

Release date : 2012.03.30

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

# Video Interface for BMW New 1 Series (F20) 2012

## User Manual

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## 2. Setup

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# 1.1 Main specification

## 1. Compatibility

BMW New 1 series (F20) 6.5''/8.8'' & New 3 series (F30)

## 2. Product composition

Multimedia Interface (made for specific models) \* 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 ~ 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.

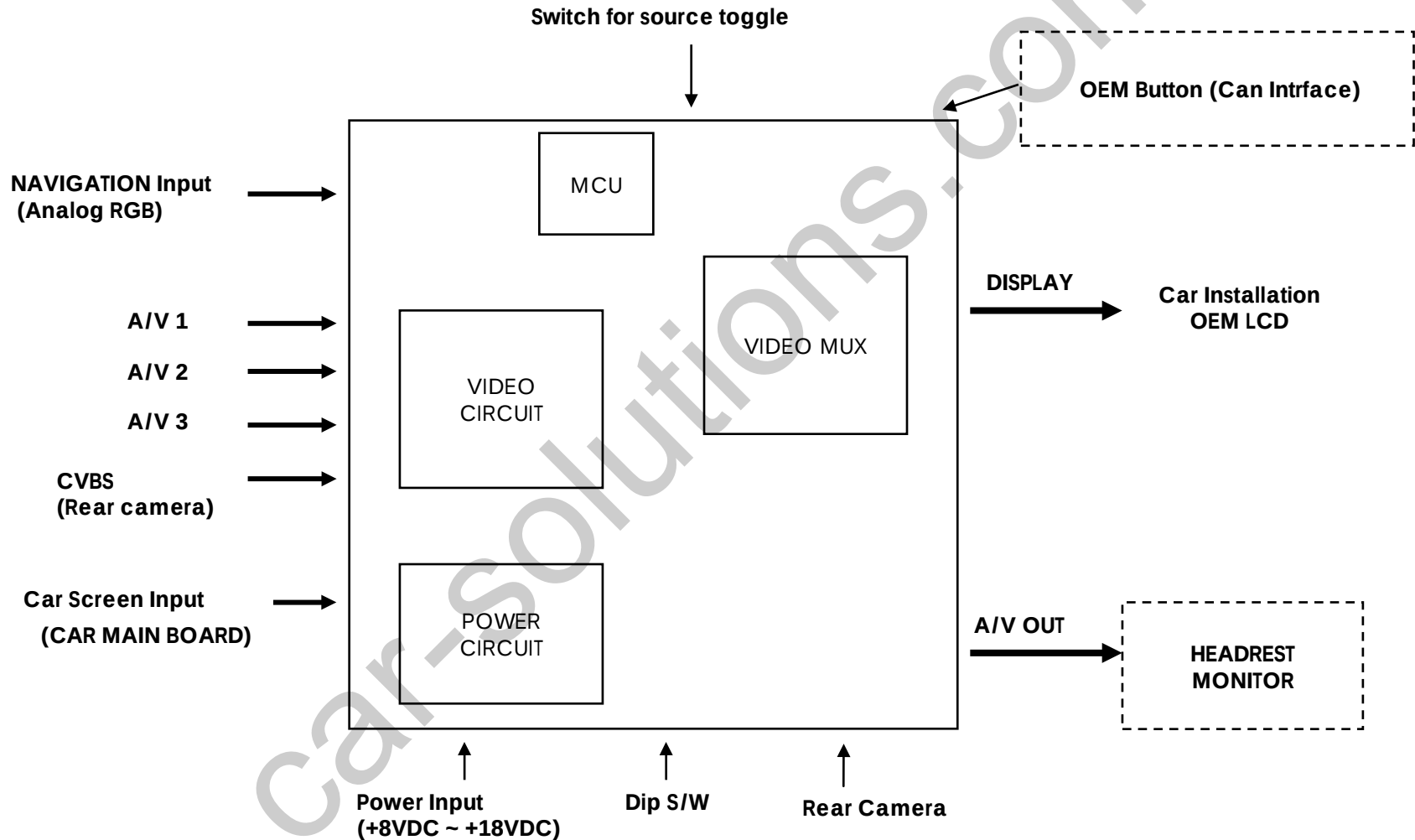
Able to change input modes via the remote control.

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

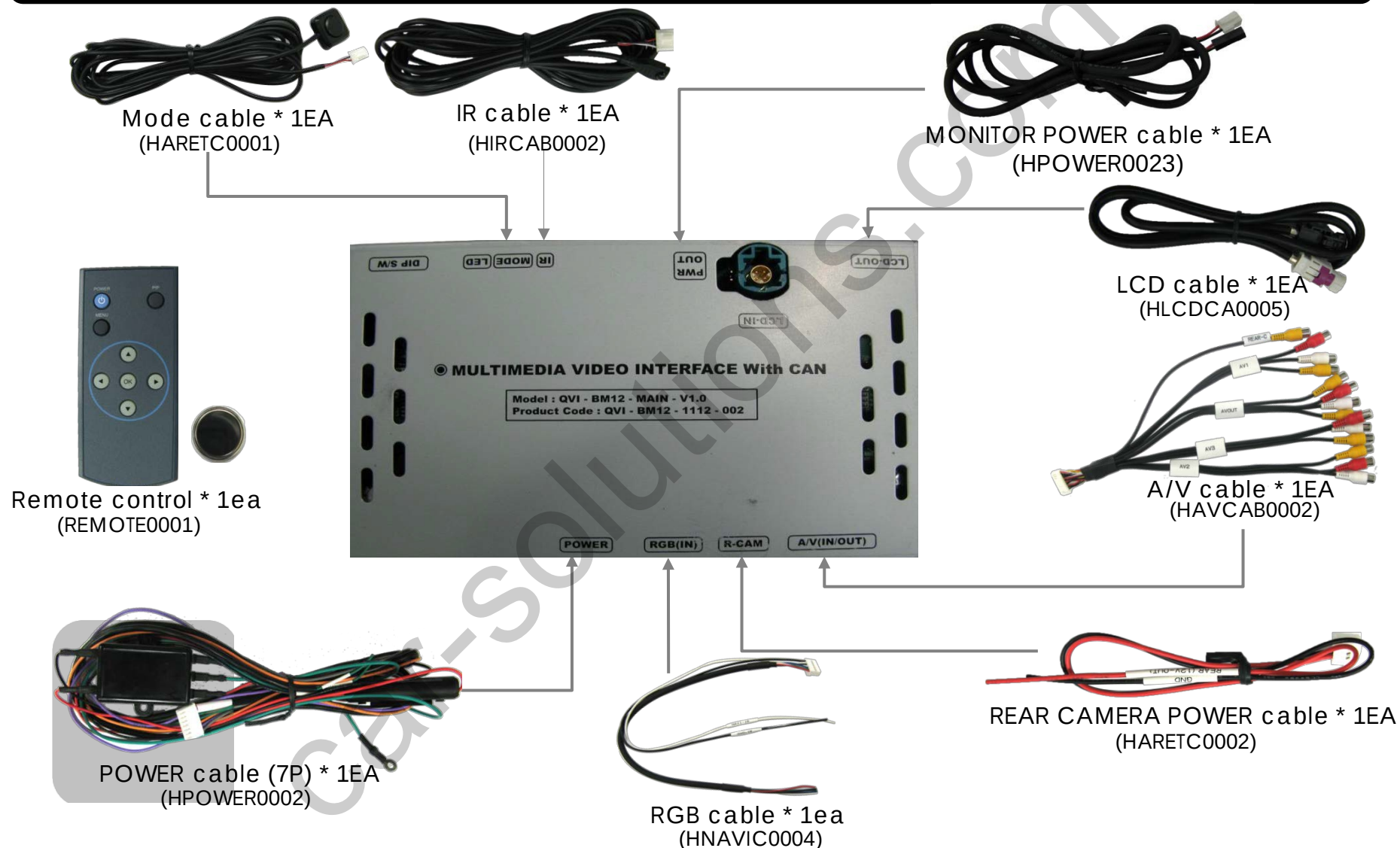
## 1.2 Features

- ☐ Installation from the direction of the command
- ☐ DVD, DTV, navigation control via I-drive controller
- ☐ Plug & Play (the LVDS cable offered)
- ☐ Control of position of the DVD, navigation image
- ☐ Screen Display improvement (user convenience-intended interface)
- ☐ Remote control offered
- ☐ Mode change via mode switch
- ☐ Control of rear camera power

# 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 : hiding RGB mode<br>OFF : displaying RGB mode |
| 2   | Displaying A/V 1                 | ON : hiding A/V 1<br>OFF : displaying A/V1        |
| 3   | Displaying A/V 2                 | ON : hiding A/V 2<br>OFF : displaying A/V2        |
| 4   | Displaying A/V 3                 | ON : hiding A/V 3<br>OFF : displaying A/V3        |
| 5   | Setup of monitor size            | ON : 6.5"<br>OFF : 8.8"                           |
| 6   | Unavailable                      |                                                   |
| 7   | Setup of rear camera use         | ON : CVBS4<br>OFF : MAIN                          |
| 8   | Setup of original screen display | ON : By MUX<br>OFF : By Relay<br>( 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 ☐ ON (6.5inch), OFF(8.8inch)
- ▷ DIP S/W : 6 ☐ OFF
- ▷ DIP S/W : 7 ☐ ON (for external rear camera)
- ▷ DIP S/W : 8 ☐ OFF

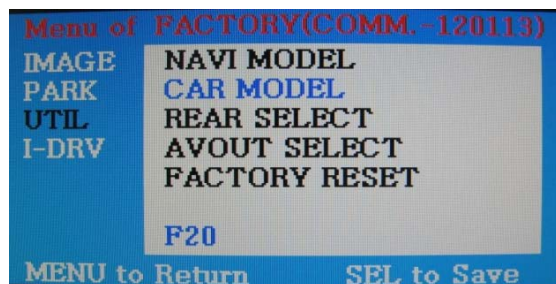




## 2.2 Setup for car model & navigation

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

### Setup for car model



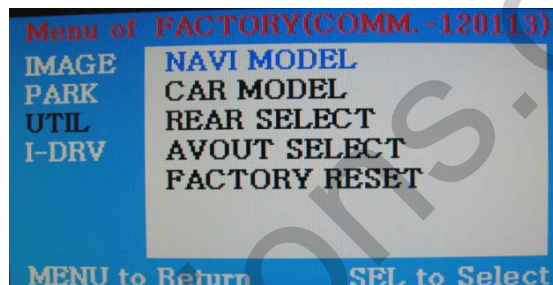
#### UTIL - CAR MODEL

Selecting model of the car

F20 : 6.5", 8.8"

\* 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



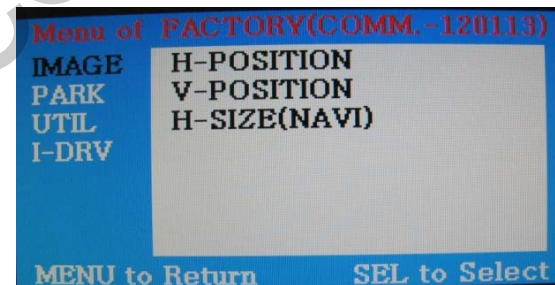
#### UTIL – NAVI MODEL

Definition of the navigation

DEFAULT : default, 400X234, low definition

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

\* 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

TYPE : Parking guide line type

H-POSITION : moving in horizontal Direction

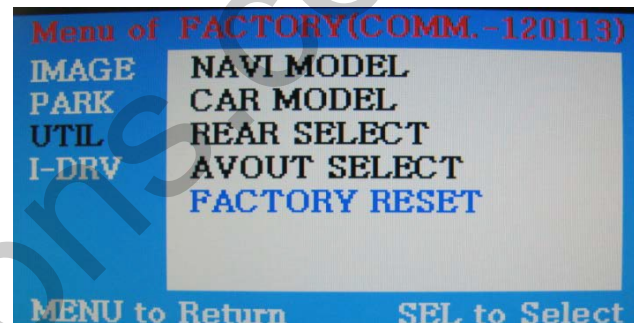
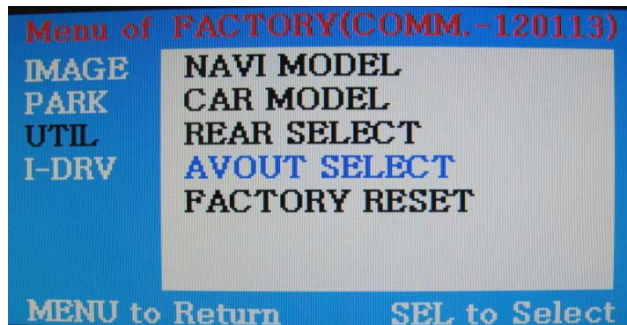
V-POSITION : moving in vertical direction

H-SIZE : adjusting the horizontal size of the navigation

SPACE : Control space of Parking guide line

## 2.3.1 FACTORY mode

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



### UTIL - A/V SELECT

Selecting background sound while navigation is displayed on the screen

DEFAULT : default, the sound of previous image before displaying navigation

A/V : sound of A/V source

### UTIL - FACTORY RESET

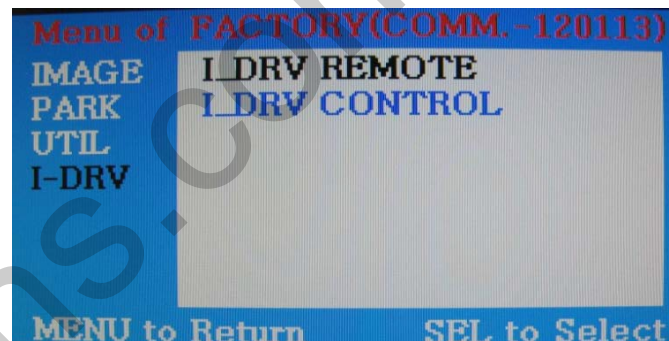
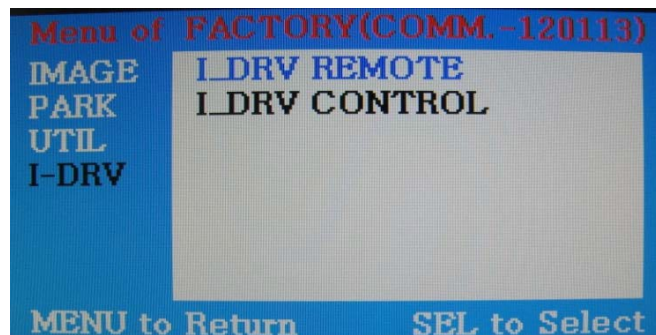
Resetting factory mode

YES : resetting factory mode

NO : undoing reset of the factory mode

## 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        |

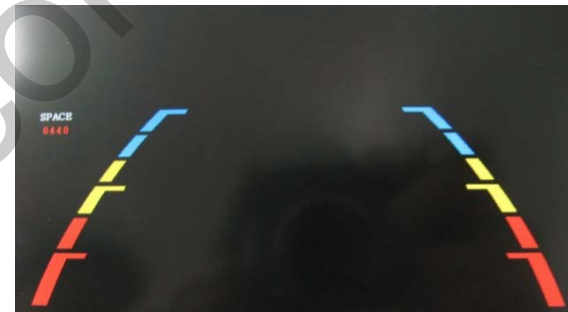
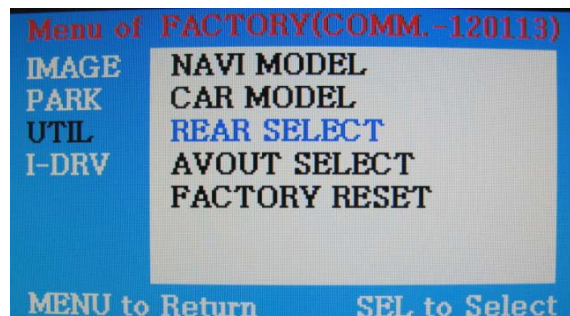
## 2.5 Remote control usage

| Key         | Function                                                                                                          |
|-------------|-------------------------------------------------------------------------------------------------------------------|
| POWER & PIP | Unavailable                                                                                                       |
| MENU        | Activating OSD menu                                                                                               |
| OK          | Making a selection, changing image display                                                                        |
| ▼           | Moving downward                                                                                                   |
| ◀           | Moving leftward<br>(If you press this button 2 seconds long, you can get access to the factory mode.)             |
| ▶           | Moving rightward<br>(If you press this button 2 seconds long, you can reset all the data about user environment.) |



## 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.)

• On 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 -> TYPE -> H-POSITION, V-POSITION -> SPACE)

**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)

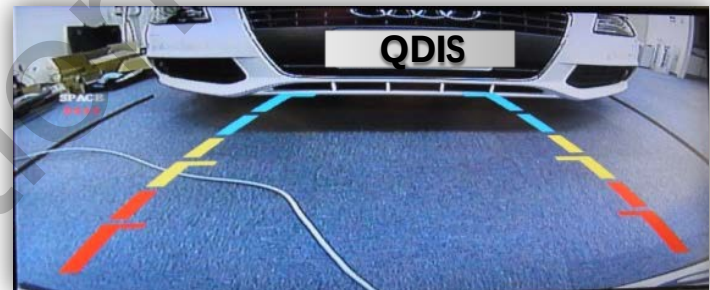
- If you want to get to the FACTORY mode, set the gear as rear state and press “LEFT” button 2 seconds long on the remote control(as shown left top)
- If you set ‘PARK ENABLE’ as “ON” state, there will be the rear view parking guide line. (as shown right top)



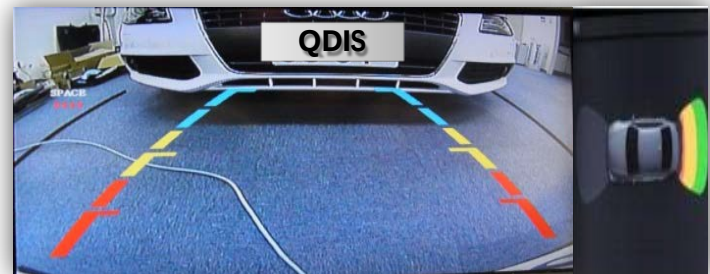
## 2.6.2 Setup for rear view camera(6.5")

### 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")

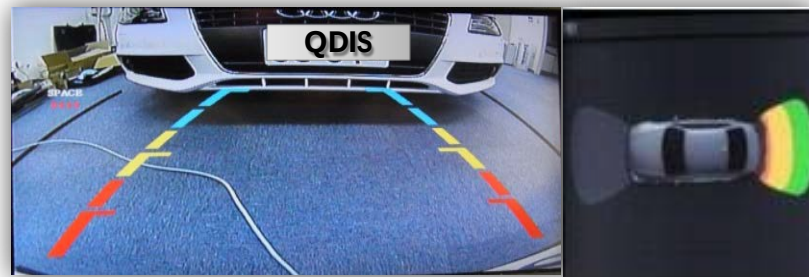
### Setup for displaying rear view



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 >

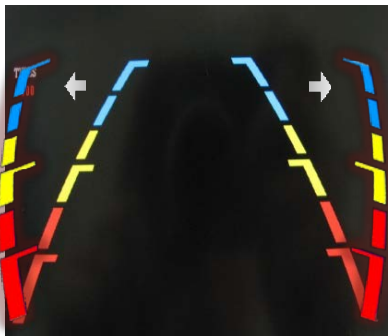


## 2.7 Parking guide line

### Factory Default : DISPLAY - DISABLE

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

#### TYPE



If you need to control the space of upside, Press  $\Delta$ ,  $\nabla$  buttons on the remote control.

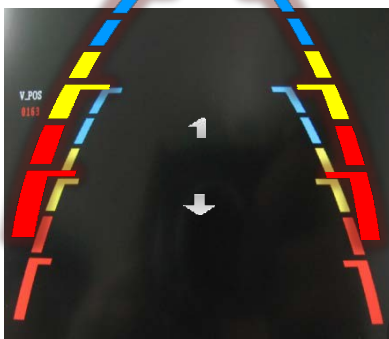
(Fixed underside)

#### H-POS



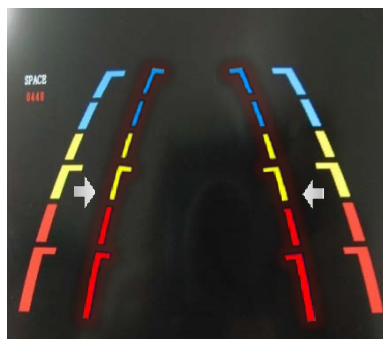
If you need to move the horizontal position, press  $\Delta$ ,  $\nabla$  buttons on the remote control.

#### V-POS



If you need to move the vertical position, press  $\Delta$ ,  $\nabla$  buttons on the remote control.

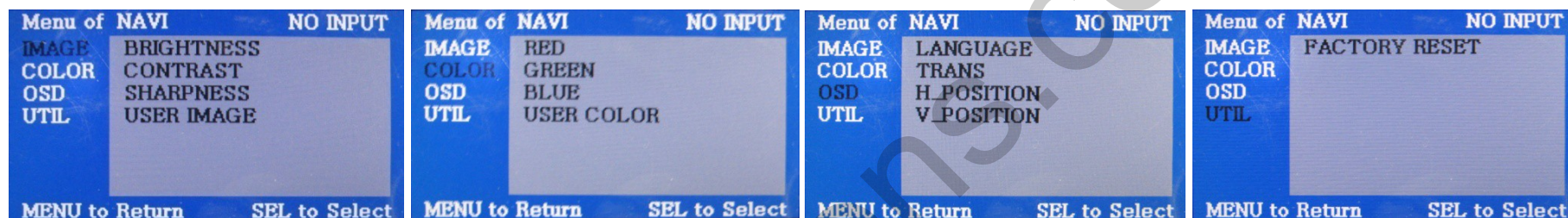
#### SPACE



If you need to control space, press  $\Delta$ ,  $\nabla$  buttons 2 seconds long on the remote control.

## 2.8.1 OSD (on screen display)

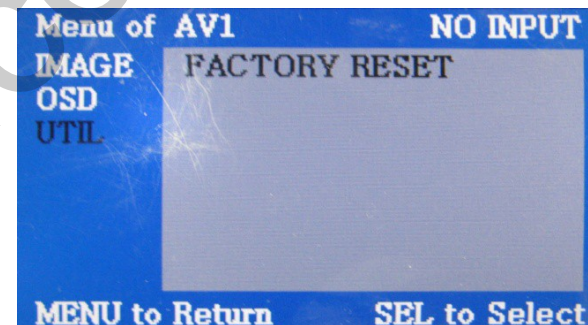
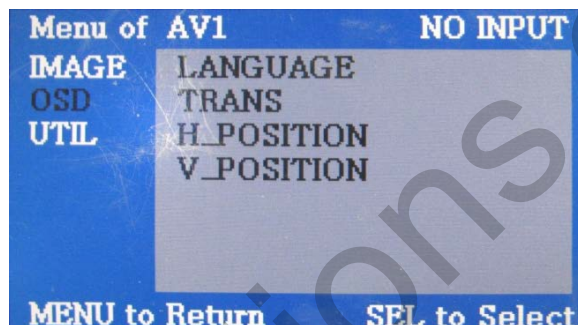
### Analog RGB Mode



| IMAGE                                             | COLOR                                                         | OSD                                                                            | UTIL                                                                                                                        |
|---------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| BRIGHTNESS                                        | RED : Adjusting red                                           | LANGUAGE : Choosing interface language while changing mode between A/V and DVD | 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

SHARPNESS

USER IMAGE : Selecting one among  
4 color options

#### OSD

LANGUAGE : Choosing interface  
language while changing mode  
between A/V and DVD

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. 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 dim or not suitable 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 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)