



**96XX**  
**GROUNDING STRAP**  
**FIELD INSTALLATION GUIDE**

VERSION 2.0

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# 96XX CASH DISPENSER

## GROUNDING STRAP FIELD INSTALLATION GUIDE

PARTS SUPPLIED		RECOMMENDED TOOLS	
1	96XX Ground Strap, PN 09120-00130	1	Phillips Screw Driver, Medium
		1	ESD Wrist Strap (see Page 6 for ESD safety information and equipment sources)

**TO PROTECT THE EQUIPMENT FROM POTENTIALLY DAMAGING ELECTROSTATIC DISCHARGE (ESD) EVENTS, WEAR A GROUNDING ESD WRIST STRAP DURING THE INSTALLATION PROCEDURE! SEE PAGE 4 FOR INFORMATION ON ESD SAFETY AND SOURCES OF ESD SAFETY EQUIPMENT.**

Refer to **Figure 1, Grounding Strap Routing Diagram**. You will route the Grounding Strap between six points, securing it at each point using one of the attached Ring Terminals. Each Ring Terminal will fit under the existing screw/washer at each point. Remove the screw/washer, place the designated Ring Terminal into position over the screw-hole, replace the screw/washer and tighten down.

	LOCATION		LOCATION
<b>1</b>	CARD CAGE	<b>4</b>	CARD READER
<b>2</b>	SPEAKER	<b>5</b>	DISPLAY ASSEMBLY MOUNTING BRACKET
<b>3</b>	KEYPAD (SPED) BOARD	<b>6</b>	PRINTER ASSEMBLY MOUNTING BRACKET

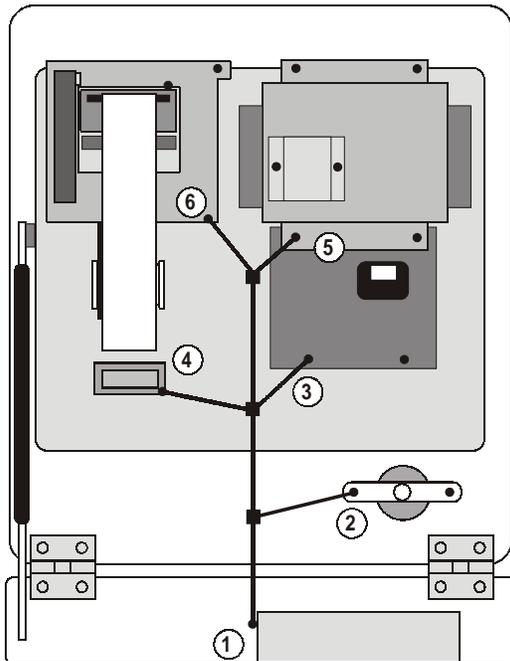


Figure 1. Grounding Strap Routing Diagram.

### FOLLOW THESE STEPS TO INSTALL THE 96XX CASH DISPENSER GROUNDING STRAP:

1. Unlock and open the Cash Dispenser Control Panel. Turn off the AC power to the terminal by pushing the AC power switch (on the right side of the Card Cage chassis) to the **OFF (0)** position.
2. Connect the **first ring terminal** to the Card Cage chassis, as shown in Figure 2. You can identify the first ring terminal by its location at the end of a 17-inch long segment of the grounding strap.



Figure 2. Connect Grounding Strap to Card Cage chassis screw.

3. Route the grounding strap to the speaker and connect the **second ring terminal** to the speaker mounting screw, as shown in Figure 3.

# 96XX CASH DISPENSER

## GROUNDING STRAP FIELD INSTALLATION GUIDE

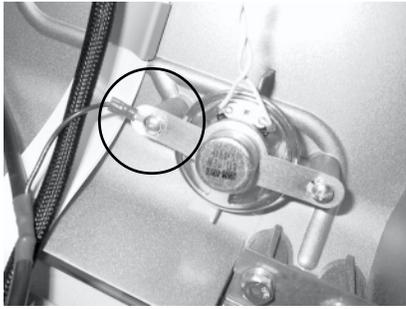


Figure 3. Connect Grounding Strap to Speaker mounting screw.

4. Connect the **third ring terminal** to the keypad board mounting screw, as shown in Figure 4.

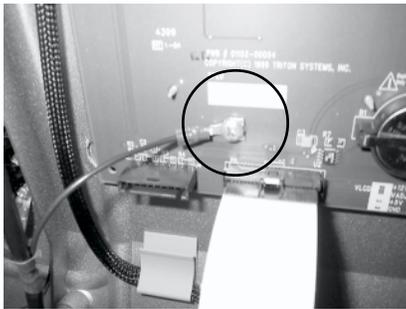


Figure 4. Connect Grounding Strap to SPED board mounting screw.

5. Connect the **fourth ring terminal** to the Card Reader mounting screw. If the card reader has an attached grounding wire, ensure the terminal lug on this wire is secured to the same point as the grounding strap ring terminal, as shown in Figure 5.

Card Reader grounding wire.      Grounding Strap

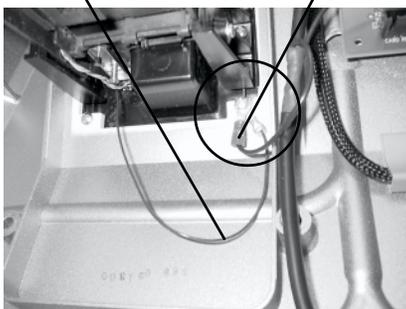


Figure 5. Connect Grounding Strap to Card Reader mounting screw and grounding wire.

6. Connect the **fifth ring terminal** to the Display mounting screw, as shown in Figure 6.

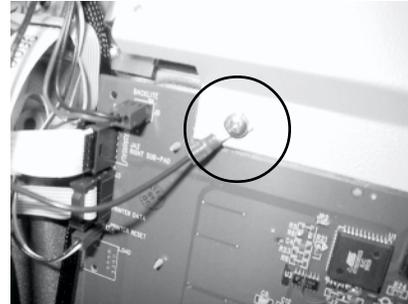


Figure 6. Connect Grounding Strap to Display mounting screw.

7. Connect the sixth ring terminal to the Printer Mounting Bracket, as shown in Figure 7.



Figure 7. Connect Grounding Strap to Printer Mounting Bracket screw.

8. Turn the AC power switch on the Card Cage to the **ON (I)** position. Close and lock the Cash Dispenser Control Panel. The installation procedure is complete.

# 96XX CASH DISPENSER

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### ESD SAFETY

Electrostatic Discharge or "ESD" is a very common electrical phenomenon. It is caused when a static charge is suddenly released (discharged), causing a flow of electric current and generating voltages that can damage electronic components.

Static is produced by the contact and separation of materials: shoes and floors, clothes and the human body, parts being moved on or from surfaces. The generated charge will reside on the body until it is discharged. A common example occurs when you walk across a carpeted floor and touch a doorknob. Typically, you sense the discharge in the form of a "zap," a brief, possibly intense electrical jolt or shock. Although such discharges need to be at least 3500 volts in order to be felt by the average individual, voltages of less than 100 volts can permanently damage or destroy electronic components.

ESD events do not always destroy an electronic component on the first occurrence. Sometimes, many events are required, received over a period of time, before the component finally fails.

Once the device fails completely, the failure is referred to as a catastrophic ESD failure. ESD damage that is not catastrophic leaves the component operable, but damaged, such that it can fail at a later time, possibly under normal operation. In fact, most ESD events are not catastrophic in nature, but cumulative, and because of the microscopic nature of ESD, when a catastrophic failure occurs you cannot verify that ESD was the cause.

To reduce the possibility of ESD events when working on electronic equipment, you should always wear an ESD wrist strap that is plugged into a good ground point.

A properly grounded wrist strap effectively prevents any static charge from building up. Any static charge that would tend to be created is instantly "drained" by the wrist strap.

### WRIST STRAP GROUND CONNECTION

**Connect the wrist strap grounding cord to a solidly grounded point!** Once such point is the pneumatic piston slide rail within the control panel hood. Open the control panel hood to gain access to the slide rail, as shown in Figure 8.



Figure 8. Grounding Point on Pneumatic Piston Slide Rail.

You can use an alligator clip adapter (provided in most ESD safety kits) to connect the cord to the slide rail, or to some other convenient grounding point.

***The wrist strap grounding connection must be maintained at all times during the grounding strap installation procedure.***