



GROUP	MODEL
Safety Recall Campaign	2017-2018MY Niro HEV (DE HEV)
NUMBER	DATE
SC256	January 2023

## SAFETY RECALL CAMPAIGN

### POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS

SUBJECT:

### INSPECTION / REPLACEMENT (SC256)

This bulletin provides the procedure to inspect the Power Relay Assembly (PRA) and, if necessary, to replace the PRA or the Main Relay(s) on the 2017-2018MY Niro Hybrid (DE HEV) vehicles produced from November 1, 2016 through September 11, 2017 that were previously recalled under Kia's SC168. The PRA is located underneath the rear seat and consists of various components including the Main Relay. Inadequate connection between the Main Relay contacts can increase electrical resistance thereby generating heat. If sufficient heat is generated, thermal damage may occur to the rear seat, including the potential for a fire. Kia's SC168 addresses this concern by instructing dealers to inspect and replace the PRA if thermal damage is found or replace the Main Relay if no thermal damage is found. However, the subject vehicles may not have had the remedy relay(s) installed during the SC168 recall repair. As a result, the potential for a fire may still exist. Follow the procedure outlined in this publication to inspect the PRA for any signs of thermal damage. If any thermal damage is present, the PRA is to be replaced with a new one. If no thermal damage is present and the original Main Relay(s) (LS IS CO., Ltd.) is/are still installed, the Main Relay(s) is/are to be replaced with new one(s) (Panasonic). Before conducting the procedure, verify that the vehicle is included in the list of affected VINs. **Note: SC256 supersedes the previously released SC168.**



#### NOTICE

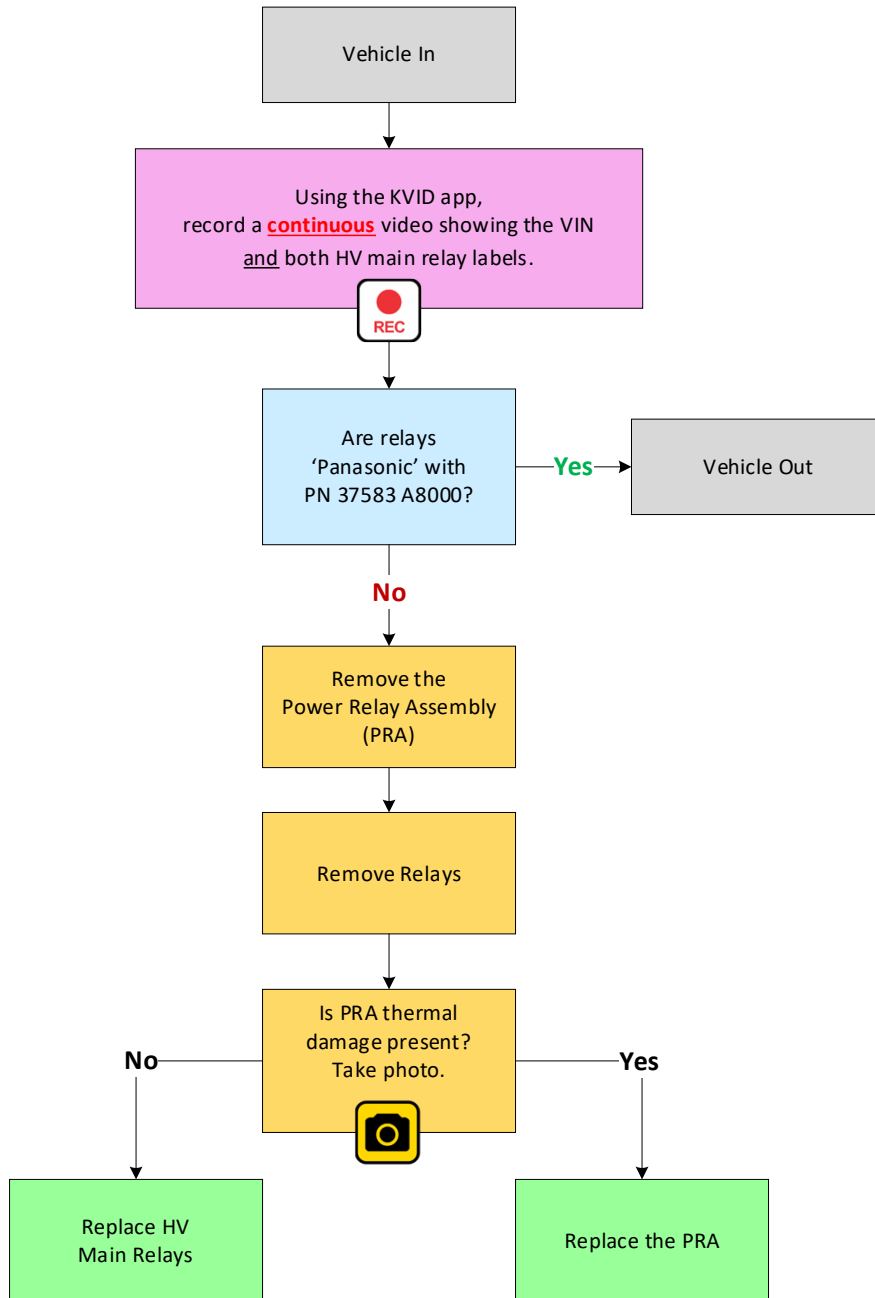
**There is no charge to the vehicle owner for this repair. Under applicable law, you may not sell or otherwise deliver any affected vehicle until it has been repaired pursuant to the procedures set forth in this bulletin.**

**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.**

A printed copy is for reference only; publication information can be updated at any time. Always refer to KGIS for the latest information. After logging in kdealer.com, the newest technical publications are listed in 'Service Releases' and has the latest service information that has been released.

# POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS INSPECTION / REPLACEMENT (SC256)

## Flowchart:



### NOTICE

All replaced Power Relay Assemblies (PRA) will be collected for inspection and are subject to Warranty review and chargeback.



## POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS INSPECTION / REPLACEMENT (SC256)

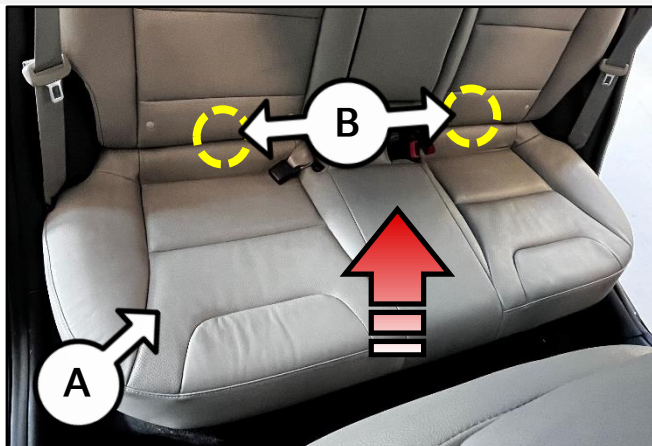
SUBJECT:

### Inspection Procedure:

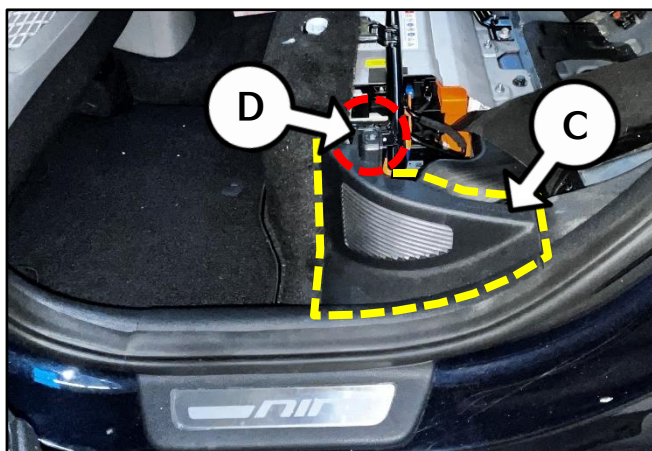
- 1a. Remove the rear seat cushion (A) by loosening the two (2) 12mm bolts (B).
- 1b. Lift the seat cushion (A) to detach.



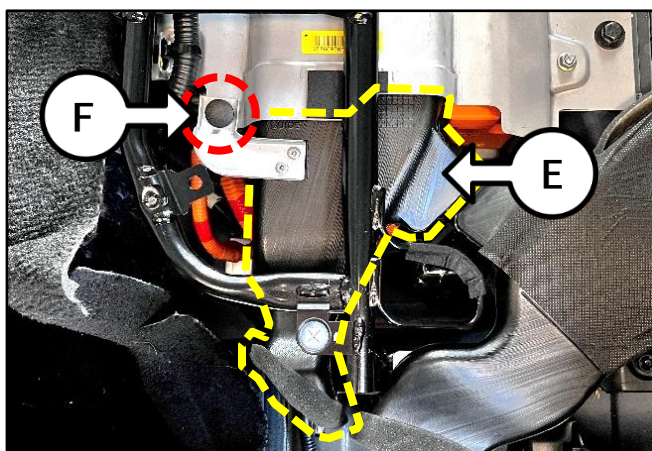
**Tightening torque for rear seat cushion bolts (B):**  
12.3 - 18.8 lb.ft (16.8 - 25.5 N.m)



2. Remove the left rear door scuff trim (C) by loosening the 10mm retaining bolt (D).



3. Remove the cooling duct (E) by detaching the retaining clip (F).



SUBJECT:

**POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS  
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- 4a. Using the KVID app, record a **continuous** video starting from the 'B' pillar VIN tag.

**NOTICE**

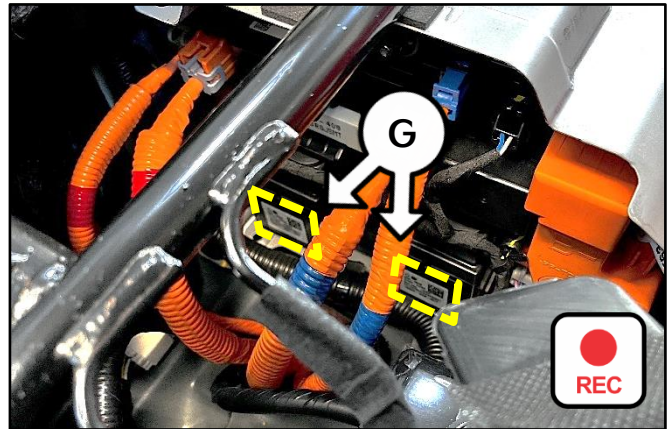
**Only twenty-four (24) seconds are allotted for the video length. Ensure that a flashlight is illuminating the relays prior to starting the video.**



- 4b. Continue recording video by moving to display both HV main relay labels (G).
- 4c. Stop recording video after both HV Main Relay labels were displayed.

**IMPORTANT**

The VIN and relay labels **MUST** be **clear** and **legible** in the video. If the labels cannot be clearly read, the warranty claim may be subject to charge back.



Refer to the removed HV main relay images below for samples of the label.

5. Inspect and verify if the existing HV Main Relays are labeled 'Panasonic' with PN 37583 A8000.

- **OK** - Campaign is complete. Reinstall all removed parts in the reverse order of removal.
- **NG** - Proceed to the 'Replacement Procedure' on page 5.



## POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS INSPECTION / REPLACEMENT (SC256)

SUBJECT:

### Replacement Procedure:

1. Disconnect auxiliary 12V battery negative (-) terminal.
2. Shut off the high voltage circuit by referring to the "Hybrid Control System → High Voltage Shut-off Procedures"

 **DANGER**

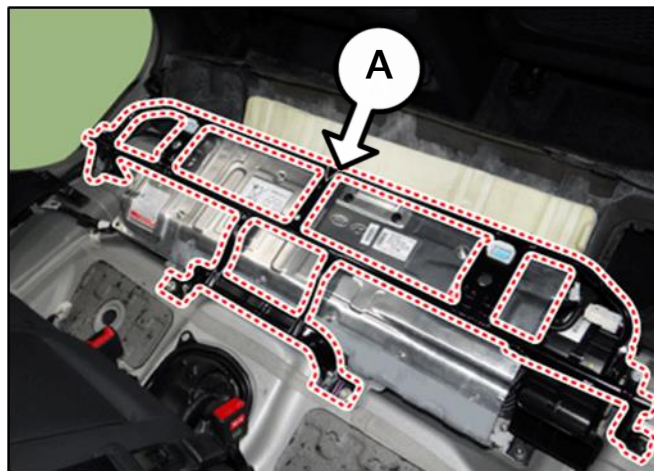
Failure to follow the High Voltage Shut-off Procedure may result in serious electrical injuries.

3. Remove upper frame (A) after loosening the mounting bolts and nuts.



Tightening torque for mounting nuts (M8):  
14.5 - 21.7 lb.ft (19.6 - 29.4 N.m)

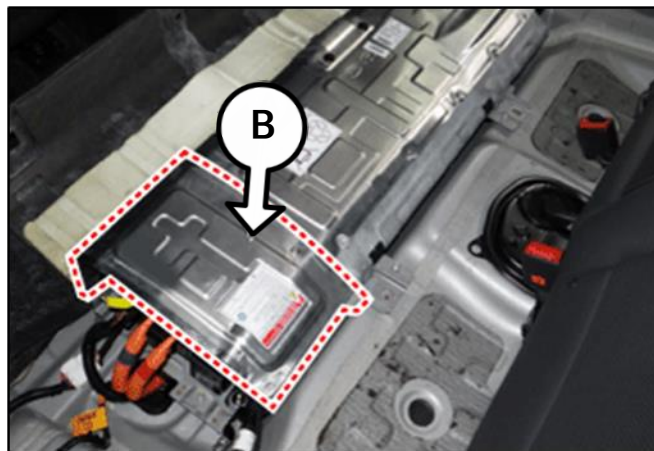
Tightening torque for mounting nuts (M6):  
5.8 - 8.7 lb.ft (7.8 - 11.8 N.m)



4. Remove the high voltage battery cover (B) after loosening the mounting bolts and nuts.



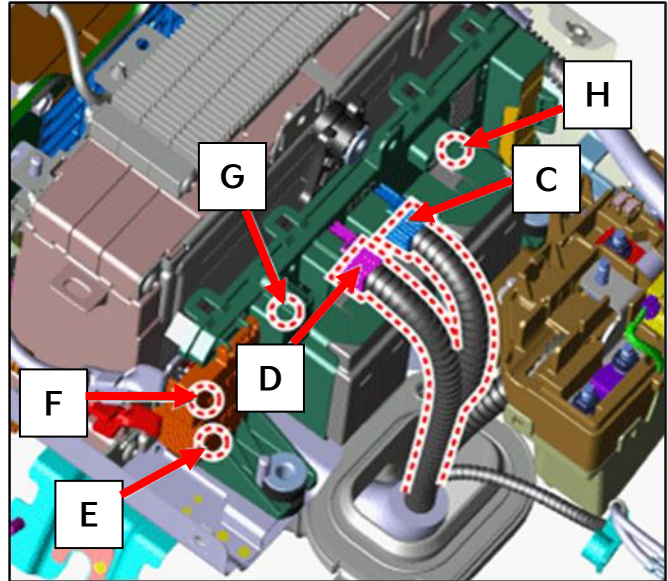
Tightening torque for high voltage battery cover:  
5.8 - 8.7 lb.ft (7.8 - 11.8 N.m)



SUBJECT:

**POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS  
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- 5a. Disconnect the high-voltage inverter power cable [+] (C).
- 5b. Disconnect the high-voltage inverter power cable [-] (D).
- 5c. Disconnect the high-voltage battery cable [+] (E).
- 5d. Disconnect the high-voltage battery cable [-] (F).
- 5e. Disconnect the current sensor connector (G).
- 5f. Disconnect 12V connector (H).

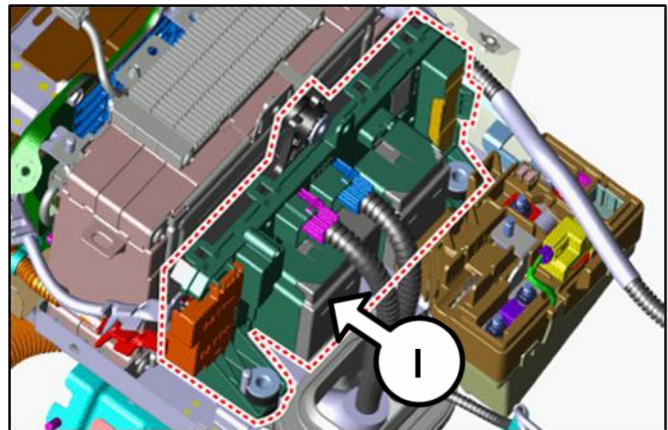


**Tightening torque for inverter cables [+] and [-] mounting bolt:  
5.8 - 8.7 lb.ft (7.8 - 11.8 N.m)**

- 6. Remove the PRA (I) by loosening the retaining nuts.



**Tightening torque for PRA nuts:  
5.8 - 8.7 lb.ft (7.8 - 11.8 N.m)**



## POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS INSPECTION / REPLACEMENT (SC256)

SUBJECT:

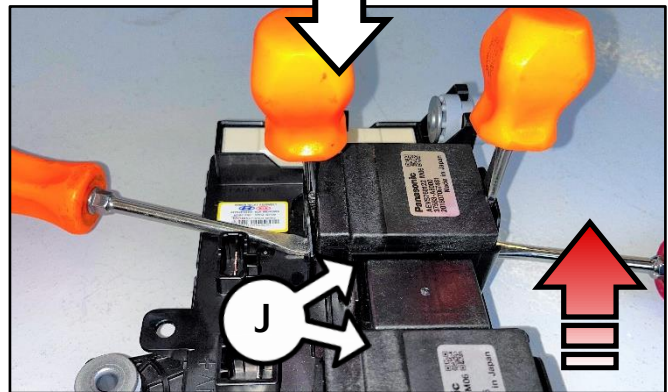
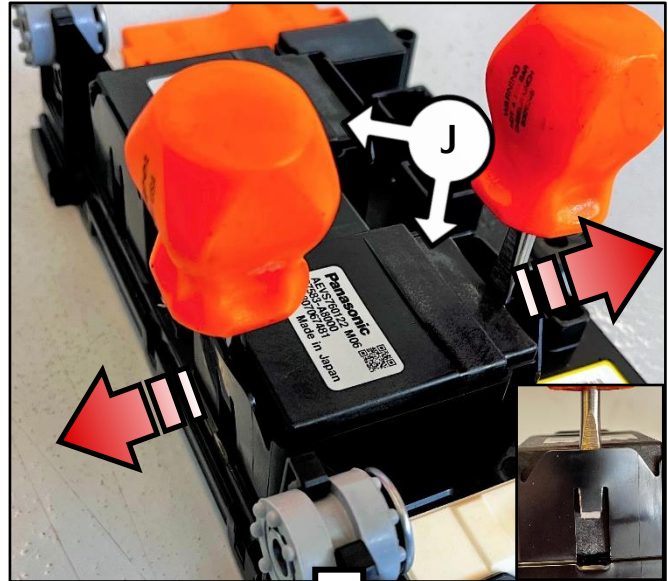
7. Place the PRA on a flat and stable surface. Carefully remove the two (2) HV main relays (J) from the PRA by following the instructions below:

- Partially insert two (2) short flat-head screwdrivers between the retaining tabs of the PRA and HV main relays (J). Ensure the PRA tabs are separated from the HV main relays.

### CAUTION

Do not over-insert the short flat-head screwdrivers as damage to the retaining tabs/PRA may occur.

- Use two (2) large flat-head screwdrivers to carefully pry up the relay (D) from the bottom past the retaining tabs and then lift the relay (J) up from the PRA.



INSERT HYPERLINK TO NEW VIDEO



Click

For additional tips, information, click the icon or scan the QR code to watch HV relay removal video (Step 7).

S  
c  
a  
n

SUBJECT:

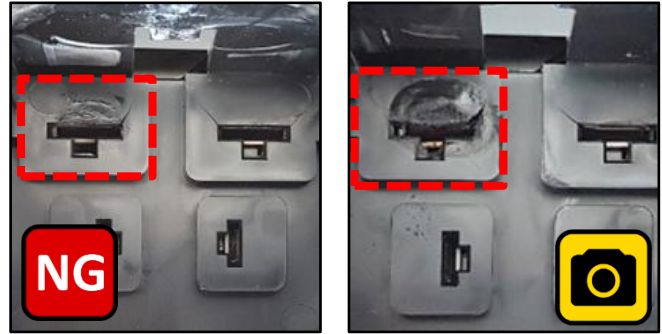
## POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS INSPECTION / REPLACEMENT (SC256)

8. Inspect the PRA at the HV main relay large contact areas for thermal damage.

- If any sign of thermal damage is present, replace the PRA.

**Note:** Damage should only be present at the large HV main relay terminals.

- If no sign of thermal damage is present, replace the two (2) HV main relays.



For **NG** conditions, PHOTOS ARE REQUIRED to be attached to the claim when replacing the PRN.



For **OK** conditions, PHOTOS ARE REQUIRED to be attached to the claim when replacing the relays.



9. Reinstall all removed components in the reverse order of disassembly.

10. Verify normal vehicle operation.



## POWER RELAY ASSEMBLY (PRA) OR HV MAIN RELAYS INSPECTION / REPLACEMENT (SC256)

SUBJECT:

## AFFECTED VEHICLE RANGE:

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

## REQUIRED PART:

Part Name	Part Number	Figure	Qty.
Power Relay Assembly (PRA)	37514 G2100QQK		1
HV Main Relay Kit	37583 A8000QQK		1 (Includes 2 HV Main Relays)

## 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	37583 G2000	0	(SC256) PRA Inspection	22190010	0.3 M/H	N/A	0
			(SC256) PRA Inspection + HV Main Relay Replacement	221900R0	0.8 M/H	37583 A8000QQK	1
			(SC256) PRA Inspection + PRA Replacement	221900R1	0.8 M/H	37514 G2100QQK	

Note: Refer to Warranty Bulletin 2023-01 for claim submission procedures. A KVID video recording showing the VIN and both HV main relay labels is required for all inspections.

\*For all part replacements, a KVID photo for each of the old part(s) must be taken and attached to the claim using Warranty Claim Attachment type 'XX - Other'. Claims will be subject to chargeback if photos are not submitted.

### NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SC256 when accessing the WebDCS system.