![tvONE logo]

Instruction Manual

MX-3141PCA
HDTV/PC Video and Audio Routing Switcher

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1.0 INTRODUCTION

Thanks for purchasing this MX-3141PCA HDTV/PC 4x1 Video and Audio Switcher from tvONE. The MX-3141PCA is designed to switch four different video inputs and their associated stereo audio inputs.

Our professional video conversion products have been serving the industry for over twenty years. tvONE 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.5/6 Transmission Systems.

1.1 Liability Statement

Every effort has been made to ensure that this product is free of errors. tvONE 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.

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

- Supports HDTV video: 480i, 576i, 480p, 576p, 720p, 1080i, 1080p
- Supports PC video: VGA, XGA, SXGA, UXGA, WUXGA
- Allows the user to freely intermix PC and HDTV video inputs
- Stereo analog audio input and output
- 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:

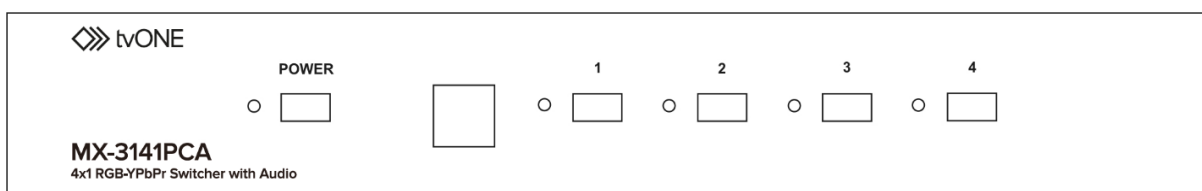| Audio/Video Inputs	
RGBHV/YPbPr	4x via HD-15
Analog Stereo	4x via 3.5mm Mini-Jack
Audio/Video Outputs	
RGBHV/YpbPr	1x via HD-15
Analog Stereo	1x via 3.5mm Mini-Jack
Additional I/O	
RS-232 Control	1x via DB-9 Connector
Supported Signals	
PC	VGA, SVGA, XGA, SXGA, UXGA, WUXGA (1920x1200)
HDTV	480i, 576i, 480p, 576p, 720p, 1080i, 1080p
Performance	
Video Bandwidth	300MHz +
Video Impedance	75Ω
Video Level	Unity, Nominal 1V p-p
Audio Bandwidth	20Hz to 20 KHz
Audio Impedance	20KΩ Analog
Audio Level	Unity, Nominal
Television Standards	NTSC, PAL, HDTV
Control Methods	
Local Control	Front Panel via 5x Buttons
Remote Control	IR and RS-232
Mechanical	
Size (H-W-D)	48 x 292 x 176mm (1.87" x 11.5" x 7")
Weight (Net)	1.47 kg (3.25 lbs)
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@2.6A, twist lock connector
Warranty	
Limited Warranty	3 Years Parts and Labor
Regulatory Approvals	
Main Unit	FCC, CE, RoHS
Power Supply	UL, CUL, CE, PSE, GS, RoHS
Accessories Included	
1x Power Adapter	US, UK and Euro Type
1x IR Remote Control 1x Rack Mount Kit 1x Operations Manual	

3.0 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-3141PCA Routing Switcher
- 1x AC Power Adapter
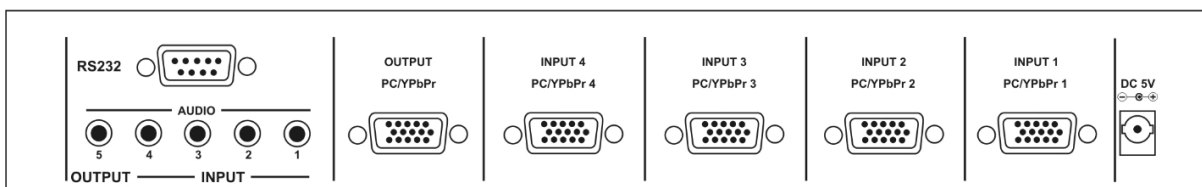- 1x IR Remote Control

- 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 tvONE 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 and five 3.5mm type connectors for the Left and Right analog audio channel I/O.

To the right of the RS-232 and Audio connectors are a Video output connector plus four identical sets of Video input connectors for channels 4, 3, 2 and 1. They provide the YPbPr/PC RGB Video output and accept the YPbPr/PC RGB 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, connect the RS-232 cable if used and finally connect the video and appropriate audio outputs to a monitor, projector or other destination device. After connecting the signal cables, the AC power adapter should be connected, first to the MX3141PCA and then to the AC power source.

5.0   OPERATING THE UNIT

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. As previously mentioned, the user can freely intermix PC video and YPbPr Component video as inputs to the MX-3141PCA. It is important however to realize that the monitor or other device connected to the switcher's output must be capable of displaying both PC video and YPbPr video else there will be faulty displays or no display present. Finally, 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   Control via the Infrared Controller

Operation of the switcher via the included Infrared Remote Control is a matter of simply pointing the remote at the MX-3141PCA 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-3141PCA must be unobstructed and not in sunlight or extremely bright artificial light. The distance from the IR remote and the switcher should not be more than found in a standard residential room.

5.2   Control via RS-232 Option

Using appropriate control codes, it's possible to switch to any input under control of a computer or other hardware control device. To use this functionality, first prepare a control cable by reference to the table below. Make certain that you have continuity between the pins as shown.

The RS-232 control connections are as follows:

MX-3141PCA			Controller	
Pin Number	**Definition**		**Pin Number**	**Definition**
1	NC		1	NC
2	Tx	⟶	2	Rx
3	Rx	⟵	3	Tx
4	NC		4	NC
5	GND		5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

RS-232 transmission format:
Baud Rate: 9600 bps
Data bit: 8 Bits
Parity: None
Stop Bit: 1 bit
Flow Control: None

The RS-232 control codes used by the MX-3141PCA are as follows:

ASCII Code	Meaning
"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

6.0 TROUBLESHOOTING

Most problems encountered with the MX-3141 series of products relate 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.

Note: It is strongly recommended that you use premium cables in order to achieve maximum distance cable runs and the best performance possible.

After trying the above suggestions should the problem still persist, contact your dealer for additional suggestions before contacting tvONE. Should the dealer's technical personnel be unable to assist you, contact tvONE 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

tvONE 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. tvONE branded products based on tvONE'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. tvONE products, other than those based on tvONE'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 tvONE.

Should a product, in tvONE's opinion, prove defective within this warranty period, tvONE, at its option, will repair or replace this product without charge. Any defective parts replaced become the property of tvONE. 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 tvONE and return the product to a location designated by tvONE, 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 the stated number of years from the date of purchase. tvONE assumes no liability to distributors, resellers or end-users or any third parties for any loss of use, revenue or profit.

tvONE 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 tvONE with respect to any defective products will be limited to the repair or replacement of such products. In no event shall tvONE 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-3141PCA Routing Switcher has been tested for compliance with the 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 is 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 tvONE at the appropriate location shown below.

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End of Manual