



# Scan Tool Diagnosis

**Meets NATEF Task:** (A8-B-7) Diagnose driveability and emissions problems resulting from malfunctions of interrelated systems; determine necessary action. (P-3)

Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

(Not all of this data will be available on all vehicles or scan tools - if not available, put N.A.)

\_\_\_\_\_ 1. DTCs: \_\_\_\_\_ Pending DTC: \_\_\_\_\_

\_\_\_\_\_ 2. Engine coolant temperature (ECT): cold \_\_\_\_\_ warm \_\_\_\_\_

\_\_\_\_\_ 3. Intake air temperature (IAT): cold \_\_\_\_\_ warm \_\_\_\_\_

\_\_\_\_\_ 4. Upstream O2S1: lowest voltage observed \_\_\_\_\_ highest voltage observed \_\_\_\_\_

\_\_\_\_\_ 5. Upstream O2S2: lowest voltage observed \_\_\_\_\_ highest voltage observed \_\_\_\_\_

\_\_\_\_\_ 6. Downstream O2S: lowest voltage observed \_\_\_\_\_ highest voltage observed \_\_\_\_\_

\_\_\_\_\_ 7. O<sub>2</sub> cross counts: @ idle \_\_\_\_\_ @ 2,000 RPM \_\_\_\_\_

\_\_\_\_\_ 8. Injector pulse width: @ idle (park) \_\_\_\_\_ @ idle (drive) \_\_\_\_\_  
@ 2,000 RPM (park) \_\_\_\_\_ @ 3,000 RPM (park) \_\_\_\_\_

\_\_\_\_\_ 9. Spark advance: @ idle (park) \_\_\_\_\_ @ idle (drive) \_\_\_\_\_  
@ 2,000 RPM (park) \_\_\_\_\_ @ 3,000 RPM (park) \_\_\_\_\_

\_\_\_\_\_ 10. Short term fuel trim (integrator): @ idle (park) \_\_\_\_\_  
@ idle (drive) \_\_\_\_\_ @ 2,000 RPM (park) \_\_\_\_\_

\_\_\_\_\_ 11. Long term fuel trim (block learn): @ idle (park) \_\_\_\_\_ @ idle (drive) \_\_\_\_\_

\_\_\_\_\_ 12. P/S switch: OK \_\_\_\_\_ NOT OK \_\_\_\_\_

\_\_\_\_\_ 13. MAP: @ idle (park) \_\_\_\_\_ @ idle (drive) \_\_\_\_\_

\_\_\_\_\_ 14. MAF (grams/sec): @ idle (park) \_\_\_\_\_ @ idle (drive) \_\_\_\_\_  
@ 2,000 RPM (park) \_\_\_\_\_ @ key on (engine off) \_\_\_\_\_

\_\_\_\_\_ 15. IAC counts: @ idle (park) \_\_\_\_\_ @ idle (drive) \_\_\_\_\_  
@ A/C on (drive) \_\_\_\_\_ @ 2,000 RPM (park) \_\_\_\_\_

\_\_\_\_\_ 16. Throttle position (TP) sensor: @ idle \_\_\_\_\_ @ W.O.T. engine off, ignition "on" \_\_\_\_\_

\_\_\_\_\_ 17. Battery voltage: \_\_\_\_\_

\_\_\_\_\_ 18. Troubles with the vehicle? (if any) \_\_\_\_\_