

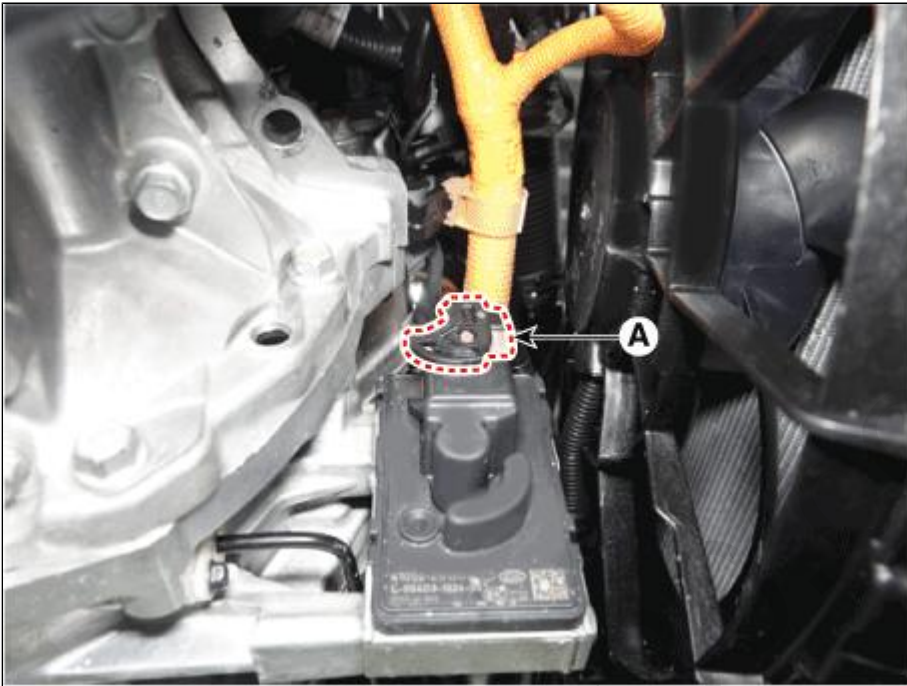
Removal

1. Turn the ignition switch OFF and disconnect the battery (+) terminal.
2. Remove the engine room under cover.
(Refer to Engine Mechanical System - "Engine Room Under Cover")
3. Disconnect the engine clutch actuator connector (A).

NOTICE

Make sure that the hydraulic fluid or foreign substance does not enter the connector assembly of the actuator.

(Seal the assembly after disengaging the connector.)

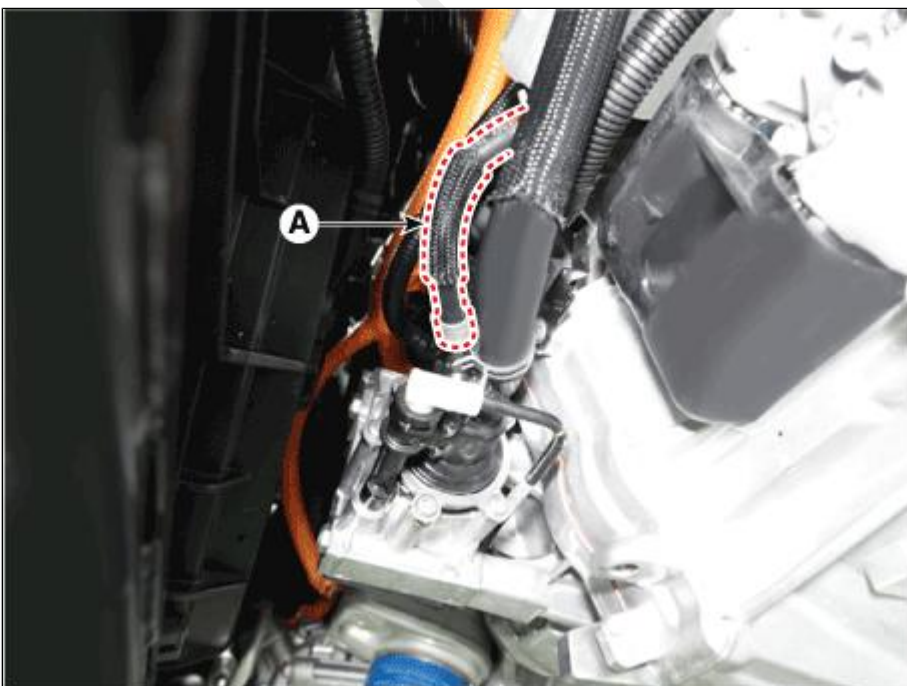


4. Separate the reservoir hose (A).

CAUTION

Separate the reservoir hose, and then Be careful not to leak the fluid.

Do not spill brake fluid on the vehicle, it may damage the paint; if brake fluid does contact the paint, wash it off immediately with water



5. Loosen the bolts and then removing the adapter (A) from hybrid motor.

Tightening torque :

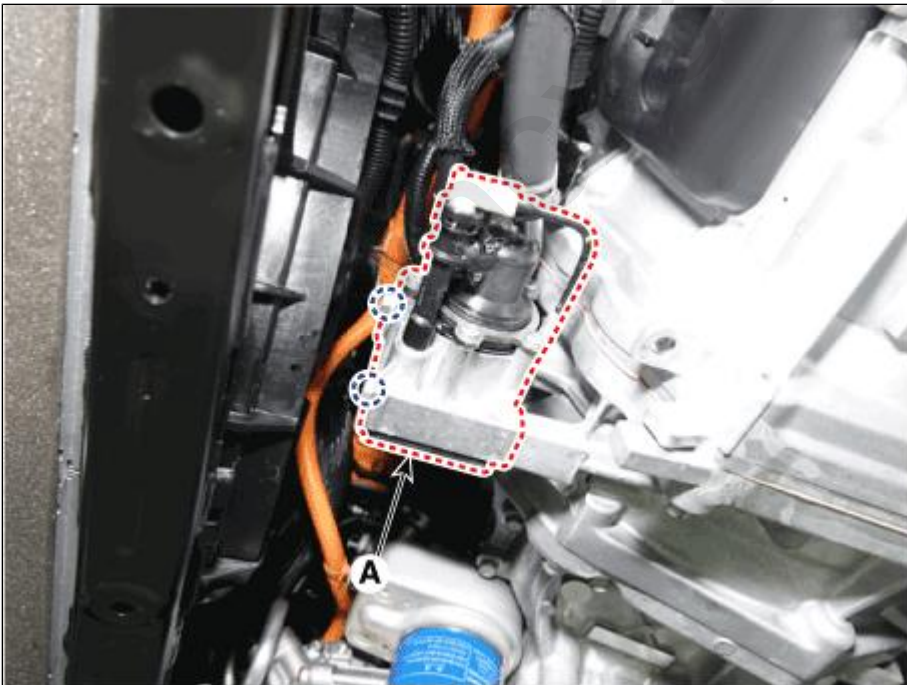
3.9 - 5.9 N.m (0.4 - 0.6 kgf.m, 2.9 - 4.3 lb-ft)



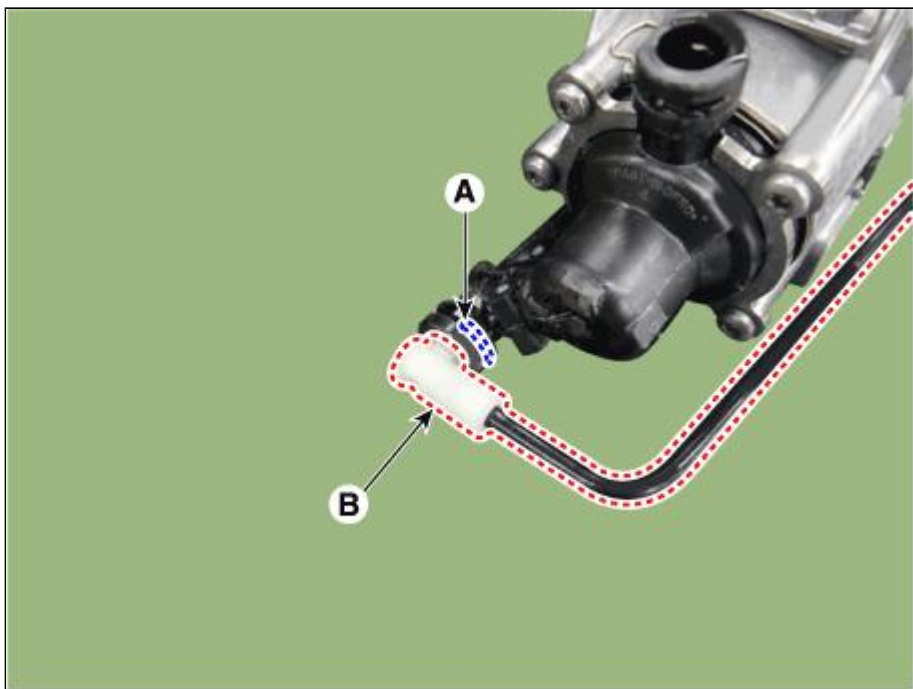
6. Loosen the bolts and then removing the engine clutch actuator (A) from hybrid motor.

Tightening torque :

19.6 - 21.6 N.m (2.0 - 2.2 kgf.m, 14.5 - 15.9 lb-ft)



7. Remove the snap pin (A) and then separate the clutch tube (B).

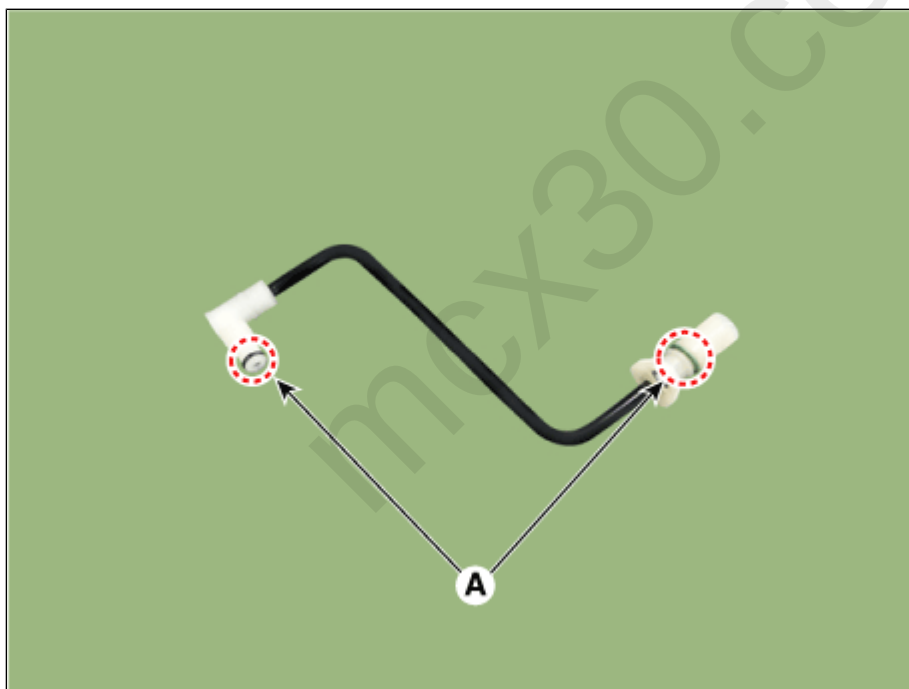


Installation

1. To install, reverse the removal procedures.

NOTICE

Before installing the engine clutch actuator, check the assembled state of the O-rings (A).



2. Perform the procedure below using the diagnostic tool according to the parts exchanged together.
 - (1) When exchanging a part in addition to the engine clutch set (Dual clutch transmission, Hybrid motor, Engine clutch actuator)



■ Modular Clutch Actuator



- System Identification 
- Engine clutch learning(when exchanging a part in addition to the engine clutch set) 
- Engine clutch learning(when exchanging the engine clutch set) 



Do not touch any system buttons while performing this function.



- Engine clutch learning(when exchanging a part in addition to the engine clutch set)

Purpose	This function is to initialize the existing learning data and perform the engine clutch system learning again after exchanging the hydraulic line, MCA (actuator), transmission, and motor.
Enable Condition	1. Vehicle state: IG ON, HEV Not Ready 2. Gearstick : P-stage 3. Parking brake engagement 4. No accelerator pedal operation
Concerned Component	-
Concerned DTC	-
Fail Safe	-
Etc	1. No gear shift during learning 2. If the learning fails, delete the fault code and perform the learning again 3. Need to enter HEV Ready without IG OFF after MCA initialization



Do not touch any system buttons while performing this function.

S/W Management

■ Engine clutch learning(when exchanging a part in addition to the engine clutch set)

● [Engine clutch learning(when exchanging a part in addition to the engine clutch set)]

This function is to initialize the existing learning data and perform the engine clutch system learning again after exchanging the hydraulic line, MCA (actuator), transmission, and motor.

●[Condition]

1. Vehicle state: IG ON, HEV Not Ready
2. Gearstick : P-stage
3. Parking brake engagement
4. No accelerator pedal operation

⚠[Caution]

1. No gear shift during learning
2. If the learning fails, delete the fault code and perform the learning again
3. Need to enter HEV Ready without IG OFF after MCA initialization

[OK] Button : Initialize MCA

[Cancel] Button : Optional function completed

OK

Cancel



Do not touch any system buttons while performing this function.

S/W Management

- Engine clutch learning(when exchanging a part in addition to the engine clutch set)

● [Engine clutch learning]

MCA initialization is completed.

For the engine clutch learning, with IG ON and brake ON, press SSB to turn the ignition key ON (HEV Ready) \and click the **[OK]** button.

[Caution]

MCA initialization needs to be performed again under IG ON during IG OFF

[OK] Button : Perform the engine clutch learning

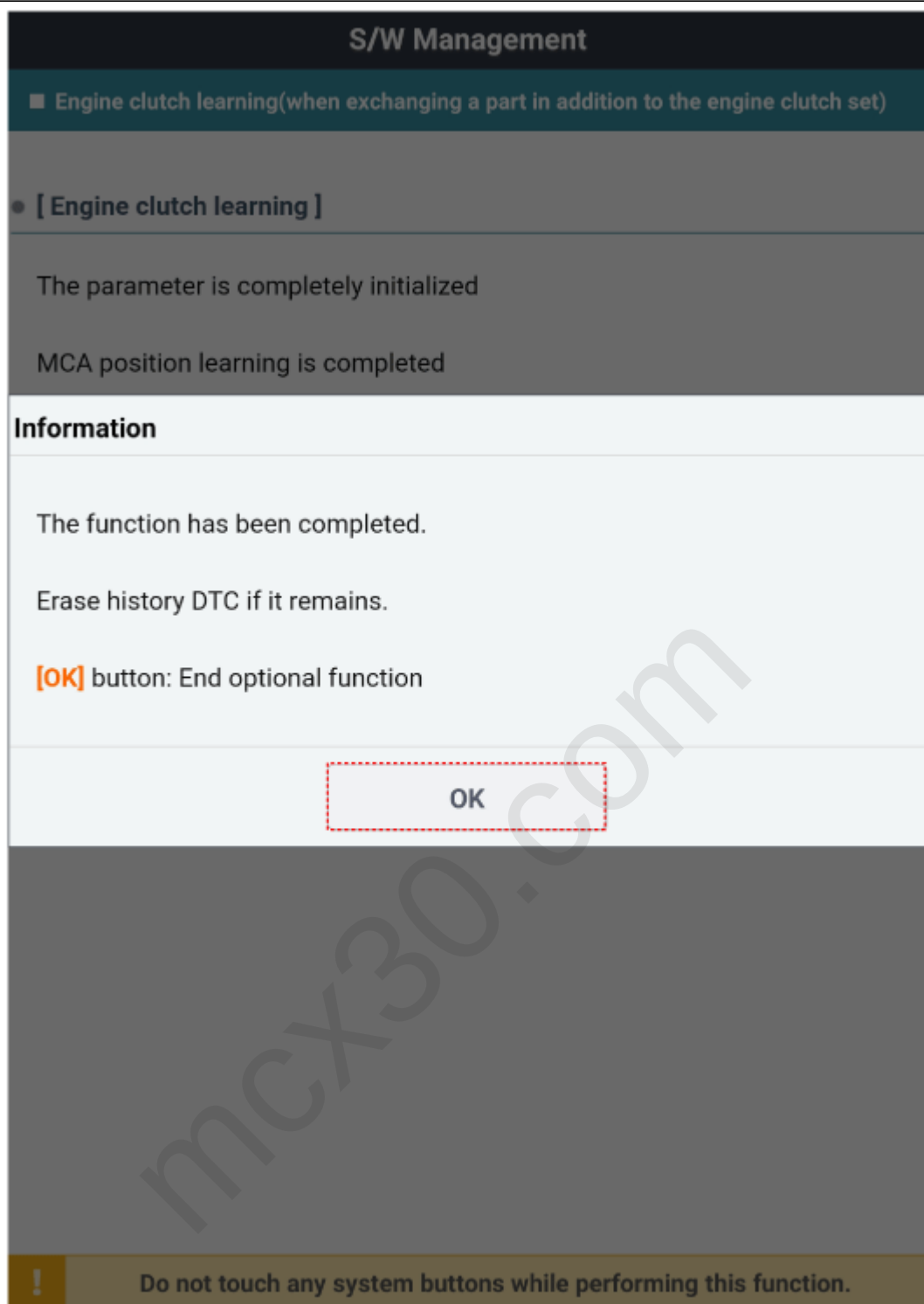
[Retry] button: Initialize MCA again

OK

Retry



Do not touch any system buttons while performing this function.



(2) When exchanging the engine clutch set (Clutch disc & cover, Reservoir, Concentric slave cylinder, Clutch fluid, Engine clutch actuator)



■ Modular Clutch Actuator



■ System Identification



■ Engine clutch learning(when exchanging a part in addition to the engine clutch set)



■ Engine clutch learning(when exchanging the engine clutch set)



Do not touch any system buttons while performing this function.



• Engine clutch learning(when exchanging the engine clutch set)

Purpose	This function is to initialize the existing learning data and perform the engine clutch system learning again after exchanging the engine clutch set and the engine clutch set + MCA (actuator).
Enable Condition	1. Vehicle state: IG ON, HEV Not Ready 2. Gearstick : P-stage 3. Parking brake engagement 4. No accelerator pedal operation
Concerned Component	-
Concerned DTC	-
Fail Safe	-
Etc	1. No gear shift during learning 2. If the learning fails, delete the fault code and perform the learning again 3. Need to enter HEV Ready without IG OFF after MCA initialization

OK



Do not touch any system buttons while performing this function.

S/W Management

■ Engine clutch learning(when exchanging the engine clutch set)

● [Engine clutch learning(when exchanging the engine clutch set)]

This function is to initialize the existing learning data and perform the engine clutch system learning again after exchanging the engine clutch set and the engine clutch set + MCA (actuator).

●[Condition]

1. Vehicle state: IG ON, HEV Not Ready
2. Gearstick : P-stage
3. Parking brake engagement
4. No accelerator pedal operation

⚠[Caution]

1. No gear shift during learning
2. If the learning fails, delete the fault code and perform the learning again
3. Need to enter HEV Ready without IG OFF after MCA initialization

[OK] Button : Initialize MCA

[Cancel] Button : Optional function completed

OK

Cancel



Do not touch any system buttons while performing this function.

S/W Management

■ Engine clutch learning(when exchanging the engine clutch set)

● [Engine clutch learning]

MCA initialization is completed.

For the engine clutch learning, with IG ON and brake ON, press SSB to turn the ignition key ON (HEV Ready) \and click the **[OK]** button.

⚠ [Caution]

MCA initialization needs to be performed again under IG ON during IG OFF

[OK] Button : Perform the engine clutch learning

[Retry] button: Initialize MCA again

OK

Retry



Do not touch any system buttons while performing this function.

S/W Management

■ Engine clutch learning(when exchanging the engine clutch set)

● [Engine clutch learning]

The parameter is completely initialized

MCA position learning is completed

Information

The function has been completed.

Erase history DTC if it remains.

[OK] button: End optional function

OK

stabilized

EEPROM is being saved

!

Do not touch any system buttons while performing this function.

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