JOB SHEET A6E1 Lighting System Diagnosis

Start Date: _____

Name: _____ End Date: _____

Make: _____ Model: _____ Year: _____

VIN: _____ Mileage: _____

Learning Objective/NATEF Task

- Diagnose the cause of brighter than normal, intermittent, dim, or no light operation; determine necessary action **NATEF TASK A6/E1, P1. ICS161**

Materials

Classroom Vehicle (s), OEM service information, DMM, Jumper wires, fender covers

Procedure

- Wear Safety Glasses for this entire procedure.
- Review Lesson 2 of UNIT 8 in the A6 course. Locate in the OEM service information the procedure for diagnosing brighter than normal, intermittent, dim, or no light operation for the vehicle you are using. Submit this procedure to your instructor or mentor for approval.

Your Instructor MUST stamp or initial the box to the right before you can proceed with this job sheet.

Instructor Approval

- Power and ground circuits can be tested with either a test-light or a DMM, or both. Use the test-light to check for battery voltage and to identify the power terminal. Once the power terminal has been identified, you can use the DMM to check the ground side of the connector for continuity to body ground. If you prefer, you can connect the test-light across both the power and ground terminals, and check both at the same time. If the test-light glows brightly, you have power and ground. If the test-light is dim, you probably have a bad ground. Check the resistance of the ground terminal to the body of the vehicle with the DMM. A good ground will show almost no resistance.

1. Remove the socket or connector from a single filament taillight bulb of a classroom vehicle. Do the terminal or connections show signs of corrosion? _____
2. Using a test light connected to body ground, find the power terminal of the connector/socket. Turn the circuit off using the headlight switch.
3. Connect the test-light ground lead to the ground terminal of the connector/socket. Probe the power terminal while a classmate turns the headlight switch on. If the test-light glows, the ground side of the circuit is OK. Does the test-light glow? _____.
4. Turn the headlight switch OFF.
5. Using the DMM, check the ground side of the terminal for continuity to body ground. With the system under power you can check the voltage drop from the bulb ground terminal to the body ground. What is the voltage drop across the ground?_____. You can also use the Ohmmeter function of the DMM to check resistance from the bulb ground terminal to the body ground.
6. What did you find and interpret your results:

_____

_____

_____

_____

_____

_____

_____

_____

TASK SUMMARY

• Now that you have completed this NATEF task, can you think of anything (tools, information, knowledge etc.) that would have made this task easier.

_____

_____

_____

_____

- List a customer complaint together with the cause determined by this diagnostic/inspection task that might appear on a work order, and then list the NATEF Task CORRECTION you would use to resolve the complaint.

COMPLAINT: _____

1. Perform Checks/Inspect: _____
2. Referencing Bulletin: _____

CAUSE: _____

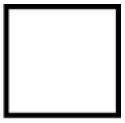
1. Diagnosis: **USED THIS NATEF DIAGNOSIS TASK**
2. Operating as designed: _____
3. Cause identified as: _____

CORRECTION: _____

1. Other Correction: _____
2. Correction Verified By: _____

Use this Rubric to RATE the completion of Job Sheet

1 = Demonstrated exposure/observation of the competency
2 = Applies the competency but only mastered a few essential attributes of the competency
3 = Capable of the competency but needs further practice
4 = Performs the competency satisfactorily
5 = MASTERED the competency



Instructor _____ **Mentor** _____