

PORSCHE PCM5.0 TDC3

- Porsche 2019 Cayenne 12"**
- Volkswagen 2019 Touareg 15"**

- MODEL : PCM-50-190313
- DATE : 2019.04.03

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1. Main Spec.

1. Input Spec. (MULTI VIDEO INTERFACE)

- 1 x HDMI Input
- 1 x Analog RGB Input (Navigation System output)
- 2 x A/V Input (External video source)
- 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 LCD Output (LCD Operation)
- 1 x Virtual Analog Touch (Navigation System source)
- 1 x Uart Digital Touch (Navigation System source)

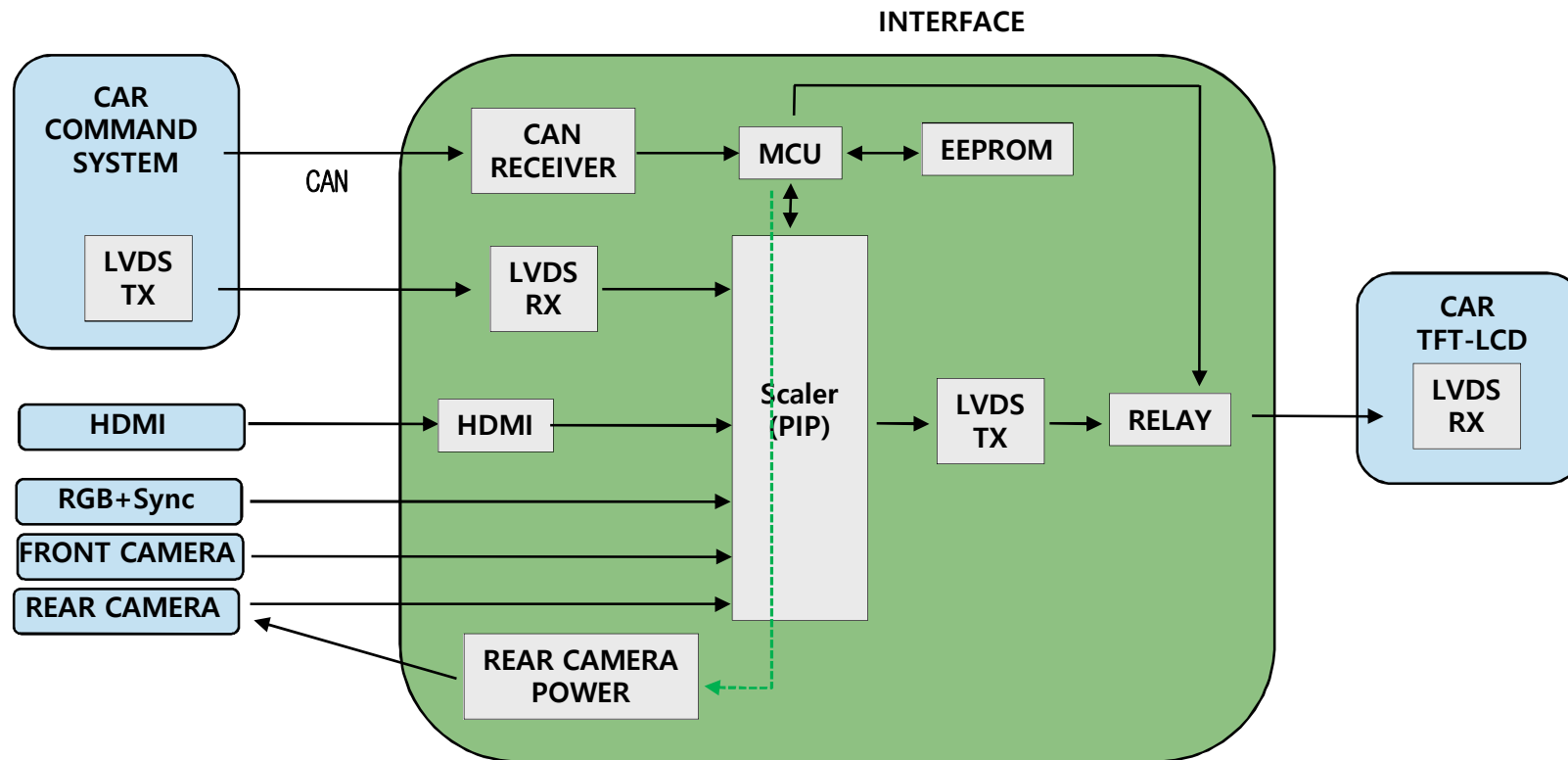
3. Power Spec.

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

4. Switch Input mode

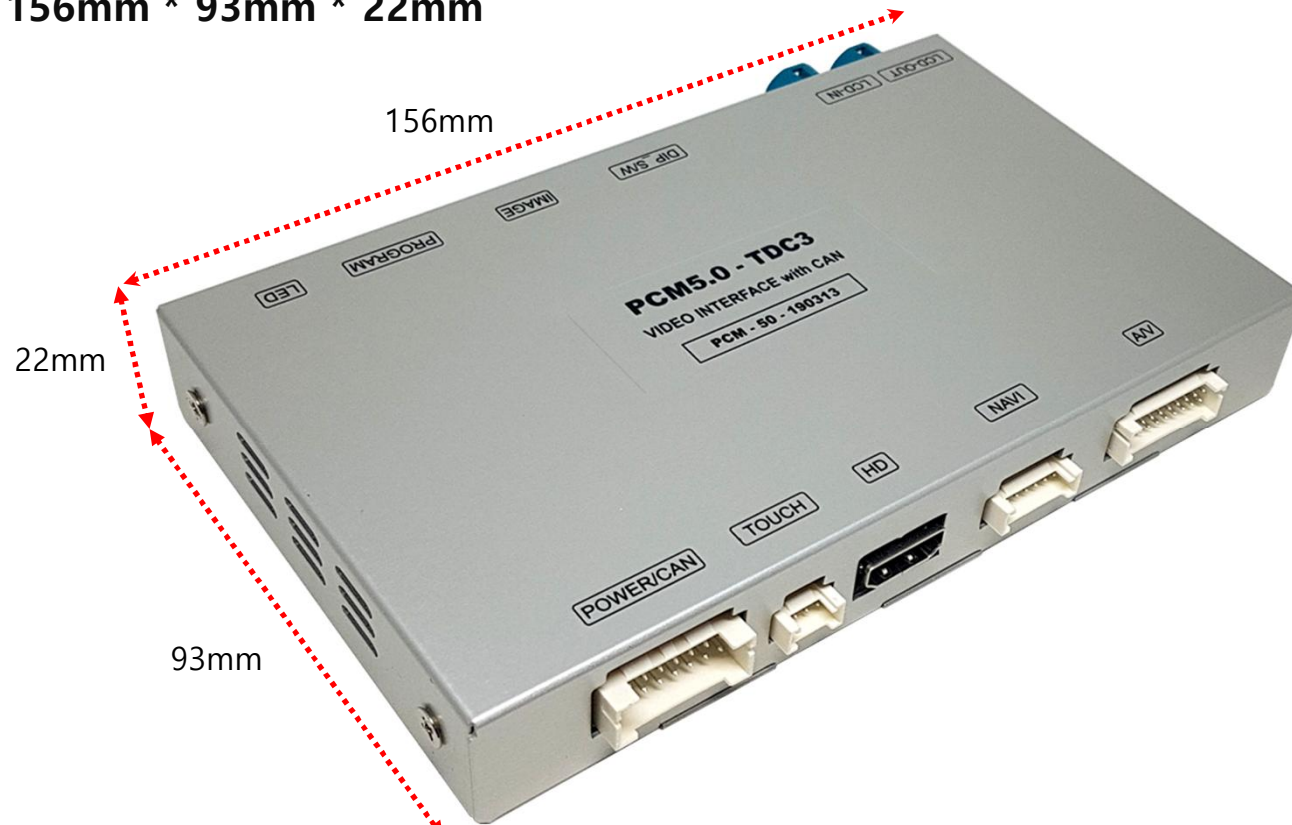
- Possible to select CAR model while switching mode by DIP S/W
- By button on the Commander in the car via CAN

2. Block Diagram



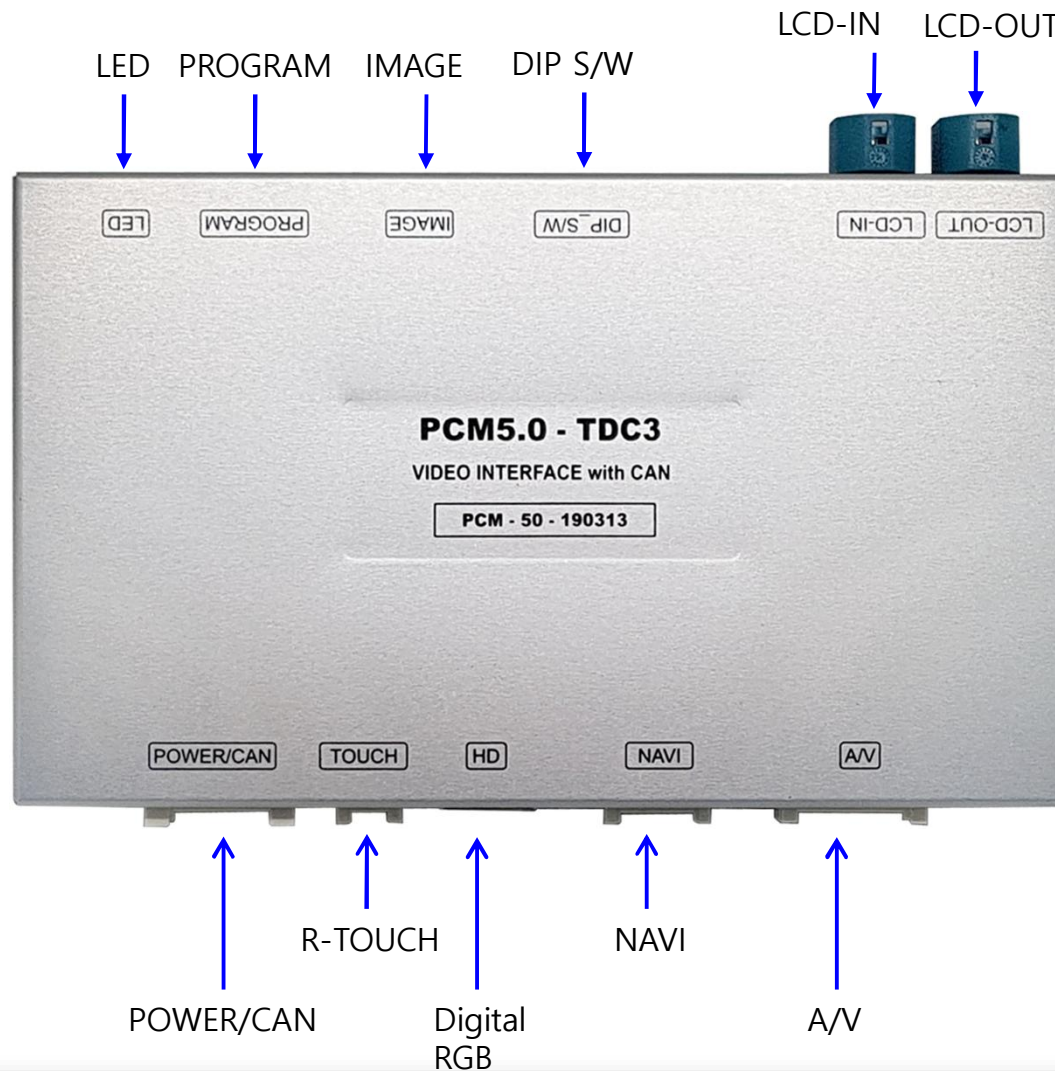
3. Dimension

156mm * 93mm * 22mm

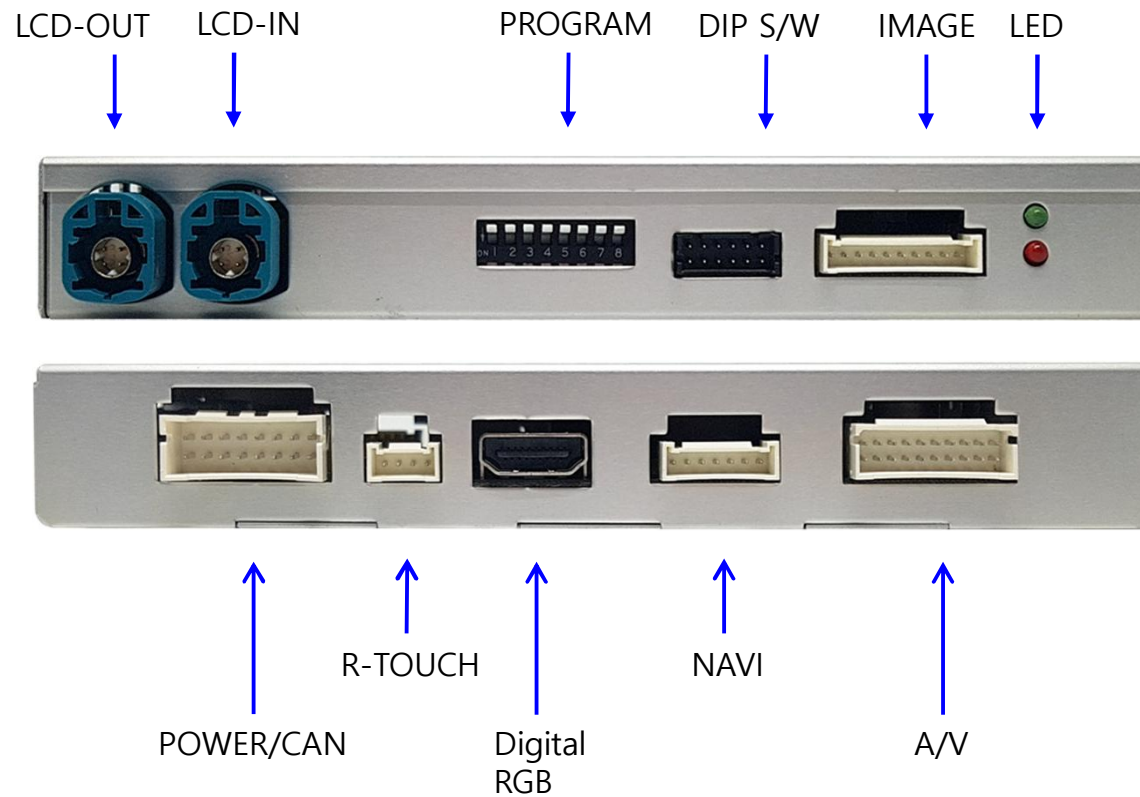


* This can change under manufacturer's circumstance

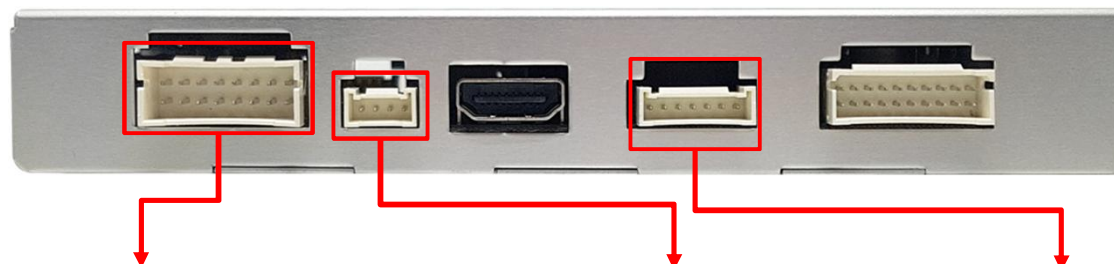
4. External Appearance



4. External Appearance



5. Connector Pin Assignment



*POWER Connect

1	Red	Brown	White	Blue	Green	White	Red	Black	15
2	White	Blue	Purple	Red	Orange	Red	White	White	16

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

*Touch Connect

①	Red	②	Green	③	Blue	④	White
---	-----	---	-------	---	------	---	-------

- ① Y-
- ② X-
- ③ Y+
- ④ X+

*NAVI Connect

①	Red	②	Green	③	Blue	④	White	⑤	Black	⑥	Green	⑦	Orange
---	-----	---	-------	---	------	---	-------	---	-------	---	-------	---	--------

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

6. Product Composition



Interface 1 EA



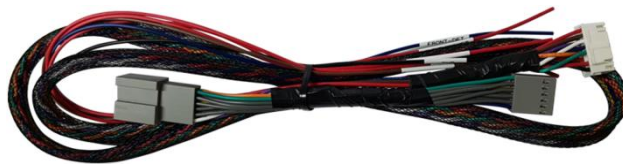
RGB Navi Cable(7pin) 1 EA



A/V Cable(20-pin) 1 EA



LVDS Cable 1 EA



Power Cable(7pin) 1 EA



Touch Cable(KD-900) 1 EA



OSD Board 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



Porsche 2019 Cayenne 12"



Volkswagen 2019 Touareg 15"

8. Mode Change Control

Porsche 2019 Cayenne 12"



- DIP-SW 1 must be OFF in order to install Navigation



Return OEM display



mode change



MENU	NAV Btn	NAVI
Config	UI DVB-T(DMB)	On
Option	UI DVD	On
Image	NAV Btn	Short Long Off
Screen	NAVI COM	Off
Parking	Reset	Execute Cancel

- Short press the NAV button to switch screens.
- Long press(1 second) the NAV button to switch screens.
- Select "OFF" when not in use.

8. Mode Change Control

Volkswagen _2019 Touareg_12”



- DIP-SW 1 must be OFF in order to install Navigation

- Switch mode by pressing for 1 seconds
- Short press to switch OEM



9. Touch Control

DVB-T/DVD Control

DVB-T

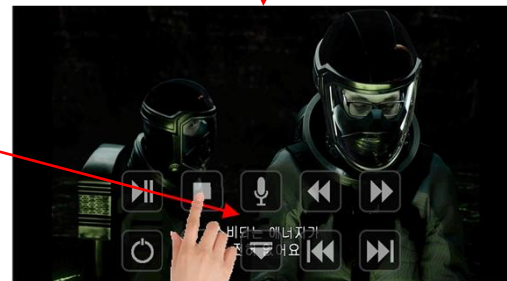


Press Touch(Anywhere)



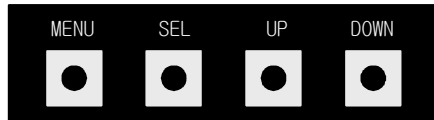
Press Icon

DVD



10. OSD(On Screen Display) Control

OSD Control Board



MENU	When there is no OSD screen, pressing OSD ON When OSD screen is displayed, press OSD EXITT
SEL	Item Selection, Value Selection
UP	Item up Increase selected value
DOWN	Item down Decrease selected value

Mode State		
MENU	Option	
Config	RearCam-Type	ExtDevice
Option	RearCam-Power	Auto
Image	RearCam-Det	GEAR
Screen	AV Mode	Off
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
	Reset	Execute	Reset to default value of Config menu

MENU	Config NAVI	
Config	NAVI-RGB	DIGITAL-INAVI
Option	DVB-T(DMB)	ELT_DVBT20
Image	DVD	ELT-980XU Slim
Screen	Reset	Execute Cancel
Parking		

10. OSD(On Screen Display) Control

OSD Option

First Menu	Second Menu	Third Menu	Description
Option	NAVI COM	OFF	Disable feature
		GU NV17 : :	Set up manufacturer of woodworking device for UART Touch use
	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	CAN	Detected by CAN
		WIRE	Detected by Rear-Det Wire
		OFF	Disable feature
	AV Mode	On	Video(CVBS) Input (If RearCam-Type is OEM)
		Off	Disable feature
	FrontCam-Type	OEM	Original Camera
		ExtDevice	Equipped with external camera

MENU	RearCam-Type		NAVI
Config	RearCam-Type	OEM	
Option	RearCam-Power	Auto	
Image	RearCam-Det	GEAR	
Screen	AV Mode	Off	
Parking	FrontCam-Type	ExtDevice	

10. OSD(On Screen Display) Control

OSD Option

First Menu	Second Menu	Third Menu	Description
Option	FrontCam-Det	CAN	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
	NAV Btn (PCM5.0 display)	Short	Short press the NAV button to switch screens.
		Long	Long press(1 second) the NAV button to switch screens.
		OFF	Disable feature
	Reset	Execute	Option Menu all Reset

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

10. OSD(On Screen Display) Control

OSD Option -> FrontCam-RcvOpt

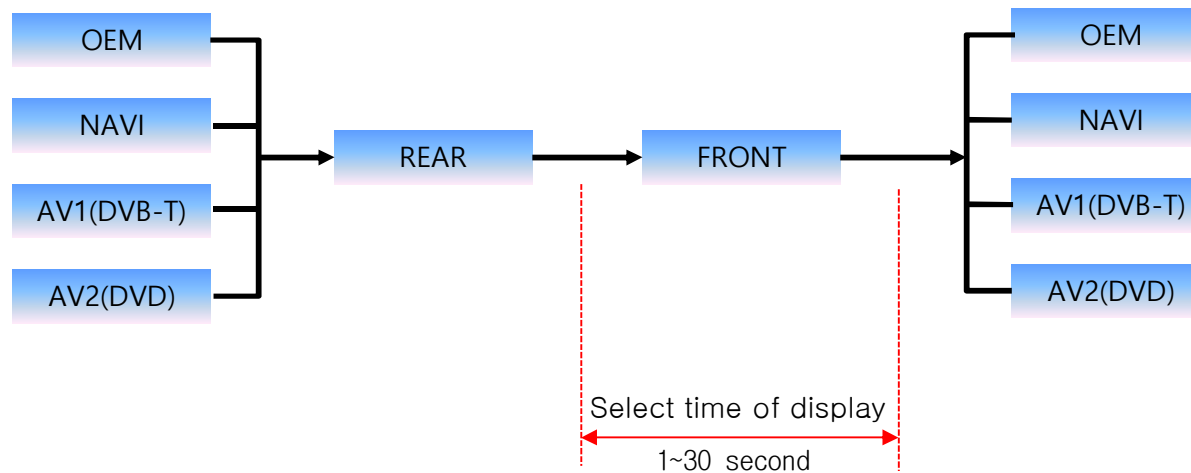
Front Camera Auto Mode

0 second = FrontCam-RcvOpt menu OFF

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

MENU	FrontCam-RcvOpt	NAVI
Config	FrontCam-RcvOpt	0s
Option	SteeringWheelBtn	On
Image	UI DVB-T(DMB)	On
Screen	UI DVD	On
Parking	ScrChg-Climate	On

MENU	FrontCam-RcvOpt	NAVI
Config	FrontCam-RcvOpt	30s
Option	SteeringWheelBtn	On
Image	UI DVB-T(DMB)	On
Screen	UI DVD	On
Parking	ScrChg-Climate	On



10. OSD(On Screen Display) Control

OSD Image

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	Execute	Image 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	Execute	Image Menu all Reset



<< Brightness >>



<< Saturation >>

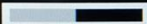


<< Contrast >>

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	Horizontal	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	DVB-T
OSD	Horizontal	50
IR-Ctrl	Vertical	50
Utility	Display Time	10s
	Transparency	30
	Language	English
MENU	Reset	DVB-T
OSD	Reset	Execute Cancel
IR-Ctrl		
Utility		

10. OSD(On Screen Display) Control

* IR learning function



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

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

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



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

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.

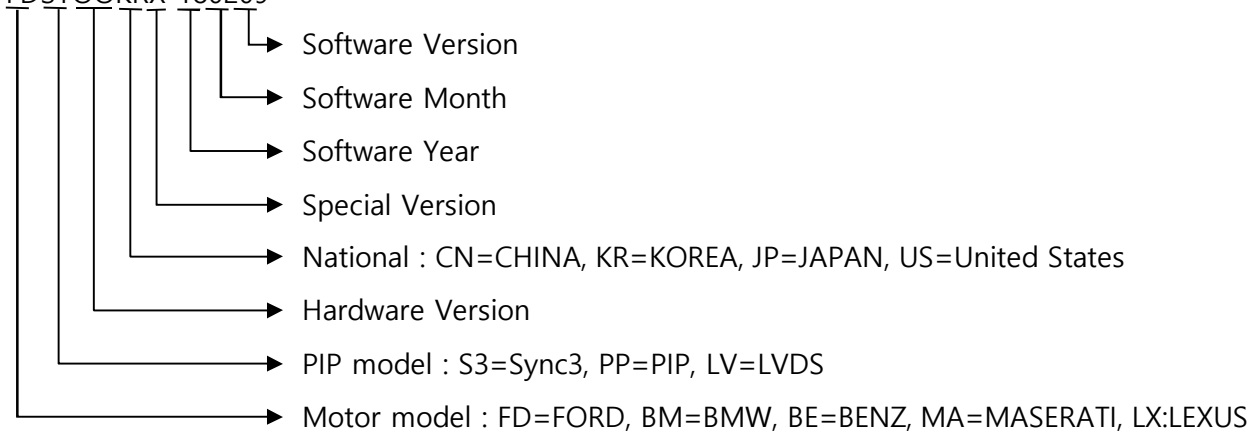
10. OSD(On Screen Display) Control

OSD – Utility Menu

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

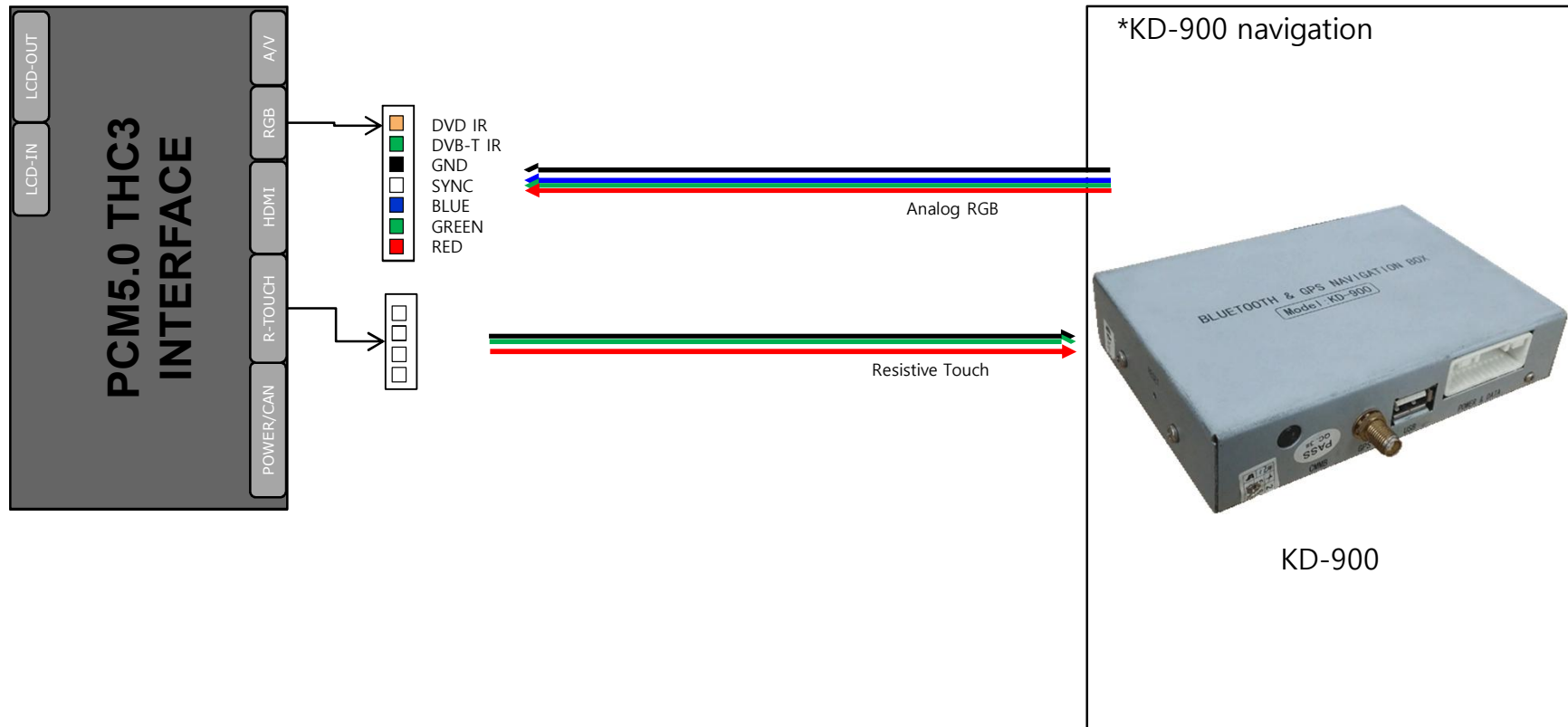
MENU	Utility	NAVI
OSD	Factory Reset	Execute Cancel
IR-Ctrl	Version	FDSYOOKRX-180209
Utility		

Last Source : FDSYOOKRX-180209



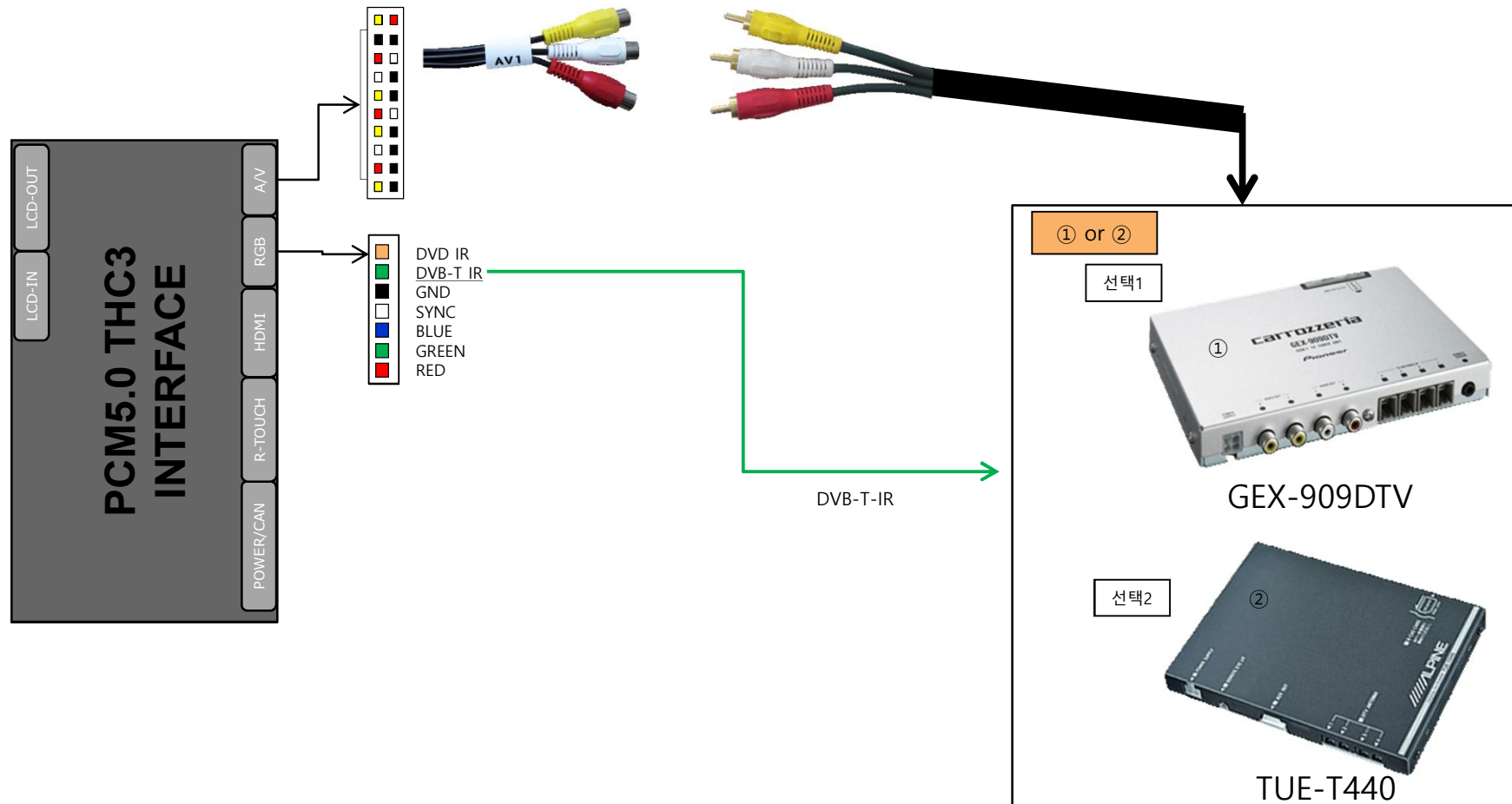
11. Install Manual

1. Installation Navigation Connection



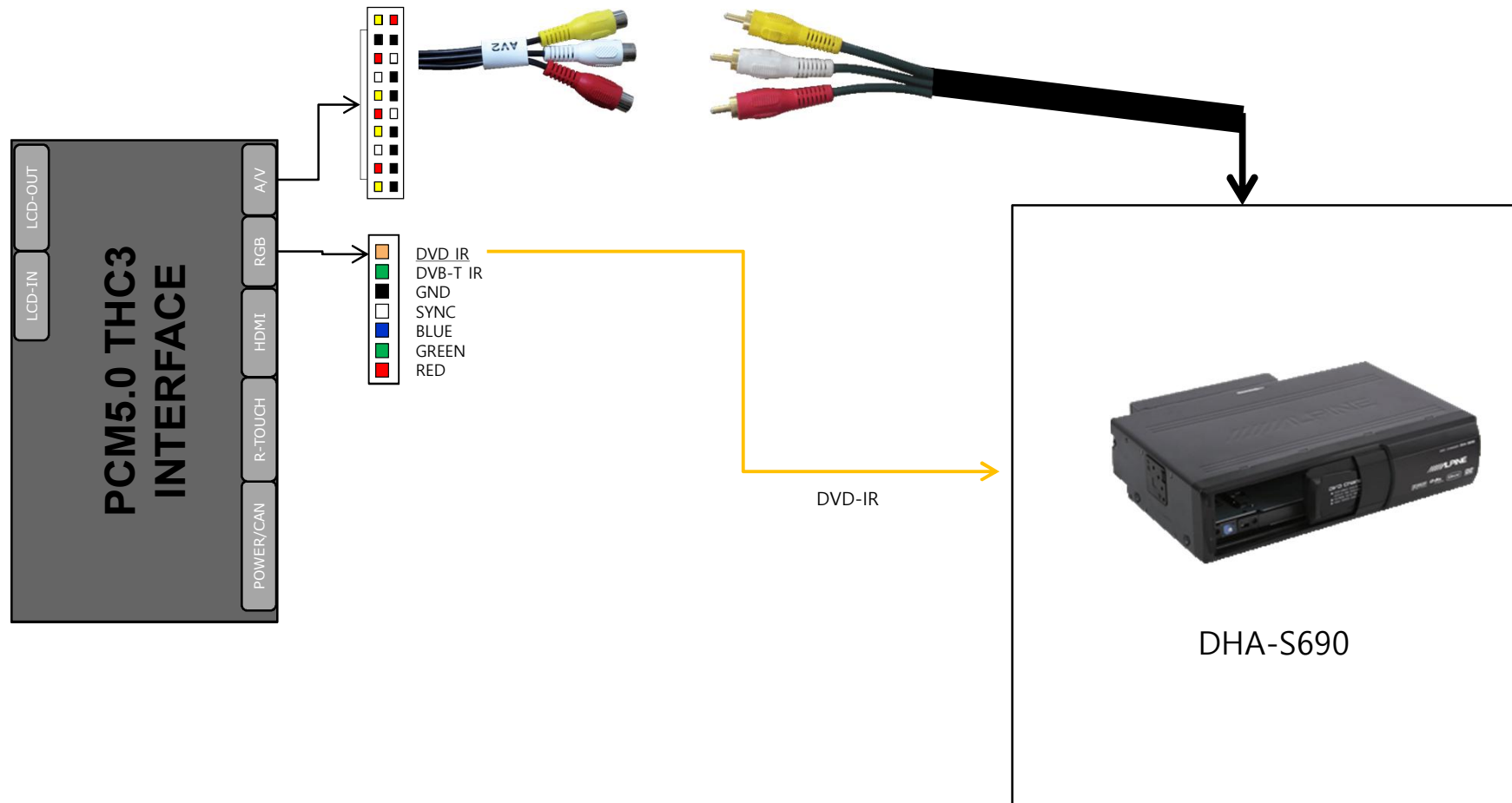
11. Install Manual

2. Installation AV1/DVB-T/DMB Remote Control Connection



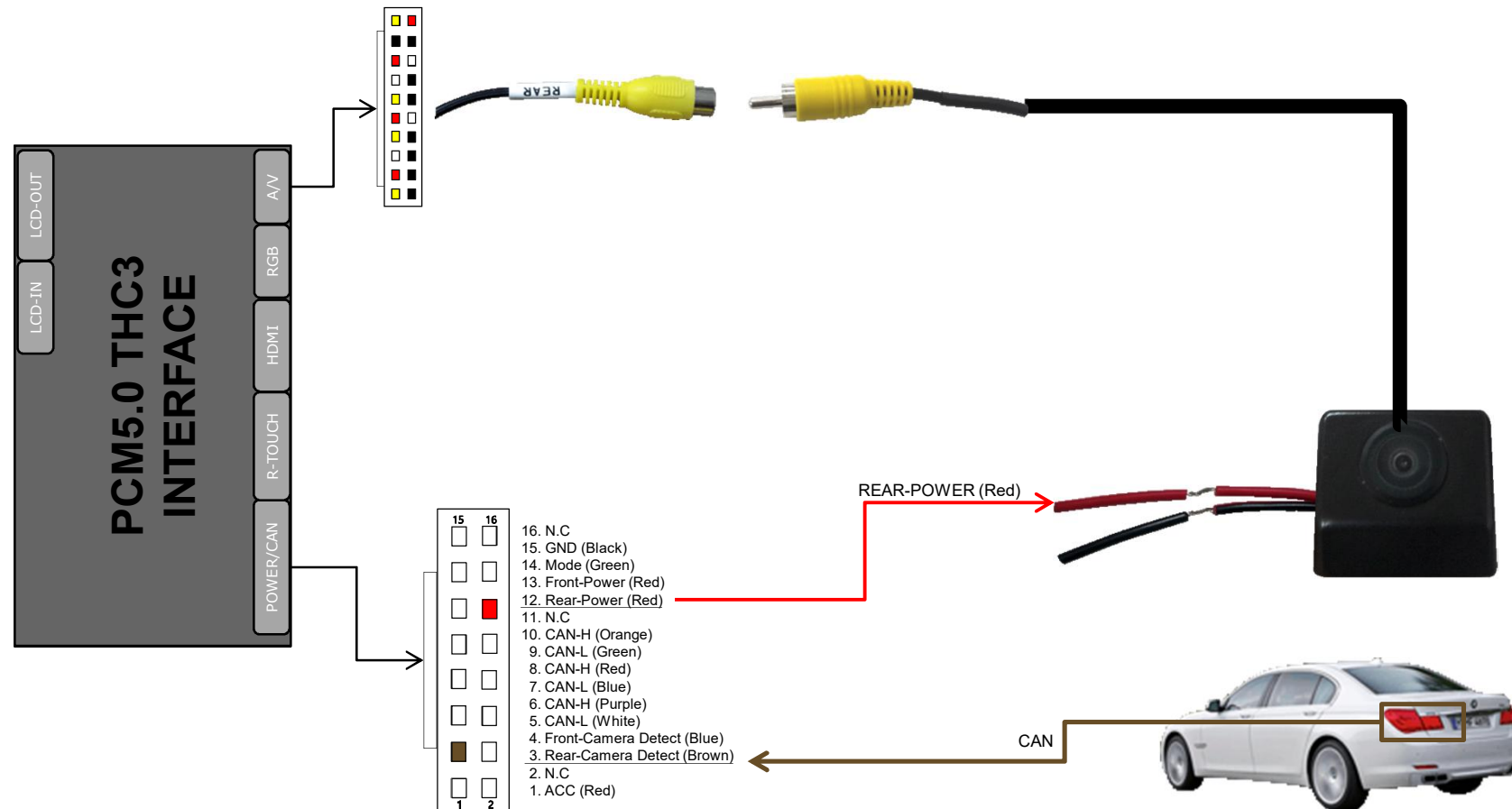
11. Install Manual

3. Installation AV2/DVD Remote Control Connection



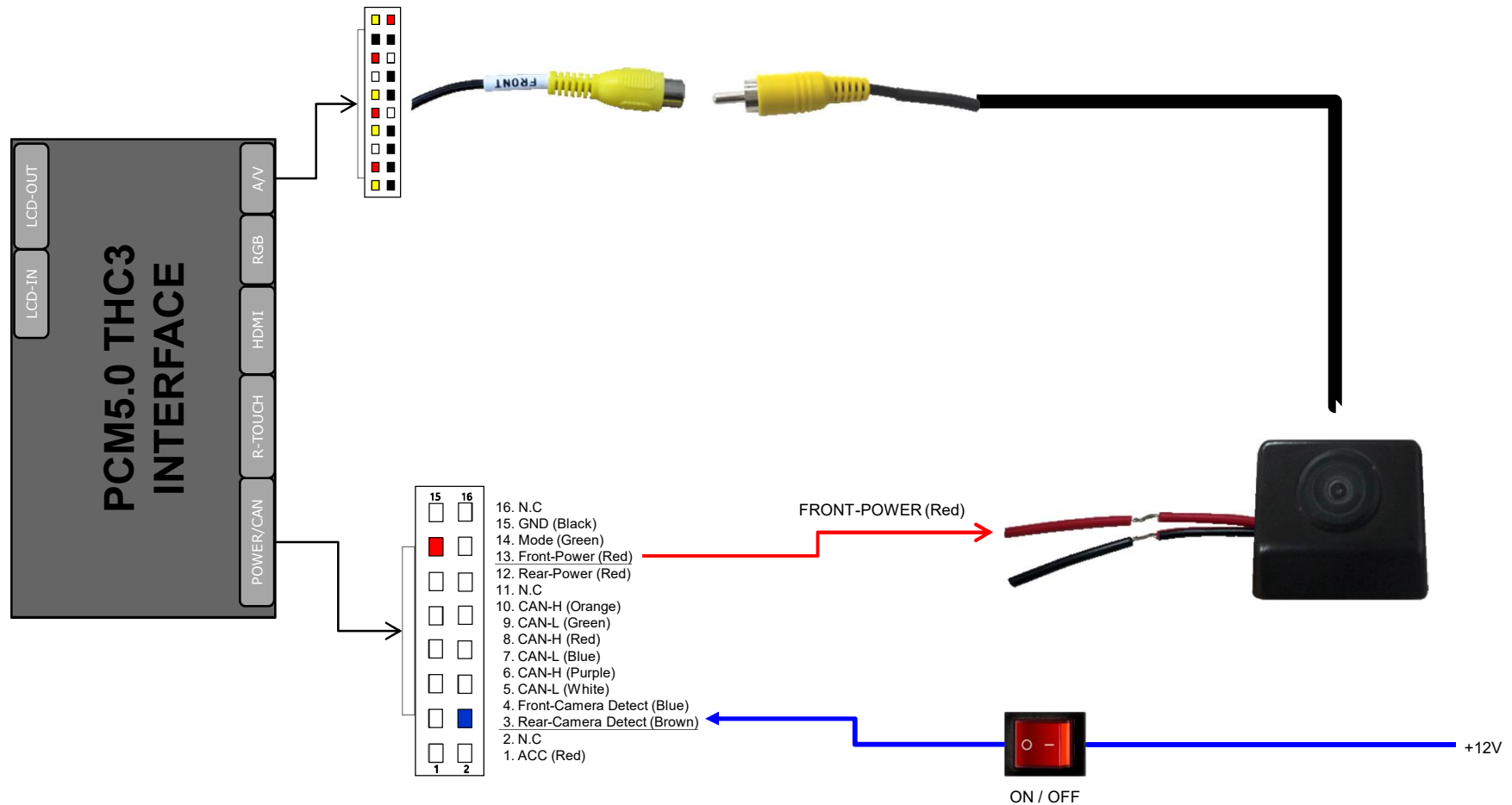
11. Install Manual

4. Installation External Reverse(Rear) Camera Connection : OSD Screen selection CAN



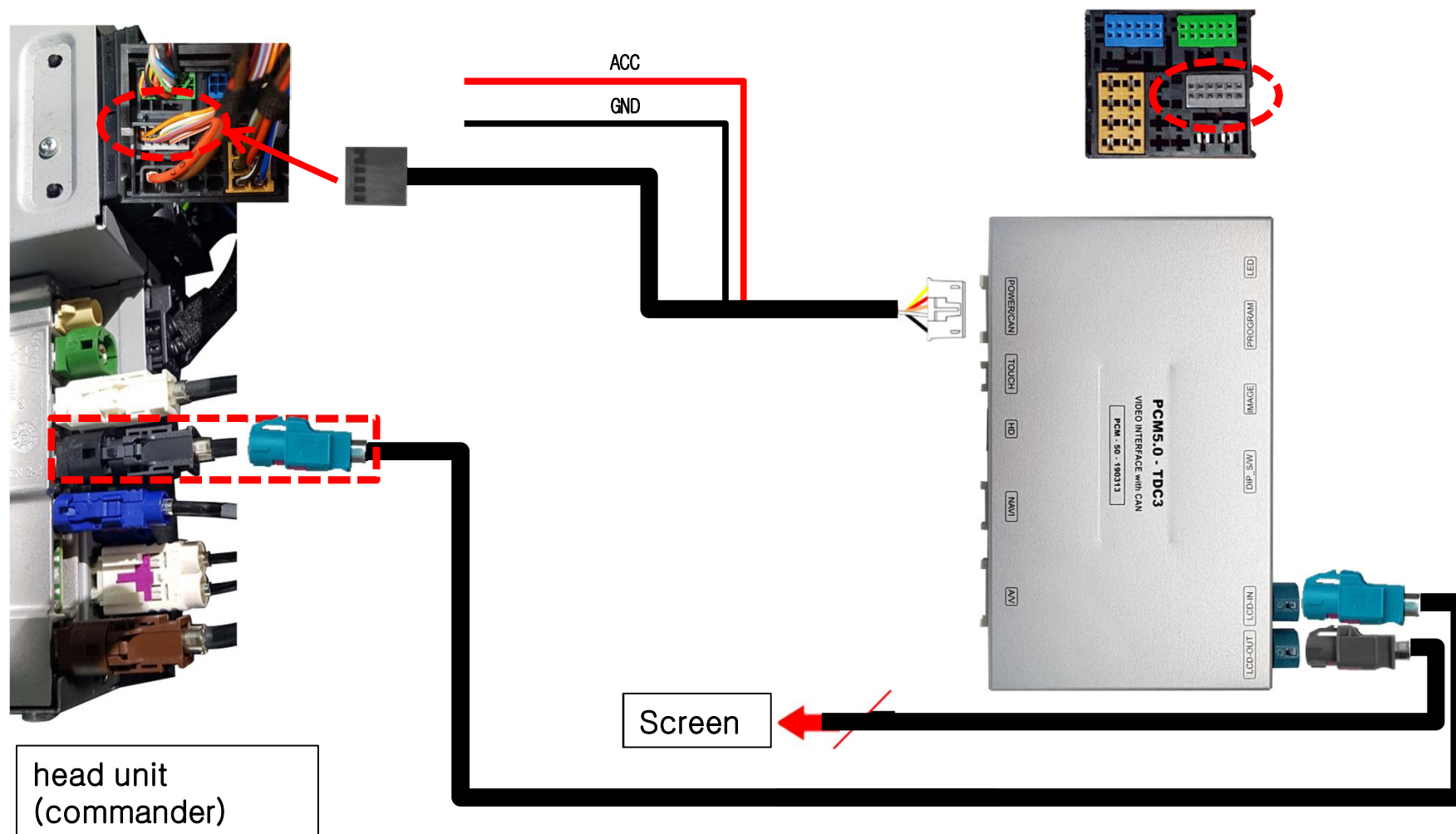
11. Install Manual

5. Installation External Front Camera Connection



11. Install Manual

6. Installation LVDS connection

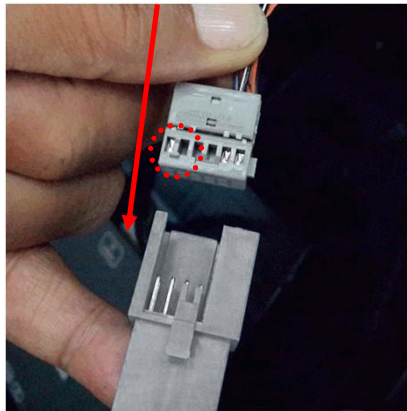
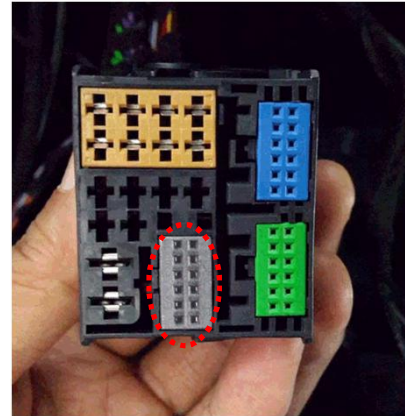


11. Install Manual

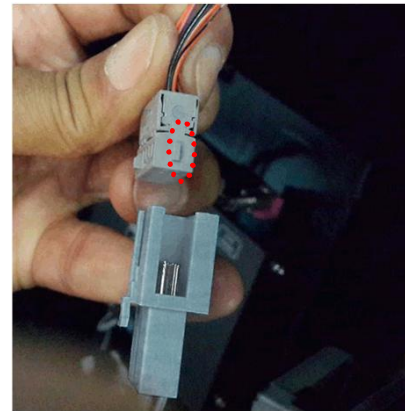
7. Installation CAN connection



Remove the original gray connector.



Attach the connector carefully to the locking part.



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