 HYUNDAI NEW THINKING. NEW POSSIBILITIES.	GROUP AUTOMATIC TRANSMISSION	NUMBER 16-AT-010
	DATE SEPTEMBER 2016	MODEL SANTA FE SPORT 2.4L (AN) TUCSON 2.0L (LM)
SUBJECT:	ROUGH IDLE IN DRIVE WITH NEUTRAL CONTROL ENABLED	

Description: Some Tucson (LM) and Santa Fe Sport (AN) 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.

Applicable Vehicles	2013~ Santa Fe Sport 2.4L (AN) 2010~15 Tucson 2.0L (LM)
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Parts Information:

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

VEHICLE	PART	PNC	PART NUMBER
2013~ Santa Fe Sport 2.4L (AN) 2010~15 Tucson 2.0L (LM)	Shift solenoid A (UD)	46313B	46313-3B***
	Plastic oil pan gasket	45282E	45282-2**** 45283-3****

SST Information:

PART NUMBER	DESCRIPTION
0023219064	Calking gun
00232-19061	RTV Silicon Gray sealant

Warranty Information:

VEHICLE	OP CODE	OPERATION	OP TIME	CAUSAL PART	PART QTY	NATURE CODE	CAUSE CODE
2013~ Santa Fe Sport 2.4L (AN) 2010~15 Tucson 2.0L (LM)	45775R00	Replace solenoid valve	1.6	46313-3B***	1	E44	ZZ3
			1.6				
	45775RQ0	GDS Operation	0.3	~	~	~	~

Service Procedure:

1. Attach a GDS, select **DTC Analysis** and **Engine** menu and check for DTC.
If DTC are found, repair according the appropriate TSB or shop manual.
If no DTC are found, go to Step 2.
2. Select **Data Analysis, A/T** menu and the three parameters shown below.
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	
Engine RPM	600~750 rpm	600~750 rpm
Current gear	1	1
Input speed	0 rpm	Above 100 rpm
Action	Diagnose engine	Go to Step 3

3. Record the preset radio stations.
Remove the battery and battery tray.
4. Remove the undercover below the transmission.
5. If necessary to access the solenoids, drain the radiator and remove the lower radiator hose from the radiator.
Drain the ATF.
6. Remove the oil pan bolts and remove the pan.



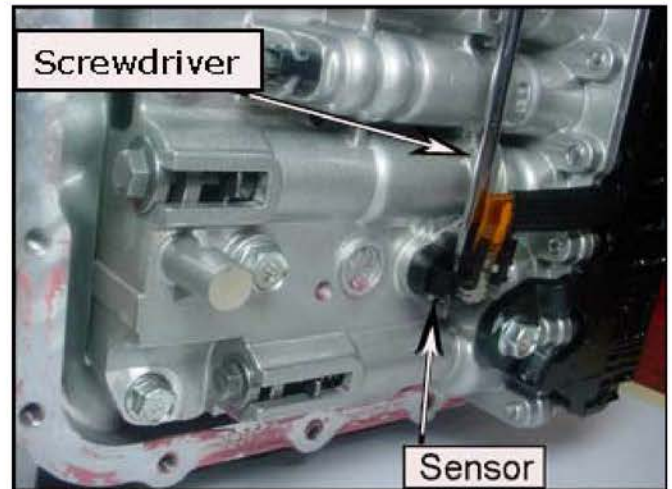
CAUTION

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

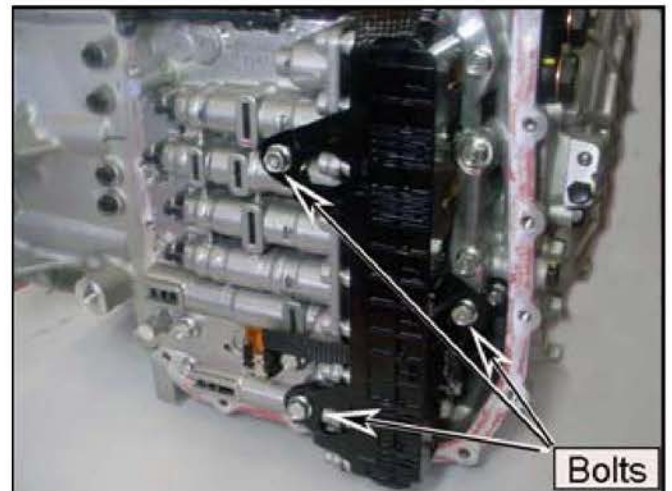


7. For transmissions with separate temperature sensor and harness: Use a small screwdriver to pry the connector from the oil temperature sensor.

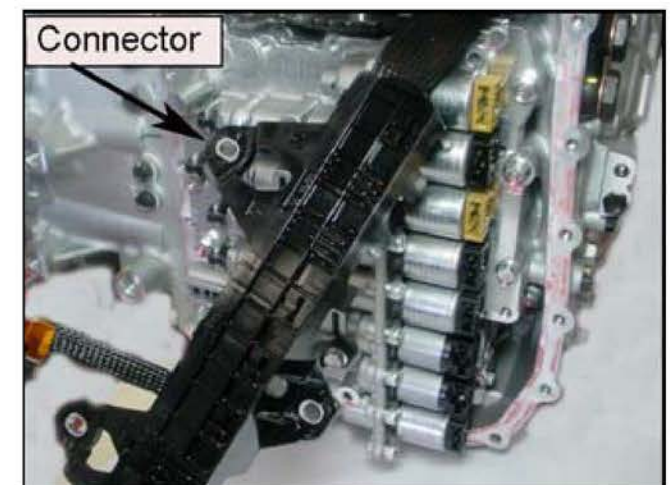
For transmissions with integrated temperature sensor and harness: Go to Step 8.



8. Use a 10mm socket and ratchet to remove three bolts to the solenoid valve connector.



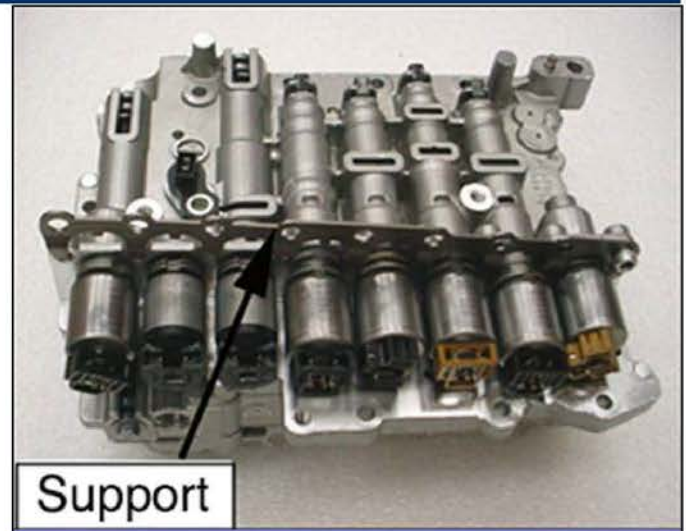
9. Pull the solenoid valve connector outward and move the connector out of position.



10. Use a 5mm hex socket and remove 9 Allen bolts that secure the solenoid support. Remove the solenoid support.

NOTICE

It is not necessary to remove the valve body from the transaxle.



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

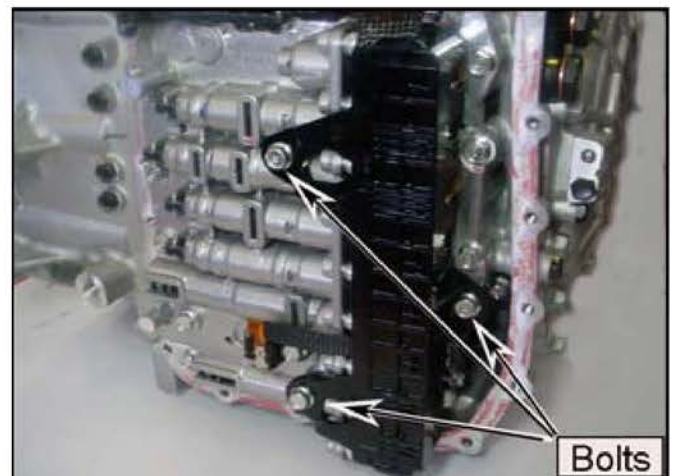
Reinstall the solenoid support.



12. Reconnect the solenoid harness to the solenoids and oil temperature sensor.

Install the bolts to the solenoid harness connector and torque to specification.

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



13. PLASTIC OIL PAN:

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)



STEEL OIL PAN:

Use RTV Silicon Gray, P/N 00232-19061 and a small caulking gun, P/N 00232-19064, or equivalent and apply sealant to the oil pan.

Reinstall the pan.

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



14. 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.

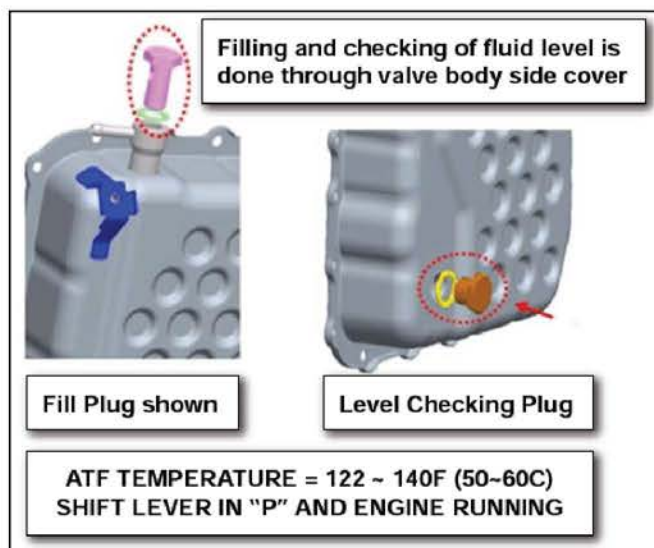
15. Remove the transaxle fill plug.

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 to the DLC and select vehicle, **A/T menu, Current Data and Oil Temperature Sensor.**

Start the engine and shift to 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.



16. Input the radio stations recorded in Step 3.
Reinstall the undercover.
17. Use GDS to clear any DTC.
18. Clear any DTC in the Blue Link system per instructions of TSB 12-BE-005-2.
19. Test drive the vehicle for two key-on/key-off driving cycles. If the rough idle:
 - Does not occur again, return the vehicle to the customer.
 - Returns, replace the automatic transaxle.