

NATEF AUTOMOTIVE TASK LIST
AUT 133 – ELECTRICAL FUNDAMENTALS

TERM: _____

SID: _____

INSTRUCTOR: _____

NAME: _____

For every task in Electrical Fundamentals the following safety requirement must be strictly enforced: Comply with personal and environmental safety practices associated with clothing; eye protection; hand tools; power equipment; proper ventilation; and the handling, storage, and disposal of chemicals/materials in accordance with local, state and federal safety and environmental regulations.

<u>Task Code</u>	<u>Task</u>	<u>Priority</u>
<u>A. General Electrical System Diagnosis</u>		
6.A.1	Research applicable vehicle and service information, vehicle service history, service precautions, and technical service bulletins.	P-1
6.A.2	Demonstrate knowledge of electrical/electronic series, parallel, and series-parallel circuits using principles of electricity (Ohm's Law).	P-1
6.A.3	Demonstrate proper use of a digital multimeter (DMM) when measuring source voltage, voltage drop (including grounds), current flow and resistance.	P-1
6.A.4	Demonstrate knowledge of the causes and effects from shorts, grounds, opens, and resistance problems in electrical/electronic circuits.	P-1
6.A.5	Check operation of electrical circuits with a test light.	P-1
6.A.6	Check operation of electrical circuits with fused jumper wires.	P-1
6.A.7	Use wiring diagrams during the diagnosis (troubleshooting) of electrical/electronic circuit problems.	P-1
6.A.8	Diagnose the cause(s) of excessive key-off battery drain (parasitic draw); determine necessary action.	P-1
6.A.9	Inspect and test fusible links, circuit breakers, and fuses; determine necessary action.	P-1
6.A.10	Inspect and test switches, connectors, relays, solenoid solid state devices, and wires of electrical/electronic circuits; determine necessary action.	P-1
6.A.11	Replace electrical connectors and terminal ends.	P-1
6.A.12	Repair wiring harness.	P-3
6.A.13	Perform solder repair of electrical wiring.	P-1
6.A.14	Check electrical/electronic circuit waveforms; interpret readings and determine needed repairs.	P-2
6.A.15	Repair CAN/BUS wiring harness.	P-1