



# HELLROARING TECHNOLOGIES, INC.

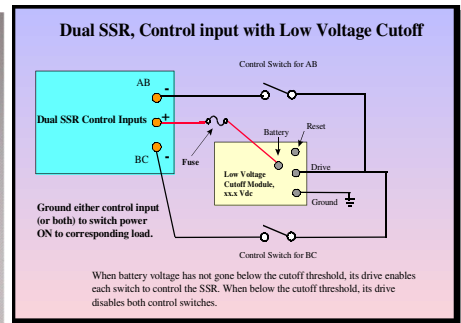
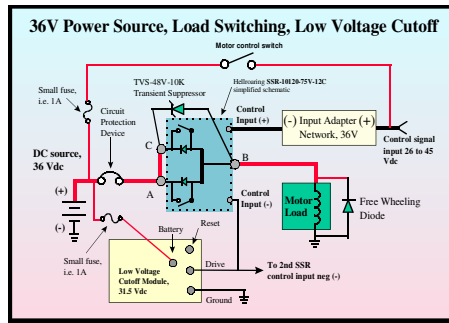
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## Low Voltage Cutoff Drive Module LVM-xxV



The Low Voltage Cutoff Drive Module provides for enabling the negative control input side of our opto-isolated SSR's when the control signal is powered by battery. It's purpose is two fold. One, it cuts off power to a load when the battery voltage goes below a minimum value in order to prevent the battery from continuing to discharge towards zero. Second, by cutting off power when the control voltage is insufficient, it helps protect the SSR from remaining ON in an inefficient state with low control voltage input..

The LVM-xxV has four terminals. 1) A power input terminal for monitoring the battery or control input voltage. 2) A Ground terminal for the voltage reference. 3) A Drive terminal on which the SSR (-) is driven to enable it. 4) A reset, or Override terminal to allow power to be reset under conditions where the voltage has not reached the automatic reset level but is still above the cutoff threshold. See the label for terminal designation. The Drive output terminal can drive up to 50 mA. So, with an SSR needing up to 20 mA of control current, the LVM unit can drive up to two SSR's.

### Specs:

Model	Cutoff Threshold	Automatic Reset
LVM-12V	< 10.5 Vdc	> 12.0 Vdc
LVM-24V	< 21.0 Vdc	> 24.0 Vdc
LVM-36V	< 31.5 Vdc	> 36.0 Vdc

Should you have a specific application or question not covered here, feel free to send an e-mail technical support request. Include as much detail as practical regarding your application. Send to: [sales18@hellroaring.com](mailto:sales18@hellroaring.com). Or check our website for the current e-mail address.

Note: Specifications are subject to change without notice.

# Hellroaring SSR-HDVR-12P-TTLC Instructions

## **Standard Terms and Conditions of Sale**

The sale of Hellroaring Technologies, inc. products shall be governed by the laws of the state of Montana. All sales shall transfer title within the state of Montana via common carrier. Hellroaring Technologies, inc. will not collect sales taxes for any other state. Should the unlikely event, a cause of action arises, buyer agrees that such action shall be held and governed in the state of Montana. The buyer recognizes that there exists inherent risks associated with batteries and installation & operation of battery devices. It is understood that any technical information published by Hellroaring Technologies, inc. including any installation instructions is of a general nature only and it is the user's responsibility to determine the proper application, installation, and operation of products. The buyer assumes all risk and agrees to indemnify Hellroaring Technologies, inc. against any and all causes for injury or damage to third parties that arises from use of such product.

## **Return Policy**

Should any single unit product sold by Hellroaring Technologies, inc. not meet or exceed your expectations, you may, within 30 days of our shipment to you, return such product for a full refund (credit on credit card orders) less a 15% restock charge, provided that:

- a) You obtain an RMA number and provide your shipping address by calling customer service at 406 883-3801 or send an RMA request via e-mail (include the model #, serial number, and your phone number), and
- b) The product, including all accessories, is returned in original and re-saleable condition, and
- c) Units are Shipped (prepaid and insured for damage in transit) in the original or equivalent packaging, and
- d) (optional) You include a simple note as to the reason for dissatisfaction. (This can help us improve our products)

For quantity orders, sales are final and our standard limited warranty applies.

## **Limited Warranty**

This Limited Warranty is extended to the original purchaser. Hellroaring Technologies, inc. warrants that our SSR products will be free from defects in materials and workmanship upon delivery. All claims for defects must be made within 30 days of delivery. The sole and exclusive remedy for failure of the product shall be for us, at our option, to repair or replace the product, to whatever extent we deem necessary to restore the product to proper operating condition. We may make replacements with new or functionally equivalent products of equal value. Should Hellroaring Technologies, inc. be unable to repair or replace the product within a reasonable time, we reserve the right, at our option, to issue a refund or credit of the purchase price in lieu of repair or replacement. We reserve the right to assess a \$15 fee for units returned and proven not to be defective. To obtain warranty service you must:

- 1) Call Customer Service at 406-883-3801 for a Return Material Authorization (RMA) number and shipping address. Or send an RMA request via e-mail (include the model #, serial number, and your phone number and your return shipping address)
- 2) Return the product in the original or equivalent packaging (Shipping prepaid and insured for damage in transit), together with the RMA number AND a description of the problem. Include your return shipping address and your phone number.

Do not attempt to disassemble, or otherwise tamper with any of the 4 nuts on the bottom of each unit. Doing so will void this limited warranty. For quantity orders, extended warranty for switching applications may be available on an application specific basis at slight extra cost.

## **Exclusions**

This Limited Warranty is made expressly in lieu of and to the exclusion of any and all warranties, express or implied, oral or written, including, without limitation, any and all implied warranties of merchantability or fitness for a particular purpose, and all such other warranties are expressly disclaimed. This Limited Warranty shall not be applicable to failures of the product that result from accident, abuse, misapplication or alteration, improper installation or maintenance, unauthorized repair attempts, operation or attempts to operate it beyond its mechanical, chemical, thermal, or electrical capacity intentionally or otherwise, and we assume no liability as a consequence of such events under the terms of this warranty. Hellroaring Technologies, inc. shall not be liable for any special, indirect, incidental, consequential, exemplary, or punitive damages for claims in any claim, action, suit or proceeding arising out of the purchase, use or performance of the product, and whether or not it has been advised of the possibility of such damages. The foregoing allocation of risk is reflected in the price of the product. Nor shall there be any liability thereunder for claims of labor, loss, profit, goodwill, repairs or other expenses incidental to the repair or replacement of such product.

**Hellroaring Technologies, inc.**