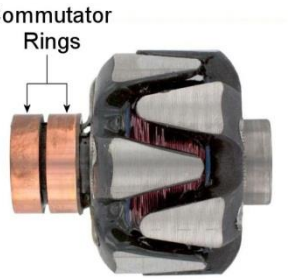
EUROMOTOELECTRICS.COM

# Locating a Failure in your Charging System

Most electrical problems stem from a bad battery with low voltage. If you receive a reading of 12.4v or lower you need to replace your battery in order to avoid serious problems in the future. If your battery is healthy the problem is most likely a short in the alternator rotor. When the rotor receives a short of current the resistance decreases and current flow goes up. This causes the regulator/rectifier to overwork itself and burn out. You always want to replace the regulator/rectifier when replacing a bad rotor. You will have to take your regulator/rectifier into a technician for proper diagnosis.

**Perform the following test to determine if your rotor is healthy.**




1. Clean both commutator slip rings
2. Set your digital OHM meter to 0-20 OHMs
3. Apply a probe to each of the two sections on the commutator ring
4. Record your findings

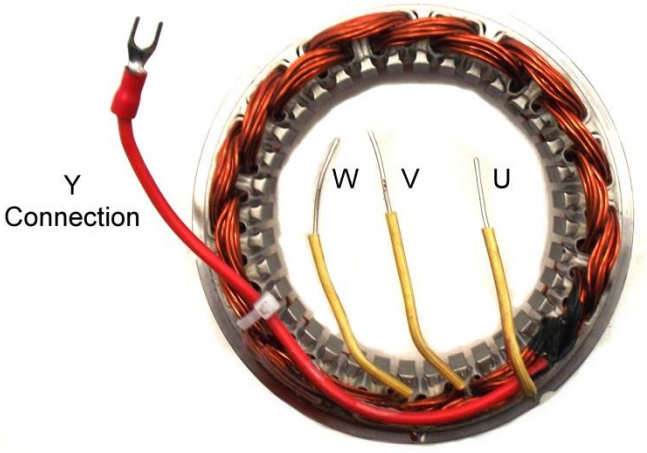
When you receive an open reading or that of 1 OHM or less your rotor has most likely failed. A healthy rotor will deliver a reading between 2.8 and 5.8 OHMs.

1. Now apply one probe on one of the commutator rings and one probe on the steel base.

Your rotor should have no continuity. If your rotor failed both tests you should replace your rotor. A professional diagnosis is always recommended but by following the above steps you should be able to determine if your rotor is healthy or not.

**If you've determined your rotor is fine then the next thing to check is your stator.**

1. Locate the 3 stator wires that connect to the WVU connections on the alternator brush holder.
2. Check two wires at a time testing all combinations for continuity around .5 to 1 OHMs.
3. When testing from each wire to ground you should receive no continuity.
4. When testing from one of the WVU wires to the Y connection, you should get the same numbers.



## Installation Note / Troubleshooting –

**Due to a very small variation in the stator coil wire height, please check the following dimension:**

**Make sure that the stator coil wires are not touching the aluminum stator frame housing.**

**Run a feeler gauge or business card thick paper around the perimeter of the inside stator frame (see picture example).**

**This will ensure that there is an air gap between all the stator coil wires and the aluminum frame.**

**The stator coil wire cannot touch the aluminum;**

**if the wire is touching the aluminum this will ground out the stator.**

**Grounding of the stator will not allow the system to charge properly.**

**Another indication of the stator being grounded is that the Charge Indicator Lamp will NOT turn on.**

**If necessary, remove the aluminum from the stator frame that is touching the stator coil wire(s).**

**This may be easily performed with a file or Dremel-type grinding tool.**

**Simply, take off the aluminum stator frame off the stator and relieve portion of the aluminum frame that is touching the stator coil wire.**

**Both inner and outer frames should be checked and relieved as required...**

**Thank you for your business and patience !**