Specifications

Features
- Very low power consumption
- Protection against load short-circuit & overload
- Reliable -100% solid state
- No radio interference
- Encapsulated in epoxy potting
- 5 year warranty
- Manufactured with solar power
- Designed and built in North America

Model L15C

Electrical Specifications
Voltage configurations 10V to 50V avail.
Max. input voltage 60 volts
Max. current (at 50 °C) 15 amps DC
Power Consumption
Standby - 0.6 mA, ON - 2.5 mA
16 gauge wire leads
Adjustable set points: 11.2 to 12.4V Off, On approx. 1 volt above Off setpoint. (twice as high for 24V)
60 seconds at or beyond setpoint
(other voltage setpoints and time delays available.)

General Specifications
Temperature range: –40° to +50°C (-40° to +160°F)
Case: ABS, sealed in epoxy
Weight: 100 grams, 3.5 oz.
Size (H x W x D): 5.1 x 5.1 x 3.8 cm (2 x 2 x 1.5 ")
Mounting: wall mountable

Features & Options
Built in load snubbing diode

Factory Options: Custom wire length, voltage setpoints and time delays.

Warranty

Full 5-Year Warranty
Warranted in entirety, except abuse, within a period of 5 years following the date of purchase. In the event a defect develops during the warranty period, return the unit to eco energy, postage paid. Eco energy will repair or replace the product with a new or reconditioned unit of equivalent quality.

Eco Energy
Since 1992, Eco Energy has been in the business of designing and manufacturing solar charge controllers, battery chargers, low voltage disconnects, current boosters DC converters and battery voltage monitors.

Eco Energy controls are currently used in power systems for remote homes and cottages, recreational vehicles, boats, telecommunication and navigational systems, natural gas pipeline operations and other solar battery charging applications around the world.

Eco Energy is powered by solar power.

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Installation Guide

Low Voltage Disconnect L15C

15 Amp Battery Discharge Protection

eco energy

Advanced Control Solutions

Load Control 15 Amp
L15C

Normal Operation
The voltage switch protects your batteries from being excessively discharged. The input voltage is constantly monitored with an extremely efficient low power draw design.

When first connected if the input voltage is above the OFF setpoint the load will turn on. If the voltage is at or below the load off setpoint the load will stay off.

When the input voltage is at or 1 volt above the OFF setpoint for 60 seconds the load will turn on.

When the input voltage is at or below the OFF setpoint for 60 seconds the load is turned off to protect the battery from being discharged excessively.

If the switch is turned to the ON position the load will stay on regardless of the input voltage.

Use a 15 Amp fuse.

Wiring
- WARNING -
DO NOT REVERSE INPUT POLARITY
Reverse input polarity may damage the control

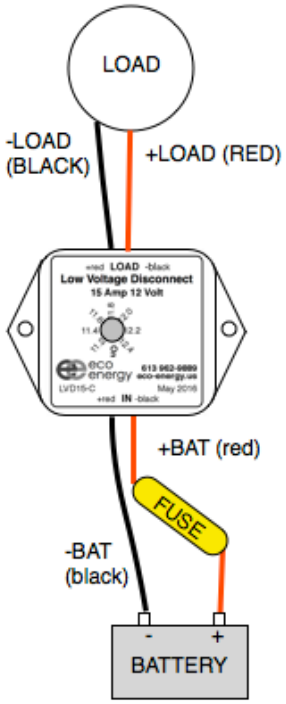
#16 AWG or larger wire must be used. The positive wires are Red. The negative wires are Black (both black wires are connected together inside the control). A relay can be installed directly on the load wires to increase the current or voltage capabilities.

Installation

Location
The controller needs to be in a cool location in order to function properly. It should not be in direct sunlight, or mounted in a hot location. The controller should be installed near the batteries, to ensure an accurate battery voltage measurement. The distance from the batteries or input power to the controller should not exceed 40 feet.

- WARNING -
DO NOT EXCEED A LOAD OF 15 AMPS
A Load > 15 Amps can damage the control

Wiring Diagram
Load Control



Operation

- WARNING -
MOTORS & COILS PRODUCE VOLTAGE SPIKES
A large voltage spike will damage the control

A motor, pump or other inductive load on the battery input to the control will briefly turn into a generator when turning off. This will cause a large negative voltage spike. A diode, or voltage snubber is required on the motor, pump or relay to prevent large voltage spikes into the control.

Fault Conditions
Loads such as DC motors, and incandecent lights can have large starting currents as much as 10 times the running current. A high current may trigger the overcurrent protection and turn off the load. To reset the control after a short circuit or overload, to turn off power to the input.