

Dynamo Regulator (V-Reg-2B)

This is a solid state encapsulated regulator for motorcycles using the Lucas E3 type dynamo. The dynamo regulator (manufactured by teb-tec) is designed to replace the mechanical regulator with modern reliable semiconductors, and can handle up to 100W* at 6V and even more for the 12V version, provided the dynamo is capable of delivering this power. The V-Reg-2B incorporates internal thermal protection, which in turn helps to protect the dynamo. The regulator must be used with a known good automotive battery (minimum 5Amp-hours) and it is strongly recommended that a fuse is fitted in the battery line (20A nominal). The V-Reg-2B is guaranteed, subject to correct fitting and use with a known good dynamo.

VOLTAGE AND POLARITY

As manufactured all regulators are set to operate at 6V. For 12V operation the small GREEN wire loop should be cut and sealed (with epoxy or silicone).

– (Negative) earth have a BLACK earth wire.

(Positive earth have a RED earth wire)

FITTING

To maintain original appearances this unit may be fitted inside the original control box by first removing all of the contents (solenoids, points and resistors) or it may be mounted in any convenient corner, maybe in the top of a tool box, such that it has some protection from injury and weather. There are multiple fixing options: A pair of tee-slots (M4 stainless hex bolts and lock-nuts supplied) allow mounting along one edge, alternatively use two or more of the through holes with your own hardware. Note, when using stainless steel fasteners it is good practice to lubricate the threads before fitting.

If the unit is fitted within the original regulator box the dynamo power handling is limited to less than the regulator's maximum due to the restricted movement of cooling air, however it will comfortably handle the standard 60W dynamo.

* There should be free circulation of cool air around the regulator if its maximum output is required.

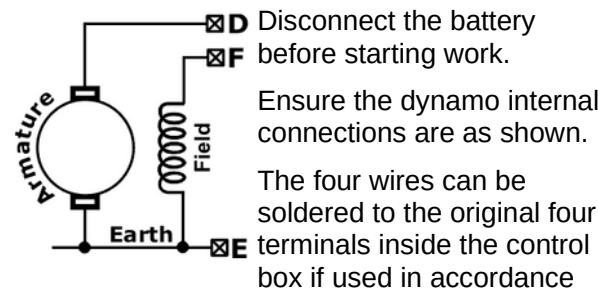
POLARISING

To ensure the correct polarity of your dynamo for your bike, and the correct function of the regulator, it is advisable to polarise or 'splash' the dynamo. To do this disconnect the field (F) connection from the dynamo; take a wire from the live terminal of the battery and briefly touch the F terminal of the dynamo ensuring the battery is earthed (as per intended use). This establishes the field's remnant magnetism, which is required for correct start-up.

DYNAMO TESTING

If the dynamo is unknown/suspect, first check wiring inside the dynamo is exactly as diagram below and Polarise. Then remove D and F bike connections. Link D and F together, connecting a 12V headlamp bulb from this point to Earth. Run the engine at fast idle, lamp should be bright. (If lamp is not lit momentarily remove/replace a lamp connection {allows dynamo Field to start } You might want to check polarity with a voltmeter)

CONNECTIONS



F (Field).....GREEN
A (Ammeter)..BROWN
D (Dynamo)...YELLOW
E (+ Earth)...BLACK

with the adjacent wiring table. Alternatively any suitable crimp connectors can be used to connect to the bike's wiring, taking into account proper practices to produce clean firm connections.

TESTING (REGULATOR FUNCTION)

Measure the voltage across the battery. At rest the voltage will be around 6V or 12V depending on version, rising to around 7.2V or 14.4V once the dynamo is operating (2500 engine revs, headlight OFF).

GUARANTEE

This unit is guaranteed for 1 year from purchase, provided it is fitted and used as per these instructions. Bad/wrong connections can cause damage.