



INSTRUCTION
MANUAL

Video Interface and Wireless CarPlay & Wired Android Auto

FORD SYNC2 TDC2

FORD SYNC2 INTERFACE

DATA. 2020.07.06

CONTACT

W kaptrader.com

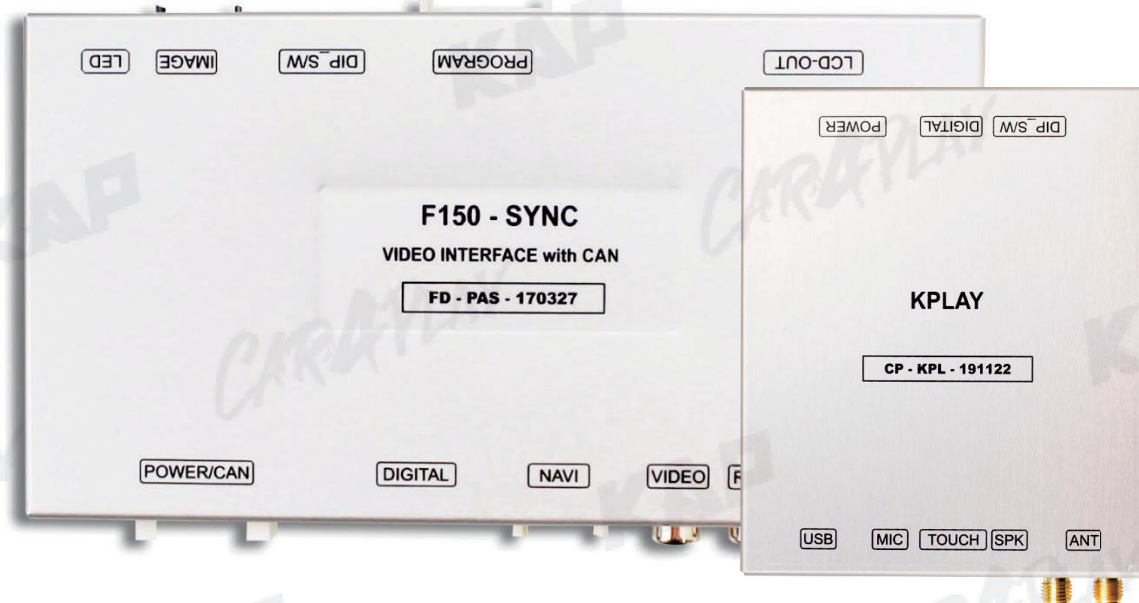
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Songpa-Dearo, Songpa-gu, Seoul, Korea

F (+82) 6204 - 0913



CAR COMPATIBILITY SHEET



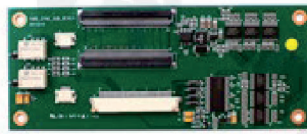
BRAND	MODEL	SYSTEM
FORD	F-150 (7")	SYNC2 (2011 ~ 2015)
	Explorer	
	Mustang	
	Taurus	
LINCOLN	MKZ	
	MKX	



COMPONENT



INTERFACE



SUB BOARD



POWER CABLE



LVDS CABLE



JIG BOARD



LVDS FFC CABLE (100mm)



LVDS FFC CABLE (80mm)



TOUCH FFC CABLE



RGB NAVI CABLE



MODE SWITCH



OSD BOARD

► Warning

- Please contact your dealer if any component is missing.

COMPONENT



KPLAY



KPLAY POWER CABLE



HDMI CABLE



MIC



WIFI/BLUETOOTH
ANTENNA



AUX CABLE



4PIN TOUCH 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)
- 1 x CVBS FRONT CAM IN
- 1 x CVBS REAR CAM IN
- 1 x LVDS IN CAMMAND SYSTEM

3 OUTPUT

- 1 x LVDS OUT OPERATION

4 TOUCH

- VIRTUAL ANALOG TOUCH (4PIN)

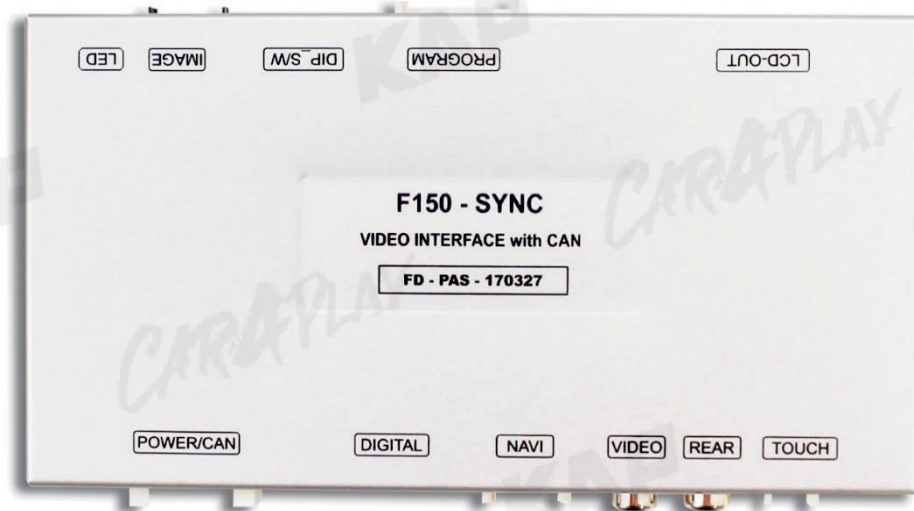
5 POWER

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

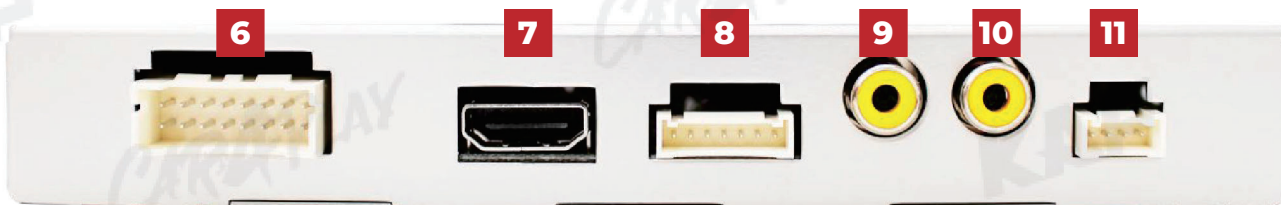
6 SWITCH INPUT MODE

- 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

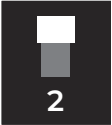
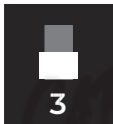


- 1 LCD OUT**
- 2 PROGRAM**
 - OSD connection
- 3 DIP SWITCH**
- 4 IMAGE**
- 5 LED**
 - Interface error check

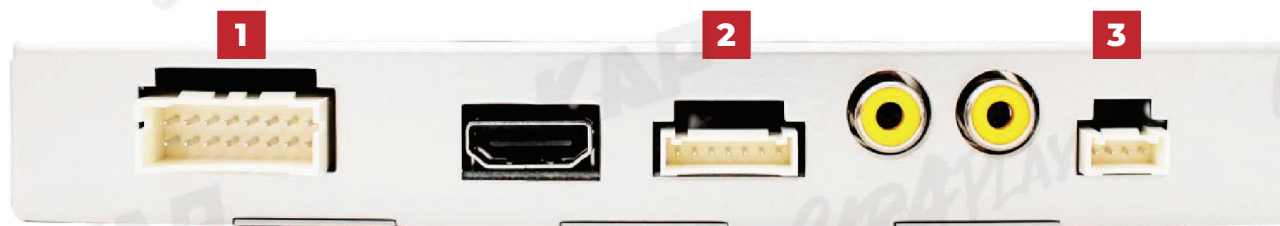


- 6 POWER/CAN**
- 7 DIGITAL RGB**
 - NAVI IN
- 8 ANALOG RGB**
- 9 VIDEO**
 - FRONT CAMERA IN
 - DVB-T or DVD IN
- 10 REAR**
 - REAR CAMERA IN
- 11 RESISTIVE TOUCH**
 - 4PIN Touch

DIP SWITCH SETTING

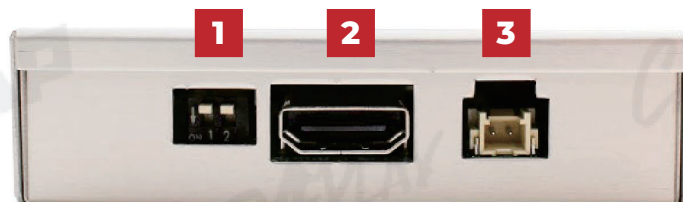
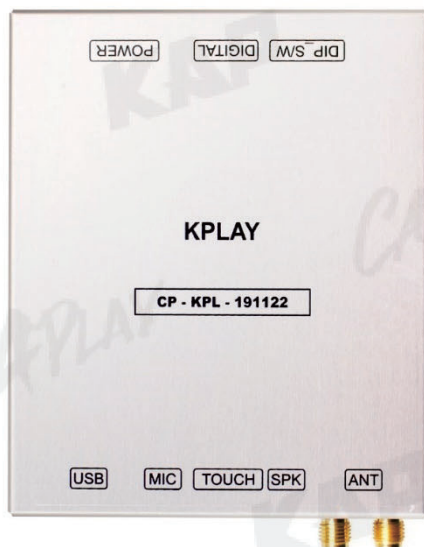
PIN	FUNCTION	INFORMATION	
		▲ OFF	▼ ON
1	NAVIGATION	 USE	 Not use
2	AV1 (DVB-T)	 USE	 Not use
3	AV2 (DVD)	 USE	 Not use
4	No function		
5			
6	Car Type	 ON 6 7 8 FORD F150 LINCOLN MKX	
7		 ON 6 7 8 FORD F150 (If the dip switch above does not work)	
8		 ON 6 7 8 FORD Explorer	

CONNECTOR PIN ASSIGNMENT



No	PORT	INFORMATION																																																						
1	POWER /CAN	13 11 9 7 5 3 1 16 14 12 10 8 6 2																																																						
		<table><tr><th>No.</th><th>Color</th><th>Signal Assignment</th><th>No.</th><th>Color</th><th>Signal Assignment</th></tr><tr><td>1</td><td>Yellow</td><td>BATTERY</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>Green</td><td>CAN LOW</td><td>6</td><td>Orange</td><td>CAN HIGH</td></tr><tr><td>7</td><td></td><td></td><td>8</td><td></td><td></td></tr><tr><td>9</td><td></td><td></td><td>10</td><td></td><td></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>Green</td><td>MODE</td></tr><tr><td>15</td><td>Black</td><td>GND</td><td>16</td><td>Black</td><td>GND</td></tr></table>	No.	Color	Signal Assignment	No.	Color	Signal Assignment	1	Yellow	BATTERY	2			3	Brown	REAR DET	4	Blue	FRONT DET	5	Green	CAN LOW	6	Orange	CAN HIGH	7			8			9			10			11			12	Red	REAR VCC	13	Red	FRONT VCC	14	Green	MODE	15	Black	GND	16	Black	GND
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2	RGB NAVI	7 6 5 4 3 2 1																																																						
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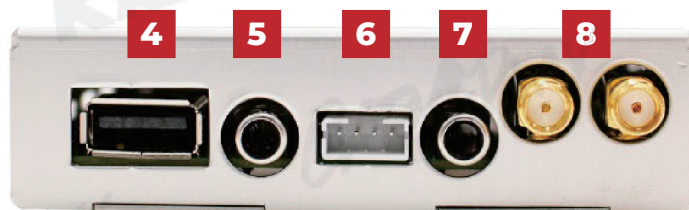
EXTERNAL DEVICE SPECIFICATIONS



1 DIP SWITCH

2 DIGITAL

3 POWER



4 USB

- Smartphone
- USB storage

5 MICROPHONE

6 RESISTIVE TOUCH

- 4PIN Touch

7 SPEAKER

8 WIFI/BLUETOOTH ANTENNA

KPLAY CONNECTOR PIN ASSIGNMENT



No	PORT	INFORMATION		
1	DIP SWITCH	No	FUNCTION	
		1	800x480 Resolution	
		2	1280x480 Resolution	
		► Warning 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

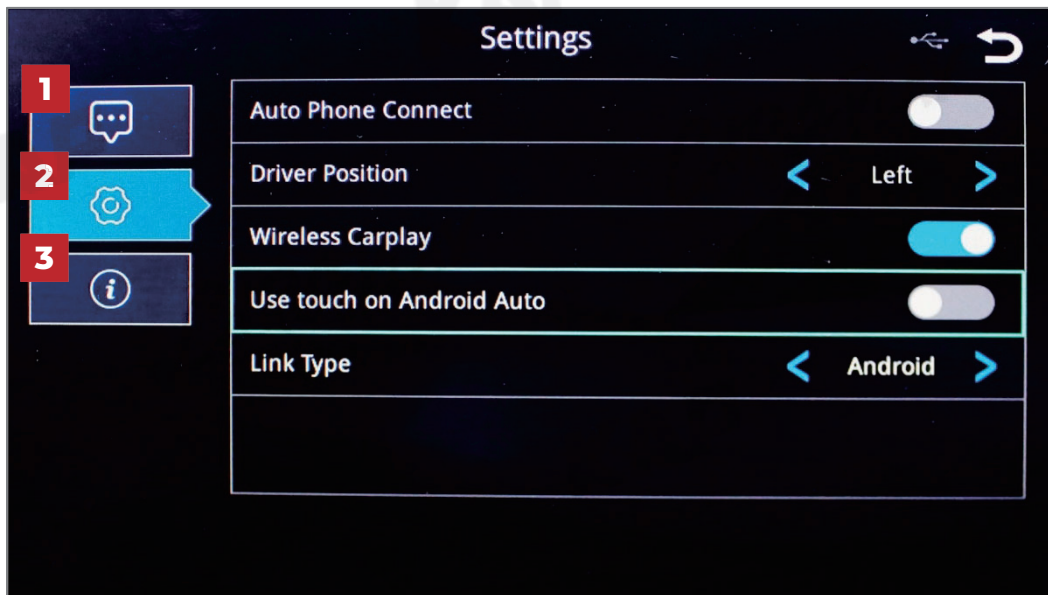
- VIDEO
- MUSIC
- IMAGE

4 SETTINGS



KPLAY CONTROL

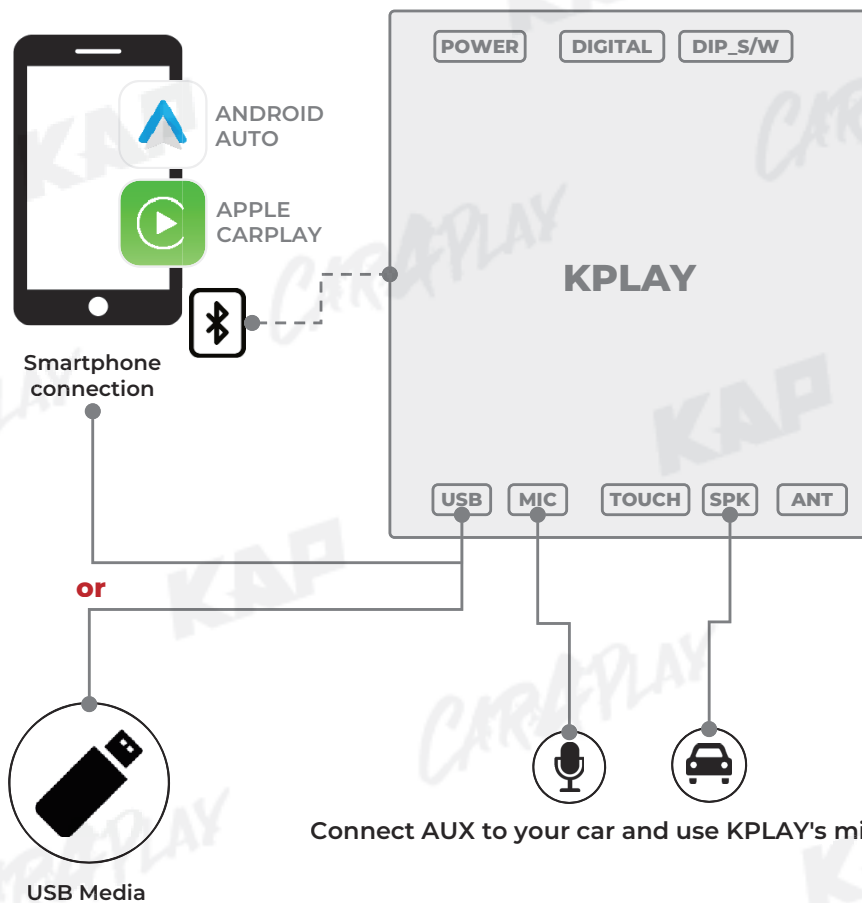
SETTINGS



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
3	Firmware Information	Link Type	Android	Android Auto
			Carlife	do not select (Update Coming Soon)
		Reset		Factory reset
		Sys Update		Update firmware using USB

KPLAY CONTROL

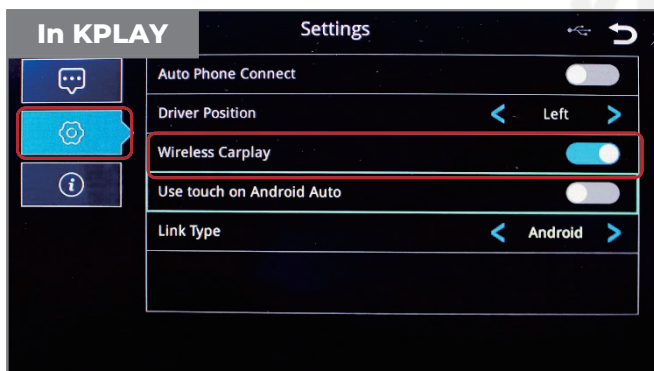
MEDIA CONTROL



No	INFORMATION		Can be used	CONTROL	NOTICE
1	Apple CarPlay	Wireless connection	Use all Apple CarPlay Functions	- AUX - MIC - TOUCH	- 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		

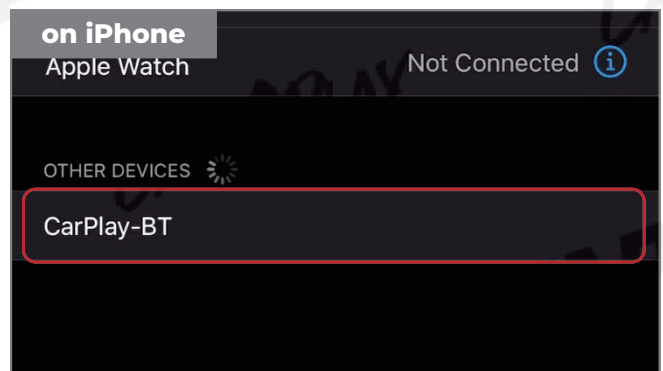
KPLAY CONTROL

iPhone Wireless connection - Connection method

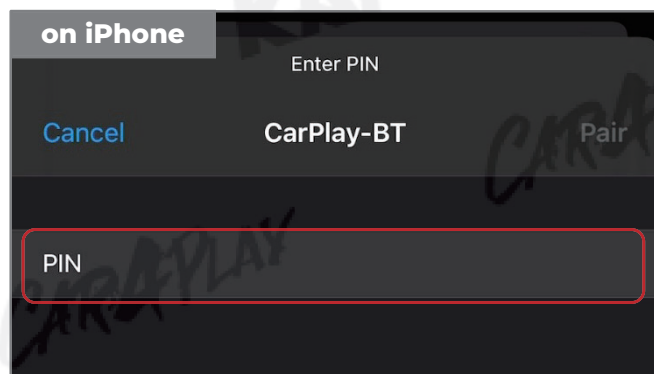


1. Activate Wireless Carplay in KPLAY Settings Menu

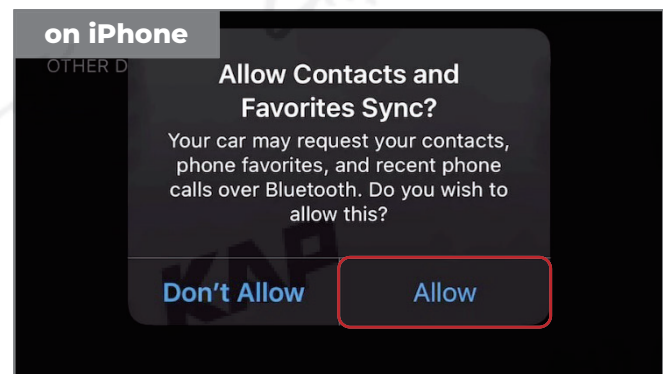
(If Wireless Carplay is enabled, you cannot connect by wire)



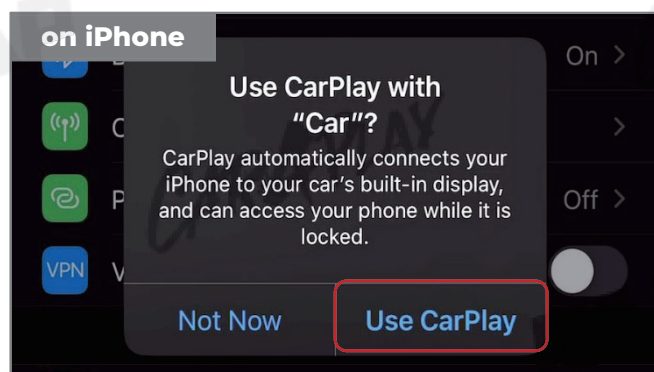
2. Choose CarPlay-BT in Bluetooth on iPhone



3. PIN Number "0000" enter



4. "Allow" select



5. "Use CarPlay" select

(Once connected, Bluetooth will be disconnected and connected via Wi-Fi)



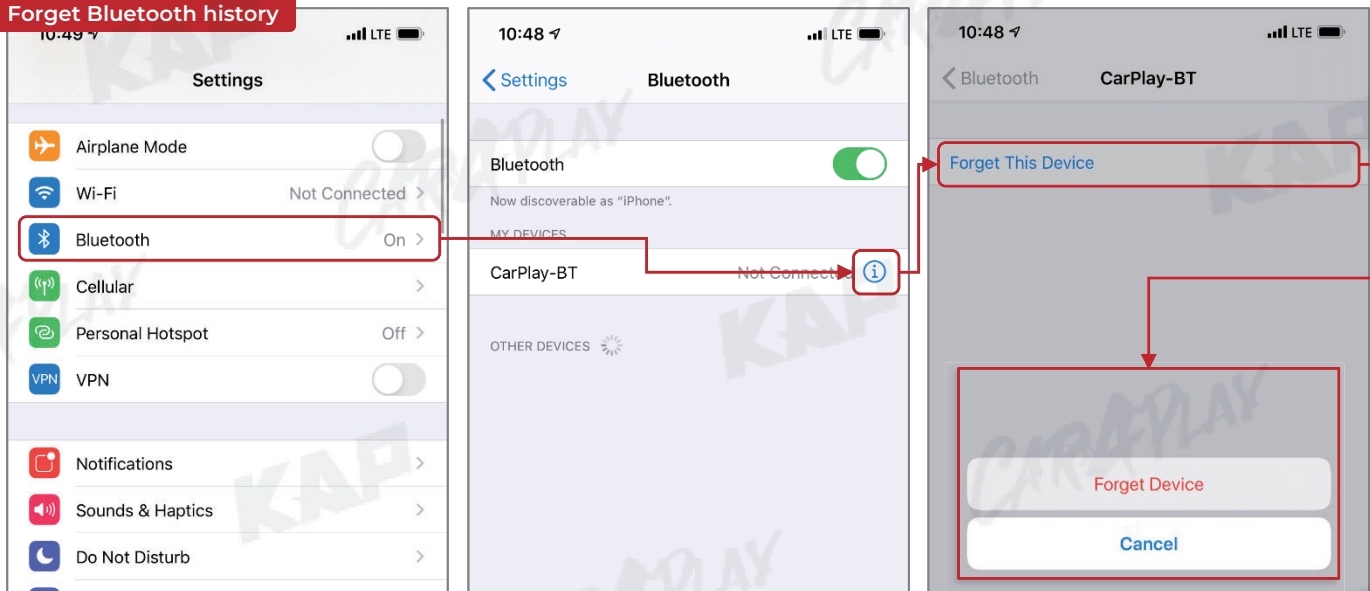
6. Enjoy CarPlay!

KPLAY CONTROL

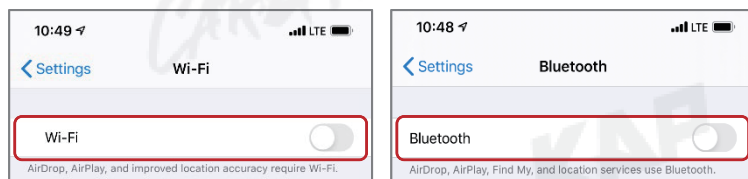
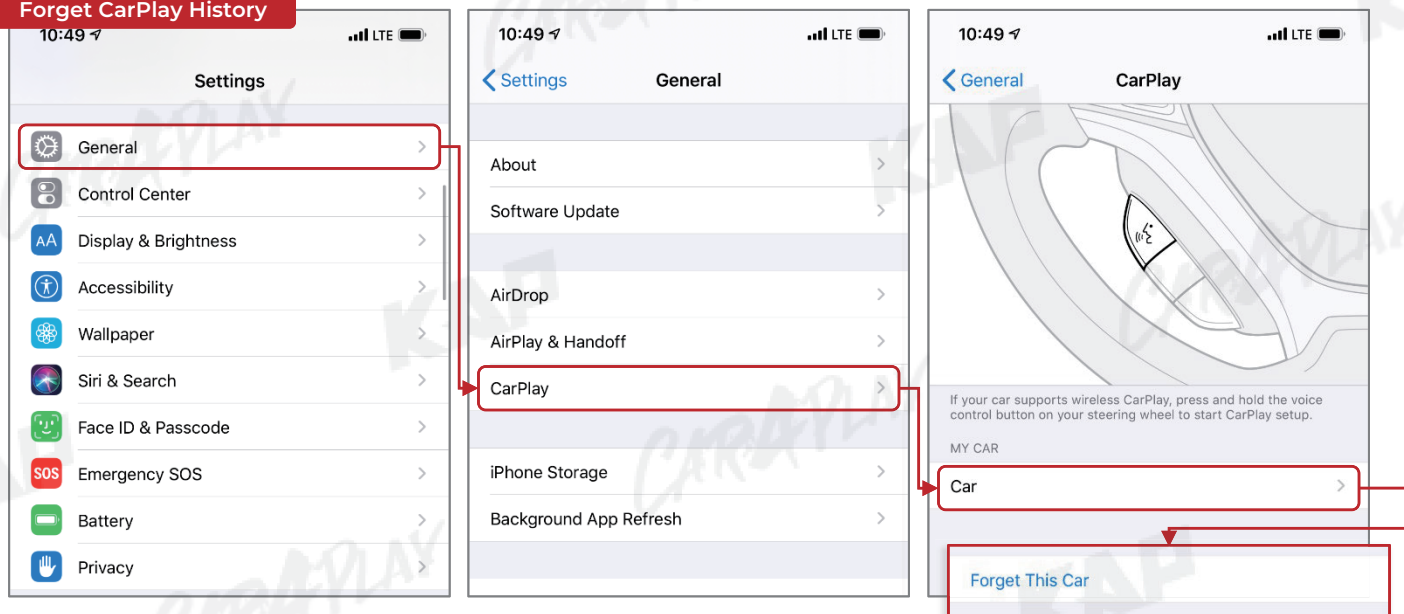
If your iPhone fails to connect

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



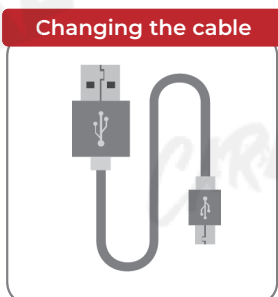
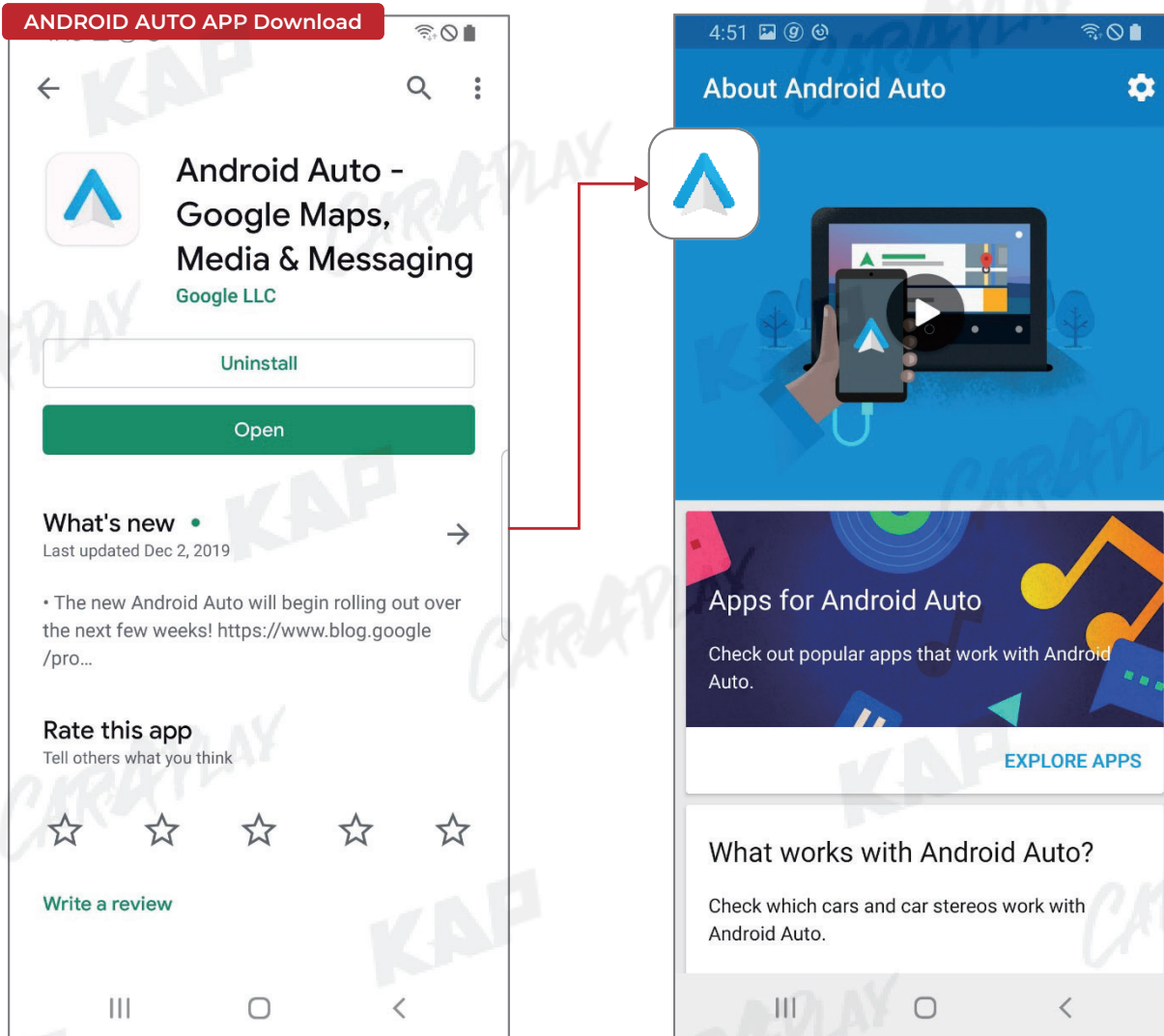
Warning

- 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

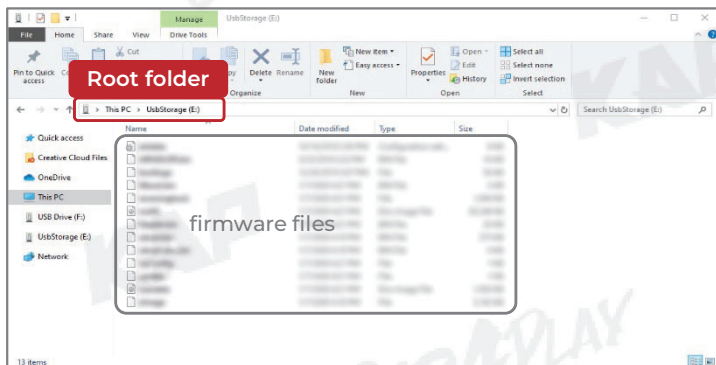
1. Check if your smartphone has ANDROID AUTO application
2. Replace the cable



► 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

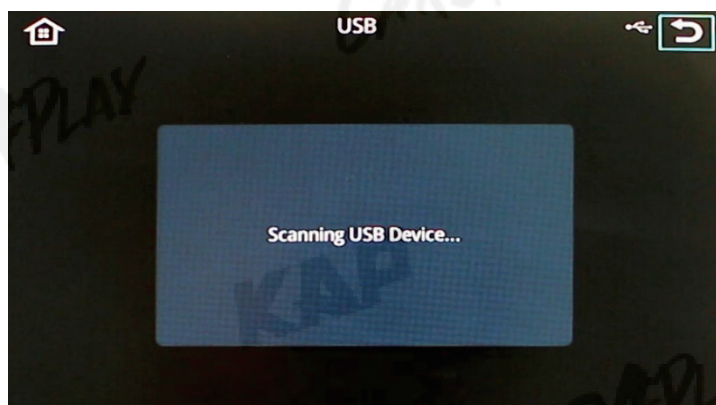
FIRMWARE UPDATE



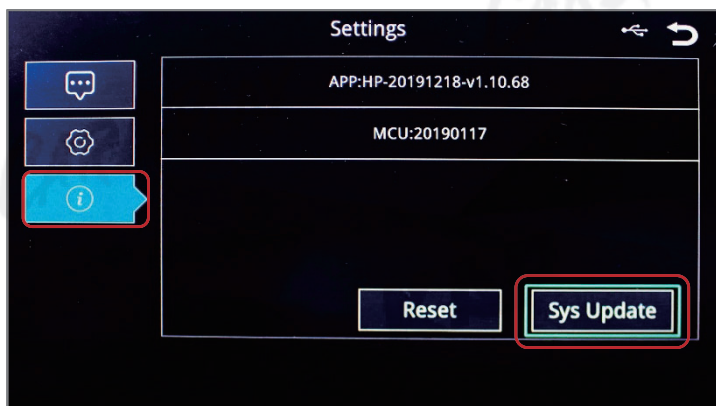
1. Add the firmware file provided in root folder
* of the USB

*Root folder : Top-level folder without adding folder

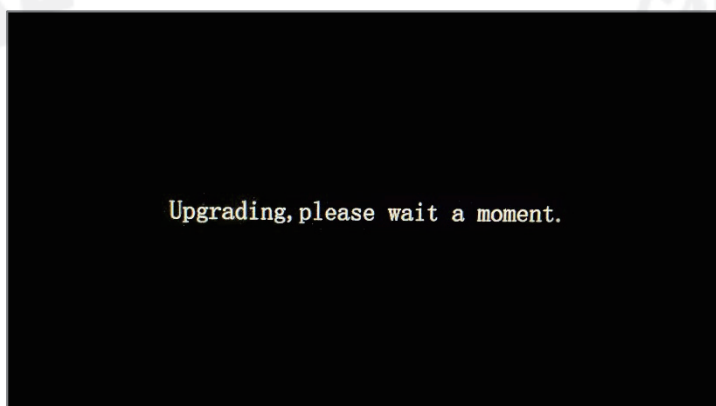
This PC > UsbStorage (E:)



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



Steering Wheel Button

BUTTON	OPERATION	FUNCTION
LEFT (Steering Wheel)	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen
	SHORT PRESS	Interface screen to the OEM screen

► **Warning**

- Screen change sequence : **OEM > NAVI > AV1 > AV2 > OEM**
- Select 'LEFT' from the OSD menu> Option> Steering Wheel

BUTTON CONTROL

CHANGE MODE TO INTERFACE SCREEN



Steering Wheel Button

BUTTON	OPERATION	FUNCTION
VOICE (Steering Wheel)	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen
	SHORT PRESS	Interface screen to the OEM screen

► **Warning**

- Screen change sequence : **OEM > NAVI > AV1 > AV2 > OEM**
- Select 'VOICE' from the OSD menu> Option> Steering Wheel

BUTTON CONTROL

CHANGE MODE TO INTERFACE SCREEN



Steering Wheel Button

BUTTON	OPERATION	FUNCTION
LEFT or VOICE (Steering Wheel)	LONG PRESS	OEM screen to interface screen Interface screen to the OEM screen
	SHORT PRESS	Interface screen to the OEM screen

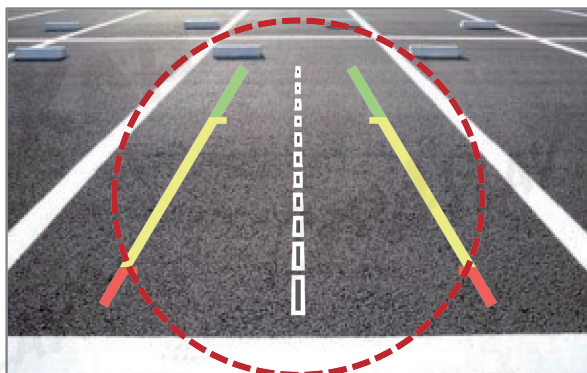
► Warning

- Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM
- Select 'LEFT' or 'VOICE' from the OSD menu> Option> Steering Wheel

PARKING CONTROL

Parking Line / OPS Display

1 Parking Line Display

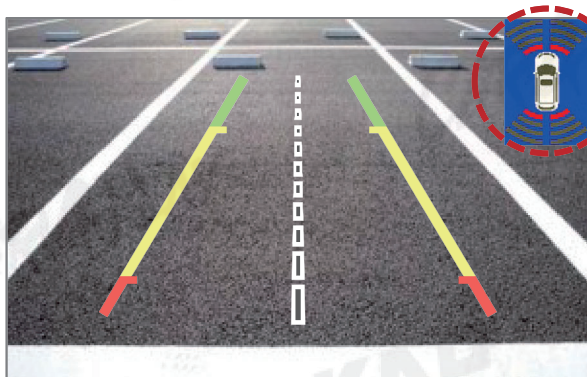


Parking Line ON Screen

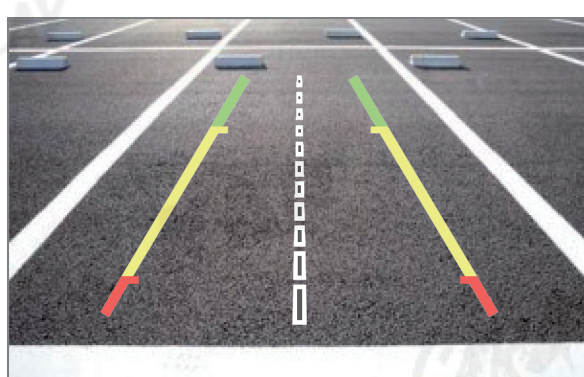


Parking Line OFF Screen

2 OPS Display



OPS Display ON Screen

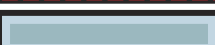


OPS Display OFF Screen

PARKING CONTROL

FrontCam Rcv Option

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

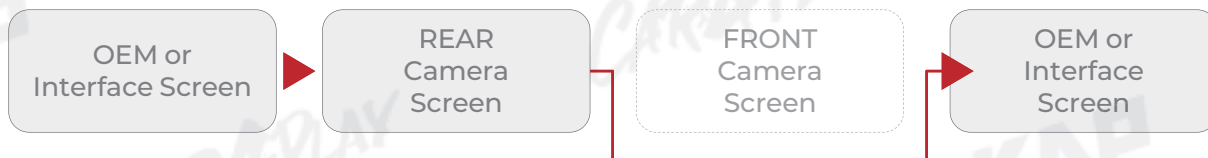
MENU	Option	NAVI
Config	FrontCam-RcvOpt	 30s
Option		
Image		
Screen		
Parking		

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



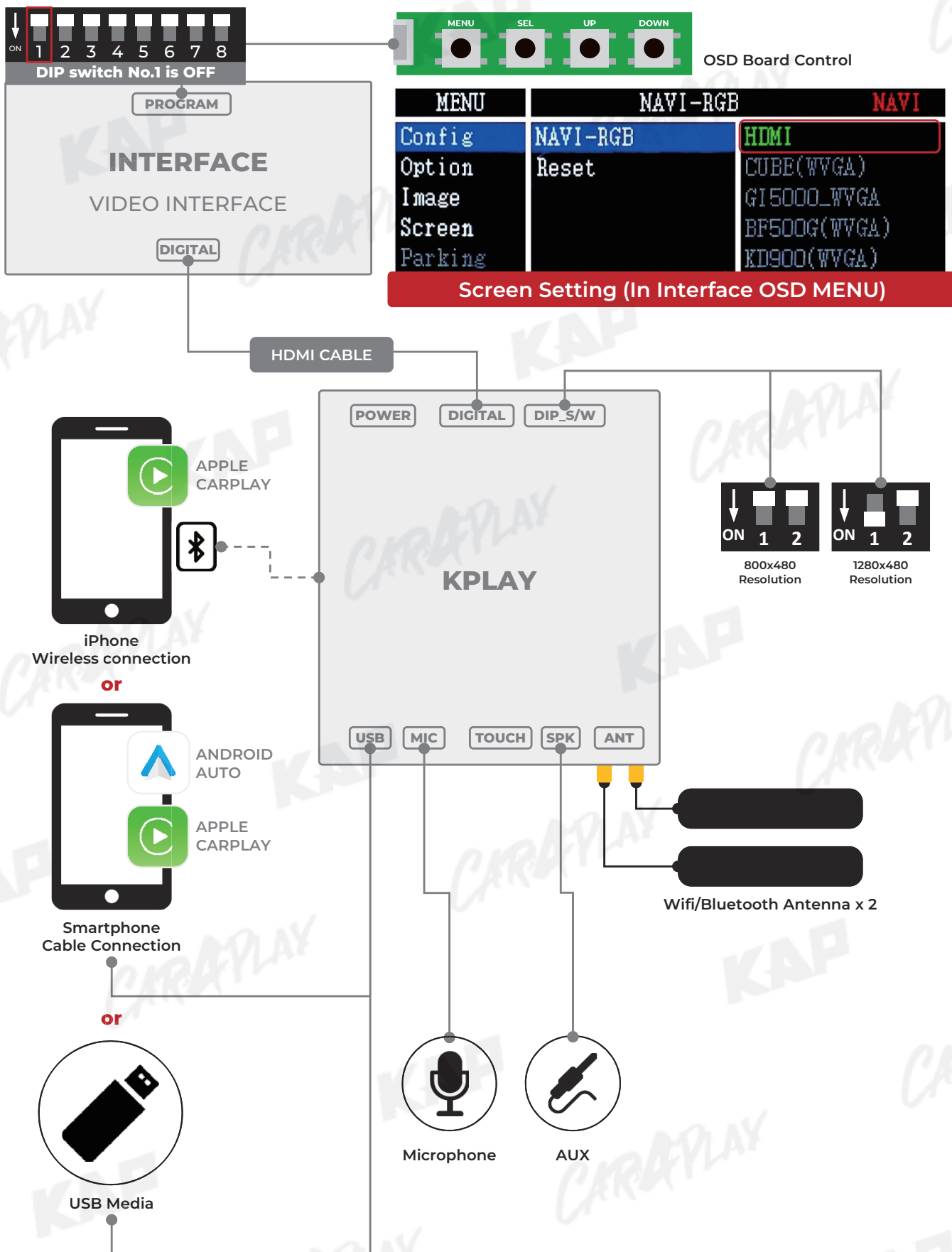
2 FrontCam-RcvOpt : OFF (0s)

MENU	Option	NAVI
Config	FrontCam-RcvOpt	 0s
Option		
Image		
Screen		
Parking		



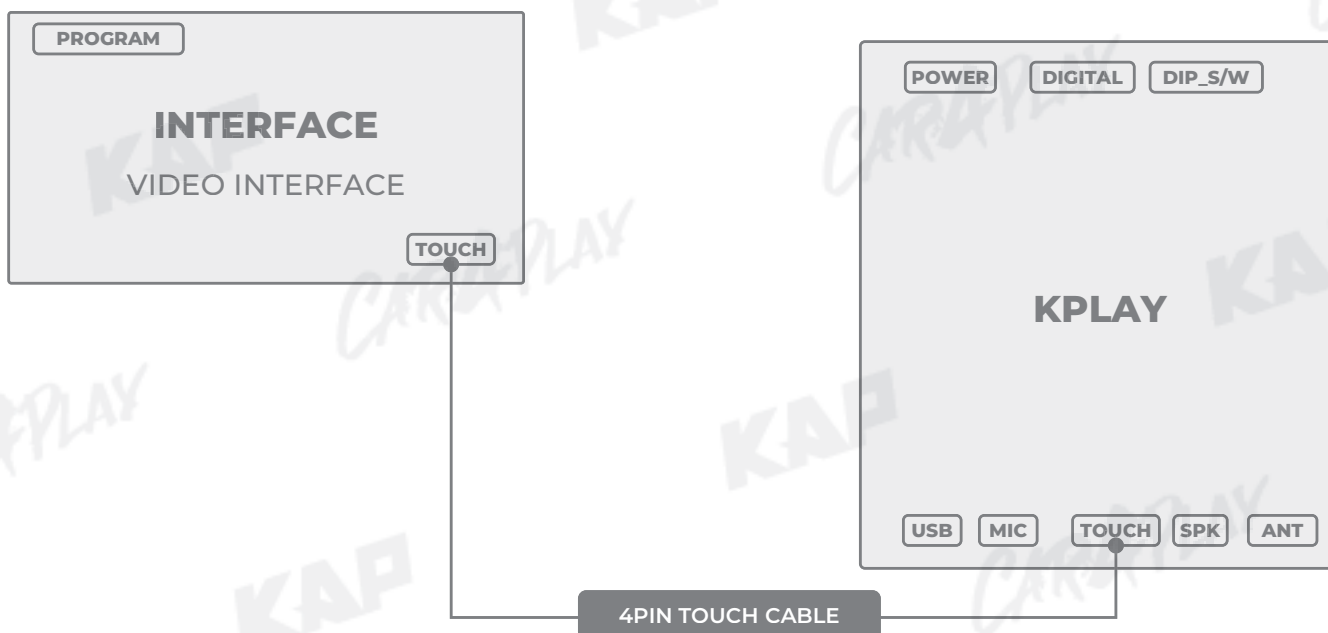
INSTALL MANUAL

KPLAY CONNECTION – SCREEN SETTING

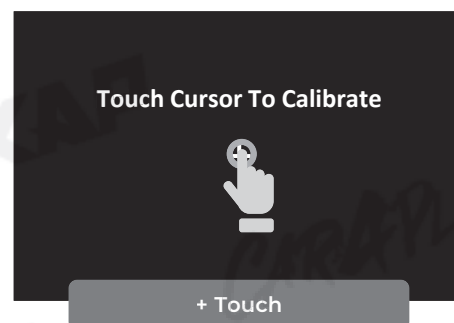
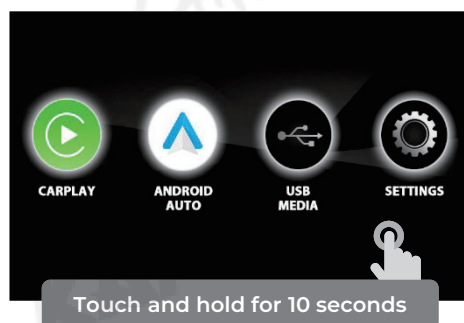


INSTALL MANUAL

KPLAY CONNECTION – TOUCH SETTING



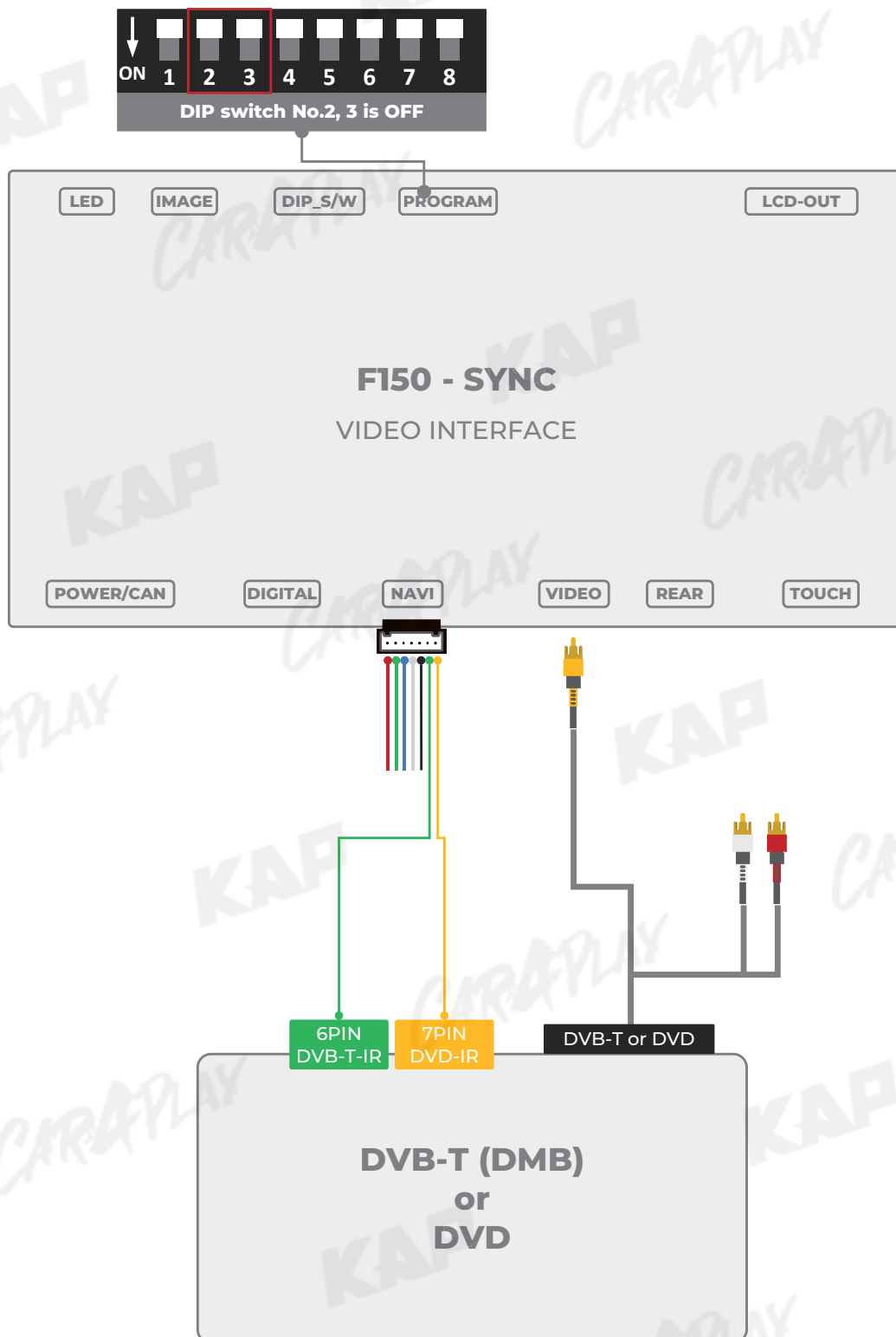
TOUCH CALIBRATION (IN KPLAY)



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

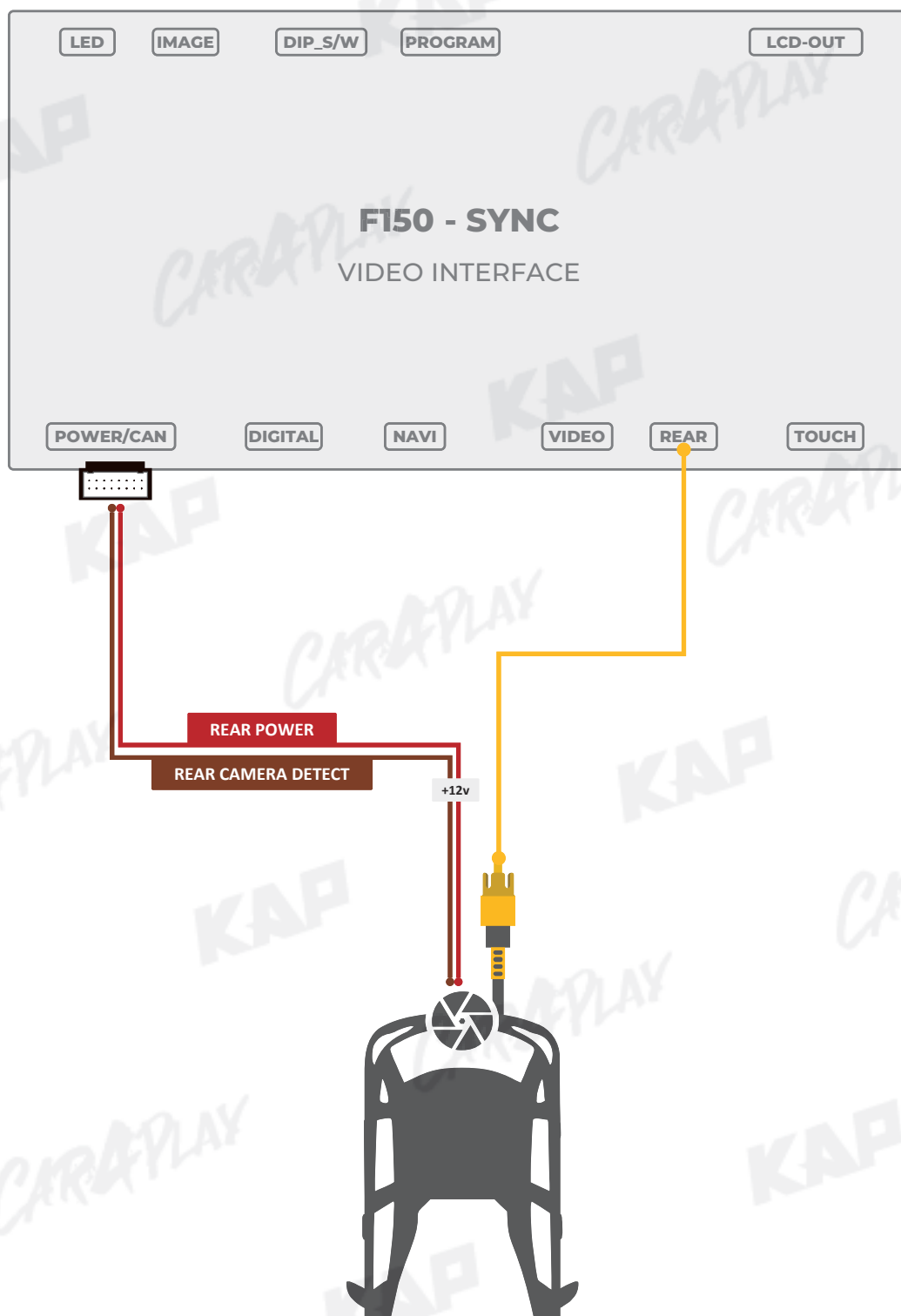
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DVB-T / DVD REMOTE CONTROL CONNECTION



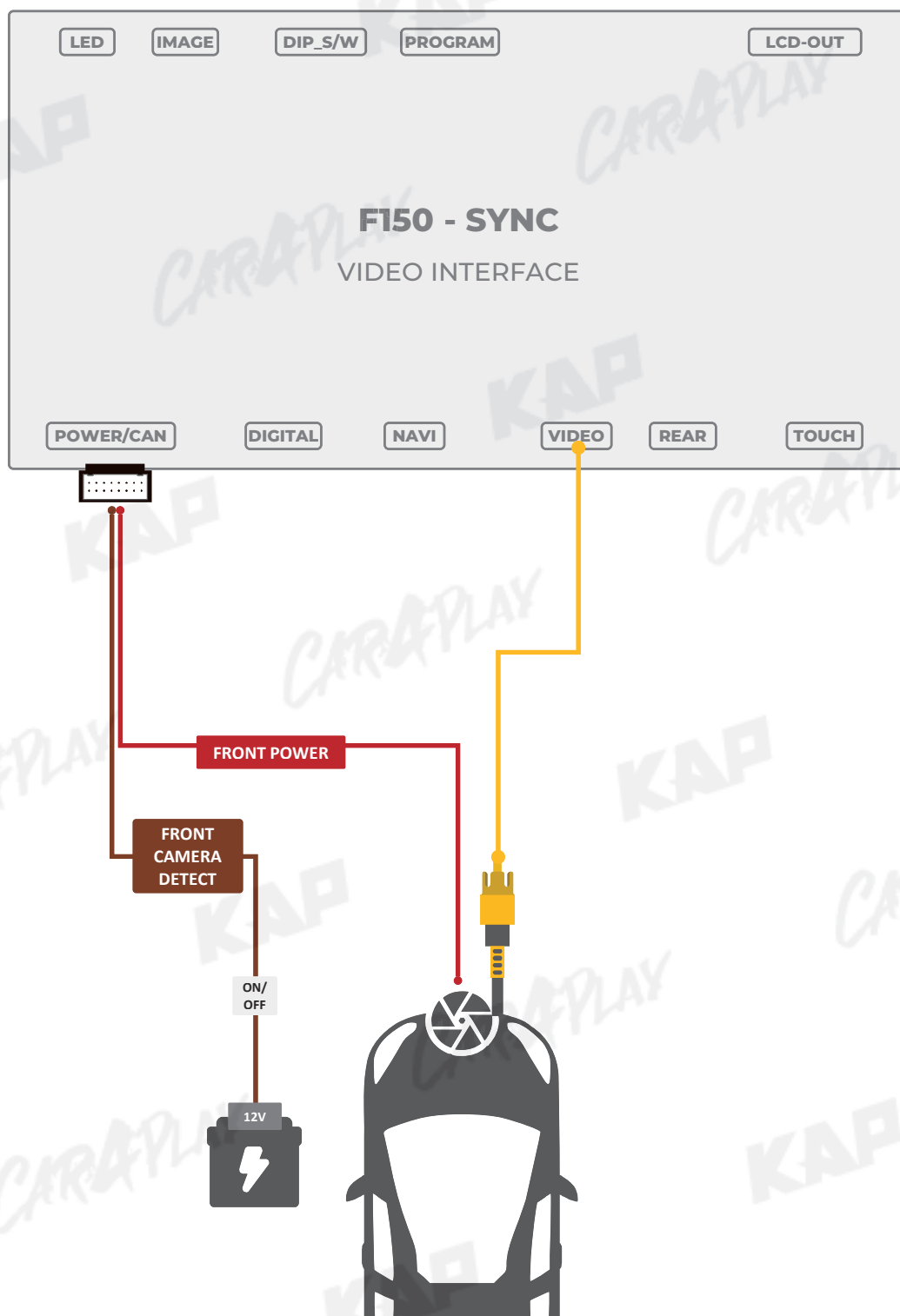
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EXTERNAL REAR CAMERA



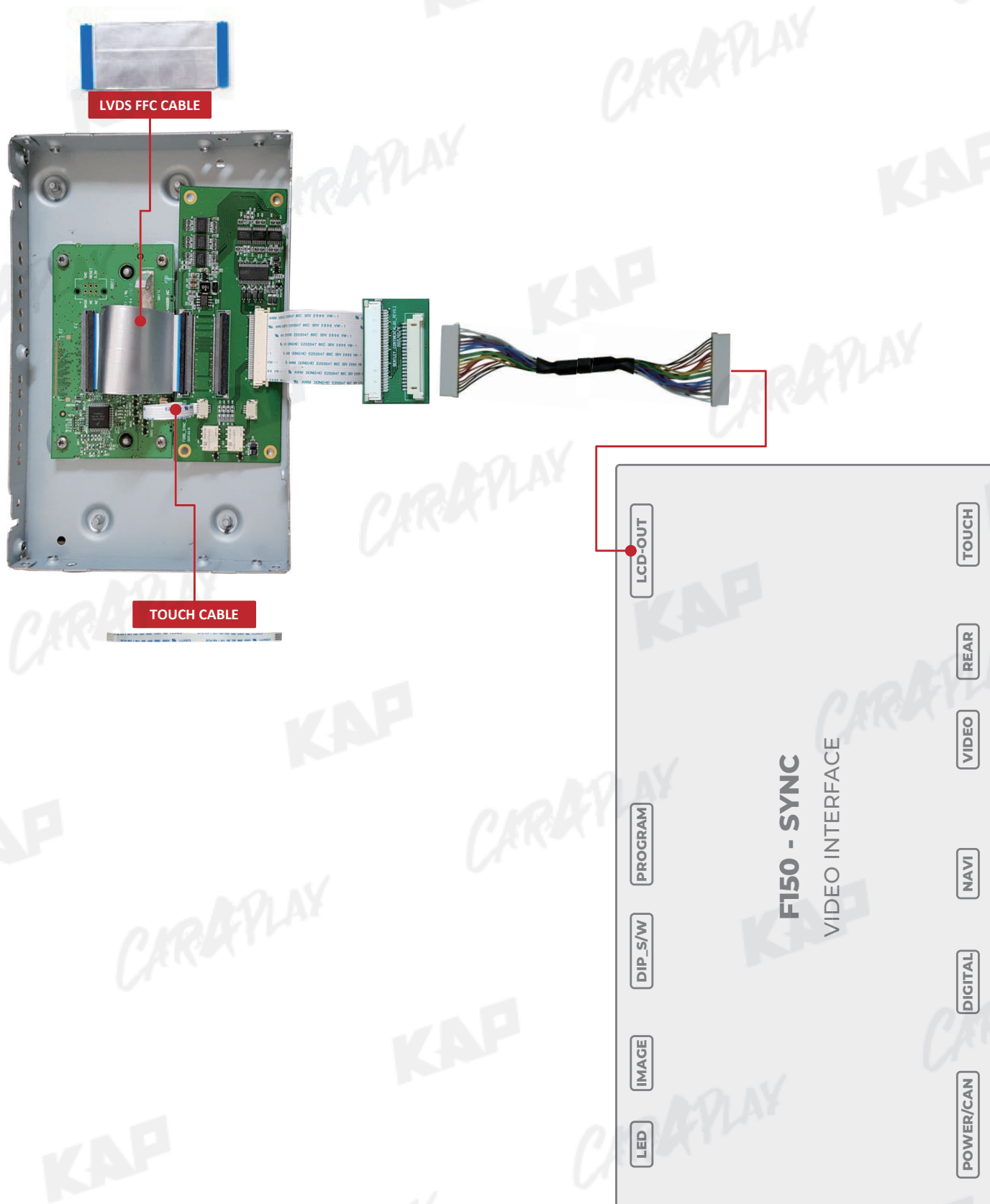
INSTALL MANUAL

EXTERNAL FRONT CAMERA



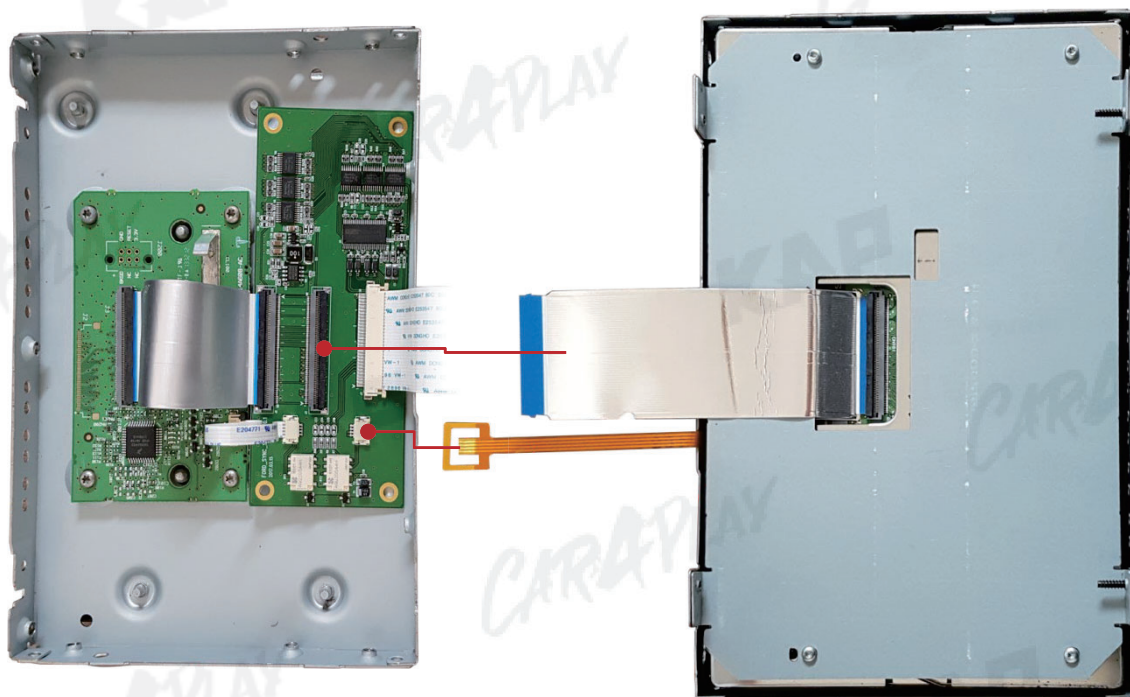
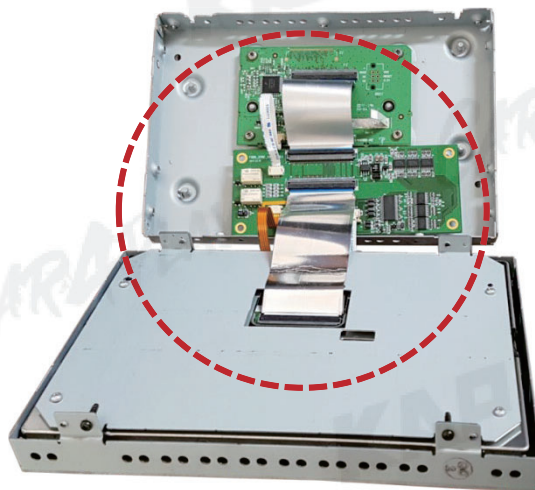
INSTALL MANUAL

LVDS CONNECT



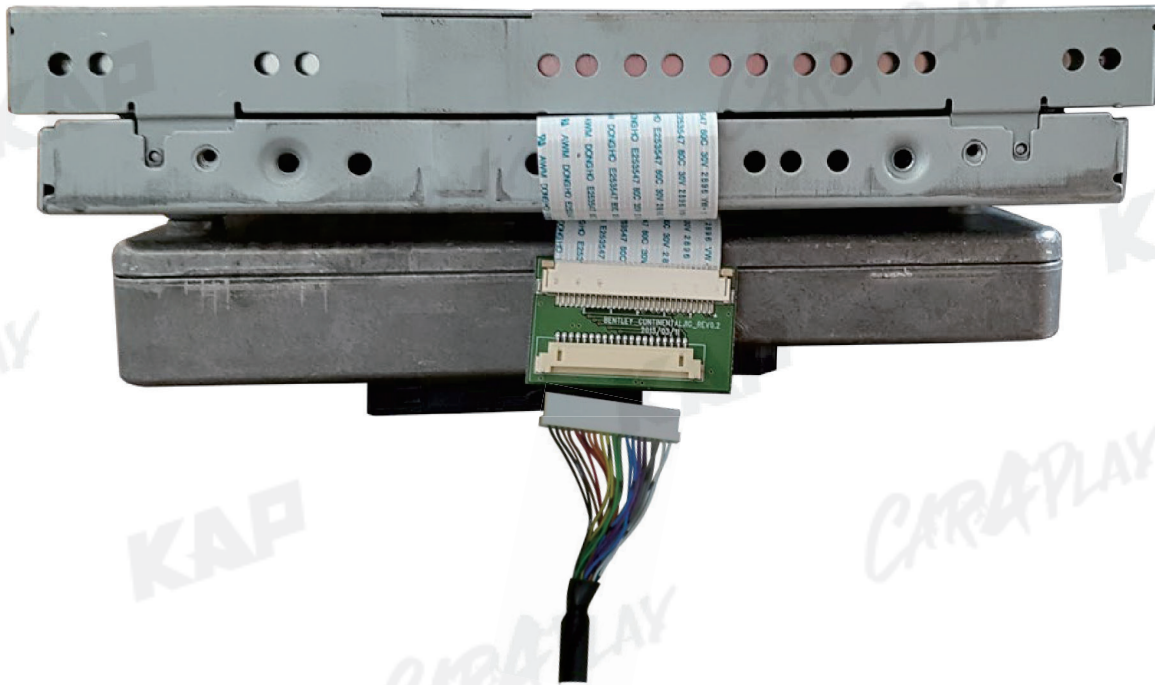
INSTALL MANUAL

LVDS CONNECT



INSTALL MANUAL

LVDS CONNECT



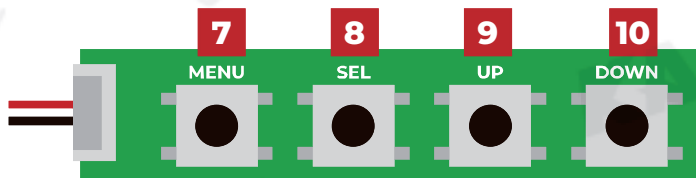
OSD CONTROL

Basic information

1	2	3
MENU	Option	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



No	OSD(On Screen Display) Board Control	
7	MENU	- The OSD screen can be switched ON/OFF - Return to previous menu
8	SEL	- Select the currently active item - If the OSD screen is off, mode changes can be made.
9	UP	- Move up from the menu - Increase the selected item value
10	DOWN	- Move down from the menu - Decrease the selected item value

OSD CONTROL

Config		
MENU	NAVI-RGB	NAVI
Config	NAVI-RGB	HDMI
Option	Reset	CUBE(WVGA)
Image		GI5000(WVGA)
Screen		BF500G(WVGA)
Parking		ED900(WVGA)

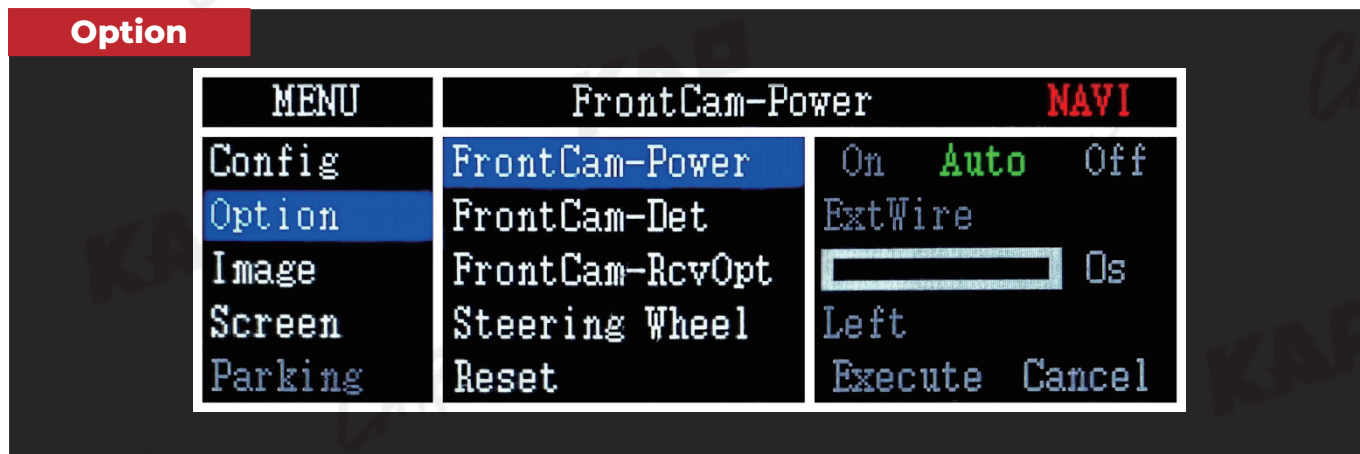
First Menu	Second Menu	Third Menu	Description
Config	NAVI-RGB	HDMI : :	Setting the Connected NAVI Model
	Reset	Execute Cancel	Reset to default value of Config menu

OSD CONTROL

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

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
	AV Mode	On	Use "REAR" video input port as VIDEOE input
		Off	Disable feature
	FrontCam-Type	OEM	Original Camera
		ExtDevice	Equipped with external camera

OSD CONTROL



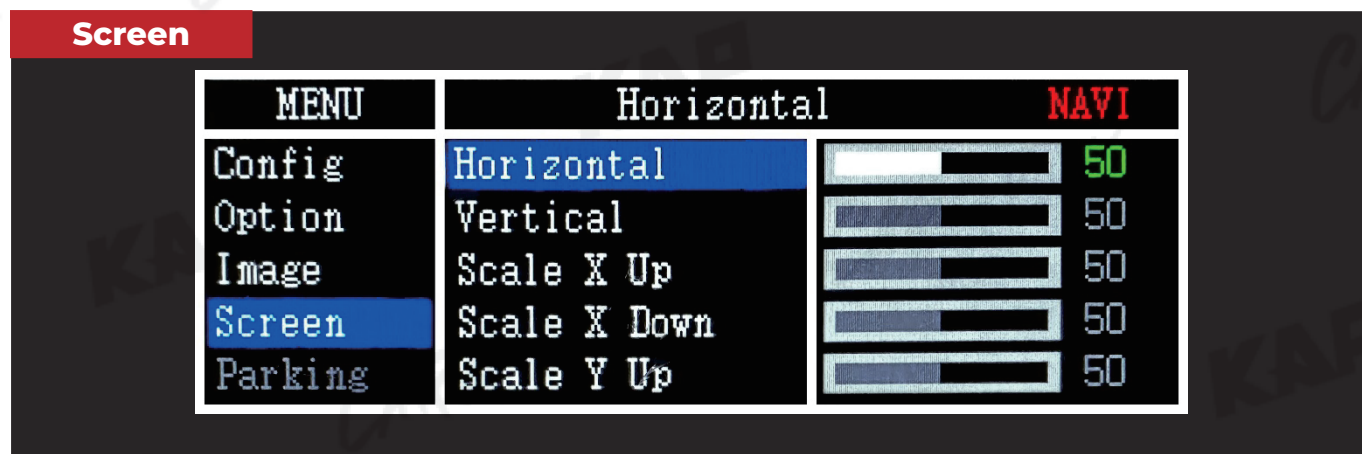
First Menu	Second Menu	Third Menu	Description
Option	FrontCam-Power	On	+ 12V continuous supply
		Auto	+ 12V supply only in Front camera mode
		Off	+ 12V off
	FrontCam-Det	CAN	Detected by CAN
		ExtWire	Detected by Front-Det Wire
	FrontCam-RcvOpt	On	The time (1-30 seconds) that FrontCam is displayed before returning to the previous state in RearCam
		Off	Disable feature
	Steering WheelBtn	Left	Change the mode with the "LEFT" button
		Voice	Change the mode with the "Voice" button
		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

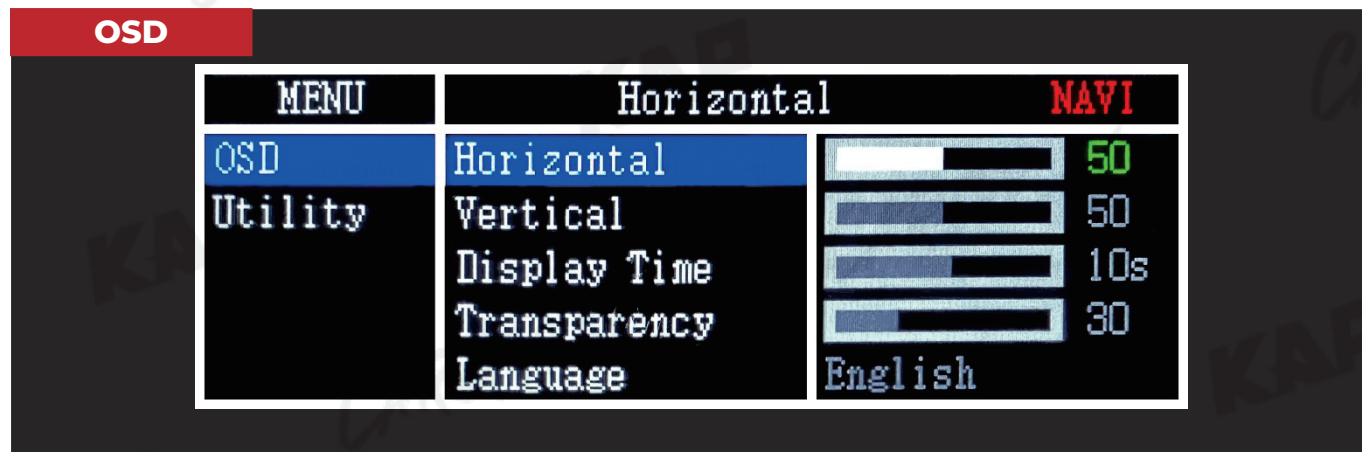
OSD CONTROL

Parking

MENU	OPS Display REAR	
Config	OPS Display	Off
Option	Line Display	Off
Image	Warnings Lang	English
Screen	Horizontal	<input type="range"/> 50
Parking	Vertical	<input type="range"/> 60

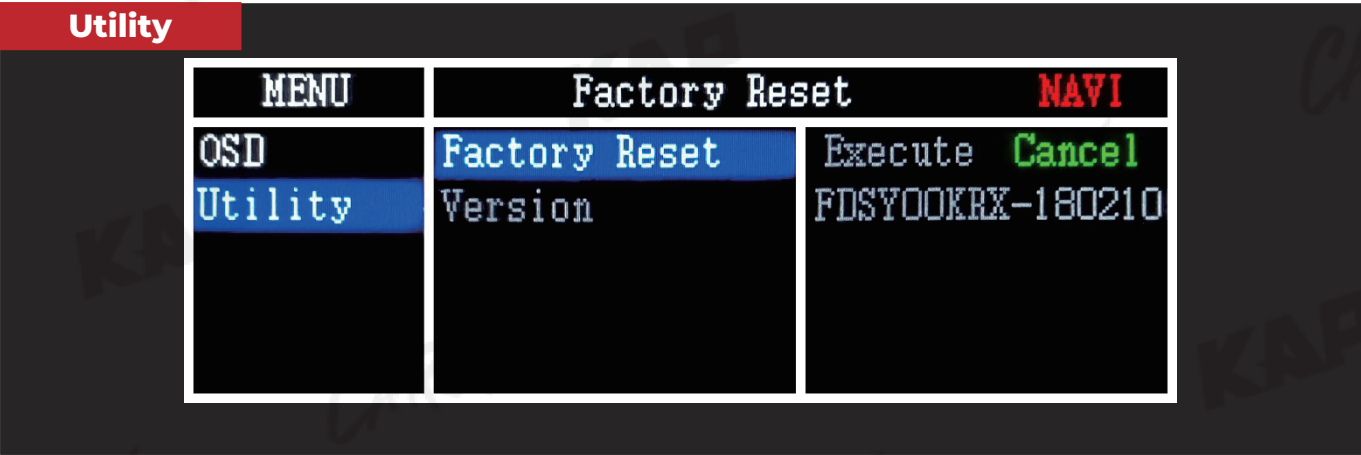
First Menu	Second Menu	Third Menu	Description
Parking	OPS Display	On	Show OPS
		Off	Do not show OPS
	Line Display	On	Show parking line
		Off	Do not show parking lines
	Warnings Lang		Set warning text language
	Horizontal		Moving a parking line horizontally
	Vertical		Moving a parking line vertically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

OSD CONTROL

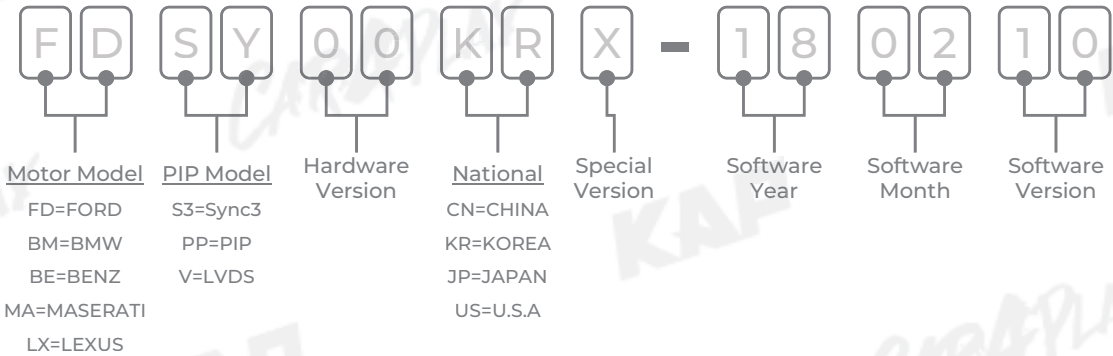


First Menu	Second Menu	Third Menu	Description
OSD	Horizontal	<i>value</i>	OSD Menu Horizontal Shift
	Vertical	<i>value</i>	OSD menu vertical Shift
	Display Time	<i>value</i>	OSD Menu Display Time (in seconds)
	Transparency	<i>value</i>	OSD menu transparency
	Language		OSD menu display language
	Reset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

OSD CONTROL



First Menu	Second Menu	Third Menu	Description
Utility	Factory Reset	Execute	Initialize all settings
	Version		FDSY00KRXX-180210 (Check for future upgrades)





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