BMW/Guzzi Bosch alternator replacement Kit
STK-500 BMW STK-502 Guzzi

- New permanent brushless alternator - up to 400w output, speed dependant.
- Excellent output at low speed - 20amp at only 2000rpm, therefore ideal for BMW Boxer/ Guzzi.
- Very heavy duty series regulator/rectifier with output cable for 'charge warning' indicator.
- Fitting kit precision CNC machined from billet with either stainless steel or anodised aluminium used.
- Fits BMW Boxer twins. 1970 - 1995. Moto Guzzi 1975-1992.
- Direct fitting no mechanical modifications required, minimal wiring for reliability.
- Designed and manufactured to modern OEM specifications.

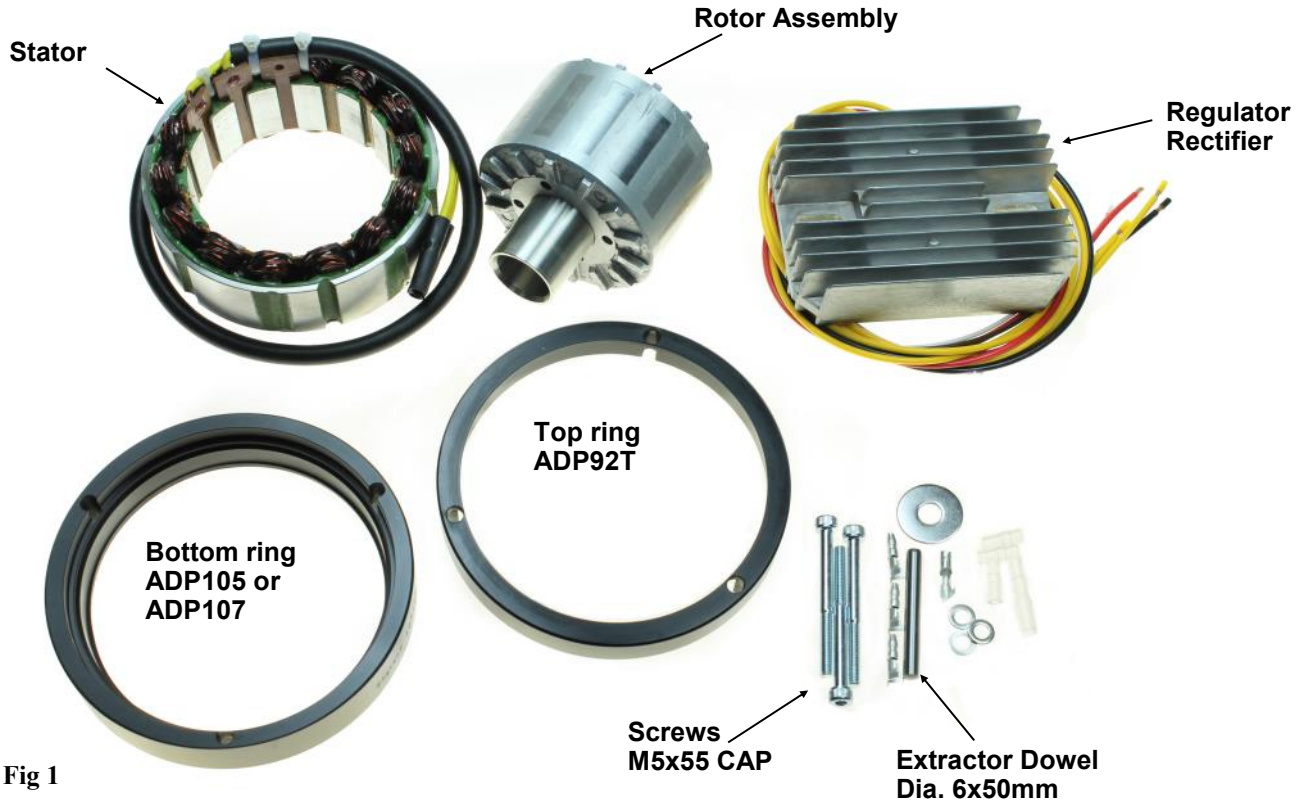

Fig 1

Please ensure contents are correct as shown above (fig 1), on receipt of the part.

The parts for BMW (STK-500) and Moto Guzzi (STK-502) are identical except for the bottom ring, which has a location diameter onto the crankcase of 107mm (marked ADP107) for most BMW models and 105mm (marked ADP105) for all Moto Guzzi models.

See fig 2 - measure the original Bosch alternator on the crankcase to confirm size.

Note: Some BMW models also have location diameters of 105mm, so in this case ADP105 is required instead of ADP107.

Fig 2

Fitting Instructions


Fig 3

Step 1. Remove existing regulator rectifier, alternator stator and rotor. The rotor can be extracted from the tapered shaft by using the hardened Dowel diameter 6x50mm provided.
With the retaining bolt removed the dowel is inserted fully into the rotor as shown in Fig 3. followed by the retaining bolt which screws in the end thread and presses on the dowel - thus extracting the rotor.

Special Note - See Fig 4. Some models of Moto Guzzi had a 'Saprisa' alternator fitted. For this type the original crankcase seal, in the timing cover, needs replacing with one of 28x38x7. If this seal is required please contact us and we can send one free of charge.

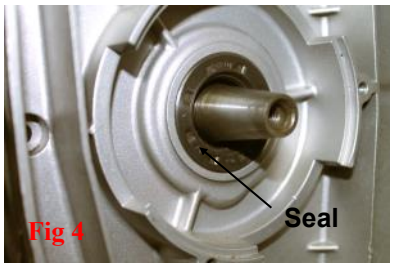

Fig 4


Fig 5

Step 2. Carefully assemble the two rings onto the stator with the cables exiting as shown. Ensure correct seating of the rings on the stator, if necessary gently tap them on with a soft mallet, rotate each ring so the 3 holes align with the 3 slots in the stator to allow the screws to pass through, see Fig 5 & 6.

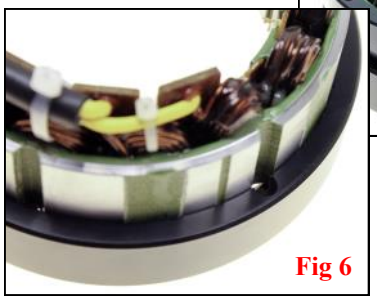
Fig 6

Step 3. Place the assembly with the 3 screws (M5x55) loosely located onto the crankcase. Making sure it locates correctly. Tighten the 3 screws. See Fig 7.

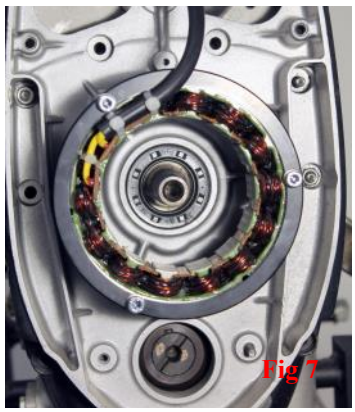
Fig 7


Fig 8

Step 4. Fit the rotor onto the shaft using the original bolt and large washers provided see Fig 8. Tighten bolt to specified torque. Check the rotor is not touching the stator, there must be a small air gap of approx. 0.5mm between the rotor and stator, this can be checked by inserting a slip of paper.

Step 5. The regulator/rectifier (RR) is an advanced Series design with a high power rating and lower operating temperature compared to conventional shunt designs.

The location position will vary depending on the model, but generally a position which allows good air flow is ideal. For BMW's don't mount the RR in place of the original rectifier - within the engine casing as it can get too hot.

Step 6. Connections
The two Yellow cables from the alternator connect to the two Yellow cables from the RR in any order. The Red cable needs to be connected directly to the battery +ve and the Black to the battery –ve.
The White cable connects to the charge warning light (if fitted), this cable does not have to be connected for normal RR function, a voltmeter may be preferred for example.

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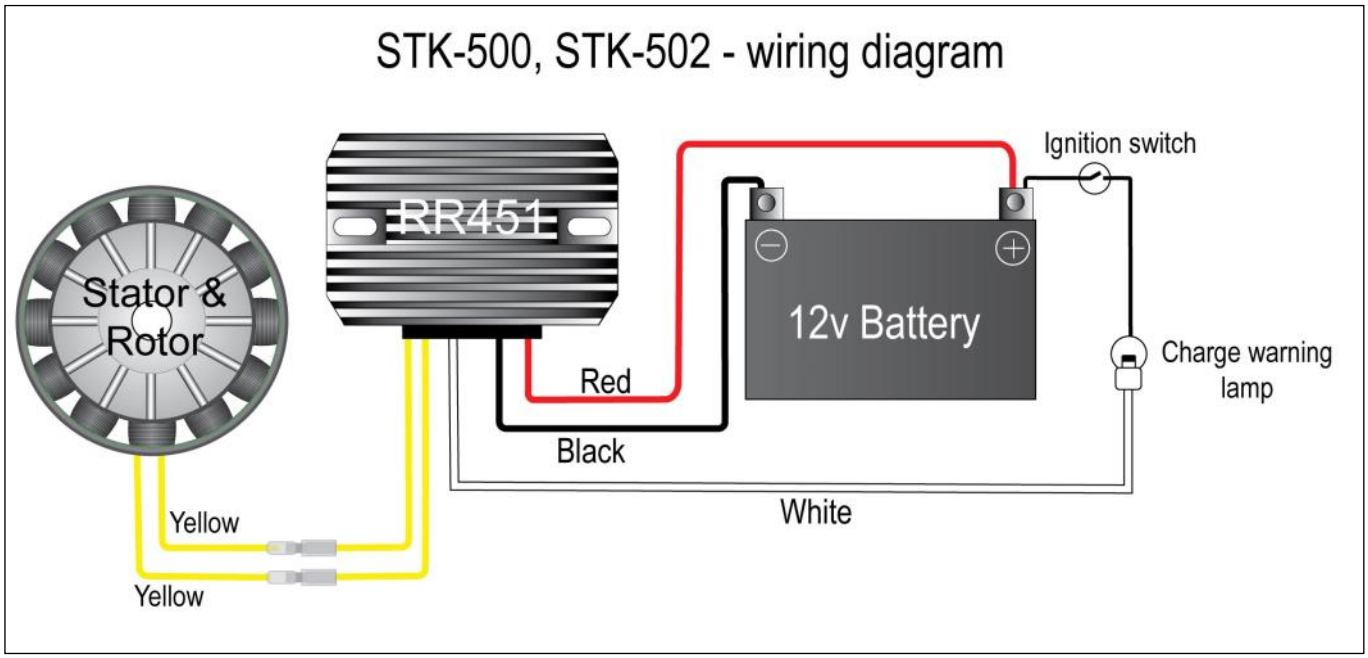

Notes
The two yellow cables from the stator can be connected in any order to the Regulator Rectifier.

Fuses not shown in above diagram.

The output of the Regulator Rectifier must be connected directly to the battery so Red to +ve and Black to –ve.

If the existing cables from the Regulator Rectifier need extending the terminals must be both crimped and soldered to reduce resistance and possible future unreliability. The cable size should be a minimum of 2.5mm^2 and increased to 4mm^2 if the extended cables exceed 1m in length.