

Removal

⚠ CAUTION

Put on gloves to protect your hands.

When prying with a flat-tip screwdriver, wrap it with protective tape, and apply protective tape around the related parts, to prevent damage.

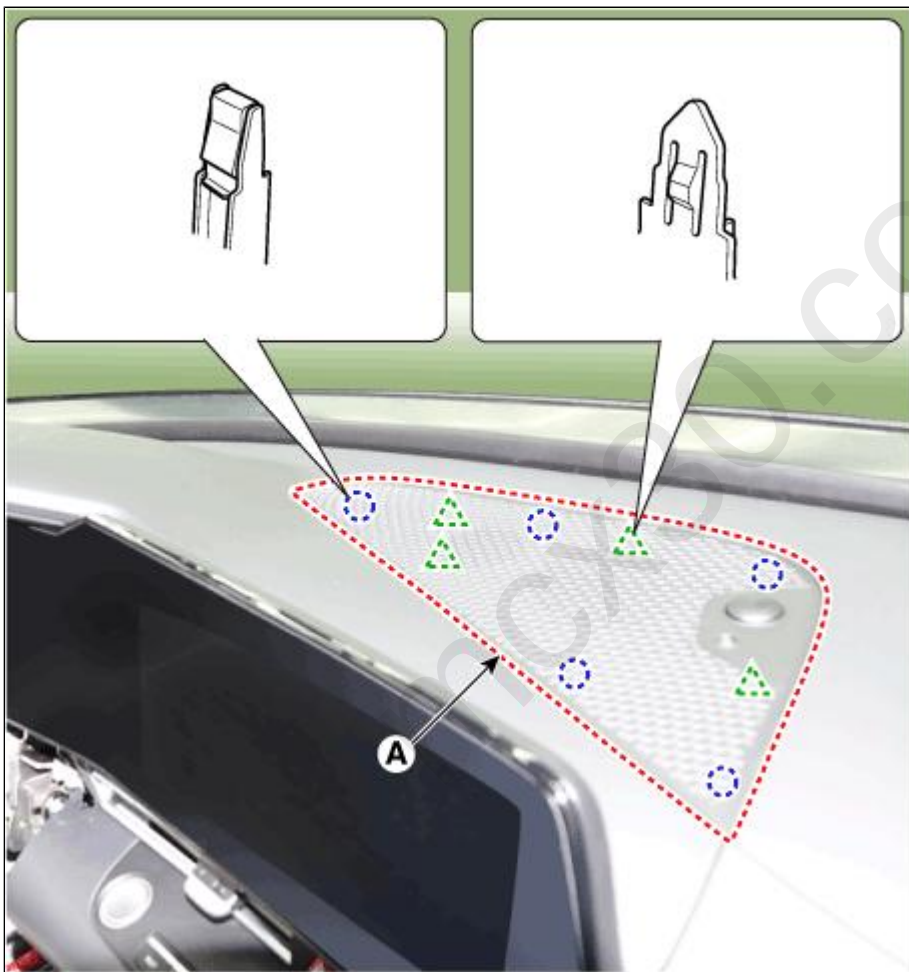
10.25 TFF LCD

NOTICE

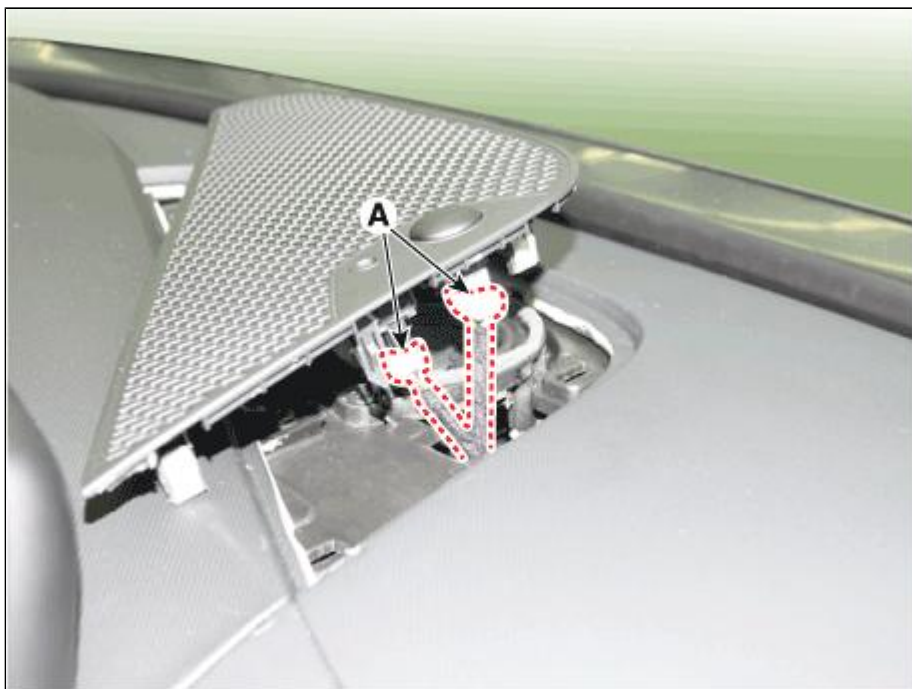
Put on gloves to protect your hands.

When prying with a flat-tip screwdriver, wrap it with protective tape, and apply protective tape around the related parts, to prevent damage.

1. Disconnect the negative (-) battery terminal.
2. Using a flat-tip screwdriver or remover, remove the photo sensor cover (A).



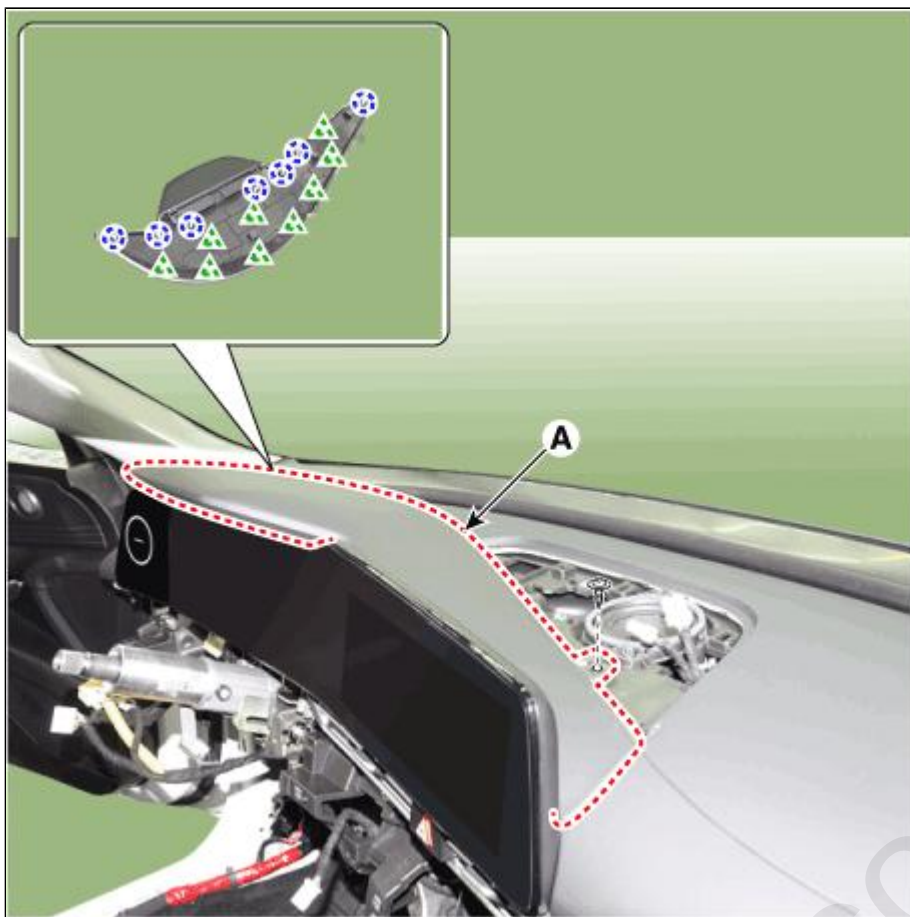
3. Disconnect photo sensor connector and security sensor connector (A).



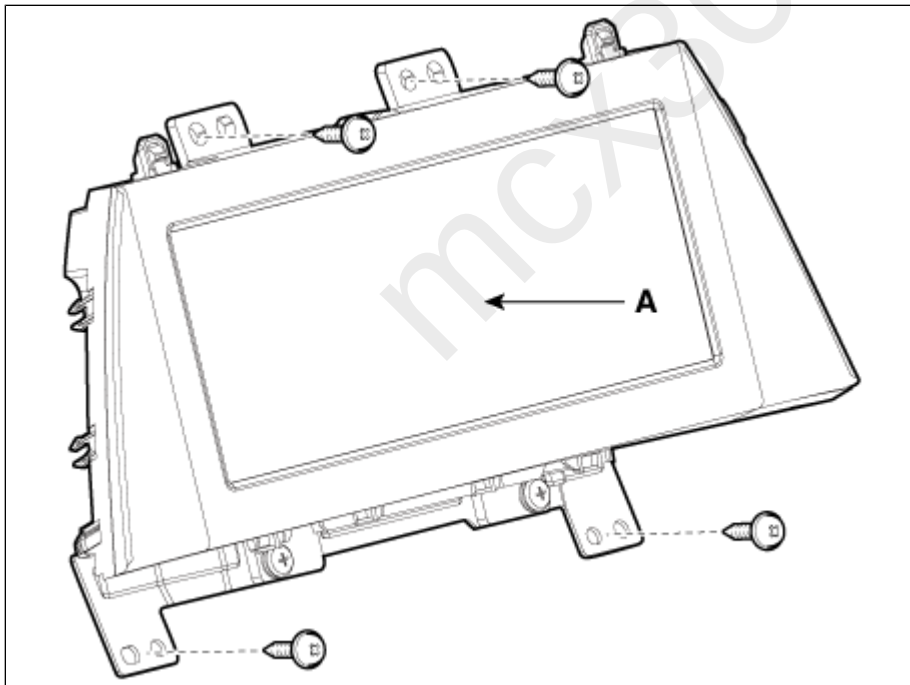
4. Using a flat-tip screwdriver or remover, remove the steering column shroud upper panel (A).



5. Using a flat-tip screwdriver or remover, remove the cluster fascia upper garnish (A).



6. Remove the cluster fascia side panel after mounting screws.
(Refer to Body - "Cluster Fascia Side Panel")
7. Remove the instrument cluster (A) after loosening the mounting screws.



8. Remove the instrument cluster after disconnect cluster connectors.



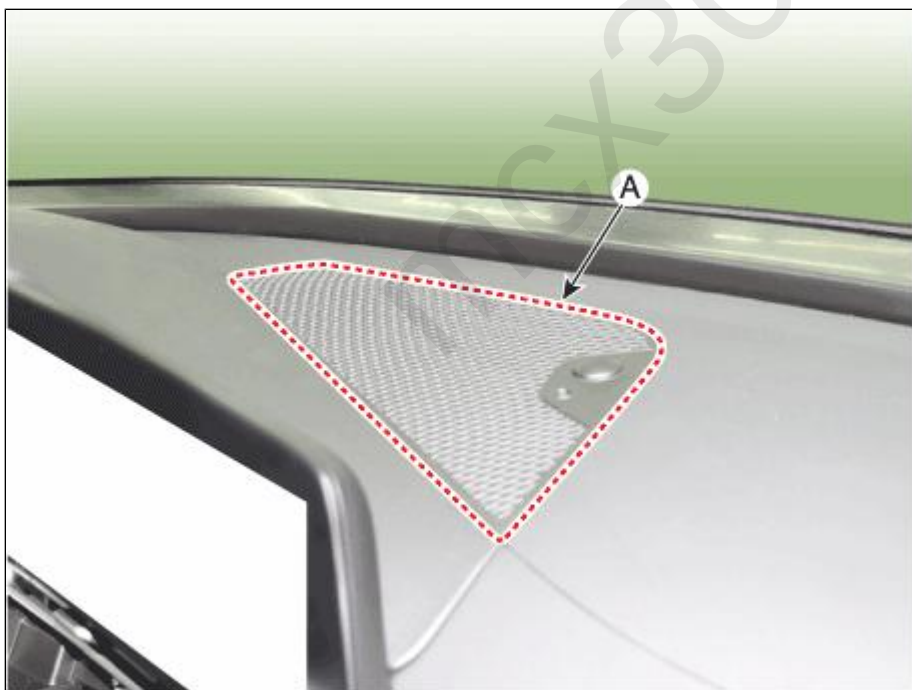
4.2 TFF LCD

NOTICE

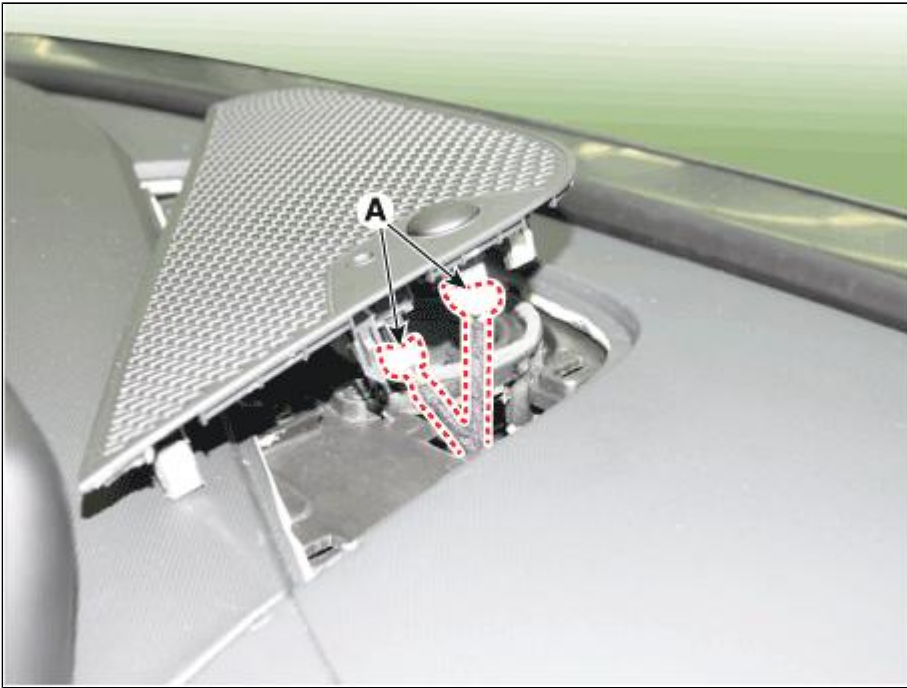
Put on gloves to protect your hands.

When prying with a flat-tip screwdriver, wrap it with protective tape, and apply protective tape around the related parts, to prevent damage.

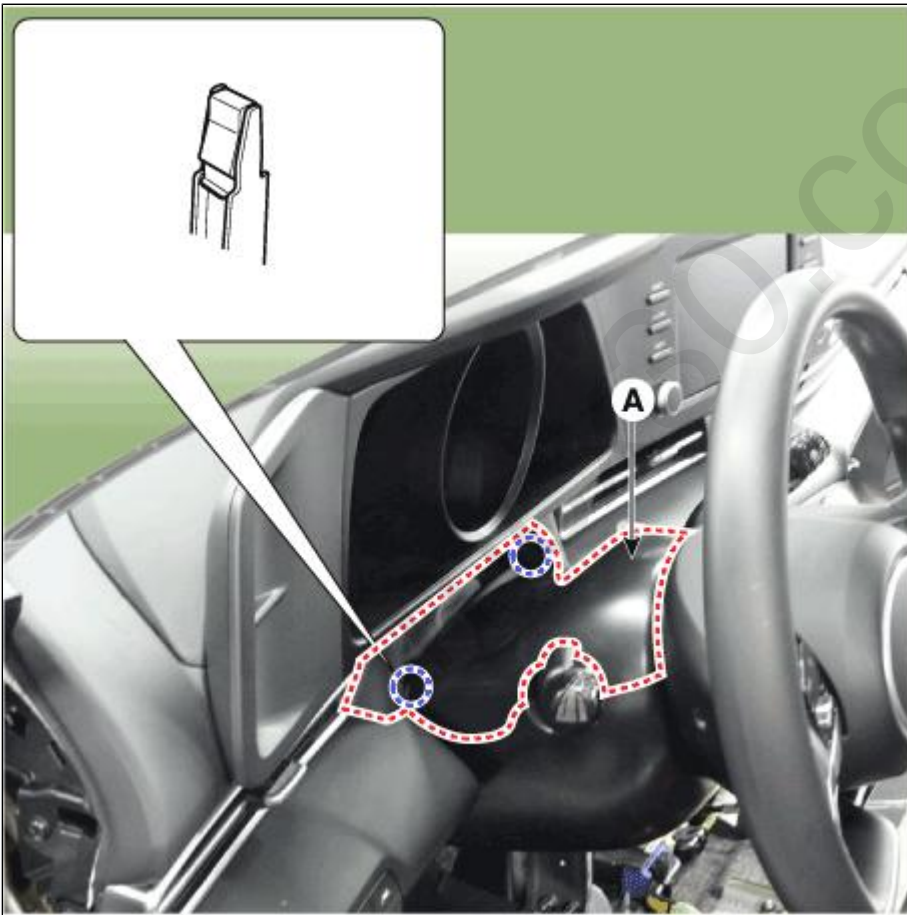
1. Disconnect the negative (-) battery terminal.
2. Using a flat-tip screwdriver or remover, remove the photo sensor cover (A).



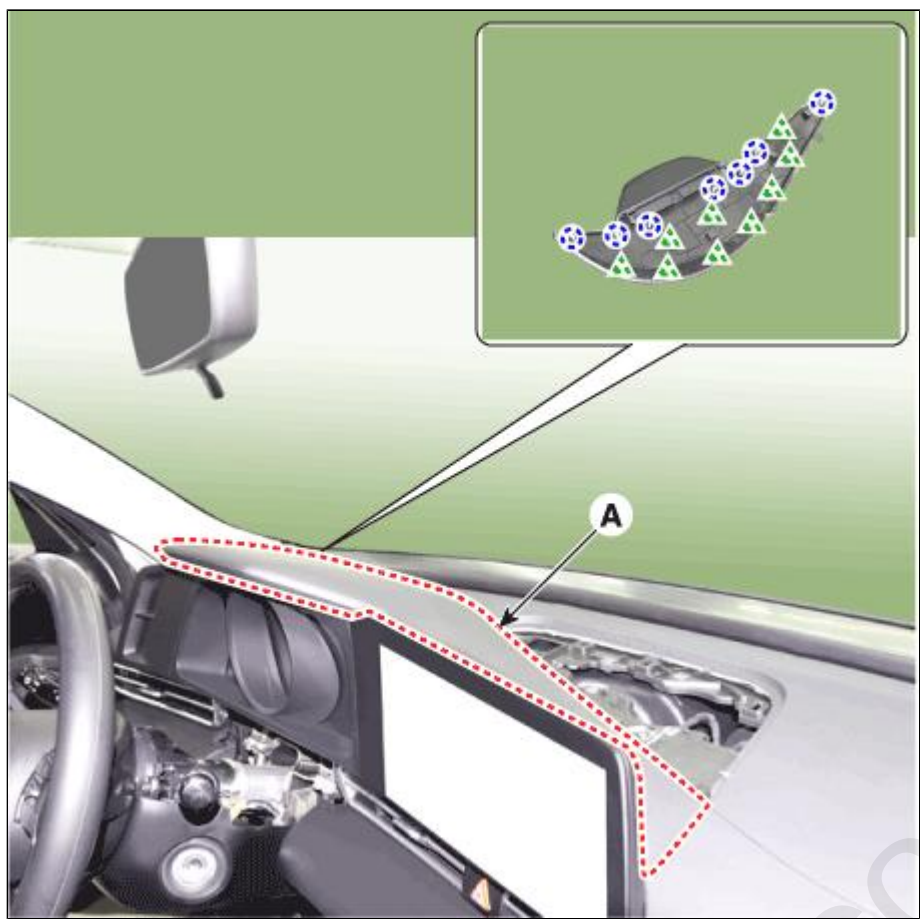
3. Disconnect photo sensor connector and security sensor connector (A).



4. Using a flat-tip screwdriver or remover, remove the steering column shroud upper panel (A).



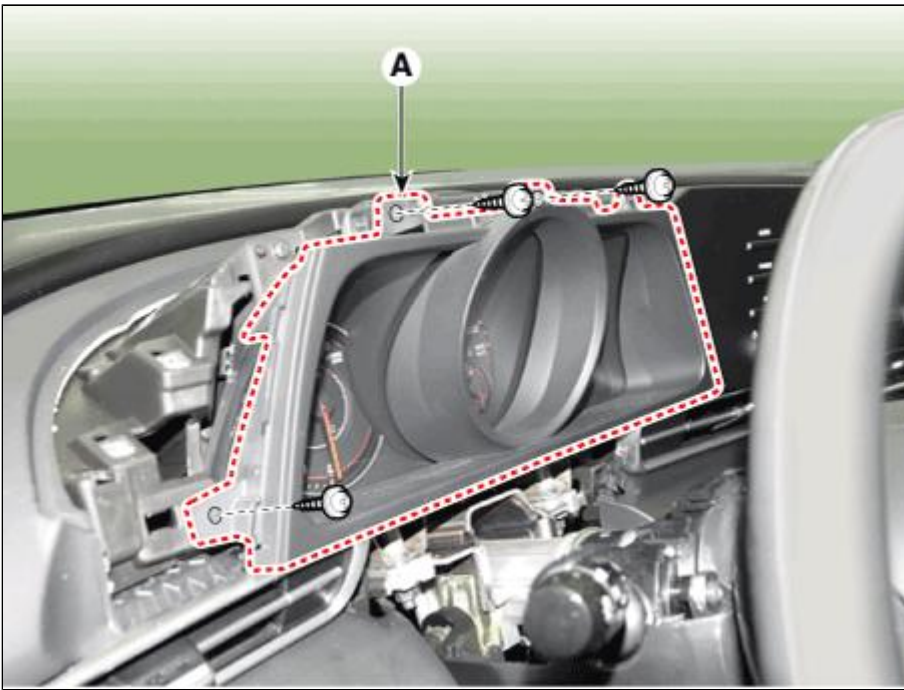
5. Using a flat-tip screwdriver or remover, remove the cluster fascia upper garnish (A).



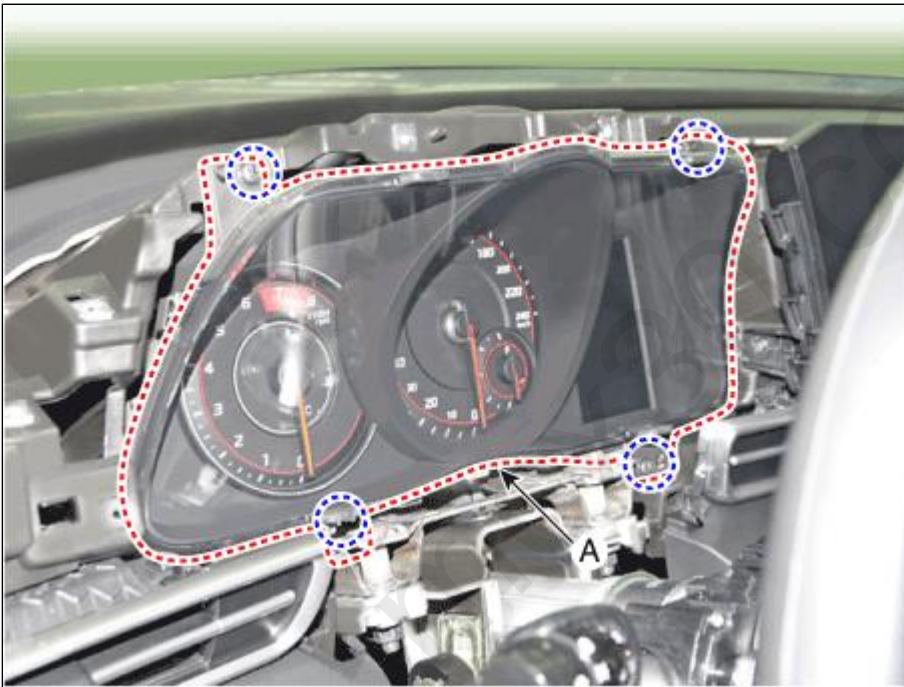
6. Remove the cluster fascia side panel (A) after mounting screws.



7. Remove the cluster fascia panel (A) after loosening mounting screws.



8. Remove the instrument cluster (A) after loosening mounting screws.



9. Remove the instrument cluster after disconnect cluster connectors.



Installation

10.25 TFT LCD

1. Install the cluster after connecting the cluster connector.
2. Install the cluster fascia upper garnish.
3. Install the steering column shroud upper panel.
4. Install the photo sensor cover.
5. Connect the negative (-) battery terminal.

NOTICE

Perform variant coding after exchanging the instrument cluster.

4.25 TFT LCD

1. Install the cluster after connecting the cluster connector.
2. Install the cluster fascia panel.
3. Install the cluster fascia side panel.
4. Install the cluster fascia upper garnish.
5. Install the steering column shroud upper panel.
6. Install the photo sensor cover.
7. Connect the negative (-) battery terminal.

NOTICE

Perform variant coding after exchanging the instrument cluster.

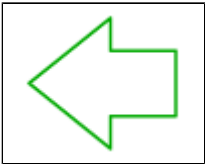
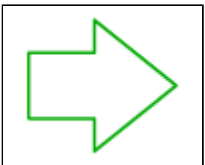
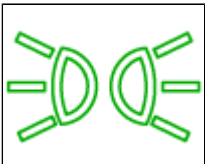
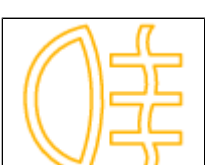
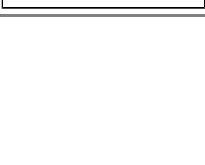
Inspection

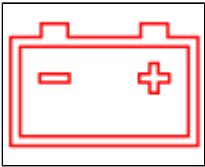
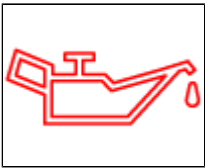
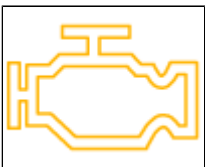
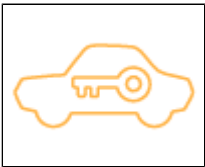
1. Check point (Warning indicator)

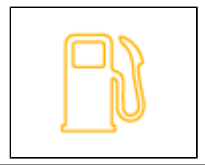
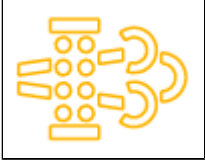
NOTICE

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

No	Ref Symbol	Name	Color	Signal input	Signal Control	Check point
						1) Multifunction

1		Turnsignal (Left)	Green	CAN	BCM (Gateway)	Switch 2) BCM 3) CAN Failure
2		Turnsignal (Right)	Green	CAN	BCM (Gateway)	1) Multifunction Switch 2) BCM 3) CAN Failure
3		Tail Lamp	Green	CAN	BCM (Gateway)	1) Multifunction Switch 2) BCM 3) CAN Failure
4		Fog Lamp	Green	CAN	BCM (Gateway)	1) Multifunction Switch 2) BCM 3) CAN Failure
5		Rear Fog Lamp	Yellow	CAN	IGPM (Gateway)	1) Multifunction Switch 2) IBU 3) IGPM 4) CAN Failure
6		High Beam	Blue	CAN	BCM (Gateway)	1) Multifunction Switch 2) BCM 3) CAN Failure
7		Warning	Yellow	CAN	BSD	1) BSD System 2) CAN Failure
					TPMS	1) TPMS System 2) CAN Failure
					SCC	1) SCC System 2) CAN Failure
					LDWS	1) LDWS System 2) CAN Failure
					FCW	1) FCW System 2) CAN Failure
					HBA	1) HBA System 2) CAN Failure
					BCM	1) Exterior Lamp 2) BCM 3) CAN Failure
				Hard-wired	Low Washer	1) Washer fluid level 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	IMMOBILIZER SMK	1) Immobilizer System 2) SMK 3) BCM 4) CAN Failure 5) Hard-wired
12		Parking Brake Brake Fluid EBD EPB EVP	Red	CAN	BCM (Gateway) EBD EPB EVP ABS TCS	1) BCM 2) ABS System 3) EPB System 4) CAN Failure 5) Parking Brake Switch 6) Brake Oil Lever Sensor
13		ABS	Yellow	CAN	ABS	1) ABS System 2) CAN Failure
14		ESC	Yellow	CAN	TCS	1) ABS System 2) CAN Failure
15		ESC Off	Yellow	CAN	TCS	1) ABS System 2) CAN Failure
16		EPB	Yellow	CAN	EPB	1) EPB System 2) CAN Failure
17		Auto Hold	White Yellow Green	CAN	TCS	1) TCS System 2) CAN Failure

18		Seat Belt	Red	CAN	BCM (Gateway)	1) BCM 2) CAN Failure
19		Airbag	Red	CAN	SRSCM	1) SRSCM System 2) CAN Failure
20		EPS (MDPS)	Red	CAN	MDPS	1) MDPS Unit System 2) MDPS Motor 3) CAN Failure
21		TPMS	Yellow	CAN	TPMS	1) TPMS System 2) TPMS Sensor 3) CAN Failure
22		Fuel Warning	Yellow	Direct (Micom)	Fuel Sender	1) Fuel Sender Failure 2) Wiring Failure
23		Door Open	Red	CAN	BCM (Gateway)	1) BCM 2) CAN Failure 3) Door Sensor/switch
24		FCA	Yellow	CAN	AEB	1) SCC System 2) CAN failure
25		Diesel Particulate Filter (GPF)	Yellow	CAN	ECM	1) GPF System 2) CAN Failure
26		Over Speed Warning	Yellow	CAN	ABS TCS (Speed)	1) ABS System 2) TCS System 3) CAN Failure

2. Check point (Gauge)

No	Name	Signal Input	Signal Control (Unit/Sensor)	Check Point
1	Speedometer	C-CAN	ABS/ESC	1) CAN Line failure
3	Tachometer	C-CAN	EMS	1) CAN Line failure
4	Cooling water temperature	C-CAN	EMS	1) CAN Line failure
5	Fuel	Hardwire	Fuel Sander	1) Fuel sender failure

				2) Wiring failure
6	Shift lever indicator	C-CAN	TCU	1) CAN Line failure

Diagnosis with Diagnostic tool

1. In the body electrical system, failure can be quickly diagnosed by using the vehicle diagnostic system (Diagnostic tool).

The diagnostic system (Diagnostic tool) provides the following information.

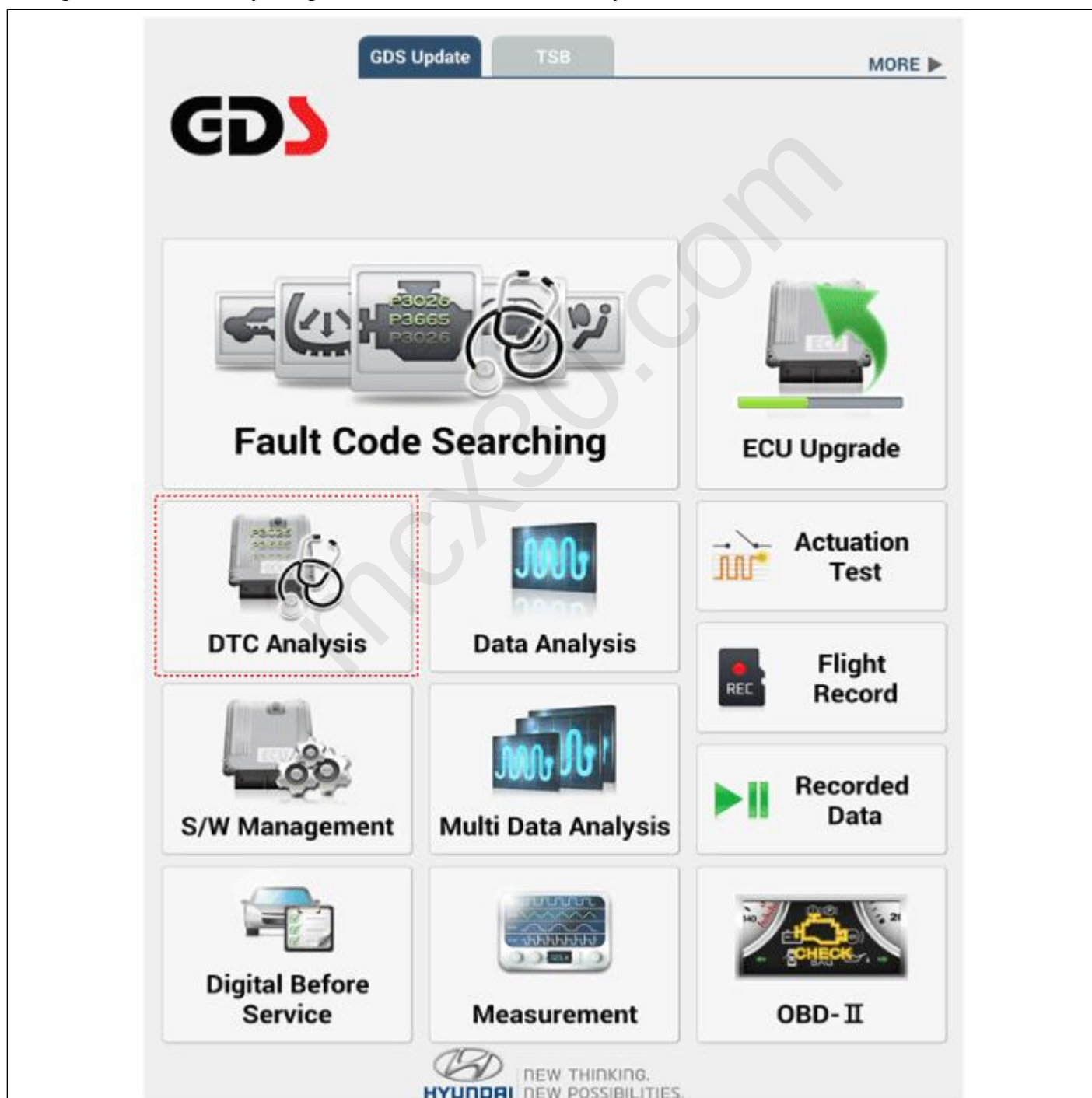
(1) Fault Code Searching : Checking failure and code number (DTC)

(2) Data Analysis : Checking the system input/output data state

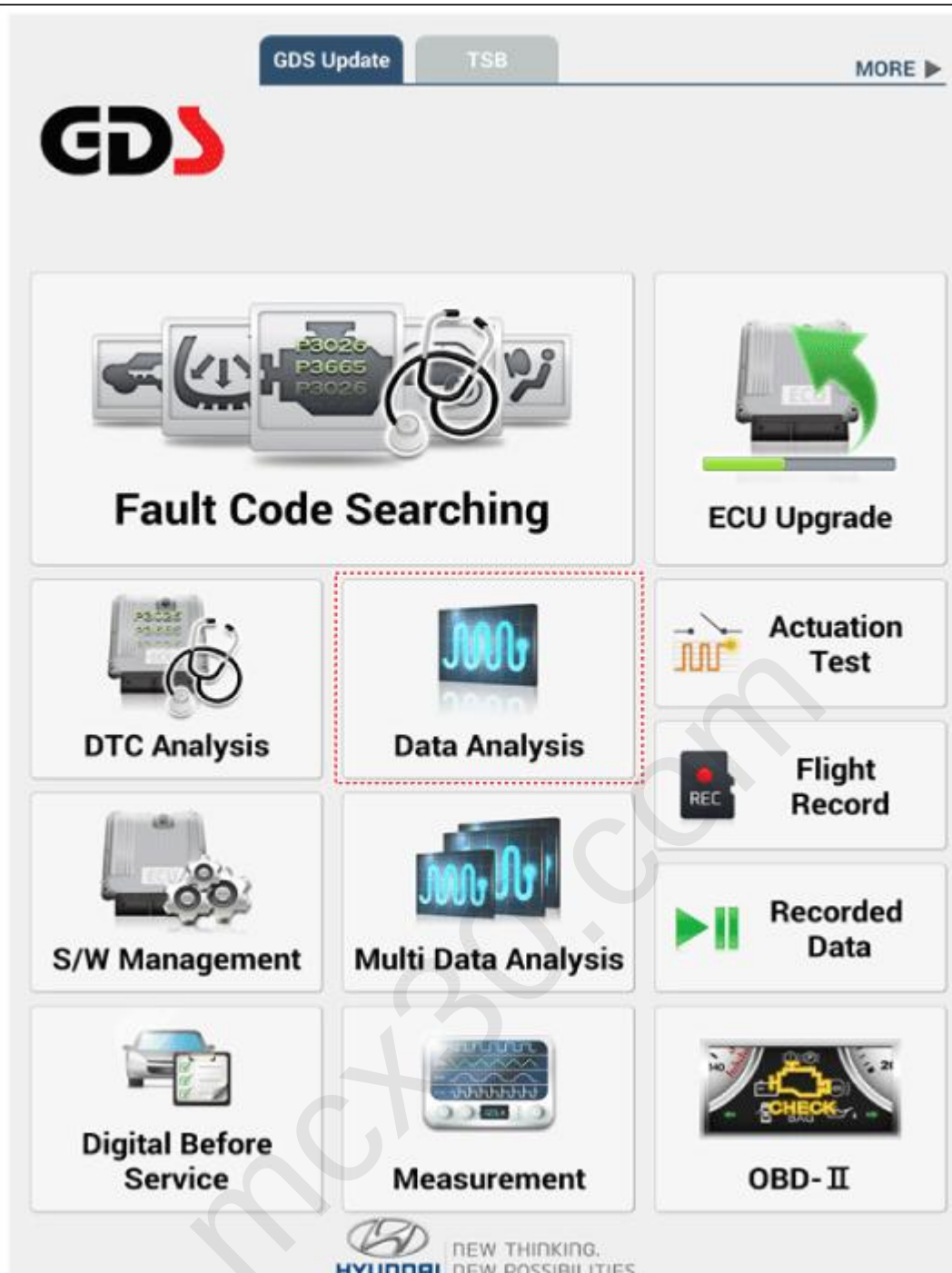
(3) Actuation test : Checking the system operation condition

(4) S/W Management : Controlling other features including system option setting and zero point adjustment

2. If diagnose the vehicle by Diagnostic tool, select "DTC Analysis" and "Vehicle".



3. If check current status, select the "Data Analysis" and "Car model".



4. Select the 'CLU' to search the current state of the input/output data.

Vehicle Selection



PREV

AUTO
VIN



RESET

SANTAFE(SM)		
SANTAMO(M2)		D 2 2 TCL-B

System Selection

 ENGINE	 A / T	 ABS/ESP	 FCA	 AIRBAG	 AIRCON
 4WD	 EPS	 RVM	 SVMS	 PA	 BCW
 FR_CMR	 AFLS	 AHL5	 AVN	 CLU	 DDM
 HUD	 IBU-BCM	 IBU-IMMO	 IBU-SMK	 IBU-TPMS	 PSM

• System

Cluster Module

OK

Data Analysis			
Stop Graph Selective Display Actuation Test			
Sensor Name(6)	Value	Unit	Link Up
FUEL INPUT	5.0	L	
Battery Voltage on CLU	10.3	V	
Odometer	103	km	
IGN1	ON	-	
Battery Charge Status	ON	-	
Washer Low	OFF	-	

CLU Variant Coding

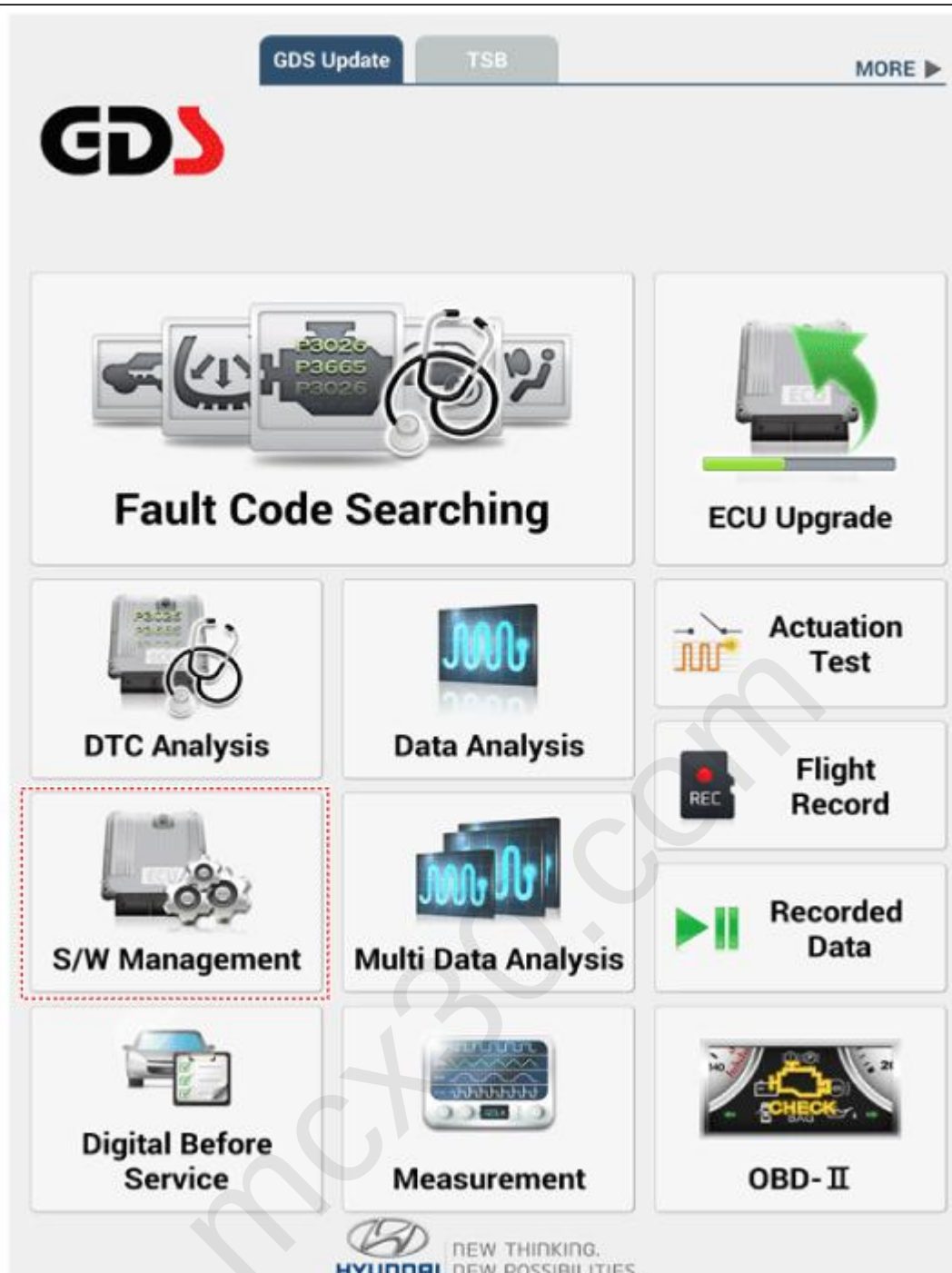
As we have more options (ESC, TPMS, SCC, etc.) in the car, the dashboard now have more information to display depending on the chosen options.

For this reason, we need to learn which options the current vehicle when we replace the dashboard.

To address this issue, a course of learning based on the option required for the vehicle when replacing the dashboard should be carried out.

This is called Variant Coding.

1. Connect the cable of Diagnostic tool to the data link connector in driver side crash pad lower panel.
2. Select the 'S/W Management' and 'Car model'.



3. Select the 'Cluster Module' and 'CLU Variant Coding'.

S/W Management

Systems

Components

Unfold All

Air Conditioner	
4WD Control	
Motor Driven Power Steering	
Rear View Monitor	
Surround View Monitor	
Parking Assist	
Blind-Spot Collision Warning	
Front View Camera	
Adaptive Front Lighting System	
Auto Headlamp Leveling System	
Audio Video Navigation	
Cluster Module	
System Identification	
CLU Variant Coding	
Service Reminder Setting	
CLU Variant Coding (Manual)	

!

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.

Code information is not searched or there is no response from the server.

If you want to retry, click [OK].

or if you want to enter the code by manual, click [Manual].

If you want to finish, click [Cancel].

OK

Manual

Cancel



Do not touch any system buttons while performing this function.

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☐ Document Type : SHOP

☐ Document Rating :

Please rate the above contents on a scale of 1 to 5.

Little Value

1

2

3

4

5

Excellent Value