HYUNDAI **Technical Service Bulletin**	GROUP **AUTOMATIC TRANSMISSION**	NUMBER **19-AT-008H**
	DATE **APRIL 2019**	MODEL **GENESIS (BH/DH)** **GENESIS COUPE (BK)** **EQUUS (VI)**
SUBJECT:	AUTOMATIC TRANSMISSION SOLENOID DTC P0741, P0743, P0748, P0753, P0758, P075A, P0763, P0768, P0773, P2709 & P0841	

This TSB supersedes TSB 16-AT-011 to update Applicable Vehicles and parts information.

Description: When servicing a vehicle with a “Check Engine light” and any of the DTCs listed below, follow the Service Procedure and replace the related solenoid and E-module.

Applicable Vehicles:	2012~16	Genesis Sedan (BH/DH)
	2013~16	Genesis Coupe (BK)
	2012~16	Equus (VI)

DTC LIST & PARTS INFORMATION:

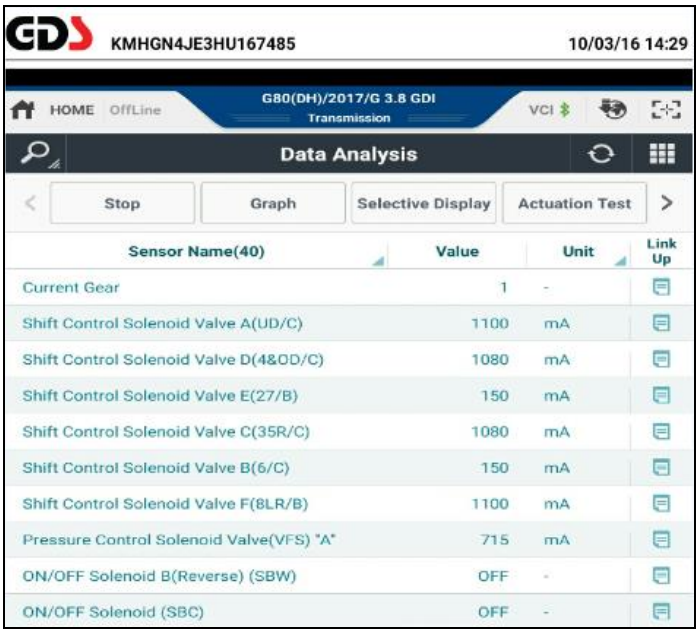
DTC	DESCRIPTION	PNC	PART NO.
P0741	Torque converter clutch circuit performance or stuck off	45000	45000-*****
P0743	Torque Converter Clutch Circuit Electrical	46202A	46313-3B01*
P0748	Pressure Control Solenoid Valve(VFS) A Electrical	46313A	46313-3B00*
P0753	Shift Control Solenoid Valve 'A' Electrical (UD/B)	46313	46313-4E50*
P0758	Shift Control Solenoid Valve 'B' Electrical (2-6/B)	46313	46313-4E50*
P075A	ON/OFF Solenoid (SS-A)	46313D	46313-3B03*
P0763	Shift Control Solenoid Valve 'C' Electrical (35R/C)	46313C	46313-4E70*
P0768	Shift Control Solenoid Valve 'D' Electrical (4&OD)	46313B	46313-4E60*
P0773	Shift Control Solenoid Valve 'E' Electrical (SS-A – 27B)	46313	46313-4E50*
P0841	Transmission Fluid Pressure Sensor/Switch A Circuit	N/A	TSB 14-AT-001
P2709	Shift Control Solenoid Valve 'F' Electrical (SS-B)	46313E	46313-4E51*
All	E-Module – BH 3.8L, BK 2.0L/3.8L	46305C	46305-4F1**
	E-Module – BH 4.6L/5.0L, VI 5.0L	46305C	46305-4E1**

WARRANTY INFORMATION – Solenoid replacement:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
Genesis Sedan (BH/DH) Genesis Coupe (BK) Equus (VI)	45775R8T	Solenoid valve assy.	Refer to WEBLTS for current LTS	Refer to part numbers on Page 1	13A	ZZ3

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 solenoid parameters shown below. If the solenoids show:
   - 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.

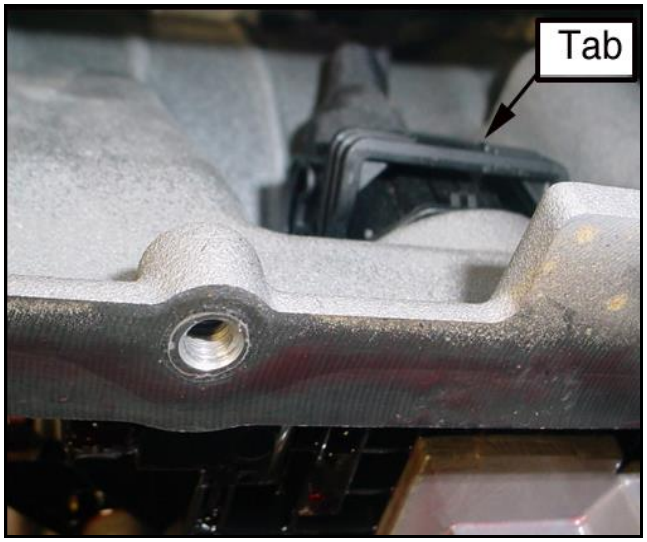


3. Visually check the wiring harness between the TCM and transmission for a damaged wire or connector. Check for an open/short circuit.
   - If so, repair or replace the ECM control harness and drive the vehicle to confirm the repair.
   - If no damage is found, go to Step 4.
4. Record the audio preset 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.

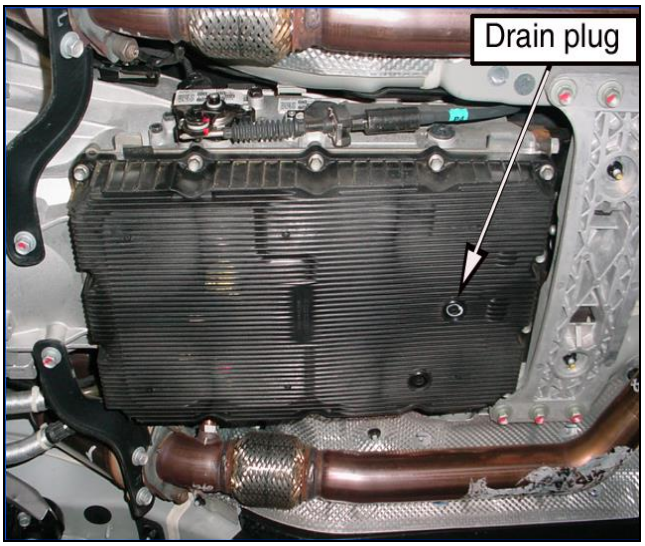
   Push the connector up to disconnect the connector.



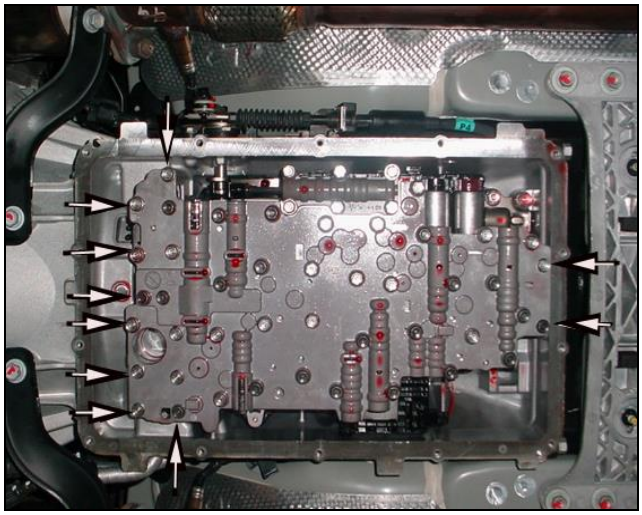
6. Use an 8mm or 5/16” hex socket and remove the drain plug and drain the ATF. Reinstall the drain plug.

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

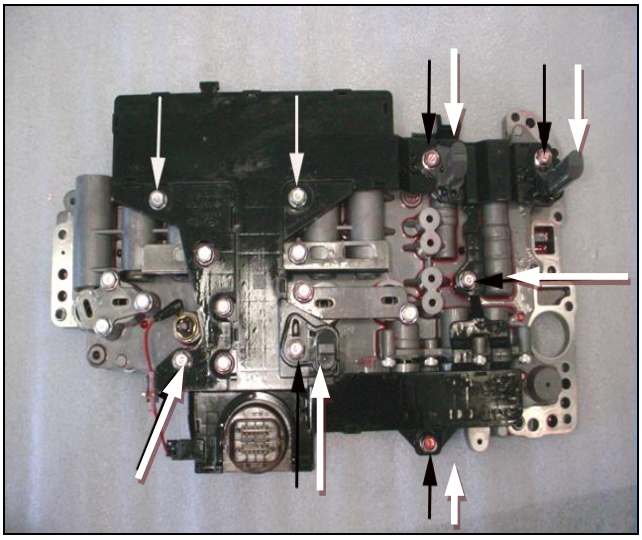
   Remove the bolts that secure the oil pan and remove the pan.



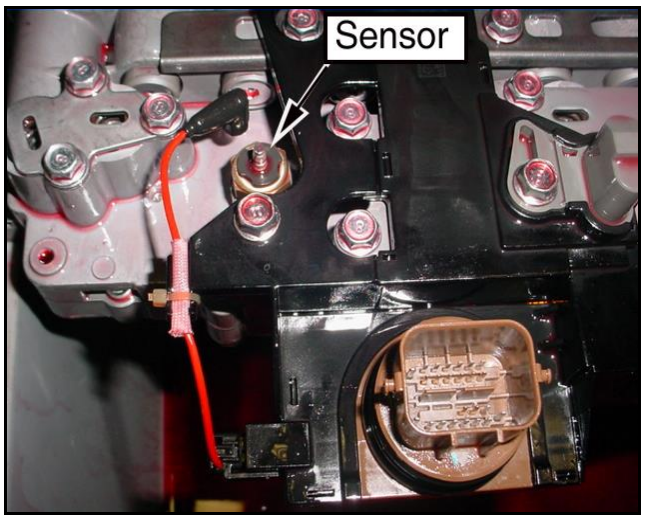
7. Remove the 10 bolts that secure the valve body to the case and remove the valve body.



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



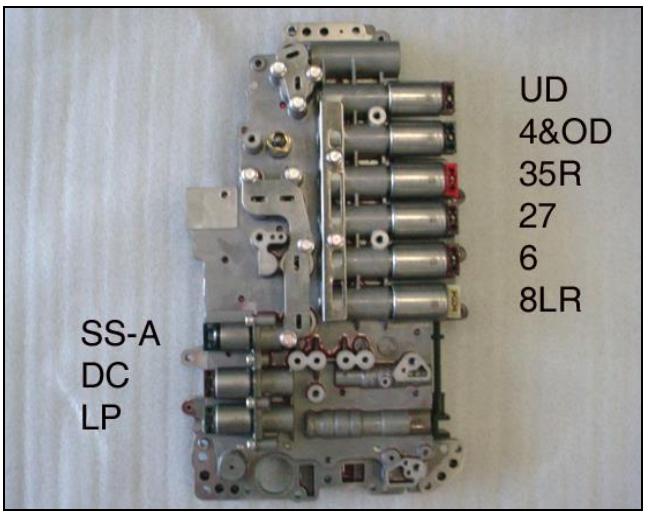
9. **P0841 - Fluid pressure switch only**:
   - If P0841 was recorded, update the TCM according to TSB 14-AT-001.
   - If P0841 was not recorded, go to Step 10.



NOTICE

The pressure switch is no longer available. Follow TSB 14-AT-001 and update the TCM.

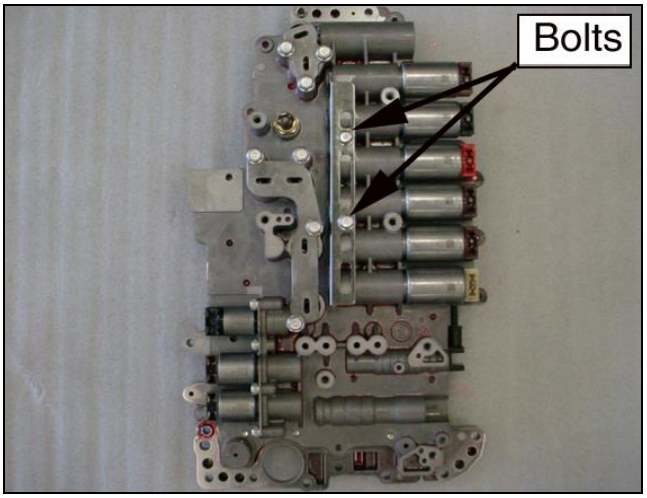
10. Refer to the solenoid DTC recorded in Step 1 and replace the related solenoid.
Refer to the PNC in the parts catalog.



DTC	SOLENOID	PNC
P0753	UD	46313
P0768	4&OD	46313B
P0763	35R	46313C
P0773	27	46313
P0758	6	46313
P2709	8LR	46313E
P075A	SS-A	46313D
P0743	DC	46202A
P0748	LP	46313A

11. For **UD, 4&OD, 35R, 27, 6** and **8LR** solenoids:

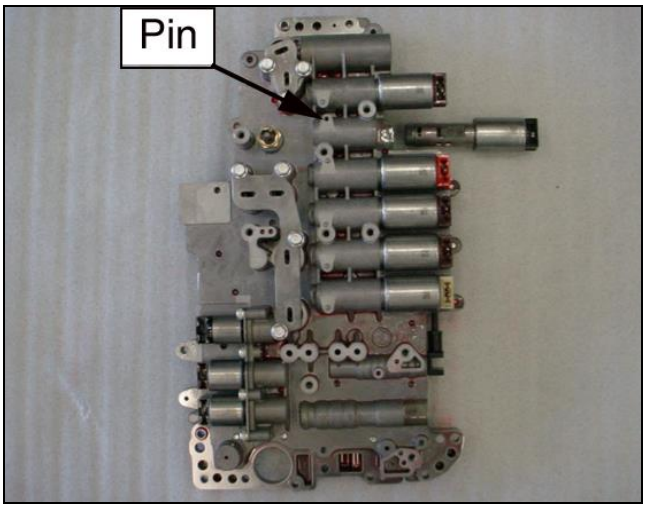
    Remove two bolts and remove the solenoid support.



12. Use a magnet to remove the pin and remove the related solenoid.

    Install a new solenoid.

    Reinstall the pin and the solenoid support.



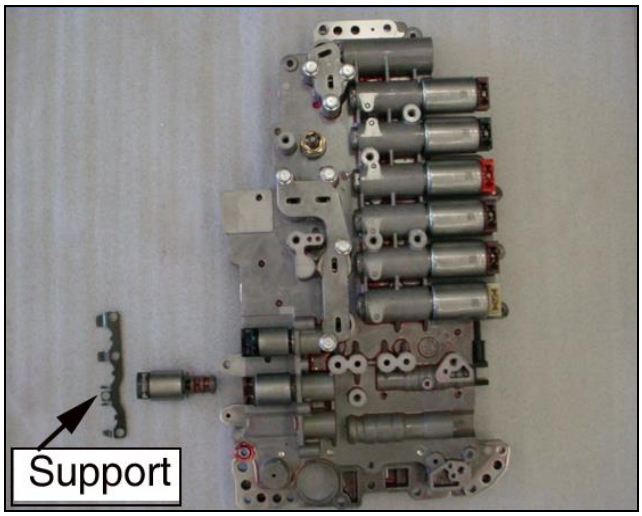
13. For **SS-A, DC** and **LP** solenoids:

    Use a 5mm hex socket to remove 4 bolts that secure the support to the valve body and remove the support.

    Remove the related solenoid.

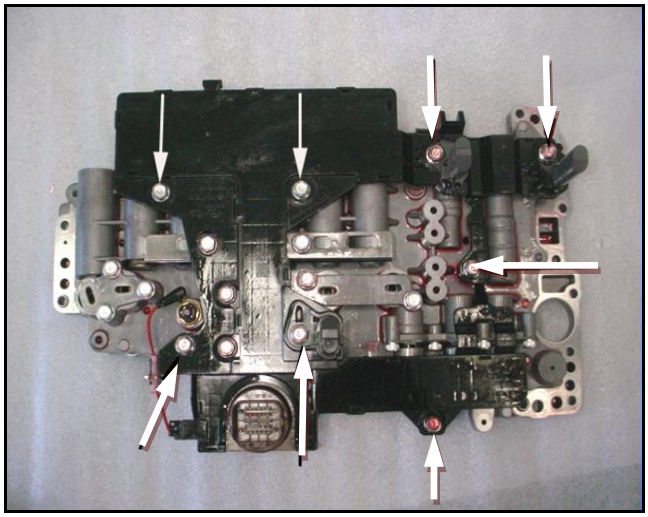
    Install a new solenoid.

    Reinstall the support.

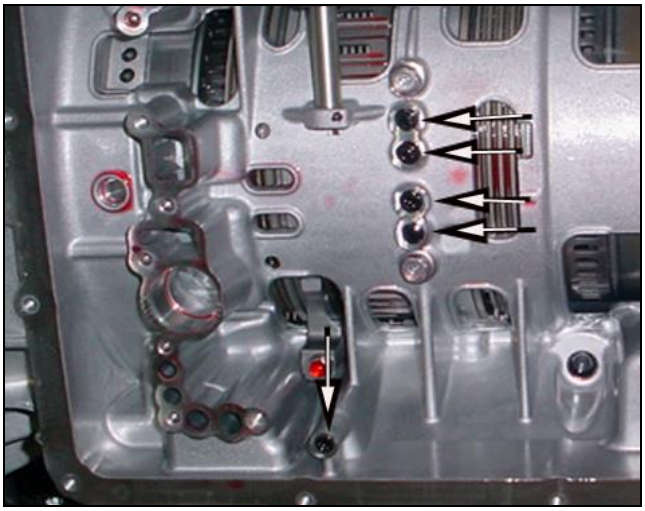


14. Install a <u>new</u> E-module and torque to specification.

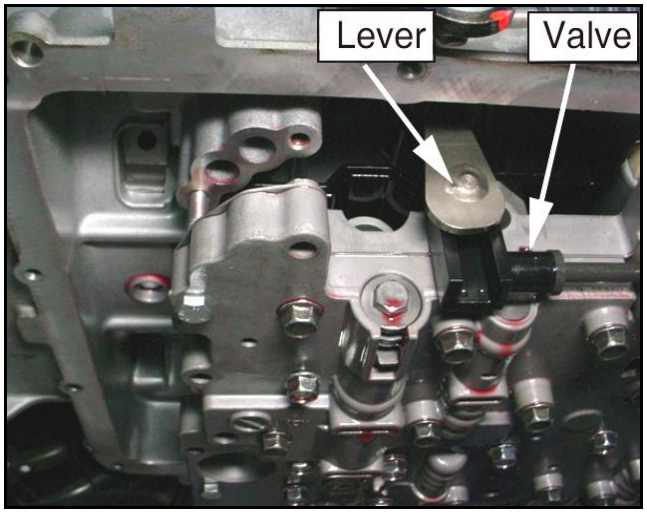
    Torque: 7~9 lb.ft (1.0~1.2 kgf.m, 10~12 N.m)



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



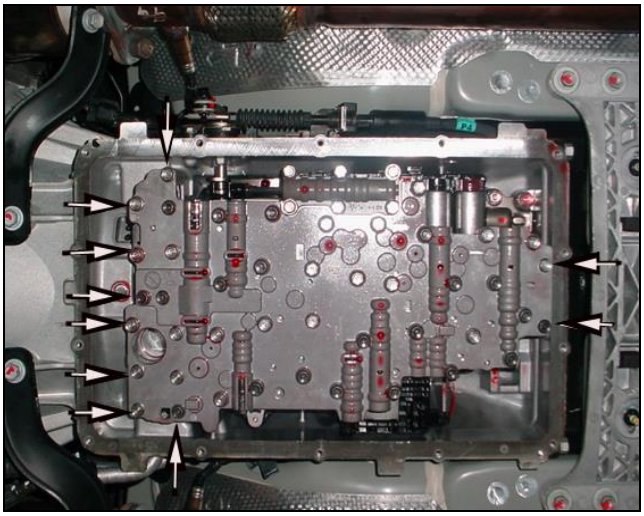
16. Carefully align the manual valve to the shift lever and reinstall the valve body.



17. 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)



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

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

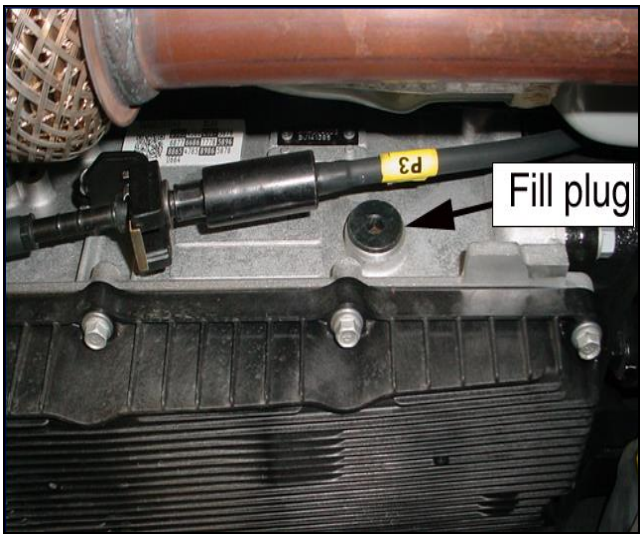
    Torque: 7~8 lb.ft (1.0~1.2 kgf.m, 10~12 N.m)

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

21. 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 SP-IV-**RR** ATF through the fill plug.



NOTICE

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

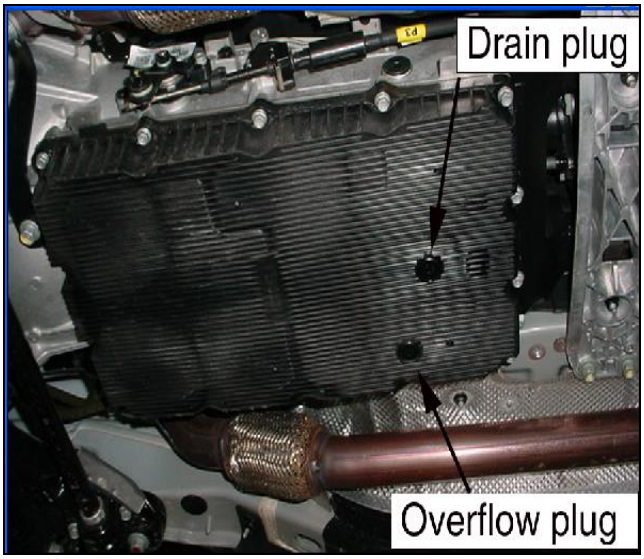
22. Remove the overflow plug.

    Start the engine.

    Add approximately 4~5 additional quarts of SP-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)



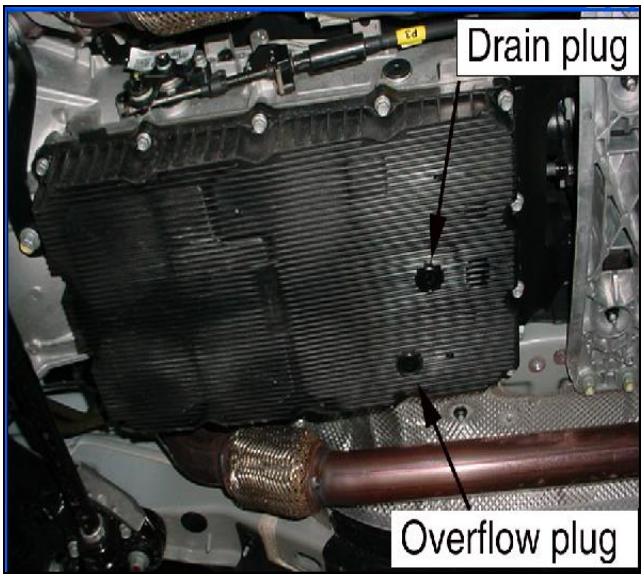
23. Attach a GDS and select vehicle, **Data Analysis** and **A/T** menu and **Oil Temperature Sensor**.

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

25. 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

26. 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
P0743 P0748 P0753 P0758 P075A P0763 P0768 P0773 P2709 P0841	• Replace the control wiring harness between the TCM and transmission. If the solenoid DTC does not occur again, return the vehicle to the customer. • If the solenoid DTC returns again, replace the TCM.

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

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