



GROUP  
Product Improvement

MODEL  
2012-2016MY  
Soul (AM, PS)  
w/Gamma 1.6L GDI

NUMBER  
PI2002A (Rev 2, 06/09/2021)

DATE  
February 2020

## PRODUCT IMPROVEMENT CAMPAIGN

SUBJECT:

**1.6L GDI KNOCK SENSOR DETECTION SYSTEM  
(KSDS) LOGIC IMPROVEMENT (PI2002A)**

### ★ NOTICE

**This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.**

This bulletin provides information related to a software update to the Engine Control Unit (ECU) to install the Knock Sensor Detection System (KSDS) in order to protect the engine from excessive connecting rod bearing damage. This update is for all vehicles listed below:

| Year      | Model     | Engine         | Production Date                  |
|-----------|-----------|----------------|----------------------------------|
| 2012-2013 | Soul (AM) | Gamma 1.6L GDI | July 8, 2011 to October 2, 2013  |
| 2014-2016 | Soul (PS) |                | July 26, 2013 to August 11, 2016 |

The KSDS detects vibrations indicating the onset of excessive connecting rod bearing wear. It is designed to alert the driver at an early stage of bearing wear before the occurrence of severe engine damage, including engine failure. If vibrations caused by bearing wear start to occur, the Malfunction Indicator Lamp (MIL) will blink continuously, and the vehicle will be placed in Limp Home Mode. This will reduce further damage to the engine and ensure that the vehicle occupants are not exposed to the risk of a more severe engine failure. At that time, Diagnostic Trouble Code (“DTC”) P1326, specific to the KSDS, will be recorded in the ECU. The vehicle can continue to be operated for a limited time in Limp Home Mode, but it will accelerate slowly and have a reduced maximum speed. Also, engine RPMs will be limited to approximately 1800-2000 RPM. Kia is requesting the completion of this Product Improvement Campaign on all affected vehicles. Before conducting the procedure, verify the vehicle is included in the list of affected VINs. Also, please have your KDS connected to the internet regularly to get the latest software updates available.

### ★ 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.**

Printed TSB copy is for reference only; information may be updated at any time.  
Always refer to KGIS for the latest information.

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

SUBJECT:

## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

### ECU Upgrade Procedure:

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

| Upgrade Event Name  |
|---|
| 522. AM GAMMA 1.6GDI Knock Sensor Detection System (KSDS) ECU UPGRADE (12~13MY) |
| 559. PS GAMMA 1.6GDI Knock Sensor Detection System (KSDS) ECU UPGRADE (14~16MY) |

### \* NOTICE

- **A fully charged battery is necessary before the ECU upgrade can take place. It is recommended that a battery charger is used in ECU mode during the reflash or the use of a fully charged jump starter box connected to the battery.**
- Ensure the KDS or GDS is sufficiently charged at 50% or higher prior to reflash.
- All ECU upgrades must be done with the ignition key in the 'ON' position.
- **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 model and model year.**

### ⓘ 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.

### \* 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.

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## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

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### ROM ID INFORMATION TABLE: Upgrade Event #522 (AM)

| Model            | EM   | TM | ISG | IMMO             | ECU P/No.                  | ROM ID           |                  |                  |
|------------------|------|----|-----|------------------|----------------------------|------------------|------------------|------------------|
|                  |      |    |     |                  |                            | Previous         | New              |                  |
| (AM)<br>12-13    | ULEV | MT | No  | No               | 39110-2BCG0<br>39110-2BCJ0 | GGAM-BNU6ES00600 | GGAM-DNU6EK28600 |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES01600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES02600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES03600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES04600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES05600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES06600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES07600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6ES08600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-DNU6ES00600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-DNU6ES01600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-DNU6ES02600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-DNU6ES03600 |                  |                  |
|                  |      |    |     | GGAM-DNU6ES04600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6ES05600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6EF05600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6EF06600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6EF07600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6EF08600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6EK08600 |                            |                  |                  |                  |
|                  |      |    |     | GGAM-DNU6EK18600 |                            |                  |                  |                  |
|                  |      |    |     | Yes              | 39110-2BCH0<br>39110-2BCK0 | GGAM-BNU6FS00600 |                  | GGAM-DNU6FK28600 |
|                  |      |    |     |                  |                            | GGAM-BNU6FS01600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6FS02600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6FS03600 |                  |                  |
|                  |      |    |     |                  |                            | GGAM-BNU6FS04600 |                  |                  |
| GGAM-BNU6FS05600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-BNU6FS06600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-BNU6FS07600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-BNU6FS08600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FS00600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FS01600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FS02600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FS03600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FS04600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FS05600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FF05600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FF06600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FF07600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FF08600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FK08600 |      |    |     |                  |                            |                  |                  |                  |
| GGAM-DNU6FK18600 |      |    |     |                  |                            |                  |                  |                  |



SUBJECT:

## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

| Model         | EM   | TM | ISG | IMMO | ECU P/No.                                 | ROM ID   |                  |
|---------------|------|----|-----|------|---|--|------------------|
|               |      |    |     |      |   | Previous   | New              |
| (AM)<br>12-13 | ULEV | AT | No  | No   | 39110-2BCG5<br>39110-2BCG2<br>39110-2BCC1 | GGAM-BNU6PS00C00<br>GGAM-BNU6PS01C00<br>GGAM-BNU6PS02C00<br>GGAM-BNU6PS03C00<br>GGAM-BNU6PS04C00<br>GGAM-BNU6PS05C00<br>GGAM-BNU6PS06C00<br>GGAM-BNU6PS07C00<br>GGAM-BNU6PS08C00<br>GGAM-DNU6PS00C00<br>GGAM-DNU6PS01C00<br>GGAM-DNU6PS02C00<br>GGAM-DNU6PS03C00<br>GGAM-DNU6PS04C00<br>GGAM-DNU6PS05C00<br>GGAM-DNU6PS06C00<br>GGAM-DNU6PS07C00<br>GGAM-DNU6PF07C00<br>GGAM-DNU6PF08C00<br>GGAM-DNU6PF09C00<br>GGAM-DNU6PF0AC00<br>GGAM-DNU6PK0AC00<br>GGAM-DNU6PK1AC00 | GGAM-DNU6PK2AC00 |
|               |      |    |     | Yes  | 39110-2BCH5<br>39110-2BCH2<br>39110-2BCD1 | GGAM-BNU6QS00C00<br>GGAM-BNU6QS01C00<br>GGAM-BNU6QS02C00<br>GGAM-BNU6QS03C00<br>GGAM-BNU6QS04C00<br>GGAM-BNU6QS05C00<br>GGAM-BNU6QS06C00<br>GGAM-BNU6QS07C00<br>GGAM-BNU6QS08C00<br>GGAM-DNU6QS00C00<br>GGAM-DNU6QS01C00<br>GGAM-DNU6QS02C00<br>GGAM-DNU6QS03C00<br>GGAM-DNU6QS04C00<br>GGAM-DNU6QS05C00<br>GGAM-DNU6QS06C00<br>GGAM-DNU6QS07C00<br>GGAM-DNU6QF07C00<br>GGAM-DNU6QF08C00<br>GGAM-DNU6QF09C00<br>GGAM-DNU6QF0AC00<br>GGAM-DNU6QK0AC00<br>GGAM-DNU6QK1AC00 | GGAM-DNU6QK2AC00 |



SUBJECT:

## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

| Model         | EM   | TM | ISG | IMMO | ECU P/No.                                 | ROM ID   |                  |
|---------------|------|----|-----|------|---|--|------------------|
|               |      |    |     |      |   | Previous   | New              |
| (AM)<br>12-13 | ULEV | AT | Yes | No   | 39110-2BCE1<br>39110-2BCG3<br>39110-2BCG8 | GIAM-BNU6PS00C00<br>GIAM-BNU6PS01C00<br>GIAM-BNU6PS02C00<br>GIAM-BNU6PS03C00<br>GIAM-BNU6PS04C00<br>GIAM-BNU6PS06C00<br>GIAM-BNU6PS07C00<br>GIAM-BNU6PS08C00<br>GIAM-DNU6PS00C00<br>GIAM-DNU6PS01C00<br>GIAM-DNU6PS02C00<br>GIAM-DNU6PS03C00<br>GIAM-DNU6PF03C00<br>GIAM-DNU6PF04C00<br>GIAM-DNU6PF05C00<br>GIAM-DNU6PK05C00<br>GIAM-DNU6PK15C00 | GIAM-DNU6PK25C00 |
|               |      |    |     | Yes  | 39110-2BCF1<br>39110-2BCH3<br>39110-2BCH8 | GIAM-BNU6QS00C00<br>GIAM-BNU6QS01C00<br>GIAM-BNU6QS02C00<br>GIAM-BNU6QS03C00<br>GIAM-BNU6QS04C00<br>GIAM-BNU6QS06C00<br>GIAM-BNU6QS07C00<br>GIAM-BNU6QS08C00<br>GIAM-DNU6QS00C00<br>GIAM-DNU6QS01C00<br>GIAM-DNU6QS02C00<br>GIAM-DNU6QS03C00<br>GIAM-DNU6QF03C00<br>GIAM-DNU6QF04C00<br>GIAM-DNU6QF05C00<br>GIAM-DNU6QK05C00<br>GIAM-DNU6QK15C00 | GIAM-DNU6QK25C00 |



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## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

### Upgrade Event #559 (PS)

| Model        | EM   | TM | ISG | IMMO | ECU P/No.   | ROM ID   |                  |
|--------------|------|----|-----|------|-------------|--|------------------|
|              |      |    |     |      |             | Previous   | New              |
| (PS)<br>14MY | ULEV | MT | No  | Yes  | 39110-2BSG0 | GGPS-DNU6FS00600<br>GGPS-DNU6FS01600<br>GGPS-DNU6FF01600<br>GGPS-DNU6FF02600<br>GGPS-DNU6FF03600<br>GGPS-DNU6FF04600<br>GGPS-DNU6FK04600<br>GGPS-DNU6FK14600<br>GGPS-DNU6FK24600<br>GGPS-DNU6FK34600 | GGPS-DNU6FK44600 |
|              |      |    |     | No   | 39110-2BSH0 | GGPS-DNU6ES00600<br>GGPS-DNU6ES01600<br>GGPS-DNU6EF01600<br>GGPS-DNU6EF02600<br>GGPS-DNU6EF03600<br>GGPS-DNU6EF04600<br>GGPS-DNU6EK04600<br>GGPS-DNU6EK14600<br>GGPS-DNU6EK24600<br>GGPS-DNU6EK34600 | GGPS-DNU6EK44600 |
| (PS)<br>14MY | ULEV | AT | No  | Yes  | 39110-2BSG5 | GGPS-DNU6QS00C00<br>GGPS-DNU6QS01C00<br>GGPS-DNU6QF01C00<br>GGPS-DNU6QF02C00<br>GGPS-DNU6QF03C00<br>GGPS-DNU6QF04C00<br>GGPS-DNU6QK04C00<br>GGPS-DNU6QK14C00<br>GGPS-DNU6QK24C00<br>GGPS-DNU6QK34C00 | GGPS-DNU6QK44C00 |
|              |      |    |     | No   | 39110-2BSH5 | GGPS-DNU6PS00C00<br>GGPS-DNU6PS01C00<br>GGPS-DNU6PF01C00<br>GGPS-DNU6PF02C00<br>GGPS-DNU6PF03C00<br>GGPS-DNU6PF04C00<br>GGPS-DNU6PK04C00<br>GGPS-DNU6PK14C00<br>GGPS-DNU6PK24C00<br>GGPS-DNU6PK34C00 | GGPS-DNU6PK44C00 |



SUBJECT:

## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

| Model           | EM   | TM | ISG | IMMO | ECU P/No.                  | ROM ID   |                  |
|-----------------|------|----|-----|------|----------------------------|--|------------------|
|                 |      |    |     |      |                            | Previous   | New              |
| (PS)<br>15-16MY | ULEV | MT | No  | Yes  | 39110-2BSG1<br>39110-2BSF3 | GGPS-FNU6FF02600<br>GGPS-FNU6FF03600<br>GGPS-FNU6FF04600<br>GGPS-FNU6FS00600<br>GGPS-FNU6FS01600<br>GGPS-FNU6FS02600<br>GGPS-GNU6FF01600<br>GGPS-GNU6FF02600<br>GGPS-GNU6FK02600<br>GGPS-GNU6FK12600<br>GGPS-GNU6FK22600<br>GGPS-GNU6FK32600<br>GGPS-GNU6FS00600<br>GGPS-GNU6FS01600 | GGPS-GNU6FK42600 |
|                 |      |    |     | No   | 39110-2BSH1<br>39110-2BSG3 | GGPS-FNU6EF02600<br>GGPS-FNU6EF03600<br>GGPS-FNU6EF04600<br>GGPS-FNU6ES00600<br>GGPS-FNU6ES01600<br>GGPS-FNU6ES02600<br>GGPS-GNU6EF01600<br>GGPS-GNU6EF02600<br>GGPS-GNU6EK02600<br>GGPS-GNU6EK12600<br>GGPS-GNU6EK22600<br>GGPS-GNU6EK32600<br>GGPS-GNU6ES00600<br>GGPS-GNU6ES01600 | GGPS-GNU6EK42600 |



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## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

| Model           | EM   | TM | ISG | IMMO | ECU P/No.                                 | ROM ID   |                  |
|-----------------|------|----|-----|------|---|--|------------------|
|                 |      |    |     |      |   | Previous   | New              |
| (PS)<br>15-16MY | ULEV | AT | No  | Yes  | 39110-2BSG6<br>39110-2BSG7<br>39110-2BSD8 | GGPS-FNU6QF02C00<br>GGPS-FNU6QF03C00<br>GGPS-FNU6QF04C00<br>GGPS-FNU6QS00C00<br>GGPS-FNU6QS01C00<br>GGPS-FNU6QS02C00<br>GGPS-GNU6QF01C00<br>GGPS-GNU6QF02C00<br>GGPS-GNU6QK02C00<br>GGPS-GNU6QK03C00<br>GGPS-GNU6QK12C00<br>GGPS-GNU6QK22C00<br>GGPS-GNU6QK32C00<br>GGPS-GNU6QS00C00<br>GGPS-GNU6QS01C00 | GGPS-GNU6QK42C00 |
|                 |      |    |     | No   | 39110-2BSH6<br>39110-2BSH7<br>39110-2BSE8 | GGPS-FNU6PF02C00<br>GGPS-FNU6PF03C00<br>GGPS-FNU6PF04C00<br>GGPS-FNU6PS00C00<br>GGPS-FNU6PS01C00<br>GGPS-FNU6PS02C00<br>GGPS-GNU6PF01C00<br>GGPS-GNU6PF02C00<br>GGPS-GNU6PK02C00<br>GGPS-GNU6PK03C00<br>GGPS-GNU6PK12C00<br>GGPS-GNU6PK22C00<br>GGPS-GNU6PK32C00<br>GGPS-GNU6PS00C00<br>GGPS-GNU6PS01C00 | GGPS-GNU6PK42C00 |

**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.**





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## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

### \* NOTICE

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

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

### \* NOTICE

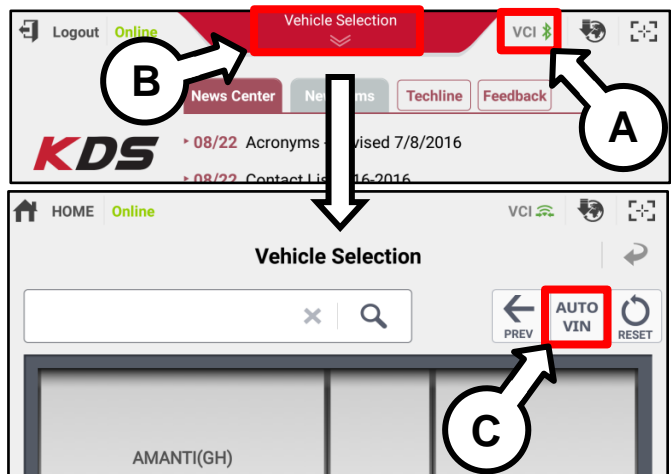
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



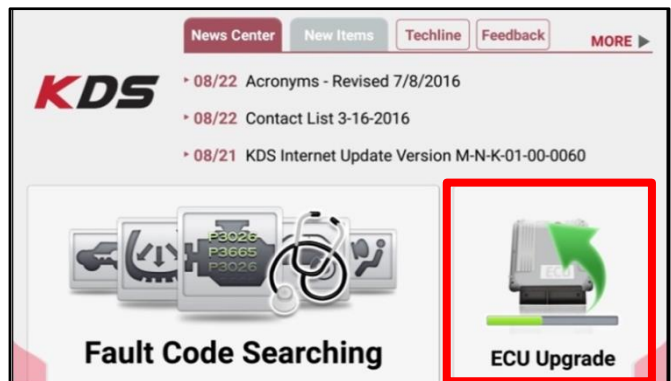
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



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



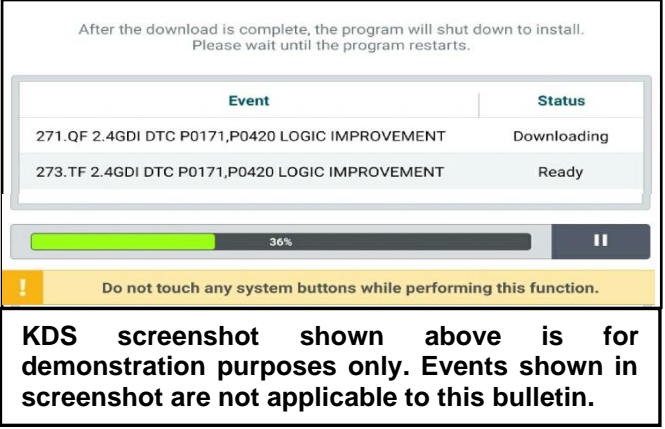
4. Select **ECU Upgrade**.



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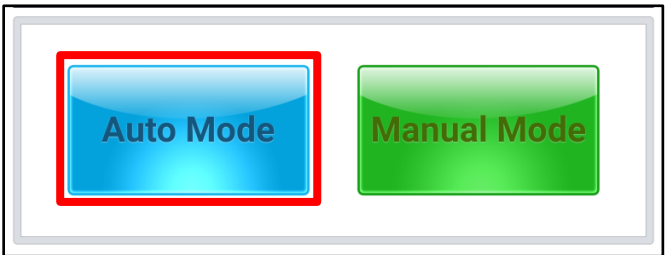
- The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #522 (AM) or #559 (PS)**.

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



- Select **Auto Mode**.

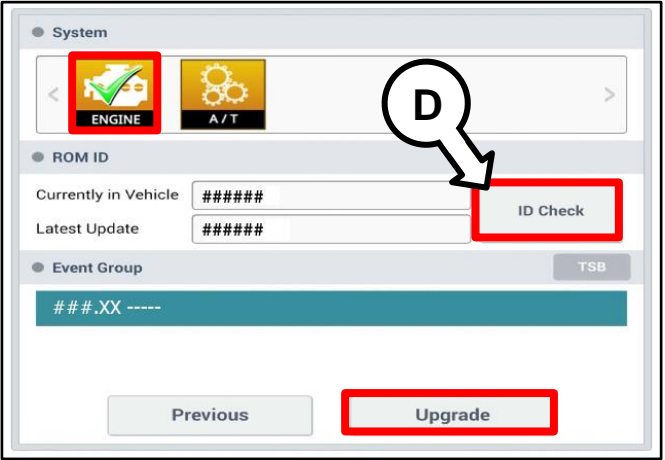
**CAUTION**  
 Do NOT attempt to perform a Manual Mode upgrade UNLESS Auto Mode fails. Always follow the instructions given on the KDS in either Auto or Manual mode.



- Select the **ENGINE** system under the System selection menu.

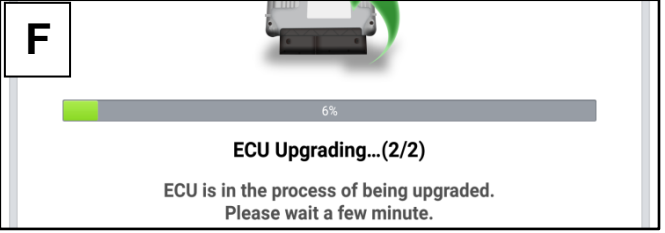
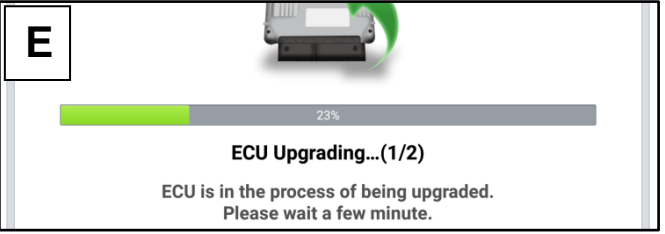
Touch **ID Check** (D) and confirm that the latest update is available.

Select **Upgrade Event #522 (AM) or #559 (PS)** and select **Upgrade** to continue.



- 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.



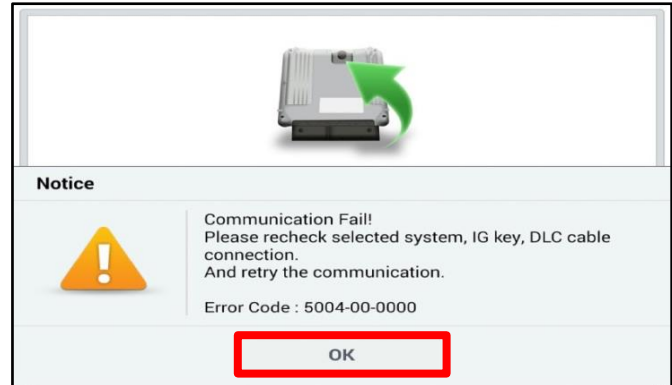
SUBJECT:

## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

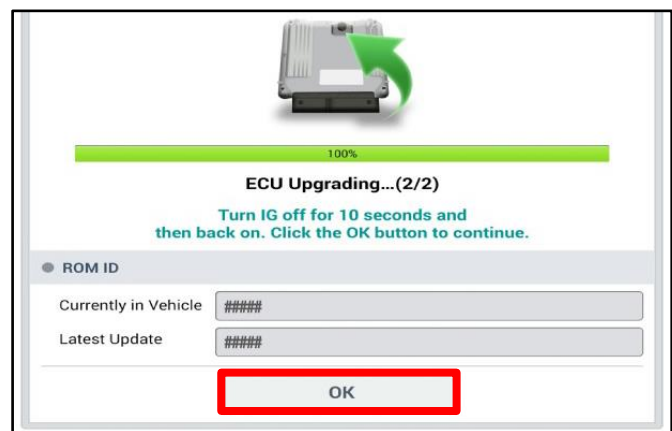
9. If a “Communication Fail” screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

### \* NOTICE

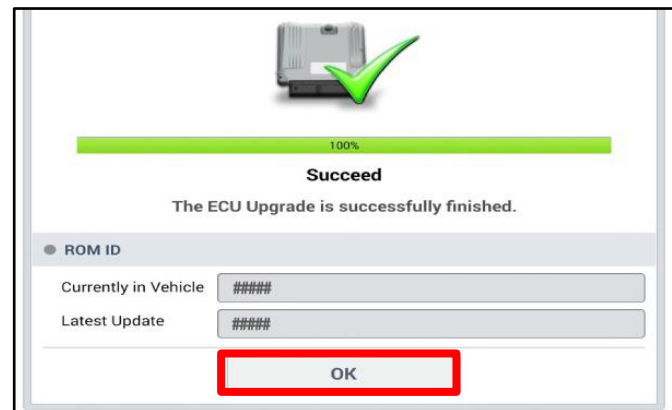
If an error notice continues to appear or if the upgrade cannot be performed, **DO NOT** disconnect the KDS/VCI-II. Contact GIT America Help Desk at (888) 542-4371 or Techline.



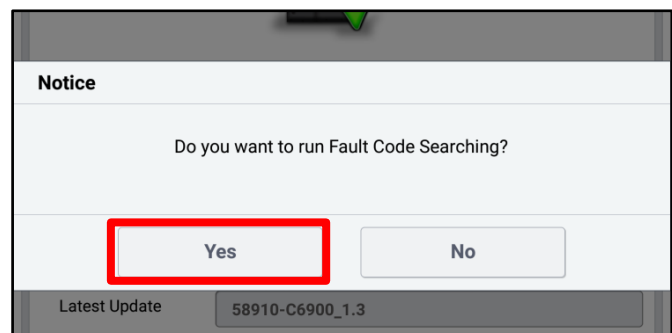
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



11. Once the upgrade is complete, touch **OK** to finalize the procedure.



12. 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.



13. Start the engine to confirm proper operation of the vehicle.



## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

### 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 GAMMA 1.6GDI ULEV MT -ISG -IMMO (14MY): 39110-2BSH0              | 3920     |
| PS GAMMA 1.6GDI ULEV MT -ISG +IMMO/SMK (14MY): 39110-2BSG0          | 9112     |
| PS GAMMA 1.6GDI ULEV AT -ISG -IMMO (14MY): 39110-2BSH5              | 3925     |
| PS GAMMA 1.6GDI ULEV AT -ISG +IMMO/SMK (14MY): 39110-2BSG5          | 1125     |
| PS GAMMA 1.6GDI ULEV MT -ISG -IMMO (15~16MY): 39110-2BSH1/G3        | 3923     |
| PS GAMMA 1.6GDI ULEV MT -ISG +IMMO/SMK (15~16MY): 39110-2BSG1/F3    | 1213     |
| PS GAMMA 1.6GDI ULEV AT -ISG -IMMO (15~16MY): 39110-2BSH6/H7/E8     | 3928     |
| PS GAMMA 1.6GDI ULEV AT -ISG +IMMO/SMK (15~16MY): 39110-2BSG6/G7/D8 | 2678     |
| AM GAMMA 1.6GDI MT -ISG -IMMO (12~13MY): 39110-2BCG0/J0             | 1020     |
| AM GAMMA 1.6GDI MT -ISG +IMMO/SMK (12~13MY): 39110-2BCH0/K0         | 1021     |
| AM GAMMA 1.6GDI AT -ISG -IMMO (12~13MY): 39110-2BCG5/G2/C1          | 1025     |
| AM GAMMA 1.6GDI AT -ISG +IMMO/SMK (12~13MY): 39110-2BCH5/H2/D1      | 1026     |
| AM GAMMA 1.6GDI AT +ISG -IMMO (12~13MY): 39110-2BCE1/G3/G8          | 1028     |
| AM GAMMA 1.6GDI AT +ISG +IMMO/SMK (12~13MY): 39110-2BCF1/H3/H8      | 1029     |

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **ENGINE** system under the System selection menu. Select **Upgrade Event #522 (AM) or #559 (PS)** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on pages 3-8, 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. Touch **OK** to continue.
7. Once the upgrade is complete, touch **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.

SUBJECT:

## 1.6L GDI KNOCK SENSOR DETECTION SYSTEM (KSDS) LOGIC IMPROVEMENT

## AFFECTED VEHICLE RANGE:

| Model     | Production Date Range            |
|-----------|----------------------------------|
| Soul (AM) | July 8, 2011 to October 2, 2013  |
| Soul (PS) | July 26, 2013 to August 11, 2016 |

## WARRANTY INFORMATION:

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

| Model | Claim Type | Causal P/N     | Qty. | Repair Description                                  | Labor Op Code | Op Time    | Replacement P/N | Qty. |
|-------|------------|----------------|------|---|---------------|------------|-----------------|------|
| AM    | R          | 39110<br>2BCG0 | 0    | (PI2002A)<br>1.6L GDI KSDS ECM<br>Logic Improvement | 200002R0      | 0.3<br>M/H | N/A             | 0    |
| PS    |            | 39110<br>2BSH6 |      |   | 200003R0      |            |                 |      |

