



EMERALD
MOBILE INTEGRATIONS

AUDI 3G MMI

Model: QVI-AUD09-V5

Specification & Installation

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1.1 Main specification

1. Input Spec. (MULTI VIDEO INTERFACE)

- 1 x Analog R, G, B, C sync
- 1 x CVBS(REAR CAMERA) Input. (Rear camera source)
- 3 x A/V (NTST & PAL) Input.
- 1 x LCD Input (Car system Input)

2. Output Spec.

- 2 X CVBS OUTPUT (Video Out for installing Headrest monitor)
- 1 x Audio OUTPUT
- 1 X LCD OUTPUT(LCD Operation)

3. Power Spec.

- Input Power : 10VDC ~ 16VDC
- Consumption Power : 6WATT (in maximum level)

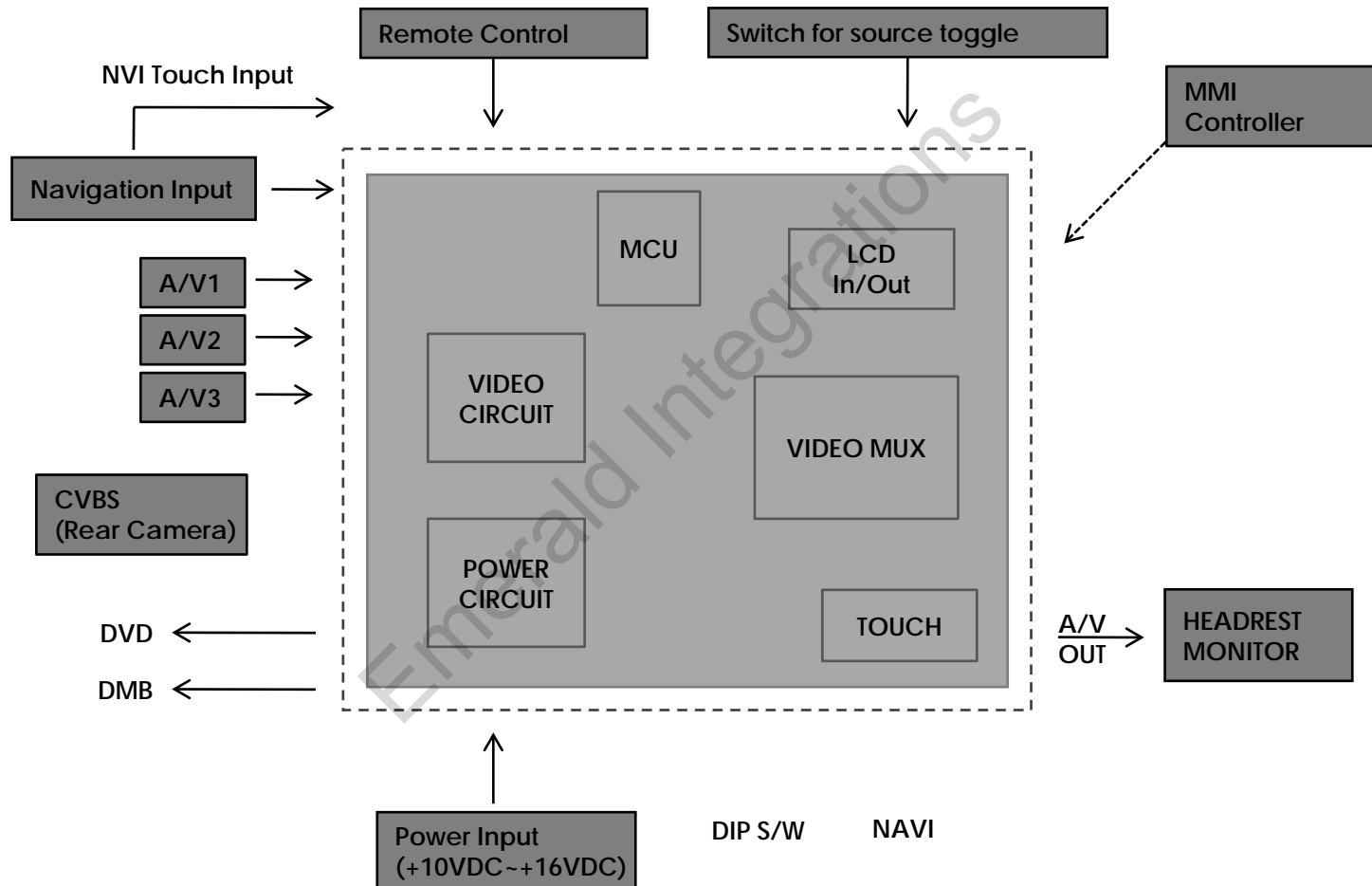
4. Mode change

- Input Video skip : able to skip each input source via adjusting DIP switch
- Control by using the remote control
- Able to change a mode to another mode by using the mode switch
- Able to change modes and control DVD, DTV via touching the screen
- Able to change modes via using the original buttons(navigation)

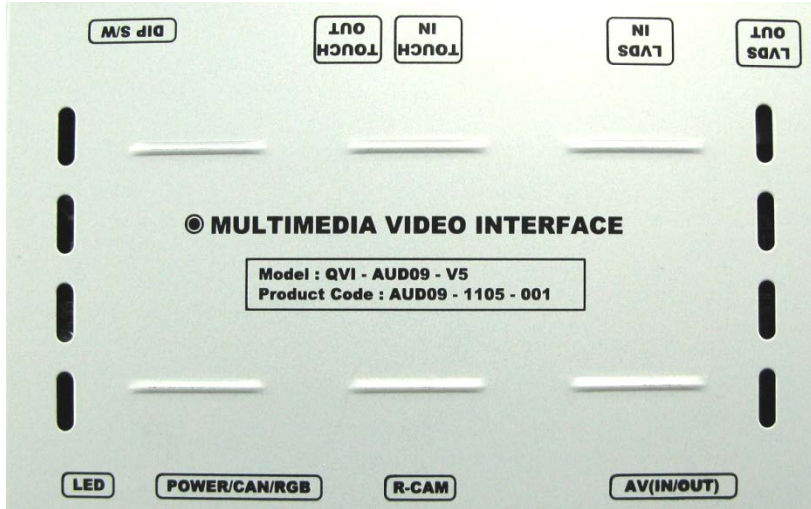
1.2 Features

- DVD, DTV and navigation control via touching screen
- DVD, DTV control via registering values of the buttons on the remote control (only for models including remote control)
- Installation from the direction of the command
- DVD, DTV, navigation control via MMI 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

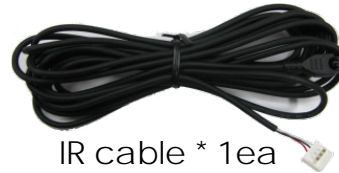
1.3 System diagram



1.4 Components



Main board * 1ea



IR cable * 1ea



REAR CAMERA POWER cable * 1ea



MODE cable *
1ea



TOUCH IN cable * 1ea



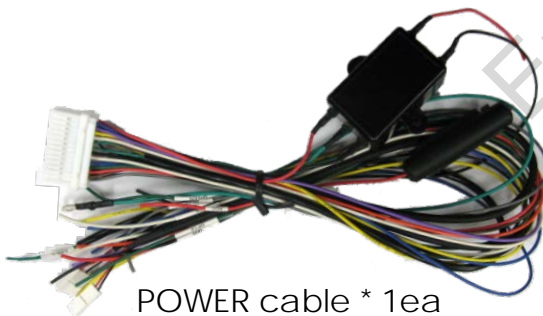
TOUCH OUT cable * 1ea



AV cable * 1ea



RGB cable * 1ea

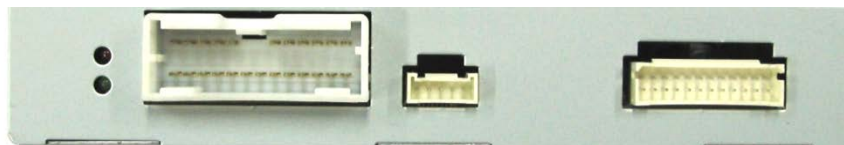
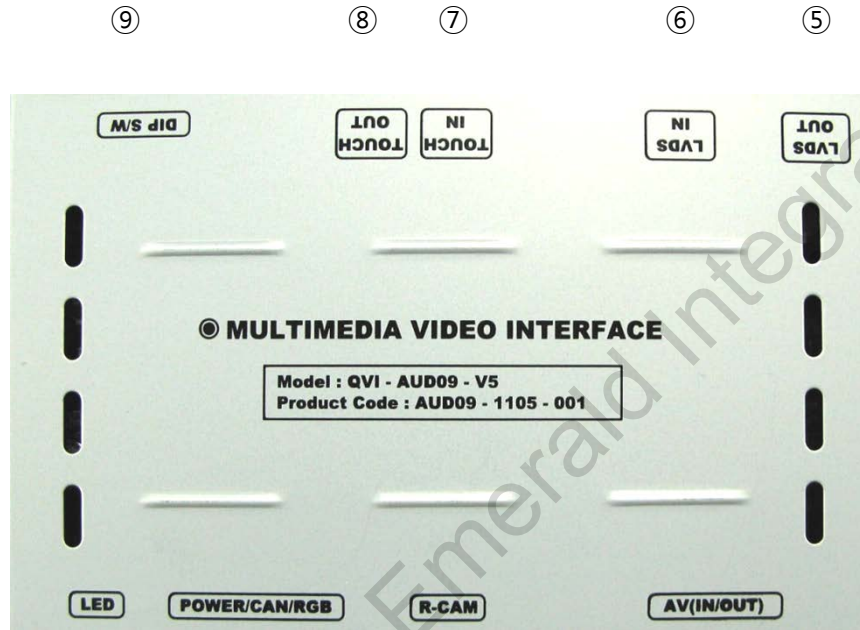
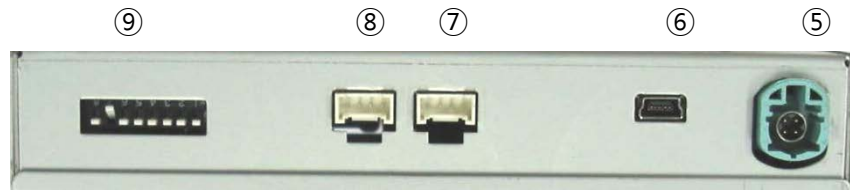


POWER cable * 1ea



LVDS IN cable * 1ea

1.5 Exterior



Dimension

Horizontal length 146mm
Vertical length 88mm
Height 25mm

- ① LED
- ② POWER/CAN/RGB
- ③ Rear camera
- ④ AV(IN/OUT)
- ⑤ LVDS OUT
- ⑥ LVDS IN
- ⑦ TOUCH IN
- ⑧ TOUCH OUT
- ⑨ DIP S/W

2.1 DIP switch

#PIN	function	DIP S/W selection
1	RGB INPUT skip	ON : Skipping RGB Mode OFF : RGB Display
2	A/V 1 skip	ON : Skipping A/V 1 OFF : A/V1 Display
3	A/V 2 skip	ON : Skipping A/V 2 OFF : A/V2 Display
4	A/V 3 skip	ON : Skipping A/V 3 OFF : A/V3 Display
5	Monitor Size	ON : 7inch LCD with 800*480 Resolution OFF : 6.5inch LCD with 400*240 Resolution
6	N.C	
7	Rear Mode	ON : External Rear Camera OFF : OEM Rear Camera
8		

※ ON : DOWN, OFF : UP

※ DIP S/W usage

[AUDI09 6.5"]

- Input mode to intend to use
: A/V3(DVD), Navigation (RGB)
- Rear view camera : installation on CVBS4
- When the original navigation is NOT installed

- ▷ DIP S/W : 1 → OFF
- ▷ DIP S/W : 2,3 → ON (input mode skip)
- ▷ DIP S/W : 4 → OFF (A/V3 available)
- ▷ DIP S/W : 5 → OFF
- ▷ DIP S/W : 7 → ON (CVBS4 available)

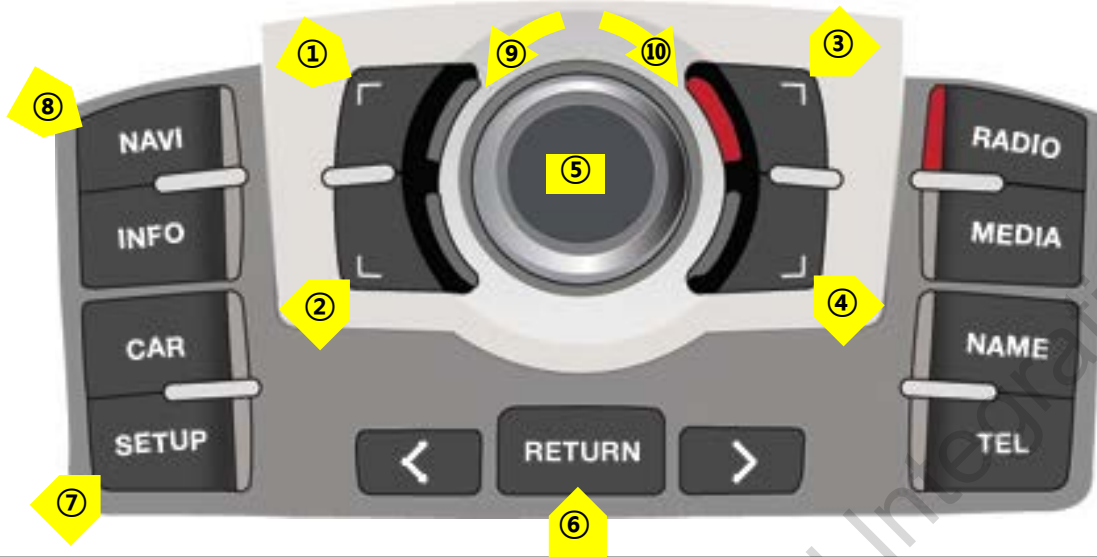


2.2 Remote control

Key	Function
POWER & PIP	Not for use
MENU	OSD implementation
OK	Making a selection
▲	Move upward
▼	Move downward
◀	Move leftward, press 2 seconds long-Factory mode implementation
▶	Move rightward, press 2 seconds long-Factory Mode implementation-Factory mode Reset



2.3 Original buttons in car



NAVIGATION implementation

unavailable so far

- ① move upward
- ② move downward
- ③ magnification
- ④ reduction
- ⑤ confirm; press 2seconds long-menu implementation
- ⑥ return; press 2seconds long
- ⑦ setup for destination; press long 2seconds- driving in night mode
- ⑧ mode change
- ⑨ move leftward
- ⑩ move rightward

DVD, CMMB implementation

- ⑤ confirm
- ⑨ move counterclockwise
- ⑩ move clockwise

※ If you press any button among the three buttons, DVD/CMMB OSD menu will appear on the screen.

mode change

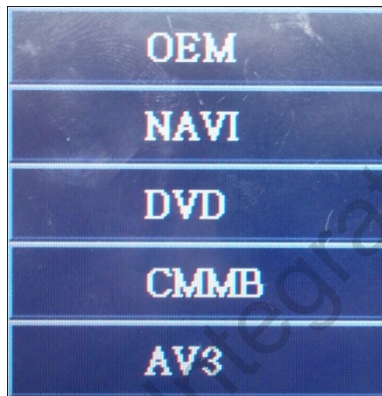
If there is the MODE handle button in car and CAN wire is connected, driver can change modes with the MODE button.

Press long : return to main image
Press short : mode change

2.4 OSD implementation

OSD implementation - DVD

To implement DVD OSD menu, installer must install DVD system on AV1 and connect "DVD IR" cable among navigation cables with remote sensor cable of DVD.

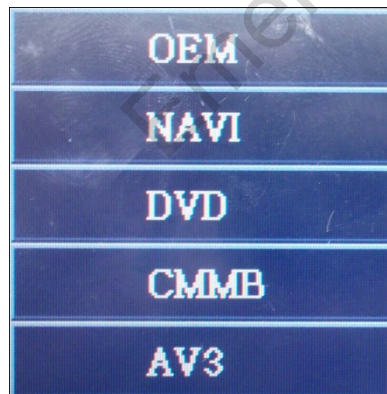
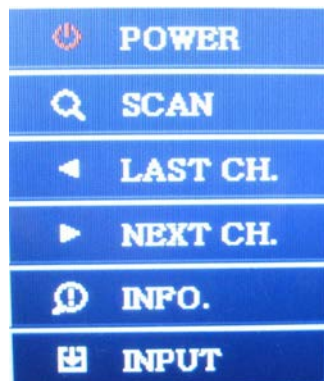


First of all, if you touch the screen on mode "AV1", you can see the menu as shown left. And then if you do NOT touch anything on the screen 5 seconds or more long; or if you touch the screen except the menu, the menu will disappear. At that time, if you choose "INPUT", you can get out of the menu and see the mode change menu. (left picture)

Here is a picture of the mode change menu. If you select the channel which you want, then the channel will be changed to that. (right picture)

OSD implementation - CMMB, NAVI

DVD, DTV, navigation menu is available in English or Chinese. After implementing OSD menu with pushing "MENU" button on remote control, choose the language that you want to use.



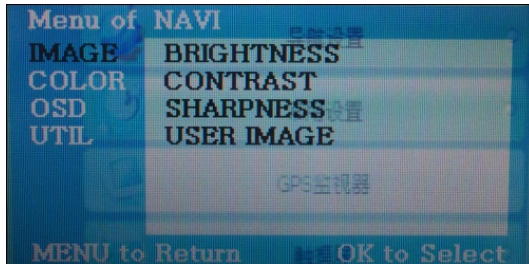
As shown above, if you touch the screen on mode "AV2", you can see the menu as shown left. And then if you do NOT touch anything on the screen 5 seconds or more long; or if you touch the screen except the menu, the menu will disappear. (left picture)

Here is a picture of the mode change menu. If you select the channel which you want, then the channel will be changed to that. (right picture)

2.5 OSD (on screen display)

OSD menu: Press "MENU" button on the remote control.

Analog RGB



Analog RGB



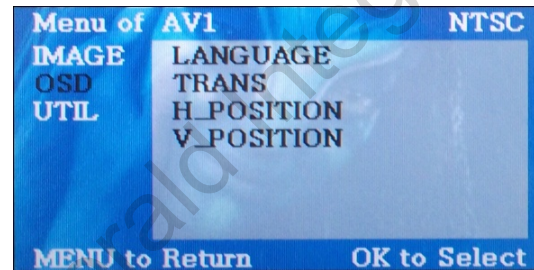
Analog RGB



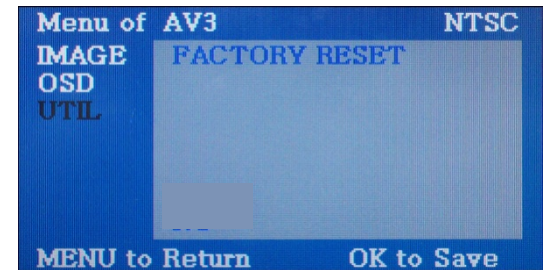
Video



Video



Video



IMAGE

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

OSD

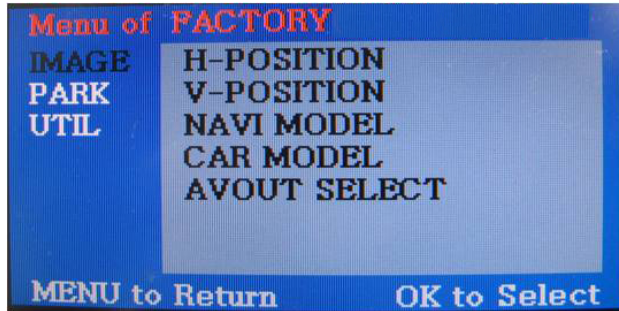
- LANGUAGE : To change the language displaying on navigation, DVD, CMDB OSD menu (select 1 among English or Chinese)
- TRANS : Transparency control of the OSD background
- H_POSITION : Horizontal movement of the OSD window
- V_POSITION : Vertical movement of the OSD window

UTIL

- FACTORY RESET : To reset all the values about navigation, DVD screen to factory default. (NOT available for reset of the position value of images, only for functions inside OSD menu)

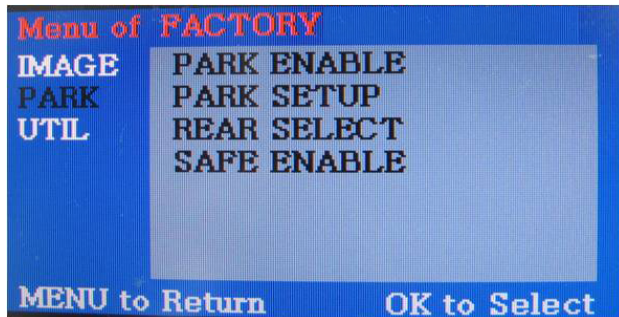
2.6 Factory mode

Factory mode: press ◀ button 2 seconds long.



IMAGE

- H-POSITION : Control over horizontal movement of screen
- V-POSITION : Control over vertical movement of the screen
- NAVI MODEL : DEFAULT, KD900(WVGA), MD7000(WVGA), MYVI(WVGA), PAPAGO(WVGA)
- CAR MODEL : DEFAULT, 2011 A7,8-NEW
- AVOUT SELECT : DEFAULT, AV1, AV2, AV3



PARK

- PARK ENABLE : Setup of rear view parking guide line
- PARK SETUP : Control over position of rear view parking guide line (Refer to page14.)
- REAR SELECT : CAN, LAMP
- SAFE ENABLE : To select whether to use SAFE function(NOT to allow watch video while driving) or not



UTIL

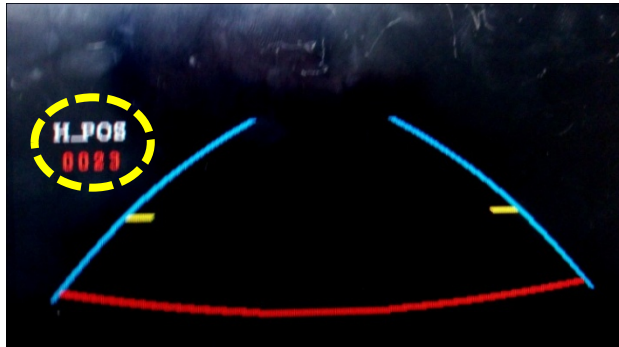
- CALIBRATION : Touch calibration (Refer to page15.)
- IR MEMORY : To register value of buttons on the remote controller (Refer to page16~17.)
- DVD TYPE : Setup for the type of DVD (Refer to page18.)
- CMMB TYPE : Setup for the type of DMB (Refer to page18.)
- MMI CONTROL : To enable control DVD and CMMB via UI on screen
- FACTORY RESET : To reset all the value in factory mode

2.7 Rear view parking guide line

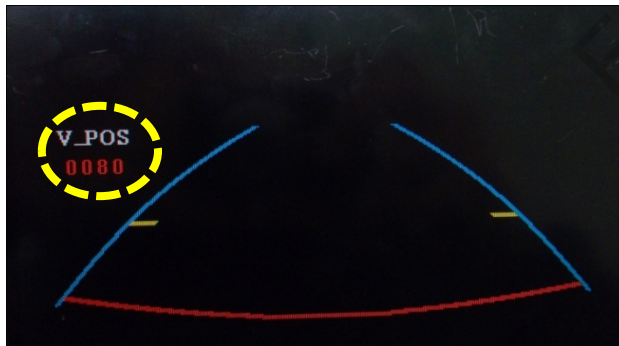
Factory mode: press ◀ button 2 seconds long.



① Register the value needed on the "PARK ENABLE" as "ON" in the PARK section as shown left. **(default – ON)**

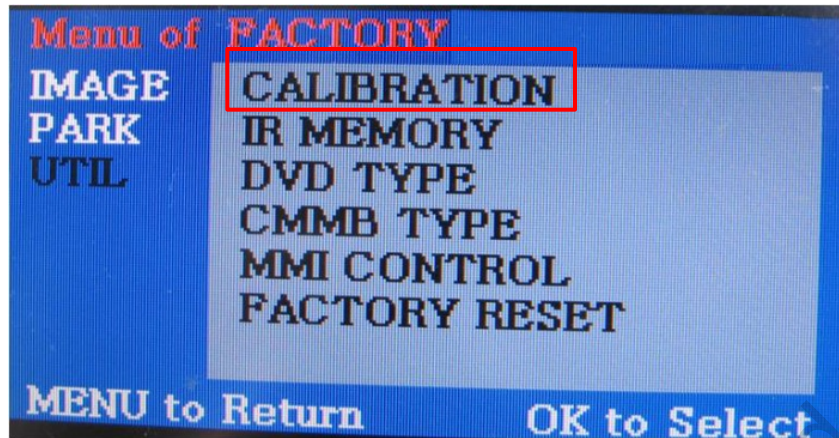


② If you get rear gear after setup, parking guide line will appear on screen as shown left. Now that you push "OK" button, you can see "H-POS" on the left of screen. Then adjust horizontal position of the guide line.



③ After adjusting horizontal position, press "OK" on the remote controller. Then you can see "V-POS" on the left of screen. At that time you can adjust vertical position of the guide line.

2.8 Touch calibration



① First of all, press ◀ button on remote controller 2 seconds long. Then you can access to the FACTORY mode.

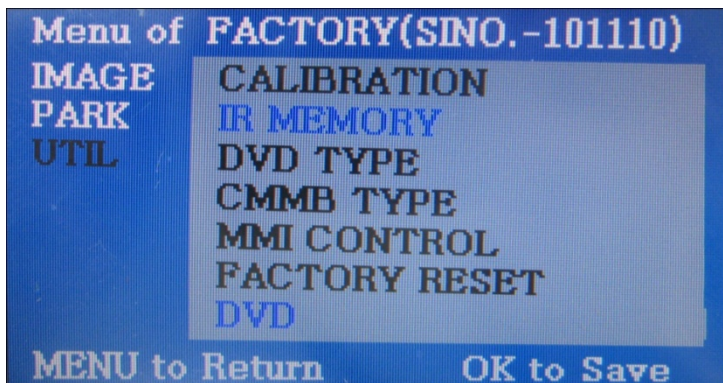
② Register "YES" when the CALIBRATION option is selected as shown above.

③ Then you can see "touch calibration" on screen **about 2 seconds long** as shown above. After the word "touch calibration" disappear, touch calibration function will implement. (Just touch "+" shape on screen.) If you succeed, you can see "success". If not, you will see "failure".

2.9.1 Remote control button

Registering value of remote control buttons?

When you want to control DVD and DTV via touch screen (using OSD menu) with other models besides already registered option-SANYO and NECVOX, you can register value of DTV and DTV' s remote control which you have. Then you can control DVD and DTV via touch screen.



>>>



① First of all, press ◀ button on remote controller 2 seconds long. Then you can access to the FACTORY mode. And go to IR MEMORY, UTIL.

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

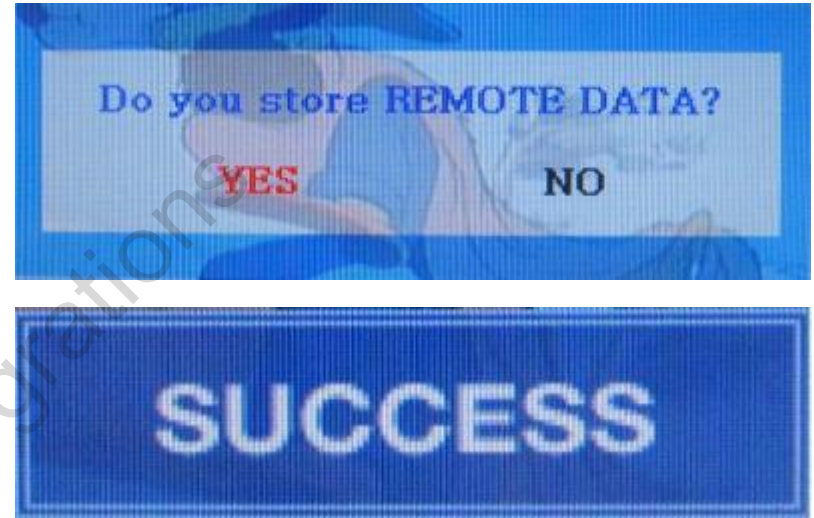
Then you select AV source that you want to set among them.

② This is a window for register of DVD' s remote control button value. At the moment just select a menu that you want to save.
(Select "DTV in options of IR MEMORY" if you want to save values of DTV' s remote control. And follow the instruction below.)

Instruction>

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

2.9.2 Remote control button



Instruction> continued...

c. The values that you registered will appear as green text in the marked area on pressing the button. And the values will be saved automatically.

d. Register remain buttons' value in OSD menu like the above-mentioned.

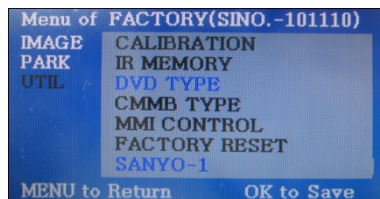
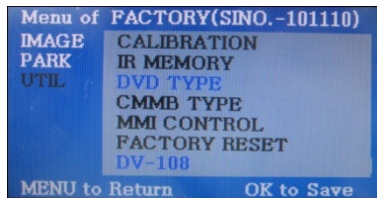
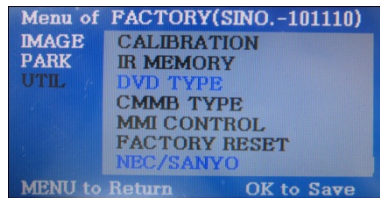
③ After register, select "INPUT" in OSD menu and press "OK". Then you can see confirmation window as shown above. At the moment, if you choose "YES", all the values that you entered will be saved. If you select "NO", the values won't be saved.

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

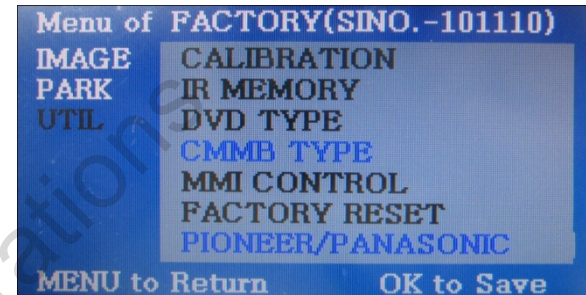
If you see "SUCCESS" on screen, the data is saved clearly and you can control DVD via touch screen. BUT, you MUST change the option in DVD(DTV)/UTIL/FACTORY to "USER". (Refer to page18.)

2.10 DVD, DTV model selection

Factory Default : DVD TYPE – NECVOX/SANYO (For Chinese DVD)
CMMB TYPE – ? (For Chinese DTV)



DVD TYPE



CMMB TYPE

UTIL – DVD/DTV TYPE

If DVD/DTV type that you want to use is not NECVOX or SANYO, you have to register values of the remote control that you want to use in the "IR MEMORY" section and set the "DVD TYPE"/"CMMB TYPE" to "USER". Unless you do this process after saving the data, you can NOT control DVD/CMMB via touch screen.

DVD TYPE : NEC/SANYO, DV-108, SANYO-1, SANYO-2, USER
CMMB TYPE : PIONEER/PANASONIC, USER

※ If you enter data in "IR MEMORY" section in FACTORY mode, "DVD TYPE" / "DTV TYPE" will **automatically** be saved to "USER".

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 the manufacturer.)

Q. Rear camera image does NOT appear.

A. Set DIP switch #7 in "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 the manufacturer.

Q. Screen only displays white like left picture.

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