INSTRUCTION MANUAL

SB-5688CAK

8x HDMI Inputs / 8x HDMI & 8x HDBaseT™ Outputs - UHD 4K2K Matrix Routing Switch w/ EDID Management/Learning w/ Auxiliary Audio I/O 4K2K Capable



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 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.

TABLE OF CONTENTS

HDMI-HDBaseT™-AUDIO MATRIX SWITCHER SERIES

Thank you for purchasing the SB-5688CAK HDMI-HDBaseT™ 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 8x8 HDMI-HDBaseT™ Matrix switcher.

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PACKAGE CONTENTS

Check that you have the following components;

- SB-5688CAK Matrix Switcher
- RS-232 & Ethernet V2.0 Protocol Instructions
- Master wireless IR Remote Control (SW-HD88CAK)
- (8) Individual wireless IR Control (SW-HD88CAK-IR01~IR08)
- 19 inch Ear mount bracket (Part # 2U-440L)
- SB-101 IR Extender distance ~984 feet (300M) Transmitter set
- SB-100 IR Extender distance ~984 feet (300M) Receiver set
- SB-101C IR Extender distance 6ft (2M) Transmitter Cable
- 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: 100~230VAC, 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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INTRODUCTION & FEATURES

INTRODUCTION

The SB-5688CAK is professional 8x8 matrix routing switch. Supporting (8) HDMI inputs and (8) auxiliary audio inputs. Output supported (8) HDMI, (8) SPDIF and (8) HDBaseT™ (PoH optional via the SB-5688CAP*). The SB-5688CAK is based on the HDBaseT™ standard and supports full resolution HDMI video with embedded EDID and PoH function (optional via the SB-5688CAP), Audio, RS-232, Ethernet and bi-directional IR, all over a single CATx cable. 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 (16) outputs simultaneously (channel outputs mirrored). The switcher is certified as being fully CEC, ARC and HDCP 2.0 compliant, full HD 4K2K HDMI V1.4a 3D formats, data rates up to 6.75 Gbps. Supports UXGA/ WUXGA/DVI 1920x1200 resolution to any HD displays. The SB-5688CAK has 1x HDMI and auxiliary audio (analog stereo audio) connector for input, effectively making this an 8 in x16 out switcher (same signal on both outputs). Using IR remote the switcher's HDBaseT™ Extender Transmitter (Tx) allows you to connect a source in a remote location. Likewise, the HDBaseT™ output and our HDBaseT™ Receiver allows you to connect a display in a remote location. The EDID management can be selected between (8) 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)

** The SB-5688CAP optional PoH feature can be ordered separately. This is considered a special order item and requires approximately a 10 day lead time.*

FEATURES

Based on HDBaseT™; bi-directional IR, RS-232, Multi format Audio, Ethernet and PoH function (optional via the SB-5688CAP). Full resolution HD Video, all HDBaseT™ signals over one CATx cable.

- (8)x HDMI with Auxiliary Audio (Analog Audio) player devices matrix switched to (8)x HDMI with S/PDIF outputs and (8)x HDBaseT™ Transmitter with PoH function (optional via the SB-5688CAP) output to (8)x destinations
- Application HDBaseT™ Specification with PoH function (optional via the SB-5688CAP), IR, RS-232, Multi audio format and HD
- Video signals over one CATx (6/6a/7) category cable
- HDMI digital video w/ embedded HDCP, DVI format and CEC/HDCP 2.2 compliant
- Worldwide control EDID modes for HDMI full 4K2K (24/30 Hz) HD video resolutions
- Link speeds of up to 6.75 Gbps (link clock rate of 340MbHz), Supports HDMI 4K2K, 1.4a 3D formats
- Wide range of HD resolutions from PC XGA to WUXGA 1920x1200 and HDTV/DTV HDMI resolutions 480i/480p, 576i/576p, 720p, 1080i/p & 4K2K (24/30Hz)
- Compatible with all HDMI source devices, PC monitors, Plasma HD display, HDTV and audio receivers or audio amplifiers
- Digital Video TMDS formats Resolution up to 4K2K with Deep color 36-bit
- Digital Audio Support : Dolby TrueHD, Dolby Digital, Dolby Digital Plus/ex, DTS, DTS-HD, DTS-HD Master, DTS-EX, PCM, PCM2, LPCM2
- Audio Input : Support Auxiliary Audio (Analog stereo audio)
- Audio Output : Support Digital audio ARC or Digital audio S/PDIF (from HDMI source or Auxiliary Audio)
- Various User Interface controls:
  - Windows based GUI control via RS-232 port
  - Front Panel push button
  - IR wireless remote controller
  - Ethernet Switch control
  - Third party RS-232 controller (via simple ASCII)
- Support world wide (10)x control function keys:
- Full function front panel controls: ARC / AUX/ ALL / OFF / EDID / LOCK / RECALL / MEMORY / ENTER
- Support EDID modes :
  - a. Embedded EDID modes : FSS/ H24-3D/ H24-3D-M/ H36-3D/ H36-3D-M/ 4K2K-3D / DVI-D 1920x1200-60Hz/ AUTO
  - b. External modes : Learning mode.
- Automatic scanning input & output status via LCM show on front panel.
- Support IR Remote and IR Extender with distance up to ~ 984 feet (300M) Maximum
- Support Universal power adaptor AC90V~AC240V, 50/60Hz.

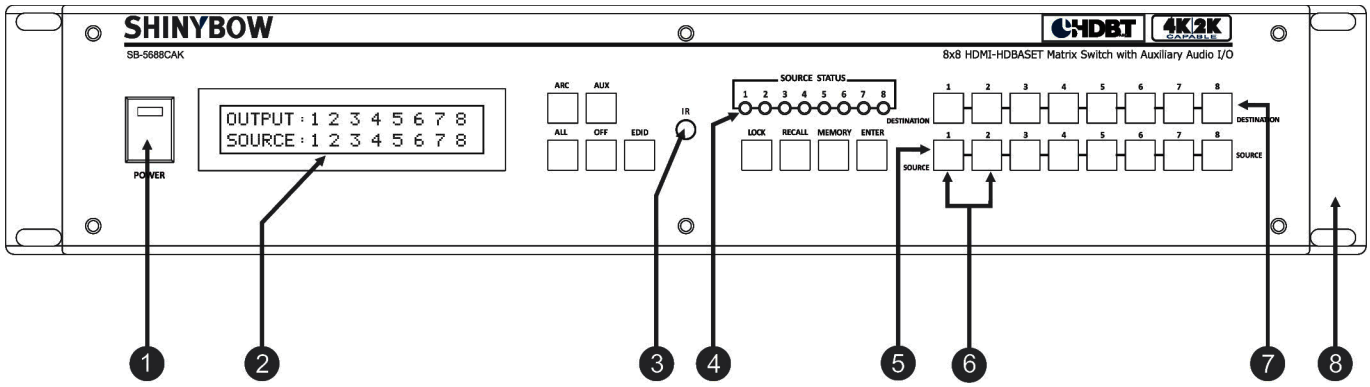
The Switcher will remember that last state during a power cycle.When power is removed and resorted, the last configuration will be invoked.

SPECIFICATIONS

- **Type of HDMI Switcher:** 8x Inputs to 8x Outputs HDMI over HDBaseT™ Matrix Switch with Audio and Extension
- **HDMI Support:** HDMI 4K2K, 1080p-@60Hz, H36-bit Deep color, 3D of HDMI V1.4 formats
- **HDBaseT™ Support:** Bi-directional IR, RS-232, Multi format Audio, Ethernet and PoH function (optional via the SB-5688CAP), over one CATx cable
- **HDCP / CEC Support:** HDCP 2.2 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 340 MHz, Total 6.75Gbps bandwidth
- **Digital Video Support:** HD:480i/ 480p/ 720p/ 1080i/p and 4K2K up to 36bit deep color
- **Inputs:**
  - **Video Inputs HDMI:** 8x HDMI (HDMI or DVI digital source).
  - **Audio Inputs Audio:** 8x Audio (Analog Stereo, AUX port. 3.5mm Jack)
- **Outputs:**
  - **Video Outputs**
    - **HDMI:** 8x HDMI (To Destination)
    - **HDBaseT™:** 8x HDBaseT™ Transmitter with PoH function (optional via the SB-5688CAP) via category cable & RJ-45 connector)
  - **Audio Outputs:**
    - **S/PDIF:** 8x S/PDIF : Multi Audio Formats 5.1 from HDMI or LPCM-2CH from Auxiliary audio
    - **ARC:** 8x ARC : TV Return Channel Audio
    - **HDMI:** 8x HDMI : Multi Audio Formats 5.1 / 7.1, MAT(MLP), Dolby Digital, Dolby TrueHD, Dolby Digital Plus, DTS, DTS-ES 6CH, DTS-HD, DTS-HD-HRA, DTS-HD Master, (PCM-2CH)
- **HDBaseT™ Control In:**
  - 8x IR in (Send IR signals to 8x Rooms via HDBaseT™ Transmitter)
  - 1x ALL IR in (Send IR Signals To 8x Rooms - Via HDBaseT™ Transmitter)
- **HDBaseT™ Control Out:**
  - 8x IR out (Link to Receive IR signals from 8x Rooms via HDBaseT™ Extender)
  - 1x ALL IR out (Link to Receive IR signals from 8x Rooms via HDBaseT™ Extender)
  - 1x All Tx LAN (All Switcher HDBaseT™ Transmitter Ethernets link to HDBaseT™ Receiver)
- **HDBaseT™ Control I/O:**
  - 8x RS-232 I/O (Control 8x Rooms RS-232 via Switcher HDBaseT™ Extender Tx)
- **Switcher Controls:**
  - 1x Select & Function buttons on front panel (Data status via LCM panel show out)
  - 1x IR Remote Controller (switch control)
  - 8x IR Room Remote Controller (switch control)
  - 1x IR External port (switch control via 3.5mm OD Jack)
  - 1x RS-232 series interface (switch control)
  - 1x Ethernet series interface (switch control)
- **Source Status:** Input status LEDs indicates presence of a live signal
- **Function Control Keys:** 1. ARC, 2. AUX, 3. ALL, 4. OFF, 5. RECALL, 6. ENTER, 7. MEMORY, 8. LOCK, 9. EDID, 10. Destination button 1 thru 8, 11. Source button 1 thru 8
- **(8) EDID management:**
  - **Select Embedded EDID modes :** Mode1: FSS, Mode2: H24-3D, Mode3: H24-3D-M, Mode4: H36-3D, Mode5: H36-3D-M, Mode6: 4K2K-3D, PCM-2CH, Mode7: DVI-D 1920x1200, Mode8: Auto
  - **Select LEARNING mode :** Learning Destination EDID to Link Source
- **Infrared Frequency:** 38 Khz
- **IR Extend Distance:** ~984 feet / 300M max
- **HDBaseT™ Extender Distance:** ~328 feet / 100M max
- **HDMI I/O Connector:** HDMI Type A - SMD 19-pin female type
- **Temperature:** Operating Temperature 32°F-100°F (0°C-32°C)
- **Dimensions (LxWxH):** 19 x 9.85 x 3.46 in (482x250x88 mm)
- **Rack Mount:** 2RU High 19 ”Rack Mount #2U-440L (with rack mount)
- **Power Supply:** AC 100~240VAC 50/60Hz (Power Consumption:10A Maximum)
- **Safety Approvals:** CE, FCC, RoHS, REACH
- **Product Weight:** 3.75 Kgs / 6.25 lb

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

FRONT PANEL



1. POWER ON SWITCH: The power switch turns the unit on and off. The LCM will illuminate blue to indicate the switcher is ON and receiving power. The switcher will remember the last setting during a power cycle. When power is removed and resorted, the last configuration will be evoked.

2. STATUS DISPLAY: Front panel status display shows current matrix routing configuration. This same display also shows particular configuration settings depending on your current function. In run mode (as shown above), the display shows each Output (destination) Channel shows which input (source) is assigned.

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

4. INPUT STATUS DISPLAY: Input sources 1 to 8 LED illuminates blue to indicate that a video source is present on that input.

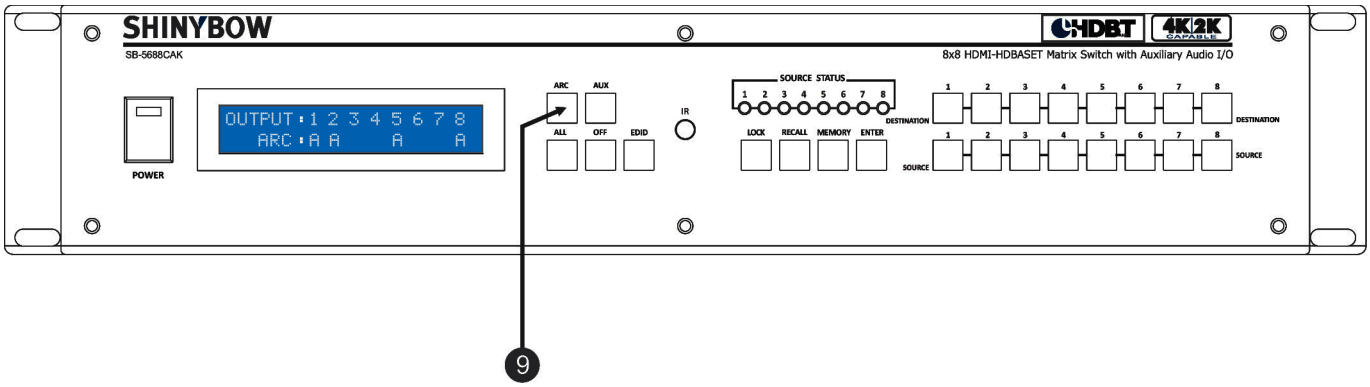
5. SOURCE SELECT BUTTONS: Separate inputs 1 thru 8 select buttons are provided each source selection.

6. EDID MODE SELECT BUTTONS: Used to select EDID mode using buttons Source button **#1** or **#2**.

7. DESTINATION SELECT BUTTONS: Separate outputs 1 thru 8 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.

8. 19 INCH EAR MOUNT PAIR: Converts desktop to 19 inch rack mount. Bracket (part # 2U-440L) INCLUDED. Image shows rack mount bracket attached.

FRONT PANEL-ARC



9. FUNCTION KEY - ARC:



Audio Return Channel (ARC) is a feature that sends audio from the TV back down the HDMI (or HDBaseT™) cable to its source device, in this case, the switcher, Not all displays support ARC; check your Users Guide for additional information. (Default = ARC Disabled)

The “Audio & ARC” port can support audio from either of three sources.
If the Input Video/Audio Source is HDMI/HDBaseT™ the audio can extracted from the embedded signal.
If the Input Audio Source is connected to the external Audio Input, this same audio will be present on the Audio & ARC jack.
If ARC is selected, the audio will be from the destination device (ex; TV).

To Enable the ARC option on a specific Output, perform the follow steps:

- Press the **ARC** button.
- On the **Destination** row, Press 1 thru 8 (the button will illuminate).
- Press **ENTER** button. The new configuration will be stored The front panel LCD display will now show an “ A “ under the Output port.
- Or press **ARC** again to cancel operation.

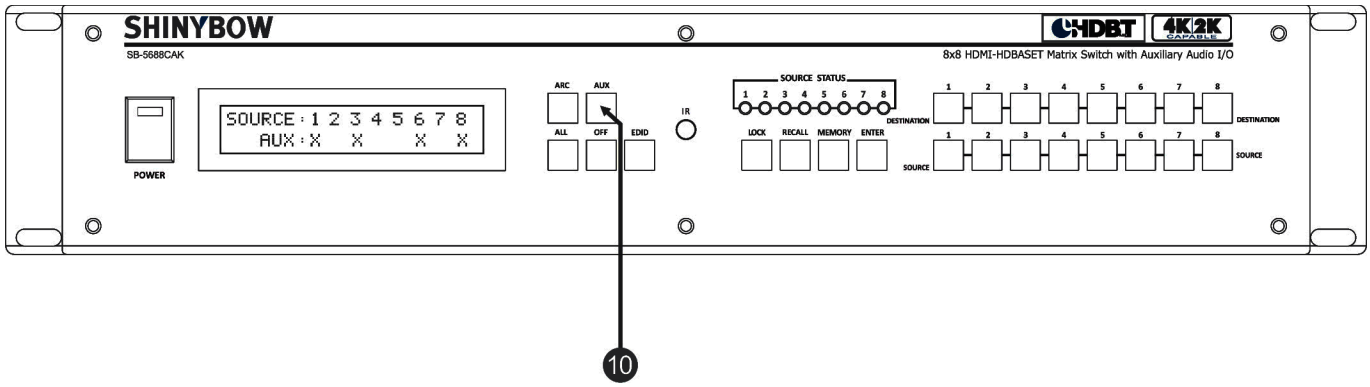
To Disable the ARC option on a specific Output, perform the follow steps:

- Press the **ARC** button.
- On the **Destination** row, press 1 thru 8 (the button will illuminate).
- Press **ENTER** The pre-set configuration will execute. The front panel LCD display will be blank under the Output port.
- Or press **ARC** again to cancel operation.

Operation completes.

Note :
1. Operation will abort if no keys are pressed within 5 seconds.
2. The AUX Audio input only function when a valid HDMI / DVI video signal is present. Without a video, the AUX audio will not operate.

FRONT PANEL- AUX



10. FUNCTION KEY - AUX (THE AUDIO ADDITIONAL ON THE " AUDIO / ARC" PORT):



The AUX FUNCTION feature allows you to replace the embedded HDMI audio signal with an audio signal that is connected to the switchers Audio AUX Input. Using the AUX function replaces the audio and does not mix the audio. (Default = AUX Disabled)

To Enable the AUX option on a specific Output, perform the follow steps:

- Press the **AUX** button.
- On the **SOURCE** row, Press 1 thru 8 (the button will illuminate).
- Press **ENTER** The new configuration will be stored. The front panel LCD display will show an "X" under the Source port
- Or press **AUX** again to cancel operation.

To Disable the AUX option on a specific Output, perform the follow steps:

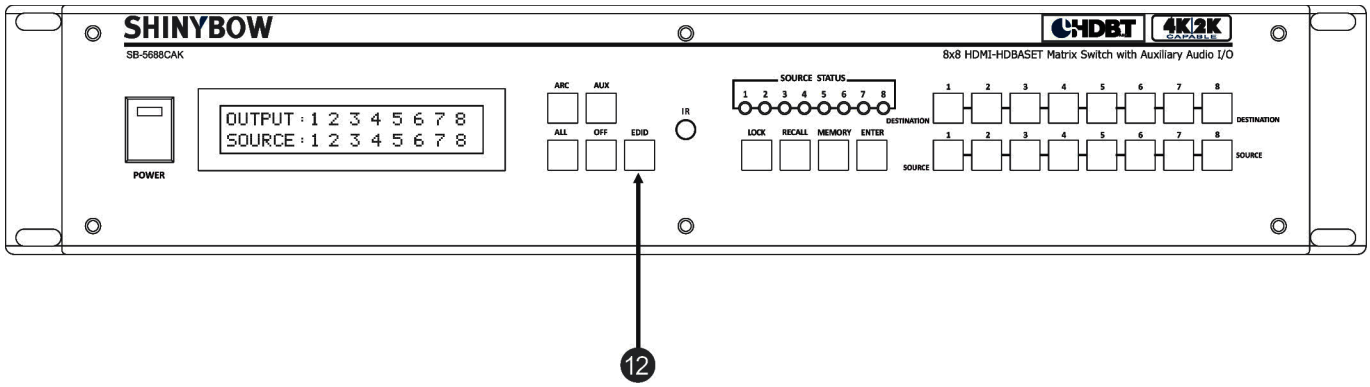
- Press the **AUX** button.
- On the **SOURCE** row, Press 1 thru 8 (the button will illuminate).
- Press **ENTER** The pre-set configuration will execute. The front panel LCD display will be blank under the Output port indicating audio source is that which is embedded on the HDMI cable.
- Or press **AUX** again to cancel operation.

Note :

1. Operation will abort if no keys are pressed within 5 seconds.

2. The AUX Audio input only function when a valid HDMI / DVI video signal is present. Without a video, the AUX audio will not operate.

FRONT PANEL-EDID



12. FUNCTION KEY - EDID (1):



Used to display change current EDID mode.
- Press **EDID** to select new EDID mode or select
- Press **SOURCE** row #1 or #2 Select EDID modes.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel operation.

Operation completes.

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

FUNCTION KEY - EDID (2):

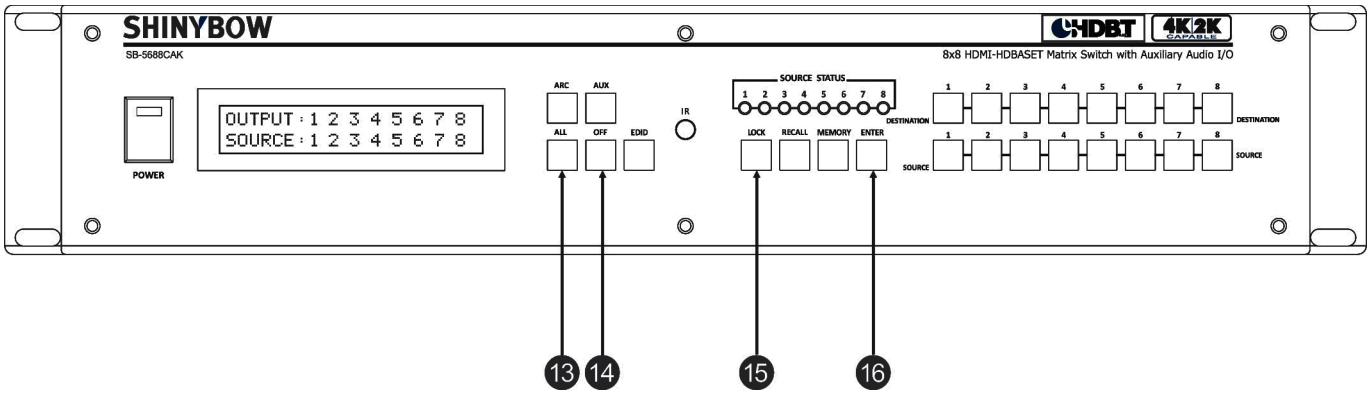


Select external **LEARNING** mode
- Press **EDID** to select new EDID mode or select
- Press **Destination** again, press the same Destination #1 thru #8 to learn HDBaseT™ out port EDID, The EDID for HDBaseT™ (CATx) has been learned.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel operation.

Operation completes.

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

FRONT PANEL-ALL-OFF-LOCK-ENTER



13. FUNCTION KEY - ALL:



Disables (mute) video on all destinations OR assign the same source to all destinations.

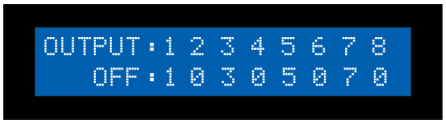
Option 1

- Press **ALL** followed by **OFF** button. The display will show ”0” to indicate none of the destinations are assigned a video source.

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.

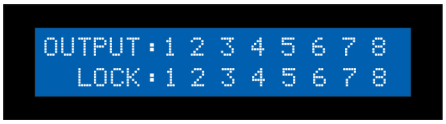
14. FUNCTION KEY - OFF:



Disables (mute) video on the selected destinations.

- Press **OFF** button followed by any Destination channel.
- Press 1 thru 8 output destination. The display will show “ 0 “ for the selected channel, indicating no video selected.

15. FUNCTION KEY - LOCK:

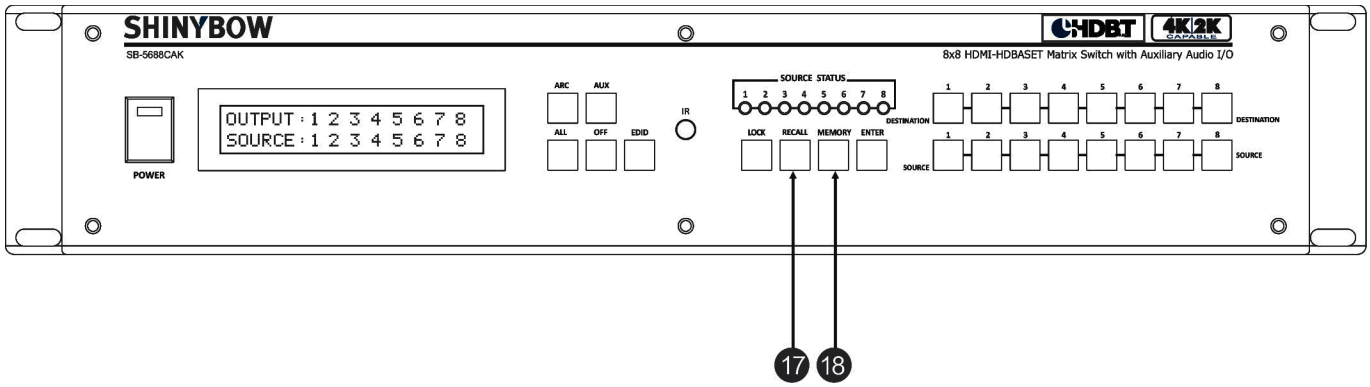


- Press and hold LOCK button for two seconds lockout the front panel.
- Press and hold LOCK button for two seconds to enable the front panel.

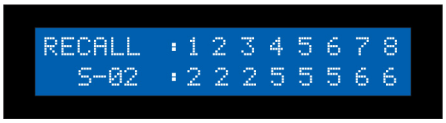
16. FUNCTION KEY - ENTER:

Press **ENTER** to confirm entries.

FRONT PANEL-RECALL-MEMORY



17. FUNCTION KEY - RECALL:





The system will show previously stored presets, up to a total of 16. Presets are stored in local memory using Source keys 1 thru 8 or Destination keys 1 thru 8 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 pressed within 5 seconds.***

- Or press RECALL again to cancel operation.

18. FUNCTION KEY - MEMORY:





The system will show store presets, up to a total of 16. Presets are stored in local memory using Source keys 1 thru 8 or Destination keys 1 thru 8 as the memory preset location.

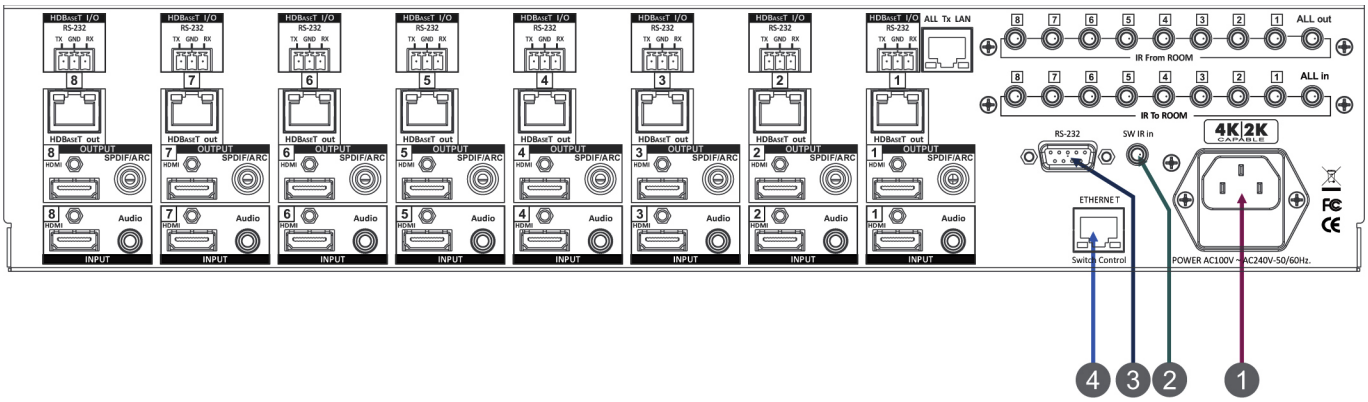
- Configure desired matrices.
- Press **MEMORY** button.
- Press 1 thru 8 on either Source or Destination row.
- Press **ENTER** to ready memory location.
- Or press **MEMORY** again to cancel operation.

Operation completes.

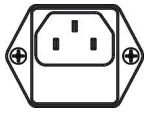
Note : Operation will abort if no keys are pressed within 5 seconds.

- Or press MEMORY again to cancel operation.

BACK PANEL-SWITCH CONTROLS



1. DC POWER INLET: The Switcher is fitted with a AC power plug input connector. Ensure that the used is of an approved type and is of sufficient current carrying connector capacity with the correct voltage and connector polarity. 100~240Volt AC, 50/60Hz power supply.



Power Socket :
Connector Type : IEC 60320 C13

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2. IR EXTENDER CONTROL: Support one of IR Extender. Extend distance maximum 300 Meters / ~984 feet. When you plug the External IR extender into the switcher, the front panel IR receiver remain active.



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

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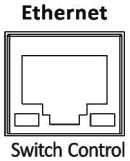
3. RS-232 CONNECTION: RS-232 control port to allow for interfacing to a PC. Such as a computer or touch panel control, to the switcher via this DB-9pin Female connector for serial RS-232 control.



Remote Port: D-SUB-9pin Female connector

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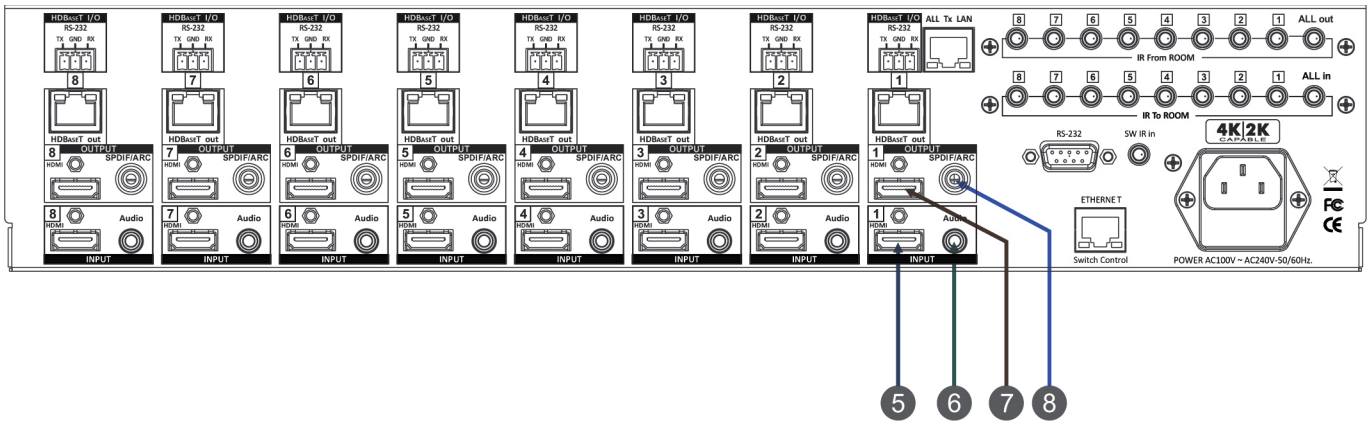
4. ETHERNET CONNECTION: ETHERNET control port to allow for TCP/IP interfacing to a PC. Such as a computer or touch panel control (not a web-browser), to the switcher via this RJ-45 Female connector to control switcher.



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 <u>disable</u> serial commands send to the RS-232 port.

BACK PANEL-HDMI INPUT / OUTPUT



5. INPUTS- 1,2,3,4,5,6,7, & 8 HDMI: Connect a HDMI signal source link of HDMI source direct HDMI digital video/audio to this Female HDMI connector. This HDMI port support HDMI and DVI digital video sources. If you remove the HDMI screw post, use the provides ISO screw to keep the internal HDMI jack secure. Removing the HDMI Screws without installing the ISO screws will void your warranty.



HDMI Connector: HDMI Type A SMD 19pin Female socket connector.
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. The DVI support Audio input.

---

6. INPUTS- 1,2,3,4,5,6,7, & 8 AUDIO (Auxiliary Audio): Connect a Auxiliary Audio signal link of AUDIO direct Stereo Audio to this 3.5mm OD Female Jack. This jack supports DVI audio or Auxiliary Analog Stereo Audio sources.

AUDIO Connector with Input 1 ~ Input 8
Audio: The auxiliary audio (Analog Stereo Audio).



AUDIO Connector: 3.5mm OD phone jack female socket connector.
Note: With the proper adapters, the switcher can be used with Auxiliary Audio signals and the DVI support Audio input.

---

7. OUTPUTS- 1,2,3,4,5,6,7 & 8 HDMI: Connect an HDMI signal source to this Output. This HDMI port supports HDMI with embedded audio and DVI with AUX audio. If you remove the HDMI screw post, you must use the provided ISO screws to keep the internal HDMI jack secure. Removing the HDMI Screws without installing the ISO screws will void your warranty.



HDMI Connector: HDMI Type A SMD 19pin Female socket connector
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant. The DVI Audio supported.

---

8. OUTPUTS- 1,2,3,4,5,6,7 & 8 S/PDIF / ARC: Connect a Audio signal output link of the Auxiliary Audio, HDMI digital audio source or ARC TV return channel audio direct to this RCA jack audio connector. This port use ARC digital audio(TV return digital Audio) and S/PDIF digital audio from HDMI or Auxiliary Audio. Use RCA connector with Output 1 ~ Output 8

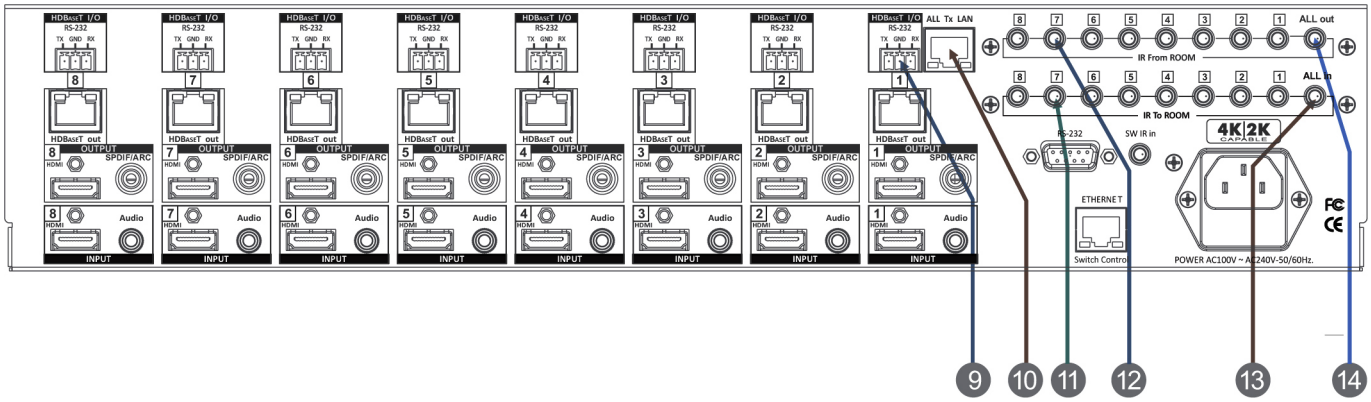
Audio Output signals :
- ARC Audio (HDTV ARC Turn On)
- S/PDIF (HDMI/DVI Source Audio or Auxiliary Audio LPCM-2CH)



ARC & SPDIF Audio Connector: RCA Female connector.
Note: With the proper adapters, the Audio can be used with HDMI Audio, DVI Audio and Auxiliary Audio signals outputs. The Auxiliary Audio use digital LPCM-2CH output.

BACK PANEL-HDBASET™ CONTROLS

BACK PANEL-HDBASET™ CONTROLS



9. HDBaseT™ RS-232 - 1,2,3,4,5,6,7 & 8 CONNECTION: (8)x RS-232 control port to allow for interfacing to a PC. Controls I/O via Switcher HDBaseT™ Transmitter (8) Rooms each via this Terminal Block-3pin Female socket for serial RS-232 control.



Remote Port : Terminal Block-3pin Female socket

---

10. HDBaseT™ LAN CONNECTION: All Tx LAN : Provides Ethernet (LAN) connection from the switcher to All HDBaseT™ Transmitter (ie. SB-6320T).



ALL HDBaseT™ Tx LAN Port Connector: HDBaseT™ Phone-Jack 8P8C, RJ-45 Female socket.
LAN Controls: ***Note: from switcher to HDBaseT™ Transmitter.***

---

11. HDBaseT™ IR INPUT - 1,2,3,4,5,6,7 & 8 REMOTE IR SIGNAL TO ROOM: Send (8)x IR signals to (8) rooms via Switcher HDBaseT™ Transmitter. When you plug the Switcher HDBaseT™ IR Transmitter into the external port, the room IR HDBaseT™ receiver remain active.



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

---

12. HDBaseT™ IR OUTPUT - 1,2,3,4,5,6,7 & 8 REMOTE IR SIGNAL FROM ROOM: Receive (8)x IR signals from (8) rooms each via HDBaseT™ Transmitter. When you plug the Switcher HDBaseT™ IR Transmitter into the external port, the room IR HDBaseT™ receiver remain active.



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

---

13. HDBaseT™ ALL IN : 1,2,3,4,5,6,7 & 8 REMOTE IR SIGNAL TO ROOM: Send IR signal to room via Switcher HDBaseT™ Transmitter. When you plug the Switcher HDBaseT™ IR Transmitter into the external port, the room IR HDBaseT™ receiver remain active.



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

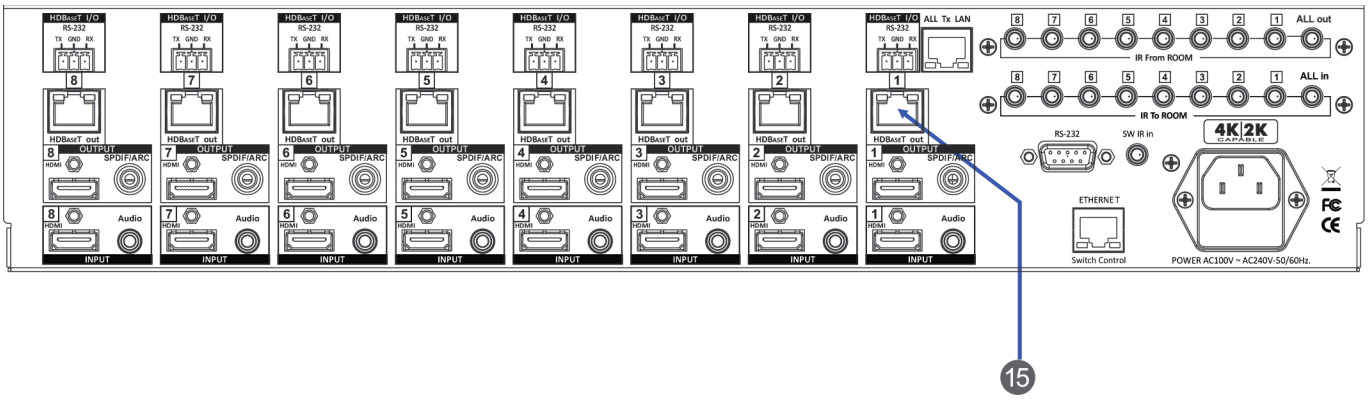
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14. HDBaseT™ ALL OUT : - 1,2,3,4,5,6,7 & 8 REMOTE IR SIGNAL FROM ROOM: Receive IR signal from room via Switcher HDBaseT™ Transmitter. When you plug the Switcher HDBaseT™ IR Transmitter into the external port, the room IR HDBaseT™ receiver remain active.

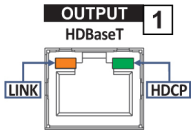


IR Extender Jack: Female Jack - inner OD Ø 3.5 mm

BACK PANEL-HDBASET™ I/O

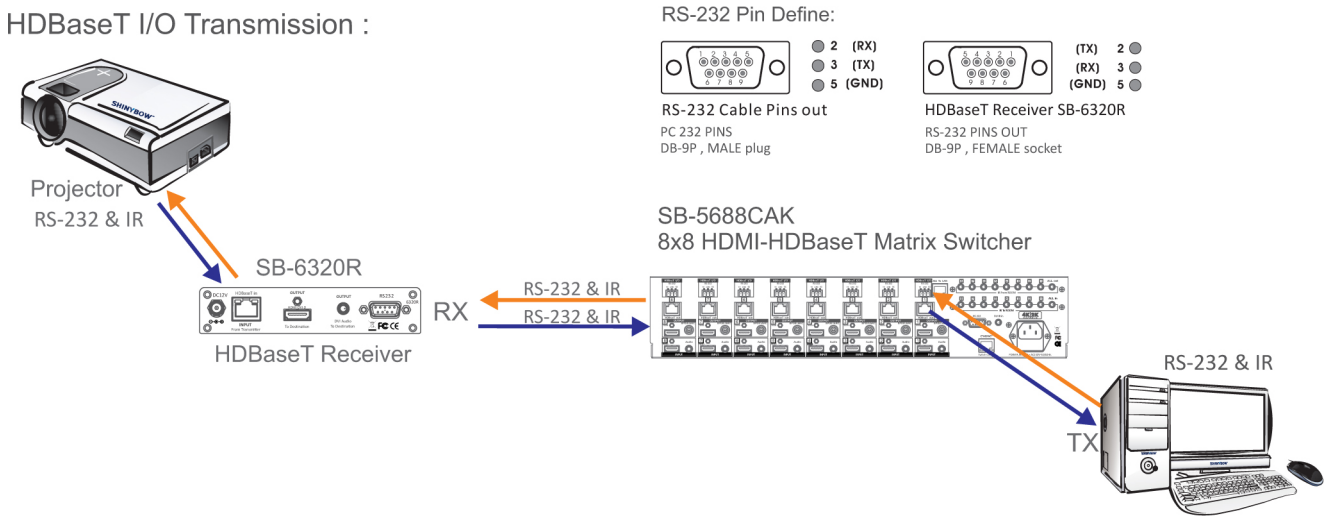


15. OUTPUT - 1,2,3,4,5,6,7 & 8 HDBaseT™ (Transmitter): To send (8) HDMI and control signals via Switcher (8)x HDBaseT™ Transmitters to link (8)x external HDBaseT™ Receiver. Switcher used (8)x HDBaseT™ Transmitter Output #1 ~ Output #8 with PoH function (optional via the SB-5688CAP) RJ-45 via CATx(6/6a/7) category cable. Controls signals RS-232, Ethernet, IR input, IR output and PoH function (optional via the SB-5688CAP) between Switcher and Receiver.



HDBaseT™ Transmitter Connector:
8x RJ-45 Jack 8P8C Female socket.

Link LED :
solid = valid link
Flash = attempting to link
Off = no link established



Category cable lengths via Switcher and HDBaseT™ Receiver.				
Cable Type	Pixel clock rate	CAT5e	CAT6	CAT6
Resolution	(MHz)	70M	100M	100M
1024x768@60Hz	65.00 MHZ	Yes	Yes	Yes
1280x720p@60Hz	73.84 MHZ	Yes	Yes	Yes
1920x1080i@60Hz	74.25 MHZ	NA	NA	NA
1280x1024@60Hz	108.00 MHZ	Yes	Yes	Yes
1920x1080p@60Hz	148.50 MHZ	Yes	Yes	Yes
1920x1200@60Hz	152.90 MHz	Yes	Yes	Yes
1600x1200@60Hz	162.00 MHZ	Yes	Yes	Yes
BD player : 1080p	174.00 MHz	Yes	NA	Yes

REMOTE CONTROL

Before making any connections to the switcher, 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

IR REMOTE CONTROL KEY :

1. & 2. SWITCH POWER ON or OFF:

Controller with a separate power ON and OFF

3. DESTINATION : 1 thru 8 OUTPUT SELECTION:

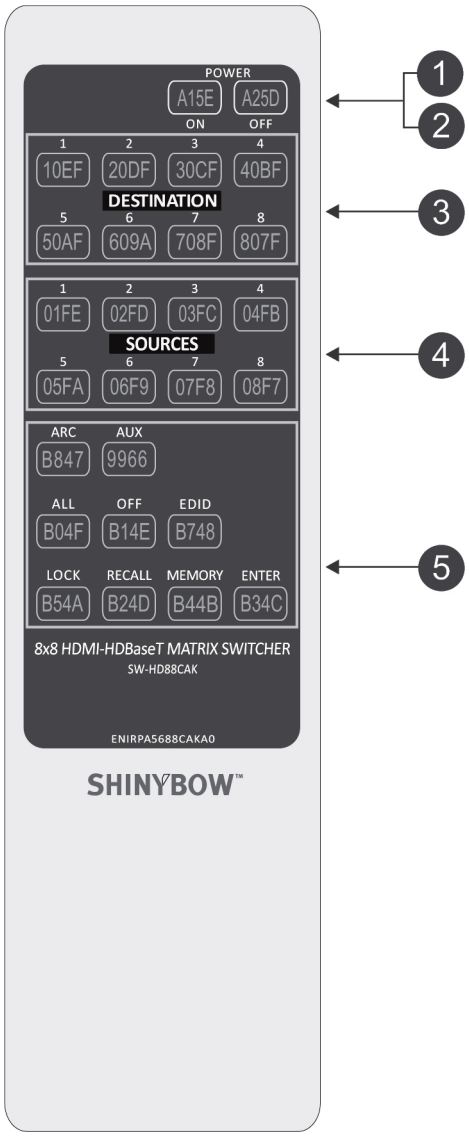
Press the destination button to select the output display channel.

4. SOURCE : 1 thru 8 INPUT SOURCE SELECTION:

Press input 1~8 sources with selection button.

5. FUNCTION KEY:

ARC	- function selection button
AUX	- function selection button
HDBaseT™	- function selection button
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



REMOTE PROTOCOL COMMANDS

IR REMOTE CUSTOM AND DATA CODES (NEC Standard)

HOW TO SETUP IR CODES : **CUSTOM CODE : 01FD**

POWER ON :	01FD A15E		
POWER OFF :	01FD A25D		
ARC :	01FD B847	LOCK :	01FD B54A
AUX :	01FD 9966	EDID :	01FD B748
ALL :	01FD B04F	RECALL :	01FD B24D
OFF :	01FD B14E	ENTER :	01FD B34C
MEMORY :	01FD B44B		

PRESS DESTINATION - # then PRESS SOURCE - #

DESTINATION #1 : 01FD 10EF	SOURCE #1 : 01FD 01FE
DESTINATION #2 : 01FD 20DF	SOURCE #2 : 01FD 02FD
DESTINATION #3 : 01FD 30CF	SOURCE #3 : 01FD 03FC
DESTINATION #4 : 01FD 40BF	SOURCE #4 : 01FD 04FB
DESTINATION #5 : 01FD 50AF	SOURCE #5 : 01FD 05FA
DESTINATION #6 : 01FD 609F	SOURCE #6 : 01FD 06F9
DESTINATION #7 : 01FD 708F	SOURCE #7 : 01FD 07F8
DESTINATION #8 : 01FD 807F	SOURCE #8 : 01FD 08F7

For example;
Select Destination # 1 to show Source #1~8,

The IR Data Code list :

Destination # 1 , Source #1	01FD	10EF	01FD	01FE	01FE
Destination # 1 , Source #2	01FD	10EF	01FD	01FE	02FD
Destination # 1 , Source #3	01FD	10EF	01FD	01FE	03FC
Destination # 1 , Source #4	01FD	10EF	01FD	01FE	04FB
Destination # 1 , Source #5	01FD	10EF	01FD	01FE	05FA
Destination # 1 , Source #6	01FD	10EF	01FD	01FE	06F9
Destination # 1 , Source #7	01FD	10EF	01FD	01FE	07F8
Destination # 1 , Source #8	01FD	10EF	01FD	01FE	08F7

ROOM REMOTE CONTROL #1 ~ #8 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE
CUSTOM CODE : 01FD

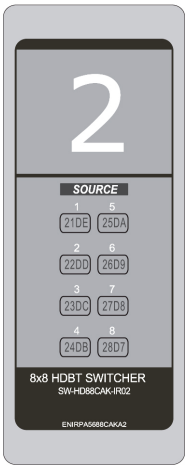
8x8 HDBT SWITCHER
SW-HD88CAK-IR01



IR-01 DATA CODE:

SOURCE #1 : 01FD 11EE
SOURCE #2 : 01FD 12ED
SOURCE #3 : 01FD 13EC
SOURCE #4 : 01FD 14EB
SOURCE #5 : 01FD 15EA
SOURCE #6 : 01FD 16E9
SOURCE #7 : 01FD 17E8
SOURCE #8 : 01FD 18E7

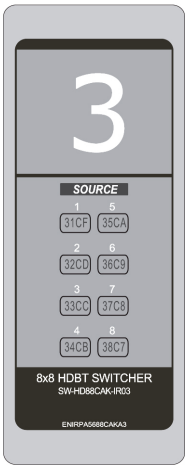
8x8 HDBT SWITCHER
SW-HD88CAK-IR02



IR-02 DATA CODE:

SOURCE #1 : 01FD 21DE
SOURCE #2 : 01FD 22DD
SOURCE #3 : 01FD 23DC
SOURCE #4 : 01FD 24DB
SOURCE #5 : 01FD 25DA
SOURCE #6 : 01FD 26D9
SOURCE #7 : 01FD 27D8
SOURCE #8 : 01FD 28D7

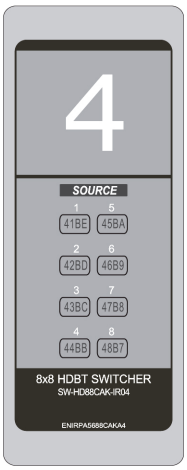
8x8 HDBT SWITCHER
SW-HD88CAK-IR03



IR-03 DATA CODE:

SOURCE #1 : 01FD 31CE
SOURCE #2 : 01FD 32CD
SOURCE #3 : 01FD 33CC
SOURCE #4 : 01FD 34CB
SOURCE #5 : 01FD 35CA
SOURCE #6 : 01FD 36C9
SOURCE #7 : 01FD 37C8
SOURCE #8 : 01FD 38C7

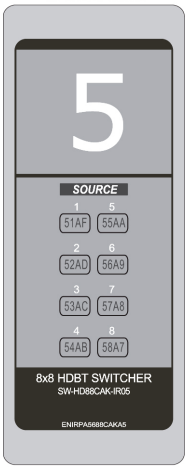
8x8 HDBT SWITCHER
SW-HD88CAK-IR04



IR-04 DATA CODE:

SOURCE #1 : 01FD 01FD
SOURCE #2 : 01FD 42BD
SOURCE #3 : 01FD 43BC
SOURCE #4 : 01FD 44BB
SOURCE #5 : 01FD 45BA
SOURCE #6 : 01FD 46B9
SOURCE #7 : 01FD 47B8
SOURCE #8 : 01FD 48B7

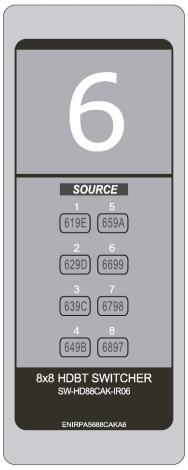
8x8 HDBT SWITCHER
SW-HD88CAK-IR05



IR-05 DATA CODE:

SOURCE #1 : 01FD 51AE
SOURCE #2 : 01FD 52AD
SOURCE #3 : 01FD 53AC
SOURCE #4 : 01FD 54AB
SOURCE #5 : 01FD 55AA
SOURCE #6 : 01FD 56A9
SOURCE #7 : 01FD 57A8
SOURCE #8 : 01FD 58A7

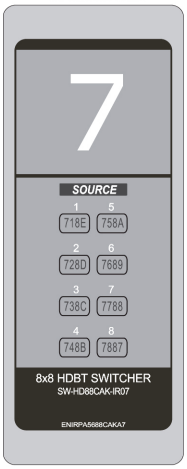
8x8 HDBT SWITCHER
SW-HD88CAK-IR06



IR-06 DATA CODE:

SOURCE #1 : 01FD 619E
SOURCE #2 : 01FD 629D
SOURCE #3 : 01FD 639C
SOURCE #4 : 01FD 649B
SOURCE #5 : 01FD 659A
SOURCE #6 : 01FD 6699
SOURCE #7 : 01FD 6798
SOURCE #8 : 01FD 6897

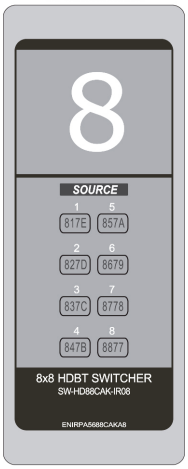
8x8 HDBT SWITCHER
SW-HD88CAK-IR07



IR-07 DATA CODE:

SOURCE #1 : 01FD 718E
SOURCE #2 : 01FD 728D
SOURCE #3 : 01FD 738C
SOURCE #4 : 01FD 748B
SOURCE #5 : 01FD 758A
SOURCE #6 : 01FD 7689
SOURCE #7 : 01FD 7788
SOURCE #8 : 01FD 7887

8x8 HDBT SWITCHER
SW-HD88CAK-IR08



IR-08 DATA CODE:

SOURCE #1 : 01FD 817E
SOURCE #2 : 01FD 827D
SOURCE #3 : 01FD 837C
SOURCE #4 : 01FD 847B
SOURCE #5 : 01FD 857A
SOURCE #6 : 01FD 8679
SOURCE #7 : 01FD 8778
SOURCE #8 : 01FD 8877

EDID FUNCTION

EDID FUNCTION FOR HDMI MATRIX SWITCHER

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.	
RESET	**EDID Return To Factory default**
How to RESET EDID mode Press **EDID > RECALL > ENTER** 	**RESET** To 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.
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. Select Embedded EDID : Mode 1 : **FSS** Mode 5 : **H36-3D-M** Mode 2 : **H24-3D** Mode 6 : **4K2K** Mode 3 : **H24-3D-M** Mode 7 : **DVI-D 1920x1200-60Hz** Mode 4 : **H36-3D**
EDID function for HDMI Matrix Switcher	
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-24 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
Mode 4. H36-3D-M (1080p-36 bits) 	Audio Support: PCM 2CH

EDID FUNCTION

EDID function for HDMI Matrix Switcher	
Mode 5 . H36-3D-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
Mode 6 . 4K2K (24/30Hz) 	HDMI Support : 4K2K-3D, PCM 2CH (3860x2160-24/30Hz) Audio Support: PCM 2CH
Mode 7 . 1920x1200-60Hz (DVI-D) 	DVI Support : DVI-D 1920 x 1200 60Hz
LEARNING EDID	**Learning EDID from Destination to Source**
Learning EDID Setup **Key Press Sequence:** **EDID > DESTINATION > SOURCE > ENTER**	Press **EDID > DESTINATION** Button: The LCM will be show LEARNING. Switcher will **LEARN** destination HDMI EDID and pass the selected source.  **Learning EDID setup for HDMI:** Key Press Sequence: **EDID > DESTINATION # > SOURCE # > ENTER** The EDID for HDMI has been learned
Press **EDID > DESTINATION > DESTINATION > SOURCE > ENTER**	Switcher will **LEARN** destination HDBaseT™ CATx EDID and pass the selected source.  **Learning EDID setup for HDBaseT™ CATx:** Key Press Sequence: **EDID > DESTINATION # > DESTINATION # > SOURCE # > ENTER** Again, Press the same DESTINATION # to learn HDBaseT™ CATx EDID The EDID for HDBaseT™ CATx has been learned
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 EPROM.	

EDID FUNCTION

Learning EDID Single to Single	Example : Learn Destination #8 EDID To Source #5.
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 #8 button row	Copy the Destination #8 Display EDID.
Step 3. Press the Source #5 button row	Learning the Destination #8 EDID to Source # 5.
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 ~ 8 button row	Copy any 1~8 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 8	Learning anyone 1~8 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 #1~8 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 conform entries.
Step 4. Press **EDID** button	To select the EDID **FSS®** mode.
Step 5. Press **ENTER** button	To conform 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.	
Auto mode definition	Common Resolution and Audio
Switcher will find highest common Resolution and Audio from all destination EDID to link Source. **Example for single source** Destination > press #1 and then Source > press #1 Destination device #1 will set to the highest common resolution and Audio of source #1 **Example for multiple sources** Destination device #1, #2, #3 will be set to the highest common resolution and Audio available and source device #1 will output this same resolution.	

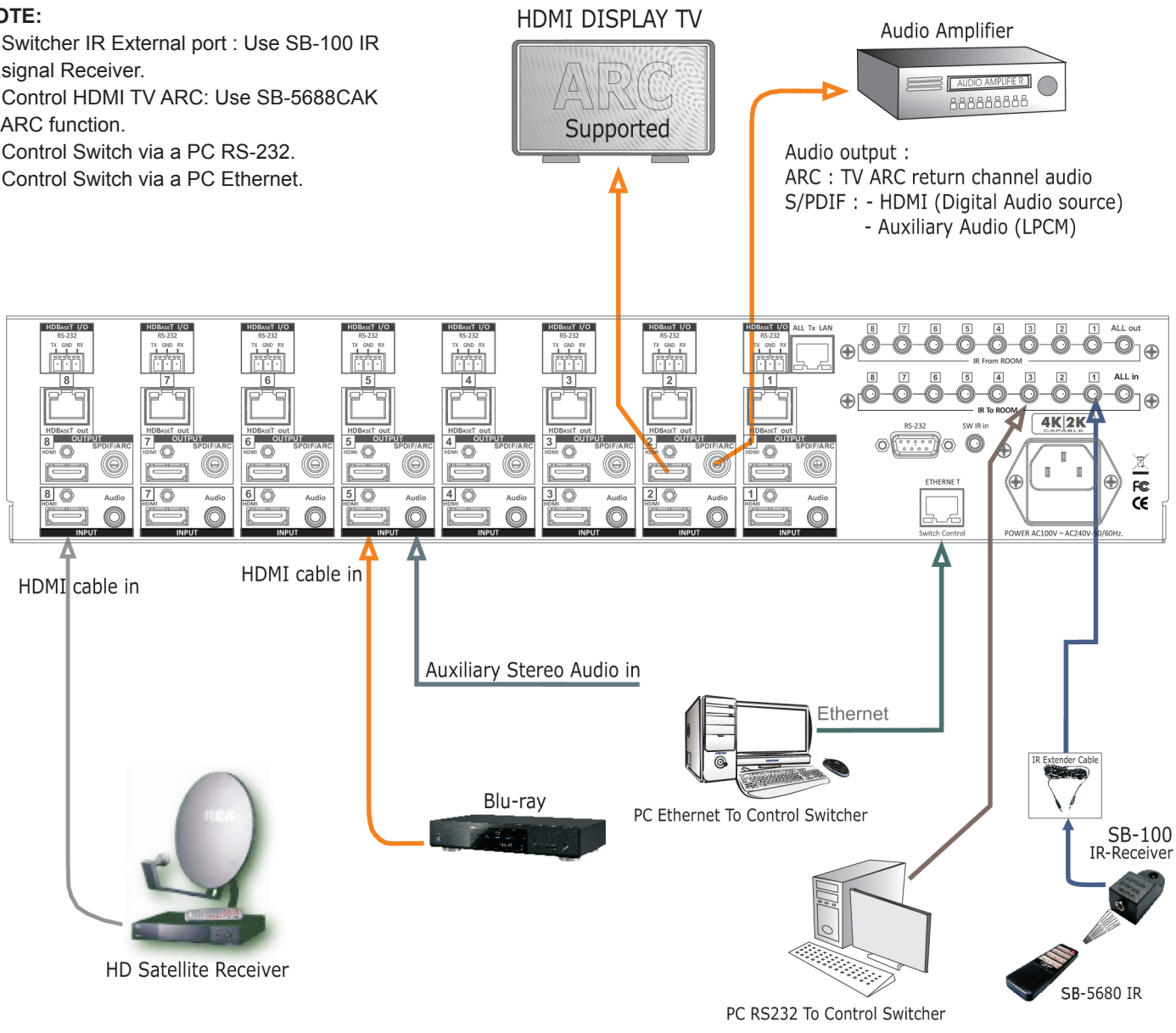
TYPICAL APPLICATION

INSTALLING DIAGRAM

Samples connection :
1. Using IR External, RS-232 or Ethernet command to control Switcher SB-5688CAK via PC or SB-100 IR receiver transmit the SB-5688CAK's IR signal.

2. Audio output link ARC from TV return channel, HDMI audio source or mixing Auxiliary audio.

NOTE:
1. Switcher IR External port : Use SB-100 IR signal Receiver.
2. Control HDMI TV ARC: Use SB-5688CAK ARC function.
3. Control Switch via a PC RS-232.
4. Control Switch via a PC Ethernet.

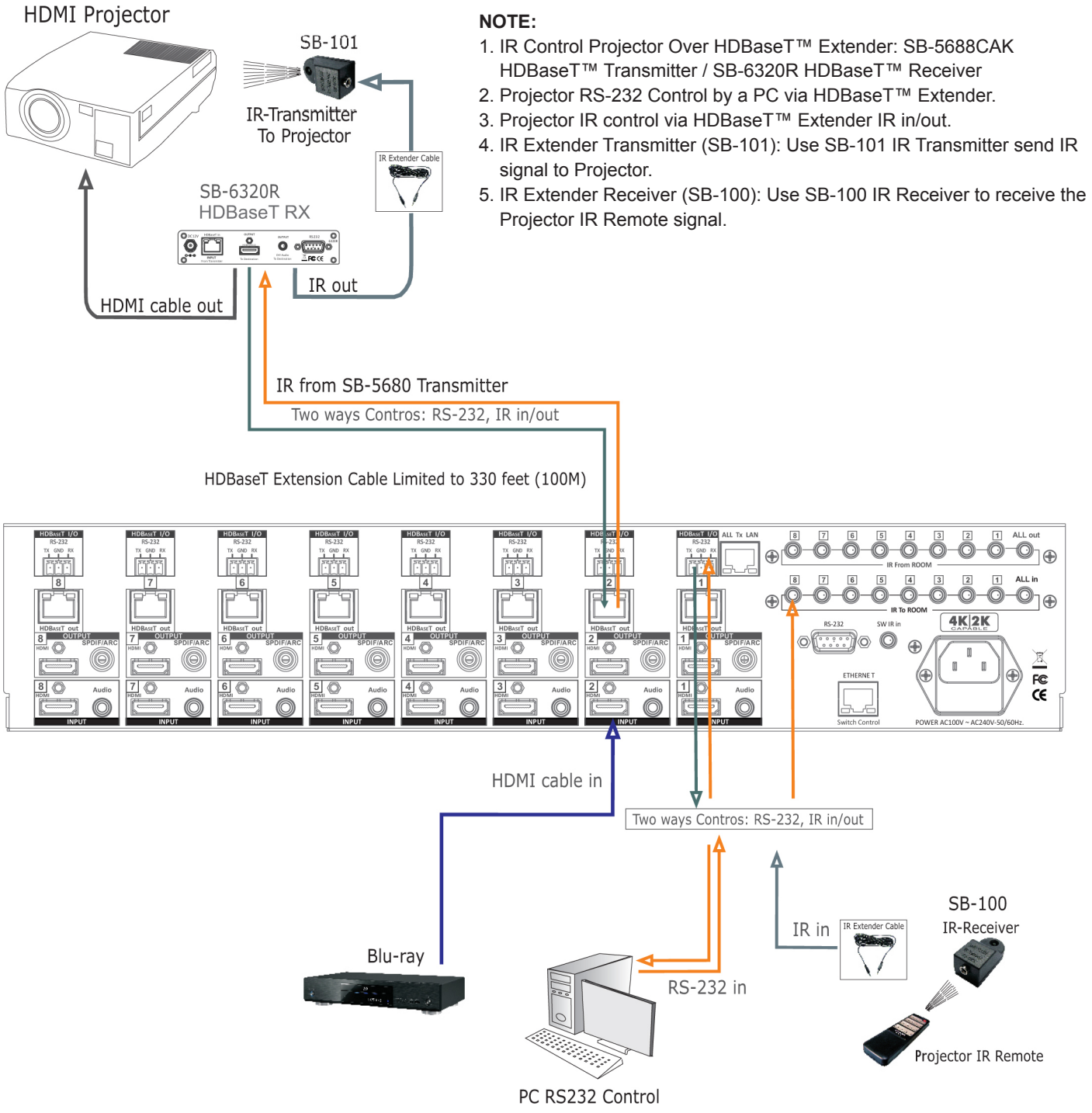


Application RS-232, IR and Ethernet control the Switcher.

TYPICAL APPLICATION

INSTALLING DIAGRAM

Sample connection using SB-5688CAK HDBaseT™ Transmitter and one HDBaseT™ Receiver (SB-6320R) to control a projector via RS-232 or IR signals.



NOTE:

1. IR Control Projector Over HDBaseT™ Extender: SB-5688CAK HDBaseT™ Transmitter / SB-6320R HDBaseT™ Receiver
2. Projector RS-232 Control by a PC via HDBaseT™ Extender.
3. Projector IR control via HDBaseT™ Extender IR in/out.
4. IR Extender Transmitter (SB-101): Use SB-101 IR Transmitter send IR signal to Projector.
5. IR Extender Receiver (SB-100): Use SB-100 IR Receiver to receive the Projector IR Remote signal.

TYPICAL APPLICATION

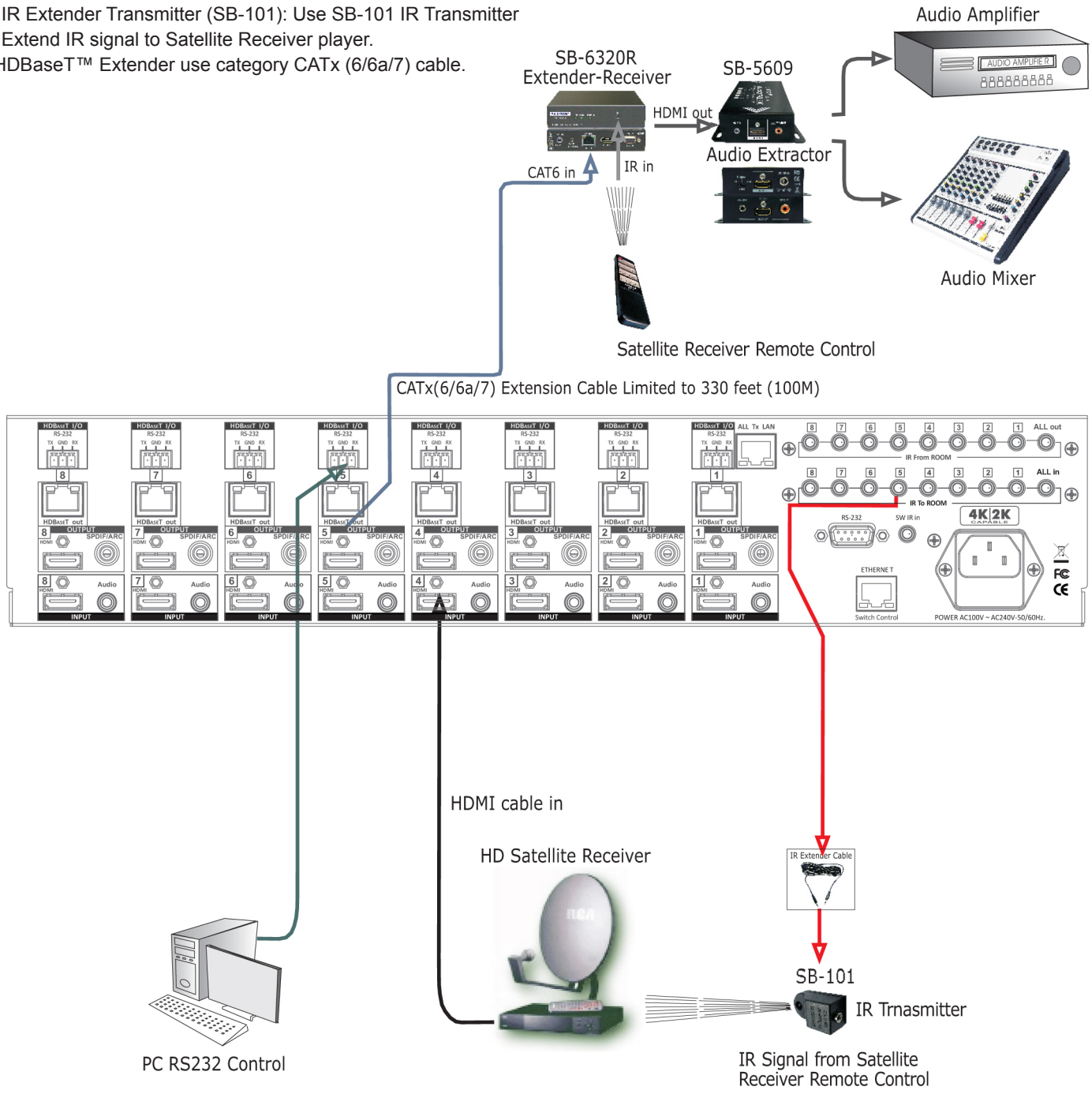
INSTALLING DIAGRAM

Sample connection using SB-5688CAK with IR Transmitters (SB-101) via SB-6320R to control a IR signal from Satellite Receiver.

NOTE:

1. IR Control Satellite Receiver Over HDBaseT™ Extender via CATx (6/6a/7) cable:
   HDBaseT™ Transmitter : SB-5688CAK
   HDBaseT™ Receiver : SB-6320R
2. IR Extender Transmitter (SB-101): Use SB-101 IR Transmitter to Extend IR signal to Satellite Receiver player.

* HDBaseT™ Extender use category CATx (6/6a/7) cable.

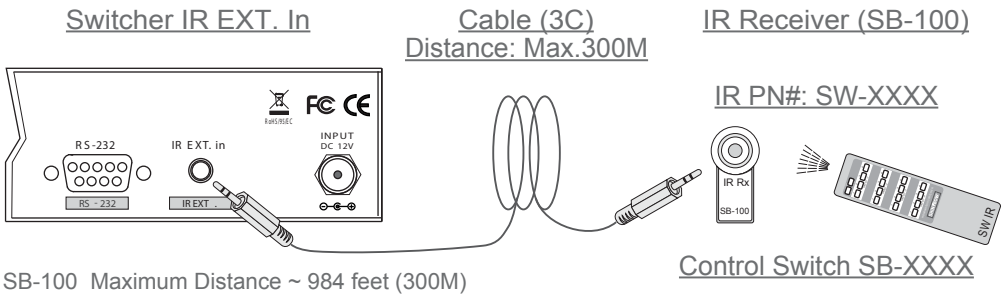


Support HDBaseT™ Extender by Switcher Transmitter and SB-6320R Receiver via CATx(6/6a/7) cable.

IR EXTENDER

1. SB-100 IR 300M Receiver



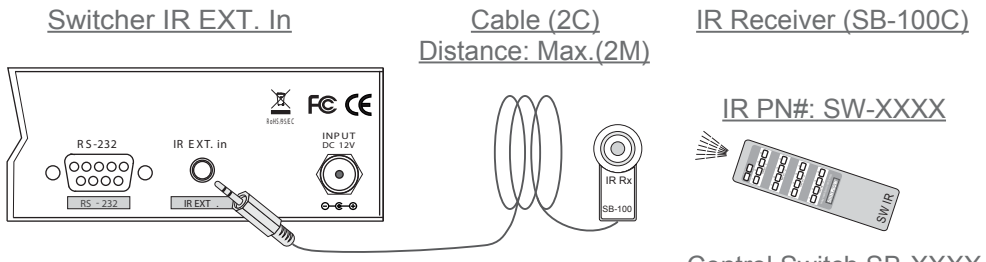


SB-100 Maximum Distance ~ 984 feet (300M)

The SB-100 IR Receiver is required when using the port “ALL in” Jack.

2. SB-100C IR 2M Receiver





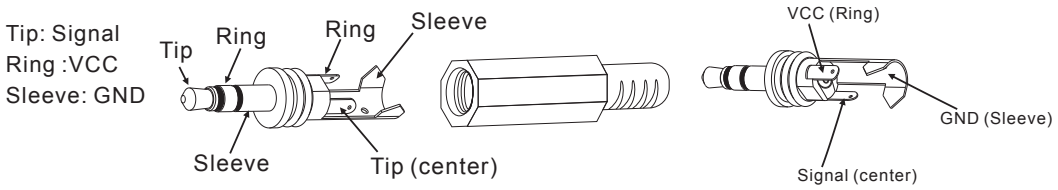
SB-100C Maximum Distance ~ 6 feet (2M)

The SB-100C IR Receiver will not function on the port “ALL in” Jack.

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

Pin configuration for IR 984 feet (300M) Extender Receiver such as SB-100 compatible

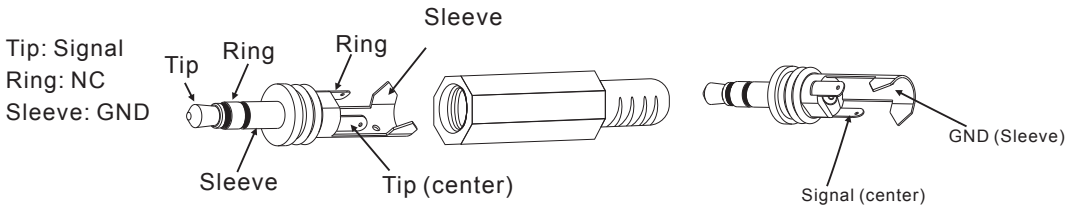




SB-100 Receiver and SB-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

Pin configuration for IR Receiver 6 feet (2M) cable such as SB-100C compatible





SB-100 Receiver and SB-101C Transmitter The DISTANCE maximum ~ 984 feet (300M)

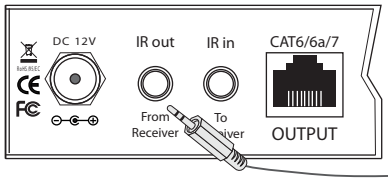
Note: *The External IR jack has voltage on the “Ring” portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

IR EXTENDER

1. SB-101 IR 300M Transmitter



Device



Cable (3C)

IR Transmitter (SB-101)

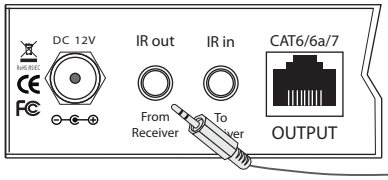


SB-101 Maximum Distance ~ 984 feet (300M)

2. SB-101C IR 2M Transmitter



Device



Cable (3C)

IR Transmitter (SB-101C)



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

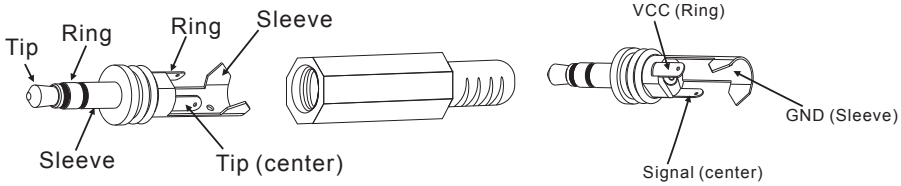
**** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ****

PIN CONFIGURATION:

SB-101 and SB-101C Transmitter Pin configuration



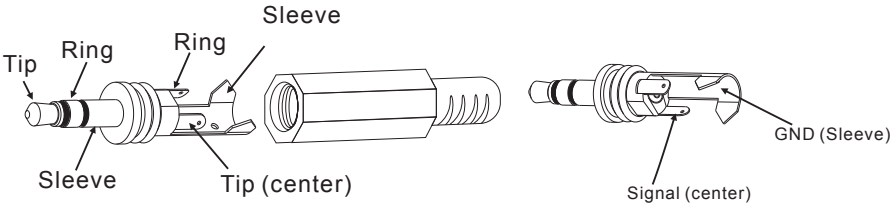
Tip: Signal
Ring :VCC
Sleeve: GND



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



Tip: Signal
Ring: NC
Sleeve: GND



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

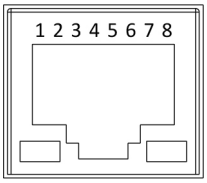
Note: *The External IR jack has voltage on the "Ring" portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

ETHERNET & RS-232 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.

Ethernet



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

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 V2.0.1)

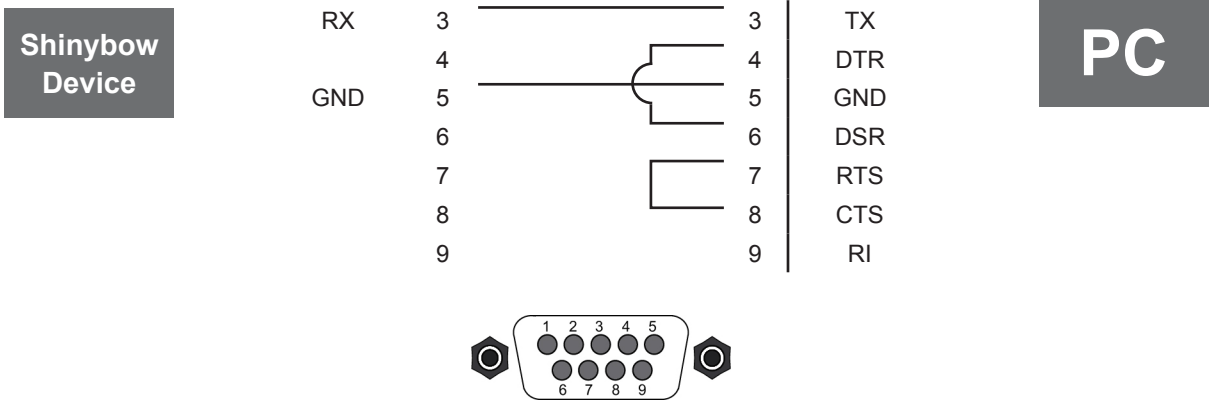
****** The Ethernet port and RS-232 port cannot be used simultaneously. Any connection to the Ethernet Control port will disable serial commands send to the RS-232 port.******

RS-232 SERIAL INTERFACE 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 PROTOCOL COMMANDS (RS-232 CONTROL DRIVER V2.0.1)

The ShinybowUSA switcher can be controlled via the TCP/IP 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 recognizes a complete command it will perform the requested action - there is no delimiter character required.

HDBASET™ APPLICATION

APPLICATION

HDBaseT™ Matrix Switcher using HDBaseT™ Receiver (Sold separately).

HDBaseT™ Receiver with Audio: SB-6320R

Distance: Max. 100M

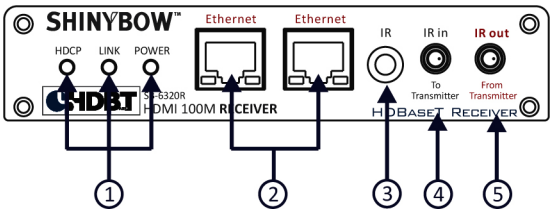
INPUTS:
1. 1x HDBaseT™ in
2. 1x IR External in

OUTPUTS:
1. 1x HDMI out
2. 1x DVI Audio

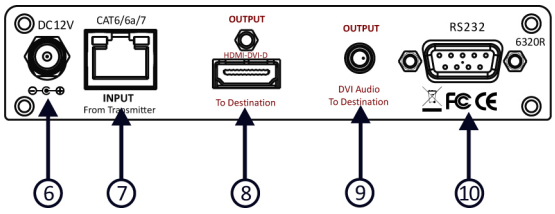
Controls:
1x RS-232, 1x IR in, 1x IR out, 2x LAN (Ethernet)



FRONT PANEL : HDBaseT™ 100M Receiver

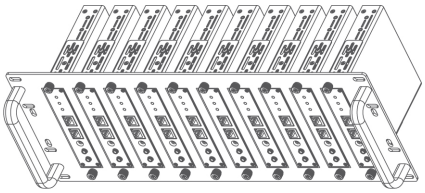


BACK PANEL : HDBaseT™ 100M Receiver



1. Status via LED Show out : POWER, LINK & HDCP	6. DC input : DC12V
2. 2x Ethernet path to Transmitter	7. RJ-45 in : HDBaseT™ signal input from the HDBaseT™ Transmitter
3. IR signal to HDBaseT™ Transmitter	8. HDMI out : HDMI signal output to HDMI destination display device
4. IR signal to HDBaseT™ Transmitter	9. Audio out : HDMI or DVI Audio (LPCM-2CH) outputs
5. IR signal from HDBaseT™ Transmitter	10. RS-232 I/O : RS-232 series interface control via a PC

Optional 19 inch Rack Mount Bracket for SB-6320T and/or SB-6320R:
Complete 19 inch 4U rack mount of SB-6069 **(optional)**

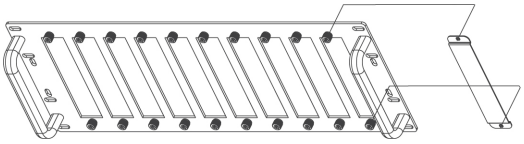


Support HDBaseT™ Extender by Transmitter and Receiver via HDBaseT™ CATx(6/6a/7) cable

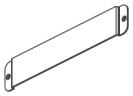
Install Application : SB-6320T/R

SB-6320T/R 19 INCH 4U-10P RACK MOUNT

1. Model No. : #4U-10p-M130MM
Parts No.: MEER6069ER13000
SB-6320T/R 4U Ear mount pairs

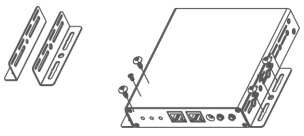


2. Model No. : #4U-10p-M130MM-COV
Parts No.: MEER6069ER11000
SB-6320T/R 4U Ear mount pairs

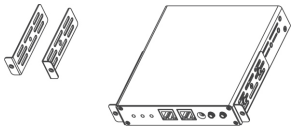


SB-6320T/R : Wall mount accessories

3. Model No. : #WM-1INCH-130MM
Parts No.: MEER6320ER11000
SB-6320T/R Wall mount pairs



4. Model No. : #4U-10p-M130MM-EAR
Parts No.: MEER6320ER11001
SB-6320T/R 4U Ear mount pairs



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