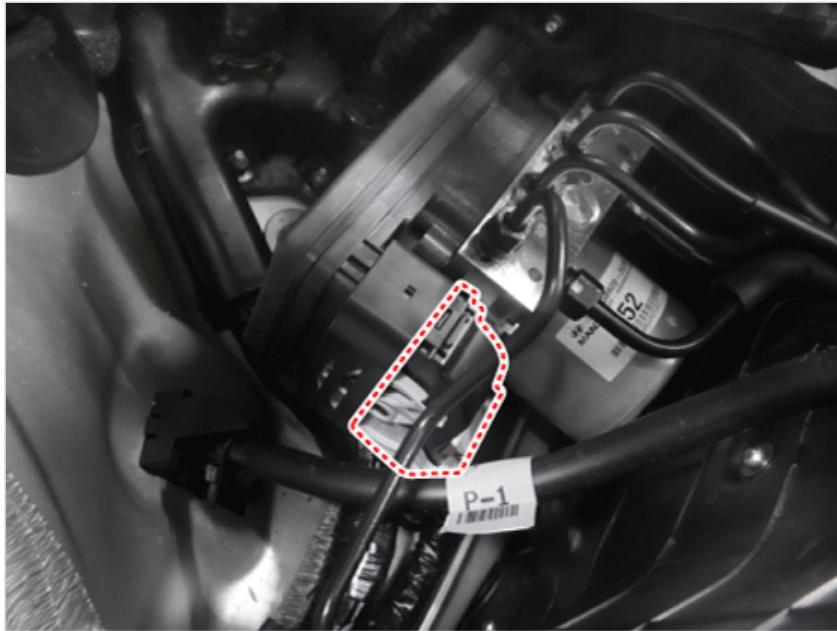




## Removal

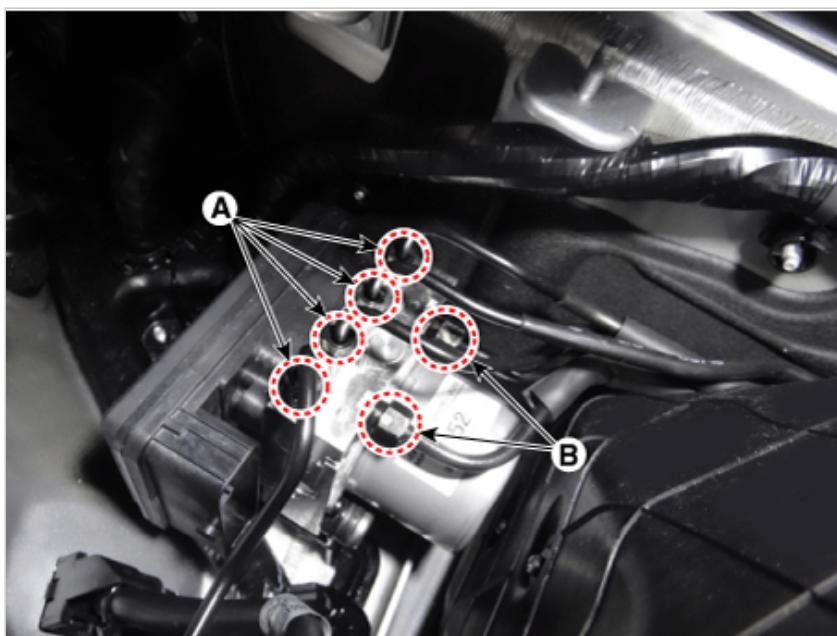
1. Turn ignition switch OFF and disconnect the negative (-) battery cable.
2. Separate the engine room relay block.  
**(Refer to Body Electrical System - "Relay box (Engine compartment)"")**
3. Disconnect the ESC connector.



4. Loosen the ESC brake tube flare nuts.

**Tightening torque :**

- (A) : 16.7 - 20.6 N·m (1.7 - 2.1 kgf·m, 12.3 - 15.2 lb·ft)  
(B) : 20.6 - 24.5 N·m (2.1 - 2.5 kgf·m, 15.2 - 18.1 lb·ft)



5. Loosen the ESC bracket bolts and then remove the ESC.

**Tightening torque :**

- 16.7 - 25.5 N·m (2.0 - 3.0 kgf·m, 12.3 - 18.8 lb·ft)

**NOTICE**

- Never attempt to disassemble the ESC.
- The ESC must be transported and stored in.
- Never shock to the ESC.

## Installation

1. Install in the reverse order of removal.
2. After installation, bleed the brake system.  
(Refer to Brake system - "Brake Bleeding Procedures")

## Diagnostic procedure by using diagnostic device

Perform diagnostic procedure by using diagnostic device as shown below:

Connect self-diagnosis connector (16pins) located under the driver side crash pad to self-diagnosis device, and then turn the self-diagnosis device after key is ON.

Select the "vehicle model" and "ESC" on KDS vehicle selection screen, then select OK.

**[Variant Code Reset]**

## S/W Management

Systems Components Unfold All

- Engine Control
- Automatic Transaxle
- ABS/ESC
  - System Identification
  - HCU Air Bleeding Mode
  - Auto Detected Configuration(ESC Only)
  - Longitudinal G Sensor Calibration(HAC/DBC Only)
  - Steering Angle Sensor(SAS) Calibration
  - Variant Coding
- SCC/AEB
- Airbag(Event #1)
- Airbag(Event #2)
- Occupant Detection Sensor
- Air Conditioner
- Motor Driven Power Steering
- Tire Pressure Monitoring System(High Type)
- Tire Pressure Monitoring System(Low Type)

## S/W Management



## • Variant Coding

|                     |  |
|---------------------|--|
| Purpose             | This function resets variant code and input the new one in ESP. Perform this function when you replace ESP occur C1702 with MIL On.(ESP/EBD/ABS) |
| Enable Condition    | 1. Engine Off<br>2. Ignition Switch On   |
| Concerned Component | Hydraulic Electric Control Unit(HECU)  |
| Concerned DTC       | C170204  |
| Fail Safe           | Warning Lamp On  |
| Etc                 | -  |

## S/W Management

### ■ Variant Coding

#### ● [ Variant Coding ]

This function resets variant code and input the new one in ESP. Perform this function when you replace ESP or occur C1702 with MIL On.(ESP/EBD/ABS)

##### ●[ Condition ]

1. Ignition key on
2. Engine Stop

Press **[OK]** button, if you are ready

Press **[CANCEL]** button to exit.

OK

Cancel

## S/W Management

### ■ Variant Coding

#### ● [ Variant Coding ]

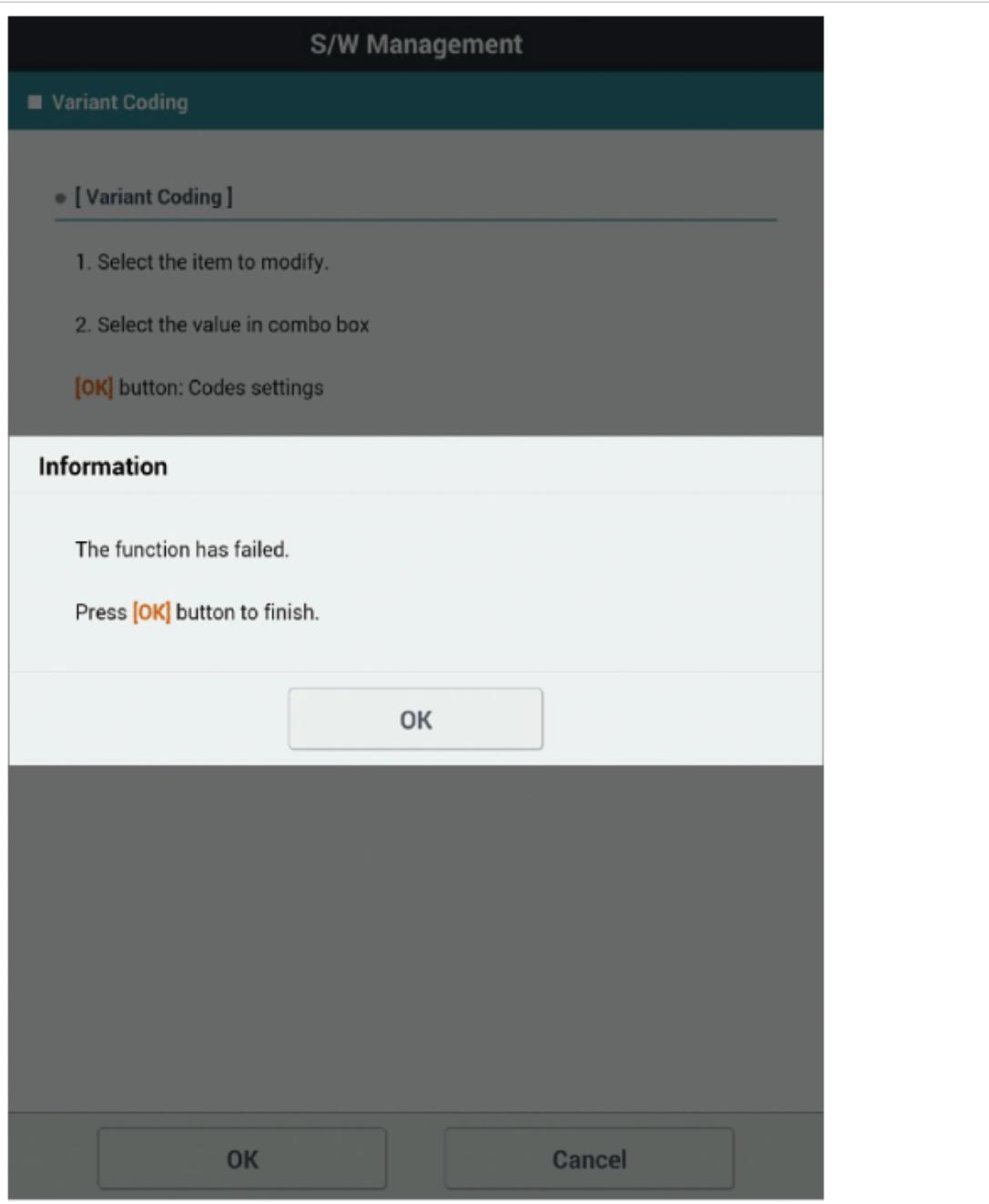
1. Select the item to modify.
  2. Select the value in combo box
- [OK]** button: Codes settings  
**[Cancel]** button: Main Menu

| Item         | Setting Value |
|--------------|---------------|
| ESS status : | DISABLE       |

DISABLE ▾

OK

Cancel



[Auto Detected Sensor Calibration]

## S/W Management

Systems Components Unfold All

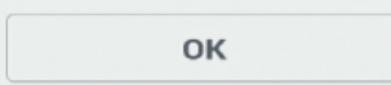
- Engine Control
- Automatic Transaxle
- ABS/ESC
  - System Identification
  - HCU Air Bleeding Mode
  - Auto Detected Configuration(ESC Only)
  - Longitudinal G Sensor Calibration(HAC/DBC Only)
  - Steering Angle Sensor(SAS) Calibration
  - Variant Coding
- SCC/AEB
- Airbag(Event #1)
- Airbag(Event #2)
- Occupant Detection Sensor
- Air Conditioner
- Motor Driven Power Steering
- Tire Pressure Monitoring System(High Type)
- Tire Pressure Monitoring System(Low Type)

## S/W Management



## • Auto Detected Configuration Reset(ESP(ESC) Only)

|                     |  |
|---------------------|--|
| Purpose             | To reset the configuration such as engine and transmission type, EPB, 4WD and others that set to HECU during vehicle assembly and allow PCM/ECM to re-configure. |
| Enable Condition    | <b>1. Engine Off</b><br><b>2. Ignition Switch On</b><br><b>3. Other Modules properly secured</b>   |
| Concerned Component | Hydraulic Electric Control Unit(HECU)  |
| Concerned DTC       | C1702  |
| Fail Safe           | Warning Lamp On  |
| Etc                 | -  |

OK

[Longitudinal G Sensor Calibration]

**S/W Management**

Unfold All

| Systems   | Components |
|---|------------|
| ■ Engine Control                                  |            |
| ■ Automatic Transaxle                             |            |
| ■ ABS/ESC   |            |
| ■ System Identification                           |            |
| ■ HCU Air Bleeding Mode                           |            |
| ■ Auto Detected Configuration(ESC Only)           |            |
| ■ Longitudinal G Sensor Calibration(HAC/DBC Only) |            |
| ■ Steering Angle Sensor(SAS) Calibration          |            |
| ■ Variant Coding                                  |            |
| ■ SCC/AEB   |            |
| ■ Airbag(Event #1)                                |            |
| ■ Airbag(Event #2)                                |            |
| ■ Occupant Detection Sensor                       |            |
| ■ Air Conditioner                                 |            |
| ■ Motor Driven Power Steering                     |            |
| ■ Tire Pressure Monitoring System(High Type)      |            |
| ■ Tire Pressure Monitoring System(Low Type)       |            |

## S/W Management



## • Longitudinal G Sensor Calibration(HAC/DBC Only)

|                     |  |
|---------------------|--|
| Purpose             | To reset sensor value of longitudinal G sensor.  |
| Enable Condition    | 1. Engine Off<br>2. Ignition Switch On<br>3. HAC Condition : Enabled<br>4. Max. Incline Angle : within $\pm 0.57$ deg<br>5. Straighten Steering Wheel position<br>6. Normal Tire Pressure<br>7. No excessive load on vehicle |
| Concerned Component | Hydraulic Electric Control Unit(HECU), Longitudinal G Sensor   |
| Concerned DTC       | C1285  |
| Fail Safe           | Warning Lamp On  |
| Etc                 | Must be performed after sensor or ECU is replaced.   |