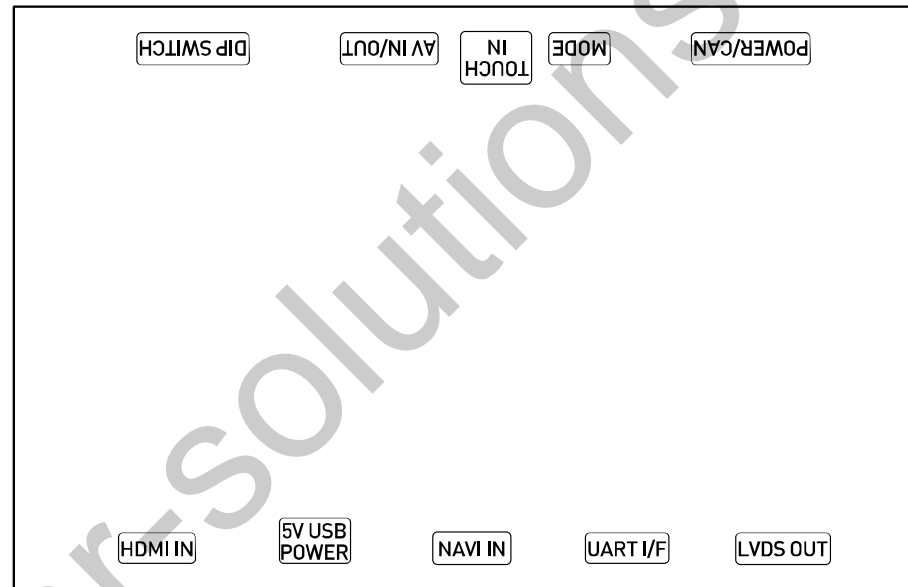


# Instruction Manual

## High-Definition Link for Mercedes-Benz



Latest Firmware Date	2018 - 02 - 21
Manual Version	Rev. 3.3
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(1080P / 1920\*1080). 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.

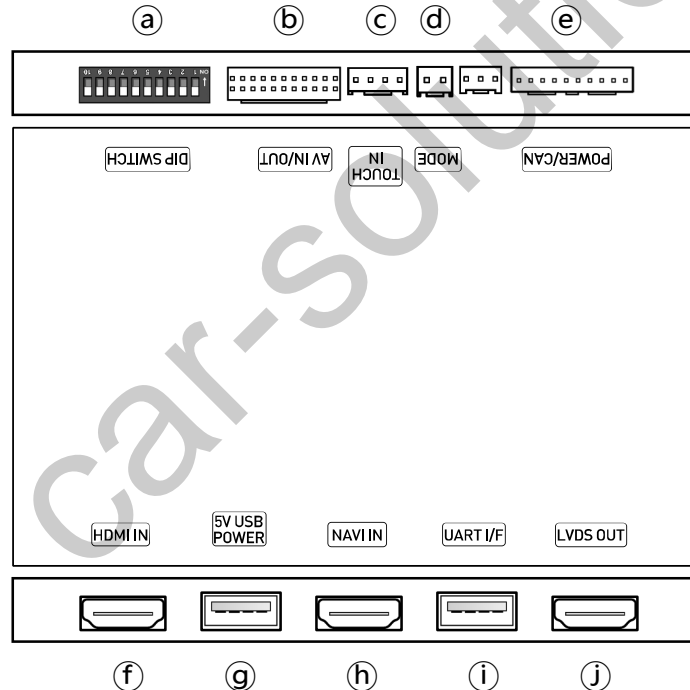
## ▪ Navigation(GPS) box-related

- When you connect the power wires(B+, ACC) to the navigation(GPS) box, the 'ACC (12V) OUT' wire supported by 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



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)



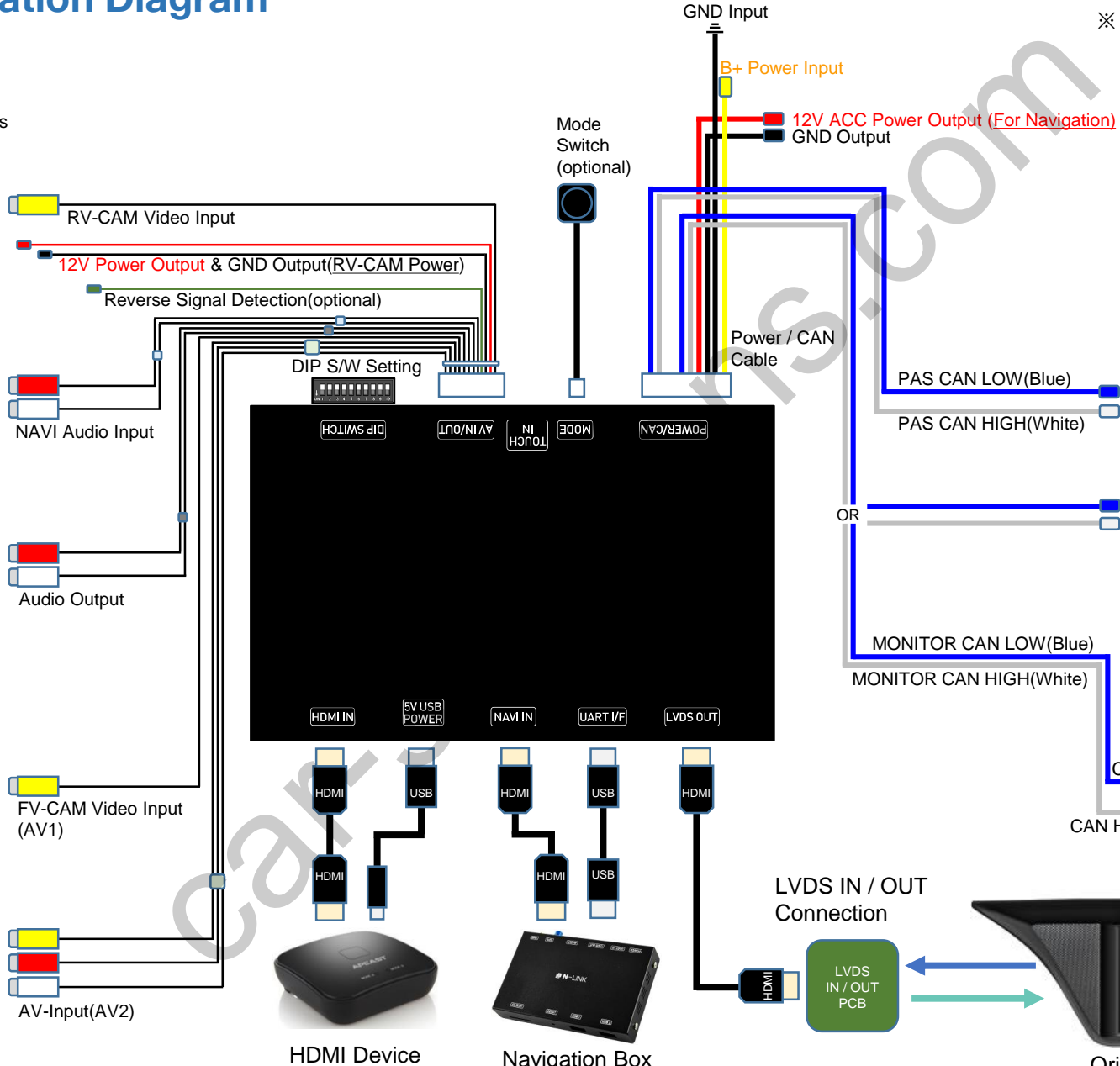
Mode Switch

# Full Installation Diagram

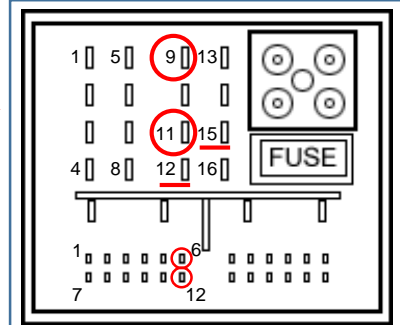
※ Optional External Devices



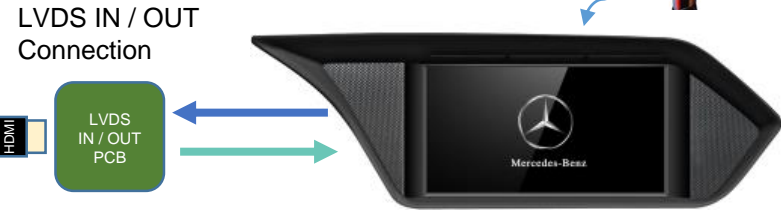
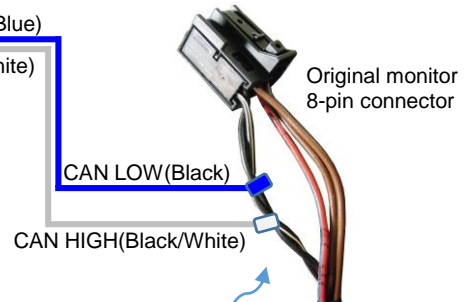
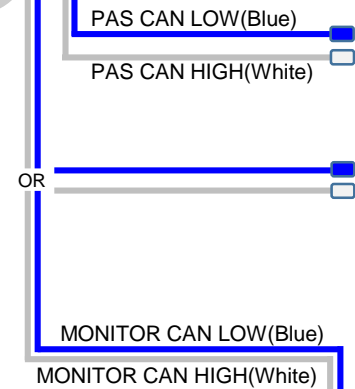
- External Rear View Camera
- Audio(AUX) Output of Navigation Box
- Auxiliary(AUX) Input of the car
- External Front View Camera
- AV device (ex: DTV Box, Divx)



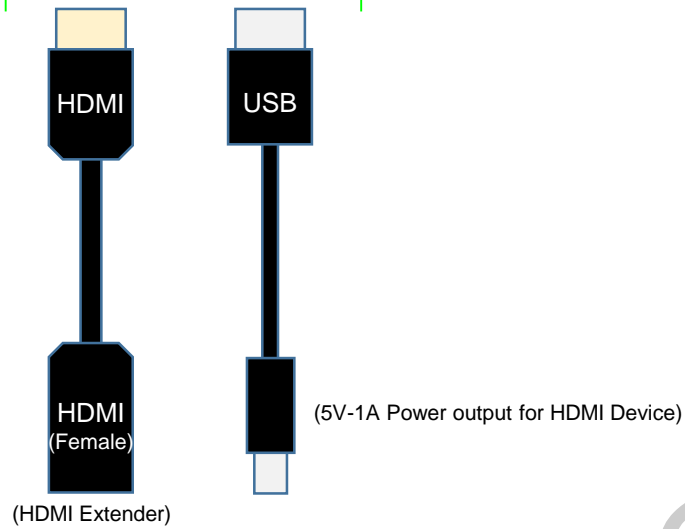
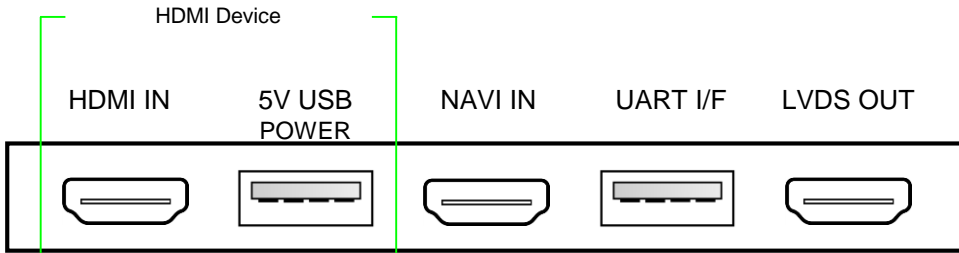
※ CAN HIGH / LOW Pin Specification



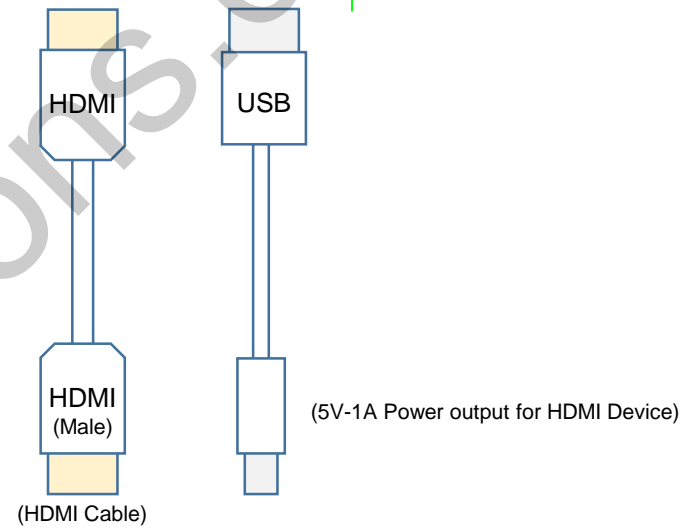
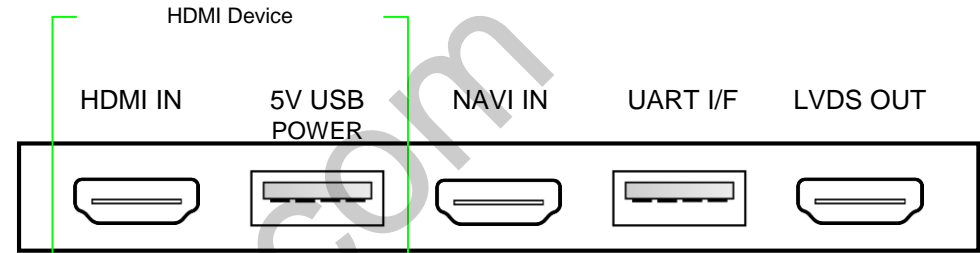
- Pin # 9 = PAS CAN LOW (Brown)
- Pin # 11 = PAS CAN HIGH (Brown / Red)
- Pin # 12 = GND (Brown)
- Pin # 15 = B+ POWER (Red)
- Pin # 6 = MON CAN LOW (Black)
- Pin # 12 = MON CAN HIGH (Black / White)



# HDMI Connection Diagram



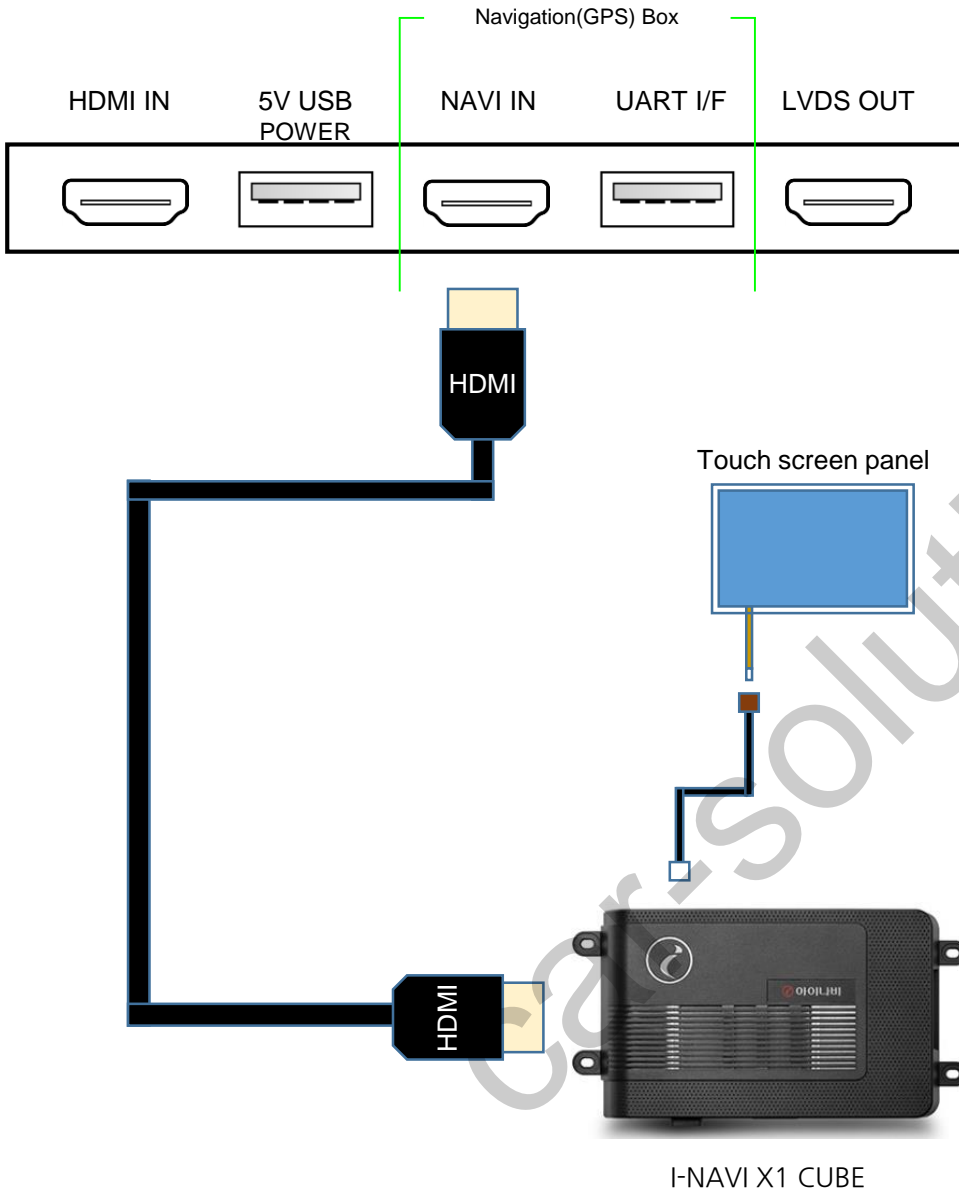
'Stick Type' HDMI Devices



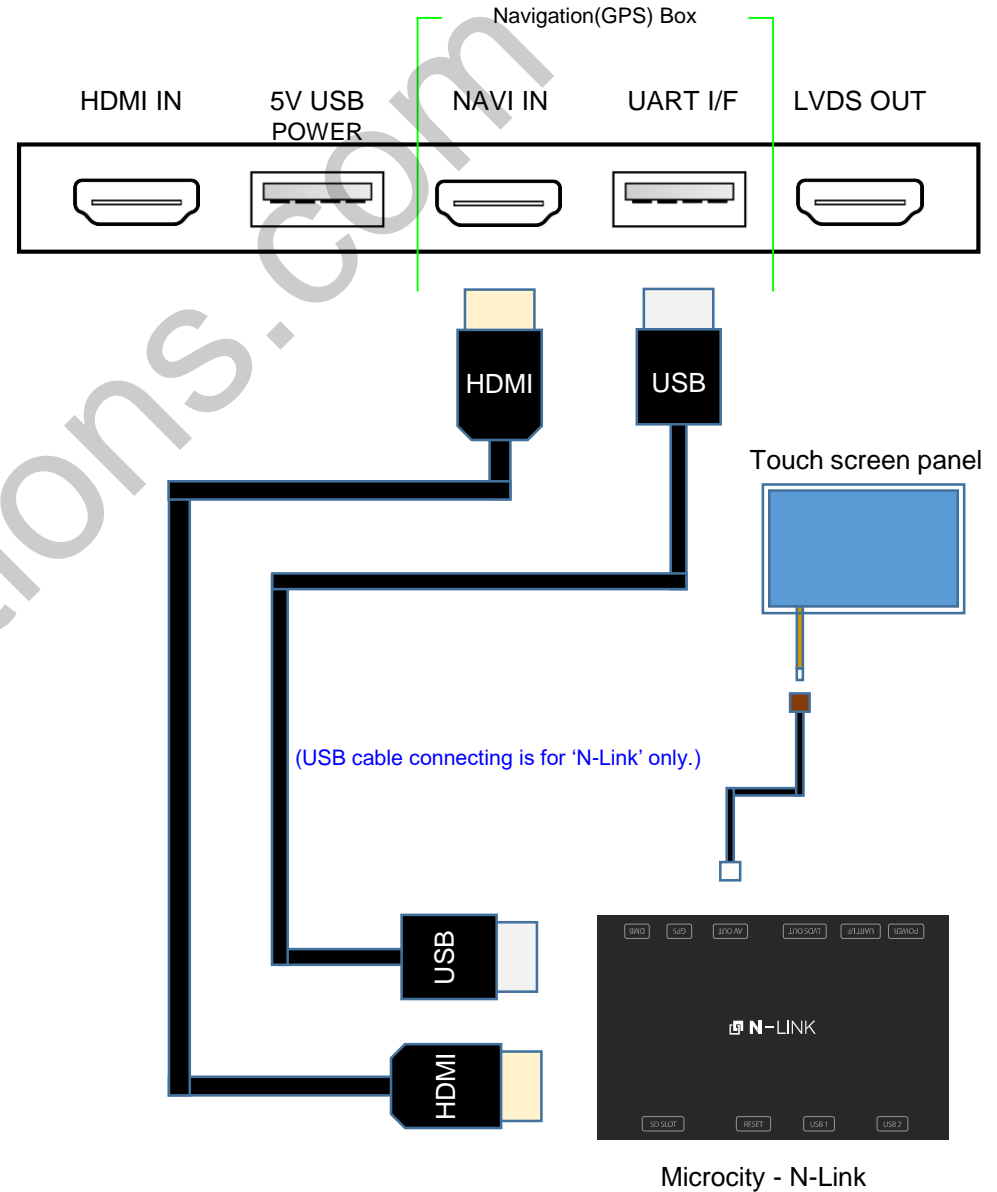
'Dongle & Adapter' Type HDMI Devices



# Navigation Connection Diagram






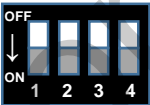






# Navigation Connection Diagram



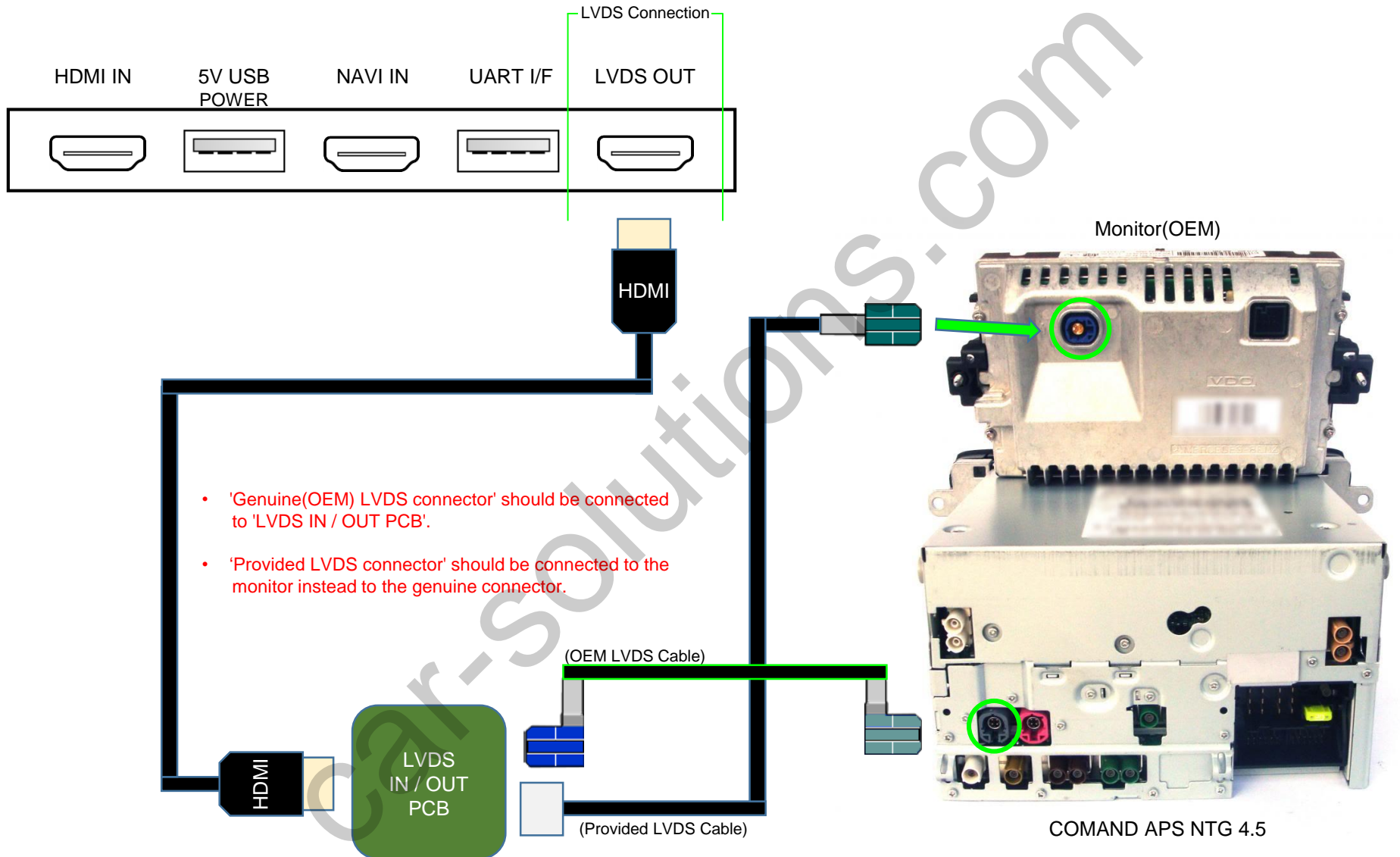


## Compatibility Chart for Navigation(GPS) box models

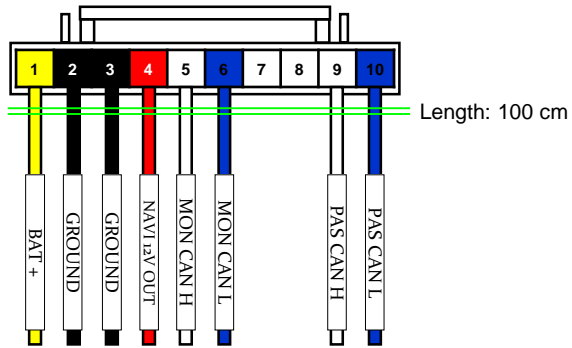
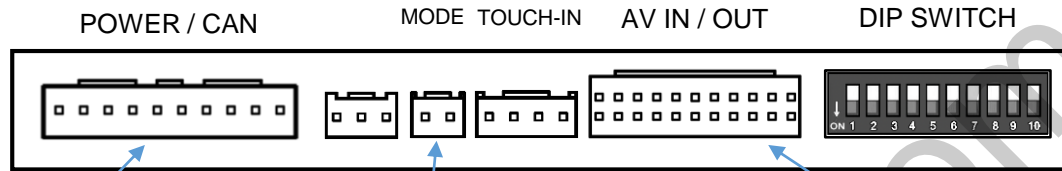
Model	Country	Dip S/W (Navigation)	Required Parts
 <p>MICROCITY N-Link</p>	South Korea	-	 <p>HDMI Cable (HDMI to HDMI)</p>  <p>USB A-A Cable (USB to USB)</p>  <p>Hazard Module (Refer to Page.11)</p>
 <p>iNAVI X1 CUBE</p>	South Korea	 <p>OFF(↓): 1, 2, 3, 4</p>	 <p>HDMI Cable (HDMI to HDMI)</p>
 <p>MYVI MS1400 Digital</p>	South Korea	 <p>OFF(↓): 1, 2, 3 ON(↑) : 4</p>	 <p>HDMI Cable (HDMI to HDMI)</p>

- The device supports navigation(GPS) box models equipped with 'Digital video output'.
- It does not support the 'RGB video signals'.

# LVDS Connection Diagram



# Body Connector specifications

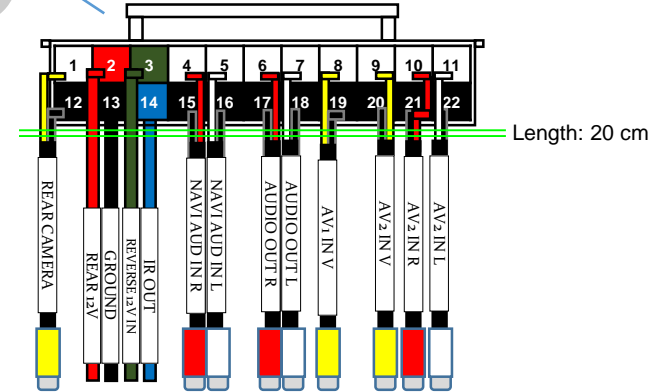


1	BATTERY POWER INPUT
2	GND INPUT
3	GND OUTPUT
4	NAVI 12V POWER OUTPUT
5	MONITOR CAN HIGH
6	MONITOR CAN LOW
7	-
8	-
9	PAS CAN HIGH
10	PAS CAN LOW

\* No. 7 wire is not necessary.(only for Audi)



PUSH SWITCH



1	RV-CAM VIDEO INPUT	12	GND(RV-CAM VIDEO)
2	RV-CAM POWER OUT	13	GND OUTPUT(RV-CAM)
3	REVERSE DETECTION	14	IR OUT
4	NAVI AUX INPUT R	15	GND(NAVI AUX IN R)
5	NAVI AUX INPUT L	16	GND(NAVI AUX IN L)
6	AUDIO OUTPUT R	17	GND(AUDIO OUT R)
7	AUDIO OUTPUT L	18	GND(AUDIO OUT L)
8	AV1 VIDEO INPUT	19	GND(AV1 VIDEO IN)
9	AV2 VIDEO INPUT	20	GND(AV2 VIDEO IN)
10	AV2 AUDIO INPUT R	21	GND(AV2 AUDIO IN R)
11	AV2 AUDIO INPUT L	22	GND(AV2 AUDIO IN L)

- The colors of each wires can be changed under manufacturer's circumstance.

# Car Compatibility Chart

Car Models	Production Year	Specific Models
A-Class	2012 -	W176
B-Class	2012 - 2014	W246
C-Class	2011 - 2014	W204
E-Class	2012 - 2014	W212
CLA-Class	2014	C117
CLS-Class	2011 - 2014	W218
SLK-Class	2012 -	R172
SL-Class	2012 -	R231
GLK-Class	2012 -	X204
ML-Class	2012 - 2014	W166 (No GLE-Class)
G-Class	2012 -	W463
GL-Class	2013 -	X166



This device is used in combination with Mercedes-Benz COMAND APS NTG 4.5(ONLINE) and AUDIO 20.



This device supports the Mercedes – Benz original screen equipped with '4 pin LVDS round connector' only.

Please check the specification of original LVDS connector on the sidelines of a production year.

# Activation by original buttons of Mercedes-Benz



COMAND APS NTG 4.5 controller



Steering wheel buttons

## For COMAND APS NTG 4.5 & AUDIO 20

Button	Function	Operation	Remarks
1 Back	Changing Modes	Press the button 2 seconds long.	Order: HDMI → NAVI → AV2 → OEM
1 Back	Shortcut to each modes	Press the button 2 times. < OEM → NAVI >	
		Press the button 3 times. < OEM → AV2 >	
1 Back	Back to OEM	Press the button short.	Return to the OEM mode in any modes.
1 Back	System Locking / Unlocking	Press the button 10 seconds long.	If you visit car service center, you can lock the all functions of this device. It is only possible to use the OEM functions under it is locked.
2 Back (on steering wheel)	Changing mode to Front View Camera mode(AV1)	Press the button 2 seconds long.	It changes the screen from any modes to AV1 mode directly.
3 OK	Reset to factory default setting and power.	Press the button 5 seconds long.	You can use this function when you get in trouble to see the screen while setting the screen.

# 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	800*480(7-inch monitor) OEM Monitor Resolution(High)	400*240(5.8-inch monitor) OEM Monitor Resolution(Low)
7	Selection of car model	
8		
9		
10		

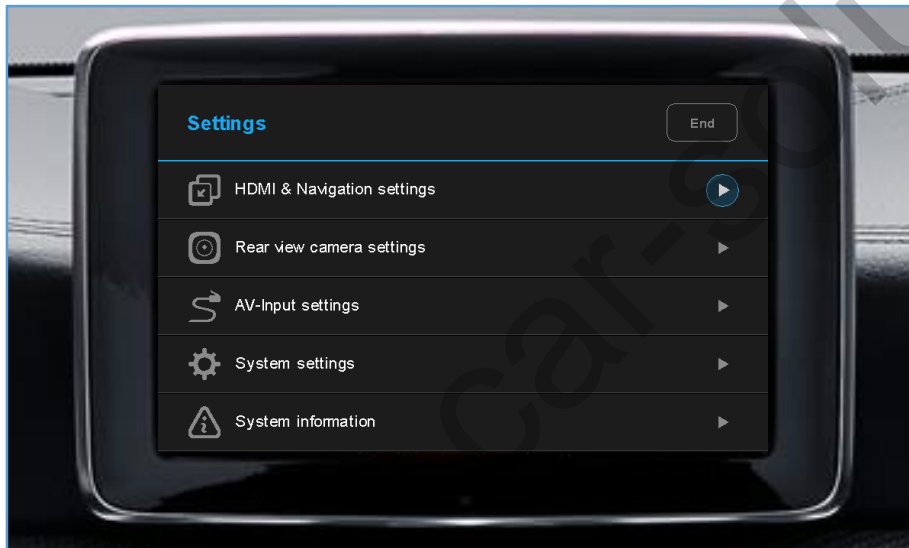
No.6	No.7	No.8	No.9	No.10	Car Models
OFF(▲)	OFF(▲)	OFF(▲)	OFF(▲)	OFF(▲)	A, B, C-Class (5.8-inch / 400*240)
ON(▼)	OFF(▲)	OFF(▲)	OFF(▲)	OFF(▲)	C, E, CLS, GLK *Before 2014 (7-inch / 800*480)
ON(▼)	OFF(▲)	OFF(▲)	OFF(▲)	ON(▼)	C, E, CLS, GLK,SLK *After 2014 (7-inch / 800*480)
ON(▼)	ON(▼)	OFF(▲)	OFF(▲)	ON(▼)	C, E, CLS, GLK,SLK *After 2014 (7-inch / 800*480) * Broken PAS Line Image in the some of vehicle
ON(▼)	OFF(▲)	OFF(▲)	ON(▼)	OFF(▲)	G, ML, GL-Class *After 2014 (7-inch / 800*480)
ON(▼)	OFF(▲)	OFF(▲)	ON(▼)	ON(▼)	SL-Class *SPLITVIEW screen (7-inch / 800*480)

# Settings

For COMAND APS NTG 4.5 & AUDIO 20



Button	Function
Back(←)	Back to previous menu when press the button short.
CLR(C)	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.

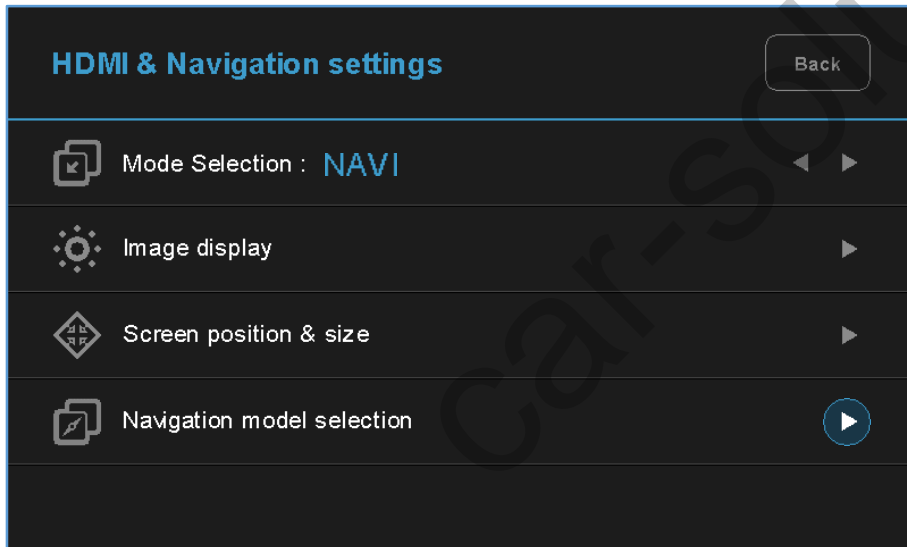
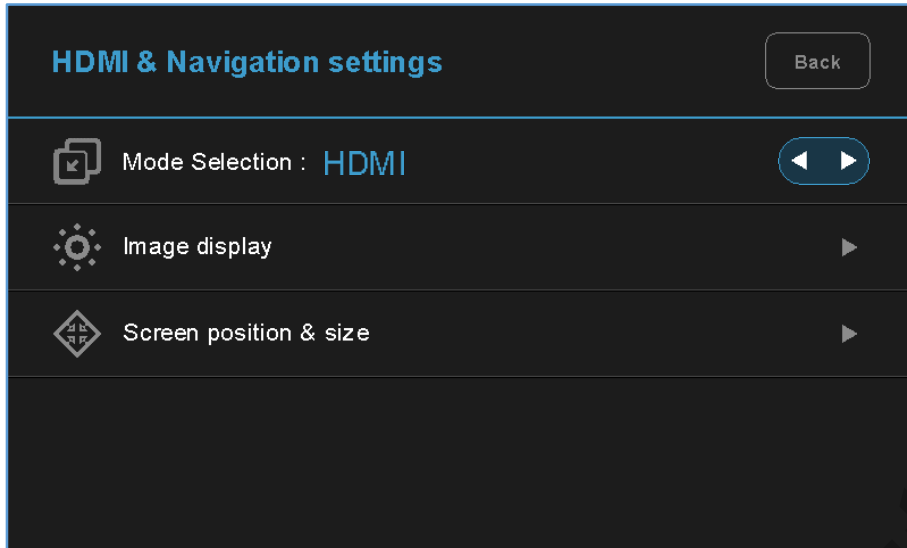


## 1. Enter into the setting menu.

<Press the 'CLR(C)' 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  
= Adjust position and size of HDMI display.

## 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  
= Adjust position and size of NAVI display.
- Navigation model selection
  - ① N-Link
  - ② iNAVI – CUBE
  - ③ imercury – Class settop

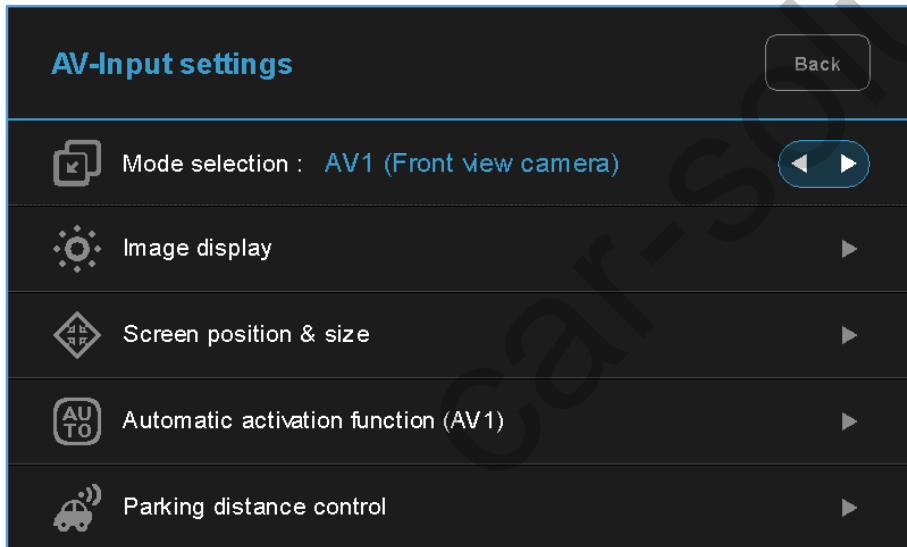
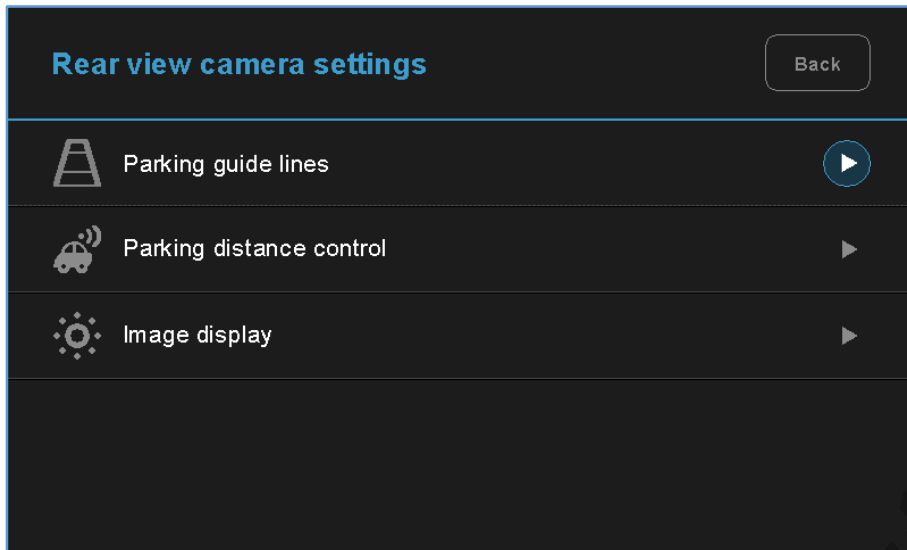
④ MYVI

⑤ Mode A

⑥ Mode B



# Settings



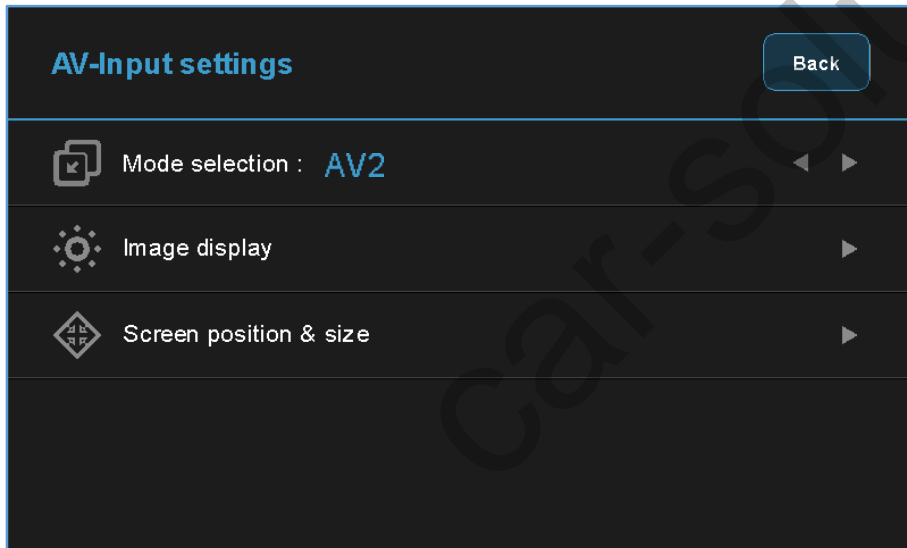
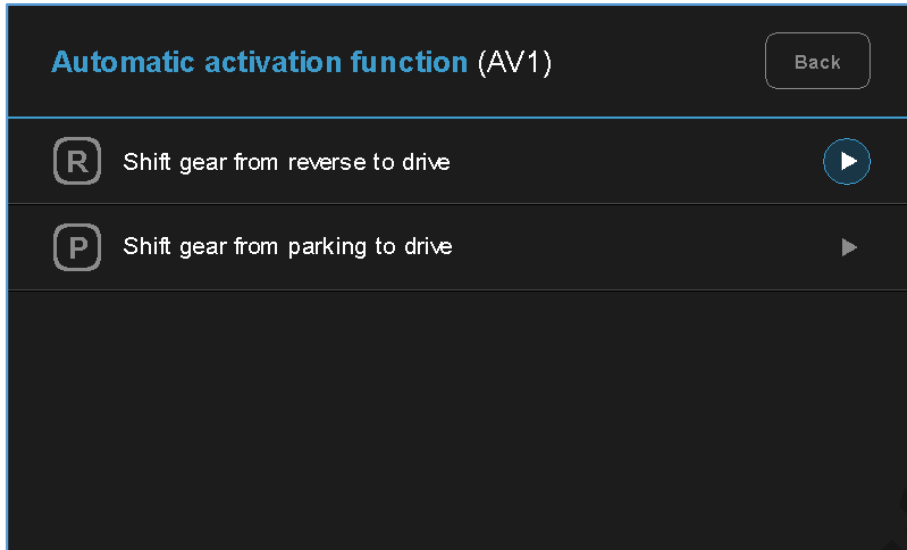
## 4. Rear view camera settings

- **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**  
= Adjust the position and size of AV1 display.
- **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'.

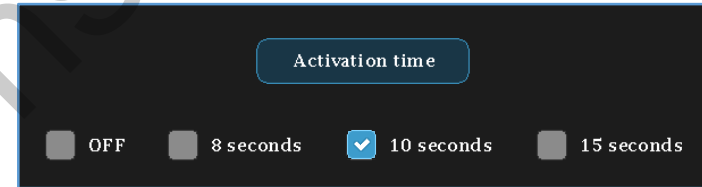
# Settings



## 6. Automatic activation function(AV1)

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

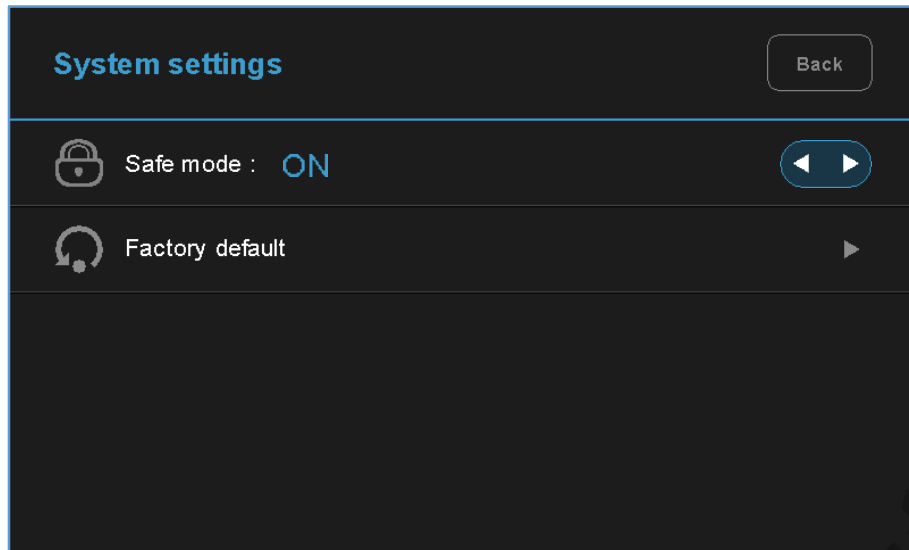
\* When you shift gear 'from reverse to drive' or 'from parking to drive', it just works automatically during the activation time you selected.



## 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  
= Adjust the position and size of AV2 display.

# Settings

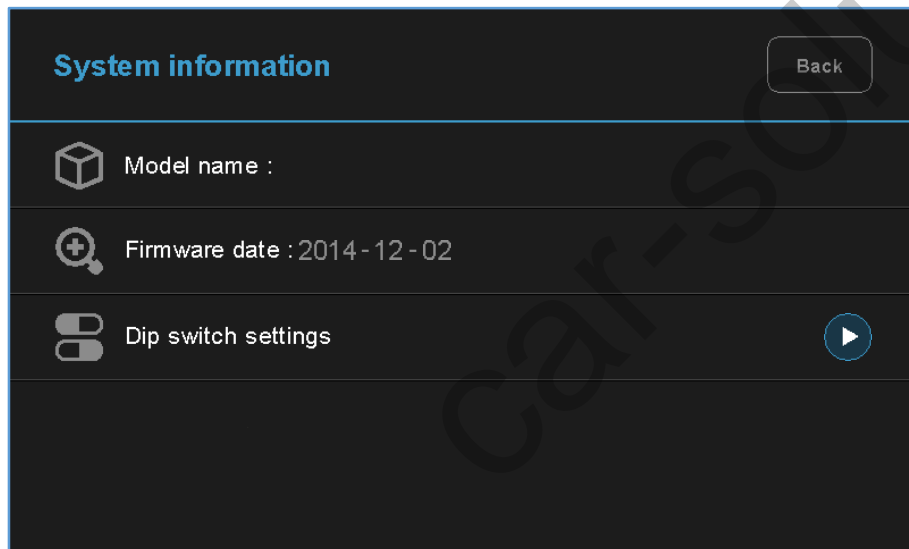


## 8. System settings

- 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: 2014 - 12 - 02(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	<input type="checkbox"/>	<input type="checkbox"/>	No. 1	HDMI
2	<input type="checkbox"/>	<input type="checkbox"/>	No. 2	Navigation
3	<input type="checkbox"/>	<input type="checkbox"/>	No. 3	External rear view camera
4	<input type="checkbox"/>	<input type="checkbox"/>	No. 4	AV1
5	<input type="checkbox"/>	<input type="checkbox"/>	No. 5	AV2
6	<input type="checkbox"/>	<input type="checkbox"/>	No. 6	800*480(On) / 400*240(OFF)
7	<input type="checkbox"/>	<input type="checkbox"/>	No. 7	Selection of car model
8	<input type="checkbox"/>	<input type="checkbox"/>	No. 8	
9	<input type="checkbox"/>	<input type="checkbox"/>	No. 9	
10	<input type="checkbox"/>	<input type="checkbox"/>	No. 10	

## 10. Information of Dip switch settings

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


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

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