

Installation Manual

NTG 5.5 for Mercedes-Benz E-class

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Specification

1. Main spec.

1-1 Input Spec. (MULTI VIDEO INTERFACE)

- 2 x A/V Input (External video source).
- 1 x Analog RGB Input (Navigation System output)
- 1 x CVBS(REAR CAMERA) Input. (Rear camera source)
- 1 x CVBS(FRONT CAMERA) Input. (Front camera source)
- 1 x LVDS Input. (Car Command System)
- 1 x Capacitive Touch Input
- 1 x Digital RGB

1-2 Output Spec.

- 1 x LCD Output (LCD Operation)
- 1 x Resistive Touch Output

1-3 Power Spec.

- Input Power : 8VDC ~ 24VDC
- Consumption Power : 12Watt, Max

1-4 Switch Input mode

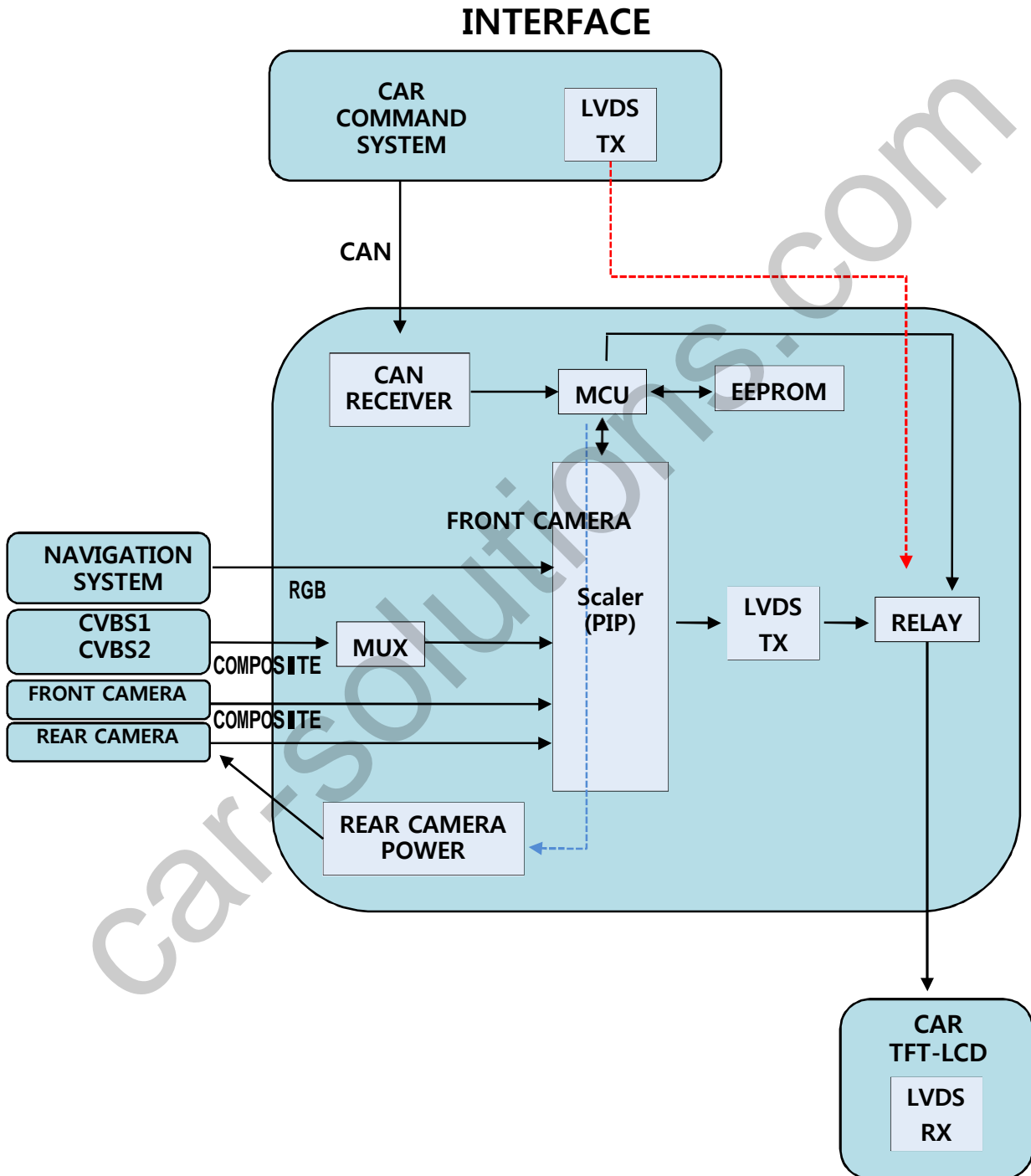
- Possible to switch input mode through original button

2. Features

- Possible to appear OEM information of Air conditioner when using A/C buttons (Refer to P.11)
- NAVI PIP function
- Possible to switch from external screen to OEM Phone mode screen automatically when phone rings
- Possible to register IR code of DVD/DTV
- Easy installation with Plug&Play CAN/LVDS cable
- Display dynamic PAS (Parking assistance system) with PDC(Only for 8.4")

Specification

3. Diagram



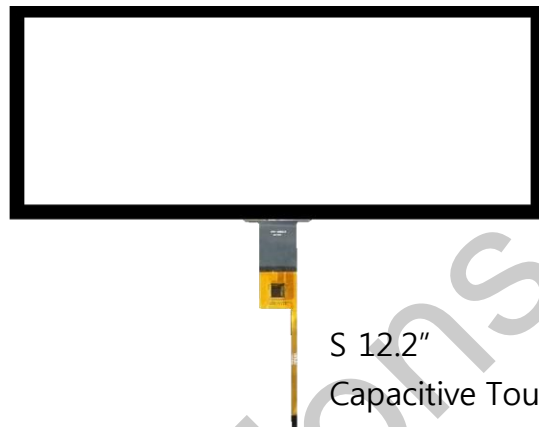
Specification

4. Components



Specification

4. Components (**Option**)



S 12.2"
Capacitive Touch Screen



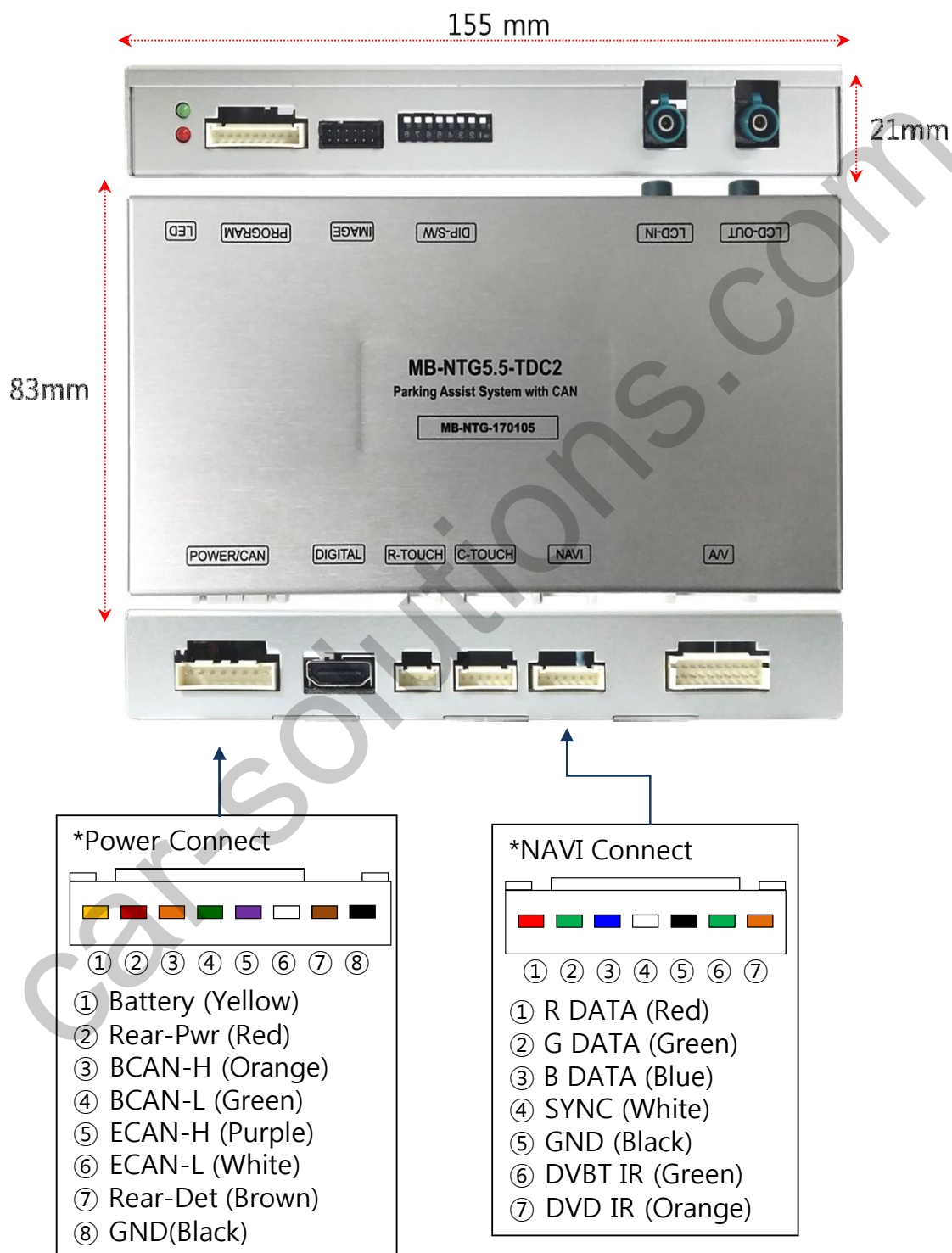
Touch Cable



TOUCH Board

Specification

5. Exterior



Settings

1. Dip Switch

* ON : DOWN , OFF : UP

| NO. | Function | Selection |
|-----|-------------|--------------------------------------|
| 1 | NAVI | ON : Skipping NAVI OFF : Display |
| 2 | DVB-T | ON : Skipping DVB-T OFF : Display |
| 3 | DVD | ON : Skipping DVD OFF : Display |
| 4 | N.C | |
| 5 | Rear Camera | Page. 9 |
| 6 | CAR model | ON : - |
| 7 | | ON : E class 12.3" |
| 8 | | ON : E class 8.4" , E class 12.3" |

* Example



E class 12.3" Model



E class 8.4" Model

Settings

2. Parking → Drive setting

- Setting time to display screen when changing gear from P to N or D



: Dip S/W No.5 "OFF"



Rear Mode



After 15sec. in N gear

OR



After driving up 10km



Display

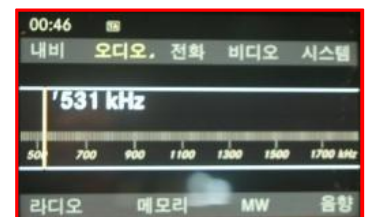


: Dip S/W No.5 "ON"



Rear Mode

Right after changing gear



Display

Settings

3. Original button – Switching mode

-Switching Mode



Steering wheel

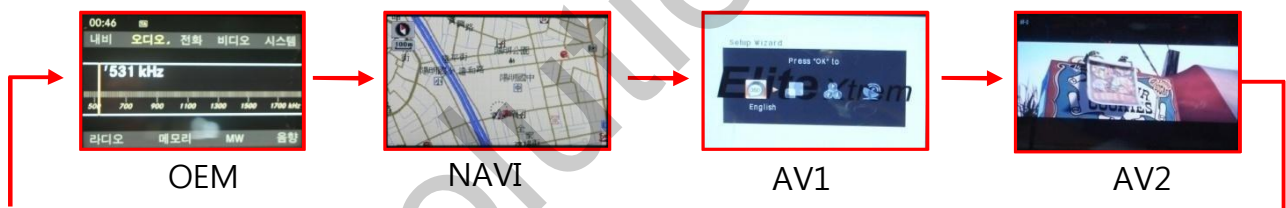


Touch shuttle



: Long Press: Switching mode

Short Press: Switching to OEM directly



-PIP function



NAVI : Long press for activating PIP function

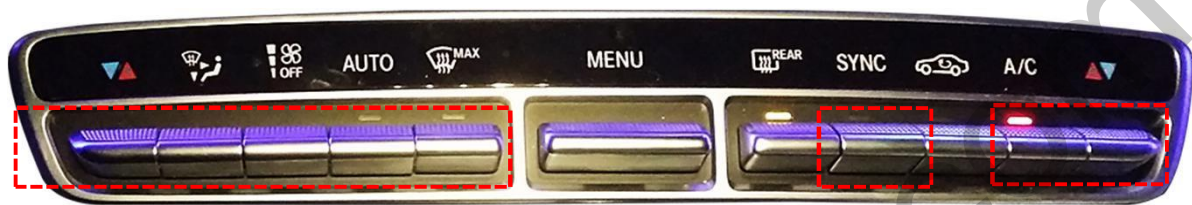


※ You can set for PIP function ON/OFF in OSD MENU (p. 17)

Settings

3. Original button – Switching mode

- Overlay function



- When pressing the buttons in the picture above, The OEM A/C information bar will appear on external screen like the picture blow



※ You can set for Overlay function ON/OFF in OSD MENU (p. 17)

Settings

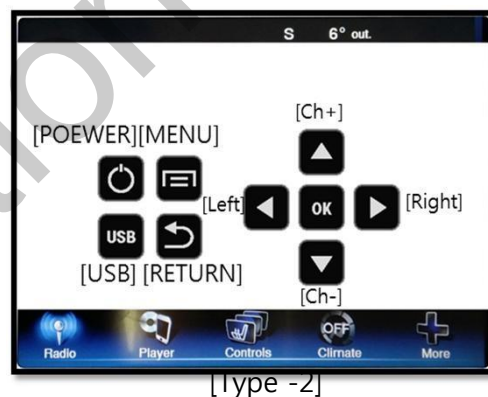
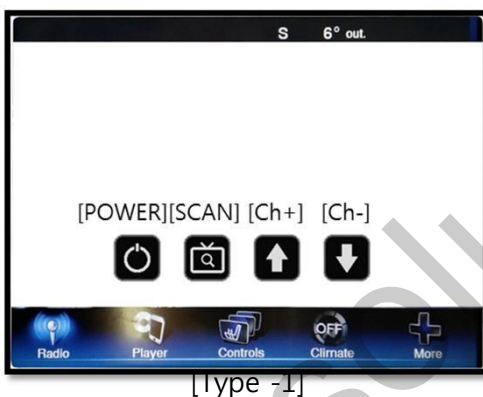
3. Original button – DVB-T, DVD Menu

* Control the menu below by Original button

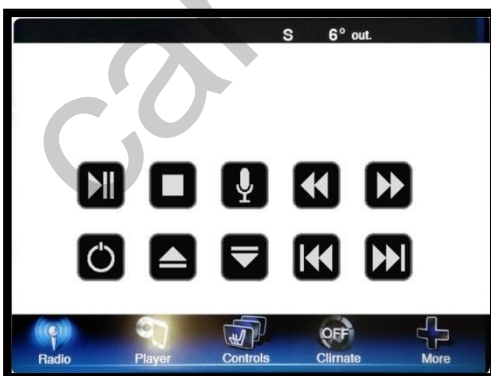


PUSH : Selection
 Activating DVD / DTV menu
 ↑ ↓ → ← : Moving to the Up, Down, Right, Left

• DTV (Select the type of I-con)



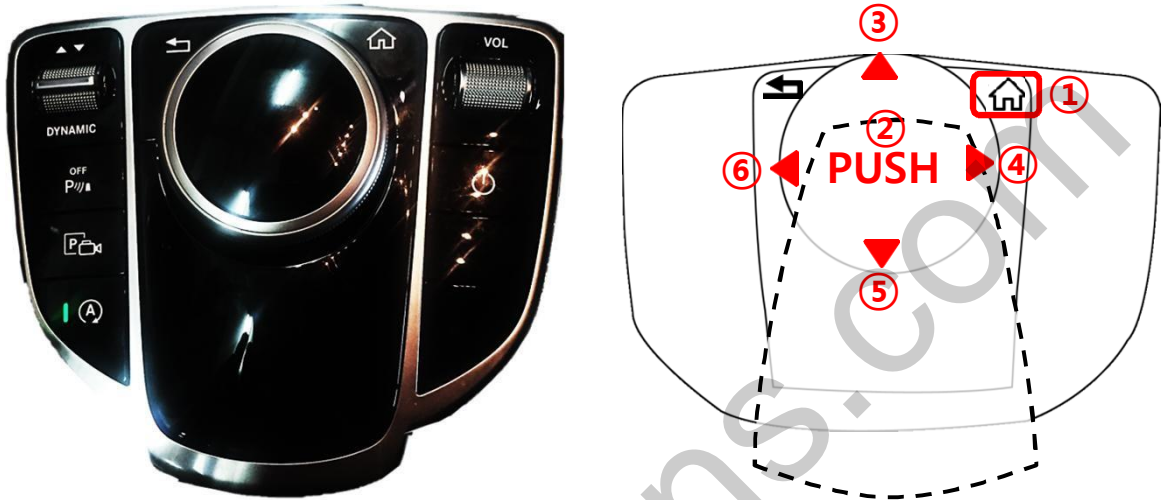
• DVD



※ To use this function, It is necessary to offer the remote IR code to manufacturer or setting OSD IR – Ctrl (P. 22)

Settings

3. Original button – OSD Setting



- ① Long press (6sec) :Activating OSD
Short press : Exit
- ② Select
- ③ Up, Increasing value
- ④ Moving from first menu to third menu in order
- ⑤ Down, Decreasing value
- ⑥ Moving from Third menu to First menu in order

| MENU | Config | | NAVI |
|---------|------------|-----------------|--------|
| Config | NAVI-RGB | GI5000 | |
| Option | DVB-T(DMB) | ELT_DVBT20 | |
| Image | DVD | NECVOX DVA-3206 | |
| Screen | HDMI | iPhone | |
| Parking | Reset | Execute | Cancel |

First Menu

Second Menu

Third Menu

← Mode State

Settings

4. OSD Menu

※ Control the menu below by Original button

| MENU | Config | | NAVI |
|---------|------------|---------|--------|
| Config | NAVI-RGB | HDMI | |
| Option | DVB-T(DMB) | Default | |
| Image | DVD | Default | |
| Screen | Reset | Execute | Cancel |
| Parking | | | |

- Config - NAVI-RGB : Setup for the type of RGB
- Config - DVB-T : Setup for the type of DVB-T
- Config - DVD : Setup for the type of DVD
- Reset : Reset all value

Settings

4. OSD Menu

※ Control the menu below by Original button

| MENU | Option | | NAVI |
|---------|------------------|-----------|------|
| Config | Rear Cam - Type | ExtDevice | |
| Option | Rear Cam - Power | Auto | |
| Image | Rear Cam - Det | GEAR | |
| Screen | AV Mode | Off | |
| Parking | Front Cam - Type | ExtDevice | |

Option

- RearCam-Type : Setup for rear camera
ExtDevice - External rear camera
OEM - Original camera
- RearCam-Power : Setup for Rear VCC wire in power cable
ON - +12V out always (current consumption : 200mA)
AUTO - +12V out in rear mode only (200mA)
OFF - Power OFF
- RearCam-Det : Setup for Rear detection
CAN - By CAN
Extwire – by rear cam detect wire
- AV Mode : Change "Rear" input as Video input (N.C)
ON – Video input (Rearcam TYPE in OSD menu should be "OEM")
OFF – Rear input
- FrontCam-Type : Setup for front camera
ExtDevice - External rear camera
OEM - Original camera

Settings

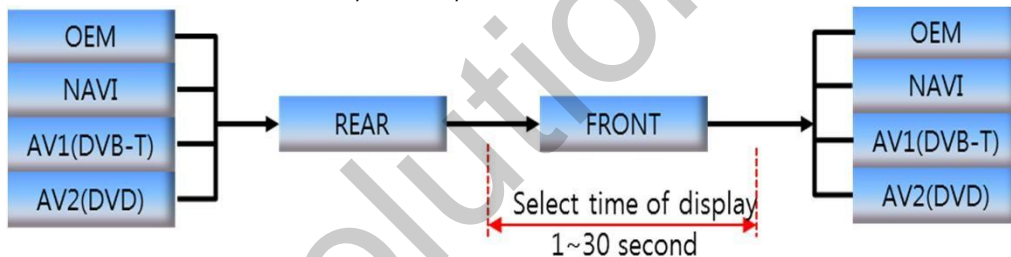
4. OSD Menu

※ Control the menu below by Original button

| MENU | Option | | NAVI |
|---------|--------------------|------|------|
| Config | Front Cam - RcvOpt | Off | |
| Option | AV Out | USER | |
| Image | SteeringWheelBtn | Off | |
| Screen | UI DVB-T (DMB) | On | |
| Parking | UI DVD | On | |

Option

- FrontCam-RcvOpt : Selecting time of displaying Front camera before switching to RGB, DVD, OEM from Rear



- AV out . Setup for the external AV out in OEM screen
 AV1 : AV1's Audio comes out in OEM screen
 AV2 : AV2's Audio comes out in OEM screen
 USER : select one of Audio out
- SteeringWheelBtn : Setting for Steering wheel button (switching mode)
 ON - USE
 OFF - NOT USE
- UI DVB-T(DMB) : Setting for UI DVB-T(DMB) ICON
 ON - Display
 OFF - Skip
- UI DVD : Setting for UI DVD ICON
 ON - Display
 OFF - Skip

Settings

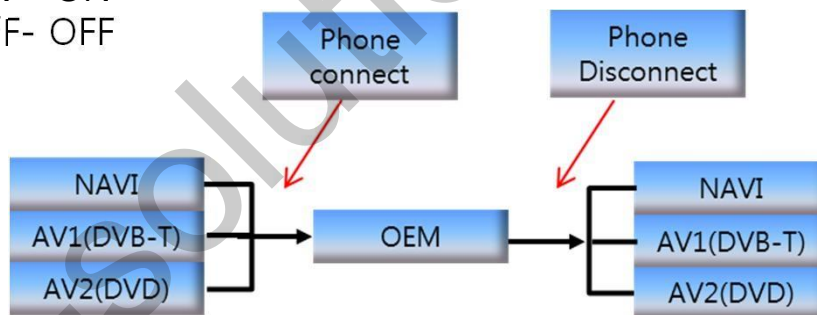
4. OSD Menu

※ Control the menu below by Original button

| MENU | Option | | NAVI |
|---------|----------------|------|------|
| Config | ScrChg-Call | Off | |
| Option | ScrChg-Climate | Off | |
| Image | ScrChg-PS | Off | |
| Screen | NAVI PIP | Off | |
| Parking | NAV Btn | Long | |

Option

- ScrChg-Call : Setup for switching from external screen to OEM Phone mode screen automatically when phone rings
ON - ON
OFF- OFF



- ScrChg-Climate: Setup for overlay function - ON or OFF
- ScrChg-PS : (N.C)
- NAVI PIP : Setup for PIP function - ON or OFF
- NAV Btn : Setup for Original 'NAVI' Button (Switching Mode type)
Short : Short press to switch
Long : Long press to switch

Settings

4. OSD Menu

※ Control the menu below by Original button

| MENU | Option | | NAVI |
|---------|----------|---------|--------|
| Config | NAVI COM | QROI | |
| Option | Reset | Execute | Cancel |
| Image | | | |
| Screen | | | |
| Parking | | | |

Option

- NAVI COM : Connect touch through UART
(Feature : Possible to implement Zoom IN/OUT in Navi screen)
※ 1) Necessary to get Uart protocol from Navi manufacturer
2) Impossible to calibrate in Qroi
- Reset : Reset all value






Settings

4. OSD Menu






※ Control the menu below by Original button

- NAVI(RGB) Image / Screen

| MENU | IMAGE | NAVI |
|---------|--------------|---|
| Config | Brightness |  50 |
| Option | Contrast |  50 |
| | Color- RED |  50 |
| Screen | Color- GREEN |  50 |
| Parking | Color- BLUE |  25 |

| MENU | Screen | NAVI |
|---------|--------------|---|
| Config | Horizontal |  50 |
| Option | Vertical |  50 |
| Image | Scale X Up |  50 |
| | Scale X Down |  50 |
| Parking | Scale X Up |  50 |

- DVD, DVBT, NAVI-AV, REAR, FRONT Image

| MENU | IMAGE | Rear |
|---------|------------|---|
| Config | Brightness |  50 |
| Option | Contrast |  50 |
| | Saturation |  50 |
| Screen | Hue |  50 |
| Parking | Sharpness |  25 |

Settings

4. OSD Menu – Parking Line

※ Control the menu below by Original button

-Parking guide line ON/OFF

| MENU | Parking Rear | |
|---------|---|--------------------------|
| Config | OPS Display | On |
| Option | Warnings Lang | English |
| Image | Horizontal | <input type="range"/> 50 |
| Screen | Vertical | <input type="range"/> 50 |
| Parking | Transparency | <input type="range"/> 40 |

Select a use of parking line
(OSD Menu – Parking – Line display – ON or OFF)

- Language

| MENU | Parking / Warnings Lang Rear | |
|---------|---|-------------|
| Config | OPS Display | English |
| Option | Warnings Lang | 中文 |
| Image | Horizontal | 한국어 |
| Screen | Vertical | 台灣 |
| Parking | Transparency | Р О С С И Я |

Selecting a type of language
(OSD Menu – Parking – Warning lang)

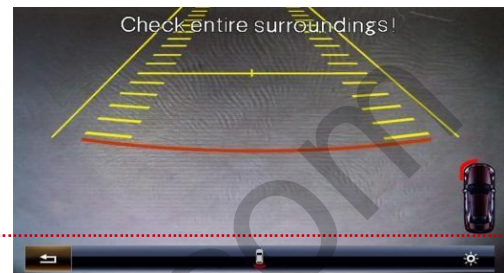
-Adjusting the position of guide line

| MENU | Parking Rear | |
|---------|---|--------------------------|
| Config | OPS Display | On |
| Option | Warnings Lang | English |
| Image | Horizontal | <input type="range"/> 50 |
| Screen | Vertical | <input type="range"/> 50 |
| Parking | Transparency | <input type="range"/> 40 |

Possible to adjust the position of line by Jog shuttle in Horizontal / Vertical menu
※ Pressing this Horizontal / Vertical menu, The OSD screen automatically disappears. Please adjust from the parking line Screen.



Parking line - ON



 : Original mode

 : PAS on/off

 : Adjustment of brightness

* Can be adjusted by the Jog shuttle

Check entire surroundings!

请注意车辆周围环境!

차량 주변을 전부 확인

請注意車輛周圍環境!

Следите за всем окружением автомобиля!

周辺の安全を確認

Settings

4. OSD Menu

※ Control the menu below by Original button

- OSD

| MENU | Horizontal | |
|---------|--------------|---------------------------|
| IR-Ctrl | Vertical | <input type="range"/> 50 |
| Utility | Display | <input type="range"/> 50 |
| | Transparency | <input type="range"/> 10s |
| | Language | <input type="range"/> 30 |
| | | English |

- OSD – Horizontal
- OSD – Vertical
- OSD – Display : Setting time for displaying OSD menu
- OSD – Transparency
- OSD – Language : Setting language of ODS menu

- IR – Ctrl (p.22)

- Utility

| MENU | Utility | |
|---------|---------|--------------------|
| OSD | | Execute Cancel |
| IR-Ctrl | Version | AD4P52KRX - 160509 |
| | | |

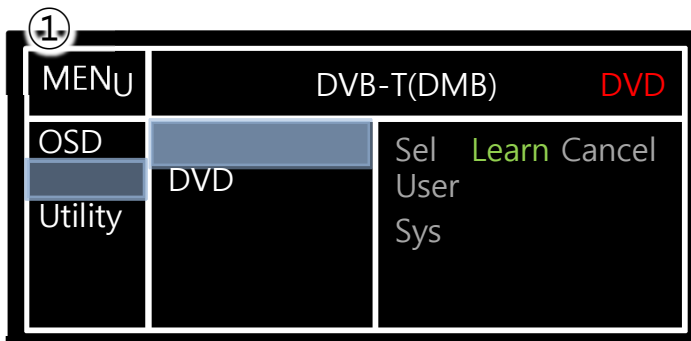
- Utility – INTERFACE SOFTWARE

Settings

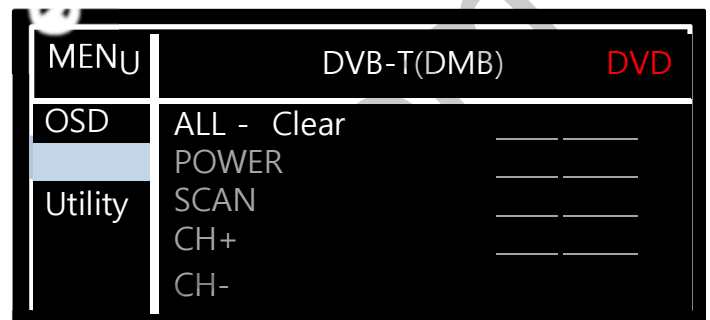
4. OSD Menu – Register IR code

※ Control the menu below by Original button

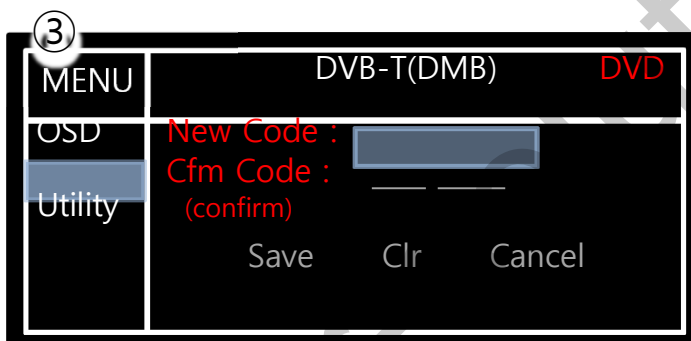
- IR Ctrl




- ① Select IR Ctrl → DVB/DVD/DVR
→ Learn to register IR code



- ② All Clear : Remove all value of Remote control registered before
Select one of the buttons registering to move on to next step



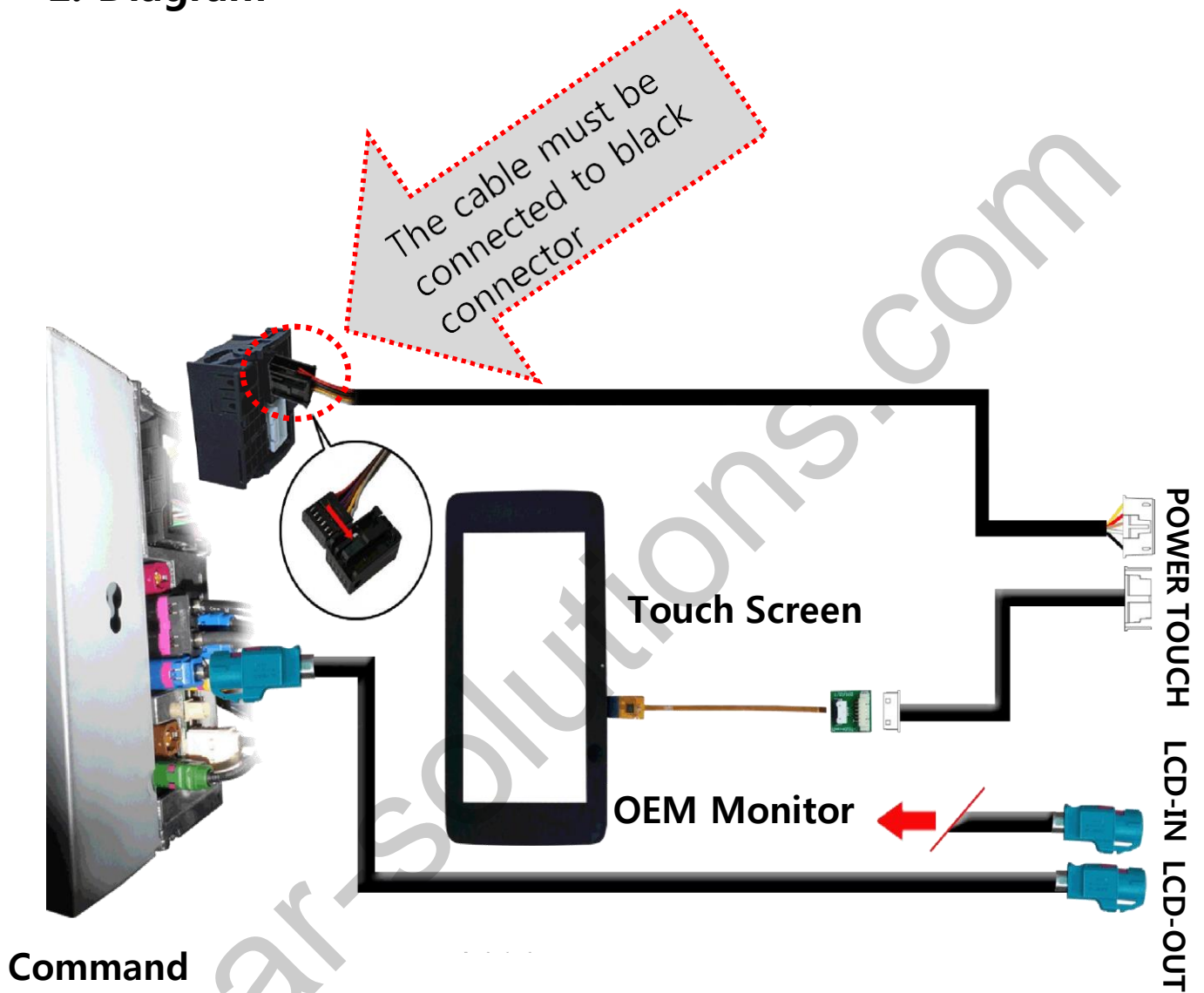
※ Caution

- Delete :
ALL Clear – Delete all value
Clr – Delete one button's Value
- Play/Pause:
To use  button, Please register the IR code in power / Pause menu separately

- ③ Press a button on the remote control of DVD/DTV then the IR code will be appeared on "New code" menu. Press the same button one more time to confirm the IR code. (Cfm code = confirm code)

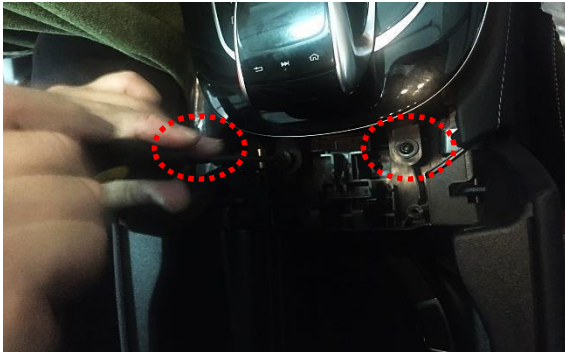
Installation

1. Diagram



Installation

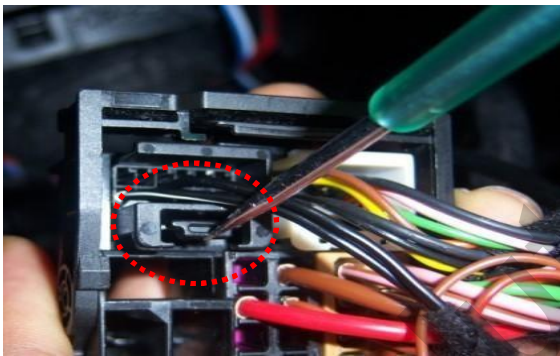
2. CAN Connection



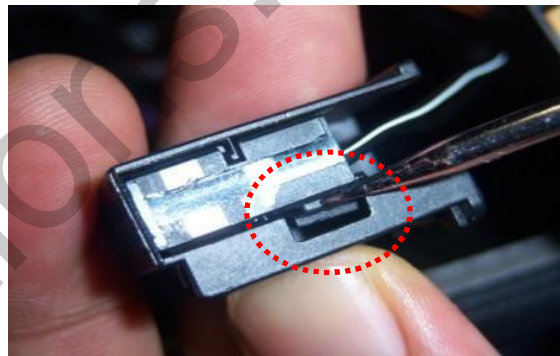
1. Please loosen the indicated screws to remove the Jog shuttle cover



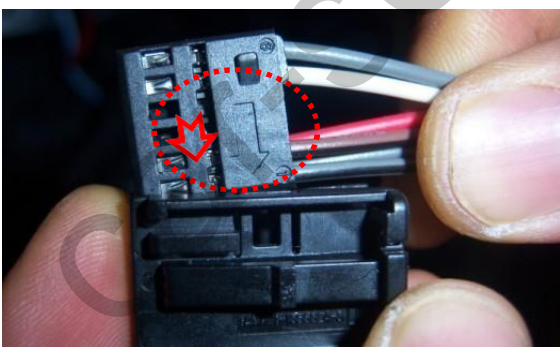
2. Please take the Command out to disconnect OEM power cable



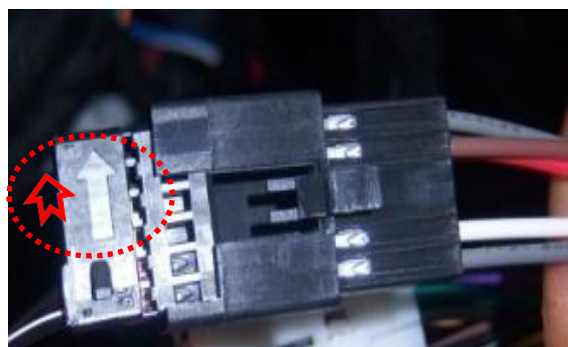
3. Please remove the indicated black connector from the OEM plug & play connector



4. Please push the indicated lock button to take away connector



5. Please put the removed cable into the black connector (Make sure the direction of an arrow)



Installation

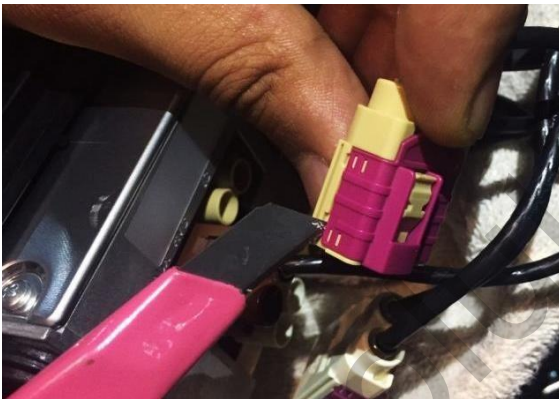
3. LVDS Connection



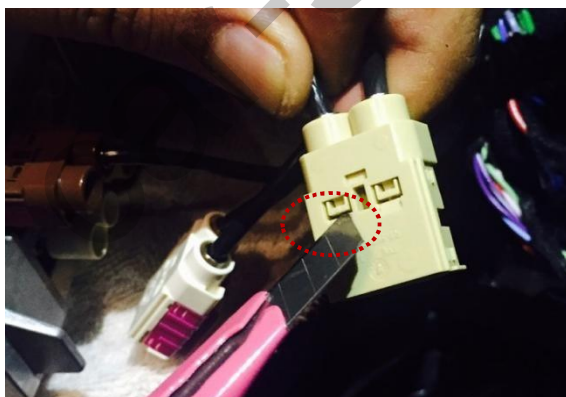
1. First, please prepare offered LCD connector and LVDS cable



2. Please unplug the Original LVDS cable from the back of monitor (IC, DISP)



3. Please remove the pink cover by using a tool



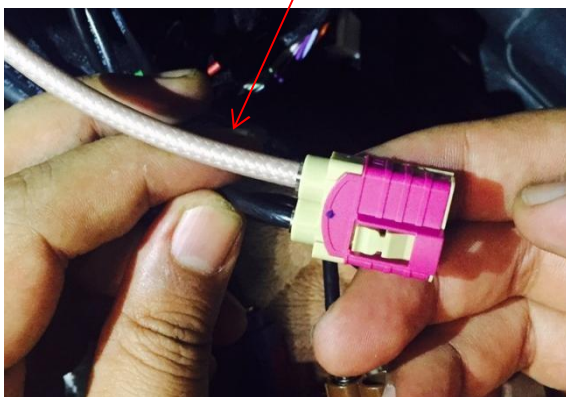
4. Please separate the cable from the connector like the picture above



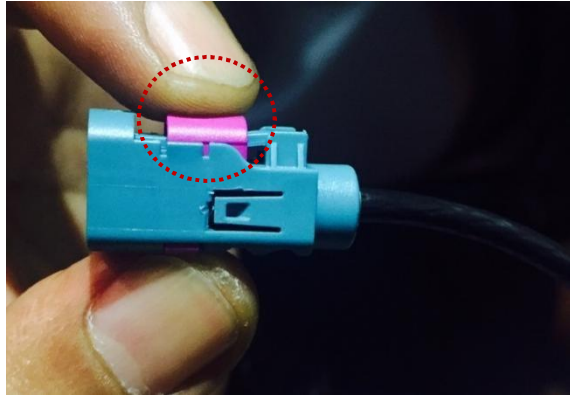
Installation

3. LVDS Connection

Offered LVDS cable



5. Please insert the offered LVDS cable to the OEM connector then cover the connector with the pink cover



6. Please insert the disconnected OEM LVDS cable into the offered LCD connector and push the pink button on the connector to fix the OEM cable to the connector

※Please refer to the next page for the different type of command

Installation

3. LVDS Connection

※ The LVDS connection is different according to the type of command.

[Type-1]

: There is an OEM brown connector next to the OEM white connector

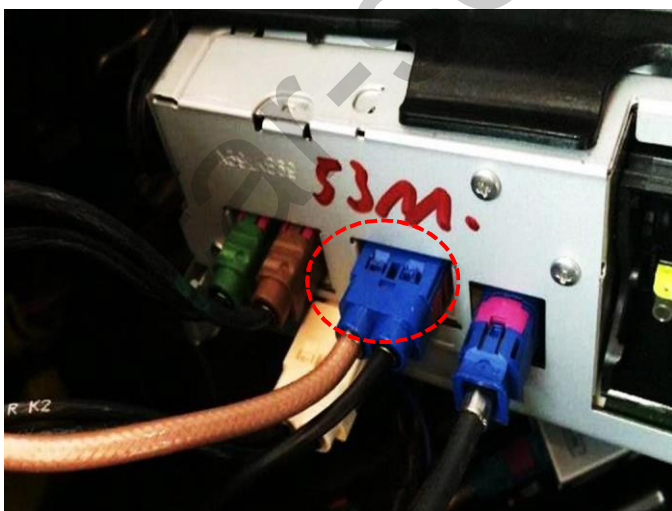


Offered LVDS cable

Please insert the offered LVDS cable to the white OEM connector

[Type-2]

: There is no OEM brown connector next to the OEM white connector

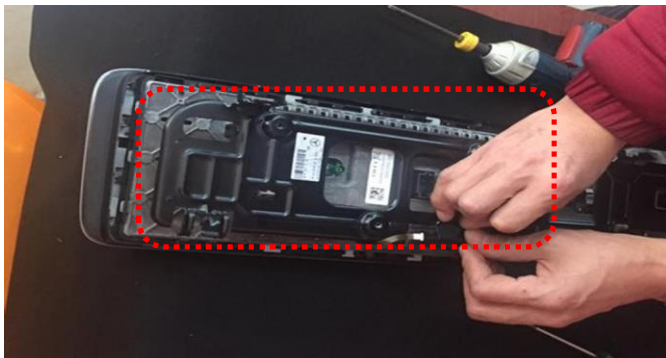


Please insert the offered LVDS cable to the Blue OEM connector

Installation

3. TOUCH PANEL Installation

*Caution : The OEM screen can be defective by being pressed
(There is no space between LCD panel and plastic cover. Therefore, some parts should be chopped to attach the touch film. But even though chopping some parts, The OEM touch screen can be pressed by the touch film) – **GU electronic does not recommend to attach the touch film because of the reason**



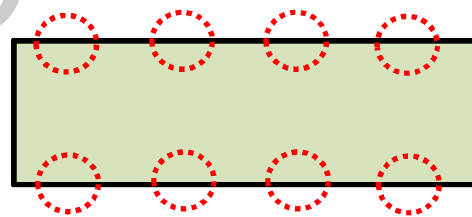
1. Take the indicated cover out from the back side of monitor



2. Loosen the screws



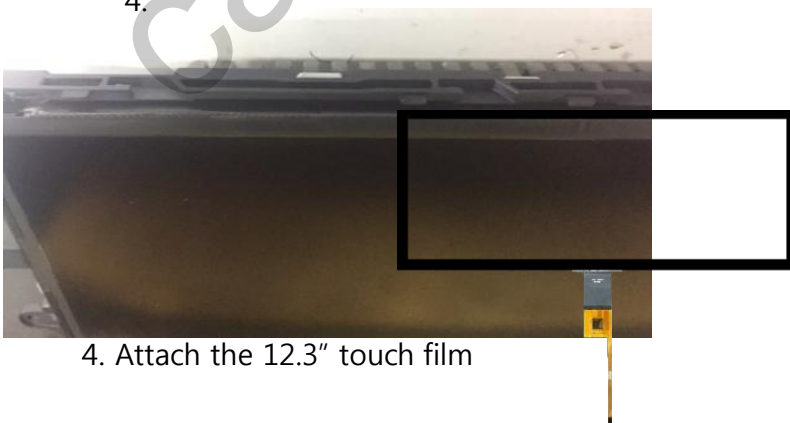
3. Chop the plastic indicated in the picture above to attach the 12.3" touch film



[Monitor]

Chop the indicated parts until touch film can be attached

4.



4. Attach the 12.3" touch film

Caution

1. FQA

- Not possible to switch mode
 - Check connection of OSD Key pad wire
 - Check CAN connection
- Display wrong size of picture
 - Check Dip s/w setting
- Display black screen in OEM mode
 - Check connection of LVDS/LCD cable
- Not possible to switch to rear screen
 - Check the packing setting
(OSD Menu – option – RearCam-Det)

2. Caution

- The device must not be installed in where it interferes driving (close to brake pedal, steering wheel, airbag etc.)
- LVDS cable must be connected correctly according to the manual
- Insulate the end of wire by using electrical tape
- The installation should be done by expert
- GU electronic does not take any responsibility for any problem caused by wrong installation