

# BATTERY MONITOR

## LOW VOLTAGE DISCHARGE BATTERY MONITOR

### BATTERY MONITOR

This is a very easy to fit unit that monitors the vehicle's electrics and alerts the driver via an audible/visual device that the battery is becoming exhausted or that the charging system is becoming faulty. This unit is solid with separate relay/solenoid to suit the application.

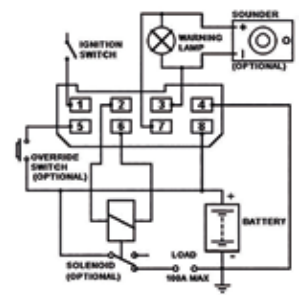
#### Operation

The warning lamp flashes, the buzzer sounds and the load is disconnected when the battery voltage reaches 11,5V (12V system) / 23,5V (24 volt system).

When the battery is replenished and the voltage rises to 13,5V (12V system) / 25,5V (24V system) the load is reconnected, the lamp ceases flashing and the buzzer ceases sounding.

When the override switch is operated, the load is connected. However the lamp continues to flash and the buzzer continues to sound.

When the ignition is switched on the unit disabled.



Only with signal: no cut-off relay.

Reference	BAT/48126	BAT/48127
Working voltage	12V	24V
Dimensions	94 mm x 61 mm x 36 mm	
Weight	70g	
Fixing	1 point fixing (5mm hole)	
Accessories available	E226 warning lamp (optional)	E225 warning lamp (optional)
	E024 buzzer (280-12V) (optional)	E025 buzzer (280-12V) (optional)
	E691 8 way conector C/W pins	
	Relay/control solenoid to suit	

### BATTERY MONITOR WITH WARNING

This unit was designed to monitor the voltage of a battery and connect or disconnect a load of up to 200A.

#### Operation

When the battery voltage is above the switch "ON" voltage 13V (12V system) + 26V (24V system) the load is connected to the battery.

When the battery voltage drops below the switch "OFF" voltage 12,5V (12V system) / 23,5V (24V system) the "LOW BATTERY" warning light emitting diode (led) lights for 2 minutes, then after a short delay the load is disconnected. The unit then switches to low power mode until the battery is recharged and the voltage rises above the switch "ON" voltage, then the load is reconnected to the battery.

An override pin allows the load to be connected for emergency use only.

To reduce power consumption to a minimum (10mA "ON", < 1mA "OFF") a latching contactor is used.

When the contactor is "ON" the coil is pulsed to ensure it remains on.

When the contactor is "OFF" the coil is pulsed for approx. 2 minutes before the unit goes to low power mode.

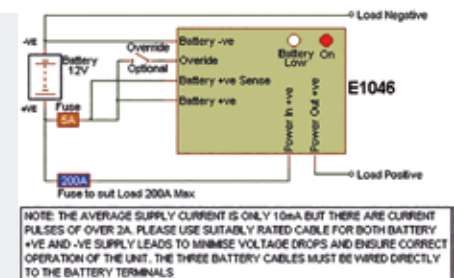
The switch "ON" and switch "OFF" voltages are factory set but can be adjusted by the customer.

There are 2 light emitting diode (led) indicators:

Red "ON" is used as a multipurpose indicator:

1. Led on - load is connected (there could be a delay after the led lights before the load is connected)
2. Led off - the unit is in low power mode
3. Led flashes each time the contactor coil is pulsed
4. Aids setting of the switch "On" and "Off" voltages

White "LOW BATTERY" lights for 2 minutes before the battery is disconnected.



NOTE: THE AVERAGE SUPPLY CURRENT IS ONLY 10mA BUT THERE ARE CURRENT PULSES OF OVER 2A. PLEASE USE SUITABLY RATED CABLE FOR BOTH BATTERY +/- AND +/- SUPPLY LEADS TO MINIMISE VOLTAGE DROPS AND ENSURE CORRECT OPERATION OF THE UNIT. THE THREE BATTERY CABLES MUST BE WIRED DIRECTLY TO THE BATTERY TERMINALS

With cut-off relay and overrule button.

Reference	BAT/48337	BAT/48338
Description	12V battery management unit with warning	24V battery management unit with warning
Supply voltage	10V to 15V	20V to 30V
Supply current contactor "ON"	10mA Typical	
Supply current contactor "OFF"	< 1mA	
Contactor load current	200A	
Switch "ON" voltage adjustment range	12,5V to 13,6V	24V to 26,5V
Switch "OFF" voltage hysteresis range	0,2V to 2,5V	
Factory settings switch "ON" voltage	13V	26V
Factory settings switch "OFF" voltage	12,5V	23,5
Override input resistance	> 150kΩ	
Override input voltage active	> 11V	> 20V
Disconnect warning	white led / sounder (optional)	
Case style	water proof enclosure	
Dimensions	228 x 140 x 90 mm	
Weight	1,2 kg	
Fixing	4 x 8 mm holes, 210 x 68 mm pitch	
Case material	grey ABS	
Bracket material	aluminium alloy	