



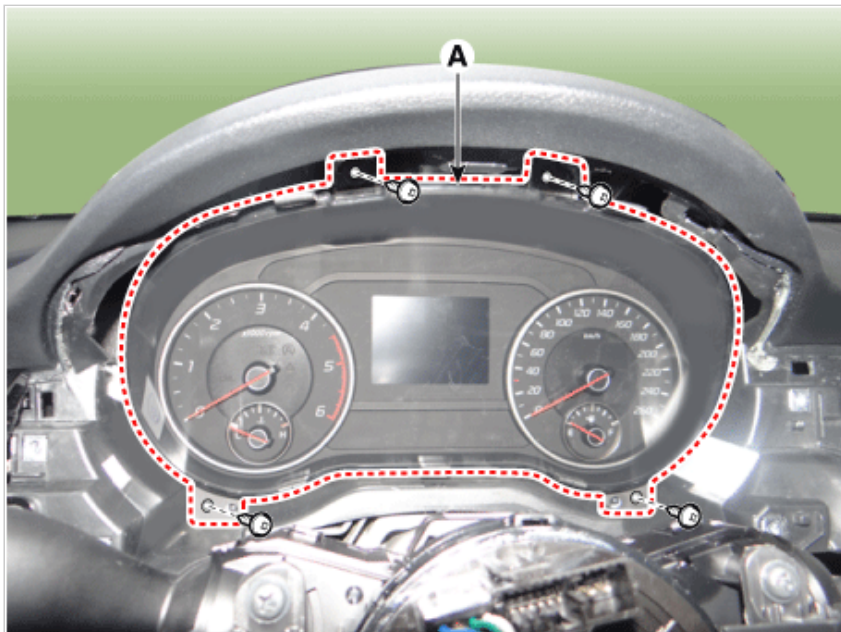
Removal

⚠ CAUTION

- Put on gloves to protect your hands.
- When removing with a flat-tip screwdriver or remover, wrap protective tape around the tools to prevent damage to components.

Instrument Cluster

1. Disconnect the negative (-) battery terminal.
2. Remove the cluster fascia panel.
(Refer to Body - "Cluster Fascia Panel")
3. Separate the instrument cluster (A) after loosening the mounting screws.



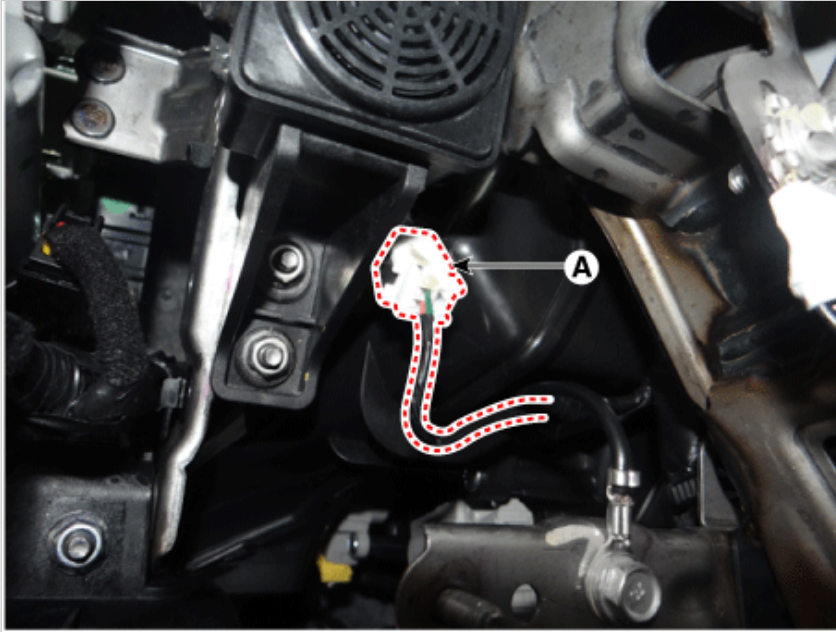
4. Remove the instrument cluster after disconnecting the cluster connector (A).



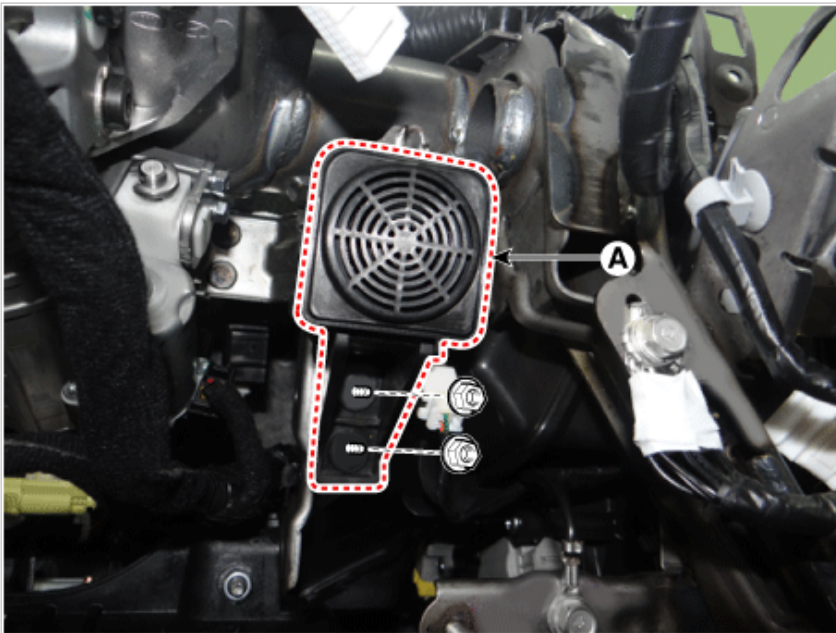
Instrument Cluster Speaker

1. Disconnect the negative (-) battery terminal.

2. Remove the crash pad lower panel.
(Refer to Body - "Crash Pad Lower Panel")
3. Disconnect the instrument cluster speaker connector (A).



4. Remove the instrument cluster speaker (A) after loosening the mounting nuts.



Installation

Instrument Cluster

1. Install the cluster after connect the cluster connectors.
2. Install the cluster fascia panel.
3. Connect the negative (-) battery terminal.



Information

Perform variant coding after exchanging the instrument cluster.

Instrument Cluster Speaker

1. Install the instrument cluster speaker.

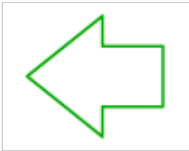
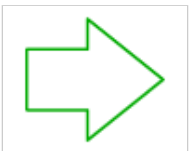
2. Connect the instrument cluster speaker connector.
3. Install the crash pad lower panel.
4. Connect the negative (-) battery terminal.

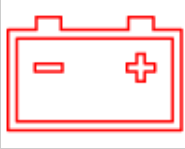
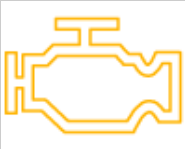
Inspection

1. Check point (Warning indicator)

NOTICE

- Fault conditions and normal operating conditions, refer to the owner's manual.

NO	Ref Symbol	Name	Color	Signal Input	Signal Control	Check Point
1		Turnsignal (Left)	Green	CAN	ICU (Gateway)	1) Multifunction Switch 2) IBU 3) ICU 4) CAN Failure
2		Turnsignal (Right)	Green	CAN	ICU (Gateway)	1) Multifunction Switch 2) IBU 3) ICU 4) CAN Failure
3		Tail Lamp	Green	CAN	ICU (Gateway)	1) Multifunction Switch 2) IBU 3) ICU 4) CAN Failure
4		Low Beam	Green	CAN	ICU (Gateway)	1) Multifunction Switch 2) IBU 3) ICU 4) CAN Failure
5		HBA	Green	CAN	MFC	1) MFC System 2) CAN Failure
6		High Beam	Blue	CAN	ICU (Gateway)	1) Multifunction Switch 2) IBU 3) ICU 4) CAN Failure
7		Warning	Yellow	CAN + Hard-wired	BCW	1) BCW System 2) CAN Failure
					PSB	1) PSB System 2) ICU 3) CAN Failure
					SCC ECS	1) SCC System 2) FCA System 3) LDW System 4) AFS System 5) TPMS System 6) HSWS System 7) CAN Failure
					Low Washer	1) Washer fluid lever sensor 2) Wiring Failure

					Digital Input	Reminders when service checks
8		Battery Charge	Red	Hard-wired	Alternator	1) Alternator 2) Wiring Failure 3) Battery
9		Oil Pressure	Red	Hard-wired	ECM	1) Oil Pressure Sensor 2) Wiring Failure 3) ECM 4) CAN Failure
10		Check Engine	Yellow	CAN	ECM	1) ECM 2) CAN Failure
11		Immobilizer	Yellow	CAN + Hard-wired	ICU (Gateway)	1) SMK System 2) ICU 3) CAN Failure 4) Hard-wired
12		Parking Brake Brake Fluid EBD EPB	Red	CAN	ICU (Gateway) EBD EPB	1) ICU 2) VDC System 3) EPB System 4) CAN Failure 5) Parking Brake Switch 6) Brake Oil Lever Sensor
13		ABS	Yellow	CAN	ABS	1) TCS System 2) CAN Failure
14		LED Headlamp	Yellow	CAN	AFS	1) AFS System 2) CAN Failure
15		LBA-D	Yellow	CAN	AFS	1) AFS System 2) CAN Failure
16		ESC	Yellow	CAN	TCS	1) TCS System 2) CAN Failure
17		ESC Off	Yellow	CAN	TCS	1) TCS System 2) CAN Failure
18		EPB	Yellow	CAN	EPB	1) EPB System 2) CAN Failure

						
19		Auto Hold	White Yellow Green	CAN	VDC	1) TCS System 2) CAN Failure
20		Seat Belt	Red	CAN	ICU (Gateway)	1) ICU 2) CAN Failure
21		Airbag	Red	CAN	SRSCM	1) SRSCM System 2) CAN Failure
22		EPS (MDPS)	Red	CAN	MDPS	1) MDPS Unit System 2) MDPS Motor 3) CAN Failure
23		TPMS	Yellow	CAN	TPMS	1) TPMS System 2) TPMS Sensor 3) CAN Failure
24		LKA	Green Yellow White	CAN	MFC	1) MFC System 2) CAN Failure
25		Fuel Warning	Yellow	Direct (Micom)	Fuel Segment	1) Fuel Sender Failure 2) Wiring Failure
26		ECO	Green	CAN	ECO mode	1) Drive Mode Switch 2) CAN Failure
27		SPORT	Yellow	CAN	SPORT Mode	1) Drive Mode Switch 2) ECM 3) TCU
28		Smart Shift	Green White Yellow	CAN	TCU	1) Drive Mode Switch 2) TCU System 3) CAN Failure
29		CRUISE	Green	CAN	ECM	1) ECM System 2) CAN Failure

						
30		AUTO STOP	Green Yellow	CAN	ECM	1) ECM 2) CAN Failure
31		AEB	Yellow	CAN	AEB	1) SCC System 2) CAN Failure
32		4WD	Yellow	CAN	4WD ECU	1) 4WD ECU 2) CAN Failure
33		4WD Lock	Yellow	CAN	4WD ECU	1) 4WD System 2) CAN Failure
34		Urea	Yellow	CAN	ECM	1) DPF System 2) CAN Failure

2. Check point (Gauge)

NO	Name	Signal Input	Signal Control (Unit/Sensor)	Check Point
1	Speedometer	C-CAN	ABS/ESC	1. ABS System 2. CAN Line failure
2	Tachometer	C-CAN	ECM	1. ECM 2. CAN Line failure
3	Cooling water temperature	C-CAN	ECM	1. ECM 2. CAN Line failure
4	Fuel	Hardwire	Fuel Sander	1. Fuel sender failure 2. Wiring failure

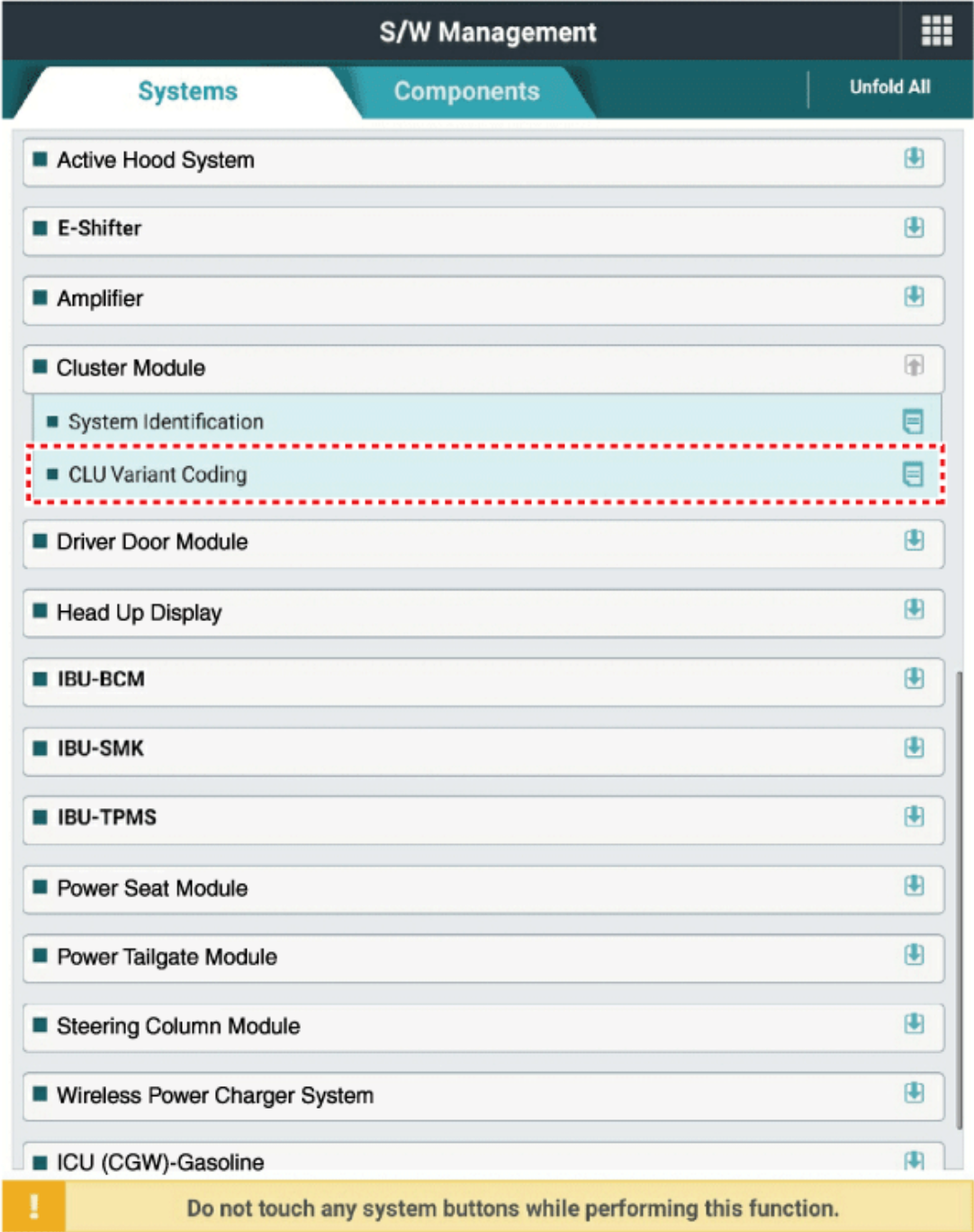
Diagnosis with KDS

- In the body electrical system, failure can be quickly diagnosed by using the vehicle diagnostic system (KDS).
The diagnostic system (KDS) provides the following information.
 - Self diagnosis : Checking failure and code number (DTC)
 - Current data : Checking the system input/output data state
 - Actuation test : Checking the system operation condition
 - Additional function : Controlling other features including system option setting and zero point adjustment
- Select the "Car model" and the "Cluster Module (CLU)" to be checked in order to check the vehicle with the tester
- Select the "Current Data" menu to search the current state of the input/output data.
- To forcibly actuate the input value of the module to be checked, select option "Actuation Test"

CLU Variant Coding

After replacing the cluster with a new one, must be performed the “Variant Coding” procedure.

- 1. Connect the cable of KDS to the data link connector in driver side crash pad lower panel, turn the power on KDS.
- 2. Select model and "IBU".
- 3. Select Variant coding mode to perform.



S/W Management



• CLU Variant Coding

Purpose	To set the specification of cluster in the vehicle which is applied to the vehicle CAN communication controller(ESP, MDPS, TPMS, EPB, SCC and so on).
Enable Condition	1.Engine Off 2.Ignition Switch On
Concerned Component	Cluster
Concerned DTC	B100051, B100155, B100255, B100455, B100855, B101055, B102055, B104055, B108055
Fail Safe	Set DTC, Warning message is displayed on instrument cluster
Etc	Input CLU coding code from web site.

OK



Do not touch any system buttons while performing this function.

S/W Management

■ CLU Variant Coding

- [CLU Variant Coding]

This function is intended to set for the specification of cluster in the vehicle which is applied to the vehicle system. (Option :ECS, MDPS, SCC and so on)

- [Condition]

1. Ignition key on
2. Engine Status : Stop

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

OK

Cancel

 Do not touch any system buttons while performing this function.

4. If the trouble codes occurred when performing variant coding, try the CLU variant coding again after checking the installation status of CLU system.