

Installation Instructions

Model 12040C00, 12040E00, 12025E00, 12025C00



It is suggested that model specifications be referenced in addition to this instruction sheet for the installation.

1. For safety reasons, all batteries should be disconnected prior to installing the Equalizer. Reconnect the batteries after installation is complete, always using proper safety clothing and glasses.
2. Mount the Equalizer/Converter in a dry ventilated area, with access to the terminals. It is recommended that the maximum voltage drop across any power wire should be no more than 0.2V at full output.
3. Select the appropriate wire size for the installation. The table below will provide an estimate of required wire sizes, which is sufficient for most applications. Size the appropriate circuit protection approximately 25% above the maximum current passing through the wire (refer to table).

Unit	(24V) Current Out	Recommended Circuit Protection on 12V & 24V Terminal				Recommended wire gage for total run length			
		12V In	SP Kit#	24V out	SP Kit#	0-10 ft	11-20 ft	21-30 ft	31-40 ft
12025E00	25A	75A	1595	40A	1593	4 AWG	2 AWG	1 AWG	1/0
12025C00	25A	75A	1595	40A	1593	4 AWG	2 AWG	1 AWG	1/0
12040E00	40A	125A	1597	50A	1594	2 AWG	1 AWG	2/0	3/0
12040C00	40A	125A	1597	50A	1594	2 AWG	1/0	3/0	4/0



Battery Equalizer Installation Instructions.

+24V terminal: Connect this terminal through a fuse to the +24 V side of the battery stack for Equalizers.

+12V terminal: Connect this terminal through a fuse to the +12 V of the battery stack.

GND terminal: Connect this terminal to the GND terminal . All internal operating currents are returned to this terminal.

IGN terminal: This connection enables and disables the unit. Connect this terminal to a 12 Volt ignition RUN source. When voltage is applied to the ignition terminal, the unit turns on. See Figure 1.

OFFSET Terminal: This connection also enables and disables the unit. Connect this terminal to a 12 Volt ignition RUN source. Applying power to this terminal increases the output voltage between 0.6 Volts to 1.4 V – input voltage dependent, refer to graph under specification outline (contact Sure Power Industries). Typically used when voltage line loss is a concern. See Figure 2.

Converter Installation Instructions.

Connect wires in accordance with figure 3.

+ 24 terminal: Connect this terminal directly to the 24 V loads.

+12V terminal: Connect this terminal through a fuse to the +12 V of the battery stack.

GND terminal: Connect this terminal to the GND terminal . All internal operating currents are returned to this terminal.

Additional Information:

LED status indicator: Provided to denote when the unit is producing current. As the batteries become equalized, the equalizer current will approach 0 amps, and the LED indicator will diminish in intensity and eventually go dark.

In converters, as the output current approaches zero the LED will go dark.

Provide the appropriate fuse protection.

Fuses protect the wiring in the event of a short to ground and should be sized approximately 25% above the maximum current passing through the wire.

All M8 nuts should be torqued to 90-100 in.-lbs.

CONNECTION DIAGRAMS:

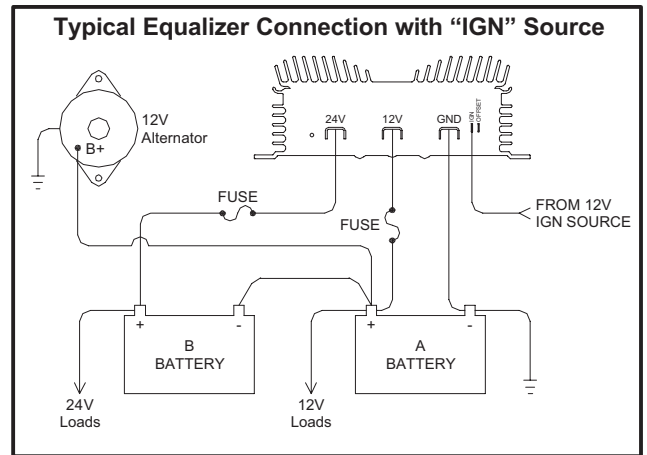


Figure 1

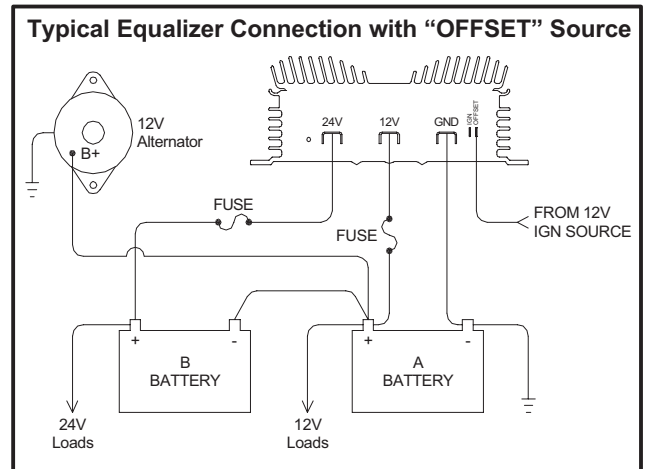


Figure 2

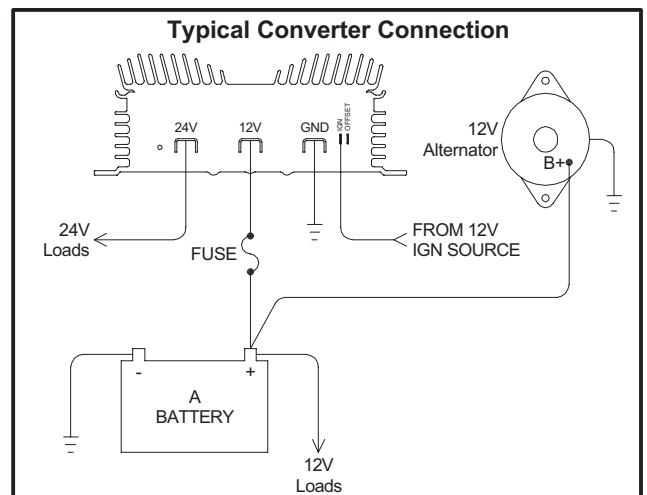


Figure 3