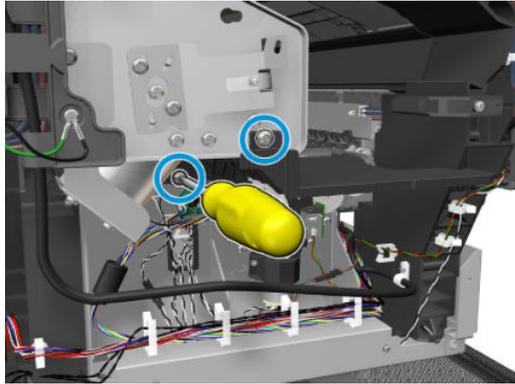
3. Remove the 2 T-7 screws, and then the encoder PCA.
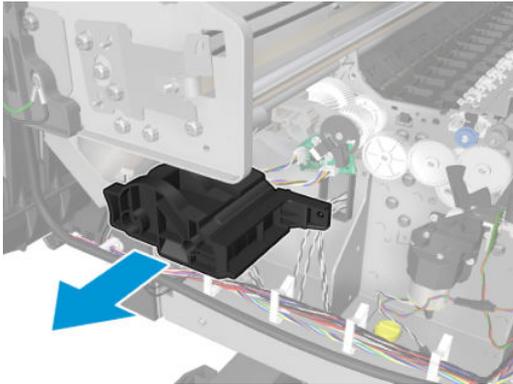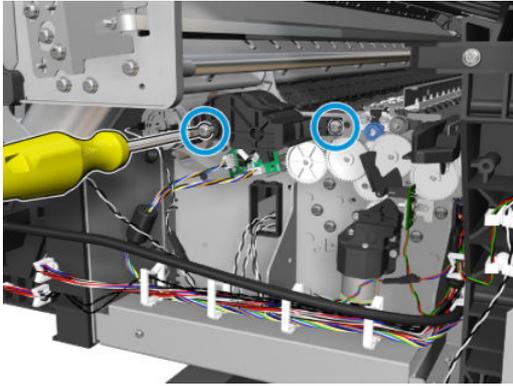
4. Disconnect the cable.
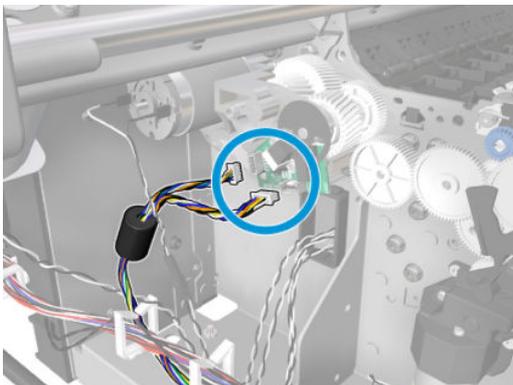
5. Remove the 2 screws and remove the connectors.
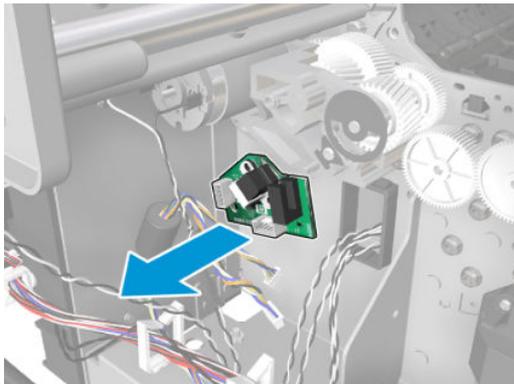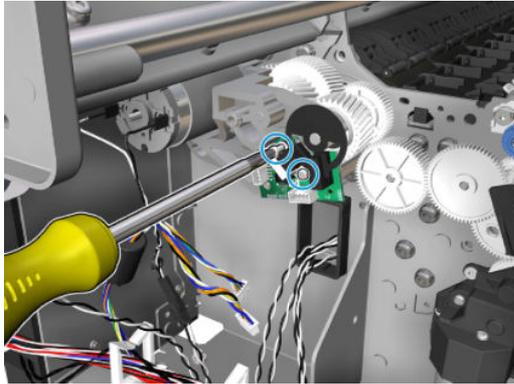
6. Disconnect the cable, and remove the 3 screws.
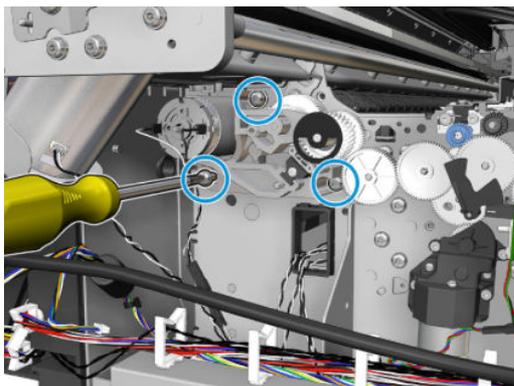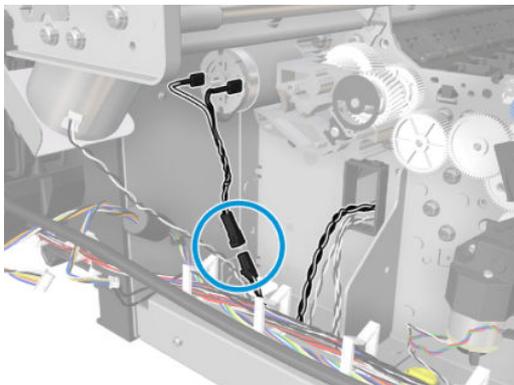
7. Remove the paper axis motor.
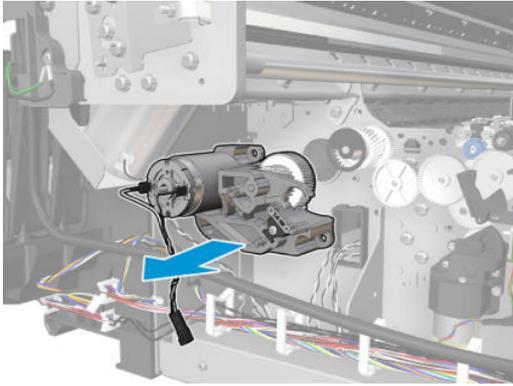
📝 NOTE: Never install a used Encoder PCA. This can cause serious problems, and may make the product unusable.

⚠ WARNING! Be careful not to damage the Encoder PCA.

Installation with encoder sensor adjustment

Use the following procedure to install and adjust a new Media Advance Drive. This is the normal procedure that should be followed in most cases. You will need Media Advance Drive Adjustment Tool from the Tool Kit.

1. Carefully position the Media Advance Drive in the product.

2. Be careful not to touch the encoder sensor adjustment screw; not even when replacing the encoder disc and sensor.
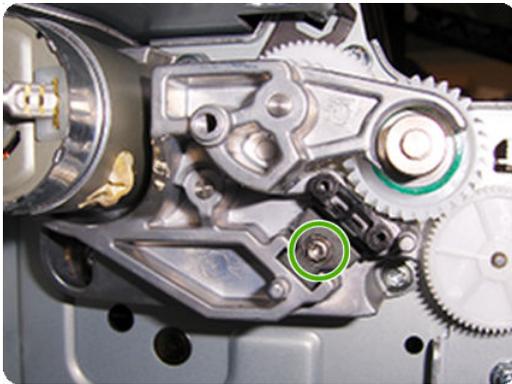
3. Insert the three T-15 attachment screws, but do not fully tighten them.
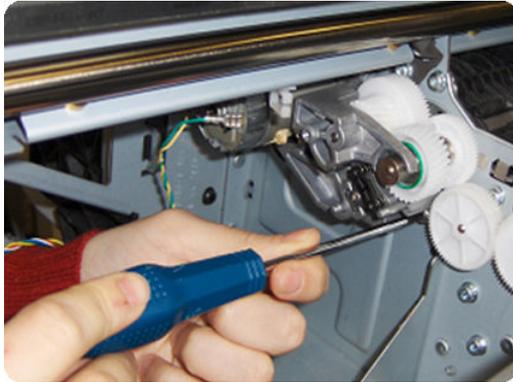
4. Position the Media Advance Drive Adjustment Tool on the end Media Advance Roller shaft, push it firmly onto the shaft and maintain a constant pressure to ensure it is flush to the Media Advance Drive.
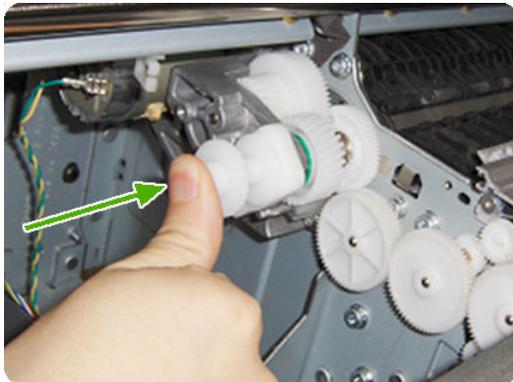
5. While maintaining pressure on the Media Advance Drive Adjustment Tool, fully tighten the three T-15 attachment screws in the order shown.

6. Remove the Media Advance Drive Adjustment Tool.

Installation with encoder sensor adjustment

Use the following procedure to install and adjust a new Media Advance Drive, and to adjust the encoder sensor. This procedure is recommended only when the motor mount has to be replaced or the encoder sensor has to be readjusted. You will need Media Advance Drive Adjustment Tool from the Tool Kit.

1. Carefully position the Media Advance Drive in the product.

2. Insert the three T-15 attachment screws, but do **not** fully tighten them.
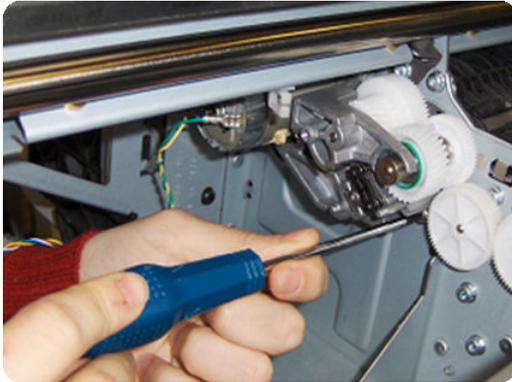
3. Loosen the encoder sensor adjustment screw.
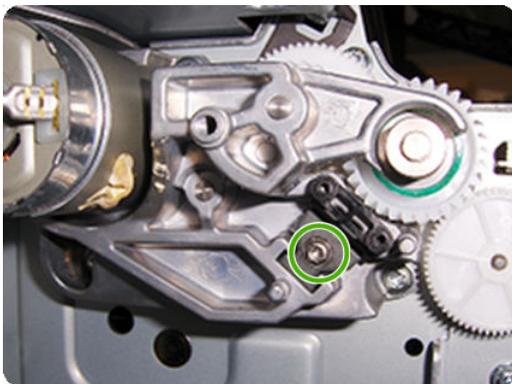
4. Add the Encoder Sensor Tool to the Media Drive Adjustment Tool.
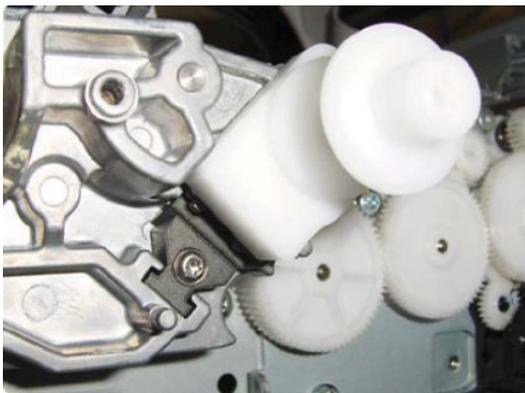
5. Position the Media Advance Drive Adjustment Tool on the end Media Advance Roller shaft, push it firmly onto the shaft and maintain a constant pressure to ensure it is flush to the Media Advance Drive.
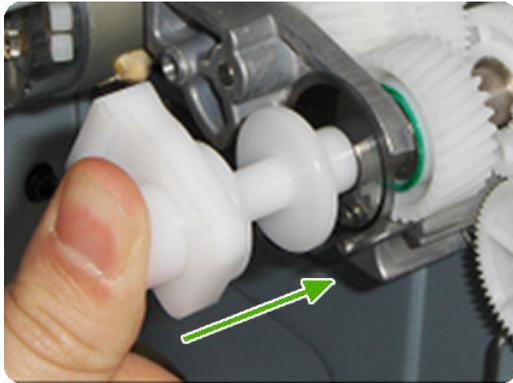
6. While maintaining pressure on the Media Advance Drive Adjustment Tool, fully tighten the three T-15 attachment screws in the order shown.

7. While maintaining pressure on the Media Advance Drive Adjustment Tool, fully tighten the encoder sensor adjustment screw.

8. Remove the Media Advance Drive Adjustment Tool.

Encoder disk assembly

1. Remove the paper that protects the glue of a new encoder.

2.   Pre-assemble the encoder on the roller without using pressure.
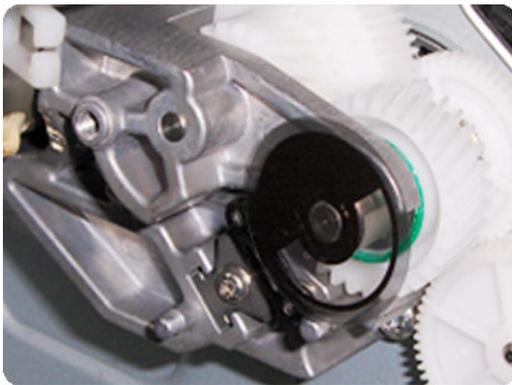
3.   Press the encoder using the Media Advance Drive Adjustment Tool (reversed) so that it sticks to the roller.
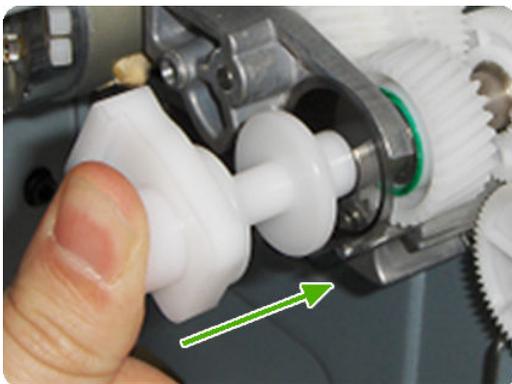
📝 NOTE: When you finish installing or replacing these components, you must perform the necessary Service Calibrations. To find which calibrations you must perform, see Service Calibration Guide to Removal and Installation on page 422.

Starwheel Motor

Removal

1. Remove the Front Panel side main cover. See [Main cover (front panel side Y3T75-67011) on page 475](#).

2. Remove 3 screws and the starwheel lifter cover.
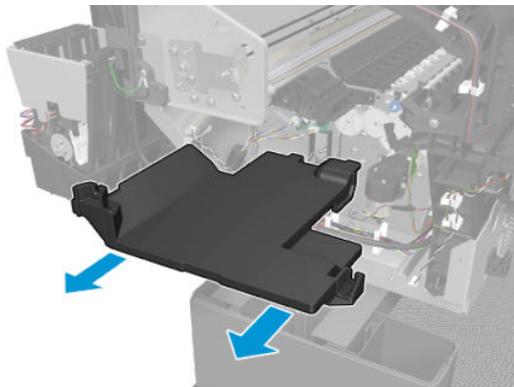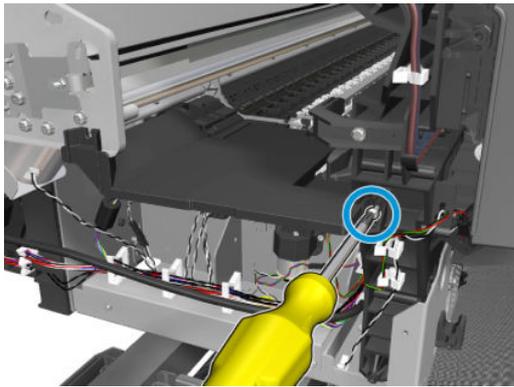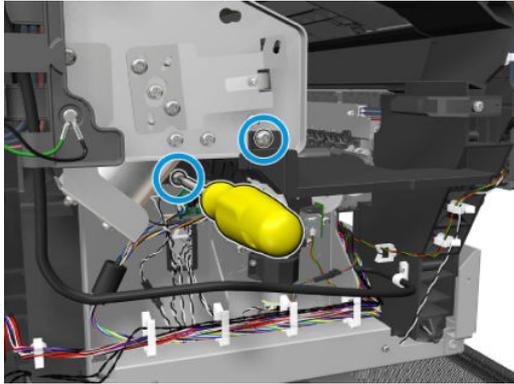
3. Disconnect the cable, remove 4 T-10 screws, and the Starwheel Motor.
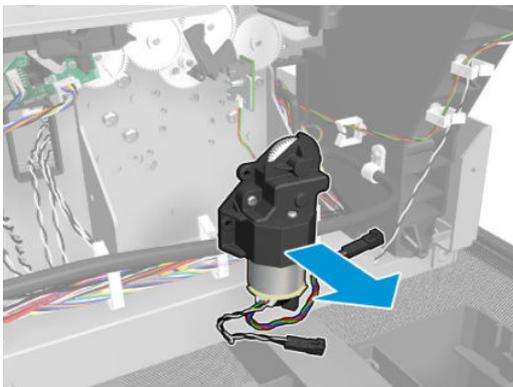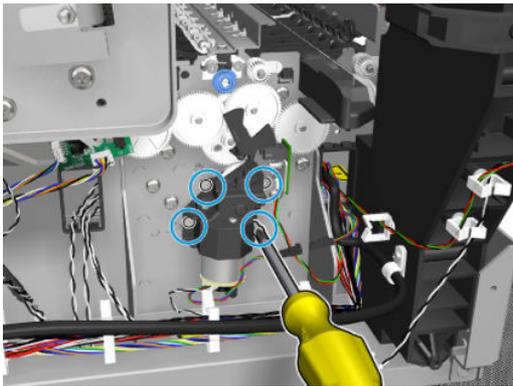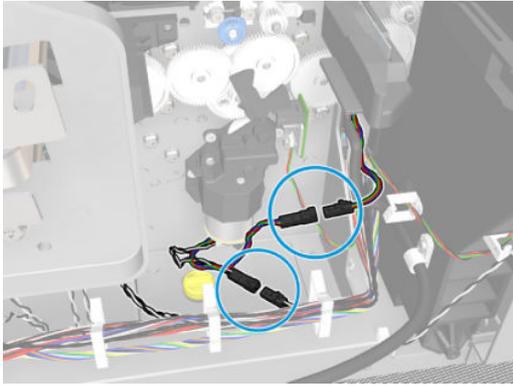
4.   Disconnect the cable, remove the screw and the OPTO PCA.
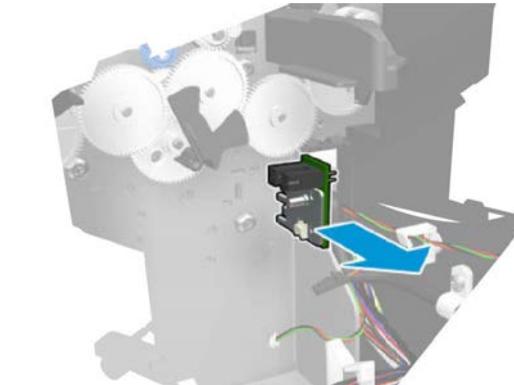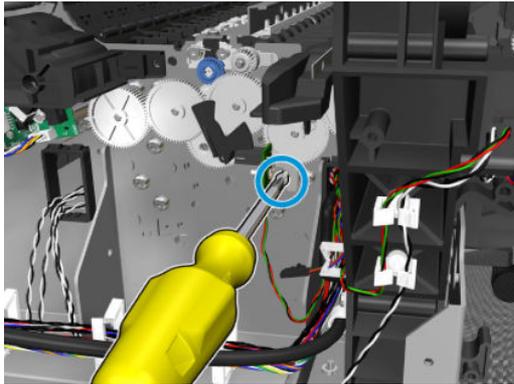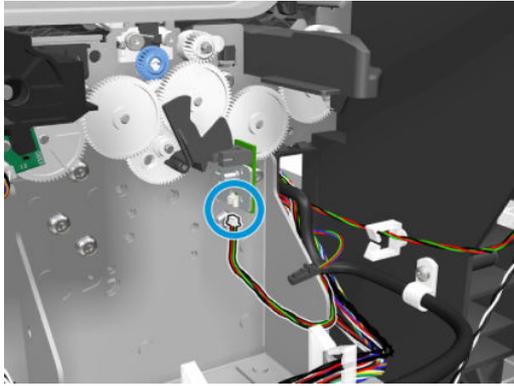
5. Remove the 3 gears.
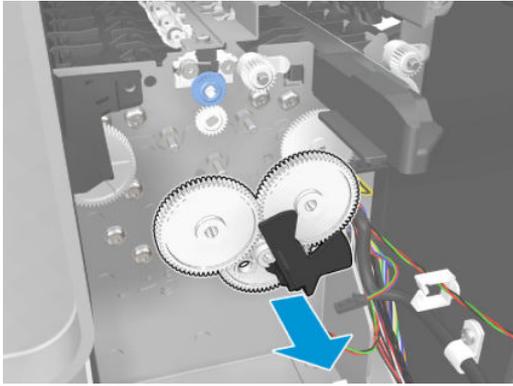
⚠ WARNING! Do not remove the following gear.
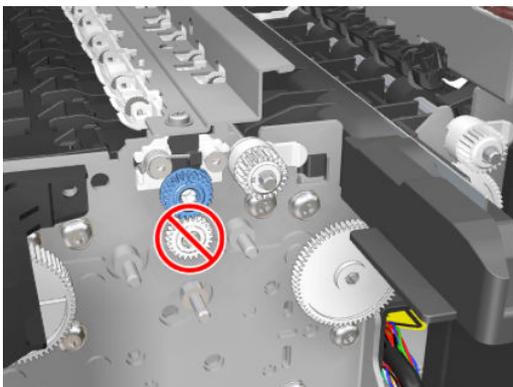
Installation

1. To install the gears, they have to fit into the hole.
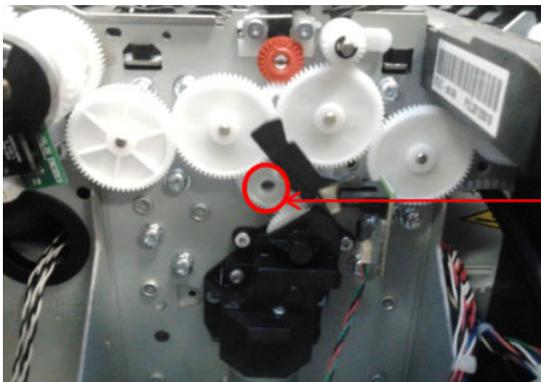
2. Install the new gears that came with the kit reversing the removal process.
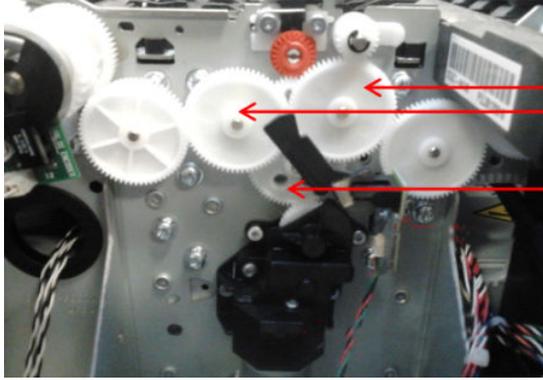
Starwheel Support

Removal

1. Remove the main front covers See <u>Main cover (front panel side Y3T75-67011) on page 475</u> and <u>Main cover (service station side Y3T75-67012) on page 473</u>.

2. Remove the service station. See <u>Service Station with Drop Detector on page 532</u>.

3. Remove the metal starwheel assembly. See <u>Customer Self Repair Flyers on page 668</u>.

4. Remove the 3T-10 screws, and the starwheel lifter cover.
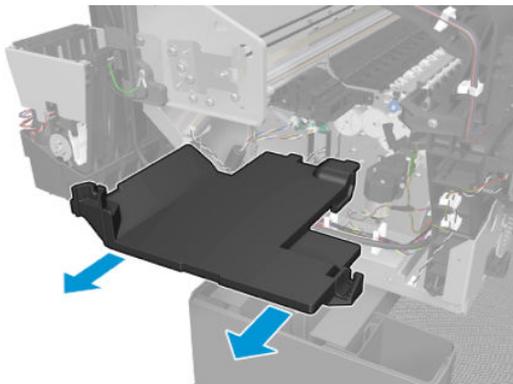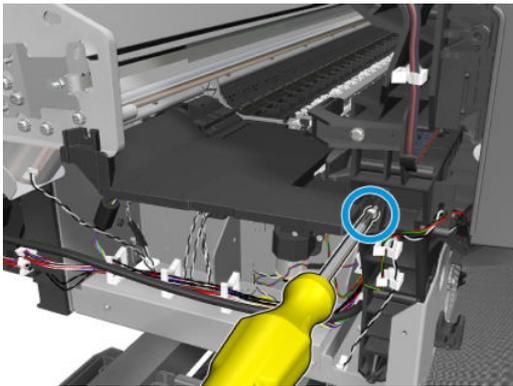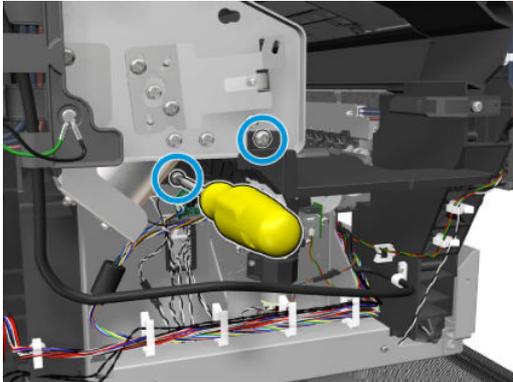
5. Remove 2 screws
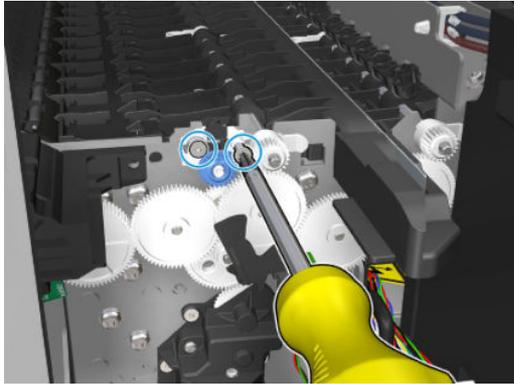
6. Remove the plunger.
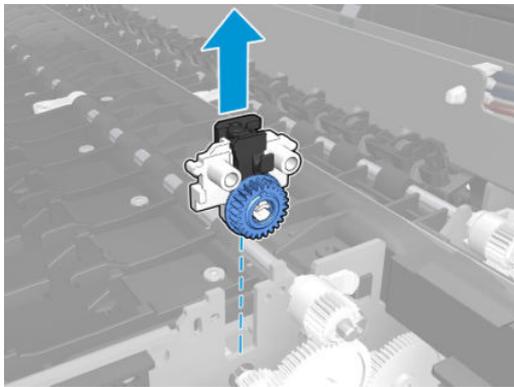
📝 **NOTE:** This assembly is on both sides.

Second Starwheel Rail

Removal

1. Open the window.

2. Move the carriage to the front panel side.
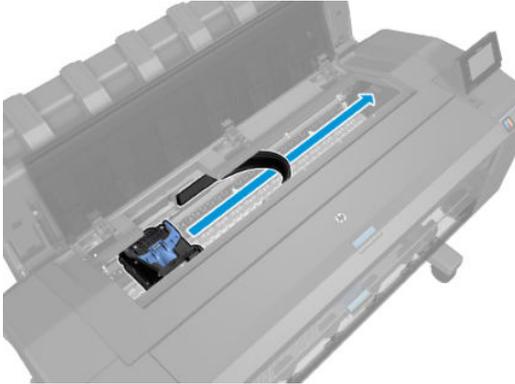
3. Detach and unroute the ink tubes.
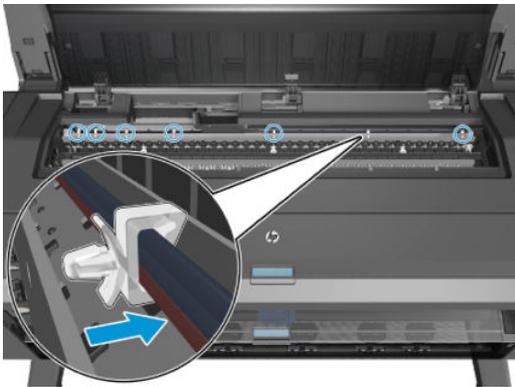
4. Remove 2 T-20 screws, and the second starwheel rail.
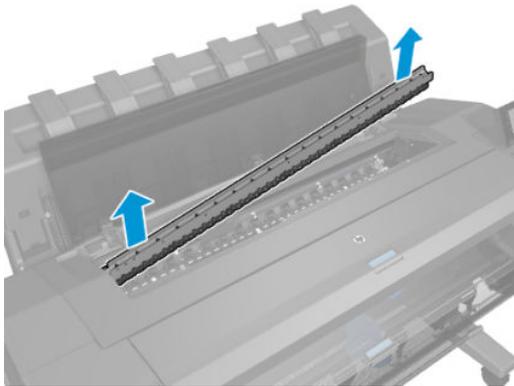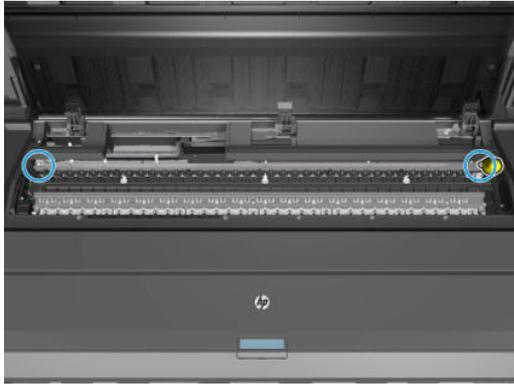
Cutter module

The cutter module includes the cutter body and the rotary blade.

Removal

1. Remove the screw of the right bumper.

2. Remove the bumper.

3. Remove the belt from the motor's pinion by sliding carefully the motor to the left.

4. Slide the auto-cutter module through the guide and remove it.

Installation

1. Insert the cutter module with the rotary blade leaning to ensure it is assembled at the back side of the linear blade.

2. Insert the module in the guide and slide it carefully.

3. Insert the belt on the pulley in the left side. Make sure the teeth are in contact with the pulley.

4. Insert the belt on the motor´s pinion by carefully sliding the motor to the left.

5. The cutter should move smoothly from one side to another.

6. Restart the printer.

Overdrive

Removal

1. Remove the Front Panel side main cover. See Main cover (front panel side Y3T75-67011) on page 475.

2. Remove 3T-10 screws, and the starwheel lifter cover.
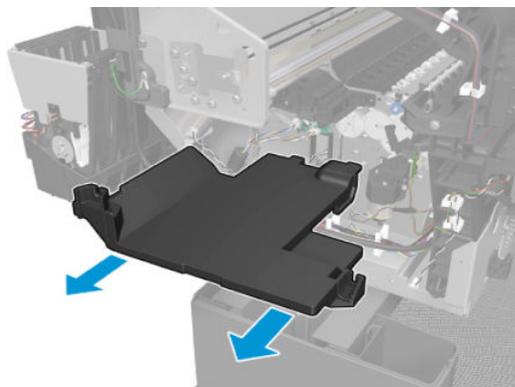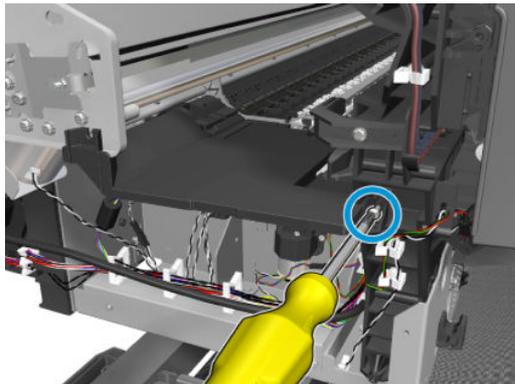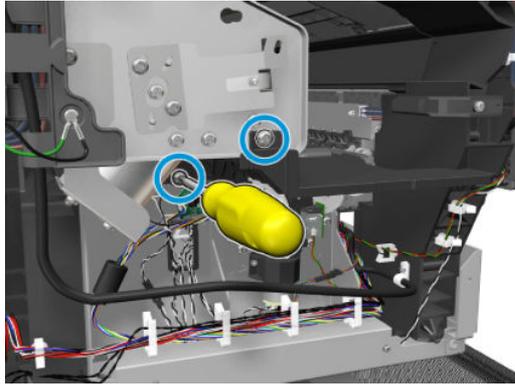
3. Remove the first starwheel rail. See Customer Self Repair Flyers on page 668.

4. Remove the holders.
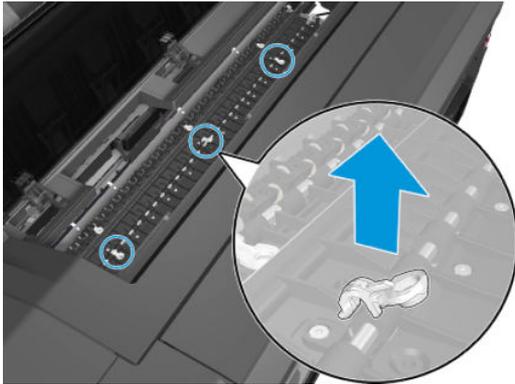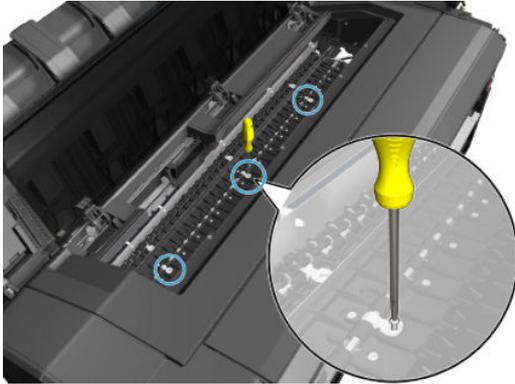
5. Lift up the flap at both sides and remove the overdrive.
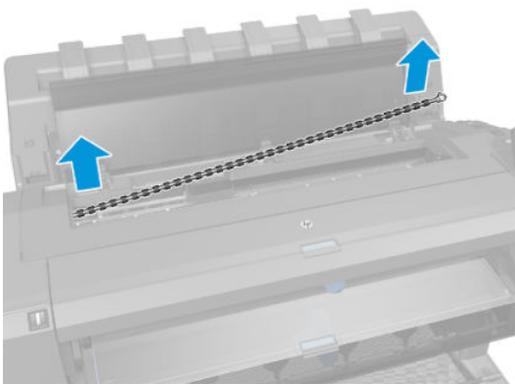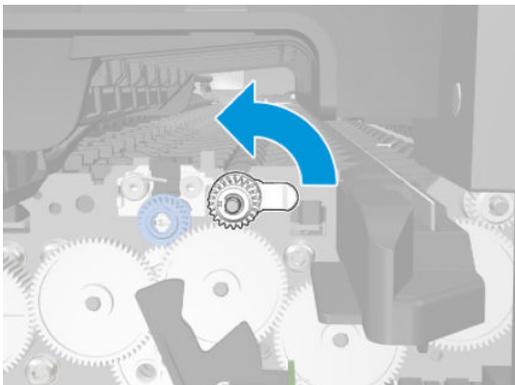
Cutter Platten

Removal

1. Remove the starwheel rail. See Customer Self Repair Flyers on page 668.

2. Remove the overdrive. See Overdrive on page 599.

3. Remove the output platen. See T920/Tx500 Output platen (CR357-67014) on page 425.

4. Remove the stacker. See Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608.

5. Remove the 2nd starwheel rail. See Second Starwheel Rail on page 596.

6. Remove the 3 holders from the 2nd overdrive.
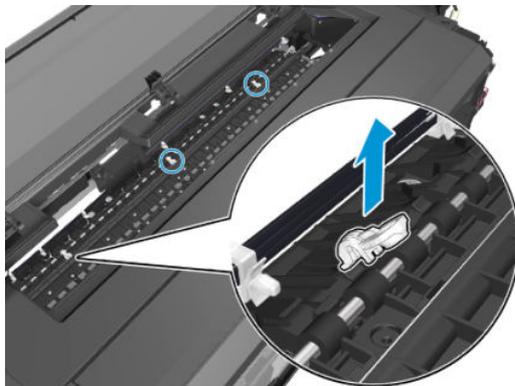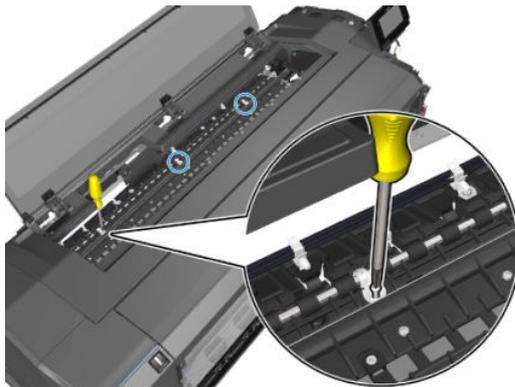
7. Move the flaps from the 2nd overdrive.
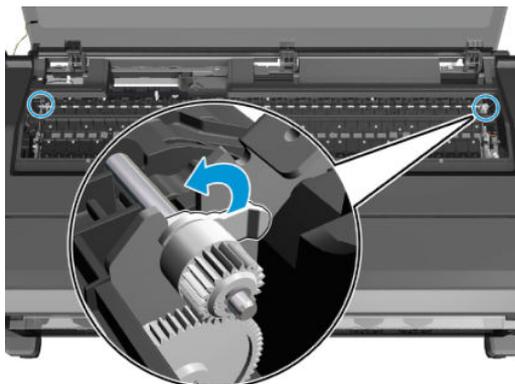
8. Remove the 2nd overdrive.
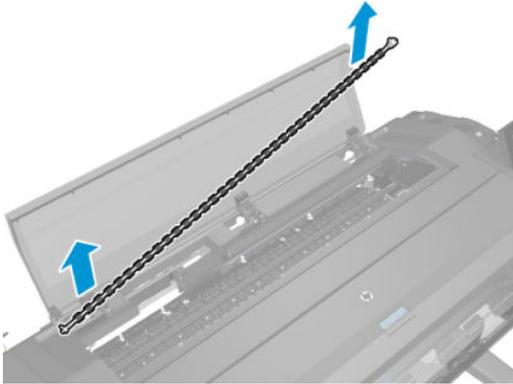
9. Remove 13 T-10 screws.
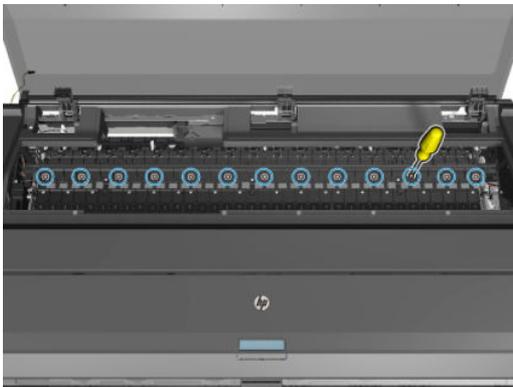
10. Remove 4 T-10 screws.
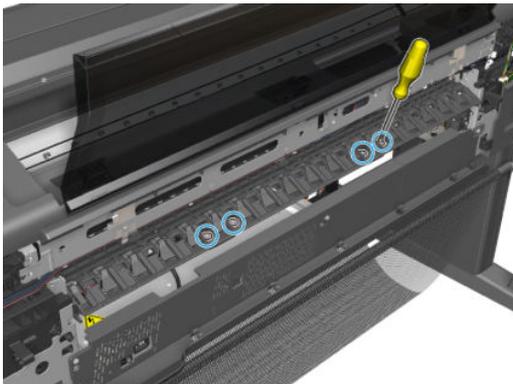
11. Remove the platten.
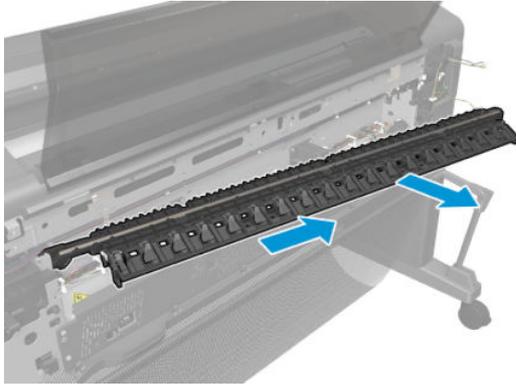
Installation

▲ Perform the Cutter Adjustment. For more information see

Sensor Valves

Removal

1. Remove the output platen. See .

2. Remove the rear cover. See .

3. If the valves are down; put them into the up position by turning motor encoder.
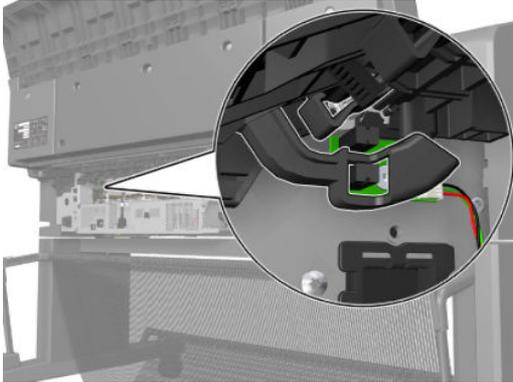
4. Disconnect the cable, and remove the T-10 screw.
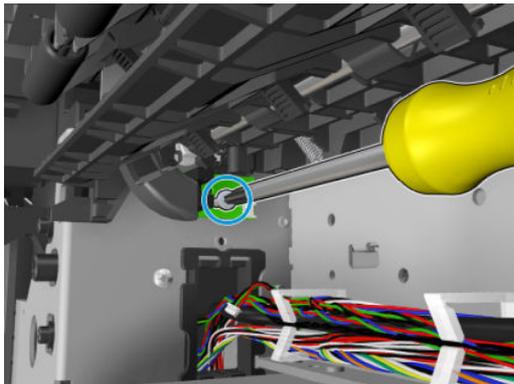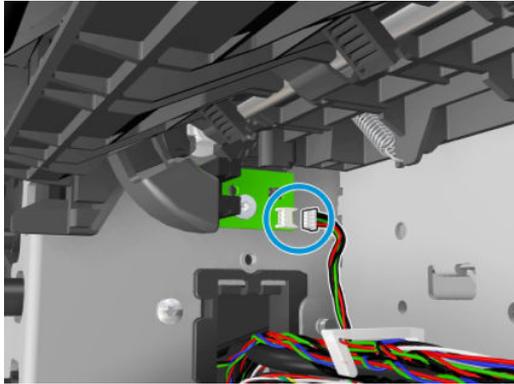
5. Remove the sensor valves.
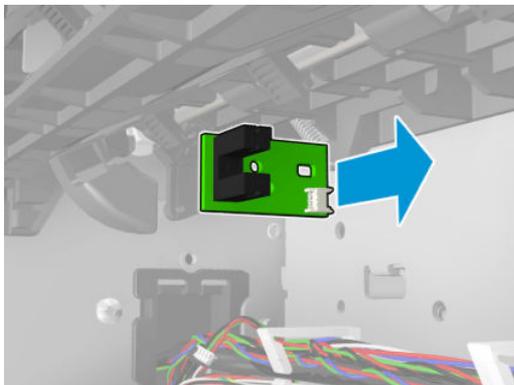
Installation

▲ When reinstalling the sensor valves, move the valves into the down position with the motor encoder in order to check sensor positioning.
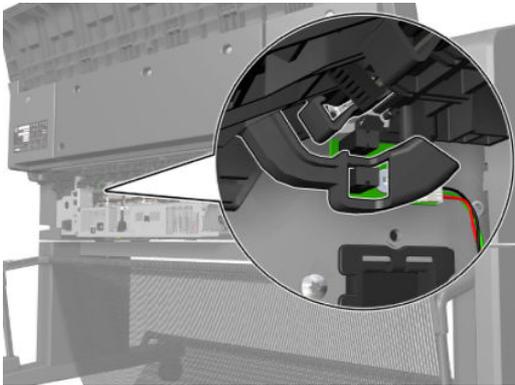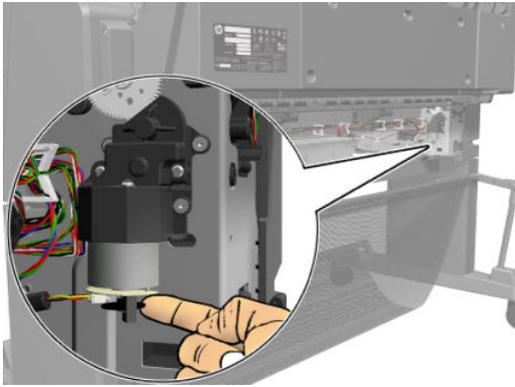
Valves Motor

Removal

1. Remove the rear cover and output platen. See Rear cover (Y3T75-67016) on page 487 and T920/Tx500 Output platen (CR357-67014) on page 425.

2. Disconnect the cable.
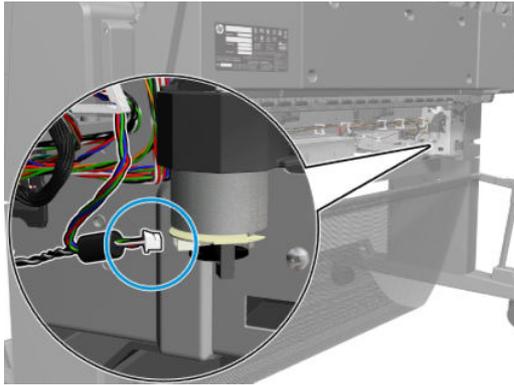
3. Remove 4 screws.
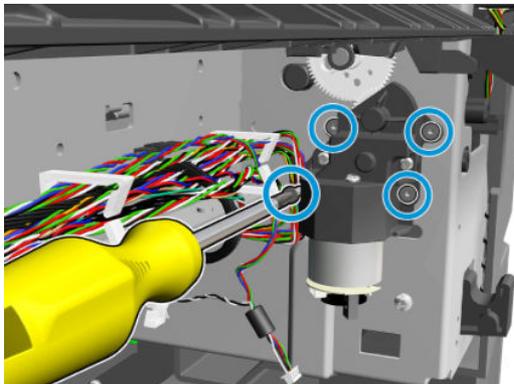
4. Remove the valves motor.
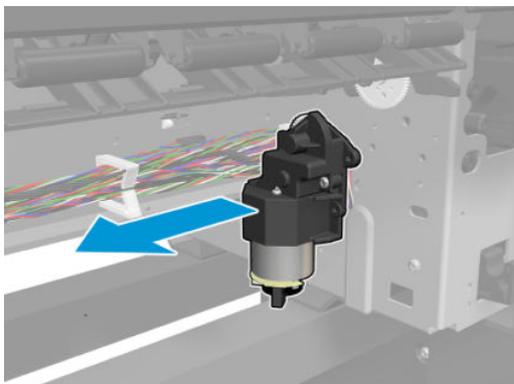
Stacker assembly (3EK10-67007 & 3EK10-67009)

T2600 only: adaption kit CR359-67006 must be installed before installing the stacker. This kit is sometimes referred to as the Stacker MFP SV, or the Stacker adaptor for MFP. See .

Removal

1. Turn off the printer.

2. Remove the stacker arms. See .

3. Remove the T920/T1500/T2500 fixed tray cover from the front panel side and from the service station side. See .

4. Remove the XL3600/TX600 fixed tray cover from the front panel side and from the service station side. See .

5. Unroute the encoder and power the motor cables.
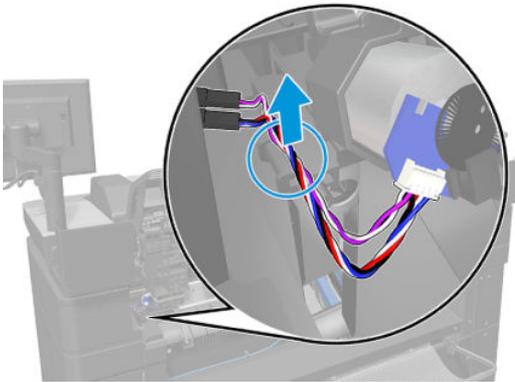
6. Unplug the power motor cable.
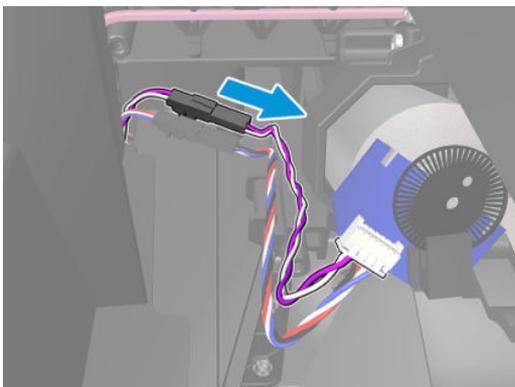
7. Unplug the encoder motor cable.
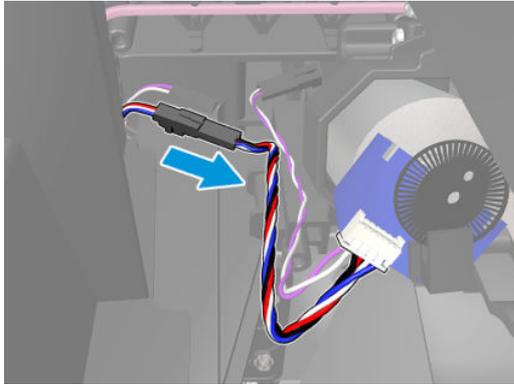
8. Unroute and unplug the cables.
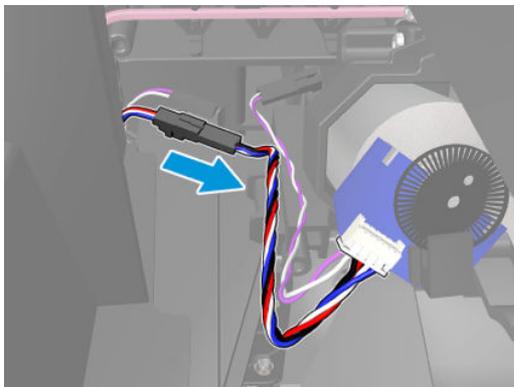
9. Unplug the power cable.
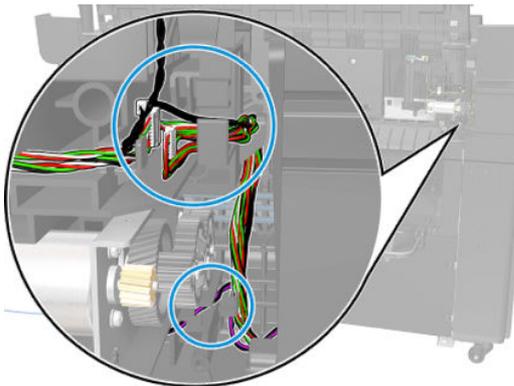
10. Remove 4 screws from both sides.
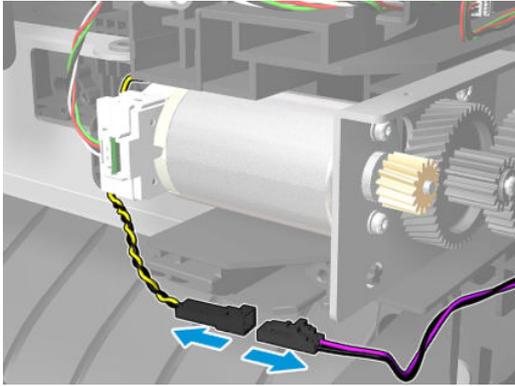
11. Remove the stacker, pulling the handles on the back.
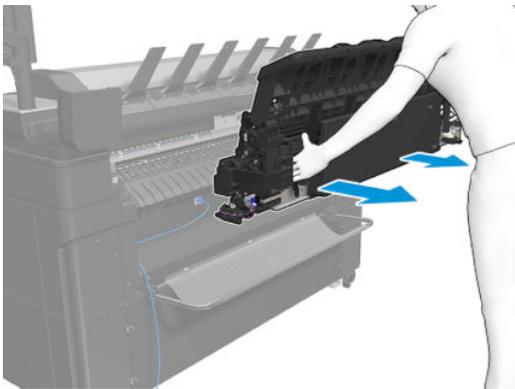
> **NOTE:** For installation make sure that the valves are down and the ramps are hidden, otherwise it can cause improper assembly, and show SE90:03 or SE89:03.

Stacker adaptor for MFP

T2600 only: installing adaption kit CR359-67006.

Removal of the old stacker wheel lifters

1. Pull the stacker wheel lifter towards you.
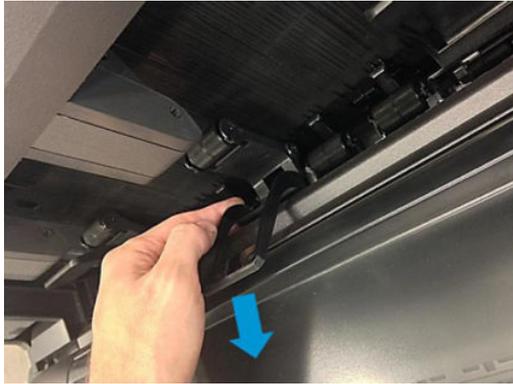
2. Push the stacker wheel lifter's left leg to unclip it. Be sure not unclip the second wheel holder.

3. Slide the leg towards the foldable tray.

4. When the left leg is unclipped, the right leg will come out too. Remove each stacker wheel lifter.

Before assembling the MFP stacker wheel lifters, check the following reference images for guidance:

The hook of the stacker wheel lifter for MFP should be inserted into the hole shown by the blue arrow.

📝 NOTE: This is easier to do when the stacker ramps are down.
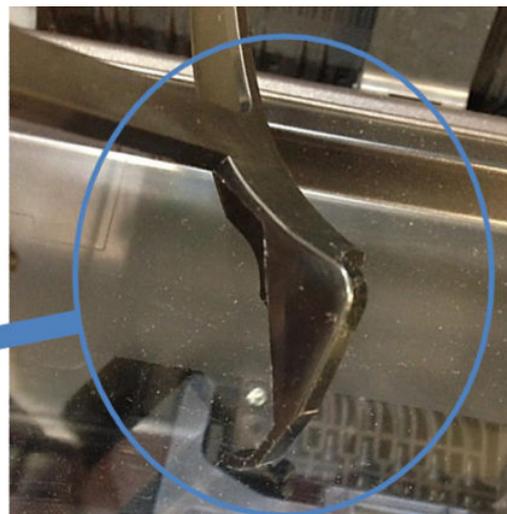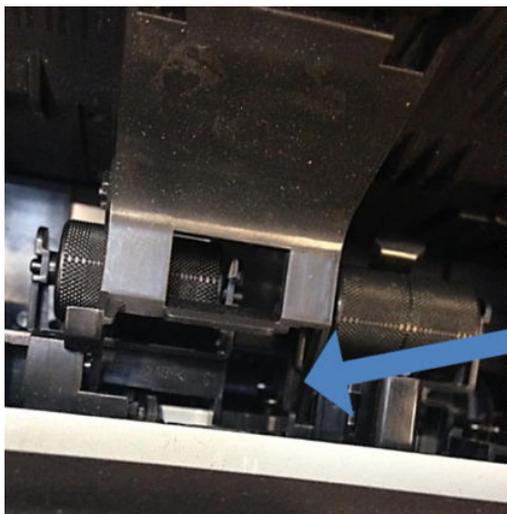
The right pin of the stacker wheel lifter for MFP must slide into the groove shown by the blue arrow.

Assembling the MFP stacker wheel lifters

1. Insert the right leg in the hole and align the right pin as explained previously.

2. Push the stacker wheel lifter's left leg to align the left pin with the left groove.
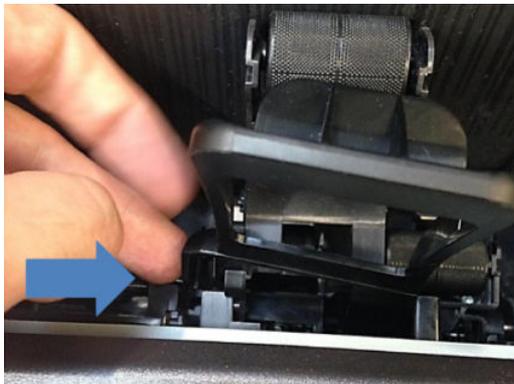
3. While pushing, slide the leg towards you. It clicks into place.
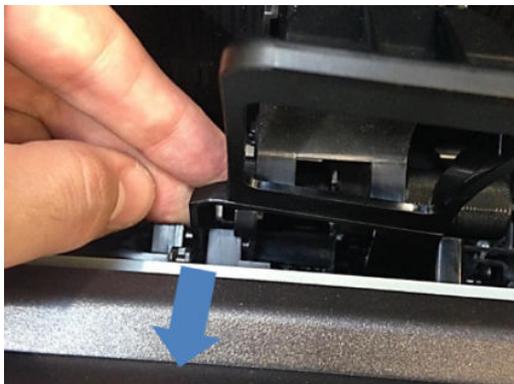
4. Check that the stacker wheel lifter can rotate freely.

5. Attach the hinge stoppers on both sides. Each hinge stopper is attached to the stacker with one screw.
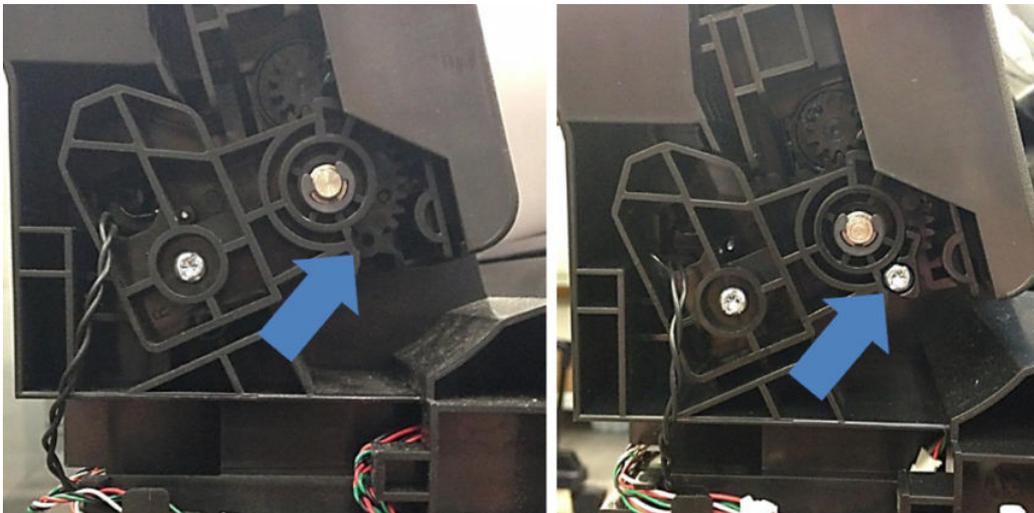
You can now proceed to install the stacker. See Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608.

Stacker Pinches

Removal

1. Remove the stacker. See Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608.

2. Remove the 3 T-10 screws, and then the pinches.
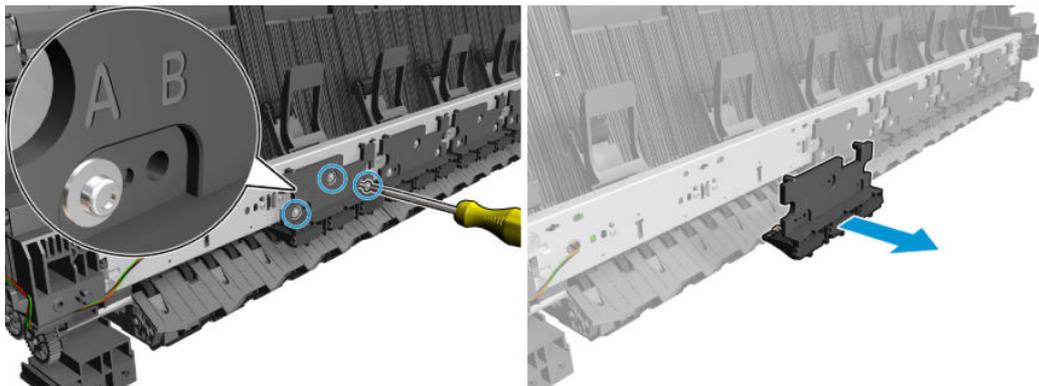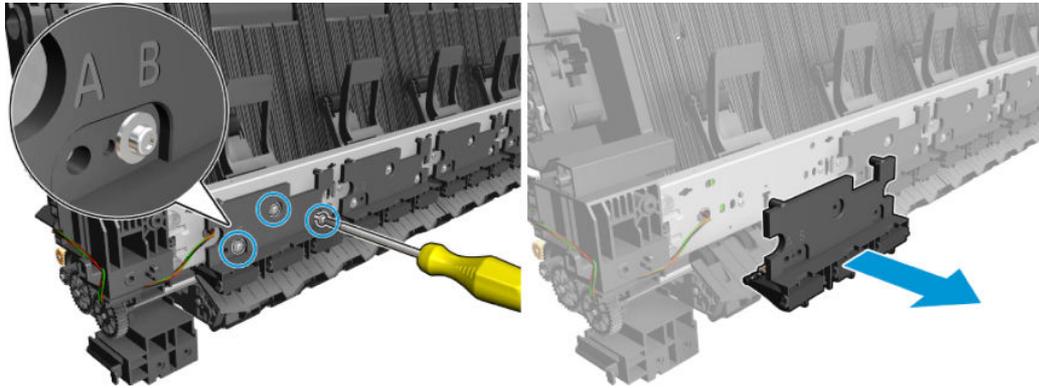
📝 **NOTE:** For installation make sure that you install the 1st pinch using hole B.
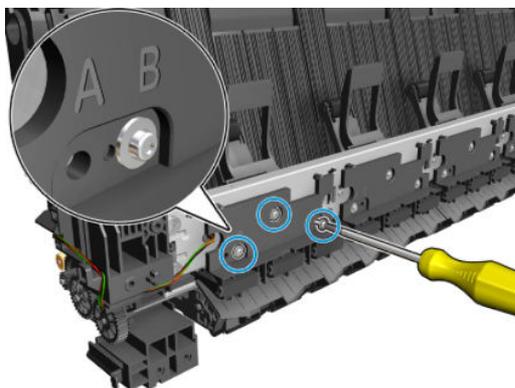
Stacker Hand Off

T2600 only: In order to change the stacker hand of, you need first install service kit. See Stacker Hand Off Assembly Service Kit (3EK10-67008) on page 617.

Removal

1. Remove the stacker. See Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608.

2. Remove 3 T10 screws and the 1st pinch (B).
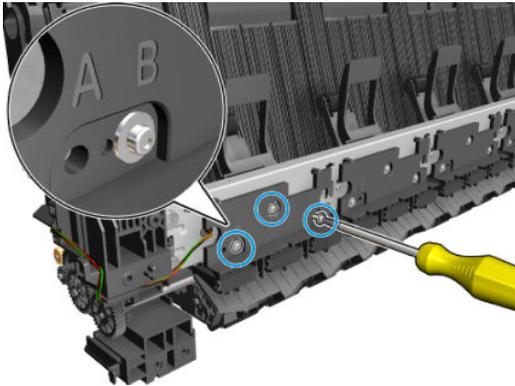
3. Unroute the cable.
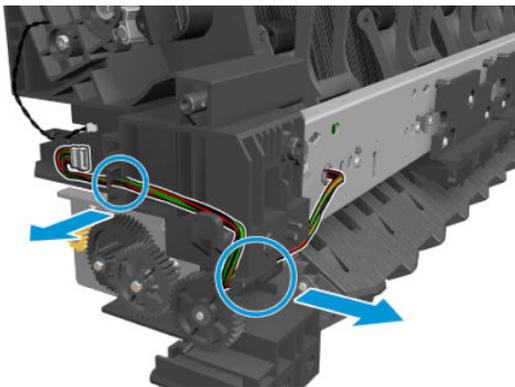
4. Remove 2 T10 screws.
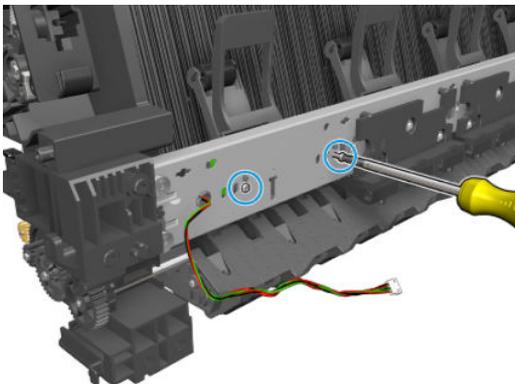
5.   Remove the stacker hand off.
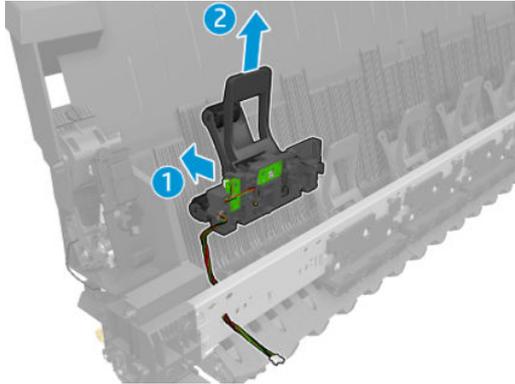
Stacker Hand Off Assembly Service Kit (3EK10-67008)

T2600 only: the Stacker Hand Off Assy (CR375-67041) includes parts needed to repair the MFP and single function printer. Follow the steps below to assemble the part depending on the product.

Each service kit CR357-67041 (both for Single Function and MFP) includes:
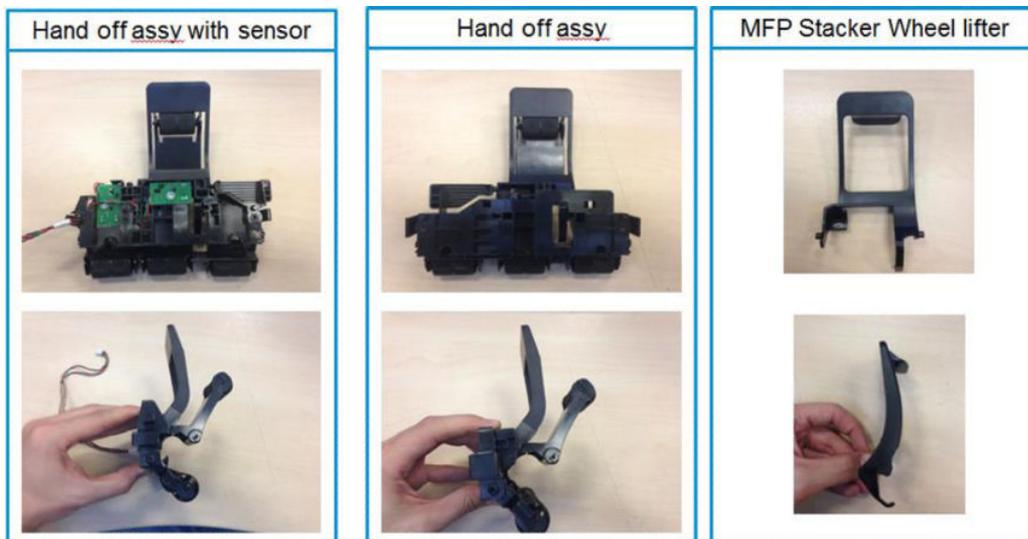
Hand off assemblies come with single function stacker wheel lifters.

To install them in an MFP, first you need to replace the 6 stacker wheel lifters with the MFP stacker wheel lifters included in the same package.

Then, install the hand off assemblies following the service manual procedure.

Remove single function stacker wheel lifters

1.   Rotate the stacker wheel lifter as shown by the arrow below to remove it.

2. Press the right leg of the stacker wheel lifter to unclip it.

While pressing, slide the leg in the direction shown by the arrow.
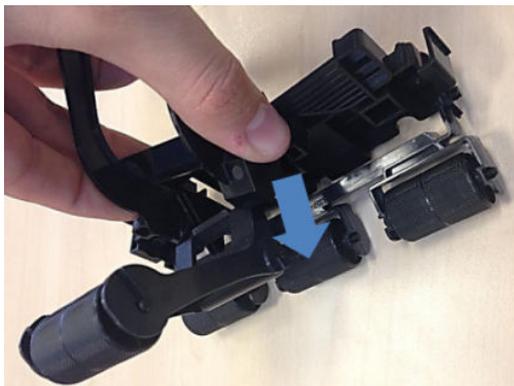
The stacker wheel lifter is now removed from the Hand-off assembly.

Assemble multi-function printer stacker wheel lifters

1. Insert the hook through the hole shown below.
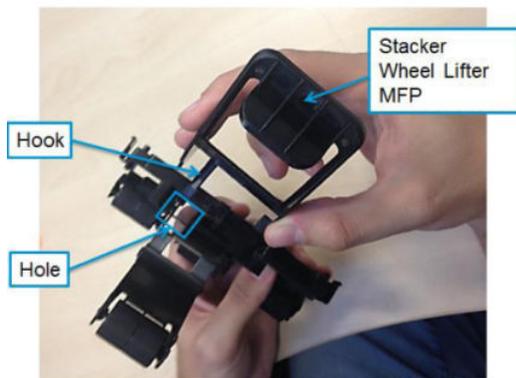
2. Rotate the second wheel holder in order to insert the right and left pin.

3. Clip the hook side pin into place, then press in the other leg to clip in the other pin.

4. Repeat all steps for each hand-off assembly, and for the hand-off assembly with sensor.

You can now proceed to change the stacker hand off. See .

OPTO Sensor

Removal

1. Remove the stacker. See Stacker assembly (3EK10-67007 & 3EK10-67009) on page 608.

2. Remove the hand off. See Stacker Hand Off on page 616.

3. Disconnect the cable.
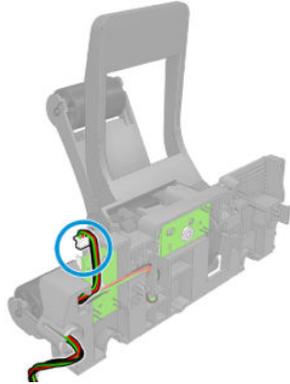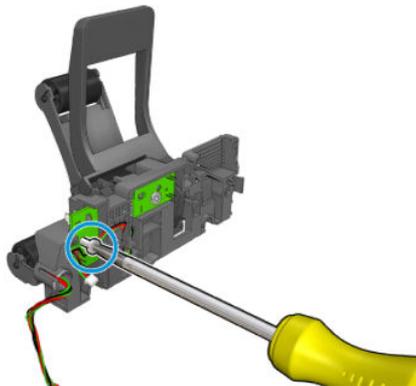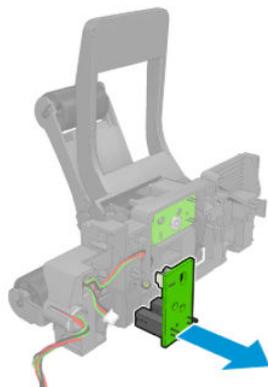
4. Remove the screw.

5. Remove the sensor.
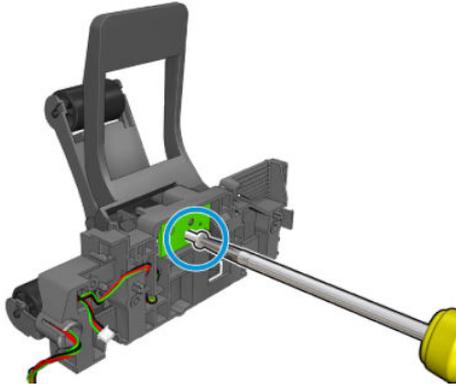
6. Remove the screw.

7. Remove the PCA and disconnect.
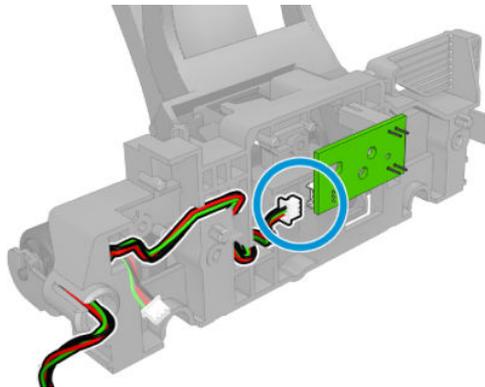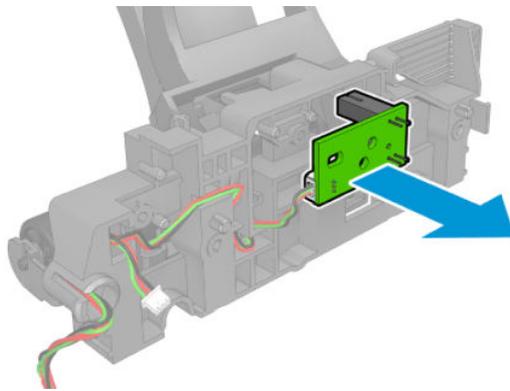
OVD Transmission with Motor

Removal

1. Remove the fixed tray cover from the service station side. See .
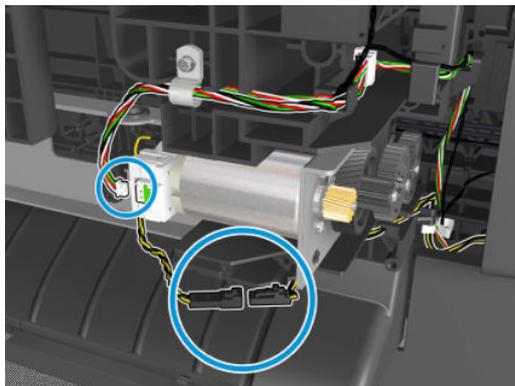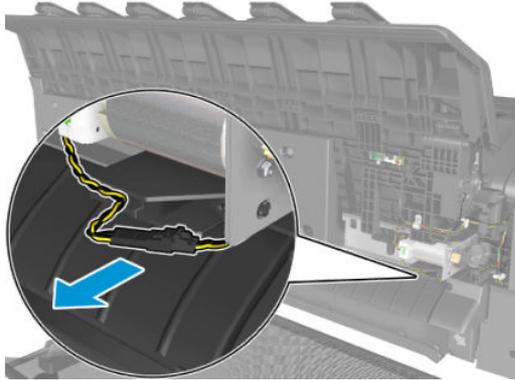
2. Disconnect the cables.

3. Remove 3 screws.
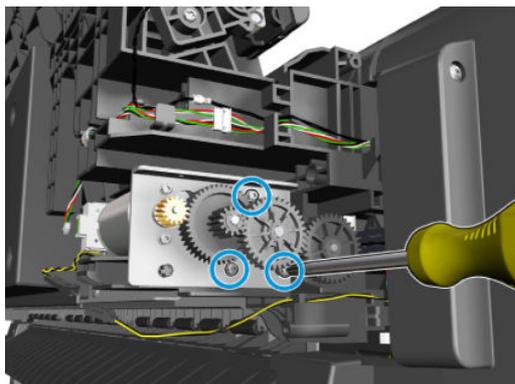
4. Remove the overdrive.
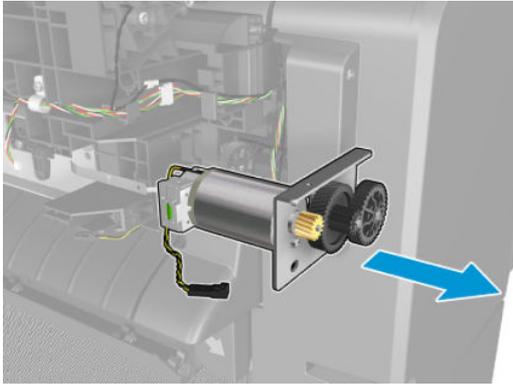
Ramps Motor

Removal

1. Remove Main Cover Front Panel Side. See .

2. Disconnect and unroute the cables.
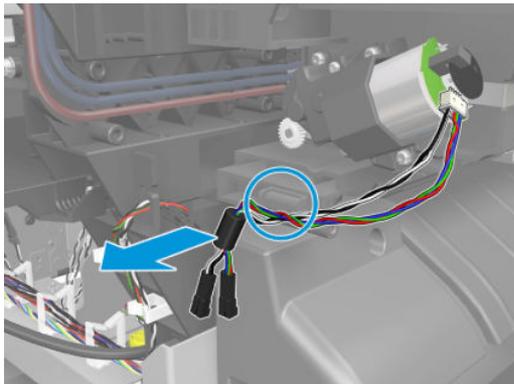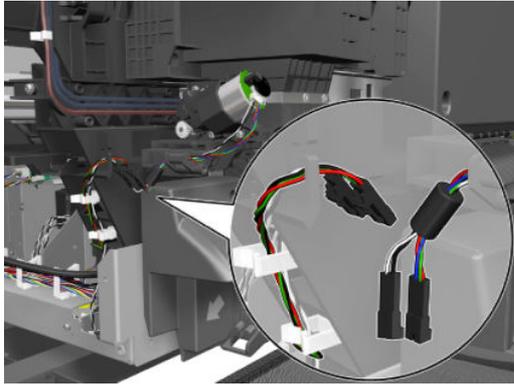
3. Remove 4 screws.
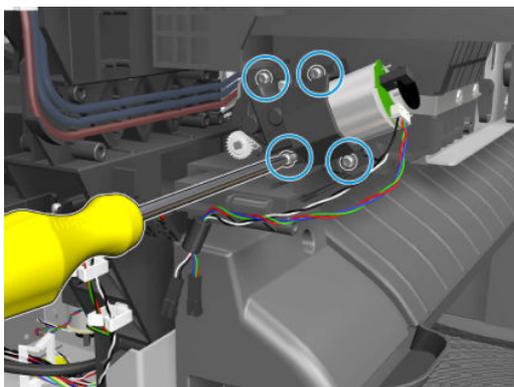
4. Remove the ramps motor.
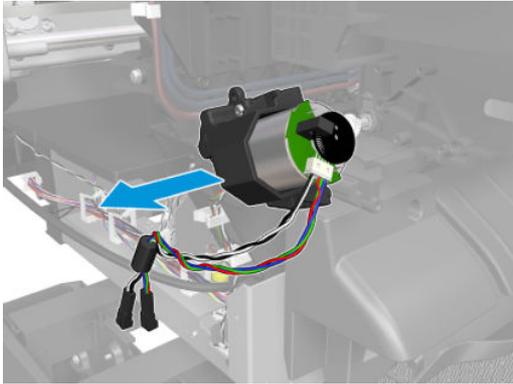
Stacker Arm Sensor

Removal

1. Remove the stacker arm. See .

2. Remove SVS fixed tray cover. See .

3. Disconnect and unroute the cable.
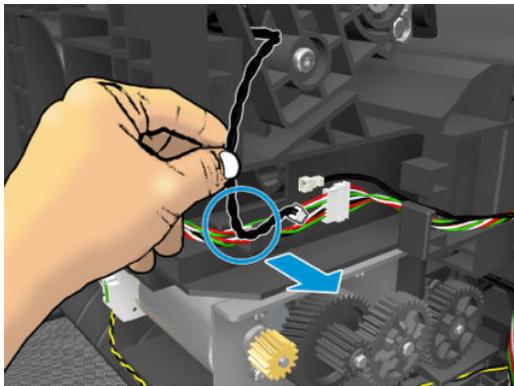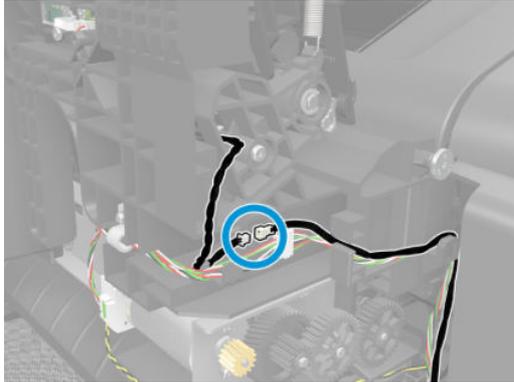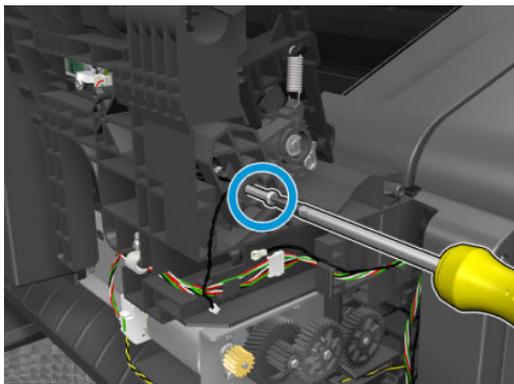
4. Remove the screw.

5. Remove the module.
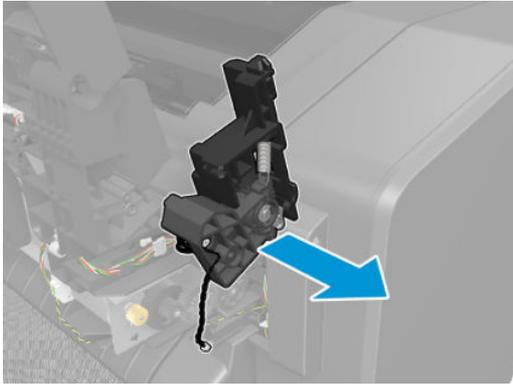
6. Remove the screw and microswitch (sensor).
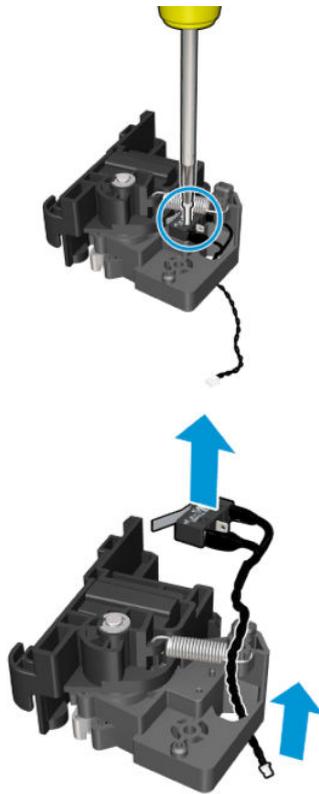
How to release Service Station Caps

Removal

1. Remove the SVS main cover. See Main cover (service station side Y3T75-67012) on page 473.

2. Release the caps with the spring wheel.
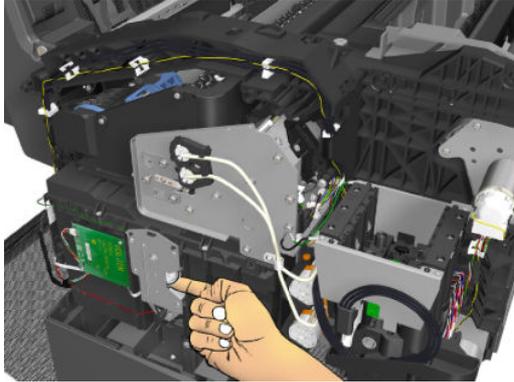
How to manually move Valves

Removal

1. Remove the rear cover. See Rear cover (Y3T75-67016) on page 487.

2. Turn the motor valves encoder.
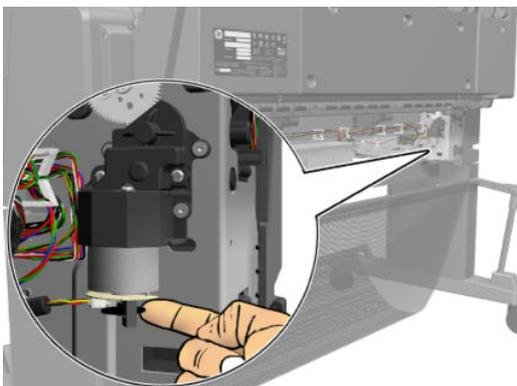
How to manually move Stacker Ramps

Removal

1. Remove the front panel fixed tray cover. See .

2. Turn the ramps motor encoder.
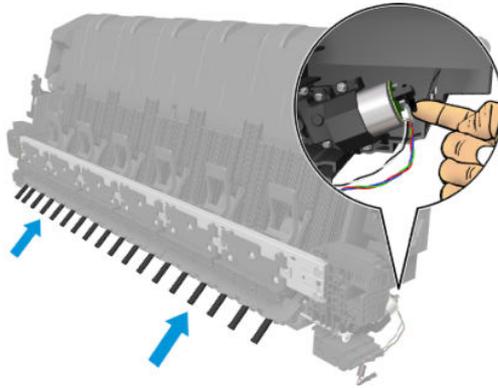
Scanner Controller Unit (SUP)

Removal

1. Turn the scanner off, disconnect the power cord, and tilt open the CIS bridge.

2. Remove the screws marked S1 (Torx 10), and open the CIS unit.
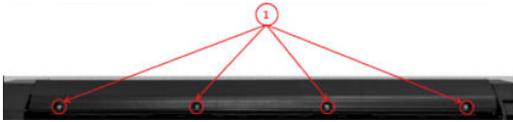
3. Disconnect the cables, release the ribbon cables lock (A), and pull out cable.
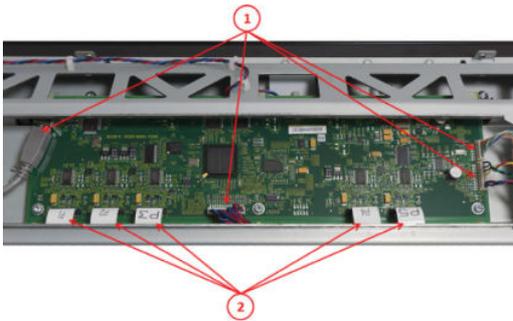
4. Remove the Screws (Torx 10), and remove the Scanner Controller Board.
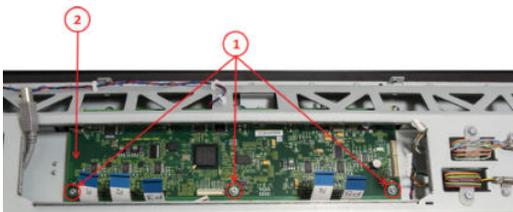
Replacement

▲ To replace reverse the removal steps.

📝 NOTE: The new Scanner Controller Board needs to be calibrated.

CIS Tiles

Removal

1. Remove the screws (Torx 10), and remove the idle roller cover sheet.

2. Remove the CIS tiles, and mark them for repositioning if necessary.
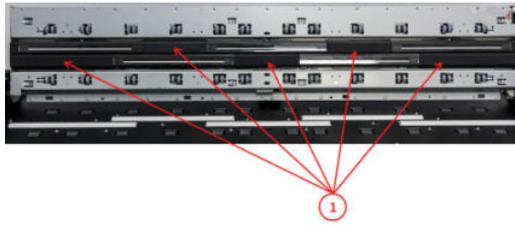
Replacement

1. If only the CIS tiles are being replaced; reverse the removal steps.

2. Re-calibrate the scanner.

CIS Modules

Removal

1. Remove the CIS Tiles. See .

2. Remove the screws marked S1 (Torx 10), and open the CIS unit.

📝 NOTE: In order to remove the lower CIS modules the upper must be removed (there is no need to disconnect).

3. Carefully disconnect by pulling.
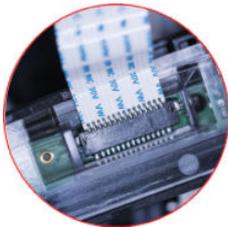
Replacement

1. Replace the CIS module and tighten the screws in order 1 to 3.
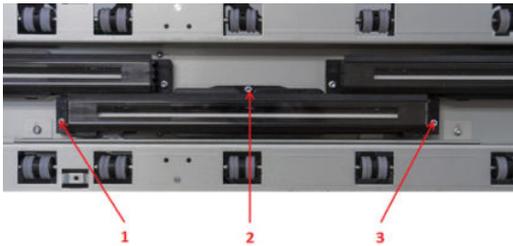
2. Re-calibrate the scanner.

CIS FFC Cables

Removal

1. Remove the affected CIS Tiles. See CIS Tiles on page 633.

2. Remove the affected CIS Modules. See CIS Modules on page 634.

3. Replace the CIS module and tighten in order 1 to 3.
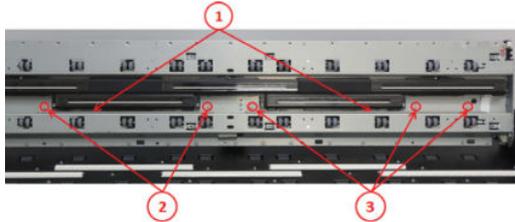
4. Unplug only the FFC cables that need to be replaced.
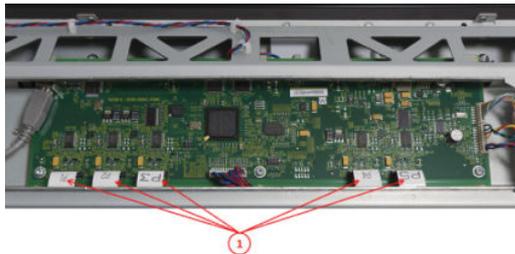
NOTE: For some of the cables it may be helpful to remove the Scanner Controller board. See Scanner Controller Unit (SUP) on page 632.

CIS Glass

Removal

📝 **IMPORTANT:** Only replace glass when in a "clean" environment, and be careful not to touch the underside of glass.

▲ Remove the CIS Tiles. See .

Replacement

1. Replace by carefully inserting the new glass, pushing the old one out.
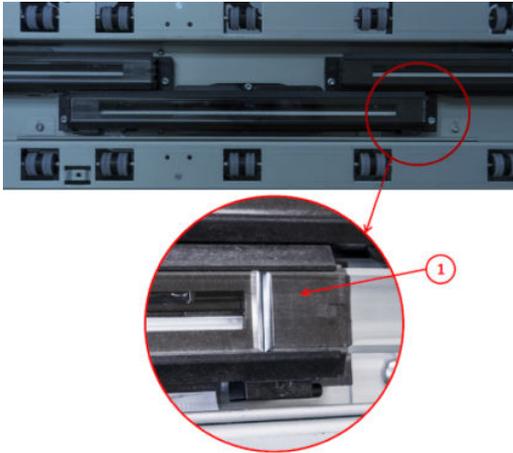
2. Re-calibrate the scanner.

Stepper Motor Assembly (taco sensor, and belt)

Removal

1. Turn the scanner off, disconnect the power cord, and tilt open the CIS bridge.

2. Remove the screws (1) and then the scanner RHS cover (2).
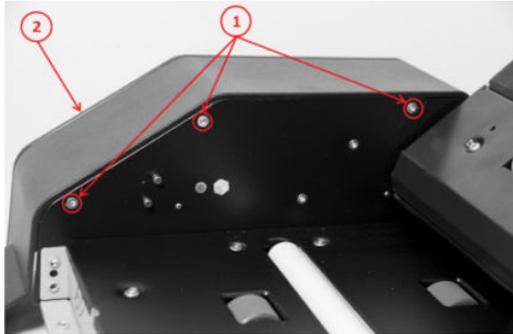
3. Remove the screws (1), and then the motor cover (2).
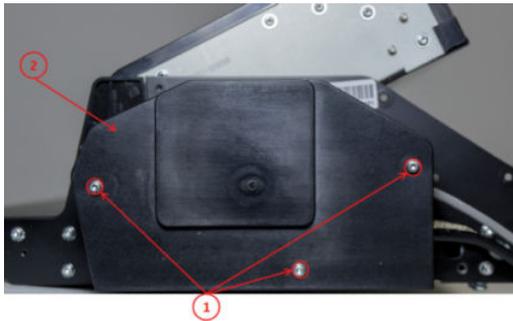
4. Disconnect the Sensor Motor cables.
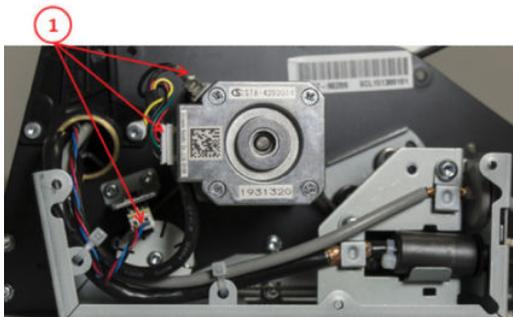
5.   Loosen the screw (don't remove it), and remove the Taco Wheel.
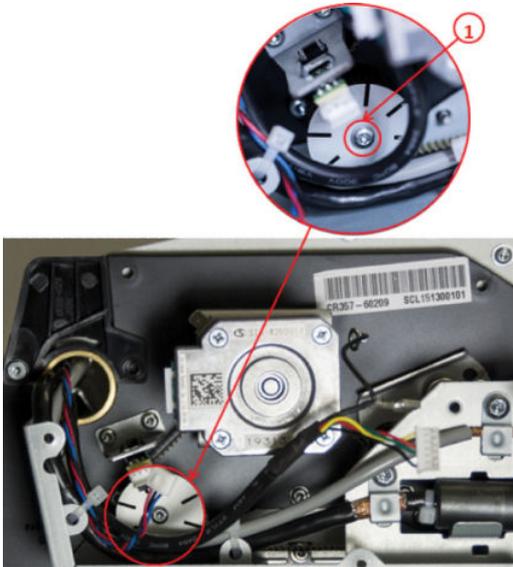
6.   Release belt tension by loosening the screw (don't remove it), and push the tension wheel upwards and tighten the screw.
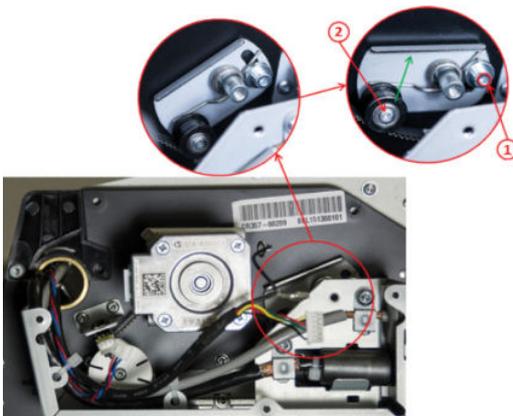
7.   Remove the motor screws.
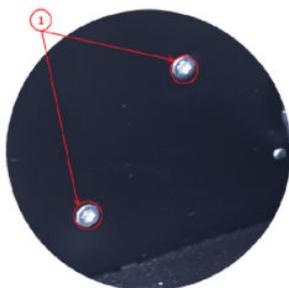
Replacement

▲   Replace by reversing the removal steps. If the Cable is being replaced see Stepper Motor Assembly (cable) on page 639.

Stepper Motor Assembly (cable)

Removal

1. Open the CIS unit. See Scanner Controller Unit (SUP) on page 632.

2. Remove the screws, and unclip the cable.
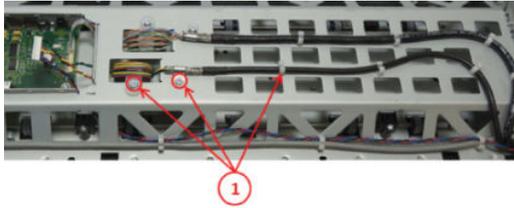
3. Cut the cable tie, and push the cable into the CIS unit.
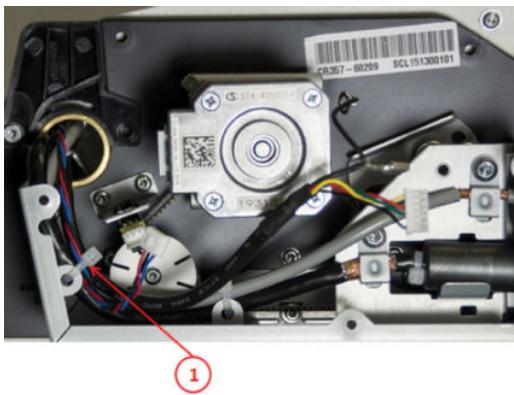
Replacement

▲ Replace the cable by reversing the removal steps.

Paper and Lid Sensors

Removal

1. Turn the scanner off, disconnect the power cord, and tilt open the CIS bridge.

2. If replacing the Exit Sensor or the Lid Sensor, you will need to open the CIS unit. See Scanner Controller Unit (SUP) on page 632.

3. If the sensor cable needs replacing, the Paper & Lid Sensor is affected. See Paper and Lid Sensor Cable on page 642.

4. Remove the screws, and the roller cover.
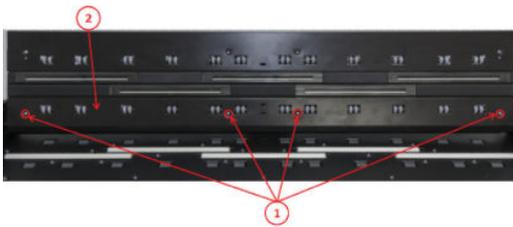
5. Remove the screw (1), and the sensor bracket (2).
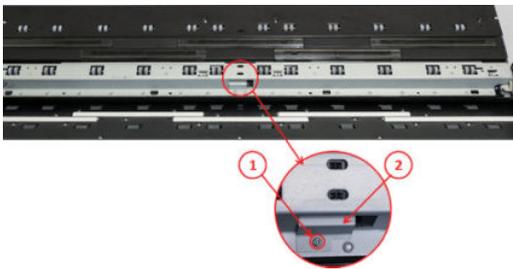
6. Open the CIS unit. See Scanner Controller Unit (SUP) on page 632.

7. Remove the screws and the CIS unit cover (1). Remove the screws (2), the sensor bracket (3), and disconnect the Lid Sensor (4).
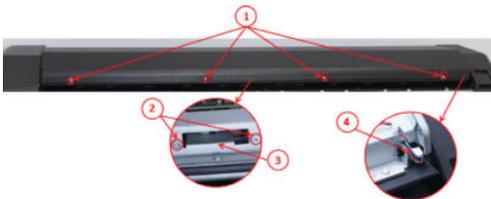
8. Disconnect the cable (1), remove the screw and Exit Sensor (2).
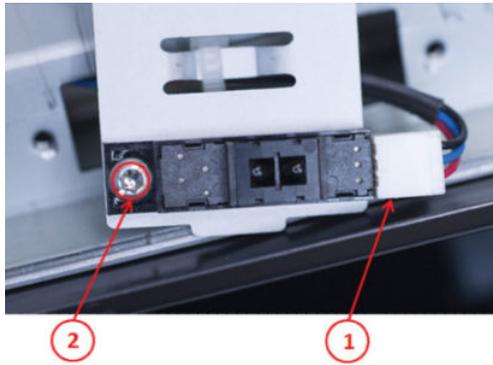
9. Squeeze lock pins, and remove the Lid Sensor.
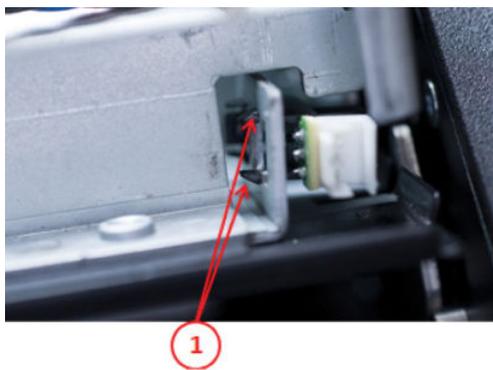
Replacement

▲ Replace by reversing the removal steps.

Paper and Lid Sensor Cable

Removal

1. All Sensors need to be removed in order to replace the cable. See .

2. Disconnect the Sensor Cable.
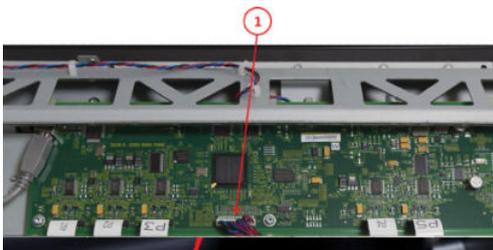
USB & Awake / Power Cable

Removal

1. Turn the scanner off, disconnect the power cord, and tilt open the CIS bridge.

2. Remove the RHS and Motor Cover. See Stepper Motor Assembly (taco sensor, and belt) on page 637.

3. Disconnect the USB & Awake / power cable (1). Unclip the cable throughout the CIS unit.
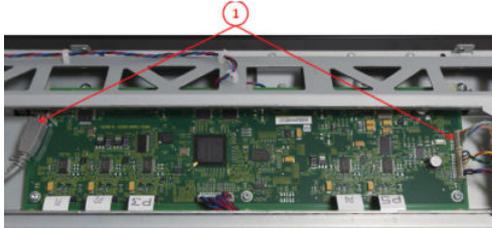
4. Unclip the USB Cable and pull it gently out of the CIS bridge (1). Remove the screws and unclip the cable (2).
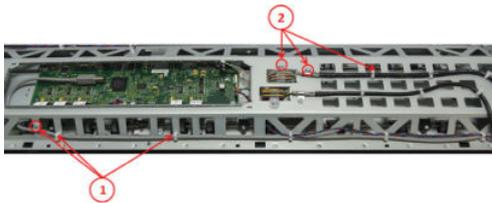
5. Remove the screws.
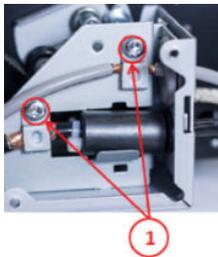
6. Remove the screws.
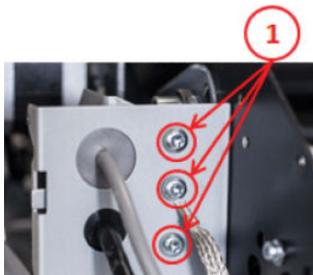
7. Carefully pull Cables into motor compartment (1 & 2).
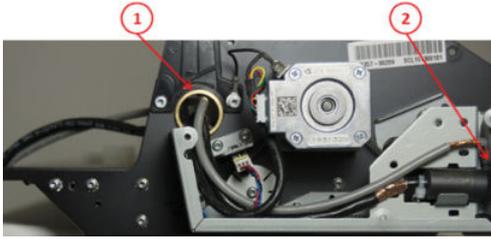
Replacement

▲ Replace by reversing the removal steps.

CIS Bridge Damper

Removal

1. Turn the scanner off, disconnect the power cord. Open the CIS Unit. See Scanner Controller Unit (SUP) on page 632.

2. Remove the screws and LHS cover.
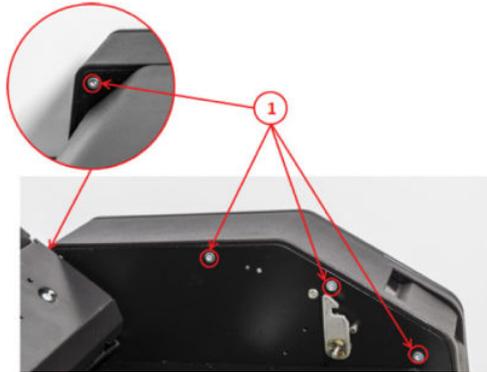
3. Tilt open the CIS bridge to decrease the spring tension (1), and unhook the spring (2).
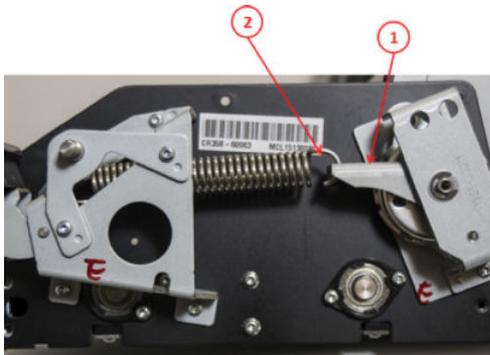
4. Remove the screw and carefully free the CIS bridge.
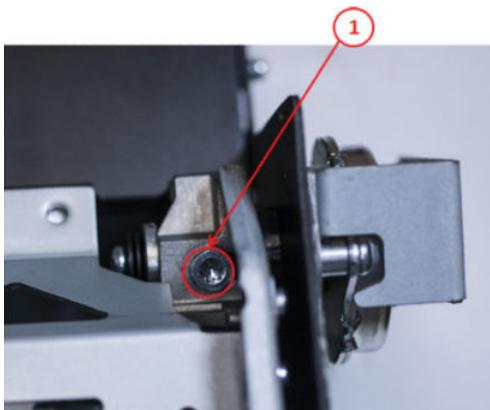
5. Tilt open the CIS bridge to decrease the spring tension (1), and remove CIS damper (2).
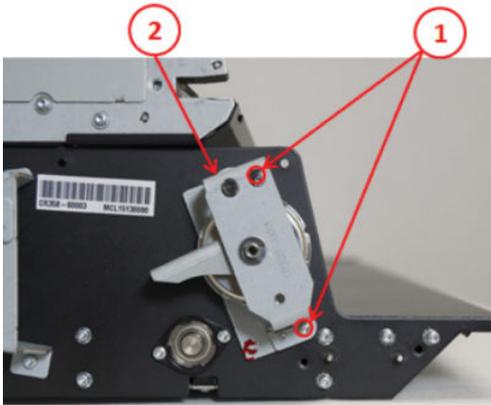
Replacement

▲ Replace by reversing the removal steps.

📝 NOTE: When replacing, be sure to align the holes and hold, when securing the screws (1).
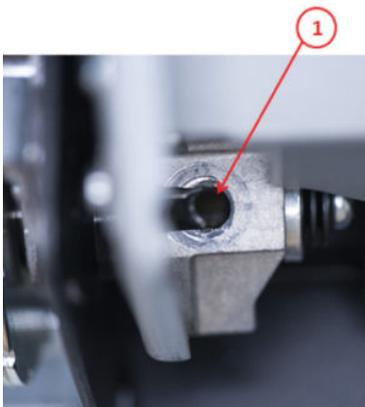
CIS Scanner Latch

Removal

1. Turn the scanner off, disconnect the power cord, and remove the LHS cover. See CIS Bridge Damper on page 645.

2. Remove the spring (1). See CIS Bridge Damper on page 645. Remove the screws (2), and bracket (3).
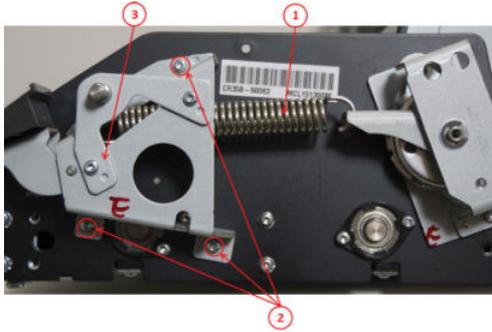
Replacement

▲ Replace the damper by reversing the removal steps.

Pressure Rollers

Removal

1. Turn the scanner off, disconnect the power cord, and tilt open the CIS Bridge.

2. Remove the screws (Torx 10), and pull the Roller Cover sheet out through the back.
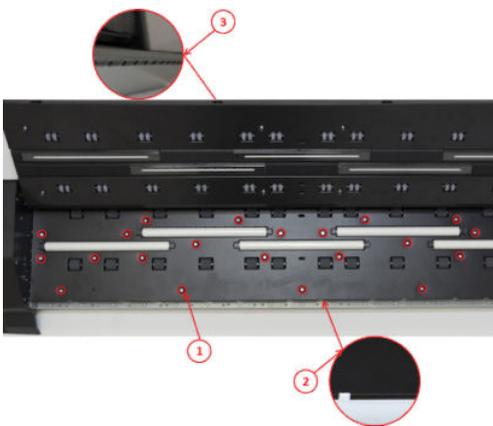
3. Gently pull the Pressure Roller out, and replace (repeat for all 5).
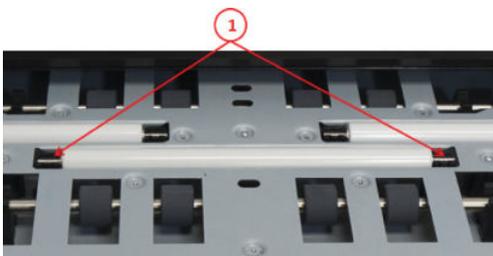
Replacement

1. After replacing the rollers, reverse the removal steps. Don't forget to calibrate the scanner.

2. Insert all screws without tightening. Align the 2 holes (A). When all screws are inserted, tighten in order 1 to 25.
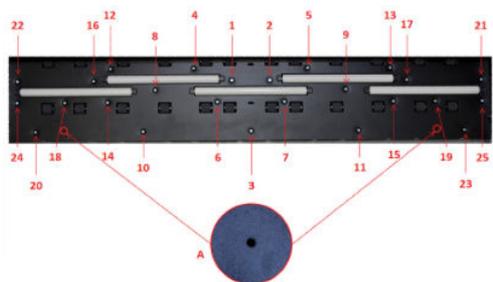
> **NOTE:** If the white rollers were replaced due to stitching and/or alignment errors, the scanner needs to be re-calibrated.

Front panel side scanner cover

Removal

1. Open the scanner cover.

2. Remove the 3 screws (Torx 10).

3. Close the scanner cover.

4. Open the scanner.

5. Remove 1 screw (Torx 10).

6. Remove the cover.

Service station side scanner cover

Removal

1. Open the scanner cover.

2. Remove the 3 screws (Torx 10).

3. Close the scanner cover.

4. Remove 1 screw (Torx 10).

5. Open the scanner.

6. Remove 1 screw (Torx 15).

7. Remove the cover.

Rear scanner cover

📝 **NOTE:** An angle screwdriver is needed, if not, you will have to remove scanner covers (FP and SVS side).

Removal

1. Open the scanner.

2. Remove 2 screws, 1 on each side (Torx 15).

3. Remove the rear cover.

Bumper bracket

Removal

1. Open the scanner.

2. Remove 3 screws (Torx 10).
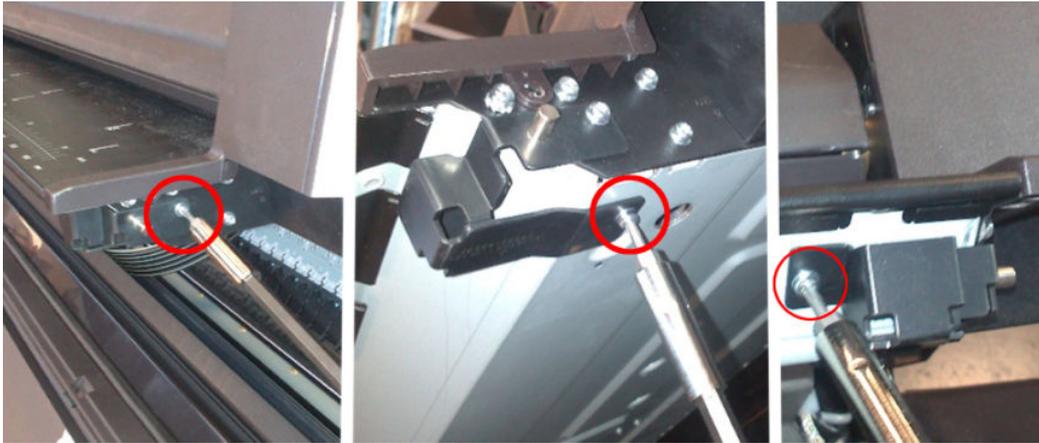
Deflector hinge

Removal

1. Remove the deflectors.

2. Remove the stacker arm cover.

3. Using a short screwdriver, remove 1 screw (Torx 20) from the hinge.

4. Remove the hinge.

    📝 **NOTE:** Deflector hinges are not symmetrical, make sure you install the proper one.

Lift assembly

Removal

1. Remove service station side scanner cover. See .

2. Open the scanner.

3. Remove 1 screw (Torx15).

    ⚠ **WARNING!**   Hold the scanner to avoid it falling. It is heavy.
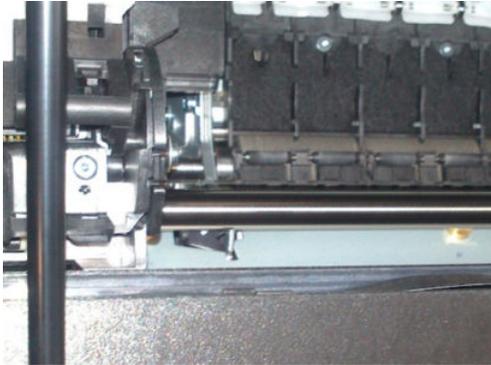
4. Remove the circlip.

5. Remove the lift assembly. See .

Scanner front beam bumper assembly
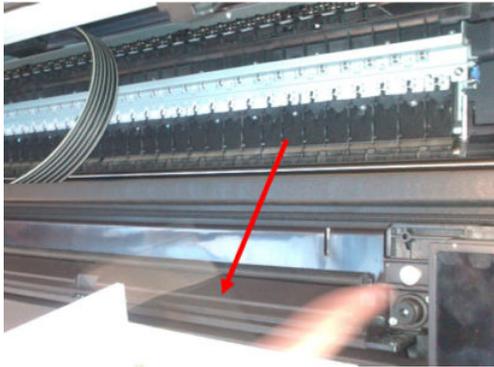
Removal

1. Open the scanner.

2. Remove 2 screws (Torx 15).
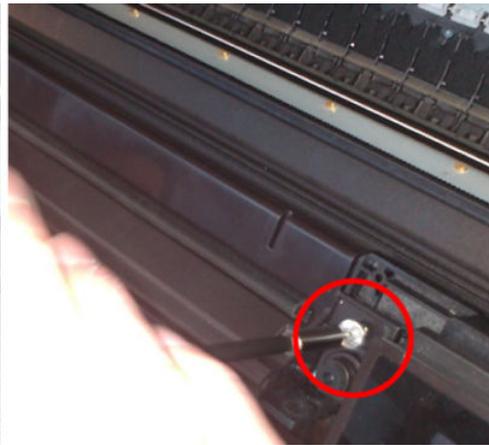
3. Open the upper roll cover.

4. Remove 3 screws (Torx 15).
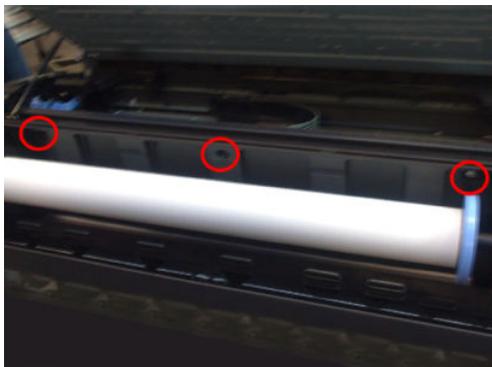
5. Unhook the 2 hooks, and remove the bumper.

Scanner latch hook assembly

Removal

1. Remove 1 screw (Torx 15) on the downer piece.
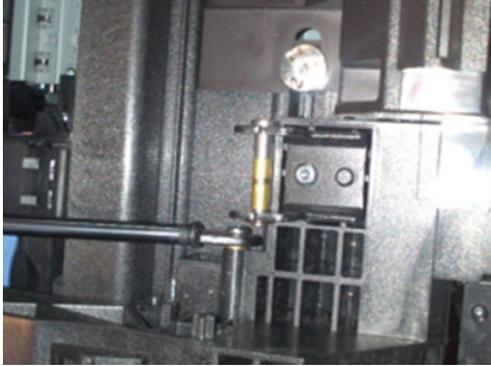
2. Remove the service station side scanner cover. See .

3. Remove 3 screws (Torx 15) on the upper piece.
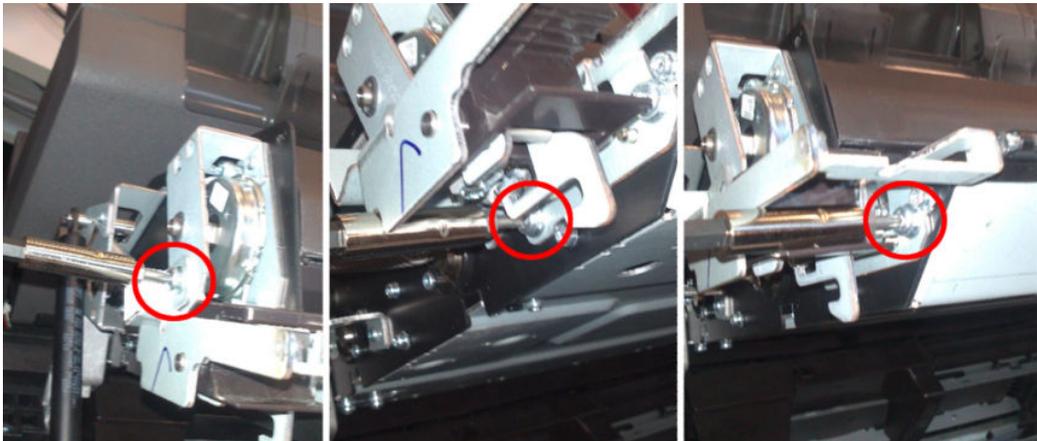
Card Reader Accessory

API Technologies Corp provides Netgard Card Reader devices compatible with the HP Designjet T2500 ePrinter series.

Setup and configuration

Setup requirements:

- MRY_02_00_03.4 firmware or later installed in the printer.

- The printer is connected to a router/switch that interfaces with.

- The Card Reader is connected to the router/switch.

- A WebApp developed by API is installed in the MFP.
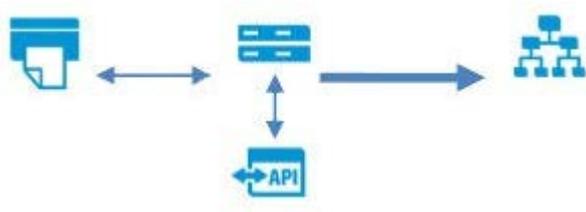
What is provided?

- Outgoing printer information is blocked, stopping the ability to submit scans to the net unless the user identifies himself with an ID Card in the Card Reader.

- The Scan and Copy Icons are removed from the Front Panel.

- The scanned jobs are removed from the queue.

Support

HP is not supporting the Card Reader. This is supported by the Card Vendor.

In case of network problems, try these troubleshooting steps:

- Unplug the printer from the secured network and try directly connecting it to a PC or an open unsecured network, then try to reproduce the issue.

- Uninstall the WebApp and try to reproduce the issue.

8 Maintenance

- [Preventive maintenance](#)
- [Preventive Maintenance Kits](#)

Preventive maintenance

Cleaning the product

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

General cleaning

Proper general cleaning should include the following:

NOTE: To prevent electric shock, make sure that the product is switched off and unplugged before any cleaning is performed. Do **not** let any water get inside the product.

1. Blow away dust accumulation with compressed air if available.

2. Clean the outer surface of the product with a damp sponge or cloth. Use a mild soap and water solution if necessary. Do not use abrasive cleaners.

3. Wipe the product dry with a soft lint-free cloth.

Cleaning the Drive roller

NOTE: If ink is spilled on the Overdrive, remove the ink. Due to the ink's reflectance, ink on the Overdrive can disrupt the product's edge-sensing function. To remove any ink from the Overdrive, perform the following procedure. Prevent water or other liquids from running onto electrical components or circuits, or through openings in the Electronics module.

1. Perform the Turn drive roller utility. See .

2. Open the window.

3. Apply any common household cleaning solution (water based only) to a soft, lint-free rag and apply it to the Drive roller and overdrive surface while it is rotating. Make sure that you thoroughly clean the Drive roller and overdrive surface.

4. Press **Enter** when you have completed the cleaning procedure.

5. Allow the Drive roller to dry before loading paper in to the product.

Cleaning the Encoder strip

1. Make sure that the product is not printing and that the Carriage assembly is located at the front panel side of the product. Turn off the printer.

2. Using tap water and a small cloth that will not leave fibers in the product, dampen the cloth and remove any excess water so that the cloth is damp but not wet.
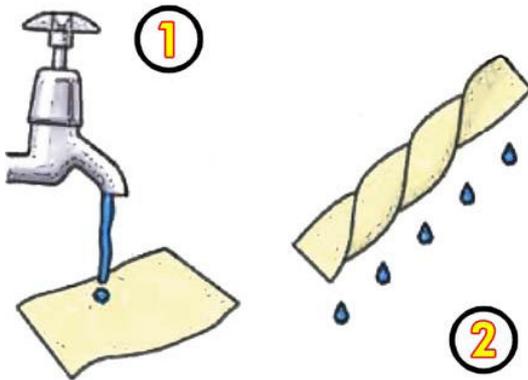
3. Open the window.

4. Hold the cloth in an inverted "U" shape around the Encoder strip and carefully wipe until no ink residue appears on the cloth. Be very careful not to scratch the Encoder strip with your fingernails or any other object. Make sure that you are holding the cloth correctly.
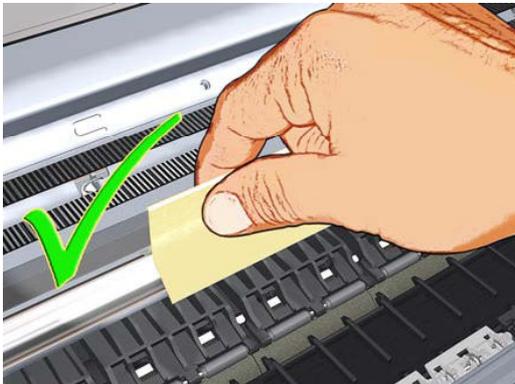
5. Move the Carriage assembly further to the left, allowing you to access the Front Panel side.

6. Turn the product back on.

Clean the scanner's glass plate

You are recommended to clean the scanner's glass plate periodically, depending on how often you use the scanner.

1. Turn off the printer using the Power key at the front, then also turn off the power switch at the rear and disconnect the power cable.

2. There is a small lever at the rear left of the scanner. Slide the lever up and open the scanner cover.
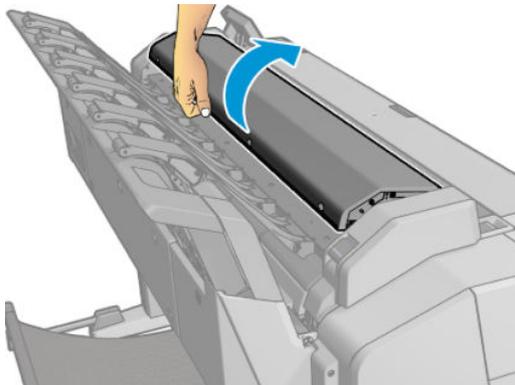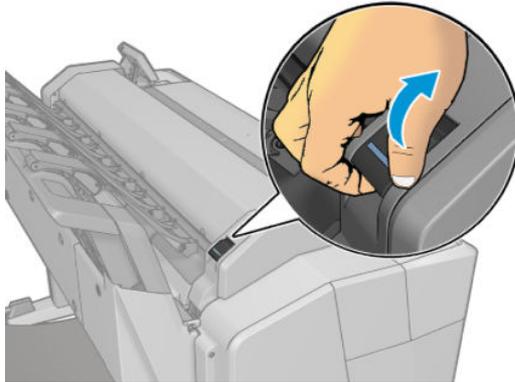
⚠ WARNING!   Do not lift the scanner while the scanner cover is open. Your fingers or hand may be trapped or crushed.

3. Gently wipe the glass plate, the white rollers and the surrounding area with a lint-free cloth dampened with water and then wrung dry. A suitable cloth is provided with the printer.

⚠ CAUTION: Do not use abrasives, acetone, benzene or fluids that contain these chemicals. Do not spray liquids directly onto the scanner glass plate or anywhere else in the scanner.
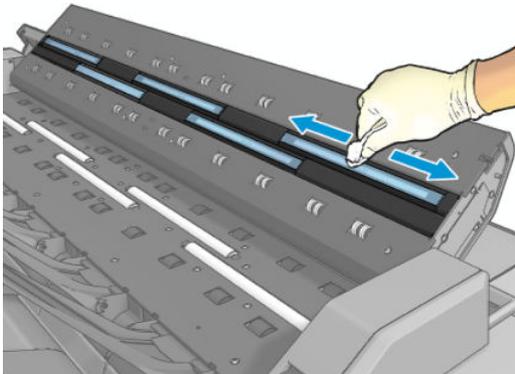
Do not worry about tiny droplets of water left on the glass: they will evaporate.

4. Optionally, for more thorough cleaning:

● Remove the glass plate and clean it on both sides.

● Clean the pressure rollers and the feed rollers.
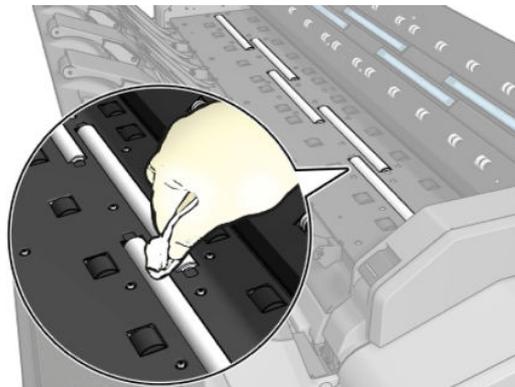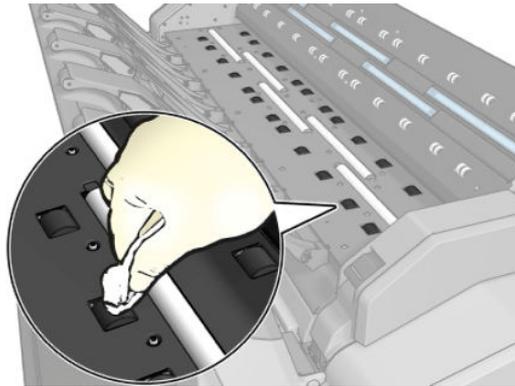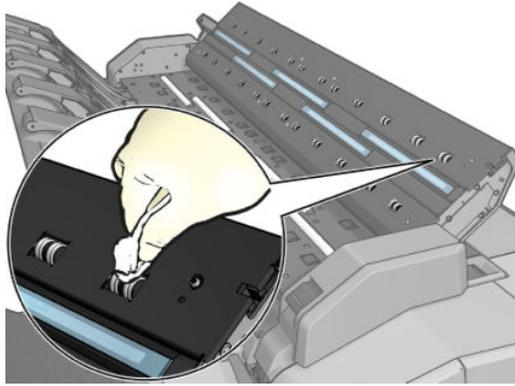
5. Close the scanner cover and gently push it down to lock it into place.
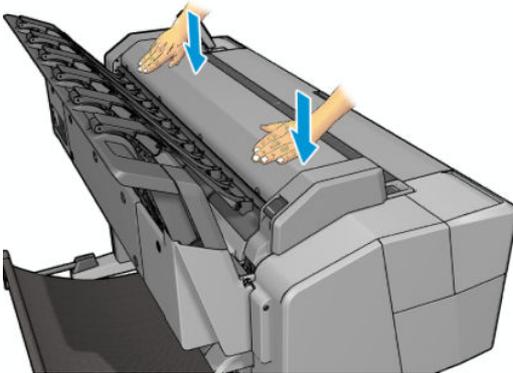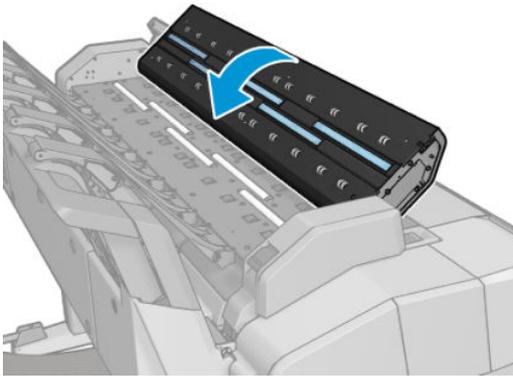
6. Clean the area immediately in front of the scanner, where the scanned sheet rests before scanning.

7. Reconnect the printer's power cable, turn on the power switch at the rear, and turn on the printer using the Power key.

Carriage assembly lubrication

To ensure correct operation of the product you must lubricate the Carriage assembly whenever any of the following are encountered if:

● The Front Panel displays **Maintenance #1 required**.

● There is excessive noise when moving the Carriage assembly.

● A shut down of the carriage PWM error message appears.

● There are IQ (vertical banding problems). You should also lubricate the Carriage assembly whenever you change any of the following service parts:

    – The Carriage rear bushing.

    – The Carriage assembly.

    – The Carriage rail oiler.

To lubricate the Carriage assembly you will require the Lubrication kit (Q5669-60692). Use the following procedure to lubricate the Carriage assembly:

1. Use the cleaning cloth to clean the Carriage rail and the Carriage slider rod. Use a general-purpose industrial cleaner.

2. Use an Oil dispenser to lubricate the Carriage rail and the Carriage slider rod.

3. Replace the Carriage rail oiler with the new one contained in the kit and add 2 or 3 drops of oil to the foam of the Carriage rail oiler.

4. Use an Oil dispenser to lubricate the Carriage rear bushing.

Moisture on the product

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

Noisy carriage bushing

To prevent noisy movement of the carriage, remove aluminum or dust particles from the bushing at the back of the carriage, and from the slider path along which the bushing moves. Lubricate the slider path using the Lubrication kit (Q5669-60692).

Belt Swelling

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

Level of product usage

Preventive maintenance kits are designed to replace high-usage parts before they fail, avoiding printer downtime. Under normal usage conditions, it will be approximately 5 years before the product needs maintenance. If the product is used more than the normal usage conditions, then it will need maintenance service much more frequently.

Each PMK have assigned an internal counter to count the number of cycles:

Service Part	Life value	Maintenance advice
Belt cycles	3,000,000	PMK 1
Bushings life	3,000,000	PMK 1
Trailing cable cycles	3,000,000	PMK 1
Scan-axis cycles	3,000,000	PMK 1
Scan-axis distance covered	4,500,000	PMK 1
Tubes cycles	3,000,000	PMK 1
Service station volume	750,000,000	PMK 2
X-Cutter	61,000	PMKIT3

When these components of the product exceed this amount, the Front Panel will display the following messages:

HP Maintenance Kit PMKITX required

Once one of the maintenance advised messages is displayed, the relevant preventive maintenance kit must be used to replace the most worn parts of the product.

Preventive Maintenance Kits

There is no preventive maintenance kit for the cutter, which is expected to last for the life of the product.

Preventive Maintenance Kit #1 (Y3T75-67007)

Parts affected	
CR357-67092	Carriage W/O PCA W/ retainer
CR357-67081	Carriage PCA
CR357-67021	Belt
CR357-67027	RIDS
CR357-67022	Linear Encoder Trigger

3 million Scan-axis cycles or 4.500 km distance covered by Scan-axis

Usage Counters
SRV-MOTOR-NUMBER-OF-SCAN-AXIS-CYCLES
SRV-BELT-NUMBER-OF-SCAN-AXIS-CYCLES
SRV-BUSHINGS-NUMBER-OF-SCAN-AXIS-CYCLES
SRV-CABLE-NUMBER-OF-SCAN-AXIS-CYCLES
SRV-TUBES-NUMBER-OF-SCAN-AXIS-CYCLES
SRV-SCAN-AXIS-COVERED-DISTANCE

NOTE: The Lubrication kit is not included in the Preventive Maintenance Kit.

Preventive Maintenance Kit #2 (CR357-67073)

Parts affected	
CR357-67020	Tetris W/ Cable
CR357-67025	SVS W/ DD

Trigger: 7.5 liters but an advisory message appears at 6 liters.

Usage counter

SRV-RIGHT-SPITTOON-INK-VOLUME

Preventive Maintenance Kit #3 (2YB64-67047)

Parts affected

2YB64-67010   Cutter module with belt Trigger

Trigger: 61.000 cuts.

Usage counter

SRV-CUTTER-AND-LINEAR-BLADE-NUMBER-OF-SCAN-AXIS-CYCLES

9 Customer Self Repair Flyers

- Front panel
- Stacker tray filler
- Rear cover
- Replace the front panel arm
- Replace the support tube
- Starwheel
- WIFI lid
- Stacker arm
- Ink covers, service station side
- Ink covers, front panel side
- Bottom roll cover
- Top roll cover
- Carriage latch
- Basket
- Pinch arm top roll
- Pinch arm bottom roll

Front panel

HP DesignJet T2600/XL 3600 Printer Series
Replace the Front Panel

1

2

3

4

5

6

7
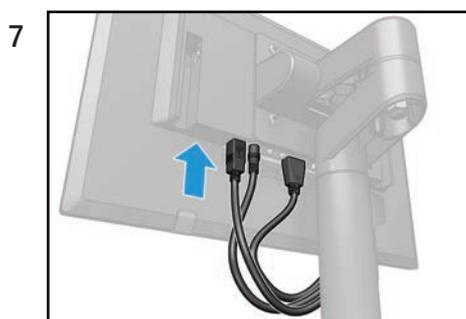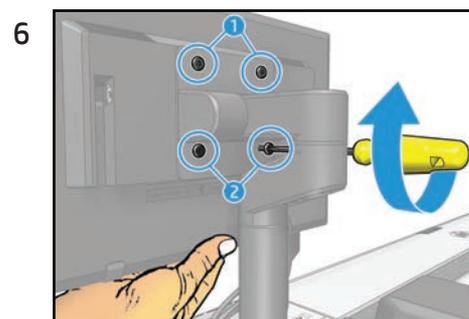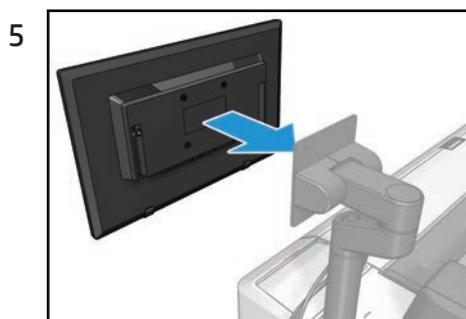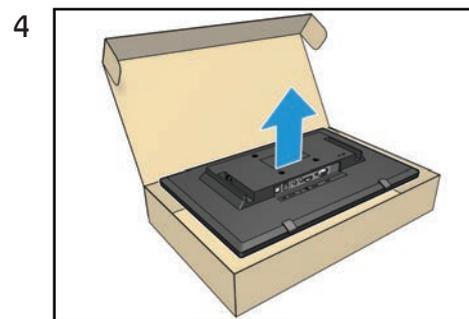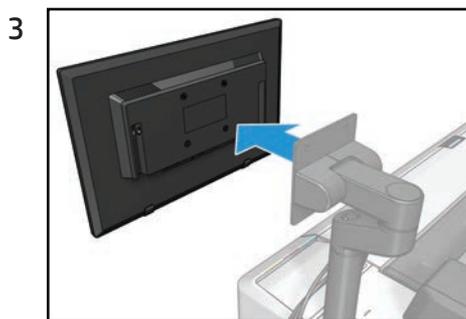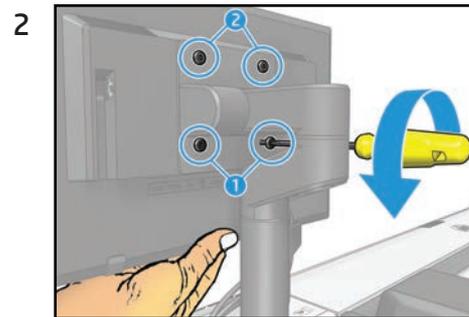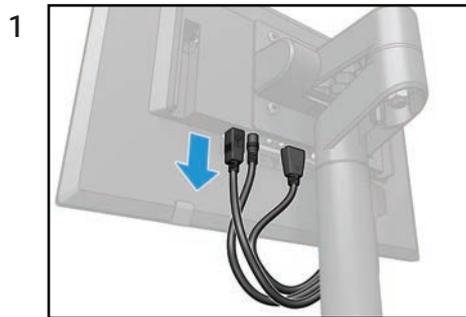
Stacker tray filler

HP DesignJet T920/T1500/T2500/ T3500/T1600/T2600 & XL3600
Flyer Stacker Tray Filler

1

2

3

4

5

6

7
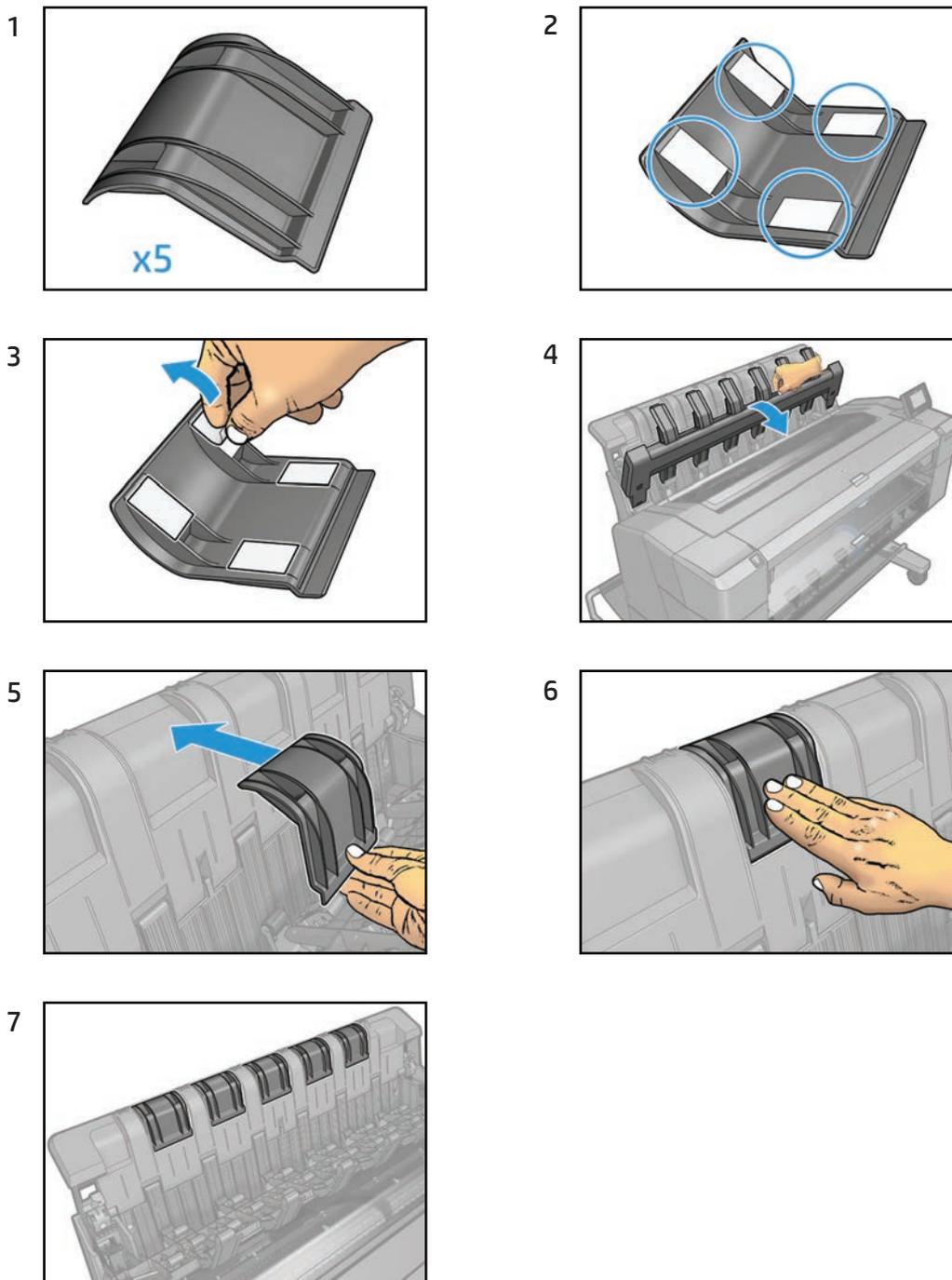
Rear cover

HP DesignJet T1600/T2600 Printer Series
Replace the Rear Cover
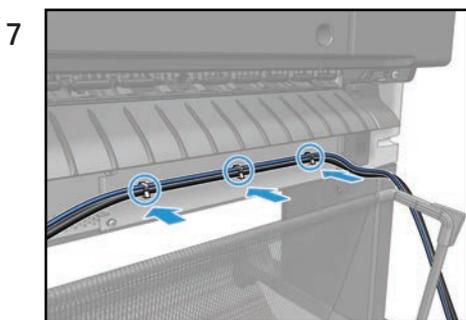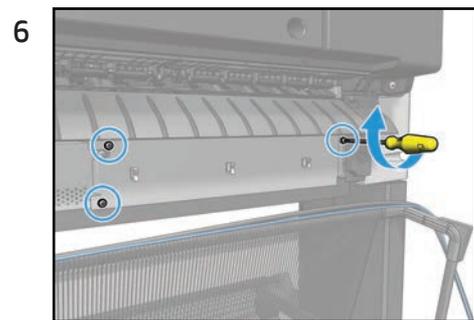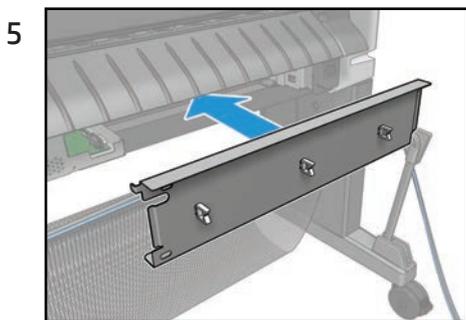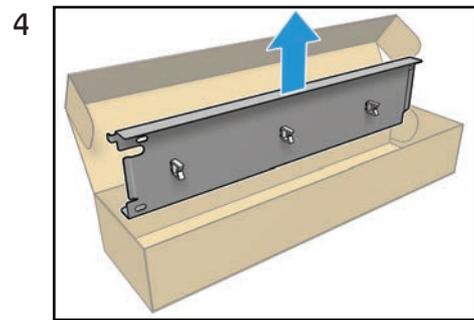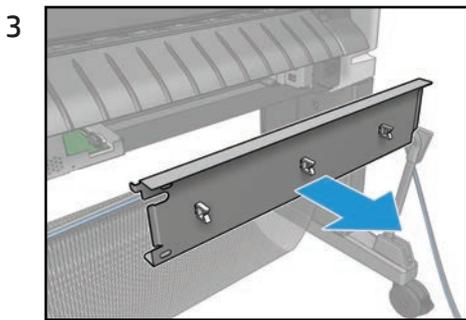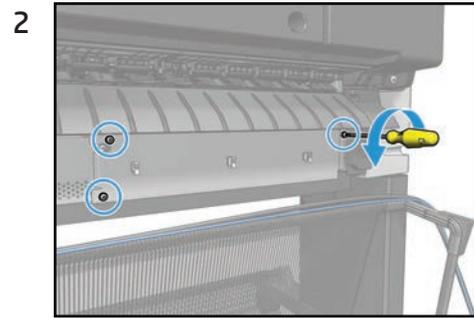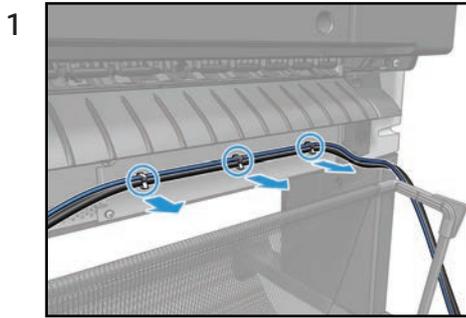
Replace the front panel arm

Replace the Front Panel Arm
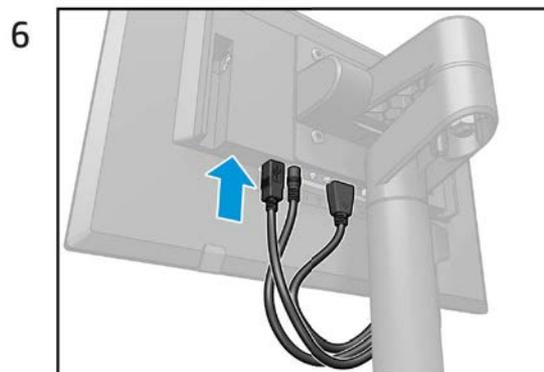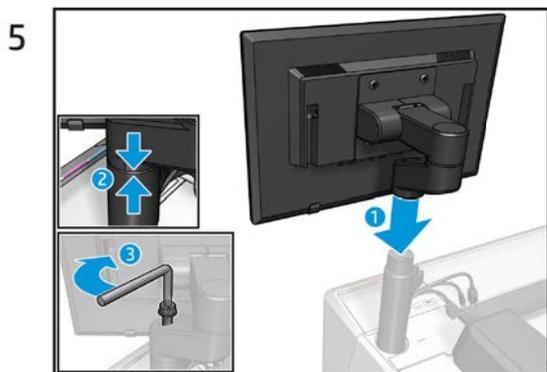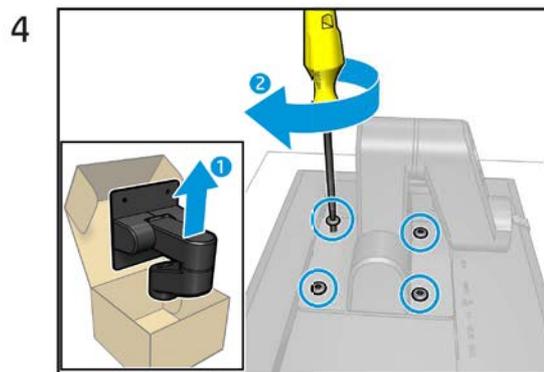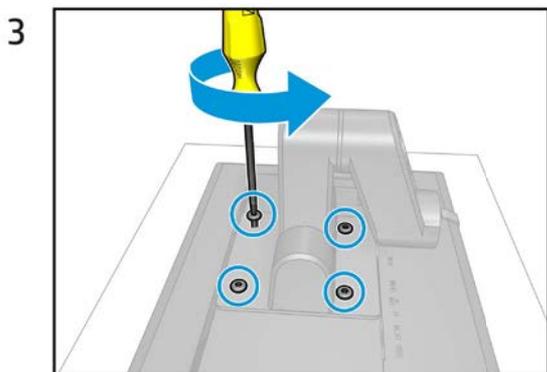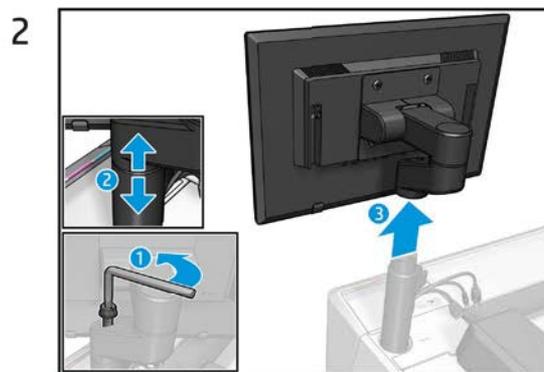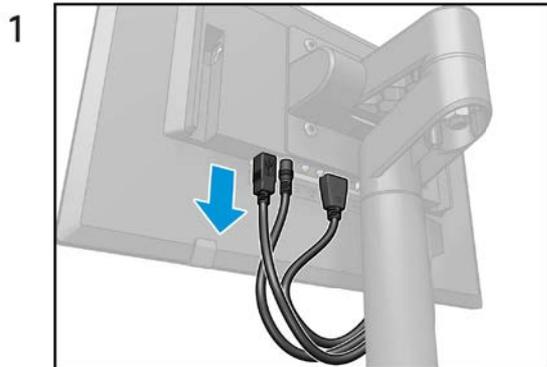
Replace the support tube

Replace the Support Tube
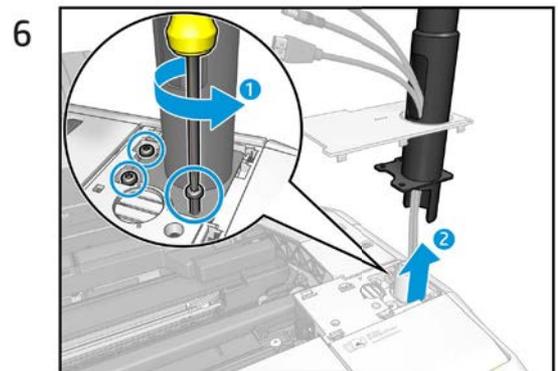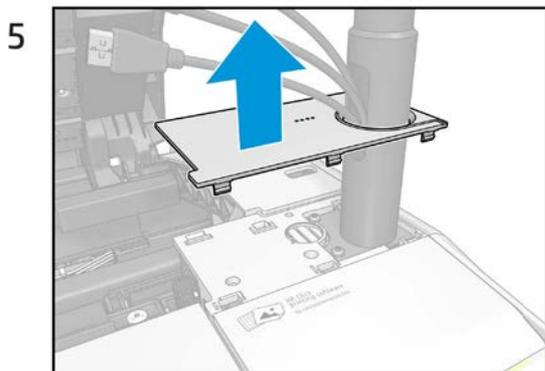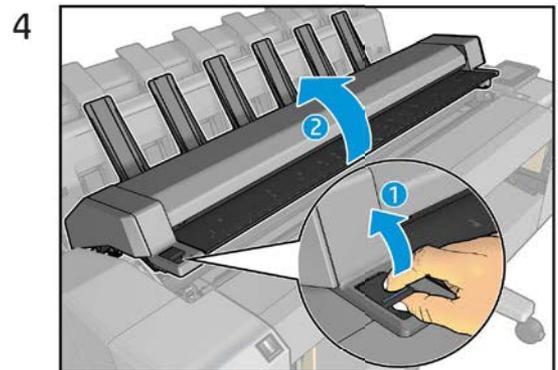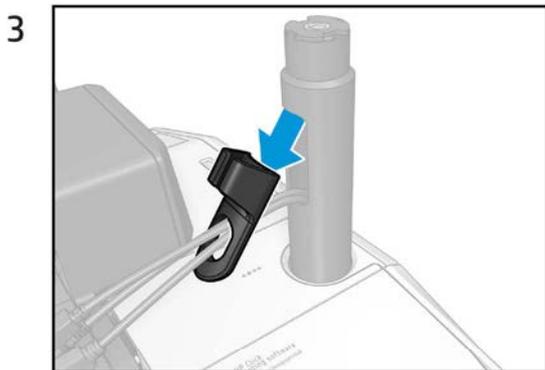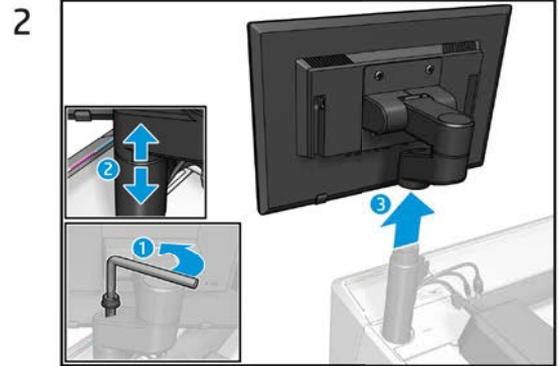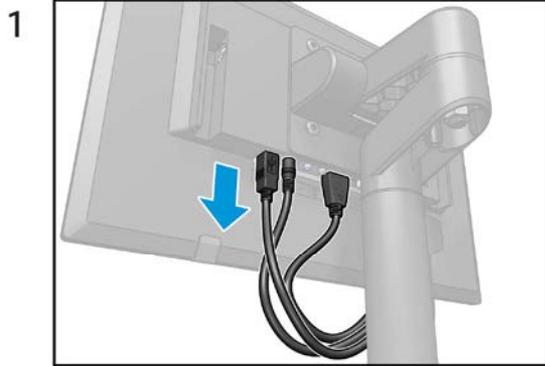
Starwheel

HP DesignJet T9x0, Tx500, Tx600 and XL3600 Printer Series Starwheel

EN: > Replace printhead
FR: > Remplacer la tête d'impression
IT: > Sostituisci testina
DE: > Druckkopf ersetzen
ES: > Sustituya el cabezal de impresión
PT: > Substituir cabeçote de impressão
CA: > Canvieu el capçal d'impressió
ZH: > 更换打印头
TW: > 更換印字頭
JA: > プリントヘッドを交換してください
KO: > 프린트 헤드 교체
RU: > Заменить печатающую головку
PL: > Wymień głowicę drukarki

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15
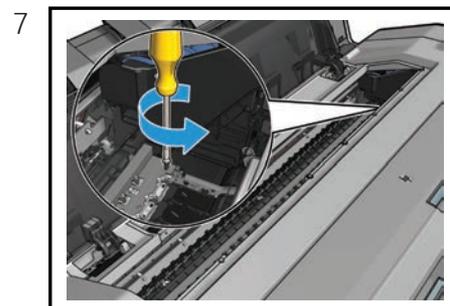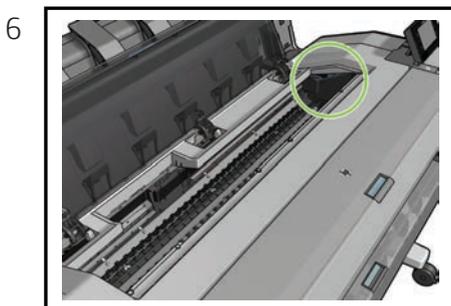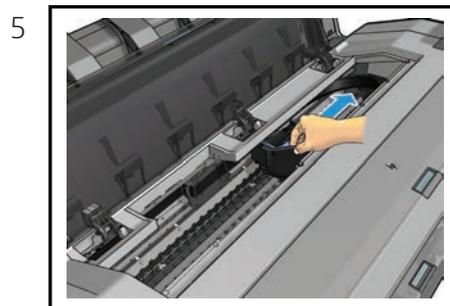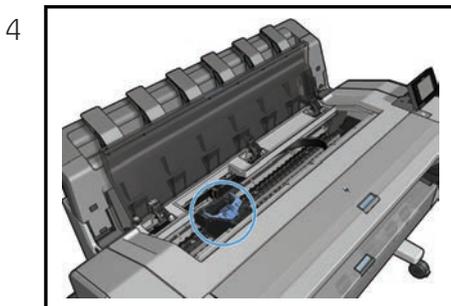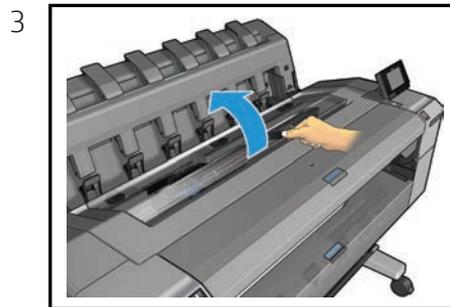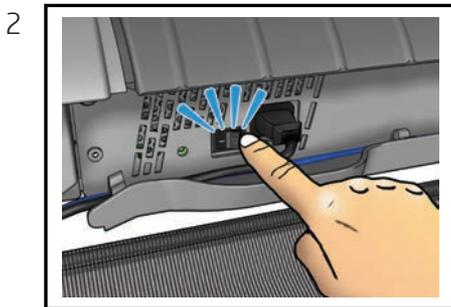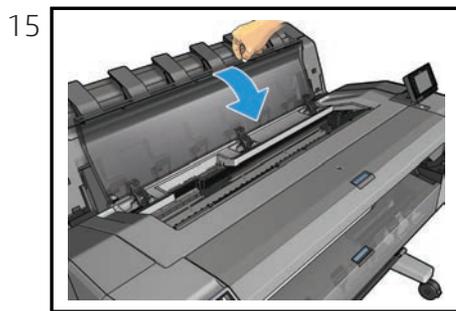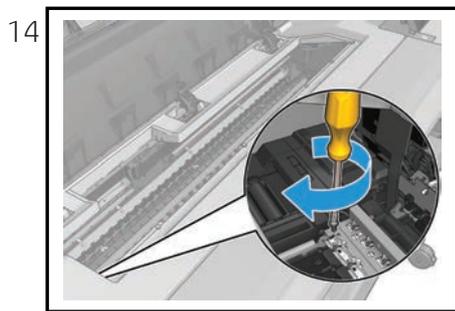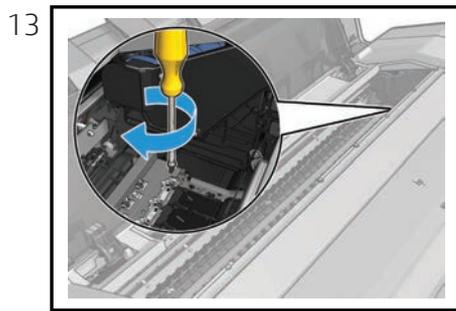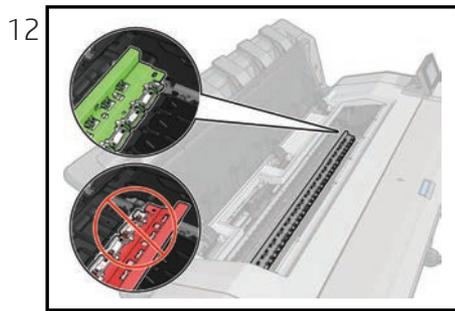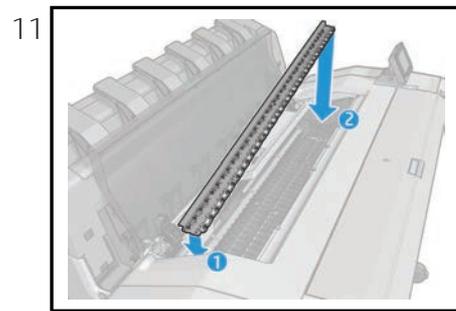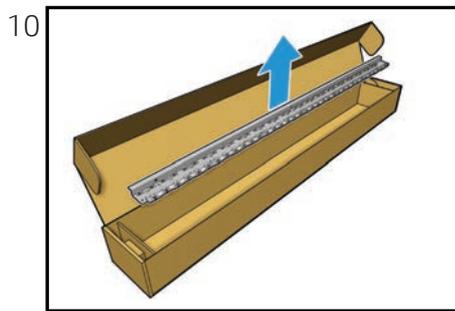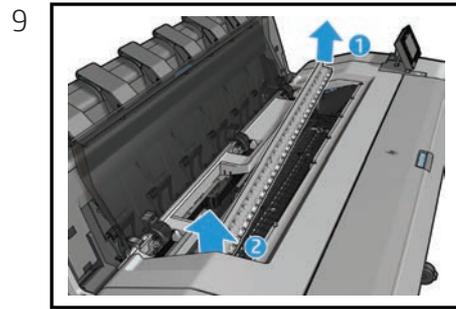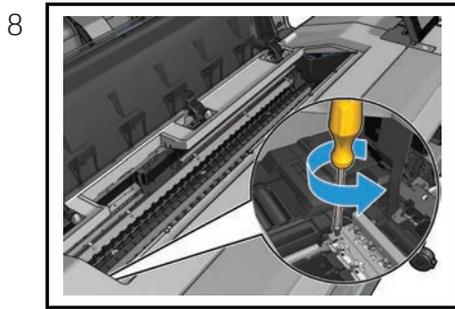
WIFI lid

HP DesignJet T1600/T2600 Printer Series
Replace the WIFI Lid

1

2

3

4

5

6
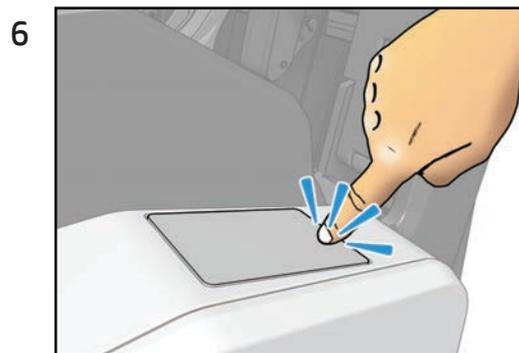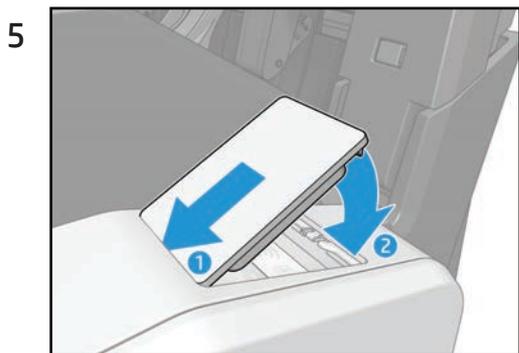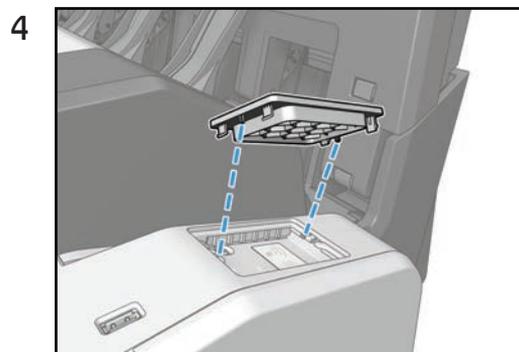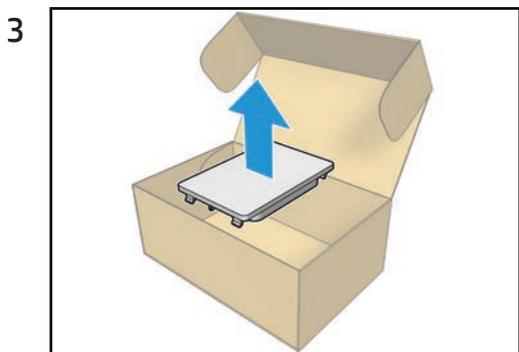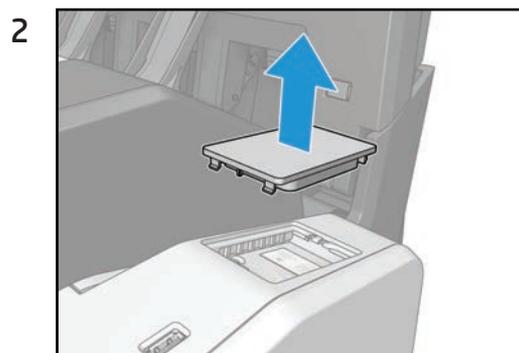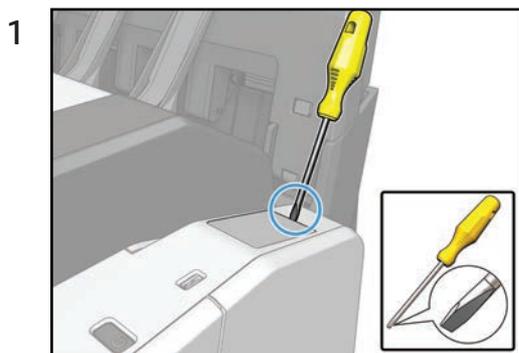
Stacker arm

HP DesignJet T9x0, Tx500 and Tx600 Printer Series Stacker arm

1

2

3

4

5

6

7
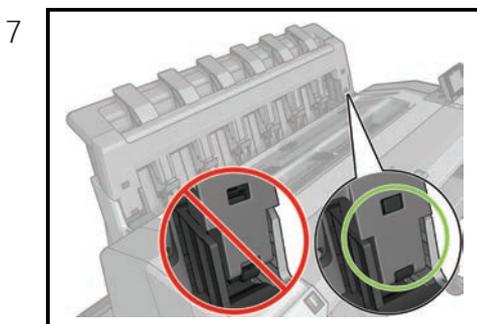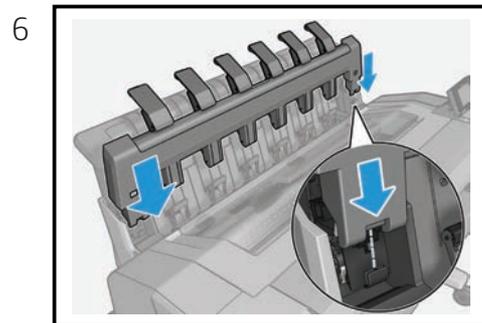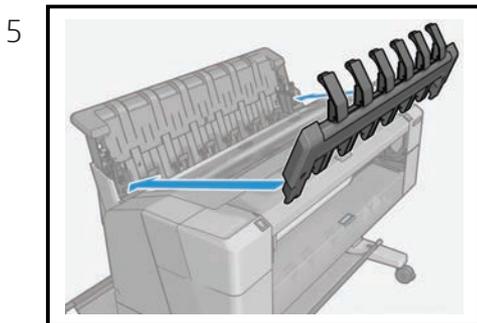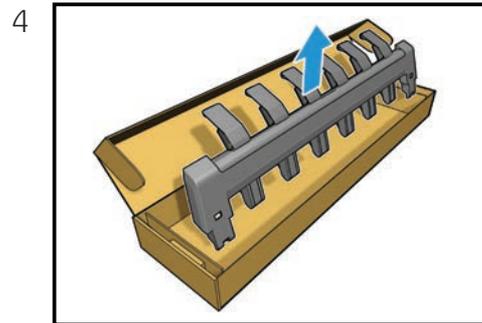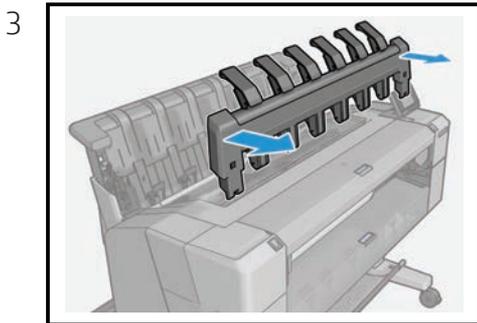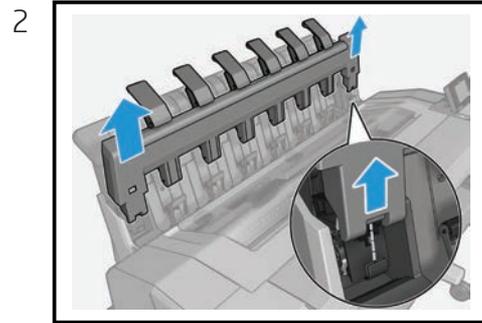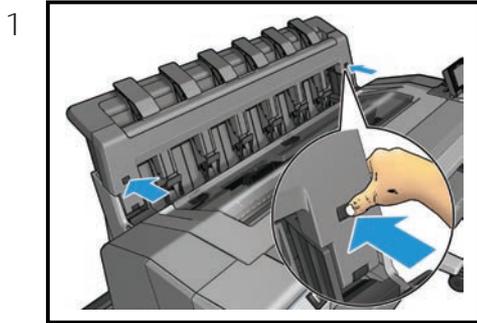
Ink covers, service station side

HP DesignJet T9x0, Tx500 and Tx600 Printer Series Ink cover, service-station side
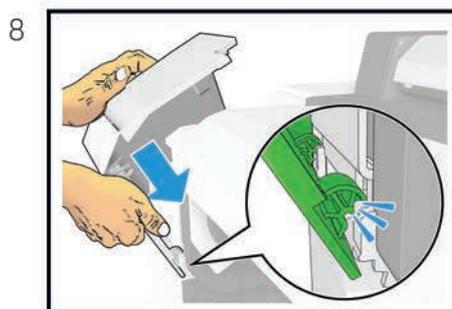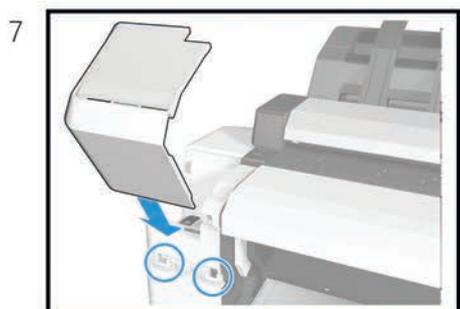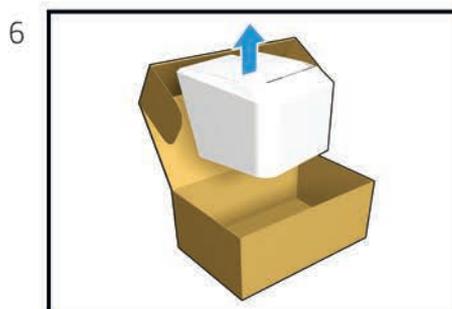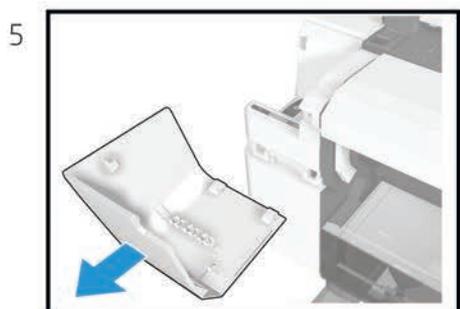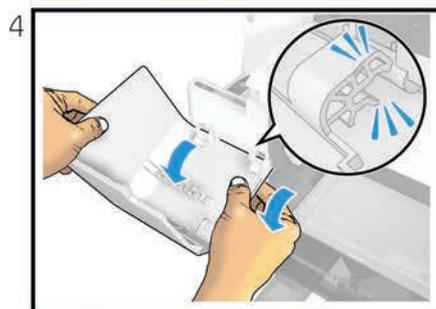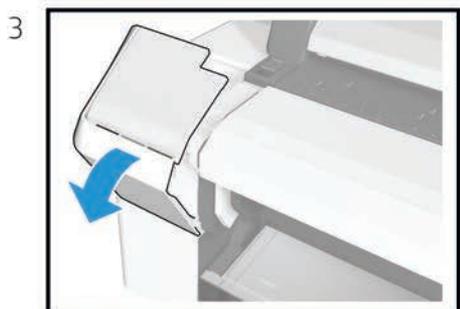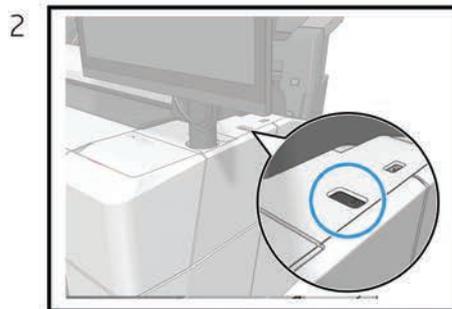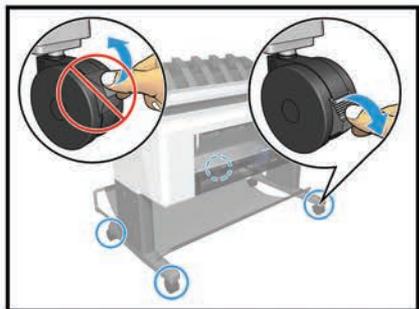
9
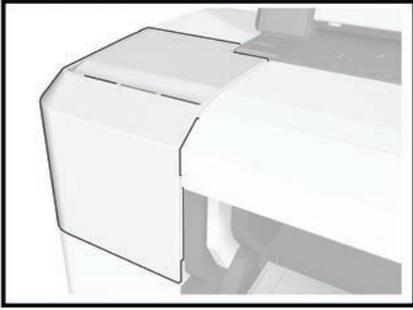
Ink covers, front panel side

HP DesignJet T9x0, Tx500 and Tx600 Printer Series Ink cover, front-panel side
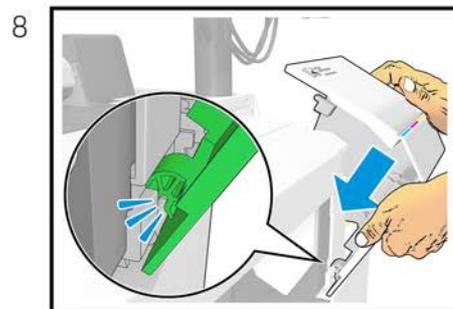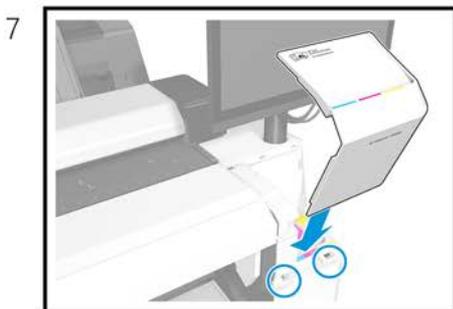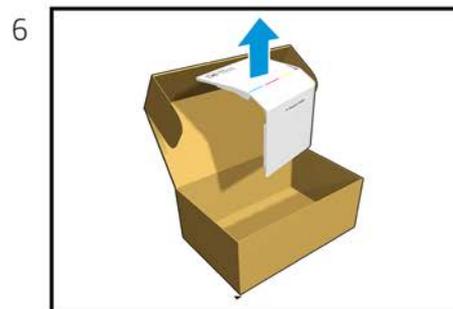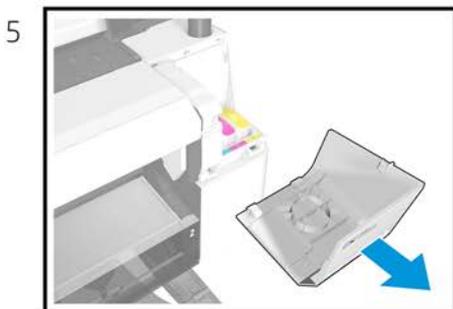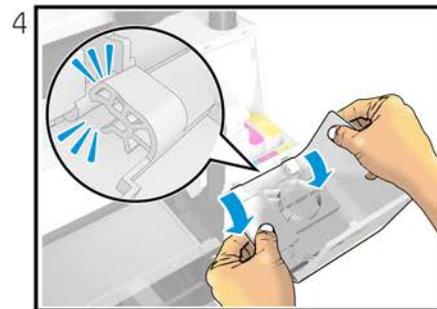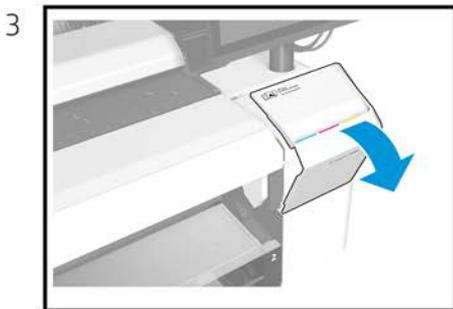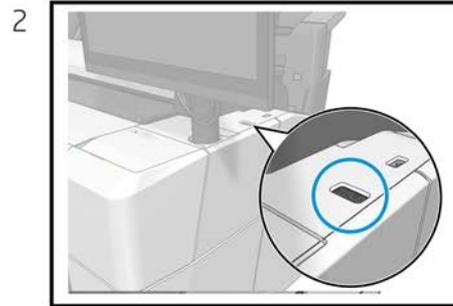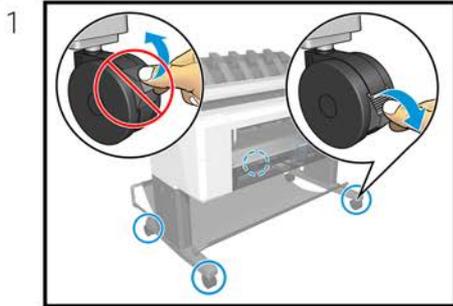
9
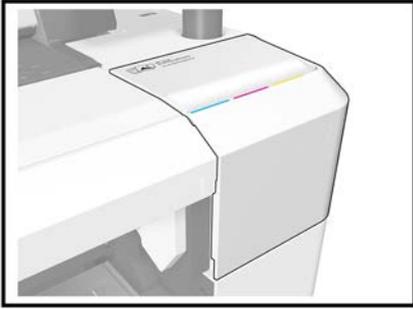
Bottom roll cover

HP DesignJet T9x0, Tx500 and Tx600dr Printer Series Bottom roll cover

1

2

3

4

5

6

7

8

9

10

11

12

13

14
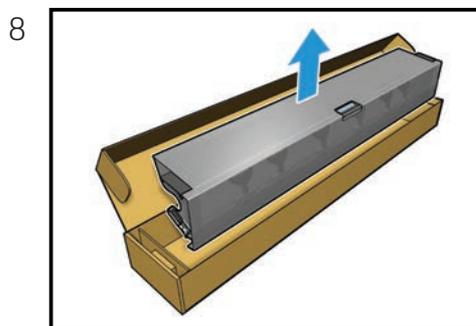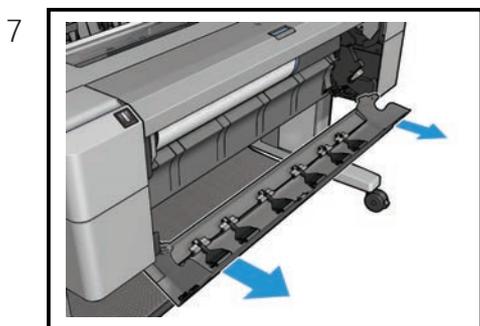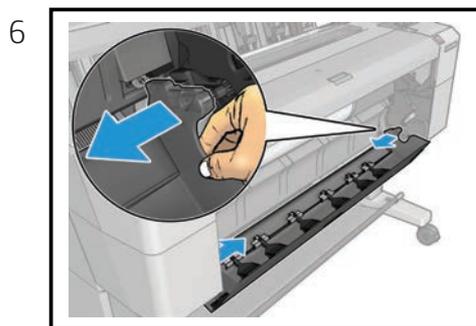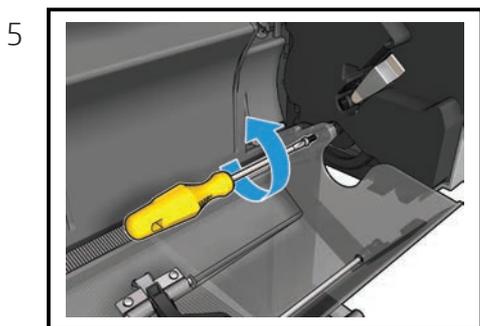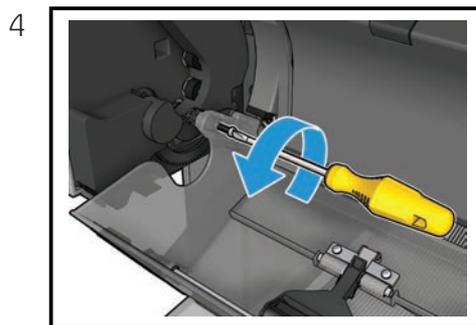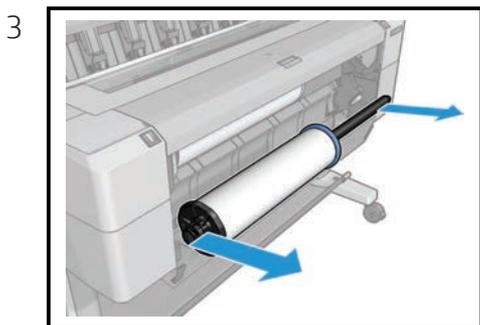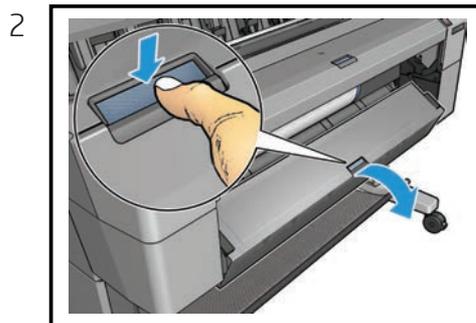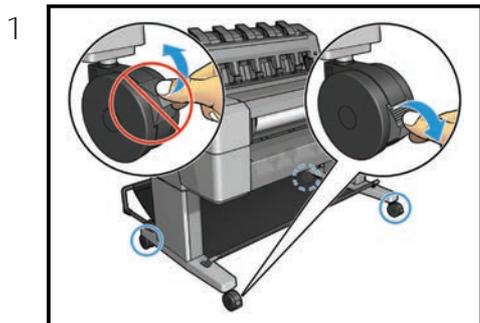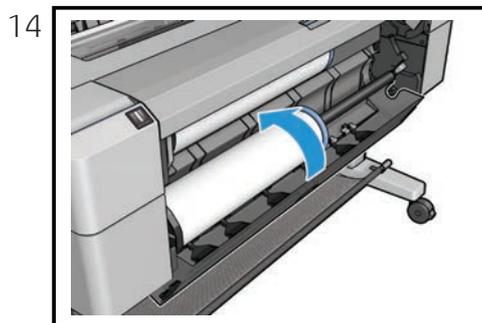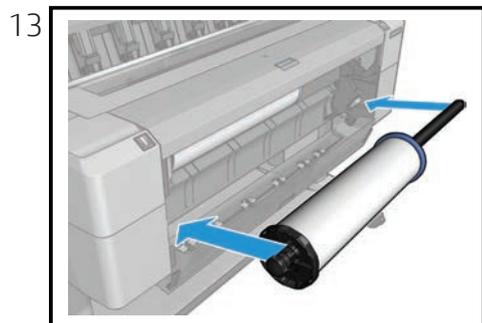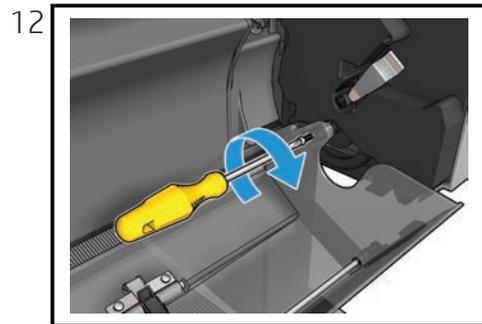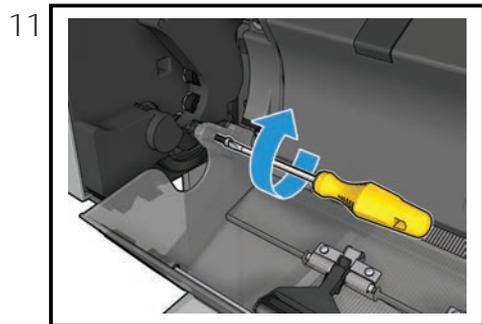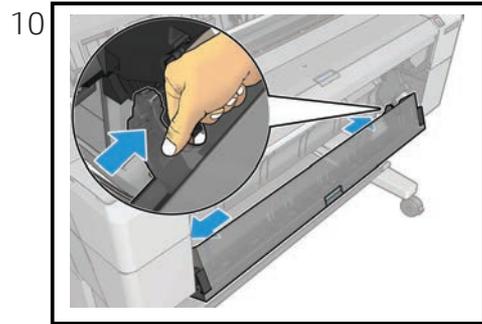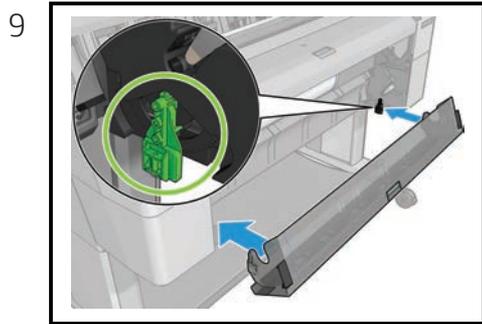
Top roll cover

HP DesignJet T9x0, Tx500 and Tx600 Printer Series Top roll cover

9

10

11

12

13

14
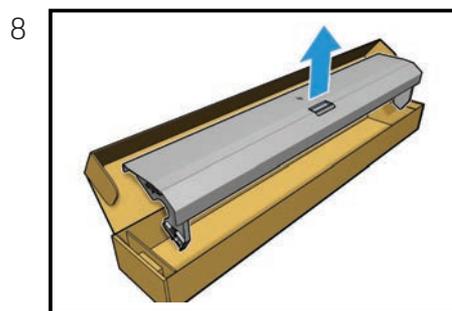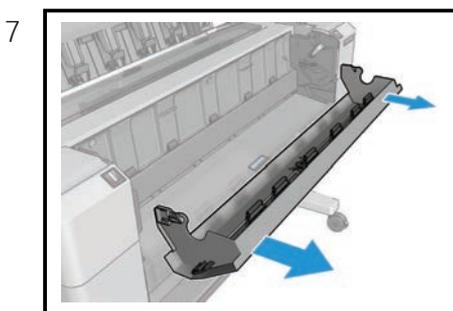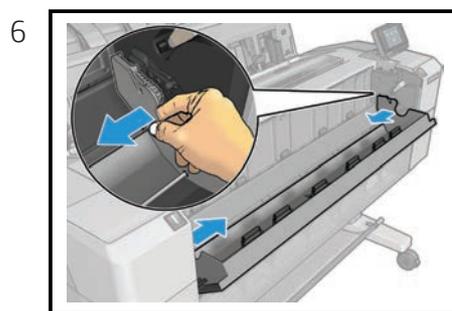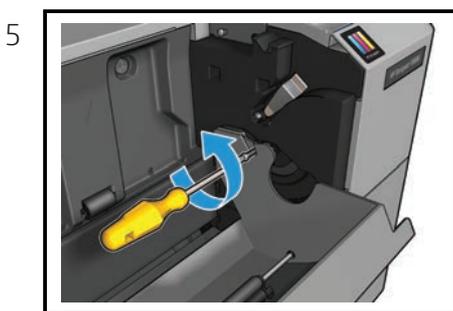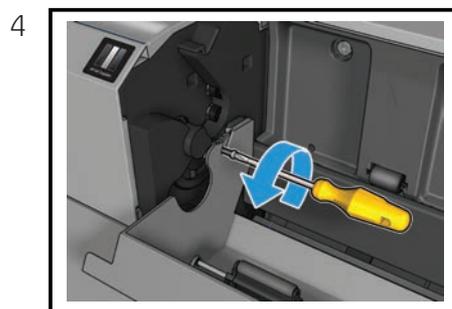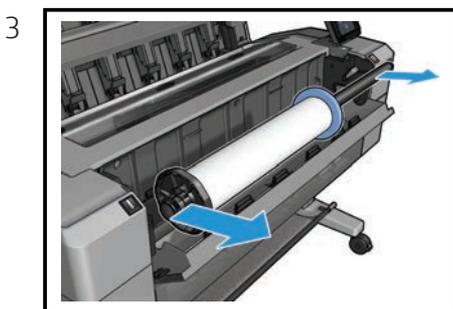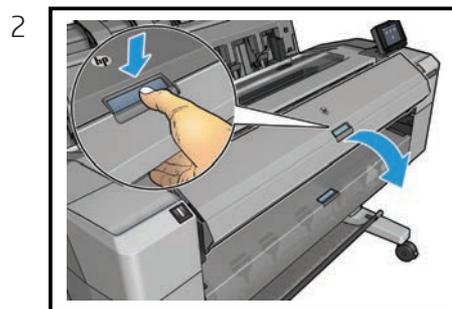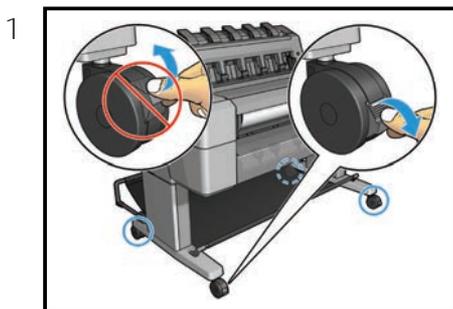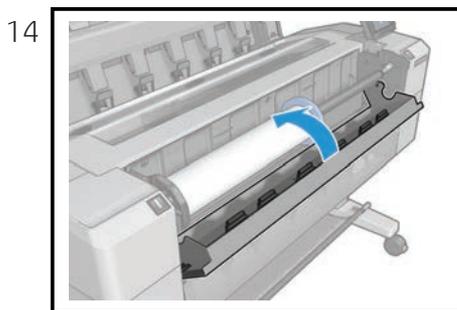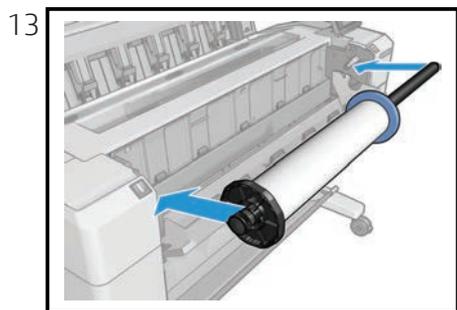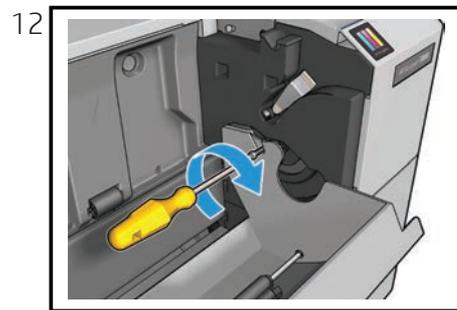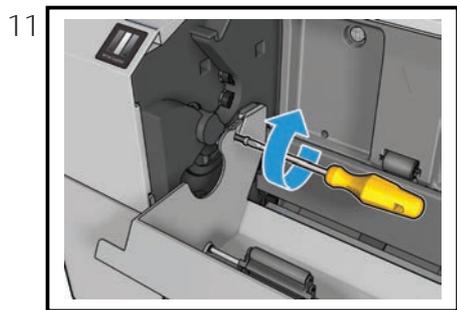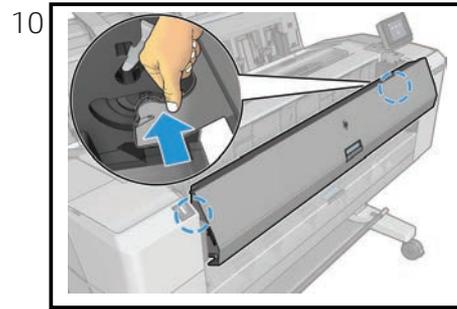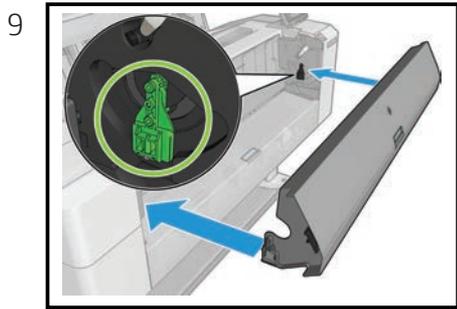
Carriage latch

HP DesignJet T9x0, Tx500, Tx600 and XL3600 Printer Series Carriage latch
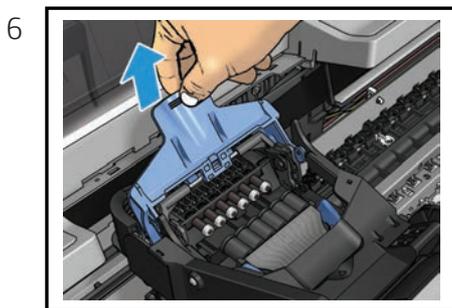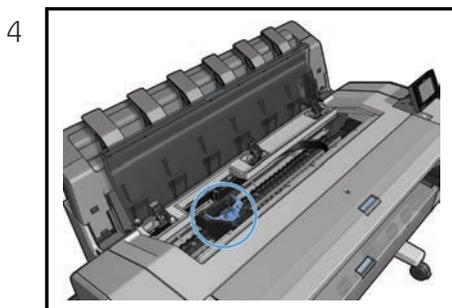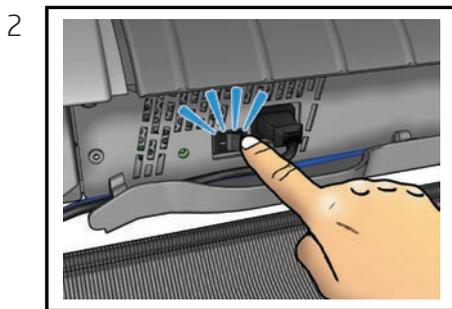
EN:	> Replace printhead
FR:	> Remplacer la tête d'impression
IT:	> Sostituisci testina
DE:	> Druckkopf ersetzen
ES:	> Sustituya el cabezal de impresión
PT:	> Substituir cabeçote de impressão
CA:	> Canvieu el capçal d'impressió
ZH:	> 更换打印头
TW	> 更換印字頭
JA:	> プリントヘッドを交換してください
KO:	> 프린트 헤드 교체
RU:	> Заменить печатающую головку
PL:	> Wymień głowicę drukarki

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20
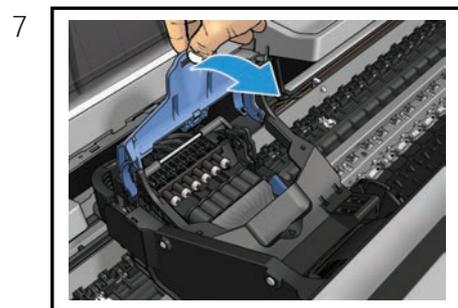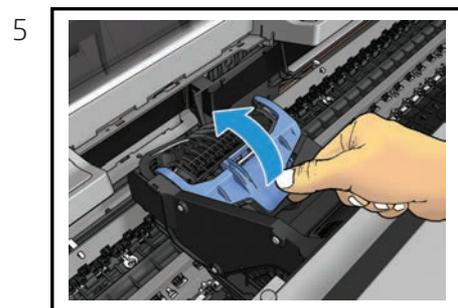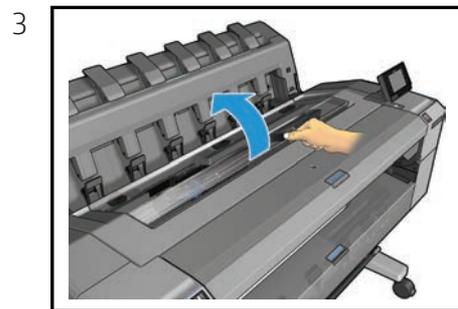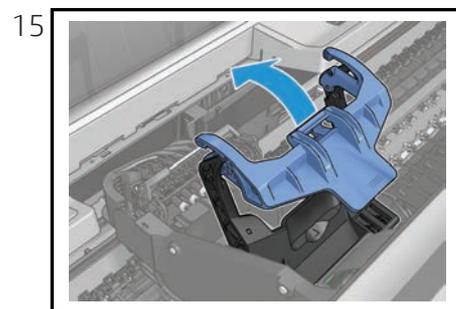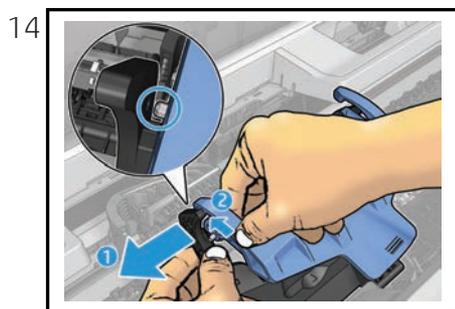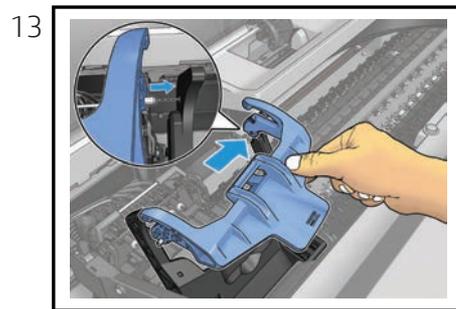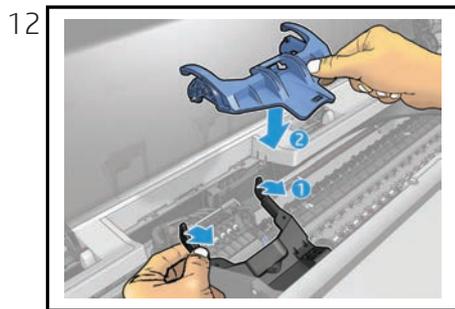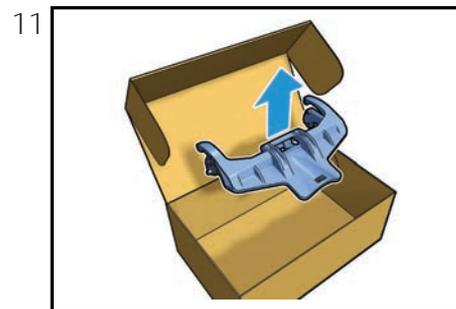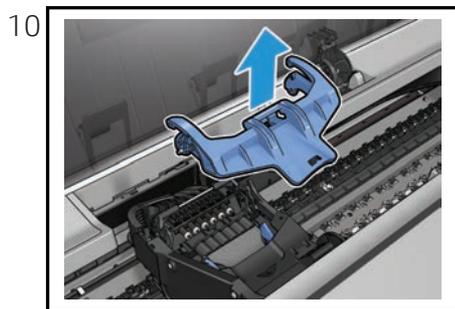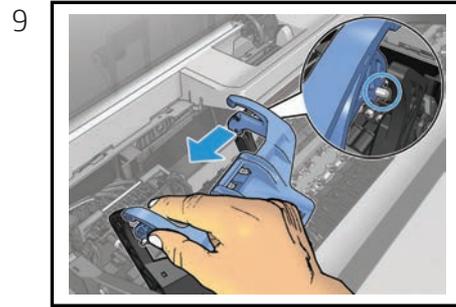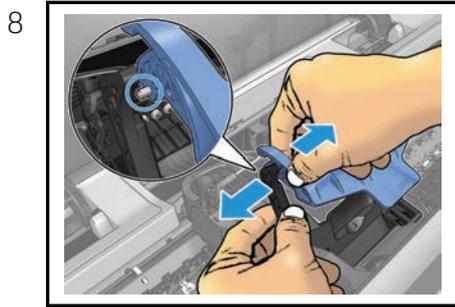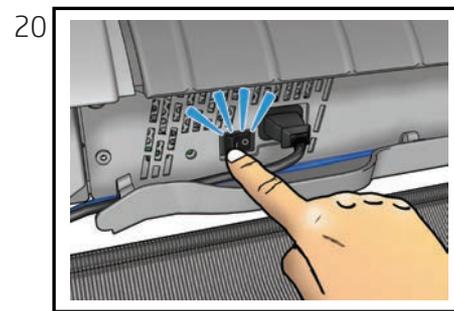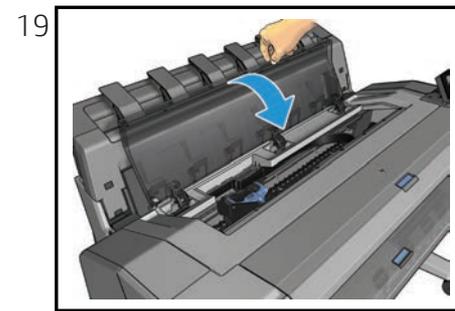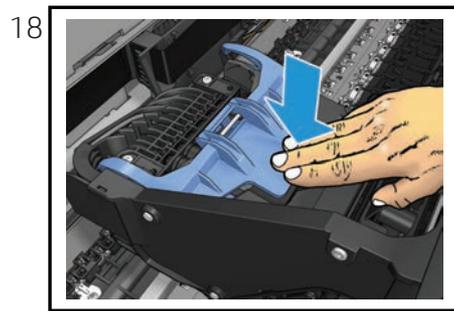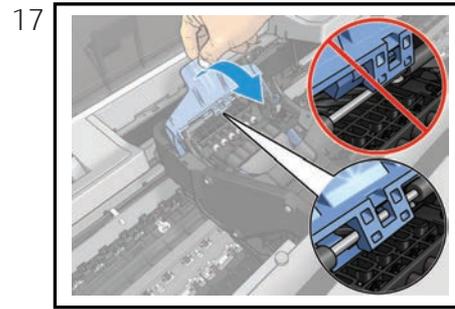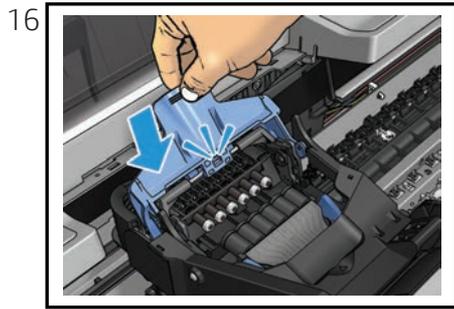
Basket

HP DesignJet T9x0, Tx500 and Tx600 Printer Series Basket

1

2
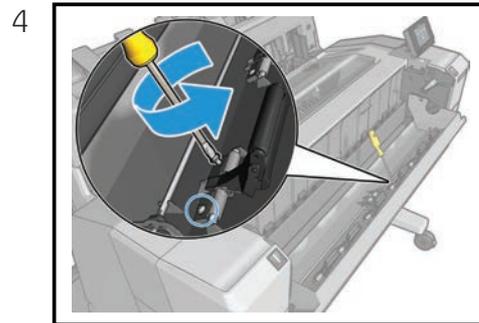

3

4

5

6

7

8

9

10

11
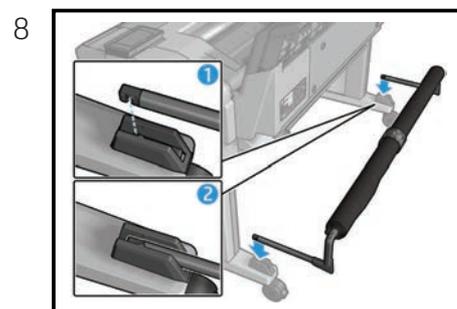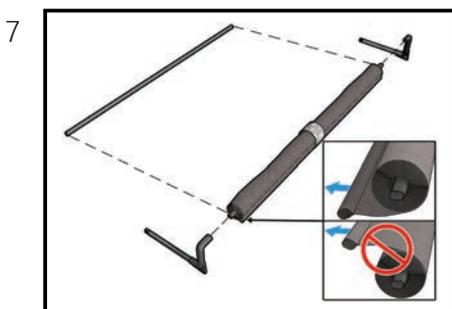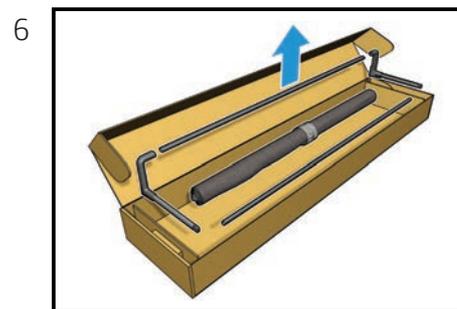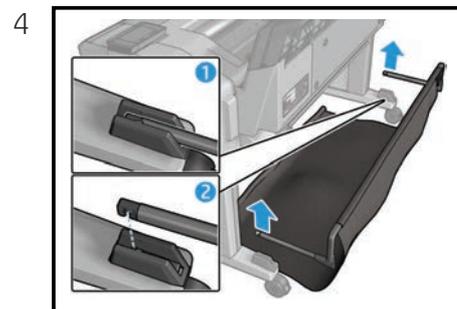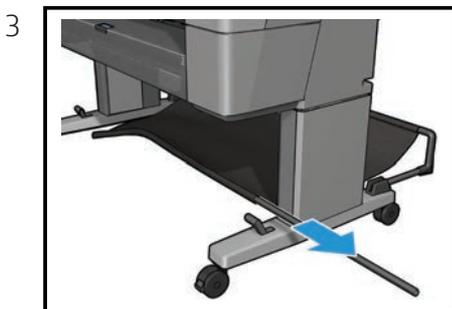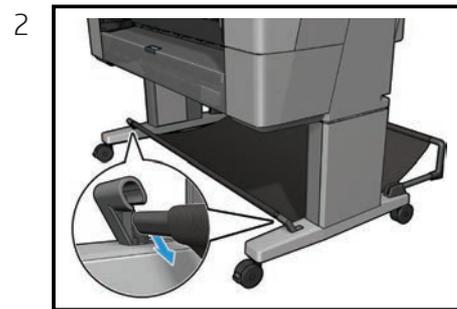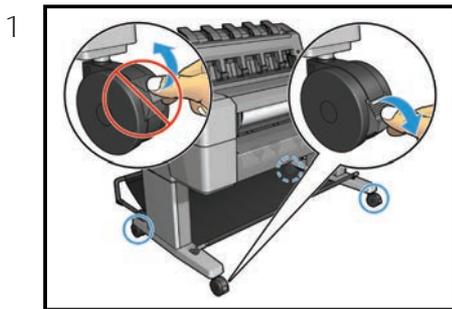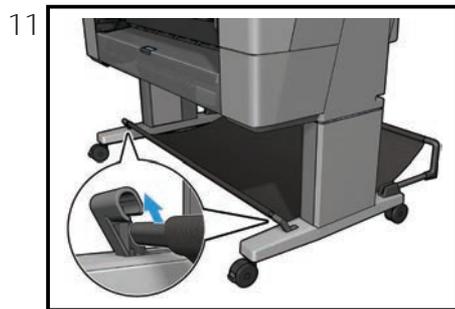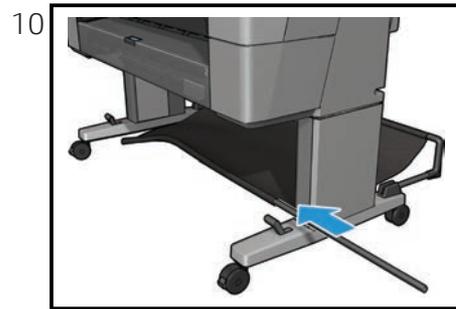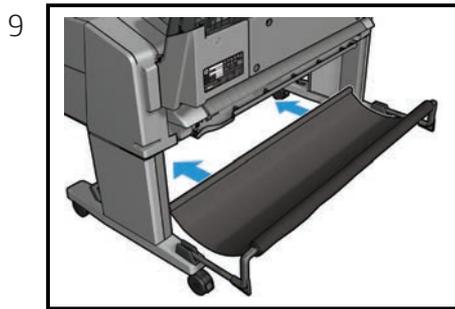
Pinch arm top roll

HP DesignJet T9x0, Tx500 and Tx600dr Printer Series Pinch arm top roll

1

2

3

4

5

6

7

8
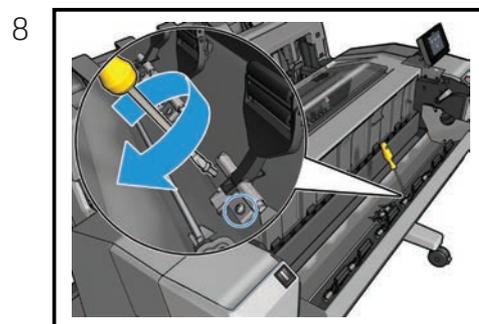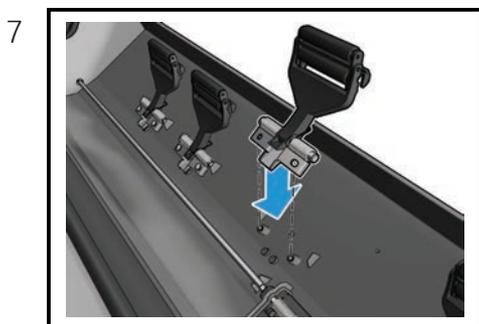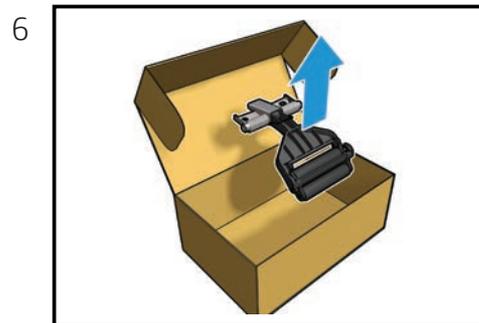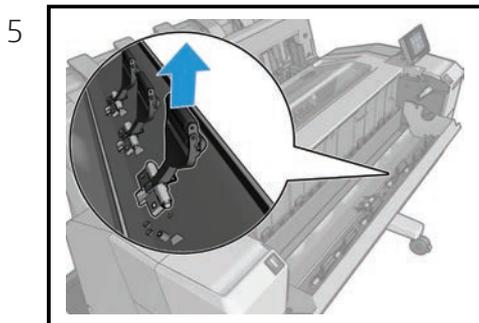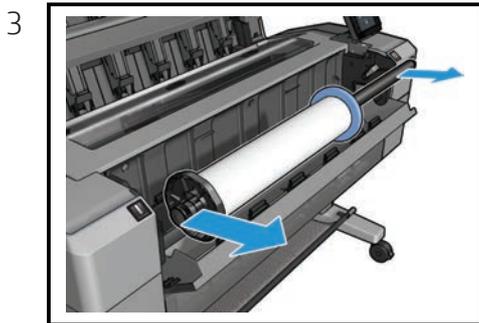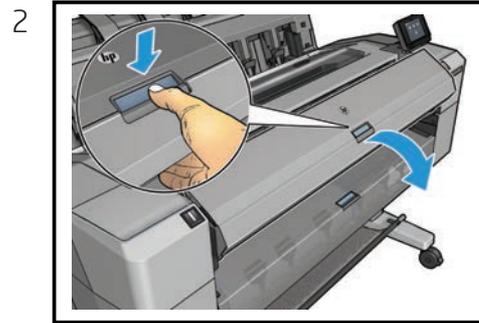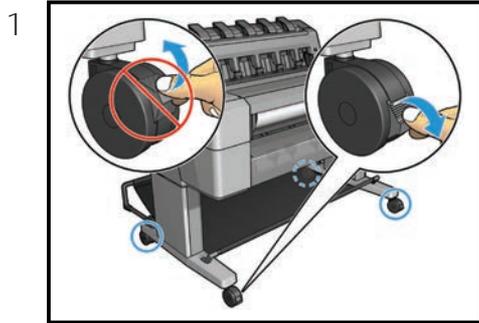
Pinch arm bottom roll

Pinch arm bottom roll

1

2

3

4

5

6

7

8