

**V-Twin Mfg.**  
**Chrome Generator/Alternator 12V Conversion Kit w/Black Regulator**  
**VT No. 32-0390**

**This is a custom application and rider safety depends on proper installation. This product should only be installed by a knowledgeable and trained motorcycle technician. V-Twin Mfg. accepts no responsibility for improper installation.**

**Installation instructions:**

1. Remove old generator and regulator.
2. Remove gear.
3. Install gear onto alternator.

**Note:** Make sure that the splines on shaft do not extend past the end of the gear. Do not use oil slinger.

4. Install alternator using stock gasket and mounting bolts.
5. Install regulator so air can circulate by it.
6. Wiring the regulator:
  - a. Install male bullet ends on the short outside wires on the regulator. The long center wire goes to the POSITIVE side of the battery.
  - b. Wires with bullet end go to the alternator (does not matter what wire goes where).

**Note:** Regulator is grounded through the housing. It is important that it is bolted to a clean paint-free surface.

7. When installing on 6 volt and earlier models the side cover bolt holes must be drilled out to 5/16" and later model mounting bolts must be used.
8. After the bike has been running for awhile re-tighten mounting bolts.

**Note:** If clunking noise is heard remove the alternator and re tighten the gear. Make sure that the splines are not extending past gear.

**Trouble shooting:**

1. Make sure all connections are made.
2. Make sure battery is in good working order.
3. Make sure regulator is grounded well.
4. To test alternator on bike you must have an AC volt meter.
  - a. Disconnect wires from alternator to regulator, hook up meter by placing positive lead to one of the wires and negative lead to other wire coming from the alternator.
  - b. Start bike and read meter at 1500 rpm's. It should read 12 volts. At 2000 rpm's 15 volts, and at 4000 rpm's 26 volts. Reading may vary depending on meter. If you don't get any reading at all, check wire end and make sure they are making contact with the wire and not the insulation. If everything checks out okay then the alternator is working fine, and the regulator should be checked.
  - c. With regulator still hooked up to the battery; but not the alternator, place DC volt meter across the lead on the regulator just like you did with the alternator. Do not start bike!! If you get any volt reading from these leads there is a short in the bike some place. If no reading this is good.
  - d. To check regulator off of bike, take an OHM meter and put it on 1X setting. Put the positive lead on the lead that goes to the alternator and negative lead on the wire that goes to the battery. It should read about 4 ohms. Then test the other lead. If both read the same the regulator is not shorted.
  - e. Make sure the wire coming out of the regulator that goes to the battery is going straight to the positive side of the battery, NOT going through any relays or resistors.

The two biggest problems that we are finding are that the regulator is not grounded well enough or that the battery is too small or bad.