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Model : QVL-E65-V2 / Product code : BM-0901-652

BMW E65

Specification & Installation

Compatible with BMW 7 Series(E65/66)

Contents

1. Before installation

1.1 Main specification	3
1.2 Features	4
1.3 System diagram	5
1.4 Components	6
1.5 Exterior	7
1.6 POWER cable	8

2. Setup

2.1 DIP switch	9
2.2 Keypad usage	11
2.3 Remote control usage	12
2.4 Factory mode	13
2.5 OSD (on screen display)	14
2.6 Parking guide line	15
2.7 BMW Handle button NAVI setting	16

3. Installation

3.1 Pre-installation Notices	17
3.2 CAN Installation	18
3.3 Installation	19

4. Troubleshooting

.....	20
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1.1 Main specification

1. Input Spec. (MULTI VIDEO INTERFACE)

- 1 x Analog R,G,B (Sync on Green)
- 1 x CVBS(REAR CAMERA) Input
- 3 x A/V (NTST & PAL) Input
- 1 x LCD Input (Car system Input)

2. Output Spec.

- 2 X CVBS OUTPUT
- 1 x Audio OUTPUT
- 1 X LCD OUTPUT(LCD Operation)

3. Electric Power Consumption

- Input Power : 8VDC ~ 24VDC
- Consumption Power : 12WATT, Max

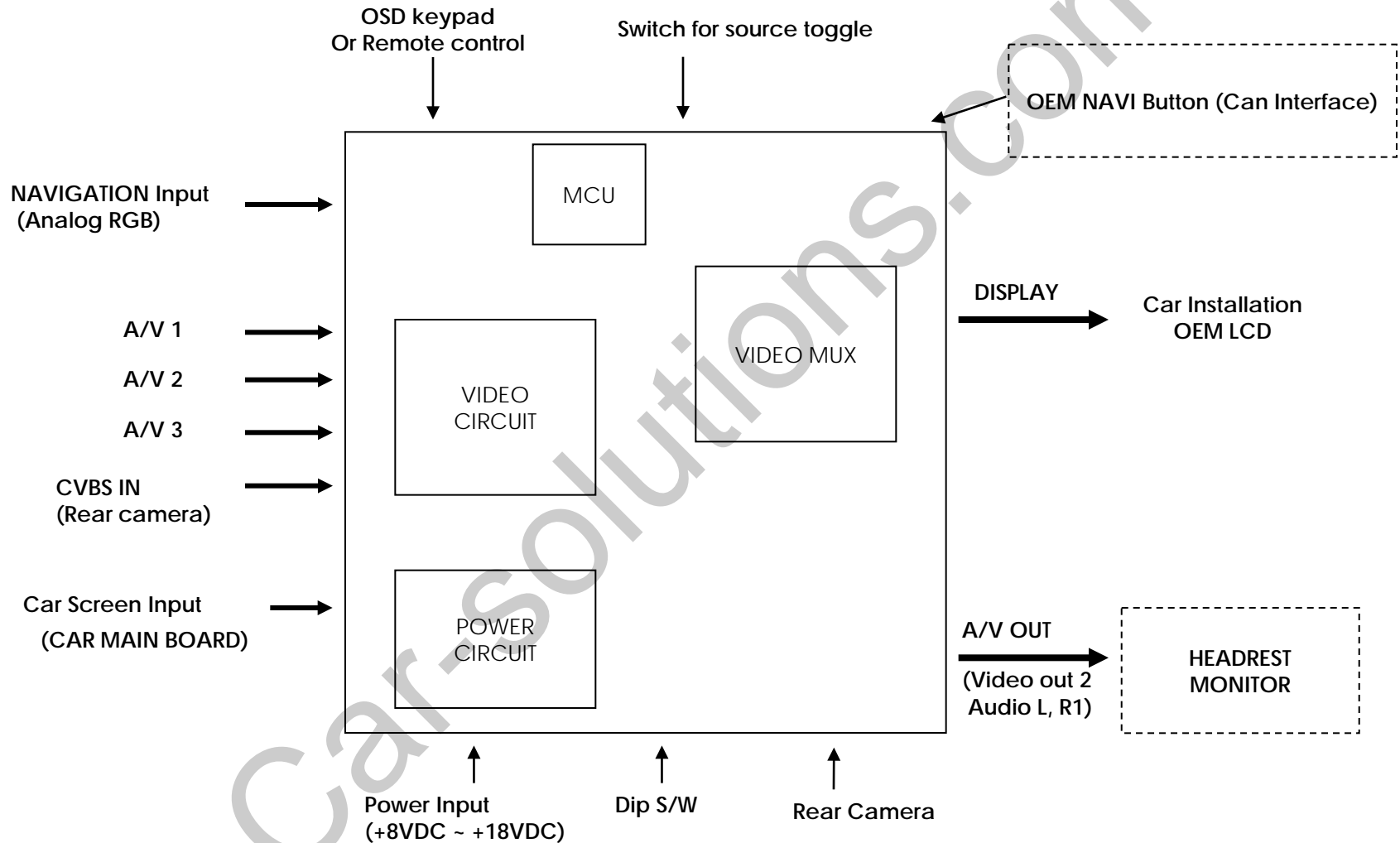
4. Switching Mode (AV source)

- Able to skip AV source while switching Mode (AV source) by DIP S/W(Refer to the DIP S/W page)
- By 'SET' button of the OSD Keypad
- By Toggle Switch (Option)
- By 'Menu' button of the car through CAN
 - ※ This function may not support E65 old version which is without "Menu button"

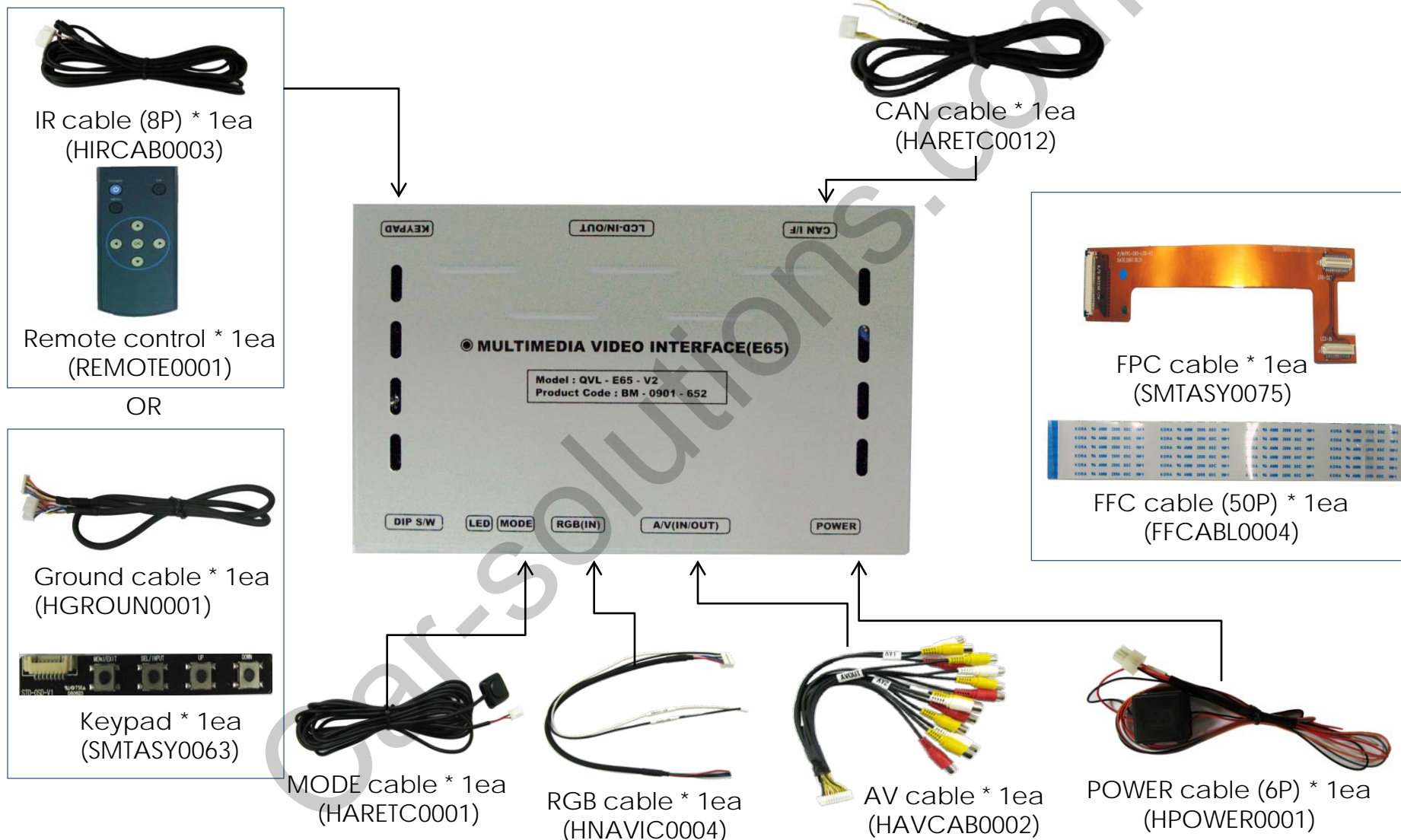
1.2 Features

- Provided OSD Keypad or Remote control
- Move Navi display position(Only on RGB mode)
- Changed OSD MENU

1.3 System diagram



1.4 Components



1.5 Exterior

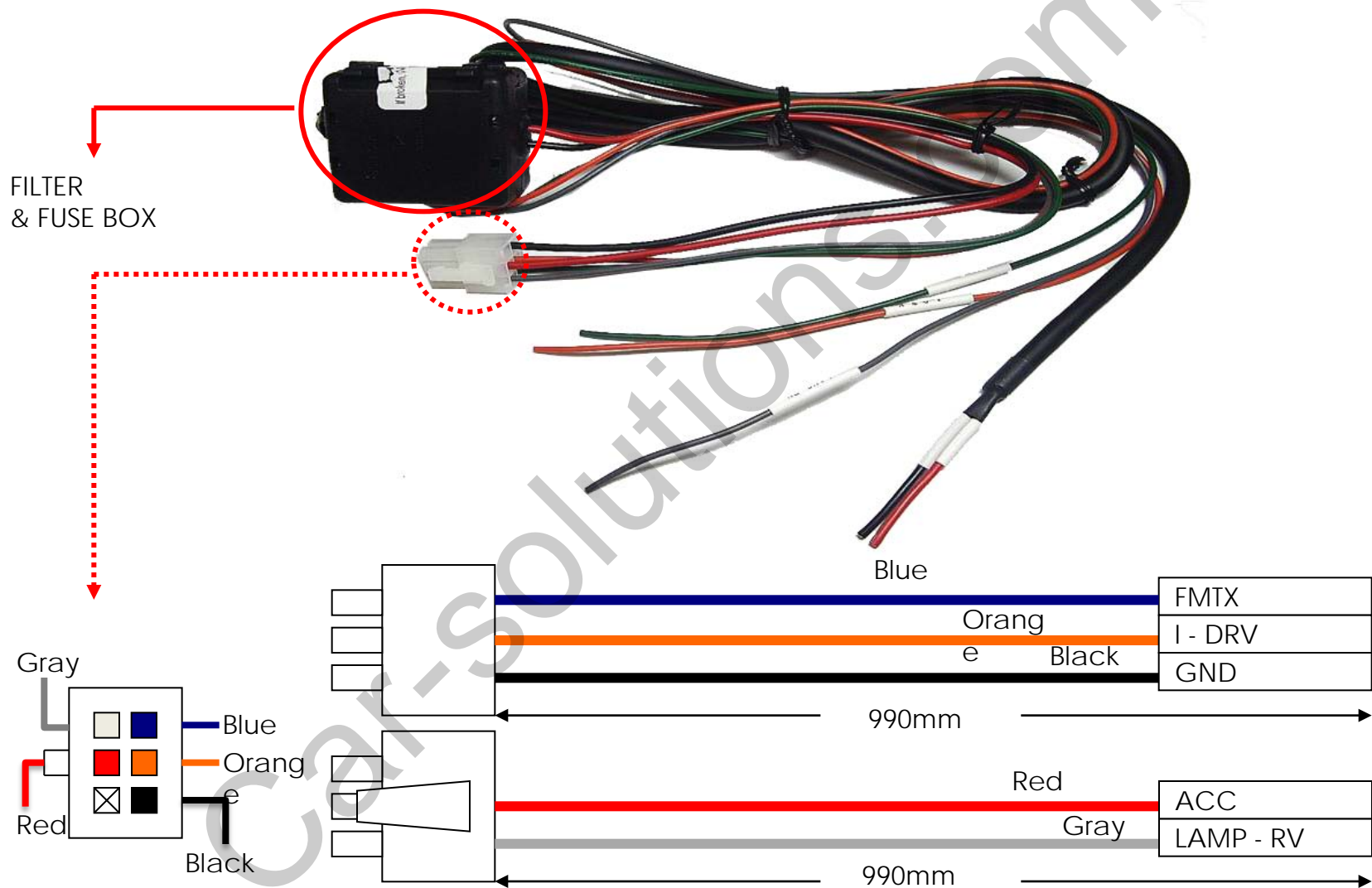


Dimension

Horizontal length 149mm
Vertical length 91mm
Height 19mm

- ① DIP switch
- ② LED
- ③ MODE
- ④ RGB IN
- ⑤ A/V(IN/OUT)
- ⑥ POWER
- ⑦ KEYPAD
- ⑧ LCD IN/OUT
- ⑨ CAN I/F

1.6 POWER cable



2.1 DIP switch

※ ON : DOWN / OFF : UP

#PIN	FUNCTION	DIP S/W Selection
1	RGB INPUT MUTE	ON : RGB Skip OFF : RGB Display
2	A/V 1 MUTE	ON : A/V 1 Skip OFF : A/V1 Display
3	A/V 2 MUTE	ON : A/V 2 Skip OFF : A/V2 Display
4	A/V 3 MUTE	ON : A/V 3 Skip OFF : A/V3 Display
5	To select monitor size	ON : 6.5" LCD Setting OFF : 8.8" LCD Setting
6		N.C
7	Rear Mode	ON : External Rear Camera OFF : OEM Rear Camera
8		N.C

※ 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.

2.1 DIP switch

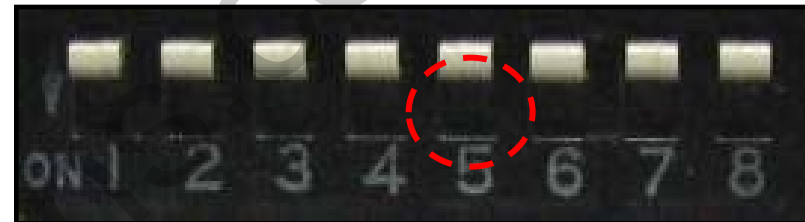
Type of monitor \ #PIN	5
E65 8.8"	OFF
E65 6.5"	ON

※DIP S/W Use Example

[BMW E65-6.5 Inch]

- Use Input Mode : A/V3(DVD), Navigation (RGB)
- Rear Camera : When to be installed on CVBS 4

- ▷ DIP S/W : 1 → OFF
- ▷ DIP S/W : 2,3 → ON (INPUT MODE SKIP)
- ▷ DIP S/W : 4 → OFF (enable A/V3)
- ▷ DIP S/W : 5 → ON (6.5 Inch)
- ▷ DIP S/W : 6 → OFF
- ▷ DIP S/W : 7 → ON (enable CVBS4)
- ▷ DIP S/W : 8 → OFF



[E65 8.8 Inch]



[E65 6.5 Inch]

2.2 Keypad usage

Select one between remote control and keypad

FACTORY MODE (Interface setting) :

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



Key	Function
MENU/EXIT	Activate OSD menu and go 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.)

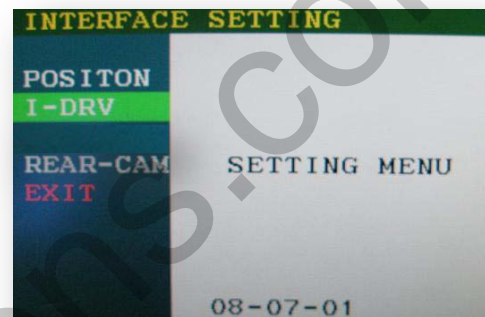
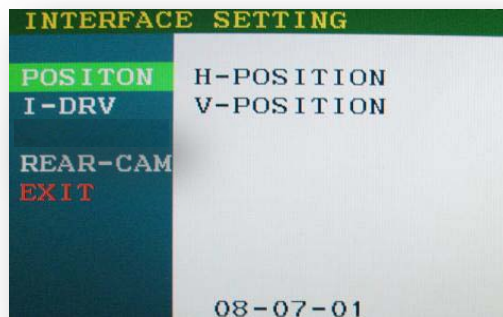
2.3 Remote control usage

Key	Function
POWER & PIP	Unavailable
MENU	Activating OSD menu
OK	Making a selection, changing image display
▲	Moving upward
▼	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.)



2.4 FACTORY mode

FACTORY mode : Operated by pressing UP->DOWN->UP->MENU keys on the keypad in sequence or Press ◀ button 2 seconds long on the remote control.

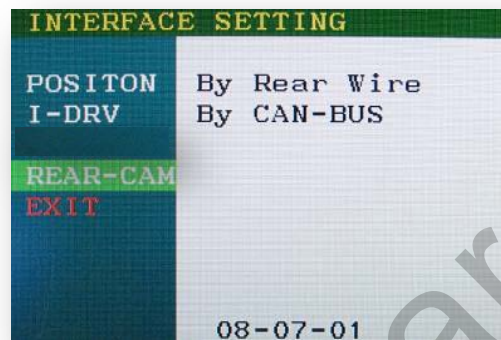


POSITION

- H-POSITION : moving in horizontal direction
- V-POSITION : moving in vertical direction

I-DRV

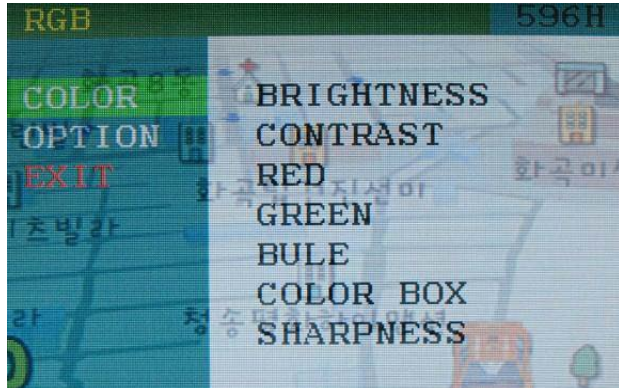
- To control DVD, Navi by I-DRV (Optional)
- Refer to the "BMW Handle button NAVI setting" page.



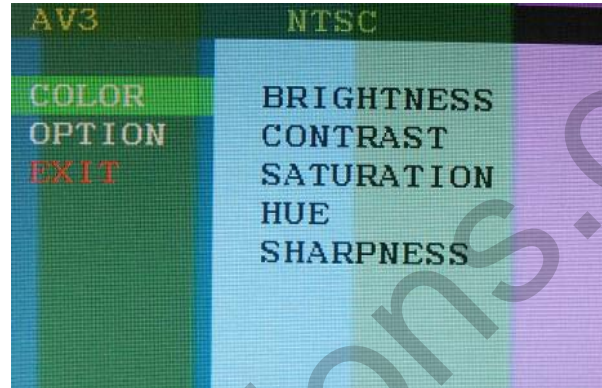
REAR-CAM

- By Rear Wire : By using provided rear camera power cable , setting while rear camera installation (same with previous version)
- By CAN-BUS : Setting for automatic display of rear camera after installed, (CAN wire connected)

2.5 OSD (on screen display)



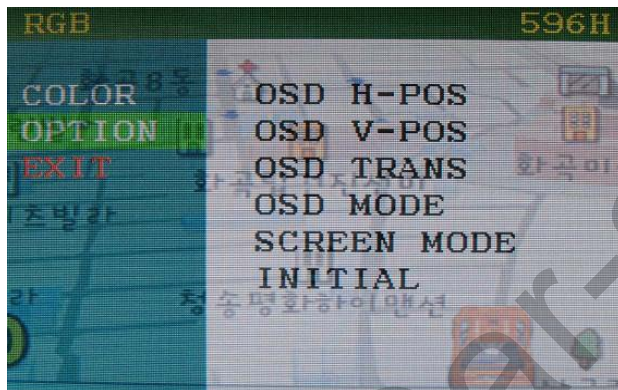
Analog RGB Mode



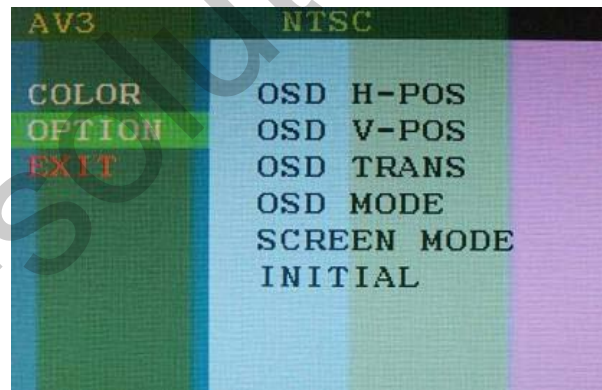
Video mode

COLOR

- BRIGHTNESS
- CONTRAST
- RED
- GREEN
- BLUE
- COLOR BOX : Selecting one among 3 color options
- SATURATION
- SHARPNESS



Analog RGB Mode



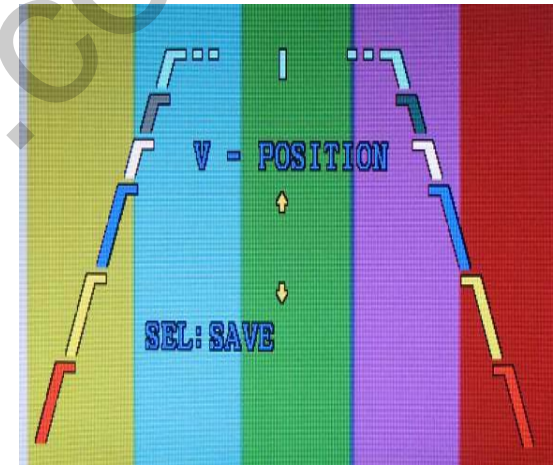
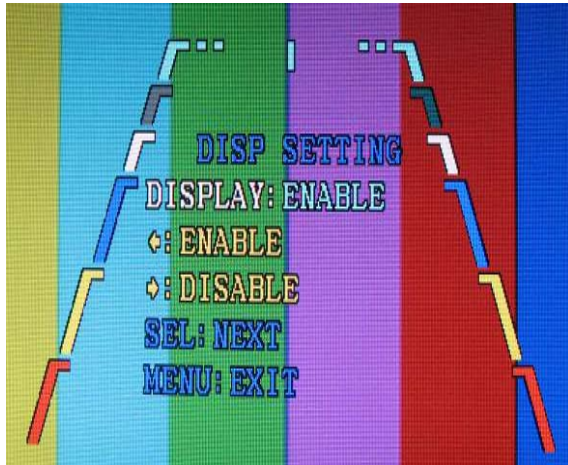
Video mode

OPTION

- OSD H_POS
: Move of OSD window to Left, Right
- OSD V_POS
: Move of OSD window to Up, Down
- OSD TRANS
: OSD window transparency setting
- SCREEN MODE
: Screen Rate setting (4:3, 16:9)
- INITIAL : Initializing OSD setting value

2.6 Parking guide line

Factory Default : DISPLAY - DISABLE



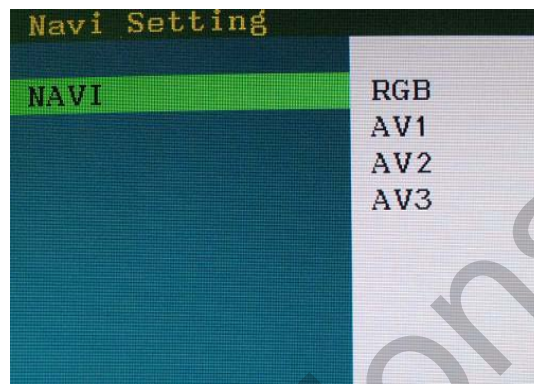
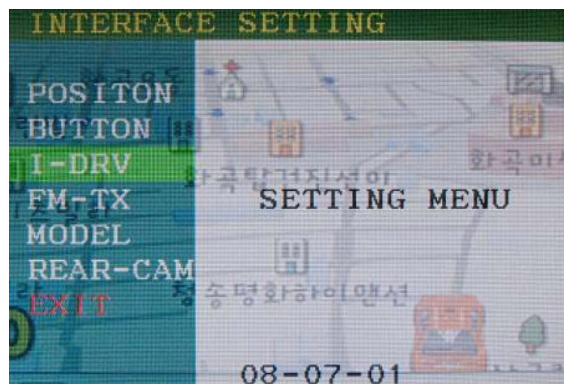
① When the car is in reverse, press 'UP' key for 2 sec, the guide line appears on the screen.

② If you need to move the line position, press 'SEL' key. (Use 'Up', 'Down' Key of Keypad)

③ On step no.2, press "SEL" key once again, you can move the line vertically by "UP", "Down" keys.

2.7 BMW Handle Button NAVI setting

Oversea

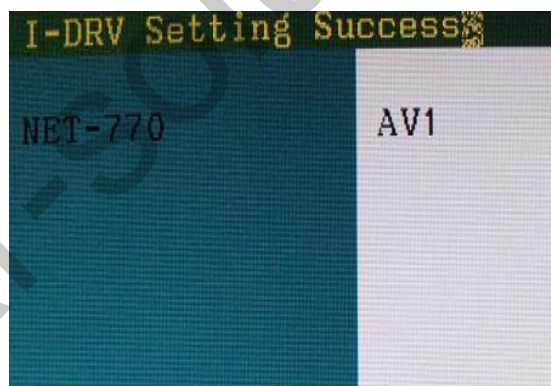
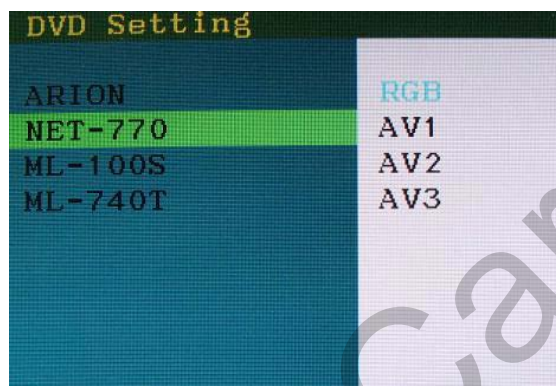


After implementing FACTORY MODE (Interface setting), select I-DRV and press the Sel button of Keypad, and then Navi Setting window is displayed as shown right.

After selecting the one among RGB, AV1~3, press the Sel button of keypad. (It is fine to select any channel, because the selecting of RGB, AV1~3 is useless. But, the channel selected on this step will be exempted on next channel selecting step.)

※ This function is not supported at domestic NAVI, but this setting is necessary for implementation of Domestic DTV.

Domestic



After the above steps finish, left picture will appear. ARION, NET-770, ML-100S, ML-740T are Domestic DTV model. Select the model you want to use, then select channel of RGB, AV1~3. (The channel selected on the above steps is exempted.)
NET-770 (DTV model) is designated AV1 as shown on the right picture.

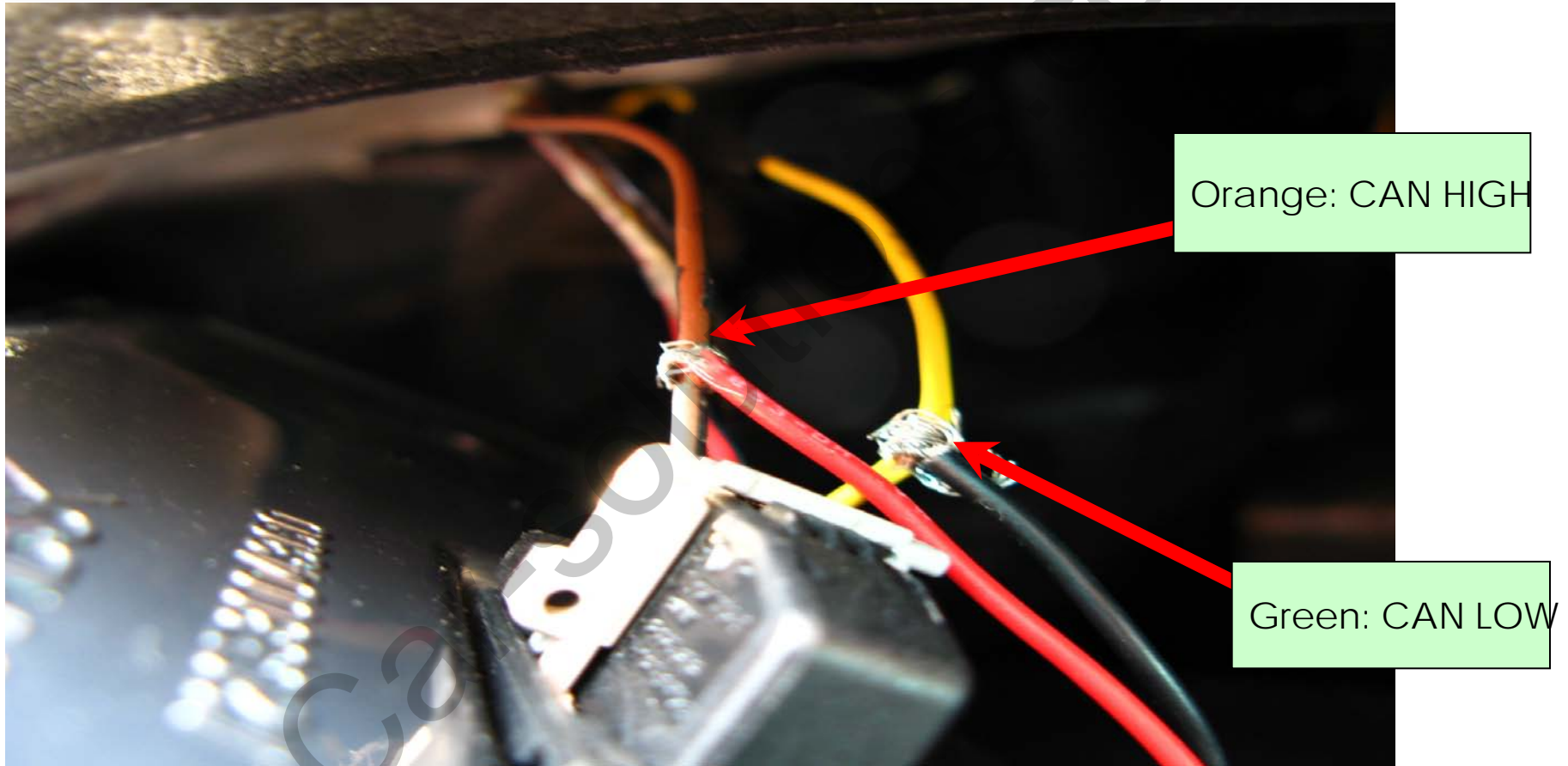
※ When DVD-IR (Black) wire of RGB-IN cable is connected to IR input wire of DTV, able to operate via handle buttons.

3.1 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.

3.2 CAN Installation

E65 CAN Wiring Diagram



3.3 Installation



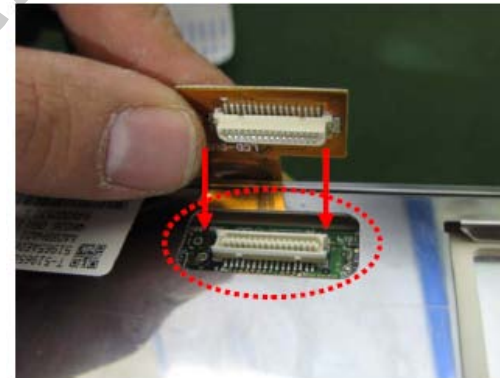
1. Connect the FFC cable to FPC cable as shown above.



2. Connect the FFC cable to the LCD-IN/OUT connector of the board as shown above.



3. Connect the LVDS cable of head unit to FPC cable as shown above.



4. Connect the FPC cable to the connector of head unit as shown above.

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 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" like left picture, then select "UTIL → Rear Select"

If it is set as "LAMP", change it to "CAN" by remote control 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)

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 an system error.