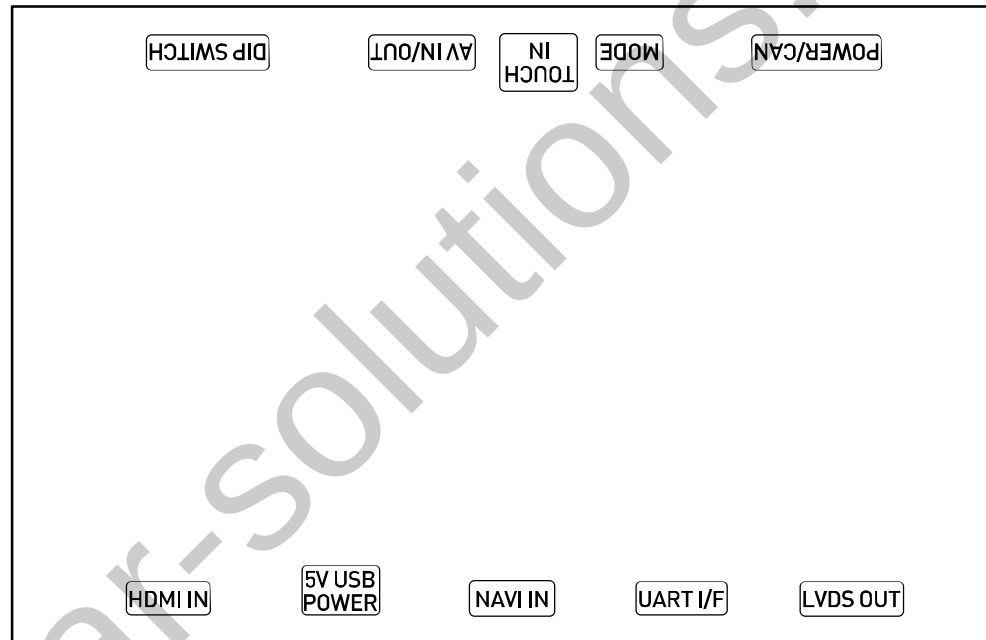


Instruction Manual

High-Definition Link for Mercedes-Benz



Latest Firmware Date	2017 - 09 - 11
Manual Version	Rev. 2.4
Language	English

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Cautions

▪ Device related

- You should check the names and colors of each wires exactly, before you connect the wires.
ex) CAN HIGH: White wires / CAN LOW: Blue wires
- The 'POWER / CAN Cable' should always be connected last and be disconnected first.
- The 'Mode Switch' is an optional part to change modes forcibly without CAN-BUS. Generally, the CAN-BUS wires are connected for changing modes by original buttons.
- When the reverse gear is not detected by CAN-BUS, the 'REVERSE 12V IN wire' should be spliced with 12V power of reverse light.

▪ HDMI device - related

- HDMI mode accepts general-screen resolution of HDMI devices.
If screen size of HDMI does not fit on the monitor, should adjust screen size & position in 'settings mode'.
- Generally, '5V 1A Power output(5V USB POWER)' is a standard voltage for charging smartphone.
If you need higher voltage than 5V, you should add a separate power supply.

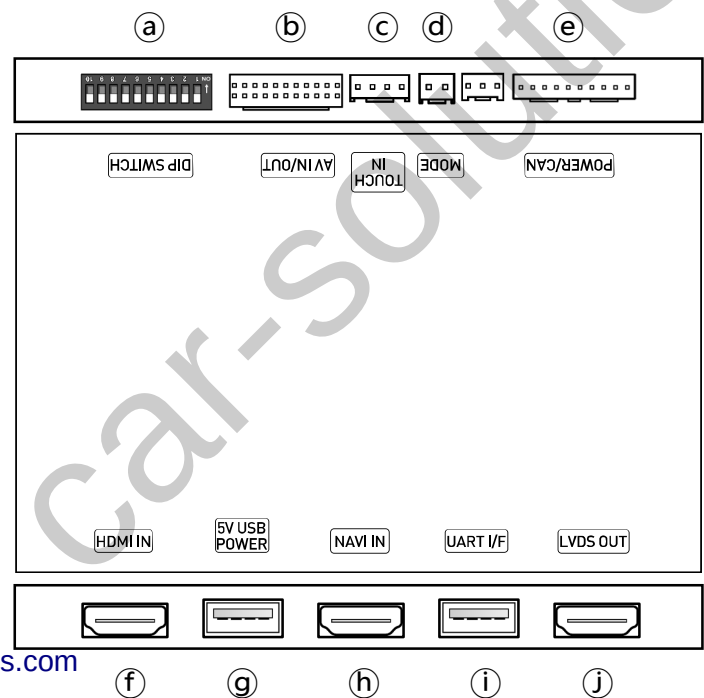
▪ Navigation(GPS) box - related

- When you connect the power wires(B+, ACC) to the navigation(GPS) box, the 'NAVI 12V OUT' wire supported by the device should be spliced with an ACC wire of navigation box.
- After installation is done, select an applicable navigation(GPS) box model in the 'Navigation model selection menu' of setting mode.
- The navigation box should be powered off before unplugging the HDMI cable.

Dimension



Exterior



- a) DIP SWITCH
- b) AV IN / OUT
- c) TOUCH IN (Not Used)
- d) MODE
- e) POWER / CAN
- f) HDMI IN
- g) 5V USB POWER
- h) NAVI IN
- i) UART I/F
- j) LVDS OUT

Components



Power / CAN Cable



LVDS Cable



LVDS PCB



HDMI Cable
(For LVDS)



AV IN / OUT Cable



5-pin Micro USB Cable

Optional Parts (sold separately)



HDMI Cable
(Male to Male)



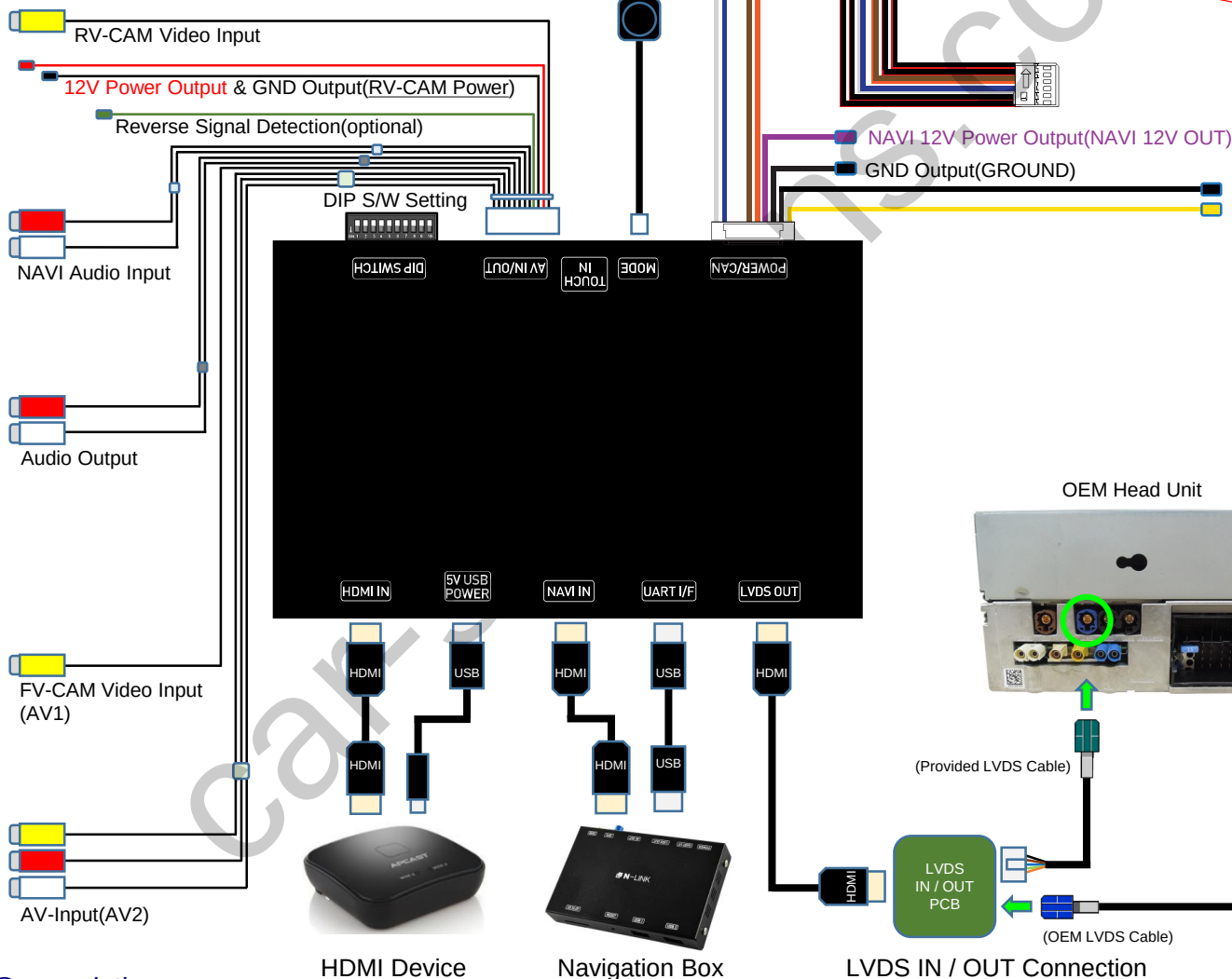
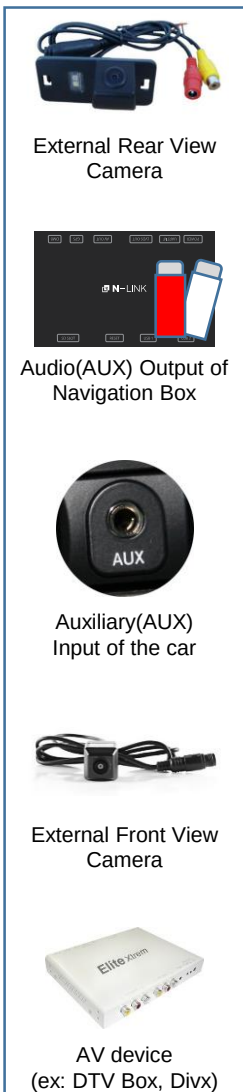
HDMI Extender
(For stick type HDMI device)



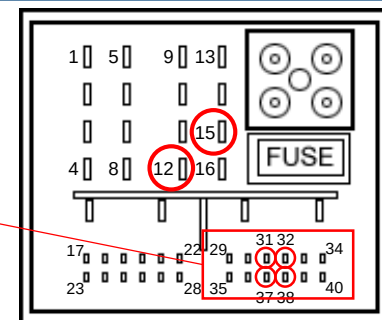
Mode Switch

Full Installation Diagram

※ Optional External Devices

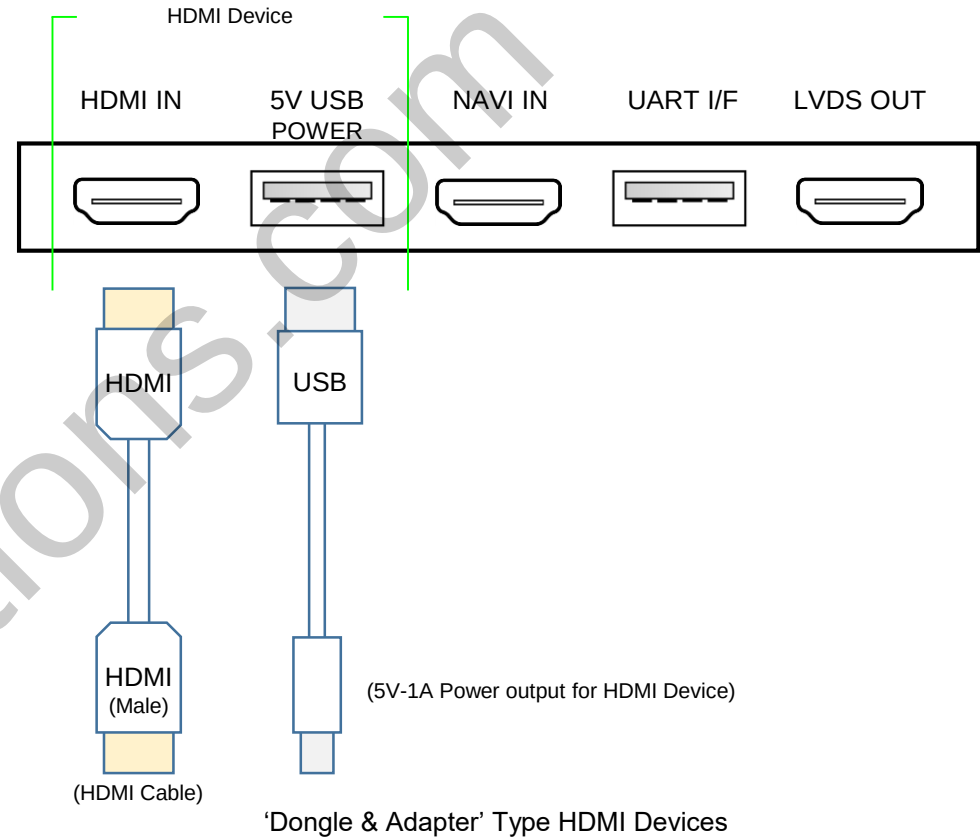
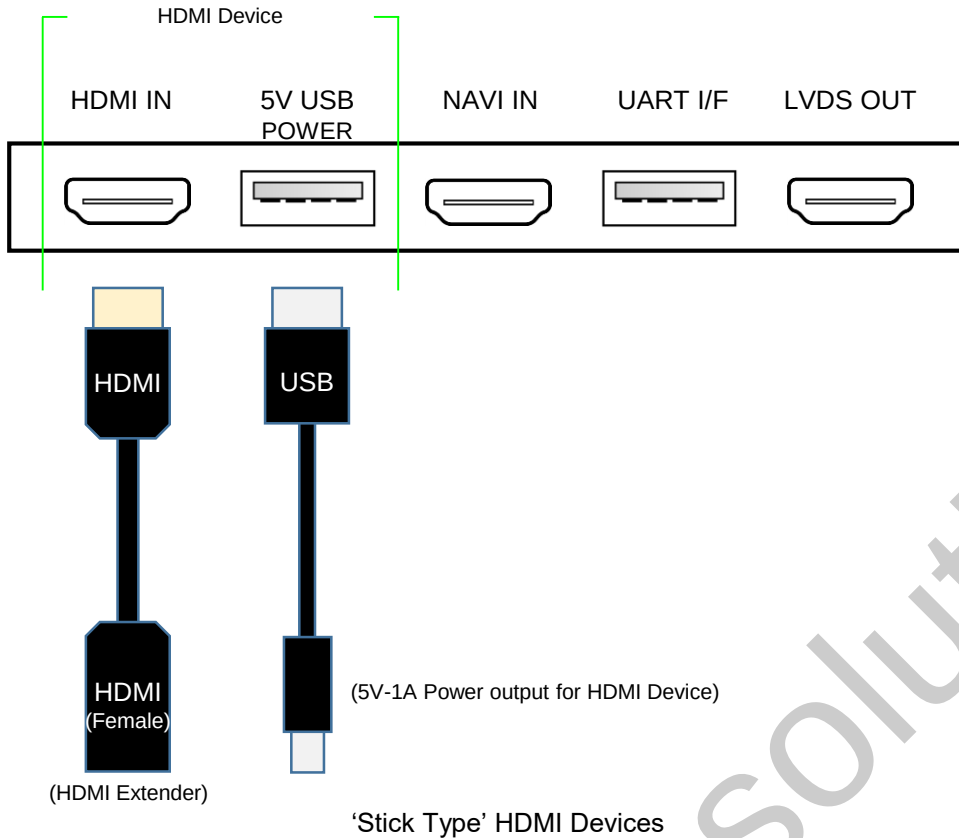


※ CAN HIGH / LOW Pin Specification

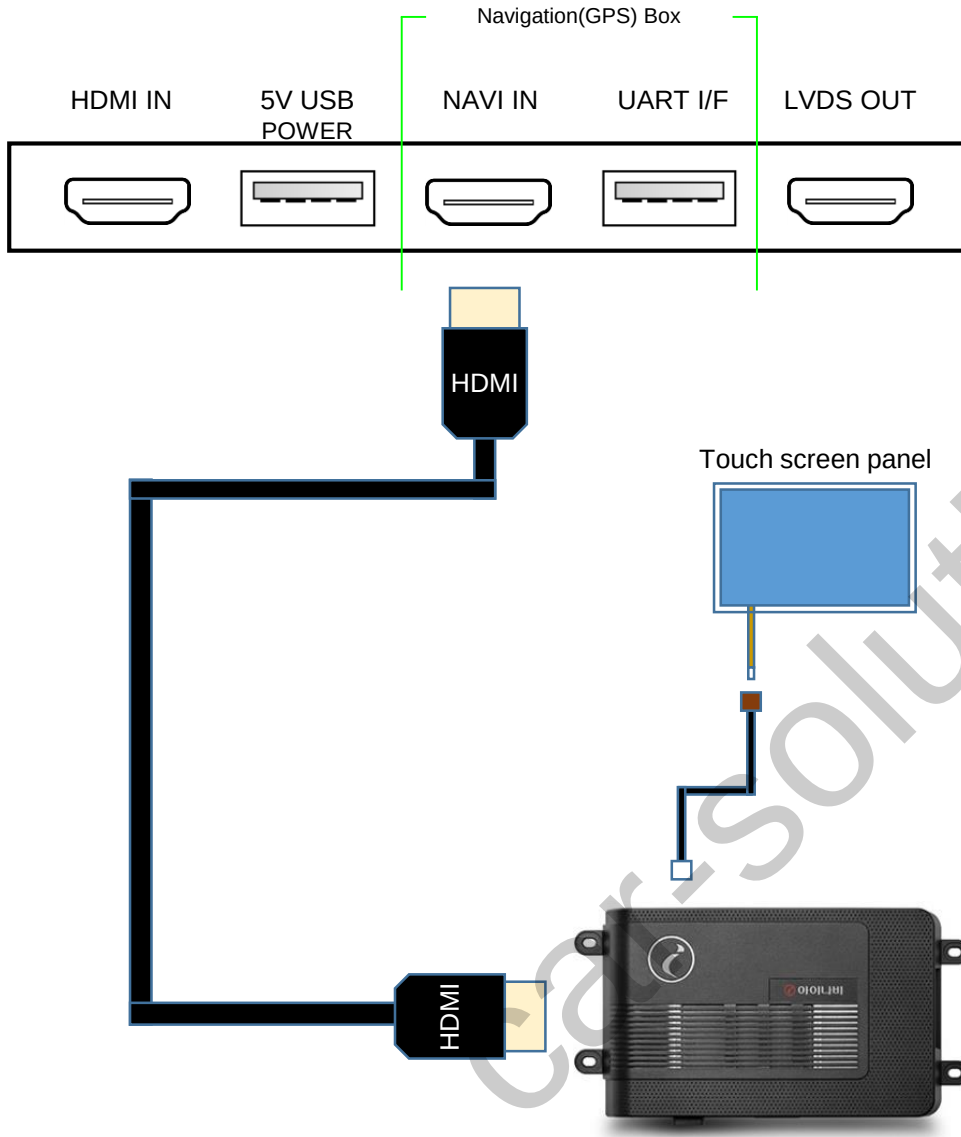


- Pin # 12 = GND(Brown)
- Pin # 15 = B+ POWER(Red)
- Pin # 31 = PAS CAN LOW(Yellow)
- Pin # 37 = PAS CAN HIGH(Yellow/White)
- Pin # 32 = MON CAN LOW(Black)
- Pin # 38 = MON CAN HIGH(Black / White)

HDMI Connection Diagram



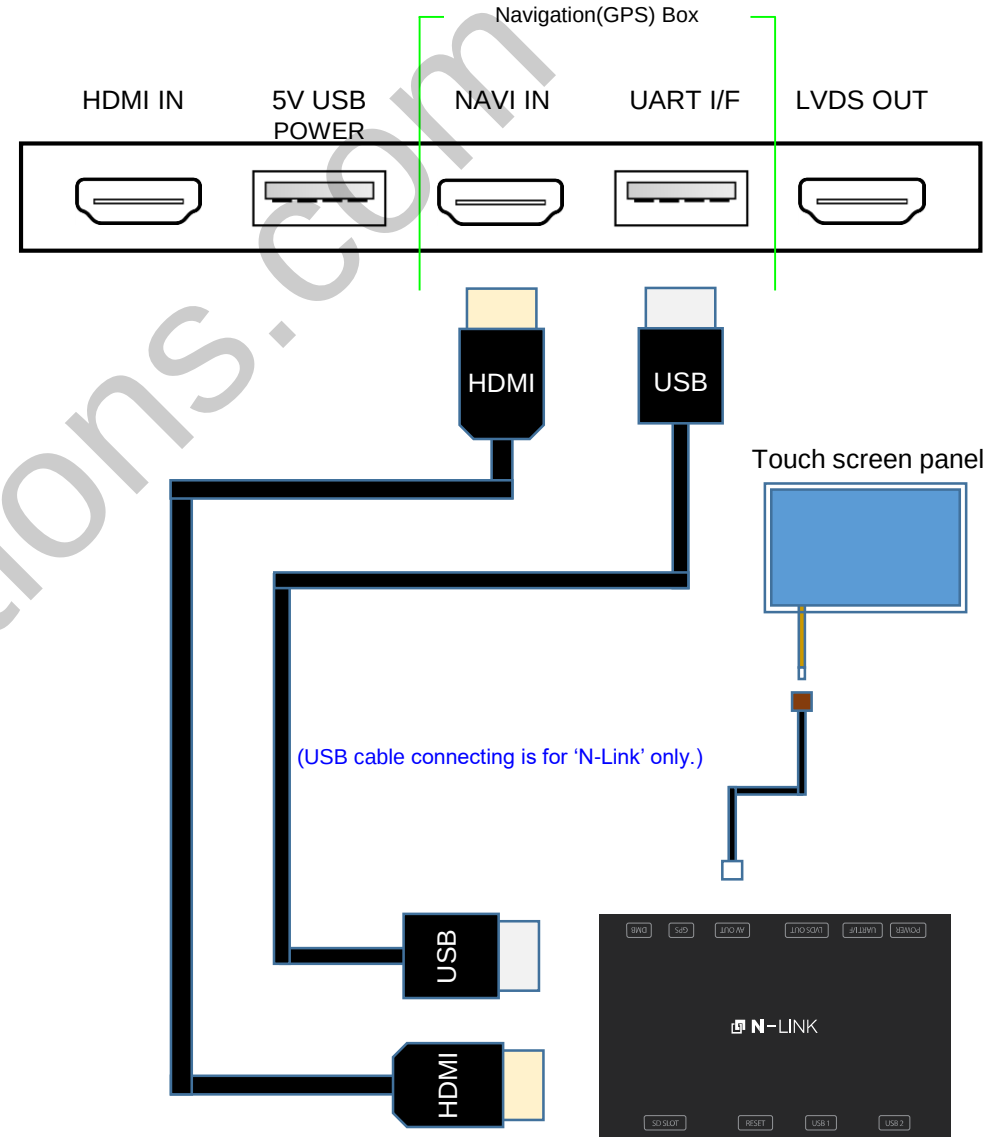
Navigation Connection Diagram



support@car-solutions.com

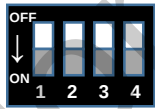
I-NAVI X1 CUBE

Navigation Connection Diagram



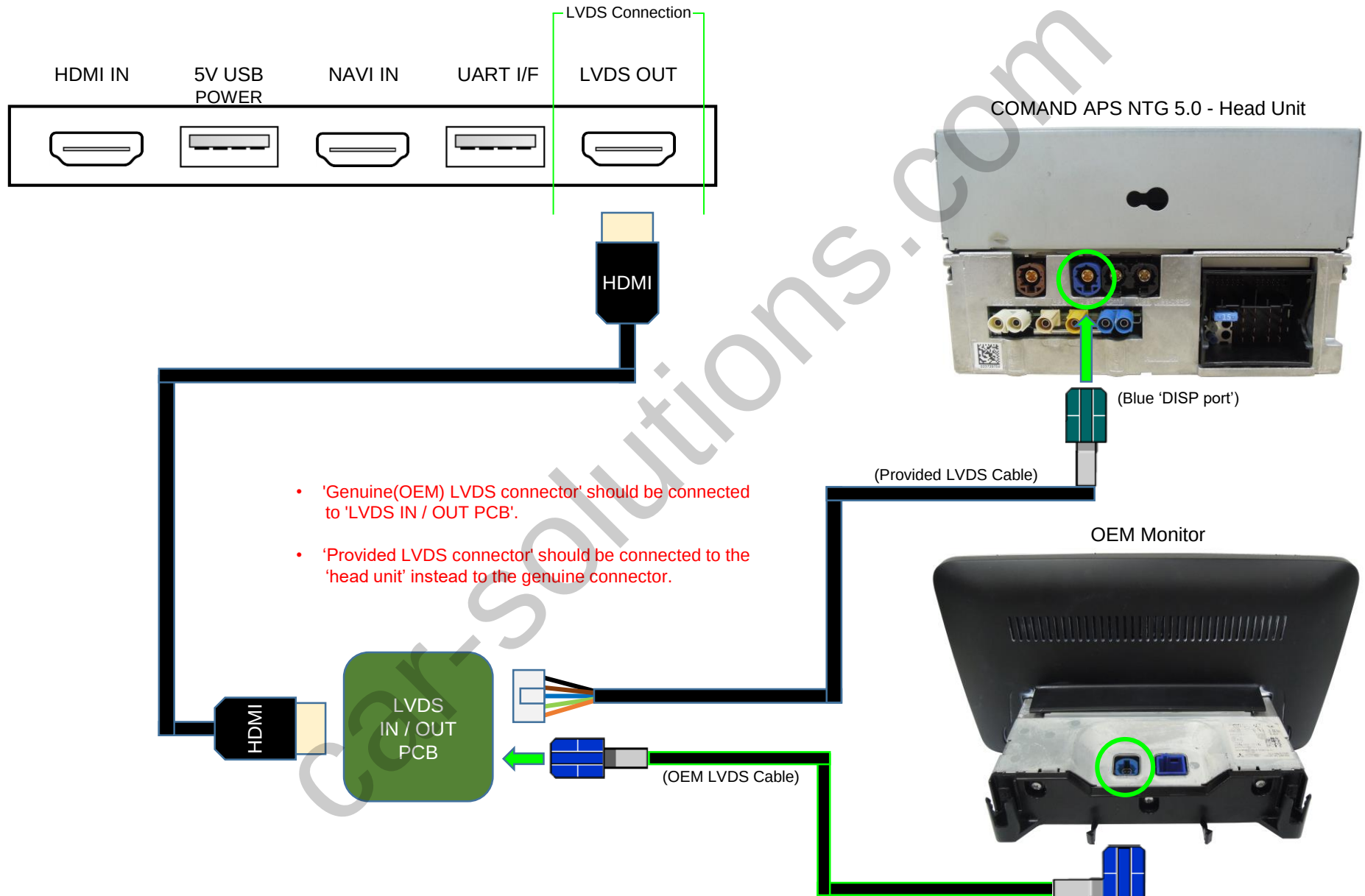
www.car-solutions.com Microcity - N-Link

Compatibility Chart for Navigation(GPS) box models

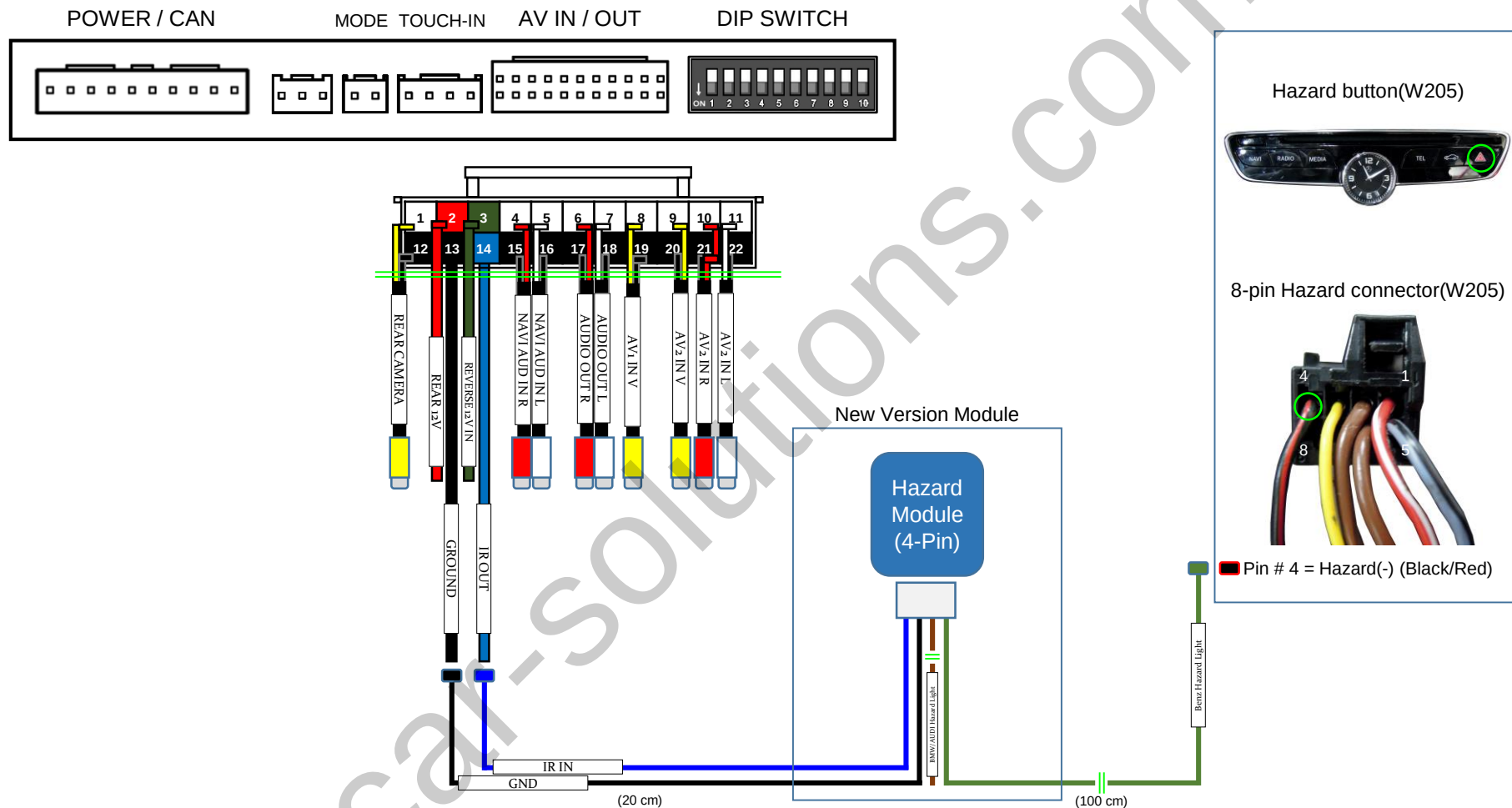
Model	Country	Dip S/W (Navigation)	Required Parts
	South Korea	-	  
	South Korea	 OFF(↓): 1, 2, 3, 4	
	South Korea	 OFF(↓): 1, 2, 3 ON(↑) : 4	

- This device supports navigation(GPS) box models equipped with 'Digital video output'.
 - It does not support the 'RGB video signals'.
- support@car-solutions.com

LVDS Connection Diagram



Hazard Module Connection('Smart Drive' function of 'N-Link' Navigation)

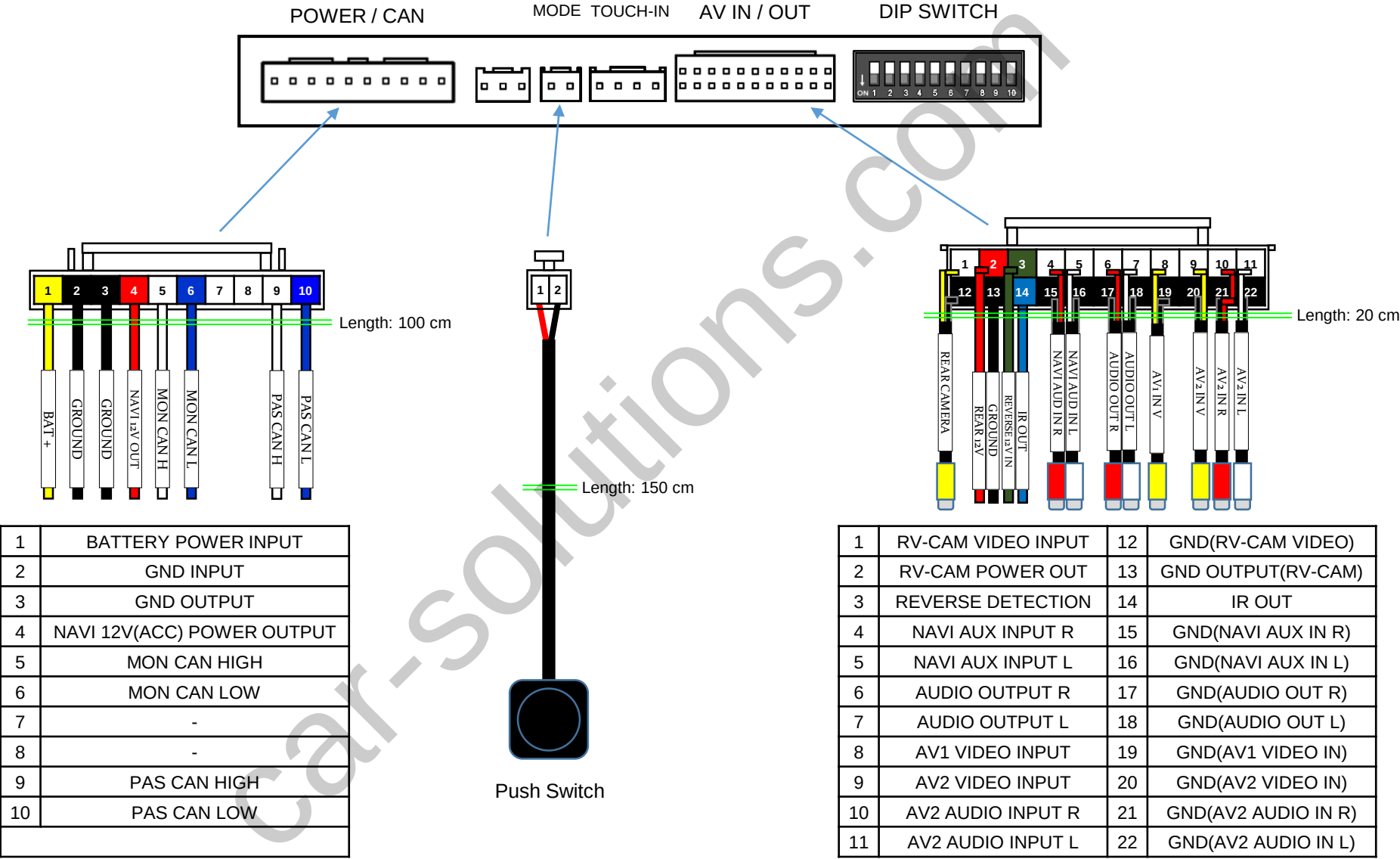


***Hazard Module is just available with 'Smart Drive' function of N-Link' navigation in South Korea.**

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Body Connector specifications



Car Compatibility Chart

Car Models	Production Year	Specific Models
A-Class	2016 -	W176
CLA-Class	2016 -	C117
C-Class	2014 -	W205
B-Class	2015 -	W246
E-Class	2015 -	W212
CLS-Class	2015 -	W218
S-Class	2014 -	W222
GLA-Class	2015 -	X156
GLC-Class	2015 -	X253
GLE-Class	2015 -	W166
V-Class	2014 -	W447



Activation by original buttons of C(W205), V(W447) Class



Button	Function	Operation	Remarks
1 BACK	Changing Modes	Press the button 2 seconds long.	Order: HDMI → NAVI → AV1 → AV2 → OEM
1 BACK	Shortcut to each modes	Press the button 2 times. < OEM → NAVI > Press the button 3 times. < OEM → AV1 > Press the button 4 times. < OEM → AV2 >	
 Buttons marked with yellow	Back to OEM	Press the buttons short.	Return to the OEM mode in any modes.
2 BACK (Steering wheel)	Changing mode to Front View CAM mode(AV1)	Press the button 2 seconds long.	It changes the screen from any modes to AV1 mode directly.
3 OK (Steering wheel)	Reset to factory default setting and power.	Press the button 10 seconds long.	You can use this function when you get in trouble to see the screen while setting the screen.
4 Bookmark	Enter into the setting menu	Press the button 5 seconds long.	All functions of setting menu is controlled by COMAND controller.

Activation by original buttons of W222(S-Class)



Button	Function	Operation	Remarks
1 NAVI	Changing Modes	Press the button 2 seconds long.	Order: HDMI → NAVI → AV1 → AV2 → OEM
1 NAVI	Shortcut to each modes	Press the button 2 times. < OEM → NAVI > Press the button 3 times. < OEM → AV1 > Press the button 4 times. < OEM → AV2 >	
Buttons marked with yellow	Back to OEM	Press the buttons short.	Return to the OEM mode in any modes.
2 BACK (Steering wheel)	Changing mode to Front View CAM mode(AV1)	Press the button 2 seconds long.	It changes the screen from any modes to AV1 mode directly.
3 OK (Steering wheel)	Reset to factory default setting and power.	Press the button 10 seconds long.	You can use this function when you get in trouble to see the screen while setting the screen.
4 CAR BUTTON	Enter into the setting menu	Press the button 5 seconds long.	All functions of setting menu is controlled by COMAND controller.

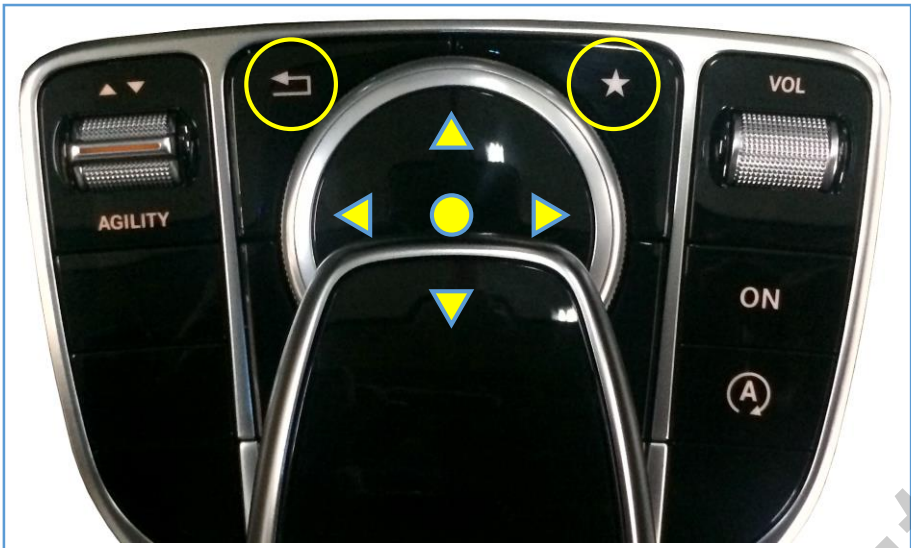
DIP Switch Settings



Pin No.	ON(▼)	OFF(▲)
1	HDMI Mode	Skip HDMI Mode
2	Navigation Mode	Skip Navigation Mode
3	External Rear View Camera	Original Rear View Camera
4	External Front View Camera(AV1 Mode)	Skip External Front View Camera(AV1 Mode)
5	AV2 Mode	Skip AV2 Mode
6	Selection of car model	
7		
8		
9		
10		

No.6	No.7	No.8	No.9	No.10	Car Models
ON(▼)	OFF(▲)	OFF(▲)	OFF(▲)	OFF(▲)	C(W205) , GLC(X253) , V(W447) (8.4-inch screen / 960*540)
ON(▼)	OFF(▲)	OFF(▲)	OFF(▲)	ON(▼)	S-Class(W222) (12.1-inch wide screen)
ON(▼)	OFF(▲)	OFF(▲)	ON(▼)	OFF(▲)	S-Class(W222) (12.1-inch wide screen) ※ Abnormal Screen (Special case)
ON(▼)	OFF(▲)	OFF(▲)	ON(▼)	ON(▼)	GLE(C292) E(W212),CLS (W218) *Facelift (7 inch / 800*480, 960*540) B(W246),CLA (C117) *Facelift (7 inch, 8 inch screen / 800*480)
ON(▼)	OFF(▲)	ON(▼)	ON(▼)	ON(▼)	GLE(C292) E(W212),CLS (W218) *Facelift (7 inch / 800*480, 960*540) B(W246),CLA (C117) *Facelift (7 inch, 8 inch screen / 800*480) ※Reverse PGS line
ON(▼)	OFF(▲)	ON(▼)	OFF(▲)	OFF(▲)	C(W205) , GLC(X253) , V(W447) (7 inch screen / 800*480)

Settings



Button	Function
Back(↶)	Back to previous menu when press the button short.
Bookmark(★) *W205(C-Class)	Enter into the setting menu when you press the button 5 seconds long.
Up, Down, Left, Right (↑, ↓, ←, →)	Move the menu-pointer and adjust the setting values.
Selection(●)	Select the setting menu and setting values.

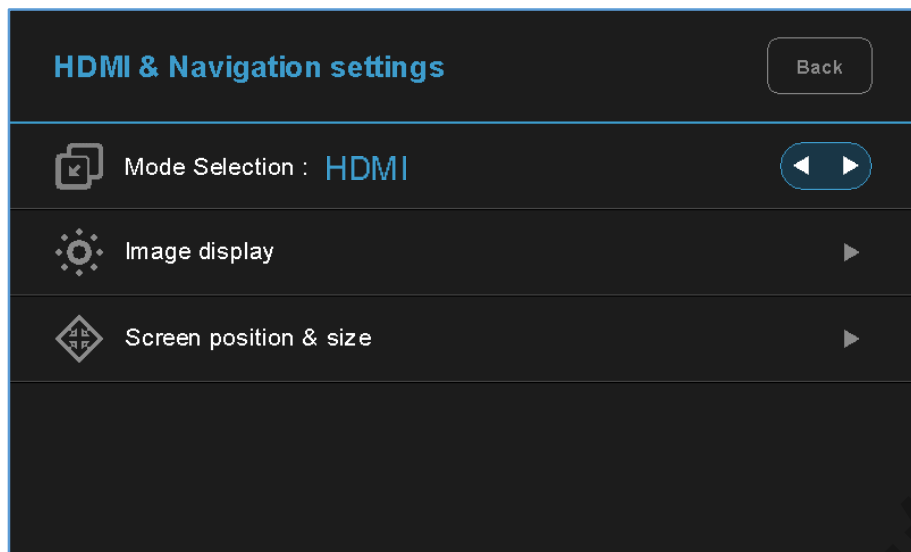


1. Enter into the setting menu.

< Press the 'Bookmark(★)' button 5 seconds long >

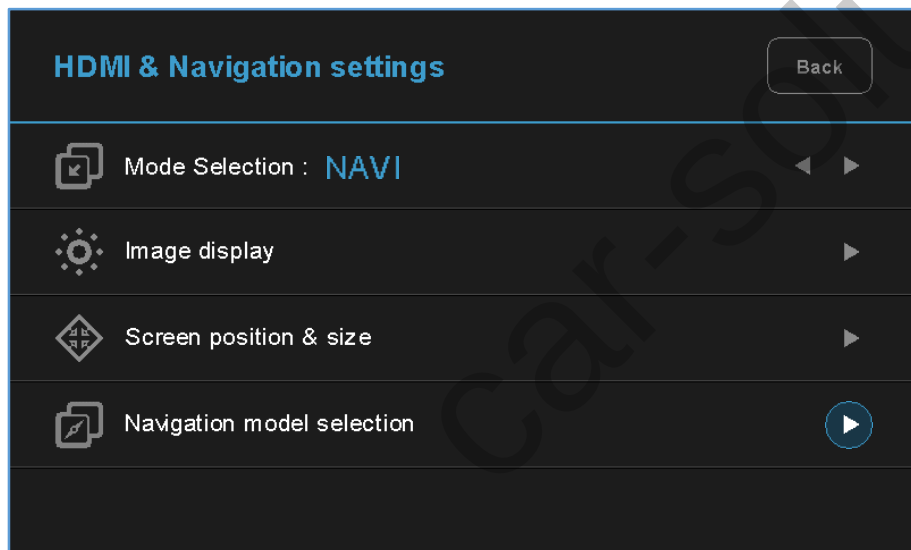
- HDMI & Navigation settings
- Rear view camera settings
- AV-input settings
- System settings
- System information

Settings



2. HDMI mode settings

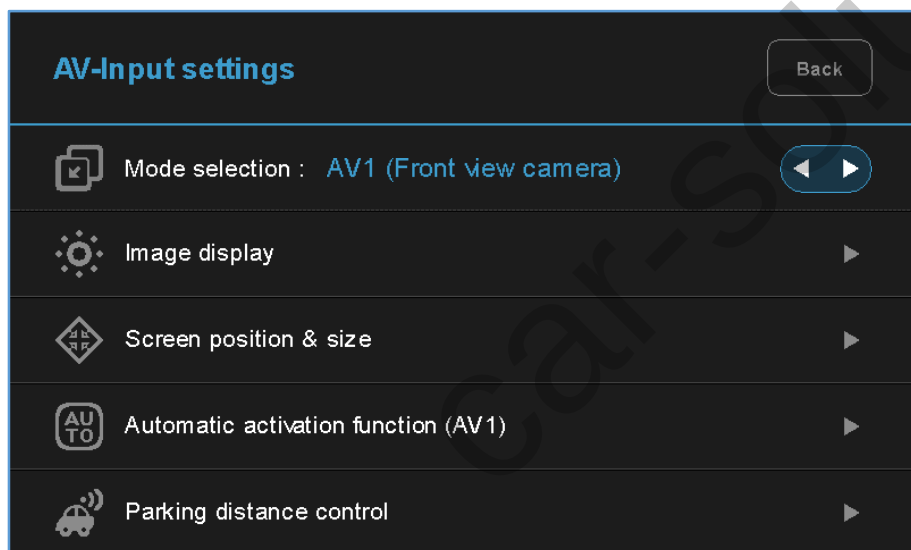
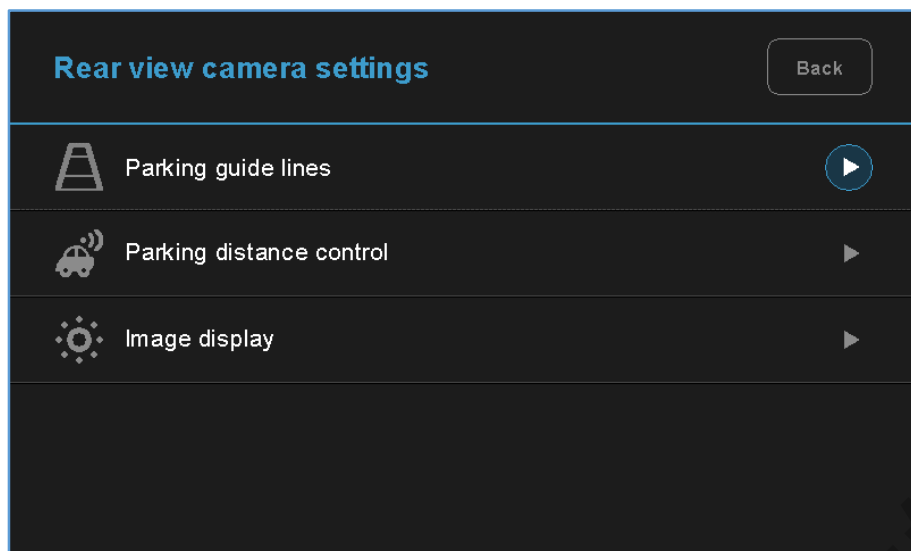
- Mode selection: HDMI ↔ NAVI
- Image display
= Adjust the values of brightness and contrast
Red-Green-Blue colors of HDMI display.
- Screen position & size
= Entry Disabled / Not applicable.



3. NAVI mode settings

- Mode selection: NAVI ↔ HDMI
- Image display
= Adjust the values of brightness and contrast
Red-Green-Blue colors of NAVI display.
- Screen position & size
= Entry Disabled / Not applicable
- Navigation model selection

Settings



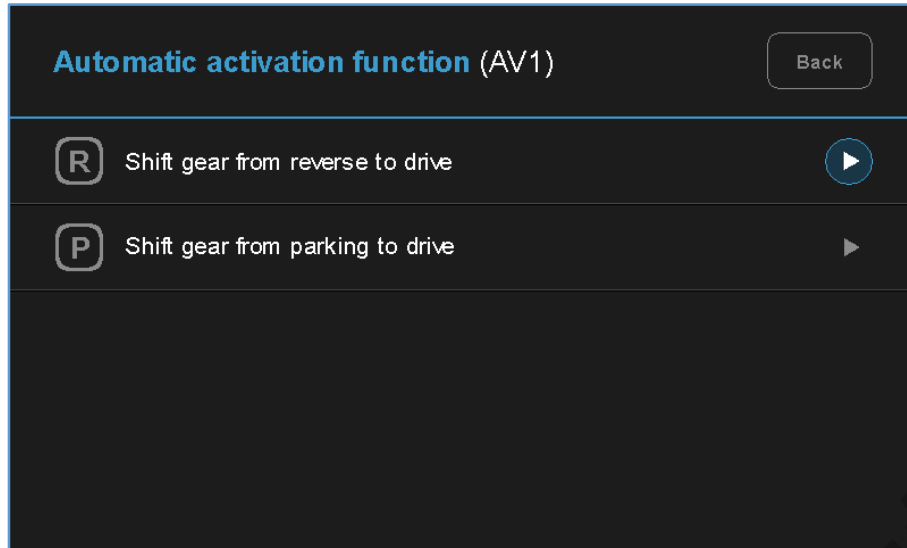
4. Rear view camera settings

- Parking guide lines
= Adjust position of parking guide lines and select the lines 'ON or OFF'.
- Parking distance control
= Adjust position of parking distance control sensors to 'LEFT or RIGHT' and select the PDC 'ON or OFF'.
- Image display
= Adjust the values of brightness and contrast Red-Green-Blue colors of Rear view camera display.

5. AV1(Front view camera) settings

- Mode selection: AV1(Front view camera) ↔ AV2
- Image display
= Adjust the values of brightness and contrast Red-Green-Blue colors of AV1(Front view camera) display.
- Screen position & size
= Entry Disabled / Not applicable.
- Automatic activation function(AV1)
= * Please refer to next page.
- Parking distance control
= Adjust the position of parking distance control sensors to 'LEFT or RIGHT' and select the PDC 'ON or OFF'.

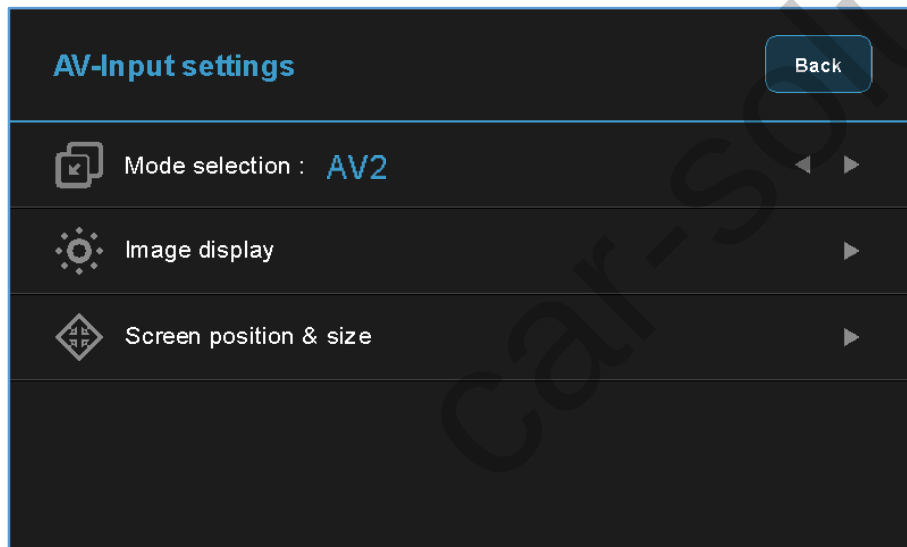
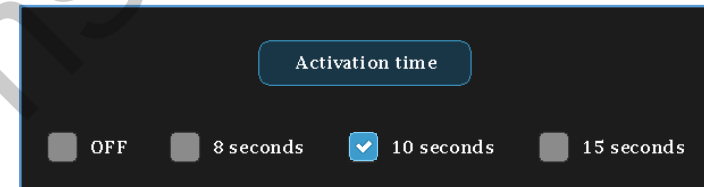
Settings



6. Automatic activation function(AV1)

- Shift gear from reverse to drive
- Shift gear from parking to drive

* When you shift gear 'from reverse to drive' or 'from parking to drive', it just works automatically during the activation time you selected.



7. AV2 settings

- Mode selection: AV2 ↔ AV1(Front view camera)
- Image display
= Adjust the values of brightness and contrast
Red-Green-Blue colors of AV2 display.
- Screen position & size
= Entry Disabled / Not applicable.

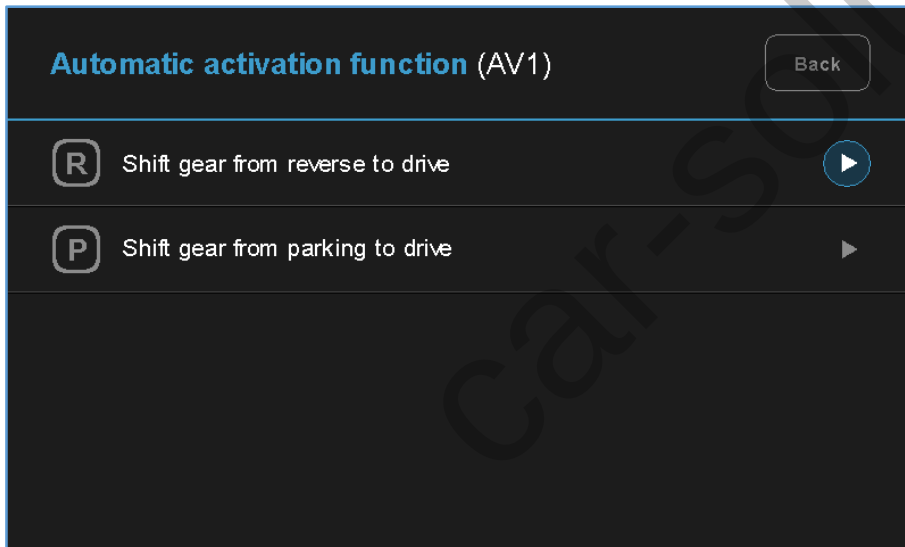
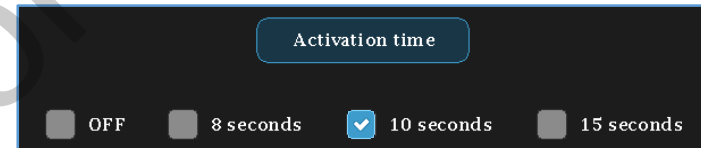
Settings (SURROUND VIEW OPTION)



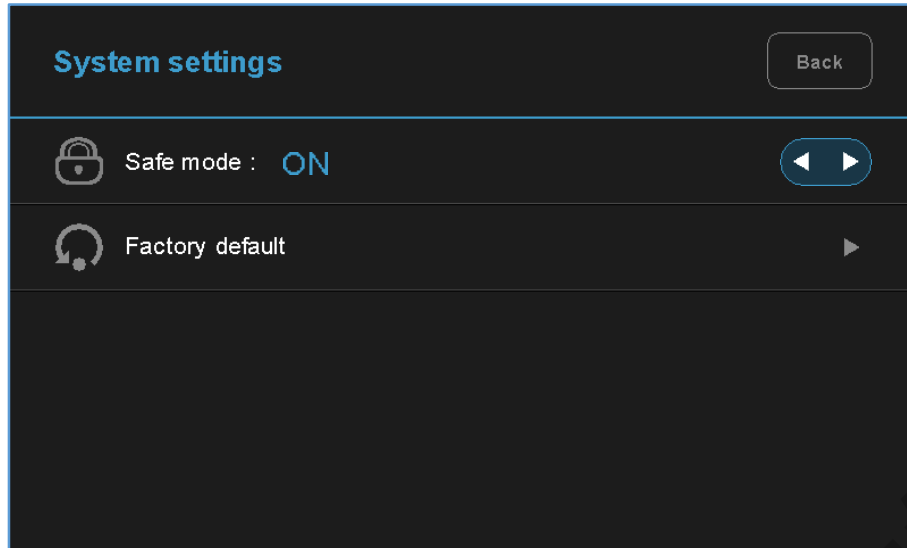
Keep the rear camera view

- Shift gear from reverse to drive
- Shift gear from parking to drive

* When you shift gear 'from reverse to drive' or 'from parking to drive', it just works during the activation time you selected.



Settings

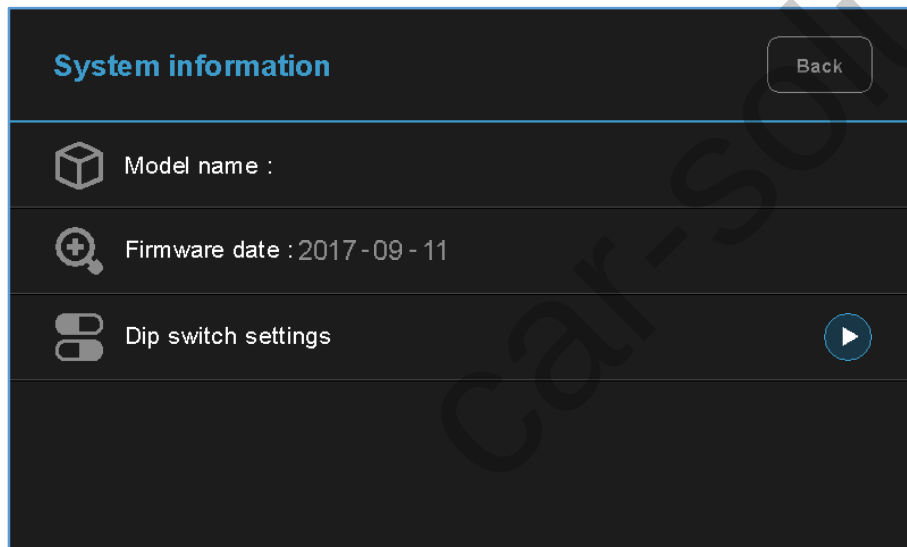


8. System settings

- Safe mode
= Select the one of two between 'ON and OFF'.

* If you select 'ON', 3 modes(HDMI, NAVI and AV2) will be faded out when the car is driven.

- Factory default
= Reset all setting values to factory default setting.



9. System information

- Mode name:
- Firmware date: 2017 - 09 - 11(Latest firmware date)
 - = You can check the current firmware version date.
- Dip switch settings
 - = You can check the current positions of dip switch settings.

Settings

System information - Dip switch settings

Back

ON

OFF

1

2

3

4

5

6

7

8

8

9

10

No. 1	HDMI	ON
No. 2	Navigation	ON
No. 3	External rear view camera	ON
No. 4	AV1	ON
No. 5	AV2	OFF
No. 6	800*480(On) / 400*240(OFF)	ON
No. 7	Selection of car model	OFF
No. 8		ON
No. 9		ON
No. 10		OFF

ex 1)
Actual DIP switch values. (→)



Appears on the setting menu. (↓)

No. 1	HDMI	ON
No. 2	Navigation	OFF
No. 3	External rear view camera	ON
No. 4	AV1	ON
No. 5	AV2	OFF
No. 6	800*480(On) / 400*240(OFF)	OFF
No. 7	Selection of car model	ON
No. 8		OFF
No. 9		ON
No. 10		OFF

10. Information of Dip switch settings

* You can check the current positions of dip switch settings.

ex 2)
Actual DIP switch values. (→)



Appears on the setting menu. (↓)

No. 1	HDMI	ON
No. 2	Navigation	ON
No. 3	External rear view camera	OFF
No. 4	AV1	ON
No. 5	AV2	OFF
No. 6	800*480(On) / 400*240(OFF)	ON
No. 7	Selection of car model	OFF
No. 8		OFF
No. 9		OFF
No. 10		OFF