

3G/4G Alternator Diagnosis

1. Check the state of the battery.
 - a. A battery in good working condition will show between 12V-12.5V with nothing drawing on it. If your battery is below that level chances are you have a bad battery.
2. Compare voltage at the battery to voltage at the output post of the alternator.
 - a. There should be very little drop in voltage from the battery to the output post of the alternator. Any significant resistance on this wire could be detrimental to the operation of the alternator.
 - b. If you show 0 voltage at the output post of the alternator check the fuse or fusible link in the power wire going to the battery as it may be blown.
3. Check the voltage on the 3 wire Regulator Plug.
 - a. Green wire with red stripe- This wire is the ignition key on/key off. With the key in the on position (**Car Not Running!**) this wire should read between 1/2 volt to 1 volt less than battery voltage.
 - b. White Wire (**3G only**) - This wire is called the stator wire. This wire needs continuity from the voltage regulator plug to the grey clip that plugs into the alternator.
 - c. Yellow wire- This wire is called the sense wire and is a reference wire for the voltage regulator so it knows how much voltage to produce. This wire should equal battery voltage at all times.

**** Never under any circumstances remove the battery cable while the car is running! Doing this can damage the internal voltage regulator making the alternator no longer charge. This test only worked on early cars that had very low draw and an external mechanical voltage regulator. ****