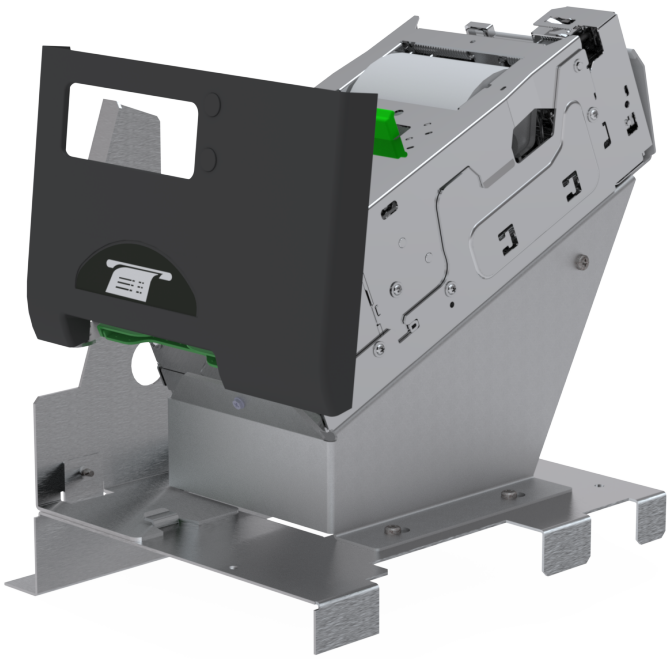
Kit Instructions

R5 EFT Printer Upgrade



7350-K915
Issue A

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Revision Record

Issue	Date	Remarks
A	Aug 2021	First Issue

R5 EFT Printer Upgrade

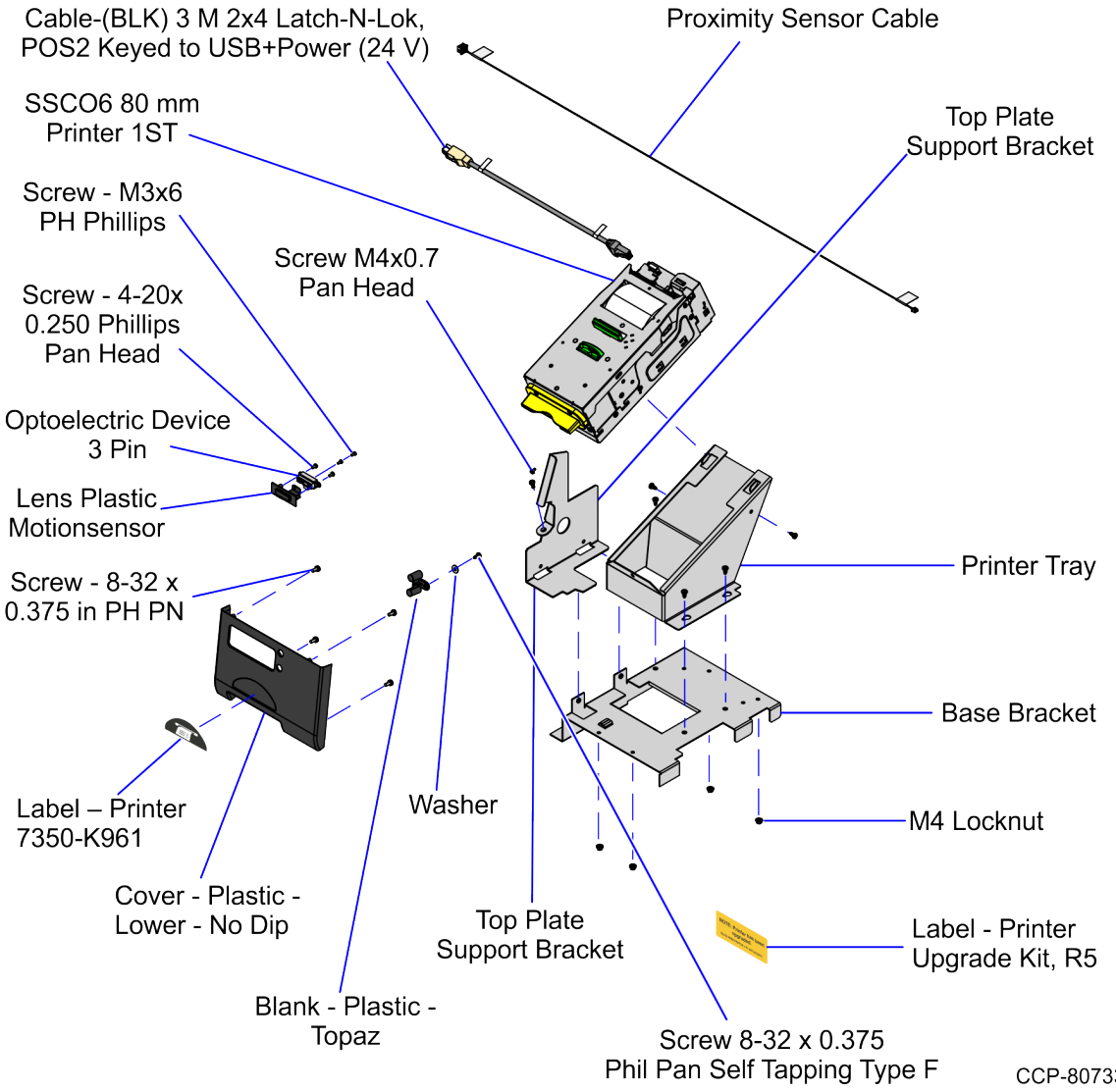
This publication provides procedures for upgrading the existing Self-Service Receipt Printer of a NCR SelfServ™ Checkout (7350) unit with an R5 EFT Printer.

Required Tools

The following tools are required for upgrading the NCR SelfServ™ Checkout (7350) unit with an R5 EFT Printer.

- Hand Drill
- M7 or equivalent drill bit
- Magnetized screwdriver to easily handle the screws.

Kit Contents



Part Number	Description
497-0530747	7350-K915 Kit, R5 EFT Printer Upgrade
497-0530787	Printer Bracket with Cable Guard Assembly

	Part Number	Description
	497-0530788	Base Bracket
	497-0530789	Top Plate Support Bracket
	497-0530790	Printer Tray
	497-0530791	Cable Guard
	006-8628182	Screws - M4 x 0.7, Pan Head Combination Phillips/Slotted, 10 mm (5 pcs)
	006-8628181	Screws - M4 x 0.7, Flat Head Phillips, 10 mm (2 pcs)
	497-0529281	SSCO6 80MM PRINTER 1-ST
	497-0523755	Cover - Plastic - Lower - No Dip
	006-8611286	Screw - 8-32 x 0.375 in Phillips Pan Head, Captive External Tooth Washer, Trivalent Coating (4 pcs)
	497-0478391	Blank - Plastic - Topaz
	006-8616045	Metric Zinc-Plated Steel Large-Dia Flat Washer M4 Screw Size, 12 mm OD, 0.9 mm - 1.1 mm Thick
	006-8612446	Screw - 8-32 x 0.375 in Phil Pan, Self Tapping - Type F
	009-0006580	Screws (Thread Forming Screw) M3
	497-0508477	Cable (BLK) 3M 2 x 4 LATCH-N-LOK,POS2 Keyed to USB+Power (24 V)
	497-0524269	Label – Printer 7350-K961
	497-0530766	Label - Printer Upgrade Kit, R5
	497-0456066	Lens – Plastic – MotionSensor - Lower Door
	006-8616341	Optoelectronic Device, 3 pin
	006-8611199	Screw - 4-20 x 0.250 in Phillips Pan Head, Plastite, Blue Zinc (2 pcs)
	006-8611077	Screw-M3x6 PH Phillips (2 pcs)
	497-0456754	Cable - Proximity Sensor
	006-8627803	M4 x 0.7 mm Serrated Flange Locknut (4 pcs)
	006-8628182	Screw - M4 x 0.7, Pan Head Combination Phillips/Slotted, 10 mm
*	497-0423108	Instructions Kit (Reference Sheet)

* Items marked with an asterisk are not called out on the image.

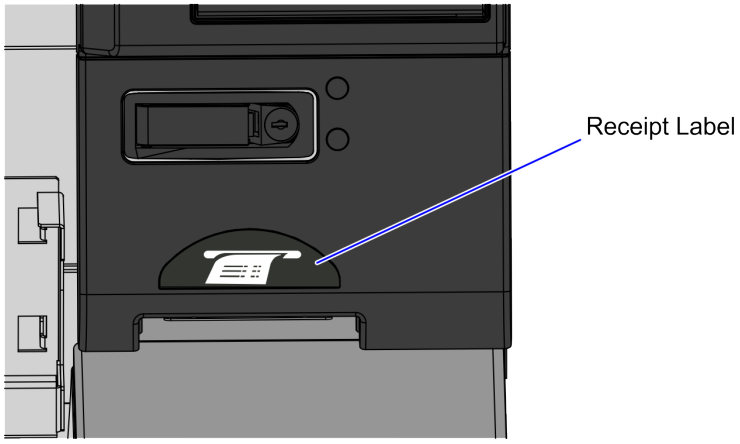
Installation Procedures

To upgrade the NCR SelfServ™ Checkout (7350) unit with an R5 EFT Printer, follow these steps:

1. Turn off the NCR SelfServ Checkout software and hardware systems.
2. Open the Upper Cabinet Door. For more information, refer to *Opening Upper Cabinet Door* on page 6.
3. Remove and set aside the Scanner/Scale. For more information, refer to *Removing Scanner/Scale* on page 7.
4. Remove the existing Proximity Sensor. For more information, refer to *Removing Proximity Sensor* on page 16.
5. Remove the Top Plate. For more information, refer to *Removing Top Plate* on page 19.
6. Remove and discard the existing Self-Service Receipt Printer. For more information, refer to *Removing Self-Service Receipt Printer* on page 9.
7. Install the R5 EFT Printer. For more information, refer to *Installing R5 EFT Printer* on page 24.
8. Connect and route the cable of the R5 EFT Printer. For more information, refer to *Routing Cables* on page 30.
9. Install the Top Plate. For more information, refer to *Installing Top Plate* on page 28.
10. Install the Scanner/Scale. For more information, refer to *Installing Scanner/Scale* on page 31.
11. Install the Plastic and Button Covers. For more information, refer to *Installing Plastic and Button Covers* on page 33.
12. Install the Proximity Sensor. For more information, refer to *Installing Proximity Sensor* on page 34.
13. Load paper to the Receipt Printer.

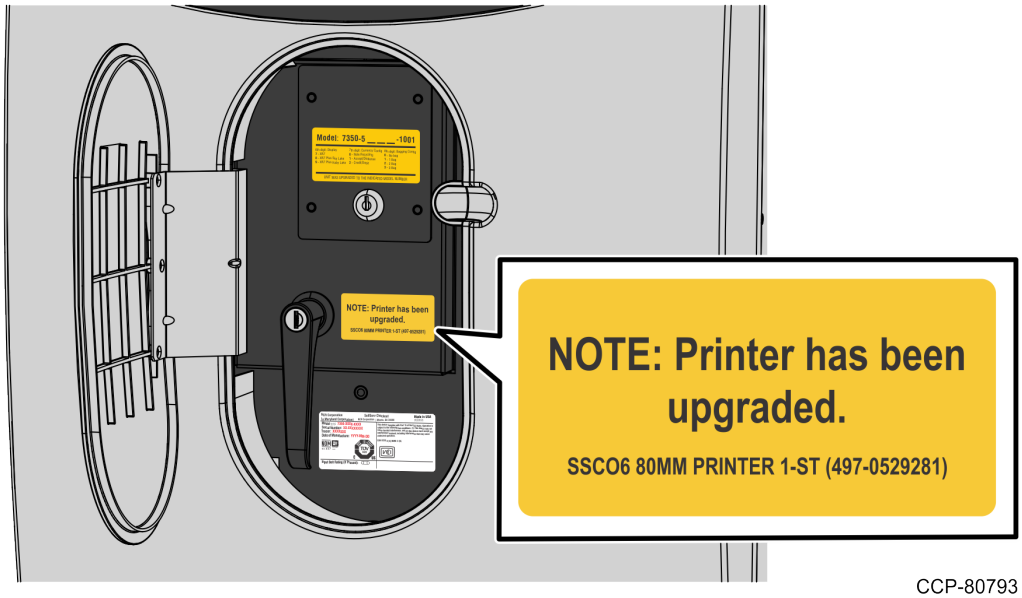
Note: Use an NCR qualified thermal paper to ensure proper printer operation. For more information, refer to *Receipt Printer Paper Guidelines* on page 39.

14. Attach the silver "Receipt" label to the fascia, as shown in the image below.



CCP-80747

15. Access the Plastic Pill Door and attach the Printer Upgrade Kit Label, as shown in the image below.



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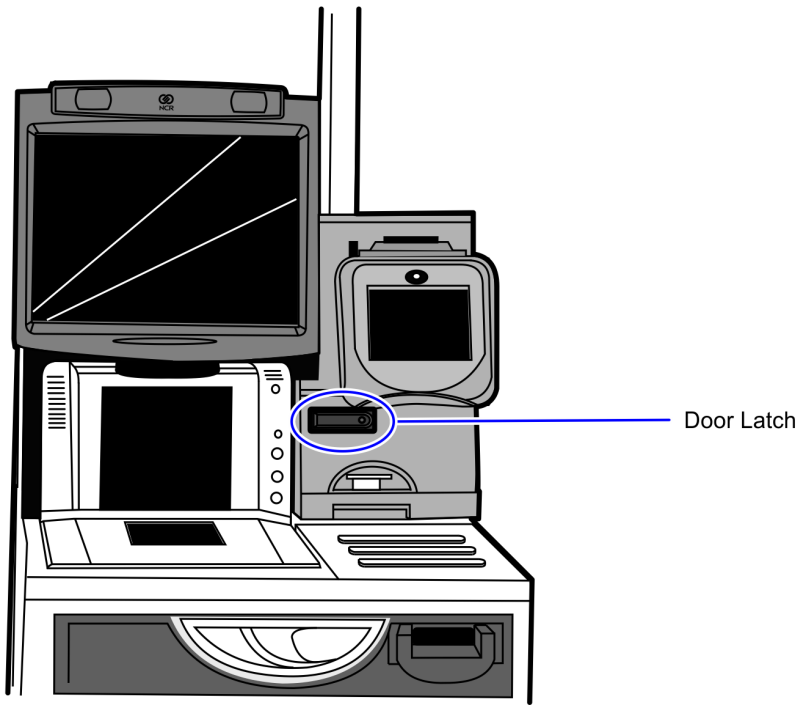
16. Close the Upper Cabinet Door. For more information, refer to *Closing Upper Cabinet Door* on page 42.
17. Turn on the NCR SelfServ Checkout software and hardware systems.
18. Run the CADD/ADD Configuration Utility to ensure that the device is updated with the latest firmware.

Opening Upper Cabinet Door

To open the Upper Cabinet Door, follow these steps:

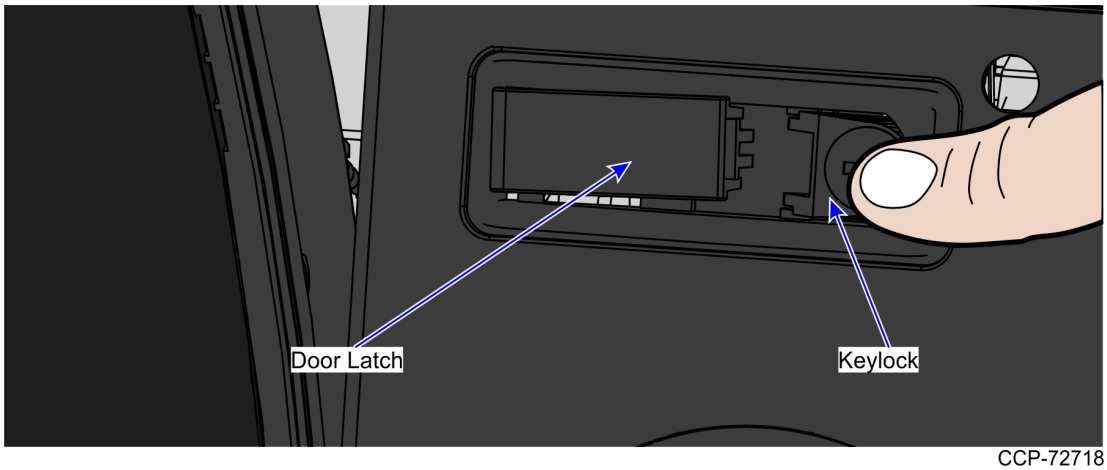
1. Insert key into lock on door latch and turn key counterclockwise.



CCP-70311

2. Remove key and then press the keylock to unlatch the door.

Caution: Ensure that the door is pushed down while lock is pressed because the door will automatically open.



CCP-72718

3. Lift the door open.

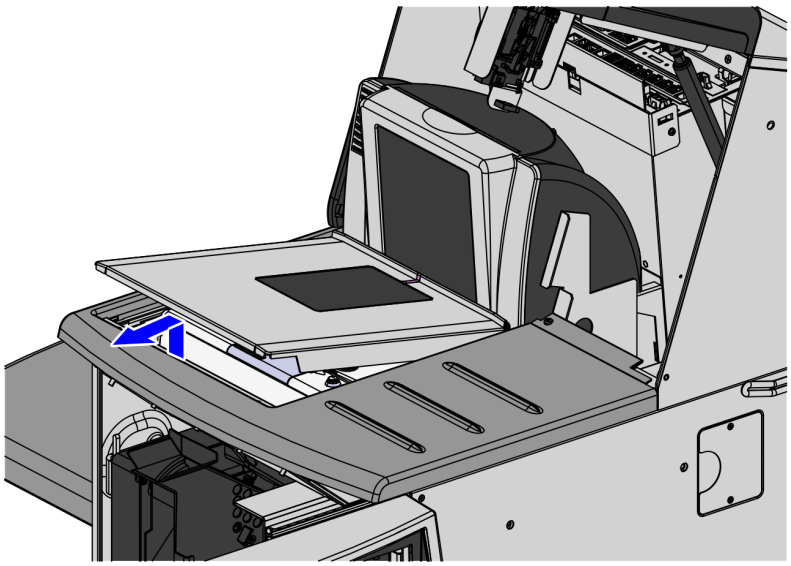
Removing Scanner/Scale

To remove the Scanner/Scale, follow these steps:

Note: For the purpose of illustration only, this procedure uses illustrations showing a NCR RealScan 78 Scanner/Scale. The same procedure applies for units using NCR RealScan 79e Bi–Optic Imager Scanner/Scale (7879).

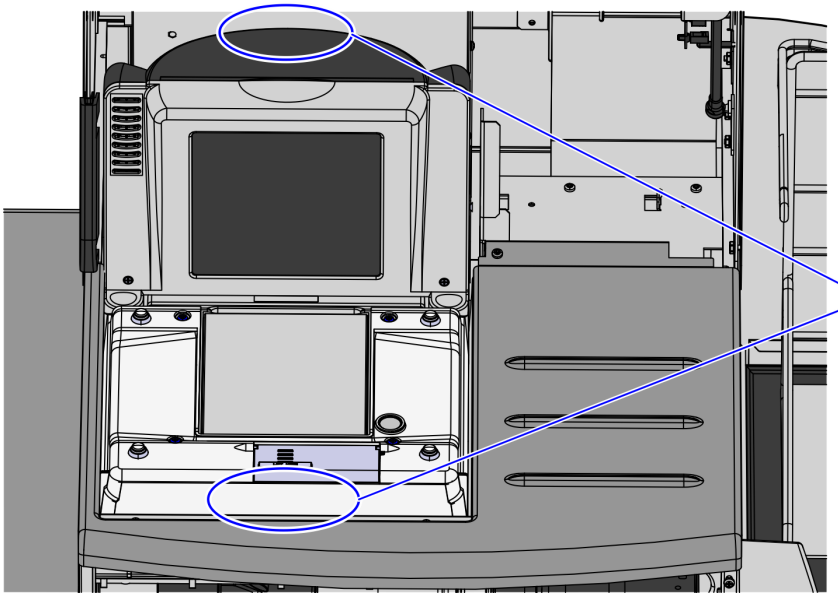
Note: Ensure to open the Upper Cabinet Door before proceeding. For more information, refer to *Opening Upper Cabinet Door* on the previous page.

1. Lift and remove the Scale Plate from the Scanner.



CCP-76754

2. Do the following to remove the Scanner/Scale from the scanner bucket area:
   a. Grasp the front of the Scanner and lift up.
   b. Grasp the back of the Scanner and slide scanner out of bucket area.



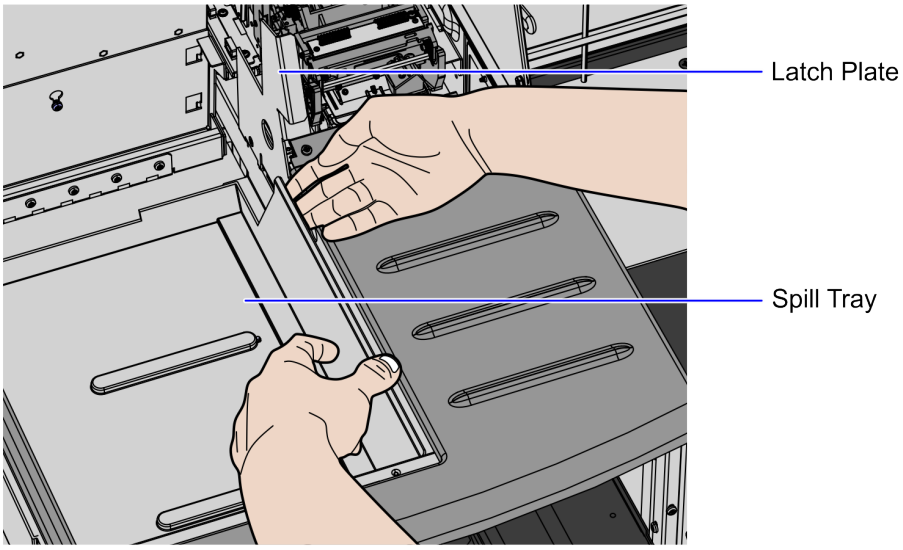
3. Disconnect the Interface/Power Cable from the USB connector on the Scanner. Verify all remaining cables are disconnected from the Scanner and remove the Scanner from the checkstand.

Note: If the Scanner/Scale comes with Sensormatic® features, remove power from the Sensormatic® Controller before removing the Sensormatic® Interface cable and then apply power to the Sensormatic® Controller after reconnecting all Sensormatic® cables.

Removing Self-Service Receipt Printer

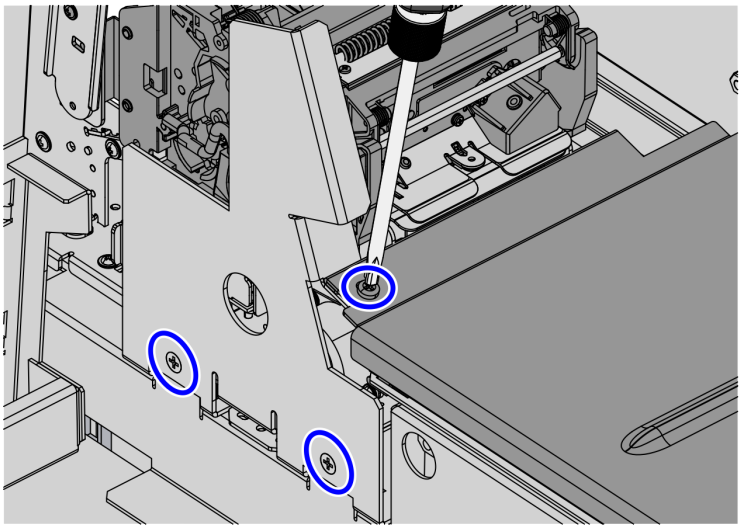
To remove the Self-Service Receipt Printer, follow these steps:

1. Access the printer latch plate screws by removing the black plastic spill tray.



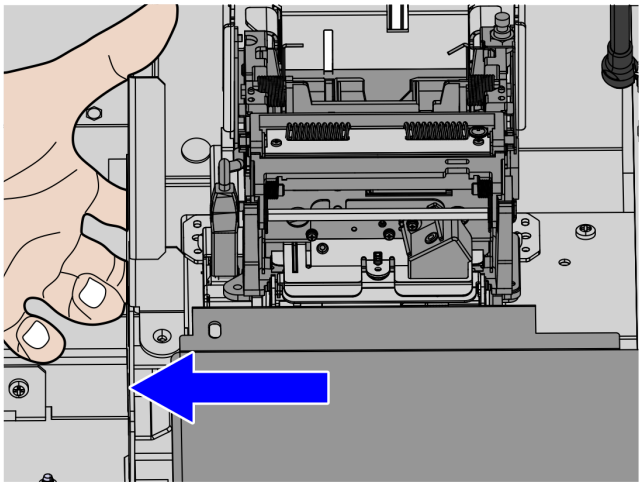
CCP-80752

2. Remove the latch plate bracket by doing the following::
   a. Remove three (3) screws, which secure the Top Plate Support Bracket on the printer bucket frame.



CCP-80751

b. Slide the latch plate bracket to the left, as shown in the image below.

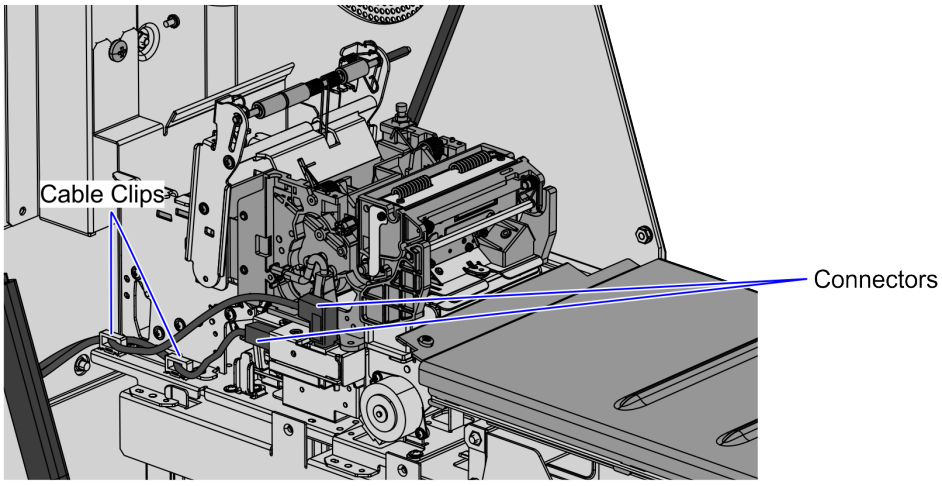


CCP-80748

3. Do the following:

a. Disconnect the USB-Power Y-cable connectors from the Self-Service Receipt Printer and then detach the cable from the plastic cable clips, as shown in the image below.

Note: Discard the cable properly.

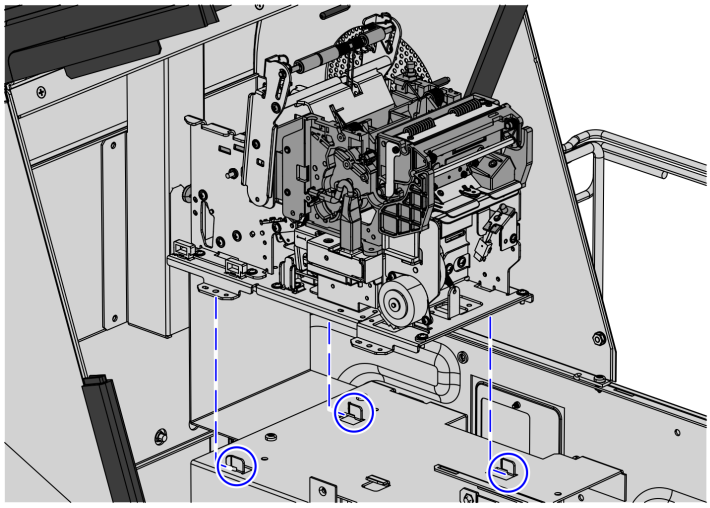


CCP-80749

b. Disconnect the other end of the Y-cable from the E-Box.

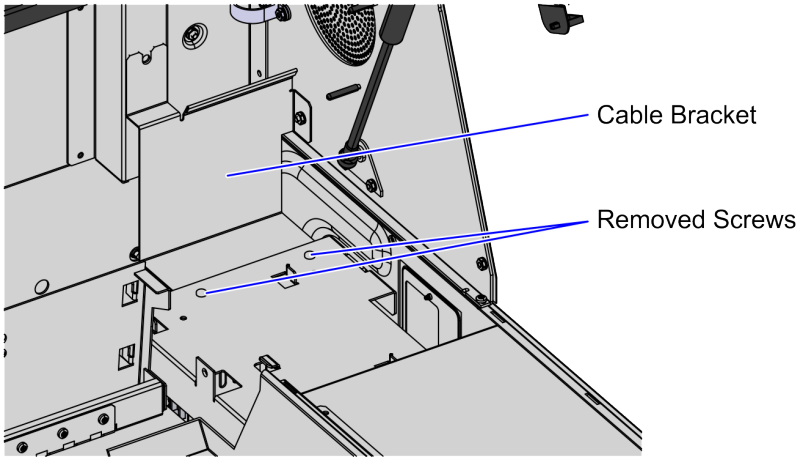
4. Unhook the Self-Service Receipt Printer metal printer feet from the hook tabs of the cabinet.

Note: The three (3) printer feet (two rear and one front right) are fully captured by the hooks. The fourth printer foot (front left) is held down by the latch plate. Discard the Self-Service Receipt Printer.



CCP-76748

5. Remove two (2) screws to detach the cable bracket from the unit, as shown in the image below.

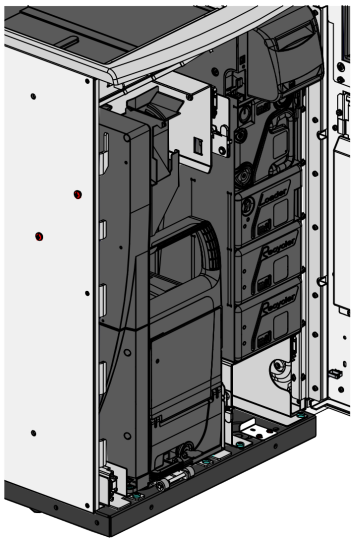


CCP-80735

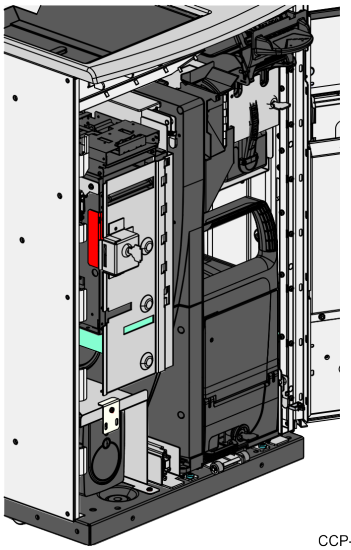
6. Depending on the unit configuration, remove and discard the hardware devices and components under the Receipt Printer. For more information on what components need to be removed, refer to either of the following unit configurations.

Note: These items should be removed and discarded to allow the paper loop of the printer to function correctly.

Note Recycler / Coin Recycler Configuration



Note Dispenser / Note Acceptor / Coin Recycler Configuration



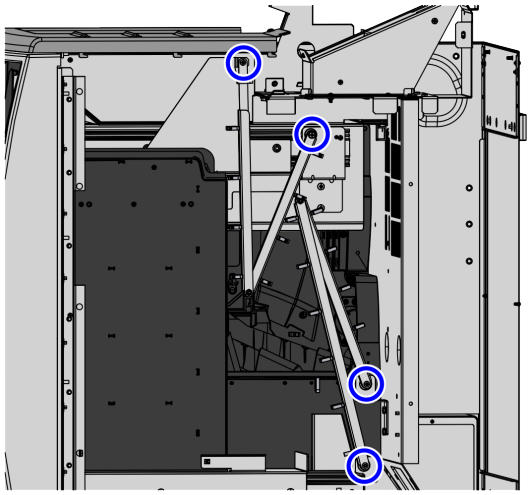
CCP-81035

Note Recycler/Coin Recycler Configuration

Remove the following components from the Core Cabinet:

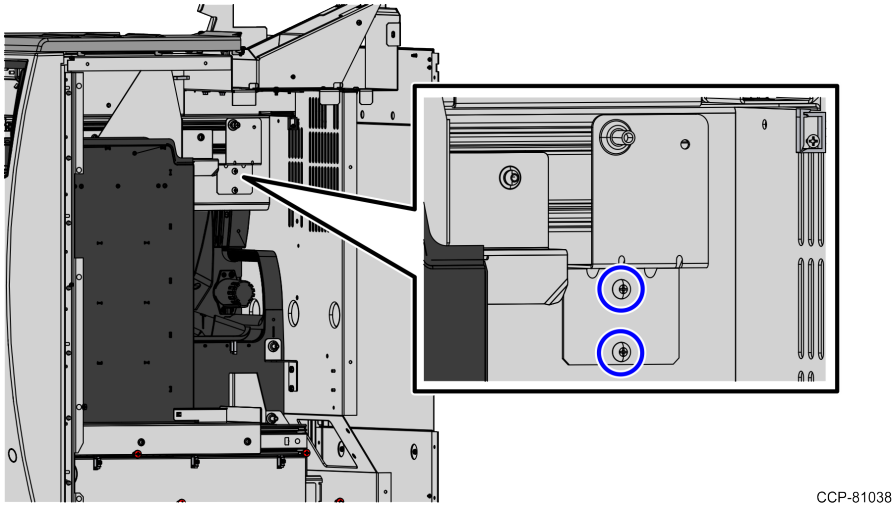
a. Disconnect the cables from the Note Recycler and Coin Recycler.

b. Remove the Cable Linkages of the Note Recycler and Coin Recycler by removing four (4) screws, as shown in the image below.



CCP-81037

c. Remove the Cable Linkage Bracket by removing two (2) screws, as shown in the image below.



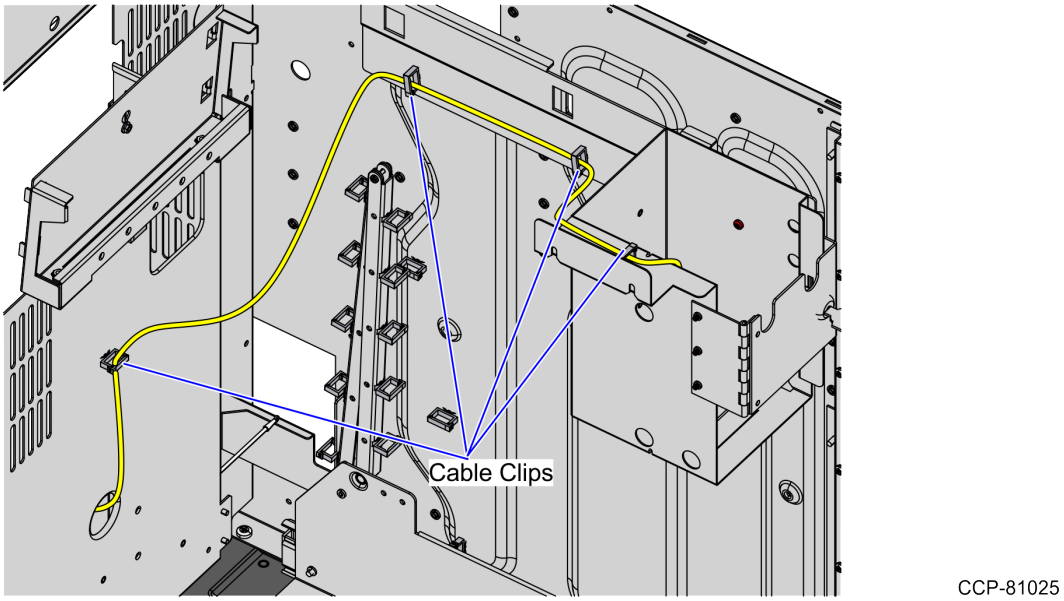
Note Dispenser/Note Acceptor/Coin Recycler Configuration

Remove the following hardware devices and components from the Core Cabinet:

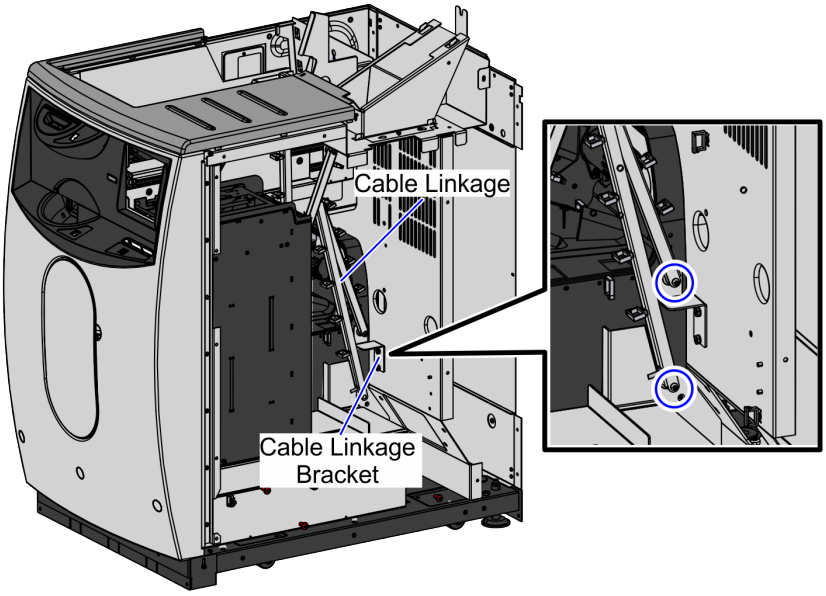
a. Remove the Coin Recycler and Note Acceptor assembly.

Note: For more information on how to remove these devices, refer to the "Main Components" section of the *NCR SelfServ™ Checkout (7350) Hardware Service Guide (B005-0000-1827)*.

b. Detach the Serial Y-cable from the four (4) cable clips located at the core wall, as shown in the image below.

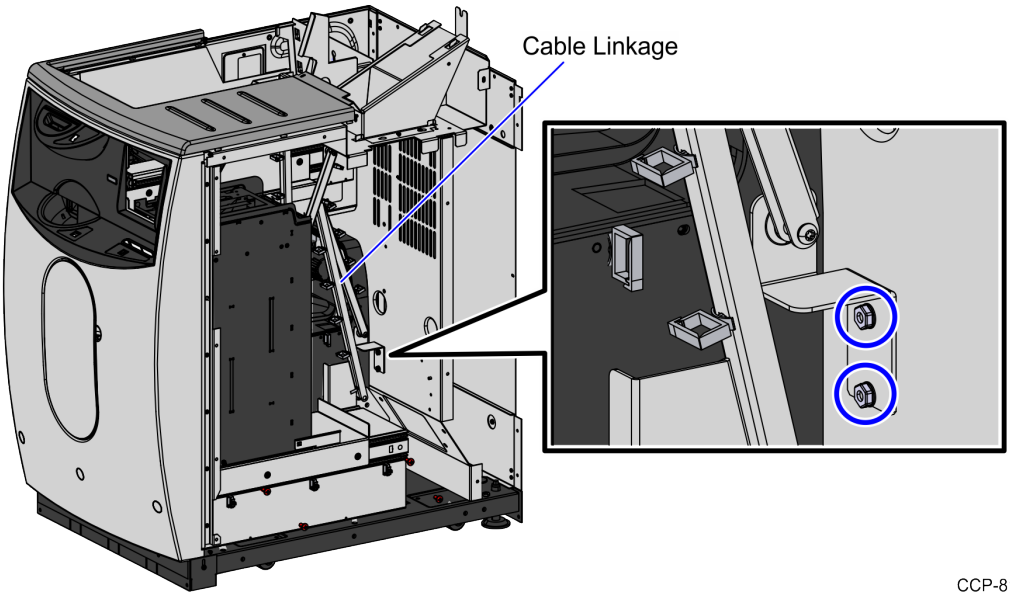


c. Remove the Cable Linkage by removing two (2) screws, as shown in the image below.



CCP-81036

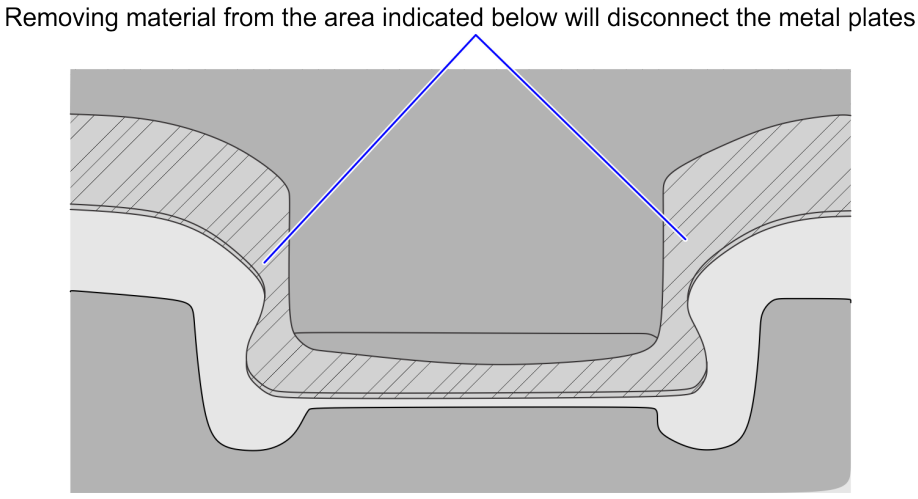
d. Remove the Cable Linkage Bracket by removing two (2) nuts, as shown in the image below.



CCP-81040

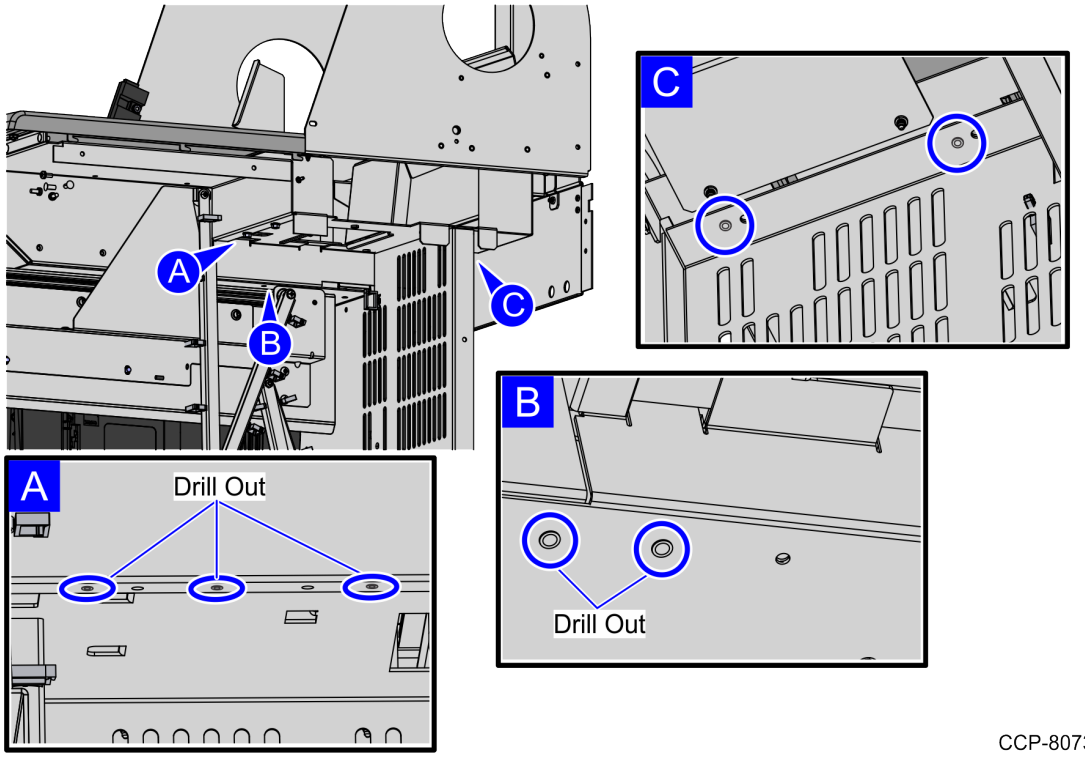
7. Using an M7 or an equivalent drill bit, drill out five (5) rivets to remove the existing printer bracket.

Tip: Drill off the material of the top sheet to remove the press fit rivet. Refer to the image of the press fit rivet cross section shown in the image below.



CCP-81029

Note: Ensure to clean all dust and metal residues caused by drilling.

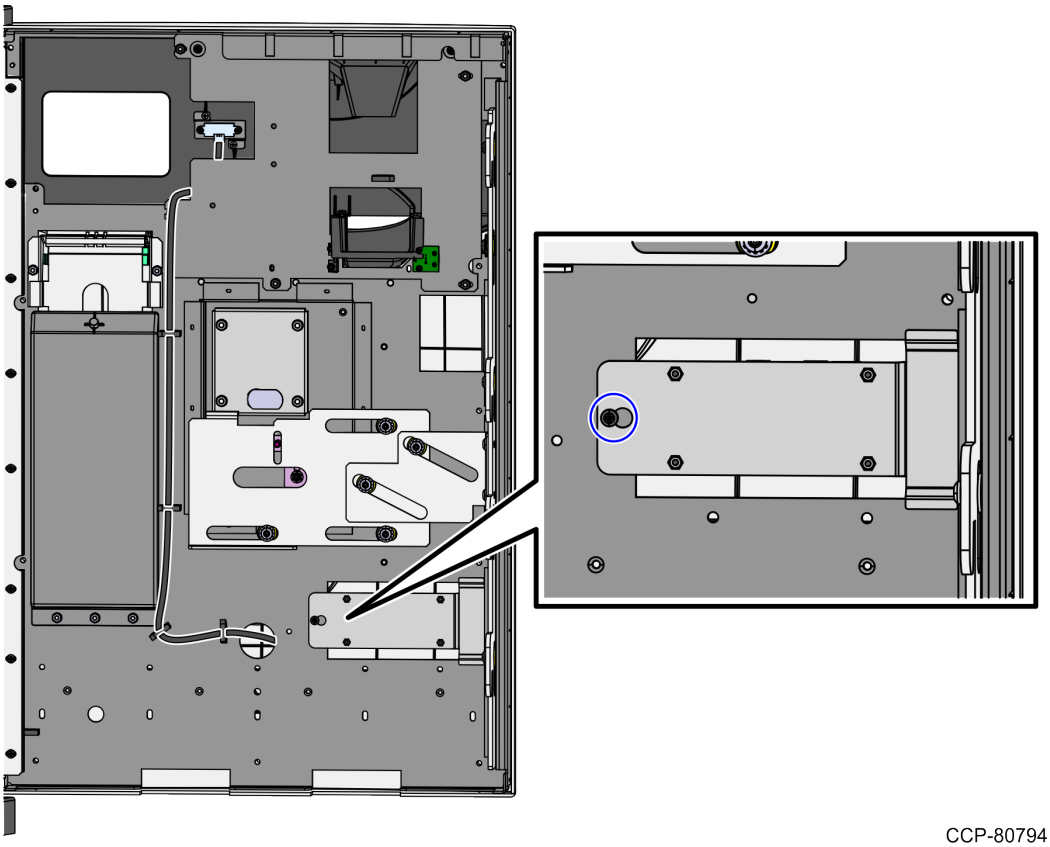


CCP-80736

Removing Proximity Sensor

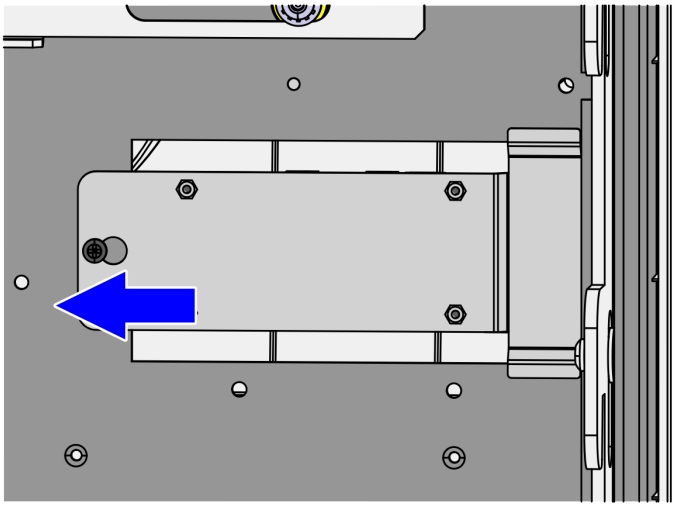
To remove the Proximity Sensor, follow these steps:

1. Open the Core Door. For more information, refer to *Opening Core Door* on page 22.
2. Do the following to remove the MEEI Controller Box from the Core Door:
   a. Loosen the screw securing the MEEI Controller Box to the Core Door.



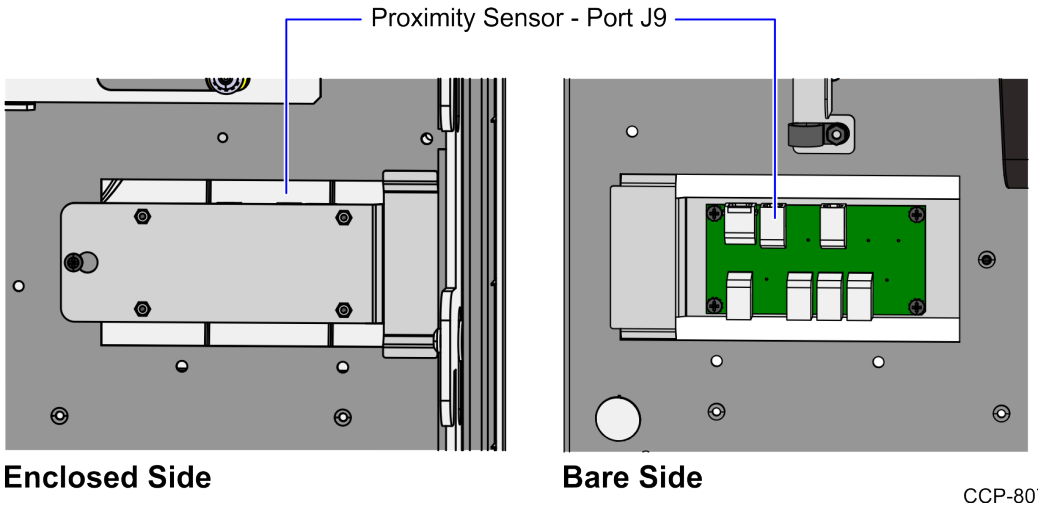
CCP-80794

   b. Slide the MEEI Controller Box to the left to disengage it from the loose screw.

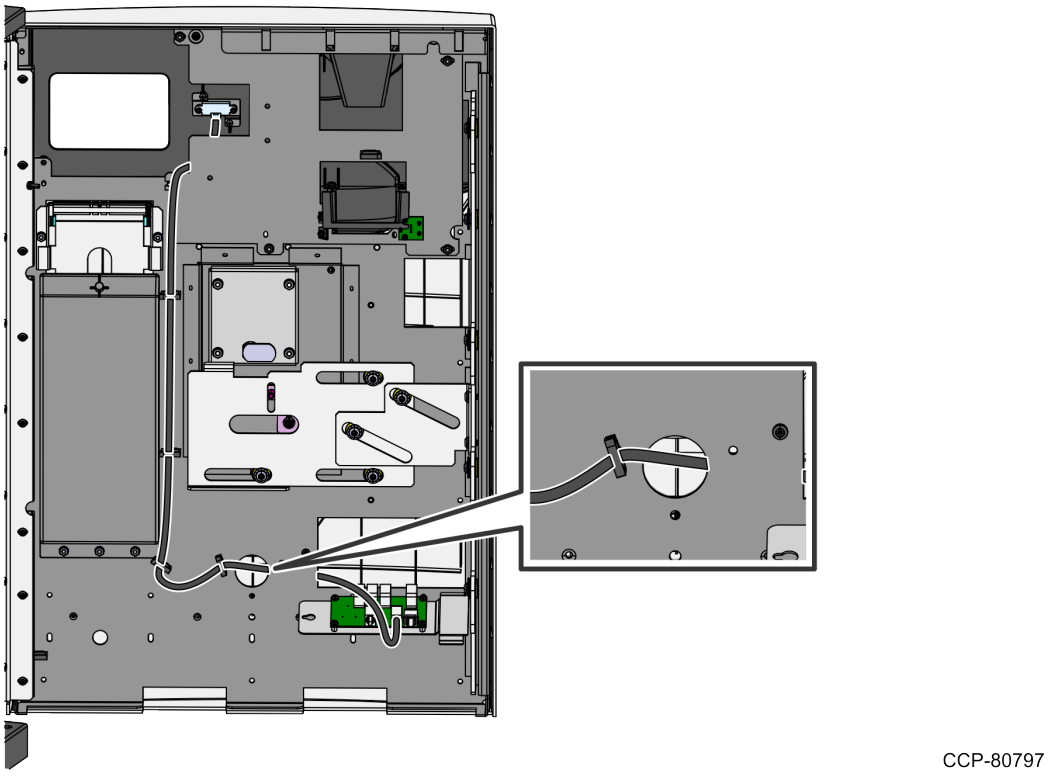


CCP-80796

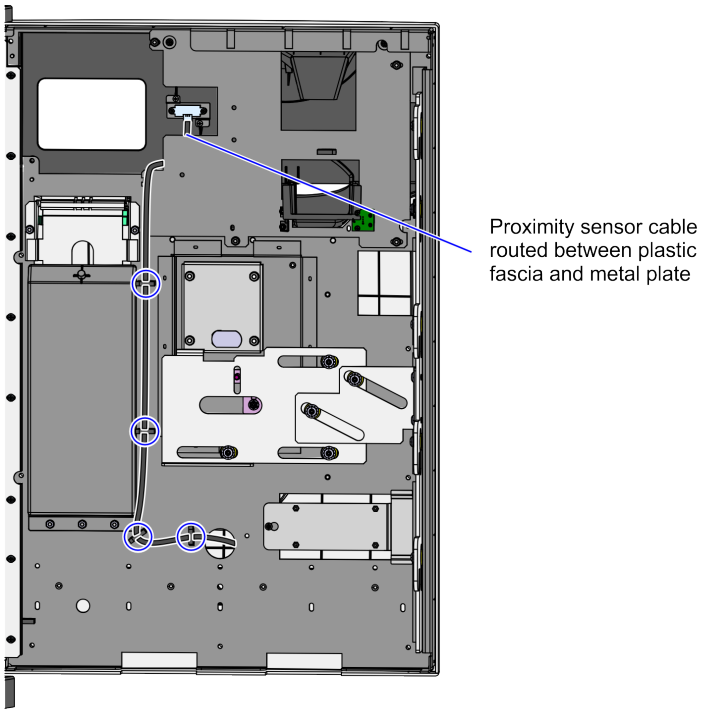
3. Disconnect the Proximity Sensor cable from the **Proximity Sensor Port J9** of the MEEI Controller Box, as shown in the image below.



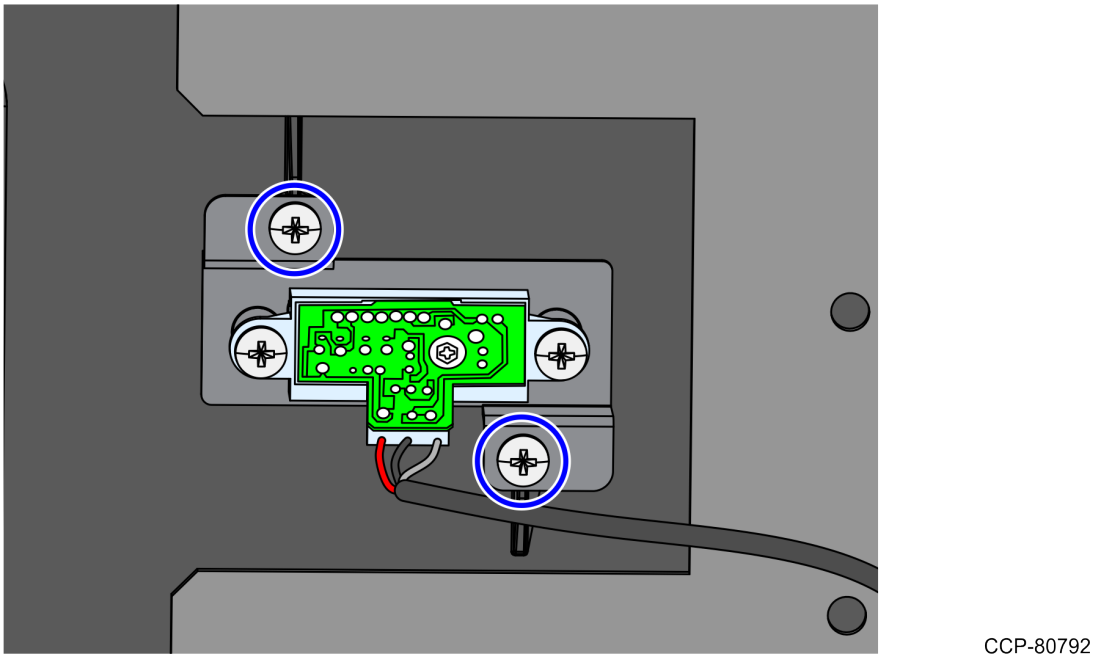
4. Carefully pull out the Proximity Sensor cable from the cable access hole at the left side of the MEEI Controller Box slot, as shown in the image below.



5. Remove the Proximity Sensor cable from the reclosable clips, as shown in the image below.



6. Remove two (2) screws to detach the Proximity Sensor assembly from the Core Door.

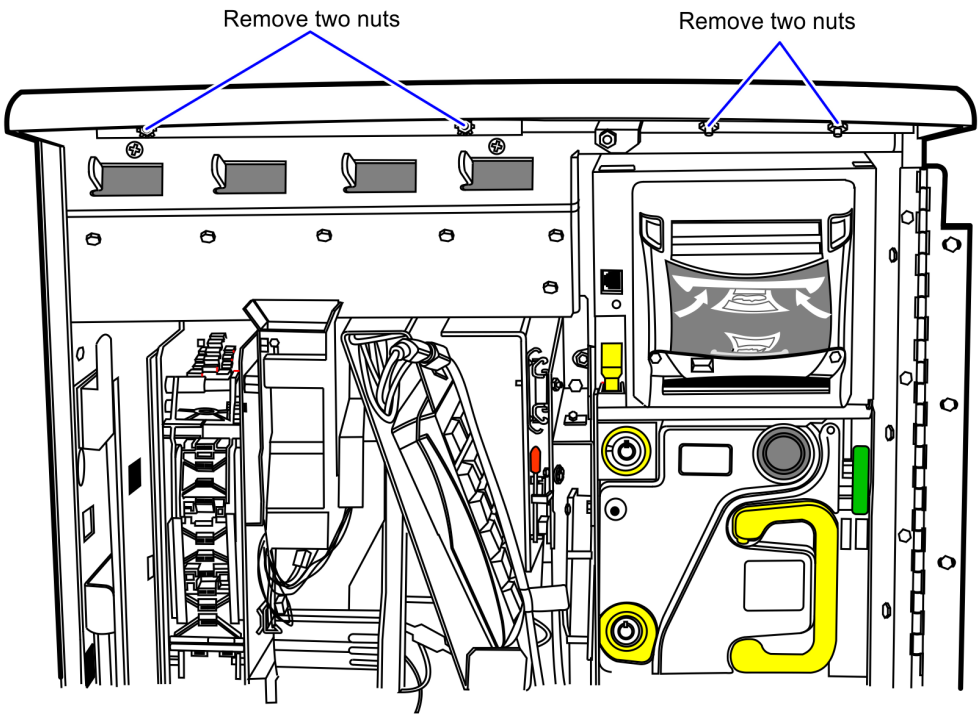


7. Carefully pull out the Proximity Sensor cable from the gap between the metal plate and the plastic fascia.

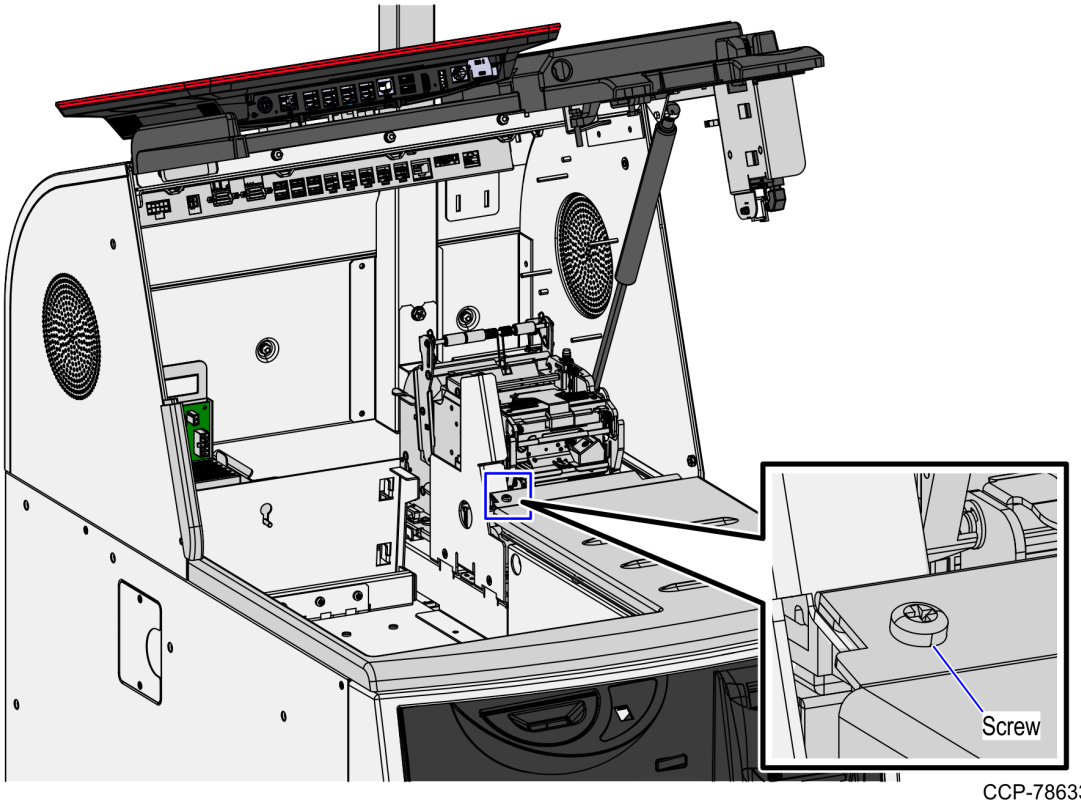
Removing Top Plate

To remove the Top Plate, follow these steps:

1. Unlock and open the Security Door.
2. Unscrew the four (4) nuts securing the top plate to the SelfServ Checkout core.



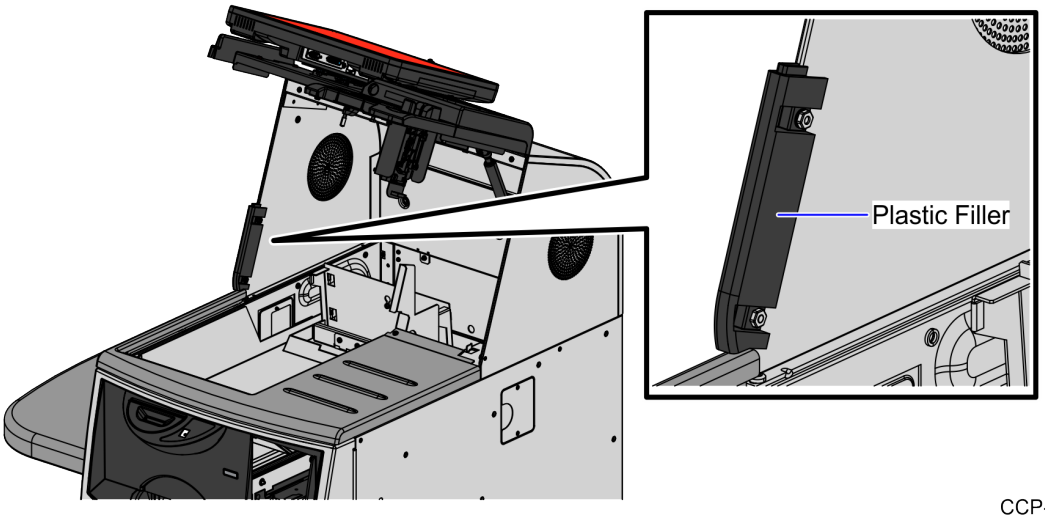
3. Depending on the SelfServ Checkout unit, verify if there is a screw on the Top Plate next to the printer. Remove the screw, as shown in the image below.



CCP-78633

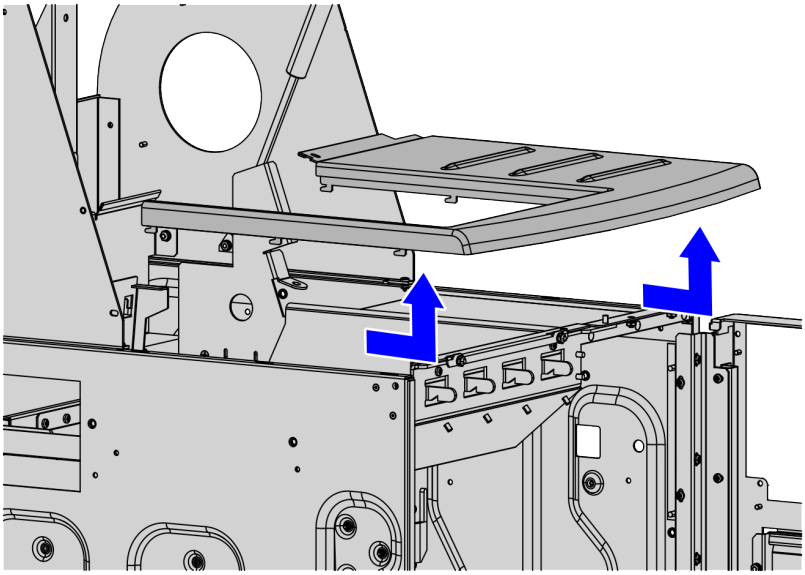
4. Remove two (2) nuts to detach the Plastic Filler from the side of the Core Hood, as shown in the image below.

Note: Set aside the nuts and the Plastic Filler for reinstallation.



CCP-81001

5. Grasp and pull the Top Plate to disengage the clips, and then lift the Top Plate from the unit.

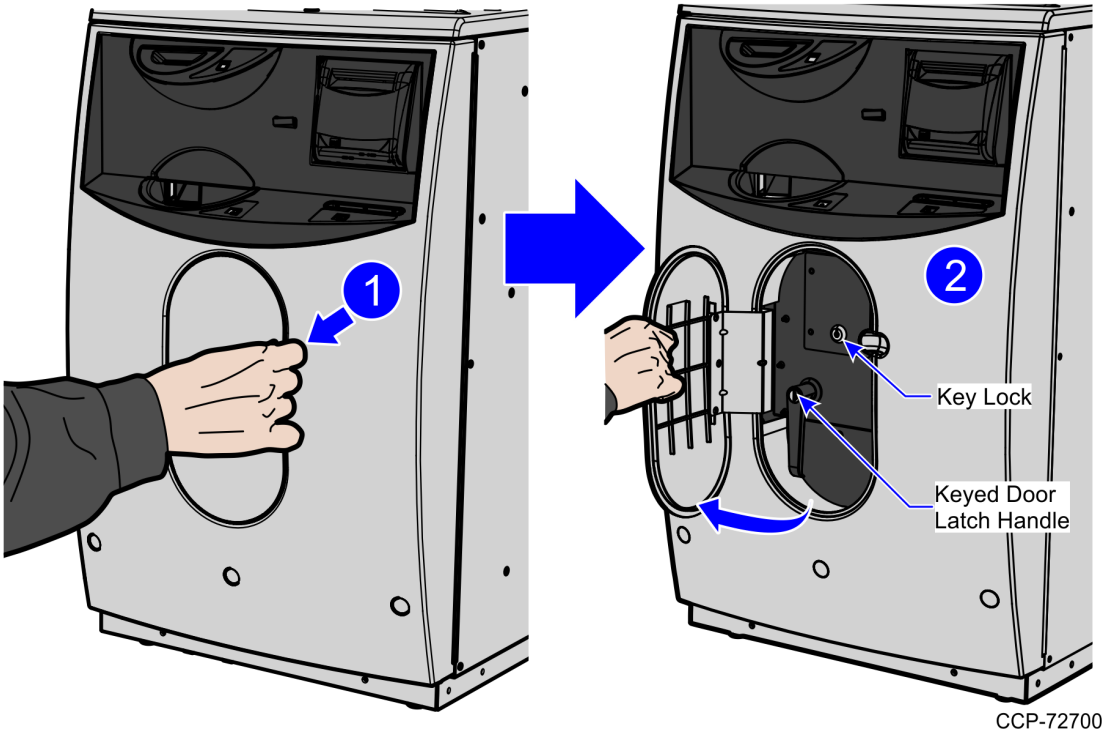


CCP-80771

Opening Core Door

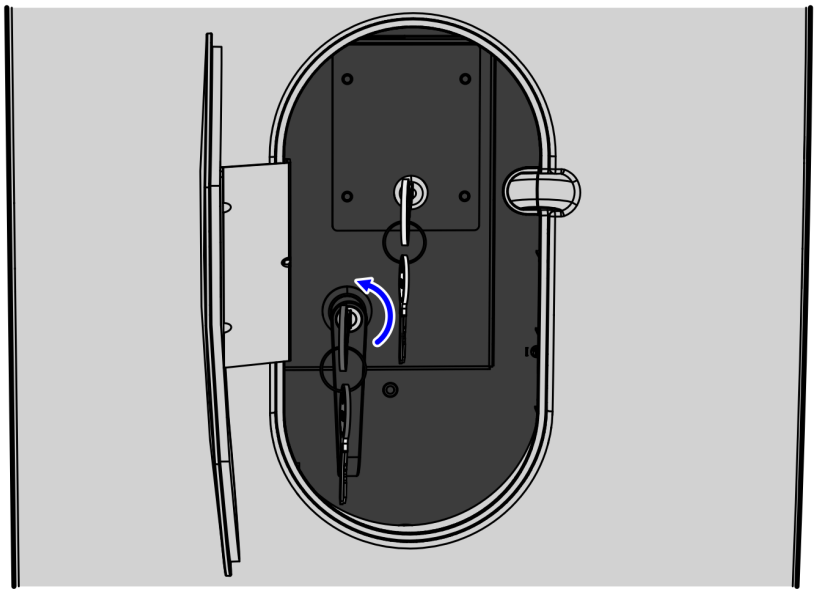
To open the Core Door, follow these steps:

1. Use the finger access on the small door to access the door locks, as shown below:



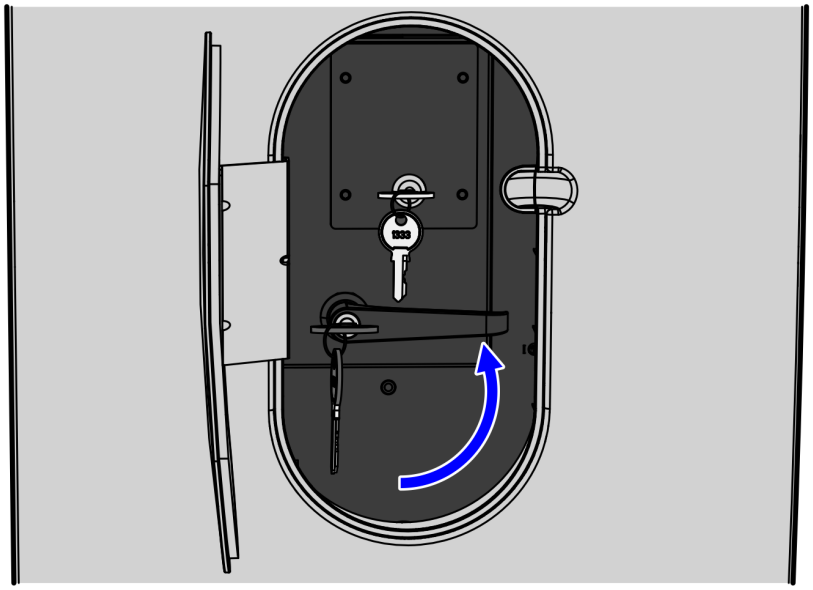
CCP-72700

2. In the middle keyhole, insert a key.
3. In Door Latch Handle keyhole, insert a key and then turn it counterclockwise.



CCP-72701

4. Turn the Door Latch Handle upward and then pull to open the Core Door.

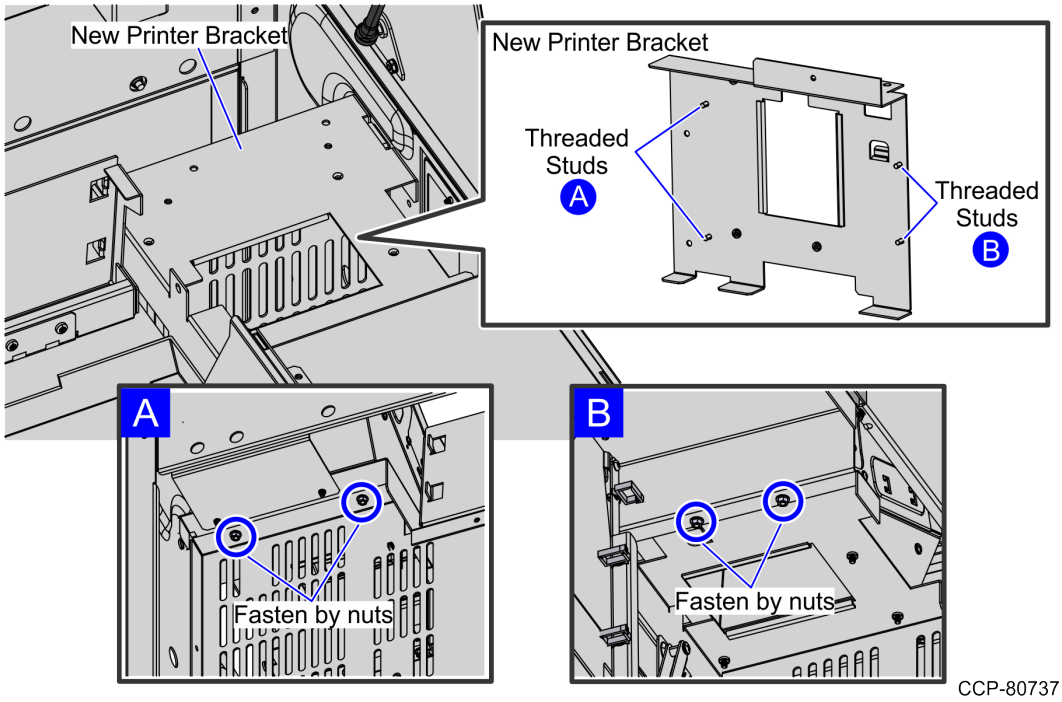


CCP-72702

Installing R5 EFT Printer

To install the R5 EFT Printer, follow these steps:

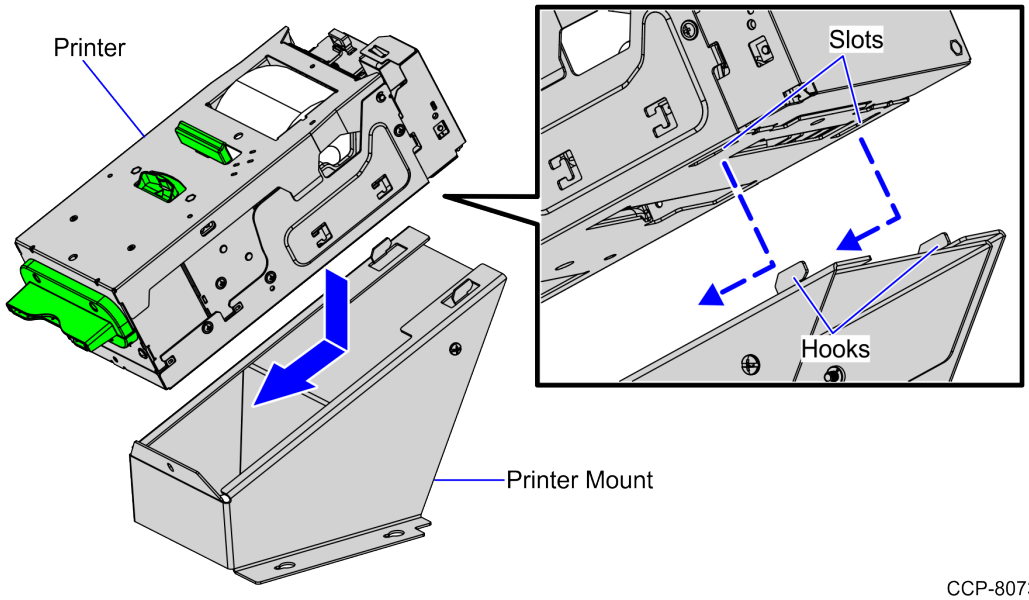
1. Remove the existing Receipt Printer, if necessary. For more information, refer to *Removing Self-Service Receipt Printer* on page 9.
2. Do the following:
   a. Mount the new printer bracket so that its threaded studs are inserted through the drilled holes.
   b. Secure the new printer bracket to the shelf using the new set of five (5) nuts, as shown in the image below.



3. Do the following:

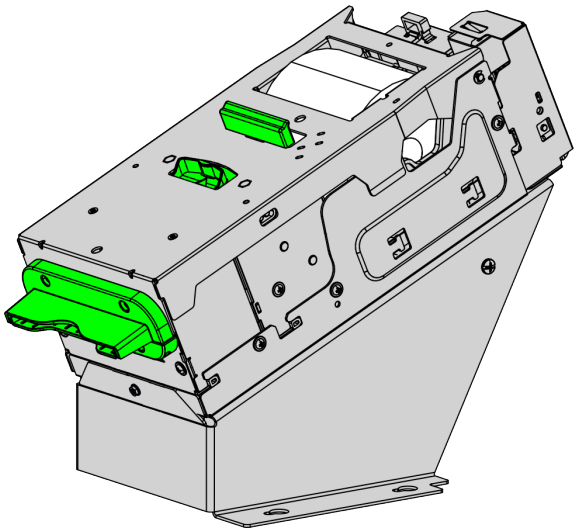
   a. Align and slide the R5 EFT Printer to hook tabs on the printer mount.

Note: Ensure that the hooks of the printer mount locks to the slots under the R5 EFT Printer, as shown in the image below.



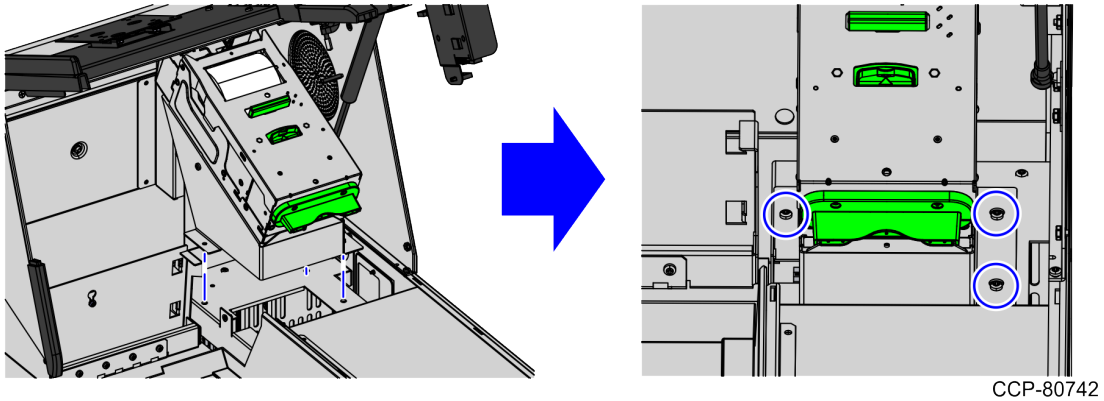
CCP-80739

   b. Secure the R5 EFT Printer on the printer mount using an M3 thread forming screw.



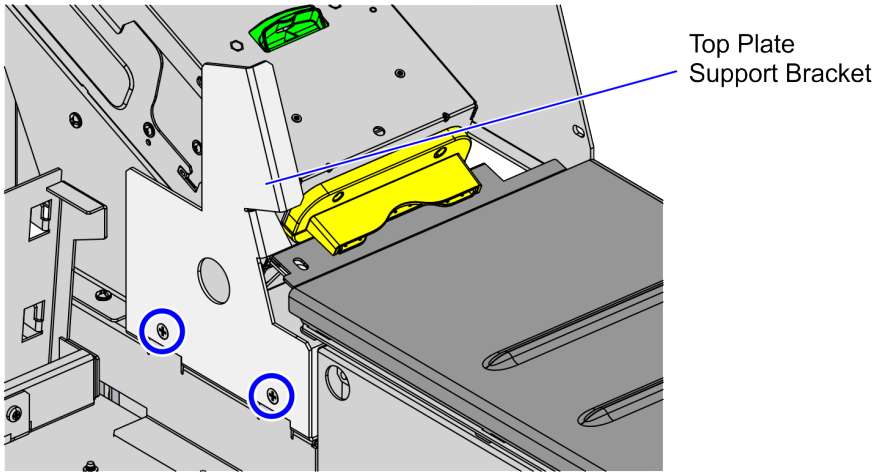
CCP-80740

4. Align the holes of the R5 EFT Printer - Mount Assembly to the holes of the printer bracket on the cabinet and then secure it using three (3) pan head screws, as shown in the image below.



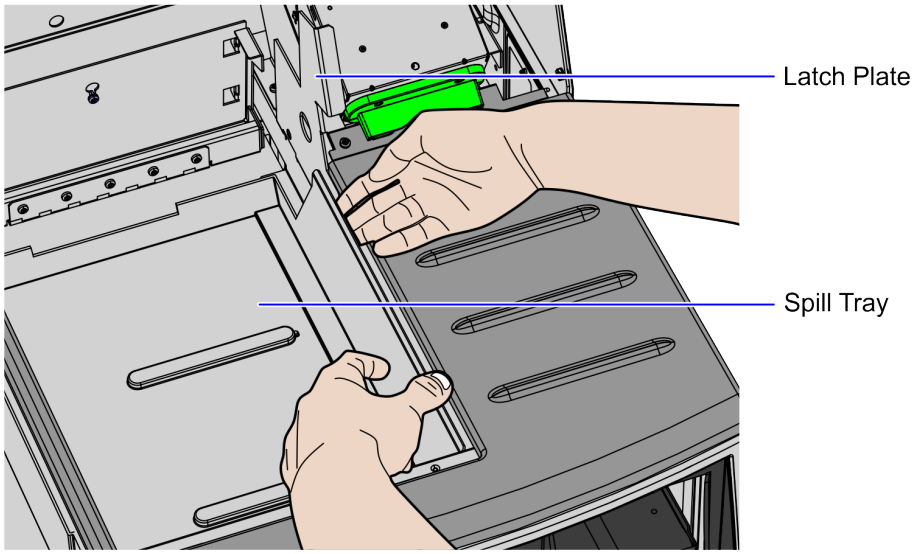
CCP-80742

5. Secure the new Top Plate Support Bracket to the printer bucket frame using two (2) flat head screws.



CCP-80746

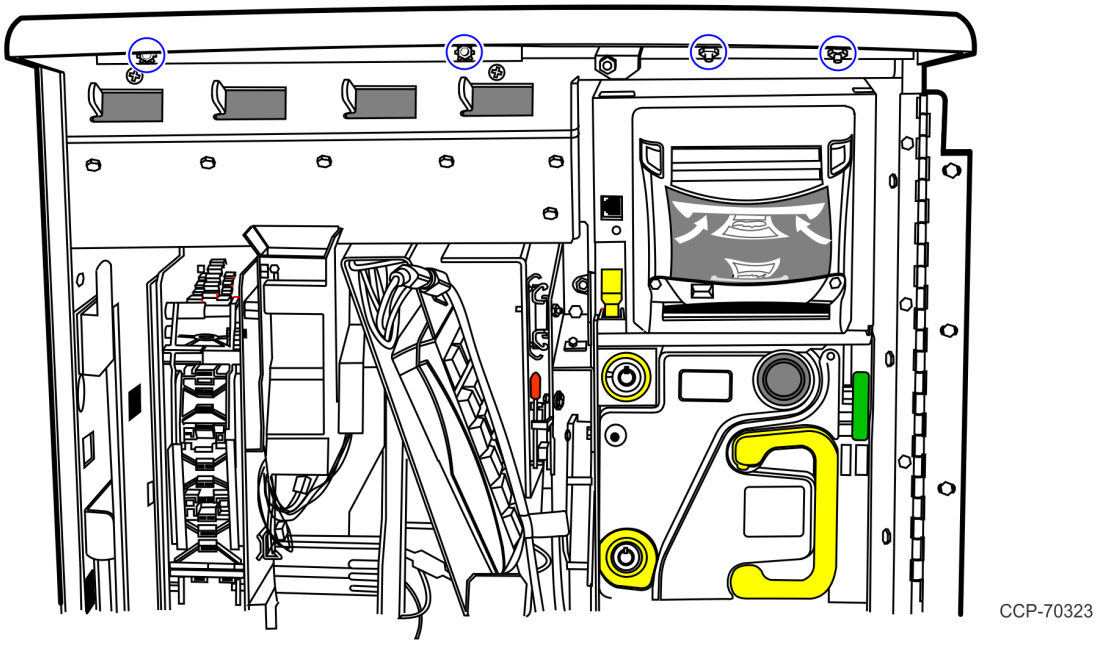
6. Install the plastic spill tray by slightly bending it to fit into the Scanner/Scale bucket.



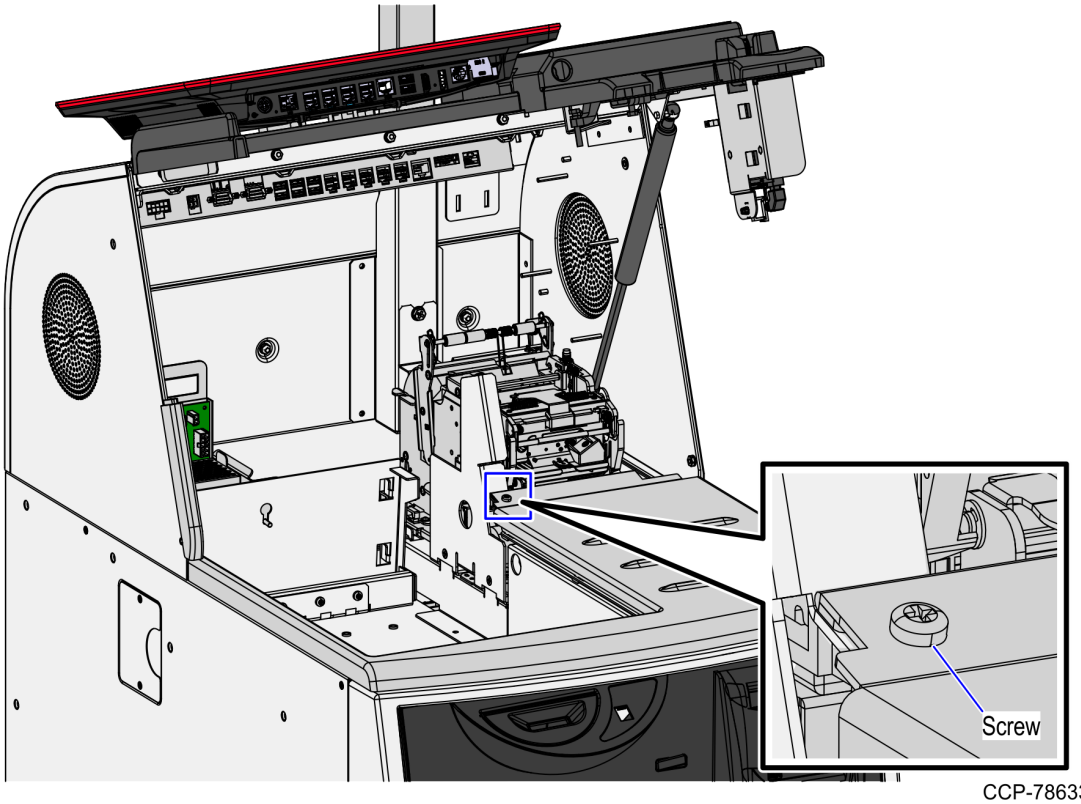
Installing Top Plate

To install the Top Plate, follow these steps:

1. Mount and secure the Top Plate to core using four (4) nuts, as shown in the image below.

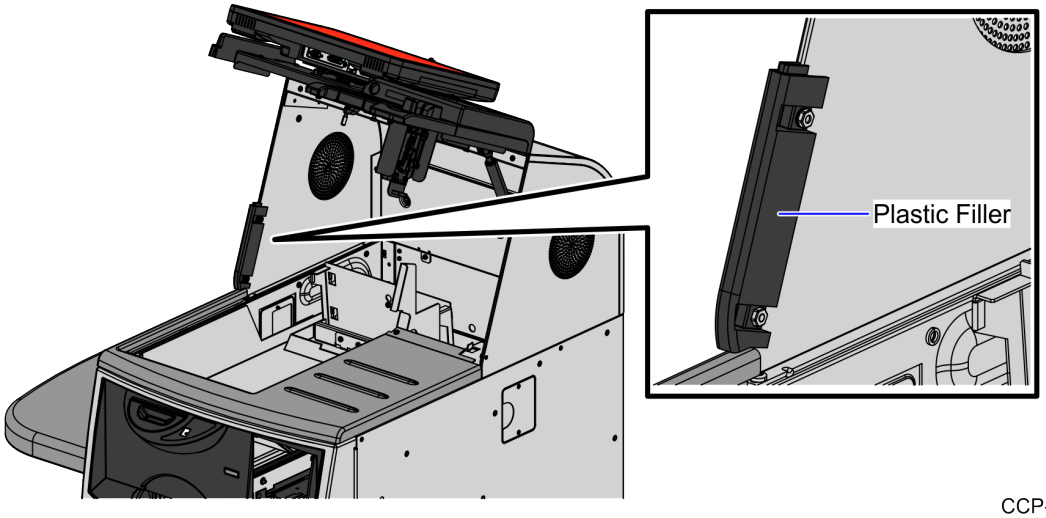


2. Depending on the SelfServ Checkout, secure the Top Plate in place using an M4 screw, as shown in the image below.



CCP-78633

3. Secure the Plastic Filler to the side of the Core Hood using (2) nuts, as shown in the image below.

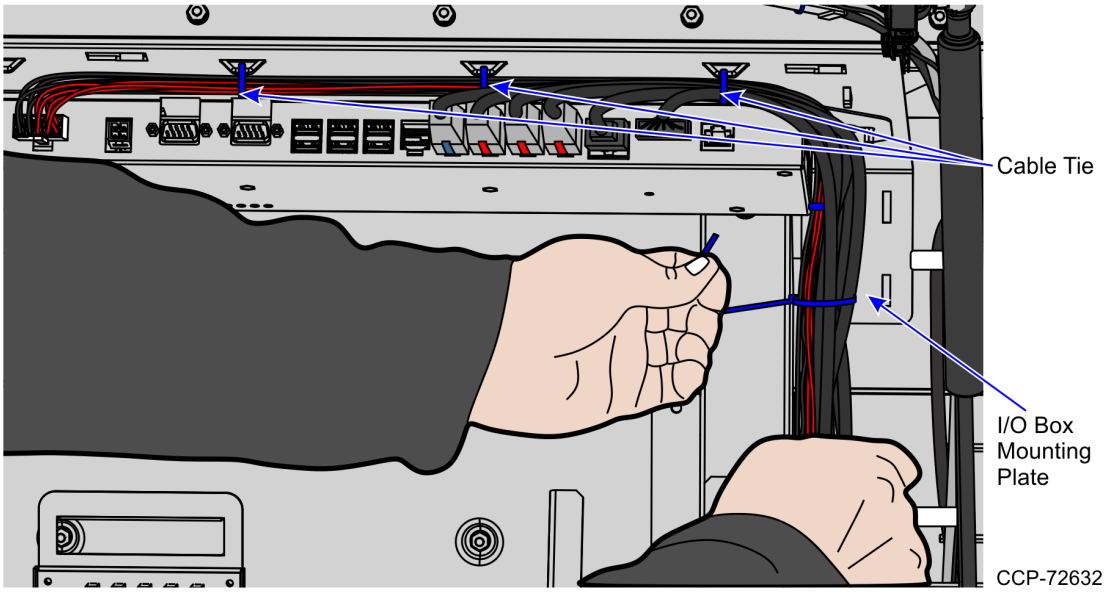


CCP-81001

Routing Cables

To route the cables, follow these steps:

1. Connect the USB Power cable to **USB I (24 V)** port of the I/O Box.
2. Using cable ties, wrap the cables and then tie them on corresponding lance bridges to fix the cables on the Upper Cabinet frame, as shown in the image below.



3. Using cable ties, group the cables exiting to the back of the unit and then tie them on the I/O mounting plate, as shown in the image above.
4. Route and sort cables. For more information about routing cables, refer to *SCO Release 6 Lite Cable Routing Instructions (497-0519586)*.

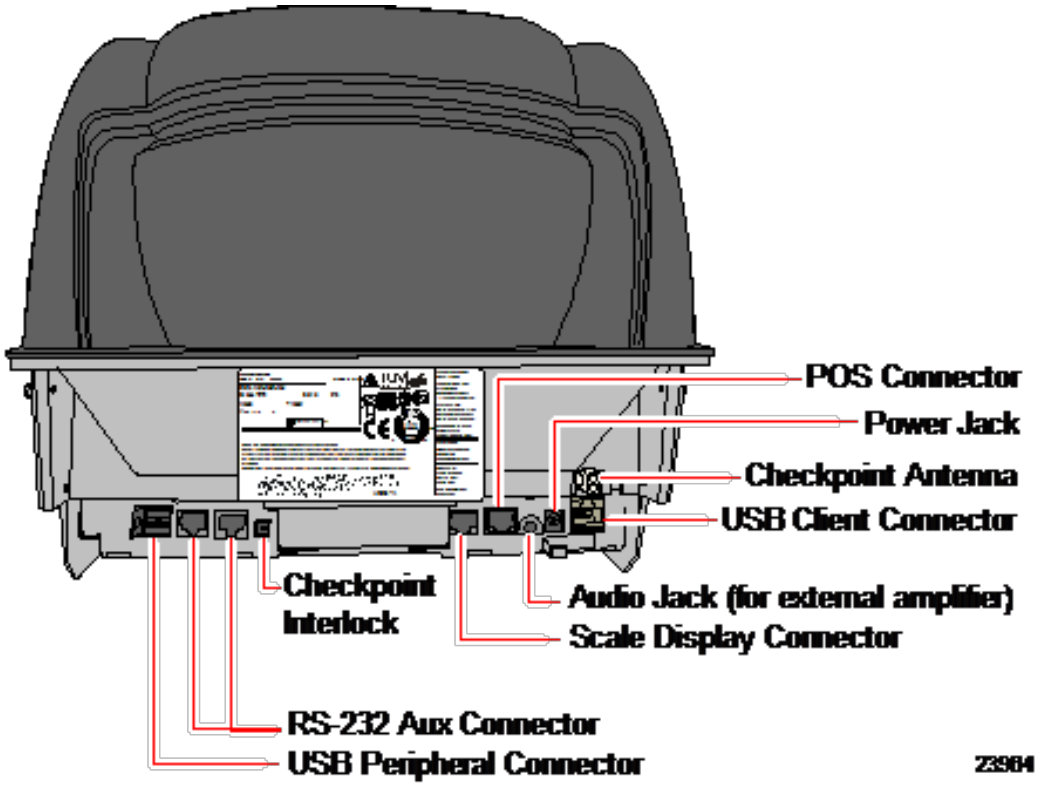
Installing Scanner/Scale

To install the Scanner/Scale, follow these steps:

Note: For the purpose of illustration only, this procedure uses illustrations showing a NCR RealScan 78 Scanner/Scale. The same procedure applies for units using NCR RealScan 79e Bi–Optic Imager Scanner/Scale (7879).

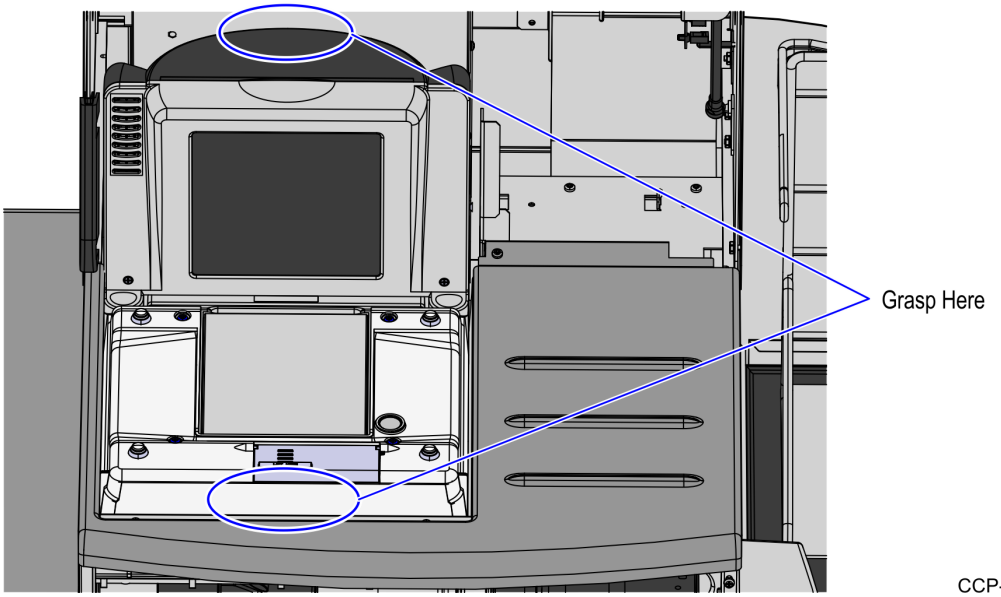
1. Connect the Interface/Power Cable to the USB connector of the Scanner/Scale.

Note: The NCR RealPOS High Performance Scanner/Scale (7878) uses only one cable for both Power and Interface connection.



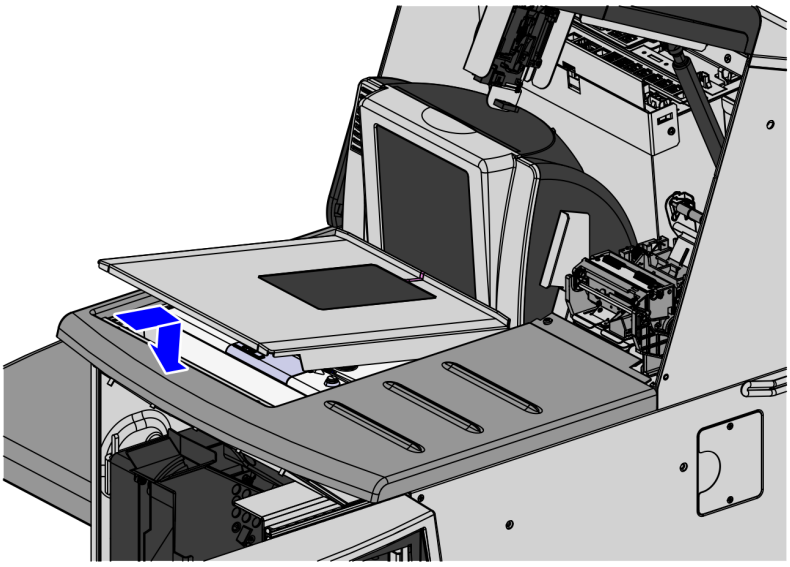
2. Grasp the Scanner/Scale by its handles and lower it into the checkstand cutout.

Caution: Be careful not to damage any of the cables.



CCP-76320

3. Place the back of Scanner/Scale on the two supports located on the E-Box mount.
4. Lower the Scanner/Scale unto the scanner bucket area.
5. Install the Scale Plate by placing it on top of the load cells.



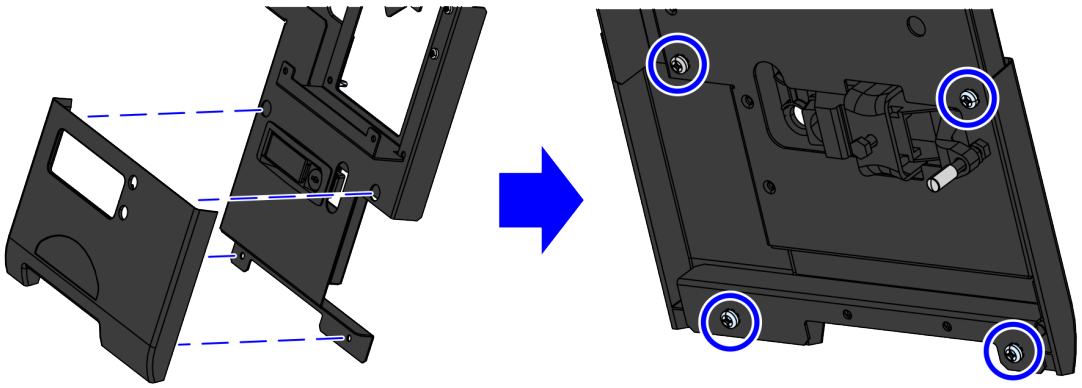
CCP-76753

Note: It is important that the Scanner does not rock on its supports. Ensure that the Scanner is sitting on all four supports.

Installing Plastic and Button Covers

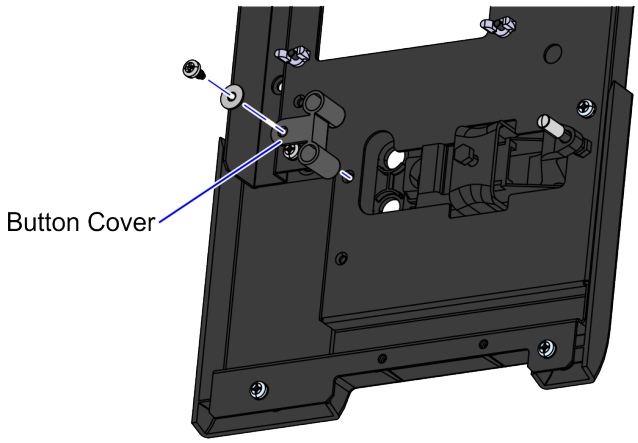
To install the Plastic and Buttons Covers, follow these steps:

1. Attach the Plastic Cover to the metal door using four (4) pan head screws, as shown in the image below.



CCP-80744

2. Insert the Button Cover to its corresponding slots and then secure with a self tapping screw and flat washer, as shown in the image below.

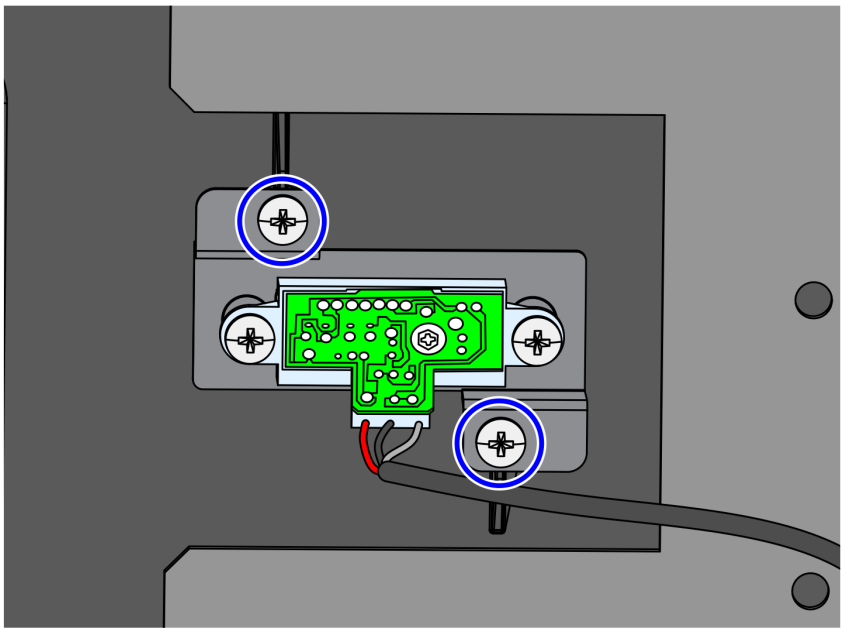


CCP-80745

Installing Proximity Sensor

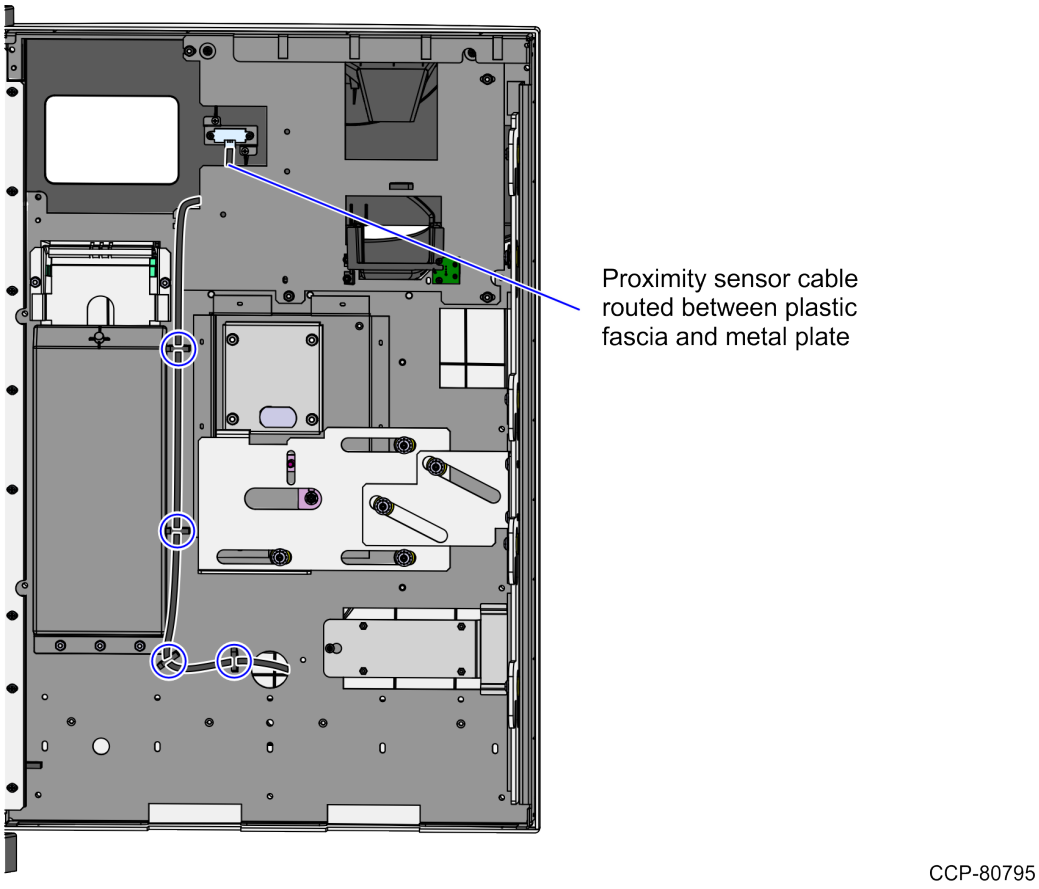
To install the Proximity Sensor, follow these steps:

1. Do the following:
   a. Mount the Proximity Sensor assembly to the corresponding hole on the the Core Door.
   b. Secure the Proximity Sensor assembly to the Core Door using two (2) screws, as shown in the image below.



CCP-80792

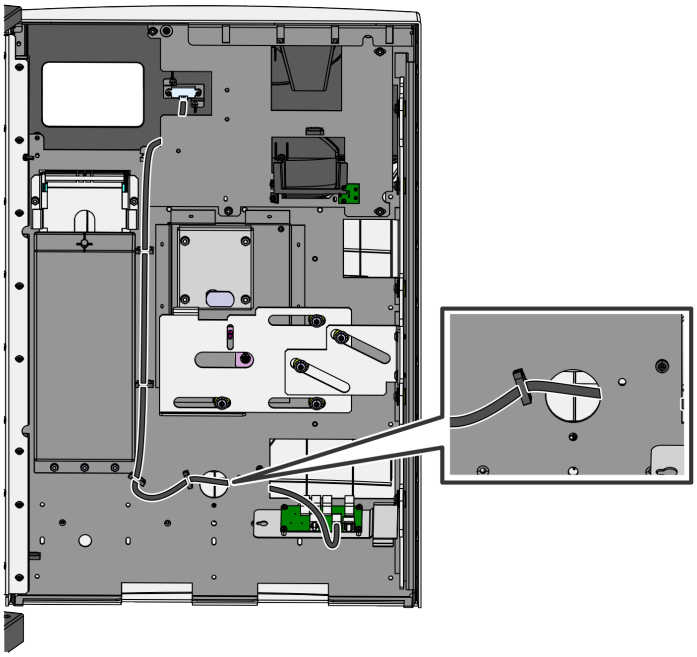
2. Route the Proximity Sensor cable down through the gap between the plastic fascia and the metal plate, and then secure the cable to the Core Door using the reclosable clips, as shown in the image below.



3. Do the following:

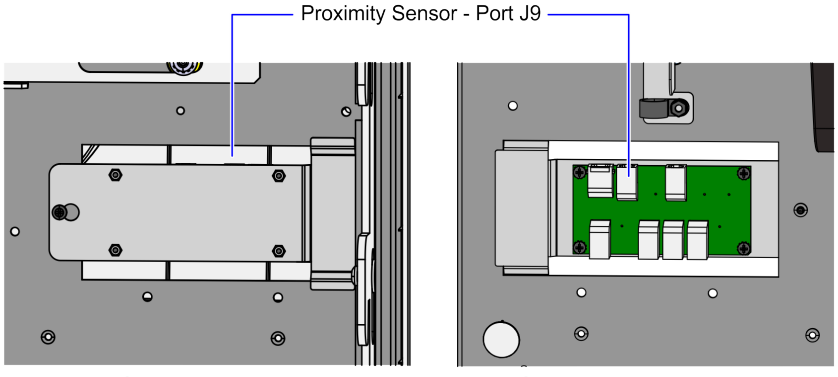
   a. Depending on the length of the Proximity Sensor cable, bundle the cable in zigzag and secure the cable with a zip tie.

b. Insert the Proximity Sensor cable through the cable access hole at the left side of the MEEI Controller Box slot, as shown in the image below.



CCP-80797

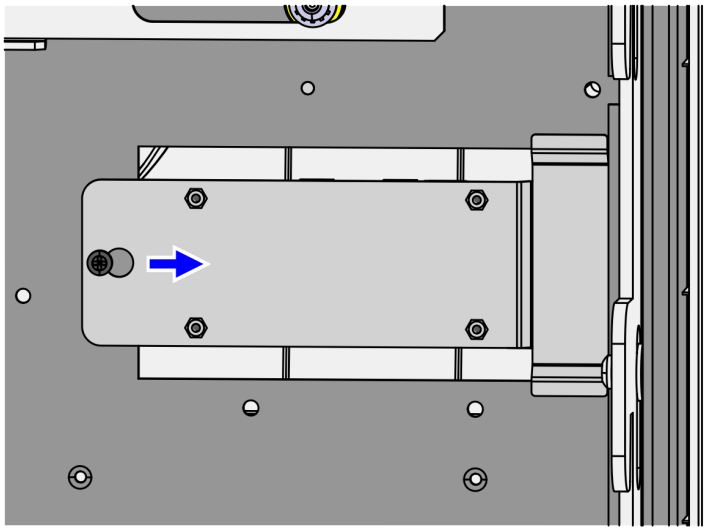
4. Connect the Proximity Sensor cable to **Proximity Sensor Port J9** of the MEEI Controller Box, as shown in the image below.



CCP-80798

5. Push all cables into the gap between the Core Door and the Plastic Door Fascia.

6. Mount the screw slot of the MEEI Controller Box to the loose screw on the Core Door, then slide to the right to lock the MEEI Controller Box in place.



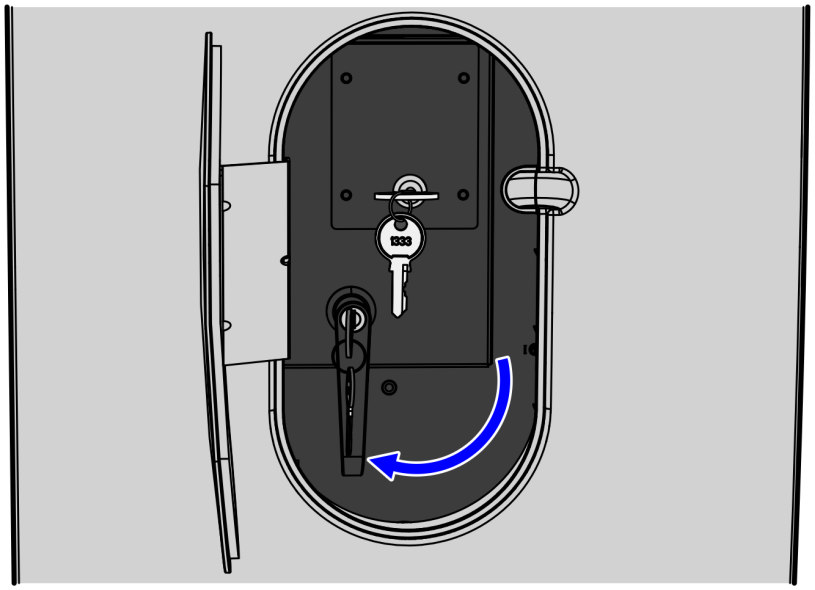
CCP-80799

7. Tighten the screw to secure the MEEI Controller Box.
8. Close the Core Door. For more information, refer to *Closing the Core Door* on the next page.

Closing the Core Door

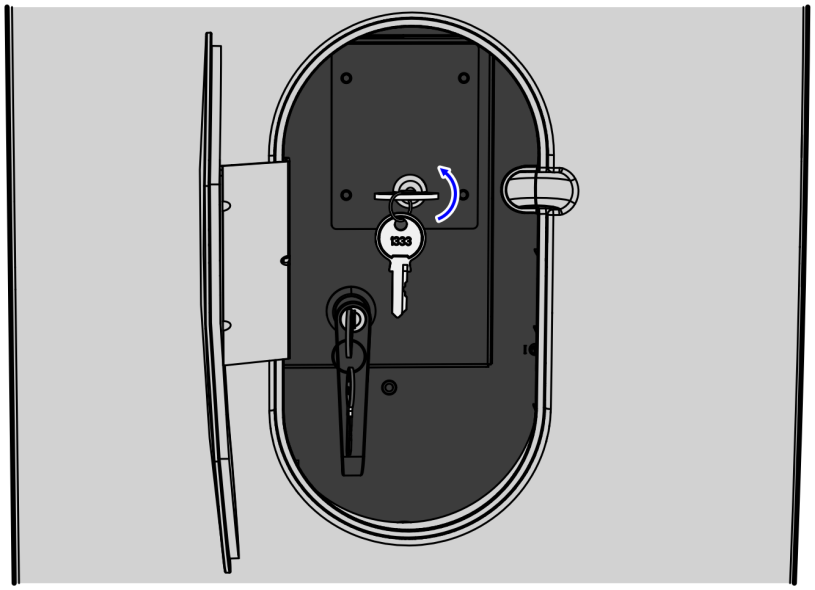
To close the Core Door, follow these steps:

1. Push the Core Door to the core cabinet and then turn the Door Latch Handle downward to lock the door.



CCP-72703

2. In the middle keyhole, turn the key counterclockwise to completely lock the Core Door.



CCP-72704

3. Remove the keys.

Receipt Printer Paper Guidelines

The R5 EFT Printer requires an NCR qualified thermal paper to ensure proper printer operation. This section provides guidelines in selecting a thermal receipt paper for an R5 EFT Printer.

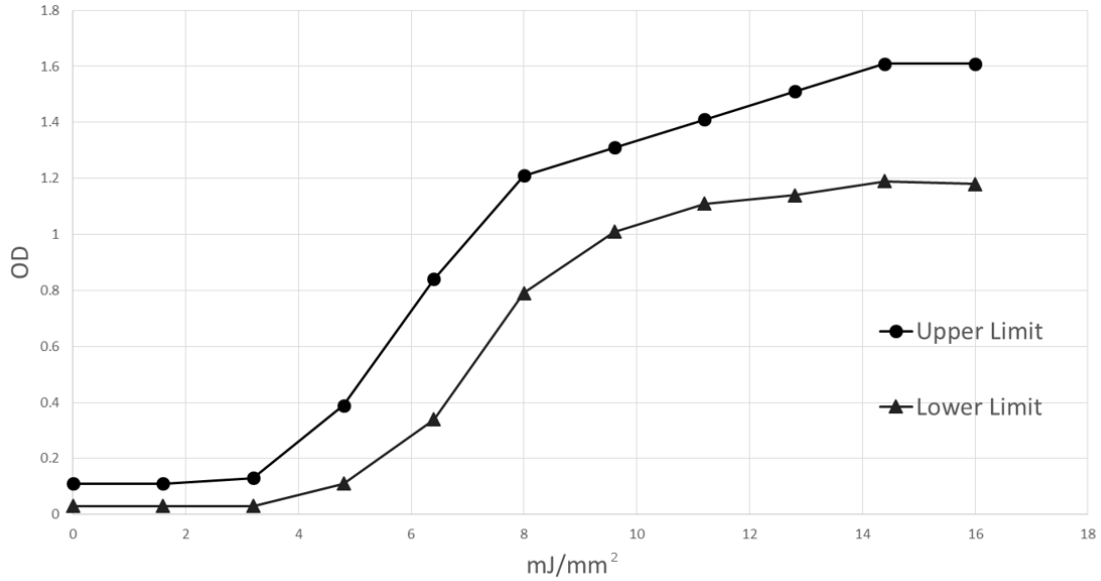
! Important: NCR does not test individual suppliers' papers. Users are responsible for ensuring that the paper they intend to use does not have a detrimental effect on the printers. Use of such paper invalidates any warranty related to the performance of the printer.

Requirement	Specifications
Quality Control	Supplier must have processes and procedures that have mechanisms to stop and recall paper that is out of the agreed specification to ensure consistent paper quality.
Pre-Printed Receipt paper	Testing pre-printed receipt paper is required to determine if printed artwork on either side of the paper has a detrimental effect to the printer. Any changes in the design should be retested.
Image life	Specify a life expectancy of the paper that is suitable for the intended application.
End of Roll Indicator	Aside from the "paper low" warning capability of the printer, some users define a visual indication to inform operators when to change the roll. This can be a pre-printed line at a set length before the end of the roll. Ensure that the properties of this line are not detrimental to the printer's life expectancy.

Requirement	Specifications
Product essential functionality/features that should be included in customer's specification for receipt paper.	• The coating should not cause undue wear to the print head. • The surface area of the paper should be smooth. • All edges must be correctly cut and smooth. • There should be no mottling or foreign body contamination. • There should be no dust on the surface of the paper that could cause damage to printer or nearby equipment. • There should be suitable coatings to protect the paper from UV light, water, oils etc. • Thermal coating residue should not transfer to the print head when heated. • Paper must allow for crisp lines to be produced when the paper is heated. • Should be sourced in accordance with your health and safety, and environmental policies, and in adherence to any local regulations. • Paper should be suitably packed and protected so that it does not get damaged during transport.
Chemical in Paper	The chemical elements of paper, coating and inks shall not exceed the following amount: • Titanium dioxide, TiO2 0 ppm (max) • Silicon dioxide, SiO2 0 ppm (max) • Mullite, 3Al2O32SiO2 0 ppm (max) • Sodium, Na 1050 ppm (max) • Chloride, Cl 500 ppm (max) • Potassium, K 250 ppm (max) • Suflate, SO4 800 ppm (max) • Ammonium, NH4 800 ppm (max) The chemicals listed here are not exhaustive and other chemicals may reduce the life expectancy of the printer and/or print head.
Roll Width	80 mm (+0.5 / -1.2 mm), 58 mm (+0 / -1.0)
Roll Diameter	83 mm max
Roll Length	Approx. 88 m

Requirement	Specifications
Core Inner Diameter	12.7 mm (Typical)
Core Outer Diameter	18 mm min for paper thickness 55 um < t < 65 um 21 mm min for paper thickness 50 um < t < 55 um
Core Width	79 mm (Typical)
Core Material	Plastic or Chipboard
Paper weight	44-70 gsm
Paper caliper thickness	44-70 um
Paper Winding Direction	Thermal Coating facing Out
Smoothness	300 sec min (ISO 5627)
Dynamic sensitivity	Energy to be equal or less than 11.2 mJ/mm2 at 1.1 OD **Note:** For more information, refer to the Dynamic Sensitivity Range graph below.
Brightness	Less than 85%

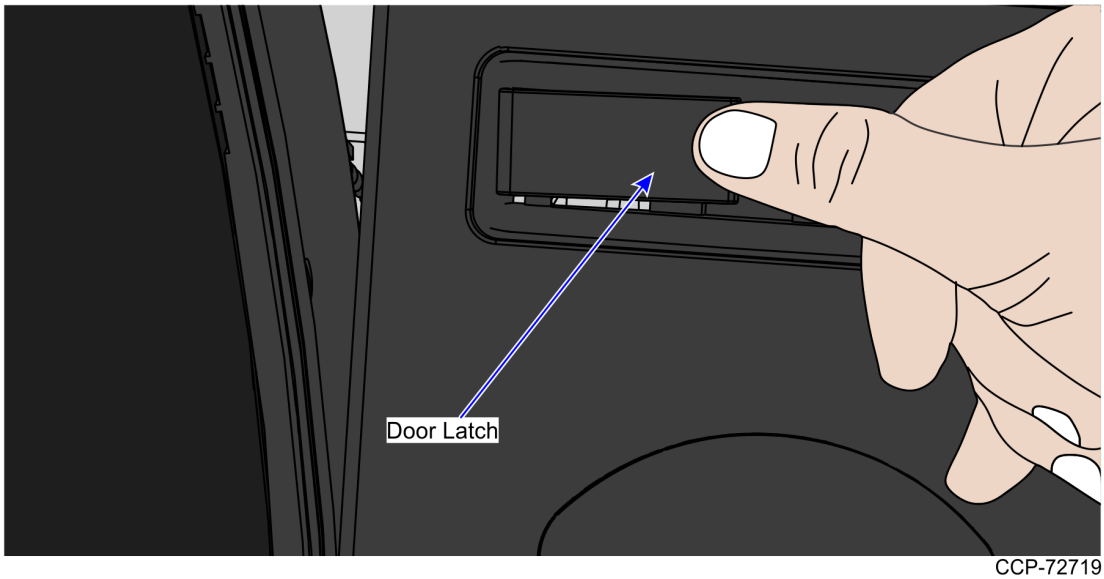
Dynamic Sensitivity Range



Closing Upper Cabinet Door

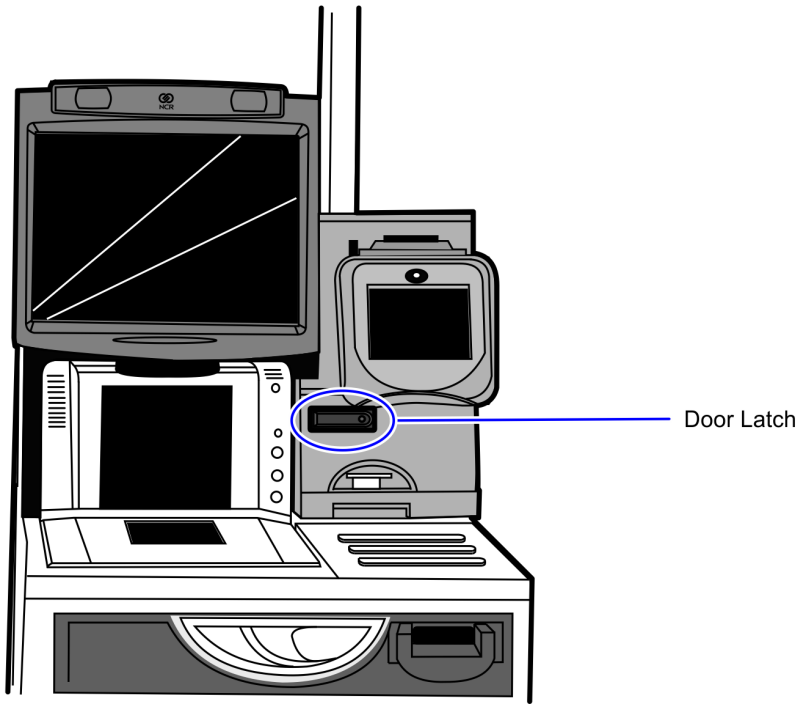
To close the Upper Cabinet Door, follow these steps:

1. Push down the door and then push the door latch until it closes. The Upper Cabinet Door is closed.



CCP-72719

2. Insert key in the door latch lock and then turn it clockwise to lock the door.



CCP-70311

3. Remove keys.