

INSTRUCTION MANUAL

SB-5450

4x2 Composite/S-Video/Audio Matrix Routing Switcher (IR)



SB-5450M

SHINYBOW™ USA
MULTIMEDIA AUDIO AND VISUAL



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.

TABLE OF CONTENTS

Composite Video/S-Video Matrix Switcher Series

Thank you for purchasing the SB-5450 / SB-5450M Composite Video/S-Video Matrix 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.

CONTENTS

INTRODUCTION & CONTENTS.....	1
FEATURES & SPECIFICATIONS	2
TYPICAL HOOKUP & OPERATION	3

INTRODUCTION

The SB-5450 is a 4x2 S-Video/Composite Video and Stereo Audio matrix switcher designed to work as a switcher for multiple Audio/Video sources and displays. The SB-5450 has (4) Inputs to (2) Outputs for S-video, Composite Video & Stereo Audio with a video bandwidth of 100MHz supporting sharp and highly defined video signals up to 480i and 576i. It's one of the most innovative S-Video (Y/C), Composite Video and Stereo Audio (AR/AL) matrix switching products on the market today. Because it is a matrix routing switcher, any input may be routed to any output simultaneously. This matrix switcher is ideally suited for full High Definition LCD HDTV TVs for resolutions 480p, 720p 1080i and 1080p or HD Plasma display monitor applications. Control is provided via front selections push buttons with LED readout or an IR remote control.

PACKAGE CONTENTS

Check that you have the following components;

- SB-5450 Switcher
- IR remote control
- Three-way RCA-to-RCA AV Cable (red, white and yellow)
- S-Video Cable (mini-din 4pin plug)
- Users Guide
- AC/DC Adapter: 12VDC@420mA
AC/DC Adaptor Types: CE/UL/SAA/BS

CONFORMANCE TEST REPORT

FOR **EN 55013 / EN 55020** **CE**

REPORT NUMBER: ET93S-09-213-01

FOR **FCC 47 CFR/Part 15 Subpart B** **FC**

REPORT NUMBER: ET93S-09-213-02

FOR **VCCI** **VCCI**

REPORT NUMBER: ET93S-09-213-03

Model Number: SB-5450

Comment Number : SB-3680, SB-3681, SB-3682, SB-5430, SB-5440, SB-5450, SB-5460

Input: Audio/Video System (Composite or S-Video) / Stereo Audio System (R/L)
Output: Audio/Video System (Composite or S-Video) / Stereo Audio System (R/L)
Power Supply: DC+12V@420mA 



SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply. Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

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FEATURES & SPECIFICATIONS

FEATURES

- Switches S-Video, Composite Video and Analog Audio between multiple sources and displays
- If the input signal is Composite, the output is Composite. If the input is S-Video, the output is S-Video
- (4) Inputs to (2) Outputs S-Video-Composite Video-Stereo Audio Matrix Switcher
- Supports HDTV resolution for 480i, 480p, 576p, 720p, 1080i and 1080p
- 100MHz (-3dB), 200mVpp video bandwidth
- 30MHz audio bandwidth
- 20Hz~20KHz audio frequency response
- Scan rates accepted for 50Hz or 60Hz
- IR remote control via frequency (38KHz)
- Signals switch including S-Video (Y/C), Composite & Stereo Audio (AR/AL)
- Front panel control via selection channel push buttons with LED readout
- Supports 19 inch ear mount & 1RU rack mountable
- Supports lower power consumption full load under 250mA

SPECIFICATIONS

- **Type of Switcher:** (4) Inputs to (2) Outputs Matrix Router Switcher
- **Video Input:** (4) Composite Video, 75Ω on RCA Connectors
- **Audio Input:** (4) Stereo R/L, 40KΩ on RCA Connectors
- **Video Output:** (2) Composite Video, 75Ω on RCA Connectors
- **Audio Output:** (2) Stereo R/L, 400Ω on RCA Connectors
- **Resolutions:** 480i, 480p, 576p, 720p, 1080i and 1080p
- **Video Bandwidth:** 100MHz, (-3dB) 2Vpp, S-Video (Y/C) and Composite Video
- **Audio Bandwidth:** 30MHz, (-3dB) (Audio-Right=30MHz, Audio-Left=30MHz)
- **Audio Input Impedance:** 10KOhms
- **Audio Frequency Response:** 20Hz~20KHz
- **All Hostile Crosstalk:** -56dB@5MHz, -45dB@50MHz
- **Scan Rates Accepted:** 50Hz or 60Hz
- **IR Infrared Frequency:** 38KHz
- **Signal to Noise Rate:** >60dB
- **Channel Isolation:** >50dB
- **S/N Ratio:** >50dB
- **Power Consumed:** Supports lower power consumption full load under 250mA
- **Controls:** Direct selection via front panel push buttons with LED readout or IR Remote Control
- **Safety Approvals:** CE, FCC, VCCI, Erp, WEEE
- **Dimensions (LxWxH):** 9.25 x 5.5 x 1.75 in (235x140x45mm)
- **Weight:** 0.9 lb (Unit only) / 2.4 lb (Net)
- **Power Supply:** DC12V@420mA

As product improvements are continuous, specifications are subject to change and without notice.

TYPICAL HOOKUP AND OPERATION

SB-5450



FRONT VIEW:

Power SW : ON/OFF
IR: Remote Controller receiver
Video Select Buttons

REAR VIEW:

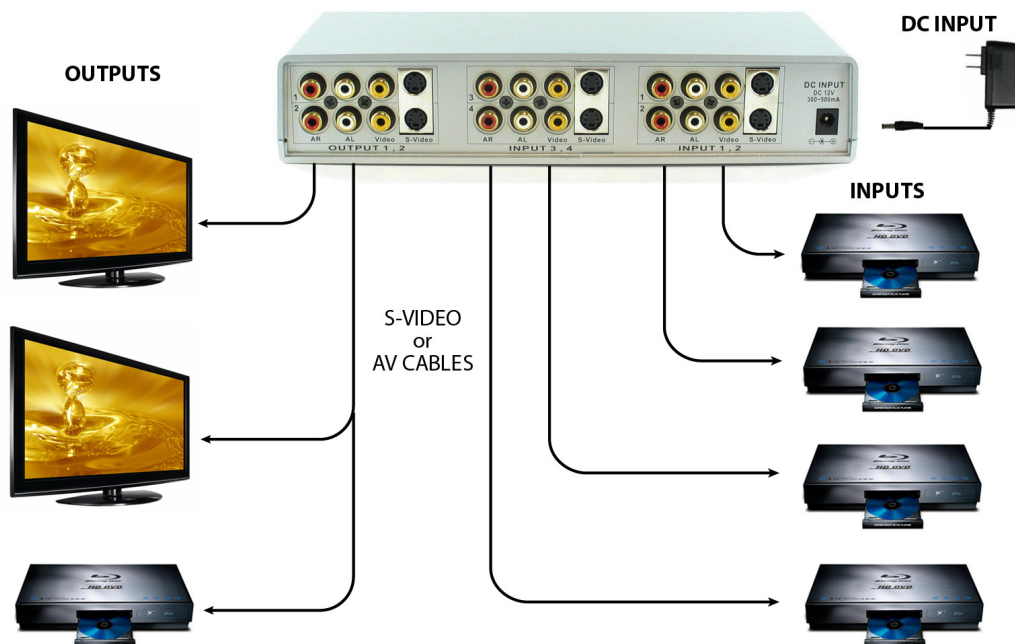
Input: (4) Composite/S-Video/Audio
Output: (2) Composite/S-Video/Audio
Power DC Input: DC12V@420mA

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.

4X2 S-VIDEO/COMPOSITE VIDEO AND STEREO AUDIO MATRIX SWITCHER

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



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