



222997

Power brake booster vacuum hose routing on the 5.7L V8 series engine.

Brake Warning System Description

Brake

The brake system uses a single red BRAKE warning lamp located in the instrument cluster. When the ignition switch is in the START position, the BRAKE warning lamp should turn on. When the ignition switch is in the RUN position, the BRAKE warning lamp should turn off.

The following conditions activate the BRAKE warning lamp:

- The parking brake is applied. The lamp should be on when the parking brake is applied and the ignition switch is ON.
- The brake pressure differential warning switch detects a failure. Refer to Electrical Diagnosis for diagnosis.
- The BRAKE warning lamp remains on while cranking the engine. This indicates that the circuit is operating properly.

Antilock

The Antilock Brake System (ABS) uses three indicator lamps:

- The red BRAKE warning lamp
- An amber ABS INOP indicator lamp
- An amber LOW TRAC indicator lamp

The lamps operate normally under the following conditions:

- When the ignition is turned to the RUN position, prior to starting the engine, the amber ABS INOP indicator lamp should turn on and the red BRAKE warning lamp should flash.
- While the engine is cranked, the red BRAKE warning lamp and the amber ABS INOP indicator lamp should turn on. The amber LOW TRAC indicator lamp may turn on and off.

- When the engine is started, the amber ABS INOP lamp and the red BRAKE lamp should turn off. The amber LOW TRAC indicator lamp may turn on and off.

The operation of the three lamps is an important part of the Antilock Brake System (ABS) diagnosis. A malfunction is present if the warning/indicator lamps turn on while driving the vehicle. If the warning lamps do not turn on under normal conditions as described above, service the lamps as soon as possible. For further information regarding the operation of the warning/indicator lamps for the Antilock Brake System (ABS), refer to Antilock Brakes.

Brake Warning System Circuit Description

Circuit Operation

The brake warning indicator on the instrument cluster illuminates under the following conditions:

- The instrument cluster bulb test is occurring.
- The park brake is set.
- The master cylinder brake fluid level is low.
- The electronic brake control module sends a Class 2 message to the instrument cluster.

These conditions are explained in detail below. In all cases positive voltage is applied to the brake warning indicator through circuit 39.

Instrument Cluster Bulb Test

When the ignition switch is turned to the RUN position, the instrument cluster performs an internal bulb test on the brake warning indicator. The indicator illuminates for approximately 3 seconds and then turns off.

Park Brake

The park brake switch closes when the park brake is set. On Domestic and Gulf States vehicles, ground is applied through circuit 1134, the DRL module and circuit 33 to the instrument cluster. The brake indicator illuminates. On Europe and Japan vehicles, ground is applied through circuit 33 to the cluster.

Brake Fluid Level

When the brake fluid level in the master cylinder is low, the brake fluid level indicator sensor closes. Ground is applied through the sensor and circuit 33 to the instrument cluster. The brake indicator illuminates.

EBCM Class 2

The brake indicator is also controlled by the ABS system through the class 2 serial data line. The electronic brake control module (EBCM) sends a class 2 message to illuminate the brake indicator. The indicator warns the customer that a problem exists in the ABS system. Refer to ABS brakes for further information.