 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP	NUMBER
	AUTOMATIC TRANSMISSION	12-AT-025
	DATE	MODEL
	OCTOBER 2012	GENESIS SEDAN (BH) GENESIS COUPE (BK)

SUBJECT: ATM OIL TEMPERATURE SENSOR
DTC P0711, P0712 & P0713

This TSB supersedes TSB 11-AT-016-1 to add Genesis Coupe.

Description: The Genesis Sedan and Genesis Coupe are equipped with an 8-speed transmission. Do not replace the transmission for the DTC listed below. Instead, follow the repair procedure and replace the related part.

Applicable Vehicles:

2012~ Genesis Sedan 3.8L/4.6L/5.0L

2013~ Genesis Coupe 2.0L/3.8L.

DTC LIST:

DTC	DESCRIPTION
P0711	Transmission Fluid Temperature Sensor 'A' Circuit
P0712	Transmission Fluid Temperature Sensor 'A' Circuit Low
P0713	Transmission Fluid Temperature Sensor 'A' Circuit High

PARTS INFORMATION:

MODEL	PNC	PART NUMBER	DESCRIPTION
2012~ GENESIS SEDAN 3.8L	46305C	46305-4F100	E-Module
2012~ GENESIS 4.6L/5.0L	46305C	46305-4E100	E-Module
2013~ GENESIS COUPE 2.0L/3.8L	46305C	46305-4F100	E-Module

WARRANTY INFORMATION:

OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
45600R00	Replace valve body assy.	1.4	See Parts Information	N27	C15
45600RQ0	GDS Operation	0.3			

SERVICE PROCEDURE:

Circulate To: Service Manager, Warranty Manager, Service Advisors, Technicians, Fleet Repair

SUBJECT:

ATM OIL TEMPERATURE SENSOR DTC P0711, P0712 & P0713

1. Using a GDS, check for DTC in the "Automatic Transaxle" menu. Record the DTC and description. Delete the DTC.
2. From the GDS, select the following parameters. Drive the vehicle and monitor the sensors.
 - Vehicle and A/T menu.
 - Current Data menu
 - "Oil temperature sensor".

3.

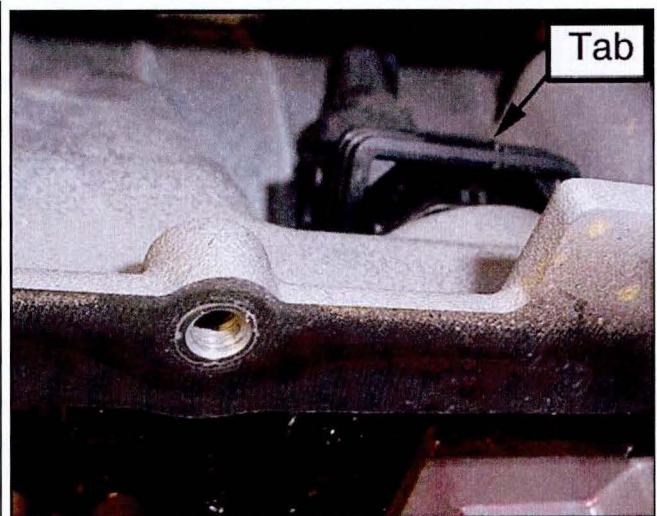
Sensor Name	Value	Unit
<input checked="" type="checkbox"/> Oil Temperature Sensor	29	°C
<input type="checkbox"/> Engine RPM	950	RPM
<input type="checkbox"/> Vehicle Speed	3	MPH
<input type="checkbox"/> Accelerator Pedal Position Sensor	3.5	%
<input type="checkbox"/> Throttle Position Sensor Angle	5.9	%
<input type="checkbox"/> Input Speed(PG-A)	679	RPM
<input type="checkbox"/> Output Speed(PG-B)	178	RPM
<input type="checkbox"/> Gear Ratio	3.7	-
<input type="checkbox"/> Torque Converter Clutch Slip	274	RPM
<input type="checkbox"/> Main Relay Voltage	14.3	V
<input type="checkbox"/> Engine Torque	9.0	%
<input type="checkbox"/> Shift Lever Switch	D	-
<input type="checkbox"/> Current Gear	1	-
<input type="checkbox"/> Next Gear Position	1	-
<input type="checkbox"/> Torque Converter Clutch Control State	OFF	-
<input type="checkbox"/> Hold Switch	Not Supported	-
<input type="checkbox"/> Idle Switch	Not Supported	-
<input type="checkbox"/> Kick Down Switch	Not Supported	-
<input type="checkbox"/> OD Switch(O/D)	Not Supported	-
<input type="checkbox"/> Brake Switch	OFF	-
<input type="checkbox"/> Auto Cruise Switch	OFF	-
<input type="checkbox"/> 4L Switch (4WD Only)	Not Supported	-
<input type="checkbox"/> Sports Mode Select	OFF	-
<input type="checkbox"/> Sports Mode Up Switch	OFF	-
<input type="checkbox"/> Sports Mode Down Switch	OFF	-
<input type="checkbox"/> Reverse Lamp Relay Output	Not Supported	-

4. If the sensors show:
 - Continuous and changing output while driving from a cold start, the wiring **currently** has no open/short circuits. Go to Step 6.
 - "No continuous and changing output, go to Step 5.
5. Visually check the wiring harness between the PCM and transmission for a damaged wire or connector. Check for a short circuit to ground.
 - If damage exists, repair or replace the ECM control harness and drive the vehicle to confirm the repair.
 - If not, go to Step 6.
6. Disconnect the negative battery terminal.

7. Lift the vehicle on a hoist.

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

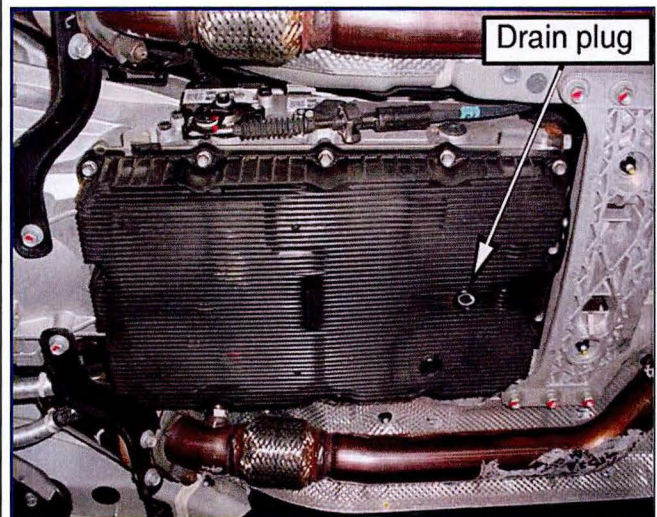
Push the connector up to disconnect the connector.



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

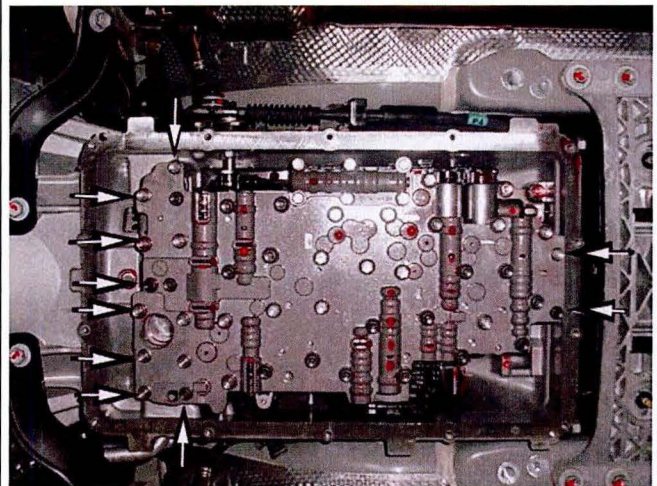
Remove the 14 bolts that secure the oil pan and remove the pan.

Torque: 6~7 lb.ft (0.9~1.0 kgf.m)



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

Note the location of the 3 black long bolts.



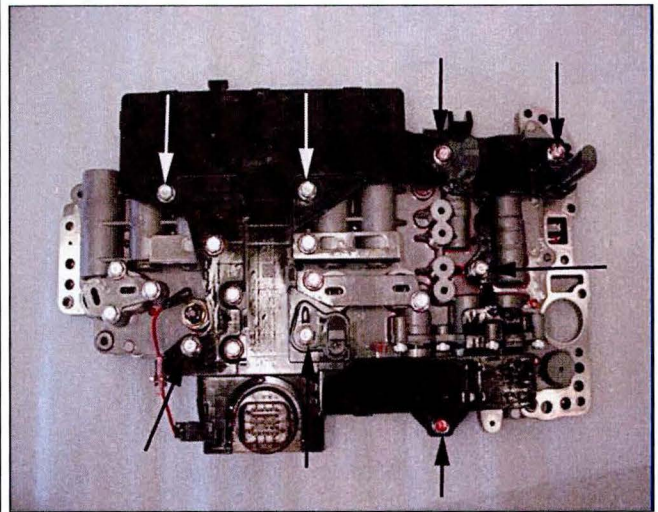
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10. Remove 8 bolts and remove the E-Module.

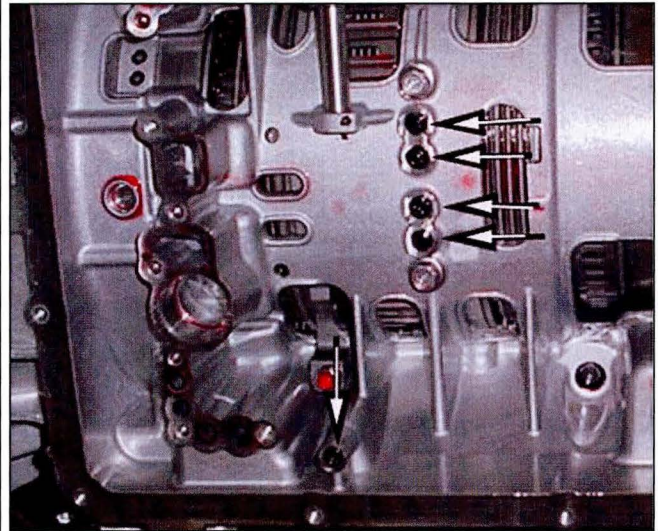
Install the new E-Module and torque the bolts to specification.

Torque: 6~7 lb.ft (0.9~1.0 kgf.m)

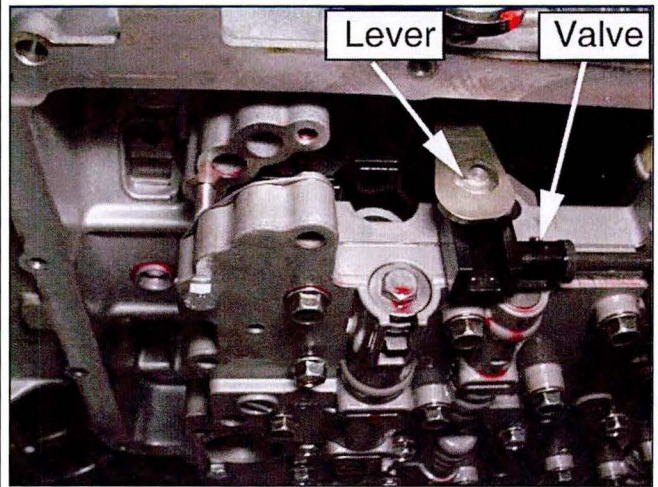


ASSEMBLY

11. Confirm that 5 o-rings are seated in the case.



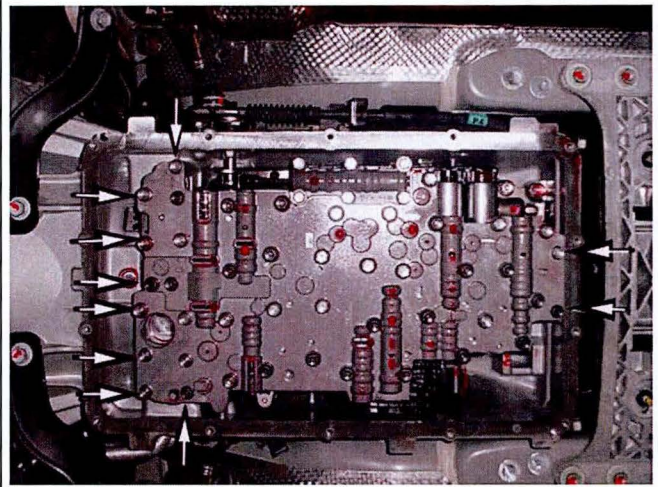
12. Align the manual valve to the shift lever and install the valve body.



13. Install 10 bolts and torque to specification.

Install the 3 black bolts in the correct location.

Torque: 7.2~8.7 lb.ft (1.0~1.2 kgf.m)



14. Reconnect the harness connector and pull the latch down until it clicks (See Step 7).

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

Torque: 6~7 lb.ft (0.9~1.0 kgf.m)

16. Reinstall the negative battery terminal.

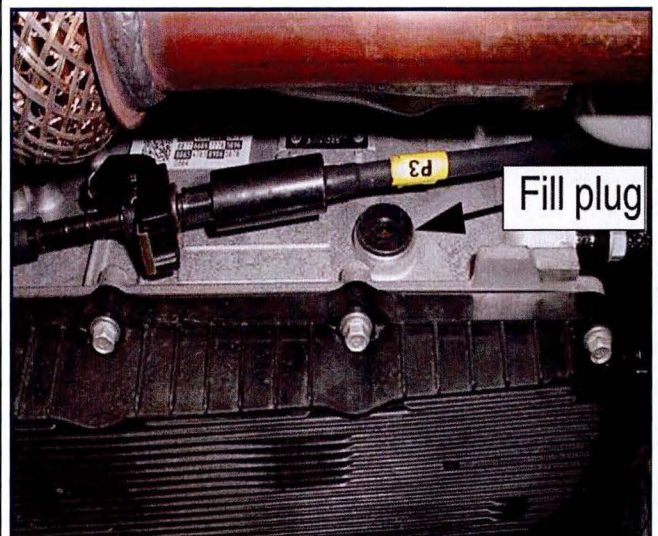
17. Use an 8mm or 5/16" hex socket and remove the fill plug and washer.

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.

*** NOTE**

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



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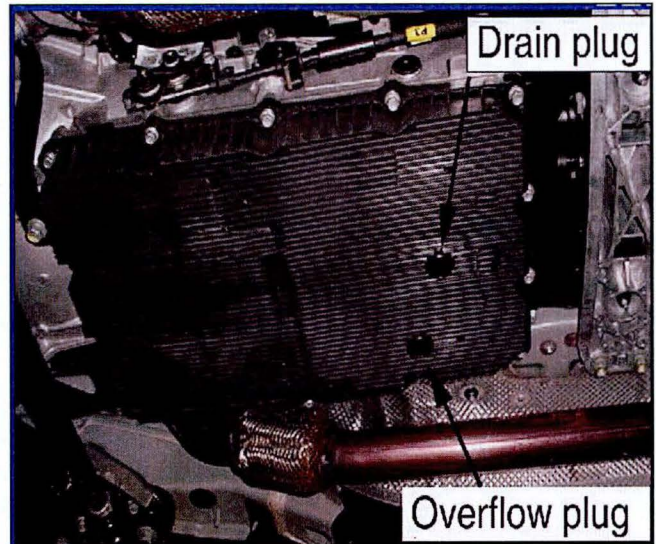
18. Remove the overflow plug.

Start the engine.

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

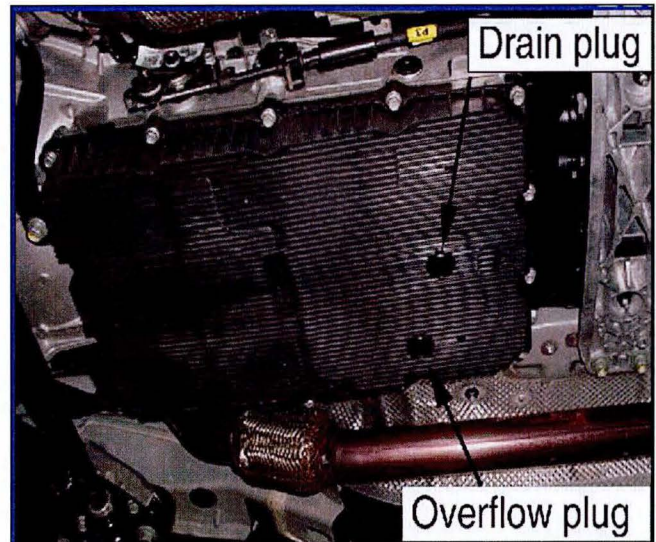
Reinstall the fill plug and washer.
Torque: 25~32 lb-ft (3.5~4.5 kgf.m)

Reinstall the overflow plug.
Torque: 16~18 lb-ft (2.3~2.5 kgf.m)



19. Attach a GDS and select vehicle, A/T menu, Current Data and "Oil Temperature Sensor".
20. Drive the vehicle until the ATF is at the low end of the range of 122~140°F (50~60°C).
21. 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.



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

22. Attach a GDS and delete any DTC.
23. Drive the vehicle to confirm the proper operation of the transmission.