Dynamo Regulator

Rex's supply a UK manufactured dynamo regulator which has a long record of problem free operation. Its a small, solid state unit suitable for all Lucas dynamos up to 100 watts and will protect your dynamo's windings whilst giving outstanding performance. It will easily fit inside most original regulator cases. Fitting is straightforward, a 15-20 amp fuse must be fitted to the battery in case a fault develops in the wiring loom. Use with a branded battery such as Cyclon, Lucas or a yellow Motobatt of not less than 5 amp/hour. The battery should be disconnected and removed while fitting the new unit to avoid sparks while working on the electrical system.

Voltage & Polarity

As supplied the regulator comes ready for 6 volt operation. By cutting the green loop wire the unit is converted to 12 volt operation. Cut the loop flush and apply a blob of epoxy glue over the cut ends to protect them.

ONLY CUT THE GREEN LOOP FOR 12V

The polarity of your bike MUST match the regulator. Positive and negative earth versions are available.

Positive earth units have a red earth wire,
Negative earth have a black earth wire.

Fitting

Before starting ensure any battery is disconnected and removed from the bike. An accidental spark from a battery while wires are being connected could ruin your new regulator - a unit damaged by short circuiting will not be replaced under warranty.

The case has through holes and Tee slots in it, designed for M4 hex bolts (supplied) to provide a choice of bolting options. The unit can be mounted inside empty mechanical control boxes. The unit gets warm but if it is in good contact with a cool metal surface or has a good air flow, cooling will not be an issue. If used at maximum power (100 watts) a good air flow must be provided. Take the time to mount the unit well and make good connections using the proper tooling and methods for type of connector you choose.

Connections

Remember there are 24 ways to connect 4 wires. Only one combination is correct.

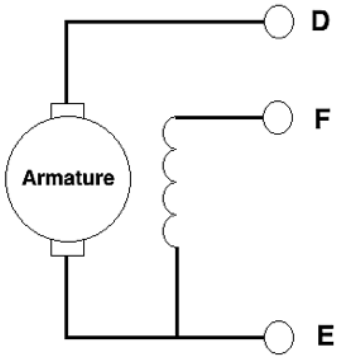
F (Field) ……Green

A (Ammeter)…..Brown

D (Dynamo)……Yellow

E (Earth) **Positive**….Red
E (Earth) **Negative**…Black

Wires can be soldered to terminals of a control box (if using this method to mount the regulator) or fitted with crimp terminals. Connections must be of high standard to avoid faults occurring.



The dynamo's internal connections must be as per all Lucas dynamos.

Polarising or Flashing the Dynamo

The dynamo must be polarised to suit the regulator, especially if the dynamo has not been used for a long period or if its been repaired or you are not sure of its polarity. To do this, disconnect the F terminal and briefly touch the battery terminal that is not connected to the frame (not to the regulator wire) so it sparks. The battery should be earthed to the dynamo case IE the case connected to the positive terminal of the battery for positive earth and the negative for negative earth.

Testing

Measure the battery voltage with the engine off. Start the engine and run it at 2,500RPM. The battery voltage will rise to 7.0 to 7.2V (6 volt system) or 14.0 to 14.4V (12 volt system) with the lights off.