



Technical Service Bulletin

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| GROUP | NUMBER |
| AUTOMATIC TRANSMISSION | 19-AT-008G |
| DATE | MODEL(S) |
| APRIL 2019 | GENESIS G70 (IK) GENESIS G80 (DH) GENESIS G90 (HI) |

SUBJECT: AUTOMATIC TRANSMISSION SOLENOID DTC P0741, P0743, P0748, P0753, P0758, P075A, P075D, P0763, P0768, P076A, P07B5, P076D, P0773, P0785, P078A, P0995 & P2709

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

Applicable Vehicles:

- 2019~ Genesis G70 (IK) with Shift-by Wire (SBW)
- 2019~ Genesis G80 (DH) with Shift-by-Wire (SBW)
- 2019~ Genesis G90 (HI) with Shift-by-Wire (SBW)

DTC LIST WITH PART NUMBER INFORMATION:

| DTC | | DESCRIPTION | PNC | PART NO. |
|-------|---------|--|--------|-------------|
| P0741 | P074100 | Torque converter clutch circuit performance or stuck off | 46202A | 46313-3B01* |
| P0743 | P074300 | Torque Converter Clutch Circuit Electrical (TC) | 46202A | 46313-3B01* |
| P0748 | P074800 | Line Pressure Control Solenoid Valve A Electrical (LP) | 46313A | 46313-3B60* |
| P0753 | P075300 | Shift Control Solenoid Valve A Electrical (UD) | 46313 | 46313-4J10* |
| P0758 | P075800 | Shift Control Solenoid Valve B Electrical (6) | 46313 | 46313-4J10* |
| P075A | P075A00 | ON/OFF Solenoid Circuit (Park – SBC) | 46313D | 46313-3B03* |
| P075D | P075D00 | ON/OFF Solenoid D (PRH) – Electrical) | 46313D | 46313-3B03* |
| P0763 | P076300 | Shift Control Solenoid Valve C Electrical (35R) | 46313E | 46313-4J20* |
| P0768 | P076800 | Shift Control Solenoid D (4&OD) | 46313E | 46313-4J20* |
| P076A | P076A00 | ON/OFF Solenoid C (Park - SBW) | 46313D | 46313-3B03* |
| P076D | P076D00 | ON/OFF Solenoid C (Park - SBW) | 46313D | 46313-3B03* |
| P0773 | P077300 | Shift Control Solenoid Valve E Electrical (27) | 46313 | 46313-4J10* |
| P0785 | P078500 | ON/OFF Solenoid A (Drive – SBW) | 46313D | 46313-3B03* |
| P078A | P078A00 | ON/OFF Solenoid B (Reverse – SBW) | 46313D | 46313-3B03* |
| P2709 | P270900 | Shift Control Solenoid Valve F Electrical (8LR) | 46313 | 46313-4J10* |
| All | All | E-Module | 46305C | 46305-4**** |

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

DTC LIST WITH PART NUMBER INFORMATION:

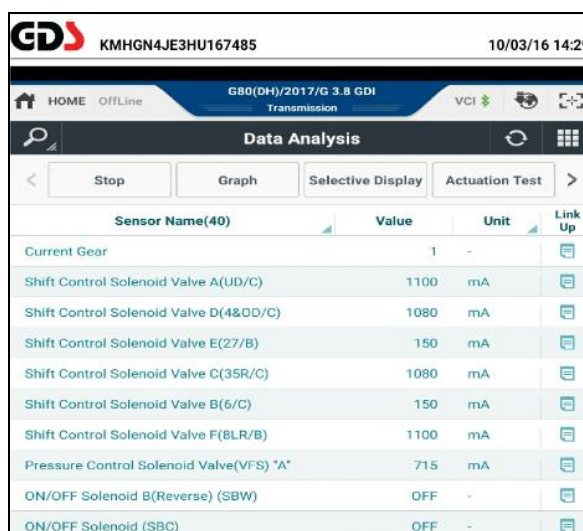
| DTC | | DESCRIPTION | MODEL | PNC | PART NO. |
|-------|---------|--------------------------------------|----------|--------|-------------|
| P076A | P076A00 | Park System Fault (SBW) | All | 46235C | 46340-4J10* |
| | | | | 46756A | 46756-***** |
| P07B5 | P07B500 | Park Position Sensor Circuit Low | All | 42700E | 42700-4J50* |
| P0995 | P099500 | Auto Shift Manual Mode Circuit (SBC) | G80, G90 | 46700A | 46700-***** |
| | | | G70 | 46700F | 467W0-G92** |

WARRANTY INFORMATION:

| MODEL | OP CODE | OPERATION | OP TIME | CAUSAL PART | NATURE CODE | CAUSE CODE |
|--|----------|----------------------|---------------------------------|---------------------------------------|-------------|------------|
| Genesis G70 (IK) Genesis G80 (DH) Genesis G90 (HI) | 45775R8T | Solenoid valve assy. | Refer to WEBLTS for current LTS | Refer to parts numbers in table above | 13A | ZZ3 |
| Genesis G70 (IK) Genesis G80 (DH) Genesis G90 (HI) | 42700R00 | Park position switch | Refer to WEBLTS for current LTS | Refer to parts numbers in table above | 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.

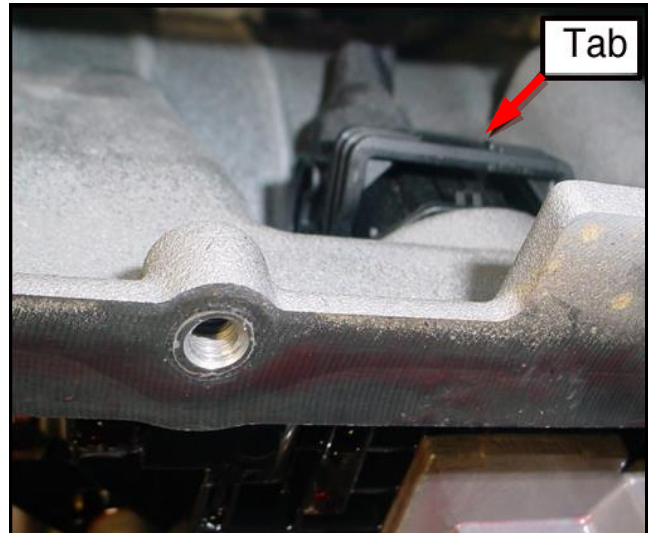
4. Record the audio preset stations and disconnect the negative battery terminal.

5. Locate the harness connector on the passenger side of the transmission.

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

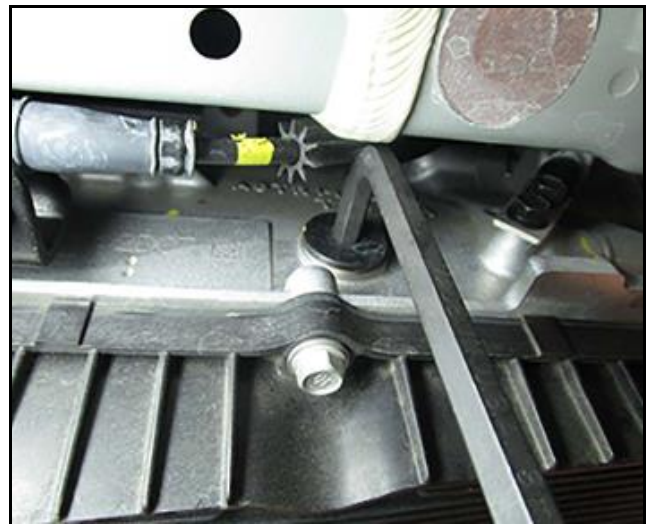
Push the connector up to disconnect the connector from the valve body.

To gain better access to the connector, place a support under the rear transmission support, loosen the bolts about ½ inch and lower the support about ½ inch.



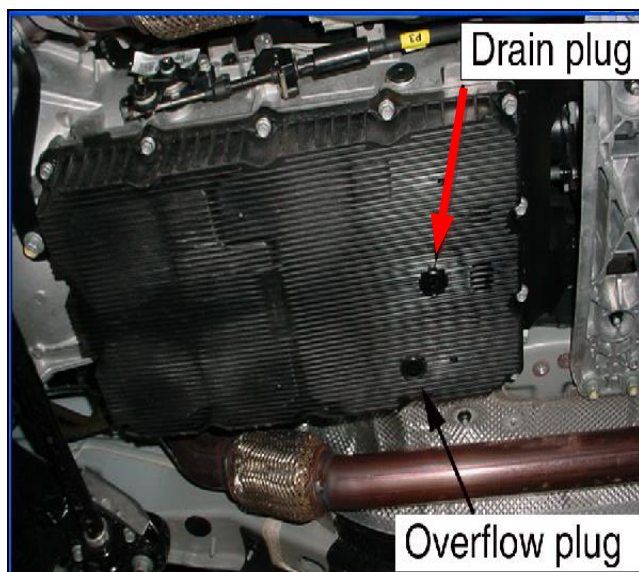
6. Use an 8mm or 5/16" hex wrench and remove the fill plug.

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



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

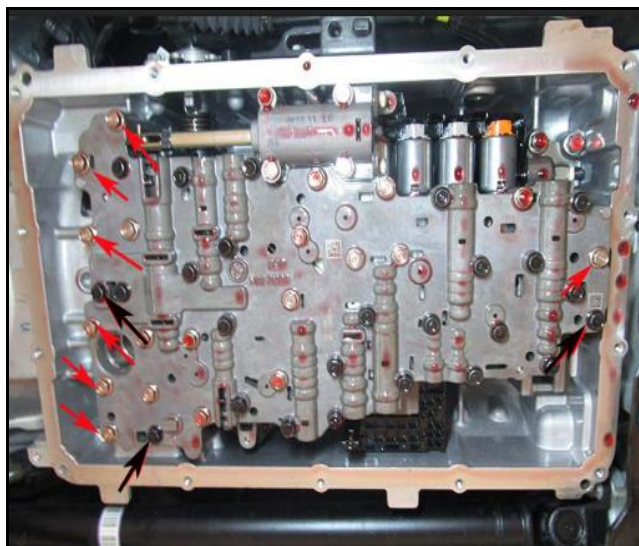
Torque: 17~18 lb.ft (2.3~2.5 kgf.m, 22~24 N.m)



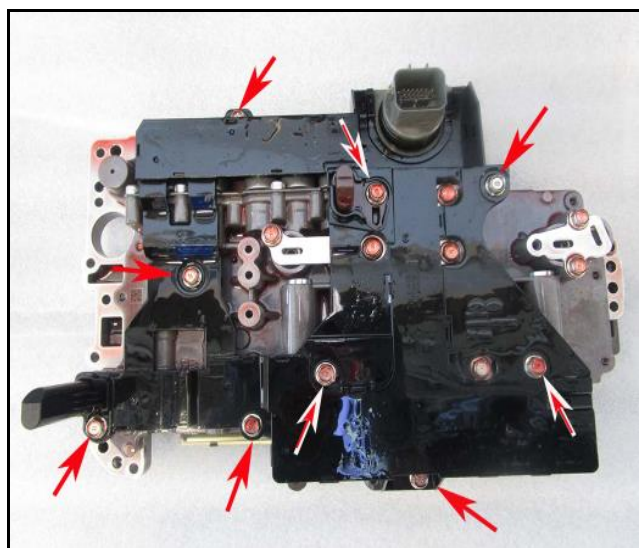
8. Remove 10 bolts that secure the valve body to the case and remove the valve body.

Note the location of the 3 black bolts (shown with black arrow).

If the valve body is stuck in the transmission, insert a screwdriver between the valve body and case and carefully pull the valve body out of the transmission.



9. Remove 9 bolts and remove the E-module.

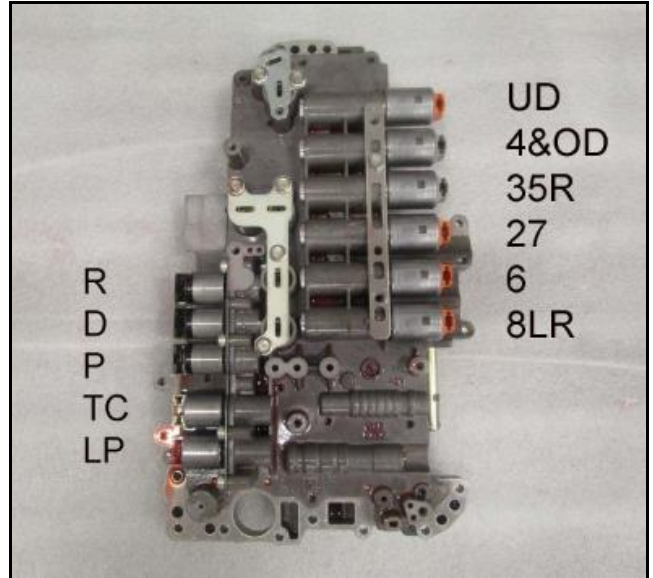


10. Record the 8-digit code on the solenoid.



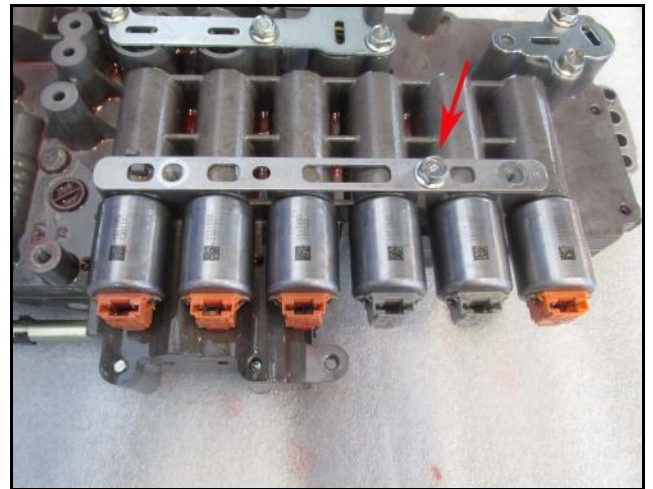
11. Refer to the solenoid DTC recorded in Step 1 and replace the related solenoid.

| DTC | SOLENOID | PNC |
|-------|----------|--------|
| P0753 | UD | 46313 |
| P0768 | 4&OD | 46313E |
| P0763 | 35R | 46313E |
| P0773 | 27 | 46313 |
| P0758 | 6 | 46313 |
| P2709 | 8LR | 46313 |
| P078A | R | 46313D |
| P0785 | D | 46313D |
| P076D | P | 36313D |
| P0743 | TC | 46202A |
| P0748 | LP | 46313A |



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

Remove one bolt and remove the solenoid support.

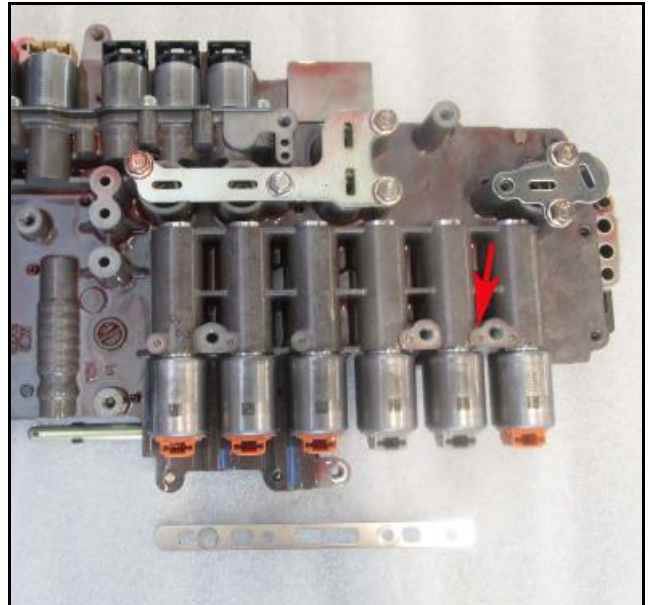


13. Use a magnet to remove the pin that secures the affected solenoid.

Pull out the affected solenoid and install the new solenoid.

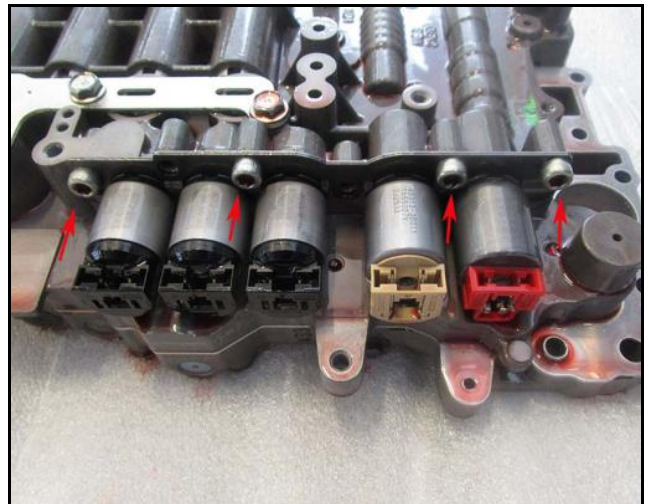
Reinstall the pin.

Reinstall the solenoid support using one bolt.



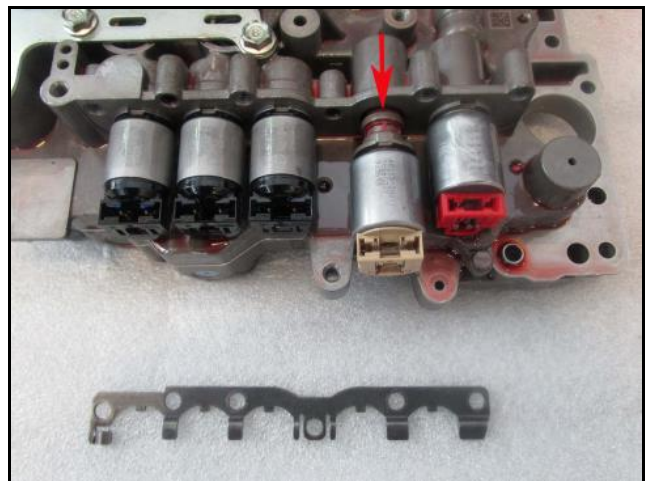
14. **For R, D, P, TC and LP solenoids:**

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



15. Pull out the related solenoid and install a new solenoid.

Reinstall the support.

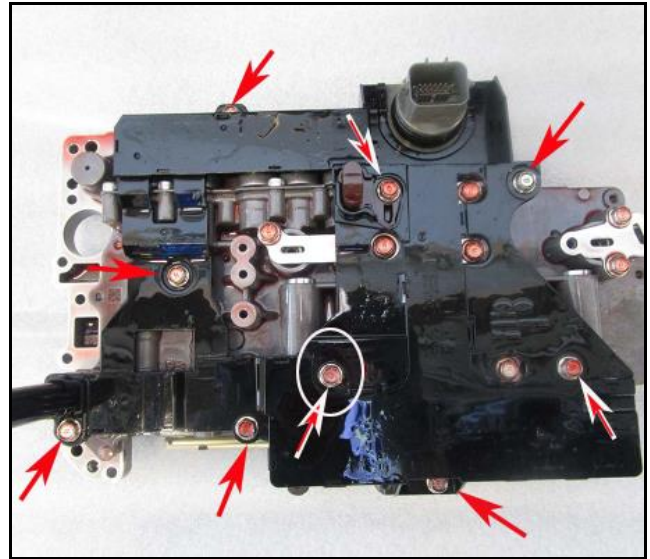


16. Install a new E-module.

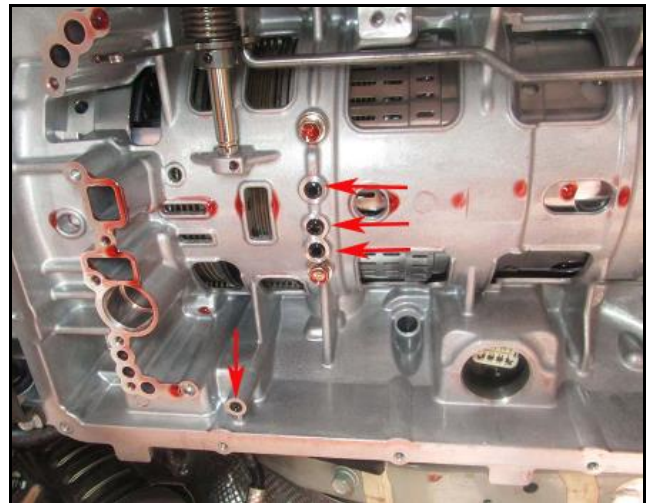
Install 9 bolts and torque to specification.

NOTE: Install the short bolt in the location shown in the circle.

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



17. Confirm that 4 O-rings are seated in the case.



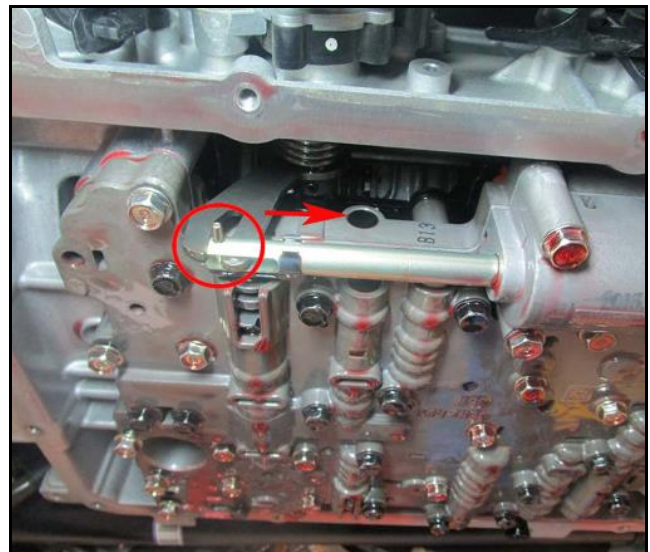
18. Place the valve body on a transmission jack.

Rotate the park switch counter-clockwise and carefully raise the valve body and insert the manual valve into the shift lever.

Install the valve body fully into the transmission case.

NOTICE

Confirm the manual valve pin faces outward from the valve body.



19. Install 3 black bolts in the locations shown (black arrow).

Install 7 brass bolts in the location shown (red arrows).

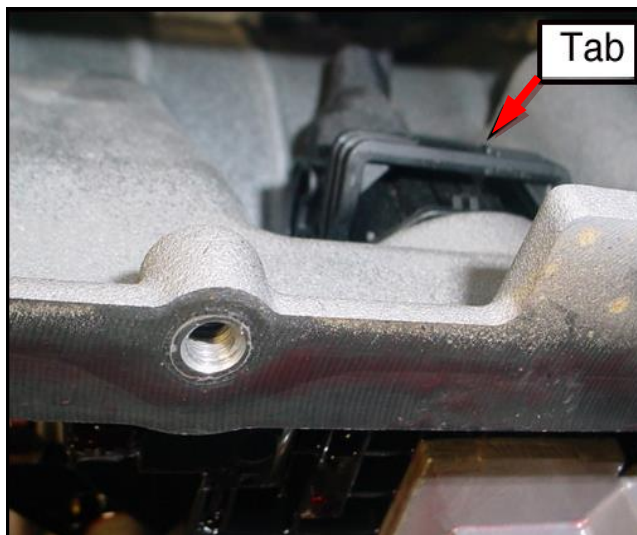
Torque the bolts to specification.

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



20. Use a 90° pick or similar tool to pull the connector down into position on the valve body.

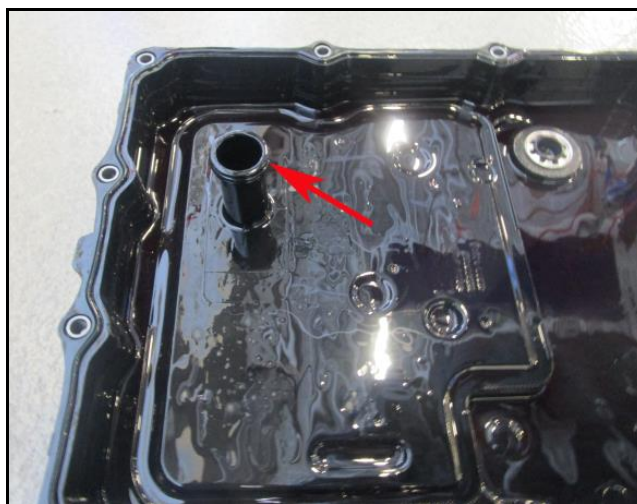
Pull the latch down until it clicks into the tab.



21. Confirm the O-ring is installed at the location shown.

Reinstall the valve body cover and torque to specification.

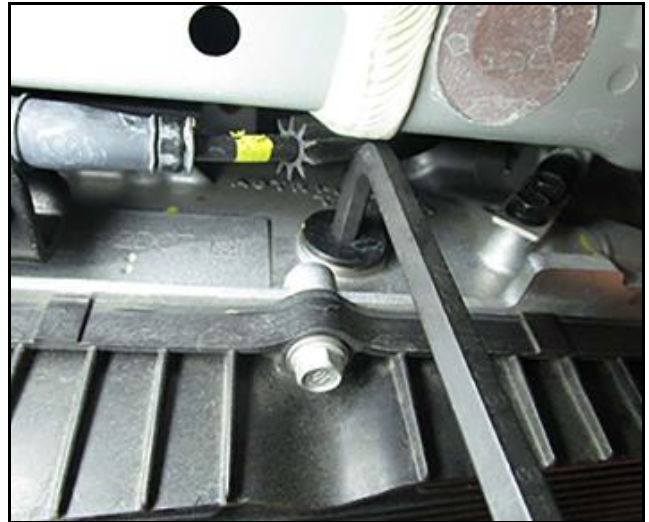
Torque: 10~12 lb.ft (1.4~1.6 kgf.m, 14~16 N.m)



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

23. With the engine off, lift the vehicle on a hoist.

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



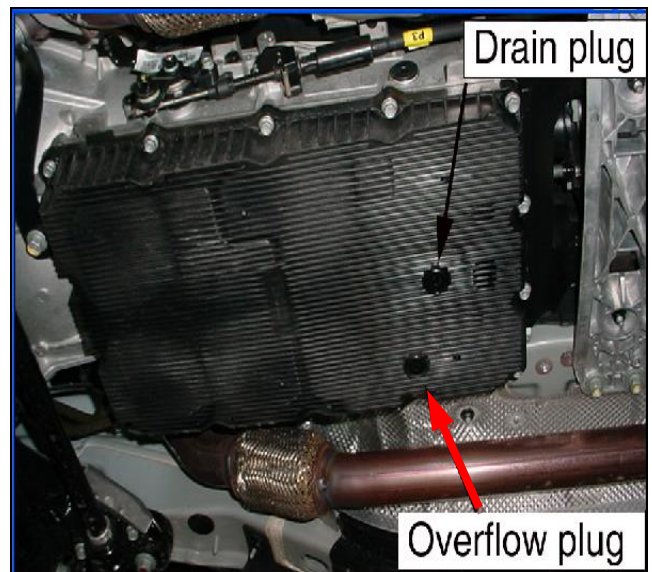
24. Remove the overflow plug.

Use a fluid pump or suction gun to add **SP-IV-RR** ATF through the fill plug until ATF flows from the overflow plug.

Reinstall the fill plug and overflow plug.

NOTICE

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



25. Attach a GDS and select vehicle, **Data Analysis, AT** menu and **Oil Temperature Sensor**.

Move the shift lever from P-R-D and back to P. Drive the vehicle until the ATF is at the low end of the range of 122~140°F (50~60°C).

26. Start the engine, shift to Neutral and raise the vehicle on a hoist.

Remove the fill plug and overflow plug.

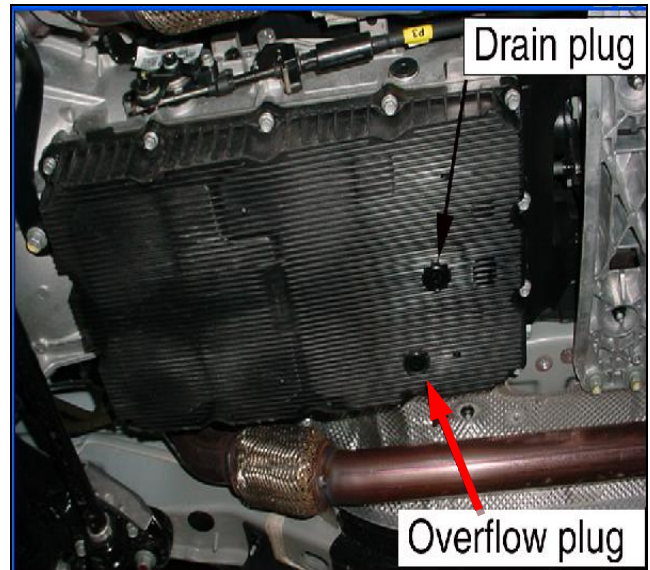
Add SP-IV-**RR** ATF through the fill plug until the ATF flows out the overflow.

Reinstall the overflow plug.

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

Reinstall the fill plug and washer.

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



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

27. If the shift cable was moved to add ATF:

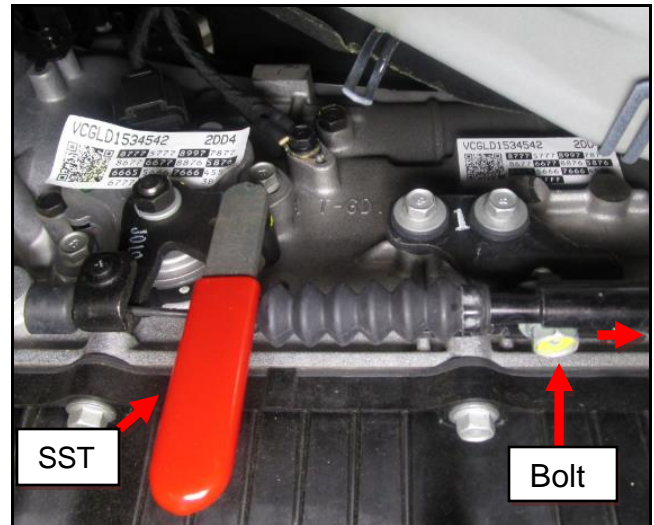
Install the SST (09480-D2100) or 5mm bolt in the alignment hole of the park position switch.

Loosen the adjustment bolt shown.

Slide the adjustment bracket rearward to remove the slack in the park cable.

Tighten the bolt to specification.

Torque: 7~8 lb-ft (0.9~1.0 kgf.m, 9~10 N.m)



28. 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 solenoid DTC returns, perform the following repairs:

| DTC | | SOLENOID DTC REPAIR PROCEDURE |
|-------|---------|--|
| P0741 | P074100 | <ul style="list-style-type: none"> • Replace the transmission <ul style="list-style-type: none"> • Replace the control wiring harness between the TCM and transmission. <ul style="list-style-type: none"> ➢ If the solenoid DTC does not occur again, return the vehicle to the customer. ➢ If the solenoid DTC returns again, replace the TCM. |
| P0743 | P074300 | |
| P0748 | P074800 | |
| P0753 | P075300 | |
| P0758 | P075800 | |
| P075A | P075A00 | |
| P075D | P075D00 | |
| P0763 | P076300 | |
| P0768 | P076800 | |
| P076A | P076A00 | |
| P076D | P076D00 | |
| P0773 | P077300 | |
| P0785 | P078500 | |
| P078A | P078A00 | |
| P2709 | P270900 | |

| DTC | | PARK POSITION SWITCH DTC REPAIR PROCEDURE |
|-------|---------|---|
| P076A | P076A00 | Refer to the G80 or G90 Shop Manual for the related DTC and follow the repair diagnosis for Wiring Inspection and ETM . |
| P07B5 | P07B500 | |
| P0995 | P099500 | |

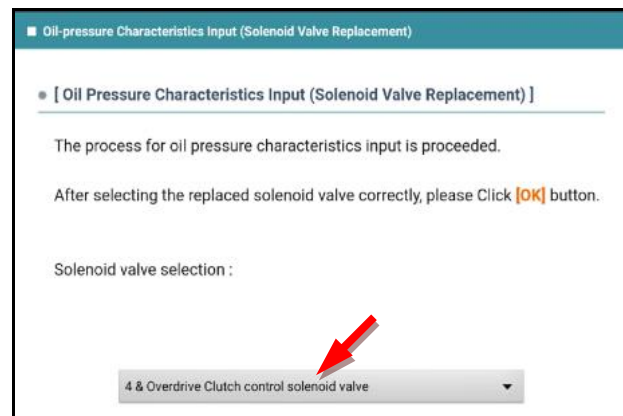
29. Clear DTC in the BlueLink system per instructions of TSB 12-BE-005-2.

Solenoid Oil Pressure Data Characteristics Input:

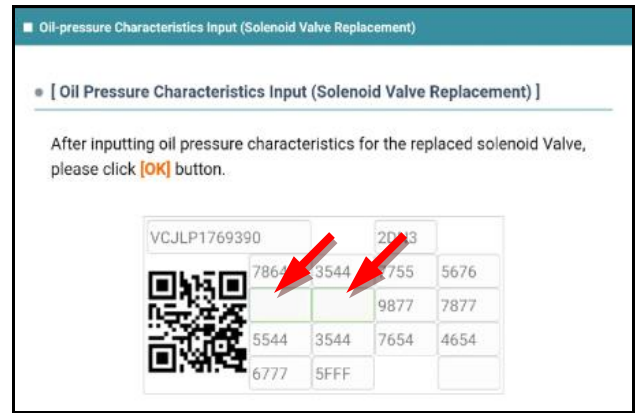
NOTICE

This procedure is necessary only for the following solenoids: P075300, P075800, P076300, P076800, P077300.

30. Select **S/W Management, Automatic Transaxle and Oil Pressure Characteristics Input (Solenoid valve Replacement)**. Select **OK** and follow the prompts.
- Select the type of solenoid from the drop-down menu. Select **OK**.



31. Input the 8-digit code recorded in Step 10 in the blank spaces in the GDS. Select **OK**.
Input the 8 digit code again and select **OK**.
The GDS will confirm the procedure was completed.



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