



9600 PCI EPP KEYPAD AND CARD READER UPGRADE

TDN 07103-08200 Feb 11, 2011

This upgrade requires software updates for both Canada and the US. Refer to page 6 in this manual and the Triton web site for the required software.

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Document Updates

March 10, 2010 Original

March 30, 2010 Revised software requirements, added warning on software load order. pg 6.

April 2, 2010 Revised warnings on page 6.

April 5, 2010 Added Canada mono display software on pg 6.

Feb 11, 2011 Updated card reader part number to 09200-00418

INTRODUCTION

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PURPOSE

This guide covers the steps for replacing your current card reader and keypad with a new EMV compliant card reader (Canada only) and PCI compliant T7 keypad. A new Multi-Function Board is also included for keypad interface. These procedures include a list of all tools and hardware necessary for the replacement as well as the steps involved.

SCOPE

These procedures apply to all VERIFIED TRITON TRAINED service personnel involved in the process of maintaining or converting Triton ATMs.

APPLICATION

This conversion kit applies to Model 96xx. In Canada, the EMV card reader and PCI Compliant SPED must be installed together to be effective. If you have any questions contact Triton Technical Support.

NOTES:

SOFTWARE DEPENDENCY CANADA AND US

Your **Canadian** unit **will not** recognize the new EMV card reader with your current software. Updated software is available for your unit on the Triton Partner web site (<http://www.Triton.com>) or contact Triton Technical Support. See the table on page 6 for unit specific software. The web site will have a **new TriComm 2.1.22**, full and update load files, two EMV plug-in files, and release notes.

US software is posted on page 6, and is limited to the full and update loads only, and does not require the latest TriComm 2.1.22.

UNIT CONFIGURATIONS

Due to production, rehab, update, or repair differences, your unit **may vary** in hardware, or cable color, length, and routing, as compared to the examples given. These instructions are **representative** of the upgrade for the 9600. Your units **appearance may vary**. Read **ALL** instructions prior to proceeding, noting those areas that are applicable to your unit. You may find that some steps have been accomplished in previous upgrades, (such as grounds, EMV card reader, etc). In those instances, check to ensure the intent of the upgrade procedure has been met, and skip that particular step. Install the latest hardware and software whenever possible.

NOTE: If you have an LED scrolling topper, you will be required to obtain an external power supply. The new multi-function board will not provide power. The part number for a Triton approved power supply is listed in the parts section. The current message will continue to scroll, but will no longer be able to be changed from the ATM. To change the scrolling message, the originally provided remote control must be used.

TOOLS

The use of magnetic implements may be helpful in the removal and replacement of small hardware.

ADDITIONAL NOTES:
CREDITCALL STICKER (CANADA ONLY)

Upon completion of your particular upgrade procedure, affix the CreditCall sticker to a prominent place on the inside of the cabinet. (On the left side wall in front of the card cage is recommended.)



Sample Sticker

REQUIRED PARTS AND TOOLS

TOOLS REQUIRED		#1 & #2 philips screwdriver, 6 inch long #1 philips screwdriver 2 inch long small open end wrenches, 1/4" 5/16" & 11/32" side cut pliers 1/4" nut driver		
KIT 06200-08199		US 9600 T7 PCI EPP Keypad Upgrade Kit		
KIT 06200-08200		Canada 9600 T7 PCI EPP Keypad and EMV Card Reader Upgrade Kit		
US	CAN	Part #	Description	Qty
			Common Bag of Parts 16x24 in	
	X	09200-00418	Card Reader EMV I-65 EMV 4.0 w/anti-static brush	1
	X	01080-00089	Cable Card Reader EMV ROHS	1
X		09600-00094	EPP enclosure assy, US T7	1
	X	09600-00095	EPP enclosure assy, Canadian T7	1
	X	03011-00198	Bracket Paper Roll (03011-01933 replaces 00198)	1
X	X	09100-01207	Assembly, PCI SPED to 96xx Adapter	1
X	X	09110-00414	9600 Multi-function Board	1
X	X	03011-01931	Keypad Retainer Plate	1
			Bag of parts #1 6x9 in	
	X	07100-00023	CreditCall EMV License	1
X	X	03072-00015	6 inches TY Wraps ROHS	4
X	X	02054-00190	Screw PH 4mm x 12mm Self-tapping Plastite pan head ROHS	4
X	X	09130-01057	96xx EPROM version SD6.00 Supports T7 EPP	1
X	X	02115-00016	IC Extractor, DIP	1
X	X	03072-00009	Clip Panduit Adhesive Cable ROHS	1
X	X	03072-00012	Clip Adhesive	2
X	X	02054-00166	Screw #8-32 x 1/2 inch Pan Phil Head w/Ext Tooth Wash ROHS	4
X	X	02318-00000	Standoff #8-32 x 3/4 Inch Brass Hex	4

INTRODUCTION

US	CAN	Part #	Description	Qty
			Bag of parts #2 4x6 in	
	X	09120-00013	Cable, Power Supply Backplate to Cabinet Ground, 10AWG Braid, 8 inch	2
	X	02318-00000	Standoff #8-32 x 3/4 inch Hex, Brass	1
	X	02323-00001	Insert, threaded, #8-32 Thread, 7/32 hole size, snap-in, no flange	1
	X	01030-00010	Ferrite ROHS	1
	X	02054-00166	Screw #8-32 x 1/2 inch Pan Phil Head w/Ext Tooth Wash ROHS	7
	X	03072-00009	Clip Panduit Adhesive Cable ROHS	2
	X	03072-00015	6 inches TY Wraps ROHS	4
			Bag of parts #3 4x6 in	
	X	02054-00300	Screw #6-32 X 1/4 " Self tapping Hex head	2
	X	02303-00007	#6 Nylon Retaining Washer	2
	X	03011-00047	9600 Paper Sensor Bracket	1
	X	02321-00000	Plastic Push Rivet, .085 Inch Diameter Hole Clearance ROHS	2
		01142-00007	Optional 9v/800ma DC power supply to power LED scrolling top-per (input 120v 2.1mm x 5.5mm x 12mm plug	

Software Requirements Canada

Model	Full Load Software Version	Update Software Version
9600	XD890076.00 (Color display) To enable EMV support, the following plug-ins must also be installed: EMVK0000.B96 EMVA0000.B96	XAT-8976.00 (Color display) To enable EMV support, the following plug-ins must also be installed: EMVK0000.B96 EMVA0000.B96
9600	XD880076.00 (Monochrome display) To enable EMV support, the following plug-ins must also be installed: EMVK0000.B96 EMVA0000.B96	XAT-8876.00 (Monochrome display) To enable EMV support, the following plug-ins must also be installed: EMVK0000.B96 EMVA0000.B96

- To load the EMV files, the latest version of TriComm (**v2.1.22**) **must** be used.
- Ensure TriComm v2.1.22 is loaded on your laptop and operational before proceeding to your ATM site.
- Refer to Release Notes Canada 7.0 for further information.
- Software files, TriComm and the Release Notes can be obtained from **www.Triton.com** partner site in the appropriate .zip file.

Software Requirements US

Model	Full Load Software Version	Update Software Version
9600	XD910080.00 (monochrome display)	XAT-9180.00 (monochrome display)
9600	XD920080.00 (Color display)	XAT-9280.00 (Color display)

US software does not require the latest version of TriComm to load.

WARNING:

- Software for Canada and US must be loaded **AFTER** the hardware upgrade. Loading the software first will cause the loss of valuable data when the hardware is updated.
- Ensure you have obtained the correct software from the Triton partner web site and loaded it on your laptop before going to your ATM location.
- Read this manual and the Software Release Notes fully before proceeding.
- Don't forget your laptop to ATM load cable.

SECTION 1

EMV CARD READER

UPGRADE

9600

CANADA ONLY

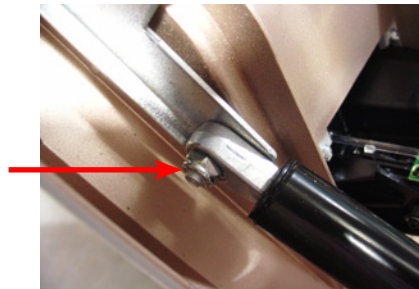
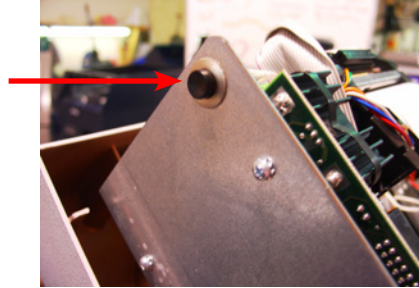
9600 REMOVE AND REPLACE PROCEDURES

You may have upgraded to the EMV Card Reader in a previous upgrade. Go through these steps as a quality check. The EMV card reader in this kit may be newer than the one you have. Retain all hardware, (screws, nuts bolts) some will be reused.

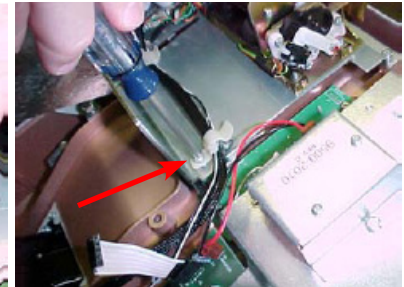
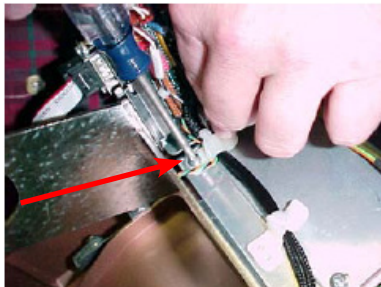
Before proceeding, follow these steps to remove power from the ATM:

Unlock and open the ATM control panel. Cut the printer paper, and push the printer paper advance button until all of the paper is ejected out the front (**DO NOT** pull the paper back through the printer, it will cause shredding and jams). Remove the paper roll. Turn the power switch to the OFF (0) position. If possible, unplug the ATM power cord at the wall outlet.

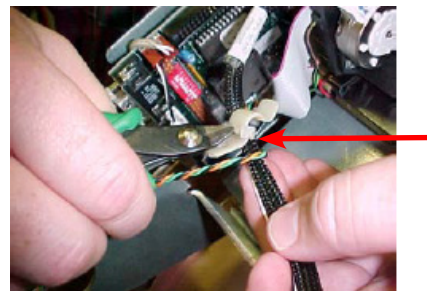
1. Unlock and open the lower cabinet fascia panel. The fascia panel will be used to support the control panel during the following steps.
2. Remove the nut holding the pneumatic piston arm to the control panel. Support the control panel as you disconnect the end of the assembly.
3. Lower the control panel so that it rests on the top edge of the fascia panel. Be very careful, this is the only thing holding the control panel up. If it should fall off of the fascia panel, damage will occur.



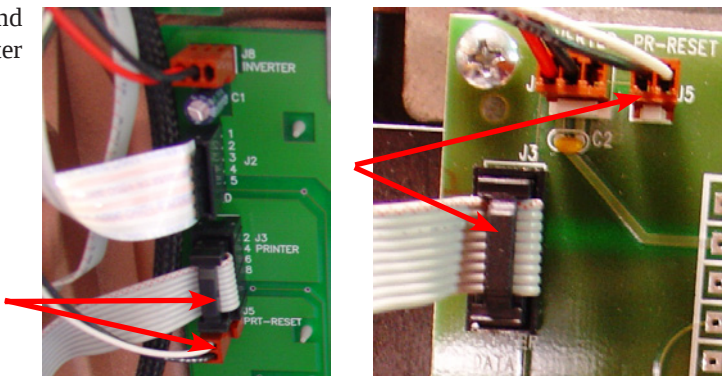
4. Remove the 2 (two) screws retaining the cable clips to the printer bracket.



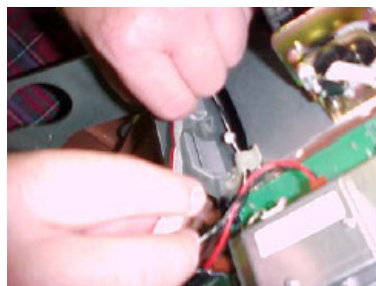
5. Cut the ty wrap that secures the printer power, reset, and paper low sensor cables to the left and right printer bracket cable clips. **Note how these cables are ty wrapped to the clips: you will use a new ty wrap to reconnect the cables to the clips in a later step.**



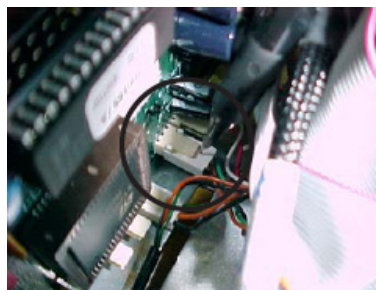
6. Disconnect the cable connectors at J3 (Printer) and J5 (Printer-Reset) on your applicable keypad adapter board.



7. Remove the ribbon cable from between the adhesive cable clips



8. Disconnect the low paper sensor cable at connector J11 on the printer control board. This cable is connected to the low paper sensor on the paper roll bracket.



9. Remove the low paper sensor bracket from the paper roll bracket. It may be held on with hex screws or Philips head screws. You may have one of two types. If you have figure one, you will have to remove the sensor from the original bracket and install it onto the new bracket. If you have figure two, you can reuse the sensor and bracket combination, and install it onto the new paper roll bracket. Set the bracket, sensor, plastic washers, screws, and cable aside.

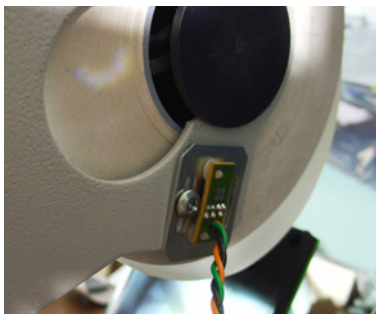


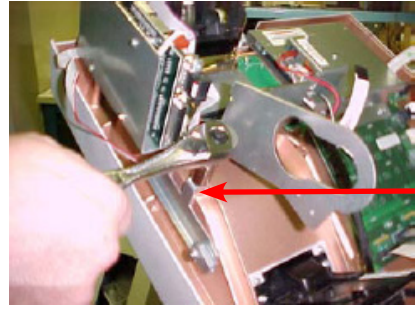
Figure 1



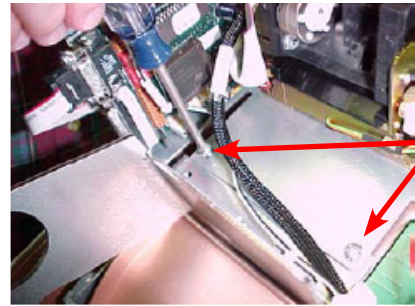
Figure 2

EMV CARD READER UPGRADE PROCEDURES

10. Loosen the bolt on the pneumatic piston bracket.



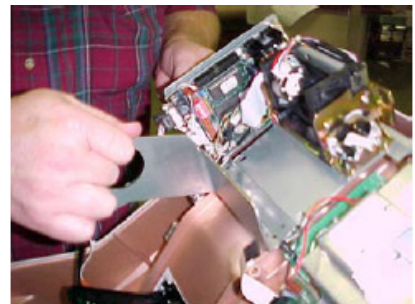
11. Remove the 2 (two) screws securing the paper bracket to the printer bracket.



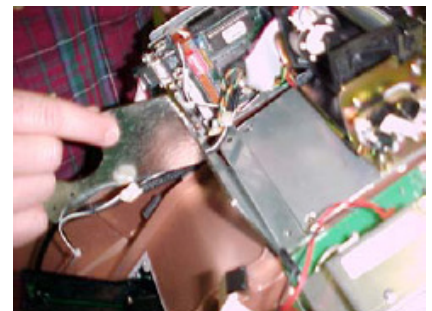
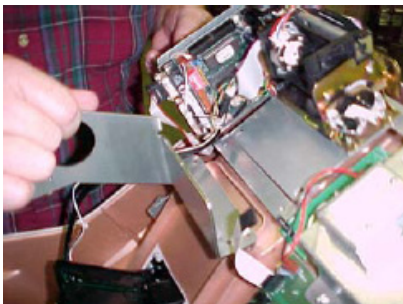
12. Loosen but do not remove the 2 (two) upper screws securing the printer bracket to the control panel.



13. Move the disconnected cables aside as needed. Lift the printer bracket slightly and slide the paper bracket from beneath the printer bracket and pneumatic piston bracket. Remove the paper bracket.



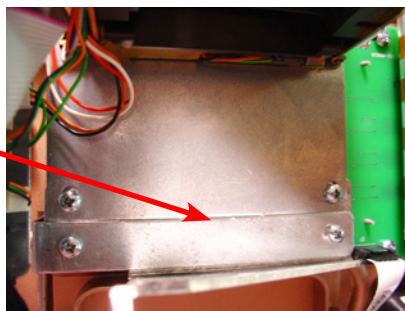
14. Slide the **new** paper bracket **UNDER** the pneumatic piston bracket and the printer bracket. This will take some maneuvering.



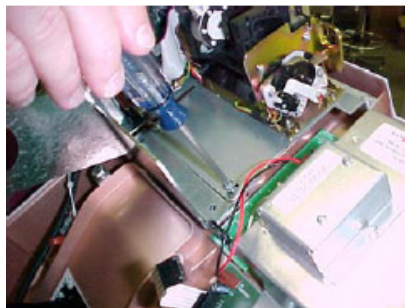
Note: Use the 6 (six) longer screws (8-32 X 1/2 inch) provided (bag 2) for the next 3 (three) steps.

15. Now, remove the 2 (two) upper screws securing the printer bracket to the control panel, previously loosened in step 12. Install 2 (two) longer screws but leave them very loose.

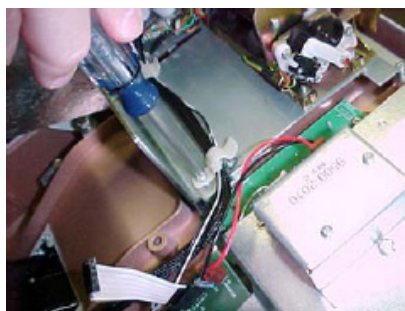
Note: When the brackets are aligned properly, the piston bracket is flush with the printer bracket, (plastic clips and cables removed for clarity) and the paper bracket is underneath.



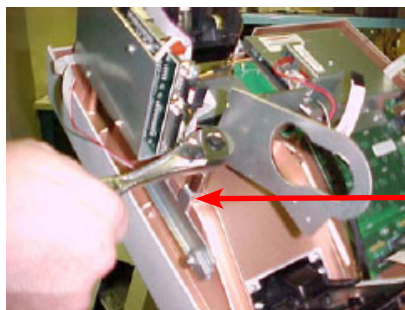
16. Install the 2 (two) screws into the lower printer bracket a couple of turns. Do not tighten. It will take some pushing and jiggling to ensure all 6 (six) mounting holes line up.



17. Install the 2 (two) screws and clips into the piston bracket a couple of turns. Do not tighten. Push the clips to the side to allow access to the lower printer bracket screws. After all 6 (six) screws have been started, tighten the top printer bracket screws (shown in step 15) and lower printer bracket screws (shown in step 16). Leave the screws holding the plastic clips loose (but make sure they are started).

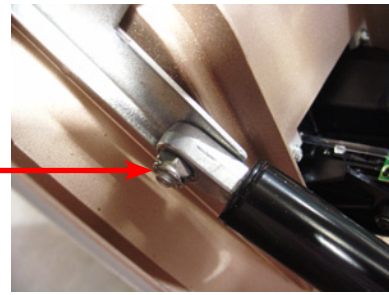


18. Tighten the pneumatic piston bracket bolt.

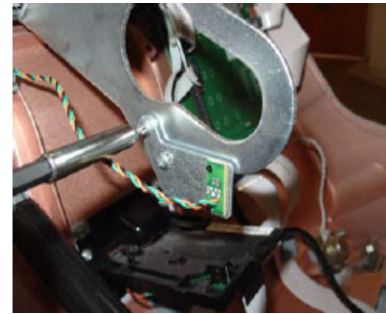


EMV CARD READER UPGRADE PROCEDURES

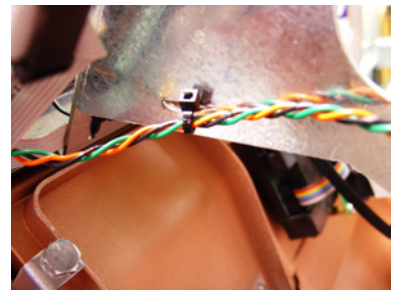
19. Place the pneumatic piston back onto its bolt and secure with the nut removed earlier.



20. Reattach the low paper sensor and bracket to the new paper bracket with 2 (two) screws. Ensure the plastic washers are between the paper bracket and sensor bracket. If your new bracket has shoulders around each screw hole, OMIT the plastic washers. The plastic washers, or shoulders on the paper bracket, create a space between the paper bracket and the sensor bracket. If you had a type one sensor bracket, refer to the instructions at the end of this section (page 1-10) to attach the sensor to the new bracket, then continue with this step.



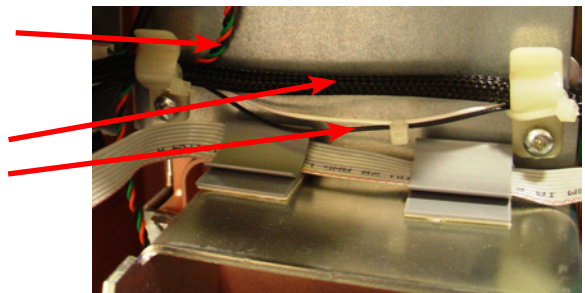
21. Reconnect the low paper sensor to J11 on the printer controller, and ty wrap the cable to the paper bracket if applicable.



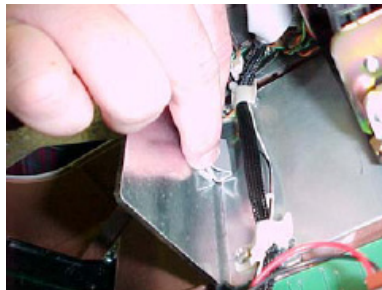
22. Route the black printer cable and reset cable under the 2 (two) plastic clips. Tighten the screws retaining the clips. Ty wrap the black printer cable and reset cable to the RIGHT plastic clip. Route the low paper sensor cable under the LEFT plastic clip (right to left) and ty wrap the 3 (three) cables to the clip.

Low paper sensor cable

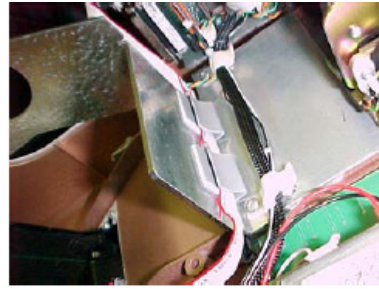
Printer cable
Reset cable



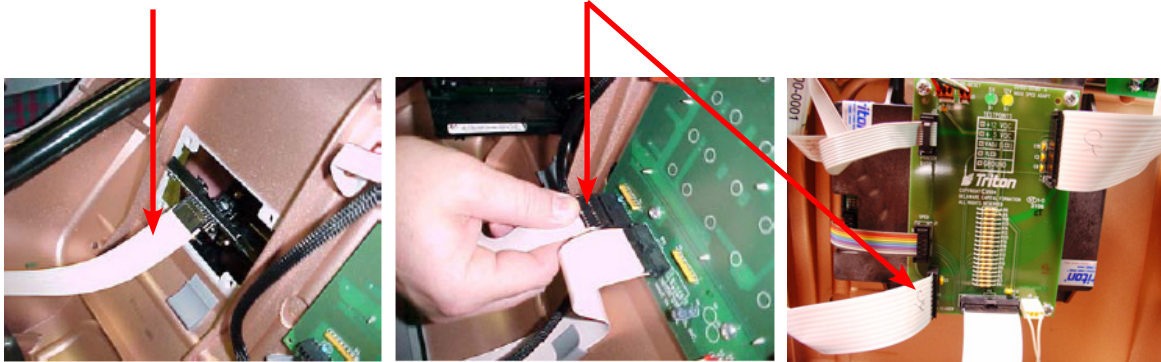
23. Place 2 (two) adhesive cable clips on the new bracket (for the ribbon cable)



24. Place the ribbon cable through the 2 (two) adhesive cable clips.



25. Remove the data cable from the existing card reader and J4 of your particular SPED adaptor board.



26. Remove the 4 (four) mounting screws from the existing card reader. (retain)



27. Remove the existing card reader from the front of the control panel.



28. Note the grounding wires on the new EMV card reader. Remove the screw securing the ground cables. Do not replace the screw.



EMV CARD READER UPGRADE PROCEDURES

29. Insert the new EMV card reader through the front of the control panel. Ensure the printed circuit board is on top, as shown.



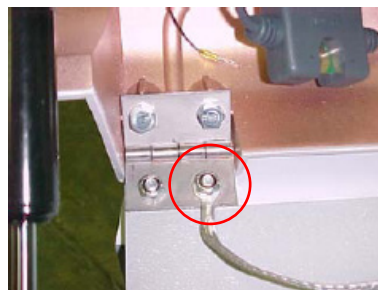
30. Secure the new EMV card reader with 4 (four) screws from previous step. (26)



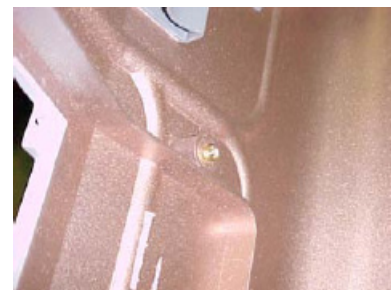
31. Install the grounding strap as shown. Use the open end wrench for the bolt on the cabinet, and the short Philips screwdriver for the card cage.



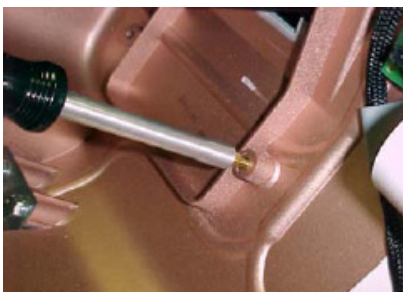
32. Connect a grounding strap to the left corner control panel hinge bolt (near the card reader).



33. Install the threaded insert: First, locate the panel boss directly below and to the right of the card reader. **Ensure there is no dust, dirt, or other foreign material in the panel boss.** Place the insert into the panel boss. **Important: position the insert so the split end is inserted into the boss.** Apply firm pressure with the tip of a Philips screwdriver or other suitable tool to press the insert into the boss. The insert should fit snugly and should be flush with the edge of the boss.



34. Use a nut driver to install the threaded standoff (yours will be longer than shown) into the insert installed in the previous step. Ensure the standoff is fully seated, but **do not over tighten**. Chance of breaking the threads on the stand off are high.



35. Place the card reader ground straps, and the ground cable from the hinge (step 32) onto the ESD module mounting hole and secure the ESD module and grounds to the standoff with a single screw.



36. Place the Ferrite around the EMV Card Reader cable, wrap the cable around the ferrite one time as shown, and snap firmly.



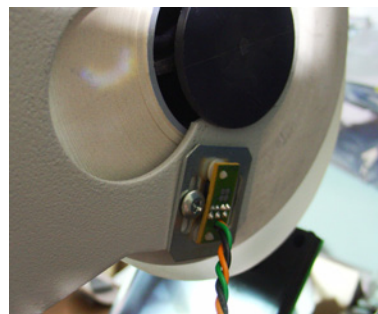
37. Connect the cable from the ESD module to the card reader. Note: the orange wire in the connector should be on the left.



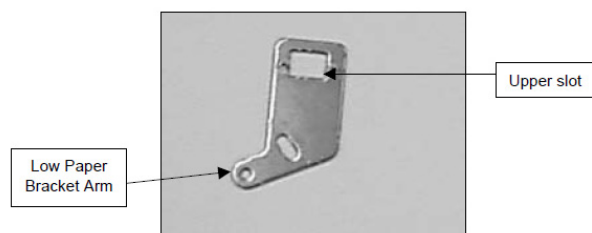
This completes this portion of the upgrade. Continue with Section 2 (Keypad) and then 3 (Quad Port to Multi-Function Board Upgrade). Remember to affix the EMV license sticker to the inside of the cabinet.

LOW RECEIPT-PAPER SENSOR UPGRADE

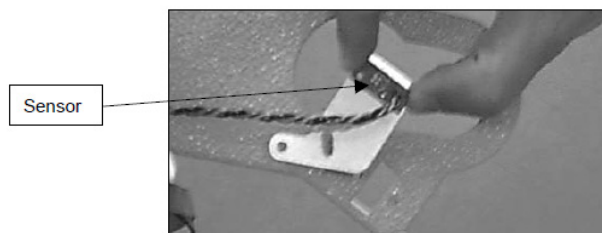
If you have a type one low paper sensor, you should be here from step 20. If it looks like the sensor and bracket to the right, you are in the right place.



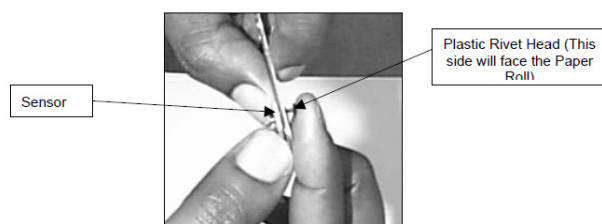
1. With the sensor and bracket removed from the paper bracket, push the plastic rivets, holding the sensor to the bracket, out from the sensor side. The handle of a screw driver may be used to push the rivet. It is in 2 (two) parts, much like a lag bolt. The rivets may break, which is ok, new rivets are provided. Be careful, if the sensor breaks, that's not ok.
2. Obtain the new sensor bracket.



3. Position the sensor on the new bracket as shown.



4. Using the new plastic rivets provided, attach the sensor to the bracket. The rivet is inserted through the bracket into the sensor.



5. Return to Step 20 and attach the sensor and bracket to the new paper bracket. Don't forget the plastic washers between the two brackets, or OMIT the washers if your paper bracket has shoulders around the mounting holes.

SECTION 2

PCI EPP KEYPAD

UPGRADE

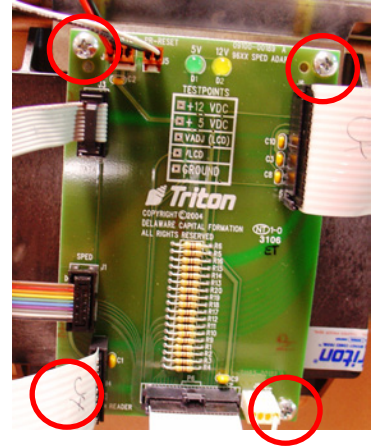
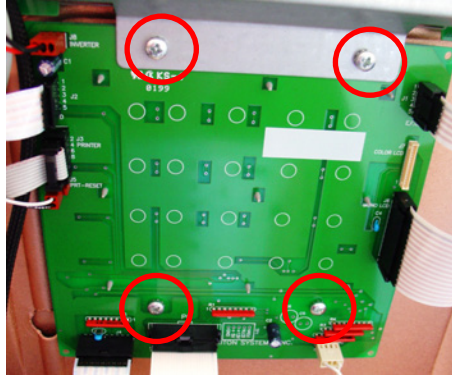
9600

PCI EPP KEYPAD UPGRADE PROCEDURES

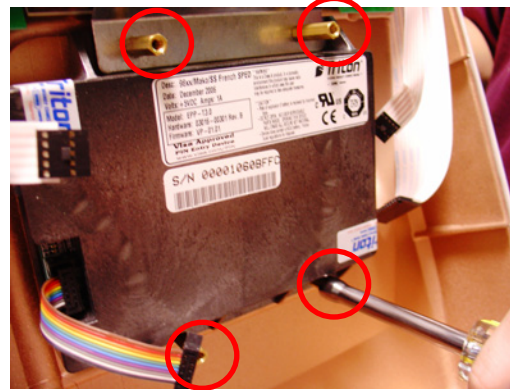
REMOVE AND REPLACE PROCEDURES

This section removes the current keypad, and replaces it with a PCI EPP T7 keypad. Your key pad will be applicable for your location.

1. Remove all cables from your applicable SPED adaptor board.
2. Remove 4 (four) screws holding your SPED adaptor board.



3. Remove 4 (four) standoffs holding your keypad.



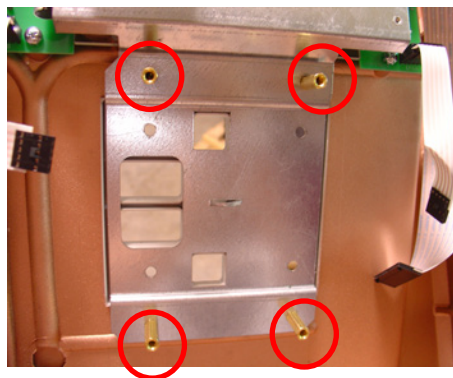
4. Loosen 2 (two) screws holding the screen panel mounting bracket.



5. Remove the keypad from under the screen panel mounting bracket.

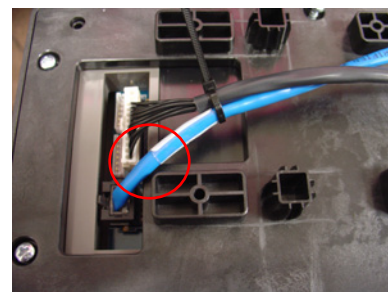
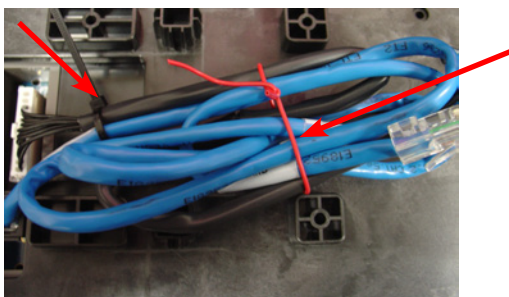


6. Install the keypad retaining plate with the 4 (four) short standoffs. Start all 4 (four) before tightening. It may take a few attempts before all 4 (four) standoffs are started properly. **DO NOT CROSS THREAD THE STANDOFFS.** Note the retaining bracket mounts on top of the screen mounting bracket. Use the nut driver to tighten these standoffs.

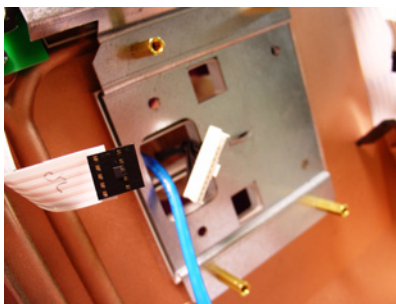


7. Tighten the 2 (two) screws in the upper screen mounting bracket, loosened in Step 4.

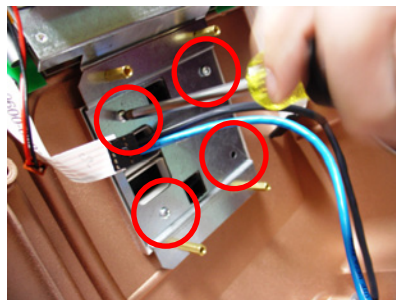
8. Remove the RED twisty tie from the new keypad assembly cable bundle. **DO NOT** cut the black ty wrap that is close to the connectors. **NOTE:** As you feed the cables through the retaining plate, **DO NOT** pinch the cable at the point shown. The cables should lay down in the recessed area.



9. Feed the cables from the front thru the upper left opening of the retaining plate. Maneuver the wires until the keypad assembly seats into the 2 (two) mounting guides. Do not pinch or bind the wires. Some wire wiggling will be required.

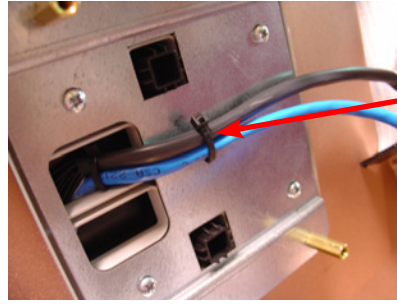


10. Press on the front of the keypad assembly firmly to seat the mounting pads into the retaining plate. Secure the assembly with 4 (four) self tapping screws. (4mm x 12mm bag 1) Continue to apply pressure while installing the screws. These are self tapping, do not over tighten. Upon completion, check the front mounting area, there should be no space between the keypad assembly and the control panel.

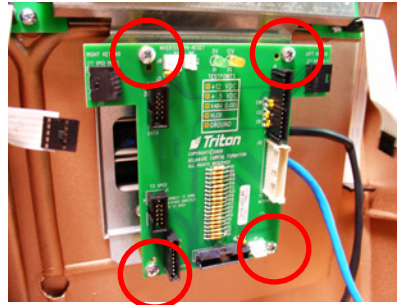


PCI EPP KEYPAD UPGRADE PROCEDURES

11. Secure the cables to the retaining plate with the ty wrap provided.



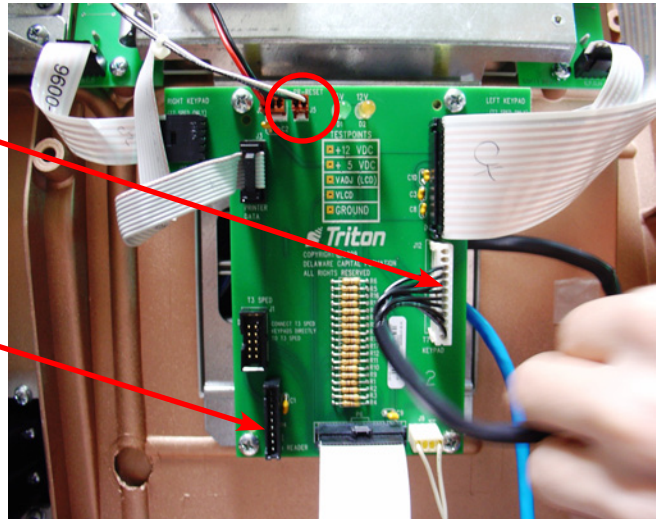
12. Install the new SPED adaptor board with 4 (four) long screws. (8-32 x 1/2 inch bag 1)



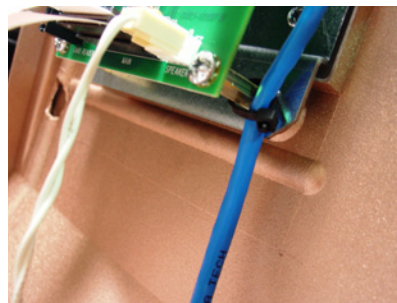
13. Reconnect all cables to the SPED adaptor board. The new keypad cable connects to **J12**.

From the upper left (circle) counter clockwise.

- J5 Printer Reset
- J8 Inverter
- J10 Right Keypad
- J3 Printer Data
- J1 Blank
- J4 Card Reader (Blank for Canada only)
- P6 Card Cage (Bottom ribbon connector)
- J9 Audio speaker
- J12 New Keypad
- J6 Mono Display (Cable shown)
- J7 Color Display (Connector next to mono)
- J11 Left Keypad (Hidden under display cable)



14. Ty wrap the keypad communications cable to the lower right standoff.



This completes this portion of the upgrade. Continue with Section 3 (Quad Port Board to Multi-Function Board Upgrade and cabling).

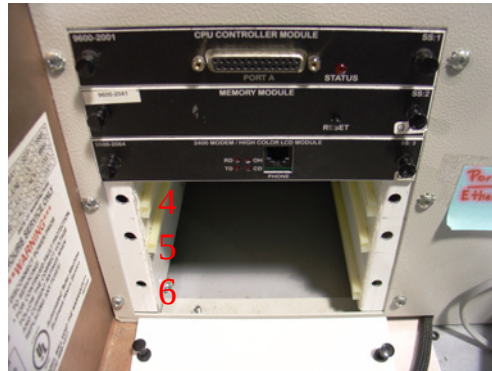
SECTION 3

QUAD PORT BOARD TO MULTI-FUNCTION BOARD UPGRADE 9600

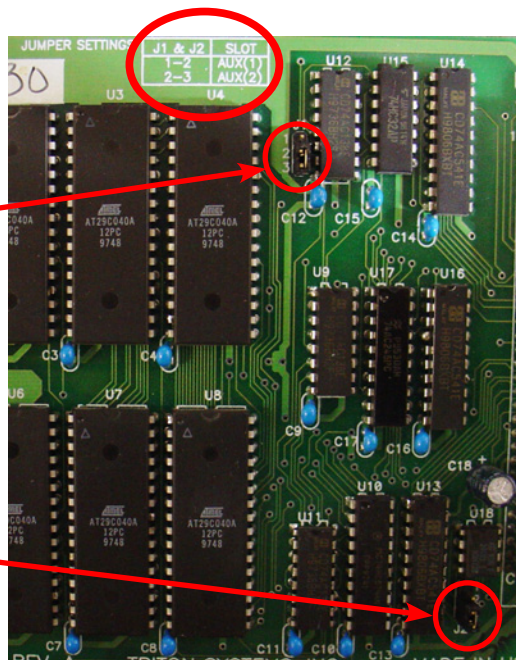
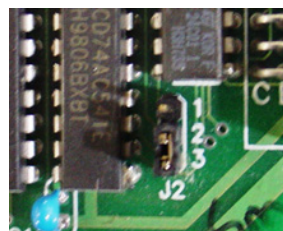
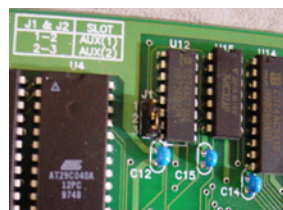
QUAD PORT BOARD TO MULTI-FUNCTION BOARD UPGRADE PROCEDURES

This section removes and replaces any tri-port, quad-port, expanded memory, or blank panels in your 9600, and upgrades with a Multifunction Board.

1. Remove any boards or blank panels from slots 4, 5 & 6.



2. Install the new Multifunction board into slot 4 (four) **ONLY**. Secure the board with the push in snaps.
3. If you have a Memory Expansion Module, re-jumper J1 and J2 for AUX 2. (pins 2 & 3)



4. Install the Memory Expansion module (if you have one) in slot 5 (five) **ONLY**. Replace the blank panel in slot 5 (five) if necessary, and slot 6 (six). Secure with the push in snaps.



This section updates the **EPROM** chip on the Memory Module in slot 2 (two).

Before beginning, ensure you are working in a non-conductive anti-static environment. Ensure you are properly grounded through the use of an approved ant-static grounding wrist strap. Handle the EPROM with extreme care. Make every attempt not to touch the EPROM pins. When installing the new EPROM, pay close attention to the orientation of the chip in its socket and make sure none of the pins are bent after installation. A little extra care now will avoid problems later.

1. Remove the Memory Module from slot 2 (two) and place it on a non-conductive anti-static surface. (the Multifunction board bag will do in a pinch)

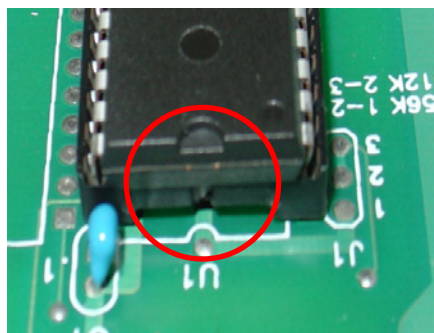
2. This is representative of the EPROM (U1) to be removed.



3. Using the chip extraction tool provided, grasp each end of the EPROM and pull up using even, firm, constant pressure. Ensure you are pulling on the chip and not the socket.



4. Install the new EPROM into the socket. Note the half moon shape at the left end, matches the same shape on the socket. Be VERY careful when installing the EPROM. Ensure the pins do not bend out or under the EPROM, and that each pin is in the proper socket before pressing in the EPROM.

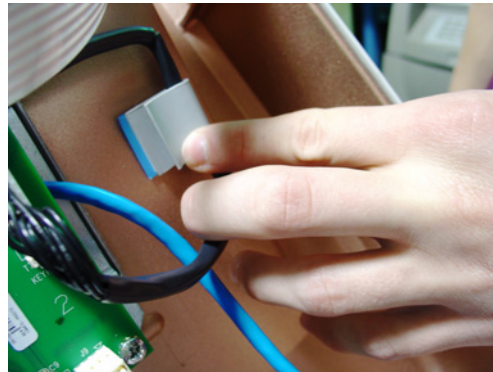


5. Install the Memory Module back into slot 2 (two). Secure with the locking pins.

QUAD PORT BOARD TO MULTI-FUNCTION BOARD UPGRADE PROCEDURES

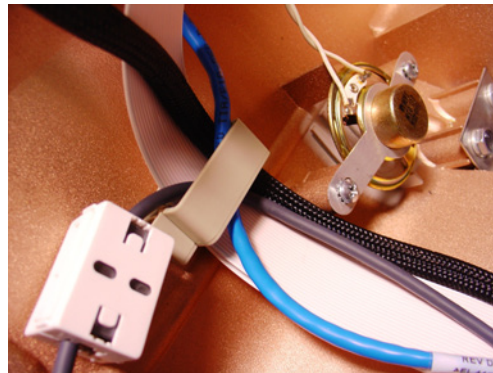
This section covers the application of adhesive cable clips and cable routing in the unit.

1. Remove the covering on a self adhesive cable clip, and place the clip to the right of the new SPED adaptor board as shown. Press firmly to ensure good contact.



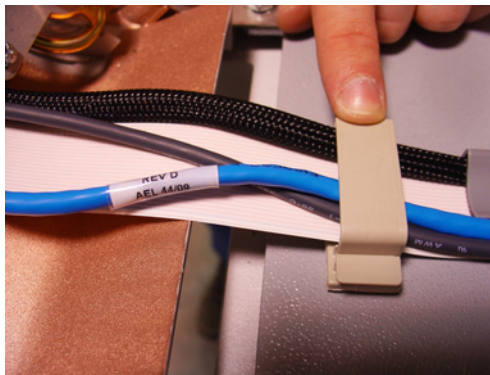
2. Route the keypad cable through the clip as shown.

3. Remove the covering on a self adhesive snapping cable clip and place it to the left of the speaker as shown. Press firmly to ensure good contact.

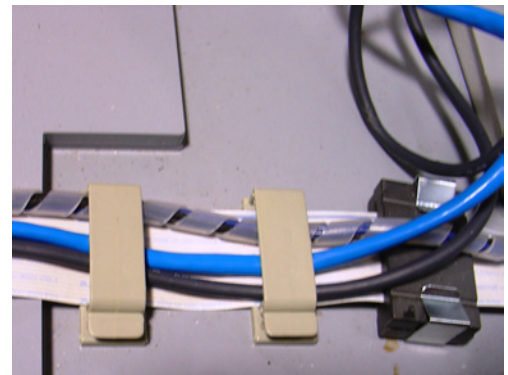


4. Route the EMV Card Reader(Canada only), printer, blue keypad, and ribbon cables through the clip as shown, and snap the clip closed to secure.

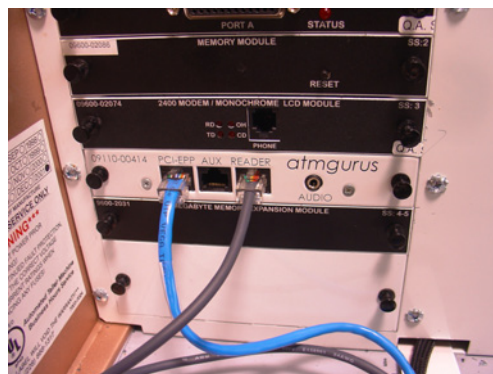
5. Remove the covering on a self adhesive snapping cable clip and place it to the front of the upper cabinet as shown. Press firmly to ensure good contact.



6. Route the EMV Card Reader(Canada only), printer, blue keypad, and ribbon cables through the new clip, existing clips, and snap the clip closed to secure.



7. Connect the blue keypad cable to the PCI-EPP port. (Canada only: Connect the EMV Card Reader cable to the Reader port)

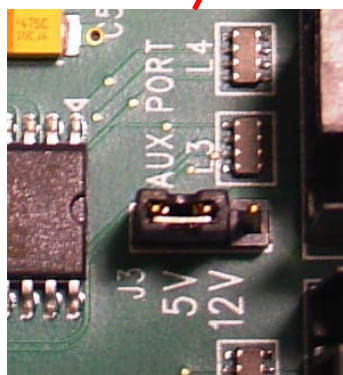
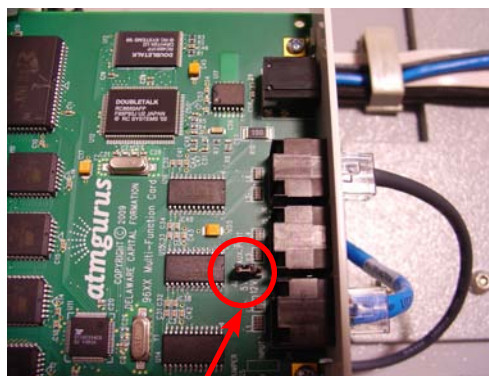


This section covers installing the jumper and connection of the optional **Triton EXTERNAL ETHERNET MODEM ASSEMBLY** (should you have one).

1. Pull the new Multi-function board out a few inches. Install a jumper on **J3** for **5 volts**. (Top and middle pins)

**FAILURE TO DO THIS WILL CAUSE
PERMANENT DAMAGE TO THE MODEM
AND MULTI-FUNCTION BOARD!!!**

2. Return the board and secure the tabs.



3. Connect the external modem cable to the AUX port (Canadian example).



NOTE: If you have an LED scrolling topper, you will be required to obtain an external power supply. The new multifunction board will not provide power. The part number for a Triton approved power supply is listed in the parts section. The current message will continue to scroll, but will no longer be able to be changed from the ATM. To change the scrolling message, the originally provided remote control must be used.

Ensure all connections are secure, all steps have been accomplished, and start your unit.
DON'T FORGET TO UPGRADE YOUR SOFTWARE: CANADA MUST USE THE LATEST VERSION OF TRICOMM 2.1.22 TO LOAD THE EMV REQUIRED FILES.

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