VCM-12-SPC67

Vehicle Control Module
Low Voltage Alarm

VCM-12-SPC67
Low Battery Alarm

InPower's VCM Series *Vehicle Control Modules* are a set of "tools" for the designers of vehicle electrical control systems. These solid state modules are designed to withstand the electrical environments typically found on trucks, emergency vehicles, buses, coaches and specialty vehicles, and are available in a variety of configurations and functions. VCM modules can also be customized to meet your application's specific requirements. For example, the turn on and turn off voltage set points can be changed, as well as the timer value. The module can also be programmed to operate on a 24 volt electrical system. *Contact InPower for details on the many variations that are available.*

Key Features

- ***Alarm Out (Load) On:***
  When Battery <11.8 Volts for 120 Seconds
- ***Alarm Out (Load) Off:***
  When Battery >12.8 Volts
- ***100% Solid State Construction***
- ***12 Volt 20 Amp Power Output for Alarm***
- ***Over Current Shutdown Protection***
- ***Small Size and Low Profile***
- ***Durable Metal Case***

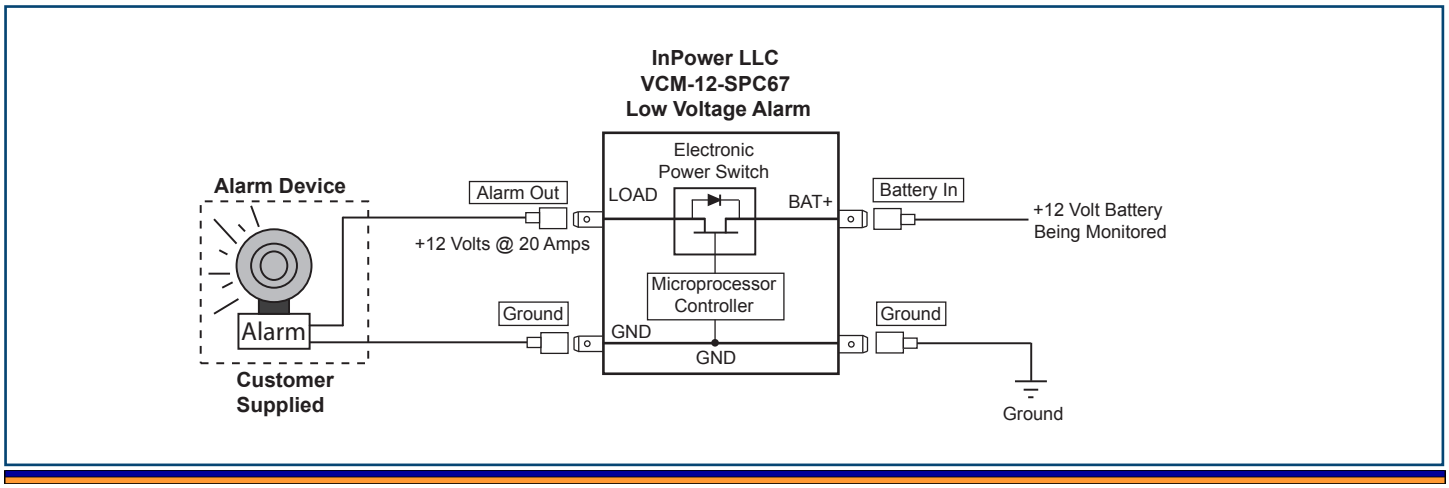
Technical Description

InPower's VCM-12-SPC67 Low Battery Alarm monitors battery voltage for when the battery voltage reaches a low state of charge (<11.8V). At this point it will turn on a switch that supplies the Voltage (BAT+) to the LOAD terminal at up to 20 Amps maximum.

It is packaged in a small, low profile sealed metal case that is easy to install in confined electrical compartments. The module contains four ¼ inch male push-on terminals, two for battery + and ground, and two for alarm output and ground.

The low battery alarm module contains a solid state output circuit rated at +12 volts @ 20 amps. The output (LOAD) provides over current fault shutdown protection. The module monitors the battery voltage, turning its output on when the battery voltage drops below 11.8 volts for 120 seconds. The output (LOAD) turns off when the battery voltage rises above 12.8 volts.

System Diagram



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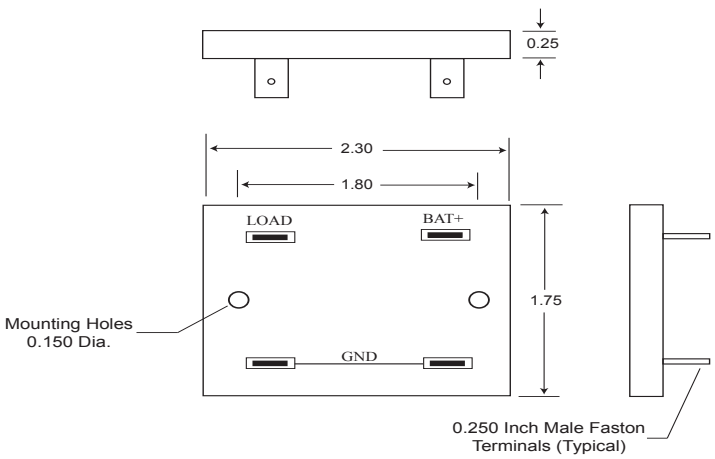
Specifications

Power Input (**BAT+**):	+8 to +16 Vdc
Module Output:	+12 volts @ 20 amps, with over current fault shutdown.
Output Switch Operation:	
Output (**LOAD**) On:	BAT+ <11.8 volts for >120 seconds
Output (**LOAD**) Off:	BAT+ >12.8 volts
Mechanical	
Dimensions:	2.30 x 1.75 x 0.57 inches
Case Material:	Anodized aluminum
Operating Temperature:	-40º C to +85º C

Installation

1. We recommend that the module be installed by a person trained and skilled in vehicle electrical systems. The installation should comply with SAE (Society of Automotive Engineers) and the vehicle manufacturer's electrical wiring procedures (e.g., Ford General motors, etc.).
2. The module should be installed inside the vehicle in a dry and protected environment.
3. For optimum performance the module should be mounted to a flat metal surface.
4. Do not connect loads to the outputs that will exceed the output current rating of the module.
5. The power input (BAT+ terminal) must be wired to a fused +12 volt battery power source.
6. Wiring must be of the proper gauge and type to handle the intended load currents.
7. Use ¼ inch female blade terminals to connect wires to the terminals on the module. Be sure to properly crimp these terminals. Do not solder wires directly the module terminals.
8. If you are experiencing problems with the installation or need troubleshooting assistance, contact InPower Customer Service at 740-548-0965.

Mechanical Drawing



All dimensions in inches.
Do not scale.