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Model : QVL-A4L-V7.3 / Product code : A4L-1106-003

# Video Interface for AUDI A4, A5, Q5

*without MMI panel*

*With external touch screen panel support*

## **Installation Manual**

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# 1.1 Main Specifications

## 1. Inputs

- 1 x **Analog RGBCs** (for navigation system)
- 1 x **REAR-C Input** (for external rear camera source, *supports NTSC & PAL auto detection* )
- 3 x **A/V Input** (for external video source - DVD, TV, DVB-T; *supports NTSC & PAL auto detection* )
- 1 x **LCD-IN** (video input from OEM video unit)
- 1 x **TOUCH** – **on sub-board** (for external touch screen panel)

## 2. Outputs

- 2 X **AVOUT** (video/audio output for headrest monitors)
- 1 x **TOUCH** – **on video interface** (for external touch screen panel connection to navigation module connected via RGBCs input)
- 1 X **TO LCD** – **on sub-board** (video output for connection to OEM display)
- 1 X **R-CAM** (power output for external rear view camera connected via REAR-C input)
- 1 X **IR OUT** (IR-Data wire for DVD, TV, DVB-T units control via touch screen panel – see page 15-17)

## 3. Power

- Input power : 10 V DC ~ 16 V DC
- Power consumption : 6 W (max)

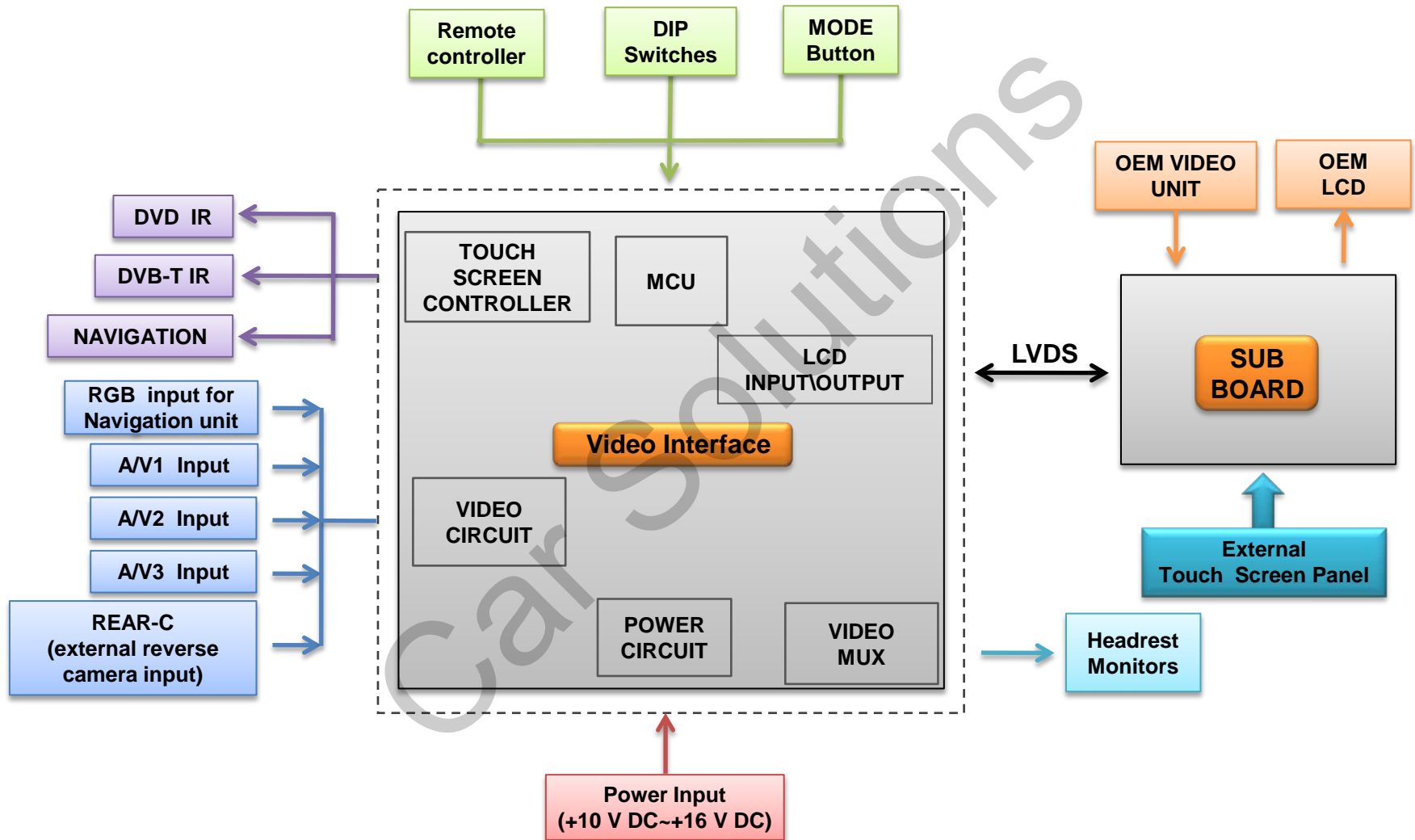
## 4. Mode change

- Video input disable : possible to skip each input source by adjusting DIP switches (page 8)
- Control by using the remote controller (page 9)
- Possible to switch between modes by remote mode switch button
- Possible to change modes and control DVD, CMMB via external touch screen panel (page 10)

## 1.2 Features

- DVD, NAVI control by touch screen panel, OSD-buttons (optional)
- **Installation near OEM display**
- More convenient installation via sub-board
- Plug & Play installation by LVDS cable
- Possibility to adjust position of AV1-3, RGB image
- Remote controller offered
- Improved On Screen Display menu

# 1.3 System Diagram



# 1.4 Package Content



# 1.5 Exterior



## Dimensions

Horizontal length 125 mm  
Vertical length 102 mm  
Height 24 mm

- ① POWER/CAN/RGB
- ② AV inputs/outputs
- ③ Rear camera power output
- ④ LVDS output
- ⑤ Output for external touch screen panel connection to navigation unit or USB touch screen controller
- ⑥ DIP switches
- ⑦ LED

## - SUB-BOARD - (52 mm \*31 mm \*19 mm)



- ⑧ To OEM LCD
- ⑨ LVDS input
- ⑩ To external touch screen panel
- ⑪ OEM video unit



## 2.1 DIP Switches

DIP #	Function	DIP S/W selection
1	RGB input	ON : RGB Input is OFF OFF : RGB Input is ON
2	A/V1 input	ON : A/V1 Input is OFF OFF : A/V1 Input is ON
3	A/V2 input	ON : A/V2 Input is OFF OFF : A/V2 Input is ON
4	A/V3 input	ON : A/V3 Input is OFF OFF : A/V3 Input is ON
5	<b>NOT USED</b>	
6	<b>NOT USED</b>	
7	Rear Camera Mode	ON : External Rear Camera OFF : OEM Rear Camera
8	OEM video input	ON : OEM input is OFF OFF : OEM input is ON

**DIP ✕ ON : DOWN, OFF : UP**

**[AUDI A5 2008]**

- Inputs to be used: RGB (CS9100 navigation box), A/V3 (DVD)
- External rear view camera : connected to REAR-C

- ▷ DIP S/W : 1 → OFF (RGB input is ON)
- ▷ DIP S/W : 2 → ON (AV1 input is OFF)
- ▷ DIP S/W : 3 → ON (AV2 input is OFF)
- ▷ DIP S/W : 4 → OFF (AV3 input is ON)
- ▷ DIP S/W : 5 → OFF (**NOT USED**)
- ▷ DIP S/W : 6 → OFF (**NOT USED**)
- ▷ DIP S/W : 7 → ON (enable REAR-C)
- ▷ DIP S/W : 8 → OFF (OEM input is ON)





## 2.2 Remote Controller

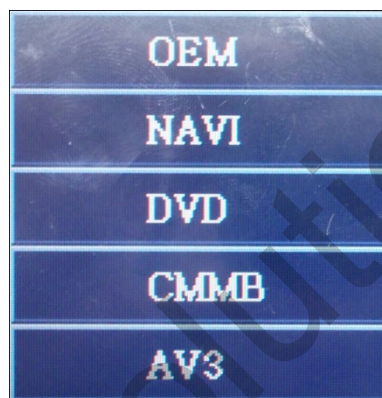
Buttons	Function
POWER & PIP	<b>NOT USED</b>
MENU	OSD Menu
OK	Selection or Mode change
▲	Move UP
▼	Move DOWN
◀	Move LEFT <i>(or press 2 sec. – Factory Mode)</i>
▶	Move RIGHT <i>(or press 2 sec. - Factory Reset)</i>



## 2.3 OSD Buttons Activation

### OSD buttons for DVD

For DVD control via OSD menu installer shall connect DVD system to AV1 input and join "DVD IR" cable from video interface cables with DVD IR receiver DATA cable.



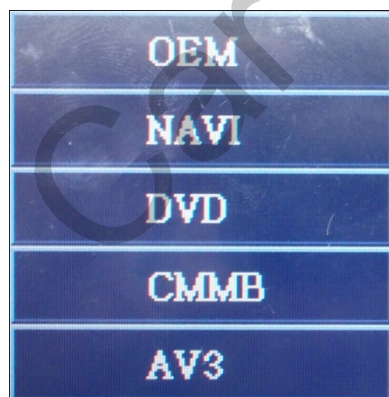
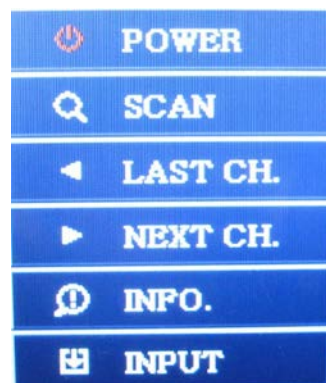
First of all, if you touch the screen in mode "AV1", you can see the menu as shown left. And then if you do NOT touch anything on the screen for 5 seconds or longer; or if you touch the screen in the place beyond menu, the menu will disappear.

At that time, if you choose "INPUT", you can get out of the menu and see the mode change menu.(left picture)

Here is a picture of the mode change menu. If you select the channel which you want, you will switch to selected video source. (right picture)

### OSD buttons for CMMB, NAVI

DVD, navigation menu is available in English or Chinese. You can change menu language by pushing "MENU" button on remote controller.



As shown above, if you touch the screen in mode "AV2", you can see the menu as shown left. And then if you do NOT touch anything on the screen for 5 seconds or longer; or if you touch the screen in the place beyond menu, the menu will disappear.(left picture)

Here is a picture of the mode change menu. If you select the channel which you want, you will switch to selected video source. (right picture)

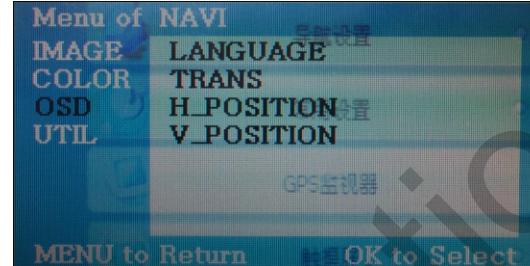
## 2.4 OSD (On Screen Display)

**OSD menu: Press "MENU" button on the remote controller.**

### Analog RGB mode



### Analog RGB mode



### Analog RGB mode



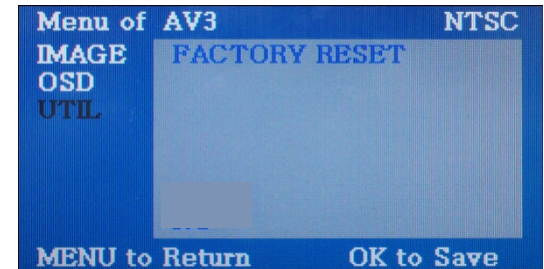
### Video AV1-3 mode



### Video AV1-3 mode



### Video AV1-3 mode



#### IMAGE

- BRIGHTNESS
- CONTRAST
- SATURATION
- HUE
- SHARPNESS
- USER IMAGE : To choose a option among 4 prepared color shades.

#### OSD

- LANGUAGE : To change DVD, CMMB OSD menu language (select 1 among English or Chinese)
- TRANS: OSD background transparency adjustment control of the
- H\_POSITION : Horizontal movement of the OSD window
- V\_POSITION : Vertical movement of the OSD window

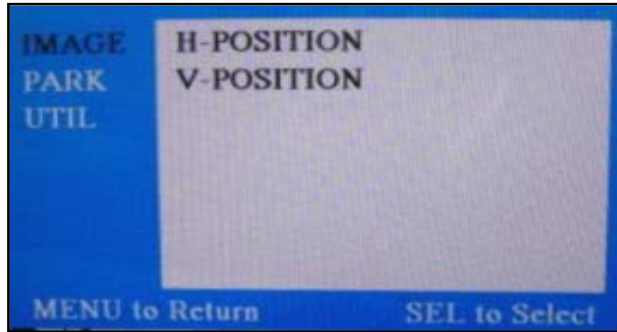
#### UTIL

- USER RESET: To restore navigation, DVD screen factory settings  
**(DOES NOT restore images position, only functions inside OSD menu)**



## 2.5 Factory Mode

**FACTORY mode – Press ◀ buttons on the remote controller for 2 seconds.**



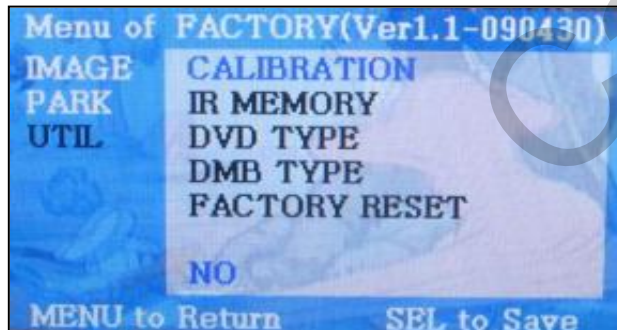
### IMAGE

- H-POSITION: horizontal movement of screen (image alignment)
- V-POSITION : vertical movement of the screen (image alignment)



### PARK

- PARK ENABLE : Rear view camera parking guidelines activation (OFF by default)
- PARK SETUP : rear view camera parking guideline position adjustment (available in PARK SETUP -> V-POSITION, H-POSITION)



### UTIL

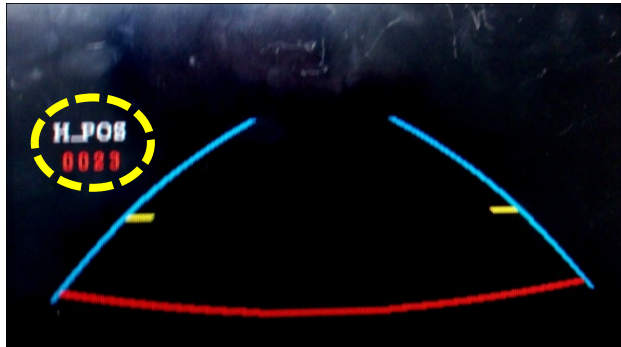
- CALIBRATION : External touch screen panel calibration (Refer to “Touch Screen Panel Calibration ” page)
- IR MEMORY : To program value of remote controller buttons (Refer to “Remote Controller Buttons” page)
- DVD TYPE : DVD type setting (Refer to “DVD, DMB type selection” page)
- DMB TYPE : DMB type setting (Refer to “DVD, DMB type selection” page)
- FACTORY RESET : To restore all factory settings

## 2.6 Parking Guideline setting

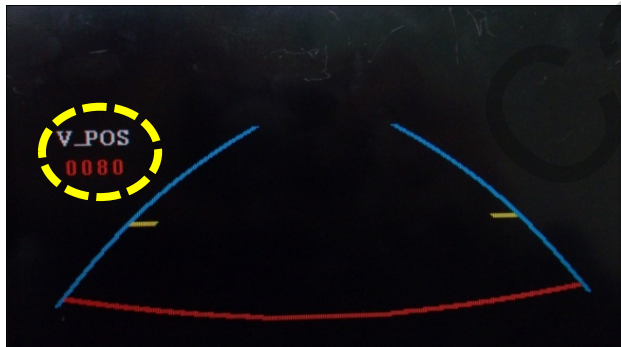
**FACTORY mode – Press ◀ buttons on the remote controller for 2 seconds.**



- ① Set "ON" in "PARK ENABLE" line in the PARK section as shown left. **(default – OFF)**



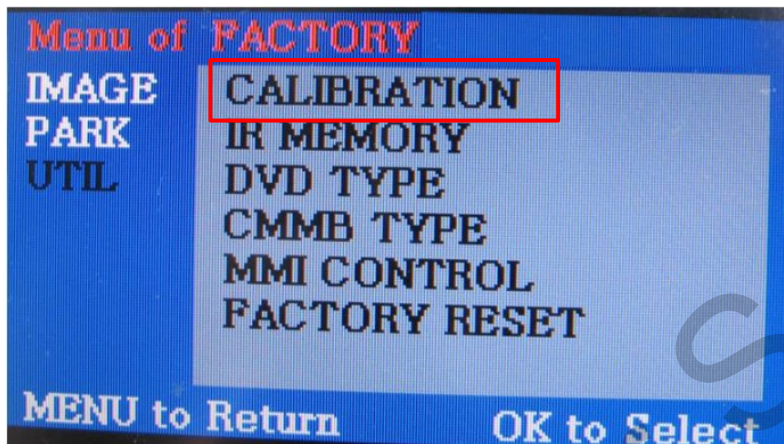
- ② If you turn on rear gear after setup, parking guidelines will appear on screen as shown left. Now if you push "OK" button, you can see "H-POS" on the left of screen. Then adjust horizontal position of the parking guidelines.



- ③ After horizontal position adjustment, press "OK" on the remote controller. Then you will see "V-POS" on the left of screen. Adjust vertical position of the guideline.

## 2.7 Touch Screen Panel Calibration

If you use external touch screen panel for connected DVD player, TV tuner, DVB-T receiver control by OSD buttons, which will emulate remote controller buttons of these devices, you should calibrate the connected touch screen panel.



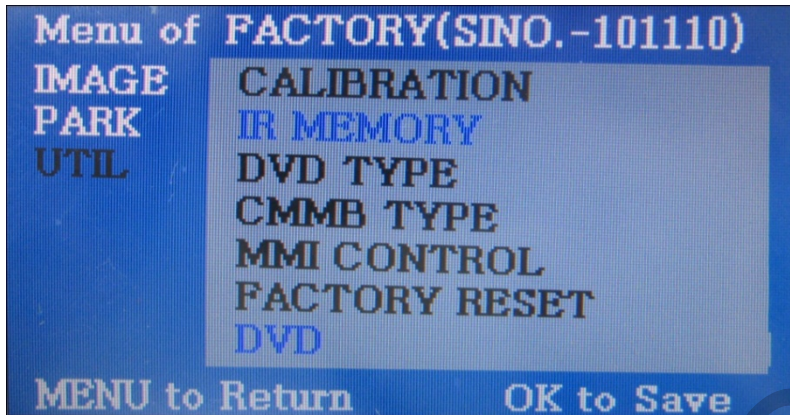
- ① First of all, press ◀ button on remote controller for 2 seconds. Then you can enter the FACTORY mode.
- ② Set "YES" after CALIBRATION option is selected as shown above.

- ③ After that "touch calibration" caption appears on screen for **about 2 seconds** as shown above. When it disappears you can calibrate the touch screen. (Just touch + on screen.) If calibration was performed, "success" caption will appear. If not, you will see "failure".

## 2.8.1 Remote Controller Buttons

### Programming OSD buttons value using remote controller supplied together with DVD,TV,DVB-T.

If you want to control DVD and DMB models other than SANYO and NECVOX via touch screen (using OSD buttons, you can program value of DVD and DMB' s remote controller which you have. Then you can control DVD and DMB via touch screen.



- ① First of all, press ◀ button on remote controller for 2 seconds. Enter FACTORY mode, then select IR MEMORY in UTIL section.

There are two options in IR MEMORY as shown above;  
DMB and DVD.

Select one of these AV sources.

- ② This is a window where DVD remote controller button values are programmed. Just select a menu you want to save.

(Select "DMB in options of IR MEMORY" if you want to save values of DMB' s remote controller. And follow the instruction below.)

#### Programming Instructions>

- a. Select "POWER" in OSD menu, then press "OK" on remote controller. (as shown above)
- b. If the marked area flickers as shown above, press "POWER" button on the remote controller of DVD that you want to use. (*continued on the next page*)



## 2.8.2 Remote Controller Buttons



*Programming Instructions > continued...*

c. Programmed values will appear as green text in the marked area on pressing the button. And the values will be saved automatically.

d. Program other buttons value in OSD menu according to the above-mentioned procedure

③ After programming select "INPUT" in OSD menu and press "OK". Then you can see confirmation window as shown above. If you choose "YES", all entered values will be saved.

If you select "NO", the values won't be saved.

If data is saved, DVD TYPE and DMB TYPE will be changed to "USER" automatically.)

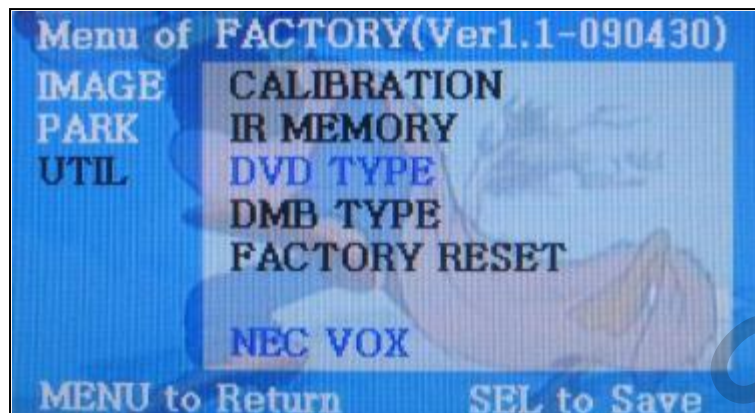
If you see "SUCCESS" caption on screen, the data is saved and you can control DVD via touch screen.

HOWEVER, you MUST change the option in DVD(DMB)/UTIL/FACTORY to "USER".(Refer to page18.)

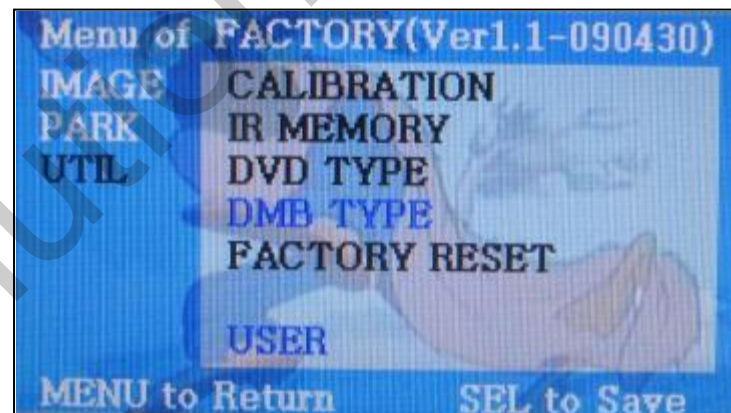
## 2.9 DVD, CMMB Model Selection

Factory Default : DVD TYPE - NECVOX/SANYO (For Chinese DVD)  
DMB TYPE – CMMB (For Chinese DMB)

DVD TYPE



CMMB TYPE



### UTIL – DVD/DMB TYPE

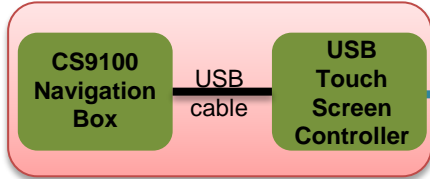
If DVD/CMMB type that you want to use is not NECVOX or SANYO, you have to register values of the remote controller that you want to use in the “IR MEMORY” section and set the “DVD TYPE”/“CMMB TYPE” to “USER”.

If you do not perform this process after saving the data, you WILL NOT be able to control DVD/CMMB via touch screen.

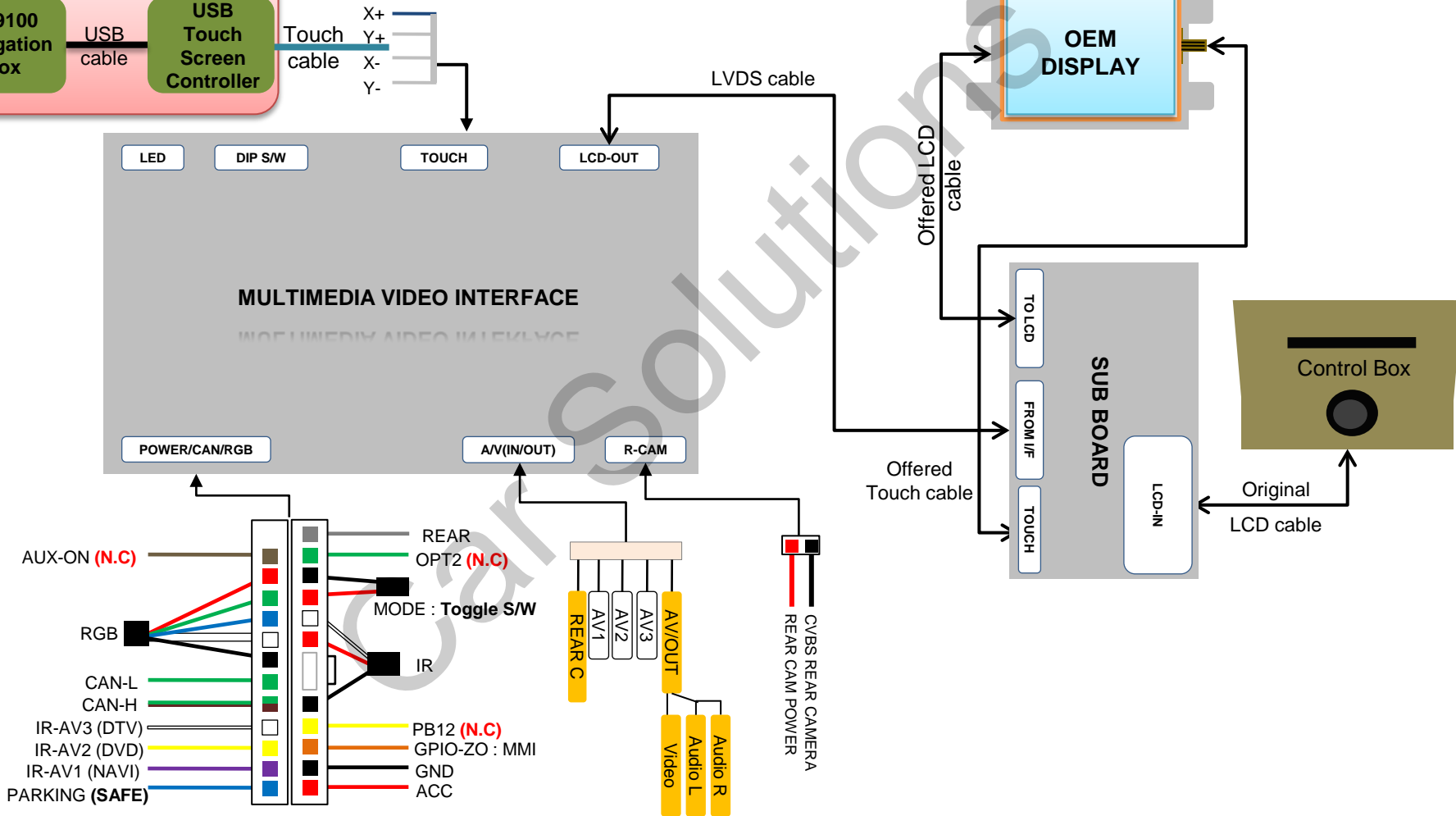
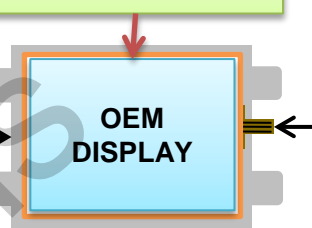
※ If you enter data in “IR MEMORY” section in FACTORY mode, “DVD TYPE”/ “DMB TYPE” will *automatically* be saved to “USER”

# 3.1 Installation Diagram

**NOT INCLUDED IN PACKAGE!**



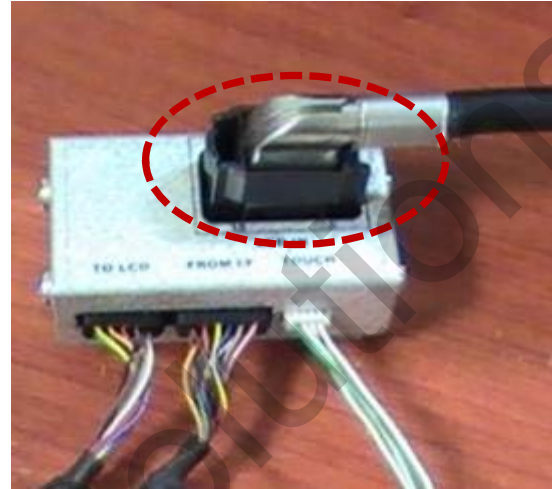
**Touch panel not included!**



## 3.2 Cautions on Installation

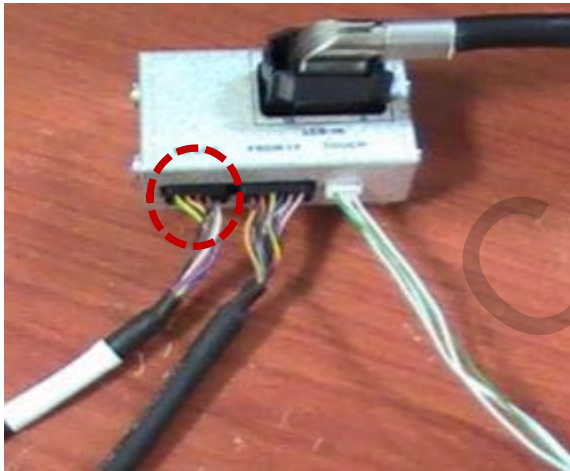
- Ignition key should be taken off before starting installation, interface power connection must be the last step in installation.
- Power cable should be disconnected during interface installation.
- There should be no electronic devices or magnetic pole around the installation place.
- All steps of installation should be done by well-trained specialist.
- Dismantling without manufacturer's permission can not be guaranteed, (No permission to break attached warranty label on the board.)
- Please, check package content when receiving the product. In case something is missing, inform supplier or manufacturer.
- According to our sales policy any problems caused by user's mistake or carelessness cannot be guaranteed.

## 3.3 Installation



Disconnect OEM cable from display and connect it to LCD-IN socket on sub-board.

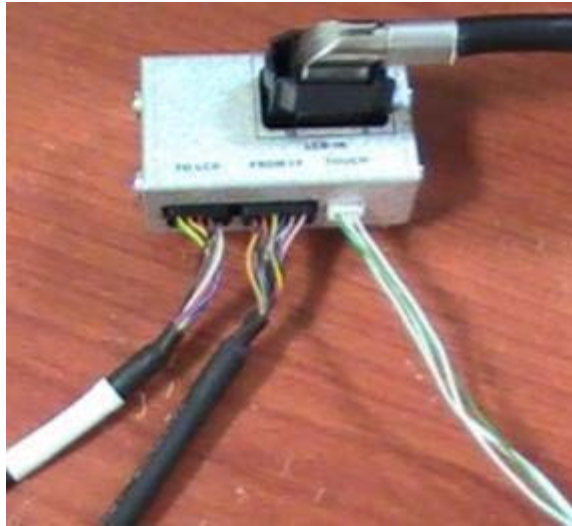
**Be careful while OEM cable connection to sub-board, follow graphic prompts inside the socket!**



Connect the provided LCD-OUT cable to rear side of LCD monitor and to socket on the sub-board as shown left.



## 3.3 Installation

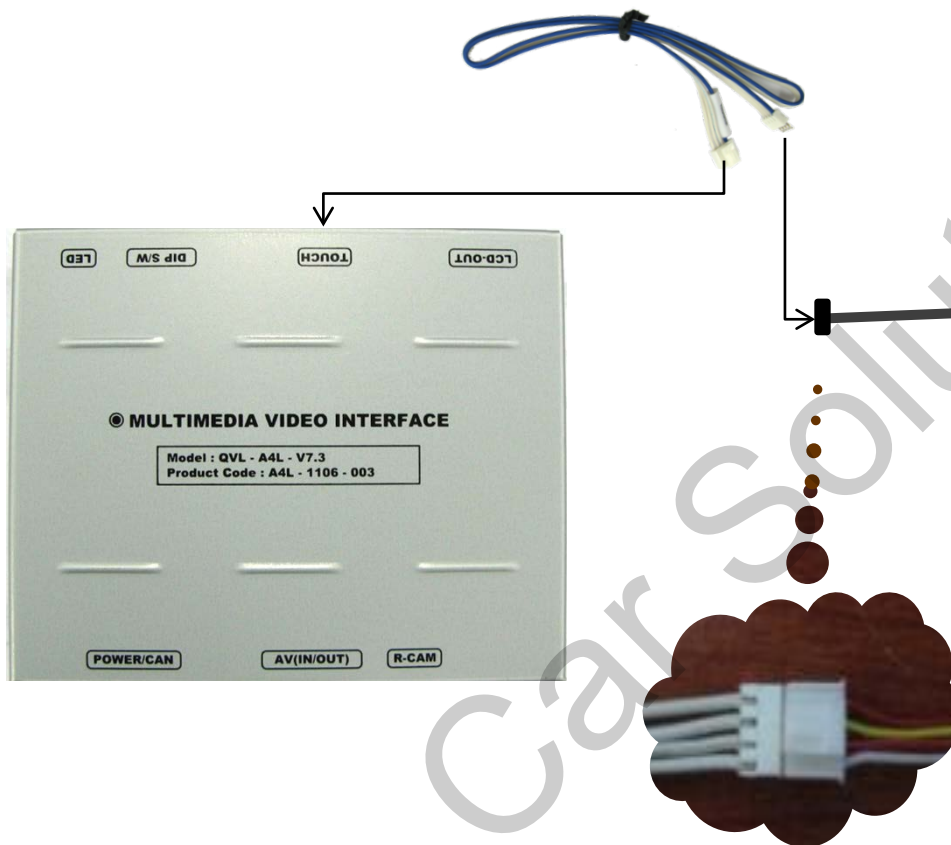


Connect touch screen cable (included in the package) to external touch screen panel flat cable and Touch socket of the sub-board.



Connect LVDS cable (included in the package) to sub-board and video interface main module.

## 3.3 Installation



Connect TOUCH OUT cable (included in the package) to "TOUCH" socket of the video interface. Then connect the opposite end of the cable to navigation unit touch cable or USB touch screen controller (**USB touch screen controller is not included in the package**).



## 4. Troubleshooting

**Q. I can not switch A/V sources.**

- A. Check IR or Ground cable, and MODE button connection. Check LED lamps in the interface, if they are not on, check power cable.

**Q. All I got on the screen is black.**

- A. Check whether interface second LED lamp is on. If not, check whether connected A/V sources operate well. (Second lamp indicates that connected AV sources are working well.) Check interface connection.

**Q. Displayed image color is not proper. (too dim or not suitable color)**

- A. Select "INITIAL" in OSD menu. If it does not work, inform the manufacturer.

**Q. Rear camera image does NOT appear.**

- A. Set DIP switch #7 in "ON" position.

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

- A. Check DIP switches settings.

**Q. OEM image is not displayed.**

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

**Q. Screen only displays white picture.**

- A. Check LCD out cable connection. In case cable is connected well and the screen still displays white picture inform supplier or manufacturer.