

 HYUNDAI Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 18-01-001
	DATE January, 2018	MODEL AZERA (HG) SONATA (LFA) SANTA FE SPORT (AN) SANTA FE (NC) TUCSON (TL) SONATA (LF HEV/PHEV)
SUBJECT:	INHIBITOR SWITCH REPLACEMENT (SERVICE CAMPAIGN T2M)	

This TSB supersedes TSB 17-01-064 to add additional models.

★ IMPORTANT

***** Dealer Stock and Retail Vehicles *****

Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

Description: This bulletin describes the service procedure to replace the inhibitor switch.
A possible symptom is Diagnostic Trouble Code P0705 (Transmission Range Sensor Circuit).

Applicable Vehicles:

2017	Azera (HG)
2017	Sonata (LFA)
2017~18	Santa Fe Sport (AN)
2017~18	Santa Fe (NC)
2017~18	Tucson (TL)
2017	Sonata Hybrid (LF HEV)
2017	Sonata Plug-in Hybrid (LF PHEV)

PARTS INFORMATION:

MODEL	PART NUMBER	DESCRIPTION	PHOTO
Azera (HG) Sonata (LFA) Santa Fe Sport (AN) Santa Fe (NC) Tucson (TL) Sonata Hybrid (LF HEV) Sonata Hybrid Plug-in (LF PHEV)	427003B700QQH	Inhibitor Switch	

SUBJECT:**AUTOMATIC TRANSAXLE INHIBITOR SWITCH****WARRANTY INFORMATION:**

MODEL	OP CODE	OPERATION	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
Sonata (LFA)	70C097R2	Replace inhibitor switch	0.4	42700-3B700	I3A	ZZ3
Santa Fe Sport (AN) (5NM)*	70C097R3					
Santa Fe Sport (AN) (5XY)*	70C097R4					
Azera (HG)	70C097R0					
Santa Fe (NC)						
Tucson (TL)						
Sonata (LF HEV) Sonata (LF PHEV)	70C097R1		1.1			

NOTE 1: * = 1ST three digits of VIN

NOTE 2: Submit claim on Campaign Claim Entry Screen.

NOTE 3: Additional coolant, if necessary, is included in Labor Operation 70C097R1.

NOTE 4: If a part is found in need of replacement while performing this TSB and the affected part is still under warranty, please submit a separate claim using the same Repair Order.

SERVICE PROCEDURE:

1. Apply the parking brake.

Turn the ignition to the **ON** position and move the shift lever to the **N** position.

Turn the ignition switch to the **OFF** position.



2. **GO TO STEP 3 (PAGE 3) FOR:** **GO TO STEP 6 (PAGE 4) FOR:**

- Azera (HG)
- Santa Fe Sport (AN)
- Santa Fe (NC)
- Sonata (LFA)
- Tucson (TL)
- Sonata Hybrid (LF HEV)
- Sonata Plug-in Hybrid (LF PHEV)

3. FOR THE FOLLOWING VEHICLES:

- Azera (HG)
- Santa Fe Sport (AN)
- Santa Fe (NC)
- Sonata (LFA)
- Tucson (TL)

Open the hood and remove the plastic tabs and remove the air duct.

**4. Remove the negative and positive battery cables.**

Remove the battery hold down bolt and remove the battery.

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

NOTICE

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

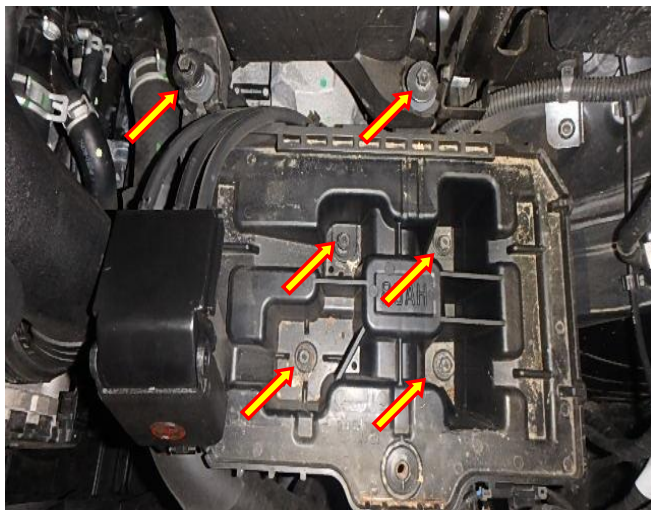
**5. Remove 2 bolts to the air cleaner and remove the air cleaner.**

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

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

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

NOTE: GO TO STEPS 14~17 TO REPLACE THE INHIBITOR SWITCH.



6. **FOR THE FOLLOWING VEHICLES:**

- Sonata Hybrid (LF HEV)
- Sonata Plug-in Hybrid (LF PHEV)

Remove the plastic tabs and remove the air duct.

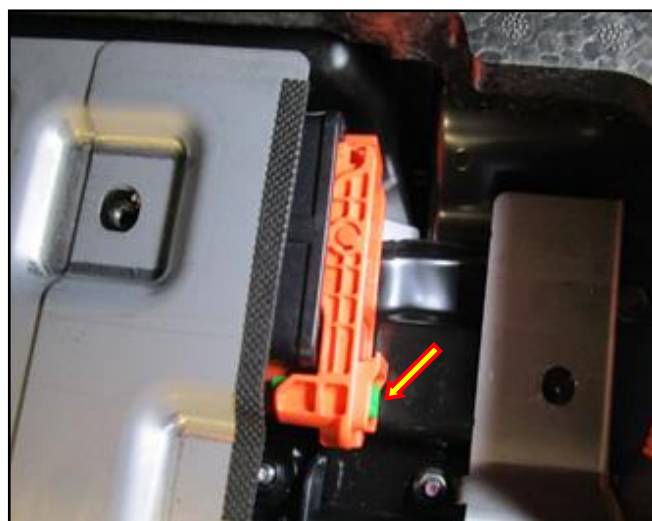


7. Put on insulation gloves.

Open the trunk and remove the carpet.

Remove the access cover.

Pull the green tab outward and pull out the safety plug.



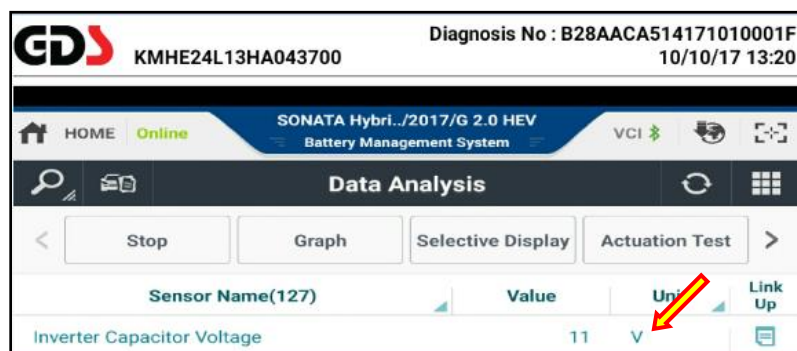
8.

⚠ CAUTION

Without depressing the brake pedal, push the Start-Stop button 2 times to power the cluster.

Attach a GDS and select **Data Analysis**, **BMS** menu and **Inverter Capacitor Voltage**. Confirm the **Inverter Capacitor Voltage** is less than 30V.

- If less than 30V, the system voltage is safe for the technician. Go to Step 9.
- If more than 30V, wait until the voltage is below 30V. Go to Step 9.



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

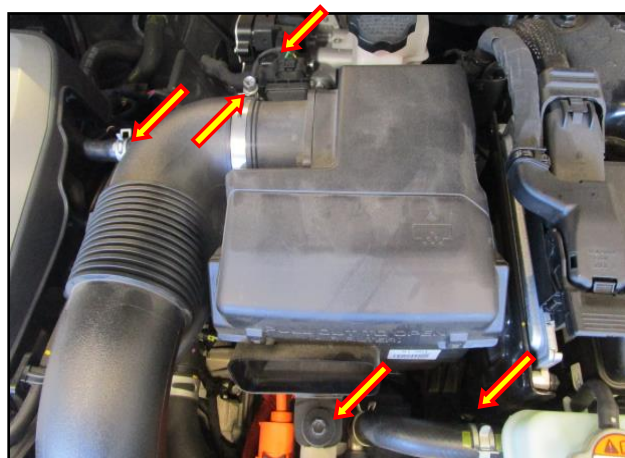
Disconnect the negative battery cable.

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



10. Disconnect the breather hose and the air duct.
Disconnect the intake air temperature sensor.
Loosen the clamp on the air duct.
Disconnect two bolts that secure the air cleaner and remove the air cleaner.

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

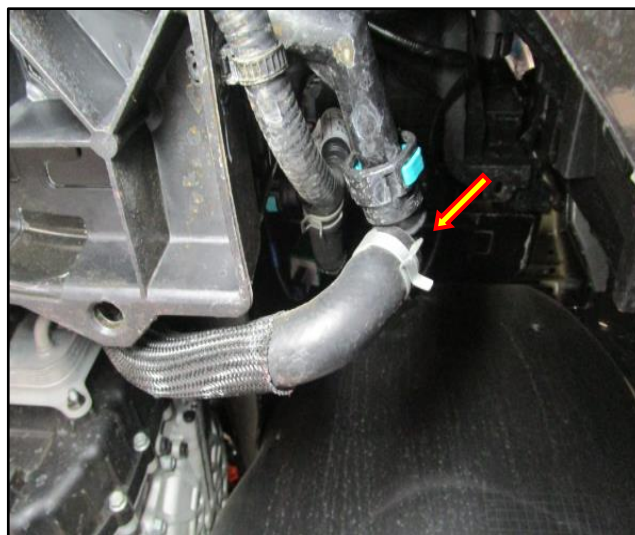


11. Loosen the cap on the reservoir.
Raise the vehicle on a hoist.
Remove the plastic undercover below the engine and transmission.
Locate the hose under the hybrid radiator on the driver's side of the vehicle.
Remove the clamp and pull the hose off to drain the coolant from the reservoir.

NOTE: Save the coolant in a clean container.

Reinstall the hose and clamp.

Reinstall the undercover.

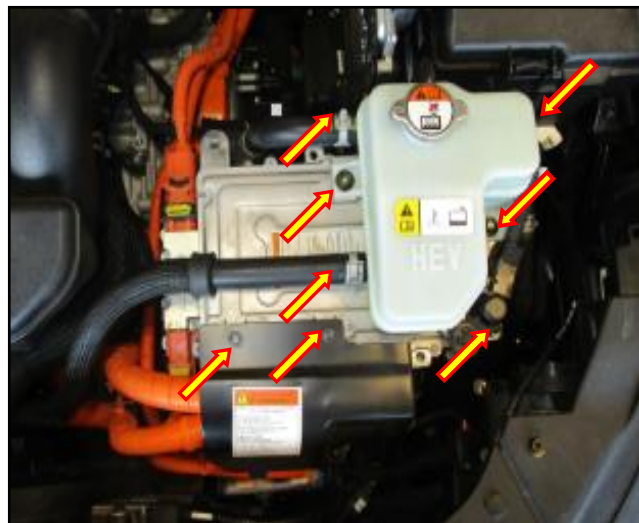


12. Remove two bolts to the HPCU protector and remove the cover.

Remove the clamps to the coolant hoses and remove the hoses.

Remove the ground cable.

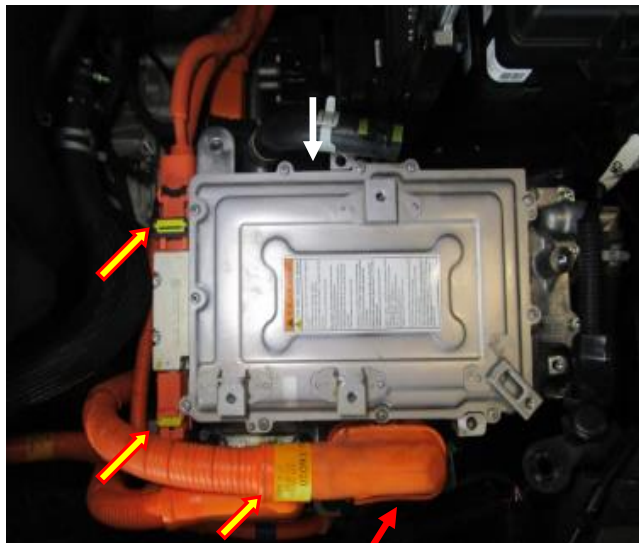
Remove 2 bolts and 1 nut that secure the reservoir and remove the reservoir.



13. Remove the power cables:
- Yellow arrow: Pull out yellow tab, press tab
 - Red arrow: Press black tab on latch
 - White arrow: Press black tab

Remove 3 bolts and remove the HPCU.

(If necessary, refer to the Sonata Hybrid Shop Manual, Hybrid Control System, Hybrid Control System, HPCU, Repair procedure).



14. **NOTE: FOR ALL MODELS:**

Disconnect the inhibitor switch connector (A)

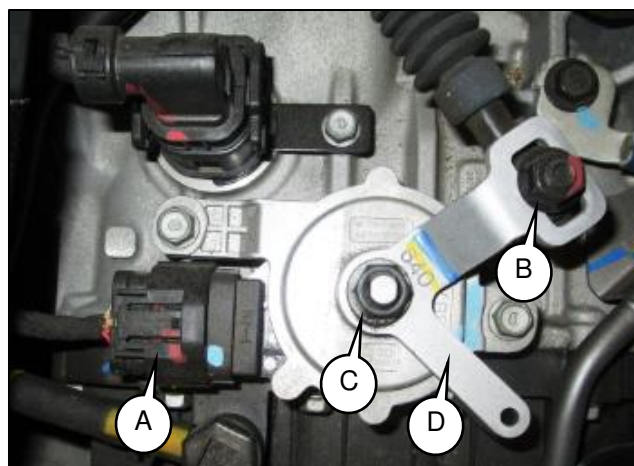
Remove the shift cable mounting nut (B).

Remove the nut (C) and washer and remove the manual control lever (D).



CAUTION

Do not use an impact gun.

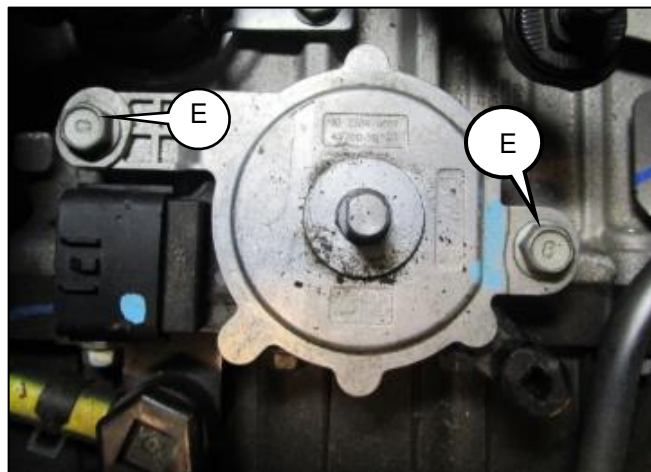


15. Remove 2 mounting bolts (E) and remove the inhibitor switch assembly.

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

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

Reconnect the inhibitor switch connector.



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

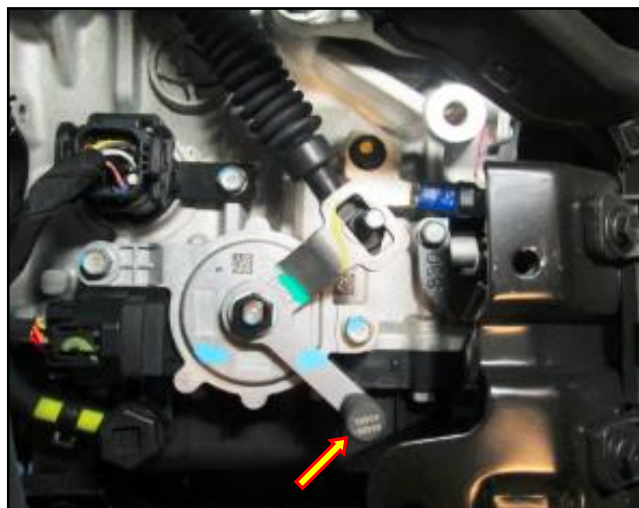
Insert SST **09480-A3800** guide pin or **5mm** bolt in the alignment hole.



Tighten the nut to specification.

Torque: 13~18 lb-ft (1.8~2.5 kgf.m/18~24 N.m)

CAUTION: Do not use an impact gun.



17. Confirm the shift lever is in the **N** position.

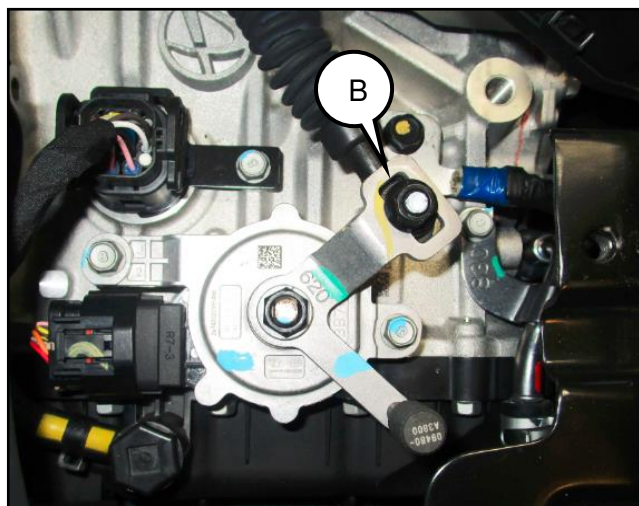
Install the shift cable nut and tighten the nut (B) to specification.

Torque: 6~9 lb-ft (0.8 ~ 1.2 kgf.m, 8~12 N.m)

Remove the SST or 5mm bolt from the alignment hole.

GO TO STEPS 20~21 FOR:

Azera (HG), Sonata (LFA), Santa Fe Sport (AN),
Santa Fe (NC), and Tucson (TL)



18. **FOR:**

- Sonata Hybrid (LF HEV)
- Sonata Plug-in Hybrid (LF PHEV)

Install 3 bolts that secure the HPCU.

Torque: 14~22 lb-ft (2~3 kgf.m, 20~29 N.m)

Reconnect the power cables and ground cable.



19. Install 2 bolts and 1 nut that secure the coolant reservoir.

Torque: 3~4 lb-ft (0.4~0.6 kgf.m, 4~6 N.m)

Reinstall the coolant reservoir and hoses.

Refill the coolant.

Attach a GDS and perform air bleeding. Select **S/W Management, HEV Motor Control System** and **Electric Water Pump Control**.

20. **NOTE: FOR ALL MODELS:**

Reinstall all the removed parts in reverse order of removal.

Reset the preset radio stations.

21. Move the shift lever through P, R, N and D and confirm the indicator lights on the shift lever and cluster illuminate.

Drive the vehicle to confirm the transmission shifts correctly.