

# ***RI**Grunner*

*for model*  
**4008HV**  
**24 volt**



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Thank you for choosing the West Mountain Radio RIGrunner! You will enjoy having a RIGrunner with durable, standardized Powerpole® connections. Having proper DC distribution should make a long overdue improvement to the convenience and safety of your station. The RIGrunner is a simple device, with obvious function. Think of a RIGrunner as the 12 volt equivalent of a 120 VAC power panel in a house.

There are some considerations to think about. Please read these instructions carefully before setting up your RIGrunner.

## **INSTRUCTIONS and SPECIFICATIONS**

Congratulations on purchasing the RIGrunner 4008 HV model. This sturdily built power strip, utilizing the renown Anderson Powerpole® connectors, provides plug in capability for your dc devices, fuses for each outlet, gives you warning lights and a buzzer for out of range voltages, and illuminates an LED when the fuse is blown. It is an easy and safe way to distribute dc power.

### **Before Installation**

The RIGrunner is ready for installation with the de-fault settings for the “audible alert” (buzzer). The buzzer alerts the user that the voltage is out of normal range, either too high or too low. The user may wish to remove or change the buzzer operation for too high or too low only.

To change the buzzer, simply remove the four sheet metal screws on the side, take the cover off. Then remove either the HI, the LO or both jumpers. They are small blue shorting blocks located at the lower right side of the circuit board.

Note that the four sheet metal screws distort the bottom plate’s holes, thereby creating a burr and making it difficult to remove the cover. If needed, a small screwdriver can be wedged into either end to easily pry off the cover.

Replace the cover and fasten together with the four screws. Do not over tighten because the aluminum can be stripped.

### **Mounting**

Pick a location that is central to the equipment it is powering. If possible, locate the power source close to the RIGrunner as well. Every wire has resistance so it makes good sense to keep the wire runs as short as needed.

Locate the RIGrunner in a cool dry place with reasonable ventilation. Do not put it on top of equipment that gets hot. Do not place it on the floor where it could get wet. The unit should be mounted securely to equipment, or screwed down using the two holes in the mounting tabs.

### **Connecting Equipment**

Powerpoles® should be placed on all equipment. ORANGE is for plus, and BLACK is for minus. Remember, Powerpoles® are genderless; the same connector works on both the supply and the load. They are unipolar if assembled correctly.

Powerpoles® can be installed by soldering or crimping. For detailed Powerpole® installation tips see our RIGrunner support pages on our website, [www.westmountainradio.com](http://www.westmountainradio.com).

The only thing you ABSOLUTELY MUST DO is to make sure you assemble the pairs correctly. They must be assembled according to the standard used in the RIGrunner. DO NOT EVER PLUG ANYTHING IN unless you are CERTAIN you have the BLACK connected to minus, and the ORANGE connected to plus. CHECK THIS TWICE. Make sure that your wires plug into the RIGrunner correctly...ORANGE to ORANGE and BLACK to BLACK.

Plug your equipment into the RIGrunner starting with the highest power on the left position and the lower power drain units to the right. You may hook up as many as eight items so long as the total drain does not exceed 40 amperes.

## **Fuses**

This RIGrunner comes supplied with a 40 ampere input fuse, 3 25 A, 2 10A, 1 5A, and 2 1A. It may be ordered with other fuse values (40, 25, 20, 15, 10, 5, 1 ampere). If different fuse values are recommended for the equipment, they may be installed. Note that the total current cannot exceed 40 Amperes. Any ATC/ATO automotive blade fuse or blade circuit breaker may be used.

Note that each fuse position has a LED blown fuse indicator that will conveniently light up if a fuse is blown. There must be power to the RIGrunner and a device plugged into the circuit that has the blown fuse in order for the LED to light.

## **Voltage Comparator and Audible Alert**

The RIGrunner has a precision expanded scale voltage comparator display, with audible alert. There are three LEDs that show Red for over voltage, Green for nominal voltage, and Yellow for under voltage.

This special model operates at a nominal voltage of 27.6 Vdc. This is the fully charged "float" voltage for two AGM or GEL type sealed lead acid batteries. The Green LED that shows that the voltage is between 23 and 30 Vdc. If the voltage is more than 30 Vdc the red LED lights. If the voltage is less than 23 Vdc the Yellow LED lights. If the voltage is under 18 Vdc, then all LEDs are off.

### **Buzzer**

The RIGrunner includes an audible alert buzzer that can sound whenever the Red or Yellow LEDs light.

The buzzer is activated by installing jumpers on the pc card. If the LO jumper is installed, the buzzer will sound whenever the Yellow LED lights. If the HI jumper is installed, the buzzer will sound whenever the Red LED lights. Both jumpers may be installed so the buzzer will sound whenever either the Red or Yellow LED lights.

Note that the RIGrunner comes with both jumpers installed. Please see the "before installation" paragraph to change the buzzer settings.

## Specifications

Overall Dimensions	9" W x 3" H x 1.5" D
Weight	32 oz.
Description	Eight output DC power buss, fused
Connection	Black is Negative (common) and Orange is positive 27.6V
Isolation	The case is isolated from internal circuitry, including negative circuit
Connectors	Anderson Powerpoles®
Nominal Voltage	24 volt battery at 27.6 volts dc quiescent
Quiescent Current	The comparator voltmeter circuit draws 15mA continuously
Current Capacity	40 amperes input, 40 amperes total output
Fuses	ATA/ATC, supplied with 40A input, 25A, 25A, 25A, 10A, 10A, 5A, 1A, 1A
LED Indicators	Green is Nominal 27.6VDC Red is Over 30VDC Yellow is Under 23VDC No indication below 15VDC
Buzzer	Buzzer may sound for over-volatge, under-voltage, or both
Blown Fuse LED	a red LED is located at the base of each fuse clip. if a load is connected, and a fuse is blown (open), then its LED will light
Assembly	IPC-610 process
Mounting Holes	For #8 Hardware, Four holes at 1.75 x 8.563 inches rectangle

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## **RIGrunner Warranty**

The RIGrunner is warranted against failure due to defects in workmanship or materials for one year after the date of purchase from West Mountain Radio or an authorized dealer. If purchased from an authorized dealer it must be returned with a copy of the original sales receipt or proof of purchase.

Warranty does not cover damage caused by abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation, alteration, lightning, or other incidence of excessive voltage or current. If failure occurs within this period, return the RIGrunner or accessory to West Mountain Radio at your shipping expense with a full explanation and necessary proof of purchase. The device or accessory will be repaired or replaced, at our option, without charge, and returned to you at our shipping expense. Repaired or replaced items are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the RIGrunner or accessory made after the expiration of the warranty period.

West Mountain Radio shall have no liability or responsibility to customer or any other person or entity with respect to any liability, loss, or damage caused directly or indirectly by use or performance of the products or arising out of any breach of this warranty, including, but not limited to, any damages resulting from inconvenience, loss of time, data, property, revenue, or profit, or any indirect, special incidental, or consequential damages, even if West Mountain Radio has been advised of such damages.

Except as provided herein, West Mountain Radio makes no express warranties and any implied warranties, including fitness for a particular purpose, are limited in duration to the stated duration provided herein.



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