

BATTERY EQUALIZERS

Installation Instructions

Model 52204, 52206, 52208 & 52210 (Equalizers)
52304, 52306, 52308 (Converters)

NOTE: A detailed discussion of Equalizer installation, wire sizing, positioning, etc. is covered in Sure Power Application Note # 180097.

1. For safety reasons, all batteries should be disconnected prior to installation. Reconnect the batteries after installation is complete, always using proper safety clothing and glasses.

2. Provide the appropriate circuit breaker or fuse protection. Fuses or circuit breakers 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. See table below.

CAUTION: Any electrical component connected to a battery positive must have circuit protection. Failure to do so will void Equalizer warranty.

3. Mount the equalizer in a well ventilated area with easy access to the terminals.

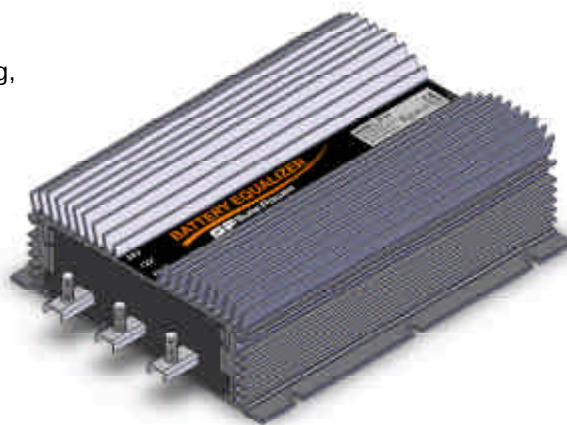
4. Select the appropriate wire size for the installation. The table below will provide an estimate of required wire size, which is sufficient for most applications. Sure Power suggests that the maximum voltage drop across any power wire should be no more than about 0.20V maximum.

5. If a battery-disconnect switch is required with an Equalizer application, two disconnect switches should be used (see page 2, figure 1). Electrically, place one disconnect between the "A" battery "POS" and the 12V connections, including the Equalizer 12V terminal and 12V loads. Place the second disconnect between the "B" battery "POS" and the Equalizer-to-alternator connection.

6. The Equalizer can be used as a Converter. See page 2, figure 2. Please note that the output voltage of an Equalizer is half of the input voltage.

7. LED Status Indicator: The models listed have a built in LED status indicator. The LED will illuminate if output current is being produced. If no current is required the indicator will go dark.

8. Apply a coating of corrosion inhibitor material (E.g., dielectric grease, insulating paint, etc.), as per manufacturers application instructions, to Battery Equalizer terminals to help eliminate corrosion and protect the metal surfaces.



Unit	Current Out (12V)	Recommended Circuit Protection on 12V & 24V Terminal				Recommended Wire Gage			
		12V	SP Kit#	24V	SP Kit#	0-10 Ft	11-20 Ft	21-30 Ft	31-40 Ft
52204/304	40A	50A	1594	40A	1593	6 AWG	4 AWG	1 AWG	1/0
52206/306	60A	75A	1595	50A	1594	4 AWG	2 AWG	1/0	2/0
52208/308	80A	100A	1596	75A	1595	4 AWG	1 AWG	2/0	3/0
52210	100A	125A	1597	75A	1595	2 AWG	1/0	3/0	4/0



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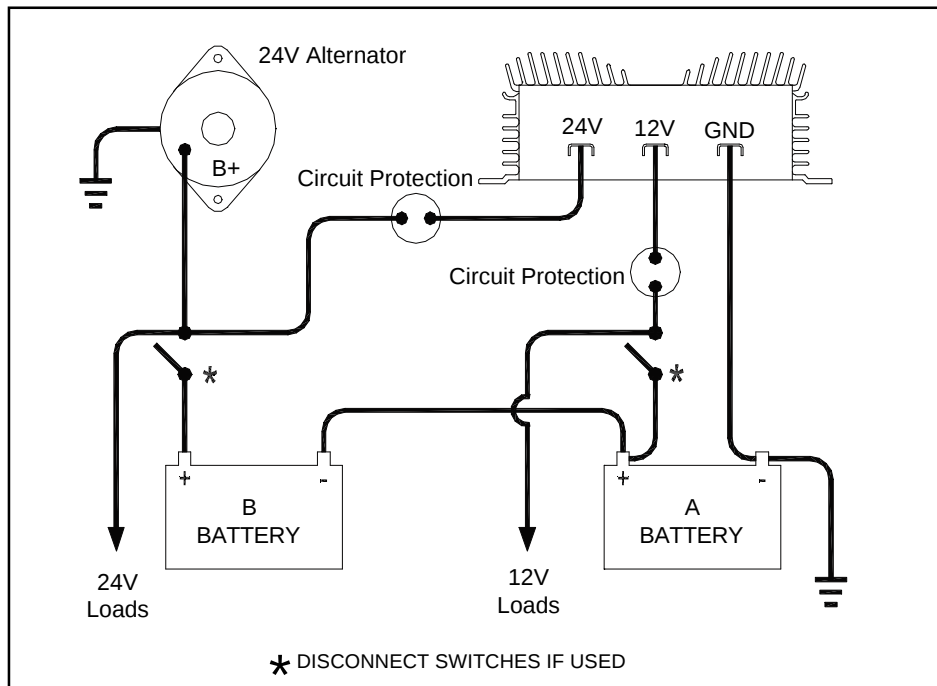


Figure 1: Equalizer connection diagram.

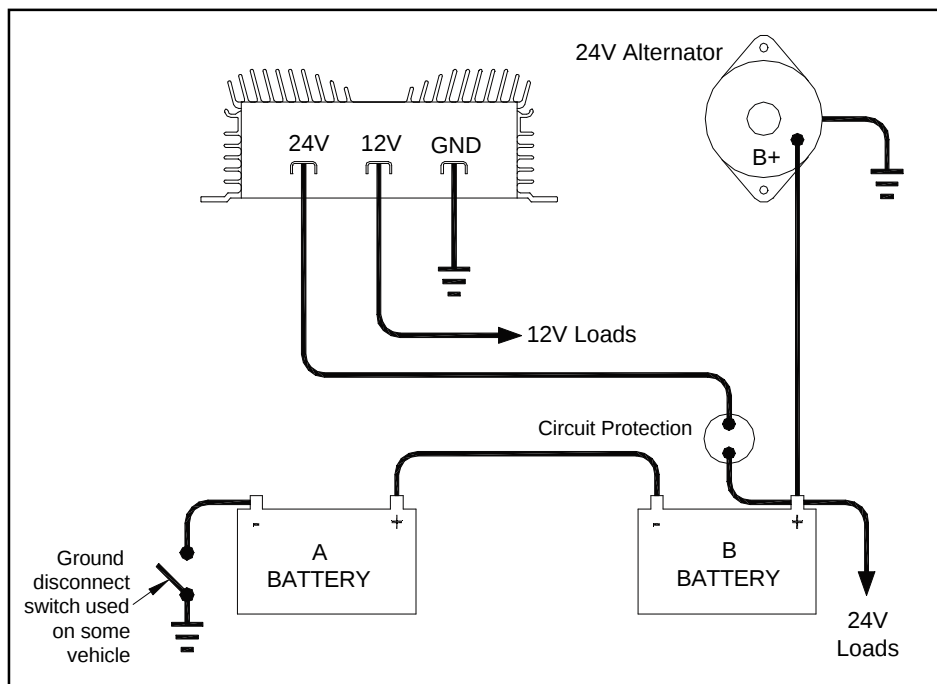


Figure 2: Battery Equalizer shown used as a Converter. Note: If a Battery Disconnect is required a single disconnect switch should be placed between the "A" Battery and frame ground, or between the "B" Battery positive (+) terminal and the 24V connections.



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10189 S.W. Avery Street ■ Tualatin Oregon 97062 ■ Tel 503.692.5360 ■ Fax 503.692.9091 ■ www.surepower.com