

# Instruction Manual

**1T-PC1280HD**  
**PC/HD to PC/HD Analog Converter**



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## **1.0 INTRODUCTION**

Thanks for purchasing this TV One-task product from TV One. The 1T-PC1280HD is designed to convert between a wide variety of PC and HDTV analog resolutions. Our professional video conversion products have been serving the industry for over twenty years. TV One offers a full line of high quality Seamless Switchers, Video Scalers, Up/Down/Cross Converters, Analog-Digital Converters (SD/HD-SDI, HDMI, DVI), Format Converters, Standards Converters, TBC/Frame Synchronizers, Matrix Routing Switchers, Signal Distribution Amplifiers and Cat.5 Transmission Systems.

### **1.1 Liability Statement**

Every effort has been made to ensure that this product is free of errors. TV One cannot be held liable for the use of this hardware or any direct or indirect consequential damages arising from its use. It is the responsibility of the user of the hardware to check that it is suitable for his/her requirements and that it is installed correctly. All rights reserved. No parts of this manual may be reproduced or transmitted by any form or means electronic or mechanical, including photocopying, recording or by any information storage or retrieval system without the written consent of the publisher.

TV One reserves the right to revise any of its hardware and software following its policy to modify and/or improve its products where necessary or desirable. This statement does not affect the legal rights of the user in any way.

All third party trademarks and copyrights are recognised. The TV One logo, TV One-task and CORIO are the registered Trademarks of TV One. All other trademarks are the property of their respective holders.

### **1.2 Features**

The 1T-PC1280HD has many features that enable them to perform in a superior manner. Among those features you will find:

- Ultra Compact, High Performance
- Convert PC-to-PC, PC-to-HD, HD-to-PC or HD-to-HD
- PC Output Resolutions to 1920x1200
- HD Output Resolutions to 1080p
- All HDTV Progressive Scan Resolutions
- Integral Picture Adjustments
- On Screen Display for Setup and Adjustment
- Rugged Metal Case
- Locking DC Power Connector for Security

### 1.3 Getting the Best Results

There are many factors affecting the quality of results when scaling video signals. Some basic precautions will ensure the best possible performance from your Video Scaler.

- **Output display device\_**– The quality of the output signal will depend largely upon the type and quality of display device used.
- **Using Native Resolution** – It is always best to set the output resolution of the scaler to the native resolution and refresh rate of the display device. This allows our scaler to do most of the work, which usually results in a superior picture.
- **Distance between the Video Scaler and the display device** – This plays a major role in the final result. Long distances are possible, but special measures should be taken in order to avoid cable losses. These include using high quality (coax-type) cables or adding line amplifiers.
- **Output connection cables** – Low quality cables are susceptible to interference. They degrade signal quality due to poor matching and cause elevated noise levels. Therefore, cables should be of the best quality. Coax-type computer cables are recommended because of their superior internal shielding characteristics.
- **Interference from nearby electrical devices** – These can have an adverse effect on signal quality. For example, an older computer monitor often emits very high electromagnetic fields that can interfere with the performance of video equipment in its proximity.

## 2.0 SPECIFICATIONS

<b>I/O Signal Levels</b>	RGB @ 0.7V p-p, 75Ω, H&V Sync @ 3-5V p-p, TTL Y @ 1V p-p, 75Ω. Pb, B-Y, Pr, R-Y @ 0.7V p-p, 75Ω
<b>I/O Connectors</b>	HD15 Female
<b>Controls</b>	Front Panel Buttons
<b>Information Menu</b>	On Screen Display
<b>Video Adjustments</b>	Brightness, Contrast, Color, R-G-B Levels, H&V Position
<b>Weight</b>	280 g (0.62lbs)
<b>Dimensions - HxWxD</b>	30x133x76mm (1.2"x5.25"x3")
<b>Environmental</b>	Operating Temperature 0° to +50° C (+32° to +122° F) Operating Humidity 10% to 90%, Non-condensing Storage Temperature -10° to +60° C (+14° to +140° F) Storage Humidity 10% to 90%, Non-condensing
<b>Power Source</b>	100~240VAC to 12VDC@1A In-Plug Switching Adapter

### Input/Output Resolutions and Formats

<b>PC Resolutions</b>		Vertical Rate	Format	Scan Type
<b>VGA</b>	640x480	60, 72, 75, 85Hz	RGBHV	Progressive
<b>VESA85</b>	640x400	85Hz	RGBHV	Progressive
<b>VGA70</b>	720x400	70Hz	RGBHV	Progressive
<b>SVGA</b>	800x600	60, 72, 75, 85Hz	RGBHV	Progressive
<b>XGA</b>	1024x768	60, 70, 75, 85Hz	RGBHV	Progressive
<b>Mac</b>	1152x864	70, 75Hz	RGBHV	Progressive
<b>WXGA</b>	1280x768	60Hz	RGBHV	Progressive
<b>1280A</b>	1280x960	60Hz	RGBHV	Progressive
<b>SXGA</b>	1280x1024	60, 75 Hz	RGBHV	Progressive
<b>UXGA</b>	1600x1200	60Hz	RGBHV	Progressive
<b>WUXGA</b>	1920x1200 (Output Only)	50, 60Hz	RGBHV	Progressive
<b>SDTV Resolutions (In Only)</b>		Vertical Rate	Format	Scan Type
<b>480i</b>	720x480 (Input Only)	60Hz NTSC	RGBHV, YUV	Interlaced
<b>576i</b>	720x576 (Input Only)	50Hz PAL	RGBHV, YUV	Interlaced
<b>HDTV Resolutions</b>		Vertical Rate	Format (Note 2)	Scan Type
<b>480p</b>	720x480	60Hz	RGBHV, YUV	Progressive
<b>576p</b>	720x576	50Hz	RGBHV, YPbPr	Progressive
<b>720p</b>	1280x720	60Hz	RGBHV, YPbPr	Progressive
<b>1080i</b>	1920x1080i (Note 1)	60Hz	RGBHV, YPbPr	Interlaced
<b>1080p</b>	1920x1080p (Output Only)	60Hz	RGBHV, YPbPr	Progressive

#### Notes

(1) The 1080i output signal is actually a doubled 540p signal which is recognized as a 1080i signal by most HDTV displays.

(2) YPbPr is available on the Output Only; Input is RGBHV Only.

### 3.0 CHECKING PACKAGE CONTENTS

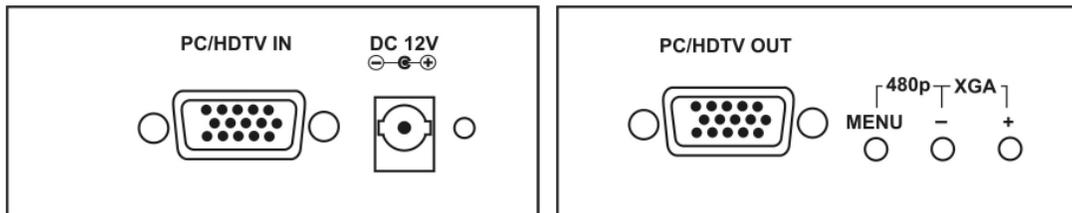
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x 1T-PC1280HD
- 1x 100~240VAC to 12VDC Power Adapter
- 1x User Manual

*Note: Please retain the original packing material should the need ever arise to return the unit. If you find any items are missing, contact your reseller or TV One immediately. Have the Model Number, Serial Number and Invoice available for reference when you call.*

### 4.0 CONNECTING THE HARDWARE

The first step is to connect a video source to the input of the Scaler and to connect its output to a display device. Below is a drawing of the unit.



#### 4.1 Connecting the Input

The 1T-PC1280HD Video Scaler can accept RGBHV and YUV Component inputs. Select the appropriate input cable for RGBHV or YUV Component input. The Scaler will automatically detect the input signal resolution and format.

#### 4.2 Connecting the Output

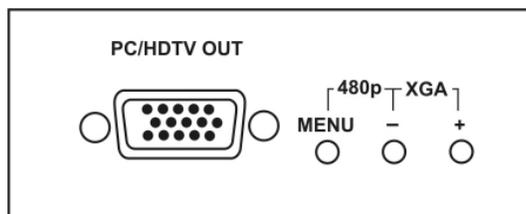
The 1T-PC1280HD Video Scaler can output RGBHV or YPbPr (HD resolutions only) formats. Select the appropriate output cable for RGBHV or YPbPr.

#### 4.3 Connecting Power to the Unit

The Video Scaler is shipped with an In-Plug Power Adapter to convert 115VAC@50-60Hz to 12VDC (220VAC Input is optionally available). Connect the DC Output Cord from the Power Adapter to the back of the unit and then plug the Power Adapter into an AC Receptacle. When the unit's front panel Power Switch is turned on, the Power LED indicator will illuminate.

## 5.0 OPERATING THE UNIT

The Scaler is controlled via three buttons and status is indicated by OSD.



**Menu Button:** This Button displays the Menu Options via the On Screen Display on the display device connected to the output. 6.1 thru 6.7 detail the sub-menus.

**+ and - Buttons:** These Buttons allow navigation within the Menu and adjustments of the parameters available.

**XGA Reset:** Simultaneously depressing the – and + buttons returns settings to factory defaults and sets the output to XGA.

**480p Reset:** Simultaneously depressing the MENU and - buttons returns settings to factory defaults and sets the output to 480p (1T-PC1280HD Only).

### 5.1 Input Setup

When this is selected, a sub-menu of clock and phase adjustments will appear:

Clock	<input type="text" value="32"/>	32/64
Phase	<input type="text" value="22"/>	22/32

Use + and – Buttons to choose the parameter you want to adjust and then press the Menu (Enter) to highlight your selection. Once a parameter is highlighted, use + and - Buttons to increase or decrease the value of the setting. Press Menu again to leave the setting. Move the arrow to Exit and press Menu/Enter to Exit.

### 5.2 Output Setup

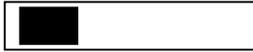
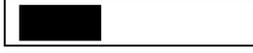
When this mode is selected, the following Output Resolution sub-menu appears:

PC		HDTV	
WUXGA	1920x1200@50/60Hz	720p-RGB	1280x720@60Hz
UXGA	1600x1200@60Hz	576p-RGB	720x576@60Hz
SXGA	1280x768@60/75Hz	480p-RGB	720x480@60Hz
1280A	1280x960@60Hz	1080i-RGB	1920x1080@60Hz (i)
XGA	1024x768@60/70/75/85Hz	1080p-RGB	1920x1080@60Hz
WXGA	1280x768@60Hz	720p-YPbPr	1280x720@60Hz
SVGA	800x600@60/72/75/85Hz	576p-YPbPr	720x576@60Hz
VGA	640x480@60/72/75/85Hz	480p-YPbPr	720x480@60Hz
VGA70	720x400@70Hz	1080i-YPbPr	1920x1080@60Hz (i)
VEESA85	640x400@85Hz	1080p-YPbPr	1920x1080@60Hz
	1152x864@70/75Hz		

Use the + and – Buttons to choose the desired PC or HDTV output resolution from the available selections in the sub-menu.

### 5.3 Operation Controls and Functions

When this mode is selected, the following Picture Adjust sub-menu will appear:

Contrast		047
Bright		102
Color		064
Red		128
Green		128
Blue		128
Reset		
Exit		

The adjustment range for Contrast, Brightness, Red, Green and Blue is 0-255 for each. The factory default preset values are listed to the right of the adjustment box pictured above. Use the + and – Buttons to adjust the value of the selected parameter. Select Reset to set all adjustments to the factory default values.

### 5.4 HV Adjust

When this is selected, the following Horizontal and Vertical Position Adjust sub-menu will appear. Use the + & – Buttons for the best H&V Position of the picture.

H-position		184
V-position		32

### 5.5 OSD Adjust

When this is selected, you can adjust the Horizontal and Vertical Position of the On Screen Display within the video image on the screen.

### 5.6 System Information

When this is selected, the OSD shows the Scaler's current Input and Output Resolution and Vertical Refresh Rate, such as:

INPUT: VGA 60  
OUTPUT: XGA 75

### 5.7 Auto Adjust

Simultaneously pressing and holding the + and – Buttons will return the unit to the factory default settings and the output to XGA @60Hz. *Note – The Scaler has a “last setting memory”, so the current settings will be retained when the power is turned off and the unit will return to those settings when the power is turned back on.*

## 6.0 TROUBLESHOOTING

Other than checking for faulty cables, the only common problem would be choosing a wrong Output Setting. Make sure the display is capable of handling the resolution and refresh rate selected and make sure the output format selected (RGB or YPbPr) is correct for the type of cable and connector being used at the output.

After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions before contacting TV One. Should the dealer's technical personnel be unable to assist you, contact TV One via our support website: <http://tvone.crmdesk.com>. Create a technical support request on the site and our support team will respond within a short period of time.

## 7.0 LIMITED WARRANTY

TV One warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a fixed term from the date of purchase. The warranty term for specific product lines is defined below.

1. TV One branded products based on TV One's CORIO technology are warranted for a period of five years from the date of purchase. This includes products with the model number prefix of C2, 1T-C2, CX, A2 or S2.
2. TV One-task branded products, other than those based on TV One's CORIO technology mentioned above, are warranted for a period of three years from the date of purchase. This includes products with the model number prefix of 1T, with the exception of 1T-C2.
3. LCD Monitors are warranted for a period of three years from the date of purchase, with the exception of the LCD panels integrated into the monitors that are supplied by third parties. LCD panels are limited to the term and conditions of the warranty offered by the respective LCD panel manufacturer. Such specific LCD panel warranties are available upon request to TV One.

Should a product, in TV One's opinion, prove defective within this warranty period, TV One, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of TV One. This warranty does not apply to those products which have been damaged due to accident, unauthorized alterations, improper repair, modifications, inadequate maintenance and care, or use in any manner for which the product was not originally intended.

If repairs are necessary under this warranty policy, the original purchaser must obtain a Return Authorization Number from TV One and return the product to a

location designated by TV One, freight prepaid. After repairs are complete, the product will be returned, freight prepaid.

LIMITATIONS - All products sold are "as is" and the above Limited Warranty is in lieu of all other warranties for this product, expressed or implied, and is strictly limited to two years from the date of purchase. TV One assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

TV One makes no other representation of warranty as to fitness for the purpose or merchantability or otherwise in respect of any of the products sold. The liability of TV One with respect to any defective products will be limited to the repair or replacement of such products. In no event shall TV One be responsible or liable for any damage arising from the use of such defective products whether such damages be direct, indirect, consequential or otherwise, and whether such damages are incurred by the reseller, end-user or any third party.

## **8.0 REGULATORY COMPLIANCE**

The 1T-PC1280HD has been tested for compliance with appropriate FCC and CE rules and regulations. The Power Adaptor/Supplies have been tested for compliance with appropriate UL, CUL, CE, PSE, GS Rules, Regulations and/or Guidelines. These Products and Power Adapters are RoHS Compliant.

## **9.0 CONTACT INFORMATION**

Should you have questions or require assistance with this product in areas not covered by this manual, please contact TV One at the appropriate location.

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