



GROUP  
TRA

MODEL  
2011-2016MY  
Optima Hybrid  
(TF HEV)

NUMBER  
059 (Rev 3, 03/21/2018)

DATE  
May 2016

## TECHNICAL SERVICE BULLETIN

SUBJECT: HCU/TCU UPGRADE – FOR 100MESH SOLENOID  
EQUIPPED HYBRID TRANSMISSIONS

### \* 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 upgrade of the Hybrid Control Unit (HCU) and the Transmission Control Unit (TCU) of some 2011-2016MY Optima Hybrid (TF HEV) after replacement of the transmission with improved 100 mesh solenoids has taken place. To apply the improved logic, the HCU/TCU should be reprogrammed using the KDS download, as described in this bulletin.

### \* NOTICE

This update **MUST** be applied to vehicles receiving replacement transmissions with the following part numbers:

P/N 45000-3D010 or 45000-3D010R

P/N 45000-3D340 or 45000-3D340R

When installing a transmission with 100 mesh solenoids, follow the repair flow chart shown below:



### \* NOTICE

**This update must be performed when a 100 mesh solenoid transmission is installed in a vehicle which previously had a 400 mesh unit, otherwise, the customer may experience drivability issues. Use the identification matrix on Page 2 to correctly identify the replacement transmission. Do NOT apply this update unless a 100 mesh solenoid transmission is installed.**

File Under: <Transmission>

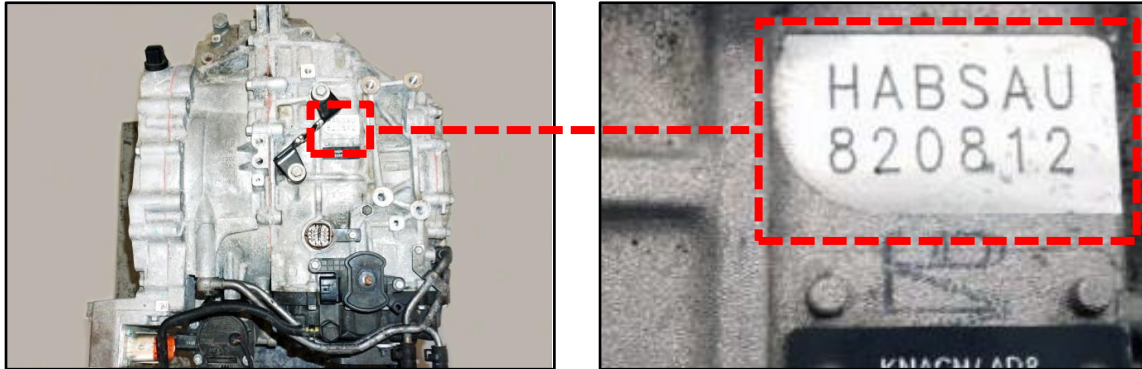
Circulate To:  General Manager  Service Manager  Parts Manager  
 Service Advisors  Technicians  Body Shop Manager  Fleet Repair

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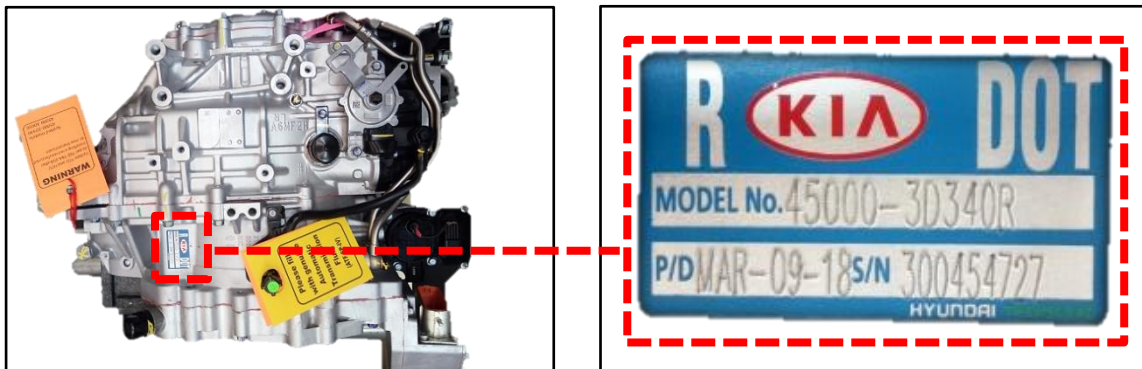
**Transmission Identification Information:**

- Replacement transmissions can be readily identified by the part number/packaging/labeling, and the A/T ID.
- If working on a vehicle with an unknown transmission configuration, use the identification information and table below.

**New Transmission Identification**



**Remanufactured Transmission Identification**



Model	A/T ID*	100 MESH	400 MESH	Update Required
45000 3D000 45000 3D000R	HA*SAU		X	No
45000 3D010 45000 3D010R	HA*SCU	X		Yes
45000 3D300 45000 3D300R	HA*SBU		X	No
45000 3D320 45000 3D320R	HB*SAU		X	No
45000 3D340 45000 3D340R	HB*SBU	X		Yes

**\* NOTICE**

**Do not apply updates without confirming the correct transmission type. Misapplication will cause drivability issues and/or transmission damage.**

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### HCU/TCU Upgrade Procedure:

The HCU/TCU should be reprogrammed using the KDS download, as described in this bulletin.

Upgrade Event Name
262.TF HEV HCU/TCU SOL [FOR 100MESH]

### \* NOTICE

- A fully charged battery is necessary before HCU/TCU upgrade can take place. It is recommended that the Midtronics GR8-1299 system be used in HCU/TCU mode during charging. **DO NOT** connect any other battery charger to the vehicle during HCU/TCU upgrade.
- All HCU/TCU 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 HCU/TCU upgrade procedure.
- **DO NOT** start the engine during HCU/TCU upgrade.
- **DO NOT** turn the ignition key 'OFF' or interrupt the power supply during HCU/TCU upgrade.
- When the HCU/TCU upgrade is completed, turn the ignition 'OFF' and wait 10 seconds before starting the engine.
- **ONLY** use approved HCU/TCU upgrade software designated for the correct model, year.

### \* NOTICE

After performing the software upgrade, make sure to reset the TCM Adaptive Learning Values by referring to [TSB TRA 049](#).

### ROM ID INFORMATION TABLE:

#### Upgrade Event #262

Model	System	HCU/TCU P/No.	ROM ID	
			Previous	New
TF HEV	TCU	39108-2G910 39108-2G911	TTF2H24SA1 TTF2H24SA3 TTF2H24SA5	TTF2H24SAA
	HCU	39700-2G100 39700-2G101	GYFEANEH HS0-C000 GYFEANEH HS1-C000 GYFEANEH HS4-C000 GYFEANEH HS5-C000 GYFECNEH HS0-C000 GYFECNEH HS1-C000 GYFECNEH HS2-C000 GYFECNEH HS3-C000	GYFECNEH HS4-C000

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Upgrade Event #262 continued...

Model	System	HCU/TCU P/No.	ROM ID	
			Previous	New
TF HEV	TCU	39108-2G912	TTF2H24SA4	TTF2H24SAB
		39108-2G915	TTF2H24SA6	
	39108-2GAN0	TTF2H24SA7	TTF2H24SA8	
	39108-2GAN1	TTF2H24SA9		
HCU	39700-2G102	GYFEDNEH HS0-C000 GYFEDNEH HS1-C000 GYFEDNEH HS3-C000 GYFEDNEH HS4-C000 GYFEDNEH HS5-C000 GYFEDNEH HS6-C000 GYFEDNEH HS7-C000 GYFEDNEH HS8-C000 GYFEDNEH HS9-C000 GYFEDNEH HSA-C000	GYFEFNEH HS0-C000	
	39700-2G104			
		39700-2G103	GYFEENEH HS0-C000	GTFEFNEH HS1-C000
		39700-2G120	GYFEENEH HS1-C000	

*To verify the vehicle is affected, be sure to check the Calibration Identification of the vehicle's HCU/TCU 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.**

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.



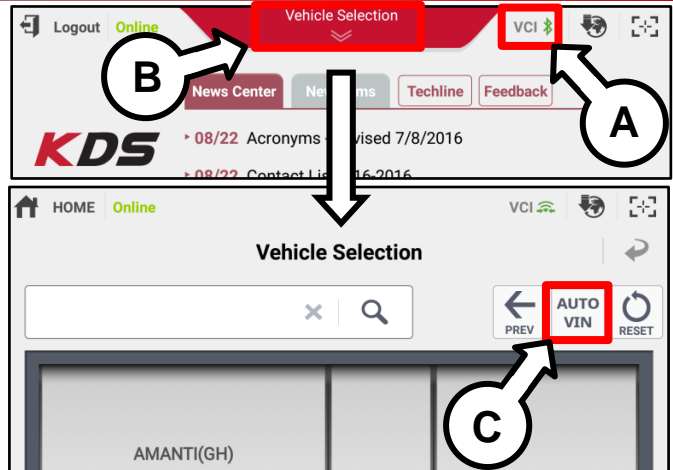
2. With the ignition ON, turn ON the KDS tablet. Select **KDS** from the home screen.



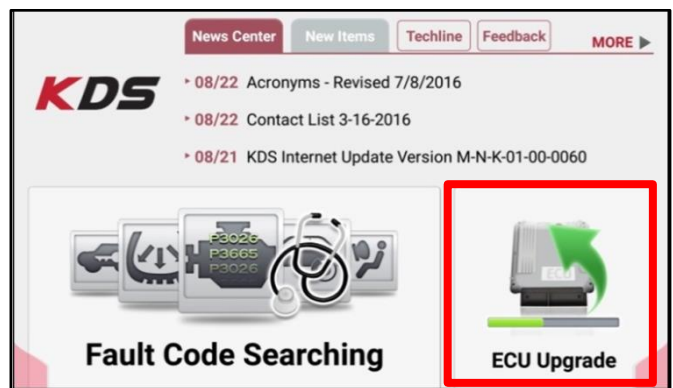
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3. Confirm communication with VCI (A) and then configure the vehicle (B) using the **AUTO VIN** (C) feature.



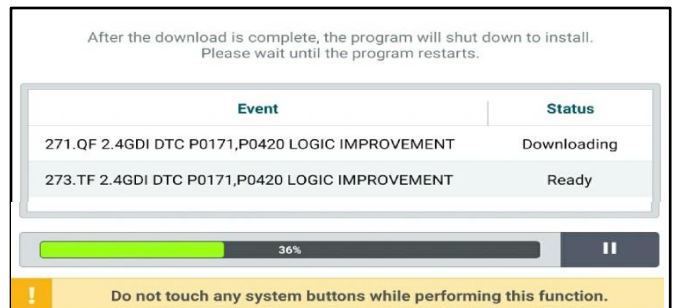
4. Select **ECU Upgrade**.



5. The KDS will check the server for recently uploaded Events and then automatically download **Upgrade Event #262**.

## \* NOTICE

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



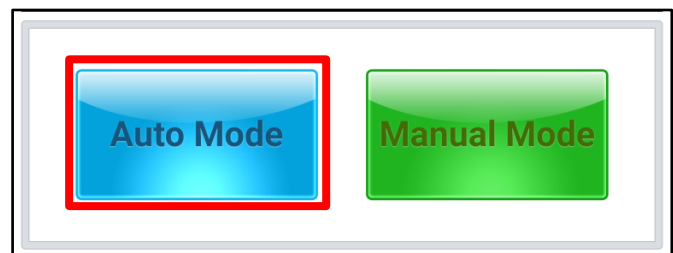
KDS screenshot shown above is for demonstration purposes only. Events shown in screenshot are not applicable to this bulletin.

6. 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.



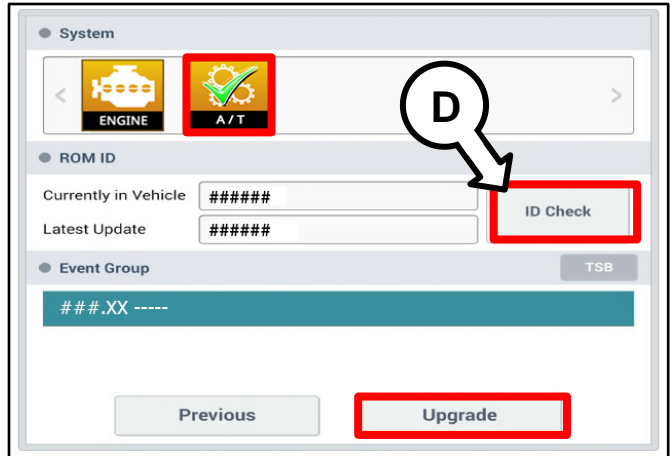
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7. Select the **A/T** system under the System selection menu.

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

Select **Upgrade Event #262** and select **Upgrade** to continue.

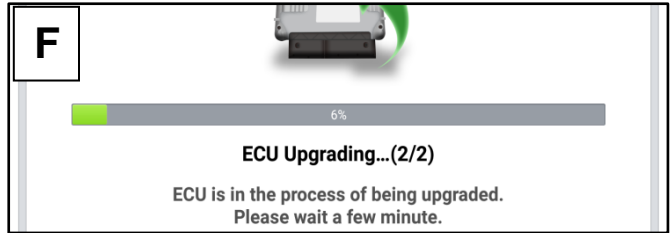
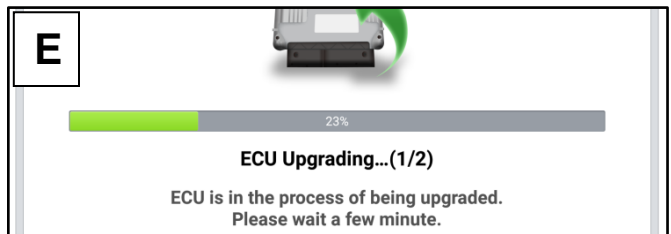


8. The ECU upgrade will begin and the progress of the upgrade will appear on the bar graph. Upgrade part (1/2) (E) will download the upgrade event to the VCI-II. Upgrade part (2/2) (F) will upgrade the ECU.

**CAUTION**

Do not touch the system buttons (like 'Back', 'Home', 'etc.')

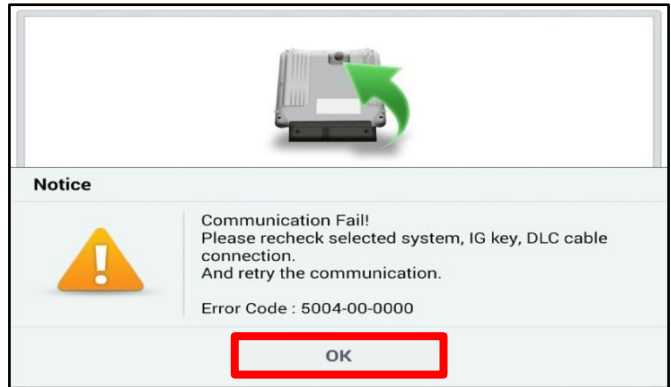
while performing ECU Upgrade.



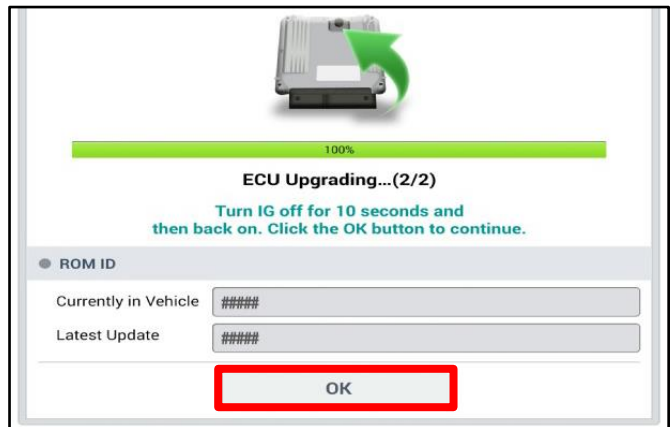
9. If a "Communication Fail" screen appears, verify that the VCI-II and KDS are communicating properly. Touch **OK** and restart the procedure from step 4.

**\* NOTICE**

If an error notice continues to appear or if the upgrade cannot be performed, contact Techline or GIT America Help Desk.



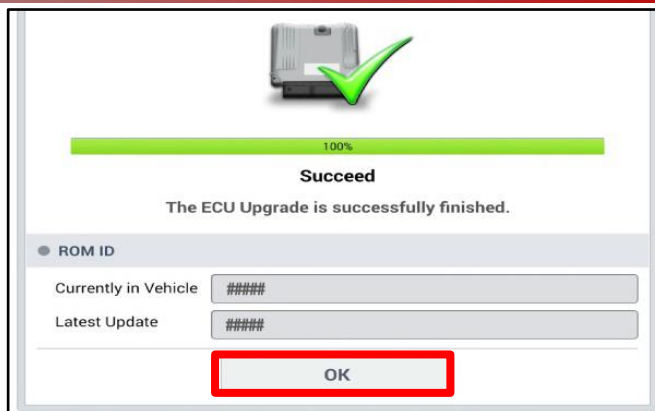
10. When instructed on the KDS, turn the ignition **OFF** for ten (10) seconds then back on. Touch **OK** to continue.



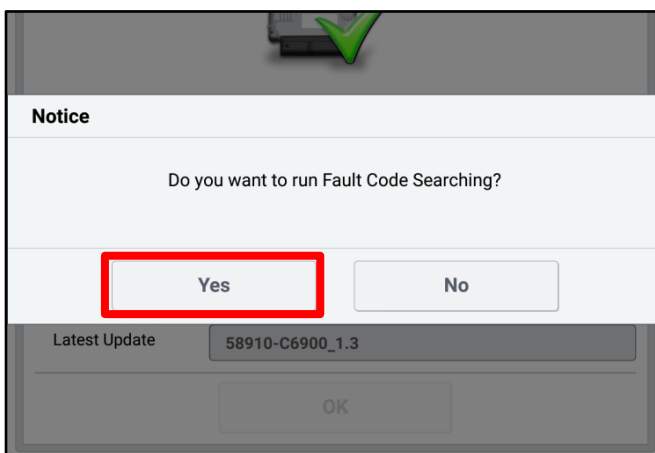
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11. Once the upgrade is complete, touch **OK** to finalize the procedure.



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.
14. After the upgrade is complete, reset the TCU Adaptive Learning Values by referring to [TSB TRA049](#).

### 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
TF HEV HCU : 39700-2G100/1 TCU : 39108-2G910/1	2911
TF HEV HCU : 39700-2G102/4 TCU : 39108-2G912/5['13.1/24~'13.12/8]	2915
TF HEV HCU : 39700-2G103/20 TCU : 39108-2GAN0/1['13.12/9~] 820	820

1. Within the ECU Upgrade screen displayed, select **Manual Mode**.
2. Select the **A/T** system under the System selection menu. Select **Upgrade Event #262** and select **Upgrade** to continue.
3. Select the appropriate control unit part number with reference to the ROM ID Information Table on pages 3-4, 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.
10. After the upgrade is complete, reset the TCU Adaptive Learning Values by referring to [TSB TRA049](#).



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AFFECTED VEHICLE RANGE:

Model	Production Date Range
Optima Hybrid (TF HEV)	2011-2016MY

WARRANTY INFORMATION:

**N Code: I14 C Code: ZZ3**

Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
W	39108 2GAN1	0	HCU/TCU Upgrade	39700F05	0.4 M/H	N/A	0