SB-5669CKP

16x16 HDMI & HDBaseT™ 4K2K Over Single CAT5e/6/7 Matrix Routing Switch with PoH (Power Over HDBaseT™)

4K|2K CAPABLE

HDBT™ BASE

IMPORTANT WARRANTY INFORMATION.

If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will void your warranty.

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 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.

TABLE OF CONTENTS

HDMI-HDBaseT™ 4K2K Matrix Routing Switch Series

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

CONTENTS

INTRODUCTION

The SB-5669CKP is a professional 16x16 matrix routing switch. Supporting (16) HDMI Inputs and (16) HDMI Outputs & (16) HDBaseT™ Outputs with PoH. The SB-5669CKP is based on the HDBaseT™ standards 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 of the (16) Inputs to any of the (32) Outputs simultaneously (channel outputs mirrored). The switcher is fully CEC, HDCP 1.3, HDMI1.4a certified with HDMI 4K2K@30Hz, DVI 1.0, 3D formats and a wide frequency range of 25MHz~340MHz. Supports UXGA/WUXGA/DVI 1920x1200 resolutions to any HD display. The SB-5669CKP has (16) HDMI connector Inputs and (16) HDBaseT™ (PoH) & (16) HDMI Outputs, effectively making this a (16) In by (32) Out switcher (same signal on both outputs). Using the HDBaseT™ output remote transmitter, it will allow 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). A 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

The information in this manual has been carefully checked and is believed to be accurate. We assume no responsibility for any infringements of patents or other rights of third parties which may result from its use.

We assume no responsibility for any inaccuracies that may be contained in this document. We make no commitment to update or to keep current the information contained in this document.

We reserve the right to make improvements to this document and/or product at any time and without notice.

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FEATURES & CONTENTS

FEATURES

Based on HDBaseT™, bi-directional IR and RS-232 interface. Full resolution HD Video, all HDBaseT™ signals and PoH over single CAT6/6a/7 category cable.
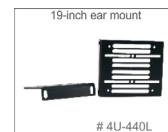
- Enables switching of (16) HDMI digital source devices to (16) HDMI devices and (16) HDBaseT™ Transmitter Outputs (PoH) to (32) total destinations
- HDBaseT™ specifications with Bi-Directional IR, RS-232, Multi audio format and HD video signals over single CAT6/6a/7 category cable
- HDMI digital video w/ embedded HDCP, DVI format and CEC/HDCP 2.0 compliant
- Worldwide EDID control modes for HDMI full 4K2K HD Video resolutions
- Wide frequency range of 25MHz ~ 340MHz, Supports HDMI 4K2K@30Hz, HDMI 1.4a
- 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 displays, HDTVs and audio receivers or audio amplifiers
- Digital video TMDS formats resolutions 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™ supports IR remotes and RS-232 signals over a single CAT6/6a/7 category cable
- Various User Interface Controls:
    - Windows based GUI control via RS-232 port interface WIN2000/XP/WIN7-32/WIN7-64
    - Front panel push buttons
    - IR wireless remote controls
    - Ethernet switch control (via pc protocol COMMANDS)
    - Third party RS-232 control (via simple ASCII)
- Supports (7) world wide control function keys: Full function front panel controls: ALL / OFF / EDID / LOCK / RECALL / MEMORY / ENTER
- Supports 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 of 1080p up to 98 ft (30M) & 4K2K up to 66 ft (20M)
- Supports IR remotes and IR extenders for a distance of up to ~ 984 ft (300M) Maximum
- Supports 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-5669CKP Matrix Switcher (Power Over HDBaseT™)
- RS-232 V2.0 / Ethernet V1.0 Protocol Instructions
- IR Remote Control (SW-5669)
- (16) Individual Remote Controls (SW-5669CK-IR01~IR16)
- 19 inch Ear mount bracket (Part # 4U-440L)
- SB-100 IR Extender Receiver Set
- CD Contents: This manual, Windows GUI, ISP V1.0 Windows driver
- RS-232 Cable 6.5 feet (2M)
- HDMI Locking Post Replacement Screws
- Users Guide
- Worldwide Universal Power Supply 100~240VAC, AC 50/60Hz
- *Optional: SB-100C IR Extender Receiver Cable (6.5ft (2M))*

IR Extender 300M Receiver — SB-100 IR Receiver set
19-inch ear mount — # 4U-440L
ISO SCREW — HDMI CONNECT SCREW — ISO SCREW L=5mm/OD=3mm

SB-6335R series HDBaseT™ Receiver sold separately

SPECIFICATIONS

SPECIFICATIONS

- **Type of HDMI Switcher:** (16) HDMI Inputs to (16) HDMI & (16) HDBaseT™ Outputs Matrix Switcher
- **HDMI Supports:** HDMI 4K2K@30Hz, 1080p@60Hz, H36-bit Deep color, 3D, HDMI V1.4 formats
- **HDBaseT™ Support:** HDMI digital signals, bi-directional IR, RS-232 and PoH over single CAT6/6a/7 cable
- **HDCP/CEC Support:** HDCP 1.3 Compliant, CEC Compliant
- **Video Bandwidth:** Double Data Rates: 340Mhz
- **Digital Video Support:** HD: 480i/ 480p/ 720p/ 1080i/p and 4K2K up to 36bit deep color
- **Inputs (HDMI):** (16) HDMI (HDMI or DVI digital source)
- **Outputs (HDMI):** (16) HDMI (to destination)
- **Booster (Each HDMI Output):** 1080p up to ~98 feet (30M) & 4K2K up to ~66 feet (20M)
- **HDBaseT™ Output (PoE):** (16) HDBaseT™ Transmitter (PoE) via a single category cable using 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™ Control:**
  - **1. IR Control:**
    - (16) IR In (Sends IR signals to (16) rooms via a HDBaseT™ Transmitter)
    - (16) IR Out (Links to receive IR signals from (16) rooms via a HDBaseT™ Extender)
  - **2. RS-232 I/O Control:** (16) RS-232 I/O (Controls (16) rooms with RS-232 via the switchers HDBaseT™ Extender Tx)
- **Switch Controls:**
  - Select & Function buttons on front panel (Data status via LCM panel show out)
  - IR Remote Control (switch control) (p/n: SW-HD69CK)
  - (16) IR Room Remote Controls (switch control) (p/n: SW-HD69CK01~16)
  - IR External port (switch control via 3.5mm OD Jack)
  - RS-232 series interface (switch control)
  - Ethernet series interface (switch control)
- **Source Status:** Input status LEDs indicates presence of a live signal
- **(39) Function Control Keys:** 1. ALL, 2. OFF, 3. RECALL, 4. ENTER, 5. MEMORY, 6. LOCK, 7. EDID, 8. Destination 1 thru 16, 9. 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:**
  - 1. Select LEARNING mode-1: Learning single Destination EDID to Link Source
  - 2. Select LEARNING mode-2: Learning multiple Destination EDID to Link Source
- **Infrared Frequency:** 38Khz
- **IR External Distance:** SB-100 (~984 feet / 300M maximum)
- **HDBaseT™ Extender Distance:** ~328 feet / 100M maximum
- **HDMI I/O Connector:** HDMI Type A - SMD 19pin female type
- **Temperature:** Operating Temperature 32°F - 100°F (0°C - 32°C)
- **Dimensions (LxWxH):** 17.5 x 12 x 7 in
- **Rack Mount:** 4RU High 19 in Rack Mount #4U-440L (with rack mount ears)
- **Power Supply:** AC 100~240VAC 50/60Hz (120V/3A/360W; 220V/1.63A/360W)
- **Safety Approvals:** CE, FCC, REACH
- **Weight:** 16.8 lb (Unit only) / 32.0 lb (Net)

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

LOOK A PUPPY!!   NOW READ THIS!!

IMPORTANT WARRANTY INFORMATION.

If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will <u>void your warranty</u>.

FRONT PANEL

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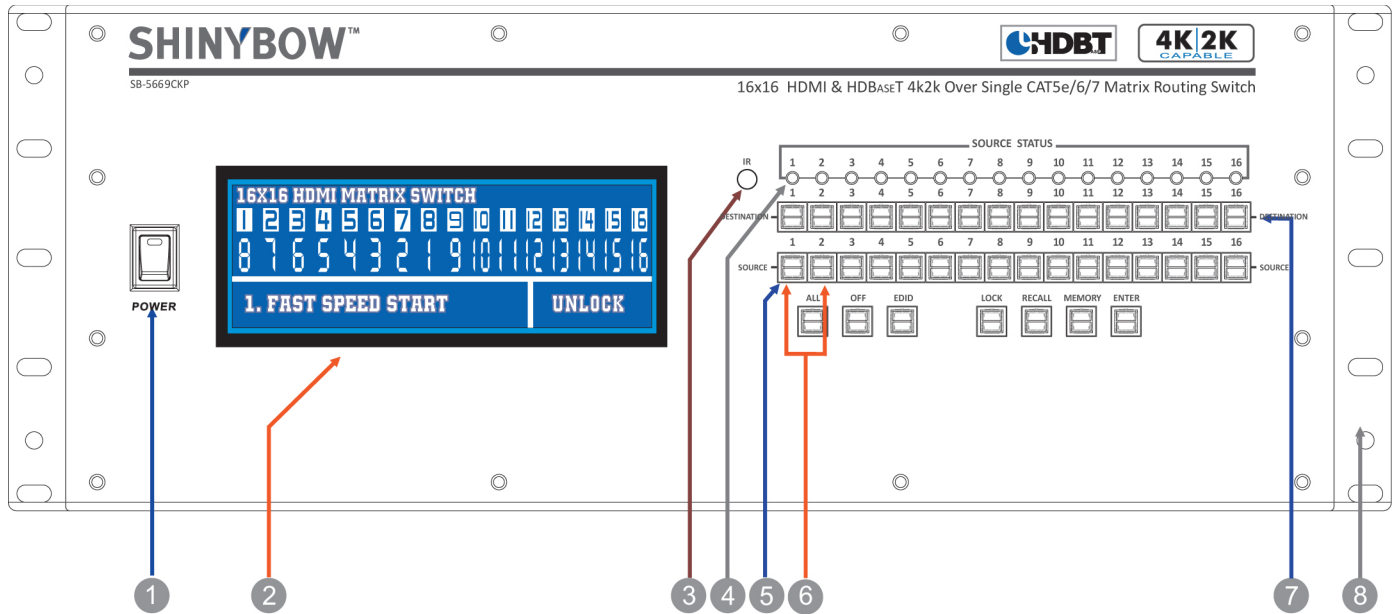
1. POWER ON SWITCH: The power switch turns the unit on and off. The LCM will illuminate blue to indicate the switcher is ON and receiving power. The switcher will remember the last setting during a power cycle. When power is removed and resorted, the last configuration will be evoked.

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 and which input (source) it is assigned.

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

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

5. SOURCE SELECT BUTTONS: Separate inputs 1 thru 16 select buttons are provided each source selection.

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

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

FRONT PANEL
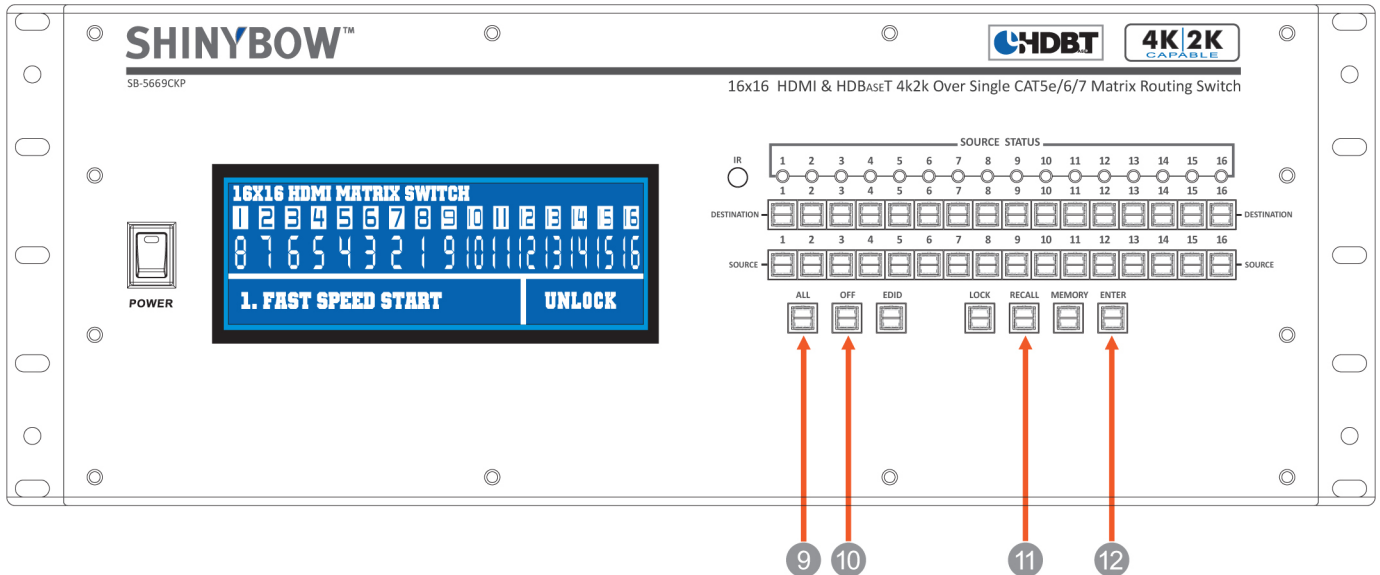
9. FUNCTION KEY - ALL:
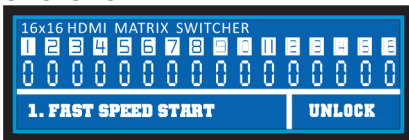
Disables (mutes) video on all destinations OR assigns the same source to all destinations.
Option 1
   - Press **ALL** followed by **OFF** button. The display will show "0" to indicate none of the destinations are assigned a video source.
Option 2
   - Press **ALL** followed by Source **1 THRU 16**. The display will show the source selected.
   - Press **ENTER.** The pre-set source selection will be assigned all destinations.

10. FUNCTION KEY - OFF:
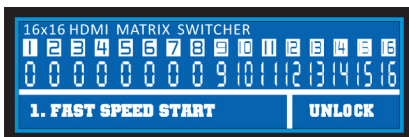
Disables (mutes) video on the selected destinations.
   - Press **OFF** button followed by any Destination channel.
   - Press **1 THRU 16** output destination. The display will show "0" for the selected channel, indicating no video selected.
   - Press **ENTER**. The pre-set configuration will execute.

11. FUNCTION KEY - RECALL:
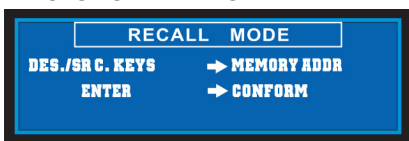
The system will show previously stored presets, up to a total of (32). Presets are stored in local memory using Source keys 1 thru 16 or Destination keys 1 thru 16 as the memory preset location.
   - Press **RECALL** button.
   - Press **1 THRU 16** on either Source or Destination row.
   - Press **ENTER**. The pre-set configuration will execute.

Operation completes.
Note: Operation will abort if no keys are pressed within 5 seconds.
   - Or press RECALL again to cancel the operation.

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

FRONT PANEL

FRONT PANEL
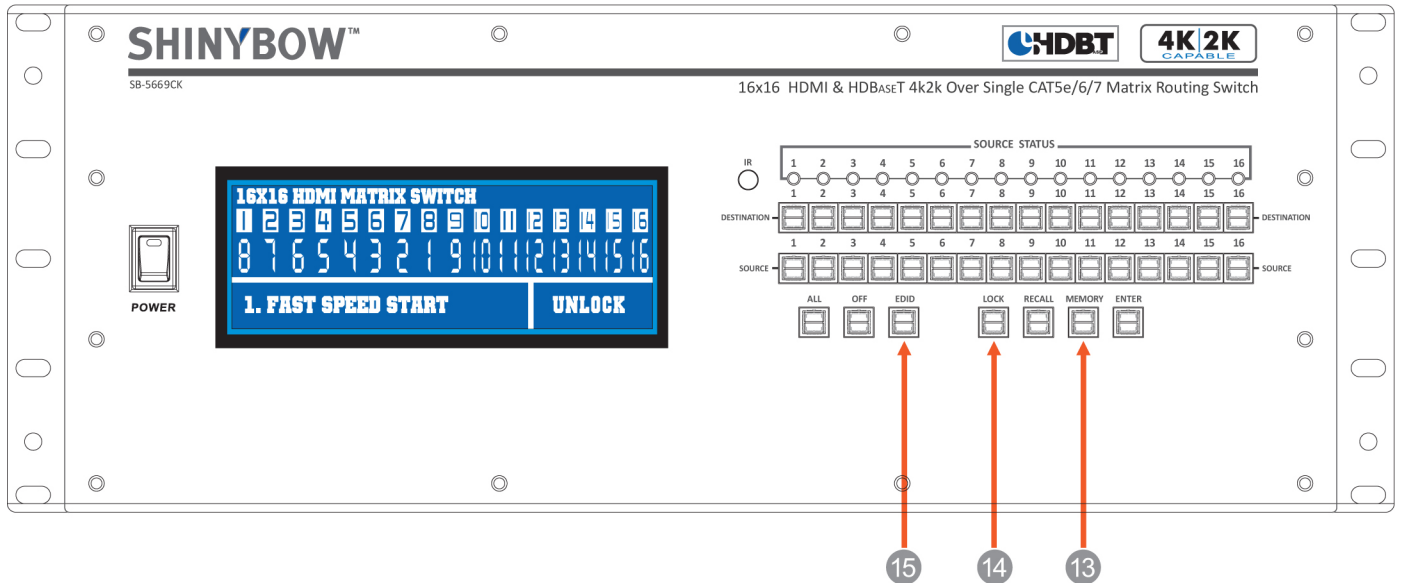
13. FUNCTION KEY - MEMORY:
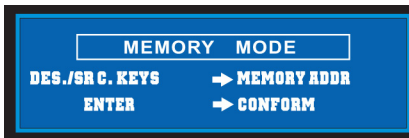
The system will show stored presets, up to a total of (32). Presets are stored in local memory using Source keys 1 thru 16 or Destination keys 1 thru 16 as the memory preset location.
- Configure desired matrices.
- Press **MEMORY** button.
- Press **1 THRU 16** on either Source or Destination row.
- Press **ENTER** to ready memory location.
- Or press **MEMORY** again to cancel operation.

Operation completes.

Note: Operation will abort if no keys are pressed within 5 seconds.
  - Or press MEMORY again to cancel the operation.

14. FUNCTION KEY - LOCK:

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

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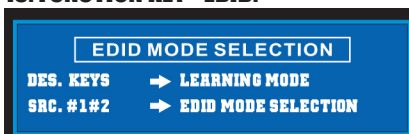
- Press **EDID** to begin setting up your EDID mode. Use source row buttons #1 and #2 to cycle thru the options. (Go to EDID setup instructions.)

FRONT PANEL

FRONT PANEL

SHINYBOW™

SB-5669CKP

16x16 HDMI & HDBAseT 4k2k Over Single CAT5e/6/7 Matrix Routing Switch

HDBT 4K|2K CAPABLE

16X16 HDMI MATRIX SWITCH
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
8 7 6 5 4 3 2 1 9 10 11 12 13 14 15 16
1. FAST SPEED START   UNLOCK

POWER

SOURCE STATUS

IR

DESTINATION — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 — DESTINATION
SOURCE — 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 — SOURCE

ALL OFF EDID   LOCK RECALL MEMORY ENTER

16

16. SELECT (7) EMBEDDED EDID MODES:

EDID MODE SELECTION

3. H24-3D, MULTIAUDIO
SRC. #1-#2 ➡ EDID MODE SELECTION

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 the operation.

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

SELECT LEARNING MODE-#1:

LEARNING MODE

DESTINATION 3 HDMI
SOURCE
            5
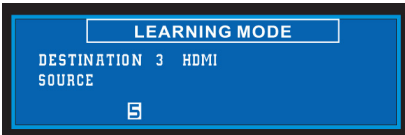
Select external **LEARNING** EDID mode-#1 (Single mode)
- Press **EDID** to select new Learning EDID mode-#1.
- Press **DESTINATION** again, press the same Destination **#1 THRU #16** to learn the HDBaseT™ EDID out port. The EDID for HDBaseT™ (CATx) has been learned.
- Press **SOURCE,** Press Source row **#1 THRU #16**. The switcher will learn the HDMI or HDBaseT™ EDID destination and pass to the select sources.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel the operation.

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

SELECT LEARNING MODE-#2:

16X16 HDMI MATRIX SWITCHER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
L L   L   L L   L
LEARNING EDID MODE-#2   LOCK
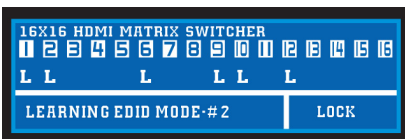
Select external **LEARNING** EDID mode-#2 (Multiple mode)
- Press **EDID** to select new Learning EDID mode-#2.
- Press **OFF**, the LCM show Learning mode #2 status.
- Press **DESTINATION** button **#1 THRU #16** to setup learning mode-#2. The LCM will show "L". The HDMI or HDBaseT™ EDID destination for (CATx) has been learned.
- Press **ENTER** to ready memory location.
- Or press **EDID** again to cancel the operation.

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

BACK PANEL
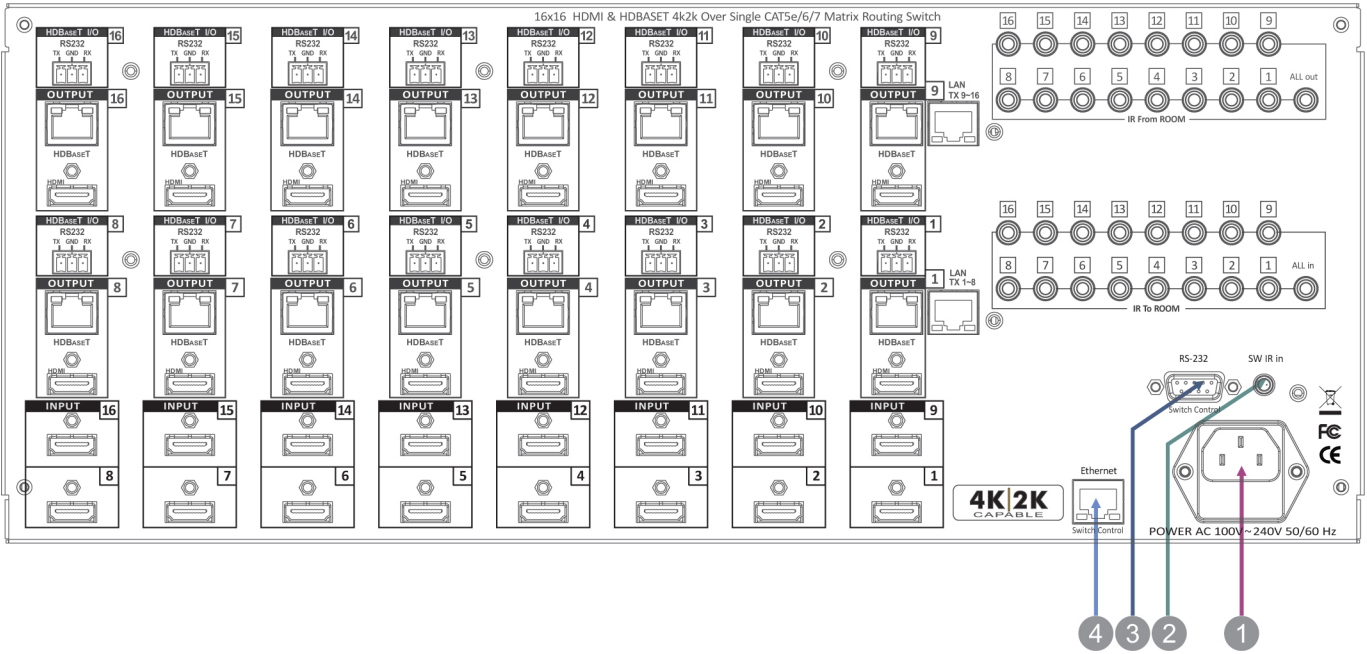
1. DC POWER INLET: The switcher is fitted with a AC power plug input connector. Ensure that the plug used is of an approved type and is of sufficient current carrying connector capacity with the correct voltage and connector polarity. 100~240Volt AC, 50/60Hz power supply.
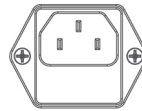
POWER SOCKET: Connector Type: IEC 60320 C13

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2. IR EXTENDER CONTROL: Supports one IR extender. Extends a maximum distance of up to ~984 feet/300M. When you plug the external IR extender into the switcher, the front panel IR receiver remains active.

SW IR in

Switch Control

IR EXTENDER JACK: Female jack - inner OD Ø 3.5mm

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

RS232
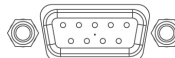
Switch Control

REMOTE PORT: DB-9pin female connector

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

Ethernet
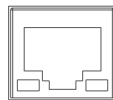
Switch Control

REMOTE PORT: Control the switcher via the 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 sent to the RS-232 port.

BACK PANEL

BACK PANEL
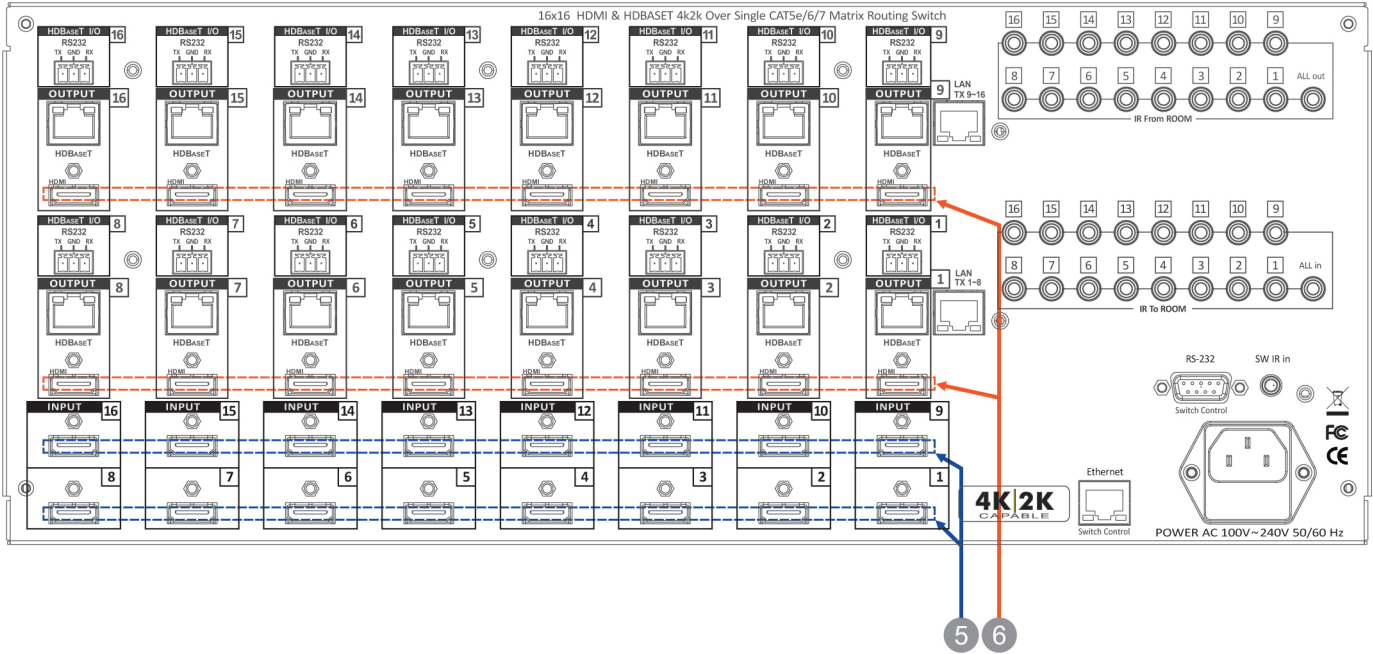
5. INPUTS - 1 ~ 16 HDMI: Connects a HDMI signal source to the Input. The HDMI port supports HDMI with embedded audio and DVI with AUX audio sources. If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will void your warranty.

HDMI in

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, as it is HDCP compliant.

6. HDMI OUTPUTS 1 ~ 16: Connects a HDMI signal source to the Output. The HDMI port supports HDMI with embedded audio and DVI with AUX audio. If you remove the HDMI screw posts, you must use the provided HDMI Locking Post replacement screws to keep the internal HDMI jack secure. Removing the HDMI screws without installing the HDMI Locking Post replacement screws will void your warranty.

HDMI out

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, as it is HDCP compliant.

BACK PANEL

16x16 HDMI & HDBASET 4k2k Over Single CAT5e/6/7 Matrix Routing Switch
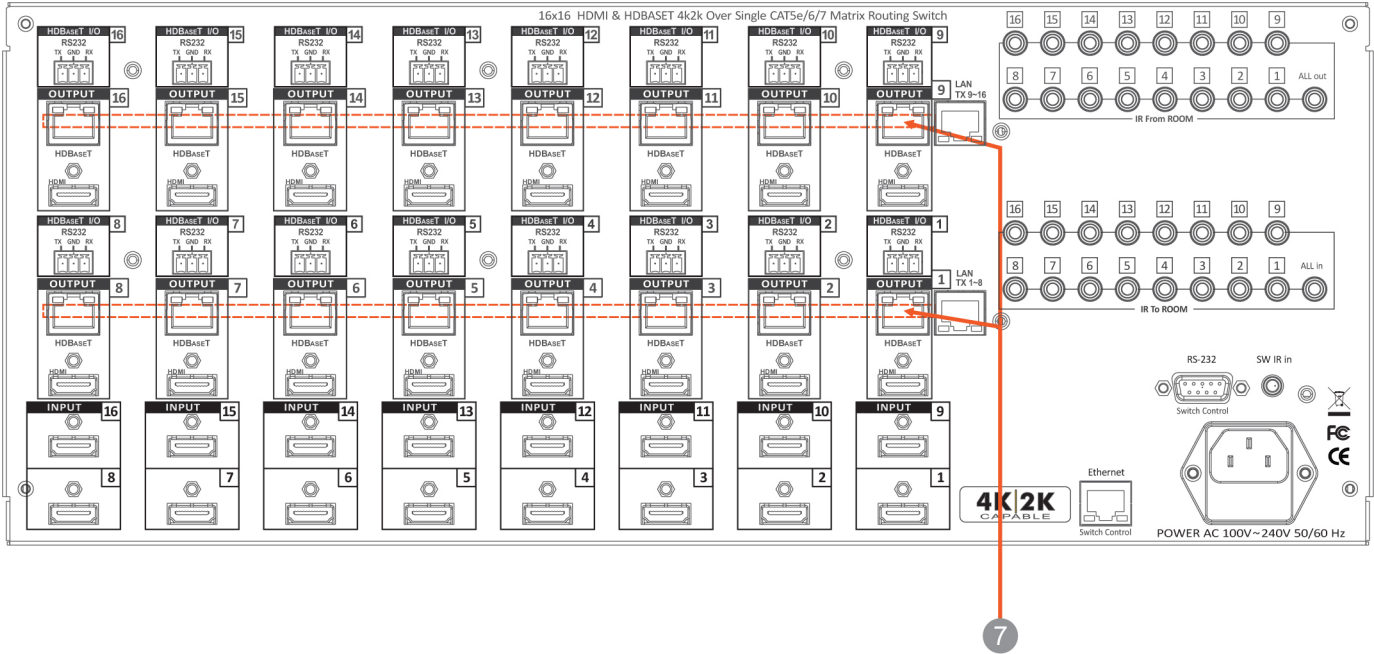
7. OUTPUT - 1 ~ 16 HDBASET™ (TRANSMITTER): Sends (16) HDMI and control signals via (16) HDBaseT™ Transmitters to link (16) external HDBaseT™ Receivers.

Switcher uses (16) HDBaseT™ Transmitter Outputs #1 ~ #16 with PoE (optional) RJ-45 via CAT6/6a/7 category cable. Controls IR input/output signals and RS-232 between the switcher and the HDBaseT™ Receiver.

HDBASET™ TRANSMITTER CONNECTOR: (16) RJ-45 jack 8P8C female socket
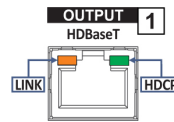
Link LED:
Solid = valid link
Flash = attempting to link
Off = no link established.

SB-5669CKP (with PoH)
16x16 HDMI-HDBaseT Matrix Switcher
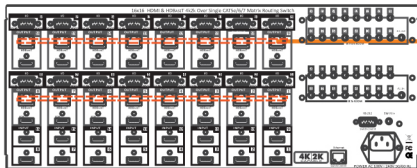
CATx cable (100M)

SB-6335R5
HDBaseT Receiver(with PoH)

HDBaseT Transmitter with PoH

BACK PANEL

BACK PANEL
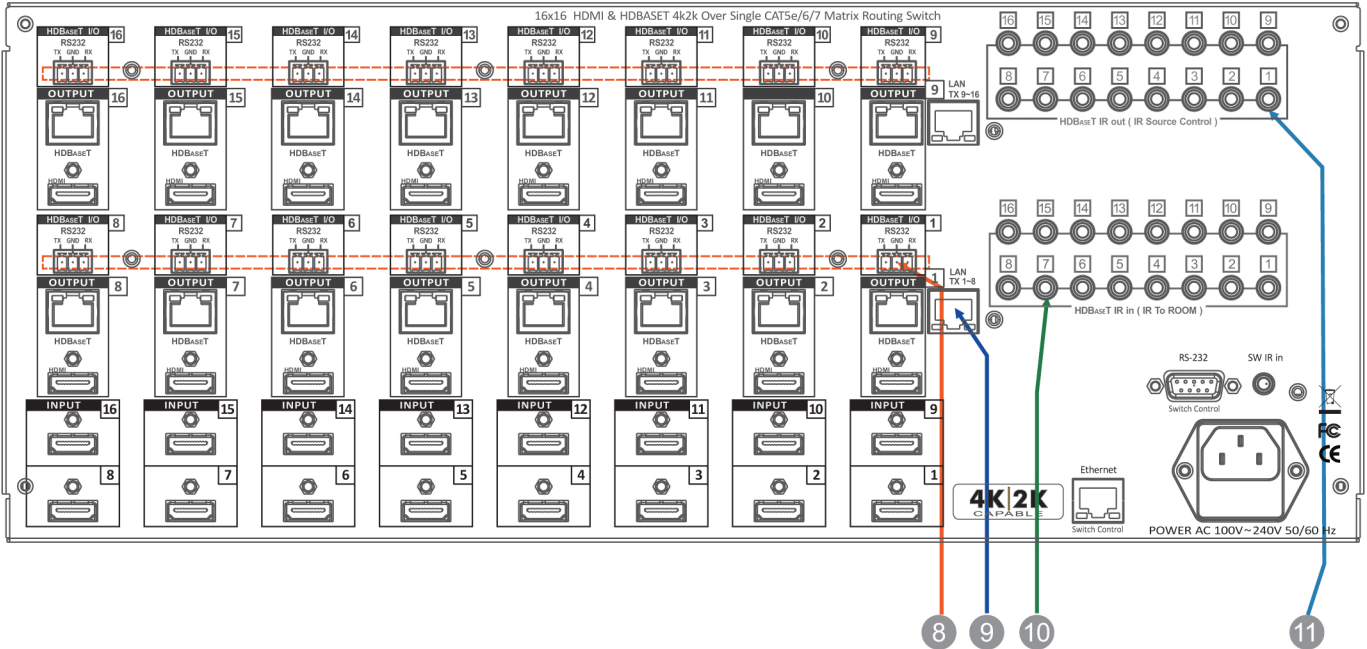
8. HDBASET™ RS-232: 1~16 CONNECTION: (16) RS-232 control ports allow for interfacing to a PC. Controls I/O via the switchers HDBaseT™ Transmitters to (16) rooms each via the D-Bub 9pin female socket for serial RS-232 control.

REMOTE PORT: DB-9pin female connector

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

ALL HDBASET™ TX LAN PORT CONNECTOR: HDBaseT™ Phone-Jack 8P8C, RJ-45 female socket
LAN CONTROLS: *Note: From the switcher to the HDBaseT™ Transmitter.*

10. HDBASET™ IR INPUT: 1~16 REMOTE IR SIGNAL TO ROOM: Sends (16) IR signals to (16) rooms via the switchers HDBaseT™ Transmitters. When you plug the switchers HDBaseT™ IR Transmitters into the external port, the room IR HDBaseT™ receiver remains active.

IR EXTENDER JACK: Female jack - inner OD Ø 3.5mm

11. HDBASET™ IR OUTPUT: 1~16 REMOTE IR SIGNAL FROM ROOM: Receives (16) IR signals from (16) rooms each via the switchers HDBaseT™ Transmitters. When you plug the switchers HDBaseT™ IR Transmitters into the external port, the room IR HDBaseT™ receiver remains active.

IR EXTENDER JACK: Female jack - inner OD Ø 3.5mm

HDBASET™ I/O TRANSMISSION & CABLE EXTENSION LENGTHS

HDBASET™ I/O TRANSMISSION

SB-5669CKP
16x16 HDMI-HDBaseT Matrix Switcher

SB-6335T
HDBaseT Transmitter

RX

TX

SB-6335R5 (PoH)
HDBaseT Receiver

HDBaseT Transmitter with PoH

RS-232 & IR

RS-232 & IR
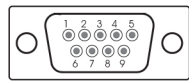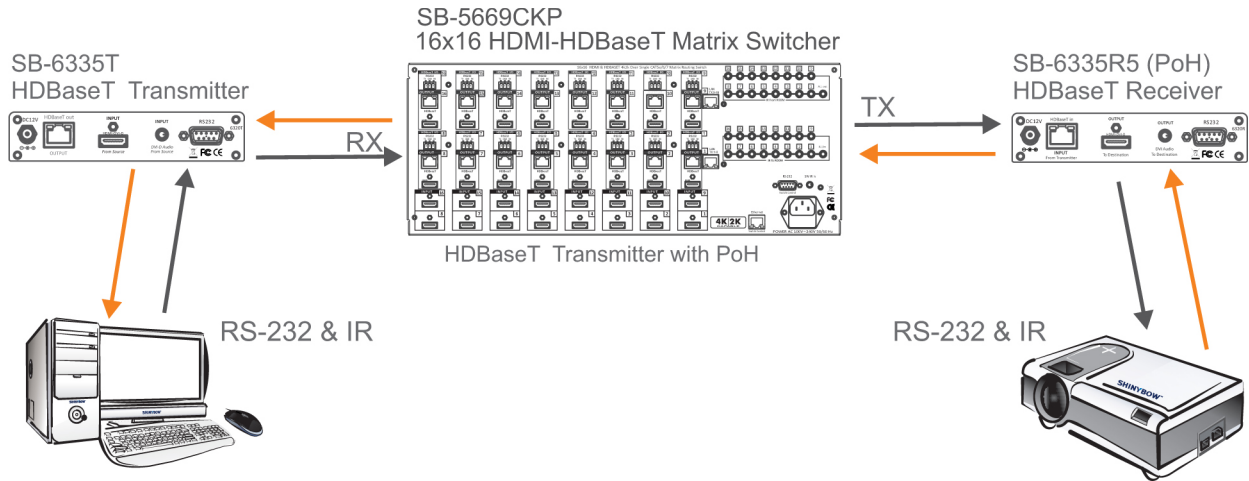
2   (RX)
3   (TX)
5   (GND)

RS-232 Cable Pins out

PC 232 PINS
DB-9P , MALE plug
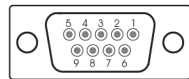
(TX)   2
(RX)   3
(GND) 5

HDBaseT Transmitter SB-6335T

RS-232 PINS OUT
DB-9P , FEMALE socket
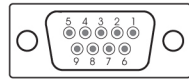
(TX)   2
(RX)   3
(GND) 5

HDBaseT Receiver SB-6335R

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

Category Cable Lengths via Switcher and HDBaseT™ Receiver				
Cable Type Resolution	Pixel clock rate (MHz)	CAT5e (70M)	CAT6 (100M)	CAT6 (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 main 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 select buttons. The supplied IR remote control. Or through the RS-232 serial communications port.
- Upon powering up the switcher, it will return to its last used setting before being powered down.

REMOTE CONTROL

1. & 2. SWITCH POWER ON or OFF:
Power ON and OFF

3. DESTINATION: 1 THRU 16 OUTPUT SELECTION:
Destination buttons to select the output display channel

4. SOURCE : 1 THRU 16 INPUT SOURCE SELECTION:
Inputs 1~16 source selection buttons

5. FUNCTION KEY: Function selection buttons

ALL	OFF	EDID	RECALL
ENTER	MEMORY	LOCK	

IR REMOTE : SW-5669CKP
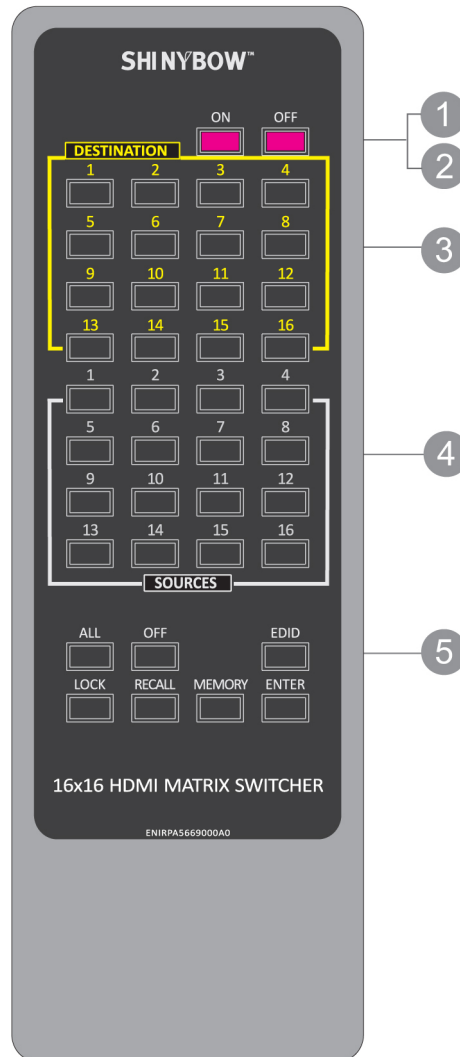
REMOTE PROTOCOL COMMANDS

IR REMOTE CUSTOM AND DATA CODES (NEC Standard)

HOW TO SETUP IR CODES : **CUSTOM CODE : 5BA4**

POWER ON:	5BA4	A15E	ALL:	5BA4	B04F	RECALL:	5BA4	B24D
POWER OFF:	5BA4	A25D	OFF:	5BA4	B14E	MEMORY:	5BA4	B44B
EDID:	5BA4	B748	LOCK:	5BA4	B54A	ENTER:	5BA4	B34C

HOW TO GIVE IR COMMANDS:

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

For 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

REMOTE PROTOCOL COMMANDS

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

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

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

REMOTE CONTROL

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-5669CKP-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-5669CKP-IR02
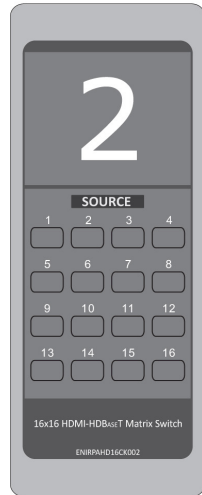
IR-02 DATA CODE:

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-5669CKP-IR03
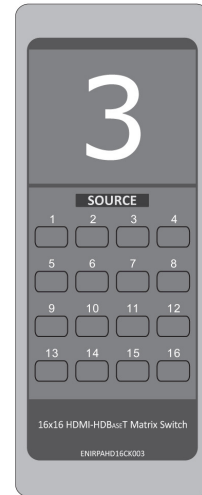
IR-03 DATA CODE:

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-5669CKP-IR04

IR-04 DATA CODE:

SOURCE #1 :	42BD	30CF
SOURCE #2 :	42BD	31CE
SOURCE #3 :	42BD	32CD
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-5669CKP-IR05
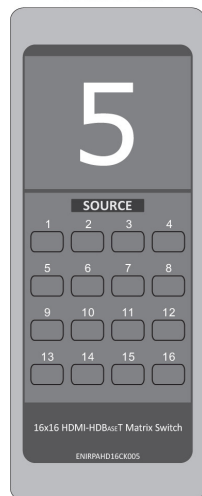
IR-05 DATA CODE:

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-5669CKP-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-5669CKP-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-5669CKP-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-5669CKP-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

REMOTE CONTROL

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-5669CKP-IR10
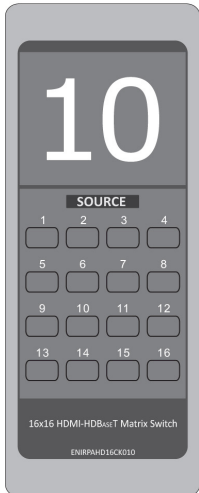
IR-10 DATA CODE:
SOURCE #1 :	42BD	906F
SOURCE #2 :	42BD	916E
SOURCE #3 :	42BD	926D
SOURCE #4 :	42BD	936C
SOURCE #5 :	42BD	946B
SOURCE #6 :	42BD	956A
SOURCE #7 :	42BD	9669
SOURCE #8 :	42BD	9768
SOURCE #9 :	42BD	9867
SOURCE #10 :	42BD	9966
SOURCE #11 :	42BD	9A65
SOURCE #12 :	42BD	9B64
SOURCE #13 :	42BD	9C63
SOURCE #14 :	42BD	9D62
SOURCE #15 :	42BD	9E61
SOURCE #16 :	42BD	9F60

16x16 HDMI-HDBT MX SW
SW-5669CKP-IR11
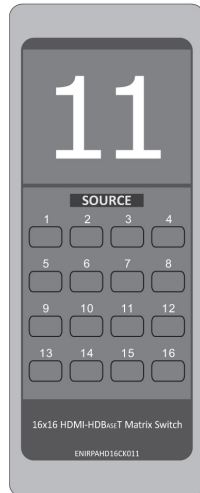
IR-11 DATA CODE:
SOURCE #1 :	42BD	A05F
SOURCE #2 :	42BD	A15E
SOURCE #3 :	42BD	A25D
SOURCE #4 :	42BD	A35C
SOURCE #5 :	42BD	A45B
SOURCE #6 :	42BD	A55A
SOURCE #7 :	42BD	A659
SOURCE #8 :	42BD	A758
SOURCE #9 :	42BD	A857
SOURCE #10 :	42BD	A956
SOURCE #11 :	42BD	AA55
SOURCE #12 :	42BD	AB54
SOURCE #13 :	42BD	AC53
SOURCE #14 :	42BD	AD52
SOURCE #15 :	42BD	AE51
SOURCE #16 :	42BD	AF50

16x16 HDMI-HDBT MX SW
SW-5669CKP-IR12
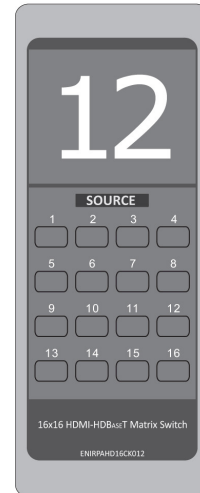
IR-12 DATA CODE:
SOURCE #1 :	42BD	B04F
SOURCE #2 :	42BD	B14E
SOURCE #3 :	42BD	B24D
SOURCE #4 :	42BD	B34C
SOURCE #5 :	42BD	B44B
SOURCE #6 :	42BD	B54A
SOURCE #7 :	42BD	B649
SOURCE #8 :	42BD	B748
SOURCE #9 :	42BD	B847
SOURCE #10 :	42BD	B946
SOURCE #11 :	42BD	BA45
SOURCE #12 :	42BD	BB44
SOURCE #13 :	42BD	BC43
SOURCE #14 :	42BD	BD42
SOURCE #15 :	42BD	BE41
SOURCE #16 :	42BD	BF40

16x16 HDMI-HDBT MX SW
SW-5669CKP-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-5669CKP-IR14
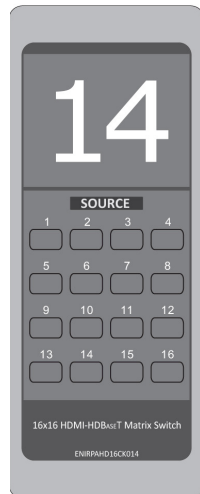
IR-14 DATA CODE:
SOURCE #1 :	42BD	D02F
SOURCE #2 :	42BD	D12E
SOURCE #3 :	42BD	D22D
SOURCE #4 :	42BD	D32C
SOURCE #5 :	42BD	D42B
SOURCE #6 :	42BD	D52A
SOURCE #7 :	42BD	D629
SOURCE #8 :	42BD	D728
SOURCE #9 :	42BD	D827
SOURCE #10 :	42BD	D926
SOURCE #11 :	42BD	DA25
SOURCE #12 :	42BD	DB24
SOURCE #13 :	42BD	DC23
SOURCE #14 :	42BD	DD22
SOURCE #15 :	42BD	DE21
SOURCE #16 :	42BD	DF20

16x16 HDMI-HDBT MX SW
SW-5669CKP-IR15
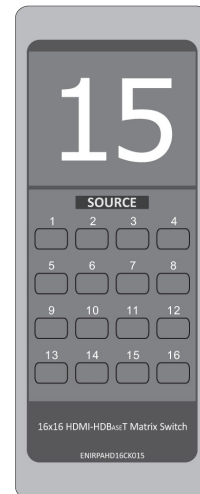
IR-15 DATA CODE:
SOURCE #1 :	42BD	E01F
SOURCE #2 :	42BD	E11E
SOURCE #3 :	42BD	E21D
SOURCE #4 :	42BD	E31C
SOURCE #5 :	42BD	E41B
SOURCE #6 :	42BD	E51A
SOURCE #7 :	42BD	E619
SOURCE #8 :	42BD	E718
SOURCE #9 :	42BD	E817
SOURCE #10 :	42BD	E916
SOURCE #11 :	42BD	EA15
SOURCE #12 :	42BD	EB14
SOURCE #13 :	42BD	EC13
SOURCE #14 :	42BD	ED12
SOURCE #15 :	42BD	EE11
SOURCE #16 :	42BD	EF10

16x16 HDMI-HDBT MX SW
SW-5669CKP-IR16
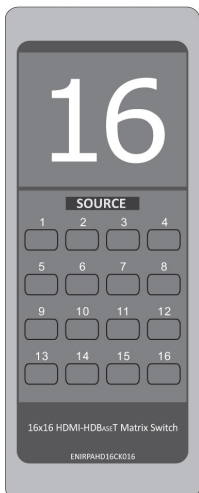
IR-16 DATA CODE:
SOURCE #1 :	42BD	F00F
SOURCE #2 :	42BD	F10E
SOURCE #3 :	42BD	F20D
SOURCE #4 :	42BD	F30C
SOURCE #5 :	42BD	F40B
SOURCE #6 :	42BD	F50A
SOURCE #7 :	42BD	F609
SOURCE #8 :	42BD	F708
SOURCE #9 :	42BD	F807
SOURCE #10 :	42BD	F906
SOURCE #11 :	42BD	FA05
SOURCE #12 :	42BD	FB04
SOURCE #13 :	42BD	FC03
SOURCE #14 :	42BD	FD02
SOURCE #15 :	42BD	FE01
SOURCE #16 :	42BD	FF00

RS-232 & ETHERNET SERIAL INTERFACE

ETHERNET / RS-232 SERIAL INTERFACE CONNECTS a PC or CONTROL SYSTEM VERSION V2.0

For a complete list of commands, please reference external document extended Ethernet Protocol Instruction Manual.
Example of the commanded string to select Inputs:

FUNCTION	COMMAND	VARIABLES
Select source	Source xxx;	xxx = Input Channel (001=Source1, 002=Source2, etc.)
COMMAND EXAMPLE	RESPONSE	DESCRIPTION
Source 001;	Source 001#ok;	Select source number 1

Ethernet
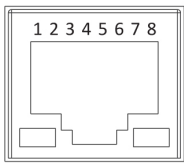
SPD   LINK

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

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

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

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

SB Device

PC

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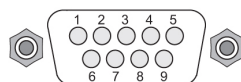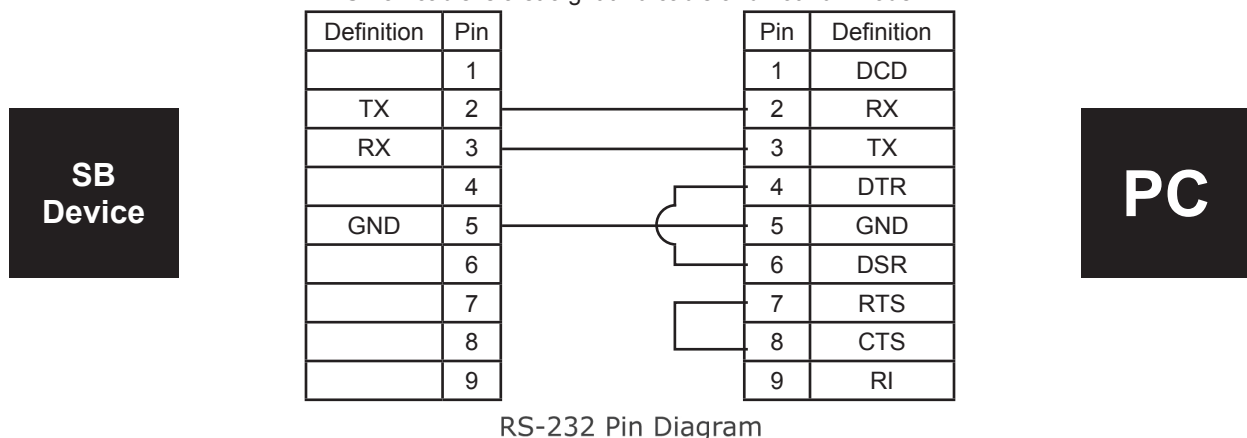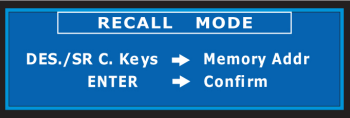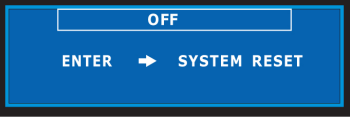
RS-232 SERIAL INTERFACE PROTOCOL COMMANDS (Ethernet / RS-232 Control driver V2.0)

The SB-5669CKP 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.
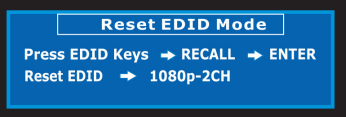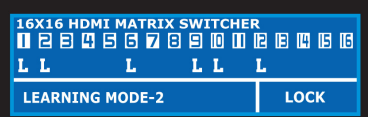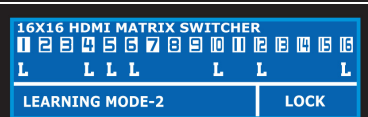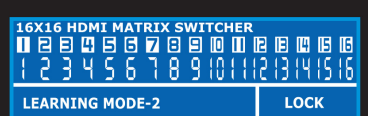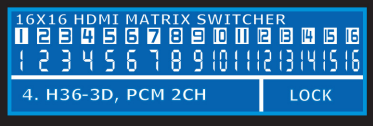
SYSTEM RESET

SYSTEM RESET	RETURN SWITCH TO FACTORY DEFAULTS
Press **RECALL > OFF > ENTER** RECALL MODE DES./SR C. Keys ➡ Memory Addr ENTER ➡ Confirm OFF ENTER ➡ SYSTEM RESET 16X16 HDMI MATRIX SWITCHER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1. FAST SPEED START UNLOCK	**RESET to Factory Default** 1. Press **RECALL** button: The LCM will show the current stored presets status. 2. Press **OFF** button: The LCM will show "**SYSTEM RESET**" 3. Press **ENTER** button: To confirm entries. The switch will reset all customizable values back to factory defaults. You must POWER CYCLE the switch for the 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-Locked.
4. AUX function will disable and return to UN-AUX (On Select Models).
5. ARC function will disable and return to SPDIF as the Output (On Select Models).
6. EDID will return to FSS® (1080p-2ch Mode).
7. Ethernet port will return to DHCP=ENABLED.

RESET EDID

EDID RESET	PROCEDURE
From the Front Panel: Press **EDID > RECALL > OFF > ENTER** Reset EDID Mode Press EDID Keys ➡ RECALL ➡ ENTER Reset EDID ➡ 1080p-2CH	**RESET EDID** Press **EDID**. Press **RECALL**. Press **OFF**. The display should show Reset EDID. Press **ENTER**.
LEARNING MODE 2	**SETTING EDID TO LEARNING MODE 2**

Press **EDID > OFF > DESTINATIONS > ENTER**
The EDID for HDMI has been passed from the Destination port to the Source port.
 	
EDID MODE SELECTION
3. H24-3D, MULTIAUDIO
SRC. #1-#2 ➡ EDID MODE SELECTION
 	
16X16 HDMI MATRIX SWITCHER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
L L   L   L L   L
LEARNING MODE-2   LOCK
 	
16X16 HDMI MATRIX SWITCHER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
L   L L L   L   L   L
LEARNING MODE-2   LOCK
 	
16X16 HDMI MATRIX SWITCHER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
LEARNING MODE-2   LOCK
	1. Press **EDID** button: The LCM will show the current EDID status.
	
	2. Press **OFF** button: Does the OFF button stay illuminated?*
	
	   ***If Yes:** Press ALL the Destination buttons individually so they illuminate blue. The switcher will **LEARN** the destination HDMI EDID and pass to the selected source. The switcher will Enable or Disable HDMI EDID for the selected source.
	
	3. Press **ENTER** to confirm changes. The LCM will return to the default screen showing selected matrix routing status. This puts you in Learning Mode 2.
	
	   ***If No:** You might need a f/w update.

EDID FUNCTION

EDID FUNCTION FOR HDMI MATRIX SWITCHER

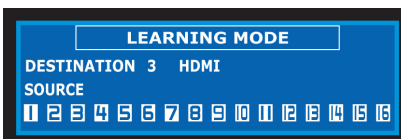| EDID STATUS	To View The Current EDID Status
Step 1. Press **EDID** button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2. Press **EDID** button	To exit.
EDID SETUP	**To Change The EDID Setup**
Step 1. Press the **EDID** button	The display will show the currently selected EDID mode.
Step 2. Press **SOURCE #1 OR #2** button row	The button will flash blue and the display will show the current **Embedded EDID** Status.
Step 3. Press the **ENTER** button	To set EDID mode. The switcher will return to operation mode.
Operation will abort if no keys are pressed within 5 seconds.

EMBEDDED EDID MODES	Total 7 EDID Modes

Embedded EDID Setup
Press **EDID > SOURCE > ENTER**
SOURCE #1 or SOURCE #2
 	
16X16 HDMI MATRIX SWITCHER
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
4. H36-3D, PCM 2CH   LOCK
	To select Embedded EDID mode or LEARNING mode.
	Repeatedly pressing the **SOURCE 1** button will cycle up thru the options.
	Repeatedly pressing the **SOURCE 2** button will cycle down thru the options.
	
	Embedded EDID:
	    Mode 1 : FSS® Mode 5 : H36-3D-M
	    Mode 2 : H24-3D Mode 6 : 4K2K (24/30Hz)
	    Mode 3 : H24-3D-M Mode 7 : DVI-D 1920x1200-60Hz
	    Mode 4 : H36-3D

HOW TO SETUP FSS® FUNCTION	Fast Speed Start®
Step 1. Press the **DESTINATION #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 confirm entries.
Step 4. Press **EDID** button	To select the EDID FSS® mode.
Step 5. Press **ENTER** button	To confirm entries.

EDID FUNCTION

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

Mode 1. FSS® (Fast Speed Start®) **EDID MODE SELECTION** 1. FAST SPEED START SRC. #1#2 ➡ EDID Mode Selection	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) **EDID MODE SELECTION** 2. H24-3D, PCM 2CH SRC. #1#2 ➡ EDID Mode Selection	Audio Support: PCM 2CH
Mode 3. H24-3D-M (1080p-24 bits) **EDID MODE SELECTION** 3. H24-3D, MULTI AUDIO SRC. #1#2 ➡ EDID Mode Selection	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) **EDID MODE SELECTION** 4. H36-3D, PCM 2CH SRC. #1#2 ➡ EDID Mode Selection	Audio Support: PCM 2CH
Mode 5. H36-3D (1080p-36 bits) **EDID MODE SELECTION** 5. H36-3D, MULTI AUDIO SRC. #1#2 ➡ EDID Mode Selection	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) **EDID MODE SELECTION** 6. 4K2K-3D PCM 2CH SRC. #1#2 ➡ EDID Mode Selection	HDMI Support: 4K2K-3D, PCM 2CH (3840x2160-24/30Hz) Audio Support: PCM 2CH
Mode 7. 1920x1200-60Hz (DVI-D) **EDID MODE SELECTION** 7. DVI. 1920x1200-60Hz SRC. #1#2 ➡ EDID Mode Selection	DVI Support: DVI-D 1920x1200 60Hz

EDID FUNCTION
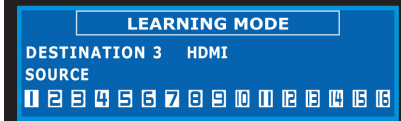
EDID FUNCTION LEARNING MODE

LEARNING EDID SINGLE TO SINGLE	Learning Destination #8 EDID To Source #5
Step 1. Press **EDID** button	The button will flash blue and the display will show the current **Embedded EDID** Status.
Step 2. Press the **DESTINATION #8** button row	Copy the Destination #8 Display EDID.
Step 3. Press the **SOURCE #5** button row	Learning the Destination #8 EDID To Source #5.
Step 4. Press **ENTER** button	To confirm entries.
LEARNING EDID SINGLE TO MULTIPLE	**Learning Destination EDID Link To The Majority Sources**
Step 1. Press **EDID** button	The button will flash blue and the display will show the current Embedded EDID Status.
Step 2. Press the **DESTINATION #1-16** button row	Copy any 1~16 Destinations EDID.
Step 3. Press the **SOURCE #1-16** button row	Learning the Destination EDID link to source #1-16.
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 2**	Learning anyone 1~2 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.
SINGLE LEARNING #1 DEFINITION	**Single Learning EDID From Destination To Source**
1. The switcher will **LEARN** the destination EDID and pass to the selected source. 2. To set up learning between a single destination and single source: Press **EDID** button > Press **DESTINATION 1 THRU 4** > Press **SOURCE 1 THRU 4** > Press **ENTER** to confirm. The switcher will learn the destination EDID for the source device. 3. To set up learning between a single destination and multiple sources: Press **EDID** button > Press **DESTINATION 1 THRU 4** > Press the majority **SOURCES 1 THRU 4** > Press **ENTER**. The switcher will learn the single destination EDID to many source devices. 4. How to Learn single destinations with all sources. Press **EDID** button > Press **ALL** button > Press **ENTER** to confirm.	
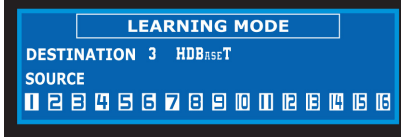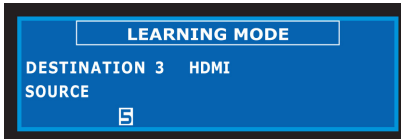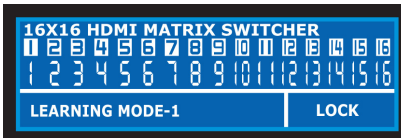
EDID FUNCTION

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__ **LEARNING MODE** DESTINATION 3 HDMI SOURCE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Press __EDID__ **>** __DESTINATION__ Button: The LCM will show LEARNING. The switcher will **LEARN** destination HDMI EDID and pass the selected source. Learning EDID setup for HDMI Key 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__ **LEARNING MODE** DESTINATION3 HDBaseT SOURCE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 Again, Press the same __DESTINATION #__ to learn HDBaseT™ CATx EDID. The EDID for HDBaseT™ CATx has been learned	The Switcher will **LEARN** destination HDBaseT™ CATx EDID and pass the selected source. Learning EDID setup for HDBaseT™ CATx Key Sequence: __EDID__ **>** __DESTINATION (1) THRU (16)__ **>** __DESTINATION (1) THRU (16)__ **>** __SOURCE (1) THRU (16)__ **>** __ENTER__

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

Learning Mode-1 Single Destination To Single Source	
Key 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.	
EDID MODE SELECTION 3. H24-3D, MULTIAUDIO SRC. #1-#2 ➡ EDID MODE SELECTION	**1.** Press __EDID__ button. The LCM will show the current EDID status.
LEARNING MODE DESTINATION 3 HDMI SOURCE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 **LEARNING MODE** DESTINATION 3 HDBaseT SOURCE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	**2.** Press __DESTINATION (#1 ~ #16).__ The LCM will show LEARNING HDMI. The switcher will Learn destination (3) HDMI EDID. Press __DESTINATION__ (3) button again. The LCM will show the LEARNING HDBaseT™. The switcher will Learn destination (3) HDBaseT™ EDID.
LEARNING MODE DESTINATION 3 HDMI SOURCE 5	**3.** Press __SOURCE (#1 ~ #16)__. The LCM will show the selected sources. *Example:* Select Source (5). The switcher will learn destination (5) EDID HDMI or HDBaseT™ EDID and pass to the selected source.
16X16 HDMI MATRIX SWITCHER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 LEARNING MODE-1 LOCK	**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.
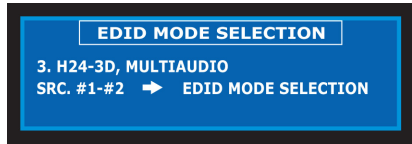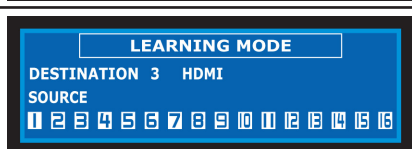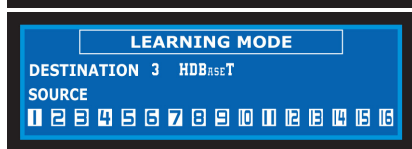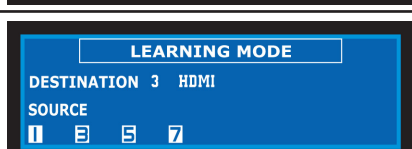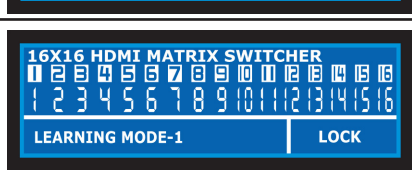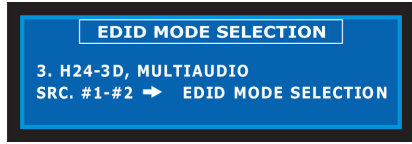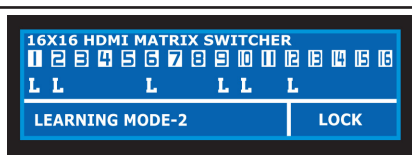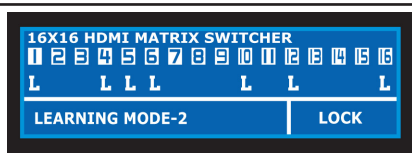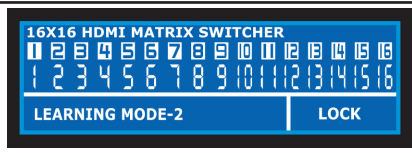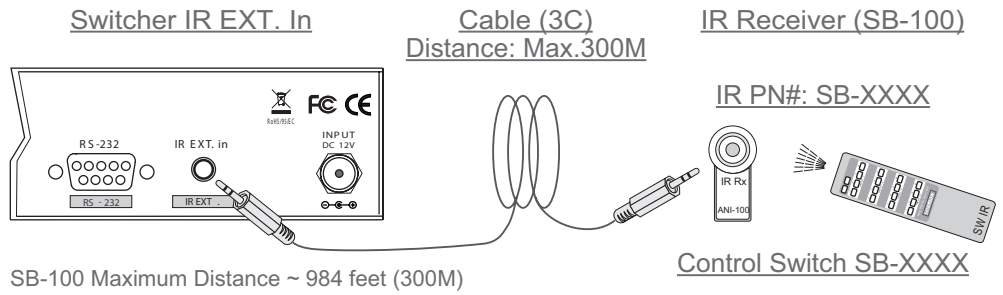
EDID FUNCTION

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

Learning Mode-1 Single Destination To Multiple Or All Sources

Key Sequence: <u>EDID</u> > <u>DESTINATION 1 THRU 16</u> > <u>DESTINATION 1 THRU 16</u> > <u>SOURCE 1 THRU 16</u> > <u>ENTER</u>
The EDID for HDMI or HDBaseT™ has been learned from the Destination port to the Source port.

EDID MODE SELECTION 3. H24-3D, MULTIAUDIO SRC. #1-#2 ➡ EDID MODE SELECTION	**1.** Press **EDID** button. The LCM will show the current EDID status.
LEARNING MODE DESTINATION 3 HDMI SOURCE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	**2.** Press **DESTINATION (#1 ~ #16).** The LCM will show the LEARNING HDMI. The switcher will Learn destination (3) HDMI EDID.
LEARNING MODE DESTINATION 3 HDBᴀꜱᴇT SOURCE 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	Press **DESTINATION** (3) button again. The LCM will show the LEARNING HDBaseT™. The switcher will Learn destination (3) HDBaseT™ EDID.
LEARNING MODE DESTINATION 3 HDMI SOURCE 1 3 5 7	**3.** Press **SOURCE (#1 ~ #16)**. The LCM will show the selected sources. *Example:* Select Source 1, 3, 5 & 7. The Switcher will learn the destination EDID HDMI or HDBaseT™ EDID and pass to the selected source.
16X16 HDMI MATRIX SWITCHER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 LEARNING MODE-1 | LOCK	**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 MULTIPLE

Learning Mode-2 Multiple Destinations To ALL Sources

Key Sequence: <u>EDID</u> > <u>OFF</u> > <u>DESTINATION 1 THRU 16</u> > <u>ENTER</u>

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

EDID MODE SELECTION 3. H24-3D, MULTIAUDIO SRC. #1-#2 ➡ EDID MODE SELECTION	**1.** Press **EDID** button. The LCM will show the current EDID status.
16X16 HDMI MATRIX SWITCHER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 L L L L L L LEARNING MODE-2 LOCK	**2.** Press **OFF** button. The LCM will show the current EDID LEARN status.
16X16 HDMI MATRIX SWITCHER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 L L L L L L L LEARNING MODE-2 LOCK	**3.** Press **DESTINATION 1 THRU 16**. The switcher will LEARN destination HDMI EDID and pass to the selected source. The switcher will Enable or Disable HDMI EDID for the selected source.
16X16 HDMI MATRIX SWITCHER 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 LEARNING MODE-2 LOCK	**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.

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 device 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 IR Receiver Set

Switcher IR EXT. In

RS-232   IR EXT. in   INPUT DC 12V

RS - 232   IR EXT .

Cable (3C)
Distance: Max.300M

IR Receiver (SB-100)

IR PN#: SB-XXXX

IR Rx
ANI-100

SW IR

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

Control Switch SB-XXXX

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

---

2. SB-100C   IR 2M Receiver

IR Receiver cable 6ft (2M)

SB-100C IR Receiver Cable

Switcher IR EXT. In

RS-232   IR EXT. in   INPUT DC 12V

RS - 232   IR EXT .

Cable (2C)
Distance: Max.(2M)

IR Receiver (SB-100C)

IR PN#: SB-XXXX

IR Rx
ANI-100

SW IR

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

Control Switch SB-XXXX
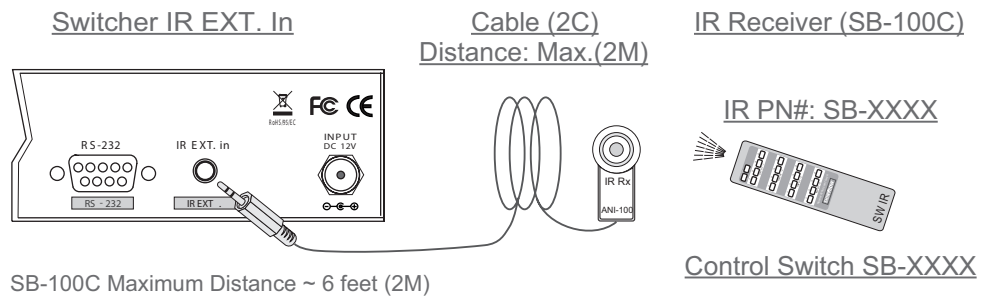
The SB-100C IR Receiver will not function on the port "ALL in" Jack.

*** *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 IR Receiver Set

Tip: Signal
Ring :VCC
Sleeve: GND

Tip   Ring   Ring   Sleeve

Sleeve   Tip (center)

VCC (Ring)

GND (Sleeve)

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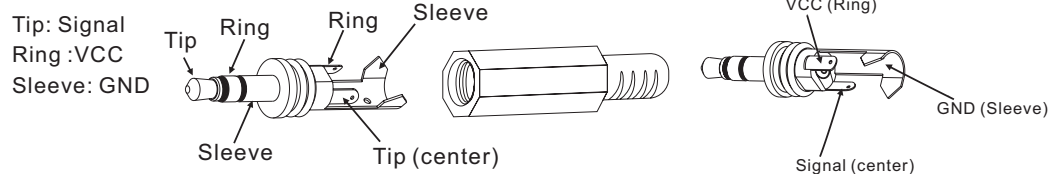
SB-100 Receiver and SB-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

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

IR Receiver cable 6ft (2M)

SB-100C IR Receiver Cable

Tip: Signal
Ring: NC
Sleeve: GND

Tip   Ring   Ring   Sleeve

Sleeve   Tip (center)

GND (Sleeve)

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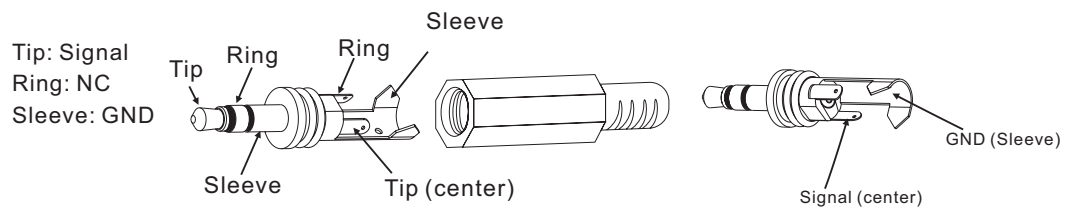
SB-100 Receiver and SB-101C Transmitter The DISTANCE maximum ~ 984 feet (300M)

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.

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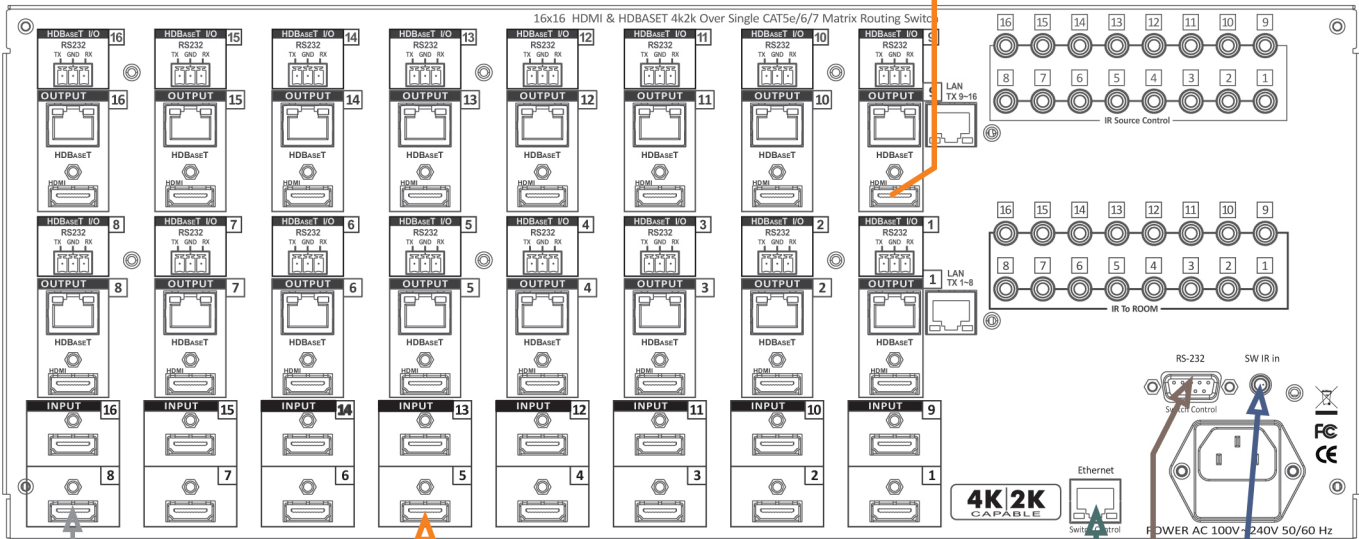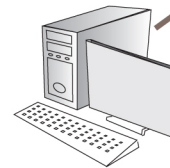
Application IR, RS-232 and Ethernet to switch control.

TYPICAL APPLICATION - HDBASET™ IR MATRIX ROUTING CONTROL

INSTALLING DIAGRAM

Samples Connection:

HDBaseT™ IR return (From Room) will follow the video source. In this example, the IR remote for the projector is connected to port#2 **"IR To Room."** From the SB-6335R5 (PoH), the IR Output is connected to the projector. This allows remote operation of the projector from the SB-5669CKP. The IR control for source devices uses the same port number on **"IR Source"** as the source device connection. *In this example*, the Blu-Ray player is connected to Input port #5. Likewise, the IR to control the Blu-Ray player is connected to port #5.

IR source device control will follow the video source selected. Connect the IR emitter SB-101 or SB-101C to the corresponding port number as the source device, video Input port.
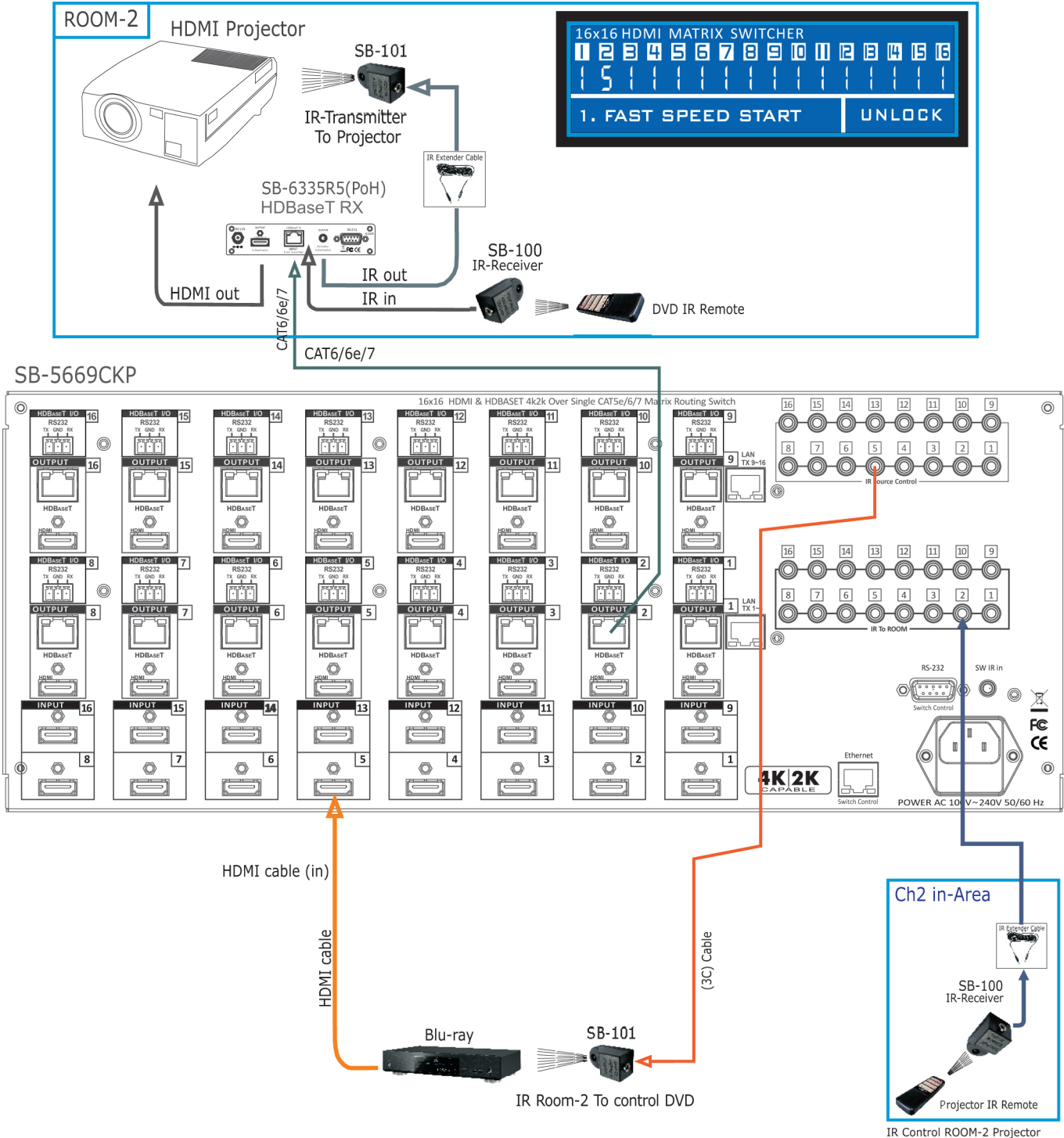
TYPICAL APPLICATION - HDBASET™ CONTROL IR TO ROOM

INSTALLING DIAGRAM

Samples Connection:

Using HDBaseT™ to transmit the IR signal to control a room device via SB-5669CKP HDBaseT™ IR input (port #5) with an IR Receiver (SB-100) to transmit IR signal to the HDBaseT™ Receiver PoH (SB-6335R5) with IR Transmitters (SB-101) to control a room device display.

NOTE:
1. IR Control Satellite Receiver Over HDBaseT™ Extender via CAT6/6a/7 cable:
   - HDBaseT™ Transmitter with PoH: SB-5669CKP
   - HDBaseT™ Receiver with PoH: SB-6335R5
2. IR Extender Transmitter (SB-101): Using SB-101 IR Transmitter to extend IR signal to a satellite receiver

*** HDBaseT™ extender uses a single category CAT6/6a/7 cable.**

SB-6335R5 (PoH)
HDBaseT Receiver

HDMI DISPLAY TV

HDMI out
RS-232 out

Supported

CAT6 in   IR in

IR Extender Cable

SB-101

IR Trnasmitter
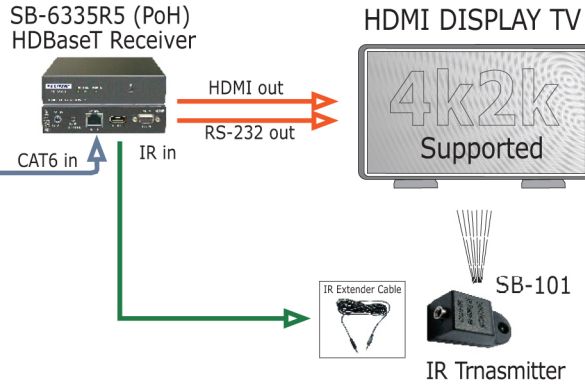
CATx(6/6a/7) Extension Cable Limited to ~328 feet (100M) Maximum.

16x16 HDMI & HDBASET 4k2k Over Single CAT5e/6/7 Matrix Routing Switch

SB-100
IR Receiver

PC RS232 Control

IR Remote Control Room device
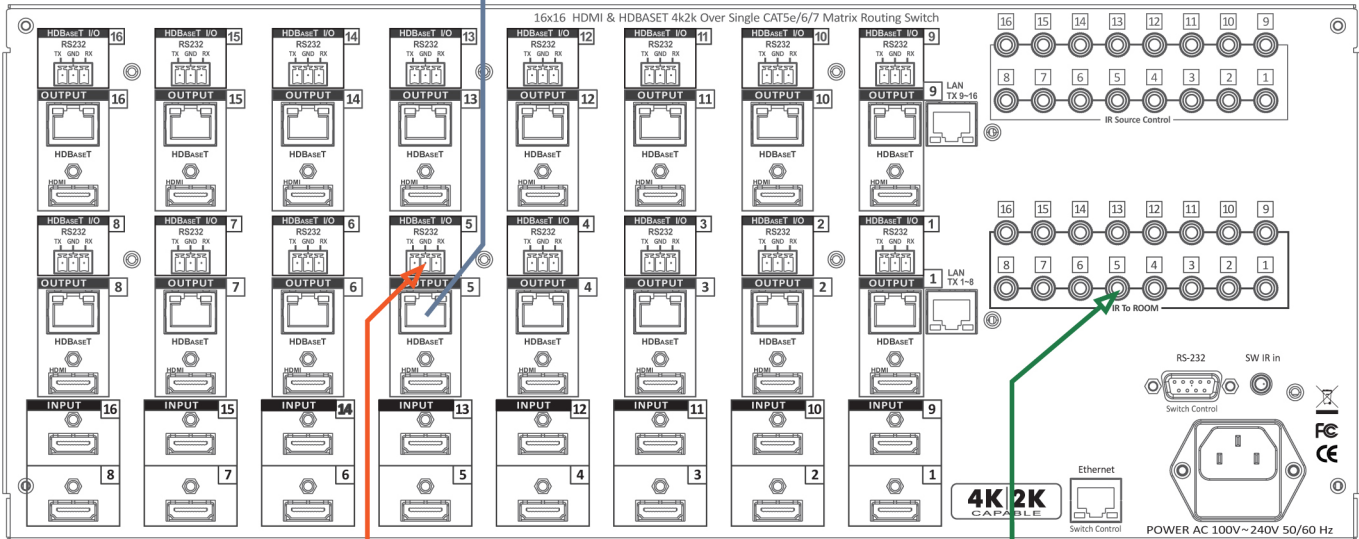
TYPICAL APPLICATION - HDBASET™ CONTROL RS-232 & LAN

INSTALLING DIAGRAM

Samples Connection:

Using HDBaseT™ RS-232, HDBaseT™ to link LAN (HDBT #1~#8) and LAN (HDBT #9~#16) via the SB-5669CKP HDBaseT™ Transmitter (PoE) & HDBaseT™ Receiver PoE (SB-6335R) to control a projector or link LAN.

HDMI Projector

SB-101

IR-Transmitter
To Projector

IR Extender Cable

SB-6335R5(PoE)
HDBaseT RX

IR out

HDMI cable out

IR from SB-5669CKP Transmitter

Two ways Contros: RS-232
HDBaseT Extension Cable Limited to 328 feet (100M)
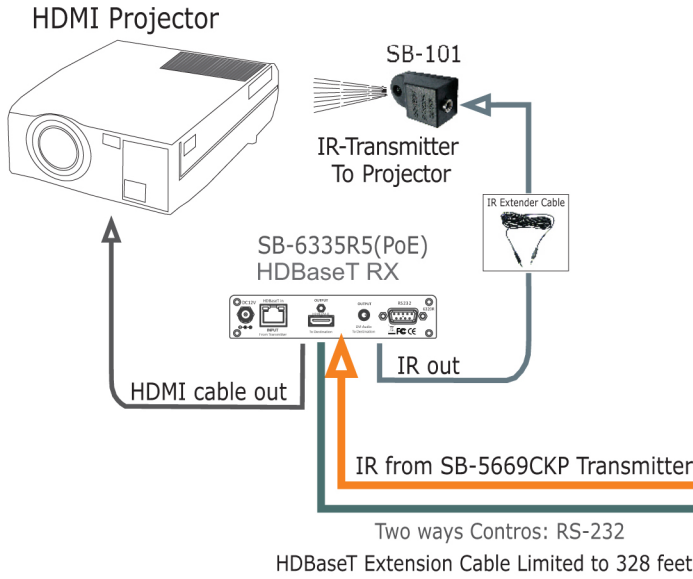
NOTE:

1. IR Control Projector Over HDBaseT™ Extender:
   SB-5669CKP HDBaseT™ Transmitter (PoE)
   SB-6335R HDBaseT™ Receiver (PoE)

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 sends IR signal to the Projector
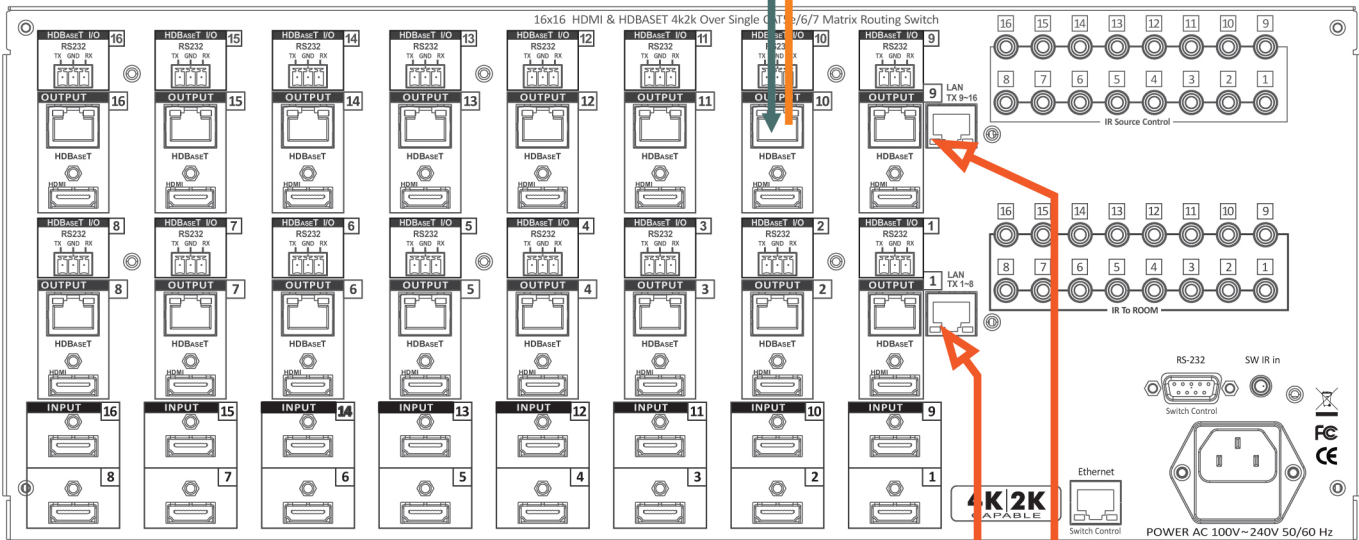
Two ways Contros: RS-232, IR in/out

RS-232 in
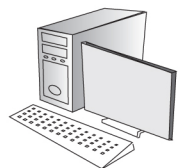
PC RS232 Control

LAN link : HDBaseT #1~#8 ports

LAN in

PC connect to LAN

LAN link : HDBaseT #9~#16 ports

LAN in

PC connect to LAN

APPLICATION

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

HDBaseT Transmitter with PoE

SB-6335T5   Distance:Max.100M

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

OUTPUTS:
1. 1x HDBaseT out (PoE 48VDC).

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

FRONT PANEL :

REAR PANEL :
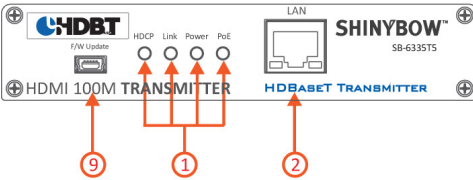
1. Status via LED Show out : HDCP, Link, Power & PoE.
2. 1x Ethernet path to HDBaseT Receiver.
3. DC input : 48V, with PoE Transmiter.
4. RJ-45 out : HDBaseT signal output to HDBaseT Receiver.
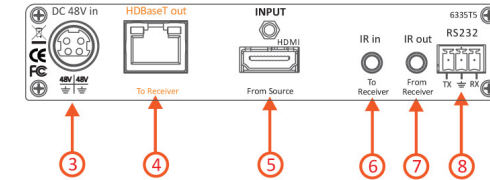
5. HDMI in :   HDMI signal input from HDMI source device.
6. IR in :   IR signal to HDBaseT Receiver.
7. IR out :   IR signal from HDBaseT Receiver
8. RS-232 i/o : RS-232 series interface control via a PC.
9. USB in :   F/W Update.

HDBaseT Receiver with PoE

SB-6335R5   Distance:Max.100M

INPUTS:
1. 1x HDBaseT in (PoE).
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
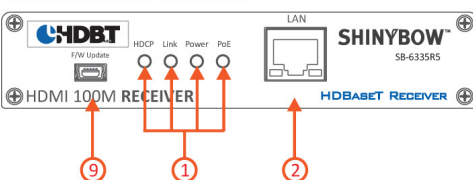
1. Status via LED Show out : HDCP, Link, Power & PoE.
2. 1x Ethernet path to HDBaseT Transmitter.
3. Extra DC input : 12V, Transmitter without support Power.
4. RJ-45 in : HDBaseT signal input from HDBaseT Transmitter.
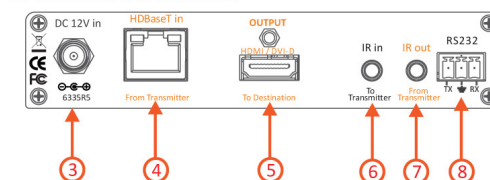
5. HDMI out :   HDMI signal output to destination HDMI device.
6. IR in :   IR signal to HDBaseT Transmitter.
7. IR out :   IR signal from HDBaseT Transmitter.
8. RS-232 i/o : RS-232 series interface control via a PC.
9. USB in :   F/W Update.

Supports HDBaseT™ Extender by Transmitter and Receiver via HDBaseT™ CAT6/6a/7 cable.
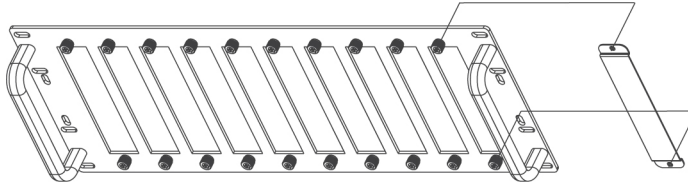
APPLICATION

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
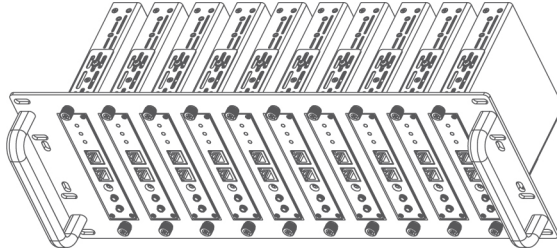
SB-6069 (optional)
SB-6335T/R 19 INCH 4U-10P RACK MOUNT

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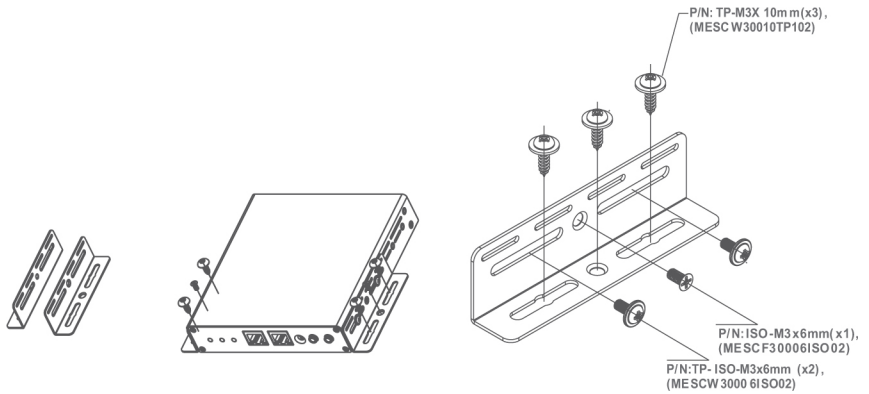SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6069ER13000

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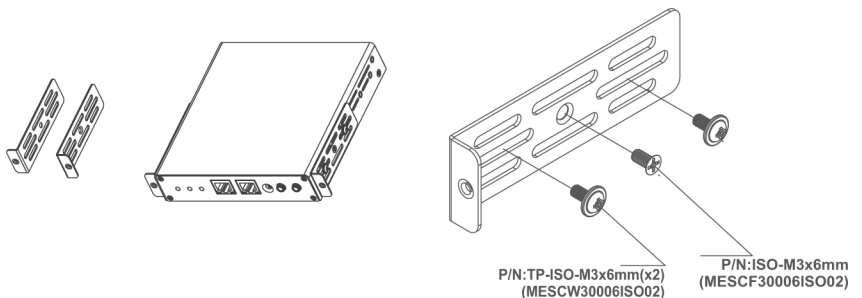**Parts No.:** MEER6069ER11000

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

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

P/N: TP-M3X 10mm(x3), (MESCW30010TP102)

P/N:ISO-M3x6mm(x1), (MESCF30006ISO02)

P/N:TP- ISO-M3x6mm (x2), (MESCW30006ISO02)

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

P/N:TP-ISO-M3x6mm(x2) (MESCW30006ISO02)

P/N:ISO-M3x6mm (MESCF30006ISO02)

Supports HDBaseT™ Extender with Transmitter and Receiver via HDBaseT™ CAT6/6a/7 cable.

HDBASET™ APPLICATION

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
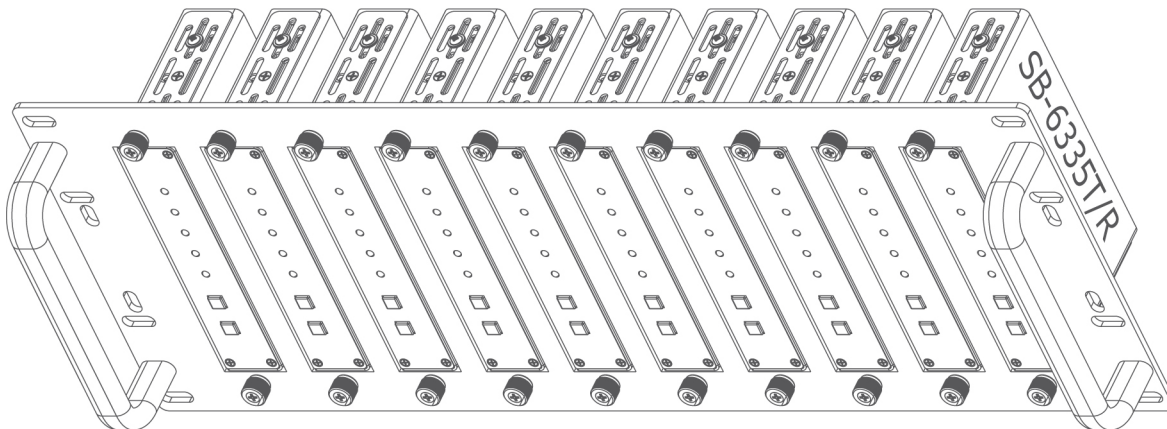**Model No.:** #1U-2p-L440-44MM
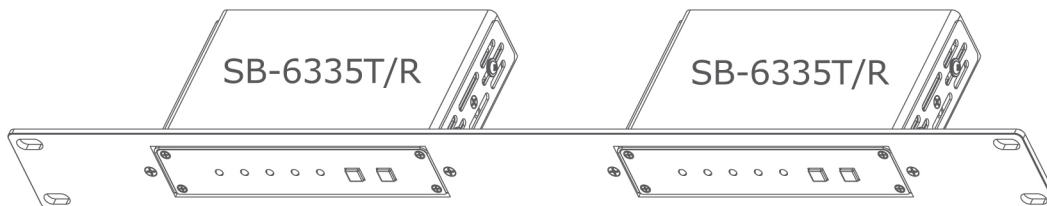
SB-6069: SB-6335T/R 19 INCH 4U-10P RACK MOUNT
Model No.: #4U-10p-L130MM
SB-6335T/R 4U Ear mount pairs
Parts No.: MEER6069ER13000

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