

# DTC P1626 Theft Deterrent Fuel Enable Signal Lost

## Circuit Description

The Vehicle Theft Deterrent system consists of the following components:

- Powertrain Control Module (PCM)
- Body Control Module (BCM)
- Ignition Lock and Key

After the Body Control Module (BCM) has confirmed the key resistor pellet, the BCM sends a password to the PCM via the Class 2 Serial Data circuit. When this password matches the password stored in the PCM, the system enables the fuel. If the BCM does not send a password or if the PCM does not receive it, the vehicle will not start unless the PCM is in VTD Fail-Enabled mode. If the BCM and PCM lose communications with each other after the system has received the correct password, the PCM goes into VTD Fail-Enable mode. This allows the driver to restart the vehicle on future ignition cycles until communications between the BCM and PCM are restored. If the BCM and PCM lose communications before the PCM receives the BCM password, the PCM disables the fuel until communications is restored in order to prevent vehicle theft. In both cases DTC P1626 sets. The PCM will not disable the fuel injection once the PCM enabled the fuel within a given ignition cycle in order to prevent stalling as a result of VTD system faults.

## Conditions for Running the DTC

- The system has reached fuel enable decision point.
- The PCM is in Failed Enable Mode due to loss of communications with the BCM after the system received the correct password earlier in the ignition cycle.

## Conditions for Setting the DTC

The PCM does not receive the password message from the BCM prior to the VTD Fuel Decision Point.

## Action Taken When the DTC Sets

- The PCM enables the fuel on future ignition cycles only if the PCM is in Failed Enable Mode.
- The PCM stores the DTC information into memory when the diagnostic runs and fails.
- The Malfunction Indicator Lamp (MIL) will not illuminate.
- The PCM records the operating conditions at the time the diagnostic fails. The PCM stores this information in the Failure Records.

## Conditions for Clearing the DTC

- A last test failed, or current DTC, clears when the diagnostic runs and does not fail.
- A history DTC will clear after 40 consecutive warm-up cycles, if no failures are reported by this or any other non-emission related diagnostic.
- Use a scan tool in order to clear the DTC.

## Diagnostic Aids

**Important:** Remove any debris from the PCM\TAC module connector surfaces before servicing the PCM\TAC module. Inspect the PCM\TAC module connector gaskets when diagnosing/replacing the modules. Ensure that the gaskets are installed correctly. The gaskets prevent contaminant intrusion into the PCM\TAC modules.

The most likely cause of DTC P1626 is a loss of serial data communication from the BCM. Check for a loss of power to the BCM or for other causes of communication loss. Check for the following intermittent conditions on the class 2 circuit:

- Open Circuit
- Grounded Circuit
- Shorted to a voltage

## Test Description

The numbers below refer to the step numbers on the diagnostic table.

2. A communication problem exists if the engine does not start and DTC P1626 sets. The PCM disables the fuel control if the PCM does not receive the password from the BCM before the engine is started.
3. The PCM in VTD Fail Enabled mode indicates that a communication problem occurred while the engine was operating. The engine will continue to operate if the PCM does not receive the password from the BCM while the engine is operating.
4. Check for an intermittent problem with the Class 2 circuit if the engine starts and idles.

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### DTC P1626 Theft Deterrent System Fuel Enable Circuit

Step	Action	Value(s)	Yes	No
1	Did you perform the Powertrain On-Board Diagnostic (OBD) System Check?	--	<a href="#">Go to Step 2</a>	Go to <a href="#">Powertrain On Board Diagnostic (OBD) System Check</a>
<a href="#">2</a>	Does the engine start and idle?	--	<a href="#">Go to Step 3</a>	Go to <i>BCM Diagnostic System Check</i>
<a href="#">3</a>	Install a scan tool. Is the PCM in VTD Fail Enabled mode?	--	<a href="#">Go to Step 4</a>	Go to <i>Diagnostic Aids</i>
<a href="#">4</a>	<p><b>Important:</b> : Monitor all the DTC status parameters and observe any additional DTCs before Clearing the DTCs.</p> <ol style="list-style-type: none"> <li>1. Turn OFF the ignition.</li> <li>2. Disconnect the battery positive cable for 1 minute.</li> <li>3. Reconnect the battery positive cable.</li> <li>4. Attempt to start the engine.</li> </ol> <p>Does the engine start and idle?</p>	--	Go to <i>Diagnostic Aids</i>	<a href="#">Go to Step 5</a>
5	Is DTC P1626 set?	--	Go to <i>BCM Diagnostic System Check</i>	Go to <i>Engine Cranks but Does Not Run</i>