CV-401V

PC/HD to CVBS Video Scan Converter

Operation Manual

Draft Manual

CV-401V

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Safety Precautions

Please read all instructions before attempting to unpack or install or operate this equipment, and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through module openings or empty slots, as you may damage parts.
- Do not attach the power supply cabling to building surfaces.
- Do not allow anything to rest on the power cabling or allow it to be abused by persons walking on it.
- To protect the equipment from overheating, do not block the slots and openings in the module housing that provide ventilation.

Revision History

Version No	Date	Summary of Change
V1	***20110318***	Preliminary Release

Table of Contents

1. Introduction

The PC/HD to Video Scan Converter is designed to down scale PC/Component source to analog CVBS (NTSC,PAL) signal. Ideal for businesses with multiple CCTV cameras, this device takes your high-resolution camera footage and scales it to lower resolutions. Supporting PC resolution up to WUXGA@60hz, this scaler also helps connects new video sources to older displays. The device features many great functions such like 3D noise reduction, frame rate conversion, adaptive contrast enhancement… and etc. Further, a simplify OSD function is available allowing user with easy viewing on the displaying status.

2. Applications

- Security camera display
- Displaying PC signal on the CRT display
- Displaying PC signal on the LCD display

3. Package Contents

- PC/HD to Video Scan Converter
- Power Adaptor
- Operation Manual

4. System Requirements

Input source equipment such as PC/component camera (RGBHV/YPbPr) signal with D-Sub 15pin or component adaptor cable and output to TV with CVBS input jack and connection cable.

5. Features

- Converts video signal from PC/component source to NTSC or PAL signal
- Accepts a wide range of PC/VGA input resolution from 480i to 1080p@60Hz and PC from VGA to WUXGA@60RB
- Output picture size Underscan / Overscan
- 3D noise reduction in both temporal and spatial domain
- Frame rate conversion
- Adaptive contrast enhancement
- OSD Display
- Overscan and underscan adjustment
- Phase and Aspect adjustment
- No software installation require
- Compact and elegant design

6. Specifications

Input Port	1 x VGA
Output Ports	1 x CVBS
Output Video	NTSC/PAL
ESD Protection	Human body model: ± 8kV (air-gap discharge) ± 6kV(contact discharge)
Dimensions (mm)	64 (W) x 104 (D) x 26 (H)
Weight (g)	120
Chassis Material	Plastic
Silkscreen Color	White
Operating Temperature	0°C ~ 40°C / 32°F ~ 104°F
Storage Temperature	-20°C ~ 60°C / -4°F ~ 140°F
Power Consumption	3W
Relative Humidity	20 ~90%RH (non-condensing)

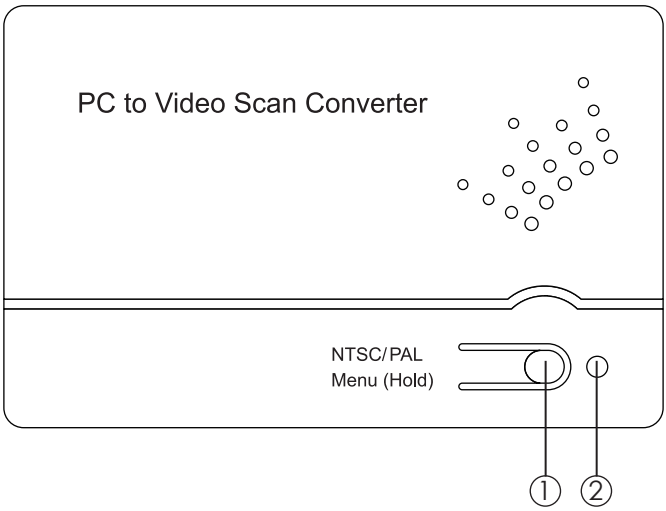
Support Input Timing

640x480	60,72,75,85
720x400	70(pc)
800x600	56,60,72,75,85
1024x768	60,70,75,85
1152x864	70,75,85
1280x720	59,60(pc)
1280x768	60RB,60
1280x800	60RB,60
1280x960	59(pc),60
1280x1024	59(pc),60
1366x768	60RB,60
1440x900	60RB,60
1600x1200	60
1680x1050	60RB,60
1920x1080	59(pc),60
1920x1200	60RB
480i	59
480p	59,60
576i	50
576p	50
720p	50,59,60
1080i	50,59,60
1080p	50,59,60

Note: When the input timing is not supported, the OSD will display “IN not Support”.

7. Operation Controls and Functions

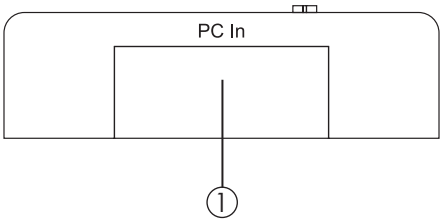
7.1 Top Panel



①. NTSC/PAL MENU (3SEC): Press this button to bring up the OSD which will display the input timing and output TV system information.
While the OSD is still displaying press the button again to switch output TV system from NTSC to PAL or from PAL to NTSC.
Press this button for 3 second the OSD will bring up the selection menu. Press it sequentially to select the desire setting.

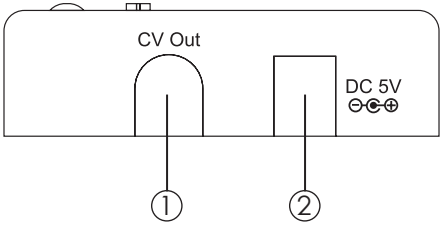
②. Power LED: This LED will illuminate in RED when the power is connected with the power supply.

7.2 Left Panel



①. PC IN: This slot is to connect with source equipment such as PC, laptop or digital camera with D-sub 15pin cable or adaptor converter cable for input signal sending.

7.3 Right Panel



①. CV OUT: This slot is to connect with display TV or monitor with RCA cable for output image display.

②. DV5V: Plug the 5V DC power supply included in the package into the unit and connect the adaptor to AC wall outlet.

8. OSD Menu

IN	640 x 480 (Input Timing)
OUT	NTSC (Output TV System)

NTSC	
PAL	
Underscan 1	
Underscan 2	
Overscan	
Phase adj	0~31
Aspect Adj	Full Screen
	Letterbox
	Pan & Scan
	Auto TV 4:3
	Auto TV 16:9

Below is the example of the scan selection result.

Phase Adjustment's rang is from 0 ~ 31 and is for image blurry display and or jiggle character.

Aspect Adjustment: There are total of 5 different adjustments under Aspect and they are Full Screen, Letterbox, Pan & Scan and Auto TV 4:3 & 16:9.

Full Screen: To allow the image to fill out the screen of the TV.

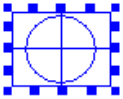
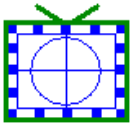
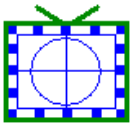
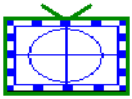
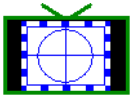
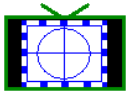
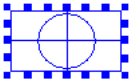
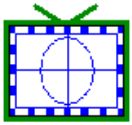
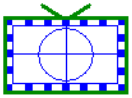
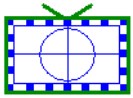
Letterbox: To fit the output image closer to the input source, compressed the upper and lower image.

Pan & Scan: To fit the output image closer to the input source, compressed the right and left image.

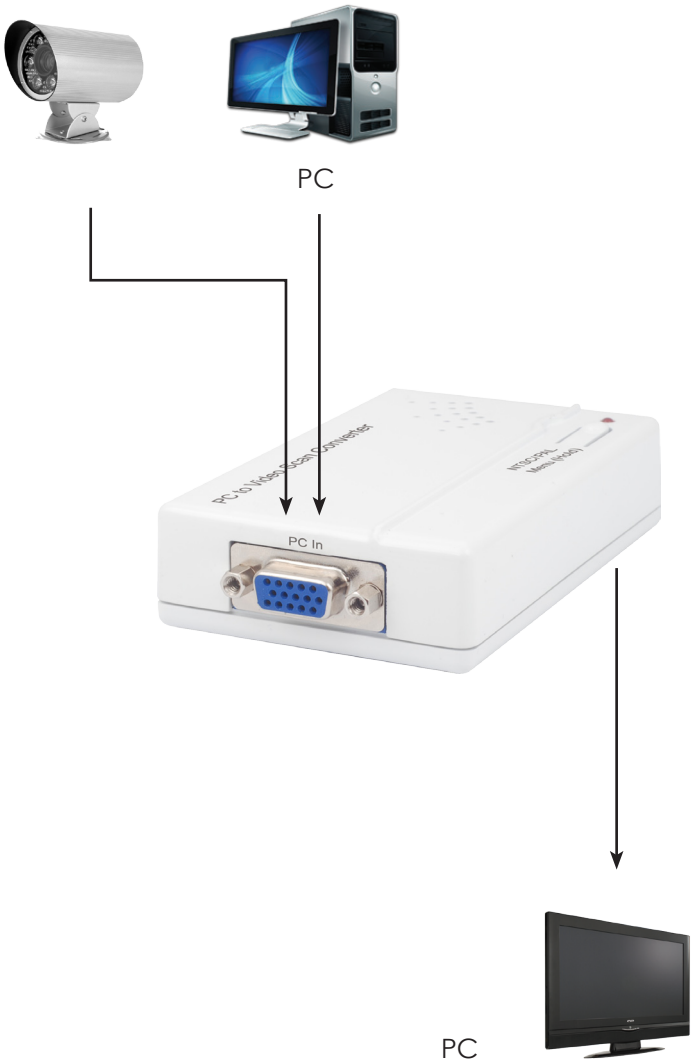
Auto TV 4:3: Allowing the device to auto detect input source signal of 4:3 or 16:9 and make the auto adjustment.

Auto TV 16:9: Allowing the device to auto detect input source signal of 16:9 or 4:3

and make the auto adjustment.
Blow is the sample chart of the selection result:

Source \ Aspect Adj	TV	Full Screen	Letterbox	Pan&Scan	Auto TV 4:3	Auto TV 16:9
 4:3	 4:3		X	X		X
	 16:9		X		X	
 16:9	 4:3			X		X
	 16:9		X	X	X	

9. Connection and Installation



Acronyms

A

Acronym	*Complete Term*
CRT	Cathode Ray Tube
LCD	Liquid Crystal Display
NTSC	National Television System Committee
PAL	Phase Alternating Line
VGA	Video Graphics Array

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