

# A6/U9/L1 GAUGES, WARNING DEVICES, & DRIVER INFORMATION SYSTEMS DIAGNOSIS

## JOB SHEET A6F4 ELECTRONIC IP SENSORS & WIRES

Name: \_\_\_\_\_ Start Date: \_\_\_\_\_  
Make: \_\_\_\_\_ Model: \_\_\_\_\_ End Date: \_\_\_\_\_  
VIN: \_\_\_\_\_ Year: \_\_\_\_\_  
Mileage: \_\_\_\_\_

### LEARNING OBJECTIVE/NATEF TASK



- Inspect and test sensors, connectors, and wires of electronic instrument circuits; determine necessary action **NATEF TASK A6/F4, P2. ICS161, 166**

### MATERIALS

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

### PROCEDURE

- Wear Safety Glasses for this entire procedure.
- Review Lesson 1 of UNIT 9 in the A6 course. Locate in the OEM service information the procedure for the inspection and testing of the sensors, connectors, and wires of electronic instrument circuits 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.



1. Using the OEM service information that you found, locate the procedure for running self-diagnostics on the instrument cluster, list if this vehicle has a BCM, and summarize your procedure for doing this task:

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2. List the results of the self-diagnostics test:

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3. List any service recommendations that you have regarding your test:

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4. If no DTCs (diagnostic trouble codes) were found, you can use the following steps in a sample diagnosis:

a. Disconnect the wire harness from a sending unit.

b. Connect a jumper wire between the gauge and the sending unit.

c. Turn on the ignition switch and observe the gauge. List what happened.

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d. Explain why you used the jumper wire \_\_\_\_\_

e. What were you looking for? \_\_\_\_\_

f. If the gauge reads too high with the jumper wire in place, visually inspect the ground for the sending unit and record what you found.

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g. Check the ground with the DMM and record what you found.

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h. If the ground was good and the gauge doesn't read correctly, what could be the cause? \_\_\_\_\_

i. If the gauge still reads low with the jumper wire, check the sending unit with an ohmmeter and record your diagnosis?

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## 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.

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- 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** \_\_\_\_\_