SW-0501-HDBT

5x1 HDMI over HDBaseT™ Presentation Switcher/Scaler
with Mic Inputs | CEC Control (1080p to 100m/328ft)

Installation Guide

Thank you for choosing this WyreStorm product.
Please read these instructions carefully before installing to avoid complications later.

IMPORTANT! Safety Information

Safety Classifications

Note:	Provides special information for installing, configuring, and operating the equipment.
IMPORTANT!	Provides special information that is critical to installing, configuring, and operating the equipment.
CAUTION!	Provides special information on avoiding situations that may cause damage to equipment.
WARNING!	Provides special information on avoiding situations that may cause physical danger to the installer, end user, etc.
ELECTRIC SHOCK!	The source power poses an electric shock hazard that has the potential to cause serious injury to installers and end users.
ELECTRICAL DISCONNECT:	The source power outlet and power supply input power sockets should be easily accessible to disconnect power in the event of an electrical hazard or malfunction.
WEIGHT INJURY!	Installing some of the equipment requires two installers to ensure safe handling during installation. Failure to use two installers may result in injury.

Safety Statements

1. Read these instructions in their entirety and retain a copy for later reference.
2. Follow all instructions and heed all warnings.
3. Do not expose this apparatus to rain, moisture, sprays, drips or splashes and ensure that no objects containing liquids are placed on the apparatus, including cups, glasses and vases.
4. Do not place this unit in a confined space such as enclosed shelving, cabinets or bookshelves. Ensure the unit is adequately ventilated.
5. To prevent the risk of electric shock or fire hazard due to overheating, do not cover the unit or obstruct ventilation openings with material, newspaper, cardboard or anything that may restrict airflow into the unit.
6. Do not install near external heat sources such as radiators, heat registers, boilers or any device that produces heat such as amplifiers or computers and do not place near sources of naked flame.
7. Unplug apparatus from power supply during lightning storms or when unused for long periods of time.
8. Protect the power cable from being walked on, pinched or restricted in any way, especially at plug connections.
9. Only use attachments/accessories specified by the manufacturer.
10. Units contain non-serviceable parts - Refer all servicing to qualified service personnel.

IMPORTANT!

Do Not Hot swap HDMI or HDBaseT connections - Please insert and extract cables carefully with the power SWITCHED OFF. Power is passed along transmissions so connecting and disconnecting cables while powered can result in damage to circuitry or possible injury.

Contents

1. Product Overview

The SW-0501-HDBT allows for up to 4 HDMI and 1 VGA inputs (+audio). The internal scaler provides instant source switching by matching the resolution of the sink device up to 1920x1200p. There is also an adjustable microphone input with selectable phantom power, which can be mixed with source audio and sent via the audio output. Signal transmission is via HDMI or by HDBaseT for transmission up to 100m. PoH and control signals can be all sent to the RX-70-4K HDBaseT receiver (sold separately).

Key Features

- 4 HDMI inputs & 1 VGA input
- HDBaseT Output with PoH up to 100m
- Duplicate HDMI output
- Fast seamless switching, with auto-scaler up to 1920x1200
- Auto switching between sources, uses last-in/first-out logic
- Audio inputs for microphone, and VGA audio embed
- Use either dynamic or condenser mics with switchable phantom power
- Rotary knob on front panel for Mic gain control
- 5x I/O ports for signal switching and LED out for desk-mounted connection panel
- Automatic CEC trigger on output—Switcher can send power commands to sink devices via CEC or RS-232 Port
- Controls power of sink devices, according to the status of input sources via CEC, or RS-232. Supports Bi-directional IR and RS-232 pass-through
- Control via RS-232 or LAN
- Built-in Web UI for customization of sink device power on/off and advanced settings

In the Box

1x SW-0501-HDBT Presentation Switcher/Scaler

1x AC Power Cord

1x 11-pin Screw Down Phoenix Connector

1x 5-pin Screw Down Phoenix Connector

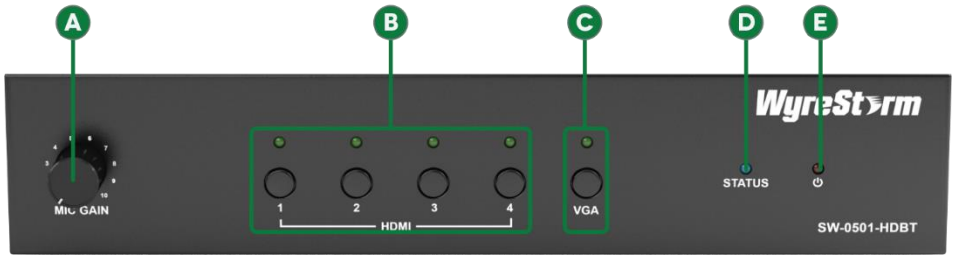
2x 4-pin Screw Down Phoenix Connector

4x 3-pin Screw Down Phoenix Connector

2x Mounting brackets

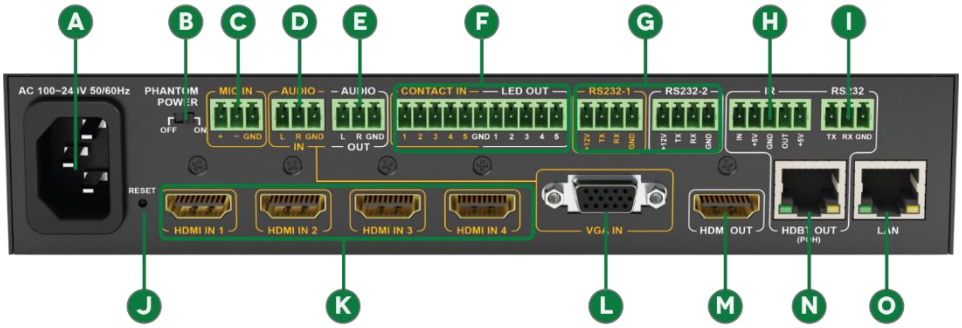
1x Quickstart guide

Front Panel



A	**Mic Gain**	Adjusts the gain of the **Mic Input** from 0 to 40db.
B	**HDMI Input 1-4 Selection**	Press to select an HDMI input as the current source. An illuminated LED indicates the currently selected HDMI source.
C	**VGA Input Selection**	Press to select VGA input as the current source. An illuminated LED indicates the currently selected source is VGA.
D	**Status**	**Flashing** (at 2 second intervals): The SW-0501-HDBT is operating normally.
E	⏻ **(Power)**	**Solid:** The SW-0501-HDBT is powered On.

Rear Panel



A	**AC Power**	Connect to a 100~240V AC 50/60Hz AC mains outlet.
B	**Phantom Power**	On: Provides 48V DC 100mA to a microphone connected to **Mic In** Off: No power supplied – Use this setting for dynamic (passive) microphones.
C	**Mic In**	3-pin Screw Down Phoenix Connector Connect to a microphone to allow for combining with selected source audio. ⚠ **IMPORTANT!** Verify that Phantom Power switch on the rear panel is set to Off before connecting dynamic (passive) microphones.
D	**Audio In**	3-pin Screw Down Phoenix Connector Connect to the analog audio output of the VGA source connected to the **VGA In**. Audio signal received on this port is played only when the VGA input is selected.
E	**Audio Out**	3-pin Screw Down Phoenix Connector Connect to the line level input of an audio pre-amplifier or powered speaker for audio output from selected sources.
F	**Contact In/ LED Out**	11-pin Screw Down Phoenix Connector Connect to a remote I/O control device such as a panel switch for selecting inputs remotely.
G	**RS-232 1-2**	4-pin Screw Down Phoenix Connector RS-232 1 is used for controlling the SW-0501-HDBT via an external control system. RS-232 2 is used for controlling external devices such as connected displays.
H	**IR**	5-pin Screw Down Phoenix Connector Used to send and receive IR signals to/from the remote display location via HDBaseT.
I	**RS-232**	3-pin Screw Down Phoenix Connector Used to send RS-232 signals to the remote display location via HDBaseT.
J	**Reset**	Press and hold for 5 seconds while the SW-0501-HDBT is powered on to restore factory default settings.
K	**HDMI In 1-4**	19-pin type A HDMI female digital video/audio input. Supports HDMI and DVI/D (requires adapter-not included).
L	**VGA In**	15-pin VGA VESA (DSUB 15) Connect to DSUB 15 VGA output of device such as a computer 15-pin VGA cable is required.
M	**HDMI Out**	19-pin type A HDMI female digital video/audio input. Supports HDMI and DVI/D (requires adapter-not included).
N	**HDBaseT Out**	8-pin RJ-45 female Connect to an HDBaseT receiver.
O	**LAN**	8-pin RJ-45 female | 10/100 Mbps auto-negotiating Connect to a network router or switch for accessing the Web UI or control by IP based control systems.

Specifications

Audio and Video

Audio Formats	2ch analog and Up to 7.1 DTS Master HD and Dolby True HD
Video Resolution	HDMI: Up to 1920x1200p@60Hz VGA: Up to 1920x1200@60Hz
Color Depth	36bit
Maximum Pixel Clock	275MHz

Communication and Control

HDBaseT	EDID | CEC | PoH | Bi-directional IR and RS-232
HDMI	EDID | CEC DVI/D supported with adapter (not included)
Ethernet	10/100 Mbps auto-negotiating
IR	Bi-directional over HDBaseT
RS-232	Switcher Input Selection | Local Device (1x) | Bi-directional over HDBaseT (1x)
CEC	Power Management for display connected via HDMI or HDBaseT
Contact Closure	Switcher Input Selection with LED Feedback
Front Panel Buttons	Switcher Input Selection with LED Feedback

Power

Input Power	100~240V AC 50/50Hz
Max Power Consumption	26.5W
PoH	48V 15.4W
Microphone Phantom Power	48V DC 100mA

Environmental

Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) 10% ~ 90%, non-condensing
Storage Temperature	-4°F to ~ 158°F (-20°C ~ +70°C) 10% ~ 90%, non-condensing

Dimensions and Weight

Height	50mm / 1.9in
Width	220mm / 8.6in
Depth	270mm / 10.6in
Weight	2.0kg / 4.40lbs

Regulatory

Safety and Emission	CE | FCC

2. Wiring and Connections

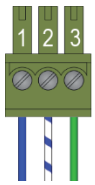
WyreStorm recommends that all wiring for the installation is run and terminated prior to making connections to the switcher. Read through this section in this entirety before running or terminating the wires to ensure proper operation and to avoid damaging equipment.

HDMI and VGA Wiring

WyreStorm recommends using pre-terminated VGA and HDMI cables due to the complexity of these connector types. Using pre-terminated cables will ensure that these connections are accurate and will not interfere with the performance of the product.

Microphone Wiring

The Mic In uses a 3-pin phoenix connector (supplied).

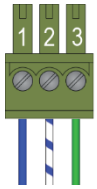


Pin 1: Positive (+)
Pin 2: Negative (-)
Pin 3: Ground (GND)

Wire colors shown are for pin identificaiton only and do not represent any wiring standard.

Audio In Wiring

The switcher contains an **Audio In** that is used to sync audio with video from the VGA input. This connection uses a 3-pin phoenix connector (supplied).

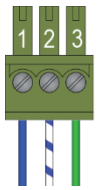


Pin 1: Left Positive (+)
Pin 2: Right Positive (+)
Pin 3: Ground (GND)

Wire colors shown are for pin identificaiton only and do not represent any wiring standard.

Audio Out Wiring

The switcher contains an **Audio Out** that can be used to distribute the audio throughout the room by connecting to an audio pre-amplifier or powered speaker. This connection uses a 3-pin phoenix connector (supplied).



Pin 1: Left Positive (+)
Pin 2: Right Positive (+)
Pin 3: Ground (GND)

Wire colors shown are for pin identificaiton only and do not represent any wiring standard.

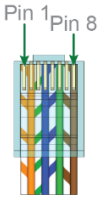
Note:

The Audio Out is disabled by default and the output level can be adjusted to suit the environment.

Refer to Enabling / Disabling the Audio Output on how to enable and Adjusting the Audio Output Level to set the output level.

Local Area Network (LAN) Wiring

LAN wiring follows the EIA T568B standard.

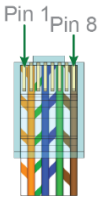


Pin 1: White/Orange
Pin 2: Orange
Pin 3: White/Green
Pin 4: Blue
Pin 5: White/Blue
Pin 6: Green
Pin 7: White/Brown
Pin 8: Brown

Wire colors shown follow EIA/TIA-568B standard.

HDBaseT Wiring

HDBaseT wiring follows the EIA T568B standard.



Pin 1: White/Orange
Pin 2: Orange
Pin 3: White/Green
Pin 4: Blue
Pin 5: White/Blue
Pin 6: Green
Pin 7: White/Brown
Pin 8: Brown

Wire colors shown follow EIA/TIA-568B standard.

⚠ IMPORTANT! HDBaseT Wiring Guidelines

- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference can have an adverse effect on HDBaseT transmission limiting performance. Steps should be taken to minimize these factors (or remove completely) during installation for best results.
- While similar in nature, the HDBaseT protocol is different than Ethernet and voltages provided for PoH can be higher than those provided by PoE. For this reason, never connect an HDBaseT link to an Ethernet router or switch to avoid damaging the connected devices.

Supported Video Resolutions

The type of category cable used and the distance between the switcher and receiver can restrict the available video resolution.

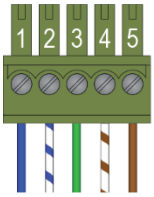
Cable Type	Range	Supported Resolution
Cat5e/6	100m/328ft	1080p@60Hz 36bit
Cat6a	100m/328ft	1080p@60Hz 36bit 1080p@60Hz 48bit 1080p@60Hz 3D

Note:

When connected to a class B HDBaseT receiver, the supported distance is limited to 70m/230ft 1080p.

IR Wiring

The IR port on the switcher is used to send IR to a remote device via HDBaseT and to a local device from the remote location. In addition to the standard In and Out port contains pins that can provide 5V DC to power an IR Receiver or an IR Emitter with talkback.

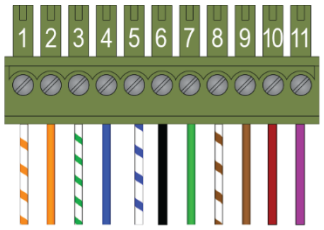


Pin 1: In Positive (+)
Pin 2: In +5V
Pin 3: In/Out GND (Common)
Pin 4: Out Positive (+)
Pin 5: Out +5V

Wire colors shown are for pin identificaiton or and do not represent any wiring standard.

Remote I/O Control Device Wiring

The SW-0501-HDBT may be controlled using a contract closure remote I/O device. Connection uses an 11-pin phoenix connector that also provides LED feedback to the device for all 5 inputs.



Pin 1: HDMI 1 Contact In
Pin 2: HDMI 2 Contact In
Pin 3: HDMI 3 Contact In
Pin 4: HDMI 4 Contact In
Pin 5: VGA Contact In
Pin 6: Contact/LED GND
Pin 7: HDMI 1 LED
Pin 8: HDMI 2 LED
Pin 9: HDMI 3 LED
Pin 10: HDMI 4 LED
Pin 11: VGA LED

Wire colors shown are for pin identificaiton only and do not represent any wiring standard.

RS-232 Wiring

There are 3 different RS-232 connections on the SW-0501-HDBT that use 2 different connectors.

- RS-232 1 - Control of the SW-0501-HDBT using a 4-pin phoenix connector.
- RS-232 2 - Control of local devices using a 4-pin phoenix connector.
- RS-232 - Control of devices in a remote location by sending control signals via HDBaseT using a 3-pin phoenix connector.

RS-232 Connection Guidelines

The following wiring diagrams show the pinouts for the switcher. While not shown, connect the TX (transmit) to RX (receive) pins at the control system or PC side of the cable. Most control systems and computers are configured for Digital Terminal Equipment (DTE) where pin 2 is RX and pin 3 is TX This can vary from device to device, refer to the documentation for the connected device for pin functionally to ensure that the connect connections can be made.

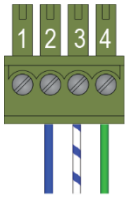
Method 1 - Individual Ports for Switcher and Device Control

This is the preferred method for switcher, local, and remote device control when there are multiple ports available on the control system.

Use Method 2 - Shared Port for Switcher and Remote Device Control to control the switcher and remote devices via a single RS-232 port on the control system.

RS-232 1/2 (Switcher and Device Control)

These port use a 4-pin phoenix connector (supplied).

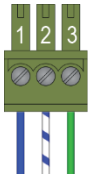


Pin 1: (Not Used)
Pin 2: TX (Transmit)
Pin 3: RX (Receive)
Pin 4: Ground (GND)

Wire colors shown are for pin identificaiton only and do not represent any wiring standard.

RS-232 (Remote Device via HDBaseT)

This port uses a 3-pin phoenix connector (supplied).



Pin 1: TX (Transmit)
Pin 2: RX (Receive)
Pin 3: Ground (GND)

Wire colors shown follow EIA-561 standard.

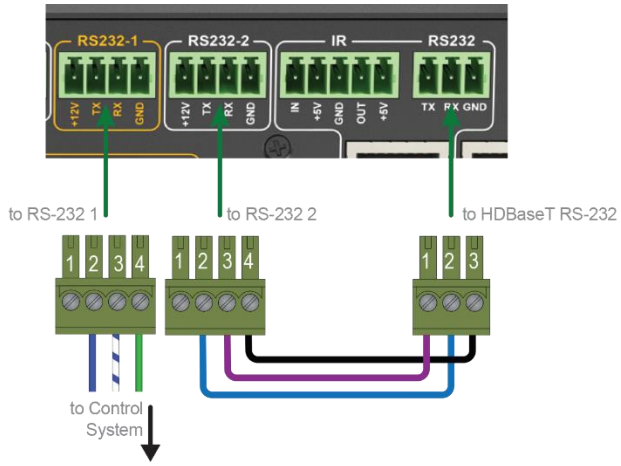
Method 2 - Shared Port for Switcher and Remote Device Control

Use this method for switcher and remote device control when there is a single port available on the control system.

Use Method 1 - Individual Ports for Switcher and Device Control to control the switcher, local, and remote devices via multiple RS-232 ports on the control system.

Note:

This method can only be used if the switcher will not be controlling a local device using RS-232 2 as the port will be used to jump the signal to the HDBaseT RS-232.



RS-232 1 Pinout

Pin 1: (Not Used)
Pin 2: TX (Transmit)
Pin 3: RX (Receive)
Pin 4: Ground (GND)

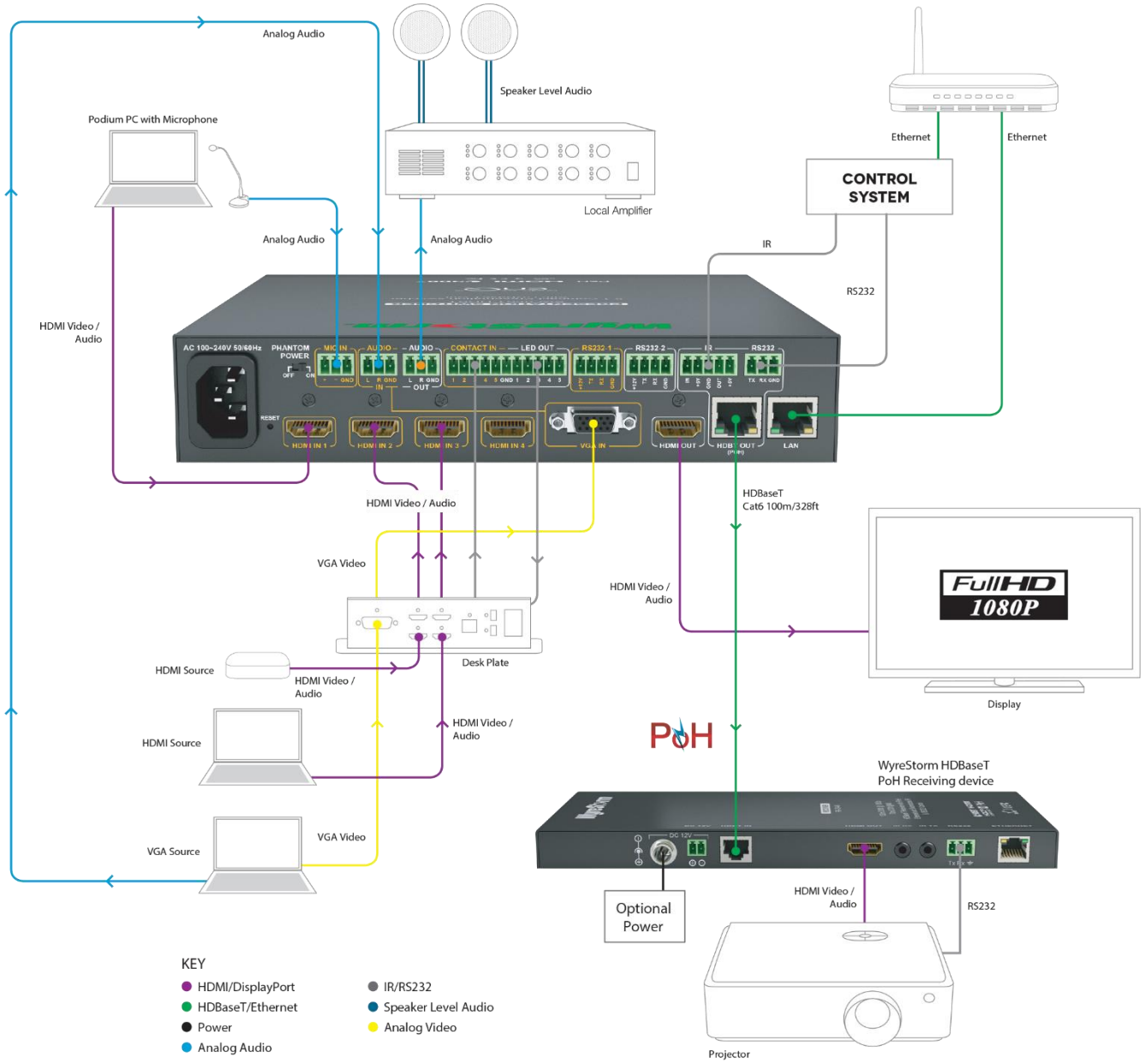
Jumper Pinout

4-pin Connector		3-pin Connector
Pin 1: (Not Used)		
Pin 2: TX (Transmit)	to	Pin 2: RX (Receive)
Pin 3: RX (Receive)	to	Pin 1: TX (Transmit)
Pin 4: Ground (GND)	to	Pin 3: Ground (GND)

Wire colors shown are for pin identification only and do not represent any wiring standard.

3. Installation

Basic Wiring Diagram



Audio/Video Connections

The following steps provide for connection of sources and displays to the switcher for basic operation. After completing these steps, sources can be selected using the front panel buttons. For advanced control using the Web UI, I/O switching devices, or RS-232, see Control and LAN Connections.

⚠ IMPORTANT!

Do not connect or disconnect (hot plug) the HDMI or HDBaseT connections while the switcher is powered on. Doing so may cause damage to the switcher or connected devices.

1. Install the SW-0501-HDBT on a solid flat surface such as a cabinet or rack shelf located in a dry, well ventilated area.
2. Connect the sources to the switcher:

Note:

While not shown, sources may be routed through desk plates located on table or in podiums.

- Connect HDMI sources to **HDMI In** 1-4 using an HDMI cable from a high quality brand such as WyreStorm Express.
- (Optional) Connect the VGA Out from a VGA source to the **VGA In**. Connect the audio out for the VGA source to the **Audio In** using a cable terminated per the Audio In Wiring section.
- (Optional) Connect a microphone to the **Mic In** using a cable terminated per the Microphone Wiring section.

⚠ IMPORTANT!

Verify that Phantom Power switch on the rear panel is set to Off before connecting dynamic (passive) microphones.

- If using a microphone requiring 48V DC to power On, ensure that the Phantom Power switch on the rear panel is set to On position.
- The gain for the microphone can be adjusted using the Mic Gain knob located on the front panel of the switcher.

3. (Optional) Connect the **Audio Out** on the switcher to an input of an Audio Amplifier using a cable terminated per the Audio In Wiring section.
4. Connect the **HDMI Out** to a local display device such as a projector or HDTV.
5. Connect the **HDBaseT Out** on the switcher using a cable terminated per the HDBaseT Wiring section.
6. Connect the opposite end of the HDBaseT cable to a WyreStorm HDBaseT receiver, switcher, or 3rd party display device with built-in HDBaseT receiver.

Control and LAN Connections

While the SW-0501-HDBT may be controlled using the front panel buttons, in most installations this may not be possible due to the switcher being hidden in a rack or cabinet. Control of the switcher in these installations is via either a contact closure switching device or RS-232.

Additional control connections are available to control display devices that are connected to the switcher either locally via HDMI or remotely via HDBaseT.

Local Area Network (LAN) Connection

In order to access the built-in Web UI or send/receive Ethernet signals over HDBaseT, the switcher must be connected to a LAN. There are 2 LAN ports each specific to a function on the switcher.

1. Connect the **LAN** port to an Ethernet router or switch using a high quality Ethernet cable to send/receive Ethernet signals to/from connected HDBaseT transmitters and/or receivers.

   Refer to the Local Area Network (LAN) Wiring section for termination pinouts.

I/O Switching Devices

Contact closure hard button switching devices like those found in presentation podiums may be used to control the switcher. The switcher even has connections for LEDs to indicate the currently selected source.

1. Connect the **Contact In** port on the switcher to the buttons on the I/O control device using a cable terminated per the Remote I/O Control Device Wiring section.
2. Connect the **LED Out** port on the switcher to the LEDs on the I/O control device using a cable terminated per the Remote I/O Control Device Wiring section.

RS-232 Control of Switcher and Connected Devices

There are three RS-232 ports on the SW-0501-HDBT that have various functions and wiring options.
Refer to the RS-232 Wiring section for connection details.

IR Control of Remote and Local Device via HDBaseT

The HDBaseT port supports Bi-directional IR which allows for devices at the remote location to be controlled via IR from the source location. Additionally, devices at the source location can be controlled from the remote location.

1. Connect the **IR** port on the switcher to an IR Receiver and emitter at the switcher location using a cable terminated per the IR Wiring section.

4. Switcher Configuration

IMPORTANT!

The IP Address of the switcher is set to 198.162.1.1 by default. Seeing as this address is also shared with most routers, the switchers IP Address must be changed prior to operation. Perform the steps outlined in First Time Use Configuration before using the switcher for the first time.

First Time Use Configuration

The following steps must be performed before using the switcher.

1. Disconnect the Ethernet cable and disable wireless and restart the PC.
2. Connect the LAN port on the switcher directly into the Ethernet port on a PC and power on the PC.
3. Once the PC starts, open any browser and enter 192.168.1.1 into the address bar.
4. In the open dialog enter the Username and Password.
   Default- Username: **admin** / Password: **admin**
5. In the open window, navigate to **System > Network**.
6. Set the following parameters:

   Before setting a new IP Address ensure that it recorded so that the switcher may be accessed once a new IP Address is set.

IP Mode:	Static
IP Address:	IP Address to set – Must be outside of routers DHCP range.
Netmask:	Netmask used by the router - Usually 255.255.255.0
Gateway:	Gateway used by the router - Usually 0.0.0.0

2. Click **Apply** after entering the above information.
3. Reboot the switcher by power removing power for 10 seconds and then reapplying power.
4. Disconnect the PC from the switcher, enable wireless and/or reconnect the Ethernet port to a router or switch.
5. Connect the LAN connection on the switcher to the same router or switch as the PC.

Accessing the Web User Interface (Web-UI)

Before accessing the Web-UI, ensure that the switcher and PC are on the same network.

To access the Web-UI:

1. Open any browser and enter the IP Address assigned in step 6. Set the following parameters: in the First Time Use Configuration section into the browsers address bar.
2. In the open dialog enter the Username and Password.
   Default- Username: **admin** / Password: **admin**

Configuring Source Auto Switching

By default, the SW-0501-HDBT is set to automatically switch between sources based on signal. If this is not the desired operation, auto switching can be disabled.

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **Functions > Video**
3. Select **Enable** or **Disable** in the Auto Input Signal Detect drop down list.
4. Click **Apply** to save the changes.

Configuring EDID Operation

By default, the switcher resolution output to the display will be based on the display's Extended Display Identification Data (EDID). However, should the need arise, a specific output resolution can be used if the other connected display only supports a lower resolution.

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **Functions > Output Timing**
3. To set the output resolution using the displays EDID:
   A. Select **Auto** in the Output Timing drop down list to set the output resolution using the displays EDID.
   B. Select the resolution in the Output Timing drop down list that matches the lowest resolution supported by both displays.
4. Click **Apply** to save the changes.

Configuring the Audio Output

The Audio Out is disabled by default and the output level can be adjusted to suit the environment.

Enabling / Disabling the Audio Output

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **Functions > Audio**
3. Select Enable in the **Mute** drop down list to turn on the audio out.
   Select Disable to turn off the audio out (default setting).
4. Click **Apply** to save the changes.

Adjusting the Audio Output Level

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **Functions > Audio**
3. Move the slider left to decrease the audio output level and right to increase the level testing the level as it is adjusted. Adjustment Range: -100dB to +12 dB
4. Click **Apply** to save the changes.

Tip:

WyreStorm recommends setting the audio output level to 0dB to start as the output will be at an average level for most environments.

Display Power Management Configuration

The switcher can provide power management of the displays to ensure that they are powered On during presentations. While there are multiple methods available, there are limitations to the combinations based on the displays being used.

Using CEC for Display Power Management

CEC is a function of HDMI where commands to power On (wake up) or power Off (sleep / standby) devices based on the current input selection and the displays power state. This is handy to have when powering On and Off the switcher.

In order to use CEC, the devices used in the system (sources and displays) must be CEC enabled. Refer to the documentation from the manufacturer for verification of CEC operation.

Within the switcher, CEC is always enabled, the only configuration required is the timeout to allow for display devices to power On and Off correctly.

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **Functions > Sink Power Management**
3. Enter a time to delay power On and Off commands to the displays.
   Default: 120sec (2min)
   Range: 0 to 3600sec (60min)
4. Click **Apply** to save the changes.

Using RS-232 for Display Power Management

If CEC is not available on the display devices, RS-232 can be used as alternative should it be available on the device.

RS-232 commands for power On and Off are entered and sent in ASCII format. If the devices being controlled use HEX commands, these commands can be used as well.

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **Functions > Sink Power Management**
3. In the **RS-232 Parameter** field, enter the COM port settings for the device in the following format:
   [Baud Rate]-[Data Bits][Parity][Stop Bits]
   Example: 15200-8n1
4. In the **RS-232 Standby** field, enter the RS-232 command string to power Off (standby) the display.
5. In the **RS-232 Wakeup** field, enter the RS-232 command string to power On (wakeup) the display.
6. In the **RS-232 Hex String Enable** field, select Enable to use Hex string commands for RS-232 control.
7. Click **Apply** to save the changes.

Changing Web-UI Login Password

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **System > Password**
3. In the New Password field, enter the new password ranging from 4 to 16 alphanumeric characters.
   Note that the password is case sensitive.
4. Click **Apply** to save the changes.

Rebooting and Restoring Factory Defaults

To Reboot the Switcher

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **System > Commands**
3. Select **Reboot** to reboot the switcher.
4. Click **Apply** to save the changes.

To Restore Factory Defaults

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **System > Commands**
3. Select **Reset to Factory Defaults** to restore defaults for the switcher.

   Resetting defaults will erase all configured settings and return the switcher to the factory settings including the login password.
4. Click **Apply** to save the changes.

Viewing Switcher Information

The current use status and version information of the switcher can be viewed through the Web –UI.

1. Access the Web-UI. See Accessing the Web User Interface (Web-UI)
2. Navigate to: **System** and scroll down to view the various sections.
   - Status & Statistics – displays the latest source and display information.
   - Version Info – current firmware version installed in the switcher.
   - Log – displays the last 100 recorded operations

5. Switcher Application Programming Interface (API)

The following protocol can be used to control the switcher through the **RS-232-1** port using the outlined commands. Refer to the RS-232 Wiring section for wiring.

COM Port Settings

In the control system set the RS-232 port to the following:

Baud Rate:	9600
Parity:	None
Data Bit:	8
Stop Bit:	1

Commands

Source Selection

Description:	Selects a specific source as the current input.
Structure:	gbconfig --source-select=[value]<CR>
Accepted Values:	HDMI1 HDMI2 HDMI3 HDMI4 VGA1
Response:	None
Example:	gbconfig --source select=HDMI1<CR>

Source Selection Inquiry

Description:	Requests the currently selected source.
Structure:	gbconfig --show --source select<CR>
Response:	HDMI1 HDMI2 HDMI3 HDMI4 VGA1
Example:	gbconfig --show --source select<CR>

6. Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that sources are powered On and playing content.
- Verify that power is connected to the switcher and HDBaseT receiving device. If using a display with a built in receiver, verify that the device is powered On.
- Verify that the switcher supports the output resolution of the source. See Supported Video Resolutions.
- Verify that the receiving device and display support the output resolution of the source. If the output resolution of one of the connected displays is lower than the other, follow the step outlined in the Configuring EDID Operation section.
- Verify that the HDBaseT cable is properly terminated per the HDBaseT Wiring section.
- Verify that all source and HDBaseT connections are not loose and are functioning properly.

No or Poor Quality Audio

- Verify that sources are powered On and playing content.
- Verify that all source and HDBaseT connections are not loose and are functioning properly.
- Verify that all cables are properly terminated per the appropriate wiring section:
  - HDBaseT: HDBaseT Wiring
  - Microphone: Microphone Wiring
  - Analog In: Audio In Wiring
  - Audio Out: Audio Out Wiring

Tip:

WyreStorm recommends using a cable tester or connecting the cable to others devices to verify functionality.

Contacting Technical Support

Should further clarification of the content of this manual or assistance on troubleshooting be required, please contact WyreStorm technical support.

North America: 844.280.WYRE (9973)

EMEA/ROW: 44 (0) 1793 230 343

support@wyrestorm.com

7. Warranty and Service

This product is covered by a 3 year limited parts and labor warranty. During this period there will be no charge for unit repair, component replacement or complete product replacement in the event of malfunction. The decision to repair or replace will be made by the manufacturer. This limited warranty only covers defects in materials or workmanship and excludes normal wear and tear or cosmetic damage.

Visit the product page located at wyrestorm.com for additional information on this product including important technical information not provided in this document and warranty terms & conditions.

Warranty Limits & Exclusions

1. This Limited Warranty ONLY COVERS failures due to defects in materials or workmanship and DOES NOT COVER normal wear and tear or cosmetic damage.

   The limited warranty also DOES NOT COVER damage that occurs in shipment or failures caused by products not supplied by the warrantor, failures resulting from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, incorrect installation, set-up adjustment, implementation of/to consumer controls, improper maintenance, power line surge, lightening damage, modification, service by anyone other than a manufacturer-approved service center or factory-authorized personnel, or damage attributable to acts of God.

2. There are no express warranties except as listed under “limited warranty coverage.” The warrantor is not liable for incidental or consequential damage resulting from the use of this product or arising out of any breach of this warranty.

   For example: damages for lost time, the cost of having a person/persons remove or re-install previously installed equipment, travel to and from service location, loss of or damage to media, images, data or other recorded/stored content. The items listed here are not exclusive, but are for illustration only.

   Parts and service not covered by this limited warranty are not the responsibility of the warrantor and should be considered the responsibility of the individual.

Obtaining Warranty Service

Prior to returning a WyreStorm product for factory service, a service authorization must be obtained from a WyreStorm technical support representative. At the time of contact an address for shipping and an authorization number will be supplied. Refer to Contacting Technical Support for contact information.

When shipping a unit for service, carefully pack in the original packaging when available and send it prepaid, with adequate insurance. Please include a document or letter detailing the reason for return and include a daytime telephone number and/or email address where you can be contacted.

If repair is required during the limited warranty period, the purchaser will be required to provide a sales receipt or other proof of purchase, indicating date and location of purchase as well as the price paid for the product. The customer will be charged for the repair of any unit received unless such information is provided.

8. Glossary of Terms

AC	Alternating Current
API	Application Programming Interface
A/V	Audio/Video
CEC	Consumer Electronics Control
CR	Carriage Return
DC	Direct Current
DVD	Digital Versatile Disc
EDID	Extended Display Identification Data
ESD	Electro-Static Discharge
GUI	Graphical User Interface
HDBT	HDBaseT
HDCP	High-bandwidth Digital Content Protection
HDMI	High Definition Multimedia Interface
IP	Internet Protocol
IR	Infrared
LAN	Local Area Network
PC	Personal Computer
PoH	Power over HDBaseT
TCP	Transmission Control Protocol
UDP	User Datagram Protocol
USB	Universal Serial Bus
VGA	Video Graphics Array

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