



Instruction Manual

**MX-3141HDA
HDTV Video and Audio
Routing Switcher**

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1.0 INTRODUCTION

Thanks for purchasing this MX-3141HDA HDTV 4x1 Video and Audio Switcher from TV One. The MX-3141HDA is designed to switch four different Video inputs and their associated stereo audio inputs. The Video I/O is YPbPr and the Audio I/O are Right and Left channel Analog Audio or S/PDIF Digital Audio. 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.

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1.2 Features

The MX-3141HDA 4x1 HDTV Video and Audio Switcher has many features that enable it to perform in a superior manner. Among those features you will find:

- Support of 480i, 576i, 480p, 576p, 720p, 1080i, 1080p
- Stereo Analog or Stereo S/PDIF Digital Audio
- Both front panel and remote control
- RS-232 Interface for system integration
- LED input selector indicators
- Analog Stereo Audio-Follow-Video Switching

2.0 SPECIFICATIONS

Video Inputs	
MX-3141HDA	4x YPbPr via RCA
Audio Inputs	
MX-3141HDA	4x via RCA + 4x Coaxial via RCA
Video Outputs	
MX-3141HDA	1x YPbPr via RCA
Audio Outputs	
MX-3141HDA	1x via RCA + 1x Coaxial via RCA
Performance	
Video Bandwidth	300MHz +
Video Impedance	75Ω
Video Level	Unity, Nominal 1V p-p
Audio Bandwidth	20Hz to 20 KHz
Audio Impedance	20KΩ Analog, 75Ω Coaxial
Audio Level	Unity, Nominal (S/PDIF .5-1Vp-p)
Television Standards	NTSC, PAL, HDTV
Supported Signals	
MX-3141HDA	HDTV: 480i, 576i, 480p, 576p, 720p, 1080i, 1080p
Mechanical	
Size (H-W-D)	48x292x176mm (1.87"x11.5"x7")
Weight (Net)	1.47 kg (3.25 lbs)
Warranty	
Limited Warranty	2 Years Parts and Labor
Environmental	
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
Power Requirement	
External Power Supply	5VDC@2A - Locking DC
Regulatory Approvals	
Switcher Units	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS
Accessories Included	
1x Power Adapter	US, UK or Euro
1x IR Remote Control	
1x Rackmount Kit	
1x Operations Manual	
Product Item Number	
MX-3141HDA	4x1 HDTV Switcher w/Audio

3.0 CHECKING PACKAGE CONTENTS

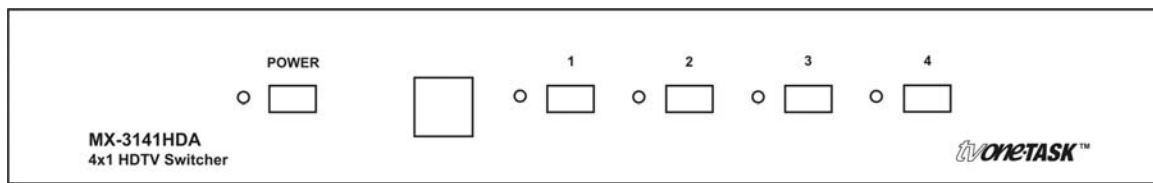
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

- 1x MX-3141HDA Video Routing Switcher
- 1x AC Power Adapter
- 1x IR Remote Control
- 1x Rack Mount Kit
- 1x Instruction Manual

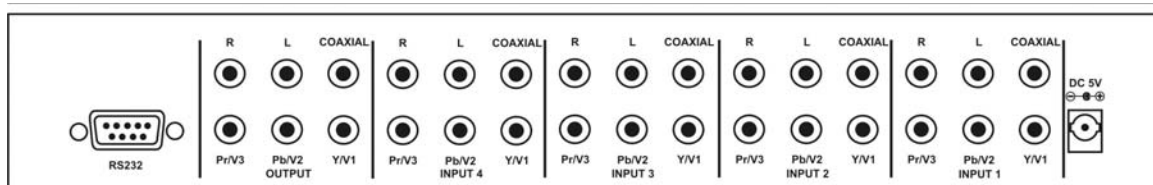
Note: Please retain the original packing material should the need ever arise to return the unit. If you find any items are missing, contact your reseller or TV One immediately. Have the Model Number, Serial Number and Invoice available for reference when you call.

4.0 CONNECTING THE HARDWARE

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



The front panel contains the power switch and LED Power Indicator, the Infrared Sensor window and the four input selectors plus LED indicators that show which input has been selected.



From left to right, the rear panel features the RS-232 connector, RCA type output connectors for the Left and Right analog audio channels and a coaxial connector for the S/PDIF Digital audio output. Also in the group are the three RCA connectors for the YPbPr Component Video Outputs.

To the right of the output connectors are four identical sets of input connectors for channels 4, 3, 2 and 1. The connectors are for analog stereo audio (R&L channels), S/PDIF digital audio and the four YPbPr Component Video inputs. Finally, at the extreme right is the power connector used to connect the AC power adapter.

The user should connect the inputs using high quality cables, then connect the RS-232 cable if used and finally connect the video and appropriate audio outputs to a monitor or projector or other destination device. After connecting the signal cables, the AC power adapter should be connected, first to the MX3141HDA and then to the AC power source.

5.0 OPERATING THE MX-3141HDA

Once the signal cables and AC power adapter have been connected, the switcher can be turned on using the front panel power switch. If the appropriate signals have been applied to the inputs, a high quality signal should appear on the monitor or projector as each input in turn is selected. Gain is unity so the output should mirror the inputs in all cases.

Note: Audio I/O is line level. It is not possible to directly feed speakers or receive audio from a source speaker output. Damage may result if attempted.

5.1 OPERATING THE MX-3141HDA USING THE INCLUDED IR REMOTE

Operation of the switcher via the included Infrared Remote Control is a matter of simply pointing the remote at the MX-3141HDA and selecting the appropriate input on the remote control. In order for the remote to function properly, the small square window on the front of the MX-3141HDA must be unobstructed and not in sunlight or extremely bright artificial light and the distance from the IR remote and the switcher should not be more than found in a standard residential room.

6.0 TROUBLESHOOTING

Most problems encountered with the MX-3141 series of products relates to faulty cables or incorrect signal levels from the sources.

If some inputs function correctly and others do not, interchange cables between sources and see if the problem moves with the cables. If it moves, a bad cable or cable connector is the probable reason for the trouble. If the problem remains with one particular input, connect that source to a different input using the same cable and see if the problem moves. If it does, the problem is with the source.

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 MX-3141HDA has 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 RS-232 PROTOCOLS

RS-232 Transmission Protocols:

Baud Rate: 9600 bps
 Data Bit: 8 Bits
 Parity: None
 Stop Bit: 1

Interconnect:

MX-3141 Switcher			Remote Controller	
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

Command Code	Comment
"I" + "1"	Port 1 On
"I" + "2"	Port 2 On
"I" + "3"	Port 3 On
"I" + "4"	Port 4 On
"P" + "1"	Power On
"P" + "0"	Power Off

10.0 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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