

4K Presentation Switcher with 2-Inputs, advanced USB-C integration, 100W USB-C Power Delivery, Multi-Stream Transport, Multiview & Wireless Casting

SW-620-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.



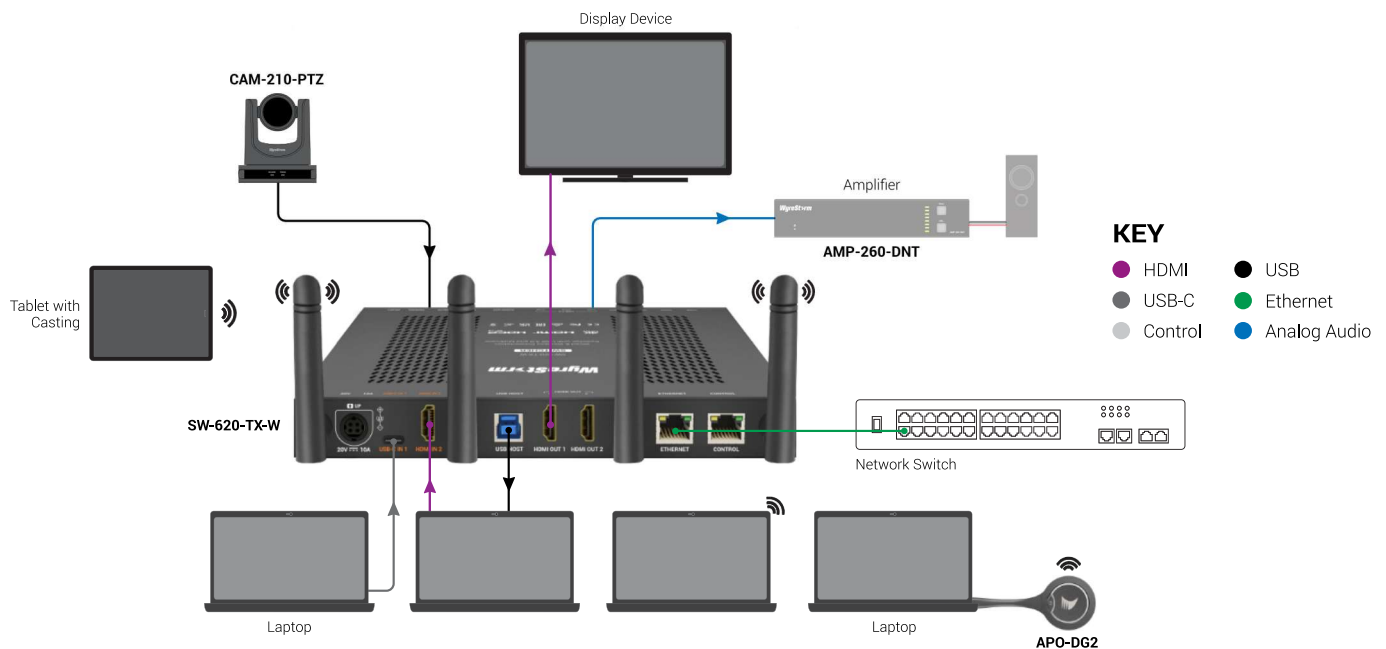
⚠️ IMPORTANT! Installation Requirements

- 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-620-TX-W
- 1x Power adapter 20V/10A DC
- 4x AC cables, US, EU, UK, AU specifications respectively
- 1x 2-Pin Phoenix connector for MUTE port
- 1x 4-Pin Phoenix connector for RS232
- 1x 5-Pin Phoenix connector for analog audio output
- 4x Wi-Fi antennas
- 4x Mount brackets with screws
- 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.

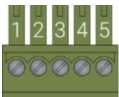
 IMPORTANT! Wiring Guidelines

- 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.

5-Pin Phoenix Terminal

	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 Negative (R-)	Right Negative (R-)
	Pin 5	Right Positive (R+)	Right Positive (R+)

Mute Connections

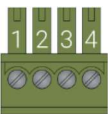
Designed to be connected to button. Once these two pins are connected the audio will be muted on HDMI out and analog out.

Communication Connections

RS-232 Wiring

The SW-620-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
	Pin 1	12V DC Out	Reserved
	Pin 2	TX (Transmit)	RX (Receive)
	Pin 3	RX (Receive)	TX (Transmit)
	Pin 4	G (Ground)	G (Ground)

Setup and Configuration

Access the SW-620-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.

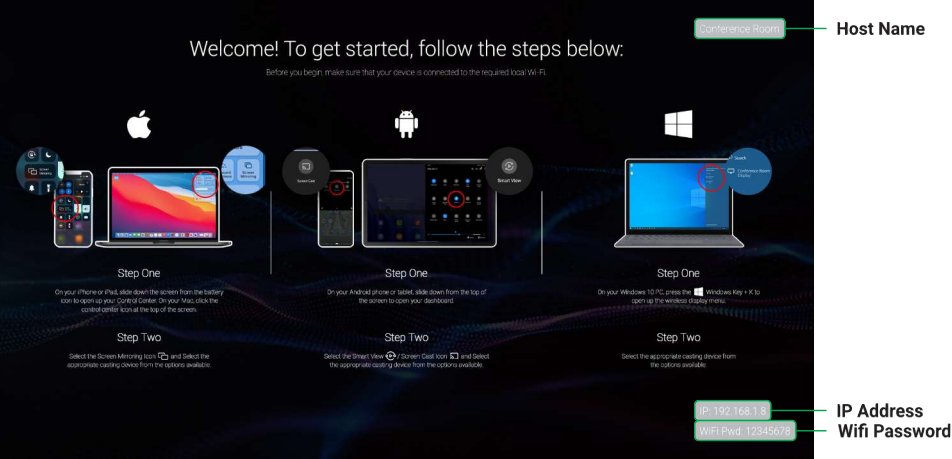
- The obtain the IP address of your SW-620-TX-W:
1. Connect an external display to the HDMI output
 2. A guide screen will appear on the display, where you can find the current IP address of the unit.

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.
- Guide Screen info and background can be personalized in Web UI to allow custom connection instructions and background image.
- This Guide Screen image can be changed through Web UI. By default, if the device is outputting Guide Screen picture for 60 seconds, a 60-second OSD countdown will appear on the Guide Screen. When the countdown reaches zero, the device will enter standby status, this can be changed via web UI.



Features

- Provides a USB-C and HDMI input, plus two HDMI outputs.
- USB-C Input supports dual-video input (MST), charging up to 100W, Ethernet connection, and USB 3.0 transmission.
- Supports two HDMI outputs in single view, or one HDMI Multiview output.
- Supports input resolutions up to 3840x2160@30Hz 4:4:4 and output resolutions up to 3840x2160@60Hz 4:4:4 (HDMI OUT 1 only).
- Fast seamless switching for both single and Multiview mode.
- Built-in Wi-Fi modules for wireless connectivity with devices over Airplay Mirroring, Miracast, APO-DG2, APO-DG2-PRO.
- Supports wireless conference (using Dongle for connecting between the host PC and USB peripherals wirelessly).
- Built-in USB 3.0 switcher allows USB switching among 2 USB hosts and Wireless dongles (APO-DG2, APO-DG2-PRO).
- 2 Ethernet ports for networking flexibility/security and Ethernet passthrough to USB-C and USB-B hosts.
- Detailed and friendly OSD information.



Manufacturer: WyreStorm Technologies ProAV Corporation
Address: 27 Wood Road, Suite 100, Round Lake, NY 12151
Model: SW-620-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-SW620TXW

NOTE: 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.

Warning: 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.

WiFi Operation Frequency:	Maximum Power:
2.4G: 2412MHz~2462MHz	14.89 dBm (E.I.R.P.)
5G: 5180MHz~5240MHz	16.38 dBm (E.I.R.P.)
5.8G: 5745MHz~5805MHz	10.81 dBm (E.I.R.P.)

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-620-TX-W-XXXX" soft AP SSID ("XXXX" are the last 4 characters of devices MAC address).
- Make sure you entered 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	1x HDMI: 19-pin type A, up to 3840x2160@30Hz 4:4:4 1x USB-C: Video input with MST, up to 2x 3840x2160@30Hz 4:4:4 Wireless Video: APO-DG2, APO-DG2-PRO (1920x1080@60Hz 4:4:4, 3840x2160@30Hz 4:4:4), Airplay or Miracast source (1920x1080@60Hz 4:4:4)
Outputs	2x HDMI: 19-pin type A, Output 1 – 3840x2160@60Hz 4:4:4, Output 2 – 3840x2160@30Hz 4:4:4, 1x Analog Audio Output (5-pin Phoenix Male Connector)
Output Video Encoding	HDMI
Audio Formats	2ch PCM
Supported Standards	DCI RGB
Maximum Pixel Clock	300MHz (600MHz on HDMI OUT1)
Communication and Control	
HDMI	HDMI CEC HDCP 2.3 EDID
RS-232	1x 4-pin Phoenix (API control) Provides 12v power
USB	3 x USB 3.0 Type A device ports 5v 1000mA per port 1 x USB 3.0 Type B host port (assignable) 1 x USB 3.0 Type-C port
LAN	2x 8-pin RJ-45 for API control (Telnet, TLS, HTTP/HTTPS for webUI)
Wireless	4x Wi-Fi Antennas IEEE 802.11 a/b/g/n/ac Dual-band 2.4 & 5GHz WEP, TKIP, AES, WPA, WPA2 Max E.I.R.P. :16.38 dBm (43.45mW) WiFi Operation Frequency: Maximum Power: 2.4G: 2412MHz~2462MHz 14.89 dBm (E.I.R.P.) 5G: 5180MHz~5240MHz 16.38 dBm (E.I.R.P.) 5.8G: 5745MHz~5805MHz 10.81 dBm (E.I.R.P.)
Power	
Power Supply	20V 10A
Max Power Consumption	132W
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	450 BTU/hr
Dimensions and Weight	
Rack Units/Wall Box	<1U
Height	25mm/0.98in
Width	215mm/8.46in
Depth	160mm/6.30in
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.

