

Installation Guide

Overview:

Altronix EBC48 external battery charger provides faster charging of back-up batteries for Altronix NetWay Spectrum models. Working with POE240 or POE360 power supply(ies), it allows to recharge 40AH or larger batteries in under 8 hours.

Specifications:

Input:

- 56VDC input (POE240 or POE360).

Output:

- Charging four (4) 12V batteries in series.
- 2A or 4A selectable operation.

Supervision:

- AC Fail Supervision (form "C" contacts).
- BAT Supervision: indicates Low or missing batteries (form "C" contacts).

Visual Indicators:

- Feed from power supply (green).
- Feed from battery (red).
- Battery trouble (blinking red).

Board Dimensions (W x L x H approx.):

5.5" x 3" x 1" (139.7mm x 76.2mm x 25.4mm).

Installation Instructions:

EBC48 should be installed in accordance with the National Electrical Code and all applicable Local Regulations.

1. Mount the EBC48 in the desired location/enclosure (mounting hardware included).
2. Set the EBC48 to the desired output current via SW1 (*refer to Charging Current Output Selection Table*).
3. Connect [+ INP -] terminals of EBC48 to 56VDC output from POE240, POE360 or any 56VDC power supply which matches the below chart (*Charging Current Output Selection Table*).
4. Measure output voltage before connecting devices and batteries. This helps avoiding potential damage.
5. Connect device(s) to be powered to [+ OUT -] terminals of EBC48.
 - Use 18 AWG or larger for all power connections (Battery, DC output).
 - Use 22 AWG to 18 AWG for power-limited circuits (AC Fail/Low or Missing Battery reporting).

Keep power-limited wiring separate from non power-limited wiring (115VAC 50/60Hz Input, Battery Wires). Minimum 0.25" spacing must be provided.

CAUTION: Do not touch exposed metal parts.

Shut branch circuit power before installing or servicing equipment.

There are no user serviceable parts inside. Refer installation and servicing to qualified service personnel.

6. Connect four (4) 12V lead acid or gel type batteries, connected in series to be charged to the terminals marked [- BAT +] (*Fig. 1*).



Please note: the charging current has to be subtracted from the total power supply allowable output current.

Refer to Charging Current Output Selection Table for available current depending on power supply.

Also note: battery recharge time depends on the battery capacity and charging current.

Using 4A charging current setting will allow to return ~28AH of charge into the appropriate size battery. Battery performance is dependent on battery specifications from the manufacturer. This includes temperature ratings, charge capacity, charge/discharge cycles and depth of discharge. Altronix is not responsible for battery installation methods.

Charging Current Output Selection Table:

Switch Position	Battery Charging Current	Current Available for Devices	
		POE240 (4.3A/240W total)	POE360 (6.5A/360W total)
SW 1 - Option 1	2A	2.3A/120W	4.5A/240W
SW 1 - Option 2	4A	0.3A/16W	2.5A/130W

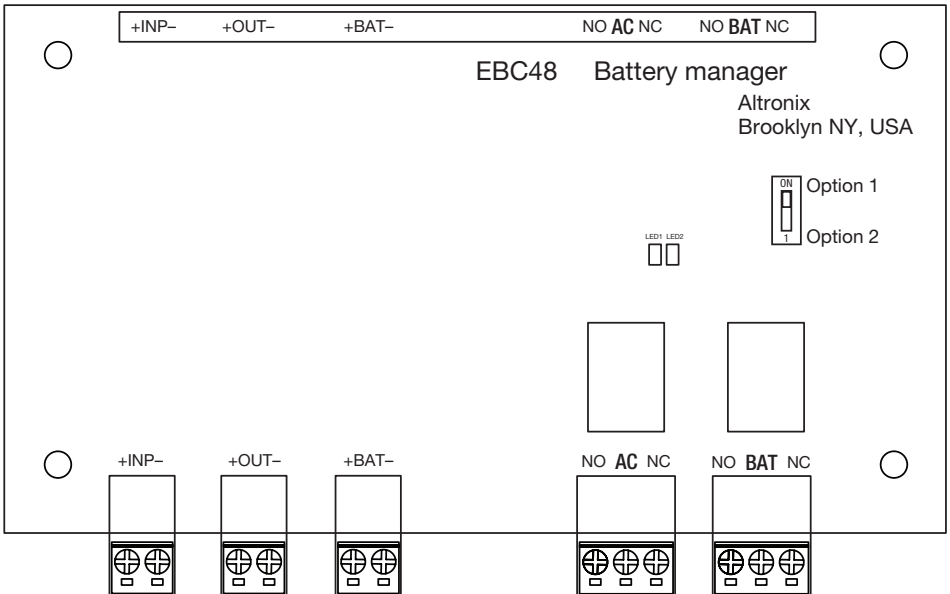
LED Diagnostics:

Red (DC)	Green (AC)	Power Supply Status
OFF	ON	Normal operating condition. Powered from AC.
Blinking	ON	Low or missing battery (up to 3 minutes to respond). Threshold for low battery is 42VDC
ON	OFF	System is on battery power.
OFF	OFF	Loss of AC. Discharged or no stand-by battery. No DC output.

Terminal Identification:

Terminal Legend	Function/Description
+ INP –	56VDC input from POE240 or POE360.
+ OUT –	56VDC output. Hardened switch / device connection.
+ BAT –	Stand-by battery connections.
NO AC NC	Used to notify loss of AC power, e.g. connect to audible device or alarm panel. Relay normally energized when AC power is present. Can also be used to indicate switch from AC power to battery power. Contact rating 1A @ 28VDC.
NO BAT NC	Used to indicate low or missing batteries, e.g. connect to alarm panel. Relay normally energized when DC power is present. Contact rating 1A @ 28VDC. Low battery threshold: 42VDC.

Fig. 1



Altronix is not responsible for any typographical errors.

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