



Instruction Manual

***1T-V-SDI
Analog to SDI Converter***

Table Of Contents

1.0	Introduction	4
2.0	Specifications	5
3.0	Checking Package Contents	5
4.0	Connecting the Hardware	6
5.0	Operating The Unit	7
6.0	Troubleshooting	9
7.0	Limited Warranty	10
8.0	Regulatory Compliance	10
9.0	Contact Information	11

1.0 INTRODUCTION

Thanks for purchasing this 1T-V-SDI Analog to SDI Converter from TV One. The 1T-V-SDI is designed to convert analog video (composite and Y/C) into 270 Mb/s SDI signals. Our professional video conversion products have been serving the industry for over twenty years. TV One offers a full line of high quality Video Scalers, Scan Converters, Analog-Digital (DV, SDI, DVI) Converters, Standards Converters, Digital Video Recorders, Frame Synchronizers, Time Base Correctors, LCD Monitors, Matrix Routing Switchers and Distribution Amplifiers.

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-V-SDI has many features that enable it to perform in a superior manner. Among those features you will find:

- 8-bit Signal Processing
- Composite and S-Video Inputs
- Serial Digital Video Output at 270Mbits/sec
- NTSC, PAL-M, PAL & PAL-N Operation
- Ultra Compact Metal Case

2.0 SPECIFICATIONS

Analog Video Inputs	
Composite	1x via BNC Connector
S-Video (Y/C)	1x via 4-PIN Mini-DIN
Television Standards	NTSC, PAL-M, PAL, PAL-N
Impedance	75Ω
SDI Video Output	
SMPTE 259M, 270Mbits/sec	2x via BNC Connector
Video Specifications	
Signal Processing	8-bit
Frequency Response	Flat to more than 5MHz
Chroma to Luma Delay	<= 5nS
Differential Gain	<=1%
Differential Phase	<=1°
Luma Nonlinearity	<=1%
Signal to Noise Ratio	
Black Field, weighted	Better than 60dB

3.0 CHECKING PACKAGE CONTENTS

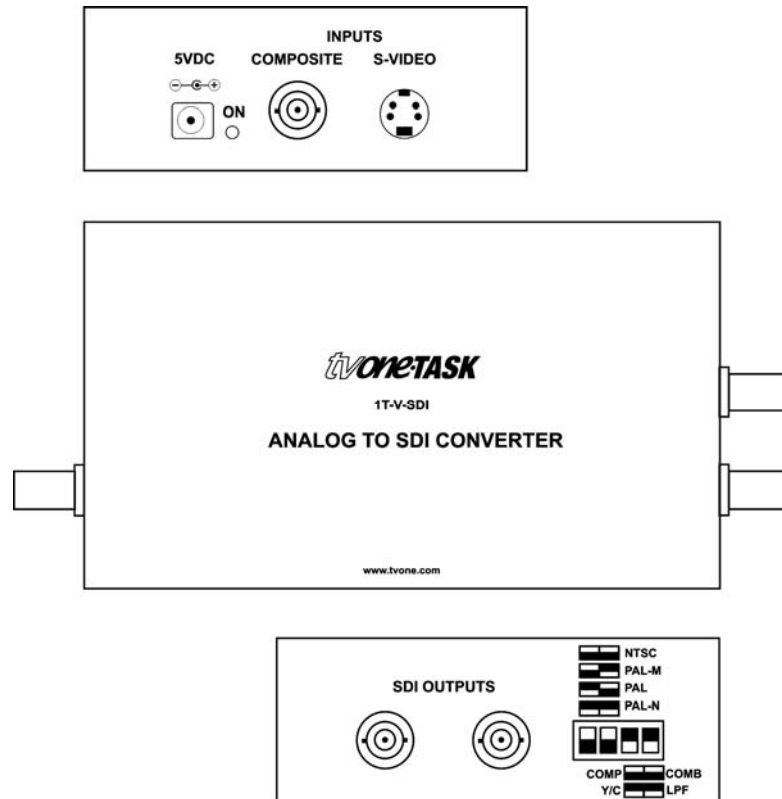
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1T-V-SDI Analog to SDI Converter.
- 100/240 VAC@50/50 Hz to +5 VDC Power Adaptor
- 6' (2m) BNC to BNC Cable
- 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 plus any controls present.



1T-V-SDI

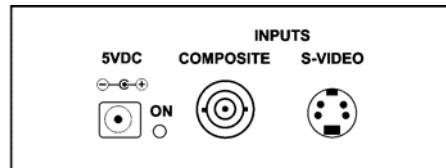
4.1 Input / Output Connections

The first step is to connect the analog video source(s) either to the Video input BNC or the S-Video connector(s) and then the SDI video output(s) to the proper destination(s).

All 1T-V-SDI outputs are active. All outputs can be used simultaneously or just one of the outputs can be used according to the user's needs.

4.2 Connecting Power to the Unit

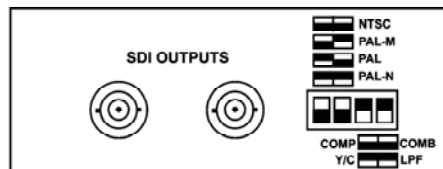
The 1T-V-SDI is shipped with an AC Power Adapter to convert 100~240VAC@50-60Hz to +5 VDC. Connect the DC Output Cable from the Power Adapter to the back of the unit and then plug the Power Adapter into an AC Receptacle. When the 1T-V-SDI is plugged in, the unit will become operational and the LED labeled “ON” on the front panel will illuminate.



5.0 OPERATING THE UNIT

The Analog to SDI converter is controlled via four dipswitches that can be changed anytime according to the user's needs.

5.1 Standard Selection

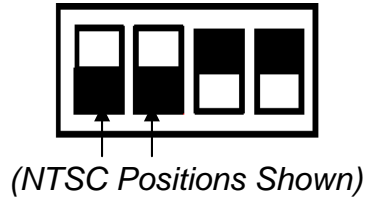


Standard Selection Panel

The output standard is selected by means of the two left most of the four dipswitches located on the rear panel of the unit. These dipswitches may be changed at any time as required by the operating environment.

Select the proper standard by using the two left most dipswitches. The respective positions are:

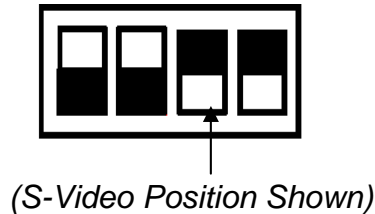
NTSC	Up	Up
PAL M	Up	Down
PAL	Down	Up
PAL N	Down	Down



5.2 Input Selection

The signal to be converted to SDI (Analog video input: Composite or S-Video) is selected by means of the third dipswitch from the left. The two positions are:

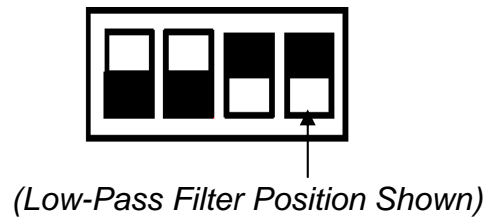
Composite	Up
S-Video	Down



5.3 Filter Selection

The Input Video Filter is used to separate Luminance and Chrominance components for processing. The desired filter is selected by means of the dipswitch located on the extreme right. The Options are:

Comb	Up
Low Pass	Down



The use of the comb filter will give the best performance in terms of separation of the luminance and chrominance bandwidths; therefore it will yield the best output quality.

When poor quality analog signals are to be converted however, it is recommended the Low Pass filter position be used in order to attenuate noise and distortions. Also, unwanted artifacts may result when applying digital comb filtering to unstable video sources.

6.0 TROUBLESHOOTING

Other than checking for faulty cables, the other common problem would be operating with a wrong standard. Make sure the analog input standard and format selected correspond with the input standard currently in use.

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

This product has been tested for compliance with: FCC Class B and CE.

The Power Adapter has been tested for compliance with: UL, CSA and CE.

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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