

GROUP	MODEL
TRA	2018-2019MY
	Niro (DE HEV/PHEV)
	w/ 6-Speed DCT
NUMBER	DATE
092	December 2020

TECHNICAL SERVICE BULLETIN

6-SPEED DOUBLE CLUTCH OR DCT REPLACEMENT

This bulletin provides the procedure to replace the Double Clutch set or Double Clutch Transmission (DCT) assembly on some 2018-2019MY Niro (DE HEV, DE PHEV) vehicles, equipped with the 6-Speed DCT, which may exhibit an abnormal "Grrrr and/or grinding" noise when down shifting from 4th to 3rd gear. To correct this concern, follow the procedure outlined in this bulletin.

Model	Production Date			
Niro (DE HEV/PHEV)	08/10/2018 – 09/30/2019			



File Under: <Transmission>

Circulate To: ☐ General Manager ☐ Serv

☒ Service Manager

☑ Parts Manager

DOUBLE-CLUTCH REPLACEMENT OF 6-SPEED DCT DUE TO GEAR SHIFT NOISE

Abnormal Noise Symptom:

- 1. Increase the vehicle speed to approximately 31 44 mph (at least 4th gear stage).
- 2. Press the brake pedal to decelerate until the vehicle speed reaches 19 25 mph (3rd gear stage), and check if an abnormal noise occurs from the DCT for 1-2 seconds (with no sound during other gear shifts, such as 3rd to 2nd).

NOTE: This condition may not appear on new vehicles, only on vehicles with about 6,000 miles or more on the odometer.

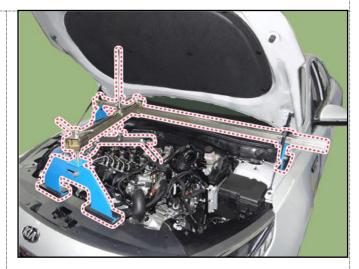
If the vehicle does not match the symptoms, mileage, production and clutch lot number ranges specified in this TSB, continue diagnosis and repair as a **normal warranty claim.**

Check if the noise is generated during the gear shift from 4th to 3rd stage using KDS.

Replacement Procedure:

Remove the DCT assembly by referring to "DCT (Dual Clutch Transmission) System
 → DCT (Dual Clutch Transmission)
 System → DCT (Dual Clutch Transmission) → Repair procedures" chapter in the applicable Shop manual on KGIS.

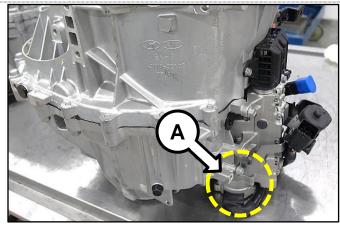
Or refer to **Dual Clutch Assembly** video.



2. Place the DCT clutch housing facing up as shown.

* NOTICE

When putting the DCT assembly down, be careful to not damage the clutch actuator motor connector (A).

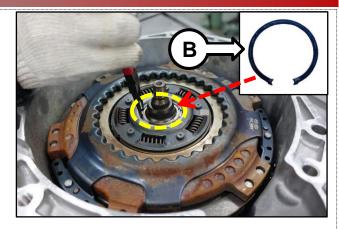


DOUBLE-CLUTCH REPLACEMENT OF 6-SPEED DCT DUE TO GEAR SHIFT NOISE

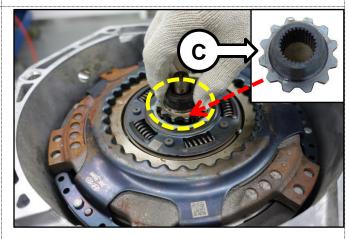
3. Remove the retaining ring (B) using snap ring pliers.

* NOTICE

DO NOT re-use the snap ring. Replace with a new part.



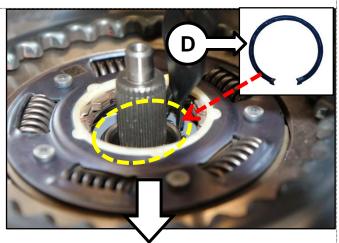
4. Remove the spline hub (C).



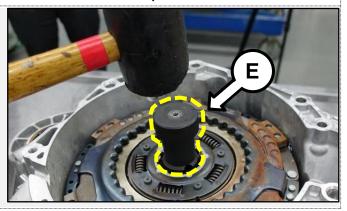
5a. Remove the retaining ring (D) using snap ring pliers.

* NOTICE

Be careful not to damage the rubber seal of the dual clutch support bearing when removing the snap ring. DO NOT re-use the snap ring; replace.



5b. (OPTIONAL) If the retaining snap ring is stuck, insert the **SST 09430 2A240** (E) and hit the top of the SST with a rubber mallet to release the stuck snap ring.



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6. Locate the 3 points shown on the dual clutch assembly (F) and install the **SST 09430 C1180** (G) between the clutch connecting plate and the pressure plate where shown.



G F

7. Turn the top bolt head clockwise on the SST to pull and release the dual clutch set from the DCT.

* NOTICE

Be careful not to drop the dual clutch assembly when removing from DCT.



- 8. Check the double-clutch manufacturing lot after removing the transmission.
 - a. If the double clutch manufacturing lot is subject to replacement, replace the double clutch by checking the number according to the method below.
 - b. If the double clutch manufacturing lot is not subject to replacement, replace the DCT Assembly with a new one.

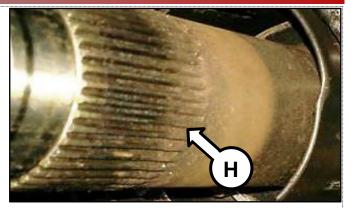
Double-clutch Manufacturing Lot Identification Method [Applicable Lot No: 180810 through 190527]

Check the lot number on Disc 1 (Engine Side)

How to check the manufacturing lot date: Example 10th -15th Digits: "161207"

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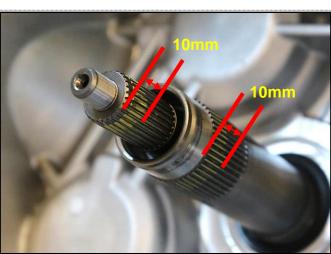
9. Remove any foreign substance from the DCT input shaft (H). Clean using a soft brush and non-lubricant solution. DO NOT use sandpaper, wire brush or WD40 type cleaning materials.



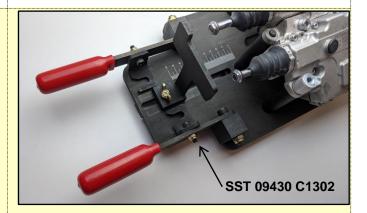
10. Apply 0.15 – 0.25g of MCLUBE MoS2-400 grease evenly around the upper and lower input shaft circumferences, as wide as 10mm from the spline end area where shown.

* NOTICE

DO NOT use more than the recommended amount of grease. Excess grease can spread and cause clutch to slip.



11. **Before** proceeding to the next step, refer to TSB <u>TRA085</u> "DCT Actuator Rod Length Adjustment" procedure. The Clutch Actuator Adjustment Jig SST 09430 C1302 shown will be required.



12. Install the dual clutch assembly into the DCT housing using a SST 09430 C1180 (I) in the reverse order of removal. Be sure to align the input shaft properly. DO NOT press dual clutch assembly as damage may occur.

* NOTICE

Be careful not to drop the dual clutch assembly when removing from DCT.

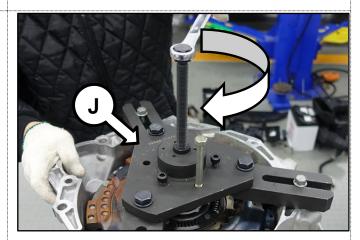


DOUBLE-CLUTCH REPLACEMENT OF 6-SPEED DCT DUE TO GEAR SHIFT NOISE

13. Insert the **SST 09430 2A240** over the support bearing as shown.



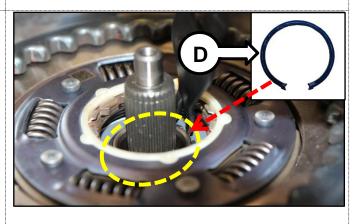
14. Secure the **SST 09430 2A240** (J) onto the clutch housing as shown and then turn the bolt head clockwise until the dual clutch assembly is secured.



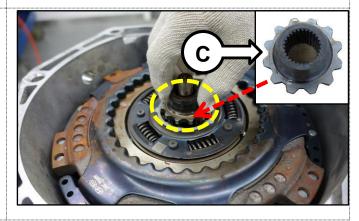
15. Install and secure the <u>new</u> retaining ring (D) using snap ring pliers.

* NOTICE

The retaining must be able to move freely left to right.

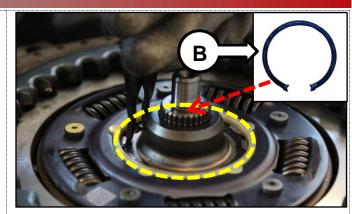


16. Install the spline hub (C).

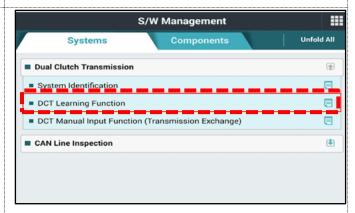


DOUBLE-CLUTCH REPLACEMENT OF 6-SPEED DCT DUE TO GEAR SHIFT NOISE

17. Install the <u>new</u> retaining ring (B) using snap ring pliers.



- 18. Install all of the parts in the reverse order of removal.
- 19. Using KDS, clear any DTCs stored.
- 20. Perform the DCT Learning Function procedure using KDS.



21. Follow the applicable **TCU Logic Optimization Procedure** from TSB <u>TRA078</u> (pages 3-6 only) to upgrade the TCU logic.

DOUBLE-CLUTCH REPLACEMENT OF 6-SPEED DCT DUE TO GEAR SHIFT NOISE

AFFECTED VEHICLE RANGE:

Model	Production Date Range			
Niro (DE HEV/PHEV)	August 10, 2018 to September 30, 2019			

REQUIRED TOOL:

Tool Name	Part Number	Figure	
Dual Clutch Installer	09430 2A240		
Dual Clutch Remover	09430 C1180	-	

Note: Refer to TSB TRA085 for additional tools required.

REQUIRED PART:

Part Name	Part Number Figure		Qty.
Dual Clutch Assembly	41200 2B001FFF		1
Dual Clutch Snap Ring	41068 2D000FFF		2

WARRANTY INFORMATION:

N Code: Q51 C Code: ZZ1

Claim Type	Model	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
١٨/	W DE 41200 HEV, 2B000 0	0	Double-Clutch Replacement	41200F00	4.6 M/H	41200 2B001FFF	1	
VV		0				41068 2D000FFF	2	