

REDBACK® A 1607 6A Battery Charger A 1613 12A Battery Charger

OPERATING INSTRUCTIONS



FEATURES

- Short circuit protection
- Electronic reverse polarity protection
- 2 stage charging
- Automatic boost and float voltages
- Precision control of boost and float voltage settings
- Digital battery voltage display
- Charging status indicators
- Low voltage cut off to protect battery
- 2U 19" rack mount chassis
- 2 year warranty
- Ideal for sealed lead acid batteries
- Australian designed and manufactured
- Made in Australia

These battery chargers are ideally suited for PA systems requiring battery back up in the event of mains power failure.

The design incorporates a two stage high voltage SCR controlled charging circuit, ensuring charger reliability even under conditions of adverse high voltage power line transients.

This charger has been specifically designed for use on sealed lead acid batteries (SLA).

WIRING CONNECTIONS.

Ensure that the power to the unit is off both at the mains and the switch at the front. Proceed to wire up the unit according to the instructions below.

Connect your battery to the binding posts on the back of the unit labelled (To Battery + and Common -) using heavy gauge cable.

Another lead needs to be connected to the battery from the terminal labelled battery voltage. This lead needs only

be made of medium duty wire. This connection is used to measure the voltage at the batteries.

Connect your load to the binding posts labelled (To load 1 + and if required To load 2 +), note that the negative connection is common to both the load and the battery.

Note: the load current is limited to 50 amps maximum per terminal.

OPERATING INSTRUCTIONS

Once wiring is finished switch on the unit.

You should see the battery voltage indicated on the display on the front panel.

This refers to the voltage available at the battery terminals. It is common for the battery voltage to read nominally higher than the voltage rating of 24VDC.

Whilst the battery is connected to the unit and power is applied, the charger will continue to charge the battery. The charger will charge the battery at "Boost" current (6A for A 1607 or 12A for A 1613) until 29.4V is reached, at which time the battery charger will continue to "trickle" charge the battery in order to keep it topped up at 27.6V.

A LED display on the front panel indicates when these changes in the cycle occur.

Charging time is dependent on the ampere hour rating of the battery and its condition of charge.

Typical charge times for fully discharged batteries using 6A model No.A 1607		Typical charge times for fully discharged batteries using 12A model No.A 1613	
24AH	6Hrs	60AH	8Hrs
40AH	10Hrs	80AH	10Hrs
		100AH	12Hrs
		120AH	14Hrs

Distributed by Altronic Distributors Pty. Ltd. Perth. Western Australia.

Proudly Assembled in Australia

REDBACK A 1607/A 1613 24V SLA Battery Charger

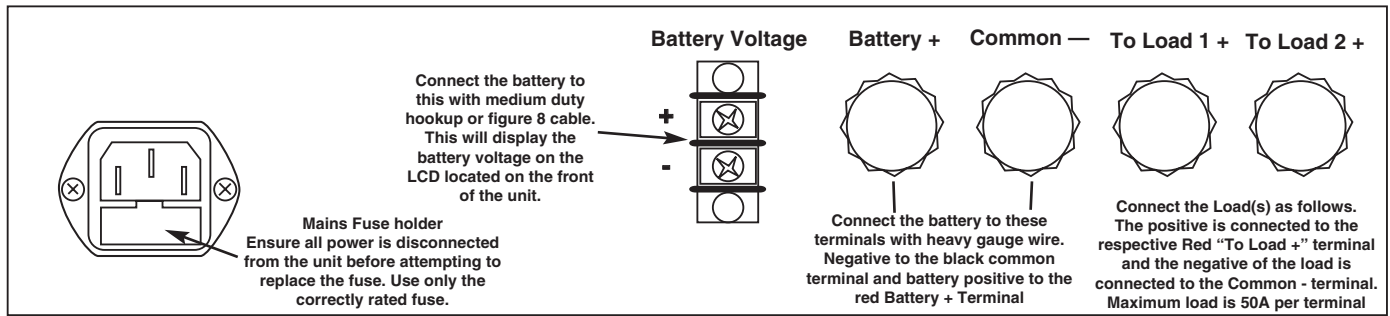


Figure 1: A diagram of the rear of the unit. Refer to the text and this diagram to connect the unit to a battery and load.

Should power fail, the unit will automatically switch the load(s) connected to the battery and back again when power is restored.

If power is not restored before the battery voltage drops below 18V, the unit will automatically disengage the battery from the load. This will prevent long term blackouts from damaging the battery.

Should the unit fail to operate in the above manner refer to troubleshooting.

TROUBLESHOOTING.

Power led does not come on.

Check that the mains lead is connected.

Check that the AC fuse is installed.

Unit does not display battery voltage.

Check that you have connected a lead from the battery to the terminals labelled Battery Voltage.

Unit will not charge battery.

Check connections to (To battery) terminals and to the battery.

Load does not power up when mains fails.

Check connections to (To load) terminals and to the load.

SPECIFICATIONS

Input Voltage:240V AC 50Hz
 Boost Voltage:29.4V DC
 Trickle Voltage:27.6V DC
 Boost Current:(A 1607) 6A Max.
 (A 1613) 12A Max.
 AC Fuse Protection:(A 1607) 1.5A
 (A 1613) 3A

Display:
 Battery Voltage 3.5 Digit LCD
 Trickle chargeGreen LED
 Boost ChargeYellow LED
 Power On:Red LED
 Controls.....Power On/Off
 Rocker Switch

Dimensions:≈ 483W x 330D x 88H mm
 Colour:Black
 Weight:(A 1607) 7.5kg
 (A 1613)≈ 9kg

* Specifications subject to change without notice.

Calculating battery size for PA systems

$$\text{Battery Size} = \frac{\text{Total amplifier power in watts}}{\text{Volts}} \times 1.5 = \text{Required amps for 1 hour}$$

$$\text{500W amplifier Battery Size} = \frac{500}{24} \times 1.5 = 31.25\text{AH}$$

Therefore a 40AH battery would be suitable Please note: This calculation assumes 100% duty cycle at full power output into full rated load.

Not field serviceable:

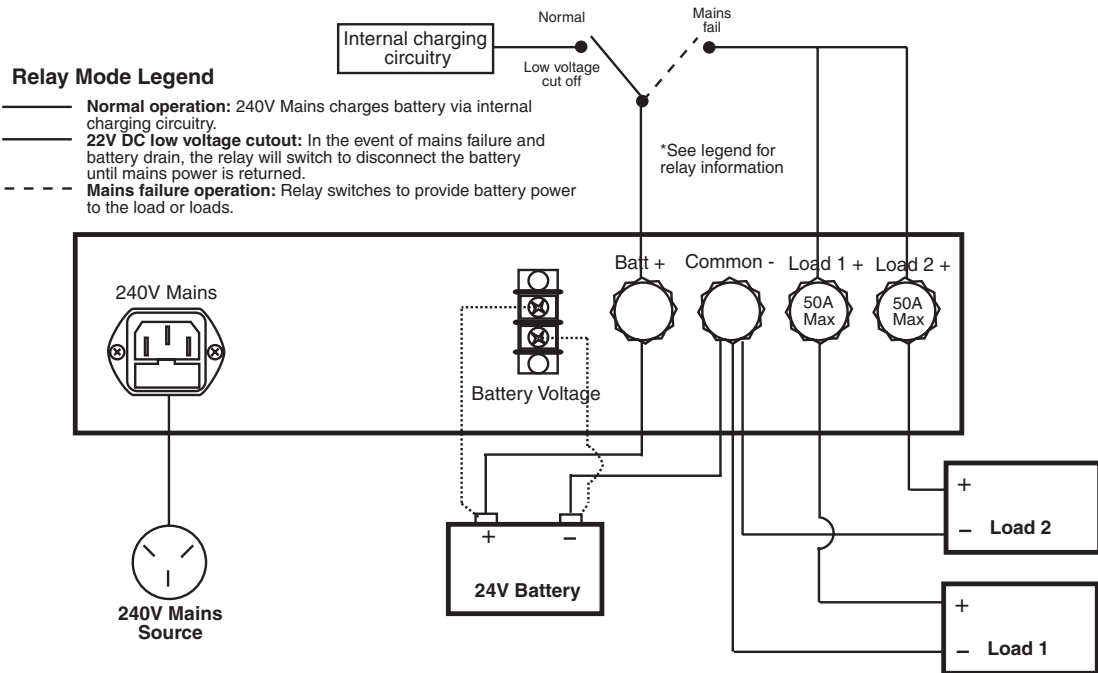
For repair contact
 Altronics for your nearest
 Service Centre :

Altronic Distributors Pty. Ltd.
Perth W.A. 6000

Phone: (08) 9428 2199

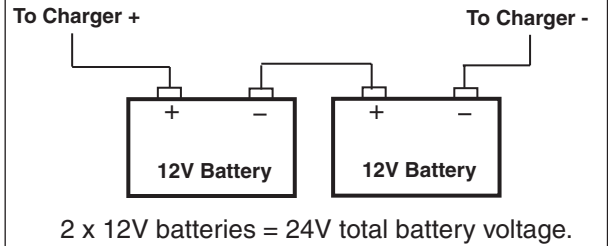
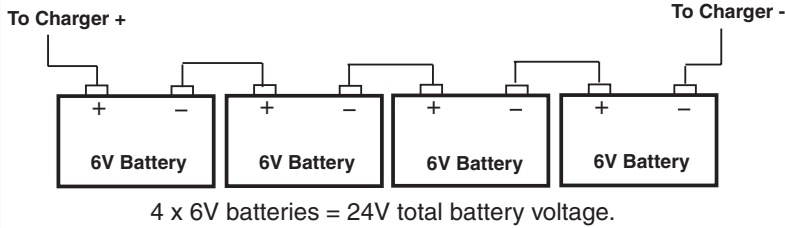
Fax: (08) 9428 2198

Battery and Load Circuit Configuration



Connecting batteries in series

It is common practice to connect 6V or 12V batteries in series to create a 24V battery source.



Equalising batteries

Connect in parallel overnight (10-12 hours minimum) prior to connecting them to the charger. Failure to do this can cause a severe imbalance in the charging of the batteries causing permanent damage.

