SHINYBOW™ USA

MULTIMEDIA AUDIO AND VISUAL

INSTRUCTION MANUAL

MODEL : SB-5685LCM

8x5 HDMI MATRIX SWITCHER



8x5 HDMI MATRIX SWITCHER

HDMI Matrix Switcher Series

Thank you for purchasing the SB-5685LCM HDMI Matrix Switcher. You will find this unit easy to install and highly reliable but it is essential that you read this manual throughly before attempting to use 8x5 HDMI Matrix 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 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.

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INTRODUCTION

The SB-5685 is professional 8x5 matrix routing switch. Supporting eight (8) HDMI Inputs. Output supported (5) HDMI and (1) Preview output (same output-01). The SB-5685 is based on the HDMI standard and supports full resolution HDMI Video with embedded EDID. With a signal bandwidth of 340Mhz, there is no signal degradation. High Definition Digital signals can be selected and distributed to any (8) Inputs to (5) outputs simultaneously. The Switcher is certified as being fully CEC and HDCP 2.0 compliant, full HD HDMI V1.4a 3D formats, data rates up to 6.75 Gbps. Supports UXGA/WUXGA/DVI 1920x1200 resolution to any HD displays. The Switcher is certified as being fully HDMI and HDCP compliant, with RoHS,CE,FCC certification. Support high resolution HDMI sources routed to HDMI displays, monitors, projector or audio receivers. The EDID management can be selected between eight (7) different modes. Control is provided via Front panel push buttons, IR remote, RS-232 or TCP/IP (not a web-browser). An RS-232 Windows GUI interface is provided for matrix routing control (Windows only).

PACKAGE CONTENTS

Check that you have the following components;

- SB-5685LCM Matrix Routing Switcher
- RS-232 V2.0 Protocol Instructions
- Ethernet V2.0 Protocol Instructions
- Master wireless IR Remote Control (SW-5685)
- 19 inch Ear mount bracket (Part # 1U-440L)
- SB-100 IR Extender distance ~984 feet (300M) Receiver set
- SB-100C IR Extender distance 6ft(2M) Receiver Cable.
- CD Contents : This manual, Windows GUI, ISP V1.0 Windows driver
- RS-232 Cable 6 feet (2M)
- ISO Screws
- Users Guide
- Worldwide Universal Power Supply: DC12V, 5A,
- Input:(100~230 VAC, AC 50/60Hz.)









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.

DISCLAIMERS

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Version 1.4 JULY 2014

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FEATURES & SPECIFICATIONS

FEATURES

- 8x HDMI digital source devices matrix switched to 5x HDMI devices.
- HDMI digital video w/embedded audio, DVI format and CEC/HDCP 2.0 compliant
- Seven (7) function key control and worldwide (8) EDID modes for HDTV resolutions.
- Link speeds of up to 6.75 Gbps (link clock rate of 340Mb Hz), Support HDMI 1.4a 3D formats.
- Wide range of HD resolutions from PC XGA to WUXGA 1920x1200 and HDTV/DTV resolutions 480i/480p, 576i/576p, 720p, 1080i & 1080p
- Compatible with all HDMI source devices, PC monitors, Plasma HD display, HDTV and audio receivers/amplifiers.
- Digital Video TMDS formats Resolutoin up to 1080P-60 with Deep color 36-bit.
- Digital Audio Support : Dolby TrueHD, Dolby Digital, Dolby Digital Plug/ex, DTS, DTS-HD, DTS-HD Master, DTS-EX, PCM, PCM2, LPCM2
- Various User Interface control:
    - Windows based GUI control via RS-232 port
    - Windows based GUI control via TCP/IP port (not a web-browser)
    - Front Panel push button
    - IR wireless remote control
    - Third party RS-232 controller (via simple ASCII)
    - Ethernet TCP/IP series interface (switch control)
- Support world wide control functions: ALL/OFF/RECALL/ENTER/MEMORY/EDID/LOCK
- Support EDID modes :
    - Embedded EDID modes : FSS/H24-3D/H24-3D-M/H36-3D/H36-3D-M/DVI-D 1280x1024-60Hz/DVI-D 1920x1200-60Hz/AUTO
    - External modes : Learning mode
- Automatic scanning input & output status via LED show on front panel.
- Support preview output port simultaneously output #1.
- Support IR Remote and IR Extender with distance up to ~ 928’ (300M) Maximum.
- EDID configuration via Internal modes.
- Consumer Electronic Control (CEC) switch all open or OFF

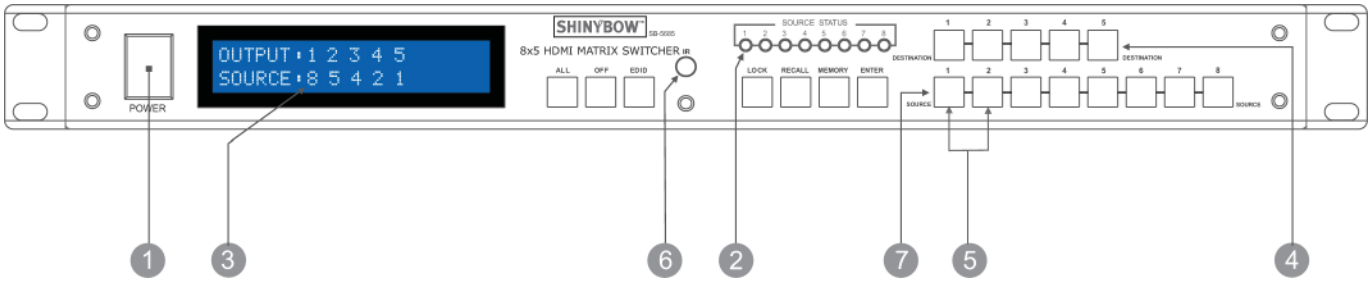
The Switcher will remember that last state during a power cycle. When power is removed and resorted, the last configuration will be invoked.

SPECIFICATIONS

- **Type of Switcher:** 8x HDMI inputs To 5x HDMI Outputs Matrix Switcher
- **HDMI Support:** HD 1080p-@60Hz, H36-bit Deep color, 3D (1.4a) formats
- **HDCP / CEC Support:** HDCP 2.0 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 225Mhz, Total 6.75Gbps bandwidth
- **Digital Video Support:** Full HD resolution: 480i / 480p / 720p / 1080i / 1080p
- **Digital Audio Support:** Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6.1, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- **Controls:**
    - 1x IR Remote Controller (remote switcher)
    - 1x Select & Function buttons on front panel
    - 1x IR External port (switch control)
    - 1x RS-232 series interface (switch control)
    - 1x Ethernet series interface (switch control)
- **Preview Output:** Support 1x preview output port simultaneously via Output-#1
- **Source Status:** Automatically Scan Sources Inputs via LED
- **Function Control Key:** ALL / OFF / RECALL / ENTER / MEMORY / LOCK / EDID
- **Infrared Frequency:** 38 Khz
- **IR External Distance:** ~1000 feet / 300 meters maximum
- **HDMI I/O Connector:** HDMI Type A - SMD 19pin Female Type
- **Temperature:** 32 °F - 100 °F Operation (0 °C - 38 °C)
- **Dimensions (LxWxH):** 19* x 9.85 x 1.75 in (*with rackmount bracket) (482 x 250 x 44 mm)
- **Rack Mount:** 1RU High 19in Rack Mount (with rack mount)
- **Power Supply:** DC12V / 5A, Universal world wide Type 50/60Hz, 100~230 VAC
- **Power Consumption:** 3500 mA Maximum
- **Safety Approvals:** CE, FCC,Erp, WEEE, REACH.
- **Product Weight:** 2.40 Kgs / 4.0 lb

As product improvements are continuous, specifications are subject to change without notice.
Because of limitations on source and display devices, not all EDID data is compatible and subsequently not all equipment will function correctly with this switcher.

FRONT PANEL



1. POWER SWITCH

The power switch turns the unit on and off. The LCM will illuminate red to indicate that the switcher is ON and is receiving power.
The Switcher will remember that last state during a power cycle. When power is removed and resorted, the last configuration will be evoked.

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2. INPUT STATUS DISPLAY

Input sources 1 to 5 LCM illuminates blue to indicate that a video source is present on that input.

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3. OUTPUT STATUS DISPLAY

Each Output (destination) Channel shows which input (source) is assigned.

---

4. DESTINATION SELECT BUTTONS

Separate outputs 1 thru 5 select buttons are provided for each destination assignment.
Routing can be Source to Destination or one source to multiple destinations.
Example : Press Destination 1,3,5 then press Source 2 will route Input 2 to Output 1,3,5 respectfully.

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5. EDID MODE SELECT BUTTONS

Used to select EDID mode using Input buttons #1 and #2.

---

6. IR SENSOR

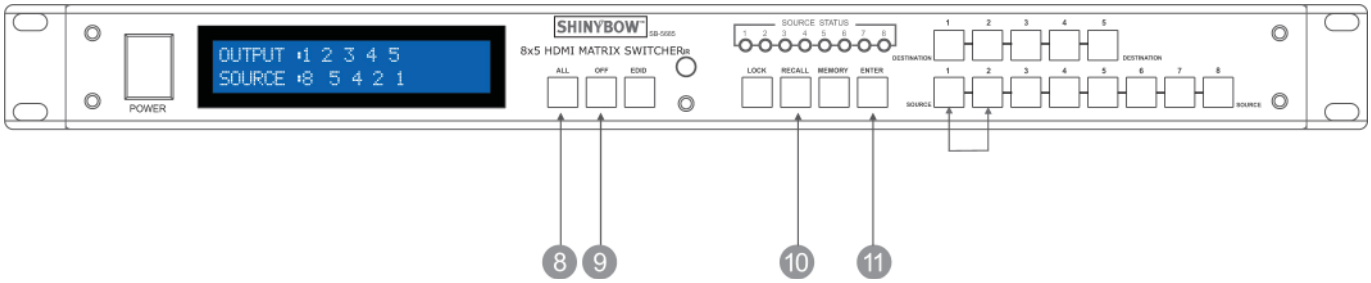
The IR sensor receives IR commands from the supplied remote controller or third party IR emitter.

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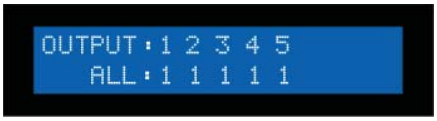
7. SOURCE SELECT BUTTONS

Separate inputs 1 thru 8 select buttons are provided each source selection.

FRONT PANEL



8. FUNCTION KEY - ALL



Disables (mute) video on all destinations OR Selects the same source to all destinations.
Option 1
- Press ALL followed by **OFF** button. The display will show " 0 " indicating all destinations have no video selected.

Option 2
- Press **ALL** followed by Source 1 thru 8. The display will show the Source selected.
- Press **ENTER** The pre-set source selection will be assigned all destinations.

---

9. FUNCTION KEY - OFF



Disables (mute) video to selected channels. Either destinations.
- Press **OFF** button followed by any Destination channel.
- Press 1 thru 5 output destination. The display will show " 0 " for the selected channel indicating no video selected.

---

10. FUNCTION KEY - RECALL





The system will show previously stored presets, up to a total of 13.
Presets are stored in local memory using Source keys 1 thru 8 or Destination keys 1 thru 5 as the memory preset location.
- Press **RECALL** button.
- Press 1 thru 8 on either Source or Destination row
- Press **ENTER** The pre-set configuration will execute.

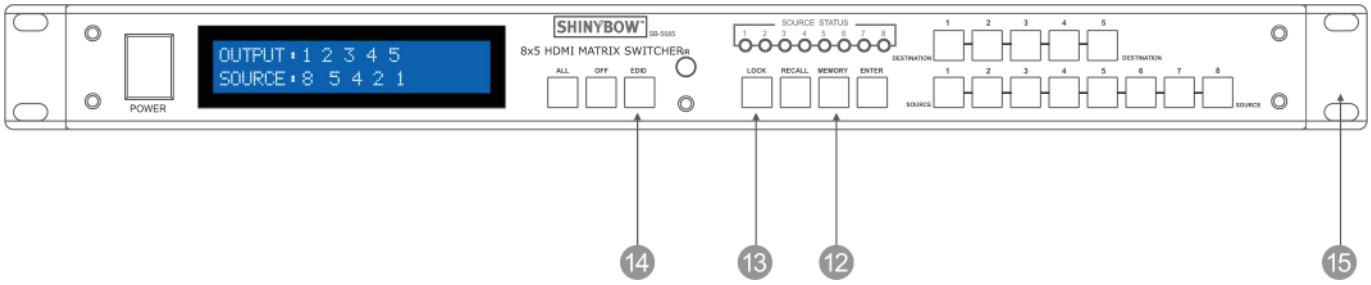
Operation completes.
Note: Operation will abort if no keys are dressed within 5 seconds.

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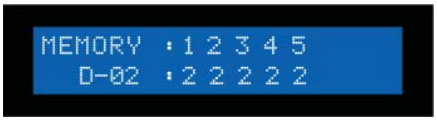
11. FUNCTION KEY - ENTER

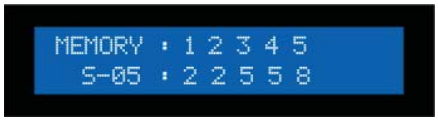
Press **ENTER** to confirm entries.

FRONT PANEL



12. FUNCTION KEY - MEMORY





The system will show store presets, up to a total of 13.
Presets are stored in local memory using Source keys 1 thru 8 or Destination keys 1 thru 5 as the memory preset location.

- Configure desired matrices.
- Press **MEMORY** button.
- Press 1 thru 8 on either Source or 1 thru 5 Destination row.
- Press **ENTER** to ready memory location.
- Or press **MEMORY** again to cancel operation.

Operation completes.
Note : Operation will abort if no keys are pressed within 5 seconds.

---

13. FUNCTION KEY - LOCK



- Press and hold **LOCK** button for two seconds lockout the front panel.
- Press and hold **LOCK** button for two seconds to enable the front panel.

---

14. FUNCTION KEY - EDID





- Press **EDID** to select new EDID mode or select source row #1 or #2 for LINK source EDID again.
- Press the **DESTINATION** # to learn EDID the Destination EDID has been learned.

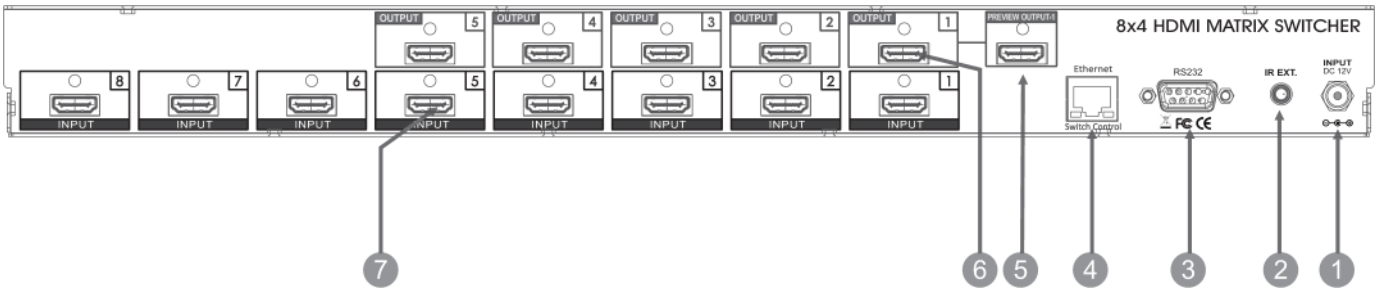
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15. 19 INCH EAR MOUNT PAIR

Converts desktop to 19 inch rack mount. Bracket (part # 1U-440L) INCLUDED.
Image shows rack mount bracket attached.

REAR PANEL

REAR PANEL



1. DC POWER INLET

The Switcher is fitted with a DC power plug input connector. Ensure that the used is of an approved type and is of sufficientcurrent carrying connector capacity with the correct voltage and connector polarity. 12Volt DC power supply 5A Max (Center pin positive).



Power Jack:
DC Jack - Inner OD ⦰ 2.1mm (+)
Outside OD ⦰ 5.5mm (GND)
Power input - 12VDC, 5A

2. IR EXTENDER CONTROL

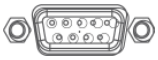
Support one of IR Extender (IR input). Extend distance maximum 984 feet (300 meters).
Note: DO NOT install or remote this connection with the power ON.



IR Extender Jack: Female Jack - inner OD ⦰ 3.5 mm

3. RS-232 CONNECTION

RS 232 control port to allow for interfacing to a PC Such as a computer or touch panel control, to the switcher via this DB-9pin Female connector for serial RS-232 control.



Remote port : DB-9pin Female connector

4. ETHERNET CONNECTION

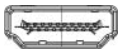
ETHERNET control port to allow for TCP/IP interfacing to a PC Such as a computer or touch panel control (not a web-browser), to the switcher via this RJ-45 Female connector to control switcher.



Remote Port: Control the switcher RJ-45 Female connector.
Ethernet Port: ***Note: the Ethernet port and RS-232 port cannot be used simultaneously.*** Any connection to the Ethernet port will disable serial commands send to the RS-232 port.

5. PREVIEW OUTPUT-01 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. **Preview port HDMI signal as the same as Output #1**



HDMI Digital Video/Audio Connector: HDMI Female connector.
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI does not support audio.

6. INPUTS- 1,2,3,4,5,6,7, & 8 HDMI

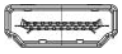
Connect a signal link of HDMI direct digital video/audio to this Female HDMI connector. This connector supports HDMIdigital video/audio and DVI digital video sources.
HDMI Digital Video/Audio, Connector with fix screw Input 1 ~ Input 8



HDMI Digital Video/Audio Connector: HDMI Female connector.
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI does not support audio.

7. OUTPUTS- 1,2,3,4 & 5 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.
HDMI Digital Video/Audio, Connector with fix screw Output 1 ~ Output 5



HDMI Digital Video/Audio Connector: HDMI Female connector.
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. DVI does not support audio.

REMOTE CONTROL

Before making any connections to the SB-5685LCM. 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 1~8 select buttons. The supplied IR remote control. Or through the RS-232 serial communications port.

> Upon power up the switcher will return to its last used setting before Powered down.

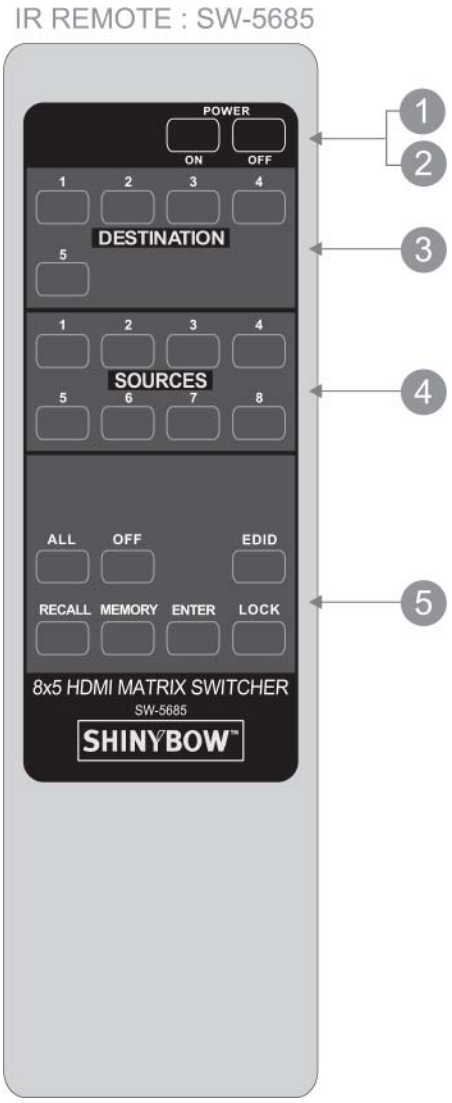
REMOTE CONTROL

1. & 2. SWITCH POWER ON or OFF:
Controller with a power ON and OFF

3. DESTINATION : 1 thru 5 OUTPUT SELECTION:
Press the destination button to select the output display channel.

4. SOURCE : 1 thru 8 INPUT SOURCE SELECTION:
Press input 1~8 sources with selection button

5. FUNCTION KEY:
ALL - function selection button
OFF - function selection button
EDID - function selection button
RECALL - function selection button
MEMORY - function selection button
ENTER - function selection button
LOCK - function selection button



IR REMOTE CUSTOM AND DATA CODES (NEC STANDARD)

HOW TO SETUP IR CODES

CUSTOM CODE : 23DC

DATA CODE :
POWER ON : 23DC A15E
POWER OFF : 23DC A25D
ALL : 23DC B04F
OFF : 23DC B14E
EDID : 23DC B748
LOCK : 23DC B54A
RECALL : 23DC B24D
MEMORY : 23DC B44B
ENTER : 23DC B34C

PRESS TV DESTINATION - # then PRES AV SOURCE - #
DESTINATION #1 : 23DC 10EF
DESTINATION #2 : 23DC 20DF
DESTINATION #3 : 23DC 30EF
DESTINATION #4 : 23DC 40BF
DESTINATION #5 : 23DC 50AF

SOURCE #1 : 23DC 01FE
SOURCE #2 : 23DC 02FD
SOURCE #3 : 23DC 03FC
SOURCE #4 : 23DC 04FB
SOURCE #5 : 23DC 05FA
SOURCE #6 : 23DC 06F9
SOURCE #7 : 23DC 07F8
SOURCE #8 : 23DC 08F7

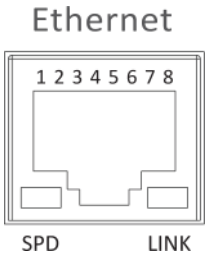
For example: Select Destination # 1 to show Source #1~8

The IR Data Code list :
Destination # 1, Source #1 23DC 10EF 23DC 01FE
Destination # 1, Source #2 23DC 10EF 23DC 02FD
Destination # 1, Source #3 23DC 10EF 23DC 03FC
Destination # 1, Source #4 23DC 10EF 23DC 04FB
Destination # 1, Source #5 23DC 10EF 23DC 05FA
Destination # 1, Source #6 23DC 10EF 23DC 06F9
Destination # 1, Source #7 23DC 10EF 23DC 07F8
Destination # 1, Source #8 23DC 10EF 23DC 08F7

ETHERNET SERIAL INTERFACE

ETHERNET SERIAL INTERFACE CONNECT A PC OR CONTROL SYSTEM. VERSION COMPATIBLE V2.0

For a complete list of commands, please reference external document extended Ethernet Protocol Instruction Manual.



Note :
Control the switcher
SPD : Speed
LINK : Ethernet link
RJ-45 Female 8P-8Cconnector

ETHERNET SERIAL INTERFACE

Pin	Ethernet	Reference
1	TXOP	TX +
2	TXON	TX -
3	RXIP	RX +
4	NC	
5	NC	
6	RXIN	RX -
7	NC	
8	GND	

ETHERNET TCP/IP PROTOCOL COMMANDS (Ethernet / RS-232 Control driver V2.0)

**** The Ethernet port and RS-232 port cannot be used simultaneously.*
*Any connection to the Ethernet Control port will disable serial commands send to the RS-232 port.****

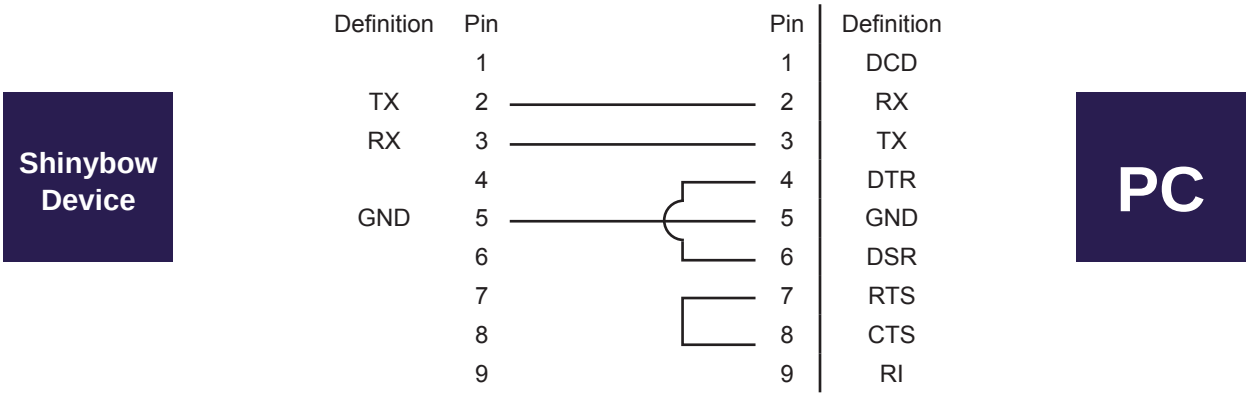
RS-232 SERIAL INTERFACE

RS-232 SERIAL INTERFACE CONNECT A PC OR CONTROL SYSTEM. VERSION COMPATIBLE V2.0

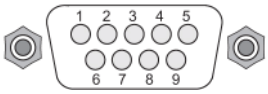
For a complete list of commands, please reference external document extended RS-232 Protocol Instruction Manual.

RS-232 Configuration

RS-232 cable is a straight thru cable and not null-modem



RS-232 Pin Diagram



RS-232 SERIAL INTERFACE PROTOCOL COMMANDS (Ethernet / RS232 Control driver V2.0)

The Shinybow switcher can be controlled via the RS-232 serial control port to allow for interfacing to a PC, or similar third party control system.

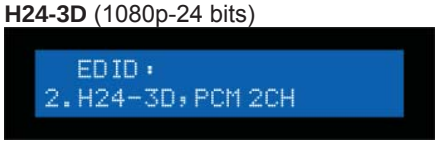
The serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1. When the unit recognises a complete command it will perform the requested action - there is no delimiter character required.

EDID FUNCTION

EDID FUNCTION SETUP

EDID Setup	To change the EDID setup
Step 1 . Press the EDID button	The display will show the currently selected EDID mode
Step 2 . Press SOURCE #1 or #2 button row	The button will flash blue and the display will show the current Embedded EDID Status.
Step 3 . Press the ENTER button	To set EDID mode. The switcher will return to operation mode.
Operation will abort if no keys are pressed within 5 seconds.	
Embedded EDID modes	**Total 8 EDID Modes**
Embedded EDID setup Press [EDID] > [SOURCE] > [ENTER] SOURCE #1 or SOURCE #2 	To select Embedded EDID mode or LEARNING mode. Press EDID button : The LCM will show the current EDID status. Repeatedly depressing the source 1 button will cycle up thru the options. Repeatedly depressing the source 2 button will cycle down thru the options. Embedded EDID : Mode 1 : FSS Mode 2 : H24-3D Mode 3 : H24M-3D Mode 4 : H36-3D Mode 5 : H36M-3D Mode 6 : DVI 1280x1024-60Hz Mode 7 : DVI 1920x1200-60Hz Mode 8 : AUTO

EDID FUNCTION : 7X EMBEDDED EDID MODES

EDID Function	8x Embedded EDID Modes
Mode 1. FSS (Fast Speed Start) 	Fast Speed Start mode shortens the startup time of the switcher. Selecting this mode does not force the EDID setup to be cancelled. Users may first select one EDID mode from mode 2 to 3, and then select mode 1 for fast speed start.
Mode 2. H24-3D (1080p-24 bits) 	Audio Support : PCM 2CH
Mode 3. H24-3D-M (1080p-24bits) 	Audio Support : MAT(MLP) 7.1CH, PCM 2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS 5.1CH, PCM 7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH
Mode 4. H36 (1080p-36 bits) 	Audio Support : PCM 2CH
Mode 5. H36-M (1080p-36 bits) 	Audio Support : MAT(MLP) 7.1CH, PCM 2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS 5.1CH, PCM 7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH

EDID FUNCTION

Mode 6. 1280x1024-60Hz (DVI-D) 	DVI Support : DVI-D 1280x1024 60Hz
Mode 7. 1920x1200-60Hz (DVI-D) 	DVI Support : DVI-D 1920 x 1200 60Hz

EDID FUNCTION FOR HDMI MATRIX SWITCHER

RESET	**EDID Return To Factory default**
How to RESET EDID mode Press EDID > SOURCE > ENTER  	To RESET the FACTORY DEFAULT (1080p-2CH). Press EDID button : The LCM will show the current EDID status. Press RECALL button : The LCM will show the RESET EDID. Press ENTER to confirm entries. The EDID will return to FSS mode and resolution 1080p-2CH.
LEARNING EDID	**Learning EDID from Destination to Source**
Learning EDID setup Press EDID > DESTINATION > SOURCE > ENTER 	.Press:EDID > DESTINATION #1 > Switcher will LEARN destination #1 EDID and pass the selected source.

NOTE : The already learned EDID cannot be modified. You can only rebuild a new Learning EDID.

For example; When the Source has “Learned” the EDID data from a destination, It will save that EDID information into EPROM and the EDID data cannot change.

Please select new learning destination to sources or change to one of the embedded EDID modes when you want to remove the learning EDID memory from EPRPM.

EDID FUNCTION

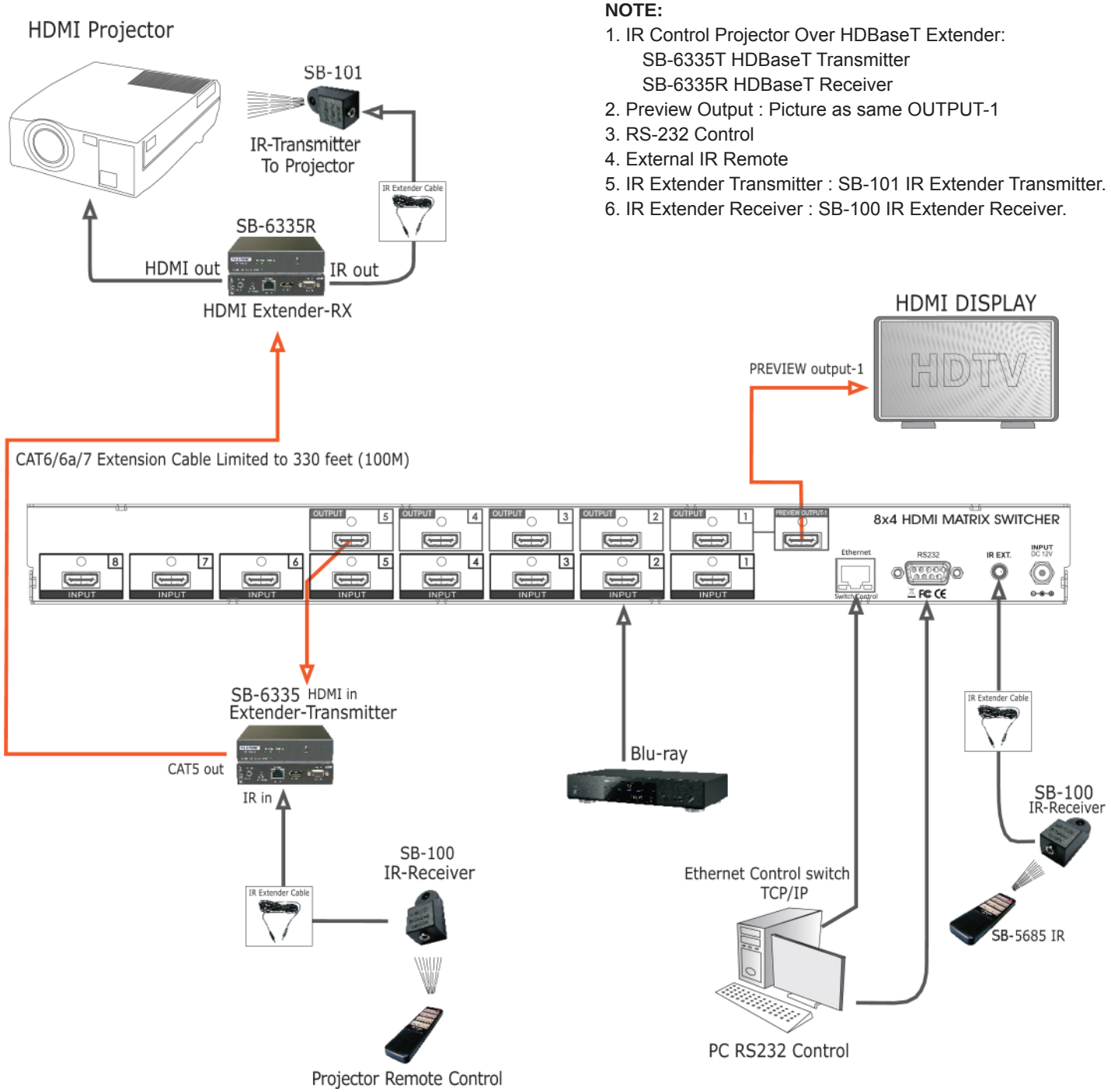
EDID FUNCTION FOR HDMI MATRIX SWITCHER

Learning EDID Single to Single	**Example : Learn Destination #5 EDID To Source #3.**
Step 1 . Press EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2 . Press the Destination #5 button row	Copy the Destination #5 Display EDID.
Step 3 . Press the Source #3 button row	Learning the Destination #5 EDID To Source # 8.
Step 4 . Press ENTER button	To confirm entries.
Learning EDID Single to multiple	**Learning destination EDID link to the majority Sources**
Step 1 . Press EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2 . Press the Destinations #1~5 button row	Copy any 1~5 Destinations EDID.
Step 3 . Press the Source #1, #6,~#8 button row	Learning the Destination EDID link to source #1,#6,~#8 .
Step 4 . Press ENTER button	To confirm entries.
Learning EDID Single to ALL	**Learning destination EDID link to All Sources**
Step 1 . Press EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2 . Press destination button 1 thru 5	Learning anyone 1~5 Destination EDID to all sources.
Step 3 . Press ALL button	Learning selected destination EDID to all sources.
Step 4 . Press ENTER button	To confirm entries.
EDID status	**To view the current EDID status.**
Step 1 . Press EDID button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2 . Press EDID button	To exit.
How to setup FSS® Function	**Fast Speed Start®**
Step 1 . Press the Destination #1~5 button row Then Press the Source #1~8 button row	To setup and Install all devices.
Step 2 . Press EDID button	Select a optimum status of Embedded EDID mode.
Step 3 . Press ENTER button	To confirm entries.
Step 4 . Press EDID button	To select the EDID FSS® mode.
Step 5 . Press ENTER button	To confirm entries.
LEARNING EDID definition	**Learning EDID from Destination to Source**
1. Switcher will LEARN destination EDID and pass the selected source.	
2. To set up learning between a single destination and single source: Press EDID button > Press Destination 1 thru 8 > Press Source 1 thru 8 > Press ENTER to confirm. Switcher will learn destination EDID to source device.	
3. To set up learning between a single destination and Multiple sources: Press EDID button > Press Destination 1 thru 8 > Press the majority Sources 1 thru 8 > Press ENTER. Switcher will learn single destination EDID to many source devices.	
4. How to Learning single destinations with all sources. Press **EDID** button > Press **ALL** button > Press **ENTER** to confirm.	

TYPICAL APPLICATION

INSTALLING DIAGRAM

Sample connection using RS-232 serial interface or Ethernet TCP/IP to control switch (SB-5685) and to extra HDMI HDTV, preview output port simultaneously via Output-#1 Display or Monitor.



NOTE:

1. IR Control Projector Over HDBaseT Extender:
   SB-6335T HDBaseT Transmitter
   SB-6335R HDBaseT Receiver
2. Preview Output : Picture as same OUTPUT-1
3. RS-232 Control
4. External IR Remote
5. IR Extender Transmitter : SB-101 IR Extender Transmitter.
6. IR Extender Receiver : SB-100 IR Extender Receiver.

Support HDBaseT Extender by SB-6335T Transmitter and SB-6335R Receiver via CAT5e/6/7 cable

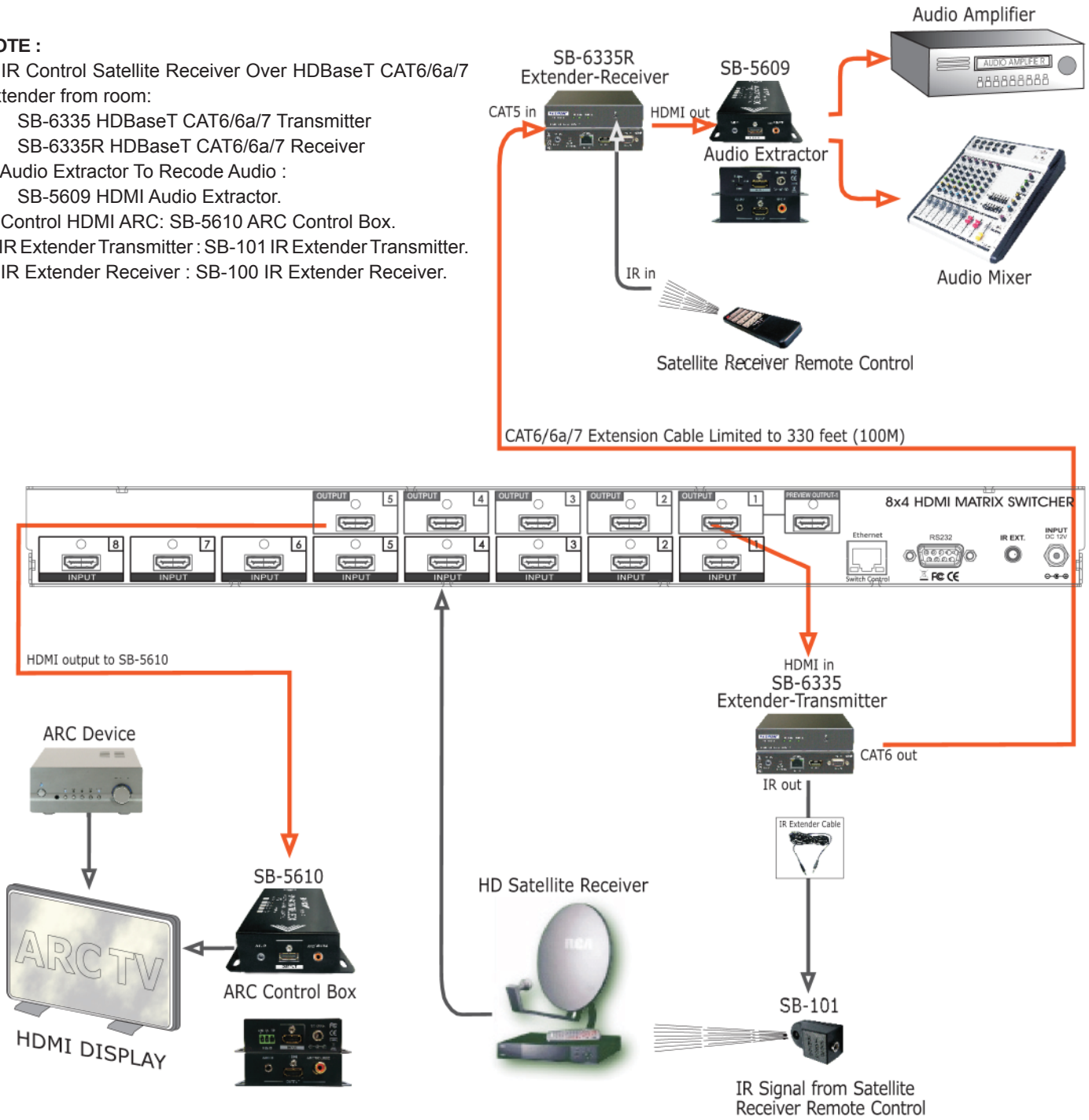
TYPICAL APPLICATION

INSTALLING DIAGRAM

Sample connection using Audio Extractor (SB-5609) to Audio Amplifier and ARC Control Box (SB-5610) link TV Return Audio to Audio Device, Control a Satellite Receiver source via HDBaseT Transmitter (SB-6335T) and Receiver (SB-6335R).

NOTE :

1. IR Control Satellite Receiver Over HDBaseT CAT6/6a/7 Extender from room:
   SB-6335 HDBaseT CAT6/6a/7 Transmitter
   SB-6335R HDBaseT CAT6/6a/7 Receiver
2. Audio Extractor To Recode Audio :
   SB-5609 HDMI Audio Extractor.
3. Control HDMI ARC: SB-5610 ARC Control Box.
4. IR Extender Transmitter : SB-101 IR Extender Transmitter.
5. IR Extender Receiver : SB-100 IR Extender Receiver.



Support HDBaseT Extender by SB-6335T Transmitter and SB-6335R Receiver via CAT6/6a/7 cable.

IR EXTENDER

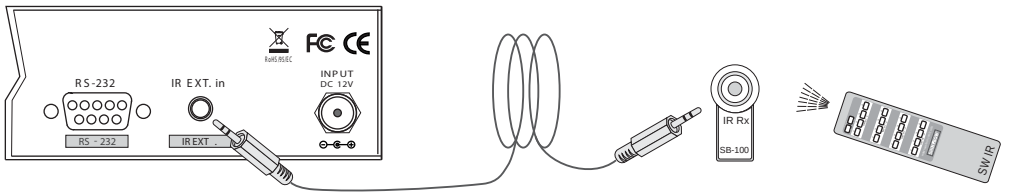
IR RECEIVER:

1. SB-100 IR 300M Receiver

Device Cable (3C) IR Receiver (SB-100)



SB-100 IR Receiver Set



SB-100 Maximum Distance ~ 984 feet (300 meters)

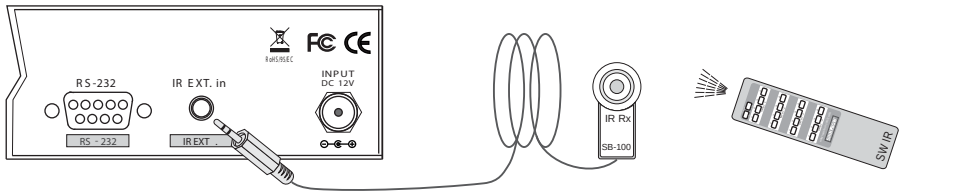
2. SB-100C IR 2M Receiver

Device Cable (3C) IR Receiver (SB-100C)

IR Receiver cable 6ft (2M)



SB-100C IR Receiver Cable



SB-100C Maximum Distance ~ 6 feet (2 meters)

**** When you plug the External IR extender into the switcher, the front panel IR receiver remains active. ****

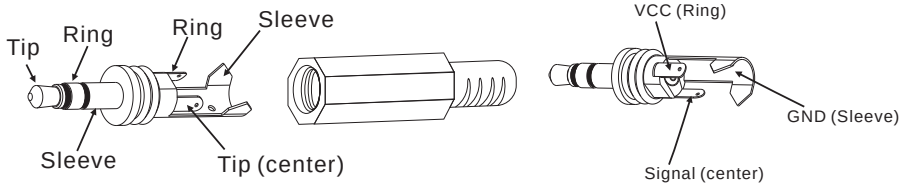
PIN CONFIGURATION:

SB-100 and SB-100C Receiver Pin configuration



SB-100 IR Receiver Set

Tip: Signal
Ring :VCC
Sleeve: GND



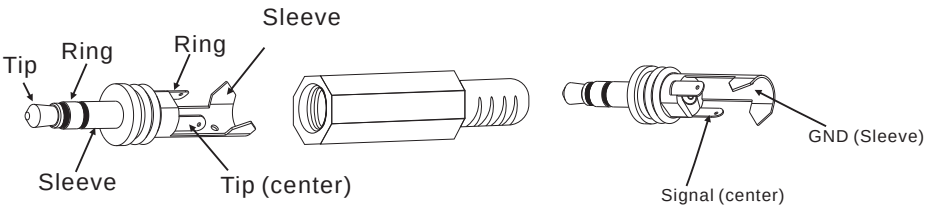
SB-100 Maximum Distance ~ 984 feet (300 meters)

IR Receiver cable 6ft (2M)



SB-100C IR Receiver Cable

Tip: Signal
Ring: NC
Sleeve: GND



SB-100C Maximum Distance ~ 6 feet (2 meters)

Note: *The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

IR EXTENDER

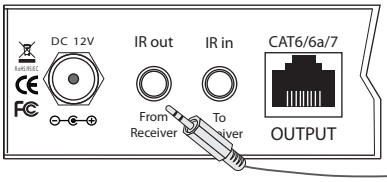
IR EMITTER:

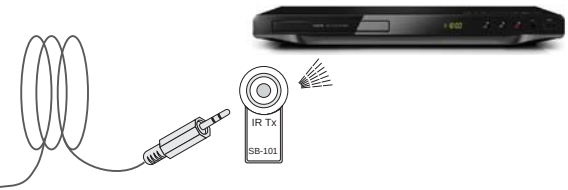
1. SB-101 IR 300M Transmitter

Device | Cable (3C) | IR Transmitter (SB-101)



SB-101 IR Transmitter Set





SB-101 Maximum Distance ~ 984 feet (300 meters)

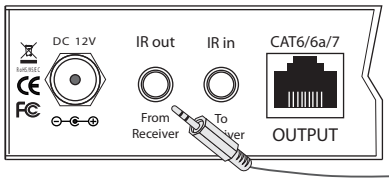
2. SB-101C IR 2M Transmitter

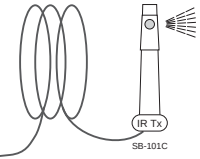
Device | Cable (3C) | IR Transmitter (SB-101C)

IR Transmitter cable 6ft (2M)



SB-101C Transmitter Cable







SB-101C Maximum Distance ~ 6 feet (2 meters)

**** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ****

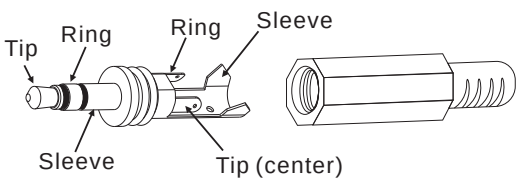
PIN CONFIGURATION:

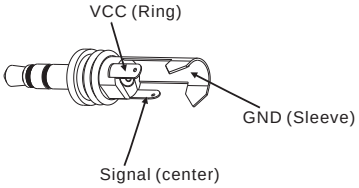
SB-101 and SB-101C Transmitter Pin configuration



SB-101 IR Transmitter Set

Tip: Signal
Ring :VCC
Sleeve: GND





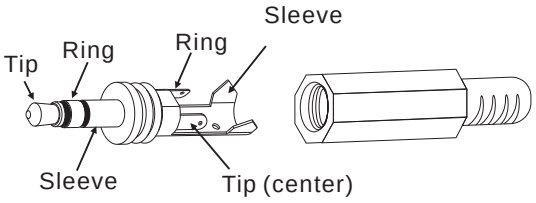
SB-101 Maximum Distance ~ 984 feet (300 meters)

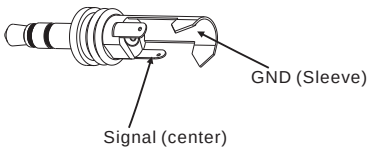
IR Transmitter cable 6ft (2M)



SB-101C Transmitter Cable

Tip: Signal
Ring: NC
Sleeve: GND





SB-101C Maximum Distance ~ 6 feet (2 meters)

Note: *The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

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122 Rose Ln. Suite 303 | Frisco, Texas 75034
1-877-SHINY-USA 1-877-744-6987 1-972-377-2508 sales@shinybowusa.com
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