

## **OBD II Drive Cycle Operation 2.0L, 3.2L, 4.2L Engines**

### **Readiness Code Generating**

#### **General Description**

Diagnostics are performed at regular intervals during normal vehicle operation. After repairing an emissions related system, a readiness code is generated by road testing the vehicle.

If a malfunction is recognized during the drive cycle, it will be stored in the DTC memory.

The OBD drive cycle operation will be monitored with a hand held diagnostic tool. Consult the manufacturer's instruction manual for correct tool operation.

The readiness code is erased every time the DTC memory is erased or any time the battery is disconnected.

If the DTC memory has been erased or the battery is disconnected, a new readiness code must be generated.

Only erase the DTC memory if a DTC has been stored.

#### **General Recommendations**

Most monitors will complete easier and quicker using a “steady-foot” and “smooth” acceleration during the drive cycle operation, cruise, and acceleration modes.

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### Readiness Code Generating continued

#### Operating Conditions

For the EVAP monitor test, the coolant temperature and the ambient air temperature must be between 10° C and 35° C with a difference between them no greater than 4° C. The ambient air temperature must not change more than 4° C during the drive cycle procedure (e.g. when driving out of a heated workshop in the winter).

#### Requirements

- Erase the DTC memory.
- Coolant temperature must be between 80° C and 110° C.
- The Intake Air Temperature (IAT) must be between 10° C and 35° C.
- Battery voltage must be a minimum of 12.5 volts.



#### **Warning:**

***When performing the drive cycle operation, pay strict attention to driving conditions and please observe and obey all posted speed limits. Failure to follow these instructions may result in personal injury or possible death.***

#### Drive Cycle Procedure

1. Connect the diagnostic tester.
2. Switch the ignition on and start the vehicle.
3. Idle the vehicle for 2-3 minutes. This executes the O2S Heater, Misfire, Secondary AIR, Fuel Trim, and Purge system monitors.
4. Drive the vehicle at 45-55 mph for a continuous 7-minute period, avoid stopping. This executes the EVAP, O2S, Fuel Trim, and Misfire monitors.
5. Accelerate the vehicle to an engine speed of 5000 RPM (with automatic transmission use the tip-tronic mode); lift off from the throttle until the engine speed is at around 1200 rpm. This executes the fuel cut off monitor. Perform this step twice to execute the O2S rear monitor.
6. Accelerate the vehicle smoothly to 60-65 mph, cruise constantly for 5 min, this executes the Catalyst; O2S, Misfire, Fuel Trim, and Purge System monitors.
7. Decelerate and idle the vehicle again for 3 minutes. This executes the Misfire, Secondary AIR, Fuel Trim, and Purge system monitors.

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8. Check the status of the readiness code.

**Note:**

***Depending on the diagnostic tester used. The readiness code status may be displayed as complete, passed or OK.***

9. If any engine monitor fails the drive cycle test. Repeat the drive cycle test until all engine monitors have successfully run through and passed.

**Note:**

***When repeating the drive cycle operation for a failed EVAP monitor or thermostat-monitor, allow the engine to cool until the coolant temperature and the ambient air temperature are between 10° C and 35° C with a difference between them no greater than 4° C is observed and repeat the drive cycle operation.***

10. If the drive cycle operation fails again.
11. Check the DTC memory for stored DTC's.
12. Repair the vehicle if necessary.
13. Repeat the drive cycle operation until all engine monitors have successfully run through and passed.
14. Remove the diagnostic tester and switch the ignition off.
15. End of operation.