

# A4/U12/L2 ELECTRONIC SUSPENSION

## JOB SHEET A4C3.3 Electronic Suspension

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

### LEARNING OBJECTIVE/NATEF TASK



- Test and diagnose components of electronically controlled suspension systems using a scan tool; determine necessary action. **NATEF TASK A4/C3.3, P3. ICS 166, ICS 167.**

### MATERIALS

Classroom Vehicle (s) and or mock-ups or components, OEM service information, safety glasses, hand tools, scan tool, lift.

### PROCEDURE

- Wear Safety Glasses for this entire procedure.
- Review Diagnosing Electronic Suspension Systems in Lesson 2 of UNIT 12 of the A4 course. Locate in the OEM service information, a procedure for diagnosing electronically controlled suspension systems. Submit the procedure to your instructor or mentor and have them check the box below to indicate approval of the procedure.

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



1. What is electronically controlled on this vehicle's suspension and how is it diagnosed?

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2. Connect the OEM Scan Tool to the DLC and perform a Diagnostic System Check. This check will provide the following information:
  - The identification of the control module(s) which command the system.
  - The ability of the control module(s) to communicate through the serial data circuit.
  - The identification of any stored diagnostic trouble codes (DTCs) and their status.
3. Attempt to establish communication with the following modules:
  - Electronic Suspension Control (ESC) Module
  - Electronic Brake Control Module (EBCM)
  - Powertrain Control Module (PCM)
4. List any stored or active DTCs \_\_\_\_\_
5. Using the OEM service information, locate a procedure for sensor adjustment or replacement. Have the instructor check the box below to indicate approval of the procedure.

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



6. What type of sensors are on this vehicle"? \_\_\_\_\_
7. Are the sensors adjustable? \_\_\_\_\_
8. Place the vehicle on a hydraulic lift.



**CAUTION: Observe all shop and safety rules when operating a hydraulic lift. If you are under 18, your instructor/mentor MUST assist you.**

9. Follow the lift manufacturer's instructions and raise the vehicle (with mentor/instructor assist).
10. Adjust or replace the suspension sensors.
11. Use the scan tool in order to perform the trim height set procedure.

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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** \_\_\_\_\_