



High Current Power Distribution Unit Installation Guide

This manual covers the following part numbers-

Trimm **867xxxxxx** Family

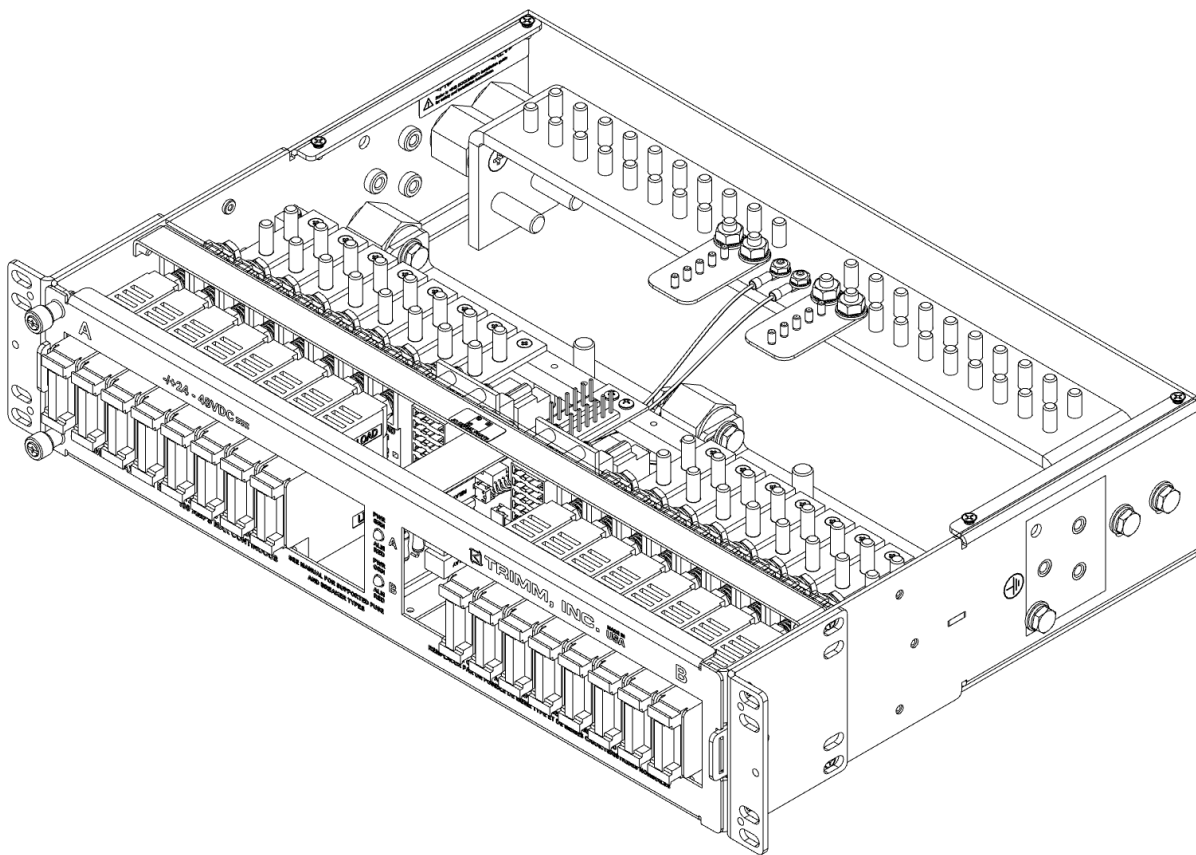


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Section 1- General Information

1.1 - Product Description

Trimm, Inc.'s High Current DC power distribution unit offers a modular design for those needing fused protection from .18 Amps to 225 Amps per position (600 Amps maximum per bus). This unique flexible design accepts many standard telecommunication fuse types as well as single and dual pole circuit breakers. This unit is available in a compact 2U rack space configuration. Power and alarm status are displayed locally with relay contacts for remote fuse fail and power failure indication. 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 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.

- 867 Series Distribution Panel (verify part number from sticker on right side of unit.)
- 4 x #12-24 x 1/2" self-tapping mounting screws
- Fasteners for input (battery and return) and output connections
- 1/4" bolt and washer kit (For chassis ground connection.)
- Installation instruction packet

Other items in shipping box may include

- Installed fuses/circuit breakers

1.4 – Symbol Glossary

	Caution/Warning Attention/Avertissement (French) Vorsicht/Warnung (German)
	Consult instruction manual Consulter le manuel d'instructions (French) Siehe Bedienungsanleitung (German)
	Hot Surface Surface Chaude (French) Heiße Oberfläche (German)

Section 2 – Before You Begin

WARNING

This panel should be installed in a restricted access area by qualified/instructed 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 supply wiring for this product. This disconnect device must be capable of interrupting the maximum available fault current determined by analysis for your system.

Avertissement

Ce produit doit être installé dans une zone à accès restreint par un personnel d'entretien qualifié.

Toutes les connexions / méthodes doivent répondre à tous les codes nationaux / locaux électriques ainsi que des méthodes spécifiques de l'entreprise ou des procédures . Ne pas le faire peut entraîner des dommages à l'équipement , et ou des blessures.

Un dispositif de déconnexion facilement accessible doit être incorporé dans le câblage d'alimentation pour ce produit . Ce dispositif de déconnexion doit être capable d' interrompre le courant de défaut maximal disponible déterminé par l'analyse de votre système.

Warnung

Dieses Produkt darf nur in einem eingeschränkten Zugangsbereich von qualifiziertem Fachpersonal installiert werden.

Alle Anschlüsse / Methoden sollten alle nationalen / lokalen elektrischen Vorschriften sowie unternehmensspezifischen Methoden oder Verfahren entsprechen. Geschieht dies nicht, kann es zu Schäden an der Ausrüstung, und oder zu Verletzungen führen.

Eine leicht zugängliche Trennvorrichtung muss für dieses Produkt in die Versorgungsleitung eingebaut werden. Diese Trennvorrichtung muss für Ihr System durch Analyse bestimmt werden, um den maximal auftretenden Fehlerstrom zu unterbrechen.

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 9/16 socket
- 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 600 Amps, fed by a 750 kcmil wire and protected by a 750 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.

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/Circuit Breaker Replacement Information

The correct fuses or circuit breakers 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 – Environmental Conditions

See product datasheet for specific environmental conditions (temperatures/humidity, etc.) to ensure compatibility.

Section 3 – Rack Mounting

3.1 - Rack Mounting

Secure the panel to the rack using the self-tapping screws provided. Torque screws to 24 in-lbs.

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".



Avertissement

Avant l'installation, vérifier que le dispositif d'entrée de débranchement est éteint.



Warnung

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INS-867xxxxxxx Rev B. 02/05/2019 High Current Power Distribution Installation Instructions

Vor der Installation sicher stellen, dass die Trennvorrichtung in der Versorgungsleitung ausgeschaltet ist.

4.1 - Chassis Grounding (Earthing)

This product is suitable for use in either a Common or Isolated (CBN or IBN) Bonding Network. Crimp the ground wire to the terminals provided. Attach the wires to the panel using the supplied bolts and lock washers. Torque fasteners to 50 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 (Battery and Return Connection)

To gain access to all wiring connections remove the plastic top cover by removing the 4 screws securing it to the panel.

Crimp listed terminals to the battery and return wires as needed. Attach the battery and return input wires to the panel using the supplied flat washers and nuts. Torque the fasteners to 150 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". Verify that continuity is present between C and NC power alarm contacts. Repeat these steps for the B side bus if applicable.

Section 5 – Output and Alarm Cabling

WARNING

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

Avertissement

Avant l'installation, vérifier que le dispositif d'entrée de débranchement est éteint.

Warnung

Vor der Installation sicher stellen, dass die Trennvorrichtung in der Versorgungsleitung ausgeschaltet ist.

5.1 - Output Wiring

Locate the supplied flat washers and #1/4-20 locking nuts included with this panel. Crimp listed terminals to the wire as needed. Attach the wire terminals to the output connection using the supplied nuts and washers. Torque the fasteners to 40 in-lbs. Label each position on the supplied circuit designation card.

5.2 - Output Wiring (GMT Modules Barrier Strip Type)

This panel accepts up to #10 AWG wire to feed into the equipment and return connections. In tight spaces the set screw connector can be removed by simply loosening the 2 screws securing the connector to its header. 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

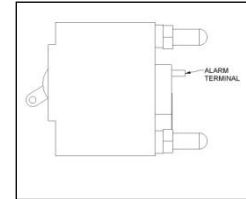
The alarm connector is standard wire wrap pins. Continuity is established at positions C and NC when there is no fuse or power failure. Continuity is established at positions C and NO when a fuse or power failure has occurred.

5.4 - Plastic Top/Bottom Safety Cover Installation

Reattach the plastic safety cover as needed by placing it in the correct position and hand tightening the provided screws. The front cover may be left off until all fuse holders/breakers have been installed.

Section 6 – Final Installation

Fuses and Circuit breakers should be installed as per the image on the right with the single alarm terminal towards the top. Failure to do so may result in damage to the equipment, and or personal injury. Circuit breakers should always be installed in the “OFF” position. Fuse holders should always be installed without the fuse in place.



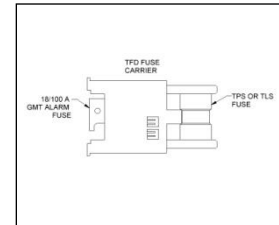
6.1 - Fuse Installation

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

To install circuit breakers or fuse holders remove the front cover by loosening the 2 captive thumb screws. Orientate the fuse/circuit breaker per the above image. Ensure that the alarm terminal is not bent before installation. Firmly press the fuse holder/circuit breaker's bullet terminals into the corresponding position. Ensure that the bullet contacts are fully inserted and seated on the line and load bus bars. When all fuse holders or circuit breakers have been installed replace the front cover.

To install Bussmann® TPC or GMT fuses, simply push the fuse into the corresponding holder. GMT fuses require the 5 position GMT module.

To install Bussmann® TPS or Littelfuse® TLS fuses, install the fuse into the Canadian Shunt® TFD type fuse holder carrier as shown in the image to the right. These fuses also require a GMT 18/100 A fuse for alarm signaling. Failure to install the alarming fuse will result in a fuse failure without local or remote fuse fail indication.



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

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

TPC FUSES		TLS FUSES			
PART NUMBER	DESCRIPTION	PART NUMBER	DESCRIPTION		
0300360003	3 AMP	0300390001	1 AMP		
0300360004	4 AMP	0300390003	3 AMP		
0300360005	5 AMP	0300390005	5 AMP		
0300360006	6 AMP	0300390006	6 AMP		
0300360007	7 AMP	0300390010	10 AMP		
0300360008	8 AMP	0300390015	15 AMP		
0300360010	10 AMP	0300390020	20 AMP		
0300360012	12 AMP	0300390025	25 AMP		
0300360015	15 AMP	0300390030	30 AMP		
0300360020	20 AMP	0300390035	35 AMP		
0300360025	25 AMP	0300390040	40 AMP		
0300360030	30 AMP	0300390050	50 AMP		
0300360040	40 AMP	0300390060	60 AMP		
0300360050	50 AMP	0300390070	70 AMP		
0300360060	60 AMP	0300390080	80 AMP		
0300360075	75 AMP	0300390090	90 AMP		
0300360090	90 AMP	0300390100	100 AMP		
0300360100	100 AMP	0300390125	125 AMP		
0300360125	125 AMP				

SINGLE POLE BREAKERS			
PART NUMBER	DESCRIPTION		
030017760A	5 AMP		
030017760B	7.5 AMP		
030017760C	10 AMP		
030017760D	15 AMP		
030017760E	20 AMP		
030017760F	25 AMP		
030017760G	30 AMP		
030017760H	40 AMP		
030017760I	50 AMP		
030017760J	60 AMP		
030017760K	70 AMP		
030017760L	80 AMP		
030017760M	90 AMP		
030017760N	100 AMP		

DUAL POLE BREAKERS	
PART NUMBER	DESCRIPTION
030017770A	110 AMP
030017770B	120 AMP
030017770C	130 AMP
030017770D	140 AMP
030017770E	150 AMP
030017770F	175 AMP
030017770G	200 AMP
030017770H	225 AMP

Revision Record

Legend : Type R=Revision A=Addition D=Deletion
 T=Typo N=New V=Review

Revision	Date	Type	Section/Comments
A	11/01/2018	N	New Document
B	02/05/2019	R	Updated document with symbol glossary