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› Yinker 4K30Hz 4x4 HDMI Video Wall Controller User Manual - Model HD44LH

Yinker HD44LH

Yinker 4K30Hz 4x4 HDMI Video Wall Controller User Manual

Model: HD44LH

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your Yinker 4K30Hz 4x4 HDMI Video Wall Controller. Please read this manual thoroughly before using the product to ensure proper functionality and to prevent damage.

2. PRODUCT OVERVIEW

The Yinker 4K HDMI Matrix Video Wall Controller 4x4 is a versatile device designed to manage and distribute HDMI signals. It functions as a 4x4 HDMI matrix, a 2x2 video wall controller, and a 4x1 HDMI multiviewer. It supports 4K@30Hz resolution and offers various control methods for flexible operation.

Key Features:

- **4x4 HDMI Matrix:** Connects up to 4 HDMI input sources (PC, laptop, Blu-ray player, media player, gaming console) and distributes them to 4 HDMI output displays (monitor, TV, projector) simultaneously or individually.
- **2x2 Video Wall Controller:** Supports multiple splicing modes including 1x1, 1x2, 2x1, 2x2, 1x3, 3x1, 1x4, and 4x1. Also features 4 mirror modes (none, horizontal, vertical, horizontal & vertical) for diverse splicing requirements.
- **4x1 HDMI Multiviewer:** Supports splitting output 1 into 23 modes (PIP, POP, PBP, Quad, etc.). Image rotation of 90°, 180°, and 270° is available for output 1 in Single Display of Splitter Mode, supporting 1080P & 720P resolutions.
- **Multiple Control Methods:** Operable via front panel buttons, IR remote, RS232/LAN, Web GUI, and a dedicated Android App.
- **4K High Definition:** Supports maximum resolution of 4K@30Hz, compatible with 2K@30Hz and 1080P@60Hz. Features HDCP, EDID management, HDR, and Dolby Vision.
- **Audio Support:** Includes 3.5mm audio embedding and de-embedding at each input and output. Supports PCM, Dolby AC3, DTS5.1, DTS7.1, and DSD audio formats.
- **Power Off Memory:** Automatically stores current screen and display configurations, restoring them upon power-on.



Figure 1: Yinker 4K30Hz 4x4 HDMI Video Wall Controller and example display configurations.



Figure 2: Visual representation of the controller's key features.

3. PACKAGE CONTENTS

Verify that all items listed below are included in your package:

- 4x4 HDMI Matrix with Video Wall Controller (1 unit)
- RS232 Cable (1 unit)
- Power Adapter & Cable (1 unit)
- Ground Wire (1 unit)
- IR Remote (1 unit)
- Rack Kit (1 unit)
- Footpad (1 unit)
- User Manual (1 unit)

Note: AAA battery for the IR remote is not included.



Figure 3: Contents of the product package.

4. SETUP

Follow these steps to set up your Yinker 4K30Hz 4x4 HDMI Video Wall Controller:

1. **Connect HDMI Input Sources:** Connect up to four HDMI input devices (e.g., PC, laptop, Blu-ray player, gaming console) to the HDMI IN 1-4 ports on the rear panel of the controller.
2. **Connect HDMI Output Displays:** Connect up to four HDMI displays (e.g., monitors, TVs, projectors) to the HDMI OUT 1-4 ports on the rear panel.
3. **Connect Audio (Optional):** If desired, connect 3.5mm audio cables for audio embedding or de-embedding at the respective input and output ports.
4. **Connect Control Interfaces (Optional):**
 - For RS232 control, connect the provided RS232 cable to the RS232 port on the rear panel and to your control device.
 - For LAN/Web GUI/APP control, connect an Ethernet cable to the LAN port on the rear panel and to your network.

5. **Connect Power:** Connect the provided power adapter to the DC 12V port on the rear panel and then plug the adapter into a power outlet.
6. **Power On:** Turn on the controller using the power switch on the front panel.

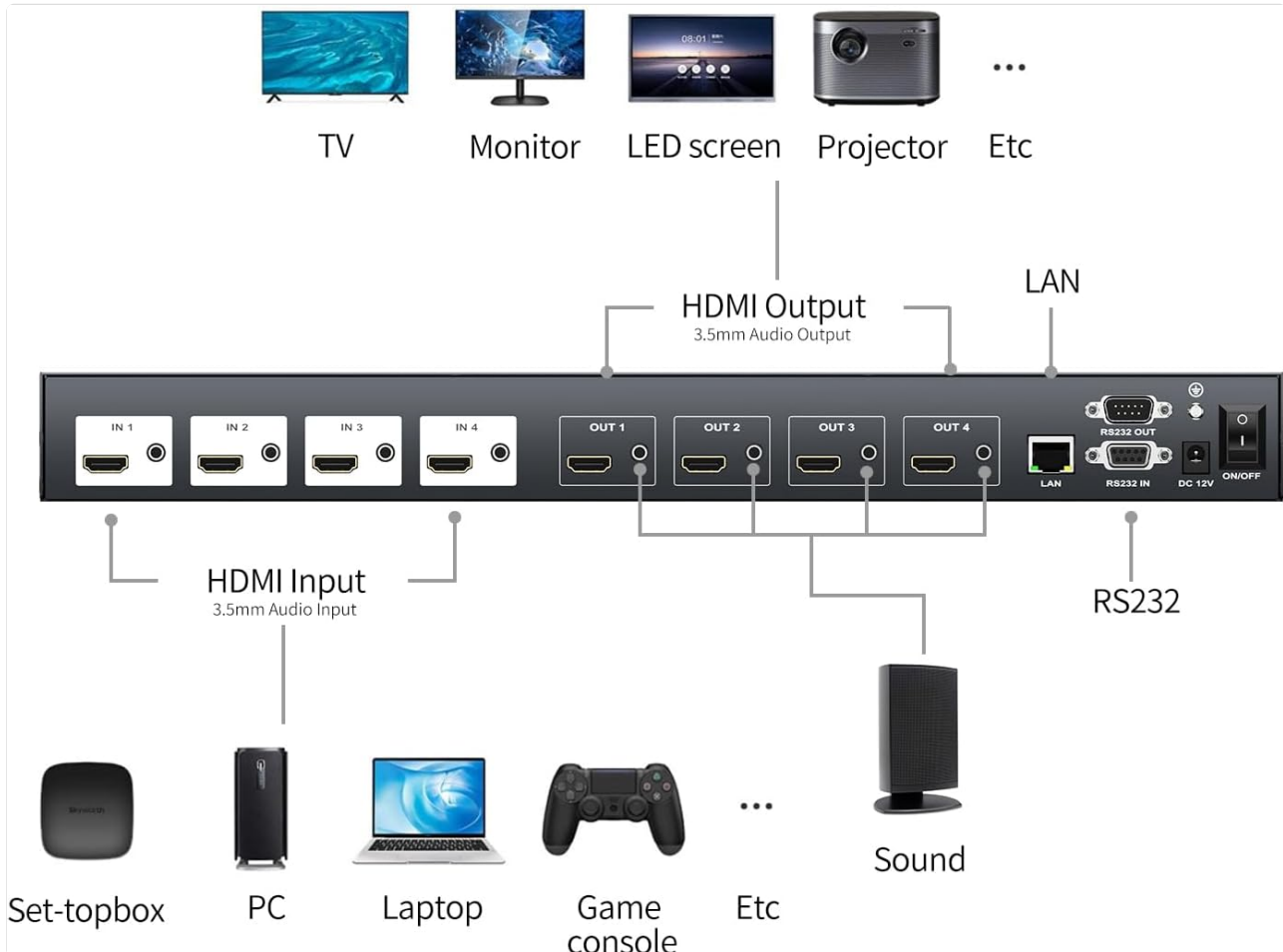


Figure 4: Detailed connection diagram for the controller.

5. OPERATING INSTRUCTIONS

The Yinker 4K30Hz 4x4 HDMI Video Wall Controller offers various operating modes and control options.

5.1 Control Methods

You can control the device using any of the following methods:

- **Front Panel Buttons:** Directly select inputs and outputs using the buttons on the front of the unit.
- **IR Remote:** Use the included IR remote control for convenient wireless operation.
- **RS232/LAN:** Connect to a computer via RS232 or LAN for advanced control and configuration.
- **Web GUI/APP:** Access the web-based graphical user interface or use the dedicated Android app for intuitive control over your network.

Support 4 Switching Modes



Panel Button



IR Remote



RS232/LAN



Web GUI

Figure 5: Available control methods for the device.

5.2 Display Modes

The controller supports multiple display modes:

- **4x4 HDMI Matrix Mode:** Each of the 4 inputs can be routed to any of the 4 outputs independently.
- **2x2 Video Wall Mode:** Combine multiple displays to form a single large video wall. Supports various configurations like 1x2, 2x1, 2x2, 1x3, 3x1, 1x4, and 4x1.
- **4x1 Multiviewer Mode:** Display multiple input sources on a single screen in various layouts (PIP, POP, PBP, Quad, etc.).

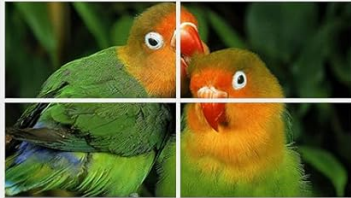
Multiple Display Modes



Splitter Mode



Matrix Mode



Splicing Mode



PIP Mode



Quad Mode



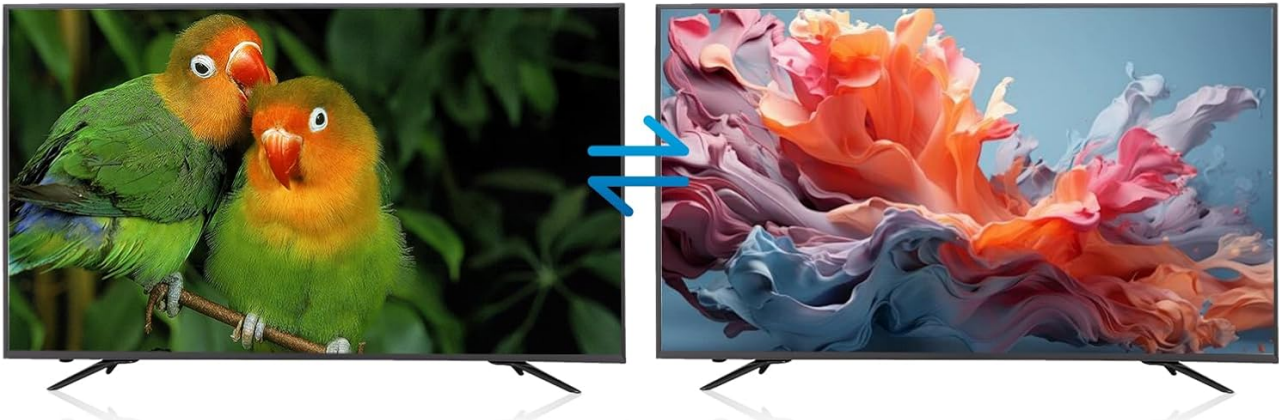
Figure 6: Examples of multiple display modes.

5.3 Seamless Switching

The controller provides effective seamless switching between sources, ensuring transitions occur within one second without any noticeable lag.

Effective Seamless switch

Switch within one second, without any lag



vs

Other Matrix Normally have 2-3 seconds lag



Figure 7: Seamless switching capability.

5.4 Image Rotation

In Multiviewer (Splitter) Mode, output 1 supports image rotation of 90°, 180°, and 270°. This feature is particularly useful for creating unique video wall layouts or adjusting content orientation.

Video 1: Demonstrates how to rotate input signals for the 4x4 HDMI Video Wall Matrix.

5.5 EDID Management

The device includes EDID management features to ensure optimal compatibility between sources and displays. Refer to the Web GUI or RS232 commands for detailed EDID configuration options.

6. TROUBLESHOOTING

If you encounter issues, please refer to the following common problems and solutions:

- **No Video Output:**
 - Ensure all HDMI cables are securely connected and are of high quality.

- Verify that the input source and output display are powered on and functioning correctly.
- Check EDID settings via Web GUI or RS232 to ensure compatibility between source and display.
- Try a different HDMI input/output port or cable.

- **No Audio Output:**

- Verify that the audio settings on your source device are correctly configured.
- Check the audio embedding/de-embedding settings on the controller.
- Ensure external audio devices are properly connected and powered.

- **Display Issues (e.g., flickering, incorrect resolution):**

- Adjust the resolution settings on your input source to match the capabilities of your display.
- Ensure all cables support the desired resolution and refresh rate (e.g., 4K@30Hz).
- Check for firmware updates for the controller.

- **Control Issues (IR remote not responding, Web GUI inaccessible):**

- For IR remote, ensure line of sight to the IR receiver on the controller and check battery.
- For Web GUI/APP, verify LAN cable connection and network settings (IP address).
- Restart the controller and your control device.

7. SPECIFICATIONS

Feature	Specification
Model Number	HD44LH
Input Interface	HDMI x 4
Output Interface	HDMI x 4
HDMI Version	HDMI 1.4
HDCP Version	HDCP 1.4
Max Resolution	4K@30Hz
Compatible Resolutions	2K@30Hz, 1080P@60Hz
Audio Formats	PCM, Dolby AC3, DTS5.1, DTS7.1, DSD
Control Methods	Front Panel, IR Remote, RS232, LAN, Web GUI, APP
Image Rotation	90°, 180°, 270° (Output 1 in Splitter Mode)
Dimensions	19.4 x 7.5 x 3.9 inches
Item Weight	5.74 pounds

8. WARRANTY AND SUPPORT

This product is covered by a return policy allowing for refund/replacement. For any questions or support needs, please contact

YinkerOfficial for assistance.