



# Instruction Manual

**1T-AP-216  
Analog to Digital  
Audio Converter**



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## **1.0 INTRODUCTION**

Thanks for purchasing this 1T-AP-216 Analog to Digital Audio Converter from TV One. The 1T-AP-216 is designed to convert standard R/L analog audio to a digital audio stream and output the information in Coaxial and Optical formats simultaneously plus allow the insertion of 150ms of delay if necessary to insure lip sync. 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-AP-216 Analog to Digital Audio Converter has many features that enable it to perform in a superior manner. Among those features you will find:

- Supports R/L input and Coaxial/Optical output simultaneously
- Supports output sampling frequencies at 48kHz
- Supports 150ms audio delay
- Optical Fiber cable runs of up to 5 meters (16 feet)
- Immune to electromagnetic noise
- Easy to install and simple to operate

## 2.0 SPECIFICATIONS

<b>Audio Inputs</b>	
Analog Stereo Audio (R/L)	1x via 2x RCA Connectors
<b>Audio Outputs</b>	
Optical Stereo Audio	1x via 1x Optical Connector
Digital Audio (S/PDIF)	1x via 1x RCA Coaxial Connector
<b>Performance</b>	
Audio Input Level (Analog)	(L/R) 2Vrms max @ 47K $\Omega$
Audio Output Level (Coaxial Digital)	0.5~1Vp-p@75 $\Omega$
Audio Output (Optical)	Standard Fiber-Optic Level
Audio Bandwidth	20Hz to 20 KHz
Sampling Frequency	48kHz
Audio Input Impedance (Analog)	47K $\Omega$
Audio Output Impedance (Coaxial)	75 $\Omega$
<b>Mechanical</b>	
Size (H-W-D)	24.5x57x46mm (0.9"x2.2x1.8")
Weight (Net)	30g (1.3 oz)
<b>Warranty</b>	
Limited Warranty	3 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@0.5A - Locking DC
<b>Regulatory Approvals</b>	
Audio Processor	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS
<b>Accessories Included</b>	
1x Power Adapter	US, UK or Euro
1x Operations Manual	
<b>Optional Accessories</b>	
Cables	Various Types and Lengths

## 3.0 CHECKING PACKAGE CONTENTS

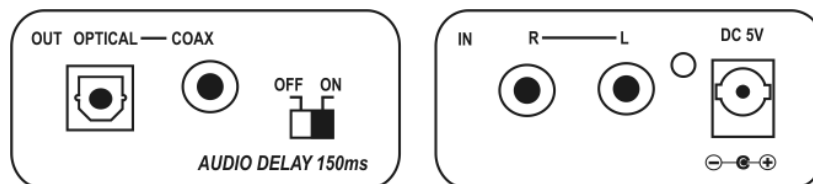
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x 1T-AP-216 Audio Converter
- 1x AC Adapter
- 1x Operation 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

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



**Front Panel (Input)**

**Rear Panel (Output)**

Connect audio inputs from the source equipment to the R and L RCA connectors on the 1T-AP-216's front panel. Next, connect an optical or coaxial cable (or both) between the appropriate connector(s) on the rear panel of the 1T-AP-216 and the destination equipment.

Connect the AC adapter to the 1T-AP-216, then to a working AC power socket. (Note that the unit will begin to function as soon as the power is available. There is no "On/Off" switch.)

Lastly, turn on both the source and the destination equipment.

Once these steps have been completed, the unit will convert Analog Stereo Audio (R&L Channels) to either Optical or Coaxial Stereo Digital Audio. It will perform this action to either output individually or to both Outputs at the same time.

## 5.0 OPERATING THE UNIT

Other than connecting the power and the cables to the source and destination equipment, the only other action needed is to determine if you should insert audio delay into the signal path.

If there is apparent loss of lip sync (i.e. if words are heard before the subject's lips move), turn on the 150ms audio delay by sliding the Audio Delay switch to the right. Conversely, if the subject's lips move before a sound is heard, make certain the Audio Delay switch is turned off (fully positioned to the left).

## 6.0 TROUBLESHOOTING

In the event that the unit appears to be non-functional, make certain that the AC power outlet is active and that the AC adapter is fully plugged into the 1T-AP-216 and the connector has been turned 90 degrees Clockwise to lock it in place. Next, substitute any cables in use with known good cables to remove that variable.

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-AP-216 Analog to Digital Audio Converter 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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