



## Technical Service Bulletin

<b>GROUP</b> <b>AUTOMATIC TRANSMISSION</b>	<b>NUMBER</b> <b>21-AT-010HG</b>
<b>DATE</b> <b>JUNE 2021</b>	<b>MODEL(S)</b> <b>GENESIS G80 (DH)</b>

**SUBJECT:** AUTOMATIC TRANSMISSION SOLENOID REPLACEMENT

**DESCRIPTION:** This TSB provides a procedure to replace the solenoids listed below for slipping, shift flare and/or harsh shift during the 2~3, 3~4 or 4~5 upshift.

### APPLICABLE VEHICLES:

Model	Production Date
2017 Genesis G80 (DH) 3.8L/5.0L	3/17/2016 to 1/11/2017

### SERVICE INFORMATION:

Drive the vehicle with the ATF at normal operating temperature (158~212°F) (70~100°C). If the vehicle has a shift flare and/or harsh 2~3, 3~4 or 4~5 upshift, follow the procedure below.

Dealers must check the vehicle tag on the driver's door pillar to determine the production date.

### PART NUMBER INFORMATION:

DESCRIPTION	PNC	PART NO.
Shift Control Solenoid D (4&OD)	46313B	46313-4E601
Shift Control Solenoid Valve C Electrical (35R)	46313C	46313-4E701

### WARRANTY INFORMATION:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
20178 G80 (DH)	45775R8T	Solenoid valve assy.	Refer to WEBLTS for current LTS	Refer to part number table above	T74	ZZ3

**NOTE:** If at any point it is determined that the transmission requires replacement, please open a prior authorization. For transmission replacement, add-on repair procedures should be followed, an add-on line should be opened on the repair order and a separate warranty claim should be submitted.

**SERVICE PROCEDURE:**

1. Attach a GDS and select **DTC Analysis** and **A/T** menu. Record the DTC and description. Delete the DTC.
  - If DTC are found, repair according to TSB or shop manual information.
  - If no DTC are found, go to Step 2.
  
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.

The screenshot shows the GDS Data Analysis interface for a 2017 GDI transmission. The screen displays a table of solenoid parameters with columns for Sensor Name, Value, Unit, and Link Up. The data is as follows:

Sensor Name(40)	Value	Unit	Link Up
Current Gear	1	-	
Shift Control Solenoid Valve A(UD/C)	1100	mA	
Shift Control Solenoid Valve D(4&OD/C)	1080	mA	
Shift Control Solenoid Valve E(27/B)	150	mA	
Shift Control Solenoid Valve C(35R/C)	1080	mA	
Shift Control Solenoid Valve B(5/C)	150	mA	
Shift Control Solenoid Valve F(8LR/B)	1100	mA	
Pressure Control Solenoid Valve(VFS) "A"	715	mA	
ON/OFF Solenoid B(Reverse) (SBW)	OFF	-	
ON/OFF Solenoid (SBC)	OFF	-	

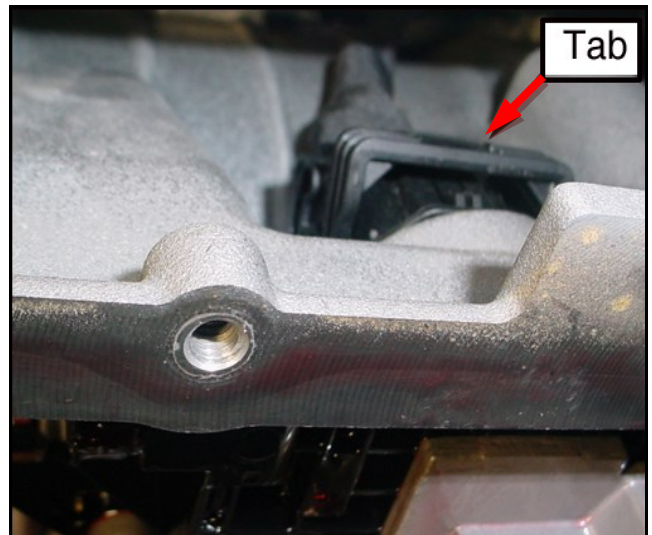
3. Visually check the wiring harness between the TCU and transmission for a damaged wire or connector. Check for an open/short circuit.
  - If so, repair or replace the ECU control harness and drive the vehicle to confirm the repair.
  - If no damage is found, go to Step 4.
  
4. Record the audio preset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

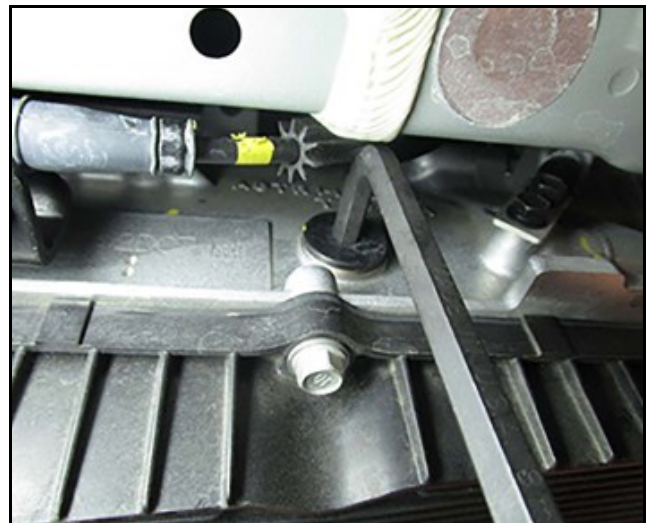
Push the connector up to disconnect the connector from the valve body.

To gain better access to the connector, place a support under the rear transmission support, loosen the bolts about  $\frac{1}{2}$  inch and lower the support about  $\frac{1}{2}$  inch.



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

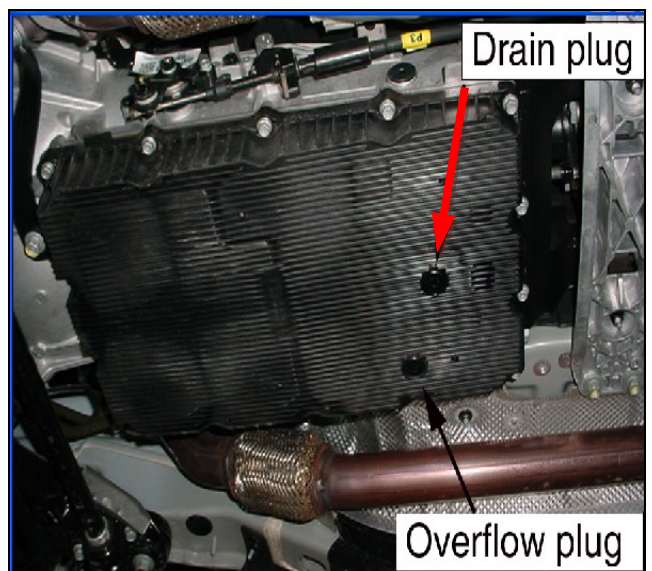
**Torque: 17~18 lb.ft (2.3~2.5 kgf.m, 22~24 N.m)**



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

**NOTE:** If the ATF has metal particles or has a burnt smell, open a prior authorization to replace the transmission.

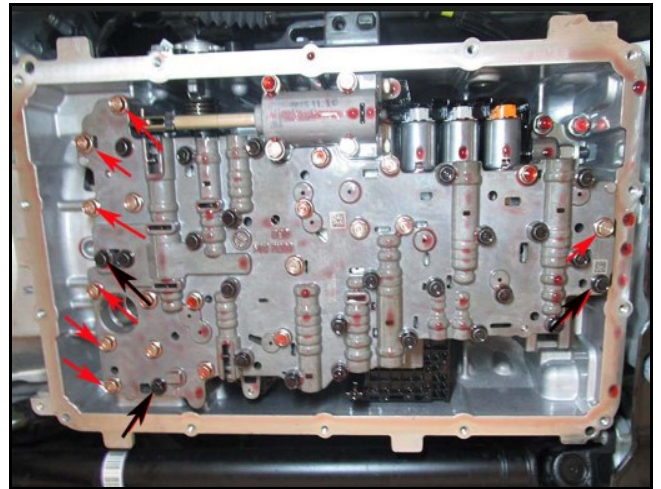
**Torque: 22~24 lb.ft (3.0~3.3 kgf.m, 30~32 N.m)**



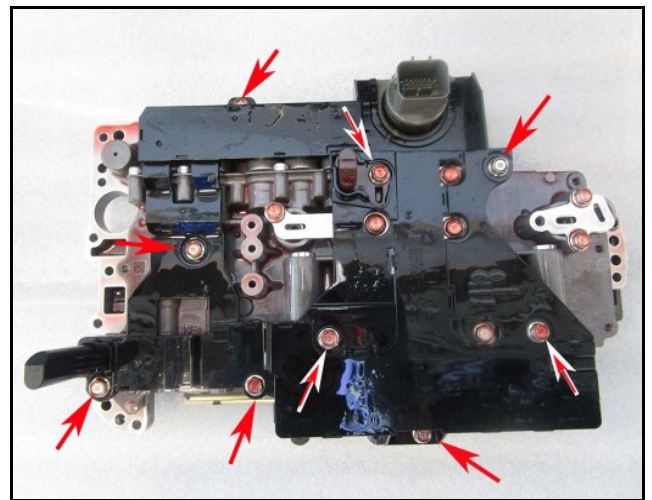
8. Remove 10 bolts that secure the valve body to the case and remove the valve body.

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

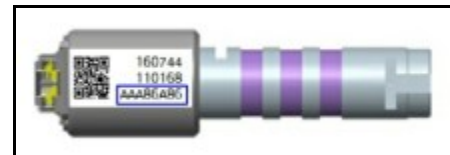
If the valve body is stuck in the transmission, insert a screwdriver between the valve body and case and carefully pull the valve body out of the transmission.



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

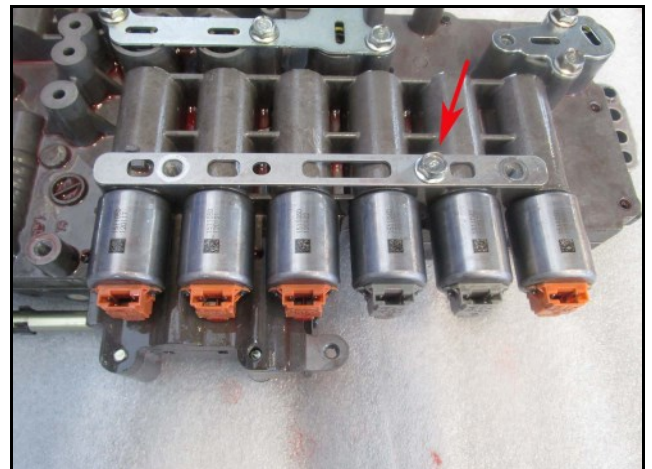


10. Record the 8-digit code on the solenoids.



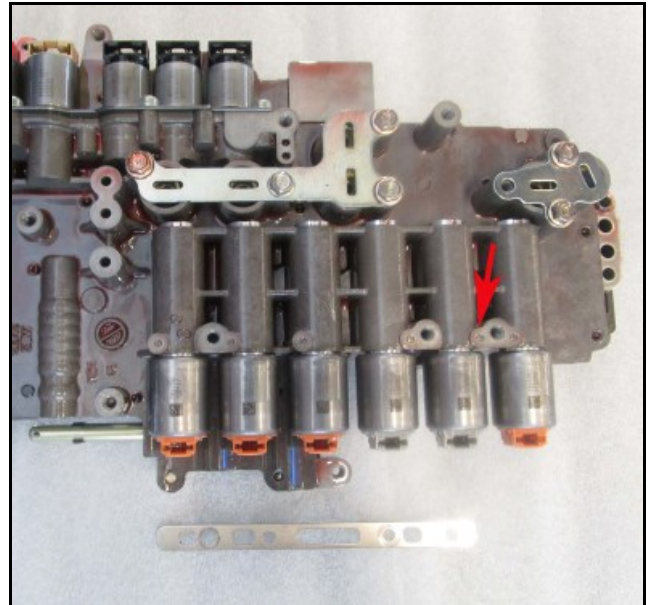
11. **For 4&OD and 35R solenoids:**

Remove one bolt and remove the solenoid support.





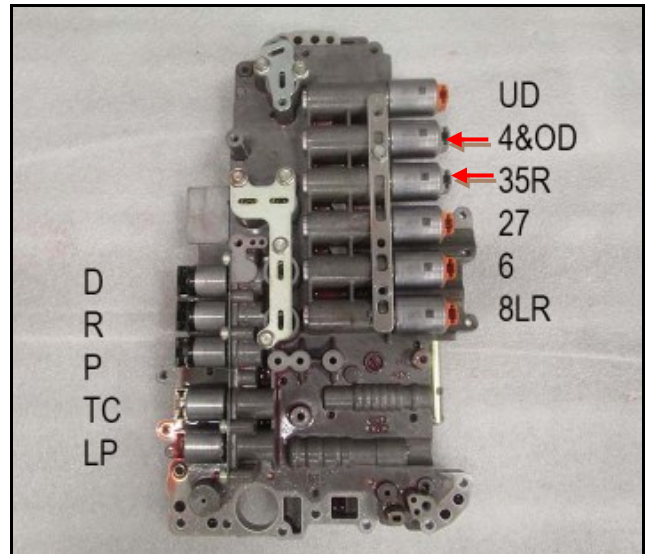
12. Use a magnet to remove the pin that secures the affected solenoid.



13. Install new solenoids.

Solenoid	Part Number
4&OD	46313-4E601
35R	46313-4E701

Reinstall the solenoid support using one bolt.

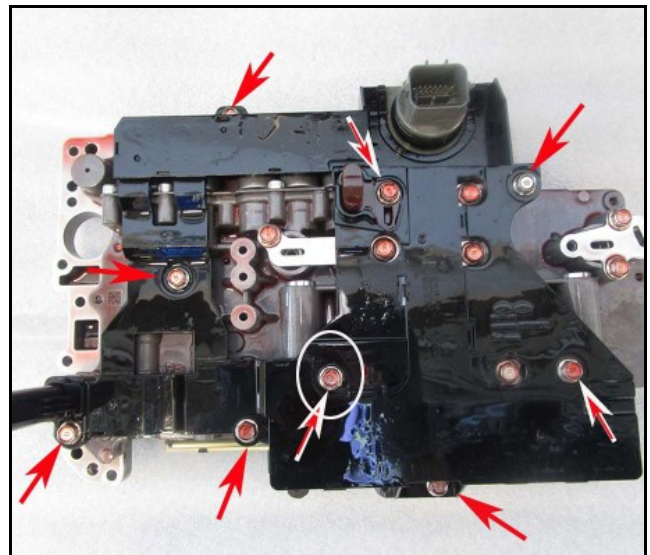


14. Reinstall the E-module.

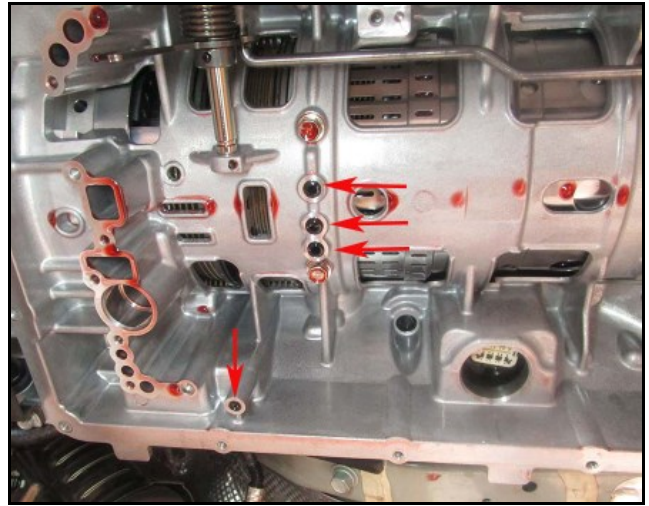
Install 9 bolts and torque to specification.

**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)



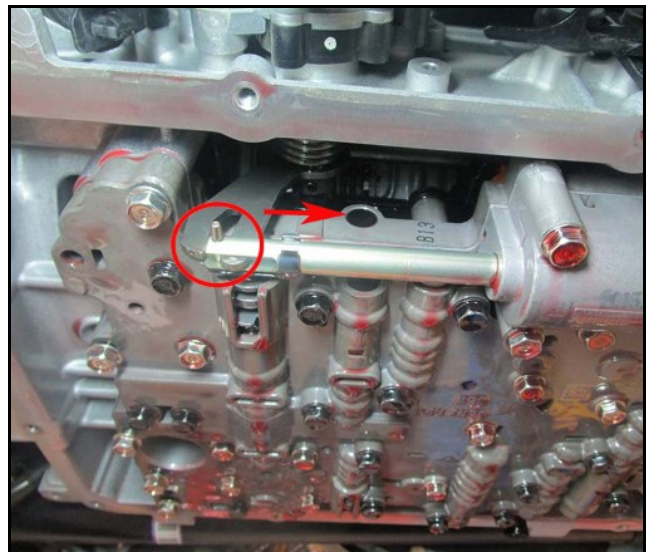
15. Confirm that 4 O-rings are seated in the case.



16. 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.**

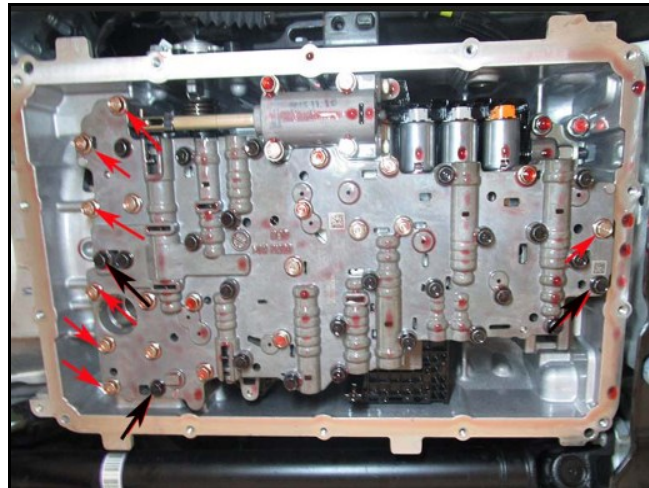


17. Install 3 black bolts in the locations shown (black arrow).

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)**

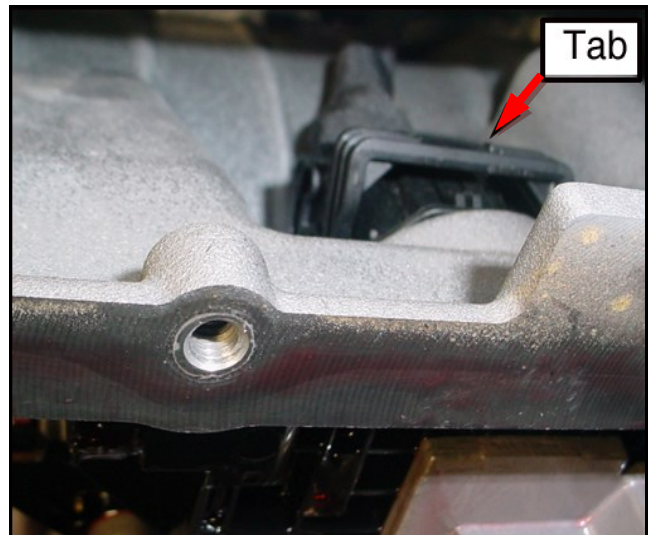




18. Use a 90° pick or similar tool to pull the connector down into position on the valve body.

Pull the latch down until it clicks into the tab.

Reconnect the harness connector.



19. 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)**

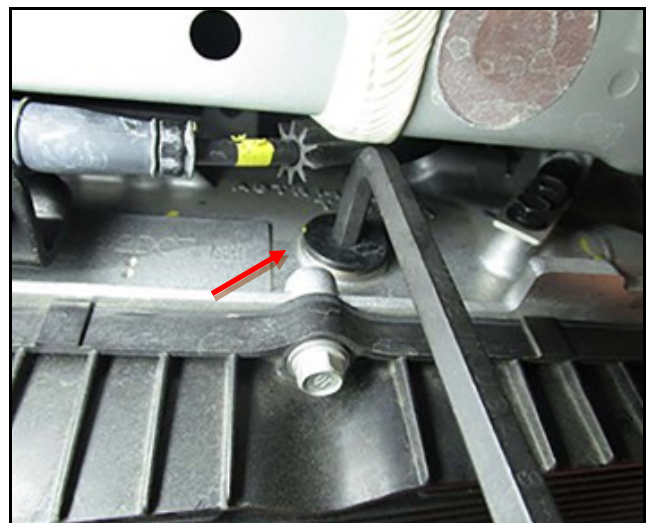


20. Reconnect the negative battery terminal. Reset the audio preset stations.

21. Shift to Neutral (N) and lift the vehicle on a hoist.

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

Remove the overflow plug.



22. 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 washer.

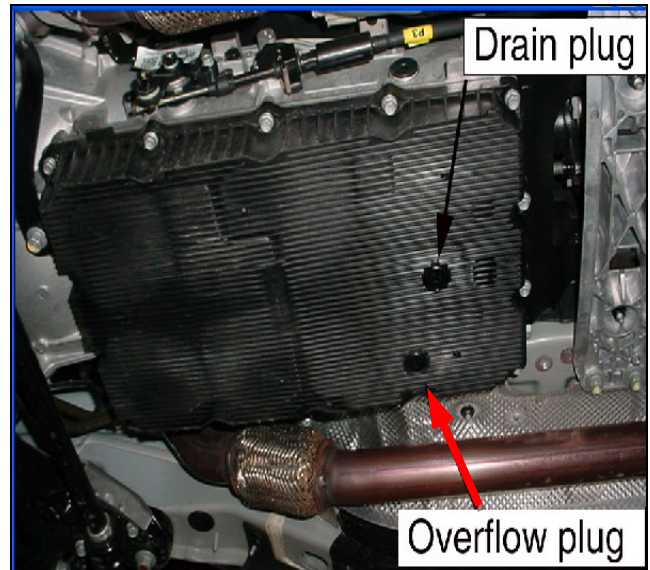
**Torque: 27~33 lb.ft (3.7~4.6 kgf.m, 36~44 N.m)**

Reinstall the overflow plug.

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

**NOTICE**

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



23. Attach a GDS and select vehicle, **Data Analysis, A/T** menu and **Oil Temperature Sensor**. Move the shift lever from P-R-D and back to N. Drive the vehicle until the ATF is at the low end of the range of 122~140°F (50~60°C).

24. Start the engine, shift to Neutral (N) and raise the vehicle on a hoist.

Remove the fill plug and overflow plug.

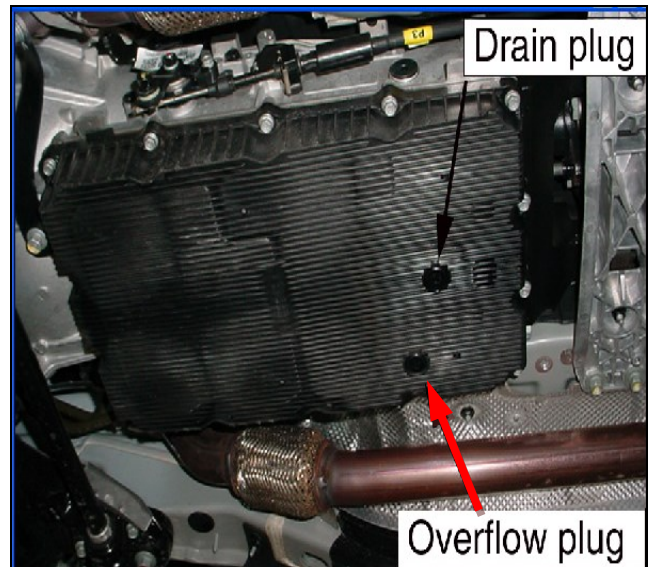
Add SP-IV-**RR** ATF through the fill plug until the ATF flows out the overflow.

Reinstall the fill plug and washer.

**Torque: 27~33 lb.ft (3.7~4.6 kgf.m, 36~44 N.m)**

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**



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

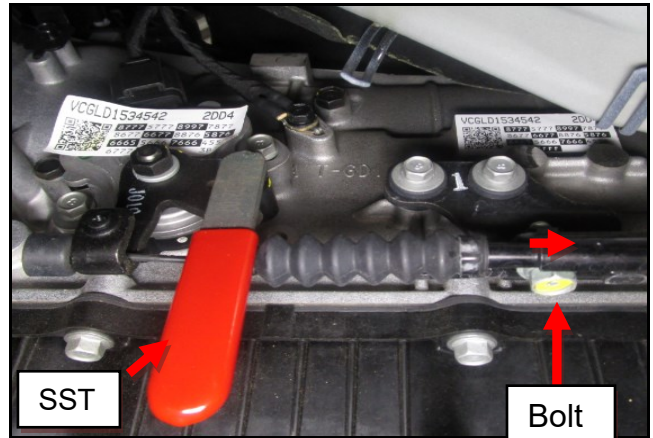
Install the SST (09480-D2100) or 5mm bolt in the alignment hole of the park position switch.

Loosen the adjustment bolt shown.

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

Tighten the bolt to specification.

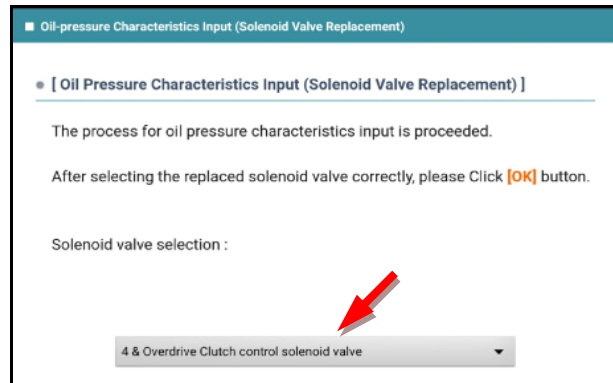
**Torque: 7~8 lb-ft (1.0~1.2 kgf.m, 9~10 N.m)**



26. Input the solenoid oil pressure characteristics:

Select **S/W Management, Automatic Transaxle and Oil Pressure Characteristics Input (Solenoid valve Replacement)**. Select **OK** and follow the prompts.

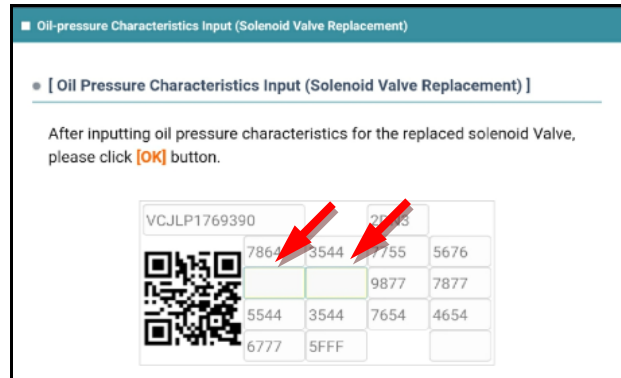
Select the 35R and 4&OD solenoids from the drop-down menu. Select **OK**.



27. 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.



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 shift flare and/or harsh 2~3, 3~4 and/or 4~5 upshift does not occur, return the vehicle to the customer.
- If the shift flare and/or harsh shift returns, open a prior authorization to replace the transmission.