


|   |  |                                      |
|---|--|--------------------------------------|
|          | GROUP<br><b>Safety Recall Campaign</b> | MODEL<br><b>2017MY Niro (DE HEV)</b> |
|   | NUMBER<br><b>SC163</b>                 | DATE<br><b>June 2018</b>             |
| <b>SAFETY RECALL CAMPAIGN</b>   |  |                                      |
| <b>SUBJECT: HYDRAULIC CLUTCH ACTUATOR (HCA) INSPECTION, REPAIR OR REPLACEMENT (SC163)</b> |  |                                      |

This bulletin provides the procedures to inspect and, if necessary, repair or replace the Hydraulic Clutch Actuator (HCA) for oil leaking and contamination on certain 2017MY Niro (DE HEV) vehicles, produced from November 1, 2016 through September 11, 2017. The HCA may have a damaged oil seal causing oil to leak and accumulate in the phase cap area of the HCA housing. As a result, an electrical short can occur which may result in thermal damage and illumination of the Hybrid System Warning Light, indicating that there is a malfunction with the hybrid system. This condition increases the risk of a fire. If there is oil leaking and contamination, the HCA assembly is to be replaced. If there is no oil leaking and no contamination, new phase caps are to be installed with additional sealant for added protection unless they have been already repaired during vehicle production.

Follow the procedure outlined in this bulletin to inspect, and if necessary, repair or replace the HCA. Before conducting the procedure, verify the vehicle is included in the list of affected VINs.



**\* NOTICE**

**There is no charge to the vehicle owner for this repair. Under applicable law, you may not sell or otherwise deliver any affected vehicle until it has been repaired pursuant to the procedures set forth in this bulletin.**

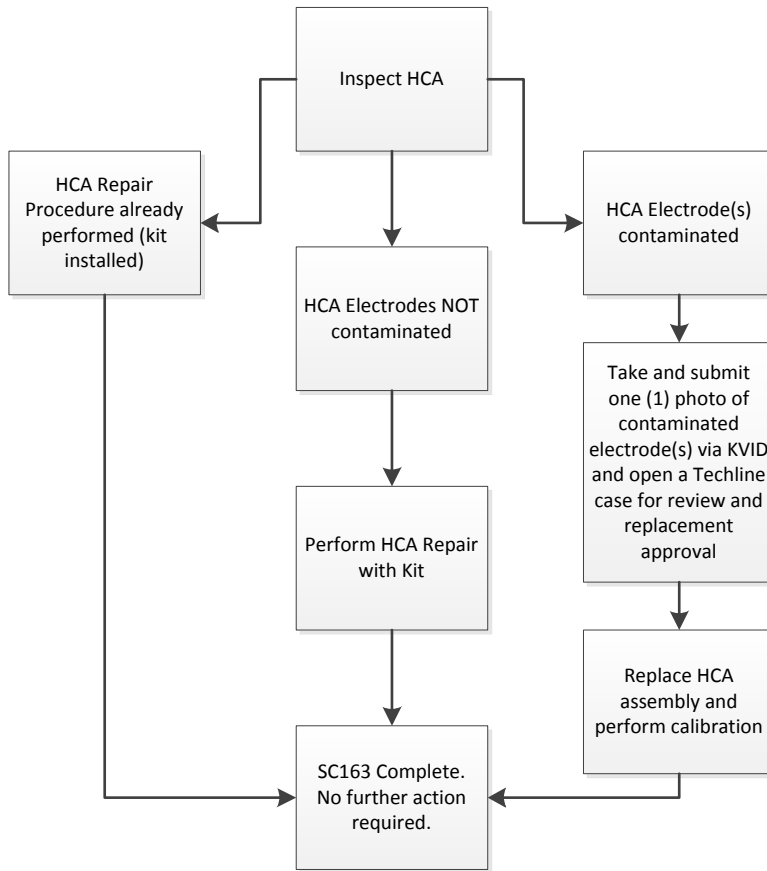
**\* NOTICE**

**To assure complete customer satisfaction, always remember to refer to WebDCS Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.**

**File Under: <Safety Recall Campaign>**

- Circulate To:**     **General Manager**     **Service Manager**     **Parts Manager**  
 **Service Advisors**     **Technicians**     **Body Shop Manager**     **Fleet Repair**

**SC163 Flow Chart**

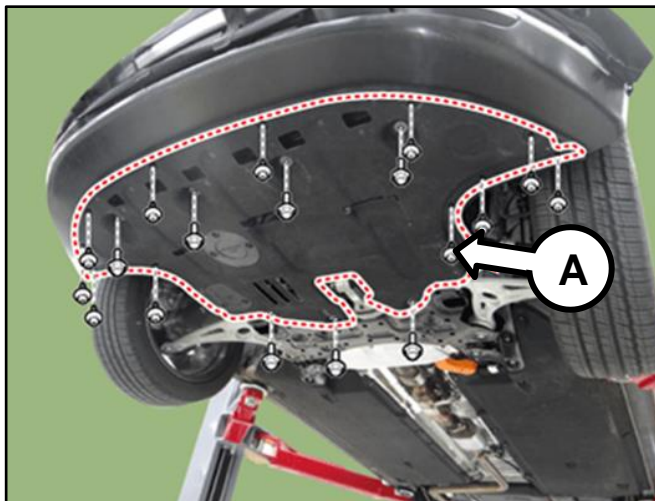


SUBJECT:

## HYDRAULIC CLUTCH ACTUATOR (HCA) INSPECTION, REPAIR OR REPLACEMENT (SC163)

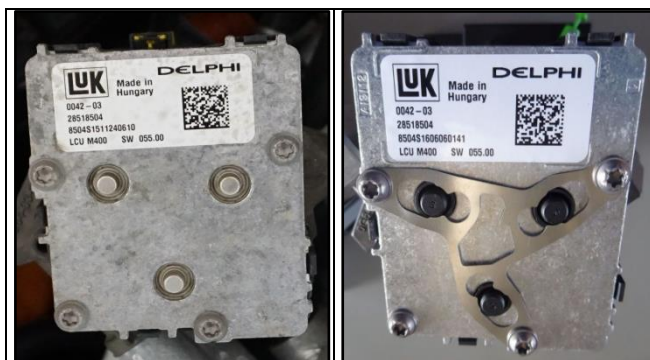
### Inspection Procedure:

1. With the vehicle raised on a lift, remove the engine under cover (A).



2. Inspect the bottom of the HCA phase plate assembly.

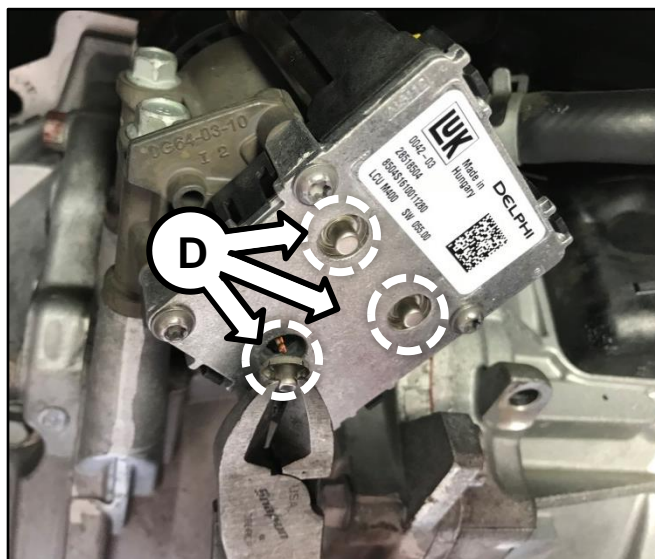
- If the original metal phase caps are installed (B), proceed to the next step.
- If the improved plastic phase caps and metal bracket are installed (C), reinstall engine undercover. No further action is required.

Original Metal  
Phase CapsImproved Plastic Phase  
Caps and Metal Bracket

3. Remove the three (3) HCA phase caps (D) by using diagonal cutters and pulling them downwards, as shown, and discard.

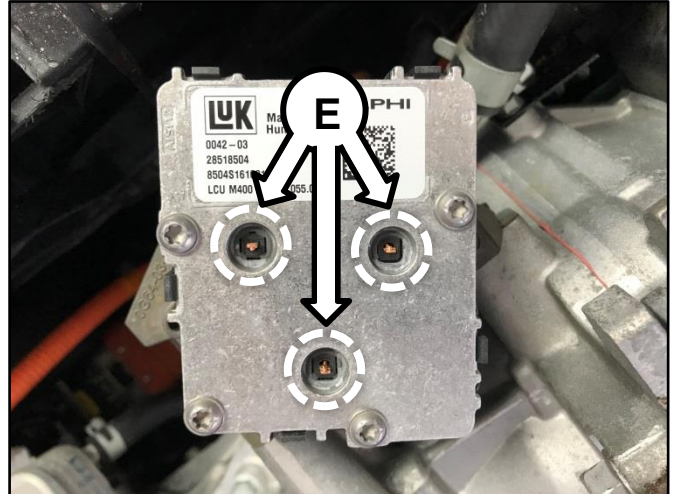
### \* NOTICE

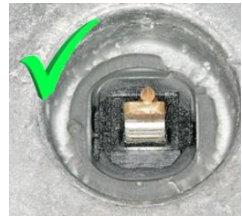

Use caution not to pinch or apply excessive force when removing the phase caps as the electrodes behind the caps may be damaged.



4. Inspect the three (3) electrodes (E).
  - If the electrodes are clean and not contaminated, proceed to the repair procedure below.
  - If an electrode is contaminated (with brake fluid), fulfill the requirement\* below and open a Techline case for review and replacement approval, and then proceed to the replacement procedure on page 7.

**\*Requirement:** Take one (1) KVID photo showing the contaminated electrodes for Techline review, Parts ordering, and Warranty claim.



| Clean Electrode  | Contaminated Electrode   |
|--|--|
|  |  |

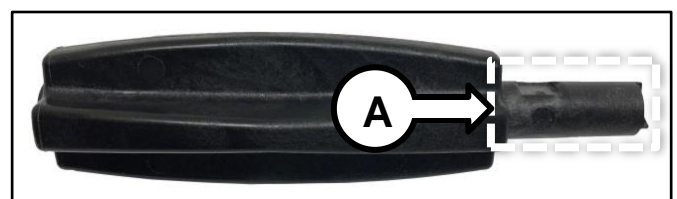
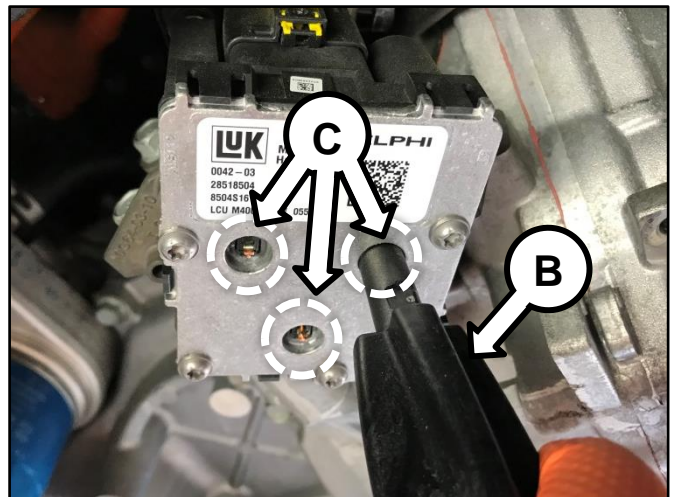
**Repair Procedure:**

1. Using the cleaning side (A) of the two-way tool (B), clean all three (3) electrode openings (C) by fully inserting and turning the tool clockwise repeatedly. Ensure all sealant residues are removed.

**\* NOTICE**

**DO NOT use compressed air or any other tool, as well as brake cleaner or chemicals to clean as it may damage the electrodes.**

**NOTE: DO NOT reuse the repair kit or two-way tool as one (1) repair kit per vehicle is required/supplied.**

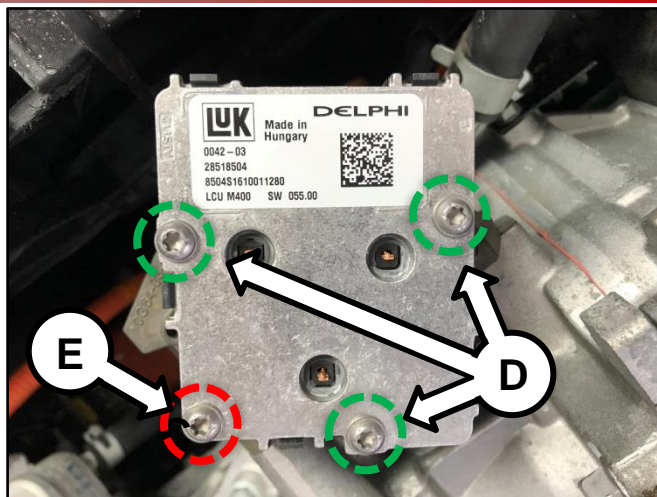




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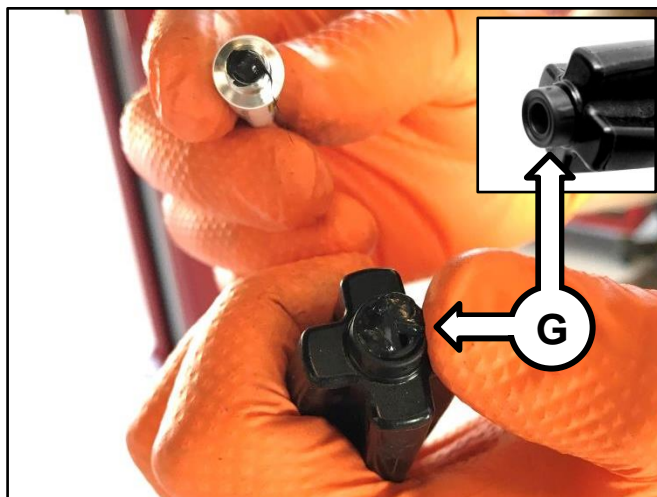
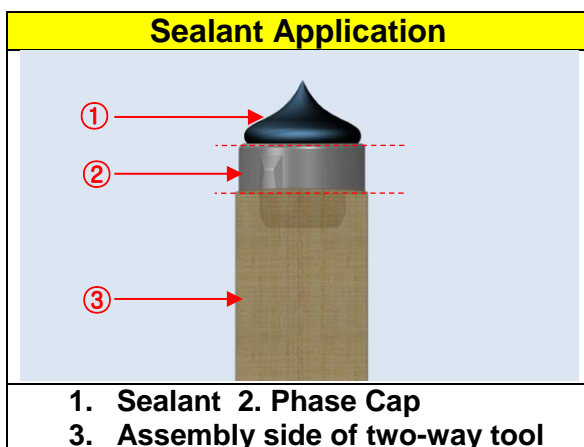
## HYDRAULIC CLUTCH ACTUATOR (HCA) INSPECTION, REPAIR OR REPLACEMENT (SC163)

- Remove the three (3) phase plate assembly retaining screws (D) using a T25 Torx® and set aside. **DO NOT** remove the fourth (4<sup>th</sup>) screw at the bottom left corner (E).



- Using the assembly side (F) of the two-way tool (B) (other end of the cleaning tool), place a new phase cap (G) with the open side up and apply a sufficient amount of sealant\* in the opening of the cap. See application visual below.

\*MSDS available at link: [Sealant](#)

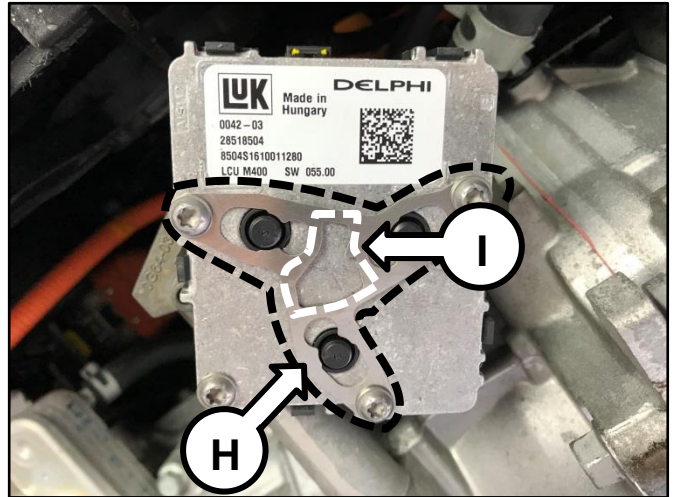


- With the phase cap on the assembly tool, install the phase cap into the electrode opening. Firmly and evenly press the phase cap into the opening and ensure proper installation.

**NOTE: DO NOT** reuse the repair kit or two-way tool as one (1) repair kit per vehicle is required/supplied.

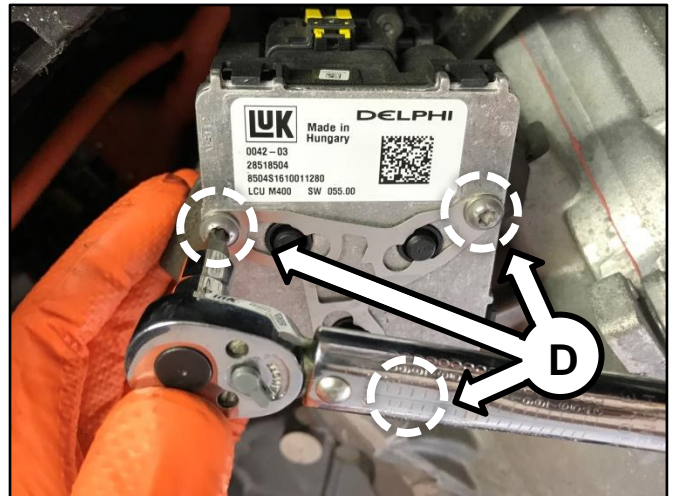


5. Repeat steps 3 and 4 for the other two (2) phase caps.
6. Wipe off any excess sealant. DO NOT use brake cleaner or any chemicals.
7. Rotate, place, and hold the metal bracket (H) with the center cut-out orientated (I) as shown, with the phase caps centered in the opening of the bracket.

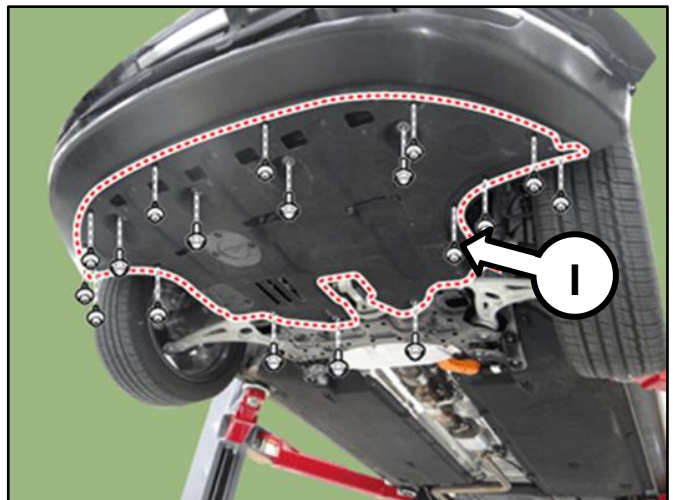


8. Reinstall and torque the three (3) cover retaining screws (D) removed in step 2 of this Repair Procedure.

**Tightening torque (C):  
35.4 lb.in (4.0 N.m, 40.8 kgf.cm)**



9. Reinstall the engine under cover (I) removed in step 1 of the Inspection Procedure.

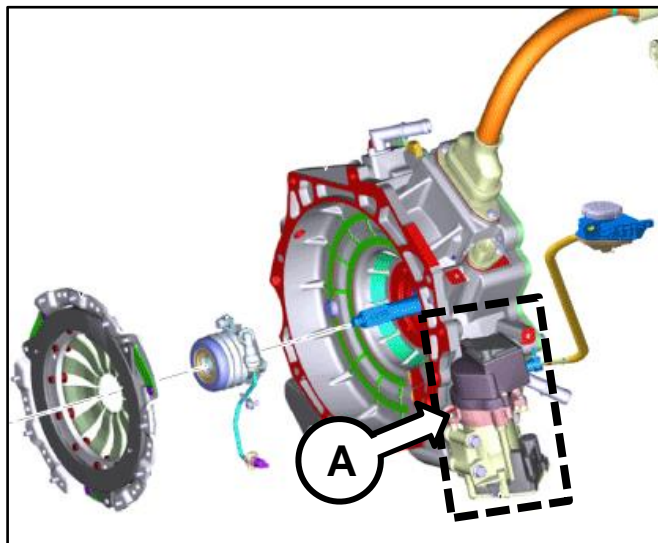


SUBJECT:

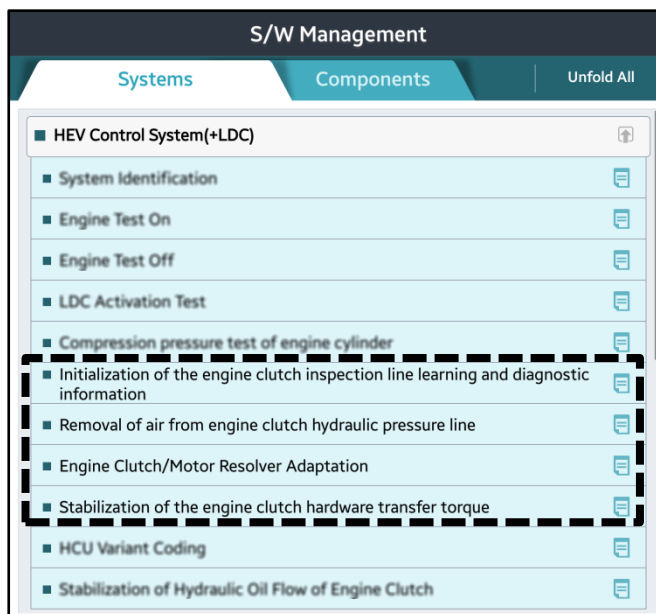
## HYDRAULIC CLUTCH ACTUATOR (HCA) INSPECTION, REPAIR OR REPLACEMENT (SC163)

### Replacement Procedure:

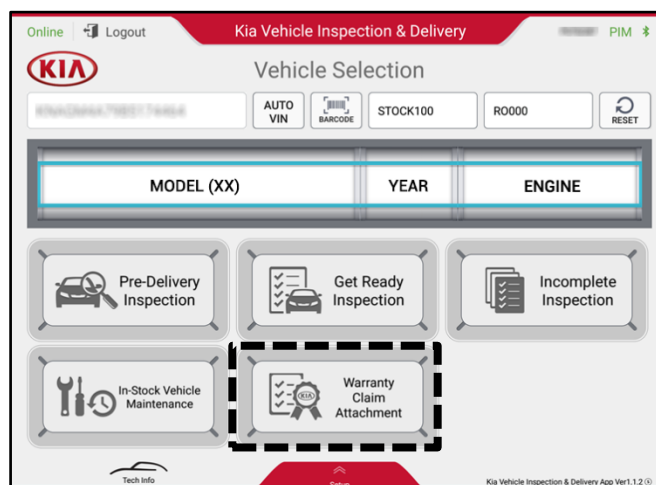
1. Replace the HCA (A) by referring to the “Engine Clutch System → Clutch System → Engine Clutch Actuator → Repair procedures” chapter in the applicable Shop Manual on KGIS.



2. Perform the four (4) HCA calibrations, in the following sequence, within the KDS S/W Management → HPCU-LDC tabs.
  1. Initialization of the engine clutch inspection line learning and diagnostic information.
  2. Removal of air from the engine clutch hydraulic pressure line.
  3. Engine Clutch/Motor Resolver Adaption.
  4. Stabilization of the engine clutch hardware transfer torque.



3. Using the Warranty Claim Attachment feature on KVID, submit the one (1) photo (attachment type: “XX: Other” in WebDCS / One / 1 total picture – HCA Brake Fluid Contamination).






SUBJECT:

## HYDRAULIC CLUTCH ACTUATOR (HCA) INSPECTION, REPAIR OR REPLACEMENT (SC163)


AFFECTED VEHICLE RANGE:

| Model         | Production Date Range                       |
|---------------|---|
| Niro (DE HEV) | November 1, 2016 through September 11, 2017 |

REQUIRED TOOL:

| Tool Name                            | Tool Number       | Figure   | Note   |
|--------------------------------------|-------------------|--|--|
| Hydraulic Clutch Actuator Repair Kit | 41050<br>2B050QQK |  | Includes:<br>1x Metal Bracket<br>4x Plastic Phase Caps<br>1x Tube of Sealant<br>1x Spare Screw<br>1x 2-Way Tool<br>1x Torx Key |

RELATED PART:

| Part Name                          | Part Number  | Figure  | Note                        |
|------------------------------------|--|---|-----------------------------|
| Hydraulic Clutch Actuator Assembly | *Call Techline for KVID photo review & HCA parts order authorization |  | One (1) KVID Photo Required |

WARRANTY INFORMATION:

**N Code: N99 C Code: C99**

| Claim Type | Causal P/N  | Qty. | Repair Description                      | Labor Op Code                                       | Op Time | Replacement P/N  | Qty. |
|------------|-------------|------|---|---|---------|--|------|
| R          | 41050 2B001 | 0    | (SC163)<br>HCA Inspection               | 181032R0  | 0.3 M/H | N/A  | 0    |
|            | 41050 2B001 | 0    | (SC163)<br>HCA Inspection & Repair      | 181032R1  | 0.4 M/H | 41050<br>2B050QQK  | 1    |
|            | 41050 2B001 | 0    | (SC163)<br>HCA Inspection & Replacement | 181032R2<br>Requires 1<br>KVID photo<br>(type 'XX') | 0.6 M/H | *Call Techline for KVID photo review & HCA parts order authorization | 1    |

**\*The HCA Assembly QJK part number will be used in the warranty submission. For the photo attachment, use attachment type 'XX'. Rental required for all HCA replacements (181032R2) – parts will be shipped after authorization from Techline. Use sublet code 'RX' for reimbursement of rental expense.**

### ★ NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SC163** when accessing the WebDCS system.