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Model : QVI-BM09-MAIN-V5.5 IF / Product code : QVI-BM-1107-004

Video Interface for BMW 3/5/6/7 Series V. 5.5

Manual

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1.1 Main specification

1. Compatibility

Most of brand-new cars coming with CIC Navigation Computer System including BMW 3,5,6,7,Xseries

2. Product composition

Multimedia Interface * 1ea

Most TV-Free (displaying original DVD and navigation) – optional

3. MULTIMEDIA INTERFACE input spec.

3 * A/V input (external video input)

1 * CVBS input (rear camera source input)

1 * Analog RGB input (navigation system output)

1 * LCD input (car system input)

4. MULTIMEDIA INTERFACE output spec.

1 * LCD output

5. POWER spec.

input power : 8VDC ~ 24VDC

consumption power : 12WATT (in maximum level)

6. Switch input mode

Input video skip function : able to select whether to use the respective input video sources or not via DIP switch.

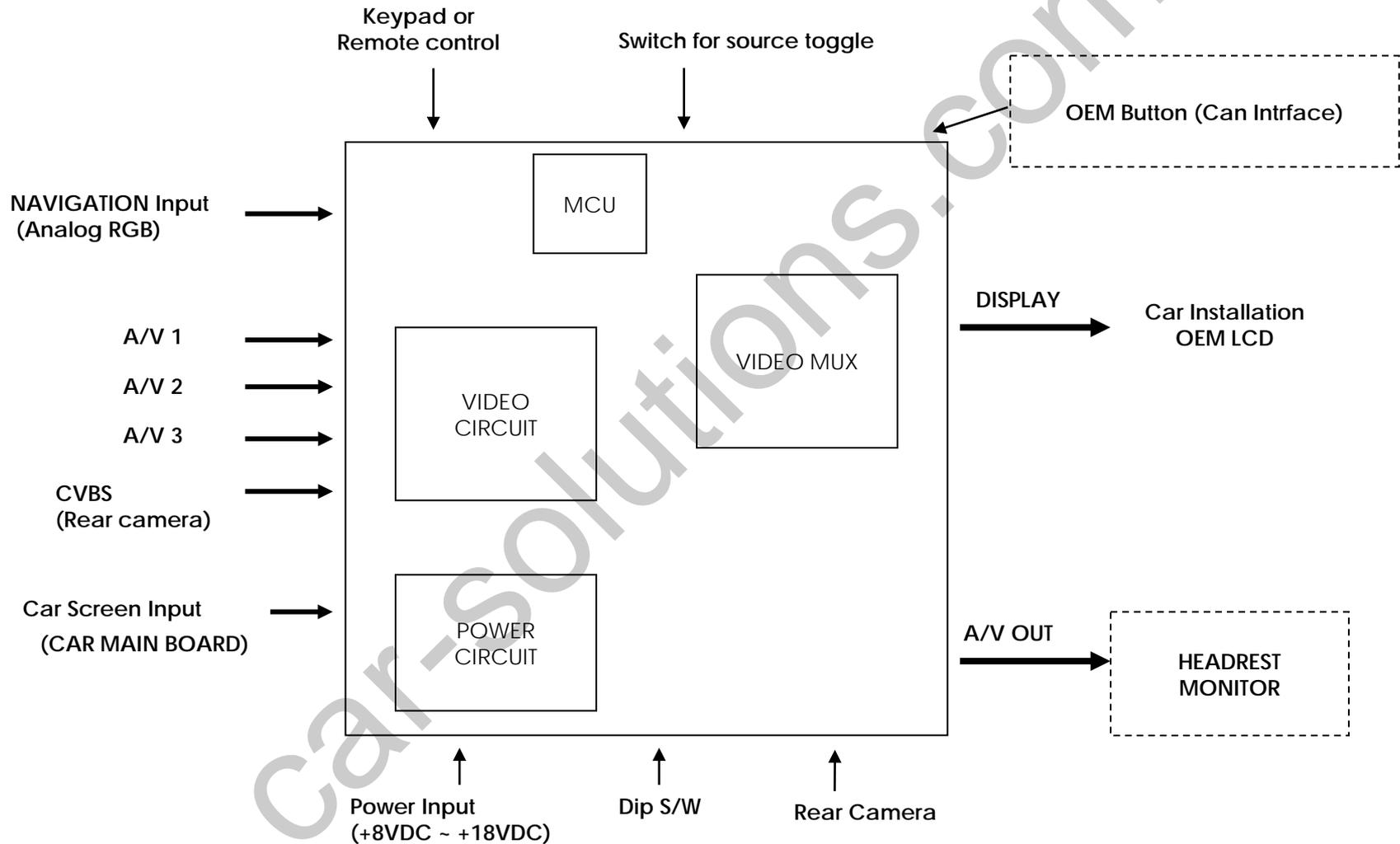
Able to change input modes via the keypad or the remote control.

Able to detect rear camera via CAN or rear lamp cable.

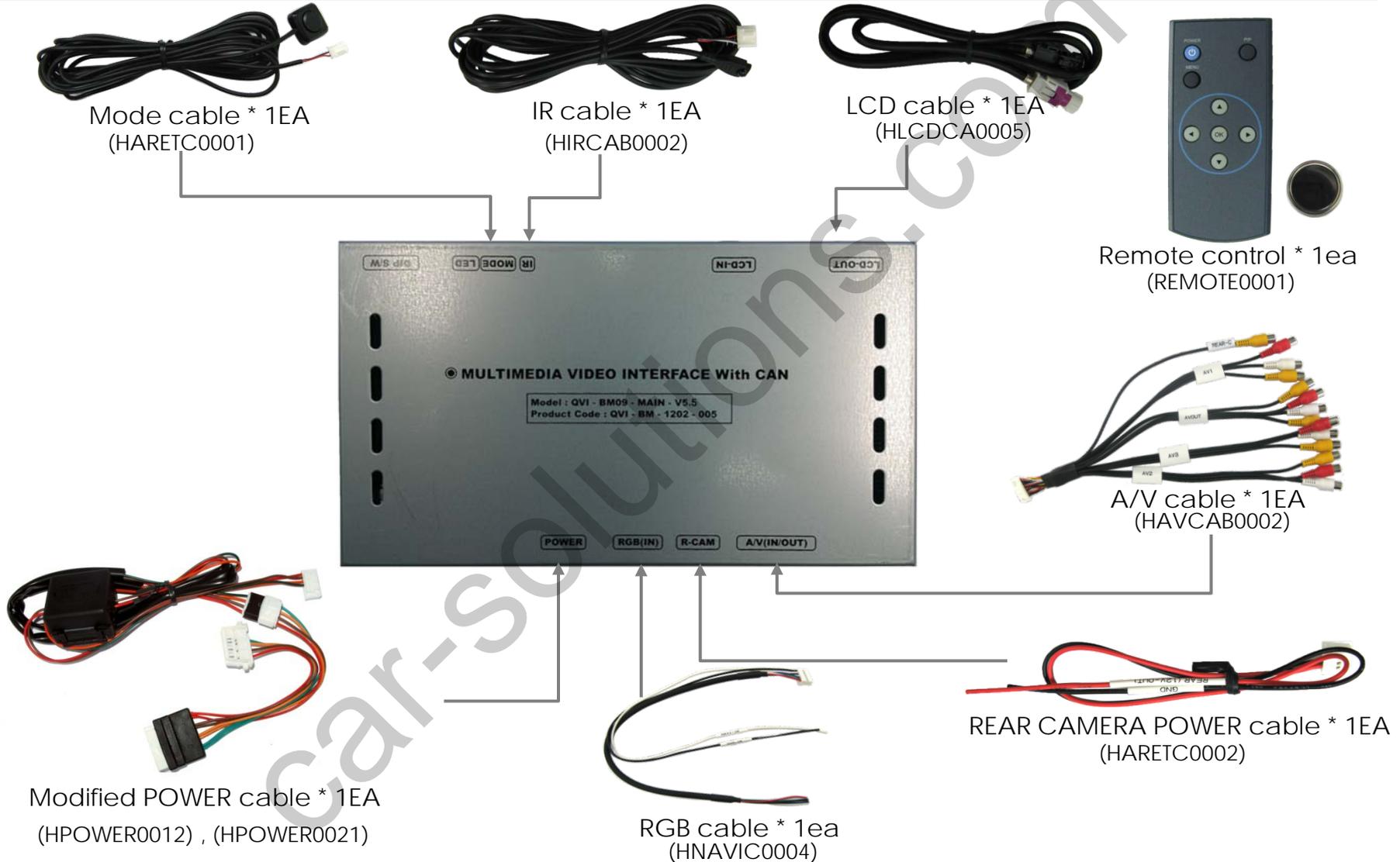
1.2 Features

- Installation from the direction of the command
- Control DVD, DTV, navigation with I-drive
- Control of position of the DVD, navigation image
- Screen Display improvement (user convenience-intended interface)
- Mode change via original button(MENU button in I-DRIVE)
- Control of rear camera power

1.3 System diagram



1.4 Components



1.4 Components (Option)



6.5" Touch Panel
(TOUPAN0003)



8.8" Touch Panel
(TOULCD0011)

1.5 Exterior

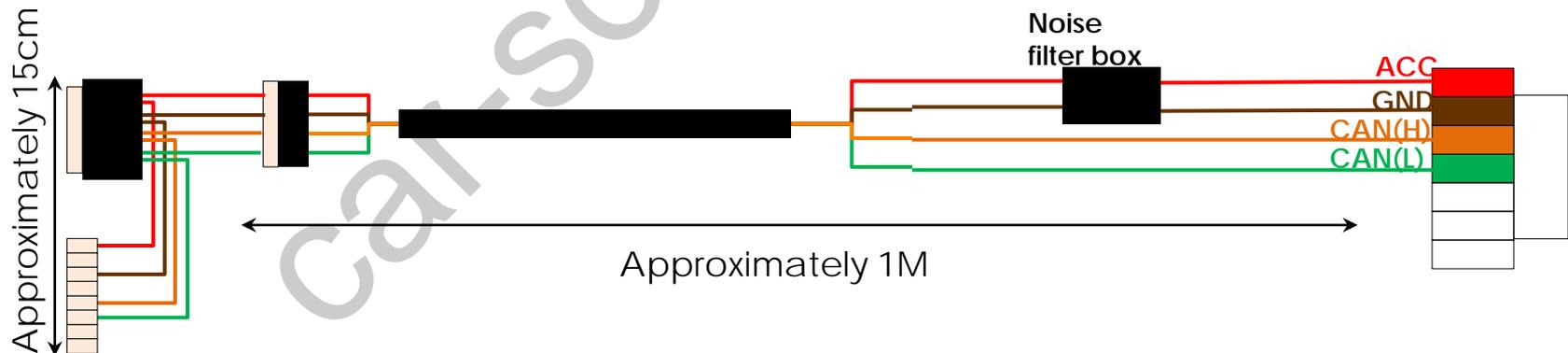
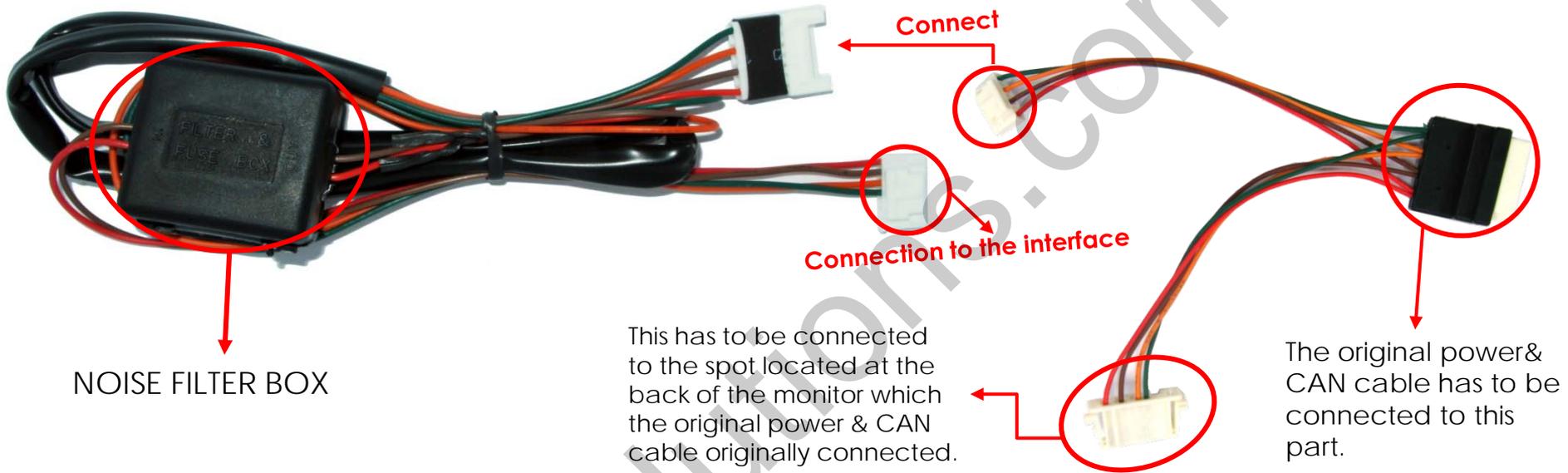


Dimension

Horizontal length 164.4mm
Vertical length 94.4mm
Height 28.2mm

- ① POWER
- ② RGB(IN)
- ③ REAR CAMERA POWER
- ④ A/V(IN/OUT)
- ⑤ LCD-OUT
- ⑥ LCD-IN
- ⑦ IR
- ⑧ MODE
- ⑨ LED
- ⑩ DIP switch

1.6 POWER cable



2.1 DIP switch

PIN	Function	Dip S/W Selection
1	Displaying RGB input	ON : RGB mode display OFF : RGB mode skip
2	Displaying A/V 1	ON : A/V1 skip OFF : A/V1 display
3	Displaying A/V 2	ON : A/V2 skip OFF : A/V2 display
4	Displaying A/V 3	ON : A/V3 skip OFF : A/V3 display
5	Setup of monitor size	ON : 7.2" OFF : 10.2"
6	Unavailable	
7	Setup of rear camera use	ON : CVBS4 OFF : MAIN
8	Setup of original screen display	ON : By MUX OFF : By Relay (ON : DEFAULT)

※ ON : DOWN / OFF : UP
default : ON (DIP #8)

※ DIP S/W usage example
- Input Mode : A/V2, A/V3
- Original Navigation
- External rear camera

- ▷ DIP S/W : 1,2 → ON (hiding INPUT MODE)
- ▷ DIP S/W : 3 → OFF (displaying A/V2)
- ▷ DIP S/W : 4 → OFF (displaying A/V3)
- ▷ DIP S/W : 5,6 → OFF
- ▷ DIP S/W : 7 → ON (for external rear camera)
- ▷ DIP S/W : 8 → OFF

※ Please make sure to disconnect the power cable of the interface and reconnect the power cable again to apply the dip switch setting whenever changing DIP switch. Otherwise, DIP switch setting will not be applied.



2.2 Setup for car model & navigation

FACTORY mode – Press ◀ button 2 seconds long on the remote control.

Setup for car model



UTIL - CAR MODEL

Selecting model of the car

MINI : mini cooper, cars coming after the year 2011

F10 : series 5, cars coming after the year 2010

F01 : series 7, cars coming with round connector

E90 : series 3, X series, cars coming after the year 2010

* Set pin#5 of DIP switch to the right size of the monitor after selecting model of the car. (Refer to page9.)

Setup for navigation



UTIL - NAVI MODEL

Definition of the navigation resolution

DEFAULT : default, 400X234, low resolution

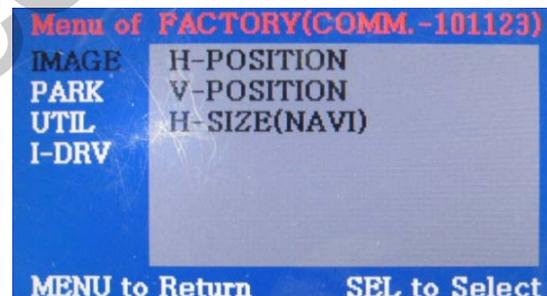
KD-900(WVGA) : 800x480 in high resolution, for Chinese

MD7000(WVGA) : 800x480 in high resolution, for domestic use

MYVI(WVGA) : 800x480 in high resolution

HDMI : 800X480 in high definition

* Go into FACTORY/ IMAGE (as shown right) and adjust the position and the size of the navigation after setting the definition of the navigation.



IMAGE

Adjusting the position and the size of navigation

H-POSITION

: moving in horizontal direction (applicable in 7" models)

V-POSITION

: moving in vertical direction (applicable in 7" models)

H-SIZE : adjusting the horizontal size of the navigation

2.3.1 FACTORY mode

FACTORY mode – Press ◀ button 2 seconds long on the remote control.



UTIL- DMB SKIP

For domestic use only

ON : deactivating DTV
OFF : activating DTV

UTIL - AVOUT SELECT

Selecting background sound After returning navigation or original mode

DEFAULT : Selecting AV sound just before changing navigation or original mode from the AV mode

AV 1~3 : Sound of the selected AV source 1~3

UTIL - FACTORY RESET

FACTORY MODE RESET

2.3.2 FACTORY mode

FACTORY mode – Press ◀ button 2 seconds long on the remote control.



I_DRV - I_DRV REMOTE

Selecting model of navigation and DTV respectively to control I_DRV function

ML 740T
ARION
PANASONIC
HSD100
COMTEC
NET770
PIONEER
ML100

- Selecting NAVIGATION model : in RGB mode
- Selecting DVD model : in A/V mode

I_DRV/ I_DRV CONTROL

Selecting whether to use I_DRV function or not

ON / OFF

2.4 Original buttons usage

I-Drive buttons (whole model)



Mode	Key	Operation	Function
Whole mode	MENU	Press this button 2 seconds long	Changing modes
		Press this button short	Go back to Original image
DTB	△	Press this button 2 seconds long in the direction of 12 O'clock	Scanning channel
		Press this button short in the direction of 12 O'clock	Changing channel upward
	▽	Press this button short in the direction of 6 O'clock	Changing channel downward
AV1-3	▽	Press this button 2 seconds long in the direction of 6 O'clock	Activating PIP function
Rear camera	▽	Press this button 2 seconds long in the direction of 6 O'clock	Activating PIP function
		Press this button short in the direction of 6 O'clock	Adjusting the position of the transparent PDC image



Steering wheel buttons (5series)

Mode	Key	Operation	Function
Whole mode	Circulation button	Press 2 seconds long	Activating PIP function
Whole mode	Downward arrow button	Press 2 seconds long	Changing modes



Hot Key Function

Mode	Key	Operation	Function
Whole mode	"1" button	Press short	Changing modes
When select Car Model "E84"	"6" button	Press short	Changing modes

2.5 Remote control usage

Key	Function
POWER & PIP	Unavailable
MENU	Activating OSD menu
OK	Making a selection, changing image display
▲	Moving upward (If you press this button 2 seconds long, "Hot key" function will activate/ deactivate.)
▼	Moving downward
◀	Moving leftward (If you press this button 2 seconds long, you can access the factory mode.)
▶	Moving rightward (If you press this button 2 seconds long, you can reset all the data about user environment.)



▪ What is Hot Key function ?

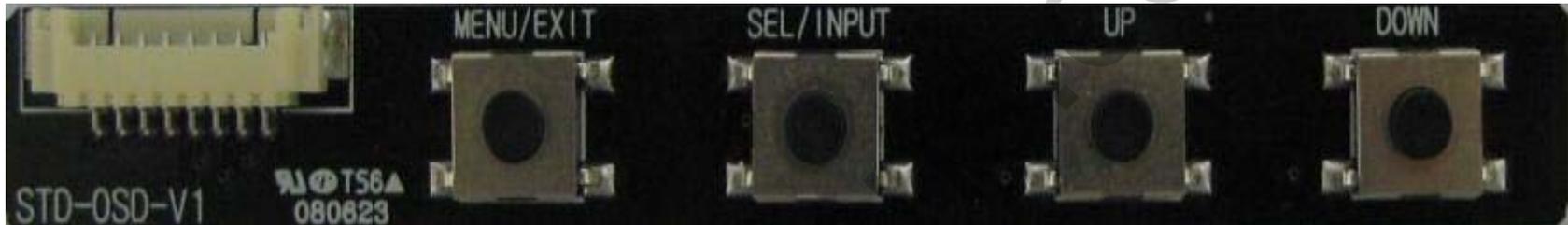
You can use this function via pressing number "1" button next to the radio button. You can change audio source to the external AUX with this function. (original function of BMW) Our device let it change to an external video source for driver to use this function via this button. So, you can change sources (audio<->video) by pressing this button without any other install process.

2.6 Keypad usage

Select one between the remote control and the keypad

FACTORY MODE (Interface setting) :

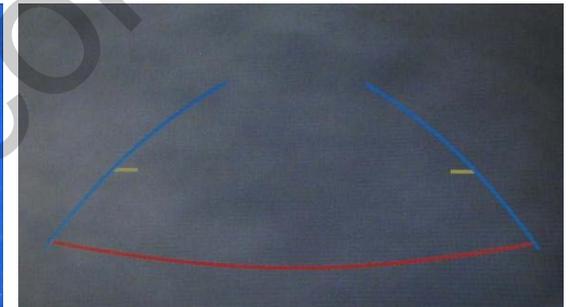
Press these buttons on OSD keypad in the following sequence; UP→DOWN→UP →MENU



Key	Function
MENU/EXIT	Activating OSD menu and Getting back to the previous state after setting mode
SEL/INPUT	Making a selection and changing modes
UP	Moving leftward or upward (If you press this button 2 seconds long, you can get access to HOT KEY function.)
DOWN	Moving rightward or downward (IF you press this button 2 seconds long, you can reset all data.)

2.7.1 Setup for rear view camera

FACTORY mode – Press ◀ button 2 seconds long on the remote control.



UTIL - REAR SELECT

Selecting how to detect the rear view camera

LAMP : Detecting the rear view camera via rear lamp (Installer must connect "Rear-C" cable of the power cable to the rear lamp of the car.)

CAN : Detecting the rear view camera by CAN signal (Installer must connect "CAN" cable of the power cable to the "CAN" cable of the car.)

- when installing rear view camera :
- Pull down DIP switch pin#7 to set it as "ON". (Refer to page9.)

PARK

PARK ENABLE : Selecting whether to display the parking guide line or not on rear gear (default : ON)

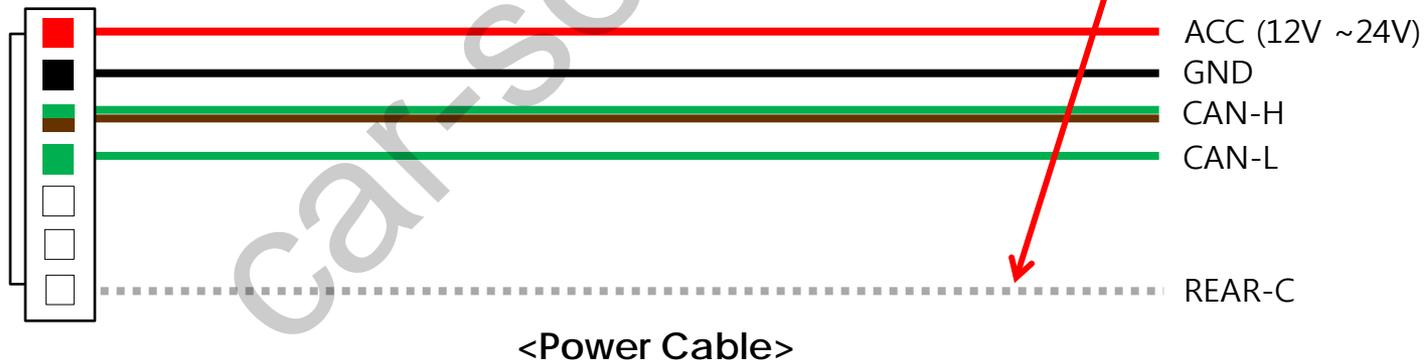
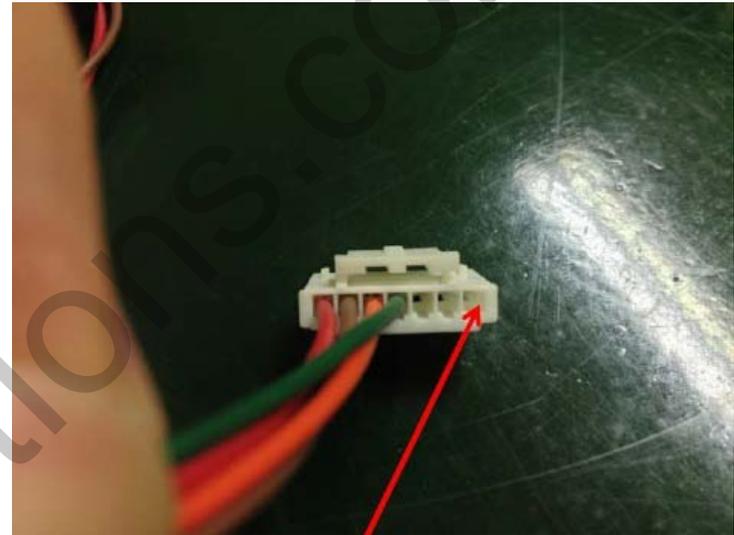
PARK SETUP : Adjusting the position of the parking guide line (available in PARK SETUP -> V-POSITION, H-POSITION)

SAFE ENABLE : If your car is connected with CAN cable and it is in "ON" state, you can NOT watch DVD or A/V except original image or navigation while driving. At that time the screen get back to the main (default : OFF)

- a. If you want to get to the FACTORY mode, set the gear as rear state and press "LEFT" button 2 seconds long on the remote control or the keypad. (as shown left top)
- b. If you set 'PARK ENABLE' as "ON" state, there will be the rear view parking guide line. (as shown right top)

2.7.2 Setup for rear view camera

When choosing camera detection method in rear lamp, connect one cable of CAN (H or L), connect it into 7th One of the CAN wires and the opposite of the wire should be connect ed to rear lamp of the car
(But if this is selected, can not use the function of interface via original button)



2.7.3 Setup for rear view camera



Setup for displaying rear view

series5 : Press  button on the steering wheel and select one from 4 options as shown below.

series7 : Press  button about 2 seconds long on I-Drive and select one among 4 options.



< whole PDC screen : F10, E90, F01 > < full rear view on screen : F10, E90, F01 >



< DUAL screen : E90, F01 >

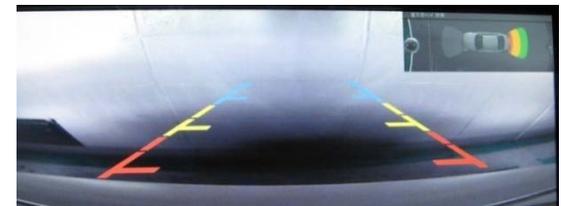
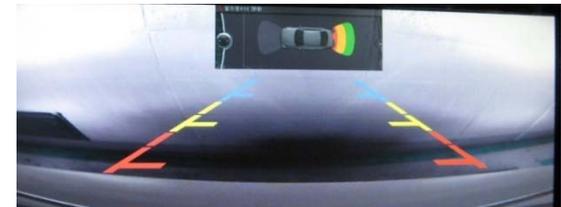
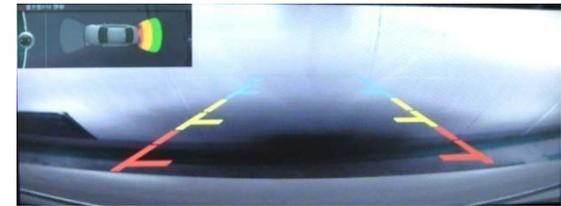
< DUAL screen2 : F10, E90, F01 >

Positioning transparent PDC image

Press  button on the steering wheel and select a position of PDC image among 3 options as shown below.

- The types of PIP function in rear view mode can differ depend on car models. And the 7" screen is provided by full screen of camera and original PDC image.

*** Available in F01 and E90 after the year 2009**



2.8.1 OSD (on screen display)

Analog RGB Mode

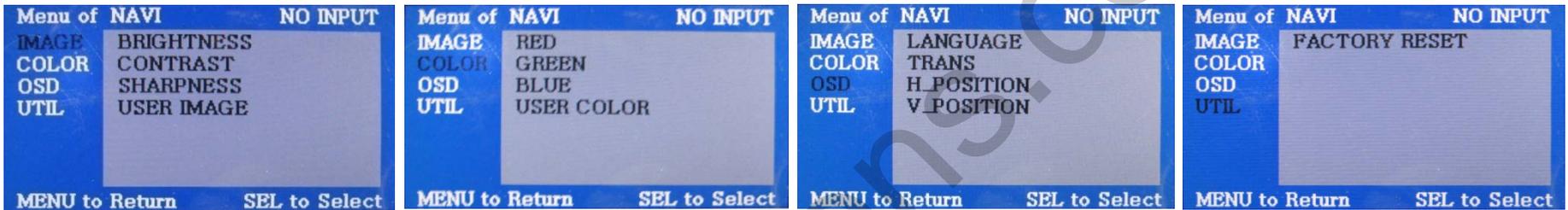
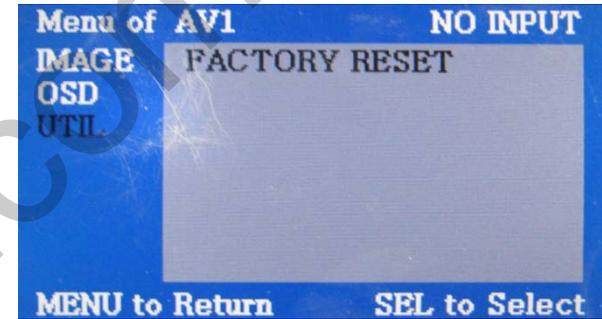
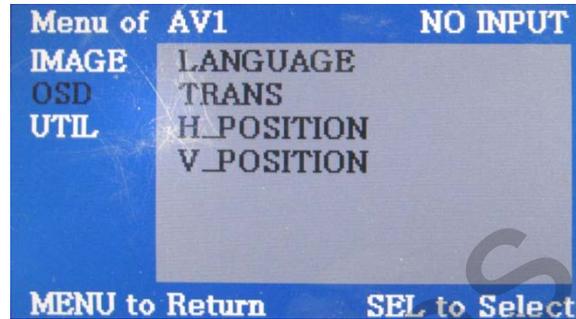


IMAGE	COLOR	OSD	UTIL
BRIGHTNESS	RED : Adjusting red	LANGUAGE : Choosing OSD language while using Touch OSD (English, Chinese only)	FACTORY RESET : Resetting all the data about the relevant mode (applicable to navigation, A/V, DTV, rear mode respectively)
CONTRAST	GREEN : Adjusting green	TRANS : Adjusting transparency of OSD	
SHARPNESS	BLUE : Adjusting blue	H_POSITION, V_POSITION : Positioning OSD menu	
USER IMAGE : Selecting one among 4 color options.	USER COLOR : Selecting a color option among set color options		

2.8.2 OSD (on screen display)

Video mode



DTV mode (only for domestic use)



IMAGE

BRIGHTNESS
CONTRAST
SATURATION
HUE
SHARPNESS
USER IMAGE : Selecting one among 4 color options

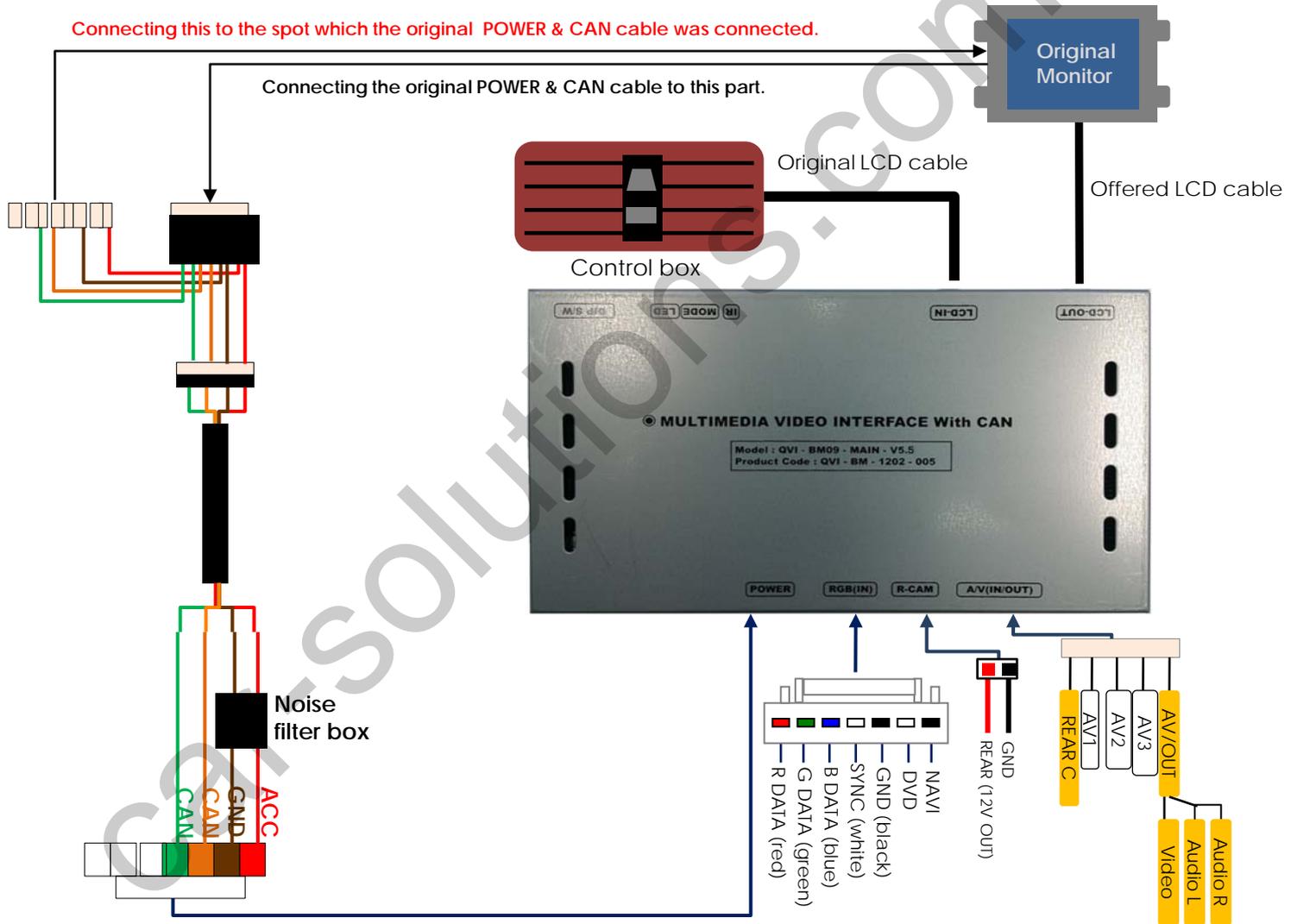
OSD

LANGUAGE : Choosing OSD language while using Touch OSD (English, Chinese only)
TRANS :
Adjusting transparency of OSD
H_POSITION, V_POSITION :
Positioning OSD menu

UTIL

FACTORY RESET : Resetting all the data about the relevant mode (applicable to navigation, A/V, DTV, rear mode respectively)

3.1 Installation diagram

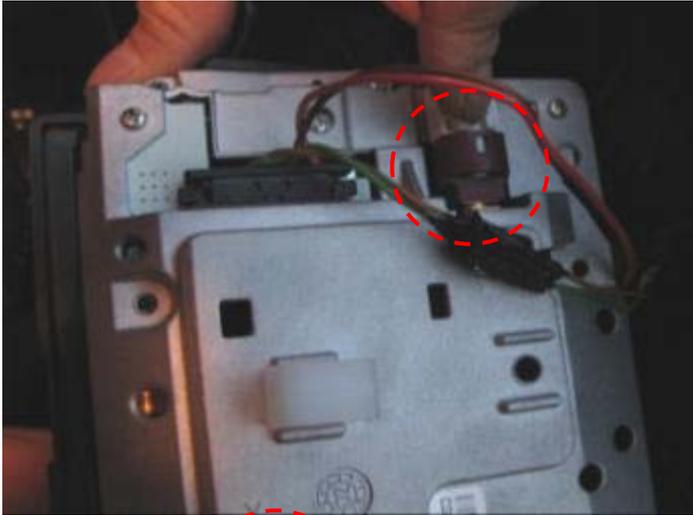


3.2 Pre-installation notices

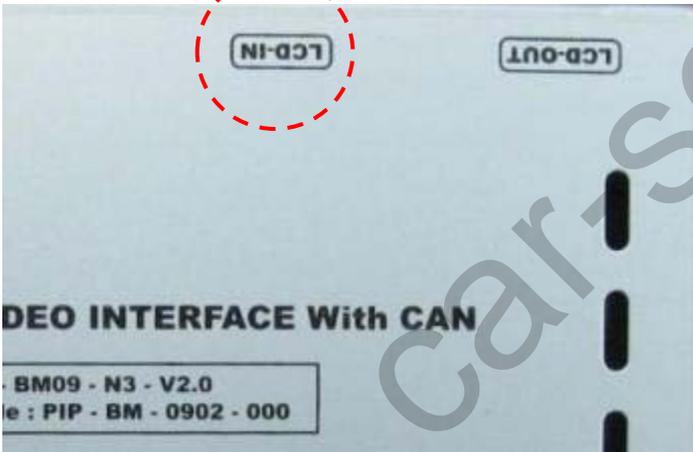
- During installation ignition key should be taken off and after all installation finish connect power cable with interface for the last step
- Power cable should be separated when connecting interface.
- Should be no any electronic devices or magnetic pole around installation place.
- All steps of installation should be done by well-trained specialist.
- Dismantling without manufacturer's permission can not be guaranteed, (No permission to break attached label on the board.)
- Kindly check all parts are in the box, when receiving the product, if anything missing, inform to the supplier or manufacturer.
- According to our sales policy, any problems caused by user's mistake, careless can not be guaranteed.

3.3 Installation

3.3.1 Connecting the monitor with the interface



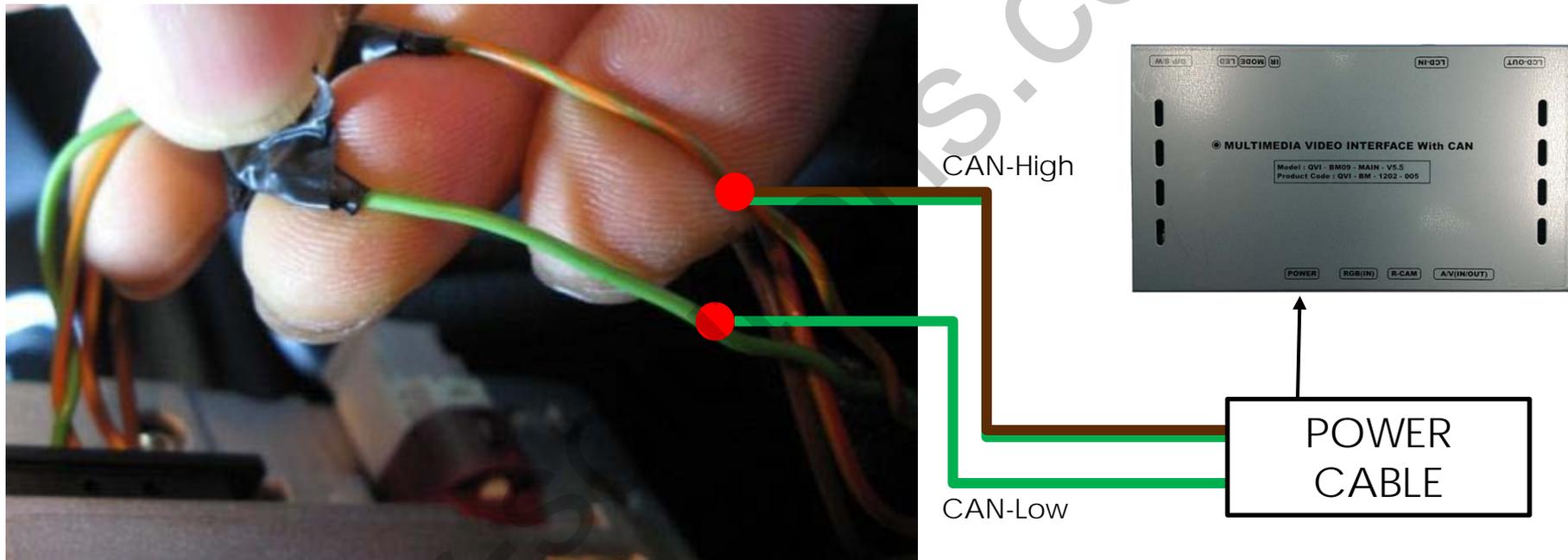
① Connect LCD cable enclosed in our package to the spot that the original one is connected after disconnecting the original LCD cable from the monitor as shown left.



② Connect the original LCD cable to "LCD-IN" socket of the interface.

3.3 Installation

3.3.2 Connecting CAN cable respectively



Connect CAN-H cable (green+brown) enclosed in our package with the original CAN-H cable (green+orange).
And connect CAN-L cable (green) enclosed in our package with the original CAN-L cable (green).

4. Troubleshooting

Q. I can not switch A/V sources

A. Check IR or Ground cable connection. Check LED lamps in the interface, if it is not on, check power cable.

Q. All I got on the screen is black.

A. Check second LED lamp of the interface is on, if not, check A/V sources connected are working well.

(Second lamp indicates AV sources connected works well.) Check interface connection has been done well.

Q. Displayed image color is not proper (too dark or unsuitable color)

A. Try to select "INITIAL" in OSD menu, if it does not work, inform to manufacturer.)

Q. I can watch the rear camera on the screen

A. Set the DIP switch #7 as state "ON".

Q. Unwanted A/V mode is displayed. (A/V source switching order : OEM->RGB->AV1->AV2->AV3)

A. Check DIP Switch Setting.

Q. OEM image is not displayed.

A. Check interface's LCD In/Out cable connection. If the status keeps on, inform to manufacturer.

Q. Screen only displays white color.

A. Check LCD out cable is connected well, if this status keeps, inform to manufacturer.

Q. After setting PIP function, I got only half OEM image at the right in the screen.

A. This is not an error, just because user's setting mistake, user should set to

"Split Screen" in the OEM menu.

Q. Rear CAM does not appear, when car is in reverse after CAN wiring.

A. Operate "FACTORY MODE" like left picture, then select "UTIL → Rear Select"

If it is set as "LAMP", change it to "CAN" by remote or keypad.

※ LAMP : In case of connecting "Rear-C" wire of Power Cable to Rear Lamp in vehicle.

CAN : In case of detecting Rear Cam through CAN signal. (CAN must be wired)

Q. After moving gear to "P" or "D" from "Reverse", I can't get navigation, but half PDC Image in the screen.

A. Once, you starts driving, the screen displays navigation right away, this is not a system error.