	GROUP <b>ELE</b>	MODEL <b>2011-2016MY Optima Hybrid (TF HEV)</b>
	NUMBER <b>151</b>	DATE <b>August 2018</b>
<b>TECHNICAL SERVICE BULLETIN</b>		
SUBJECT: <b>BMS LOGIC IMPROVEMENT AFTER HIGH VOLTAGE BATTERY REPLACEMENT</b>		

This bulletin provides the procedure to improve the logic of the Battery Management System (BMS) on some 2011-2016MY Optima Hybrid (TF HEV) vehicles, produced from February 15, 2011 through July 22, 2015, to match the new generation high voltage (HV) battery assemblies.

**\* IMPORTANT**

**This update should ONLY be applied when the High Voltage (HV) battery is replaced with a new generation part number.**

For confirmation that the correct reflash has been applied to a vehicle you are working on, verify the replacement Battery Pack part number and ROM ID using the table on page 2 of this bulletin.



Kia Diagnostic System (KDS)

File Under: <Electrical>

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

SUBJECT:

## BMS LOGIC IMPROVEMENT AFTER HIGH VOLTAGE BATTERY REPLACEMENT

### ECU Upgrade Procedure:

#### **DO NOT USE AUTO MODE!**

The ECU should be reprogrammed in Manual Mode **ONLY** using the KDS download as described in this bulletin.

Upgrade Event Name
372.TF HEV BMS UPGRADE AFTER BATTERY PACK REPLACEMENT

#### \* 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 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, year.

### ROM ID INFORMATION TABLE:

#### Upgrade Event #372

Model	Sys.	ECU P/No.	Battery Pack Part No. & ROM ID			
			Previous		New	
TF HEV	BMS	37513-4R000 (11-12MY)	37511-4R000	4600, 4700, 4800, 4900, 5080, 5180	37511-4R200	6020
		37513-4R000 (12MY R/C. LTC6803-1)	37511-4R000	4920, 4940, 4960, 5060, 5160	37511-4R200	6000
		37513-4R100 (13MY)	37511-4R100	5020, 5200, 5340, 5500	37511-4R201	6040
		37513-E7000 (14MY-16MY)	37511-4R101	5300, 5320, 5340, 5400, 5500	37511-4R202	

*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.*

#### Manual Mode ECU Upgrade Passwords

Menu	Password
TF HEV BMS: 37513-4R000 (4600,4700,4800,4900,5080,5180)	5180
TF HEV BMS: 37513-4R000 (4920,4940,4960,5060,5160)	5160
TF HEV BMS: 37513-4R100/E7000 (5020,5200,5300,5320,5340,5400,5500)	5500

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## \* 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

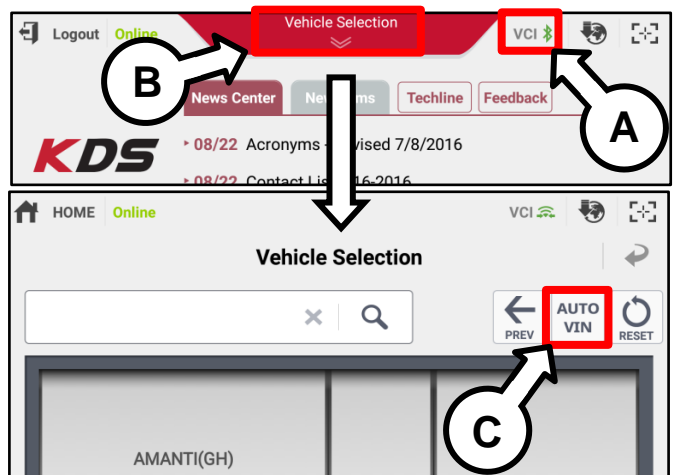
The ECU upgrade function on KDS operates wirelessly. It is not necessary to perform the upgrade via USB cable.



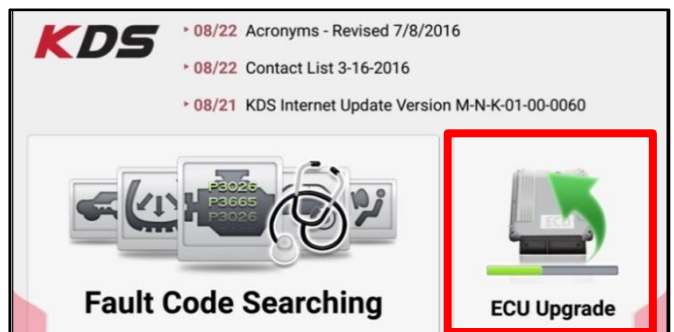
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



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



4. Select **ECU Upgrade**.



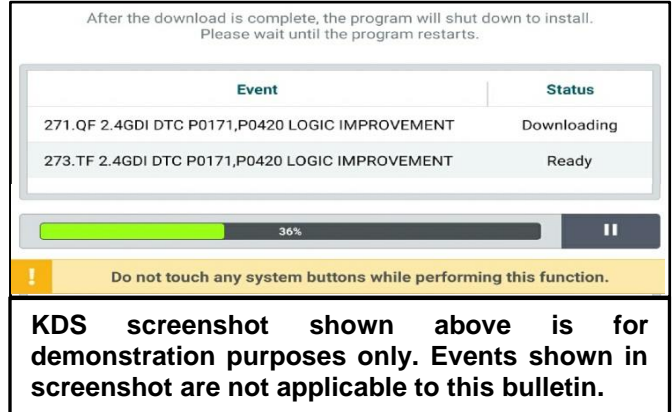
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5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #372**.

### \* NOTICE

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

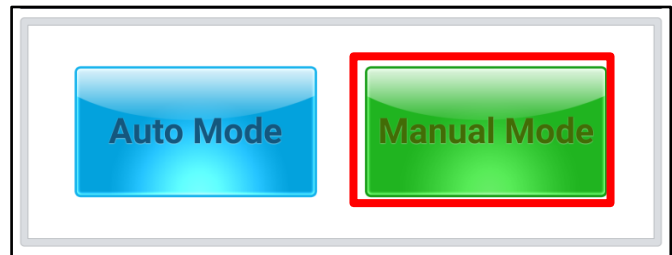


6. Select **Manual Mode**.



### CAUTION

Do NOT attempt to perform an Auto Mode upgrade. Follow the instructions given on the KDS in Manual mode.



7. Select the **BMS** system under the System selection menu. Select **Upgrade Event #372** and select **Upgrade** to continue.
8. Select the appropriate control unit part number with reference to the ROM ID Information Table on page 2, and select **OK**.
9. Enter the appropriate password from the Manual Mode password table on Page 3 and select **OK**.
10. The upgrade will begin and the progress of the upgrade will appear on the bar graph.
11. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.
12. Once the upgrade is complete, touch **OK** to finalize the procedure.
13. 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.
14. Start the engine to confirm proper operation of the vehicle.

SUBJECT:

## BMS LOGIC IMPROVEMENT AFTER HIGH VOLTAGE BATTERY REPLACEMENT

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Optima (TF HEV)	February 15, 2011 through July 22, 2015

WARRANTY INFORMATION:

**N Code: B11 C Code: ZZ3**

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	Refer to EPC for ECU P/N	0	BMS Logic Improvement	37513F13	0.3 M/H	N/A	0