



INSTRUCTION
MANUAL

Video Interface and Wireless CarPlay & Wired Android Auto

PCM 5.0 TDC3

PORSCHE PCM5.0 INTERFACE

DATA. 2020.08.27

CONTACT

W kaptrader.com

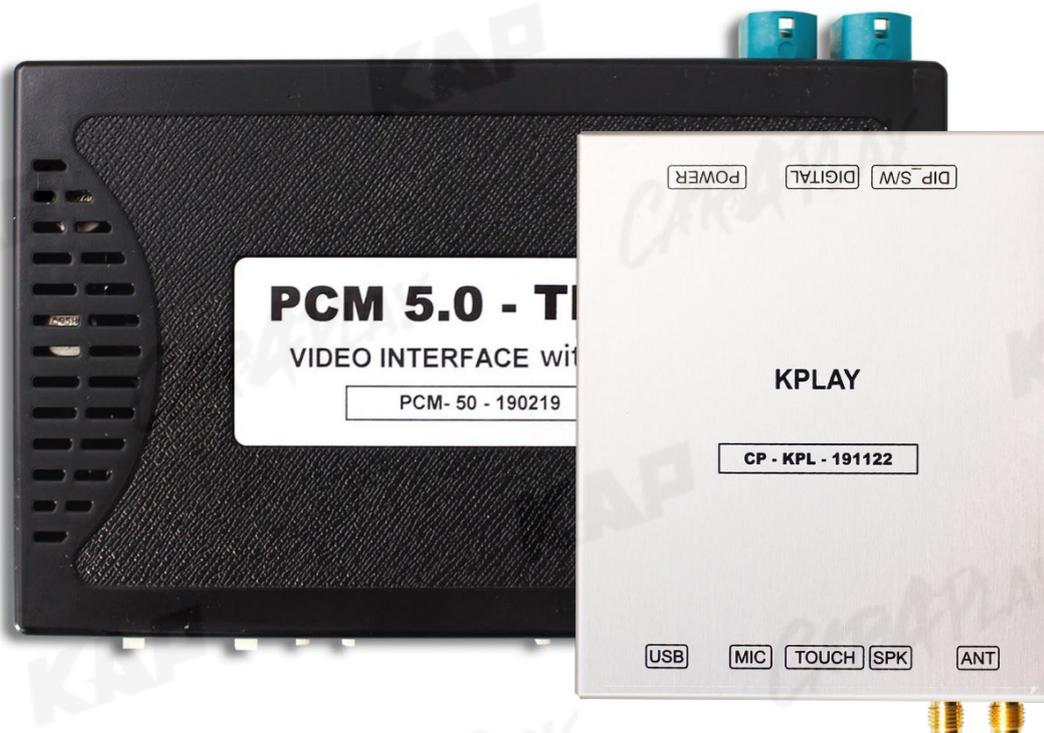
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A (05854) A-912 RM Tera-tower2, 201
Songpa-Dearo, Songpa-gu, Seoul, Korea

F (+82) 6204 - 0913



CAR COMPATIBILITY SHEET



BRAND	MODEL	SCREEN	YEAR
PORSCHE	Cayenne	12"	2019~
	Macan	12"	2019~
	911	12"	2019~
	Panamera	12"	2018~
AUDI	A1	10.1" / 8.8"	2020~
	A4/A5	10.1"	2020~

COMPONENT



INTERFACE



POWER CABLE



LVDS CABLE



A/V CABLE



RGB NAVI CABLE



OSD BOARD



KPLAY



KPLAY POWER CABLE



HDMI CABLE



MIC



WIFI/BLUETOOTH ANTENNA



AUX CABLE

Warning

- Please contact your dealer if any component is missing.

INTERFACE SPEC

1 KPLAY INPUT

- Wireless APPLE CARPLAY
- Wired APPLE CARPLAY
- Wired ANDROID AUTO
- USB storage media

2 INPUT

- 1 x DIGITAL RGB IN (HDMI PORT)
- 1 x ANALOG RGB IN (7PIN)
- 2 x CVBS AUDIO/VIDEO IN
- 1 x CVBS FRONT CAM IN
- 1 x CVBS REAR CAM IN
- 1 x LVDS IN CAMMAND SYSTEM

3 OUTPUT

- 2 x CVBS VIDEO OUT
- 1 x CVBS AUDIO OUT
- 1 x LVDS OUT OPERATION

4 TOUCH

- VIRTUAL ANALOG TOUCH (4PIN)
- UART DIGITAL TOUCH

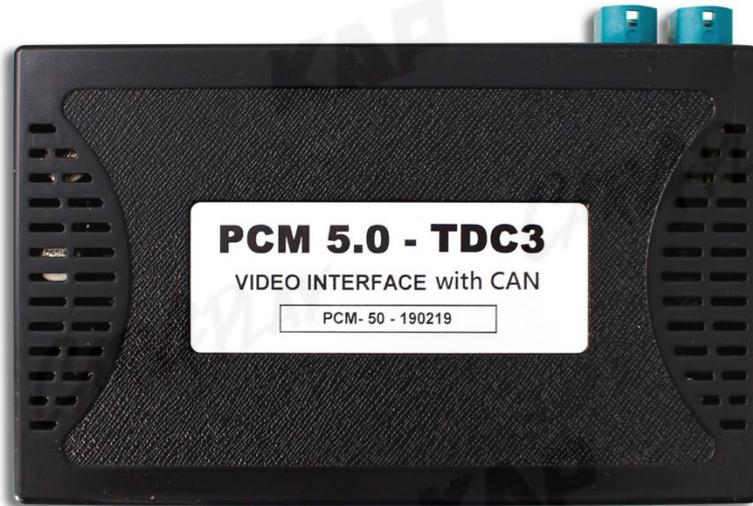
5 POWER

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

6 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

EXTERNAL DEVICE SPECIFICATIONS



1 LVDS OUT

2 LVDS IN

3 DIP SWITCH

4 IMAGE

5 PROGRAM

- OSD connection

6 LED

- Interface error check



7 POWER/CAN

8 RESISTIVE TOUCH

- 4PIN Touch

9 DIGITAL RGB

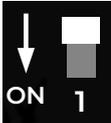
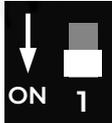
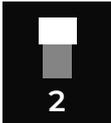
- NAVI IN

10 ANALOG RGB

11 AUDIO/VIDEO

- REAR CAMERA IN
- FRONT CAMERA IN
- DVB-T or DVD IN
- CVBS OUT

DIP SWITCH SETTING

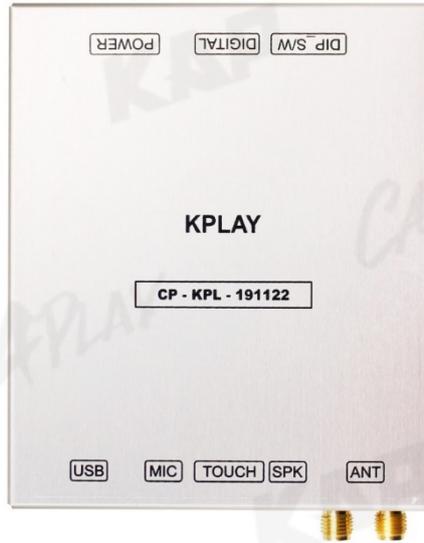
PIN	FUNCTION	INFORMATION	
		▲ OFF	▼ ON
1	NAVIGATION		
2	AV1 (DVB-T)		
3	AV2 (DVD)		
4	No function		
5	Car Type		
6			
7			
8			
		<hr/> 	
			

CONNECTOR PIN ASSIGNMENT



No	PORT	INFORMATION																																																						
1	POWER /CAN	<div style="text-align: center;"> </div> <table border="1"> <thead> <tr> <th>No.</th> <th>Color</th> <th>Signal Assignment</th> <th>No.</th> <th>Color</th> <th>Signal Assignment</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Red</td> <td>ACC</td> <td>2</td> <td></td> <td></td> </tr> <tr> <td>3</td> <td>Brown</td> <td>REAR DET</td> <td>4</td> <td>Blue</td> <td>FRONT DET</td> </tr> <tr> <td>5</td> <td>White</td> <td>CAN LOW</td> <td>6</td> <td>Purple</td> <td>CAN HIGH</td> </tr> <tr> <td>7</td> <td>Blue</td> <td>CAN LOW</td> <td>8</td> <td>Red</td> <td>CAN HIGH</td> </tr> <tr> <td>9</td> <td>Green</td> <td>CAN LOW</td> <td>10</td> <td>Orange</td> <td>CAN HIGH</td> </tr> <tr> <td>11</td> <td></td> <td></td> <td>12</td> <td>Red</td> <td>REAR VCC</td> </tr> <tr> <td>13</td> <td>Red</td> <td>FRONT VCC</td> <td>14</td> <td></td> <td></td> </tr> <tr> <td>15</td> <td>Black</td> <td>GND</td> <td>16</td> <td></td> <td></td> </tr> </tbody> </table>	No.	Color	Signal Assignment	No.	Color	Signal Assignment	1	Red	ACC	2			3	Brown	REAR DET	4	Blue	FRONT DET	5	White	CAN LOW	6	Purple	CAN HIGH	7	Blue	CAN LOW	8	Red	CAN HIGH	9	Green	CAN LOW	10	Orange	CAN HIGH	11			12	Red	REAR VCC	13	Red	FRONT VCC	14			15	Black	GND	16		
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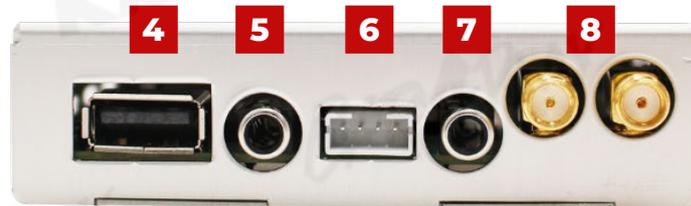
EXTERNAL DEVICE SPECIFICATIONS



1 DIP SWITCH

2 DIGITAL

3 POWER



4 USB
▪ Smartphone
▪ USB storage

5 MICROPHONE

6 RESISTIVE TOUCH
▪ 4PIN Touch

8 WIFI/BLUETOOTH ANTENNA

KPLAY CONNECTOR PIN ASSIGNMENT



No	PORT	INFORMATION		
1	DIP SWITCH	No	FUNCTION	
		1	800x480 Resolution	
		2	1280x480 Resolution	
<p>► Warning</p> <ul style="list-style-type: none"> DIP switch No. 2 has no function 				
2	POWER			
		No.	Color	Signal Assignment
		1	Red	ACC
2	Black	GND		
3	TOUCH			
		No.	Color	Signal Assignment
		1	Black	Y+
		2	Green	X+
		3	White	Y-
		4	Red	X-

KPLAY CONTROL

MAIN SCREEN



1 APPLE CARPLAY

- Wireless
- Cable

2 ANDROID AUTO

- Cable

3 USB MEDIA

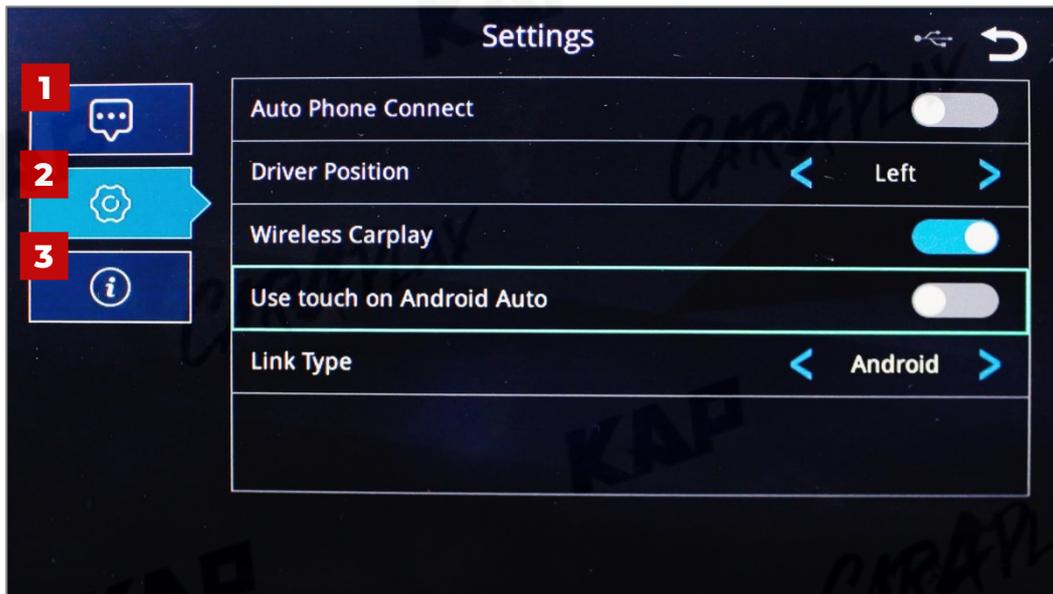
- VIDEO
- MUSIC
- IMAGE

4 SETTINGS



KPLAY CONTROL

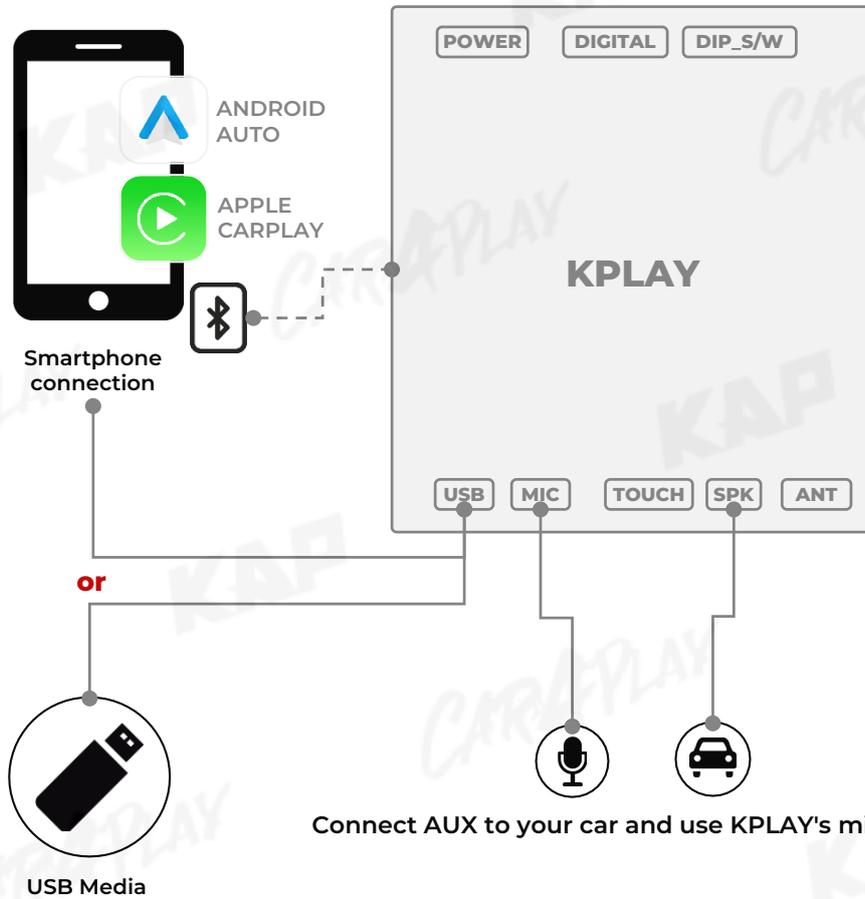
SETTINGS



No	INFORMATION		SELECTION	FUNCTION
1	Language settings	Languages		You can change the language of the settings screen
2	Connection settings	Auto Phone Connect (Only for wired connection)	Activation	Automatically launch Android AUTO or Apple CarPlay when smartphone is connected
			Disabled	Charge only when connecting a smartphone, select icon to launch Android AUTO or Apple CarPlay
		Driver Position	Left	Use when driver's position is left
			Right	Use when driver's position is right
		Wireless Carplay	Activation	Connect Apple CarPlay wirelessly (Bluetooth)
			Disabled	Used to wire Apple CarPlay
		Use touch on Android Auto	Activation	Touch is available when running Android Auto
			Disabled	Touch not available when running Android Auto
Link Type	Android	Android Auto		
	Carlife	do not select (Update Coming Soon)		
3	Firmware Information	Reset	Factory reset	
		Sys Update	Update firmware using USB	

KPLAY CONTROL

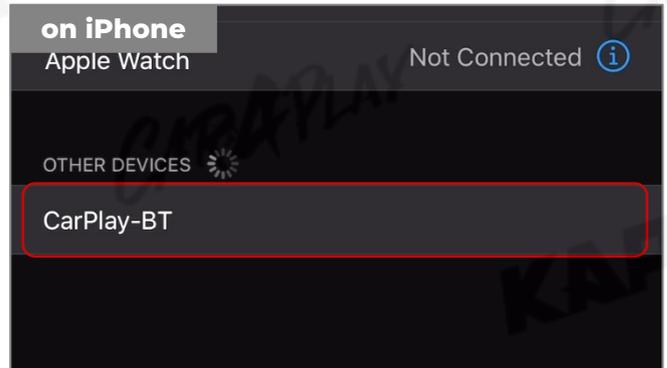
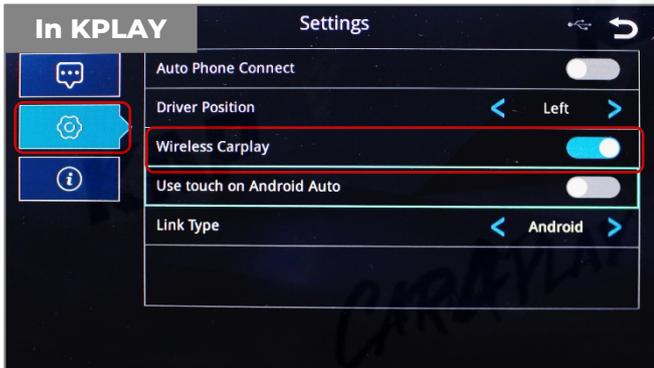
MEDIA CONTROL



No	INFORMATION	Can be used	CONTROL	NOTICE
1	Apple CarPlay	Wireless connection	Use all Apple CarPlay Functions	<ul style="list-style-type: none"> • AUX • MIC • TOUCH <ul style="list-style-type: none"> • Multiple connections are not supported • Only one device can be connected unconditionally
		Cable Connection		
2	Android AUTO	Cable Connection	Use all Android AUTO Functions	
3	USB Media	Connection	Music, Photo, Video	

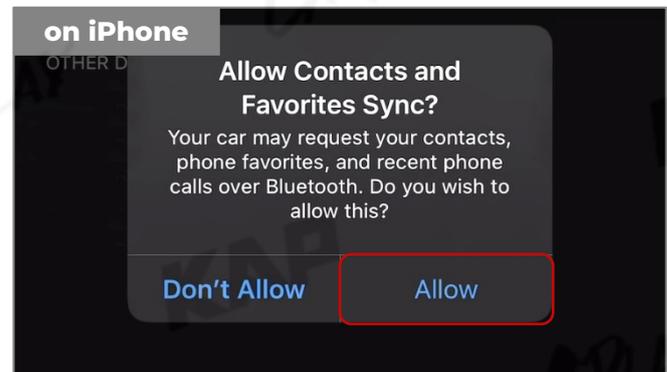
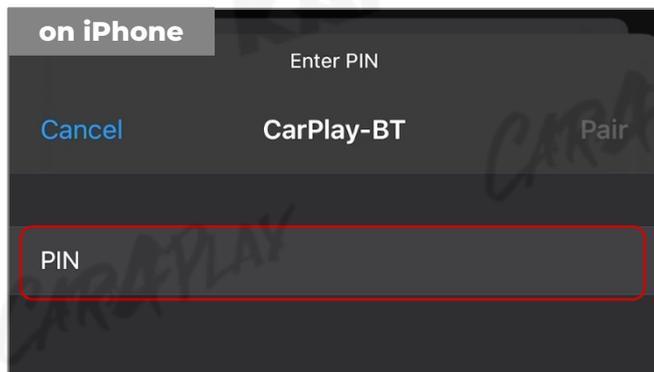
KPLAY CONTROL

iPhone Wireless connection - Connection method



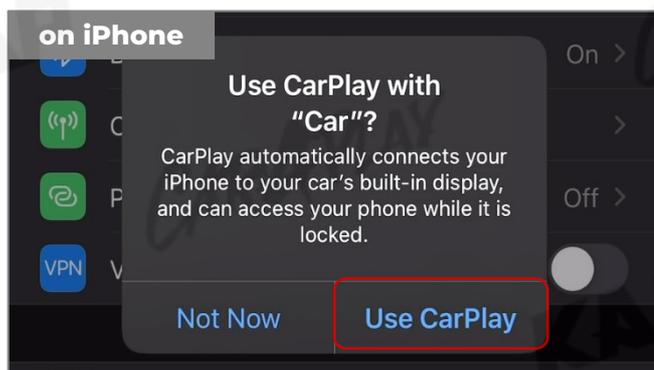
1. Activate Wireless Carplay in KPLAY Settings Menu
(If Wireless Carplay is enabled, you cannot connect by wire)

2. Choose CarPlay-BT in Bluetooth on iPhone



3. PIN Number "0000" enter

4. "Allow" select



5. "Use CarPlay" select
(Once connected, Bluetooth will be disconnected and connected via Wi-Fi)

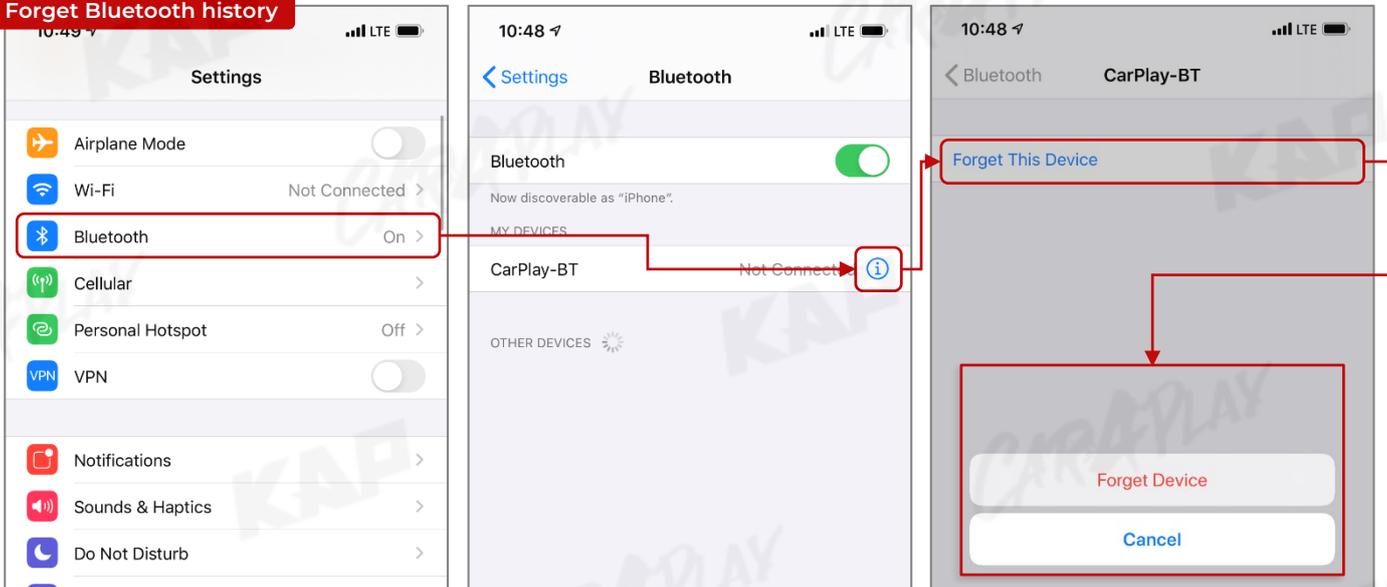
6. Enjoy CarPlay!

KPLAY CONTROL

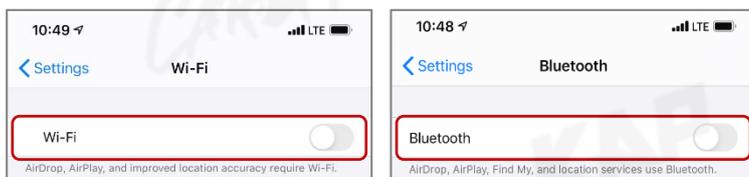
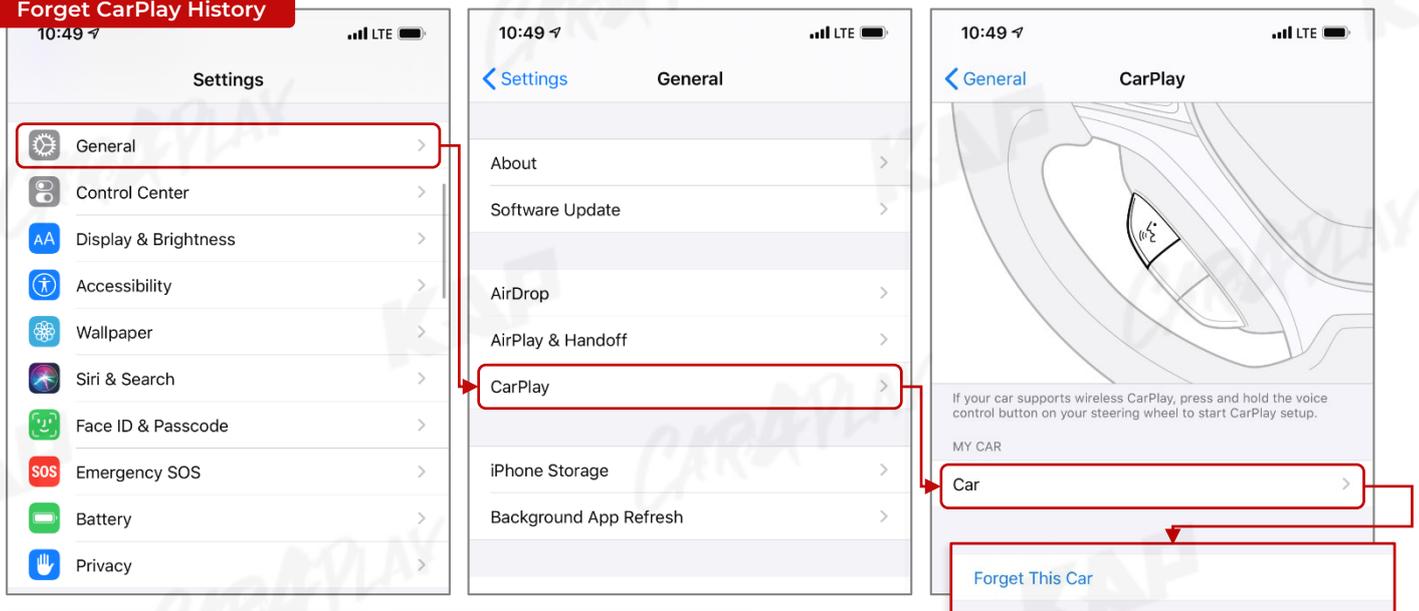
If your iPhone fails to connect

1. Make sure Siri is active
2. Delete the Bluetooth and CarPlay records as shown below,
3. disable and re-enable WiFi and Bluetooth, then try to connect again.

Forget Bluetooth history



Forget CarPlay History



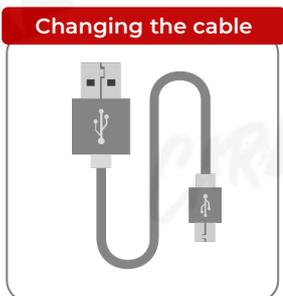
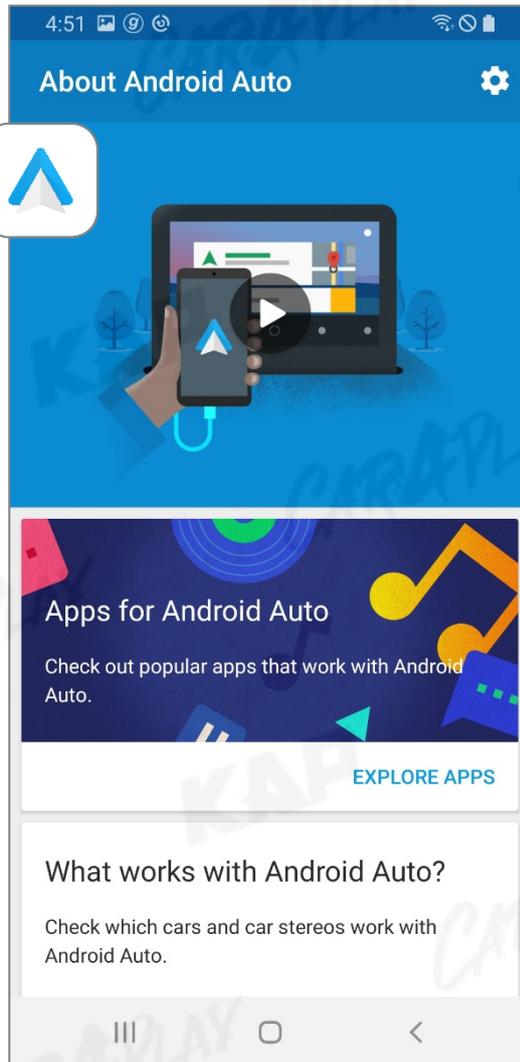
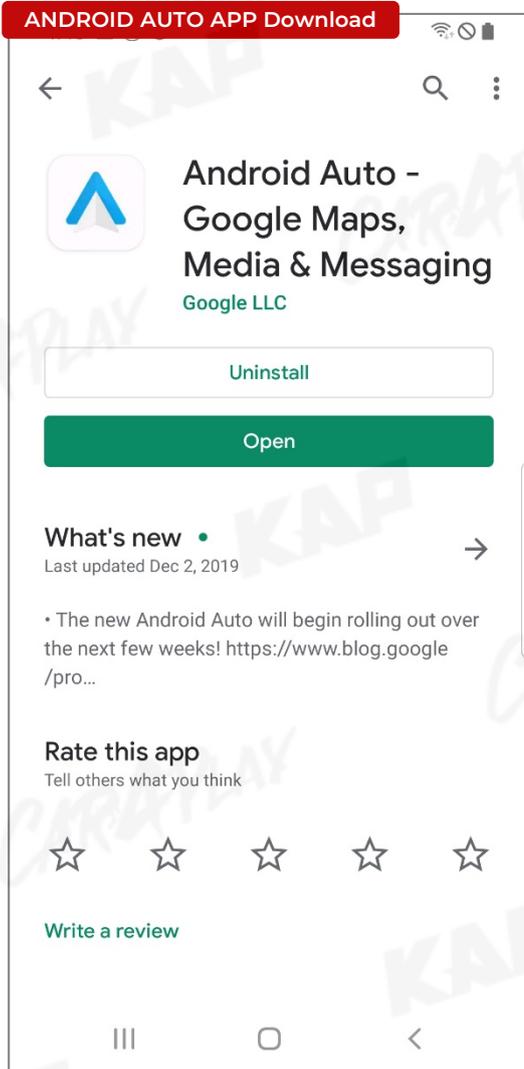
Warning

- Due to the nature of the wireless connection, sometimes the connection is not working properly
- If you follow the same procedure as above, but the connection is not working properly, reboot KPLAY and iPhone and try again

KPLAY CONTROL

If your Android Phone fails to connect

1. Check if your smartphone has ANDROID AUTO application
2. Replace the cable

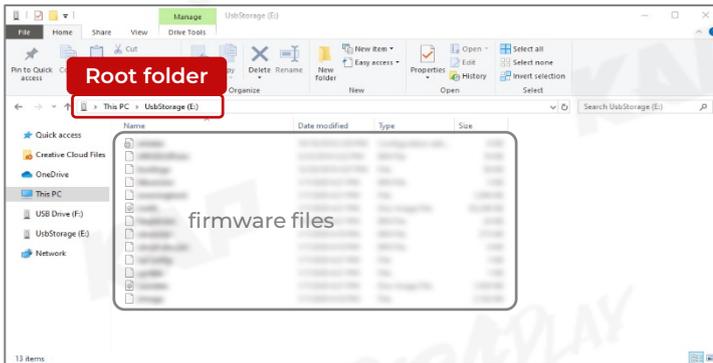


Changing the cable

Warning

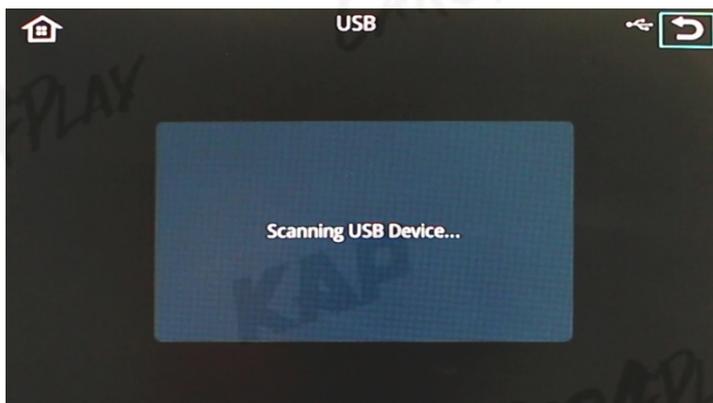
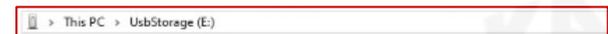
- Android Auto may not run even if the cable is not broken
- If you follow the same procedure as above, but the connection is not working properly, reboot KPLAY and iPhone and try again

FIRMWARE UPDATE



1. Add the firmware file provided in root folder * of the USB

*Root folder : Top-level folder without adding folder

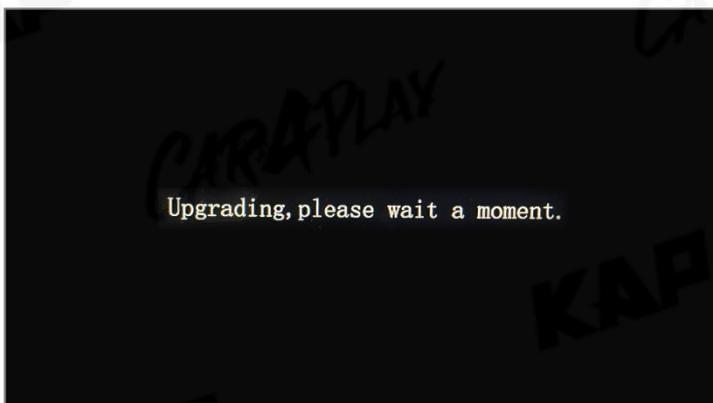


2. Connect USB to the KPLAY board with the update file. The USB media will be scanned automatically

Press the Home button on the top right corner of the USB Media screen and select the Settings menu



3. Select 'Sys Update' from the Settings menu



4. After the device reboots, check the message and wait for the update to complete.

Warning

- If USB with firmware is connected, the update will be performed every time the device is rebooted

BUTTON CONTROL

CHANGE MODE TO INTERFACE SCREEN



HOME or NAV

BUTTON	OPERATION	FUNCTION
HOME or NAV	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen
Other Buttons	PRESS	Return OEM Display

► Warning

- Screen change sequence : **OEM > NAVI > AV1 > AV2 > OEM**
- You can choose "HOME" or "NAV" button on OSD menu

BUTTON CONTROL

CHANGE MODE TO INTERFACE SCREEN



NAV

BUTTON	OPERATION	FUNCTION
NAV	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen
Option	PRESS	Changing the screen ratio in AV1 and AV2 modes

► Warning

- Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM
- To use a Return button, You need to enable the NAV in the button selection in the OSD options

BUTTON CONTROL

CHANGE MODE TO INTERFACE SCREEN



RETURN

BUTTON	OPERATION	FUNCTION
RETURN	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen

► Warning

- Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM
- To use a Return button, You need to enable the RET in the button selection in the OSD options

BUTTON CONTROL

CHANGE MODE TO INTERFACE SCREEN



RETURN

BUTTON	OPERATION	FUNCTION
RETURN	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen

► Warning

- Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM
- To use a Return button, You need to enable the RET in the button selection in the OSD options

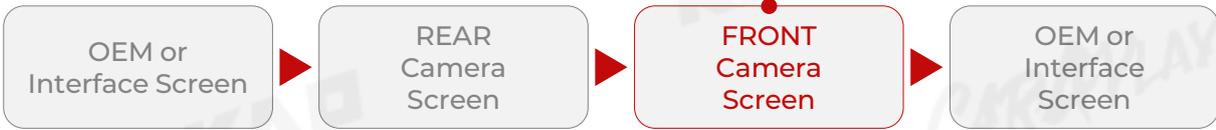
PARKING CONTROL

FrontCam Rcv Option

1 FrontCam-RcvOpt : ON (1 - 30s)

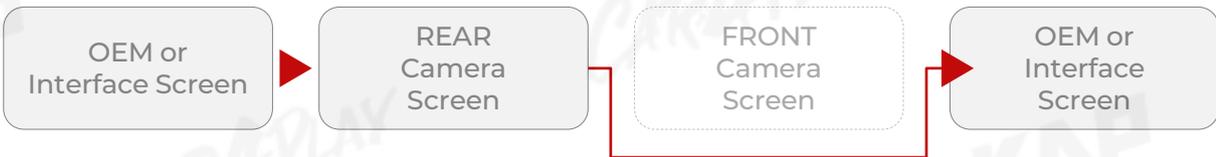
MENU	Option	NAVI
Config	FronrCam-RcvOpt	<input type="text" value="30s"/>
Option		
Image		
Screen		
Parking		

Displays the front camera screen for the set time (1 - 30second)



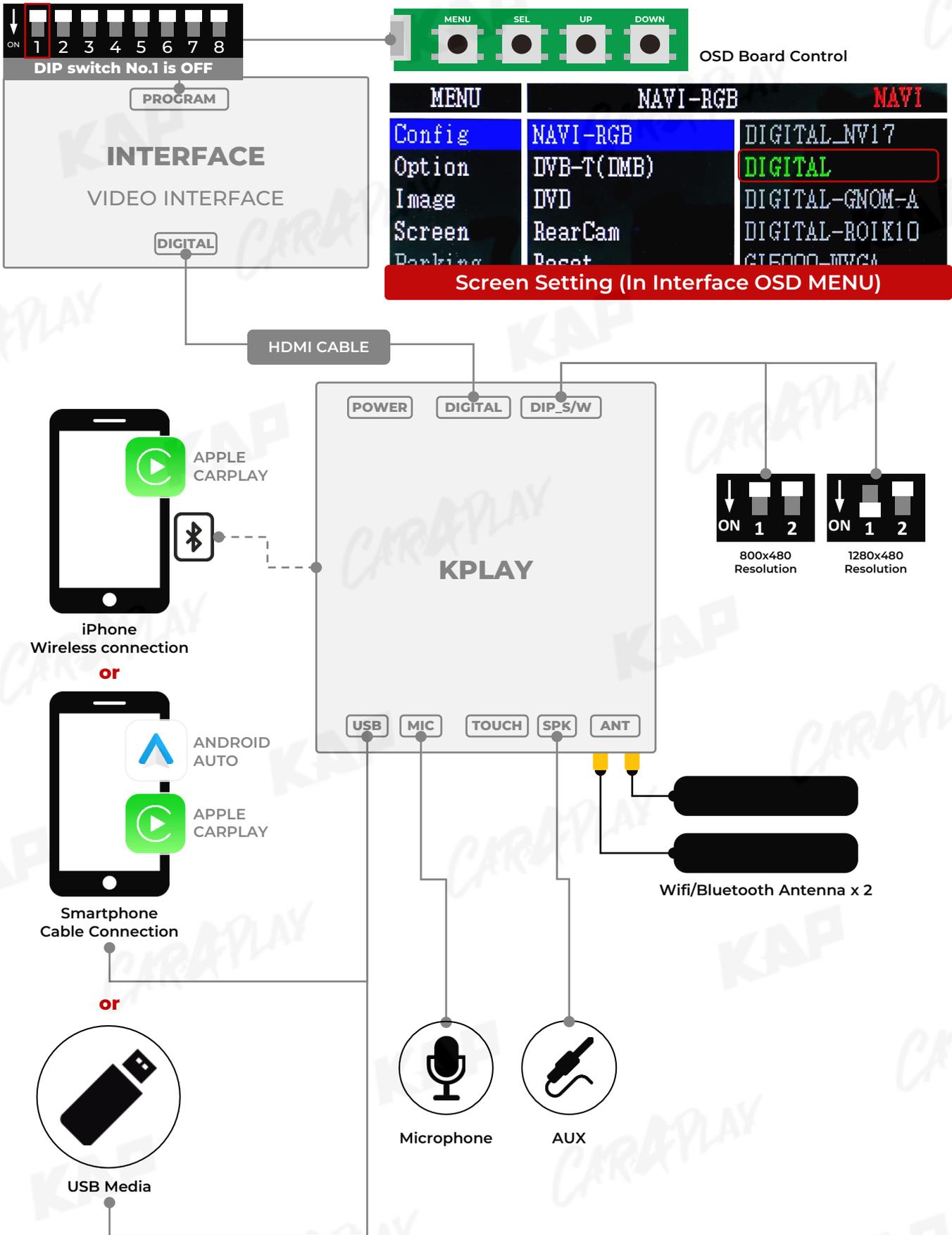
2 FrontCam-RcvOpt : OFF (0s)

MENU	Option	NAVI
Config	FronrCam-RcvOpt	<input type="text" value="0s"/>
Option		
Image		
Screen		
Parking		



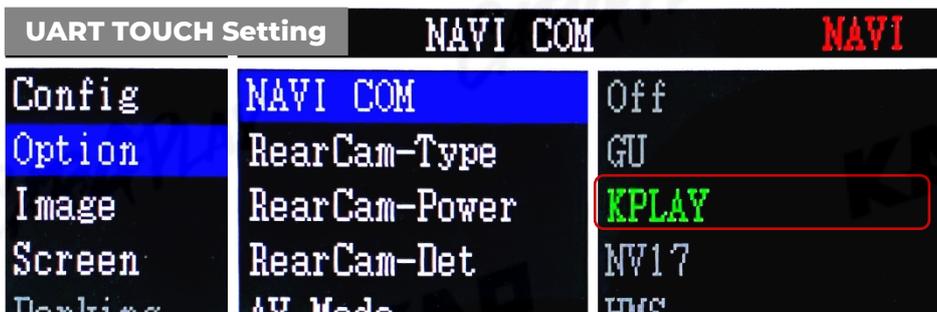
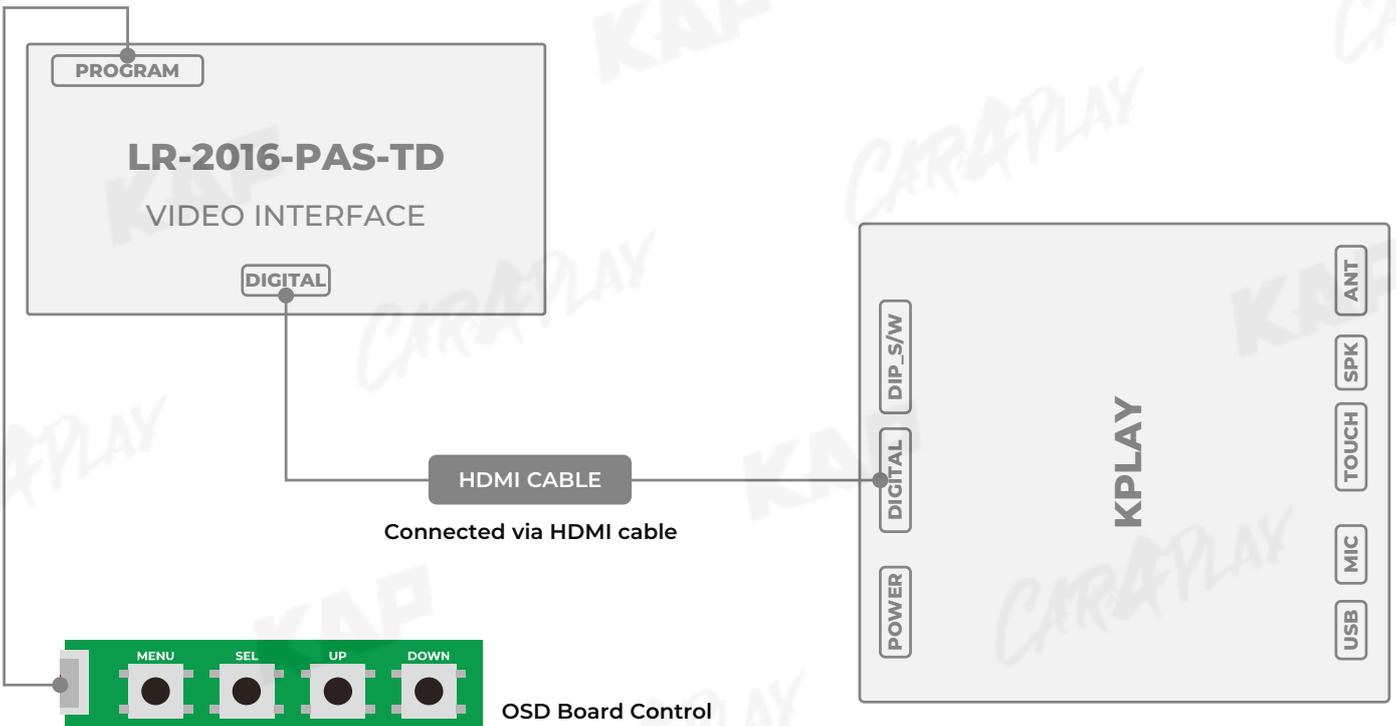
INSTALL MANUAL

KPLAY CONNECTION – SCREEN SETTING



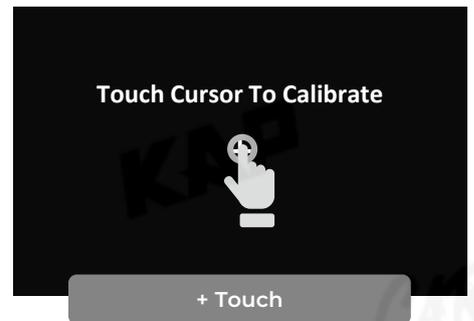
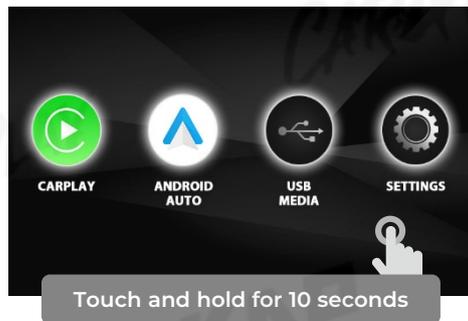
INSTALL MANUAL

KPLAY CONNECTION – TOUCH SETTING



UART Touch Setting (In Interface OSD MENU)

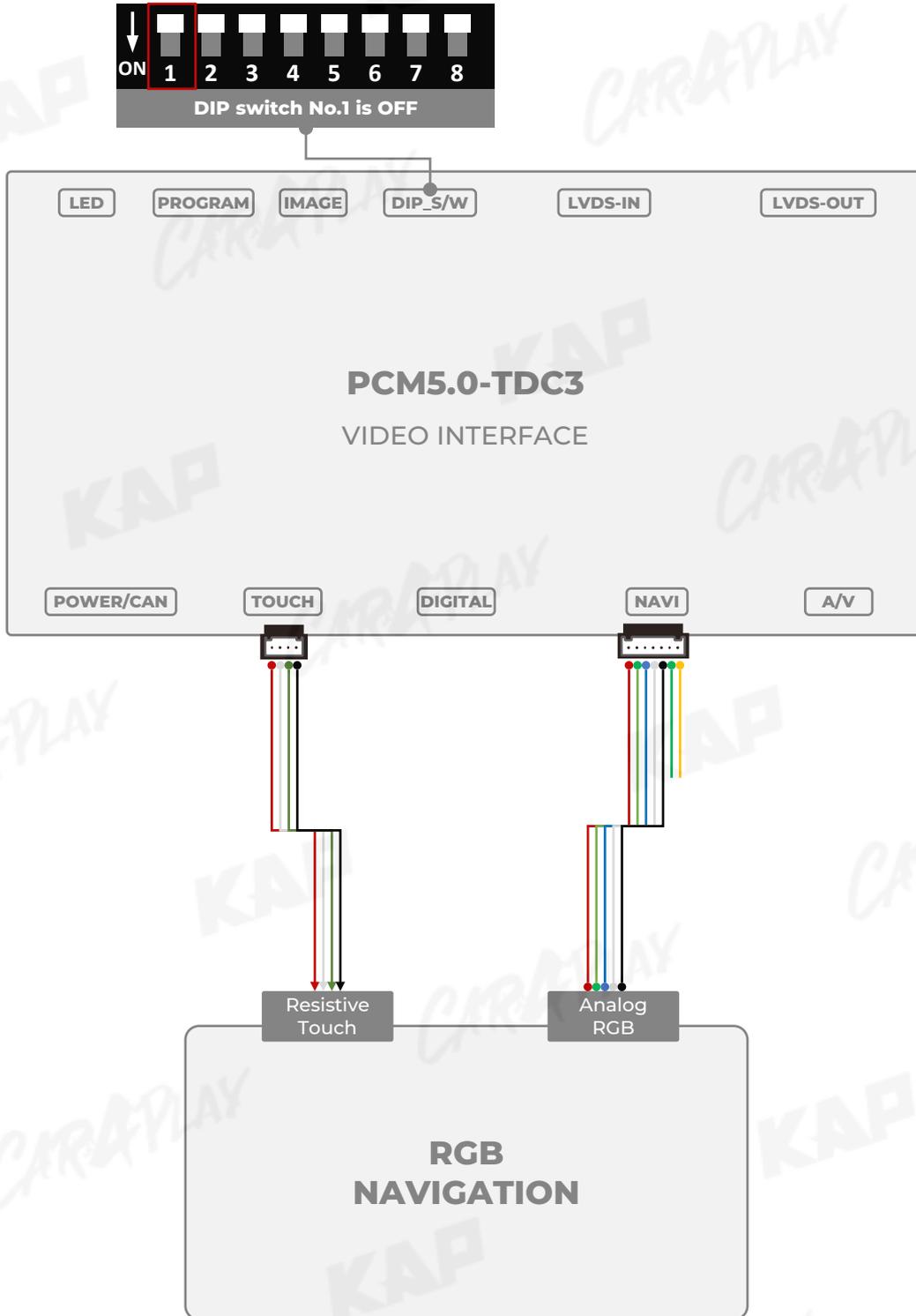
TOUCH CALIBRATION (IN KPLAY)



- Touch and hold anywhere on the screen for 10 seconds
- Touch in the center of the "+" icon

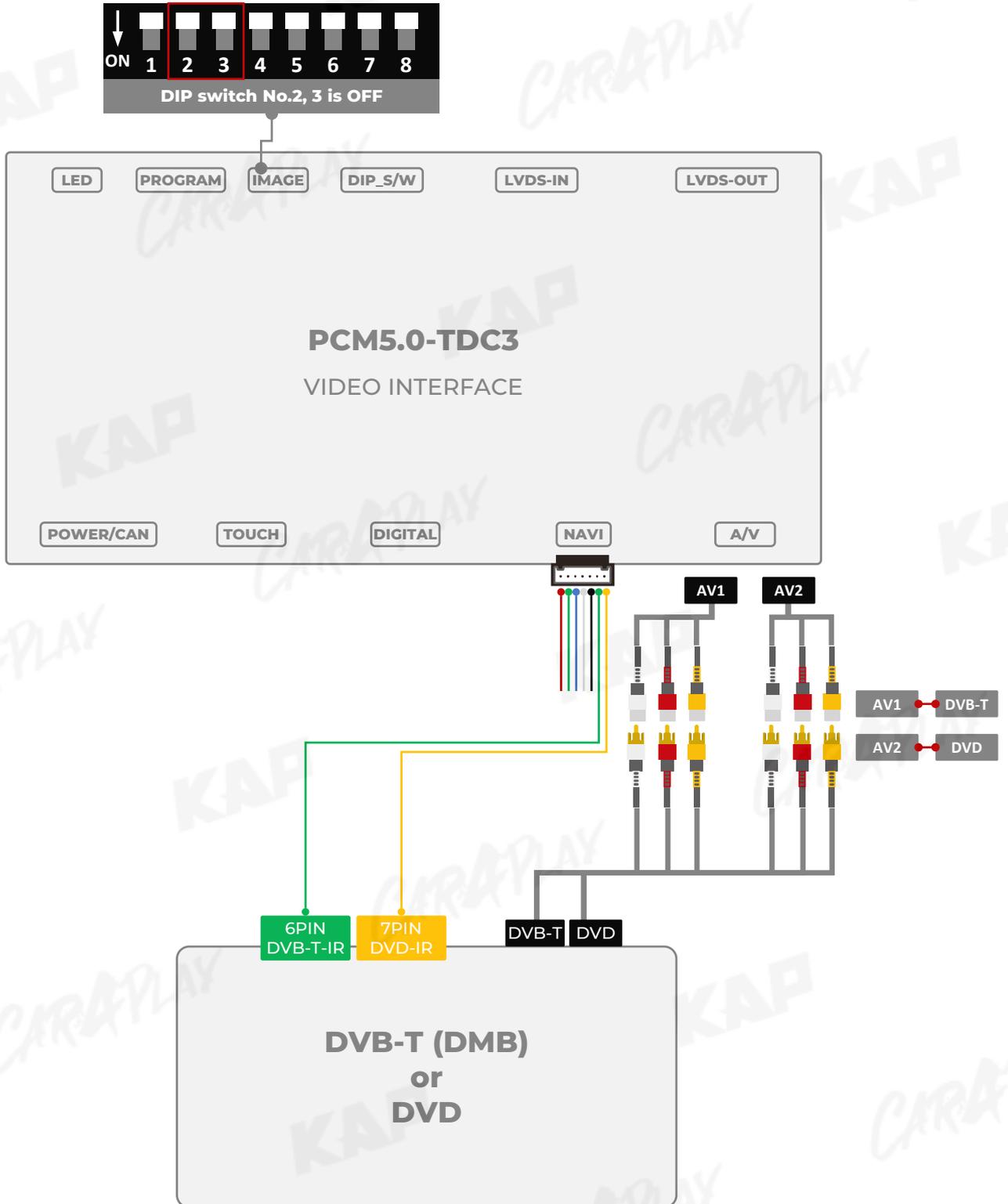
INSTALL MANUAL

RGB NAVI CONNECTION



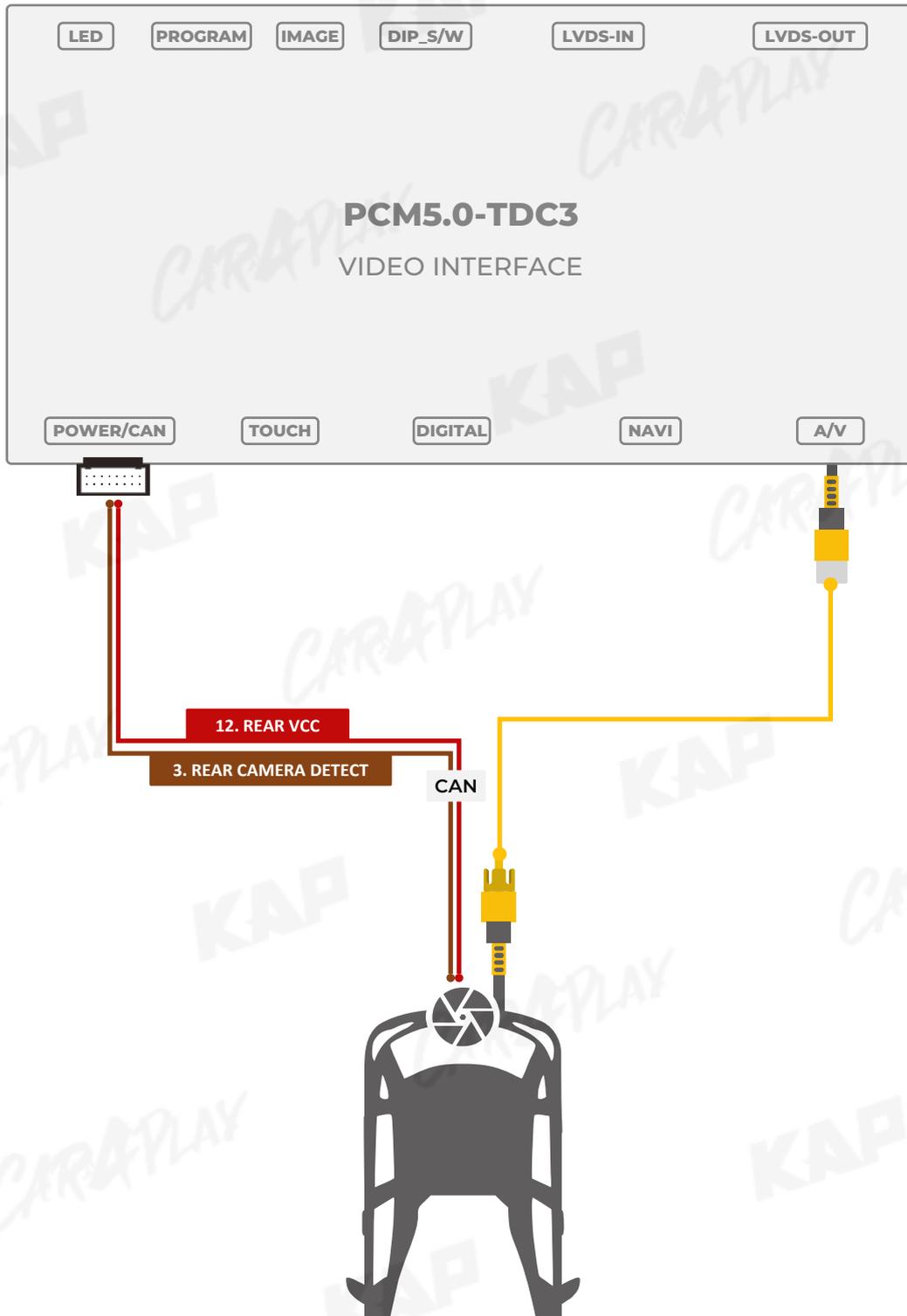
INSTALL MANUAL

DVB-T / DVD REMOTE CONTROL CONNECTION



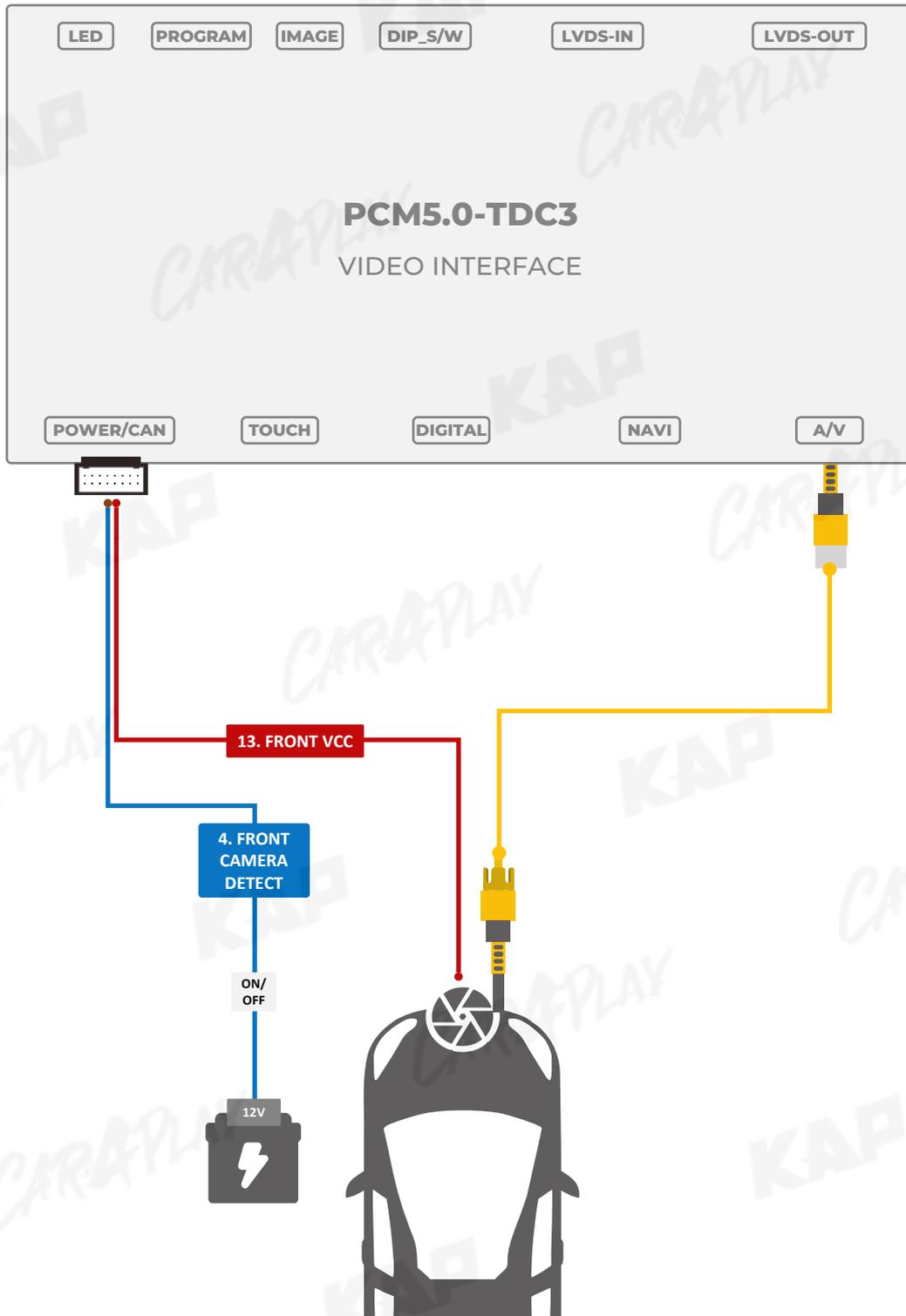
INSTALL MANUAL

EXTERNAL REAR CAMERA



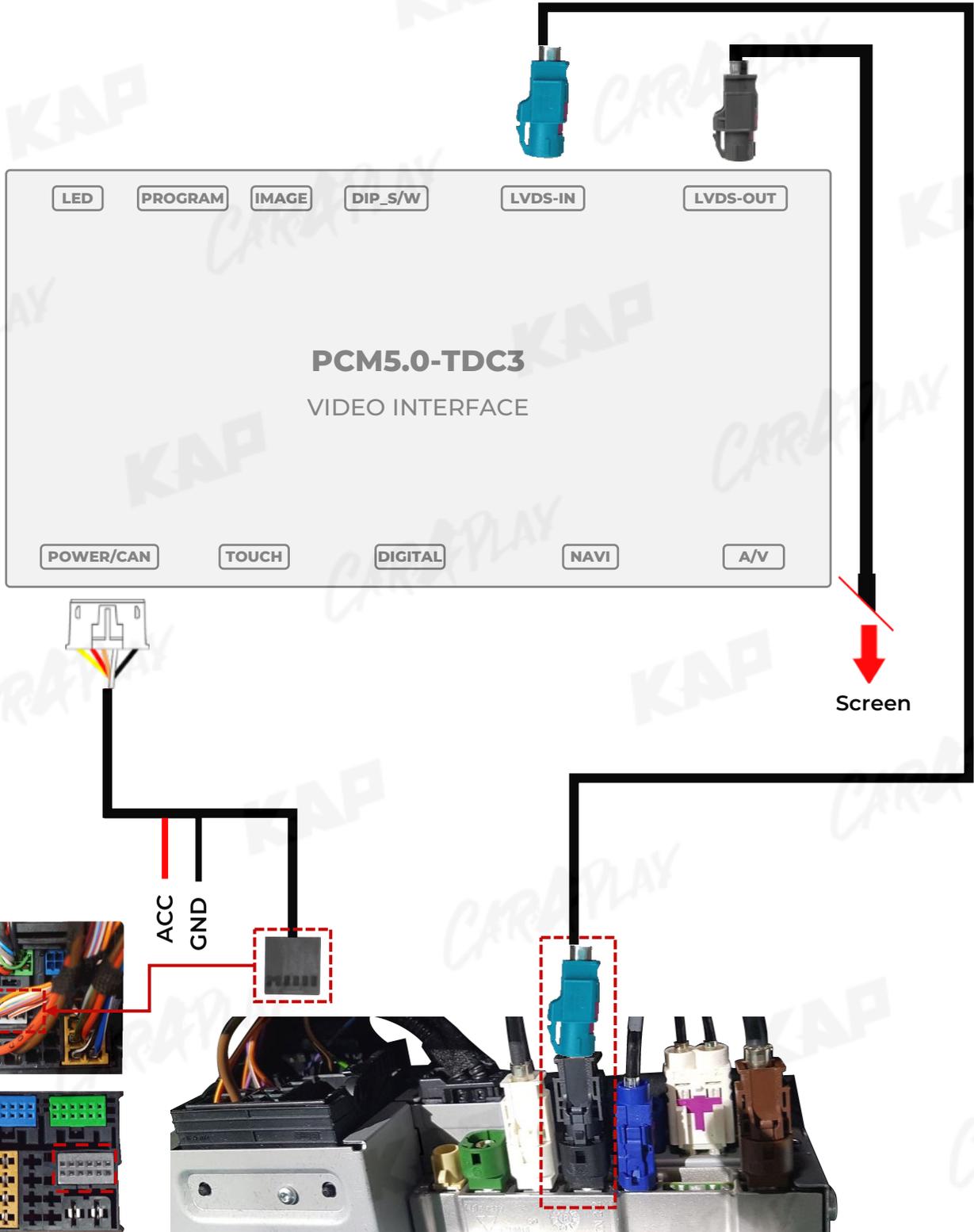
INSTALL MANUAL

EXTERNAL FRONT CAMERA



INSTALL MANUAL

INSTALLATION LVDS CONNECTION



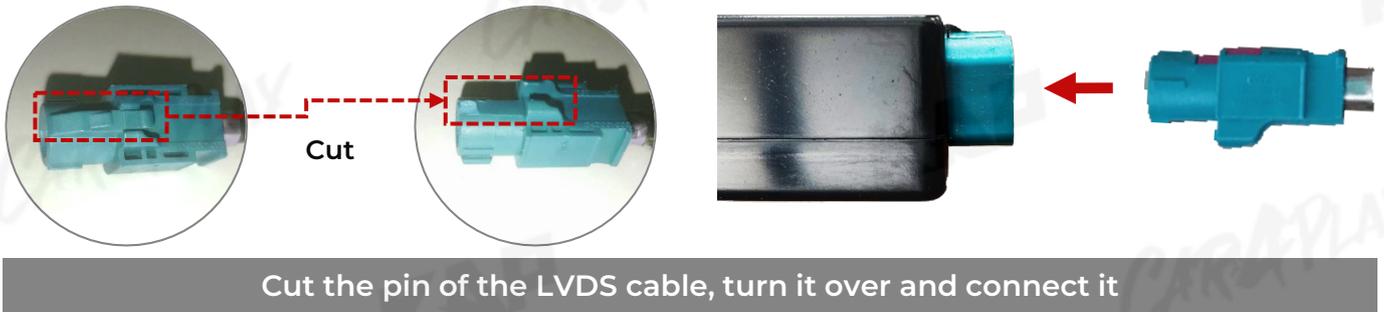
HeadUnit (Commander)

INSTALL MANUAL Choose one of two methods

INSTALLATION LVDS CONNECTION – PANAMERA / A1,Q3

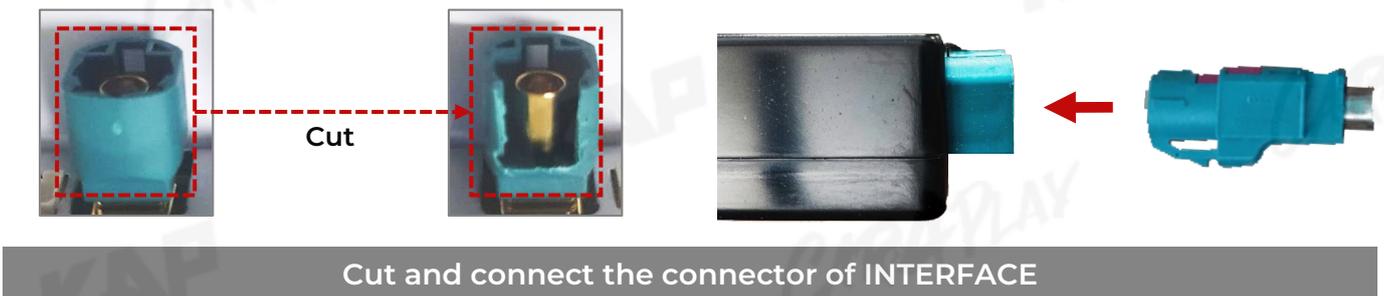


Method 1



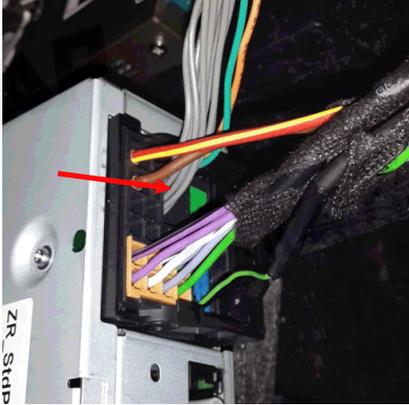
or

Method 2

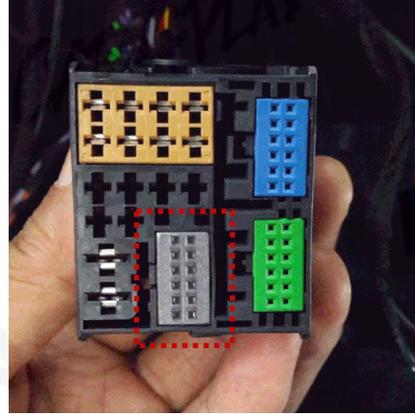


INSTALL MANUAL

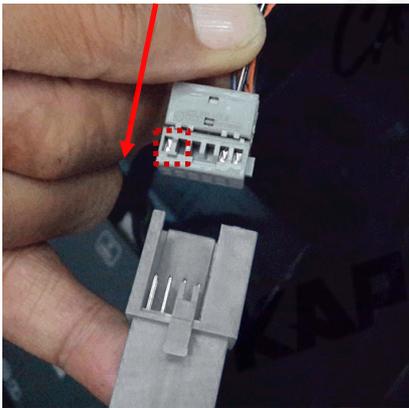
INSTALLATION CAN CONNECTION



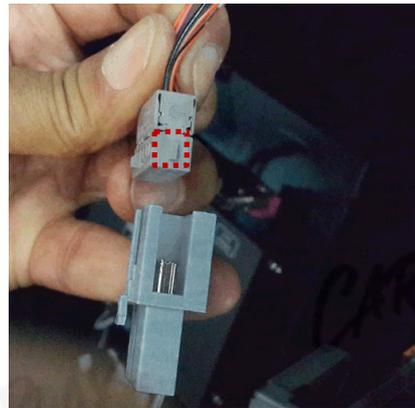
Remove the original gray connector.



Check the gray area



Be careful of the protruding part, connect the connector



Be careful of the protruding part, connect the connector

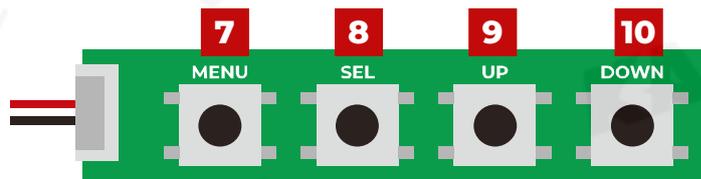
OSD CONTROL

Basic information

1	MENU	2	Option	3	NAVI
4	Config	5	RearCam-Type	6	ExtDevice
	Option		RearCam-Power		Auto
	Image		RearCam-Det		GEAR
	Screen		AV Mode		Off
	Parking		FrontCam-Type		ExtDevide

OSD(On Screen Display) Menu

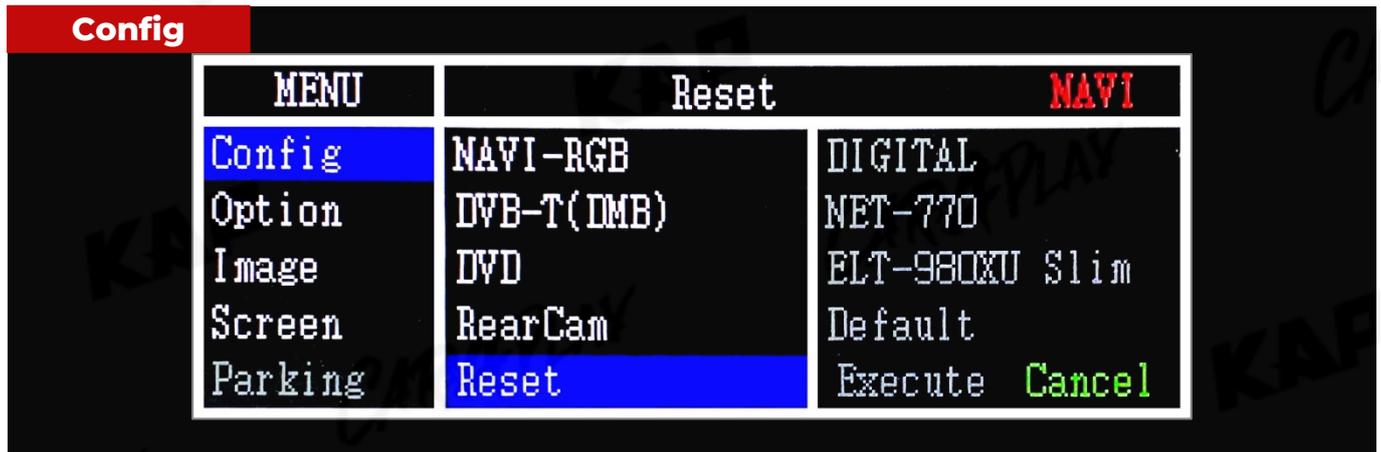
1	MENU	2	Mode State	3	Interface Status
4	First Menu	5	Second Menu	6	Third Menu



OSD(On Screen Display) Board Control

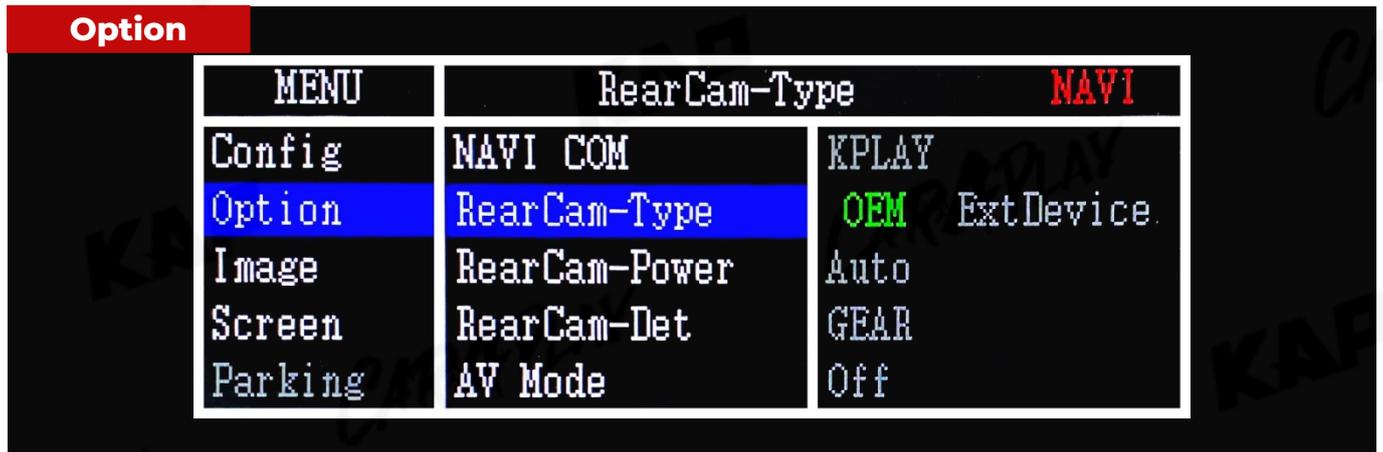
No	OSD(On Screen Display) Board Control	
7	MENU	<ul style="list-style-type: none"> The OSD screen can be switched ON/OFF Return to previous menu
8	SEL	<ul style="list-style-type: none"> Select the currently active item If the OSD screen is off, mode changes can be made.
9	UP	<ul style="list-style-type: none"> Move up from the menu Increase the selected item value
10	DOWN	<ul style="list-style-type: none"> Move down from the menu Decrease the selected item value

OSD CONTROL



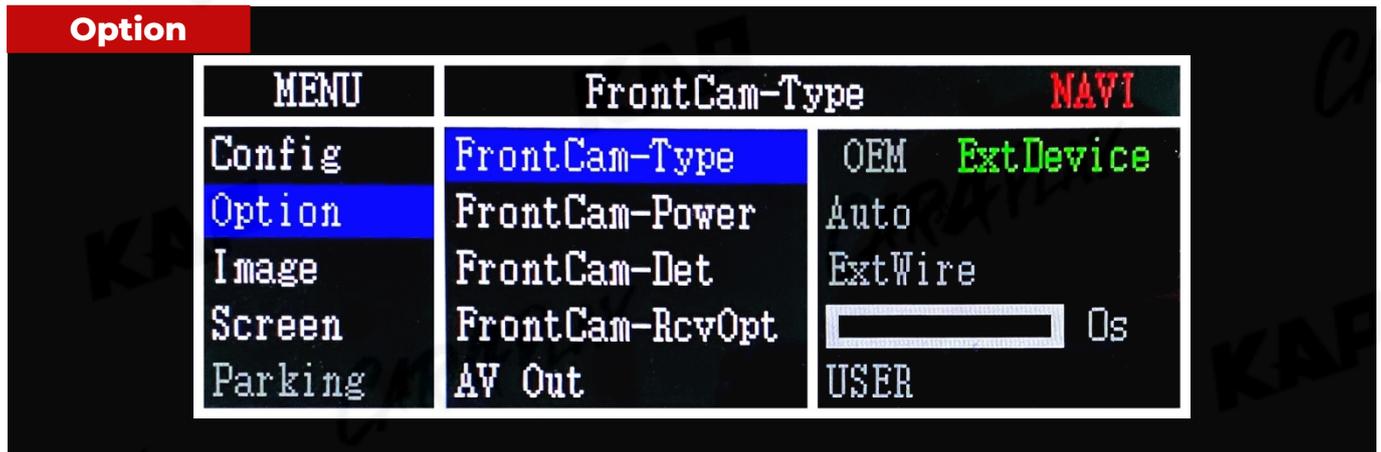
First Menu	Second Menu	Third Menu	Description
Config	NAVI-RGB	DIGITAL : :	Setting the Connected NAVI Model
	DVB-T(DMB)	Default : :	Setting the Connected DVB-T Model
	DVD	Default : :	Setting the Connected DVD Model
	RearCam	Default : :	Setting the Connected RearCam Model
	Reset	Execute Cancel	Reset to default value of Config menu

OSD CONTROL



First Menu	Second Menu	Third Menu	Description
Option	NAVI COM	HMS FINE :	Set up manufacturer of woodworking device for UART Touch use
		Off	Disable feature
	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	PDC	
		GEAR	Detected by CAN
		WIRE	Detected by Rear-Det Wire
		Off	Disable feature
	AV Mode	HMS FINE :	Output setting of device connected to "FROTN" of the board
		Off	Disable feature

OSD CONTROL



First Menu	Second Menu	Third Menu	Description
Option	FrontCam-Type	OEM	Original Camera
		ExtDevice	Equipped with external camera
	FrontCam-Power	On	+ 12V continuous supply
		Auto	+ 12V supply only in Rear camera mode
		Off	Disable feature
	FrontCam-Det	OEM	
		ExtDevice	Detected by Front-Det Wire
	FrontCam-RcvOpt	On	The time (1-30 seconds) that FrontCam is displayed before returning to the previous state in RearCam
		Off	Disable feature
	AV Out	AV1	In the OEM, NAVI, AV1, FRONT, and REAR modes, the output of AV OUT is set to AV1
AV2		In the OEM, NAVI, AV2, FRONT, and REAR modes, the output of AV OUT is set to AV2	
USER		In the OEM, NAVI, FRONT, and REAR modes, output the output of AV OUT to the final screen	

OSD CONTROL

Option		SteeringWheelBtn		NAVI
Config	SteeringWheelBtn	On	Off	
Option	Mode Button	HOME		
Image	Button Option	Long		
Screen	UI DVB-T(DMB)	On		
Parking	UI DVD	On		

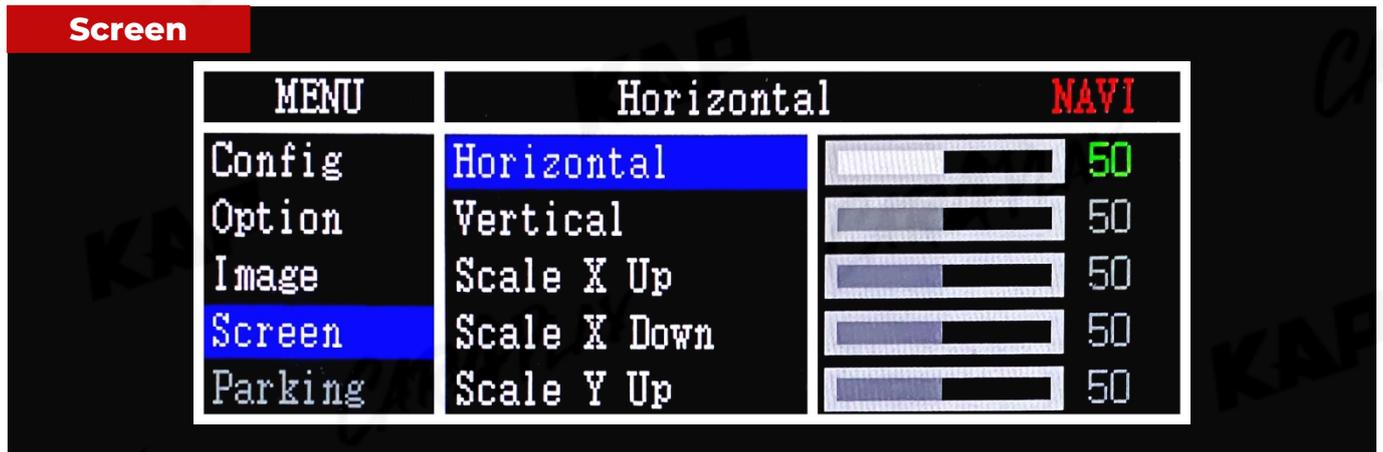
First Menu	Second Menu	Third Menu	Description
Option	SteeringWheel Btn	On	Original Camera
		Off	Disable feature
	Mode Button	HOME	Set the mode change button to HOME
		NAVI	Set the mode change button to NAVI
		RET	Set the mode change button to RETURN
		OFF	Disable feature
	Button Option	Short	Short press the NAV button to switch screens
		Long	Long press(1 second) the NAV button to switch screens
	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
	Reset	Execute	Option Menu all Reset

OSD CONTROL



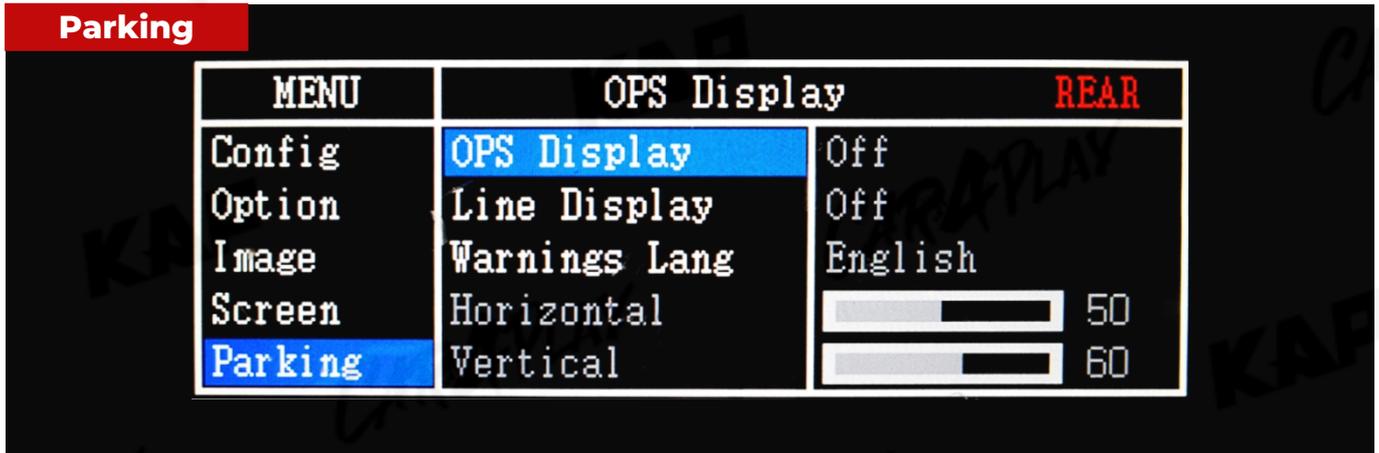
First Menu	Second Menu	Third Menu	Description
Image	Brightness		Adjust the value of brightness
	Contrast		Adjust the value of contrast
	Saturation		[AV / REAR / FRONT / DVD / DVBT MENU] Adjust the value of Saturation
	Hue		[AV / REAR / FRONT / DVD / DVBT MENU] Adjust the value of Hue
	Sharpness		[AV / REAR / FRONT / DVD / DVBT MENU] Adjust the value of Sharpness
	Color-RED		[NAVI MENU ONLY] Adjust the value of RED
	Color-GREEN		[NAVI MENU ONLY] Adjust the value of GREEN
	Color-BLUE		[NAVI MENU ONLY] Adjust the value of BLUE
Reset	Execute		Image Menu all Reset

OSD CONTROL



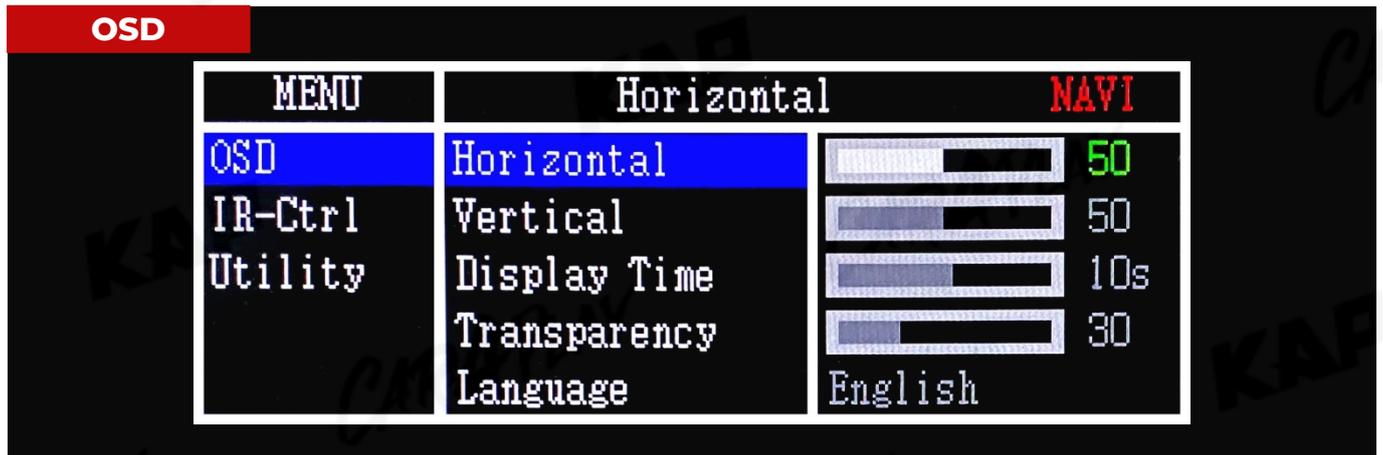
First Menu	Second Menu	Third Menu	Description
Screen	Horizontal		Output screen horizontal movement
	Vertical		Output screen vertical movement
	Scale X Up		Reduce / increase output screen width
	Scale X Down		
	Scale Y Up		Reduce / Increase Output Screen Height
	Scale Y Down		
	Reset		Screen menu all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

OSD CONTROL



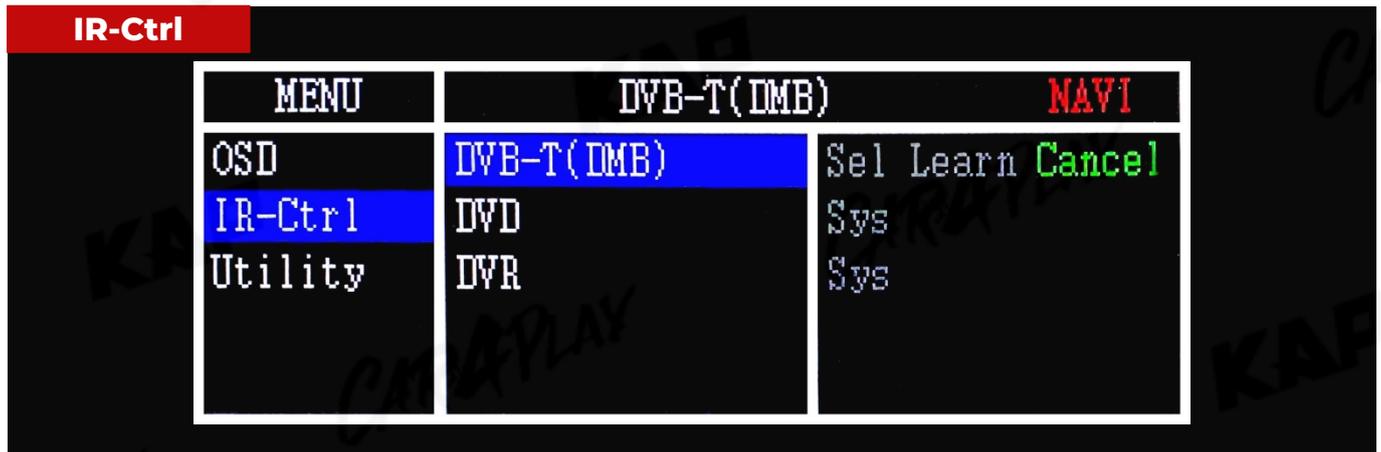
First Menu	Second Menu	Third Menu	Description
Parking	OPS Display	On	Show OPS
		Off	Do not show OPS
	Line Display	On	Show parking line
		Off	Do not show parking lines
	Warnings Lang		Set warning text language
	Horizontal		Moving a parking line horizontally
	Vertical		Moving a parking line vertically
	Transparency		Parking line transparency
Reset		Parking menu all reset	

OSD CONTROL



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

OSD CONTROL



First Menu	Second Menu	Third Menu	Description
IR-Ctrl	DVB-T(DMB)	Sel	
		Learn	
		Cancel	
	DVD	Sel	
		Learn	
		Cancel	

Notice

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

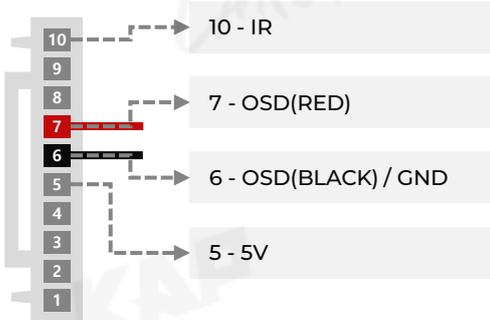
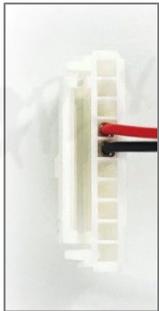
1. In DVB-T / DVD menu, select User in Sys (OSD list) or User (learned contents).
2. Select Learn from the OSD menu.
3. Before using IR learning function, select All-Clear to delete existing stored data.
4. Press the remote control button to be used in each ICON once in New Code, press once again in Cfm Code to confirm it is the same and save it.

OSD CONTROL

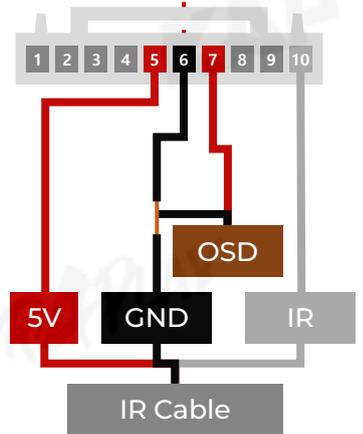
PROGRAM



OSD CABLE



Example Image



OSD Cable

IR Cable

Create an IR cable - Modify the OSD cable as shown above.

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.

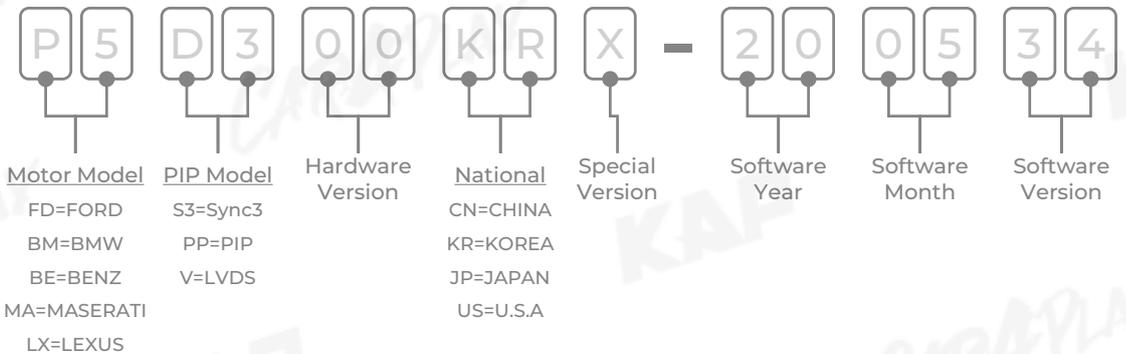
MENU	IR-Ctrl / DVB-T(DMB)	DVB-T
OSD	New Code: ----	
IR-Ctrl	Cfm Code: ----	
Utility	Save	Clr Cancel

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.

OSD CONTROL



First Menu	Second Menu	Third Menu	Description
Utility	Factory Reset	Execute	Initialize all settings
	Version		P5D300KRX-200534 (Check for future upgrades)





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