

Powertrain Control System Testing

Student/Intern information:

Name _____ Date _____ Class _____

Vehicle used for this activity:

Year _____ Make _____ Model _____

Odometer _____ VIN _____

Learning Objective/Task	CDX Tasksheet Number	2017 MAST NATEF Reference Number; Priority Level
• Describe the use of OBD monitors for repair verification.	C661	8B4; P-1
• Retrieve and record diagnostic trouble codes (DTC), OBD monitor status, and freeze-frame data; clear codes when applicable.	C659	8B1; P-1
• Perform active tests of actuators using a scan tool; determine needed action.	C867	8B3; P-1
• Inspect and test computerized engine control system sensors, powertrain/engine control module (PCM/ECM), actuators, and circuits using a graphing multimeter (GMM)/digital storage oscilloscope (DSO); perform needed action.	C840	8B7; P-2

Time off _____
Time on _____
Total time _____

Materials Required

- Vehicle or simulator (OBD)
- Scan tool
- DMM/DVOM
- GMM/DSO
- Problem-specific tools and equipment

Some Safety Issues to Consider

- If you need to start the vehicle, you should ensure that the parking brake is firmly applied; if necessary, use wheel chocks to prevent the vehicle from moving when the vehicle is started to verify the completion of this task.
- Only students who have their supervisor's/instructor's direct permission should perform this task due to the safety concerns involved.
- Diagnosis of this fault may require test-driving the vehicle on the school grounds. Attempt this task only with full permission from your instructor and follow all the guidelines exactly.
- When running any vehicles in the shop, make sure you use the shop's exhaust ventilation system to discharge all exhaust gas safely outside.
- 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.

Performance Standard

0–No exposure: No information or practice provided during the program; complete training required

1–Exposure only: General information provided with no practice time; close supervision needed; additional training required

2–Limited practice: Has practiced job during training program; additional training required to develop skill

3–Moderately skilled: Has performed job independently during training program; limited additional training may be required

4–Skilled: Can perform job independently with no additional training