

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.

Audio Connections

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

WyreStorm Connector		3rd Party Device
1	2	Left Positive (L+)
3	4	Left Negative (L-)
5		Ground (G)
		Right Negative (R-)
		Right Positive (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
1	2	NO (Normally Open)
3		Common (Ground)
		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.

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.

4-Pin Phoenix Terminal

WyreStorm Connector		3rd Party Device
1	2	12V DC Out
3	4	12V Power
		TX (Transmit)
		RX (Receive)
		G (Ground)
		G (Ground)

Setup and Configuration

Access the SW-640L-TX-W's settings through its Web User Interface by entering the unit's IP address into your preferred web browser. By default, the unit is configured to use DHCP for network connection.

The obtain the IP address of your SW-640L-TX-W:

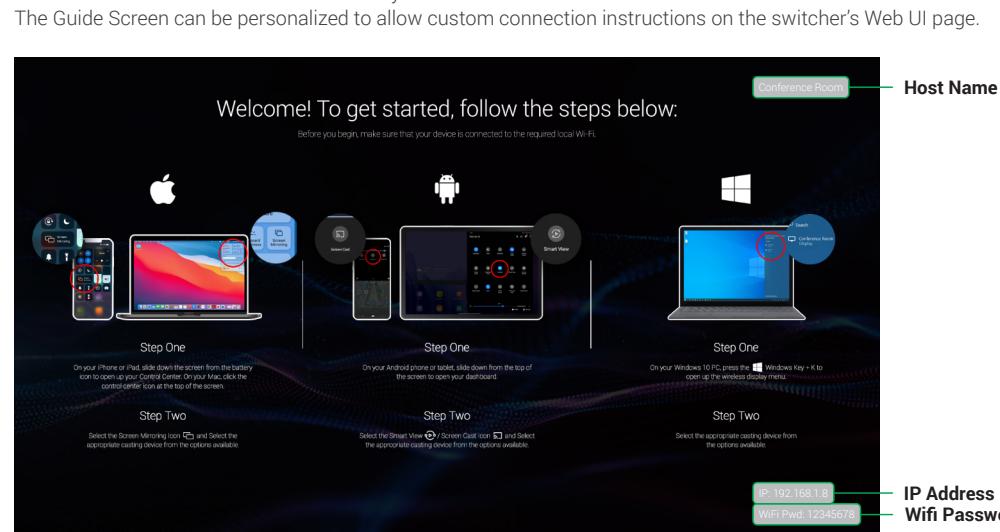
- Connect an external display to the HDMI output
- A guide screen will appear on the display, where you can find the current IP address of the unit.

RS-232 and IP Settings

Baud Rate:	115200
Data Bits:	8bits
Parity:	None
Stop Bits:	1bit
Flow Control:	None
Default IP Address:	DHCP
Default IP Port:	23

Guide Screen

The switcher uses a Guide Screen to convey the basic connection instructions for user access.



Features

- Provides two USB-C and two HDMI inputs, plus two HDMI outputs
- USB-C Inputs support charging up to 60W, Ethernet connection, and USB 3.0 transmission
- Supports two HDMI outputs in single view, or one HDMI output in up to quadruple view
- Supports input resolutions up to 4K@30Hz 4:4:4
- Supports output resolutions up to 4K@60Hz 4:4:4 (HDMI OUT 1 only)
- Fast switching for both single and Multiview mode
- Built-in Wi-Fi modules for wireless connectivity with devices over Airplay Mirroring, Miracast, Dongle and Chromecast
- Supports wireless conference (using Dongle for connecting between the host PC and USB peripherals wirelessly)
- Built-in quintuple USB 3.0 switcher allows for USB switching among five USB hosts
- Three Ethernet ports for networking flexibility and security
- RS-232 and relay output for peripherals
- Detailed and friendly OSD information
- Multiple control approaches: front panel buttons, Web UI and Telnet API



Manufacturer: WyreStorm Technologies ProAV Corporation
Address: 27 Wood Road, Suite 100, Round Lake, NY 12151
Model: SW-640L-TX-W



This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. FCC ID:2BAXS-SW640LTXW

WiFi Operation Frequency:
2.4G: 2412MHz~2462MHz
5G: 5150MHz~5250MHz
5.8G: 5725MHz~5850MHz

Maximum Power:
802.11n/MCS7 : 14 dBm ± 2 dB
802.11ac/MCS8 : 13 dBm ± 2 dB
802.11ac/MCS9 : 12 dBm ± 2 dB

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.

Wireless Casting Issues

- Make sure your BYOD is connected to the SW-640L-TX-W soft AP, by default is set as SW-640L-TX-W or to the same network.
- Make sure you entered the correct access code which can be obtained through OSD.

Troubleshooting Tips:

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

Specifications

Audio and Video	
Inputs	2x HDMI In: 19-pin Type A 2x USB-C Wireless Video from Airplay or Miracast Source APO-DG2 casting dongle (sold separately)
Outputs	2x HDMI Out: 19-pin Type A 1x Analog Audio Out (5-pin Phoenix Male Connector)
Output Video Encoding	HDMI
Audio Formats	2ch PCM
Video Resolutions (Max)	USB-C In - 3840x2160p @30Hz 4:4:4 HDMI In - 3840x2160p @30Hz 4:4:4 HDMI Out 1 - 3840x2160p @60Hz 4:4:4 HDMI Out 2 - 3840x2160p @30Hz 4:4:4
Supported Standards	DCI RGB
Maximum Pixel Clock	300MHz
Communication and Control	
HDMI	HDMI Out 1 - HDCP 2.2 HDMI In & HDMI Out 2 - HDCP 1.4
USB	3x USB 3.0 Type A device ports 5v 1000mA per port 2x USB 3.0 Type B host ports (assignable)
RS-232	1x 4-pin Phoenix (API control) Provides 12V Power
LAN	3x 8-pin RJ-45 Ethernet Ports
Wireless	4x Wi-Fi Antennas IEEE 802.11 a/b/g/n/ac Dual-band 2.4 & 5GHz WEP, TKIP, AES, WPA, WPA2 WiFi Operation Frequency: 2.4G: 2412MHz~2462MHz 5G: 5150MHz~5250MHz 5.8G: 5725MHz~5850MHz Maximum Power: 802.11n/MCS7 : 14 dBm ± 2 dB 802.11ac/MCS8 : 13 dBm ± 2 dB 802.11ac/MCS9 : 12 dBm ± 2 dB
Power	
Power Supply	20V 10A
Environmental	
Operating Temperature	0 to + 45°C (32 to + 113 °F), 10% to 90%, non-condensing
Storage Temperature	-20 to +70°C (-4 to + 158 °F), 10% to 90%, non-condensing
Maximum BTU	540 BTU/hr
Dimensions and Weight	
Rack Units/Wall Box	<1U
Height	42mm/1.65in (Antennas Excluded) 90.9mm/3.57in (Antennas Included)
Width	215mm/8.46in (Antennas Excluded) 215mm/8.46in (Antennas Included)
Depth	180.2mm/7.1in (Antennas Excluded) 210.7mm/8.3in (Antennas Included)
Weight	1.2Kg/3.74lbs
Regulatory	
Safety and Emission	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 for more details on our limited product warranty.



4-Input 4K Presentation Switcher with Matrix Outputs, USB 3.0, Multiview & Wireless Casting

SW-640L-TX-W

WyreStorm
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 20V 10A Power Supply (US/UK/EU/AU)
- 4x Plastic 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

