

C101A:29	Vacuum Pressure Sensor: Signal Invalid	This DTC sets in continuous memory in the ABS module if the driver applies the brake pedal and the brake fluid pressure sensor indicates an increase in pressure but the vacuum level in the brake booster does not decrease by the expected amount.
----------	--	--

Possible Causes

- Wiring, terminals or connectors
- Brake booster vacuum sensor
- Low battery voltage

Visual Inspection and Diagnostic Pre-checks

- Make sure the brake pedal switch electrical connector is connected and free of corrosion and other contaminants.
- Make sure the brake pedal switch is installed correctly.
- Make sure the brake pedal switch is operating correctly.

DIAGNOSIS AND TESTING > ANTI-LOCK BRAKE SYSTEM (ABS) AND STABILITY CONTROL > PINPOINT TESTS > PINPOINT TEST P : C101A:15, C101A:16, C101A:29 > PINPOINT TEST P : C101A:15, C101A:16, C101A:29

P1 CHECK FOR OTHER ABS (ANTI-LOCK BRAKE SYSTEM) MODULE DIAGNOSTIC TROUBLE CODES (DTCS)

Ignition ON.

Using a diagnostic scan tool, carry out the ABS module self-test.

Are any brake pedal position or pressure sensor Diagnostic Trouble Codes (DTCs) present in the ABS module?

Yes	DIAGNOSE all ABS module brake pedal position or pressure sensor Diagnostic Trouble Codes (DTCs) before diagnosing DTC C101A:15, C101A:16 or C101A:29.
No	GO to P2

P2 VERIFY ALL WIRING CONNECTIONS

Ignition OFF.

Disconnect ABS module C135 .

Disconnect brake booster vacuum sensor C1603 .

Disconnect all in-line electrical connectors between the ABS module and the brake booster vacuum sensor.

Using a good light source, inspect each connector terminal for any corrosion.

Inspect both connectors for any pushed-out pins. Refer to Connector Repair Procedures for schematic and connector information.

Using a suitable mating terminal, check each female terminal for deformed or enlarged contacts by comparing the mating terminal's fit between each of the following pins:

C135-5

C135-10

C135-37

C1603-1

C1603-2

C1603-3

Are both connectors free of corrosion, pushed-out pins and deformed or enlarged contacts?

Yes	GO to P3
No	REPAIR the affected terminal. Refer to Connector Repair Procedures for schematic and connector information.

P3 RECHECK THE ABS (ANTI-LOCK BRAKE SYSTEM) MODULE DIAGNOSTIC TROUBLE CODES (DTCS)

Connect all in-line electrical connectors between the ABS module and the brake booster vacuum sensor. Make sure they seat and latch correctly.

Connect brake booster vacuum sensor C1603 . Make sure it seats and latches correctly.

Connect ABS module C135 . Make sure it seats and latches correctly.

Ignition ON.

Using a diagnostic scan tool, clear the ABS module Diagnostic Trouble Codes (DTCs).

Ignition OFF.

Start the engine and allow it to run for at least 1 minute to build up vacuum in the brake booster.

Fully and firmly, press and release the brake pedal 3 times.

Using a diagnostic scan tool, carry out the ABS module self-test.

Is DTC C101A:15, C101A:16, or C101A:29 present?

Yes	GO to P4
------------	----------

No	The system is operating correctly at this time. The concern may have been caused by a loose or corroded connector. ADDRESS the root cause of any connector or pin issues.
-----------	---

P4 CHECK THE VACUUM SENSOR WIRING FOR A SHORT TO VOLTAGE

Ignition OFF.

Disconnect ABS module C135 .

Disconnect brake booster vacuum sensor C1603 .

Ignition ON.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C135-5		Ground
C135-10		Ground
C135-37		Ground

Is any voltage present?

Yes	REPAIR the circuit.
------------	---------------------

No	GO to P5
-----------	----------

P5 CHECK THE VACUUM SENSOR WIRING FOR A SHORT TO GROUND

Ignition OFF.

Measure:

Positive Lead	Measurement / Action	Negative Lead
C135-5	Ω	Ground
C135-10	Ω	Ground
C135-37	Ω	Ground

Are the resistances greater than 10, 000 ohms?

Yes	GO to P6
------------	----------