User instructions for ZDZ power generator for engines.

These instructions are intended for 28V(+/-200mV)/500W generator mounted on ZDZ engines.

Read and understand all points in instructions to avoid damage of generator system, engine or personal injuries!

1) **Parts of generator package:**
   - Main rotor which is a part of propeller hub.
   - Stator (coil system) mounted on front part of crankcase with a special bracket
   - Electric stabilizer which transforms AC high voltage output from Genrator to a DC 28V output behind the stabilizer. (Never connect any load directly to the generator coils.)

2) **Main rotor/propeller hub**

Because the main rotor is equipped with a very strong magnets, avoid any magnetic metals or dust to become closer to the main rotor. Especially from a backside.

When you mount propeller to the hub, please follow instruction from Engine manual. Be sure that propeller is dstatically and dynamically balanced and properly tighten before run.

If you note any mechanical damage on a main rotor please contact your distributor for technical check. Never try to repair or replace it by yourself.

RPM range for the is from idle to max 8500RPM. With higher RPM you can damage generator and stabilizer.

3) **Stator (coil system)**

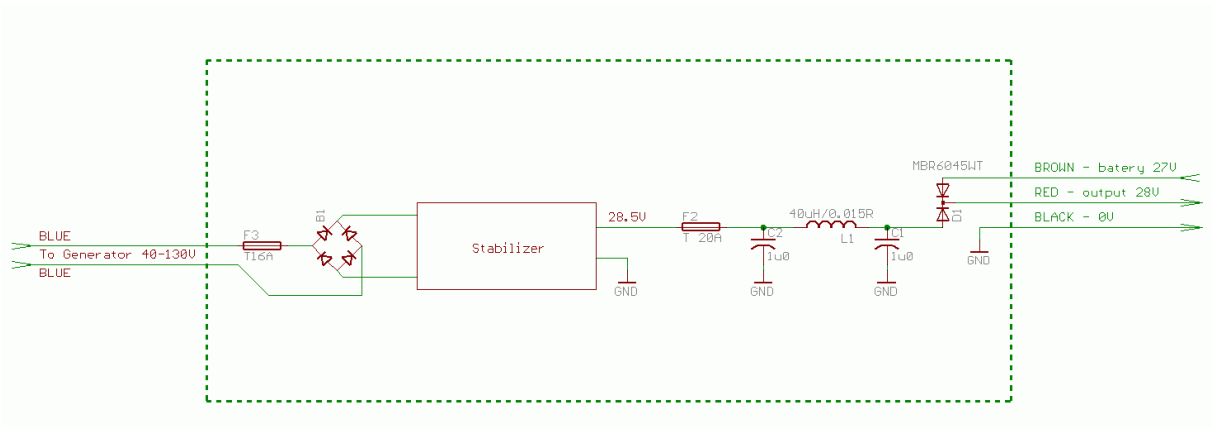
On the backside of the stator you can find two pins where input of voltage stabilizer should be connected. Connect two blue wires either by soldering them directly to the stator(best solution) or using your own connector soldered to stator pins and blue wires. Because output from Generator is AC there is no need to take care of polarity.

Be sure that when soldering wires or connector to the output pins and input stabilizer wires you avoid any shortcut between them.

4) Electric stabilizer

Electric stabilizer is very important parts of whole system which stabilizes AC high voltage from generator to the usable level 28V DC. As described above you should connect blue wires from stabilizer to the output pins of stator of generator. When you have connected it properly, whole system is ready to supply a load connected to it.

Following picture shows how the stabilizer should be connected to the whole system.



As you can see, on the output there are three wires:

- Brown - battery (Ground of the battery has to be connected to the black wire.
- Red - (+) pole of the output
- Black - Ground (-) pole of the output.

Battery should be connected to the systém to support RPM ranges when voltage (output power) is not enough to supply load connected to the systém. Once the generator creates enough power to supply load connected to the output of stabilizer batter is not connected and used. Once the output power is enough, batter is not connected to the systém and also it is not charged. For Output of the generator you can use either direct soldering or connectors you normally use in your system.

Please avoid shortcircuit on the stabilizer output. It has integrated fuse and will result in malfunction in case of short circuit.

COOLING OF STABILIZER

As the stabilizer works with quite high energies i tis neccessary to cool it properly. It body is designed as a one big cooling surface and also inside is integrated fan. **KEEP BOTH OPENED SIDES OF STABILIZER ALWAYS OPENED TO FREE AIR . Range of working temperatures of stabilizer is -20 degrees of Celsius to 50 degrees of Celsius.**

5) Output graphs

If you wish to use your own stabilizer you ma neeed following output parameters shown in easy to read graph.

OUTPUT OF GENERATOR DEPENDING ON RPM LEVEL AND LOAD CONNECTED