

DTC P0826 the TCM detects an invalid voltage on the Up/Down Switch Circuit

Circuit Description

The TAP Shift system allows the driver to manually shift gears by using the TAP Shift switches located on the Automatic Transmission Shifter. Pushing the Up switch will command an upshift and pushing the Down switch will command a downshift. The TAP Shift system is activated when the gear selector is in the manual, M, position and is deactivated in all other positions. If the TCM detects an invalid voltage on the Up/Down Switch Circuit, DTC P0826 sets. DTC P0826 is a type C DTC.

Conditions for Running the DTC

The engine run time is greater than 5 seconds.

Conditions for Setting the DTC

The TCM detects an invalid voltage on the TAP Up/TAP Down Signal Circuit for 300 seconds.

Action Taken When the DTC Sets

- The TCM does not request the ECM to illuminate the malfunction indicator lamp (MIL).
- The TCM records the operating conditions when the Conditions for Setting the DTC are met. The TCM stores this information as a Failure Record.
- The TCM stores DTC P0826 in TCM history.

Conditions for Clearing the DTC

- A scan tool can clear the DTC.
- The TCM clears the DTC from TCM history if the vehicle completes 40 warm-up cycles without a non-emission related diagnostic fault occurring.
- The TCM cancels the DTC default actions when the fault no longer exists and the DTC passes.

DTC P0826

Step	Action	Value(s)	Yes	No
1	Did you perform the Diagnostic System Check – Vehicle?	—	Go to Step 2	Go to Diagnostic System Check – Vehicle in Vehicle DTC Information
2	<ol style="list-style-type: none"> 1. Install a scan tool. 2. Turn ON the ignition, with the engine OFF. Important: Before clearing the DTC, use the scan tool in order to record the Failure Records. Using the Clear DTC Information function erases the Failure Records from the TCM. 3. Record the DTC Failure Records. 4. Clear the DTC. 5. Select Driver Shift Request Status on the scan tool. Does the scan tool Driver Shift Request parameter display None?	—	Go to Intermittent Conditions in Engine Controls – 4.6L	Go to Step 3
3	Select Driver Shift Request Voltage on the scan tool. Does the Driver Shift Request Voltage parameter display a value higher than specified?	0.5 V	Go to Step 4	Go to Step 5

Step	Action	Value(s)	Yes	No
4	Does the Driver Shift Request Voltage parameter display a value lower than specified?	4.5 V	Go to Step 9	Go to Step 8
5	<ol style="list-style-type: none"> Inspect the fuse in the ignition 1 voltage circuit for an open. Refer to Circuit Protection -Fuses in Wiring Systems. Replace the fuse if necessary. Was the fuse open? 	—	Go to Step 6	Go to Step 7
6	<p>Important: The condition that affects this circuit may exist in other connecting branches of the circuit. Refer to Power Distribution Schematics in Wiring Systems for complete circuit distribution.</p> <ol style="list-style-type: none"> Test the ignition 1 voltage circuit of the Floor Shift Control for a short to ground between the fuse block and the Floor Shift Control. Test the signal circuit for a short to ground between the Floor Shift Control and the TCM. Refer to Testing for Short to Ground and Wiring Repairs in Wiring Systems. <p>Did you find and correct the condition?</p>	—	Go to Step 12	Go to Intermittent Conditions in Engine Controls – 4.6L

Step	Action	Value(s)	Yes	No
7	Test the ignition 1 voltage circuit of the Floor Shift Control for an open between the fuse block and the Floor Shift Control. Refer to Testing for Continuity and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	—	Go to Step 12	Go to Step 8
8	Test the signal circuit of the Floor Shift Control for an open or short to ground between the Floor Shift Control and the TCM. Refer to Circuit Testing and Wiring Repairs in Wiring Systems. Did you find and correct the condition?	—	Go to Step 12	Go to Step 9
9	1. Using the J 35616-C GM terminal test kit, connect a DMM between the TAP Up/TAP Down enable circuit and ground of the Floor Shift Control. 2. Measure the resistance of the Floor Shift Control. Is the resistance within the specified range?	8.11–8.39K W	Go to Step 10	Go to Step 11
10	Replace the Floor Shift Control. Refer to Floor Shift Control Replacement. Did you complete the replacement?	—	Go to Step 12	—
11	Replace the TCM. Refer to Transmission Control Module Replacement. Did you complete the replacement?	—	Go to Step 12	—

Step	Action	Value(s)	Yes	No
12	<p>Perform the following procedure in order to verify the repair:</p> <ol style="list-style-type: none"> 1. Select DTC. 2. Select Clear DTC Information. 3. Operate the vehicle under the following conditions: <ul style="list-style-type: none"> • Start the engine. • Observe Driver Shift Request on the scan tool. • Ensure the Driver Shift Request is not invalid for at least 1 second. 4. Select Specific DTC. 5. Enter DTC P0826. <p>Has the test run and passed?</p>	—	Go to Step 13	Go to Step 2
13	<p>With a scan tool, observe the stored information, capture info and DTC info. Does the scan tool display any DTCs that you have not diagnosed?</p>	—	Go to Diagnostic Trouble Code (DTC) List - Vehicle in Vehicle DTC Information	System OK