Kawasaki NINJA 400 Race Generator Fitting Info

Contents:

1 x Generator coil assembly
1 x Rotor Assembly
1 x Generator coil mounting plate
2 x Ignition Pick up Spacers
2 x Button head M6 x 20 Hex Screws
6 x Button head M5 x 30mm Hex screws
3 x Low head M6 x 10 Hex screw
6 x Button head M6 x 12 Hex Screws
3 x 3 pin connector block and terminals
1 x Regulator / rectifier

Fitting (READ BEFORE ASSEMBLY COMMENCES):

1) Remove the original generator cover, 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 from the crank and unbolt the flywheel from the starter clutch.

4) Take the new rotor assembly and bolt loosely to the starter clutch using the M6 x 12 button head hex screws.

5) Fit the new assembly to the crankshaft and refit the original flywheel bolt and tighten to 25 ft/lbs, 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 x10 screws supplied. Please make sure the correct bolts are used for this task, they should be flush to the mounting plate when correctly fitted.

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 button head hex screws supplied and tighten.

9) Feed the generator wires up to and through your original grommet carefully, and then cut the wires to the appropriate length to be able to fit the kit reg/rec to a metal component (to allow for better heat dissipation). Fit the outer protective sheath.

10) Crimp the connector terminals to the end of the wires and install into the connector block.

11) Re install the generator pick up into the cover using the M6x20 bolts and 10mm pickup spacers underneath.

12) Route the wiring for the pick up and generator as per original and retain with the original clamp. **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.**

13) 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.

14) Remove the original regulator / rectifier and replace with kit reg/rec. Positioning of the reg/rec is important, ideally it needs to be securely attached by both mounting holes to aid head dispersion. If possible the regulator should be mounted in an area with airflow.

15) Attach the blue/yellow bullet connector from the reg/rec to a switched positive 12V feed so power is off with ignition. If the blue/yellow wire does not get a 12V+ feed the generator will not work.

16) Plug the generator in and fitting is complete!

BDK RACE ENGINEERING

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/yellow 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/yellow 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.

BDK RACE ENGINEERING ASHWELLTHORPE IND EST, NORWICH, NR16 1ER, UK
+44 (0)1508 481713 James@bdkraceeng.co.uk Web Site: www.bdkraceeng.co.uk
Webshop: www.bdkraceeng.co.uk/tc