



MULTI-GAUGE VOLTAGE REDUCER

12 VOLTS TO 6 VOLTS

MGR1



The MGR1 supplies the correct voltage for original 6 volt gauges in upgraded 12 volt electrical systems. Please read these instructions completely before attempting to install.

Specifications:

- 12 Volts input voltage
- 6.7 Volt regulated output voltage
- 1 Amp output capacity
- Self-resetting fused input
- LED indication of correct and incorrect input connection
- LED indication of output and overcurrent conditions
- Integrated heatsink enhances thermal dissipation
- Up to three gauges can be connected directly to the reducer
- Integrated mounting holes
- Screw-type terminal block electrical connection accepts 24-12 AWG bare wire

Installation:

- Before you get started always disconnect your battery.**
- Your multi-gauge reducer ships with the screws in the blue terminal block tightened. Unscrew them so that the clamping block inside the connector goes down. Your connection wires will be inserted above that block, and when the screw is tightened, the block will clamp up onto the wire. The screws are captive and will not come out of the terminal block when you unscrew them.
- Mount the multi-gauge reducer in a well ventilated area away from materials that can melt. The MGR1 will get warm during operation.
- All wire connections to the blue terminal block should have the insulation stripped approximately 7mm. Stripping the wire more than this will cause the conductor to be exposed outside of the connector body, and may permit contact with adjacent wires or mounting hardware.
- Supply 12 volts switched voltage to the input. Note: if constant voltage (non-switched) is supplied this unit will draw the battery down over a period of days if it is not disconnected.
- Connect a good ground to the ground terminal. Negative ground systems only.
- There are three output terminals on the right end of the blue terminal block. For up to three gauges, each terminal can connect directly to each gauge with a separate wire. Gauges can also be powered from a single wire that runs from gauge to gauge. This will be necessary when powering more than three gauges. Consult the diagrams on the back of this sheet to see the difference in these wiring schemes. Note: An amp gauge should never be connected to this unit.
- Reconnect the battery and test operation.
- With the switched power turned on, both the Input and Output LED indicators should be lit bright green, and 6.7 volts DC should be present on the output terminals of the unit. If either LED is not green, consult this table to determine the fault:

INPUT OUTPUT	SOLID GREEN SOLID GREEN	NORMAL OPERATION: Input and Ground are connected properly, and output current does not exceed 1 Amp.
INPUT OUTPUT	SOLID RED NO LIGHT	INPUT POLARITY IS REVERSED: 12V input should be connected to 12V +, and Ground terminal to Chassis (Battery -). This device is not intended for positive ground vehicles.
INPUT OUTPUT	SOLID GREEN SOLID/FLASHING RED or ALTERNATING GREEN & RED	OVERCURRENT: Gauges and gauge sensors are drawing more than 1 Amp collectively. This is abnormal. Check wiring and ensure an ammeter is not connected.
INPUT OUTPUT	SOLID GREEN NO LIGHT	SHORTED OUTPUT: Output has been short circuited to ground. Check wiring.

The MGR1 is only designed for use with gauges. For other applications, use these products:

Heater Blower Motor: HR02

Horn: WHR1

Borg Warner Overdrive Solenoid: VRODS1

Wiper Motor: WHR1

Tube Radio: DR100W1R5

Windows, Seats, Convertible Top: VRWTS

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