INSTRUCTION
MANUAL

VIDEO INTERFACE

MB 2010 PAS DC3

MERCEDES BENZ NTG4.5 INTERFACE

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CONTACT

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CAR COMPATIBILITY SHEET

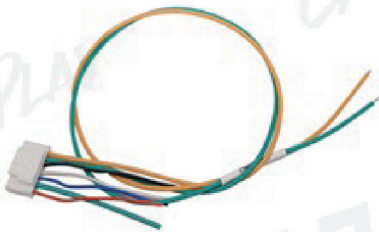| BRAND	MODEL	SCREEN	YEAR
Mercedes Benz	A - Class	5.8 / 7˝	2010~
	B - Class	5.8 / 7˝	2010~2015
	C - Class	5.8 / 7˝	2010~2014
	E - Class	5.8 / 7˝	2010~
	G - Class	7˝	2010~
	GLK	5.8 / 7˝	2010~
	SLK	7˝	2010~

COMPONENT

INTERFACE

POWER CABLE

LVDS CABLE

RGB NAVI 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
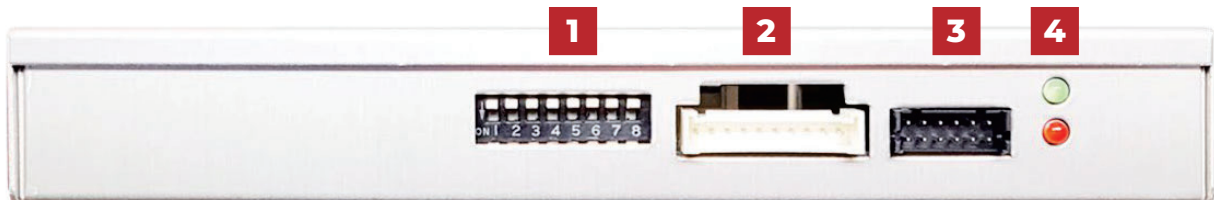
3 TOUCH

- UART DIGITAL (OEM JOG CONTROL)

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 DIP SWITCH

2 PROGRAM
- OSD connection

3 IMAGE

4 LED
- Interface error check

5 POWER/CAN

6 DIGITAL RGB

7 ANALOG RGB

8 VIDEO
- DVB-T or DVD IN

9 REAR
- REAR CAMERA IN

10 LVDS OUT

11 LVDS IN

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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	CAN IN/OUT	Not use	USE
6	Car Type	7-INCH Display	
7		5.8-INCH Display	
8			

▶ Warning

▪ To use KPLAY, be sure to turn Dip-Switch No.5 ON (▼)

CONNECTOR PIN ASSIGNMENT

No	PORT	INFORMATION					
1	POWER /CAN						

No.	Color	Signal Assignment	No.	Color	Signal Assignment
1	Red	ACC	2	Red	ACC
3	Brown	REAR DET	4		
5	Green	CAN1-L	6	Orang	CAN1-H
7	Blue	CAN2-L	8	Red	CAN2-H
9	White	CAN3-L	10	Purple	CAN3-H
11			12	Red	REAR VCC
13			14		
15	Black	GND	16	Black	GND

2 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

BACK

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

▶ Warning

■   Screen change sequence : OEM > NAVI > AV > OEM

PARKING CONTROL

Parking Line / OPS Display

1 **Parking Line Display**
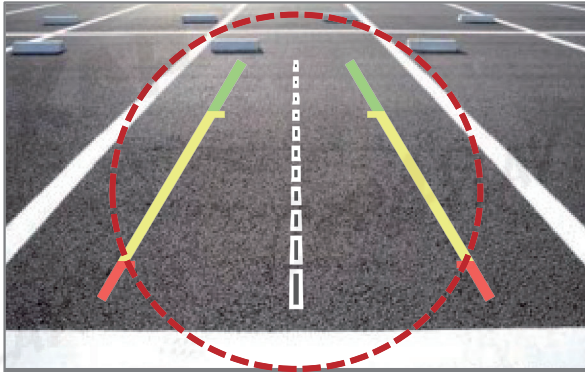
Parking Line ON Screen

Parking Line OFF Screen

2 **PDC Display**
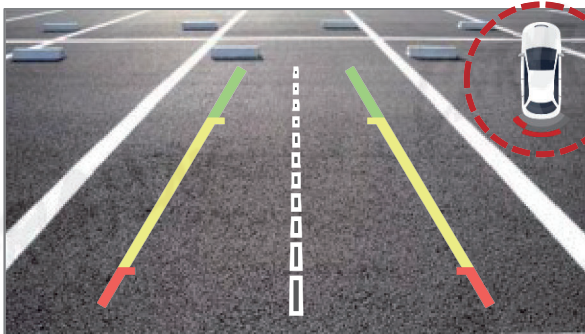
PDC Display ON Screen
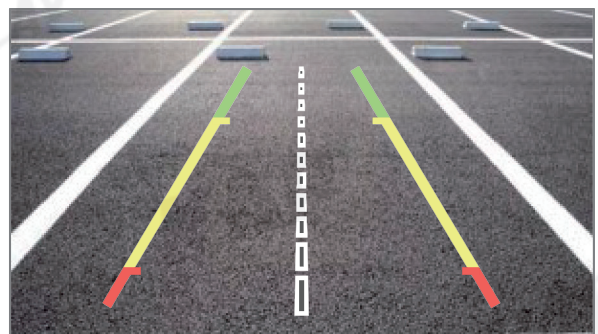
PDC Display OFF Screen

DVB-T / DVD CONTROL

UI ON/OFF with OSD MENU

MENU	UI DVB-T(DMB)	OEM		MENU	UI DVD	OEM
Config	SteeringWheelBtn	Off		Config	SteeringWheelBtn	Off
Option	BookMarkBtn	Off		Option	BookMarkBtn	Off
Image	UI DVB-T(DMB)	On Off		Image	UI DVB-T(DMB)	On
Screen	UI DVD	On		Screen	UI DVD	On Off
Parking	Reset	Execute Cancel		Parking	Reset	Execute Cancel

NO	BUTTON	OPERATION	UI	FUNCTION
1	JOG	Press	ON	Long press to DVB-T UI on Short press to Selection
2		Press upward	OFF	(DVB-T Only) Short press to channel Up (DVB-T Only) Long press to SCAN
3		Press down	OFF	(DVB-T Only) Short press to channel Down
4		Press left	ON	Move UI Left
5		Press right	ON	Move UI Right

▶ Warning

▪   DVBT / DVD UI ICON

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INSTALL MANUAL

DIGITAL NAVI CONNECTION (ROIK-10)

ON ↓ 1 2 3 4 5 6 7 8

DIP switch No.1 is OFF

| LED | IMAGE | PROGRAM | DIP_S/W |

MB 2010 PAS DC3

VIDEO INTERFACE

| POWER/CAN | DIGITAL | NAVI | FRONT | REAR | LVDS-IN | LVDS-OUT |

HDMI Cable

ON ↓ 1 2   ON ↓ 1 2 3 4

| WIFI/BT | GPS | SW | AV IN/OUT | RGB OUT | LVDS OUT | UART | POWER |

ANDROID
NAVIGATION

DEBUG

ROIK 10

| MODE SW | R-KEY | USB3.0 | T-KEY | HDMI OUT | USB2 | USB1 | MicroSD |
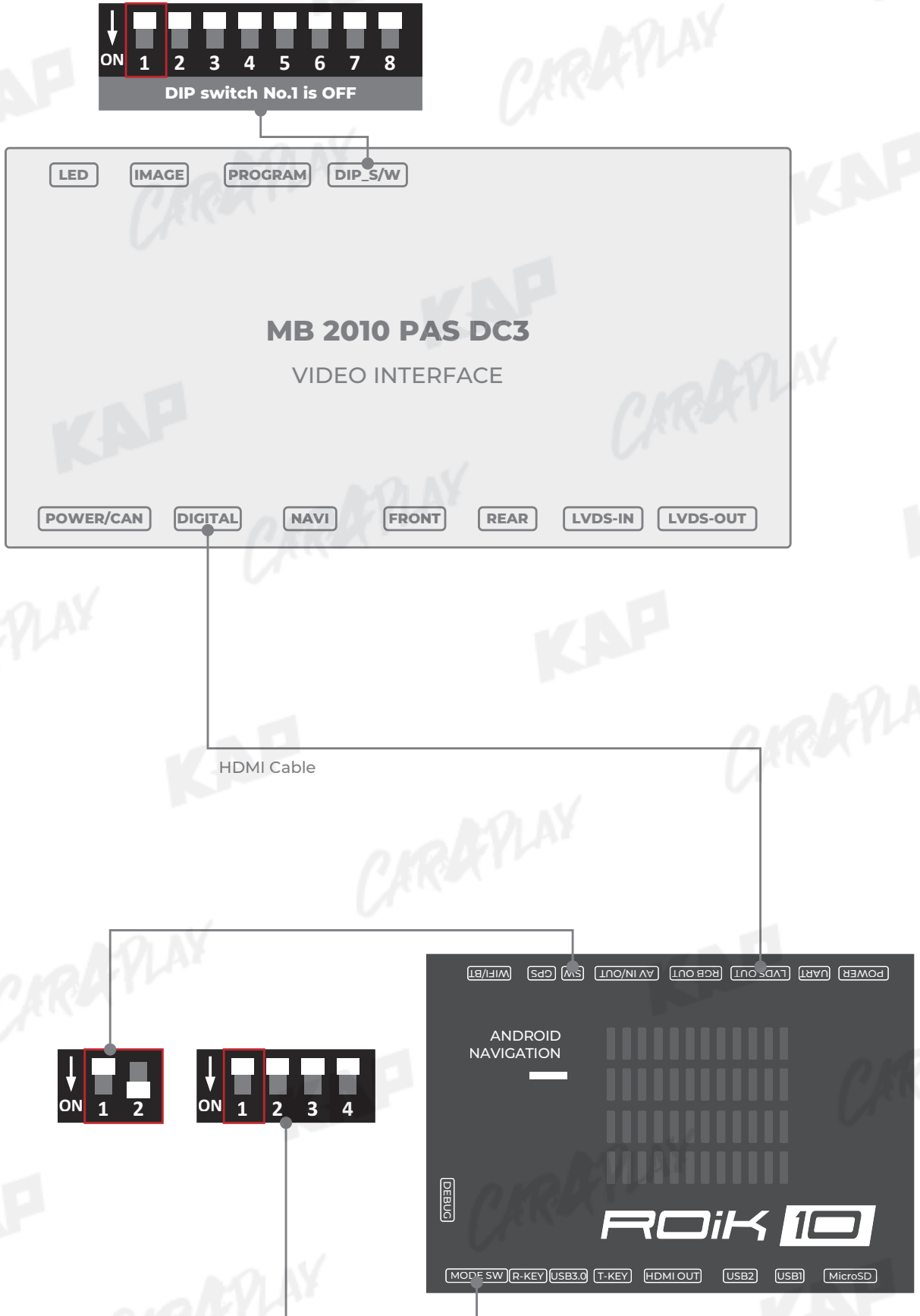
INSTALL MANUAL

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
Image	DVD	
Screen	Reset	

Screen output settings

- Config ▶ NAVI RGB ▶ DIGITAL

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	☑	Analog RGB Settings
Softkey Enable	☑	Touch Calibration
Softkey Position(Side/Bottom)	☑	Set User Boot Logo
Softkey Auto Hiding	OFF	
Startup App	OFF	
Select Interface	GU	
Cooling Fan	☑	
HDMI Out	☐	

UART touch setting

- Device Setting ▶ Select Interface ▶ GU

INSTALL MANUAL

RGB NAVI CONNECTION

ON ↓

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

DIP switch No.1 is OFF

LED   IMAGE   PROGRAM   DIP_S/W

MB 2010 PAS DC3

VIDEO INTERFACE

POWER/CAN   DIGITAL   NAVI   FRONT   REAR   LVDS-IN   LVDS-OUT

Analog RGB

RGB NAVIGATION
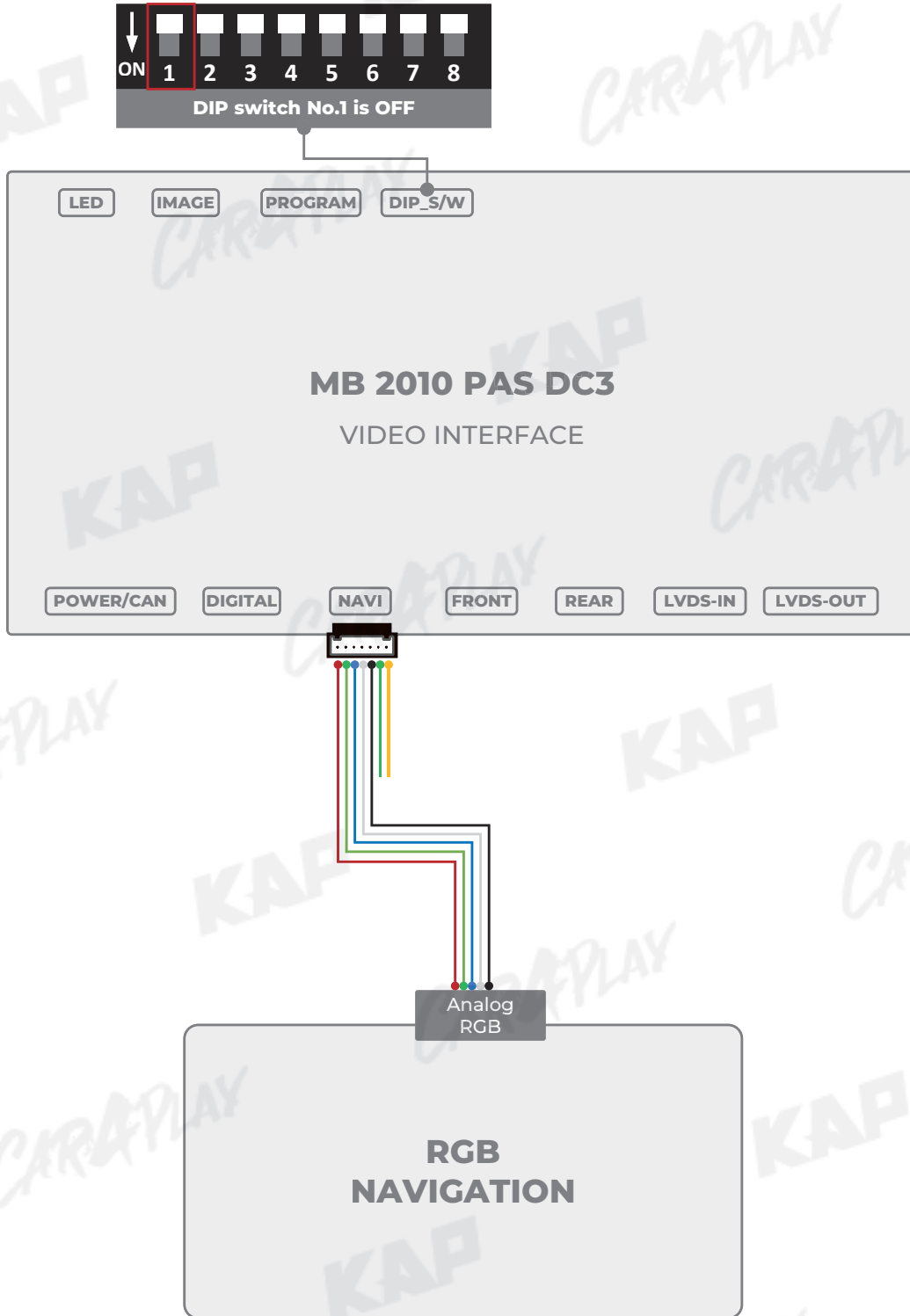
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DVB-T / DVD REMOTE CONTROL CONNECTION

ON 1 2 3 4 5 6 7 8

DIP switch No.2, 3 is OFF

LED   IMAGE   PROGRAM   DIP_S/W

MB 2010 PAS DC3

VIDEO INTERFACE

POWER/CAN   DIGITAL   NAVI   FRONT   REAR   LVDS-IN   LVDS-OUT

6PIN
DVB-T-IR

7PIN
DVD-IR

DVB-T or DVD

DVB-T (DMB)
or
DVD
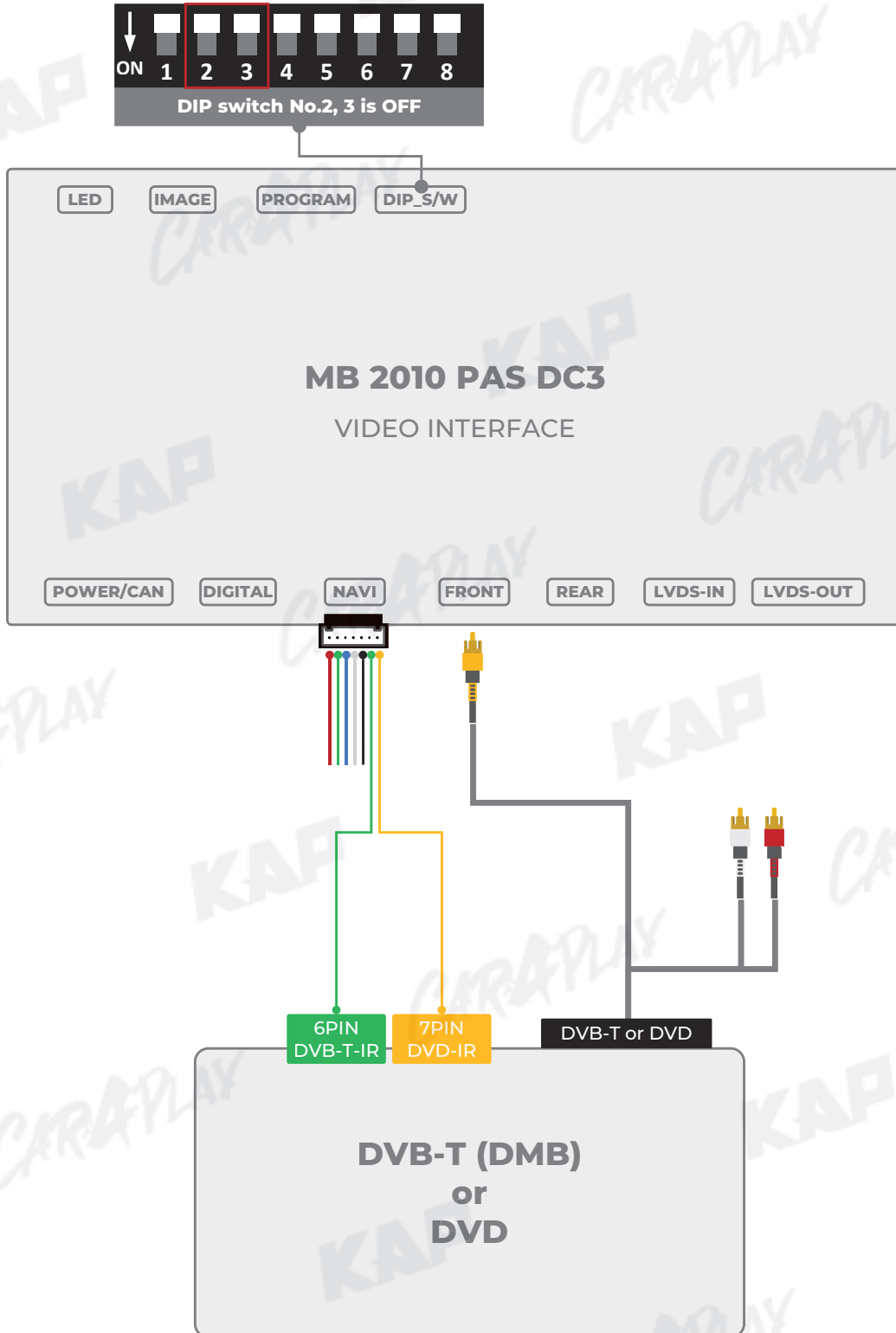
INSTALL MANUAL

EXTERNAL REAR CAMERA
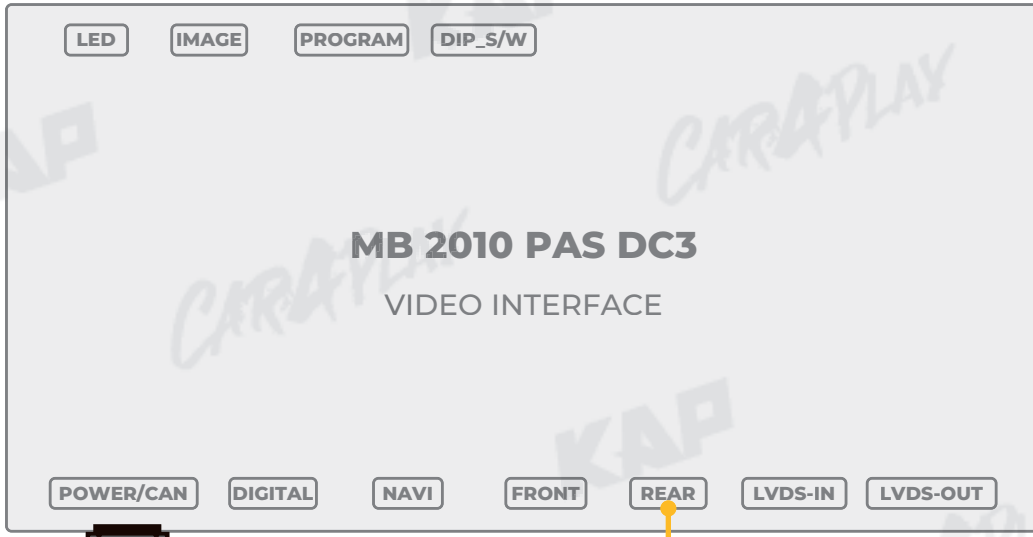
- Option ▶ RearCam-Type ▶ ExtDevice

INSTALL MANUAL

INSTALLATION LVDS CONNECTION

| LED | IMAGE | PROGRAM | DIP_S/W |

MB 2010 PAS DC3
VIDEO INTERFACE

| POWER/CAN | DIGITAL | NAVI | FRONT | REAR | LVDS-IN | LVDS-OUT |

OEM LVDS Cable

HEAD UNIT (COMMANDER)

LDVS Cable provided

MONITOR

INSTALL MANUAL

INSTALLATION LVDS CONNECTION

1

Remove OEM White connector

2

Push the lock to disconnect the connector

3

Attach the connector with care in the direction of the arrow

4

※ Be sure to note the arrows!
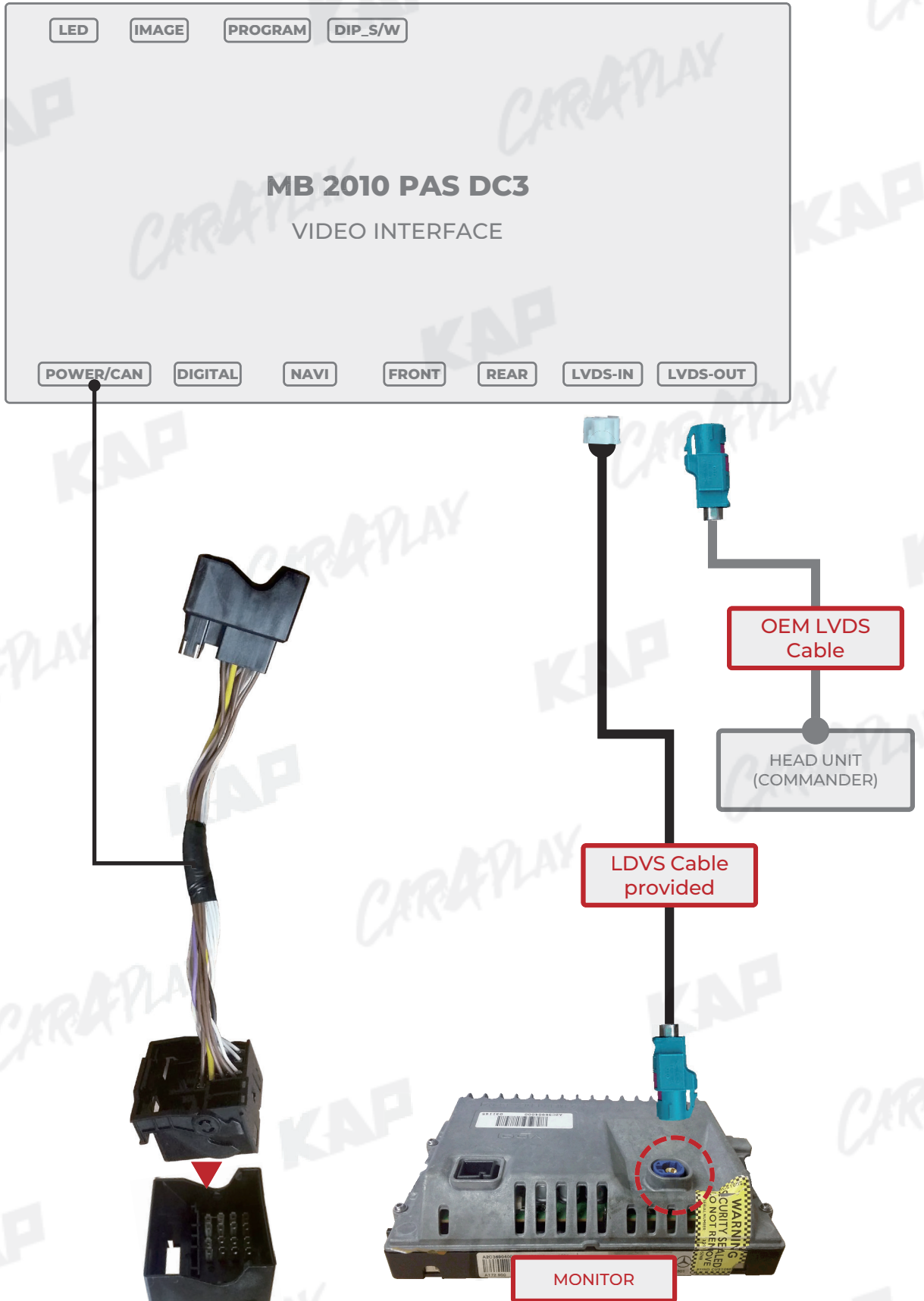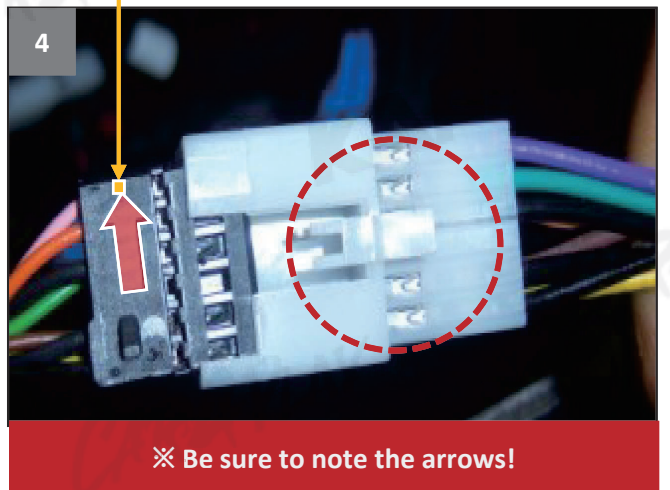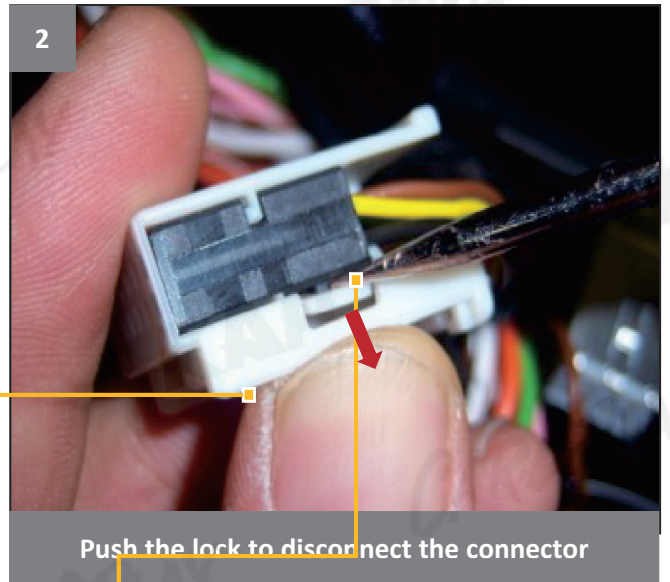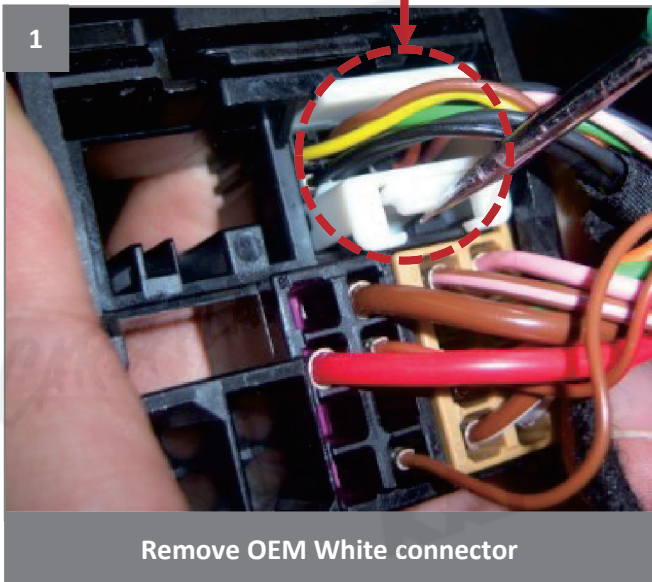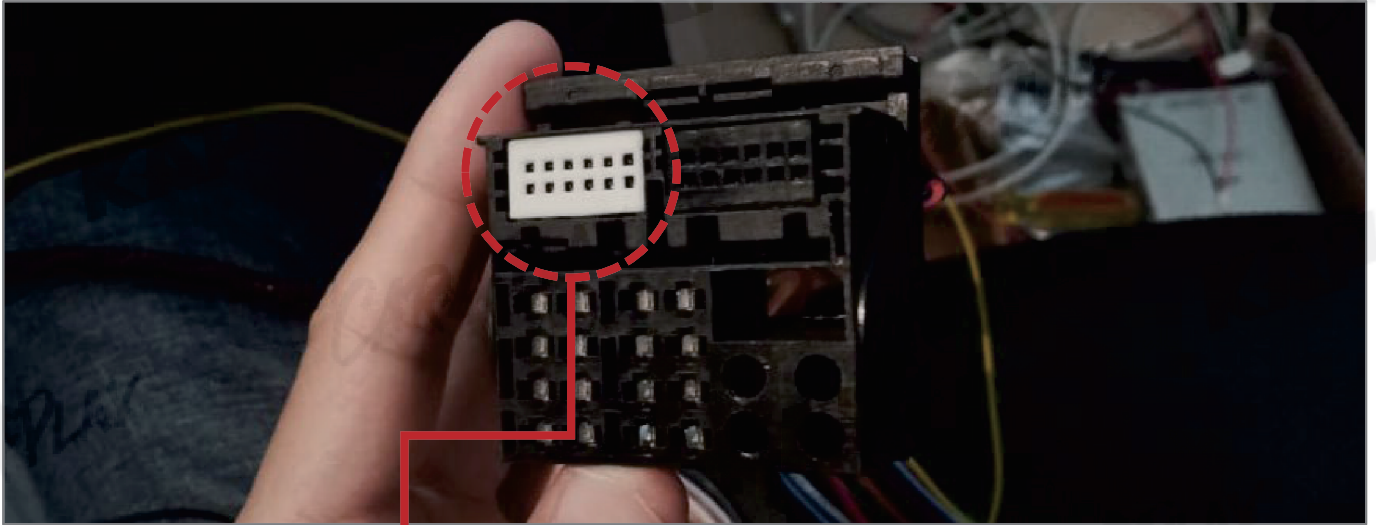
INSTALL MANUAL

INSTALLATION PAS-CAN CONNECTION

| LED | IMAGE | PROGRAM | DIP_S/W |

MB 2010 PAS DC3
VIDEO INTERFACE

| POWER/CAN | DIGITAL | NAVI | FRONT | REAR | LVDS-IN | LVDS-OUT |
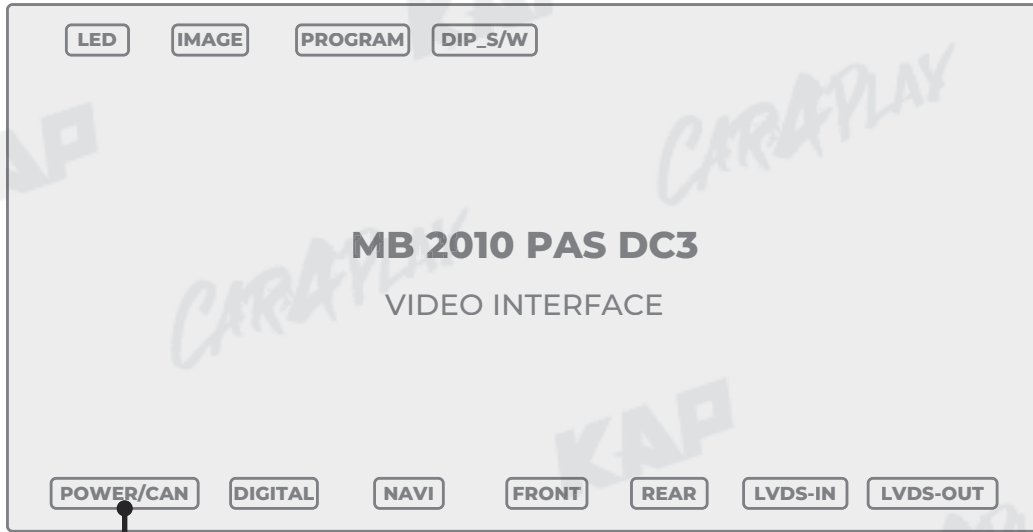
16. GND (Black)
15. GND (Black)
14. N.C
13. N.C
12. Rear-Power (Red)
11. N.C
10. CAN3-H (Violet)
9. CAN3-L (White)
8. CAN2-H (Red)
7. CAN2-L (Blue)
6. CAN1-H (Orange)
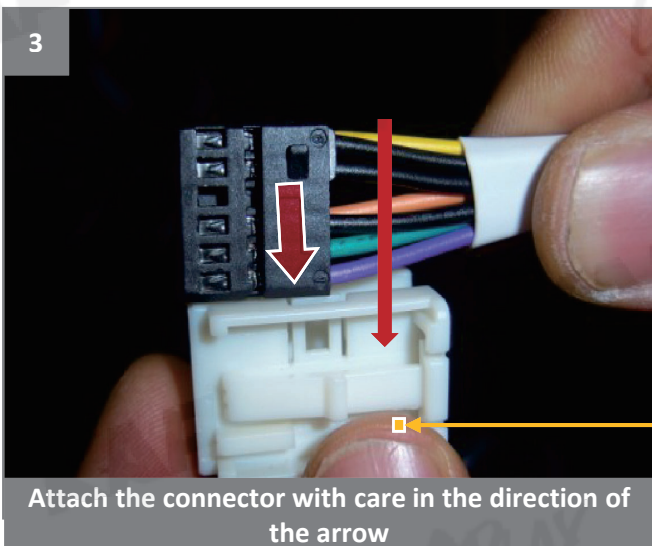5. CAN1-L (Green)
4. N.C
3. Rear-Camera Detect (Brown)
2. ACC (Red)
1. ACC (Red)

13 14 15 16
9 10 11 12
5 6 7 8
1 2 3 4

11
9

CAN HIGH

CAN LOW
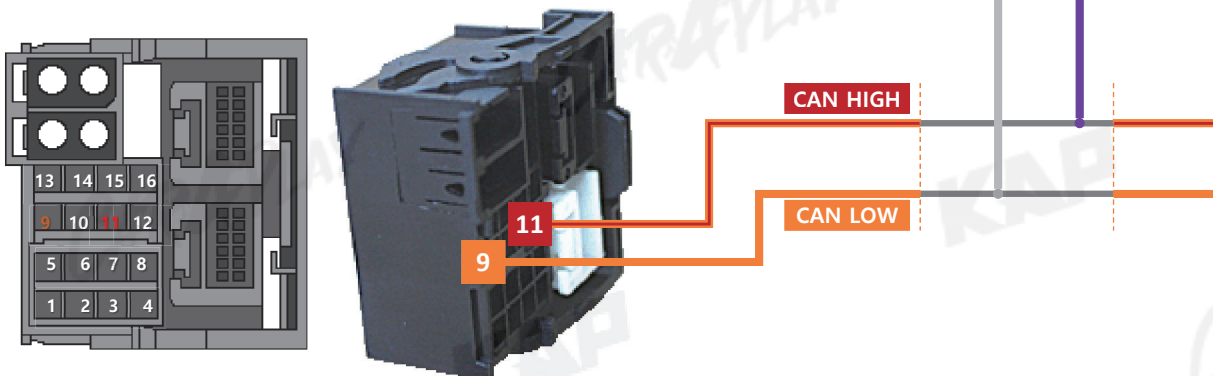
OSD CONTROL

Basic information

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

<div align="center">OSD(On Screen Display) Menu</div>

No	OSD(On Screen Display) Board Control	
7	C	• The OSD screen can be switched ON/OFF • Press for 6 seconds to enter OSD menu
8	ENTER	• Select the currently active item
9	UP	• Move up from the menu • Increase the selected item value
10	RIGHT	• Move the Menu - First ▶ Second ▶ Third Menu • Increase the selected item value
11	DOWN	• Move down from the menu • Decrease the selected item value
12	LEFT	• Move the Menu - Third ▶ Second ▶ First Menu • Decrease the selected item value

OSD CONTROL
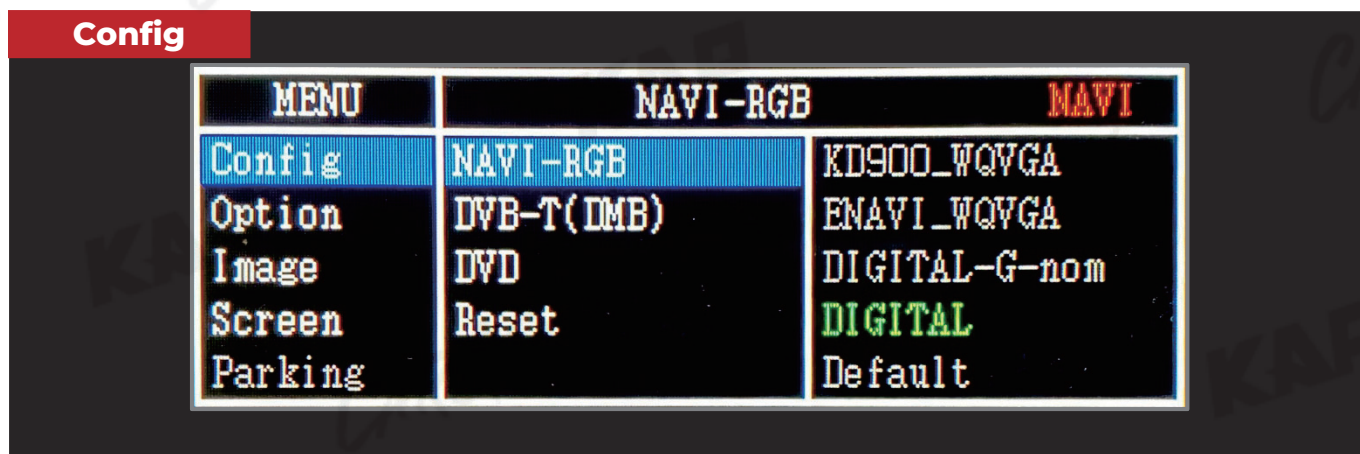
Config

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
	Reset	Execute Cancel	Reset to default value of Config menu

OSD CONTROL
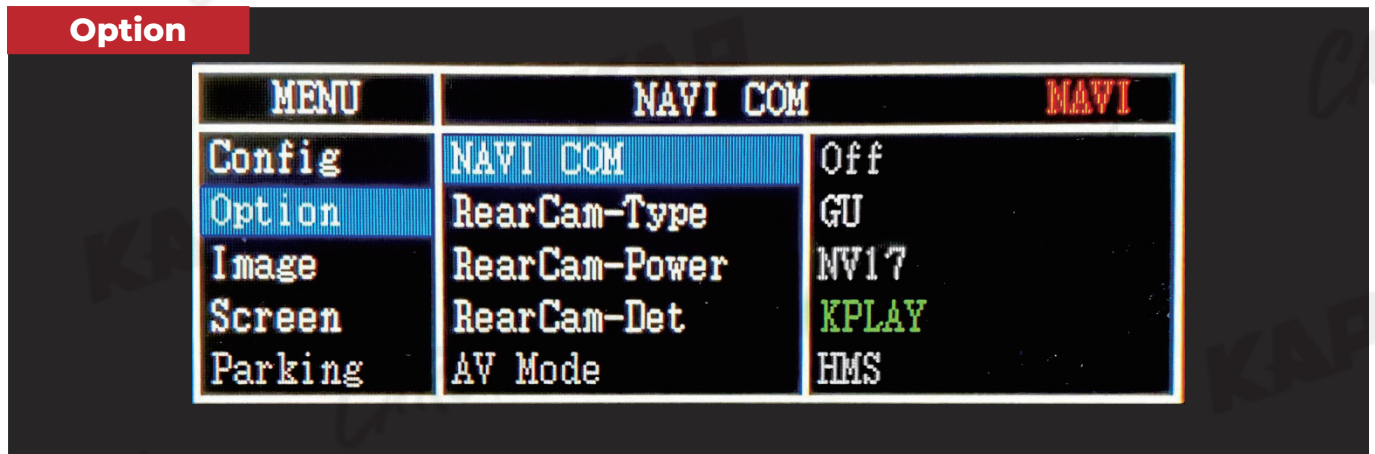
Option

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
	AV Mode	HMS FINE :	Output setting of device connected to "FROTN" of the board
		Off	Disable feature

OSD CONTROL
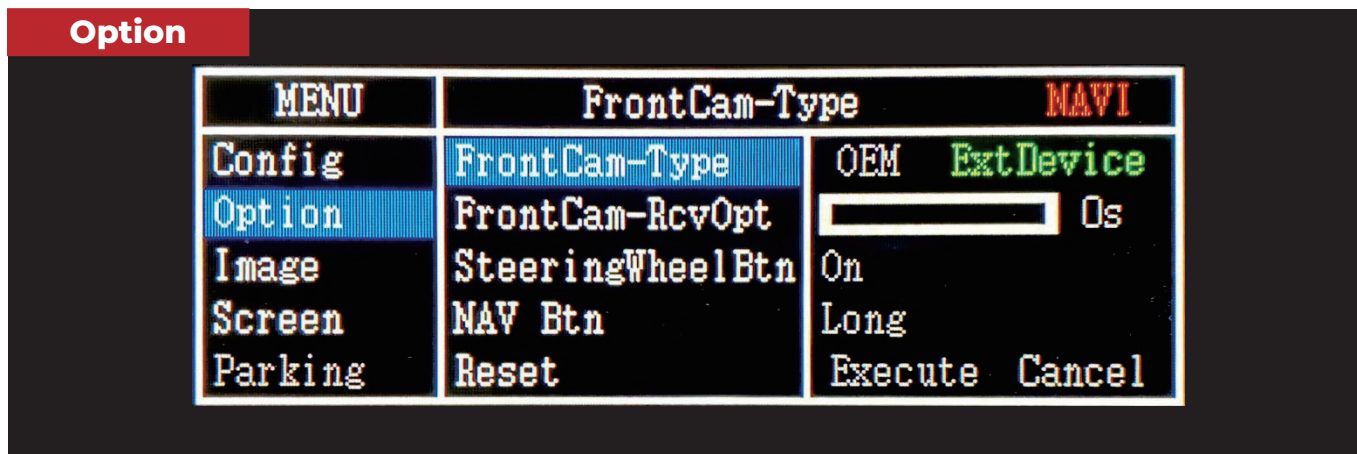
Option

First Menu	Second Menu	Third Menu	Description
Option	**FrontCam-Type**	OEM	Original Camera
		ExtDevice	Equipped with external camera
	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	On	Not used for the product
		Off	
	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

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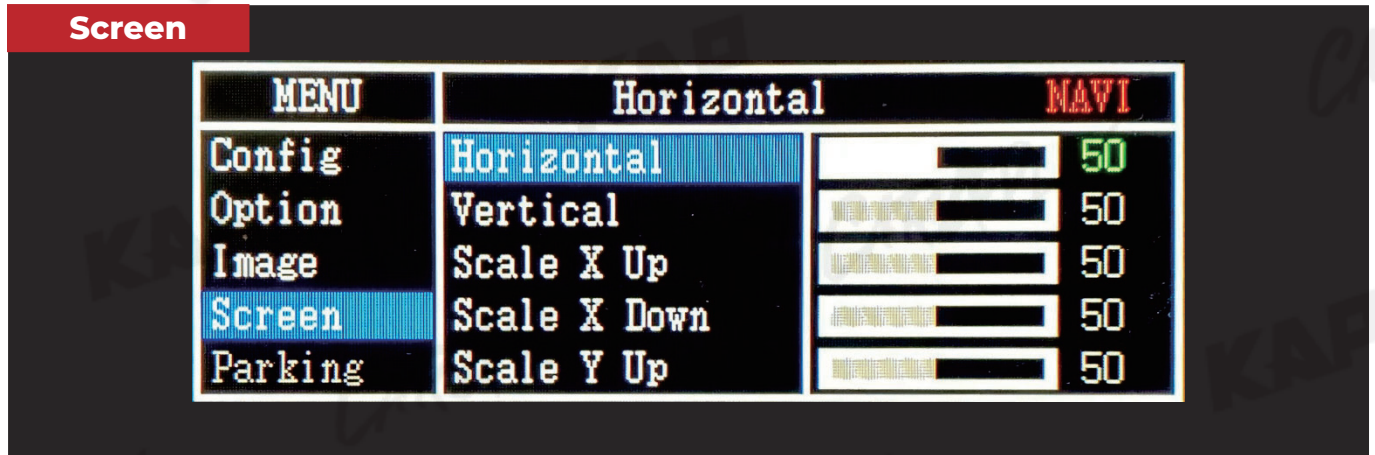
First Menu	Second Menu	Third Menu	Description
Screen	Horizontal		Output screen horizontal movement
	Vertical		Output screen vertical movement
	Scale X Up		Reduce / increase output screen width
	Scale X Down		
	Scale Y Up		Reduce / Increase Output Screen Height
	Scale Y Down		
	Reset		Screen menu all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

OSD CONTROL
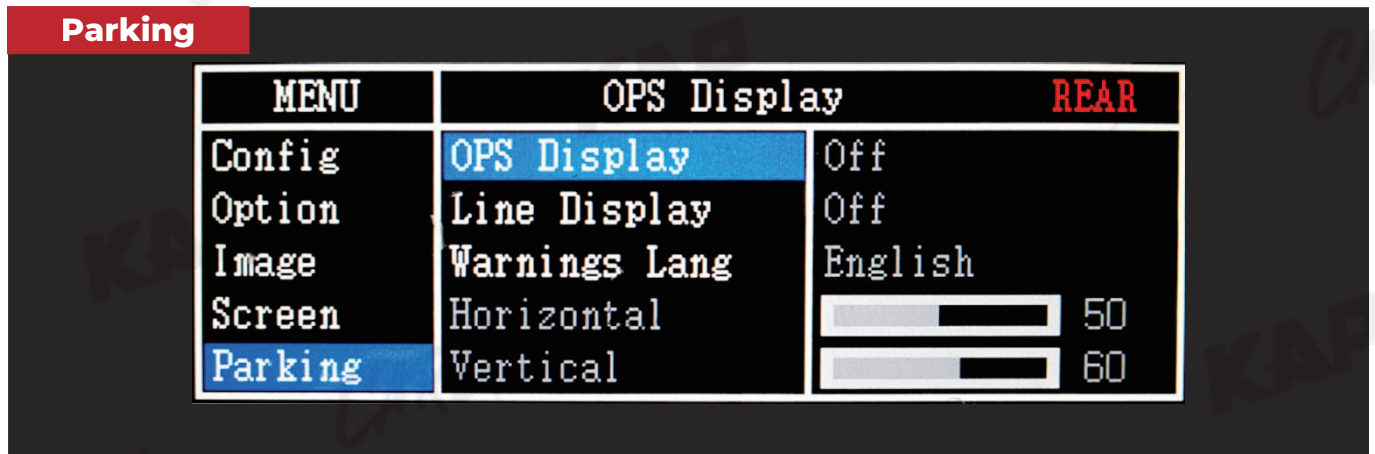
Parking

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

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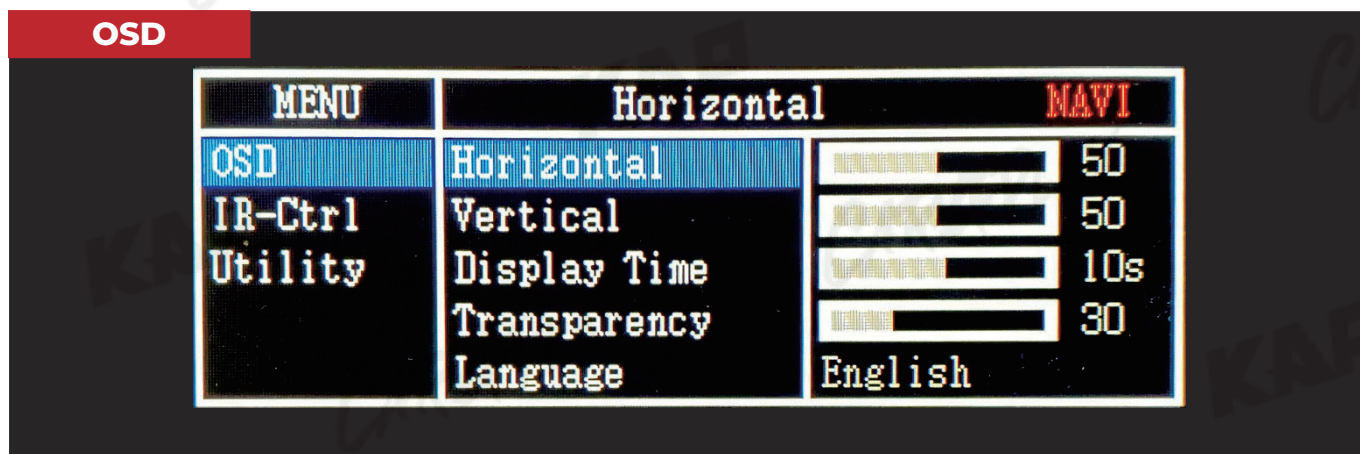
First Menu	Second Menu	Third Menu	Description
OSD	**Horizontal**	*value*	OSD Menu Horizontal Shift
	Vertical	*value*	OSD menu vertical Shift
	Display Time	*value*	OSD Menu Display Time (in seconds)
	Transparency	*value*	OSD menu transparency
	Language		OSD menu display language
	Reset	Execute	Initialize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

OSD CONTROL
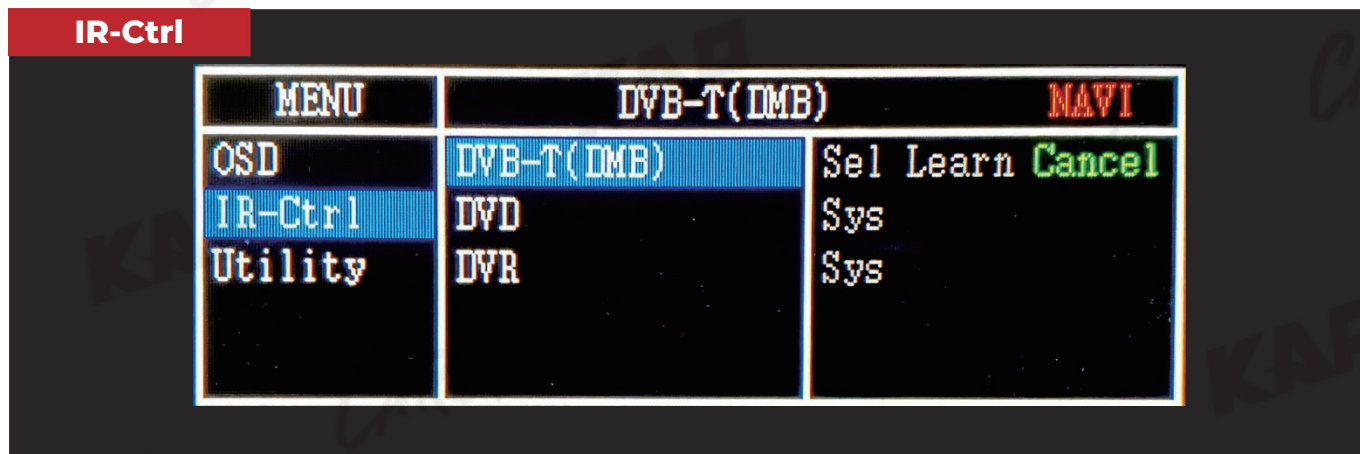
IR-Ctrl

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

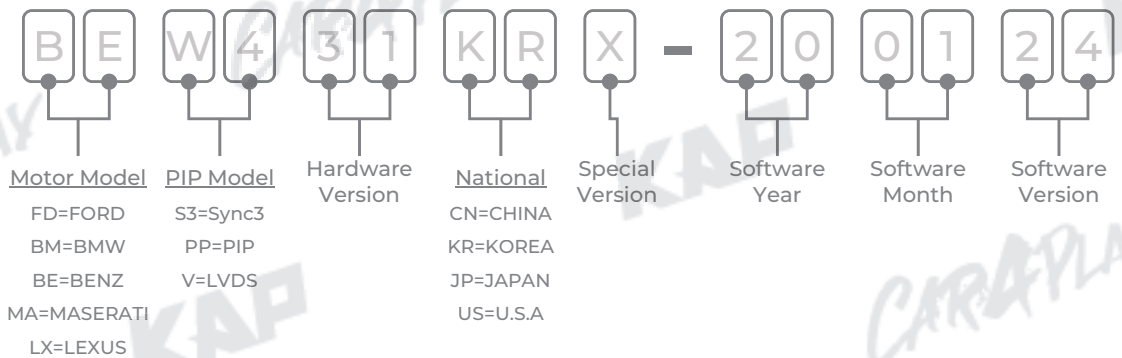In order to work with the IR learning function, a separate IR cable is required.

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
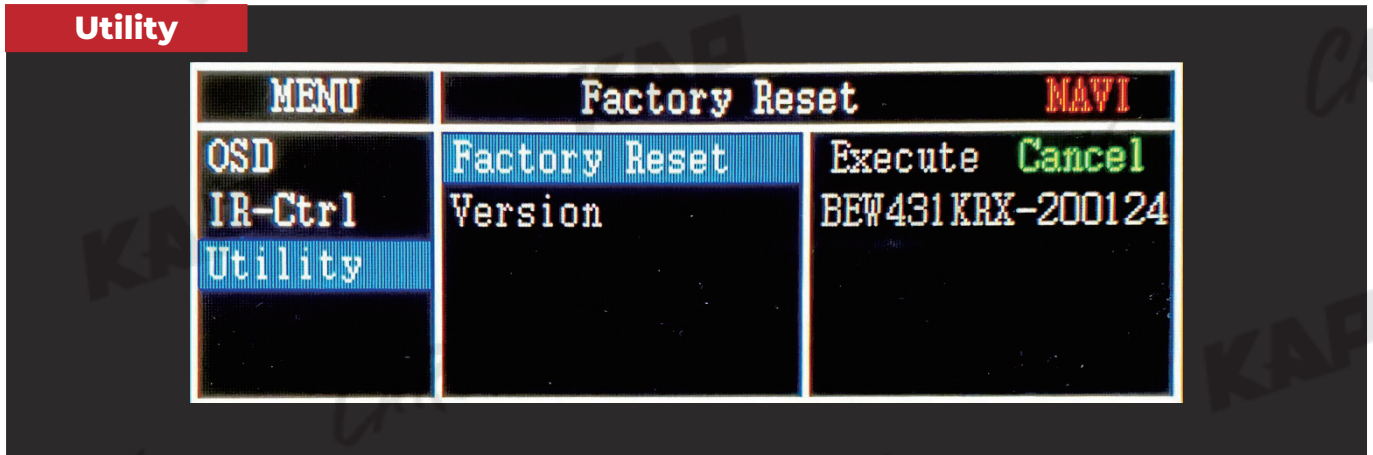
First Menu	Second Menu	Third Menu	Description
Utility	**Factory Reset**	Execute	Initialize all settings
	Version		BEW431KRX-200124 (Check for future upgrades)

```
B E  W 4  3 1  K R  X  -  2 0  0 1  2 4
```

Motor Model	PIP Model	Hardware Version	National	Special Version	Software Year	Software Month	Software Version
FD=FORD	S3=Sync3		CN=CHINA				
BM=BMW	PP=PIP		KR=KOREA				
BE=BENZ	V=LVDS		JP=JAPAN				
MA=MASERATI			US=U.S.A				
LX=LEXUS							

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KOREA AUTO PARTS

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