



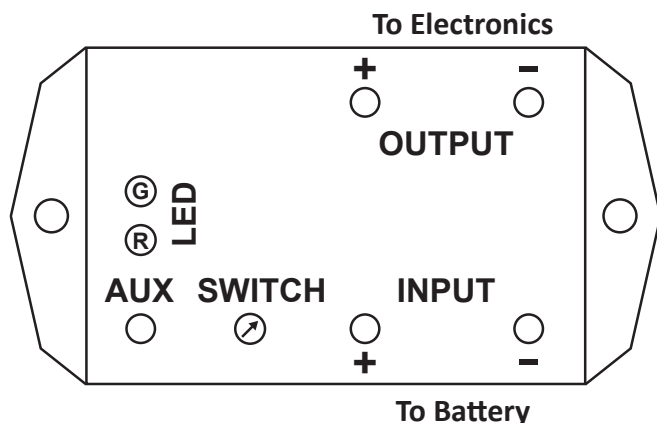
Selectable Low Voltage Disconnect

Operation

The voltage sensing LVD-35 is an automatic switch designed for 12 volt vehicle electrical systems with negative ground. The model LVD-35 is rated at 35 amps continuous duty. Using the 10 position rotary switch, you can select a low voltage disconnect value of 10.6V to 12.2V. The unit will automatically shut off the DC power to the load after the low voltage level is reached. A low battery disconnect delay of 20 seconds is built in so that the LVD-35 will not turn off during engine starts and momentary current dips.

Two built-in LED lights show the LVD-35 current status. When the voltage to the input is above the LVD users setting, a solid GREEN LED light means that power is passing through the unit as normal. When the voltage reaches the LVD level, a slow FLASHING GREEN LED light is displayed but power continues to flow through for the 20 second delay period. A red flashing LED light will display when the low voltage battery level has been reached and power is now disconnected to output load terminals.

LVD-35 also includes an Over Voltage Protection System which will automatically shut off your electronics if the voltage reaches over 16.5 volts. A solid RED LED light will display until the over voltage condition is corrected.



Hook-up & Installation

The LVD-35 should be installed in between the vehicle battery and the DC load. Typically, the load is a two-way mobile radio, mobile computer and other vehicle DC electronics. Standard installation involves installing the LVD-35 in between the battery and the DC feed side of the electronics using the supplied ring terminals. When installing the LVD-35, you need to connect (positive and negative DC power IN & positive and negative DC power OUT). No ignition connection is required. This model can be installed inside of the vehicle or engine compartment as these units are waterproof.

CAUTION: Make sure you connect the + / – leads to the correct polarity on both input and output. Make sure you also use the supplied star washers and do not over tighten the ring terminal screws.

Rotary Switch Settings

Set the Rotary Selector to the desired setting.

Use a small flat screwdriver to change the rotary switch position.

Detailed settings are also located on the side of your unit.

0:	10.6 LVD
1:	10.8 LVD
2:	11.0 LVD
3:	11.2 LVD
4:	11.4 LVD
5:	11.6 LVD
6:	11.8 LVD
7:	12.0 LVD
8:	12.1 LVD
9:	12.2 LVD

Emergency Override Switch

An extra ring terminal position (AUX) is located next to the LED lights. By momentary applying 12V to this terminal (with a user supplied switch) it will automatically override and energize the LVD output for an additional 15 minutes of use for emergency operation.

**Specifications**

- **Amperage Rating:** 35 Amps max @ 12V continuous duty
- **Low Standby Current Draw:** 5mA in standby mode, 100 mA normal operation mode
- **Reconnect Voltage:** 12.7 VDC
- **Compact Size:** 3½" L x 2" W x 1½" H
- **Weight:** 0.5 lbs. (229 grams)
- **Construction:** Potted water proof design. Can be mounted inside an engine compartment.
- **LED Status Indicators:**
 - Solid Green LED light = power passing through normally
 - Flashing Green LED light = Selected LVD level has been reached-waiting for disconnect delay to turn OFF.
 - Slow Flashing Red LED light = LVD level reached and output to load is OFF
 - Solid Red LED light = Overvoltage Condition
- **Connections:** +/- Power IN from Battery. +Power OUT to electronics, negative is optional on OUT (no ignition wire required). Emergency Override Switch.

Troubleshooting*Unit will not turn ON:*

- Check for reverse polarity on Input and Output connections
- Check that Battery power is connected to the Input connection

LED Lights Not Working:

- Check (-) Negative Input connection for good ground to battery
- Check Input (+) positive connection

Red LED Light Solid ON:

- Input power is over 16.5V, reduce input voltage to 15V or less, unit will auto-reset

Warranty:

Powerwerx support policy is simple; we want you to be happy! If you have a problem, please feel free to contact us and we will do our best to get you up and running as soon as possible.

The Powerwerx LVD-35 has a one-year limited warranty. We will repair or replace your LVD-35 if you encounter any problems within one year of purchase. We reserve the right to charge a reasonable fee for repairing units with user-inflicted damage. It is your responsibility to ship the defective unit back to Powerwerx. We will pay for shipping the replacement to you within the warranty period.

Also Look at our Other Models:**ITS-12 – DC Timer/LVD – Battery Guard**

- Heavy Duty design rated at 35A continuous duty
- Selectable low voltage disconnect (11.4 or 11.0 VDC)
- User selectable timer positions (2, 15, 30 minutes, 1, 2, 3, 4, 5, 8, 12 hours)
- Auto Reconnects when Voltage returns to safe level

APS-12 – DC Automatic Power Switch/Timer

- No ignition connection required: Automatic On/Off Operation
- Ideal for all 2-way radios, computers and DC electronics – 25A current rating
- User selectable timer positions (2, 15, 30 minutes, 1, 2, 3, 4, 5, 8, 12 hours)

More information at: www.powerwerx.com