

# BMW APIX PAS CARPLAY

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- MODEL : BM-KPL-191121

- DATE : 2020.03.16



**GU ELECTRONIC**

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# 1. Main Spec.

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## 1. Input Spec. (MULTI VIDEO INTERFACE)

- 1 x Carplay Wireless / USB
- 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 Spec.

- 1 x Audio L/R Output.
- 1 x LVDS Output (LCD Operation)

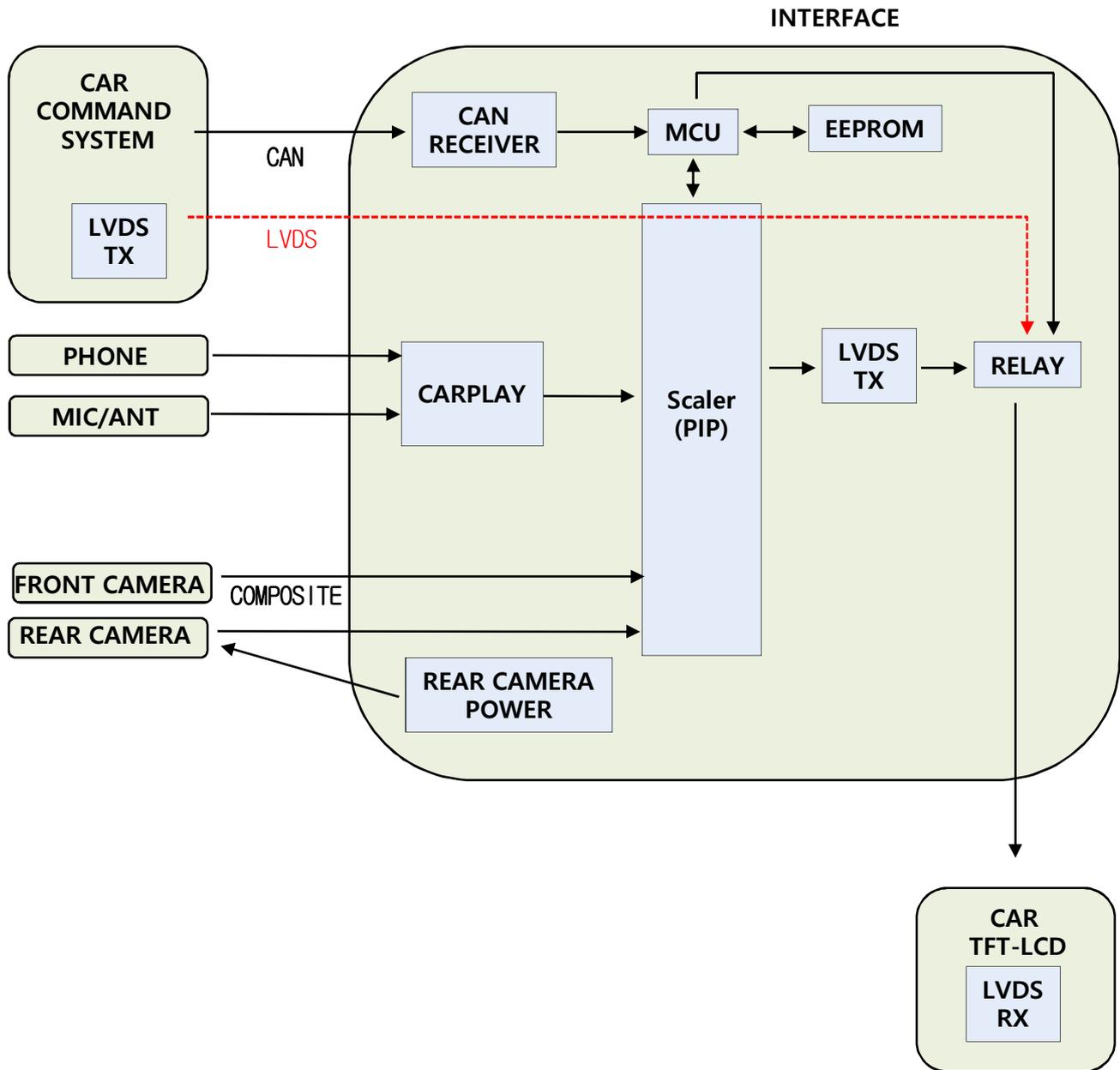
## 3. Power Spec.

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

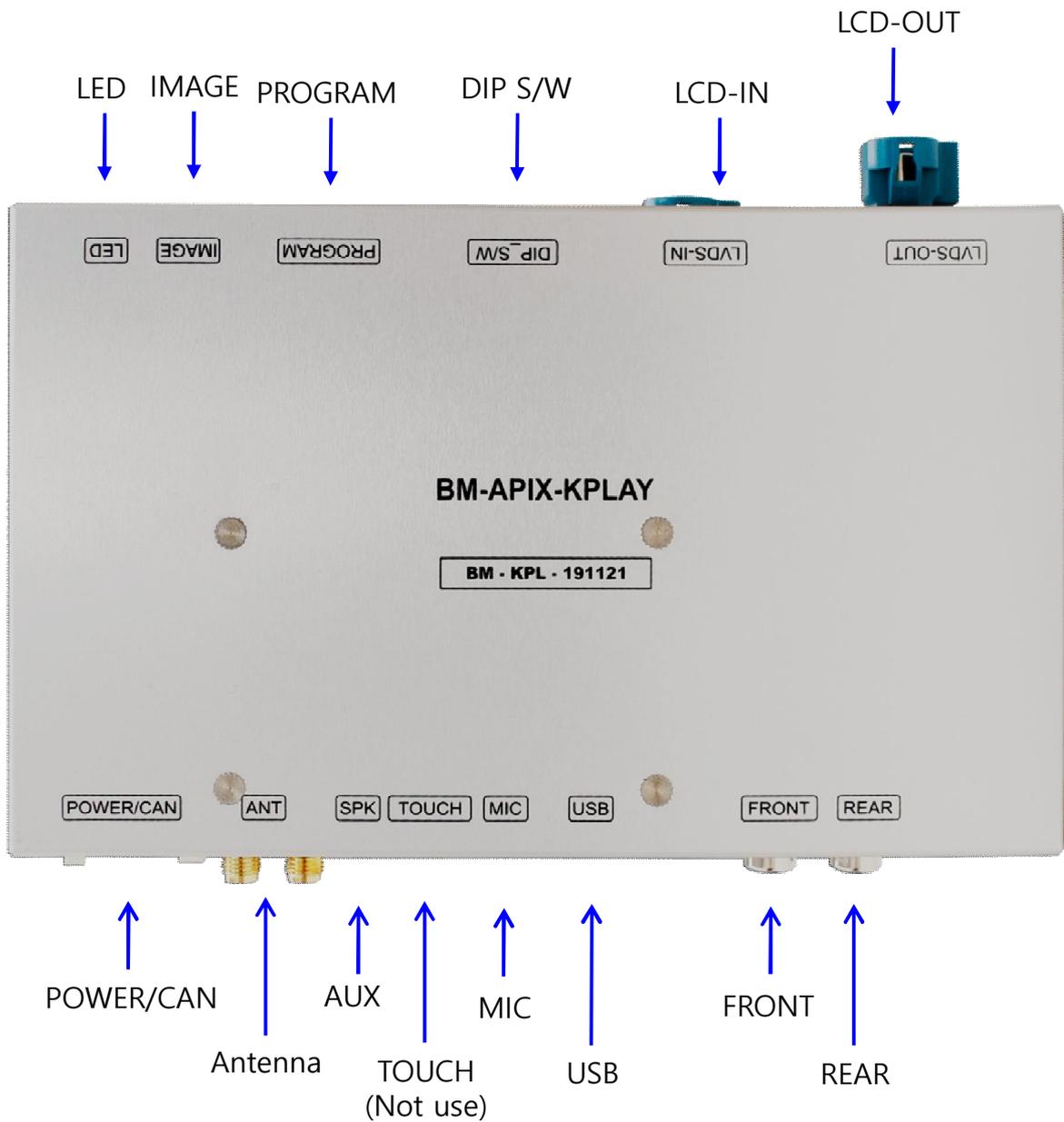
## 4. Switch Input mode

- Possible to select CAR model while switching mode by DIP S/W
- By button on the Commander in the car via CAN

## 2. Block Diagram

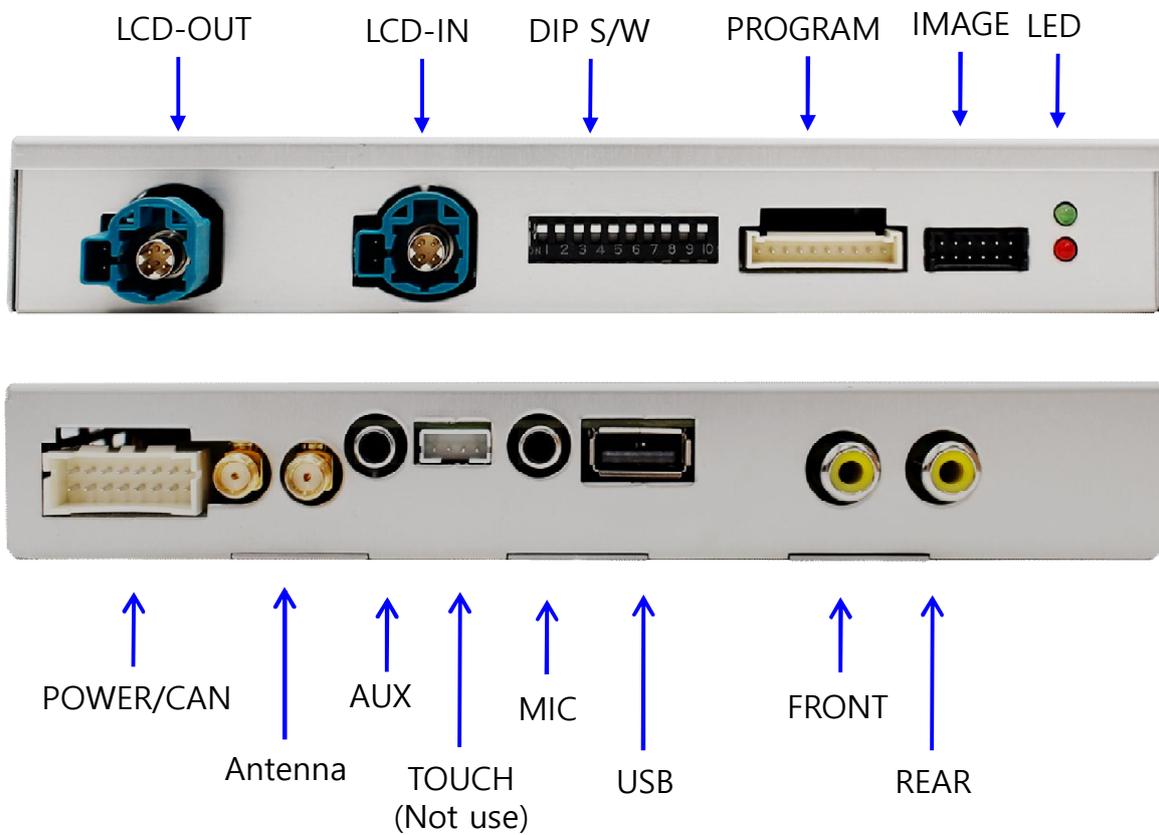


# 4. External Appearance



# 4. External Appearance

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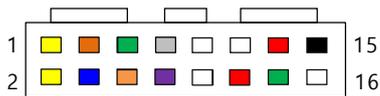


# 5. Connector Pin Assignment

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\*POWER Connect



- |                     |                       |
|---------------------|-----------------------|
| 1. Battery (Red)    | 9. N.C                |
| 2. Battery          | 10. N.C               |
| 3. Rear-DET (Brown) | 11. N.C               |
| 4. Front-DET (Blue) | 12. Rear-power (Red)  |
| 5. CAN1-L (Green)   | 13. Front-power (Red) |
| 6. CAN1-H (Brown)   | 14. Mode (Green)      |
| 7. CAN2-L (White)   | 15. GND (Black)       |
| 8. CAN2-H (Violet)  | 16. GND (Black)       |

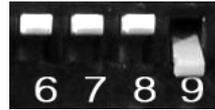


# 7. DIP S/W Setting

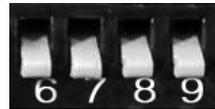
\* ON : DOWN , OFF : UP

PIN	FUNCTION	DIP S/W Selection
1	N.C	
2	N.C	
3	N.C	
4	N.C	
5	N.C	
6	CAR type SEL	Right Picture
7		
8		
9		
10	N.C	

\* DIP S/W Example



ALPA ROMEO 8.8"



ALPA ROMEO 6.5" 2016year



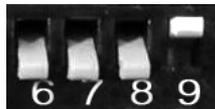
ALPA ROMEO 6.5" 2020year



BMW 10.2"



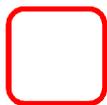
BMW 8.8"



BMW 6.5"

# 8. Mode Change

## CarPlay Button for Alparomeo



mode change(2 second)



Return OEM display



2 second OEM display

# 8. Mode Change

## CarPlay Button for BMW



8.8"



6.5"

-  mode change(2 second)
-  Return OEM display

# 8. Mode Change

## CarPlay Button for Alparomeo



- ① PUSH : Selection
- ② Moving toward the left
- ③ Moving toward the right
- ④ Moving toward the left
- ⑤ Moving toward the right
- ⑥ Moving up
- ⑦ Moving down
- ⑧ Return
- ⑨ Siri
- ⑩ Track Down
- ⑪ Track Up

# 8. Mode Change

## CarPlay Button for BMW



8.8"



6.5"

- ① PUSH : Selection
- ② Moving toward the left
- ③ Moving toward the right
- ④ Track Down
- ⑤ Track Up
- ⑥ Moving up
- ⑦ Moving down
- ⑧ Return
- ⑨ Siri

# 9. OSD(On Screen Display) Control

OSD control



OPTION	Press for 6 seconds to turn on OSD Press briefly MENU EXIT
ENTER	Item Selection, Value Selection
MENU	OSD menu return
UP	Item up Increase selected value
RIGHT	First->Second->Third Menu move Item down Increase selected value
DOWN	Item down Decrease selected value
LEFT	Third->Second->First Menu move Item up Decrease selected value

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

First Menu      Second Menu      Third Menu

# 9. OSD(On Screen Display) Control

## OSD Config

First Menu	Second Menu	Third Menu	Description
Config	NAVI-RGB	DIGITAL-INAVI :	Setting the Connected NAVI Model
	RearCam	AVM VIDEO :	Setting the Connected RearCam Model
	Reset	Execute	Reset to default value of Config menu

MENU	Config	NAVI
Config	NAVI-RGB	DIGITAL-INAVI
Option	DVB-T(DMB)	ELT_DVBT20
Image	DVD	ELT-980XU Slim
Screen	Reset	Execute Cancel
Parking		

# 9. OSD(On Screen Display) Control

## OSD - 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	Do not use features.
	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 Front-Det Wire
	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	+ 12V off
	FrontCam-Det	GEAR	Detected by CAN
		WIRE	Detected by Front-Det Wire
	FrontCam-RcvOpt	ON	After RearCam shows FrontCam and returns to previous state
		OFF	Disable feature

# 9. OSD(On Screen Display) Control

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## OSD - Option Menu

First Menu	Second Menu	Third Menu	Description
Option	ScrChg-Call	On	When the call comes in, it switches to the oem screen.
		Off	Disable feature
	ScrChg-Climate	On	When operating the air conditioning button will display the air conditioning screen for 2 seconds below the screen.
		Off	Disable feature
	ScrChg-Driving	On	When operating the driving button, the oem screen is display for 2 seconds.
		Off	Disable feature
	Reset	Execute	Option Menu all Reset

# 9. OSD(On Screen Display) Control

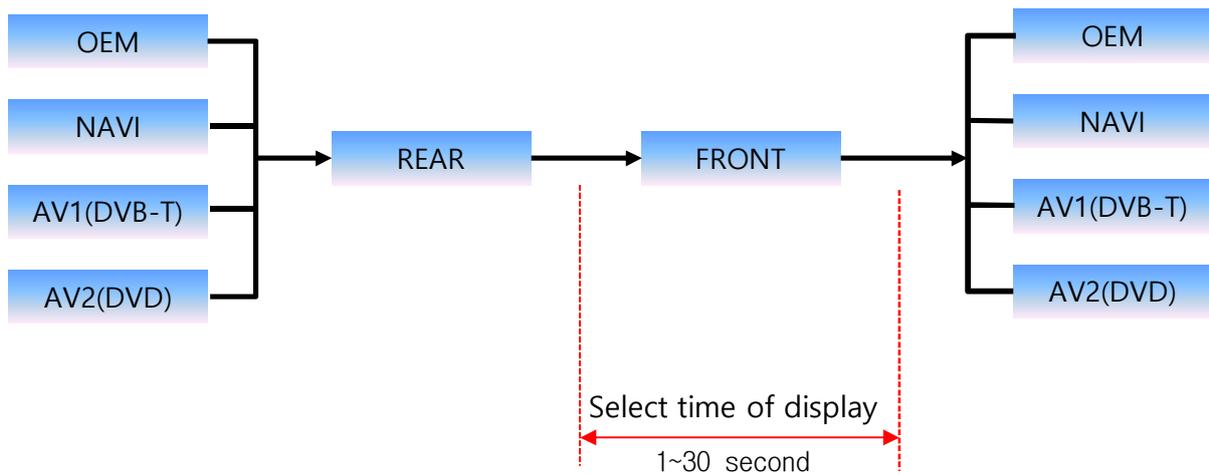
## OSD Option -> FrontCam-RcvOpt

### Front Camera Auto Mode

0 second = FrontCam-RcvOpt menu OFF

1~30 second = FrontCam-RcvOpt menu ON & time control

MENU	FrontCam-RcvOpt	NAVI	MENU	FrontCam-RcvOpt	NAVI
Config	FrontCam-Power	Auto	Config	FrontCam-Power	Auto
Option	FrontCam-Det	ExtWire	Option	FrontCam-Det	ExtWire
Image	FrontCam-RcvOpt	0s	Image	FrontCam-RcvOpt	30s
Screen	Steering Wheel	Voice	Screen	Steering Wheel	Voice
Parking	Reset	Execute Cancel	Parking	Reset	Execute Cancel



# 9. OSD(On Screen Display) Control

NAVI-RGB menu

First Menu	Second Menu	Third Menu	Action
Image	Brightness		Adjust the value of brightness
	Contrast		Adjust the value of contrast
	Color-RED		Adjust the value of RED
	Color-GREEN		Adjust the value of GREEN
	Color-BLUE		Adjust the value of BLUE
	Reset	Excute	Option Menu all Reset

DVD,DVB-T(DMB),NAVI-AV,REAR,FRONT menu

First Menu	Second Menu	Third Menu	Action
Image	Brightness		Adjust the value of brightness
	Contrast		Adjust the value of contrast
	Saturation		Adjust the value of Saturation
	Hue		Adjust the value of Hue
	Sharpness		Adjust the value of Sharpness
	Reset	Excute	Option Menu all Reset



<< Brightness >>



<< Contrast >>



<< Saturation >>



# 9. OSD(On Screen Display) Control

## OSD – 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

MENU	Horizontal	MAVI
Config	Horizontal	50
Option	Vertical	50
Image	Scale X Up	50
Screen	Scale X Down	50
Parking	Scale Y Up	50

# 9. OSD(On Screen Display) Control

## OSD – 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

MENU	Parking / Line Display	REAR
Config	Line Display	On Off
Option	PDC Display	On
Image	Grid Type	Split
Screen	Warnings Lang	English
Parking	Horizontal	50

# 9. OSD(On Screen Display) Control

## OSD Parking – Guide line On / Off

MENU	Parking / Line Display		REAR
Config	Line Display	On	Off
Option	PDC Display	On	
Image	Grid Type	Split	
Screen	Warnings Lang	English	
Parking	Horizontal	<input type="range" value="50"/>	50



Parking Line ON Screen

MENU	Parking / Line Display		REAR
Config	Line Display	On	Off
Option	PDC Display	On	
Image	Grid Type	Split	
Screen	Warnings Lang	English	
Parking	Horizontal	<input type="range" value="50"/>	50



Parking Line OFF Screen



RearCamera Full size



RearCamera middle size



RearCamera None

# 9. OSD(On Screen Display) Control

## OSD Parking – Change warning language

MENU	Parking / Warnings Lang	REAR
Config	OPS Display	English
Option	Line Display	中文
Image	Warnings Lang	한국어
Screen	Horizontal	台灣
Parking	Vertical	Россия



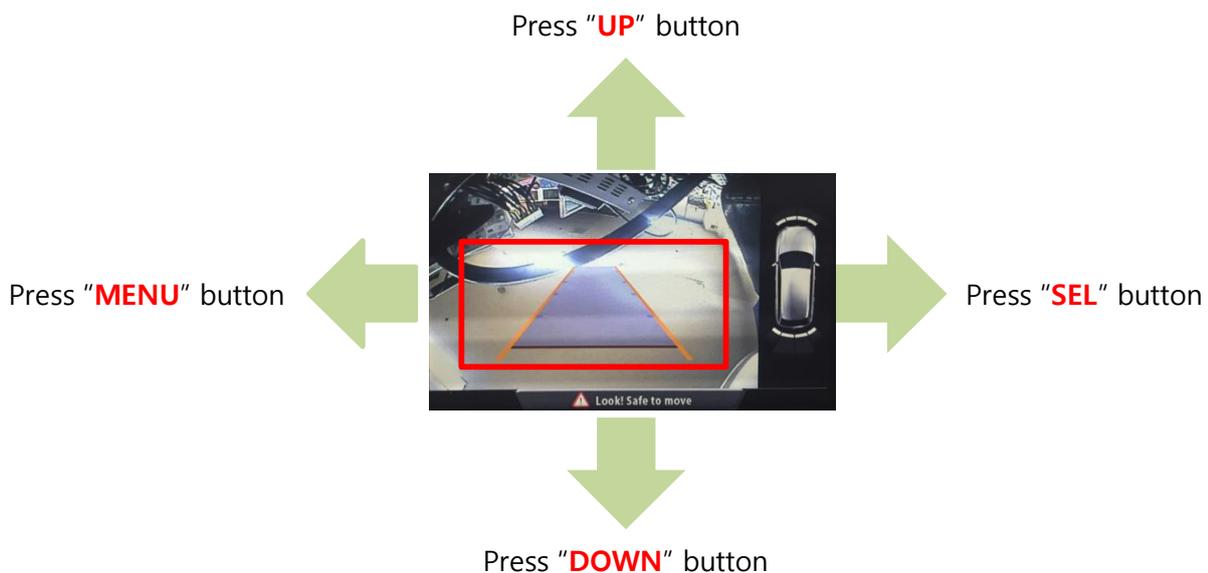
# 9. OSD(On Screen Display) Control

## OSD Parking – Adjust position of parking guide line

MENU	Parking	REAR
Config	OPS Display	Off
Option	Line Display	On
Image	Warnings Lang	English
Screen	Horizontal	50
Parking	Vertical	50

Possible to adjust the position of parking guide line by Keypad in Horizontal / Vertical menu

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



# 9. OSD(On Screen Display) Control

## OSD – 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

MENU	Horizontal	DVB-T
OSD	Horizontal	50
IR-Ctrl	Vertical	50
Utility	Display Time	10s
	Transparency	30
	Language	English

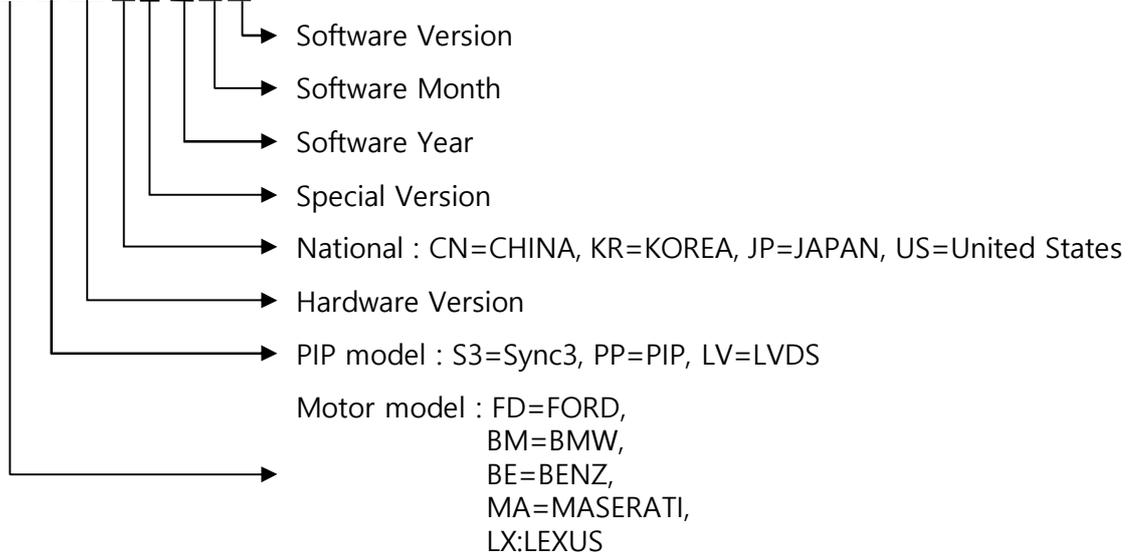
MENU	Reset	DVB-T
OSD	Reset	Execute Cancel
IR-Ctrl		
Utility		

# 9. OSD(On Screen Display) Control

## OSD – Utility Menu

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

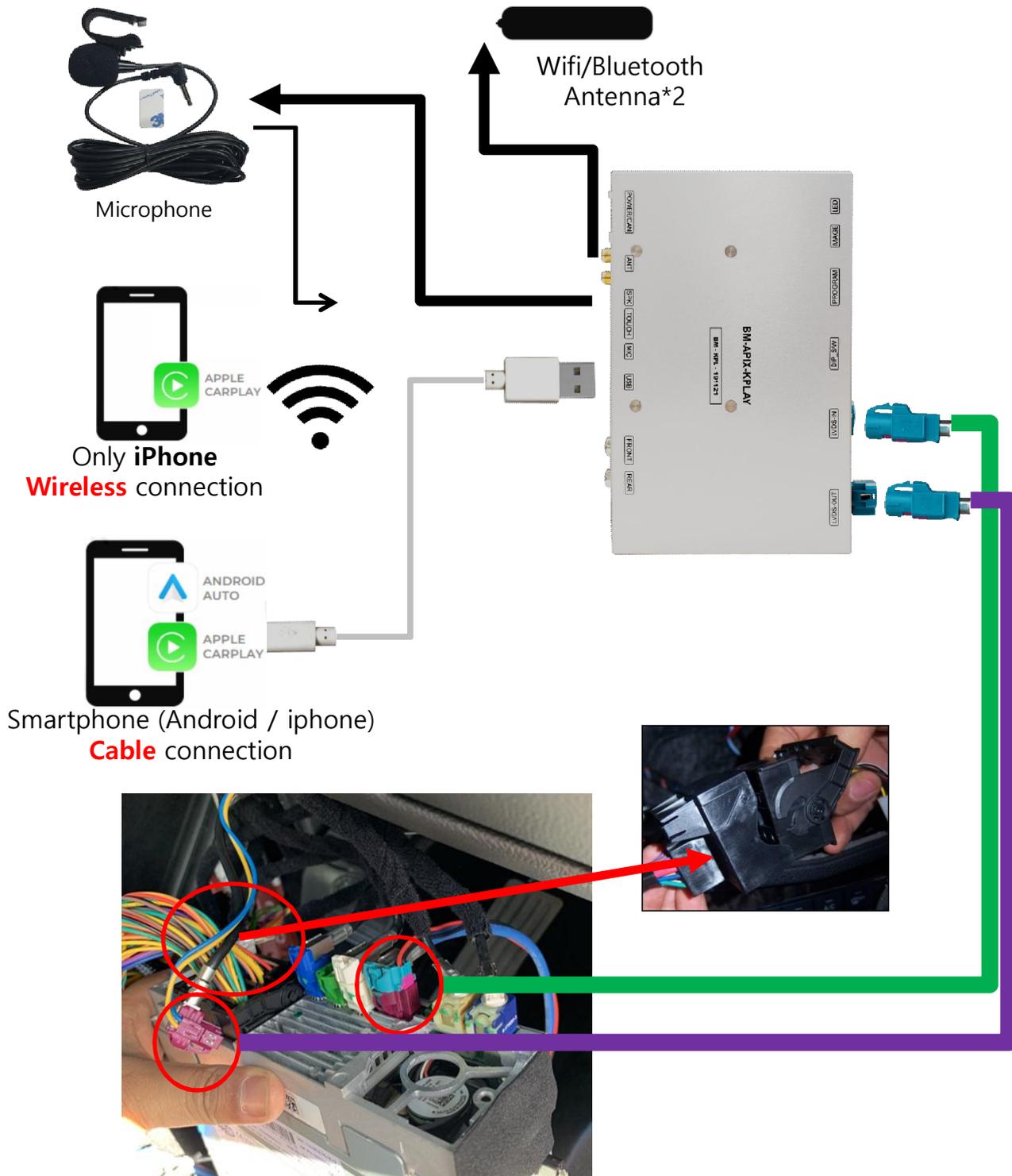
Last Source : FDSYOOKRX-180209



MENU	Utility	NAVI
OSD	Factory Reset	Execute Cancel
IR-Ctrl	Version	FDSYOOKRX-180209
Utility		

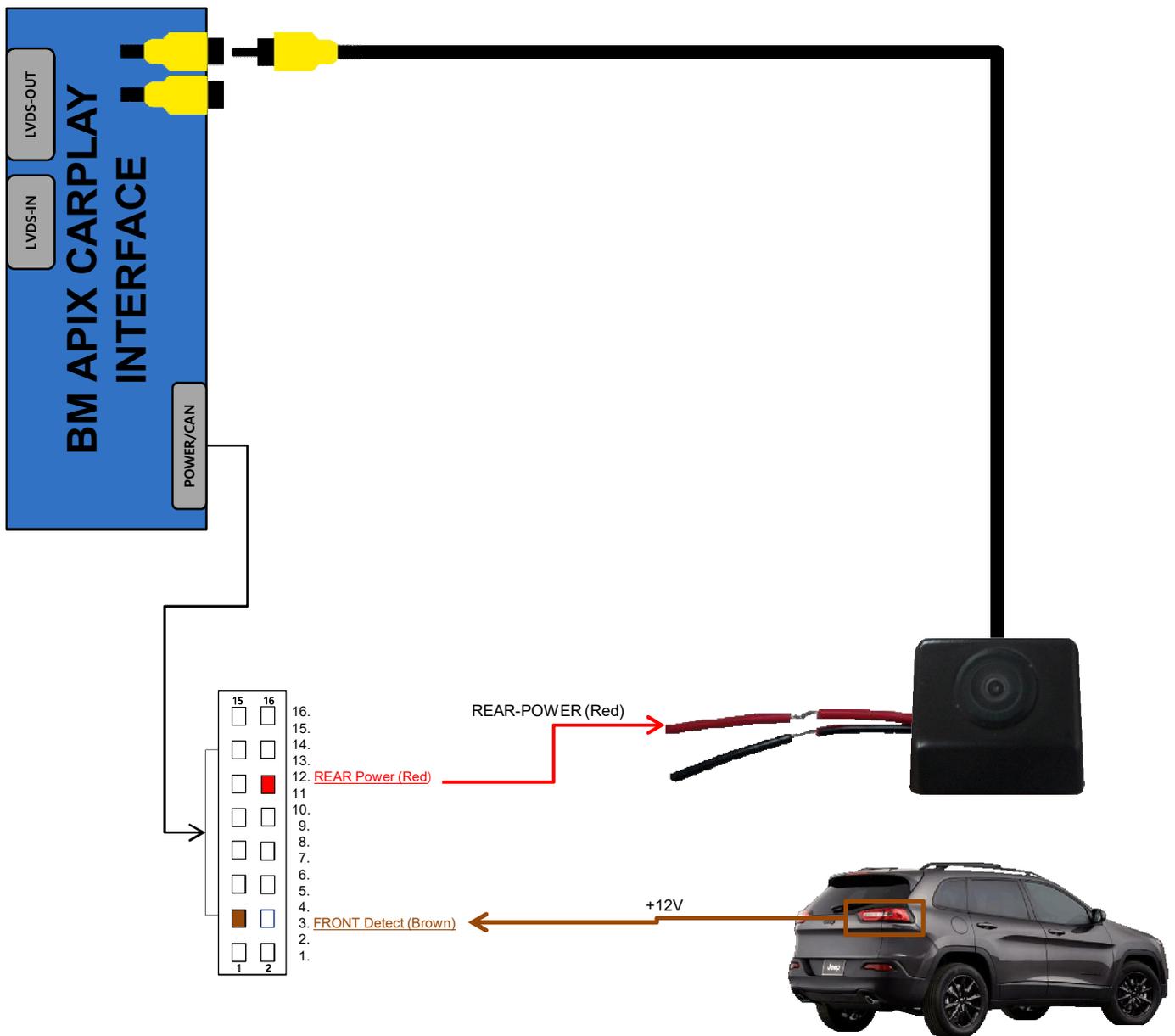
# 10. Install Manual

## 1. Installation CarPlay - KPLAY



# 10. Install Manual

## 2. Installation External Reverse(Rear) Camera Connection



# 11. Q & A

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## FAQ

1. Not possible to switch mode
  - Check connection of OSD Key pad wire
  - Check CAN connection
2. Display wrong size of picture
  - Check Dip s/w setting
3. Display black screen in OEM mode
  - Check connection of LVDS/LCD cable
4. Not possible to switch to rear screen
  - Check the packing setting (OSD Menu – option – RearCam-Det)

## Caution

1. The device must not be installed in where it interferes driving (close to brake pedal, steering wheel, airbag etc.)
2. LVDS cable must be connected correctly according to the manual
3. Insulate the end of wire by using electrical tape
4. The installation should be done by expert
5. GU electronic does not take any responsibility for any problem caused by wrong installation