

7878-K940

# Checkpoint® Antenna

Kit Instructions



Issue B

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## Revision Record

Issue	Date	Remarks
A	July 7, 2009	First issue
B	Nov2013	Revised the Checkpoint installation procedures for 7878 and 7874 scanners  Added the washer installation procedures for 7878 and 7874 scanners

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## Introduction

The K940 kit contains the Checkpoint® Antenna and Cable, which are installed on the 7878 and 7874 scanners for security purposes.

This kit also includes a washer, which is installed on all 7878 and 7874 scales because of grounding issues.

## Kit Components

The table below describes the components that are included in the kit.

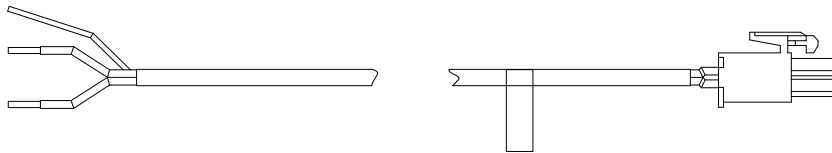
Part Number	Description
497-0445250	Assembly -Checkpoint Antenna
497-0439269	Check point Antenna Cable
006-8616045	Metric Zinc-Plated Steel Large-Dia Flat Washer M4 Screw Size, 12mm OD, .9mm-1.1mm Thick

### Assembly-Checkpoint® Antenna



32437

### Checkpoint® Antenna Cable



24021

## Tools required

- 7878-K940-V005 Checkpoint Cable kit or FRO kit 603-5023408
- #2 Phillips Screwdriver
- Electrical tape (optional)

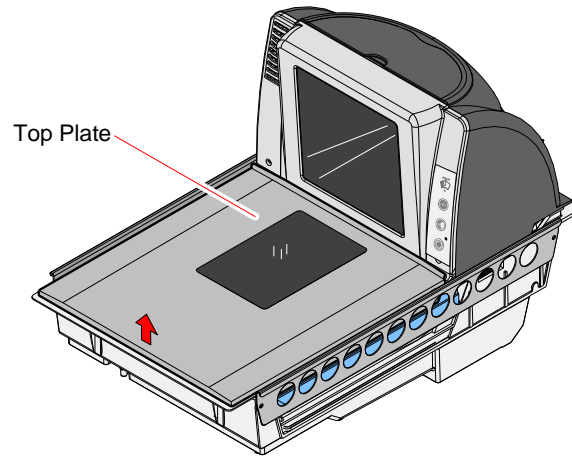
## 7878 Checkpoint® Installation Procedure

**Warning:** Disconnect the AC power cord before disassembling the scanner.

The Checkpoint antenna is installed underneath the front bezel of the 7878 scanner.

### Remove the Top Plate

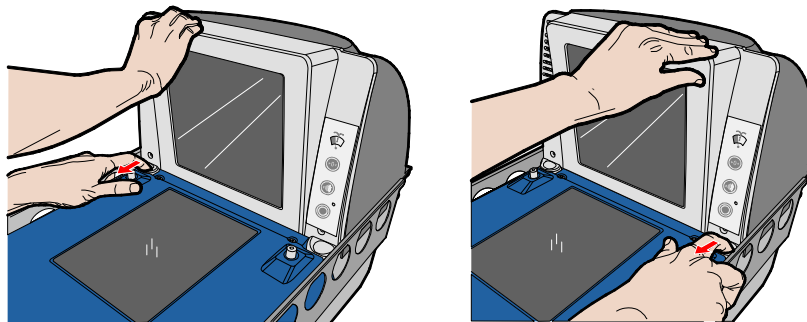
1. Hold the front edge of the Top Plate until your fingers are underneath it .
2. Lift the Top Plate to remove it from the 7878.



23794

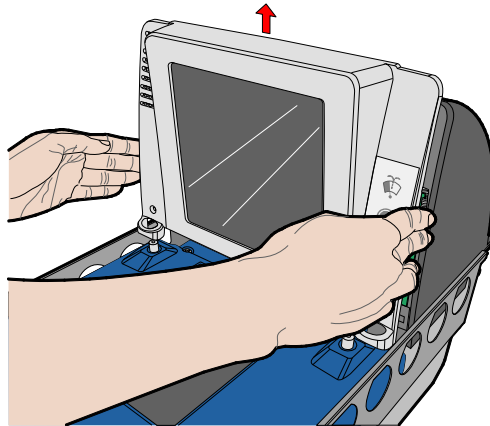
### Remove the Front Bezel

1. Place one hand and slightly apply pressure on the top corner of the Bezel and use the other hand to pull the snap features at the bottom.



24976

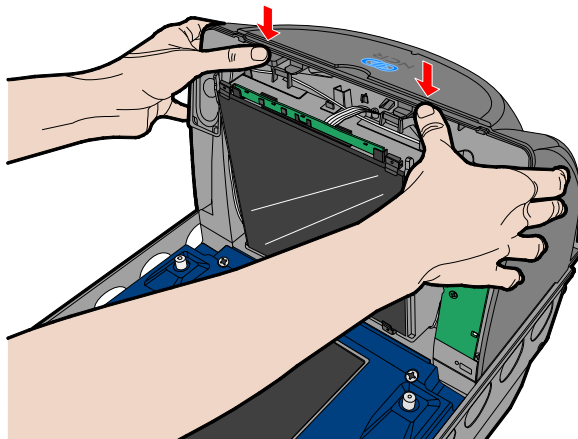
2. Lift the Bezel straight up to remove it from the Inner Tower.



24055

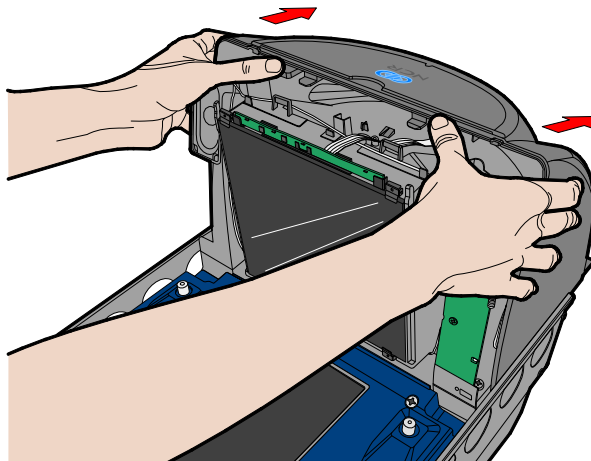
## Remove the Tower Cover

1. Depress the two tabs at the top of the Tower Cover to disengage the snap features.



24050

2. Slide the Tower Cover towards the rear then lift it up until it is detached.



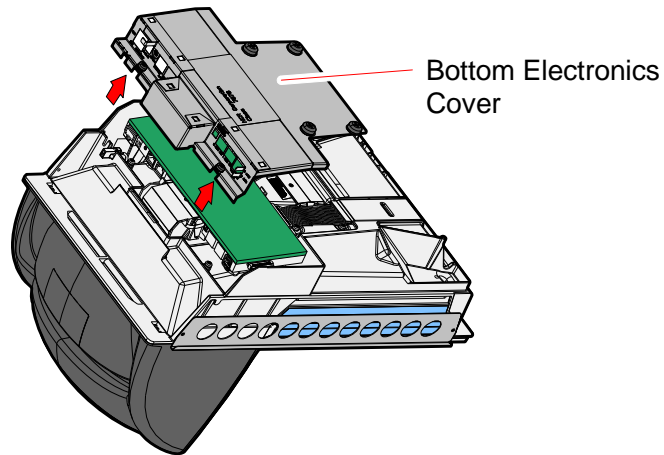
24049

## Remove the Bottom Electronics Cover

1. Disconnect all external cables from the scanner.
2. Turn over the Scanner.

**Note:** For scanners with plastic base, skip to the "Install the Checkpoint Antenna" section after turning over the Scanner.

3. For scanners with metal base, remove the six mounting screws.
4. Carefully remove the Bottom Electronics Cover, ensuring that it does not catch on the Digital Board external connectors.

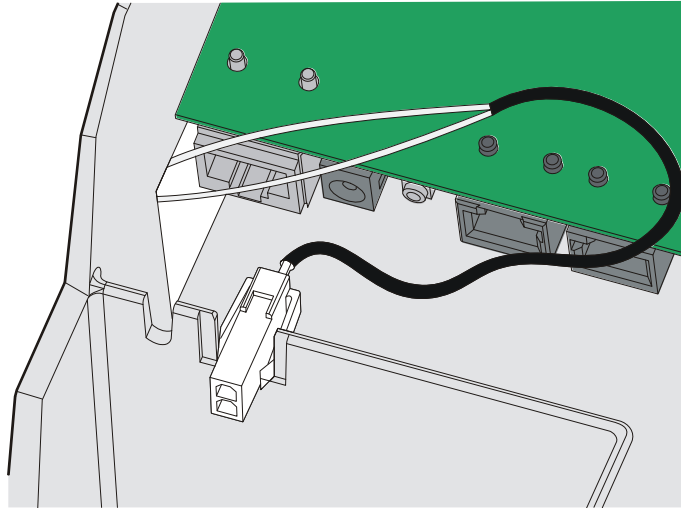


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**Caution:** Damage may occur to the Digital Board and external connectors if the Bottom Electronics Cover is forcibly removed while caught on the external connectors.

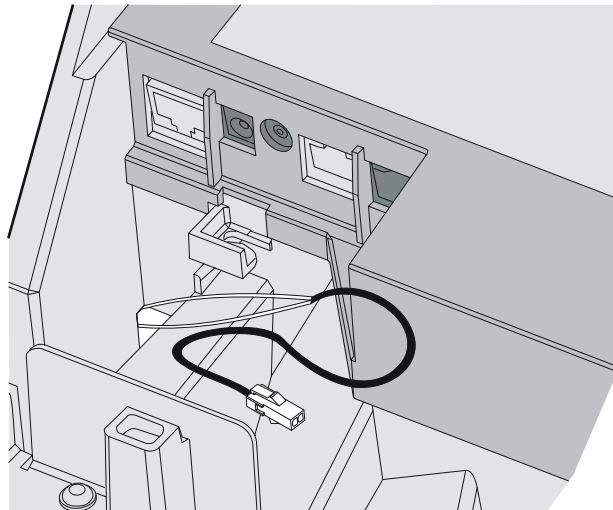
## Install the Checkpoint Antenna

1. Insert the white connector into the slot as shown.
  - a. For scanners with metal base, seat the white connector in the notch at the base, and insert the loop end of the antenna through the hole as shown below.



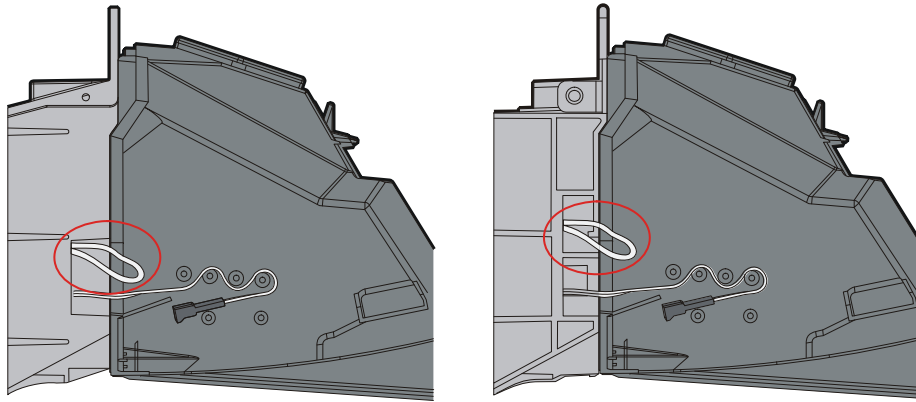
32433

- b. For scanners with plastic base, thread the antenna through the channel at the base, and insert the loop end of the antenna through the hole as shown below.



32434

2. Pull the loop end of the antenna through the hole at the left side of the scanner.

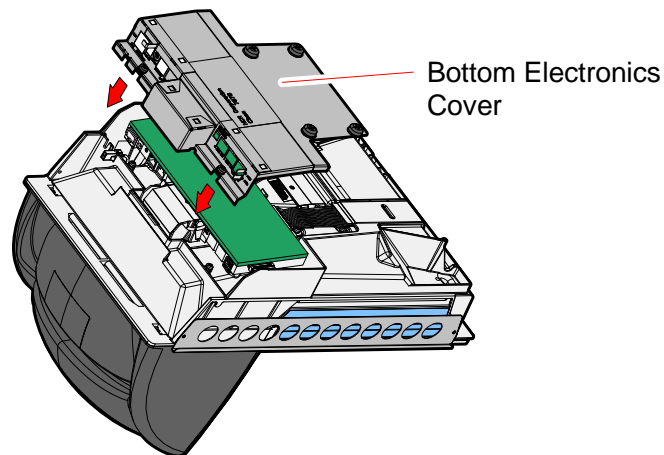


Metal Base

Plastic Base

32432

3. For scanners with metal base, reinstall the bottom electronics cover.
  - a. Position the Bottom Electronics Cover to its proper location on the bottom of the unit and install Bottom Electronics Cover, ensuring that it does not catch on the Digital Board external connectors.



24470

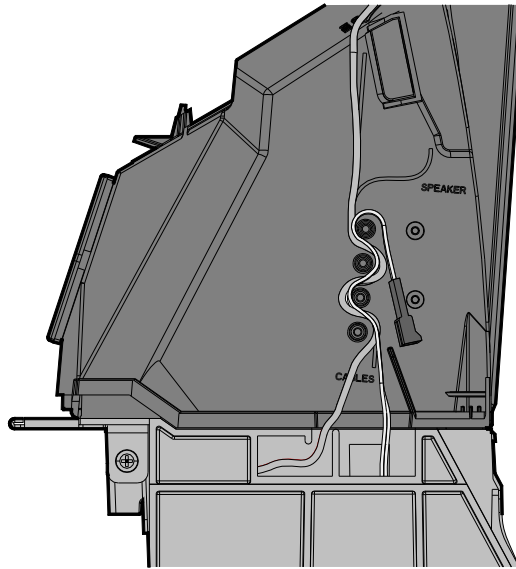
- b. Install the six mounting screws.

**Caution:** Damage may occur to the Digital Board and external connectors if the Bottom Electronics Cover is forcibly installed while caught on the external connectors.

4. Turn over the Scanner.



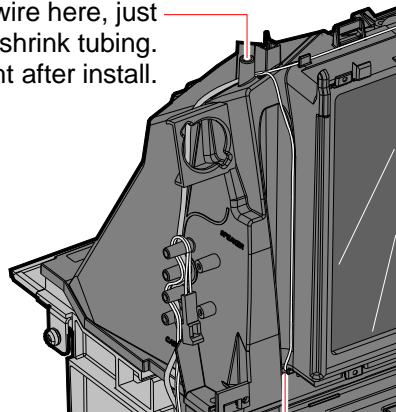
5. Route the cable through the strain reliefs on the left side of the scanner.



27785

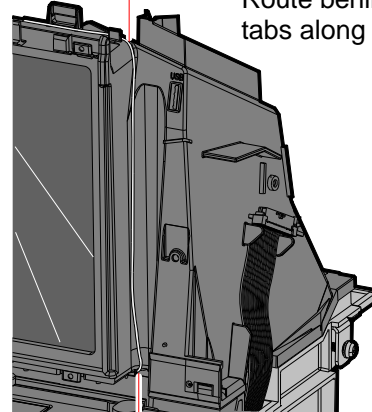
6. Route the antenna with the loop as shown below. Ensure to use the strain relief on the top left side.

Place wire here, just before the shrink tubing. Pull tight after install.



There is a small bump that the wire goes behind.

Route behind 3 tabs along the top.



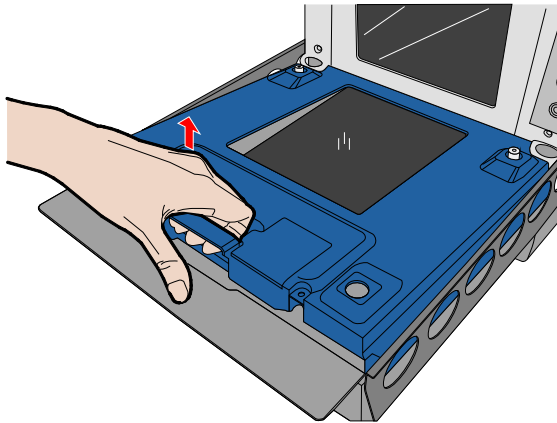
Route behind bump.

27798

## Install the Washer

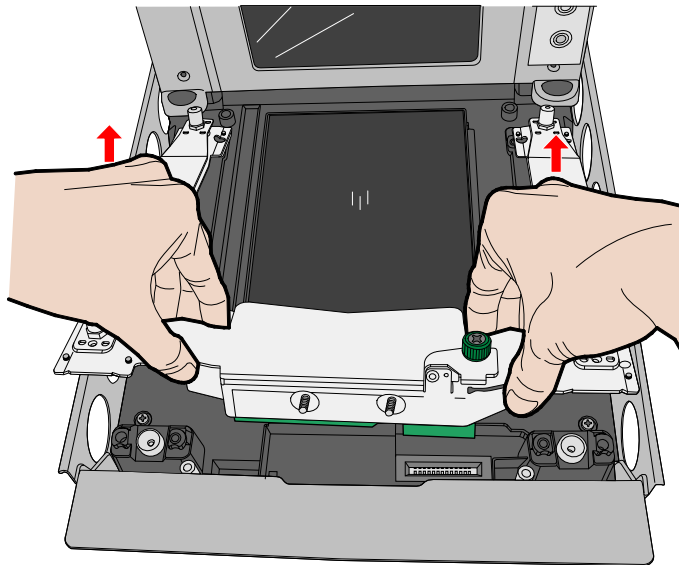
The scale assembly needs to be removed to check if it already has a washer under the right-hand screw.

1. Remove the Debris Guard.
  - a. Remove the four screws securing the Debris Guard.
  - b. Raise the front edge of the Debris Guard using the handle.
  - c. Lift up the Debris Guard and remove it from the unit.



24057

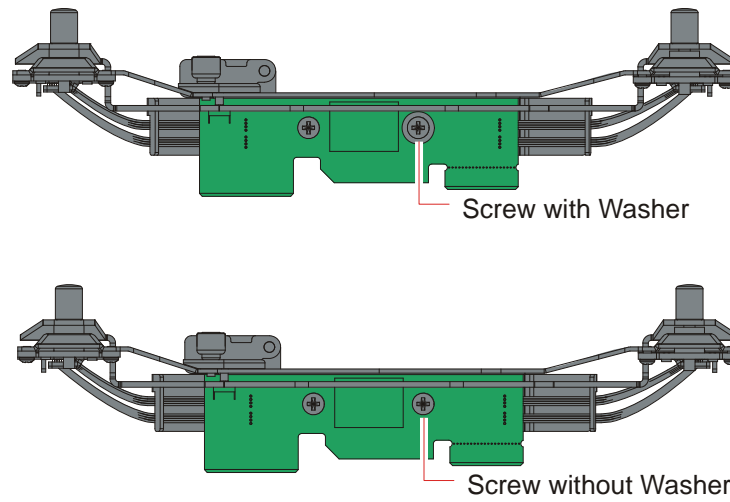
2. Remove the Scale.
  - a. Remove the eight screws securing the Scale.
  - b. From the indicators on the metal bracket, pull the Scale Assembly upward.



24061

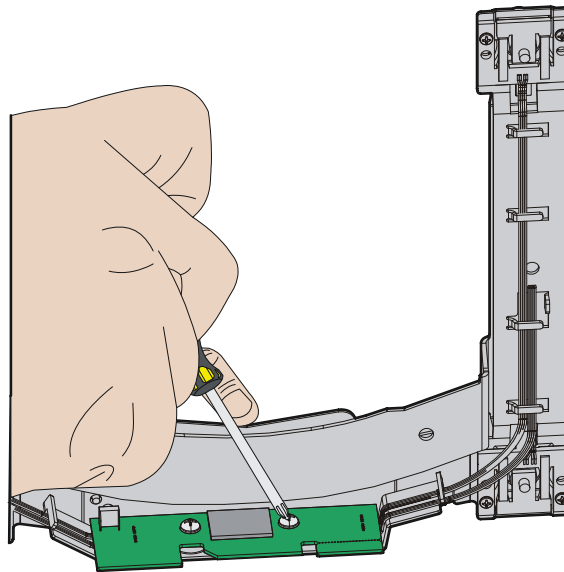
**Caution:** Avoid pulling the Scale Assembly from the ends closest to the Tower Assembly. Doing so may damage the mating connector and the Scale Board.

3. Verify if the washer is already installed. If it is, re-install the Scale and the Debris Guard.



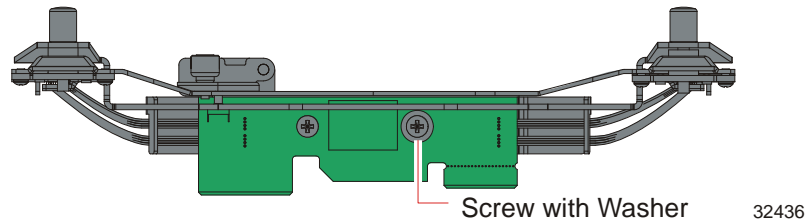
32599

4. If the washer is not yet installed, do the following:
  - a. Remove the screw on the right side.



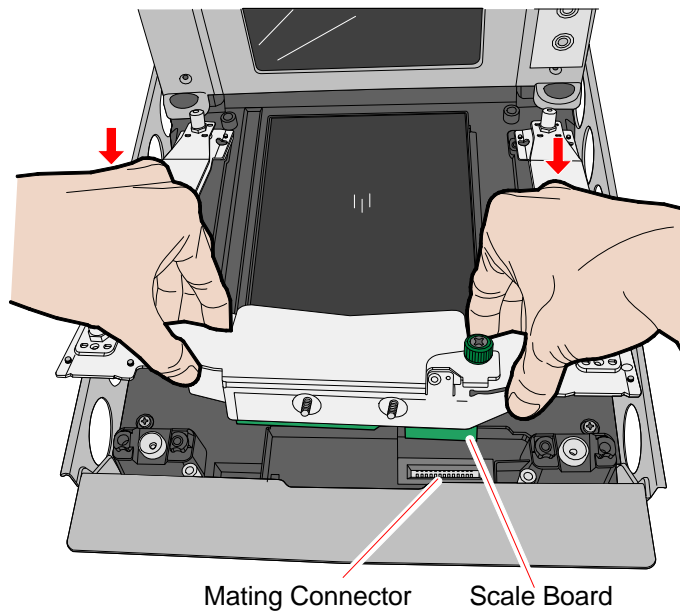
32440

- b. Install the washer, replace the screw on top of the washer, and tighten the screw until snug.



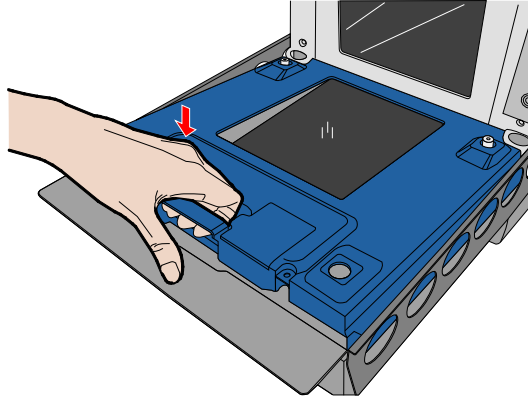
**Caution:** To avoid stripping the screw and nut when installing, first rotate the screw counter-clockwise until it drops into the nut threads and then, rotate clockwise until snug. Also, screwdriver should be aligned vertically when tightening to avoid cross threading or damaging the screw and nut.

5. Install the Scale.
  - a. Align the Scale Board with the mating connector and insert the Scale carefully.



24063

- b. Replace the eight screws to secure the Scale.
6. Install the Debris Guard.
  - a. Slip the back lip of the Debris Guard under the Bezel.
  - b. Lower down the front of the Debris Guard onto the unit.



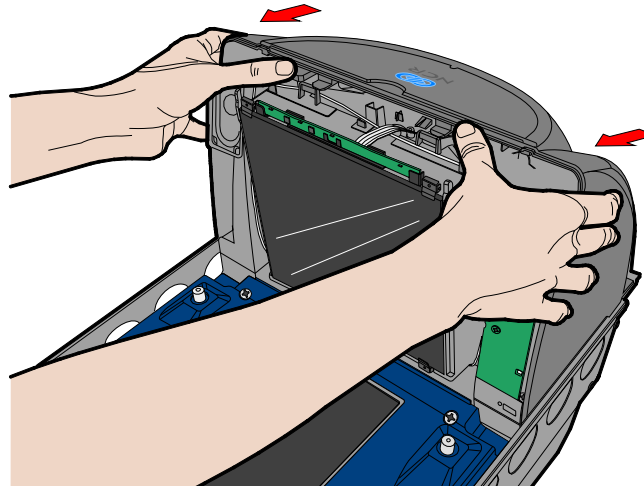
24058

- c. Install the four screws to secure the Debris Guard.
7. Calibrate the scale.

**Note:** For instructions on how to calibrate the scale, refer to the "Scale Calibration–Full Instructions" chapter of the *NCR RealPOS High Performance Bi-Optic Scanner/Scale (7878) Hardware Service Guide (B005-0000-1725)*.

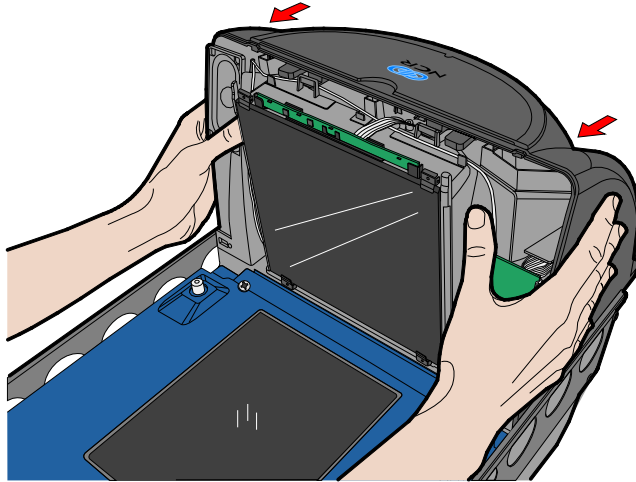
## Install the Tower Cover

1. Place the Tower Cover down onto the Inner Tower. Ensure no wires or cables are pinched between the Tower Cover and the unit.



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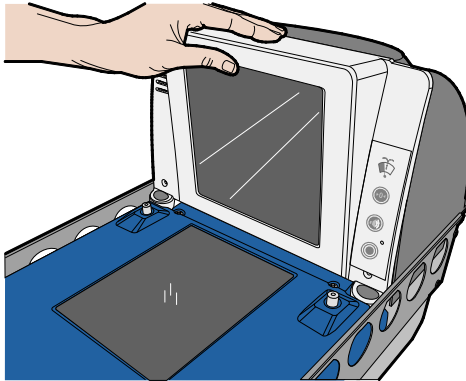
2. Slide the Tower Cover until the two tabs snaps in.



24056

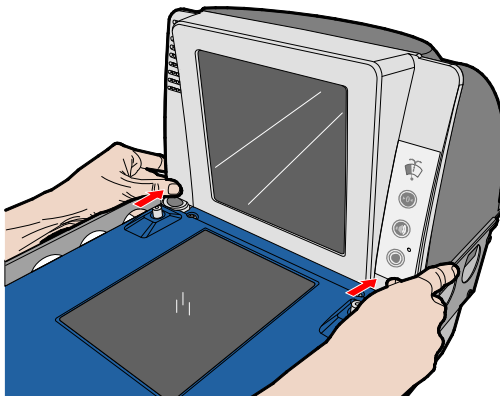
## Install the Front Bezel

1. Align the top edge of the Tower Cabinet with the top edge of the Front Bezel.



24051

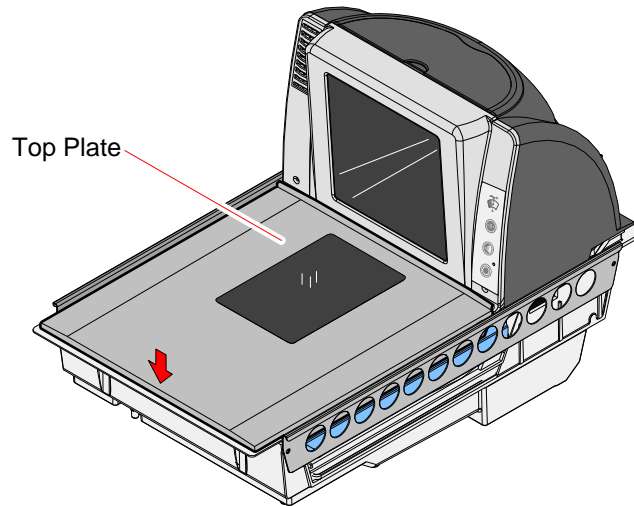
2. Apply pressure on the bottom-left and bottom-right corners of the Front Bezel to latch it in place.



24052

## Install the Top Plate

1. Lower the back edge of the Top Plate onto the two back Support Posts on the 7878.
2. Holding the front edge, lower the front of the Top Plate onto the two front Support Posts.

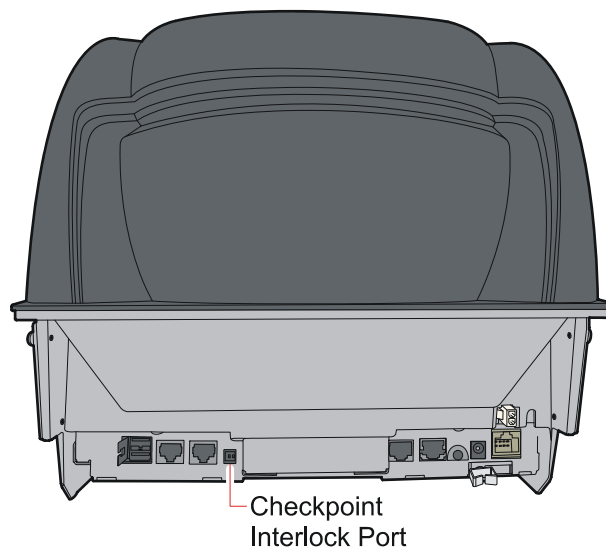


23795

## Install the Checkpoint Cable

Connect the white connector of the cable to the Checkpoint Interlock Port at the back of the 7878.

**Note:** The other end of the cable is connected to the Checkpoint box.



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## 7874 Checkpoint® Installation Procedure

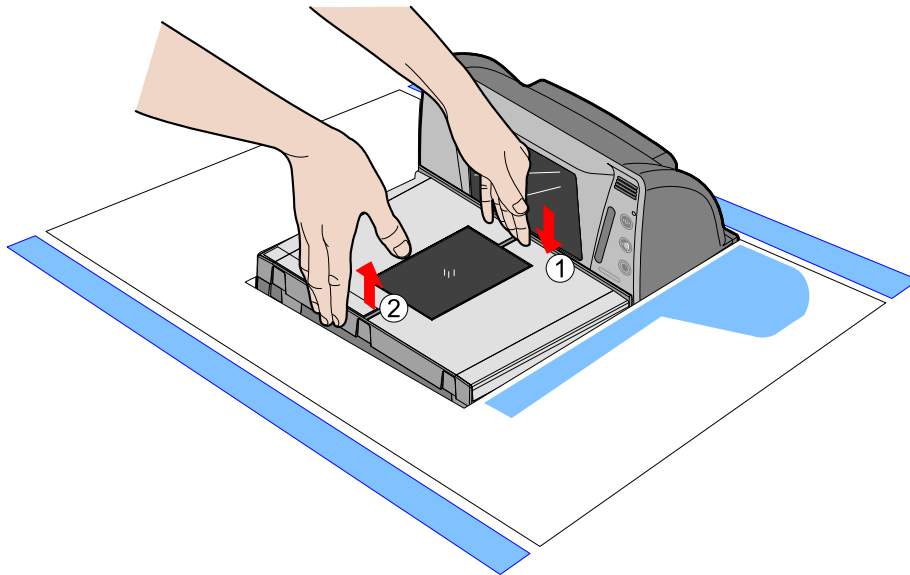
**Warning:** Disconnect the AC power cord before disassembling the scanner.

The Checkpoint antenna is installed underneath the front bezel of the 7874 scanner.

### Remove the Top Plate

#### If Scanner is Installed in a Checkstand

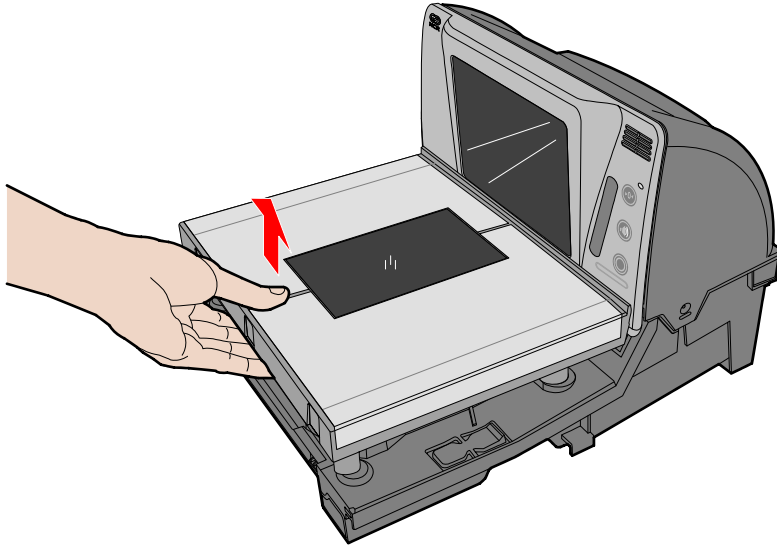
1. Using one hand, push down on the back of the Top Plate closest to the Tower until the front end of the Top Plate is slightly tilted.
2. Lift the front end of the Top Plate with your other hand and remove the Top Plate from the scanner.





### If Scanner is Not Installed in a Checkstand

1. Hold the front edge of the Top Plate between your fingers.
2. Lift the Top Plate to remove it from the scanner.

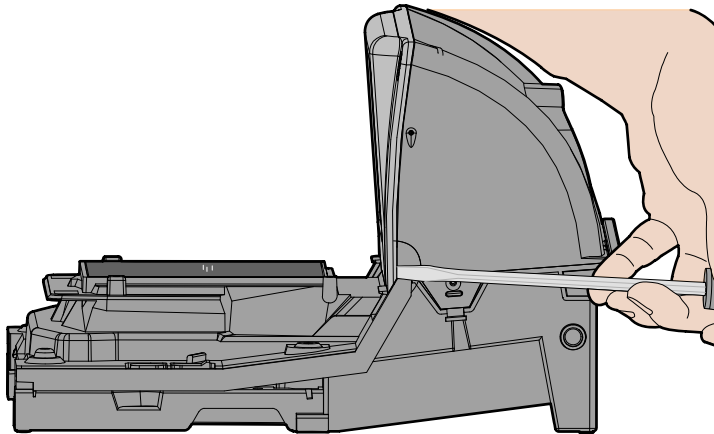


30155

### Remove the Front Bezel

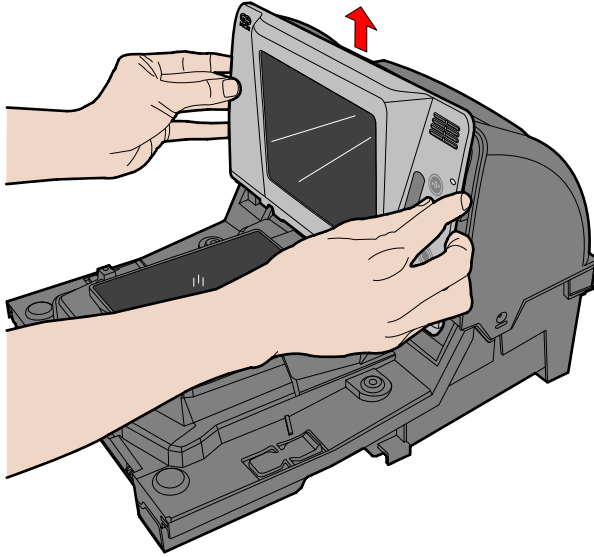
1. Place one hand and slightly apply downward pressure on the top corner of the Bezel. Use a flat tip screw driver to push the snap features found at the bottom-corner of the Bezel.

**Note:** Do this procedure on both sides of the Bezel to detach it from the scanner.



30158

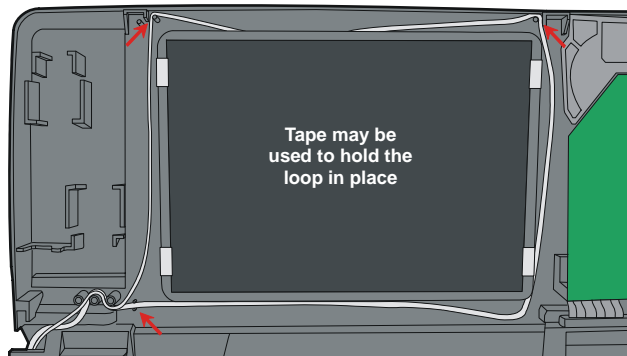
2. Lift the bezel straight up to remove it from the unit.



25571

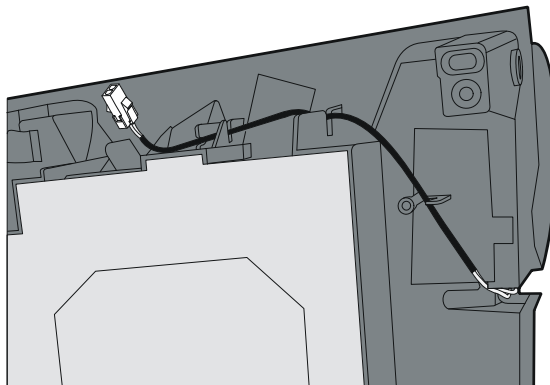
## Install the Checkpoint Antenna

1. Route the antenna around the Vertical Scan window as shown below.



25695

2. Route the antenna out the left side of the unit and through the channel at the base.

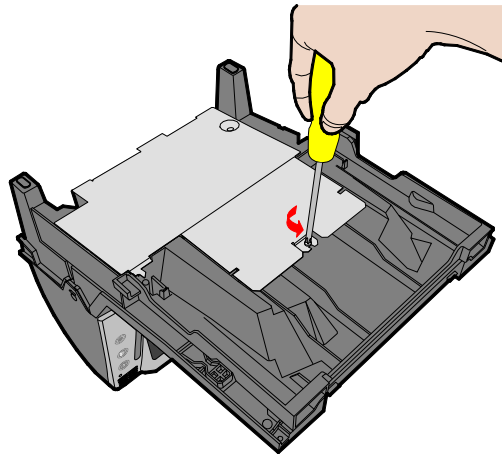


32436

## Install the Washer

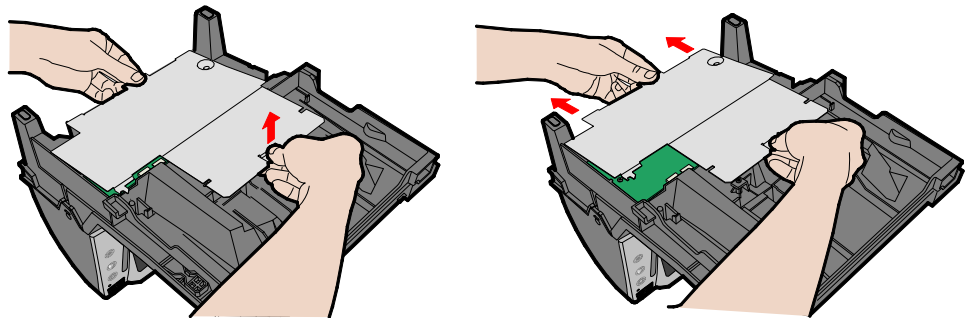
The scale assembly needs to be removed to check if it already has a washer under the right-hand screw.

1. Remove the Bottom Electronics Cover.
  - a. Disconnect all external cables from the scanner.
  - b. Turn the 7874 upside down. Be careful not to scratch the bezel.
  - c. Remove the mounting screw using a number-2 screw driver.



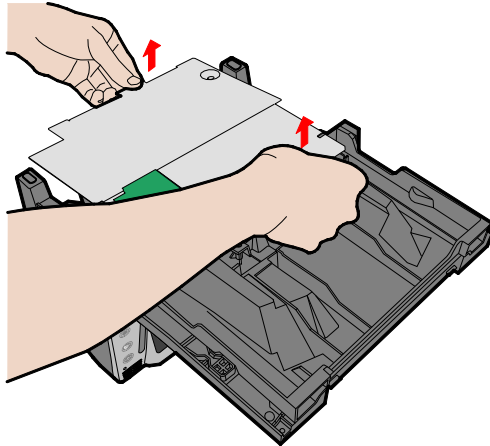
25530

- d. Slightly tilt the edge of the bottom electronics cover where the screw was placed, and then gently slide the cover towards the rear of the scanner.



25532

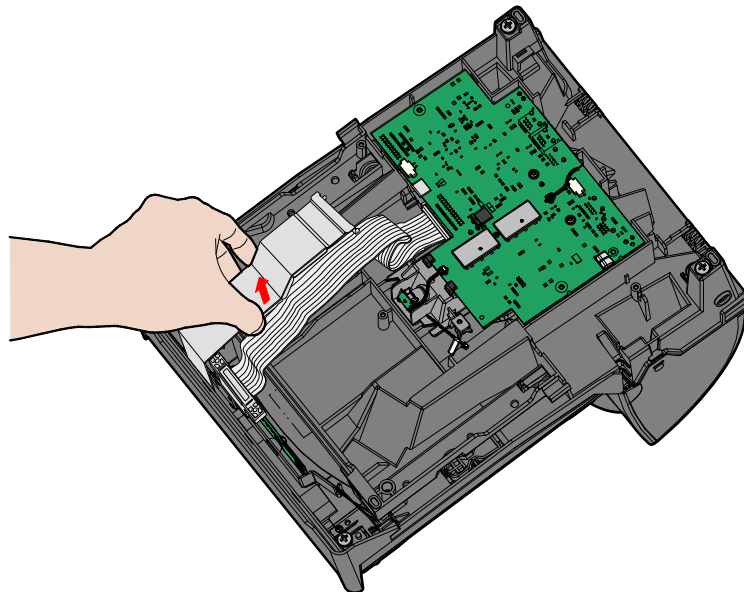
- e. Lift the Bottom Electronics Cover to remove it.



25533

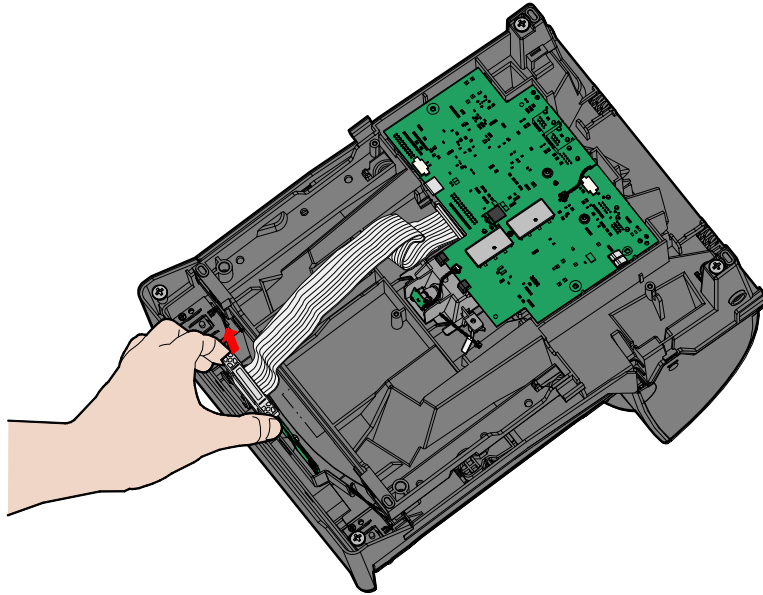
**Caution:** Damage may occur to the Digital Board and external connectors if the bottom electronics cover is forcibly removed while caught on the external connectors.

2. Remove the Scale assembly and the Debris Guard.
  - a. Remove the Scale Cable Cover.



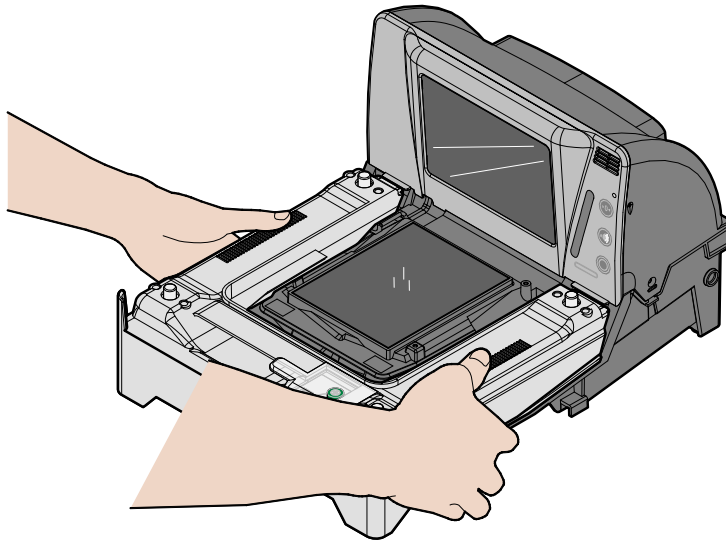
25897

- b. Disconnect the Scale Cable Connector from the Scale.



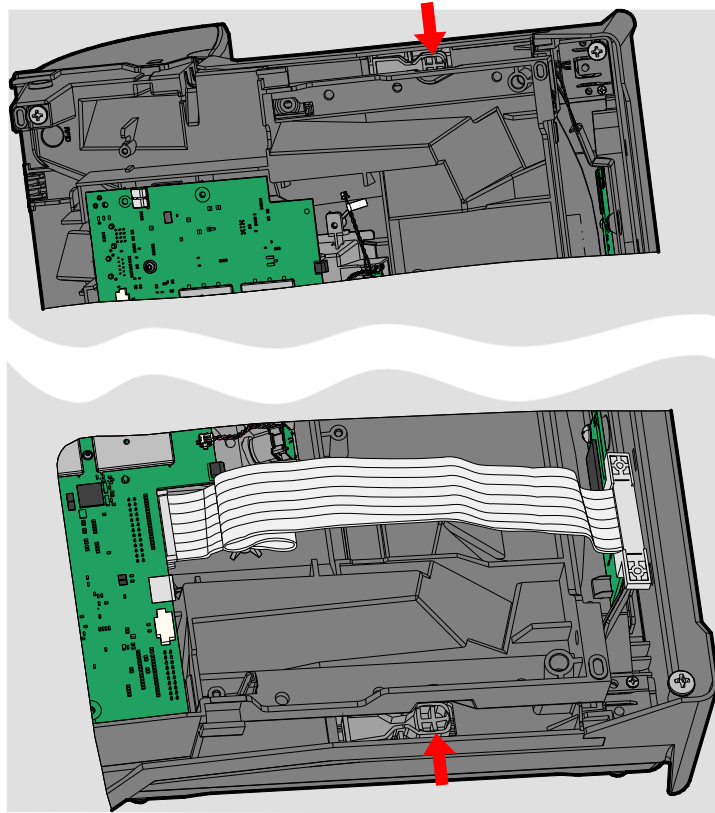
25989

- c. Turn the scanner right-side up.
- d. Hold the sides of the scanner shown below, with one finger reaching underneath each side of the scanner.



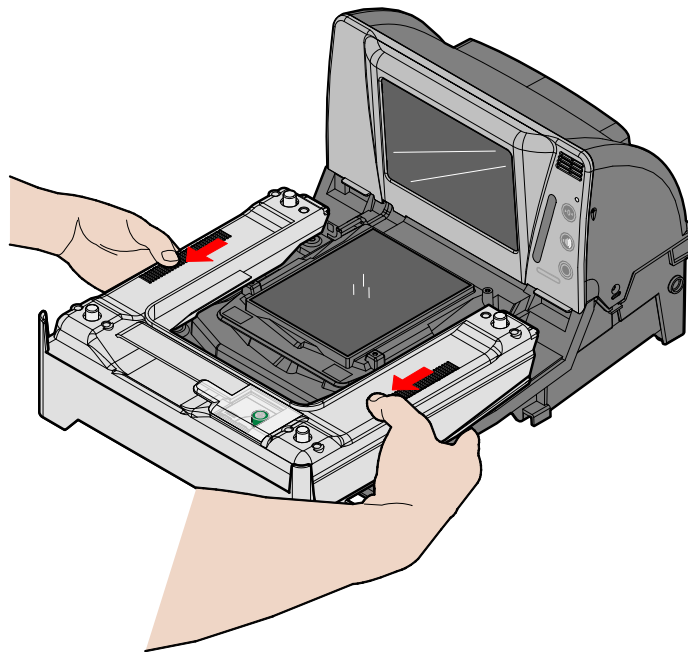
25894

- e. Access the locks underneath both sides of the scanner and gently press on them to detach the Debris Guard and Scale assembly from the scanner.



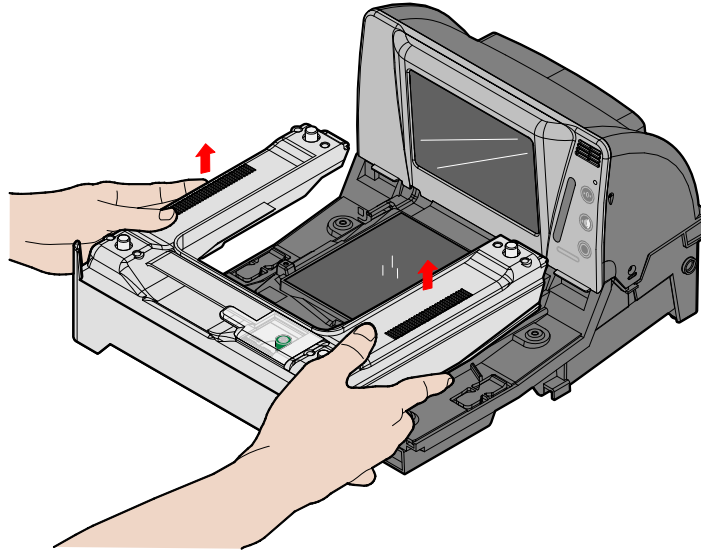
25891

- f. Gently slide the Debris Guard and Scale assembly towards the front of the scanner using your thumbs to disengage it from the scanner.



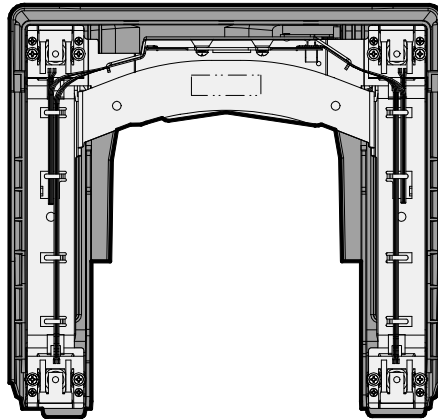
25895

- g. Lift the Debris Guard and Scale assembly to remove it from the scanner.



25896

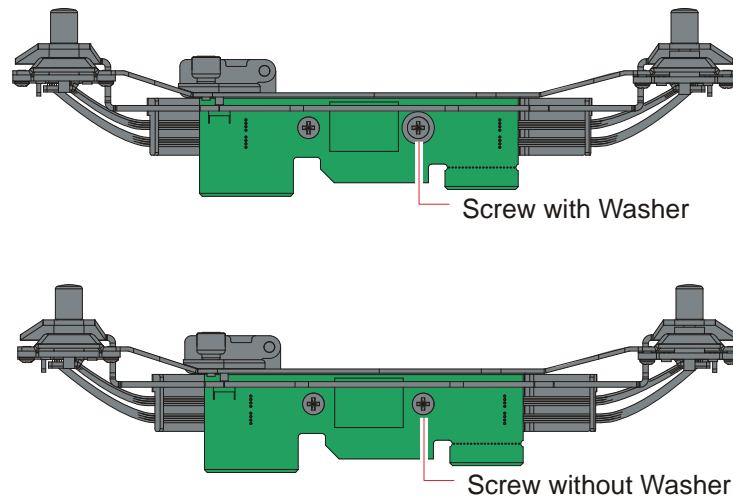
- h. Place the Debris Guard and Scale assembly on a flat surface with the Scale facing up as shown below.



26003

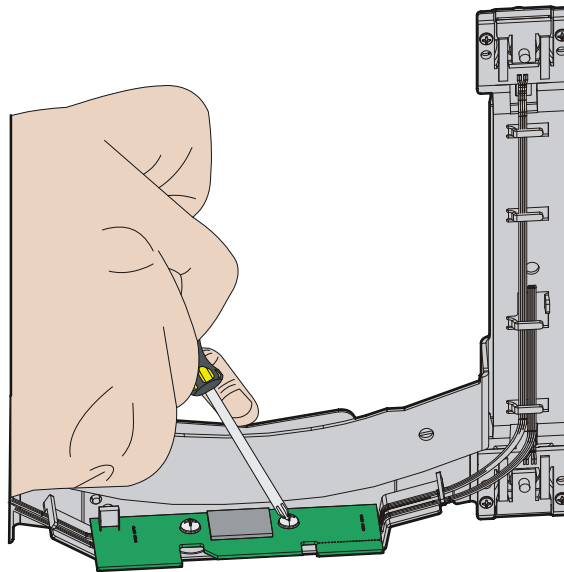
- i. Remove the 8 screws that hold the Scale to the Debris Guard.

3. Verify if the washer is already installed. If it is, re-install the Scale assembly and the Bottom Electronics Cover.



32599

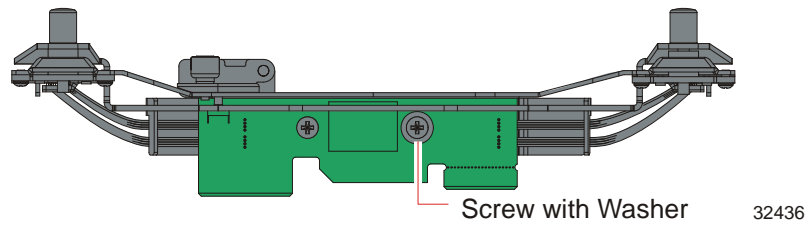
4. Install the Washer.
  - a. Remove the screw on the right side.



32440

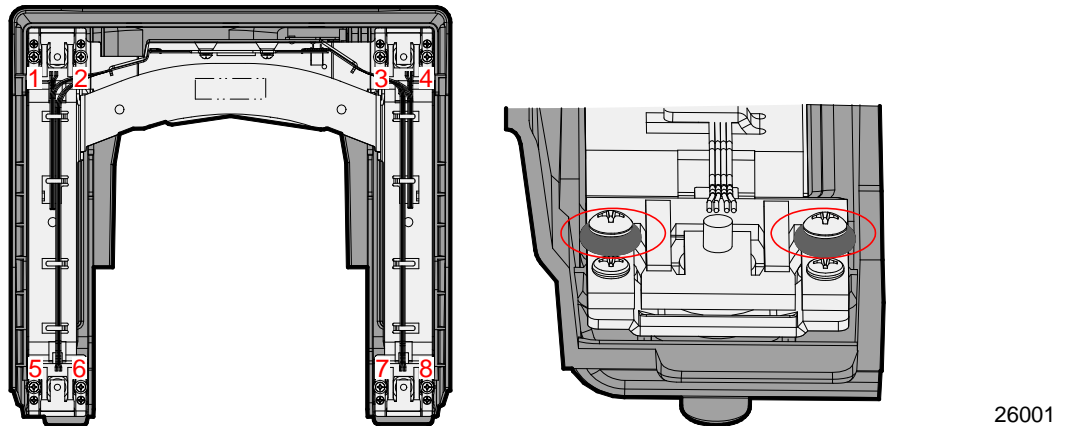


- b. Install the washer, replace the screw on top of the washer, and tighten the screw until snug.



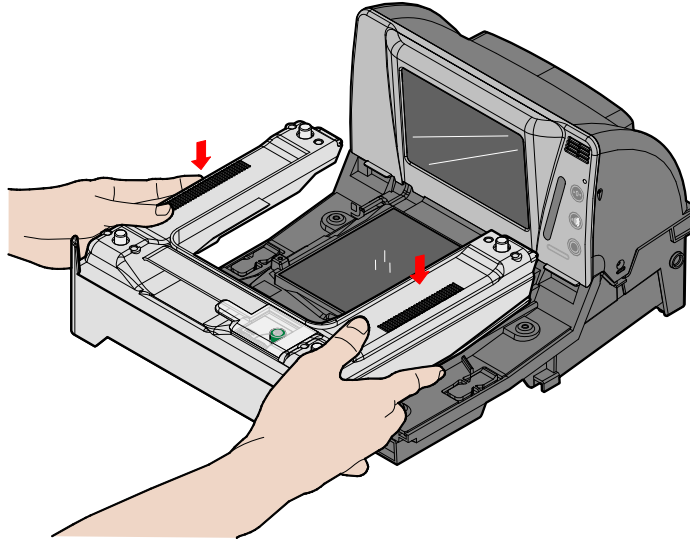
**Note:** To avoid stripping the screw and nut when installing, first rotate the screw counter-clockwise until it drops into the nut threads and then, rotate clockwise until snug. Also, screwdriver should be aligned vertically when tightening to avoid cross threading or damaging the screw and nut.

5. Install the Scale Assembly.
- a. Install the 8 screws with O-rings to a **FINGER TIGHT** position only.



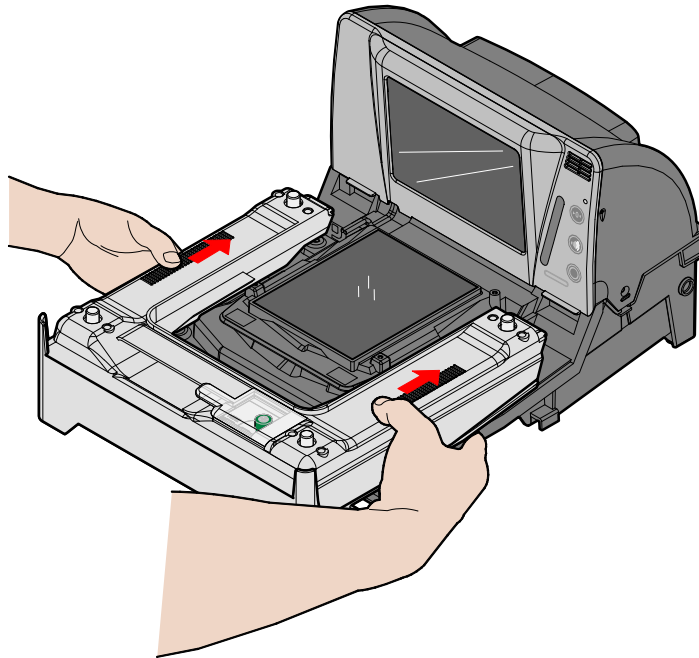
**Caution:** Be careful not to crush the O-rings when installing the screws. The screws should not be seated too tight on the O-rings.

- b. Lay down the Debris Guard and Scale assembly on the front portion of the Horizontal Cover as shown below.



25892

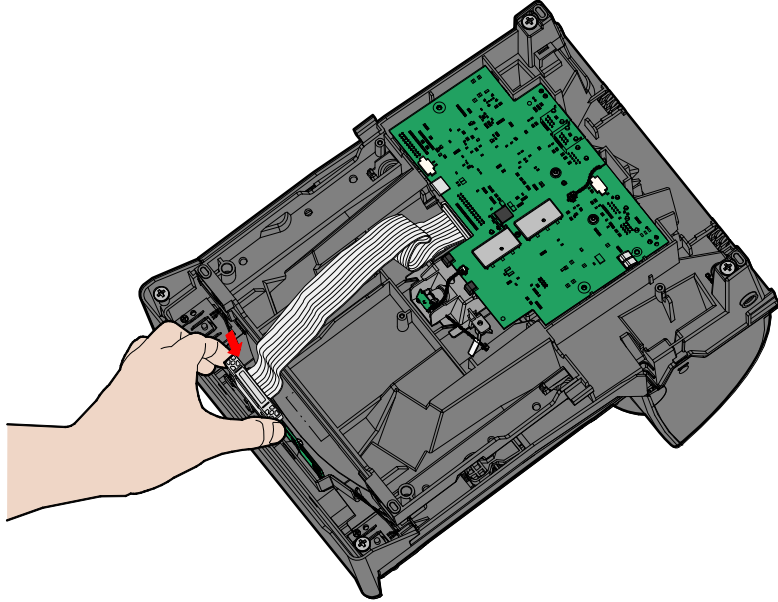
- c. Gently slide the Debris Guard and Scale assembly towards the rear of the scanner until the locks snap it in place.



25895

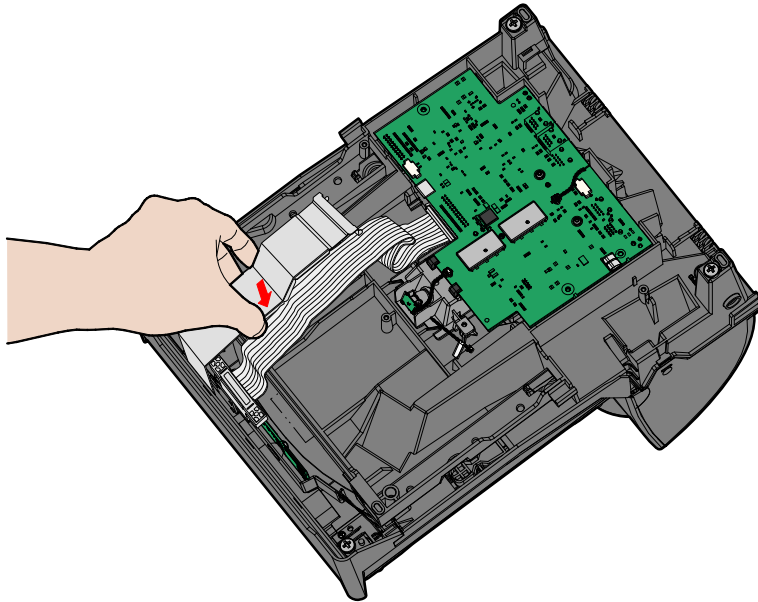
- d. Turn the scanner over.

- e. Connect the Scale Cable to the Scale.



25990

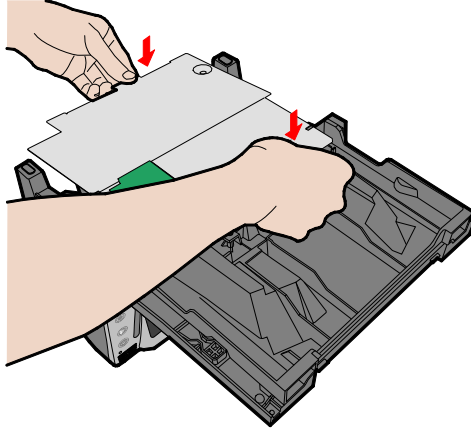
- f. Install the Scale Cable Cover.



25898

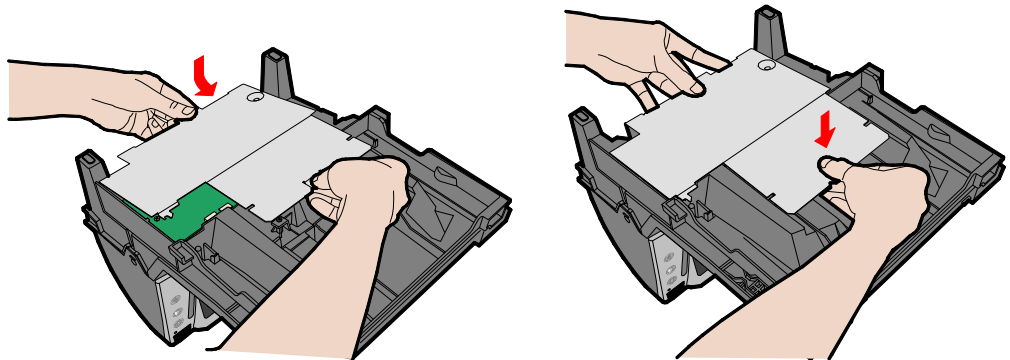
6. Install the Bottom Electronics Cover.

- a. Position the bottom electronics cover to its proper location on the bottom of the unit and ensure that it does not catch on the Digital Board external connectors.



25595

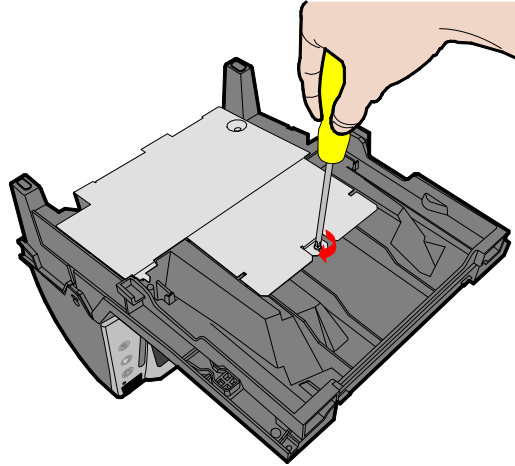
- b. Gently slide the bottom electronics cover towards the front end of the scanner and gently push down on it until it locks in place.



25534

**Note:** Ensure the tabs on the rear of the bottom electronics cover are engaged to the scanner base.

- c. Install the mounting screw.



25531

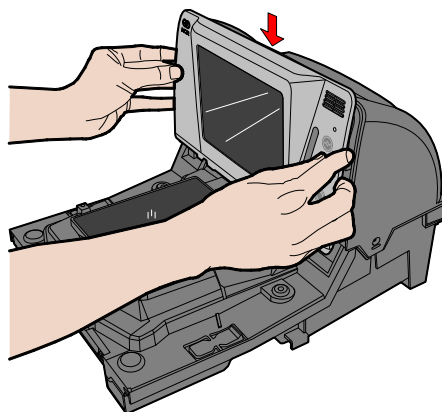
**Caution:** Damage may occur to the Digital Board and external connectors if the bottom electronics cover is forcibly installed while caught on the external connectors.

- d. Turn over the 7874.  
7. Calibrate the scale.

**Note:** For instructions on how to calibrate the scale, refer to the "Scale Calibration–Full Instructions" chapter of the *NCR RealPOS Low Profile Bi-Optic Scanner/Scale (7874) Hardware Service Guide (B005-0000-1823)*.

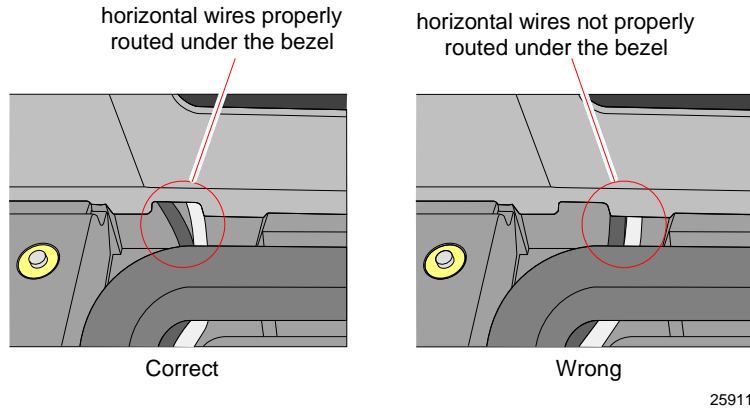
## Install the Front Bezel

1. Align the top edge of the tower cabinet with the top edge of the Front Bezel.

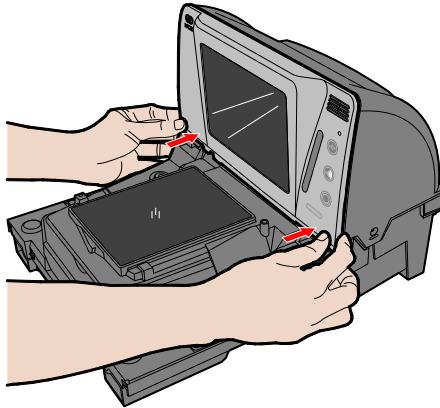


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**Note:** If a Sensormatic Coil is installed in the unit, ensure to route the horizontal coil wires under the notch found on the bottom of the Front Bezel. The scanner will have scale issues if the wires are not routed properly under the Front Bezel.



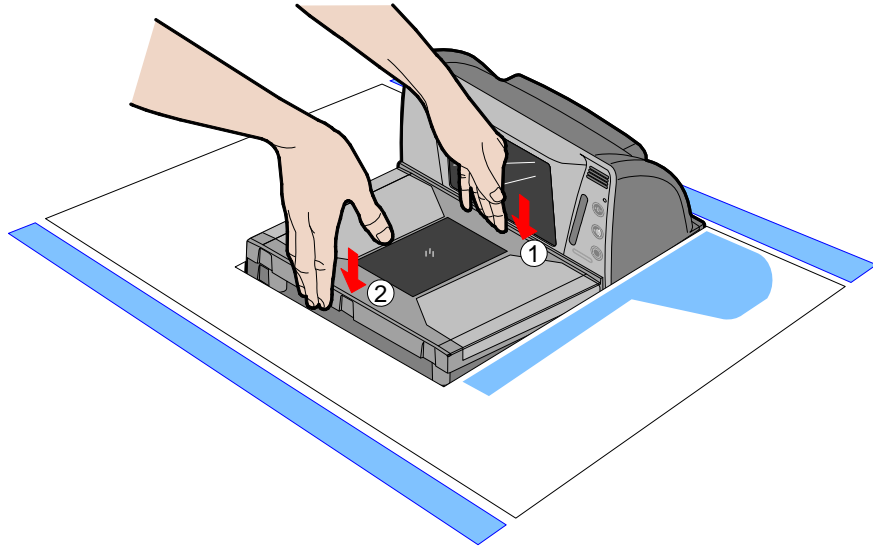
2. Press the bottom-left and bottom-right corners of the Front Bezel towards the tower cabinet to latch it in place.



## Install the Top Plate

### If Scanner is Installed in a Checkstand

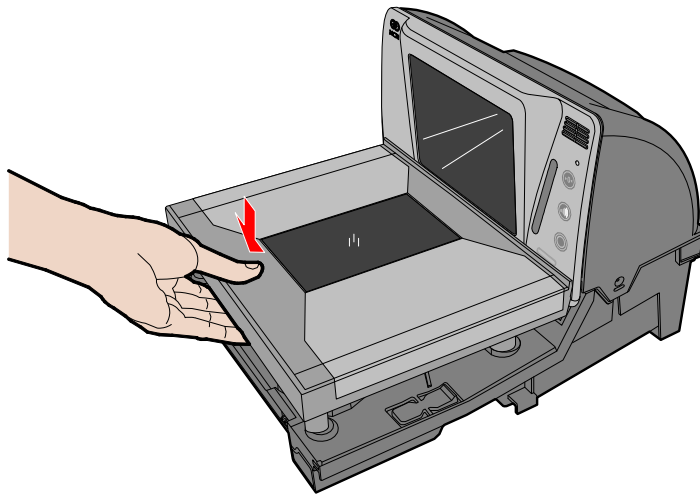
1. Holding the front end of the Top Plate, lay the back end onto the rear support posts first on the scanner.
2. Lay the front end of the Top Plate down onto the front support posts on the scanner.



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### If Scanner is Not Installed in a Checkstand

Lay down the Top Plate directly onto the four support posts on the scanner.

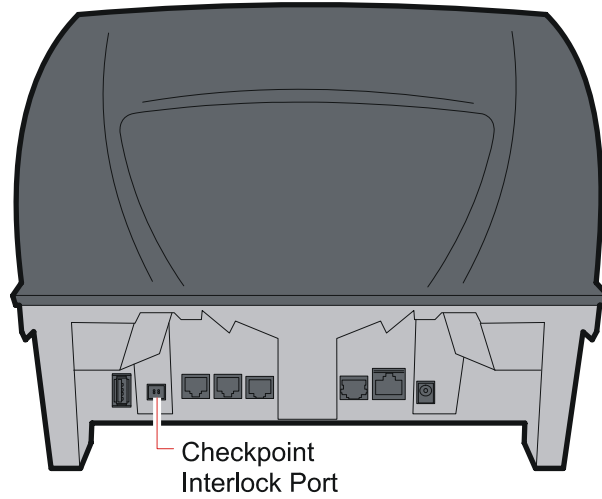


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## Install the Checkpoint Antenna Cable

Connect the white connector of the cable to the Checkpoint Interlock Port at the back of the 7874.

**Note:** The other end of the cable is connected to the Checkpoint box.



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