PORSCHE

Advanced Technical Information

Bulletin #: 1802
Part ID: 2708A

2

Panamera 4 E-Hybrid (971) Cooling System Fault P0C4A00

Vehicles Affected

Model	Model Year	Model Type	VIN Range	Vehicle-Specific Equipment
Panamera 4 E-Hybrid	2018	971	N/A	N/A

Revision History

Revision	Release Date	Changes
0	May 24, 2018	Original document

Condition

The customer experiences a MIL. The workshop confirms this and observes fault code P0C4A00.

Technical Background

The coolant pump for the high voltage battery actively monitors its own speed and current consumption. For a given commanded speed, if the actual pump speed exceeds a defined value and the current consumption drops below a certain threshold, a dry run condition is detected. The pump communicates this to the high voltage battery control unit and fault code P0C4A00 is stored. One possible cause of this is air in the low temperature cooling system. This fault can take several hundred miles to set.

Service Information

1) Check for air in the low temperature cooling system:
   a) With the ignition off and the system cool, remove the cap of the low temperature cooling system reservoir. Observe and record the coolant level in the reservoir.
   b) Pressurize the low temperature cooling system to 1.0 Bar using the cooling system pressure tester. Record the approximate amount the coolant level dropped when system is under pressure.
   c) If there is no air in the system, the coolant level will only drop approximately 4 to 7 mm. (This will vary with factors such as system temperature.)
   d) If while under pressure, the coolant level drops more than approximately 7 mm, there is likely air in the system and it needs to be bled. (See figures 1 and 2.)

Figure 1

Service Information (continued)

2) Bleed the low temperature cooling system:
Note: This process is not a substitute for the draining and filling process in the workshop manual. If the low temperature cooling system is ever opened due to component removal, the Workshop Manual must be followed: WM 193817 Draining and filling coolant (low-temperature cooling system).

a) Leave the low temperature cooling system under 1.0 Bar of pressure using the cooling system pressure tester.

b) Run the Low-temperature cooling bleeding/ventilation process 3 times using the PT3G Tester: Thermal Management -> Drive links checks -> Low-Temperature cooling system - >Ventilate cooling system

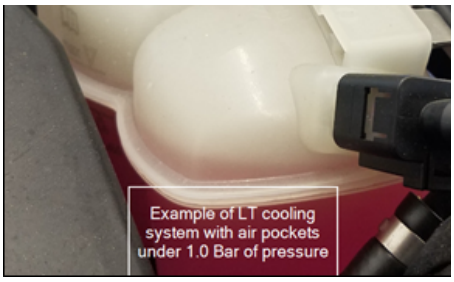

Figure 2

3) Verify successful bleeding:

a) Relieve all pressure from the low temperature cooling system and record the coolant level in the reservoir.

b) Apply 1.0 Bar of pressure to the low temperature cooling system using the cooling system pressure tester.

c) Observe the approximate level drop of the coolant when pressure is applied. If the coolant level only drops about 4 to 7mm when under pressure, there should no longer be any air in the system. (See figure 3.)

d) If this process is unsuccessful at removing the air, follow WM 193817 Draining and filling coolant (low-temperature cooling system).

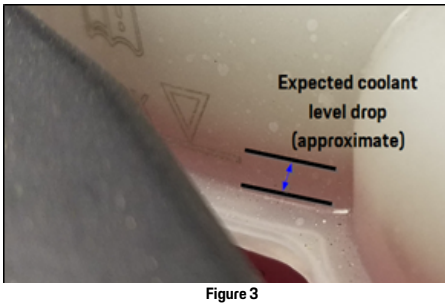

Figure 3

Warranty

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

Cause location: 2708A HV battery cooling line
Cause symptom: 5021 Not airtight

Search Items

Panamera 4 E-Hybrid; Breakdown; MIL; P0C4A00; cooling line