

Removal

⚠ WARNING

- â Be sure to read and follow the "General Safety Information and Caution" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.
- â Be sure to read and follow the "High Voltage Shut-off Procedures" before doing any work related with the high voltage system. Failure to follow the safety instructions may result in serious electrical injuries.

Hybrid power control unit (HPCU)

1. Shut off the high voltage circuit.
(Refer to Hybrid Control System - "High Voltage Shutoff Procedure")
2. Remove the hybrid motor reservoir tank.
(Refer to Hybrid Motor System - "Reservoir")
3. Remove the engine control module (ECM) and bracket assembly.
(Refer to Engine Control / Fuel System - "Engine Control Module (ECM)")
4. Disconnect the inverter power cable connector (A) from the high voltage junction box.

Tightening torque :

9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb.ft)



i Information

- â Remove the inverter power cable mounting bolt and then remove it by lifting the cable in the direction of the arrow in the figure.

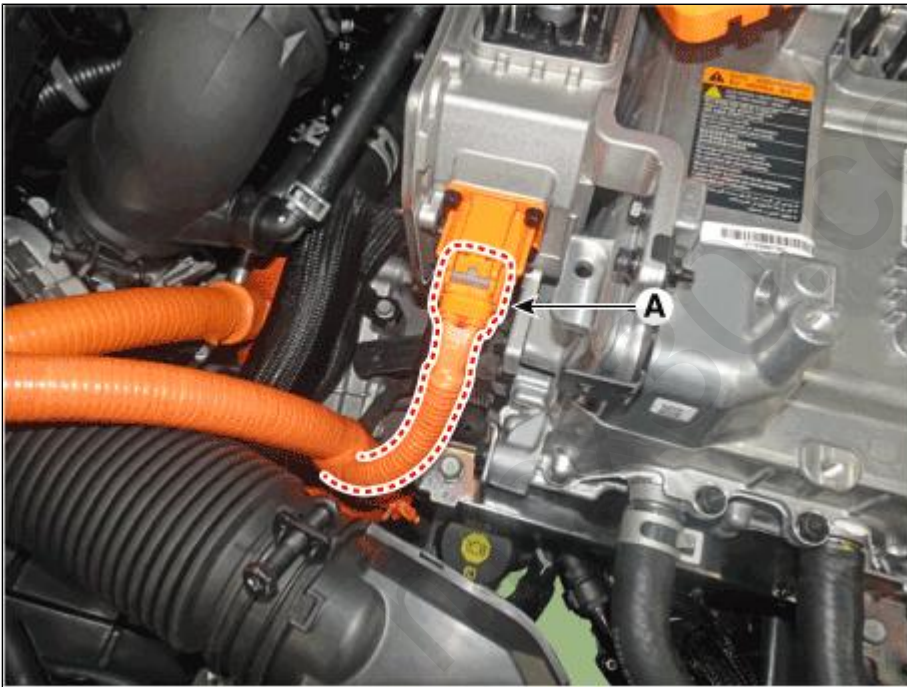
5. Disconnect the motor power cable connector (A) and hybrid starter generator (HSG) power cable connector (B).

Tightening torque :

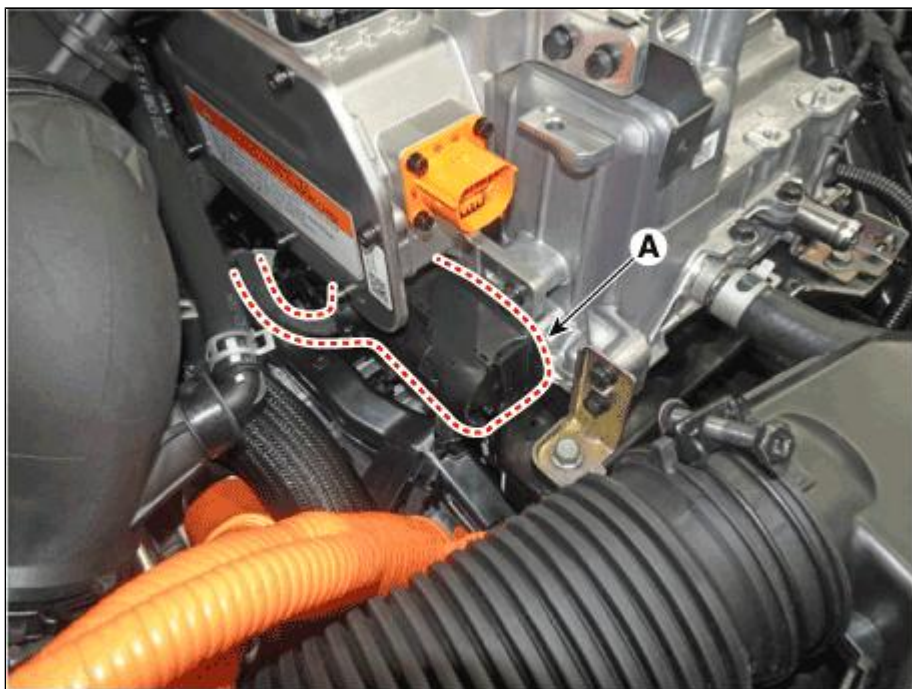
9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb.ft)



6. Disconnect the electric A/C compressor connector (A).



7. Disconnect the HCU & MCU integrated connector (A).



8. Remove the LDC power outlet cable mounting bolt (A).

Tightening torque :

10.8 - 13.7 N.m (1.1 - 1.4 kgf.m, 8.0 - 10.1 lb.ft)



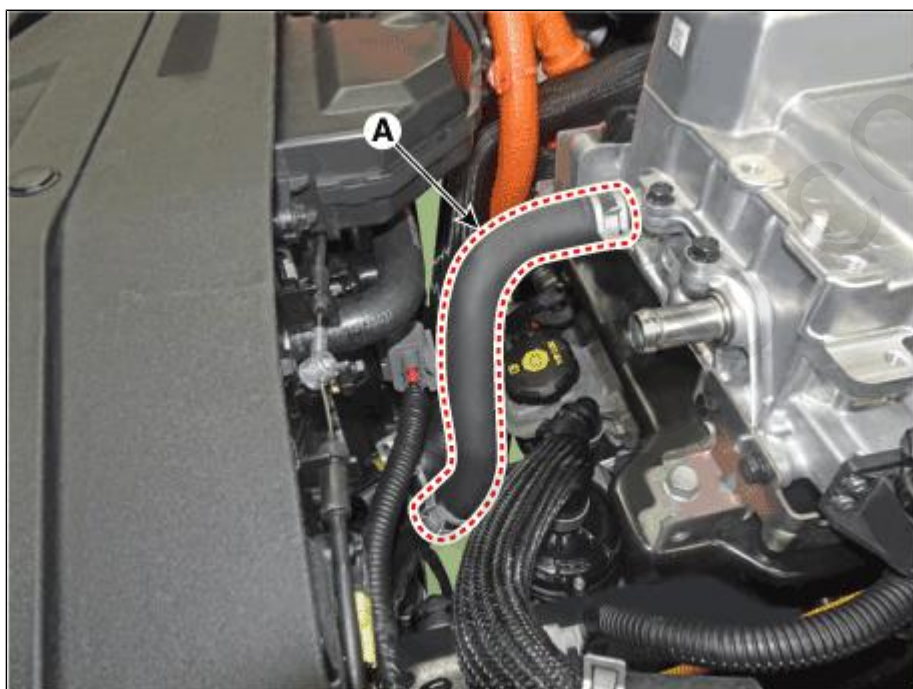
9. Remove the ground cable mounting bolt (A).

Tightening torque :

10.8 - 13.7 N.m (1.1 - 1.4 kgf.m, 8.0 - 10.1 lb.ft)



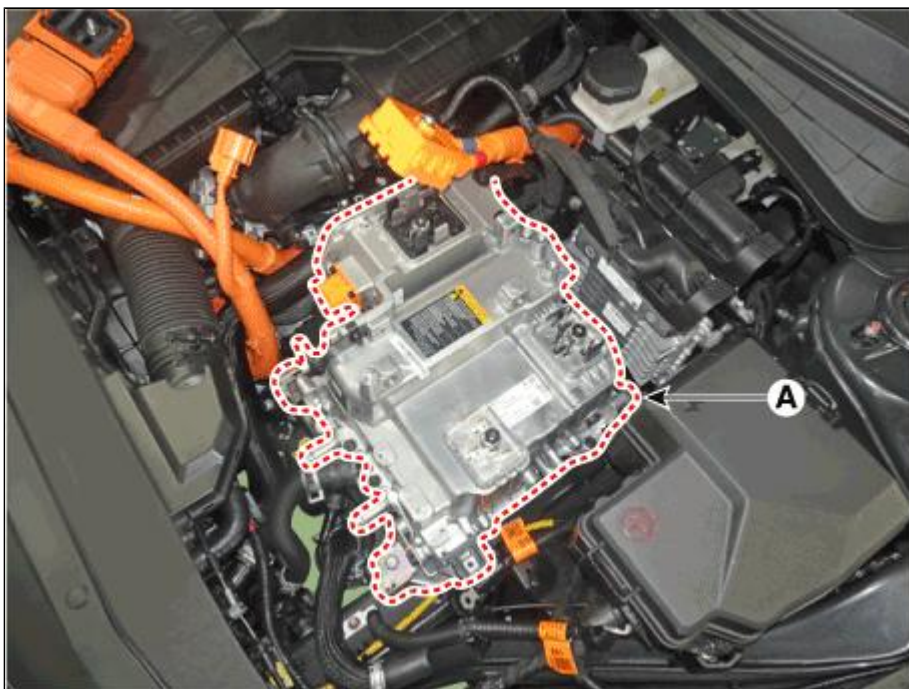
10. Disconnect the inverter radiator upper hose (A).



11. Remove the hybrid power control unit (HPCU) (A).

Tightening torque :

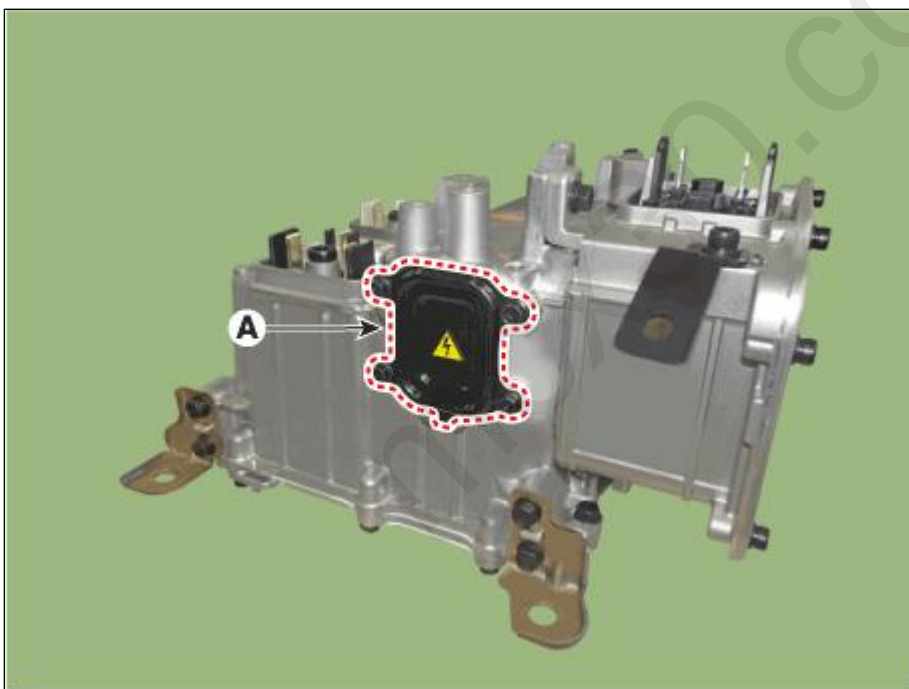
19.6 - 29.4 N.m (2.0 - 3.0 kgf.m, 14.5 - 21.7 lb.ft)



12. Remove the high voltage junction box service cover (A).

Tightening torque :

3.9 - 5.9 N.m (0.4 - 0.6 kgf.m, 2.9 - 4.4 lb-ft)

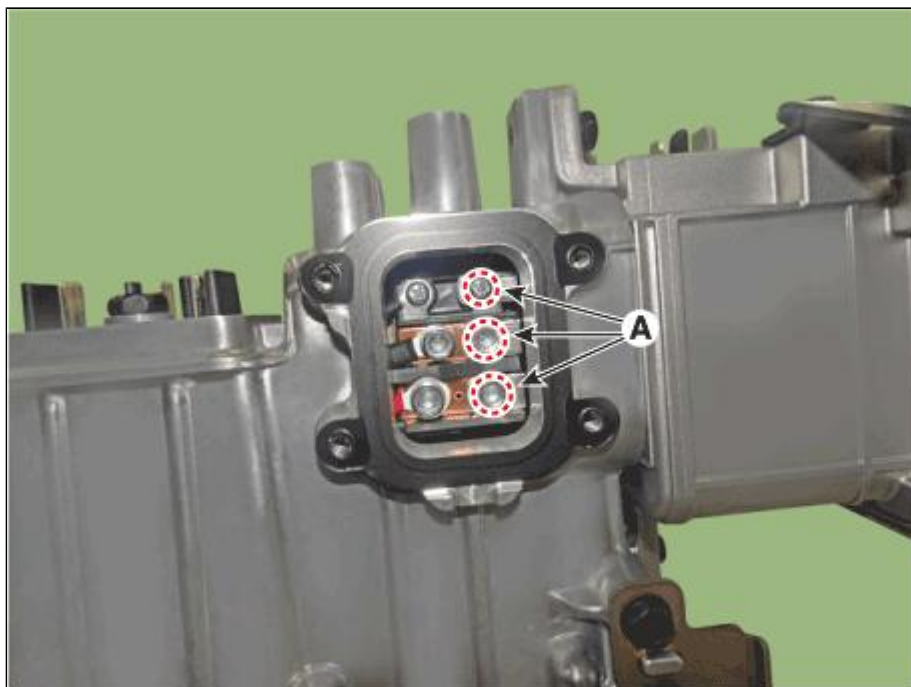


13. Remove the mounting bolts (A) connected to hybrid power control unit (HPCU).

Tightening torque :

M5 bolt : 3.9 - 5.9 N.m (0.4 - 0.6 kgf.m, 2.9 - 4.4 lb-ft)

M4 screw : 1.6 - 2.0 N.m (0.16 - 0.20 kgf.m, 1.2 - 1.4 lb-ft)



NOTICE

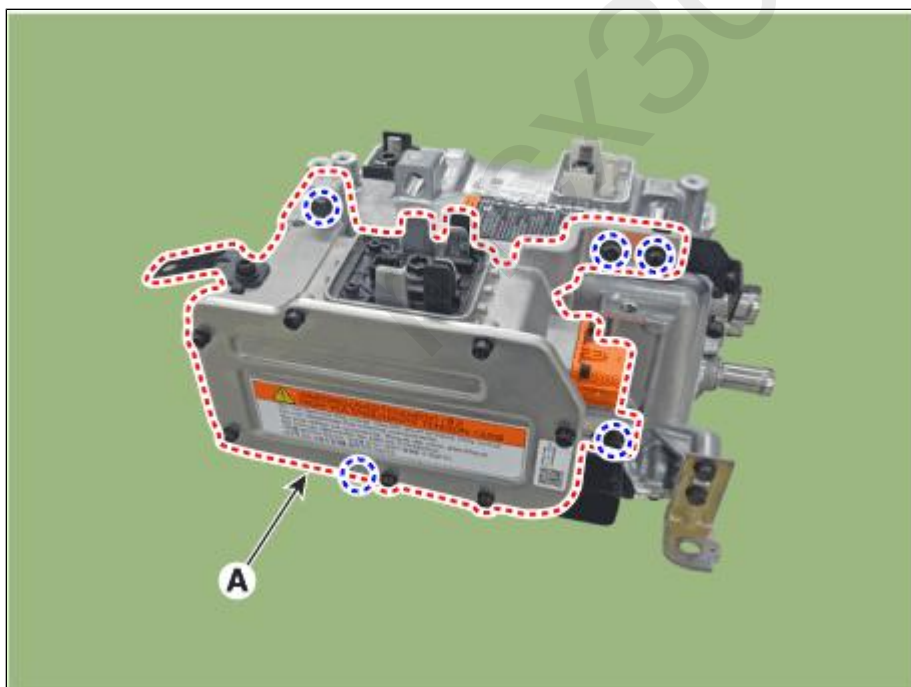
â Be careful not to drop the bolt to inside.

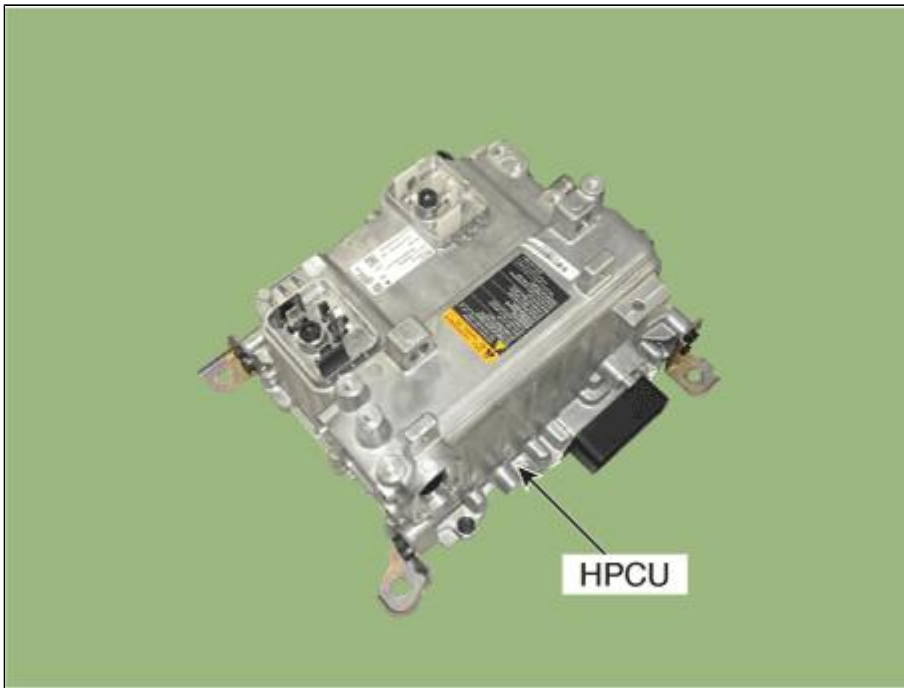
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14. Remove the high voltage junction box (A).

Tightening torque :

9.8 - 11.8 N.m (1.0 - 1.2 kgf.m, 7.2 - 8.7 lb.ft)





Hybrid power control unit (HPCU) tray

1. Remove the hybrid power control unit (HPCU).
2. Remove the wiring bracket (A).

Tightening torque :

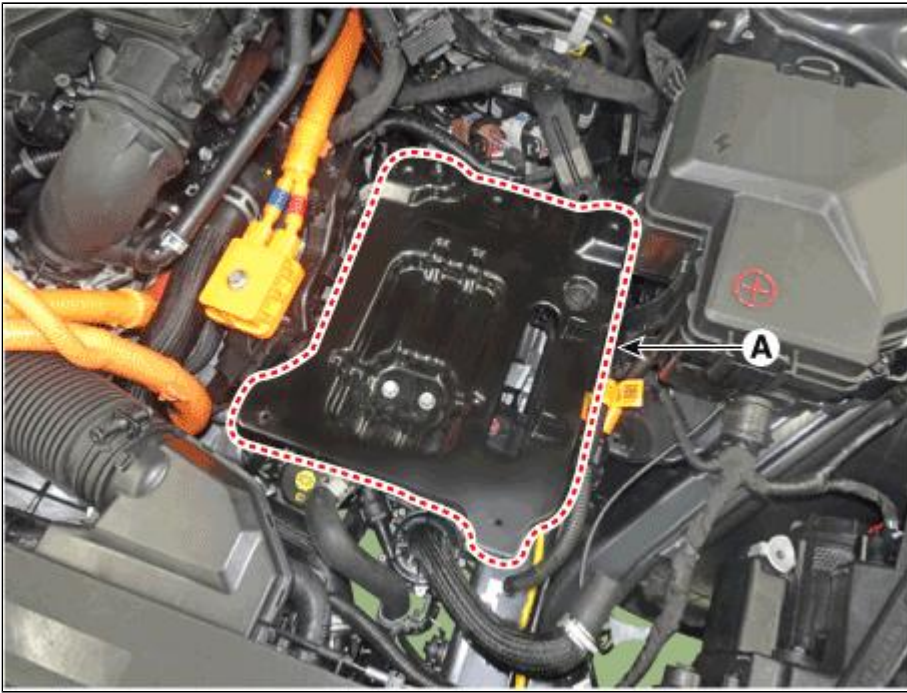
18.6 - 29.4 N.m (1.9 - 3.0 kgf.m, 13.7 - 21.7 lb.ft)



3. Remove the hybrid power control unit (HPCU) tray (A).

Tightening torque :

18.6 - 29.4 N.m (1.9 - 3.0 kgf.m, 13.7 - 21.7 lb.ft)



Installation

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1. Install in the reverse order of removal.
2. Refill the hybrid motor cooling system coolant and perform air bleeding by using the diagnostic tool. (Refer to Hybrid Motor Cooling System - "Coolant")

NOTICE

- ⌘ Perform HCU variant coding and engine clutch / motor resolver learning after replacing the HPCU.

3. Turn the ignition switch OFF.
4. Connect the diagnostic tool to data link connector (DLC).
5. Select "Vehicle, Model year, Engine, System".
6. Select "Vehicle S/W Management".
7. Select "Motor/HSG Resolver Calibration".

S/W Management

Systems

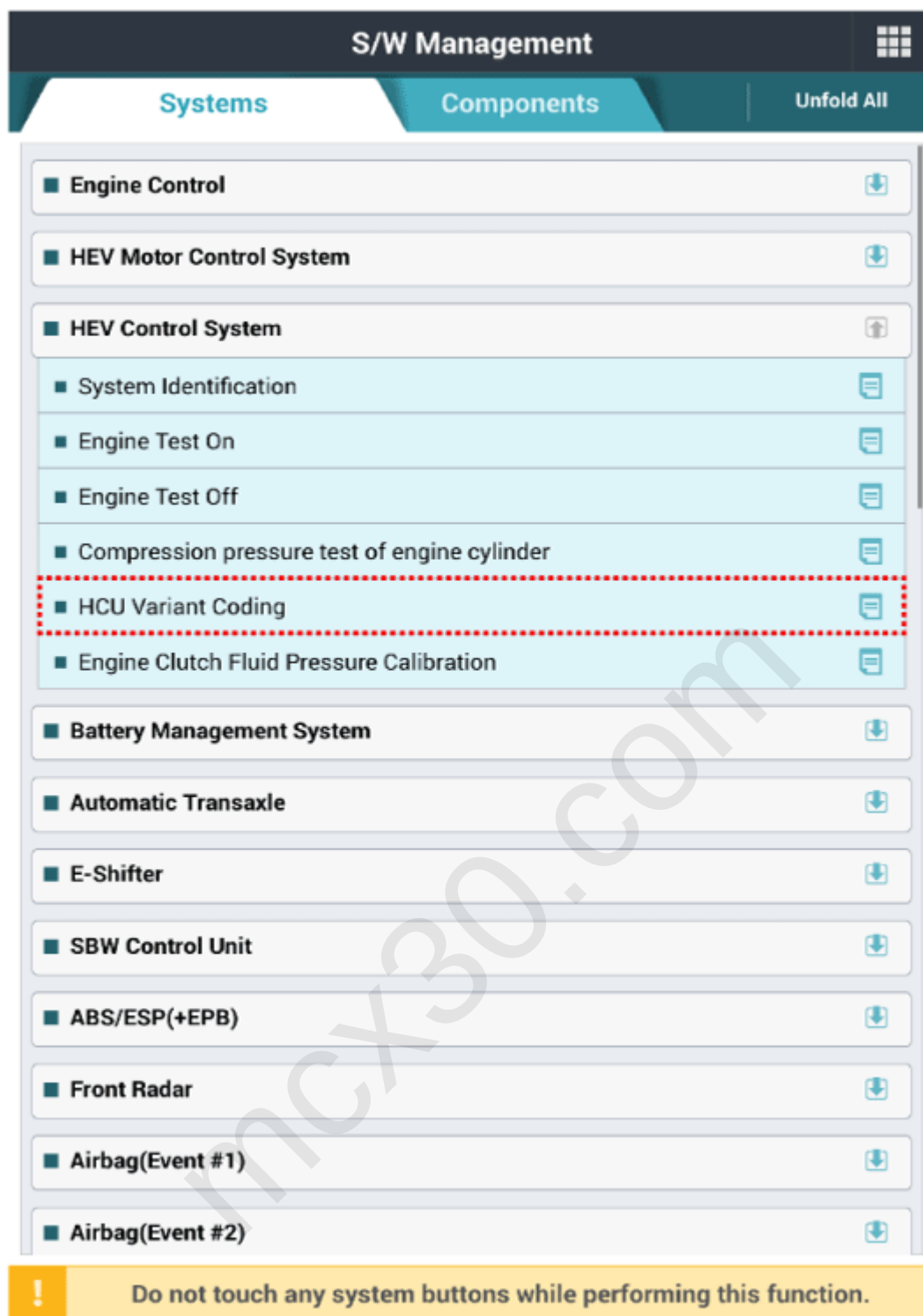
Components

Unfold All

■ Engine Control	
■ HEV Motor Control System	
■ System Identification	
■ Motor/HSG Resolver Calibration	
■ Electric Water Pump Control	
■ HPCU (MCU/GCU) self-diagnosis function	
■ HEV Control System	
■ Battery Management System	
■ Automatic Transaxle	
■ E-Shifter	
■ SBW Control Unit	
■ ABS/ESP(+EPB)	
■ Front Radar	
■ Airbag(Event #1)	
■ Airbag(Event #2)	
■ Occupant Classification System	

Do not touch any system buttons while performing this function.

8. Select "HCU Variant Coding".



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