Inspection/Maintenance (I/M) Complete System Set Procedure

Diagnostic Fault Information

Important: Always perform the Inspection/Maintenance (I/M) System Check prior to using this diagnostic procedure.

Description

The purpose of the Inspection/Maintenance (I/M) complete system set procedure is to satisfy the enable criteria necessary to execute all of the I/M readiness diagnostics and complete the trips for those particular diagnostics. When all I/M monitored diagnostic tests are completed, the I/M System Status indicators are set to YES. Perform the Inspection/Maintenance (I/M) Complete System Set Procedure if any I/M System Status indicators are set to NO.

Conditions for Meeting a Cold Start

- The ignition voltage between 11.0 and 18.0 volts.
- The barometric pressure (BARO) is more than 75 kPa.
- The start-up engine coolant temperature (ECT) is between 4-30°C (39-86°F).
- The start-up intake air temperature (IAT) is between 4-30°C (39-86°F).
- The difference between the IAT and the ECT is equal to or less than 6°C (10.8°F)
- The ambient air temperature is between 4-30°C (39-86°F).
- Fuel level is between 15 and 85 percent
- Vehicle has NOT been refueled since the last cold start ignition cycle.

Circuit/System Verification

Review the Inspection/Maintenance (I/M) System Status indicators. All I/M System Status indicators should report YES.

Inspection/Maintenance (I/M) System Set Procedure

> **Important:** Whenever the ignition is turned ON, ignition positive voltage is supplied to the heated oxygen sensor (HO2S) heaters. After verifying the enable criteria, turn OFF the ignition for approximately 5 minutes to allow the sensors to cool before continuing with the test. Once the engine is started, do NOT turn the engine OFF for the remaining portion of the set procedure.

1. Ensure that the vehicle meets the conditions for a cold start listed above.

   If the EVAP I/M System Status indicator displays NO, perform the EVAP Service bay test if applicable.

   If the EVAP Service bay test is NOT available, it may take up to 6 drive cycles, with 17 hours between drive cycles for the EVAP I/M System Status Indicator to transition to YES.

   The EVAP I/M System Status indicator requires several drive and 17 hour key OFF cycles to complete before the indicator will transition.

   If the O2S Heater System Status indicator displays NO, ensure that the ignition has been turned OFF for at least 10 hours.

2. Turn OFF all accessories; HVAC system, other electrical loads, including aftermarket/add-on equipment, etc., and open the hood.
3. Set the vehicle parking brake and ensure the vehicle is in park for automatic transmission or neutral for manual transmission.
4. Turn the ignition ON with the engine OFF for 1 minute.
5. Start and idle the engine for 2 minutes and until 65°C (149°F) is achieved.
6. Run the engine for 6.5 minutes within the following conditions:
   - MAF parameter between 4-30 g/s
   - Engine speed steady between 1000-3000 RPM
7. Return the engine to idle for 1 minute.
8. Apply and hold brake pedal, and shift to Drive for automatic, or apply clutch pedal for manual and operate the vehicle within the following conditions for 2 minutes:
   - Depress the accelerator pedal until TP Sensor angle is more than 2 percent.
   - MAF signal between 15-30 g/s
   - RPM steady between 1200-2000 RPM

   Important: Do NOT touch the accelerator pedal until told to do so. A change in TP Sensor angle or an increase in engine speed may invalidate this portion of the test.

9. Release the accelerator pedal and shift the vehicle to Park for automatic, or Neutral and release clutch pedal for manual, and allow the engine to idle for 2 minutes.
10. Quickly depress the accelerator pedal until TP Sensor Angle is more than 8 percent and return to idle, repeat 3 times.
11. Allow engine to idle for at least 2 minutes.

    Caution: Refer to Road Test Caution in the Preface section.

12. Close the hood, release the parking brake and drive vehicle at 24 km/h (15 mph) or slower for 2 minutes.
13. Continue to drive the vehicle for at least 5.5 miles between 45-112 km/h (28-70 mph) with the vehicle reaching at least 80 km/h (50 mph).
14. Release the accelerator pedal for at least 3 seconds. This will allow the vehicle to enter the decel fuel cut off.
15. Depress the accelerator pedal until the TP Sensor angle is between 3-20 percent and maintain for 1 minute.
16. Safely stop the vehicle, with the engine in drive for automatic or neutral with the clutch pedal depressed and parking brake applied for manual. Allow the vehicle to idle for 2 minutes.

    Important: Do NOT disturb the vehicle or turn ON the ignition until told to do so. Disturbing the vehicle may invalidate this portion of the test.

17. Shift the vehicle to park for automatic and neutral for manual. Turn OFF the ignition and exit the vehicle. Do NOT disturb the vehicle for 45 minutes.
18. Observe the Inspection/Maintenance (I/M) System Status with a scan tool. All of the I/M System Status indicators should display YES.

    If the EVAP I/M System Status indicator displays NO turn OFF the ignition for 17 hours, ensure that the vehicle meets the conditions for a cold start, and repeat steps 13-18 three more times, or until the EVAP I/M System Status indicator transitions to YES. If the indicator continues to display NO, refer to the Inspection/Maintenance (I/M) System DTC Table to identify the DTCs that did not run.

    If any of the I/M System Status indicators display NO, refer to the Inspection/Maintenance (I/M) System DTC Table for the indicator which did not display YES. The I/M System DTC Table identifies the DTCs associated with each I/M System Status Indicator.