

SERIES B EQUIPMENT

FAULT DIAGNOSIS

METER CONNECTIONS	METER READING	ACTION TO BE TAKEN	METER CONNECTIONS	METER READING	ACTION TO BE TAKEN
TEST 1 (A) CHECKING DC OUTPUT With ammeter connected in series with battery. Lighting Switch alternatively in "OFF," "LOW" and "HIGH" positions. NOTE:—If battery is in poor condition or low state of charge use TEST 1 (B).	TEST 1 (A) "OFF" $\frac{1}{2}$ - $1\frac{1}{2}$ amps "LOW" $2\frac{1}{2}$ - $3\frac{1}{2}$ amps "HIGH" $3\frac{1}{2}$ - $4\frac{1}{2}$ amps	Correct reading - Alternator and Charging Circuit in order. (a) & (b) Proceed with Test 2 to check if alternator is functioning. (c) Check lighting switch and all snap connectors. Connect and re-test. If readings found still incorrect. Proceed to Test 2.	TEST 2 CHECK OUTPUT ACROSS EACH COIL With all 6 cables removed from snap connectors with 1 ohm load and AC voltmeter (at 4,000 rpm).	YELLOW-BUFF YELLOW-RED GREEN-PURPLE GREY-BUFF <div> $\left. \begin{array}{l} \text{At } 7\frac{1}{2} \\ \text{to } 8\frac{1}{2} \\ \text{volts.} \end{array} \right\}$ </div>	IF READINGS CORRECT Faults from Test 1 may be caused by rectifier. Proceed to Test 3. (a) All readings low or zero. Suspect demagnetised rotor. Check the rectifier (Test 3) before replacing rotor. (b) Readings low on certain coils. Faulty coils (shorted turns or open circuits). Fit a replacement stator.
TEST 3 RECTIFIER CHECK With 6 volt battery and 1 ohm ballast resistance.	(a) Readings correct. (b) Readings incorrect.	Any remaining faults must be in the wiring or switch connections - check these according to diagram with continuity meter. Damaged rectifier - MUST BE REPLACED.	TEST 4 EMERGENCY BULB CHECK (1,000 rpm).	Equal brilliance across all coils.	A rough check only that the alternator coils are correct. Not satisfactory for showing a demagnetised rotor.

LOW SPEED TRAVELLING

Where the motor cycle is only used for in-town travelling at low speeds the trickle charge may be insufficient. This will be more noticeable during **winter** months when the headlamp is used more frequently.

To obtain a higher charging rate, if desirable, the following alteration should be made to the connections from the generator into the main harness:—

Disconnect the alternator **Red** lead at the snap connector under the saddle and join it to the **Green** lead from the alternator to the headlamp. This will give a higher charging rate in the "OFF" position of the lighting switch. Use a double snap connector (850641) for this so that green from headlamp and red and green from the alternator are all connected together. This is a simple method of connection and makes it easy to change to the lower charge rate for **summer** travel when higher road speeds and less frequent use of the headlamp are normal.