

# 4-Input 4K HDBaseT Presentation Switcher with Matrix Outputs, USB 2.0, Multiview & Wireless Casting

## SW-640L-TX-W



## Quickstart Guide

💡 WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.



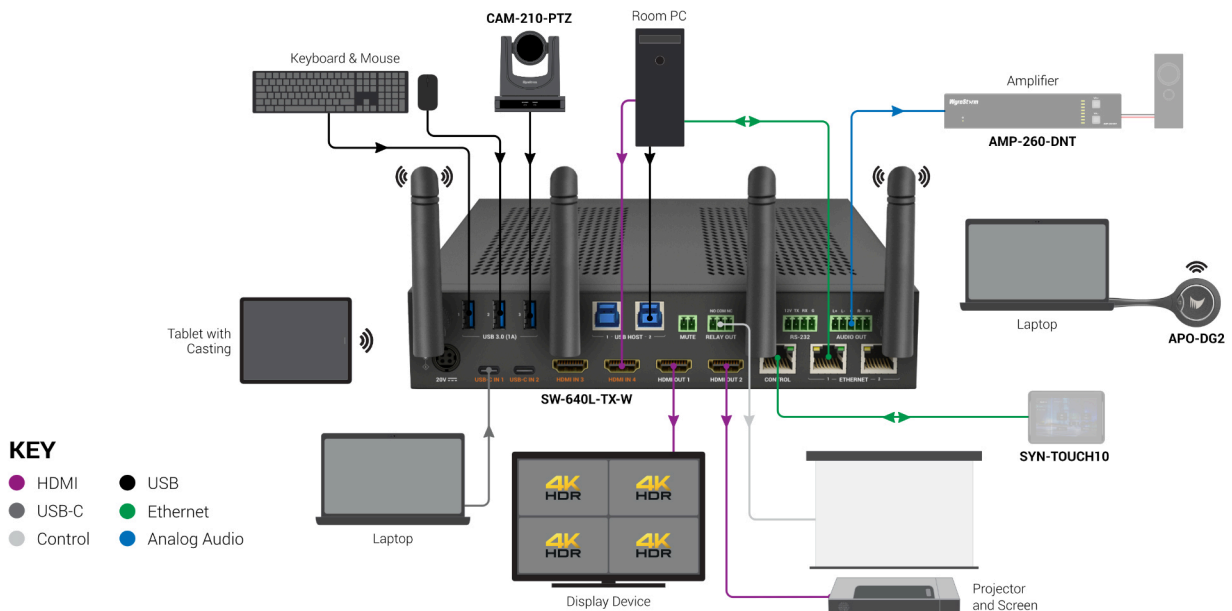
### ⚠️ IMPORTANT! Installation Requirements

- Read through the [Wiring and Connections](#) section for important wiring guidelines before creating or choosing premade cables.
- While these products support CEC for the HDMI outputs, WyreStorm cannot guarantee compatibility with all forms of CEC communication.
- Visit the product pages to download the latest firmware, document version, additional documentation, and configuration tools.

### In the Box

- 1x SW-640L-TX-W
- 1x 12V 9A Power Supply (US/UK/EU/AU)
- 2x Mounting Brackets
- 1x 2-pin Phoenix Connector (for PA Sensor)
- 1x 3-pin Phoenix Connector (for Relay)
- 1x 4-pin Phoenix Connector (for RS-232)
- 1x 5-pin Phoenix Connector (for Audio Out)
- 4x Wi-Fi Antennas
- 1x Quickstart Guide (This Document)

### Basic Wiring Diagram



## 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 its entirety before running or terminating any wires to ensure proper operation and to avoid damaging the equipment.

### ⚠ IMPORTANT! Wiring Guidelines

- The use of patch panels, wall plates, cable transmitters, kinks in cables, and electrical or environmental interference will have an adverse effect on signal transmission which may limit performance. Steps should be taken to minimize or remove these factors completely during installation for best results.
- WyreStorm recommends using pre-terminated HDMI, USB and Ethernet 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.
- This product contains a USB-C connection that can be used as an audio/video input. When using this connection verify that the USB-C cable used supports audio/video functionality as not all USB-C cables support this requirement.

## Audio Connections

A 5-pin Phoenix connector is used for balanced stereo audio output.

WyreStorm Connector	3rd Party Device
Pin 1 Left Positive (L+)	Left Positive (L+)
Pin 2 Left Negative (L-)	Left Negative (L-)
Pin 3 Ground (G)	Ground (G)
Pin 4 Right Positive (R+)	Right Positive (R+)
Pin 5 Right Negative (R-)	Right Negative (R-)

## Relay Connections

The relays can be used to be trigger devices such as projector screens that are Normally Open (NO) or Normally Closed (NC).

WyreStorm Connector	3rd Party Device
Pin 1 NO (Normally Open)	NO (Normally Open)
Pin 2 Common (Ground)	Common (Ground)
Pin 3 NC (Normally Closed)	NC (Normally Closed)

## Mute Connections

Designed to be connected to button. Once these two pins are connected the audio will be muted on HDMI out and analog out.

## 4-Pin Phoenix Terminal

WyreStorm Connector	3rd Party Device
Pin 1 12V DC Out	No Connection Reserved
Pin 2 TX (Transmit)	RX (Receive)
Pin 3 RX (Receive)	TX (Transmit)
Pin 4 G (Ground)	G (Ground)

## RS-232 and IP Settings

<b>Baud Rate:</b>	115200
<b>Data Bits:</b>	8bits
<b>Parity:</b>	None
<b>Stop Bits:</b>	1bit
<b>Flow Control:</b>	None
<b>Default IP Address:</b>	DHCP
<b>Default IP Port:</b>	24

## Communication Connections

### RS-232 Wiring

The SW-640L-TX-W uses a 3-pin RS-232 with no hardware flow control. Most control systems and computers are DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionality to ensure that the correct connections can be made.

## Setup and Configuration

The SW-640L-TX-W is configured using RS-232 or IP commands for Output Resolution, and EDID. Follow these steps to properly configure the Switcher based on the system requirement.

**Note:** The steps and information provided in this QSG are for basic operation of the Switcher out of the box. Refer to the SW-640L-TX-W API for full configuration settings.

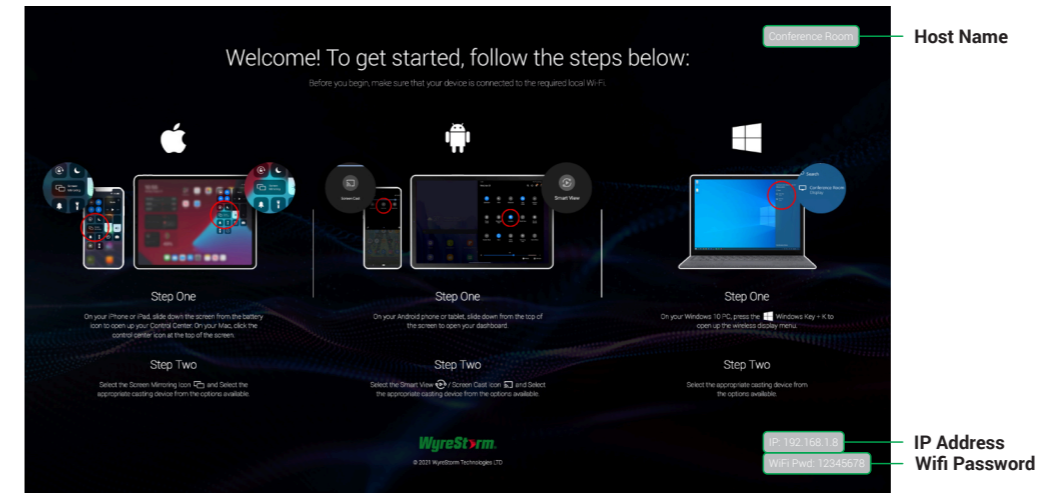
- Assign a Static IP Address to ensure proper communication on an IP Network.
- Set EDIDs to be used at each input of the device.

## Communication Settings

The SW-640L-TX-W contains a web UI that can be accessed by connecting to a network and entering the IP address. We recommend that the IP address is changed from default before accessing the web UI for the first time.

## Guide Screen

The switcher uses a Guide Screen to convey the basic connection instructions for user access. The Guide Screen can be personalized to allow custom connection instructions on the switcher's Web UI page.



## Troubleshooting

### No or Poor Quality Picture (snow or noisy image)

- Verify that the USB-C & HDMI inputs and HDMI output connections are not loose and are functioning properly.
- Make sure you are using full featured USB Type-C cables made by WyreStorm or other reliable brands.
- Verify that the output resolution of the source and display is supported by this switcher.
- Configure EDID Settings to a lower resolution.
- If transmitting 4K, verify that the HDMI & USB-C cables used are 4K rated.

### No or Intermittent 3rd party Device Control

Verify that RS-232 cable is properly terminated. If you are using IP control make sure switcher and your control system are on the same IP range.

### Relays Not Functioning

Verify polarity of the relay connections

### 🔍 Troubleshooting Tips:

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



This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The distance between user and products should be no less than 20cm.



We declare that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

Manufacturer: Shen Zhen Proitav Technology Co.,Ltd  
Address: 301-401, Building 16, Hejing Industrial Park, No.87, Hexiu west Road, Heping Community, Fuhai street, Baoan District, Shenzhen, China

Accessory Manufacturer: ShenZhen Tianweixun Wireless Technology Co., Ltd  
Adapter: Antenna  
Address of Manufacturer: 9/F, Building 1, Guole Science and Technology Park, No. 1 Lirong Road, Dalang Street, Longhua New District, Shenzhen

Accessory Manufacturer: Dongguan NB Power Electronic Limited  
Adapter: Power supply  
Address of Manufacturer: No.365, South Dongkeng Road, Dongkeng Town, Dongguan City, 523443, P. R. China  
The adapter shall be installed near the equipment and shall be easily accessible.

Accessory Manufacturer: Shenzhen Ohonda Technology Co., LTD  
Adapter: Terminal block  
Address of Manufacturer: Room 609, Block D, Hongtaifu Building, Zone No.34, Baoan District, Shenzhen

Operating temperature: 0°C to 45°C

Wi-Fi Operation Frequency: 2412MHz~2472MHz  
Maximum Power: 16.74dBm(E.I.R.P)

## Specifications

Audio and Video	
<b>Inputs</b>	2x HDMI In: 19-pin Type A 2x USB-C Wireless Video from Airplay or Miracast Source
<b>Outputs</b>	2x HDMI Out: 19-pin Type A 1x Analog Audio Out (5-pin Phoenix Male Connector)
<b>Output Video Encoding</b>	HDMI
<b>Audio Formats</b>	2ch PCM
<b>Video Resolutions (Max)</b>	3840x2160p @30Hz 8bit 4:4:4
<b>Supported Standards</b>	DCI   RGB
<b>Maximum Pixel Clock</b>	300MHz
Communication and Control	
<b>HDMI</b>	HDMI   HDCP 2.2   EDID
<b>USB</b>	3x USB 2.0 Type A device ports   5v 500mA per port 2x USB 2.0 Type B host ports (assignable)
<b>RS-232</b>	1x 4-pin Phoenix (API control)   Provides 12V Power
<b>LAN</b>	2x 8-pin RJ-45 for API Control (Telnet, TLS, HTTP/HTTPS for webUI)
<b>Wireless</b>	4x Wi-Fi Antennas   IEEE 802.11 a/b/g/n/ac   Dual-band 2.4 & 5GHz   WEP, TKIP, AES, WPA, WPA2
Power	
<b>Power Supply</b>	20V
Environmental	
<b>Operating Temperature</b>	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
<b>Storage Temperature</b>	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing
<b>Maximum BTU</b>	82 BTU/hr
Dimensions and Weight	
<b>Rack Units/Wall Box</b>	<1U
<b>Height</b>	25mm/0.98in (Antennas Excluded)   180mm/7.08in (Antennas Included)
<b>Width</b>	215mm/8.46in (Antennas Excluded)   215mm/8.46in (Antennas Included)
<b>Depth</b>	140.2mm/5.51in (Antennas Excluded)   180mm/7.08in (Antennas Included)
Regulatory	
<b>Safety and Emission</b>	CE   FCC   RoHS   RCM   EAC   UKCA

**Note:** WyreStorm reserves the right to change product specification, appearance or dimensions of this product at any time without prior notice.

## Warranty Information

WyreStorm Technologies ProAV Corporation warrants that its products to be free from defects in material and workmanship under normal use for a period of five (5) years from the date of purchase. Refer to the Product Warranty page on [wyrestorm.com](http://wyrestorm.com) for more details on our limited product warranty.

