2x1 HDMI/VGA Smart Switch with CEC Control

SW-0201-4K

WyreStorm

Quickstart Guide

Compact device to switch a VGA or HDMI source to a single HDMI output. CEC-Link ensures the sink device is powered on during use.
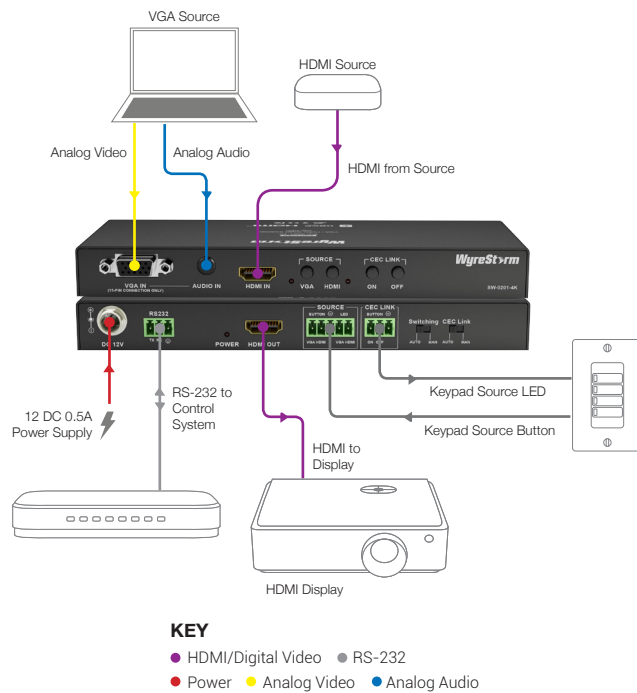
💡 WyreStorm recommends reading through this document in its entirety to become familiar with the product's features prior to starting the installation process.

4K HDMI HDCP

In the Box
1x SW-0201-4K Smart Switch
1x 12V DC 0.5A Power Supply (US/UK/EU)
2x 3-pin Screw Down Phoenix Connector
1x 5-pin Screw Down Phoenix Connector
2x Mounting Brackets
1x Quickstart Guide (this document)

Basic Wiring Diagram

KEY
- HDMI/Digital Video ● RS-232
- Power ● Analog Video ● Analog Audio

⚠ **IMPORTANT!**
Do not connect or disconnect (hot plug) the HDMI, or HDBaseT connections while the transmitter or receiver is powered on. Doing so may cause damage to the units or connected devices.

Additional Information
This Quickstart Guide provides the basic steps for the common uses of this product. Refer to the Installation Guide and other documentation on the product page for additional information.

Installation

Before Beginning
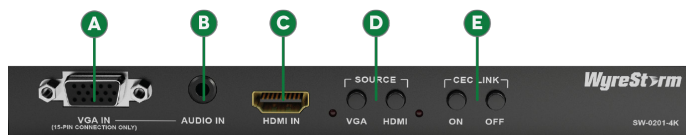Verify that all items are included in the packaging per the In The Box list.

Pre Wire
1. (Optional) If using VGA with Audio, run the wire and terminate per the Audio In Wiring section.
2. (Optional) If using RS-232 to control the switcher, run the wire and terminate per the RS-232 Wiring section.
3. (Optional) If using a keypad or panel switch to control the switcher, run the wire and terminate per the Source Contact Closure Wiring section.
4. (Optional) If using a keypad or panel switch to turn CEC On/Off, run the wire and terminate per the CEC Contact Closure Wiring section.

Installation
1. Connect an HDMI source to the **HDMI In** on the transmitter using an HDMI cable from a high quality brand such as WyreStorm Express. Refer to the HDMI Wiring section for important HDMI wiring guidelines.
2. (Optional) Connect the VGA Out from a VGA source to a **VGA In** on the switcher. Connect the audio out for the VGA source to the **Audio In** using the cable created in Pre Wire step 1.
3. (Optional) Connect the 3-pin connector to the **RS-232** port on the switcher and the opposite end to a port on a control system using the cable created in Pre Wire step 2.
4. (Optional) Connect the 5-pin connector to the Source port on the switcher and the opposite end to a keypad or panel switch using the cable created in Pre Wire step 3.
5. (Optional) Connect the 3-pin connector to the **CEC Link** port on the switcher and the opposite end to a keypad or panel switch using the cable created in Pre Wire step 4.
6. Connect the included 12V DC 0.5A power supply to the DC 12V input.

Front Panel

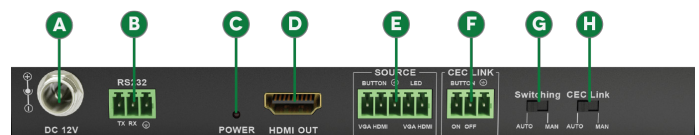|		
A	VGA In	15-pin VGA VESA (D-SUB 15): Connect to D-SUB 15 VGA output of a device such as a computer. 15-pin VGA cable is required.
B	Audio In	3.5mm (1/8in) Stereo Jack Connect to the analog audio output of a device to send audio over HDBaseT.
C	HDMI In	19-pin type A HDMI female digital video/audio: Supports HDMI and DVI/D (requires adapter-not included). Limited to 297MHz pixel clock
D	Source	Press **VGA** to select the VGA source. Press **HDMI** to select the HDMI source. LED next to source will illuminate when selected.
E	CEC Link	**On:** Enables CEC to be used to control power of a connected display device. **Off:** Disables CEC from being used to control power of a connected display device.

Rear Panel

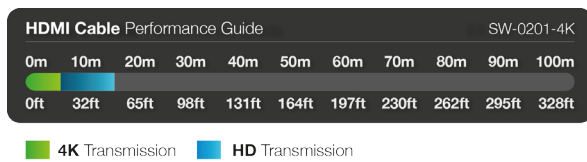|		
A	Power In	5.5mm Male Barrel Jack Connect to the included 12V DC 0.5A power supply.
B	RS-232	3-pin Screw Down Phoenix Connector Used to send and receive RS-232 signals to/from the source location via HDBaseT and firmware updates. See RS-232 Wiring.
C	Power LED	**Solid:** The transmitter is powered On **Off:** The transmitter is powered Off
D	HDMI Out	19-pin type A HDMI female digital video/audio: Supports HDMI and DVI/D (requires adapter-not included). Limited to 297MHz pixel clock
E	Source Contact Closure	5-pin Screw Down Phoenix Connector Connect to a remote I/O control device such as a keypad or panel switch for selecting inputs remotely. See Source Contact Closure Wiring.
F	CEC Link Relay	5-pin Screw Down Phoenix Connector Connect to a remote I/O control device such as a keypad or panel switch for turning a CEC-compatible display device On or Off remotely. See CEC Contact Closure Wiring.
G	Switching	**Auto:** Enables auto switching between inputs based on source power state. HDMI has priority over VGA. **Man:** Enables auto switching and enables manual selection using front panel buttons and source relay via remote keypad or panel switch.
H	CEC Link	**Auto:** Enables automatic CEC power control of the connected display device. **Man:** Enables manual CEC power control of the connected display device using front panel buttons and CEC relay via remote keypad or panel switch.

HDMI Wiring

HDMI Cable Performance Guide   SW-0201-4K

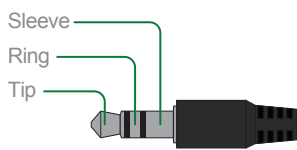| 0m	10m	20m	30m	40m	50m	60m	70m	80m	90m	100m
0ft	32ft	65ft	98ft	131ft	164ft	197ft	230ft	262ft	295ft	328ft

4K Transmission   **HD** Transmission

⚠ **IMPORTANT! Wiring Guidelines**
- In order to transmit 4K@60Hz, the HDMI In cable can be no longer than 3m/9.8ft and the HDMI Out no longer than 5m/ 16.4ft.

- The use of patch panels, wall plates, cable extenders, kinks in cables, and electrical or environmental interference can have an adverse effect on HDMI transmission limiting performance. Steps should be taken to minimize these factors (or remove completely) during installation for best results.
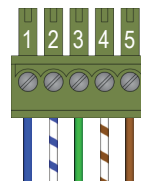
Audio In Wiring

Connection for Audio In uses a 3.5mm (1/8in) stereo connector.

Sleeve
Ring
Tip

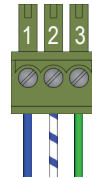| Sleeve: | Ground (GND) |
| Ring: | Right Channel |
| Tip: | Left Channel |

Source Contact Closure Wiring

Pin 1:	VGA Button + (Positive)
Pin 2:	HDMI Button + (Positive)
Pin 3:	Ground (GND)
Pin 4:	VGA LED + (Positive)
Pin 5:	HDMI LED + (Positive)

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

CEC Contact Closure Wiring

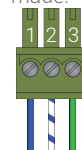| Pin 1: | CEC On |
| Pin 2: | CEC Off |
| Pin 3: | Ground (GND) |

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

RS-232 Wiring

RS-232 Connection Guidelines
The following wiring diagram shows the pinouts for the Transmitter. 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 DTE where pin 2 is RX, this can vary from device to device. Refer to the documentation for the connected device for pin functionally to ensure that the correct connections can be made.

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

Wire colors shown follow EIA-561 standard.

North America: 518-289-1294 | EMEA/ROW: 44 (0) 1793 230 343
support@wyrestorm.com

Specifications

Audio and Video

Audio Formats	2ch analog and Up to 7.1 DTS Master HD and Dolby True HD
Maximum Video Resolution	**HDMI:** 1920x1080@60Hz (1080p60) 4096x2160@60Hz 4:2:0 (4K) **VGA:** 1920x1200@60Hz
3D Support	Blu-ray: Frame packing/sequential Satellite/Cable: Interlaced stereoscopic
Color Depth	VGA: 8bit | 1080p: 12bit | 4K: 8bit
Maximum Pixel Clock	**HDMI:** 340MHz **VGA:** 165MHz

Communication and Control

HDMI	HDCP | EDID | CEC DVI/D supported with adapter (not included)
CEC	Power Management for display connected via HDMI
RS-232	Switcher Control | Firmware Updates
Contact Closure	Switcher Input Selection with LED Feedback
Front Panel Buttons	Switcher Input Selection with LED Feedback

Power

Power Supply	Input: 100~240V AC 50/60Hz Output: 12V DC 0.5A
Max Power Consumption	1.5W

Environmental

Operating Temperature	32°F ~ 113°F (0°C ~ 45°C) 10% ~ 90%, non-condensing
Storage Temperature	-4°F ~ 140°F (-20°C ~ 70°C) 10% ~ 90%, non-condensing

Dimensions and Weight

Height	20mm / 0.79in
Width	177.8mm / 7in
Depth	64.2mm / 2.53in
Weight	0.28kg / 0.62lbs

Regulatory

Safety and Emission	CE | FCC | RoHS

Troubleshooting

No or Poor Quality Picture (snow or noisy image)

- Verify that power is being supplied to the switcher and that it is powered On.
- Verify that the display supports the output resolution of the source.
- Verify that all source and display connections are not loose and are functioning properly.

Troubleshooting Tips:
- WyreStorm recommends using a cable tester or connecting the cable to other devices to verify functionality.

Warranty Information

This product is covered by a 2 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.

2 YEARS WARRANTY ★★★ WYRESTORM®