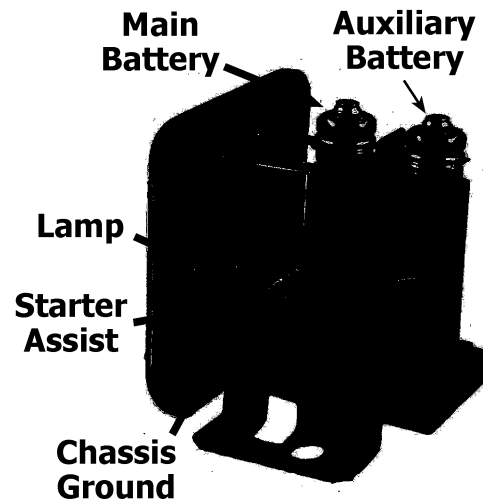


# MBS100 Multi Battery Separator

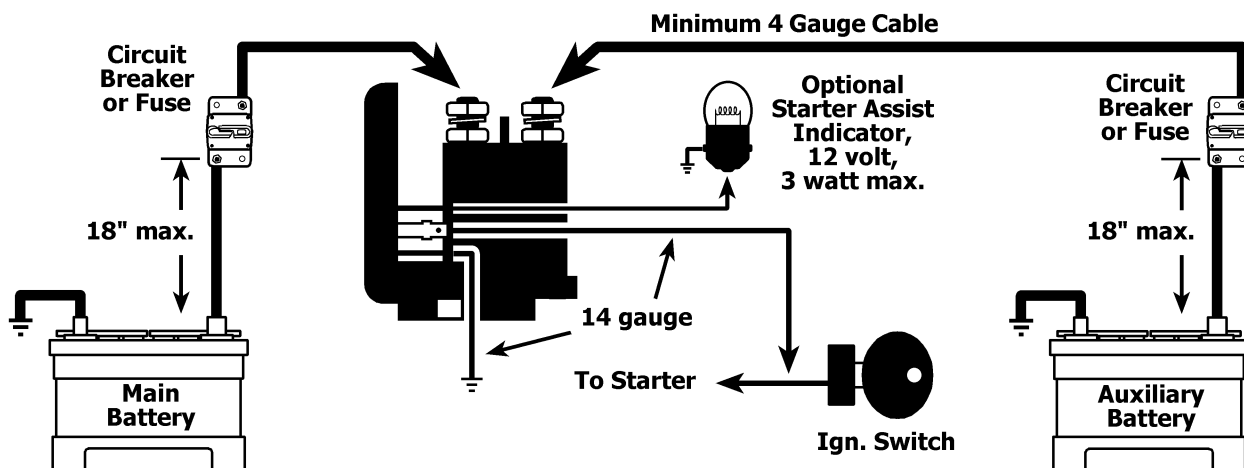
## INSTALLATION

1. Mount the MBS100 in a well ventilated place near the main battery.
2. Run the proper gauge cable for your sound system's current demands from the positive post of the main battery to the main battery terminal of the MBS100. This cable must be fused within 18" of the main battery. Minimum cable size is 4 gauge.
3. Run the proper gauge cable from the auxiliary battery terminal of the MBS100 to the positive terminal of the auxiliary battery. This cable must be fused within 18" of the auxiliary battery. Minimum cable size is 4 gauge.
4. Connect the ground terminal of the MBS100 to chassis ground with a 14 gauge wire.



## Optional Connections

1. Using a 14 gauge wire, connect the starter assist terminal of the MBS100 to a switched wire that has 12 volts only when the engine is cranking. This wire **must** have 0 volts when the key is in the off, accy, ign, or run position.
2. Using a 14 gauge wire, connect the lamp terminal to the positive terminal of a 12 volt bulb. The bulb must be rated at 3 watts or less.



## **HOW IT WORKS**

The MBS100 continually monitors the main battery voltage. Once the engine starts and the alternator is charging, the MBS100's main battery terminal will see at least 13.2 volts indicating an operational charging system. The MBS100 will activate, linking the auxiliary battery with the main battery allowing the alternator to charge both batteries.

If the demands on the charging system are excessive and the alternator is unable to supply enough current, voltage will drop. If the voltage drops below 12.8 volts, the MBS100 will disconnect the auxiliary battery until the starting battery terminal sees 13.2 volts again. This protects delicate engine control modules and other devices that require a steady voltage level for proper operation. The MBS100 has a delay circuit to prevent chattering due to momentary voltage fluctuations.

### **Optional Starter Assist Functions**

While starting the engine, the MBS100 will monitor the voltage on both batteries. If the auxiliary battery's voltage is higher than the starting battery's voltage, the MBS100 will engage the auxiliary battery to assist starting the engine. The voltage on the start assist terminal must be at least three volts for this function to engage.

The lamp terminal provides 12 volts (250 milliamp maximum) while the starter assist function is activated. This notifies the user when the auxiliary battery is assisting the main battery with engine starting. Repeated lighting of the bulb can indicate a weakened charging system or main battery.

## **SPECIFICATIONS**

Connecting Voltage .....	13.2 volts
Disconnect Voltage.....	12.8 volts
Continuous Current .....	100 amps
Maximum Peak Current .....	400 amps
Operating Temperature .....	-40 to 85 degrees celcius
Minimum Starter Assist Voltage.....	3 volts
Maximum Lamp Output.....	250 milliamps @ 12 volts
Dimensions L x W x H .....	3.25" x 2.5" x 3"
Battery Terminals .....	5/16" studs
Ground, Start Assist and Lamp Terminals.....	1/4" spades