

AVARRO 0E-HDMIMX4

AVARRO 0E-HDMIMX4 HDMI Switcher User Manual

Model: 0E-HDMIMX4

1. INTRODUCTION

The AVARRO 0E-HDMIMX4 is a high-performance 4x4 HDMI matrix switcher designed to route any of four HDMI input sources to any of four HDMI output displays. It supports 4K Ultra HD resolutions, HDCP 2.2, and advanced features like Smart EDID Management and a built-in 4K-1080P downscaler. This manual provides detailed instructions for installation, operation, and troubleshooting to ensure optimal performance of your device.

2. SAFETY INFORMATION

- Read all instructions carefully before operating the device.
- Do not expose this unit to rain, moisture, or excessive humidity.
- Do not place any objects filled with liquids on the unit.
- Do not block ventilation openings.
- Use only the provided power adapter.
- Do not attempt to service the unit yourself. Refer all servicing to qualified personnel.
- Ensure proper grounding for all connected equipment.

3. PACKAGE CONTENTS

Verify that all items are present before installation:

- AVARRO 0E-HDMIMX4 HDMI Switcher Unit
- IR Remote Control
- DC 12V Power Adapter
- User Manual (this document)
- Mounting Brackets (if applicable, not explicitly mentioned but common for such devices)

4. PRODUCT OVERVIEW

4.1 Front Panel



Image: Front view of the AVARRO 0E-HDMIMX4 HDMI Switcher, showing the IR receiver and output selector buttons.

- **IR Receiver:** Receives signals from the IR remote control.
- **Output Selectors (1-4):** Buttons to select the input source for each corresponding HDMI output. Each output has its own set of source selection buttons (1, 2, 3, 4).
- **LED Indicators:** Indicate the currently selected input for each output.

4.2 Rear Panel



Image: Rear view of the AVARRO 0E-HDMIMX4 HDMI Switcher, displaying all input/output ports and control interfaces.

- **DC 12V IN:** Power input port.
- **FW (Micro USB):** Micro-USB port for firmware upgrades.
- **RS232:** Serial port for control via RS232 commands.
- **IP CONTROL (RJ45):** Ethernet port for network control and Web UI access.
- **IR EXT:** Port for connecting an external IR receiver.
- **HDMI IN (1-4):** HDMI input ports for connecting source devices (e.g., Blu-ray player, game console).
- **HDMI OUT (1-4):** HDMI output ports for connecting display devices (e.g., TV, projector).
- **S/PDIF OUT (1-4):** Digital audio output ports for each HDMI output, supporting PCM 2.0/5.1, Dolby Digital, and DTS up to 5.1 Channel.

5. SETUP AND CONNECTION

1. **Power Off All Devices:** Before making any connections, ensure all source devices, displays, and the switcher are powered off.
2. **Connect HDMI Sources:** Connect your HDMI source devices (e.g., media players, gaming consoles) to the HDMI IN 1-4 ports on the switcher using high-quality HDMI cables.
3. **Connect HDMI Displays:** Connect your HDMI display devices (e.g., TVs, projectors) to the HDMI OUT 1-4 ports on the switcher using high-quality HDMI cables.
4. **Connect Audio Outputs (Optional):** If desired, connect external audio systems to the S/PDIF OUT ports for digital audio extraction.

5. **Connect Network (Optional):** For IP control and Web UI access, connect an Ethernet cable from your network router/switch to the IP CONTROL (RJ45) port.
6. **Connect Power:** Connect the provided DC 12V power adapter to the DC 12V IN port on the switcher, then plug the adapter into a power outlet.
7. **Power On Devices:** Power on the switcher, then your display devices, and finally your source devices.

Note: For optimal performance with 4K content, use certified High-Speed HDMI cables.

6. OPERATING INSTRUCTIONS

6.1 Front Panel Control

To switch an input source for a specific output:

- Locate the "SELECTOR" buttons for the desired OUTPUT (1-4).
- Press the corresponding "SOURCE" button (1, 2, 3, or 4) below the "SELECTOR" button to route the desired input to that output. The LED indicator will illuminate to show the active input.

6.2 IR Remote Control

The included IR remote control allows for convenient switching from a distance. Point the remote towards the IR receiver on the front panel of the switcher.

- **Input Buttons (1-4):** Selects the input source.
- **Output Buttons (A-D or 1-4):** Selects the output to control.
- **Matrix Switching:** Typically, you would press an Output button, then an Input button to route that input to the selected output. Refer to the remote's specific layout for exact button functions.

6.3 Web UI Control

The Web UI provides a graphical interface for advanced control and configuration.

1. Ensure the switcher is connected to your network via the IP CONTROL port.
2. Obtain the IP address of the switcher (refer to network settings or device documentation for default IP or discovery method).
3. Open a web browser on a computer connected to the same network.
4. Enter the switcher's IP address into the browser's address bar.
5. Log in using the default credentials (if prompted, refer to device documentation for default username/password).
6. Use the Web UI to manage input/output routing, EDID settings, and other advanced features.

6.4 RS232 Control

The RS232 port allows for integration with control systems using serial commands. Refer to the detailed RS232 command set documentation (usually available from the manufacturer's website) for specific protocols and commands.

7. SMART EDID MANAGEMENT

The 0E-HDMIMX4 features Smart EDID Management to ensure compatibility between source devices and displays. EDID (Extended Display Identification Data) communicates display capabilities to the source. The switcher can automatically manage EDID or allow manual configuration via the Web UI to optimize video and audio formats for connected devices.

8. FIRMWARE UPGRADING

Firmware updates can improve performance, add new features, or resolve issues. The 0E-HDMIMX4 supports firmware upgrading via both the Micro-USB port and the Web UI.

- **Micro-USB:** Connect a computer to the FW (Micro USB) port and use the manufacturer's provided upgrade tool.
- **Web UI:** Access the Web UI and navigate to the firmware upgrade section.

Always download the latest firmware and instructions from the official AVARRO website before attempting an upgrade.

9. SPECIFICATIONS

Feature	Detail
Model	0E-HDMIMX4
Inputs	4 x HDMI IN
Outputs	4 x HDMI OUT, 4 x S/PDIF OUT (Digital)
Control Ports	1 x RS232, 1 x IP CONTROL (RJ45), 1 x FW (Micro USB)
HDMI Compliance	4K Ultra HD, HDCP 2.2 compliant
Video Resolution Support	VESA: 800x600 to 1920x1200; SMPTE: 720x576P to 4096x2160
HDR Support	HDR 10, HLG, DOLBY VISION up to 4K60 444
Downscaler	Built-in 4K-1080P downscaler
Maximum Data Rate	18 Gbps
Maximum Pixel Clock	600 MHz
Audio Formats (HDMI)	PCM 2.0/5.1/7.1, Dolby TrueHD, Dolby Atmos, DTS HD Master Audio, DTS:X
Audio Formats (S/PDIF)	PCM 2.0/5.1, Dolby Digital, DTS up to 5.1 Channel
ESD Protection	±8kV (Air-gap discharge) / ±4kV (Contact discharge)
Surge Protection	Voltage: ±1 Kv
Power Supply	DC 12V 2A
Power Consumption (max)	10.8W
Device Dimensions (L x W x H)	8.46" x 4.73" x 1.65" (21.49 cm x 12.01 cm x 4.19 cm)
Product Weight	1.19 lbs (0.54 kg)

10. TROUBLESHOOTING

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

- **No Video/Audio Output:**
 - Ensure all HDMI cables are securely connected.

- Verify the power adapter is correctly connected and the unit is powered on.
 - Check that the correct input source is selected for the desired output.
 - Test with different HDMI cables.
 - Bypass the switcher to confirm source and display functionality.
 - Check EDID settings, especially with mixed resolution displays.
- **Intermittent Signal/Flickering:**
 - Use high-quality, certified HDMI cables, especially for longer runs or 4K content.
 - Ensure cables are not excessively bent or damaged.
 - Check for potential electromagnetic interference from other devices.
 - **Remote Control Not Working:**
 - Ensure there are no obstructions between the remote and the switcher's IR receiver.
 - Replace the remote control batteries.
 - Verify the remote is pointed directly at the IR receiver.
 - **Web UI/IP Control Issues:**
 - Confirm the Ethernet cable is properly connected.
 - Verify the switcher's IP address and ensure your computer is on the same network subnet.
 - Check firewall settings on your computer or network.

11. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the unit. Do not use liquid cleaners or aerosols.
- **Ventilation:** Ensure the ventilation openings are clear and not obstructed to prevent overheating.
- **Storage:** If storing the unit for an extended period, disconnect power and store in a cool, dry place.

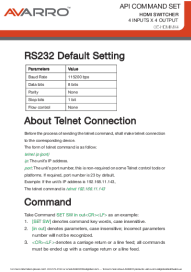
12. WARRANTY AND SUPPORT

AVARRO products are designed for reliability and performance. For specific warranty information, please refer to the warranty card included with your product or visit the official AVARRO website. For technical support, product registration, or to download the latest drivers and firmware, please visit www.avarrus.com or contact AVARRO customer service.



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Related Documents - 0E-HDMIMX4



AVARRO 0E-HDMIMX4 HDMI Switcher API Command Set

Comprehensive API command set for the AVARRO 0E-HDMIMX4 HDMI Switcher, detailing RS232, Telnet, CEC, HDCP, EDID, system information, IP configuration, firmware updates, preset scenes, audio mute, and video scaling commands.



AVARRO 0E-HDMICONVA Digital to Analog Audio Converter Manual

User manual for the AVARRO 0E-HDMICONVA, a digital S/PDIF to analog audio converter. This document details the product's features, specifications, panel layout, wiring instructions, and limited warranty.



AVARRO 0E-HDMIEXT4K: 4K HDMI Extender Over Single UTP Manual

User manual for the AVARRO 0E-HDMIEXT4K, a 4K HDMI extender over single UTP cable. Learn about its features, specifications, installation, and troubleshooting for extending HDMI signals up to 40m (4K) or 70m (1080p).



AVARRO PRO E SERIES 4K Ultra HD LED Displays User Manual

Comprehensive user manual for the AVARRO PRO E SERIES 4K Ultra HD LED Displays, including models V2-P43ES, V2-P55ES, and V2-P65ES. Covers installation, setup, operation, connectivity, troubleshooting, and safety information.



AVARRO Configured Floor Loaded Enclosed Rack Series

AVARRO offers fully assembled rack systems for audio, visual, and networking equipment. The Enclosed Rack Series features heavy-gauge steel construction, pre-installed cooling fans, casters, adjustable feet, and removable side panels. Available in 18U, 27U, and 42U configurations with detailed specifications and dimensions.



[AVARRO NX-FMS1337 Full Motion Small TV Mount Manual](#)

Installation and user manual for the AVARRO NX-FMS1337 Full Motion Small TV Mount, providing features, specifications, and warranty information in English, Spanish, and French.