DTC P1574 Stop Lamp Switch Circuit

Diagnostic Instructions

- Perform the Diagnostic System Check – Vehicle prior to using this diagnostic procedure.
- Review Strategy Based Diagnosis for an overview of the diagnostic approach.
- Diagnostic Procedure Instructions provides an overview of each diagnostic category.

DTC Descriptor

DTC P1574 00: Stop Lamp Switch Circuit

Circuit/System Description

The stop lamp switch signal circuit is a direct hardwire input to the transmission control module (TCM) from the body control module (BCM). The TCM module monitors the stop lamp signal circuit in order to detect when the brake pedal has been applied. When the brake pedal is pressed, the BCM sends a High Speed GM Lan message to the engine control module (ECM) indicating that the brake pedal has been applied. The BCM also sends a high voltage signal on the stop lamp signal circuit to the TCM module. The TCM module sends a universal asynchronous receiver transmitter low speed GM Lan message to the ECM indicating that a brake pedal application has occurred. The ECM will compare the GM LAN Low speed and GM LAN High Speed data message in order to confirm that both serial data messages match.

Conditions for Running the DTC

- DTC P0573 is not set.
- The engine speed is greater than 700 RPM.
- The traction control system or the antilock brake system are not active and have not failed.
- The vehicle speed is greater than 48 km/h (30 mph) in order to enable the diagnostic.

Conditions for Setting the DTC

- The vehicle speed decreases by at least 4.2 km/h (2.6 mph) within 0.25

seconds.
- The TAC module does not detect a voltage signal on the Brake Pedal Position (BPP) signal circuit.
- The ECM does not detect a Brake Pedal Position Sensor (BPP) transition.

Action Taken When the DTC Sets

- The Cruise Control System is disabled.
- The ECM stores the DTC information into memory when the diagnostic runs and fails.
- The malfunction indicator lamp (MIL) will not illuminate.
- The ECM records the operating conditions at the time the diagnostic fails. The ECM stores this information in the Failure Records.

Conditions for Clearing the DTC

- A last test failed, or the current DTC, clears when the diagnostic runs and does not fail.
- A history DTC clears after 40 consecutive warm-up cycles, if failures are not reported by this or any other emission related diagnostic.
- Use a scan tool in order to clear the DTC.

Diagnostic Aids

Important: Repair any brake system related DTCs before performing this diagnostic. In order to avoid a misdiagnosis, perform the following:

- If a BCM has been replaced, the brake pedal position (BPP) sensor must be calibrated. Refer to Brake Pedal Position Sensor Calibration.
- Inspect for proper operation of the stop lamps. Refer to Exterior Lighting Systems Description and Operation.
- For an intermittent condition, refer to Testing for Intermittent Conditions and Poor Connections.

Reference Information

Schematic Reference
Cruise Control Schematics

Connector End View Reference
Component Connector End Views

Electrical Information Reference
- Circuit Testing

- Connector Repairs
- Testing for Intermittent Conditions and Poor Connections
- Wiring Repairs

Scan Tool Reference
Control Module References for scan tool information

Circuit/System Verification

Ignition ON, observe the Brake Pedal Position parameter in the ECM while applying and releasing the brake pedal. The reading should change between Applied/Released, and all brake lights should turn on and off accordingly.

Circuit/System Testing

Important: Fix any Brake System related DTCs or symptoms before using this diagnostic.

1). Ignition ON, perform the brake pedal position (BPP) sensor calibration procedure and verify the BPP is calibrated properly. Refer to Brake Pedal Position Sensor Calibration.If the BPP sensor will not calibrate properly,replace the BPP sensor.
2). Ignition ON, apply the brake pedal and verify the scan tool BPP sensor parameter is Applied.If the parameter reads Released, test the BPP sensor signal circuit for an open/high resistance or short to ground. If circuit tests normal, replace the ECM.
3). Apply the brake pedal, verify the brake lamps are illuminated.If the brake lamps do not illuminate, refer to Stop Lamps Malfunction.
4). If all circuits test normal, replace the ECM.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic procedure.

- Brake Pedal Position Sensor Replacement
- Control Module References ECM replacement, setup, and programming