

Throttle Body Cleaning and Idle Learning Procedure

Throttle Body Cleaning

Important: Over extended time and mileage, deposits may accumulate on the back of the throttle valve plate. The source of the deposit is Exhaust Gas Recirculation (EGR) gas. Typically, these deposits pose no problem. Occasionally the deposit may accumulate to a point where perceived pedal effort or throttle valve movement is affected. This procedure should not be performed on vehicles with mileage under 80 450 km (50,000 mi).

1. Remove the air intake duct. Refer to Air Cleaner Inlet Duct Replacement.

Caution: Turn OFF the ignition before inserting fingers into the throttle bore. Unexpected movement of the throttle blade could cause personal injury.

Notice: Do not insert any tools into the throttle body bore in order to avoid damage to the throttle valve plate.

2. Inspect the throttle body bore and the throttle valve plate for deposits. You will need to open the throttle valve in order to inspect all surfaces.

Notice: Do not use any solvent that contains Methyl Ethyl Ketone (MEK). This solvent may damage fuel system components.

3. Clean the throttle body bore and the throttle valve plate using a clean shop towel with Throttle Body Cleaner.
4. Install the air intake duct. Refer to Air Cleaner Inlet Duct Replacement.

Throttle/Idle Learn Procedure

Description

The Engine Control Module (ECM) learns the idle position of the throttle plate to ensure the correct idle. Anytime the throttle body is cleaned or replaced, the ECM must learn the new throttle position. The idle may be unstable or a DTC may set if the throttle position is not learned.

Conditions for Running the Throttle Learn Procedure

- DTCs P0101, P0102, P0103, P0107, P0108, P0111, P0112, P0113, P0506, and P0507 are not set.
- The engine speed is between 450-4,000 RPM.
- The manifold absolute pressure (MAP) is greater than 5 kPa.
- The mass air flow (MAF) is greater than 2 g/s.
- The ignition 1 voltage is greater than 10 volts.

Throttle Learn

Important: Do NOT perform this procedure if DTCs are set. Refer to Diagnostic Trouble Code (DTC) List - Vehicle.

1. Start and idle the engine in PARK for 3 minutes.
2. With a scan tool, monitor desired and actual RPM.
3. The ECM will start to learn the new idle cells and Desired RPM should start to decrease.
4. Ignition OFF for 60 seconds.
5. Start and idle the engine in PARK for 3 minutes.
6. After the 3 minute run time the engine should be idling normal.

Important: During the drive cycle the check engine light may come on with idle speed DTCs. If idle speed codes are set, clear codes so the ECM can continue to learn.

7. If the engine idle speed has not been learned the vehicle will need to be driven at speeds above 70 km/h (44 mph) with several decelerations and extended idles.
8. After the drive cycle, the engine should be idling normally.
9. If the engine idle speed has not been learned, turn OFF the ignition for 60 seconds and repeat step 6.
10. Once the engine speed has returned to normal, clear DTCs.

Source:

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Technical Support / Product Development

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