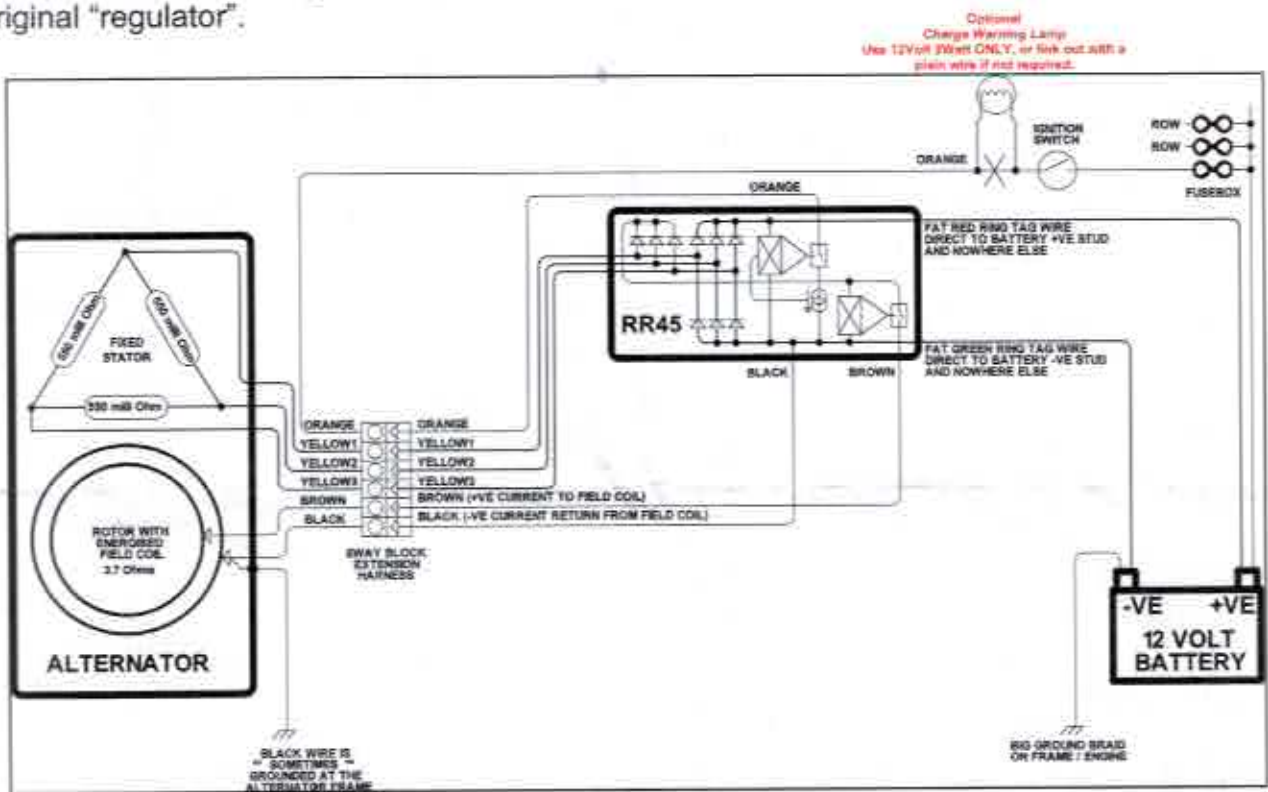


# RR45

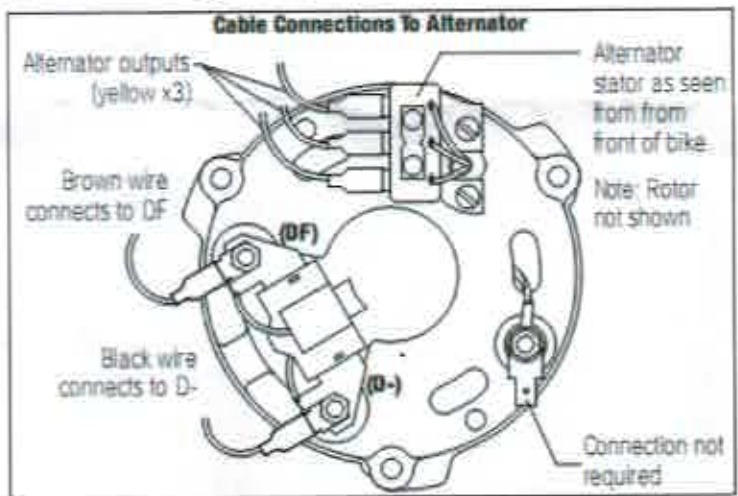
RR45 is a "high side switched" alternator controller and rectifier, designed for use with classic BMW boxer style bikes and Moto Guzzi bikes using Bosch alternators. RR45 replaces both the original "diode board" and the original "regulator".



### INSTALLATION:

The ORANGE wire must connect either directly to the switched +ve terminal on the back of the ignition switch, or optionally through the Charge Warning Lamp. The Charge Warning Lamp is optional. The RR45 must "sense" a threshold current of 120mA down the ORANGE wire before it will wake up from rest and go. The maximum current that the ORANGE wire can draw is around 150mA, this means that only the right size of Charge Warning Lamp will light brightly. A 1.2Watt bulb (100mA) is *too small*—RR45 will never start up, a 2Watt bulb (160mA) bulb is really good, a 3Watt bulb or bigger will work but will never light up fully. A plain piece of wire works very well.

The FAT RED & GREEN RING TAG WIRES must go directly to the battery +ve & ve studs, not via the fuse box nor the common frame ground, please.



### EXPERT TROUBLESHOOTING:

1. Disconnect the skinny black & brown wires from the alternator field coil, leave the rest of the RR45 connected through the 6 way extension block.
2. Make up a "bulbtool" from a 55Watt headlamp bulb and 2 bits of wire.
3. Connect your DCVOLTMETER across the battery terminals.
4. With the engine running, connect the bulbtool from BATTERY +ve to ALTERNATOR BROWN WIRE. The bulbtool will "half light" allowing a controlled current of a couple or 3A to flow through the field coil, this should make the alternator stator pump out some big currents, the

RR45 rectifier section should push out about 25ADC into the battery, you should hear the engine note change slightly and see the DC voltmeter across the battery jump up to about 14 or 16Volts.

5. You could use a piece of wire instead of the bulbtool, but this could set your bike on fire when you poked it in the wrong place. The bulbtool will only let a few amps through, fairly safe, and you can see it light up full power or half light or nothing, which is VERY useful for finding shorts & open circuits.