INSTRUCTION MANUAL

SB-6351R

HDMI HDBaseT™ Wall Plate RECEIVER w/ PoH up to 330 Feet (100M)
(Single LAN, 2-way IR, RS-232, HDMI)



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.

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HDMI-HDBaseT™ EXTENDER Series

Thank you for purchasing the SB-6351R HDMI-HDBaseT™ with PoH from HDBaseT™ Receiver. 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 converter.

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INTRODUCTION

Congratulations on your purchase of one of the most innovative HDMI 1.4a over single category cable Receiver with PoH (Power Over HDBaseT™) support from a transmitter on the market today. SB-6351R HDBaseT™ Receiver can receive the HDMI, Ethernet, PoH power (48VDC) from Transmitter, IR Remote input to Transmitter or output to source and the RS-232 interface signal I/O to HDBaseT™ Transmitter (SB-6335T5 PoH) via single LAN (category) cable for a long distance of 328 feet (100M) maximum. The SB-6351R Receiver uses the UTP/FTP (category cable) CAT5e, CAT6, CAT6a or CAT7 via RJ-45 8P8C female socket (Supports 568a/b). This product provides higher full HD HDMI 1.4a, resolutions supporting 480i/p, 720p,1080i/p or High 4K2K quality that are identical to the high quality full HDMI 1.4 source signals. The Receiver is useful for sending the HDMI digital video / multi-channel audio format, IR remote in or out, Ethernet, RS-232 in, RS-232 out and PoH. Controls signals via a single category cable transmited from the HDBaseT™ Transmitter.

PACKAGE CONTENTS

Check that you have the following components;

- SB-6351R HDBaseT™ Receiver console
- Users Guide

Input: HDBaseT™ via single CAT6/6a/7 cable & PoH (Power Over HDBaseT™)
Output: HDMI, IP in/out, RS-232 in/out & LAN

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.

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Version 2.0 AUG 2015

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FEATURES & SPECIFICATIONS

FEATURES

- HDBaseT™ TX/RX with 3D, 4K2K over a single UTP/STP cable up to 330ft (100M)
- Supports HDMI 1080p@60 video V1.4a 3D and Ultra HD 4K2K video, CEC / HDCP compliant
- Supports link speeds of up to Video, TMDS format Max. 10.2 Gbit/s, Signal 340MHz
- Deep Color, Full HD 1080p@60Hz@24/36/48bit/pixels
- Supports 1080p TV's at 24/30/60/100/200/240 Hz and above as well as Blu-rays at 24 FPS
- Supports Digital Audio 7.1 LPCM 192KHz, 24bits, Full HD Dolby TrueHD and DTS-HD Master Audio uncompressed HD audio formats
- Supports PoH power DC48V over HDBaseT™ (Power support 48VDC from SB-6335T5 Transmitter)
- Transfers Bi-directional Infrared control signal together with the HDMI signal
- RS-232 port for firmware updates or RS-232 control signal transmission
- Supports HDMI CEC between your connected source and display gear
- LED indicators show the HDCP/LINK/POWER/POE status
- HDBaseT™ transfers HDMI, PoE, LAN, RS-232 and Bi-Directional IR over single category cable
- Supports Super Audio CD (DSD), CEC commands protocol table

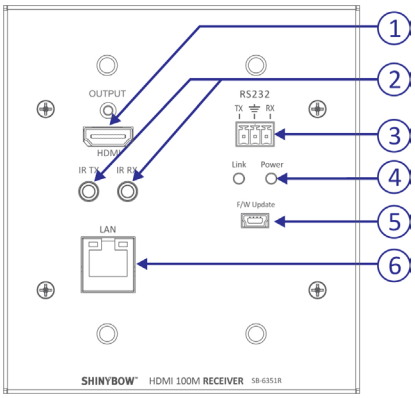
SPECIFICATIONS

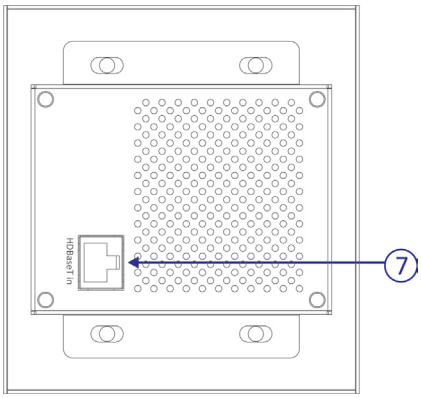
- **Type of Extender:** HDBaseT™ RX use HDMI signal over category UTP/STP Cable
- **Input Signals:** HDMI with Digital Video (TMDS)/Audio 0.5~1.0vPP, DDC 5Vpp
- **HDBaseT™ Signal Supports:** HDMI 1.4a HDMI format Standard, DVI and HDCP Compliant
- **Video Support:** HDMI and DVI TMDS format for 1920x1200 resolutions up to 10.2 Gbps (340MHz), Digital RGB 48bits/px, deep color, 3D
- **Category Cable Support:** CAT5e, CAT6, CAT6a, CAT7 UTP/STP cable
- **Supports HDMI Resolutions:** 480p, 720p 1080i/1080p and Ultra HD 4K2K
- **Scan Rate Accepted:** Supports HDMI full HD Resolutions; Frequency 24Hz to 240Hz
- **Controls:**
  - 1x IR in
  - 1x IR out
  - 1x RS-232 I/O
  - 1x LAN series interface Rx High input Impedance: 1 MΩ differential
- **PoH Support:** HDBaseT™ Receiver supports 48VDC power from Transmitter (SB-6335T5)
- **Transfer Distance:** Up to 330ft (100M)
- **Low Distortion:**
  - Tx: 68dB SFDR@5 Mhz 200Ω load
  - Rx: 1 Vp-p@5MHz
- **HDMI I/O Connectors:** HDMI Type A - SMD 19pin Female Type
- **HDBaseT™ I/O Connectors:** HDBaseT™ RJ-45, 8p8c Female socket
- **Temperature:** 32° F - 122° F Operation (0° C ~ 50° C)
- **Safety Approvals:** CE, FCC, VCCI , REACH
- **Size (LxWxH):** 4.33 x 4.73 x 1.38 in (110x120x35mm)
- **Shipping Weight (net):** 0.36 kg / 0.80 lb
- **Power Consumption:** Max. 1000mA (Full load 1080p-60Hz signal with use DC48V input)

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

TYPICAL HOOKUP AND OPERATION

SB-6351R





FRONT PANEL :

1. **HDMI OUT:** HDMI input signal from HDMI source device
2. **IR IN:** Sends IR signal to HDBaseT™ Transmitter
   IR OUT: Receives IR signal from HDBaseT™ Transmitter
3. **RS-232 I/O:** RS-232 I/O series interface via HDBaseT™
4. **STATUS LED:** LINK & POWER
5. **F/W UPDATE:** Software update port
6. **LAN I/O:** An Ethernet path to HDBaseT™ Transmitter

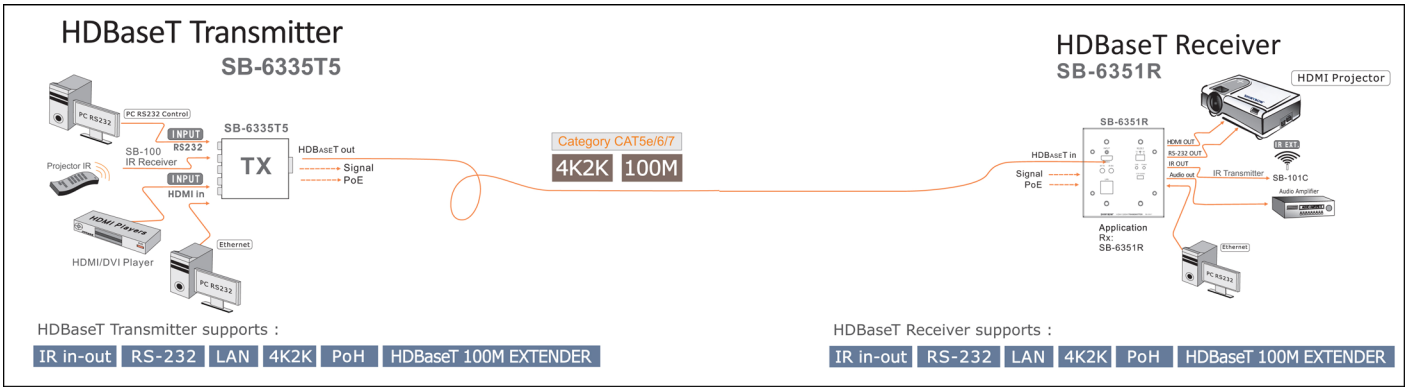
REAR PANEL:

7. **RJ-45 OUT:** HDBaseT™ output signal from HDBaseT™ Transmitter

Safeguards and Precautions

A. Keep this unit away from fire, extremely hot areas, water or moisture of any kind.
B. Do not place this unit on any support that is not firm, level and strong.
C. Do not service the unit yourself. Opening the unit's housing will void the warranty.
D. Servicing must be by Shinybow or by an authorized technician.
C. Illegal duplication of copyrighted material is strictly prohibited by Federal Laws.

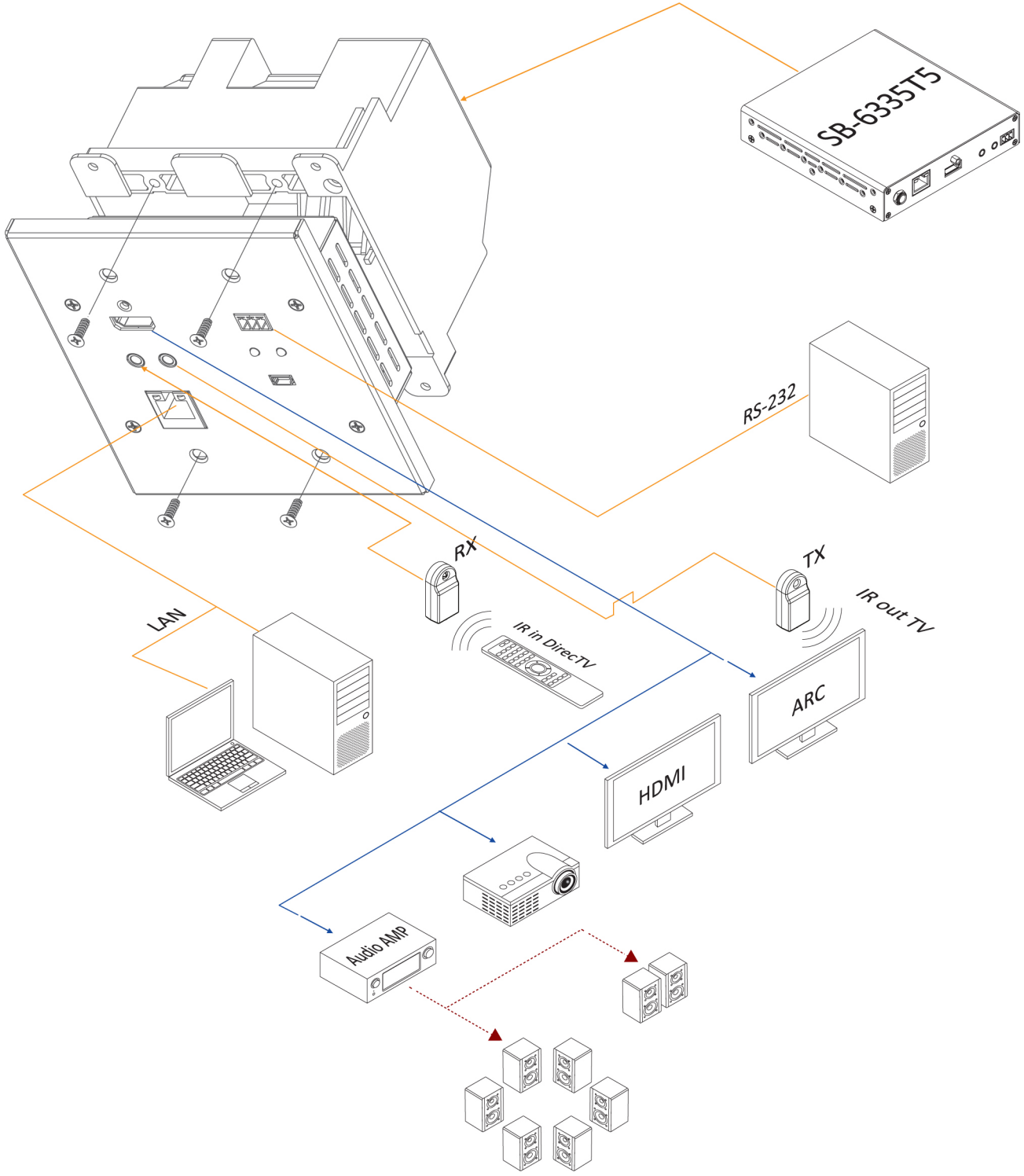
INSTALLING DIAGRAM



TYPICAL APPLICATION

INSTALLING DIAGRAM

Sample connection using HDBaseT™ Transmitter and Receiver to extend the HDMI and controls signal.



COMPATIBLE OPTIONS

SB-6335T5 PoH

HDMI HDBaseT Transmitter with PoH



Signal

PoH

SB-6351R PoH

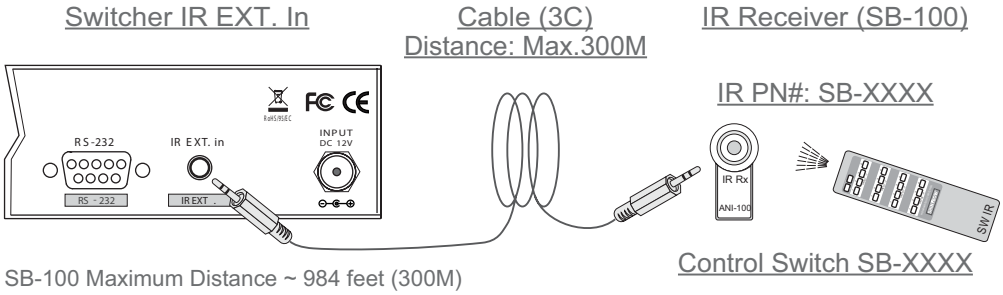
HDMI HDBaseT Receiver with PoH



IR EXTENDER

1. SB-100 IR 300M Receiver



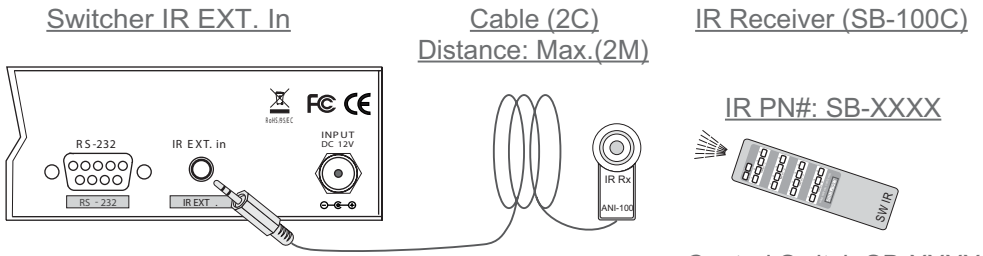


SB-100 Maximum Distance ~ 984 feet (300M)

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

2. SB-100C IR 2M Receiver





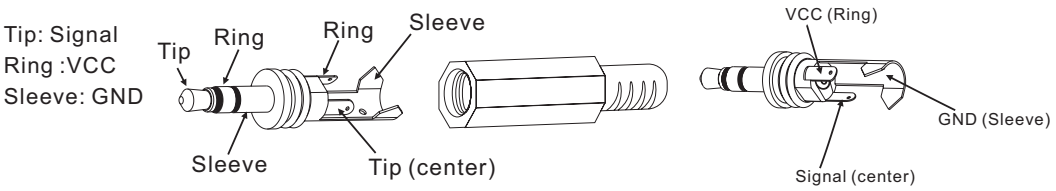
SB-100C Maximum Distance ~ 6 feet (2M)

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

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

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

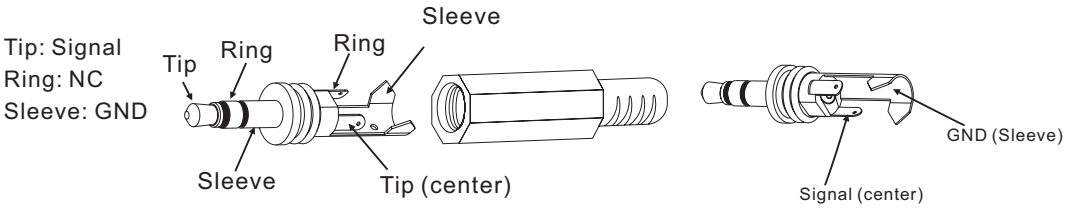




SB-100 Receiver and SB-101 Transmitter The DISTANCE maximum ~ 984 feet (300M)

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





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

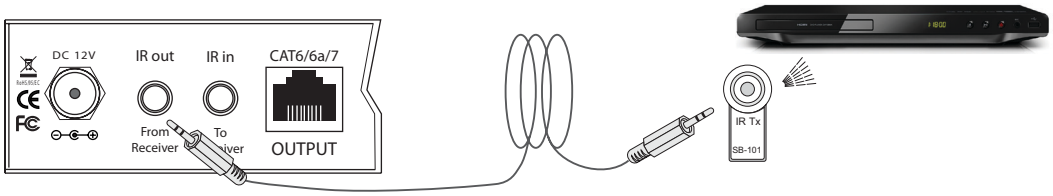
Note: *The External IR jack has voltage on the “Ring” portion of a 3-conductor plug. You must use a 3-conductor plug (aka: stereo plug). Using a 2-conductor plug will short out the power supply. Always make connections with the switcher power off.*

IR EXTENDER

1. SB-101 IR 300M Transmitter



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

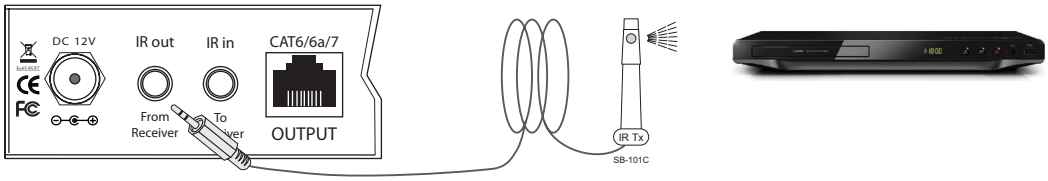


SB-101 Maximum Distance ~ 984 feet (300M)

2. SB-101C IR 2M Transmitter



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



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

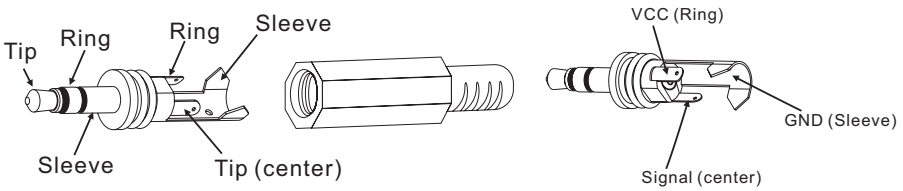
**** When you plug the External IR extender into the switcher, the front panel IR transmitter remains active. ****

PIN CONFIGURATION:

SB-101 and SB-101C Transmitter Pin configuration



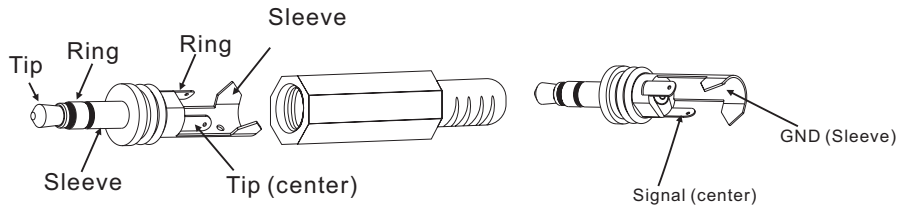
Tip: Signal
Ring :VCC
Sleeve: GND



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



Tip: Signal
Ring: NC
Sleeve: GND



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

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

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