



## Instruction Manual

**1T-DA-472 and 1T-DA-474  
RGBHV/YPbPr Distribution Amplifier  
with Stereo Audio**

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## **1.0 INTRODUCTION**

Thanks for purchasing this 1T-DA-472 or 1T-DA-474 VGA Distribution Amplifier from TV One. These amplifiers are designed to provide multiple VGA Video and Stereo Audio signals. Model 1T-DA-472 provides two outputs from a single input, while model 1T-DA-474 provides four outputs. 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-DA-472 and 1T-DA-474 Distribution Amplifiers have many features that enable them to perform in a superior manner. Among those features you will find:

- 500+ MHz Bandwidth Video
- Supports Resolutions up to 2560x1600
- 20Hz to 20KHz Stereo Audio
- Output Range up to 300 feet
- Locking DC Power Connector
- Supports DDC, DDC2, DDC2B (Output 1 Only)
- Amplifiers may be cascaded
- Rugged Metal Housing
- Ultra Compact Size

## 2.0 SPECIFICATIONS

<b>Video Input</b>	
Signal Type	RGBHV, RGBS, RGsB, YPbPr
Connector	1x HD-15 Female
R-G-B Level Range	0.5-2.0 Vp-p
Maximum Resolution	2560x1600
<b>Audio Input</b>	
Connector	1x 3.5mm Stereo Audio
Bandwidth/Level	20Hz-20KHz@0.5 to 1Vp-p
<b>Video Outputs</b>	
1T-DA-472	2x via HD-15 Female Connectors
1T-DA-474	4x via HD-15 Female Connectors
<b>Audio Outputs</b>	
1T-DA-472	2x via 3.5mm Audio Connectors
1T-DA-474	4x via 3.5mm Audio Connectors
<b>General</b>	
R-G-B Bandwidth	500+MHz
Maximum Distance	Up to 300' from amplifier (Note 1)
DDC Capability	DDC1, DDC2, DDC2B (Port 1)
<b>Mechanical</b>	
Size (H-W-D)	44x160x58mm (1.7"x6.3"x2.3")
Weight (Net)	400g (0.88 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 - Locking Plug
<b>Regulatory Approvals</b>	
Amplifier Units	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS
<b>Accessories Included</b>	
1x AC Power Adapter	US, UK or Euro
1x Operations Manual	
<b>Product Item Numbers</b>	
1T-DA-472	2-Output Version
1T-DA-474	4-Output Version
<b>Optional Accessories</b>	
RM-320S	Rackmount kit for one unit
RM-320D	Rackmount kit for two units
<b>Notes</b>	
(1) To achieve the max rated distance, use premium cables.	

## 2.1 Input/Output Signals

Pin #	Signal
1	Red video
2	Green video
3	Blue video
4	ID2
5	Ground
6	Analog Ground
7	Analog Ground
8	Analog Ground

Pin #	Signal
9	NC
10	Ground
11	NC
12	DDC SDA
13	Horizontal Sync
14	Vertical Sync
15	DDC SCL

## 3.0 CHECKING PACKAGE CONTENTS

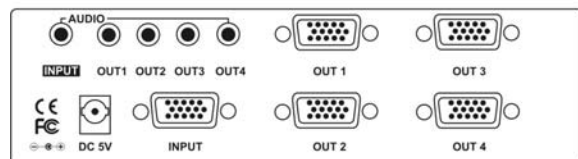
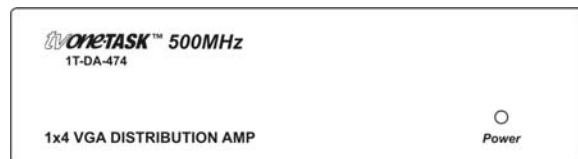
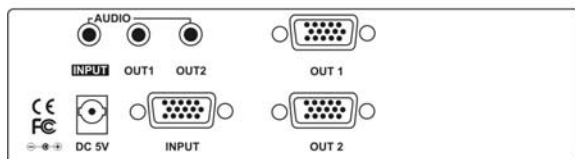
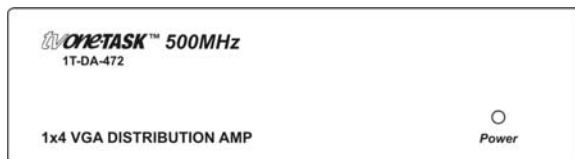
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x Distribution Amplifier
- 1x Power Adapter with 5VDC Output
- 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 front of the device has a single LED that indicates when power is applied and the rear panel has the power connection, input connector and either two or four Video and Audio output connectors depending on which Distribution Amplifier you have purchased. Please take a moment to familiarize yourself with the location of the various signal connectors and the power input connector. Make certain you connect only the supplied power adaptor to the device as serious damage can result by using improper voltages.



## 5.0 OPERATING THE UNIT

### 5.1 Connect the Unit as follows:

1. Turn off power to Source Device (such as PC) and to all Destination Devices (such as Monitors)
2. Connect the Video Output of the Source Device to the Amplifier's Input with a HD-15-HD-15 cable
3. Connect the Audio Output of the Source Device to the Amplifier's Audio Input with a 3.5mm to 3.5mm cable
4. Connect the Video Input of the Destination Devices to the Video Output Connectors of the Amplifier with high quality HD-15 cables, up to 300 feet in length
5. Connect the Audio Input of the Destination Devices to the 3.5mm Audio Output Connectors of the Amplifier with high quality Audio Cables
6. Plug the DC Connector from the 5VDC Power Adapter provided into the Amplifier. Twist the DC Connector after inserting it to lock it in place
7. Plug the Power Adapter into an AC Outlet
8. Turn on power to the Source and Destination Devices

*Note: If you connect a DDC Monitor to Output 1 of the Amplifier, all the other Monitors must be able to support the same high resolution as the DDC monitor.*

### 5.2 Cascading

To display the same image on more Monitors than available amplifier outputs permit, you may cascade additional amplifiers. Connect the input of the additional amplifier with an HD-15 cable to an output of the original Amplifier. **Caution** - Signal degradation may occur if too many Amplifiers are cascaded.

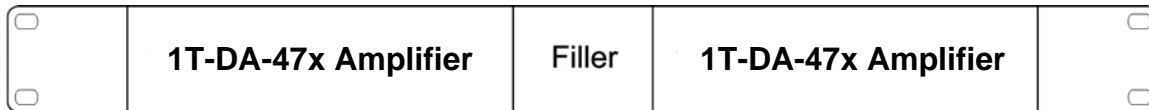
## 6.0 TROUBLESHOOTING

Problems with the 1T-DA-472 or 1T-DA-474 Distribution Amplifiers are rare. Most of the time, the problem is caused by the use of an incorrect cable for the signal type, too long a cable run, bad connectors on the cable and occasionally damaged cables. Bad grounds or use of different AC power sources for the Distribution Amplifier and the Signal Source and/or Display Device(s) may also cause problems due to ground loops. This can cause Video Distortion and hum in the audio.

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 OPTIONAL RACK MOUNTING KIT

There is an optional single or dual Rack Mount Kit, the RM-320S or RM-320D, available. An Allen head wrench and mounting screws are provided in the package along with the sufficient metal parts to mount either one or two Distribution Amplifiers.



To mount two Amplifiers, first fasten a short rack ear attachment to the left side of the first unit and fasten another short rack attachment to the right side of the second unit. Attach the “U” shaped filler piece between the two units. To mount a single Amplifier, fasten a short rack ear attachment to the left side of the unit and the long filler attachment to the other side.

## 8.0 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.

## **9.0 REGULATORY COMPLIANCE**

The 1T-DA-472 and 1T-DA-474 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.