RS-1

**4K AV VENUE KIT
ROOM SOLUTION**

USER MANUAL

DVDO

Important Safety Instructions

1. Do not expose this apparatus to rain, moisture, dripping or splashing, and do not place objects filled with liquids, such as vases, on the apparatus.
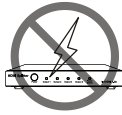
**6.** Clean this apparatus only with dry cloth.

2. Do not install or place this unit in a bookcase, built-in cabinet or in any confined space. Ensure the unit is well ventilated.

7. Unplug this apparatus during lightning storms or when unused for long periods of time.

3. To prevent risk of electric shock or fire hazard due to overheating, do not obstruct the unit's ventilation openings with newspapers, tablecloths, curtains, and similar items.
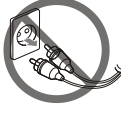
8. Protect the power cord from being walked on or pinched, especially at the plug.

4. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. Only use attachments / accessories specified by the manufacturer.

5. Do not place sources of naked flames, such as lighted candles, on the unit.

10. Refer all servicing to qualified service personnel.

FCC Warning

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Table of Contents

Introduction

Overview

The 4K AV Venue Kit is a turnkey solution for classroom / conference room / office AV connectivity and control. It provides HDMI video switching, system control, video extension and analog audio amplification in a convenient 3-piece kit. The kit delivers power, control, audio and video up to 4K@60Hz via a single Category 6A cable, covering distances of up to 100m / 330ft between the wall plate transmitter and receiver.

The wall plate control panel connects to the wall plate transmitter with a second Category 6A cable. The wall plate control panel allows remote switching of sources and volume control from a convenient location. You can switch among four HDMI Inputs, scale them up to 4K@60Hz. All power needed for the system is provided by the receiver.

Additionally, the receiver features a built-in Web UI for control and analog audio de-embedding to your choice of a built-in 20W stereo amplifier for driving low impedance speakers, a 70V amplifier for driving commercial 70V speakers or stereo analog audio outputs. The system also supports DSP mixing function, which allows you to output mixed audio from any two or three sources among VIDEO audio inputs, TX AUDIO IN and RX AUDIO IN. The kit also includes monitoring software for easy multi-room configuration, system monitoring and control along with convenient firmware updates of all devices from a central networked computer. An integrated Ethernet switch allows easy configuration with the IP Network, and remote USB 2.0 connectivity provides a one-box solution for any modern classroom or office.

Package Contents

For Receiver:

- 1 x Receiver
- 1 x DC 24V 5A Power Adapter
- 1 x US AC Power Cord
- 1 x IR Emitter
- 2 x Phoenix Male Connectors (3.5mm, 2 Pins)
- 4 x Phoenix Male Connectors (3.5mm, 3 Pins)
- 1 x Phoenix Male Connector (5.08mm, 2 Pins)
- 1 x Phoenix Male Connector (5.08mm, 4 Pins)
- 2 x Mounting Brackets
- 4 x Mounting Screws
- 4 x Rubber Feet

For Wall Plate Transmitter:

- 1 x Transmitter
- 1 x 2-Gang US Plastic Decora Plates, White
- 4 x #6-32*20mm Screws, Silver
- 4 x #6-32*7mm Screws, White

For Control Panel

- 1 x Control Panel
- 1 x 1-Gang US Plastic Decora Plates, White
- 2 x #6-32*20mm Screws, Silver
- 2 x #6-32*7mm Screws, White
- 1 x Sheet of pre-printed button labels

Specifications

Technical	
Input / Output Ports	**Transmitter:** 3 x HDMI IN; 1 x Source Selector Button; 1 x AUDIO IN; 1 x USB Type-B Host; 1 x Micro USB FW Update Port; 1 x HDBT OUT; 1 x RJ45; 1 x REBOOT Button **Receiver:** 1 x HDBT IN; 1 x HDMI IN, 1 x HDMI OUT; 2 x LAN; 1 x Micro USB FW Update Port; 1 x 4Ω/8Ω SPEAKER OUT; 1 x 70V SPEAKER OUT; 1 x SPEAKER OUT Select Switch; 3 x USB Type-A Device; 1 x IR OUT; 1 x RS232 IN; 1 x RS232 OUT; 1 x Select Switch (Line IN / MIC IN / MIC IN with Phantom Power); 1 x AUDIO IN; 1 x MUTE IN; 1 x AUDIO OUT; 1 x DC 24V; 1 x RESET Button **Control Panel:** 1 x Volume Control Knob; 1 x IR Sensor; 6 x Button; 1 x RJ45
Input Signal Type	**Transmitter** HDMI with 4K@60Hz YUV 4:2:0, HDCP 2.2 **Receiver:** HDMI with 4K@60Hz YUV 4:4:4, HDCP 2.2
Input Resolutions Supported	**HDMI IN on Transmitter:** **VESA:** $800x600^8$, $1024x768^8$, $1280x768^8$, $1280x800^8$, $1280 x960^8$, $1280x1024^8$, $1360x768^8$, $1366x768^8$, $1440x900^8$, $1600x900^8$, $1600x1200^8$, $1680x1050^8$, $1920x1200^8$ **SMPTE:** $1280x720P^{6,7,8}$, $1920x1080P^{6,7,8}$, $3840x2160^{2,3,5,8*}$, $4096x2160^{2,3,5,8*}$ 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz, * = 4:2:0

Technical	
	HDMI IN on Receiver: **VESA:** 800×600^8, 1024×768^8, 1280×768^8, 1280×800^8, 1280×960^8, 1280×1024^8, 1360×768^8, 1366×768^8, 1440×900^8, 1600×900^8, 1600×1200^8, 1680×1050^8, 1920×1200^8 **SMPTE:** $1280\times720P^{6,7,8}$, $1920\times1080P^{6,7,8}$ $3840\times2160^{2,3,5,8}$, $4096\times2160^{2,3,5,8}$ 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz
Output Signal Type	HDMI with 4K@60Hz YUV 4:4:4, HDCP 2.2
Output Resolution Supported	**VESA:** 800×600^8, 1024×768^8, 1280×768^8, 1280×800^8, 1280×960^8, 1280×1024^8, 1360×768^8, 1366×768^8, 1440×900^8, 1600×900^8, 1600×1200^8, 1680×1050^8, 1920×1200^8 **SMPTE:** $1280\times720P^{6,8}$, $1920\times1080P^{6,8}$ $3840\times2160^{2,3,5,6,8}$, $4096\times2160^{2,3,5,8}$ 1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = at 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz **Note:** Built-in scaler cannot output resolutions with Deep Color, HDR and 4:2:2 / 4:2:0 color space.
Audio Format	• HDMI IN/OUT: Stereo • All AUDIO IN & MIC / LINE IN: Stereo • AUDIO OUT & 4Ω/8Ω SPEAKER OUT: Stereo • 70V SPEAKER OUT: Mono
Maximum Data Rate	HDMI IN, Transmitter HDBT OUT & Receiver HDBT IN: 10.2Gbps Receiver HDMI IN & HDMI OUT: 18Gbps
Control Method	Control Panel; Button on Transmitter; LAN Control (Web UI / Telnet); RS232

General	
Operating Temperature	0°C to 45°C (32°F to 113°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	10% to 90%, Non-Condensing
ESD Protection	Human-Body Model: ±8kV (Air-Gap Discharge)/ ±4kV (Contact Discharge)
Power Supply	DC 24V 5A
Power Consumption (Max)	81W
Device Dimensions (W x H x D)	**Transmitter:** 89mm x 105.6mm x 43mm / 3.5" x 4.16" x 1.69" **Receiver:** 215mm x 42mm x 160.2mm / 8.46" x 1.65" x 6.31" **Control Panel:** 45mm x 105.6mm x 28.7mm / 1.77" x 4.16" x 1.13"
Product Weight	**Transmitter**: 0.3kg / 0.66lb **Receiver**: 1.43kg / 3.15lb **Control Panel**: 0.16kg / 0.35lb

Transmission Distance

Note: Straight-through category cable wired to T568B standard is recommended.

Cable Type	Range	Supported Video
Cat 5e	100m / 330ft	Up to 1080p@60Hz 36bpp
	90m / 295ft	1080p@60Hz 48bpp
Cat 6 / 6a / 7	100m / 330ft	1080p@60Hz 3D 4K@30Hz 4:4:4 24bpp 4K@60Hz 4:2:0 24bpp
HDMI	Input: 15m / 50ft Output: 10m / 33ft	1080p@60Hz 24bpp
	Input/Output: 10m / 33ft	4K@30Hz 4:4:4 24bpp 4K@60Hz 4:2:0 24bpp
	Input: 5m / 16ft Output: 3m /	4K@60Hz 4:4:4 24bpp

Panel Layout

Receiver

<u>Front Panel</u>
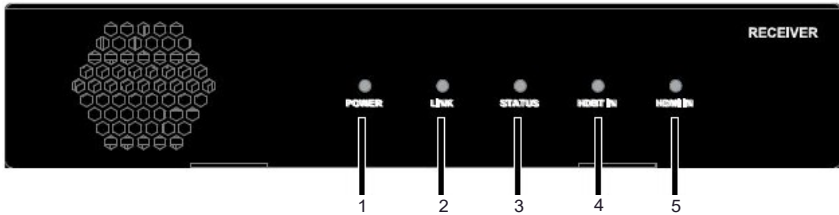
No.	Name	Description
1	POWER LED	**ON:** Receiver is powered on. **OFF:** Receiver is powered off.
2	LINK LED	**On:** Receiver is connected to the transmitter. **Off:** Receiver is not connected to the transmitter.
3	STATUS LED	**On:** Receiver is working properly. **Off:** Receiver is not working properly.
4	HOST IN LED	**On:** HDBT input is selected. **Off:** HDBT input is not selected.
5	HDMI IN LED	**ON:** HDMI IN on receiver is selected. **OFF:** HDMI IN on receiver is not selected.

Rear Panel
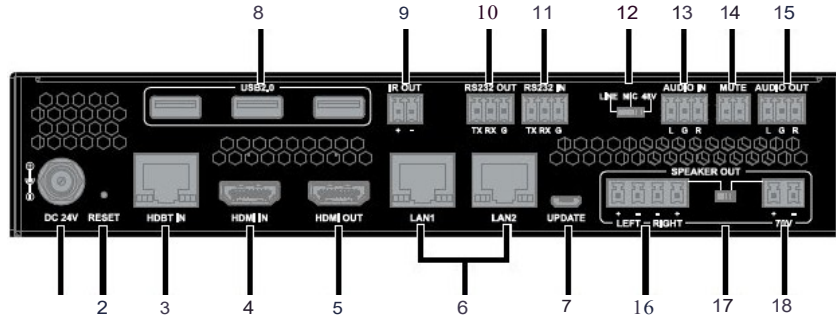
No.	Name	Description
1	DC 24V	Connect to the DC 24V power adapter.
2	RESET Button	When the receiver is powered on, use a pointed stylus to hold down this button for three or more seconds, LED indicators will blink quickly, and the transmitter and receiver will be restored to factory defaults.
3	HDBT IN	Connect to transmitter via Cat 5 / 6 / 6a / 7 cable
4	HDMI IN	Connect to an HDMI source.
5	HDMI OUT	Connect to an HDMI display.
6	LAN (1-2)	Connect to a control system for Web UI and Telnet control.
7	UPDATE	Firmware update port.
8	USB 2.0	Connect to USB device(s) e.g. keyboard, mouse, USB camera, etc.
9	iR OUT	Connect to an IR device for IR output to display.
10	RS232 OUT	Connect to a RS232-enabled device for RS232 signal pass-through.
11	RS232 IN	Connect to a control PC or control system.

No.	Name	Description
12	LINE/MIC/48V	LINE/MIC/48V selector switch for audio input. LINE: LINE IN MIC: MIC IN 48V: MIC IN with phantom power **Warning:** Before the selector switch is set to position "48V", ensure any LINE IN device connected to "AUDIO IN" port has been removed; otherwise, device damage may occur.
13	AUDIO IN	Connect to an audio device based on the setting of LINE / MIC / 48V selector switch.
14	MUTE	Connect to contact closure for muting audio signal of AUDIO OUT and SPEAKER OUT.
15	AUDIO OUT	Connect to an audio receiver (e.g. amplifier).
16	LEFT-RIGHT	Connect to the 4Ω/8Ω speaker.
17	Selector Switch	Selector switch for speaker output.
18	70V	Connect to 70V speaker.

Transcriptor
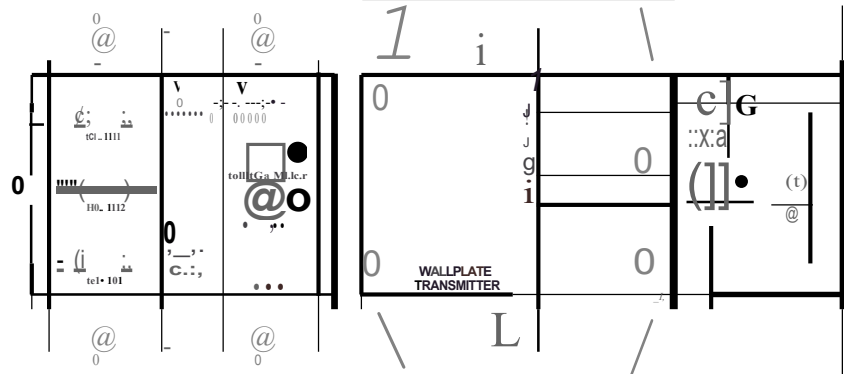
NO.	Name	Description
1	HDMI IN 1-3	Connect to HDMI source device.
2	RBOOT	Use a pointed stylus to press the button to reboot the transmitter.
3	UPDATE	For firmware update.
4	HDMI IN LED (1-4)	LED 1-3: HDMI IN 1-3 on transmitter, LED 4: HDMI IN on receiver. **ON:** The input source is selected. **OFF:** The input source is not selected.
5	LINK LED	**On:** The transmitter is connected to the receiver. **Off:** The transmitter is not connected to the receiver.
6	PWR LED	**ON:** The device is powered on. **OFF:** The device is powered off.
7	SOURCE SELECT	Press to select the video source.
8	AUDIO IN	Audio input for stereo pass-through.
9	USB Host	Connect to a USB host.
10	To Control Panel	Connect to control panel via a Cat 5e/6/6a/7 cable.

NO.	Name	Description
11	HDBT OUT	Connect to receiver via a Cat 5e/6/6a/7 cable.

Control Panel

No.	Name	Description
1	Volume LED	Volume level LED indicator. When raising the volume, LEDs will turn on in gradient from bottom to top; when lowering the volume, LEDs will turn off in gradient from top to bottom.
2	Volume Knob	Turn the volume knob clockwise to raise the volume, counterclockwise to lower the volume. When the audio mixing function is set to off, quickly press the volume knob to switch among the audio sources - VIDEO, TX IN and RX IN. When the audio mixing function is set to on, quickly press the volume knob to select audio inputs or the mixed audio to adjust volume.

No.	Name	Description
3	Video LED	**On:** Audio from selected video source is selected. **Off:** Audio from selected video source is not selected.
4	TX IN LED	**On:** AUDIO IN on transmitter is selected. **Off:** AUDIO IN on transmitter is not selected.
5	RX IN LED	**On:** AUDIO IN on receiver is selected. **Off:** AUDIO IN on receiver is not selected.
6	IR	Receives IR signals from IR remote.
7	On	• Quickly press the button to power on the display. • Hold press the button for 3 seconds to power on the system. **Note:** When power sync function is set to ON, display and system power on functions will be combined.
8	Off	• Quickly press the button to power off the display. • Hold press the button for 3 seconds to power off the system. **Note:** When power sync function is set to ON, display and system power off functions will be combined.
9	Video 1-4	Source selector button. When a video source is selected, its corresponding selector button will light up. Video 1-3: HDMI IN 1-3 on transmitter. Video 4: HDMI IN on receiver.
10	To Wall Plate Transmitter	Connect to the transmitter via a Cat 5e/6/6a/7 cable.

Installation and Wiring

Installation

Note: Before installation, please ensure the kit is disconnected from the power source.

Steps to install the receiver at a suitable location:

1. Attach the installation bracket to the enclosure using the screws provided in the package separately.
2. The bracket is attached to the enclosure as shown.
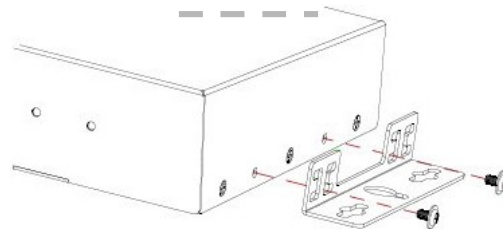
3. Repeat steps 1 and 2 for the other side of the unit.
4. Attach the brackets to installation surface using screws (not included).

Wiring

Steps for device wiring:

1. Connect video source

    Connect HDMI sources (such as PC, Blu-ray player, Apple TV, 4K media player, etc.) to the HDMI IN ports of the transmitter.

2. Connect HDBT OUT

    Connect HDBT OUT of the transmitter to HDBT IN of the receiver with a Cat 5e / 6 / 6a / 7 cable.

3. Connect HDMI IN/OUT

    Connect an HDMI source and an HDMI display to the HDMI IN and HDMI OUT ports of the receiver.

4. Connect AUDIO IN

    Connect an audio device or a microphone to the AUDIO IN of the receiver based on the setting of the LINE / MIC / 48V selector switch.

5. Connect SPEAKER OUT and AUDIO OUT

    Connect the speakers to the SPEAKER OUT of the receiver. If an external audio amplifier is used to with the system, connect it to the analog AUDIO OUT of the receiver.

6. Connect the control panel to the transmitter via a Cat 5e/6/6a/7 cable. This cable cannot exceed 30m/100ft.

7. Connect for additional control options:
    •   LAN Control (Telnet / Web UI): Connect the receiver to the same network as the control PC or control system via its LAN port.
    •   USB Control: Connect a USB host device to USB port of the transmitter and USB device to USB 2.0 port of the receiver for remote KVM control.
    •   IR Pass-Through: Connect an IR emitter to the IR OUT of the receiver.
    •   RS232 Control: Connect the control PC to RS232 IN of the receiver to control the education system.
    •   RS232 Pass-Through: Connect a RS232-enabled display such as a projector to the RS232 OUT of the receiver.

8. Connect the power adapter provided to the receiver.

    One-way PoH enables the power to be sent from receiver to transmitter and control panel via a Cat 5e/6/6a/7 cable. Only one power adapter is needed for the kit.

9. Power on all attached devices.
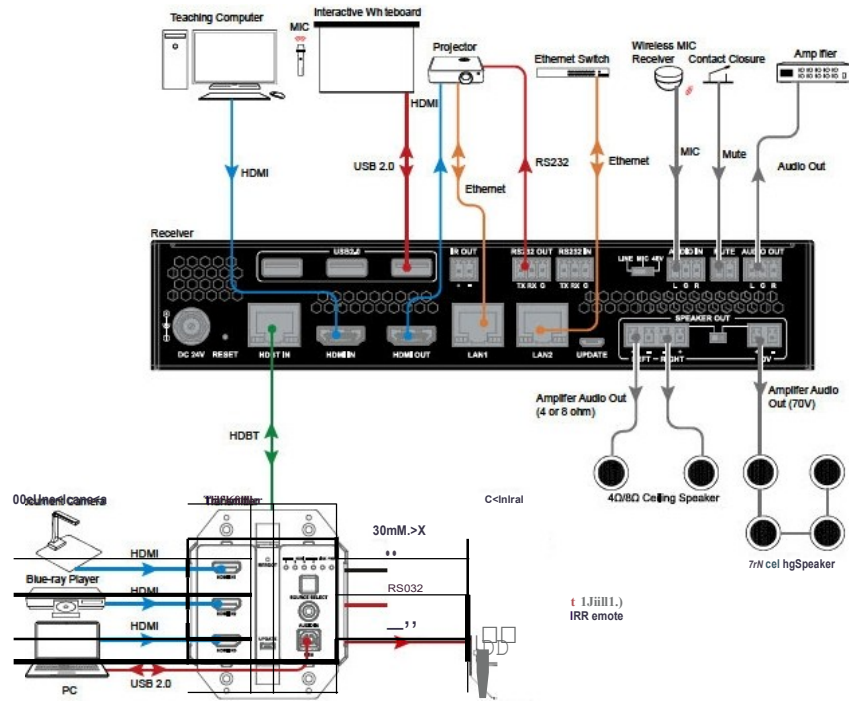
Pinout Information

IROUT

+ -

"+" Connects to positive

"-" Connects to negative

IR Emitter Wiring

GND (-) → 2

IR Signal (+) → 1
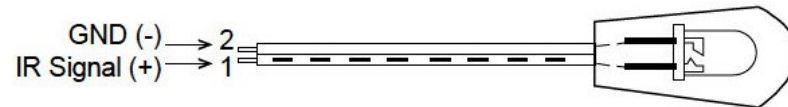
Audio In/Out

L R G

"L" Connects to left channel

"R" Connects to right channel

"G" Connects to ground

RS232

TX RX G

"TX" Transmitter

"RX" Receiver

"G" Ground

Speaker Out

LEFT RIGHT 70v

± - - ± + -

1 1m

"+" Connects to positive

"-" Connects to negative

Speaker Wiring Configurations

4Ω load with 4Ω Speaker

4Ω

-     :   **4Ω**

6Ω load with 6Ω Speaker

70V

8Ω load with 8Ω Speaker
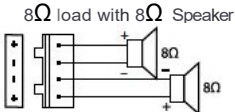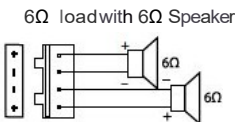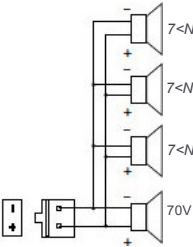
Auto Switch

This kit supports auto switching among the four HDMI inputs on transmitter and receiver.

1. When multiple powered-on sources are inserted, the input will be switched to the active source with highest priority. The priority order is RX HDMI IN > TX HDMI IN 1 > TX HDMI IN 2 > TX HDMI IN 3.

2. When a new source is inserted, the input will be switched to it automatically. (Last-In-First-Out.)

3. When the currently selected source is removed, the input will be switched to the last selected port; if the port has no source inserted, the input will be switched to the active source with highest priority.

Note:

- Auto Switching function is enabled by default once all devices are powered on. To switch to a video source manually, see "Control Panel Operation" section for more information.

- Auto-Switching and Manual Switching can be set through Web UI and API commands. (See "Web UI Control" section)

OSD

The kit displays its IP address via On Screen Display (OSD) when an HDMI display is connected to the HDMI OUT of the receiver and the system is powered on / rebooted / reset.
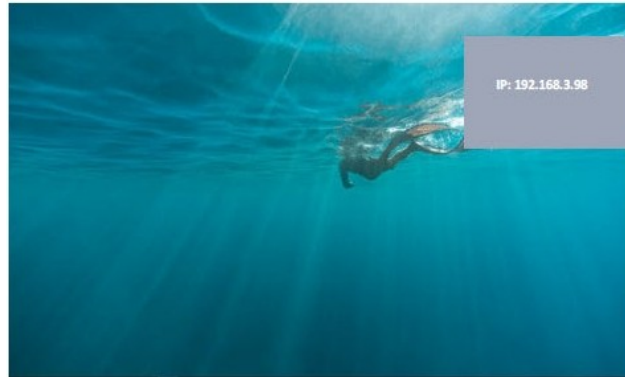
Control Panel Operation

Volume Knob

1. **Rotate the Volume Knob**

   - Turn the volume knob clockwise to raise audio volume; counterclockwise to lower audio volume.

2. **Quickly Press the Volume Knob**

   - When Audio Mixing function is set to off, quickly pressing the volume knob will switch among the audio sources – VIDEO, TX IN and RX IN;

   - When Audio Mixing is set to on, quickly pressing the volume knob selects each audio input or the mixed audio to adjust the volume. The selection sequence is VIDEO, TX IN, RX IN and mixed audio.

   Note:

   - Audio mixing function is set to on/off through web UI. (Please refer to "Web UI Control" section)

   - VIDEO -- Audio de-embedded from the selected video source; TX IN – AUDIO IN on transmitter; RX IN – AUDIO IN on receiver; Audio Mixing – mixed audio of any two or three audio inputs among VIDEO, TX IN and RX IN.

Source Select Buttons

Press the **VIDEO (1-4)** buttons on control panel to select the specific video source. You can also press the **SOURCE SELECT** button on transmitter to switch among active video sources on both transmitter and receiver.

ON/OFF Buttons

Power On and Off the Display

To power on the display, quickly press the ON button on the control panel. The display can be controlled through CEC, RS232 and IR. By default, it is controlled through IR.

To power off the display, quickly press the OFF button on the control panel. The display can be controlled through CEC, RS232 and IR. By default, it is controlled through IR.

Power On and Off the System

To power on the system, hold press the ON button on the control panel for 3 seconds. If the power sync function is set to ON, the display and system power on functions will be combined.

To power off the system, hold press the OFF button on the control panel for 3 seconds. If the power sync function is set to ON, the display and system power off functions will be combined.

Note: Power sync function is set through web UI. (Please refer to "Web UI Control" section)

IR Learning

Set Display Control Mode

Set display control by IR through API commands or Web UI. For more information, "Web UI Control" section.

Enter IR Learning Mode

Press and hold the **Video 1** button on the Control Panel for three seconds. The ON and OFF buttons will light up.

Start IR Learning

Using display volume-up and volume-down function for example:

1. Press the **ON** button and it will start to flash.
2. Point the display remote at the control panel IR sensor and press the Volume Up button on the remote. The ON button on the control panel will stop flashing.
3. Press the **OFF** button and it will start to flash.
4. Point the display remote at the control panel IR sensor and press the Volume Down button on the remote. The OFF button on the control panel will stop flashing.

Exit IR Learning Mode

Hold press the **Video 4** button on the control panel for three seconds. The ON and OFF buttons will go dark. You have now exited IR learning mode and your control panel is now configured to turn the display volume up and down using IR.

Test IR Control on Control Panel

To test the volume up and down control through IR for your display, quickly press the ON and OFF buttons on the control panel. Your display should respond to the commands appropriately. If not, ensure the display control mode is set as IR.

Note: To turn the system on or off, press and hold the ON and OFF buttons on the control panel for three seconds.

RS232 Control

To control the kit through RS232 serial communication, connect a control PC or control system to the RS232 IN port of the receiver. A professional RS232 serial interface software (e.g. Serial Assist) may also be needed.

Before executing the API command through RS232 serial connection, please ensure RS232 interface of the device and the control PC are configured correctly.

Parameters	Value
Baud Rate	9600 bps
Data Bits	8 bits
Parity	None
Stop Bits	1 bit
Flow Control	None
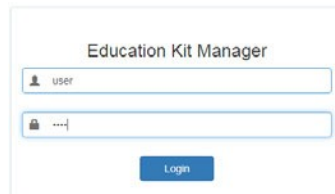
Web UI Control

Web UI is accessible through a browser, e.g. Chrome, Firefox, Safari, Opera, IE10+, etc.

By default, the kit is assigned an IP address from a DHCP server; if it fails, it will revert to a default IP of 169.254.x.x. To quickly retrieve the kit's IP address, see "OSD" section.

Get Access to the Web UI

1. Connect the LAN port of the receiver to your PC using a straight UTP cable.
2. Input the IP address in your browser and press Enter. The following window will display.
   • To control the system without having to interact with the control panel, log into the kit as a user. The user name is "**user**" and the default password is "**user**". Click Login to enter User Control page.

- For setting changes and firmware upgrade, log into the kit as an administrator. The user name is "**admin**" and the default password is "**admin**". Click Login to enter the Admin Control page.
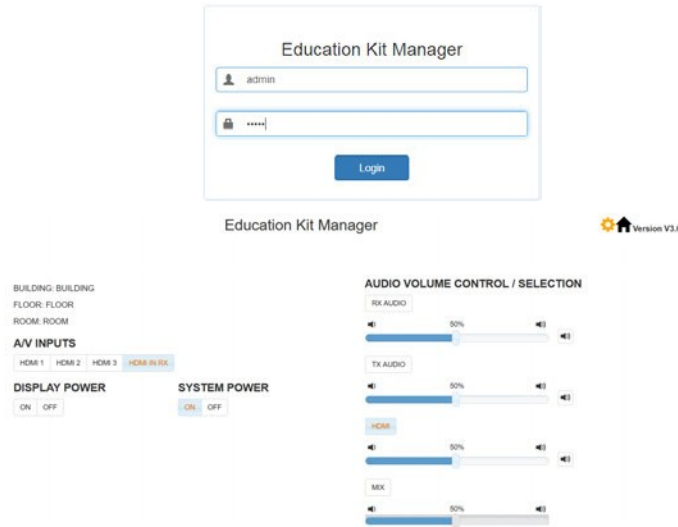
Basic A/V Control

A/V INPUTS

Switch among the four inputs.

HDMI 1-3: HDMI IN 1-3 on transmitter;

HDMI 4: HDMI IN on receiver.

DISPLAY POWER

ON/OFF: Click to turn the display on/off.

SYSTEM POWER

ON/OFF: Click to turn the system on/off.

AUDIO VOLUME CONTROL / SELECTION

- **Mute ( ):** Click the icon on the right of the sliders to mute/unmute corresponding audio sources separately.

- **RX AUDIO/TX AUDIO/HDMI SELECTION:** When Mixing Audio function is set to OFF, click the RX AUDIO/TX AUDIO/HDMI button above the slider to switch to the corresponding audio source.

- **VOLUME CONTROL**

    1) When the audio mixing function is set to OFF, use the sliders of RX AUDIO/TX AUDIO/HDMI to adjust the volume of RX AUDIO/TX AUDIO /HDMI separately.

    2) When the audio mixing function is set to ON, use the sliders of RX AUDIO/TX AUDIO/HDMI to adjust the volume of RX AUDIO/TX AUDIO/HDMI separately, and use the slider of MIX to adjust the mixed audio volume.

Note: Please refer to "AUDIO MIX Tab" section to set audio mixing function to ON/OFF.

Settings Page Introduction

To enter the Settings page, login as an administrator and click on the upper-right corner of the control page. icon returns to Admin Control page.

NAME/LOCATION Tab

This tab allows you to define the location information, including building, floor, and room name/number.

- **Apply/Cancel:** Save or cancel the setting changes.

Note: Name may only contain 32 characters. (letters, numbers, single hyphens or space)

AUDIO MIX Tab

This tab allows you to set audio mixing function to ON/OFF, select audio sources to be used for mixed audio output, select ducking master and set the ducking parameters.

- **MIXING ENABLED:** Click the button to set audio mixing function to ON/OFF. The default setting is OFF.

When MIXING ENABLED is set to OFF, all the sliders and buttons are grey and cannot be set.

When MIXNG ENABLED is set to ON, you can set the following items.
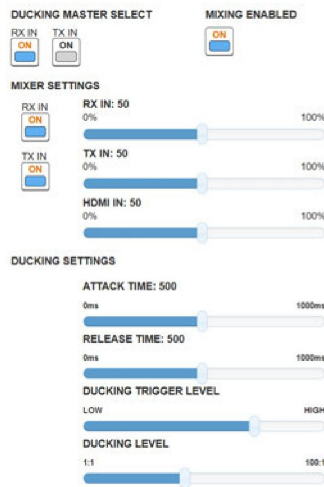
- **DUCKING MASTER SELECT:** Click the button to select one AUDIO input as a ducking master from TX IN and RX IN. The default setting is RX IN.

- **MIXER SETTINGS:**
    1) **RX IN / TX IN button:** Click the corresponding button to select / deselect one AUDIO input to mix.
       Note: The selected ducking master audio input cannot be deselected.
    2) **RX IN / TX IN / HDMI IN:** Use the slider to adjust the volume of the three signals in mixed audio separately. The default settings of the three signals are each 50%.

- **DUCKING SETTINGS:**
    1) **ATTACK TIME:** Use slider to adjust the attack time after ducking master threshold is passed. The default setting is 500ms.
    2) **RELEASE TIME:** Use slider to adjust the release time after ducking master threshold is not exceeded. The default setting is 500ms.

3) **DUCKING TRIGGER LEVEL:** Use slider to adjust the trigger level of ducking. The lower the level is set, the easier the ducking is triggered.

4) **DUCKING LEVEL:** Use slider to set the volume ratio of the master audio and other audio inputs in mixed audio. The larger the ratio is set, the lower the volume of other audio inputs compared to the main master audio input.

CONTROL SETTINGS Tab

This tab allows you to set the display control, power sync mode and video switching mode.

• **DISPLAY CONTROL:** select the display to be controlled via CEC, RS232 or IR. The default setting is IR.

 In IR mode:

1) **SEND 2nd IR OFF COMMAND:** Click the check box to set whether to automatically send or not to send the 2nd IR off command to the display automatically after the delay time. The default setting is checked.

2) **DELAY (100-10000MS) FOR 2nd IR OFF:** Set the delay time for the 2nd IR off command to be sent to the display automatically after the 1st IR command has been sent. The default setting is 1000ms.

• **POWER SYNC**

1) **ON:** Set power sync function to ON.

      2)   **OFF:** Set power sync function to OFF.

     The default setting is ON.

-   **VIDEO SWITCHING:**

      1)   **AUTO:** Check the box to set automatic video source switching to enable.

      2)   **MANUAL:** Check the box to set manual video switching to enable.

     The default setting is AUTO.

-   **Apply/Cancel:** Save or cancel the setting changes.

    EDID/SCALING Tab

This tab allows you to configure each input EDID and the output resolution.

-   **INPUT EDID:** Click the drop-down menu to select a specific EDID. The default INPUT EDID is 3840 x 2160@30Hz 2CH-no HDR.
-   **Output Resolution:** Click the drop-down menu to select a compatible resolution for connected display. By default, the output resolution is set to auto.
-   **Apply/Cancel:** Save or cancel the setting changes.

RS232 SETTINGS Tab

This tab allows you to define the RS232 display control commands. If a display requires hex commands, make sure the HEX box is checked.

- **DISPLAY BRAND/MODEL:** Define the display name.
- **BAUD RATE:** Select the baud rate necessary to communicate with the display. Available baud rates are: 4800, 9600, 19200, 38400, 57600 and 115200.
- **COMMAND ENDING:** Select the command ending after each RS232 command. Available command endings are: NONE, carriage return, line feed, and carriage return and line feed.
- **DISPLAY ON COMMAND:** Enter the RS232 command to turn on the display.
- **DISPLAY OFF COMMAND:** Enter the RS232 command to turn off the display.
- **DISPLAY INPUT COMMAND:** Enter the RS232 command to switch to the input which is connected to the receiver.
- **POWER STATUS COMMAND:** Enter the RS232 command to get the display working status.
- **LAMP HOURS COMMAND:** Enter the RS232 command to get the lamp working hours of the display.
- **INPUT DELAY (1-120 SECONDS):** Enter the delay time in seconds between the DISPLAY ON and DISPLAY INPUT command. This delay may be between 1 and 120 seconds.

- **Apply/Cancel:** Save or cancel the setting changes.

NETWORK Tab

This tab allows you to select between dynamic and static IP addressing.

- **DHCP:** When enabled, the IP address of the kit is assigned automatically by the DHCP server connected.
- **STATIC:** When the kit fails to obtain an IP address from the network connected, select "STATIC" to set up the IP address manually.
- **Apply/Cancel:** Save or cancel the setting changes.

Note: The default setting is DHCP. If the kit fails to obtain an IP address from the network, or is set as "Static", ensure your PC is in the same network segment as the kit.

PREFERENCES Tab

This tab allows you to change login password and input name.

- **INPUT NAME:** Change input names of INPUT 1-4.
- **PASSWORD:** Change user and admin passwords. The default password for user is "**user**", for admin is "**admin**".
- **AUDIO INPUT NAME:** Change AUDIO input names of HDMI, TX AUDIO and RX AUDIO.
- **Apply/Cancel:** Save or cancel the setting changes.
  Note:
  - The new password must contain 4 to 16 characters. (alphanumeric only)
  - The length of name is limited to 16 characters.
- **Custom Web UI Logo:** Click "Upload" to select a PNG image from local PC to upload. The web UI logo will be changed to the uploaded image.

Note: Uploaded PNG image resolution must be 292x80 pixels.

FIRMWARE UPGRADE Tab

This tab allows you to obtain the current firmware information and upgrade firmware to the latest version.
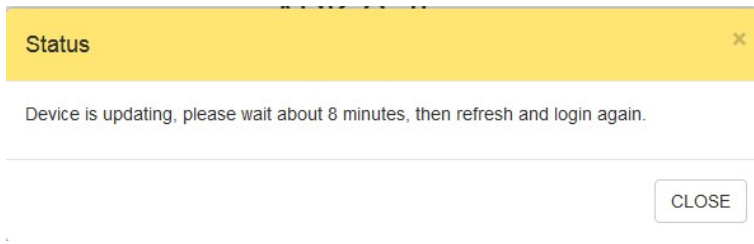
To upgrade the ARM module:

1. Click "Browse" for the bin file.
2. Click "Upgrade" to start the ARM upgrade.
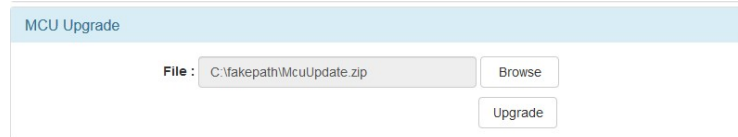

3. The following window will pop up to indicate the ARM upgrade is successful. Please wait for 10 minutes, then refresh and login.

Status ✕

Device is updating, please wait about 8 minutes, then refresh and login again.

CLOSE

To upgrade the MCU module:

1. Click "Browse" for the upgrade file.

MCU Upgrade

File : C:\fakepath\McuUpdate.zip   Browse

Upgrade

2. Click "Upgrade" to start the MCU upgrade.
3. The following window will pop up to indicate the MCU upgrade is successful. Please refresh and log in again.

Upgrade Progress ✕

receiver upgrade complete

100%
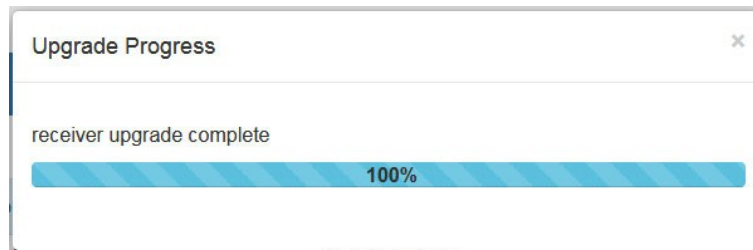
Note: Please do not power off the device during the upgrade process.

Warranty Terms and Conditions

A service charge will apply for service(s) claimed for repairable products if the warranty becomes unenforceable or inapplicable due to the following cases:

1.   The original serial number labeled on the product has been removed, erased, replaced, defaced or is illegible.

2.   The warranty has expired.

3.   The defects are caused by the product being repaired, dismantled or altered by anyone other than an authorized service partner.

4.   The defects are caused the product being used or handled improperly, roughly or not as instructed in the User Guide.

5.   The defects are caused by any force majeure including, but not limited to, accidents, fire, earthquake, lightning, tsunami and war.

6.   Any service, configuration or offer not covered by contract.

DVDO reserves the right to determine these cases, and changes may be made at any time without notice.

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