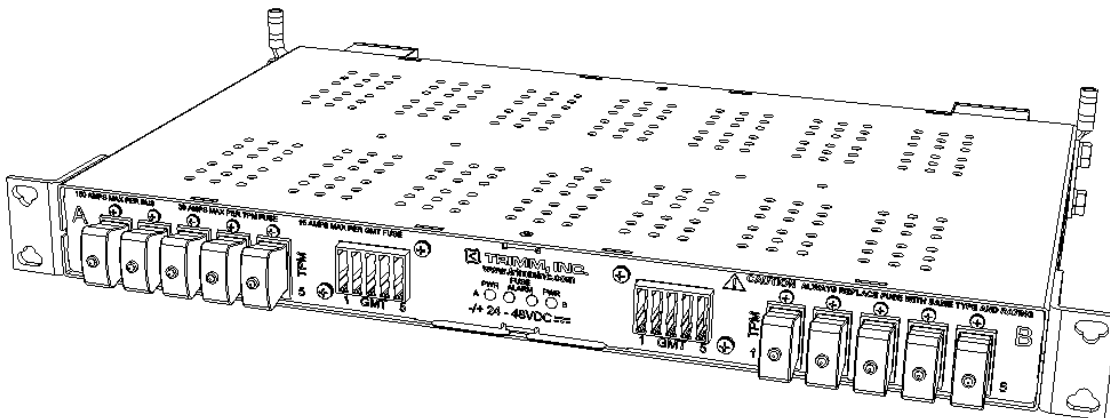


# TRIMM, INC.

Document  
INS-8371xxxxxx

## GMT/TPM Fuse Panel Installation Guide

*This manual covers the following part numbers-*  
**8371xxxxxx** Family



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## Section 1- General Information

### **1.1 - Product Description**

Trimm, Inc.'s GMT/TPM series of power distribution panels offers two types of fusing for both higher and lower current equipment. GMT fuses offer protection from .18 to 15 Amps per position while TPM fuses offer protection from 3 to 30 Amps per position. Power and alarm status are displayed locally with relay contacts for remote fuse fail and power loss indication. This product is suitable for central office locations, network telecommunication facilities and data centers.

### **1.2 - Inspection**

Inspect the panel for any noticeable defects, missing parts (See "What's Included" below), or shipping damage. Please notify Trimm, Inc. if any problems are found at 1-800-298-7466. No products may be returned to Trimm, Inc. without the proper Return Material Authorization (RMA) number.

### **1.3 - What's Included**

This unit should be packaged with the following items. Please notify Trimm, Inc. if any of these items are not included so a replacement can be sent out right away.

- GMT/TPM fuse panel (verify part number from sticker on right side of unit.)
- 4 x #12-24 x 1/2" self-tapping mounting screws
- 6 x 1/4" flat washers and locking nuts (per bus)
- 4 AWG compression lugs, 1/4" bolts and lock washers (For earthing/grounding connection only.)
- Installation instruction packet

Other items in shipping box may include

- Extra fuses

## Section 2 – Before You Begin



This panel should be installed in a restricted access area by qualified service personnel only. All connections/methods should meet all national/local electrical codes as well as company specific methods or procedures. Failure to do so may result in damage to the equipment, and or personal injury. A readily accessible disconnect device must be incorporated into the building installation wiring.

### **2.1 - Tools Required For Installation**

Depending on the part number ordered the following tools are needed to install this product.

- Multimeter
- No. 2 Phillips head torque screw driver
- Torque wrench with 7/16 socket
- Torque wrench with 11/32 socket (for barrier strip output panels)
- Slotted torque screw driver (for set screw output panels)
- Suitable crimp tooling for the terminals
- Cable ties or lacing cord
- Writing utensil or label maker for circuit designation
- Wire wrap tools (for remote alarm wiring)

### **2.2 - Input Bus Amperage Rating**

This product was designed to be used at its input bus amperage rating of 150 Amps, fed by 2/0 AWG wire and protected by a 200 Amp maximum overcurrent device. If your required circuit rating is below that, you may size the input wire and interrupt/overcurrent device according to your needs per the National Electrical Code NFPA 70 ampacity tables or your local/company methods and procedures. In the event that this product and its associated wiring/overcurrent device are under the minimum rating, you should re-label over the panel's input bus rating to prevent accidental circuit overloading in the future.

### **2.3 - Fuse Sizing Information**

The fuse manufacturer recommends that GMT fuses rated 8 to 15 Amps be continuously operated at no more than 70% of their nominal current rating. All fuse types/amperages may be continuously operated at 80% of their nominal current rating.

### **2.4 - Fuse Replacement Information**

The correct fuses may be ordered from the table at the end of this document. See section 7

### **2.5 - Wiring Temperature Information**

The wiring for this product should be rated 90° C or better.

Wiring protected by GMT fuses shall be at least one size larger than the minimum required wire based on the National Electric Code, NFPA 70 ampacity tables.

## 2.6 - General Notes on Terminal Connections

- Bare conductors should be coated with appropriate antioxidant compound before crimp connections are made.
- Use appropriate shrink tubing over un-insulated terminal barrels.
- Ensure that the mating surface of both the terminals and their connection point are clean and free of paint.
- Appropriate antioxidant should be applied to the mating surfaces of all connections.
- Use only listed terminals and crimp tooling when making connections.

## 2.7 - Terminal Information

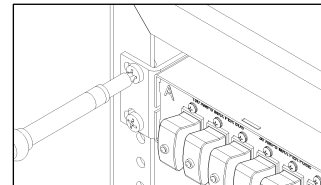
The following terminals or suitable equivalents may be used for connection to this product. Only listed terminals and their recommended crimping tooling should be used. These recommendations are based on the panel's bus amperage rating.

837xxxxxxx Family Suggested Field Wiring Terminals (Code wire)						
Connection	Manufacturer†	Manf. Part Number	Wire Gauge	Stud Size	Hole Spacing	Max. Width
Input	Panduit	LCDN2/0-14A	2/0 AWG	1/4"	5/8"	.625"
Output (GMT fuse type)	Panduit	PV10-6RX	10-12 AWG	#6	Single Hole	.312"
Output (TPM fuse type)	Panduit	PV8-8RX	8 AWG	#8	Single Hole	.500"
Chassis Ground	Panduit	LCD4-14D	4 AWG	1/4"	1"	.625"
Remote Alarm	Wire Wrap (Non required)					
<i>†The above list is only a suggestion. Equivalent terminals may be used provided they are listed and crimped with the appropriately listed crimp tooling.</i>						

## Section 3 – Rack Mounting

### 3.1 - Rack Mounting

Secure the panel to the rack using the self tapping screws provided. If you have purchased a 19" panel and the application is for a 23" rack, be sure that you have ordered/received Trimm Inc's part number 7500116741 (23" mounting kit).



### 3.2 - Additional Rack Mounting Instructions

If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the unit's maximum operating temperature. Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to uneven mechanical loading.

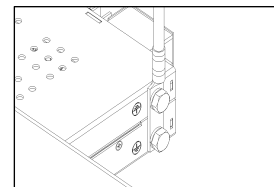
## Section 4 – Input and Grounding Cabling

### WARNING

Before installation, verify that the input power disconnect device is turned "OFF"

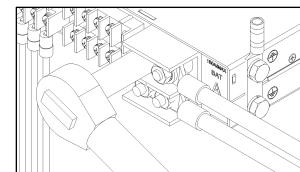
### 4.1 - Chassis Grounding (Earthing)

This product is suitable for use in either a Common or Isolated (CBN or IBN) Bonding Network. This panel includes either 4 AWG compression lugs for grounding (depending on panel's bus amperage). Crimp the ground wire to the terminals provided. Attach the wires to the panel using the supplied bolts and lock washers. Torque fasteners to 24 in-lbs. Attach other end of ground pigtail to the rack or other suitable grounding location. Reliable Earthing of rack-mounted equipment should be maintained.



### 4.2 - Input Wiring

Remove the input covers and locate the #1/4 flat washers and #1/4-20 locking nuts supplied with this panel. Crimp the battery and return wires to the proper terminals. Attach the wires to the panel using the supplied flat washers and locking nuts. Torque the fasteners to 50 in-lbs. This product is suitable for use with either common or isolated (DC-C or DC-I) treatment of the battery return connection.



### 4.3 - Power Verification Test

This test is to verify proper function of the panel prior to the connection of loads.

Turn on the overcurrent protection/disconnect device supplying power to the A side bus. Use a multimeter to verify that voltage and polarity are correct at the input connection. Verify that the PWR LED is illuminated "green" and FUSE ALARM LED is not illuminated. Verify that continuity is present between C and NC alarm contacts. Install a failed fuse if possible and verify that the

FUSE ALARM LED changes to "red". With the failed fuse in place verify that continuity is present between C and NO alarm contacts. Repeat these steps for the B side bus if applicable.

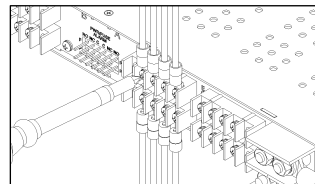
## Section 5 – Output and Alarm Cabling

### **WARNING**

Before continuing installation, verify that the overcurrent protection/disconnect device is turned "OFF"

#### **5.1 - Output Wiring (TPM Fuses)**

This panel accepts up to #8 AWG wire to feed into the equipment and return connections. Crimp the terminals to the wiring. Remove the nuts for each position. Insert the wire onto the corresponding position for both equipment and return connections. Torque the nuts to 10 in-lbs.

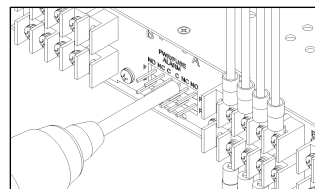


#### **5.2 - Output Wiring (GMT Fuses)**

This panel accepts up to #10 AWG wire to feed into the equipment and return connections. Crimp the terminals to the wiring. Remove the screws for each position. Insert the wire onto the corresponding position for both equipment and return connections. Torque the screw to 7 in-lbs.

#### **5.3 - Alarm Wiring**

The alarm connector is standard wire wrap pins. Continuity is established at positions C and NC when there is no fuse failure. Continuity is established at positions C and NO when a fuse failure has occurred.



## Section 6 – Final Installation

#### **6.1 - Fuse Installation**

Orientate and install the correct fuse into its position. Record the protected equipment identification and location on the supplied designation card.

#### **6.2 - Energizing the Panel**

Once all steps have been completed above, and a final inspection of the installation has been completed, you may energize the fuse panel by switching the corresponding interrupt device to its "ON" position.

## Section 7 – Accessories

TPM FUSES	
PART NUMBER	FUSE AMPERAGE
7500192703	3 AMP
7500192704	4 AMP
7500192705	5 AMP
7500192706	6 AMP
7500192707	7 AMP
7500192708	8 AMP
7500192710	10 AMP
7500192712	12 AMP
7500192715	15 AMP
7500192720	20 AMP
7500192725	25 AMP
7500192730	30 AMP

See next page for GMT fuses...

<b>GMT FUSES</b>	
<b>PART NUMBER</b>	<b>FUSE AMPERAGE</b>
0300097000	18/100 AMP
0300097001	1/4 AMP
0300097016	3/8 AMP
0300097002	1/2 AMP
0600097065	65/100 AMP
0300097003	3/4 AMP
0300097004	1 AMP
0300097005	1-1/3 AMP
0300097006	1-1/2 AMP
0300097007	2 AMP
0300097008	3 AMP
0300097013	3-1/2 AMP
0300097012	4 AMP
0300097009	5 AMP
0300097011	7-1/2 AMP
0300097010	10 AMP
0300097014	12 AMP
0300097015	15 AMP
0300097100	DUMMY FUSE
0300097209	GMT/X FUSE COVER