



Instruction Manual

*tvone***TASK**

**1T-HDMI-821, 1T-HDMI-841 &
1T-HDMI-881
HDMI Switchers**

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1.0 INTRODUCTION

Thanks for purchasing this 1T-HDMI-821, 1T-HDMI-841 or 1T-HDMI-881 HDMI Switcher from TV One. These HDMI Switchers are designed to provide a way to select and switch up to 8 HDMI inputs without signal degradation or loss of encryption. Our professional video 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, 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.

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1.2 FEATURES

The 1T-HDMI-800 series of HDMI Switchers have many features that enable them to perform in a superior manner. Among these features you will find:

- Switches from 2 to 8 HDMI sources
- Supports 480i, 480p, 720p, 1080i and 1080p resolution
- HDMI Certified by Silicon Images ATC Laboratory
- Supports DDWG standard for HDMI compliant monitors
- HDCP Compliant. RoHS Compliant
- IR Remote Control Capability
- RS-232 Control Port Provided

2.0 SPECIFICATIONS

Performance	
HDTV Resolutions	480p, 720p, 1080i, 1080p
Standard TV Resolution	480i
Maximum Cable Distance	Input: 50 Feet Max, Outputs: 50 feet Max
I/O Connectors	
Inputs	2, 4 or 8 HDMI TMDS
Output	HDMI, TMDS x1 (All Models)
Mechanical	
Dimensions (H-W-D)	1T-HDMI-821 1.1"x8.7"x2.8" (28x220x71mm) 1T-HDMI-841 1.1"x8.7"x2.8" (28x220x71mm) 1T-HDMI-881 1.75"x17"x8" (44.5x431x203mm)
Weight	1T-HDMI-821 1.0 lbs (480g) 1T-HDMI-841 1.0 lbs (480g) 1T-HDMI-881 4.8 lbs (2180g)
Warranty	
Limited Warranty	2 Years Parts and Labor
Environmental	
Operating Temperature	+0 to +40° C (+32° to 104° F)
Operating Humidity	10% to 85% (Non-condensing)
Storage Temperature	-20° to +60° (+20° to +140° F)
Storage Humidity	10% to 85% (Non-condensing)
Remote Control	
Serial Interface	RS-232
Infrared	IR Remote Included
Warranty	
Limited Warranty	2 Years Parts and Labor
Power Requirements	
External Power Supply	5VDC@2A
Regulatory Approvals	
Distribution Amplifier	FCC, CE, RoHS
Power Supplies	UL, CE, CSA, CEC, RoHS
Accessories Included	
1x AC Power Adapter	US, UK or Euro Type
1x Remote Control	IR Type
1x Set Mounting Hardware	
1x Instruction Manual	
Product Item Number	
1T-HDMI-821	2x1 HDMI Routing Switcher
1T-HDMI-841	4x1 HDMI Routing Switcher
1T-HDMI-881	8x1 HDMI Routing Switcher
Optional Accessory	
1x Extended IR Sensor	1T-IRR-100 Remote IR sensor Module

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:

- 1 ea HDMI Switcher
- 1 ea 5 VDC Power Adapter
- 1 ea IR Remote Control
- 1 set Mounting Hardware
- 1 ea Instruction 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 physical sizes of the three units vary according to number of inputs. For reference purposes, the units are depicted below in relative scale. Please study the drawings below and become familiar with the location of the controls, status LEDs, signal inputs, signal output and the power input.



1T-HDMI-821



1T-HDMI-841



1T-HDMI-881

Connect an HDMI approved cable, no more than 50 feet in length, from each of the HDMI sources to the inputs of the switcher. Next, connect the output of the switcher to the destination device using an HDMI approved cable no more than 50 feet long*. Connect the extended IR remote cable if desired and lastly, connect the power adapter, first to the switcher and then to the AC source.

**Note: Proper operation of HDMI switchers depend on the use of the highest quality cables available. TV One's Z-Plus HDMI cables provide low loss, high bandwidth signal handling and are the recommended cables for use with all HDMI products. The distance specification of 50 feet is for HDMI signals up to 1080i resolution but cannot be guaranteed unless Z-Plus cables or equivalent are used throughout the system.*

5.0 OPERATING THE UNIT

Power and input selection are controlled from one multi-purpose switch. To turn the switcher on, press the Input Select – Power On/Off switch. Once the unit is in the operating state, pressing the switch causes the input selection to advance

each time it is pressed. (An LED will light to show which input is active.) Once the highest input number is reached, pressing the switch again will select input number 1. Pressing and holding the switch for two (2) seconds will cause the unit to power off. For greater flexibility, an Infrared remote control is also provided. In the case of the remote, there are separate buttons for the power and input sources. Point the remote control at the unit and press the power button to turn the switcher on or off. Press the appropriate input select button to cause the desired input to appear on the switcher's output.

5.1 OPERATION USING THE OPTIONAL EXTENDED IR MODULE

An optional IR extender accessory, Model 1T-IRR-100, is available for those situations requiring the switcher to be mounted in a location where direct line-of-sight is not available. If you have purchased the optional IR extension module, connect it to the rear of the unit and position the module in a manner that allows the furnished remote to be pointed at it without any obstructions between the remote and the extended IR module. The 1T-IRR-100 is shipped with a 6 foot interconnect cable. Longer length cables are available up to 50 Feet.

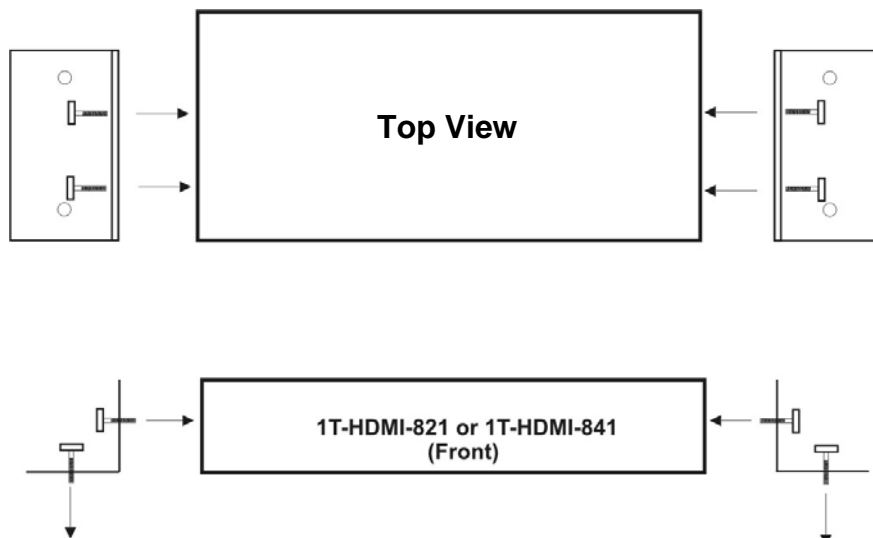
Operation using the extended IR module accessory is the same as with the standard IR remote capability.

6.0 INSTALLATION OF MOUNTING COMPONENTS

The 1T-HDMI-821 and 1T-HDMI-841 switchers can be mounted on any flat surface and the 1T-HDMI-881 switcher can be mounted in a standard 19" rack.

Mounting the 1T-HDMI-821 or 1T-HDMI-841 Switchers

Attach the two "L" shaped mounting brackets to the product using the furnished hardware and then attach the combined assembly to the desired location.



Note that the holes on the brackets are offset to allow easier mounting to the flat surface after you've attached the brackets to the switcher.

Mounting the 1T-HDMI-881 Switcher

To mount the rack mounting brackets to the 1T-HDMI-881 switcher, merely attach the brackets to the 1T-HDMI-881 and then attach the combined assembly to the equipment rack using the furnished hardware.



7.0 TROUBLESHOOTING

In the event of problems, first make certain that the input and output cables are no more than 50 feet long (for signals to 1080i resolution) and are of the highest possible quality. Next, make certain that the Switcher is receiving power.

If all is well in these areas, remember that HDMI devices communicate with one another so the source devices and destination device must be fully HDMI capable. In addition, HDCP encryption requires additional processing which also is dependent on the equipment you have connected to the sources and destination device. If you experience problems using the HDMI Switcher, you should attempt to determine what is wrong by attaching each of the source devices – one at a time – directly to the destination device using the same cables you are using with the expanded system. This is a way of determining if the problem is due to bad cables or a problem with the other devices. If you are unable to obtain a signal using this simplified path, suspect the cables, the source device(s) or the destination device.

After trying the above suggestions should the problem 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.

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 are 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-HDMI-800 series HDMI Switchers have been tested for compliance with appropriate FCC and CE rules and regulations and are also RoHS compliant.

The Power Adaptor/Supplies have been tested for compliance with UL, CE, CEC and CSA rules and regulations and are also RoHS compliant.

10.0 APPENDIX A: RS-232 CODE INFORMATION

Transmission Format:

Baud Rate: 57600 BPS
Data Byte: 8 bits
Parity: None
Stop Bit: 1

Modem Cable Pinouts:

Switcher End			Controller End	
Pin	Definition		Pin	Definition
1	NC		1	NC
2	TxD	→	2	RxD
3	RxD	←	3	TxD
4	NC		4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

2X1 Commands:

Command Code	Description
0x01	Port 1 On
0x02	Port 0 On
0x05	Power On/Off

4X1 Commands:

Command Code	Description
0x04	Port 1 On
0x02	Port 2 On
0x01	Port 3 On
0x03	Port 0 On
0x05	Power On/Off



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