 HYUNDAI Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 22-01-007H
	DATE JANUARY 2022	MODEL(S) Kona (OS) Elantra (CN7)
SUBJECT: GEN2 DCT SHIFT SHOCK INSPECTION AND SNAP RING REPLACEMENT (SERVICE CAMPAIGN T7E)		

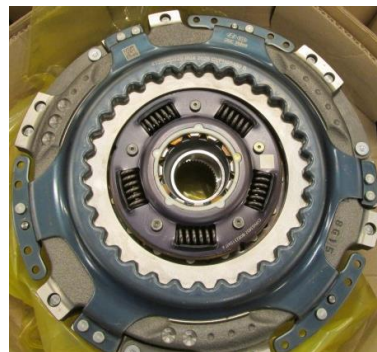
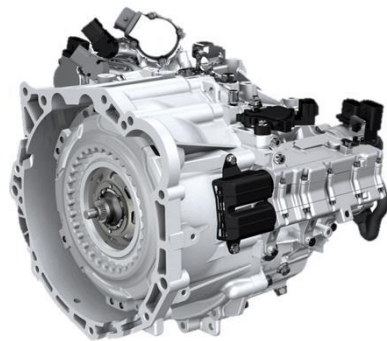
*** IMPORTANT**

***** 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 "Vehicle Information" screen via WEBDCS to identify open Campaigns.

Description: Certain vehicles equipped with 7-speed Double Clutch Transmissions (DCT) may exhibit abnormal shifting caused by an out of specification input shaft snap ring. This bulletin outlines the procedures for inspecting for 1-2 or 2-1 shift shock and replacing the input shaft snap ring.



Applicable Vehicles:

Certain 2021-2022MY Kona (OS) 1.6L Turbo
 Certain 2021MY Elantra (CN7) 1.6L Turbo

Parts Information:

MODELS	PART NAME	PART NUMBER	NOTES
Kona (OS) Elantra (CN7)	7-Speed DCT Service Kit	43239-2A100QQH	RETAINING RING: 41126-2D100
			DOUBLE CLUTCH SNAP RING: 41068-2D000
			INPUT SHAFT OIL SEAL: 43134-2A010
			SNAP RING: 43239-2A195
			SNAP RING: 43239-2A198
			SNAP RING: 43239-2A201
			SNAP RING: 43239-2A204

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair



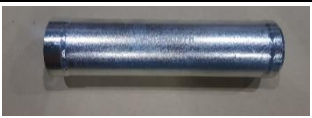
Warranty Information:

MODEL	OP CODE	OPERATION	TYPE	OP TIME	CAUSAL PART	NATURE CODE	CAUSE CODE
Kona (OS)	10D124R0	Shift Shock Inspection	AWD	0.3 M/H	43239-2A100QQH	T41	ZZ1
	10D124R1	Shift Shock Inspection + Snap Ring Replacement	AWD	3.8 M/H			
	10D124R2	Snap Ring Replacement	2WD	3.5 M/H			
Elantra (CN7)	10D124R3	Snap Ring Replacement	2WD	3.6 M/H			

NOTE 1: Submit claim on Campaign Claim Entry Screen.

NOTE 2: If a part that is not covered by Service Campaign T7E is found in need of replacement while performing this Service Campaign and the affected part is still under warranty, submit a separate claim using the same Repair Order. If the affected part is out of warranty, submit a Prior Approval Request for goodwill consideration prior to the repair.

Special Service Tools Information:

SPECIAL SERVICE TOOL	PART NUMBER	DESCRIPTION	PHOTO
Double Clutch Remover	09430-C1180	Used to remove the double clutch from the transmission	
Double Clutch Installer	09430-2A240	Used to install the double clutch into the transmission	
Oil Seal Installer Jig	09431-IB000FFH	Used to install the oil seal	

NOTE 1: If additional Double Clutch Remover or Installer is needed, replacement parts can be ordered from Bosch at (866) 539-4248.

NOTE 2: If additional Oil Seal Installer Jig is needed, replacement parts can be ordered through WDCS on Hyundaidealer.com.



Refer to the link below for guided video information:
[Hyundai Service Learning - Campaign T7E Service Procedure](#)

A. Shift Shock Inspection Procedure

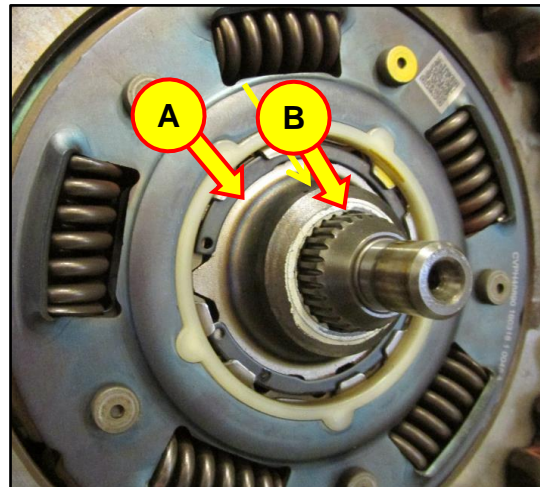
Verify if the vehicle is either 2WD or AWD.

- If vehicle is 2WD, continue to **B. Snap Ring Replacement Procedure**. Shift shock inspection is unnecessary.
 - If vehicle is AWD, test drive the vehicle with the following instructions.
2. Turn on the vehicle and find a suitable flat road to test the vehicle.
 3. Depress the accelerator to 30% to slowly accelerate the vehicle to 16 MPH.
 4. Gently apply the brakes and decelerate to 6 MPH. Inspect for shift shock during the downshift from gear 2 to gear 1.
 5. From a stop, depress the accelerator to 50-70% and inspect for shift shock during the the upshift from gears 1 to 2.
 6. Repeat Shift Shock Inspection Procedure Steps 3-5, 3 to 4 times.
 7. If shift shock occurs more than once, follow **B. Snap Ring Replacement Procedure** to remove the DCT and replace the input shaft snap ring from the parts kit.

B. Snap Ring Replacement Procedure

1. Remove the Dual-Clutch Transmission following the shop manual procedure:
DCT (Dual Clutch Transmission) System > Dual Clutch Transmission Assembly > DCT (Dual Clutch Transmission) > Repair Procedures

2. Remove the retaining ring (A) and the splined hub (B).



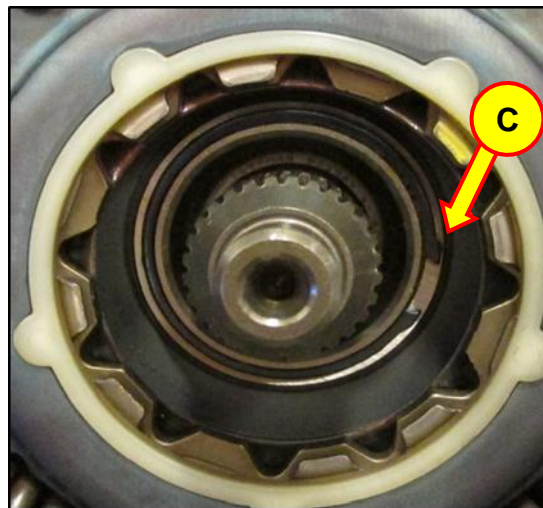
3. Remove the snap ring (C).

CAUTION

The snap ring can become deformed in the removal process. Do not reuse the existing snap rings when reinstalling the Double Clutch into the transmission.

NOTICE

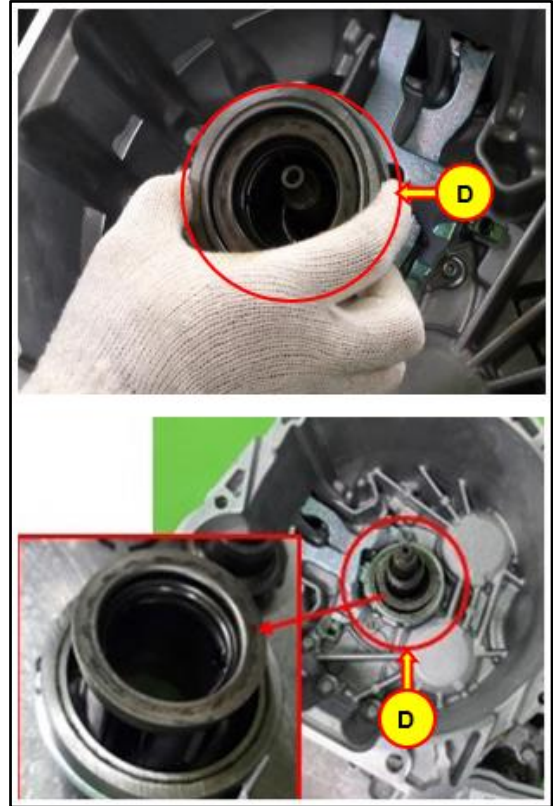
This operation requires special service tools. Please see the tools listed above.



4. Using the special service tool (SST: 09430-C1180), remove the double clutch from the transmission assembly.



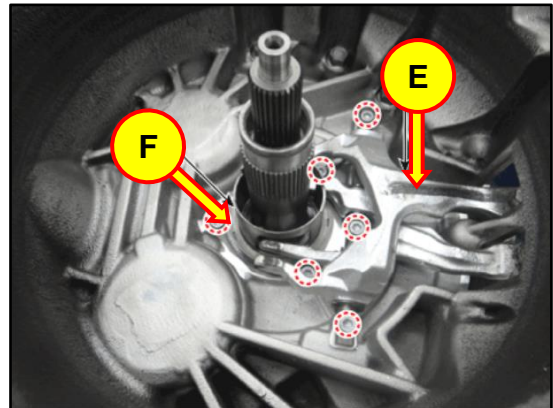
5. Remove the clutch release bearing (D).



6. Remove the bolts to remove the clutch engagement fork (E) and the bearing sleeve (F).

NOTICE

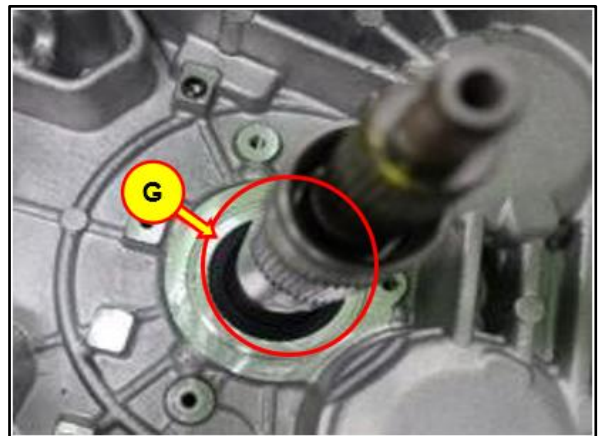
Tightening Torque:
7.2 – 8.7 lb-ft (9.8 – 11.8 Nm)



7. Use a seal remover or similar tool to remove the oil seal (G).

NOTICE

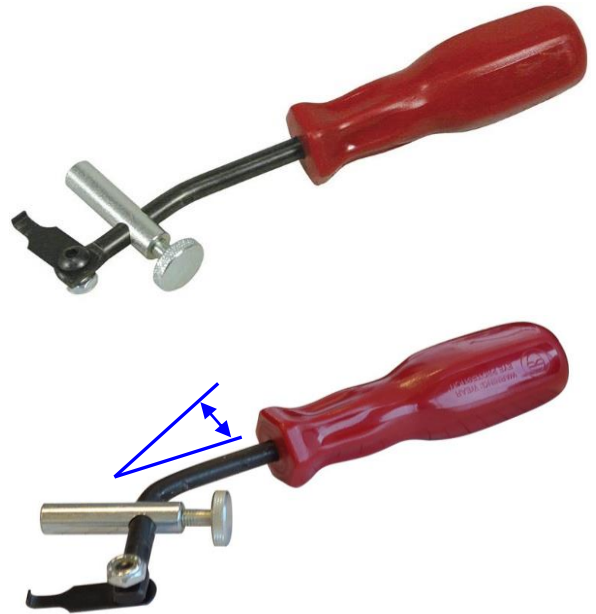
Be sure to use the newly supplied oil seal during reassembly.



NOTICE

Recommend using a leverage/shaft style oil seal puller modified with a slight bend.

“Lisle 58430 Shaft Type Seal Puller”
or equivalent



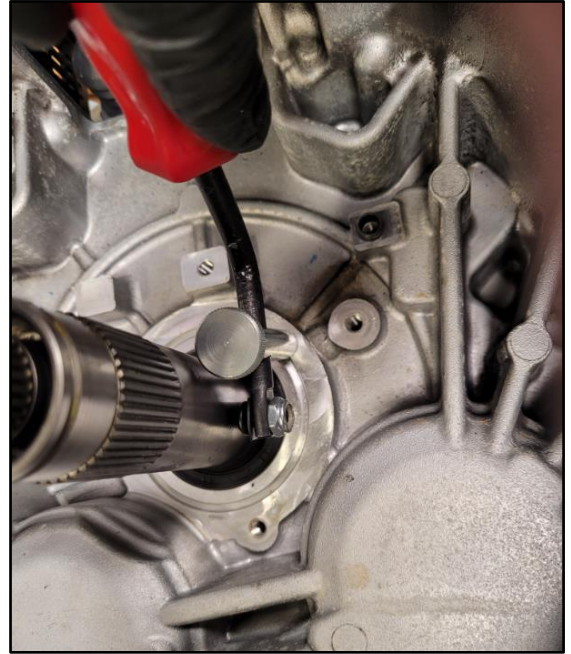
8. Remove the hook from the puller and insert the hook between the shaft and seal lip.



9. Reassemble the hook to the puller assembly and adjust the lever stand-off to rest on the transmission case.



10. Push down on the handle to remove the seal.



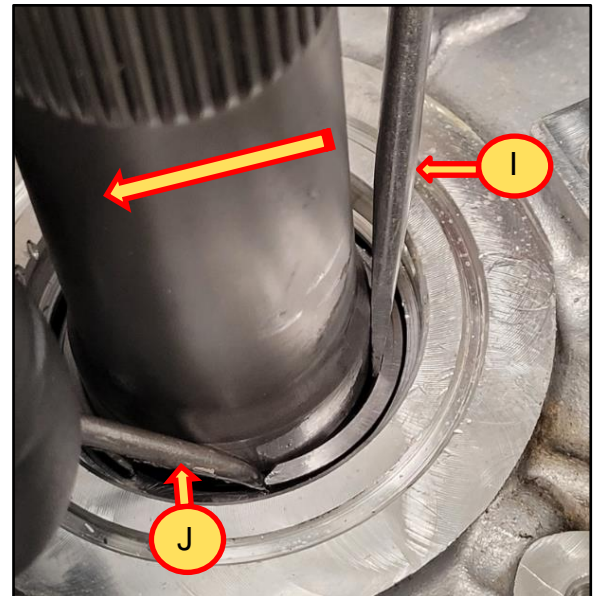
11. Use snap ring pliers (H) to open the snap ring enough to get a small flat blade screwdriver between the shaft and snap ring.



12. Insert the flat blade screwdriver (I) about ¼ of the way back from one end of the snap ring.

13. Using a 90° pick (J) or similar tool to lift the end of the snap ring out of its groove.

14. Remove the screwdriver and slowly rotate the shaft until the snap ring is fully removed.



15. Remove the snap ring (K) from the transmission assembly.



16. Check the marked size of the snap ring and prepare a new snap ring two increments lower in size.

Example: if original snap ring is "04" (2.04mm) replace it with "98" (1.98mm).



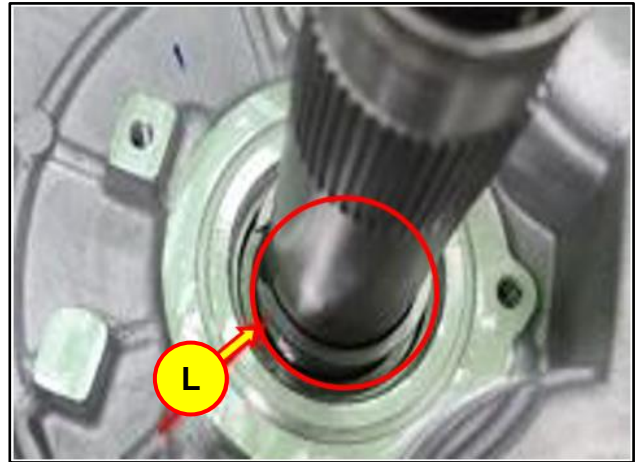
NOTICE

One increment is 0.03mm. Install snap ring that is 0.06mm smaller than the original.

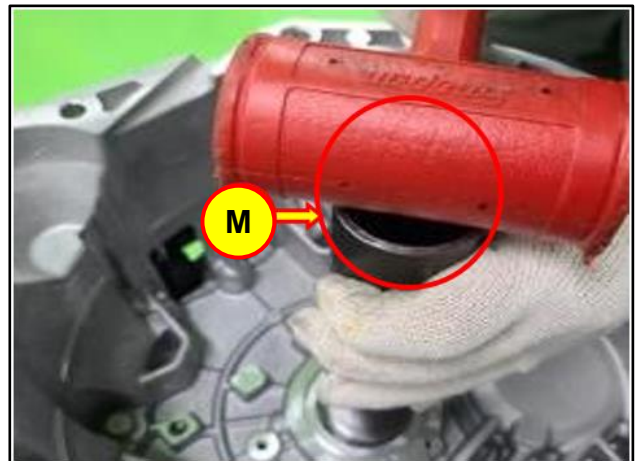
Original Snap Ring	Replacement Snap Ring
01	95
04	98
07	01
10	04



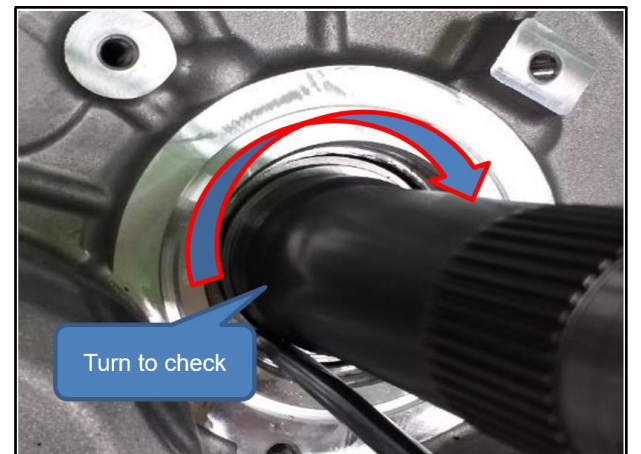
17. Slide the snap ring (L) over the shaft.



18. Use the seal installer (SST: 09431-1B000FFH) to gently tap the snap ring into place (M).



19. After installing the new snap ring, make sure it is fully seated and can easily be rotated left and right.



20. Install the new oil seal (N). Ensure the yellow color face is face down during installation.

NOTICE

Push the oil seal into place by hand before using the oil seal installer.



CAUTION

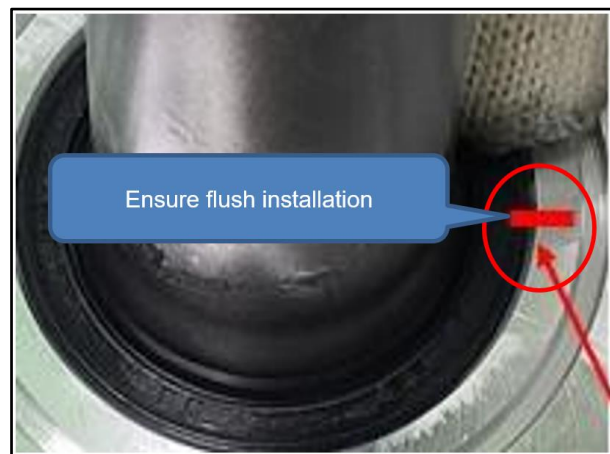
Oil seal lip must not be contaminated with lithium grease.



21. Seat the oil seal into place with the oil seal installer (SST: 09431-IB000FFH).



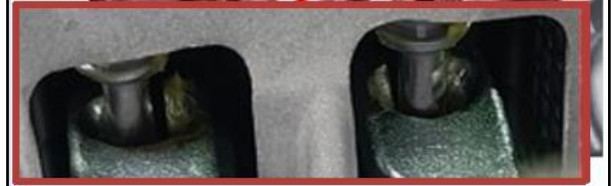
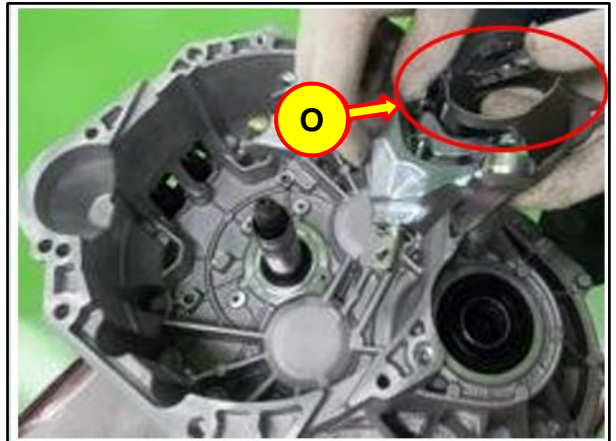
22. Ensure the oil seal is flush with the transmission assembly.



23. Reinstall the clutch engagement fork (O).

NOTICE

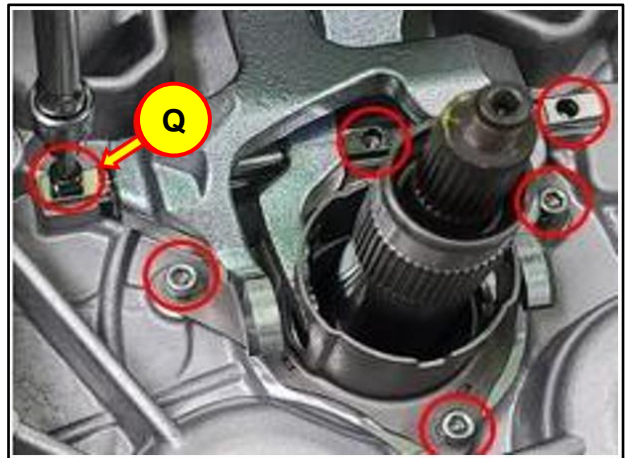
Ensure the clutch engagement fork is seated correctly to prevent clutch actuator rod position deviation (P).



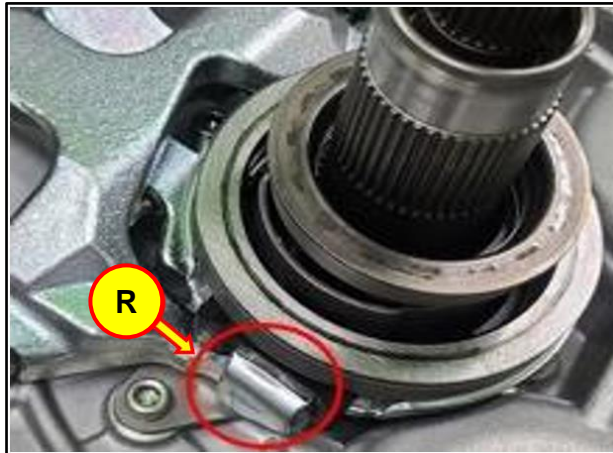
24. Mount the clutch engagement fork using the previously removed bolts (Q).

NOTICE

Tightening Torque:
7.2 – 8.7 lb-ft (9.8 – 11.8 Nm)



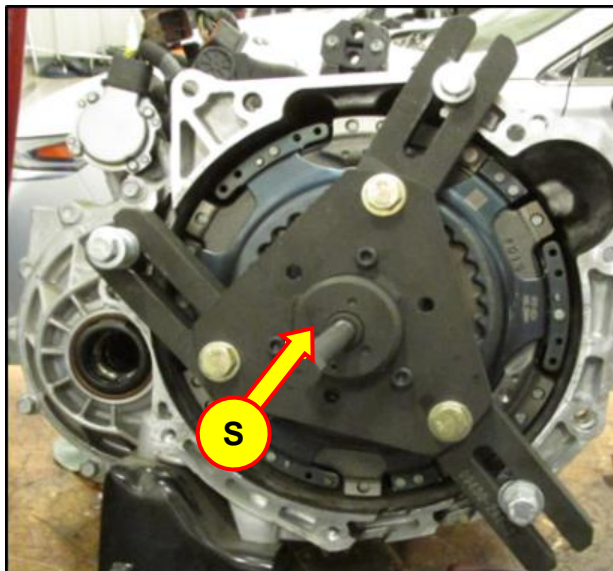
25. Install the clutch release bearing sleeve (R).



26. Install the new Double-Clutch using the special service tool (SST: 09430-2A240) to fully seat the Double-Clutch.

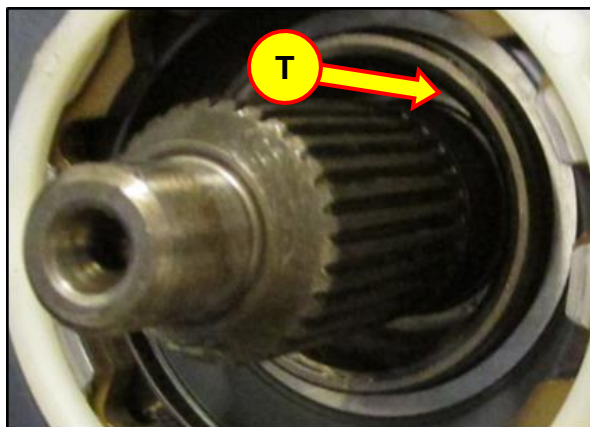
NOTICE

(SST 09430-2A240) may appear different than the reference photo.



27. Turn bolt (S) clockwise. When the force needed to turn the bolt increases, the Double-Clutch is fully seated.

28. Verify the Double-Clutch is fully seated on the input shafts. The snap ring groove (T) will be fully exposed.

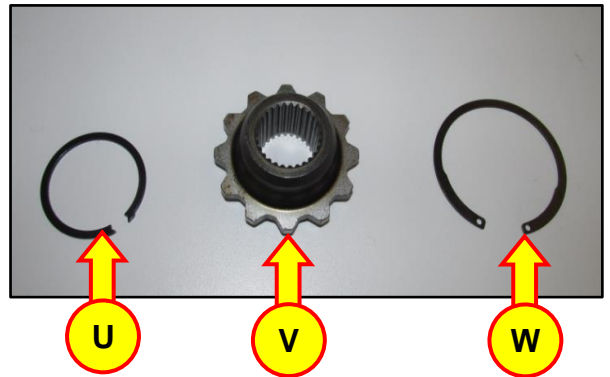


29. Install new snap ring (U) 41068-2D000, splined hub (V) and retaining ring (W) 41126-2D100. New snap rings are provided in the kit.



CAUTION

When installing the new snap ring, make sure it is fully seated and can be easily rotated left and right.



30. Install the Dual-Clutch Transmission following the shop manual procedure:

**DCT (Dual Clutch Transmission) System >
Dual Clutch Transmission Assembly >
DCT (Dual Clutch Transmission) > Repair
Procedures**

31. Test drive to verify shift shock is no longer present.
32. The service procedure is now complete.