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Model : QVI-BM12-Main-V1.0 IF / Product code : QVI-BM12-1112-002

Video Interface for BMW (V.1.1)

Specification & Installation

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1.1 Main specification

1. Compatibility

BMW New 1,3,5,7 series 6.5'' & 8.8'' & 10.2''

2. Product composition

Multimedia Interface * 1ea

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 ~ 18VDC

consumption power : 5WATT

6. Switch input mode

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

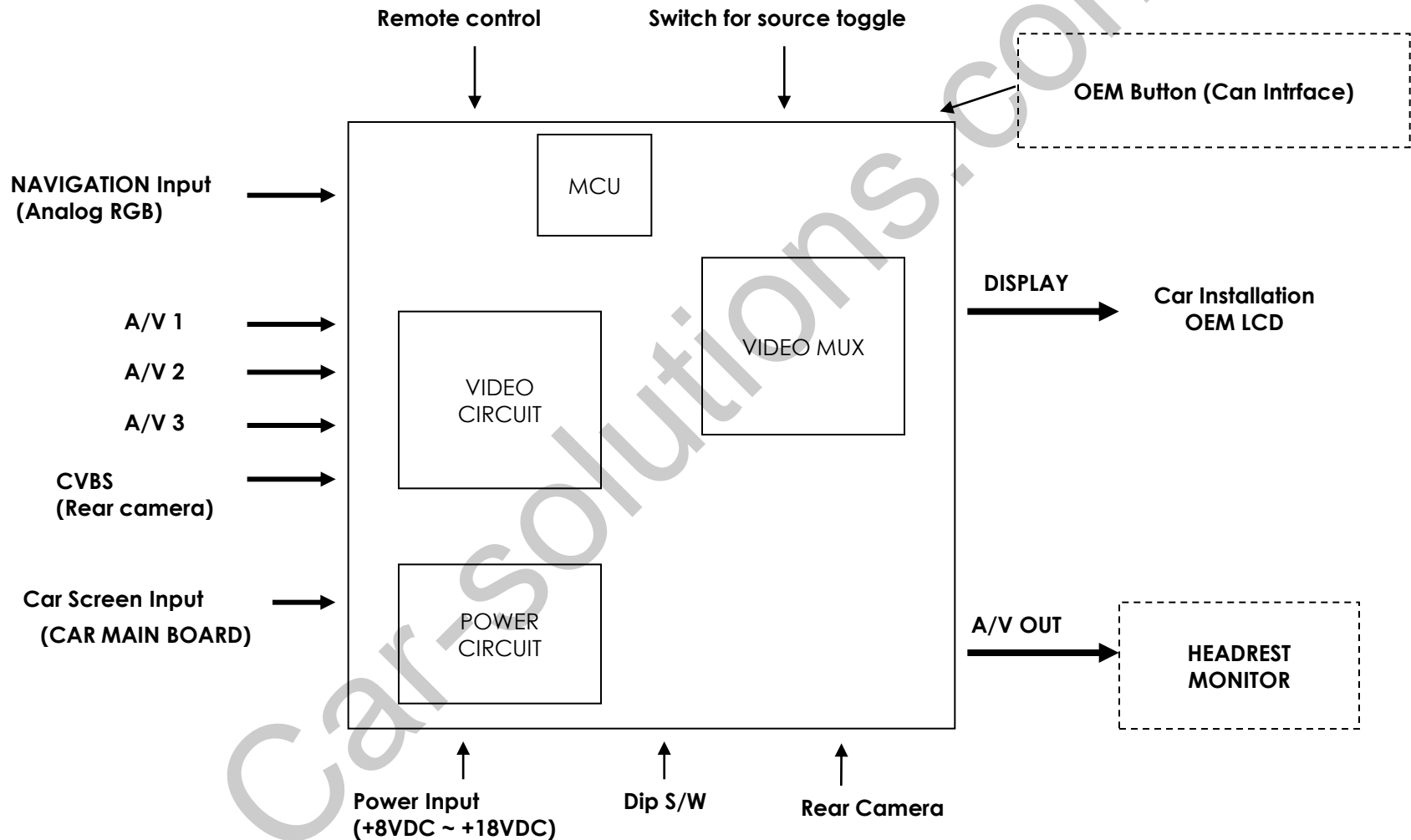
Able to change input modes via remote control.

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

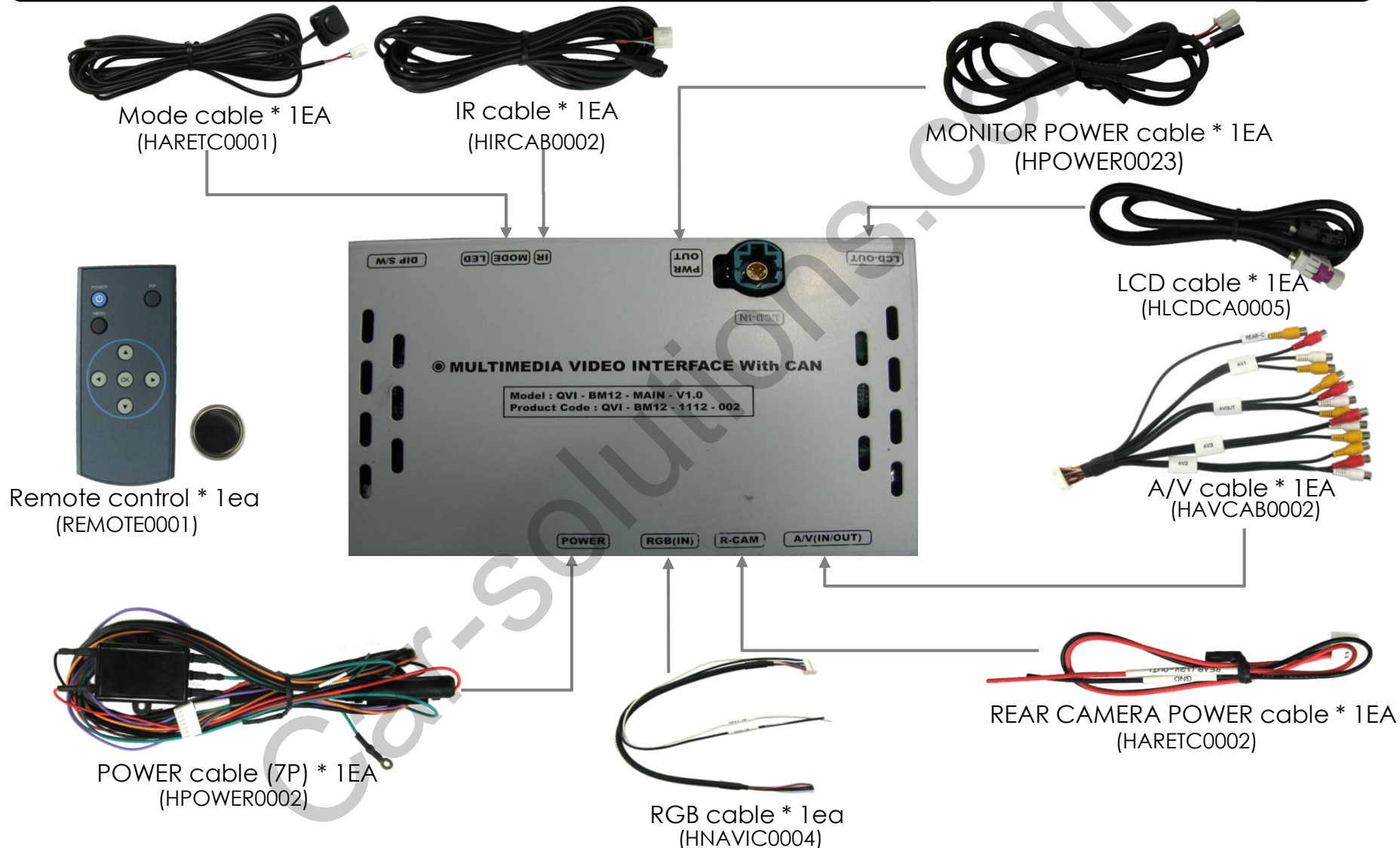
1.2 Features

- Installation from the direction of the command
- DVD, DTV, navigation control via I-drive controller
- Control position of the DVD, navigation image
- Screen Display improvement (user convenience-intended interface)
- Mode change via original button(Menu button in I-DRIVE)
- Provided Power cable for connecting with rear camera

1.3 System diagram



1.4 Components



1.5 Exterior



Dimension

Horizontal length 150.4mm
Vertical length 99.4mm
Height 23.2mm

- ① POWER
- ② RGB(IN)
- ③ REAR CAMERA POWER
- ④ A/V(IN/OUT)
- ⑤ LCD-OUT
- ⑥ LCD-IN
- ⑦ POWER OUT
- ⑧ IR
- ⑨ MODE
- ⑩ LED
- ⑪ DIP switch

2.1 DIP switch

PIN	Function	Dip S/W Selection
1	Displaying RGB input	ON : skip RGB mode OFF : display RGB mode
2	Displaying A/V 1	ON : skip A/V 1 OFF : display A/V1
3	Displaying A/V 2	ON : skip A/V 2 OFF : display A/V2
4	Displaying A/V 3	ON : skip A/V 3 OFF : display A/V3
5	Setup of monitor size	ON : 6.5" OFF : 8.8" 10.2"
6	Unavailable	
7	Setup of rear camera use	ON : CVBS4 OFF : MAIN
8	Unavailable	

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

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

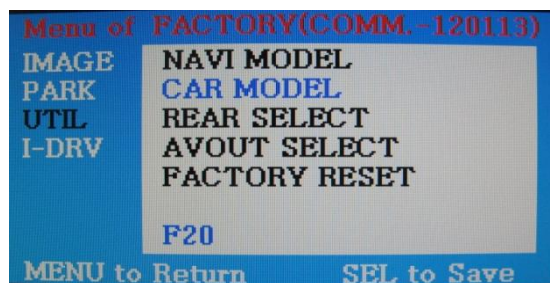
- ▷ DIP S/W : 1,2 → ON (skip INPUT MODE)
- ▷ DIP S/W : 3 → OFF (display A/V2)
- ▷ DIP S/W : 4 → OFF (display A/V3)
- ▷ DIP S/W : 5 → OFF(8.8inch & 10.2inch)
- ▷ DIP S/W : 6 → OFF
- ▷ DIP S/W : 7 → ON (for external rear camera)
- ▷ DIP S/W : 8 → OFF



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

F20 : 1,3,5,7 series 6.5", 8.8"

F20-7 : New UI 8.8", 10.2

*** 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



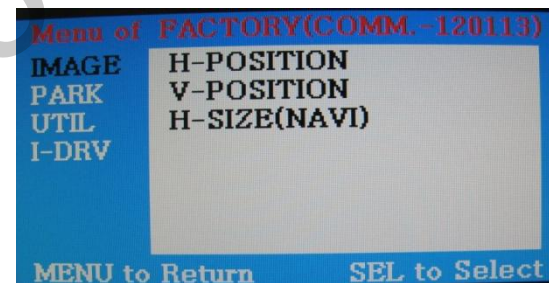
UTIL – NAVI MODEL

Definition of the navigation

DEFAULT : default, 400X234, low definition

KD-900(WVGA) : 800x480 in high definition, for Chinese HDMI(When SMI is installed) : 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

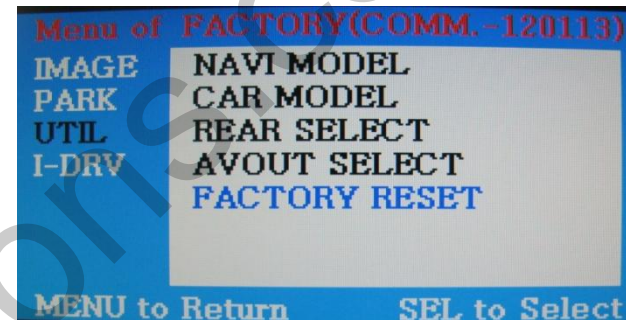
H-POSITION : moving in horizontal Direction

V-POSITION : moving in vertical direction

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 - 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

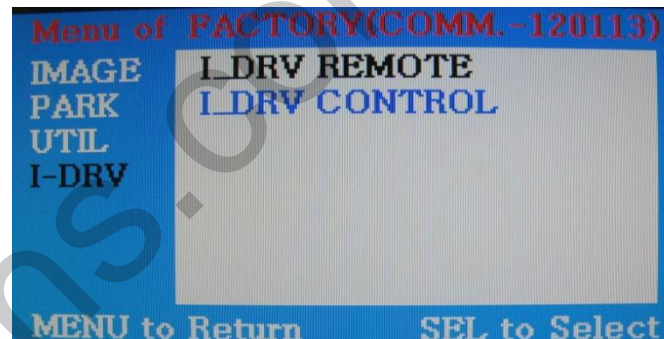
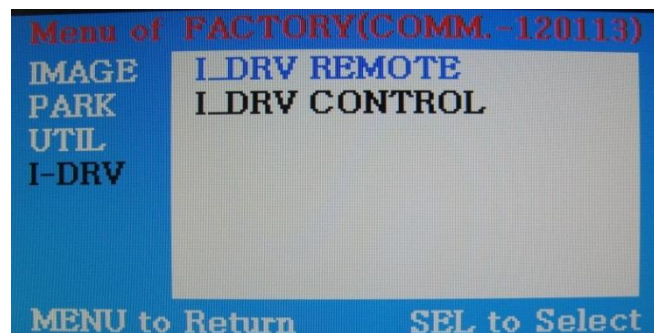
AV 1~3 : Sound of the selected AV source 1~3

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 Button(6.5")



Mode	Key	Operation	Function
Whole mode	MENU	Press this button 2 seconds long	Changing modes
		Press this button short	Getting back to Original image
Rear camera	 (Steering wheel)	Press this button short	Activating PIP function

I-Drive Button(8.8")



Mode	Key	Operation	Function
Whole mode	MENU	Press this button 2 seconds long	Changing modes
		Press this button short	Getting back to Original image
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

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 get access to the factory mode.)
▶	Moving rightward (If you press this button 2 seconds long, you can reset all the data about user environment.)

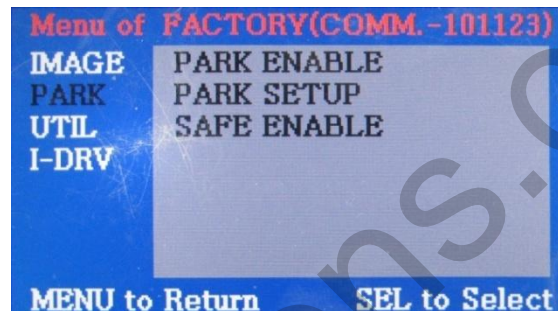
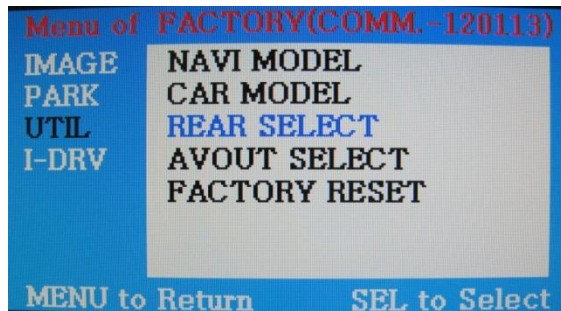
▪ What is Hot Key function ?

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.



2.6.1 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 via CAN signal (Installer must connect "CAN" cable of the power cable to the "CAN" cable of the car.)

• **While 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 -> H-POSITION, V-POSITION)

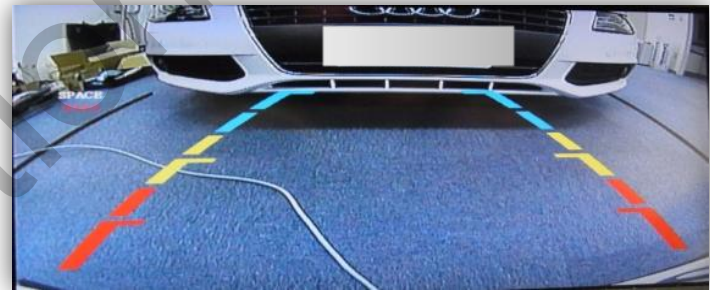
SAFE ENABLE : If your car is connected with CAN cable and it is in "ON" state, you can NOT watch DVD or A/V except original image or navigation while driving. At that time the screen get back to the main (default : OFF)

- 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(as shown left top)
- If you set 'PARK ENABLE' as "ON" state, there will be the rear view parking guide line. (as shown right top)

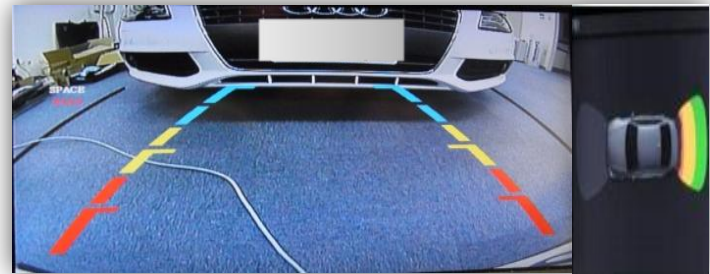
2.6.2 Setup for rear view camera(6.5")

Setup for displaying rear view

1 Series (F20) : Press  button short on steering wheel, you can choose full screen or PIP screen as shown below.



< Full real view on screen >




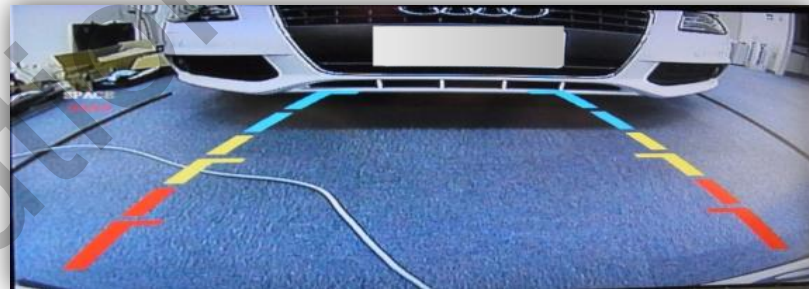
< PIP screen >

2.6.2 Setup for rear view camera(8.8")

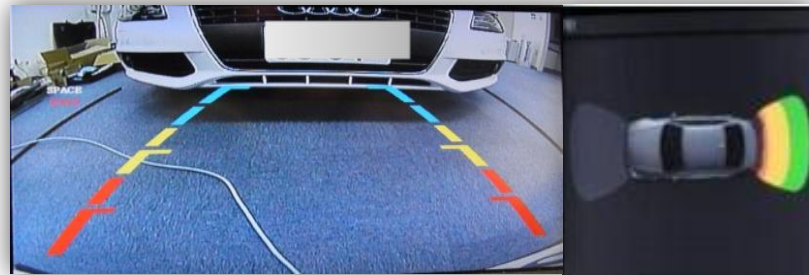
Setup for displaying rear view



1 Series (F20) : Press  button about 2 seconds long on I-Drive, you can choose full screen or pip screen as shown below.



< Full real view on screen >



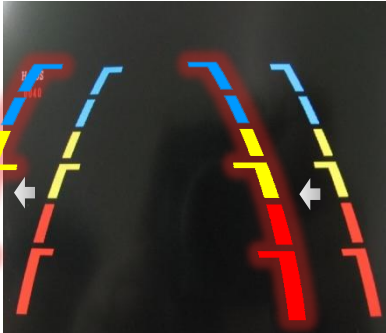
< PIP screen >

2.7 Parking guide line

Factory Default : DISPLAY - DISABLE

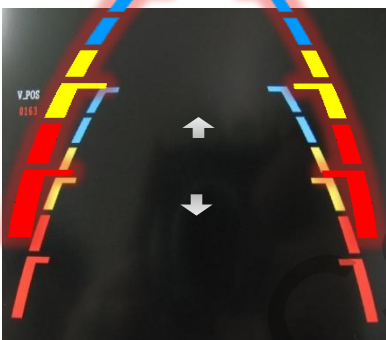
You can enter "Park setup" in Factory Menu and move "H-POS → V-POS" in sequence by pressing "OK" button on the remote control.

H-POS



If you need to move the horizontal position, press \triangle , ∇ buttons on the remote control.

V-POS



If you need to move the vertical position, press \triangle , ∇ buttons on the remote control.

2.8.1 OSD (on screen display)

Analog RGB Mode

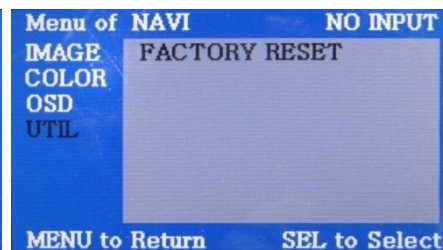
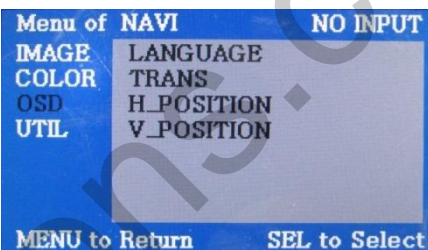
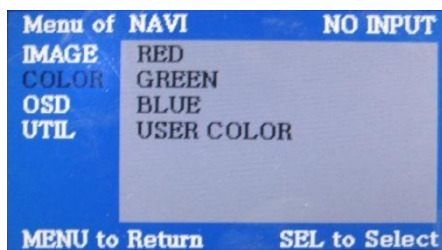
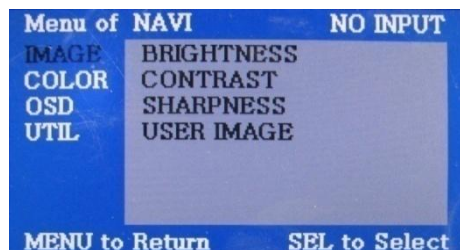
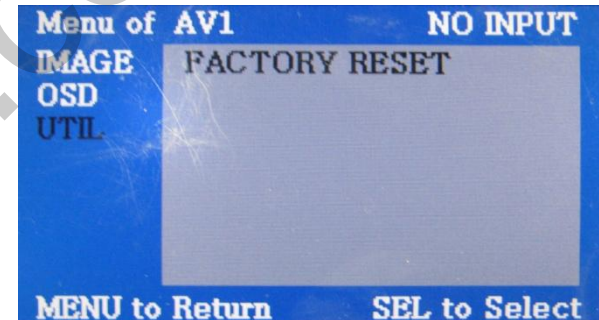
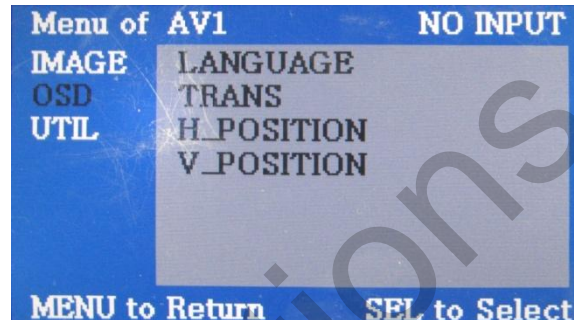


IMAGE	COLOR	OSD	UTIL
BRIGHTNESS	RED : Adjusting red	LANGUAGE : Choosing OSD language while using Touch OSD (English, Chinese only)	FACTORY RESET : Resetting all the data about the relevant mode (applicable to navigation, A/V, DTV, rear mode respectively)
CONTRAST	GREEN : Adjusting green	TRANS : Adjusting 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



IMAGE

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

OSD

LANGUAGE : Choosing OSD
language while using Touch OSD
(English, Chinese only)

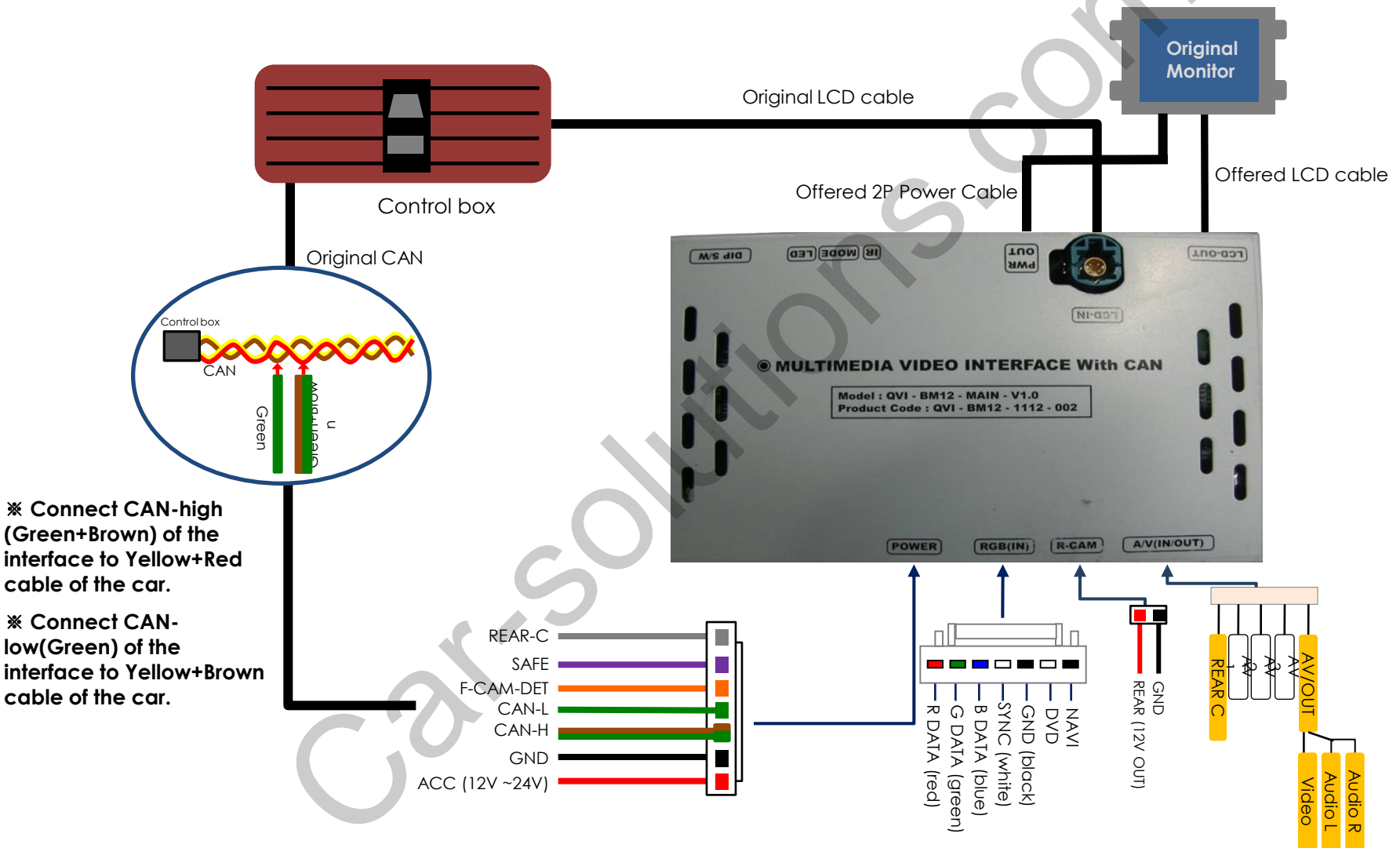
TRANS : Adjusting transparency of
OSD

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 and monitor power 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.

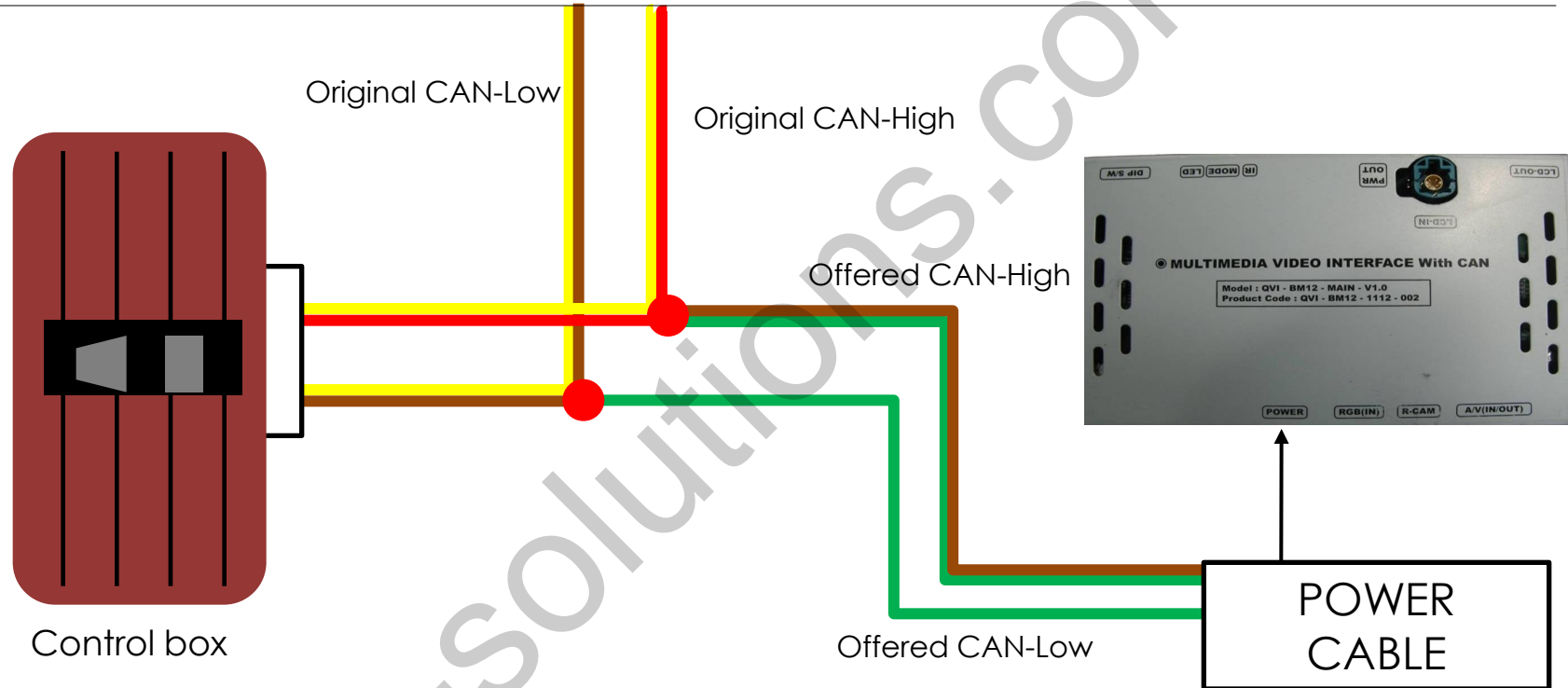


② Connect the original LCD cable to "LCD-IN" connector of the interface.

※ **Warning : Power cable of interface has to be connected with Back of command or cigar jack.
(Do not connect with accessory Power)**

3.3 Installation

3.3.2 Connecting CAN cable respectively



Connect CAN-H wire (Green+Brown) enclosed in our package with the original CAN-H wire (Yellow+Red). And connect CAN-L wire (Green) enclosed in our package with the original CAN-L wire (Yellow+Brown).

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 want to 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 caused by 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", 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 thru CAN signal. (CAN must be wired)