



**WITH ALARM**

## **SINGLE BATTERY MONITOR**

### **12 Volt dc**

#### **Operating instructions**

The single battery monitor is designed to measure and indicate the terminal voltage of a single 12V lead-acid battery.

The monitor has been optimised for accurate, low power operation with the added benefit of over-charge and low-battery alarms. The audible alarm can be muted as well as the display shut-down.

#### INSTALLATION

The monitor is supplied with 3.5 metres of ripcord wire. For installation, mount the monitor in the desired location and route the cable to the battery to be measured.

Split the ripcord as required in order to make connections to the positive and negative terminals of the battery.

**It is recommended to install an in-line fuse (1-2 amp) on the positive wire. If this is done, allow enough cable for the in-line holder.**

Securely connect the RED and BLACK monitor wires to the battery.

Once connections are made, the monitor will be active, no further installation is required.

The single monitor has been optimised for low power consumption and can therefore be permanently connected to the battery.

#### OPERATION

The single battery monitor will display the measured voltage across the terminals of the connected battery.

The display is divided into 3 areas: Green(charge), Yellow(normal operating range), Red(battery low)

Note that a fully charged battery may have a terminal voltage of 12.6V or above. This voltage is displayed on the monitor in the yellow section (normal). Only voltages which may be considered charging voltages are displayed in the Green section.

The Green section of the display allows the user to identify the vehicles charging voltage and possibly a potential alternator failure or weakness.

When the application vehicle is running, the monitor display should show between 3 and 4 Green lights. If only 1 or 2 lights are displayed it is possible that the vehicle alternator is damaged or may need to be adjusted.

#### ERROR indication

The single battery monitor has overcharge and low-battery warnings built-in.

If the battery terminal voltage drops below 11.4V, the monitor will flash the bottom RED light in the "LOW" section and activate the audible alarm. At this voltage, the battery may be considered flat and should be recharged as soon as possible.

Similarly, if battery voltage rises above 14.65V (when charging) it is possible that the battery will "boil" and release dangerous gasses. If this charge voltage is sustained, the battery may lose electrolyte and be permanently damaged.

When an overcharge condition is encountered, the monitor will flash all 4 Green lights and an audible alarm will be activated

#### Muting the alarm

It is possible to mute the audible alarm for both over-charge and low-voltage warnings.

To change the alarm on/off setting, press and hold SET for 3 seconds. When the alarm is deactivated, the ALARM light will not be displayed. To reactivate the alarm, use the same procedure.

#### Changing the display

If the monitor display is distracting, it can be switched off. To change the display on/off setting press and hold the SET button for 5 seconds, the display will change.

NOTE - If the display has been turned off and a low-voltage or overcharge condition is detected, the display will re-initialise automatically. The alarm on/off setting will not be changed.

**Undesirable operation of the Single Monitor may occur if coupled with high-voltage pulse chargers and/or electronic anti-corrosion devices.**