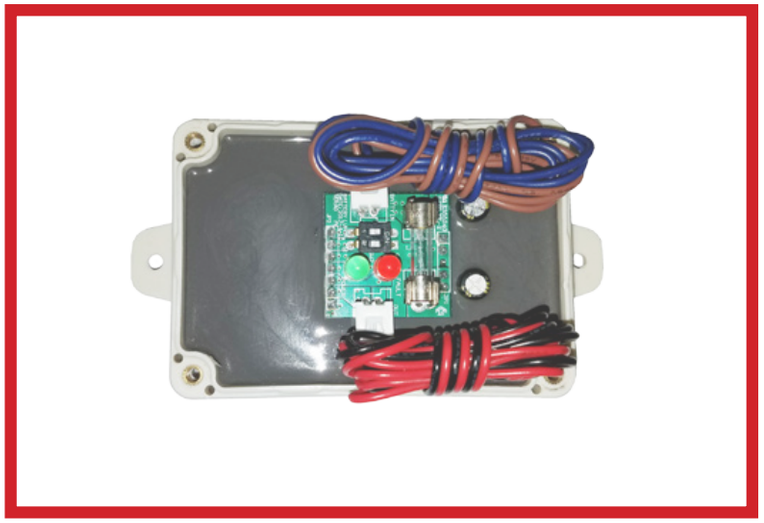
THOR
MANUFACTURING

Instruction Manual
and Warranty Information

PROFESSIONAL GRADE LOW VOLTAGE DISCONNECT



TH-LVD

SPECIFICATIONS

- Input Volts: 12V or 24V
- 12 & 24 Volt applications
- 30 second Delay Timer
- Over-current shut off
- Over voltage protection
- Durable case
- Waterproof construction
- 4-wire terminal configuration
- Dimensions: 4.75” x 2.25” x 1.25”
- Compact size with mounting bracket
- Electronic, solid state design (means no moving parts to wear-out)
- Designed to withstand harsh automotive environments

THOR Manufacturing’s, Low Voltage Disconnect switch is a solid state electronic module designed to protect batteries from excessive discharge. Think of them much like a surge protector, but instead of terminating connection when voltage spikes, they disconnect when voltage drops too low, preventing damage to the batteries and load.

The LVD when used with a battery isolator will automatically disconnect and reconnect loads based on battery voltage. No operator action required. This prolongs battery life by preventing damage due to excessive discharge.

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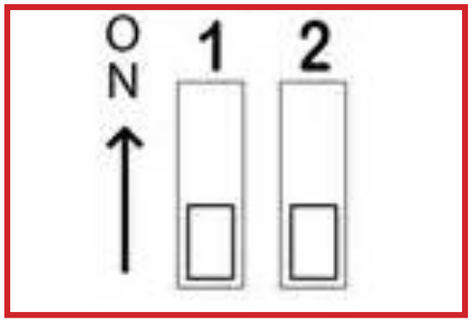
Connect to Ignition (+Red –Black)

Connect to Isolator (No Polarity)



Note: To activate, push buttons UP. This diagram shows all segments in the OFF position.

The LVD is compact and designed to fit almost anywhere. Its waterproof construction is ideal for all 12V mobile or base station type battery systems. User selectable settings for low voltage disconnect of: 10.5,11.0,11.5, 12.0, VDC. The LVD will automatically reconnect batteries when the voltage reaches 12.2V or higher.

Installation
The LVD should be installed in between the 12V battery and a THOR Battery isolator. Typically, the load is a THOR power inverter, two-way mobile radio, mobile computer and other vehicle DC electronics.

Standard installation involves installing the LVD in between the vehicles ignition and the battery isolator. When installing the LVD, you need to connect (positive and negative DC power IN & positive and negative DC power OUT).

User selectable LVD settings can be adjusted to one of the following low voltage disconnect settings (10.5, 11.0, 11.5, 12.0 VDC).

Over Voltage Protection:
Over Voltage Protection is included in the LVD unit. Should the LVD ever receive a voltage of 16.5 volts or higher, the unit will automatically shut off protecting the electronics connected on the load side of your unit. Once the voltage drops to 15.0 volts or less the LVD will turn back ON.

Disconnect Voltage Adjustment Table

Low Voltage Disconnect		Switch Location	
12V	24V	Switch 1	Switch 2
10.5 Vdc	21 Vdc	Off	Off
11 Vdc	22 Vdc	Off	On
11.5 Vdc	23 Vdc	On	On
12 Vdc	24 Vdc	On	Off
12 Volt Recovery Voltage		12.2 Vdc	
24 Volt Recovery Voltage		24.4 Vdc