BTC Automotive Technology

Job Sheet: EL5 – 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.

Vehicle:

- Test battery open circuit voltage and record.
- Record battery minimum voltage when cranking.
- Record battery voltage when engine is idling.
- Record any AC voltage at the battery when engine is idling.
- Measure current through headlamp bulb at test board and record.
- Measure current through the horn and record.
- Back probe blower motor wire and record voltage at low fan speed.
- Measure current flow of the blower motor on low fan speed and record.
- What controls (limits) fan speed on THIS vehicle? Attach wiring diagram.
- Pierce wires to headlamp bulb and measure applied voltage.
  - Is it the same as at the battery?
  - Why or why not?
- Measure current flow through the brake light circuit.
- Measure current flow through the washer pump at the fuse block.
- Record resistance of the washer pump.
- Measure current flow through a cigar lighter at the fuse block.
- Calculate the resistance of the cigar lighter. Attach wiring diagram.

Related NATEF tasks:

DMMexerciseEL5version3.doc