



VIDEO
PRODUCTS
INCORPORATED

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MTX-4X4-CVA

Audio/Video Switcher

4x4 Matrix Routing Switcher

INSTRUCTION MANUAL





SAFETY INFORMATION



1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the "ON" position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
 - E. The equipment has been dropped, or the enclosure damaged.

INTRODUCTION

Input: Composite Video/Stereo Audio (RCA)

Output: Composite Video/Stereo Audio (RCA)

Power Input: DC+12V, @500mA~1500mA 



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK),
NO USER SERVICEABLE PARTS INSIDE,
REFER SERVICING TO QUALIFIED SERVICE PERSONAL.

WARNING!

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK
DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.



This symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



This symbol is intended to alert the user to the presence of important operational and maintenance (servicing) instructions in the literature accompanying the appliance.

To prevent electric shock do not use this (polarized) plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure. To prevent electric shock, match wide blade of plug to wide slot, fully insert.

INTRODUCTION


Congratulations on your purchase of one of the most innovative Video/Audio switching products on the market today. The Switcher is a true Matrix Routing Switcher for Composite Video and Stereo Audio signals. It has 4 individual AV inputs with 4 individual AV outputs. Because it is a matrix router, any input may be routed to any output; or the same input may be routed to all outputs or any combination. It completely eliminates the need to constantly move around audio and video input and output cables. The Switcher is useful for routing signals from AV source devices (such as: VCRs, Camcorders, Video Game Consoles, Video CDs, DVDs, Satellite Receivers, CAT5 Set Top Boxes, etc.) to AV destination devices (such as: VCRs, DVD-Rs, TV Sets, Video Projectors, etc.). Selection of inputs is made via the Front Panel push buttons or an Infrared Remote Control unit.

Before you make any connections

Make sure all AV devices to be connected to the Matrix Routing Switcher are functioning according to their respective operation manuals before connecting them. Always connect the AV devices to the Switcher one at a time and make sure each works just as it did before it was connected.

Supplied Accessories

Check that you have the following components in your converter pack;

- (1) 1 Instruction Manual
- (2) 1 MTX-4X4-CVA Switcher
- (3) IR Remote control
- (4) 3-RCA to 3-RCA cable
- (5) 1 AC Adaptor: 12VDC, 500ma 

Safety Notice!

To prevent damage to your television equipment use only the supplied AC Adaptor and make the power connections to your television

FEATURES & SPECIFICATIONS

FEATURES

- 4-inputs to 4-outputs Matrix Switch
 - Designed to be used as a AV Switch; however could be used for component video applications
 - Drive HDTV Signal up to 60 feet away
 - Control by Front Panel or IR Remote
 - Regulatory Approvals CE, FCC, RoHS (2002/95/EC)
 - Support lower power consumed full load under 500mA
 - Installs in seconds
-

SPECIFICATIONS

- **Type of Switcher:** 4 inputs to 4 outputs Matrix Routing Switcher
- **Audio/Video Inputs:**
 - 4x Composite Video, 75Ω On RCA Connectors
 - 4x Stereo R/L , 40KΩ On RCA Connectors
- **Audio/Video Outputs:**
 - 4x Composite Video, 75Ω On RCA Connectors
 - 4x Stereo R/L , 40KΩ On RCA Connectors
- **Video Bandwidth:** >10MHz
- **Video Distortion:** <1.2db (Standard +1- 3db)
- **Audio Distortion:** <0.6db (Standard +1- 3db)
- **Channel Isolation:** >50db
- **High Resolutions Support:** HDTV to 576i and computer resolutions to 800x600
- **Gain Flatness:** 0.1 dB to 75 Mhz
- **High Output Drive:** 175mA Output Load Drive
- **Scan Rates Accepted:** 50Hz or 60Hz
- **S/N Ratio:** >50db
- **Video Crosstalk:** >60db
- **Control Method:** Front Panel Switches and IR Remote Control Unit
- **Power Consumed:** 500mA
- **Lower Power Consumed:** 350mA
- **Enclosure Type:** Metal
- **Net Weight (Unit Only):** 2.2lbs
- **Dimensions (WxDxH):** 1-3/4 x 12* x 6 in
- **Power Supply:** 12VDC; @500mA~1500mA

TYPICAL HOOKUP AND OPERATION



Front View:

Power SW : ON/OFF
4 Display Channel Buttons
4 LED's Display

Rear View:

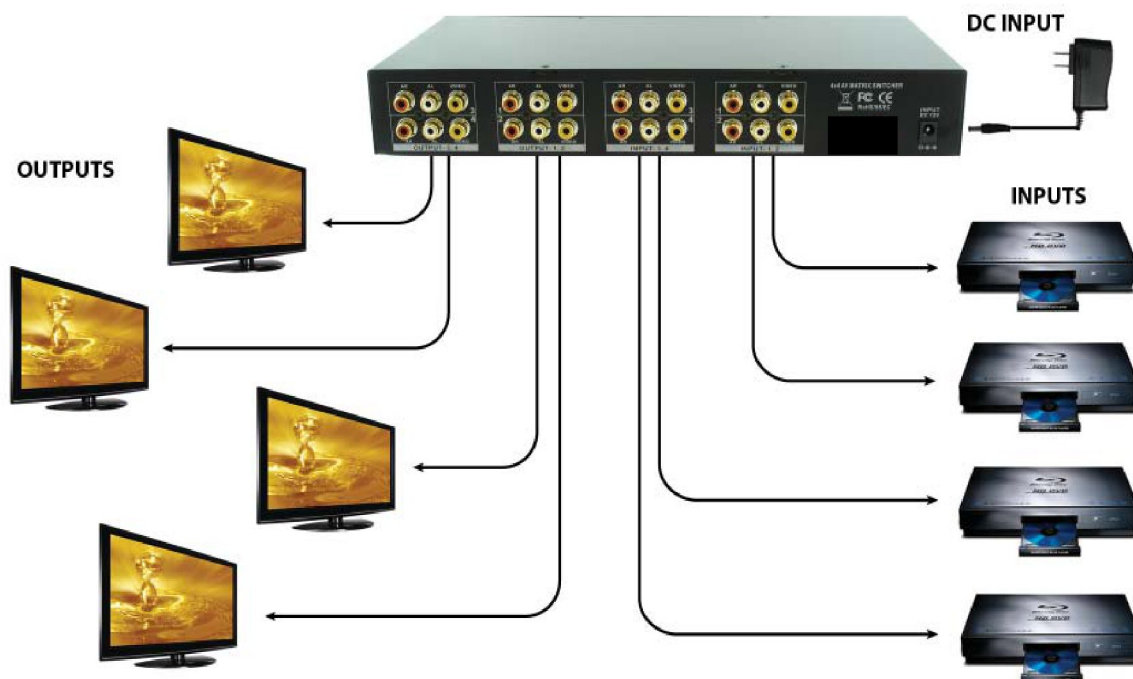
Input : 4 x Audio/Video (RCA)
Output: 4 x Audio/Video (RCA)
Power DC Input : DC12V, @500mA ~ 1500mA

Safeguards and Precautions

- A. Keep this unit away from fire, extremely hot areas, water or moisture of any kind.
- B. Do not place this unit on any support that is not firm, level and strong.
- C. Do not service the unit yourself. Opening the unit's housing will void the warranty.
- D. Servicing must be by Shinybow or by an authorized technician.
- C. Illegal duplication of copyrighted material is strictly prohibited by Federal Laws.

4x4 Audio/Video Matrix Routing Switcher

APPLICATIONS: DVD Player, Video CD, VCR Player, Handycam, CCD Camera, Video Game System, Satellite Receiver



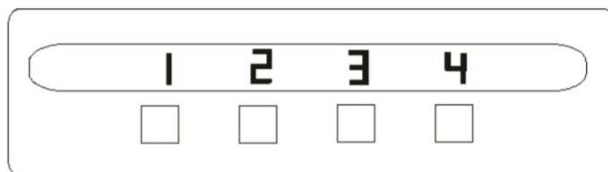
MATRIX SWITCHER ROUTING SELECTION

MATRIX SWITCHER ROUTING SELECTION

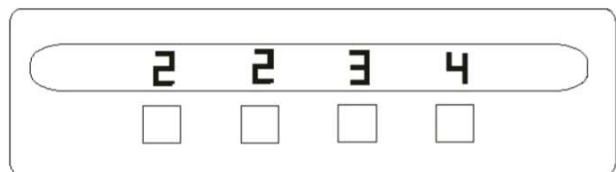
The drawings below show how the front panel LEDs will appear when Output 1 is changed from Inputs 1 thru 4. For these examples, Outputs 2, 3 and 4 remain unchanged.

- * Example 1 - Input 1 routed to Output 1.
- * Example 2 - Input 2 routed to Output 1.
- * Example 3 - Input 3 routed to Output 1.
- * Example 4 - Input 4 routed to Output 1.

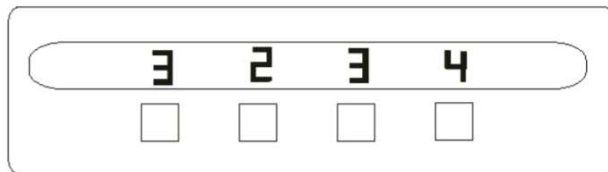
Example 1



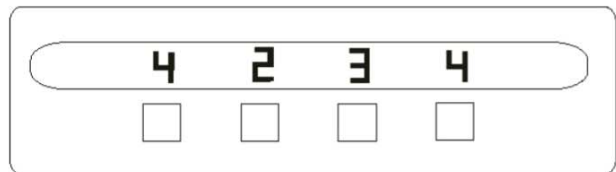
Example 2



Example 3



Example 4



REMOTE CONTROL

Before making any connections to the switch, observe the following:

- > Ensure the mains voltage supply matches the label on the supplied plug-Pack (+/- 10%)
- > Ensure that the power switch is OFF
- > Ensure that all system grounds (earth) are connected to a common point.
- > Avoid powering equipment within a system from multiple power sources that may be separated by large distances
- > Connect all audio video sources and destination equipment
- > power up all source and destination audio-visual sources
- > For each destination output select the appropriate input source by using The front panel input 1~4 select buttons. Or the supplied IR remote control.
- > Upon power up the switcher will return to its last used setting before Powered down.

REMOTE CONTROL

- 1 SWITCH POWER ON or OFF**
Controller with one button for power ON and OFF
- 2 DISPLAY OUTPUT 1 SOURCES SELECTION**
Input -1 : A/V source-1 A/V (Composite Video) HDTV Display
Input -2 : A/V source-2 A/V (Composite Video) HDTV Display
Input -3 : A/V source-3 A/V (Composite Video) HDTV Display
Input -4 : A/V source-4 A/V (Composite Video) HDTV Display
- 3 DISPLAY OUTPUT 2 SOURCES SELECTION**
Input -1 : A/V source-1 A/V (Composite Video) HDTV Display
Input -2 : A/V source-2 A/V (Composite Video) HDTV Display
Input -3 : A/V source-3 A/V (Composite Video) HDTV Display
Input -4 : A/V source-4 A/V (Composite Video) HDTV Display
- 4 DISPLAY OUTPUT 3 SOURCES SELECTION**
Input -1 : A/V source-1 A/V (Composite Video) HDTV Display
Input -2 : A/V source-2 A/V (Composite Video) HDTV Display
Input -3 : A/V source-3 A/V (Composite Video) HDTV Display
Input -4 : A/V source-4 A/V (Composite Video) HDTV Display
- 5 DISPLAY OUTPUT 4 SOURCES SELECTION**
Input -1 : A/V source-1 A/V (Composite Video) HDTV Display
Input -2 : A/V source-2 A/V (Composite Video) HDTV Display
Input -3 : A/V source-3 A/V (Composite Video) HDTV Display
Input -4 : A/V source-4 A/V (Composite Video) HDTV Display

