T5 PCI-EPP Conversion

Field Upgrade Procedures

(Models RL/FT5000/RL/RT2000)

TDN 07103-00178 Rev B 07/2008

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Contents

Introduction

This guide covers the steps for converting X-Scale/X2 terminals shipped with VISA® Encrypting PIN Pads (VEPP) to a T5 PCI-certified EPP. These procedures include a list of tools, hardware, and software required for the conversion.

Scope

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

**** IMPORTANT ****

BEFORE proceeding with the kit hardware installation, the **TERMINAL SOFTWARE** included in kit (CD), **MUST BE LOADED FIRST** to the terminal. The procedure for loading software is located in **APPENDIX A.**

The current terminal parameters and journal records ***will*** be affected or lost. Before proceeding with the software upload, it is **HIGHLY RECOMMENDED** that you first - **SAVE TERMINAL PARAMETERS** and **JOURNAL RECORDS** to an external storage device (USB thumbdrive). The procedures for saving and restoring terminal parameters and saving journal records are located in **APPENDIX A.**

Note: Journal Records may also be saved using Triton Connect.

Next, **PRINT** the **CONFIGURATION SUMMARY**. You may also want to print the journal records as well.

Open the "Software Load Files" folder on the CD. Locate the applicable country folder and display size. Copy all software files from this folder to your USB storage device. X-Scale software is identified with a ***.TLF*** extension. X2 terminal software is identified with a ***.TFV*** extension.

NOTE: The software version required for the T5 PCI-EPP upgrade must be "2.2.1" or greater. If the current version software loaded on your terminal is equal to or greater than the version listed (2.2.1), you do not need to load software.

Note: *The* ***.PDF*** files ("Release Notes") refer to the software load files. Recommend reading these documents prior to upgrading terminal software.

Overview

What is PCI (Payment Card Industry)?

The PCI Security Standards Council is an open global forum for the ongoing development, enhancement, storage, dissemination, and implementation of security standards for account data protection. To acquire any PCI member cards (VISA, AE, MasterCard, Discover, etc), you must follow PCI rules. PCI regulations cover:

- Communications of transaction information
- Storage of transaction information data (PINs/PANs)
- Security of encryption components, such as Master keys
- Design and construction of the EPPs used in POS and ATM devices

For the list of PCI regulations, visit website www.visa.com/pin . The FAQ section is very informative for answers to regulations concerning PCI-compliancy.

What did Triton do?

Triton already started shipping a PCI-compliant EPP in the FT7000. PCI-certified EPPs shipped with new Triton units starting 1 January, 2008. PCI certificates are on the Triton website www.triton.com.

What are the rules for PCI?

VISA certifications expired on 12/31/2007.

Depending on the model type of the ATM, there are two (2) available versions of the T5 PCI-EPP. The standard T5 PCI-EPP (polymer upper and lower casing) and the Metal T5 PCI-EPP , which has a metal upper casing and an internal 12vdc heater (thermostat controlled). The Metal T5 PCI-EPP is available for the FT5000 and RT2000.

The standard T5 PCI-EPP utilizes a Y-cable that combines the individual Function Keys cables (Left and Right) into a single connection at the module. The Metal T5 PCI-EPP W/Heater combines n additional cable with the two (2) Function Key cables into a single connection at the module. It connects 12vdc from the power supply to run the internal heater. Both versions have a field replaceable battery.

Overall Features:

- More Rugged Design
- Laser Etching
- Field Upgradeable Firmware
- Fully DDA/ADA Compliant
- Fully PCI 1.0 Compliant
- Field Replaceable Battery
- Polymer and *Metal W/Heater Versions

* FT5000 and RT2000 Only

T5 PCI-EPP

Metal T5 PCI-EPP W/Heater (FT/RT Only)

**** CAUTION ****

You must not remove battery from EPP without FIRST connecting a new battery! This EPP will be permanently damaged if unpowered and battery is removed before connecting a new battery!

RL(2000/5000) / FT5000 PCI Conversion

Model RL (2000/5000)

Model FT5000

**** IMPORTANT ****

The Function Key Cable has connectors designated "LEFT" and "RIGHT". This refers to the function keys and designations shown in the figures below. When installing this cable included in kit, REMEMBER the designations are referenced when viewed from FRONT of unit!.

TOOLS REQUIRED
Phillips Screwdriver (Magnetic)

RL/FT T5 PCI-EPP UPGRADE KITS
(Models RL5XXX / FT5XXX / RL2XXX)

06200-08134 (UK) **06200-08136 (US)**
06200-08138 (CAN) **06200-08142 (NETH)**

PARTS SUPPLIED

PART NUMBER	DESCRIPTION	QUANTITY
1 03016-20XXX	Keypad, PCI-EPP (Encrypting PIN Pad)	1
09120-07070	Dewhurst SPED Cable (Function Keys)	1
02054-00176	Screw, K40x20, PT Fastener	6
05200-10033	RL/FT/RT Software CD (includes kit #'s, install guides, software)	1

1 Country specified

FT Metal T5 PCI-EPP W/HEATER UPGRADE KITS
(Model FT5XXX)

06200-08162 (UK) **06200-08165 (US)**
06200-08164 (CAN) **06200-08167 (NETH)**

PARTS SUPPLIED

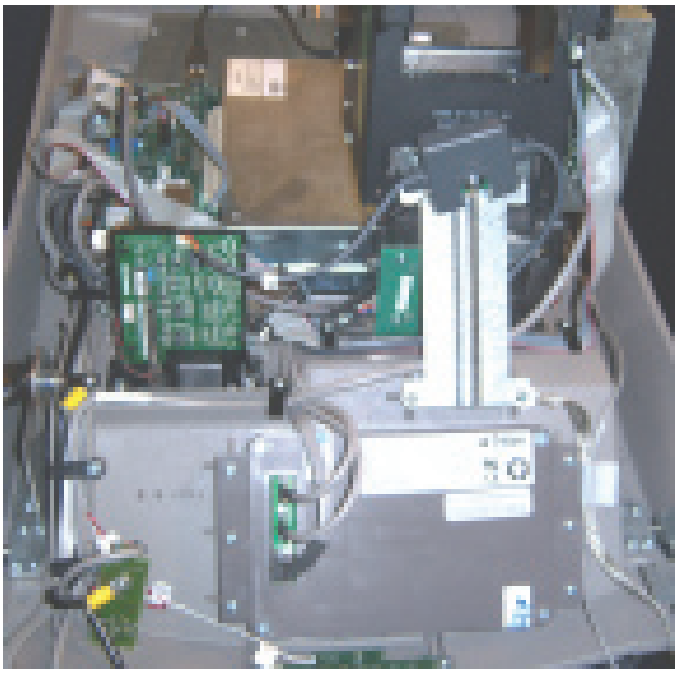
PART NUMBER	DESCRIPTION	QUANTITY
1 03016-25XXX	Metal Keypad, PCI-EPP (Encrypting PIN Pad) W/Heater	1
09120-07080	Keypad Heater Cable (w/Function Keys)	1
03072-00015	Ty Wraps - 6 inches	1
02054-00176	Screw, K40x20, PT Fastener	6
05200-10033	RL/FT/RT Software CD (includes kit #'s, install guides, software)	1

1 Country specified

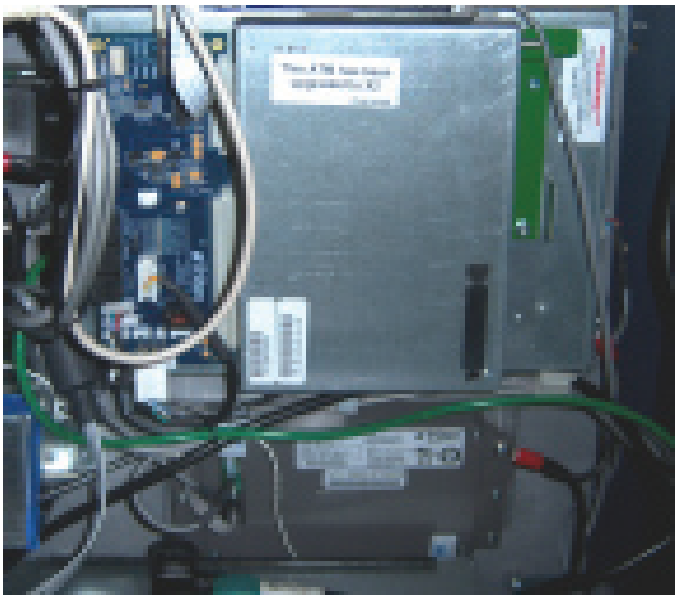
NOTE: Before proceeding with the hardware upgrade procedures, terminal power MUST be removed. Enter Management Functions > System Parameters > Shut Down the Terminal. When prompted "It is now safe to turn off your computer"on the screen, open the control panel/rear cabinet door and turn the power switch on the power supply to the <OFF> (0) position.

RL5000 / FT5000 Units:

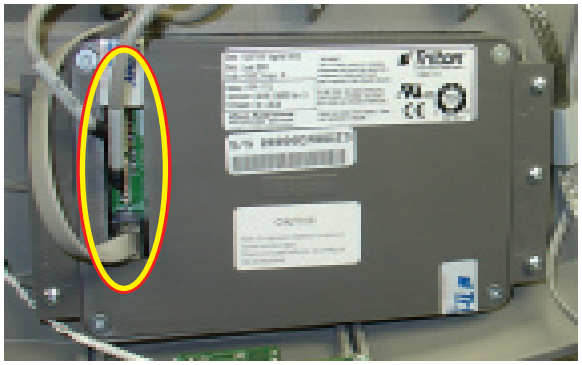
1. Disconnect the three (3) cables from the VEPP Sped assembly (2 Function key, 1 Data cable shown below).

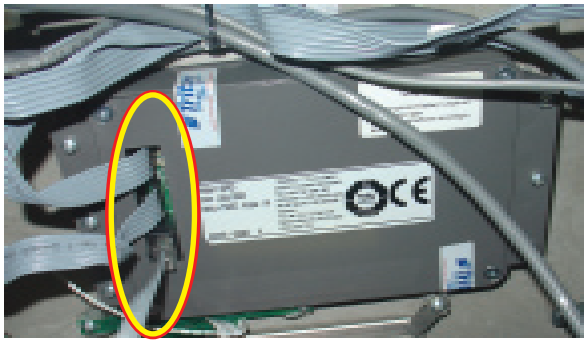


Model RL5000



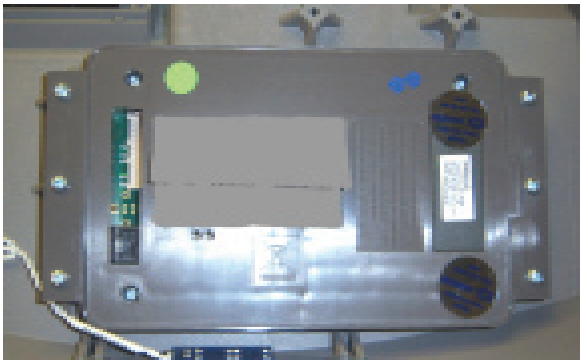
Model FT5000



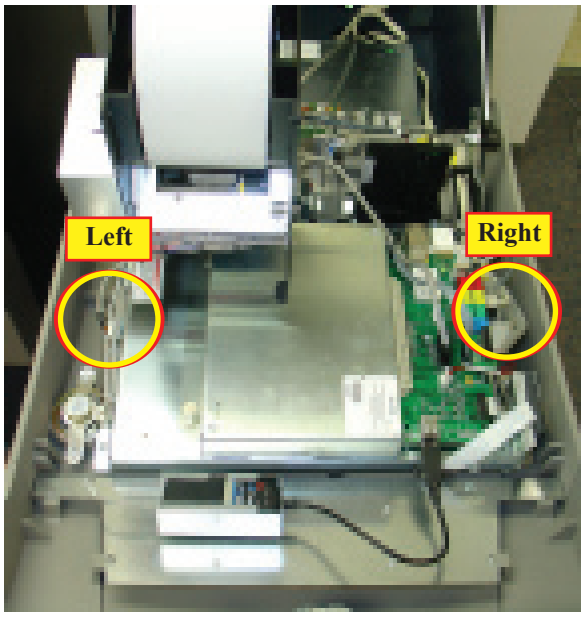


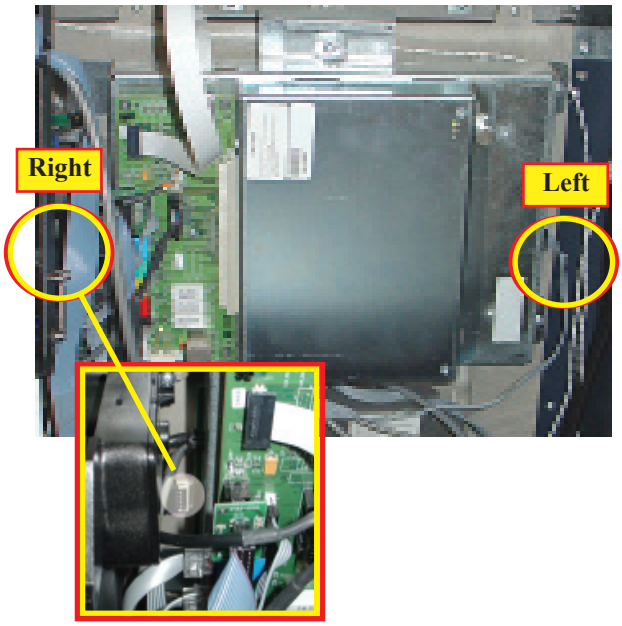
2. Remove the six (6) screws shown that secure the SPED assembly (these screws will be replaced).

3. Remove the VEPP SPED assembly and install the T5 PCI-EPP. Secure with the six (6) screws included in kit (K40x20, PT Fastener Screw). Note: If there was a ground wire attached to the FT SPED, reattach and secure.



4. Trace the two Function Key cables and disconnect/remove from the unit. These will be replaced by a the new combined function key cable included in kit.



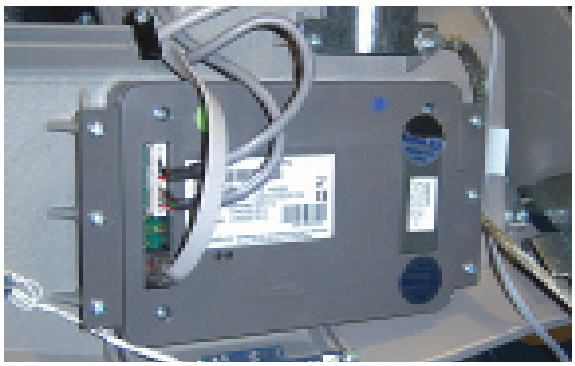


5. Connect the new Function key cable ends to the respective keypad PCBs. The cable ends are marked *"Left"* and *"Right"*. Properly dress and route the individual Left and Right Function Key cables to the T5 PCI-EPP.

REMEMBER: Cable designations for the Function keys are referenced when viewing unit from the **FRONT.** Reference placement of connectors when viewing units with control panel down (RL5000) and rear cabinet opened (FT5000). View Figures above.

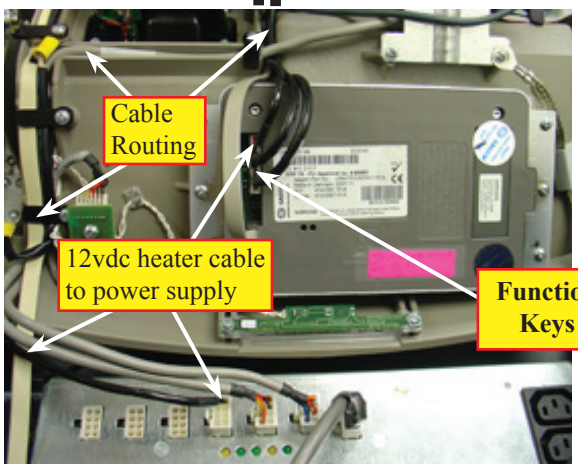
5. Plug the combined, single connector for the Function keys (including the heater power cable if a Metal T5 PCI-EPP w/heater is being installed) into the T5 PCI-EPP. Reconnect the SPED Data Cable previously removed (RJ-45 connector end).

➲ **METAL T5 PCI-EPP W/HEATER CONVERSIONS ONLY!** Properly dress and route the individual 12vdc heater cable through the cable guides, above and to the right of the EPP module. Run the cable along the side wall with the existing bundle of power cables to the power supply. Plug it into any available 8 pin connector.

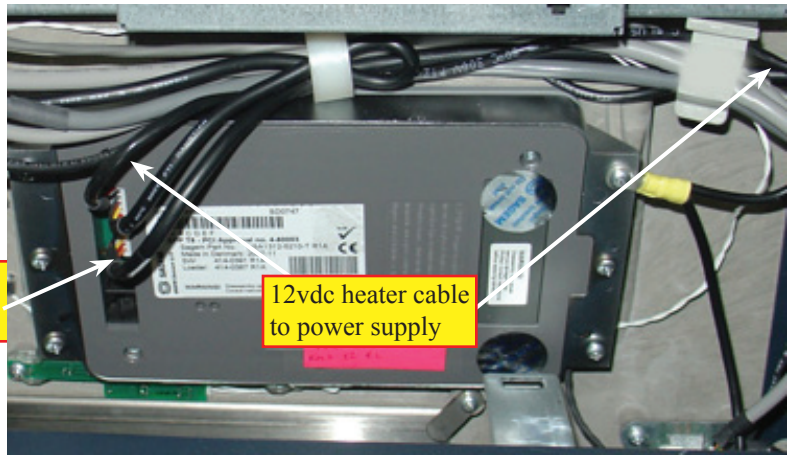


T5 PCI-EPP installed in the RL5000

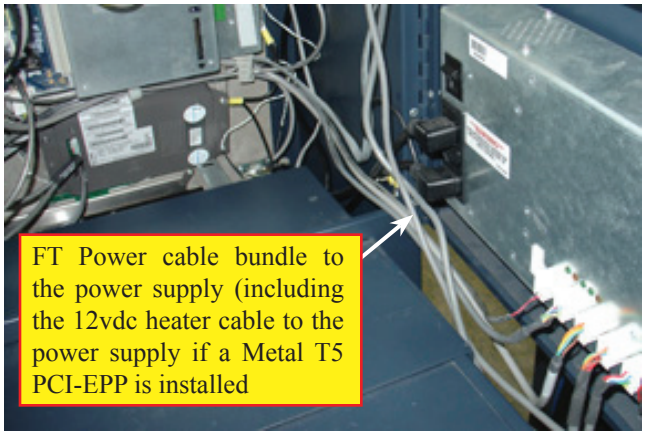
T5 PCI-EPP installed in the FT5000



Metal T5 PCI-EPP W/Heater installed in the RL5000



Metal T5 PCI-EPP W/Heater installed in the FT5000



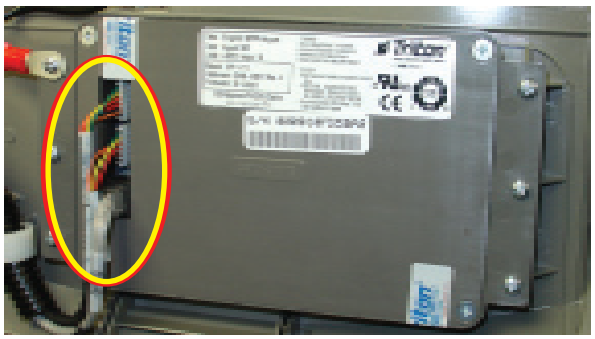
REMEMBER: The Function Key cable for the Metal T5 PCI-EPP W/Heater has an additional two (2) wires (red and black) for the internal heater. The individual cable that supplies 12vdc to the heater should be properly dresses and routed to the power supply and plugged into any 8-pin connectors.

RL2000 Units

NOTE: Before proceeding with the hardware upgrade procedures, terminal power MUST be removed. Enter Management Functions > System Parameters > Shut Down the Terminal. When prompted "It is now safe to turn off your computer"on the screen, open the control panel and turn the power switch on the power supply to the <OFF> (0) position.

1. Disconnect the three (3) cables from the VEPP SPED assembly (2 Function key, 1 Data cable shown below). Pull the (2) Function key cables out of the flex tubing. You will have to cut the Ty wrap that secures the bundled cables.

2. Remove the six (6) screws (these screws will be replaced) and Ground wire shown that secure the SPED assembly.



3. Remove the VEPP SPED assembly and install the T5 PCI-EPP. secure with the six (6) screws included in kit (K40x20, PT Fastener Screw). Note: Remember to resecure the ground wire. View Figure Below.

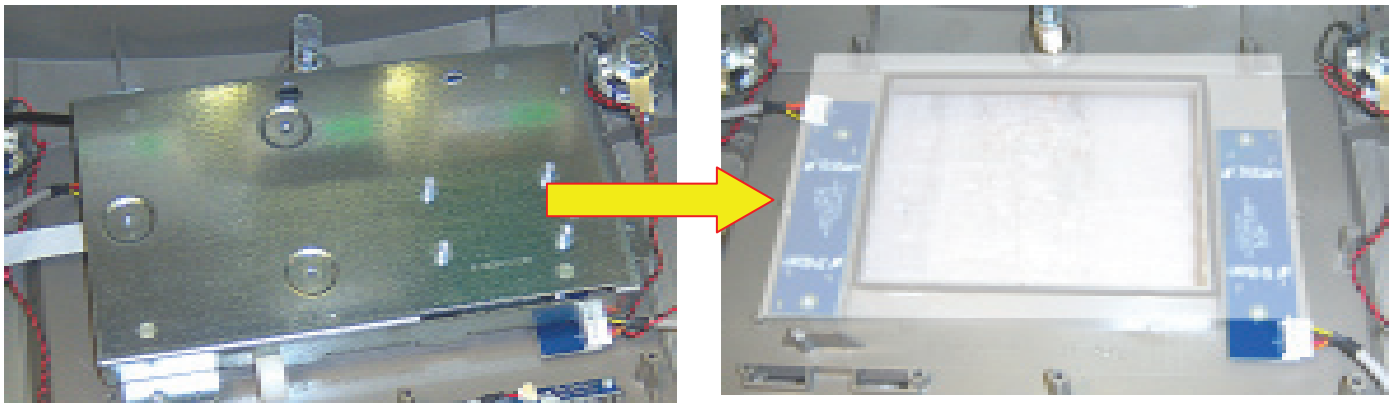
4. Disconnect/remove the existing Function key cables:

Note

The RL2000 is equipped with either a 5.7" or 8" display. Access to the function key cables may/will require removal of other components.

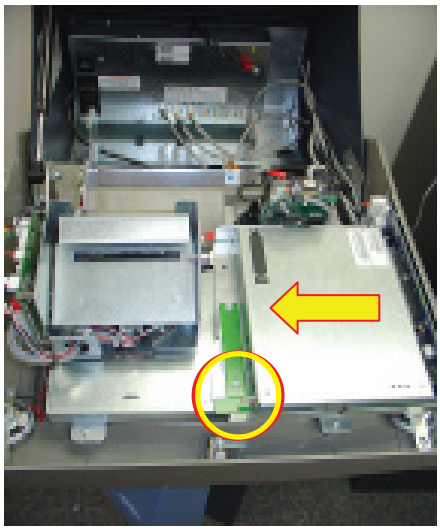
8" Display Function Key Cables (Remove/Replace):

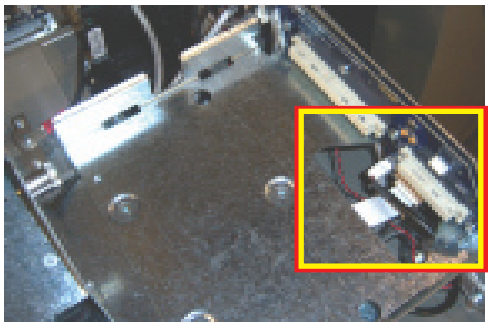
The figures below provide a basic view of where the function keys are in relation to the display case.



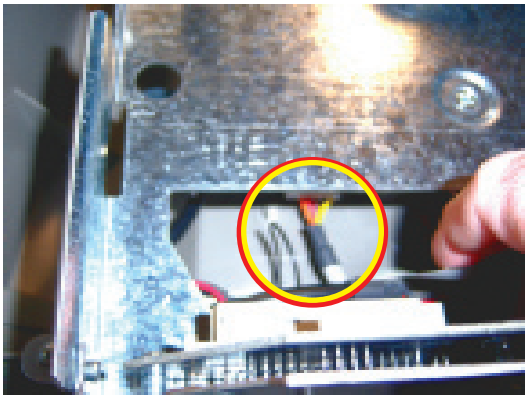
8" Display Assembly.

- Lift Green handle tab on X2 Main board and slide assembly back. Remove X2 Main Board from the Docking Board bracket. The 'Right' side function key cable can be accessed in the area shown in Figure below right.

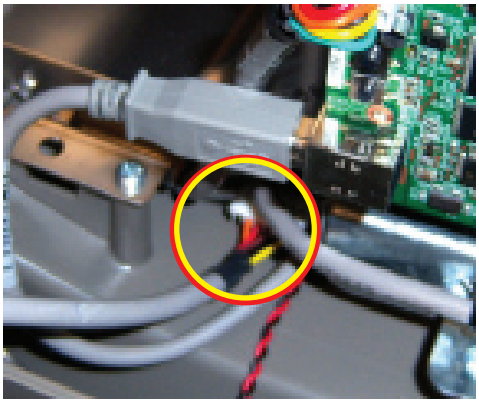




- Disconnect the "Right" side function key cable shown . Next, disconnect the 'Left' side function key cable shown. Remove these cables from the Control panel. *Note: You may have to cut some Ty wraps to remove.*



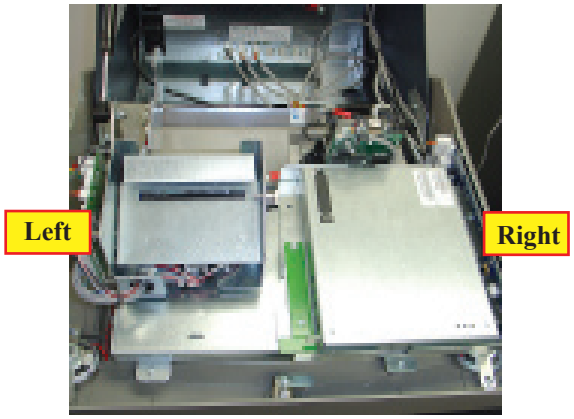
Right side cable location.

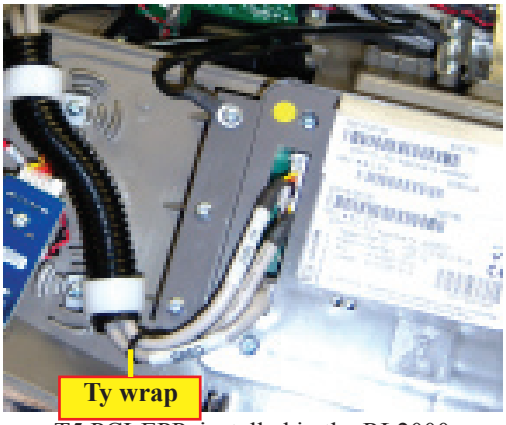


Left side cable location.

➲ Connect the new Function key cable ends to their respective keypad PCBs. The cable ends are marked *"Left"* and *"Right"*. Route split cable ends through the cable guides previously used for replaced cables.

REMEMBER: Cable designations for the Function keys are referenced when viewing unit from the **FRONT.** Reference placement of connectors when viewing unit with control panel down **(RL2000).** View Figure below.

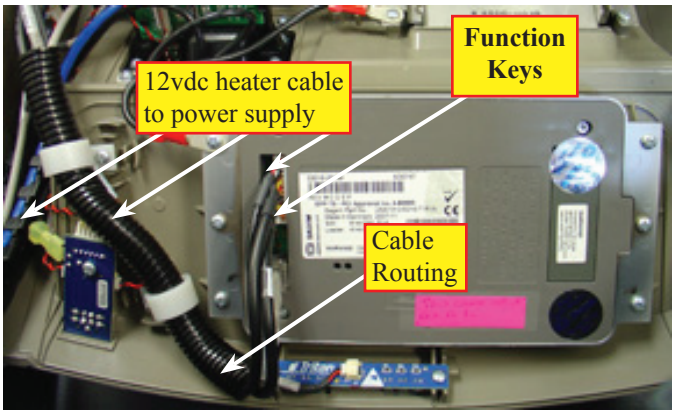




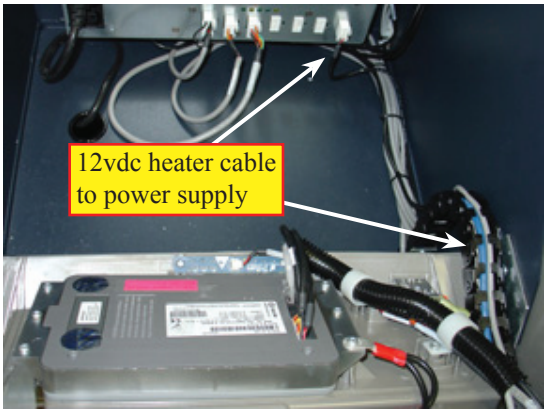
T5 PCI-EPP installed in the RL2000

To Right Functional Keypad

To Left Functional Keypad



Metal T5 PCI-EPP W/Heater installed in the RL2000



Metal T5 PCI-EPP heater cable routed to the RL2000 power supply (via cable track or guides)

➲ Plug the combined, single connector for the Function keys (including the heater power cable if a Metal T5 PCI-EPP W/Heater is being installed) into the T5 PCI-EPP. Reconnect the SPED Data Cable previously removed (RJ-45 connector end). Press the new Function key cables (including the heater power cable if a Metal T5 PCI-EPP W/Heater is being installed) back into the flex tube and Ty wrap all cables as shown.

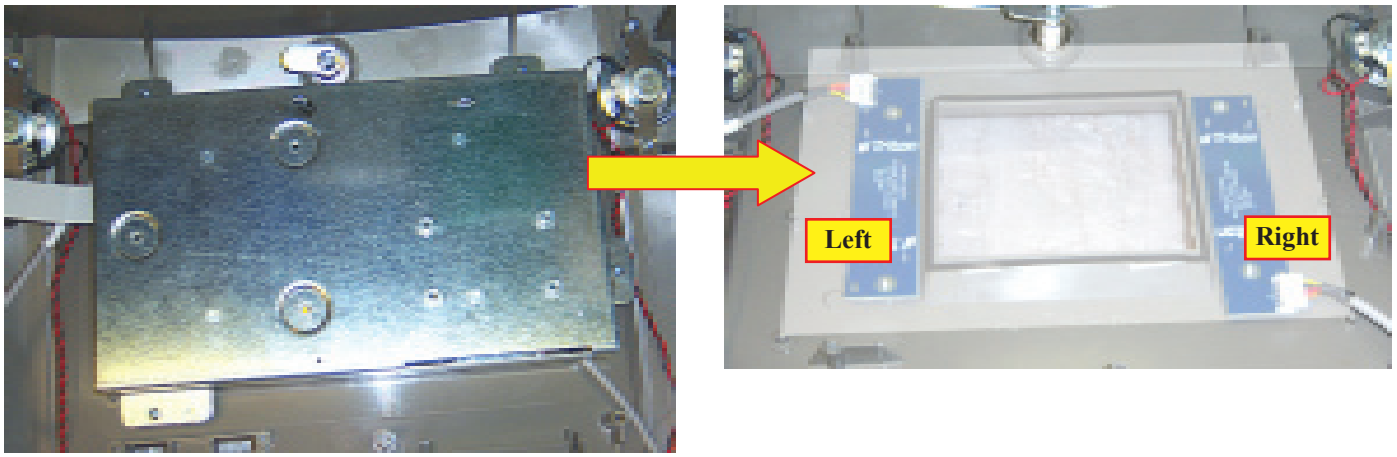
➲ **METAL T5 PCI-EPP W/HEATER CONVERSIONS ONLY!** Properly dress and route the individual 12vdc heater cable to the power supply and plug it into any available 8 pin connector.

REMEMBER: The Function Key cable for the Metal T5 PCI-EPP W/Heater has an additional two (2) wires (red and black) for the internal heater. The individual cable that supplies 12vdc to the heater should be properly dresses and routed to the power supply and plugged into any 8-pin connectors. View Figures above.

➲ Reinstall the X2 Main Board assembly.

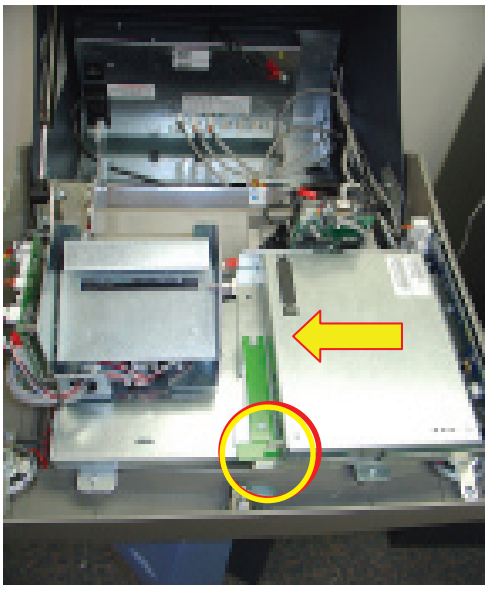
5.7” Display Function Key Cables (Remove/Replace):

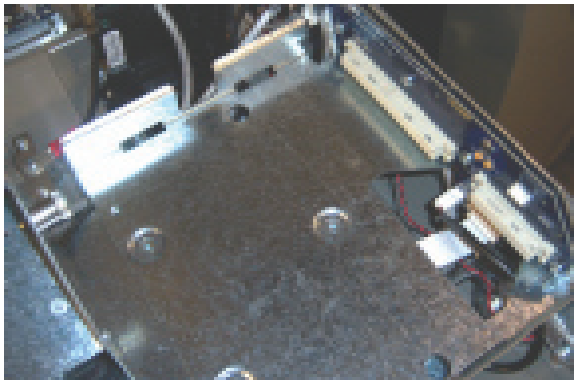
The figures below provide a basic view of where the function keys are in relation to the display case.



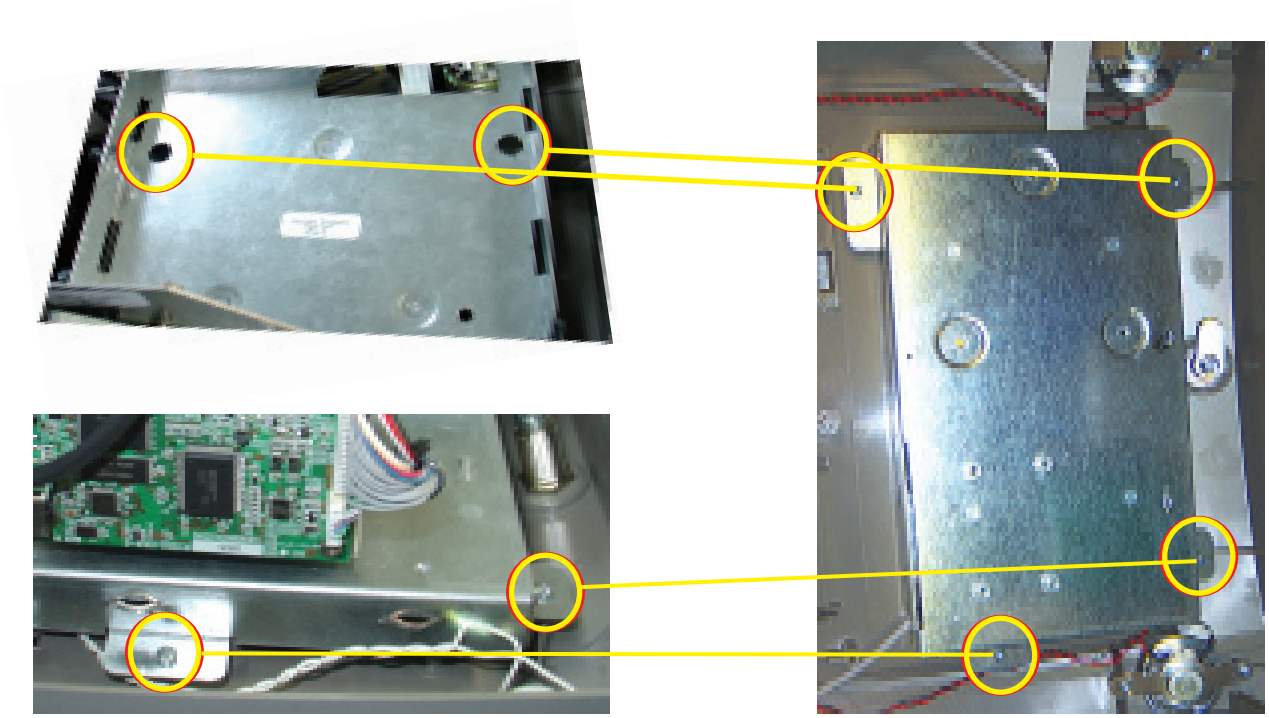
5.7” Display Assembly.

➲ Lift Green handle tab on X2 Main board and slide assembly back. Remove X2 Main Board from the Docking Board bracket.





➲ Remove screws from the Display assembly - Using the figure at lower right as a guide, remove the four (4) phillips-head screws from the display assembly. The figure below left shows the access hole locations on the display bracket.

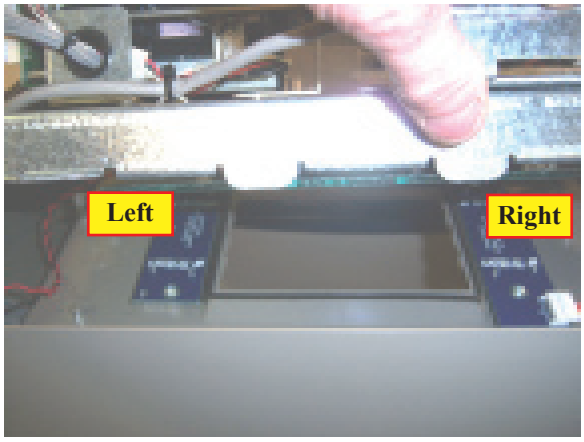


Left

➲ *"Gently"* lift the Display assembly up to get access to the Function key cables. Disconnect and remove these cables from the Control panel. *Note: You may have to cut some Ty wraps to remove.*

**** CAUTION ****

When lifting the Display assembly, secure the display glass with one hand to prevent glass from possibly separating from display and breaking.

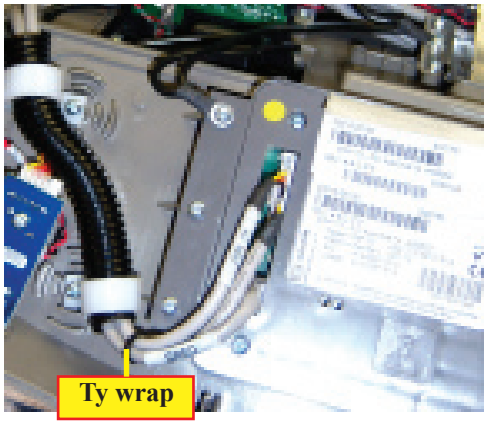


- Lifting the Display assembly again, connect the new Function key cable ends to their respective keypad PCBs. The cable ends are marked *"Left"* and *"Right"*. Route split cable ends through the cable guides previously used for replaced cables.

REMEMBER: Cable designations for the Function keys are referenced when viewing unit from the **FRONT.** Reference placement of connectors when viewing unit with control panel down **(RL2000).** View Figure below.

- Secure the Display assembly to the Control panel with the four **(4)** screws previously removed.

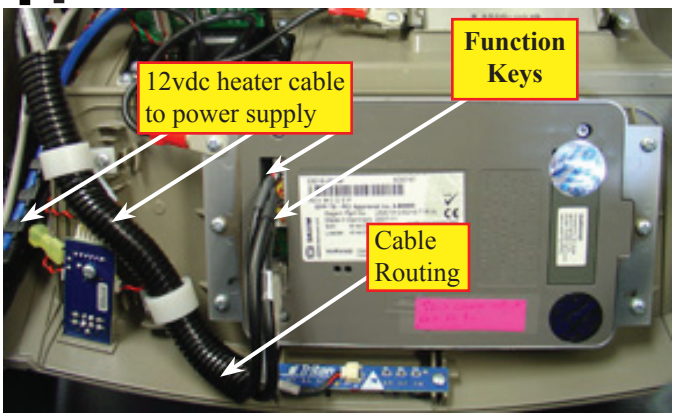
- Plug the combined, single connector for the Function keys (including the heater power cable if a Metal **T5 PCI-EPP W/Heater** is being installed) into the **T5 PCI-EPP.** Reconnect the **SPED** Data Cable previously removed **(RJ-45** connector end). Press the new Function key cables (including the heater power cable if a Metal **T5 PCI-EPP W/** Heater is being installed) back into the flex tube and Ty wrap all cables as shown.



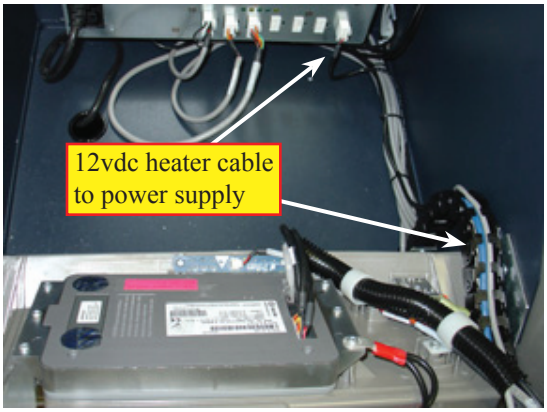
T5 PCI-EPP installed in the RL 2000

To Right
Functional Keypad

To Left Functional Keypad



Metal T5 PCI-EPP W/Heater installed in the RL2000



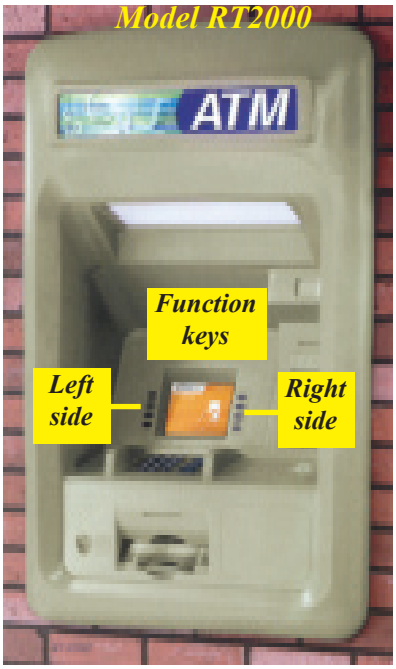
Metal T5 PCI-EPP heater cable routed to the RL2000 power supply (via cable track or guides)

- **METAL T5 PCI-EPP W/HEATER CONVERSIONS ONLY!** Properly dress and route the individual **12**VDC heater cable to the power supply and plug it into any available **8** pin connector.

REMEMBER: The Function Key cable for the Metal **T5 PCI-EPP W/Heater** has an additional two **(2)** wires (red and black) for the internal heater. The individual cable that supplies **12**VDC to the heater should be properly dresses and routed to the power supply and plugged into any **8**-pin connectors. View Figures above.

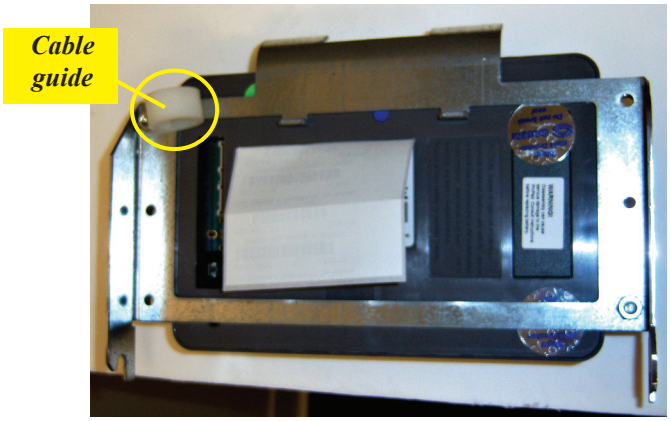
- Reinstall the **X2** Main Board assembly.

RT2000 PCI Conversion



**** IMPORTANT ****

The Function Key Cable has connectors designated "LEFT" and "RIGHT". This refers to the function keys and designations shown in the figure above. When installing this cable included in kit, REMEMBER the designations are referenced when viewed from FRONT of unit!.



RT T5 PCI-EPP with new mounting bracket

**** IMPORTANT ****

The RT T5 PCI-EPP upgrade kit includes a new SPED Mounting Bracket. A new SPED Mounting Bracket (with attached cable guide) must be secured to the PCI-EPP Keypad or the Metal PCI-EPP Keypad (with the six (6) mounting screws provided in the kit) before the assembly is installed in the terminal.

TOOLS REQUIRED
Phillips Screwdriver (Magnetic)

RT T5 PCI-EPP UPGRADE KIT
(Model RT2XXX)
06200-08135 (UK) 06200-08137 (US)
06200-08139 (CAN) 06200-08143 (NETH)

PARTS SUPPLIED

PART NUMBER	DESCRIPTION	QUANTITY
1 03016-20XXX	Keypad, PCI-EPP (Encrypting PIN Pad)	1
09120-07070	Dewhurst SPED Cable (Function Keys)	1
3011-05219	SPED MOUNTING BRACKET	1
02054-00176	Screw, K40x20, PT Fastener	6
05200-10033	RL/FT/RT Software CD (includes kit #'s, install guides, software)	1

1 Country specified

RT Metal T5 PCI-EPP W/HEATER UPGRADE KITS
(Model RT2XXX)
06200-08163 (UK) 06200-08169 (US)
06200-08170 (CAN) 06200-08172 (NETH)

PARTS SUPPLIED

PART NUMBER	DESCRIPTION	QUANTITY
1 03016-25XXX	Metal Keypad, PCI-EPP (Encrypting PIN Pad) W/Heater	1
09120-07080	Keypad Heater Cable (w/Function Keys)	1
03072-00015	Ty Wraps - 6 inches	1
3011-05219	SPED MOUNTING BRACKET	1
02054-00176	Screw, K40x20, PT Fastener	6
05200-10033	RL/FT/RT Software CD (includes kit #'s, install guides, software)	1

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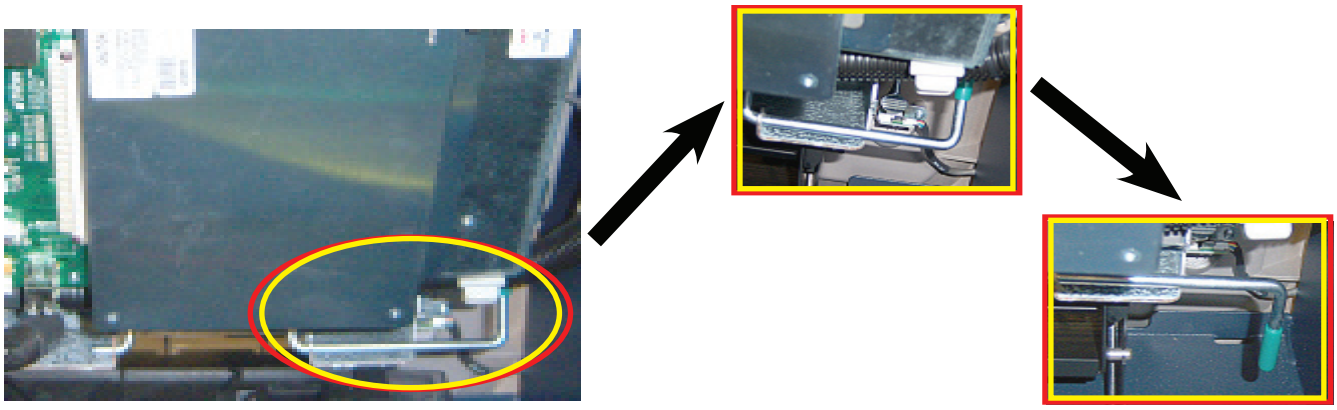
NOTE: Before proceeding with the hardware upgrade procedures, terminal power MUST be removed. Enter Management Functions > System Parameters > Shut Down the Terminal. When prompted "It is now safe to turn off your computer"on the screen, open the rear cabinet door and turn the power switch on the power supply to the <OFF> (0) position.

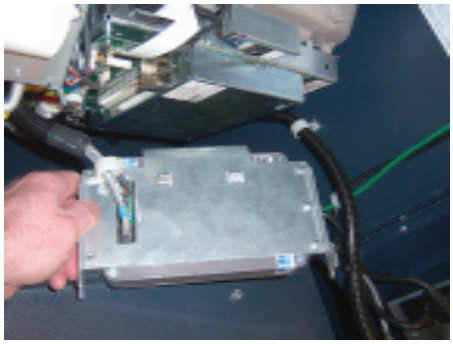
RT2000 Unit:

1. Open the vault door and slide the dispenser out. On the Control panel, disconnect the two (2) Function key cables. These cables will be replaced. The figure below provides a reference for the location of the cable connections.

2. Find the Green handle that operates the device that secures the VISA EPP (SPED) module into the Control panel. It is located behind and to the right of the lower right corner of the Display assembly. Pull down on the Green handle to release the EPP module.

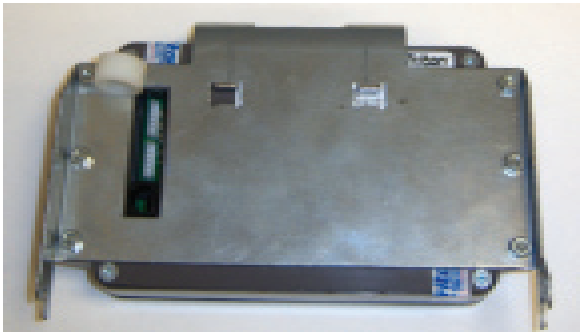


3. Carefully remove the EPP and its mounting bracket. When the assembly is clear of the Control panel, turn it over and disconnect the three (3) cables from the EPP (2 Function key, 1 Data cable). Remove the EPP module and mounting bracket from the ATM. Since they will not be reused, Ty wrap the two (2) original Function Key cables to the split flex tubing so they will be out of the way.

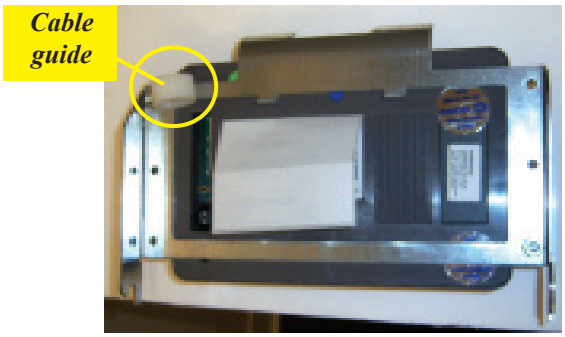


4. Place the EPP assembly on a flat surface. Remove the six (6) screws/nuts that secure the EPP to the mounting bracket (these screws will be replaced). Retain the cable guide. The T5 PCI-EPP requires a new bracket and mounting screws (included in kit).

5. Mount the new SPED bracket to the T5 PCI-EPP as shown below. Secure with the six (6) screws included in kit (K40x20, PT Fastener Screw). Remember to reinstall the cable guide.



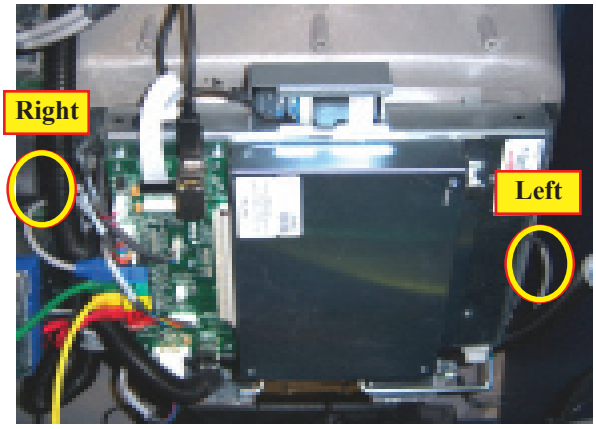
VEPP with mounting bracket

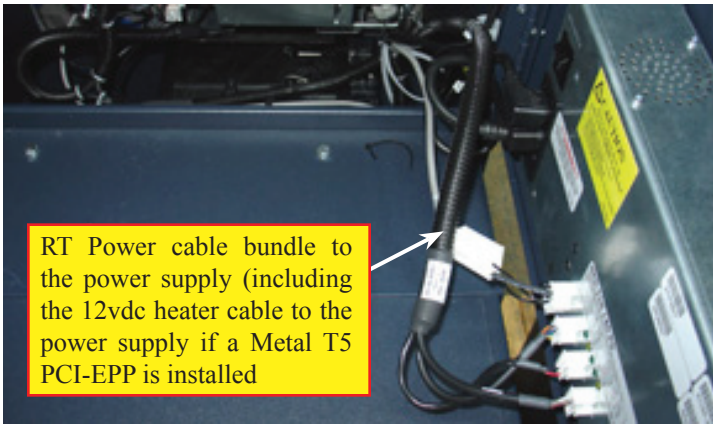


T5 PCI-EPP with new mounting bracket

6. Connect the new Function key cable ends to their respective keypad PCBs. The cable ends are marked *"Left"* and *"Right"*. Dress, bundle, and route the Function Key cables (including the heater power cable if a Metal T5 PCI-EPP w/heater is being installed) so they follow the split flex tubing down to the SPED connector.

REMEMBER: Cable designations for the Function keys are referenced when viewing unit from the **FRONT.** Reference placement of connectors when viewing from rear of the Control panel (RT2000). View Figure below.





7. Make sure the two (2) original Function Key cables have been ty wrapped so they are out of the way. Move the T5 PCI-EPP assembly (Step 5) back to the unit. Plug the combined, single connector for the Function keys (including the heater power cable if a Metal T5 PCI-EPP W/Heater is being installed) into the T5 PCI-EPP. Reconnect the SPED Data Cable previously removed (RJ-45 connector end).

8. Turn the assembly over so the keypad is facing up . Slide the assembly back into the Control panel and secure by pulling the Green handle up. Reference Steps 3 and 2 for reinstalling SPED assembly.

➲ **METAL T5 PCI-EPP W/HEATER CONVERSIONS ONLY!** Properly dress, and route the individual 12vdc heater cable so it follows the power cable bundle in the split flex tubing to the power supply. Plug it into any available 8 pin connector.

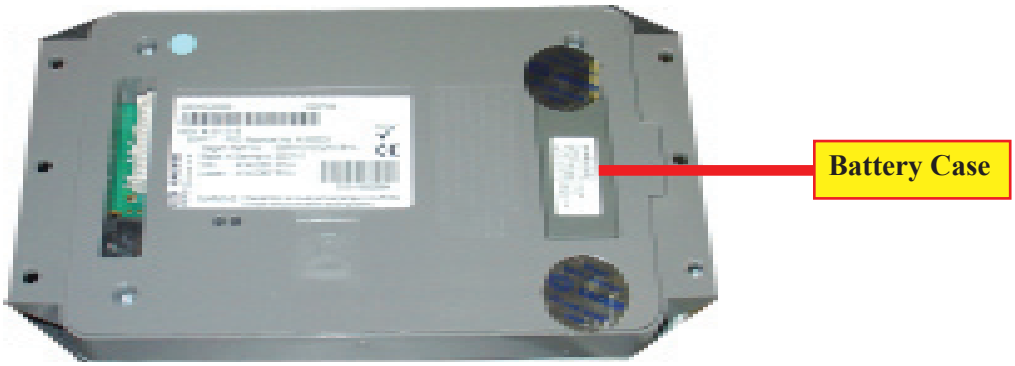
REMEMBER: The Function Key cable for the Metal T5 PCI-EPP W/Heater has an additional two (2) wires (red and black) for the internal heater. The individual cable that supplies 12vdc to the heater should be properly dresses and routed to the power supply and plugged into any 8-pin connectors. View Figures above.

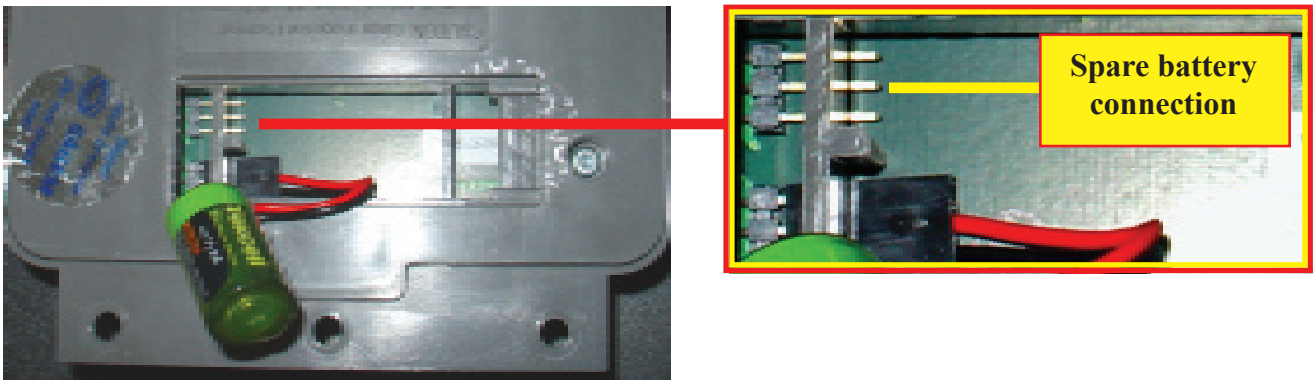
9. Slide the dispenser back into the cabinet.

BATTERY REPLACEMENT PROCEDURES

**** WARNING ****

You must not remove battery from EPP without FIRST connecting a new battery!
This EPP will be permanently damaged if unpowered and battery is removed before connecting a new battery!





EXISTING BATTERY - DO NOT REMOVE BEFORE CONNECTING A SPARE BATTERY FIRST!