

User Manual

MediaHub

BrightSign®
Built-In



Model MH2-4K

Audio  Authority®

4K@60

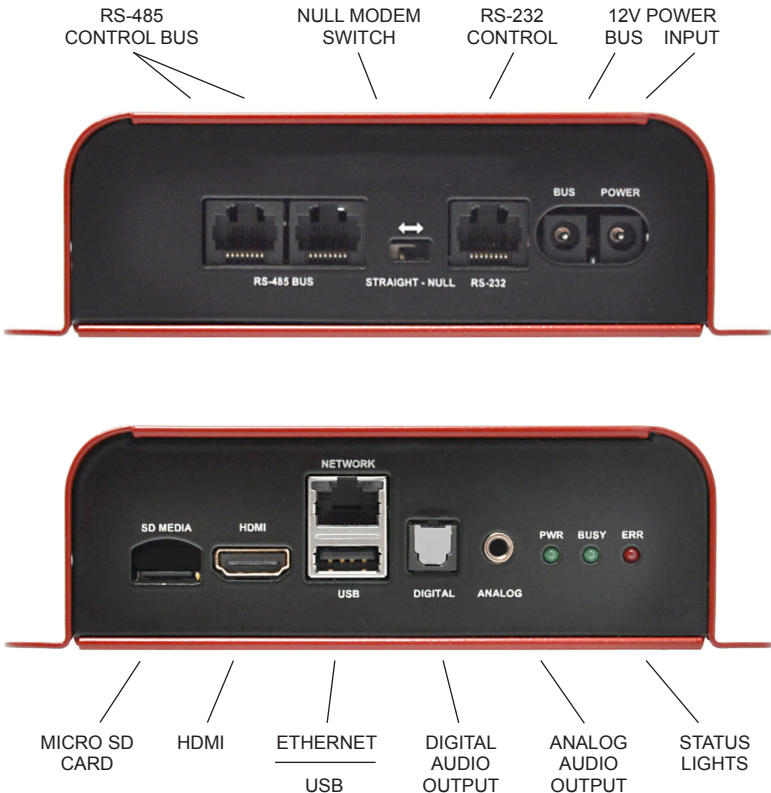
Introduction

With a BrightSign player built-in, the Model MH2-4K produces native 4K@60 video and high fidelity audio, with all the custom behaviors made possible by BrightAuthor software. Multiple ports on the MH2-4K link interactive peripherals like push-buttons and serial control devices including touch screens and touch panels. Update media content and BrightAuthor programming via Ethernet, or update the SD card locally.



Features

- BrightSign® Digital Signage Module
- HDMI® output (4096x2160@60Hz)
- Discrete digital and analog audio outputs
- Customizable push-button ports (RJ9 x8)
- Control ports for peripherals (RJ45 x3)
- USB port for touch screen or other peripherals
- Ethernet port for remote updates



HDMI Output

The MH2-4K HDMI output delivers 4K@60 video via an HDMI cable to HDMI display screens, AVRs or sound bars. CEC commands can be used to control the sync device.

Video File Information

The MH2-4K supports MPEG-4 encoded videos with maximum video resolution up to 4K@60. Test all files before deployment. See BrightSign specifications for details: www.brightsign.biz/application/files/7715/5111/4033/HS4-02252019.pdf

Audio Output

The MH2-4K can output digital and/or analog audio simultaneously, as directed by BrightAuthor settings. The digital Toslink jack outputs optical audio signals, and the 3.5mm jack provides stereo analog audio. The audio signals on the HDMI output may be turned off and on via software.

Push-Buttons

To control media using push-buttons, connect EasyPlug push-buttons to each position. Compatible push-buttons are available in several colors; blue LED ring is shown, Model 013-100.



The EasyPlug push-button has an RJ9 connector for easy installation and long term reliability.



Micro SD Card Slot

The programming instructions for custom functionality are stored on a Micro SD card with the video and audio files. Media files placed on the root of the Micro SD card autoplay on power up. If the Micro SD card is updated to add new video files, check to make sure any custom programming remains on the card.

Serial Communications

Control Port (RS-232)

The MH2-4K can send and receive serial commands via RS-232 at any Baud rate selected via BrightAuthor. The port is a modular RJ-45 jack; adapter cables are available for 3.5mm or DB-9 serial ports. The port may be set for Null or Straight using the switch located beside the RS-232 port.

Control Bus (RS-485)

The RS-485 control bus allows the MH2-4K to interact with devices such as the Audio Authority TouchSelect panels or the 1895 Visual Volume knob. The MH2-4K can also control switch modules or amplifiers that are linked by the Control Bus.

The MH2-4K is unit ID 0, all on-board push-button positions respond to commands addressed to ID 0. All commands are echoed on the RS-232 control port and RS-485 control bus, regardless of ID.

External Settings - RS-232

Baud rate may be changed via BrightAuthor.

Default Baud Rate	115200
Data Bits	8
Parity	None
Stop Bits	1

Control Bus Settings (RS-485)

Baud Rate	57600
Protocol	Control Bus (RS-485)

Internal Settings

Port	0
Baud Rate	115200
Data Bits	8
Parity	None
Stop Bits	1
Protocol	ASCII
Send EOL	CR
Receive EOL	CR

Changing the Baud Rate (RS-232)

In BrightAuthor, select the proper Baud rate to communicate to external serial devices. The MH2-4K is always ID 0.

STRUCTURE	EXAMPLE	RESULT
[BAUD#_#]	[BAUD0_9600]	MH2-4K ID 0 BAUD RATE SET TO 9600
[BAUD#_#]	[BAUD0_115200]	MH2-4K ID 0 BAUD RATE SET TO 115200
[BAUD#_#]	[BAUD0_19200]	MH2-4K ID 0 BAUD RATE SET TO 19200
[BAUD#_#]	[BAUD0_57600]	MH2-4K ID 0 BAUD RATE SET TO 57600
[BAUD#_#]	[BAUD0_38400]	MH2-4K ID 0 BAUD RATE SET TO 38400

Sample Button Commands

STRUCTURE	EXAMPLE	RESULT
[PRESS#=#]	[PRESS0_2]	MH2-4K PSB 2 PRESS SENT
[RELEASE#]	[RELEASE0_2]	MH2-4K PSB 2 RELEASE SENT
[BLINK#_#]	[BLINK0_4]	MH2-4K PSB 4 LED BLINKS
[BLINK#_#,#,#,#]	[BLINK0_1,2,3,4]	MH2-4K PSB 1,2,3,4 LEDS BLINK
[LEDON#_#]	[LEDON0_6]	MH2-4K PSB 6 LED ACTIVATES
[LEDON#_#,#,#,#]	[LEDON0_3,4,5,6]	MH2-4K PSB 3,4,5,6 LEDS ACTIVATE
[LEDOFF#_#]	[LEDOFF0_6]	MH2-4K PSB 6 LED DEACTIVATES
[LEDALLOFF]	[LEDALLOFF]	DEACTIVATES ALL LEDS ON ALL DEVICES

Firmware Update

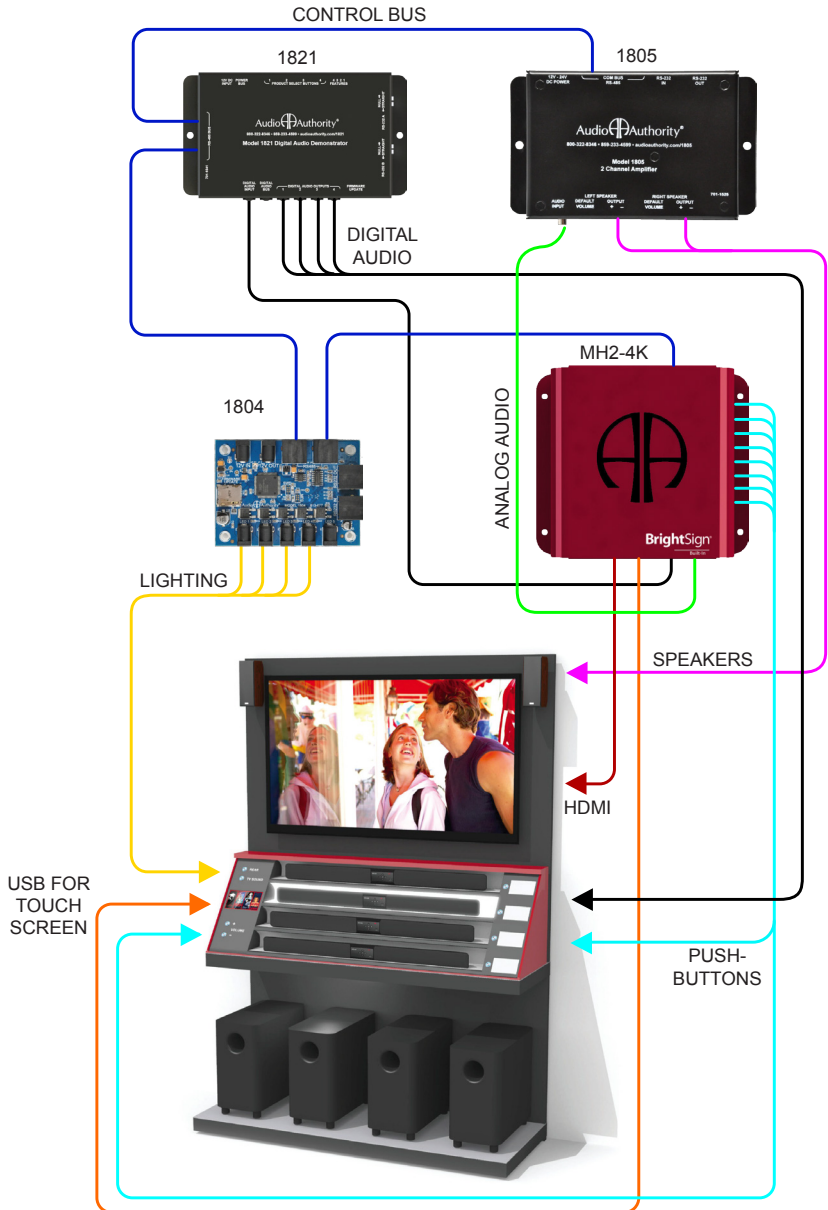
Visit www.audioauthority.com/MH2-4K for firmware update instructions.

Installation

- Attach the player to a flat surface with the screws provided.
- Load programming and media files onto a compatible and properly formatted micro SD card.
- Connect EasyPlug push-buttons, touch panels or touch screen.
- Connect power adapter to AC power, then to the MH2-4K power port.
- Connect audio output(s) to an amplifier and/or switcher if desired.
- Connect HDMI cable from display device to MH2-4K HDMI port.
- For more information check our website: audioauthority.com/MH2-4K.

Example System: Sound Bars

The MH2-4K does more than play media in this engaging sound bar demo - it coordinates a complex audio demo with video and lighting effects. Customers can audition sound bars, select media, add rear speakers, compare TV speakers to sound bars, and adjust volume. Push a button on the right to hear a sound bar, which also triggers the first media file to play, and the shelf to light up. Lights under the shelf also highlight the selected subwoofer. The user selects media using a small touch screen. The rear speakers are powered via a smart amplifier that tracks volume control with the selected sound bar. After a period of inactivity, the display returns to a silent state, ready for the next customer.





2048 Mercer Road, Lexington, KY 40511-1071 USA
800-322-8346 • 859-233-4599 • Fax: 859-233-4510
support@audioauthority.com • www.audioauthority.com

E-185
Rev.20190628