Instruction Manual
NTG 5.5 for Mercedes Benz E-class

INDEX

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
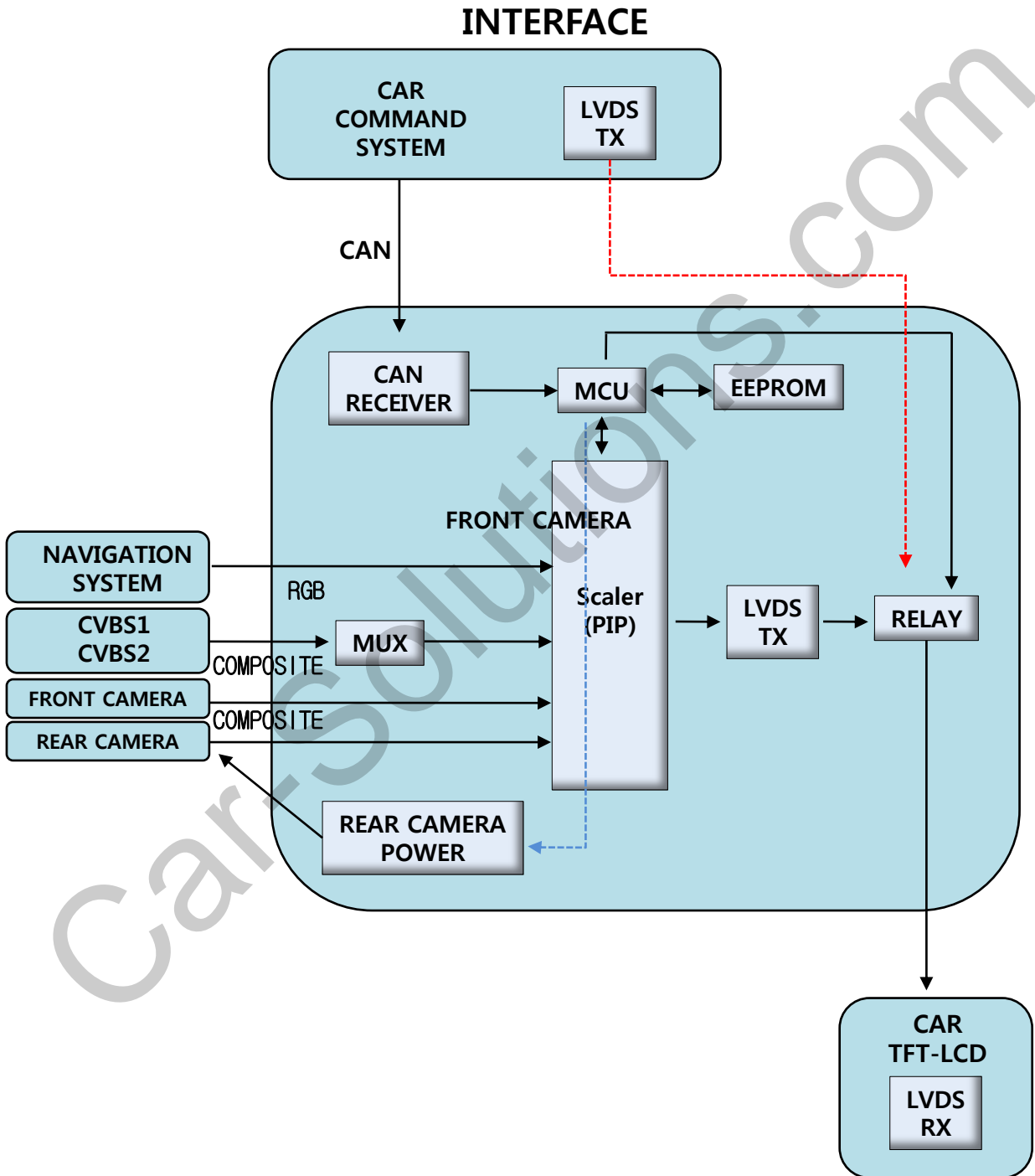
1-4 Switch Input mode
- Possible to switch input mode through original button

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
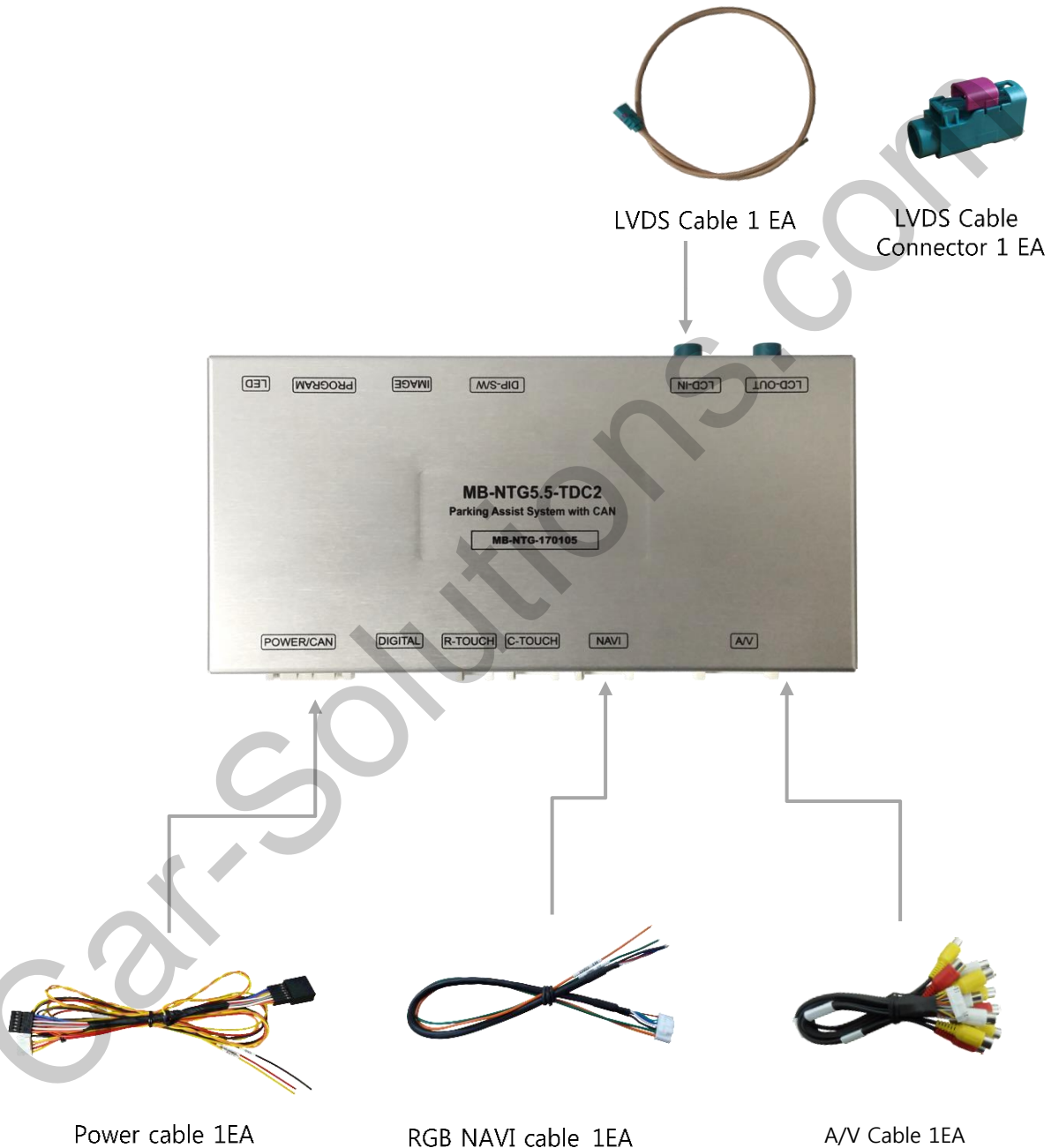- Display dynamic PAS (Parking assistance system) with PDC(Only for 8.4")

Specification

3. Diagram

INTERFACE

Specification

4. Components

LVDS Cable 1 EA

LVDS Cable Connector 1 EA

MB-NTG5.5-TDC2
Parking Assist System with CAN

MB-NTG-170105

LED PROGRAM IMAGE DIP-S/W LCD-IN LCD-OUT

POWER/CAN DIGITAL R-TOUCH C-TOUCH NAVI A/V
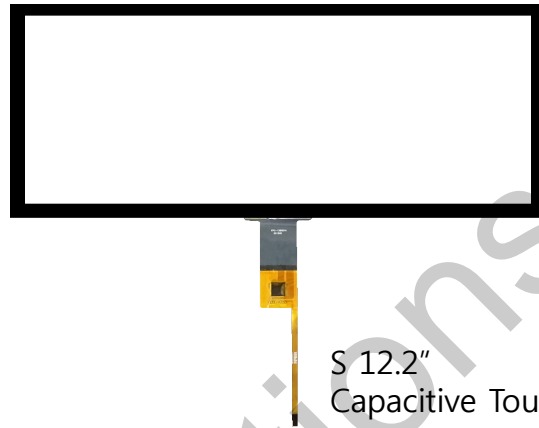
Power cable 1EA

RGB NAVI cable 1EA

A/V Cable 1EA

Specification

4. Components (Option)

S 12.2"
Capacitive Touch Screen

Touch Cable

TOUCH Board

Specification

5. Exterior

155 mm

21mm

83mm

MB-NTG5.5-TDC2
Parking Assist System with CAN

MB-NTG-170105

LED | PROGRAM | IMAGE | DIP-SW | LCD-IN | LCD-OUT

POWER/CAN | DIGITAL | R-TOUCH | C-TOUCH | NAVI | A/V

*Power Connect

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

① Battery (Yellow)
② Rear-Pwr (Red)
③ BCAN-H (Orange)
④ BCAN-L (Green)
⑤ ECAN-H (Purple)
⑥ ECAN-L (White)
⑦ Rear-Det (Brown)
⑧ GND(Black)

*NAVI Connect

① ② ③ ④ ⑤ ⑥ ⑦

① R DATA (Red)
② G DATA (Green)
③ B DATA (Blue)
④ SYNC (White)
⑤ GND (Black)
⑥ DVBT IR (Green)
⑦ DVD IR (Orange)

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	ON : External camera OFF : OEM Camera
6	CAR model	ON : E class 8.4″
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
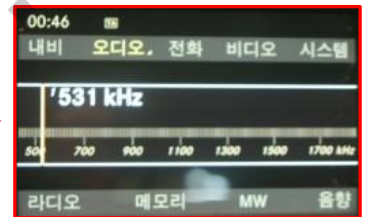
 : Dip S/W No.5 "OFF"

Rear Mode

After 15sec. in N gear
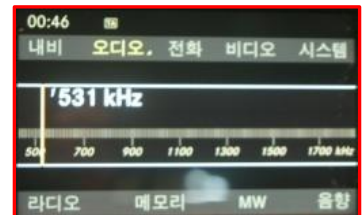
OR

After driving up 10km

Display

 : Dip S/W No.5 "ON"

Rear Mode

Right after changing gear

Display

Settings
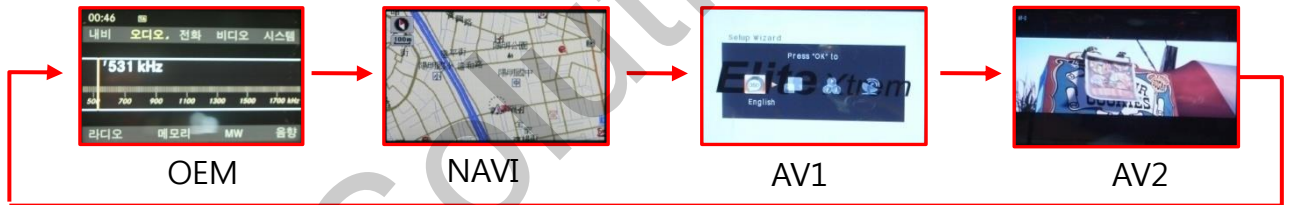
3. Original button – Switching mode

-Switching Mode

Steering wheel

Jog shuttle

🏠⬅ : Long Press: Switching mode
Short Press: Switching to OEM directly

OEM → NAVI → AV1 → AV2

-PIP function

NAVI : Long press for activating PIP function

[External picture] → [NAVI+External]

※ 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

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
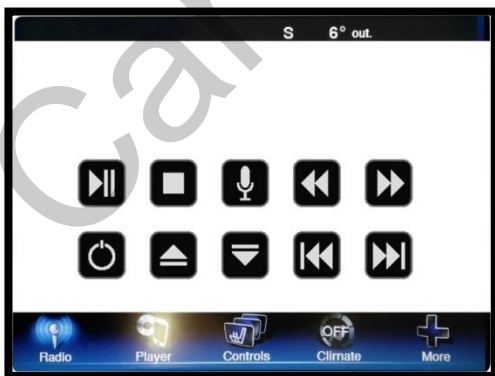
- **DTV (Select the type of I-con)**

[POWER][SCAN] [Ch+] [Ch-]

[Type -1]

[POEWER][MENU]
[Ch+]
[Left] [Right]
[USB] [RETURN]
[Ch-]
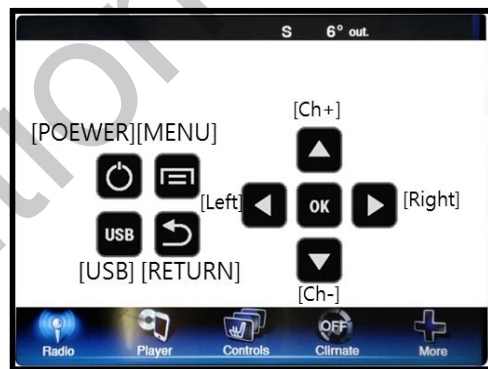
[Type -2]

- **DVD**

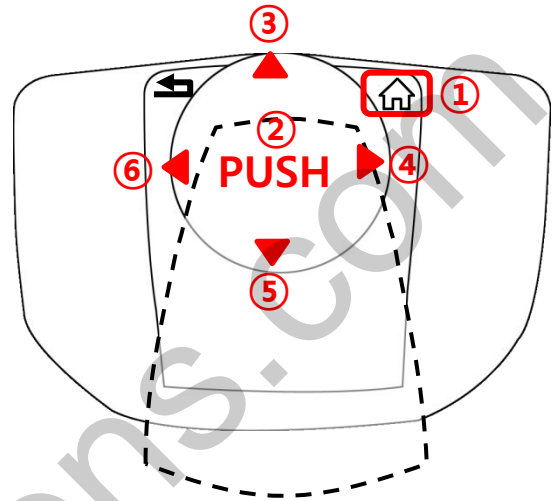[Play/Pause]   [POWER]

[stop]   [DISC UP]

[Audio]   [DISC DOWN]

[FR]   [Play next chapter]

[FF]   [Play previous chapter]

※ To use this function, It is necessary to offer the remote IR code to manufacturer or setting OSD IR – Ctrl（P. 21）

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**

← Mode State

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

Settings

4. KEYBOARD

①	②	③	④
MENU	SEL	UP	DOWN
●	●	●	●
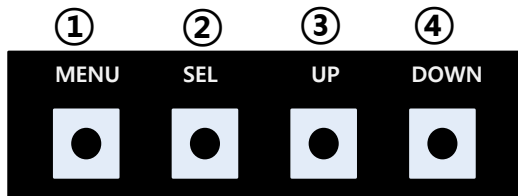
① MENU : Activating OSD Menu
② SEL : Selection
③ Up : Moving upward / increasing value
④ Down : Moving downward / decreasing value

5. OSD Menu
※Press "MENU" button on Key board

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

5. OSD Menu
※Press "MENU" button on Key board

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 : When the "REAR TYPE" is OEM
  - ON : Using the "Rear input" as AV3
  - OFF : Not used
- FrontCam-Type : Setup for front camera
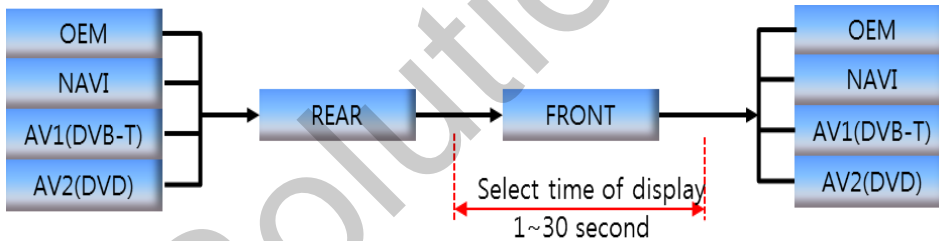 - ExtDevice - External rear camera
  - OEM - Original camera

Settings

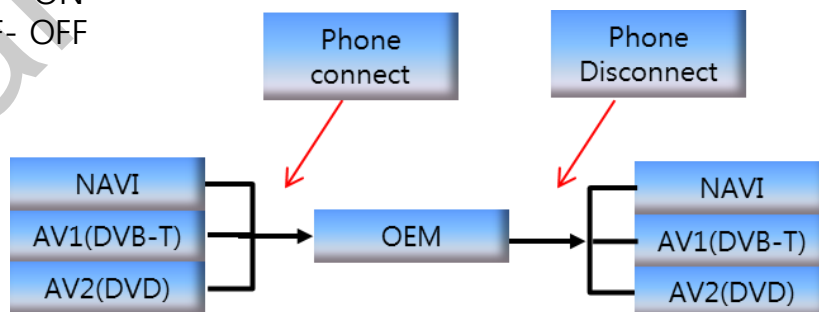## 5. OSD Menu
※Press "MENU" button on Key board

Option

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

- 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)

Settings

5. OSD Menu
※Press "MENU" button on Key board

MENU	Option	NAVI
Config	NAVI PIP	On OFF
Option	NAV Btn	Short
Image	Reset	Execute Cancel
Screen		
Parking		

Option
- 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
- Reset : Reset all value

Settings

5. OSD Menu
※Press "MENU" button on Key board

- NAVI(RGB) Image / Screen

MENU	IMAGE	NAVI
Config	Brightness	50
Option	Contrast	50
Image	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
Screen	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
Image	Saturation	50
Screen	Hue	50
Parking	Sharpness	25

Settings

5. OSD Menu - Parking mode
※Press "MENU" button on Key board

Parking line - ON

-Parking guide line ON/OFF

MENU	Parking		Rear
Config	OPS Display	On	
Option	Warnings Lang	English	
Image	Horizontal		50
Screen	Vertical		50
Parking	Transparency		40

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

: Original mode

: PAS on/off

: Adjustment of brightness

* Can be adjusted by the Jog shuttle

- Language

MENU	Parking / Warnings Lang		Rear
Config	OPS Display	English	
Option	Warnings Lang	中文	
Image	Horizontal	한국어	
Screen	Vertical	台湾	
Parking	Transparency	РОССИЯ	

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

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

-Adjusting the position of guide line

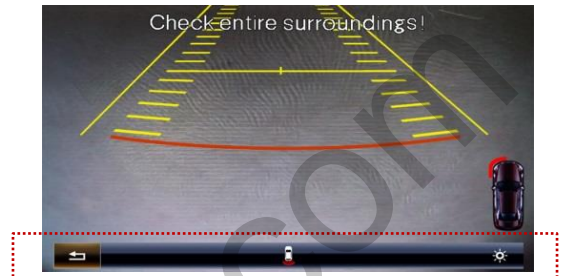| MENU	Parking		Rear
Config	OPS Display	On	
Option	Warnings Lang	English	
Image	Horizontal		50
Screen	Vertical		50
Parking	Transparency		40

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

MENU	SEL	UP	DOWN
●	●	●	●
Left	Right	Up	Down

Settings

5. OSD Menu
※Press "MENU" button on Key board

- OSD

MENU	Horizontal	
OSD	Horizontal	▭▭▭▭▭▭ 50
IR-Ctrl	Vertical	▭▭▭▭▭▭ 50
Utility	Display	▭▭▭▭▭▭ 10s
	Transparency	▭▭▭▭ 30
	Language	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.21)

- Utility

MENU	Utility	
OSD	Factory Reset	Execute Cancel
IR-Ctrl	Version	AD4P52KRX - 160509
Utility		

- Utility – INTERFACE SOFTWARE

Settings

6. OSD Menu – Register IR code
※Press "MENU" button on Key board

- IR Ctrl

①
MENU	DVB-T(DMB)	DVD
OSD	DVB- T	Sel Learn Cancel
IR-Ctrl	DVD	User
Utility		Sys

②
MENU	DVB-T(DMB)	DVD
OSD	ALL - Clear	
IR-Ctrl	POWER	—— ——
Utility	SCAN	—— ——
	CH+	—— ——
	CH-	—— ——
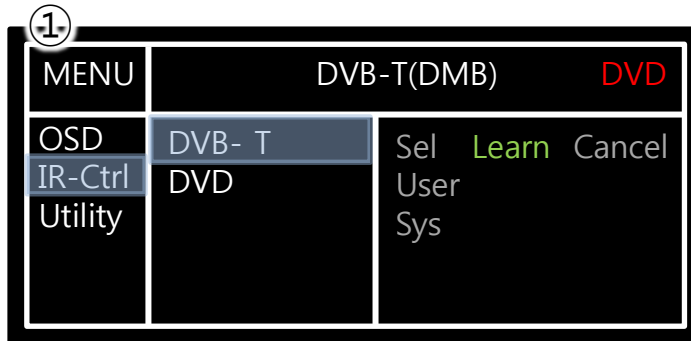
① Select IR Ctrl → DVB/DVD/DVR
→ Learn to register IR code
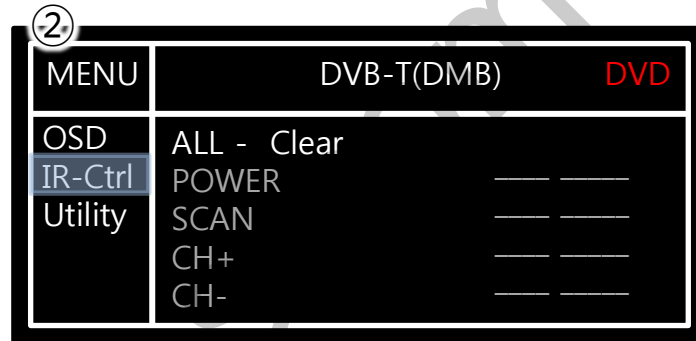
② All Clear : Remove all value of Remote control registered before Select one of the buttons registering to move on to next step

③
MENU	DVB-T(DMB)	DVD
OSD	New Code :	—— ——
IR-Ctrl	Cfm Code :	—— ——
Utility	(confirm)	
	Save Clr Cancel	
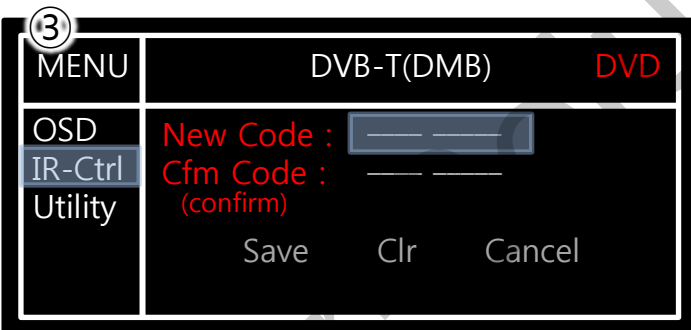
③ Press a button on the remote control of DVD/DTV then the IR code will be appeared on "New code" menu. Press the same button one more time to confirm the IR code. (Cfm code = confirm code)

※ Caution

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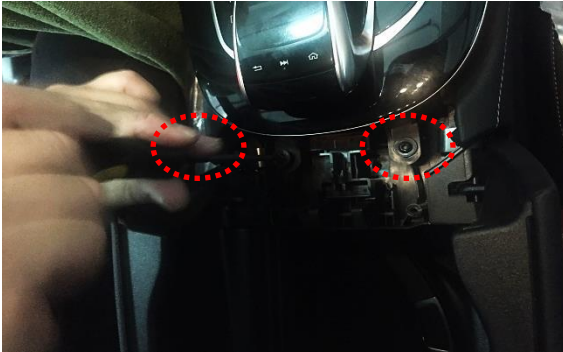 To use 	▶Ⅱ	 button, Please register the IR code in power / Pause menu separately

Installation

1. Diagram

The cable must be connected to black connector

POWER TOUCH

Touch Screen

LCD-IN LCD-OUT
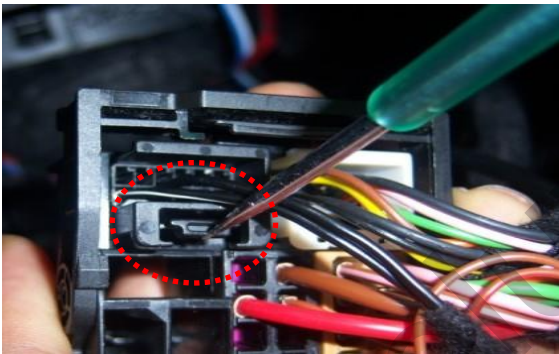
OEM Monitor
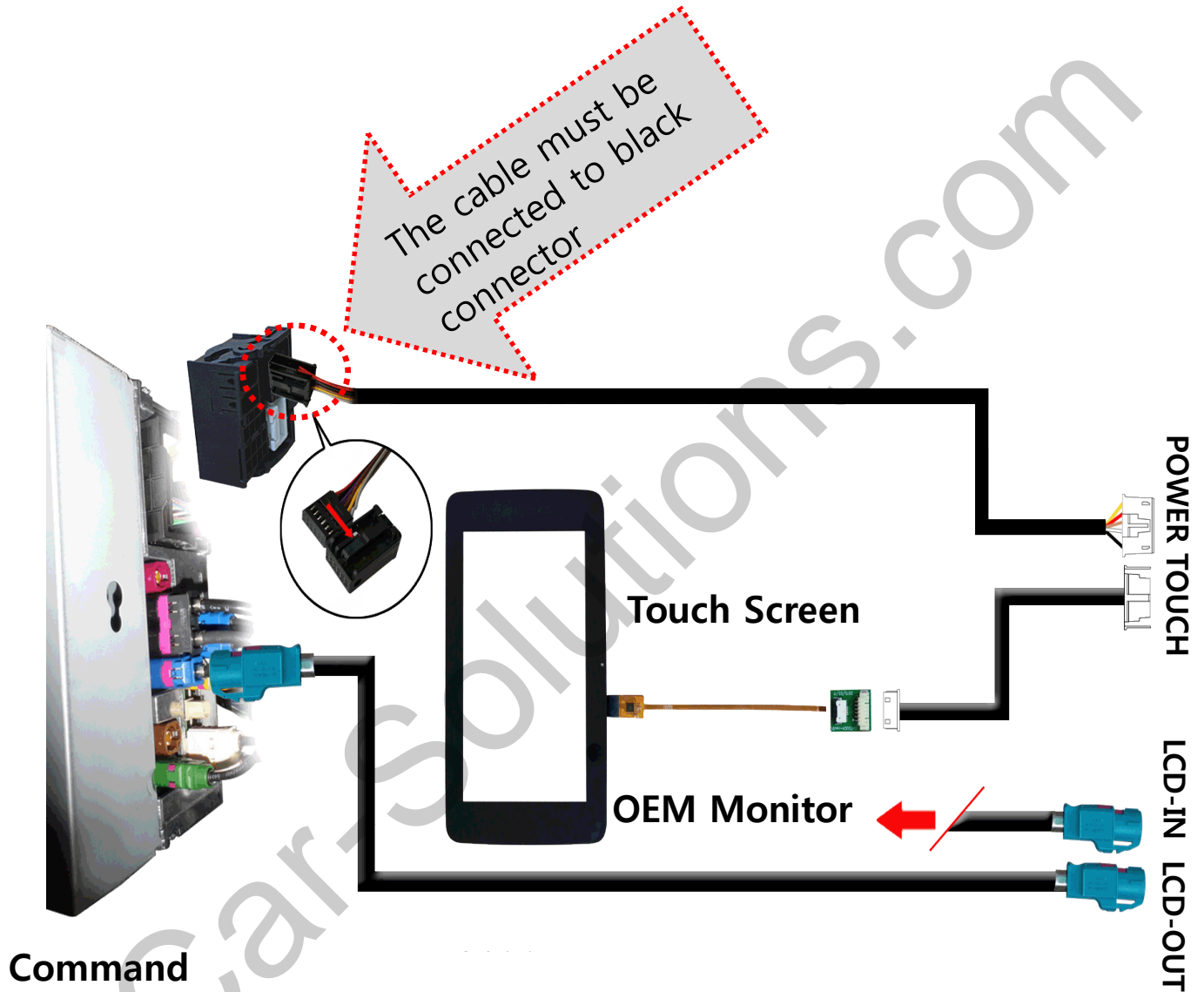
Command

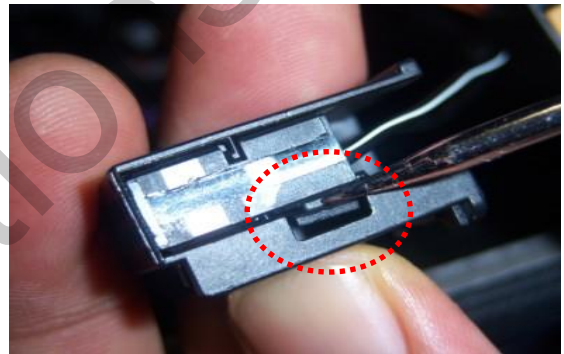# Installation

2. CAN Connection

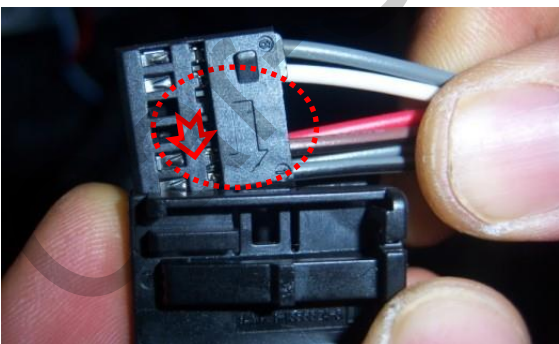1. Please loosen the indicated screws to remove the Jog shuttle cover

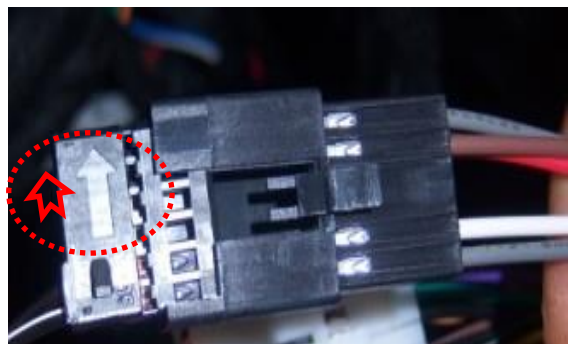2. Please take the Command out to disconnect OEM power cable

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

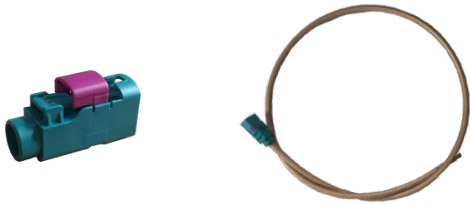4. Please push the indicated lock button to take away connector

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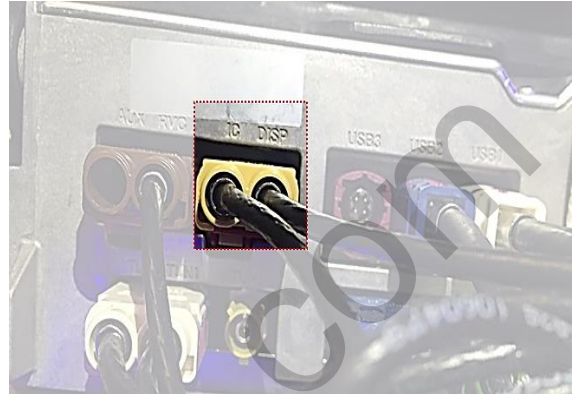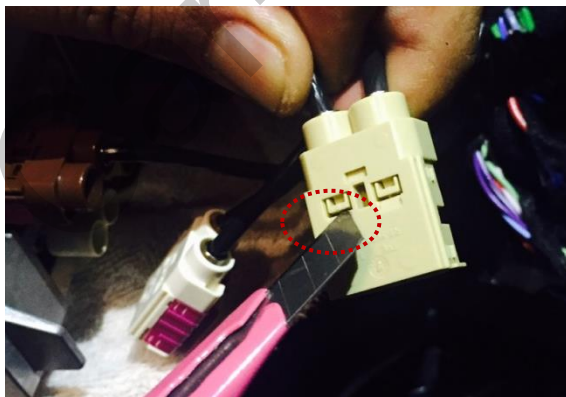
Installation

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)

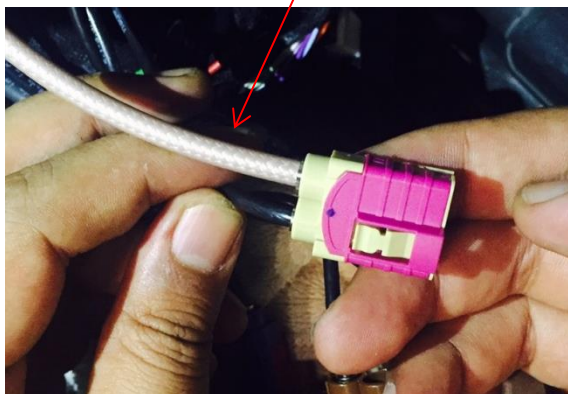3. Please remove the pink cover by using a tool

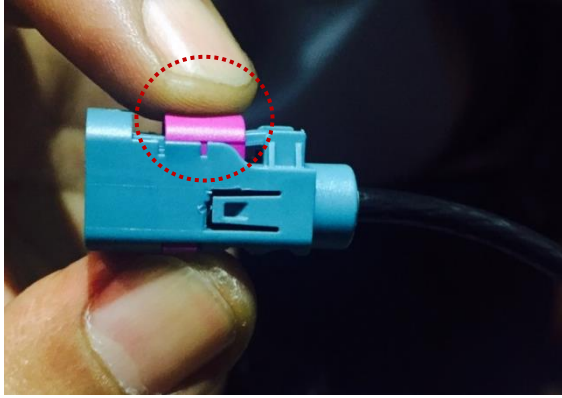4. Please separate the cable from the connector like the picture above

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

OEM LVDS cable

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
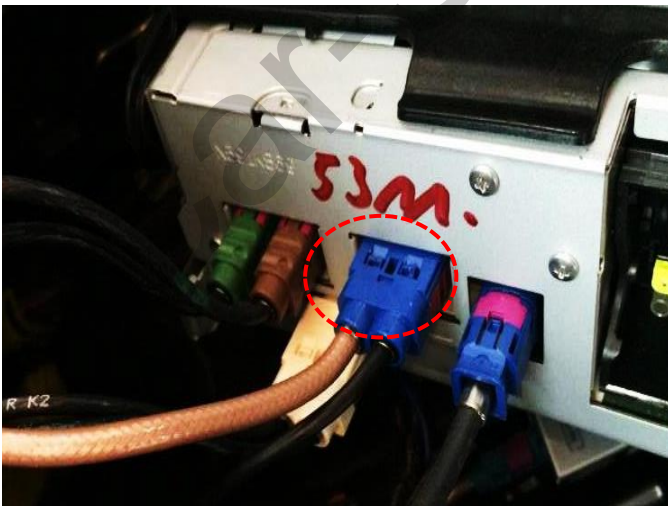

Offered LVDS cable

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**
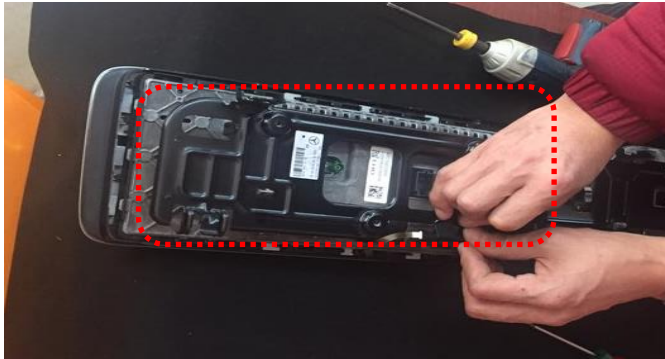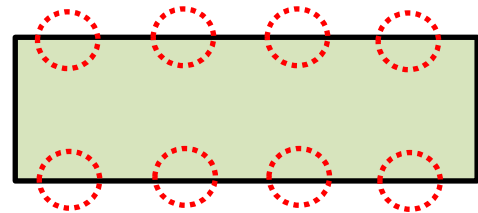

1. Take the indicated cover out from the back side of monitor
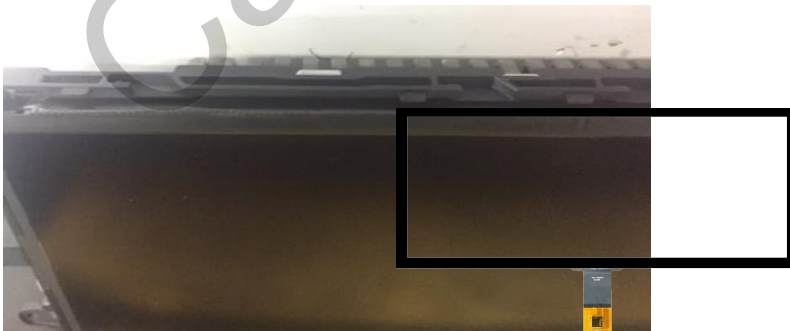

2. Loosen the screws

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

[Monitor]

4. Chop the indicated parts until touch film can be attached

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