

# **Operating Manual**

L 1045 Voltage/Current Wall Plate & Shunt Box





A wallplate designed for installation in caravans, RVs and off-grid remote power installs.

Designed to suit 12V battery systems only, it displays the voltage and current draw of the connected batteries and is ideal for monitoring the output of a portable PV solar power system.

NOTE: A positive current reading signifies power flowing into the batteries while a negative current reading signifies current being drawn from the batteries.

Included with the wallplate is a shunt box (measuring 107W x 118H x 65Dmm) which connects directly between the batteries and the load. The internal shunt is rated at 100 amps maximum current and the maximum input voltage is 16V DC.

Fig 1 illustrates a typical install. The batteries are connected to the shunt box "To Battery" terminals and the load is connected to the "To Load" terminals. All connections are made with 10mm ring lugs (such as Altronics H 1765) and heavy duty cable rated at 100 amps maximum, so the Altronics W 8020 and W 8021 power cables would be suitable if the full 100 amps is required. Altronics recommends using a "Battery Isolator Switch" between the battery and the shunt box and a "Circuit Breaker" between the load and the shunt box. The Altronics S 2690, S 2695, S 5890 or S 5878 would be suitable. There are four connections to be made between the shunt box and the wall plate. These must be connected as shown for the displays to read correctly. DO NOT connect the +12V and Batt Neg terminals of the wall plate directly to the batteries as this will result in inaccurate voltage readings. These cables must be at least 1 amp rated.

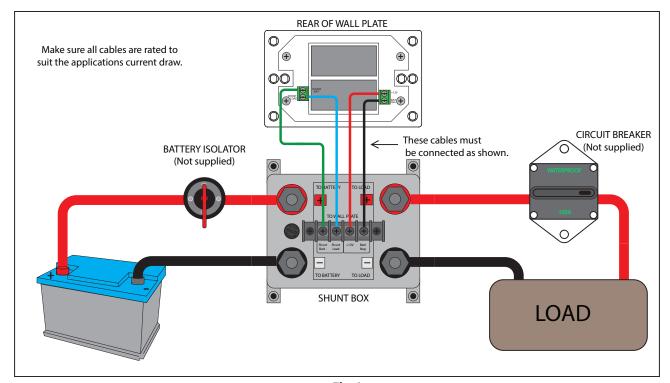


Fig 1

# **ACCESSORIES**

Shown below are just some of the Altronics products range which are available to suit the caravan, RV and solar market. Checkout the Altronics catalogue or website for more related products.

# L 1036 Antenna & Car Accessory Socket Wallplate

Includes back to back F connector and weather resistant car accessory DC socket.



#### L 1037 Dual Car Accessory Socket Wallplate

Dual 12V DC connectors with protective dust caps. Ideal for use in 4WD's, Caravans and RV's. Rear has 6.3mm spade connectors.



# L 1041 Merit Socket & Car Accessory Wallplate

Dual 12V DC merit connector and car accessory socket with protective dust caps. Ideal for use in 4WD's, Caravans and RV's. Rear has 6.3mm spade connectors.



#### L 1042 USB and Merit Socket Wallplate

Includes a single water resistant merit socket and a USB 2.1amp charging socket.



# L 1043 USB and Car Accessory Socket Wallplate

Includes a single water resistant car accessory socket and a USB 2.1amp charging socket.



# S 2690 Battery Isolator Key Switch

Convenient switch used to isolate the batteries, comes with a removable key and is rated to 100 amps continuous current.



# S 2695 Rotary Dual Bank Battery Isolator Switch

Convenient switch used to isolate the battery banks. Switch selections are bank 1, bank 2, bank 1 & 2 and OFF. Rated at 100 amps continous current.



# S 5878 Panel Mount Waterproof Circuit Breaker

High current waterproof circuit breaker rated to IP67 with manual reset switch. Available in 50,100 and 150 amp models.



#### S 5890 Panel Mount Waterproof Circuit Breaker

High current waterproof circuit breaker rated to IP67 with manual reset switch. Available in 50,100 and 150 amp

models.



#### W 8000 Series High Current Installation Leads

Heavy duty link leads with bare ends for use with battery

banks.

Available in red and black. Length: 300mm

# W 8020 Series High Current Installation Leads

Heavy duty link leads fitted with lugs for use with battery banks. Available in red and black.

Length: 300mm & 3 metres Lugs: 6mm and 10mm

