

## Audio/Video Switcher 4x4 Matrix Routing Switcher INSTRUCTION MANUAL



MODEL : SB-5544  
4x4 Audio/Video Matrix Routing Switcher

### ***Audio/Video Matrix Routing Switcher Series***

*Thank you for purchasing the SB-5544 Audio/Video Matrix Routing Switcher. You will find this unit easy to install and highly reliable but it is essential that you read this manual thoroughly before attempting to use this switcher.*



## 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 SB-5544 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 SB-5544 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 SB-5544 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 SB-5544 Switcher
- (3) IR Remote control
- (4) 3-RCA to 3-RCA cable
- (5) Control Software (All Windows Operating Systems)
- (6) Rack Mount brackets
- (7) 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, IR Remote or RS-232
  - Regulatory Approvals CE, FCC, RoHS (2002/95/EC)
  - Support lower power consumed full load under 500mA
  - Installs in seconds
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## 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 480p, 720p, 1080i/60, 1080p
- **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 (rack-ears optional)
- **Net Weight (Unit Only):** 2.2lbs
- **Dimensions (WxDxH):** 1-3/4 x 12\* x 6 in (\*19 with rackmount)
- **Power Supply:** 12VDC; @500mA~1500mA

# TYPICAL HOOKUP AND OPERATION

## SB-5544



### Front View:

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

### Rear View:

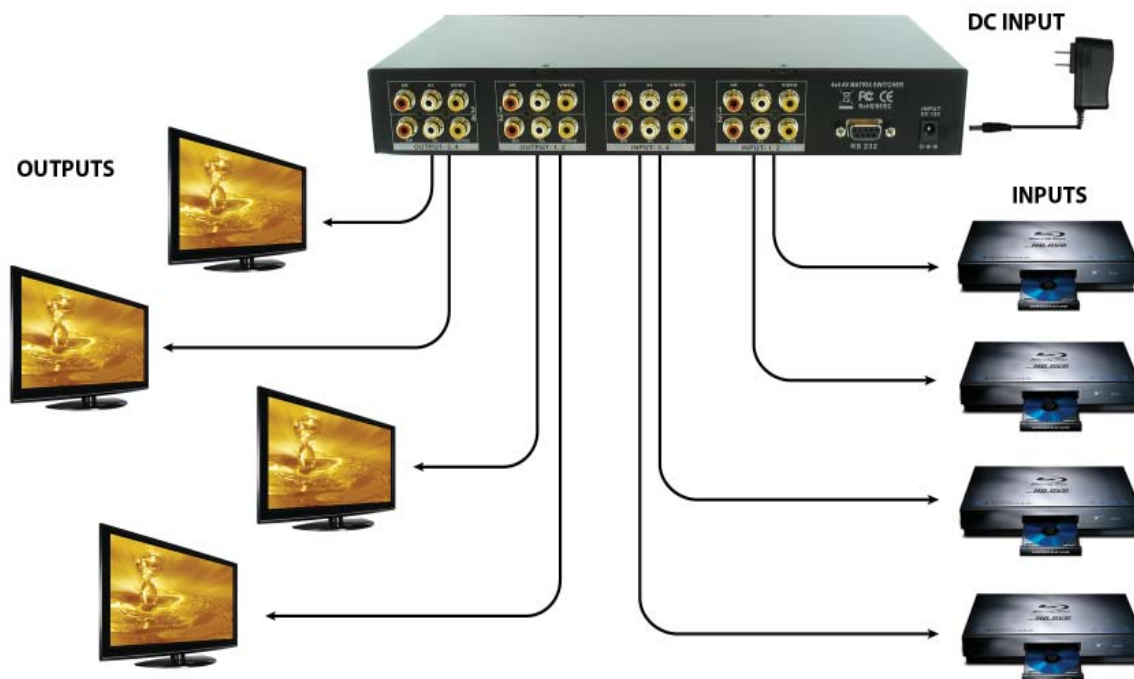
Input : 4 x Audio/Video (RCA)  
Output: 4 x Audio/Video (RCA)  
Power DC Input : DC12V, @500mA ~ 1500mA

## 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



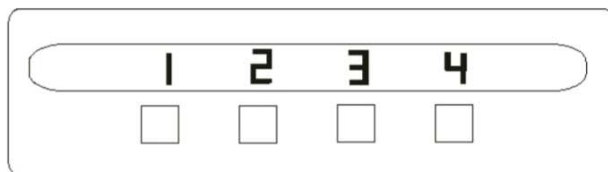
# MATRIX SWITCHER ROUTING SELECTION

## MATRIX SWITCHER ROUTING SELECTION

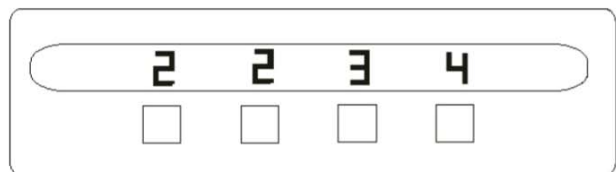
The drawings below show how the front panel LEDs will appear when Output 1 is changed from Inputs 1 thru 4. For these examples, Outputs 2, 3 and 4 remain unchanged.

- \* 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.

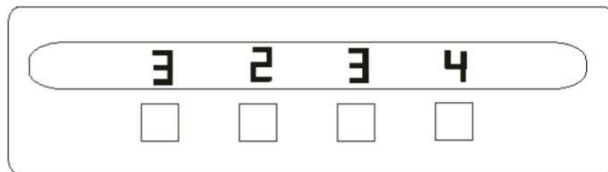
**Example 1**



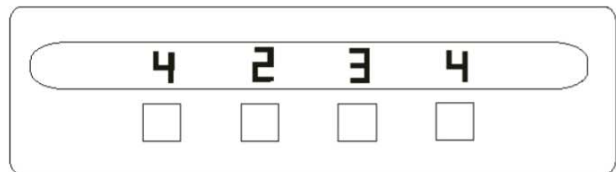
**Example 2**



**Example 3**



**Example 4**



# LIMITED WARRANTY

## SHINYBOW WARRANTY

SHINYBOW Technology warrants this product against defects in materials and workman ship for a period of 3 years from the date of purchase. Please be sure to send in your warranty registration card promptly, as the warranty will not be active without registration.

Should this product, in SHINYBOW Technology's opinion, after inspection, prove defective within this warranty period, SHINYBOW Technology, at its option, will repair or replace this product without charge, to whatever extent it shall deem necessary to restore said product to proper operation condition. This does not extend the warranty period.

This warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, and abnormal operating conditions or non-SHINYBOW Technology authorized modification to the product.

If repairs are necessary under the warranty policy, the original purchaser must return the product to local distributor, freight prepaid. After repairs are complete, the product will be returned.

## REGULATORY COMPLIANCE

The product complies with the relevant standards for CE, FCC and RoHS approval.

The power Adaptor/Supply has been tested for compliance with UL.CSA and CE standards.

## TROUBLESHOOTING

If you experience a <no signal> with this switcher or distributor outputs, first make certain that there is a signal being fed to its inputs from the connected device is acceptable.

Disconnect the cables from the switcher or distributor inputs and connect them directly to an appropriate monitoring device. If you do not see or hear a signal the problem may well be he signal source itself. Also check that the AC outlet you have used to power the switcher or distributor is actually providing power as a wall switch often controls an AC outlet.

Verify that there is power to the device. If the unit is receiving power, the power on indicator light in the power switch should be glowing.

The second most common problem with the switcher or distributor revolves around the cables, Inspect the cables for loose connectors or cable damage such as crushed cable or cables with cuts or nicks. Replace any cable exhibiting these problems.

We recommend using the highest quality cables so that you can achieve the best results. Poor quality cables provide will poor quality signals.

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