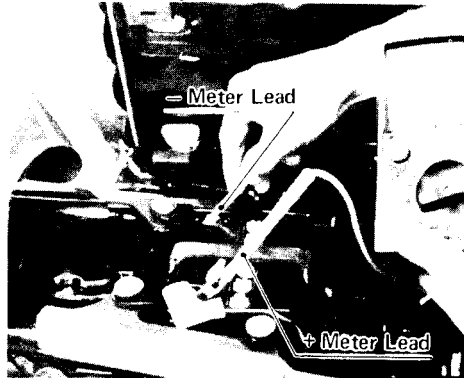


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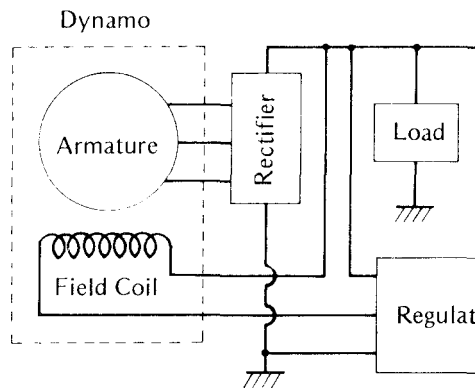
If the battery is defective or if it is discharged, the regulator will not operate normally and the battery must first be charged before any regulator tests can be made. Check the battery before starting the engine and charge it if it is less than 12 volts.

- Check that all lights are turned off.
- Set a multimeter to the 30V DC range, and connect the + meter lead to the battery + terminal and the - meter lead to the battery - terminal.



Regulator Test (In Circuit)

Voltmeter
30V DC



- Start the engine, and measure the battery voltage at the specified engine speed. The meter reading should show the value in Table 108.
- Stop the engine by turning the ignition switch off.

Table 108 Regulated Dynamo Output Voltage (Regulator in circuit)

Meter	Connections	Standard
12V DC	Meter (+) ^ Battery (+) Meter (-) ^ Battery (-)	14.0~15.0V @ 3,000 rpm

If the voltage reading is more than specified, either the regulator is defective, or it is not properly connected into the circuit due to a loose connection, broken wire,

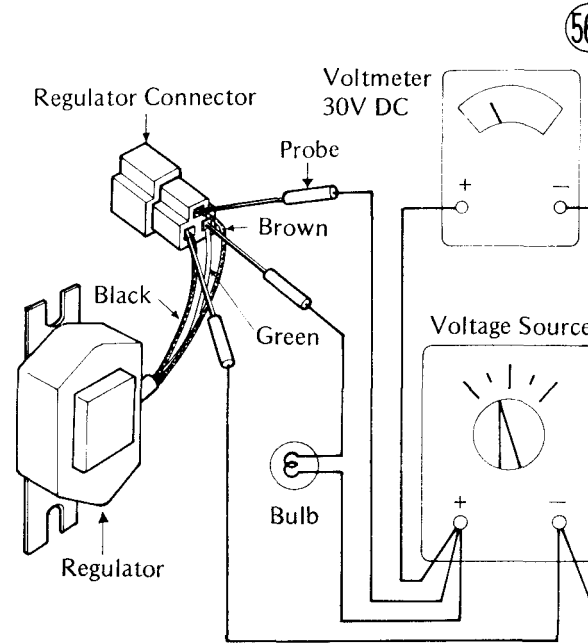
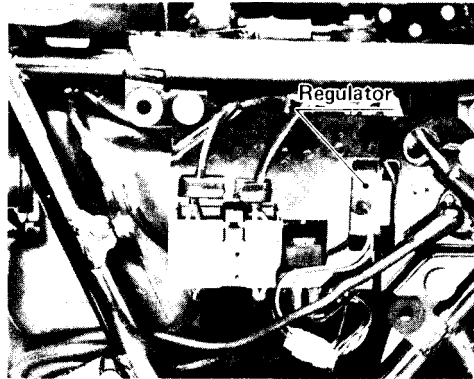
etc. Carefully check all connections before replacing the regulator.

If the voltage reading is less than specified, there may be a faulty dynamo or rectifier. Perform the following regulator out-of-circuit test and if the regulator checks out good, check the rectifier (Pg. 173), dynamo (Pg. 170), and wiring.

Out of circuit:

To make this test, a voltage source and a 12V 3~6W bulb with a socket and leads are required. This is because the regulator can not be tested properly using just the multimeter as in the case of a mechanical regulator.

- Pull off the left side cover.
- Make sure the ignition switch is turned off, and disconnect the regulator 3-pin connector (See Caution - Pg. 174).



- Using auxiliary leads, connect the regulator black lead to the voltage source — terminal, and connect the regulator brown lead to the voltage source + terminal (Fig. 566).

Regulator Test (Out of Circuit)

- Connect the bulb between the regulator green lead and the voltage source + terminal.
- Set the multimeter to the 30V DC range, connect the meter — lead to the voltage source - terminal, and connect the meter + lead to the voltage source + terminal.
- When the voltage source is turned on, the bulb should light.
- While gradually increasing the voltage source output from 10 volts to 16 volts, the bulb will go out at a certain point. Note the exact voltage when the bulb goes out.