



NCR Voyix SelfServ™ 90 (7709)

Kit Instructions

Sensormatic R1.1/R1.2

7709-K738
Issue E

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Atlanta, Georgia, USA

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Revision Record

Publication issue	Date	Description of change
A	Apr 2016	First issue.
B	May 2018	Added components and instructions for latest kiosk model
C	Aug 2018	<ul style="list-style-type: none">Added cable ties.Added Interconnection Diagram and notes on cable colors.
D	May 2020	Added procedure for 7709 R2.0
E	Jan 2026	Updated with NCR Voyix brand.

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7709-K738 Sensormatic R1.1/R1.2

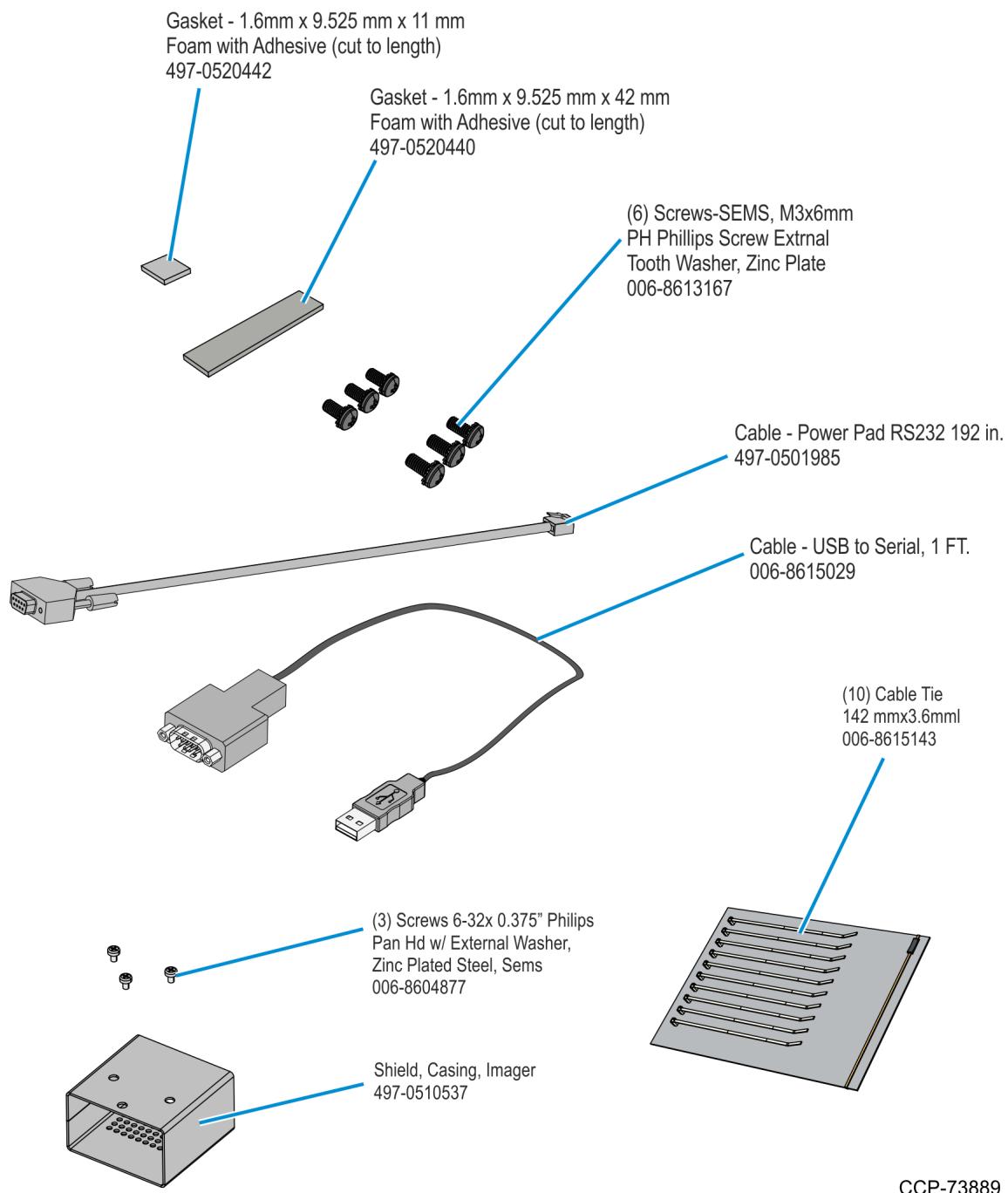
This publication provides procedures for installing the 7709-K738 Sensormatic R1.1 & R1.2 to support integration of a Sensormatic EAS device to the NCR Voyix SelfServ™ 90 (7709).

The installation procedure and components used vary depending on the Product ID (PID) of the kiosk. Refer to the appropriate section below as appropriate for the kiosk PID.

The Sensormatic Controller and Antenna are customer supplied.

Product ID	Installation Procedure
7709-1000-8090	"NCR Voyix 7709 R1.0/1.1 Installation Procedure" on page 8
7709-2000-8090	
7709-2200-8090	"NCR Voyix 7709 R1.2 Installation Procedure" on page 18
7709-3000-8090	"NCR Voyix 7709 R2.0 Installation Procedure" on page 35
7709-4000-8090	

Kit Contents



Part Number	Description
497-0522053	7709-K738 Sensormatic R1.1/ R1.2
497-0501985	Cable - Power Pad Rs232 192 Inch

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Part Number	Description
497-0510537	Shield, Casing, Imager
497-0534867	Cable - USB-To-Serial Converter (Pl2303-Gc Chip), 762mm (2.5Ft)
006-8604877	Screw - 6-32X 0.375" Phillips Pan Hd W/ External Washer, Zinc Plated Steel, Sems (3 pcs)
006-8613167	Screw - Sems, M3X6Mm Ph Phillips Machine Screw External-Tooth Washer, Zinc Plated (6pcs)
497-0520440	Gasket – 1.6 Mm Thick, 9.525Mm Wide, 42Mm Length, Foam With Adhesive (Cut To Length)
497-0520442	Gasket – 1.6 Mm Thick, 9.525Mm Wide, 11Mm, Foam With Adhesive (Cut To Length)
006-8615143	Cable Tie, 142Mm X 3.6mm (10 pcs)
* 497-0423108	Instructions-Kit (Reference Sheet)

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

NCR Voyix

7709 R1.0/1.1 Installation Procedure

This sections provides the installation procedure for NCR SelfServ 90 Kiosks with legacy model PIDs:

- 7709-1000-8090
- 7709-2000-8090

Warning

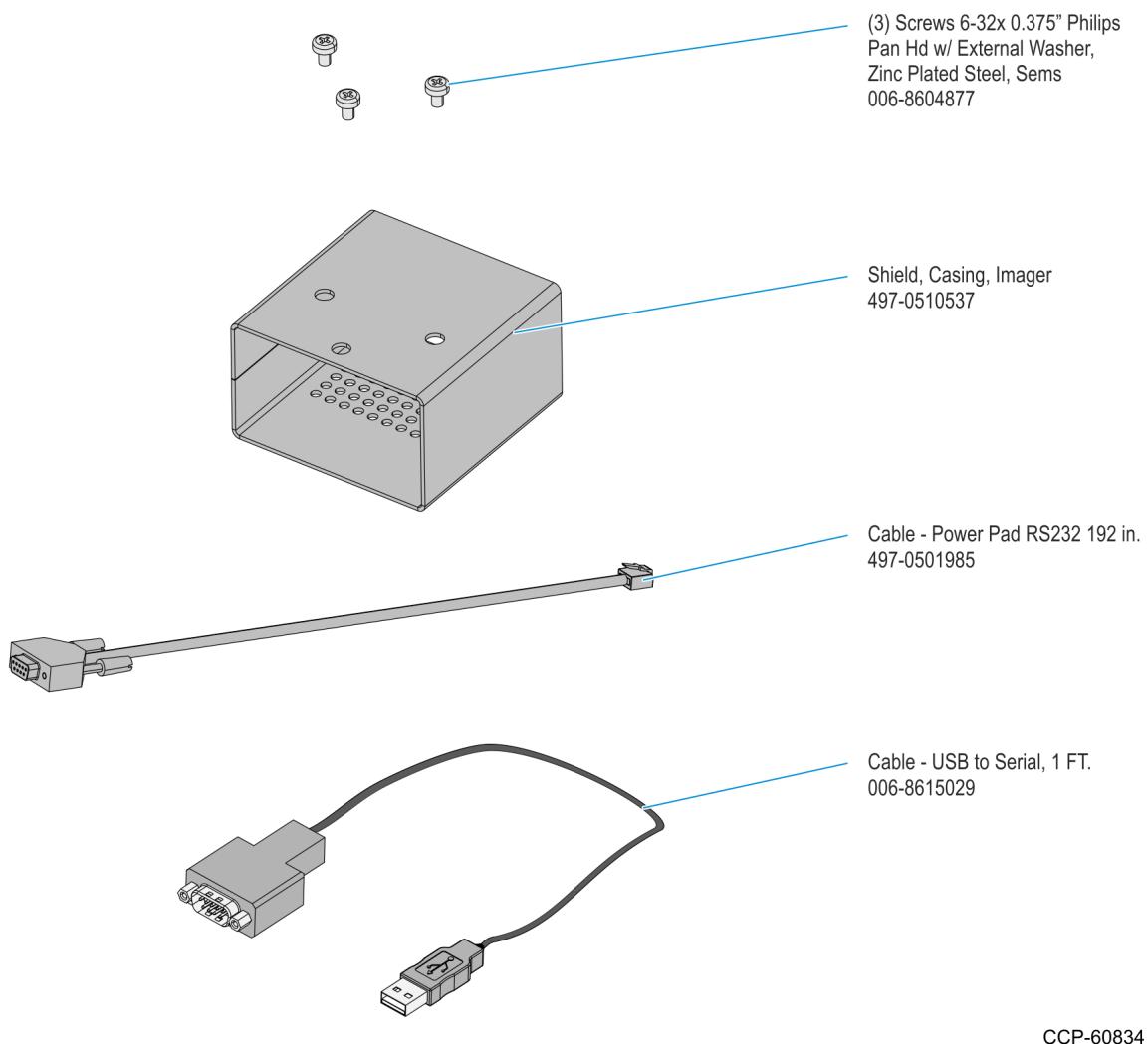
Disconnect the AC power cord before disassembling the Terminal.

Caution

Observe the following precautions to safely install the Sensormatic Controller:

- Do not connect or disconnect the Sensormatic Antenna or any Sensormatic Cable to the Sensormatic Controller when power is on as this damages the controller.
- Make sure that the cables are routed as shown. Sensormatic Modules give off strong electrical discharge that may damage other modules.
- Static Electricity Discharge may permanently damage your system. Discharge any static electricity build up in your body by touching your terminal's exterior panels for a few seconds. Avoid any contact with internal parts and handle cards only by their external edges.

Only the following components in the illustration below are needed to install the Sensormatic EAS device to the NCR SelfServ 90 London Kiosk legacy models.

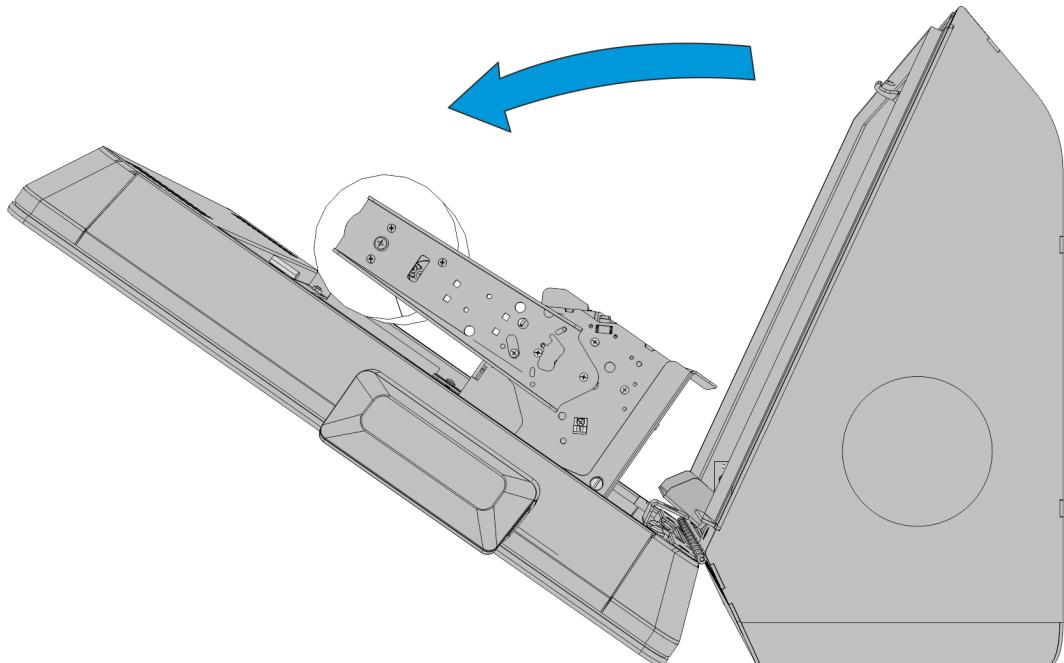


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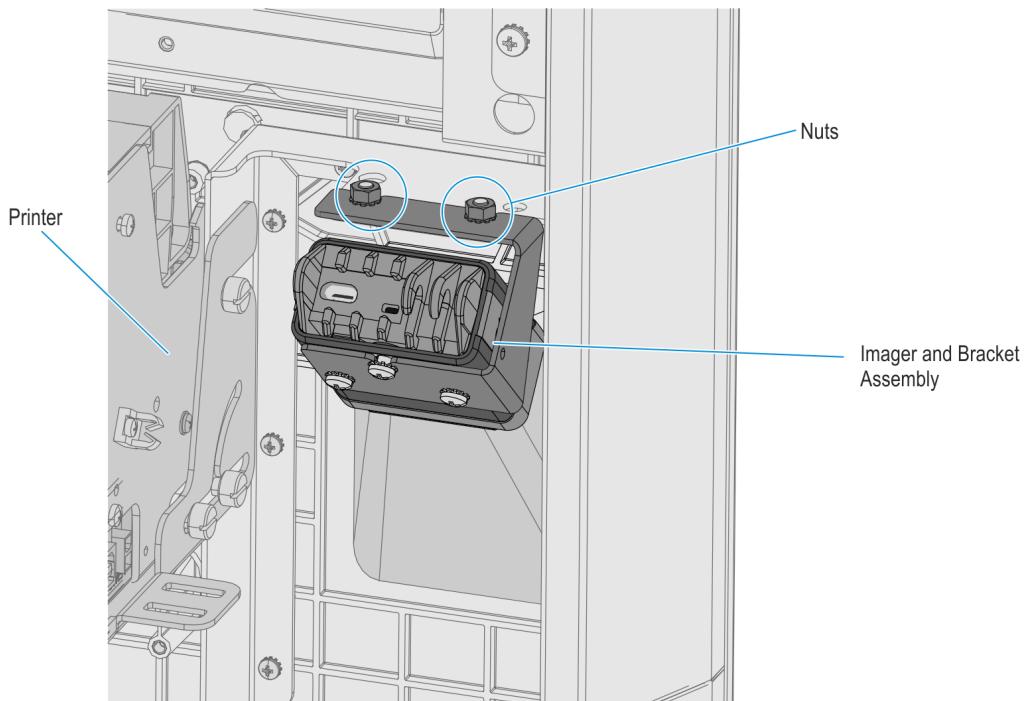
To install the Sensormatic EAS device, perform the following steps:.

1. Shutdown and power off the terminal.
2. Open the front of the kiosk.



60922

3. Install the imager shield casing to the imager.
 - a. Remove the screws (2) that secure the imager and bracket assembly to the facia.

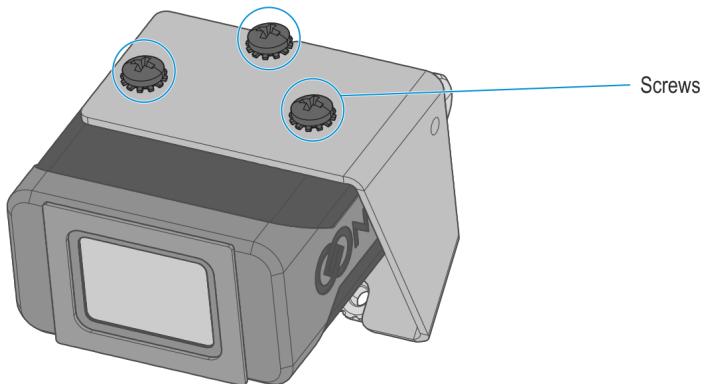


CCP-60833

b. Remove the screws (3) that secure the imager to the bracket.

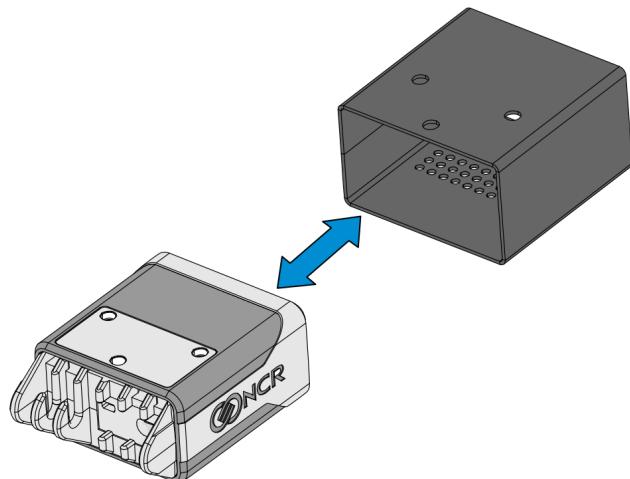
 **Note**

Do not re-use these screws when re-installing the imager to the bracket. Use the new screws provided in this kit.



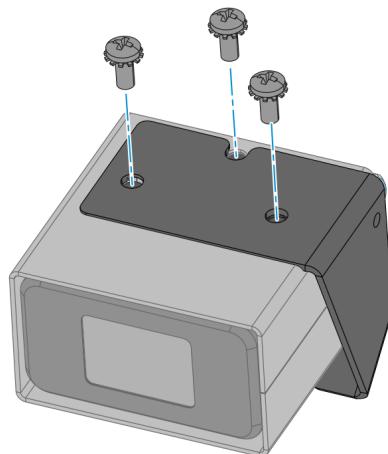
CCP-60845

c. Insert the imager to the shield casing, aligning their mounting holes.



CCP-60829

d. Mount the imager and shield assembly to the imager bracket, aligning their mounting holes, then secure with the screws (3) provided in this kit.

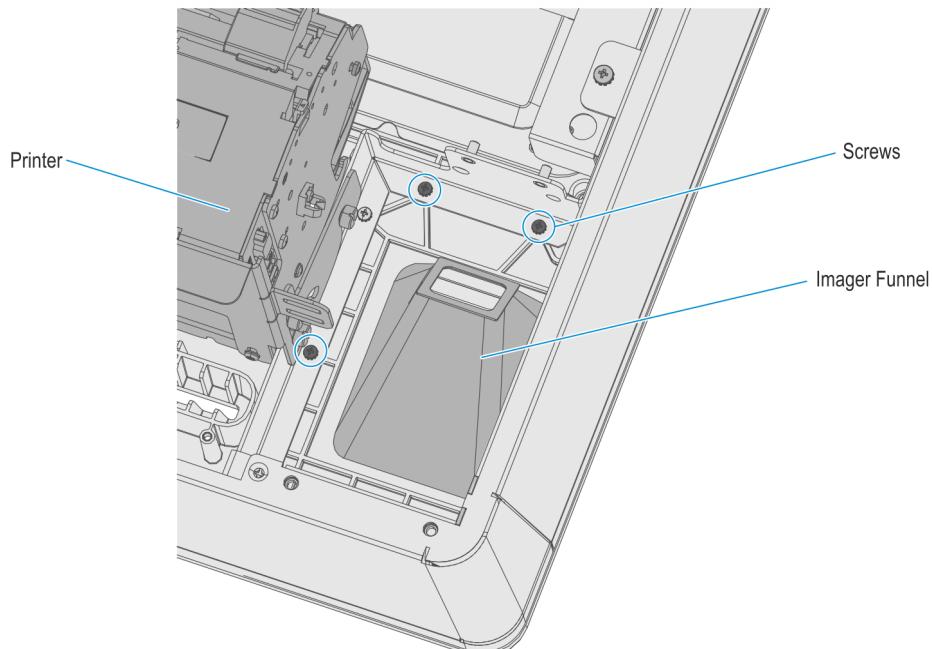


CCP-60830

4. Remove the screws (3) on the Display Head Assembly, around the imager funnel. These screws will be used to secure the Sensormatic antenna and bracket to the head assembly.

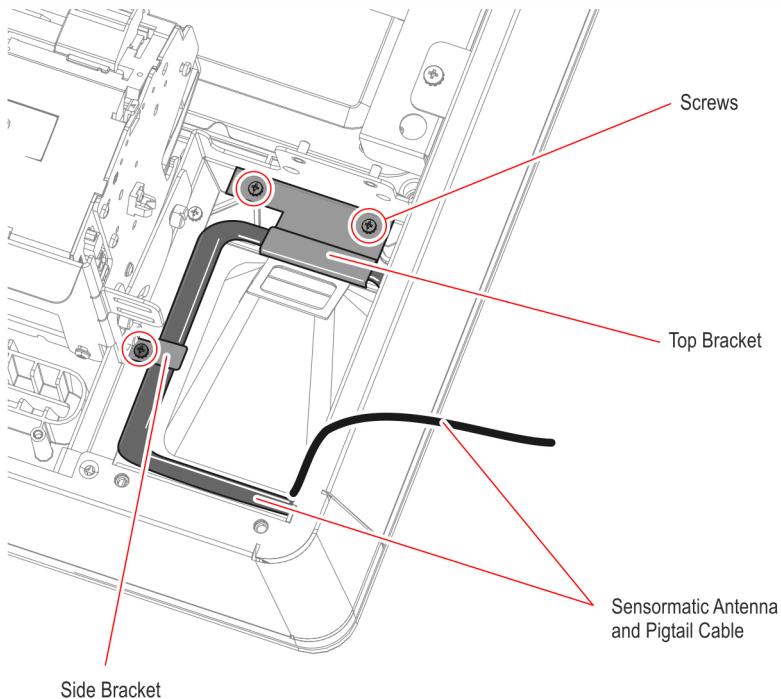
⚠ Caution

Take care not to damage existing cables in this area. Lift up the cables as necessary.



CCP-60831

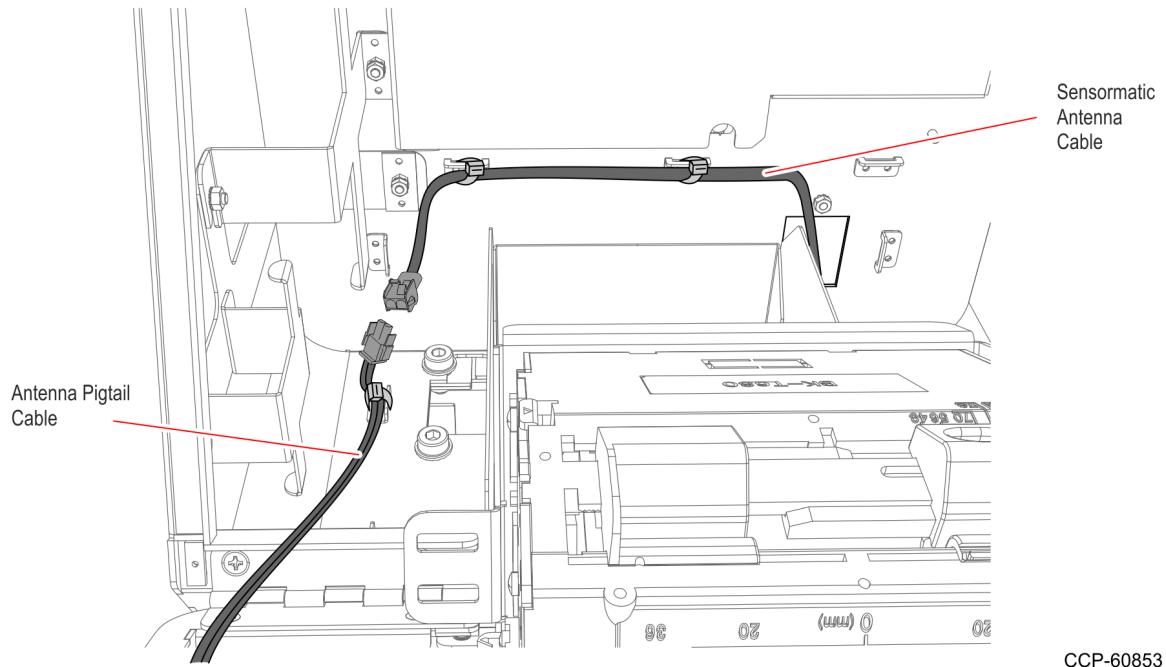
5. Place the Sensormatic antenna over the imager funnel with its pigtail cable sticking out at the lower-right hand corner of the Display Head Assembly. Secure the antenna with brackets (2) and screws (3).



CCP-60832

6. Mount and secure the imager assembly to the head assembly with screws (2).
7. Route the Sensormatic cables from the Sensormatic controller into the cabinet through the rear access hole.

8. Route the Sensormatic Antenna Cable inside the kiosk.
 - a. Route the antenna pigtail cable into the cabinet and on the left-hand side of the coupon bin, and then secure it with a cable tie.
 - b. Route the Sensormatic antenna cable towards the antenna pigtail cable and plug the connectors together.
 - c. Cut-off existing cable ties shown in the following image. Bundle the antenna cable with other cables and then secure the cables using two new cable ties.

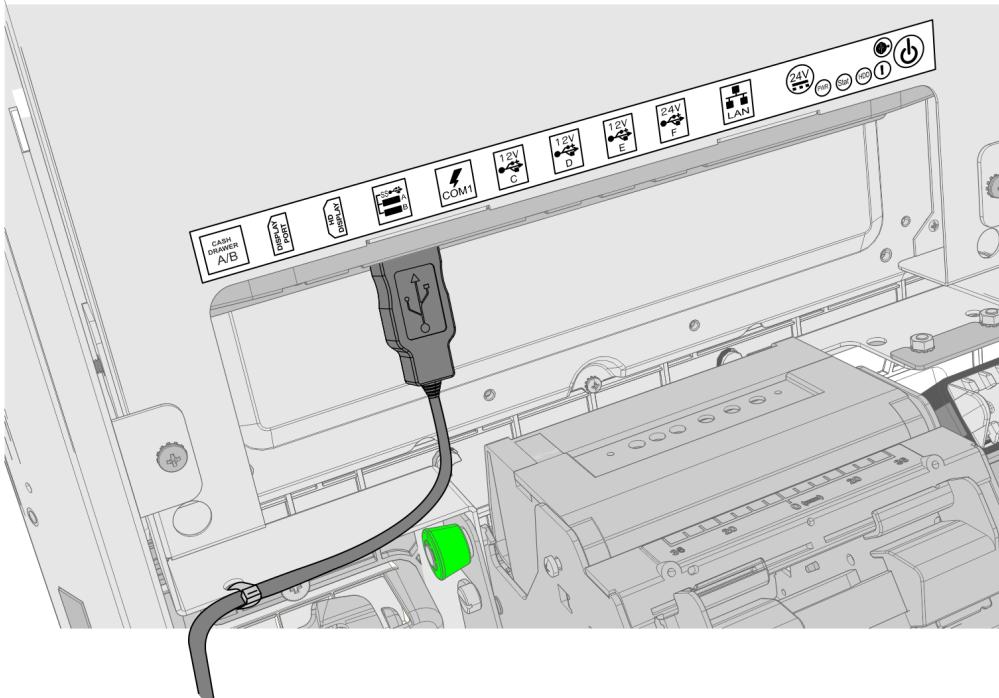


9. Route the RS-232 Power Pad and the USB to Serial Cable inside the kiosk.
 - a. Connect the USB connector of the USB to Serial cable to a vacant USB port on the motherboard I/O Panel.

 **Note**

If the two ports are vacant, connect the cable to the top port.

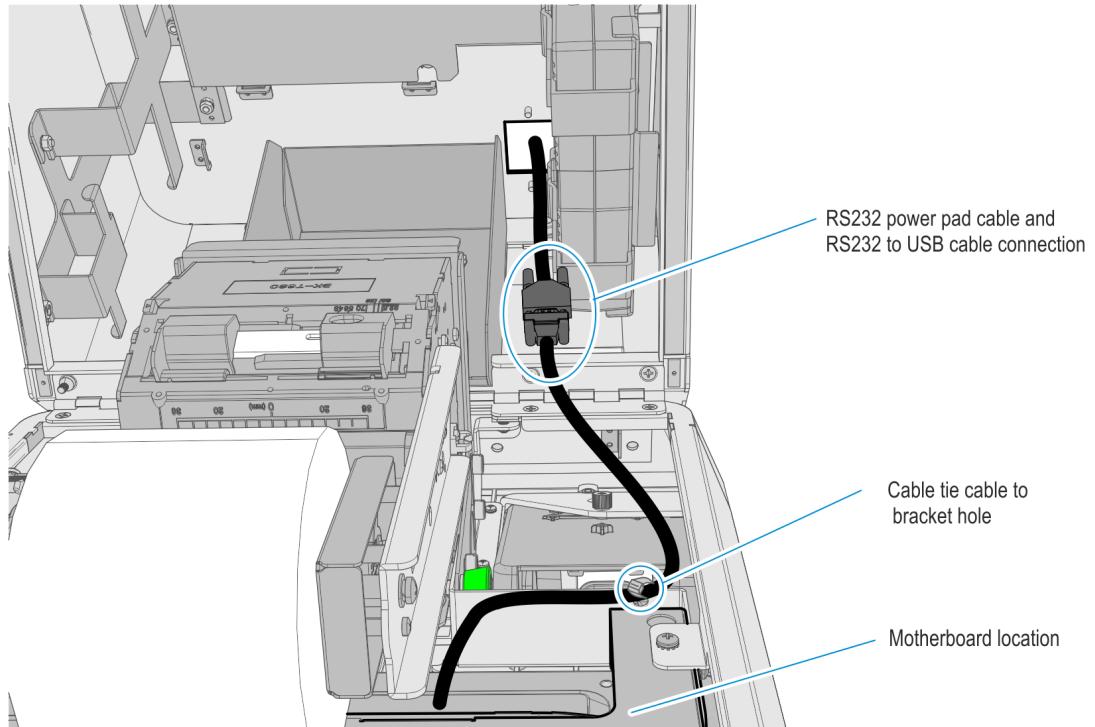
9.
 - b. Route the cable downward towards RS-232 Power Pad cable in the kiosk cabinet.



CCP-60859

9.
 - c. Connect the USB to Serial cable to the RS232 Power Pad cable and tuck the connectors under the PSU.
 - d. Secure the USB to Serial cable to the two cable clamps along its route.
 - e. Cut off existing cable ties securing the cable bundle to the bracket just below the I/O Panel.

f. Bundle the USB to Serial cable together with the other cables and then secure the cables using two new cable ties.



CCP-60854

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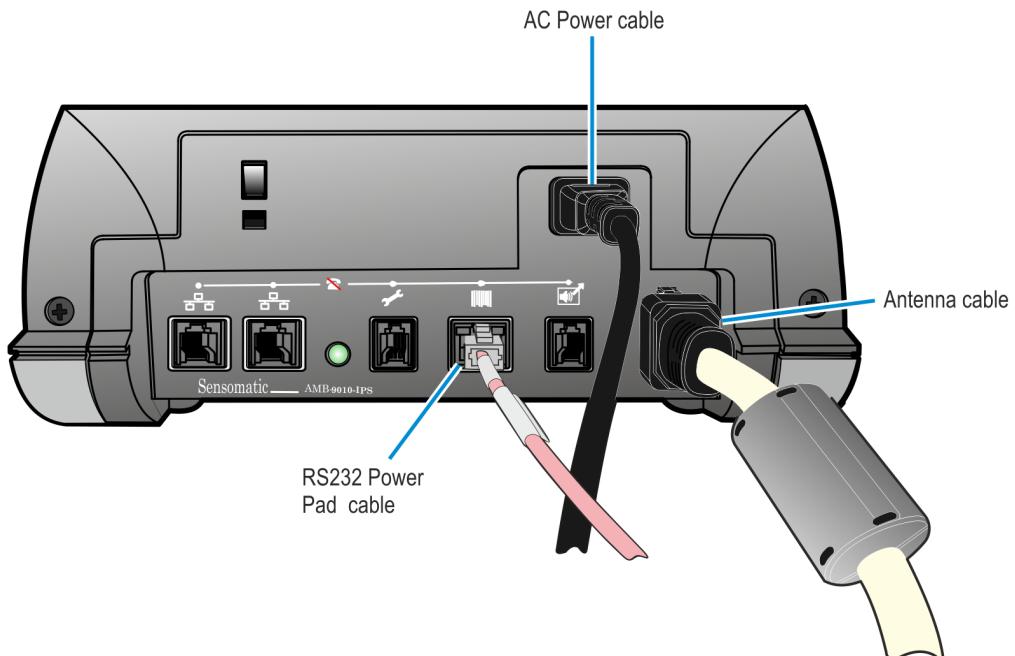
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10. Connect the Sensormatic cables to the Sensormatic Controller ports in the following order:

⚠ Caution

To avoid damage to the controller, make sure that the Sensormatic Controller power is OFF before connecting the cables. DO NOT reverse the order of connecting the Sensormatic cables, and DO NOT connect or disconnect the cables from the controller when power is ON.

- a. RS-232 Power Pad Cable
- b. Antenna Cable
- c. Sensormatic AC Power Cable



CCP-60873

11. Place and secure all extra cable length of the Sensormatic cables outside of the kiosk cabinet.

NCR Voyix 7709 R1.2 Installation Procedure

This section provides the installation procedure for NCR SelfServ 90 Kiosks with PID 7709-2200-8090.

⚠ Warning

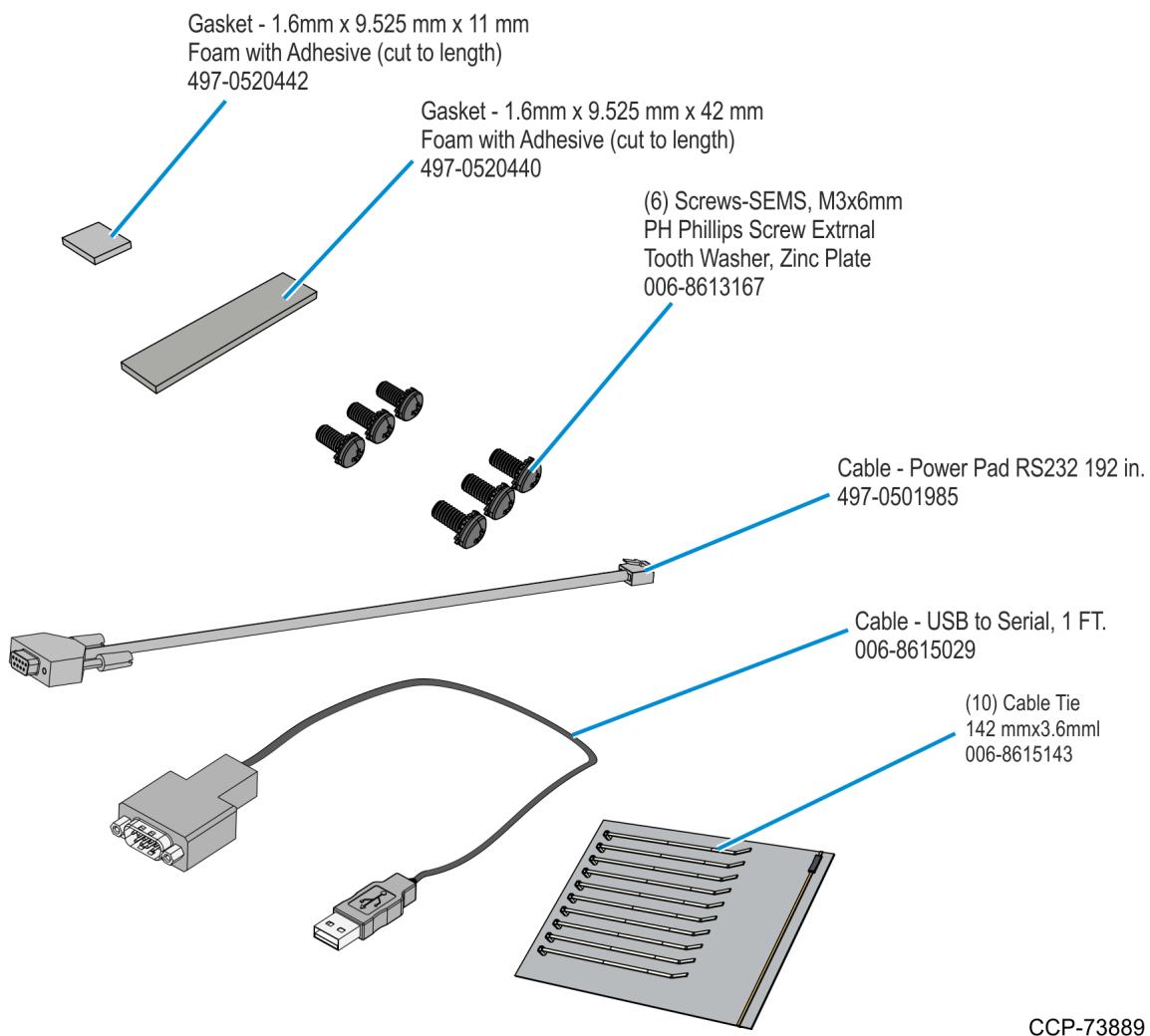
Disconnect the AC power cord before disassembling the Terminal.

⚠ Caution

Observe the following precautions to safely install the Sensormatic Controller:

- Do not connect or disconnect the Sensormatic Antenna or any Sensormatic Cable to the Sensormatic Controller when power is on as this damages the controller.
- Make sure that the cables are routed as shown. Sensormatic Modules give off strong electrical discharge that may damage other modules.
- Static Electricity Discharge may permanently damage your system. Discharge any static electricity build up in your body by touching your terminal's exterior panels for a few seconds. Avoid any contact with internal parts and handle cards only by their external edges.

Only the following components in the illustration below are needed to install the Sensormatic EAS device to 7709 R1.2 units.



To install the Sensormatic EAS device, follow these steps:

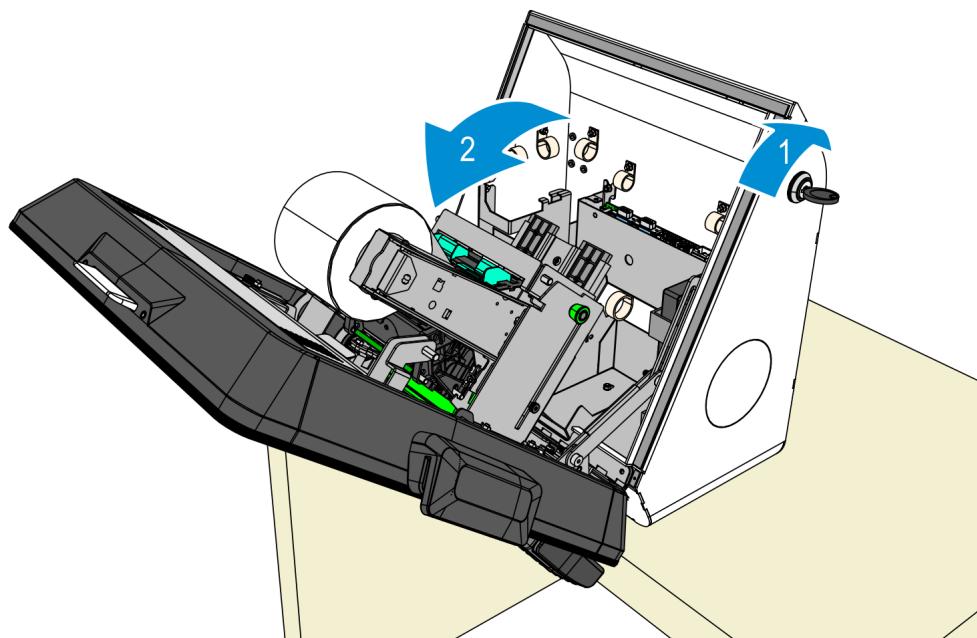
Note

Actual cable colors are black, they are shown as different colors in the illustrations for easier reference and identification. See "[Interconnection Diagram](#)" on page 52 for more information.

1. Shutdown and power off the terminal. Disconnect the Kiosk AC Power Cable from the outlet.
2. To open the kiosk, insert the key into the lock at the right-hand side of the kiosk, turn the key clockwise, and carefully open the front of the kiosk.

Caution

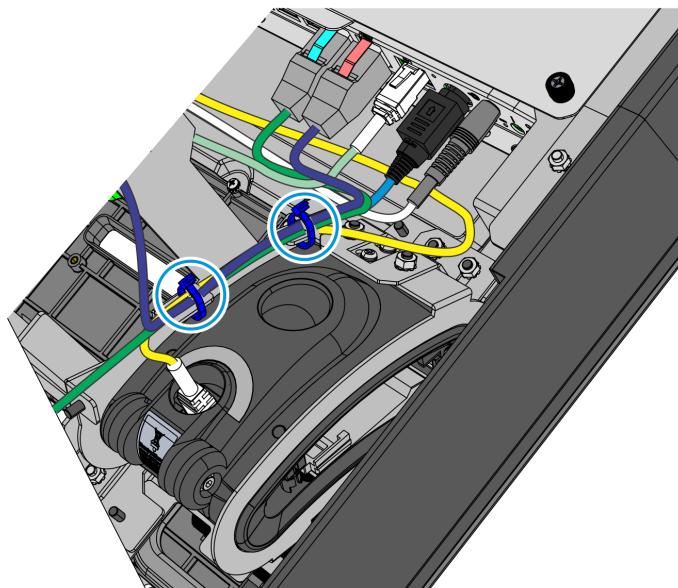
Do NOT abruptly open and release the front of the kiosk. Hold and support the front of the kiosk until fully extended.



CCP-73618

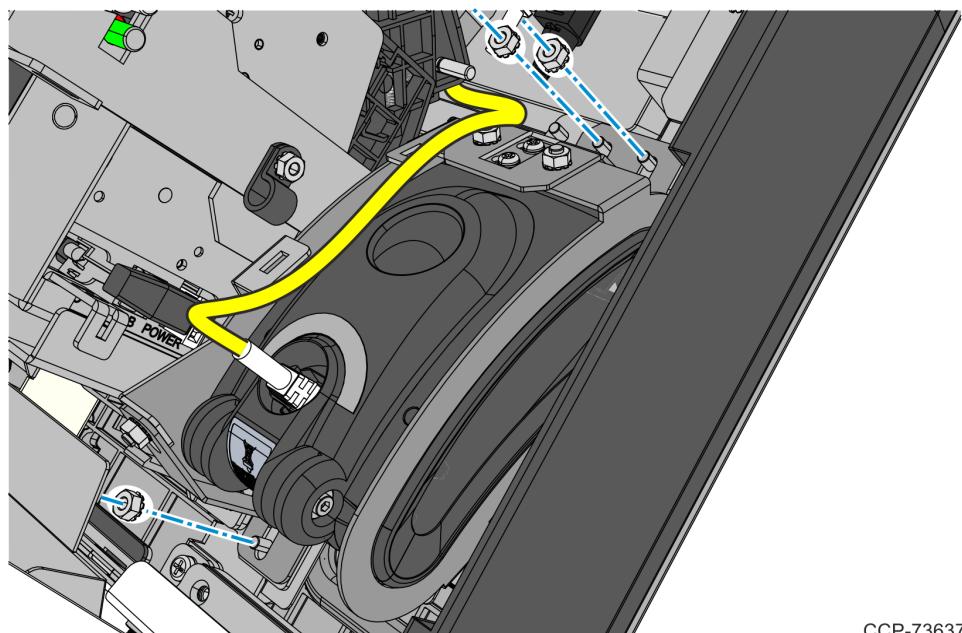
3. Remove the Imager Scanner assembly.

a. Cut off the cable ties securing the cables routed at the back of the scanner.



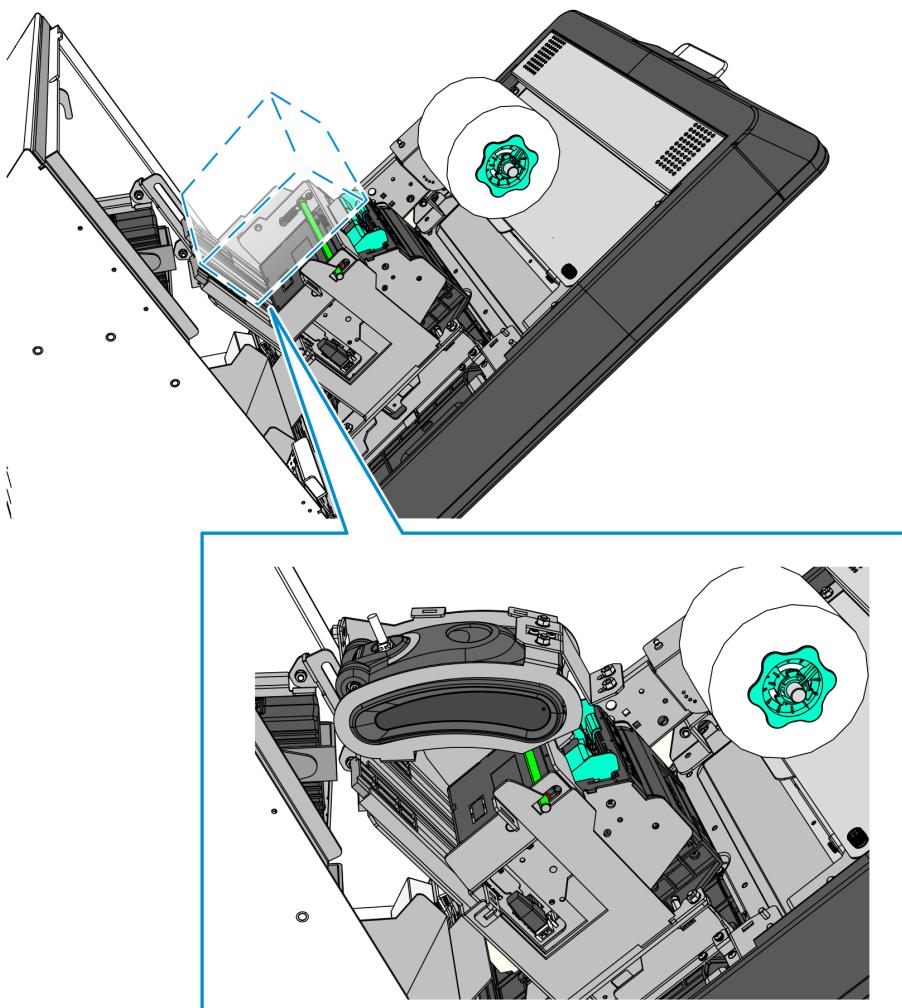
CCP-78446

b. Remove the three nuts securing the Imager to the kiosk and then lift the imager out of its position.



CCP-73637

c. Place the Imager on the space behind the Receipt Printer.

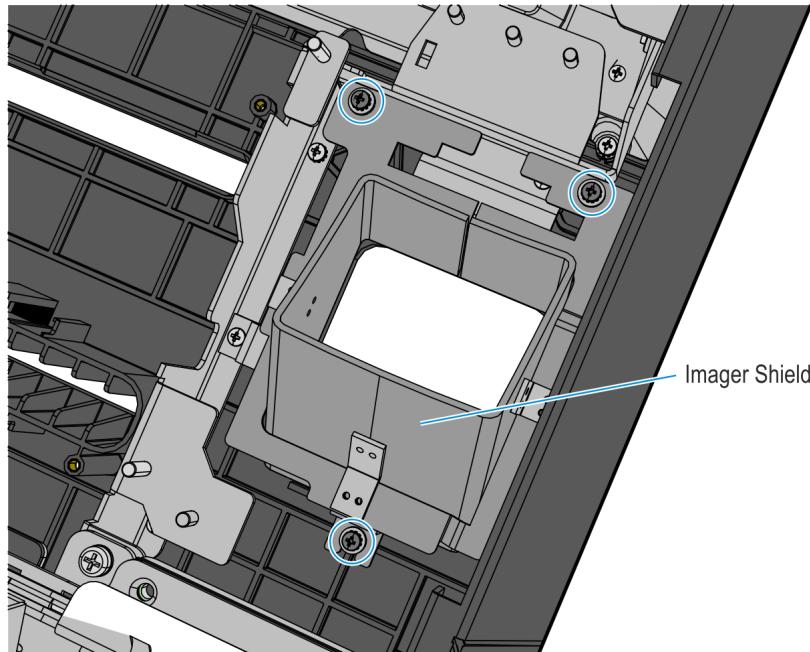


CCP-75050

4. Remove the three screws and washers securing the Imager Shield assembly and then remove the assembly from the kiosk.

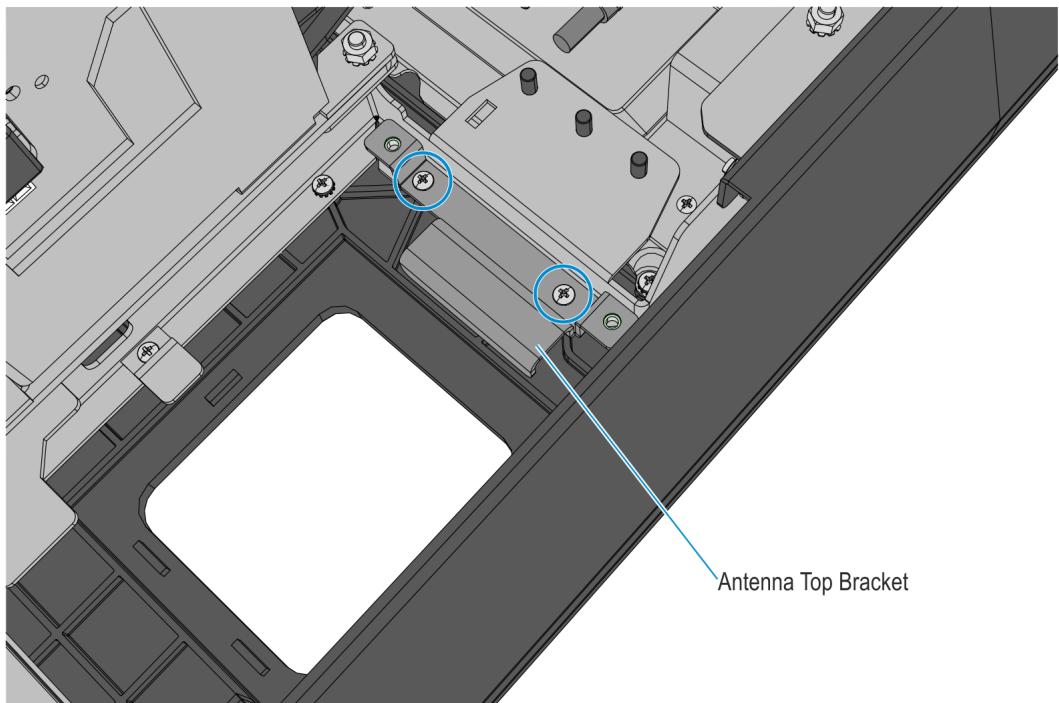
! Important

Do not throw away the washers. Keep the washers and use these when re-installing the Imager Shield.



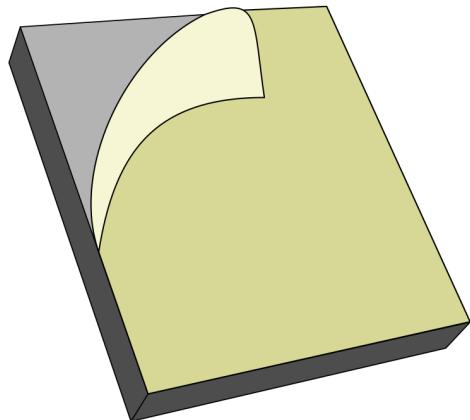
CCP-73725

5. Remove the two screws securing the top antenna bracket.



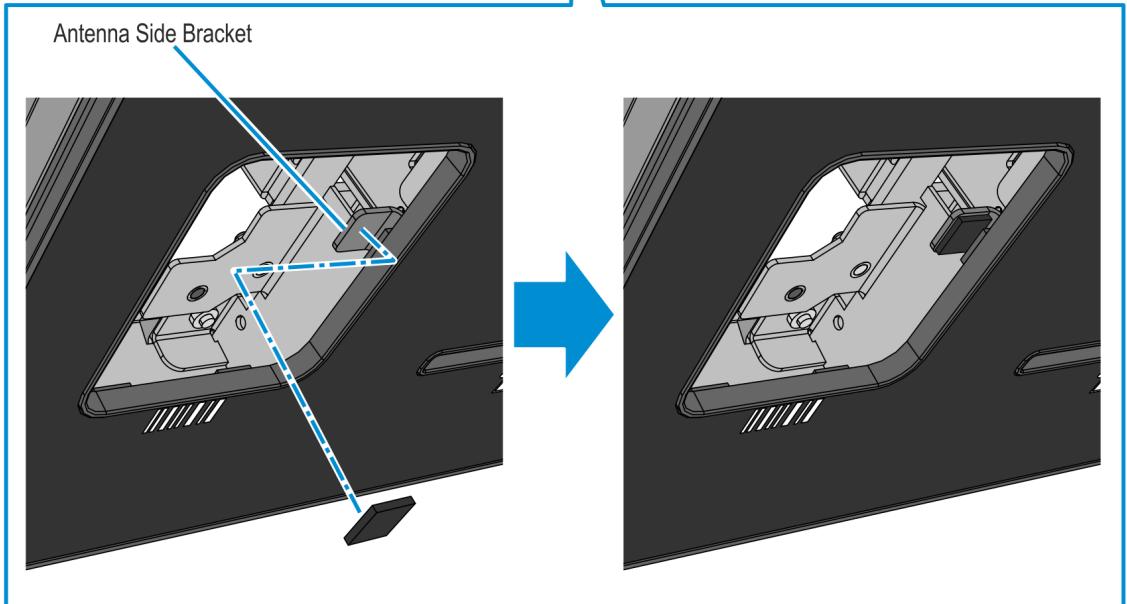
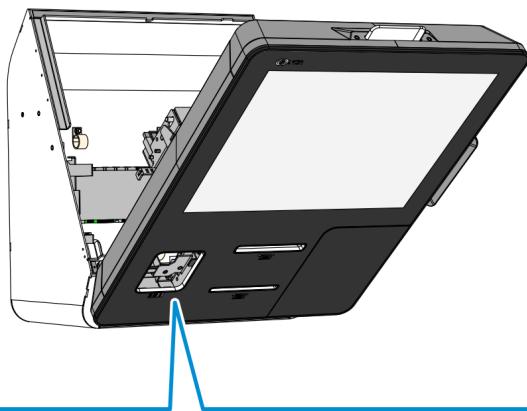
CCP-73694

6. Install the small gasket included in this kit to the antenna side bracket mounted on the kiosk.
 - a. Remove the back liner from the rear side of the gasket.



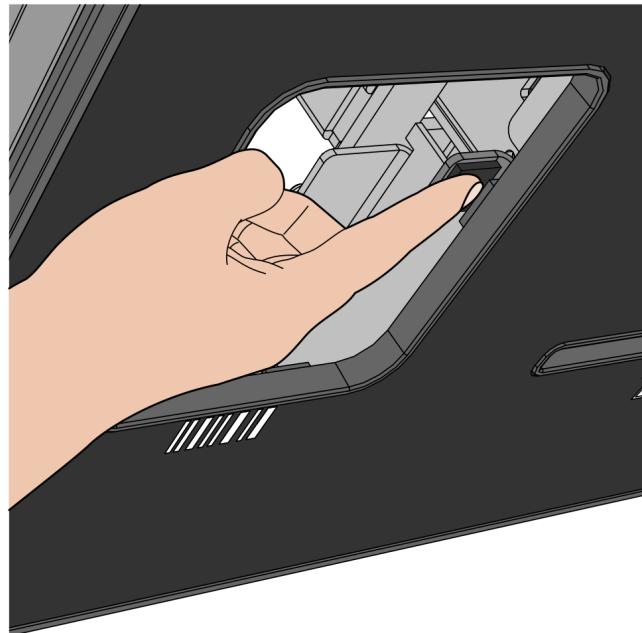
CCP-73898

- b. Attach the gasket to the bracket.



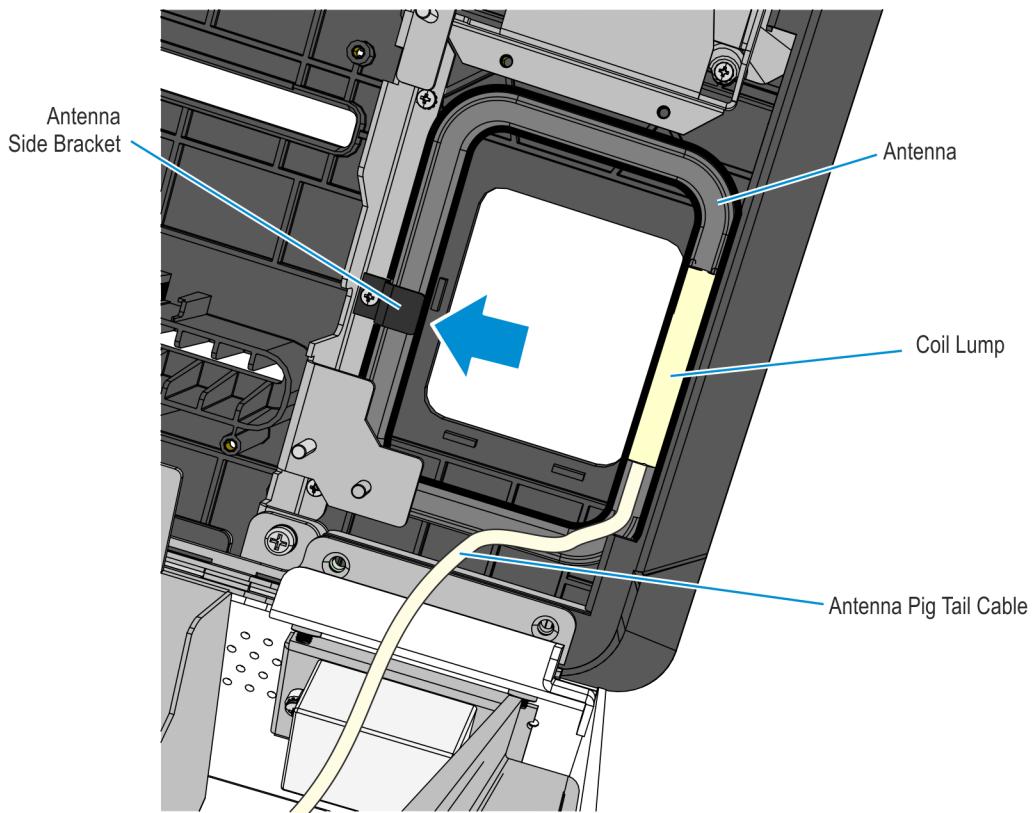
CCP-73890

c. Use your finger or a long thin object to press the gasket unto the bracket to make sure that it is firmly attached. Repeat this step as many times as necessary.



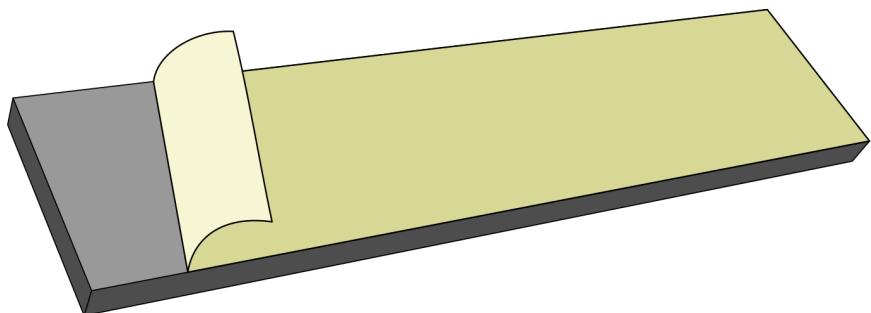
CCP-73891

7. Mount the Sensormatic Antenna by sliding it under the side bracket. The coil lump should be located on the right-hand side of the antenna and the pigtail cable should stick out at the lower right-hand corner of the display head assembly.



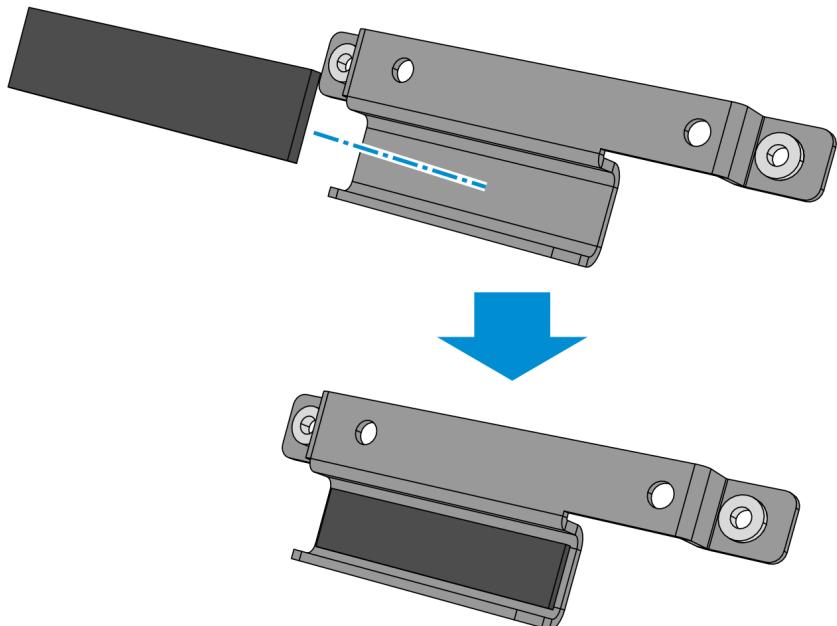
CCP-73649

8. Install the large gasket to the Antenna Top Bracket.
 - a. Remove the back liner from the rear side of the gasket.



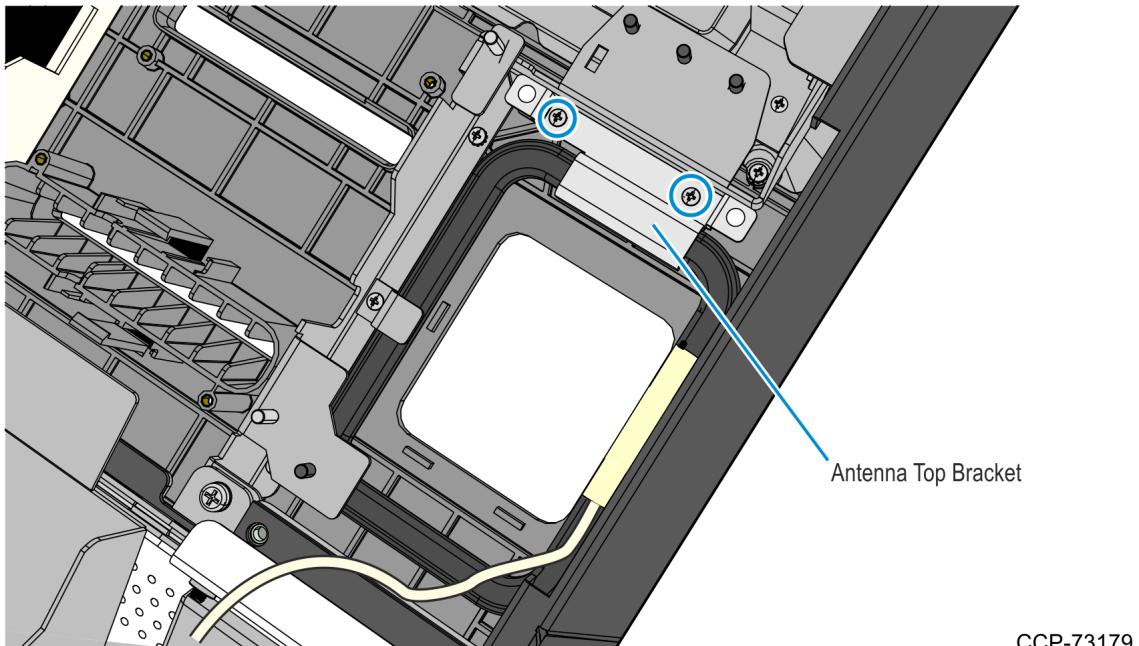
CCP-73899

- b. Attach the gasket to the Antenna Top Bracket. Use your finger to press the gasket to the bracket to make sure that it is firmly attached.



CCP-73892

9. Mount and secure the Antenna Top Bracket using two screws.



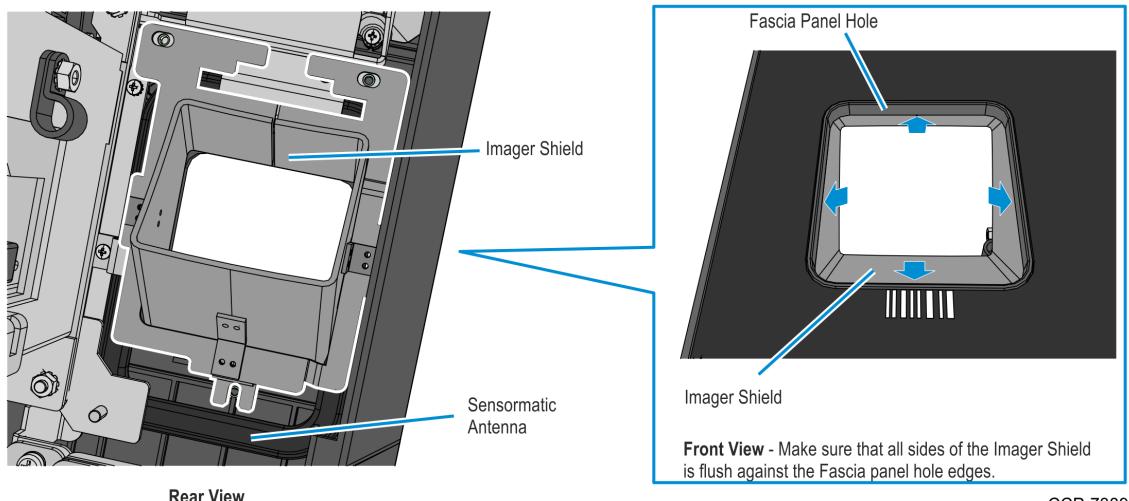
10. Install the Imager Shield assembly.

a. Mount the Imager Shield assembly over the antenna.



Important

On the front side of the fascia, make sure that there is no gap between the Imager Shield and Fascia panel. All sides of the Imager Shield should be flush against the Fascia Panel. Adjust the alignment of the Imager Shield accordingly.

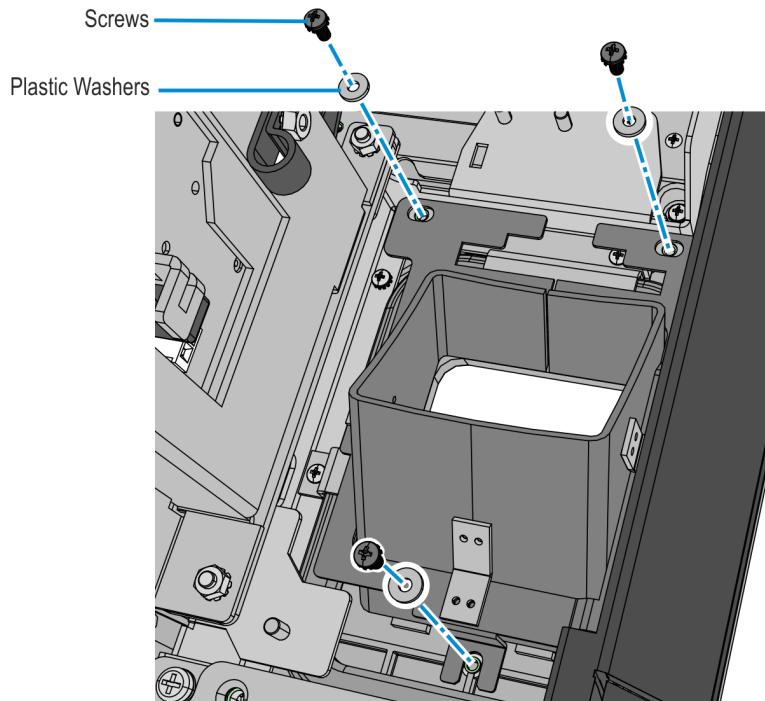


b. Secure the Imager Shield assembly using three M3 screws and plastic washers.



Caution

Make sure that the plastic washers are installed with the screws. These washers help protect the Imager from electromagnetic waves given off by the antenna.

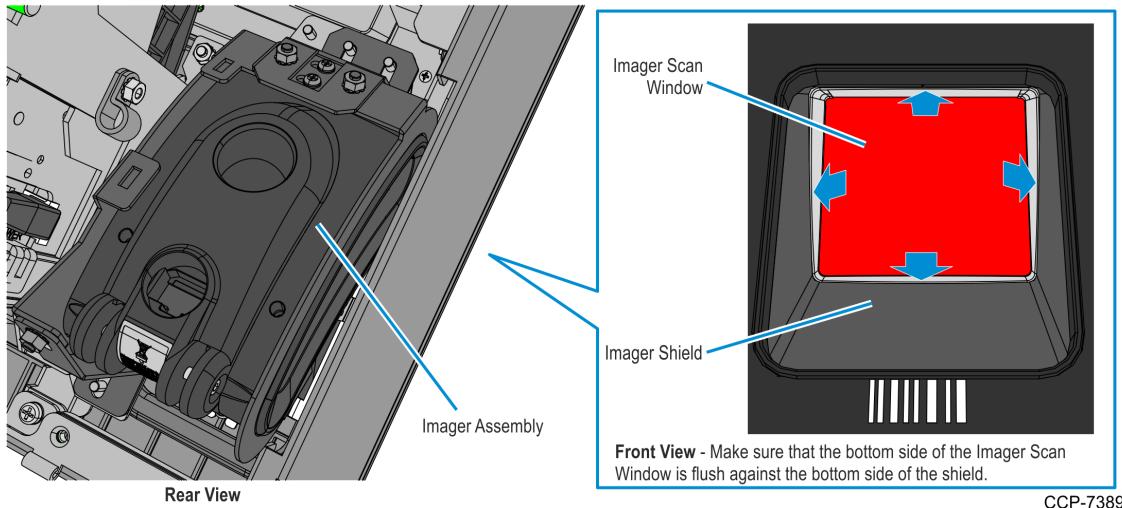


CCP-73894

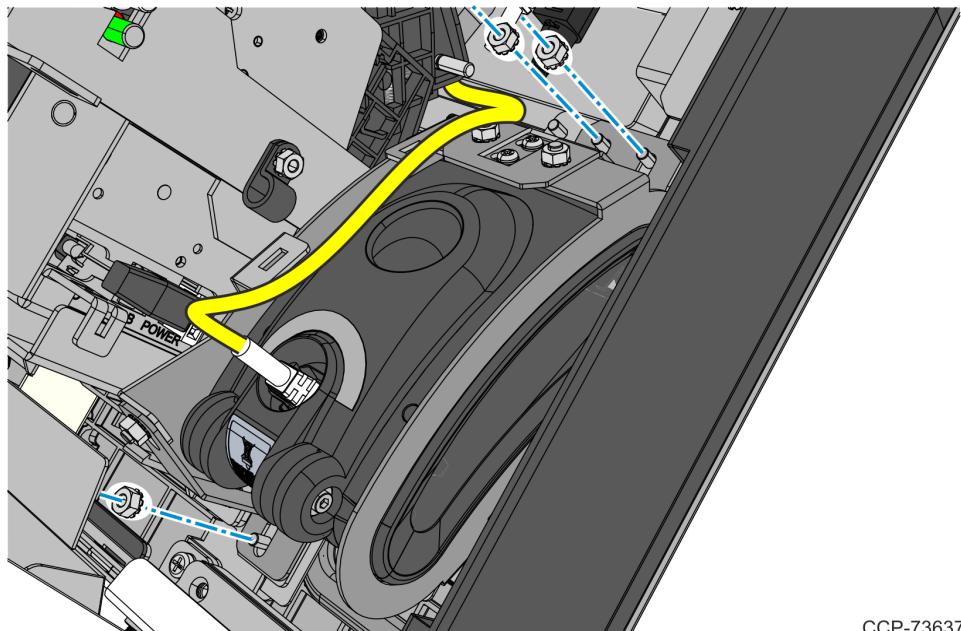
11. Install the Imager Scanner assembly.
 - a. Mount the Imager assembly over the Imager Shield.

! Important

On the front side of the fascia, make sure that all sides of the Imager Scan Window is flush against the sides of the Imager Shield. Adjust the alignment of the Imager accordingly.

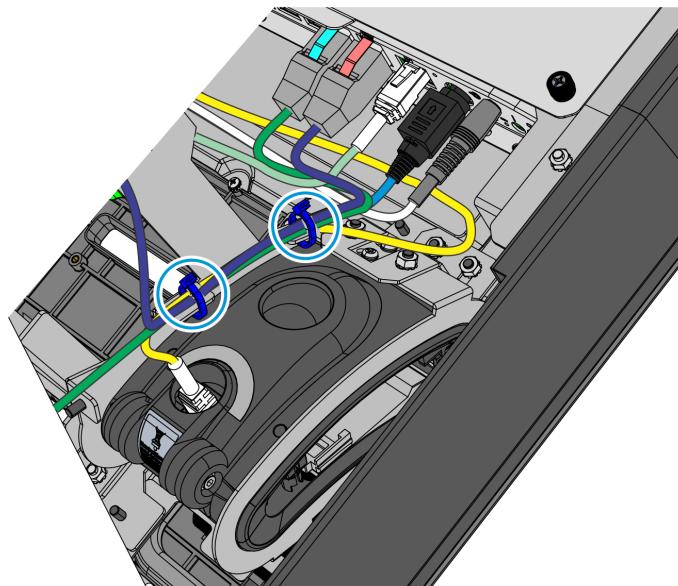


- b. Secure the Imager assembly to the kiosk using three nuts.



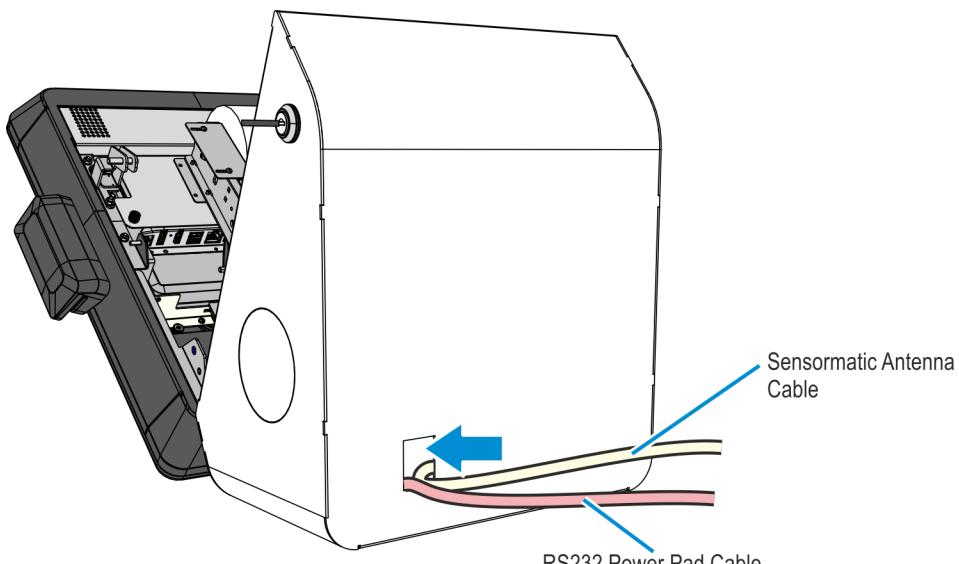
c. Bundle the following cables together and secure them to the Imager bracket using two cable ties.

- Imager USB cable
- Printer USB and Power cable
- I/O Daughter Card Power cable



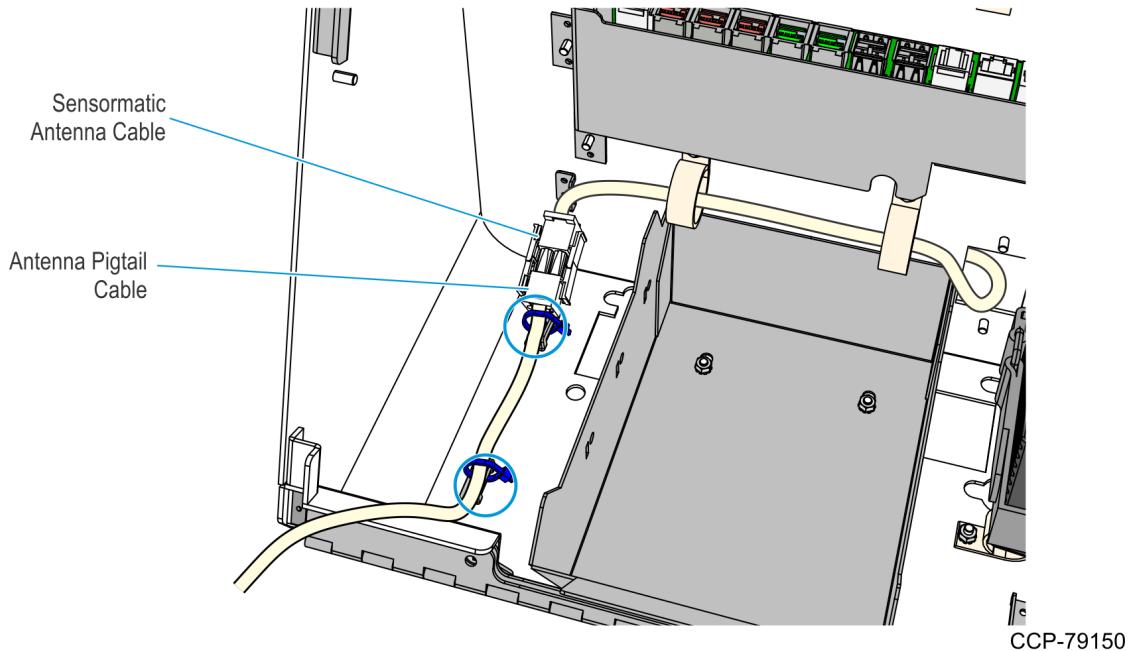
CCP-78446

12. Route the RS232 Power Pad Cable and Sensormatic Antenna cable into the cabinet through the rear access hole.



CCP-73897

13. Route the Sensormatic Antenna Cable inside the kiosk.
 - a. Route the antenna pigtail cable into the cabinet and on the left-hand side of the coupon bin, and then secure it with a cable tie.
 - b. Route the Sensormatic antenna cable towards the antenna pigtail cable and plug the connectors together.
 - c. Cut-off existing cable ties shown in the following image. Bundle the antenna cable with other cables and then secure the cables using two new cable ties.

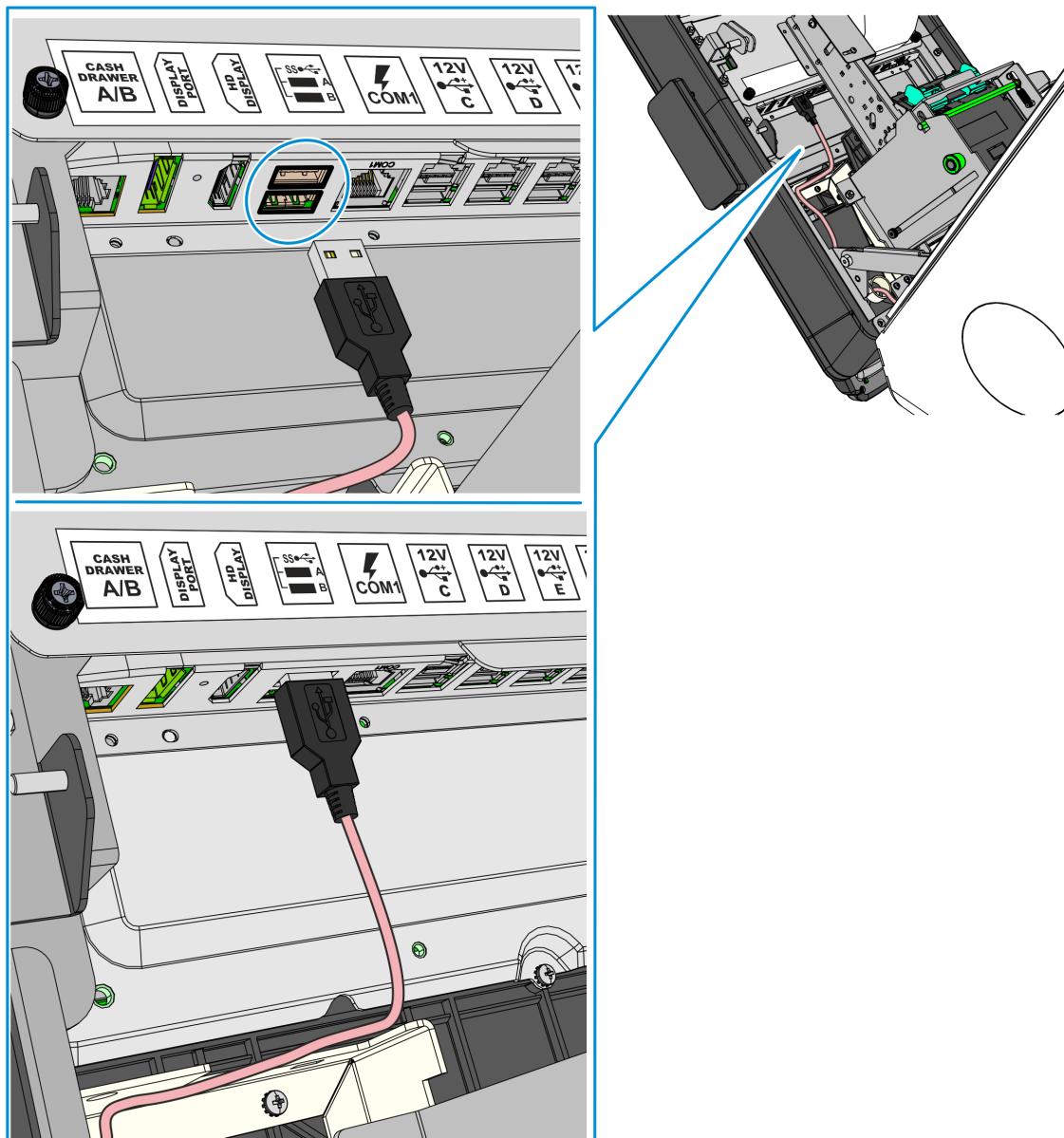


14. Route the RS-232 Power Pad and the USB to Serial Cable inside the kiosk.
 - a. Connect the USB connector of the USB to Serial cable to a vacant USB port on the motherboard I/O Panel.

 **Note**

If the two ports are vacant, connect the cable to the top port.

b. Route the cable downward towards RS-232 Power Pad cable in the kiosk cabinet.



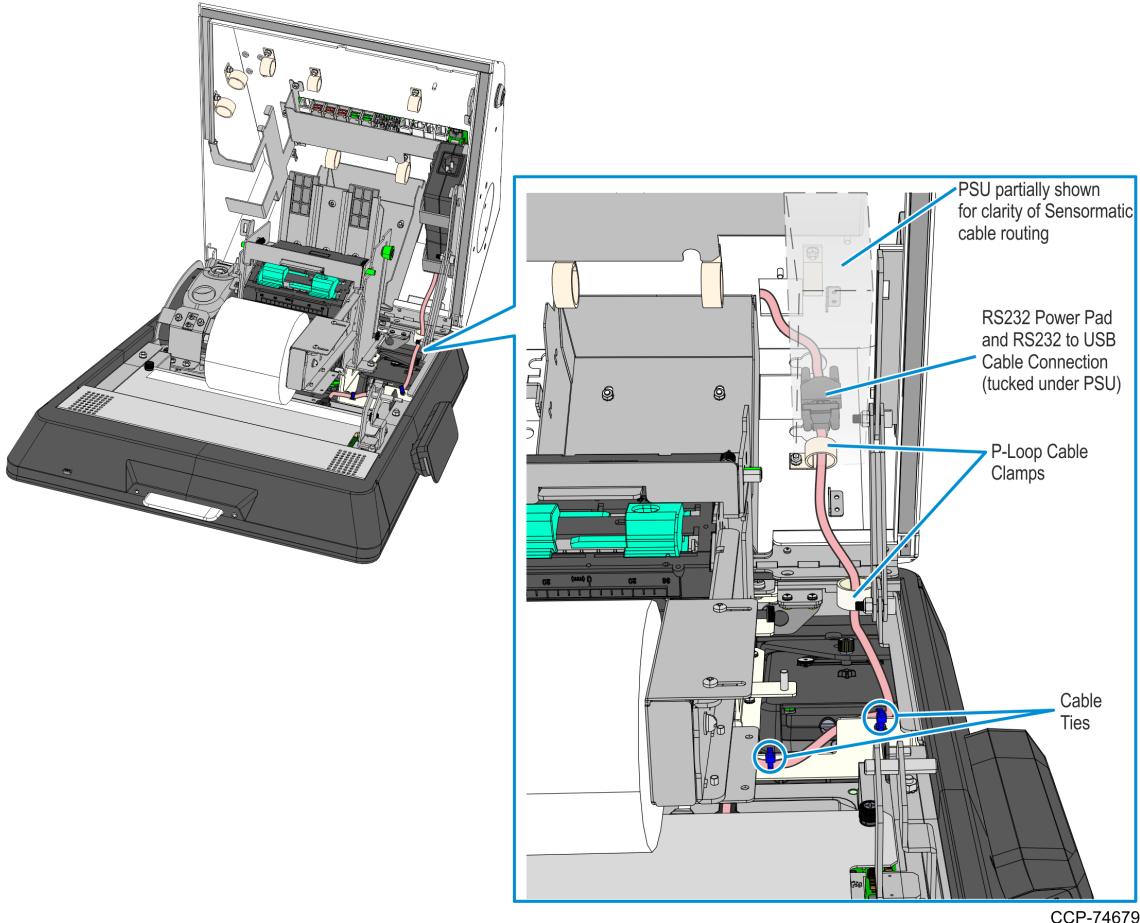
CCP-74678

c. Connect the USB to Serial cable to the RS232 Power Pad cable and tuck the connectors under the PSU.

d. Secure the USB to Serial cable to the two cable clamps along its route.

e. Cut off existing cable ties securing the cable bundle to the bracket just below the I/O Panel.

f. Bundle the USB to Serial cable together with the other cables and then secure the cables using two new cable ties.



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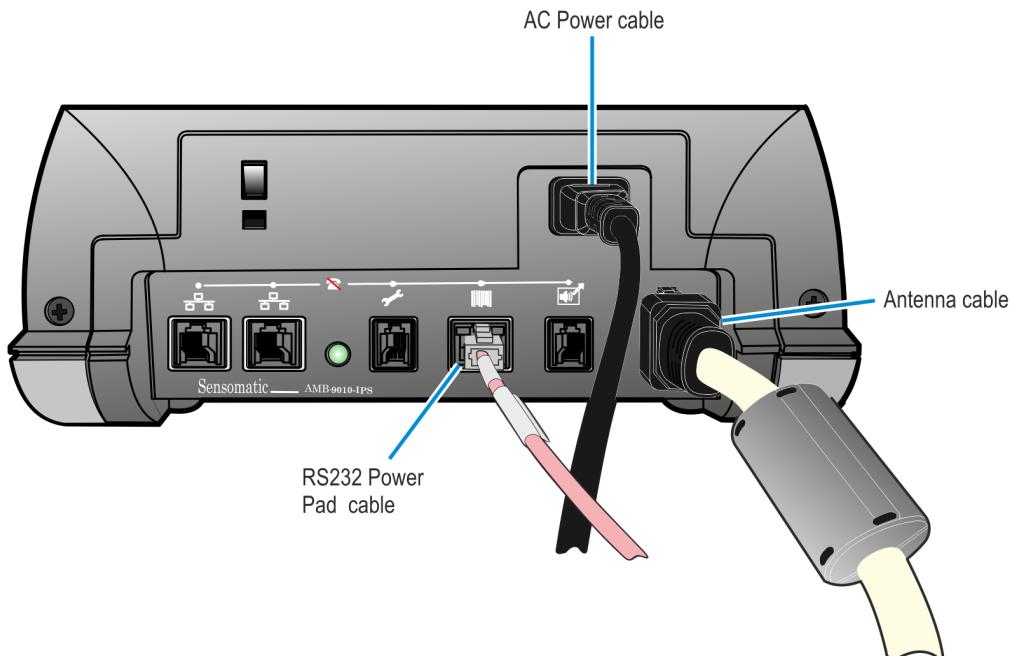
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15. Connect the Sensormatic cables to the Sensormatic Controller ports in the following order:

⚠ Caution

To avoid damage to the controller, make sure that the Sensormatic Controller power is OFF before connecting the cables. DO NOT reverse the order of connecting the Sensormatic cables, and DO NOT connect or disconnect the cables from the controller when power is ON.

- a. RS-232 Power Pad Cable
- b. Antenna Cable
- c. Sensormatic AC Power Cable



CCP-60873

16. Place and secure extra length of the sensormatic cables outside the kiosk cabinet.

NCR Voyix 7709 R2.0 Installation Procedure

This sections provides the installation procedure for NCR SelfServ 90 Kiosks with PID 7709-3000-8090 and 7709-4000-8090.

Warning

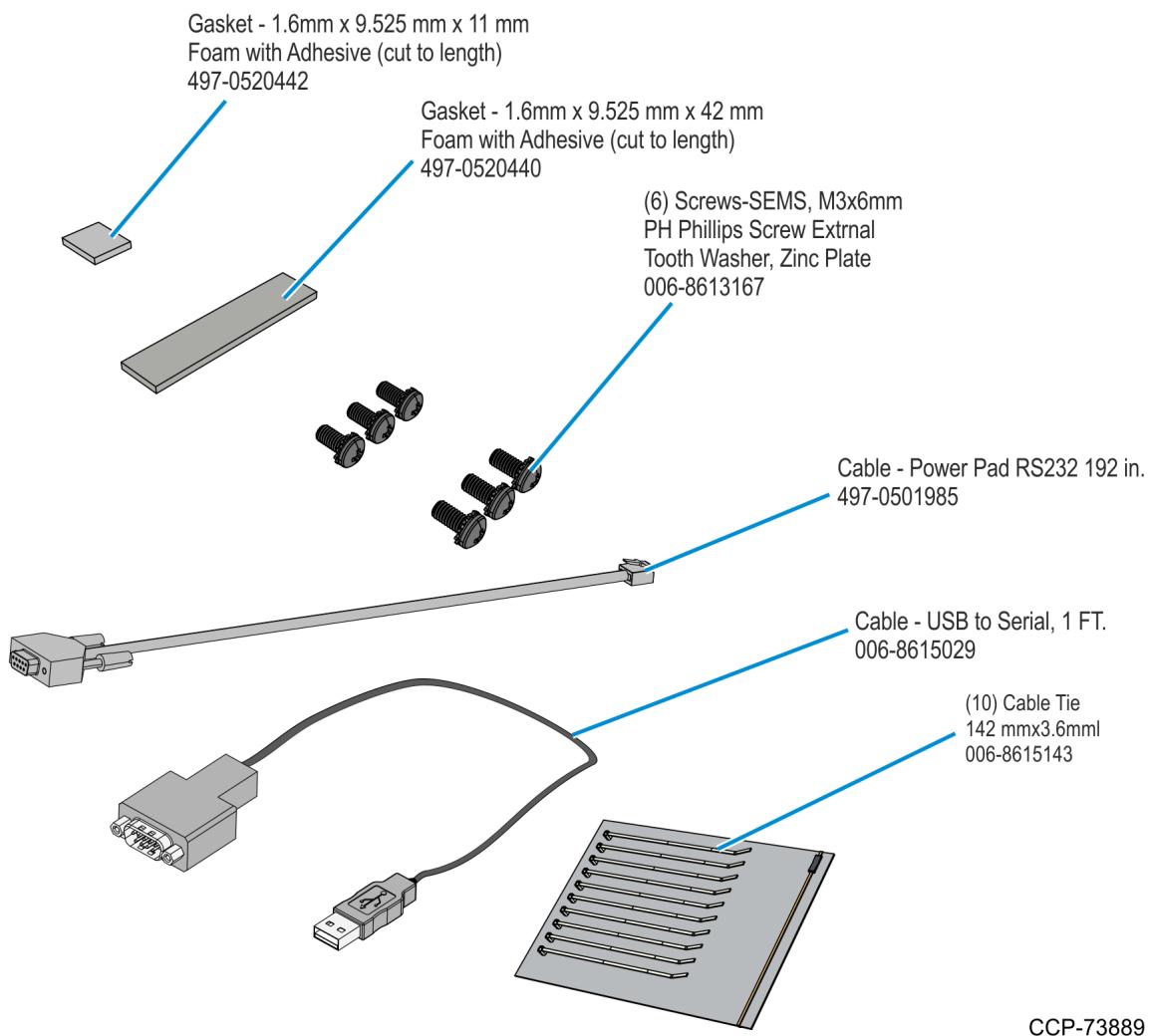
Disconnect the AC power cord before disassembling the Terminal.

Caution

Observe the following precautions to safely install the Sensormatic Controller:

- Do not connect or disconnect the Sensormatic Antenna or any Sensormatic Cable to the Sensormatic Controller when power is on as this damages the controller.
- Make sure that the cables are routed as shown. Sensormatic Modules give off strong electrical discharge that may damage other modules.
- Static Electricity Discharge may permanently damage your system. Discharge any static electricity build up in your body by touching your terminal's exterior panels for a few seconds. Avoid any contact with internal parts and handle cards only by their external edges.

Only the following components in the illustration below are needed to install the Sensormatic EAS device to 7709 R2.0 units.



To install the Sensormatic EAS device, follow these steps:

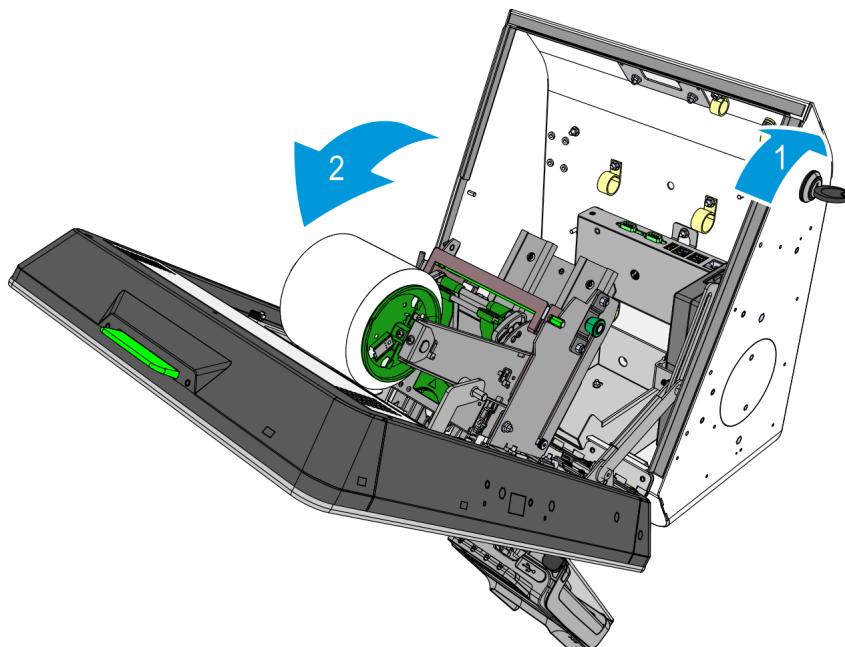
Note

Actual cable colors are black, they are shown as different colors in the illustrations for easier reference and identification. For more information, refer to "["Interconnection Diagram"](#)" on page 52.

1. Shutdown and power off the terminal. Disconnect the Kiosk AC Power Cable from the outlet.
2. To open the kiosk, insert the key into the lock at the right-hand side of the kiosk, turn the key clockwise, and carefully open the front of the kiosk.

Caution

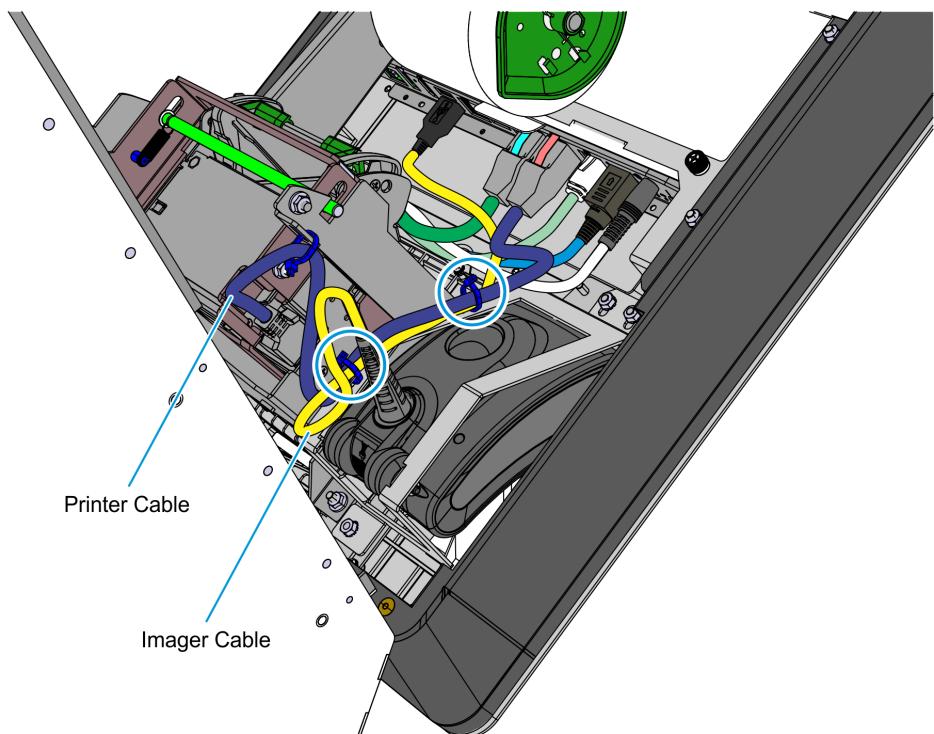
Do NOT abruptly open and release the front of the kiosk. Hold and support the front of the kiosk until fully extended.



CCP-77624

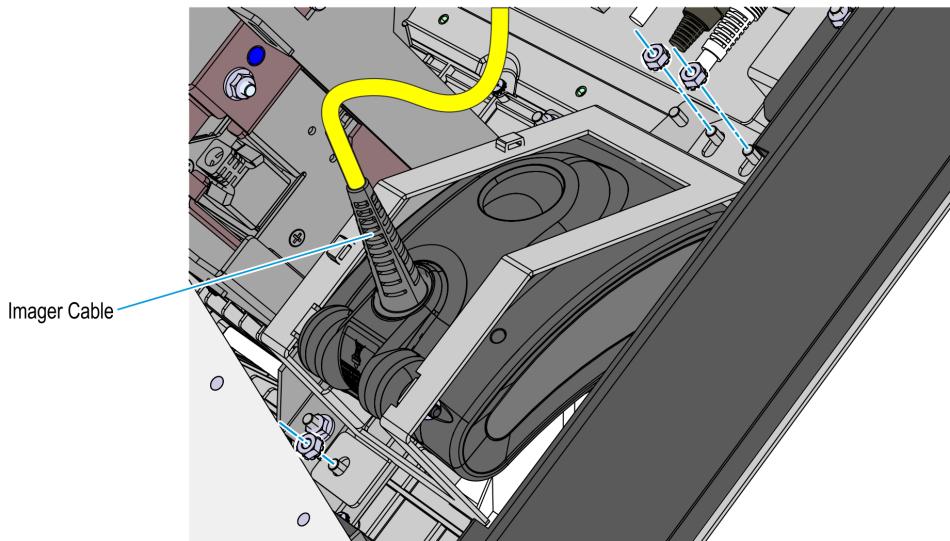
3. Remove the Imager Scanner assembly.

a. Cut off the cable ties securing the cables routed at the back of the scanner.



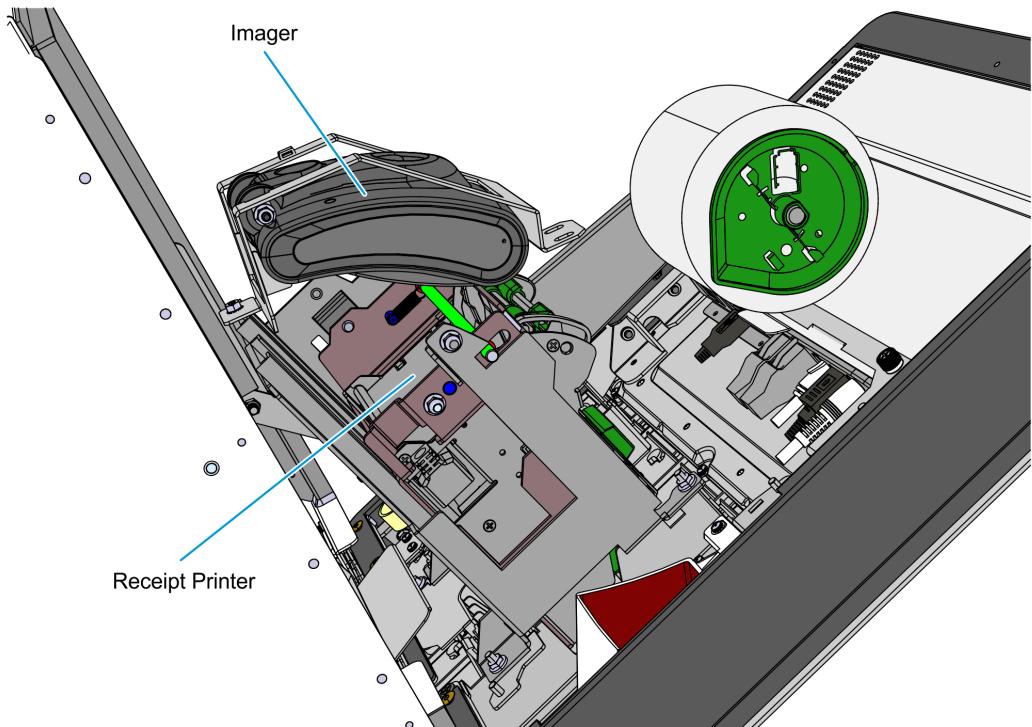
CCP-77965

b. Remove the three nuts securing the Imager to the kiosk and then lift the imager out of its position.



CCP-77975

c. Place the Imager on the space behind the Receipt Printer.

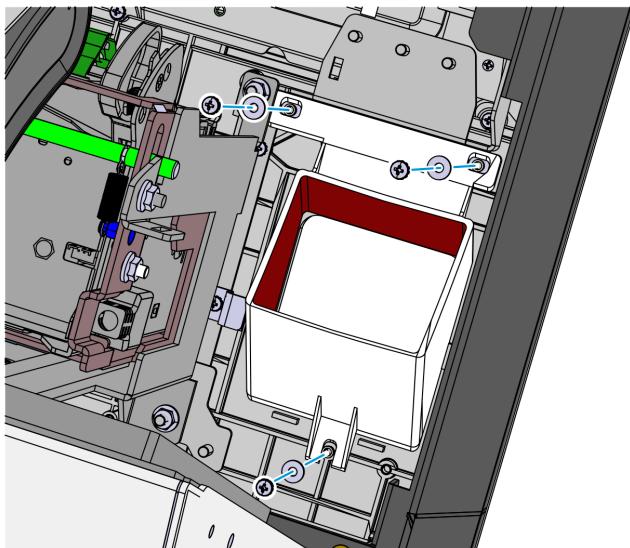


CCP-77967

4. Remove the three screws and washers securing the Imager Shield assembly and then remove the assembly from the kiosk.

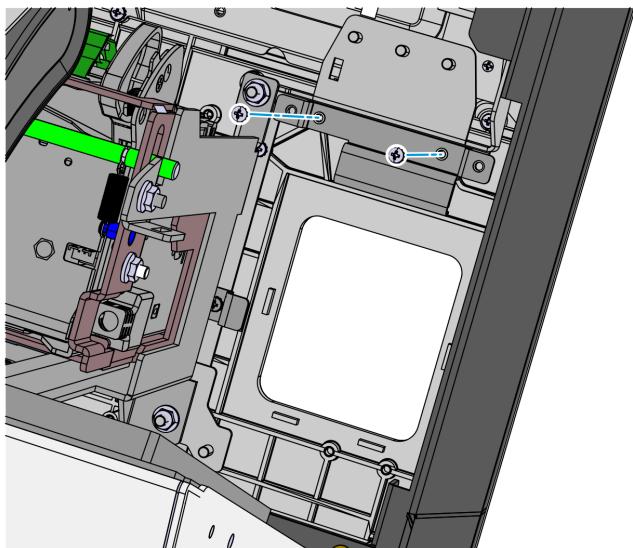
! Important

Do not throw away the washers. Keep the washers and use these when re-installing the Imager Shield.



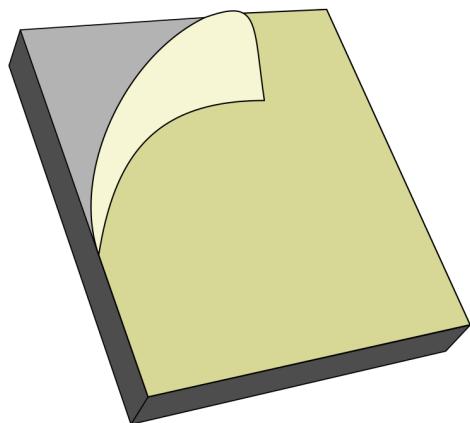
CCP-77968

5. Remove the two screws securing the top antenna bracket.



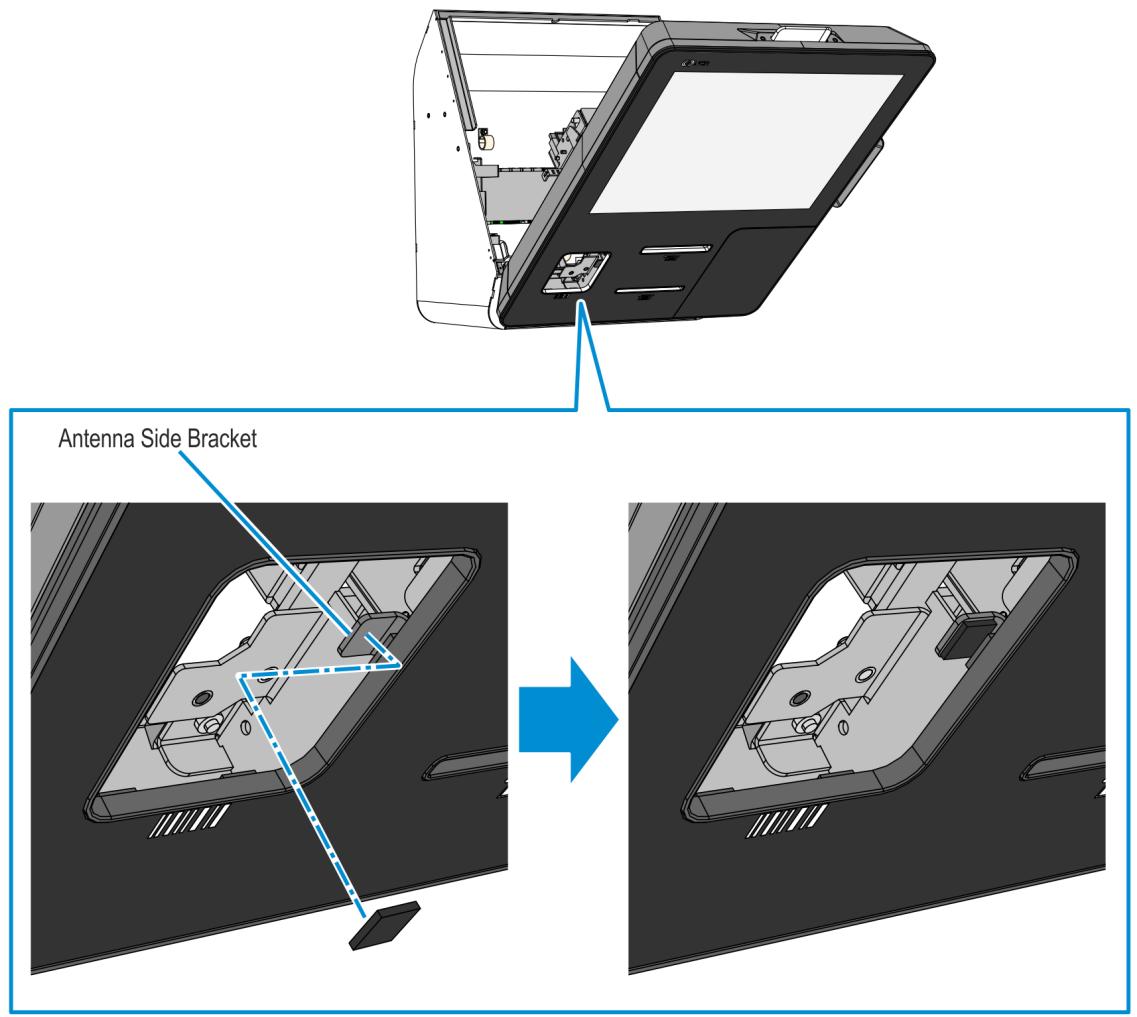
CCP-77969

6. Install the small gasket included in this kit to the antenna side bracket mounted on the kiosk.
 - a. Remove the back liner from the rear side of the gasket.



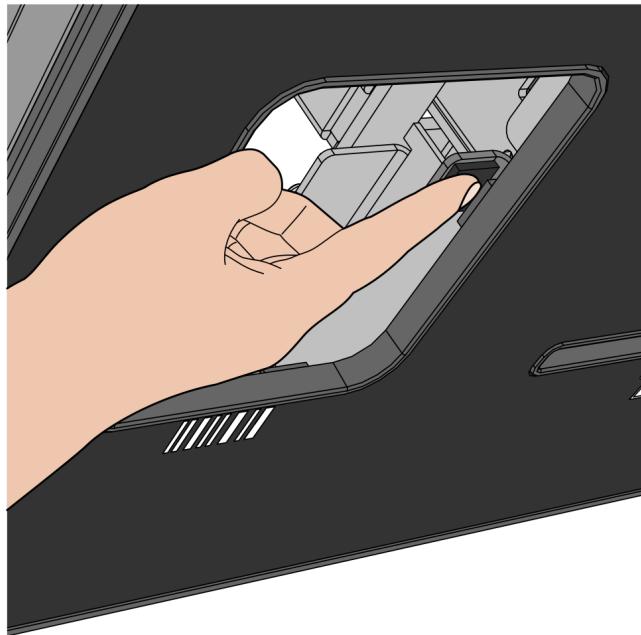
CCP-73898

b. Attach the gasket to the bracket.



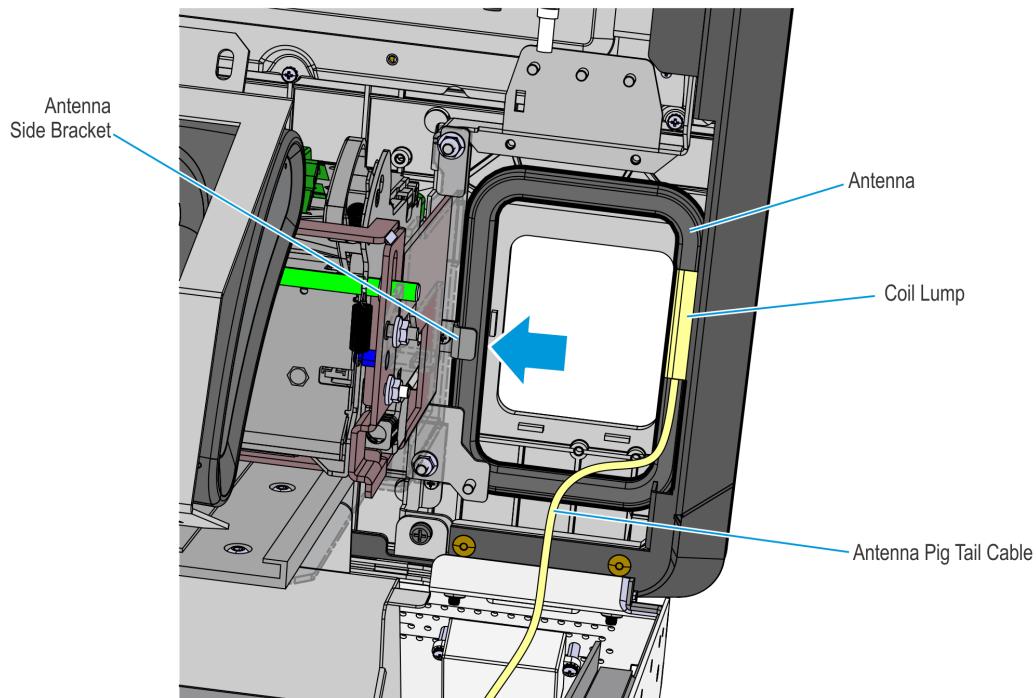
CCP-73890

c. Use your finger or a long thin object to press the gasket unto the bracket to make sure that it is firmly attached. Repeat this step as many times as necessary.



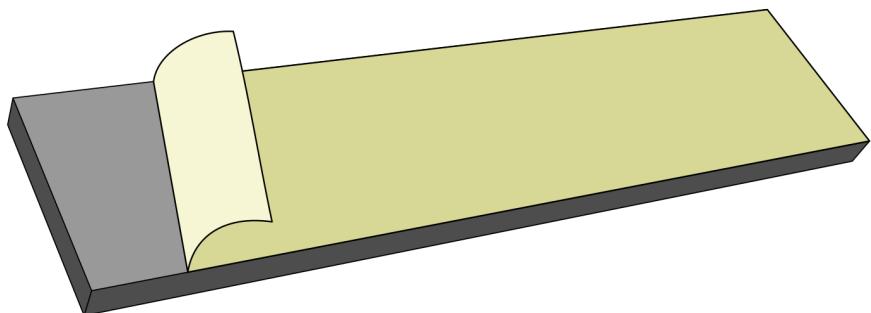
CCP-73891

7. Mount the Sensormatic Antenna by sliding it under the side bracket. The coil lump should be located on the right-hand side of the antenna and the pigtail cable should stick out at the lower right-hand corner of the display head assembly.



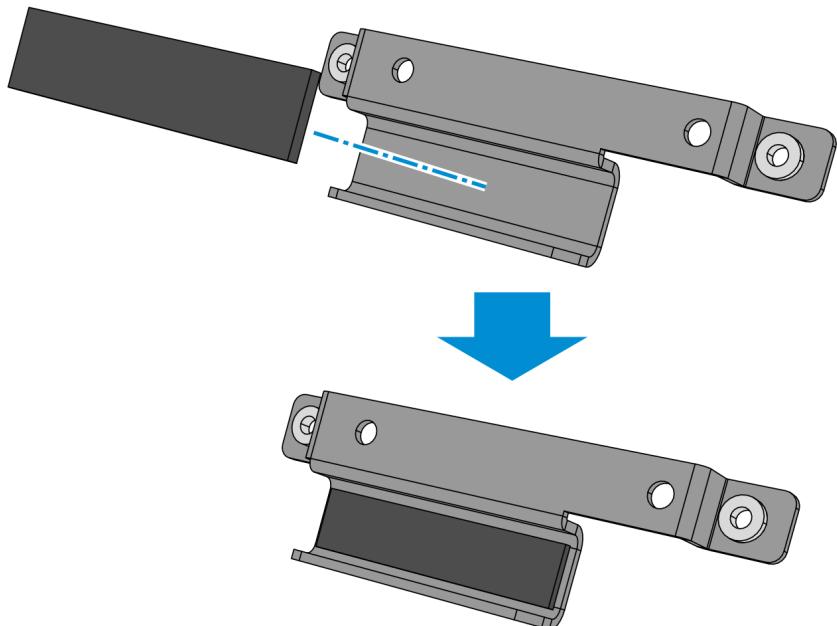
CCP-77970

8. Install the large gasket to the Antenna Top Bracket.
 - a. Remove the back liner from the rear side of the gasket.



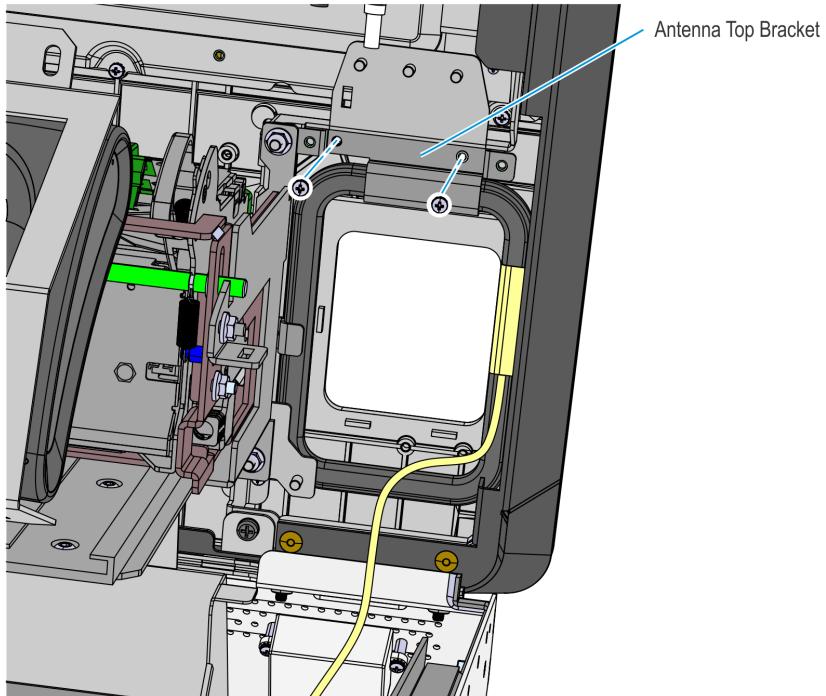
CCP-73899

- b. Attach the gasket to the Antenna Top Bracket. Use your finger to press the gasket to the bracket to make sure that it is firmly attached.



CCP-73892

9. Mount and secure the Antenna Top Bracket using two screws.



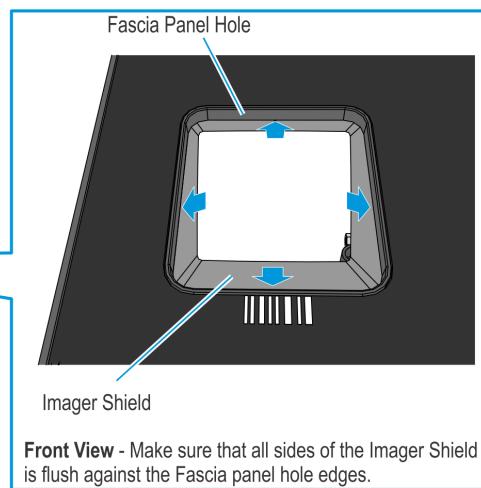
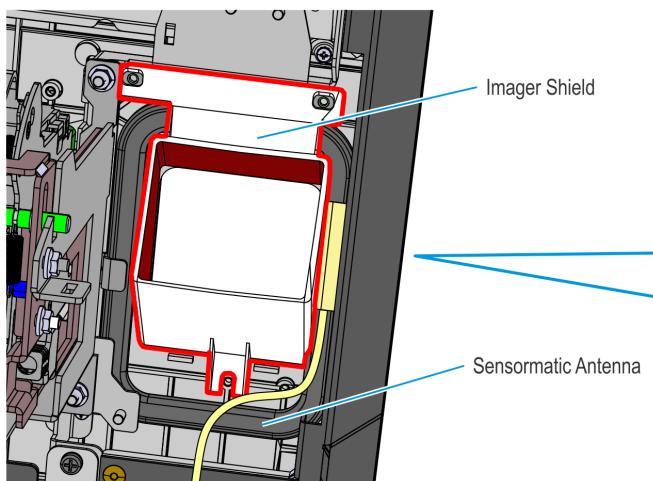
CCP-77971

10. Install the Imager Shield assembly.

a. Mount the Imager Shield assembly over the antenna.

! Important

On the front side of the fascia, make sure that there is no gap between the Imager Shield and Fascia panel. All sides of the Imager Shield should be flush against the Fascia Panel. Adjust the alignment of the Imager Shield accordingly.



Front View - Make sure that all sides of the Imager Shield is flush against the Fascia panel hole edges.

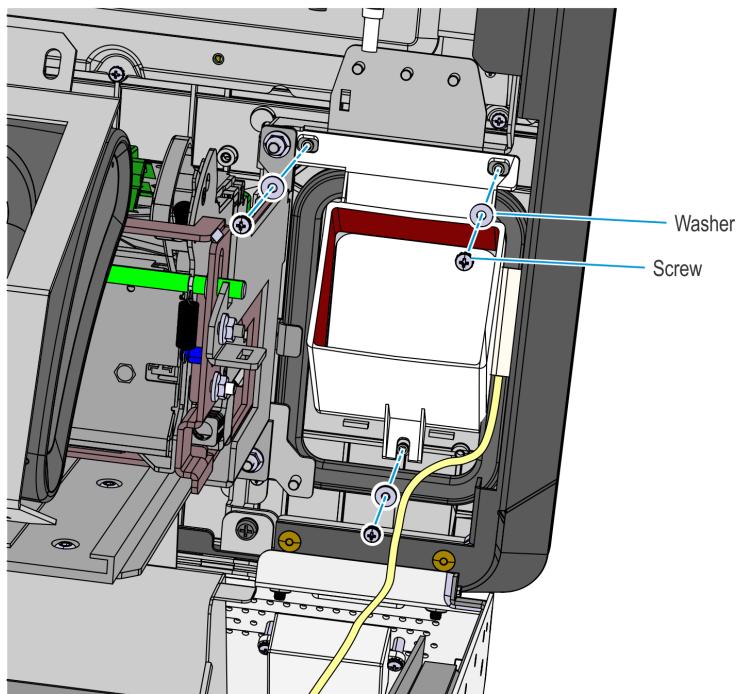
CCP-77972

b. Secure the Imager Shield assembly using three M3 screws and plastic washers.



Caution

Make sure that the plastic washers are installed with the screws. These washers help protect the Imager from electromagnetic waves given off by the antenna.

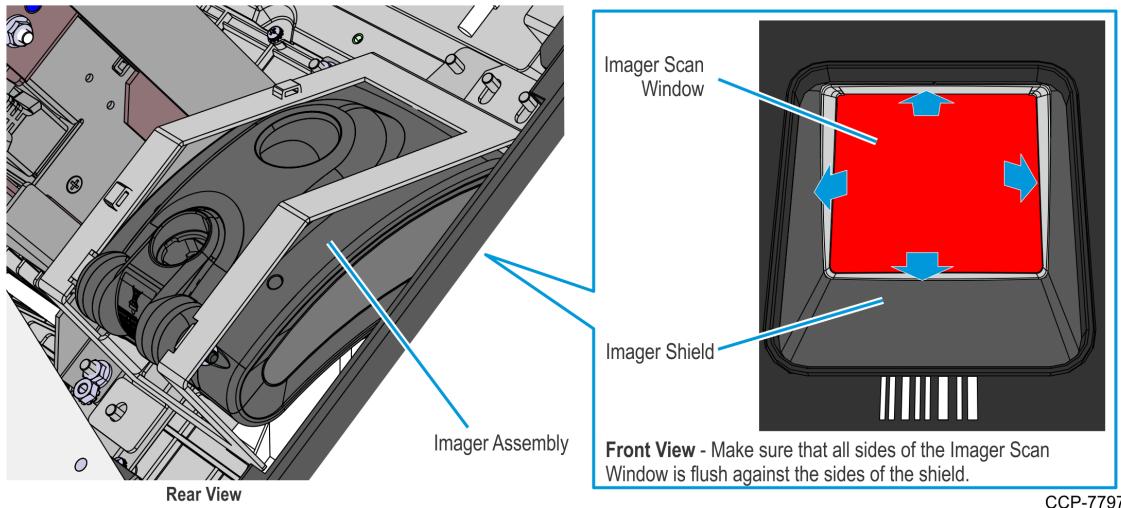


CCP-77973

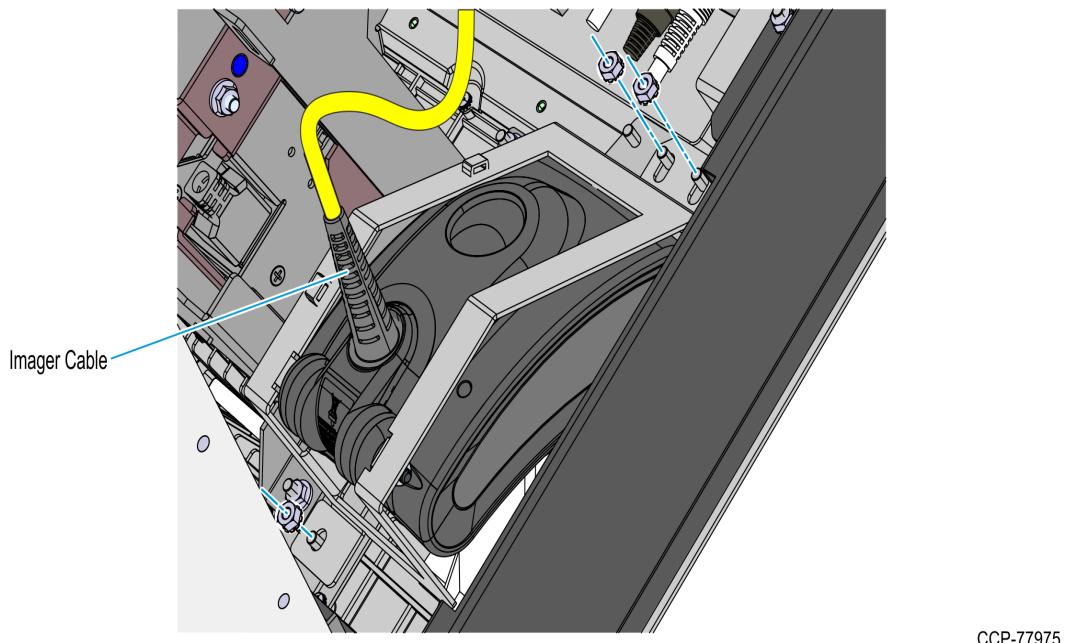
11. Install the Imager Scanner assembly.
 - a. Mount the Imager assembly over the Imager Shield.

! Important

On the front side of the fascia, make sure that all sides of the Imager Scan Window is flush against the sides of the Imager Shield. Adjust the alignment of the Imager accordingly.

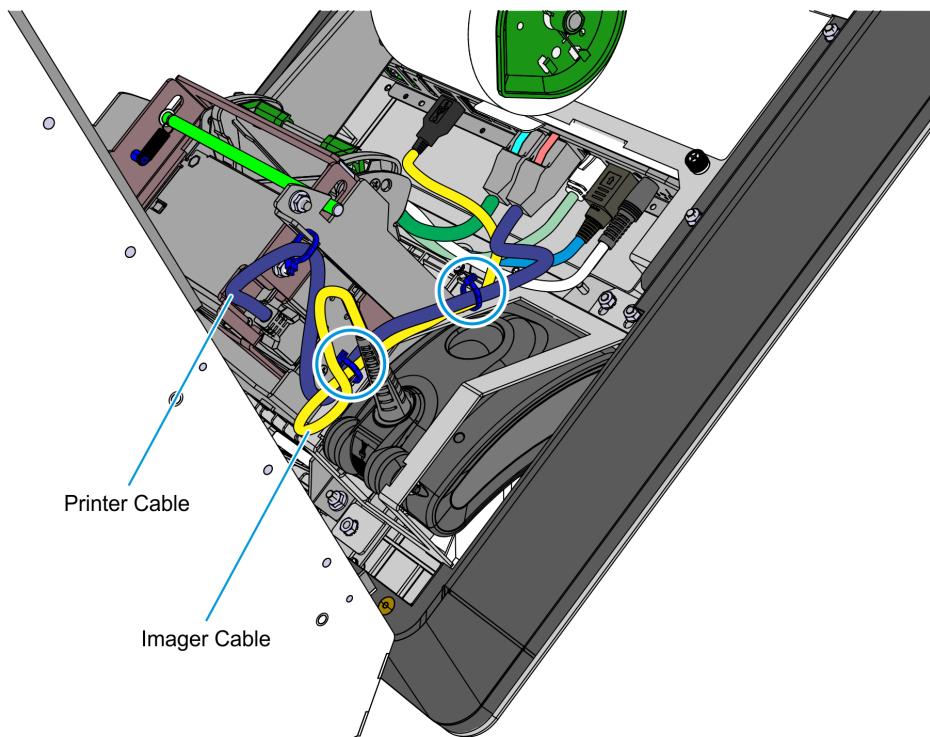


- b. Secure the Imager assembly to the kiosk using three nuts.



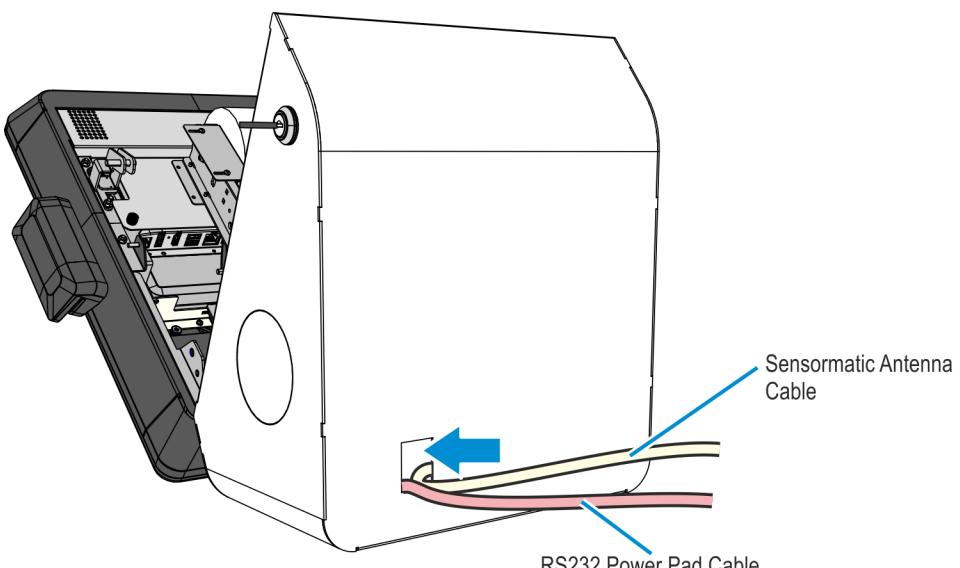
c. Bundle the following cables together and secure them to the Imager bracket using two cable ties.

- Imager USB cable
- Printer USB and Power cable



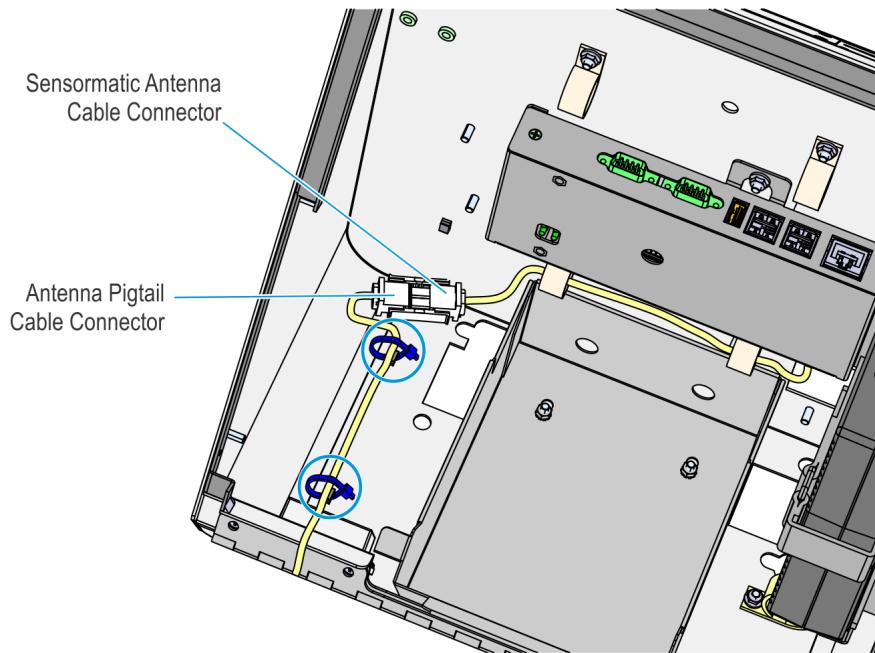
CCP-77965

12. Route the RS-232 Power Pad Cable and Sensormatic Antenna cable into the cabinet through the rear access hole.



CCP-73897

13. Route the Sensormatic Antenna Cable inside the kiosk.
 - a. Route the antenna pigtail cable into the cabinet and on the left-hand side of the coupon bin, and then secure it with a cable tie.
 - b. Route the Sensormatic antenna cable towards the antenna pigtail cable and plug the connectors together.
 - c. Cut-off existing cable ties shown in the following image. Bundle the antenna cable with other cables and then secure the cables using two new cable ties.



CCP-77976

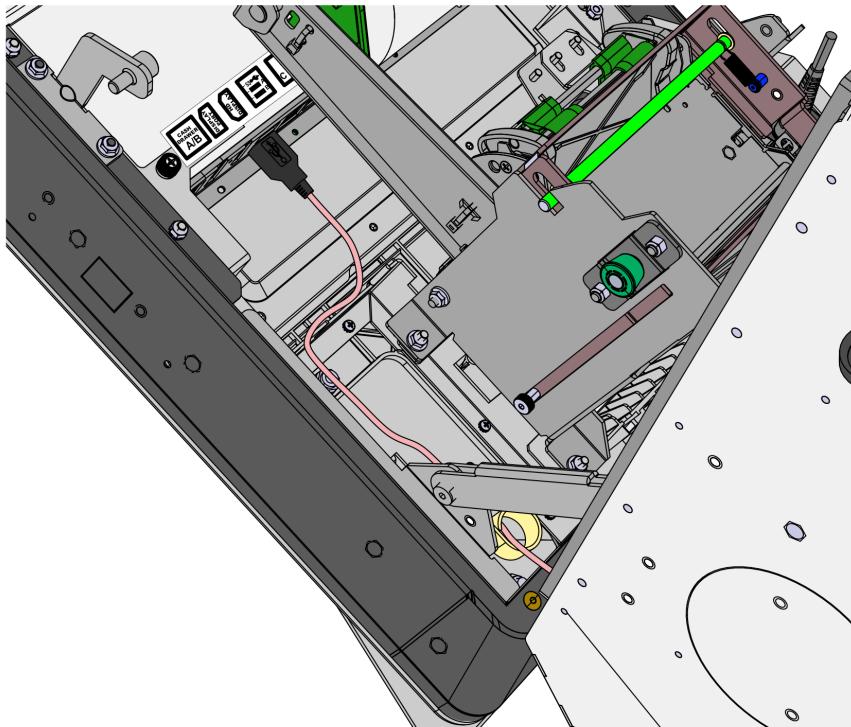
14. Route the RS-232 Power Pad and the USB to Serial Cable inside the kiosk.

- a. Connect the USB connector of the USB to Serial cable to a vacant USB port on the motherboard I/O Panel.

 **Note**

If the two ports are vacant, connect the cable to the top port.

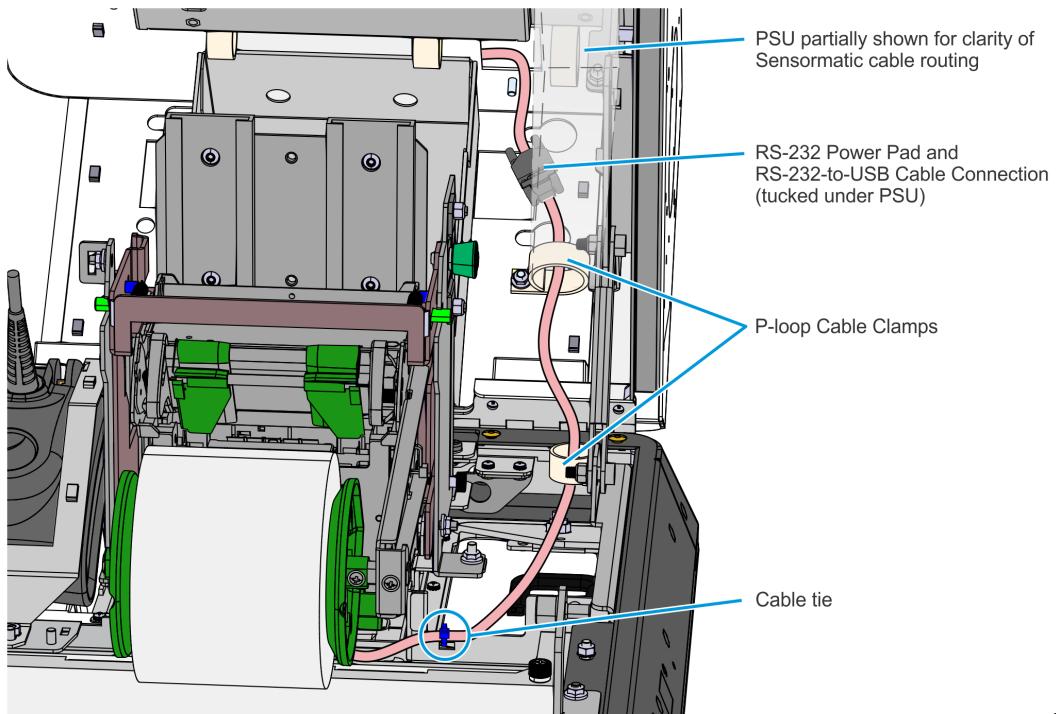
b. Route the cable downward towards RS-232 Power Pad cable in the kiosk cabinet.



CCP-77977

- c. Connect the USB to Serial cable to the RS232 Power Pad cable and tuck the connectors under the PSU.
- d. Secure the USB to Serial cable to the two cable clamps along its route.
- e. Cut off existing cable ties securing the cable bundle to the bracket just below the I/O Panel.

f. Bundle the USB to Serial cable together with the other cables and then secure the cables using two new cable ties.



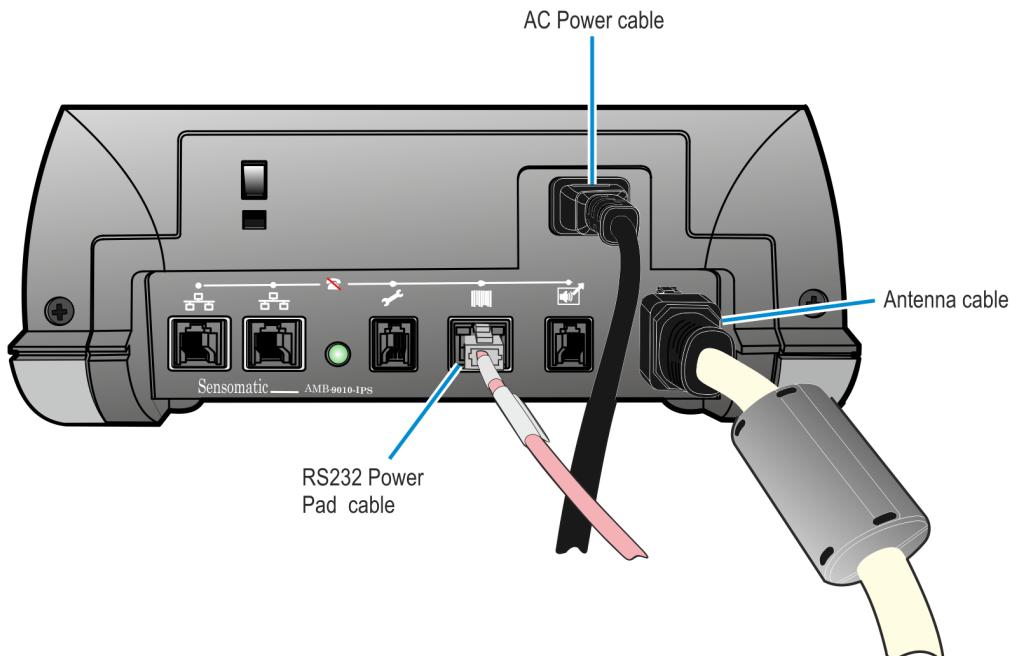
CCP-77978

15. Connect the Sensormatic cables to the Sensormatic Controller ports in the following order:

⚠ Caution

To avoid damage to the controller, make sure that the Sensormatic Controller power is OFF before connecting the cables. DO NOT reverse the order of connecting the Sensormatic cables, and DO NOT connect or disconnect the cables from the controller when power is ON.

- a. RS-232 Power Pad Cable
- b. Antenna Cable
- c. Sensormatic AC Power Cable



CCP-60873

16. Place and secure extra length of the Sensormatic cables outside the kiosk cabinet.

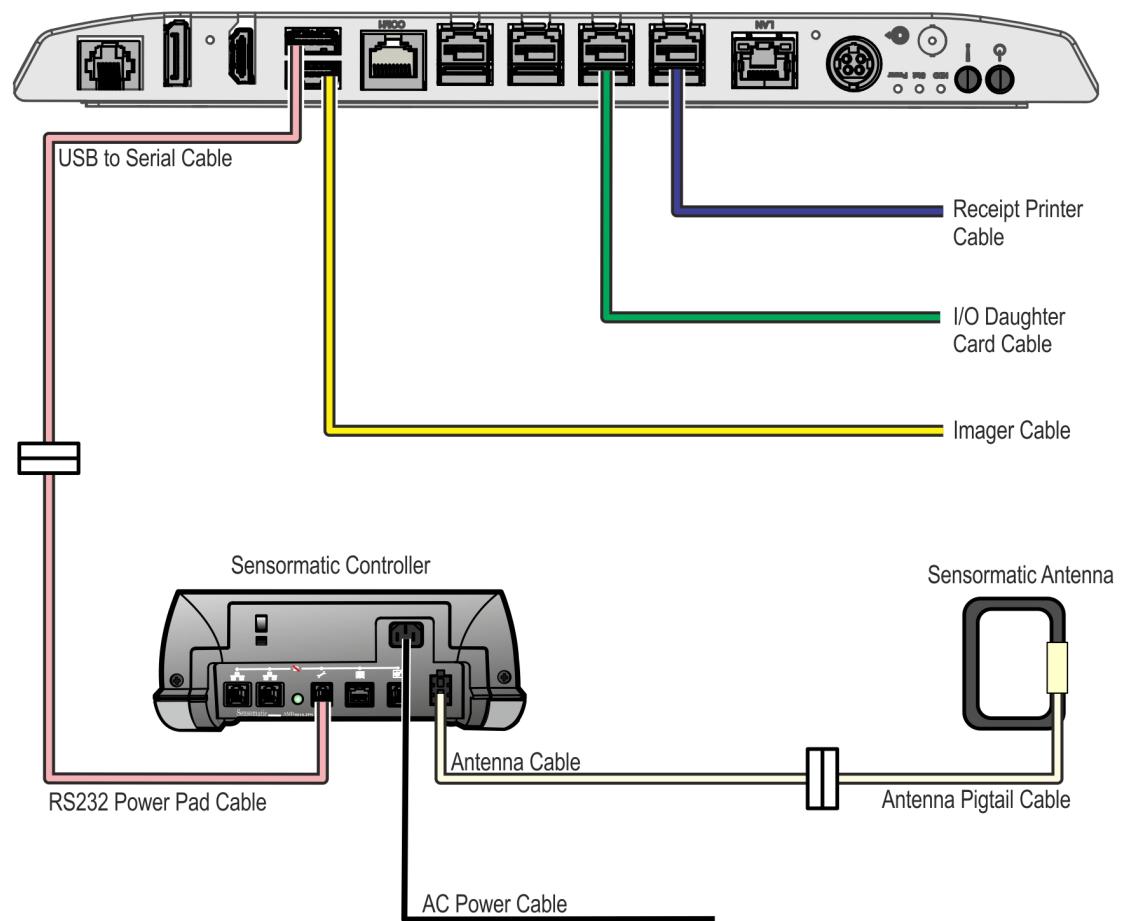
Interconnection Diagram

Note

Actual cable colors are black, they are shown in different colors in the illustrations for easier reference.

Component Cables	Port	
1	USB B	Motherboard I/O Panel
2	USB E	
3	USB F	
4A	USB A	
4B	Data Port	Sensormatic Controller
5A	Antenna Port	
5B		
6	AC In Port	

Motherboard I/O Panel



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