

Yamaha R7 Race Generator Fitting Info

Contents:

- 1 x Generator coil assembly
- 1 x Rotor Assembly
- 1 x Generator coil mounting plate
- 1 x Ignition Pick Up Mounting Plate
- 6 x M5 x 30mm Allen screws
- 3 x M6 x 10 low head cap Allen screws
- 3x M8x16 Button Head Bolts
- 2 x Button head M5 x 10 Allen screws
- 2 x M6 x 12 Titanium low head cap screws
- 1 x length of silicone sheathing (150MM)
- 3 x crimps
- 1 x plastic connector block
- 1 x Regulator / rectifier

Fitting (READ BEFORE ASSEMBLY COMMENCES):

- 1) Remove the original generator cover and the generator windings and ignition pick up from it.
- 2) Cut the 3 wires going to the original generator windings about 40mm from the rubber on the outside of the engine, as you will need to use the original rubber and some of the wiring for the new generator, and remove the windings.
- 3) Remove the standard flywheel assembly and unbolt the flywheel from the starter clutch.
- 4) Take the new rotor assembly and bolt loosely to the starter clutch using the M8 x 16 button head Allen screws.
- 5) Fit the new assembly to the crankshaft and refit the original flywheel bolt and washer , tighten to 80 NM, once fitted you can then tighten the bolts to the starter clutch (using thread lock), this is to ensure the starter clutch is aligned perfectly to avoid any drag issues.
- 6) Fit the generator mounting plate to the original casing using thread-lock on the M6 x 10 low head cap screws supplied.
- 7) Push the rubbery/textile sheath over the generator coil wires as far as it will go and put the assembly on to the mounting plate with the wires facing downwards and passing through the big slot in the back of the mounting plate.



- 8) Fix the generator coil assembly to the mounting plate using thread-lock on the M5 x 30 Allen screws supplied and tighten well such that the screw heads bite into the generator coils.
- 9) Feed the generator wires up to and through the casing rubber carefully, and then cut to the appropriate length to be able to fit the kit reg/rec wherever you wish. Join the wires together using the butt crimps supplied and crimp and solder together.
- 10) Now take the ignition pick up holder and bolt it to the casing using thread-lock on the M6 low head cap screws supplied. Bolt the pickup onto the holder using the M6 x 10 button head screws and thread-lock.
- 11) Route the wiring for the pick up and generator as per original and do not retain the original clamp. Simply pass the generator wires under the pickup. **It is most important to ensure no wires are trapped in such a way that they might get damaged and cause a short to earth.**
- 12) Refit the casing to the engine making sure you line it up as you fit it so you don't damage the generator coils by catching them on the rotor.
- 13) Remove the original regulator / rectifier and replace with kit reg/rec. Positioning of the reg/rec is not important, and it need only be securely attached through one hole and tie-wrapped the other end. **NEVER** use the generator with a standard reg/rec!
- 14) Attach the single blue/yellow wire from the reg/rec to a switched positive 12V feed so power is off with ignition. If the blue wire does not get a 12V+ feed the generator will not work.
- 15) Plug the generator in, connect the Red wire to the positive terminal of the battery and the black to the negative and fitting is complete!



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.