



Technical Service Bulletin

20 MIL on or difficulty refueling, DTC P045100, P044100, P202500, and/or P045300 stored in the ECM

20 19 24 2050276/4 December 18, 2019. Supersedes Technical Service Bulletin Group 20 number 19-23 dated November 15, 2019 for reasons listed below.

Model(s)	Year	VIN Range	Vehicle-Specific Equipment
A6, A7	2016 - 2018	All	3.0T

Condition

REVISION HISTORY		
Revision	Date	Purpose
4	-	Revised header (Added Model)
3	11/15/2019	Revised title Revised header (Added MY2018 and DTCs) Revised <i>Condition</i> (Added DTCs) Revised <i>Service</i> (Added steps and photos) Revised <i>Warranty</i> (Updated and added Labor Operation) Revised <i>Required Parts and Tools</i> (Added parts and updated)
2	02/20/2018	Revised <i>Service</i> (Updated Step 3)

Customer has one or more of the following concerns:

- The customer has problems filling the fuel tank (fuel nozzle keeps clicking off).
- MIL may be illuminated.

Workshop findings:

- Water and/or ice is found in the EVAP canister reservoir and natural vacuum leak detection (NVLD or J909) pressure switch.

One or more of the following DTCs is found in the engine control module (ECM), J623 (address word 0001):

- **DTC P045100** (pressure sensor for the tank ventilation system, implausible signal).
- **DTC P044100** (tank ventilation system, through-flow faulty).
- **DTC P202500** (Evaporative Emissions (EVAP) Fuel Vapor Temperature Sensor Performance).
- **DTC P045300** (EVAP Emission Contr.Sys.Press.Sensor High Input).



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Technical Background

Water enters through the tank ventilation system. The water can flow through the NVLD pressure switch into the EVAP canister and freeze in cold temperatures.

Production Solution

Not applicable.

Service

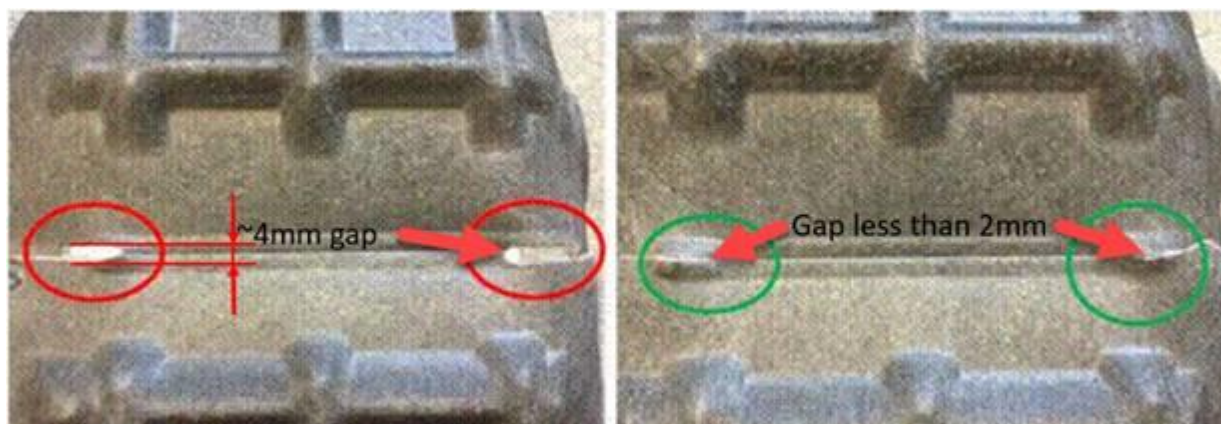


Figure 1. How to determine which steps to take Version 1 (~4mm gap) or Version 2 (gap less than 2mm).

Version 1 (A6 only):

1. If the updated wheel liner has not yet been installed. Then install the updated wheel liner, which has closed slots around the NVLD filter.
 - Remove the EVAP canister, ventilation tube, and NVLD pressure switch.
 - Remove all components mounted on the EVAP canister.



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2. Weigh the EVAP canister:

- If it weighs more than 2650 grams, replace the EVAP canister + attached filter, ventilation tube (Figure 2), and NVLD pressure switch (J909).
- If it weighs less than 2650 grams, replace the ventilation tube, and the J909.



Figure 2. Ventilation tube of the EVAP canister.

Version 2:

If updated wheel liner has already been installed at previous repair or in the factory, the NVLD filter needs to be relocated into the engine compartment to prevent moisture entering the EVAP system, under extreme customer use conditions.



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1. Replace the EVAP canister only if weight is greater than 2650 grams.
 - Install a new J909.
 - Install the NVLD filter (new part number, Version 2) in the engine compartment on the left frame rail just in front of the ABS module, secure with M6 nut. (Figure 3).

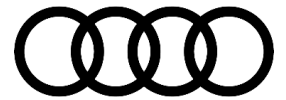


Figure 3. Installing the new NLVD filter.

2. Connect the filter to the 5/8" ID rubber hose via 1x plastic elbow and 1x rubber elbow (Figure 4).



Figure 4. Connecting the NLVD filter.



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3. Route the 5/8" ID rubber hose behind the strut and brake lines from new filter position to the J909, along the orange battery cable (Figure 5 and 6). Then secure with zip ties.

 **Note:**

5/8" ID rubber hose needs to be routed in a way that there are no sharp bends to prevent kinking.



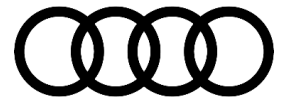
Figure 5. Route the 5/8" ID rubber hose from new filter position to the J909.



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Figure 6. Routing the rubber hose.



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4. Routing details to the J909, along the orange battery cable. Add zip-ties every 12 inches (Figure 7).



Figure 7. Where to zip tie the rubber hose to the battery cable.

5. Before connecting 5/8" ID rubber hose to 90 degree connector, cut to length, as needed. Connection details to the J909 are shown in Figure 8 and 9.



Figure 8. Connecting to the J909.



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Figure 9. Closer look at the connections.

6. Remove original NVLD filter assembly. (Figure 10).



Figure 10. Remove original NVLD filter.

Warranty

Claim Type:	<ul style="list-style-type: none">• 110 up to 48 Months/50,000 Miles.• G10 for CPO Covered Vehicles – Verify Owner.• If the vehicle is outside any warranty, this Technical Service Bulletin is informational only.
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Service Number:	2041		
Damage Code:	0010		
Labor Operations:	Wheel housing liner remove + reinstall	6676 1900	See SRT (V1 and 2)
	Ventilation tube with filter remove + reinstall	2048 1912	See SRT (V1 and 2)
	Activated charcoal filter remove + reinstall	2025 1900	See SRT (V1 and 2)
	NVLD pressure switch remove + reinstall	2041 1950	See SRT (V1 and 2)
	Install NVLD filter in optimize position including routing of rubber hose	2041 9999	280 TU (V2 only)
Diagnostic Time:	GFF	0150 0000	Time stated on the diagnostic protocol (Max 10 TU) (V1 and 2)
	Road test prior to service procedure	No allowance	0 TU
	Road test after service procedure	No allowance	0 TU
Claim Comment:	As per TSB #2050276/4		

All warranty claims submitted for payment must be in accordance with the *Audi Warranty Policies and Procedures Manual*. Claims are subject to review or audit by Audi Warranty.

Required Parts and Tools

Part Number	Part Description	Quantity
4G0201997BD	Ventilation tube with filter (Version 1)	01
8K0906253L	NVLD pressure switch (Version 1 and 2)	01
4G0201801D	Activated charcoal filter (Version 1 and 2)	01 (If necessary)
4G0810171B	Wheel liner (Version 1)	01



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8R0201232E	Filter (Version 1 and 2)	01 (If necessary)
1C0906621A	NVLD filter (Version 2)	01
N 90887703	M6 nut (Version 2)	01
5Q0906272	Rubber elbow (Version 2)	02

Part Number	Part Description	Quantity
Outside material	Aftermarket 5/8"ID rubber hose (Version 2)	12 feet
Outside material	Aftermarket 5/8"OD elbow (Version 2)	02
Outside material	Aftermarket hose clamps (Version 2)	06
Outside material	Zip-ties	30



Note:

No more than \$30 will be covered by Warranty.

Tool Number	Tool Description
Not Applicable	Digital scale (locally obtained)

Additional Information

All parts and service references provided in this TSB (2050258) are subject to change and/or removal. Always check with your Parts Department and service manuals for the latest information. Please check the Repair Manual for fasteners, bolts, nuts, and screws that require replacement during the repair.

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