INSTRUCTION
MANUAL

VIDEO INTERFACE

FORD SYNC3 TDC2

FORD SYNC3 INTERFACE

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CAR COMPATIBILITY SHEET



BRAND	MODEL	SCREEN	YEAR
FORD	F-150 FX4		2015 ~
	Mustang		2017 ~
	Ranger		2018 ~
	Ecosprot	8"	2019 ~
	WildTrak		2021/02 ~
	Kuga		2019 ~
LINCOLN	MKX		2018 ~
	MKZ		2018 ~
	Contnental		2018 ~
	Navigator	12"	2019 ~



SYNC3



SYNC

COMPONENT



INTERFACE



RGB NAVI CABLE



POWER CABLE



MODE SWITCH



OSD Board



LVDS IN CABLE



LVDS OUT CABLE

▶ Warning

- Please contact your dealer if any component is missing.

INTERFACE SPEC

1 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

2 OUTPUT

- 1 x LVDS OUT OPERATION

3 TOUCH

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

4 POWER

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

5 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 LCD IN

3 DIP SWITCH

4 IMAGE

5 PROGRAM
- OSD connection

6 LED
- Interface error check



7 POWER/CAN

8 RESISTIVE TOUCH
- 4PIN Touch

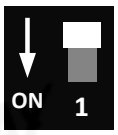
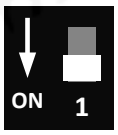
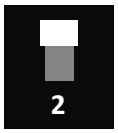
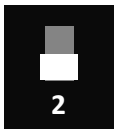
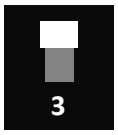
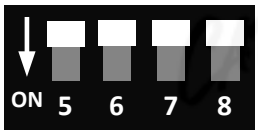
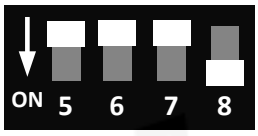
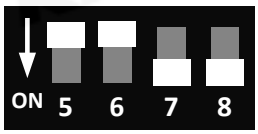
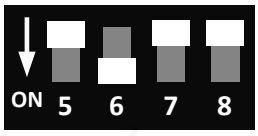
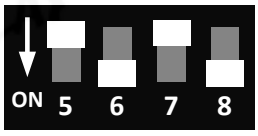
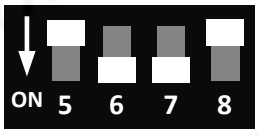
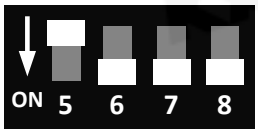
9 DIGITAL RGB

10 ALNALOG RGB

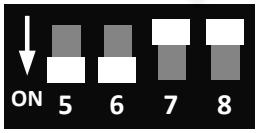
11 FRONT
- FRONT CAMERA IN
- DVB-T or DVD IN

12 REAR
- REAR CAMERA IN

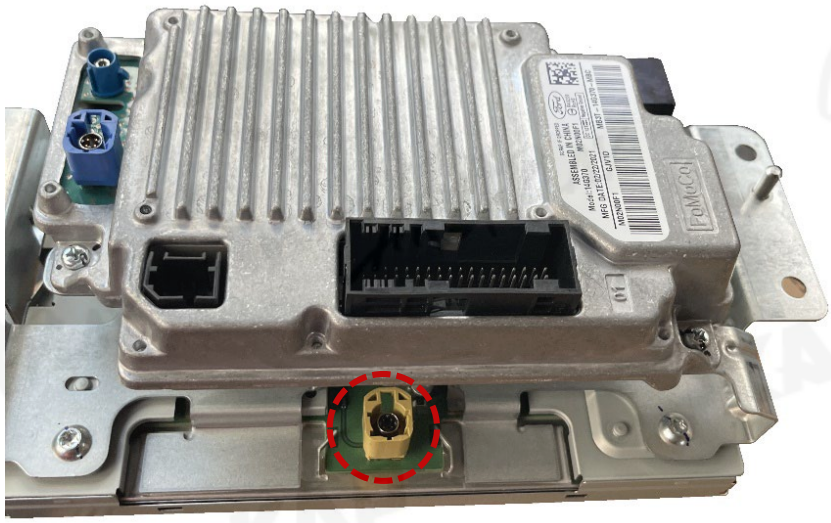
DIP SWITCH SETTING

PIN	FUNCTION	INFORMATION	
		▲ OFF	▼ ON
1	NAVIGATION	 USE	 Do not use
2	AV1 (DVB-T)	 USE	 Do not use
3	AV2 (DVD)	 USE	 Do not use
4	No function		
5	Car Type	 **FORD** F150	 **FORD** Ranger Wildtrak (2021/02~) (+ Vehicles that do not function as basic DIP-SW among F150 models)
6		 **FORD** Mustang Ranger	 **lincoln** Navigator 12" (2019~)
7		 **FORD** Ecosprot 8" (2019~)	 **FORD** Kuga (2019~)
8		 **FORD** Mondeo 7"	 **FORD** Gemini (2021)
		 **FORD** WildTrak (2021)	 **FORD** WildTrak (2021 Old)

DIP SWITCH SETTING



FORD
WildTrak
(2021)





FORD
WildTrak
(2021 Old)



CONNECTOR PIN ASSIGNMENT



1 POWER /CAN



No.	Color	Signal Assignment	No.	Color	Signal Assignment
1	Yellow	ACC	2	Yellow	ACC
3	Brown	REAR DET	4	Blue	FRONT DET
5	Green	CAN LOW	6	Orange	CAN H
7			8		
9			10		
11	RED	ACC	12	Red	REAR POWER
13	Red	FRONT POWER	14	Green	MODE
15	Black	GND	16	Black	GND

- ACC POWER = Max 200mA | REAR POWER = Max 200mA | FRONT POWR = Max 200mA

2 TOUCH



No.	Color	Signal Assignment
1	Red	Y-
2	Green	X-
3	Blue	Y+
4	White	X+

3 RGB NAVI



No.	Color	Signal Assignment
1	Red	R DATA
2	Green	G DATA
3	Blue	B DATA
4	White	SYNC
5	Black	GND
6	Green	DVB-T IR
7	Orange	DVD IR

BUTTON CONTROL

Change Mode to Interface Screen



LEFT / VOICE

BUTTON	PRESS	FUNCTION
LEFT VOICE	Long press	OEM screen to interface screen Interface screen to the OEM screen
	▶ Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM	

▶ Warning

- "Left" or "Voice" must be activated in SteeringBtn-1 item in OSD menu

BUTTON CONTROL

Change Mode to Interface Screen



NAV

BUTTON	PRESS	FUNCTION
NAV	Long press	OEM screen to interface screen Interface screen to the OEM screen
	▶ Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM	

▶ Warning

- "NAV" must be activated in SteeringBtn-1 item in OSD menu

BUTTON CONTROL

Change Mode to Interface Screen



LEFT / ENTER

BUTTON	PRESS	FUNCTION
LEFT ENTER	Long press	OEM screen to interface screen Interface screen to the OEM screen
	▶ Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM	

▶ Warning

- "Left" or “Enter" must be activated in SteeringBtn-1 item in OSD menu

BUTTON CONTROL

Change Mode to Interface Screen



SOUND

BUTTON	PRESS	FUNCTION
SOUND	Long press	OEM screen to interface screen Interface screen to the OEM screen
	▶ Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM	

BUTTON CONTROL

Change Mode to Interface Screen



LEFT

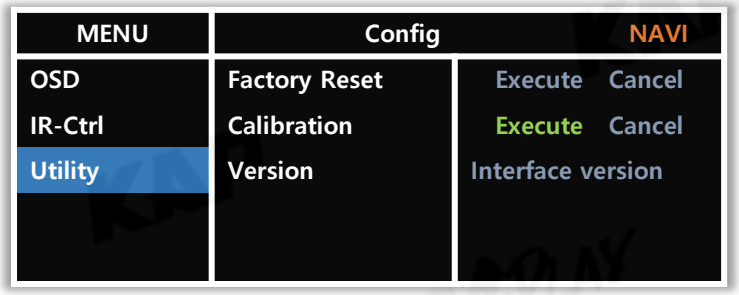
BUTTON	PRESS	FUNCTION
LEFT	Long press	OEM screen to interface screen Interface screen to the OEM screen
	▶ Screen change sequence : OEM > NAVI > AV1 > AV2 > OEM	

▶ Warning

- "Left" must be activated in SteeringBtn-1 item in OSD menu

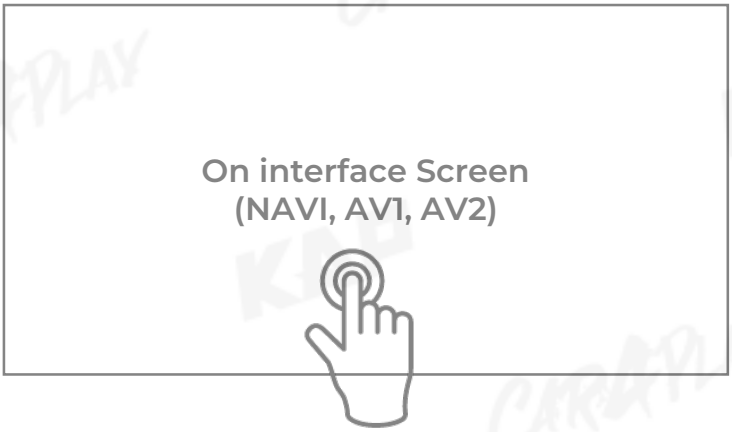
TOUCH CONTROL

Touch Calibration

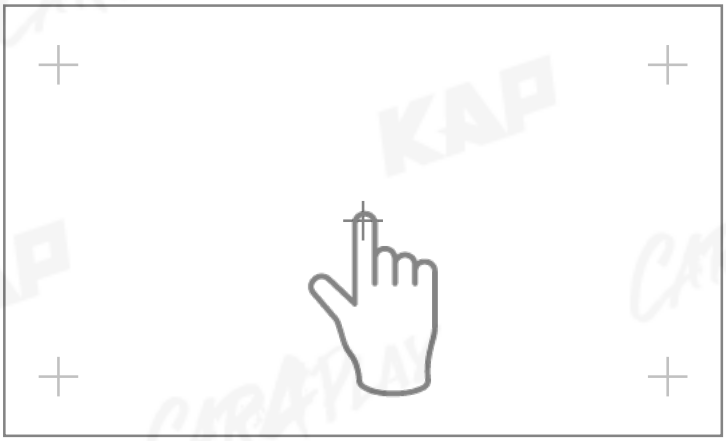


Select OSD menu> Utility> Calibration.

or



Press and hold the display for longer than 10 seconds.



+ Touch according to the shape coordinates

▶ Warning

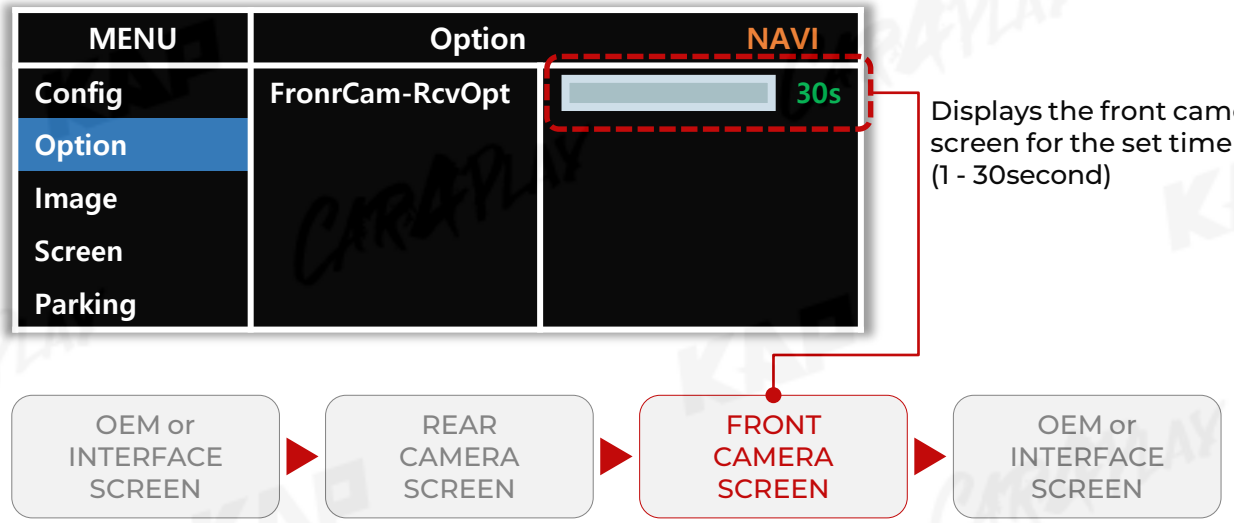
- Touch control icon in DVBT / DVD



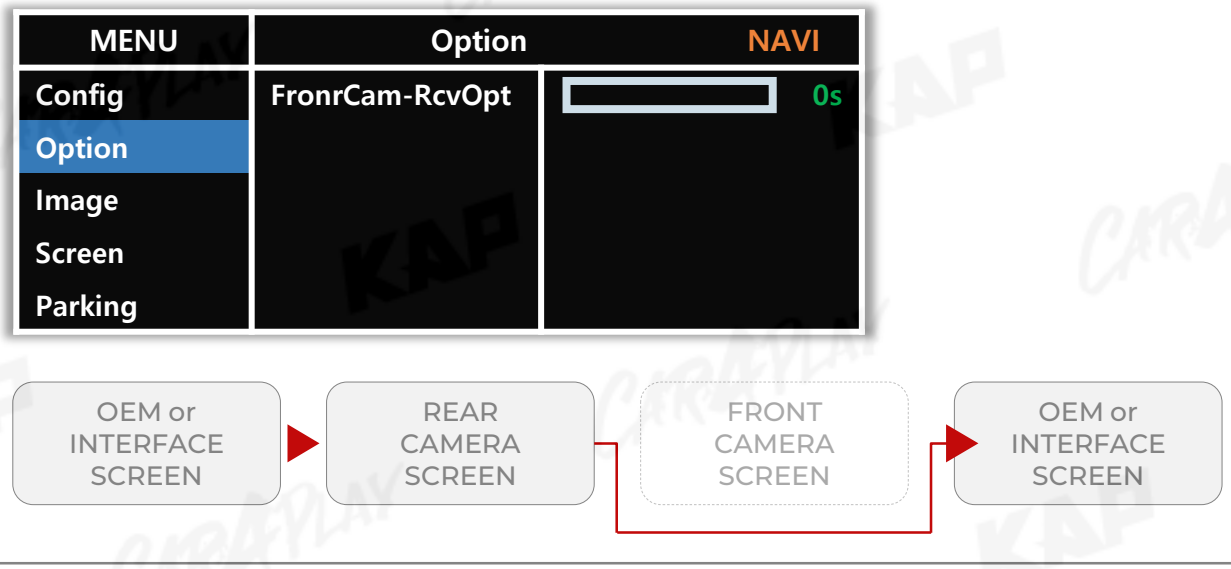
PARKING CONTROL

FrontCam Rcv Option

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



2 FrontCam-RcvOpt : OFF (0s)

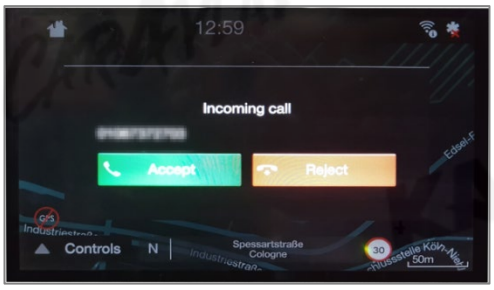


CALL CONTROL

ScrChg Option

1 ScrChg-Call

MENU	Option	NAVI	
Config	ScrChg-Call	On	Off
Option	ScrChg-Climate		
Image	ScrChg-Audio-Vol		
Screen			
Parking			



INTERFACE SCREEN ▶ Phone Connect ▶ OEM SCREEN ▶ Phone Disconnect ▶ INTERFACE SCREEN

2 ScrChg-Climate / Audio-Vol

MENU	Option	NAVI	
Config	ScrChg-Call		
Option	ScrChg-Climate	On	Off
Image	ScrChg-Audio-Vol	On	Off
Screen			
Parking			





1 Setup for switching from external screen to OEM mode screen automatically when changing climate value

2 Setup for switching from external screen to OEM mode screen automatically when changing audio volume level

INTERFACE SCREEN ▶ OEM Screen ▶ INTERFACE SCREEN

Display for 2 seconds

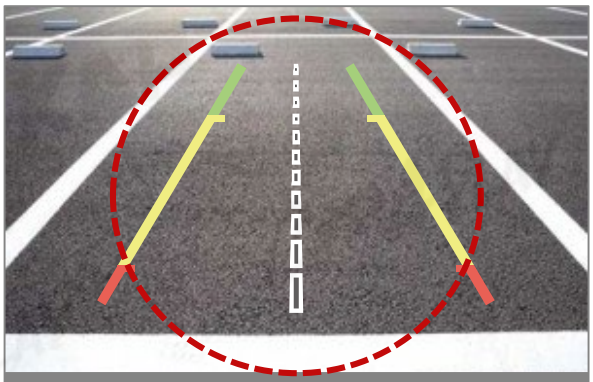
▶ Warning

- If you touch an arbitrary area of the OEM screen, it keeps the OEM screen

PARKING CONTROL

Parking Line

1 Parking Line Display



Parking Line ON Screen

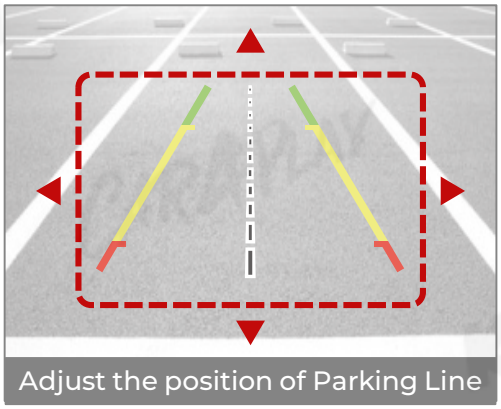


Parking Line OFF Screen

2 Horizontal / Vertical



- Pressing this Horizontal / Vertical menu, The OSD screen automatically disappears.
- Please adjust from the parking line Screen.



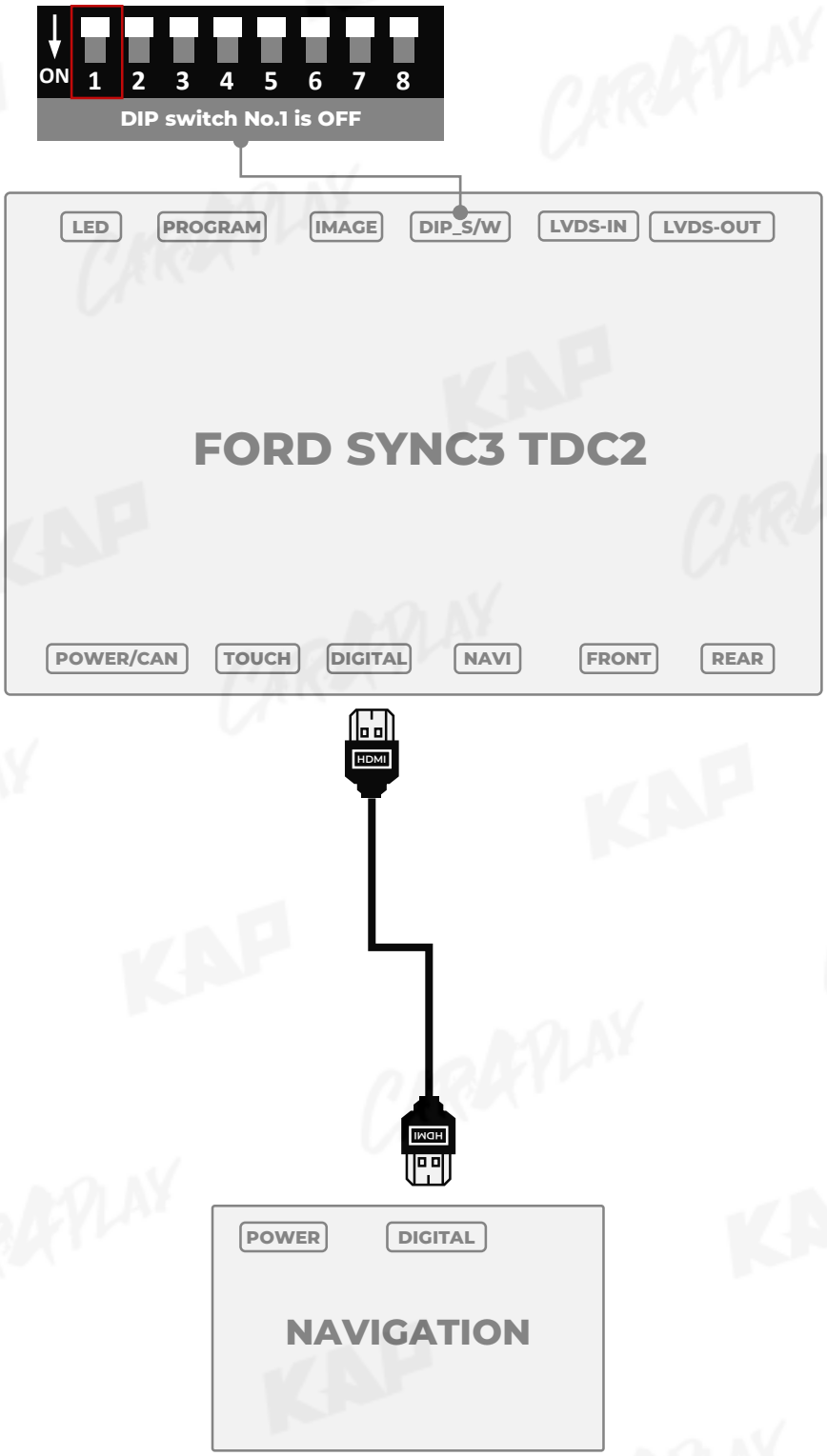
Adjust the position of Parking Line



MENU	• Move the guideline position to the left
SEL	• Move the guideline position to the right
UP	• Move the guideline position upwards
DOWN	• Move the guideline position downward

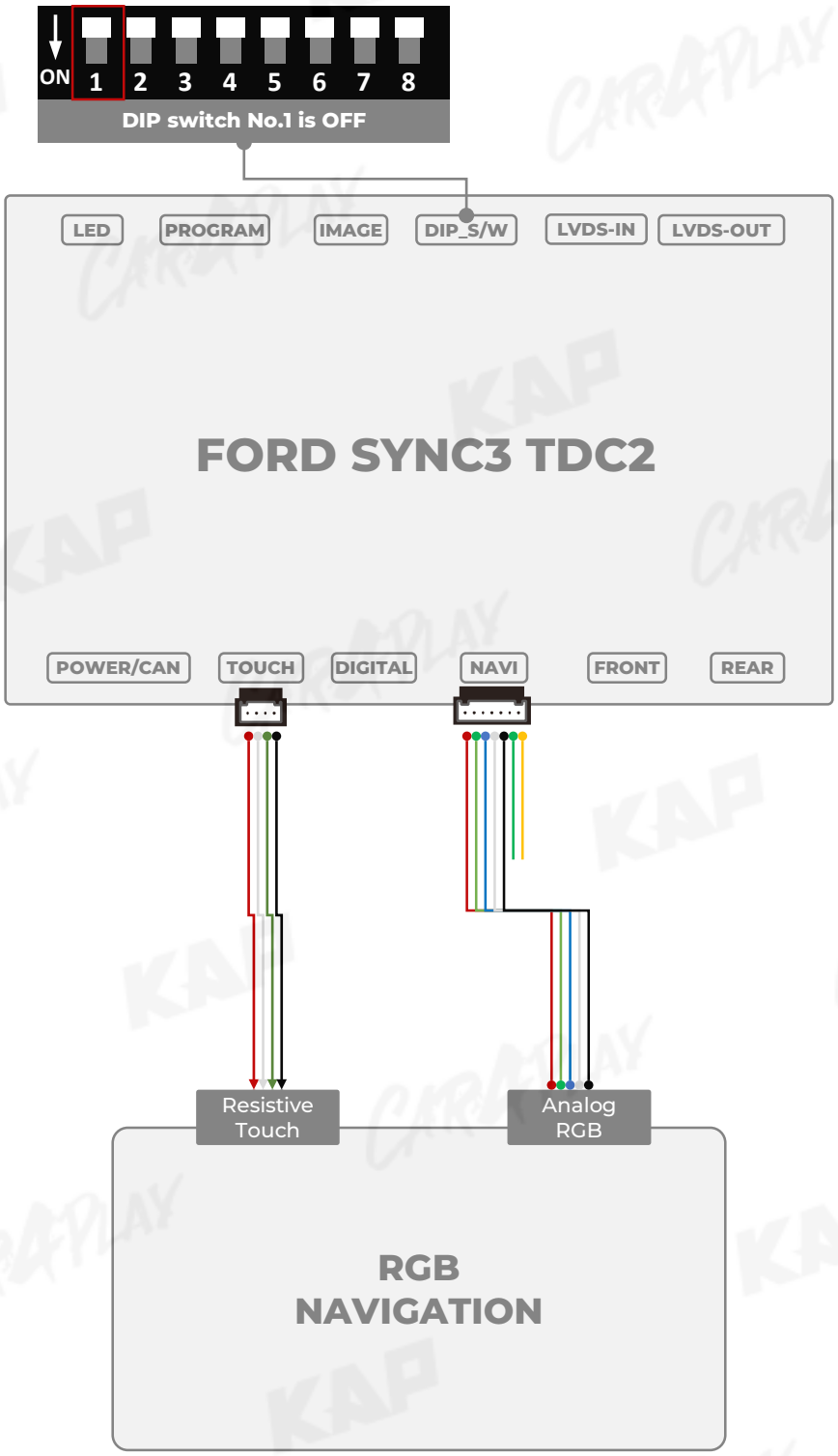
INSTALL MANUAL

Digital NAVI



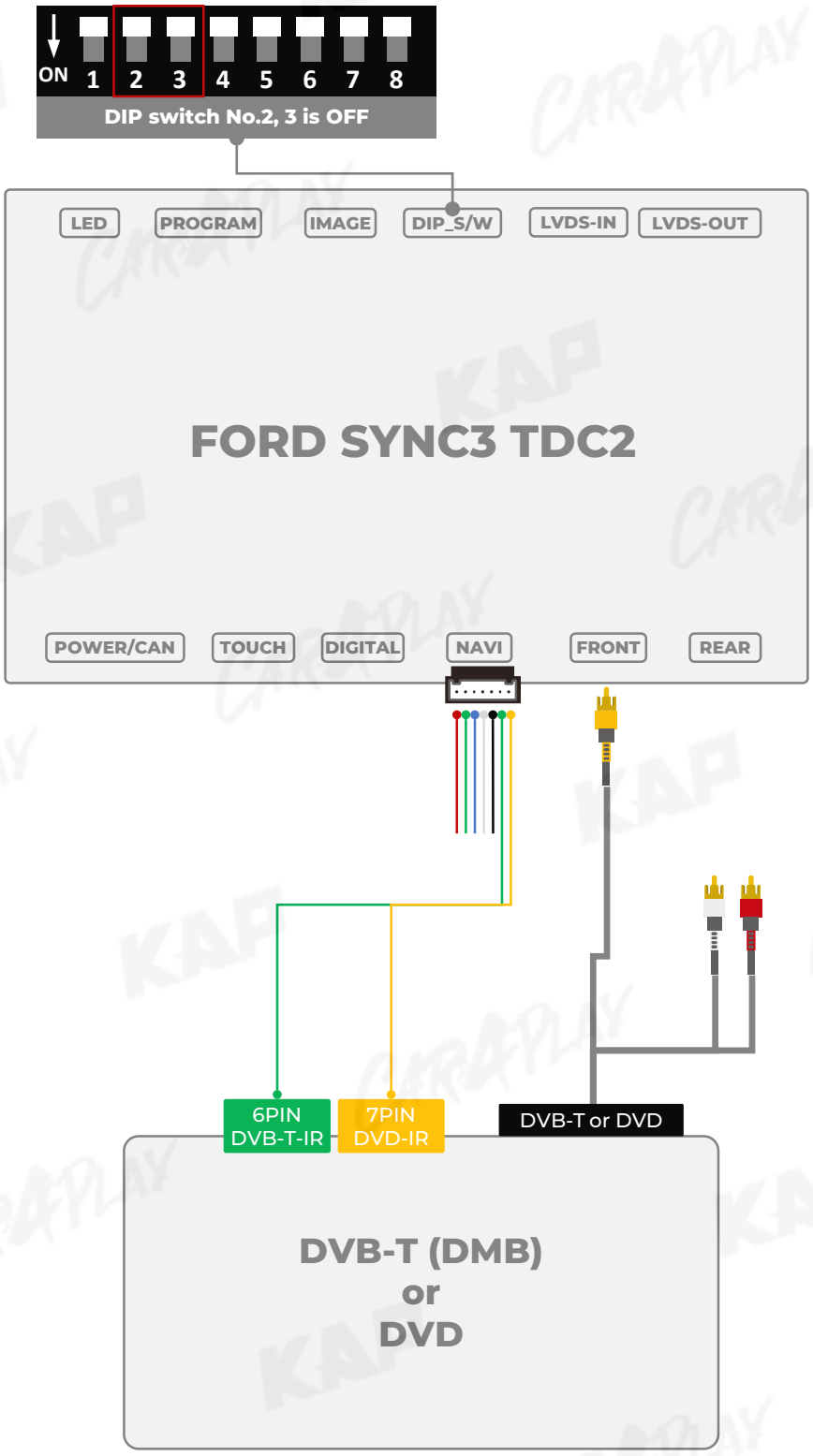
INSTALL MANUAL

RGB NAVI



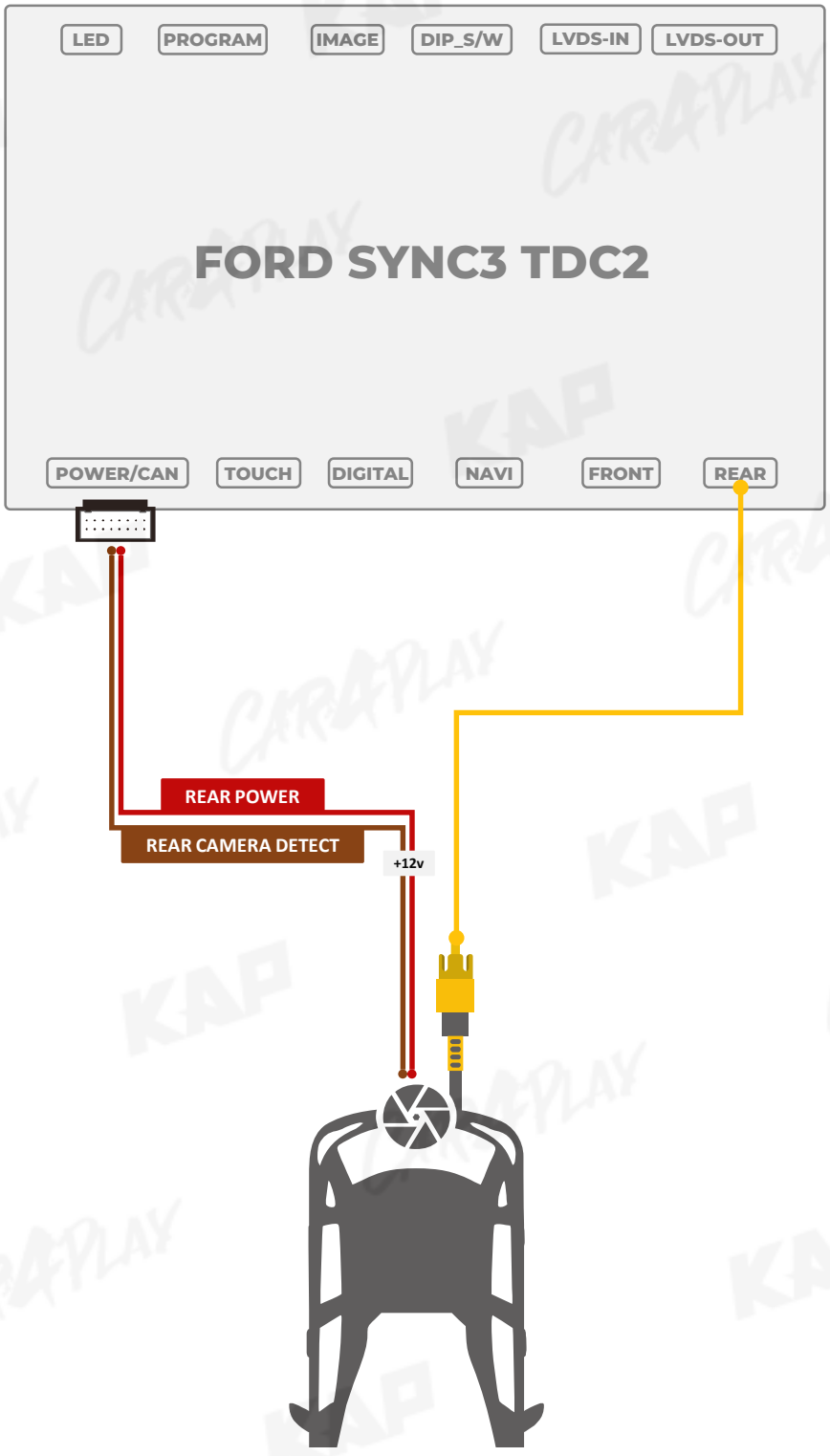
INSTALL MANUAL

DVB-T / DVD REMOTE CONTROL



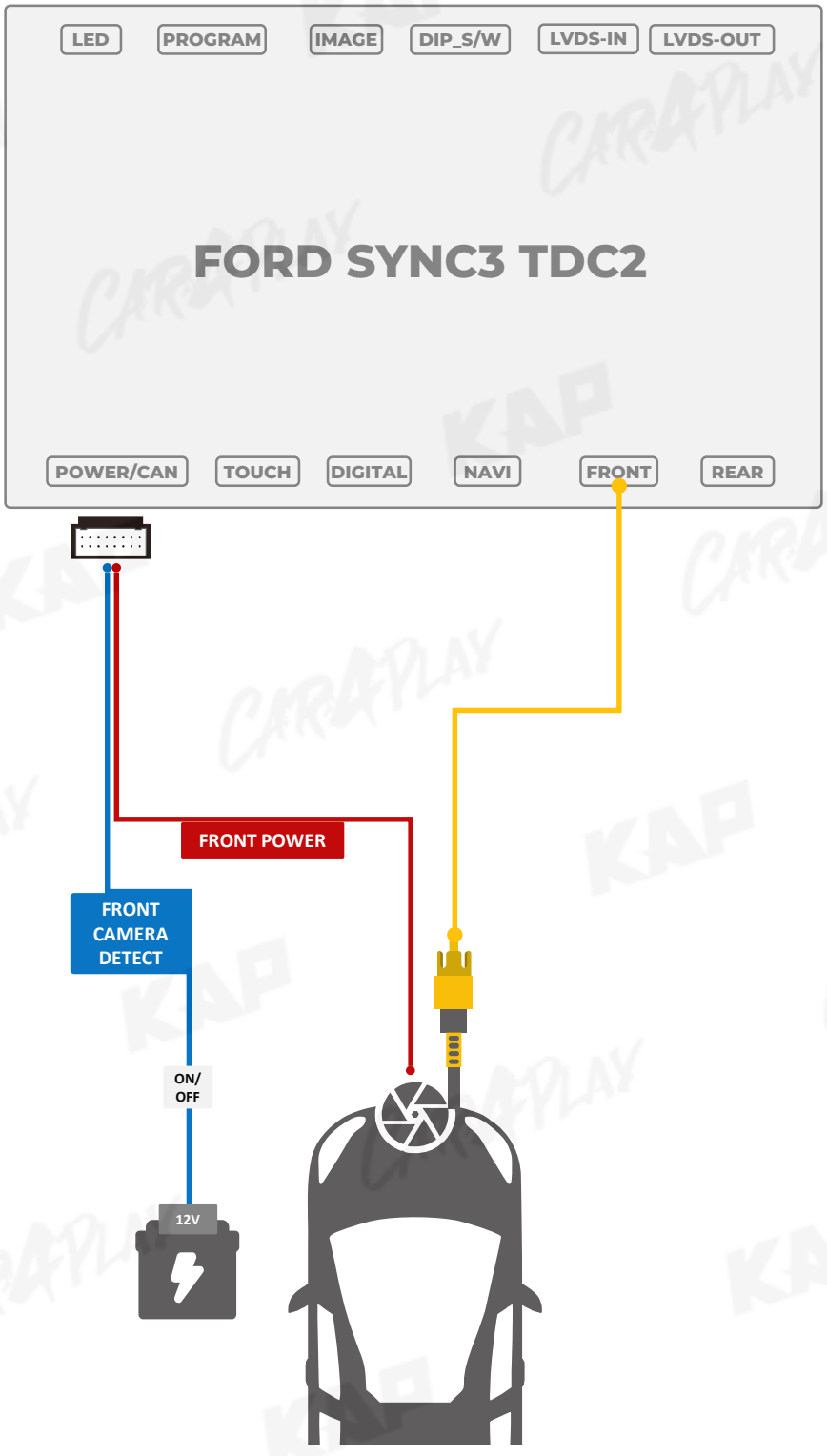
INSTALL MANUAL

External rear camera



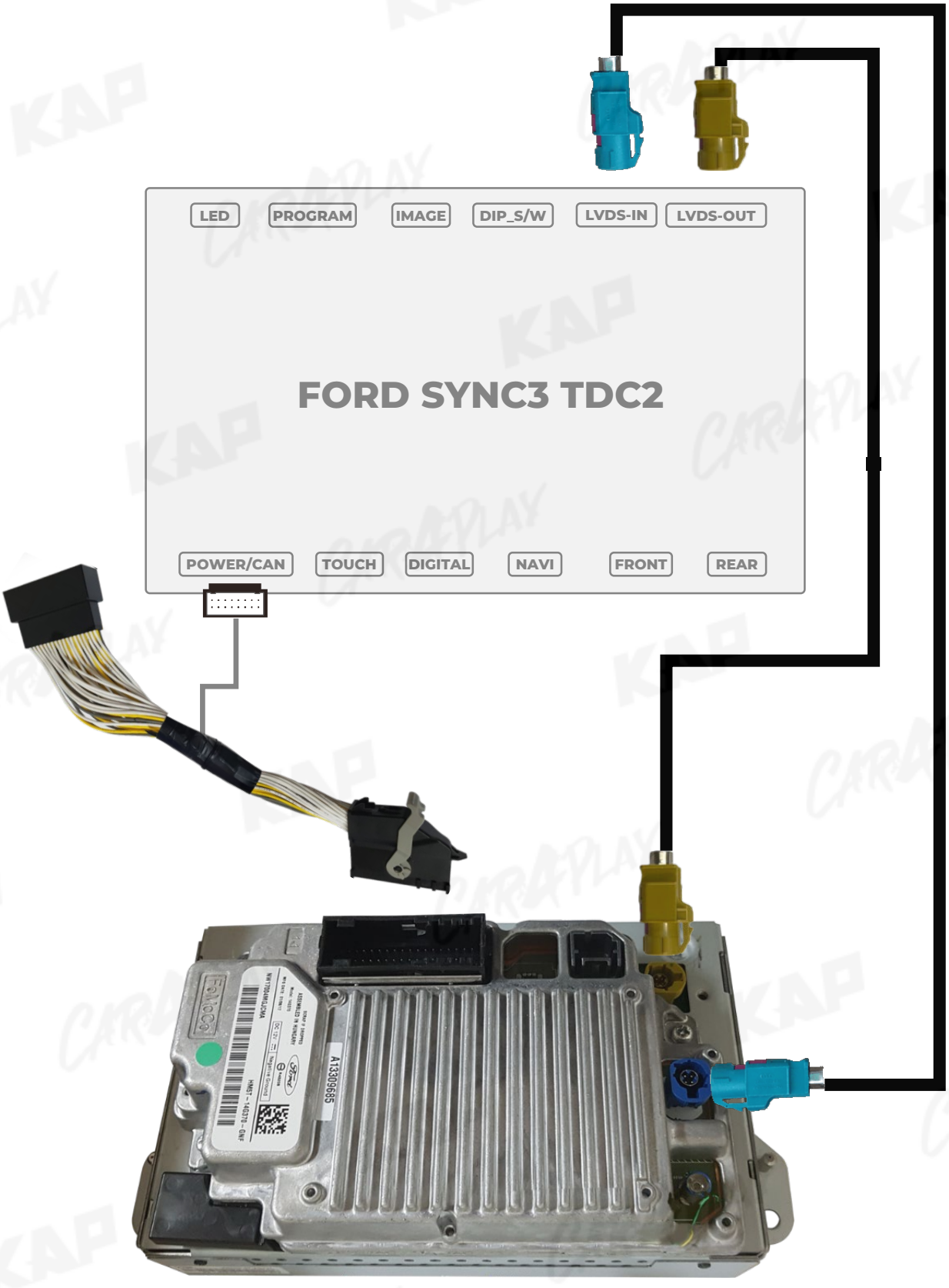
INSTALL MANUAL

External front camera



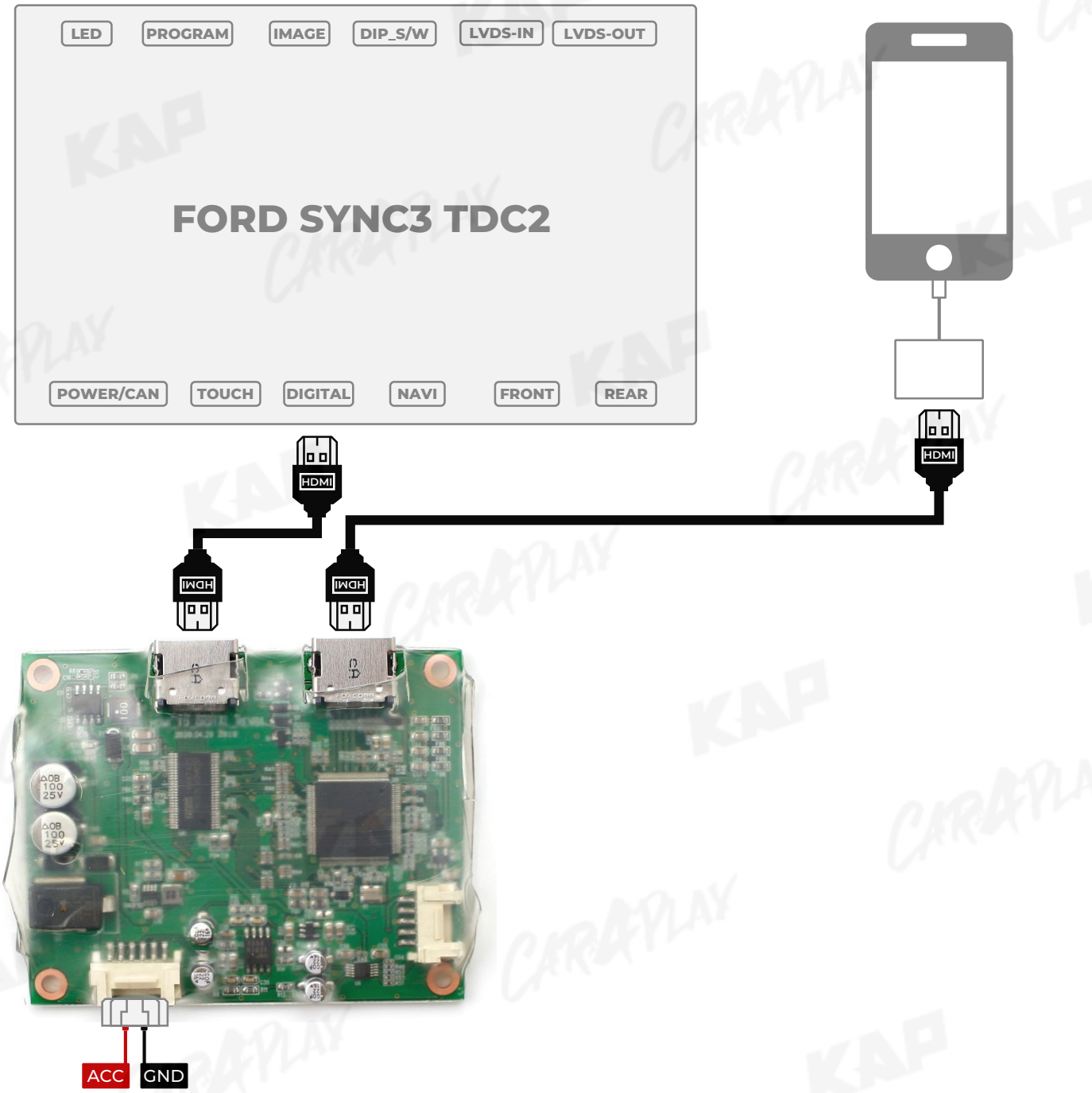
INSTALL MANUAL

LVDS connection



CONNECTION DIAGRAM

HDMI to RGB

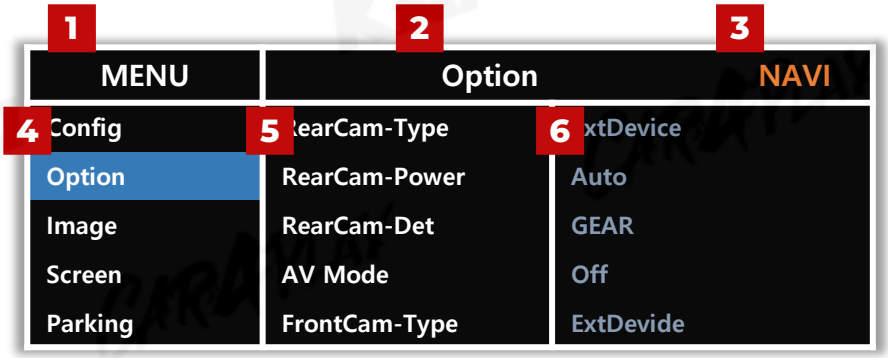


※ Please set in the OSD menu

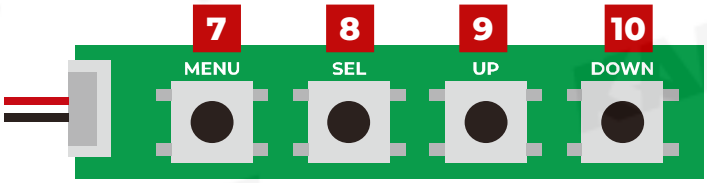
MENU	Option	NAVI
Config	NAVI-RGB	HDMI-720P
Option	DVB-T (DMB)	-
Image	DVD	-
Screen	RearCam	-
Parking	FrontCam	-

OSD CONTROL

Basic information



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

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	AVM VIDEO :	Setting the Connected RearCam Model
	Reset	Execute Cancel	Reset to default value of Config menu

OSD CONTROL

Option Menu

First Menu	Second Menu	Third Menu	Description
Option	NAVI COM	HMS FINE ：	Set up a 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	GEAR	Detected by CAN
		WIRE	Detected by Rear-Det Wire
	AV Mode	ON	Use “REAR” video input port as VIDOE input
		OFF	Disable feature
	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	CAN	Detected by CAN
		WIRE	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
	Reset	Execute	Option Menu all Reset

OSD CONTROL

Option Menu

First Menu	Second Menu	Third Menu	Description
Option	SteeringBtn-1	LEFT	Use the “LEFT” button on the right side of the steering wheel
		RIGHT	Use the “RIGHT” button on the right side of the steering wheel
		NAV	Use the “NAV” button on the right side of the steering wheel
		OFF	Disable feature
	SteeringBtn-2	ENTER	Use the “Enter” button on the right side of the steering wheel
		RETURN	Use the “Return” button on the right side of the steering wheel
		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
	ScrChg-Call	ON	Switch to OEM screen when bluetooth phone comes in, return to original when phone terminated
		OFF	Disable feature
	ScrChg_Climate	ON	When there is a change of air conditioning, it switches to OEM screen for 2 seconds and then returns to original state
		OFF	Disable feature
	ScrChg-Audio-Vol	ON	When there is a change in audio volume, it switches to OEM screen for 2 seconds and returns to original state
		OFF	Disable feature
	3D-COMB-REAR	ON	It shows the image quality of the rear camera screen better
		OFF	Disable feature
	Reset	Execute	Option Menu all Reset

OSD CONTROL

Image Menu

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

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

OSD CONTROL

Parking Menu

First Menu	Second Menu	Third Menu	Description
Parking	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

IR-Ctrl

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

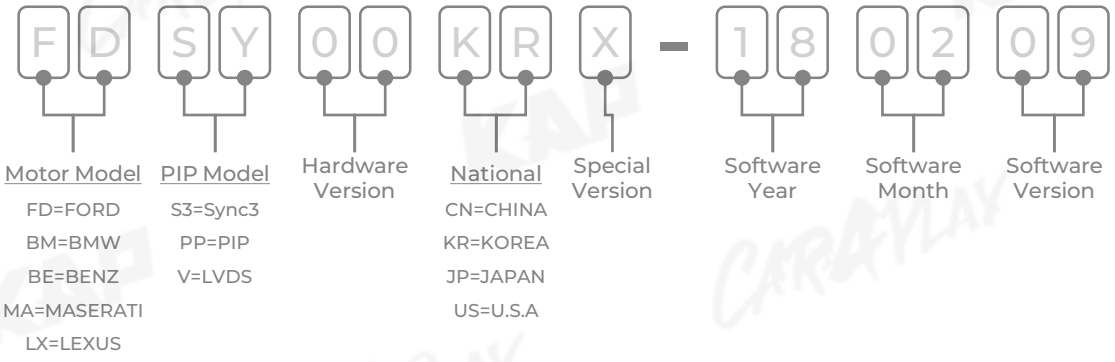
OSD Menu

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

OSD CONTROL

Utility Menu

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



Question and Answer

Q If there is a problem with the interface

- First, check the LED

  - Green LED blinking: No problem

  - Red LED: Bad interface

  - No LED: Check power and CAN connection

Q If the screen is black

- LVDS Cable is bad or bad contact

Q If the mode cannot be switched

- Check CAN connect

Q If the screen size ratio is not displayed properly

- Check the DIP switch vehicle settings

Q If you cannot switch to the rear screen

- Check the packing setting
- OSD Menu – option – RearCam-Det

Caution

The device must not be installed in where it interferes driving

- 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

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