

**Please note:** This is a combination unit which meant to replace both the separate OEM rectifier and regulator. There is no specific mounting spot for this unit. You will need to determine the best spot according to your model. The one plug (6-gang) on our rec/reg plugs into the wiring harness where the stock rectifier did. The other 3 terminals are color coded to plug into the harness where the stock flat regulator plugs did.

On the early 4 cylinder CB500's, there is a slight modification: you must either change the plugs on your regulator harness to the flat style pins, or hard wire it according to the color code. Please call if you need further assistance.

Wiring color code on 3 separate terminals for the regulator:

BLK -> Black sensor feed wire (any +12 VDC source after the ignition is switched "ON")

GRN -> Green field coil wire

WHT -> White field coil wire

In order to properly maintain and/or repair a faulty charging system that incorporates a field excited alternator, it is also essential that the +12VDC feed (*BLACK sensor wire*) to the regulator portion of the combination unit should have no greater than a 0.4VDC drop as compared to voltage reading taken between the "+" and "-" posts of the battery.

Example:

With the rectifier regulator disconnected from the harness and the key "ON" the voltage at the regulator sensor wire (*harness side*) is 12.5VDC and the reading between the posts of the battery is +12.7VDC this is a 0.2VDC drop which is acceptable.

If the difference between the reading at the sensor wire (harness side) and the reading at the battery approaches, or is greater than 0.4VDC on a running bike with the rectifier / regulator installed, it will attempt to correct the low voltage situation by sending a **higher** voltage (in excess of +15VDC) back to the battery which can cause premature battery failures.

A properly running charging system will...

- Have a battery resting voltage of 12.6 to 12.8VDC.
- Have a good working field coil (*check the service manual for the proper resistance value and grounding as applicable*)
- Produce 14.5 to 14.8VDC with minimum to no load @ 2500 to 3500 RPM. The reading at idle is not always indicative of what will be produced at higher RPM's so always check both.

TIP:

On Field Excited charging systems which are typically found on bikes that were built in the 1960's through mid - 1980's; the most common causes of large voltage drops (in order of occurrence) are...

- Ignition switch with corroded contacts.
- Loose or corroded terminals and/or wiring in the system anywhere between the battery and the BLACK sensor feed wire.