ELECTREX WORLD
Motorcycle Electrical Components

Fitting Instructions for type

RR23

Regulator Rectifier for switched field alternator. Replacement for Original Honda Regulator Rectifiers to fit models **CB750F2, CB750 Nighthawk, CB1000 Bigone, CBR1000/F, ST1100.**

Your new RR23 has cooling fins to maintain cooler operation and improved reliability. The old Honda RR connectors can suffer badly over time from corrosion and overheating. The new RR23 is supplied with a NEW CONNECTOR PAIR, which requires that the old RR connector be cut from the bikes wire harness and replaced with the new type. The bike wire harness colours must pin by pin match the colours of new RR23. The wire circuits are:

Original Bike Wire	New RR23 Wire	Function
YELLOW	YELLOW	Phase 1 wire from Alternator Stator
YELLOW	YELLOW	Phase 2 wire from Alternator Stator
YELLOW	YELLOW	Phase 3 wire from Alternator Stator
RED	RED	Charging current to Battery +ve
GREEN RING	GREEN RING	Charging current return from Battery –ve, Ground.
BLACK	BLACK	Field Coil +ve brush from IGN switch, also input to the new RR23 to sense the battery voltage.
WHITE	WHITE	Field Coil Current input from the controlled brush.

The new RR23 is a “low side switching” alternator controller. The new RR23 switches the field coil current (on and off at high frequency) from the WHITE wire to GREEN frame ground, thus controlling the alternator magnetic field strength, hence regulating the alternator output voltage.

The alternator field coil resistance is typically 5 or 6 Ohms, this is just too low to measure with a handy multimeter. A more accurate indication of field coil function can be made like this: Unplug the new RR23, switch on IGN, and only with engine NOT RUNNING, set meter to read AMPS and connect meter from FRAME GROUND to alternator WHITE wire. This will connect the full battery voltage across the field coil, meter should measure about 2Amps. Any more than about 3A means your field coil is probably broken—internal short circuits between turns will stop the battery charging system from operating.

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