

Condition

REVISION HISTORY		
Revision	Date	Purpose
3	-	Revised Service (Steps 1, 20-23) Revised Required Parts and Tools
2	7/28/2009	Revised Warranty (Damage code)
1	7/24/2009	Original publication

- After refueling, the fuel gauge reads empty.
- One or both of the following DTCs are stored in the instrument cluster:
 - DTC 00438 (Fuel Level Sensor 2 -G169- Open/Short circuit to B+ or Short circuit to Ground).
 - DTC 00771 (Sender for fuel gauge -G- Open/Short circuit to B+ or Short circuit to Ground).

Technical Background

Due to the unattached section of cable in the area of the 2-pin plug-in connections (inside the fuel tank) between the flange of the electric fuel pump and the fuel gauge sensors “G” or “G169,” there are vibrations while driving. These vibrations cause micro movements at the pins, which lead to the formation of fretting corrosion on the pins. As a result, there are conductivity interruptions at the pins and finally sporadic or static failure of the tank display.

Production Solution

Two-pin plug-in connections are stabilized during production of model year 2008.

Service

The following components must be replaced and repaired per the instructions in this TSB.

1. Start by obtaining repair kit 4F0 298 200 B (includes 1x wires for suction jet pump, 1x adapter cable, 6x connectors).
2. Remove the electric fuel pump with fuel level sender G.
3. Cut the electric cables of the connector to and from sender G directly behind the plug (Figures 1 and 2).



Figure 1. Electrical connection sender G, female.



Figure 2. Electrical connection sender G, male.

4. Connect the two blue wires with the connector as described below.
 - a. Ensure wire protrudes by 5 mm.

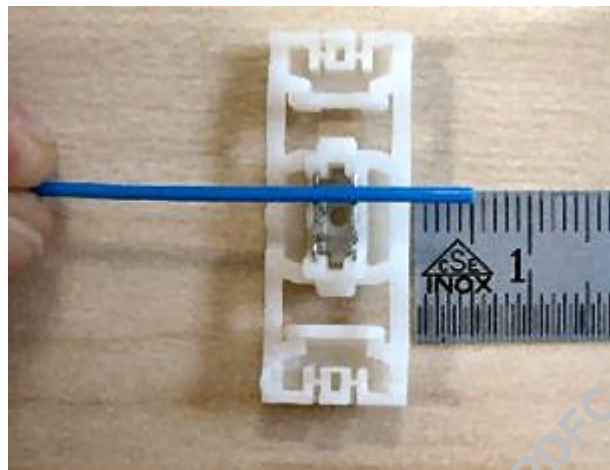


Figure 3. Measuring the wire.

b. Place the wire on the slit.



Figure 4. Wire placed on the slit.

c. Press the flap onto the wire.

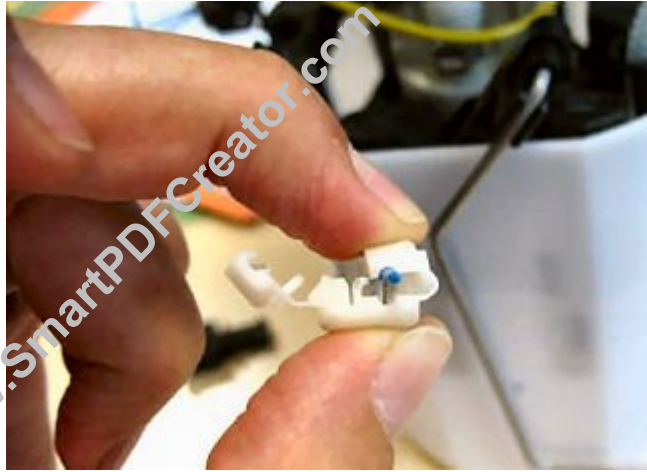
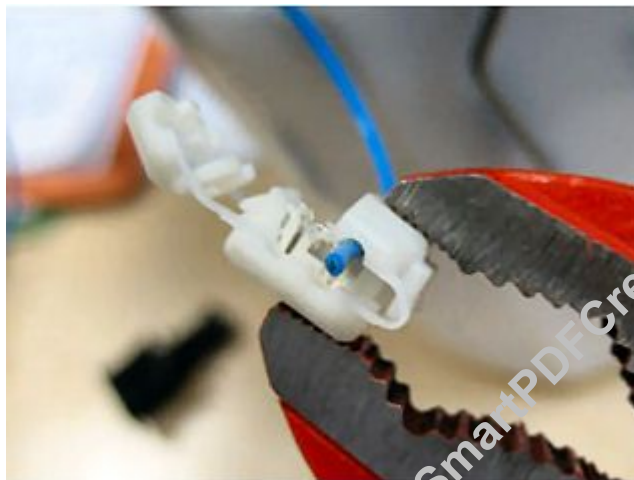


Figure 5. Pressing the flap onto the wire.

d. Press the flap to the stop with pliers.



- e. Repeat the process for the second blue wire.

Figure 6. Pressing the flap to the stop with pliers.



Figure 7. The second wire, connected.



Figure 8. The connected wires.

5. Connect the two black wires with the connector following the procedure in Step 4.

6. Make sure that the cable is routed below the fuel pipes. Use a cable tie to attach the fuel pump cable (which is yellow and black) and the cable of sender G (which is blue and black) below the arch of the supply pipe (Figure 9).

● Note: On S6 vehicles the electric cables of the sender must be attached without the yellow and black cable of the fuel pump directly behind the 90° connector of the supply pipe – no illustration.



Figure 9. Wire routing at fuel pump.

7. Close the cable tie firmly, so that the electric wires are very difficult to move. Be careful not to squash the supply pipe. Ensure the electric wires are not under tension.

● Note: Make sure that no electric wires interfere with the swivel range of the sender G. Vehicle could run out of fuel if wires interfere with the function of sender G.



Figure 10. Checking for sender G interference.

8. Cut the electric cables directly behind the plug to sender G169 (Figure 11).

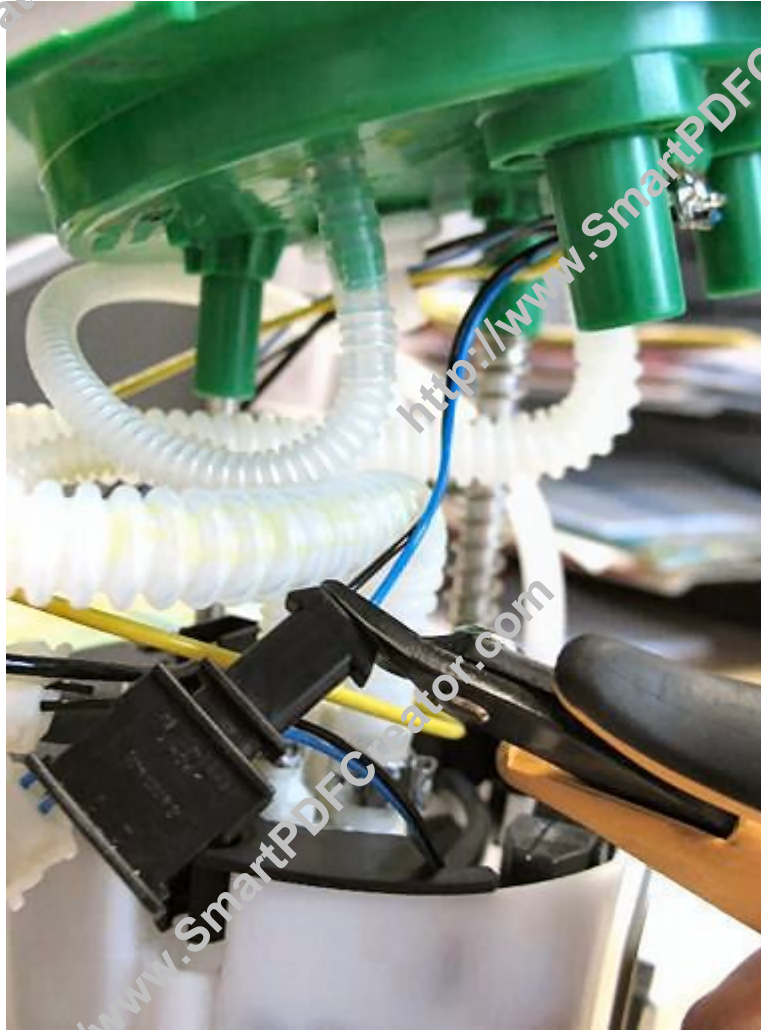


Figure 11. Electrical connection sender G 169 at fuel pump flange.

- Trim the insulated ends of the adapter cable in the kit by about 1 mm after the start of the insulation cutoff (Figure 12).



Figure 12. Adaptor cable preparation.

10. Connect the adapter cable with the binders (black to black and blue to blue). Perform the connection from the side of the tank unit.

Route the cables above the yellow cable (Figure 13, arrow) on the opposite side to the unsprung guide pins.

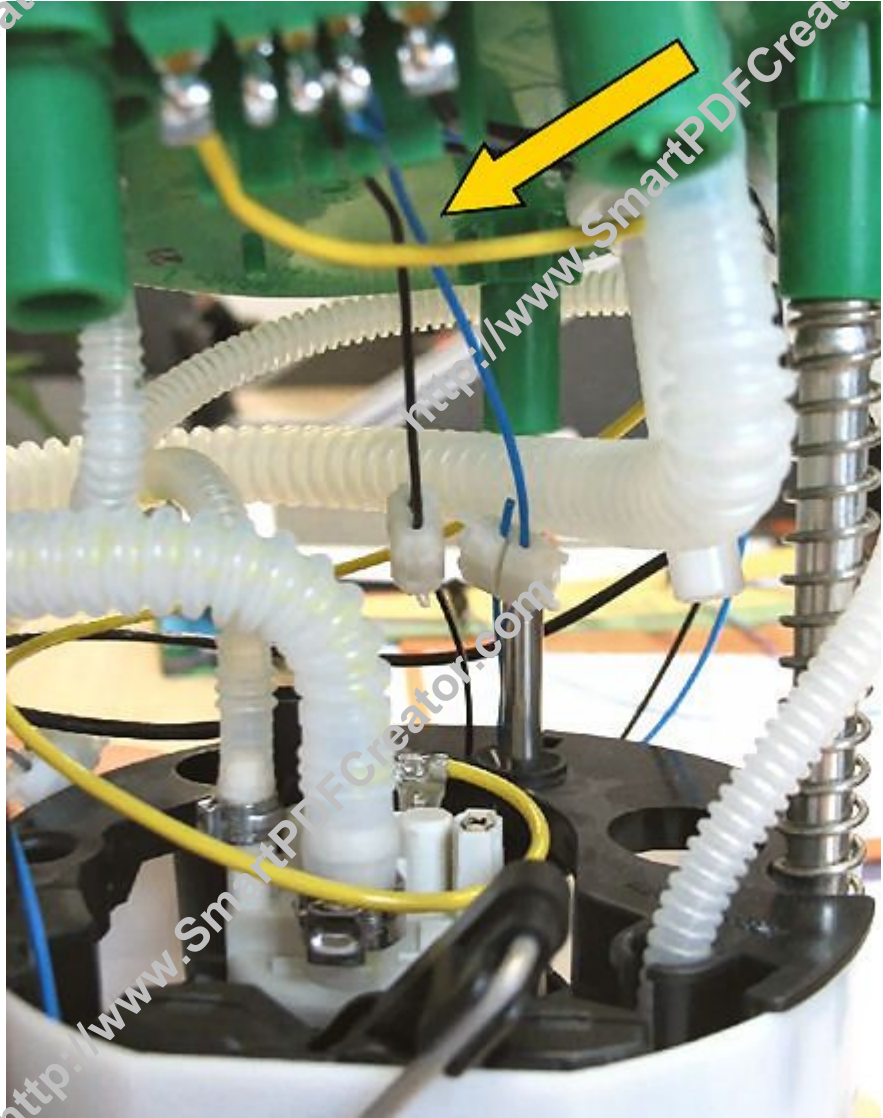


Figure 13. Adaptor cable connection at fuel pump.

Make sure that the cable is routed below the fuel discharge pipe (Figure 14).



Figure 14. Adaptor cable wire routing.

11. Form a loop after the plug to sender G169 (Figure 15).



Figure 15. Adaptor cable loop.

12. With a cable tie, attach the plug and the two electric cables on the pipe to the suction jet pump, directly after the connector (Figure 16).



Figure 16. Adaptor cable fixed to suction jet feed line.

13. Make sure that the two electric cables cross the pipe so that the cable does not slip (Figure 17).



Figure 17. Adaptor cable wiring at suction jet feed line.

14. Tie the electric cables (yellow and black cables of the fuel pump and blue and black cables of sender G) together with a cable binder (Figure 18).

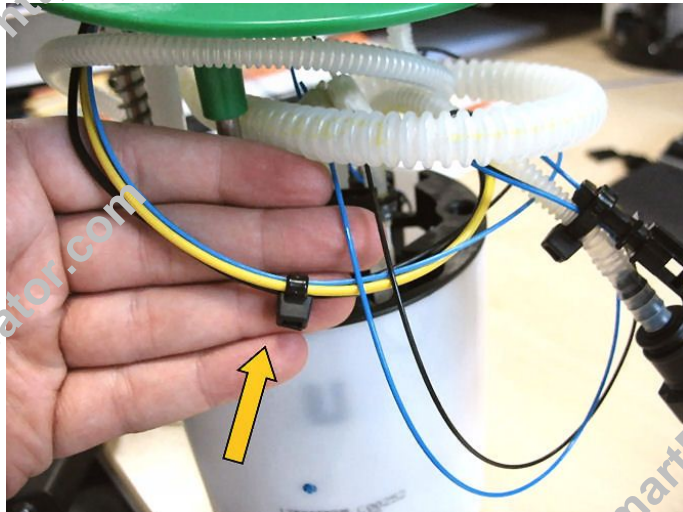


Figure 18. Wire routing near fuel pump.

15. Remove sender G169 together with the suction jet pump booster.

16. Cut the electric cables directly behind the connector (Figure 19).



Figure 19. Connector at G 169.

17. Repeat steps 4 and 5.

18. Position the wiring from the suction jet pump to sender G 169 according to Figures 20-22.



Figure 20. Proper routing.

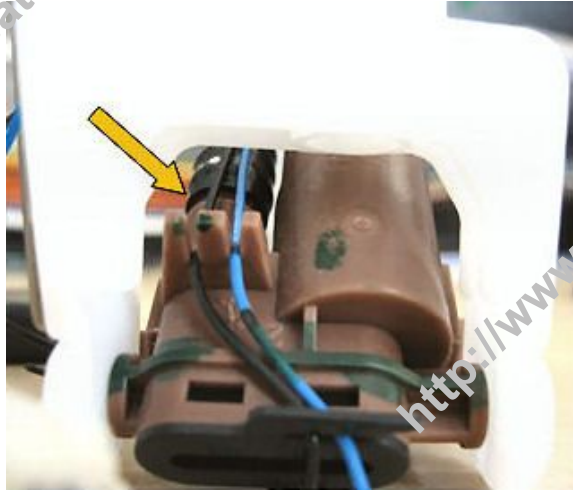


Figure 21. Proper routing, continued.



Figure 22. Proper routing, continued.

19. Install suction jet pump with Sender G 169 and fuel pump with Sender G per repair manual.
20. Check the female connector of the body side harness with a "Pin Drag" test to ensure the connection to the vehicle wiring harness is correct.
21. If both DTC 00771 and DTC 00438 were stored, check the ground wire at pin 3 of the T5a connector of the body harness. The voltage drop should be less than .4 volts.

22. Clear the fault memory in the instrument cluster.

23. Recheck for proper operation.

Warranty

Claim Type:	Use applicable claim type. If vehicle is outside any warranty, this Technical Service Bulletin is informational only.		
Service Number:	2015		
Damage Code:	0040		
Labor Operations:	Remove and install fuel pump	2066 1901	110 TU
	Remove and install fuel sender 2	2026 1999	20 TU
	Install fuel pump/wiring	2026 4199	60 TU
Diagnostic Time:	GFF	0150 0000	Time stated on diagnostic protocol
	Road test prior to service procedure	0121 0002	10 TU
	Road test after service procedure	0121 0004	10 TU
	Technical diagnosis at dealer's discretion (Refer to Section 2.2.1.2 and Audi Warranty Online for DADP allowance details)		
Claim	As per TSB #2020884/3		

Comment:	
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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
4F0 298 200 B	Repair kit for fuel pump	1

Additional Information

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

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