VGA to RGB or Video Converter

- ID# 232

Operation Manual

CONVERTERS.TV

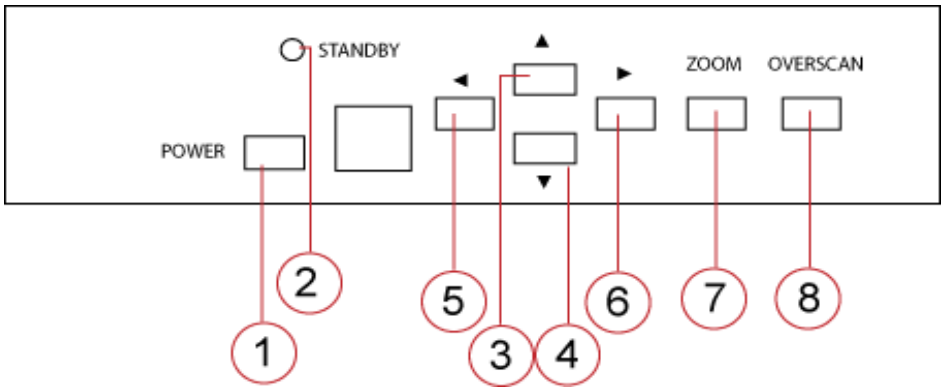
Introduction

This unit is a PC to TV scaler converter, which is designed to convert a variety of computer images to interlaced NTSC / PAL / RGB or YUV. It is ideal for use in applications like video conferences, home theater, business presentation, lecturing room or viewing PC image on TV.

Features

- Automatically detects and down converts the incoming PC images to NTSC, PAL, RGB or YUV.
- Supports high-resolution PC input up to UXGA (1600x1200@60Hz).
- Output video format is selectable between composite/S-Video, YUV and RGB through a control button on the remote.
- Supports high input refresh rate up to 140Hz(VGA).
- Adjustable images scaling.
- Pan, Position and Zoom.
- Advanced 2-D flicker filter ensures flicker-free picture.
- Last memory.
- Adjustment and control through RS-232 interface.
- Useful functions, overscan, freeze, test pattern, magnifier.
- Remote control.
- OSD operation display.

Operating Functions and Controls

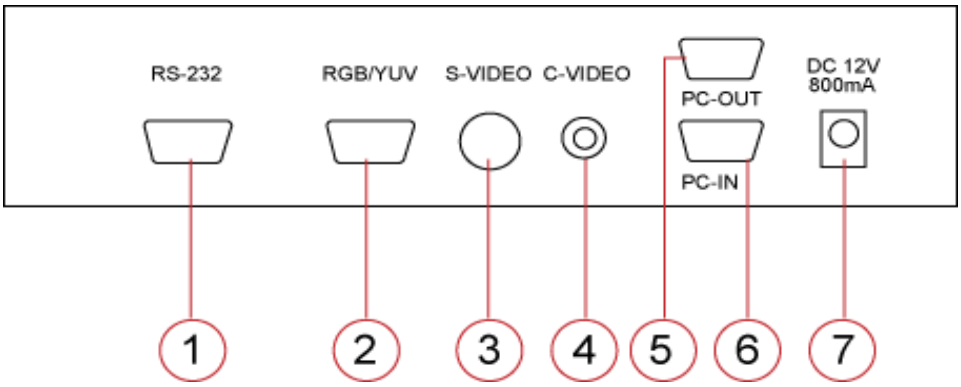


Front Panel

1. **Power Button-** This button is used to turn the unit on or standby.
2. **Standby/On LED-** This indicator illuminates in red when in STANDBY mode. The LED illuminates in green when the unit is in ON mode.
3. **Up Arrow-** Under zoom mode push the button to adjust the picture upward.
4. **Down Arrow-** Under zoom mode push the button to adjust the picture downward.

5. **Left Arrow-** Under zoom mode push the button to adjust the picture leftward.
6. **Right Arrow-** Under zoom mode push the button to adjust the picture rightward.
7. **Zoom Button-** This button is used to zoom in or out of a picture.
8. **Overscan Button-** Push this button if you wish to underscan or overscan the picture.

Rear Panel



1. RS-232- Connect this port using a 9 Pin D-Sub connector.
2. RGB/YUV Output- This is the RGB/YUV output port. Connect the output port to your device using a HD-15 connector cable.
3. S-Video Output- This is the S-Video output port. Connect the output port to yourdevice using a mini-din connector cable.
4. C-Video Output- This is the Composite Video output port. Connect the output port to your device using a RCA connector cable.
5. PC-Out- This is the PC Out port. Connect this port to your device using a HD-15 connector.
6. PC-In- This is the PC In port. Connect this port to your device using a HD-15 connector.
7. Power DC-12V 800mA - Centre positive- This is the power supply input port. Connect your power supply to the port.

Remote Control

1. Power- This is the button used to turn the power On or Off.
2. Video setting adjustment- This button is used for the adjustment of picture contrast, brightness, colour and sharpness.
3. V-Reset- Press this button to reset picture adjustment to factory default values.
4. NTSC-PAL- Press the button to select either NTSC or PAL as video output.
5. Colour bar patter-On/Off- Press the button to show colour bar pattern on the screen when there is no PC input, press the button again to close the colour bar.

6. Image Freeze-On/Off- Press the button to freeze or unfreeze the image.
7. Output format- Press repeatedly to toggle through CV/SV-RGB-YUV.
8. Underscan/Overscan- Press the button to choose an overscan or underscan image.
9. 9 blocks selection zoom- Under zoom mode press one of the buttons to select the corresponding sub-area, which is 1/9 of the full screen.
10. Zoom On/Off- Press the button to zoom in on a picture, press again to zoom out.
11. Horizontal/Vertical adjustment knob- Adjust the size or the position of an image when it is under zoom, pan/position, or size/EXP mode. Adjust the setting value of picture adjustment in 2.
12. Default- Press the button to revert the following parameters to factory-preset values: zoom, position, size and picture adjustment.
13. Pos/Pan- When a picture is in underscan mode, press the button to do position adjustment. When a picture is in overscan mode, press the button to do pan adjustment.
14. System Reset- Press the button to revert all system parameters back to factory preset values. The system parameters are default as follows- overscan, NTSC output, 4:3 aspect, normal brightness, video settings reset (position, pan, size, expand reset).
15. Size/EXP- When a picture is in underscan mode, press the button to do size adjustment. When a picture is in overscan mode, press the button to do expand adjustment.
16. Aspect- Press the button to switch between standard 4:3 and wide screen 16:9 aspect ratio.

RS-232 Software operation

- PC OS: Windows 98/ME/2000/XP.
- Software Installation:
1. Place installation CD on CD-ROM Drive.
2. Execute setup.exe on installation CD.
3. OS maybe needs to update some files. Please restart the PC. After re-starting the PC, execute setup.exe again.
4. Click taskbar menu- Start-Programs-CPT-380 to execute software.
- If RS-232 is not ready then software enters into virtual mode.
- After RS-232 and the converter is ready, start the software again and enter into real mode.

main panel

1. Power: Power On/Off.
2. Mode indicator- Grey icon: virtual mode operation.
Coloured icon: Real mode operation.
3. System reset- Reset CPT-380 unit.
4. Zoom- Drag and move to the place where you want to see.
If the PC screen image is changed then press refresh.

5. Magnifier- Drag and move magnifier to the place where you want to see. If the screen image is changed then click refresh.
6. Overscan/underscan- TV overscan adjustments are “pan” and “expand”. Underscan adjustments are “position” and “size”.
7. Option- TV systems- NTSC or PAL output.
Aspect patter: 4:3 or wide-screen.
Test pattern: Colour bar test pattern- On/Off.
Window on top: Application software window always on top-On/Off.
8. Position/Pan- Position is for underscan, pan is for overscan.
9. Size/Expand- Size is for underscan, expand is for overscan.
10. Output Format- The output format can be Composite Video/S-Video, RGB or YUV.
11. Freeze- This is to freeze the screen.
12. Video settings- Contrast brightness, colour and sharpness adjustment.
13. Close- Terminate application software.
14. Minimize- Shrink application software to window taskbar.
15. System tray- Shrink application software to system tray, click the loan and return to normal window.
16. About- Display application software version and firmware version.

Software Operation

1. Close- Terminate application software.
2. Position/Pan and Size/Expand Adjustments- Position/Size for Underscan, Pan/Expand for Overscan.
3. Output Format- Select the output format desired- toggle through C-Video/SVideo, RGB or YUV.
4. Screen freeze- Still screen.
5. Video Settings- Contrast, brightness, colour and sharpness adjustment.

Connection and Installation

The AC adaptor power unit should not be plugged into a wall outlet until all connections are complete.
- Connect your Output device (TV-NTSC/PAL) to the Composite Video/S-Video Output port (Number 3/4 on the rear panel). Composite Video requires a RCA cable connector, while S-Video requires a mini-din connector cable for connection from the output port to the device.
- Connect your device (RGB/YUV TV) to the RGB/YUV output port (Number 2 on the rear panel) using a HD-15 connector.
- Connect your PC output device (LCD monitor) to the PC Out port (Number 5 on rear panel). The PC requires a HD-15 connector for connection between the output port and the device.

- Connect your PC input device (PC, Notebook) to the PC In port (Number 6 on rear panel). The PC requires a HD-15 connector for connection between the input port and the device.
- RS 232 is provided with a communication interface by connecting the 9 Pin D-Sub terminal to connect with your PC (Number 1 on the rear panel).
- Connect the power supply to the power supply input port.

Once all connections are complete, switch the power button ON and please connect the power supply provided to the power socket.

Specifications

Input Terminal	HD-15 R/G/B/H/V
Input Resolution	Common resolution lists: VGA @ 60 Hz up to 140 Hz refresh rate. SVGA @ 60 Hz up to 120 Hz refresh rate. XGA @ 60 Hz up to 85 Hz refresh rate. SXGA @ 60 Hz refresh rate. UXGA @ 60 Hz refresh rate.
Output Terminal	Composite Video RCA S-Video mini din PC-Out (pass-through) HD-15 PC-In HD-15 RGB/YUV- Out HD-15
Output System	NTSC or PAL TV system R/G/B/H/V (PC pass through) R/G/B/Sync Fh= 15KHz, Fv= 50/60 Hz Y/U/V Sync Fh= 15KHz, Fv=50/60 Hz RGB/YUV HD-15 Pins definition The sync pin is composite sync.
Controls	Front panel control, IR remote control, RS-232 control.
Accessories	HD-15 (male) to HD-15 (male) VGA cable x 1. IR remote control x 1.
Application software	CD x 1.
Power	DC 12V 800mA center: positive
Dimensions	240 (W) x 155 (D) x 50 (H) mm
Weight	1 Kg