

**V-Twin Mfg.
CHROME 12 VOLT 2 BRUSH RELAY
"LOOK ALIKE" TYPE; SAME SIZE AS 6 VOLT**

VT No. 32-0071 and 32-1341

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:

This electronic voltage regulator is designed to work with the 2-brush 12 volt generator, model 65A and the after market models with the same specifications as the original model 65A.

The voltage regulator fits best on motor cycles where the cut-out relay type 74750-38 (old no. 4785-38) was used. The 45" and UL side valves and knuckles this type, but also some other models used this cut-out relay.

- Features: High output current: 9-10 amp
- Accurate voltage regulation: 13, 8-14 Volts under variable loads.
- Current overload protection
- Temperature compensated
- Solid state device
- Easy installation
- Identical look as the original cut-out relay

Read these instructions first before installing the new regulator:

1. Check if all parts of the electrical system are intended for 12 volt use: bulbs, battery, ignition coil, horn, generator and regulator.
2. Be sure that the electrical wiring of the motorcycle is properly installed. Check the color coding scheme.
3. This installation uses color schemes of the '38-'46 wiring diagram. Use the figure below to identify other cabling schemes.
4. Identify the terminals on the generator. Locate the A (armature) and F (field) marks on the generator. On the 32€ style 12 volt after market generator "switch terminal is "F" and "relay" terminal is "A". Some after market 65A generators changed positions of these terminals.
5. Always install the metal cover on the regulator. The direct heat radiation of the exhaust system might overheat the electronics if the cover is removed.

Installation of the regulator:

1. Disconnect the negative terminal of the battery.
2. Remove old regulator (if applicable).
3. Clean the surface of the motor where the regulator will be mounted, to ensure good electrical contact between regulator and the motor ground.
4. Install the new electronic regulator.

Install the wiring:

1. Connect the short wire (red black) from generator Armature terminal -"A" to regulator terminal "1".
2. Connect a new short wire from generator Field "F" terminal to regulator terminal "2" This black wire comes with the new regulator.
3. Connect the red wire from the 3-wire cable, which runs to the dashboard, to regulator terminal "3" indicated "bat" on the regulator terminal.
4. Connect the black wire from the 3-wire cable to regulator terminal "1" This wire runs to the dashboard generator indicator lamp.
5. The green wire from the 3-wire cable will not be connected. The function of this wire is not needed any more. This wire must be disconnected from the main switch, isolated and fixed to a save place at both ends.

Next step is to reconnect the negative terminal of the battery. Check if the generator light on the dashboard goes on when turning on the main switch. Start the engine and watch the generator light. It must go off slightly above idle speed of the engine. If not, do not full throttle the engine, but see the chapter: "what if it is not working"

What if it is not working? - If the generator light indicator on the dashboard will not go off, there can be several reasons:

1. The electrical wiring is not functioning properly, check the wiring for faulty connections, and be sure that all wires are connected to the right terminals.
2. With a new or repaired generator it might be necessary to polarize the poles. The magnetic field direction of the generator poles can become reversed after a repair. Current will flow in opposite direction in this case, and the generator and regulator will not work.
3. To polarize the generator perform next steps.

With engine is turned off:

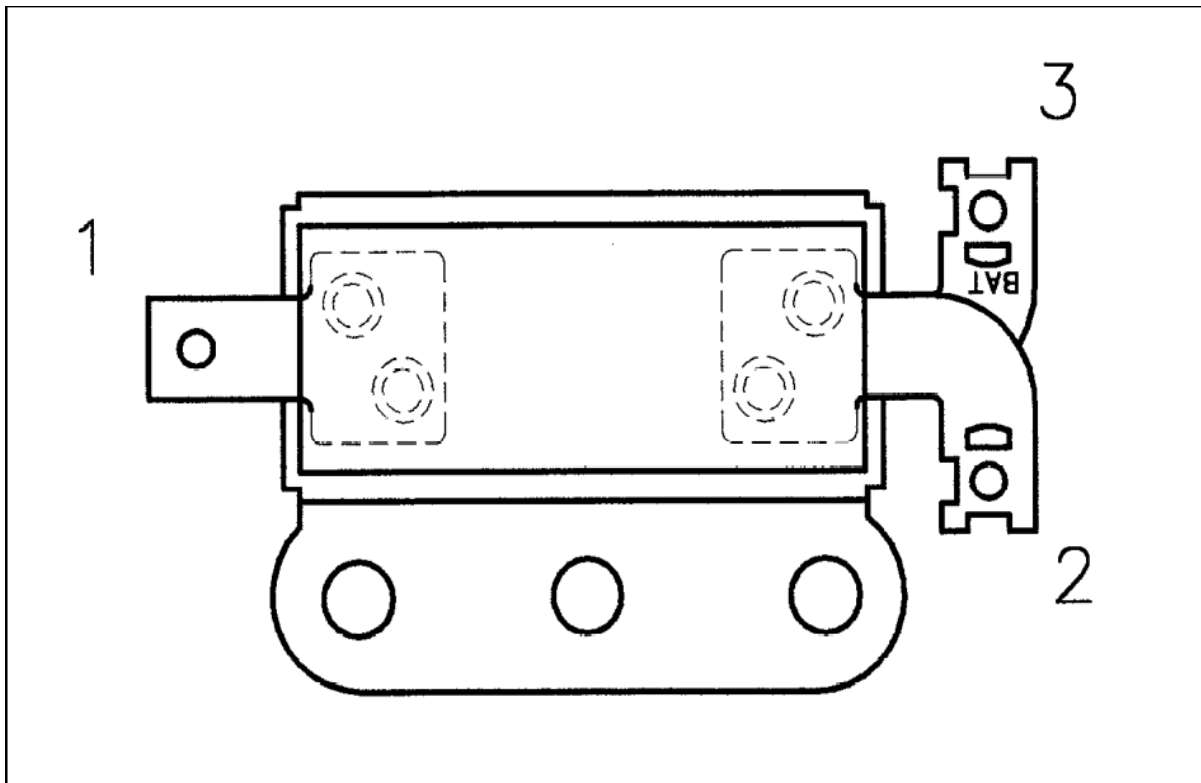
1. Disconnect the field terminal wire from the regulator and connect it to ground. (leave the wire connected to the generator).
2. Disconnect the armature wire from the regulator and flash it momentarily by touching it to the positive terminal of the battery. A small spark can occur. You need a long wire to reach the positive terminal of the battery and the armature terminal of the generator. This action will polarize the generator.

The positive terminal of the battery must not be connected to the electric wiring of the system. Reinstall the electrical wiring as described above in the chapter wiring, and reconnect the battery to the electrical system.

Start the engine and check if the generator light goes off.

If the problem still exists, please consult an electrical automotive workshop/engineer to isolate the problem.

WARNING. NEVER ELECTRICALLY WELD ON THE MOTORBIKE WITH REGULATOR MOUNTED. IT WILL DESTROY THE REGULATOR



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