



# 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 TV One. 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. 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 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

<b>Video Inputs</b>	
MX-3141PCA	4x RGB/YPbPr via HD-15
<b>Audio Inputs</b>	
MX-3141PCA	4x via 3.5mm Mini -Stereo
<b>Video Outputs</b>	
MX-3141PCA	1x RGB/YPbPr via HD-15
<b>Audio Outputs</b>	
MX-3141PCA	1x via 3.5mm Mini -Stereo
<b>Performance</b>	
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
<b>Supported Signals</b>	
MX-3141PCA	PC: VGA, SVGA, XGA, SXGA UXGA (1600x1200), WUXGA (1920x1200) HDTV: 480i, 576i, 480p, 576p, 720p, 1080i, 1080p
<b>Mechanical</b>	
Size (H-W-D)	48x292x176mm (1.87"x11.5"x7")
Weight (Net)	1.47 kg (3.25 lbs)
<b>Warranty</b>	
Limited Warranty	2 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@2A - Locking DC
<b>Regulatory Approvals</b>	
Switcher Units	FCC, CE, RoHS
Power Supplies	UL, CUL, CE, PSE, GS, RoHS
<b>Accessories Included</b>	
1x Power Adapter	US, UK or Euro
1x IR Remote Control	
1x Rackmount Kit	
1x Operations Manual	
<b>Product Item Number</b>	
MX-3141PCA	4x1 PC/HD with Stereo

### 3.0 CHECKING PACKAGE CONTENTS

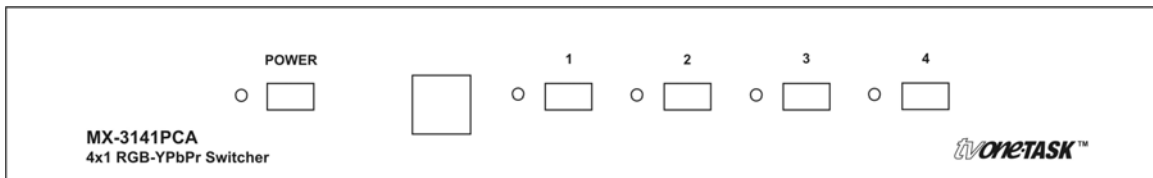
Before attempting to use this unit, please check the packaging and make certain the following items are contained in the shipping carton:

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

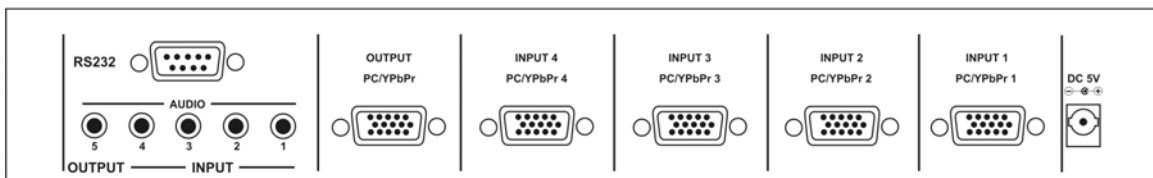
**Note:** Please retain the original packing material should the need ever arise to return the unit. If you find any items are missing, contact your reseller or TV One immediately. Have the Model Number, Serial Number and Invoice available for reference when you call.

### 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 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 MX-3141PCA**

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 Operating the MX-3141PCA 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-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.

## **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.

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-3141PCA 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:

### **TV One USA**

2791 Circleport Drive  
Erlanger, KY 41018  
USA  
Tel 859-282-7303  
Fax 859-282-8225  
sales@tvone.com  
www.tvone.com

### **TV One Europe**

Continental Approach  
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sales.europe@tvone.com  
www.tvone.eu

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End of Manual