Alternator wiring instructions for 2005 and newer GM trucks with 2-Pin regulator and RVC control.



In 2005 GM introduced Regulated Voltage Control (RVC) to their vehicles. You will find a sensor located near the battery that the factory ground cable will pass through. This sensor allows the ECM to monitor the charging system and adjust the voltage as found necessary. It is imperative when installing your new Mechman alternator for it to be wired per the installation steps noted below, so that correct communication between the alternator and ECM is achieved.

Please note: Even when correctly installed your alternator voltage will still fluctuate. This can range from below 13v when in resting/fuel economy mode to anywhere above 15v when in sulfation mode. This is completely normal as the ECM is controlling the voltage output. This does NOT affect the alternator performance.

Installation wiring after unit has been installed:

- 1. Remove factory ground routed from battery, through RVC sensor, and to the engine block. This ground will no longer be used.
- 2. Route a new appropriately sized ground directly from main battery, through RVC sensor, and terminate directly to the alternator. This can be routed directly to the mounting foot, and on some applications, the supplied ground tab/bolt located on rear housing.
- 3. Most applications: There will be a factory 8-gauge wire routed through the RVC sensor. It is crucial that this wire remain routed through the sensor with your new ground.

- 4. Remove factory charge wire and install a new appropriately sized charge wire from the alternator to the main battery if necessary.
- 5. Any remaining positive wires that were routed to the battery will still need to remain terminated to the battery. For example, this would be wires that supply power to the starter or to the factory fuse panel.
- 6. If running additional batteries these will need to be ran in parallel with the main battery. NO grounding to the frame/body as this can create miscommunication between ECM and charging system.

