BATTERY GUARD INSTALLATION GUIDE
EN-LBC1224-10

READ THE OWNERS MANUAL / INSTALLATION GUIDE CAREFULLY BEFORE MOUNTING THE BATTERY GUARD

Owners Manual

The new Battery Guard EN-LBC1224-10 (hereafter called BG) is an intelligent, microprocessor controlled, Battery Guard. The unit has four faston connections, 2 Input and 2 Output connections, to guarantee low losses. A yellow LED shows the status (ON/OFF). In program mode it shows the program position. The BG has an 'Automatic Boardsystem Detection'; the BG detects which battery voltage (12 or 24V) is used. This does not need to be programmed manually. There is a choice out of 10 on/off threshold voltage programs, for both 12V and 24V, which can be programmed in a simple way. The BG uses very little current. During under voltage the BG uses just 2mA or less.

Installation

The installation of the BG has to be done by qualified personnel. Mount the BG in a cool dry spot. Working on a battery voltage is not without danger. Use wires of sufficient diameter and connectors of good quality. All connections have to be done via a fuse of the right value.

Attention! Live wires should never make contact with the case of the BG or the vehicle. Wrong connection could damage the electronic circuit. Do not connect the equipment until the BG is fully programmed. Use a wire of at least 1.5mm2 for the connection.

Programming

To start the program mode the button should be pushed until the LED will start flashing. The number of flashes represents the program position it is in (see table below). As soon as the desired program position is reached the push button should be released. To confirm the programmed position the LED will repeat the number of flashes. If it is not the right position, then the previous steps need to be repeated. The programmed positions will be remembered, even if the battery connection has been removed. After completing the programming the equipment can be connected.

Attention! First remove the battery connection, connect the equipment to the Output + and then reconnect the battery.

Note: The default program position is position 1. See program table.

The EN-LBC1224-10 will also protect your equipment for overvoltage and will shut off at 16V or 32V.

Wire Diameter

Use at least the 1.5mm2 wire dimensions for the connection. Place the unit as close as possible to the battery.

Specifications

Autodetect 12 or 24V Battery Voltage
- 8-20V -> 12V mode
- 20-35V -> 24V mode

10 programmable voltage thresholds

Overvoltage shut down
- > 16V (12V mode)
- >32V (24V mode)

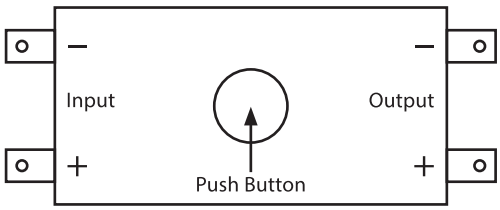
Current in use: ~ 4mA

Current in OFF position or under-or-over voltage position: ~ 2mA

Maximum Load (shut down current): ~ 10A (15A)

Peak current: ~ 75A (at 12V)

Voltage tolerance: ~ 2%



Programming Table

12 Volt Mode	Undervoltage Threshold	Uppervoltage Threshold
Position 1	10.5 V	12 V
Position 2	10 V	11.5 V
Position 3	9.5 V	11.5 V
Position 4	11.25 V	13.25 V
Position 5	11.5 V	13.8 V
Position 6	10.5 V	12.8 V
Position 7	11.5 V	12.8 V
Position 8	11.8 V	12.8 V
Position 9	12 V	13 V
Position 10	10 V	13.2 V

Position 1 = Default Position

24 Volt Mode	Undervoltage Threshold	Uppervoltage Threshold
Position 1	21 V	24 V
Position 2	20 V	23 V
Position 3	19 V	23 V
Position 4	22.5 V	26.5 V
Position 5	23 V	27.6 V
Position 6	21 V	25.6 V
Position 7	23 V	25.6 V
Position 8	23.6 V	25.6 V
Position 9	24 V	26 V
Position 10	20 V	26.4 V

Position 1 = Default Position

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