

718 GTS 4.0 - Brake Booster (Power Brake) Warning in Instrument Cluster

Vehicles Affected

Models	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
718	2021 - 2024	982160 982360 982370	n/a	n/a

Revision History

Revision	Release Date	Changes
0	May 25, 2023	Original document
1	September 22, 2023	Update of MY, Condition, Technical Background & Service Information
2	November 16, 2023	Update of Technical Background

Condition

Customer complains of a "Power brake error" or "Brake booster fault" warning in the instrument cluster upon starting the vehicle. These warnings may also be accompanied by a check engine light. The workshop finds fault code P055600 (DTC 00110B) stored in the DME. If a check engine light is present, a corresponding fault code will appear in the Instrument Cluster control unit.

P055600 fault descriptions include:

- Brake vacuum sensor - implausible signal
- Brake Booster Pressure Sensor Circuit Range/Performance
- Electric vacuum pump - power too low

Technical Background

The diagnostic function for checking the delivery rate of the electronic vacuum pump runs when Terminal 15 is activated after the vehicle has slept for 25 minutes or more.

The value of the vacuum line pressure sensor (3 in Figure 1 below) upstream of the brake booster is stored immediately after Terminal 15 is activated. The value is recorded again after 1.5 seconds. Fault P055600 sets if the difference between the two values does not meet or exceed the threshold defined by the DME.

Although this fault is possible at any altitude, it is more likely to occur at higher altitudes due to the lower ambient pressure.

A software solution is expected by Summer 2024 to assist in cases where the aforementioned fault is not caused by a vacuum system leak. This document will be updated accordingly as more information becomes available.

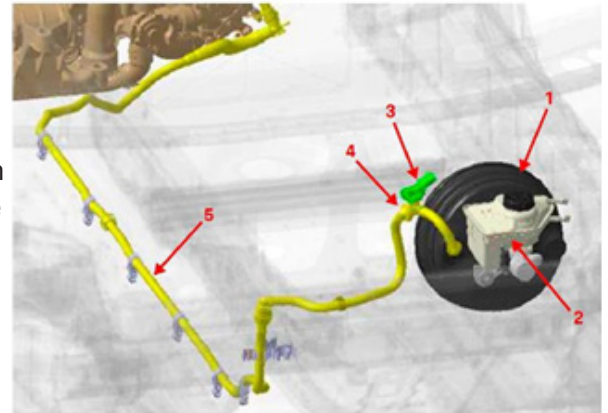


Figure 1

Service Information

1. Create a pre-VAL to document the occurrence of the fault.
2. Check the following areas of the vacuum system for obvious leaks:
 - a. Check the vacuum line connections at the pressure accumulators underneath the intake manifold (5 and 6 in Figure 2 below).

**NOTE: The intake manifold must be removed to completely check the pressure accumulators.
=> WM 244619 Removing and installing intake air-distributor**

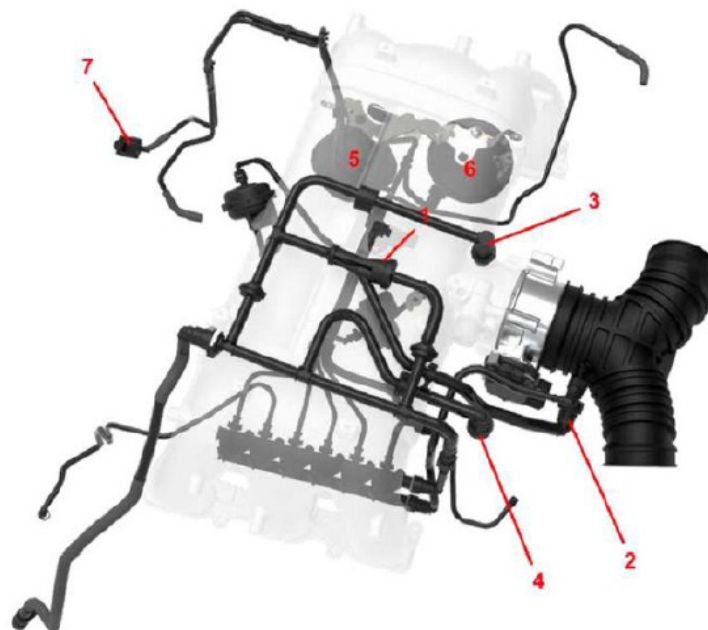


Figure 2

- | | |
|---|--|
| 1 | Sucking jet pump |
| 2 | Sucking jet pump connection upstream of throttle valve |
| 3 | Sucking jet pump connection downstream of throttle valve |
| 4 | Outflow to electronic vacuum pump on the transmission |
| 5 | Pressure accumulator |
| 6 | Pressure accumulator |
| 7 | Pressure converter for heater valve |

- b. Check the vacuum line connections on the electric vacuum pump (2 in Figure 3 below).

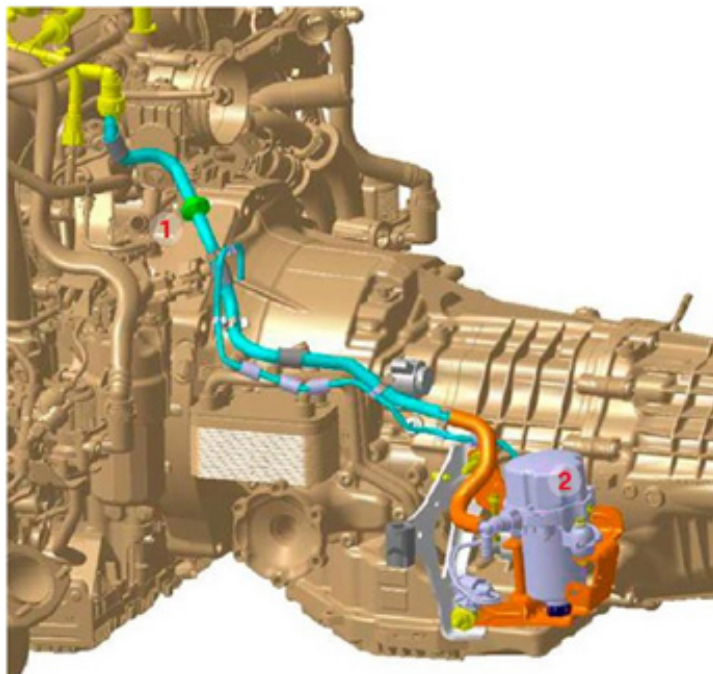


Figure 3

- c. Check the vacuum line connection on the brake booster, as well as the function of the vacuum line pressure sensor in the PIWIS Tester (DME => Actual values/input signals=> A_General => A250_Brake negative pressure absolute (measured))
3. If no obvious leaks are found in the system checks in Step 2, replace the following components:
- Figure 1: numbers 3, 4, and 5
 - Figure 2: numbers 1-6
 - Figure 3: numbers 1 and 2
4. If the fault further persists, please refer to Guided Fault Finding (DME P055600) for additional information. Please document all additional work performed

Warranty

As always, please document the repair completely in PQIS. For this repair, please code the "cause" as follows:

Cause location: 47770 Vacuum hose

Cause symptom: 5021 Not airtight

Use the following troubleshooting labor operations:

03350050 On board diagnostic

24461925 Intake distributor remove and reinstall

70081915 Trim panel for convertible top compartment remove and reinstall

Additional labor operations may be claimed **only as needed**.

Search Items

718, 982, GTS 4.0, Boxster, Cayman, P055600, DME, brake booster, power brake, vacuum pump, pressure sensor

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