

C0186 or C0196 Lateral Accelerometer Circuit & Yaw Rate 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 Descriptors

DTC C0186 00: Lateral Accelerometer Circuit

DTC C0186 5A: Lateral Accelerometer Circuit Plausibility Failure

DTC C0196 00: Yaw Rate Circuit

DTC C0196 5A: Yaw Rate Circuit Plausibility Failure

Diagnostic Fault Information

Circuit	Short to Ground	Open/High Resistance	Short to Voltage	Signal Performance
Ignition Voltage	C0710 00, U2142 00	C0710 00, U2142 00	—	C0710 5A, C0186 5A, C0196 5A
Low Reference	C0710 00, U2142 00	C0710 00, U2142 00	C0710 00, U2142 00	C0710 5A, C0186 5A, C0196 5A
CAN Bus High Serial Data	C0710 00, U2100 00, U2142 00, C0196 00	C0710 00, U2142 00	C0710 00, U2142 00	C0710 5A, C0186 5A, C0196 5A
CAN Bus Low Serial Data	C0710 00, U2142 00	C0710 00, U2142 00	C0710 00, U2100 00, U2142 00	C0710 5A, C0186 5A, C0196 5A

Circuit/System Description

The yaw rate and the lateral accelerometer sensors are combined into one

sensor, external to the electronic brake control module (EBCM). The vehicle stability enhancement system (VSES) uses the lateral accelerometer input when calculating the desired yaw rate. The yaw rate/lat sensor communicates with the EBCM via discrete CAN Bus High and CAN Bus Low serial data circuits.

Conditions for Running the DTC

The engine is running.

Conditions for Setting the DTC

- Short to ground on the CAN High serial data circuit.
- The yaw/lateral combination sensor fails an internal self test.
- Communication is lost between the EBCM and the yaw/lateral combination sensor.
- The correlation error between the yaw/lateral combination sensor and steering angle sensor.

Action Taken When the DTC Sets

One or more of the following actions may occur:

- 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.
- The ABS indicator illuminates.
- The Stabilitrak indicator illuminates.
- The driver information center (DIC) displays All Wheel Drive Off/ Service Traction Control /Service Stabilitrak message.

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.

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 Testing

- 1). Verify that DTC C0710 is not set.If the DTC is set, refer to DTC C0710.
- 2). Ignition OFF, disconnect the harness connector atthe yaw rate/lat sensor.
- 3). Ignition OFF for 60 seconds, test for less than
- 4). 5 ohms between the low reference circuitterminal 1 and ground.If greater than the specified range, test the low reference circuit for an open/high resistance.
- 5). Ignition ON, test for B+ between the ignition voltage circuit terminal 4 and ground.If not within the specified range, test the ignition voltage circuit for a short to ground or open/high resistance.
- 6). If all circuits test normal, replace the yaw rate/lat sensor.

Repair Instructions

Perform the Diagnostic Repair Verification after completing the diagnostic procedure. Vehicle Yaw Sensor with Vehicle Lateral Accelerometer Replacement