

# B.D.K. RACE ENGINEERING.



## Yamaha R6 2006+ Race Generator Fitting Info – with casing

### Contents:

- 1 x Generator assembly fitted to side case
- 1 x Rotor assembly
- 1 x regulator/rectifier

### Fitting:

- 1) Remove the original generator cover and flywheel assembly.
- 2) Remove the starter clutch out of the back of the standard flywheel by first sliding the gear out then removing the retaining circlip and carefully removing the clutch mechanism from it.
- 3) Fit the starter clutch mechanism into the new rotor ensuring the circlip is fitted properly.
- 4) Fit the new rotor assembly to the crankshaft, discarding the OEM washer, use thread lock and torque to 25ftlbs, do not torque to manufacturers original setting.
- 5) Take the 2 casing locator dowels and fit them to the engine then fit the side case assembly with a new gasket. (do not use sealant paste in place of a gasket)
- 6) Plug the generator to the supplied regulator
- 7) Wire red and black wires from regulator directly to battery
- 8) Blue wire (where fitted) to any switched 12v supply. Alternatively connect the blue wire to the battery positive terminal, but in that case the reg/rec must be isolated when not in use to prevent drain to the battery. The LED in the reg/rec will shine brightly when 13.5V or above are being produced.

**Please Note:** Never run the bike with the battery or regulator/rectifier disconnected from the battery as this will cause damage to the generator. Please also be aware that as the system is designed for race use it only starts charging the system at approx 4Krpm depending on load, if left running for long periods of time below this it will eventually flatten the battery. Do not run with standard reg/rec as this will cause damage to the generator.

**Replacement cases available for £180+ vat**

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## Testing your race generator if a fault is suspected:

- 1) Check that there is a 30 or 35A fuse in the reg/rec positive lead and that it is not blown.
- 2) Ensure that there is at least 12V DC at the blue wire feed with the ignition on and that the connection is secure.
- 3) Connect the reg/rec to the stator and with the battery terminals and blue wire fixed if your battery has 13+V you should see a very dim light from the reg/rec LED (you may need to shield out the light to see this).
- 4) Check that the three pins in both the stator side and reg/rec side connectors are firmly fixed by giving them a gentle tug each in turn.
- 5) Unplug the stator from the reg/rec and check continuity between the stator pins – you should have continuity between any two of them, but no continuity between any of them and earth.
- 6) With the stator unplugged from the reg/rec and whilst the engine is running at a fixed speed measure the voltage in AC across the pins out of the stator in turn (three different ways).  
It is important that your meter is set to AC before doing this, and you should be getting the same voltage between any two pins. You should be getting somewhere between 3V & 4V per 1krpm, ie 9-12V for 3krpm.
- 7) Reconnect the stator to the reg/rec. Fire the bike up, set your multi-meter to DC and measure the voltage across the battery terminals. You should be seeing between 13V and 14.1V across the terminals at around 5k rpm. The generator will not fire below around 3krpm. The green LED on the reg/rec should be brightly lit – this indicates over 13.5V.
- 8) If all the above have been checked and yet the desired charging is not happening get in touch with us for further instruction and advice before sending the unit back.

### Warranty and Liability Disclaimer

Due to the high stress environment of high performance riding, competition riding and especially from previous or future crash damage, in common with other racing parts no warranty, guarantee or liability is expressed or implied whatsoever in terms of but not limited to the item itself and any consequential damage. It is imperative that customers understand and recognise that they are purchasing racing equipment which has been designed with performance in mind over longevity and that they are solely responsible for their own skill and judgment when selecting and installing these products.

