Technical Service Bulletin

01 MIL on (DTC P0456 (EVAP emission control system small leak detected))

01 16 51 2040924/1 January 13, 2016.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
Q7	2014 - 2015	All	3.0 TFSI

Condition

- MIL on.
- **DTC P0456** (EVAP Emission Contr. Sys. (very small leak) Leak Detected) is stored in the engine control module (ECM), J623 (address word 01).
- Drivability is not affected.

Technical Background

The leak detection pump (LDP) is a vacuum-driven, ECM-controlled, diaphragm pump. In order for the LDP to operate, the engine must be running and vacuum must be applied to the vacuum switch on the LDP. The LDP pressurizes the EVAP system and monitors any pressure drop within a specified amount of time in order to detect a leak.

DTC P0456 can be stored due to either of the following conditions:

- Static or sporadic air leaks in the EVAP system.
- Static or sporadic air leaks in the LDP.

Production Solution

Not applicable.

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Service

1. Visually inspect the EVAP system for any loose connections or damaged parts. If found, repair the loose connections and/or replace the damaged parts.
2. Connect KLI9210 and tune knob to “Hold”. Before proceeding, have a stopwatch ready.
3. Perform basic settings 70/71 test. Monitor the pressure increase and record the max value. (The max pressure should be between 9-11 inch/water.)
4. As soon as the pressure stops increasing, start the stopwatch and turn the ignition off.
5. **If the pressure drops within 6 minutes by 4 inch/water during test (for example, max pressure 10.5 inch/water drops to 6.5 inch/water or less after 6 minutes):**
    1. Have tool 3094 ready to be installed and perform basic settings 70/71 test again.
    2. As soon as max pressure is reached, install tool 3094 between the filter and LDP to prevent any air flow:
        - If the pressure now holds, replace LDP.
        - If the pressure drops at the same rate, find the leak using a smoke tester and/or through the application of soapy water on all lines and connections (Note that a small leak is more likely to be found with soapy water and a larger leak with the smoke tester). Repair as needed.

    If the pressure holds during test:

    - If this is the first time DTC P0456 has appeared for this vehicle, clear the DTC and release the vehicle.
    - If the vehicle has been in with DTC P0456 before, contact TAC for instructions.

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Warranty

Claim Type:	Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	2048		
Damage Code:	0040		
Labor Operations:	EVAP system pressure test	2048 0199	70 TU
	Leak detection pump remove+reinstall (If necessary)	2048 1950	20 TU
	Rear wheel housing liner remove+reinstall (If necessary)	6676 1900	40 TU
Diagnostic Time:	GFF – Checking and clearing fault codes included in existing labor operations	0150 0000	Time stated on diagnostic protocol (Max 100 TU)
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
Claim Comment:	As per TSB #2040924/1		

Required Parts and Tools

Part Number	Part Description	Quantity
7L8906271A	Leak detection pump*	1 (If necessary)

*Always check with your Parts Department and service manuals for the latest information.

Tool Number	Tool Description
3094	Hose clamps

Additional Information

All parts and service references provided in this TSB (2040924) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information.

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