



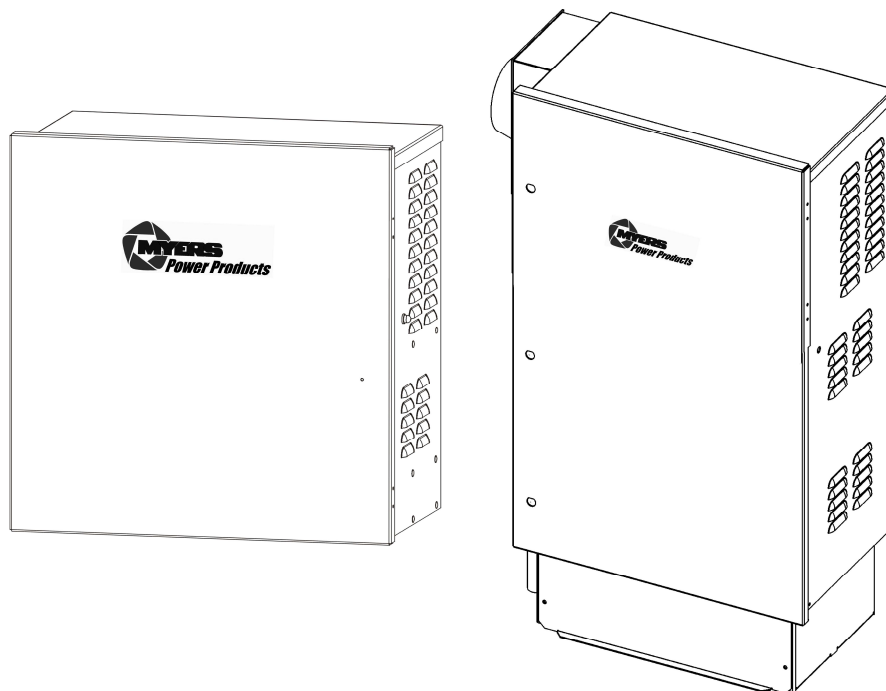
Broadband CTEP/G Series

Three, Six Battery Pole/Ground Mount Enclosures

Four, Eight Battery Pole Mount Enclosures

120 V/240 V

User Manual



Chapter 1 General Information

The Myers Power Products (Myers) CTEP/G Series Power Supply Enclosures provide protection for power supplies/UPS and for batteries for broadband cable operations.

Safety

This Safety Guide contains important instructions that should be followed during installation and maintenance of the Myers equipment and batteries. It is intended for Myers customers who setup, install, relocate, or maintain this type of equipment.

Only trained service personnel should install and maintain the power supply enclosure.

Changes and modifications to this unit not expressly approved by Myers Power Products could void the warranty.

Failure to observe these warnings may result in serious injury, death or damage to the equipment.

Electrical Warnings

Do not work alone under hazardous conditions.

Do not handle any metallic connector before the power has been disconnected.

Servicing this equipment may require working with protective covers removed and utility power connected. Use extreme caution during these procedures.

High current through conductive materials could cause severe burns.

When grounding cannot be verified, disconnect the equipment from the utility power outlet before installing or connecting to other equipment. Reconnect the power cord only after all connections are made.

Check that the power cord(s), plug(s), and sockets are in good condition.

Replacement of fuses or other parts must be with identical types and ratings. Substitution of nonidentical parts may cause safety and fire hazards.

Battery Warnings

Always replace batteries with same or equivalent type recommended by the manufacturer.

Danger of explosion if battery is incorrectly connected or replaced.

Batteries present a risk of electrical shock and burns from high current in the event of a short-circuit. Observe proper safety precautions.



Batteries must be recycled. Deliver the battery to an appropriate recycling facility or ship it to the supplier in the new battery packing material.

Overhead Warnings

Never stand underneath a unit while it is hoisted. Always wear a hard hat.

Lifting Warnings

Modules are heavy. Use proper lifting techniques and equipment to avoid injury.

Chapter 2 Installation

Prior to installing the power supply enclosure, a utility breaker box must be installed on the pole. Utility line voltage must be routed to the enclosure. Local, state, federal and/or National Electric Code (NEC) regulations regarding location, permits and electrical wiring must be adhered to.

Do not operate the power supply where the temperature and humidity are outside the specified limits. See *Specifications* in this manual.

Base Models Supported – this list is not exhaustive, please contact Myers for a complete listing

Model Number	Description
CTEP3-120	Enclosure, Pole 3 Batt 20 A, 120 VAC, 60 Hz
CTEP3-120GI	Enclosure, Pole 3 Batt 20 A, 120 VAC, 60 Hz with Generator Interface
CTEP3-240	Enclosure, Pole 3 Batt 20 A, 240 VAC, 60 Hz
CTEP4-120	Enclosure, Pole 4 Batt 20 A, 120 VAC, 60 Hz
CTEP4-120GI	Enclosure, Pole 4 Batt 20 A, 120 VAC, 60 Hz with Generator Interface
CTEP4-240	Enclosure, Pole 4 Batt 20 A, 240 VAC, 60 Hz
CTEP4-240GI	Enclosure, Pole 4 Batt 20 A, 240 VAC, 60 Hz with Generator Interface
CTEP6-120	Enclosure, Pole 6 Batt 20 A, 120 VAC, 60 Hz
CTEP6-120GI	Enclosure, Pole 6 Batt, 20 A, 120 VAC, 60 Hz with Generator Interface
CTEP8-120	Enclosure, Pole 8 Batt 20 A, 120 VAC, 60 Hz
CTEP8-120GI	Enclosure, Pole 8 Batt, 20 A, 120 VAC, 60 Hz with Generator Interface
CTEP8-240	Enclosure, Pole 8 Batt 20 A, 240 VAC, 60 Hz
CTEP8-240GI	Enclosure, Pole 8 Batt, 20 A, 240 VAC, 60 Hz with Generator Interface
CTEG3-120	Enclosure, Ground 3 Batt 20 A, 120 VAC, 60 Hz
CTEG3-240	Enclosure, Ground 3 Batt 20 A, 240 VAC, 60 Hz
CTEG6-120	Enclosure, Ground 6 Batt 20 A, 120 VAC, 60 Hz
CTEG6-120GI	Enclosure, Ground 6 Batt, 20 A, 120 VAC, 60 Hz with Generator Interface
CTEG8-120	Enclosure, Ground 8 Batt 20 A, 120 VAC, 60 Hz

Specifications

Environmental Specifications

Operating Temperature	-40° F to 140° F (-40° C to 60° C)
Humidity	5% to 95% noncondensing within enclosure

Physical Specifications

Characteristic	Specification
<i>Height X Width X Depth</i> CTEP3 CTEP4 CTEP6 CTEP8	30" x 24" x 16" (76 x 61 x 41 cm) 27" x 29" x 18" (67 x 72 x 45 cm) 39" x 24" x 16" (99 x 61 x 41 cm) 39" x 29" x 18" (99 x 72 x 45 cm)
<i>Height X Width X Depth</i> CTEG3 CTEG6 CTEG8	38" x 24" x 16" (97 x 61 x 41 cm) 47" x 24" x 16" (119 x 61 x 41 cm) 47" x 29" x 18" (119 x 72 x 45 cm)
<i>Weight</i> CTEP/G3 CTEP4 CTEP/G6 CTEP8	50 lbs (23 kg) 78 lbs (34.5 kg) 77 lbs (35 kg) 140 lbs (63.6 kg)

Unpacking

Inspect the unit upon receipt. Notify the carrier if there is damage.

The packaging is recyclable; save it for reuse or dispose of it properly.

Check the package contents. The package contains the enclosure, battery cables, connectors and associated hardware, and product documentation.

CTEP/G3:	Two 15" black battery jumpers, One long connectorized red and black cable
CTEP/G6:	Four 15" black battery jumpers, One long black jumper, One long red jumper, One long connectorized red and black cable
CTEP4:	Three 15" black battery jumpers , One long connectorized red and black cable
CTEP/G8:	Six 15" black battery jumpers, One long black jumper, One long red jumper, One long connectorized red and black cable

Installing the Enclosure

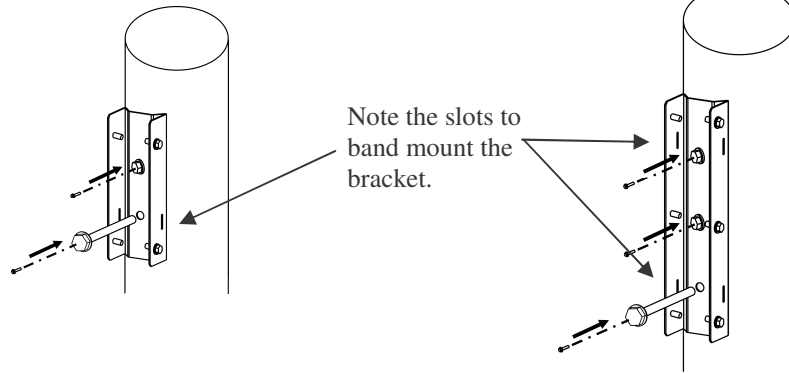
Models may vary in appearance from those depicted below.

Install the Mounting Bracket on a Pole

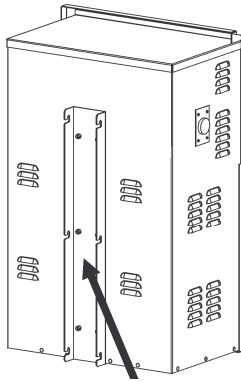
The pole-side portion of the Mounting Bracket can be either bolted or banded to the pole.

CTEP4 models

CTEP3/CTEP6/CTEP8 models



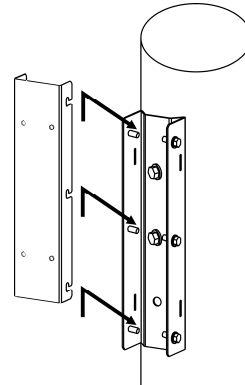
Install the Enclosure on the pole-side Mounting Bracket



Enclosure-side portion of Mounting Bracket is permanently attached to the enclosure

Attach but do not tighten the bolts, nuts, and washers on the pole-side mounted bracket prior to installing the enclosure.

Leave enough bolt space exposed so the enclosure-side portion of the mounting bracket can “hang” on the bolts.



Carefully lift the enclosure onto the pole-side of the Mounting Bracket. Ensure that all the bolts are engaged by the bracket. Once the enclosure is properly hung, securely tighten all the bracket bolts.

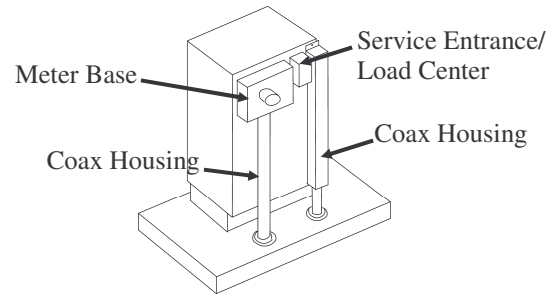
Ground Mount Installation

1. Installation on a Myers approved concrete pre-cast pad is recommended. A variety of pads are available. Contact Myers for additional information.
2. Secure the enclosure to the pad. Refer to the diagrams below.

For all ground mount enclosures:

Place the enclosure on the pad. The holes on the enclosure must be aligned with the anchor hooks on the pad, (hardware not included).

This is a general representation of an enclosure mounted on a pad. Configurations may vary.



Enclosure Wiring

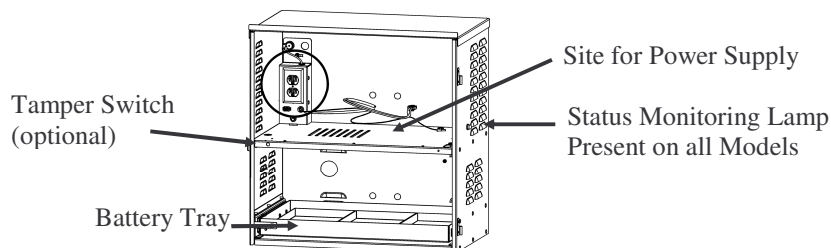
Grounding

1. Install and interconnect ground rods appropriate for proper grounding according to local electrical code requirements.
2. Route ground wires from the ground system into the bus bar located on the enclosure.

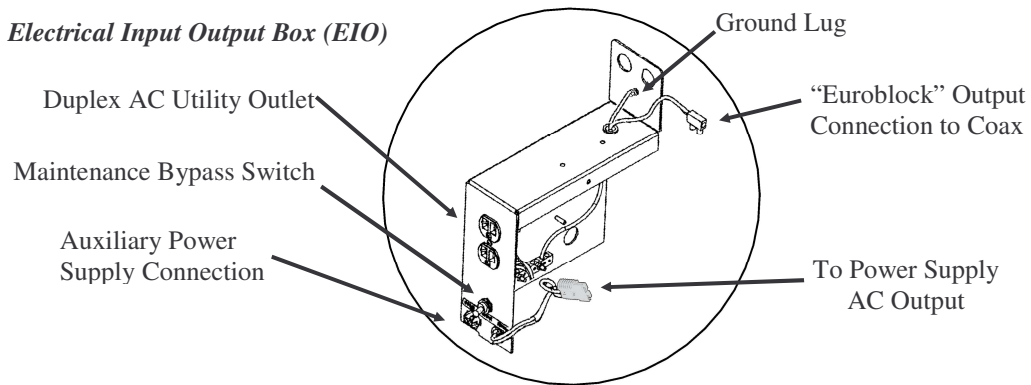
Connecting Utility Power to the Enclosure

CTEP/G3

(CTEP/G6&CTEP/G8 have additional battery tray)



Electrical Input Output Box (EIO)



1. Unlock and open the door of the enclosure.
2. Ensure that the utility power switch is OFF.
3. Install a high magnetic circuit breaker box
4. Using appropriate conduit connectors, run wires from the utility breaker box to the receptacle box inside the enclosure.
5. Connect the wires to the receptacle and install it in the enclosure.
6. Turn breaker ON and verify the presence of incoming AC at the Duplex AC Utility Outlet.
7. Route the hardline coax to the rear of the enclosure, near the coax bushing.
8. Install a pin connector onto the coax hardline.
9. Insert the pin of the pin connector into the rear of the coax bushing and secure the connector per the manufacturer's instructions.
10. Inside the enclosure, trim the pin connector so that it is about a ½ inch long.
11. Slide the open side of the Euroblock connector over the pin and tighten the Euroblock screw securely onto the stub of the pin connector.
12. Refer to the CTSP-EM User Manual for detailed installation instructions regarding the Interface Harness to connect the Status LED, Tamper Switch (if present) and the Battery Thermal Sensor.

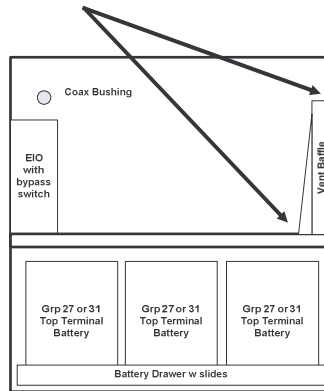
Optional Fan Kit (CTE-FAN-KIT)

An optional enclosure exhaust fan can be added to provide additional enclosure ventilation. The power supply output is used to power the fan. Note: Although the fan is marked/rated for 120VAC, it will work fine in this application from 60 to 87VAC.

Installing the fan kit is straightforward;

1. Remove the existing vent baffle (if present). Keep all hardware.

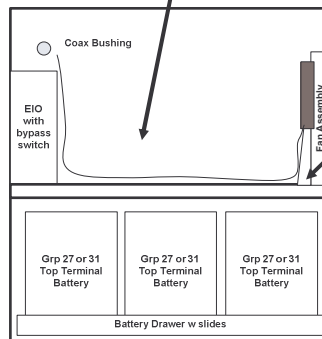
Remove screws holding
vent baffle in place



2. Replace vent baffle with the fan assembly. Secure the fan assembly with screws. Route the wire from the fan to the rear of the enclosure, towards the enclosure ground lug and coax bushing. Use the provided wire ties to secure the wire to the rear of the enclosure.

Route fan wire to rear of enclosure,
place end near coax bushing

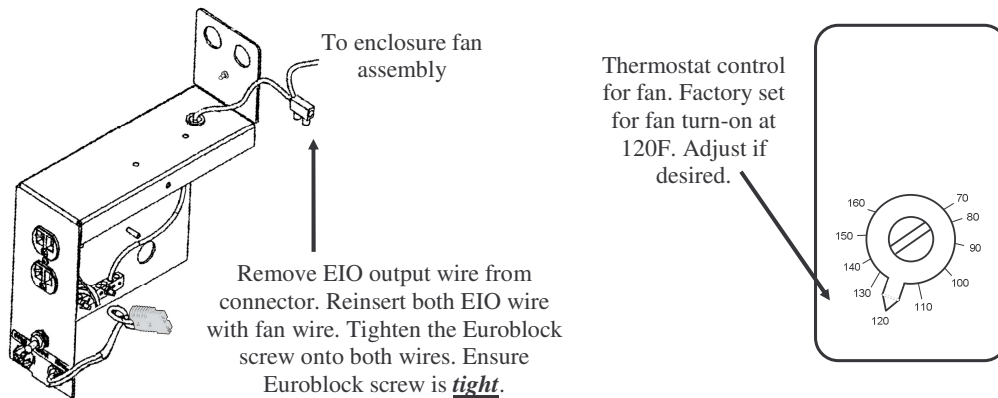
Install fan assembly
and replace screws.



3. The fan must be connected to the power supply output to operate.

NOTE: If the power supply in this enclosure is already powering the network, this step requires that the network be temporarily powered down. Before proceeding, ensure that the power supply is OFF by unplugging it from AC utility power and by switching the battery breaker on the EM to OFF.

Remove the Euroblock connector from the EIO output wire. Ensure that the fan wire has about a ½ inch of insulation removed from the end of the wire. Pair the bare wire end of the fan wire with the bare EIO wire and reinsert both into the Euroblock and securely tighten the screw onto both wires. Attach the other fan wire to the enclosure ground lug. The fan will now operate once the power supply has been installed



4. The thermostat is located to the left of the fan on the fan assembly. The fan is thermostat controlled and should be pre-set to turn the fan on at approximately 120 degrees F (50C). If desired, the thermostat can be adjusted to change the fan turn on temperature.

Other Options

An optional External AC Generator Interface is available for the following models:

CTEP3-120GI; CTEP4-120/240GI; CTEP/G6-120GI; CTEP8-120/240GI

Additional options are available. For a list of these options, please contact Myers Power Products.

Connecting the Batteries



Remove the battery connection from the EM prior to battery installation.

Use normal precautionary measures when wiring and connecting the batteries.

Placement of batteries is for suggestion purposes only. The battery placement and hookup may be different for your system. Please consult with your management.

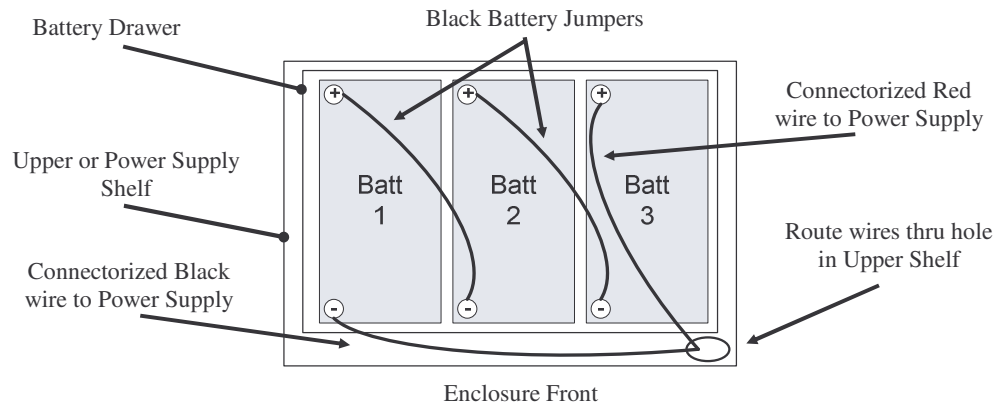
Tape one end of each jumper cable prior to installation.

Attach the bare end first, then carefully untape and attach the other end.



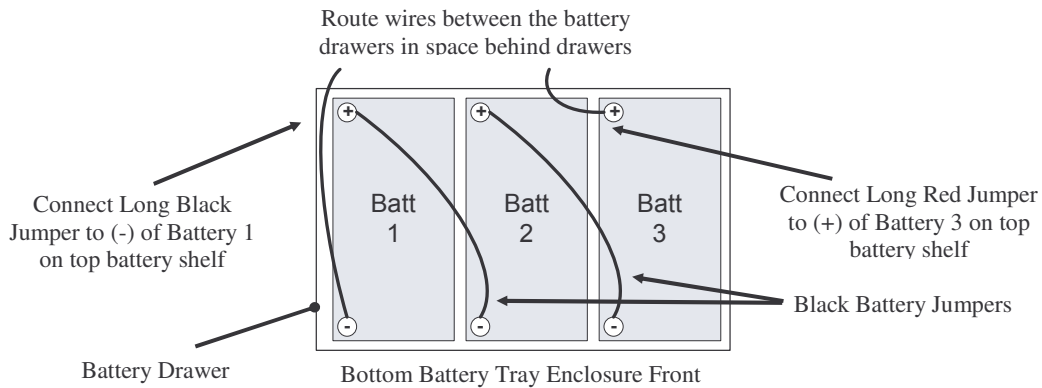
3 Battery Enclosures – Battery Shelves

Note: Following the SCTE-HMS standards, the battery with the main output/power supply lead connected to the negative terminal is **always** Battery 1.



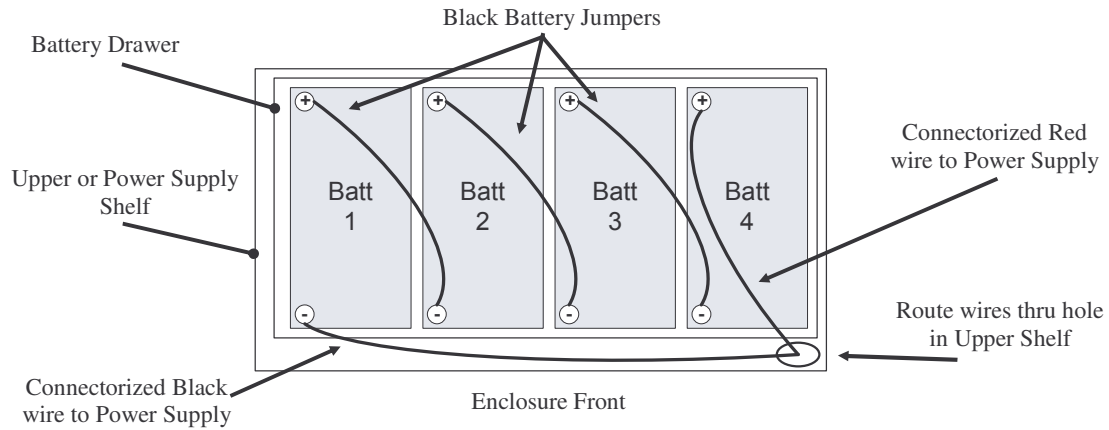
6 Battery Enclosures – Battery Shelves

Wire the top battery tray to the upper/power supply shelf as the 3 battery enclosure. The bottom battery tray that is holding the second battery string is wired per the diagram below.



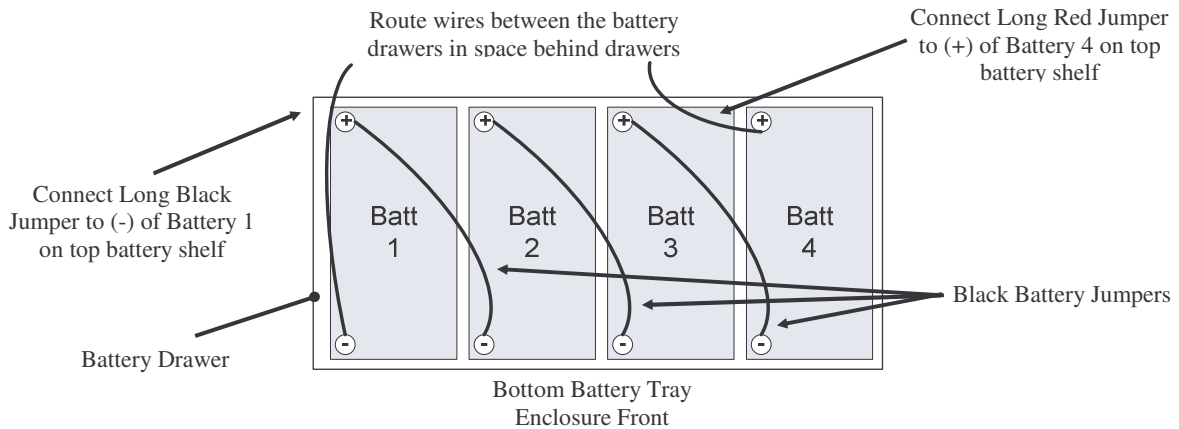
4 Battery Enclosures – Battery Shelves

Note: Following the SCTE-HMS standards, the battery with the main output/power supply lead connected to the negative terminal is **always** Battery 1.



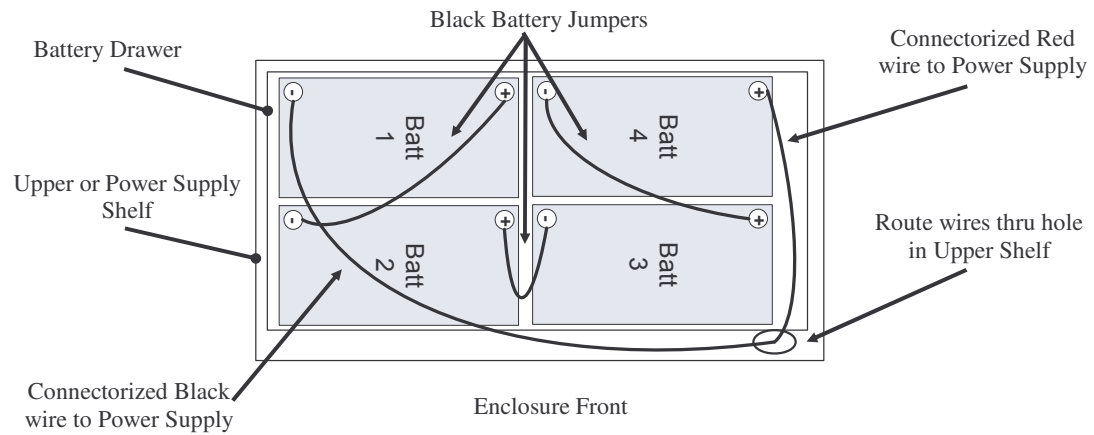
8 Battery Enclosures – Battery Shelves

Wire the top battery tray to the upper/power supply shelf as the 4 battery enclosure. The bottom battery tray that is holding the second battery string is wired per the diagram below.



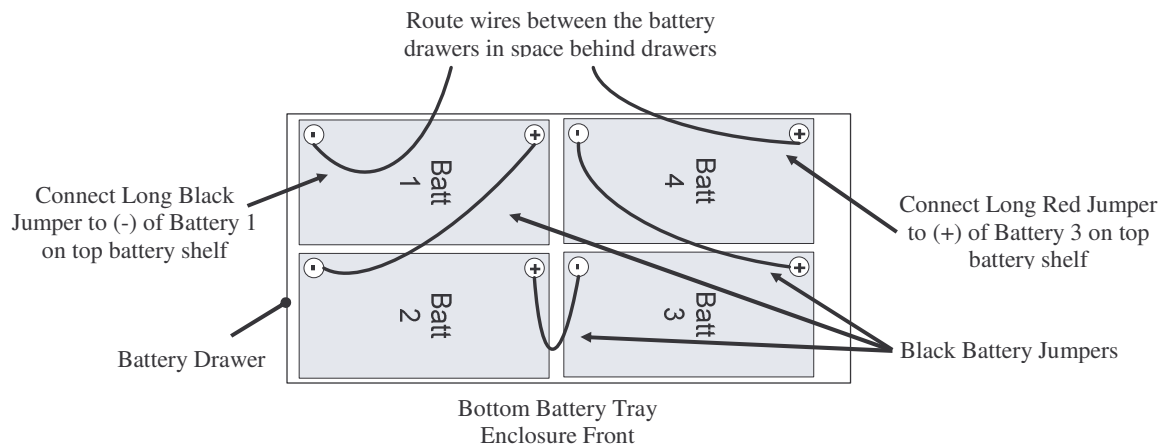
4 Battery Enclosures – Alternate Positioning – Battery Shelves

Note: Following the SCTE-HMS standards, the battery with the main output/power supply lead connected to the negative terminal is **always** Battery 1.



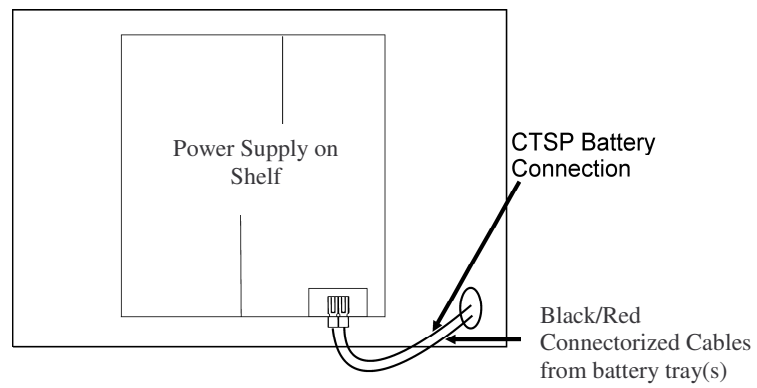
8 Battery Enclosures – Alternate Positioning – Battery Shelves

Wire the top battery tray to the upper/power supply shelf as the 4 battery enclosure. The bottom battery tray that is holding the second battery string is wired per the diagram below.



Battery Enclosures – Power Supply Shelf

Locate the power supply on the power supply shelf and connect the battery cable to the EM.



Chapter 3 - Service and Contact Information

Myers Power Products makes every effort to ensure parts and equipment arrive in working condition. Occasionally, it may be necessary to return parts or equipment that are not in working condition.

If the unit requires service, please follow these steps:

1. Contact Myers Technical Customer Service by telephone at (610) 868-5400 Monday - Friday 8AM to 5PM U.S. Eastern time. Sales and Accounting issues use (610) 868-3500.
 - Note the product model number, the serial number, and the date purchased, if known. If you call Myers Customer Service, a technician may ask you to describe the problem and try to solve it over the phone. If this is not possible the technician will issue a Returned Material Authorization Number (RMA#).
 - If the product is under warranty, repairs are free. If not, there is a repair charge.
 - Procedures for servicing or returning products may vary internationally. Contact Myers Power Products for country specific instructions.
2. If possible, pack the product in its original packaging. If the original packaging does not exist, pack the product carefully with sufficient padding.
 - Pack the unit properly to avoid damage in transit. Never use Styrofoam beads for packaging as the static electricity that is generated may damage electronics. Damage sustained in transit is not covered under warranty.
3. Mark the RMA# on the outside of the package.
4. Return the unit by insured, prepaid carrier to the address given to you by Customer Service.



Be sure to deliver spent batteries to a recycling facility or ship to the manufacturer in the replacement battery packing material.

Myers Power Products contact information:

For Customer Service...	Mailing/Shipping Address...
Technical (610) 868-5400 Sales/Accounts (610) 868-3500 Monday – Friday 8AM to 5PM US Eastern	Myers Power Products, Inc. 2000 Highland Ave. Bethlehem, PA 18020

Limited Warranty

Myers Power Products, Inc. (Myers) warrants this product to be free from defects in materials and workmanship for a period of two (2) years from the date of purchase. Its obligation under this warranty is limited to repairing or replacing, at its own sole option, any such defective products. To obtain service under warranty you must obtain a Returned Material Authorization (RMA) number from customer support. Products must be returned with; transportation charges prepaid, accompanied by a brief description of the problem encountered. This warranty does not apply to equipment that has been damaged by accident, negligence, misapplication, or has been altered or modified in any way. This warranty applies only to the original purchaser.

EXCEPT AS PROVIDED HEREIN, MYERS MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

EXCEPT AS PROVIDED ABOVE, IN NO EVENT WILL MYERS BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OF THIS PRODUCT, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. Specifically, Myers is not liable for any costs, such as lost profits or revenue, loss of equipment, loss of use of equipment, loss of software, loss of data, costs of substitutes, claims by third parties, or otherwise.

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