

C0161 Antilock Brake System (ABS) Brake 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 C0161 00: Antilock Brake System (ABS) Brake Switch Circuit

Circuit/System Description

The electronic brake control module (EBCM) detects inputs from the brake pressure sensor, vehicle speed, and a serial data message from the BCM that the brake pedal is applied. When the vehicle is stopping the EBCM monitors for the brake pedal is pressed, with the brake pressure increasing and the vehicle is slowing down, or when the vehicle is accelerating, the brake pedal is not pressed and brake pressure is not increasing.

Conditions for Running the DTC

- The vehicle speed is greater than 16 km/h (10 mph).
- The ignition voltage is greater than 9.5 volts.

Conditions for Setting the DTC

- The EBCM detects the vehicle speed greater than 21 km/h (13 mph), the brake pedal is Applied for 1 minute, and brake pressure is not increasing.
- The EBCM detects brake pedal is Released and the vehicle speed is decreasing with the brake pressure is increasing.

Action Taken When the DTC Sets

- The EBCM disables the antilock brake system (ABS), traction control system (TCS) and vehicle stability enhancement system (VSES) for the duration of the ignition cycle.
- A DIC message and/or a warning indicator may be displayed.

Conditions for Clearing the DTC

- The condition for the DTC is no longer present.
- The EBCM clears the history DTC when a current DTC is not detected in 100 consecutive drive cycles.

Diagnostic Aids

The DTC C0161 00 can be set if the brake pedal is applied while accelerating, the brake pedal position sensor is out of adjustment, or the pedal is binding causing residual brake pressure to be detected, without the brake light signal detected.

Reference Information

Schematic Reference

Antilock Brake System Schematics

Connector End View Reference

Component Connector End Views

Description and Operation

ABS 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

- 1). Apply and release brake pedal. Verify brake lamps operate properly.
- 2). If brake lamps do not operate properly, refer to Symptoms - Lighting.
- 3). Verify the brake pedal position sensor or the brake pedal is not binding causing residual brake pressure to be detected, when the brake lights operate properly.
- 4). Replace the EBCM/BPMV assembly.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic procedure.

- Brake Pressure Modulator Valve Replacement
- Control Module References for EBCM replacement, setup, and programming