



# Instruction Manual

**1T-FC-425 and 1T-FC-524  
Format Converters**



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## **1.0 INTRODUCTION**

Thanks for purchasing this One Task Format Converter from TV One. The 1T-FC-524 converts analog RGBHV or Component YPbPr inputs to DVI signals, enabling their display on DVI or HDTV monitors or other devices. The 1T-FC-425 converts DVI to RGBHV or Component YPbPr, enabling viewing on analog displays or other devices. Both models are 5VDC powered and the Power Adapters are included. Locking DC Connectors are provided for security. 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.

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### **1.2 Features**

The 1T-FC-425 and 1T-FC-524 have many features that enable them to perform in a superior manner. Among those features you will find:

- Analog to Digital or Digital to Analog Format Conversion
- HDTV resolutions to 1080p
- SDTV resolutions of 480i and 576i
- PC resolutions up to 1600x1200
- Plug and Play for Easy Installation
- DVI Bandwidth to 1.65Gbps (Single Link)
- Operation Frequency to 165Mhz

## 2.0 SPECIFICATIONS

|                                       |                                |                              |
|---------------------------------------|--------------------------------|------------------------------|
| <b>Video Inputs</b>                   |                                |                              |
| 1T-FC-524                             |                                | 1x RGB/YPbPr via HD-15       |
| 1T-FC-425                             |                                | 1x DVI-D via DVI-I Connector |
| <b>Video Outputs</b>                  |                                |                              |
| 1T-FC-524                             |                                | 1x DVI-D via DVI-I Connector |
| 1T-FC-425                             |                                | 1x RGBHV/YPbPr via HD-15     |
| <b>Component Signal I/O</b>           |                                |                              |
| Y Component                           |                                | 1V p-p@75Ω                   |
| Pb/Pr Component                       |                                | 0.7V p-p@75Ω                 |
| <b>RGBHV Signal I/O</b>               |                                |                              |
| R-G-B                                 |                                | 0.7V p-p@75Ω                 |
| HV Sync                               |                                | 3-5V p-p@75Ω                 |
| <b>Frequency and Bandwidth</b>        |                                |                              |
| Frequency                             |                                | Up to 165Mhz                 |
| DVI Bandwidth                         |                                | 1.65Gbps (Single Link)       |
| <b>PC I/O Resolutions</b>             |                                |                              |
| VGA                                   | 640x480                        | 60, 72, 75, 85Hz             |
| SVGA                                  | 800x600                        | 60, 72, 75, 85Hz             |
| XGA                                   | 1024x768                       | 60, 70, 75, 85Hz             |
| Mac                                   | 1152x864                       | 70, 75, 85Hz                 |
| SXGA                                  | 1280x1024                      | 60, 75, 85Hz                 |
| UXGA                                  | 1600x1200                      | 60Hz                         |
| <b>SDTV I/O Resolutions</b>           |                                |                              |
| 480i                                  | 720x480                        | 60Hz (NTSC)                  |
| 576i                                  | 720x576                        | 50Hz (PAL)                   |
| <b>HDTV I/O Resolutions</b>           |                                |                              |
| 480p                                  | 720x480                        | 60Hz                         |
| 576p                                  | 720x576                        | 50Hz                         |
| 720p                                  | 1280x720                       | 50, 60Hz                     |
| 1080i                                 | 1920x1080 (i)                  | 50, 60Hz                     |
| 1080p                                 | 1920x1080 (p)                  | 24, 25, 30, 60Hz             |
| <b>1T-FC-524 Input Format Switch</b>  |                                |                              |
| YPbPr                                 | Select when the input is YPbPr |                              |
| RGB                                   | Select when the input is RGBHV |                              |
| <b>1T-FC-524 Output Format Switch</b> |                                |                              |
| <b>Analog Input</b>                   | <b>Setting</b>                 | <b>Output Signal</b>         |
| YPbPr                                 | Bypass or RGB                  | Digital YPbPr or RGB         |
| RGBHV                                 | Bypass or RGB                  | Digital RGB Only             |
| <b>1T-FC-425 Output Format Switch</b> |                                |                              |
| <b>Digital Input</b>                  | <b>Setting</b>                 | <b>Output Signal</b>         |
| YPbPr                                 | YPbPr                          | Analog YPbPr                 |
| RGB                                   | RGB                            | Analog RGBHV                 |

## SPECIFICATIONS (Continued)

|                             |                                  |
|-----------------------------|----------------------------------|
| <b>Compliance</b>           |                                  |
| DVI                         | Rev 1.0                          |
| <b>Mechanical</b>           |                                  |
| Size (H-W-D)                | 30x76x105mm (1.2"x3"x4.1")       |
| Weight (Net)                | 200 g (0.43 lbs)                 |
| <b>Warranty</b>             |                                  |
| Limited Warranty            | 2 Years Parts and Labor          |
| <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 Requirement</b>    |                                  |
| External Power Supply       | 5VDC@2A                          |
| <b>Regulatory Approvals</b> |                                  |
| Converter Unit              | FCC, CE, RoHS                    |
| Power Supply                | UL, CUL, CE, PSE, GS, RoHS       |
| <b>Accessories Included</b> |                                  |
| 1x Power Adapter            | US, UK or Euro                   |
| 1x Adapter Cable            | HD-15 to 3 RCA                   |
| 1x Operations Manual        |                                  |
| <b>Product Item Numbers</b> |                                  |
| 1T-FC-524                   | RGBHV/YPbPr to DVI               |
| 1T-FC-425                   | DVI to RGBHV/YPbPr               |

### 3.0 CHECKING PACKAGE CONTENTS

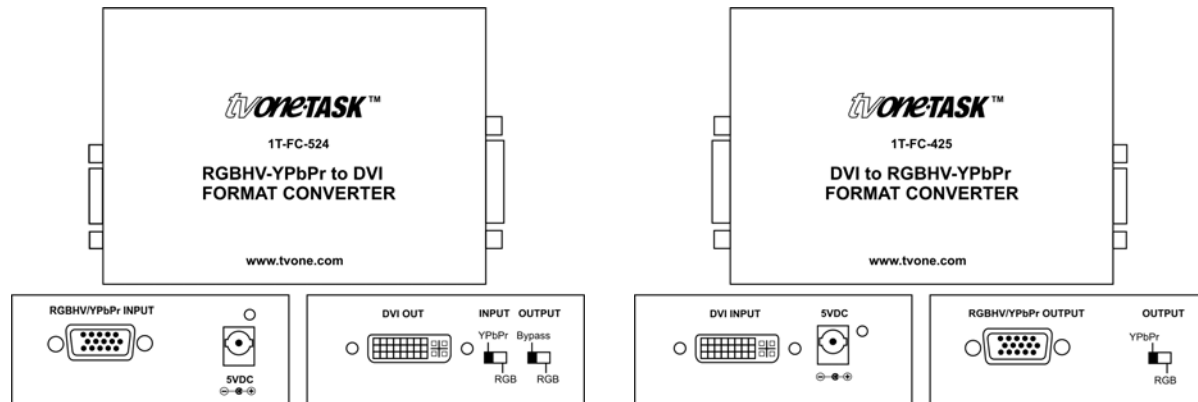
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x Format Converter
- 1x Power Adapter
- 1x Operations Manual
- 1x HD-15 to 3 RCA Adapter Cable

**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 and Serial Number and Invoice available for reference when you call.

## 4.0 CONNECTING THE HARDWARE

Please study the panel drawings below and become familiar with the signal input, output, power requirements/input plus any controls present.



To begin, connect the AC adapter to the Format Converter's power input. Next connect the appropriate cable to the source device and then the Format Converter. Finally, connect the output cable to the Format Converter and to the destination device. Once the cables have been connected, you can apply power to the source and destination devices and then plug the Format Converter's AC adapter into the AC power source. The Format Converter will begin to function as soon as it has power.

## 5.0 OPERATING THE UNIT

The 1T-FC-524 has input and output format control switches. For the input, you may select either YPbPr or RGBHV analog format. For the output switch position, if your input selection was analog YPbPr, selecting Bypass will result in a Digital YPbPr or a Digital RGB output. Selecting analog RGBHV for the input and then selecting either Bypass or RGB results in a Digital RGB output. For the 1T-FC-425, there is only an Input selection to be made. Selecting a Digital YPbPr input will result on an analog YPbPr output. Selecting Digital RGB input results in an analog RGBHV output.

Making the switch selections as explained above and then connecting the cables and power will result in the device converting whatever signal is present on its input to the complementary signal on its output. As an example, if you provide a digital 1080i resolution signal to the input of the 1T-FC-425, an analog 1080i signal will appear on its output. The 1T-FC-524 would perform the same conversion in reverse, changing a 1080i resolution analog signal into a 1080i Digital signal. These units are Format Converters only and no video scaling takes place. The output resolution is the same as the input. All standard HDTV resolutions are supported on both products from 480p through 1080p, plus SDTV resolutions of 480i and 576i. PC resolutions up to 1920x1200 are supported. *Note: HDCP content will not be converted by these devices due to licensing and legal issues. This does not constitute a failure of the units.*

## 6.0 TROUBLESHOOTING

Other than problems with mismatched input and/or output format switches (as in mismatched for the result desired), power supply problems or faulty cabling, there is little in the way of troubleshooting required for either of the products. If switches are in the correct position and neither the cables nor power is at fault, make certain that both the source and destination devices are working properly.

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

LIMITED WARRANTY – With the exceptions noted in the next paragraph, TV One warrants the original purchaser that the equipment it manufactures or sells will be free from defects in materials and workmanship for a period of two years from the date of purchase. Should this 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.

Items integrated into TV One products that are made by other manufacturers, notably computer hard drives and liquid crystal display panels, are limited to the term of the warranty offered by the respective manufacturers. Such specific warranties are available upon request to TV One. 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-FC-425 and 1T-FC-524 Converters have been tested for compliance with appropriate FCC and CE rules and regulations. The Power Adaptor/Supply has been tested for compliance with appropriate UL, CUL, CE, PSE, GS Rules, Regulations and/or Guidelines. This Product and Power Adapter is 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 shown below:

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End of Manual