 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP	NUMBER
	AUTOMATIC TRANSMISSION	15-AT-001
	DATE	MODEL
	JANUARY 2015	Accent (RB), Azera (TG/HG), Elantra (UD/MD/GD/JK), Santa Fe (CM/AN/NC), Sonata (LF/YF/YF HEV), Tucson (LM) Veloster (FS)
SUBJECT:	AUTOMATIC TRANSAXLE (6-SPEED) INHIBITOR SWITCH DTC P0705, P0706, P0707 & P0708	

This TSB supersedes TSB 13-AT-013-1 to update the Service Procedure

Description: An improperly adjusted or improperly operating inhibitor switch (range switch) may result in the following conditions:

- Diagnostic trouble codes:
 - P0705 - Range switch sensor circuit
 - P0706 - Range switch range/performance
 - P0707 - Range switch - open circuit
 - P0708 - Range switch - short circuit or multiple inputs
- Malfunction Indicator Light (MIL) illuminated
- Intermittent no engine crank/no start in "P" or "N" with or without MIL or DTC.





If you are servicing a vehicle with the DTC or symptoms listed above, refer to the **Service Procedure** to diagnose the condition.

	Model Year(s)	Model
Applicable Vehicles:	2010~	Santa Fe (CM)
	2011~	Tucson (LM), Sonata (YF/YF HEV) , Elantra (UD/MD) & Azera (TG)
	2012~	Accent (RB), Azera (HG)
	2013~	Veloster Turbo (FS), Elantra Coupe (JK), Elantra GT (GD) and Santa Fe (AN/NC)
	2015~	Sonata (LF)

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PARTS INFORMATION:

MODEL	PNC CODE	PART NUMBER
2012~ Accent (RB)	45956B	42700-26500
2011 Azera (TG)		42700-3B500
2012~ Azera (HG)		42700-3B500
2011~ Elantra (MD/UD)		42700-26500
2013~ Elantra Coupe (JK)		42700-26500
2013~ Elantra GT (GD)		42700-26500
2010~12 Santa Fe (CM)		42700-3B010
2013~ Santa Fe (AN/NC)		42700-3B500
2011~ Sonata (YF)		42700-26500
2011~ Sonata Turbo (YF)		42700-26500
2011~ Sonata HEV (YF HEV)		42700-26500
2015~ Sonata (LF)		42700-3B500
2010~ Tucson (LM)		42700-3B500
2012~ Veloster Turbo (FS)		42700-3B500

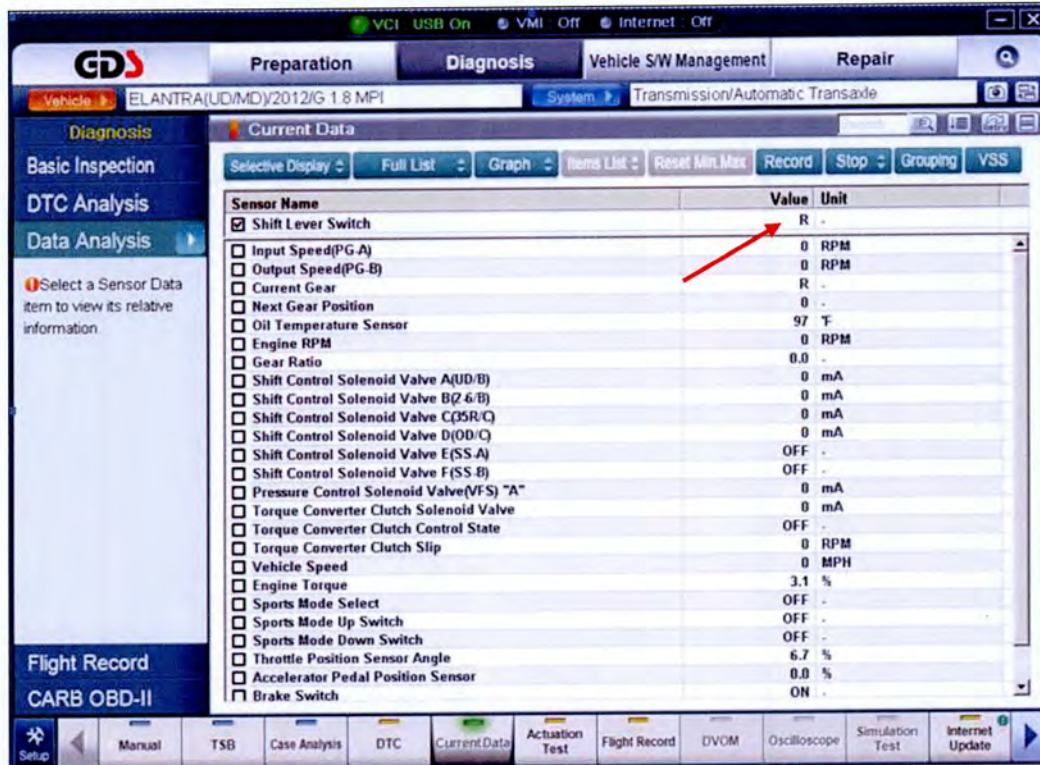
PART NAME	PART NUMBER	
	PLASTIC COVER	ALULMINUM COVER
Inhibitor Switch (Range Switch)	 42700-3B100	 42700-3B500
	 42700-26000	 42700-26500

WARRANTY INFORMATION:

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART
2012~ Accent (RB)	42700R00	Replace inhibitor switch	0.5	See Parts Catalog N69 C15
2011 Azera (TG)			0.6	
2012~ Azera (HG)			0.4	
2011~ Elantra (MD/UD)			0.4	
2013~ Elantra Coupe (JK)			0.4	
2013~ Elantra GT (GD)			0.4	
2010~ Santa Fe (CM)			0.5	
2013~ Santa Fe (AN)			0.6	
2013~ Santa Fe (NC)			0.6	
2011~ Sonata (YF)			0.4	
2011~ Sonata Turbo (YF)			0.4	
2011~ Sonata YF (HEV)			0.4	
2015~ Sonata (LF)			0.4	
2010~ Tucson (LM)			0.4	
2012~ Veloster Turbo (FS)			0.4	
All	42700RQ0	GDS	0.3	

SERVICE PROCEDURE:

1. Turn the ignition key to the ON position or push the Start/Stop Button two times without depressing the brake pedal.
2. Using a GDS, check for DTC in the "Automatic Transaxle" menu. **Record the DTC and description.** Delete the DTC.
3. Select the following parameters. Move the shift lever through all gears (P, R, N and D) and monitor the Shift Lever Switch.
 - Vehicle and A/T menu -> "Current Data" -> Shift Lever Switch.



4. If the Shift Lever Switch shows:
 - The correct shift lever position, the wiring **currently** has no open/short circuits. Go to Step 6.
 - Does not show the correct shift lever position, go to Step 5.
5. Visually check the wiring harness between the PCM and inhibitor switch for a damaged wire or open circuit/short circuit to ground. Check for a damaged pin or pin not fully inserted into the connector.
 - If damage exists, repair or replace the control wiring and drive the vehicle to confirm the repair.
 - If no damage or open/short circuit is found, go to Step 6.

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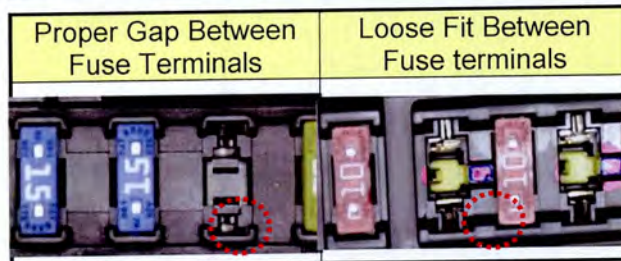
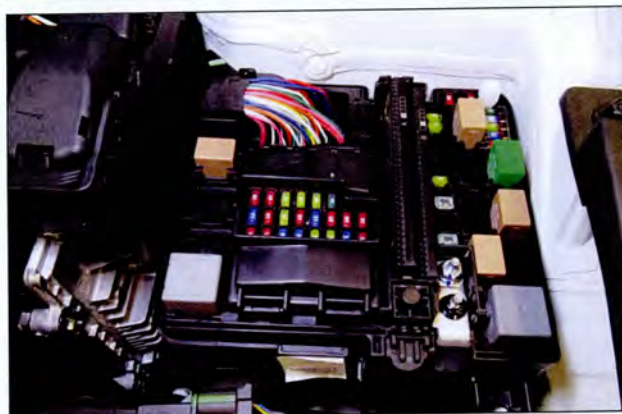
6. Turn the ignition switch to the ON position and place the shift lever in P and N. Confirm the indicator lights in the dash cluster show the correct gear in P and N.
 - If P and N are displayed, go to Step 7
 - If P or N are not displayed, go to Steps 9~12 and 15 and check the alignment of the inhibitor switch. If P and N are not displayed after adjustment, go to Step 7.



7. Check the TCU and TCU2 fuse in the junction box in the engine compartment:
 - Check the fuse for an open circuit.
 - Check the fuse for correct capacity.
 - Check the fuse holder for a tight fit.
 - Check for loose or damaged wires.

If damage or intermittent open circuit is found, repair or replace the junction box and front harness.

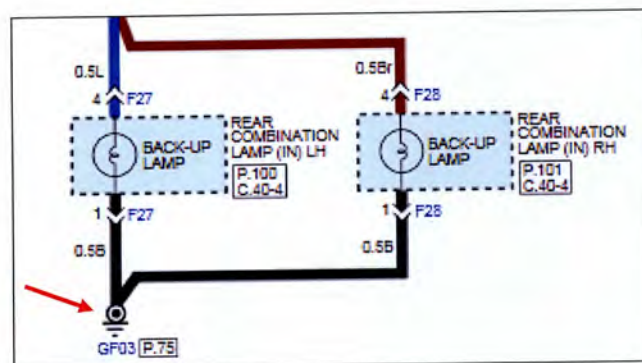
If no damage or intermittent open circuit is found, go to Step 8.



8. Check the rear combination lamp ground for tightness.
Torque: 7~9 lb-ft (1.0~1.2kgf.m)

Turn the ignition and headlights on. Use a DVOM to check the voltage drop between the combination lamp wiring terminal and ground. Specification: Less than 0.2 V.

If more than 0.2V, clean the terminal and bolt threads and tighten the bolt.
If less than 0.2V, go to Step 9.



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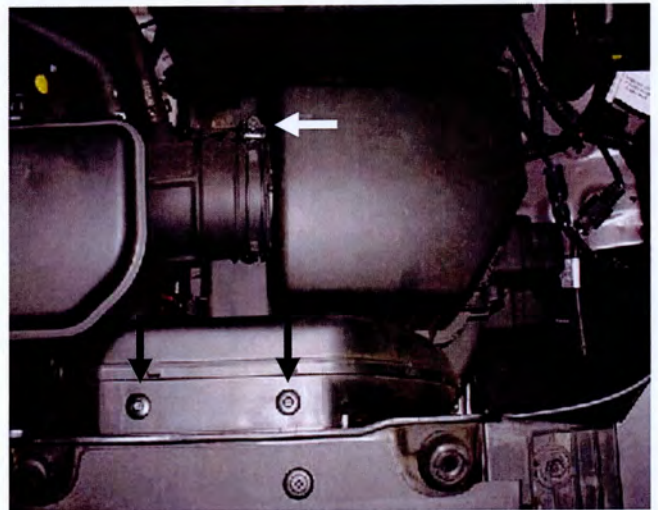
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9. Apply the parking brake. Move the shift lever to the "N" position.

Turn the ignition switch to the OFF position.



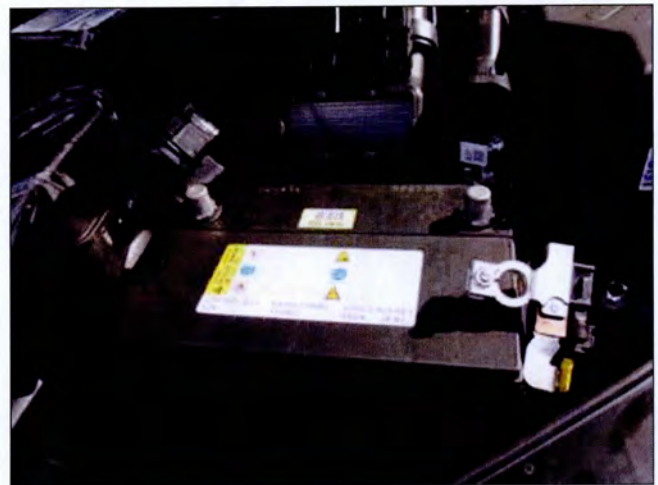
10. Remove the air duct and air cleaner, if needed, to access the inhibitor switch.



11. Remove the battery, if needed, to access the inhibitor switch.

*** NOTE**

Record the preset radio stations and reset after repairs are completed.



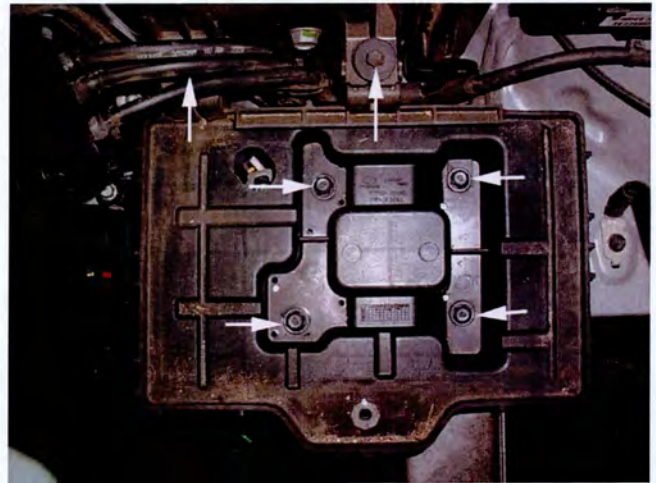
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12. Remove 2 bolts to the air cleaner.

Remove 4 bolts to the battery tray and remove the battery tray.

Tightening Torque: 7~9 lb-ft (1.0~1.2kgf.m)

Move the battery tray aside to gain access to the inhibitor switch.



13. Disconnect the inhibitor switch connector (I).

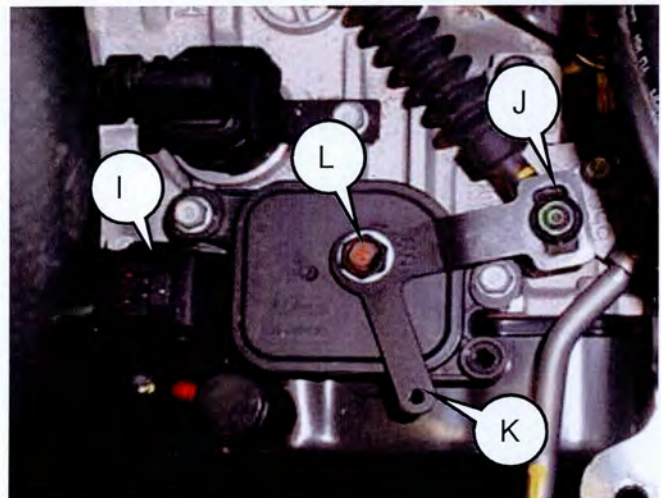
Check the connector for bent or damaged pins. If bent, repair the connector and go to Step 18.

Check the alignment of the inhibitor switch as shown in Step 15.

- If the alignment is correct, continue with the Service Procedure.
- If the alignment is not correct, adjust the inhibitor switch and go to Step 16.

Remove the shift cable mounting nut (J).

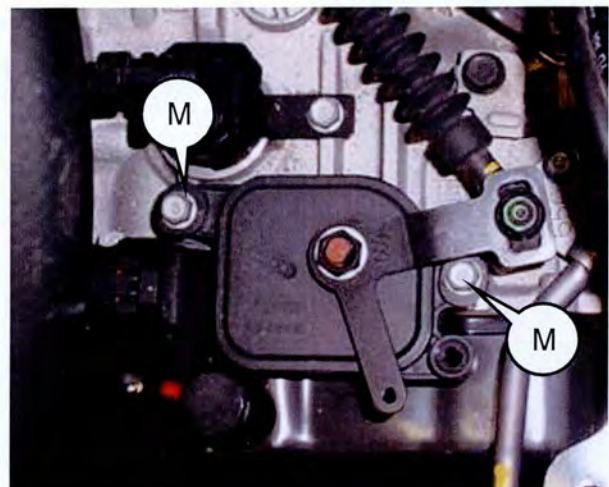
Remove the nut (L) and washer and remove the manual control lever (K).



14. Remove 2 mounting bolts (M) and remove the inhibitor switch assembly.

Install the new inhibitor switch assembly to the transaxle and tighten the mounting bolts.

Torque: 7~9 lb-ft (1.0~1.2kgf.m)



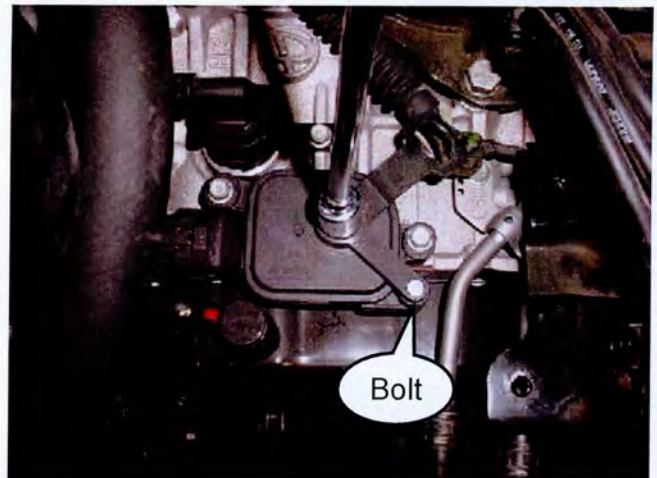
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15. Install the manual control lever, washer and nut to the new inhibitor switch and tighten the nut.

Torque: 13~18 lb-ft (1.8~2.5kgf.m)

Insert 09480-A3800 guide pin or 5mm bolt in the alignment hole before tightening the nut.

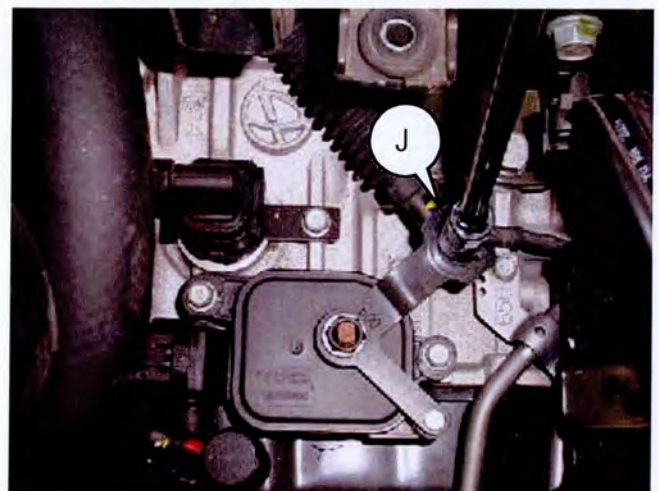
SST 09480-A3800, Inhibitor Switch Guide Pin



16. Install the shift cable mounting nut (J) and tighten the mounting nut to specification.

Torque: 6~9 lb-ft (0.8 ~ 1.2 kgf.m)

Remove the bolt or SST from the alignment hole.



17. Reinstall all the removed parts in reverse order of removal

*** NOTE**

Reset the radio stations after repairs are completed.

18. Clear the DTC and test drive the vehicle for two drive cycles (two key-on to key-off driving cycles). If the DTC:
- Does not occur again, return the vehicle to the customer.
 - If the DTC occurs again, repair or replace the control wiring between the PCM and inhibitor switch.
 - If the DTC occurs again after repairing or replacing the control wiring, replace the PCM/TCM.
19. Clear DTC in the BlueLink system per instructions of TSB 12-BE-005-2, if applicable.