		GROUP	NUMBER	
		AUTOMATIC TRANSMISSION	12-AT-024	
<b>Technical Service Bulletin</b>		DATE	MODEL	
reen	incal del vice Dunetin	OCTOBER 2012	GENESIS SEDAN (BH) GENESIS COUPE (BK)	
SUBJECT: ATM INPUT, MIDDLE AND OUTPUT SPEED SENSOR DTC P0717, P0721, P0722 & P0791				
This TSB s	supersedes TSB 11-AT-015-1 to add Gene	esis Coupe.		
	<b>n:</b> The Genesis Sedan and Genesis Coupe on. Do not replace the transmission for the I		-	

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.
P0717	Input/Turbine Speed Sensor 'A' Circuit No Signal
P0721	Output Speed Sensor Circuit Range/Performance
P0722	Output Speed Sensor Circuit No Signal
P0791	Middle Speed Sensor Circuit No Signal

### **PARTS INFORMATION:**

MODEL	PNC	PART NUMBER	DESCRIPTION
2012~ GENESIS SEDAN 3.8L	46305C	46305-4F100	E-Module
2012~ GENESIS SEDAN 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	N27	C15
45600RQ0	GDS Operation	0.3	Information		

#### SERVICE PROCEDURE:

- 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"
  - Input speed and output speed sensors.
- 3.

GDS	Preparation	Diagnosis	Vehicle S/W M	lanagement	Repair	0
	3H)/2012/G 5.0 GDI	Sy	stem 🕨 Transm	ission/Automatic	Transaxle	0
Diagnosis	Current Data					a (
Basic Inspection	Selective Display 🗘 🛛 Fu	ll List 💠 Graph 💠	Items List C Rese	t Min Max Recor	d Stop 😂 Group	ing VSS
DTC Analysis	Sensor Name			Valu	e Unit	
	Input Speed(PG-A)			89	1 RPM	
Data Analysis 🛛 🕨	Output Speed(PG-B)			55	B RPM	
Throttle Position Sensor	Engine RPM			103	1 RPM	
There is no data	Vehicle Speed			1		
a mere is no data.	Accelerator Pedal Posi	tion Sensor		3.	3 %	
	Throttle Position Sense	or Angle		7.	5 %	
	Oil Temperature Senso	r		2	3 'C	
	Gear Ratio			1.	5	
	Torque Converter Clute	ch Slip		14	1 RPM	
	Main Relay Voltage			14.	3 V	
	Engine Torque				5 %	
	Shift Lever Switch				) -	
Sector States and States	Current Gear				3.	
	Next Gear Position				3 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 -	
	Torque Converter Clute	ch Control State		OF		
	Hold Switch			Not Supporter		
	Idle Switch			Not Supporter		
	Kick Down Switch			Not Supporter		
and the second second second	D OD Switch(0/D)			Not Supporter		
	Brake Switch			OF		
	Auto Cruise Switch			OF		
1 .	4L Switch (4WD Only)			Not Supporter		
	Sports Mode Select		OF			
light Record	Sports Mode Up Switch Sports Mode Down Switch					
CARB OBD-II			OFF - Not Supported -			
CARB UBD-II	TT I Reverse Lamb Relav O	นเมนเ		HUC SUBBUILE		
		Actual	-	Erent Fre	Simulation	Internet

- 4. If the sensors show:
  - Continuous and changing output with changes in vehicle speed, the wiring <u>currently</u> 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.

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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.

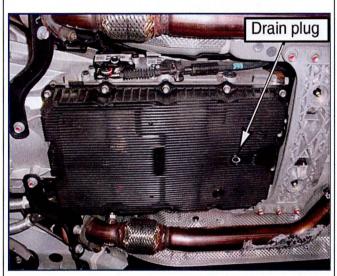
Remove the 14 bolts that secure the oil pan and remove the pan.

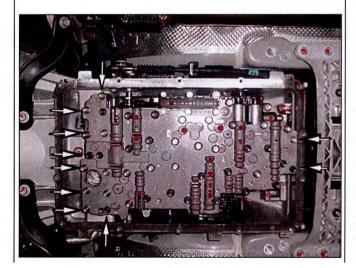
Torque: 6~7 lb.ft (0.9~1.0 kgf.m)

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 extra length bolts.







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

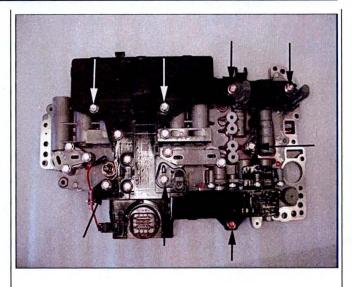
Install the new E-Module and torque the bolts to specification.

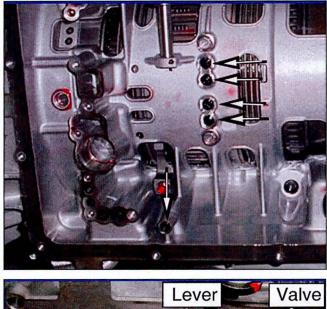
Torque: 6~7 lb.ft (0.9~1.0 kgf.m)

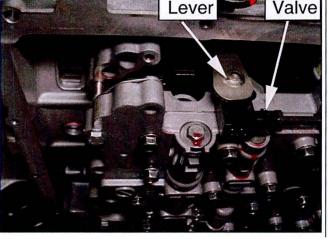
ASSEMBLY

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

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





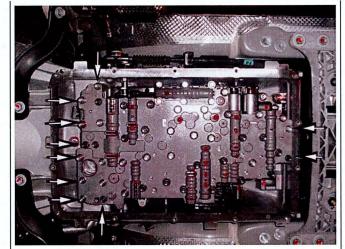


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13. Install 10 bolts and torque to specification.

Install the 3 black bolts in the correct location.

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



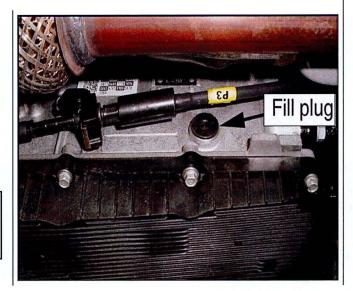
- 14. Reconnect the harness connector and pull the latch down until it clicks (See Step 7).
- 15. Install the oil pan and torque the bolts to specification Torque: 6~7 lb.ft (0.9~1.0 kgf.m)
- 16. Reinstall the negative battery terminal.
- 17. Use an 8mm or 5/16" hex socket and remove the fill plug and 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.



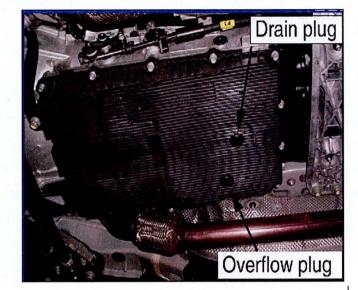
18. Remove the overflow plug.

Start the engine.

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

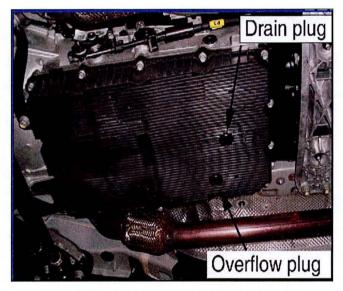
Reinstall the fill plug and washer. Torque: 25~32 lb-ft (3.5~4.5 kgf.m)

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 erase any DTC.
- 22. Drive the vehicle to confirm the proper operation of the transmission.