

Rex's solid state regulator/rectifier is intended for both Japanese & British motorcycles. It can be used with permanent magnet, 12 volt 3-phase alternators up to an output of 250 watts (18 amps). It can be used on both positive and negative earth machines.

This unit is for all lead/acid, sealed, gel and AGM batteries. It can also be used battery-less as long as a battery eliminator (p/n BE1 or BE2) is connected in the same manner as a battery. If the alternator is sufficiently powerful when kick starting the engine will start. If the bike has CDI ignition it will start normally as the charging system does not power the CDI ignition (in most cases).

Fitting instructions

British Bikes

1. Remove the battery from your bike. Check if your system is positive or negative earth.

IMPORTANT: An accidental spark or connection to the incorrect polarity while installing your new regulator/rectifier can destroy it. Units returned with burnt out rectifiers caused by wrong polarity or short circuiting will not be replaced under warranty. Check twice before connecting the battery!

2. Consult the wiring diagram below and familiarise yourself with the connections that need to be made.

3. Locate and remove the zener diode, this is disconnected and isolated from the circuit.

4. Locate the old rectifier, it is usually black and has three fins. This too is no longer used and can be removed.

4. Trace the wires that come from the generator (connected to the rectifier). The generator wires now connect to the yellow wires from the new regulator/rectifier unit.

It does not matter which way round the yellow wires connect to the generator.

5. Mount the new unit in an area with good air flow. The case is electrically isolated and does not have to be grounded.

6. For positive earth, connect the red wire to ground and the black wire to the battery negative terminal.

7. For negative earth, connect the black wire to the frame and the red wire to the battery positive terminal.

8. The black and red wires must go straight to the battery. A fuse or switch between the regulator and the battery, will damage it if the fuse blows or the switch is turned off with the engine running.

8. Check everything is connected correctly then re-fit the battery.

Japanese Bikes

1. Remove the battery from your bike.

IMPORTANT: An accidental spark or incorrect polarity while installing your new regulator/rectifier can destroy it. Units returned with burnt out rectifiers caused by wrong polarity or short circuiting will not be replaced under warranty. Check twice before connecting the battery!

- If applicable remove the old regulator/rectifier. Mount the new regulator unit securely to the bike.
- Identify the 3 AC output wires coming from the generator, usually white or yellow and connect the 3 yellows from the new unit to these.

It does not matter which way round the yellow wires connect to the generator.

- Connect the red to the bike's positive (normally red) and the black to the negative. Yamaha use black for ground. Some Suzuki models use black or black/white. Honda often use green for negative.

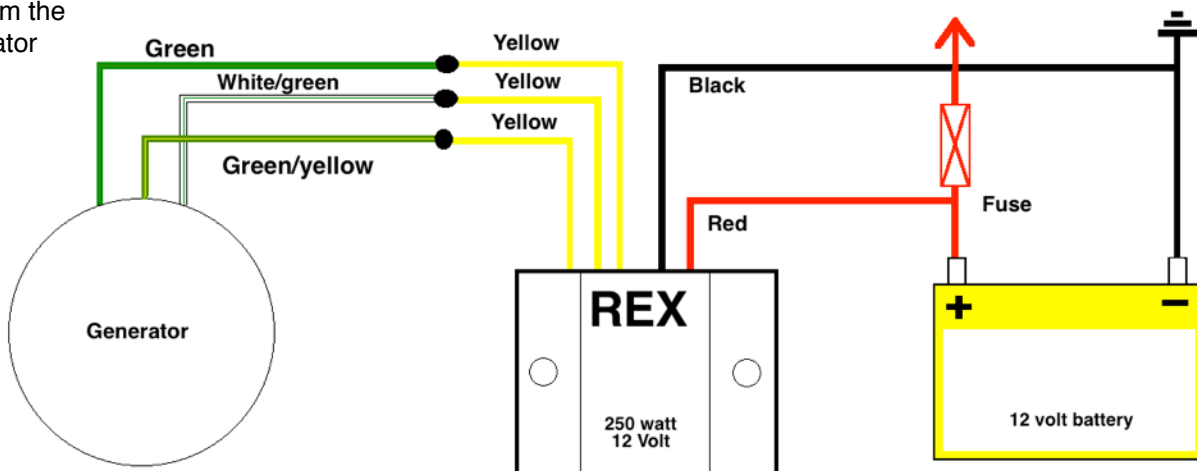
You must determine which colour is the correct one from the wiring diagram for your bike.

Testing - British & Japanese

Measure the battery voltage with the engine off. Start the engine and check it again, it should be a little higher than the first reading. Rev the engine to 2,500 RPM and the output should be between 13.8 to 14.8 volts with the lights on or off.

British & Japanese negative earth

Japanese bikes will have yellow or white wires from the alternator



Positive earth (British)

