	GROUP ELE	MODEL Soul EV (PS EV) 2015-2016MY
	NUMBER 134	DATE June 2017
TECHNICAL SERVICE BULLETIN		
SUBJECT: SERVICE ACTION: ECU UPGRADE: BMS (BATTERY MANAGEMENT SYSTEM) LOGIC IMPROVEMENT (SA297)		

This bulletin provides information related to the BMS (Battery Management System) software upgrade for some Soul EV (PS EV) vehicles produced from July 15, 2014 through May 15, 2016, which may experience an inoperative reserved climate control system (set climate pre-conditioning times) when the vehicle is stored at low temperatures without power-on for a certain period of time. For confirmation that the latest reflash has been applied to a vehicle you are working on, verify the ROM ID, using the tables in this TSB.



Kia Diagnostic System (KDS)

*** NOTICE**

A Service Action is a repair program without customer notification that is performed during the warranty period. Any dealer requesting to perform this repair outside the warranty period will require DPSM approval.

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

This issue number is SA297.

File Under: <Engine>

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

SUBJECT:

**SERVICE ACTION: ECM UPGRADE: BMS
LOGIC IMPROVEMENT (SA297)****ECU Upgrade Procedure:**

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

UPGRADE EVENT 303**303. PS EV BMS LOGIC IMPROVEMENT***** NOTICE**

- A fully charged battery is necessary before ECU upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in ECU mode during charging. **DO NOT** connect any other battery charger to the vehicle during ECU upgrade.
- All ECU upgrades must be done with the ignition key in the 'ON' position.
- Be careful not to disconnect any cables connected to the vehicle or KDS 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, year.

**CAUTION**

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

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ROM ID INFORMATION TABLES:

Upgrade Event # 303

MODEL	TM	AAF/ SBW	IMMO	MY	ECU P/NO	ROM ID	
						PREVIOUS	NEW
Soul EV (PS EV)					37513 E4050	4440	5100
						4460	
						4480	
						4500	
						4800	
						4900	
						5000	
					37513 E4000	4442	5102
						4462	
						4482	
						4502	
						4802	
						4902	
						5002	

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

*** NOTICE**

Refer to TSB SST 037 for detailed KDS procedure.

*** NOTICE**

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

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Software Upgrade Procedure:

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

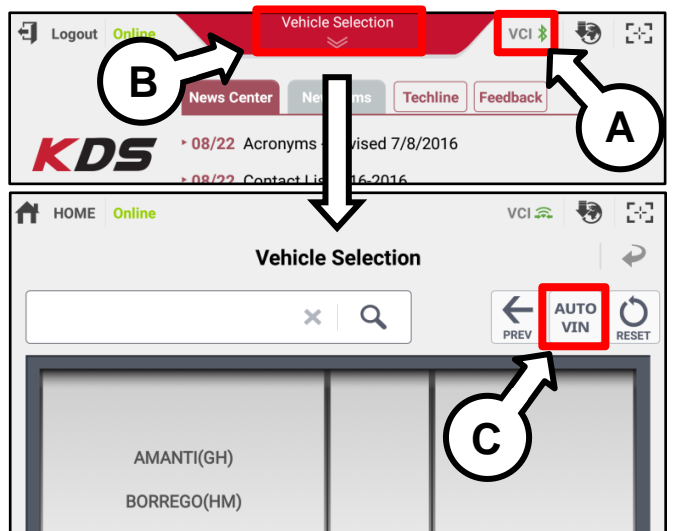
*** NOTICE**
The ECU upgrade function on KDS is operating wirelessly. It is not necessary to perform the upgrade via USB cable.



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



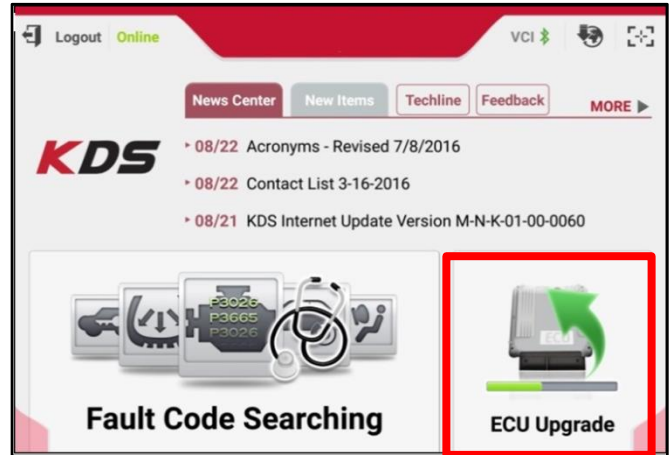
3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **AUTO VIN** (C) feature.



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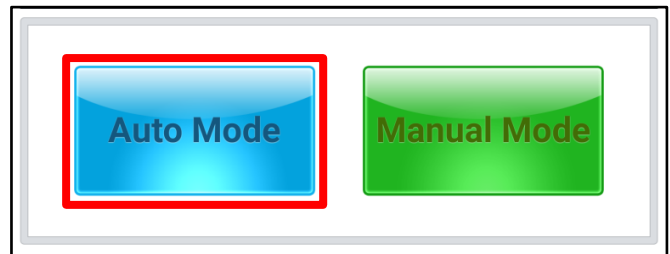
4. Select **ECU Upgrade**.



5. Select **Auto Mode**.

CAUTION

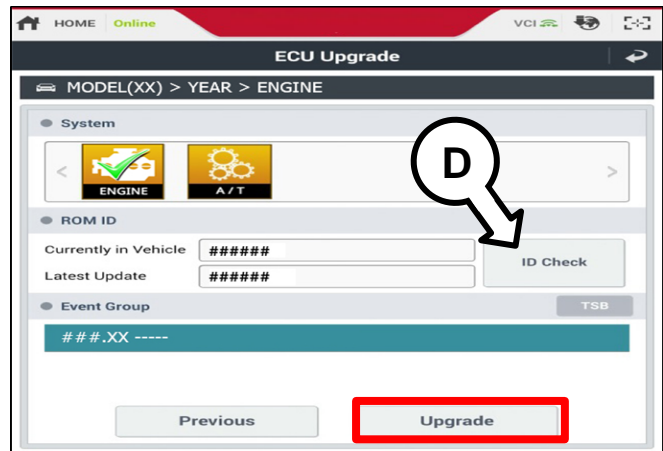
Do **NOT** attempt to perform a **Manual Mode** upgrade **UNLESS** **Auto Mode** fails. Always follow the instructions given on the KDS in either **Auto** or **Manual** mode.



6. Select the (SYSTEM) system under the System selection menu.

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

Select Upgrade Event #303 and select **Upgrade** to continue.



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7. 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

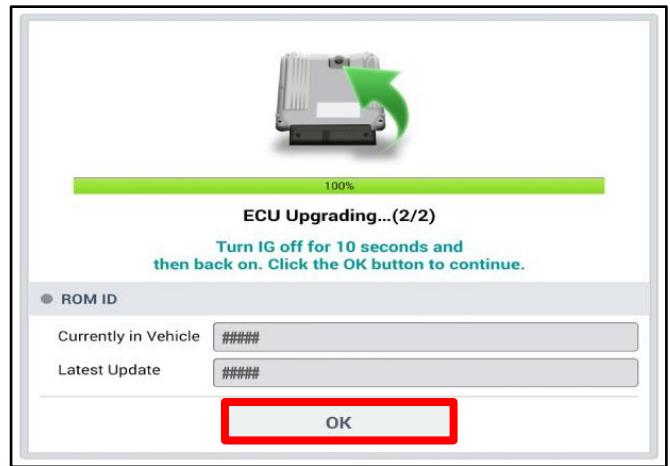
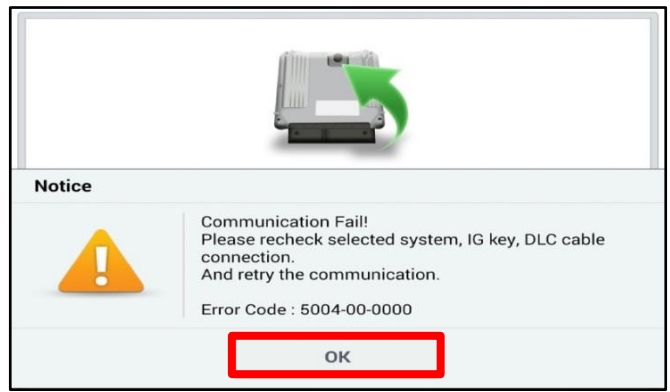
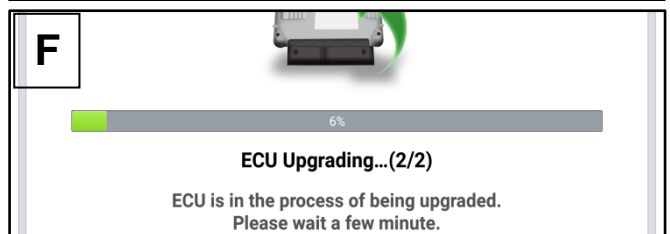
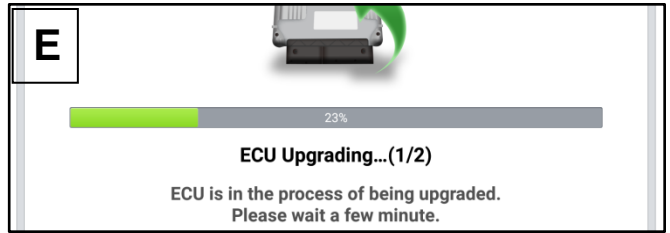
Do not touch the system buttons (like 'Back', 'Home', 'etc.') while performing ECU Upgrade.

8. 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, contact Techline or GIT America Help Desk.

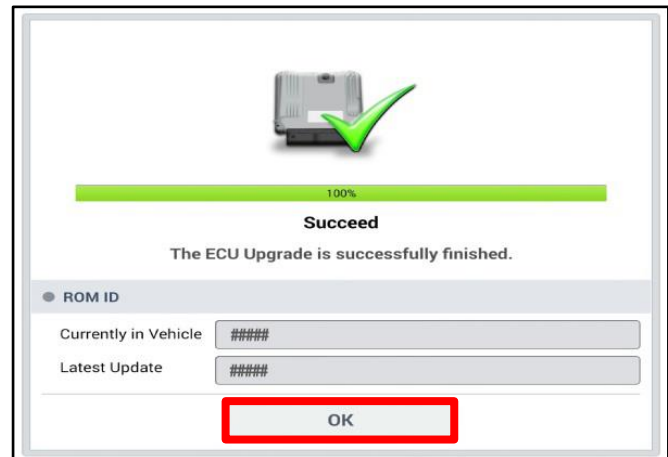
9. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



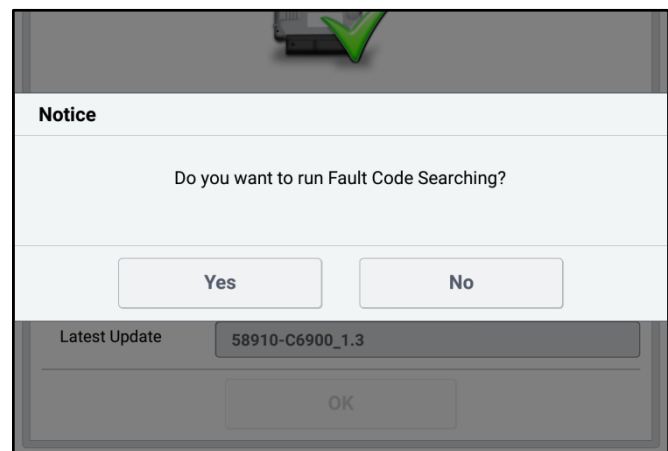
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10. Once the upgrade is complete, touch **OK** to finalize the procedure.



11. 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.



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

Manual Upgrade Procedure:



CAUTION

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

*** 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.

Upgrade Event 303 Soul EV (PS EV)

***MANUAL MODE ECU UPGRADE PASSWORDS:**

Menu	Password
PS EV Heating: 37513-E4050	4050
PS EV No Heating: 37513-E4000	4000

1. Within the ECU Upgrade screen displayed, select **Manual Mode** and then select the applicable **Upgrade Event 303**.
2. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 2, and select **OK**.
3. Enter the appropriate password from the Manual Mode password table above and select **OK**.
4. The upgrade(s) will begin and the progress of the upgrade will appear on the bar graph.
5. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.
6. Once the upgrade is complete, touch **OK** to finalize the procedure.
7. 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.
8. Start the engine to confirm proper operation of the vehicle.

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AFFECTED VEHICLE PRODUCTION RANGE:

Model	Production Date Range
Soul EV (PS EV)	July 15, 2014 through May 15, 2016

WARRANTY CLAIM INFORMATION:

Claim Type	Causal P/N	Qty.	N Code	C Code	Repair Description	Labor Op Code	Op Time	Replacement Parts	Qty.
V	37513 E4050	0	N99	C99	(SA297) BCM Logic Improvement	170055R0	0.3 M/H	N/A	0

* NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference SA297 when accessing the WebDCS system.