

Instruction Manual



MODEL : SB-5658p
1:8 HDMI DISTRIBUTION AMPLIFIER

HDMI Distribution Amplifier Series

Thank you for purchasing the SB-5658p HDMI Distribution Amplifier. 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 1:8 HDMI distribution amplifier.



SAFETY INFORMATION



1. 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.
2. Read all documentation before operating your equipment. Retain all documentation for future reference.
3. Follow all instructions printed on unit chassis for proper operation.
4. Do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
5. Make sure power outlets conform to the power requirements listed on the back of the unit.
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. 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.
8. Mains 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.
9. Power down & disconnect unit from mains voltage before making connections.
10. Never hold a power switch in the " ON " position.
11. Do not use the unit near stoves, heat registers, radiators, or other heat Producing devices.
12. 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 matter.
13. Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages. There are no user serviceable parts inside.
14. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
15. Non-use periods. The power cord of equipment should be unplugged from the outlet when left unused for a long period of time.
16. Service Information Equipment should be serviced by qualifier 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.

IMPORTANT SAFETY INSTRUCTIONS

To insure the best from this product, please read this manual carefully. Keep it in a safe place for future reference.

To reduce the risk of electric shock, do not remove the cover from the unit. No user serviceable parts inside. Refer servicing to qualified personnel.

To reduce the risk of fire, do not expose the unit to rain, water or excessive moisture.

Do not force switched or external connections.

When moving the unit disconnect the serial port connections first then the power cable and finally the interconnecting cables to other devices.

Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Use a clean dry cloth.

Installation of this unit should be in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold.

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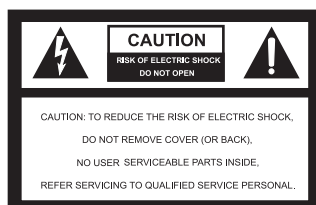
POWER AND CONNECTIONS

This unit is not disconnected from the AC power source as long as it is connected to the wall outlet. The off state for this unit is called standby mode. In standby mode the unit is designed to consume a reduced quantity of power compared to normal operating modes.

When not using the unit for a long period of time, insure that the AC power cord is disconnected from the wall outlet.

The AC wall outlet should be installed near to the unit and be easily accessible.

Do not plug in or attempt to operate an obviously damaged unit.



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 uninsulated "dangerous voltage" within the products enclosure that enclosure tha 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.

Caution: To prevent electric shock do not use this (polarised) 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

INSTRUCTION

The SB-5658p is high quality HDMI distribution amplifier, HD high performance designed to distribution HDMI signal. Providing I/O as following :

- > 1x input : 1x HDMI (Digital Video-TMDS and Audio)
- > 8 outputs : 8x HDMI (Digital Video-TMDS and Audio)

Automatic input/output HD signals detection:

- > PC monitor from VGA to UXGA
- > HDMI 480i To 1080p
- > DVI 480i To 1080p

The distributor support data rates up to 2.25 Gbps. And enable 1080 p HDMI formats and UXGA DVI resolution(1600x1200) to LCD and Plasma display applications.

Auto scan function software is built-in to extend HDMI signal for long distance.

This product is certified as being fully HDMI and HDCP compliant.

This product is also RoHS, CE, FCC compliant. Support high HDMI (HDCP) source to multiple HDMI (HDCP) displays, LCD monitors or HD projectors.

PACKAGE CONTENTS

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

1. Main console unit
2. Operating Instructions
3. IR Remote Controller (SW-5658A)
4. 19 inch 1RU(1 $\frac{3}{4}$ ") rack mount brackets
5. IR Extender receiver (SB-100)
6. Power Supply 12VDC, Universal Type 50/60Hz, 100~230 VAC

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 Shinybow immediately. Have the model number, Serial Number and Invoice available for reference when you call.

OPERATING THE UNIT

Once you have connected the SB-5658p as described above, you must be certain that the input are being fed appropriate signals and are not suffering from signal loss due to cabling problems or problems with the source device.

If the input signals to the SB-5658p are appropriate, switch the power switch to <ON> and you should see and hear the signals on the devices you have connected to the various output connectors of the SB-5658p.

FEATURES & SPECIFICATIONS

FEATURES

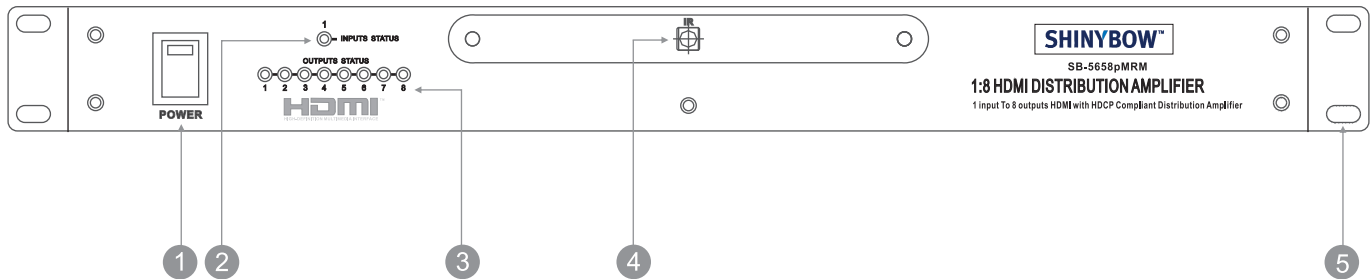
1. Support 1:8 HDMI Distribution Amplifier
2. I/O Signals : HDMI with HDCP Digital Video and Digital Audio (PCM)
3. HDMI and HDCP compliant
4. Support link speeds of up to 2.25 Gbps (link clock rate of 225 MHz)
5. Support wide range of PC resolutions from XGA to UXGA 1600x1200 and HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i & 1080p
6. Compatible with all HDMI devices, PC monitors, Plasma TV display and HDTV
7. Support Digital Video TMDS formats in Deep Color 12bits
8. Support colour depth of up to 36 bits and ensures robust transmission of high-quality uncompressed video content, along with state-of-the-art uncompressed and settop boxes.
9. Bi-direction colour space conversion(SCS) between RGB and YCbCr color spaces with programmable coefficients.
10. Auto-Scan input and outputs status via LED display on front panel
11. Control by Selection buttons on front panel and use IR Remote Controller
12. Support IR Extender port with 300M long distance in rear panel
13. Support desktop with Ear mount and 19 inch Rack mountable type panel
14. Power supply DC12Volt, Universal Type switch 100~230VAC, 50/60Hz

SPECIFICATIONS

1. Type of Distributor : 1x8 HDMI Distribution Amplifier
2. Signal Supports :HDMI Standard, DVI and HDCP Compliant
3. Video Supported:1080p HDMI formats and DVI UXGA 1600x1200 HD resolutions.
4. Audio Supported : DTS-HD Master Audio, Dolby True -HD & Dolby Digital Plus
5. Type of Signal: TMDS Digital Video PCM Digital Audio
6. Compliant with HDMI standard: HDMI and HDCP.
7. HDTV Support: 1080p HDMI formats and UXGA 1600x1200 resolution.
8. Controls: IR Remote and IR Extender (Distance Maximum 300M)
9. Data Rates: 250Mbps to 2.25 Gbps. Pixel clocks: 25MHz to 225 MHz.
10. HDMI Cable Distance: 10 meters at 2.25Gbps.
11. Various video input interface supporting digital video standards such as:
 - RGB/YCbCr : 24/30/36-bits
 - YCbCr :8/10/12/16/20/24-bits
 - Double data rate interface for RGB/YCbCr : 12/15/18-bits
12. Infrared frequency: 38KHz.
13. Safety Approvals: CE, FCC, RoHS(2002/95/EC).
- 14 .Dimensions : 19" x 7.87" x 1.75" (482mm x 200mm x 44mm)
15. Power Supply: DC12V/2A (Full load Consumption Maximum 1.25A)
16. Unit Weight : 2.45 Kgs (4.08 Lb)

FRONT PANEL

FRONT PANEL



1 POWER ON SWITCH

The power switch turns the unit on and off. The LED will illuminate red to indicate that the switcher is ON and is receiving power

2 SOURCE DEVICE STATUS DISPLAY

Source 1 to LED illuminates blue to indicate that a video source is present on that input.

3 SOURCE DEVICE STATUS DISPLAY

Channel 1~8 show by LED display.

4 IR SENSOR

The IR sensor receives IR commands from the supplied remote controller.

5 19 INCH EAR MOUNT PAIR

19 inch 1RU(1 $\frac{3}{4}$ ") rack mount brackets

CONNECTING THE HARDWARE

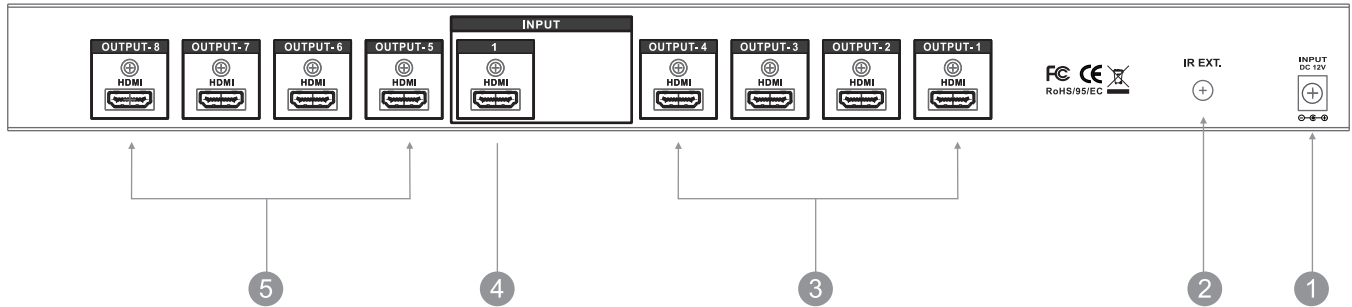
Please study the panel drawings below and become familiar with the signal input-output, Power requirements plus any controls present.

Before using the distributor, please take the time to make certain that the device you wish to connect to its inputs is functioning properly in all respects. Verify that the video and audio signals are present and are being displayed properly on a suitable device.

If all is well connect the appropriate cables between the output of the device you wish to distribute to output(s) of the distributor to the various devices you wish to feed a signal to. Lastly, connect the AC to DC adaptor, connect the DC connector to the distributor first and then plug the adaptor into a functional AC outlet.

REAR PANEL

REAR PANEL



1 DC POWER INLET

The distributor is fitted with a DC power plug input connector. Please ensure that the plug used is of an approved type and is of sufficient current carrying capacity with the correct voltage and connector polarity. 12Volt DC power supply 2A Max. ⊖ ⊕



Power Jack:
DC Jack - inner OD \varnothing 2.1mm (+)
Outside OD \varnothing 5.5mm (GND)
Power input - 12VDC, 2A

2 IR EXTENDER CONTROL

Support one of IR Extender
Extend distance maximum 300Meters

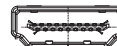


IR Extender Jack:
Female Jack - inner OD \varnothing 3.5 mm

4 INPUT - 1x HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources.

Input 1 - HDMI Digital Video/Audio, Connector with fix screw



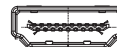
HDMI digital video/audio connector:
HDMI Female connector.

Note:
With the proper adapters, the distributor can be used with DVI digital video signals HDCP compliant.

3 5 OUTPUTS - 1,2,3,4,5,6,7,8 HDMI

Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMI digital video/audio and DVI digital video sources.

- Output 1 - HDMI Digital Video/Audio, Connector with fix screw
- Output 2 - HDMI Digital Video/Audio, Connector with fix screw
- Output 3 - HDMI Digital Video/Audio, Connector with fix screw
- Output 4 - HDMI Digital Video/Audio, Connector with fix screw
- .
- .
- Output 8 - HDMI Digital Video/Audio, Connector with fix screw



HDMI digital video/audio connector:
HDMI Female connector.

Note:
With the proper adapters, the distributor can be used with DVI digital video signals HDCP compliant.

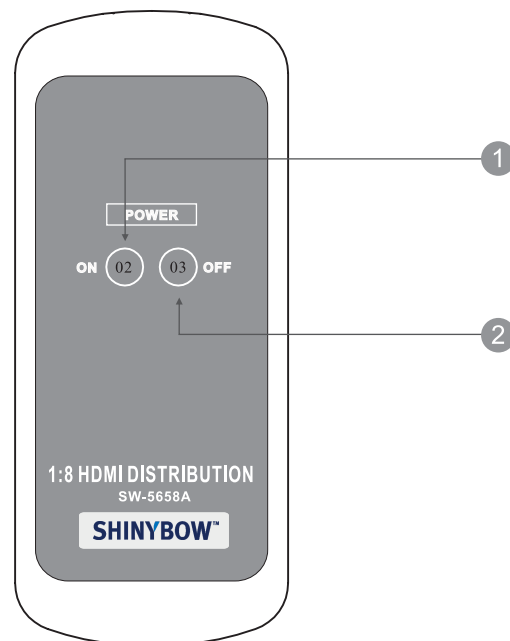
REMOTE CONTROL

Before making any connection to the SB-5658p. 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 supplied IR remote control.
- > Upon power up the distributor will return to its last used setting before Powered down.

REMOTE CONTROL

- 1
- 2 SWITCH POWER ON or OFF
Controller with a separate power ON and OFF



CONNECTING THE HARDWARE

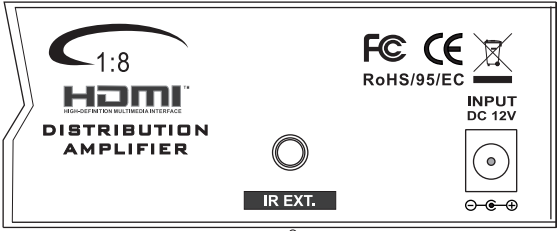
Please study the panel drawings below and become familiar with the signal input-output, Power requirements plus any controls present.

Before using the switcher, please take the time to make certain that the device you wish to connect to its input is functioning properly in all respects. Verify that the video and audio signals are present and are being displayed properly on a suitable device.

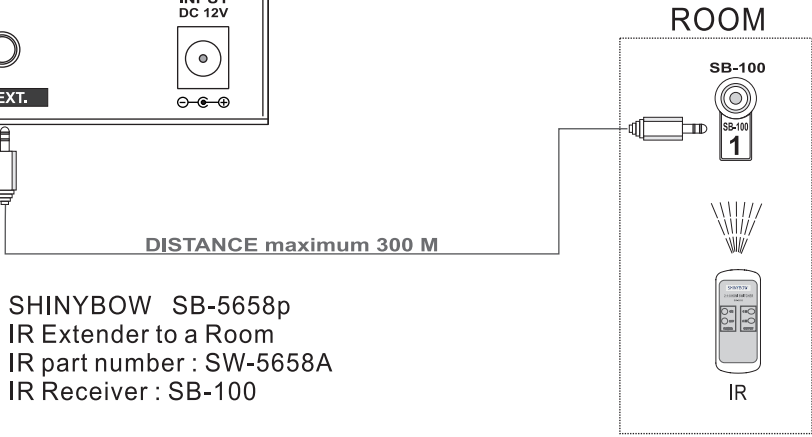
If all is well connect the appropriate cables between the output of the device you wish to distribute to output(s) of the switcher to the various devices you wish to feed a signal to. Lastly, connect the AC to DC adaptor, connect the DC connector to the switcher first and then plug the adaptor into a functional AC outlet.

IR EXTENDER

REAR PANEL IR EXTENDER PORT



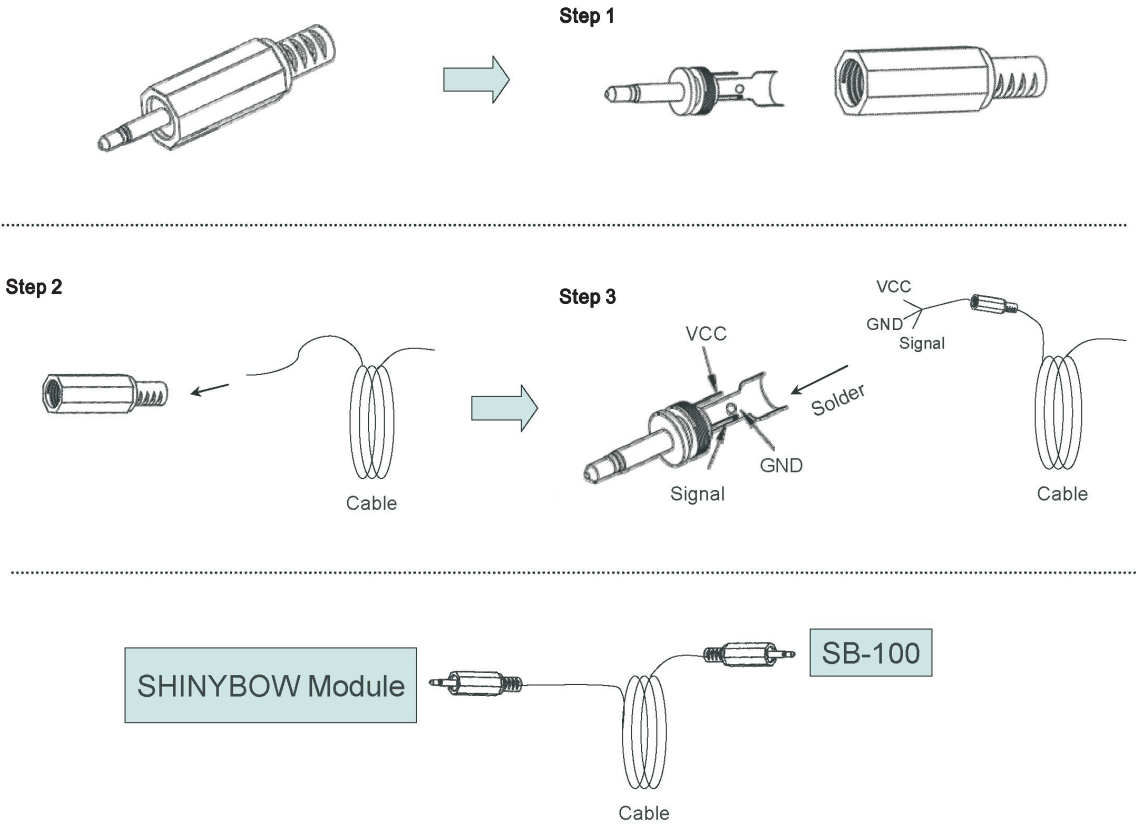
IR EXTENDER CONNECTION



SHINYBOW SB-5658p
 IR Extender to a Room
 IR part number : SW-5658A
 IR Receiver : SB-100

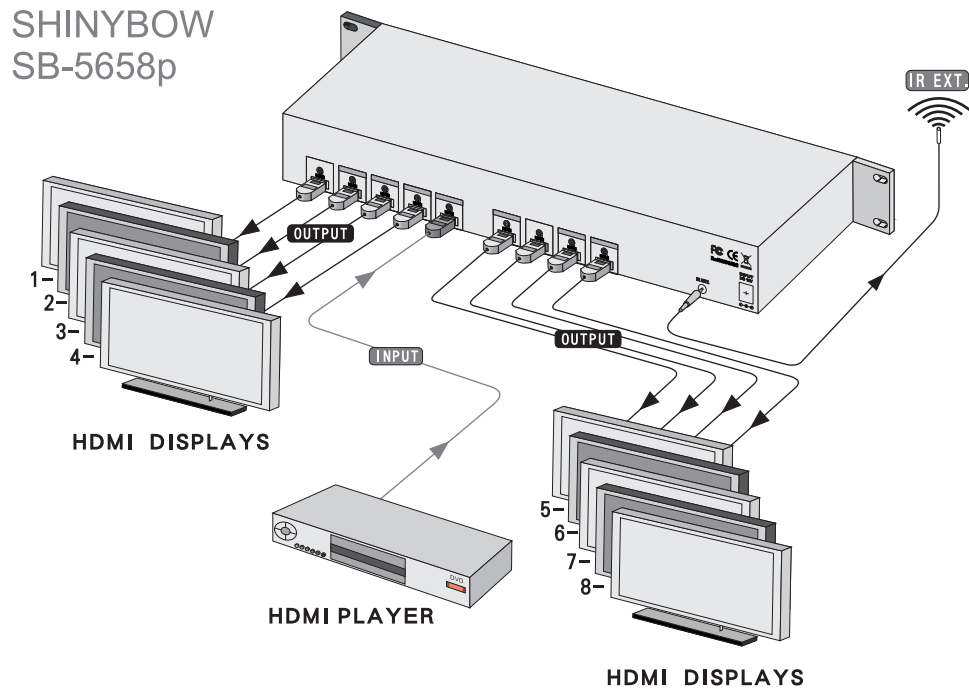
IR EXTENDER PACKAGE :

HOW TO SETUP THE IR EXTENDER COMPONENTS



TYPICAL APPLICATION

1x HDMI source to 8x HDMI displays Distribution Amplifier



INSTALLING

CONTROL PORTS :

1. IR EXTENDED - IR Extend with Distance 300M Maximum

INPUT PORT SIGNAL :

1. HDMI - HDMI connector with fix screw

OUTPUTS PORT SIGNALS :

1. HDMI - HDMI connector with fix screw
2. HDMI - HDMI connector with fix screw
3. HDMI - HDMI connector with fix screw
4. HDMI - HDMI connector with fix screw
5. HDMI - HDMI connector with fix screw
6. HDMI - HDMI connector with fix screw
7. HDMI - HDMI connector with fix screw
8. HDMI - HDMI connector with fix screw

SB-5658p SUPPORT ONE HDMI INPUT TO EIGHT HDMI DISTRIBUTOR OUTPUTS
SUPPORT IR & IR EXTENDER PORT.

LIMITED WARRANTY

SHINYBOW WARRANTY

SHINYBOW Technology warrants this product against defects in materials and workmanship for a period of **1 year** from the date of purchase.

Should this product, in SHINYBOW Technology's opinion, prove defective within this warranty period, SHINYBOW Technology, at its option, repair this product without charge, to whatever extent it shall deem necessary to restore said product to proper operation condition.

This warranty does not apply if the fault has been caused by misuse, improper handling care, electrical or mechanical abuse, and abnormal operating condition 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 the signal being fed to its inputs is acceptable.

Disconnect the cables from 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 be the 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.

The second most common problem with this 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 problem.

You also must use the highest quality cables if you want to achieve the best results. Poor quality cables will provide poor quality signals.

SHINYBOW™ USA

MULTIMEDIA AUDIO AND VISUAL

1399 Wildfire Lane | Frisco, TX 75034

1-877-SHINY-USA

1-877-744-6987

1-972-377-2508

sales@shinybowusa.com

www.shinybowusa.com
