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|------------------------|--------------------------------|
| GROUP | MODEL |
| Safety Recall Campaign | 2015-2019MY Soul EV (PS EV) |
| NUMBER | DATE |
| SC287 | December 2023 |

SAFETY RECALL CAMPAIGN

SUBJECT: **ECM EPB OPERATION LOGIC IMPROVEMENT (SC287)**

This bulletin provides information to update the Electronic Parking Brake (EPB) software logic on certain 2015-2019MY Soul EV (PS EV) vehicles produced from July 15, 2014 through September 28, 2018. When the vehicle is left unattended while powered 'ON' and the parking brake is not manually engaged, unintended vehicle movement may occur intermittently even though the gear shift lever in the 'P' (Park) position. This is caused by intermittent failure of the parking pawl to engage the parking gear. Unintended vehicle movement can increase the risk of a crash. Follow the procedure outlined in this publication to upgrade the software logic of the Electronic Parking Brake (EPB) system using the KDS ECU Upgrade function as described in this bulletin on the applicable vehicle and apply the provided leaflet to the Owner's Manual. For confirmation that the latest reflash has been applied to a vehicle you are working on, verify the ROM ID using the table on page 3 of this bulletin.



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.

Repair status for a VIN is provided on KDealer+ (Service → Warranty Coverage → Warranty Coverage Inquiry → Campaign Information). Not completed Recall / Service Action reports are available on KDealer+ (Consumer Affairs → Not Completed Recall → Recall VIN → Select Report), which includes a list of affected vehicles.

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.

ECU Upgrade Procedure:

To correct this condition, the ECU should be reprogrammed using the KDS download, as described in this bulletin.

| Upgrade Event Name |
|---|
| 710.PS EV EPB operation logic improvement |

NOTICE

- Confirm a fully charged battery (12.3 volts or higher is necessary) is used or utilize a fully charged jump starter box connected to the battery.
- **Ensure the KDS GDS is sufficiently charged at 60% or higher prior to reflash.**
- All ECU upgrades must be performed with the ignition set to the 'ON' position unless otherwise stated.
- **Damaged VCI II units should not be used and promptly replaced.**
- Be careful not to disconnect the VCI-II connected to the vehicle during the ECU upgrade procedure.
- **DO NOT start the engine during ECU upgrade.**
- DO NOT turn the ignition key 'OFF' or interrupt the power supply during ECU upgrade.
- **When the ECU upgrade is completed, turn the ignition 'OFF' and wait 10 seconds before starting the engine.**
- ONLY use approved ECU upgrade software designated for the correct application.


IMPORTANT

It is recommended to ALWAYS check the Electronic Parts Catalog (EPC) to locate the ECU Part Number respective to Auto/Manual Mode ROM IDs. DO NOT reference the parts label affixed to the ECU.

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NOTICE

Before attempting an ECU upgrade on any Kia model, make sure to first determine whether the applicable model is equipped with an immobilizer  security system. Failure to follow proper procedures may cause the PCM to become inoperative after the upgrade and any claims associated with this repair may be subject to chargeback.

ROM ID INFORMATION TABLE:

Upgrade Event #710

| Model | System | IMMO  | ECU P/No. | ROM ID | |
|-------|--------|--|----------------------------|----------|------------|
| | | | | Previous | New |
| PS EV | EPB | Yes | 59790 E4000 59790 E4500 | 1.1 | 1.5 2.7 |
| | | | | 1.2 | |
| | | | | 1.3 | |
| | | | | 2.4 | |

To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's ECM ROM ID and reference the Information Table as necessary.

NOTICE

Prior to performing the ECU upgrade, be sure to check that the KDS is fully charged.

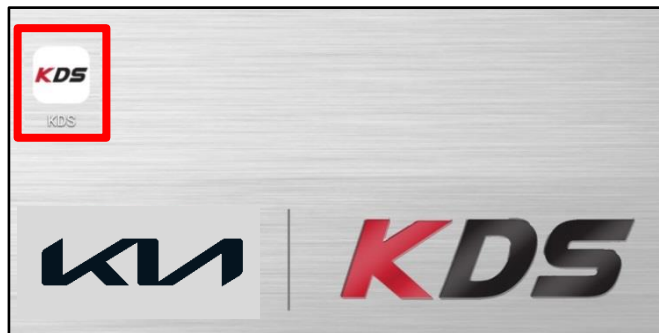
Connect the VCI-II to the OBD-II connector, located under the driver's side of the instrument panel.

NOTICE

The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.

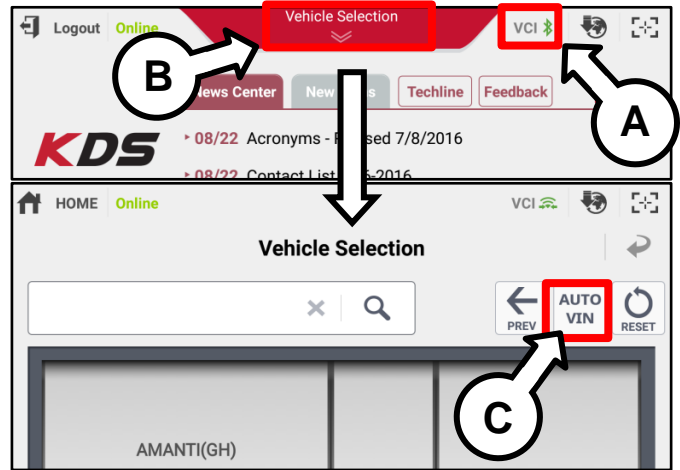


- With the ignition ON, turn ON the KDS tablet. Select 'KDS' from the home screen.

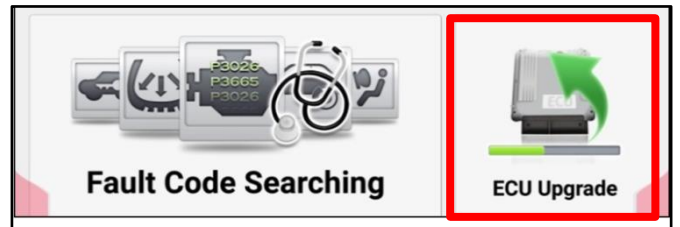


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- Confirm communication with VCI (A) and then configure the vehicle (B) using the 'AUTO VIN' (C) feature.



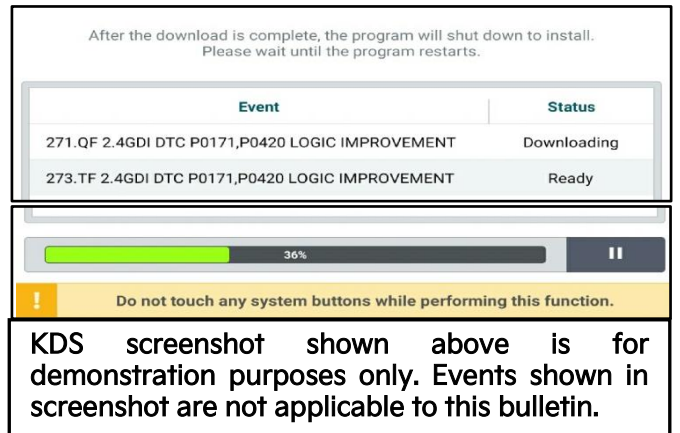
- Select 'ECU Upgrade'.



- The KDS will check the server for recently uploaded Events and then automatically download Upgrade Event #710.

NOTICE

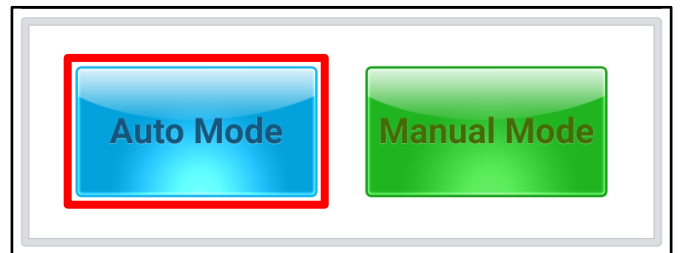
The vehicle must be identified in Vehicle Selection to download an Event for that vehicle.



- Select Auto Mode.

CAUTION

Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.



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- Select 'EPB' system and applicable 'Event Group' (D) for the vehicle:

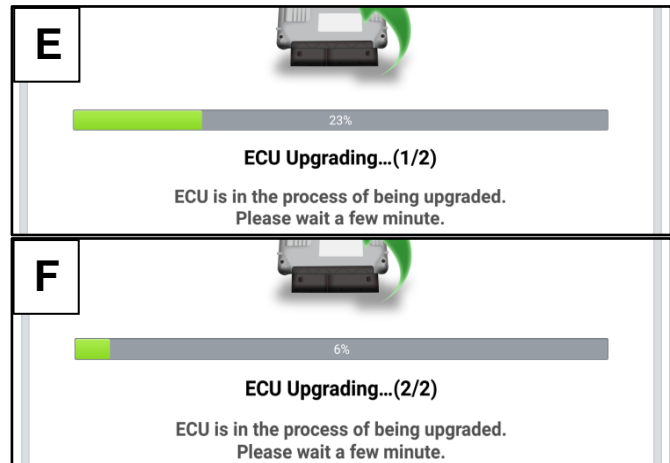
Event #710.PS EV EPB operation logic improvement



- The ECU upgrade will begin, and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the ECU.

CAUTION

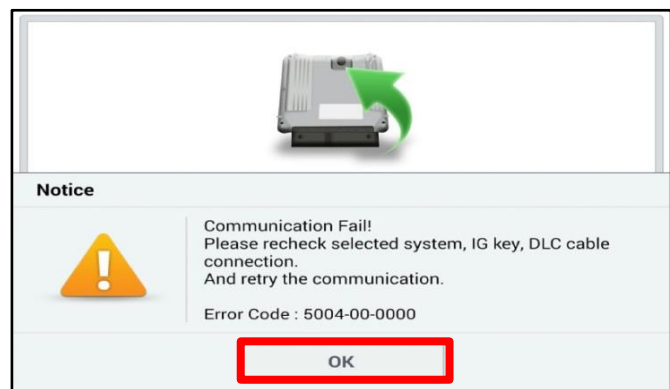
Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.



- If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Select 'OK' and restart the from step 4.

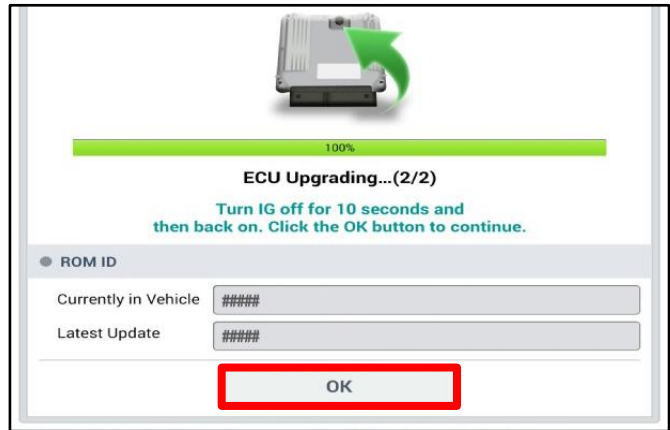
NOTICE

If an error notice continues to appear or if the upgrade cannot be performed, DO NOT disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.

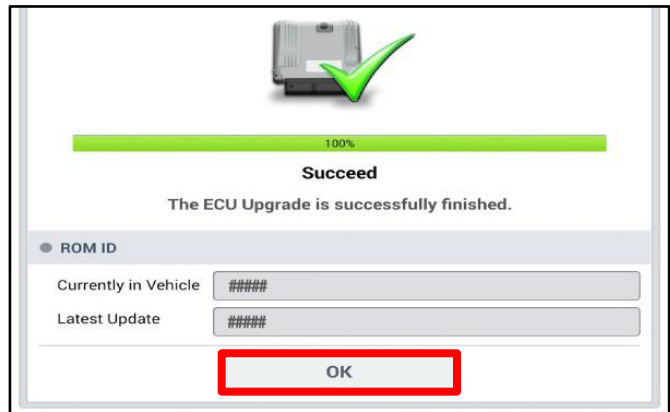


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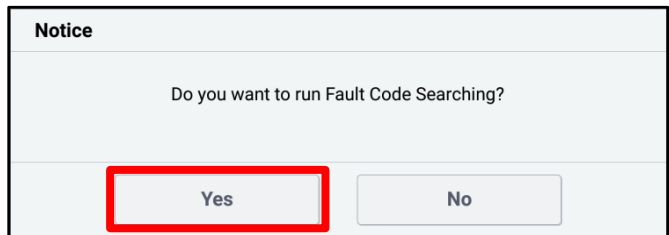
- When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **'OK'** to continue.



- Once the upgrade is complete, select **'OK'** to finalize the procedure.



- When prompted, select **'YES'** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.



- Start the engine to confirm normal operation of the vehicle.



Manual Upgrade Procedure:**NOTICE**

The manual upgrade should ONLY be performed if the automatic upgrade fails.

If the automatic upgrade fails, turn the ignition 'OFF' for about 10 seconds then place it back in the 'ON' position to reset the control unit BEFORE performing manual upgrade.

See table below for 'Manual Mode' passwords.


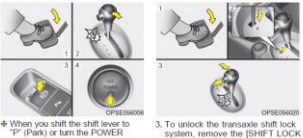







Manual Mode ECU Upgrade Passwords

| Menu | Password |
|---|----------|
| PS EV EPB : 59790-E4000/500 (S/W ver 1.1~1.3) | 0979 |
| PS EV EPB : 59790-E4500 (S/W ver 2.4) | 4500 |

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the '**EPB**' system under the System selection menu. Select **Upgrade Event #710** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 3, and select **OK**.
4. Enter the appropriate password from the Manual Mode password table above and select **OK**.
5. The upgrade will begin and the progress of the upgrade will appear on the bar graph.
6. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Select **OK**.
7. Once the upgrade is complete, select **OK** to finalize the procedure.
8. When prompted, select **YES** to check for Diagnostic Trouble Codes (DTC) and erase any DTCs stored such as EPS, ESC, and TPMS that may have been set during the upgrade.
9. Start the engine to confirm proper operation of the vehicle.

Leaflet Application Instructions:

1. Print leaflet.
2. Fold and insert leaflet shown below with the owner's manual in the glove box.

| | |
|--|---|
| <p style="text-align: center;">EU</p>  <p style="text-align: center;">Owner's Manual Supplement</p> <p style="text-align: center;">This supplement contains several modifications made to the Owner's Manual. (REDUCTION GEAR, ELECTRONIC PARKING BRAKE (EPB))</p> | <p>Driving your vehicle</p> <p>REDUCTION GEAR</p> <p>Parking in N (Neutral) gear</p> <p>Follow below steps when parking and you want the vehicle to move when pushed.</p>  <ol style="list-style-type: none"> 1. After stopping your vehicle, depress the brake pedal and move the shift lever to [P] with the POWER button in [ON] or while vehicle is in the ready ([ON]) mode. 2. Push the EPB (Electronic Parking Brake) switch while depressing the brake pedal, and turn the POWER button [OFF]. 3. When you shift the shift lever to "P" (Park) or turn the POWER button "OFF" while the shift lever is in the "P" (Park) position, the parking brake is engaged. To engage neutral gear when parking your vehicle, activate the brake, press the EPB switch, and turn off the POWER button. Even in this case, the parking brake will not be engaged. 4. For smart key equipped vehicles, the POWER button can be moved to [OFF] only when the shift lever is in [P]. <p>2</p> |
| <p>Driving your vehicle</p> <p>ELECTRONIC PARKING BRAKE (EPB)</p> <p>Applying the parking brake</p>  <p>WARNING</p> <ul style="list-style-type: none"> For parking safety, when the shift lever is changed to the P (Park) position, the parking brake is automatically engaged. Before parking in [N] (Neutral) gear, make sure the parking ground is level and flat. Do not park in [N] gear on any slopes or gradients. If parked and left in [N], the vehicle may move and cause serious damage or injury. <p>NOTICE</p> <p>After the POWER button has been turned off, the EPB (Electronic Parking Brake) cannot be released.</p> <p>To apply the EPB (electronic parking brake):</p> <ol style="list-style-type: none"> 1. Depress the brake pedal. 2. Pull up the EPB switch. <p>Make sure the warning light  comes on.</p> <p>EPB is engaged when the shift lever is shifted to the P (Park) position while the vehicle is stopped, or the POWER button is turned off when the shift lever is in the P (Park) position. In order to engage neutral parking and prevent the EPB device from freezing in the winter, stop on the</p> <p>brake, press the EPB switch, and turn the POWER button to OFF. In such cases, the EPB will not be applied.</p> <p>During wintry season, the electronic parking brake may freeze. Avoid gradients when parking the vehicle and park on safe and level ground. Instead of using EPB, block the wheel to prevent unintended movement.</p> <p>NOTICE</p> <p>A click or electric brake motor whirring sound may be heard while operating or releasing the EPB, but these conditions are normal and indicate that the EPB is functioning properly.</p> <p>WARNING - Parking Brake Use</p> <p>Always shift your vehicle to the Park gear prior to exiting your vehicle. Failure to shift to Park could result in your vehicle rolling away unoccupied and causing an accident.</p> <p>3</p> | <p>Driving your vehicle</p> <p>Releasing the parking brake</p>  <p>To release the EPB (electronic parking brake), press the EPB switch in the following condition:</p> <ol style="list-style-type: none"> 1. Have the POWER button in the ON position. 2. Depress the brake pedal. <p>Make sure the brake warning light  goes off.</p> <p>To release the EPB (electronic parking brake) automatically:</p> <ul style="list-style-type: none"> Shift lever in P (Park) With the vehicle is in the ready ([ON]) mode depress the brake pedal and shift out of P (Park) to R (Reverse) or D (Drive). Shift lever in N (Neutral) <p>With the vehicle is in the ready ([ON]) mode depress the brake pedal and shift out of N (Neutral) to R (Reverse) or D (Drive).</p> <ol style="list-style-type: none"> 1. The vehicle is in the ready ([ON]) mode. 2. Fasten the driver's seat belt. 3. Close the driver's door, tailgate. 4. Depress the accelerator pedal while the shift lever is in R (Reverse) or D (Drive). <p>Make sure the brake warning light  goes off.</p> <p>NOTICE</p> <ul style="list-style-type: none"> You can engage the EPB even though the POWER button is in the OFF position, but you cannot release it. Depress the brake pedal and release the parking brake manually with the EPB switch when you drive downhill or when backing up the vehicle. <p>Do not follow the above procedure when driving on a flat level ground. The vehicle may suddenly move forward.</p> <p>4</p> |
| <p>Driving your vehicle</p> <p>CAUTION</p> <p>Do not drive your vehicle with the EPB applied. It may cause excessive brake pad and brake rotor wear.</p> <p>NOTICE</p> <p>If the parking brake warning light  is still on even though the EPB has been released, have the system checked by an authorized Kia dealer.</p> <p>EPB (electronic parking brake) may be automatically applied when:</p> <ul style="list-style-type: none"> Requested by other systems When the shift lever is shifted to the P (Park) position while the vehicle is stopped. When the POWER button is turned off while the vehicle is stopped and the shift lever is in the P (Park) position. <p>System warning</p> <p>Release parking brake</p> <p>If the above situation occurs, depress the brake pedal and release EPB by pressing the EPB switch.</p> <p>WARNING - Parking Brake Use</p> <ul style="list-style-type: none"> Never allow a passenger to touch the parking brake. If the parking brake is released unintentionally, serious injury may occur. All vehicles should always have the parking brake fully engaged when parked to avoid inadvertent movement of the car which can injure occupants or pedestrians. A click or electric brake motor whirring sound may be heard while operating or releasing the EPB, but these conditions are normal and indicate that the EPB is functioning properly. When leaving your keys with a parking lot attendant or valet, make sure to inform him/her how to operate the EPB. <p>5</p> | <p>Driving your vehicle</p> <p>EPB malfunction indicator</p>  <p>When you automatically release EPB by depressing the accelerator pedal, depress it slowly.</p> <p>This warning light illuminates if the POWER button is changed to the ON position and goes off in approximately 3 seconds if the system is operating normally.</p> <p>If the EPB malfunction indicator remains on, comes on while driving, or does not come on when the POWER button is changed to the ON position, it indicates a possible malfunction of the EPB. If this occurs, we recommend that you have the system checked by an authorized Kia dealer.</p> <p>If this occurs, have your vehicle checked by an authorized Kia dealer as soon as possible.</p> <p>The EPB malfunction indicator may illuminate when the ESC indicator comes on to indicate that the ESC is not working properly, but it does not indicate a malfunction of the EPB.</p> <p>6</p> |
| <p>Driving your vehicle</p> <p>Emergency braking</p> <p>If there is a problem with the brake pedal while driving, emergency braking is possible by pulling up and holding the EPB switch. Braking is possible only while you are holding the EPB switch.</p> <p>WARNING</p> <p>Do not operate the electronic parking brake while the vehicle is moving except in an emergency situation. Applying the electronic parking brake while the vehicle is moving at normal speeds can cause a sudden loss of control of the vehicle. If you must use the electronic parking brake to stop the vehicle, use great caution in applying the brake.</p> <p>NOTICE</p> <p>During emergency braking using the EPB, the parking brake warning light will illuminate to indicate that the system is operating.</p> <p>If you consistently observe any unusual noise or a humming sound when the EPB is used for emergency braking, we recommend that you have the system checked by an authorized Kia dealer.</p> <p>When the EPB (electronic parking brake) is not released</p> <p>If the EPB does not release normally, take your vehicle to an authorized Kia dealer by loading the vehicle on a flatbed tow truck and have the system checked.</p> <p>7</p> | <p>Driving your vehicle</p> <p>Emergency braking</p> <p>If there is a problem with the brake pedal while driving, emergency braking is possible by pulling up and holding the EPB switch. Braking is possible only while you are holding the EPB switch.</p> <p>WARNING</p> <p>Do not operate the electronic parking brake while the vehicle is moving except in an emergency situation. Applying the electronic parking brake while the vehicle is moving at normal speeds can cause a sudden loss of control of the vehicle. If you must use the electronic parking brake to stop the vehicle, use great caution in applying the brake.</p> <p>NOTICE</p> <p>During emergency braking using the EPB, the parking brake warning light will illuminate to indicate that the system is operating.</p> <p>7</p> |




SUBJECT:


ECM EPB OPERATION LOGIC IMPROVEMENT (SC287)**AFFECTED VEHICLE RANGE:**

| Model | Production Date Range |
|-----------------|-------------------------------------|
| Soul EV (PS EV) | July 15, 2014 to September 28, 2018 |

REQUIRED TOOL:

| Tool Name | Figure | Comments |
|-----------|---|-----------------------|
| KDS |  | Kia Diagnostic System |

REQUIRED PART:

| Part Name | Part Number | Figure | Qty. |
|-----------|---|---|------|
| Leaflet | Print a copy of page 8 and cut to size. |  | 1 |

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 | 59790 E4000 | 0 | (SC287) EPB Operation Logic Improvement | 231127R0 | 0.3 M/H | HE40E U72CLQK | 1 |

NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SC287 when accessing the KDealer+ system.

