

BENTLEY2012-TD

- MODEL : HW Ver 0.7
- DATE : 2021.05.19



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1. Main Spec.

1. Input Spec. (MULTI VIDEO INTERFACE)

- 1 x Digital RGB Input (Navigation System 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)

2. Output Spec.

- 1 x Virtual Analog Touch (Navigation System source)
- 1 x Uart Digital Touch (Navigation System source)
- 1 x LVDS Output (LCD Operation)

3. Power Spec.

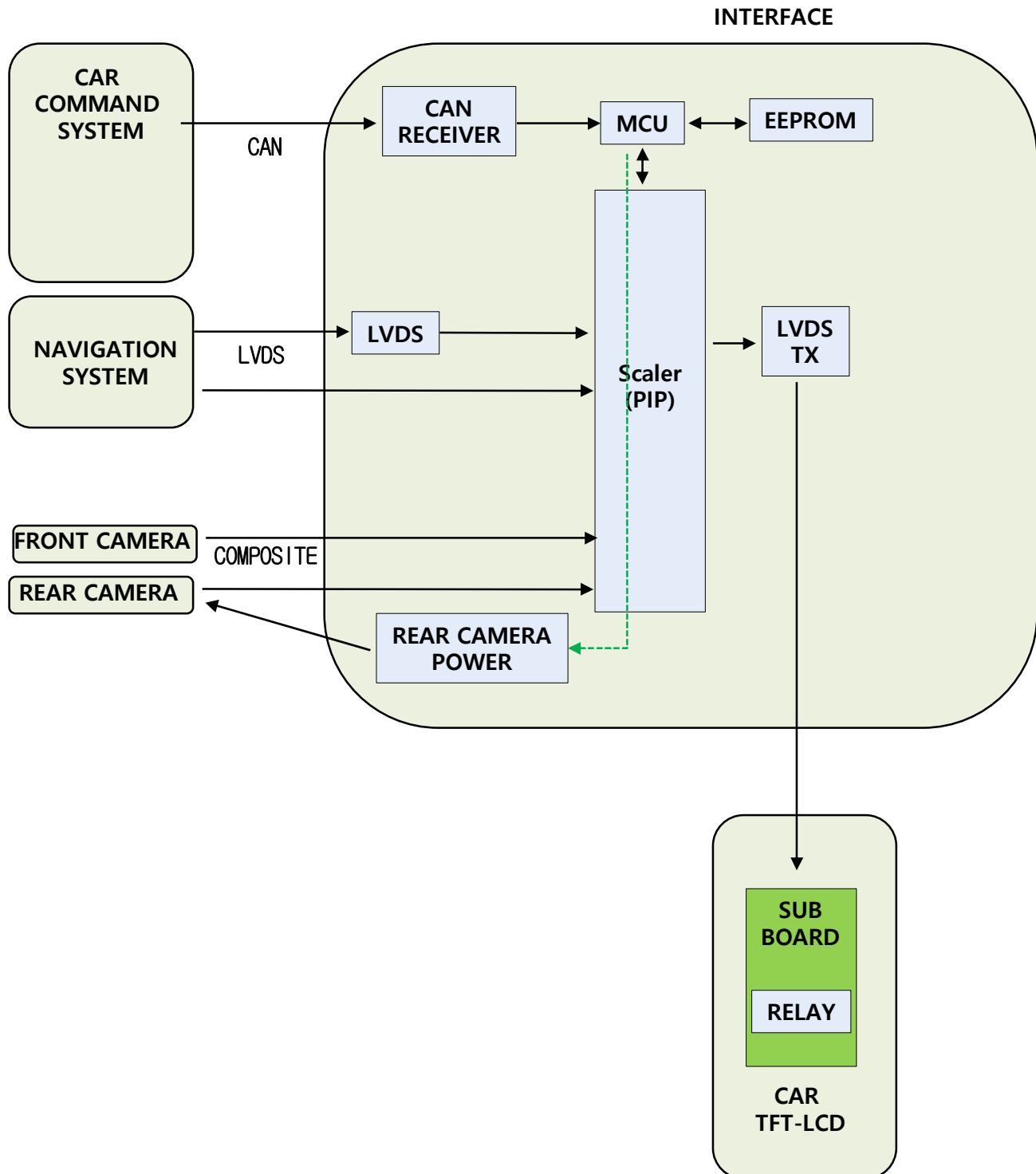
- Input Power : 8VDC ~ 24VDC
- Consumption Power : 12Watt, Max

4. Switch Input mode

- Possible to select CAR model while switching mode by DIP S/W
- By button on the Commander in the car via CAN



2. Block Diagram



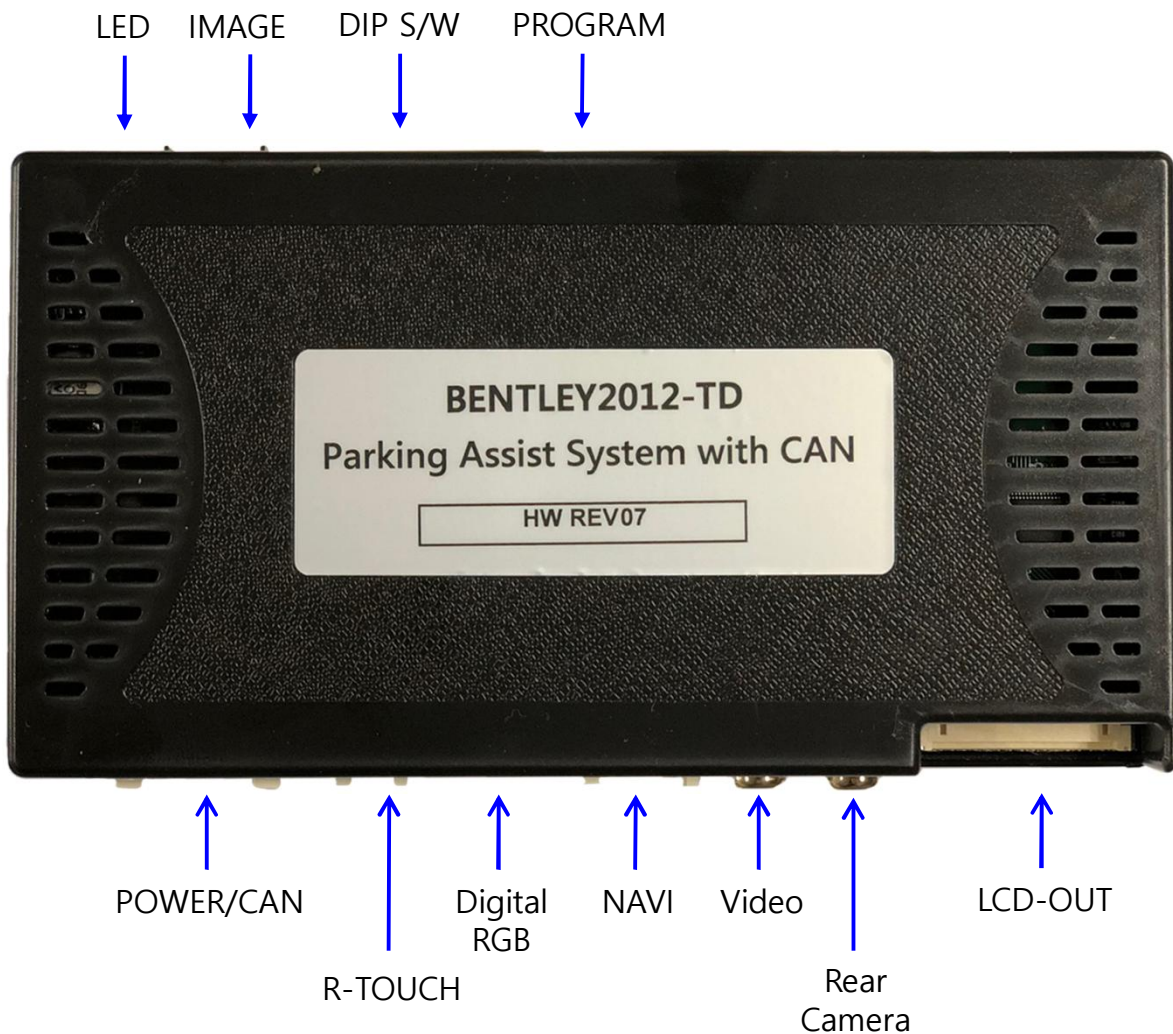
3. Dimension

159mm * 83mm * 22mm

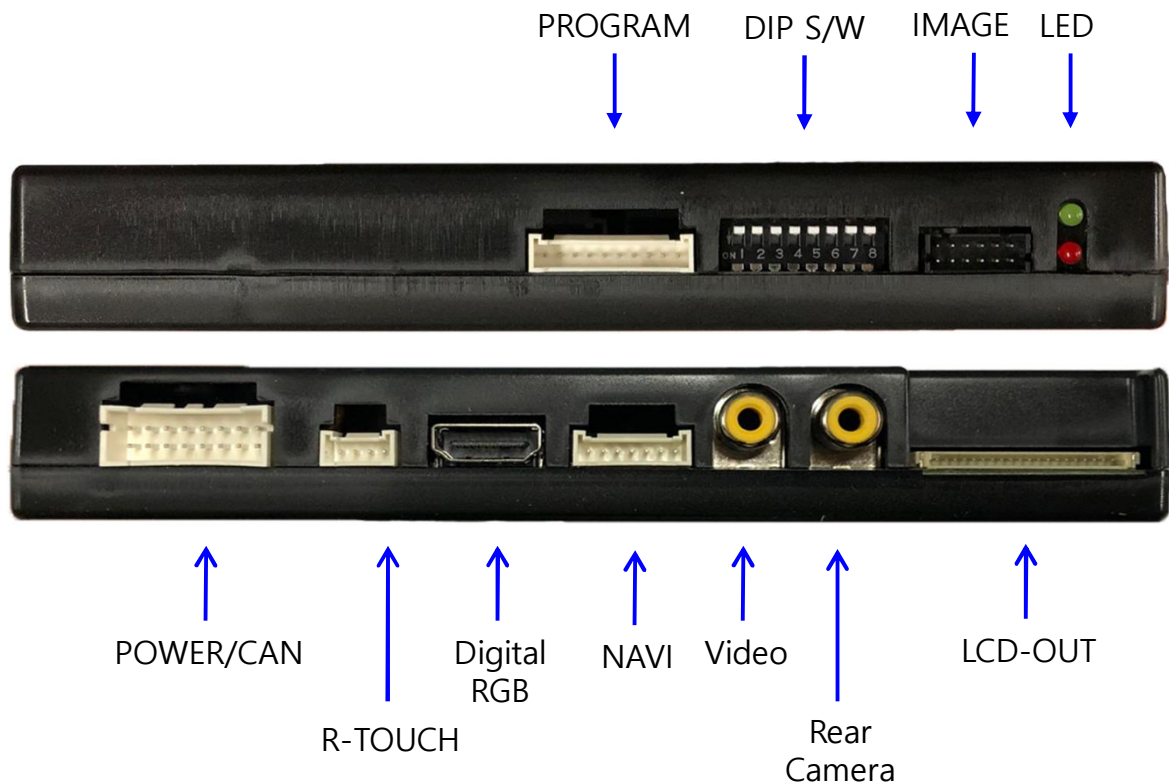


* This can change under manufacturer's circumstance

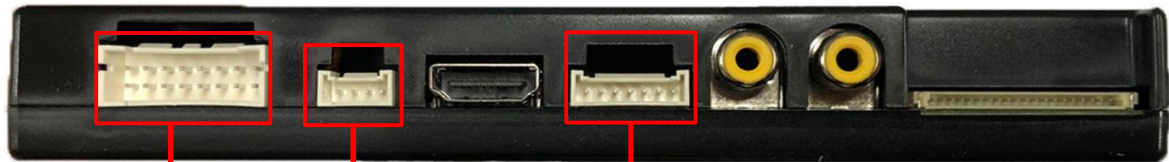
4. External Appearance



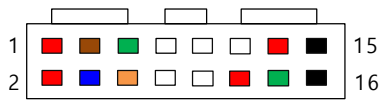
4. External Appearance



5. Connector Pin Assignment

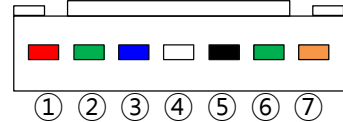


*POWER Connect



- | | |
|---------------------|-----------------------|
| 1. ACC (Red) | 9. N.C |
| 2. ACC (Red) | 10. N.C |
| 3. Rear-DET (Brown) | 11. N.C |
| 4. Front-DET (Blue) | 12. Rear-power (Red) |
| 5. CAN-L (Green) | 13. Front-power (Red) |
| 6. CAN-H (Orange) | 14. Mode (Green) |
| 7. N.C | 15. GND (Black) |
| 8. N.C | 16. GND (Black) |

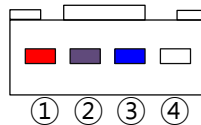
*NAVI Connect



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

* Rear-power & Front-power
-> Output Current = Max 0.2A(200mA)

*Touch Connect

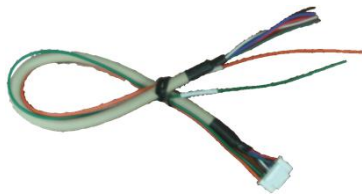


- | |
|------|
| ① Y- |
| ② X- |
| ③ Y+ |
| ④ X+ |

6. Product Composition



Interface 1 EA



RGB Navi Cable 1 EA



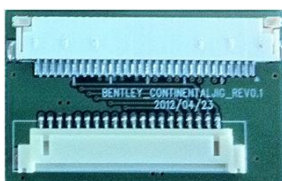
Mode S/W 1 EA



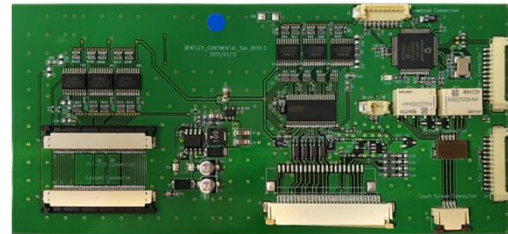
Power Cable 1 EA



OSD Board 1 EA



JIG Board 1 EA



SUB Board 1 EA



LVDS Cable(800mm) 1 EA



Touch FPC Cable(100mm) 2 EA



Touch convertor Cable(KD-900) 1 EA



Mode Cable 1 EA



(100mm)



(130mm)



(150mm)

LVDS FPC Cable 3 EA

6. Product Composition

* CarPlay Set Sales(option) – KPLAY



Interface 1 EA



AUX Cable 1 EA



Power Cable 1 EA



HDMI Cable 1 EA



Bluetooth / Wifi Antenna 2EA



Microphone 1 EA

6. Product Composition

* CarPlay(NV17) Set Sales(option)



CarPlay Main 1 EA



AUX Cable 1 EA



Power Cable 1 EA



HDMI Cable 1 EA



Microphone 1 EA

7. DIP S/W Setting

* ON : DOWN , OFF : UP

PIN	FUNCTION	DIP S/W Selection
1	NAVI	ON : Not Used OFF : Used
2	DVB-T(AV1)	ON : Not Used OFF : Used
3	DVD(AV2)	ON : Not Used OFF : Used
4	N.C	
5	N.C	
6	CAR type SEL	Right Picture
7		
8		

* DIP S/W Example



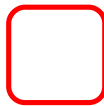
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8. Mode Change

Mode Change



Return OEM display



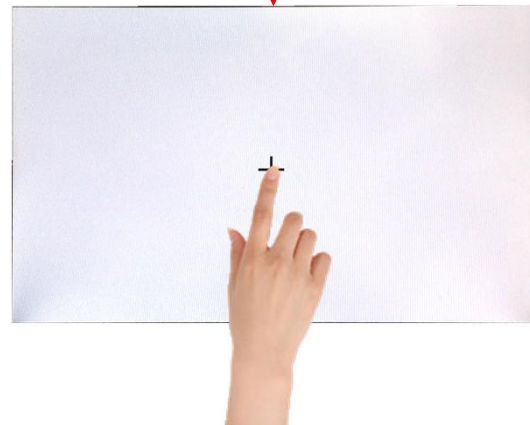
mode change (Long press 1 second)

9. Touch Control

Touch control - Calibration

MENU	RearCam-Det	NAVI	
OSD	Factory Reset	Execute	Cancel
IR-Ctrl	Calibration	Execute	Cancel
Utility	Version	BEW3100AUX-210518	

OSD menu -> Utility -> Calibration



+ Touch according to the shape coordinates.

9. Touch Control

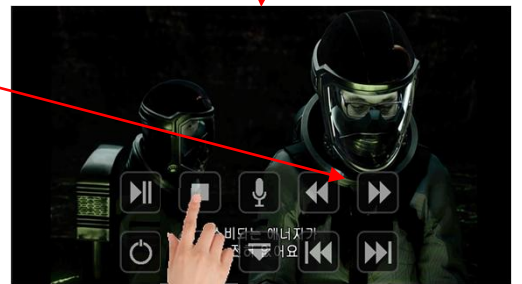
DVB-T/DVD Control

DVB-T



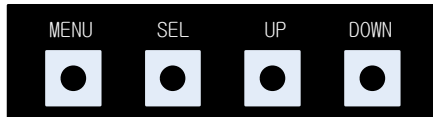
Press Icon

DVD



10. OSD(On Screen Display) Control

OSD control



MENU	Press to display when there is no OSD screen. When OSD screen is on, press it to EXIT or OFF.
SEL	Item Selection, Value Selection
UP	Item up Increase selected value
DOWN	Item down Decrease selected value

Mode State		
MENU	Option	
Config	NAVI COM	KPLAY
Option	RearCam-Type	ExtDevice
Image	RearCam-Power	Auto
Screen	RearCam-Det	CAN
Parking	FrontCam-Type	ExtDevice

First Menu

Second Menu

Third Menu

10. OSD(On Screen Display) Control

OSD Config

First Menu	Second Menu	Third Menu	Description
Config	NAVI-RGB	DIGITAL-INAVI :	Setting the Connected NAVI Model
	DVB-T(DMB)	ELT_DVBT20 :	Setting the Connected DVB-T Model
	DVD	ELT_980XU Slim :	Setting the Connected DVD Model
	RearCam	AVM VIDEO :	Setting the Connected RearCam Model
	Reset	Execute	Reset to default value of Config menu

MENU	Config		NAVI
Config	NAVI-RGB	DGT-KPLAY-V-1280	
Option	DVB-T(DMB)	ELT_DVBT20	
Image	DVD	ELT_980XU Slim	
Screen	RearCam	AVM	
Parking	FrontCam	Default	

10. OSD(On Screen Display) Control

OSD - Option Menu

First Menu	Second Menu	Third Menu	Description
Option	RearCam-Type	OEM	Original Camera
		ExtDevice	Equipped with external camera
	RearCam-Power	ON	+ 12V continuous supply
		AUTO	+ 12V supply only in Rear camera mode
		OFF	+ 12V off
	RearCam-Det	GEAR	Detected by CAN
		WIRE	Detected by Rear-Det Wire
	FrontCam-Type	OEM	Original Camera
		ExtDevice	Equipped with external camera
	FrontCam-Power	ON	+ 12V continuous supply
		AUTO	+ 12V supply only in Front camera mode
		OFF	+ 12V off
	FrontCam-Det	GEAR	Detected by CAN
		WIRE	Detected by Front-Det Wire
	FrontCam-RcvOpt	ON	After RearCam shows FrontCam and returns to previous state
		OFF	Disable feature
	UI DVB-T (DMB)	ON	DVB-T device control UI output function
		OFF	Disable feature
	UI DVD	ON	DVD device control UI output function
		OFF	Disable feature
	NAVI COM	HMS FINE :	Set up manufacturer of woodworking device for UART Touch use
		OFF	Do not use features.
	Reset	Execute	Option Menu all Reset



10. OSD(On Screen Display) Control

OSD Option -> FrontCam-RcvOpt

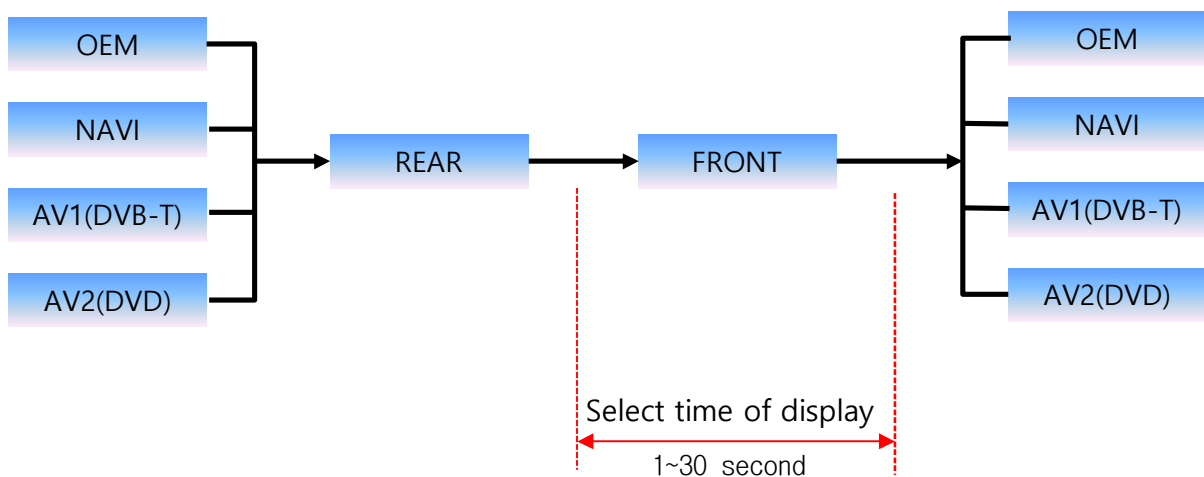
Front Camera Auto Mode

0 second = FrontCam-RcvOpt menu OFF

1~30 second = FrontCam-RcvOpt menu ON & time control

MENU↵	FrontCam-Det NAVI	
Config↵	FrontCam-Power↵	Auto↵
Option↵	FrontCam-Det↵	ExtDevice↵
Image↵	FrontCam-RcvOpt↵	0s↵
Screen↵	UI DVB-T(DMB)↵	On↵
Parking↵	UI DVD↵	On↵

MENU↵	FrontCam-Det NAVI	
Config↵	FrontCam-Power↵	Auto↵
Option↵	FrontCam-Det↵	ExtDevice↵
Image↵	FrontCam-RcvOpt↵	30s↵
Screen↵	UI DVB-T(DMB)↵	On↵
Parking↵	UI DVD↵	On↵



10. OSD(On Screen Display) Control

NAVI-RGB menu

First Menu	Second Menu	Third Menu	Action
Image	Brightness		Adjust the value of brightness
	Contrast		Adjust the value of contrast
	Color-RED		Adjust the value of RED
	Color-GREEN		Adjust the value of GREEN
	Color-BLUE		Adjust the value of BLUE
	Reset	Excute	Option Menu all Reset

DVD,DVB-T(DMB),NAVI-AV,REAR,FRONT menu

First Menu	Second Menu	Third Menu	Action
Image	Brightness		Adjust the value of brightness
	Contrast		Adjust the value of contrast
	Saturation		Adjust the value of Saturation
	Hue		Adjust the value of Hue
	Sharpness		Adjust the value of Sharpness
	Reset	Excute	Option Menu all Reset



<< Brightness >>



<< Contrast >>



<< Saturation >>

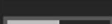
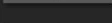


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10. OSD(On Screen Display) Control

OSD – Screen Menu

First Menu	Second Menu	Third Menu	Description
Screen	Horizontal		Output screen horizontal movement
	Vertical		Output screen vertical movement
	Scale X Up		Reduce / increase output screen width
	Scale X Down		
	Scale Y Up		Reduce / Increase Output Screen Height
	Scale Y Down		
	Reset		Screen menu all reset

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

10. OSD(On Screen Display) Control

OSD – OSD Menu

First Menu	Second Menu	Third Menu	Description
OSD	Horizontal	<i>value</i>	OSD Menu Horizontal Shift
	Vertical	<i>value</i>	OSD menu vertical Shift
	Display Time	<i>value</i>	OSD Menu Display Time (in seconds)
	Transparency	<i>value</i>	OSD menu transparency
	Language		OSD menu display language
	Reset	Execute	Initialize OSD settings

MENU	Horizontal NAVI	
OSD	Horizontal	50
IR-Ctrl	Vertical	50
Utility	Display Time	10s
	Transparency	30
	Language	English

MENU	Reset NAVI	
OSD	Reset	Execute Cancel
IR-Ctrl		
Utility		

10. OSD(On Screen Display) Control

OSD – IR learning function



* In order to work with the IR learning function, a separate IR cable is required.

MENU	DVB-T(DMB)	NAVI
OSD	DVB-T(DMB)	Se1 Learn Cance
IR-Ctrl	DVD	Sys
Utility	DVR	Sys

1. In DVB-T / DVD menu, select User in Sys (OSD list) or User (learned contents).
2. Select Learn from the OSD menu.

MENU	DVB-T(DMB)	NAVI
OSD	All-Clear	
IR-Ctrl	POWER	---
Utility	SCAN	---
	CH+	---
	CH-	---

3. Before using IR learning function, select All-Clear to delete existing stored data.

MENU	DVB-T(DMB)	NAVI
OSD	New Code: ----	
IR-Ctrl	Cfm Code: ----	
Utility	Save Clr Cance	

4. Press the remote control button to be used in each ICON once in New Code, press once again in Cfm Code to confirm it is the same and save it.



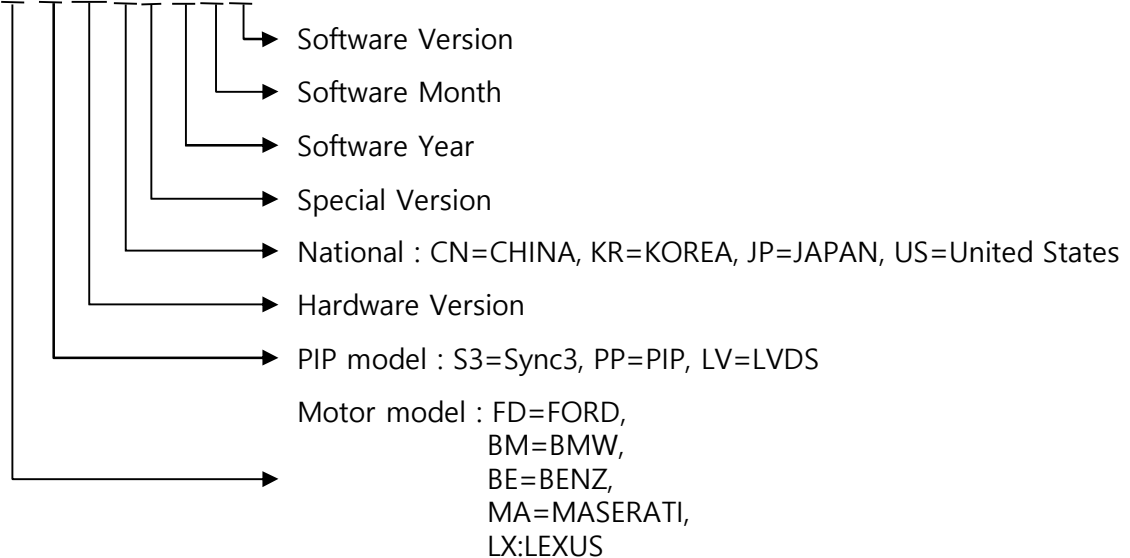
GU Electronic

10. OSD(On Screen Display) Control

OSD – Utility Menu

First Menu	Second Menu	Third Menu	Description
Utility	Factory Reset	Execute	Initialize all settings
	Calibration	Execute	Calibration mode Execute
	Version		FDSYOOKRX-180209 (Check for future upgrades)

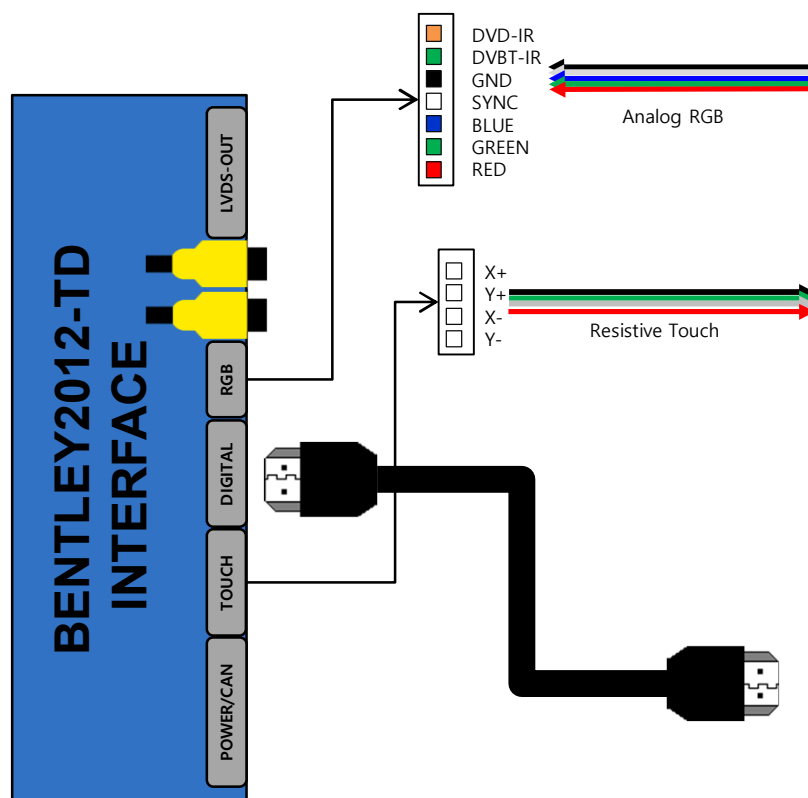
Last Source : FDSYOOKRX-180209



MENU	Utility	NAVI
OSD	Factory Reset	Execute Cancel
IR-Ctrl	Calibration	Execute Cancel
Utility	Version	BEW3100AUX-210518

11. Install Manual

1. Installation Navigation Connection



*Analog RGBsync navigation



*Digital navigation



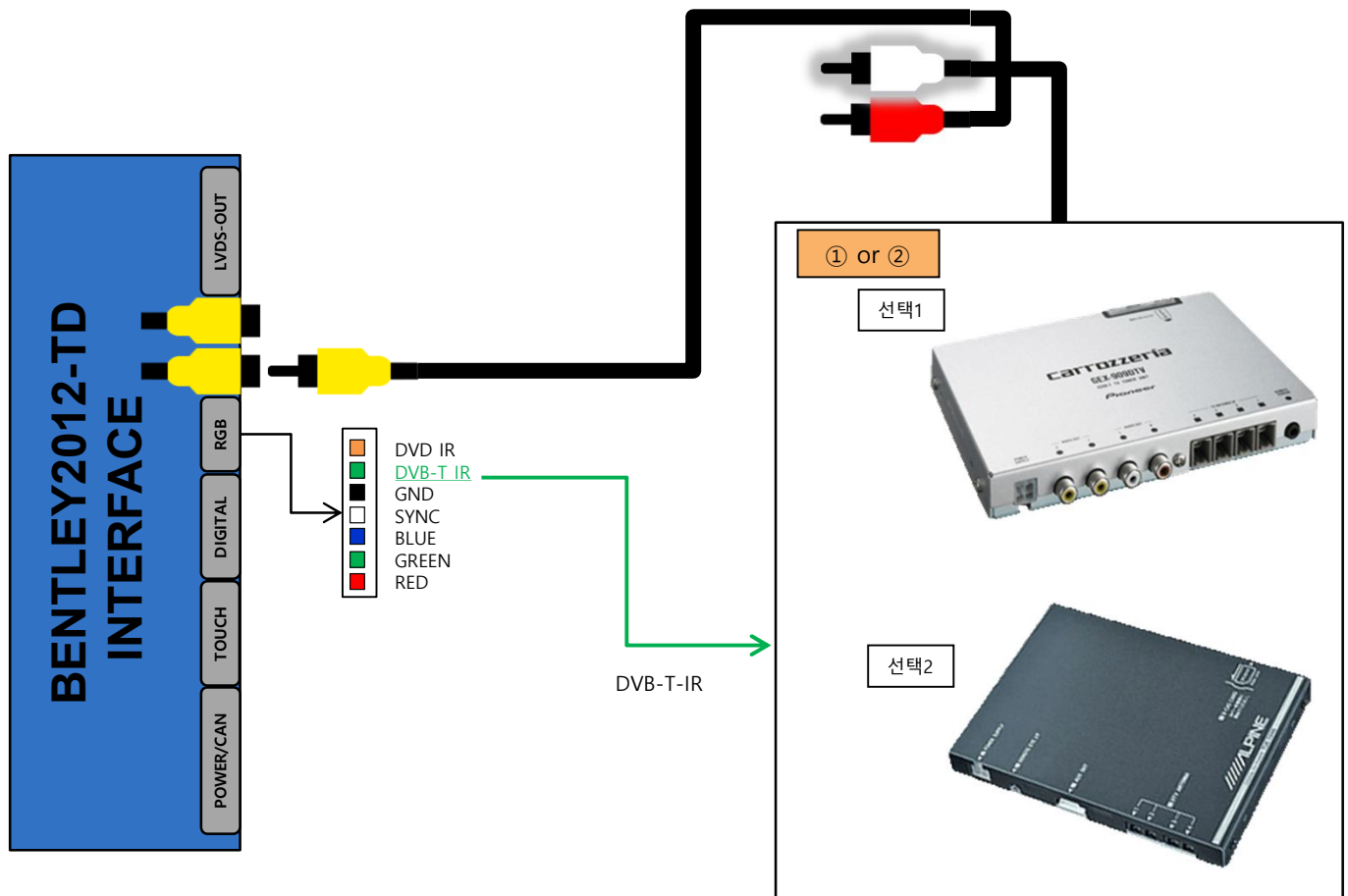
MENU	NAVI-RGB	NAVI
Config	NAVI-RGB	DGT-NV17-800
Option	DVB-T(DMB)	DGT-NV17-V-800
Image	DVD	DGT-KPLAY-800
Screen	RearCam	DGT-KPLAY-1280
Parking	FrontCam	DGT-KPLAY-V-1280

MENU	FrontCam-Type	NAVI
Config	NAVI COM	OFF
Option	RearCam-Type	GU
Image	RearCam-Power	KPLAY
Screen	RearCam-Det	NV17
Parking	FrontCam-Type	NVC

- Select the navigation you want to use from the above items.

11. Install Manual

2. Installation DVB-T Remote Control Connection



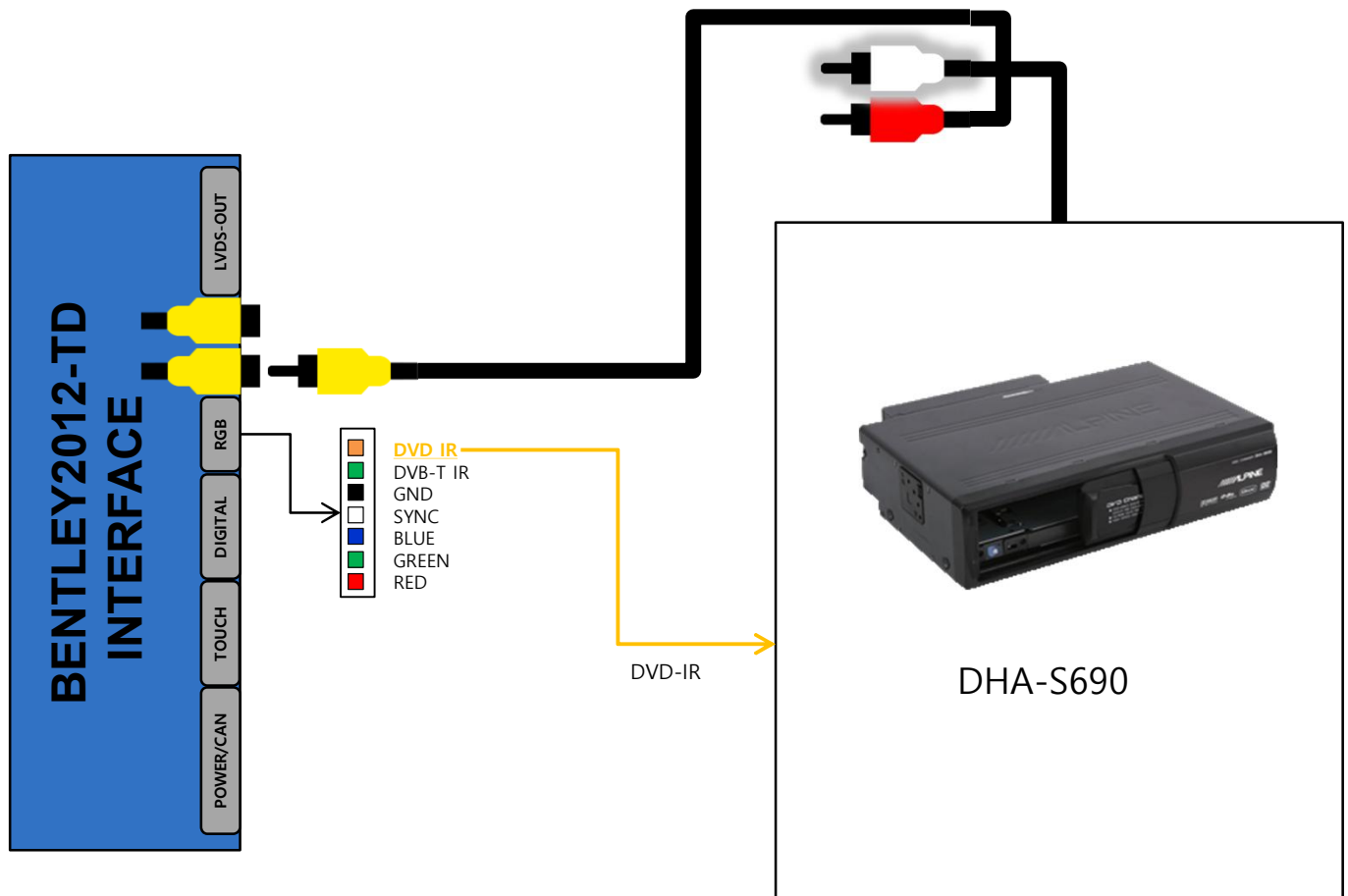
MENU	UI DVB-T(DMB) NAVI	
Config	FrontCam-Power	Auto
Option	FrontCam-Det	ExtWire
Image	FrontCam-RcvOpt	0s
Screen	SteeringWheelBtn	Off
Parking	UI DVB-T(DMB)	On Off

MENU	DVB-T(DMB) NAVI	
Config	NAVI-RGB	ELT_DVBT20
Option	DVB-T(DMB)	NET-770
Image	DVD	MediaLife
Screen	RearCam	Panasonic
Parking	FrontCam	Pioneer

- Select the DVB-T you want to use from the above items.

11. Install Manual

3. Installation DVD Remote Control Connection

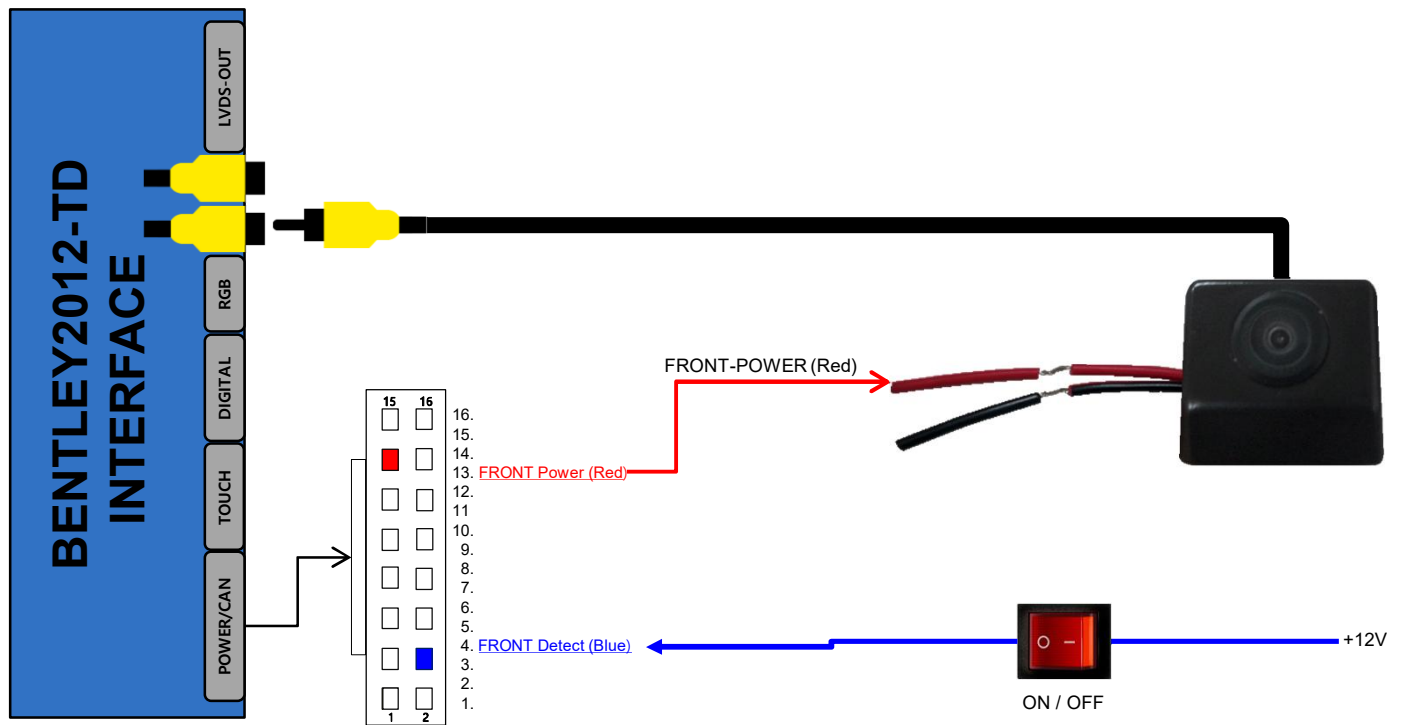


MENU	Option	NAVI	MENU	DVD	NAVI
Config	UI DVD	On Off	Config	NAVI-RGB	ELT-980XU Slim
Option	ScrChg-Climate	Off	Option	DVB-T(DMB)	LCKT
Image	Reset	Execute Cancel	Image	DVD	Sanyo
Screen			Screen	RearCam	NECVOX DVA-3206
Parking			Parking	FrontCam	AMPIRE DVX-101

- Select the DVD you want to use from the above items.

11. Install Manual

4. Installation External Front Camera Connection



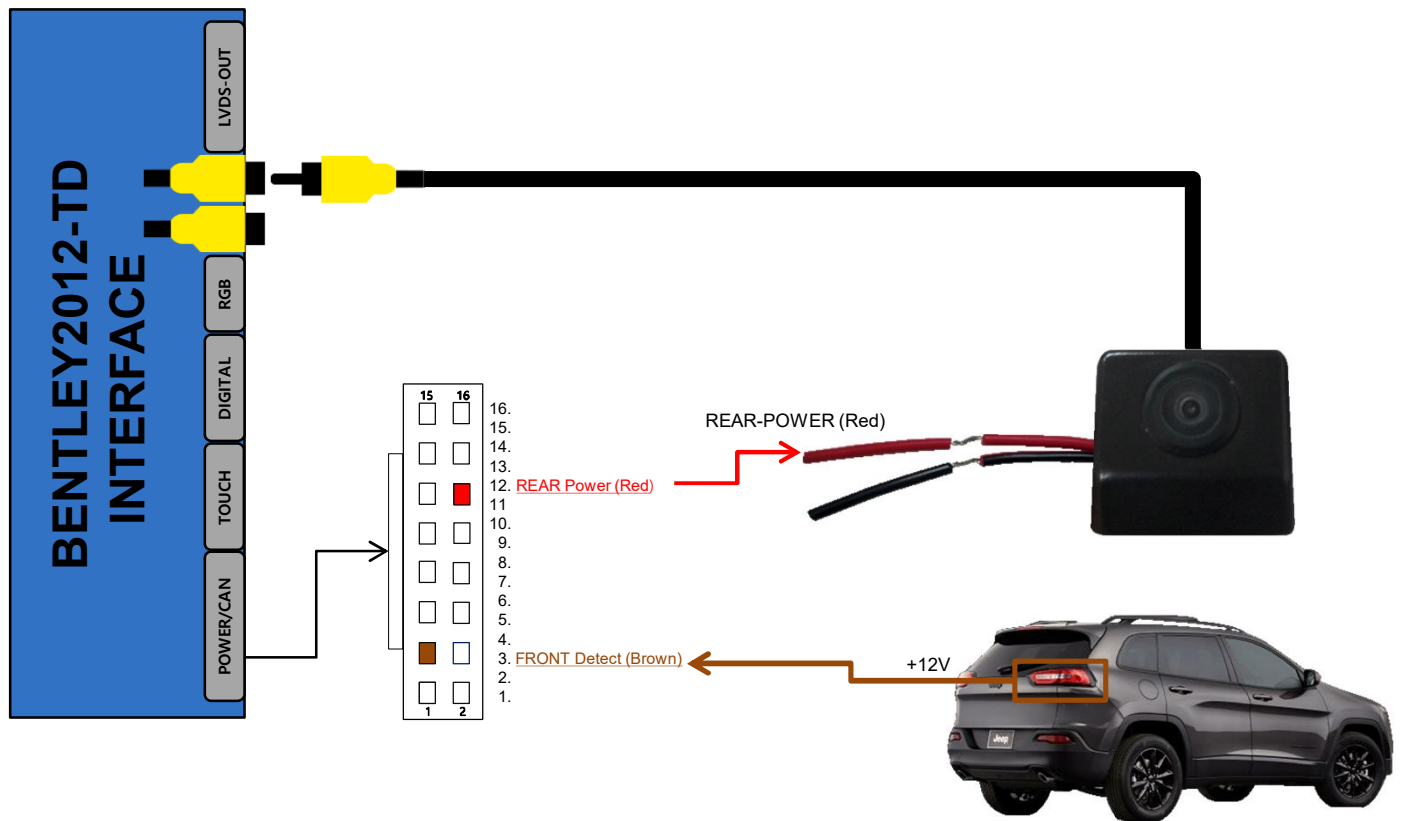
MENU	FrontCam NAVI	
Config	NAVI-RGB	AVM
Option	DVB-T(DMB)	DIGITAL-NVC
Image	DVD	Default
Screen	RearCam	
Parking	FrontCam	

MENU	FrontCam-RcvOpt NAVI	
Config	FrontCam-Power	Auto
Option	FrontCam-Det	ExtWire
Image	FrontCam-RcvOpt	0s
Screen	SteeringWheelBtn	Off
Parking	UI DVB-T(DMB)	On

- Refer to page. 10. OSD (On Screen Display) Control -> OSD option -> FrontCam-RcvOpt.

11. Install Manual

5. Installation External Reverse(Rear) Camera Connection



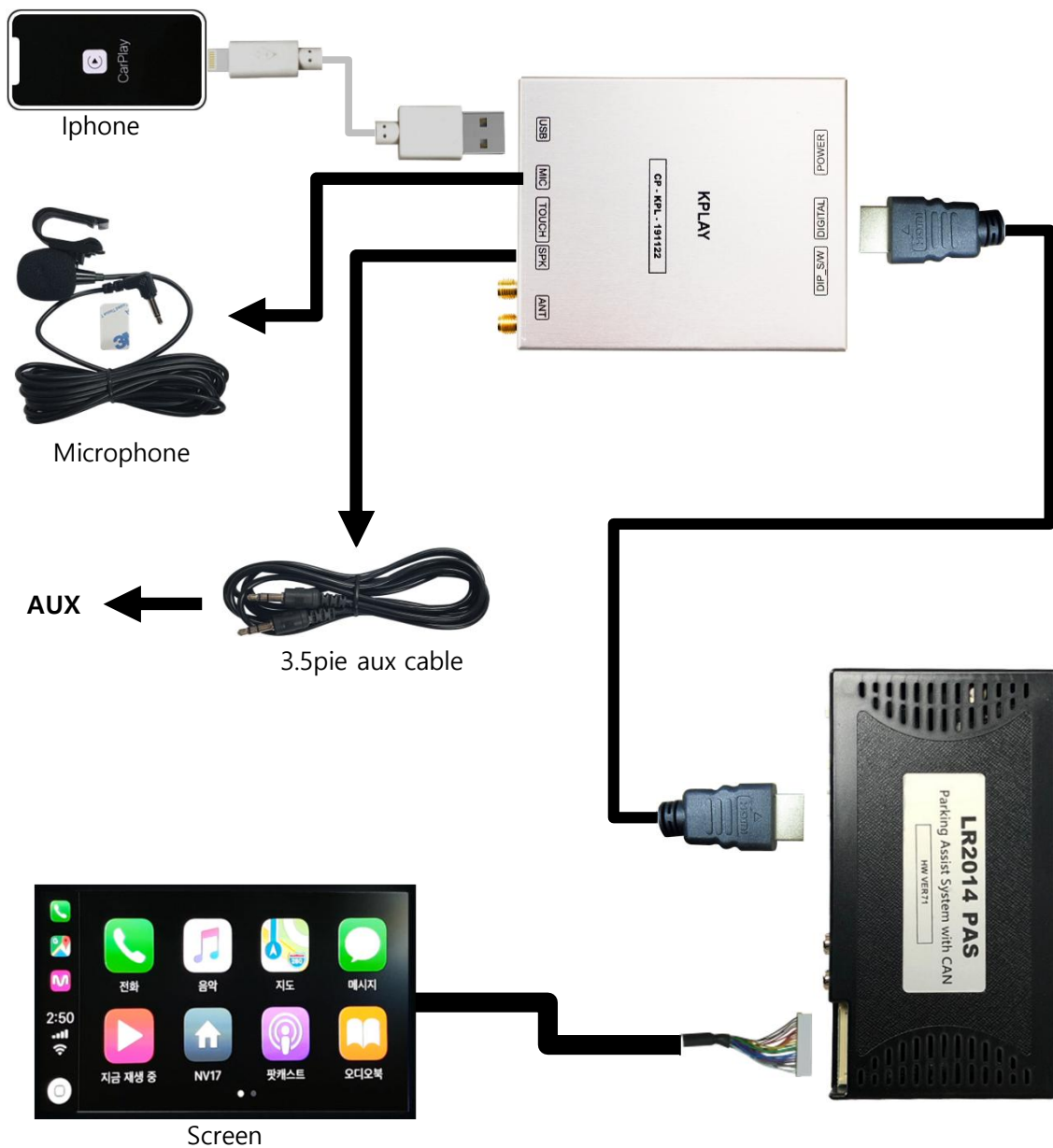
MENU	RearCam		REAR
Config	NAVI-RGB		AVM
Option	DVB-T(DMB)		DIGITAL-NVC
Image	DVD		Default
Screen	RearCam		
Parking	FrontCam		

- Select the RearCam you want to use from the above items.

11. Install Manual

6. Installation CarPlay - KPLAY

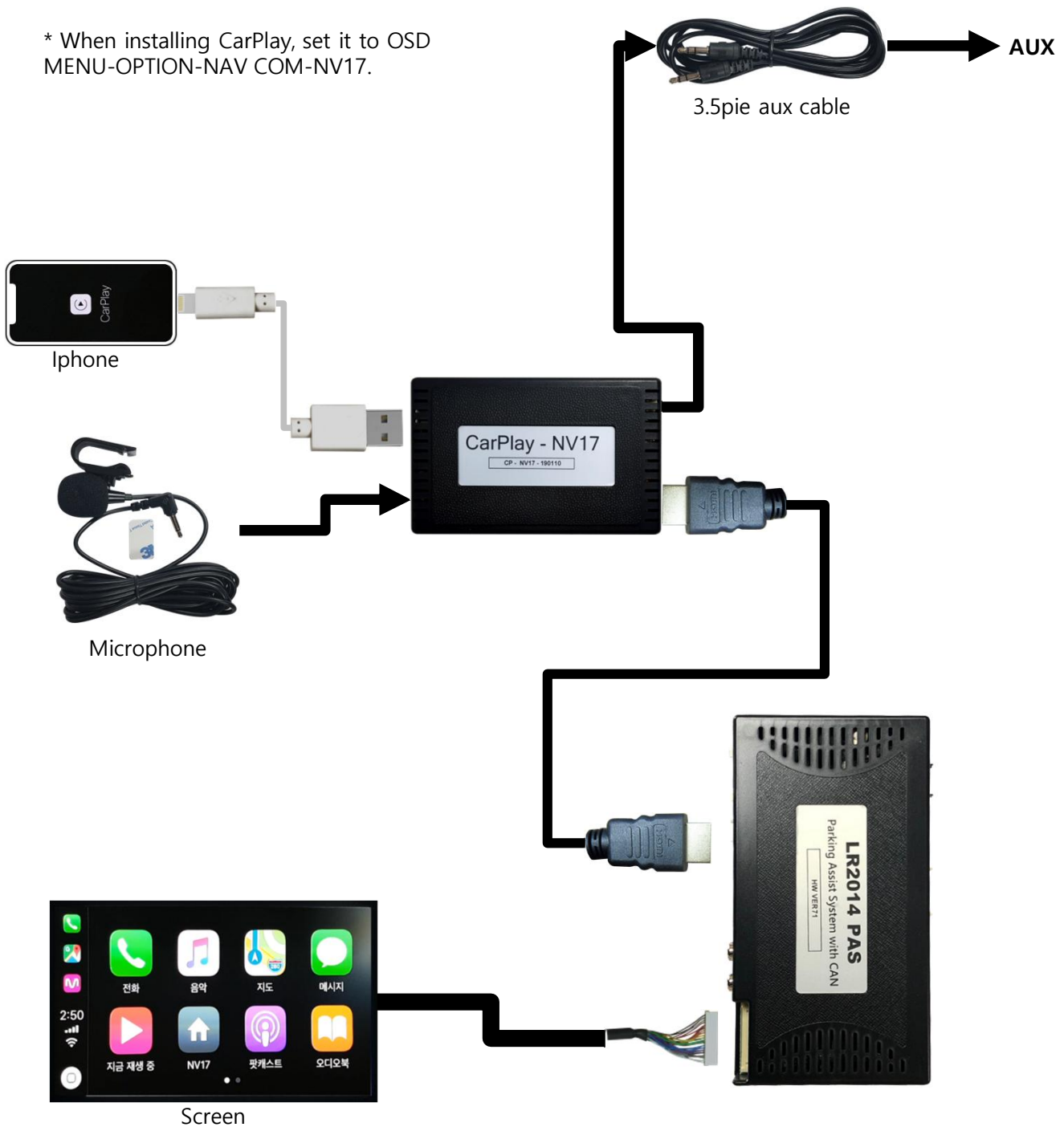
* When installing CarPlay, set it to OSD
MENU-OPTION-NAV COM-KPLAY.



11. Install Manual

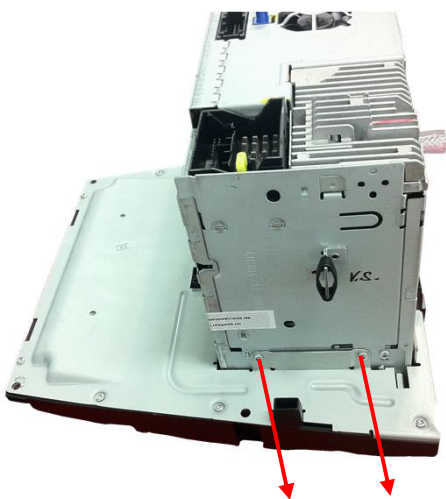
7. Installation CarPlay – NV17

* When installing CarPlay, set it to OSD MENU-OPTION-NAV COM-NV17.

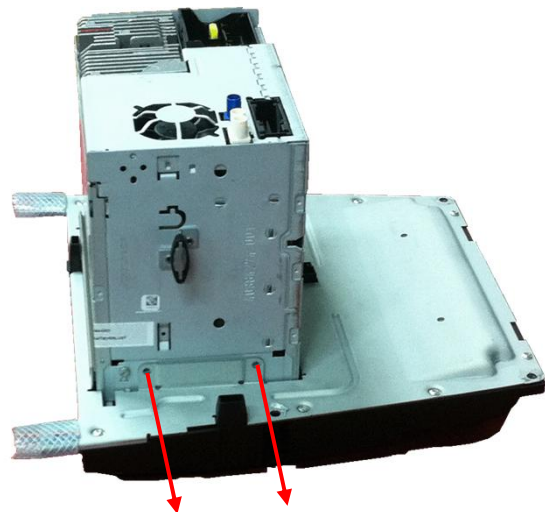


11. Install Manual

8. Installation



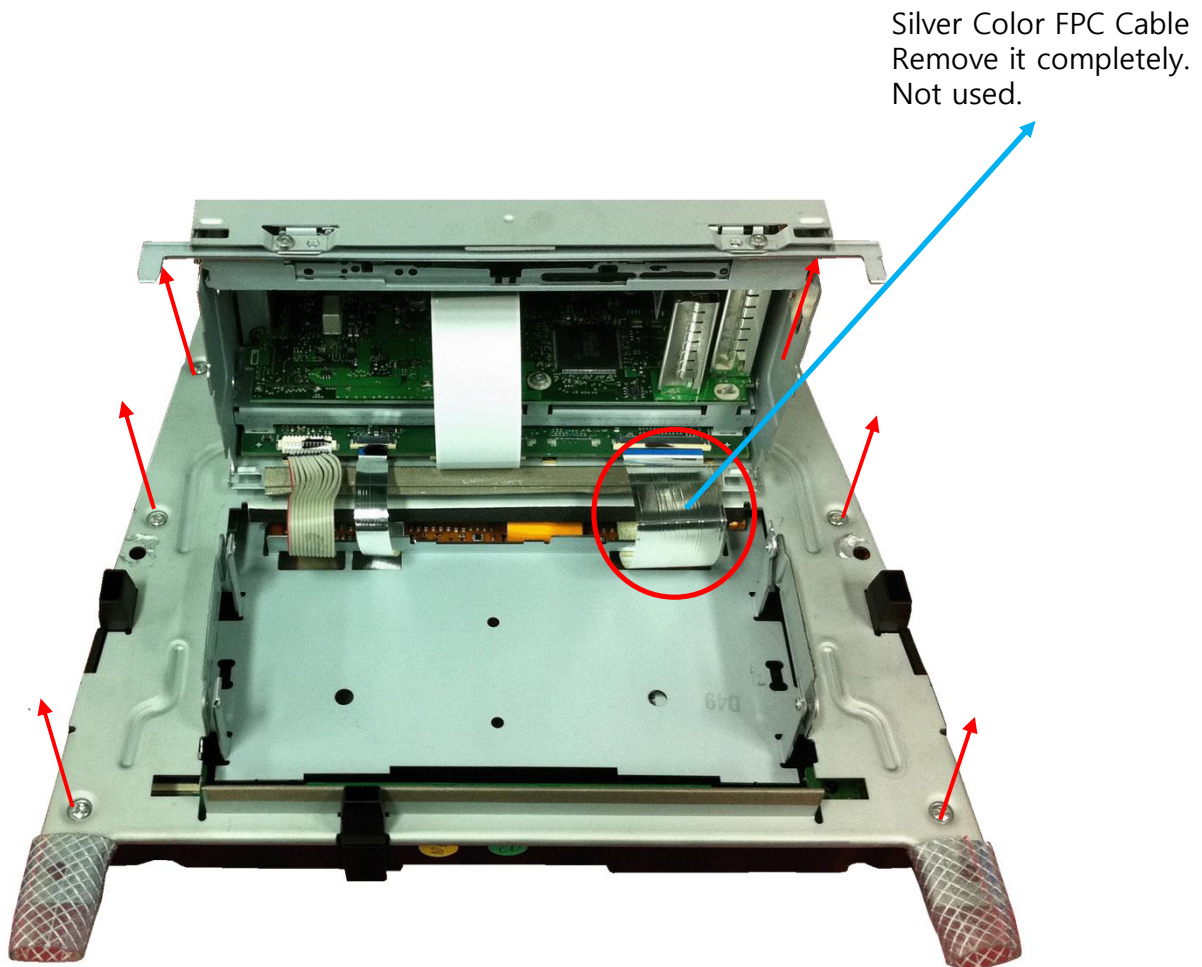
Remove bolts



Remove bolts

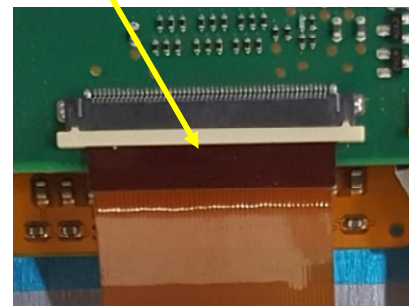
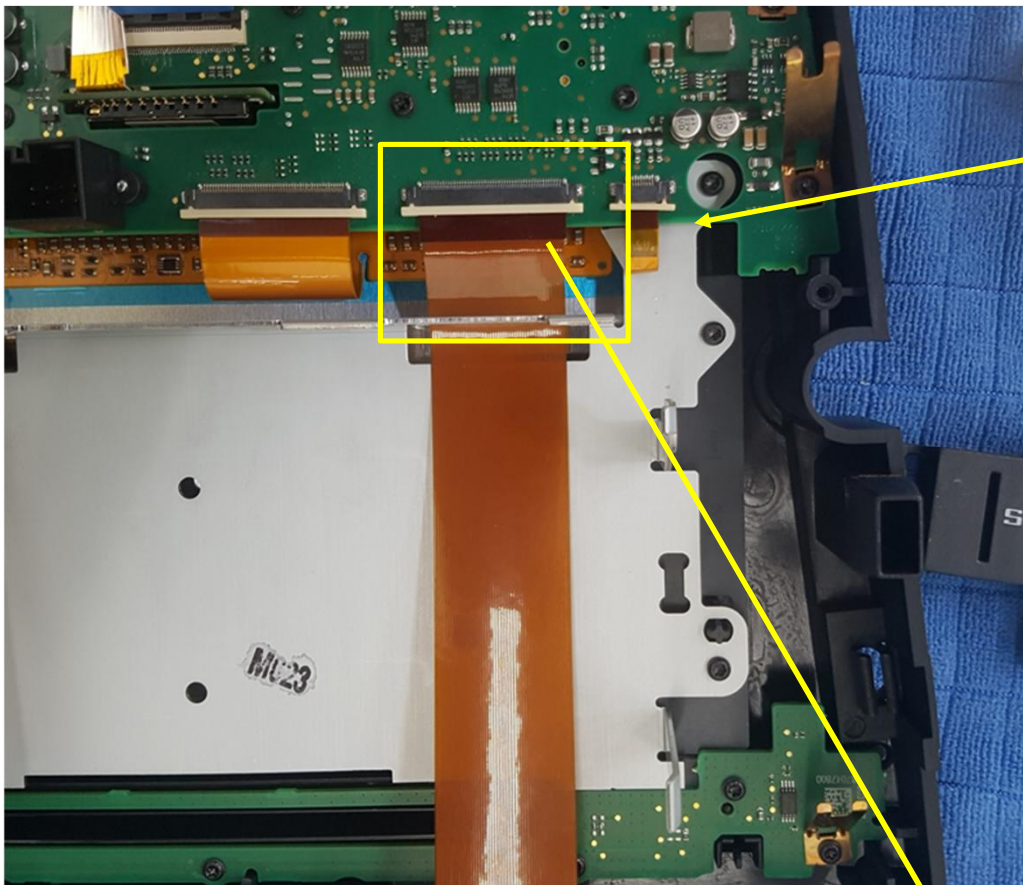
11. Install Manual

8. Installation



11. Install Manual

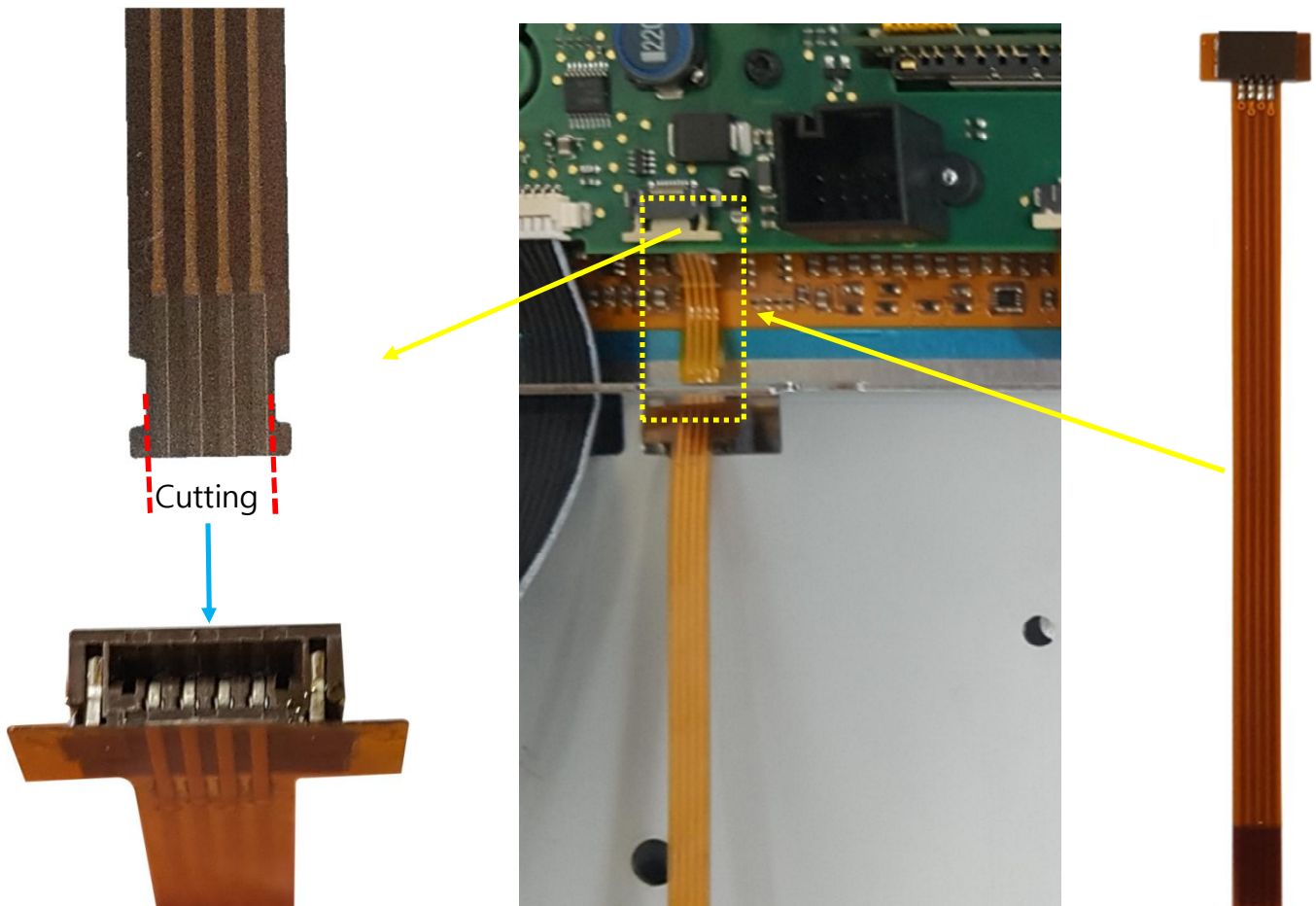
8. Installation



Work to make black visible.

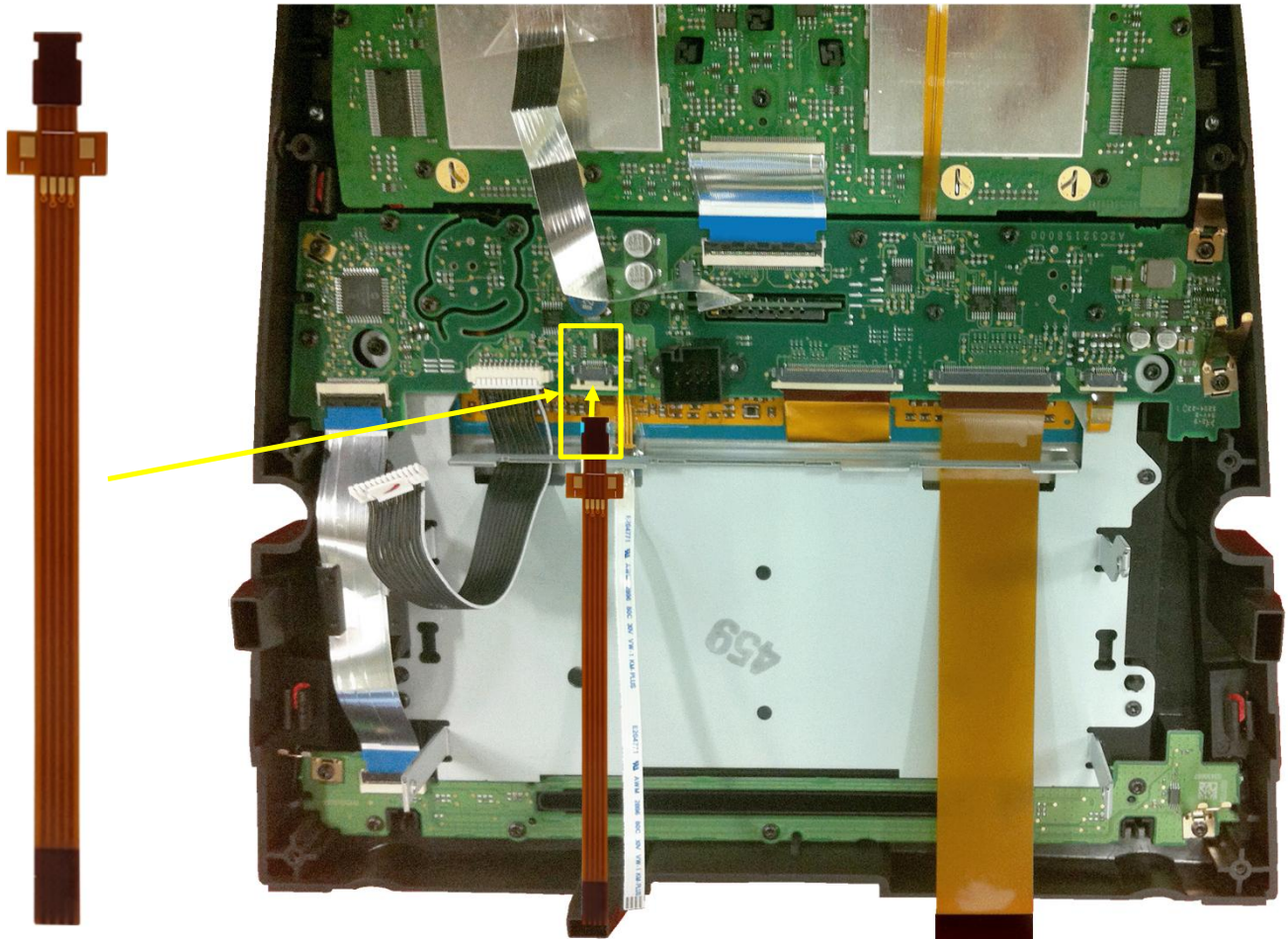
11. Install Manual

8. Installation



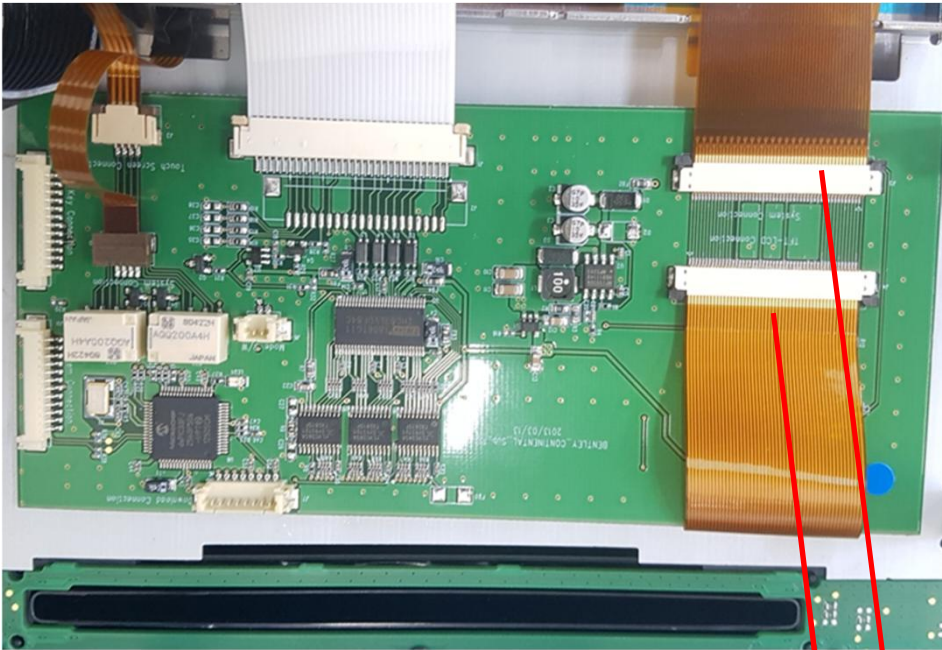
11. Install Manual

8. Installation



11. Install Manual

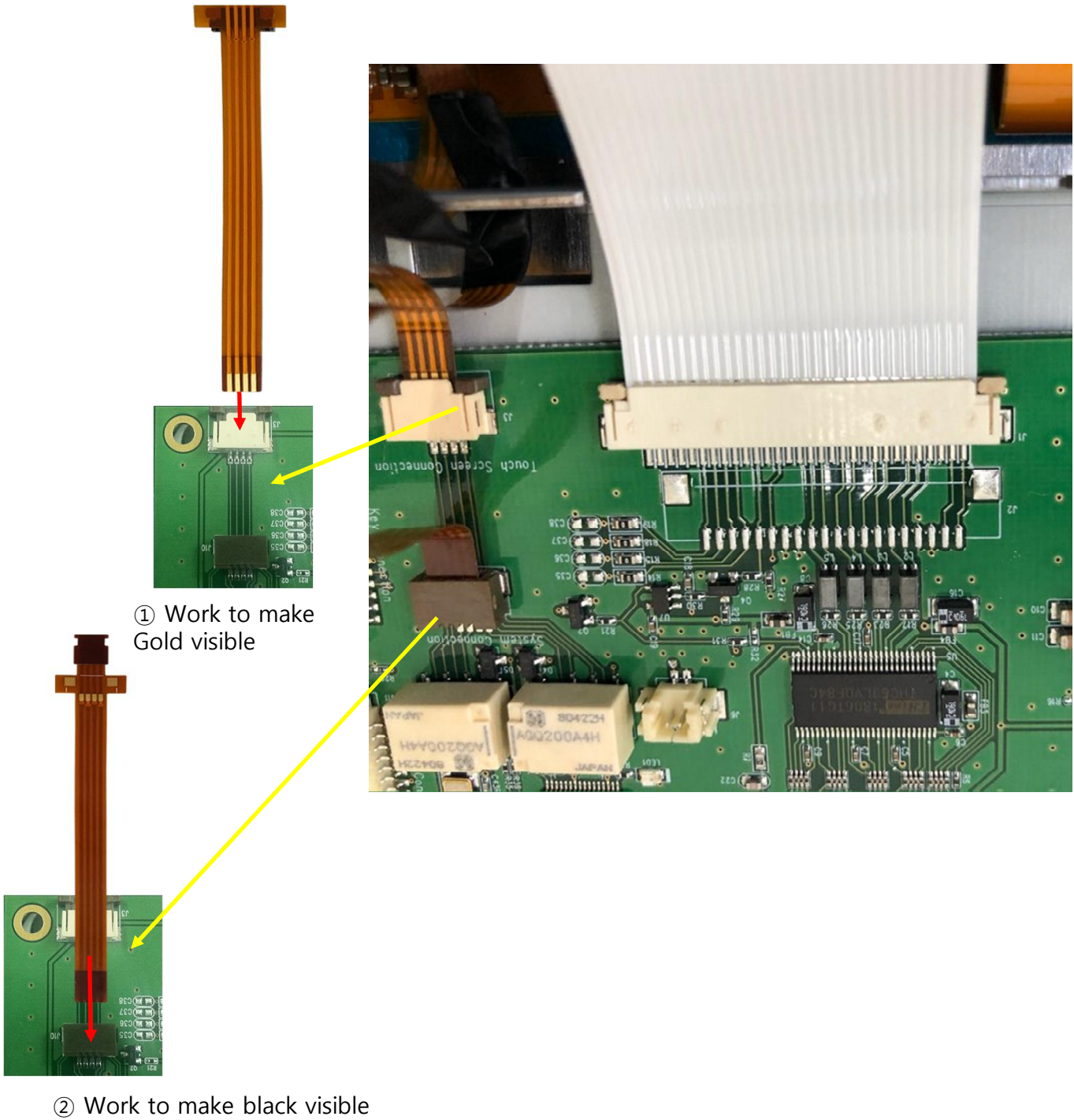
8. Installation



Work to make Gold visible

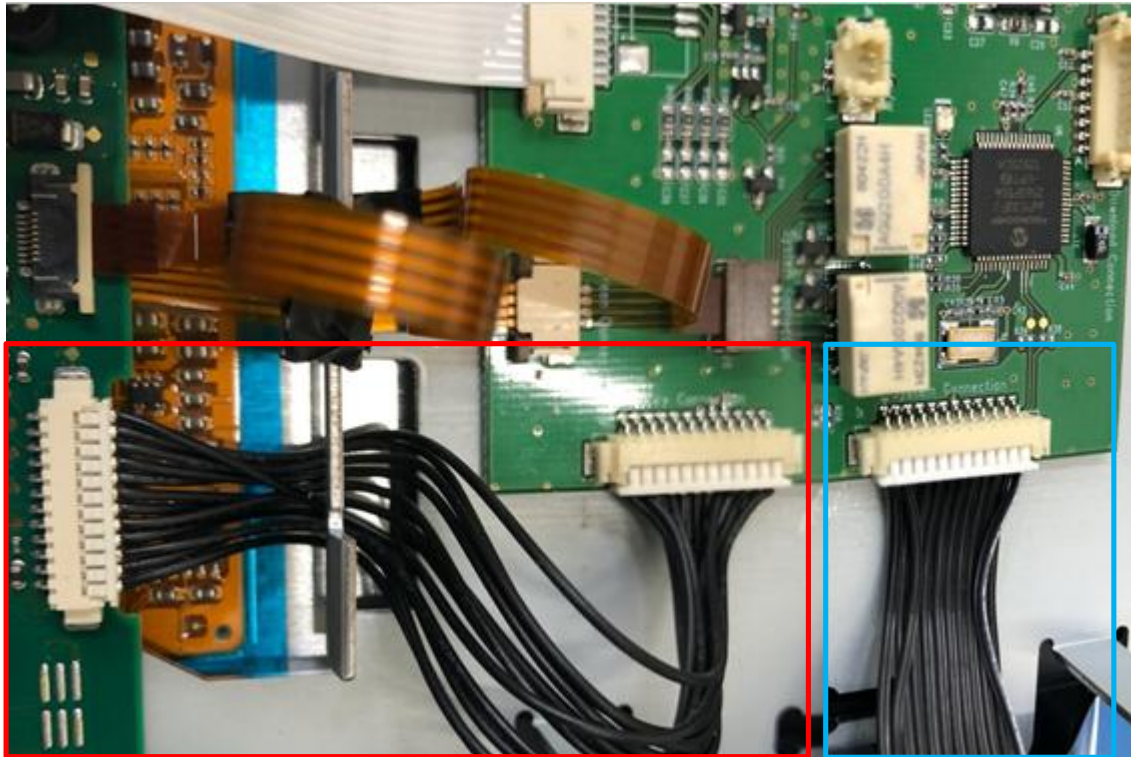
11. Install Manual

8. Installation



11. Install Manual

8. Installation

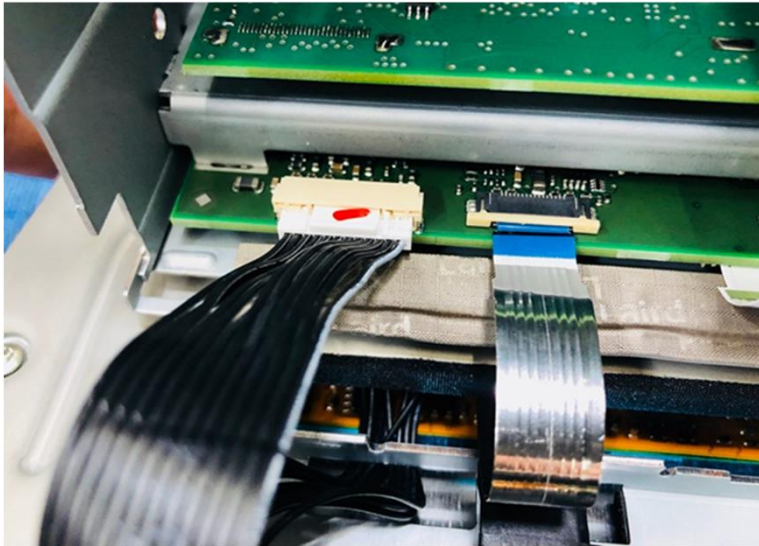


Connect the provided mode cable.

Connect the OEM cable.

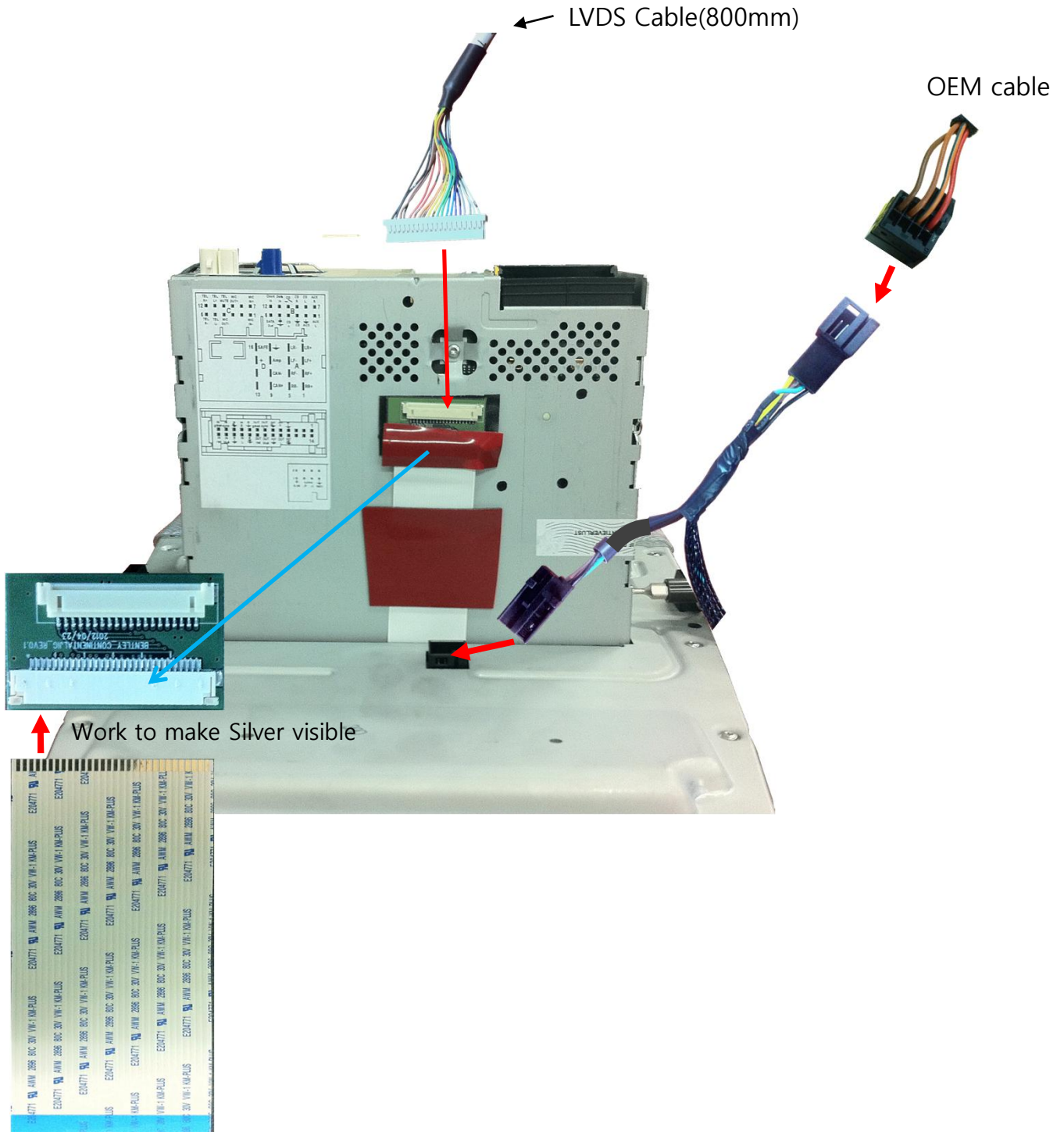
11. Install Manual

8. Installation



11. Install Manual

8. Installation



12. Q & A

FAQ

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

Caution

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