INSTRUCTION MANUAL

SB-5669CK

16x16 HDMI & HDBaseT™ - UHD 4K2K Matrix Routing Switch w/ Full EDID Management/Learning



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™ 4K2K Matrix Routing Switch Series

Thank you for purchasing the SB-5669CK 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 16x16 HDMI-HDBaseT™ Matrix switcher.

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INTRODUCTION

The SB-5669CK is professional 16x16 matrix routing switch. Supporting (16) HDMI Inputs and (16) HDMI Outputs & (16) HDBaseT™ Outputs. The SB-5669CK is based on the HDBaseT™ standard and supports full resolution HDMI Video with embedded HDCP, RS-232 and Bi-directional IR. All over a single CAT6/6a/7 category cable. With a signal bandwidth of 340Mhz, there is no signal degradation. High Definition Digital signals can be selected and distributed to any (16) Inputs to (32) Outputs simultaneously (channel outputs mirrored). The Switcher is certified as being fully CEC and HDCP 2.0 compliant, HDMI 4K2K V1.4a 3D formats, data rates up to 6.75 Gbps. Using the build-in booster, each HDMI Output port is capable of driving cable lengths for 1080p up to 98 feet (30M) & 4K2K up to 66 feet (20M). Supports UXGA/WUXGA/DVI 1920x1200 resolution to any HD displays. The SB-5669CK has (16) HDMI connector Input and (16) HDBaseT™ & (16) HDMI output, effectively making this an (16) in x (32) out switcher (same signal on both outputs). Using the HDBaseT™ output remote Transmitter 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. EDID management can be selected between (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).

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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FEATURES & CONTENTS

FEATURES

- Enables switching of (16) HDMI digital source devices to (16) HDMI devices and (16) HDBaseT™ Transmitter output to (32) destinations
- Application HDBaseT™ specification with Bi-Directional IR, RS-232, Multi Audio Format and HD Video Signals over single CATx (6/6a/7) category cable
- HDMI digital video w/ embedded HDCP, DVI format and CEC/HDCP 2.0 compliant
- Worldwide control EDID modes for HDMI full 4K2K HD Video resolutions
- Link speeds of up to 6.75 Gbps (link clock rate of 340MbHz), Support 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 digital multi-channel Audio: Dolby TrueHD, Dolby Digital, Dolby Digital Plug/ex, DTS, DTS-HD, DTS-HD Master, DTS-EX PCM, PCM2, LPCM2
- HDBaseT™ Support IR Remote and RS-232 signals over single one CATx (6/6a/7) category cable
- Various User Interface controls:
  - Windows based GUI control via RS-232 port
  - Front panel push button
  - IR wireless remote controller
  - Ethernet Switch control (via pc protocol commands)
  - Third party RS-232 controller (via simple ASCII)
- Support world wide (7) control function keys:
  - **Full function front panel controls:** ALL / OFF / EDID / LOCK / RECALL / MEMORY / ENTER
  - **Support EDID modes:**
  - a. Embedded EDID modes: FSS (fast speed start)/ H24-3D/ H24-3D-M/ H36-3D/ H36-3D-M/ 4K2K-3D / DVI-D 1920x1200-60Hz
  - b. External modes: Learning mode (learning destination EDID link to source device)
- Automatic scanning input & output status via LCM showout on front panel
- Using the build-in booster, each HDMI Output port is capable of driving cable lengths 1080p up to 98 feet (30M) & 4K2K up to 66 feet (20M)
- Supports IR Remote and IR Extender with distance up to ~ 984 feet (300M) Maximum
- Support Universal power adaptor AC100V~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.

PACKAGE CONTENTS

Check that you have the following components;

- SB-5669CK Matrix Switcher
- Ethernet V2.0 Protocol Instructions
- RS-232 V2.0 Protocol Instructions
- Users Guide
- Master wireless IR Remote Control (SW-5669)
- (16) Individual wireless IR Controls (SW-5669CK-IR01~IR16)
- 19 inch Ear mount bracket (Part # 4U-440L)
- SB-100 IR Extender distance ~984 feet (300M) Receiver set
- SB-101 IR Extender distance ~984 feet (300M) Transmitter set
- SB-101C IR Extender distance 6.5 feet (2M) Transmitter Cable
- SB-100C IR Extender distance 6.5 feet (2M) Receiver Cable
- CD Contents: This manual, Windows GUI, ISP V1.0 Windows driver
- RS-232 Cable 6.5 feet (2M)
- ISO Screws
- Worldwide Universal Power Supply 100~240 VAC, AC 50/60Hz, 10A













SB-6335R series HDBaseT™ Receiver sold separately

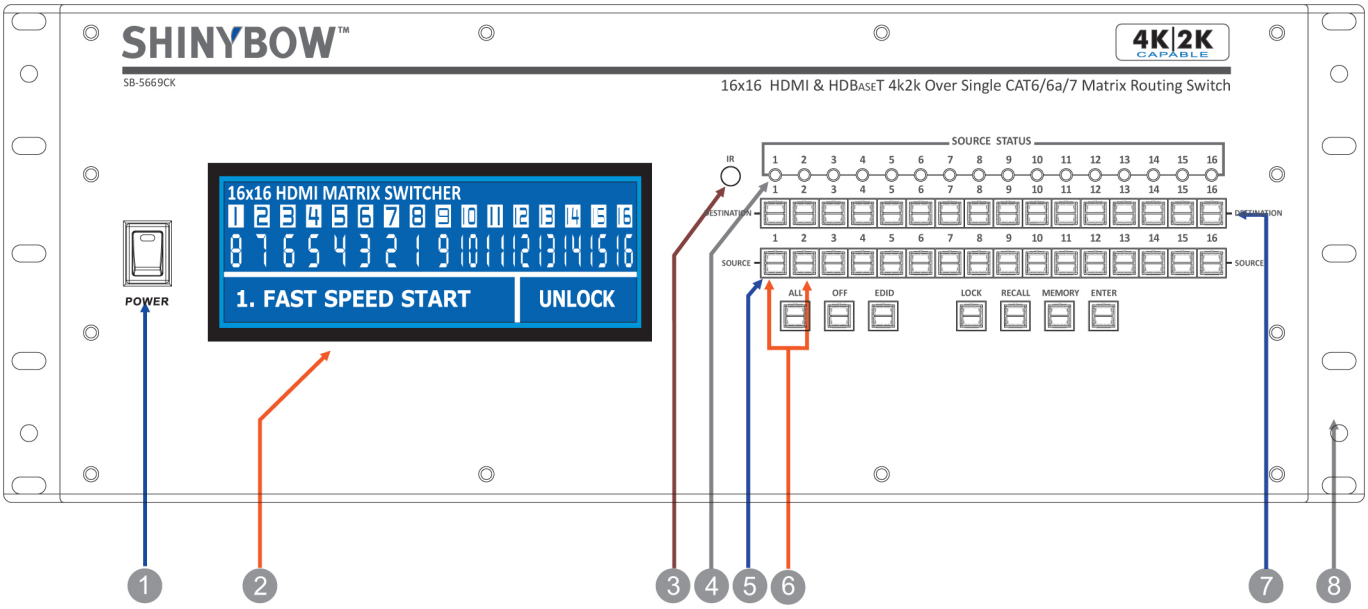
SPECIFICATIONS

SPECIFICATIONS

- **Type of HDMI Switcher:** 16x HDMI Inputs to 16x HDMI & 16x HDBaseT™ Outputs Matrix Switcher
- **HDMI Support:** HDMI 4K2K, 1080p-@60Hz, H36-bit Deep color, 3D of HDMI V1.4 formats
- **HDBaseT™ Support:** HDMI digital signals, bi-directional IR and RS-232 over single CATx (6/6a/7) cable
- **HDCP / CEC Support:** HDCP 1.3 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 340 MHz, total 6.75 Gbps bandwidth
- **Digital Video Support:** HD:480i/ 480p/ 720p/ 1080i/p and 4K2K up to 36bit deep color
- **Inputs: HDMI:** 16x HDMI (HDMI or DVI digital source)
- **Outputs:**
  - **HDMI:** 16x HDMI (To Destination)
  - **HDBaseT™:** 16x HDBaseT™ Transmitter via single category cable use RJ-45 connectors
    - **HDMI digital multi-channel audio support :** 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)
- **Booster (HDMI Output Each):** * 1080p up to ~98 feet (30M) & 4K2K up to ~66 feet (20M)
- **HDBaseT™ Control:**
  - **IR Control:**
    - 16x IR in (Send IR signals To 16x Rooms via HDBaseT™ Transmitter)
    - 1x ALL IR in (Send IR Signals To 16x Rooms - Via HDBaseT™ Transmitter)
    - 16x IR out (Link to Receive IR signals from 16x Rooms via HDBaseT™ Extender)
    - 1x ALL IR out (Link to Receive IR signals from 16x Rooms via HDBaseT™ Extender)
  - **RS-232 I/O Control:**
    - 16x RS-232 I/O (Control 16x 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), p/n: SW-HD69CK
  - 16x IR Room Remote Controller (switch control), p/n: SW-HD69CK01~16
  - 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
- **(39) Function Control Key:** ALL / OFF / RECALL / ENTER / MEMORY / LOCK / EDID / Destination 1 thru 16 / Source 1 thru 16
- **(7) EDID Management:**
  - **Select Embedded EDID modes :**
    - Mode1: Fast Speed Start® / Mode2: H24-3D / Mode3: H24-3D-M / Mode4: H36-3D / Mode5: H36-3D-M / Mode6: 4K2K-3D, PCM-2CH / Mode7: DVI-D 1920x1200
- **Learning Mode:**
  - **Select LEARNING mode-1:** Learning single Destination EDID To Link Source
  - **Select LEARNING mode-2:** Learning multiple Destination EDID To Link Source
- **Infrared Frequency:** 38 Khz
- **IR Extend Distance:** SB-100 (~984 ft/300M maximum), SB-100C (~6.5 ft/2M)
- **HDBaseT™ Extender Distance:** ~328 feet / 100 meters maximum
- **HDMI I/O Connector:** HDMI Type A-SMD 19-pin female type
- **Temperature:** Operate in a place between 32°F-100°F (0°C-38°C)
- **Dimensions (LxWxH):** 17.32 x 11.81 x 6.93 in (442x300x176 mm)
- **Rack Mount:** 4RU High 19 in Rack Mount #4U-440L (with rack mount ears)
- **Power Supply:** AC 100~240 VAC 50/60Hz (Power Consumption:10A Maximum)
- **Safety Approvals:** CE, FCC, REACH
- **Product Weight:** 4.575 Kgs/10.45 lb

As product improvements are continuous, specifications are subject to change and 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 a third party IR emitter.

4. INPUT STATUS DISPLAY: Input source 1 to 16 LED illuminate white to indicate a video source is present on that input.

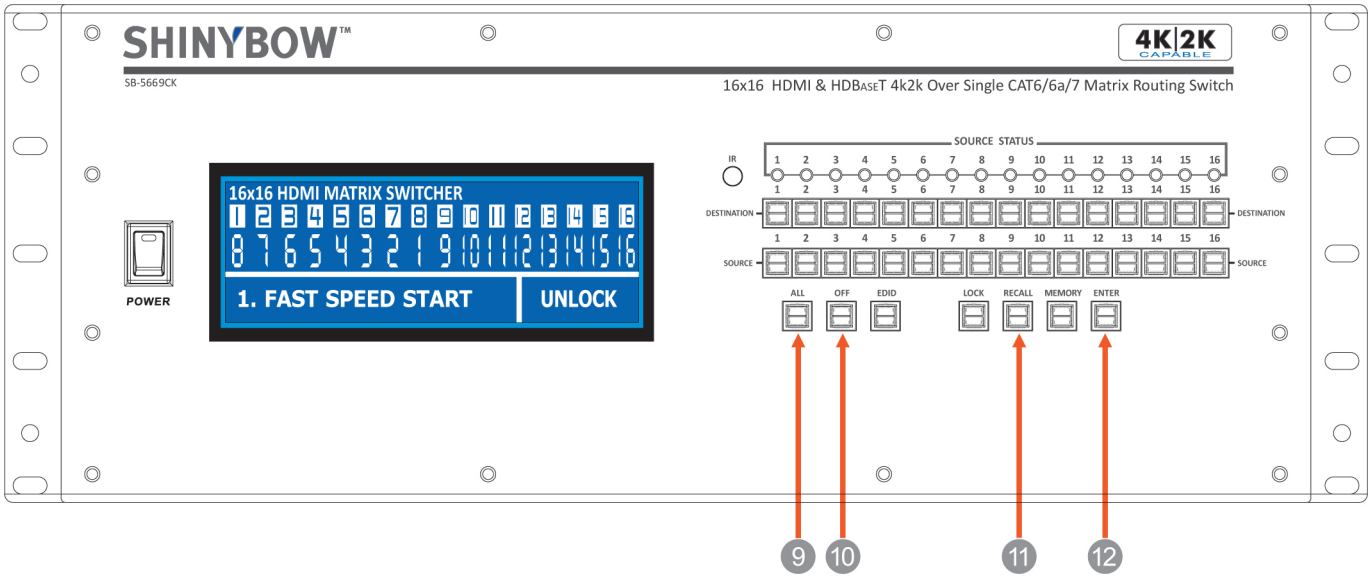
5. SOURCE SELECT BUTTONS: Input 1 thru 16 buttons are provided for each source selection.

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

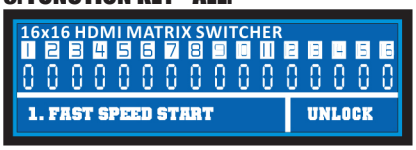
7. DESTINATION SELECT BUTTONS: Separate outputs 1 thru 16 select buttons are provided for each destination assignment. Routing can be Source to Destination or one source to multiple destinations.
Example: Press Destination 1, 8, 12 then press Source 2 will route Input 2 to Output 1, 8, 12 respectfully.

8. 19 INCH EAR MOUNT PAIR: Converts desktop to 19 inch rack mount. Bracket (part # 4U-440L) INCLUDED. Image shows rack mount bracket attached.

FRONT PANEL



9. FUNCTION KEY - ALL:



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

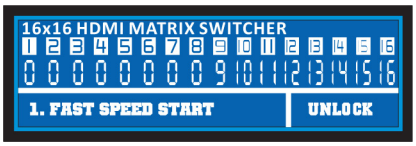
Option 1

- 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 16. The display will show the source selected.
- Press **ENTER** The pre-set source selection will be assigned all destinations.

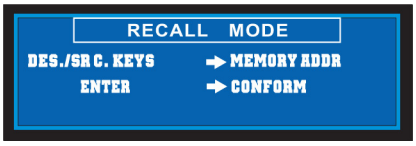
10. FUNCTION KEY - OFF:



Disables (mute) video on the selected destinations.

- Press **OFF** button followed by any Destination channel.
- Press 1 thru 16 output destination. The display will show “0“ for the selected channel, indicating no video selected.
- Press **ENTER** The pre-set configuration will execute

11. FUNCTION KEY - RECALL:



The system will show previously stored presets, up to a total of 32. Presets are stored in local memory using Source keys 1 thru 16 or Destination keys 1 thru 16 as the memory preset location.

- Press **RECALL** button.
- Press 1 thru 16 on either Source or Destination row.
- Press **ENTER** The pre-set configuration will execute.

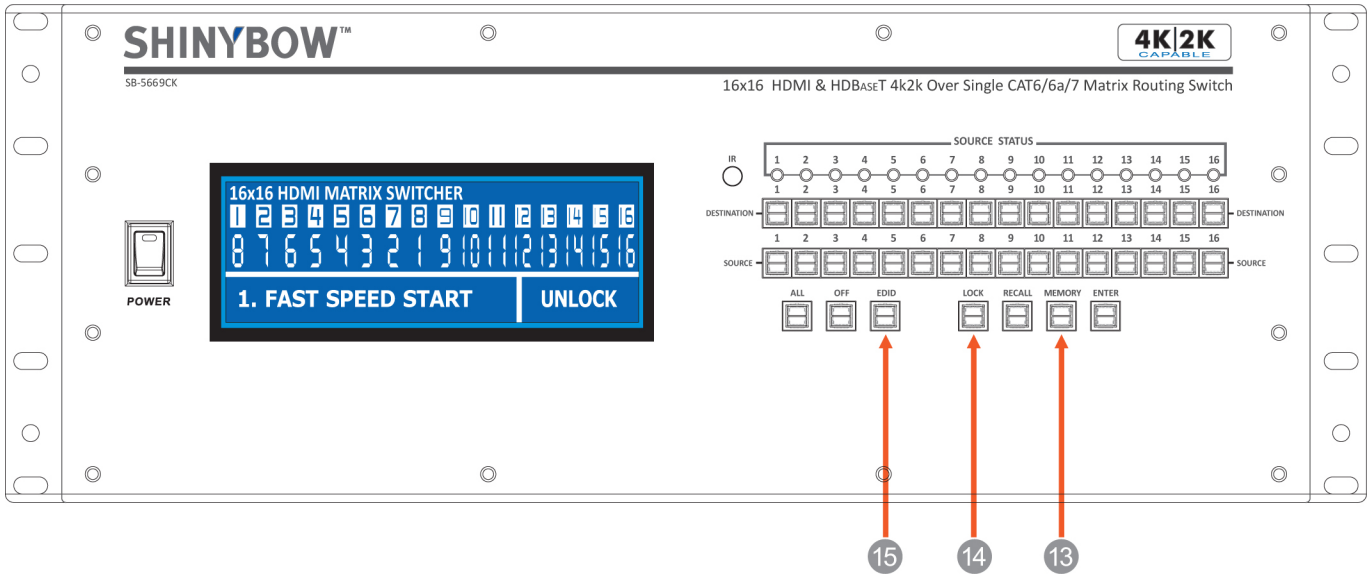
Operation completes.

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

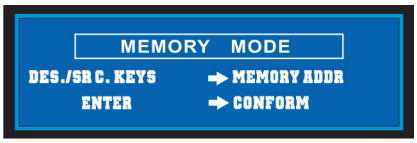
- Or press RECALL again to cancel operation.

12. FUNCTION KEY - ENTER: Press **ENTER** to confirm entries.

FRONT PANEL



13. FUNCTION KEY - MEMORY:



The system will show store presets, up to a total of 32. Presets are stored in local memory using Source keys 1 thru 16 or Destination keys 1 thru 16 as the memory preset location.

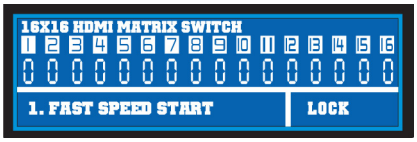
- Configure desired matrices.
- Press **MEMORY** button.
- Press 1 thru 16 on either Source or Destination row.
- Press **ENTER** to ready memory location.
- Or press **MEMORY** again to cancel operation.

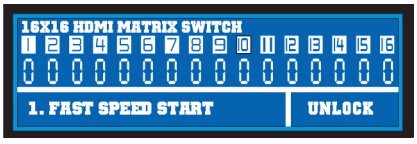
Operation completes.

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

- Or press MEMORY again to cancel operation.

14. FUNCTION KEY - LOCK:





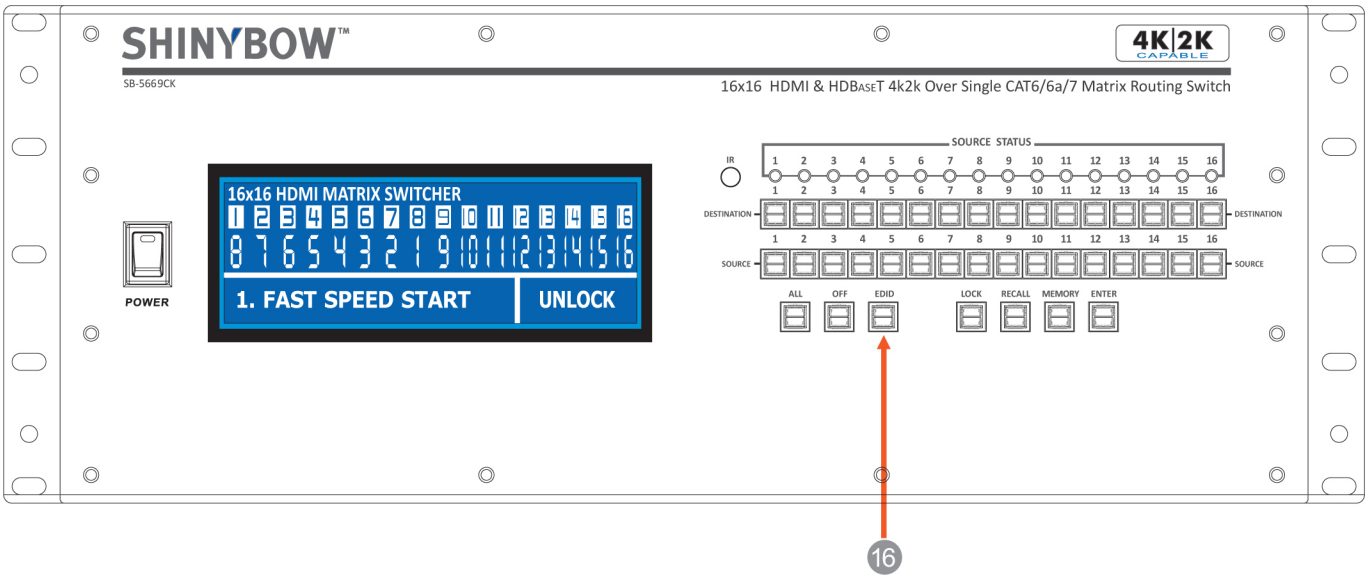
- Press and hold **LOCK** button for two seconds lock out the front panel (as shown on the left).
- Press and hold **LOCK** button for two seconds to enable the front panel (as shown on the right).

15. FUNCTION KEY - EDID:



- Press **EDID** to begin setting up your EDID mode. Use source row buttons #1 and #2 to cycle thru the options. (Go EDID setup instructions.)

FRONT PANEL



16. SELECT (7) EMBEDDED EDID MODES

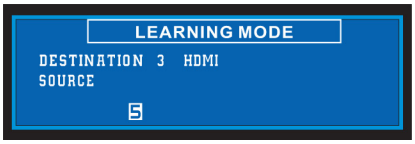


Used to display change current EDID mode.
- Press **EDID** to select new EDID mode
- Press **SOURCE** row #1 or #2 Select (7) Embedded EDID modes.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel operation.

Operation completes.

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

SELECT LEARNING MODE-#1

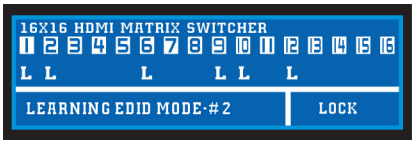


Select external **LEARNING** EDID mode-#1 (Single mode)
- Press **EDID** to select new Learning EDID mode-#1.
- Press Destination again, press the same Destination #1 thru #16 to learn HDBaseT™ out port EDID, The EDID for HDBaseT™ (CATx) has been learned.
- Press **SOURCE**, press Source row #1 thru #16 , Switcher will Learning destination HDMI or HDBaseT™ EDID and pass to the Select sources.
- 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.

SELECT LEARNING MODE-#2

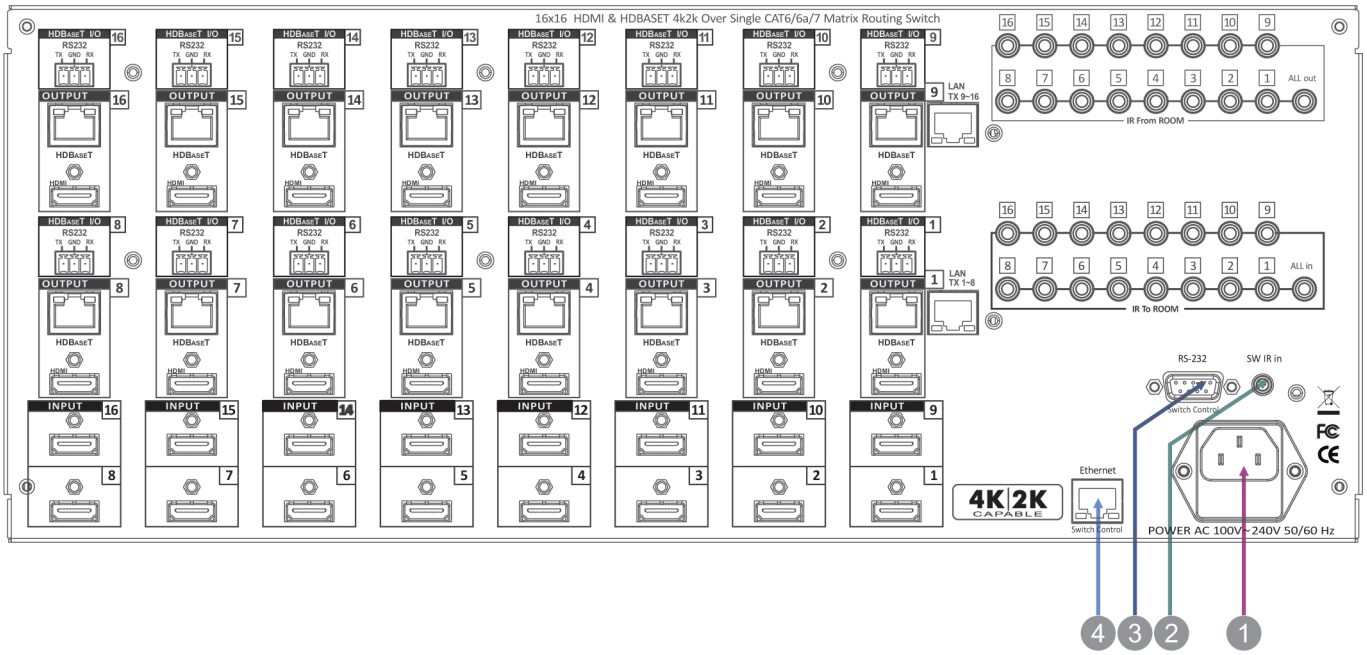


Select external **LEARNING** EDID mode-#2 (Multiple mode)
- Press **EDID** to select new Learning EDID mode-#2.
- Press **OFF**, the LCM show Learning mode#2 status.
- Press **Destination** button #1 thru #16 to setup learning mode-#2, The LCM will show "L", The destination EDID for HDMI or HDBaseT™ (CATx) has been learned.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel operation.

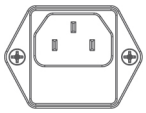
Operation completes.

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

BACK PANEL



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 ~984 feet / 300 meters maximum. 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: DB-9pin Female connector

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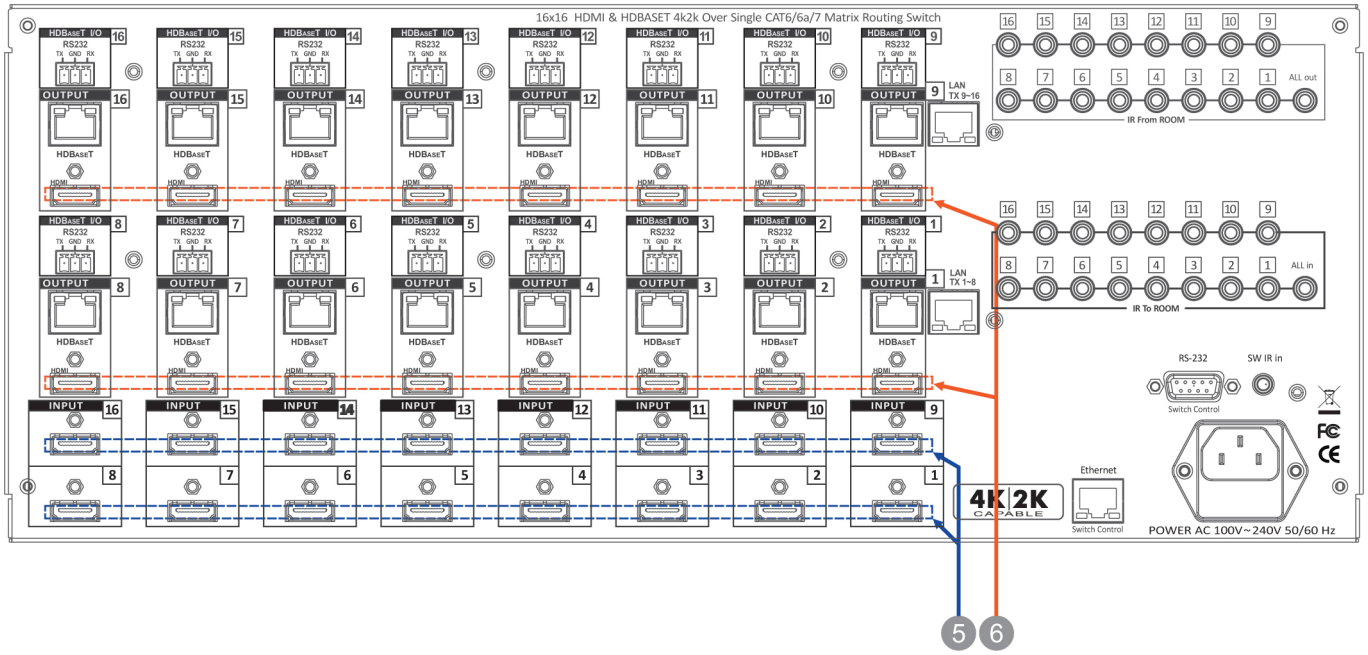
4. ETHERNET CONNECTION: ETHERNET control port to allow for TCP/IP interfacing to a PC. Such as a computer or touch panel control (not a web-browser), to the switcher via this RJ-45 Female connector to control switcher.



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



5. INPUTS - 1 ~ 16 HDMI: Connect an HDMI signal source to this Input. This HDMI port supports HDMI with embedded audio and DVI with AUX audio sources.

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.

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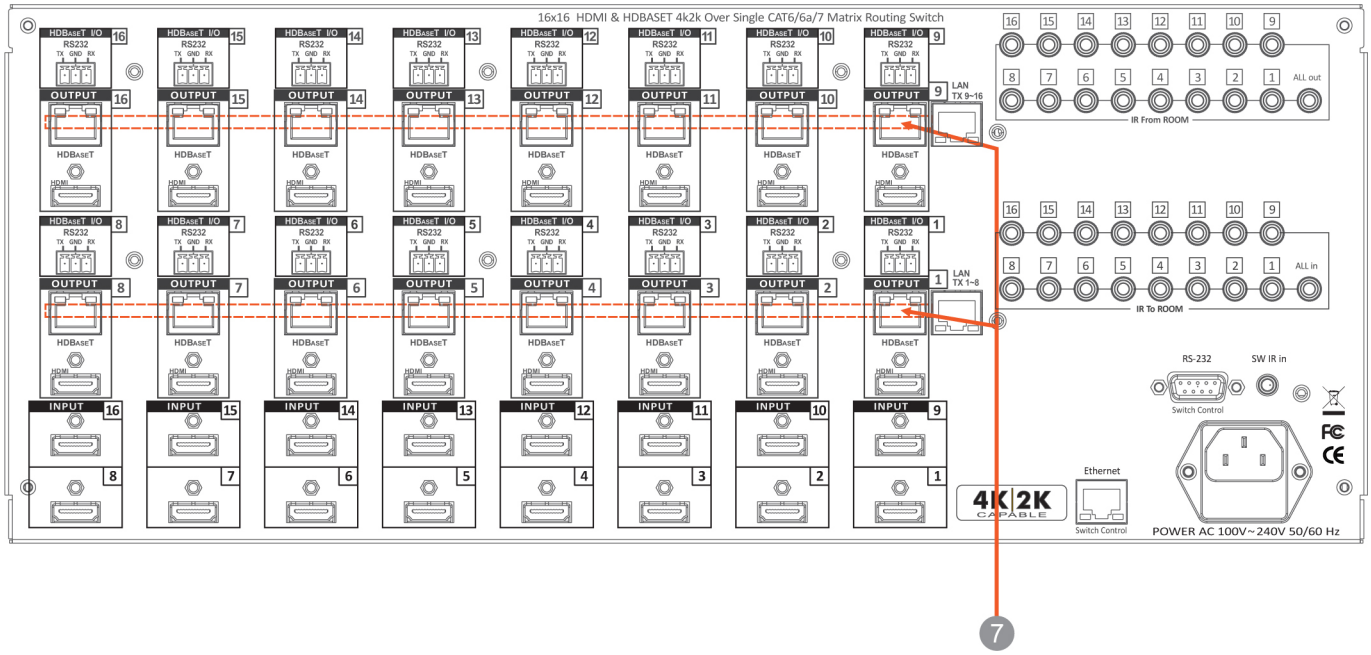
6. HDMI OUTPUTS 1 ~ 16: Connect an HDMI signal source to this Output. This HDMI port supports HDMI with embedded audio and DVI with AUX audio.

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.



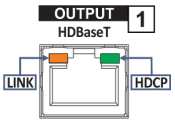
HDMI Connector: HDMI Type A SMD 19pin Female socket connector.
Note: With the proper adapters, the switcher can be used with DVI digital video signals HDCP compliant.

BACK PANEL



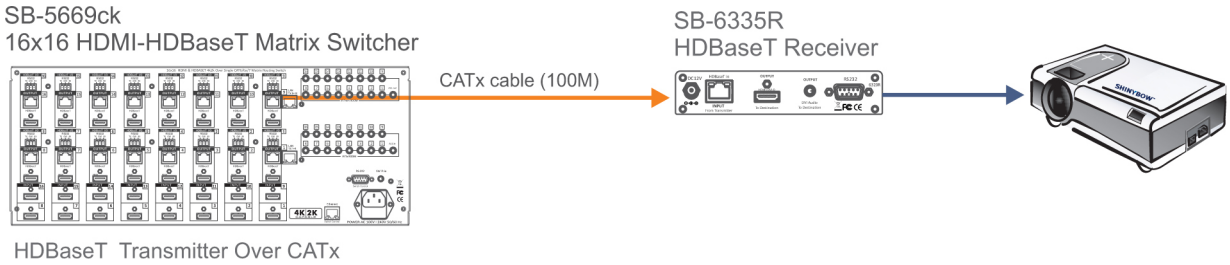
7. OUTPUT - 1 ~ 16 HDBASET™ (TRANSMITTER): To send 16 HDMI and control signals via Switcher 16x HDBaseT™ Transmitters to link 16x external HDBaseT™ Receiver.

Switcher used 16x HDBaseT™ Transmitter Output #1 ~ Output #16 with PoE (optional) RJ-45 via CATx (6/6a/7) category cable. Controls signals IR input, IR output and RS-232 between Switcher and HDBaseT™ Receiver.

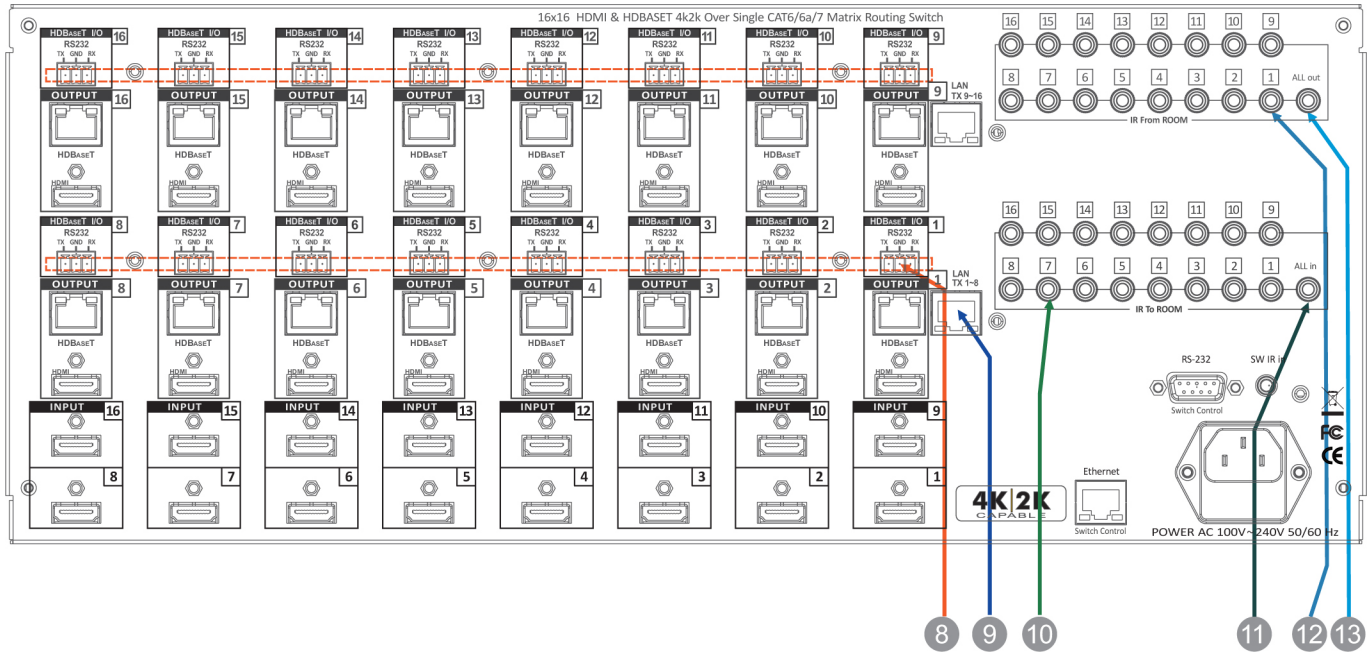


HDBaseT™ Transmitter Connector: 16x RJ-45 Jack 8P8C Female socket.

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



BACK PANEL



8. HDBASET™ RS-232: 1~16 CONNECTION: 16x RS-232 control port to allow for interfacing to a PC. Controls I/O via Switcher HDBaseT™ Transmitter (16) Rooms each via this D-Bub 9pin Female socket for serial RS-232 control.

Remote port: DB-9pin Female connector

9. HDBASET™ LAN CONNECTION: All Tx LAN : Provides Ethernet(LAN) connection from the switcher to All HDBaseT™ Transmitter (ie. SB-6335T5).

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

10. HDBASET™ IR INPUT: 1~16 REMOTE IR SIGNAL TO ROOM: Send 16x IR signals to (16) 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 3.5mm

11. HDBASET™ ALL IN: 1~16 REMOTE IR SIGNAL TO ROOM: Receive 16x IR signals from (16) rooms each 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 3.5mm

12. HDBASET™ IR OUTPUT: 1~16 REMOTE IR SIGNAL FROM ROOM: Receive 16x IR signals from (16) rooms each via Switcher HDBaseT™ Transmitter. When you plug the Switcher HDBaseT™ IR Transmitter into the external port, the room IR HDBaseT™ receiver remain active.

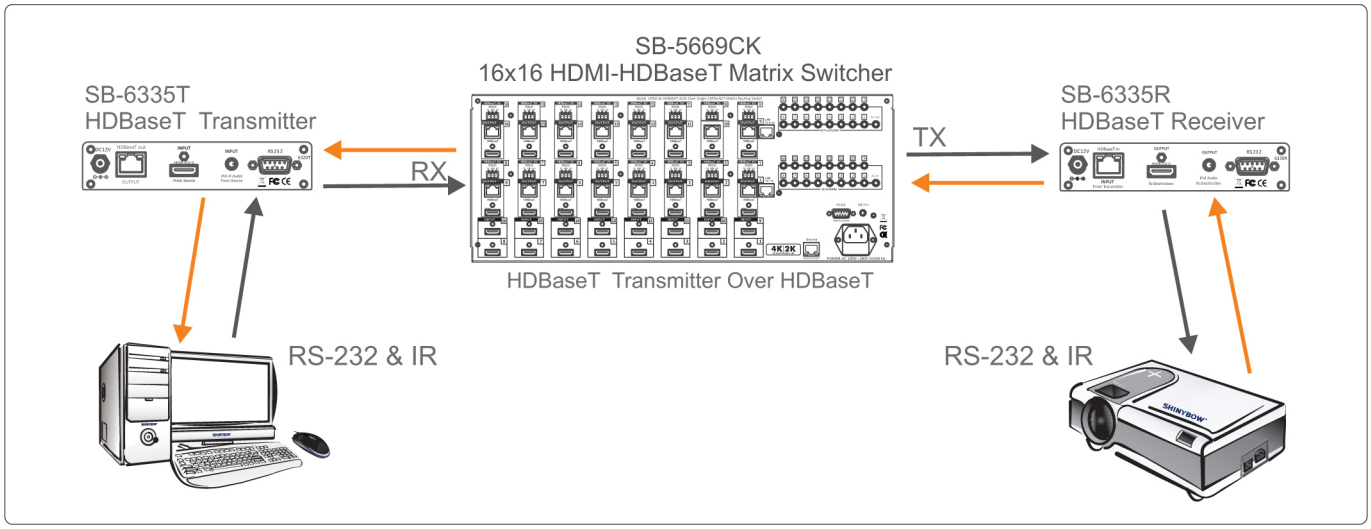
IR Extender Jack: Female Jack - inner OD Ø 3.5mm

12. HDBASET™ ALL OUT: 1~16 REMOTE IR SIGNAL FROM ROOM: Receive IR signal from all (16) rooms via Switcher HDBaseT™ Transmitter. When you plug the Switcher HDBaseT™ IR Transmitter into the external port, the room IR HDBaseT™ receiver remain active.

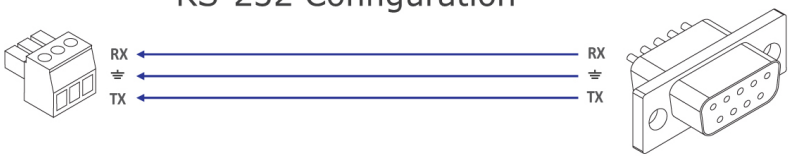
IR Extender Jack: Female Jack - inner OD Ø 3.5mm

HDBASET™ I/O TRANSMISSION & CABLE EXTENSION LENGTHS

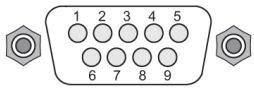
HDBaseT™ I/O Transmission



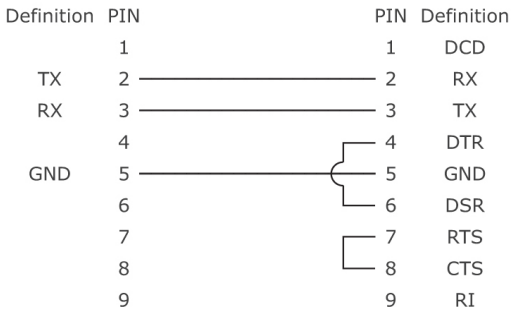
RS-232 Configuration

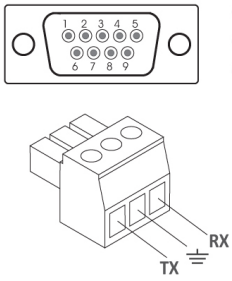


RS-232 Pin Diagram



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





RS-232 Cable Pins out

PC 232 PINS
DB-9P , MALE plug

HDBaseT Tx/Rx SB-6335T

RS-232 PINS OUT
3-pin Phoenix connector

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
Blue-Ray DVD player 1080p	174.00 MHz	Yes	NA	Yes

REMOTE CONTROL

Before making any connections 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 1-16 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

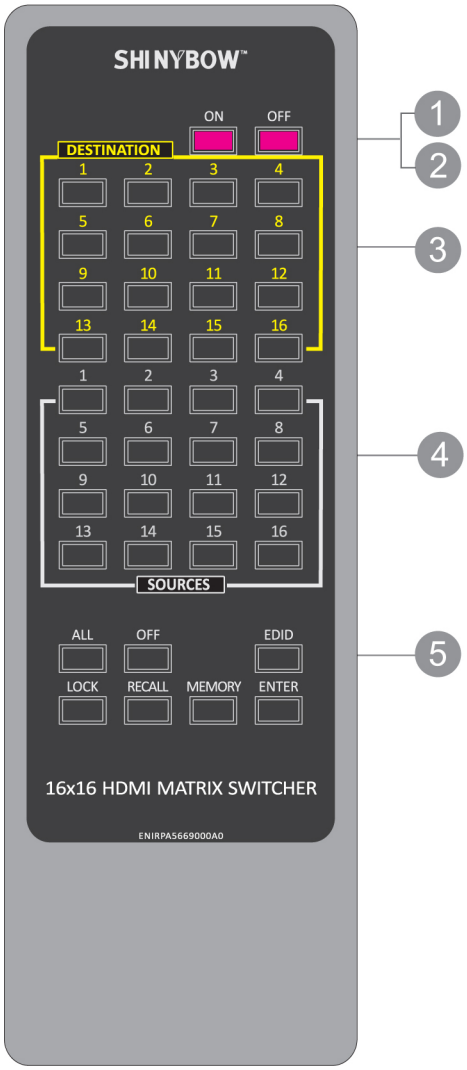
1. & 2. SWITCH POWER ON or OFF:
Controller with a power ON and OFF

3. DESTINATION : 1 THRU 16 OUTPUT SELECTION:
Press the destination button to select the output display channel.

4. SOURCE : 1 THRU 16 INPUT SOURCE SELECTION:
Press input 1~16 sources with selection button

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

IR REMOTE : SW-5669CK



REMOTE PROTOCOL COMMANDS

IR REMOTE CUSTOM AND DATA CODES (NEC Standard)

HOW TO SETUP IR CODES :

POWER ON : 5BA4 A15E
POWER OFF : 5BA4 A25D
ALL : 5BA4 B04F

CUSTOM CODE : 5BA4

OFF : 5BA4 B14E
RECALL : 5BA4 B24D
ENTER : 5BA4 B34C

EDID : 5BA4 B748
LOCK : 5BA4 B54A
MEMORY : 5BA4 B44B

PRESS DESTINATION - # then PRESS SOURCE -

DESTINATION #1 :	5BA4	10EF	SOURCE #1 :	5BA4	20DF
DESTINATION #2 :	5BA4	11EE	SOURCE #2 :	5BA4	21DE
DESTINATION #3 :	5BA4	12ED	SOURCE #3 :	5BA4	22DD
DESTINATION #4 :	5BA4	13EC	SOURCE #4 :	5BA4	23DC
DESTINATION #5 :	5BA4	14EB	SOURCE #5 :	5BA4	24DB
DESTINATION #6 :	5BA4	15EA	SOURCE #6 :	5BA4	25DA
DESTINATION #7 :	5BA4	16E9	SOURCE #7 :	5BA4	26D9
DESTINATION #8 :	5BA4	17E8	SOURCE #8 :	5BA4	27D8
DESTINATION #9 :	5BA4	18E7	SOURCE #9 :	5BA4	28D7
DESTINATION #10 :	5BA4	19E6	SOURCE #10 :	5BA4	29D6
DESTINATION #11 :	5BA4	1AE5	SOURCE #11 :	5BA4	2AD5
DESTINATION #12 :	5BA4	1BE4	SOURCE #12 :	5BA4	2BD4
DESTINATION #13 :	5BA4	1CE3	SOURCE #13 :	5BA4	2CD3
DESTINATION #14 :	5BA4	1DE2	SOURCE #14 :	5BA4	2DD2
DESTINATION #15 :	5BA4	1EE1	SOURCE #15 :	5BA4	2ED1
DESTINATION #16 :	5BA4	1FE0	SOURCE #16 :	5BA4	2FD0

Example: Let Destination # 1 show the signal from Source #1~4

The IR Data Code list :	5BA4	10EF	5BA4	20DF
Destination # 1 , Source #1	5BA4	10EF	5BA4	21DE
Destination # 1 , Source #2	5BA4	10EF	5BA4	22DD
Destination # 1 , Source #3	5BA4	10EF	5BA4	23DC
Destination # 1 , Source #4	5BA4	14EB	5BA4	24DB

Let Destination # 1 show the signal from Source #1~16

Press Destination# > Source#		The IR Data Code list :			
Destination # 1	Source # 1	5BA4	10EF	5BA4	20DF
Destination # 1	Source # 2	5BA4	10EF	5BA4	21DE
Destination # 1	Source # 3	5BA4	10EF	5BA4	22DD
Destination # 1	Source # 4	5BA4	10EF	5BA4	23DC
Destination # 1	Source # 5	5BA4	10EF	5BA4	24DB
Destination # 1	Source # 6	5BA4	10EF	5BA4	25DA
Destination # 1	Source # 7	5BA4	10EF	5BA4	26D9
Destination # 1	Source # 8	5BA4	10EF	5BA4	27D8
Destination # 1	Source # 9	5BA4	10EF	5BA4	28D7
Destination # 1	Source #10	5BA4	10EF	5BA4	29D6
Destination # 1	Source #11	5BA4	10EF	5BA4	2AD5
Destination # 1	Source #12	5BA4	10EF	5BA4	2BD4
Destination # 1	Source #13	5BA4	10EF	5BA4	2CD3
Destination # 1	Source #14	5BA4	10EF	5BA4	2DD2
Destination # 1	Source #15	5BA4	10EF	5BA4	2ED1
Destination # 1	Source #16	5BA4	10EF	5BA4	2FD0

Let Destination # 2 show the signal from Source #1~16

Press Destination# > Source#		The IR Data Code list :			
Destination # 2	Source # 1	5BA4	11EE	5BA4	20DF
Destination # 2	Source # 2	5BA4	11EE	5BA4	21DE
Destination # 2	Source # 3	5BA4	11EE	5BA4	22DD
Destination # 2	Source # 4	5BA4	11EE	5BA4	23DC
Destination # 2	Source # 5	5BA4	11EE	5BA4	24DB
Destination # 2	Source # 6	5BA4	11EE	5BA4	25DA
Destination # 2	Source # 7	5BA4	11EE	5BA4	26D9
Destination # 2	Source # 8	5BA4	11EE	5BA4	27D8
Destination # 2	Source # 9	5BA4	11EE	5BA4	28D7
Destination # 2	Source #10	5BA4	11EE	5BA4	29D6
Destination # 2	Source #11	5BA4	11EE	5BA4	2AD5
Destination # 2	Source #12	5BA4	11EE	5BA4	2BD4
Destination # 2	Source #13	5BA4	11EE	5BA4	2CD3
Destination # 2	Source #14	5BA4	11EE	5BA4	2DD2
Destination # 2	Source #15	5BA4	11EE	5BA4	2ED1
Destination # 2	Source #16	5BA4	11EE	5BA4	2FD0

Let Destination # 3 show the signal from Source #1~16

Press Destination# > Source#		The IR Data Code list :			
Destination # 3	Source # 1	5BA4	12ED	5BA4	20DF
Destination # 3	Source # 2	5BA4	12ED	5BA4	21DE
Destination # 3	Source # 3	5BA4	12ED	5BA4	22DD
Destination # 3	Source # 4	5BA4	12ED	5BA4	23DC
Destination # 3	Source # 5	5BA4	12ED	5BA4	24DB
Destination # 3	Source # 6	5BA4	12ED	5BA4	25DA
Destination # 3	Source # 7	5BA4	12ED	5BA4	26D9
Destination # 3	Source # 8	5BA4	12ED	5BA4	27D8
Destination # 3	Source # 9	5BA4	12ED	5BA4	28D7
Destination # 3	Source #10	5BA4	12ED	5BA4	29D6
Destination # 3	Source #11	5BA4	12ED	5BA4	2AD5
Destination # 3	Source #12	5BA4	12ED	5BA4	2BD4
Destination # 3	Source #13	5BA4	12ED	5BA4	2CD3
Destination # 3	Source #14	5BA4	12ED	5BA4	2DD2
Destination # 3	Source #15	5BA4	12ED	5BA4	2ED1
Destination # 3	Source #16	5BA4	12ED	5BA4	2FD0

REMOTE PROTOCOL COMMANDS

Let Destination # 4 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination # 4	Source # 1	5BA4	13EC	5BA4	20DF
Destination # 4	Source # 2	5BA4	13EC	5BA4	21DE
Destination # 4	Source # 3	5BA4	13EC	5BA4	22DD
Destination # 4	Source # 4	5BA4	13EC	5BA4	23DC
Destination # 4	Source # 5	5BA4	13EC	5BA4	24DB
Destination # 4	Source # 6	5BA4	13EC	5BA4	25DA
Destination # 4	Source # 7	5BA4	13EC	5BA4	26D9
Destination # 4	Source # 8	5BA4	13EC	5BA4	27D8
Destination # 4	Source # 9	5BA4	13EC	5BA4	28D7
Destination # 4	Source #10	5BA4	13EC	5BA4	29D6
Destination # 4	Source #11	5BA4	13EC	5BA4	2AD5
Destination # 4	Source #12	5BA4	13EC	5BA4	2BD4
Destination # 4	Source #13	5BA4	13EC	5BA4	2CD3
Destination # 4	Source #14	5BA4	13EC	5BA4	2DD2
Destination # 4	Source #15	5BA4	13EC	5BA4	2ED1
Destination # 4	Source #16	5BA4	13EC	5BA4	2FD0

Let Destination # 5 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination # 5	Source # 1	5BA4	14EB	5BA4	20DF
Destination # 5	Source # 2	5BA4	14EB	5BA4	21DE
Destination # 5	Source # 3	5BA4	14EB	5BA4	22DD
Destination # 5	Source # 4	5BA4	14EB	5BA4	23DC
Destination # 5	Source # 5	5BA4	14EB	5BA4	24DB
Destination # 5	Source # 6	5BA4	14EB	5BA4	25DA
Destination # 5	Source # 7	5BA4	14EB	5BA4	26D9
Destination # 5	Source # 8	5BA4	14EB	5BA4	27D8
Destination # 5	Source # 9	5BA4	14EB	5BA4	28D7
Destination # 5	Source #10	5BA4	14EB	5BA4	29D6
Destination # 5	Source #11	5BA4	14EB	5BA4	2AD5
Destination # 5	Source #12	5BA4	14EB	5BA4	2BD4
Destination # 5	Source #13	5BA4	14EB	5BA4	2CD3
Destination # 5	Source #14	5BA4	14EB	5BA4	2DD2
Destination # 5	Source #15	5BA4	14EB	5BA4	2ED1
Destination # 5	Source #16	5BA4	14EB	5BA4	2FD0

Let Destination # 6 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination # 6	Source # 1	5BA4	15EA	5BA4	20DF
Destination # 6	Source # 2	5BA4	15EA	5BA4	21DE
Destination # 6	Source # 3	5BA4	15EA	5BA4	22DD
Destination # 6	Source # 4	5BA4	15EA	5BA4	23DC
Destination # 6	Source # 5	5BA4	15EA	5BA4	24DB
Destination # 6	Source # 6	5BA4	15EA	5BA4	25DA
Destination # 6	Source # 7	5BA4	15EA	5BA4	26D9
Destination # 6	Source # 8	5BA4	15EA	5BA4	27D8
Destination # 6	Source # 9	5BA4	15EA	5BA4	28D7
Destination # 6	Source #10	5BA4	15EA	5BA4	29D6
Destination # 6	Source #11	5BA4	15EA	5BA4	2AD5
Destination # 6	Source #12	5BA4	15EA	5BA4	2BD4
Destination # 6	Source #13	5BA4	15EA	5BA4	2CD3
Destination # 6	Source #14	5BA4	15EA	5BA4	2DD2
Destination # 6	Source #15	5BA4	15EA	5BA4	2ED1
Destination # 6	Source #16	5BA4	15EA	5BA4	2FD0

Let Destination # 7 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination # 7	Source # 1	5BA4	16E9	5BA4	20DF
Destination # 7	Source # 2	5BA4	16E9	5BA4	21DE
Destination # 7	Source # 3	5BA4	16E9	5BA4	22DD
Destination # 7	Source # 4	5BA4	16E9	5BA4	23DC
Destination # 7	Source # 5	5BA4	16E9	5BA4	24DB
Destination # 7	Source # 6	5BA4	16E9	5BA4	25DA
Destination # 7	Source # 7	5BA4	16E9	5BA4	26D9
Destination # 7	Source # 8	5BA4	16E9	5BA4	27D8
Destination # 7	Source # 9	5BA4	16E9	5BA4	28D7
Destination # 7	Source #10	5BA4	16E9	5BA4	29D6
Destination # 7	Source #11	5BA4	16E9	5BA4	2AD5
Destination # 7	Source #12	5BA4	16E9	5BA4	2BD4
Destination # 7	Source #13	5BA4	16E9	5BA4	2CD3
Destination # 7	Source #14	5BA4	16E9	5BA4	2DD2
Destination # 7	Source #15	5BA4	16E9	5BA4	2ED1
Destination # 7	Source #16	5BA4	16E9	5BA4	2FD0

Let Destination # 8 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination # 8	Source # 1	5BA4	17E8	5BA4	20DF
Destination # 8	Source # 2	5BA4	17E8	5BA4	21DE
Destination # 8	Source # 3	5BA4	17E8	5BA4	22DD
Destination # 8	Source # 4	5BA4	17E8	5BA4	23DC
Destination # 8	Source # 5	5BA4	17E8	5BA4	24DB
Destination # 8	Source # 6	5BA4	17E8	5BA4	25DA
Destination # 8	Source # 7	5BA4	17E8	5BA4	26D9
Destination # 8	Source # 8	5BA4	17E8	5BA4	27D8
Destination # 8	Source # 9	5BA4	17E8	5BA4	28D7
Destination # 8	Source #10	5BA4	17E8	5BA4	29D6
Destination # 8	Source #11	5BA4	17E8	5BA4	2AD5
Destination # 8	Source #12	5BA4	17E8	5BA4	2BD4
Destination # 8	Source #13	5BA4	17E8	5BA4	2CD3
Destination # 8	Source #14	5BA4	17E8	5BA4	2DD2
Destination # 8	Source #15	5BA4	17E8	5BA4	2ED1
Destination # 8	Source #16	5BA4	17E8	5BA4	2FD0

Let Destination # 9 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination # 9	Source # 1	5BA4	18E7	5BA4	20DF
Destination # 9	Source # 2	5BA4	18E7	5BA4	21DE
Destination # 9	Source # 3	5BA4	18E7	5BA4	22DD
Destination # 9	Source # 4	5BA4	18E7	5BA4	23DC
Destination # 9	Source # 5	5BA4	18E7	5BA4	24DB
Destination # 9	Source # 6	5BA4	18E7	5BA4	25DA
Destination # 9	Source # 7	5BA4	18E7	5BA4	26D9
Destination # 9	Source # 8	5BA4	18E7	5BA4	27D8
Destination # 9	Source # 9	5BA4	18E7	5BA4	28D7
Destination # 9	Source #10	5BA4	18E7	5BA4	29D6
Destination # 9	Source #11	5BA4	18E7	5BA4	2AD5
Destination # 9	Source #12	5BA4	18E7	5BA4	2BD4
Destination # 9	Source #13	5BA4	18E7	5BA4	2CD3
Destination # 9	Source #14	5BA4	18E7	5BA4	2DD2
Destination # 9	Source #15	5BA4	18E7	5BA4	2ED1
Destination # 9	Source #16	5BA4	18E7	5BA4	2FD0

Let Destination # 10 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#10	Source # 1	5BA4	19E6	5BA4	20DF
Destination#10	Source # 2	5BA4	19E6	5BA4	21DE
Destination#10	Source # 3	5BA4	19E6	5BA4	22DD
Destination#10	Source # 4	5BA4	19E6	5BA4	23DC
Destination#10	Source # 5	5BA4	19E6	5BA4	24DB
Destination#10	Source # 6	5BA4	19E6	5BA4	25DA
Destination#10	Source # 7	5BA4	19E6	5BA4	26D9
Destination#10	Source # 8	5BA4	19E6	5BA4	27D8
Destination#10	Source # 9	5BA4	19E6	5BA4	28D7
Destination#10	Source #10	5BA4	19E6	5BA4	29D6
Destination#10	Source #11	5BA4	19E6	5BA4	2AD5
Destination#10	Source #12	5BA4	19E6	5BA4	2BD4
Destination#10	Source #13	5BA4	19E6	5BA4	2CD3
Destination#10	Source #14	5BA4	19E6	5BA4	2DD2
Destination#10	Source #15	5BA4	19E6	5BA4	2ED1
Destination#10	Source #16	5BA4	19E6	5BA4	2FD0

Let Destination # 11 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#11	Source # 1	5BA4	1AE5	5BA4	20DF
Destination#11	Source # 2	5BA4	1AE5	5BA4	21DE
Destination#11	Source # 3	5BA4	1AE5	5BA4	22DD
Destination#11	Source # 4	5BA4	1AE5	5BA4	23DC
Destination#11	Source # 5	5BA4	1AE5	5BA4	24DB
Destination#11	Source # 6	5BA4	1AE5	5BA4	25DA
Destination#11	Source # 7	5BA4	1AE5	5BA4	26D9
Destination#11	Source # 8	5BA4	1AE5	5BA4	27D8
Destination#11	Source # 9	5BA4	1AE5	5BA4	28D7
Destination#11	Source #10	5BA4	1AE5	5BA4	29D6
Destination#11	Source #11	5BA4	1AE5	5BA4	2AD5
Destination#11	Source #12	5BA4	1AE5	5BA4	2BD4
Destination#11	Source #13	5BA4	1AE5	5BA4	2CD3
Destination#11	Source #14	5BA4	1AE5	5BA4	2DD2
Destination#11	Source #15	5BA4	1AE5	5BA4	2ED1
Destination#11	Source #16	5BA4	1AE5	5BA4	2FD0

Let Destination # 12 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#12	Source # 1	5BA4	1BE4	5BA4	20DF
Destination#12	Source # 2	5BA4	1BE4	5BA4	21DE
Destination#12	Source # 3	5BA4	1BE4	5BA4	22DD
Destination#12	Source # 4	5BA4	1BE4	5BA4	23DC
Destination#12	Source # 5	5BA4	1BE4	5BA4	24DB
Destination#12	Source # 6	5BA4	1BE4	5BA4	25DA
Destination#12	Source # 7	5BA4	1BE4	5BA4	26D9
Destination#12	Source # 8	5BA4	1BE4	5BA4	27D8
Destination#12	Source # 9	5BA4	1BE4	5BA4	28D7
Destination#12	Source #10	5BA4	1BE4	5BA4	29D6
Destination#12	Source #11	5BA4	1BE4	5BA4	2AD5
Destination#12	Source #12	5BA4	1BE4	5BA4	2BD4
Destination#12	Source #13	5BA4	1BE4	5BA4	2CD3
Destination#12	Source #14	5BA4	1BE4	5BA4	2DD2
Destination#12	Source #15	5BA4	1BE4	5BA4	2ED1
Destination#12	Source #16	5BA4	1BE4	5BA4	2FD0

REMOTE PROTOCOL COMMANDS

Let Destination # 13 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#13	Source # 1	5BA4	1CE3	5BA4	20DF
Destination#13	Source # 2	5BA4	1CE3	5BA4	21DE
Destination#13	Source # 3	5BA4	1CE3	5BA4	22DD
Destination#13	Source # 4	5BA4	1CE3	5BA4	23DC
Destination#13	Source # 5	5BA4	1CE3	5BA4	24DB
Destination#13	Source # 6	5BA4	1CE3	5BA4	25DA
Destination#13	Source # 7	5BA4	1CE3	5BA4	26D9
Destination#13	Source # 8	5BA4	1CE3	5BA4	27D8
Destination#13	Source # 9	5BA4	1CE3	5BA4	28D7
Destination#13	Source #10	5BA4	1CE3	5BA4	29D6
Destination#13	Source #11	5BA4	1CE3	5BA4	2AD5
Destination#13	Source #12	5BA4	1CE3	5BA4	2BD4
Destination#13	Source #13	5BA4	1CE3	5BA4	2CD3
Destination#13	Source #14	5BA4	1CE3	5BA4	2DD2
Destination#13	Source #15	5BA4	1CE3	5BA4	2ED1
Destination#13	Source #16	5BA4	1CE3	5BA4	2FD0

Let Destination # 14 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#14	Source # 1	5BA4	1DE2	5BA4	20DF
Destination#14	Source # 2	5BA4	1DE2	5BA4	21DE
Destination#14	Source # 3	5BA4	1DE2	5BA4	22DD
Destination#14	Source # 4	5BA4	1DE2	5BA4	23DC
Destination#14	Source # 5	5BA4	1DE2	5BA4	24DB
Destination#14	Source # 6	5BA4	1DE2	5BA4	25DA
Destination#14	Source # 7	5BA4	1DE2	5BA4	26D9
Destination#14	Source # 8	5BA4	1DE2	5BA4	27D8
Destination#14	Source # 9	5BA4	1DE2	5BA4	28D7
Destination#14	Source #10	5BA4	1DE2	5BA4	29D6
Destination#14	Source #11	5BA4	1DE2	5BA4	2AD5
Destination#14	Source #12	5BA4	1DE2	5BA4	2BD4
Destination#14	Source #13	5BA4	1DE2	5BA4	2CD3
Destination#14	Source #14	5BA4	1DE2	5BA4	2DD2
Destination#14	Source #15	5BA4	1DE2	5BA4	2ED1
Destination#14	Source #16	5BA4	1DE2	5BA4	2FD0

Let Destination # 15 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#15	Source # 1	5BA4	1EE1	5BA4	20DF
Destination#15	Source # 2	5BA4	1EE1	5BA4	21DE
Destination#15	Source # 3	5BA4	1EE1	5BA4	22DD
Destination#15	Source # 4	5BA4	1EE1	5BA4	23DC
Destination#15	Source # 5	5BA4	1EE1	5BA4	24DB
Destination#15	Source # 6	5BA4	1EE1	5BA4	25DA
Destination#15	Source # 7	5BA4	1EE1	5BA4	26D9
Destination#15	Source # 8	5BA4	1EE1	5BA4	27D8
Destination#15	Source # 9	5BA4	1EE1	5BA4	28D7
Destination#15	Source #10	5BA4	1EE1	5BA4	29D6
Destination#15	Source #11	5BA4	1EE1	5BA4	2AD5
Destination#15	Source #12	5BA4	1EE1	5BA4	2BD4
Destination#15	Source #13	5BA4	1EE1	5BA4	2CD3
Destination#15	Source #14	5BA4	1EE1	5BA4	2DD2
Destination#15	Source #15	5BA4	1EE1	5BA4	2ED1
Destination#15	Source #16	5BA4	1EE1	5BA4	2FD0

Let Destination # 16 show the signal from Source #1~16

Press Destination# > Source# The IR Data Code list :

Destination#16	Source # 1	5BA4	1FE0	5BA4	20DF
Destination#16	Source # 2	5BA4	1FE0	5BA4	21DE
Destination#16	Source # 3	5BA4	1FE0	5BA4	22DD
Destination#16	Source # 4	5BA4	1FE0	5BA4	23DC
Destination#16	Source # 5	5BA4	1FE0	5BA4	24DB
Destination#16	Source # 6	5BA4	1FE0	5BA4	25DA
Destination#16	Source # 7	5BA4	1FE0	5BA4	26D9
Destination#16	Source # 8	5BA4	1FE0	5BA4	27D8
Destination#16	Source # 9	5BA4	1FE0	5BA4	28D7
Destination#16	Source #10	5BA4	1FE0	5BA4	29D6
Destination#16	Source #11	5BA4	1FE0	5BA4	2AD5
Destination#16	Source #12	5BA4	1FE0	5BA4	2BD4
Destination#16	Source #13	5BA4	1FE0	5BA4	2CD3
Destination#16	Source #14	5BA4	1FE0	5BA4	2DD2
Destination#16	Source #15	5BA4	1FE0	5BA4	2ED1
Destination#16	Source #16	5BA4	1FE0	5BA4	2FD0

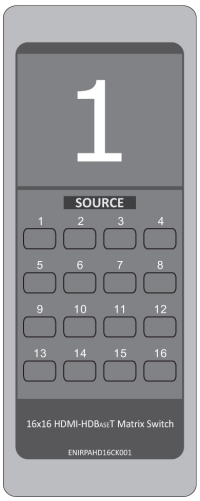
ROOM IR REMOTE CONTROL #01 ~ #09 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE

CUSTOM CODE : 42BD

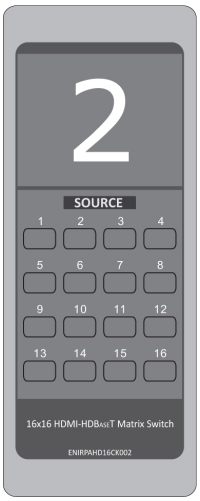
16x16 HDMI-HDBT MX SW
SW-5669CK-IR01



IR-01 DATA CODE:

SOURCE #1 :	42BD	00FF
SOURCE #2 :	42BD	01FE
SOURCE #3 :	42BD	02FD
SOURCE #4 :	42BD	03FC
SOURCE #5 :	42BD	04FB
SOURCE #6 :	42BD	05FA
SOURCE #7 :	42BD	06F9
SOURCE #8 :	42BD	07F8
SOURCE #9 :	42BD	08F7
SOURCE #10 :	42BD	09F6
SOURCE #11 :	42BD	0AF5
SOURCE #12 :	42BD	0BF4
SOURCE #13 :	42BD	0CF3
SOURCE #14 :	42BD	0DF2
SOURCE #15 :	42BD	0EF1
SOURCE #16 :	42BD	0FF0

16x16 HDMI-HDBT MX SW
SW-5669CK-IR02



IR-02 DATA CODE:

SOURCE #1 :	42BD	10EF
SOURCE #2 :	42BD	11EE
SOURCE #3 :	42BD	12ED
SOURCE #4 :	42BD	13EC
SOURCE #5 :	42BD	14EB
SOURCE #6 :	42BD	15EA
SOURCE #7 :	42BD	16E9
SOURCE #8 :	42BD	17E8
SOURCE #9 :	42BD	18E7
SOURCE #10 :	42BD	19E6
SOURCE #11 :	42BD	1AE5
SOURCE #12 :	42BD	1BE4
SOURCE #13 :	42BD	1CE3
SOURCE #14 :	42BD	1DE2
SOURCE #15 :	42BD	1EE1
SOURCE #16 :	42BD	1FE0

16x16 HDMI-HDBT MX SW
SW-5669CK-IR03



IR-03 DATA CODE:

SOURCE #1 :	42BD	20DF
SOURCE #2 :	42BD	21DE
SOURCE #3 :	42BD	22DD
SOURCE #4 :	42BD	23DC
SOURCE #5 :	42BD	24DB
SOURCE #6 :	42BD	25DA
SOURCE #7 :	42BD	26D9
SOURCE #8 :	42BD	27D8
SOURCE #9 :	42BD	28D7
SOURCE #10 :	42BD	29D6
SOURCE #11 :	42BD	2AD5
SOURCE #12 :	42BD	2BD4
SOURCE #13 :	42BD	2CD3
SOURCE #14 :	42BD	2DD2
SOURCE #15 :	42BD	2ED1
SOURCE #16 :	42BD	2FD0

16x16 HDMI-HDBT MX SW
SW-5669CK-IR04



IR-04 DATA CODE:

SOURCE #1 :	42BD	30CF
SOURCE #2 :	42BD	31CE
SOURCE #3 :	42BD	5BA4
SOURCE #4 :	42BD	33CC
SOURCE #5 :	42BD	34CB
SOURCE #6 :	42BD	35CA
SOURCE #7 :	42BD	36C9
SOURCE #8 :	42BD	37C8
SOURCE #9 :	42BD	38C7
SOURCE #10 :	42BD	39C6
SOURCE #11 :	42BD	3AC5
SOURCE #12 :	42BD	3BC4
SOURCE #13 :	42BD	3CC3
SOURCE #14 :	42BD	3DC2
SOURCE #15 :	42BD	3EC1
SOURCE #16 :	42BD	3FC0

16x16 HDMI-HDBT MX SW
SW-5669CK-IR05



IR-05 DATA CODE:

SOURCE #1 :	42BD	40BF
SOURCE #2 :	42BD	41BE
SOURCE #3 :	42BD	42BD
SOURCE #4 :	42BD	43BC
SOURCE #5 :	42BD	44BB
SOURCE #6 :	42BD	45BA
SOURCE #7 :	42BD	46B9
SOURCE #8 :	42BD	47B8
SOURCE #9 :	42BD	48B7
SOURCE #10 :	42BD	49B6
SOURCE #11 :	42BD	4AB5
SOURCE #12 :	42BD	4BB4
SOURCE #13 :	42BD	4CB3
SOURCE #14 :	42BD	4DB2
SOURCE #15 :	42BD	4EB1
SOURCE #16 :	42BD	4FB0

16x16 HDMI-HDBT MX SW
SW-5669CK-IR06



IR-06 DATA CODE:

SOURCE #1 :	42BD	50AF
SOURCE #2 :	42BD	51AE
SOURCE #3 :	42BD	52AD
SOURCE #4 :	42BD	53AC
SOURCE #5 :	42BD	54AB
SOURCE #6 :	42BD	55AA
SOURCE #7 :	42BD	56A9
SOURCE #8 :	42BD	57A8
SOURCE #9 :	42BD	58A7
SOURCE #10 :	42BD	59A6
SOURCE #11 :	42BD	5AA5
SOURCE #12 :	42BD	5BA4
SOURCE #13 :	42BD	5CA3
SOURCE #14 :	42BD	5DA2
SOURCE #15 :	42BD	5EA1
SOURCE #16 :	42BD	5FA0

16x16 HDMI-HDBT MX SW
SW-5669CK-IR07



IR-07 DATA CODE:

SOURCE #1 :	42BD	609F
SOURCE #2 :	42BD	619E
SOURCE #3 :	42BD	629D
SOURCE #4 :	42BD	639C
SOURCE #5 :	42BD	649B
SOURCE #6 :	42BD	659A
SOURCE #7 :	42BD	6699
SOURCE #8 :	42BD	6798
SOURCE #9 :	42BD	6897
SOURCE #10 :	42BD	6996
SOURCE #11 :	42BD	6A95
SOURCE #12 :	42BD	6B94
SOURCE #13 :	42BD	6C93
SOURCE #14 :	42BD	6D92
SOURCE #15 :	42BD	6E91
SOURCE #16 :	42BD	6F90

16x16 HDMI-HDBT MX SW
SW-5669CK-IR08



IR-08 DATA CODE:

SOURCE #1 :	42BD	708F
SOURCE #2 :	42BD	718E
SOURCE #3 :	42BD	728D
SOURCE #4 :	42BD	738C
SOURCE #5 :	42BD	748B
SOURCE #6 :	42BD	758A
SOURCE #7 :	42BD	7689
SOURCE #8 :	42BD	7788
SOURCE #9 :	42BD	7887
SOURCE #10 :	42BD	7986
SOURCE #11 :	42BD	7A85
SOURCE #12 :	42BD	7B84
SOURCE #13 :	42BD	7C83
SOURCE #14 :	42BD	7D82
SOURCE #15 :	42BD	7E81
SOURCE #16 :	42BD	7F80

16x16 HDMI-HDBT MX SW
SW-5669CK-IR09



IR-09 DATA CODE:

SOURCE #1 :	42BD	807F
SOURCE #2 :	42BD	817E
SOURCE #3 :	42BD	827D
SOURCE #4 :	42BD	837C
SOURCE #5 :	42BD	847B
SOURCE #6 :	42BD	857A
SOURCE #7 :	42BD	8679
SOURCE #8 :	42BD	8778
SOURCE #9 :	42BD	8877
SOURCE #10 :	42BD	8976
SOURCE #11 :	42BD	8A75
SOURCE #12 :	42BD	8B74
SOURCE #13 :	42BD	8C73
SOURCE #14 :	42BD	8D72
SOURCE #15 :	42BD	8E71
SOURCE #16 :	42BD	8F70

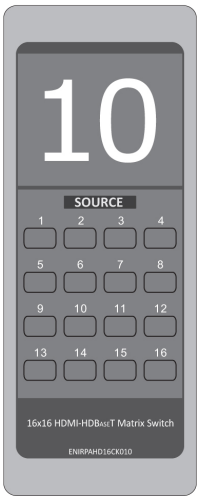
ROOM IR REMOTE CONTROL #10 ~ #16 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE

CUSTOM CODE : 42BD

16x16 HDMI-HDBT MX SW
SW-5669CK-IR10



IR-10 DATA CODE:

SOURCE #1 :	42BD	906F
SOURCE #2 :	42BD	916E
SOURCE #3 :	42BD	926D
SOURCE #4 :	42BD	936C
SOURCE #5 :	42BD	946B
SOURCE #6 :	42BD	956A
SOURCE #7 :	42BD	9669
SOURCE #8 :	42BD	9768
SOURCE #9 :	42BD	9867
SOURCE #10 :	42BD	9966
SOURCE #11 :	42BD	9A65
SOURCE #12 :	42BD	9B64
SOURCE #13 :	42BD	9C63
SOURCE #14 :	42BD	9D62
SOURCE #15 :	42BD	9E61
SOURCE #16 :	42BD	9F60

16x16 HDMI-HDBT MX SW
SW-5669CK-IR11



IR-11 DATA CODE:

SOURCE #1 :	42BD	A05F
SOURCE #2 :	42BD	A15E
SOURCE #3 :	42BD	A25D
SOURCE #4 :	42BD	A35C
SOURCE #5 :	42BD	A45B
SOURCE #6 :	42BD	A55A
SOURCE #7 :	42BD	A659
SOURCE #8 :	42BD	A758
SOURCE #9 :	42BD	A857
SOURCE #10 :	42BD	A956
SOURCE #11 :	42BD	AA55
SOURCE #12 :	42BD	AB54
SOURCE #13 :	42BD	AC53
SOURCE #14 :	42BD	AD52
SOURCE #15 :	42BD	AE51
SOURCE #16 :	42BD	AF50

16x16 HDMI-HDBT MX SW
SW-5669CK-IR12



IR-12 DATA CODE:

SOURCE #1 :	42BD	B04F
SOURCE #2 :	42BD	B14E
SOURCE #3 :	42BD	B24D
SOURCE #4 :	42BD	B34C
SOURCE #5 :	42BD	B44B
SOURCE #6 :	42BD	B54A
SOURCE #7 :	42BD	B649
SOURCE #8 :	42BD	B748
SOURCE #9 :	42BD	B847
SOURCE #10 :	42BD	B946
SOURCE #11 :	42BD	BA45
SOURCE #12 :	42BD	BB44
SOURCE #13 :	42BD	BC43
SOURCE #14 :	42BD	BD42
SOURCE #15 :	42BD	BE41
SOURCE #16 :	42BD	BF40

16x16 HDMI-HDBT MX SW
SW-5669CK-IR13



IR-13 DATA CODE:

SOURCE #1 :	42BD	C03F
SOURCE #2 :	42BD	C13E
SOURCE #3 :	42BD	C23D
SOURCE #4 :	42BD	C33C
SOURCE #5 :	42BD	C43B
SOURCE #6 :	42BD	C53A
SOURCE #7 :	42BD	C639
SOURCE #8 :	42BD	C738
SOURCE #9 :	42BD	C837
SOURCE #10 :	42BD	C936
SOURCE #11 :	42BD	CA35
SOURCE #12 :	42BD	CB34
SOURCE #13 :	42BD	CC33
SOURCE #14 :	42BD	CD32
SOURCE #15 :	42BD	CE31
SOURCE #16 :	42BD	CF30

16x16 HDMI-HDBT MX SW
SW-5669CK-IR14



IR-14 DATA CODE:

SOURCE #1 :	42BD	D02F
SOURCE #2 :	42BD	D12E
SOURCE #3 :	42BD	D22D
SOURCE #4 :	42BD	D32C
SOURCE #5 :	42BD	D42B
SOURCE #6 :	42BD	D52A
SOURCE #7 :	42BD	D629
SOURCE #8 :	42BD	D728
SOURCE #9 :	42BD	D827
SOURCE #10 :	42BD	D926
SOURCE #11 :	42BD	DA25
SOURCE #12 :	42BD	DB24
SOURCE #13 :	42BD	DC23
SOURCE #14 :	42BD	DD22
SOURCE #15 :	42BD	DE21
SOURCE #16 :	42BD	DF20

16x16 HDMI-HDBT MX SW
SW-5669CK-IR15



IR-15 DATA CODE:

SOURCE #1 :	42BD	E01F
SOURCE #2 :	42BD	E11E
SOURCE #3 :	42BD	E21D
SOURCE #4 :	42BD	E31C
SOURCE #5 :	42BD	E41B
SOURCE #6 :	42BD	E51A
SOURCE #7 :	42BD	E619
SOURCE #8 :	42BD	E718
SOURCE #9 :	42BD	E817
SOURCE #10 :	42BD	E916
SOURCE #11 :	42BD	EA15
SOURCE #12 :	42BD	EB14
SOURCE #13 :	42BD	EC13
SOURCE #14 :	42BD	ED12
SOURCE #15 :	42BD	EE11
SOURCE #16 :	42BD	EF10

16x16 HDMI-HDBT MX SW
SW-5669CK-IR16



IR-16 DATA CODE:

SOURCE #1 :	42BD	F00F
SOURCE #2 :	42BD	F10E
SOURCE #3 :	42BD	F20D
SOURCE #4 :	42BD	F30C
SOURCE #5 :	42BD	F40B
SOURCE #6 :	42BD	F50A
SOURCE #7 :	42BD	F609
SOURCE #8 :	42BD	F708
SOURCE #9 :	42BD	F807
SOURCE #10 :	42BD	F906
SOURCE #11 :	42BD	FA05
SOURCE #12 :	42BD	FB04
SOURCE #13 :	42BD	FC03
SOURCE #14 :	42BD	FD02
SOURCE #15 :	42BD	FE01
SOURCE #16 :	42BD	FF00

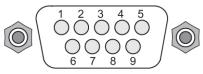
RS-232 & ETHERNET SERIAL INTERFACE

RS-232 SERIAL INTERFACE CONNECT a PC or CONTROL SYSTEM. VERSION COMPATIBLE V2.0.1

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

Example of the commanded string to route Input 3 to Output 4: **OUTPUT04 03;**

RS-232 Pin Diagram



RS-232 CONFIGURATION

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

SB Device

Definition	Pin		Pin	Definition
	1		1	DCD
TX	2	———	2	RX
RX	3	———	3	TX
	4	———	4	DTR
GND	5	———	5	GND
	6	———	6	DSR
	7	———	7	RTS
	8	———	8	CTS
	9		9	RI

PC

RS-232 SERIAL INTERFACE PROTOCOL COMMANDS (Ethernet / RS-232 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.

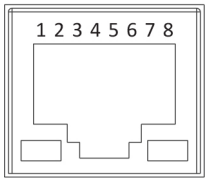
The serial communication parameters are 9600 baud, 8 bit, No Parity and 1 stop bit - this is often referred to as 9600 8N1.When the unit recognises a complete command it will perform the requested action - there is no delimiter character required.

ETHERNET SERIAL INTERFACE CONNECT a PC or CONTROL SYSTEM. VERSION COMPATIBLE V2.0

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



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

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

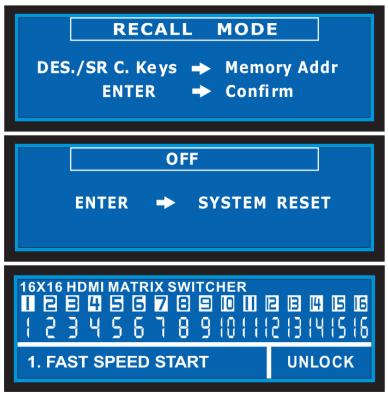
Example of the commanded string to route Input 3 to Output 4
OUTPUT04 03;

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.****

EDID FUNCTION

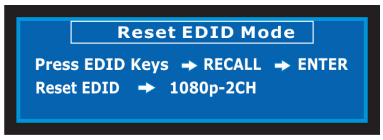
SYSTEM RESET FUNCTION FOR MATRIX SWITCH SYSTEM RETURN TO FACTORY DEFAULTS

SYSTEM RESET	Switch Return To Factory default
How to SYSTEM RESET Press **RECALL > OFF > ENTER** 	RESET To the FACTORY DEFAULT. Press **RECALL** button: The LCM will show the current stored presets status. Press **OFF** button : The LCM will show “SYSTEM RESET”. Press **ENTER** to confirm entries: The switch will reset all customizable values back to factory default. You must POWER CYCLE the switch for these new values to take effect.

NOTE: Factory reset defaults to:
1. Source Destination will be set to 1-1, 2-2, 3-3, etc.
2. Switch matrices stored in memory will be cleared.
3. Lock function will return to un-lock.
4. Aux function will disable and return un-AUX (on select models)
5. ARC function will disable and return SPDIF as output (on select models).
6. EDID will return to FSS® (1080p-2ch mode)
7. Ethernet port will return to DHCP=ENABLED

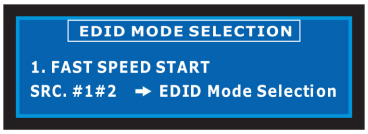
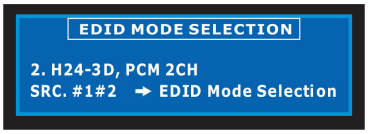
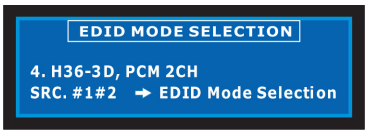
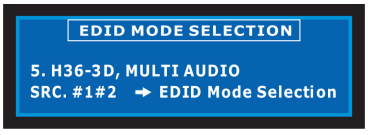
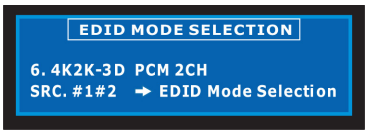
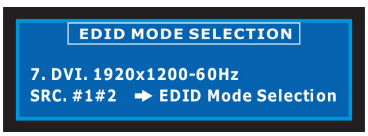
EDID FUNCTION SETUP FOR HDMI MATRIX SWITCHER

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 7 EDID Modes**
Embedded EDID setup Press **EDID > SOURCE > ENTER** **SOURCE #1** **or** **SOURCE #2** Select Embedded EDID : Mode 1 : FSS Mode 2 : H24-3D Mode 3 : H24-3D-M Mode 4 : H36-3D Mode 5 : H36-3D-M Mode 6 : 4K2K Mode 7 : DVI-D 1920x1200-60Hz	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.

EDID FUNCTION

(7) EDID MODE : EDID MANAGEMENT FOR HDMI MATRIX SWITCH

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 7, 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, PCM2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS5.1CH, PCM7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH
Mode 4. H36-3D-M (1080p-36 bits) 	Audio Support: PCM 2CH
Mode 5. H36-3D (1080p-36 bits) 	Audio Support: MAT(MLP) 7.1CH, PCM2CH, One Bit Audio 2CH, AC-3 5.1CH, DTS5.1CH, PCM7.1CH, Dolby Digital + 7.1CH, DTS-HD 7.1CH
Mode 6. 4K2K (24/30Hz) 	HDMI Support : 4K2K-3D, PCM 2CH (3840x2160-24/30Hz) Audio Support : PCM 2CH
Mode 7. 1920x1200-60Hz (DVI-D) 	DVI Support: DVI-D 1920x1200 60Hz

EDID FUNCTION

FAST SPEED START EDID MODE

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 Destinations #1 ~ 16 button row Then Press the Source #1~16 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 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 16 > Press **Source** 1 thru 16 > 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 16 > Press the majority **Sources** 1 thru 16 > 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.	
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 #12 button row	Copy the Destination #12 Display EDID.
Step 3. Press the Source #5 button row	Learning the Destination #12 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 ~16 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 16	Learning anyone 1~16 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.

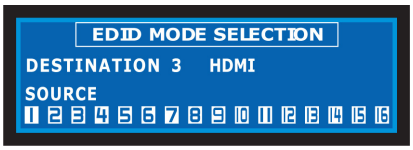
EDID FUNCTION

LEARNING EDID MODE-1 FUNCTION FOR HDMI MATRIX SWITCH

LEARNING HDMI/HDBaseT™ EDID	Learning HDMI or HDBaseT™ from Destination to Source

Learning HDMI EDID Single HDMI-Destination to Multiple / All Sources

Press **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 (1) thru (16) > SOURCE (1) thru (16) > ENTER

The EDID for HDMI has been learned

Learning HDBaseT™ EDID Single HDBaseT™-Destination to Multiple / All Sources

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 (1) thru (16) > DESTINATION (1) thru (16) > SOURCE (1) thru (16) > 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.

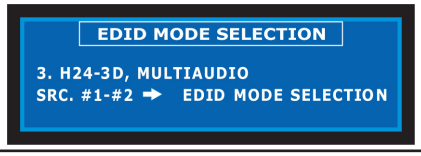
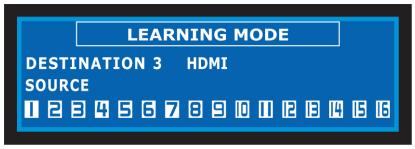
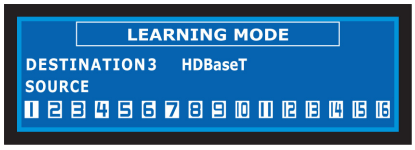
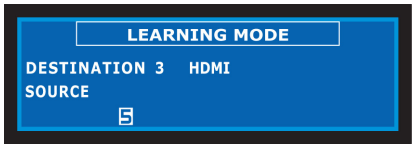
EDID FUNCTION : LEARNING EDID MODE-1 - SINGLE TO SINGLE

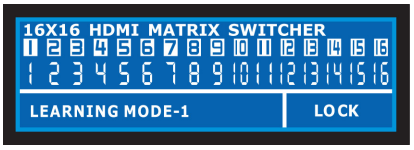
Learning Mode-1 Single Destination to Single source

Key Press Sequence:

EDID ⟶ Destination 1 thru 16 ⟶ Destination 1 thru 16 ⟶ Source 1 thru 16 ⟶ Enter

The EDID for HDMI or HDBaseT™ has been learned from the Destination port to the Source port.

Press: **EDID button**		**1.** Press **EDID** button. The LCM will show the current EDID status.
Press: **Destination button**		**2.** Press **DESTINATION** (#1 ~ #16). The LCM will show the LEARNING HDMI Switcher will Learning destination (3) HDMI EDID.
Press: **Destination button again**		Press **DESTINATION** (3) button again. The LCM will show the LEARNING HDBaseT™ Switcher will Learning destination (3) HDBaseT™ EDID.
Press: **Source button**		**3.** Press **SOURCE** (#1 ~ #16). The LCM will show the selected sources. Example: Select Source (5). Switcher will learn destination (5) EDID HDMI or HDBaseT™ EDID and pass to the selected source.

Press: **Enter button**		**4.** Press **ENTER** to confirm changes. The LCM will return to the default screen selected switch routing status.

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.

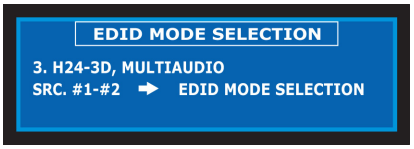
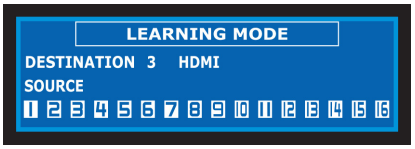
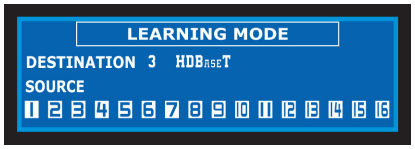
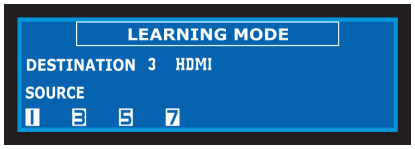
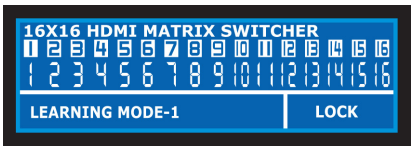
EDID FUNCTION : LEARNING EDID MODE-1 - SINGLE TO MULTIPLE

Learning Mode-1 Single Destination to Multiple or All Sources

Key Press Sequence:

EDID ⟶ Destination 1 thru 16 ⟶ Destination 1 thru 16 ⟶ Source 1 thru 16 ⟶ Enter

The EDID for HDMI or HDBaseT™ has been learned from the Destination port to the Source port.

Press: **EDID button**		**1.** Press **EDID** button. The LCM will show the current EDID status.
Press: **Destination button**		**2.** Press **DESTINATION** (#1 ~ #16). The LCM will show the LEARNING HDMI Switcher will Learning destination (3) HDMI EDID.
Press: **Destination button again**		Press **DESTINATION** (3) button again. The LCM will show the LEARNING HDBaseT™ Switcher will Learning destination (3) HDBaseT™ EDID.
Press: **Source button**		**3.** Press **SOURCE** (#1 ~ #16). The LCM will show the selected sources. Example: Select Source 1, 3, 5 & 7. Switcher will learn the destination EDID HDMI or HDBaseT™ EDID and pass to the selected source.
Press: **Enter button**		**4.** Press **ENTER** to confirm changes. The LCM will return to the default screen selected switch routing status.

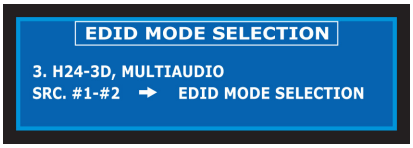
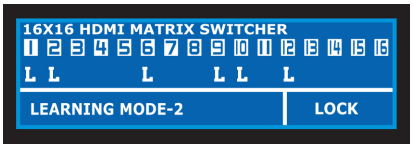
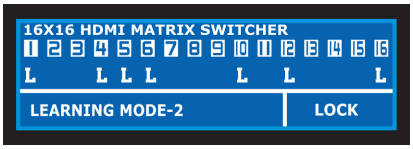
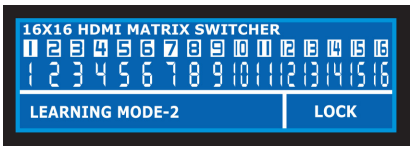
NOTE: The already learned EDID cannot be modified. You can only rebuild a new Learning EDID.

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

EDID FUNCTION : LEARNING EDID MODE-2 - MULTIPLE TO ALL

Learning Mode-2 Multiple Destinations to ALL Sources		
Key Press Sequence: **EDID ⟶ OFF ⟶ Destination 1 thru 16 ⟶ Enter** The EDID for HDMI or HDBaseT™ has been learned from the Destination port to the Source port.		
Press: **EDID button**		**1.** Press **EDID** button. The LCM will show the current EDID status.
Press: **Off button**		**2.** Press **OFF** button. The LCM will show the current EDID LEARN status.
Press: **Source button**		**3.** Press **DESTINATION** button (#1 ~ #16). Switcher will LEARN destination HDMI EDID and pass to the selected source. Switcher will Enable or Disable HDMI EDID for the selected source.
Press: **Enter button**		**4.** Press **ENTER** to confirm changes. The LCM will return to the default screen selected switch routing status.
NOTE: When the Source has “Learned” the EDID data from a destination, it will save that EDID information into EPROM and the EDID data will not change. To change a saved HDMI EDID information, you have to select a new LEARNING destination to source or Disable the LEARNING.		

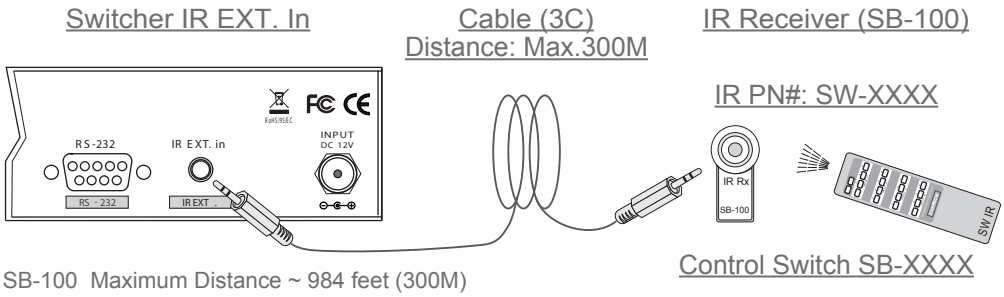
COMPARISON TABLE

	Function	Note
Learning Mode	Let the source device(s) learn the EDID from a single source and output video and audio accordingly.	When a source devices has “learned” the EDID information of a destination device, the switcher will save that EDID into EPROM and the stored EDID cannot be altered. If you want to remove the EDID, set a new learning route for the source.
FSS Mode (Mode 1)	Shorten the startup time of the switcher.	After the desired EDID setup is complete, use FSS mode and the switcher will be faster at startup.
Mode 2 ~ 7	Let all source devices output the specified video and audio formats.	Consult the spec documentation of your devices and select the mode that best suits them.

IR EXTENDER

1. SB-100 IR 300M Receiver



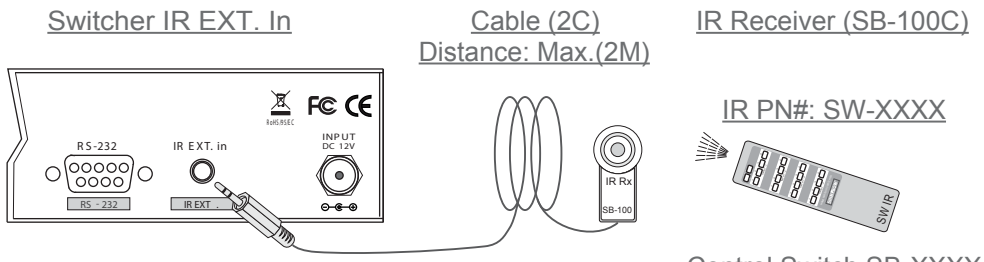


SB-100 Maximum Distance ~ 984 feet (300M)

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

2. SB-100C IR 2M Receiver





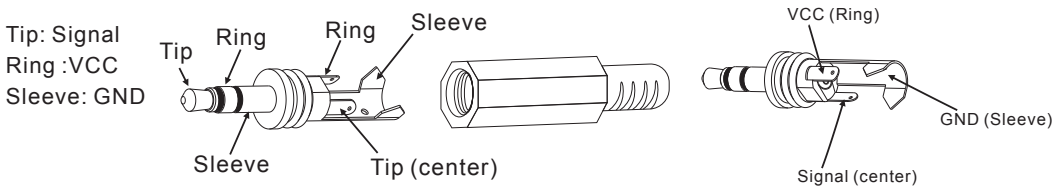
SB-100C Maximum Distance ~ 6 feet (2M)

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

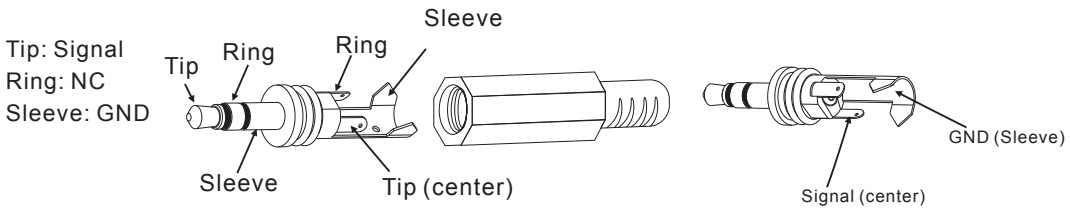




SB-100 Receiver and SB-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

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)

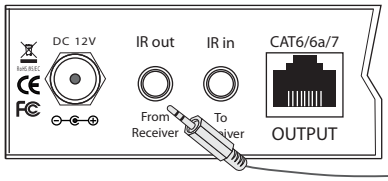
Note: *The External IR jack has voltage on the “Ring” portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

IR EXTENDER

1. SB-101 IR 300M Transmitter

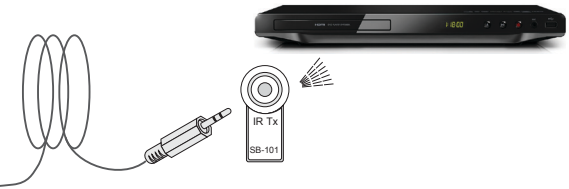


Device



Cable (3C)

IR Transmitter (SB-101)

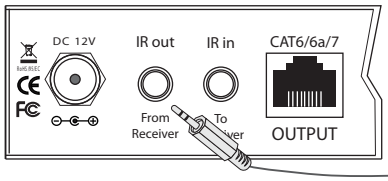


SB-101 Maximum Distance ~ 984 feet (300M)

2. SB-101C IR 2M Transmitter



Device



Cable (3C)

IR Transmitter (SB-101C)



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

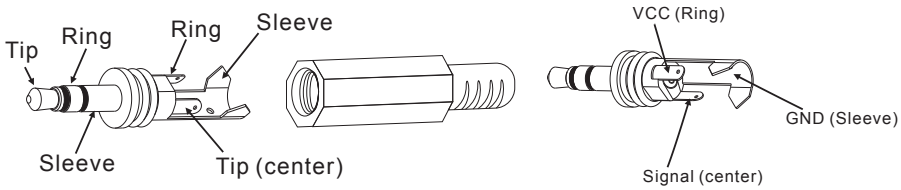
**** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ****

PIN CONFIGURATION:

SB-101 and SB-101C Transmitter Pin configuration



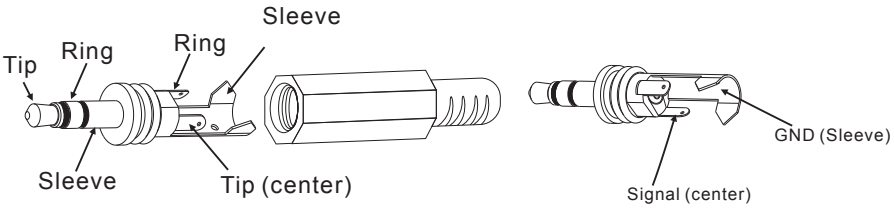
Tip: Signal
Ring :VCC
Sleeve: GND



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.*

TYPICAL APPLICATION - SWITCH CONTROL

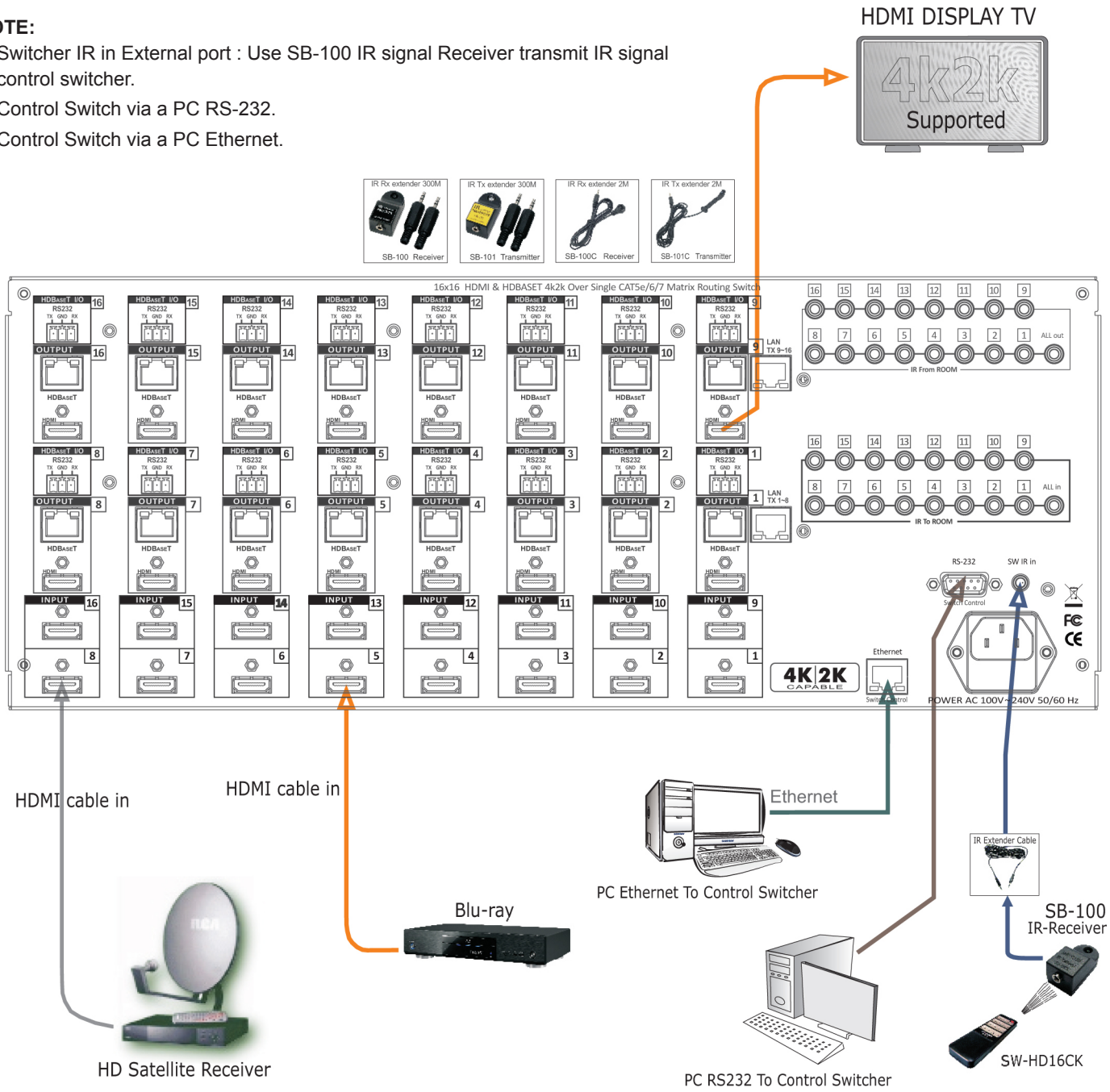
INSTALLING DIAGRAM

Samples connection :

1. Using IR External or **RS-232** command to control Switcher SB-5669CK via a PC or use extender **Receiver** (SB-100) to transmit the SB-5669CK's IR signal to control switch I/O.
2. Switch control via Bi-Directional IR, RS-232 and Ethernet.

NOTE:

1. Switcher IR in External port : Use SB-100 IR signal Receiver transmit IR signal to control switcher.
2. Control Switch via a PC RS-232.
3. Control Switch via a PC Ethernet.



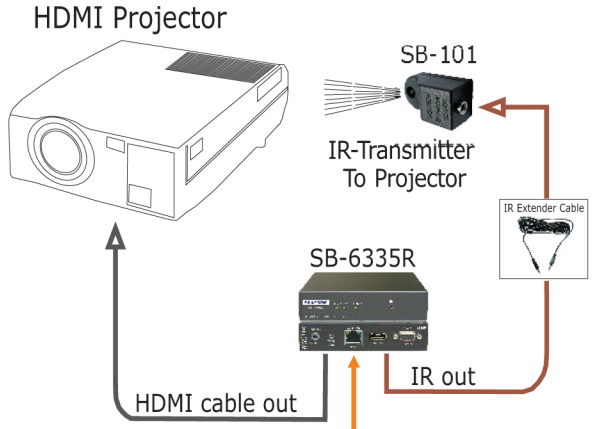
Application IR, RS-232 and Ethernet to switch control.

TYPICAL APPLICATION - IR TRANSMITTER / RECEIVER

INSTALLING DIAGRAM

Samples connection :

1. Using SB-5669CK HDBaseT™ Transmitter to transmit the IR signal via a HDBaseT™ Receiver (SB-6335R) via Transmitters (SB-101) and IR Receiver (SB-100) to control a projector.



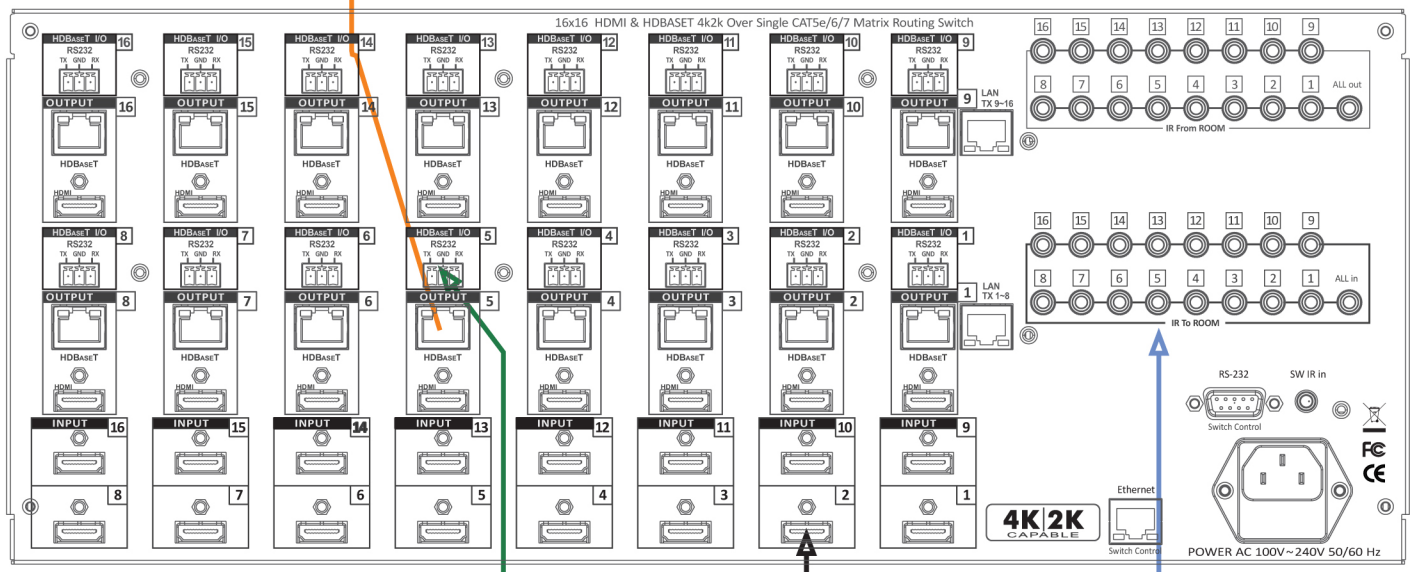
NOTE:

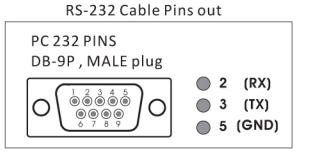
1. Using IR control Projector Over HDBaseT™ Extender:
HDBaseT ™Transmitter: SB-5669CK HDBaseT™ Tx.
HDBaseT™ Receiver: SB-6335R HDBaseT™ Rx.

2. IR Extender Transmitter (SB-101): Use SB-101 IR Transmitter: to Extend IR signal to control Projector.

3. IR Extender Receiver (SB-100): Use SB-100 IR Receiver : to receive the Projector IR Remote signal. HDBaseT™ Extender use single category (CAT6/6a/7) cable.

IR from SB-5669CK Transmitter
CATx(6/6a/7) Extension Cable Limited to ~298 feet (100M) Maximum.







PC RS232 Control

HDMI cable in



Blu-ray

IR in



SB-100
IR-Receiver



Projector IR Remote









TYPICAL APPLICATION - CONTROL SOURCE VIA HDBASET™

INSTALLING DIAGRAM

Samples connection :

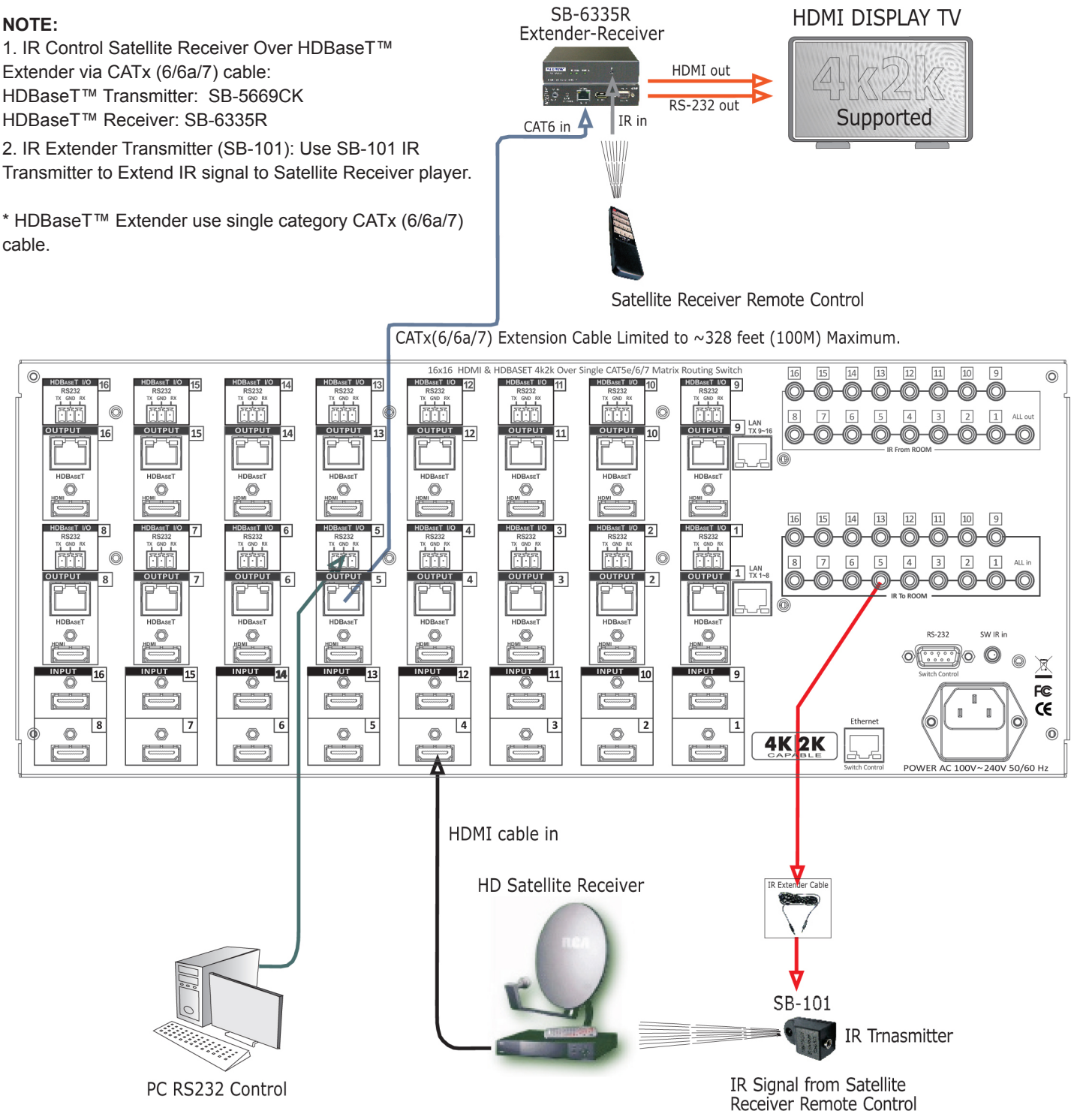
1. Using SB-5669CK HDBaseT™ Transmitter to transmit the IR signal via a HDBaseT™ Receiver (SB-6335R) and IR Transmitters (SB-101) to control Satellite Receiver.

NOTE:

1. IR Control Satellite Receiver Over HDBaseT™ Extender via CATx (6/6a/7) cable:
HDBaseT™ Transmitter: SB-5669CK
HDBaseT™ Receiver: SB-6335R

2. IR Extender Transmitter (SB-101): Use SB-101 IR Transmitter to Extend IR signal to Satellite Receiver player.

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

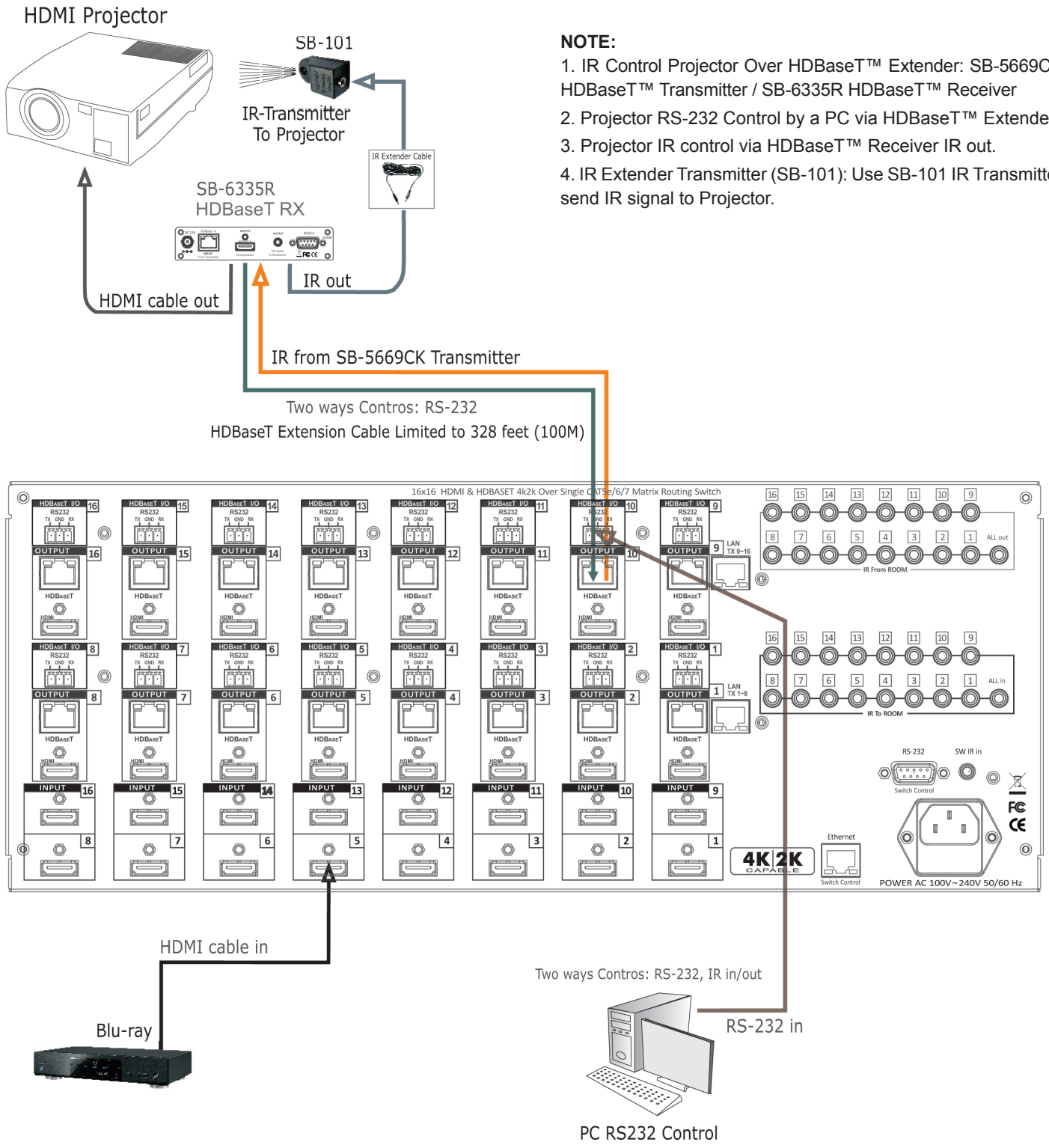


TYPICAL APPLICATION - CONTROL VIA HDBASET™ RS-232

INSTALLING DIAGRAM

Samples connection :

1. Using SB-5669CK HDBaseT™ Transmitter to extend RS-232 commands to HDBaseT™ Receiver (SB-6335R) to control a projector via a PC RS-232 serial interface.



NOTE:

1. IR Control Projector Over HDBaseT™ Extender: SB-5669CK HDBaseT™ Transmitter / SB-6335R HDBaseT™ Receiver
2. Projector RS-232 Control by a PC via HDBaseT™ Extender.
3. Projector IR control via HDBaseT™ Receiver IR out.
4. IR Extender Transmitter (SB-101): Use SB-101 IR Transmitter send IR signal to Projector.

HDBASET™ APPLICATION - TRANSMITTER & RECEIVER

APPLICATION

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

HDBaseT Transmitter with PoE

SB-6335T Distance:Max.100M

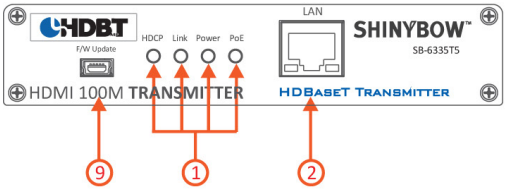


INPUTS:
1. 1x HDMI source.
2. 1x F/W update.

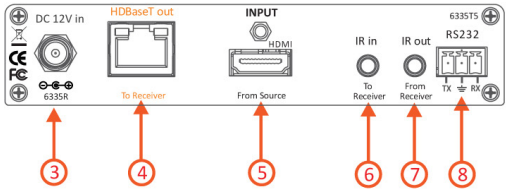
OUTPUTS:
1. 1x HDBaseT out.

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

FRONT PANEL :



REAR PANEL :



1. Status via LED Show out : HDCP, Link, Power.
2. 1x Ethernet path to HDBaseT Receiver.
3. DC input : 12V.
4. RJ-45 out : HDBaseT signal output to HDBaseT Receiver.

5. HDMI in : HDMI signal input from HDMI source device.
6. IR in : IR signal to HDBaseT Receiver.
7. IR out : IR signal from HDBaseT Receiver
8. RS-232 i/o : RS-232 series interface control via a PC.
9. USB in : F/W Update.

HDBaseT Receiver

SB-6335R Distance:Max.100M

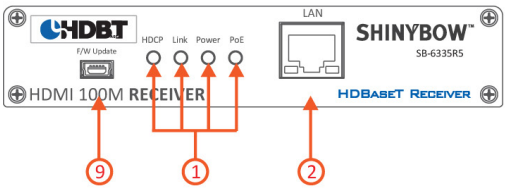


INPUTS:
1. 1x HDBaseT in.
2. 1x F/W Update.

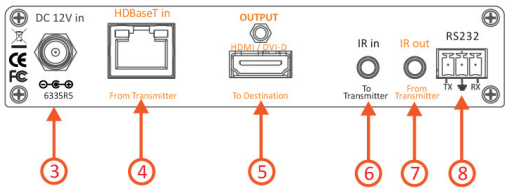
OUTPUTS:
1. 1x HDMI out.

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

FRONT PANEL : HDBaseT 100M Receiver



REAR PANEL : HDBaseT 100M Receiver



1. Status via LED Show out : HDCP, Link, Power.
2. 1x Ethernet path to HDBaseT Transmitter.
3. Extra DC input : 12V, Transmitter without support Power.
4. RJ-45 in : HDBaseT signal input from HDBaseT Transmitter.

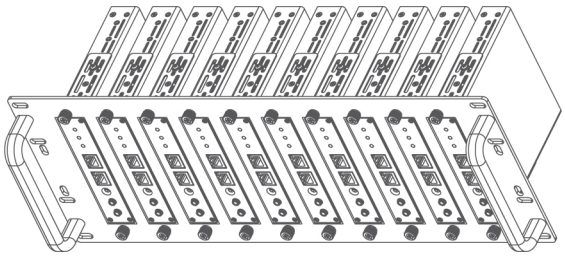
5. HDMI out : HDMI signal output to destination HDMI device.
6. IR in : IR signal to HDBaseT Transmitter.
7. IR out : IR signal from HDBaseT Transmitter.
8. RS-232 i/o : RS-232 series interface control via a PC.
9. USB in : F/W Update.

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

APPLICATION

Optional 19 inch Rack Mount Bracket for SB-6335T and/or SB-6335R:

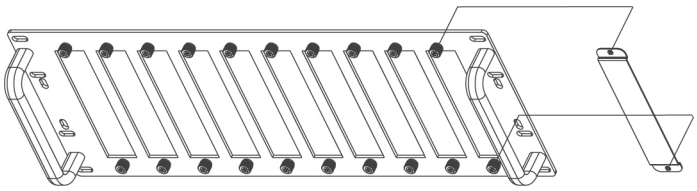
Complete 19 inch 4U rack mount of SB-6069
Install Application: SB-6335T/R



SB-6069 (optional)

SB-6335T/R 19 INCH 4U-10P RACK MOUNT

Model No.: #4U-10p-M130MM
SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6069ER13000

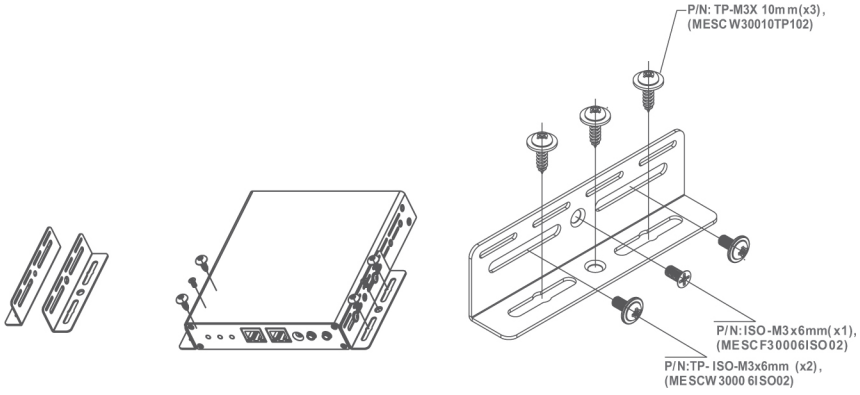


Model No.: #4U-10p-M130MM-COV
SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6069ER11000

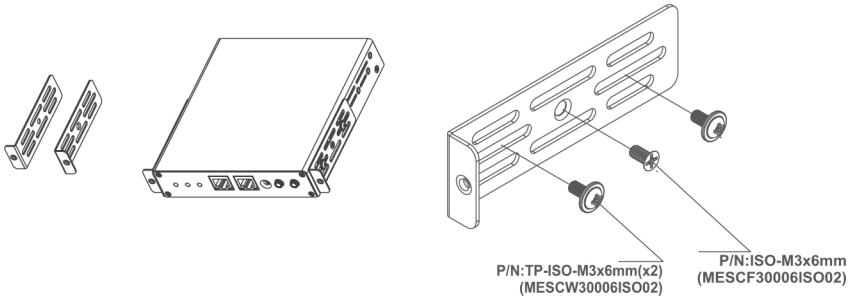


SB-6335T/R 19 INCH 4U-10P RACK MOUNT

Model No.: #WM-1INCH-130MM
SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6320ER11000



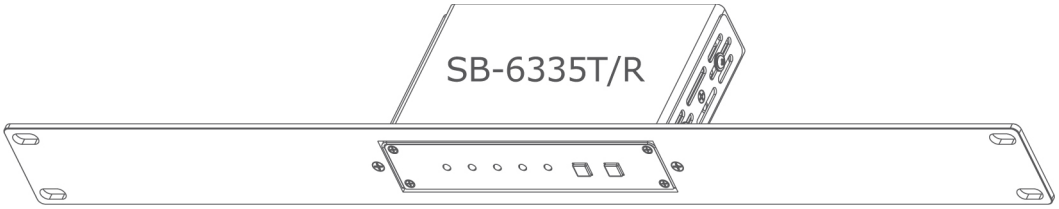
Model No.: #4U-10p-M130MM-EAR
SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6335ER11001



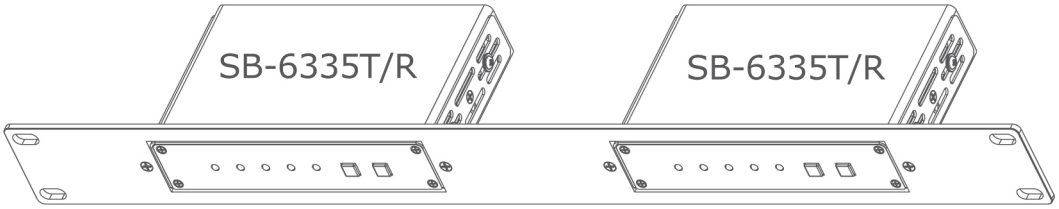
Support HDBaseT™ Extender by Transmitter and Receiver via HDBaseT™ CATX(6/6a/7) cable.

RACKMOUNT (OPTIONAL)

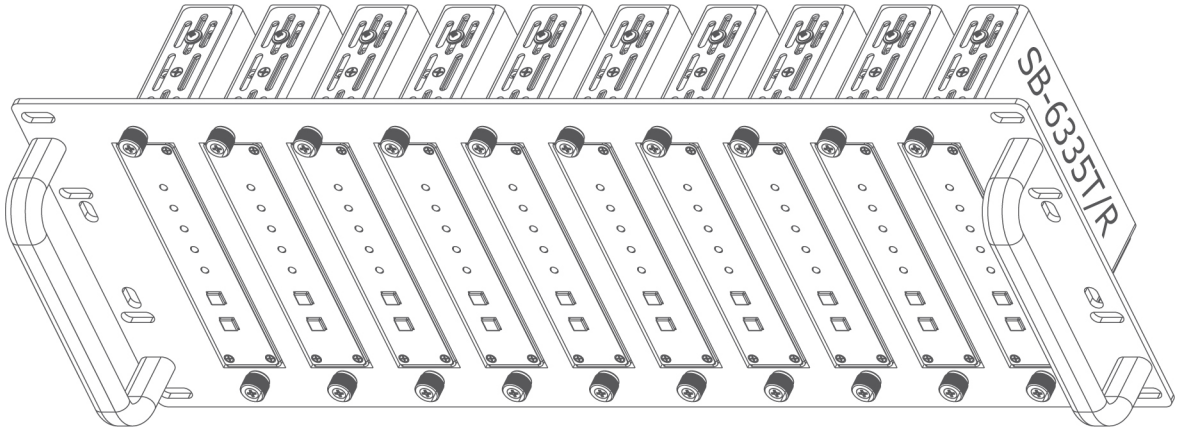
SB-6075A: SB-6335T/R 19 INCH 1RU-1UNIT RACK MOUNT
Model No.: #1U-1p-L440-44MM



SB-6075B: SB-6335T/R 19 INCH 1RU-2UNIT RACK MOUNT
Model No.: #1U-2p-L440-44MM



SB-6069: SB-6335T/R 19 INCH 4U-10P RACK MOUNT
Model No.: #4U-10p-L130MM
SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6069ER13000



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