BTC Automotive Technology
Job Sheet: SP6 – DMM Exercise

Objective: To practice taking electrical measurements.

Procedure: Perform listed items on any vehicle using a DMM with greater than 10M ohm input impedance.

- Test any battery open circuit voltage and record. ________________
- Check your meter and leads to be sure they are in good condition and there is no damage to the test leads. Inspect the rating of the test leads and meter to be sure they can handle 200 volts AC or more. If OK, proceed.
- Test voltage in wall socket and record. **BE CAREFUL!!!** ________________
- Remove one spark plug wire with the engine off. Measure the resistance of the plug wire. ________________
- Is the wire in specs.? _______ (Wire spec is 10,000Ω per foot or less)
- Average current flow of a starter motor while cranking. ________________
- Average current flow of a blower motor on high speed. ________________
- Measure the resistance of a headlight bulb and record. ________________
- Calculate the amount of current flow through the headlight bulb using ohm’s law and a 12 volt battery.
- Now measure the actual current flow through the bulb. Is it the same as what was calculated? _______
- If not, why? ___________________________________________________________________
- Ask instructor for a used fuel injector. Calculate the current flow using ohm’s law and a 12 volt battery. Now measure the actual current flow through the injector. Is it the same as what was calculated? _______
- If not, why? ___________________________________________________________________