



# Technical Service Bulletin

GROUP <b>AUTOMATIC TRANSMISSION</b>	NUMBER <b>19-AT-019H</b>
DATE <b>AUGUST 2019</b>	MODEL <b>SONATA (LFA) SANTA FE (TMA) PALISADE (LX2)</b>

**SUBJECT:** AUTOMATIC TRANSAXLE  
OIL TEMPERATURE SENSOR DTC P071200, P071300

*This TSB supersedes TSB 18-AT-011 to add Palisade (LX2).*

**Description:** If you are servicing an applicable vehicle with a “Check Engine” light on and one or more of the DTC listed below, follow the repair procedure and replace the related oil pressure harness with integrated oil temperature sensor.

<b>Applicable Vehicles:</b>
2018~ Sonata (LFA) 2.0T
2019~ Santa Fe (TMA) 2.0T/2.4L
2020~ Palisade (LX2) 3.8L

### Parts Information:

Refer to the PNC in the parts catalog to order the correct part number.

MODEL	DTC	PART	PNC	PART NUMBER
2018~ Sonata (LFA) 2.0T 2019~ Santa Fe (TMA) 2.0T/2.4L 2020~ Palisade (LX2) 3.8L	P071200	Fluid temperature sensor A circuit low	46307	46307-4G***
	P071300	Fluid temperature sensor A circuit high		
	ALL	Oil pan gasket	45282E	45283-4G***

### Warranty Information:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
2018~ Sonata (LFA) 2.0T	46308R00	Valve body harness with oil temperature sensor	Refer to WEBLTS for current LTS time	Refer to Parts Information Table above	I3A	ZZ3
2019~ Santa Fe (TMA) 2020~ Palisade (LX2)	46308R8L					
ALL	46308RQ0	GDS Operation				

**SERVICE PROCEDURE:**

1. Attach a GDS and select **DTC Analysis** and **A/T** menu. Record the DTC and description. Delete the DTC.
2. From the GDS home screen, select **Data Analysis** and **A/T** menu and **Oil Temperature Sensor**. If the sensor shows:
  - Continuous and changing output while driving, the wiring **currently** has no open/short circuits. Go to Step 4.
  - No continuous and changing output, go to Step 3.



3. Visually check the wiring harness between the ECU and transmission for a damaged wire or open/short circuit. Check for a damaged pin or pin not fully inserted into the connector.
  - If damage exists, repair or replace the ECU control harness and drive the vehicle to confirm the repair.
  - If no damage or open/short circuit is found, go to Step 4.
4. Refer to the DTC recorded in Step 1 and follow the repair procedure shown below:

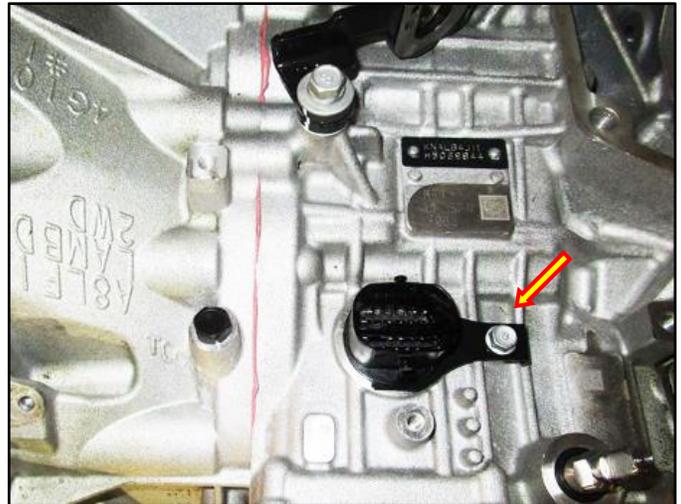
DTC	DESCRIPTION	REPAIR PROCEDURE
P071200	Fluid temperature sensor A circuit low input	Go to Step 5 and replace the valve body harness with integral oil temperature sensor
P071300	Fluid temperature sensor A circuit high input	

5. Record the preset radio stations.  
Remove the air cleaner, battery and battery tray.
6. Remove the undercover below the transmission.  
Lift the vehicle on a hoist.
7. If necessary to access the sensors, drain the radiator and remove the lower radiator hose from the radiator.  
Drain the ATF.

8. Disconnect the harness from the transmission.

Remove the bolt that secures the retainer and push the harness connector into the transmission.

Disconnect the vent hose on the top of the oil pan.



9. Remove 14 oil pan bolts and remove the pan.

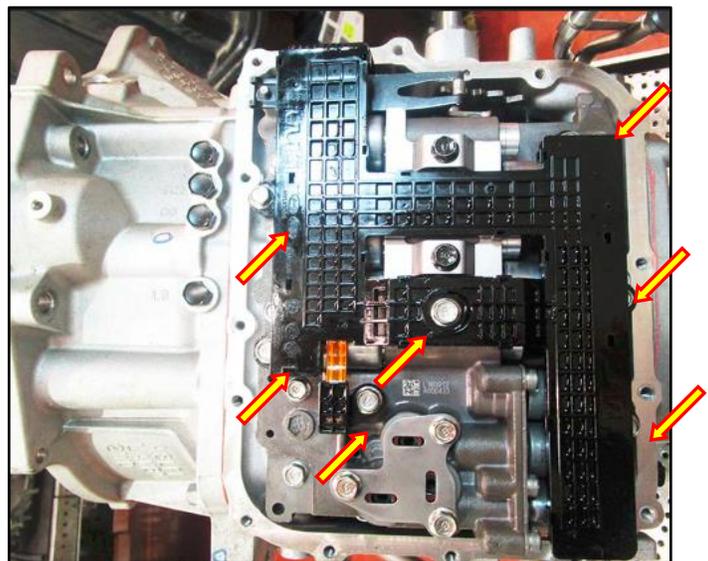
 **CAUTION**

Use a rubber hammer to tap the oil pan cover on a corner until the cover is loose.



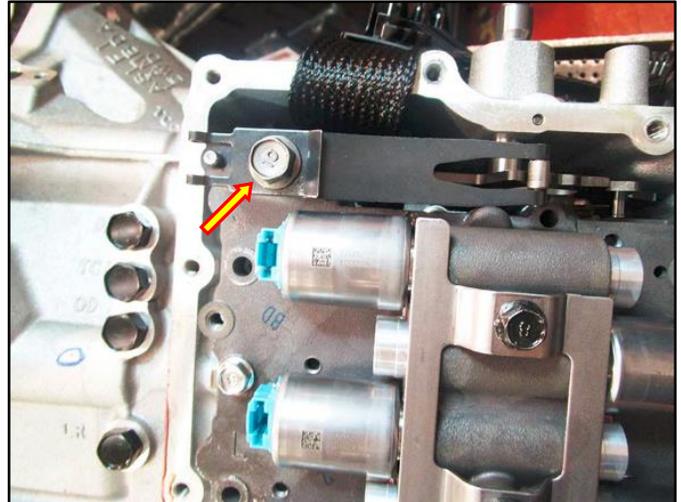
10. Remove 6 bolts to the harness and 1 bolt to the oil temperature sensor.

Pull the harness outward and move the harness out of position.



11. Remove the bolt that secures the detent spring and remove the spring.

**Torque: 8~11 lb.ft (1.2~1.5 kgf.m/10~13 N.m)**



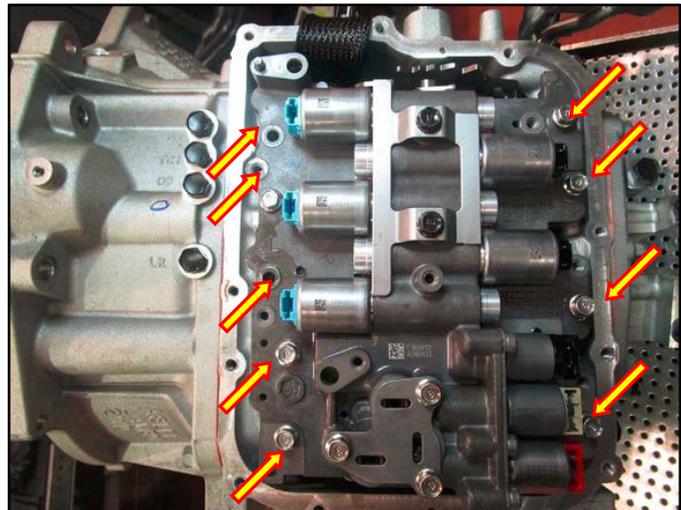
12. Remove 9 valve body bolts in order from the outermost bolts to the innermost bolts.

Remove the valve body.



**CAUTION**

Place the valve body on a clean paper towel. Placing the valve body on a rag may cause lint to enter the valve body.



13. Pull the gray tab up and then press the tab to disconnect the harness from the input speed sensor.

Remove the harness and install a new harness.

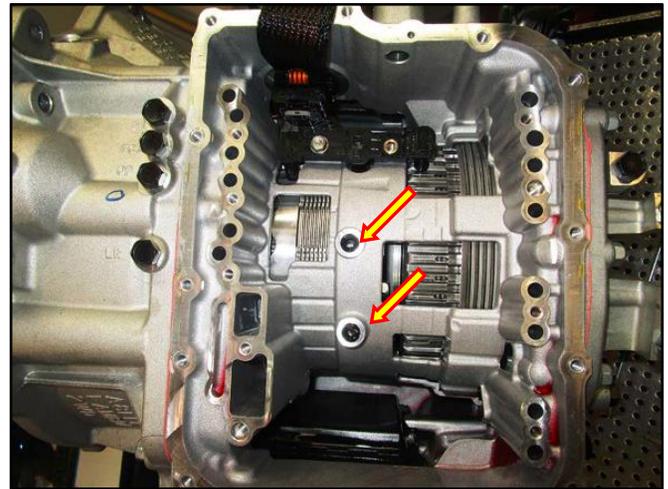
Connect the new harness to the input speed sensor.

**Torque: 7~9 lb.ft (1.0~1.2 kgf.m/10~12 N.m)**

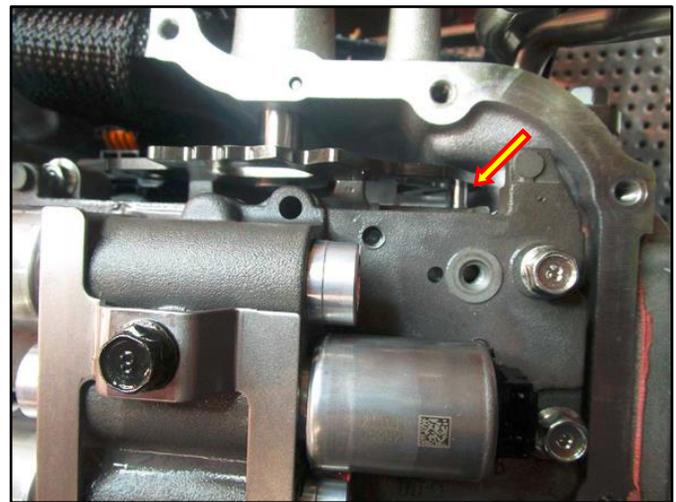
Reconnect the harness to the input speed sensor.



14. Confirm two O-rings are installed correctly in the case.

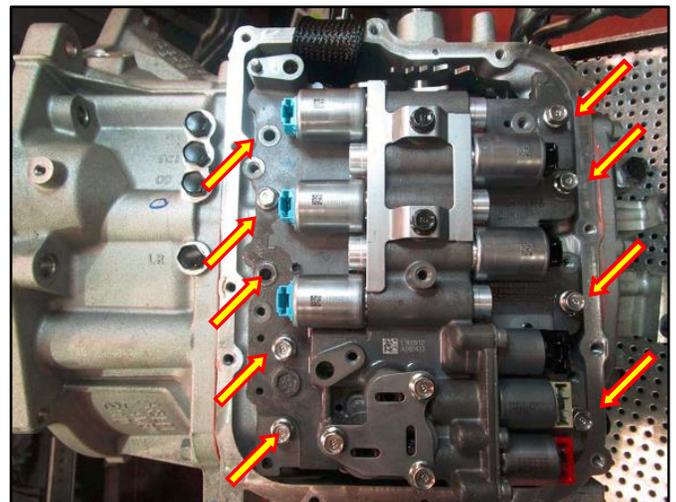


15. Align the manual shaft to the shift lever and install the valve body.



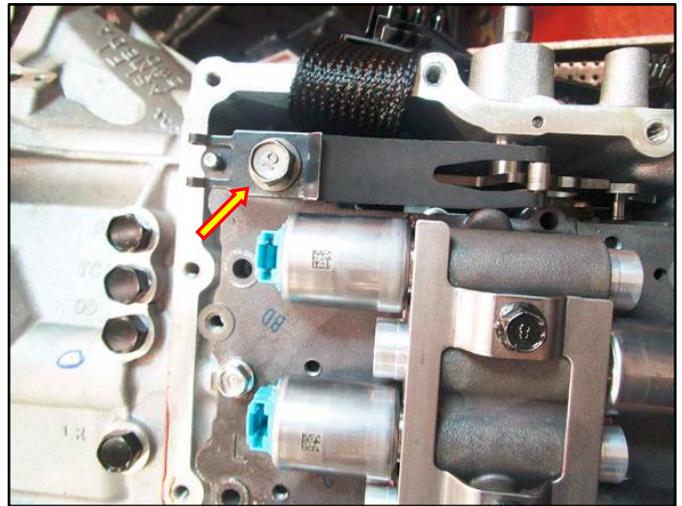
16. Install the valve body bolts and torque the bolts in order from the innermost bolts to the outermost bolts.

**Torque: 7~9 lb.ft (1.0~1.2 kgf.m/10~12 N.m)**



17. Reinstall the bolt that secures the detent spring and tighten the bolt to specification.

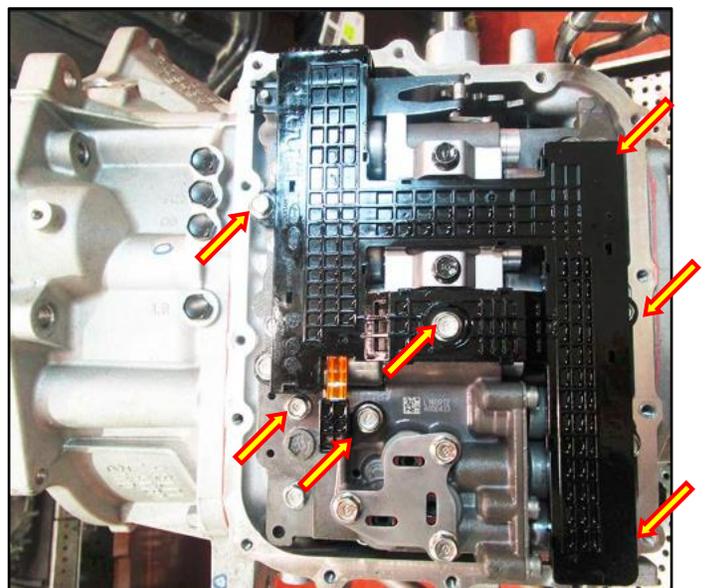
**Torque: 8~11 lb.ft (1.2~1.5 kgf.m/10~13 N.m)**



18. Reconnect the harness to the solenoids and install the oil temperature sensor.

Install 6 bolts to the harness and 1 bolt to the oil temperature sensor and torque to specification.

**Torque: 7~9 lb.ft (1.0~1.2 kgf.m/10~12 N.m)**



19. Install a new gasket to the oil pan and reinstall the pan.

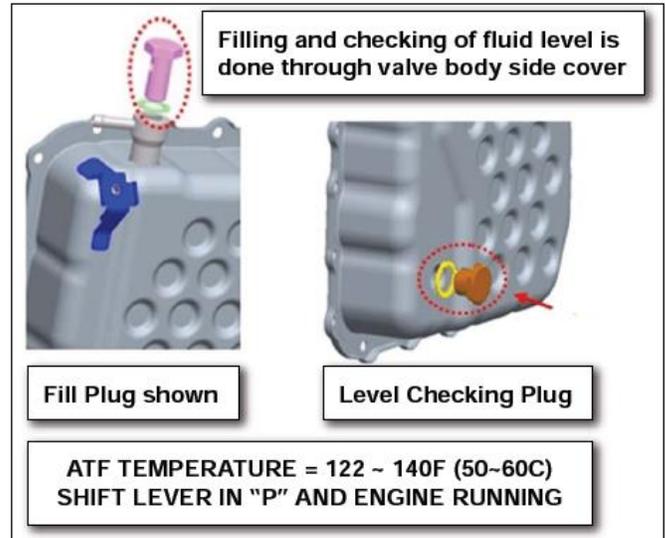
Install 14 bolts to the pan and tighten the bolts to specification.

**Torque: 6~7 lb.ft (0.9~1.0 kgf.m/8~9 N.m)**



- 20. Install the lower radiator hose, add ethylene glycol engine coolant to the radiator and check the level according to the appropriate shop manual, "Engine" Section.
- 21. Reconnect the battery.  
Input the radio stations recorded in Step 5.

- 22. Remove the transaxle fill plug.  
Use a funnel to add approximately 5~6 quarts of SP4-M ATF through the fill plug opening. Reinstall the fill plug.  
Attach the GDS and select **Data Analysis, A/T menu and Oil Temperature Sensor**.  
Start the engine and shift to Park. When the ATF is 122°F~140°F (50~60°C), remove the level checking plug. The level is correct when oil flows out of the level checking plug in a thin steady stream.  
Collect and dispose of any excess fluid in accordance with local regulations.



- 23. Clear the DTC and test drive the vehicle for two key-on/key-off driving cycles, including 1-2-3-4-5-6-7-8 upshifts and 8-7-6-5-4-3-2-1 downshifts. If the DTC returns, perform the following repairs.

DTC	REPAIR PROCEDURE
P071200	Replace the control wiring harness between the PCM and transmission.
P071300	<ul style="list-style-type: none"> <li>• If the DTC does not return, return the vehicle to the customer.</li> <li>• If the DTC returns again, replace the PCM.</li> </ul>

- 24. Clear the DTC in the Blue Link system per instructions of TSB 12-BE-005-2.
- 25. Drive the vehicle to confirm the transmission is operating as designed.