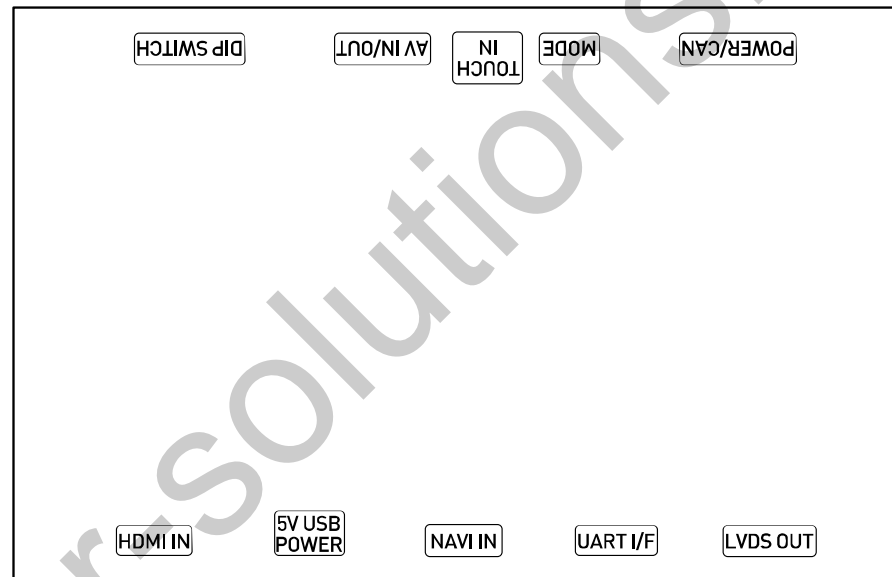


Instruction Manual

High-Definition Link for Volkswagen



Latest Firmware Date	2015 - 12 - 21
Manual Version	Rev. 1.1
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.

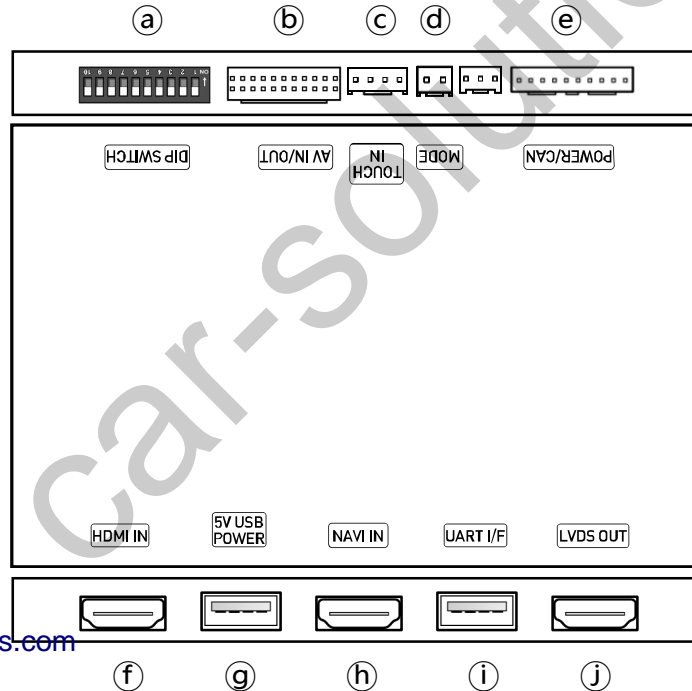
▪ Navigation(GPS) box_related

- When you connect the power wires(B+, ACC) to the navigation(GPS) box, the '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 (Connect To Set top Device)
- (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

Touch board Components



PCB



Power



Touch Cable



Touch In / Out Cable



4Pin FPC

Optional Parts (sold separately at the indiwork)



HDMI Cable
(Male to Male)



Mode Switch



HDMI Extender
(For stick type HDMI device)

Full Installation Diagram

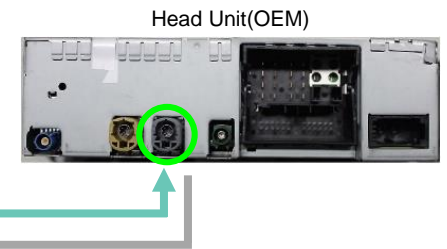
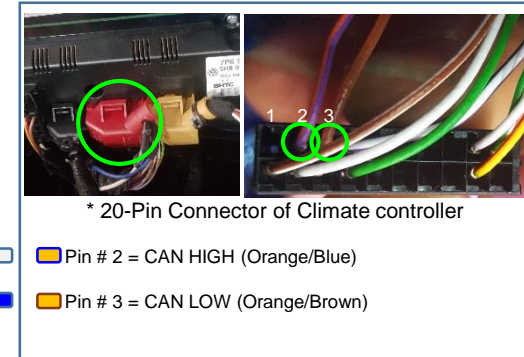
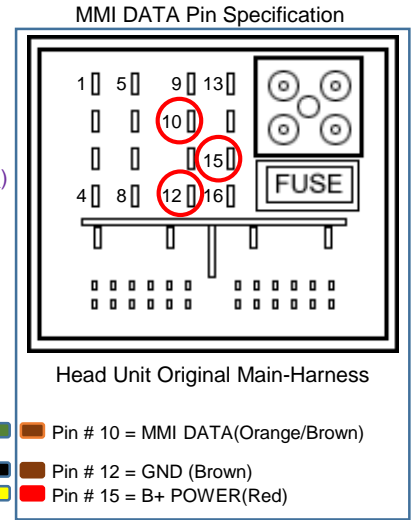
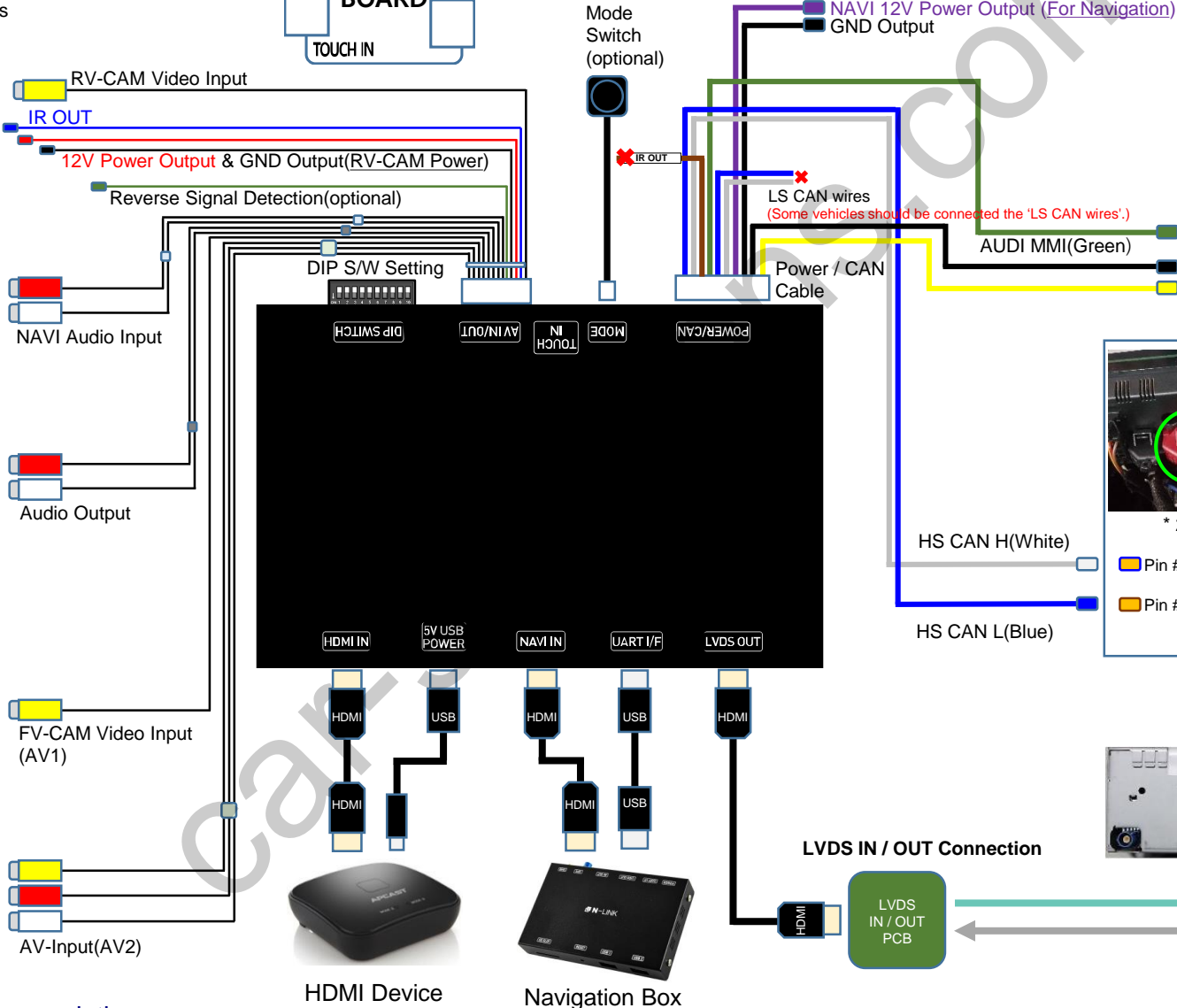
Touch board Installation Diagram

Please refer to next page

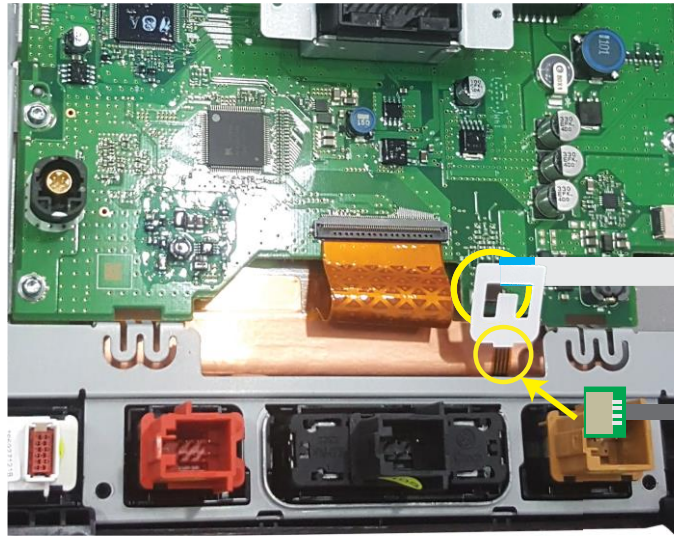
※ Optional External Devices



- 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)



TOUCH BOARD Installation Diagram (TOUAREG)



※ Touareg OEM Screen

Connect PCB

Connect FPC Cable

TOUCH OUT

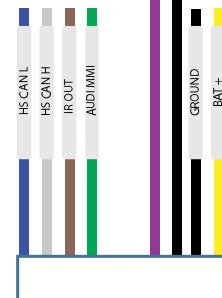
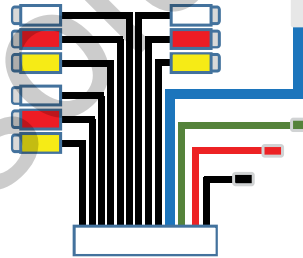
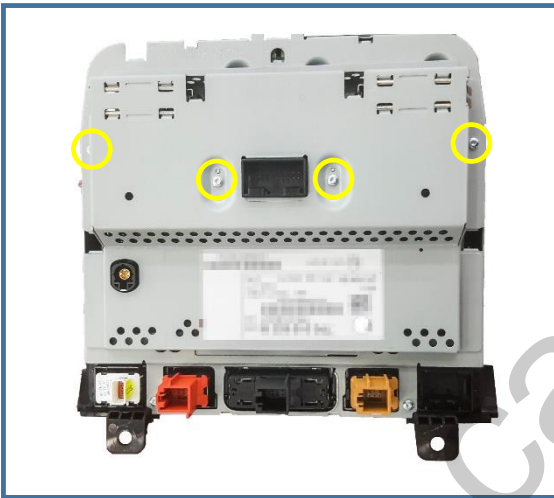
TOUCH BOARD

TOUCH IN

Connect Navigation (GPS BOX) Touch in

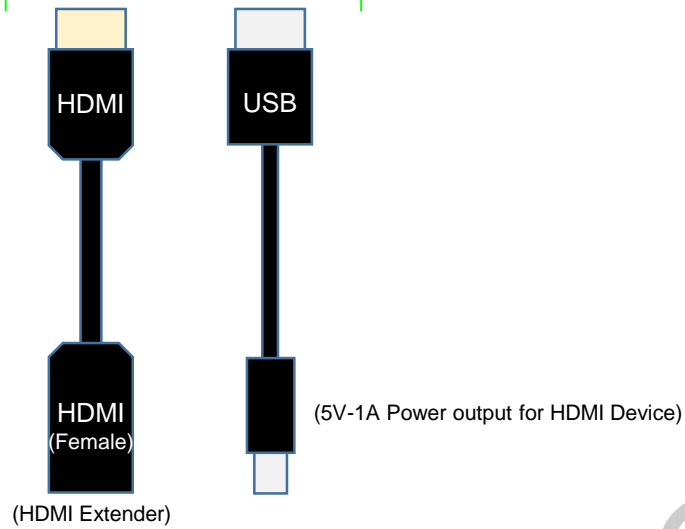
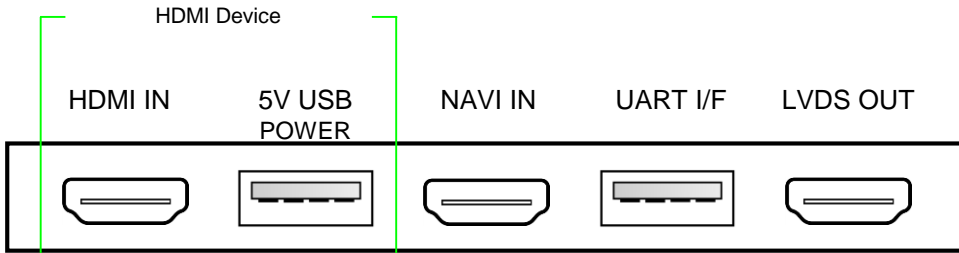
NAVI 12V OUT NAVI 12V Power Output (For Navigation)

GROUND GND Output

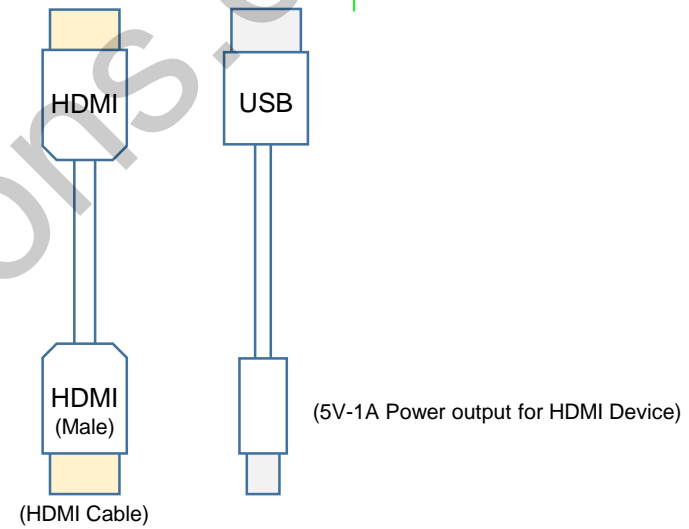
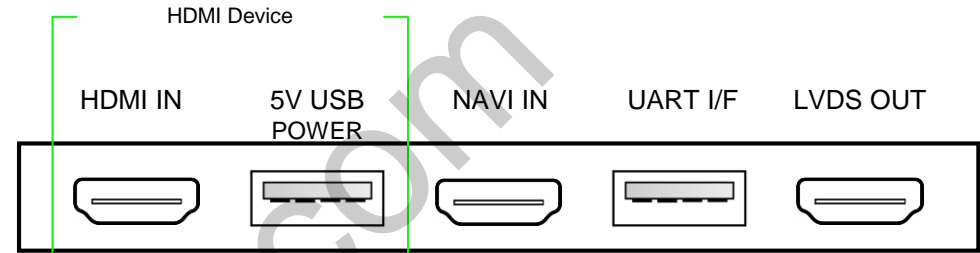


Connect Interface Main Body

HDMI Connection Diagram



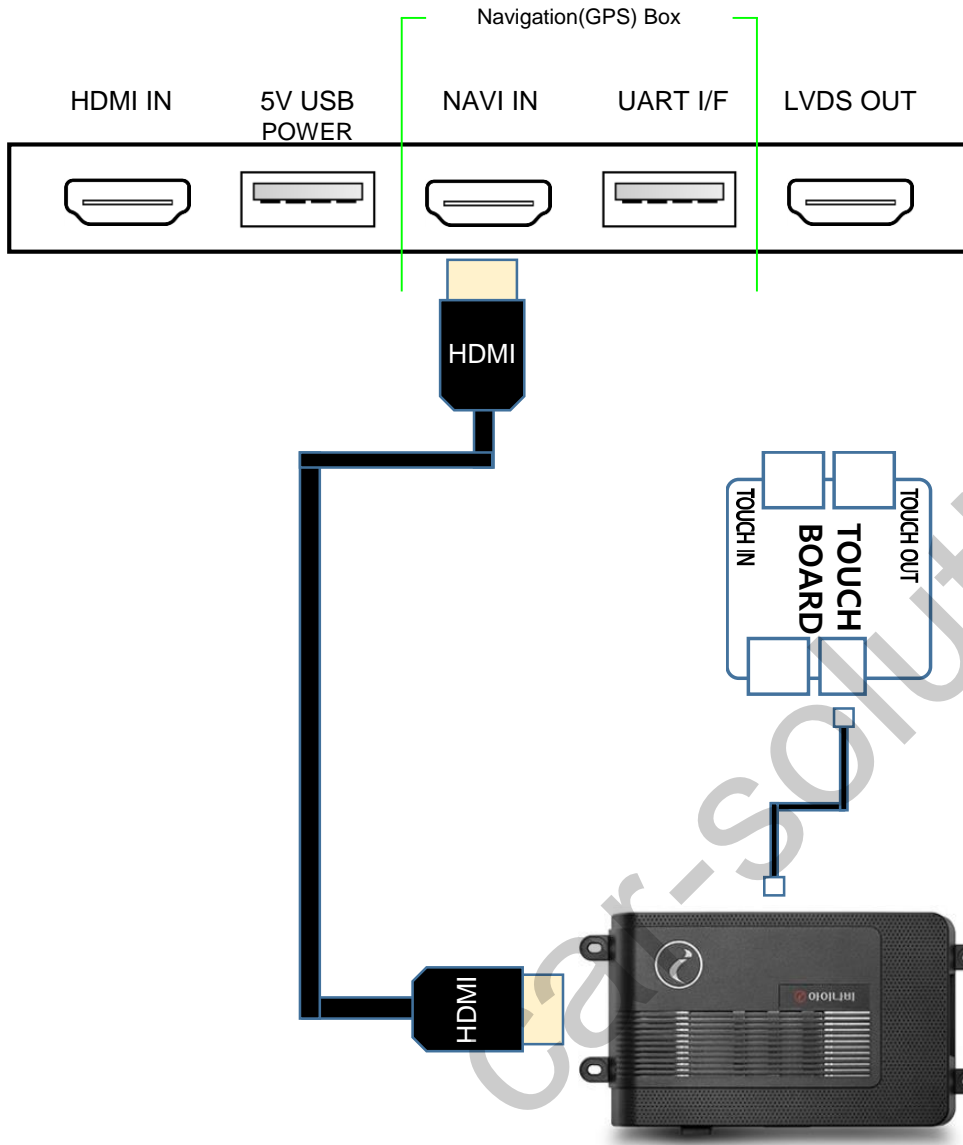
'Stick Type' HDMI Devices



'Dongle & Adapter' Type HDMI Devices

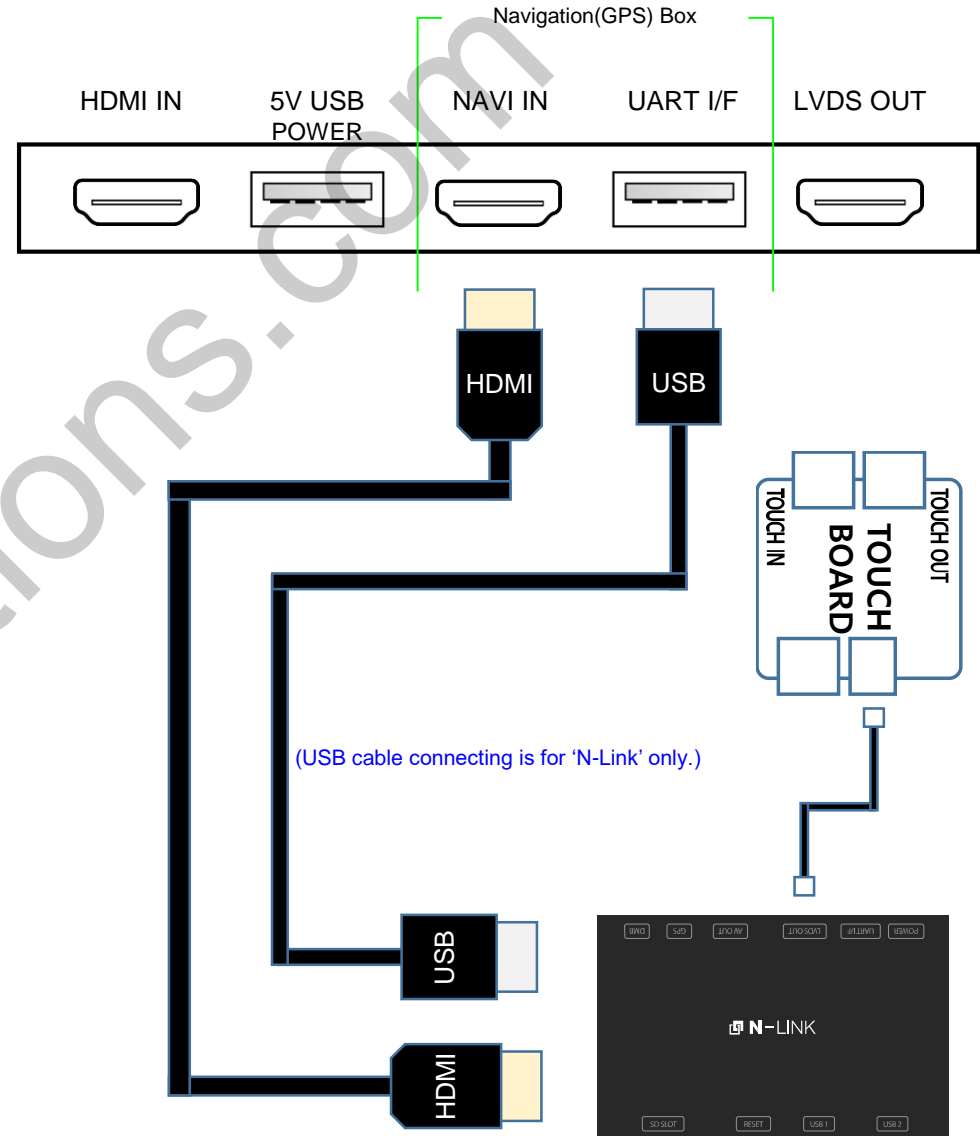


Navigation Connection Diagram







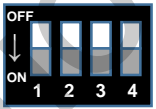




iNAVI - X1 CUBE

Navigation Connection Diagram



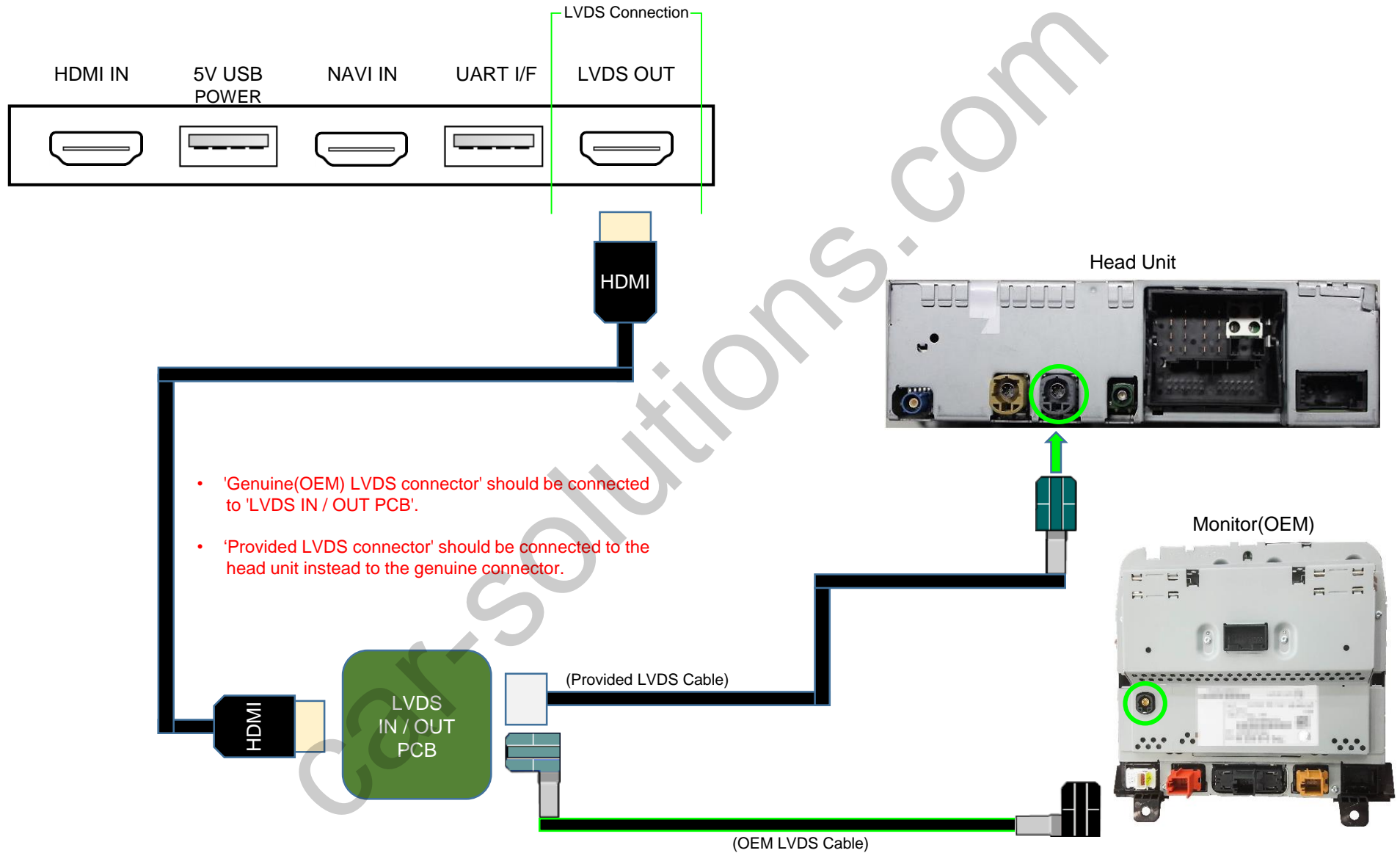
Microcity - N-Link

Compatibility Chart for Navigation(GPS) box models

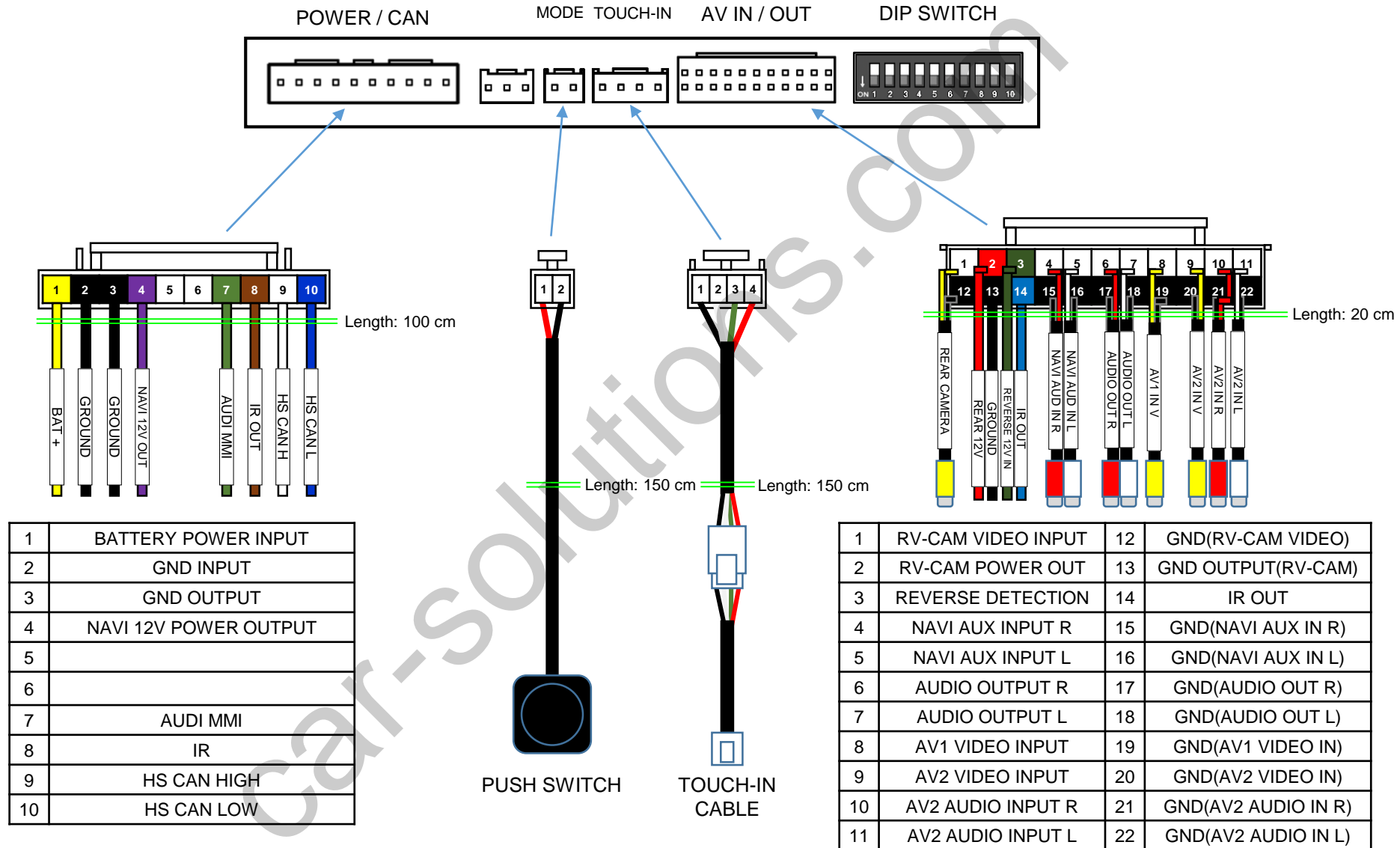
Model		Country	Dip S/W (Navigation)	Required Parts		
	MICROCITY N-Link	South Korea	-			
	iNAVI X1 CUBE	South Korea	 OFF(↑): 1, 2, 3, 4			
	MYVI MS1400 Digital	South Korea	 OFF(↓): 1, 2, 3 ON(↑) : 4			

- The 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



Body Connector specifications



• support@car-solutions.com
The colors of each wires can be changed under manufacturer's circumstance.

Activation by original buttons of Volkswagen



Volkswagen Toureg Monitor



Volkswagen Toureg Steering Wheel buttons
support@car-solutions.com

Toureg

Button	Function	Operation	Remarks
1 NAV	Changing Modes	Press the button 2 seconds.	Order: HDMI → NAVI → AV1 → AV2 → OEM
1 NAV	Shortcut to each modes	Press the button 2 times consecutively.	< OEM → NAVI >
		Press the button 3 times consecutively.	< OEM → AV1 >
		Press the button 4 times consecutively.	< OEM → AV2 >
1 NAV	System Locking / Unlocking	Press the button 10 seconds long.	If you visit car service center, you can lock the all functions of the device. It is only possible to use the OEM functions under it is locked.
4 (Steering Wheel buttons)	Changing mode to Front View Camera mode(AV1)	Push the button left 2 seconds long.	It changes the screen from any modes to AV1 mode directly.
2 CLIMATE	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.
3 SETUP	Enter into the setting menu	Press the button 5 seconds long.	Adjust settings of all functions like adjustment screen size, brightness, and etc.

DIP Switch Settings



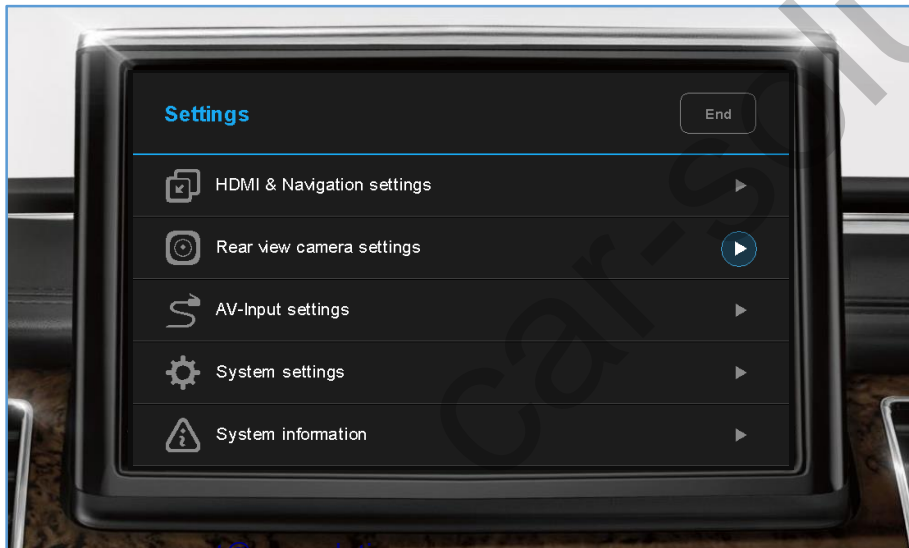
Pin No.	ON(▼)	OFF(▲)
1	HDMI Mode	Skip HDMI Mode
2	Navigation Mode	Skip Navigation Mode
3	External Rear View Camera	Original Rear View Camera
4	External Front View Camera(AV1 Mode)	Skip External Front View Camera(AV1 Mode)
5	AV2 Mode	Skip AV2 Mode
6	Selection of car model	
7		
8		
9		
10		

No.6	No.7	No.8	No.9	No.10	Car Models
OFF(▲)	OFF(▲)	OFF(▲)	OFF(▲)	OFF(▲)	2010~ Touareg (8inch Screen 800*480)

Settings



Button		Function	Operation
1	SETUP	Enter into the setting menu	Press the button 5 seconds long.
2	CLIMATE(RETURN)	Back to previous menu	Press the button short.
3	Selection	Select the menu and setting values.	Press the button short.
4	Turn the dial clockwise	Move the menu-pointer and adjust the setting values.	Move the pointer and setting values to up(↑) and right(→).
5	Turn the dial counterclockwise	Move the menu-pointer and adjust the setting values.	Move the pointer and setting values to down(↓) and left(←).

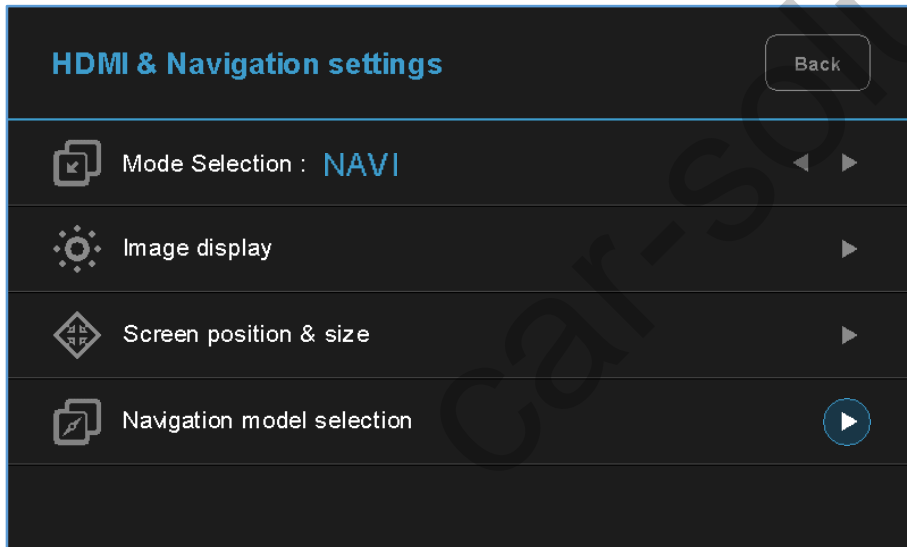
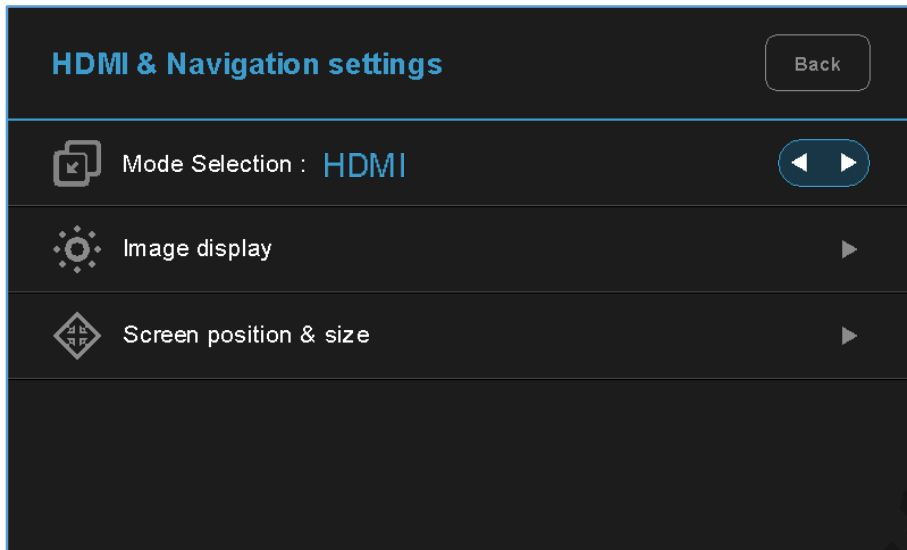


1. Enter into the setting menu.

<Press the 'SETUP' button 5 seconds long.>

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

Settings



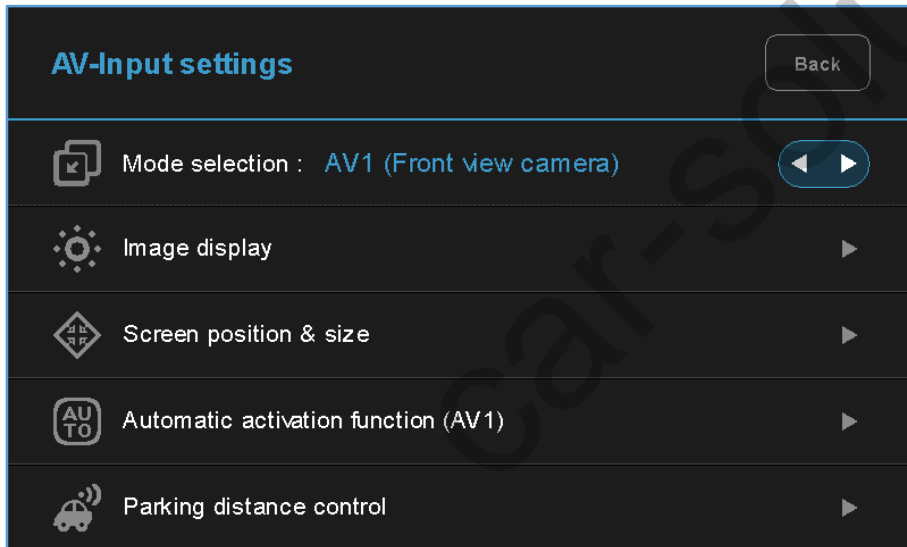
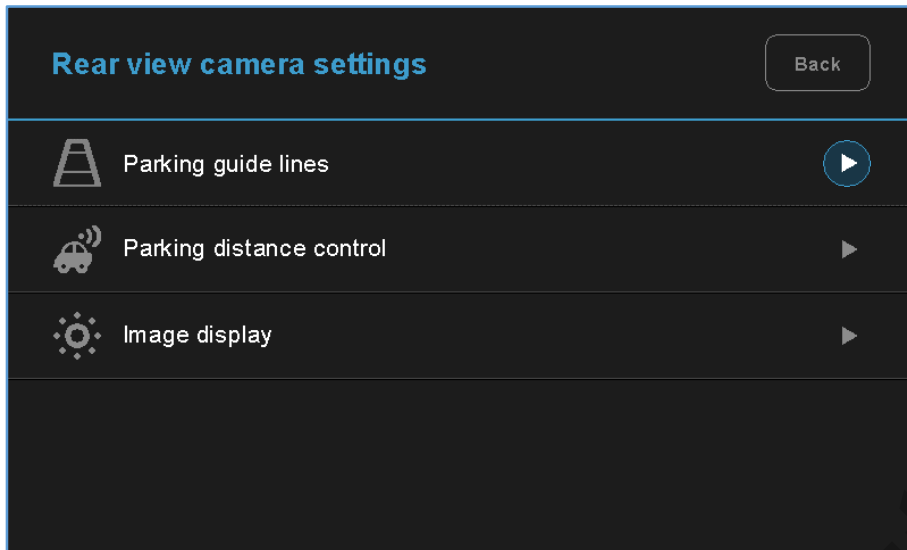
2. HDMI mode settings

- 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 setup

Settings



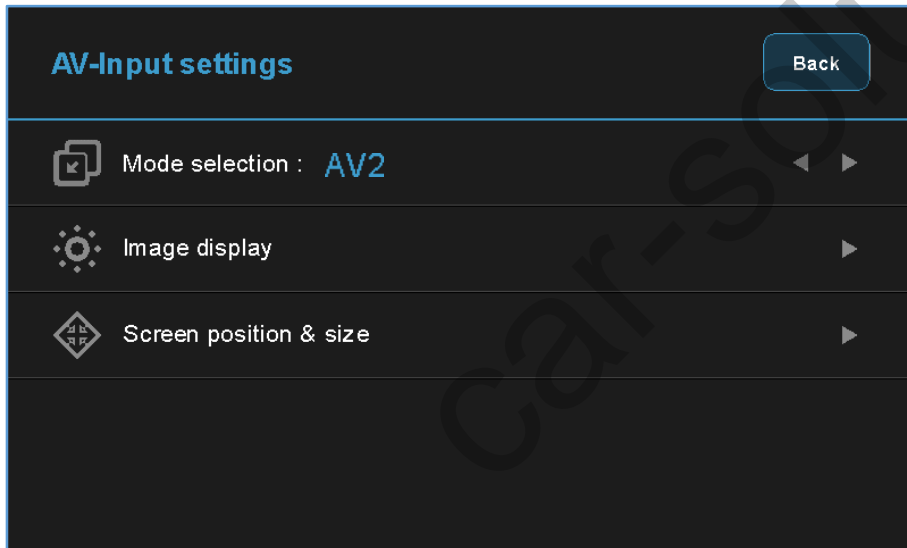
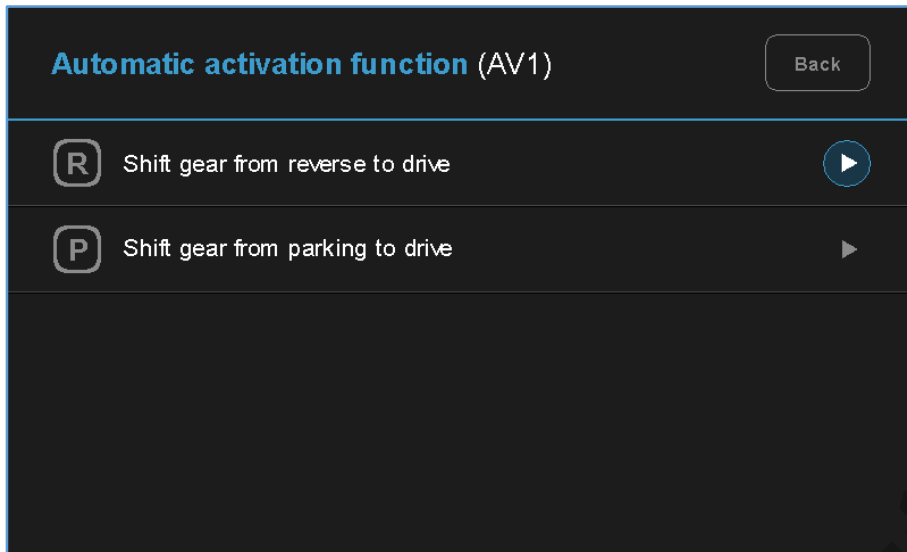
4. Rear view camera settings

- **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'.

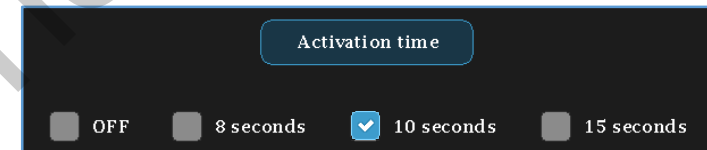
Settings



6. Automatic activation function(AV1)

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

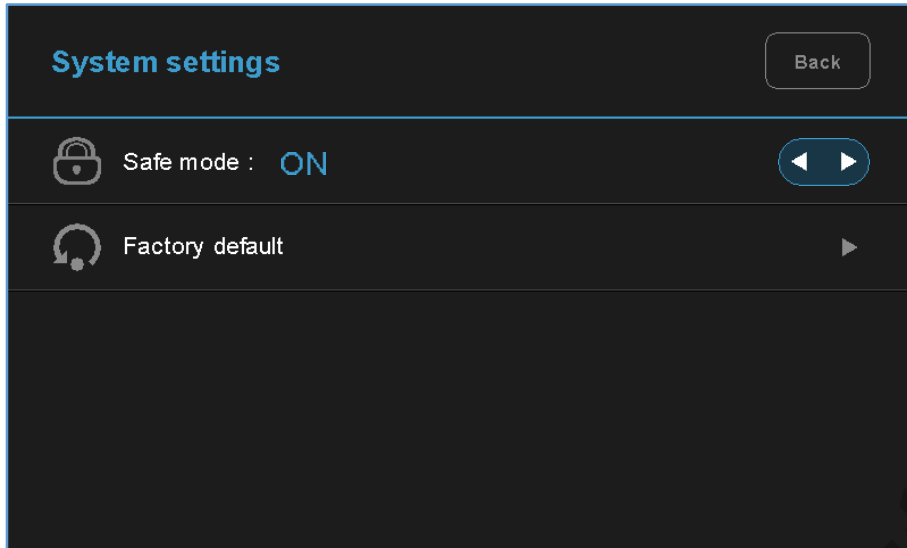
* When you shift gear 'from reverse to drive' or 'from parking to drive', it just works automatically during the activation time you selected.



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

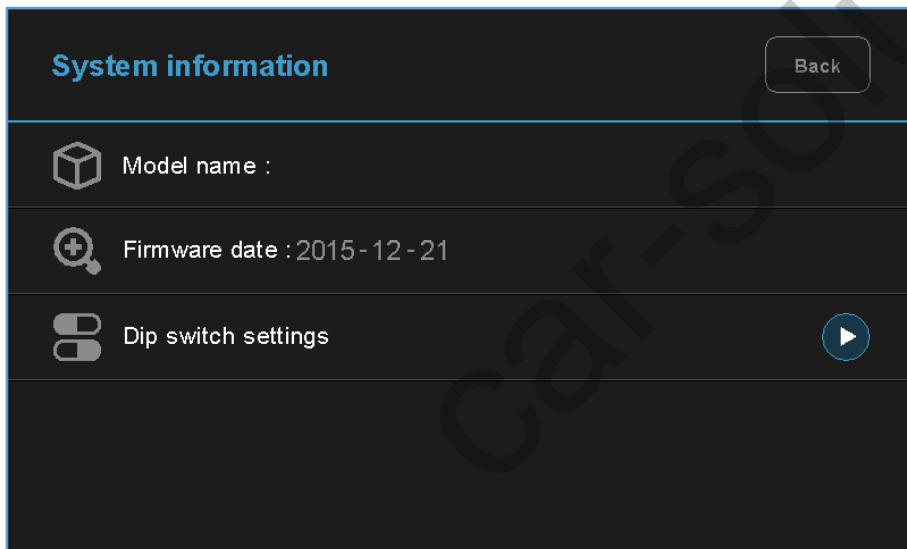


8. System settings

- 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: 2015 - 12 - 21 (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	ON
2	<input type="checkbox"/>	<input type="checkbox"/>	No. 2	Navigation	ON
3	<input type="checkbox"/>	<input type="checkbox"/>	No. 3	External rear view camera	ON
4	<input type="checkbox"/>	<input type="checkbox"/>	No. 4	AV1	ON
5	<input type="checkbox"/>	<input type="checkbox"/>	No. 5	AV2	OFF
6	<input type="checkbox"/>	<input type="checkbox"/>	No. 6	Selection of car model	ON
7	<input type="checkbox"/>	<input type="checkbox"/>	No. 7		OFF
8	<input type="checkbox"/>	<input type="checkbox"/>	No. 8		OFF
9	<input type="checkbox"/>	<input type="checkbox"/>	No. 9		OFF
10	<input type="checkbox"/>	<input type="checkbox"/>	No. 10		ON

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	Selection of car model	OFF
No. 7		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	Selection of car model	ON
No. 7		OFF
No. 8		OFF
No. 9		OFF
No. 10		OFF