

 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP AUTOMATIC TRANSMISSION	NUMBER 16-AT-012
	DATE NOVEMBER 2016	MODEL GENESIS SEDAN (BH/DH), GENESIS G80 (DH) GENESIS COUPE (BK) EQUUS (VI) GENESIS G90 (HI)
SUBJECT:	AUTOMATIC TRANSMISSION OIL TEMPERATURE SENSOR DTC P0711, P0712 & P0713	

This TSB supersedes TSB 12-AT-025 to include 2017 Genesis G80 and Genesis G90 and update the Warranty Information.

Description: Do not replace the transmission for the DTC listed below. Instead, follow the repair procedure and replace the E-Module.

Applicable Vehicles:

2012~16	Genesis Sedan (BH/DH) 3.8L/4.6L/5.0L
2017~	Genesis G80 (DH) 3.8L/5.0L
2013~16	Genesis Coupe (BK) 2.0L/3.8L
2012~16	Equus (VI) 5.0L
2017~	Genesis G90 (HI) 3.3L/5.0L

DTC LIST & PARTS INFORMATION:

DTC	DESCRIPTION	PNC	PART NO.
P0711	Transmission Fluid Temperature Sensor 'A' Circuit	46305C	46305-4****
P0712	Transmission Fluid Temperature Sensor 'A' Circuit Low	46305C	46305-4****
P0713	Transmission Fluid Temperature Sensor 'A' Circuit High	46305C	46305-4****

WARRANTY INFORMATION – E-Module replacement:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART
2012~16 2017~	46305R00	Valve body assy.	1.3	Refer to parts catalog
2013~ 16				
2012~16				
2017~				
Genesis Sedan (BH/DH) Genesis G80 (DH) Genesis Coupe (BK) Equus (VI) Genesis G90 (HI)				

SERVICE PROCEDURE:

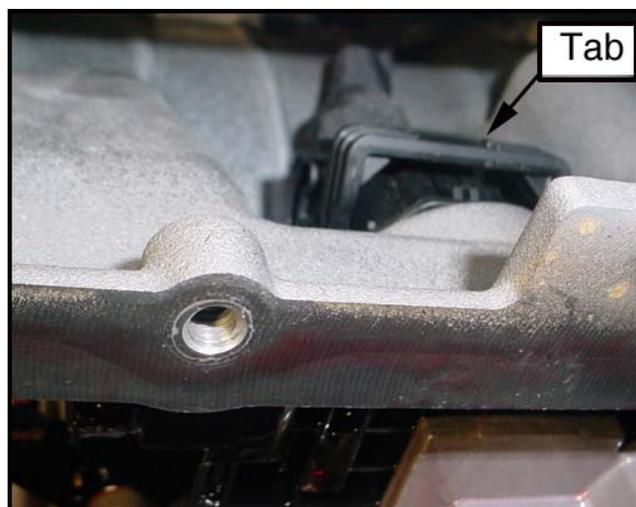
1. Attach a GDS and select **DTC Analysis** and **A/T** menu. Record the DTC and description. Delete the DTC.
2. From the GDS home screen, select **Data Analysis** and **A/T** menu and the parameter shown below. If the oil temperature sensor shows:
 - Continuous and changing output while driving, the 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 TCM and transmission for a damaged wire or connector. Check for an open/short circuit.
 - If so, repair or replace the control wiring and drive the vehicle to confirm the repair.
 - If no damage is found, go to Step 4.
4. Record the audio preset stations and disconnect the negative battery terminal.
5. Lift the vehicle on a hoist.

Press the tab in the center of the latch and push the latch upward.

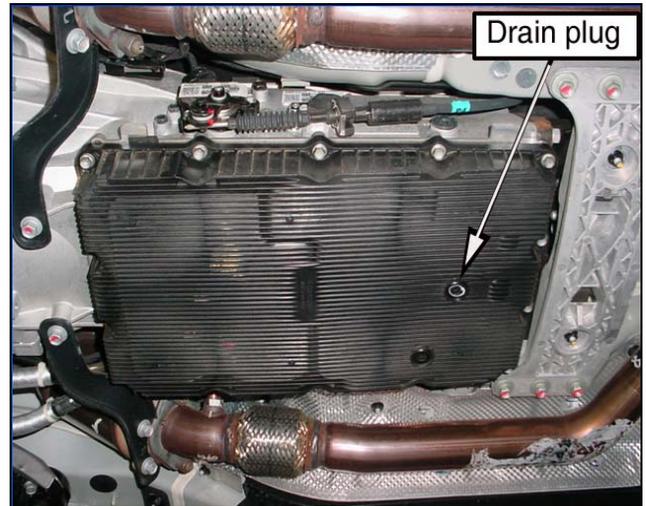
Push the connector up to disconnect the connector.



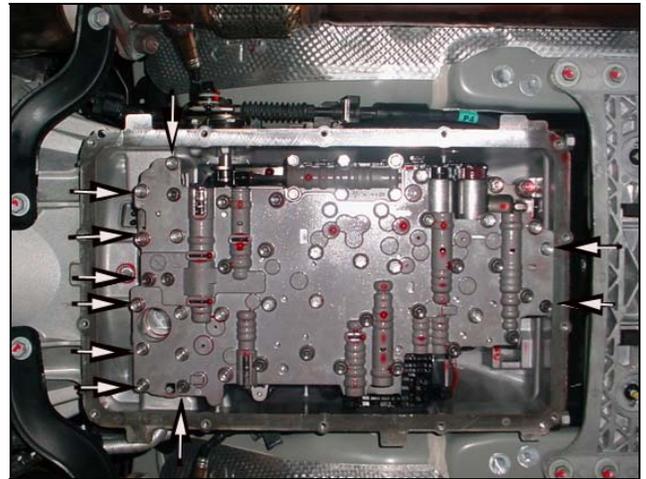
6. Use an 8mm or 5/16" hex socket and remove the drain plug and drain the ATF. Reinstall the drain plug.

Torque: 17~18 lb.ft (2.3~2.5 kgf.m, 22~24 N.m)

Remove the bolts that secure the oil pan and remove the pan.



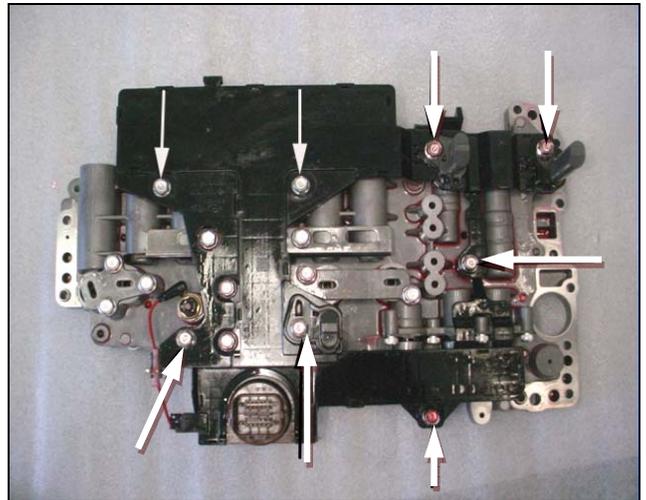
7. Remove the 10 bolts that secure the valve body to the case and remove the valve body.



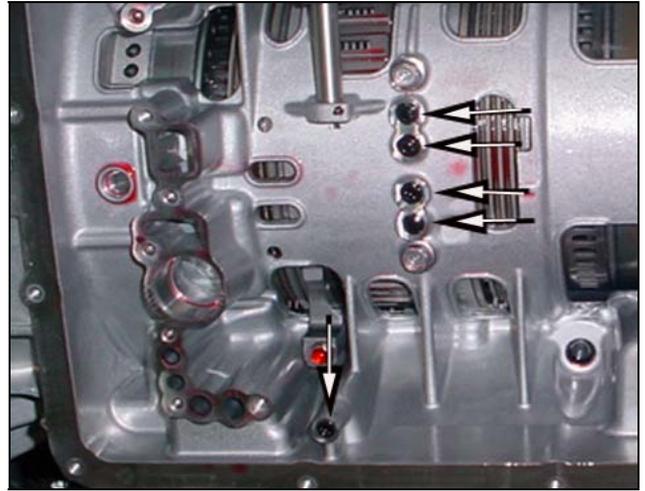
8. Remove the bolts that secure the E-module and remove the E-module.

Install a new E-Module.

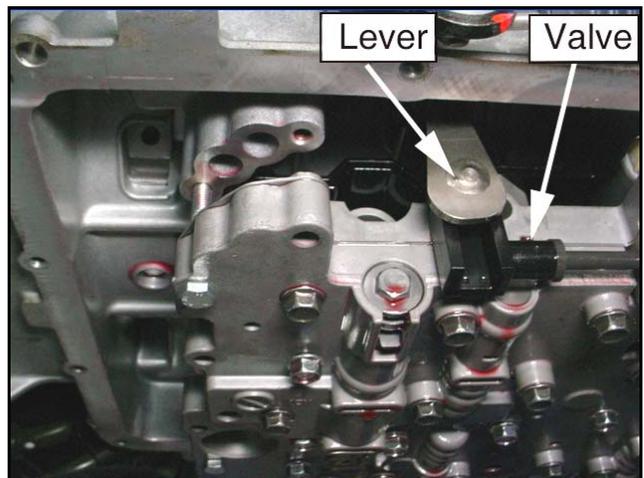
Torque: 7~9 lb.ft (1.0~1.2 kgf.m, 10~12 N.m)



9. Confirm that 5 O-rings are seated in the transmission case.



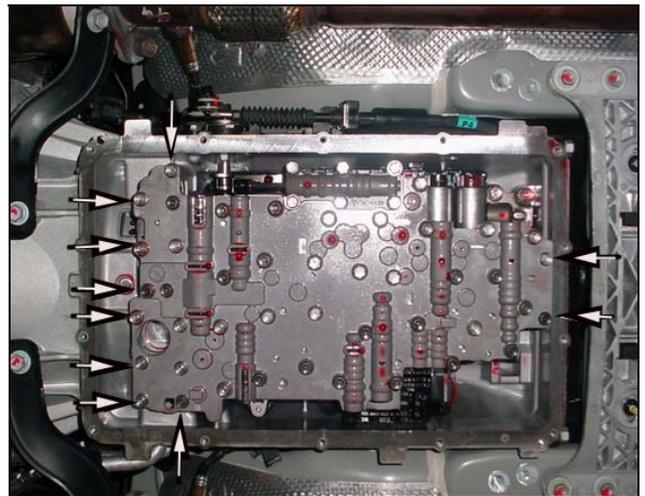
10. Carefully align the manual valve to the shift lever and reinstall the valve body.



11. Install 10 bolts and torque to specification.

Install the 3 long black bolts in the correct location.

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



12. Reconnect the harness connector and pull the latch down until it clicks (See Step 5).

13. Install the oil pan and torque the bolts to specification.

Torque: 7~8 lb.ft (1.0~1.2 kgf.m, 10~12 N.m)

14. Reconnect the negative battery terminal. Reset the audio preset stations.

15. Use an 8mm or 5/16" hex socket and remove the fill plug and washer.

Shift into Park and lift the vehicle on a hoist.

Use a fluid pump or suction gun to add approximately 4 quarts of SPH-IV-**RR** ATF through the fill plug.

NOTICE

Use only SPH-IV-RR ATF, P/N 00232-19052.



16. Remove the overflow plug.

Start the engine.

Add approximately 4~5 additional quarts of SPH-IV-**RR** ATF through the fill plug until the ATF flows out.

Reinstall the fill plug and washer.

Torque: 27~33 lb.ft (3.7~4.6 kgf.m, 33~44 N.m)

Reinstall the overflow plug.

Torque: 16~18 lb-ft (2.3~2.5 kgf.m, 21~24 N.m)



17. Attach a GDS and select vehicle, **Data Analysis** and **A/T** menu and **Oil Temperature Sensor**.

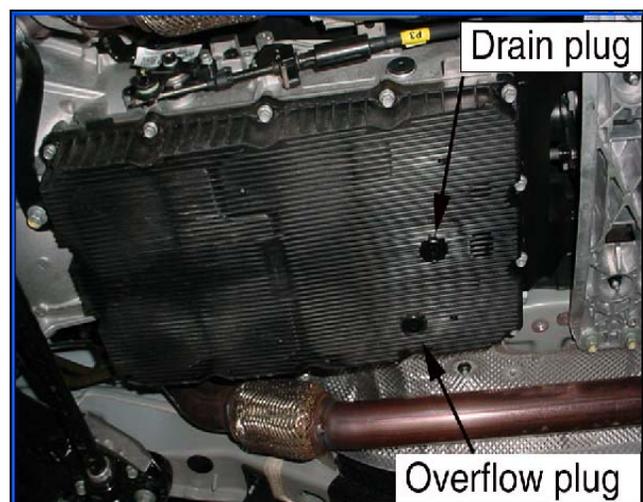
18. Drive the vehicle until the ATF is at the low end of the range of 122~140°F (50~60°C).

19. Move the shift lever to "P" and leave the engine idling. Raise the vehicle on a hoist.

Remove the overflow plug. The ATF level is correct when the ATF flows out in a steady, thin stream.

Reinstall the overflow plug.

Torque: 16~18 lb-ft (2.3~2.5 kgf.m, 21~24 N.m)



**ATF TEMPERATURE = 122~140°F (50~60°C)
SHIFT LEVER IN "P" AND ENGINE RUNNING**

20. Clear the codes and test drive the vehicle for two driving cycles (two key-on to 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
P0711 P0712 P0713	<ul style="list-style-type: none"><li data-bbox="337 338 1419 407">• Replace the control wiring harness between the TCM and transmission. If the DTC does not occur again, return the vehicle to the customer.<li data-bbox="337 443 984 478">• If the DTC returns again, replace the TCM.

21. Clear DTC in the BlueLink system per instructions of TSB 12-BE-005-2.

22. Drive the vehicle to confirm the proper operation of the transmission.