HYUNDAI **Technical Service Bulletin**	GROUP **AUTOMATIC TRANSMISSION**	NUMBER **17-AT-004**
	DATE **JUNE, 2017**	MODEL **ELANTRA (AD/ADa) 2.0L, SANTA FE SPORT (AN) 2.4L**

SUBJECT: ROUGH IDLE IN DRIVE WITH NEUTRAL CONTROL ENABLED

The applicable vehicles listed below are equipped with a Generation2 valve body with 7 solenoids. Previous 6-speed transmissions have a Generation1 valve body with 8 solenoids.

Description:

Some vehicles with Neutral Control may experience a rough idle in Drive after decelerating to a stop when Neutral Control is enabled. This bulletin provides a diagnosis and repair procedure for this condition.

Neutral Control is a fuel efficiency strategy that shifts the transmission into neutral at a stop. The transmission shifts into first gear when the brake pedal is released. Neutral Control is disabled when the shift lever is moved to the Manual Mode position or with the A/C on in some models.

Applicable Vehicles:	2017~ Elantra Sedan (AD/ADa) 2.0L 2017~ Santa Fe Sport (AN) 2.4L

Parts Information:

Refer to the PNC in the parts catalog to order the correct solenoid part number**.**

MODEL	PART	PNC	PART NUMBER
2017~ Elantra Sedan (AD/ADa) 2.0L 2017~ Santa Fe Sport (AN) 2.4L	Shift solenoid A (UD)	46313C	46313-2F***
	Plastic pan gasket	45282E	45283-3****

Warranty Information:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
2017~ Elantra 2.0L (AD/ADa) 2017~ Santa Fe Sport 2.4L (AN)	45775R00	Solenoid replacement	Refer to WEBLTS for current LTS time	See parts catalog	13A	ZZ3
	45775RQ0	GDS Operation			~	~

Service Procedure:

1. Attach a GDS, select **DTC Analysis** and **Engine** menu and check for DTC.
   - If DTC are found, repair according to the appropriate TSB or shop manual.
   - If no DTC are found, go to Step 2.

2. Turn the A/C **OFF**.

   If the engine idle is rough at a stop, move the shift lever to the Manual Mode position. If the engine idle is:
   - **Rough**: Diagnose the engine for the cause of the rough idle.
   - **Smooth**: Go to Step 3.

3. Confirm the A/C is **OFF**.

   Select **Data Analysis, A/T** menu and **Input speed**.

   Drive the vehicle until the ATF temperature is above 150°F (65°C).

   Accelerate to 30~40 mph and decelerate to a stop.

   If the idle is rough, check the input speed and perform the action shown below:

PARAMETER	SPECIFICATION	
Input speed	0 rpm	Above 100 rpm
Action	**Diagnose engine**	**Go to Step 4**

4. Record the preset radio stations.

   Remove the battery and battery tray.

5. Remove the undercover below the transmission.

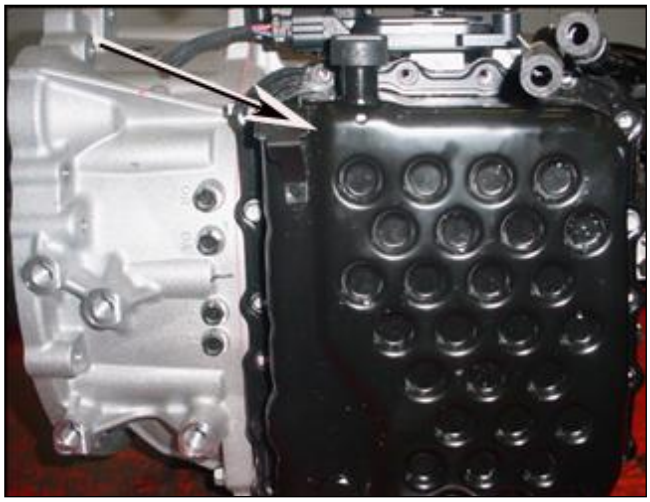
6. If necessary to access the solenoids, drain the radiator and remove the lower radiator hose from the radiator.

   Drain the ATF.

7. Remove the oil pan bolts and remove the pan.

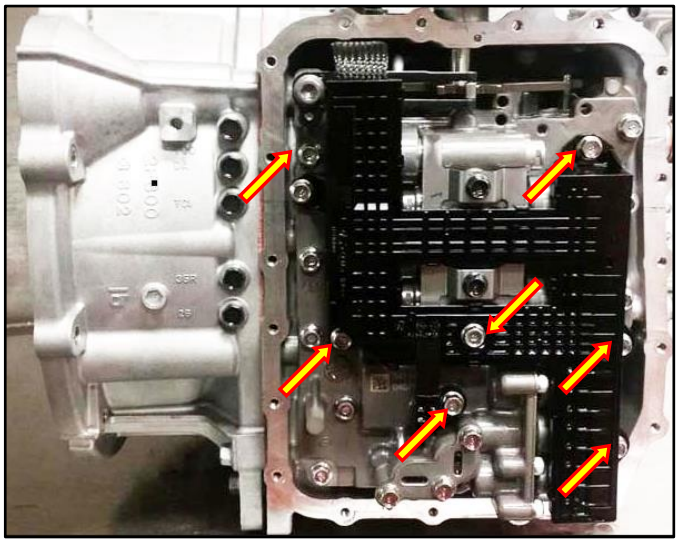
CAUTION

Use a rubber hammer to tap the oil pan cover on a corner until the cover is loose.

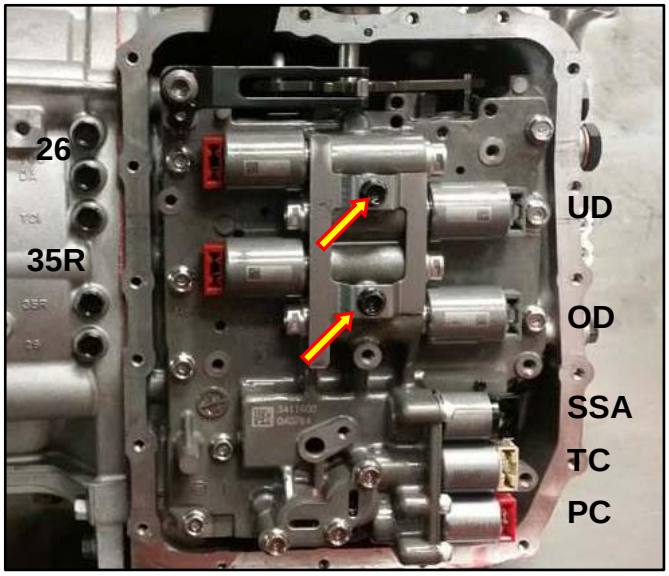


8. Remove 7 bolts to the oil pressure switch harness.

   Pull the harness outward and move the harness out of position.

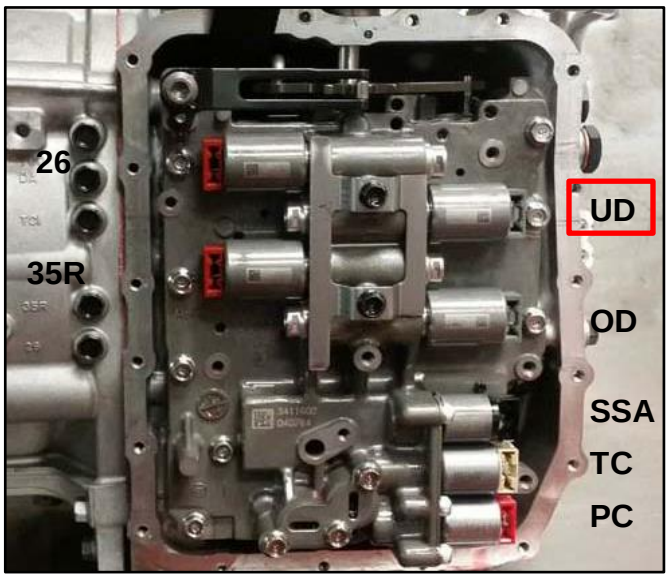


9. Remove two bolts to the upper solenoid support. Remove the support.



10. Remove the UD solenoid and install a new solenoid.

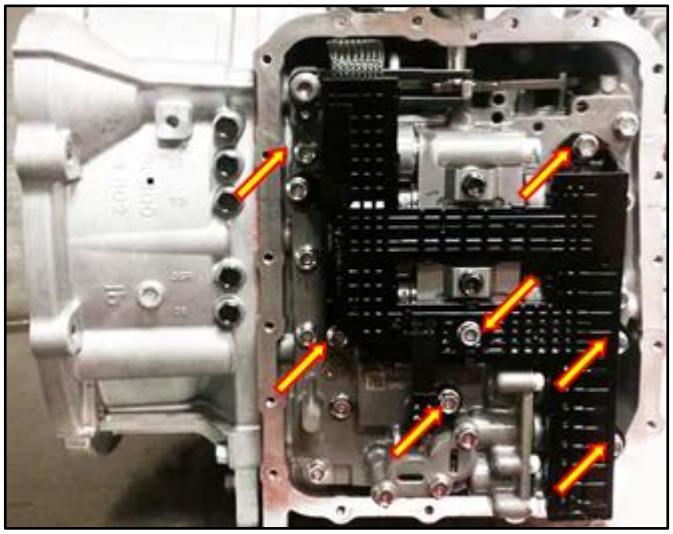
    Reinstall the solenoid support.



11. Reconnect the oil pressure harness to the solenoids.

    Install the bolts to the harness and torque to specification.

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



12. Install a new gasket to the oil pan, reinstall the pan and tighten the bolts to specification.

    Torque: 10~12 lb.ft (1.4~1.6 kgf.m, 13~15 N.m)

13. Add ethylene glycol engine coolant to the radiator and check the level according to the appropriate shop manual, “Engine” Section.

    Reconnect the battery tray and battery.

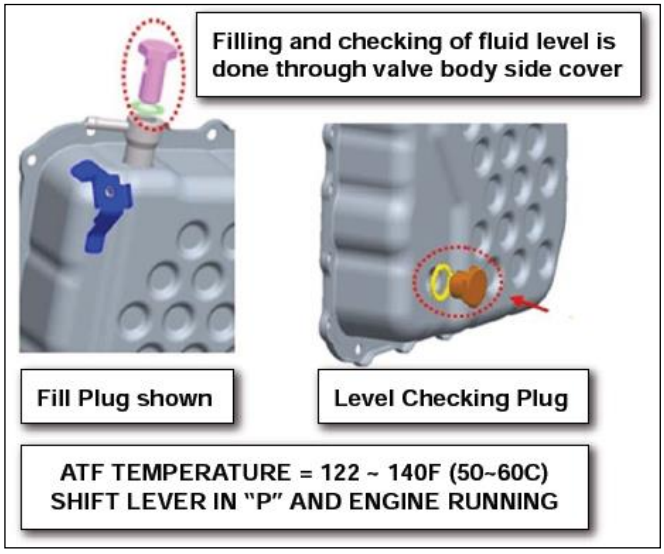
14. Remove the transaxle fill plug.

    Use a funnel to add approximately 5~6 quarts of SP4-M ATF through the fill plug opening. Reinstall the fill plug.

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

    Start the engine and shift to R, D and place in Park. When the ATF is 122° F~140°F (50~60°C), remove the level checking plug. The level is correct when oil flows out of the level checking plug in a thin steady stream.

    Collect and dispose of any excess fluid in accordance with local regulations.



15. Use GDS to clear any DTC.

16. Clear any DTC in the Blue Link system per instructions of TSB 12-BE-005-2.

17. Input the radio stations recorded in Step 4.

    Reinstall the undercover.

18. Test drive the vehicle for two key-on/key-off driving cycles. If the rough idle in Drive is:
    - **Smooth:** Return the vehicle to the customer.
    - **Rough**: Check the engine fuel system for misfire DTC or misfire counts. Check for carbon on the injectors and intake valves. If no problem is found, replace the transmission.