

# DTC C0297 Brake Applied Output 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 C0297 00: Brake Applied Output Circuit

## Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Brake Signal	C0297 00	—	—	—

## Circuit/System Description

The body control module (BCM) provides a 5-volt reference voltage and a low reference signal to the brake pedal position sensor (BPPS). When the brake pedal is applied, the BPPS sends a variable voltage signal, that will increase as the brake pedal is applied, through the stop lamp switch signal circuit to the BCM. The BCM then applies a signal through the stop lamp switch signal circuit to the engine control module (ECM) and transmission control module (TCM).

## Conditions for Running the DTC

- The engine must be ON.
- The brake must be applied.

## Conditions for Setting the DTC

The BCM detects a short to ground in the stop lamp switch signal circuit.

## Action Taken When the DTC Sets

- The BCM stores the DTC to memory.
- The Service Vehicle Soon indicator is commanded ON.

## Conditions for Clearing the DTC

A history DTC will clear once 100 consecutive malfunction-free ignition cycles have occurred.

## Reference Information

### Schematic Reference

- Exterior Lights Schematics
- Engine Controls Schematics

### Connector End View Reference

Component Connector End Views

### Description and Operation

Exterior Lighting Systems Description and Operation

### 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, press and release the brake pedal. The stop lamps should illuminate then go out.

## Circuit/System Testing

- 1). Ignition OFF, disconnect the harness connector at the TCM and the X1 harness connector at the ECM.
- 2). Connect a test lamp between the TCM signal circuit terminal 16 and

- ground.
- 3). Ignition ON, press and release the brake pedal. The test lamp should turn ON and OFF when pressing and releasing the brake pedal. If the test lamp is always ON, test the signal circuit for a short to voltage. If the circuit test normal, replace the BCM. If the test lamp is always OFF, test the signal circuit for a short to ground or an open/high resistance. If the circuit test normal, replace the BCM.
  - 4). Ignition OFF, connect the harness connector at the TCM.
  - 5). Connect a test lamp between the ECM signal circuit terminal 7 and ground.
  - 6). Ignition ON, press and release the brake pedal. The test lamp should turn ON and OFF when pressing and releasing the brake pedal. If the test lamp is always OFF, test the signal circuit for a short to ground or an open/high resistance. If the circuit test normal, replace the TCM.
  - 7). If all circuit tests normal, replace the ECM.

## Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic procedure. Control Module References for BCM, ECM, and TCM replacement, setup, and programming

LAUNCH