



INSTRUCTION
MANUAL

VIDEO INTERFACE

DODGE RAM 2019 TDC3

DODGE, JEEP INTERFACE

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CAR COMPATIBILITY SHEET



BRAND	MODEL	SCREEN	YEAR
DODGE	RAM	12.0"	2019 ~
JEEP	Grand Cherokee	8.4"	2019 ~

COMPONENT



Interface



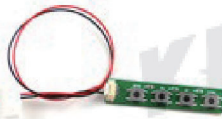
Power Cable



LVDS Cable



LVDS Extension Cable



OSD Board

► Warning

- Please contact your dealer if any component is missing.

INTERFACE SPEC

1 INPUT

- 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

- 1 x LVDS Output (LCD Operation)

3 TOUCH

- 1 x Virtual Analog Touch (Navigation System source)
- 1 x UART Digital Touch (Navigation System source)

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 ANALOG RGB

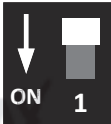



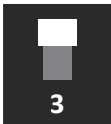
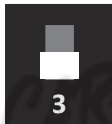


11 FRONT

- 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
4~6	No function		
7~8	Car Type		JEEP - Grand Cherokee 8.4" / 2019~
			DODGE - RAM 12.0" / 2019~

CONNECTOR PIN ASSIGNMENT



No	PORT	INFORMATION																																																						
1	POWER /CAN	<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>BATTERY</td> <td>2</td> <td>Red</td> <td>BATTERY</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 L</td> <td>6</td> <td>Purple</td> <td>CAN H</td> </tr> <tr> <td>7</td> <td>Blue</td> <td>CAN L</td> <td>8</td> <td>Red</td> <td>CAN H</td> </tr> <tr> <td>9</td> <td>Green</td> <td>CAN L</td> <td>10</td> <td>Orange</td> <td>CAN H</td> </tr> <tr> <td>11</td> <td>RED</td> <td>ACC POWER</td> <td>12</td> <td>Red</td> <td>REAR POWER</td> </tr> <tr> <td>13</td> <td>Red</td> <td>FRONT POWER</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> </tbody> </table>	No.	Color	Signal Assignment	No.	Color	Signal Assignment	1	Red	BATTERY	2	Red	BATTERY	3	Brown	REAR DET	4	Blue	FRONT DET	5	White	CAN L	6	Purple	CAN H	7	Blue	CAN L	8	Red	CAN H	9	Green	CAN L	10	Orange	CAN H	11	RED	ACC POWER	12	Red	REAR POWER	13	Red	FRONT POWER	14	Green	MODE	15	Black	GND	16	Black	GND
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BUTTON CONTROL

Change Mode to Interface Screen



RIGHT SWITCH

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

▶ **Warning**

- To use the steering wheel button, "Steering Wheel" must be "ON" in the OSD menu

INTERFACE CONTROL

Interface area



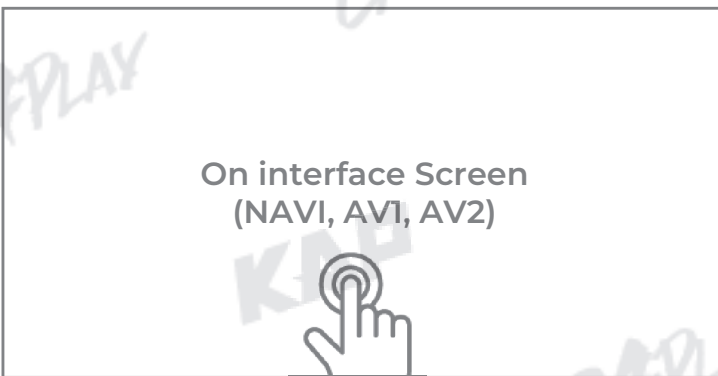
TOUCH CONTROL

Touch Calibration

MENU	Config	NAVI
OSD	Factory Reset	Execute Cancel
IR-Ctrl	Calibration	Execute Cancel
Utility	Version	Interface version

Select OSD menu> Utility> Calibration.

or



Press and hold the display for longer than 10 seconds.



Warning

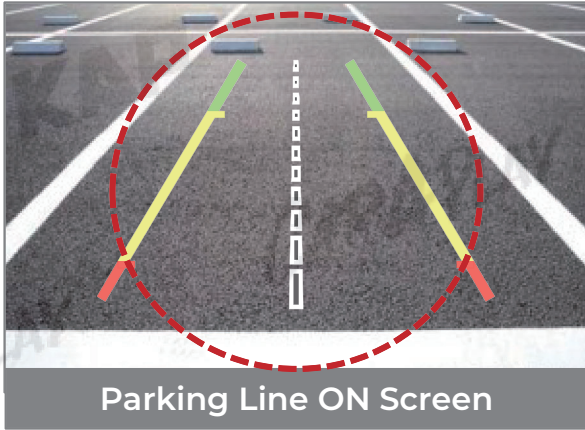
- Touch control icon in DVBT / DVD



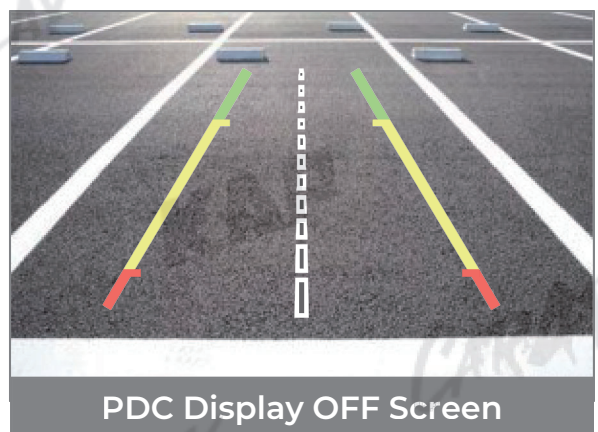
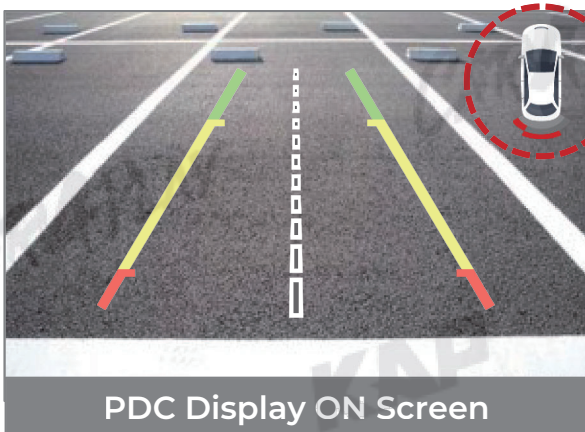
PARKING CONTROL

Parking Line / OPS Display

1 Parking Line Display



2 PDC Display



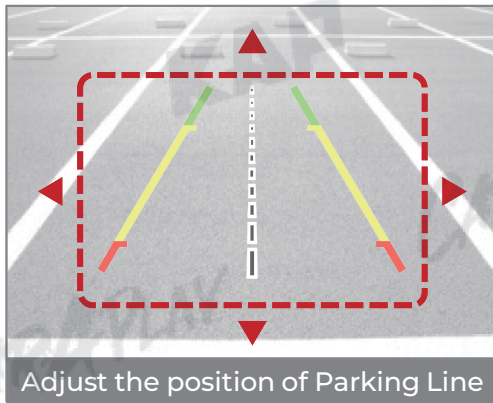
PARKING CONTROL

Parking Settings

3 Horizontal / Vertical

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

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



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

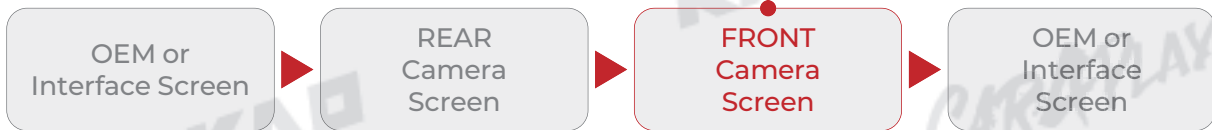
PARKING CONTROL

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)



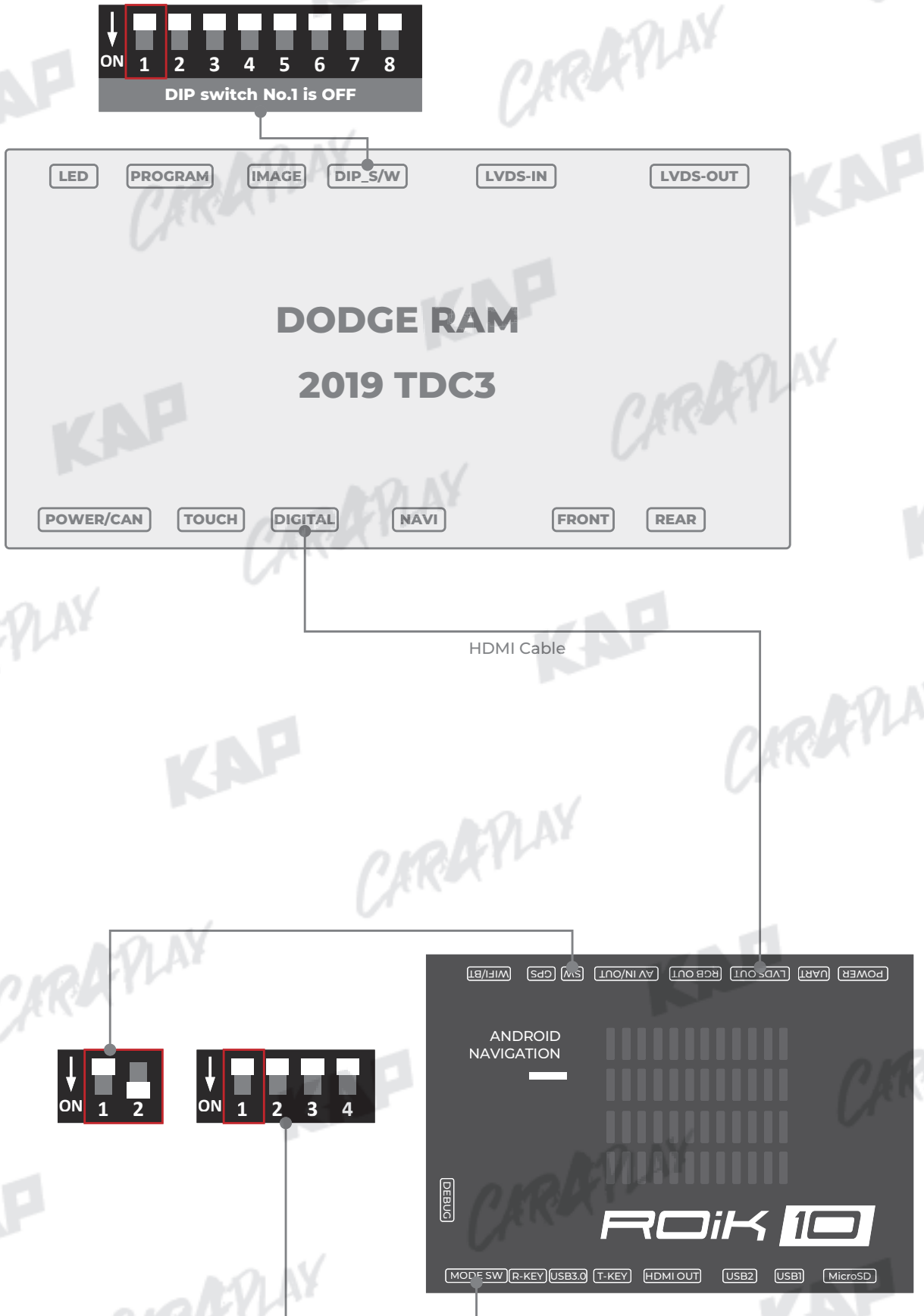
2 FrontCam-RcvOpt : OFF (0s)

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



INSTALL MANUAL

Digital NAVI Connection (ROiK-10)



INSTALL MANUAL

Digital NAVI Connection (ROiK-10)

After completing the cable connection, OSD and device setting must be completed.

1 Interface Settings (Control with OSD board)

MENU	Config	NAVI
Config	NAVI-RGB	Off
Option	DVB-T (DMB)	DIGITAL-ROIK
Image	DVD	
Screen	Reset	

Screen output settings

• Config ▶ NAVI RGB ▶ DIGITAL-ROIK

MENU	Option	NAVI
Config	UI DVB-T (DMB)	Off
Option	ScrChg - Btn	GU
Image	NAVI COM	
Screen	Reset	

UART touch setting

• Option ▶ NAVI COM ▶ GU

2 Navigation Settings (Control with Mouse)

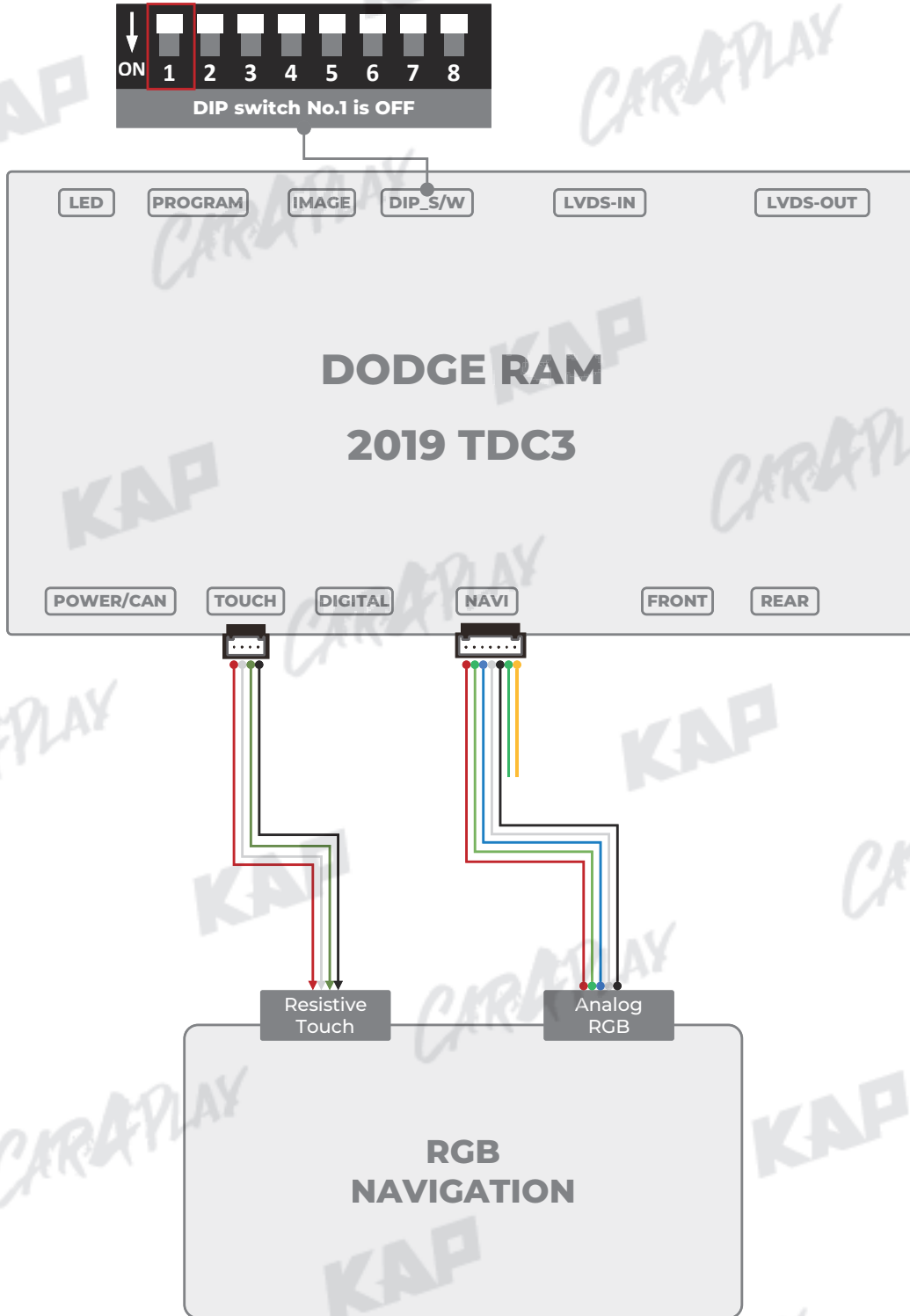
Device Settings		RESET SETTINGS	RESTART DEVICE
External Speaker	<input checked="" type="checkbox"/>	Analog RGB Settings	
Softkey Enable	<input checked="" type="checkbox"/>	Touch Calibration	
Softkey Position(Side/Bottom)	<input checked="" type="checkbox"/>	Set User Boot Logo	
Softkey Auto Hiding	OFF		
Startup App	OFF		
Select Interface	GU		
Cooling Fan	<input checked="" type="checkbox"/>		
HDMI Out	<input type="checkbox"/>		

UART touch setting

• Device Setting ▶ Select Interface ▶ GU

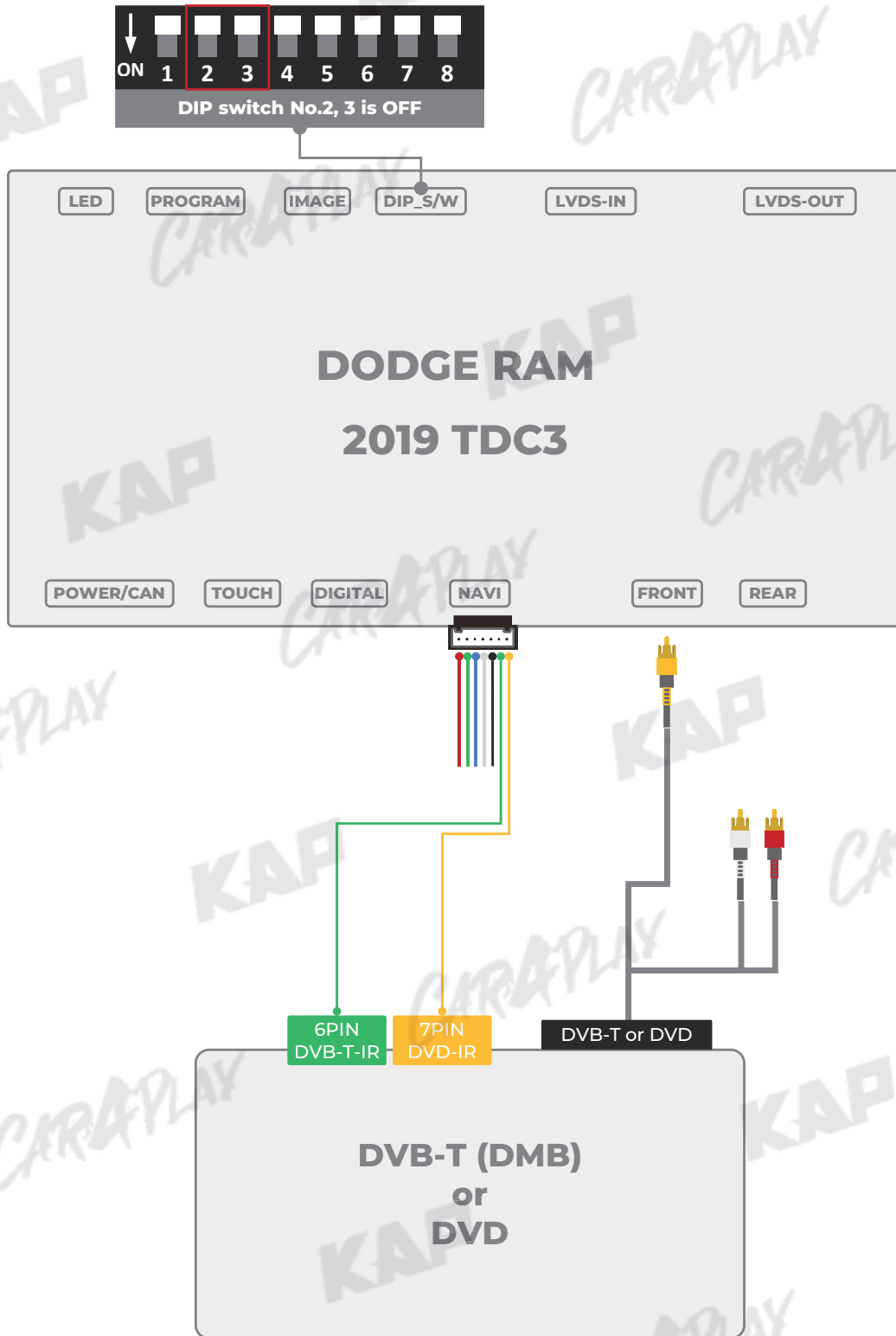
INSTALL MANUAL

RGB NAVI Connection



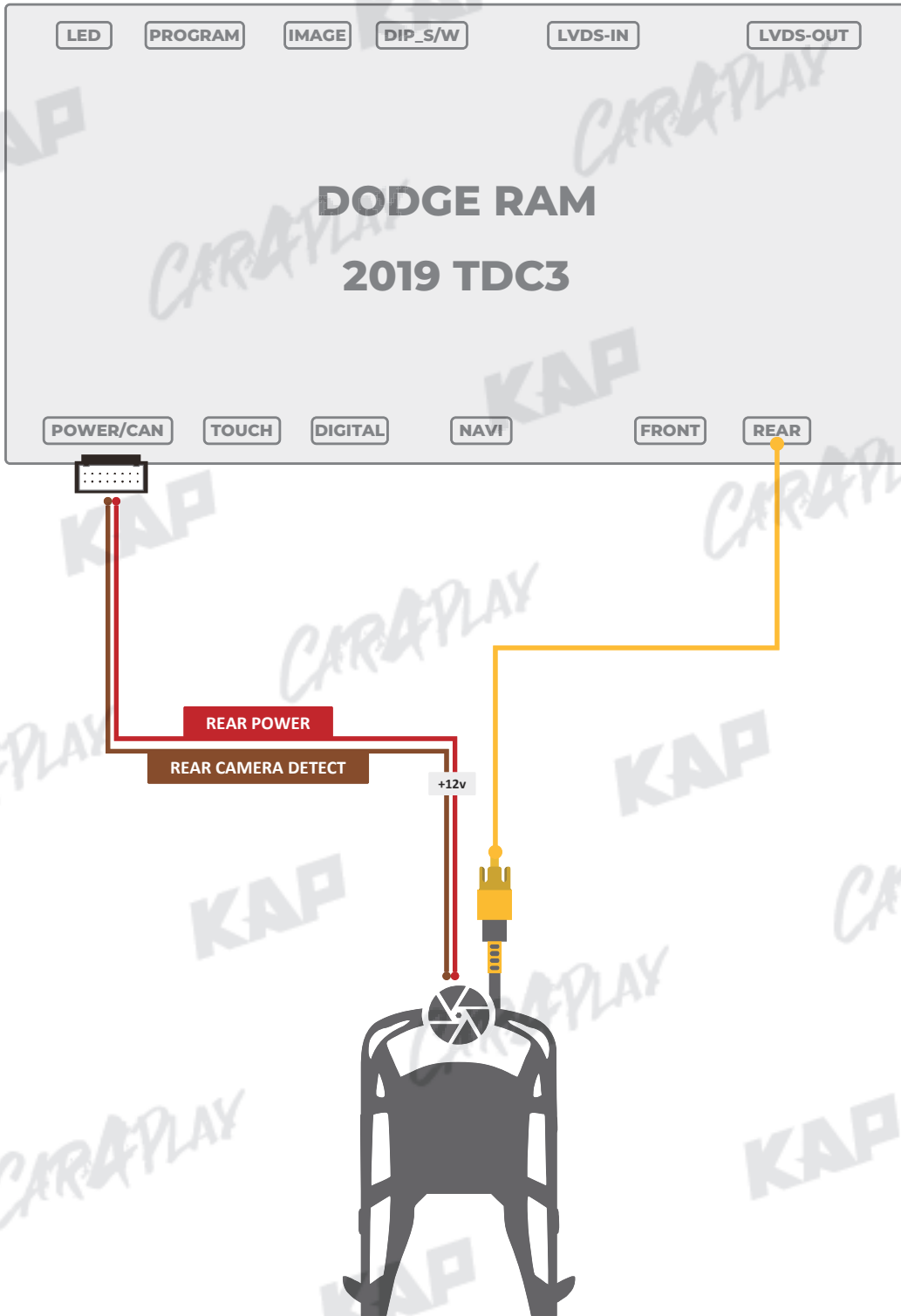
INSTALL MANUAL

DVB-T / DVD REMOTE CONTROL Connection



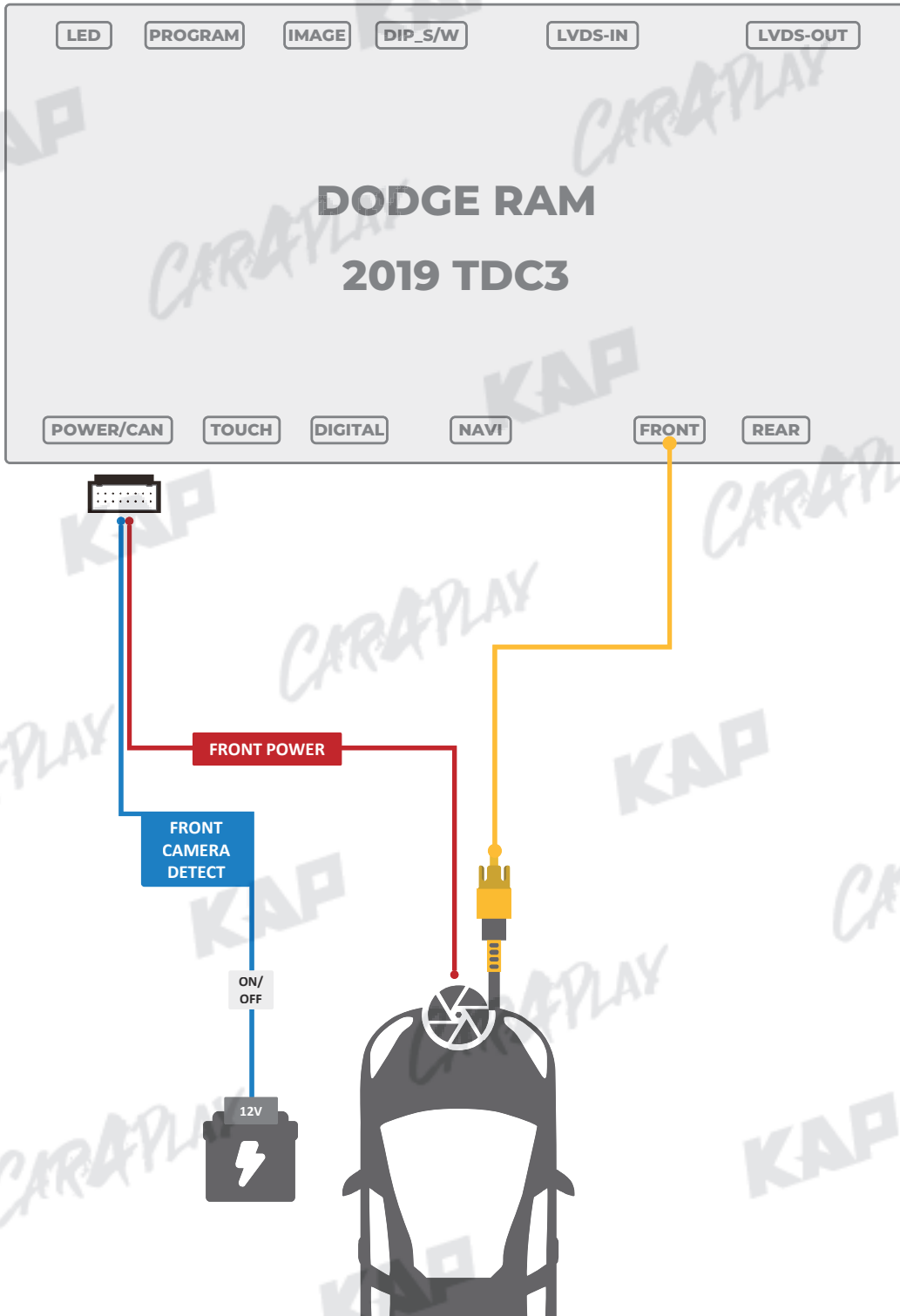
INSTALL MANUAL

External rear camera



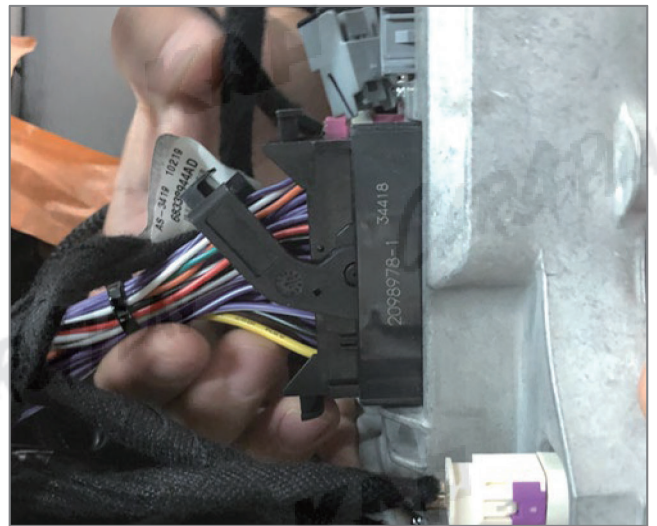
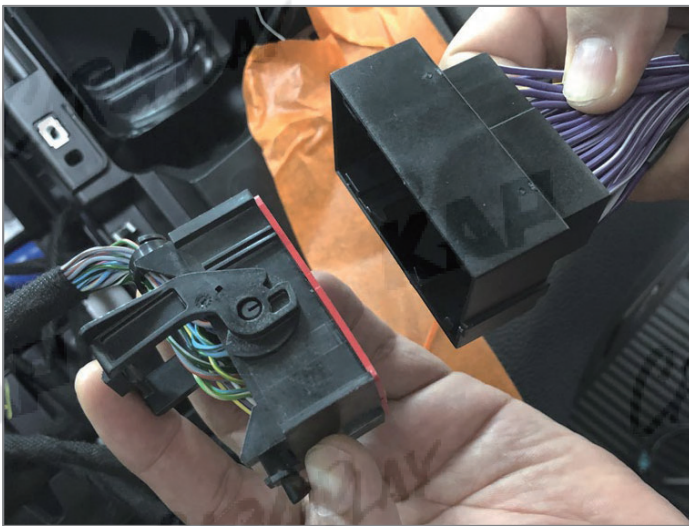
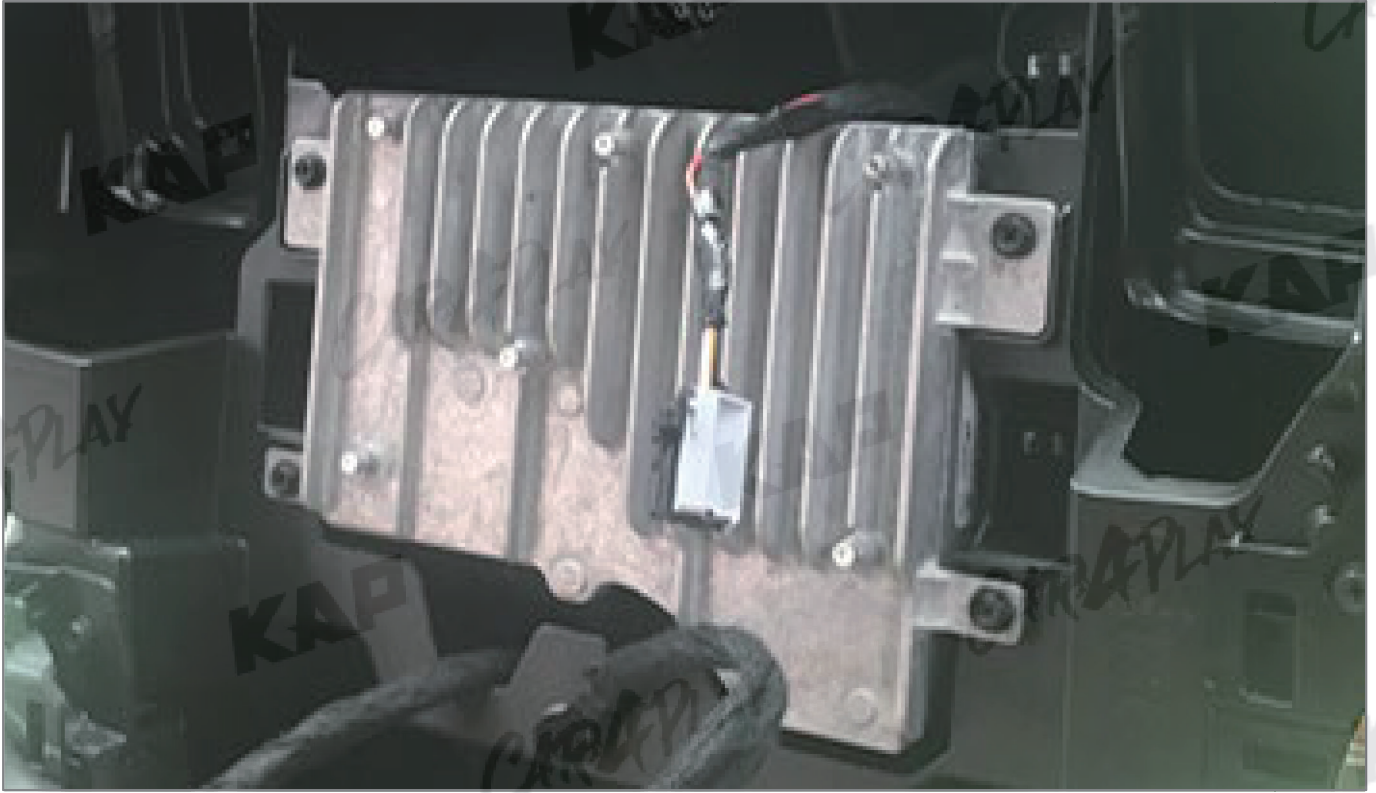
INSTALL MANUAL

External front camera



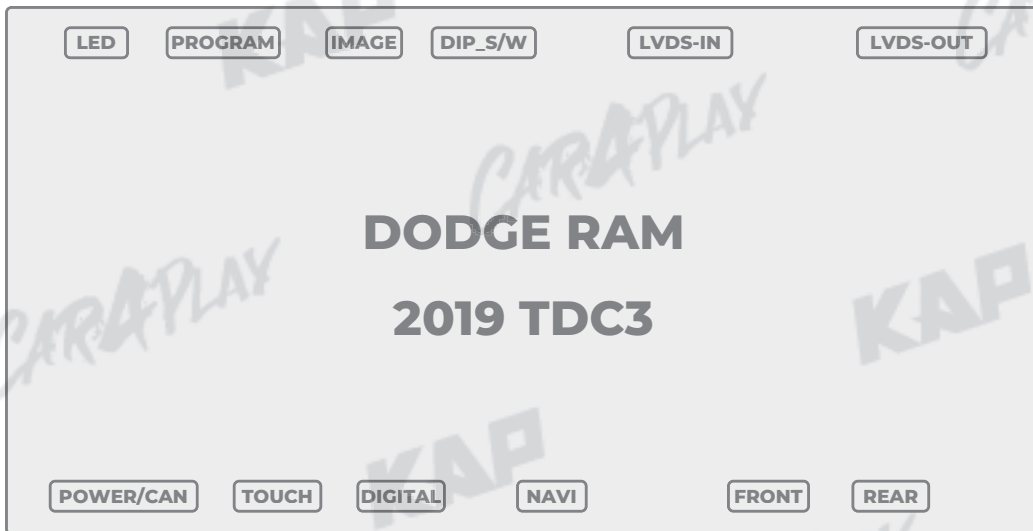
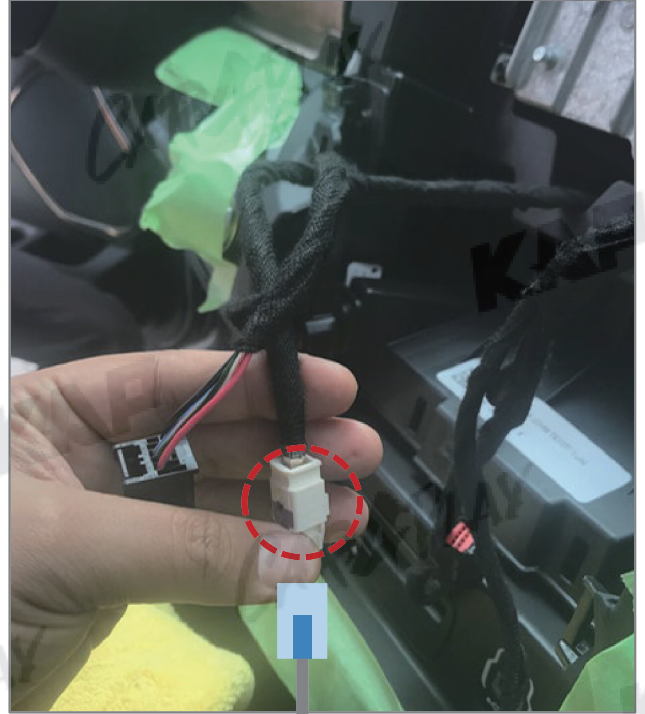
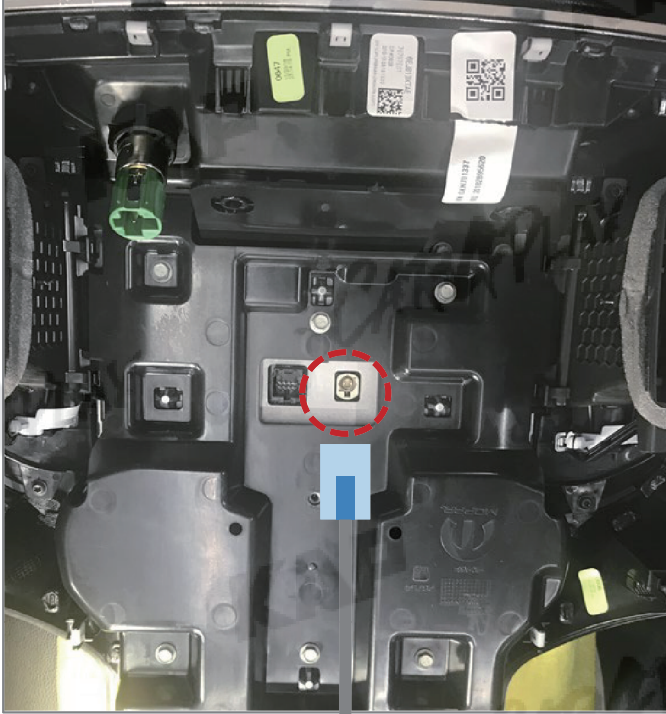
INSTALL MANUAL

POWER/CAN connection



INSTALL MANUAL

LVDS connection



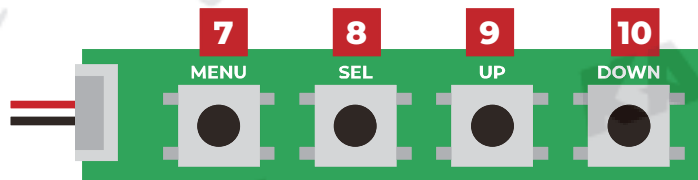
OSD CONTROL

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

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 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
	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
	AV Mode	ON	Use "REAR" video input port as VIDEOE input
		OFF	Disable feature
	Steering WheelBtn	ON	Switching screen by using Steering wheel button
		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	When a Bluetooth phone comes in, the screen is forcibly switched
		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
	OPS Display	ON	Show OPS
		OFF	Do not show OPS
	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

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

OSD CONTROL

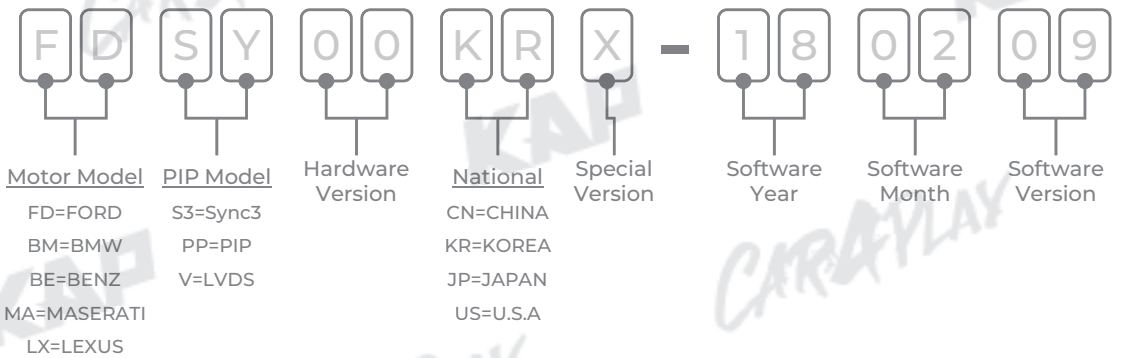
IR-Ctrl Menu

First Menu	Second Menu	Third Menu	Description
IR-Ctrl	DVB-T(DMB)	Sel	
		Learn	
		Cancel	
	DVD	Sel	
		Learn	
		Cancel	
Notice	<p>In order to work with the IR learning function, a separate IR cable is required.</p> <ol style="list-style-type: none"> 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

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)





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