

Crestron **TPS-MEM16MB & TPS-MEM32MB** Flash Memory for TPS User Interfaces

Installation Guide



CRESTRON

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Flash Memory for TPS User Interfaces: TPS-MEM16MB & TPS-MEM32MB

Description

Functional Description

There are two flash memory modules available for TPS user interfaces: TPS-MEM16MB and TPS-MEM32MB. These memory modules directly replace the 'original' modules supplied with the TPS user interfaces. Original modules range in capacity (4 to 8MB) depending on the type of TPS user interface. These replacements provide additional flash memory which may be needed to improve TPS user interface performance when loading/running large and complex programs. Furthermore, these modules contain the latest TPS firmware.

NOTE: TPS user interfaces include all TPS touchpanels and the touchpanel interface unit.

Physical Description

The memory modules are a printed circuit board (PCB) designed for installation into a specific memory socket on the TPS user interface motherboard.

As of the date of manufacture, this unit has been tested and found to comply with specifications for CE marking.



NOTE: This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Memory Module Verification

It is possible to verify the total amount of flash memory residing on a given user interface if the amount is unknown. This action can be taken locally (user interface within close physical proximity, and not necessarily networked) or remotely (networked user interface located over some distance).

Local Verification

Simply enter 'SETUP MODE' as described in the "Configure the ..." section of each user interface Operations Guide. From the Main Menu, navigate to the Diagnostics Menu and select the **Display Configuration** button. The new screen displays a list of configuration information. Search for the item titled 'Flash Total Size'. The amount of flash memory residing in the user interface is shown.

Remote Verification

A PC running SIMPL™ Windows® or VisionTools™ Pro-e and connected to the Crestron control system (with the user interface connected via Cresnet) is required for remote verification. From the Viewport enter **Remote | Remote Console | Connect** to open the "Select Network ID" window. Enter or scroll down to the ID of the user interface. Click on the **OK** button and observe the "TPS>" prompt in the Viewport. Enter a question mark (?) and carriage return. The Viewport replies with a list of optional commands. The command of interest for remote verification is "SHowhw". Enter that command and a carriage return to display a list of configuration information. Search for the item

titled 'Flash Total Size'. The amount of flash memory residing in the user interface is shown.

Installation

CAUTION: Installation of new memory module results in the loss of any program uploaded prior to module replacement. Be sure to have the program safely saved to a PC if the intent is to upload again.

TPS memory modules are designed for installation into a specific memory socket internal to all TPS user interfaces. TPS user interfaces vary; there are tilt and lectern models. As a result, the installation procedure for each model differs. The only tools required for either procedure are a #1 Phillips screwdriver and a grounding strap (or grounded workstation).

Tilt Model Installation Procedure

CAUTION: The memory module and the TPS tilt-model touchpanel contain ESD sensitive devices. Perform the following procedure while wearing a grounding strap that is properly grounded or on a grounded workstation to avoid damaging the module and/or the user interface.

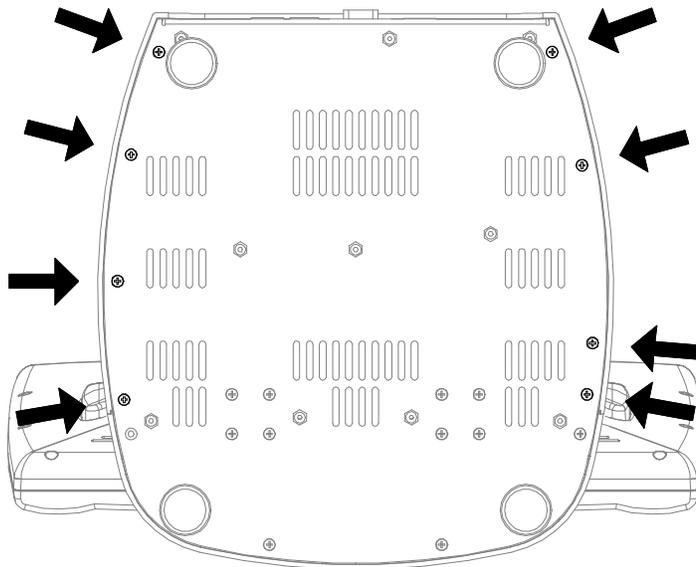
NOTE: If the angle of the touchscreen needs to be adjusted, refer to the latest revision of the touchpanel Operations Guide for instructions of how to use the touchpanel position lock buttons. The latest version of the appropriate Operations Guide can be obtained from the Downloads page (MANUAL Library) of the Crestron website (www.crestron.com). New users are required to register to obtain access to the FTP site.

NOTE: The diagrams in this procedure show a TPS-5000 touchpanel, but the steps for all other TPS touchpanels are identical.

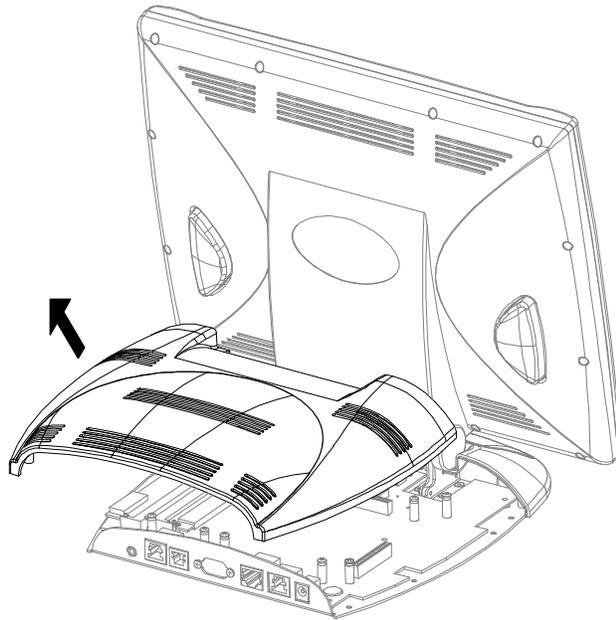
1. If the optional external power pack is utilized, disconnect the plug of the power pack from the touchpanel rear port labeled 24VDC 2A.
2. To prevent errors when re-connecting, label and disconnect all cables attached to the touchpanel rear panel ports.

3. If necessary, use the touchpanel position lock buttons to adjust the touchscreen to the maximum (most vertical/upright) angle.
4. To prevent scratching of the screen, place the touchpanel facedown onto a padded surface.
5. With one hand, hold the touchpanel base cover in place.
6. Refer to the diagram below. Using a #1 Phillips screwdriver, loosen and remove the **eight** screws that secure the touchpanel base cover.

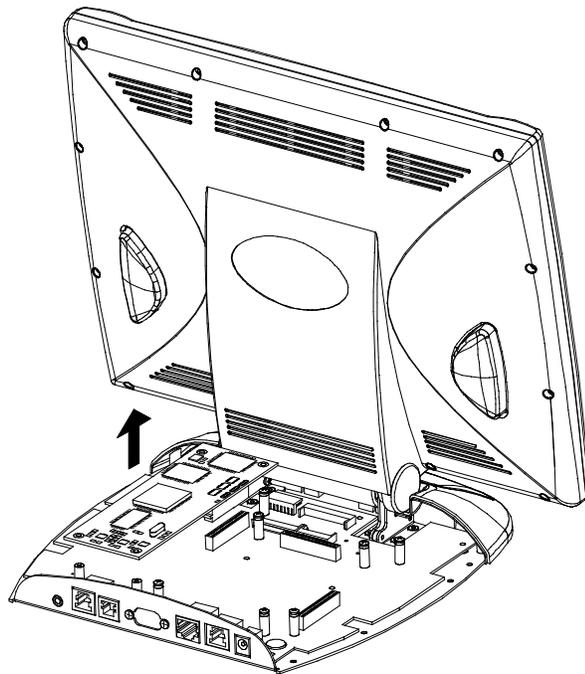
Remove Touchpanel Base Cover Screws



7. Place the touchpanel upright on the work surface.
8. As shown on the next page, remove the touchpanel base cover by raising it upwards and rearward.

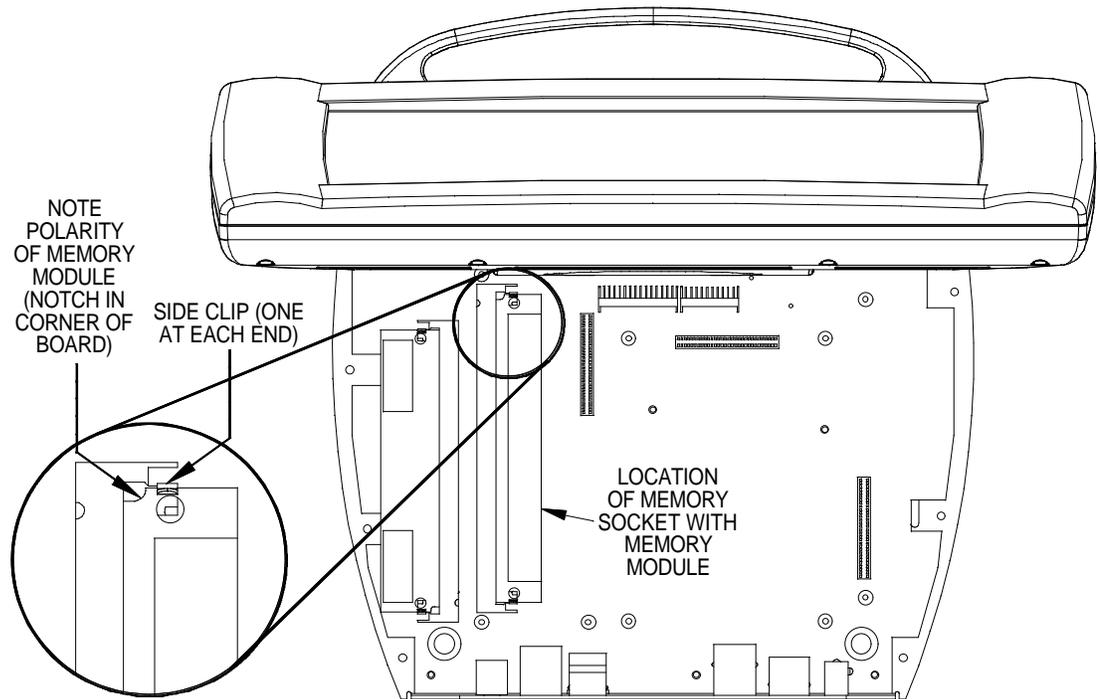
Remove Touchpanel Base Cover

9. To obtain unobstructed access to the memory socket, remove the TPS-VID expansion card, as shown below, if installed. If there is no TPS-VID, continue with next step.

TPS-VID Removal

10. As shown below, locate the memory socket.

Memory Socket Location



11. Press the two metallic side clips of the socket securing the original module in opposing directions and notice that the module lifts up slightly.
12. Use even pressure while backing out the original module out of the socket.
13. Observe polarity (as shown in the previous illustration) and insert the new memory module into the socket at a slight angle.
14. Apply even pressure to the module and level it off, parallel to the motherboard. The two metallic side clips snap into place as it becomes seated.
15. If removed, return the TPS-VID expansion card.
16. Position the touchpanel base cover onto the base.
17. Hold the touchpanel base cover in place and position the touchpanel facedown onto a padded surface to prevent scratching of the screen.

18. Re-install the **eight** base cover screws to **finger-tight** then, using a Philips screwdriver, tighten an additional **1/8-turn**.
19. Re-connect all cables to the appropriate touchpanel rear panel ports.
20. If the optional external power pack is utilized, connect the plug of the power pack to the touchpanel rear port labeled 24VDC 2A.

Lectern Model Installation Procedure

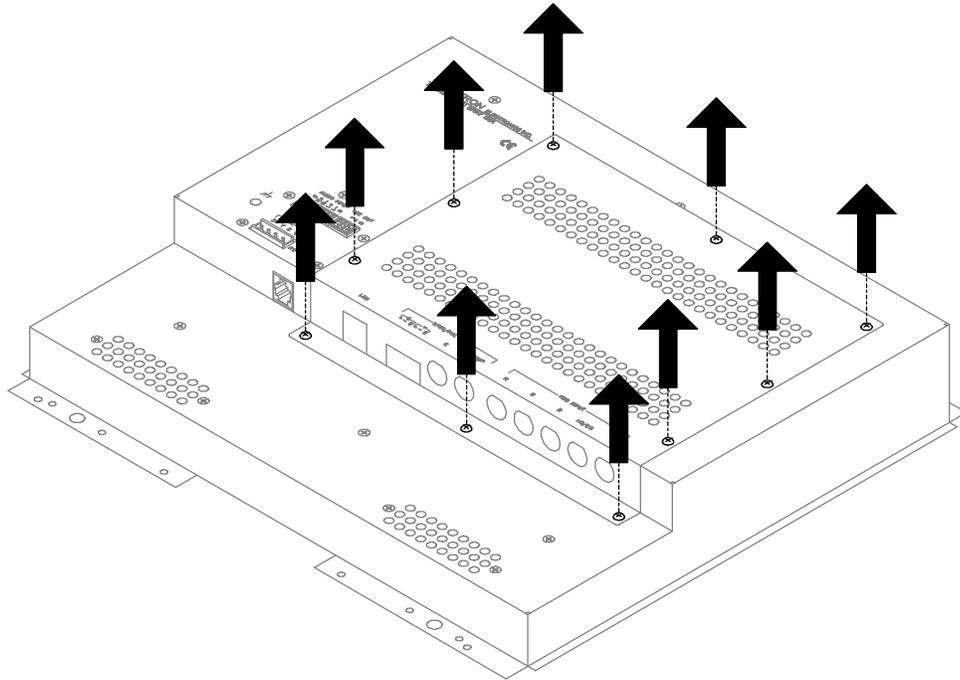
CAUTION: The memory module and the TPS lectern-model user interface contain ESD sensitive devices. Perform the following procedure while wearing a grounding strap that is properly grounded or on a grounded workstation to avoid damaging the module and/or the user interface.

NOTE: The diagrams in this procedure show a TPS-6000L touchpanel but the steps for all other lectern-model TPS user interfaces are identical. This procedure pertains to an interface that is **NOT** installed into a wall or lectern. If already installed, refer to the latest revision of the user interface Operations & Installation Guide or, if applicable, the back box Installation Guide. Disconnect power and perform the installation procedure in reverse to remove the user interface. The latest version of the Operations & Installation Guide can be obtained from the Downloads page (MANUAL Library) of Crestron's website (www.crestron.com). New users are required to register in order to obtain access to the FTP site.

1. To prevent scratching of the screen (TPS-TPI excluded), place the touchpanel facedown onto a padded surface.

2. Refer to the diagram below. Using a #1 Phillips screwdriver, loosen and remove the **10** screws that secure the touchpanel rear cover.

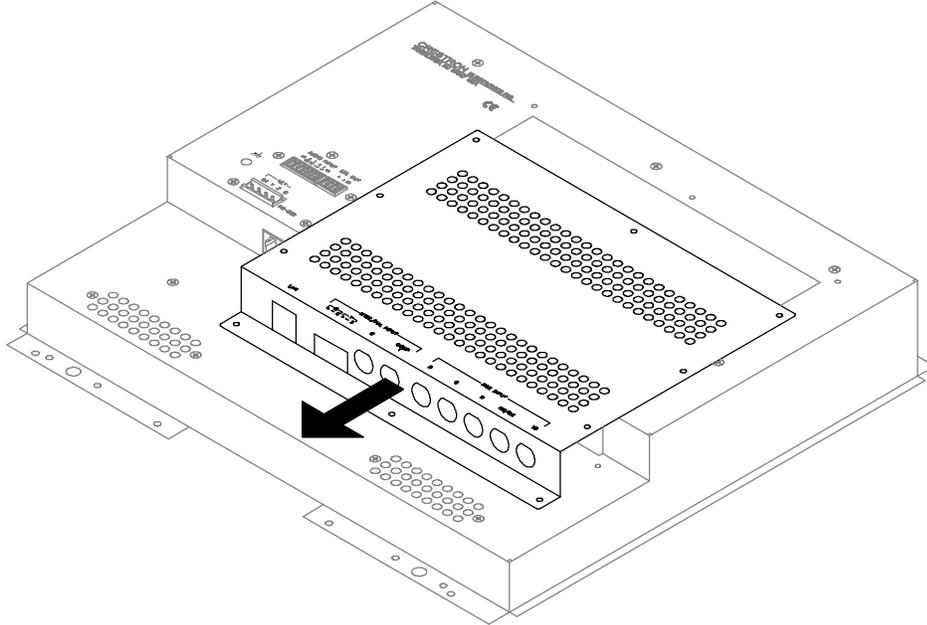
Remove Touchpanel Rear Cover Screws



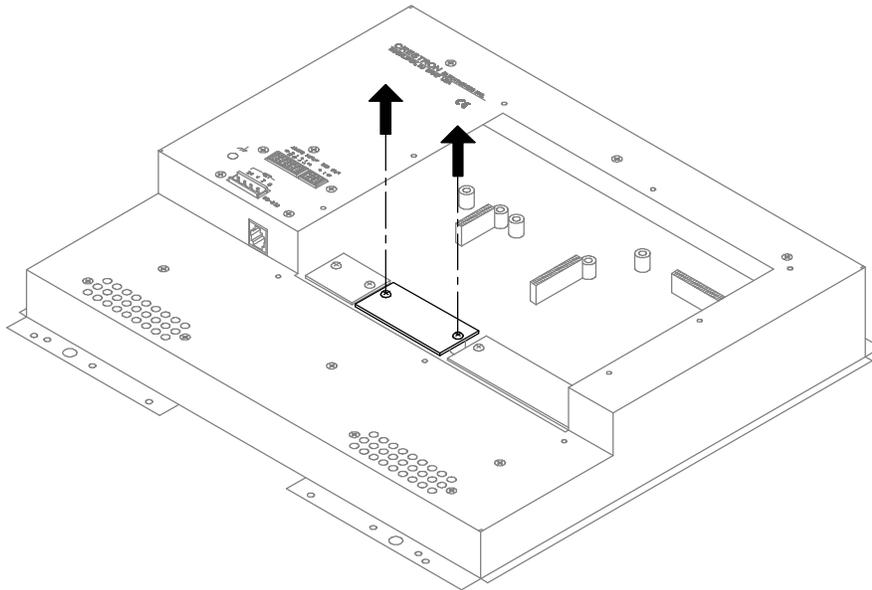
CAUTION: The connectors of any optional card that is already installed may have to be aligned slightly to allow the rear cover to be removed. Align the connectors **carefully** to prevent damage to the card, cover, or touchpanel.

3. As shown below, remove the touchpanel rear cover by sliding it towards the bottom of the touchpanel.

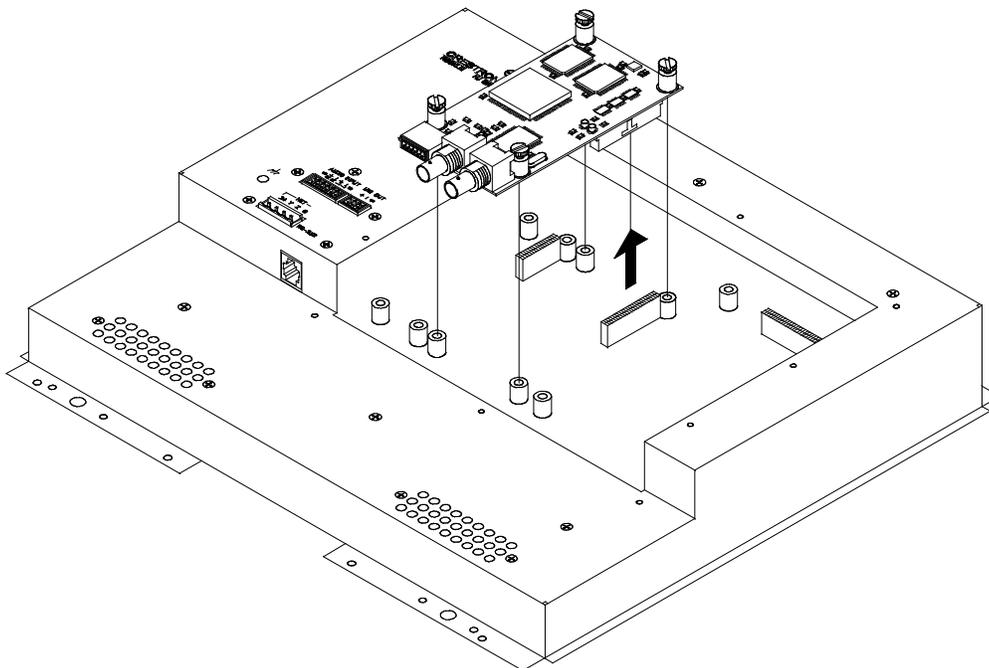
Remove Touchpanel Rear Cover



4. To obtain unobstructed access to the memory socket, remove the PCB blank plate or previously installed TPS-VIDL expansion card. Each procedure is defined in the following sub-steps.
 - 4a. If the PCB blank plate is observed, refer to the diagram on the next page. Using a #1 Phillips screwdriver, loosen and remove the **two** screws that secure the PCB blank plate and remove the plate.

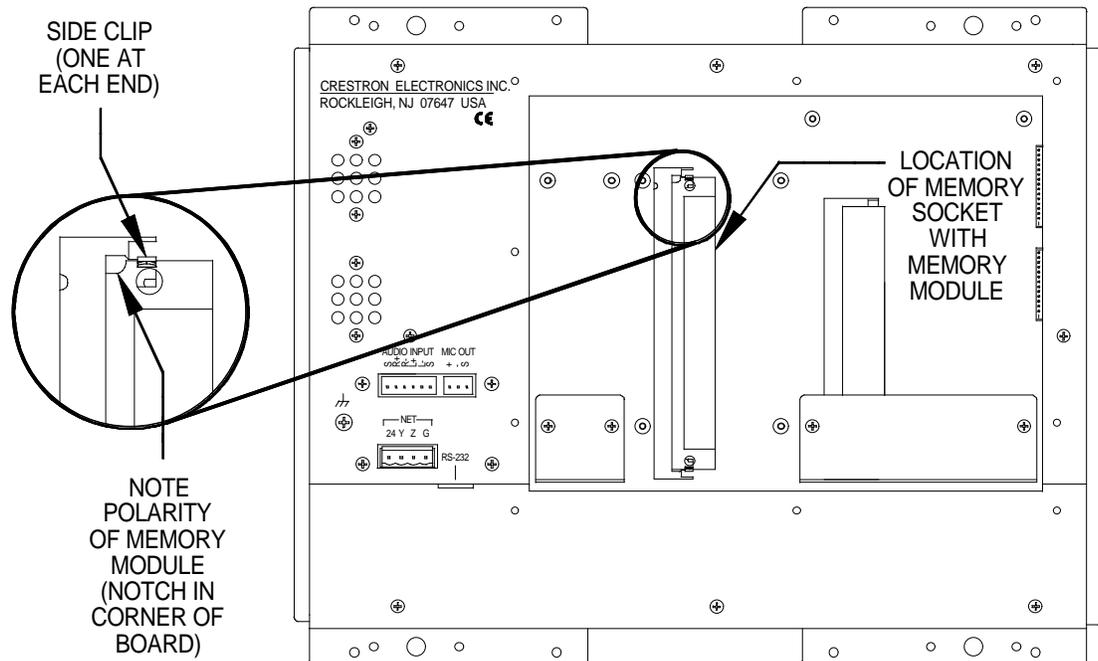
Remove PCB Blank Plate

- 4b. If the TPS-VIDL expansion card is observed, refer to the diagram below. Completely loosen the knurled mounting screws and carefully remove the TPS-VIDL from the touchpanel motherboard connector without bending any of the pins on the touchpanel interface connector.

TPS-VIDL Removal

- As shown below, locate the memory socket.

Memory Socket Location



- Press the two metallic side clips of the socket securing the original module in opposing directions and notice that the module lifts up slightly.
- Use even pressure while backing out the original module out of the socket.
- Observe polarity (as shown in the previous illustration) and insert the new memory module into the socket at a slight angle.
- Apply even pressure to the module and level it off, parallel to the motherboard. The two metallic side clips snap into place as it becomes seated.
- Return the PCB blank plate or TPS-VIDL expansion card.

CAUTION: If the expansion card is present, the TPS-VIDL connectors may have to be aligned slightly to fit through the openings in the rear cover. Aligned the connectors of this card (or any other optional card that is installed) **carefully** to prevent damage to the card, cover, or touchpanel.

11. Install the touchpanel rear cover by sliding it over any expansion card connectors that may be present.
12. Re-install the **ten** cover screws to **finger-tight** then, using a #1 Philips screwdriver, tighten the mounting screws an additional **1/8-turn** to secure cover.
13. Apply power to the user interface. If there is no activity, it is likely that the memory module was improperly replaced. Repeat the procedure and make sure the new module is properly seated.

Problem Solving

Troubleshooting

The table on the next page provides corrective action for possible trouble situations. If further assistance is required, please contact a Crestron customer service representative.

TPS-MEM16MB & TPS-32MB Troubleshooting

TROUBLE	POSSIBLE CAUSE(S)	CORRECTIVE ACTION
Touchpanel does not operate after replacement.	Improper connection; module improperly installed.	Follow installation procedures in this guide.
	Module installed with reverse polarity.	Open user interface and inspect module. Reverse polarity, if necessary.
	Damaged memory module.	Inspect module. If damaged, contact Crestron customer service.

Further Inquiries

If after reviewing this Installations Guide, you cannot locate specific information or have questions, please take advantage of Crestron's award winning customer service team by calling:

- In the US and Canada, call Crestron's corporate headquarters at 1-888-CRESTRON [1-888-273-7876] or 1-201-767-3400.
- In Europe, call Crestron International at +32-15-50-99-50.
- In Asia, call Crestron Asia at +852-2341-2016.
- In Latin America, call Crestron Latin America at +525-260-4336.

For local support from exclusive Crestron factory-trained personnel call:

- In Australia, call Soundcorp at +613-9488-1555.
- In New Zealand, call Amber Technologies at +649-410-8382.

Future Updates

As Crestron improves functions, adds new features, and extends the capabilities of the TPS memory modules, additional information may be made available as manual updates. These updates are solely electronic and serve as intermediary supplements prior to the release of a complete technical documentation revision.

The Downloads page of the Crestron website (www.crestron.com) directs the reader to the location and description of each update. Check the site periodically for update availability and its subjective value.

Return and Warranty Policies

Merchandise Returns / Repair Service

1. No merchandise may be returned for credit, exchange, or service without prior authorization from CRESTRON. To obtain warranty service for CRESTRON products, contact the factory and request an RMA (Return Merchandise Authorization) number. Enclose a note specifying the nature of the problem, name and phone number of contact person, RMA number, and return address.
2. Products may be returned for credit, exchange, or service with a CRESTRON Return Merchandise Authorization (RMA) number. Authorized returns must be shipped freight prepaid to CRESTRON, Cresskill, N.J., or its authorized subsidiaries, with RMA number clearly marked on the outside of all cartons. Shipments arriving freight collect or without an RMA number shall be subject to refusal. CRESTRON reserves the right in its sole and absolute discretion to charge a 15% restocking fee, plus shipping costs, on any products returned with an RMA.
3. Return freight charges following repair of items under warranty shall be paid by CRESTRON, shipping by standard ground carrier. In the event repairs are found to be non-warranty, return freight costs shall be paid by the purchaser.

CRESTRON Limited Warranty

CRESTRON ELECTRONICS, Inc. warrants its Cresnet products, denoted by a "CN" prefix model number, to be free from manufacturing defects in materials and workmanship for a period of three (3) years from the date of shipment to purchaser. Disk drives and any other moving or rotating mechanical parts are covered for a period of one (1) year. CRESTRON warrants all its other products for a period of one year from the defects mentioned above, excluding touchscreen display components which are covered for 90 days. Incandescent lamps are completely excluded from Crestron's Limited Warranty. CRESTRON shall, at its option, repair or replace any product found defective without charge for parts or labor. Repaired or replaced equipment and parts supplied under this warranty shall be covered only by the unexpired portion of the warranty.

CRESTRON shall not be liable to honor warranty terms if the product has been used in any application other than that for which it was intended, or if it has been subjected to misuse, accidental damage, modification, or improper installation procedures. Furthermore, this warranty does not cover any product that has had the serial number altered, defaced, or removed.

This warranty shall be the sole and exclusive remedy to the purchaser. In no event shall CRESTRON be liable for incidental or consequential damages of any kind (property or economic damages inclusive) arising from the sale or use of this equipment. CRESTRON makes no other warranties nor authorizes any other party to offer any warranty, expressed or implied, including warranties of merchantability for this product. This warranty statement supersedes all previous warranties.

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Installation Guide – DOC. 5927
01.01

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change without notice.