

MODEL : SB-5669CK

16x16 HDMI & HDBaseT 4K2K MATRIX ROUTING SWITCHER



16x16 HDMI & HDBaseT 4K2K Over Single CAT5e/6/7 Matrix Routing Switch



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.



SAFETY INFORMATION



1. To ensure the best results from this product, please read this manual and all other documentation before operating your equipment. Retain all documentation for future reference.
2. Follow all instructions printed on unit chassis for proper operation.
3. To reduce the risk of fire, do not spill water or other liquids into or on the unit, or operate the unit while standing in liquid.
4. Make sure power outlets conform to the power requirements listed on the back of the unit. Keep unit protected from rain, water and excessive moisture.
5. Do not attempt to clean the unit with chemical solvents or aerosol cleaners, as this may damage the unit. Dust with a clean dry cloth.
6. Do not use the unit if the electrical power cord is frayed or broken. The power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
7. Do not force switched or external connections in any way. They should all connect easily, without needing to be forced.
8. Always operate the unit with the AC ground wire connected to the electrical system ground. Precautions should be taken so that the means of grounding of a piece of equipment is not defeated.
9. AC voltage must be correct and the same as that printed on the rear of the unit. Damage caused by connection to improper AC voltage is not covered by any warranty.
10. Turn power off and disconnect unit from AC current before making connections.
11. Never hold a power switch in the "ON" position.
12. This unit should be installed in a cool dry place, away from sources of excessive heat, vibration, dust, moisture and cold. Do not use the unit near stoves, heat registers, radiators, or other heat producing devices.
13. Do not block fan intake or exhaust ports. Do not operate equipment on a surface or in an environment which may impede the normal flow of air around the unit, such as a bed, rug, carpet, or completely enclosed rack. If the unit is used in an extremely dusty or smoky environment, the unit should be periodically "blown free" of foreign dust and matter.
14. To reduce the risk of electric shock, do not remove the cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel. There are no user serviceable parts inside.
15. When moving the unit, disconnect input ports first, then remove the power cable; finally, disconnect the interconnecting cables to other devices.
16. Do not drive the inputs with a signal level greater than that required to drive equipment to full output.
17. The equipment power cord should be unplugged from the outlet when left unused for a long period of time.
18. Save the carton and packing material even if the equipment has arrived in good condition. Should you ever need to ship the unit, use only the original factory packing.
19. Service Information Equipment should be serviced by qualified service personnel when:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen, or liquid has been spilled into the equipment.
 - C. The equipment has been exposed to rain
 - D. The equipment does not appear to operate normally, or exhibits a marked change in performance
 - E. The equipment has been dropped, or the enclosure damaged.

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INTRODUCTION

The SB-5669CK is professional 16x16 matrix routing switch. Supporting sixteen (16) HDMI Inputs and sixteen (16) HDMI Outputs & sixteen (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. Supports UXGA/WUXGA/DVI 1920x1200 resolution to any HD displays. The SB-5669CK has 16x HDMI connector Input and 16x HDBaseT & 16xHDMI output, effectively making this an 16 in x32 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 seven (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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PACKAGE CONTENTS

PACKAGE CONTENTS

Check that you have the following components;

- SB-5688CK Matrix Switcher
- Master wireless IR Remote Control (SW-5669)
- 16 each; Individual wireless IR Control (HD-69CK-IR01~IR16)
- 19 inch Ear mount bracket (Part # 4U-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 6.50 feet (2M) Transmitter Cable.
- SB-100C IR Extender distance 6.50 feet (2M) Receiver Cable.
- CD Contents : This manual, Windows GUI, ISP V1.0 Windows driver
- RS-232 Cable 6.50 feet (2M)
- ISO Screws
- Users Guide
 - (1) switcher (Version No.: 5669CK-20131220-001)
 - (2) Ethernet V2.0 Protocol Instructions
 - (3) RS-232 V2.0 Protocol Instructions
- Worldwide Universal Power Supply 100~240 VAC, AC 50/60Hz, 10A.



-- SB-6335R HDBaseT Receiver sold separately --

FEATURES

FEATURES

Based on HDBaseT; bi-directional IR and RS-232 interface. Full resolution HD Video, all HDBaseT signals over single category cable (CAT6/6a/7).

- Enables switching of (16)x HDMI digital source devices to (16)x HDMI devices and (16)x HDBaseT
- Transmitter output to (32)x 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 340MHz), 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
- 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
 - Third party RS-232 controller (via simple ASCII)
- Support world wide (7)x 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 show on front panel.
- Support IR Remote and IR Extender with distance up to ~ 984 feet (300 meters) 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.

SPECIFICATIONS

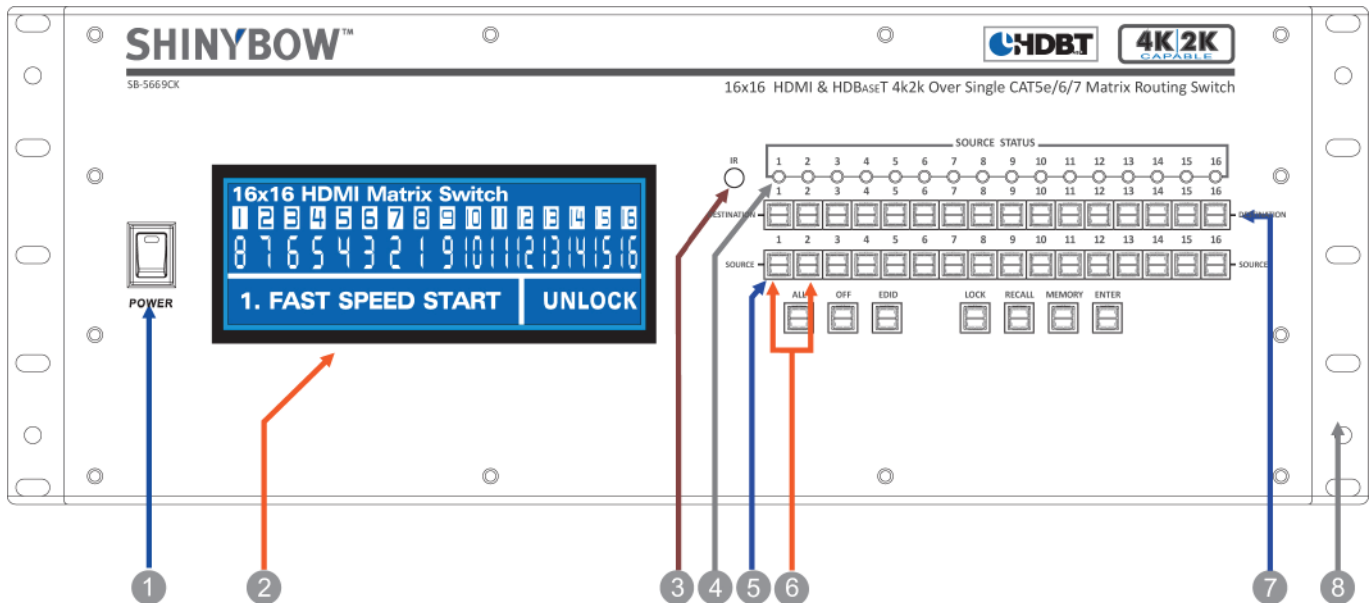
SPECIFICATIONS

- **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 2.0 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 340 MHz, total 6.7 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)
- **HDBaseT Out:**
 - **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
 - **Select LEARNING mode :** Learning Destination EDID To Link Source
- **Infrared Frequency:** 38 KHz
- **IR Extend Distance:** SB-100(~984 ft / 300 M maximum), SB-100C (~6.5 ft/ 2 M)
- **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 5.19 in (442mm x 300mm x 176mm)
- **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 without notice.

FRONT PANEL

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

Use button #1 and #2 to select the desired EDID mode.

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.

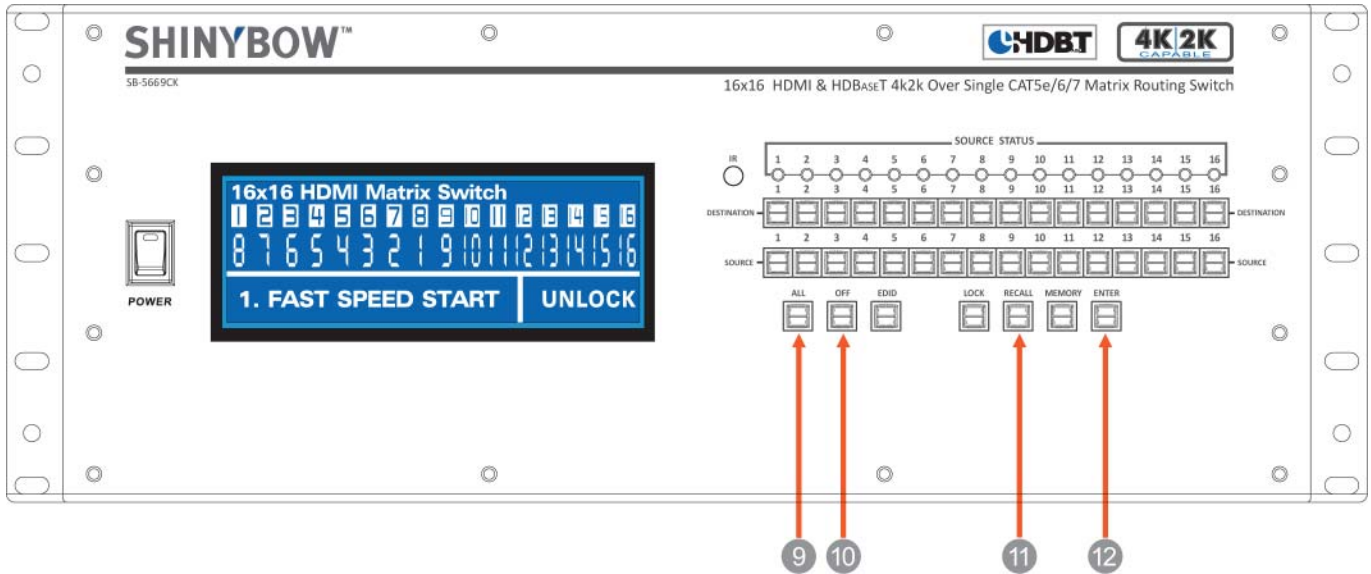
Example: Press Destination 1, 8, 12 then press Source 2 will route Input 2 to Output 1, 8, 12 respectively.

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

FRONT PANEL



8. 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.

9. 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.

10. FUNCTION KEY - RECALL



The system can save up to 16 sets of learning routes, which are stored in local memory using Source buttons 1 thru 16 and Destination buttons 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.

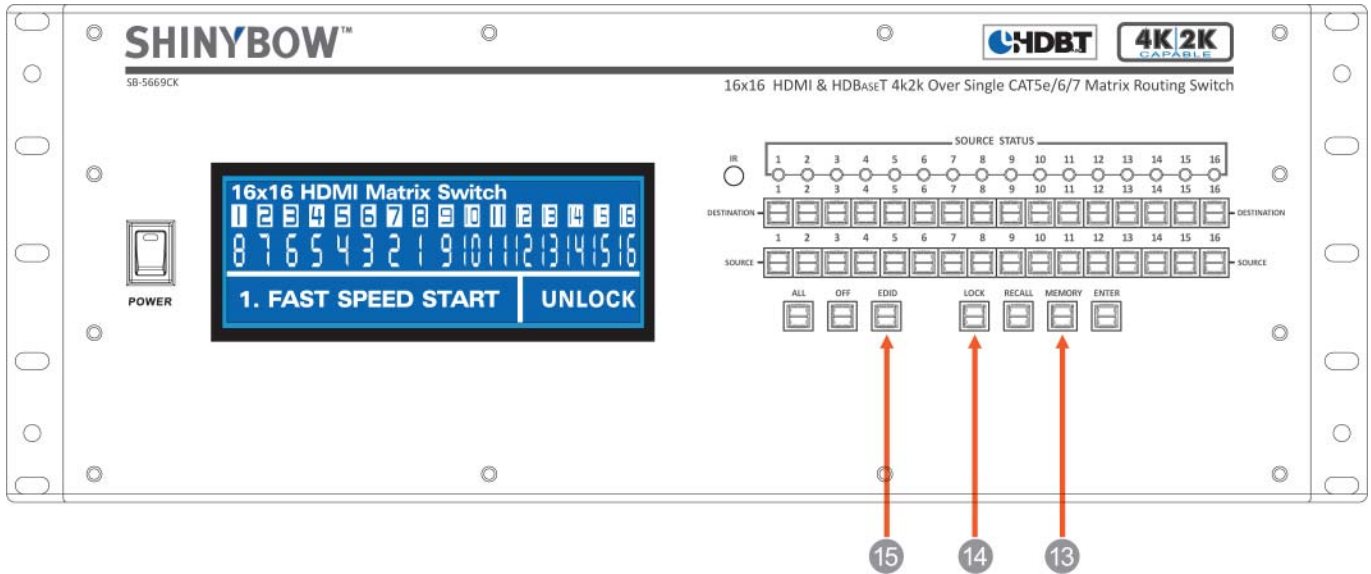
Note: Operation will abort if no keys are pressed within 5 seconds.

11. FUNCTION KEY - ENTER

Press **ENTER** to confirm entries.

FRONT PANEL

FRONT PANEL



12. 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.

13. 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).



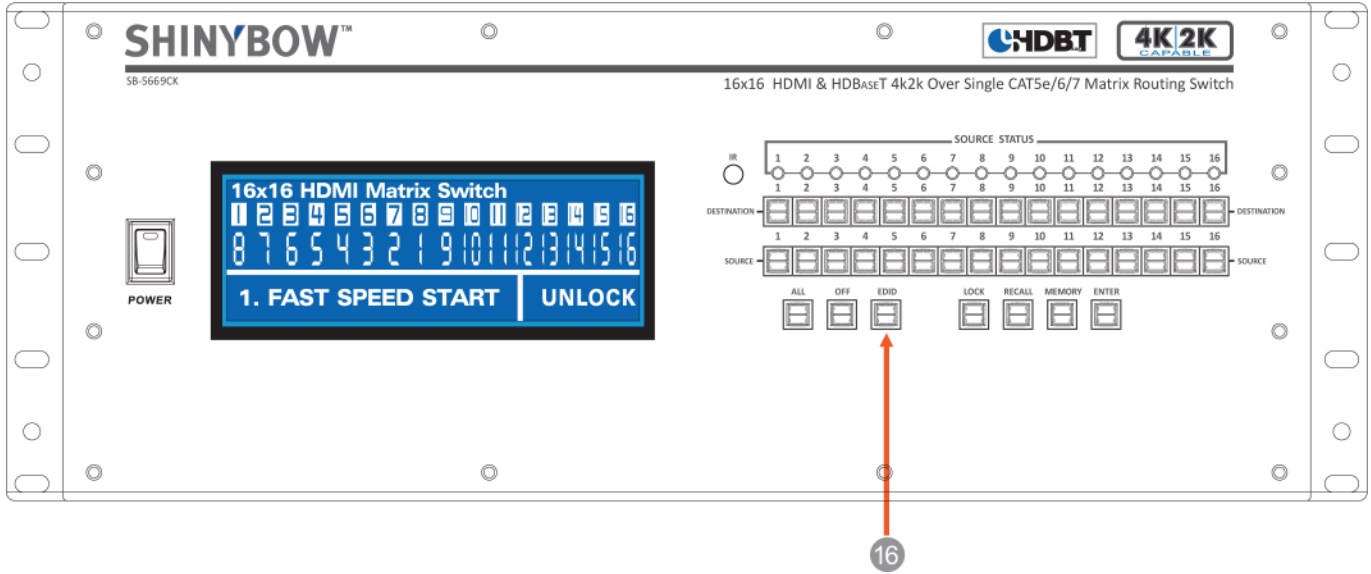
14. FUNCTION KEY - EDID



- Press **EDID** to begin setting up your EDID mode. Use source row buttons #1 and #2 to cycle thru the options. (Go to page 7 ~ 13 for EDID setup instruction.)

FRONT PANEL

FRONT PANEL



16. FUNCTION KEY - EDID (1)



Select & change current EDID mode

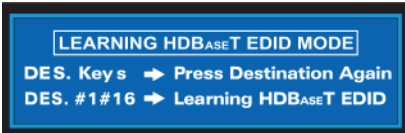
Used to display change current EDID mode.

- 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 dressed within 5 seconds.

FUNCTION KEY - EDID (2)



Select & change current EDID mode

Select external **LEARNING** mode

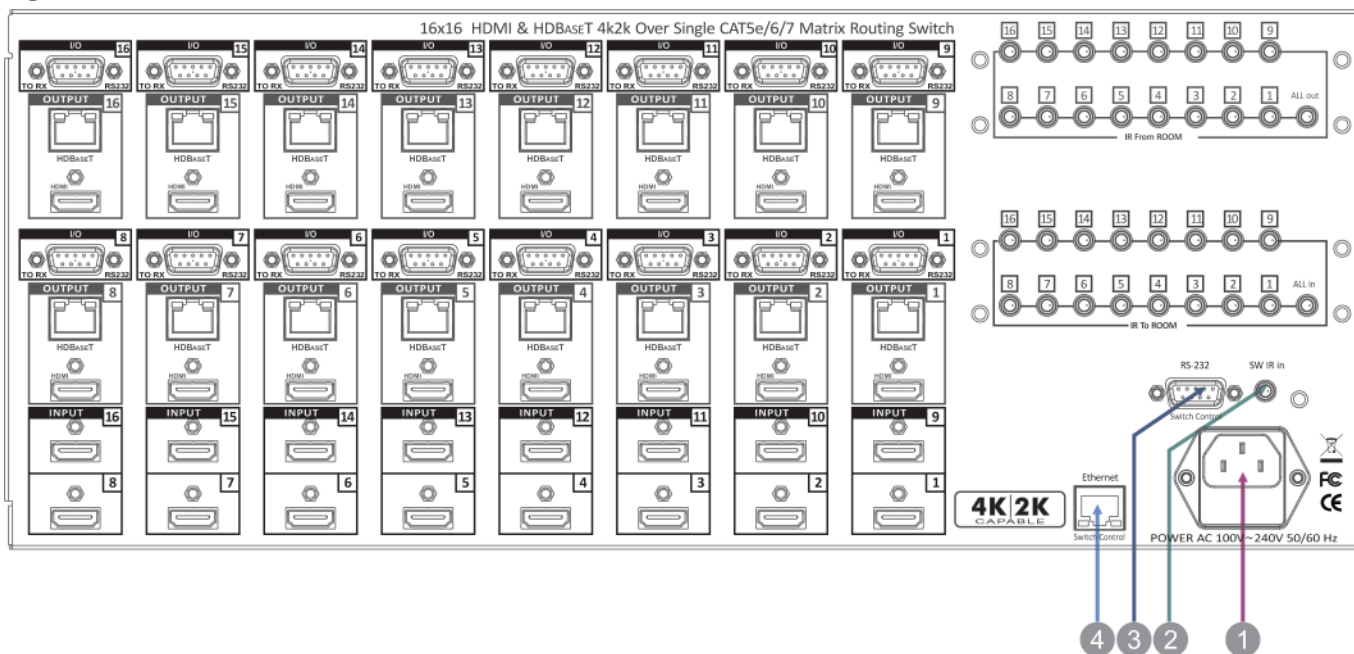
- Press **EDID** to select new EDID mode or select
- Press Destination again, press the same Destination #1 thru #16 to learn HDBaseT out port EDID, The EDID for HDBaseT (CATx) has been learned.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel operation.

Operation completes.

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

BACK PANEL

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

2. IR EXTENDER CONTROL:

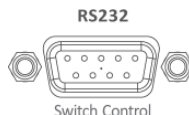
Support one of IR Extender. Extend distance ~984 feet / 300 meters maximum. When you plug the External IR extender into the switcher, the front panel IR receiver remain active.



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

3. RS-232 CONNECTION:

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



Remote port: DB-9pin Female connector

4. ETHERNET CONNECTION:

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

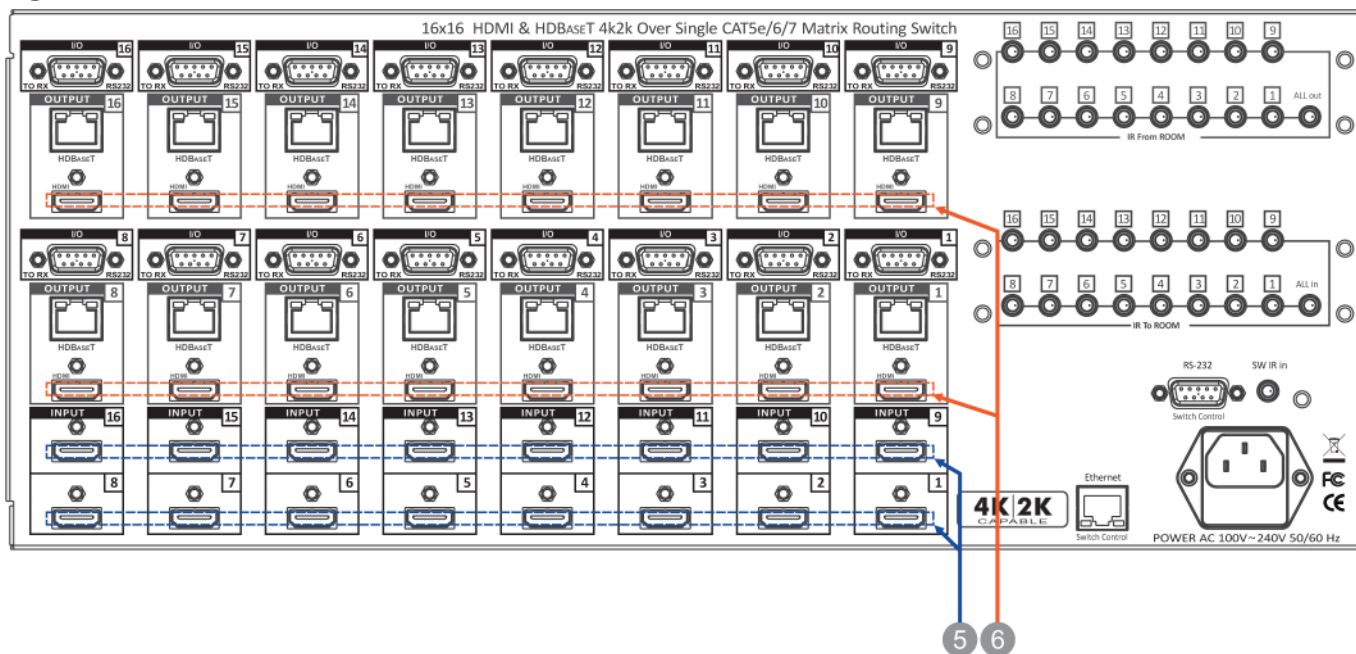


Remote port: Control the switcher RJ-45 Female connector.

Ethernet Port: Note: the Ethernet port and RS-232 port cannot be used simultaneously. Any connection to the Ethernet port will disable serial commands send to the RS-232 port.

BACK PANEL

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.

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.

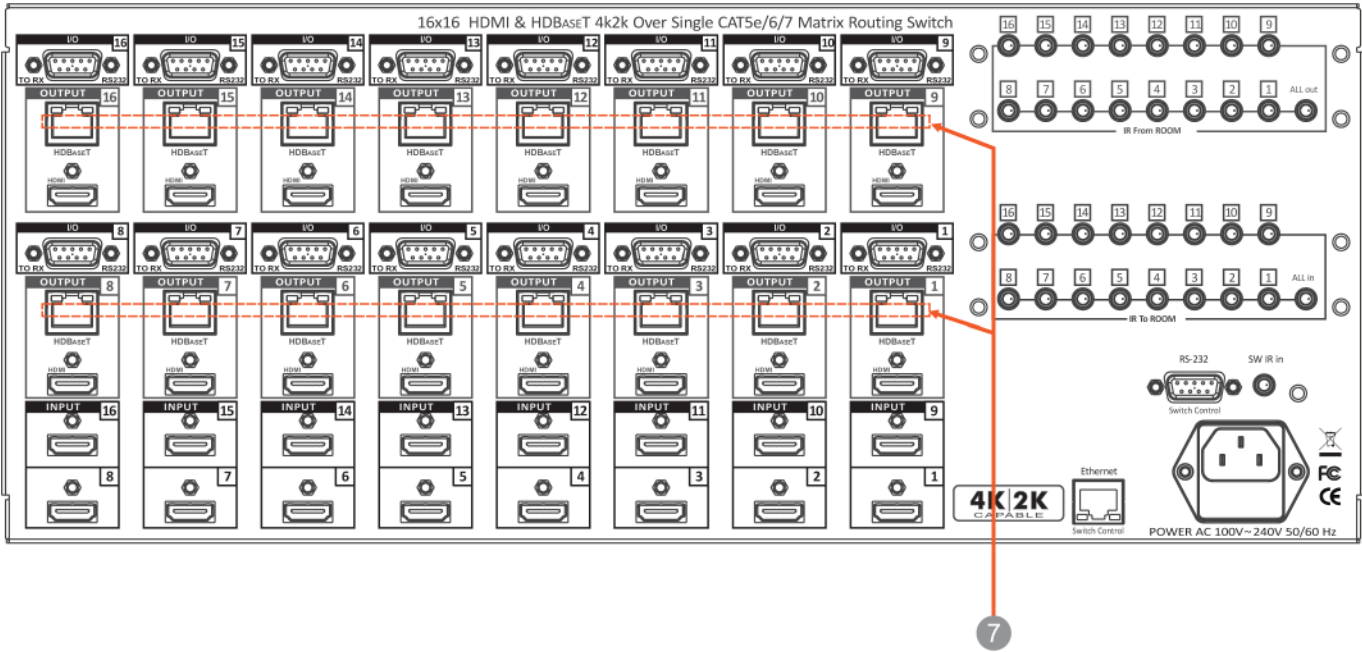


HDMI Connector: HDMI Type A SMD 19pin Female socket connector.

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

BACK PANEL - HDBaseT I/O

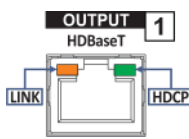
BACK PANEL



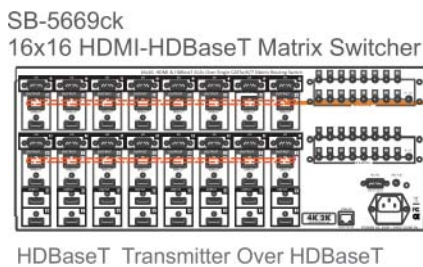
7. OUTPUT - 1 ~ 16 HDBaseT (Transmitter):

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.

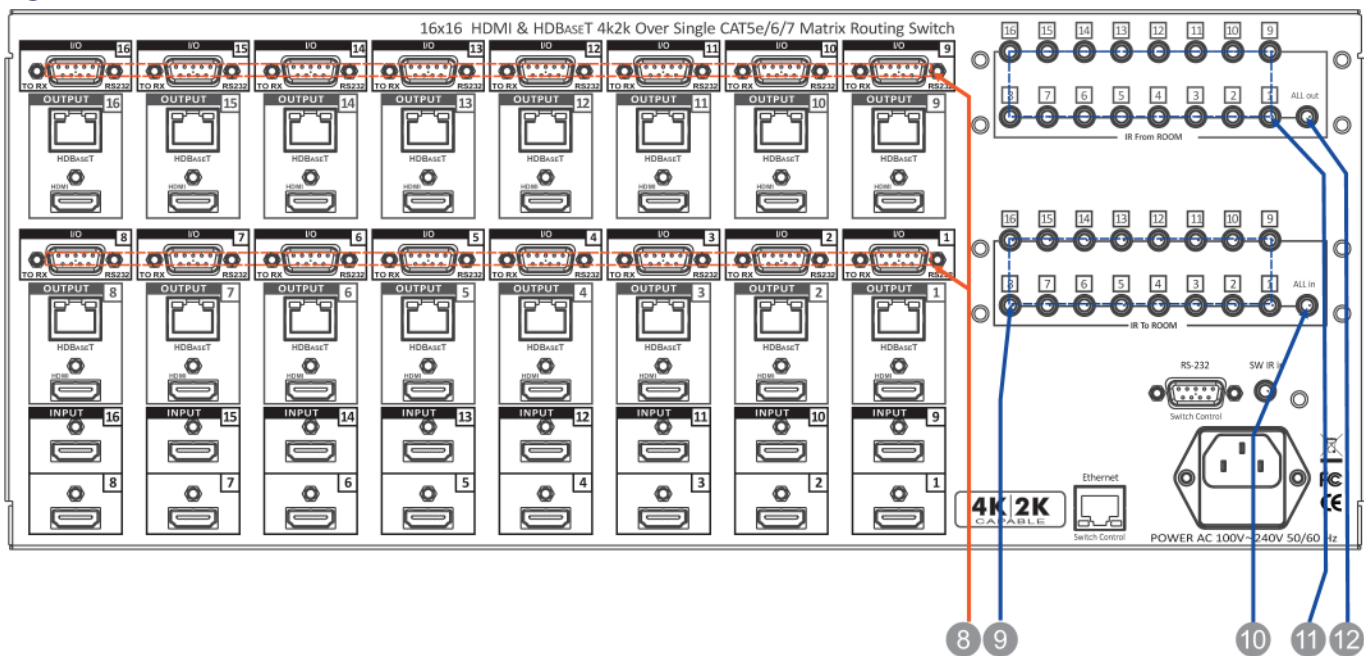


CATx cable (100M)



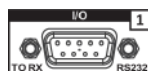
BACK PANEL

BACK PANEL



8. HDBaseT RS-232: 1~8 & 9 ~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-Sub 9pin Female socket for serial RS-232 control.



Remote port: DB-9pin Female connector

9. HDBaseT IR Input: 1~8 & 9~16 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

10. HDBaseT ALL in: 1~8 & 9~16 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

11. HDBaseT IR Output: 1~8 & 9~16 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: 1~8 & 9~16 REMOTE IR SIGNAL FROM ROOM

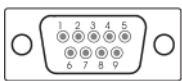
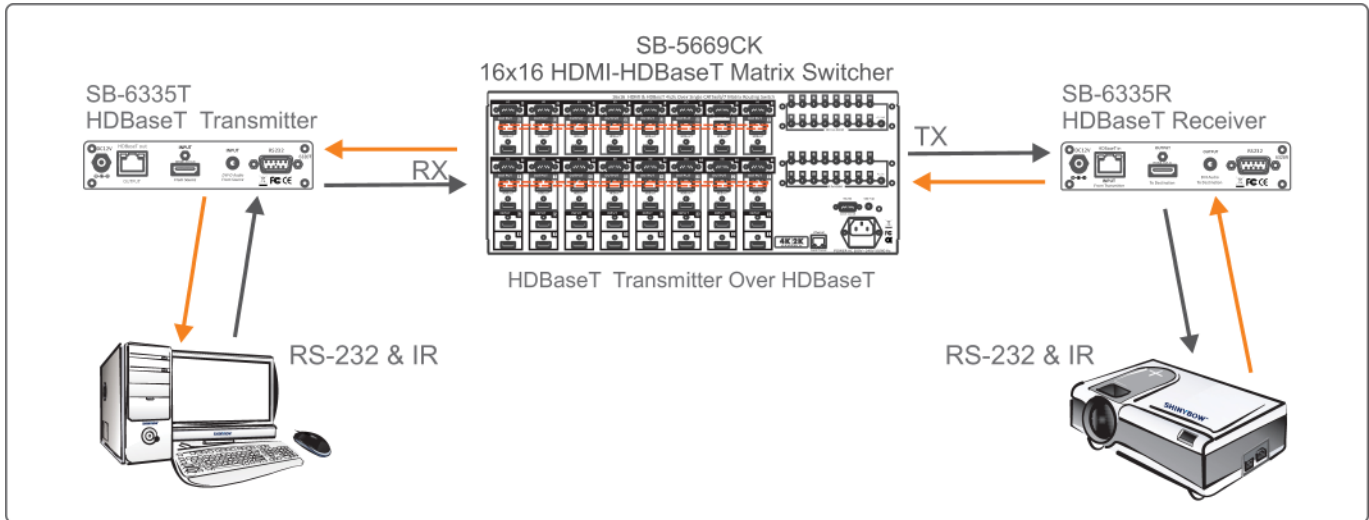
Receive IR signal from all 16 rooms via Switcher HDBaseT Transmitter. When you plug the Switcher HDBaseT IR Transmitter into the external port, the room IR HDBaseT receiver remain active.



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

HDBaseT I/O TRANSMISSION & CABLE EXTENSION LENGTHS

HDBaseT I/O TRANSMISSION



- 2 (RX)
- 3 (TX)
- 5 (GND)

RS-232 Cable Pins out

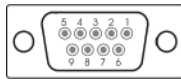
PC 232 PINS
DB-9P , MALE plug



- (TX) 2 ●
- (RX) 3 ●
- (GND) 5 ●

HDBaseT Transmitter SB-6335T

RS-232 PINS OUT
DB-9P , FEMALE socket



- (TX) 2 ●
- (RX) 3 ●
- (GND) 5 ●

HDBaseT Receiver SB-6335R

RS-232 PINS OUT
DB-9P , FEMALE socket

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 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 1~16 buttons, the supplied IR remote control, or through the RS-232 serial communication 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 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 CODE LIST

IR REMOTE CUSTOM AND DATA CODES (NEC STANDARD)

HOW TO SETUP IR CODES :

POWER ON : 32CD A15E
 POWER OFF : 32CD A25D
 ALL : 32CD B04F

CUSTOM CODE : 32CD

OFF : 32CD B14E
 RECALL : 32CD B24D
 ENTER : 32CD B34C

EDID : 32CD B748
 LOCK : 32CD B54A
 MEMORY : 32CD B44B

HOW TO GIVE IR COMMANDS:

PRESS DESTINATION - # then PRESS SOURCE -

DESTINATION #1 :	32CD	10EF	SOURCE #1 :	32CD	20DF
DESTINATION #2 :	32CD	11EE	SOURCE #2 :	32CD	21DE
DESTINATION #3 :	32CD	12ED	SOURCE #3 :	32CD	22DD
DESTINATION #4 :	32CD	13EC	SOURCE #4 :	32CD	23DC
DESTINATION #5 :	32CD	14EB	SOURCE #5 :	32CD	24DB
DESTINATION #6 :	32CD	15EA	SOURCE #6 :	32CD	25DA
DESTINATION #7 :	32CD	16E9	SOURCE #7 :	32CD	26D9
DESTINATION #8 :	32CD	17E8	SOURCE #8 :	32CD	27D8
DESTINATION #9 :	32CD	18E7	SOURCE #9 :	32CD	28D7
DESTINATION #10 :	32CD	19E6	SOURCE #10 :	32CD	29D6
DESTINATION #11 :	32CD	1AE5	SOURCE #11 :	32CD	2AD5
DESTINATION #12 :	32CD	1BE4	SOURCE #12 :	32CD	2BD4
DESTINATION #13 :	32CD	1CE3	SOURCE #13 :	32CD	2CD3
DESTINATION #14 :	32CD	1DE2	SOURCE #14 :	32CD	2DD2
DESTINATION #15 :	32CD	1EE1	SOURCE #15 :	32CD	2ED1
DESTINATION #16 :	32CD	1FE0	SOURCE #16 :	32CD	2FD0

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

Press Destination# > Source#	The IR Data Code list :				
Destination # 1	Source # 1	32CD	10EF	32CD	20DF
Destination # 1	Source # 2	32CD	10EF	32CD	21DE
Destination # 1	Source # 3	32CD	10EF	32CD	22DD
Destination # 1	Source # 4	32CD	10EF	32CD	23DC
Destination # 1	Source # 5	32CD	10EF	32CD	24DB
Destination # 1	Source # 6	32CD	10EF	32CD	25DA
Destination # 1	Source # 7	32CD	10EF	32CD	26D9
Destination # 1	Source # 8	32CD	10EF	32CD	27D8
Destination # 1	Source # 9	32CD	10EF	32CD	28D7
Destination # 1	Source #10	32CD	10EF	32CD	29D6
Destination # 1	Source #11	32CD	10EF	32CD	2AD5
Destination # 1	Source #12	32CD	10EF	32CD	2BD4
Destination # 1	Source #13	32CD	10EF	32CD	2CD3
Destination # 1	Source #14	32CD	10EF	32CD	2DD2
Destination # 1	Source #15	32CD	10EF	32CD	2ED1
Destination # 1	Source #16	32CD	10EF	32CD	2FD0

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

Press Destination# > Source#	The IR Data Code list :				
Destination # 2	Source # 1	32CD	11EE	32CD	20DF
Destination # 2	Source # 2	32CD	11EE	32CD	21DE
Destination # 2	Source # 3	32CD	11EE	32CD	22DD
Destination # 2	Source # 4	32CD	11EE	32CD	23DC
Destination # 2	Source # 5	32CD	11EE	32CD	24DB
Destination # 2	Source # 6	32CD	11EE	32CD	25DA
Destination # 2	Source # 7	32CD	11EE	32CD	26D9
Destination # 2	Source # 8	32CD	11EE	32CD	27D8
Destination # 2	Source # 9	32CD	11EE	32CD	28D7
Destination # 2	Source #10	32CD	11EE	32CD	29D6
Destination # 2	Source #11	32CD	11EE	32CD	2AD5
Destination # 2	Source #12	32CD	11EE	32CD	2BD4
Destination # 2	Source #13	32CD	11EE	32CD	2CD3
Destination # 2	Source #14	32CD	11EE	32CD	2DD2
Destination # 2	Source #15	32CD	11EE	32CD	2ED1
Destination # 2	Source #16	32CD	11EE	32CD	2FD0

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

Press Destination# > Source#	The IR Data Code list :				
Destination # 3	Source # 1	32CD	12ED	32CD	20DF
Destination # 3	Source # 2	32CD	12ED	32CD	21DE
Destination # 3	Source # 3	32CD	12ED	32CD	22DD
Destination # 3	Source # 4	32CD	12ED	32CD	23DC
Destination # 3	Source # 5	32CD	12ED	32CD	24DB
Destination # 3	Source # 6	32CD	12ED	32CD	25DA
Destination # 3	Source # 7	32CD	12ED	32CD	26D9
Destination # 3	Source # 8	32CD	12ED	32CD	27D8
Destination # 3	Source # 9	32CD	12ED	32CD	28D7
Destination # 3	Source #10	32CD	12ED	32CD	29D6
Destination # 3	Source #11	32CD	12ED	32CD	2AD5
Destination # 3	Source #12	32CD	12ED	32CD	2BD4
Destination # 3	Source #13	32CD	12ED	32CD	2CD3
Destination # 3	Source #14	32CD	12ED	32CD	2DD2
Destination # 3	Source #15	32CD	12ED	32CD	2ED1
Destination # 3	Source #16	32CD	12ED	32CD	2FD0

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

Press Destination# > Source#	The IR Data Code list :				
Destination # 4	Source # 1	32CD	13EC	32CD	20DF
Destination # 4	Source # 2	32CD	13EC	32CD	21DE
Destination # 4	Source # 3	32CD	13EC	32CD	22DD
Destination # 4	Source # 4	32CD	13EC	32CD	23DC
Destination # 4	Source # 5	32CD	13EC	32CD	24DB
Destination # 4	Source # 6	32CD	13EC	32CD	25DA
Destination # 4	Source # 7	32CD	13EC	32CD	26D9
Destination # 4	Source # 8	32CD	13EC	32CD	27D8
Destination # 4	Source # 9	32CD	13EC	32CD	28D7
Destination # 4	Source #10	32CD	13EC	32CD	29D6
Destination # 4	Source #11	32CD	13EC	32CD	2AD5
Destination # 4	Source #12	32CD	13EC	32CD	2BD4
Destination # 4	Source #13	32CD	13EC	32CD	2CD3
Destination # 4	Source #14	32CD	13EC	32CD	2DD2
Destination # 4	Source #15	32CD	13EC	32CD	2ED1
Destination # 4	Source #16	32CD	13EC	32CD	2FD0

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

Press Destination# > Source#	The IR Data Code list :				
Destination # 5	Source # 1	32CD	14EB	32CD	20DF
Destination # 5	Source # 2	32CD	14EB	32CD	21DE
Destination # 5	Source # 3	32CD	14EB	32CD	22DD
Destination # 5	Source # 4	32CD	14EB	32CD	23DC
Destination # 5	Source # 5	32CD	14EB	32CD	24DB
Destination # 5	Source # 6	32CD	14EB	32CD	25DA
Destination # 5	Source # 7	32CD	14EB	32CD	26D9
Destination # 5	Source # 8	32CD	14EB	32CD	27D8
Destination # 5	Source # 9	32CD	14EB	32CD	28D7
Destination # 5	Source #10	32CD	14EB	32CD	29D6
Destination # 5	Source #11	32CD	14EB	32CD	2AD5
Destination # 5	Source #12	32CD	14EB	32CD	2BD4
Destination # 5	Source #13	32CD	14EB	32CD	2CD3
Destination # 5	Source #14	32CD	14EB	32CD	2DD2
Destination # 5	Source #15	32CD	14EB	32CD	2ED1
Destination # 5	Source #16	32CD	14EB	32CD	2FD0

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

Press Destination# > Source#	The IR Data Code list :				
Destination # 6	Source # 1	32CD	15EA	32CD	20DF
Destination # 6	Source # 2	32CD	15EA	32CD	21DE
Destination # 6	Source # 3	32CD	15EA	32CD	22DD
Destination # 6	Source # 4	32CD	15EA	32CD	23DC
Destination # 6	Source # 5	32CD	15EA	32CD	24DB
Destination # 6	Source # 6	32CD	15EA	32CD	25DA
Destination # 6	Source # 7	32CD	15EA	32CD	26D9
Destination # 6	Source # 8	32CD	15EA	32CD	27D8
Destination # 6	Source # 9	32CD	15EA	32CD	28D7
Destination # 6	Source #10	32CD	15EA	32CD	29D6
Destination # 6	Source #11	32CD	15EA	32CD	2AD5
Destination # 6	Source #12	32CD	15EA	32CD	2BD4
Destination # 6	Source #13	32CD	15EA	32CD	2CD3
Destination # 6	Source #14	32CD	15EA	32CD	2DD2
Destination # 6	Source #15	32CD	15EA	32CD	2ED1
Destination # 6	Source #16	32CD	15EA	32CD	2FD0

ROOM IR REMOTE CODE #01 ~ #04

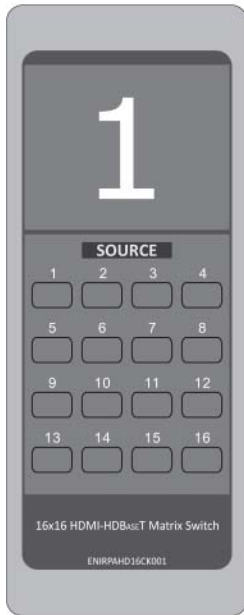
ROOM IR REMOTE CONTROL #01 ~ #04 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE

CUSTOM CODE : 32CD

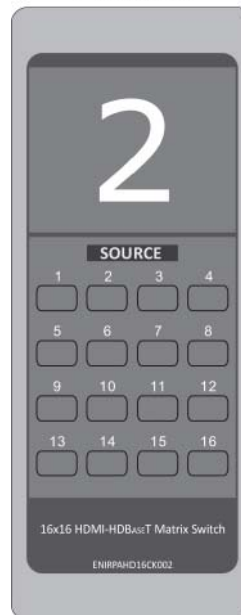
16x16 HDMI-HDBT MX SW
SW-5669CK-IR01



IR-01 DATA CODE:

SOURCE #1 :	32CD	00FF
SOURCE #2 :	32CD	01FE
SOURCE #3 :	32CD	02FD
SOURCE #4 :	32CD	03FC
SOURCE #5 :	32CD	04FB
SOURCE #6 :	32CD	05FA
SOURCE #7 :	32CD	06F9
SOURCE #8 :	32CD	07F8
SOURCE #9 :	32CD	08F7
SOURCE #10 :	32CD	09F6
SOURCE #11 :	32CD	0AF5
SOURCE #12 :	32CD	0BF4
SOURCE #13 :	32CD	0CF3
SOURCE #14 :	32CD	0DF2
SOURCE #15 :	32CD	0EF1
SOURCE #16 :	32CD	0FF0

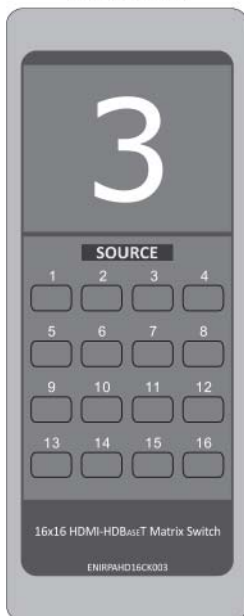
16x16 HDMI-HDBT MX SW
SW-5669CK-IR02



IR-02 DATA CODE:

SOURCE #1 :	32CD	10EF
SOURCE #2 :	32CD	11EE
SOURCE #3 :	32CD	12ED
SOURCE #4 :	32CD	13EC
SOURCE #5 :	32CD	14EB
SOURCE #6 :	32CD	15EA
SOURCE #7 :	32CD	16E9
SOURCE #8 :	32CD	17E8
SOURCE #9 :	32CD	18E7
SOURCE #10 :	32CD	19E6
SOURCE #11 :	32CD	1AE5
SOURCE #12 :	32CD	1BE4
SOURCE #13 :	32CD	1CE3
SOURCE #14 :	32CD	1DE2
SOURCE #15 :	32CD	1EE1
SOURCE #16 :	32CD	1FE0

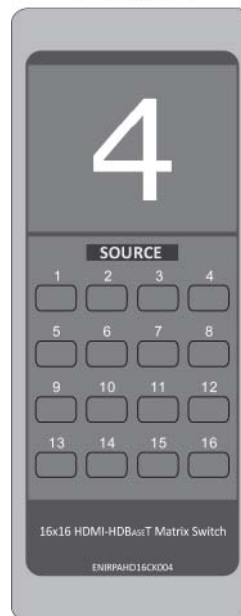
16x16 HDMI-HDBT MX SW
SW-5669CK-IR03



IR-03 DATA CODE:

SOURCE #1 :	32CD	20DF
SOURCE #2 :	32CD	21DE
SOURCE #3 :	32CD	22DD
SOURCE #4 :	32CD	23DC
SOURCE #5 :	32CD	24DB
SOURCE #6 :	32CD	25DA
SOURCE #7 :	32CD	26D9
SOURCE #8 :	32CD	27D8
SOURCE #9 :	32CD	28D7
SOURCE #10 :	32CD	29D6
SOURCE #11 :	32CD	2AD5
SOURCE #12 :	32CD	2BD4
SOURCE #13 :	32CD	2CD3
SOURCE #14 :	32CD	2DD2
SOURCE #15 :	32CD	2ED1
SOURCE #16 :	32CD	2FD0

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



IR-04 DATA CODE:

SOURCE #1 :	32CD	30CF
SOURCE #2 :	32CD	31CE
SOURCE #3 :	32CD	32CD
SOURCE #4 :	32CD	33CC
SOURCE #5 :	32CD	34CB
SOURCE #6 :	32CD	35CA
SOURCE #7 :	32CD	36C9
SOURCE #8 :	32CD	37C8
SOURCE #9 :	32CD	38C7
SOURCE #10 :	32CD	39C6
SOURCE #11 :	32CD	3AC5
SOURCE #12 :	32CD	3BC4
SOURCE #13 :	32CD	3CC3
SOURCE #14 :	32CD	3DC2
SOURCE #15 :	32CD	3EC1
SOURCE #16 :	32CD	3FC0

ROOM IR REMOTE CODE #05 ~ #08

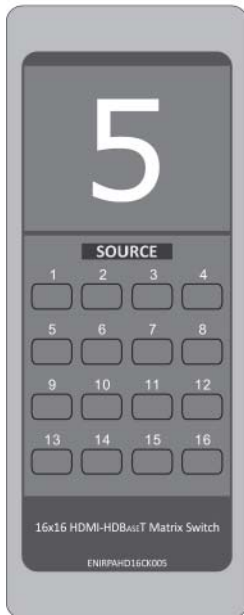
ROOM IR REMOTE CONTROL #05 ~ #08 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE

CUSTOM CODE : 32CD

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



IR-05 DATA CODE:

SOURCE #1 :	32CD	40BF
SOURCE #2 :	32CD	41BE
SOURCE #3 :	32CD	42BD
SOURCE #4 :	32CD	43BC
SOURCE #5 :	32CD	44BB
SOURCE #6 :	32CD	45BA
SOURCE #7 :	32CD	46B9
SOURCE #8 :	32CD	47B8
SOURCE #9 :	32CD	48B7
SOURCE #10 :	32CD	49B6
SOURCE #11 :	32CD	4AB5
SOURCE #12 :	32CD	4BB4
SOURCE #13 :	32CD	4CB3
SOURCE #14 :	32CD	4DB2
SOURCE #15 :	32CD	4EB1
SOURCE #16 :	32CD	4FB0

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



IR-06 DATA CODE:

SOURCE #1 :	32CD	50AF
SOURCE #2 :	32CD	51AE
SOURCE #3 :	32CD	52AD
SOURCE #4 :	32CD	53AC
SOURCE #5 :	32CD	54AB
SOURCE #6 :	32CD	55AA
SOURCE #7 :	32CD	56A9
SOURCE #8 :	32CD	57A8
SOURCE #9 :	32CD	58A7
SOURCE #10 :	32CD	59A6
SOURCE #11 :	32CD	5AA5
SOURCE #12 :	32CD	5BA4
SOURCE #13 :	32CD	5CA3
SOURCE #14 :	32CD	5DA2
SOURCE #15 :	32CD	5EA1
SOURCE #16 :	32CD	5FA0

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



IR-07 DATA CODE:

SOURCE #1 :	32CD	609F
SOURCE #2 :	32CD	619E
SOURCE #3 :	32CD	629D
SOURCE #4 :	32CD	639C
SOURCE #5 :	32CD	649B
SOURCE #6 :	32CD	659A
SOURCE #7 :	32CD	6699
SOURCE #8 :	32CD	6798
SOURCE #9 :	32CD	6897
SOURCE #10 :	32CD	6996
SOURCE #11 :	32CD	6A95
SOURCE #12 :	32CD	6B94
SOURCE #13 :	32CD	6C93
SOURCE #14 :	32CD	6D92
SOURCE #15 :	32CD	6E91
SOURCE #16 :	32CD	6F90

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



IR-08 DATA CODE:

SOURCE #1 :	32CD	708F
SOURCE #2 :	32CD	718E
SOURCE #3 :	32CD	728D
SOURCE #4 :	32CD	738C
SOURCE #5 :	32CD	748B
SOURCE #6 :	32CD	758A
SOURCE #7 :	32CD	7689
SOURCE #8 :	32CD	7788
SOURCE #9 :	32CD	7887
SOURCE #10 :	32CD	7986
SOURCE #11 :	32CD	7A85
SOURCE #12 :	32CD	7B84
SOURCE #13 :	32CD	7C83
SOURCE #14 :	32CD	7D82
SOURCE #15 :	32CD	7E81
SOURCE #16 :	32CD	7F80

ROOM IR REMOTE CODE #09 ~ #12

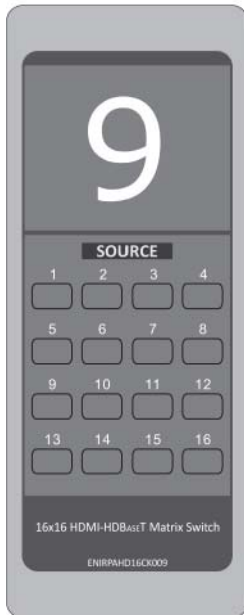
ROOM IR REMOTE CONTROL # 09 ~ #12 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE

CUSTOM CODE : 32CD

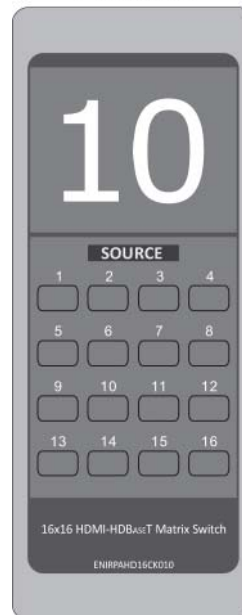
16x16 HDMI-HDBT MX SW
SW-5669CK-IR09



IR-09 DATA CODE:

SOURCE #1 :	32CD	807F
SOURCE #2 :	32CD	817E
SOURCE #3 :	32CD	827D
SOURCE #4 :	32CD	837C
SOURCE #5 :	32CD	847B
SOURCE #6 :	32CD	857A
SOURCE #7 :	32CD	8679
SOURCE #8 :	32CD	8778
SOURCE #9 :	32CD	8877
SOURCE #10 :	32CD	8976
SOURCE #11 :	32CD	8A75
SOURCE #12 :	32CD	8B74
SOURCE #13 :	32CD	8C73
SOURCE #14 :	32CD	8D72
SOURCE #15 :	32CD	8E71
SOURCE #16 :	32CD	8F70

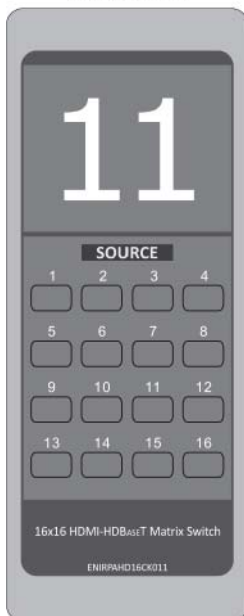
16x16 HDMI-HDBT MX SW
SW-5669CK-IR10



IR-10 DATA CODE:

SOURCE #1 :	32CD	906F
SOURCE #2 :	32CD	916E
SOURCE #3 :	32CD	926D
SOURCE #4 :	32CD	936C
SOURCE #5 :	32CD	946B
SOURCE #6 :	32CD	956A
SOURCE #7 :	32CD	9669
SOURCE #8 :	32CD	9768
SOURCE #9 :	32CD	9867
SOURCE #10 :	32CD	9966
SOURCE #11 :	32CD	9A65
SOURCE #12 :	32CD	9B64
SOURCE #13 :	32CD	9C63
SOURCE #14 :	32CD	9D62
SOURCE #15 :	32CD	9E61
SOURCE #16 :	32CD	9F60

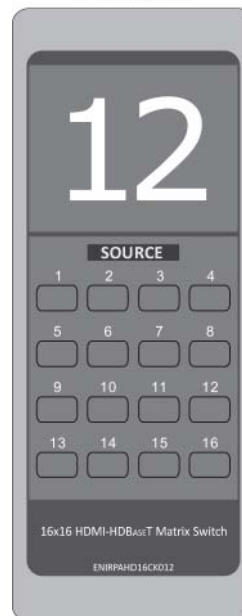
16x16 HDMI-HDBT MX SW
SW-5669CK-IR11



IR-11 DATA CODE:

SOURCE #1 :	32CD	A05F
SOURCE #2 :	32CD	A15E
SOURCE #3 :	32CD	A25D
SOURCE #4 :	32CD	A35C
SOURCE #5 :	32CD	A45B
SOURCE #6 :	32CD	A55A
SOURCE #7 :	32CD	A659
SOURCE #8 :	32CD	A758
SOURCE #9 :	32CD	A857
SOURCE #10 :	32CD	A956
SOURCE #11 :	32CD	AA55
SOURCE #12 :	32CD	AB54
SOURCE #13 :	32CD	AC53
SOURCE #14 :	32CD	AD52
SOURCE #15 :	32CD	AE51
SOURCE #16 :	32CD	AF50

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



IR-12 DATA CODE:

SOURCE #1 :	32CD	B04F
SOURCE #2 :	32CD	B14E
SOURCE #3 :	32CD	B24D
SOURCE #4 :	32CD	B34C
SOURCE #5 :	32CD	B44B
SOURCE #6 :	32CD	B54A
SOURCE #7 :	32CD	B649
SOURCE #8 :	32CD	B748
SOURCE #9 :	32CD	B847
SOURCE #10 :	32CD	B946
SOURCE #11 :	32CD	BA45
SOURCE #12 :	32CD	BB44
SOURCE #13 :	32CD	BC43
SOURCE #14 :	32CD	BD42
SOURCE #15 :	32CD	BE41
SOURCE #16 :	32CD	BF40

ROOM IR REMOTE CODE #13 ~ #16

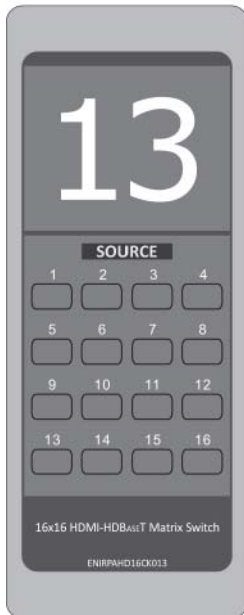
ROOM IR REMOTE CONTROL #13 ~ #16 CUSTOM CODE AND DATA CODES

IR CUSTOM AND DATA CODES (NEC Standard)

PRESS Number To Select SOURCE

CUSTOM CODE : 32CD

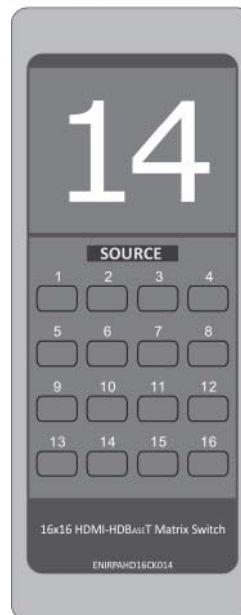
16x16 HDMI-HDBT MX SW
SW-5669CK-IR13



IR-13 DATA CODE:

SOURCE #1 :	32CD	C03F
SOURCE #2 :	32CD	C13E
SOURCE #3 :	32CD	C23D
SOURCE #4 :	32CD	C33C
SOURCE #5 :	32CD	C43B
SOURCE #6 :	32CD	C53A
SOURCE #7 :	32CD	C639
SOURCE #8 :	32CD	C738
SOURCE #9 :	32CD	C837
SOURCE #10 :	32CD	C936
SOURCE #11 :	32CD	CA35
SOURCE #12 :	32CD	CB34
SOURCE #13 :	32CD	CC33
SOURCE #14 :	32CD	CD32
SOURCE #15 :	32CD	CE31
SOURCE #16 :	32CD	CF30

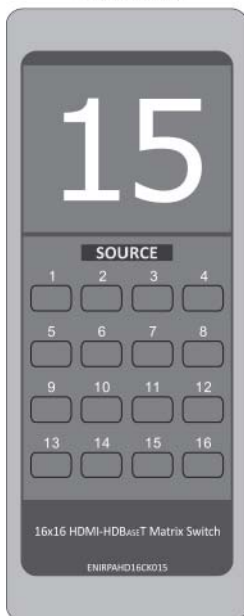
16x16 HDMI-HDBT MX SW
SW-5669CK-IR14



IR-14 DATA CODE:

SOURCE #1 :	32CD	D02F
SOURCE #2 :	32CD	D12E
SOURCE #3 :	32CD	D22D
SOURCE #4 :	32CD	D32C
SOURCE #5 :	32CD	D42B
SOURCE #6 :	32CD	D52A
SOURCE #7 :	32CD	D629
SOURCE #8 :	32CD	D728
SOURCE #9 :	32CD	D827
SOURCE #10 :	32CD	D926
SOURCE #11 :	32CD	DA25
SOURCE #12 :	32CD	DB24
SOURCE #13 :	32CD	DC23
SOURCE #14 :	32CD	DD22
SOURCE #15 :	32CD	DE21
SOURCE #16 :	32CD	DF20

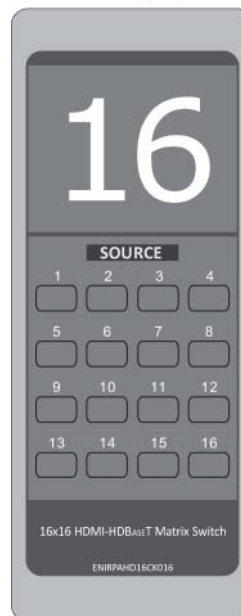
16x16 HDMI-HDBT MX SW
SW-5669CK-IR15



IR-15 DATA CODE:

SOURCE #1 :	32CD	E01F
SOURCE #2 :	32CD	E11E
SOURCE #3 :	32CD	E21D
SOURCE #4 :	32CD	E31C
SOURCE #5 :	32CD	E41B
SOURCE #6 :	32CD	E51A
SOURCE #7 :	32CD	E619
SOURCE #8 :	32CD	E718
SOURCE #9 :	32CD	E817
SOURCE #10 :	32CD	E916
SOURCE #11 :	32CD	EA15
SOURCE #12 :	32CD	EB14
SOURCE #13 :	32CD	EC13
SOURCE #14 :	32CD	ED12
SOURCE #15 :	32CD	EE11
SOURCE #16 :	32CD	EF10

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



IR-16 DATA CODE:

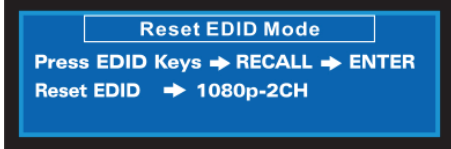
SOURCE #1 :	32CD	F00F
SOURCE #2 :	32CD	F10E
SOURCE #3 :	32CD	F20D
SOURCE #4 :	32CD	F30C
SOURCE #5 :	32CD	F40B
SOURCE #6 :	32CD	F50A
SOURCE #7 :	32CD	F609
SOURCE #8 :	32CD	F708
SOURCE #9 :	32CD	F807
SOURCE #10 :	32CD	F906
SOURCE #11 :	32CD	FA05
SOURCE #12 :	32CD	FB04
SOURCE #13 :	32CD	FC03
SOURCE #14 :	32CD	FD02
SOURCE #15 :	32CD	FE01
SOURCE #16 :	32CD	FF00


EDID FUNCTION

EDID FUNCTION SETUP


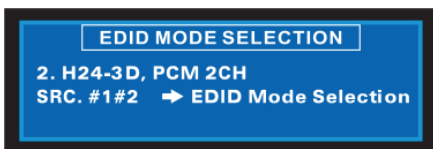

EDID Setup	To Change the EDID Setup
Step 1. Press the EDID button	The display will show the currently selected EDID mode
Step 2. Press SOURCE #1 or #2 button row	The button will flash blue and the display will show the current Embedded EDID Status .
Step 3. Press the ENTER button	To set EDID mode. The switcher will return to operation mode.

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



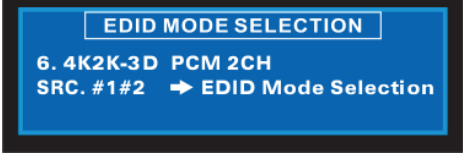

RESET	EDID Return To Factory default
<p>How to RESET EDID mode</p> <p>Press EDID > RECALL > ENTER</p> 	<p>RESET To the FACTORY DEFAULT (1080p-2CH).</p> <p>Press EDID button : The LCM will show the current EDID status.</p> <p>Press RECALL button : The LCM will show the RESET EDID.</p> <p>Press ENTER to confirm entries. The EDID will return to FSS mode and resolution 1080p-2CH.</p>

Embedded EDID Modes	Total 8 EDID Modes
<p>Embedded EDID setup</p> <p>Press EDID > SOURCE > ENTER</p> <p>SOURCE #1 or SOURCE #2</p> <p>Select Embedded EDID :</p> <p>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</p>	<p>To select Embedded EDID mode or LEARNING mode.</p> <p>Press EDID button: The LCM will show the current EDID status.</p>  <p>Repeatedly depressing the Source 1 button will cycle up thru the options. Repeatedly depressing the Source 2 button will cycle down thru the options.</p>

(7) EDID MODE : EDID Management for HDMI Matrix Switch

<p>Mode 1. FSS (Fast Speed Start)</p> 	<p>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.</p>
<p>Mode 2. H24-3D (1080p-24 bits)</p> 	<p>Audio Support: PCM 2CH</p>
<p>Mode 3. H24-3D-M (1080p-24 bits)</p> 	<p>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</p>

EDID FUNCTION

<p>Mode 4. H36-3D-M (1080p-36 bits)</p> 	<p>Audio Support: PCM 2CH</p>
<p>Mode 5. H36-3D (1080p-36 bits)</p> 	<p>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</p>
<p>Mode 6. 4K2K (24/30Hz)</p> 	<p>HDMI Support : 4K2K-3D, PCM 2CH (3840x2160-24/30Hz)</p> <p>Audio Support : PCM 2CH</p>
<p>Mode 7. 1920x1200-60Hz (DVI-D)</p> 	<p>DVI Support: DVI-D 1920x1200 60Hz</p>

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 from Destination to Source
<p>1. Switcher will LEARN destination EDID and pass the selected source.</p> <p>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.</p> <p>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.</p> <p>4. How to Learning single destinations with all sources. Press EDID button > Press ALL button > Press ENTER to confirm.</p>	

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 #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.

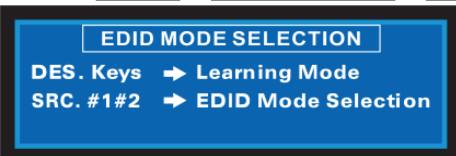
LEARNING EDID FUNCTION FOR HDMI MATRIX SWITCH

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

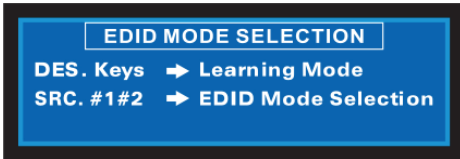
EDID FUNCTION : LEARNING

Learning EDID

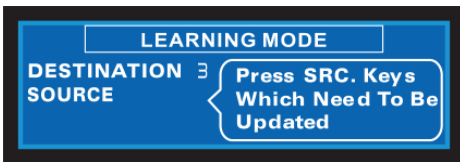
Single Destination to Single Source



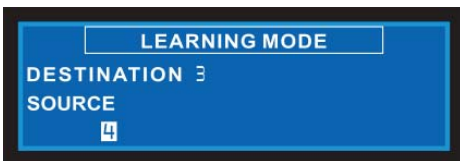
Copy the EDID of a single destination device and pass it to a single source. The source device will output video and audio according to the EDID of the destination.



1. Enter EDID setup page.



2. Choose one destination
Example: Select Destination 3



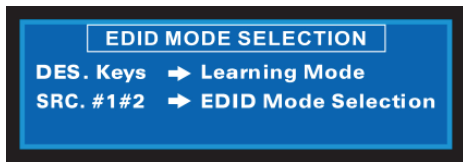
3. Then choose the intended source
Example: Select Source 4

Learning EDID

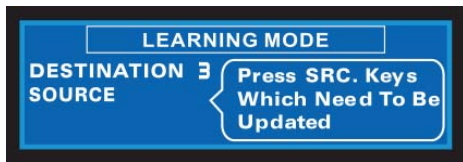
Single Destination to Multiple / All Sources



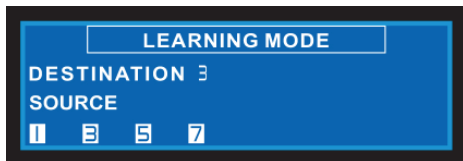
Copy the EDID of a single destination device and pass it to multiple sources. The source device will output video and audio according to the EDID of the destination.



1. Enter EDID setup page.



2. Choose one destination
Example: Select Destination 3



3. Then choose the intended source
Example: Select Source 1, 3, 5, 7.

Users who want all the 16 sources to learn the EDID from a destination, press all the 16 source buttons instead of the ALL button.

EDID FUNCTION

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.

TYPICAL APPLICATION - SWITCH CONTROL

INSTALLING DIAGRAM

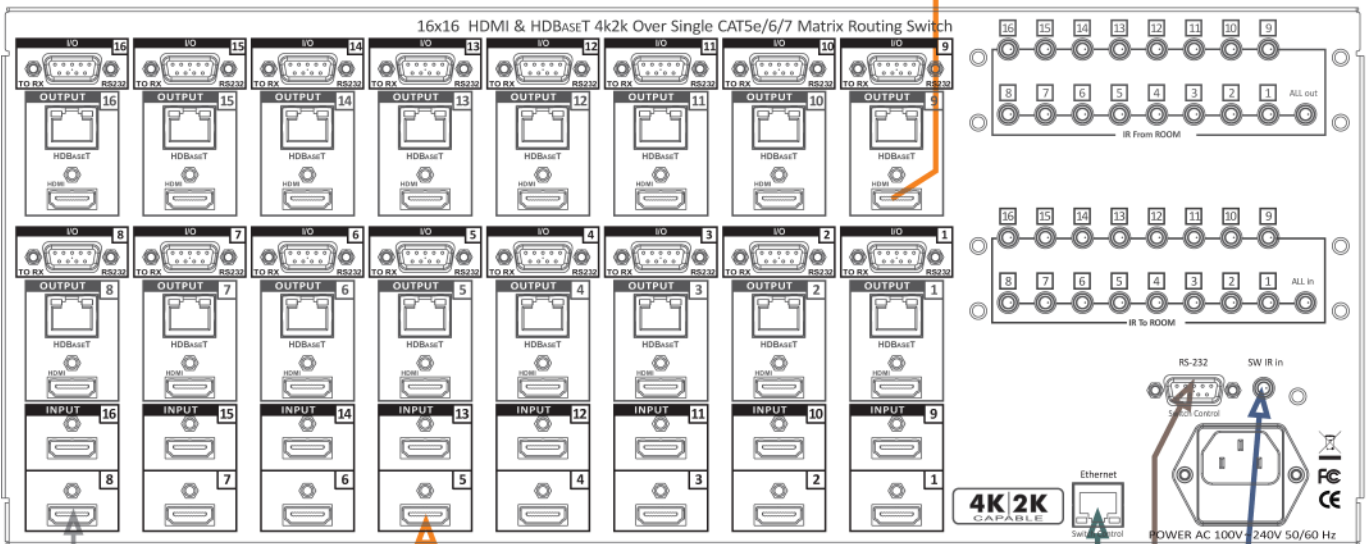
Samples connection :

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.

HDMI DISPLAY TV



HDMI cable in

HDMI cable in



HD Satellite Receiver



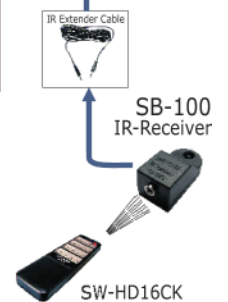
Blu-ray



PC Ethernet To Control Switcher



PC RS232 To Control Switcher



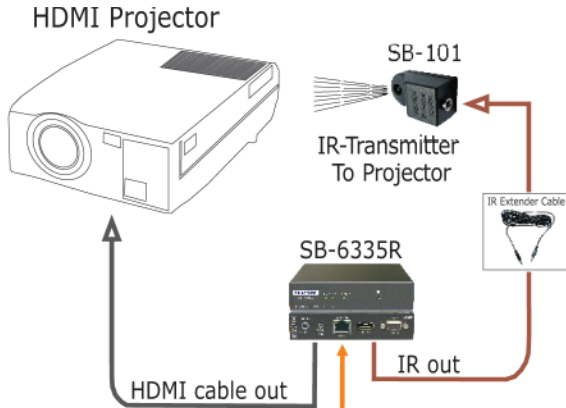
SB-100 IR-Receiver

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

TYPICAL APPLICATION IR Transmitter / Receiver

INSTALLING DIAGRAM

Sample connection using SB-5669CK's HDBaseT Transmitter and a HDBaseT Receiver (SB-6335R) via IR Transmitters (SB-101) and IR Receiver (SB-100) to control a projector.



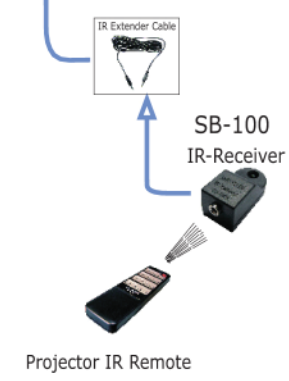
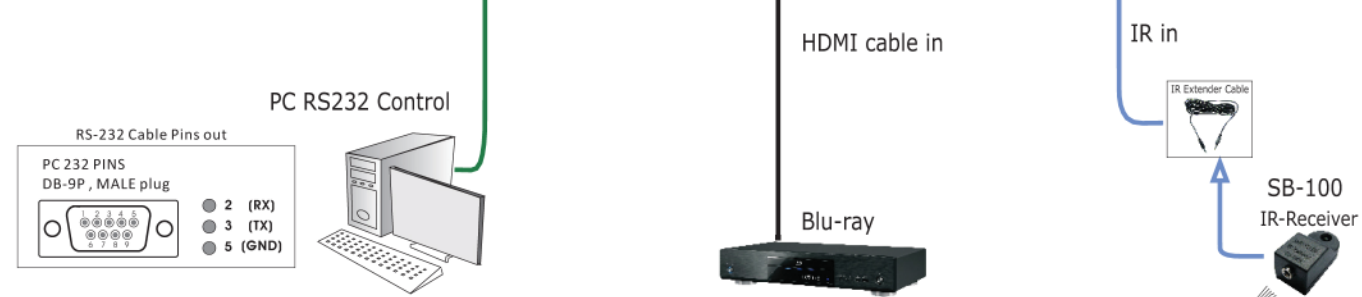
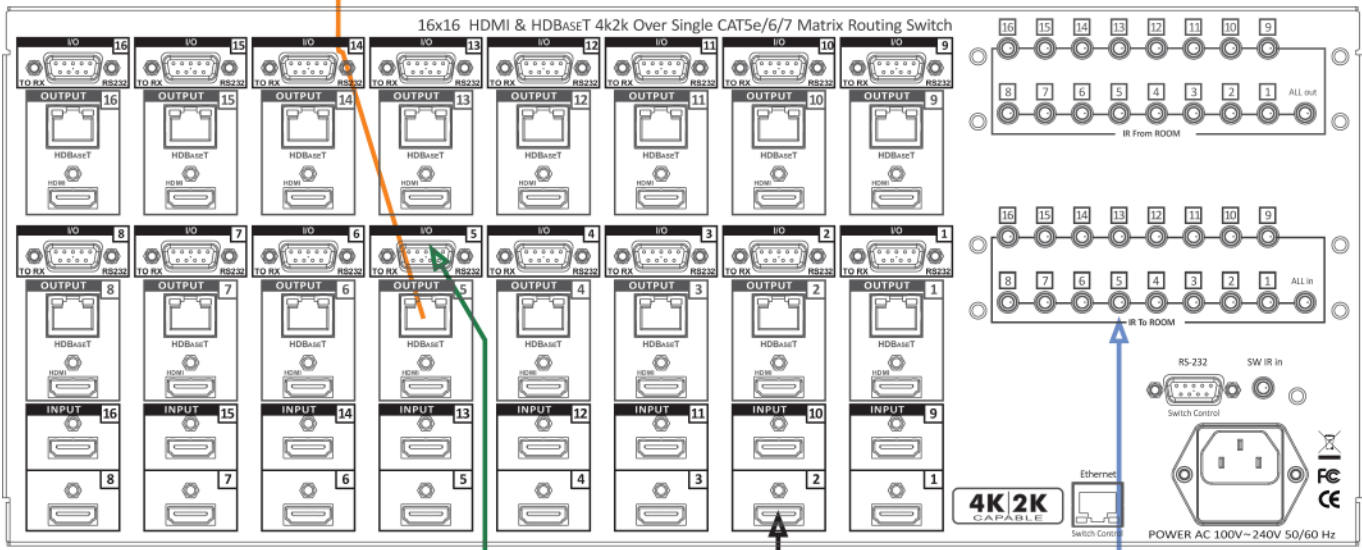
NOTE:

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.



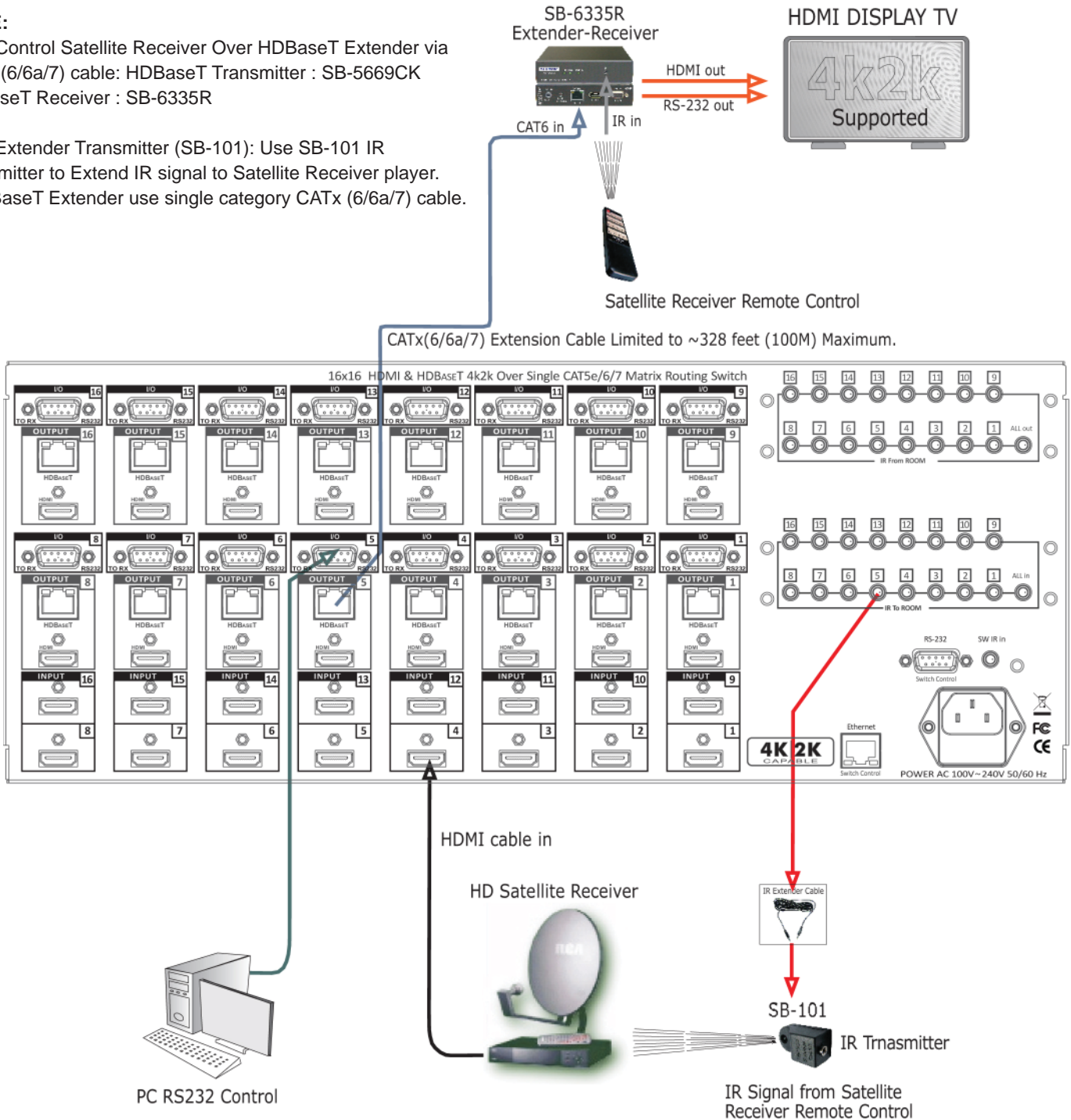
TYPICAL APPLICATION Control Source via HDBaseT

INSTALLING DIAGRAM

Sample connection 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:

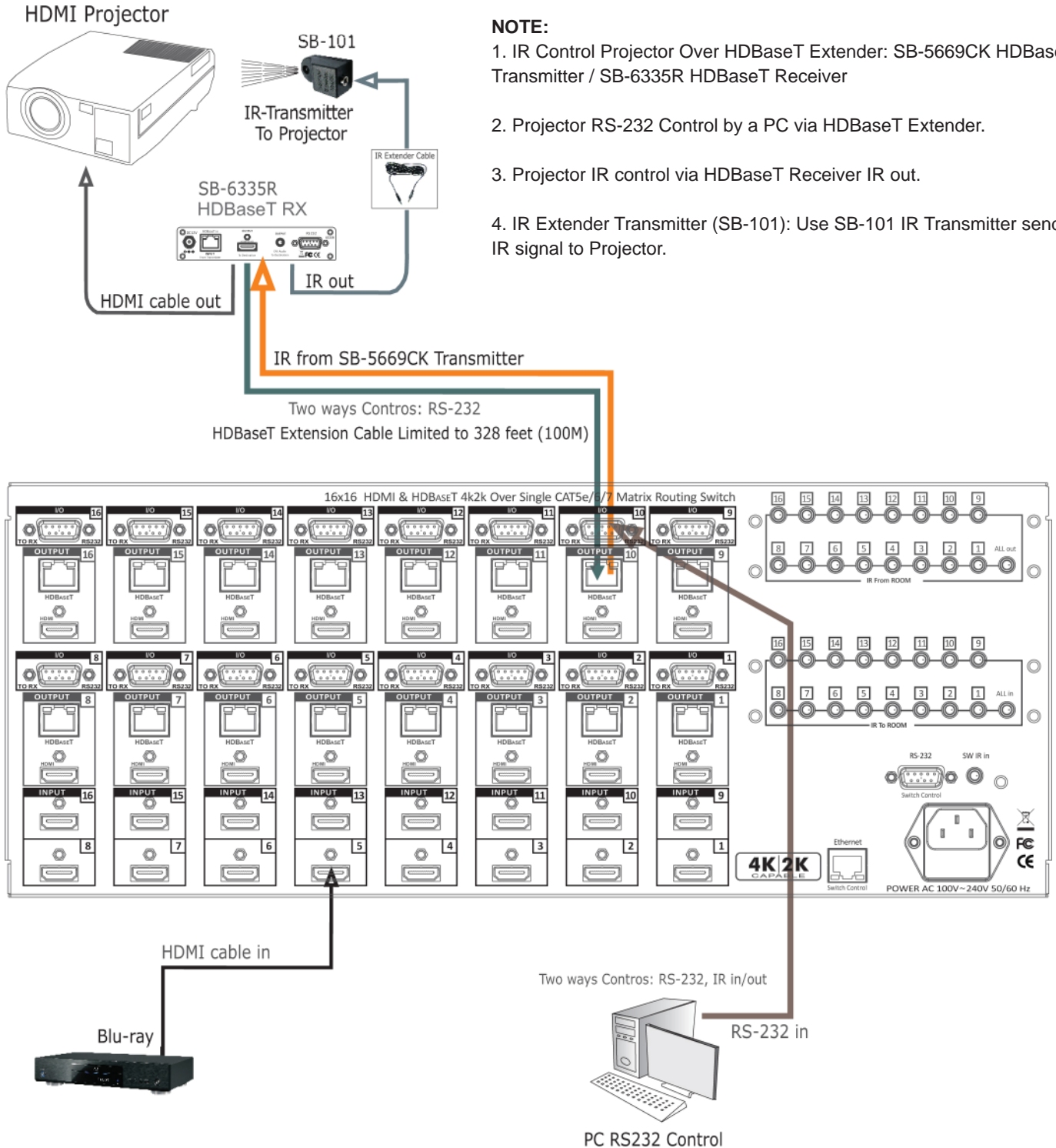
1. IR Control Satellite Receiver Over HDBaseT Extender via CATx (6/6a/7) cable: HDBaseT Transmitter : SB-5669CK
HDBaseT Receiver : SB-6335R
 2. IR Extender Transmitter (SB-101): Use SB-101 IR Transmitter to Extend IR signal to Satellite Receiver player.
- * HDBaseT Extender use single category CATx (6/6a/7) cable.



TYPICAL APPLICATION - Control Via HDBaseT RS-232

INSTALLING DIAGRAM

Sample connection 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.



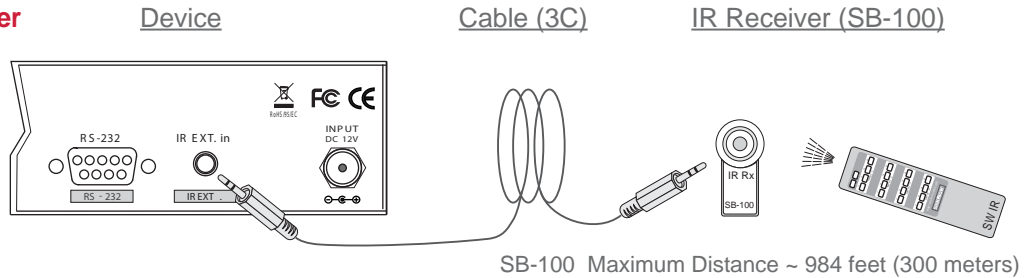
NOTE:

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.

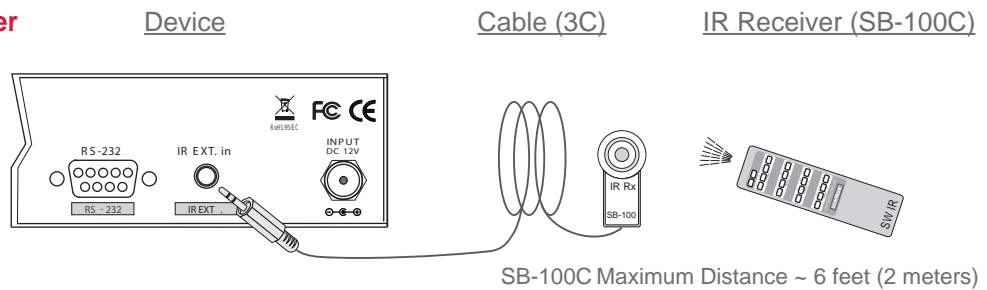
IR EXTENDER

IR RECEIVER:

1. SB-100 IR 300M Receiver



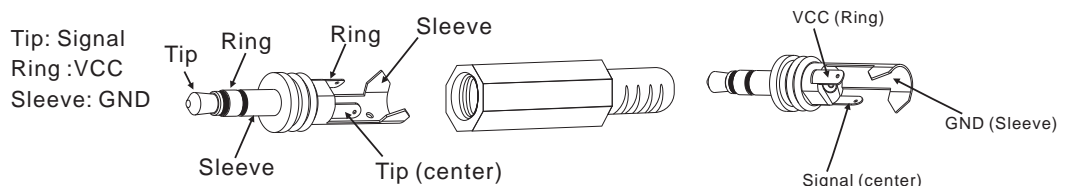
2. SB-100C IR 2M Receiver



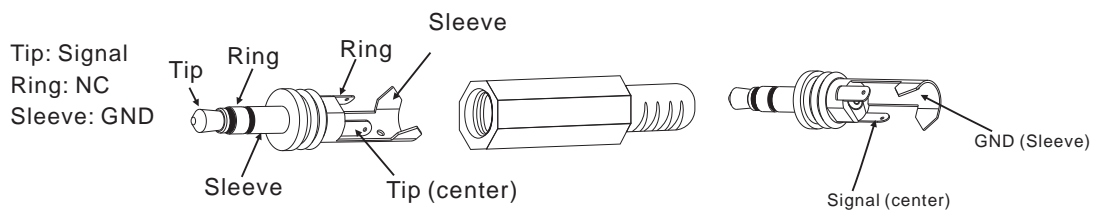
*** When you plug the External IR extender into the switcher, the front panel IR receiver remains active. ***

PIN CONFIGURATION:

SB-100 and SB-100C Receiver Pin configuration



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



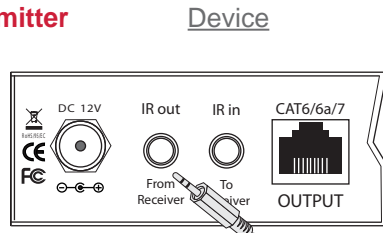
SB-100C Maximum Distance ~ 6 feet (2 meters)

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

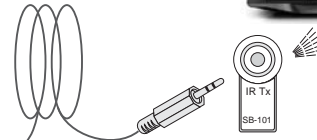
IR EXTENDER

IR EMITTER:

1. SB-101 IR 300M Transmitter



Cable (3C)

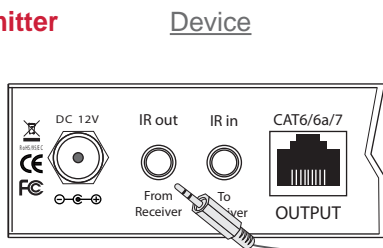


IR Transmitter (SB-101)

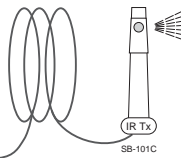


SB-101 Maximum Distance ~ 984 feet (300 meters)

2. SB-101C IR 2M Transmitter



Cable (3C)



IR Transmitter (SB-101C)



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

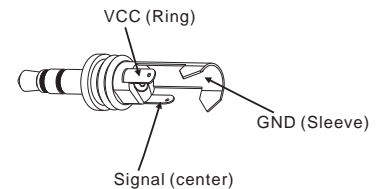
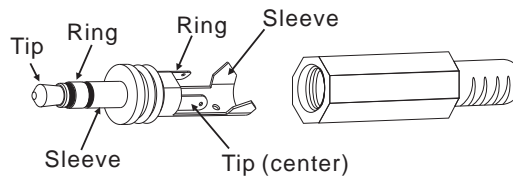
*** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ***

PIN CONFIGURATION:

SB-101 and SB-101C Transmitter Pin configuration



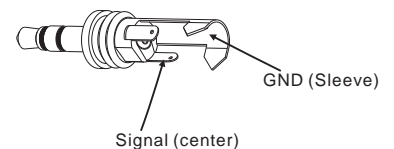
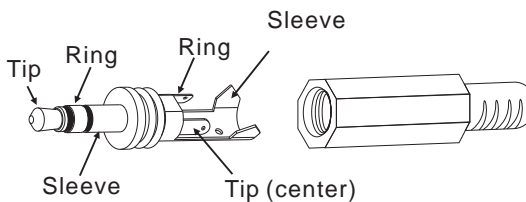
Tip: Signal
Ring :VCC
Sleeve: GND



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



Tip: Signal
Ring: NC
Sleeve: GND



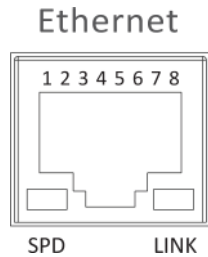
SB-101C Maximum Distance ~ 6 feet (2 meters)

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

ETHERNET SERIAL INTERFACE

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

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



Note :

Control the switcher

SPD : Speed

LINK : Ethernet link

RJ-45 Female 8P-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)

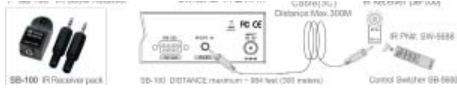
The ShinybowUSA switcher can be controlled via the TCP/IP serial control port to allow for interfacing to a PC, or similar third party control system.

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.

RS-232 SERIAL INTERFACE

RS-232 SERIAL INTERFACE CONNECT A PC OR CONTROL SYSTEM. VERSION -2.0 COMPATIBLE



RS-232 SERIAL INTERFACE

Pin	RS-232	Definition
1	-----	Not used
2	TX	Transmitter
3	RX	Receiver
4	-----	Not used
5	GND	Ground
6	-----	Not used
7	-----	Not used
8	-----	Not used
9	-----	Not used

RS-232 PROTOCOL COMMANDS (RS-232 Control driver V2.0.1)

The ShinybowUSA 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 recognizes a complete command it will perform the requested action - there is no delimiter character required.

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