

TRIMM, INC.

Co-location Interconnect Power Panel (CIPP) Installation Guide

Document INS-937xxxxxxx

This guide covers the following part numbers-
Trimm 937xxxxxxx Series

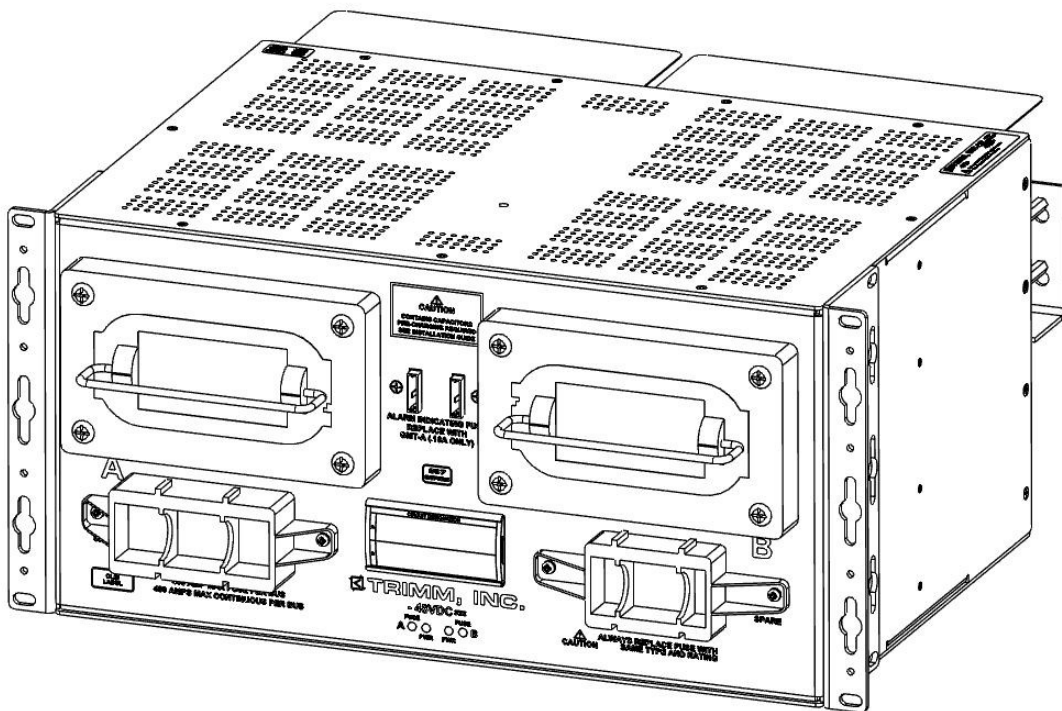


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Section 1 - General Information

1.1 - Product Description

Trimm, Inc's CIPP panels offer 2 x TPL type fuse holders for use with fuses up to 450 Amps. The panel may feature input capacitors to reduce power supply surges during load faults from disrupting other sensitive equipment. This product is suitable for use in 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 retain the original packaging in case you need to return the product to Trimm, Inc. Please notify Trimm, Inc. if any problems are found at 1-800-298-7466 or at sales@trimminc.com. Products shall not 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.

- CIPP panel (verify part number from sticker on unit).
- Product Kit (includes this installation guide, spare fuse holders (if required), input and output connection hardware (flat washers and locking nuts), and ground connection hardware (2 x bolts, flat, and lock washers).

Section 2 - Before You Begin

WARNING

This panel should be installed in a restricted access area by qualified service personnel only.

No field servicing is required on the unit.

All connections/methods should meet all national/local electrical codes as well as any company specific methods/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 supply wiring for this product. This disconnect device must be capable of interrupting the maximum available fault current determined by analysis of your system.

CAUTION

This panel may contain electrolytic capacitors. Pre-charging is required for proper operation. See section 6.1 prior to energizing the panel.

2.1 - Tools Required for Installation

Depending on the part number ordered, the following tools may be needed to install this product.

- Multimeter
- Wire cutter/stripper
- No. 2 Phillips head torque screwdriver
- Torque wrench with 7/16" socket

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- Torque wrench with 9/16" socket
- Suitable "listed" crimp tooling for the field wiring terminals
- Cable ties and/or lacing cord
- Writing utensil or label maker for circuit designation
- Wire-Wrap tool for alarming connections (.045" square pins)

2.2 - Fuse Sizing Information

The fuse manufacturer recommends that all fuses be continuously operated at no more than 80% of their nominal rating.

2.3 - Fuse Replacement Information

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

2.4 - Wiring Temperature Information

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

2.5 - 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 points are clean and free of paint.
- Appropriate antioxidant compound should be applied to the mating surfaces of all connections.
- Use only listed terminals and crimp tooling when making connections.

2.6 - Operating Voltage Ranges

Operating Voltage Information		
Nominal Voltage	Minimum Voltage	Maximum Voltage
24 VDC	20 VDC	30 VDC
48 VDC	40 VDC	60 VDC

2.7 - Battery Return Treatment

This product has been designed with the battery return connection isolated from the chassis ground (Earthing) connection. This product is suitable for use with either DC-I or DC-C (Isolated or Common) battery return connection applications.

2.8 - Terminal Information

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

937xxxxxxx Series Suggested Field Wiring Terminals				
Connection	Wire Gauge	Stud Size	Hole Spacing	Max. Width
Input/Output	750 kcmil	3/8" (.375")	1"	1.625"
Remote alarm	Wire Wrap (None required)			

Section 3 - Rack Mounting

3.1 - Rack Mounting

Secure the panel to the rack using the self tapping screws provided. For a 23" rack or offset mounting, remove the screws holding the brackets to the chassis, adjust the brackets to allow for optional mounting and torque the screws to 10 in-lbs. maximum (1.1 Nm).

3.2 - Rack Mounting (Ventilation/Cooling)

This panel relies on natural convection for cooling through the top and bottom ventilation holes. Do not block or restrict the ventilation holes. It is recommended that the panel be mounted in the upper most position of the rack to ensure adequate cooling and a minimum of 1 rack space below this panel should be left open to allow sufficient inlet airflow. When the panel is not mounted in the upper most position, it is recommended that 1 rack space above and below the panel be left open to allow sufficient inlet and exhaust airflow.

3.3 - Additional Rack Mounting Instructions

If installed in a closed or multi-unit rack assembly, the operating temperature of the rack environment may be greater than the room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the units 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 Ground Cabling



Before installation, verify that the input power disconnect devices are turned "OFF"
Do not energize panel until the pre-charging procedure has been performed, if required. See section 6.

4.1 - Chassis Grounding (Earthing)

This product is suitable for use in a Common (CBN) Bonding Network. Crimp a suitable terminal to each end of the grounding wire. Attach one end of the ground wire to the panel using the supplied fasteners. Torque the fasteners to 24 in-lbs. (2.7 Nm). Attach other end of ground wire to the rack or other suitable grounding location. Reliable grounding of rack-mounted equipment should always be maintained (First On, Last Off).

4.2 - Input Wiring

Remove the combined input/output cover and locate the 3/8" flat washers and locking nuts supplied with this panel. Crimp the input battery and return wires to the proper terminals. Attach the wires to the panel using the supplied fasteners. Torque the fasteners to 175 in-lbs. (20 Nm). All wiring should enter/exit the top of the panel.

Section 5 - Output and Alarm Cabling

WARNING

Before continuing installation, verify that the input power disconnect devices are turned "OFF". Do not energize panel until pre-charging procedure is performed, if required. See section 6.

5.1 - Output Wiring

Locate the 3/8" flat washers and locking nuts supplied with this panel. Crimp the output battery and return wires to the proper terminals. Attach the wires to the panel using the supplied fasteners. Torque the fasteners to 175 in-lbs. (20 Nm). All wiring should enter/exit the top of the panel.

5.2 - Alarm Wiring

The alarm connector uses standard wire wrap pins (1 set for power failure and 1 set for fuse failure per bus). Attach the wire to the appropriate pins. Continuity is established at positions C and NC when there is no fuse or power failure. Continuity is established at positions C and NO when a fuse failure or loss of power has occurred.

Section 6 - Final Installation

WARNING

Before continuing installation, verify that the input power disconnect devices are turned "OFF".

6.1 - Capacitor Pre-Charging/Energizing the Panel (if required)

If your panel does not include the input capacitor option, then you may proceed to the next step. To properly pre-charge the panel prior to operation, the following steps must be taken.

- Installation of the input and output wires must have already occurred.
- There shall be no fuses installed in the panel. This includes the GMT-A type alarming fuse located next to each large fuse holder.
- The input disconnect device feeding this panel must have its fuse/fuse carrier removed or the breaker must be in the "OFF" position.

To begin the pre-charging process, locate the pre-charging kit (Trimm part number 9300900001). Carefully connect the alligator clips across the input disconnect device fuse/circuit breaker terminals until the light turns off (indicating that the capacitors are charged). This should take approximately 5 to 10 seconds. Quickly disconnect the alligator clips and reinsert the fuse/fuse carrier or turn on the circuit breaker providing power to the fuse panel. Repeat this process for the other bus of the panel if applicable. The green power LED's should now be illuminated on the fuse panel.

6.2 - Load Fuse Installation

Orientate and install the correct fuse into its position in the carrier, then slide the carrier into the fuse holder. The fuse holder is keyed to only allow insertion in the proper orientation. Then install the GMT-A (Alarming) fuse into the slot next to each fuse holder. The GMT-A fuse is used with the main fuse to provide local alarming indication.

