

# Voltage Controller MM-VC4

For Most 2011 & later Ford Application Alternator  
with 6G 3-Pin Harness Connection



**DO NOT RETURN THIS PRODUCT!**

First contact technical support at: **1 (888) MECHMAN**

## Application notes:



Works only with  
alternators with  
this 3-pin harness  
connection on  
Ford vehicles

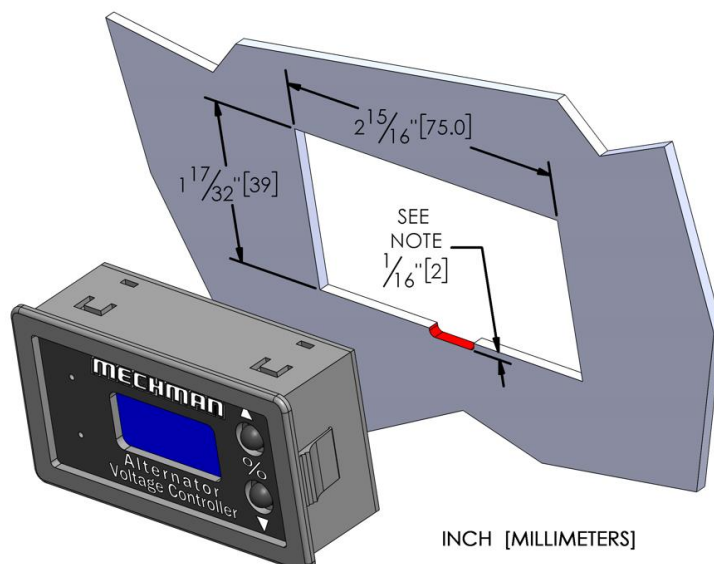


## General

- **Eye protection must be worn when working on batteries.**
- Remove all jewelry before working on the electrical system.
- Always refer to a service manual for specifics about your vehicle's alternator installation and electrical system.
- The MM-VC4 controller is not waterproof and should be mounted inside the passenger compartment away from any heat source.
- One MM-VC4 may control up to four (2) alternators. Custom wiring for this application is required.

## Installation steps:

1. Turn off the engine and let it fully cool.
2. Disconnect the negative cable from the battery/batteries.
3. Mount the controller (optional)



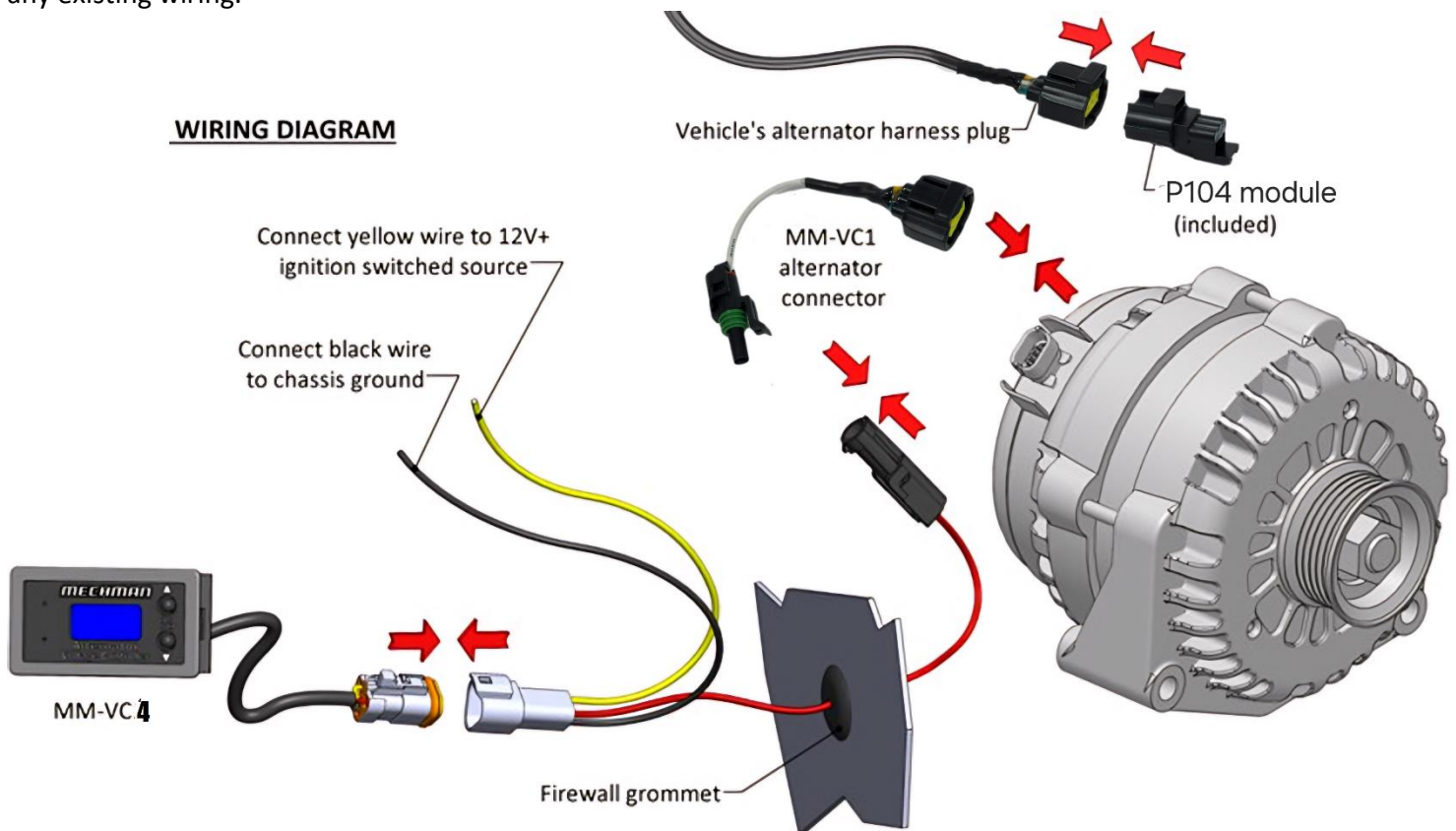
## Notes:

- Opening should be cut close to the dimensions shown. Use the controller to test fit and adjust as needed.
- Area shown in red may also need to be cut to clear wiring harness. Do not cut too deep or opening will show outside controller bezel.

#### 4. Wire controller as shown below.

**Note:** Be sure the P104 module is installed, or a charge alert will show on the instrument cluster.

**Firewall grommet:** Wires passing through the firewall must be protected by a grommet. Either a hole can be drilled, and a grommet installed, or the wire can be routed through an existing grommet. Take care not to damage any existing wiring.



5. Secure all new wiring with nylon ties away from heat sources and abrasions.

6. Inspect all wiring and reconnect the battery negative cable.

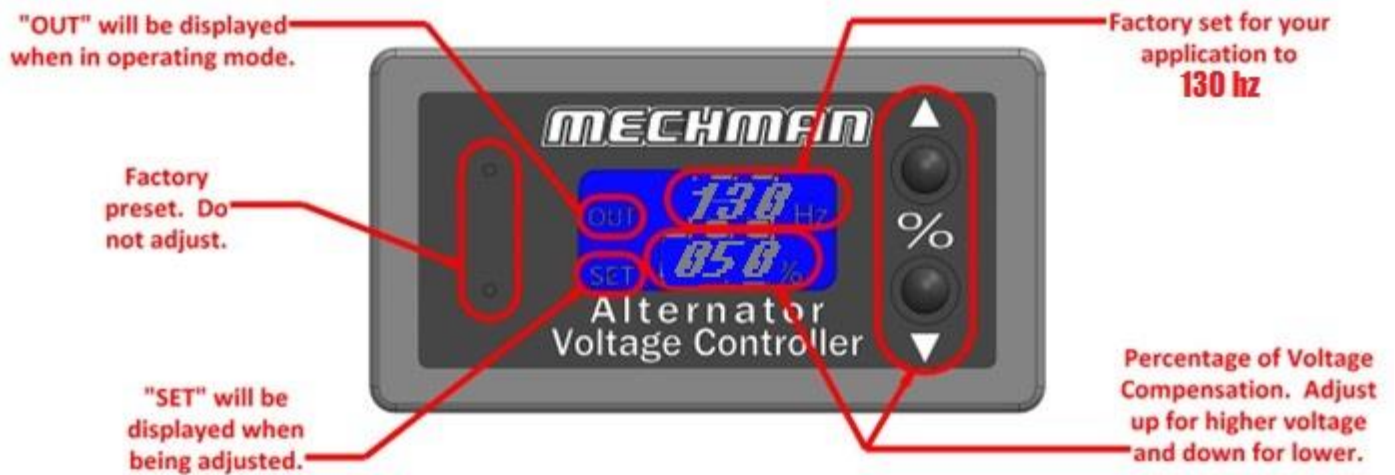
#### Operating instructions:

##### **Before making alternator voltage adjustments:**

- Contact your battery manufacturer for the optimal charge voltage. Different battery types perform better and have longer life when charged to their optimal voltage. Note, too high voltages can damage AGM and other sensitive batteries.
- All batteries connected to the alternator must be fully charged before adjustment.
- All nonessential electrical loads should be turned off during voltage adjustment.
- A quality multi-meter or voltage gauge should be referenced when adjusting the alternators voltage goal. The system voltage is best taken with the ground probe on a bare metal location on the alternator case and the positive probe on the alternator charge post. This will show the highest voltage in the system.

**Note:** It is recommended the voltage controller NOT be used to compensate for system voltage drops. Voltage drops should be corrected at the point of resistance, not by increasing alternator voltage.

### Controller display details:



### Making Adjustments:

**Warning:** The Frequency on the display is factory adjusted to 130 Hz for this application and need not be adjusted by the customer.

When the controller is in operating mode, the display will show "OUT". When adjusted the display will show "SET". The controller automatically saves the last setting. There is no need to lock or enter changes.

The MM-VC4 can adjust the alternators charge voltage goal from 12.3 to 16.5 volts. The alternator voltage goal is increased or decreased when the "percent of voltage change" (%) is adjusted. The display percentage is only a reference and does not directly correlate to the set voltage. 50% is a good place to start.

**Note:** Alternators not manufactured by Mechman may adjust somewhat differently because of varying alternator components.

**Integrated voltage safety:** If any adjustment gets outside the alternator's acceptable range of 12.3-16.5 volts, the internal safety protocol will activate, and the charge voltage will default to a harmless 13.6 volts.

### 90-day Repair Warranty:

The MechMan limited 90-day warranty allows the customer to return their MechMan MM-VC4 Controller for repair 90-days after the product purchase date. This warranty does not cover other parts or equipment on the vehicle and does not cover labor expenses related to the removal or installation. The MechMan warranty is VOID if the product is modified, physically abused, misused, improperly installed, or is not used in the application for which it was designed. The MechMan 90-day warranty is non-transferrable. The customer must include a copy of the original invoice when sending in their alternator to receive warranty service. The customer is responsible for shipping costs associated with warranty repair. Please see [mechman.com](http://mechman.com) for further warranty details.