WyreStorm®
Essentials

Product Brochure 2021

AV Essentials
Made Easy

WyreStorm Essentials has been developed as a simple and affordable line of plug-and-play HDMI distribution products for 4K and HD connectivity in the home. With a wide range of products, WyreStorm Essentials products are ideal for integrating satellite or cable boxes and the latest gaming consoles with consumer display devices.

WyreStorm
Essentials

PREMIUM CABLES

NEXT GENERATION CONTENT NEEDS
NEXT GENERATION CONTENT DELIVERY

Experience a next generation HDMI cable specifically designed to be future-proof, supporting 4K and 5K HDR content. It offers a unique feature set in delivering uncompressed HDMI content up to 24Gbps and compatibility with emerging HDMI technologies such as ALLM (Auto Low Latency Mode) & VRR (Variable Refresh Rate) using the latest in optical transmission technology.

| STRETCH 20.3KG | CRUSH 30.5KG | SLAM 0.4KG |
| BEND 2.0KG | TWIST 15.2KG | WIND NO BREAK |

24Gbps Active Optical HDMI Cable | 4K UHD 4:4:4/60 10-bit HDR | ISF Certified
EXP-CAB-HAOC-H2-2 | 4 | 6 | 8

- 4-core optical fiber transport guarantees uncompressed transmission of HDMI up to 24Gbps
- Supports all content up to 4K/60 4:4:4 with HDR: HLG, HDR-10+ & Dolby Vision at 60Hz
- Perfect for use in environments with excessive EM or RF interference
- High quality aluminum heads with Kevlar protected transmission cores
- Native HDMI communication allows support of ARC, CEC & HDCP 2.3

4K HDR HDMI ARC HDCP 2.3

2160p 4:4:4 60

isf TESTED & CERTIFIED

WyreStorm Essentials HDMI cables are the ideal choice for high-quality, reliable and affordable connection of 4K or HD devices, and are designed to meet the high bandwidth requirements demanded by the latest devices in commercial and residential applications.

Our cables are tested to ensure continued compatibility with all 4K UHD and HD devices, and provide a lifetime of perfect device connectivity featuring HDMI v1.4 certification and fully compatible with high-definition audio and video signals without loss in quality or distortion.

18Gbps Low Profile HDMI Cable
EXP-HDMI-H2-0.5M | 1M | 2M | 3M | 5M

- For short-range transmission of 18Gbps HDMI content at 4K/60 4:4:4 or HDR at 60Hz
- Compatible with the latest HDR standards including HLG, HDR-10+ and Dolby Vision
- High quality construction with ultra-low-profile head
- ARC and CEC enabled for true native HDMI communication between devices

2160p 4:4:4 60 4K HDR HDMI HDCP 2.2

High Speed HDMI Cables
EXP-HDMI-10.0M | EXP-HDMI-15.0M

- Full HD 1080p Compatible
- Available in 10m/32ft and 15m/49ft cable lengths
- High quality, premium grade cable
- Gold plated connections and 99.999% oxygen free copper cable/conductors (OFC) enhances conductivity
- Durable cable sleeve to prevent twisting and snagging

HDMI ARC HDCP 2.2

These kits offer transmission of HDMI content up to 4K UHD & HDR content to 35m/115ft, and pair HDBaseT with WyreStorm's powerful crosspoint HDMI switching chipset. The EXP-MX-0404-KIT and EXP-MX-0808-KIT have HDBaseT zone outputs with PoH and switched HDMI outputs, which can be paired with WyreStorm's HAOC hybrid optical HDMI cables or any extender for transmission via HDBaseT or OM3 fiber. Also offering zone audio breakout via S/PDIF, CEC triggering for all connected screens and the A/V mute function enhances the offering for the modern installation.

INPUT	OUTPUT
4	4

4K UHD 4:2:0 60Hz 4x4 HDBaseT™ Matrix Switch (3 HDBT, 1 HDMI) with 3 RX's & S/PDIF De-Embed
EXP-MX-0404-KIT

- 3 x HDBaseT outputs supporting 4K/60 4:2:0 up to 35m/115ft
- 1 x switched HDMI output supporting 4K/60 4:2:0
- S/PDIF audio outputs for de-embedded HDMI audio
- PoH powers the receivers from the matrix
- Supports 10bit HDR @ 30Hz
- Automatic (signal sensing) or manual (API operated) CEC power triggering of all connected screens or projectors (CEC compatibility required)

EXP-MX-0404-KIT

INPUT	OUTPUT
8	8

4K UHD 4:2:0 60Hz 8x8 HDBaseT™ Matrix Switch (6 HDBT, 2 HDMI) with 6 RX's & S/PDIF De-Embed
EXP-MX-0808-KIT

- 6 x HDBaseT outputs supporting 4K/60 4:2:0 up to 35m/115ft
- 2 x switched HDMI outputs supporting 4K/60 4:2:0
- Toslink audio outputs for de-embedded HDMI audio
- PoH powers the receivers from the matrix
- Supports 10bit HDR @ 30Hz
- Automatic (signal sensing) or manual (API operated) CEC power triggering of all connected screens or projectors (CEC compatibility required)

EXP-MX-0808-KIT

EXP-MX-KIT-RX

4K HDR AND UHD MATRIX SWITCHERS

NEXT GENERATION A/V **BUNDLED IN ONE KIT**

WyreStorm's Essentials Matrices are specifically tailored to meet the increased demands of 4K content & HDR, all in one box! Time is money, and WyreStorm knows this as the kits are bundled with either 3 or 6 slim form factor receivers, saving an extra step of pairing the matrix with its appropriate receiver. Each kit lets you do even more with your audio with independent audio switching, allowing audio from sources or HDBaseT™ outputs to be de-embedded via S/PDIF.
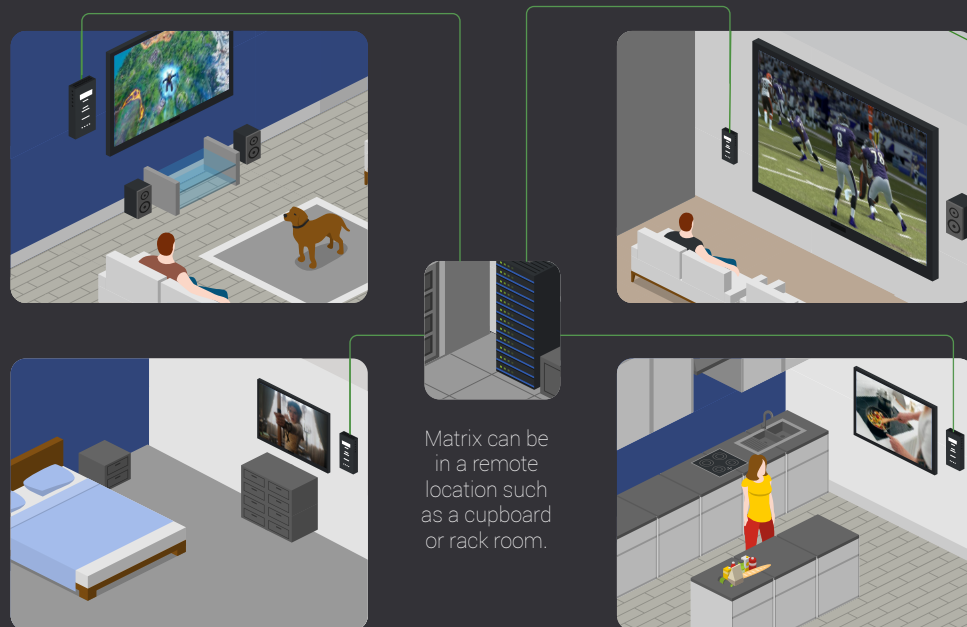
Matrix can be in a remote location such as a cupboard or rack room.

Example Diagram
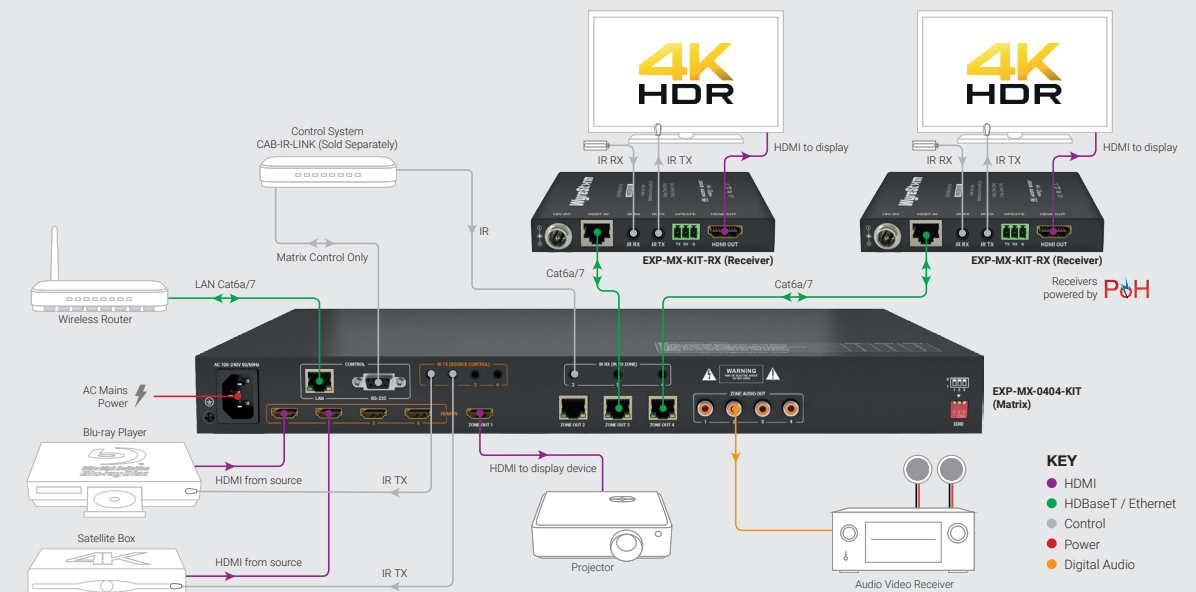
KEY
- HDMI
- HDBaseT / Ethernet
- Control
- Power
- Digital Audio

Keeping up with the latest standards, the Essentials H2 Series has been upgraded to an 18Gbps backbone with HDCP 2.2 compliance and now features a powerful built-in auto scaler on all outputs, allowing users to simultaneously connect a mix of 4K and 1080p displays. If that wasn't enough, the EXP-MX-0402-H2 also includes analog and digital audio de-embed and ARC, as well as CEC triggering and RS-232 control, hosting wide variety of control features.

INPUT	OUTPUT
4	2

2160p 4:4:4 60

4K HDR 4 Input Matrix Switcher with 2 Scaling Outputs
EXP-MX-0402-H2
- Full 18Gbps support including up to 4K HDR 4:4:4/60
- Independent scaling of 4K content to 1080p on both outputs
- Automatic or manual CEC triggering of compatible displays
- Supports output of 5.1 ARC signal from a compatible connected screen on output 2
- Analog source audio breakout on output 1 or 5.1 source audio breakout on output 2

4K HDR · HDMI · HDCP 2.2 · CEC · ◖◗ Dolby Vision

EXP-MX-0404-H2

INPUT	OUTPUT
4	4

2160p 4:4:4 60

4 Input 4 Scaling Output 4K HDR HDMI Matrix W/ Digital S/PDIF Audio De-Embed
EXP-MX-0404-H2
- Routes up to four 4K HDR HDMI sources to four 4K HDR display devices
- Supports 4K@60Hz 10bit 4:2:0 | 4:4:4 and HDR@60Hz 10bit BT.2020
- Fully HDCP 2.2 compliant
- HDR and Dolby Vision support
- Supports coaxial S/PDIF audio de-embed from all outputs

4K HDR · HDMI · HDCP 2.2 · CEC · ◖◗ Dolby Vision

EXP-MX-0402-H2

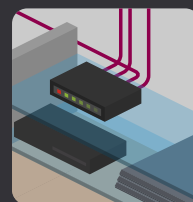Send digital audio signals to your speaker system or audio video receiver.

PURE HDMI 4K HDR MATRIX SWITCHERS

MAXIMIZE 4K POTENTIAL **WITH PURE HDMI SWITCHING**

The WyreStorm EXP-MX-0404-H2 and EXP-0402-H2 are powerful plug and play 4K matrix switcher solutions. With 18Gbps pure HDMI support, these matrix switchers allow multiple UHD 4K sources to be independently routed to multiple UHD displays. Each output has the capability to scale 4K content down to connected 1080p displays without affecting the 4K source.

A matrix is placed close to the displays as it can only send signals shorter distances.

Example Diagram

4K HDR Source · 4K HDR Source · Audio Video Receiver

5.1 Audio System

Analog Audio · Digital Audio · Control System

RS-232

EXP-MX-0402-H2

DC 5V

4K HDR Source · HDMI · HDMI · HDMI

4K HDR Source

Full HD 1080P · 2160p 4:4:4 60

1080p Display · HDR Display

KEY
- HDMI
- Digital Audio
- Analog Audio
- Power
- Control

The Essentials switchers enable quick and easy auto-switching of up to five 4K HDR or 1080p HDMI sources to a single HDMI output. Following the last in first out rule, this is a convenient feature when temporary devices such as laptops are involved. Support for high quality content up to 4K@60Hz HDR-10 is also present, making these switchers compatible with today's most demanding sources and they are compliant with the latest anti-piracy algorithms that prevent the unauthorized distribution of content, meaning a trouble-free installation.

INPUT	OUTPUT
3	1

3x1 HDMI Switcher with Remote Control
EXP-SW-0301
- Switches 3 HDMI sources to a single HDMI output
- Supports 4K/60Hz 4:2:0 & HDR@30Hz and multichannel HD audio formats
- Simple plug and play - no set up required
- Automatic switching to last-powered on source
- Passive operation - no PSU required
- Front panel or remote handset operation

4K HDR | **HDMI** | **HDCP 2.2**

EXP-SW-0301

INPUT	OUTPUT
5	1

5x1 HDMI Switcher with Remote Control
EXP-SW-0501
- Switches 5 HDMI sources to a single HDMI output
- Supports 4K/60Hz 4:2:0 & HDR@30Hz and multichannel HD audio formats
- Simple plug and play - no set up required
- Automatic switching to last-powered on source
- Passive operation - no PSU required
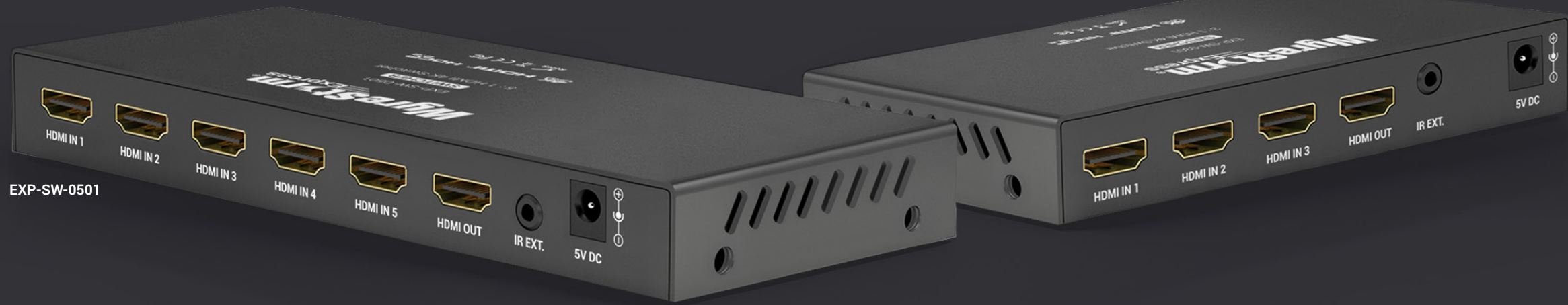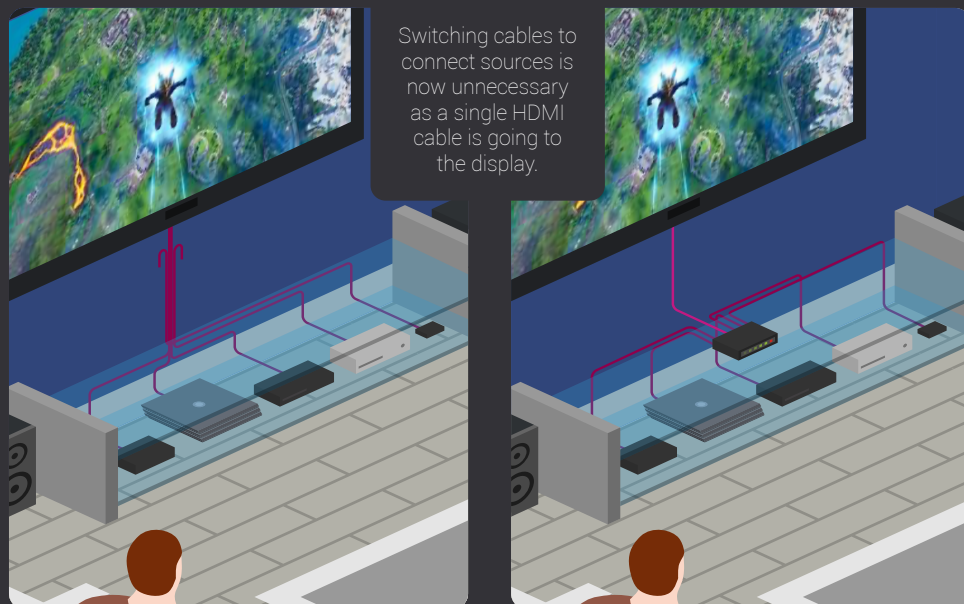- Front panel or remote handset operation

4K HDR | **HDMI** | **HDCP 2.2**

EXP-SW-0501

HDMI IN 1   HDMI IN 2   HDMI IN 3   HDMI IN 4   HDMI IN 5   HDMI OUT   IR EXT.   5V DC

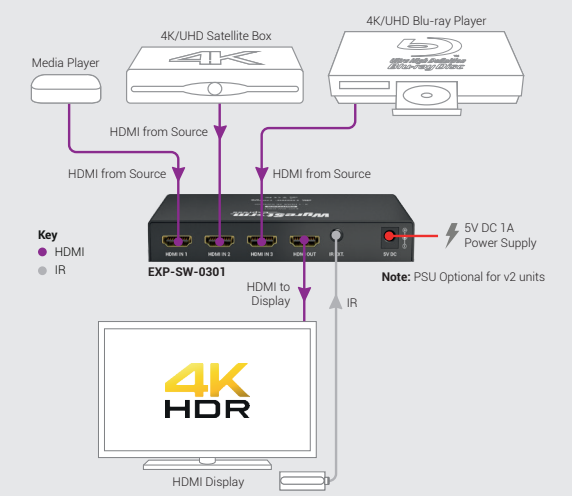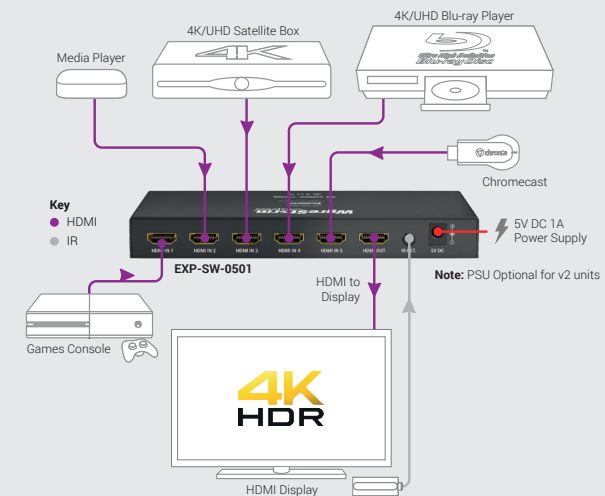HDMI IN 1   HDMI IN 2   HDMI IN 3   HDMI OUT   IR EXT.   5V DC

PURE 4K HDMI SWITCHING

MANAGING MULTIPLE DEVICES **MADE EASY**

WyreStorm makes managing all of your devices simple with Essentials switchers. Easily expand the number of HDMI ports on your HD or UHD television. There's no need to unplug your Blu-ray player or cable box to access your gaming console, simply switch between up to five inputs, depending on the model.

Switching cables to connect sources is now unnecessary as a single HDMI cable is going to the display.

Example Diagrams

Media Player
4K/UHD Satellite Box
4K/UHD Blu-ray Player
Chromecast

Key
● HDMI
● IR

EXP-SW-0501

5V DC 1A Power Supply

HDMI to Display

Note: PSU Optional for v2 units

Games Console

4K HDR

HDMI Display

Media Player
4K/UHD Satellite Box
4K/UHD Blu-ray Player

HDMI from Source
HDMI from Source   HDMI from Source

Key
● HDMI
● IR

EXP-SW-0301

5V DC 1A Power Supply

HDMI to Display

IR

Note: PSU Optional for v2 units

4K HDR

HDMI Display

The WyreStorm Essentials extenders give you the robust bandwidth capabilities of a Pro AV model but in a smaller, cost-effective form. Support of bidirectional PoC (Power over Cable) for powering either the transmitter or the receiver with only one power adapter, makes installations quick and effortless. IR for source control and PoC are all wrapped up in a compact chassis for unbeatable value, reliability, and ease of installation. Both extenders are perfect in office, home, and presentation environments to extend HD video. Plus, they have added transmission of USB keyboard and mouse from a local zone to a remote PC or laptop using the EXP-EX-80-KVM.

2160p 4·4·4 **60**

18Gbps 4K HDR UTP Extender Set with PoC & IR Passthrough
EXP-EX-35-G2
• Transmits 4K HDR@60Hz and HLG HDMI content up to 35m (115ft) or 1080p@60Hz to 50m (164ft)
• VLC technology making 18Gbps over 10.2 cable possible for visually lossless video
• PoC means receiver is powered via a single PSU at the transmitter
• IR pass-through RX > TX for source control
• Slim 15mm chassis for discreet installation

4K HDR   **HDMI**   **HDCP** 2.2   **PoC**

EXP-EX-35-G2

EXP-EX-80-KVM

**1080p HD UTP KVM Extender with USB 2.0 & PoC**
EXP-EX-80-KVM
• Full HD video resolution of up to 1080P@60Hz up to 80m (262ft)
• •Supports up to USB 2.0 data transfers bidirectionally up to 60m (197ft) and HID (Human Interface Devices) up to 80m (263ft)
• HDMI 1.3 and HDCP 1.4 Compliant.
• Bidirectional PoC - powered at either the transmitter or receiver with only one power adapter

HDMI   **HDCP**   **PoC**   **USB**
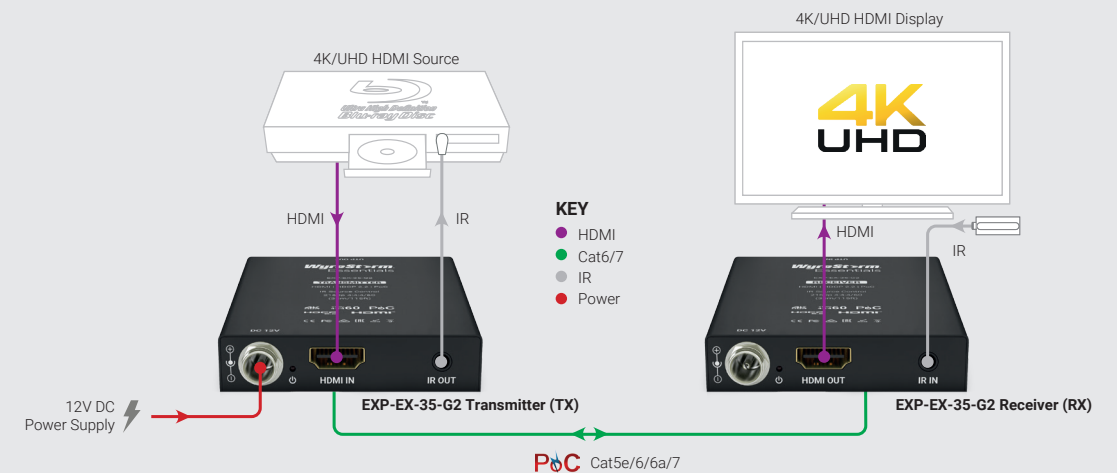
4K AND 2K UTP EXTENDER SETS

AN EXTENSIVE RANGE OF SOLUTIONS **FOR EVERY APPLICATION**

Our extenders have been engineered in a way to fit the demands in an existing system, as well as feature rich enough to serve as a stand-alone solution. With ease of installation at their heart, WyreStorm's broad range of extenders ensure just that, with their slim form factor design and plug and play setup. Coupled with an excellent build quality and warranty, WyreStorm's extenders create the ultimate in staying power and longevity.
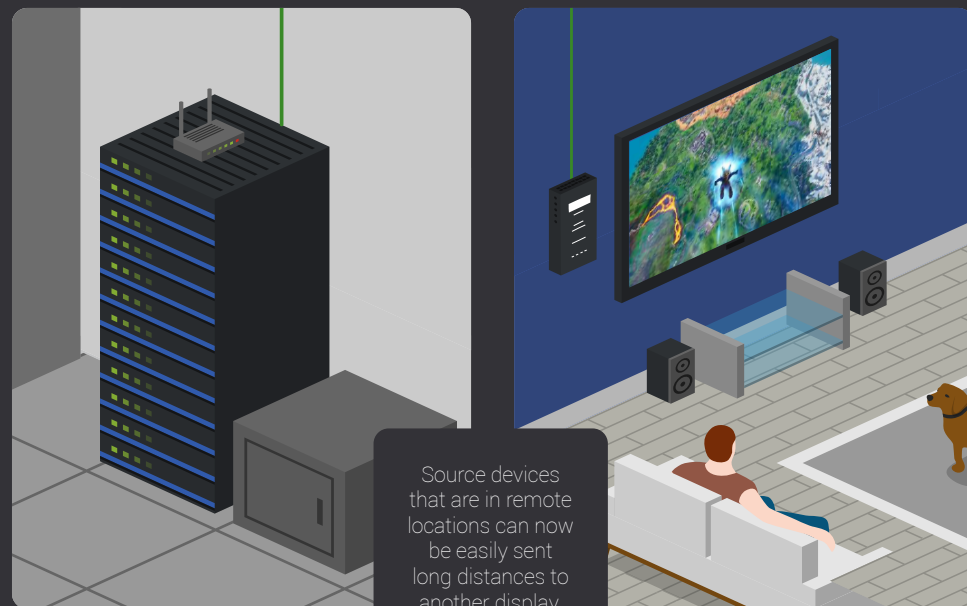
Source devices that are in remote locations can now be easily sent long distances to another display.

Example Diagram

4K/UHD HDMI Source

4K/UHD HDMI Display

4K UHD

HDMI

IR

KEY
● HDMI
● Cat6/7
● IR
● Power

HDMI

IR

EXP-EX-35-G2 Transmitter (TX)

EXP-EX-35-G2 Receiver (RX)

12V DC Power Supply

PoC Cat5e/6/6a/7

The Essentials splitters now offer the H2 Series features and have the same value and reliability found in their predecessor, not to mention a few new tricks up their sleeve! Upgrades to support the full 18Gbps bandwidth HDMI 2.0 offers, plus 2160p@60Hz 4:4:4 and support for Dolby Vision™ are included. As if that wasn't enough, the EXP-SP-0104-H2 is now featuring a powerful built-in scaler, allowing users to simultaneously connect a mix of 4K and 1080p displays, which gives the source range to play to its fullest potential!

INPUT	OUTPUT	2160p
1	2	4:4:4 60

4K HDR HDMI Splitter with 2 Scaling Outputs
EXP-SP-0102-H2

- A true plug and play HDMI signal splitter, supporting the highest quality content to 2 screens
- Automatically matches output to the capability of each connected screen using independent 4K > 2K scaler per output
- Maximizes compatibility with mixed resolution displays
- Supports pass-through of HDR standards such as HDR10, HLG and Dolby Vision

4K HDR · HDMI · HDCP 2.2 · Dolby Vision

INPUT	OUTPUT	2160p
1	4	4:4:4 60

4K HDR HDMI Splitter with 4 Scaling Outputs
EXP-SP-0104-H2

- A true plug and play HDMI signal splitter, supporting the highest quality content to 4 screens
- Automatically matches output to the capability of each connected screen using independent 4K > 2K scaler per output
- Maximizes compatibility with mixed resolution displays
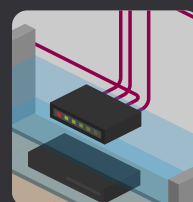- Supports pass-through of HDR standards such as HDR10, HLG and Dolby Vision

4K HDR · HDMI · HDCP 2.2 · Dolby Vision

EXP-SP-0104-H2

DC 5V · HDMI OUT 1 · HDMI OUT 2 · HDMI IN · HDMI OUT 3 · HDMI OUT 4

DC 5V · HDMI OUT 1 · HDMI IN · HDMI OUT 2

EXP-SP-0102-H2

PURE 4K HDMI SPLITTERS

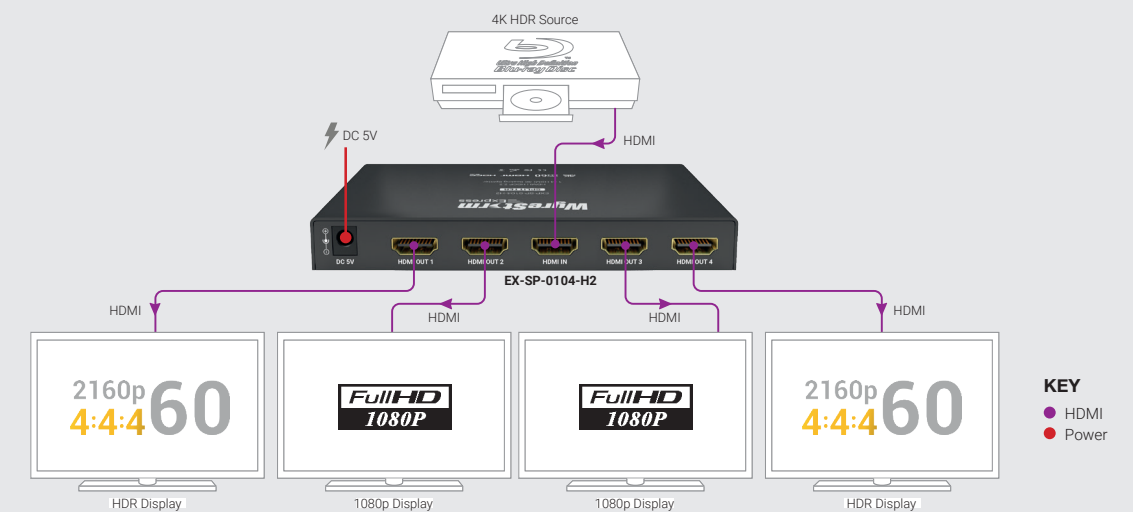## SIMPLE AND EFFECTIVE **HDMI DISTRIBUTION**

At the more basic end of the HDMI distribution spectrum is the humble splitter, offering reliable & balanced signal management for up to 4 video zones fed from a single source. But "basic end" doesn't have to mean low performance, with WyreStorm's HDMI splitters offering 18Gbps HDMI performance and powerful built-in scaling across all outputs; this means support for video signals up to 4K/60 4:4:4 at 8-bit or 4:2:2 12-bit for residential HDR requirements.

A HDMI Splitter is placed near the displays as it can only send signals shorter distances.

Example Diagram

4K HDR Source

DC 5V

HDMI

EX-SP-0104-H2

DC 5V · HDMI OUT 1 · HDMI OUT 2 · HDMI IN · HDMI OUT 3 · HDMI OUT 4

HDMI · HDMI · HDMI · HDMI

2160p 4:4:4 60	Full HD 1080P	Full HD 1080P	2160p 4:4:4 60
HDR Display	1080p Display	1080p Display	HDR Display

KEY
- HDMI
- Power

WyreStorm Essentials H2 Series of Digital to Analog converters are powerful plug and play 4K audio de-embed solutions with full 18Gbps HDMI and HDCP 2.2 support. They allow digital or analog audio to be extracted (de-embedded) from the source to then be sent to an audio distribution system, such as an AVR or amplifier. They are perfect for when the source de-embed isn't available, all while passing video up to 4k@60Hz 4:4:4 to a display projection screen or video matrix.

2160p 4:4:4 60

2160p 4:4:4/60 In-line Scaler with 7.1 Audio Downmixing
EXP-CON-H2-DD

- Audio de-embed via S/PDIF or stereo RCA with Dolby & DTS 7.1 downmixing
- Re-embed downmixed stereo audio to HDMI
- Scales incoming 4K HDR content to 1080p
- S/PDIF output switchable between pass-through and downmix

EXP-CON-H2-DD

EXP-CON-AUD-H2

2160p 4:4:4 60

Digital & Analog Audio Extractor with 18Gbps HDMI Passthrough
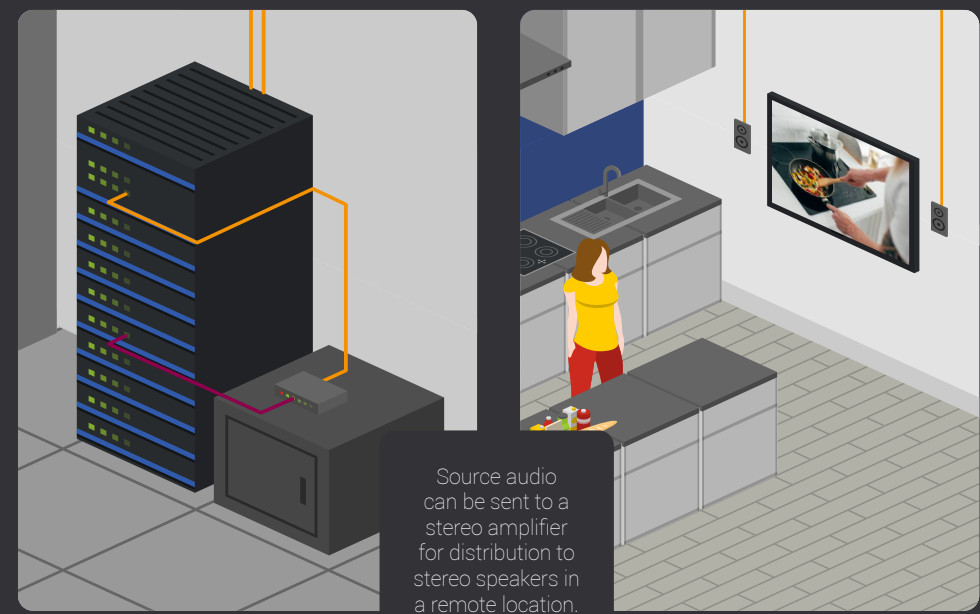**EXP-CON-AUD-H2**

- Digital S/PDIF and analog L/R HDMI audio de-embed with HDMI passthrough
- 18Gbps HDMI passthrough, including up to 4K HDR 4:4:4/60
- Three gear sliding switch supporting passthrough, 2.0ch and 5.1 audio EDID
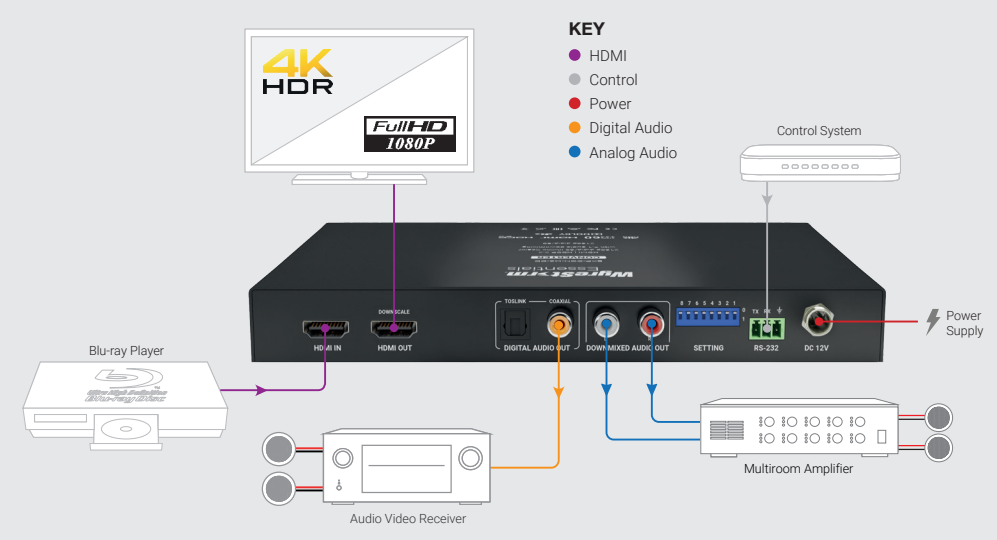- Compact appearance and easy to install

DIGITAL TO ANALOG CONVERTERS

MINIMIZE COST AND **MAXIMIZE EFFICIENCY**

Confidently convert your video and audio with WyreStorm. When multiple audio formats are needed in a system, converters can give you a multitude of audio options to choose from, including 5.1 surround, 2 channel analog, or passthrough, depending on the model. Plus mixing 1080p and 4K displays has never been easier, thanks to WyreStorm's converters.

Source audio can be sent to a stereo amplifier for distribution to stereo speakers in a remote location.

Example Diagram

KEY
- HDMI
- Control
- Power
- Digital Audio
- Analog Audio

Control System

Power Supply

Blu-ray Player

Multiroom Amplifier

Audio Video Receiver

If you require simple digital audio to analog conversion, WyreStorm's EXP-CON-DAC is the perfect solution. For Dolby Digital support, the EXP-CON-DAC-D is capable of taking up to S/PDIF audio encoded as Dolby Digital 5.1 from a compatible coaxial or TOSLINK audio source and downmixing to analog stereo. Additionally, the switchable digital output allows the signals to be output in its original form or downmixed like the stereo RCA output.

EXP-CON-DAC-D

EXP-CON-DAC

Digital Audio DAC with Downmix and S/PDIF Bypass
EXP-CON-DAC-D
- Conversion of S/PDIF to analog
- Converts Dolby Digital 5.1 to stereo
- Switchable Toslink or Coaxial input
- Output via stereo RCA or S/PDIF
- S/PDIF output switchable between pass-through and downmix

Digital to Analog Audio Converter with Coax/Optical Inputs
#### EXP-CON-DAC
- Simple connection of modern digital sources to legacy analog systems
- Toslink Optical and S/PDIF Coaxial inputs with selectable switch
- Compact housing, 5v power with LED indication

Example Diagrams

Key
- 🟠 Digital Audio
- 🔵 Analog Audio

5V DC Power Supply

AVR

5V DC Power Supply

Dolby Digital Source

Dolby Digital Source   Multiroom Amplifier

HDMI Source

HDMI Source

AVR

CONFERENCE KIT SOLUTION

## POLISHED AND PROFESSIONAL **VIDEO MEETINGS MADE EASY**

Bringing quality and ease of use to your conference calls, the EXP-VC-KIT includes everything you need for professional meetings. The camera, speaker and mic all connect to a PC through a single USB connection, so no need to fumble with wires when getting ready for that important discussion. Featuring a 1/2.8 inch, 2.07 megapixel camera supporting Full HD and speakerphone combo composed of 4 single-point microphones with a 360-degree audio-pickup.
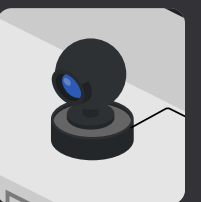
The simple plug-and-play solution allows you to easily set up a proffesional meeting room.
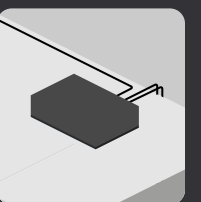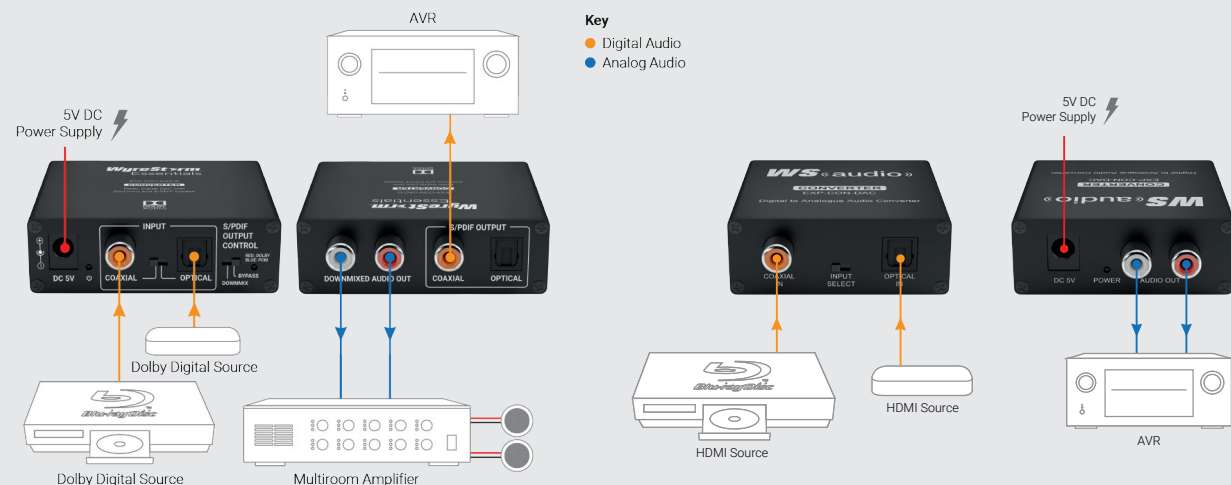
Make all of your device displays compatible with each other. All of WyreStorm's cable adapters work with both modern and analog display technologies, ensuring you can present any content on any type of display.

For example, converting analog VGA signals to digital HDMI on HD and UHD displays is made simple with the EXP-HDMI-VGA. With five different adapters to choose from, WyreStorm had made it easier than ever to make the most of your devices.

VGA to HDMI Adapter
EXP-HDMI-VGA
- Active adapter that converts analog VGA signals to HDMI
- Lossless video conversion without delay

HDMI

USBC to HDMI Adapter
EXP-HDMI-USBC
- Converts USB-C connections from PC/smart devices to UHD displays
- Supports video resolutions up to 4K@60Hz 4:4:4

4K HDR HDMI HDCP 2.2 SUPERSPEED USB

HDMI Right Angled Adapter
EXP-HDMI-RTA
- Adapts 90° HDMI connections for tight spaces
- Supports video resolutions up to 4K@60Hz 4:4:4

HDMI

HDMI to HDMI Coupler
EXP-HDMI-CPL
- Couples two HDMI cables together for added distance
- Bidirectional passthrough supporting 4K@60Hz 4:4:4

4K HDR HDMI HDCP 2.2

HDMI to DVI-D Adapter
EXP-HDMI-DVI
- Bidirectional HDMI and DVI-D adapter
- Simple, passive plug and play design

HDMI

EXP-HDMI-CPL

EXP-HDMI-DVI

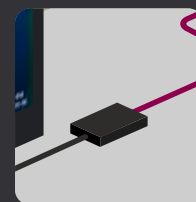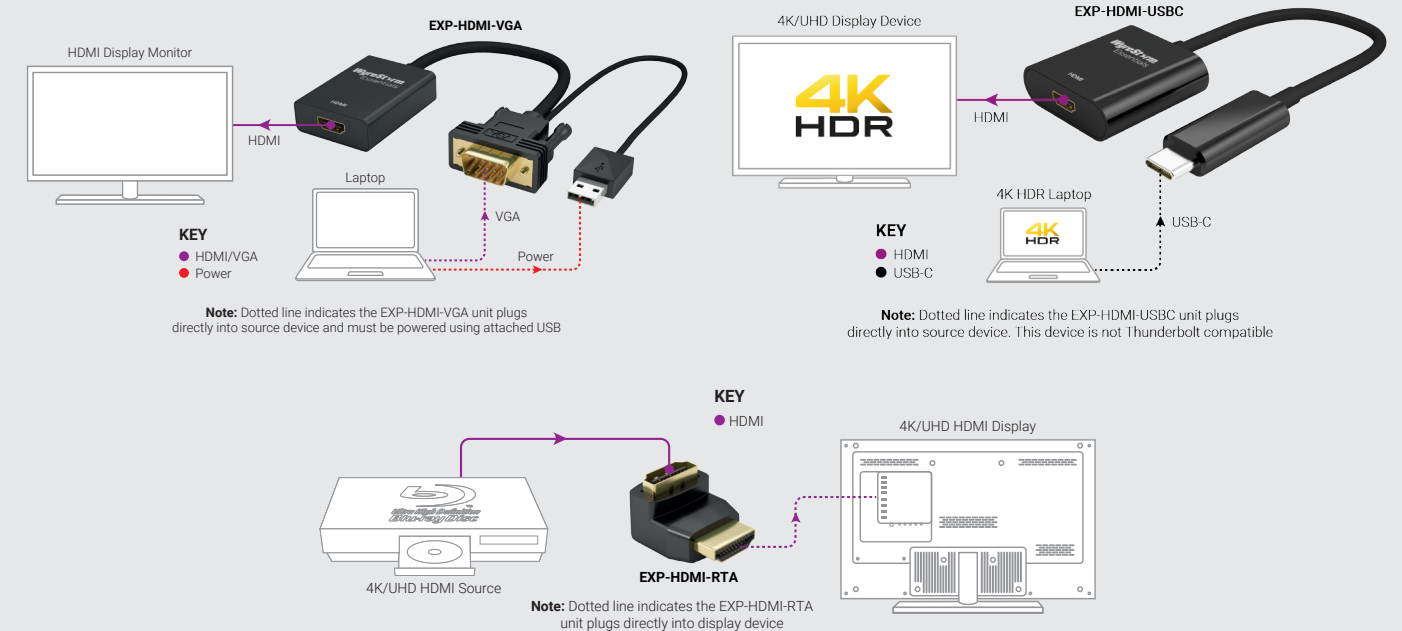EXP-HDMI-VGA

EXP-HDMI-USBC

EXP-HDMI-RTA

MULTI FORMAT ADAPTERS

FULLY UTILIZE YOUR DEVICES **IN EVERY SITUATION**

The five adapters cover most situations in which you would need to use a cable converter. With a small and compact design, these adapters are made to go anywhere and everywhere. Easily convert your signals, allowing you to unleash the full potential of your devices.

Use an adapter to convert signals from a legacy PC to a modern display to use as second screen.

Example Diagrams

HDMI Display Monitor

EXP-HDMI-VGA

HDMI

Laptop

VGA

KEY
- HDMI/VGA
- Power

Power

Note: Dotted line indicates the EXP-HDMI-VGA unit plugs directly into source device and must be powered using attached USB

4K/UHD Display Device

EXP-HDMI-USBC

4K HDR

HDMI

4K HDR Laptop

USB-C

KEY
- HDMI
- USB-C

Note: Dotted line indicates the EXP-HDMI-USBC unit plugs directly into source device. This device is not Thunderbolt compatible

KEY
- HDMI

4K/UHD HDMI Display

EXP-HDMI-RTA

4K/UHD HDMI Source

Note: Dotted line indicates the EXP-HDMI-RTA unit plugs directly into display device

WyreStorm.

Powerful. Reliable. Simple.

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