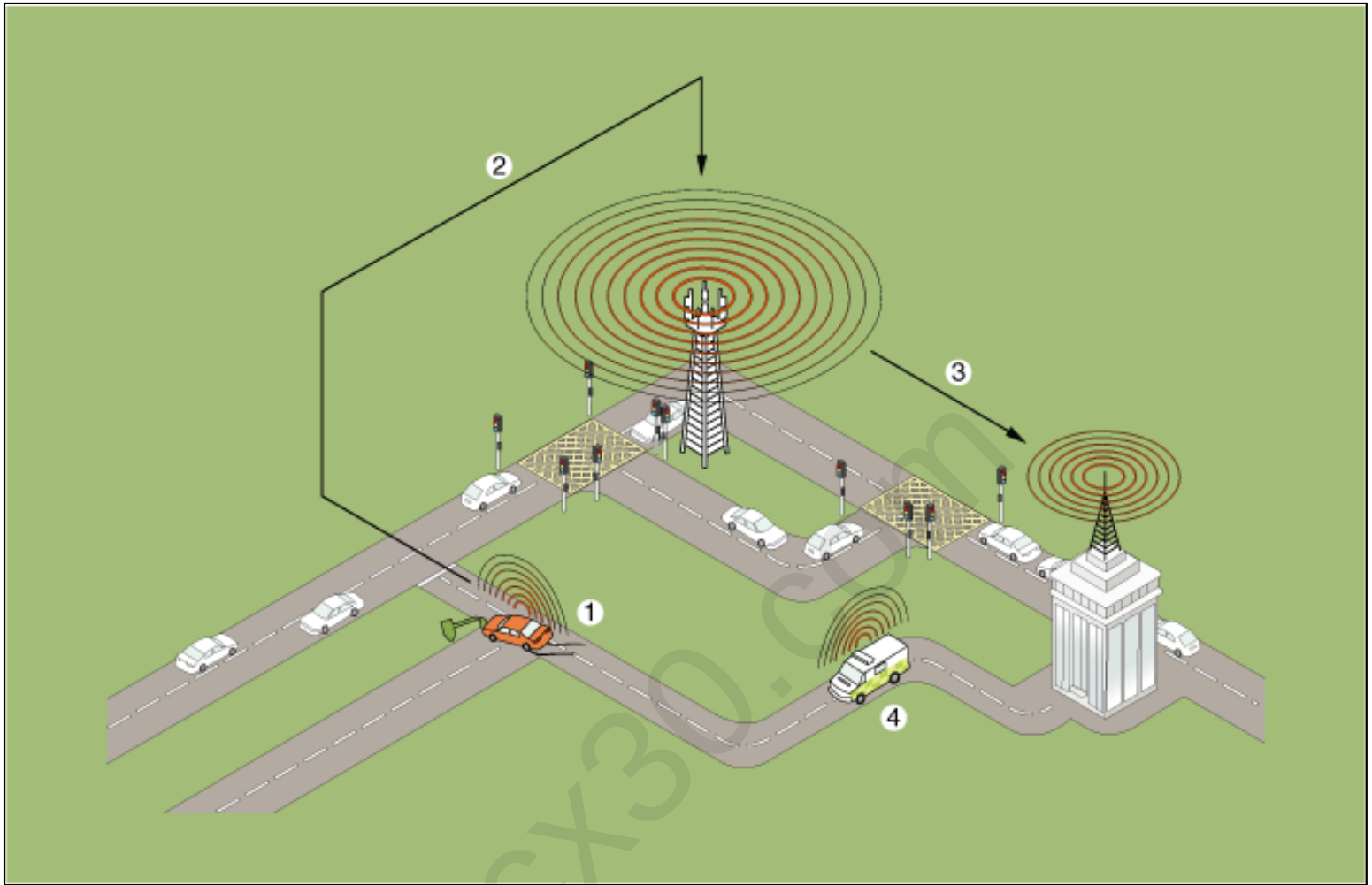


Description

Emergency Call (eCall)

When an accident occurs or the user's request is detected, it notifies the call center of the vehicle status using the wireless network so that the center can provide necessary emergency service.



1. Emergency Call

2. Radio Communication network

3. Public-Safety Answering Point (PSAP)

4. Emergency rescue service

eCall Function

1. Automatic notification function : It detects airbag signal that is triggered by accident and automatically notifies the call center of the accident.

(1) An accident occurs (condition : IGN ON)

(2) Collision signal : Sent from the airbag control unit (ACU) to the eCall unit

(3) Place a call : An emergency call is placed to the most appropriate public-safety answering point (PSAP).

(4) Transmit MSD : After the call is connected, the Minimum Set of Data (MSD) is transmitted using the in-band communication (technology that transmits data through telephone voice channel).

(5) Connect to a call center agent, who in turn provides emergency service.

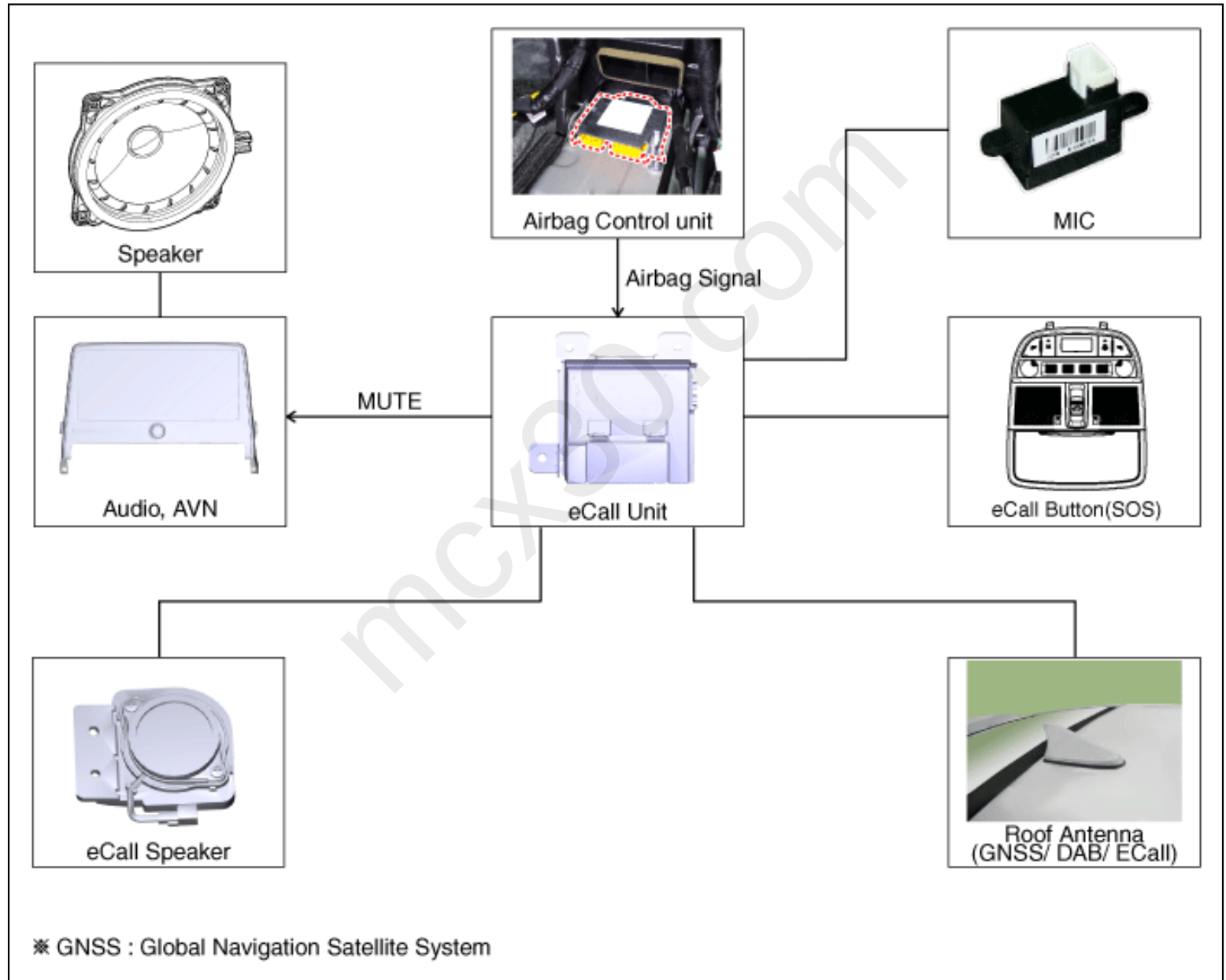


•The eCall system may not work properly if the vehicle damage is grave or the airbag does not operate due to a minor accident.

2. Manual notification function : The driver decides to operate the SOS button to notify the call center of the accident manually.
- (1) The driver decides to operate the SOS button.
 - (2) Place a call : An emergency call is placed to the most appropriate PSAP.
 - (3) Transmit MSD : After the call is connected, the MSD is transmitted using the in-band communication (technology that transmits data through telephone voice channel).
 - (4) Connect to a call center agent, who in turn provides emergency service.

☐ •If you want to cancel the connection attempt while placing a call by pressing the SOS button, press the button again.

Configuration of eCall Controller



Input button & Indicator

SOS button : Press the button to place a call to the call center.

LED indicator lamp : The red and green LEDs turn on for 3 seconds after the ACC is on and stay turned off in standby until the key is turned off.

The red LED turns on when there is a problem with the eCall system.

The green LED turns on when the eCall system is operating normally.

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Components

img

1. Emergency call unit
2. Emergency call system button
3. Emergency call system MIC
4. Roof antenna
5. Head unit (AVN)
6. Emergency call speaker
7. Supplemental Restraint System Control Module (SRSCM)

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Removal



If RED LED is on, check the eCall system with the diagnostic tools.

- The eCall unit.
- The Back-up Battery (BUB).
- The eCall speaker and MIC.
- The eCall antenna and Roof antenna.

1. Disconnect the negative (-) battery terminal.
2. Remove the crash pad center panel.
(Refer to Body - "Crash Pad Center Panel")
3. Disconnect ecall unit connectors.



4. Remove the ecall unit (A) after loosening mounting nuts.



Replacement

e-Call Unit Back Up Battery

1. Disconnect the negative (-) battery terminal.
2. Remove the eCall Unit.
3. If it is necessary to replace the back-up battery, remove the back-up battery cover (A).



4. Replace the back-up battery (A).



Installation



If RED LED is on, check the eCall system with the diagnostic tools.

- Replace the eCall unit.
- Replace the Back-up Battery (BUB).
- Replace the eCall speaker and MIC.
- Replace the eCall antenna and Roof antenna.

eCall Unit

1. Install the eCall unit.
2. Install the crash pad center panel.
3. Connect the negative (-) battery terminal.
4. Perform the "eCall Parameter Download"
(Refer to Inspection - "Inspection with Diagnostic Tools")

Inspection

Inspecting Back-Up Battery

Back-up battery (BUB) embedded in the eCall system has a finite lifespan and using it for a long time may decrease its charging/discharging performance.

The back-up battery guarantees the operation of the eCall system when the vehicle battery cannot be used due to an accident. Be sure to inspect the back-up battery if the red LED turns on and replace it if necessary.



- Warranty of Back-up Battery is 3years.
- Inspect the back-up battery every three years and replace it if necessary.
(Refer to Emergency Call Unit - "Repair Procedures")



- The eCall system is aimed to place an urgent call to the call center during an emergency. Arbitrarily removing or operating the system components may affect the safety of people and may result in false notification of an accident to the emergency call center.



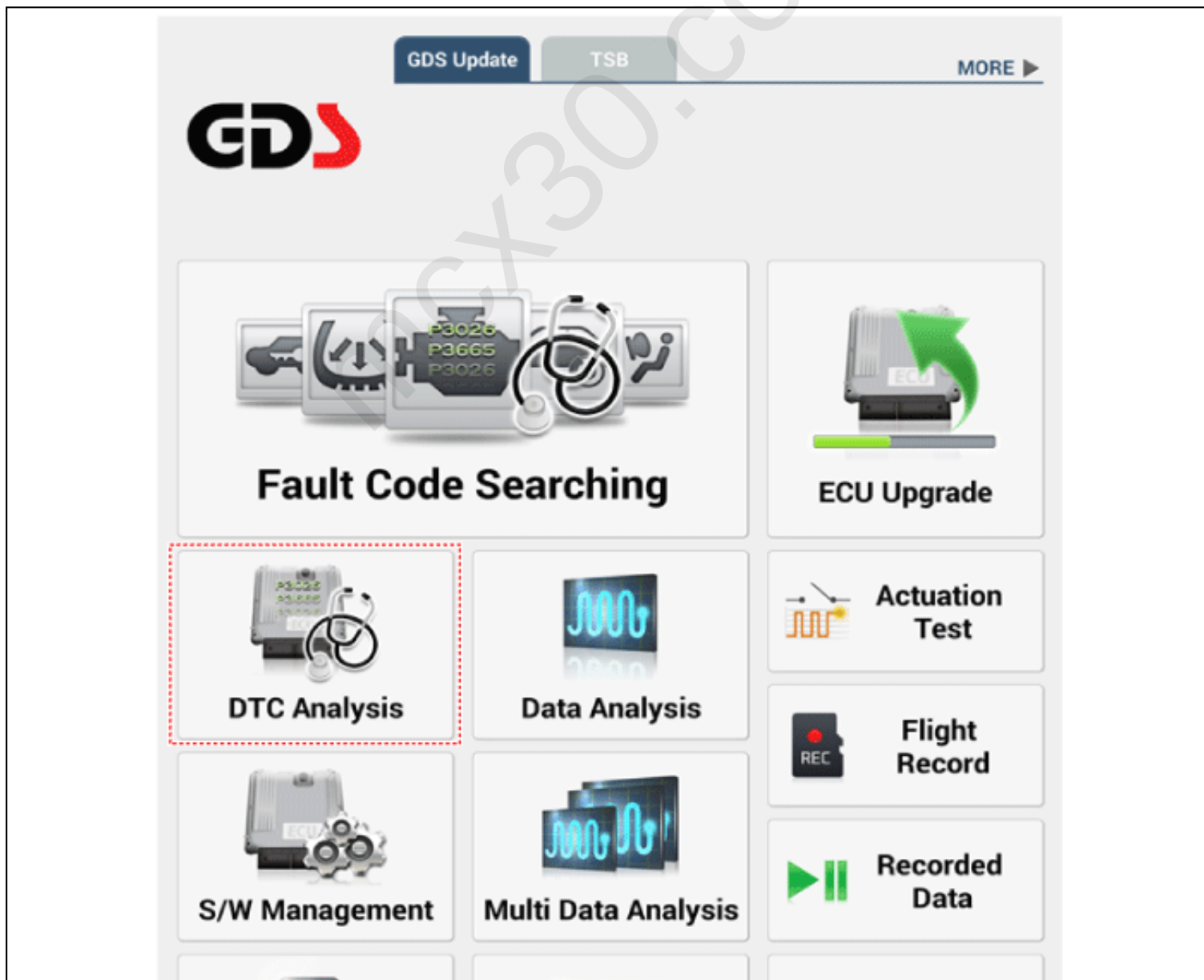
- The red LED turns on when there is a problem with the eCall system.
- If one or more DTCs for the eCall system are issued, check the eCall system(Unit, Button(Built in overhead console), Speaker, Antenna) by diagnostic tools.

Inspection with Diagnostic Tools

In the eCall system, failure can be quickly diagnosed by using the vehicle diagnostic system.

The diagnostic system provides the following information.

- 1)Self diagnosis : Checking failure and code number (DTC)
 - 2)Current data : Checking the system input/output data state
1. Select the "Car Model" and the "eCall System" to be checked in order to check the vehicle with the tester.
 2. To inquire the cause of trouble for each module by self diagnosis, select 'Diagnostic Trouble Code'.



S/W Management

Multi Data Analysis

Recorded Data



Digital Before Service



Measurement



OBD- II



HYUNDAI NEW THINKING.
NEW POSSIBILITIES.

3. Select the 'Current Data' menu to check the current state of the input/output data.

GDS Update

TSB

MORE ►



Fault Code Searching



ECU Upgrade



DTC Analysis



Data Analysis



Actuation Test



Flight Record



S/W Management



Multi Data Analysis



Recorded Data



Digital Before Service



Measurement



OBD- II



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NEW POSSIBILITIES.

Data Analysis			
Stop Graph Selective Display Actuation Test			
Sensor Name(5)	Value	Unit	Link Up
Vehicle Type	Passenger(M1)	-	
Vehicle Propulsion Storage Type	Gasoline	-	
MSD Total	0	-	
Log Total	0	-	
eCall Test Number Mode	OFF	-	

eCall System Reset

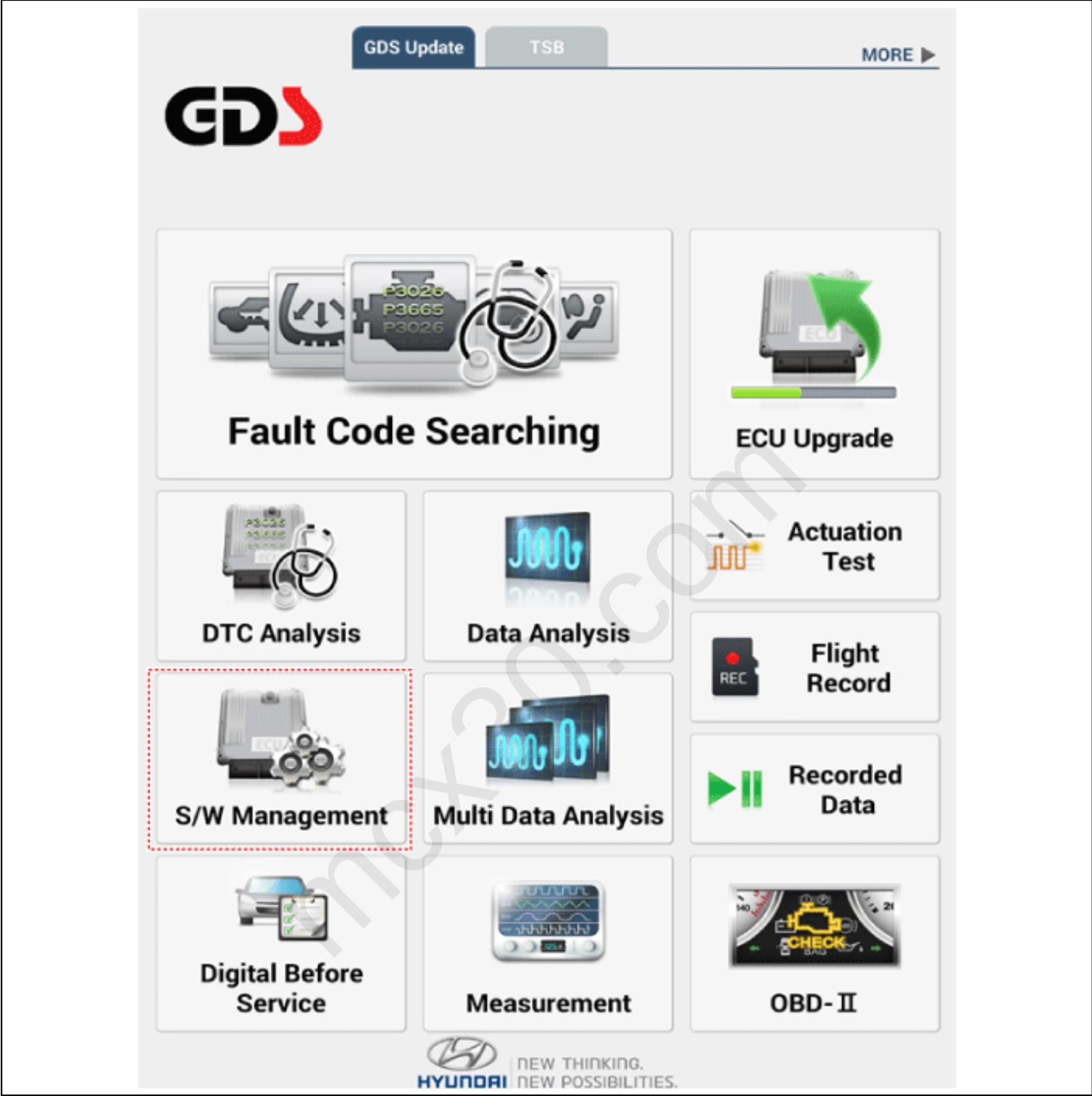
The eCall System Reset function is to reset when eCall is locked or stopped.



- The eCall System Reset function may result a false call to the PSAP (Public Safety Answering point) and it also may cause a malfunction to the system, therefore, the unauthorized use of this function is strictly prohibited.

1. Turn the ignition switch OFF.
2. Connect the diagnostic tools.
3. Turn the ignition switch ON without the engine running.

4. Select the "Car Model" and "S/W Management".



5. Select the "eCall System Reset"

S/W Management

Systems

Components

Fold All

e-Call(EUROPE)

System Identification

eCall Log/MSD Save and Delete

eCall Parameter Download

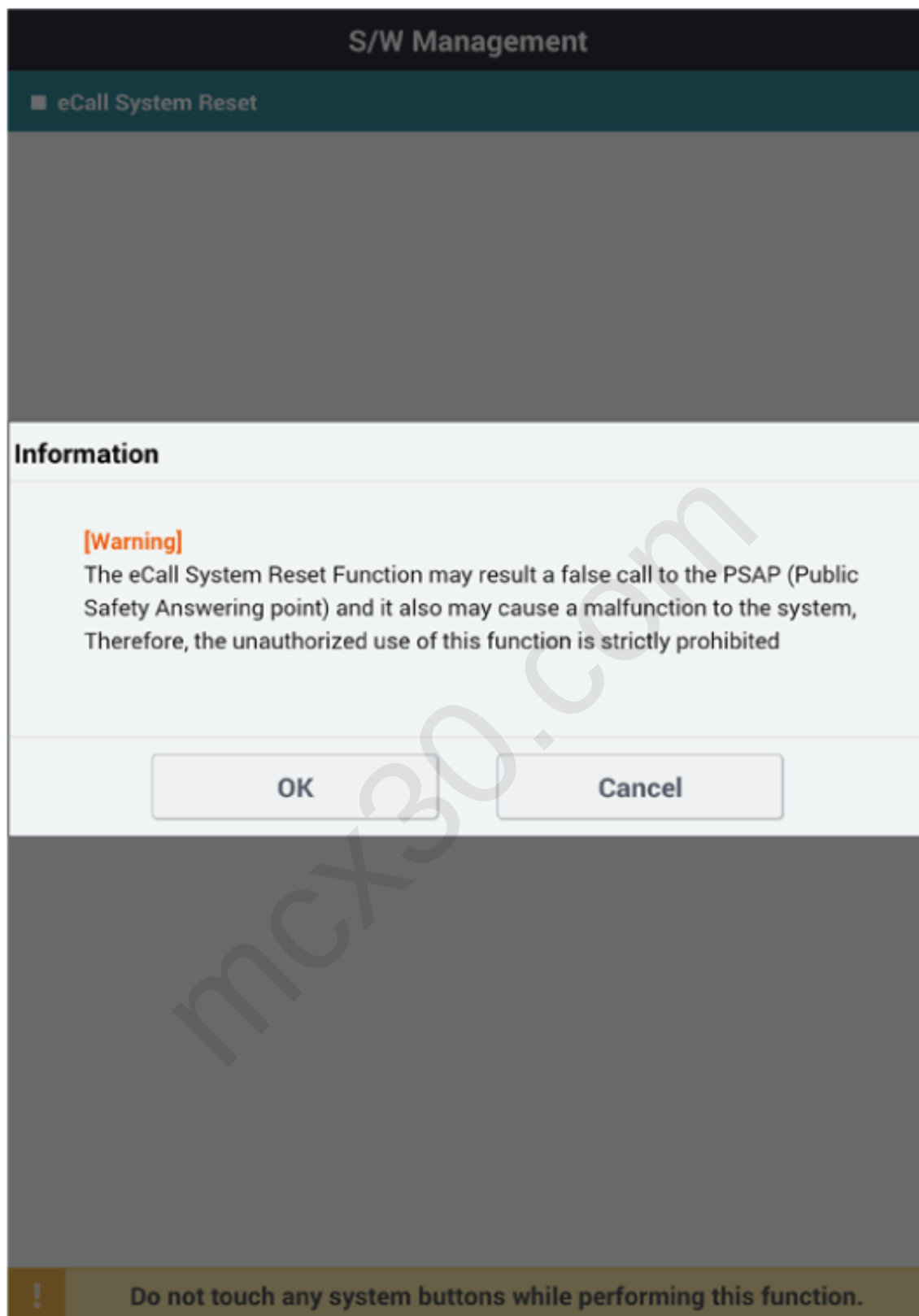
eCall Test Number Input

eCall System Reset

!

Do not touch any system buttons while performing this function.

6. Follow the screen instructions to perform the "eCall System Reset".



S/W Management

■ eCall System Reset

● [eCall System Reset]

This function is to reset eCall.

⚠ [Warning]

The eCall System Reset Function may result a false call to the PSAP (Public Safety Answering point) and it also may cause a malfunction to the system, Therefore, the unauthorized use of this function is strictly prohibited.

● [Condition]

1. Ignition switch is ON
2. eCall UNIT(Power ON / No Operating)

[OK] button : Start eCall System Reset

[Cancel] button : Go to the main page

OK

Cancel



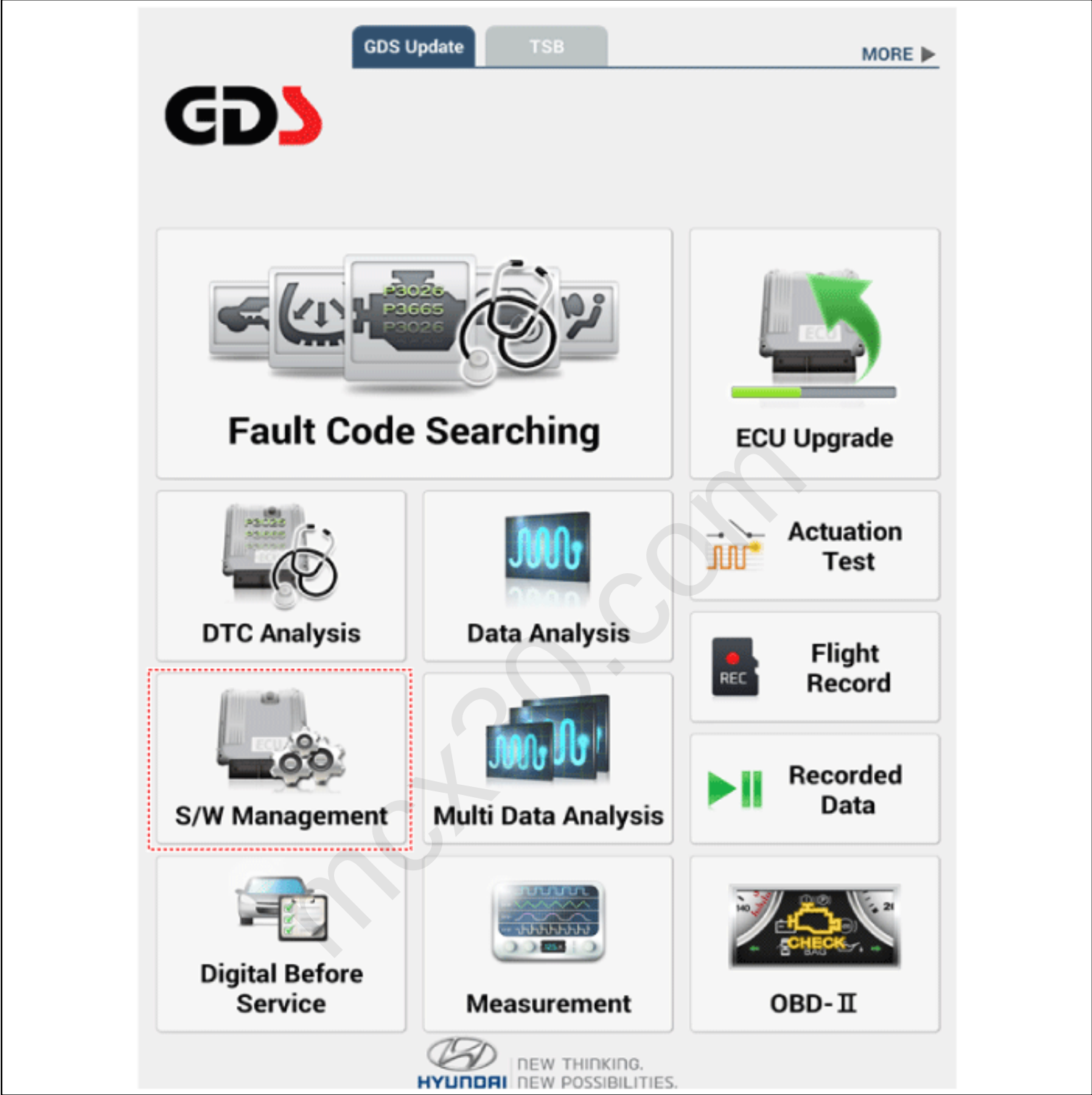
Do not touch any system buttons while performing this function.

eCall Parameter Download

eCall Parameter Download is used to change the parameter value of the eCall law in Europe.

1. Turn the ignition switch OFF.
2. Connect the diagnostic tools.
3. Turn the ignition switch ON without the engine running.

4. Select the "Car Model" and "S/W Management".



5. Select the "eCall Parameter Download"

S/W Management

Systems

Components

Fold All

e-Call(EUROPE)

System Identification

eCall Log/MSD Save and Delete

eCall Parameter Download

eCall Test Number Input

eCall System Reset

!

Do not touch any system buttons while performing this function.

6. Follow the screen instructions to perform the "eCall Parameter Download".

S/W Management

eCall Parameter Download

[eCall Parameter Download]

This function is used to change the parameter value of the eCall law in Europe.

If you are not connected to the Internet, no reference value will be provided.

[Condition]

1. Ignition Key On

[Caution]
Operating it arbitrarily violates the eCall law in Europe so use it only when there is a separate maintenance instruction.

[C1] button: if connected to the Internet.

[C2] button: if not connected to the Internet.

[Cancel] button: Returns to Main Menu.

C1C2Cancel

! Do not touch any system buttons while performing this function.

S/W Management

■ eCall Parameter Download

1. Select the item to modify
2. Please enter a value in the input window

[OK] button : Setting value input

[Cancel] button: Returns to Main Menu

Information

The function has been completed.

Press **[OK]** button to finish.

OK

OK

Cancel



Do not touch any system buttons while performing this function.

Removal

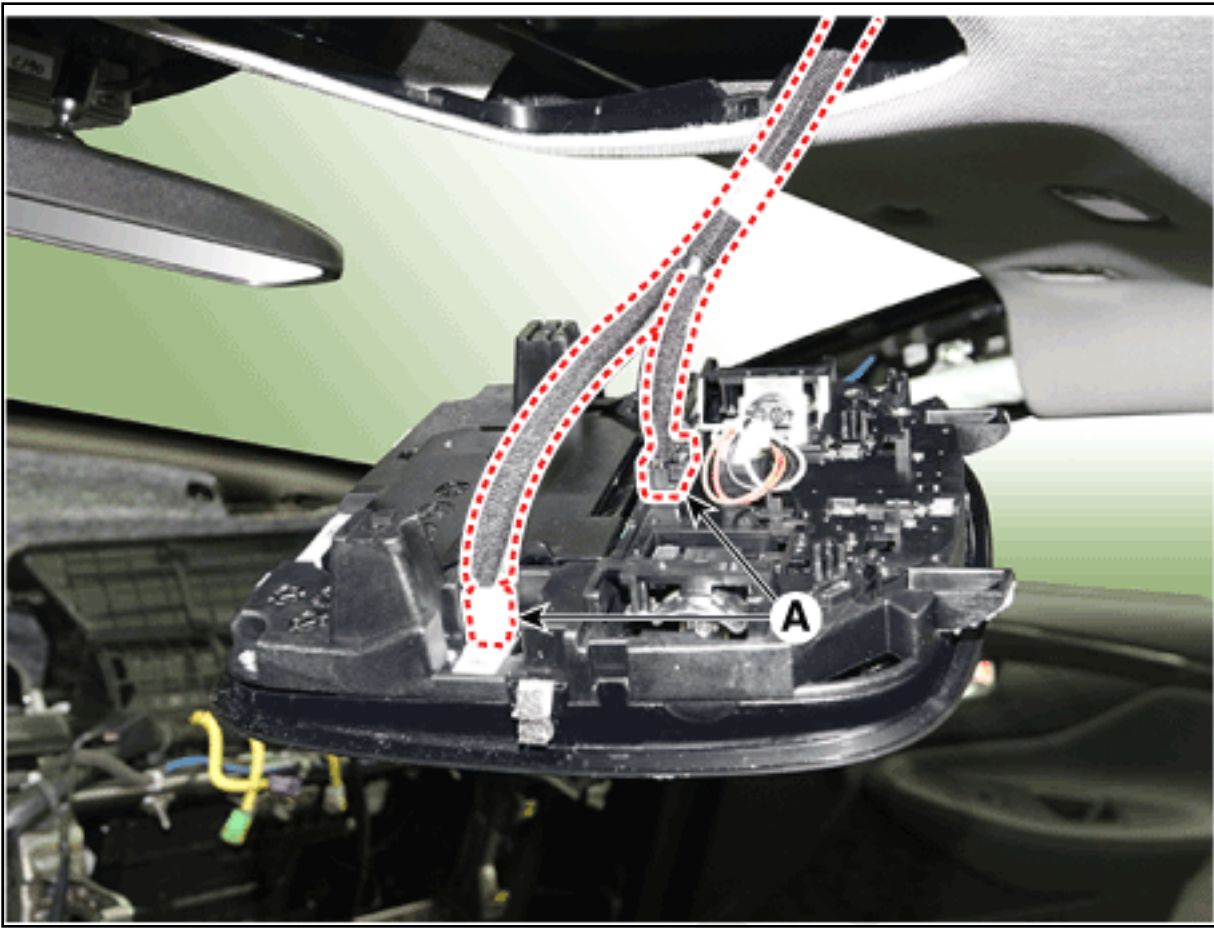
1. Disconnect the negative (-) battery terminal.
2. Remove the overhead console cover (A).

img

3. Remove the overhead console (A) after loosening mounting screws.



4. Remove the overhead console after disconnecting the connector (A).



Installation

1. Install the overhead console after connecting the connector.
2. Connect the negative (-) battery terminal.

Removal

eCall Antenna

1. Disconnect the negative (-) battery terminal.
2. Remove the roof trim assembly.
(Refer to Body - "Roof Trim Assembly")
3. Disconnect the eCall antenna cable and connector (A) and then remove the antenna mounting nut.



Installation

eCall Antenna

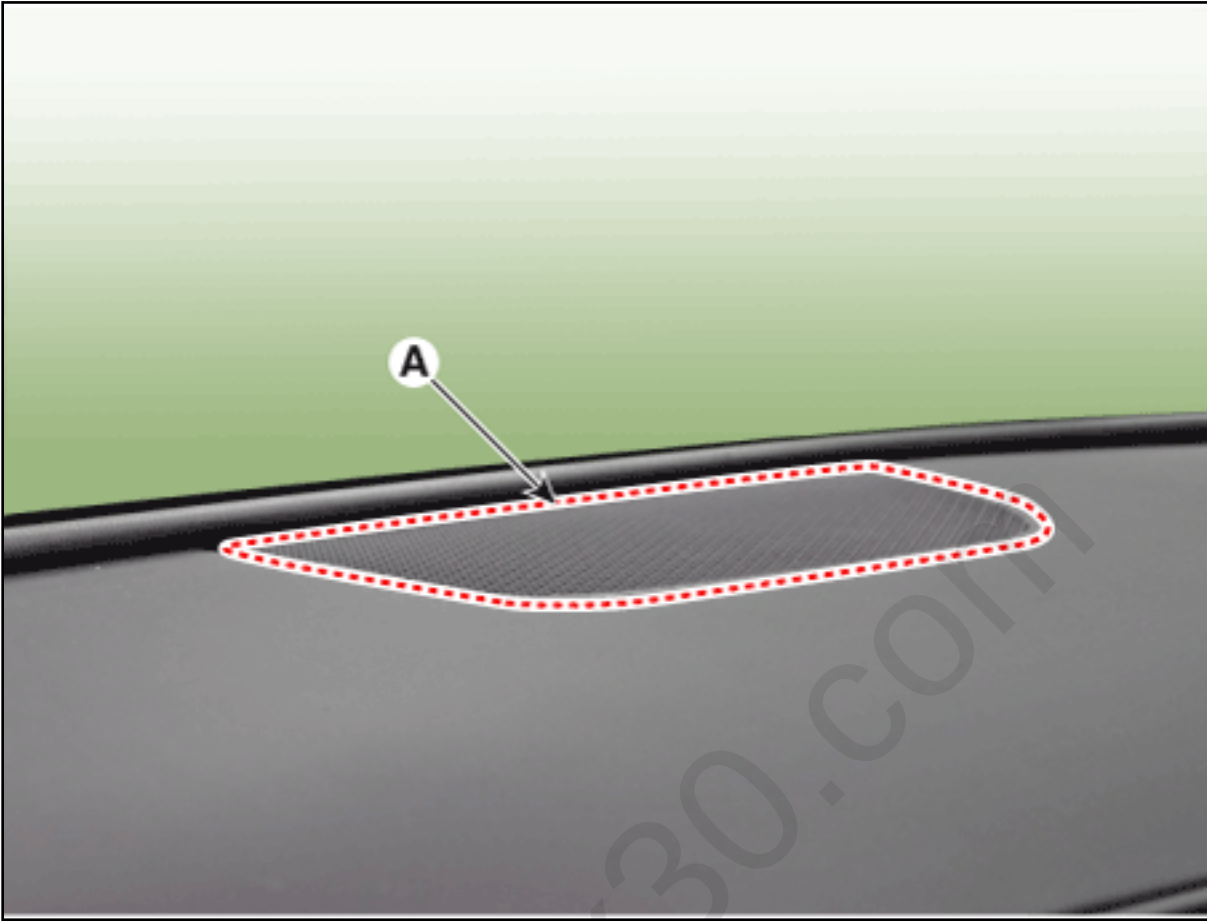
1. Connect the eCall antenna connectors.
2. Install the roof trim assembly.



- Make sure that the cables and connectors are plugged in properly.
- Check the Ecall system.

Removal

1. Disconnect the negative (-) battery terminal.
2. Using a screwdriver or remover, remove the ecall speaker cover (A).



3. Remove the ecall speaker (A) after loosening mounting screws.



4. Remove the ecall speaker after disconnecting speaker connector (A).



Installation

1. Install the speaker and connect the speaker connector.
2. Install the ecall speaker cover.
3. Connect the negative (-) battery terminal.