



## Technical Service Bulletin

| GROUP               | NUMBER                  |
|---------------------|-------------------------|
| DRIVESHAFT AND AXLE | 23-DS-002G              |
| DATE                | MODEL(S)                |
| NOVEMBER 2023       | GV70 (JK1)<br>G90 (RS4) |

**SUBJECT:** TRANSFER CASE ACTUATOR DIAGNOSIS AND REPLACEMENT

This TSB supersedes 23-DS-001G-1 to add the G90 (RS4), expand the applicable vehicles production dates, and include updated actuator dates.

**Description:** When servicing any of the specified vehicles below with the corresponding DTCs, follow the step-by-step procedures in this bulletin.

- Transfer case actuator DTC codes P196000, P195800, or P195513



### Applicable Vehicles:

- 2022-23MY GV70 (JK1) produced from 03/10/2021 – 06/15/2023 (VIN begins with “KMU”)
- 2024MY GV70 (JK1A) produced from 05/16/2023 – 09/20/2023 (VIN begins with “5NM”)
- 2023MY G90 (RS4) produced from 10/07/2022 to 06/20/2023

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### Information

“JK1” refers to both JK1 (Korean) and JK1A (USA).

## Warranty Information:

| Model                              | Op. Code | Operation                                | Op. Time | Causal Part | Nature Code | Cause Code |
|------------------------------------|----------|------------------------------------------|----------|-------------|-------------|------------|
| GV70 (JK1)<br>G90 (RS4)            | 47892F03 | TRANSFER CASE<br>ACTUATOR<br>REPLACEMENT | 1.5 M/H  | 47899-4G300 | I3A         | ZZ3        |
| G90 (RS4)<br>w/ e-Super<br>Charger | 47892F04 |                                          | 1.8 M/H  |             |             |            |

**NOTE 1:** Normal warranty applies.

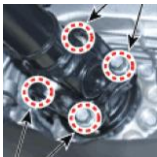
**NOTE 2:** Submit claim on Claim Entry Screen as “Warranty” type.

**NOTE 3:** This TSB includes Repair validation photos. Op times including VIN, Mileage, and Repair validation photos as outlined in the Digital Documentation Policy.

**NOTE 4:** The incident parts are subject to callback through the normal Warranty Technical Center (WTC) parts return process. **Claim is subject to debit if the part is not returned.**

**NOTE 5:** If a part is found in need of replacement while performing this TSB 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 performing the work.

**SUBJECT: TRANSFER CASE ACTUATOR DIAGNOSIS AND REPLACEMENT****Parts Information:**

| Part Number | Part Description                                    | Photo                                                                               | Model                    | Remarks                                                                                                                                                              |
|-------------|-----------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 47899-4G300 | Transfer Case Actuator                              |    | GV70 (JK1) and G90 (RS4) | <br>1 each<br>Confirm date on actuator label is 06/05/2023 or after upon receipt. |
| 28751-3J000 | Front Exhaust Gasket (to catalyst)                  |    | GV70 (JK1) and G90 (RS4) | 2 each                                                                                                                                                               |
| 28751-2S000 | Rear Exhaust Gasket (to exhaust muffler)            |    | GV70 (JK1)               | 2 each                                                                                                                                                               |
| 28751-T1100 |                                                     |                                                                                     | G90 (RS4)                |                                                                                                                                                                      |
| 49129-B1100 | Front Propeller Shaft Bolts (to front differential) |    | GV70 (JK1)               | 4 each                                                                                                                                                               |
| 49319-3M000 |                                                     |  | G90 (RS4)                | 3 each                                                                                                                                                               |
| 49319-T6100 | Rear Propeller Shaft Bolts (to transfer case)       |  | GV70 (JK1)               | 3 each                                                                                                                                                               |
| 49319-T1000 |                                                     |                                                                                     | G90 (RS4)                |                                                                                                                                                                      |
| 00232-19066 | TF 0870B Transfer Case Oil (32 FL OZ, 946 mL)       |  | GV70 (JK1) and G90 (RS4) | 1 bottle<br>Only required if necessary to add fluid into the transfer case.                                                                                          |

## Service Procedure:

**STUI**

This TSB includes Repair validation photos. Refer to the latest Digital Documentation Policy for requirements.

**Transfer Case Actuator Replacement**

1. Confirm transfer case warning lamp is displayed in the cluster.

If any of the following DTCs are present, P196000, P195800, or P195513, continue with transfer case actuator replacement.

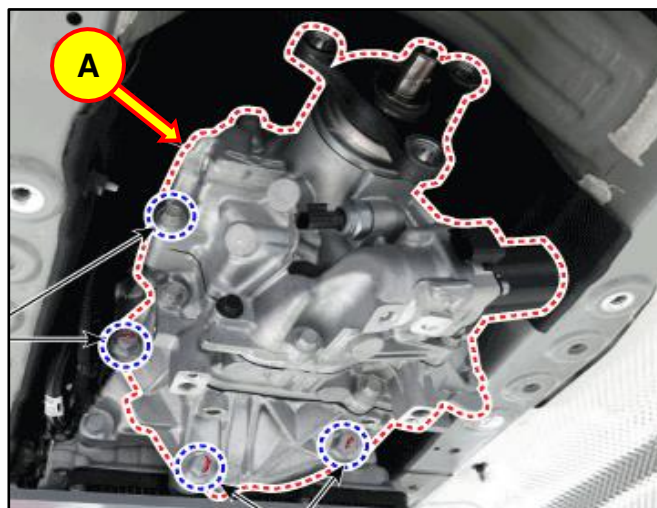
If other DTCs are present, follow the shop manual for repairs.



2. Lift the vehicle to remove the transfer case (A).

Refer to the applicable shop manual.

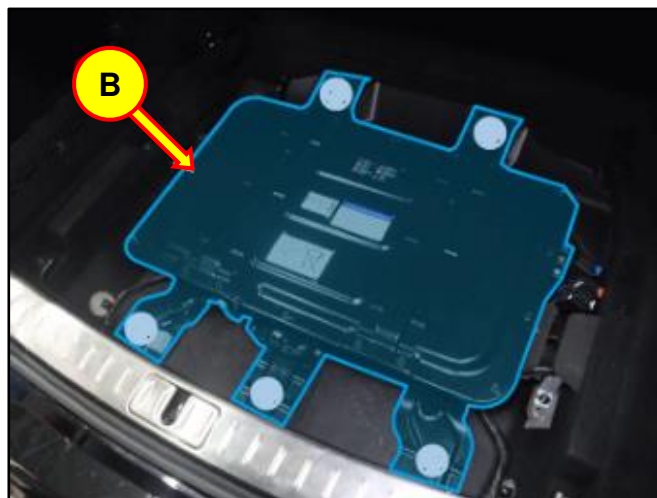
4 Wheel Drive (AWD) System → Transfer Assembly → Transfer Case Assembly → Removal

**Information**

**G90 with e-Super Charger:** The 48V Battery System Assembly (B) must first be removed to access and disconnect the negative cable on 12V battery.

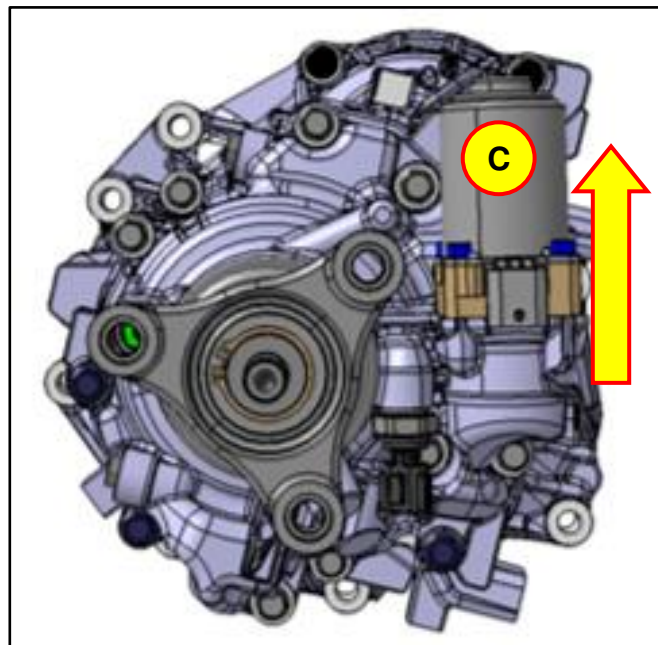
Refer to the shop manual for removal and installation procedures.

Engine Electrical System → 48V Battery System → Battery System Assembly (BSA) → Removal and Installation



3. Place the transfer case onto a work bench.

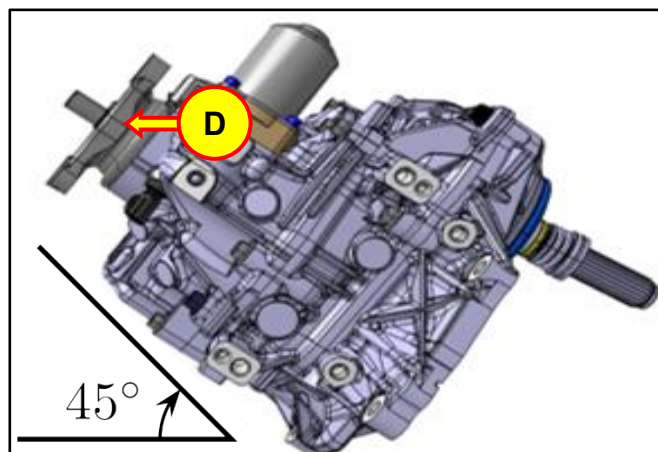
Rotate the transfer case to point the actuator (C) up in a vertical position.



Lift the flange (D) end of the case at a 45-degree angle.

#### NOTICE

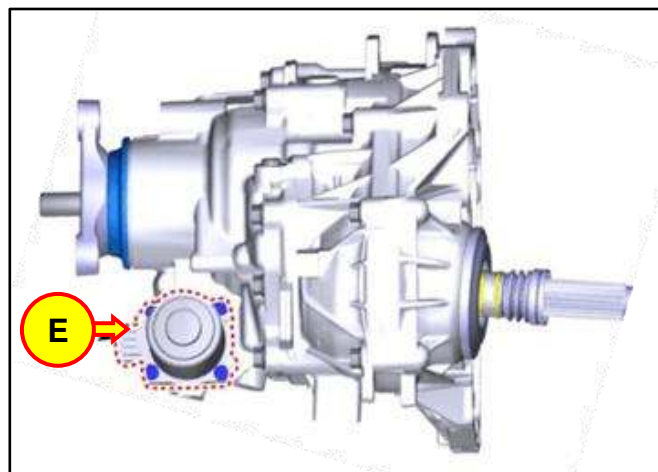
During removal and installation of the actuator, maintain the transfer case at a 45-degree angle to not spill fluid. Low fluid levels may damage the transfer case assembly.



4. Leave the case in this position for at least 10 seconds to allow the fluid to drain from the actuator into the case.
5. Loosen the bolts and remove the actuator (E).

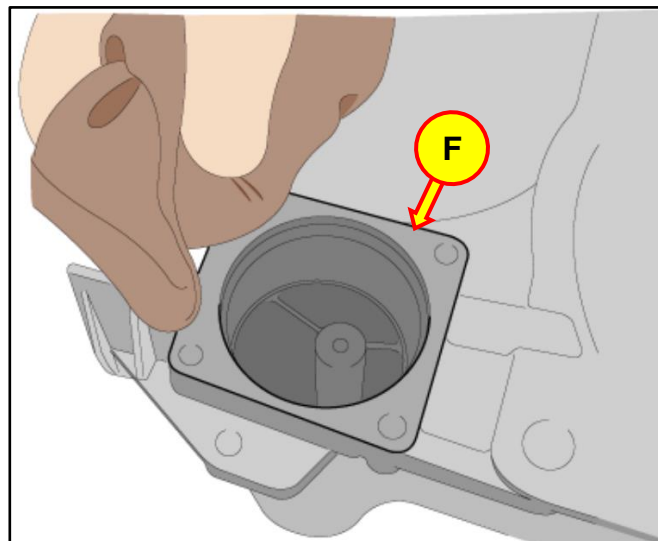
#### Transfer Case Actuator Tightening Torque

|       |      |
|-------|------|
| lb-ft | 8.3  |
| lb-in | 100  |
| N.m   | 11.3 |



6. Wipe the actuator seating surface (F) with a clean cloth.

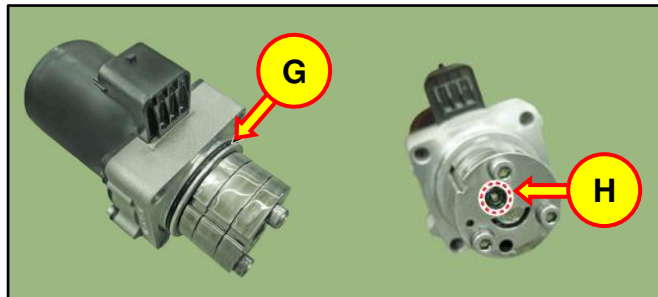
Do not allow foreign substances to enter the case.



7. Confirm date on the new actuator label is 06/05/2023 or after.



8. Ensure both O-rings (G) and (H) are properly seated on the new actuator.



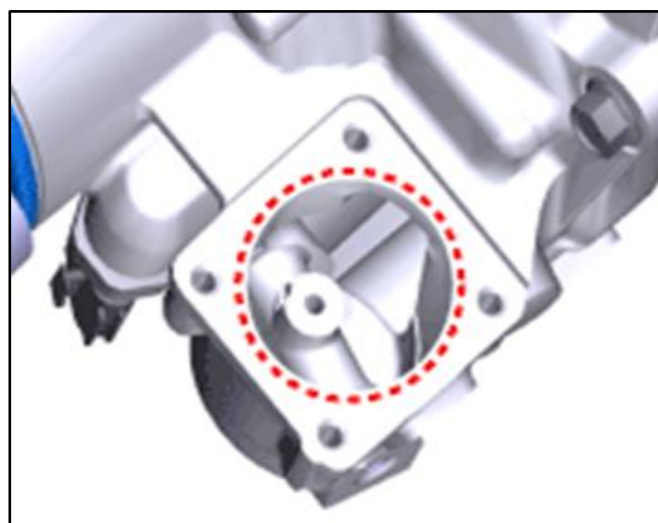
9. If fluid is lost, add fluid for the amount lost into the actuator opening.

#### NOTICE

Using the wrong fluid specification or low fluid levels may damage the transfer case.

Fluid Specification: TF 0870B, Transfer Case Oil  
Part Number: 00232-19066

Transfer Case Fluid Capacity: 270mL



10. Install the new actuator.

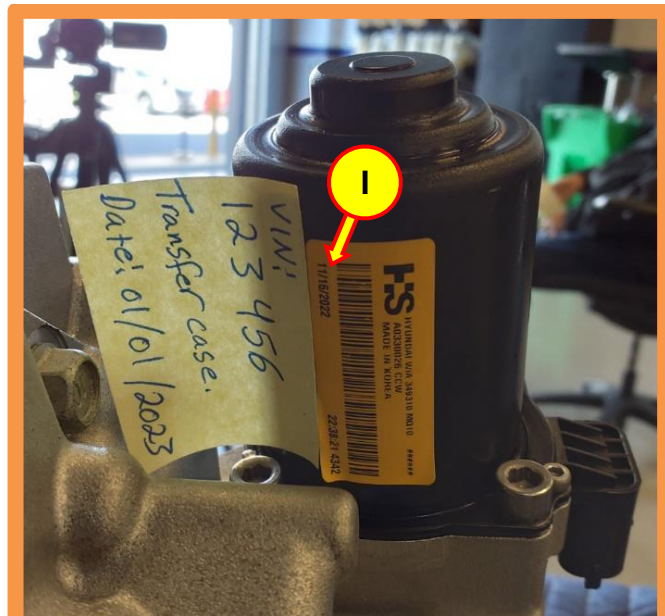
11. Before reinstalling the transfer case assembly, take a photo.

**STUI**



Using STUI, take a clear photo of the installed actuator with the last 6 digits of the VIN and the date of repair on a piece of paper. The manufacture date on the actuator (I) must be clearly visible. See example shown to the right.

Upload the photo to STUI.



12. Install parts in the reverse order of removal.

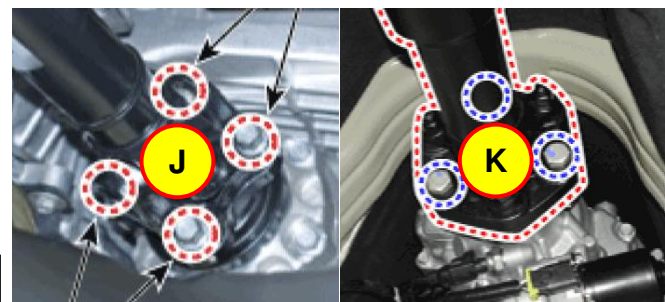
Refer to the applicable shop manual for tightening torque specifications.

### NOTICE

The following new parts must be used during reassembly. Use the above Parts Information table, shop manual, and parts catalog to ensure the correct parts are used.

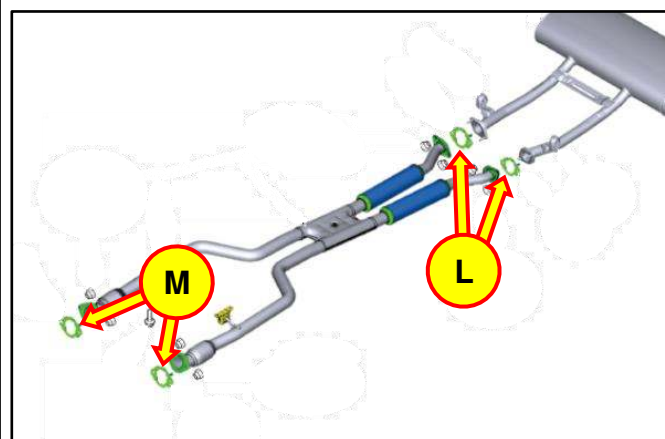
- Front Propeller Shaft Bolts (I) to front differential
- Rear Propeller Shaft Bolts (K) to transfer case
- Rear Exhaust Gasket (L) to exhaust muffler
- Front Exhaust Gasket (M) to catalysts

Reusing parts will not provide the correct clamping force and can cause the exhaust to leak.



Front propeller shaft to front differential

Rear propeller shaft to transfer case



13. The service procedure is now complete.